

AD 661034

AD661-034

TECHNICAL REPORT ECOM-65-G10

ROUND HILL TURBULENCE MEASUREMENTS
VOLUME II

Data Tabulations for Runs 96A through 104

By

H. E. CRAMER, F. A. RECORD, AND J. E. TILLMAN

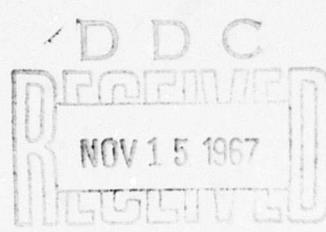
DECEMBER 1966

DISTRIBUTION OF THIS
DOCUMENT IS UNLIMITED.

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND
ATMOSPHERIC SCIENCES LABORATORY, RESEARCH DIVISION
FORT HUACHUCA, ARIZONA

GRANT NO. DA-AMC-28-043-65-G10
METEOROLOGY DEPT, MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS



Technical Report ECOM-65-G10

1 December 1966

ROUND HILL TURBULENCE MEASUREMENTS

VOLUME II

Data Tabulations for Runs 96A through 104

Grant No. DA-AMC-28-043-65-G10
DA Task No. IV0-I450I-B53A-08

By

H. E. Cramer, F. A. Record, and J. E. Tillman
Meteorology Department
Massachusetts Institute of Technology
Cambridge, Massachusetts

For

U.S. Army Electronics Command
Atmospheric Sciences Laboratory, Research Division
Fort Huachuca, Arizona

This report was published by the Atmospheric Sciences Research Division at
Fort Huachuca, Arizona under the direction of T. H. Pries.

DDC AVAILABILITY NOTICE

Qualified requesters may obtain copies of this report from the Defense Documentation Center (DDC), Cameron Station, Alexandria, Virginia 22314

This report has been released to the Clearinghouse for Federal Scientific and Technical Information, U. S. Department of Commerce, Springfield, Virginia 22151, for sale to the general public.

| | |
|---------------------------------|---|
| ACCESSION for | |
| CFSTI | WHITE SECTION <input checked="" type="checkbox"/> |
| DOC | BUFF SECTION <input type="checkbox"/> |
| UNANNOUNCED | <input type="checkbox"/> |
| JUSTIFICATION | |
| DISTRIBUTION/AVAILABILITY CODES | |
| DIST. | AVAIL. and SPECIAL |

DISPOSITION

Destroy this report when it is no longer needed. Do not return it to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

ABSTRACT

This volume contains the data summaries for Runs 96A through 104. Vertical profiles of mean wind speed and air temperature are presented in Section I and the turbulence statistics are presented in Section II. For a description of the field experiments and the data-processing procedures, reference should be made to Volume I of this series.

BLANK PAGE

FOREWORD

In December 1958, the research team at the Round Hill Field Station began a program of field measurements and data analysis dealing with characteristic properties of the energy spectra and cospectra associated with turbulent energy exchange processes within the first 100 meters of the atmosphere. The early phases of the work were devoted to the development of suitable instrumentation and experimental techniques and were carried out under Contract No. DA-36-039-SC-80209 with the U.S. Army Electronic Proving Ground at Fort Huachuca, Arizona. The instrumentation comprised a fast-response system for the simultaneous measurement of fluctuations in wind-velocity components and air-temperature, and a slow-response system for supporting meteorological measurements. Measurements of the fluctuations in refractive index were also made during several experiments. During the first phase of the field program, approximately 100 experiments were carried out on a 40-m tower located in relatively flat terrain. During the second phase of the program, 32 experiments were carried out on a 91-m tower located in a wooded area. Processing of the fast-response measurements was begun by the Meteorology Department at Fort Huachuca and continued by the Massachusetts Institute of Technology under Grant No. DA-AMC-28-043-65-G10.

The purpose of this series of five volumes is to furnish a comprehensive listing of spectral and cospectral calculations and of supporting meteorological data obtained from 76 selected field experiments. An analysis of much of the experimental data was carried out under Grant No. DA-AMC-36-039-64-G1 and will be published separately in a final report.

Publication of these volumes was carried out by the Atmospheric Sciences Research Division at Fort Huachuca under the direction of Mr. Thomas H. Pries. The authors wish to express their appreciation to Mr. Pries for his assistance in the preparation of this series. They also wish to acknowledge the valuable contributions and support of Mr. J.F. Appleby and Mr. W.D. Ohmstede of the Atmospheric Sciences Research Division throughout the research program.

TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| ABSTRACT | ii |
| FOREWORD | iii |
| SECTION I Vertical Profiles of Mean Wind Speed and Air Temperature | 1 |
| SECTION II Turbulence Statistics | 4 |
| A. Explanation of Data-Presentation Format | |
| B. Data Summaries for Runs 96A through 104 | |
| Table 1 Vertical Profiles of Mean Wind Speed | 2 |
| Table 2 Vertical Profiles of Mean Air Temperature | 3 |
| Table 3 Adjusted Frequency Bands for Spectral and Cospectral Estimates | 7 |

SECTION I

VERTICAL PROFILES OF MEAN WIND SPEED AND AIR TEMPERATURE

Vertical profiles of mean wind speed and air temperature, based on measurements taken at seven heights within the layer from 3.8 meters to 91.4 meters, are presented in Tables 1 and 2, respectively. Run number, date, and time duration of the measurements are indicated by column headings in the body of each table.

TABLE 1
VERTICAL PROFILES OF MEAN WIND SPEED

| Run No. | 96A | 96B | 96C | 97 | 98 |
|-------------------|-----------|-----------|-----------|-----------|--|
| Date | 6-19-63 | 6-19-63 | 6-19-63 | 7-3-63 | 7-3-63 |
| Time (EST) | 1621-1737 | 1751-1907 | 1921-2037 | 1446-1600 | 1631-1727 |
| <u>Height (m)</u> | | | | | <u>\bar{U} (m sec⁻¹)</u> |
| 91.4 | 6.05 | 7.83 | 7.44 | 9.52 | 10.72 |
| 68.6 | 5.56 | 6.93 | 6.57 | 9.30 | 10.32 |
| 45.7 | 5.03 | 5.67 | 5.10 | 8.41 | 9.08 |
| 30.5 | 4.70 | 4.91 | 4.33 | 7.79 | 8.32 |
| 15.2 | 3.65 | 3.47 | 3.01 | 6.49 | 6.65 |
| 7.6 | 3.06 | 2.75 | 2.27 | 5.58 | 5.72 |
| 3.8 | 2.42 | 2.11 | 1.36 | 4.36 | 4.59 |
| <u>Height (m)</u> | | | | | <u>\bar{U} (m sec⁻¹)</u> |
| 91.4 | 9.81 | 7.90 | 8.85 | 7.70 | 7.97 |
| 68.6 | 9.19 | 7.25 | 8.10 | 7.54 | 7.73 |
| 45.7 | 7.89 | 6.07 | 7.40 | 6.93 | 6.98 |
| 30.5 | 6.89 | 5.06 | 5.74 | 6.58 | 6.58 |
| 15.2 | 5.29 | 3.79 | 4.16 | 5.59 | 5.59 |
| 7.6 | 4.56 | 3.15 | 3.54 | 4.77 | 4.79 |
| 3.8 | 3.68 | 2.46 | 2.83 | 3.77 | 3.80 |
| <u>Height (m)</u> | | | | | <u>\bar{U} (m sec⁻¹)</u> |
| 91.4 | 10.1C | 100A | 100B | 101A | 101B |
| 68.6 | 7-4-63 | 7-3-63 | 7-3-63 | 7-4-63 | 7-4-63 |
| 45.7 | 1807-1923 | 2124-2224 | 2235-2335 | 0814-0930 | 0944-1100 |
| 30.5 | | | | | |
| 15.2 | | | | | |
| 7.6 | | | | | |
| 3.8 | | | | | |
| <u>Height (m)</u> | | | | | <u>\bar{U} (m sec⁻¹)</u> |
| 91.4 | 102A | 103A | 103B | 104 | |
| 68.6 | 7-4-63 | 7-4-63 | 7-4-63 | 7-4-63 | |
| 45.7 | 1122-1238 | 1307-1423 | 1504-1620 | 1637-1753 | 2030-2126 |
| 30.5 | | | | | |
| 15.2 | | | | | |
| 7.6 | | | | | |
| 3.8 | | | | | |

TABLE 2
VERTICAL PROFILES OF MEAN AIR TEMPERATURE

| Run No. | 96A | 96B* | 96C | 97 | 98 |
|-------------------|-----------|-----------|-----------|-----------|--------------|
| Date | 6-19-63 | 6-19-63 | 6-19-63 | 7-3-63 | 7-3-63 |
| Time (EST) | 1621-1737 | 1751-1907 | 1921-2037 | 1446-1600 | 1631-1727 |
| <u>Height (m)</u> | | | | | <u>T (C)</u> |
| 91.4 | 17.2 | 16.9 | 17.1 | 26.5 | 25.8 |
| 68.6 | 17.5 | 16.9 | 17.1 | 26.7 | 25.9 |
| 45.7 | 17.8 | 17.1 | 17.2 | 27.2 | 26.4 |
| 30.5 | 18.1 | 17.2 | 17.2 | 27.5 | 26.6 |
| 15.2 | 18.3 | 17.3 | 17.1 | 27.6 | 26.6 |
| 7.6 | 18.5 | 17.3 | 16.9 | 27.8 | 26.7 |
| 3.8 | 18.7 | 17.3 | 16.7 | 27.9 | 26.7 |
| <u>Height (m)</u> | | | | | <u>T (C)</u> |
| 91.4 | 22.6 | 18.2 | 17.2 | 16.3 | 17.6 |
| 68.6 | 22.6 | 18.3 | 17.2 | 16.5 | 17.8 |
| 45.7 | 22.9 | 18.4 | 17.3 | 16.9 | 18.2 |
| 30.5 | 23.0 | 18.4 | 17.3 | 17.2 | 18.5 |
| 15.2 | 23.0 | 18.4 | 17.2 | 17.5 | 18.8 |
| 7.6 | 23.0 | 18.3 | 17.1 | 17.8 | 19.0 |
| 3.8 | 22.9 | 18.1 | 16.9 | 18.1 | 19.2 |
| <u>Height (m)</u> | | | | | <u>T (C)</u> |
| 91.4 | 19.2 | 20.2 | 21.6 | 22.0 | 21.5 |
| 68.6 | 19.4 | 20.4 | 21.8 | 22.2 | 20.8 |
| 45.7 | 19.8 | 20.8 | 22.3 | 22.6 | 20.2 |
| 30.5 | 19.9 | 21.0 | 22.5 | 22.7 | 19.8 |
| 15.2 | 20.2 | 21.2 | 22.8 | 22.9 | 19.1 |
| 7.6 | 20.3 | 21.4 | 22.9 | 22.9 | 18.8 |
| 3.8 | 20.4 | 21.5 | 22.9 | 22.8 | 17.7 |

*Temperature profile is for 1826-1907 (EST).

SECTION II

TURBULENCE STATISTICS

A. EXPLANATION OF DATA-PRESENTATION FORMAT

Turbulence statistics are tabulated separately for each run and for each level at which data are available. Throughout the tabulation U, V, and W refer to the orthogonal components of the wind velocity and T refers to temperature. The letter E refers to the total kinetic energy defined by the expression $E = 1/2(U^2 + V^2 + W^2)$. Units of velocity are m sec⁻¹ and the unit of temperature is deg C. Covariances and cospectra are identified by the appropriate symbols of the two variables separated by a comma, except that the covariance between the vertical component of the wind velocity and the total kinetic energy is identified simply by WE. The data presentation follows a standard format which is explained below.

1. Identification of Experiment

The run number, measurement height, date, and the time duration of each experiment are listed at the top of the first page of each data set.

2. Gross Statistics

a. Summary Information

Summary information is presented in three vertical columns. The first column gives the amount of cloud cover in tenths followed by the cloud type, and the thermal stratification. The second vertical column lists the mean wind speed, the mean azimuth wind direction, and the solar radiation. The third column presents the standard deviations of azimuth angle and elevation angle.

b. Variances

Variances are presented for the three components of the wind velocity and for air temperature. Identification of the

variables for which the variances and other gross statistics have been calculated appears in the column at the left. Variances identified by E are one-half the sum of the variances of the three velocity components.

The variances for U, V, W, and T are presented for the four data sets indicated by the column headings below the summary information. These are:

- . With No Running Mean - refers to the complete data set.
- . With 301 Point Running Mean - data have been differenced with respect to a 301-point running mean.
- . With 61 Point Running Mean - data have been differenced with respect to a 61-point running mean.
- . 301 Pt Run Mean 10 Pt Block Avg - the 301-point running mean data set described above has been reduced by 10-point sequential block averaging.

The variance for E is presented for the first three of these data sets only.

c. Gustiness Ratios

The gustiness ratios for the three orthogonal components of the wind velocity are defined as σ_u/U , σ_v/U , σ_w/U where σ is the standard deviation of the distribution and \bar{U} is the mean wind speed. Gustiness ratios are presented for each of the four data sets described above.

d. Covariances

The covariances U,V; U,W; U,T; V,W; V,T; and W,T are presented for each of the four data sets. The covariance WE is presented for the first three data sets only.

e. Normalized Covariances

The normalized covariances for U,V; U,W; U,T; V,W; V,T; and W,T were calculated by dividing the covariances by the product of the standard deviations of the two variates.

3. Spectral and Cospectral Estimates

Spectral and cospectral calculations were carried out using the last two data sets described in Section 2b above for variables U, V, W, and T. The results are presented in the following order:

a. 61 Point Running Mean, No Block Averaging

Normalized cospectrum covariance
Normalized quadrature covariance
Normalized autocovariance
Cospectrum
Quadrature spectrum
Power spectrum

b. 301 Point Running Mean, 10 Point Block Average

Normalized cospectrum covariance
Cospectrum
Normalized quadrature covariance
Quadrature spectrum
Normalized autocovariance
Power spectrum

c. Coherence

Estimates of the coherence between levels are presented for each of the three wind velocity components and for temperature. These estimates include quadrature and are presented for both the 61 Point Running Mean, No Block Averaging and the 301 Point Running Mean, 10 Point Block Average data sets. Tabulation of the coherence estimates follows the power spectrum estimates for the second level.

Cospectrum covariance, quadrature covariance, and autocovariance are tabulated against lag number M. Cospectrum covariance and quadrature covariance estimates have been normalized by dividing by the product of the standard deviations of the two variables; autocovariance estimates have been normalized by dividing by the variance of the data set. Normalization factors head each column.

Cospectrum, quadrature spectrum, power spectrum, and coherence estimates are tabulated against K number. Tabulated values are to be multiplied by the power of 10 indicated in the column heading. Estimates have been combined within various frequency bands as indicated by K numbers at the left. Table 3 presents the relationship between these K numbers and the central frequencies of the individual bands.

It should be noted that the negative value of coherence for W at K = 0 for Run 98, 301 Point Running Mean, 10 Point Block Average is unreasonable and should be disregarded.

TABLE 3
ADJUSTED FREQUENCY BANDS FOR SPECTRAL AND COSPECTRAL ESTIMATES

| 60-LAG ANALYSIS | | | |
|-----------------|-----------------------------|-------|-----------------------------|
| K | f_k (cycles sec $^{-1}$) | K | f_k (cycles sec $^{-1}$) |
| 1 | 0.0069 | 9-11 | 0.0694 |
| 2 | 0.0139 | 12-15 | 0.0937 |
| 3 | 0.0208 | 16-20 | 0.1250 |
| 4 | 0.0278 | 21-27 | 0.1667 |
| 5 | 0.0347 | 28-38 | 0.2222 |
| 6 | 0.0417 | 37-47 | 0.2917 |
| 7-8 | 0.0521 | 48-60 | 0.3750 |

| 30-LAG ANALYSIS | | | |
|-----------------|-----------------------------|-------|-----------------------------|
| K | f_k (cycles sec $^{-1}$) | K | f_k (cycles sec $^{-1}$) |
| 1 | 0.0014 | 7 | 0.0097 |
| 2 | 0.0028 | 8 | 0.0111 |
| 3 | 0.0042 | 9-11 | 0.0139 |
| 4 | 0.0056 | 12-14 | 0.0181 |
| 5 | 0.0069 | 15-21 | 0.0250 |
| 6 | 0.0083 | 22-30 | 0.0361 |

B. DATA SUMMARIES FOR RUNS 96A THROUGH 104

The remainder of this volume contains the tabulation of the turbulence statistics for Runs 96A through 104.

RUN NO 96A 46M 6-19-63 1621-1737(EST)

GROSS STATISTICS

| | | |
|-------------------|------------------------|------------------|
| CLEAR UNSTABLE | WIND SPEED 5.03 M/SEC | SIGMA A 9.30 DEG |
| | WIND DIRECTION 219 DEG | SIGMA E 7.3 DEG |
| | SOLAR RAD. 0.45 LY/MIN | |

| VARIANCES | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN | 301 PT BLOCK AVG |
|-----------|-------------------------|--------------------------------|-------------------------------|-----------------|------------------|
| | ----- | ----- | ----- | ----- | ----- |

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.91004E 00 | 0.73263E 00 | 0.36792E-00 | 0.57129E 00 |
| V | 0.57664E 00 | 0.47134E-00 | 0.38317E-00 | 0.29471E-00 |
| W | 0.32289E-00 | 0.29883E-00 | 0.22032E-00 | 0.17737E-00 |
| T | 0.37368E-01 | 0.11027E-01 | 0.43779E-02 | 0.93808E-02 |
| E | 0.90478E 00 | 0.75142E 00 | 0.48572E-00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.18965 | 0.17017 | 0.12059 | 0.15027 |
| V | 0.15097 | 0.13649 | 0.12306 | 0.10793 |
| W | 0.11297 | 0.10868 | 0.09332 | 0.08373 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.36608E-01 | 0.27186E-01 | 0.24606E-01 | 0.19430E-01 |
| U,W | -0.27566E-00 | -0.21472E-00 | -0.86573E-01 | -0.18162E-00 |
| U,T | -0.69230E-01 | -0.59293E-01 | -0.18775E-01 | -0.53328E-01 |
| V,W | -0.42272E-01 | -0.25557E-01 | -0.27803E-01 | -0.13755E-01 |
| V,T | 0.32934E-01 | 0.88393E-02 | 0.86149E-02 | 0.55844E-02 |
| W,T | 0.16387E-01 | 0.14467E-01 | 0.50769E-03 | 0.14585E-01 |
| WE | 0.11086E-00 | 0.84931E-01 | 0.15459E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.05054 | 0.04626 | 0.06553 | 0.04735 |
| U,W | -0.50853 | -0.45889 | -0.30407 | -0.57055 |
| U,T | -0.37542 | -0.65968 | -0.46780 | -0.72846 |
| V,W | -0.09797 | -0.06810 | -0.09569 | -0.06016 |
| V,T | 0.22436 | 0.12261 | 0.21034 | 0.17621 |
| W,T | 0.14919 | 0.25202 | 0.01635 | 0.35755 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.37559 10E 00 | 0.28476 10E 00 | 0.40140 10E-01 | 0.29061 10E 00 | 0.40965 10E-01 | 0.31058 10E-01 |
| 0 | .065267 | -.304114 | -.467484 | -.095564 | .210088 | .016185 |
| 1 | .062210 | -.281110 | -.439997 | -.086054 | .187670 | .027631 |
| 2 | .056600 | -.244177 | -.384908 | -.068749 | .154182 | .034209 |
| 3 | .047552 | -.208646 | -.324627 | -.053803 | .119406 | .036564 |
| 4 | .043869 | -.175698 | -.265688 | -.044632 | .090152 | .032913 |
| 5 | .047231 | -.135936 | -.214036 | -.038631 | .063812 | .026239 |
| 6 | .053289 | -.096939 | -.167038 | -.028819 | .038138 | .018290 |
| 7 | .051463 | -.068322 | -.129639 | -.014344 | .014880 | .015067 |
| 8 | .041384 | -.045123 | -.097596 | -.002437 | -.005833 | .014259 |
| 9 | .030773 | -.019396 | -.069690 | .007442 | -.020482 | .015401 |
| 10 | .021943 | .004827 | -.043154 | .012812 | -.029291 | .012684 |
| 11 | .015286 | .021452 | -.014187 | .012310 | -.037206 | .010597 |
| 12 | .009216 | .035602 | .016616 | .013490 | -.043149 | .016256 |
| 13 | .002550 | .048264 | .047867 | .009634 | -.042995 | .017818 |
| 14 | -.004971 | .055717 | .070102 | .002806 | -.043755 | .015658 |
| 15 | -.013417 | .061496 | .089281 | -.000402 | -.052386 | .014031 |
| 16 | -.017586 | .067672 | .102006 | .008807 | -.062636 | .012410 |
| 17 | -.019302 | .075253 | .112500 | .025336 | -.070111 | .006610 |
| 18 | -.020408 | .075687 | .125431 | .034472 | -.069915 | .001162 |
| 19 | -.024010 | .072060 | .136602 | .031894 | -.064054 | -.001069 |
| 20 | -.029112 | .072318 | .140924 | .030831 | -.060607 | .000362 |
| 21 | -.031411 | .071961 | .143175 | .039206 | -.061425 | .001120 |
| 22 | -.034832 | .070785 | .143549 | .047774 | -.062269 | .002232 |
| 23 | -.045923 | .072450 | .141612 | .045351 | -.063532 | .002272 |
| 24 | -.052491 | .073085 | .135356 | .035711 | -.063152 | .000943 |
| 25 | -.053585 | .066106 | .127460 | .033007 | -.057499 | .002472 |
| 26 | -.053821 | .054102 | .115874 | .030362 | -.047201 | .008358 |
| 27 | -.050218 | .048859 | .095795 | .028754 | -.039915 | .013550 |
| 28 | -.042197 | .046854 | .075516 | .027771 | -.036690 | .014996 |
| 29 | -.028374 | .040728 | .056913 | .031452 | -.038458 | .019112 |
| 30 | -.014121 | .030650 | .043305 | .035190 | -.040591 | .024396 |
| 31 | -.000580 | .023151 | .036561 | .032601 | -.040763 | .026388 |
| 32 | .011112 | .015254 | .031605 | .023339 | -.040580 | .029568 |
| 33 | .018471 | .005256 | .027390 | .015936 | -.038165 | .033000 |
| 34 | .022580 | -.000136 | .024397 | .006169 | -.034613 | .024824 |
| 35 | .028911 | .002153 | .024107 | -.003691 | -.033408 | .010932 |
| 36 | .037332 | .008275 | .019062 | -.010967 | -.031633 | -.001757 |
| 37 | .044516 | .013592 | .014015 | -.020459 | -.029069 | -.012141 |
| 38 | .050206 | .014458 | .009643 | -.034395 | -.021534 | -.016411 |
| 39 | .055305 | .010279 | .004416 | -.047248 | -.016013 | -.019472 |
| 40 | .054607 | .005620 | .001869 | -.055428 | -.012103 | -.023996 |
| 41 | .051100 | .002499 | .000267 | -.056093 | -.011086 | -.033586 |
| 42 | .040944 | .005555 | -.002913 | -.047920 | -.001097 | -.042741 |
| 43 | .029529 | .013161 | -.007523 | -.036651 | .008856 | -.045648 |
| 44 | .014627 | .021936 | -.012304 | -.019940 | .014845 | -.043355 |
| 45 | .000170 | .026959 | -.011439 | -.012279 | .017119 | -.045336 |
| 46 | -.016231 | .032363 | -.007377 | -.008919 | .024555 | -.045793 |
| 47 | -.028261 | .037494 | -.003765 | -.007982 | .031902 | -.046395 |
| 48 | -.035219 | .042057 | -.001757 | -.011412 | .039624 | -.046670 |
| 49 | -.042476 | .041012 | .002781 | -.013310 | .048940 | -.042042 |
| 50 | -.049128 | .039480 | .005527 | -.008467 | .060444 | -.040442 |
| 51 | -.054032 | .039712 | .008534 | -.006757 | .068519 | -.038146 |
| 52 | -.058306 | .037708 | .012789 | -.004476 | .073661 | -.031928 |
| 53 | -.064270 | .037486 | .016861 | .002133 | .074631 | -.028284 |
| 54 | -.073612 | .038065 | .018962 | .013429 | .070902 | -.024719 |
| 55 | -.031658 | .035626 | .023523 | .022634 | .067486 | -.016965 |
| 56 | -.085558 | .033485 | .026459 | .026985 | .069237 | -.011407 |
| 57 | -.087928 | .028318 | .022533 | .021876 | .067947 | -.003852 |
| 58 | -.089827 | .018354 | .020928 | .023098 | .065006 | -.000965 |
| 59 | -.091950 | .009975 | .024829 | .026366 | .058878 | -.003922 |
| 60 | -.090619 | .007001 | .025908 | .029317 | .050465 | -.001761 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.37559 10E 00 | 0.28476 10E 00 | 0.40140 10E-01 | 0.29061 10E 00 | 0.40965 10E-01 | 0.31058 10E-01 |
| 1 | -.007080 | -.019827 | -.044272 | .006303 | .044619 | -.022475 |
| 2 | -.006512 | -.031680 | -.067286 | .011006 | .071607 | -.028507 |
| 3 | -.002846 | -.036095 | -.079236 | .007738 | .087488 | -.022879 |
| 4 | -.004057 | -.040844 | -.081732 | -.003370 | .101622 | -.019146 |
| 5 | -.008521 | -.046360 | -.081171 | -.013409 | .108730 | -.021561 |
| 6 | -.012079 | -.047707 | -.082684 | -.022100 | .108874 | -.026965 |
| 7 | -.007422 | -.047448 | -.086872 | -.022900 | .103714 | -.033902 |
| 8 | .000767 | -.050275 | -.089746 | -.022537 | .100637 | -.036436 |
| 9 | .006212 | -.053260 | -.091732 | -.020811 | .097597 | -.031684 |
| 10 | .012607 | -.057132 | -.088892 | -.016813 | .094966 | -.025515 |
| 11 | .016753 | -.054632 | -.085258 | -.015471 | .087906 | -.017830 |
| 12 | .020210 | -.046486 | -.084212 | -.008746 | .078235 | -.003754 |
| 13 | .021717 | -.042678 | -.088562 | .001232 | .068272 | .014173 |
| 14 | .017658 | -.040569 | -.091987 | .003729 | .057702 | .024040 |
| 15 | .018751 | -.039047 | -.088833 | .001907 | .046425 | .022609 |
| 16 | .017708 | -.046660 | -.081615 | -.003669 | .038481 | .015438 |
| 17 | .014820 | -.048437 | -.076514 | -.003885 | .025622 | .012346 |
| 18 | .007936 | -.044003 | -.074397 | -.004114 | .013797 | .015126 |
| 19 | .003197 | -.035100 | -.068472 | -.004908 | .005086 | .02' 341 |
| 20 | -.000444 | -.024828 | -.064305 | -.007280 | .002852 | .025077 |
| 21 | -.006704 | -.019927 | -.056945 | -.009455 | .000665 | .029662 |
| 22 | -.007710 | -.017707 | -.042748 | -.011178 | -.001643 | .034274 |
| 23 | -.004292 | -.013862 | -.032330 | -.006414 | -.005984 | .034765 |
| 24 | -.001057 | -.008586 | -.024791 | -.006910 | -.013629 | .033839 |
| 25 | .003128 | -.009129 | -.016778 | -.007976 | -.020879 | .031938 |
| 26 | .009630 | -.009733 | -.006483 | -.008015 | -.025821 | .026308 |
| 27 | .013322 | -.016530 | -.000115 | -.012358 | -.028159 | .019467 |
| 28 | .009952 | -.023569 | .004359 | -.017190 | -.027323 | .016294 |
| 29 | .009140 | -.024694 | .007081 | -.019400 | -.021383 | .015036 |
| 30 | .007486 | -.018009 | .007848 | -.018495 | -.015388 | .014523 |
| 31 | -.000534 | -.010274 | .003172 | -.011921 | -.014112 | .015786 |
| 32 | -.008161 | -.005507 | -.002858 | -.007180 | -.015112 | .024169 |
| 33 | -.007550 | -.007902 | -.003295 | -.000707 | -.019382 | .034656 |
| 34 | -.009234 | -.005934 | -.002486 | .006506 | -.018042 | .039845 |
| 35 | -.007175 | -.002689 | -.003111 | .005474 | -.009866 | .042852 |
| 36 | .002520 | .002280 | -.004719 | .000333 | -.002810 | .033994 |
| 37 | .011052 | .003927 | -.001930 | .002202 | .002427 | .017818 |
| 38 | .016384 | .005658 | .004228 | .007351 | .009362 | .003978 |
| 39 | .018177 | .001955 | .009289 | .016142 | .011477 | -.009426 |
| 40 | .018123 | -.004153 | .012367 | .021432 | .012081 | -.023011 |
| 41 | .016589 | -.007145 | .014090 | .022044 | .014042 | -.029739 |
| 42 | .014145 | -.001226 | .014017 | .019411 | .014183 | -.030932 |
| 43 | .009663 | .002263 | .011619 | .015309 | .009571 | -.032104 |
| 44 | .009355 | .003750 | .010327 | .016590 | -.000605 | -.032577 |
| 45 | .010907 | .009818 | .013315 | .021578 | -.009443 | -.038556 |
| 46 | .009089 | .014452 | .016123 | .019190 | -.013271 | -.040656 |
| 47 | .006741 | .018732 | .016245 | .014503 | -.014038 | -.039977 |
| 48 | .008982 | .020386 | .008807 | .012449 | -.017669 | -.039592 |
| 49 | .014217 | .023313 | .000179 | .016879 | -.023202 | -.038302 |
| 50 | .015334 | .023183 | -.001255 | .024500 | -.031148 | -.034920 |
| 51 | .016829 | .024134 | .000727 | .026294 | -.032461 | -.029446 |
| 52 | .019104 | .027822 | .001386 | .033814 | -.030094 | -.023887 |
| 53 | .015697 | .031362 | .000099 | .038703 | -.029319 | -.017394 |
| 54 | .011096 | .033018 | -.001423 | .037796 | -.029352 | -.012003 |
| 55 | .010238 | .036967 | -.001744 | .029886 | -.030893 | -.010719 |
| 56 | .014751 | .042888 | .005339 | .023719 | -.027000 | -.010602 |
| 57 | .015292 | .043596 | .012092 | .017810 | -.019531 | -.009565 |
| 58 | .012012 | .038711 | .017902 | .012031 | -.009333 | -.010207 |
| 59 | .008215 | .038049 | .020924 | .000775 | .004553 | -.011094 |
| 60 | .001666 | .037259 | .018010 | -.008383 | .016799 | -.008700 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.36804 10E 00 | 0.38331 10E 00 | 0.22032 10E 00 | 0.43780 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .868054 | .843657 | .796249 | .884035 |
| 2 | -.696066 | .642596 | .559839 | .740230 |
| 3 | .548858 | .479783 | .393360 | .610159 |
| 4 | .431180 | .352753 | -.272102 | .497424 |
| 5 | .334982 | .252053 | .178808 | .398276 |
| 6 | .256043 | .173733 | .104538 | .314306 |
| 7 | .187620 | .111378 | .046297 | .237710 |
| 8 | .120020 | .061573 | .004320 | .167012 |
| 9 | .061205 | .008924 | -.040327 | .098718 |
| 10 | .012780 | -.033081 | -.088115 | .037366 |
| 11 | -.029262 | -.061915 | -.130616 | -.018762 |
| 12 | -.068974 | -.085474 | -.164946 | -.050427 |
| 13 | -.106174 | -.103201 | -.181128 | -.117425 |
| 14 | -.140290 | -.128677 | -.187798 | -.158811 |
| 15 | -.164098 | -.165075 | -.187648 | -.194506 |
| 16 | -.185256 | -.201206 | -.183266 | -.223557 |
| 17 | -.200448 | -.237012 | -.189943 | -.243124 |
| 18 | -.213462 | -.253960 | -.199830 | -.256189 |
| 19 | -.227831 | -.252977 | -.198219 | -.270672 |
| 20 | -.241204 | -.245119 | -.180964 | -.280186 |
| 21 | -.255053 | -.233352 | -.161899 | -.289207 |
| 22 | -.259797 | -.228151 | -.145878 | -.293139 |
| 23 | -.260494 | -.226705 | -.132766 | -.292136 |
| 24 | -.259190 | -.228324 | -.128323 | -.283341 |
| 25 | -.244352 | -.222211 | -.123404 | -.268858 |
| 26 | -.219571 | -.208771 | -.118150 | -.243718 |
| 27 | -.196311 | -.194058 | -.117071 | -.214838 |
| 28 | -.171760 | -.176567 | -.107808 | -.180059 |
| 29 | -.145711 | -.162141 | -.091058 | -.144786 |
| 30 | -.118180 | -.141551 | -.070318 | -.114830 |
| 31 | -.093039 | -.117246 | -.044899 | -.089551 |
| 32 | -.073305 | -.087023 | -.021112 | -.075584 |
| 33 | -.055197 | -.055097 | -.005442 | -.066966 |
| 34 | -.046559 | -.025838 | .009953 | -.053012 |
| 35 | -.037979 | -.011010 | .026840 | -.042527 |
| 36 | -.027078 | -.005743 | .029282 | -.029982 |
| 37 | -.012389 | -.000060 | .028883 | -.018550 |
| 38 | .004651 | .008376 | .026514 | -.004697 |
| 39 | .017507 | .018529 | .029232 | -.004061 |
| 40 | .020388 | .026599 | .039969 | .011218 |
| 41 | .022452 | .031090 | .041335 | .013392 |
| 42 | .019313 | .033445 | .029459 | .016715 |
| 43 | .009554 | .036846 | .006998 | .015173 |
| 44 | .000521 | .039108 | -.015359 | .014227 |
| 45 | -.010283 | .039454 | -.026008 | .017630 |
| 46 | -.016153 | .042302 | -.021052 | .023209 |
| 47 | -.017627 | .048424 | -.001848 | .021961 |
| 48 | -.013003 | .050562 | .016219 | .018192 |
| 49 | -.014425 | .047385 | .021863 | .016805 |
| 50 | -.025433 | .045336 | .023558 | .020265 |
| 51 | -.037047 | .037358 | .018867 | .026066 |
| 52 | -.046066 | .018450 | .007123 | .031395 |
| 53 | -.048359 | -.001606 | -.008298 | .034784 |
| 54 | -.050241 | -.015437 | -.025464 | .035344 |
| 55 | -.052919 | -.020117 | -.048629 | .031602 |
| 56 | -.054857 | -.017899 | -.071178 | .028502 |
| 57 | -.046677 | -.008422 | -.079326 | .029416 |
| 58 | -.032963 | -.001543 | -.075871 | .027397 |
| 59 | -.021824 | -.003558 | -.063441 | .026554 |
| 60 | -.023373 | -.002449 | -.050531 | .026254 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .156961 | -.023125 | -.060827 | -.027435 | -.009359 | .173694 |
| 1 | .670329 | -.155459 | -.368590 | -.274976 | .070589 | .583800 |
| 2 | .67021 | -.159048 | -.385245 | -.531409 | .152741 | .133494 |
| 3 | .867326 | -.167945 | -.388852 | -.635715 | .159773 | .073016 |
| 4 | .236580 | -.124715 | -.246820 | -.244409 | .113190 | .199093 |
| 5 | -.222508 | -.070647 | -.118632 | -.115447 | .087404 | -.010358 |
| 6 | .055820 | -.049891 | -.069347 | -.238112 | .056849 | -.074973 |
| 7-8 | .007526 | -.032809 | -.064539 | -.150070 | .043183 | .080827 |
| 9-11 | -.036233 | -.013953 | -.036904 | -.059763 | .023663 | .002046 |
| 12-15 | .037647 | -.006870 | -.022103 | -.006468 | .007131 | -.039486 |
| 16-20 | .054002 | -.002996 | -.005813 | -.040865 | .008091 | -.031956 |
| 21-27 | -.002978 | -.002521 | -.004366 | -.021405 | .004206 | -.016219 |
| 28-36 | -.007368 | -.002273 | -.001991 | -.002382 | .001377 | -.008467 |
| 37-47 | .001066 | -.000476 | -.000632 | -.003431 | .000943 | -.007736 |
| 48-60 | .003070 | -.000566 | -.000492 | -.000322 | .001071 | -.007170 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | .229493 | -.742678 | -.175181 | -.166342 | .087017 | .334247 |
| 2 | .100741 | -.604890 | -.158098 | -.168921 | .113238 | .070322 |
| 3 | .094881 | -.429725 | -.126173 | -.042545 | .142599 | -.349986 |
| 4 | .014166 | -.279241 | -.065086 | -.049219 | .121316 | -.340566 |
| 5 | -.097403 | -.156219 | -.024839 | -.125042 | .066713 | -.218102 |
| 6 | -.131006 | -.070844 | -.014058 | -.075217 | .040622 | -.232459 |
| 7-8 | -.159117 | -.045562 | -.028316 | .018907 | .025233 | -.027960 |
| 9-11 | .034483 | -.039993 | -.014329 | .081560 | .013513 | .023014 |
| 12-15 | .013839 | -.032452 | -.009557 | .046265 | .007887 | -.040727 |
| 16-20 | -.008736 | -.004686 | -.008133 | .024777 | .002711 | -.048171 |
| 21-27 | -.025475 | -.015344 | -.001240 | -.005438 | .002501 | -.033537 |
| 28-36 | -.007612 | -.005914 | -.001195 | -.003244 | .001821 | -.008150 |
| 37-47 | -.001997 | .000900 | -.000914 | -.003080 | .000507 | .000467 |
| 48-60 | .003075 | .000329 | -.000378 | .003427 | -.000278 | -.000168 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .073665 | .039763 | .018139 | .097899 |
| 1 | .548819 | .427725 | .174500 | .711023 |
| 2 | .625679 | .583926 | .245226 | .825227 |
| 3 | .646737 | .634201 | .308584 | .850736 |
| 4 | .417290 | .412946 | .250924 | .540271 |
| 5 | .228584 | .249460 | .173915 | .276436 |
| 6 | .163868 | .206115 | .140708 | .185884 |
| 7-8 | .152383 | .168426 | .096700 | .154635 |
| 9-11 | .085316 | .126634 | .068065 | .084878 |
| 12-15 | .058800 | .060899 | .049104 | .057847 |
| 16-20 | .034953 | .047003 | .029089 | .033560 |
| 21-27 | .019728 | .024206 | .020276 | .018476 |
| 28-36 | .012091 | .016050 | .012927 | .012480 |
| 37-47 | .007552 | .009973 | .008358 | .008427 |
| 48-60 | .005583 | .006259 | .005142 | .006226 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.41042 10E 00 | 0.31819 10E 00 | 0.73192 10E-01 | 0.22860 10E 00 | 0.52583 10E-01 | 0.40767 10E-01 |
| 0 | .047343 | -.570787 | -.728597 | -.060172 | .106200 | .357761 |
| 1 | .044537 | -.418050 | -.571481 | -.007151 | -.005508 | .349148 |
| 2 | -.011366 | -.284924 | -.410760 | .008907 | -.024562 | .285881 |
| 3 | -.042705 | -.169823 | -.278846 | .057047 | -.020984 | .215011 |
| 4 | -.024027 | -.048073 | -.137545 | -.007927 | .003722 | .089239 |
| 5 | -.081621 | .043534 | -.002512 | .017882 | .054860 | -.003861 |
| 6 | -.072649 | .086866 | .104936 | .022627 | .067885 | -.056947 |
| 7 | .027112 | .097129 | .188617 | .003951 | .006225 | -.108610 |
| 8 | .075538 | .152924 | .228590 | .005350 | .006901 | -.159714 |
| 9 | .002633 | .202318 | .242189 | .033305 | .012998 | -.172691 |
| 10 | -.010561 | .192787 | .237593 | -.061285 | .008316 | -.189443 |
| 11 | .018606 | .198018 | .236070 | -.040200 | -.036849 | -.207056 |
| 12 | .033553 | .204576 | .239458 | .023407 | -.021899 | .183269 |
| 13 | .051985 | .212695 | .233471 | -.025286 | -.093628 | .155078 |
| 14 | .024577 | .158966 | .177276 | -.070178 | -.090130 | -.137132 |
| 15 | -.009912 | .092396 | .108674 | -.042931 | -.026448 | -.065351 |
| 16 | -.006317 | .019591 | .055917 | -.011547 | .002206 | .001513 |
| 17 | -.041488 | -.052957 | .000575 | .038588 | .002820 | .044834 |
| 18 | -.043736 | -.133731 | -.054604 | .053842 | -.000084 | .088175 |
| 19 | -.054585 | -.157199 | -.058072 | .043214 | .000400 | .136259 |
| 20 | -.013760 | -.150487 | -.060532 | .026776 | .009225 | .138098 |
| 21 | .019149 | -.147887 | -.086470 | -.023227 | .005413 | .148802 |
| 22 | .035943 | -.079038 | -.068080 | -.041170 | .023746 | .079287 |
| 23 | .054932 | -.021600 | -.019997 | -.046948 | -.021236 | .004174 |
| 24 | .065195 | .026470 | .022755 | -.028286 | -.013059 | -.055292 |
| 25 | .039103 | .040573 | .025794 | .013686 | -.013476 | -.073866 |
| 26 | -.002272 | .061081 | .017526 | .001264 | .041451 | -.081724 |
| 27 | -.059676 | .045948 | .040723 | .051001 | .093225 | -.089266 |
| 28 | -.064289 | .091681 | .037485 | .017506 | .095487 | -.116907 |
| 29 | -.034481 | .138631 | .047465 | .005853 | .017264 | -.099215 |
| 30 | -.002444 | .146193 | .065454 | -.008525 | -.024359 | -.120780 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-03 | 10E-02 |
| 0 | -.033286 | -.021432 | -.008815 | -.009853 | -.005668 | .030566 |
| 1 | -.205157 | -.192240 | -.079461 | .068517 | .465289 | .240682 |
| 2 | -.197683 | -.325328 | -.108400 | .132132 | .669774 | .376423 |
| 3 | -.253414 | -.430975 | -.125269 | .109117 | .219892 | .495499 |
| 4 | .141677 | -.241156 | -.078292 | -.121114 | -.606733 | .269355 |
| 5 | .768750 | -.090370 | -.036862 | -.291096 | -.683648 | .067596 |
| 6 | .580837 | -.123613 | -.028336 | -.067853 | .030028 | .076520 |
| 7 | .437807 | -.107951 | -.019756 | .002830 | .432555 | .048852 |
| 8 | .658926 | -.056584 | -.009136 | -.192444 | .231018 | .013550 |
| 9-11 | .039462 | -.038714 | -.006652 | -.084247 | .521605 | -.003682 |
| 12-14 | -.066318 | -.008219 | -.006754 | -.137728 | .421772 | -.011547 |
| 15-21 | .072430 | -.023412 | -.004989 | .009453 | .222351 | .003954 |
| 22-30 | -.055602 | -.017179 | -.003254 | -.102108 | .304638 | -.006704 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.41042 10E 00 | 0.31819 10E 00 | 0.73192 10E-01 | 0.22860 10E 00 | 0.52583 10E-01 | 0.40767 10E-01 |
| 1 | .016308 | -.055918 | -.127064 | -.005943 | .090055 | .031101 |
| 2 | .040808 | -.056711 | -.181557 | -.007059 | .065521 | .096130 |
| 3 | .070829 | -.041058 | -.201682 | .035173 | .081278 | .126948 |
| 4 | .089268 | .006907 | -.200559 | .079110 | .095851 | .119230 |
| 5 | .057364 | .054959 | -.181784 | .098863 | .072289 | .106629 |
| 6 | .036127 | .057340 | -.155531 | .057033 | .098483 | .114309 |
| 7 | .004928 | .056331 | -.118576 | .046903 | .064150 | .125181 |
| 8 | -.034940 | -.004314 | -.093043 | .030691 | .001534 | .075713 |
| 9 | -.065304 | .010942 | -.077649 | .010826 | -.030472 | .068083 |
| 10 | -.039249 | .000040 | -.039538 | .012147 | -.017882 | .030951 |
| 11 | -.030927 | -.002897 | -.025502 | -.048804 | -.031523 | -.005131 |
| 12 | -.050190 | -.000390 | -.015737 | -.061265 | -.054803 | -.017807 |
| 13 | -.100112 | -.012657 | .018648 | -.075634 | -.100521 | -.034203 |
| 14 | -.094232 | -.023239 | .047067 | -.056002 | -.096555 | -.068248 |
| 15 | -.020535 | -.005456 | .055759 | -.086808 | -.032415 | -.083534 |
| 16 | .011760 | -.045023 | .068435 | -.082761 | .004319 | -.115109 |
| 17 | .006642 | -.040892 | .069516 | -.035881 | -.006092 | -.100168 |
| 18 | .024849 | -.004891 | .055827 | -.037557 | .030074 | -.030368 |
| 19 | .066599 | .026526 | .013085 | .059184 | .062389 | .009444 |
| 20 | .081473 | .040899 | -.019427 | .050707 | .078619 | .058744 |
| 21 | .074993 | .022207 | -.037561 | .064720 | .090663 | .073465 |
| 22 | .090096 | .012122 | -.024110 | .045515 | .100760 | .075671 |
| 23 | .106564 | -.000153 | -.002812 | .080609 | .091252 | .063201 |
| 24 | .092989 | -.014826 | .002291 | .094770 | .057126 | .066457 |
| 25 | .085608 | -.009825 | .012130 | .072356 | .037015 | .057272 |
| 26 | .068469 | -.003451 | .013842 | .099646 | .044189 | .013812 |
| 27 | .046085 | -.008244 | .022590 | .086171 | .038163 | -.015386 |
| 28 | .018251 | -.037296 | .021710 | .029641 | .042076 | -.055234 |
| 29 | -.004974 | -.008216 | -.010233 | -.054048 | .010846 | -.053555 |
| 30 | -.025461 | -.002636 | -.011119 | -.025439 | -.013957 | -.063399 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | -.023460 | .081601 | -.363431 | -.034767 | .045569 | .105193 |
| 2 | -.018639 | .169370 | -.453642 | .241800 | .056099 | .157159 |
| 3 | .104969 | .251368 | -.519938 | .792870 | .203839 | .228143 |
| 4 | .133755 | -.004316 | -.340311 | .468328 | .203832 | .117147 |
| 5 | .052617 | -.384298 | -.169099 | -.114282 | .056495 | -.000915 |
| 6 | .022485 | -.408112 | -.162298 | -.139428 | .012311 | .025575 |
| 7 | .017921 | -.434196 | -.127852 | -.084576 | .022663 | .028312 |
| 8 | .003088 | -.587569 | -.049476 | -.168612 | .017253 | -.003838 |
| 9-11 | -.028172 | -.250981 | -.037975 | -.173892 | .009667 | .013154 |
| 12-14 | .002237 | .040542 | -.021485 | -.035168 | .042871 | -.011144 |
| 15-21 | .000681 | -.030022 | -.014060 | .034696 | .021831 | -.009201 |
| 22-30 | -.003^60 | -.025115 | -.004855 | .014498 | .005521 | -.003098 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.57127 10E 00 | 0.29486 10E 00 | 0.17723 10E 00 | 0.93775 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .860299 | .306677 | .410557 | .741284 |
| 2 | .394482 | .058664 | .196654 | .501985 |
| 3 | .218012 | -.012598 | .121319 | .328233 |
| 4 | .062276 | -.027430 | -.015223 | .168986 |
| 5 | -.068047 | -.049987 | -.066617 | .002189 |
| 6 | -.141045 | -.069411 | -.145952 | -.125049 |
| 7 | -.169965 | -.069268 | -.103235 | -.258660 |
| 8 | -.184871 | -.058031 | -.182596 | -.323318 |
| 9 | -.218313 | -.119849 | -.275906 | -.331854 |
| 10 | -.239919 | -.067816 | -.226639 | -.299256 |
| 11 | -.247241 | -.178004 | -.239234 | -.273422 |
| 12 | -.261308 | -.097819 | -.231105 | -.256350 |
| 13 | -.278829 | -.215280 | -.218239 | -.250075 |
| 14 | -.241198 | -.118014 | -.144061 | -.167115 |
| 15 | -.155973 | -.027273 | -.020452 | -.081810 |
| 16 | -.058139 | .030836 | .043425 | -.020090 |
| 17 | .006815 | .016893 | .108655 | .031149 |
| 18 | .079055 | -.023580 | .202575 | .094070 |
| 19 | .073712 | -.069573 | .192612 | .086796 |
| 20 | .057744 | .008480 | .227508 | .058878 |
| 21 | .085582 | .065770 | .157340 | .044452 |
| 22 | .063453 | .097165 | .081601 | .009994 |
| 23 | .039033 | -.040423 | .067583 | -.053876 |
| 24 | .049163 | .018875 | -.051014 | -.114333 |
| 25 | .045095 | .070945 | -.032169 | -.113055 |
| 26 | .032176 | .044957 | -.089385 | -.074787 |
| 27 | -.006149 | .020512 | -.046277 | -.053743 |
| 28 | -.013557 | .027734 | -.100870 | -.036635 |
| 29 | -.078233 | -.051906 | -.193266 | -.046792 |
| 30 | -.097161 | -.035797 | -.159724 | -.042460 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .006316 | .000892 | .007590 | .016745 |
| 1 | .062875 | .146699 | .076690 | .131885 |
| 2 | .090595 | .229073 | .176658 | .167162 |
| 3 | .104082 | .264417 | .279157 | .202965 |
| 4 | .065176 | .185161 | .177020 | .142955 |
| 5 | .037859 | .133587 | .069282 | .065892 |
| 6 | .039106 | .147475 | .089291 | .044626 |
| 7 | .033917 | .181112 | .096558 | .031784 |
| 8 | .021424 | .168668 | .074827 | .015997 |
| 9-11 | .013504 | .122222 | .060445 | .019002 |
| 12-14 | .009813 | .111072 | .039382 | .015360 |
| 15-21 | .009082 | .099713 | .053046 | .010668 |
| 22-30 | .006859 | .097779 | .052205 | .007104 |

RUN NO 96A SIM 6-19-63 1621-1737(EST)

GROSS STATISTICS

| | | |
|-------------------|------------------------|------------------|
| CLEAR UNSTABLE | WIND SPEED 6.05 M/SEC | SIGMA A 7.20 DEG |
| | WIND DIRECTION 226 DEG | SIGMA E 5.5 DEG |
| | SOLAR RAD. 0.45 LY/MIN | |

| | | | | |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.10711E 01 | 0.49802E-00 | 0.25506E-00 | 0.40285E-00 |
| V | 0.52320E 00 | 0.34136E-00 | 0.25810E-00 | 0.21767E-00 |
| W | 0.24478E-00 | 0.22370E-00 | 0.20442E-00 | 0.11542E-00 |
| T | 0.63790E-01 | 0.64515E-02 | 0.26630E-02 | 0.55517E-02 |
| E | 0.91955E 00 | 0.53157E 00 | 0.35879E-00 | |

GUSTINE96 RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.17107 | 0.11665 | 0.08348 | 0.10491 |
| V | 0.11956 | 0.09657 | 0.08397 | 0.07712 |
| W | 0.08178 | 0.07818 | 0.07473 | 0.05615 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.96719E-01 | 0.42697E-01 | 0.44129E-01 | 0.36452E-01 |
| U,W | -0.20328E-00 | -0.16168E-00 | -0.10602E-00 | -0.13317E-00 |
| U,T | -0.13875E-00 | -0.31040E-01 | -0.75917E-02 | -0.28955E-01 |
| V,W | -0.18637E-01 | -0.20800E-01 | -0.27929E-01 | -0.80434E-02 |
| V,T | 0.82152E-01 | 0.33824E-02 | 0.28440E-02 | 0.22357E-02 |
| W,T | 0.82532E-02 | 0.43473E-02 | -0.43838E-03 | 0.58816E-02 |
| WE | 0.16459E-00 | 0.92665E-01 | 0.40431E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.12920 | 0.10355 | 0.17199 | 0.12310 |
| U,W | -0.39699 | -0.48438 | -0.46431 | -0.61757 |
| U,T | -0.53082 | -0.54761 | -0.29129 | -0.61194 |
| V,W | -0.05208 | -0.07527 | -0.12159 | -0.05075 |
| V,T | 0.44968 | 0.07208 | 0.10848 | 0.06428 |
| W,T | 0.06605 | 0.11443 | -0.01879 | 0.23223 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.25654 10E 00 | 0.22830 10E 00 | 0.26066 10E-01 | 0.22970 10E 00 | 0.26225 10E-01 | 0.23338 10E-01 |
| 0 | .172027 | -.464330 | -.291181 | -.121490 | .108190 | -.018870 |
| 1 | .163737 | -.433931 | -.266683 | -.104715 | .094794 | -.001643 |
| 2 | .150118 | -.377413 | -.232538 | -.076177 | .074937 | .017577 |
| 3 | .134825 | -.312902 | -.198830 | -.050437 | .061918 | .029137 |
| 4 | .116169 | -.243368 | -.175786 | -.028660 | .049269 | .032968 |
| 5 | .092068 | -.186127 | -.159390 | -.005732 | .039736 | .032762 |
| 6 | .072252 | -.143218 | -.140215 | .015546 | .032351 | .030622 |
| 7 | .054417 | -.108257 | -.120766 | .018870 | .025761 | .031853 |
| 8 | .033093 | -.078607 | -.102968 | .011831 | .018985 | .034823 |
| 9 | .015409 | -.049303 | -.087915 | .004558 | .012783 | .039455 |
| 10 | -.000168 | -.016515 | -.072795 | .001032 | .004964 | .041841 |
| 11 | -.022439 | .015670 | -.055951 | -.002875 | .000168 | .040740 |
| 12 | -.043759 | .039812 | -.040518 | .000334 | -.002311 | .041668 |
| 13 | -.056185 | .057268 | -.026109 | .007777 | -.005629 | .043560 |
| 14 | -.059618 | .067142 | -.008704 | .019722 | -.012560 | .039837 |
| 15 | -.061878 | .077378 | .010828 | .024630 | -.019247 | .035615 |
| 16 | -.068852 | .089750 | .026693 | .031500 | -.024534 | .029190 |
| 17 | -.079065 | .102087 | .041042 | .044417 | -.028168 | .021925 |
| 18 | -.087923 | .118448 | .057445 | .052217 | -.031646 | .009819 |
| 19 | -.092364 | .136834 | .073577 | .050123 | -.038378 | -.003539 |
| 20 | -.091896 | .154057 | .085184 | .039403 | -.043821 | -.015055 |
| 21 | -.088573 | .164935 | .090559 | .024090 | -.048546 | -.020986 |
| 22 | -.087193 | .168812 | .089738 | .009510 | -.050338 | -.025190 |
| 23 | -.083729 | .167488 | .084536 | .001131 | -.051046 | -.028474 |
| 24 | -.081745 | .160077 | .078657 | .001611 | -.048789 | -.031848 |
| 25 | -.077506 | .150063 | .074053 | .006434 | -.042691 | -.032749 |
| 26 | -.070682 | .141011 | .068366 | .013754 | -.036430 | -.027413 |
| 27 | -.060092 | .127133 | .066100 | .016085 | -.032677 | -.022868 |
| 28 | -.049907 | .114265 | .065389 | .014365 | -.030028 | -.020454 |
| 29 | -.036554 | .101891 | .066461 | .010674 | -.027944 | -.020460 |
| 30 | -.023887 | .088850 | .066425 | .007960 | -.023478 | -.017663 |
| 31 | -.011642 | .072874 | .062608 | .011081 | -.019445 | -.015969 |
| 32 | -.000506 | .058839 | .059017 | .014110 | -.017187 | -.010645 |
| 33 | .005749 | .047089 | .052653 | .009939 | -.011798 | -.003411 |
| 34 | .006986 | .034658 | .045716 | .004918 | -.008289 | .003291 |
| 35 | .008679 | .028686 | .039756 | .002756 | -.002334 | .008353 |
| 36 | .006775 | .023444 | .036116 | .003263 | .002354 | .012548 |
| 37 | .011685 | .011253 | .032376 | .006131 | .003434 | .018978 |
| 38 | .023224 | .000266 | .029758 | .009228 | .005944 | .021043 |
| 39 | .031451 | -.010510 | .026477 | .010750 | .009879 | .022360 |
| 40 | .036676 | -.021598 | .024479 | .008804 | .013752 | .019921 |
| 41 | .035346 | -.027636 | .026805 | .007806 | .018312 | .017899 |
| 42 | .031015 | -.024254 | .029936 | .007576 | .021511 | .014692 |
| 43 | .024299 | -.014375 | .028846 | .014805 | .022292 | .009155 |
| 44 | .019730 | -.005979 | .030058 | .012325 | .019771 | .000438 |
| 45 | .016880 | -.002207 | .031137 | -.002654 | .014064 | -.012934 |
| 46 | .012448 | -.003209 | .033890 | -.020220 | .010975 | -.019268 |
| 47 | .008271 | -.009228 | .034799 | -.036046 | .010999 | -.018862 |
| 48 | .000733 | -.015778 | .032877 | -.039443 | .012660 | -.018466 |
| 49 | -.003796 | -.020178 | .032845 | -.039073 | .017542 | -.021447 |
| 50 | -.000740 | -.023871 | .030688 | -.038218 | .017992 | -.020423 |
| 51 | -.001910 | -.026047 | .026002 | -.033804 | .016382 | -.017351 |
| 52 | -.004075 | -.024519 | .021331 | -.028533 | .016837 | -.018659 |
| 53 | -.002299 | -.027833 | .021148 | -.024059 | .019392 | -.023613 |
| 54 | -.002045 | -.033229 | .018818 | -.015971 | .020282 | -.026950 |
| 55 | .001770 | -.032094 | .014187 | -.013461 | .018220 | -.033506 |
| 56 | .008504 | -.025083 | .012472 | -.018967 | .012675 | -.042916 |
| 57 | .011571 | -.018417 | .009645 | -.020232 | .004827 | -.048943 |
| 58 | .012663 | -.008339 | .006137 | -.016868 | -.004111 | -.051375 |
| 59 | .014769 | .000409 | .002976 | -.008993 | -.013169 | -.049903 |
| 60 | .017146 | .006026 | -.001233 | -.000942 | -.019405 | -.048538 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.25654 10E 00 | 0.22830 10E 00 | 0.26066 10E-01 | 0.22970 10E 00 | 0.26225 10E-01 | 0.23338 10E-01 |
| 1 | .005265 | -.003464 | -.007320 | -.000549 | .030648 | -.029686 |
| 2 | .005697 | -.014295 | -.004815 | -.005301 | .050489 | -.046226 |
| 3 | .006890 | -.022756 | -.000576 | -.007684 | .060242 | -.047340 |
| 4 | .004003 | -.031615 | -.001472 | -.013531 | .063248 | -.040625 |
| 5 | .001843 | -.038681 | -.004854 | -.014722 | .066138 | -.033125 |
| 6 | -.002351 | -.033343 | -.007469 | -.008350 | .067586 | -.023523 |
| 7 | -.004678 | -.019380 | -.008757 | -.006402 | .067037 | -.010567 |
| 8 | -.006683 | -.005737 | -.013665 | -.008615 | .065783 | .005546 |
| 9 | -.008767 | .004170 | -.022223 | -.014093 | .066444 | .016549 |
| 10 | -.012039 | .012350 | -.029748 | -.014485 | .066391 | .027029 |
| 11 | -.013324 | .016241 | -.033134 | -.011501 | .061459 | .032602 |
| 12 | -.009251 | .015710 | -.039038 | -.002408 | .053845 | .037078 |
| 13 | -.005185 | .011745 | -.044818 | .010276 | .047618 | .040474 |
| 14 | -.001608 | .007711 | -.045930 | .021164 | .042724 | .042754 |
| 15 | -.001307 | .004691 | -.043874 | .019363 | .038992 | .042749 |
| 16 | -.002483 | .006151 | -.039698 | .014773 | .030812 | .035851 |
| 17 | -.000486 | .005866 | -.032910 | .009129 | .02593d | .022667 |
| 18 | -.000497 | -.003375 | -.023357 | -.001388 | .025120 | .006676 |
| 19 | -.007411 | -.010072 | -.017984 | -.010061 | .021549 | -.005696 |
| 20 | -.015449 | -.014299 | -.016003 | -.014297 | .016881 | -.014776 |
| 21 | -.025416 | -.011496 | -.016627 | -.021592 | .009454 | -.016775 |
| 22 | -.032747 | -.009036 | -.019462 | -.030847 | .003556 | -.012594 |
| 23 | -.033063 | -.008597 | -.022402 | -.040179 | .000601 | -.012604 |
| 24 | -.029846 | -.005960 | -.021686 | -.046569 | -.004220 | -.012206 |
| 25 | -.023801 | -.008280 | -.018677 | -.042785 | -.009790 | -.015517 |
| 26 | -.018254 | -.006918 | -.012003 | -.040655 | -.012713 | -.014460 |
| 27 | -.014224 | -.000779 | -.008632 | -.041526 | -.011365 | -.012789 |
| 28 | -.008440 | -.000286 | -.008131 | -.036538 | -.009561 | -.011481 |
| 29 | -.005475 | -.003682 | -.012080 | -.030706 | -.008866 | -.010027 |
| 30 | -.008076 | -.008436 | -.018072 | -.019719 | -.013356 | -.010633 |
| 31 | -.011516 | -.001192 | -.025715 | -.003260 | -.015950 | -.012804 |
| 32 | -.011489 | .008456 | -.030562 | .010330 | -.016001 | -.011841 |
| 33 | -.004328 | .016717 | -.030342 | .012996 | -.012675 | -.007316 |
| 34 | .003882 | .020371 | -.025947 | .011851 | -.008222 | -.005387 |
| 35 | .004248 | .024748 | -.024094 | .011735 | -.006974 | -.000878 |
| 36 | -.000330 | .025394 | -.026056 | .011918 | -.011075 | .004957 |
| 37 | -.008115 | .030770 | -.034577 | .013393 | -.019724 | .015538 |
| 38 | -.014306 | .036842 | -.044652 | .013794 | -.029108 | .023818 |
| 39 | -.014472 | .029367 | -.051288 | .008083 | -.031266 | .027390 |
| 40 | -.012798 | .016410 | -.053075 | .000735 | -.031085 | .028975 |
| 41 | -.007610 | .005047 | -.051789 | -.004946 | -.027703 | .031251 |
| 42 | -.004040 | -.003390 | -.052854 | -.008625 | -.025619 | .030790 |
| 43 | -.005480 | -.009250 | -.051582 | -.009053 | -.026467 | .028421 |
| 44 | -.006627 | -.013119 | -.047418 | -.009438 | -.027779 | .027536 |
| 45 | -.011557 | -.015000 | -.042008 | -.012022 | -.032568 | .026602 |
| 46 | -.013875 | -.015574 | -.041747 | -.013943 | -.034851 | .027123 |
| 47 | -.012957 | -.022767 | -.042516 | -.010146 | -.031792 | .027071 |
| 48 | -.013312 | -.025980 | -.041284 | -.010848 | -.024991 | .027118 |
| 49 | -.008612 | -.028573 | -.039219 | -.007503 | -.016533 | .023956 |
| 50 | -.001206 | -.030340 | -.033869 | -.004212 | -.011158 | .018188 |
| 51 | .005234 | -.029454 | -.028961 | .017434 | -.007474 | .014' 8 |
| 52 | .009245 | -.029031 | -.025951 | .025158 | -.000726 | .00485 |
| 53 | .014276 | -.025602 | -.018779 | .028829 | .009411 | .002859 |
| 54 | .023463 | -.021898 | -.010667 | .034640 | .018278 | .001811 |
| 55 | .034602 | -.019003 | -.002161 | .040139 | .025116 | .005564 |
| 56 | .041065 | -.017783 | .007351 | .051917 | .025734 | .006631 |
| 57 | .048754 | -.011182 | .014246 | .058748 | .024014 | .007490 |
| 58 | .055491 | -.006789 | .023105 | .056260 | .024625 | .004343 |
| 59 | .054105 | -.004894 | .029669 | .047987 | .027959 | -.000438 |
| 60 | .049418 | -.001858 | .035215 | .041650 | .030019 | -.004416 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.25499 10E 00 | 0.25811 10E 00 | 0.20441 10E 00 | 0.26646 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .873617 | .846272 | .797761 | .919640 |
| 2 | .711253 | .634339 | .544954 | .802104 |
| 3 | .576284 | .464097 | .363201 | .684484 |
| 4 | .469911 | .328613 | .232569 | .578133 |
| 5 | .385188 | .223658 | .145409 | .481117 |
| 6 | .310191 | .140812 | .086939 | .393582 |
| 7 | .245093 | .068111 | .042465 | .315855 |
| 8 | .169570 | .008348 | -.001304 | .251680 |
| 9 | .135428 | -.035530 | -.040033 | .197132 |
| 10 | .078393 | -.063614 | -.065837 | .146014 |
| 11 | .022601 | -.090121 | -.092661 | .094681 |
| 12 | -.026594 | -.118574 | -.126390 | .044053 |
| 13 | -.063049 | -.148920 | -.154382 | -.006260 |
| 14 | -.090781 | -.179543 | -.169675 | -.056275 |
| 15 | -.116016 | -.205507 | -.178764 | -.104029 |
| 16 | -.144834 | -.225883 | -.182988 | -.145300 |
| 17 | -.177785 | -.233171 | -.189549 | -.181026 |
| 18 | -.213465 | -.231176 | -.193600 | -.212512 |
| 19 | -.243500 | -.228994 | -.199207 | -.241306 |
| 20 | -.267094 | -.220312 | -.196638 | -.267482 |
| 21 | -.279175 | -.209107 | -.190644 | -.290449 |
| 22 | -.281961 | -.199514 | -.190298 | -.308226 |
| 23 | -.278491 | -.188529 | -.197490 | -.321981 |
| 24 | -.275131 | -.175045 | -.189560 | -.328853 |
| 25 | -.267886 | -.161159 | -.168201 | -.332383 |
| 26 | -.256142 | -.154839 | -.152922 | -.334083 |
| 27 | -.242250 | -.153000 | -.137267 | -.327768 |
| 28 | -.223984 | -.152603 | -.111627 | -.317988 |
| 29 | -.206781 | -.144510 | -.082148 | -.306945 |
| 30 | -.190118 | -.125976 | -.058956 | -.295601 |
| 31 | -.166119 | -.101214 | -.027963 | -.283418 |
| 32 | -.143061 | -.083782 | -.004304 | -.277159 |
| 33 | -.127381 | -.062461 | .007505 | -.266480 |
| 34 | -.111759 | -.037765 | .010767 | -.255273 |
| 35 | -.100273 | -.014297 | .010919 | -.242748 |
| 36 | -.089227 | .007103 | .013339 | -.230341 |
| 37 | -.073838 | .025694 | .024176 | -.211343 |
| 38 | -.067680 | .043522 | .031561 | -.186288 |
| 39 | -.067953 | .058535 | .036727 | -.160274 |
| 40 | -.065984 | .076656 | .042135 | -.134495 |
| 41 | -.062359 | .088169 | .042490 | -.111787 |
| 42 | -.054069 | .083407 | .041814 | -.095591 |
| 43 | -.048774 | .075407 | .034320 | -.083408 |
| 44 | -.047288 | .064756 | .031332 | -.074999 |
| 45 | -.043778 | .054074 | .033773 | -.063574 |
| 46 | -.039582 | .045802 | .033063 | -.050216 |
| 47 | -.037293 | .036730 | .027170 | -.033472 |
| 48 | -.027464 | .027865 | .019231 | -.013059 |
| 49 | -.015794 | .023984 | .018255 | -.009741 |
| 50 | -.002683 | .016190 | .020602 | .032635 |
| 51 | .007513 | .005641 | .017324 | .053855 |
| 52 | .010942 | -.003965 | .006231 | .074445 |
| 53 | .016046 | -.014297 | .001293 | .091477 |
| 54 | .020298 | -.023922 | -.007217 | .101747 |
| 55 | .028175 | -.026297 | -.004200 | .110656 |
| 56 | .037793 | -.028612 | .009922 | .120050 |
| 57 | .043103 | -.026340 | .024304 | .131364 |
| 58 | .041899 | -.021770 | .027704 | .143958 |
| 59 | .041188 | -.012719 | .026586 | .159098 |
| 60 | .042833 | -.002953 | .023740 | .174415 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 0 | .000026 | -.019246 | -.038717 | .008109 | .027231 | .133136 |
| 1 | .052976 | -.177769 | -.217601 | -.154288 | -.376761 | .476760 |
| 2 | .103377 | -.222077 | -.182559 | -.322533 | .597443 | .271624 |
| 3 | .129937 | -.221519 | -.140154 | -.378884 | .623075 | .120975 |
| 4 | .078635 | -.126849 | -.069766 | -.321718 | .282576 | -.175373 |
| 5 | .028514 | -.063275 | -.024167 | -.242319 | .091937 | -.289108 |
| 6 | .017557 | -.053170 | -.012864 | -.118043 | .091434 | -.114279 |
| 7-8 | .012137 | -.046805 | -.015977 | -.126111 | .116164 | -.004587 |
| 9-11 | .002386 | -.020884 | -.015310 | -.229933 | .065608 | -.031821 |
| 12-15 | .003124 | -.015501 | -.007473 | -.045070 | .043588 | -.043450 |
| 16-20 | -.000646 | -.003711 | -.005106 | -.004489 | .031040 | -.041595 |
| 21-27 | .001046 | -.001189 | -.003385 | -.019560 | .012488 | -.018032 |
| 28-36 | .000736 | -.000924 | -.000816 | -.015410 | .010878 | -.011323 |
| 37-47 | .000027 | -.001043 | -.000744 | -.002379 | .007554 | -.007313 |
| 48-60 | .000244 | -.000346 | -.000852 | -.002401 | .000895 | -.004821 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-02 | 10E-03 | 10E-03 |
| 1 | -.274267 | .001479 | -.698926 | -.241327 | .387665 | .100978 |
| 2 | -.099731 | -.052556 | -.230990 | -.099345 | .603442 | .053607 |
| 3 | .022674 | -.058984 | -.166231 | .063316 | .608302 | .148177 |
| 4 | .061538 | .017938 | -.104882 | .086501 | .414161 | .034092 |
| 5 | .017581 | -.099812 | .088975 | -.098930 | .277047 | -.220994 |
| 6 | -.060967 | -.202783 | .114428 | -.235638 | .140051 | -.292371 |
| 7-8 | .021400 | -.132364 | .075993 | -.005621 | .114727 | -.258711 |
| 9-11 | .060880 | -.045337 | -.020901 | .035828 | .053101 | -.068466 |
| 12-15 | .003176 | .021382 | -.005568 | -.028196 | .054024 | -.062571 |
| 16-20 | .001259 | .024150 | -.015484 | .021669 | .017565 | -.015034 |
| 21-27 | .000017 | .001758 | -.010329 | .002295 | .014067 | -.016589 |
| 28-36 | .003468 | .001003 | -.008350 | -.003470 | .000155 | -.001546 |
| 37-47 | .001292 | .006138 | -.002889 | .004624 | .000348 | -.000047 |
| 48-60 | .003195 | .000207 | -.000214 | .000821 | .001785 | -.000675 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .057450 | .022062 | .011744 | .066215 |
| 1 | .470054 | .240177 | .148478 | .630859 |
| 2 | .501532 | .351678 | .231217 | .653247 |
| 3 | .445799 | .413955 | .289058 | .490440 |
| 4 | .259954 | .292910 | .216255 | .243370 |
| 5 | .136533 | .200741 | .137411 | .144631 |
| 6 | .103983 | .167586 | .114872 | .106285 |
| 7-8 | .093231 | .110478 | .100678 | .084499 |
| 9-11 | .055432 | .089450 | .068623 | .053200 |
| 12-15 | .039098 | .046000 | .051108 | .026351 |
| 16-20 | .021587 | .029605 | .030475 | .012753 |
| 21-27 | .014460 | .017686 | .018544 | .008404 |
| 28-36 | .007739 | .010033 | .011649 | .004386 |
| 37-47 | .005347 | .006317 | .007143 | .003073 |
| 48-60 | .003610 | .003515 | .004223 | .002439 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.29617 10E 00 | 0.21581 10E 00 | 0.47303 10E-01 | 0.15863 10E 00 | 0.34769 10E-01 | 0.25335 10E-01 |
| 0 | .123077 | -.617049 | -.612121 | -.050705 | .064301 | .232156 |
| 1 | .025620 | -.324931 | -.507756 | .033721 | .029136 | .214718 |
| 2 | -.031909 | -.107869 | -.356009 | .054191 | -.003853 | .144847 |
| 3 | .009109 | -.029643 | -.223176 | .019786 | .000097 | .092077 |
| 4 | .037554 | .038680 | -.093435 | .032788 | -.002220 | .023932 |
| 5 | .029232 | .069368 | .014517 | -.020595 | -.002924 | -.046386 |
| 6 | .055273 | .104609 | .093493 | -.040424 | -.020485 | -.084713 |
| 7 | .024291 | .168466 | .193324 | .010950 | -.004418 | -.125908 |
| 8 | .002706 | .149831 | .246691 | -.023489 | .004030 | -.080804 |
| 9 | -.033419 | .096434 | .239301 | -.027181 | -.034553 | -.067096 |
| 10 | -.045215 | .082025 | .204154 | -.017475 | -.011438 | -.072369 |
| 11 | -.060560 | .071220 | .183550 | .022309 | .019662 | -.064158 |
| 12 | -.083245 | .070346 | .167845 | .050687 | .029055 | -.060737 |
| 13 | -.104305 | .069355 | .178003 | .069947 | .031481 | -.023376 |
| 14 | -.079071 | -.002219 | .176958 | .032556 | .026413 | .027436 |
| 15 | -.002573 | -.022469 | .139600 | -.016975 | .009593 | .028445 |
| 16 | -.004938 | .007382 | .086995 | -.064525 | -.031099 | -.027383 |
| 17 | -.005758 | .031911 | .013749 | -.085159 | -.055422 | -.014878 |
| 18 | .000198 | -.004199 | -.014000 | -.060447 | -.008693 | -.030152 |
| 19 | .007642 | -.031649 | -.061623 | -.053942 | .018795 | .053443 |
| 20 | .013809 | -.155498 | -.112806 | -.072213 | .020672 | .101621 |
| 21 | -.004817 | -.206238 | -.151679 | -.046478 | .071994 | .101021 |
| 22 | -.064697 | -.108481 | -.158830 | .058432 | .076069 | .062017 |
| 23 | -.028115 | -.016384 | -.138800 | .095121 | .033455 | .029828 |
| 24 | .021400 | -.005876 | -.071237 | .022914 | .036091 | .000802 |
| 25 | .000064 | .022871 | -.009083 | .001404 | .055406 | .000760 |
| 26 | .043316 | .023915 | .024801 | -.011891 | .049750 | -.019806 |
| 27 | .066867 | .090338 | .028457 | -.015999 | .021267 | -.064675 |
| 28 | .016189 | .188081 | .023716 | .081177 | .004435 | -.088375 |
| 29 | .024036 | .154616 | .044072 | .048321 | -.014809 | -.101695 |
| 30 | .062234 | .080001 | .043951 | -.005316 | -.033589 | -.084177 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-02 |
| 0 | -.071715 | -.009061 | -.036207 | .007796 | .095359 | .013174 |
| 1 | .316022 | -.054642 | -.373085 | .144141 | .027991 | .062868 |
| 2 | .641141 | -.111712 | -.601436 | .103752 | .066561 | .097440 |
| 3 | .462599 | -.184451 | -.719057 | -.018535 | .162857 | .150001 |
| 4 | -.127679 | -.153232 | -.435528 | .116552 | .166098 | .121699 |
| 5 | -.471669 | -.123271 | -.259241 | .276490 | .399098 | .085800 |
| 6 | -.167335 | -.102189 | -.192482 | -.020496 | .174006 | .052798 |
| 7 | .252279 | -.058049 | -.072261 | -.218525 | -.165479 | .013040 |
| 8 | .234900 | -.060389 | -.028113 | -.067504 | .080305 | .016508 |
| 9-11 | .241097 | -.048569 | -.061215 | -.057687 | .168935 | -.007394 |
| 12-14 | .204764 | -.052503 | -.025488 | -.114337 | .068284 | .013329 |
| 15-21 | .250099 | -.030429 | -.018178 | -.068889 | .079600 | .002460 |
| 22-30 | .055606 | -.019768 | -.006578 | -.060846 | .046581 | -.004081 |

RUN NC 96A 91M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|----------------|-------------------|-------------------|-------------------|
| | 0.29617 10E 00 | 0.21581 10E 00 | 0.47303 -01 | 0.15863 10E 00 | 0.34769 10E-01 | 0.25335 10E-01 |
| 1 | -.020186 | -.007073 | .070844 | -.001801 | .049346 | .029824 |
| 2 | -.022719 | .009582 | -.115764 | -.005814 | .030931 | .048876 |
| 3 | -.012091 | -.013106 | -.131982 | .011724 | .016735 | .039685 |
| 4 | -.018177 | .002652 | -.134156 | .050167 | -.006321 | .060240 |
| 5 | -.031728 | -.038044 | -.100027 | .044457 | -.019264 | .025422 |
| 6 | .001352 | -.028259 | -.048772 | .086205 | -.015980 | -.000197 |
| 7 | -.019787 | -.007315 | -.017952 | .031401 | -.022626 | -.031376 |
| 8 | -.034146 | -.001058 | -.006380 | .035392 | -.018247 | -.052446 |
| 9 | -.002449 | -.000855 | -.023010 | .032989 | .013669 | -.056317 |
| 10 | .027451 | .024070 | -.033711 | .030537 | .035486 | -.023193 |
| 11 | .039540 | -.004376 | -.033509 | -.031872 | .041699 | -.002645 |
| 12 | .037194 | -.004372 | -.001375 | -.023124 | .045406 | -.001941 |
| 13 | .022618 | -.016592 | -.000923 | -.029482 | .069368 | -.008413 |
| 14 | .017802 | -.022796 | .018840 | -.050440 | .074356 | .009383 |
| 15 | .028607 | .004033 | .028960 | -.005228 | .073949 | -.005563 |
| 16 | .019538 | -.001558 | .003088 | .005570 | .044469 | .010929 |
| 17 | .038687 | -.038482 | .021149 | -.057101 | .072497 | .017137 |
| 18 | .079158 | .005337 | .041485 | .005664 | .102341 | .018693 |
| 19 | .082682 | .018466 | .051315 | .018673 | .072574 | .000139 |
| 20 | .025288 | .018086 | .044975 | -.041349 | .029054 | -.014522 |
| 21 | .008190 | -.002278 | .035966 | -.051676 | .050647 | -.016580 |
| 22 | .032657 | .008868 | -.018831 | .009747 | .036756 | .046319 |
| 23 | .060315 | .056760 | -.045342 | .088281 | .033377 | .096567 |
| 24 | .071481 | .052341 | -.031676 | .095560 | .024337 | .079517 |
| 25 | .034192 | .020603 | -.023948 | .066681 | .032416 | .045194 |
| 26 | -.042977 | -.048039 | -.019013 | .049864 | -.012868 | -.049162 |
| 27 | -.080261 | -.090315 | -.016953 | .007730 | -.053092 | -.081324 |
| 28 | -.118634 | -.112883 | -.004410 | -.029032 | -.083359 | -.110839 |
| 29 | -.120475 | -.063393 | .003620 | -.036751 | -.096571 | -.075138 |
| 30 | -.055731 | -.050563 | -.013426 | -.014329 | -.119587 | -.046740 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | .419656 | -.110634 | -.104164 | .128127 | .115064 | -.047789 |
| 2 | -.222021 | -.108818 | -.144284 | .219981 | -.004566 | -.079973 |
| 3 | -.384301 | -.044787 | -.165399 | .329573 | -.048281 | .160835 |
| 4 | -.176193 | -.072876 | -.117436 | .133755 | -.002561 | .373969 |
| 5 | -.109724 | -.105298 | -.112323 | -.040202 | .027485 | .459199 |
| 6 | .018936 | .031321 | -.109525 | -.128969 | .035691 | .408033 |
| 7 | .093866 | .088527 | -.071866 | -.137904 | .035184 | .140296 |
| 8 | .006699 | .120824 | -.049015 | -.018436 | .026378 | .057833 |
| 9-11 | -.109010 | .014970 | .011687 | -.062274 | .014355 | -.069755 |
| 12-14 | .034085 | -.026340 | -.004862 | .027126 | .014190 | .045468 |
| 15-21 | -.052918 | .009812 | -.004500 | .012292 | .005594 | .025226 |
| 22-30 | -.003640 | -.090858 | .000975 | -.032793 | .004620 | -.056982 |

RUN NO 96A 91M 6-19-63 1621-1737(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.40294 10E 00 | 0.21770 10E 00 | 0.11559 10E 00 | 0.55531 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .648339 | .401585 | .257597 | .722560 |
| 2 | .342548 | .165080 | -.030718 | .412420 |
| 3 | .158506 | .102848 | -.038666 | .188905 |
| 4 | -.000783 | .035673 | -.042234 | .060414 |
| 5 | -.076672 | -.031868 | -.072203 | .015393 |
| 6 | -.120370 | -.075303 | -.091366 | -.017057 |
| 7 | -.211611 | -.044333 | -.176051 | -.126979 |
| 8 | -.264573 | -.066451 | -.127068 | -.255206 |
| 9 | -.242668 | -.126900 | -.098277 | -.338824 |
| 10 | -.237014 | -.170505 | -.073292 | -.288548 |
| 11 | -.215455 | -.137737 | .012455 | .215455 |
| 12 | -.190775 | -.183889 | -.062752 | -.194933 |
| 13 | -.177227 | -.203700 | -.112009 | -.238132 |
| 14 | -.147202 | -.183015 | -.023906 | -.273075 |
| 15 | -.095356 | -.084314 | .053784 | -.233135 |
| 16 | -.100539 | -.069192 | .017702 | -.113898 |
| 17 | -.065113 | -.114850 | -.043496 | .014637 |
| 18 | -.022631 | -.059693 | -.043395 | .079503 |
| 19 | .034811 | -.034826 | .005983 | .078417 |
| 20 | .157034 | .004543 | .137342 | .077642 |
| 21 | .216533 | .014111 | .237742 | .113179 |
| 22 | .185081 | -.069260 | .082804 | .146510 |
| 23 | .140671 | .031349 | -.031630 | .135273 |
| 24 | .084900 | .064697 | -.002910 | .076427 |
| 25 | -.003235 | .080455 | .002002 | .039761 |
| 26 | -.035241 | .073136 | .028942 | -.000085 |
| 27 | -.053542 | .116194 | -.044608 | -.009540 |
| 28 | -.132670 | .030981 | .128331 | -.022707 |
| 29 | -.114471 | .037716 | -.143323 | -.060960 |
| 30 | -.050965 | .040182 | -.052635 | -.066049 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 0 | .032012 | .014613 | .034023 | .008887 |
| 1 | .343348 | .193270 | .254256 | .068723 |
| 2 | .566186 | .250565 | .548362 | .094846 |
| 3 | .703043 | .237603 | .901046 | .106210 |
| 4 | .476953 | .147979 | .810292 | .062009 |
| 5 | .344016 | .108804 | .739085 | .035406 |
| 6 | .278030 | .110907 | .671882 | .032688 |
| 7 | .171770 | .119231 | .471462 | .024211 |
| 8 | .172279 | .103140 | .484407 | .017942 |
| 9-11 | .143017 | .073553 | .513407 | .027754 |
| 12-14 | .086006 | .061397 | .546723 | .005709 |
| 15-21 | .063294 | .069723 | .458773 | .005557 |
| 22-30 | .041990 | .060313 | .375314 | .004129 |

RUN NO 96A 46M 6-19-63 1621-1737(EST)
 RUN NO 96A 91M 6-19-63 1621-1737(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .392450 | .048827 | .616188 | .335106 |
| 1 | .124018 | .543210 | .495794 | .195943 |
| 2 | .015682 | .524369 | .386465 | .115800 |
| 3 | .033025 | .424601 | .311292 | .099210 |
| 4 | .170898 | .319269 | .264276 | .073264 |
| 5 | .218961 | .241774 | .191691 | .042995 |
| 6 | .123975 | .125710 | .129080 | .071065 |
| 7-8 | .111209 | .136565 | .240511 | .087645 |
| 9-11 | .084670 | .107664 | .174378 | .040075 |
| 12-15 | .065508 | .102198 | .078507 | .052706 |
| 16-20 | .067823 | .079083 | .127383 | .075758 |
| 21-27 | .073207 | .128835 | .095978 | .106727 |
| 28-36 | .075684 | .092195 | .085929 | .106624 |
| 37-47 | .102093 | .141820 | .131765 | .111802 |
| 48-60 | .079484 | .124387 | .125384 | .152126 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .649077 | .758308 | .748710 | .718991 |
| 1 | .574991 | .832075 | .601213 | .635352 |
| 2 | .642768 | .748660 | .745338 | .656615 |
| 3 | .695424 | .620524 | .797200 | .703588 |
| 4 | .596086 | .589451 | .708619 | .620002 |
| 5 | .395202 | .620723 | .593812 | .281771 |
| 6 | .331400 | .490411 | .584705 | .274581 |
| 7 | .214817 | .353910 | .553520 | .320532 |
| 8 | .083055 | .411175 | .618037 | .272211 |
| 9-11 | .153659 | .549175 | .530810 | .136928 |
| 12-14 | .233968 | .504402 | .386518 | .157329 |
| 15-21 | .296681 | .293771 | .374173 | .253083 |
| 22-30 | .245815 | .277000 | .157112 | .244530 |

RUN NO 96B 46M 6-19-63 1751-1907(EST)

GROSS STATISTICS

| | | |
|-----------------------|------------------------|------------------|
| CLEAR TRANSITIONAL | WIND SPEED 5.67 M/SEC | SIGMA A 7.50 DEG |
| | WIND DIRECTION 219 DEG | SIGMA E 5.4 DEG |
| | SOLAR RAD. 0.11 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.89094E 00 | 0.67150E 00 | 0.45815E-00 | 0.46034E-00 |
| V | 0.49098E-00 | 0.41114E-00 | 0.38672E-00 | 0.16729E-00 |
| W | 0.23401E-00 | 0.22889E-00 | 0.20890E-00 | 0.96000E-01 |
| T | 0.38310E-01 | 0.96277E-03 | 0.68070E-03 | 0.64840E-03 |
| E | 0.80796E 00 | 0.65577E 00 | 0.52688E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.16647 | 0.14452 | 0.11938 | 0.11986 |
| V | 0.12358 | 0.11309 | 0.10968 | 0.07214 |
| W | 0.08532 | 0.08438 | 0.08061 | 0.05465 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.13300E-00 | 0.55526E-01 | 0.40393E-01 | 0.28640E-01 |
| U,W | -0.21507E-00 | -0.19907E-00 | -0.15166E-00 | -0.12297E-00 |
| U,T | -0.72795E-01 | -0.56996E-02 | -0.37169E-02 | -0.44956E-02 |
| V,W | -0.10302E-01 | -0.98750E-02 | -0.82761E-02 | -0.40376E-02 |
| V,T | -0.32388E-01 | 0.64377E-02 | 0.55968E-02 | 0.35472E-02 |
| W,T | 0.55242E-02 | 0.23438E-03 | -0.36769E-03 | 0.61146E-03 |
| ME | 0.76549E-01 | 0.40910E-01 | 0.20138E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U, | 0.20109 | 0.10568 | 0.09596 | 0.10320 |
| U,W | -0.47102 | -0.50778 | -0.49022 | -0.58496 |
| U,T | -0.39402 | -0.22416 | -0.21047 | -0.26022 |
| V,W | -0.03039 | -0.03219 | -0.02912 | -0.03186 |
| V,T | -0.23615 | 0.32358 | 0.34496 | 0.34059 |
| W,T | 0.05834 | 0.01579 | -0.03083 | 0.07750 |

RUN NO 96B 46M 6-19-63 1751-1907(EST)
 6 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.42095 10E 00 | 0.30938 10E 00 | 0.17661 10E-01 | 0.28419 10E 00 | 0.16223 10E-01 | 0.11923 10E-01 |
| 0 | .096058 | -.490207 | -.210310 | -.029282 | .344974 | .031023 |
| 1 | .085840 | -.427258 | -.193341 | -.022558 | .298375 | -.020135 |
| 2 | .069347 | -.328856 | -.162540 | -.017823 | .217203 | .000299 |
| 3 | .049292 | -.244618 | -.137375 | -.010180 | .147250 | .017069 |
| 4 | .028489 | -.177428 | -.107384 | -.002038 | .098399 | .025731 |
| 5 | .006888 | -.119922 | -.077879 | .010285 | .060974 | .033180 |
| 6 | -.012317 | -.073819 | -.053971 | .022670 | .031198 | .034284 |
| 7 | -.026902 | -.036733 | -.030838 | .034319 | .012664 | .027612 |
| 8 | -.039633 | -.003113 | -.013787 | .042788 | .000812 | .008101 |
| 9 | -.049215 | .023816 | -.005562 | .054120 | -.007326 | .001405 |
| 10 | -.051275 | .044629 | -.001031 | .054785 | -.028074 | .005226 |
| 11 | -.045031 | .056384 | .007787 | .042796 | -.045099 | .003699 |
| 12 | -.035125 | .069586 | .017877 | .024190 | -.060327 | -.001661 |
| 13 | -.020504 | .083065 | .029671 | .004717 | -.068914 | -.008502 |
| 14 | -.007988 | .094448 | .035825 | -.004767 | -.076929 | -.014222 |
| 15 | -.004131 | .103607 | .036265 | -.015448 | -.085860 | -.015385 |
| 16 | .001090 | .110294 | .036033 | -.026858 | -.091895 | -.014297 |
| 17 | .013668 | .114853 | .043884 | -.039375 | -.088846 | -.013398 |
| 18 | .024250 | .113733 | .051094 | -.045400 | -.081136 | -.021207 |
| 19 | .023146 | .111251 | .056576 | -.042238 | -.080245 | -.022654 |
| 20 | .015105 | .110923 | .061469 | -.027837 | -.082988 | -.024688 |
| 21 | .012753 | .106629 | .067346 | -.022313 | -.085485 | -.027280 |
| 22 | .014829 | .099455 | .076477 | -.024395 | -.091638 | -.026895 |
| 23 | .015125 | .096593 | .082466 | -.020908 | -.090320 | -.026142 |
| 24 | .010580 | .092137 | .082857 | -.022073 | -.079821 | -.022323 |
| 25 | .003471 | .087651 | .079126 | -.020456 | -.063987 | -.020823 |
| 26 | .000909 | .083338 | .071705 | -.014996 | -.045774 | -.010919 |
| 27 | -.001377 | .077818 | .060051 | -.011415 | -.027916 | -.004611 |
| 28 | -.002303 | .073100 | .042433 | -.015135 | -.022894 | .007569 |
| 29 | -.000520 | .066796 | .030125 | -.019889 | -.017523 | .017310 |
| 30 | -.000413 | .057623 | .022811 | -.017120 | -.003083 | .011653 |
| 31 | -.007500 | .051575 | .008709 | .000895 | .006742 | .006634 |
| 32 | -.018920 | .039853 | -.016693 | .012441 | .012175 | .014448 |
| 33 | -.028605 | .025936 | -.040997 | .013903 | .016657 | .021995 |
| 34 | -.030682 | .012863 | -.055713 | .011968 | .018204 | .026563 |
| 35 | -.027954 | -.002838 | -.063693 | .012272 | .017145 | .032477 |
| 36 | -.031580 | -.014258 | -.061602 | .017785 | .024468 | .034602 |
| 37 | -.030047 | -.021750 | -.056435 | .019426 | .037293 | .045853 |
| 38 | -.027728 | -.019849 | -.048012 | .023219 | .046097 | .049343 |
| 39 | -.026475 | -.020351 | -.035609 | .026659 | .048656 | .042198 |
| 40 | -.024007 | -.023637 | -.021187 | .028539 | .048334 | .032752 |
| 41 | -.016808 | -.020882 | -.007486 | .022886 | .042360 | .026633 |
| 42 | -.007237 | -.024408 | .002690 | .011239 | .035380 | .023843 |
| 43 | -.005791 | -.034672 | .005261 | .006759 | .028009 | .025046 |
| 44 | -.004642 | -.040768 | .007353 | .003913 | .020553 | .021955 |
| 45 | -.001708 | -.043045 | .007559 | .003552 | .011838 | .018702 |
| 46 | -.001919 | -.047681 | .005391 | .003191 | .004039 | .019579 |
| 47 | -.001187 | -.042545 | .005219 | -.002323 | -.003488 | .021640 |
| 48 | .001602 | -.028083 | .005013 | -.009506 | -.005799 | .025495 |
| 49 | .004423 | -.011870 | .008908 | -.012615 | -.008925 | .018273 |
| 50 | .001961 | -.008325 | .015272 | -.006436 | -.014533 | .004051 |
| 51 | -.001958 | -.007169 | .021368 | -.001534 | -.021355 | -.006255 |
| 52 | .003431 | .001907 | .028253 | -.008574 | -.025349 | -.016011 |
| 53 | .015589 | .009614 | .040140 | -.015424 | -.028335 | -.024210 |
| 54 | .025602 | .014726 | .054594 | -.013808 | -.034314 | -.027793 |
| 55 | .01873 | .018931 | .071647 | -.006896 | -.032217 | -.035300 |
| 56 | .039621 | .016053 | .079171 | .001119 | -.029522 | -.038901 |
| 57 | .037849 | .009733 | .082465 | .005183 | -.030256 | -.048487 |
| 58 | .027068 | .001591 | .080778 | .010848 | -.035131 | -.048779 |
| 59 | .017668 | -.005340 | .076580 | .014563 | -.041934 | -.048760 |
| 60 | .014883 | -.009674 | .070711 | .011014 | -.039443 | -.041505 |

RUN NO 968 46M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.42095 10E 00 | 0.30938 10E 00 | 0.17661 10E-01 | 0.28419 10E 00 | 0.16223 10E-01 | 0.11923 10E-01 |
| 1 | -.018352 | -.020476 | -.004870 | .006372 | .078974 | -.054875 |
| 2 | -.020511 | -.031978 | .006430 | .004801 | .114369 | -.079992 |
| 3 | -.015882 | -.038396 | .021080 | .010266 | .112533 | -.090206 |
| 4 | -.007477 | -.042012 | .035903 | .013226 | .100533 | -.088837 |
| 5 | -.005707 | -.044826 | .048605 | .009487 | .081137 | -.086848 |
| 6 | -.004535 | -.047552 | .059365 | .004046 | .063630 | -.086585 |
| 7 | .001183 | -.046315 | .060472 | -.000334 | .048486 | -.074017 |
| 8 | .002432 | -.042556 | .057999 | -.003299 | .033109 | -.061131 |
| 9 | -.006348 | -.043266 | .053699 | -.008366 | .026146 | -.054297 |
| 10 | -.013316 | -.043704 | .048862 | -.011846 | .021065 | -.051151 |
| 11 | -.016020 | -.043446 | .041539 | -.008708 | .013380 | -.050966 |
| 12 | -.018160 | -.046604 | .030868 | -.008424 | .002224 | -.040764 |
| 13 | -.020222 | -.042816 | .026625 | -.017181 | -.005413 | -.027846 |
| 14 | -.014980 | -.038600 | .031602 | -.023028 | -.008968 | -.021142 |
| 15 | -.004762 | -.037020 | .036341 | -.019012 | -.015646 | -.018986 |
| 16 | .005793 | -.034396 | .033797 | -.011765 | -.021428 | -.020238 |
| 17 | .011405 | -.036479 | .034170 | -.011392 | -.014644 | -.020958 |
| 18 | .014021 | -.033555 | .038147 | -.008994 | -.002664 | -.018834 |
| 19 | .021907 | -.025448 | .043156 | -.007178 | .006359 | -.017598 |
| 20 | .032265 | -.019918 | .050283 | -.001805 | .017508 | -.017434 |
| 21 | .044631 | -.017168 | .053596 | .008360 | .020152 | -.020153 |
| 22 | .056027 | -.007123 | .052694 | .021478 | .015566 | -.018968 |
| 23 | .058818 | -.000591 | .049034 | .034293 | .009153 | -.009775 |
| 24 | .055245 | .005066 | .039980 | .040396 | .009532 | -.004141 |
| 25 | .055554 | .019606 | .029409 | .039161 | .013481 | -.001340 |
| 26 | .051247 | .034142 | .014020 | .041133 | .016934 | .009392 |
| 27 | .046450 | .034582 | .000066 | .033556 | .021776 | .014364 |
| 28 | .042841 | .029499 | -.007947 | .024695 | .023697 | .023336 |
| 29 | .040664 | .023677 | -.012362 | .017666 | .022139 | .033795 |
| 30 | .032118 | .022577 | -.014236 | .011954 | .016829 | .038154 |
| 31 | .013445 | .017962 | -.019893 | -.001710 | .007511 | .035977 |
| 32 | -.008289 | .008657 | -.030795 | -.004609 | -.001650 | .041427 |
| 33 | -.021031 | .002019 | -.034502 | -.011040 | -.003481 | .043031 |
| 34 | -.027361 | -.000567 | -.035558 | -.013408 | -.005623 | .037295 |
| 35 | -.034282 | -.002780 | -.043616 | -.020199 | -.004595 | .038645 |
| 36 | -.038194 | .001372 | -.053137 | -.034915 | .002313 | .053135 |
| 37 | -.032966 | .003400 | -.058686 | -.044880 | .008397 | .057367 |
| 38 | -.029935 | .001374 | -.066194 | -.047037 | .006262 | .049616 |
| 39 | -.034023 | -.000478 | -.073102 | -.040814 | -.000014 | .036338 |
| 40 | -.045568 | -.002523 | -.079202 | -.031963 | -.004594 | .030065 |
| 41 | -.057432 | -.008236 | -.079717 | -.029078 | -.013012 | .025347 |
| 42 | -.058875 | -.010807 | -.071054 | -.024232 | -.020726 | .015928 |
| 43 | -.059401 | -.003604 | -.063304 | -.014846 | -.031710 | .008021 |
| 44 | -.061543 | .002288 | -.061677 | -.015440 | -.038218 | .011835 |
| 45 | -.063081 | .002814 | -.059950 | -.017950 | -.039617 | .016581 |
| 46 | -.064715 | -.002790 | -.058118 | -.015445 | -.044609 | .010499 |
| 47 | -.062018 | -.001812 | -.059333 | -.011668 | -.053512 | .005755 |
| 48 | -.056305 | .000266 | -.055969 | -.009163 | -.055895 | .007581 |
| 49 | -.047692 | -.001904 | -.049273 | -.003122 | -.050293 | .002601 |
| 50 | -.038825 | -.004297 | -.044510 | -.005827 | -.041542 | -.004330 |
| 51 | -.027890 | -.006807 | -.037090 | .011302 | -.035857 | -.009968 |
| 52 | -.014064 | -.015336 | -.030860 | .017129 | -.028538 | -.014652 |
| 53 | .003609 | -.015068 | -.020396 | .021664 | -.022924 | -.028318 |
| 54 | .021076 | -.010856 | -.004510 | .029439 | -.016305 | -.036618 |
| 55 | .031699 | -.010025 | .018184 | .043741 | -.006443 | -.041187 |
| 56 | .033004 | -.009223 | .032804 | .051971 | .003765 | -.047312 |
| 57 | .028254 | -.001652 | .039008 | .051232 | .007772 | -.044526 |
| 58 | .022855 | .010735 | .043582 | .045824 | .006253 | -.038185 |
| 59 | .020872 | .018699 | .048077 | .033314 | .006889 | -.035842 |
| 60 | .027510 | .023173 | .057158 | .022881 | .005492 | -.029307 |

RUN NO 968 46M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.45825 10E 00 | 0.38668 10E 00 | 0.20887 10E 00 | 0.68062 10E-03 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .861629 | .777256 | .737226 | .807869 |
| 2 | .672545 | .492894 | .442038 | .618413 |
| 3 | .513955 | .284913 | .266925 | .465614 |
| 4 | .381582 | .149536 | .152447 | .349027 |
| 5 | .270680 | .066785 | .072568 | .248981 |
| 6 | .180118 | .012718 | .021009 | .177731 |
| 7 | .104191 | -.024530 | -.016157 | .121564 |
| 8 | .039534 | -.054831 | -.037979 | .075832 |
| 9 | -.012154 | -.085924 | -.043460 | .041154 |
| 10 | -.055932 | -.112173 | -.051983 | .005543 |
| 11 | -.089033 | -.126082 | -.071246 | -.032724 |
| 12 | -.120589 | -.144085 | -.103870 | -.067057 |
| 13 | -.142347 | -.164452 | -.127874 | -.094033 |
| 14 | -.157204 | -.180196 | -.142563 | -.126364 |
| 15 | -.172974 | -.195441 | -.153772 | -.144369 |
| 16 | -.189665 | -.192602 | -.161564 | -.160726 |
| 17 | -.203246 | -.180044 | -.166483 | -.177133 |
| 18 | -.216674 | -.171264 | -.171674 | -.195889 |
| 19 | -.229715 | -.164501 | -.166000 | -.220858 |
| 20 | -.237201 | -.156541 | -.159060 | -.244856 |
| 21 | -.239941 | -.155569 | -.141775 | -.271600 |
| 22 | -.239985 | -.153399 | -.120204 | -.291477 |
| 23 | -.236239 | -.143604 | -.106932 | -.290075 |
| 24 | -.233530 | -.139734 | -.098548 | -.272202 |
| 25 | -.231613 | -.120896 | -.101313 | -.249475 |
| 26 | -.228908 | -.091323 | -.095646 | -.227509 |
| 27 | -.217039 | -.070760 | -.096779 | -.208862 |
| 28 | -.193885 | -.055431 | -.103616 | -.186247 |
| 29 | -.168660 | -.033470 | -.097243 | -.164149 |
| 30 | -.139908 | .003006 | -.069723 | -.129627 |
| 31 | -.106491 | .034052 | -.045815 | -.082711 |
| 32 | -.075025 | .048716 | -.027007 | -.043864 |
| 33 | -.039323 | .045457 | -.015872 | -.013218 |
| 34 | -.001687 | .041069 | .001071 | .016068 |
| 35 | .028351 | .043509 | .016055 | .036821 |
| 36 | .043332 | .045820 | .014466 | .055392 |
| 37 | .055007 | .044587 | .008323 | .065387 |
| 38 | .060279 | .041867 | -.003714 | .070390 |
| 39 | .061254 | .040064 | -.006945 | .066782 |
| 40 | .056309 | .039150 | .001729 | .051441 |
| 41 | .043004 | .040299 | .009443 | .036672 |
| 42 | .036980 | .024990 | .023625 | .026735 |
| 43 | .040630 | .014170 | .046541 | .021724 |
| 44 | .045281 | .010173 | .062958 | .015576 |
| 45 | .050203 | .011017 | .068339 | .012913 |
| 46 | .050759 | .013227 | .069080 | .009414 |
| 47 | .033458 | .015280 | .051701 | .005629 |
| 48 | .017137 | .017670 | .027805 | .008382 |
| 49 | .011511 | .011997 | .007794 | .009464 |
| 50 | .008431 | .005424 | .000754 | .004315 |
| 51 | .004952 | -.002064 | .009768 | .000850 |
| 52 | -.004840 | -.012974 | .009820 | .001813 |
| 53 | -.011231 | -.019243 | .012906 | -.003471 |
| 54 | -.017013 | -.016328 | .014418 | -.010485 |
| 55 | -.022308 | -.019965 | .009961 | -.016986 |
| 56 | -.020928 | -.028166 | -.001079 | -.028043 |
| 57 | -.019444 | -.030982 | -.002625 | -.029469 |
| 58 | -.012978 | -.021247 | .000086 | -.036285 |
| 59 | -.004657 | -.023997 | -.008723 | -.041823 |
| 60 | .004778 | -.026154 | -.015452 | -.038211 |

RUN NO 96B 46M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|---------|----------|----------|----------|---------|----------|
| | 10E-02 | 10E-01 | 10E-03 | 10E-02 | 10E-03 | 10E-03 |
| 0 | .013394 | -.013699 | -.089318 | -.005276 | .034301 | .012374 |
| 1 | .287080 | -.144586 | -.511661 | .042664 | .368551 | -.025814 |
| 2 | .241653 | -.213347 | -.631782 | .175017 | .655081 | .029954 |
| 3 | .140216 | -.253776 | -.815807 | .238939 | .959762 | .130802 |
| 4 | .423182 | -.182689 | -.496996 | -.046118 | .733276 | .045370 |
| 5 | .771012 | -.126415 | -.136268 | -.330473 | .405357 | -.057864 |
| 6 | .718406 | -.104311 | -.205698 | -.347734 | .324574 | -.054558 |
| 7-8 | .474404 | -.070948 | -.235674 | -.277340 | .275581 | -.039666 |
| 9-11 | .094497 | -.047829 | -.077265 | .019926 | .182374 | -.053580 |
| 12-15 | .019733 | -.024310 | -.039738 | .025098 | .148035 | -.034418 |
| 16-20 | .042193 | -.016069 | -.004462 | -.022451 | .065005 | -.011358 |
| 21-27 | .003179 | -.008501 | -.017154 | .008181 | .038328 | -.004292 |
| 28-36 | .008013 | -.005103 | -.008699 | -.007991 | .016426 | -.003804 |
| 37-47 | .002095 | -.002243 | -.006547 | -.004023 | .005584 | -.001186 |
| 48-60 | .005140 | -.001444 | .000862 | -.004828 | .004192 | .000262 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .338186 | -.405400 | .252364 | .002453 | .169177 | -.097605 |
| 2 | .345757 | -.506133 | .483246 | .048495 | .184369 | -.264795 |
| 3 | -.405217 | -.603133 | .276942 | -.146124 | .134424 | -.305808 |
| 4 | -.613026 | -.368127 | .005443 | -.195429 | .212215 | -.168619 |
| 5 | .017773 | -.061299 | .080011 | .149193 | .304264 | -.146355 |
| 6 | .259257 | -.000995 | .131976 | .261870 | .303201 | -.178681 |
| 7-8 | .027667 | -.143545 | .076837 | .026125 | .234446 | -.123736 |
| 9-11 | -.104693 | -.036167 | -.052607 | .026675 | .133620 | -.056280 |
| 12-15 | -.103145 | -.036198 | -.035714 | .009546 | .117109 | -.042987 |
| 16-20 | -.018481 | -.004020 | -.011560 | -.014821 | .047824 | -.012807 |
| 21-27 | -.034323 | -.019805 | -.007163 | .001991 | .026614 | -.018020 |
| 28-36 | -.006675 | -.002543 | -.008054 | .008044 | .010133 | -.003317 |
| 37-47 | -.007401 | -.002519 | -.003498 | .007923 | .003026 | -.004157 |
| 48-60 | -.004527 | -.000778 | -.001781 | .001345 | -.001235 | -.000636 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .052980 | .010260 | .008438 | .009242 |
| 1 | .507225 | .173152 | .119248 | .078579 |
| 2 | .696941 | .320882 | .188491 | .102480 |
| 3 | .788728 | .476949 | .234678 | .113232 |
| 4 | .516330 | .417190 | .187007 | .068357 |
| 5 | .312160 | .280663 | .139758 | .032167 |
| 6 | .296443 | .228527 | .115389 | .032932 |
| 7-8 | .225296 | .206513 | .094317 | .032714 |
| 9-11 | .128892 | .147993 | .087586 | .018984 |
| 12-15 | .072321 | .111134 | .056543 | .013574 |
| 16-20 | .044424 | .069622 | .034916 | .006998 |
| 21-27 | .027054 | .038808 | .027402 | .004870 |
| 28-36 | .016321 | .023208 | .016632 | .003493 |
| 37-47 | .009822 | .013783 | .010487 | .002556 |
| 48-60 | .006125 | .008883 | .006050 | .002122 |

RUN NO 968 46M 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.27751 10E 00 | 0.21030 10E 00 | 0.17278 10E-01 | 0.12676 10E 00 | 0.10414 10E-01 | 0.78923 10E-02 |
| 0 | .103204 | -.584732 | -.260190 | -.031854 | .340604 | .077475 |
| 1 | .013817 | -.199506 | -.117822 | .061923 | .060856 | .075397 |
| 2 | .057207 | -.035855 | -.020940 | -.033694 | -.045269 | .030219 |
| 3 | .003824 | .023227 | -.021528 | .002776 | -.011500 | .050168 |
| 4 | -.018326 | .036391 | .017756 | .030447 | -.027834 | .024977 |
| 5 | .046418 | .040909 | .049835 | -.038573 | -.048302 | -.013307 |
| 6 | .054087 | .085635 | .094668 | .008959 | -.110181 | -.071128 |
| 7 | .023729 | .110984 | .018805 | -.019948 | -.029998 | -.054793 |
| 8 | -.022559 | .122445 | -.046315 | -.004048 | -.024265 | .025798 |
| 9 | .004078 | .075106 | -.039176 | -.050477 | -.033076 | -.017900 |
| 10 | -.041624 | .091682 | -.007623 | .000805 | -.005343 | -.016176 |
| 11 | -.007404 | .015337 | .003640 | -.036105 | -.027317 | -.019271 |
| 12 | -.051731 | .002149 | -.057606 | .003925 | -.081644 | .033512 |
| 13 | -.036047 | -.038427 | -.055039 | -.014648 | -.087458 | .039761 |
| 14 | .017593 | -.012181 | -.013849 | -.034630 | -.023450 | .007899 |
| 15 | .030023 | -.040443 | .075501 | -.031214 | .041540 | -.075230 |
| 16 | -.029515 | -.042358 | .035389 | .016274 | .057637 | -.014266 |
| 17 | -.043335 | -.076313 | .021112 | .045513 | .080135 | .057637 |
| 18 | -.000388 | -.030865 | .067070 | .047894 | .069824 | -.003475 |
| 19 | -.049060 | .045703 | .067115 | .086645 | .075523 | -.083801 |
| 20 | -.010012 | .027576 | .028569 | .029102 | .059837 | -.017799 |
| 21 | .000715 | .070661 | .021804 | -.029559 | .009746 | -.041596 |
| 22 | -.000869 | .030418 | .041985 | -.037182 | .029686 | -.036798 |
| 23 | -.032375 | .069223 | .076787 | .020376 | .036228 | -.025811 |
| 24 | -.045233 | .005926 | .101023 | .017100 | .041515 | -.071032 |
| 25 | -.052542 | .040128 | .069942 | .070555 | -.001319 | -.035952 |
| 26 | -.031091 | .018226 | .027748 | -.020077 | .009884 | -.004960 |
| 27 | -.023708 | -.005745 | -.015173 | .084092 | -.010560 | .051617 |
| 28 | .008775 | -.073348 | -.014132 | .038160 | -.051147 | .023267 |
| 29 | .030933 | -.071064 | -.086368 | -.054969 | -.041032 | .057628 |
| 30 | -.023706 | .027422 | -.095854 | .014159 | -.039729 | -.001092 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-03 | 10E-02 | 10E-03 | 10E-03 |
| 0 | .071089 | -.005072 | -.073178 | -.016237 | -.019683 | .012285 |
| 1 | .551132 | -.042581 | -.499333 | -.078577 | -.112448 | .125900 |
| 2 | .415824 | -.057381 | -.261660 | .034932 | .081959 | .095319 |
| 3 | .246112 | -.107517 | -.130009 | .127992 | .321092 | .090696 |
| 4 | .081142 | -.138683 | -.369970 | .058616 | .250472 | .144689 |
| 5 | -.072994 | -.097003 | -.558055 | -.036466 | .127839 | .124972 |
| 6 | -.094961 | -.056884 | -.509200 | .016179 | .225066 | .071723 |
| 7 | .039192 | -.054609 | -.304460 | .047836 | .309316 | .022623 |
| 8 | .282395 | -.050501 | -.221792 | -.052773 | .183289 | -.026049 |
| 9-11 | .184349 | -.059847 | -.079433 | .029302 | .081806 | -.025515 |
| 12-14 | .018419 | -.051326 | -.174581 | .000201 | .177268 | .029000 |
| 15-21 | -.011998 | -.036348 | -.149773 | .016735 | .173972 | .011766 |
| 22-30 | .239614 | -.037037 | -.086828 | -.153652 | .134671 | -.012888 |

RUN NO 968 46H 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.27751 10E 00 | 0.21030 10E 00 | 0.17278 10E-01 | 0.12676 10E 00 | 0.10414 10E-01 | 0.78923 10E-02 |
| 1 | -.006341 | -.094221 | .035080 | -.005150 | .095629 | -.080374 |
| 2 | .000401 | -.090057 | .021310 | .002924 | .035026 | -.016668 |
| 3 | -.043977 | -.062810 | -.034482 | -.017969 | .041948 | .044146 |
| 4 | -.096444 | -.069061 | -.061114 | -.073956 | .019402 | .067397 |
| 5 | -.102197 | -.032749 | -.039910 | -.004185 | -.030738 | .035577 |
| 6 | -.004243 | .006935 | .020880 | .027921 | .055530 | .014148 |
| 7 | .005936 | .022862 | .044556 | -.029566 | .092421 | .022020 |
| 8 | -.007288 | .014336 | .029242 | .025015 | .062113 | -.000935 |
| 9 | .034918 | .025644 | .052576 | .011206 | .083204 | -.024824 |
| 10 | -.009840 | .041058 | .025967 | .032184 | .016029 | -.044748 |
| 11 | .024824 | .010889 | .054905 | .034911 | .037863 | -.062030 |
| 12 | -.016394 | .041877 | .027714 | .009526 | .007801 | -.043528 |
| 13 | -.056313 | .032529 | -.014656 | -.075597 | -.056554 | .022895 |
| 14 | .025490 | .036805 | -.021641 | -.013361 | -.024476 | .038313 |
| 15 | .077966 | .029746 | .007984 | .037680 | .001272 | -.012006 |
| 16 | .078042 | .033346 | .023253 | .027555 | -.002199 | -.044980 |
| 17 | .077100 | -.003429 | .027189 | .047225 | -.040629 | -.050889 |
| 18 | .018136 | -.038273 | .022808 | .041154 | -.029586 | -.049641 |
| 19 | -.029173 | -.039813 | -.051707 | -.011725 | -.054283 | -.000585 |
| 20 | -.087065 | -.045719 | -.065300 | -.003490 | -.072593 | .040749 |
| 21 | -.038263 | -.054963 | -.042230 | -.068252 | -.014645 | .054734 |
| 22 | .000553 | -.002729 | -.069389 | -.082046 | .002484 | .098913 |
| 23 | -.026297 | -.008760 | -.054327 | .004124 | -.012269 | .034657 |
| 24 | .026359 | -.019634 | -.003583 | .033470 | .013631 | -.014744 |
| 25 | -.008182 | .038122 | .005750 | -.012953 | .000458 | .023228 |
| 26 | -.046902 | .001273 | .020318 | -.022724 | .024740 | -.010712 |
| 27 | -.047510 | .018397 | -.011503 | -.002578 | .038111 | .006807 |
| 28 | -.026319 | .028395 | -.015124 | -.033155 | .014294 | .026839 |
| 29 | .013639 | .008619 | .022263 | -.032943 | .047225 | .018197 |
| 30 | .045003 | -.022158 | .050259 | .011345 | .012800 | -.006166 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-02 | 10E-03 | 10E-03 |
| 1 | -.077806 | .085985 | .146021 | .028159 | .147326 | -.036700 |
| 2 | -.283572 | -.019970 | .151606 | -.005094 | .238534 | .002414 |
| 3 | -.566543 | -.371713 | -.071309 | -.083912 | .203710 | .097445 |
| 4 | -.379384 | -.546583 | -.211916 | -.075448 | .020315 | .091627 |
| 5 | -.173116 | -.349483 | -.161556 | -.079382 | -.041404 | .042368 |
| 6 | -.361580 | -.317455 | -.160011 | -.135459 | -.031563 | .026171 |
| 7 | -.189441 | -.361040 | .023241 | -.002868 | .030130 | -.090699 |
| 8 | .419239 | -.210865 | .208023 | .127887 | .151508 | -.140920 |
| 9-11 | .234350 | -.104616 | .155741 | -.000635 | .135083 | -.048297 |
| 12-14 | .158126 | -.074681 | .132293 | .102446 | .047734 | -.100235 |
| 15-21 | -.130921 | -.096391 | -.001027 | -.072440 | .052188 | -.033964 |
| 22-30 | -.001692 | -.000291 | .000090 | .026394 | .039229 | -.016769 |

RUN NC 96B 46M 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.46041 10E 00 | 0.16727 10E 00 | 0.96061 10E-01 | 0.64843 10E-03 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .479383 | .021312 | .118808 | .506822 |
| 2 | .186037 | -.146458 | -.070637 | .191136 |
| 3 | .056721 | .035532 | -.066696 | .069262 |
| 4 | -.011294 | -.080450 | -.115842 | -.026927 |
| 5 | -.088075 | .019375 | -.030287 | -.123134 |
| 6 | -.180629 | -.020536 | -.079899 | -.234143 |
| 7 | -.190064 | .058638 | -.047278 | -.222818 |
| 8 | -.257626 | .034711 | -.097062 | -.176866 |
| 9 | -.218159 | -.067365 | -.045384 | -.107883 |
| 10 | -.210685 | -.069901 | -.102281 | -.137123 |
| 11 | -.114086 | -.077084 | -.056355 | -.156277 |
| 12 | -.092640 | -.060467 | .066183 | -.161024 |
| 13 | -.002561 | -.084069 | .028682 | -.106421 |
| 14 | -.012104 | -.111464 | -.019477 | -.005034 |
| 15 | .005708 | -.018170 | .087182 | .076055 |
| 16 | .065127 | .002596 | -.039272 | .088937 |
| 17 | .119493 | -.005734 | .020323 | .073193 |
| 18 | .063108 | -.045424 | .081743 | .038552 |
| 19 | -.007822 | -.025380 | -.033046 | .031137 |
| 20 | .012676 | .049351 | .012189 | .007045 |
| 21 | .019240 | .030102 | -.154663 | -.033343 |
| 22 | .015252 | -.002173 | -.106732 | -.075293 |
| 23 | -.089280 | .008072 | -.037907 | -.134915 |
| 24 | -.076906 | .058224 | .048876 | -.102449 |
| 25 | -.102069 | .001213 | -.022143 | -.068174 |
| 26 | -.091630 | .028478 | .056749 | -.028229 |
| 27 | -.050524 | .005950 | .057188 | -.025595 |
| 28 | .035384 | -.018925 | .051831 | .007974 |
| 29 | .096891 | .042288 | .026042 | .066446 |
| 30 | -.004379 | -.032030 | -.002058 | .125173 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-04 |
| 0 | .027372 | .052613 | .017966 | .037938 |
| 1 | .249132 | .518167 | .189407 | .383763 |
| 2 | .376419 | .680986 | .251207 | .539855 |
| 3 | .607371 | .660726 | .433498 | .828893 |
| 4 | .597137 | .354314 | .600046 | .824596 |
| 5 | .370007 | .302034 | .488508 | .523090 |
| 6 | .237003 | .501982 | .379410 | .418681 |
| 7 | .195351 | .732871 | .431126 | .434177 |
| 8 | .181454 | .830560 | .430431 | .322591 |
| 9-11 | .189674 | .742417 | .497338 | .155227 |
| 12-14 | .146228 | .642730 | .408279 | .252051 |
| 15-21 | .110870 | .936555 | .418386 | .154055 |
| 22-30 | .099611 | .869591 | .439773 | .120873 |

RUN NO 96B 91M 6-19-63 1751-1907(EST)

GROSS STATISTICS

| | | |
|-----------------------|------------------------|------------------|
| CLEAR TRANSITIONAL | WIND SPEED 7.83 M/SEC | SIGMA A 3.30 DEG |
| | WIND DIRECTION 225 DEG | SIGMA E 2.2 DEG |
| | SOLAR RAD. 0.11 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.49533E-00 | 0.16493E-00 | 0.12846E-00 | 0.10627E-00 |
| V | 0.19773E-00 | 0.10792E-00 | 0.95072E-01 | 0.48560E-01 |
| W | 0.75381E-01 | 0.70027E-01 | 0.67236E-01 | 0.23433E-01 |
| T | 0.85059E-02 | 0.11613E-02 | 0.65999E-03 | 0.91957E-03 |
| E | 0.38422E-00 | 0.17145E-00 | 0.14539E-00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.08989 | 0.05187 | 0.06577 | 0.04163 |
| V | 0.05679 | 0.04196 | 0.03938 | 0.02814 |
| W | 0.03506 | 0.03380 | 0.03312 | 0.01955 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.99133E-01 | 0.53859E-03 | 0.73925E-02 | -0.14696E-02 |
| U,W | -0.60324E-01 | -0.42026E-01 | -0.37114E-01 | -0.23803E-01 |
| U,T | -0.17514E-01 | 0.23559E-02 | 0.70423E-03 | 0.24838E-02 |
| V,W | -0.95096E-02 | -0.38057E-02 | -0.58877E-02 | -0.35645E-03 |
| V,T | -0.27672E-02 | 0.11597E-02 | 0.63091E-03 | 0.86822E-03 |
| W,T | -0.16473E-02 | -0.11920E-02 | -0.64503E-03 | -0.98471E-03 |
| WE | 0.39138E-01 | 0.18152E-01 | 0.15282E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.31676 | 0.00404 | 0.06689 | -0.02046 |
| U,W | -0.31218 | -0.39106 | -0.39934 | -0.47699 |
| U,T | -0.26981 | 0.17023 | 0.07648 | 0.25126 |
| V,W | -0.07789 | -0.04378 | -0.07364 | -0.01057 |
| V,T | -0.06747 | 0.10359 | 0.07965 | 0.12993 |
| W,T | -0.06506 | -0.13218 | -0.09683 | -0.21213 |

RUN NO 96B 91M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.11054 10E 00 | 0.92973 10E-01 | 0.92103 10E-02 | 0.79980 10E-01 | 0.79232 10E-02 | 0.66640 10E-02 |
| 0 | .066868 | -.399274 | .076597 | -.073654 | .079874 | -.096760 |
| 1 | .059446 | -.333125 | .084534 | -.046138 | .071920 | -.096136 |
| 2 | .037613 | -.242205 | .091753 | -.011573 | .060928 | -.091186 |
| 3 | .013512 | -.176260 | .092313 | .009830 | .052320 | -.077829 |
| 4 | .002594 | -.127659 | .092019 | .011119 | .045044 | -.060591 |
| 5 | .003192 | -.084292 | .090011 | .010731 | .034302 | -.049988 |
| 6 | .011403 | -.050161 | .087039 | .002641 | .022033 | -.038555 |
| 7 | .021410 | -.025100 | .080985 | .006837 | .010862 | -.027985 |
| 8 | .028792 | -.004352 | .076403 | .003549 | .005653 | -.025621 |
| 9 | .029343 | .018288 | .067006 | .013066 | .006541 | -.018393 |
| 10 | .024770 | .034562 | .055944 | .013531 | .007253 | -.009814 |
| 11 | .017685 | .042826 | .045481 | .017173 | .004695 | -.002150 |
| 12 | .009451 | .050545 | .031602 | .019217 | .004409 | .000820 |
| 13 | .009873 | .058398 | .019415 | .017233 | .001466 | .010591 |
| 14 | .012257 | .064865 | .012337 | .011314 | -.001285 | .019870 |
| 15 | .011477 | .065441 | .004024 | .001818 | -.002876 | .021870 |
| 16 | .009159 | .062464 | -.006838 | -.010537 | -.005802 | .024380 |
| 17 | .002779 | .062960 | -.019607 | -.026109 | -.010377 | .031062 |
| 18 | -.006231 | .074367 | -.029543 | -.040578 | -.016504 | .034337 |
| 19 | -.013356 | .088206 | -.039407 | -.044488 | -.017415 | .034300 |
| 20 | -.016318 | .096542 | -.047327 | -.037615 | -.021149 | .036982 |
| 21 | -.019263 | .100215 | -.052681 | -.016392 | -.022955 | .039940 |
| 22 | -.023961 | .099355 | -.064347 | -.001941 | -.022476 | .044479 |
| 23 | -.027107 | .097305 | -.075702 | .007621 | -.022719 | .043591 |
| 24 | -.023765 | .093058 | -.083205 | .012023 | -.022582 | .042693 |
| 25 | -.018679 | .088607 | -.084590 | .015305 | -.026046 | .040128 |
| 26 | -.013908 | .086300 | -.080895 | .016837 | -.037257 | .036742 |
| 27 | -.009982 | .074372 | -.079419 | .016370 | -.046338 | .039469 |
| 28 | -.006579 | .052311 | -.073363 | .008176 | -.051404 | .036858 |
| 29 | -.009824 | .039120 | -.063248 | .005350 | -.054412 | .031437 |
| 30 | -.011571 | .037534 | -.053936 | .005918 | -.048836 | .026287 |
| 31 | -.009071 | .034892 | -.044845 | .007244 | -.039258 | .023639 |
| 32 | -.004795 | .027396 | -.036295 | -.001841 | -.028663 | .022285 |
| 33 | -.002650 | .013018 | -.027951 | -.012022 | -.021260 | .020048 |
| 34 | -.002376 | .000194 | -.020608 | -.005982 | -.018323 | .014818 |
| 35 | -.003891 | -.017594 | -.014585 | .001315 | -.017146 | .013185 |
| 36 | -.011943 | -.027805 | -.006970 | .001887 | -.016032 | .008526 |
| 37 | -.017363 | -.033866 | -.001767 | -.000979 | -.016468 | .001696 |
| 38 | -.021142 | -.037298 | -.001533 | -.005691 | -.016700 | .003506 |
| 39 | -.023047 | -.043466 | -.001159 | -.004862 | -.015608 | .004052 |
| 40 | -.028977 | -.044231 | .001627 | .002997 | -.011858 | .000657 |
| 41 | -.031858 | -.035694 | .003804 | .007212 | -.006529 | -.014131 |
| 42 | -.037453 | -.022101 | .000560 | .004280 | .001961 | -.028013 |
| 43 | -.040687 | -.018149 | -.005570 | .006707 | .011775 | -.038489 |
| 44 | -.052159 | -.018717 | -.013903 | .009640 | .022428 | -.042039 |
| 45 | -.050389 | -.018044 | -.018859 | .015795 | .031192 | -.042907 |
| 46 | -.041747 | -.017647 | -.023862 | .013732 | .040569 | -.046078 |
| 47 | -.033966 | -.018164 | -.027957 | .002967 | .044093 | -.046800 |
| 48 | -.025302 | -.021815 | -.033153 | -.001920 | .039718 | -.035464 |
| 49 | -.016295 | -.026501 | -.038203 | .003227 | .033164 | -.022462 |
| 50 | -.006412 | -.026672 | -.042474 | .006829 | .027930 | -.006815 |
| 51 | -.000329 | -.025274 | -.041560 | -.004065 | .025905 | .003678 |
| 52 | -.000245 | -.017013 | -.035531 | -.007713 | .026009 | .002627 |
| 53 | .001934 | -.004043 | -.031137 | -.004276 | .025021 | .003748 |
| 54 | .009479 | .006760 | -.027696 | .008502 | .019612 | .003588 |
| 55 | .015284 | .010528 | -.021510 | .005630 | .010462 | .004799 |
| 56 | .015602 | .005759 | -.017868 | .014418 | .007000 | .003480 |
| 57 | .017005 | .001477 | -.016543 | .024922 | .004033 | .004548 |
| 58 | .028360 | -.000960 | -.013803 | .006560 | -.006293 | .007280 |
| 59 | .036225 | .010863 | -.005286 | -.002435 | -.012921 | .007412 |
| 60 | .037277 | .007158 | .002581 | .007894 | -.014984 | .009294 |

RUN NO 968 91M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.11054 10E 00 | 0.92973 10E-01 | 0.92103 10E-02 | 0.79980 10E-01 | 0.79232 10E-02 | 0.66640 10E-02 |
| 1 | -.005968 | -.015619 | .061615 | .002243 | .030782 | -.072854 |
| 2 | -.014529 | -.021226 | .101047 | -.000882 | .048587 | -.104855 |
| 3 | -.025221 | -.029005 | .122363 | -.015561 | .049967 | -.108602 |
| 4 | -.039178 | -.034001 | .133089 | -.020974 | .045875 | -.099270 |
| 5 | -.046768 | -.034458 | .140045 | -.014739 | .041540 | -.087702 |
| 6 | -.049382 | -.037643 | .140188 | -.006979 | .040680 | -.083909 |
| 7 | -.046453 | -.044760 | .138906 | -.004542 | .039902 | -.077984 |
| 8 | -.044340 | -.048370 | .134449 | -.003105 | .036913 | -.073098 |
| 9 | -.042556 | -.047974 | .128372 | -.006779 | .034683 | -.062803 |
| 10 | -.034230 | -.047103 | .120378 | -.002165 | .034295 | -.056032 |
| 11 | -.031521 | -.047210 | .110527 | -.000401 | .032933 | -.055891 |
| 12 | -.043120 | -.051224 | .100209 | .001030 | .028459 | -.056660 |
| 13 | -.043241 | -.050176 | .085457 | .003695 | .026769 | -.051755 |
| 14 | -.029833 | -.048143 | .071131 | .007558 | .027026 | -.038289 |
| 15 | -.018443 | -.047448 | .060570 | .007823 | .024988 | -.023019 |
| 16 | -.014112 | -.038695 | .047856 | .004209 | .023531 | -.006469 |
| 17 | -.006020 | -.028931 | .040633 | .011323 | .021460 | -.000221 |
| 18 | .009170 | -.027115 | .040026 | .012476 | .024875 | -.000094 |
| 19 | .026650 | -.030477 | .037593 | .011565 | .030758 | -.004345 |
| 20 | .034935 | -.037833 | .036785 | .011681 | .031465 | -.002732 |
| 21 | .034361 | -.034876 | .033381 | .008695 | .028257 | .000470 |
| 22 | .034637 | -.023428 | .025497 | .008092 | .024315 | .002622 |
| 23 | .034883 | -.013336 | .015475 | .018428 | .020232 | .007671 |
| 24 | .029016 | -.003254 | .003957 | .014355 | .016623 | .012382 |
| 25 | .024093 | -.001334 | -.006127 | .001445 | .011620 | .016572 |
| 26 | .021524 | -.003790 | -.016319 | -.003897 | .007228 | .020853 |
| 27 | .019502 | -.003773 | -.025614 | -.009889 | .001647 | .016693 |
| 28 | .012830 | -.005165 | -.035984 | -.027480 | -.003744 | .012017 |
| 29 | .010914 | -.000671 | -.043068 | -.038823 | -.006911 | .008512 |
| 30 | .012834 | -.002541 | -.050206 | -.046137 | -.005569 | .012194 |
| 31 | .010466 | .009812 | -.055669 | -.049273 | -.004682 | .024626 |
| 32 | -.000570 | .015433 | -.060506 | -.040381 | -.007242 | .037133 |
| 33 | -.008199 | .023469 | -.065228 | -.024315 | -.003990 | .042067 |
| 34 | -.011068 | .039686 | -.066349 | -.014442 | .003199 | .044489 |
| 35 | -.015261 | .051195 | -.064522 | -.011827 | .002439 | .049593 |
| 36 | -.024481 | .057535 | -.057111 | -.011817 | -.003916 | .048186 |
| 37 | -.029881 | .052365 | -.047538 | -.013908 | -.013097 | .037873 |
| 38 | -.033236 | .045504 | -.035641 | -.018716 | -.016939 | .027655 |
| 39 | -.032551 | .042600 | -.025859 | -.023139 | -.014993 | .020705 |
| 40 | -.030318 | .048096 | -.017730 | -.029110 | -.012063 | .012778 |
| 41 | -.024756 | .052570 | -.007456 | -.028567 | -.011133 | .011465 |
| 42 | -.019037 | .055408 | .000455 | -.019019 | -.012283 | .009066 |
| 43 | -.014165 | .053054 | .005081 | -.008018 | -.019353 | .010924 |
| 44 | -.010698 | .049239 | .007851 | -.001494 | -.024541 | .007620 |
| 45 | -.004588 | .042444 | .006135 | .009732 | -.028556 | .004608 |
| 46 | -.000022 | .027217 | .003392 | .020810 | -.024881 | -.000740 |
| 47 | .005656 | .018123 | .000165 | .027745 | -.014486 | -.008296 |
| 48 | .011396 | .014526 | -.003056 | .032519 | -.006784 | -.014018 |
| 49 | .010736 | .007411 | -.005044 | .032147 | .005311 | -.014450 |
| 50 | .009355 | .001630 | -.003432 | .028657 | .009971 | -.011155 |
| 51 | .012232 | .000069 | -.001188 | .037514 | .010797 | -.010812 |
| 52 | .008537 | -.006629 | -.000269 | .047381 | .009391 | -.010229 |
| 53 | .004524 | -.015815 | .000290 | .056886 | .013093 | -.011659 |
| 54 | -.002834 | -.022778 | .000426 | .059215 | .012000 | -.014364 |
| 55 | -.011482 | -.028648 | .002132 | .045178 | .011166 | -.021848 |
| 56 | -.014820 | -.031624 | .002529 | .036595 | .008135 | -.021657 |
| 57 | -.015675 | -.036613 | .003777 | .027570 | -.000040 | -.019747 |
| 58 | -.014042 | -.041212 | .002946 | .012772 | -.006413 | -.020294 |
| 59 | -.014311 | -.052944 | -.000466 | .001367 | -.009180 | -.026179 |
| 60 | -.010315 | -.056752 | -.005827 | -.001893 | -.012564 | -.030762 |

RUN NO 968 91M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12850 10E 00 | 0.95093 10E-01 | 0.67269 10E-01 | 0.66017 10E-03 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .844680 | .762494 | .680446 | .905999 |
| 2 | .649616 | .479012 | .361047 | .793287 |
| 3 | .497916 | .283450 | .186151 | .675788 |
| 4 | .377291 | .157146 | .076793 | .560346 |
| 5 | .272855 | .075823 | .009455 | .453563 |
| 6 | .187148 | .021545 | -.033304 | .350900 |
| 7 | .111364 | -.012727 | -.058833 | .256594 |
| 8 | .039012 | -.037747 | -.075226 | .172013 |
| 9 | -.021873 | -.052900 | -.097934 | .097514 |
| 10 | -.082006 | -.065874 | -.095969 | .034567 |
| 11 | -.131901 | -.088571 | -.097088 | -.021063 |
| 12 | -.172652 | -.112907 | -.108758 | -.071161 |
| 13 | -.197015 | -.128422 | -.106440 | -.112787 |
| 14 | -.212402 | -.134328 | -.103572 | -.142703 |
| 15 | -.218137 | -.132879 | -.100065 | -.161790 |
| 16 | -.226396 | -.140074 | -.085599 | -.175253 |
| 17 | -.238571 | -.158879 | -.060638 | -.179156 |
| 18 | -.242474 | -.159654 | -.059389 | -.187018 |
| 19 | -.238963 | -.148078 | -.082672 | -.197628 |
| 20 | -.234375 | -.139732 | -.097423 | -.211273 |
| 21 | -.231205 | -.153153 | -.101899 | -.227222 |
| 22 | -.229484 | -.177170 | -.093107 | -.243067 |
| 23 | -.217646 | -.183957 | -.092312 | -.256710 |
| 24 | -.196181 | -.169945 | -.097257 | -.269173 |
| 25 | -.178923 | -.141065 | -.103995 | -.273820 |
| 26 | -.157579 | -.123123 | -.107701 | -.271054 |
| 27 | -.127075 | -.118197 | -.090760 | -.263659 |
| 28 | -.100208 | -.116836 | -.073164 | -.254308 |
| 29 | -.081744 | -.114071 | -.070363 | -.238655 |
| 30 | -.062128 | -.101112 | -.073180 | -.221132 |
| 31 | -.038087 | -.065540 | -.058818 | -.198106 |
| 32 | -.023947 | -.028963 | -.035912 | -.175142 |
| 33 | -.009776 | -.011435 | -.016122 | -.152872 |
| 34 | .002278 | .002076 | -.010740 | -.130317 |
| 35 | .011800 | .009715 | .012752 | -.107689 |
| 36 | .019710 | .017159 | .042876 | -.087110 |
| 37 | .031492 | .029578 | .050037 | -.073556 |
| 38 | .039062 | .044696 | .048623 | -.066879 |
| 39 | .047178 | .059256 | .044813 | -.062537 |
| 40 | .051569 | .077802 | .029437 | -.058096 |
| 41 | .051963 | .078774 | .010213 | -.053330 |
| 42 | .047557 | .071154 | .004269 | -.047413 |
| 43 | .047882 | .062070 | .027873 | -.039991 |
| 44 | .050883 | .047368 | .044695 | -.029482 |
| 45 | .048045 | .027794 | .051090 | -.017138 |
| 46 | .043931 | .029954 | .054665 | -.008269 |
| 47 | .044534 | .049198 | .051738 | .000663 |
| 48 | .048279 | .060712 | .025971 | .002441 |
| 49 | .046951 | .058217 | .012142 | .000788 |
| 50 | .038272 | .053087 | -.005148 | -.003461 |
| 51 | .029361 | .049714 | -.006226 | -.008391 |
| 52 | .018845 | .056390 | -.000342 | -.015861 |
| 53 | .003512 | .047706 | -.001691 | -.023390 |
| 54 | -.015763 | .033535 | .007082 | -.030156 |
| 55 | -.027535 | .026681 | .019351 | -.036816 |
| 56 | -.033274 | .033862 | .013540 | -.042758 |
| 57 | -.032426 | .036964 | .015401 | -.048138 |
| 58 | -.038719 | .026136 | .020863 | -.048891 |
| 59 | -.055804 | .015577 | .012272 | -.046797 |
| 60 | -.060440 | .005064 | .002784 | -.041985 |

RUN NC 96B 91M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 0 | .018304 | -.031841 | .045610 | -.076673 | .006419 | -.014140 |
| 1 | .181126 | -.318875 | .374291 | -.275065 | .116644 | -.120727 |
| 2 | .132138 | -.492510 | .366309 | -.066718 | .160637 | -.168677 |
| 3 | .064108 | -.598476 | .265188 | .048944 | .112816 | -.164921 |
| 4 | .035384 | -.397084 | .038648 | -.037723 | .026596 | -.072517 |
| 5 | -.023603 | -.238690 | -.073213 | -.328118 | .038016 | -.041083 |
| 6 | -.023785 | -.236289 | -.021834 | -.727385 | .047940 | -.029429 |
| 7-8 | .036855 | -.202800 | -.005165 | -.481727 | .032475 | -.022046 |
| 9-11 | .032319 | -.104802 | -.017442 | .087918 | .022653 | -.012777 |
| 12-15 | .047871 | -.075169 | -.003481 | -.406075 | -.000278 | -.005943 |
| 16-20 | .017240 | -.043980 | -.004771 | -.262142 | -.000850 | .000420 |
| 21-27 | .003873 | -.028209 | -.003291 | -.092467 | .005077 | .002666 |
| 28-36 | -.000620 | -.020521 | -.002864 | -.073482 | .001414 | .001821 |
| 37-47 | -.001544 | -.008686 | -.001489 | -.013365 | .000843 | -.001196 |
| 48-60 | -.000274 | -.005059 | -.001020 | -.030529 | -.000810 | .000283 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | -.049796 | -.123172 | .245234 | -.407330 | .126664 | -.054670 |
| 2 | -.066108 | -.218379 | .189915 | .160098 | .131497 | -.139686 |
| 3 | -.170805 | -.162104 | .448975 | .284097 | .100118 | -.188881 |
| 4 | -.212934 | -.036675 | .271287 | -.464482 | .050691 | -.138184 |
| 5 | -.092686 | -.038343 | .161895 | -.525554 | .043188 | -.111791 |
| 6 | .001966 | -.023520 | .175029 | -.125453 | .043253 | -.100836 |
| 7-8 | .008511 | -.002052 | .096005 | .031140 | .048245 | -.053191 |
| 9-11 | -.024052 | -.004337 | .033673 | -.087317 | .018119 | -.047989 |
| 12-15 | .014953 | -.007841 | .032361 | -.036671 | .020681 | -.038343 |
| 16-20 | .008815 | -.007824 | .012832 | .049594 | .010552 | -.019400 |
| 21-27 | .003037 | .001353 | .006932 | .091840 | .005429 | -.010911 |
| 28-36 | -.003270 | -.001365 | .003281 | .002954 | -.000061 | -.003437 |
| 37-47 | -.000337 | -.002059 | -.000040 | -.020193 | .000176 | -.001944 |
| 48-60 | .001344 | -.000830 | .001042 | -.005745 | -.000585 | .000016 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-03 |
| 0 | .014506 | .003487 | .021891 | .016750 |
| 1 | .124282 | .053851 | .280683 | .129763 |
| 2 | .177319 | .092480 | .456294 | .136670 |
| 3 | .220357 | .114785 | .581263 | .122033 |
| 4 | .166618 | .082443 | .467435 | .074546 |
| 5 | .104720 | .059283 | .406250 | .048732 |
| 6 | .075892 | .058175 | .439351 | .040446 |
| 7-8 | .055457 | .049725 | .373024 | .024197 |
| 9-11 | .030189 | .037014 | .257508 | .009362 |
| 12-15 | .022302 | .027287 | .203905 | .006280 |
| 16-20 | .013739 | .015931 | .136550 | .003082 |
| 21-27 | .008677 | .010626 | .099305 | .002100 |
| 28-36 | .005490 | .006279 | .068647 | .001299 |
| 37-47 | .003342 | .003959 | .043998 | .001097 |
| 48-60 | .002190 | .002541 | .027076 | .000919 |

RUN NO 96B 91M 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.71848 10E-01 | 0.49902 10E-01 | 0.98813 10E-02 | 0.33746 10E-01 | 0.66822 10E-02 | 0.46411 10E-02 |
| 0 | -.020454 | -.476990 | .251361 | -.010563 | .129929 | -.212172 |
| 1 | -.051489 | -.161400 | .188614 | .076815 | .078574 | -.086494 |
| 2 | -.068530 | -.039651 | .048359 | .013566 | .051575 | -.007355 |
| 3 | -.063163 | -.037701 | -.051516 | .035741 | .002995 | .044408 |
| 4 | -.036926 | -.045351 | -.073406 | .043304 | .009473 | .037738 |
| 5 | -.023852 | .024713 | -.124666 | .063019 | .023191 | .050397 |
| 6 | .085226 | .023952 | -.076221 | -.000575 | -.025946 | .079007 |
| 7 | .074229 | .084229 | -.028112 | -.018613 | -.004091 | .087405 |
| 8 | .027860 | .053835 | -.005062 | .012364 | -.025378 | .080250 |
| 9 | .032169 | .033689 | .044076 | -.041131 | -.006191 | -.027428 |
| 10 | .077456 | .025324 | .040290 | -.106001 | .025469 | -.045343 |
| 11 | .090113 | -.017126 | -.005052 | -.118505 | .043083 | -.021717 |
| 12 | .077324 | .070266 | -.021325 | -.133096 | .020626 | -.032540 |
| 13 | .006706 | .048048 | -.051699 | .034192 | -.008309 | -.049563 |
| 14 | .016372 | .020480 | .006515 | -.056536 | -.052040 | -.044399 |
| 15 | -.002724 | .050120 | .036057 | -.049793 | -.058203 | -.024674 |
| 16 | -.052696 | .085747 | .036430 | .063484 | -.072946 | .019435 |
| 17 | -.046232 | .046281 | .030426 | .020228 | -.093325 | .007589 |
| 18 | -.041099 | .016384 | .020356 | .023358 | -.052908 | -.010504 |
| 19 | -.041622 | .045993 | .007485 | .091141 | -.049845 | -.002700 |
| 20 | -.007384 | -.010934 | -.025336 | .008050 | -.006030 | -.044432 |
| 21 | .018009 | -.022451 | -.068090 | .002776 | .010510 | .005665 |
| 22 | .018773 | -.003939 | -.067525 | .021574 | .011160 | .034924 |
| 23 | -.046190 | .033367 | -.045610 | .017947 | -.003551 | .041051 |
| 24 | -.043764 | -.004621 | -.010382 | .036490 | -.015773 | .024238 |
| 25 | -.062985 | .006308 | -.001439 | .076405 | -.047658 | .059059 |
| 26 | -.112144 | .015292 | .033667 | .071195 | -.012844 | .056617 |
| 27 | -.080809 | .013521 | -.000342 | .080623 | .001182 | .039991 |
| 28 | -.070495 | -.014778 | -.047744 | .016741 | .025354 | -.014069 |
| 29 | -.045003 | .008449 | -.029887 | .026875 | .034493 | -.040365 |
| 30 | -.014721 | -.027632 | -.002484 | -.035526 | .027854 | -.045636 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02, | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 0 | .009652 | -.022884 | .021478 | -.012111 | .015454 | .000019 |
| 1 | .005103 | -.197651 | .118788 | .169309 | .169011 | .006379 |
| 2 | -.125015 | -.213888 | .100677 | .727651 | .139342 | .007964 |
| 3 | -.226862 | -.201816 | .191002 | .959271 | .049451 | -.052699 |
| 4 | -.155193 | -.161171 | .317678 | .193123 | .037191 | -.135045 |
| 5 | -.006692 | -.161221 | .321445 | -.531899 | .126648 | -.153480 |
| 6 | .042711 | -.142033 | .373597 | -.461791 | .115497 | -.122863 |
| 7 | -.007199 | -.081418 | .432497 | .010501 | .006735 | -.053135 |
| 8 | .029806 | -.054945 | .268188 | .139013 | -.011164 | -.021809 |
| 9-11 | .082672 | -.077563 | .070359 | -.037858 | .046411 | -.035344 |
| 12-14 | -.024774 | -.111128 | .067062 | .201901 | .024374 | -.071697 |
| 15-21 | .027991 | -.087557 | .033019 | -.184368 | -.002586 | -.018276 |
| 22-30 | -.004197 | -.065112 | -.019070 | -.210779 | .025718 | -.021441 |

RUN NO 968 91M 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.71848 10E-01 | 0.49902 10E-01 | 0.98813 10E-02 | 0.33745 10E-01 | 0.66822 10E-02 | 0.46411 10E-02 |
| 1 | -.095030 | -.111810 | .150721 | -.030199 | .081693 | -.101561 |
| 2 | -.011395 | -.152774 | .137270 | .019372 | .076583 | -.050577 |
| 3 | -.054663 | -.094815 | .119654 | -.046314 | .071611 | -.033094 |
| 4 | -.058883 | -.058089 | .118783 | .032141 | .007941 | -.028142 |
| 5 | .010301 | -.092314 | .129540 | .114951 | .019208 | -.058089 |
| 6 | -.012743 | -.133176 | .100249 | .109867 | -.007444 | -.054743 |
| 7 | .068362 | -.056090 | .113967 | .105916 | -.019074 | -.057268 |
| 8 | .040475 | -.034277 | .093437 | .066042 | .012173 | -.015579 |
| 9 | -.064275 | -.003434 | .058765 | -.014434 | .012142 | -.016878 |
| 10 | -.036962 | -.038029 | .063589 | .003239 | .066743 | -.034790 |
| 11 | -.014286 | -.013132 | .032891 | -.000272 | .068776 | -.011313 |
| 12 | -.002026 | .079990 | .020327 | -.069111 | .089466 | -.042556 |
| 13 | .080240 | .048985 | -.022194 | -.049180 | .024175 | -.007782 |
| 14 | .039399 | .010080 | -.016593 | .012424 | -.048701 | -.022664 |
| 15 | .074073 | .048005 | -.016150 | -.004969 | -.015523 | -.044054 |
| 16 | .082434 | .064673 | -.025019 | .048831 | .017618 | -.035045 |
| 17 | .059503 | .013737 | -.027744 | .018188 | .025292 | .020511 |
| 18 | .020902 | .016254 | -.036166 | .000737 | .017984 | .015676 |
| 19 | -.011199 | -.033105 | -.033519 | .009362 | .051367 | .051743 |
| 20 | .001360 | .013797 | -.014323 | -.009813 | .021119 | .041903 |
| 21 | -.003235 | .039703 | .000870 | -.063227 | .025760 | .023876 |
| 22 | -.056713 | .039131 | .014394 | -.114017 | .036912 | .000815 |
| 23 | .005085 | -.001465 | .018071 | -.073247 | -.001238 | -.007208 |
| 24 | .003279 | .041400 | -.018584 | -.009362 | -.004172 | .014026 |
| 25 | -.042376 | -.038783 | -.036504 | -.025397 | -.044459 | .049104 |
| 26 | -.060076 | .056893 | -.046840 | -.113626 | .005097 | .075203 |
| 27 | -.045108 | .016508 | -.040959 | .002511 | -.020462 | .047457 |
| 28 | -.058339 | .052978 | -.035129 | .047795 | -.014569 | .026842 |
| 29 | .018151 | -.042080 | .000074 | .071018 | -.048277 | .014764 |
| 30 | .016827 | -.011462 | .015333 | .041799 | -.060492 | -.040002 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|---------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | .075221 | -.077548 | .433165 | .496007 | .168117 | -.111244 |
| 2 | -.032984 | -.153622 | .484815 | .729575 | .083452 | -.103360 |
| 3 | -.117843 | -.205603 | .475951 | .657649 | .040525 | -.062277 |
| 4 | -.042064 | -.160083 | .286725 | .522309 | .027555 | -.038511 |
| 5 | -.002468 | -.077274 | .143824 | -.014623 | .035189 | -.050711 |
| 6 | -.101111 | -.040767 | .132215 | -.783322 | .118182 | -.035959 |
| 7 | -.164283 | -.055487 | .120739 | -.747659 | .171906 | -.001260 |
| 8 | -.095742 | -.053604 | .118735 | -.379888 | .100362 | -.016372 |
| 9-11 | .025760 | -.050611 | .100308 | -.085113 | .024641 | -.032505 |
| 12-14 | -.040078 | -.081902 | .090912 | .263997 | .032574 | -.050879 |
| 15-21 | -.048765 | .016836 | .060869 | -.086929 | .007750 | -.026110 |
| 22-30 | -.035901 | .001080 | .018626 | -.217769 | .022744 | -.011850 |

RUN NO 968 91M 6-19-63 1751-1907(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.10625 10E 00 | 0.48587 10E-01 | 0.23438 10E-01 | 0.91901 10E-03 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .367438 | .231278 | .110431 | .577218 |
| 2 | .127674 | .061376 | .059502 | .241109 |
| 3 | .134698 | .036637 | -.035672 | -.014001 |
| 4 | .027449 | .060980 | .043605 | -.143662 |
| 5 | -.016270 | .028367 | -.074975 | -.211667 |
| 6 | -.003094 | -.029409 | -.060705 | -.191336 |
| 7 | -.104059 | -.108644 | -.156081 | -.125238 |
| 8 | -.058958 | -.039959 | -.116121 | -.047591 |
| 9 | -.121379 | -.017242 | .003873 | .074087 |
| 10 | -.109934 | -.063764 | -.038139 | -.009304 |
| 11 | -.096505 | -.075505 | -.014252 | -.127651 |
| 12 | -.171386 | -.054765 | -.049756 | -.180650 |
| 13 | -.155693 | -.107267 | -.068075 | -.152645 |
| 14 | -.077635 | -.115292 | -.050345 | -.067052 |
| 15 | -.068526 | -.145374 | -.049237 | -.000761 |
| 17 | .001593 | -.072997 | -.054111 | -.033844 |
| 18 | -.065085 | .023828 | .080697 | -.023951 |
| 19 | -.033447 | -.036241 | -.030259 | -.011056 |
| 20 | -.043514 | .014349 | .060633 | -.030281 |
| 21 | -.055409 | -.004450 | .020714 | -.075741 |
| 22 | -.042571 | -.009757 | .024952 | -.041988 |
| 23 | .004416 | -.026774 | -.005700 | .002086 |
| 24 | .029528 | .042190 | .028907 | .021709 |
| 25 | .032026 | -.028061 | -.020315 | .005560 |
| 26 | .006130 | .040922 | -.014410 | .004981 |
| 27 | .047805 | .014128 | .034495 | -.050993 |
| 28 | .044652 | .071166 | .097648 | -.007586 |
| 29 | -.028259 | -.022715 | .044686 | -.005700 |
| 30 | .035734 | .015371 | .055479 | .021637 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| 0 | .011378 | .057691 | .004874 | .097629 |
| 1 | .093097 | .376162 | .084071 | .708481 |
| 2 | .105113 | .382955 | .132887 | .794361 |
| 3 | .106666 | .349680 | .154016 | .926745 |
| 4 | .080670 | .235407 | .118916 | .897023 |
| 5 | .056993 | .212571 | .119766 | .853490 |
| 6 | .049617 | .237725 | .127641 | .925754 |
| 7 | .054126 | .201170 | .091172 | .988452 |
| 8 | .043865 | .138071 | .062062 | .727165 |
| 9-11 | .031286 | .177586 | .070519 | .218774 |
| 12-14 | .036634 | .228468 | .116179 | .289158 |
| 15-21 | .036468 | .174228 | .088717 | .146149 |
| 22-30 | .031224 | .195867 | .122203 | .136693 |

RUN NO 968 46M 6-19-63 1751-1907(EST)
 RUN NO 968 91M 6-19-63 1751-1907(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .194869 | .033651 | .059987 | .035935 |
| 1 | .176607 | .452202 | .148535 | .322586 |
| 2 | .210006 | .398019 | .249040 | .355032 |
| 3 | .233706 | .389958 | .324542 | .350781 |
| 4 | .135753 | .427082 | .376380 | .243807 |
| 5 | .096910 | .365381 | .320849 | .042951 |
| 6 | .171488 | .127827 | .239456 | .037562 |
| 7-8 | .160724 | .097141 | .181004 | .068500 |
| 9-11 | .058276 | .106588 | .057646 | .097703 |
| 12-15 | .114605 | .056378 | .079987 | .115766 |
| 16-20 | .083780 | .069810 | .116425 | .091285 |
| 21-27 | .133904 | .098431 | .072758 | .126525 |
| 28-36 | .080610 | .105923 | .079015 | .065667 |
| 37-47 | .098002 | .133836 | .096242 | .062163 |
| 48-60 | .056562 | .060201 | .113795 | .086559 |

301 POINT RUNNING MEAN, 10 POINT BLOCK

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .690815 | .882312 | .871742 | .070702 |
| 1 | .657816 | .878578 | .648974 | .449991 |
| 2 | .592133 | .773990 | .607421 | .372267 |
| 3 | .535883 | .597405 | .532499 | .351381 |
| 4 | .507619 | .276258 | .419309 | .381991 |
| 5 | .263117 | .286076 | .148525 | .412990 |
| 6 | .157842 | .434867 | .207424 | .327924 |
| 7 | .250993 | .492374 | .050207 | .382051 |
| 8 | .218899 | .500879 | .463263 | .339696 |
| 9-11 | .169854 | .481739 | .216472 | .465563 |
| 12-14 | .265478 | .407282 | .446293 | .479123 |
| 15-21 | .266481 | .489791 | .365207 | .261640 |
| 22-30 | .206369 | .331083 | .327089 | .217929 |

RUN NO 96C 46M 6-19-63 1921-2037(EST)

GROSS STATISTICS

CLEAR SIGMA A 6.10 DEG
STABLE WIND SPEED 5.10 M/SEC
WIND DIRECTION 228 DEG
SOLAR RAD. 0 LY/MIN SIGMA E 4.1 DEG

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.59452E 00 | 0.40845E-00 | 0.31124E-00 | 0.27126E-00 |
| V | 0.27727E-00 | 0.12818E-00 | 0.21704E-00 | 0.93738E-01 |
| W | 0.11902E-00 | 0.11762E-00 | 0.10758E-00 | 0.44050E-01 |
| T | 0.43902E-02 | 0.26981E-02 | 0.19600E-02 | 0.18659E-02 |
| E | 0.49540E-00 | 0.37712E-00 | 0.31793E-00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.15119 | 0.12531 | 0.10939 | 0.10212 |
| V | 0.10325 | 0.09366 | 0.09135 | 0.06003 |
| W | 0.06764 | 0.06725 | 0.06431 | 0.04115 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.84424E-01 | -0.17794E-01 | -0.18118E-01 | -0.11110E-01 |
| U,W | -0.10854E-00 | -0.10910E-00 | -0.93097E-01 | -0.62684E-01 |
| U,T | 0.28572E-01 | 0.17627E-01 | 0.11356E-01 | 0.14397E-01 |
| V,W | -0.10519E-02 | 0.14359E-02 | 0.24140E-02 | 0.46883E-02 |
| V,T | -0.41704E-02 | 0.11678E-02 | 0.79329E-03 | 0.75020E-03 |
| W,T | -0.55554E-02 | -0.65172E-02 | -0.50128E-02 | -0.43162E-02 |

| | | | | |
|----|-------------|-------------|-------------|--|
| WE | 0.97073E-02 | 0.85568E-02 | 0.38051E-02 | |
|----|-------------|-------------|-------------|--|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.20794 | -0.05828 | -0.06971 | -0.06967 |
| U,W | -0.40806 | -0.49813 | -0.50876 | -0.57345 |
| U,T | 0.55925 | 0.53097 | 0.46017 | 0.63994 |
| V,W | -0.00579 | 0.00877 | 0.01580 | 0.07296 |
| V,T | -0.11953 | 0.04706 | 0.03846 | 0.05673 |
| W,T | -0.24304 | -0.36584 | -0.34520 | -0.47610 |

RUN NC 96C 46M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|----------|----------|----------|----------|----------|----------|
| | 0.25989 | 0.18298 | 0.24699 | 0.15282 | 0.20628 | 0.14523 |
| | 10E 00 | 10E 00 | 10E-01 | 10E 00 | 10E-01 | 10E-01 |
| 1 | -.067258 | -.441552 | .445513 | .021840 | .027406 | -.307162 |
| 2 | -.055287 | -.325149 | .401303 | .033387 | .015049 | -.238400 |
| 3 | -.046980 | -.225421 | .344405 | .037195 | .009458 | -.180409 |
| 4 | -.039559 | -.155091 | .284613 | .032433 | .009915 | -.145346 |
| 5 | -.030320 | -.108336 | .225071 | .024183 | .012930 | -.114823 |
| 6 | -.016011 | -.070868 | .170666 | .015219 | .016608 | -.084245 |
| 7 | -.004567 | -.037726 | .124225 | .006246 | .017595 | -.054759 |
| 8 | .003469 | -.009834 | .083709 | -.005234 | .013938 | -.028442 |
| 9 | .009209 | .009739 | .047403 | -.010363 | .010930 | -.008474 |
| 10 | .009333 | .028589 | .010045 | -.006881 | .015525 | .010734 |
| 11 | .008262 | .049123 | -.029761 | .000010 | .018354 | .034432 |
| 12 | .008863 | .063434 | -.060651 | .000671 | .016331 | .056133 |
| 13 | .015161 | .073186 | -.087628 | -.000363 | .010473 | .070705 |
| 14 | .018976 | .088865 | -.109465 | .000669 | .008773 | .086249 |
| 15 | .020508 | .106992 | -.130257 | -.013416 | .004749 | .095793 |
| 16 | .028691 | .116895 | -.145615 | -.029041 | -.005667 | .096579 |
| 17 | .037380 | .116314 | -.156977 | -.042498 | -.012409 | .093763 |
| 18 | .041571 | .117468 | -.164185 | -.042163 | -.019791 | .088264 |
| 19 | .038373 | .119773 | -.170119 | -.031550 | -.023506 | .085868 |
| 20 | .040677 | .119549 | -.174764 | -.032347 | -.022427 | .087563 |
| 21 | .042641 | .124777 | -.177047 | -.033125 | -.020002 | .090894 |
| 22 | .032557 | .129057 | -.178553 | -.031242 | -.019416 | .093126 |
| 23 | .019439 | .124965 | -.175724 | -.033494 | -.015549 | .090892 |
| 24 | .013816 | .112302 | -.166167 | -.032008 | -.005033 | .079570 |
| 25 | .009644 | .097900 | -.155370 | -.016345 | .005072 | .070121 |
| 26 | .006327 | .085138 | -.139488 | .000146 | .009352 | .066148 |
| 27 | .006489 | .072500 | -.123242 | .002292 | .008070 | .059824 |
| 28 | .005697 | .068944 | -.101834 | .003772 | .001067 | .049255 |
| 29 | .005259 | .059525 | -.083873 | .012000 | -.011314 | .039917 |
| 30 | .006937 | .036842 | -.067917 | .024432 | -.018057 | .034051 |
| 31 | .013504 | .015662 | -.058031 | .019594 | -.024375 | .027635 |
| 32 | .015765 | .005269 | -.049680 | .009910 | -.025411 | .028021 |
| 33 | .017005 | -.001248 | -.041406 | .012639 | -.022933 | .035456 |
| 34 | .013245 | -.001556 | -.031762 | .022861 | -.022414 | .040689 |
| 35 | .005544 | .003127 | -.026602 | .035522 | -.015039 | .040072 |
| 36 | .001434 | .006314 | -.023556 | .028538 | -.004012 | .034599 |
| 37 | .001765 | .005617 | -.014055 | .009231 | -.000010 | .027828 |
| 38 | .004906 | .008517 | -.006860 | -.012262 | -.001148 | .018340 |
| 39 | .012433 | .013372 | -.001915 | -.027189 | -.006716 | .008836 |
| 40 | .013126 | .018347 | .001691 | -.026532 | -.011172 | .004018 |
| 41 | .004861 | .021690 | .011207 | -.014512 | -.010864 | .004649 |
| 42 | -.009073 | .017698 | .015598 | .000641 | -.009922 | .002514 |
| 43 | -.022380 | .009574 | .018342 | .015605 | -.014193 | -.005516 |
| 44 | -.032372 | -.003294 | .025126 | .025799 | -.016289 | -.018723 |
| 45 | -.038938 | -.016981 | .031959 | .031164 | -.013945 | -.030315 |
| 46 | -.038159 | -.024036 | .034300 | .020140 | -.002834 | -.034920 |
| 47 | -.033732 | -.024084 | .034621 | .002362 | .007641 | -.036242 |
| 48 | -.031365 | -.023537 | .033421 | -.009395 | .019204 | -.035282 |
| 49 | -.033124 | -.020105 | .032381 | -.009350 | .022978 | -.038185 |
| 50 | -.036861 | -.018561 | .030881 | .002345 | .015484 | -.038356 |
| 51 | -.040554 | -.015414 | .031462 | .014237 | -.000942 | -.041563 |
| 52 | -.039306 | -.016417 | .037218 | .020225 | -.017327 | -.046068 |
| 53 | -.033524 | -.020926 | .039617 | .012318 | -.027361 | -.042698 |
| 54 | -.023999 | -.020613 | .041524 | .006007 | -.030707 | -.036864 |
| 55 | -.021542 | -.024586 | .042007 | .003173 | -.028945 | -.037697 |
| 56 | -.028248 | -.029456 | .044364 | .003055 | -.026737 | -.042875 |
| 57 | -.030202 | -.042730 | .040576 | .004387 | -.025139 | -.045642 |
| 58 | -.022776 | -.054823 | .034465 | .006308 | -.018685 | -.040522 |
| 59 | -.013393 | -.061784 | .024355 | .009282 | -.015034 | -.036372 |
| 60 | -.011781 | -.060493 | .017185 | .021621 | -.010583 | -.028024 |

RUN NC 96C 46M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.25989 10E 00 | 0.18298 10E 00 | 0.24699 10E-01 | 0.15282 10E 00 | 0.20628 10E-01 | 0.14523 10E-01 |
| 1 | -.015915 | -.009979 | .069994 | -.010753 | .010734 | -.081668 |
| 2 | -.022113 | -.012325 | .118249 | -.013913 | .009577 | -.105364 |
| 3 | -.024202 | -.013788 | .140892 | -.018605 | .002590 | -.104762 |
| 4 | -.022750 | -.009783 | .151579 | -.024702 | -.001161 | -.098779 |
| 5 | -.018640 | -.012548 | .158786 | -.030760 | -.000578 | -.089345 |
| 6 | -.012123 | -.018970 | .163912 | -.024121 | .001525 | -.081388 |
| 7 | -.005312 | -.016077 | .164259 | -.014934 | -.002613 | -.078497 |
| 8 | .004073 | -.016251 | .164915 | -.002665 | -.009039 | -.074546 |
| 9 | .010449 | -.015814 | .162601 | .007313 | -.010367 | -.067071 |
| 10 | .014851 | -.014838 | .159459 | .005036 | -.010071 | -.060040 |
| 11 | .022101 | -.015882 | .156625 | .001245 | -.006405 | -.053496 |
| 12 | .031842 | -.015172 | .148323 | .009537 | -.005034 | -.050694 |
| 13 | .032176 | -.008979 | .133159 | .012519 | -.004353 | -.048528 |
| 14 | .031689 | -.004803 | .118972 | .006327 | -.002439 | -.047036 |
| 15 | .029534 | .002146 | .105207 | .009225 | -.001812 | -.049185 |
| 16 | .032798 | .007928 | .093408 | .014804 | -.001187 | -.049964 |
| 17 | .031260 | .008109 | .083166 | .018417 | -.000825 | -.044856 |
| 18 | .024522 | .008216 | .070246 | .023257 | -.003106 | -.037139 |
| 19 | .019703 | .003629 | .059054 | .024422 | -.009378 | -.032401 |
| 20 | .014401 | .003902 | .049348 | .029907 | -.018392 | -.026020 |
| 21 | .009050 | .007346 | .041841 | .031770 | -.019699 | -.014487 |
| 22 | .002733 | .006312 | .031630 | .028344 | -.019977 | -.004175 |
| 23 | -.010101 | -.001060 | .024595 | .018743 | -.014150 | .002630 |
| 24 | -.021757 | -.006519 | .020543 | .012319 | -.007612 | .012588 |
| 25 | -.021911 | -.007534 | .020615 | .011917 | -.002454 | .022097 |
| 26 | -.016633 | -.009822 | .020865 | .013553 | -.001882 | .030961 |
| 27 | -.017782 | -.006778 | .020209 | .014245 | -.001586 | .032165 |
| 28 | -.016842 | .000791 | .008264 | .011535 | -.003889 | .038431 |
| 29 | -.013052 | .009436 | -.009450 | .011990 | -.006641 | .043657 |
| 30 | -.005233 | .015502 | -.026119 | .001548 | -.005757 | .049478 |
| 31 | .002615 | .019067 | -.040005 | -.013824 | -.002272 | .041999 |
| 32 | .008018 | .016940 | -.045827 | -.026862 | .004765 | .025897 |
| 33 | .010148 | .010347 | -.047991 | -.032667 | .011528 | .014833 |
| 34 | .012265 | .005159 | -.049173 | -.029646 | .012873 | .010927 |
| 35 | .012858 | .004715 | -.046088 | -.028649 | .009258 | .013039 |
| 36 | .009153 | .002405 | -.047429 | -.028963 | .004237 | .020148 |
| 37 | .008690 | .000780 | -.049316 | -.025513 | .005117 | .023573 |
| 38 | .000441 | .000958 | -.053925 | -.016975 | .012103 | .026004 |
| 39 | -.010848 | -.001045 | -.056815 | -.010478 | .024115 | .028388 |
| 40 | -.021534 | -.002291 | -.056226 | -.011354 | .036066 | .031937 |
| 41 | -.029773 | .001129 | -.051746 | -.016378 | .038557 | .035808 |
| 42 | -.028528 | .007587 | -.048118 | -.020430 | .028493 | .036731 |
| 43 | -.026394 | .009446 | -.043260 | -.013659 | .015777 | .035244 |
| 44 | -.024541 | .008154 | -.036029 | -.009386 | .012157 | .021933 |
| 45 | -.021230 | .004975 | -.030094 | -.013621 | .011955 | .012693 |
| 46 | -.027473 | .003788 | -.024179 | -.020235 | .011817 | .001525 |
| 47 | -.033728 | .005861 | -.017532 | -.025672 | .011599 | -.007189 |
| 48 | -.033074 | .009148 | -.013316 | -.021924 | .004673 | -.009314 |
| 49 | -.025524 | .008286 | -.012172 | -.018045 | -.000416 | -.005646 |
| 50 | -.014616 | .004011 | -.013738 | -.001252 | -.007793 | -.004472 |
| 51 | .001383 | .005022 | -.017484 | .018173 | -.009840 | -.005801 |
| 52 | .019913 | .003890 | -.017993 | .026119 | -.003136 | -.004981 |
| 53 | .029715 | -.005726 | -.021510 | .027515 | .002896 | .001584 |
| 54 | .030256 | -.011105 | -.021167 | .023434 | .006753 | -.003847 |
| 55 | .022878 | -.015212 | -.017414 | .016805 | .013801 | -.014384 |
| 56 | .013333 | -.019104 | -.012902 | .013589 | .015493 | -.013508 |
| 57 | .003114 | -.020062 | -.005380 | .018791 | .013236 | -.007960 |
| 58 | -.008405 | .016330 | .007068 | .017626 | .009057 | -.008816 |
| 59 | -.017302 | -.008413 | .018334 | .013422 | .004185 | -.012929 |
| 60 | -.018926 | -.001287 | .026092 | .004296 | .000955 | -.016264 |

RUN NO 96C 46M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.31118 10E 00 | 0.21706 10E 00 | 0.10759 10E 00 | 0.19604 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .863097 | .751008 | .692996 | .862234 |
| 2 | .682052 | .460654 | .358161 | .697031 |
| 3 | .527452 | .268435 | .172274 | .547020 |
| 4 | .401646 | .146111 | .085277 | .423022 |
| 5 | .295474 | .062220 | .033492 | .321313 |
| 6 | .203823 | -.000363 | -.006902 | .240530 |
| 7 | .127339 | -.054693 | -.039079 | .167119 |
| 8 | .066977 | -.104296 | -.067737 | .095701 |
| 9 | .015109 | -.138460 | -.078680 | .036289 |
| 10 | -.030350 | -.160647 | -.078024 | -.012167 |
| 11 | -.066190 | -.158607 | -.075728 | -.055247 |
| 12 | -.102813 | -.164912 | -.072983 | -.098884 |
| 13 | -.133624 | -.163268 | -.084380 | -.130266 |
| 14 | -.161954 | -.148171 | -.099380 | -.156339 |
| 15 | -.189238 | -.126965 | -.123740 | -.176373 |
| 16 | -.210077 | -.124175 | -.141889 | -.203811 |
| 17 | -.228209 | -.129723 | -.146662 | -.229422 |
| 18 | -.242098 | -.135825 | -.133468 | -.252093 |
| 19 | -.245944 | -.136493 | -.114585 | -.269099 |
| 20 | -.249885 | -.125169 | -.117345 | -.279913 |
| 21 | -.254339 | -.108236 | -.132647 | -.280392 |
| 22 | -.258338 | -.097244 | -.133730 | -.282759 |
| 23 | -.256358 | -.089910 | -.120505 | -.284327 |
| 24 | -.249654 | -.090036 | -.103567 | -.276020 |
| 25 | -.234438 | -.101462 | -.092663 | -.269505 |
| 26 | -.219338 | -.110153 | -.076809 | -.263122 |
| 27 | -.202500 | -.103983 | -.056489 | -.251955 |
| 28 | -.189395 | -.082476 | -.048957 | -.238445 |
| 29 | -.171104 | -.071636 | -.051621 | -.214618 |
| 30 | -.139101 | -.057482 | -.023880 | -.183867 |
| 31 | -.100929 | -.036889 | .016034 | -.150761 |
| 32 | -.062874 | -.025078 | .031431 | -.123325 |
| 33 | -.035051 | -.026662 | .031427 | -.103952 |
| 34 | -.015730 | -.021434 | .026005 | -.089765 |
| 35 | -.007874 | -.000524 | .013546 | -.076231 |
| 36 | -.008489 | .033334 | -.001730 | -.057852 |
| 37 | -.015865 | .058109 | -.012781 | -.041100 |
| 38 | -.022893 | .077558 | -.006550 | -.021283 |
| 39 | -.027550 | .092096 | -.005019 | .002625 |
| 40 | -.033480 | .096925 | -.005912 | .028782 |
| 41 | -.039715 | .082652 | -.019709 | .052882 |
| 42 | -.034083 | .056111 | -.025373 | .075549 |
| 43 | -.023807 | .037546 | -.010090 | .096297 |
| 44 | -.012367 | .031657 | -.016498 | .113303 |
| 45 | -.001152 | .017785 | .035319 | .125744 |
| 46 | .008394 | .024298 | .018759 | .129774 |
| 47 | .015686 | .021521 | .012453 | .121846 |
| 48 | .017129 | .014440 | .016704 | .112878 |
| 49 | .016744 | .008530 | .020325 | .105418 |
| 50 | .017495 | .005247 | .019244 | .094229 |
| 51 | .018605 | .003944 | .022545 | .086021 |
| 52 | .025826 | .008419 | .018091 | .078157 |
| 53 | .037663 | .019172 | .011666 | .078586 |
| 54 | .047737 | .032682 | .001829 | .077676 |
| 55 | .054175 | .043515 | -.000152 | .082013 |
| 56 | .057548 | .040208 | .003263 | .080559 |
| 57 | .069105 | .033402 | .021434 | .074322 |
| 58 | .078537 | .031418 | .039638 | .063495 |
| 59 | .087286 | .030544 | .039897 | .044294 |
| 60 | .090143 | .032676 | .037305 | .018320 |

RUN NO 96C 46M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 0 | .015493 | -.005468 | .016441 | -.006214 | .015691 | -.037348 |
| 1 | -.113560 | -.086559 | .185807 | .013722 | .185049 | -.573778 |
| 2 | -.358471 | -.128179 | .254704 | .105823 | .176059 | -.838754 |
| 3 | -.436249 | -.149586 | .271686 | .199216 | .105034 | -.908934 |
| 4 | -.306186 | -.112246 | .171766 | .154336 | .032294 | -.659832 |
| 5 | -.212412 | -.067596 | .086810 | .012372 | -.003874 | -.444178 |
| 6 | -.055365 | -.048030 | .050303 | -.059582 | -.057630 | -.260854 |
| 7-8 | -.068062 | -.047245 | .038477 | .035783 | -.026388 | -.176482 |
| 9-11 | -.07890 | -.030579 | .017182 | .015705 | .053307 | -.103450 |
| 12-15 | .016344 | -.020076 | .009661 | -.051654 | .013239 | -.095403 |
| 16-20 | -.008940 | -.012346 | .001901 | -.001620 | .025945 | -.051510 |
| 21-27 | -.011874 | -.006246 | .000803 | -.010469 | .012909 | -.035985 |
| 28-36 | -.001692 | -.002392 | .000125 | -.004008 | .008523 | -.011089 |
| 37-47 | .002130 | -.001122 | -.000259 | -.001229 | .001988 | -.002547 |
| 48-60 | .003537 | -.000629 | -.000155 | -.000258 | .003029 | -.002705 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-03 | 10E-02 | 10E-02 | 10E-04 | 10E-03 |
| 1 | .109937 | -.087307 | .122822 | .055614 | -.474754 | -.201255 |
| 2 | .181272 | -.619730 | .150950 | .091336 | -.960897 | -.384835 |
| 3 | .115604 | -.883607 | .139468 | -.012510 | -.166920 | -.453835 |
| 4 | -.003006 | -.170271 | .082163 | -.144226 | .532311 | -.284755 |
| 5 | -.161909 | -.691869 | .056776 | -.107417 | -.041949 | -.155857 |
| 6 | -.306750 | -.632993 | .042227 | -.037759 | -.135119 | -.125644 |
| 7-8 | -.096708 | .013404 | .017630 | -.047754 | .032971 | -.187011 |
| 9-11 | -.058235 | -.044118 | .015485 | -.038393 | .450897 | -.107087 |
| 12-15 | -.017770 | -.120439 | .009680 | .008253 | .019793 | -.068734 |
| 16-20 | -.012602 | -.031618 | .003733 | .010624 | .071931 | -.054636 |
| 21-27 | -.010519 | -.110292 | .002462 | -.010363 | .207755 | -.027674 |
| 28-36 | -.001422 | .022530 | .000534 | -.002464 | .036937 | -.016308 |
| 37-47 | -.002360 | -.032217 | -.000119 | .000112 | .021696 | -.008136 |
| 48-60 | -.002706 | -.008259 | -.000115 | -.002247 | -.004753 | -.001994 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .031926 | .003454 | .002922 | .020537 |
| 1 | .382251 | .086285 | .047292 | .247905 |
| 2 | .504564 | .168221 | .075932 | .351768 |
| 3 | .537928 | .236332 | .100486 | .359683 |
| 4 | .367811 | .201053 | .087645 | .210549 |
| 5 | .212963 | .169070 | .062411 | .132227 |
| 6 | .166878 | .168014 | .051575 | .106718 |
| 7-8 | .143320 | .122391 | .055497 | .082056 |
| 9-11 | .086156 | .080659 | .044607 | .048869 |
| 12-15 | .047497 | .053191 | .030165 | .028845 |
| 16-20 | .028552 | .040585 | .024781 | .017961 |
| 21-27 | .018119 | .026185 | .016990 | .010227 |
| 28-36 | .010699 | .015620 | .009986 | .006285 |
| 37-47 | .006674 | .009620 | .005886 | .004553 |
| 48-60 | .004598 | .006112 | .004020 | .003708 |

RUN NC 96C 46M 6-19-63 1921-2037(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.15944 10E 00 | 0.10936 10E 00 | 0.22497 10E-01 | 0.64275 10E-01 | 0.13222 10E-01 | 0.90688 10E-02 |
| 0 | -.069681 | -.573185 | .639961 | .072941 | .056739 | -.475942 |
| 1 | .016402 | -.156220 | .297647 | -.036453 | .058769 | -.151968 |
| 2 | .023036 | .016064 | .067572 | -.075721 | .024450 | -.018108 |
| 3 | -.017510 | .009126 | .011542 | .043562 | -.017917 | .005211 |
| 4 | -.007988 | .102014 | -.059287 | .037018 | -.005872 | .065190 |
| 5 | -.048517 | .038966 | -.039021 | -.019278 | .004085 | -.008642 |
| 6 | -.022131 | .013474 | -.057487 | .041343 | -.014225 | .017138 |
| 7 | .054182 | .077787 | -.074263 | -.044580 | .049610 | .065544 |
| 8 | .039362 | .111418 | -.087524 | -.027189 | .011103 | .083085 |
| 9 | -.016598 | .092110 | -.059341 | .009409 | -.042411 | .041745 |
| 10 | .029532 | .003464 | .011660 | -.017215 | -.019228 | .001015 |
| 11 | .085703 | .023476 | -.018496 | .012641 | -.013272 | .029460 |
| 12 | .000756 | .036891 | -.072007 | .000883 | -.015939 | .062340 |
| 13 | -.043111 | .065840 | -.153753 | .039915 | -.065690 | .107103 |
| 14 | .008870 | .061001 | -.155947 | .008331 | -.040088 | .069492 |
| 15 | -.009422 | .009411 | -.125980 | -.008642 | .052869 | .059805 |
| 16 | -.059579 | -.020561 | -.026171 | .046105 | -.064365 | .039793 |
| 17 | .012747 | .122349 | .055749 | .012489 | -.032238 | -.073173 |
| 18 | -.0134671 | -.109572 | .037378 | .014255 | -.031203 | -.060794 |
| 19 | -.004674 | -.067304 | -.023378 | .002464 | .030155 | -.049113 |
| 20 | -.015423 | .009421 | -.026819 | .021512 | -.043074 | -.009523 |
| 21 | .030460 | -.030769 | .047658 | .000320 | -.019802 | -.018368 |
| 22 | -.036284 | -.095444 | .057394 | .031055 | -.022802 | -.032320 |
| 23 | -.004367 | .021994 | -.031315 | .017950 | .011953 | .057038 |
| 24 | -.000506 | .032778 | -.067910 | -.008029 | .027214 | .013745 |
| 25 | .034581 | .015631 | -.054216 | -.078661 | .039105 | -.044807 |
| 26 | .006315 | .099888 | -.048964 | -.051132 | .036574 | .058716 |
| 27 | .024748 | .046901 | .048835 | -.052457 | .018661 | -.035837 |
| 28 | -.023765 | .012805 | .068166 | -.011055 | -.055343 | -.048575 |
| 29 | .026220 | .040206 | .015551 | -.082661 | -.043783 | -.008176 |
| 30 | .022652 | .125395 | -.019862 | .006459 | .046996 | .054958 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 |
| 0 | .001111 | -.014095 | .007505 | .050713 | .008188 | -.008823 |
| 1 | .019749 | -.084908 | .095888 | -.185835 | .128386 | -.171442 |
| 2 | -.036145 | -.259241 | .130447 | -.303965 | .144988 | -.303754 |
| 3 | -.146534 | -.547493 | .145125 | .063160 | .098103 | -.397808 |
| 4 | -.103213 | -.476269 | .101366 | .146792 | .063411 | -.271529 |
| 5 | .068152 | -.311670 | .091597 | -.115638 | .046653 | -.192864 |
| 6 | .147968 | -.383573 | .128858 | -.324144 | .012539 | -.296394 |
| 7 | .090955 | -.384809 | .111445 | -.505173 | .084245 | -.287891 |
| 8 | .000092 | -.250833 | .054076 | -.321133 | .157172 | -.143985 |
| 9-11 | -.036950 | -.363062 | .068916 | .100785 | .066389 | -.226258 |
| 12-14 | -.180122 | -.221053 | .047664 | .503097 | -.015337 | -.185993 |
| 15-21 | -.052614 | -.232617 | .037080 | .844687 | -.009094 | -.122857 |
| 22-30 | -.068084 | -.199689 | .028274 | .039543 | -.004896 | -.138703 |

RUN NO 96C 46M 6-19-63 1921-2037(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.15944 10E 00 | 0.10936 10E 00 | 0.22497 10E-01 | 0.64275 10E-01 | 0.13222 10E-01 | 0.90688 10E-02 |
| 1 | .018469 | -.037692 | .221114 | -.017120 | -.014361 | -.084517 |
| 2 | -.006554 | -.007727 | .155835 | .046885 | .001800 | -.038394 |
| 3 | -.003110 | -.028215 | .149872 | .012277 | -.030488 | .007881 |
| 4 | -.026429 | -.036726 | .084453 | -.035870 | .006524 | .009822 |
| 5 | .035801 | -.055546 | .058580 | .054745 | -.040928 | .010935 |
| 6 | .027069 | -.078594 | .046420 | .023603 | -.029424 | -.002316 |
| 7 | .030754 | -.062773 | .026503 | .057735 | -.055857 | .007615 |
| 8 | .090317 | -.016772 | .005189 | .009695 | -.063022 | .033514 |
| 9 | .016207 | -.012494 | -.035510 | .003361 | .006592 | .056173 |
| 10 | .013470 | -.015413 | -.038588 | -.031377 | -.016680 | .110240 |
| 11 | -.007984 | .059837 | .026294 | -.004590 | -.011575 | .014885 |
| 12 | -.063513 | .004377 | .032163 | -.033085 | .047981 | -.004690 |
| 13 | -.096152 | .022512 | .028158 | -.123920 | .070800 | -.011651 |
| 14 | -.050669 | -.002602 | -.028568 | -.028391 | .061387 | -.007979 |
| 15 | .049681 | -.005155 | -.038852 | .013022 | .008926 | .008875 |
| 16 | .005209 | .017403 | -.078004 | .043995 | -.003916 | .015768 |
| 17 | .010012 | .067446 | -.062875 | -.043301 | .002103 | .006327 |
| 18 | -.009251 | .053645 | -.006158 | -.026943 | .015107 | -.041881 |
| 19 | .016113 | .005842 | .023400 | -.015701 | .004239 | -.058740 |
| 20 | .004194 | -.031180 | .015549 | -.001601 | -.034262 | -.035972 |
| 21 | .017468 | -.019319 | -.013628 | .051212 | -.021493 | -.013419 |
| 22 | .000065 | -.023279 | -.021248 | .028535 | -.021388 | -.014330 |
| 23 | -.000103 | -.015102 | .032472 | .024772 | -.016640 | -.031851 |
| 24 | .011203 | .056890 | -.012731 | -.037579 | -.046231 | -.036035 |
| 25 | .011885 | .058506 | .007522 | -.018769 | -.020669 | -.060342 |
| 26 | -.003410 | .043632 | -.016873 | .032595 | -.015799 | -.066123 |
| 27 | .048845 | .026463 | -.007489 | .057599 | -.082147 | -.036536 |
| 28 | .067002 | .008546 | .019726 | .088037 | -.073625 | -.025334 |
| 29 | .009418 | -.049860 | .037878 | .017510 | -.064669 | -.006337 |
| 30 | -.051563 | -.076973 | .038466 | -.006952 | .024616 | .003038 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | .038239 | -.078333 | .295462 | -.327975 | -.047117 | .085087 |
| 2 | .092146 | -.170613 | .540432 | .211224 | -.107946 | .109646 |
| 3 | .189079 | -.222844 | .780306 | .902055 | -.228763 | .001958 |
| 4 | .105150 | -.142555 | .718711 | .710826 | -.117959 | -.102952 |
| 5 | -.142399 | -.021873 | .681172 | -.087982 | .086211 | -.111545 |
| 6 | -.274439 | .015994 | .783334 | -.540452 | .136499 | -.078639 |
| 7 | -.121878 | .085759 | .640866 | -.443877 | .045509 | -.028220 |
| 8 | .112389 | .094746 | .276247 | .104111 | -.049971 | .024537 |
| 9-11 | .043856 | -.029318 | .418053 | .153761 | -.015125 | -.104519 |
| 12-14 | .068180 | -.053636 | .241881 | .392096 | -.025896 | -.057931 |
| 15-21 | -.004104 | -.027780 | .190001 | -.449961 | .012000 | -.042747 |
| 22-30 | .060223 | -.013787 | .176123 | .022781 | -.062797 | -.017315 |

RUN NC 96C 46M 6-19-63 1921-2037(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.27129 10E 00 | 0.93711 10E-01 | 0.44085 10E-01 | 0.18655 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .378437 | -.015799 | .153079 | .421895 |
| 2 | .076685 | -.074862 | -.015981 | .084597 |
| 3 | -.015995 | -.000664 | .053789 | -.038758 |
| 4 | -.142909 | .055811 | -.077125 | -.075816 |
| 5 | -.111070 | -.020590 | -.027447 | -.016531 |
| 6 | -.064967 | .047026 | -.033922 | -.100436 |
| 7 | -.095977 | -.032025 | -.034127 | -.123860 |
| 8 | -.168826 | -.069333 | -.139069 | -.095038 |
| 9 | -.136490 | -.005115 | -.113955 | -.058113 |
| 10 | -.023852 | -.042645 | -.006251 | .051964 |
| 11 | -.092071 | -.103434 | -.122035 | -.009563 |
| 12 | -.082347 | -.026481 | -.155769 | -.142647 |
| 13 | -.115626 | -.031401 | -.161981 | -.224541 |
| 14 | -.102477 | -.085546 | -.085775 | -.206949 |
| 15 | -.069211 | -.068879 | -.027323 | -.142956 |
| 16 | .004185 | -.005843 | -.045313 | -.068697 |
| 17 | .140392 | .034313 | .070243 | -.003159 |
| 18 | .116839 | .017984 | .023252 | -.017045 |
| 19 | .053164 | -.016049 | .059084 | .002853 |
| 20 | -.020089 | .024177 | .047956 | -.011924 |
| 21 | .013716 | -.047777 | -.006061 | .039639 |
| 22 | .063007 | -.057799 | .089213 | .024563 |
| 23 | -.032311 | .041319 | -.005749 | -.038323 |
| 24 | -.086351 | .039703 | .031941 | -.016456 |
| 25 | -.134357 | .060615 | .079689 | .053334 |
| 26 | -.106854 | -.091064 | -.072036 | .023652 |
| 27 | -.001181 | .009863 | .013828 | .080724 |
| 28 | .070195 | .026817 | -.012885 | .030096 |
| 29 | -.006673 | -.007389 | .009411 | .025661 |
| 30 | -.044614 | -.043705 | -.048157 | .018781 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .009016 | .057014 | .005140 | .008990 |
| 1 | .106898 | .364110 | .141006 | .121583 |
| 2 | .171268 | .392107 | .265969 | .160368 |
| 3 | .259288 | .402493 | .340073 | .159459 |
| 4 | .228306 | .276816 | .222114 | .112756 |
| 5 | .166701 | .193027 | .144063 | .120289 |
| 6 | .193058 | .232604 | .188922 | .158146 |
| 7 | .189796 | .300064 | .221128 | .140228 |
| 8 | .133831 | .2746 | .179671 | .076375 |
| 9-11 | .140210 | .372000 | .176422 | .085766 |
| 12-14 | .080943 | .439690 | .164386 | .081265 |
| 15-21 | .080550 | .500742 | .196889 | .042671 |
| 22-30 | .072042 | .521272 | .194386 | .047573 |

RUN NO 96C 91M 6-19-63 1921-2037(EST)

GROSS STATISTICS

| | | |
|-----------------|------------------------|------------------|
| CLEAR STABLE | WIND SPEED 7.44 M/SEC | SIGMA A 2.70 DEG |
| | WIND DIRECTION 231 DEG | SIGMA E 2.0 DEG |
| | SOLAR RAD. 0 LY/MIN | |

| | | | | |
|-------------------------|--------------------------------|-------------------------------|-----------------|------------------|
| WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN | 301 PT BLOCK AVG |
|-------------------------|--------------------------------|-------------------------------|-----------------|------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.45665E-00 | 0.13999E-00 | 0.11936E-00 | 0.85070E-01 |
| V | 0.11627E-00 | 0.93440E-01 | 0.83803E-01 | 0.39594E-01 |
| W | 0.57186E-01 | 0.54248E-01 | 0.51301E-01 | 0.18740E-01 |
| T | 0.13462E-01 | 0.21570E-02 | 0.17032E-02 | 0.13501E-02 |
| E | 0.31505E-00 | 0.14384E-00 | 0.12723E-00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.09083 | 0.05029 | 0.04644 | 0.03920 |
| V | 0.04583 | 0.04109 | 0.03891 | 0.02674 |
| W | 0.03214 | 0.03131 | 0.03044 | 0.01840 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.12905E-01 | -0.56016E-02 | -0.34166E-02 | -0.30461E-02 |
| U,W | -0.37473E-01 | -0.41869E-01 | -0.37757E-01 | -0.23190E-01 |
| U,T | 0.59647E-01 | 0.75040E-02 | 0.54833E-02 | 0.58266E-02 |
| V,W | -0.68809E-02 | -0.20602E-02 | -0.26582E-02 | -0.91663E-03 |
| V,T | -0.40279E-02 | 0.24947E-03 | 0.39851E-06 | 0.19959E-03 |
| W,T | -0.91088E-03 | -0.31898E-02 | -0.26298E-02 | -0.21249E-02 |
| WE | 0.92754E-02 | 0.41333E-02 | 0.39499E-02 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.05601 | -0.04898 | -0.03416 | -0.05249 |
| U,W | -0.23189 | -0.48045 | -0.48264 | -0.58080 |
| U,T | 0.76075 | 0.43184 | 0.38458 | 0.54368 |
| V,W | -0.08439 | -0.02894 | -0.04054 | -0.03365 |
| V,T | -0.10181 | 0.01757 | 0.00003 | 0.02730 |
| W,T | -0.03283 | -0.29488 | -0.28134 | -0.42244 |

RUN NO 96C 91M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10002 10E 00 | 0.78255 10E-01 | 0.14261 10E-01 | 0.65580 10E-01 | 0.11951 10E-01 | 0.93503 10E-02 |
| 0 | -.034082 | -.482594 | .384487 | -.040578 | .000036 | -.281623 |
| 1 | -.029834 | -.412058 | .381498 | -.0536 | -.007863 | -.271229 |
| 2 | -.022984 | -.299353 | .350341 | -.00922 | -.016778 | -.220307 |
| 3 | -.018177 | -.207153 | .295227 | .010766 | -.021199 | -.158345 |
| 4 | -.018290 | -.133407 | .229974 | .022685 | -.020146 | -.109499 |
| 5 | -.019479 | -.078659 | .168668 | .027020 | -.020598 | -.070512 |
| 6 | -.015818 | -.037568 | .115821 | .05802 | -.018111 | -.034467 |
| 7 | -.004716 | -.008899 | .072907 | .015975 | -.009714 | -.010855 |
| 8 | .008837 | .017821 | .040862 | .000929 | .004452 | .009068 |
| 9 | .013695 | .036967 | .015347 | -.007481 | .021848 | .019674 |
| 10 | .011713 | .051772 | -.006690 | -.018790 | .022158 | .021402 |
| 11 | .006392 | .055775 | -.024195 | -.020411 | .011970 | .025294 |
| 12 | .005662 | .053859 | -.037679 | -.013328 | .006222 | .030802 |
| 13 | .006393 | .055151 | -.053153 | -.005890 | .005012 | .039794 |
| 14 | .011594 | .053297 | -.071002 | -.004862 | -.000354 | .051929 |
| 15 | .020405 | .051387 | -.090216 | -.013100 | -.005306 | .058908 |
| 16 | .025358 | .051924 | -.103567 | -.019582 | -.004217 | .063060 |
| 17 | .028274 | .071226 | -.110487 | -.029964 | -.001534 | .062513 |
| 18 | .027919 | .092413 | -.110455 | -.028922 | .000425 | .061826 |
| 19 | .021860 | .102128 | -.118002 | -.016119 | -.003421 | .060166 |
| 20 | .022542 | .108231 | -.127383 | -.004362 | -.010701 | .066963 |
| 21 | .023158 | .112548 | -.133990 | -.006123 | -.009096 | .070070 |
| 22 | .018319 | .119439 | -.143186 | -.000469 | -.001848 | .072979 |
| 23 | .005928 | .125365 | -.156366 | .003823 | .004132 | .073888 |
| 24 | -.009390 | .120947 | -.165245 | .017705 | .011082 | .067935 |
| 25 | -.012841 | .113916 | -.164645 | .026469 | .012241 | .063739 |
| 26 | -.002071 | .117990 | -.155304 | .026057 | .009321 | .059432 |
| 27 | .005263 | .111002 | -.138588 | .019561 | .004804 | .051150 |
| 28 | .009675 | .088861 | -.122367 | .008875 | .002224 | .043734 |
| 29 | .009236 | .069594 | -.108823 | -.006757 | -.000929 | .036417 |
| 30 | .000533 | .049843 | -.093185 | -.004172 | -.005034 | .025725 |
| 31 | -.005061 | .031587 | -.072988 | -.000874 | -.002566 | .021821 |
| 32 | -.009158 | .026746 | -.052378 | -.000255 | -.001192 | .022999 |
| 33 | -.011800 | .022994 | -.037016 | .007631 | .007943 | .025373 |
| 34 | -.011401 | .016471 | -.024930 | .014561 | .013045 | .024348 |
| 35 | -.007537 | .007455 | -.014932 | .010543 | .007474 | .025880 |
| 36 | -.007628 | .003654 | -.009112 | .013489 | .003023 | .025088 |
| 37 | -.007032 | -.004408 | -.003668 | .016473 | .003685 | .024839 |
| 38 | -.004501 | -.012334 | .004943 | .018262 | .008838 | .015653 |
| 39 | -.008617 | -.017056 | .010900 | .013503 | .014755 | .010078 |
| 40 | -.013434 | -.024153 | .013899 | .017918 | .019249 | .007341 |
| 41 | -.010679 | -.028260 | .022630 | .020041 | .021206 | -.000396 |
| 42 | -.002837 | -.040069 | .032252 | .022040 | .023430 | -.005462 |
| 43 | -.006627 | -.051957 | .039546 | .021937 | .025557 | -.012415 |
| 44 | -.016460 | -.054066 | .044687 | .017775 | .026075 | -.022980 |
| 45 | -.020038 | -.057224 | .047773 | .012920 | .021921 | -.028036 |
| 46 | -.019684 | -.054582 | .045382 | .018681 | .022210 | -.029285 |
| 47 | -.016954 | -.059235 | .040924 | .020191 | .026637 | -.026546 |
| 48 | -.013371 | -.055938 | .035316 | .014238 | .027363 | -.026091 |
| 49 | -.008310 | -.049663 | .031605 | .004297 | .020128 | -.025884 |
| 50 | -.000759 | -.041694 | .031150 | -.016305 | .010735 | -.020437 |
| 51 | .008262 | -.022732 | .036479 | -.024472 | -.000033 | -.011734 |
| 52 | .012764 | -.003998 | .035151 | -.023973 | -.009869 | -.005754 |
| 53 | .017893 | .010067 | .030924 | -.020043 | -.021837 | -.001785 |
| 54 | .022088 | .015569 | .026460 | -.021715 | -.028882 | -.0007084 |
| 55 | .018025 | .008616 | .021980 | -.016662 | -.031004 | -.011910 |
| 56 | .006455 | .002923 | .017546 | -.002306 | -.030977 | -.013405 |
| 57 | -.012060 | .003405 | .014011 | -.000205 | -.027778 | -.017543 |
| 58 | -.022708 | .002194 | .004546 | -.004592 | -.030873 | -.027092 |
| 59 | -.023603 | .003435 | -.000766 | -.005428 | -.035056 | -.020516 |
| 60 | -.017723 | .003672 | -.000924 | -.007657 | -.042286 | -.016103 |

RUN NC 96C 91M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10002 10E 00 | 0.78255 10E-01 | 0.14261 10E-01 | 0.65580 10E-01 | 0.11951 10E-01 | 0.93503 10E-02 |
| 1 | -.003297 | -.001033 | .101993 | -.008775 | .022387 | -.110841 |
| 2 | .001849 | .004870 | .153661 | -.019321 | .030885 | -.138643 |
| 3 | .003839 | .014007 | .170375 | -.029891 | .029090 | -.125167 |
| 4 | -.001793 | .023427 | .168925 | -.044829 | .020940 | -.100872 |
| 5 | -.009069 | .023349 | .155939 | -.053262 | .008414 | -.082714 |
| 6 | -.008425 | .014317 | .143847 | -.049625 | -.003134 | -.064443 |
| 7 | -.004972 | .004416 | .133161 | -.036171 | -.013593 | -.042050 |
| 8 | .003098 | -.003687 | .123561 | -.027135 | -.023280 | -.017489 |
| 9 | .012820 | -.011612 | .119842 | -.010709 | -.023442 | -.005420 |
| 10 | .025558 | -.011016 | .122518 | .007213 | -.033402 | -.004249 |
| 11 | .036544 | -.007946 | .123080 | .011678 | -.032656 | -.001948 |
| 12 | .044969 | -.004035 | .120830 | .008552 | -.033451 | .003998 |
| 13 | .052674 | .001389 | .120595 | .010736 | -.038435 | .002250 |
| 14 | .061181 | .005226 | .113703 | .016892 | -.044013 | .000224 |
| 15 | .068367 | .008089 | .102798 | .019741 | -.044938 | -.003824 |
| 18 | .050777 | .009481 | .063290 | .020103 | -.013637 | -.017726 |
| 19 | .035611 | .007817 | .046985 | .015810 | .004066 | -.014856 |
| 20 | .023734 | .006330 | .035982 | .011328 | .018172 | -.015475 |
| 21 | .012362 | .015219 | .031366 | .003562 | .027648 | -.021413 |
| 22 | .007191 | .025935 | .025604 | -.001275 | .038660 | -.027464 |
| 23 | .000024 | .028914 | .018144 | .002146 | .047989 | -.027885 |
| 24 | -.011398 | .019902 | .008674 | .010975 | .048122 | -.022591 |
| 25 | -.018629 | .000511 | .002530 | .020652 | .037596 | -.017067 |
| 26 | -.021240 | -.015258 | -.003706 | .033092 | .021320 | -.011975 |
| 27 | -.026507 | -.020064 | -.012314 | .038268 | .013191 | -.001914 |
| 28 | -.030714 | -.024076 | -.020204 | .034416 | .007293 | .014123 |
| 29 | -.034271 | -.034730 | -.024499 | .027653 | .009659 | .025648 |
| 30 | -.039474 | -.042367 | -.024057 | .013948 | .013053 | .028552 |
| 31 | -.045470 | -.050023 | -.027037 | -.003540 | .014679 | .020610 |
| 32 | -.052934 | -.044354 | -.030886 | -.014903 | .015128 | .020650 |
| 33 | -.051519 | -.026588 | -.034077 | -.006204 | .013451 | .019763 |
| 34 | -.042193 | -.017258 | -.033783 | .005264 | .009168 | .008513 |
| 35 | -.036535 | -.011280 | -.034487 | .006450 | .006956 | .002134 |
| 36 | -.040667 | -.001884 | -.034906 | .002011 | .009772 | .000858 |
| 37 | -.041986 | .003643 | -.039987 | -.008131 | .013341 | .003079 |
| 38 | -.038901 | .002000 | -.045872 | -.025965 | .010623 | .005035 |
| 39 | -.028312 | .006142 | -.045748 | -.032216 | .012201 | .005678 |
| 40 | -.018336 | .012244 | -.045329 | -.028455 | .013801 | .001426 |
| 41 | -.014356 | .016189 | -.042530 | -.018945 | -.006225 | -.000464 |
| 42 | -.005809 | .012950 | -.040177 | -.010911 | -.004116 | -.002736 |
| 43 | -.001390 | .002054 | -.037607 | -.000611 | -.020501 | -.000837 |
| 44 | .002833 | -.004796 | -.034726 | .000170 | -.032505 | .008772 |
| 45 | .011211 | -.004564 | -.032382 | -.002075 | -.036590 | .018271 |
| 46 | .020583 | -.001239 | -.031062 | -.001476 | -.037401 | .021203 |
| 47 | .029705 | .002063 | -.030999 | -.006522 | -.035835 | .020550 |
| 48 | .034861 | -.001497 | -.025239 | -.016238 | -.031669 | .019072 |
| 49 | .040783 | -.005366 | -.015224 | -.013638 | -.027153 | .021663 |
| 50 | .040098 | -.002042 | -.004370 | -.008669 | -.027147 | .021980 |
| 51 | .035157 | .004660 | -.001796 | -.005936 | -.021395 | .011909 |
| 52 | .031311 | .018366 | -.006992 | -.009676 | -.007480 | -.001067 |
| 53 | .019800 | .034070 | -.019480 | -.024459 | .004941 | -.001785 |
| 54 | .012379 | .047204 | -.026924 | -.035848 | .016513 | .003599 |
| 55 | .011212 | .048501 | -.026759 | -.034984 | .021590 | -.006510 |
| 56 | .010585 | .040998 | -.027342 | -.024790 | .023142 | -.016409 |
| 57 | .003580 | .035750 | -.025832 | -.022258 | .023435 | -.023321 |
| 58 | -.002032 | .037509 | -.023505 | -.012521 | .022893 | -.029671 |
| 59 | -.007534 | .034467 | -.022889 | -.004743 | .017422 | -.027359 |
| 60 | -.001116 | .021291 | -.023265 | .007702 | .011038 | -.016312 |

RUN NC 96C 91M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.11935 10E 00 | 0.83822 10E-01 | 0.51308 10E-01 | 0.17040 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .842376 | .741154 | .667206 | .845662 |
| 2 | .644370 | .442408 | .330985 | .648187 |
| 3 | .489103 | .256250 | .159084 | .483169 |
| 4 | .362948 | .141252 | .063862 | .349527 |
| 5 | .257276 | .061871 | -.000331 | .242744 |
| 6 | .164421 | .010281 | -.045623 | .164875 |
| 7 | .084236 | -.025511 | -.079224 | .110442 |
| 8 | .017517 | -.065485 | -.111508 | .074303 |
| 9 | -.025337 | -.108454 | -.116157 | .041427 |
| 10 | -.055864 | -.123411 | -.114000 | .003849 |
| 11 | -.074935 | -.121242 | -.094214 | -.041168 |
| 12 | -.095122 | -.116980 | -.071475 | -.080062 |
| 13 | -.121708 | -.116562 | -.059598 | -.114328 |
| 14 | -.144582 | -.130050 | -.047195 | -.146367 |
| 15 | -.167086 | -.137192 | -.038611 | -.174539 |
| 16 | -.192223 | -.136664 | -.043144 | -.197474 |
| 17 | -.217131 | -.147587 | -.067040 | -.216228 |
| 18 | -.231621 | -.148668 | -.081653 | -.232057 |
| 19 | -.239542 | -.148070 | -.100107 | -.239078 |
| 20 | -.250305 | -.150106 | -.108546 | -.237958 |
| 21 | -.261574 | -.151031 | -.109518 | -.243391 |
| 22 | -.269580 | -.141884 | -.109420 | -.255910 |
| 23 | -.277839 | -.125125 | -.111427 | -.273702 |
| 24 | -.285009 | -.119034 | -.104693 | -.284492 |
| 25 | -.286877 | -.114506 | -.089820 | -.289976 |
| 26 | -.283713 | -.115902 | -.090044 | -.289308 |
| 27 | -.267629 | -.111289 | -.102003 | -.279280 |
| 28 | -.227048 | -.106351 | -.084410 | -.258745 |
| 29 | -.179019 | -.091338 | -.060829 | -.223456 |
| 30 | -.128499 | -.061653 | -.024703 | -.181473 |
| 31 | -.085680 | -.024338 | .004049 | -.134012 |
| 32 | -.054117 | .005187 | .011914 | -.090602 |
| 33 | -.023711 | .017124 | .018518 | -.045371 |
| 34 | -.004644 | .018875 | .010957 | -.010037 |
| 35 | .010524 | .021098 | .001687 | .011956 |
| 36 | .019301 | .028959 | -.002607 | .017102 |
| 37 | .020739 | .036393 | .002325 | .022376 |
| 38 | .016205 | .053507 | .015324 | .030649 |
| 39 | .018485 | .070894 | .019855 | .040451 |
| 40 | .027059 | .088437 | .004377 | .050524 |
| 41 | .041181 | .096654 | .000402 | .058871 |
| 42 | .060547 | .091399 | .020960 | .060487 |
| 43 | .076173 | .085400 | .017509 | .057909 |
| 44 | .085772 | .076062 | .016252 | .063979 |
| 45 | .093084 | .057577 | .010419 | .080167 |
| 46 | .097749 | .039938 | .022129 | .087510 |
| 47 | .105249 | .025955 | .036619 | .079048 |
| 48 | .116093 | .024528 | .041732 | .071542 |
| 49 | .114613 | .024945 | .036784 | .061651 |
| 50 | .096366 | .018024 | .027769 | .052191 |
| 51 | .071092 | .009828 | .012289 | .051061 |
| 52 | .044594 | .013921 | -.010303 | .046829 |
| 53 | .027228 | .013680 | -.016905 | .042792 |
| 54 | .016616 | .009043 | -.005308 | .047314 |
| 55 | .002831 | -.004447 | .023326 | .045945 |
| 56 | -.010480 | -.007978 | .051973 | .037367 |
| 57 | -.019786 | -.010186 | .046142 | .022558 |
| 58 | -.018374 | -.012419 | .016462 | .002790 |
| 59 | -.012174 | -.014686 | -.001699 | -.010988 |
| 60 | -.011537 | -.022428 | -.004181 | -.015887 |

RUN NC 96C 91M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-03 | 10E-02 | 10E-02 | 10E-03 | 10E-04 | 10E-03 |
| 0 | .031202 | -.016457 | .006131 | -.007292 | .006499 | -.019123 |
| 1 | .039379 | -.302707 | .086048 | -.302529 | -.577382 | -.291088 |
| 2 | -.445519 | -.503695 | .124659 | -.129499 | -.400049 | -.419382 |
| 3 | -.971227 | -.573284 | .128304 | .252909 | -.148032 | -.453658 |
| 4 | -.793443 | -.357815 | .070795 | .274917 | -.406157 | -.326223 |
| 5 | -.411582 | -.246196 | .038445 | .144265 | -.355060 | -.237643 |
| 6 | -.110536 | -.255850 | .036520 | -.092879 | -.364816 | -.183152 |
| 7-8 | -.014314 | -.256019 | .029596 | -.393959 | -.265632 | -.165803 |
| 9-11 | -.174611 | -.129676 | .011775 | -.209598 | .321353 | -.096257 |
| 12-15 | .125858 | -.073814 | .003106 | -.306420 | .319799 | -.042820 |
| 16-20 | -.100471 | -.049281 | -.000028 | -.012057 | -.068221 | -.017129 |
| 21-27 | -.042157 | -.022882 | -.000867 | -.050452 | .083422 | -.006394 |
| 28-36 | .003174 | -.015252 | -.000729 | -.013895 | .016050 | .002011 |
| 37-47 | .000259 | -.007350 | -.000255 | .000678 | .014207 | .005067 |
| 48-60 | -.004600 | -.003296 | -.000280 | .000663 | .014900 | .001977 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | .048454 | -.154458 | .580449 | .315928 | .008161 | -.092179 |
| 2 | .154415 | .211801 | .751544 | .124558 | -.060933 | -.119043 |
| 3 | .167926 | .379840 | .731814 | -.424665 | -.149117 | -.117406 |
| 4 | -.026732 | -.108321 | .458235 | -.684069 | -.079733 | -.092178 |
| 5 | -.123563 | -.322589 | .294323 | -.507813 | .043855 | -.105753 |
| 6 | -.089638 | .243573 | .214365 | -.500942 | .119559 | -.166314 |
| 7-8 | -.030184 | .456203 | .187970 | -.558167 | .106508 | -.178473 |
| 9-11 | .026658 | .146556 | .183733 | -.029113 | .016593 | -.118886 |
| 12-15 | .006137 | -.068712 | .098598 | -.092157 | .036557 | -.069807 |
| 16-20 | .001914 | -.103982 | .045827 | -.038079 | .006840 | -.042828 |
| 21-27 | -.003694 | -.018573 | .023173 | .012609 | .007863 | -.034420 |
| 28-36 | -.004355 | .002705 | .009976 | -.032134 | .001164 | -.012648 |
| 37-47 | -.000916 | -.010584 | .006468 | .011841 | .002012 | -.006757 |
| 48-60 | -.000727 | -.001683 | .000376 | .009905 | .000029 | -.002395 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .007413 | .025165 | .015309 | .013856 |
| 1 | .117324 | .367818 | .203336 | .186965 |
| 2 | .185177 | .695830 | .321574 | .276208 |
| 3 | .206595 | .957820 | .407440 | .294358 |
| 4 | .125489 | .739161 | .334815 | .167446 |
| 5 | .072750 | .551922 | .274116 | .093318 |
| 6 | .069347 | .542817 | .297000 | .096058 |
| 7-8 | .065561 | .454232 | .325329 | .078901 |
| 9-11 | .034982 | .327017 | .212662 | .054289 |
| 12-15 | .017261 | .211850 | .135668 | .033619 |
| 16-20 | .012957 | .168770 | .115689 | .016552 |
| 21-27 | .008354 | .096392 | .081230 | .010637 |
| 28-36 | .004936 | .068795 | .055538 | .006826 |
| 37-47 | .003281 | .038821 | .035202 | .004360 |
| 48-60 | .002078 | .023620 | .021519 | .002976 |

RUN NO 96C 91M 6-19-63 1921-2037(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.58043 10E-01 | 0.39939 10E-01 | 0.10723 10E-01 | 0.27234 10E-01 | 0.73119 10E-02 | 0.50313 10E-02 |
| 0 | -.052480 | -.580634 | .543367 | -.033658 | .027296 | -.422338 |
| 1 | .026160 | -.131204 | .230005 | -.011415 | .032241 | -.102826 |
| 2 | .011537 | .036589 | .023507 | -.003691 | .056082 | -.004619 |
| 3 | -.027366 | .050484 | -.031641 | .030178 | .059967 | .001322 |
| 4 | .021230 | -.001948 | -.008725 | .012505 | .046932 | .044640 |
| 5 | -.004501 | -.010793 | .009652 | -.027644 | .042578 | -.000636 |
| 6 | -.000508 | .061819 | -.024464 | -.025747 | -.031161 | .041268 |
| 7 | .026304 | .025249 | -.026884 | -.020014 | -.021568 | .055218 |
| 8 | .056265 | -.036393 | -.046958 | .025802 | .018183 | .006462 |
| 9 | .034650 | .024588 | -.006425 | .021995 | -.013869 | .039191 |
| 10 | -.047508 | .104167 | -.075025 | .050673 | -.080755 | .055244 |
| 11 | -.007446 | .112190 | -.085434 | .032711 | -.072947 | .090217 |
| 12 | .077848 | .088615 | -.064318 | .000519 | -.012855 | .045817 |
| 13 | -.020979 | .017970 | -.040888 | -.017899 | -.014709 | -.017589 |
| 14 | -.041163 | .088539 | -.104853 | -.009518 | -.006567 | .064593 |
| 15 | -.011281 | .071637 | -.109379 | -.026861 | .002866 | .024392 |
| 16 | -.005747 | -.030873 | -.068951 | -.017423 | .018547 | -.016007 |
| 17 | -.030994 | -.085080 | -.024105 | -.024655 | -.026262 | .017773 |
| 18 | -.032513 | -.025458 | -.004884 | -.035594 | -.046724 | -.015959 |
| 19 | -.050529 | -.016978 | -.022726 | .017803 | -.086913 | -.021400 |
| 20 | -.103141 | -.012967 | .000970 | .039691 | -.109692 | .029346 |
| 21 | -.013726 | -.037606 | -.027877 | .037767 | -.029867 | .002938 |
| 22 | -.013430 | -.080712 | .023798 | .088417 | .032606 | -.008725 |
| 23 | .037470 | -.070952 | .078567 | -.022903 | -.010643 | -.083309 |
| 24 | .012647 | .016831 | .037552 | -.012574 | -.061537 | .014781 |
| 25 | -.015268 | .003929 | .046897 | -.000606 | -.032251 | -.000403 |
| 26 | .019962 | .025185 | -.007165 | -.035263 | .049258 | -.009121 |
| 27 | .048989 | .020040 | .008144 | -.001611 | .057577 | -.021403 |
| 28 | .025829 | .031378 | .024510 | -.002700 | .062550 | -.004542 |
| 29 | .045848 | -.014245 | .050555 | -.026043 | .086076 | -.000820 |
| 30 | .045132 | -.030460 | .100826 | -.019082 | .112968 | -.059096 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-03 | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 0 | .004274 | -.000039 | .026880 | .014318 | -.004320 | .000076 |
| 1 | .494196 | -.055448 | .407672 | -.019938 | .146325 | -.070075 |
| 2 | .221074 | -.136426 | .553325 | -.041834 | .153087 | -.135303 |
| 3 | -.488439 | -.192325 | .510240 | -.116993 | .095601 | -.173720 |
| 4 | -.370079 | -.116181 | .303715 | -.175244 | .081787 | -.136330 |
| 5 | .045437 | -.061990 | .302932 | .112434 | .001263 | -.101372 |
| 6 | -.049895 | -.091290 | .354826 | .254791 | -.085959 | -.096205 |
| 7 | .132562 | -.127464 | .352563 | -.034175 | -.033597 | -.112957 |
| 8 | .266871 | -.128526 | .314341 | -.178064 | .018976 | -.117433 |
| 9-11 | .019241 | -.113085 | .318479 | -.234628 | -.049651 | -.090206 |
| 12-14 | -.247864 | -.129734 | .291209 | -.030075 | .005739 | -.095488 |
| 15-21 | -.192997 | -.081956 | .149264 | .035316 | -.009189 | -.067077 |
| 22-30 | -.336882 | -.086356 | .119492 | -.046159 | .011159 | -.087240 |

RUN NC 96C 91M 6-19-63 1921-2037(EST)
301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.58043 10E-01 | 0.39939 10E-01 | 0.10723 10E-01 | 0.27234 10E-01 | 0.73119 10E-02 | 0.50313 10E-02 |
| 1 | .042060 | -.002146 | .185618 | .041464 | -.050651 | -.057762 |
| 2 | .038472 | -.035097 | .155941 | .073178 | .025657 | -.060455 |
| 3 | -.025115 | -.073716 | .103520 | .042040 | -.001388 | -.021061 |
| 4 | -.021595 | -.042567 | .053030 | .004108 | -.014431 | -.009669 |
| 5 | -.005930 | -.029577 | .030968 | -.019878 | -.021890 | .015382 |
| 6 | .025103 | -.015018 | .005964 | .046541 | .018876 | .018548 |
| 7 | -.007496 | -.038165 | .067001 | .044323 | -.038237 | -.007536 |
| 8 | .008047 | -.037995 | .073623 | .006066 | -.010147 | -.002002 |
| 9 | -.031663 | .011591 | .056490 | -.049593 | .020693 | -.051527 |
| 10 | .003992 | .028007 | .029033 | -.006286 | .013894 | -.033764 |
| 11 | -.015855 | .004878 | .042206 | -.011251 | -.027638 | -.034640 |
| 12 | -.022098 | .022157 | .008616 | -.032003 | .059315 | .004206 |
| 13 | .007377 | -.016692 | -.013121 | .028770 | .038864 | .044576 |
| 14 | .017204 | -.003879 | -.007837 | -.008483 | .053675 | .061831 |
| 15 | .000330 | .089845 | -.023602 | -.017077 | .025797 | .024602 |
| 16 | .058052 | .066578 | -.067779 | .044554 | -.023510 | .020288 |
| 17 | .076677 | .026789 | -.072037 | -.000490 | -.020970 | .017259 |
| 18 | .066980 | .039011 | -.015230 | .047579 | -.051436 | -.047150 |
| 19 | .002798 | .023344 | -.011660 | .041232 | .021801 | -.039015 |
| 20 | -.050536 | .001365 | -.017780 | -.065570 | -.024399 | -.001423 |
| 21 | -.046843 | -.070569 | .019030 | .021857 | -.038976 | .018743 |
| 22 | -.071971 | -.072724 | .002440 | -.040638 | .004302 | .031729 |
| 23 | .064615 | -.069571 | -.008859 | .075417 | -.037987 | -.009817 |
| 24 | .000768 | .025760 | -.047965 | .017714 | .000830 | .010830 |
| 25 | -.061759 | .013892 | .014361 | -.056975 | -.013189 | -.048146 |
| 26 | -.011405 | -.036191 | .032262 | .007212 | -.016645 | .005021 |
| 27 | .014118 | -.008056 | -.052240 | -.024090 | .024165 | .047777 |
| 28 | .012507 | .006784 | -.074426 | -.042555 | -.009950 | .048878 |
| 29 | -.036481 | .016831 | -.016696 | -.052408 | .022319 | -.006501 |
| 30 | -.054322 | -.003187 | .025364 | -.115365 | .068565 | -.024292 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-04 | 10E-04 |
| 1 | .215619 | -.018899 | .234220 | .165985 | .218915 | -.132852 |
| 2 | -.106446 | -.389171 | .327691 | .118087 | .115328 | -.293188 |
| 3 | -.268366 | -.832638 | .340750 | .219675 | -.515738 | -.427469 |
| 4 | .299731 | -.461631 | .182744 | .364749 | -.617202 | -.191882 |
| 5 | .421982 | -.117618 | .121077 | .291363 | .148503 | .146835 |
| 6 | -.237796 | -.350508 | .222891 | .100044 | .405934 | -.153122 |
| 7 | -.116076 | -.125403 | .279299 | .050837 | -.012994 | -.903723 |
| 8 | .444133 | .155502 | .250724 | .156522 | -.333781 | -.928297 |
| 9-11 | .378720 | -.149315 | .226741 | .299061 | .020354 | -.231669 |
| 12-14 | .458489 | .294996 | .091252 | .111635 | -.186746 | -.215599 |
| 15-21 | .039555 | .095752 | .075873 | -.064161 | .501461 | -.103710 |
| 22-30 | -.165297 | -.087960 | .036336 | -.066783 | -.387240 | .042984 |

RUN NC 96C 91M 6-19-63 1921-2037(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.85122 10E-01 | 0.39579 10E-01 | 0.18739 10E-01 | 0.13508 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .302176 | .165308 | .065731 | .403006 |
| 2 | -.046442 | .000487 | -.011211 | .058759 |
| 3 | -.079300 | .058114 | -.020680 | -.035373 |
| 4 | -.029148 | .020698 | -.077315 | -.005671 |
| 5 | -.001315 | -.032984 | -.030259 | -.023789 |
| 6 | -.057326 | -.096100 | -.167054 | -.078503 |
| 7 | -.048735 | -.098173 | -.057452 | -.062763 |
| 8 | -.070273 | -.063140 | -.041512 | -.073137 |
| 9 | -.054885 | -.129506 | -.026068 | -.105260 |
| 10 | -.117061 | -.071514 | -.094308 | -.140217 |
| 11 | -.137779 | -.102392 | -.100758 | -.089182 |
| 12 | -.169535 | -.112259 | -.069548 | -.030769 |
| 13 | -.063806 | .027139 | -.009104 | -.025850 |
| 14 | -.139613 | -.050706 | -.057681 | -.162054 |
| 15 | -.134545 | -.007096 | -.129608 | -.148528 |
| 16 | -.039799 | .080626 | .101508 | -.091567 |
| 17 | .068228 | .064520 | .068404 | -.053871 |
| 18 | .056648 | -.053559 | .052181 | .004129 |
| 19 | .012752 | .009111 | .066944 | -.052435 |
| 20 | .076355 | .000521 | .004109 | -.081026 |
| 21 | .058151 | .008851 | .062745 | -.083319 |
| 22 | .108115 | -.068411 | .031720 | -.076271 |
| 23 | .084024 | -.050642 | .085774 | .015949 |
| 24 | .026312 | .005000 | -.053625 | .024882 |
| 25 | .025829 | -.025250 | -.026230 | .075197 |
| 26 | -.050363 | -.046290 | -.044971 | .025010 |
| 27 | -.052717 | -.055850 | -.033796 | .070871 |
| 28 | -.029339 | -.023447 | -.057941 | .122358 |
| 29 | .037469 | .019047 | -.011125 | .145583 |
| 30 | .030853 | .015359 | .013844 | .184901 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .019624 | .025590 | .001038 | .006650 |
| 1 | .313011 | .178738 | .026764 | .095364 |
| 2 | .571708 | .213294 | .068301 | .111577 |
| 3 | .702893 | .292922 | .115838 | .111118 |
| 4 | .413694 | .275611 | .097077 | .093114 |
| 5 | .309996 | .174233 | .074476 | .085015 |
| 6 | .447237 | .129740 | .089821 | .077814 |
| 7 | .501742 | .148207 | .094809 | .071802 |
| 8 | .467861 | .148326 | .077749 | .060263 |
| 9-11 | .453713 | .130460 | .063246 | .073540 |
| 12-14 | .451301 | .167760 | .078771 | .054351 |
| 15-21 | .282131 | .170694 | .074961 | .038765 |
| 22-30 | .249758 | .179032 | .109352 | .032259 |

RUN NO 96C 46M 6-19-63 1921-2037(EST)
 RUN NO 96C 91M 6-19-63 1921-2037(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .526100 | .400787 | .237211 | .236741 |
| 1 | .191472 | .208882 | .297205 | .242639 |
| 2 | .014932 | .164976 | .280666 | .221539 |
| 3 | .040600 | .236299 | .257039 | .221080 |
| 4 | .054373 | .187683 | .236128 | .207186 |
| 5 | .059354 | .081009 | .174739 | .114852 |
| 6 | .031638 | .137134 | .129408 | .089590 |
| 7-8 | .093970 | .085031 | .113481 | .051577 |
| 9-11 | .126279 | .071005 | .141959 | .074401 |
| 12-15 | .144844 | .060296 | .097534 | .080537 |
| 16-20 | .089260 | .063139 | .065703 | .064980 |
| 21-27 | .100303 | .092476 | .105774 | .079847 |
| 28-36 | .100090 | .074450 | .085957 | .081441 |
| 37-47 | .123466 | .079142 | .082017 | .150595 |
| 48-60 | .089073 | .091758 | .104700 | .093001 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .635322 | .830168 | .028341 | .691440 |
| 1 | .728442 | .456611 | .036918 | .711126 |
| 2 | .548997 | .333095 | .263090 | .573247 |
| 3 | .333403 | .365764 | .362482 | .301276 |
| 4 | .241556 | .390097 | .257865 | .144515 |
| 5 | .365299 | .354266 | .212774 | .346615 |
| 6 | .568283 | .516301 | .427607 | .389656 |
| 7 | .489536 | .577506 | .297528 | .275066 |
| 8 | .399152 | .396238 | .085412 | .159878 |
| 9-11 | .158795 | .171725 | .216678 | .278044 |
| 12-14 | .187405 | .277369 | .394110 | .212556 |
| 15-21 | .231748 | .362868 | .257987 | .308468 |
| 22-30 | .251257 | .195725 | .283046 | .138714 |

RUN NO 97 15M 7-3-63 1446-1600(EST)

GROSS STATISTICS

3 CU
UNSTABLE

WIND SPEED 6.49 M/SEC
WIND DIRECTION 285 DEG
SOLAR RAD. 1.00 LY/MIN

SIGMA A 12.4 DEG
SIGMA E 7.3 DEG

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AV |
|-------------------------------|-------------------------|--------------------------------|-------------------------------|-----------------------------------|
| VARIANCES | | | | |
| U | 0.30508E 01 | 0.23195E 01 | 0.16087E 01 | 0.16135E 01 |
| V | 0.17711E 01 | 0.14551E 01 | 0.10827E 01 | 0.85054E 00 |
| W | 0.53866E 00 | 0.52529E 00 | 0.50654E 00 | 0.18290E-00 |
| T | 0.22939E-00 | 0.49149E-01 | 0.17919E-01 | 0.41795E-01 |
| E | 0.26803E 01 | 0.21504E 01 | 0.15991E 01 | |
| GUSTINESS RATIOS | | | | |
| U | 0.26913 | 0.23467 | 0.19543 | 0.19572 |
| V | 0.20506 | 0.10587 | 0.16033 | 0.14210 |
| W | 0.11309 | 0.11167 | 0.10967 | 0.06590 |
| COVARIANCES | | | | |
| U,V | -0.13107E-00 | -0.11664E-00 | 0.13535E-01 | -0.11609E-00 |
| U,W | -0.53250E 00 | -0.50979E 00 | -0.43244E-00 | -0.34758E-00 |
| U,T | -0.50425E 00 | -0.21893E-00 | -0.10041E-00 | -0.18165E-00 |
| V,W | -0.18780E-01 | -0.44811E-01 | -0.17758E-01 | -0.20652E-01 |
| V,T | -0.40541E-01 | 0.51310E-01 | 0.27466E-01 | 0.37014E-01 |
| W,T | 0.38458E-01 | 0.29991E-01 | 0.18990E-01 | 0.26673E-01 |
| WE | 0.11411E-01 | 0.54031E-01 | 0.12367E-00 | |
| NORMALIZED COVARIANCES | | | | |
| U,V | -0.05639 | -0.06349 | 0.01026 | -0.09909 |
| U,W | -0.41539 | -0.46184 | -0.47899 | -0.63981 |
| U,T | -0.60278 | -0.64840 | -0.59139 | -0.69951 |
| V,W | -0.01923 | -0.05126 | -0.02398 | -0.05236 |
| V,T | -0.06160 | 0.19186 | 0.19719 | 0.19632 |
| W,T | 0.1041 | 0.18665 | 0.19931 | 0.30507 |

RUN NO 97 15M 7-3-63 1446-1600(FST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13200 10E 01 | 0.90287 10E 00 | 0.16980 10E 00 | 0.74074 10E 00 | 0.13930 10E 00 | 0.95287 10E-01 |
| 0 | .010327 | -.478898 | -.591341 | -.024055 | .197367 | .199279 |
| 1 | .009145 | -.423831 | -.536237 | -.012367 | .156536 | .214287 |
| 2 | .005706 | -.338644 | -.457686 | -.001917 | .110106 | .199357 |
| 3 | .002542 | -.273660 | -.383975 | .003405 | .073577 | .171810 |
| 4 | -.005486 | -.223014 | -.319325 | .016010 | .054940 | .151805 |
| 5 | -.012668 | -.174213 | -.258272 | .026390 | .050399 | .127462 |
| 6 | -.018825 | -.124408 | -.203297 | .029452 | .050166 | .101525 |
| 7 | -.019482 | -.094341 | -.154194 | .041284 | .042900 | .080825 |
| 8 | -.022789 | -.070977 | -.116007 | .043823 | .035042 | .064482 |
| 9 | -.024658 | -.046441 | -.080288 | .032119 | .024354 | .049212 |
| 10 | -.026139 | -.015903 | -.041059 | .024934 | .017670 | .031816 |
| 11 | -.030472 | .007294 | .001452 | .021343 | .014336 | .014791 |
| 12 | -.034949 | .030570 | .037787 | .012097 | .014028 | -.004645 |
| 13 | -.026971 | .050710 | .067525 | .003873 | .009767 | -.018177 |
| 14 | -.025605 | .074055 | .095168 | -.002717 | .004326 | -.032214 |
| 15 | -.021362 | .103819 | .123424 | -.012615 | -.002385 | -.049355 |
| 16 | -.017169 | .129836 | .147725 | -.019666 | -.008559 | -.062687 |
| 17 | -.015369 | .148206 | .165263 | -.024508 | -.009395 | -.069459 |
| 18 | -.013970 | .159680 | .175744 | -.023235 | -.011709 | -.075274 |
| 19 | -.014873 | .167793 | .189206 | -.013024 | -.014932 | -.082800 |
| 20 | -.013803 | .179916 | .200199 | -.001199 | -.021405 | -.094642 |
| 21 | -.012202 | .181163 | .207768 | .009491 | -.028006 | -.104752 |
| 22 | -.009350 | .178297 | .210564 | .005097 | -.030886 | -.112049 |
| 23 | -.011379 | .179114 | .200640 | .005226 | -.033769 | -.112678 |
| 24 | -.016221 | .174764 | .191746 | .007226 | -.035725 | -.109925 |
| 25 | -.015329 | .174655 | .182114 | .005165 | -.035181 | -.109698 |
| 26 | -.010911 | .171862 | .167902 | .006457 | -.034947 | -.107855 |
| 27 | -.006876 | .159911 | .153618 | .005900 | -.038765 | -.101269 |
| 28 | -.005159 | .146403 | .137787 | .005504 | -.038876 | -.097291 |
| 29 | -.001456 | .133926 | .119651 | -.004287 | -.040003 | -.097006 |
| 30 | .005535 | .111216 | .096360 | -.012785 | -.032973 | -.092909 |
| 31 | .008476 | .076069 | .073121 | -.012664 | -.025348 | -.070932 |
| 32 | .019182 | .043988 | .05370 | -.020336 | -.020521 | -.061244 |
| 33 | .024315 | .019332 | .032457 | -.025557 | -.021405 | -.051010 |
| 34 | .025024 | .006451 | .016674 | -.028929 | -.022738 | -.043688 |
| 35 | .026035 | -.007425 | .004893 | -.025709 | -.020971 | -.034410 |
| 36 | .034801 | -.019896 | .002652 | -.032777 | -.025716 | -.030534 |
| 37 | .046194 | -.029513 | .004882 | -.035288 | -.033133 | -.023616 |
| 38 | .058330 | -.044068 | .004520 | -.024218 | -.038833 | -.006481 |
| 39 | .063664 | -.063115 | -.002617 | -.012154 | -.045091 | .015166 |
| 40 | .064458 | -.074007 | -.011555 | -.010039 | -.044863 | .031002 |
| 41 | .060327 | -.084164 | -.022327 | -.006881 | -.039448 | .044949 |
| 42 | .056239 | -.082519 | -.029886 | -.007921 | -.035224 | .045565 |
| 43 | .051761 | -.081873 | -.036652 | -.009673 | -.036654 | .047817 |
| 44 | .047785 | -.082448 | -.040472 | -.009210 | -.037581 | .053808 |
| 45 | .042392 | -.078203 | -.037691 | -.012285 | -.037903 | .053257 |
| 46 | .036199 | -.067502 | -.028127 | -.020296 | -.038876 | .053064 |
| 47 | .027966 | -.057349 | -.019155 | -.020686 | -.037403 | .053459 |
| 48 | .019562 | -.043615 | -.010226 | -.014850 | -.031645 | .048693 |
| 49 | .006163 | -.037227 | -.008347 | -.011544 | -.023185 | .045492 |
| 50 | -.004467 | -.041085 | -.009060 | -.011108 | -.004344 | .050935 |
| 51 | -.012751 | -.039488 | -.004960 | -.013602 | .011655 | .051918 |
| 52 | -.017202 | -.035626 | -.002134 | -.000729 | .019774 | .051872 |
| 53 | -.018562 | -.030994 | -.003532 | .010504 | .027682 | .040850 |
| 54 | -.021813 | -.029520 | -.001149 | .015453 | .038189 | .038398 |
| 55 | -.024516 | -.024435 | .001113 | .015568 | .040722 | .032961 |
| 56 | -.024116 | -.016687 | -.000276 | .008241 | .038724 | .020672 |
| 57 | -.016955 | -.002600 | .003194 | .003167 | .036729 | .011073 |
| 58 | -.012518 | .015704 | .007371 | -.000363 | .035946 | .005923 |
| 59 | -.016595 | .028900 | .007421 | -.002016 | .035942 | -.005277 |
| 60 | -.024014 | .035399 | .006365 | .007315 | .034805 | -.009740 |

RUN NO 97 15M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13200 10E 01 | 0.90287 10E 00 | 0.16980 10E 00 | 0.74074 10E 00 | 0.13930 10E 00 | 0.95287 10E-01 |
| 1 | .019222 | -.040163 | -.048763 | .018459 | .013385 | .003444 |
| 2 | .026437 | -.055742 | -.082487 | .036150 | .019523 | .012753 |
| 3 | .031862 | -.051924 | -.105954 | .039635 | .025317 | .018283 |
| 4 | .044633 | -.037182 | -.123390 | .046562 | .029100 | .027013 |
| 5 | .057756 | -.019166 | -.132970 | .055992 | .031020 | .039264 |
| 6 | .062061 | -.000378 | -.143873 | .063469 | .033414 | .057132 |
| 7 | .066378 | .005503 | -.153422 | .050228 | .044110 | .075861 |
| 8 | .072272 | .013947 | -.159424 | .037103 | .053955 | .084576 |
| 9 | .074277 | .019655 | -.159777 | .030859 | .053901 | .088607 |
| 10 | .078321 | .022989 | -.154470 | .028123 | .054784 | .085895 |
| 11 | .079714 | .018829 | -.151647 | .018873 | .053111 | .083554 |
| 12 | .074148 | .017533 | -.148007 | .014537 | .046334 | .075359 |
| 13 | .063253 | .012655 | -.142184 | .016875 | .041641 | .072192 |
| 14 | .055188 | .008043 | -.132132 | .012362 | .039730 | .073817 |
| 15 | .046312 | .004535 | -.123289 | .009947 | .039317 | .071233 |
| 16 | .034098 | .001433 | -.111161 | .013815 | .034555 | .060897 |
| 17 | .025776 | -.001076 | -.092297 | .017092 | .038785 | .046393 |
| 18 | .022349 | -.004649 | -.078194 | .018467 | .044924 | .032827 |
| 19 | .018138 | -.002402 | -.068133 | .023605 | .046197 | .026646 |
| 20 | .015107 | -.008654 | -.051019 | .028825 | .040392 | .018380 |
| 21 | .009484 | -.009725 | -.030270 | .030822 | .034785 | .004056 |
| 22 | .003800 | -.012811 | -.014206 | .019301 | .035484 | .002202 |
| 23 | -.000548 | -.011702 | -.002252 | -.004619 | .036829 | .001519 |
| 24 | -.004352 | -.015224 | -.011729 | -.025297 | .032178 | -.007312 |
| 25 | -.009894 | -.022702 | -.024900 | -.041169 | .019343 | -.019818 |
| 26 | -.015763 | -.025191 | .034290 | -.044001 | .005338 | -.030645 |
| 27 | -.015020 | -.016051 | .037462 | -.037657 | .001493 | -.031161 |
| 28 | -.011560 | -.007178 | .035045 | -.033355 | .006239 | -.019265 |
| 29 | -.018594 | -.007702 | .032768 | -.041849 | .006046 | -.017406 |
| 30 | -.024660 | -.012828 | .035180 | -.047051 | .002287 | -.021830 |
| 31 | -.025247 | -.021165 | .041568 | -.038505 | .002757 | -.038826 |
| 32 | -.023947 | -.024706 | .045681 | -.033101 | .000008 | -.050446 |
| 33 | -.021036 | -.029138 | .041200 | -.024259 | -.002411 | -.047085 |
| 34 | -.016885 | -.027655 | .035109 | -.016011 | -.002154 | -.041684 |
| 35 | -.016694 | -.012613 | .028482 | -.008521 | -.002194 | -.036376 |
| 36 | -.020211 | .002676 | .022960 | -.001928 | -.003363 | -.035896 |
| 37 | -.021940 | .004628 | .019904 | -.003015 | -.008139 | -.027704 |
| 38 | -.025631 | .005227 | .017132 | .001019 | -.019459 | -.020038 |
| 39 | -.029399 | .014336 | .015538 | .009828 | -.031854 | -.010704 |
| 40 | -.025367 | .026540 | .009173 | .002129 | -.037772 | .004061 |
| 41 | -.015630 | .028188 | .006075 | -.004039 | -.036435 | .009107 |
| 42 | -.004678 | .025357 | .006939 | .002027 | -.030064 | .008990 |
| 43 | .004380 | .026463 | .008393 | .003738 | -.022228 | .013138 |
| 44 | .012040 | .024884 | .005971 | .002365 | -.013898 | .015464 |
| 45 | .013620 | .018051 | .000979 | -.009528 | -.012910 | .014665 |
| 46 | .011518 | .001358 | -.007094 | -.015977 | -.009632 | .010789 |
| 47 | .007481 | -.006055 | -.011996 | -.014519 | -.005414 | .013105 |
| 48 | .004810 | -.002593 | -.016229 | .000448 | -.006926 | .015308 |
| 49 | .011969 | -.000862 | -.012280 | .009019 | -.008805 | .014863 |
| 50 | .019698 | -.006039 | -.006155 | .013404 | -.003293 | .010676 |
| 51 | .024634 | .001380 | -.001790 | .026103 | .001536 | .012144 |
| 52 | .027732 | .003976 | .003467 | .036215 | .010253 | .015861 |
| 53 | .025333 | .001821 | .011169 | .033228 | .022128 | .013286 |
| 54 | .023092 | .005918 | .013032 | .031047 | .035067 | .007846 |
| 55 | .021293 | .009672 | .013742 | .043417 | .037260 | .010235 |
| 56 | .018778 | .001339 | .014762 | .053101 | .038813 | .010404 |
| 57 | .010373 | -.002036 | .016406 | .033992 | .036414 | .008238 |
| 58 | .007643 | .002487 | .020247 | .016542 | .032121 | .003093 |
| 59 | .010689 | .002119 | .023748 | .008155 | .029580 | .000867 |
| 60 | .014879 | .004358 | .024182 | .003561 | .027920 | .002424 |

RUN NC 97 15M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16089 10E 01 | 0.10829 10E 01 | 0.50568 10E 00 | 0.17920 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .845926 | .781639 | .635448 | .843537 |
| 2 | .657965 | .526450 | .323179 | .672391 |
| 3 | .522198 | .349007 | .184772 | .544970 |
| 4 | .420850 | .231165 | .120898 | .445825 |
| 5 | .329418 | .149313 | .064282 | .367961 |
| 6 | .246054 | .095029 | .025589 | .301714 |
| 7 | .177987 | .063029 | -.002616 | .237713 |
| 8 | .121585 | .031510 | -.022262 | .179080 |
| 9 | .072009 | -.003744 | -.031549 | .115255 |
| 10 | .023366 | -.042246 | -.053859 | .053383 |
| 11 | -.027981 | -.079056 | -.067180 | .001361 |
| 12 | -.081881 | -.095054 | -.078500 | -.037702 |
| 13 | -.125143 | -.102741 | -.087089 | -.074610 |
| 14 | -.166320 | -.111432 | -.088857 | -.114391 |
| 15 | -.209241 | -.120102 | -.086382 | -.152232 |
| 16 | -.243684 | -.125586 | -.092561 | -.194547 |
| 17 | -.260028 | -.125042 | -.095535 | -.225662 |
| 18 | -.272399 | -.133027 | -.114070 | -.246856 |
| 19 | -.292683 | -.157336 | -.119254 | -.269607 |
| 20 | -.310940 | -.180290 | -.131678 | -.291275 |
| 21 | -.316580 | -.186997 | -.139094 | -.304803 |
| 22 | -.309818 | -.176932 | -.139965 | -.303108 |
| 23 | -.296561 | -.175671 | -.144239 | -.287985 |
| 24 | -.285025 | -.170825 | -.155388 | -.270956 |
| 25 | -.275155 | -.164422 | -.172832 | -.247486 |
| 26 | -.261057 | -.159618 | -.178045 | -.217624 |
| 27 | -.232986 | -.165403 | -.157583 | -.197273 |
| 28 | -.198994 | -.160884 | -.138941 | -.181882 |
| 29 | -.170033 | -.147104 | -.131454 | -.164907 |
| 30 | -.134410 | -.112064 | -.106661 | -.132379 |
| 31 | -.094418 | -.067209 | -.063165 | -.098115 |
| 32 | -.056252 | -.038155 | -.012532 | -.066845 |
| 33 | -.022673 | -.017235 | .004394 | -.045299 |
| 34 | -.000089 | -.005788 | .008705 | -.028786 |
| 35 | .014253 | .002805 | .014905 | -.015898 |
| 36 | .019986 | .003242 | .030774 | -.008579 |
| 37 | .024286 | -.000523 | .049345 | -.010661 |
| 38 | .029453 | -.006951 | .063555 | -.008417 |
| 39 | .044195 | -.011295 | .076244 | -.005296 |
| 40 | .055340 | -.003050 | .078961 | .004212 |
| 41 | .066526 | -.005069 | .067372 | .016347 |
| 42 | .075956 | -.013889 | .046811 | .021847 |
| 43 | .083989 | -.012294 | .043354 | .028577 |
| 44 | .087292 | -.005930 | .038206 | .030886 |
| 45 | .077169 | .003075 | .049658 | .026825 |
| 46 | .054367 | .014453 | .054194 | .012157 |
| 47 | .037329 | .025665 | .059128 | -.003170 |
| 48 | .019894 | .035323 | .057703 | -.014640 |
| 49 | .006043 | .037874 | .069845 | -.015545 |
| 50 | .000876 | .038840 | .061169 | -.016216 |
| 51 | -.004846 | .023846 | .047078 | -.012184 |
| 52 | -.006286 | .018567 | .043988 | -.011800 |
| 53 | -.001855 | .015824 | .052927 | -.010279 |
| 54 | .000982 | .012821 | .049465 | -.014022 |
| 55 | .001365 | .011078 | .042507 | -.023557 |
| 56 | -.001086 | .019734 | .036911 | -.020853 |
| 57 | -.012559 | .027963 | .003393 | -.013677 |
| 58 | -.022966 | .032106 | -.021289 | -.011053 |
| 59 | -.019398 | .034871 | -.034437 | -.013410 |
| 60 | -.012997 | .021851 | -.032569 | -.012642 |

RUN NC 97 15M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | -.036372 | -.038126 | -.020914 | .078212 | .076851 | .032251 |
| 1 | -.227708 | -.526308 | -.168966 | .760999 | .529347 | .418123 |
| 2 | -.058957 | -.859002 | -.207698 | .506324 | .435094 | .599812 |
| 3 | .119901 | -.951089 | -.215392 | .080124 | .287842 | .547895 |
| 4 | .059897 | -.474263 | -.126238 | .026279 | .182525 | .213526 |
| 5 | .025742 | -.189157 | -.056128 | -.034364 | .111619 | .091292 |
| 6 | .079911 | -.190367 | -.037928 | -.472846 | .097922 | .082543 |
| 7-8 | .031721 | -.157971 | -.032961 | -.690550 | .114311 | .051642 |
| 9-11 | .001808 | -.121670 | -.020044 | -.126412 | .076716 | .025365 |
| 12-15 | .008260 | -.057972 | -.011904 | -.057669 | .063867 | .012281 |
| 16-20 | -.003734 | -.034641 | -.005372 | .015333 | .057788 | -.003752 |
| 21-27 | -.000169 | -.025186 | -.004013 | -.045271 | .023586 | -.001113 |
| 28-36 | .001106 | -.015450 | -.001996 | -.003079 | .010773 | -.006813 |
| 37-47 | .000550 | -.005091 | -.001361 | -.044211 | .010517 | -.008907 |
| 48-60 | -.000830 | -.003213 | -.000921 | -.007713 | .007974 | -.005007 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .216469 | -.395370 | -.077230 | .017789 | .331196 | .165799 |
| 2 | .307385 | -.082163 | -.013426 | .082745 | .313627 | .250770 |
| 3 | .353006 | -.398919 | -.100321 | .132619 | .202633 | .297037 |
| 4 | .205443 | -.150294 | -.060350 | .078977 | .060869 | .144731 |
| 5 | .093193 | -.493051 | -.021484 | .019279 | .043810 | .013932 |
| 6 | .039644 | -.526915 | -.008880 | .034835 | .027407 | -.007297 |
| 7-8 | -.010248 | -.704999 | -.008664 | .074640 | .025223 | -.035247 |
| 9-11 | -.009001 | -.599687 | -.005326 | .000916 | -.022054 | -.019562 |
| 12-15 | .012243 | -.338418 | -.002664 | .004009 | .013874 | -.014083 |
| 16-20 | -.003321 | -.200547 | -.002058 | -.001880 | .009345 | .008654 |
| 21-27 | .008381 | -.048290 | -.000700 | .005586 | .001486 | .002356 |
| 28-36 | .007402 | -.037693 | -.000263 | -.001071 | .002779 | -.003707 |
| 37-47 | -.001323 | -.004527 | -.000346 | -.000832 | -.000222 | -.001121 |
| 48-60 | .000565 | -.013271 | -.000084 | -.001947 | .001589 | -.000679 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .019991 | .010638 | .015699 | .040240 |
| 1 | .198566 | .100710 | .246162 | .284366 |
| 2 | .276342 | .128884 | .429696 | .322411 |
| 3 | .308258 | .138572 | .510312 | .329077 |
| 4 | .186230 | .096645 | .316725 | .199151 |
| 5 | .086867 | .064490 | .216664 | .090194 |
| 6 | .066975 | .060857 | .266244 | .061680 |
| 7-8 | .058990 | .054541 | .241176 | .060642 |
| 9-11 | .040937 | .035141 | .168596 | .039754 |
| 12-15 | .025940 | .027940 | .138893 | .026655 |
| 16-20 | .015343 | .016996 | .103475 | .019591 |
| 21-27 | .012067 | .010194 | .087564 | .011114 |
| 28-36 | .007088 | .006734 | .061396 | .007384 |
| 37-47 | .003987 | .004073 | .039729 | .005616 |
| 48-60 | .002745 | .002848 | .028460 | .003650 |

RUN NC 97 15M 7-3-63 1446-1600(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.11710 10E 01 | 0.54328 10E 00 | 0.25972 10E 00 | 0.39430 10E 00 | 0.18850 10E 00 | 0.87455 10E-01 |
| 0 | -.099137 | -.639772 | -.699432 | -.052377 | .196366 | .304994 |
| 1 | -.117964 | -.233312 | -.490237 | -.020088 | .140077 | .166678 |
| 2 | -.071213 | .056401 | -.292284 | -.052382 | .081470 | .020353 |
| 3 | -.033119 | .077845 | -.211524 | -.032501 | .032789 | -.015982 |
| 4 | .017765 | -.004314 | -.136192 | -.055598 | -.001107 | .013321 |
| 5 | .004738 | .014997 | -.058307 | -.041256 | -.012111 | .027298 |
| 6 | -.015367 | .107472 | -.000431 | .004810 | -.008030 | -.017824 |
| 7 | -.003022 | .103460 | .055983 | .077662 | -.036342 | -.021533 |
| 8 | .009458 | .028541 | .076606 | .060468 | -.043265 | .009440 |
| 9 | -.002346 | .014896 | .085560 | .041585 | -.006488 | .013761 |
| 10 | .018528 | .056218 | .111519 | .043326 | .003193 | .004454 |
| 11 | .004972 | .063025 | .134924 | .025774 | .000039 | -.039226 |
| 12 | -.058116 | .046377 | .149883 | .047145 | .047246 | -.042725 |
| 13 | -.034661 | -.031291 | .124064 | .028309 | .020548 | -.015748 |
| 14 | -.005902 | -.018344 | .099649 | .013385 | .019713 | -.032534 |
| 15 | -.018817 | -.011571 | .117954 | .037207 | -.003594 | -.058809 |
| 16 | -.005328 | -.011466 | .136721 | .055971 | -.024779 | -.035684 |
| 17 | .002723 | .003270 | .132285 | .054758 | -.029997 | -.039964 |
| 18 | .011107 | .049274 | .112858 | .019055 | -.042204 | -.054793 |
| 19 | .045700 | .033639 | .126310 | -.009609 | -.069542 | -.086366 |
| 20 | .108940 | .015116 | .117482 | -.084255 | -.075681 | -.079415 |
| 21 | .137149 | -.027736 | .063010 | -.100470 | -.070007 | -.014217 |
| 22 | .095448 | -.005369 | .037149 | -.054214 | -.060521 | -.006985 |
| 23 | .048408 | .042424 | .073618 | -.022026 | -.048779 | -.026923 |
| 24 | .060597 | .037986 | .085222 | -.035057 | -.052371 | -.028379 |
| 25 | .096824 | .056218 | .081930 | -.002151 | -.071622 | -.003582 |
| 26 | .131798 | -.019194 | .094235 | -.093072 | -.069333 | .034075 |
| 27 | .100412 | -.008197 | .077750 | -.043824 | -.065534 | .012054 |
| 28 | .075585 | .010603 | .089704 | -.002081 | -.080885 | .001398 |
| 29 | .092082 | .034563 | .059271 | -.044138 | -.080253 | .002283 |
| 30 | .041177 | -.051351 | .019408 | .006254 | -.039422 | .037572 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | -.088203 | -.013320 | -.052302 | .061570 | .119016 | .038298 |
| 1 | -.446570 | -.131028 | -.376645 | -.146241 | .727177 | .340397 |
| 2 | -.157382 | -.164234 | -.334882 | -.816027 | .420586 | .291217 |
| 3 | -.072673 | -.232767 | -.262485 | -.924501 | .312956 | .174624 |
| 4 | -.245867 | -.268913 | -.174729 | -.269334 | .536558 | .145638 |
| 5 | -.199471 | -.235649 | -.123847 | -.143716 | .523140 | .182026 |
| 6 | -.092689 | -.186127 | -.086848 | .045997 | .272912 | .169641 |
| 7 | -.105710 | -.177957 | -.066356 | .562426 | .132867 | .176235 |
| 8 | -.083222 | -.204970 | -.066458 | .429483 | .129452 | .172260 |
| 9-11 | -.065374 | -.162465 | -.043010 | .061750 | .145928 | .127078 |
| 12-14 | .031474 | -.242149 | -.047142 | -.249277 | .072313 | .172100 |
| 15-21 | .014706 | -.107732 | -.027032 | .056572 | .036915 | .040839 |
| 22-30 | .034585 | -.073743 | -.013327 | -.155111 | .018476 | .031795 |

RUN NO 97 15M 7-3-63 1446-1600(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.11710 10E 01 | 0.54328 10E 00 | 0.25972 10E 00 | 0.39430 10E 00 | 0.18850 10E 00 | 0.87455 10E-01 |
| 1 | .072318 | -.013102 | -.152251 | .035604 | .066494 | .091374 |
| 2 | .056020 | -.014934 | -.158013 | .028799 | .077793 | .063752 |
| 3 | .070181 | -.014176 | -.156633 | .011409 | .087475 | .048665 |
| 4 | .058730 | .022033 | -.162527 | .042027 | .082344 | .042758 |
| 5 | .051240 | .012906 | -.136645 | .066509 | .070673 | .033373 |
| 6 | .019586 | -.001158 | -.128944 | .045974 | .045527 | .004911 |
| 7 | -.010145 | -.018051 | -.111166 | .017835 | .018191 | -.027240 |
| 8 | .009162 | -.027862 | -.094806 | .000110 | .022030 | -.021208 |
| 9 | -.001441 | -.022383 | -.113865 | -.035406 | .031953 | -.006378 |
| 10 | -.002734 | -.026360 | -.103002 | -.029022 | .040389 | -.005577 |
| 11 | .024117 | -.020732 | -.059249 | .035771 | .031459 | -.041360 |
| 12 | .013864 | -.019380 | -.031594 | .039372 | .034308 | -.028471 |
| 13 | -.014427 | -.021578 | -.010481 | .056341 | .034439 | -.019304 |
| 14 | -.010497 | -.018085 | -.016559 | -.008535 | .042465 | -.007647 |
| 15 | -.009127 | -.026644 | -.040509 | -.034064 | .052279 | -.011767 |
| 16 | .012875 | -.064266 | -.041331 | -.029065 | .067449 | -.041801 |
| 17 | .070383 | -.039463 | -.026173 | -.014172 | .073603 | -.012520 |
| 18 | .079156 | .008855 | -.027592 | -.032300 | .075893 | .015409 |
| 19 | .023270 | .031138 | -.051809 | -.033234 | .072822 | .032207 |
| 20 | .032369 | .028021 | -.042037 | -.010913 | .086785 | .017703 |
| 21 | .020176 | .039402 | -.029590 | -.018607 | .075675 | .019957 |
| 22 | .026682 | .035660 | -.044289 | .003614 | .065050 | .049316 |
| 23 | .024818 | .020608 | -.042275 | .003018 | .054826 | .043582 |
| 24 | .062432 | .011661 | -.024902 | .026460 | .057469 | .032269 |
| 25 | .038212 | .016536 | -.021767 | .007436 | .026131 | .030959 |
| 26 | .048132 | -.007415 | .015038 | .029731 | .012625 | .002749 |
| 27 | .023487 | -.005913 | .051660 | .016603 | -.021949 | -.004666 |
| 28 | -.000761 | -.000698 | .066259 | .067384 | -.056408 | -.022767 |
| 29 | -.045275 | -.006178 | .111996 | .032238 | -.098510 | -.054780 |
| 30 | -.112313 | .008411 | .123197 | -.056264 | -.145123 | -.040137 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|---------|----------|----------|----------|---------|----------|
| | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .238919 | -.761246 | -.205620 | .312829 | .973270 | -.019438 |
| 2 | .097513 | -.400287 | -.145917 | .486068 | .339294 | .009261 |
| 3 | .159838 | .240836 | -.125601 | .484493 | .266547 | .127874 |
| 4 | .225370 | .258328 | -.092449 | .245150 | .409956 | .159611 |
| 5 | .163914 | -.092485 | -.050528 | .377025 | .306986 | .114871 |
| 6 | .115026 | .089852 | -.039558 | .422228 | .236890 | .118198 |
| 7 | .145328 | .008122 | -.043892 | .006850 | .200598 | .100720 |
| 8 | .113599 | -.417404 | -.045765 | -.402039 | .137441 | .068592 |
| 9-11 | .004847 | -.226481 | -.018119 | -.001784 | .011926 | .040791 |
| 12-14 | .026513 | -.024570 | -.021457 | .141153 | .048969 | .052967 |
| 15-21 | .034990 | .057277 | -.013702 | .099661 | .033263 | .039181 |
| 22-30 | .036010 | -.082131 | -.002618 | .000095 | .017949 | .014269 |

RUN NC 97 15M 7-3-63 1446-1600(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16134 10E 01 | 0.84986 10E 00 | 0.18294 10E 00 | 0.41808 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .506076 | .501567 | .170207 | .777063 |
| 2 | .166964 | .237003 | -.131432 | .558341 |
| 3 | .097888 | .108877 | -.140690 | .431168 |
| 4 | .054533 | .002573 | -.007471 | .299734 |
| 5 | -.040157 | -.028346 | .038108 | .175644 |
| 6 | -.074191 | -.056153 | -.175368 | .070587 |
| 7 | -.100598 | -.127308 | -.148902 | -.033433 |
| 8 | -.103812 | -.090132 | .011047 | -.080342 |
| 9 | -.083384 | -.110390 | .000862 | -.129436 |
| 10 | -.119232 | -.122732 | -.083325 | -.204489 |
| 11 | -.151389 | -.164565 | -.107091 | -.235176 |
| 12 | -.160068 | -.199104 | -.018709 | -.248698 |
| 13 | -.060986 | -.222888 | .041665 | -.252415 |
| 14 | .014433 | -.158085 | -.009187 | -.231975 |
| 15 | -.011658 | -.113512 | .022963 | -.237546 |
| 16 | -.041056 | -.041910 | .014942 | -.240601 |
| 17 | -.064491 | -.015324 | -.005410 | -.224681 |
| 18 | -.089443 | -.052477 | -.083080 | -.193061 |
| 19 | -.093446 | -.110906 | -.034154 | -.195538 |
| 20 | -.084713 | -.057519 | .016688 | -.186462 |
| 21 | -.042787 | .005102 | .077724 | -.134894 |
| 22 | -.027283 | .042970 | .056245 | -.133874 |
| 23 | -.085557 | .087575 | -.031419 | -.160537 |
| 24 | -.105725 | .111921 | -.044866 | -.173374 |
| 25 | -.109524 | .059759 | -.042874 | -.189221 |
| 26 | -.117767 | .039703 | .061296 | -.221443 |
| 27 | -.073478 | -.037281 | -.009059 | -.211736 |
| 28 | -.086821 | -.054992 | .056204 | -.232417 |
| 29 | -.051778 | -.091678 | -.075159 | -.202351 |
| 30 | .015237 | -.091917 | .027836 | -.143030 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-01 |
| 0 | .024932 | .009044 | .001267 | .016678 |
| 1 | .176911 | .085011 | .031517 | .113590 |
| 2 | .167236 | .104943 | .056553 | .095351 |
| 3 | .171046 | .103863 | .087653 | .068863 |
| 4 | .153198 | .069247 | .098873 | .038635 |
| 5 | .110742 | .052995 | .094693 | .022451 |
| 6 | .079014 | .049538 | .080770 | .016334 |
| 7 | .078414 | .054239 | .076706 | .012410 |
| 8 | .090139 | .044757 | .094601 | .011168 |
| 9-11 | .053543 | .027782 | .080176 | .007034 |
| 12-14 | .065299 | .025358 | .131400 | .007033 |
| 15-21 | .042996 | .018759 | .065399 | .004401 |
| 22-30 | .025364 | .018203 | .075987 | .002376 |

RUN NO 97 46M 7-3-63 1446-1600(EST)

GROSS STATISTICS

3 CU
UNSTABLE WIND SPEED 6.49 M/SEC SIGMA A 12.4 DEG
 WIND DIRECTION 291 DEG SIGMA E 5.9 DEG
 SOLAR RAD. 1.00 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.27408E 01 | 0.16156E 01 | 0.97431E 00 | 0.11904E 01 |
| V | 0.19640E 01 | 0.14158E 01 | 0.90087E 00 | 0.91771E 00 |
| W | 0.61366E 00 | 0.56288E 00 | 0.49803E-00 | 0.25967E-00 |
| T | 0.11593E-00 | 0.20554E-01 | 0.10264E-01 | 0.16206E-01 |
| E | 0.26593E 01 | 0.17974E 01 | 0.11856E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.19685 | 0.15114 | 0.11737 | 0.12974 |
| V | 0.16664 | 0.14148 | 0.11286 | 0.11391 |
| W | 0.09315 | 0.08921 | 0.08391 | 0.06059 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.17417E-00 | -0.58776E-01 | -0.28698E-01 | -0.51540E-01 |
| U,W | -0.58427E 00 | -0.44730E-00 | -0.33251E-00 | -0.31300E-00 |
| U,T | -0.38739E-00 | -0.10000E-00 | -0.40058E-01 | -0.90452E-01 |
| V,W | -0.95258E-01 | -0.84521E-01 | -0.38435E-01 | -0.59908E-01 |
| V,T | -0.14217E-00 | -0.17738E-01 | -0.81296E-02 | -0.17235E-01 |
| W,T | 0.51642E-01 | 0.25099E-01 | 0.11439E-01 | 0.25226E-01 |
| WE | 0.32890E-00 | 0.16721E-00 | 0.14299E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.07507 | -0.03886 | -0.03063 | -0.04931 |
| U,W | -0.45052 | -0.46906 | -0.47734 | -0.56295 |
| U,T | -0.68724 | -0.54877 | -0.40058 | -0.65122 |
| V,W | -0.08677 | -0.09468 | -0.05738 | -0.12272 |
| V,T | -0.29795 | -0.10398 | -0.08455 | -0.14133 |
| W,T | 0.19362 | 0.23334 | 0.16000 | 0.38886 |

RUN NC 97 46M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.93675 10E 00 | 0.69638 10E 00 | 0.99983 10E-01 | 0.66971 10E 00 | 0.96154 10E-01 | 0.71481 10E-01 |
| 0 | -.030626 | -.477203 | -.400440 | -.057397 | -.084588 | .159930 |
| 1 | -.031674 | -.427711 | -.380430 | -.047577 | -.077224 | .168683 |
| 2 | -.038565 | -.348329 | -.341315 | -.027798 | -.066119 | .164817 |
| 3 | -.039962 | -.269085 | -.301429 | -.020445 | -.060999 | .152935 |
| 4 | -.035089 | -.202408 | -.260411 | -.020388 | -.056843 | .145005 |
| 5 | -.031465 | -.113343 | -.215948 | -.019801 | -.049210 | .133535 |
| 6 | -.029271 | -.103653 | -.171616 | -.015388 | -.036309 | .119219 |
| 7 | -.027764 | -.073852 | -.128294 | -.009180 | -.027752 | .093233 |
| 8 | -.024076 | -.056105 | -.086347 | -.004267 | -.017692 | .056187 |
| 9 | -.017439 | -.039005 | -.055547 | -.001161 | -.012238 | .028380 |
| 10 | -.003688 | -.016959 | -.034559 | -.008356 | -.008349 | .019380 |
| 11 | .004788 | .009337 | -.015410 | .009267 | -.003366 | .017853 |
| 12 | .011732 | .035380 | .006870 | .007512 | -.000060 | .010945 |
| 13 | .021069 | .065595 | .024868 | .007565 | -.004891 | .002048 |
| 14 | .029841 | .085669 | .041339 | .013644 | -.007863 | -.012455 |
| 15 | .036829 | .100394 | .056142 | .018900 | -.004619 | -.035140 |
| 16 | .039962 | .109998 | .072924 | .021610 | .006240 | -.055984 |
| 17 | .047908 | .114076 | .091206 | .022395 | .020336 | -.072656 |
| 18 | .052703 | .120768 | .106879 | .020999 | .026161 | -.092485 |
| 19 | .047059 | .123745 | .120409 | .018745 | .029380 | -.104384 |
| 20 | .040208 | .127219 | .132910 | .008339 | .036995 | -.109956 |
| 21 | .034478 | .132501 | .150048 | .001978 | .039418 | -.112406 |
| 22 | .031832 | .137827 | .171397 | -.001867 | .037958 | -.116152 |
| 23 | .021353 | .136603 | .188442 | -.000882 | .042025 | -.118980 |
| 24 | .013410 | .134108 | .196518 | .009124 | .041257 | -.120242 |
| 25 | .007011 | .136124 | .202097 | .016729 | .043453 | -.120427 |
| 26 | .003128 | .142212 | .211221 | .017191 | .037055 | -.116935 |
| 27 | .005015 | .138297 | .214122 | .011871 | .034276 | -.105173 |
| 28 | .008734 | .127332 | .199338 | .008674 | .024286 | -.092031 |
| 29 | .015081 | .108539 | .177647 | .013679 | .012350 | -.084710 |
| 30 | .014968 | .092548 | .155679 | .014193 | .005947 | -.078007 |
| 31 | .007876 | .077036 | .129588 | .009016 | .001075 | -.067534 |
| 32 | -.000995 | .064770 | .097332 | .007662 | .001033 | -.050719 |
| 33 | -.005984 | .053182 | .072285 | .015643 | -.003677 | -.031368 |
| 34 | -.005733 | .038382 | .07007 | .014949 | -.005043 | -.008587 |
| 35 | -.002220 | .019469 | .027833 | .003612 | .003085 | .011288 |
| 36 | .002600 | .006975 | .006917 | -.020101 | .010948 | .024568 |
| 37 | .005038 | .002455 | -.007562 | -.042981 | .018052 | .029456 |
| 38 | .004988 | -.000322 | -.018410 | -.061845 | .073256 | .038120 |
| 39 | .001036 | -.000653 | -.031989 | -.060919 | .027271 | .045849 |
| 40 | -.003641 | -.002520 | -.040397 | -.050204 | .026942 | .042695 |
| 41 | -.015936 | -.008225 | -.045199 | -.033445 | .026186 | .044522 |
| 42 | -.021253 | -.019198 | -.048714 | -.019832 | .025235 | .049374 |
| 43 | -.019165 | -.030810 | -.049897 | -.015083 | .016273 | .046459 |
| 44 | -.017908 | -.039105 | -.047826 | -.013302 | .004869 | .042081 |
| 45 | -.015107 | -.041786 | -.049355 | -.017389 | -.003632 | .039959 |
| 46 | -.013071 | -.046371 | -.058632 | -.018507 | -.012129 | .042695 |
| 47 | -.011610 | -.051152 | -.069683 | -.022296 | -.022825 | .048559 |
| 48 | -.007659 | -.049568 | -.077389 | -.024637 | -.023133 | .053038 |
| 49 | -.003046 | -.045110 | -.079335 | -.019573 | -.021345 | .050301 |
| 50 | .000494 | -.046267 | -.076507 | -.013543 | -.019359 | .043484 |
| 51 | .004955 | -.048759 | -.074013 | -.003213 | -.025587 | .034414 |
| 52 | .009486 | -.049154 | -.068251 | -.008188 | -.028606 | .030060 |
| 53 | .005340 | -.037212 | -.059434 | -.015955 | -.022388 | .029950 |
| 54 | -.004399 | -.023042 | -.052260 | -.015076 | -.019919 | .025668 |
| 55 | -.015073 | -.015640 | -.048832 | .016002 | -.017398 | .017477 |
| 56 | -.022098 | -.016964 | -.049739 | .024465 | -.014964 | .007481 |
| 57 | -.026256 | -.023206 | -.046753 | .024744 | -.006458 | .003795 |
| 58 | -.028093 | -.027343 | -.041688 | .028279 | .001638 | .002225 |
| 59 | -.031977 | -.028824 | -.033068 | .01040 | .011134 | -.003384 |
| 60 | -.030701 | -.027261 | -.026714 | .041350 | .015855 | -.009069 |

RUN NC 97 46M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.93675 10E 00 | 0.69638 10E 00 | 0.99983 10E-01 | 0.66971 10E 00 | 0.96154 10E-01 | 0.71481 10E-01 |
| 1 | .013000 | -.036628 | -.036668 | -.000924 | -.016091 | .013475 |
| 2 | .027628 | -.055974 | -.068986 | .005675 | -.016262 | .034000 |
| 3 | .038193 | -.063931 | -.093339 | .008485 | -.009097 | .052174 |
| 4 | .042509 | -.063177 | -.109041 | .014141 | -.007997 | .059896 |
| 5 | .042194 | -.064567 | -.118247 | .006201 | -.003579 | .062017 |
| 6 | .043286 | -.071833 | -.123934 | .003358 | -.000387 | .062157 |
| 7 | .049821 | -.076095 | -.131938 | .010383 | .006717 | .01310 |
| 8 | .053819 | -.077326 | -.138321 | .013407 | .018199 | .065693 |
| 9 | .057071 | -.072930 | -.133057 | .028189 | .028864 | .064252 |
| 10 | .057247 | -.066022 | -.133986 | .037227 | .036116 | .067379 |
| 11 | .051911 | -.056263 | -.140422 | .040228 | .036404 | .067353 |
| 12 | .044047 | -.051660 | -.146722 | .040013 | .037025 | .063005 |
| 13 | .036622 | -.051322 | -.154574 | .029535 | .043722 | .061903 |
| 14 | .032932 | -.049324 | -.157913 | .021774 | .045121 | .062479 |
| 15 | .028097 | -.044610 | -.153226 | .018897 | .040279 | .061771 |
| 16 | .023885 | -.035647 | -.144658 | .016885 | .030849 | .058139 |
| 17 | .020315 | -.030170 | -.138086 | .016415 | .021454 | .054627 |
| 18 | .022514 | -.024742 | -.125391 | .018777 | .017345 | .053565 |
| 19 | .022639 | -.017500 | -.110566 | .023971 | .013338 | .048051 |
| 20 | .012259 | -.008883 | -.098785 | .023062 | .006752 | .037506 |
| 21 | -.001182 | .003187 | -.089365 | .015328 | -.000574 | .029542 |
| 22 | -.013060 | .016618 | -.077292 | .003183 | -.004238 | .025515 |
| 23 | -.018416 | .023782 | -.059644 | -.006393 | -.007737 | .026206 |
| 24 | -.024073 | .029904 | -.043326 | -.011979 | -.004930 | .029403 |
| 25 | -.028600 | .030677 | -.028596 | -.016330 | .005027 | .032458 |
| 26 | -.026771 | .027130 | -.014698 | -.011244 | .013217 | .027285 |
| 27 | -.023467 | .029906 | -.005460 | -.012180 | .011502 | .020733 |
| 28 | -.021461 | .036432 | .004273 | -.023651 | .004135 | .014598 |
| 29 | -.023544 | .045149 | .018581 | -.032018 | -.003362 | .002665 |
| 30 | -.030661 | .052477 | .032460 | -.037519 | -.006958 | -.006173 |
| 31 | -.034232 | .059635 | .050362 | -.040543 | -.007742 | -.010490 |
| 32 | -.031537 | .058391 | .060913 | -.034153 | -.006535 | -.012527 |
| 33 | -.024871 | .056289 | .070898 | -.028283 | -.002865 | -.014555 |
| 34 | -.017616 | .047425 | .076863 | -.022554 | -.005571 | -.019943 |
| 35 | -.010420 | .032912 | .080633 | -.017847 | -.011116 | -.026649 |
| 36 | -.006360 | .026008 | .081577 | -.015650 | -.021583 | -.030950 |
| 37 | -.003553 | .025649 | .079994 | -.017471 | -.031043 | -.023264 |
| 38 | -.001400 | .024099 | .077003 | -.020497 | -.038544 | -.014339 |
| 39 | -.001982 | .019050 | .074926 | -.021972 | -.038610 | -.007429 |
| 40 | -.003108 | .011571 | .070153 | -.023951 | -.036618 | -.003260 |
| 41 | -.003838 | -.003467 | .070712 | -.026521 | -.032515 | -.004024 |
| 42 | .000128 | -.016434 | .074068 | -.024055 | -.018905 | -.015397 |
| 43 | .000033 | -.018215 | .074193 | -.026952 | -.001317 | -.022995 |
| 44 | -.001504 | -.016749 | .072722 | -.031325 | .002745 | -.021103 |
| 45 | .000271 | -.015723 | .070621 | -.026187 | -.004340 | -.015264 |
| 46 | .000096 | -.014456 | .062077 | -.014959 | -.014321 | -.012736 |
| 47 | -.006087 | -.019206 | .048699 | .003092 | -.023185 | -.013850 |
| 48 | -.012856 | -.022891 | .036132 | .012999 | -.035783 | -.009961 |
| 49 | -.015534 | -.022044 | .021026 | .027775 | -.039177 | -.007516 |
| 50 | -.010487 | -.016267 | .007807 | .039701 | -.033512 | -.006475 |
| 51 | -.005863 | -.006832 | -.000491 | .040177 | -.021691 | -.009582 |
| 52 | -.007144 | -.000517 | -.005063 | .035878 | -.010373 | -.015542 |
| 53 | -.004703 | .002366 | -.009469 | .032104 | -.004021 | -.013606 |
| 54 | .000742 | .006003 | -.021352 | .034852 | .001610 | -.008431 |
| 55 | .003216 | .005360 | -.035375 | .036234 | .006017 | -.005878 |
| 56 | .004137 | .000262 | -.039496 | .043821 | .017585 | -.008897 |
| 57 | .004543 | -.005710 | -.038198 | .051580 | .030522 | -.010587 |
| 58 | .007911 | -.007857 | -.028453 | .049906 | .043584 | -.006642 |
| 59 | .006683 | -.013648 | -.022944 | .044108 | .051927 | -.002777 |
| 60 | -.002341 | -.022576 | -.017284 | .024213 | .048944 | -.002328 |

RUN NO 97 46M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|--------------------|
| | 0.97405 10E 00 | 0.90087 10E 00 | 0.49786 10E 00 | 0.10263 10E -01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .868806 | .796961 | .739772 | .807605 |
| 2 | .693773 | .557438 | .439737 | .614205 |
| 3 | .544084 | .391158 | .250086 | .472535 |
| 4 | .420645 | .272787 | .137677 | .377802 |
| 5 | .314939 | .182389 | .066557 | .310409 |
| 6 | .220891 | .107318 | .016632 | .245154 |
| 7 | .142899 | .051126 | -.004807 | .182173 |
| 8 | .079440 | .006595 | -.016899 | .122535 |
| 9 | .030866 | -.032421 | -.034043 | .068986 |
| 10 | -.013500 | -.059866 | -.051996 | .031019 |
| 11 | -.055117 | -.083781 | -.077717 | -.003435 |
| 12 | -.095076 | -.097009 | -.095787 | -.034134 |
| 13 | -.136721 | -.096707 | -.107063 | -.057961 |
| 14 | -.171439 | -.094760 | -.105879 | -.083827 |
| 15 | -.199594 | -.115883 | -.107980 | -.123857 |
| 16 | -.225797 | -.142710 | -.114854 | -.154465 |
| 17 | -.239992 | -.155588 | -.110314 | -.174964 |
| 18 | -.245045 | -.165529 | -.120764 | -.192647 |
| 19 | -.243871 | -.178913 | -.128250 | -.215136 |
| 20 | -.243244 | -.182230 | -.127051 | -.251808 |
| 21 | -.251631 | -.180851 | -.124682 | -.280396 |
| 22 | -.267577 | -.178803 | -.125664 | -.295446 |
| 23 | -.279531 | -.174589 | -.118677 | -.302225 |
| 24 | -.283074 | -.177780 | -.119873 | -.309773 |
| 25 | -.283525 | -.175308 | -.128934 | -.308011 |
| 26 | -.283060 | -.153916 | -.144070 | -.298254 |
| 27 | -.268000 | -.123611 | -.140139 | -.289129 |
| 28 | -.238639 | -.102964 | -.130378 | -.288138 |
| 29 | -.204124 | -.085543 | -.114673 | -.276944 |
| 30 | -.169578 | -.067584 | -.097571 | -.240482 |
| 31 | -.132703 | -.044732 | -.058195 | -.184811 |
| 32 | -.096622 | -.017334 | -.021079 | -.135744 |
| 33 | -.062034 | .002232 | -.000198 | -.103038 |
| 34 | -.030092 | .017280 | .002480 | -.084289 |
| 35 | -.004415 | .021425 | .001187 | -.067497 |
| 36 | .012000 | .031271 | -.008826 | -.042392 |
| 37 | .018987 | .032842 | -.008539 | -.009673 |
| 38 | .026629 | .016438 | -.004680 | .016087 |
| 39 | .036468 | .004753 | -.009780 | .045252 |
| 40 | .037414 | -.001288 | -.020599 | .068173 |
| 41 | .039712 | -.002694 | -.033840 | .079847 |
| 42 | .041824 | .000483 | -.020290 | .073859 |
| 43 | .042943 | .009311 | -.000606 | .067097 |
| 44 | .046857 | .004416 | -.006462 | .075132 |
| 45 | .052076 | -.014357 | .018943 | .093120 |
| 46 | .061182 | -.023429 | .033134 | .104688 |
| 47 | .063600 | -.025479 | .046032 | .105967 |
| 48 | .062079 | -.033731 | .051217 | .096589 |
| 49 | .062490 | -.037269 | .047019 | .099465 |
| 50 | .066772 | -.030798 | .049497 | .109371 |
| 51 | .067471 | -.019852 | .053225 | .106924 |
| 52 | .063306 | -.007142 | .055230 | .091597 |
| 53 | .053615 | -.006126 | .037896 | .075240 |
| 54 | .046344 | -.005808 | .031296 | .055183 |
| 55 | .046790 | -.001154 | .042195 | .037303 |
| 56 | .051102 | .003486 | .053718 | .031997 |
| 57 | .052634 | .009333 | .053904 | .028247 |
| 58 | .048807 | .010466 | .036040 | .025689 |
| 59 | .042994 | .000019 | .029065 | .024584 |
| 60 | .045208 | -.020310 | .022042 | .031867 |

RUN NO 97 46M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .009858 | -.036877 | -.007381 | -.090060 | -.022619 | .021461 |
| 1 | -.030742 | -.444114 | -.079240 | -.172688 | -.183818 | .261714 |
| 2 | -.114620 | -.616715 | -.106532 | -.461614 | -.203090 | .410292 |
| 3 | -.160792 | -.625162 | -.096356 | -.797744 | -.173656 | .413500 |
| 4 | -.107637 | -.360650 | -.036407 | -.370885 | -.091738 | .140557 |
| 5 | -.035152 | -.212641 | -.015144 | -.264715 | -.021124 | .002529 |
| 6 | .023882 | -.179834 | -.023649 | -.400247 | .001229 | .026365 |
| 7-8 | .038780 | -.133395 | -.017016 | .036242 | -.057315 | .029360 |
| 9-11 | -.002983 | -.098384 | -.004860 | -.110575 | -.006955 | .004777 |
| 12-15 | .002723 | -.062485 | -.001374 | -.026690 | .005922 | -.023872 |
| 16-20 | .004216 | -.020405 | -.001207 | -.117804 | -.005554 | .009355 |
| 21-27 | .006061 | -.013411 | -.000922 | -.066045 | -.006772 | -.001246 |
| 28-36 | .000386 | -.007007 | -.000510 | -.026327 | -.002584 | -.002560 |
| 37-47 | -.001603 | -.003619 | -.000139 | -.005581 | -.000565 | -.003964 |
| 48-60 | -.000824 | -.003315 | -.000052 | .007039 | -.000192 | -.001440 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .062056 | -.042203 | -.552229 | .062233 | .067917 | .216504 |
| 2 | .142752 | -.144925 | -.694855 | .726796 | .116350 | .212735 |
| 3 | .198434 | -.220203 | -.535997 | .852414 | .080784 | .159140 |
| 4 | .134331 | -.131211 | -.151401 | .153035 | .011488 | .067615 |
| 5 | .039221 | -.043648 | -.042722 | -.156768 | -.016115 | .038421 |
| 6 | .013361 | -.044215 | -.049016 | -.179642 | -.052167 | .038477 |
| 7-8 | .021075 | -.031297 | -.050963 | -.033825 | -.066322 | .015615 |
| 9-11 | .000939 | -.020647 | -.046144 | -.083595 | -.007053 | .018654 |
| 12-15 | .013629 | -.009649 | -.005336 | .159803 | -.005233 | .003200 |
| 16-20 | .001973 | -.012985 | -.007042 | -.049214 | -.004388 | -.001108 |
| 21-27 | -.002564 | -.003658 | .001310 | -.038799 | -.010881 | -.003341 |
| 28-36 | -.002266 | -.000456 | -.001164 | -.014646 | -.003626 | -.002424 |
| 37-47 | -.000023 | -.001253 | .001251 | .005006 | -.001551 | -.001181 |
| 48-60 | -.000125 | -.000422 | -.000233 | -.017155 | .001335 | .000202 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .010471 | .011639 | .027570 | .013134 |
| 1 | .119642 | .087472 | .331980 | .137191 |
| 2 | .167878 | .105737 | .465034 | .183488 |
| 3 | .179090 | .121767 | .518598 | .174672 |
| 4 | .108876 | .090786 | .392646 | .082855 |
| 5 | .062591 | .056446 | .300193 | .044962 |
| 6 | .056809 | .051061 | .286609 | .050642 |
| 7-8 | .042431 | .048016 | .17011 | .042480 |
| 9-11 | .025507 | .029683 | .192843 | .024840 |
| 12-15 | .014404 | .017522 | .146660 | .017208 |
| 16-20 | .008467 | .013357 | .090433 | .013330 |
| 21-27 | .005553 | .008542 | .062602 | .008697 |
| 28-36 | .003176 | .005226 | .039400 | .004952 |
| 37-47 | .001966 | .003090 | .021757 | .003756 |
| 48-60 | .001405 | .002084 | .015163 | .003017 |

RUN NC 97 46M 7-3-63 1446-1600(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10454 10E 01 | 0.55603 10E 00 | 0.13893 10E 00 | 0.48812 10E 00 | 0.12196 10E 00 | 0.64870 10E-01 |
| 0 | -.049303 | -.562913 | -.651071 | -.122732 | -.141319 | .388867 |
| 1 | -.018972 | -.271081 | -.485314 | -.089715 | -.123830 | .289986 |
| 2 | .002353 | -.062163 | -.291388 | -.084919 | -.079125 | .111104 |
| 3 | -.019464 | .013112 | -.177038 | -.063380 | -.070167 | .080807 |
| 4 | -.015304 | .031465 | -.145410 | -.071532 | -.037506 | .085495 |
| 5 | -.021505 | .008569 | -.099004 | -.005241 | -.017773 | .056508 |
| 6 | -.029205 | .025186 | -.015777 | .054917 | .006551 | .024922 |
| 7 | -.011148 | .023644 | .080687 | .068301 | .006828 | -.021299 |
| 8 | -.012222 | .037526 | .148962 | .079736 | .041404 | -.055307 |
| 9 | -.024022 | .004930 | .152752 | .077434 | .043958 | -.010134 |
| 10 | .003617 | -.037833 | .140086 | .083842 | .030652 | -.001011 |
| 11 | .030308 | .031569 | .099658 | .016930 | .039151 | -.057143 |
| 12 | .015252 | .125569 | .133349 | .001043 | .062893 | -.128087 |
| 13 | .000489 | .150339 | .116360 | .003622 | .066456 | -.130829 |
| 14 | -.031342 | .065808 | .097988 | .017118 | .063149 | -.072485 |
| 15 | -.038471 | .060306 | .072428 | .061534 | .074287 | -.084942 |
| 16 | -.070694 | .014184 | .058286 | .108010 | .095128 | -.088019 |
| 17 | -.083980 | .015223 | .050565 | .103249 | .067648 | -.070406 |
| 18 | -.023496 | .001321 | .064635 | .054124 | .014792 | -.082004 |
| 19 | .022684 | .024253 | .069918 | .029228 | .003352 | -.052879 |
| 20 | .062769 | .033071 | .080878 | -.040788 | -.027311 | -.044143 |
| 21 | .105791 | .013401 | .080766 | -.123247 | -.061378 | -.023929 |
| 22 | .160398 | .005476 | .074064 | -.151780 | -.118481 | .000721 |
| 23 | .156956 | .024744 | .079441 | -.133574 | -.123232 | .016816 |
| 24 | .116515 | -.030731 | .062167 | -.106314 | -.107868 | .032594 |
| 25 | .088853 | -.026684 | .060427 | -.040383 | -.059795 | .002819 |
| 26 | .095697 | -.013653 | .095685 | -.006012 | -.067438 | -.051913 |
| 27 | .040243 | .039040 | .133529 | -.002502 | -.043956 | -.086481 |
| 28 | .016203 | .008451 | .086353 | .040557 | .000827 | -.105078 |
| 29 | .009869 | -.001406 | .023760 | .031374 | .037901 | -.060134 |
| 30 | -.014746 | .063838 | .022192 | .042586 | .042880 | -.035334 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 0 | -.042612 | -.040698 | -.028264 | .001826 | -.042992 | .074161 |
| 1 | -.214576 | -.288271 | -.183905 | -.062967 | -.323908 | .514147 |
| 2 | -.005517 | -.297165 | -.166083 | -.164743 | -.491767 | .469285 |
| 3 | -.000291 | -.269067 | -.150543 | -.170699 | -.408834 | .335353 |
| 4 | -.107521 | -.181951 | -.107646 | -.086401 | -.088214 | .159462 |
| 5 | .095392 | -.174448 | -.058046 | -.115796 | -.140961 | .140496 |
| 6 | .083353 | -.239362 | -.030207 | -.032113 | -.133109 | .146365 |
| 7 | -.092193 | -.271738 | -.023820 | .089578 | -.014766 | .132833 |
| 8 | -.053021 | -.187280 | -.022324 | .038407 | -.018815 | .102615 |
| 9-11 | -.006405 | -.134478 | -.033022 | -.001678 | -.033338 | .081820 |
| 12-14 | -.043133 | -.135841 | -.023253 | -.012940 | -.019051 | .122878 |
| 15-21 | -.026512 | -.067154 | -.007717 | -.007945 | -.020202 | .037542 |
| 22-30 | -.000842 | -.060380 | -.005358 | -.009360 | -.009294 | -.012305 |

RUN NC 97 46M 7-3-63 1446-1600(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10454 10E 01 | 0.55603 10E 00 | 0.13893 10E 00 | 0.48812 10E 00 | 0.12196 10E 00 | 0.64870 10E-01 |
| 1 | .010234 | -.071909 | -.144275 | .010198 | .006515 | .090089 |
| 2 | -.019859 | -.040644 | -.158738 | .024271 | .007068 | .089673 |
| 3 | -.038522 | -.002197 | -.108732 | -.003941 | -.002402 | .036950 |
| 4 | -.007986 | -.044268 | -.070134 | .028313 | -.006570 | -.020694 |
| 5 | -.011683 | -.058364 | -.078762 | .067707 | -.000711 | -.052788 |
| 6 | .018453 | -.048588 | -.087444 | .090382 | .034450 | -.078690 |
| 7 | .023284 | -.077017 | -.079836 | .055975 | .019933 | -.094379 |
| 8 | .018803 | -.042766 | -.077932 | .041829 | .019966 | -.066727 |
| 9 | .015005 | -.029220 | -.074230 | .006944 | .038147 | -.042013 |
| 10 | -.018466 | -.060155 | -.051886 | -.002273 | .039969 | -.040177 |
| 11 | -.034164 | -.087273 | -.075196 | -.034897 | .039766 | -.019806 |
| 12 | .020014 | -.073415 | -.086690 | -.007647 | .039824 | .012008 |
| 13 | .031288 | -.004972 | -.050028 | .009281 | .053613 | .013653 |
| 14 | .037076 | .032450 | -.031267 | .005534 | .058609 | .005753 |
| 15 | .094008 | -.025083 | -.035055 | .037848 | .069726 | .003699 |
| 16 | .093975 | -.039340 | -.041339 | .045592 | .060175 | -.022561 |
| 17 | .079770 | -.045685 | -.072795 | -.010717 | .056252 | .014075 |
| 18 | .057074 | -.065691 | -.088432 | -.020741 | .043065 | .032639 |
| 19 | .058006 | -.036877 | -.101268 | .012091 | .080214 | .038026 |
| 20 | .026359 | -.062661 | -.102865 | -.009380 | .080429 | .019083 |
| 21 | -.003684 | -.055694 | -.104903 | -.003985 | .026621 | .006436 |
| 22 | .042222 | -.024565 | -.075492 | .040797 | .028904 | .013892 |
| 23 | .032973 | .000179 | -.036859 | .054372 | .019132 | -.005097 |
| 24 | .046716 | .058146 | -.052247 | .001580 | .003363 | .035421 |
| 25 | .047156 | .035488 | -.042668 | .046623 | -.003195 | .035761 |
| 26 | .037689 | .021186 | -.016170 | .063206 | .003018 | .009258 |
| 27 | -.000023 | .036188 | .011615 | -.001589 | -.029760 | .029215 |
| 28 | -.015665 | .080625 | .051871 | -.002372 | -.009370 | .048798 |
| 29 | -.018654 | .072518 | .094627 | -.010548 | .028442 | .032603 |
| 30 | -.027167 | .081891 | .118251 | -.069035 | .058989 | -.003201 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .241188 | -.244911 | -.105343 | .959017 | .469091 | -.106832 |
| 2 | -.042175 | -.124418 | -.049450 | .697323 | .082234 | -.118623 |
| 3 | -.112731 | -.063404 | -.037141 | .752568 | -.089547 | -.063351 |
| 4 | .012130 | -.041735 | -.034829 | .553645 | -.024295 | .041297 |
| 5 | .024400 | .013476 | -.019434 | .219701 | -.016210 | .116694 |
| 6 | -.105644 | .000667 | -.022566 | -.315042 | -.022684 | .154823 |
| 7 | -.132764 | -.045821 | -.028864 | -.722519 | -.003739 | .153768 |
| 8 | -.011821 | -.019641 | -.020784 | -.373972 | -.004842 | .103427 |
| 9-11 | .041113 | -.008996 | -.020467 | .106182 | .023000 | .067758 |
| 12-14 | .010096 | -.048836 | -.012826 | .251509 | .036454 | .027519 |
| 15-21 | .035586 | -.034169 | -.003587 | -.004883 | -.011995 | .011648 |
| 22-30 | -.013928 | .006561 | -.001618 | -.134662 | -.001486 | .005120 |

RUN NC 97 46M 7-3-63 1446-1600(FEST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.11908 10E 01 | 0.91769 10E 00 | 0.25963 10E 00 | 0.16208 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .578415 | .586239 | .273128 | .706478 |
| 2 | .294410 | .359148 | .055209 | .441275 |
| 3 | .189038 | .255792 | -.065914 | .299156 |
| 4 | .110368 | .087215 | -.113909 | .249221 |
| 5 | .068299 | -.045915 | -.043675 | .146744 |
| 6 | -.006414 | -.093781 | -.087578 | .047719 |
| 7 | -.090015 | -.111513 | -.034257 | -.065908 |
| 8 | -.170620 | -.118770 | -.065594 | -.139993 |
| 9 | -.225456 | -.093677 | .009900 | -.166808 |
| 10 | -.181397 | -.131329 | .088699 | -.164594 |
| 11 | -.143064 | -.203345 | -.017325 | -.170845 |
| 12 | -.197232 | -.252738 | -.146533 | -.233389 |
| 13 | -.217552 | -.207203 | -.182744 | -.226097 |
| 14 | -.124448 | -.183273 | -.105102 | -.219108 |
| 15 | -.072318 | -.228543 | -.101154 | -.147649 |
| 16 | -.013363 | -.196176 | -.061776 | -.122548 |
| 17 | .030890 | -.114594 | -.033901 | -.123550 |
| 18 | .067448 | -.085640 | -.012587 | -.148114 |
| 19 | -.027345 | -.111677 | -.023289 | -.122694 |
| 20 | -.059964 | -.012266 | -.000888 | -.150495 |
| 21 | -.068057 | .021869 | .060294 | -.165242 |
| 22 | -.094399 | .029257 | .013573 | -.154795 |
| 23 | -.105759 | .139917 | -.041205 | -.129619 |
| 24 | -.051894 | .144367 | .049953 | -.097928 |
| 25 | -.067277 | .103583 | -.004152 | -.089031 |
| 26 | -.068073 | .034614 | -.004920 | -.157246 |
| 27 | -.125481 | -.014671 | -.007240 | -.177773 |
| 28 | -.067675 | -.142904 | -.037211 | -.150419 |
| 29 | -.027847 | -.185976 | .014764 | -.116841 |
| 30 | -.079533 | -.161038 | -.010032 | -.098080 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .025964 | .014531 | .013586 | .053152 |
| 1 | .167384 | .127092 | .136775 | .357904 |
| 2 | .166338 | .147903 | .164606 | .310687 |
| 3 | .172951 | .131955 | .157645 | .247943 |
| 4 | .122621 | .077873 | .115258 | .157757 |
| 5 | .057553 | .067590 | .145589 | .087057 |
| 6 | .044957 | .062001 | .202431 | .060226 |
| 7 | .053864 | .049794 | .194846 | .058407 |
| 8 | .040964 | .035215 | .134109 | .044958 |
| 9-11 | .046810 | .014893 | .107496 | .046509 |
| 12-14 | .030711 | .021332 | .107927 | .039254 |
| 15-21 | .024144 | .019726 | .073689 | .020098 |
| 22-30 | .018745 | .014863 | .102914 | .014641 |

RUN NO 97 15M 7-3-63 1446-1600(EST)
 RUN NO 97 46M 7-3-63 1446-1600(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .519842 | .488482 | .402700 | .380105 |
| 1 | .435058 | .739868 | .435842 | .357927 |
| 2 | .430595 | .586626 | .419561 | .404041 |
| 3 | .423147 | .480585 | .388156 | .411780 |
| 4 | .336666 | .484004 | .330850 | .255730 |
| 5 | .181524 | .455081 | .300842 | .151775 |
| 6 | .193263 | .319225 | .286662 | .073981 |
| 7-8 | .136636 | .306309 | .227962 | .128607 |
| 9-11 | .126734 | .220009 | .174324 | .063526 |
| 12-15 | .127053 | .212545 | .194944 | .106736 |
| 16-20 | .102474 | .149641 | .118336 | .108019 |
| 21-27 | .086699 | .129925 | .108750 | .123709 |
| 28-36 | .079313 | .095744 | .120513 | .103699 |
| 37-47 | .087311 | .105620 | .087334 | .080404 |
| 48-60 | .093134 | .104350 | .094382 | .092033 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .945985 | .899744 | .780424 | .934891 |
| 1 | .863375 | .893754 | .724867 | .74049 |
| 2 | .781650 | .878925 | .662823 | .794019 |
| 3 | .725133 | .873263 | .632083 | .722077 |
| 4 | .611386 | .859697 | .731645 | .480950 |
| 5 | .461432 | .850435 | .564871 | .232679 |
| 6 | .360220 | .819601 | .342981 | .398763 |
| 7 | .439711 | .831201 | .362157 | .527247 |
| 8 | .565373 | .868931 | .629723 | .432604 |
| 9-11 | .399052 | .604213 | .506808 | .275238 |
| 12-14 | .497104 | .518516 | .464752 | .625749 |
| 15-21 | .309604 | .504410 | .416398 | .343170 |
| 22-30 | .175337 | .298968 | .350804 | .304068 |

RUN NO 98 46M 7-3-63 1631-1727(EST)

GROSS STATISTICS

| | | | |
|----------------------|--|--------------------------------------|-------------------------------------|
| 2 CU TRANSITIONAL | WIND SPEED WIND DIRECTION . SOLAR RAD. | 9.08 M/SEC 296 DEG 0.45 LY/MIN | SIGMA A 10.0 DEG SIGMA E 5.7 DEG |
|----------------------|--|--------------------------------------|-------------------------------------|

| | | | | |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.28785E 01 | 0.19839E 01 | 0.12654E 01 | 0.14234E 01 |
| V | 0.21168E 01 | 0.18647E 01 | 0.15796E 01 | 0.10996E 01 |
| W | 0.69350E 00 | 0.70252E 00 | 0.61864E 00 | 0.28399E-00 |
| T | 0.16895E-00 | 0.36389E-02 | 0.30856E-02 | 0.21839E-02 |
| E | 0.28444E 01 | 0.22756E 01 | 0.17293E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.18685 | 0.15512 | 0.12389 | 0.13139 |
| V | 0.16023 | 0.15039 | 0.13620 | 0.11549 |
| W | 0.09171 | 0.09231 | 0.08662 | 0.05869 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.24787E-00 | -0.90486E-01 | -0.44618E-01 | -0.68884E-01 |
| U,W | -0.51979E 00 | -0.49917E-00 | -0.38192E-00 | -0.31247E-00 |
| U,T | -0.15344E-00 | -0.18355E-01 | -0.49934E-02 | -0.18236E-01 |
| V,W | -0.74584E-01 | -0.56405E-01 | -0.36915E-01 | -0.51348E-01 |
| V,T | -0.93959E-02 | -0.36539E-01 | -0.30227E-01 | -0.24020E-01 |
| W,T | 0.18414E-01 | -0.65994E-03 | -0.18324E-02 | 0.19459E-02 |

| | | | |
|----|-------------|-------------|-------------|
| WE | 0.33026E-00 | 0.22572E-00 | 0.13097E-00 |
|----|-------------|-------------|-------------|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.10041 | -0.04705 | -0.03161 | -0.05506 |
| U,W | -0.36789 | -0.42282 | -0.43167 | -0.49147 |
| U,T | -0.22002 | -0.21603 | -0.08001 | -0.32708 |
| V,W | -0.06156 | -0.04753 | -0.03740 | -0.09189 |
| V,T | -0.01571 | -0.44357 | -0.43364 | -0.49017 |
| W,T | 0.05380 | -0.01305 | -0.04194 | 0.07814 |

RUN NO 98 46M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14113 10E 01 | 0.88475 10E 00 | 0.62465 10E-01 | 0.98707 10E 00 | 0.69689 10E-01 | 0.43689 10E-01 |
| 0 | -.031547 | -.431746 | -.079635 | -.037447 | -.433816 | -.042053 |
| 1 | -.025556 | -.381062 | -.080251 | -.046272 | -.368618 | -.014067 |
| 2 | -.014060 | -.294517 | -.078551 | -.060515 | -.287434 | .013950 |
| 3 | -.007670 | -.210412 | -.074440 | -.058468 | -.227945 | .015920 |
| 4 | -.013960 | -.155870 | -.062425 | -.044275 | -.176590 | .012271 |
| 5 | -.022650 | -.125159 | -.053534 | -.021958 | -.138723 | .008802 |
| 6 | -.020265 | -.093120 | -.049972 | -.007917 | -.105677 | .017013 |
| 7 | -.020230 | -.066499 | -.043001 | .004072 | -.074933 | .026417 |
| 8 | -.024803 | -.052258 | -.036478 | .021018 | -.043984 | .037494 |
| 9 | -.031515 | -.042522 | -.027520 | .037461 | -.009272 | .041587 |
| 10 | -.033177 | -.029451 | -.018203 | .049637 | .028084 | .032581 |
| 11 | -.027627 | -.010769 | -.01488 | .057224 | .056132 | .027201 |
| 12 | -.015923 | .024877 | -.017740 | .054281 | .080653 | .020202 |
| 13 | -.003426 | .069751 | -.019621 | .046955 | .090731 | .018890 |
| 14 | .004224 | .106735 | -.018801 | .048099 | .097103 | .012616 |
| 15 | .012201 | .129851 | -.018982 | .050601 | .104100 | .001018 |
| 16 | .016018 | .132539 | -.011175 | .043473 | .109602 | -.004850 |
| 17 | .018503 | .132381 | -.007198 | .024776 | .118494 | .003076 |
| 18 | .028454 | .131544 | -.011121 | -.000335 | .122732 | .024004 |
| 19 | .035174 | .123165 | -.020668 | -.020397 | .129981 | .046796 |
| 20 | .042748 | .107467 | -.024121 | -.028568 | .137717 | .057562 |
| 21 | .053751 | .093187 | -.024205 | -.029372 | .142731 | .048228 |
| 22 | .057821 | .086438 | -.017117 | -.022101 | .137549 | .026036 |
| 23 | .060614 | .088210 | -.003669 | -.018680 | .120387 | .007618 |
| 24 | .061391 | .087879 | .011826 | -.021964 | .106326 | .002782 |
| 25 | .057131 | .083698 | .029162 | -.024001 | .092091 | -.011233 |
| 26 | .049857 | .076047 | .034009 | -.032489 | .078801 | -.022490 |
| 27 | .048118 | .066998 | .035448 | -.042199 | .071252 | -.022914 |
| 28 | .048378 | .060269 | .031990 | -.044440 | .067207 | -.017197 |
| 29 | .045671 | .056852 | .023699 | -.042251 | .057114 | -.012960 |
| 30 | .034685 | .049367 | .034252 | -.033012 | .035359 | -.010818 |
| 31 | .018688 | .050445 | .035907 | -.015230 | .005551 | -.018195 |
| 32 | -.000424 | .055140 | .037195 | .001571 | -.015383 | -.027598 |
| 33 | -.016253 | .052235 | .043096 | .005954 | -.020372 | -.038248 |
| 34 | -.021470 | .057922 | .038394 | -.000177 | -.028134 | -.041908 |
| 35 | -.022474 | .055453 | .031011 | -.001980 | -.043850 | -.046455 |
| 36 | -.023166 | .050894 | .022136 | .000075 | -.052910 | -.038981 |
| 37 | -.024917 | .044161 | .017284 | -.001505 | -.049830 | -.027461 |
| 38 | -.028941 | .041592 | .018538 | -.005049 | -.046035 | -.021511 |
| 39 | -.035177 | .036370 | .018937 | -.009510 | -.042818 | -.017255 |
| 40 | -.042541 | .021523 | .020576 | -.012771 | -.041632 | -.009819 |
| 41 | -.049184 | .001295 | .024812 | -.016944 | -.034011 | -.006293 |
| 42 | -.054380 | -.023191 | .030744 | -.020317 | -.031158 | -.013087 |
| 43 | -.059064 | -.038319 | .040715 | -.017483 | -.023083 | -.022467 |
| 44 | -.058286 | -.043815 | .045447 | -.004093 | -.012804 | -.027650 |
| 45 | -.049010 | -.042871 | .045271 | .010010 | -.005289 | -.028914 |
| 46 | -.041585 | -.042619 | .044553 | .024289 | -.002864 | -.022846 |
| 47 | -.031896 | -.048255 | .042996 | .040213 | .008996 | -.022127 |
| 48 | -.026057 | -.050164 | .038737 | .048457 | .019925 | -.020090 |
| 49 | -.017397 | -.053390 | .033382 | .044871 | .030391 | -.019628 |
| 50 | -.008228 | -.052292 | .029277 | .036768 | .039931 | -.016180 |
| 51 | -.003202 | -.047134 | .025757 | .037061 | .045641 | -.021594 |
| 52 | .001961 | -.043056 | .028870 | .044826 | .057707 | -.031018 |
| 53 | .007663 | -.033777 | .027467 | .053387 | .056223 | -.031576 |
| 54 | .010537 | -.024486 | .024368 | .061560 | .047015 | -.031273 |
| 55 | .017843 | -.016299 | .023695 | .062440 | .045640 | -.025854 |
| 56 | .026728 | -.006547 | .027811 | .050273 | .046143 | -.016320 |
| 57 | .030079 | .015006 | .031952 | .040455 | .037253 | -.016951 |
| 58 | .032509 | .033820 | .031074 | .033455 | .029339 | -.020988 |
| 59 | .032334 | .042638 | .031557 | .018650 | .026658 | -.015707 |
| 60 | .027335 | .040337 | .034452 | .006724 | .024277 | -.013003 |

RUN NC 98 46M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14113 10E 01 | 0.88475 10E 00 | 0.62465 10E-01 | 0.98707 10E 00 | 0.69689 10E-01 | 0.43689 10E-01 |
| 1 | -.002936 | -.026175 | -.027221 | .012430 | -.040923 | .036768 |
| 2 | .000886 | -.037980 | -.047700 | .029267 | -.057363 | .065554 |
| 3 | .003039 | -.044760 | -.064220 | .036366 | -.068395 | .080518 |
| 4 | .009090 | -.042582 | -.087034 | .044267 | -.081462 | .093655 |
| 5 | .018050 | -.036446 | -.110826 | .049372 | -.092982 | .108781 |
| 6 | .026375 | -.028428 | -.129632 | .051772 | -.101210 | .106962 |
| 7 | .031899 | -.019746 | -.133860 | .047448 | -.102348 | .037857 |
| 8 | .029450 | -.012557 | -.131621 | .037166 | -.098419 | .067734 |
| 9 | .026477 | -.007303 | -.127396 | .033388 | -.086381 | .061813 |
| 10 | .021455 | -.000618 | -.119220 | .027285 | -.074148 | .069606 |
| 11 | .015835 | .008537 | -.109826 | .014659 | -.065014 | .067698 |
| 12 | .006143 | .014301 | -.101270 | .008398 | -.058163 | .064505 |
| 13 | .004680 | .013421 | -.093956 | .009056 | -.050857 | .055780 |
| 14 | .011236 | .011149 | -.084761 | .012843 | -.043807 | .048384 |
| 15 | .015287 | .007294 | -.080060 | .006791 | -.032910 | .039074 |
| 16 | .016671 | .000266 | -.067155 | .000562 | -.027795 | .024924 |
| 17 | .013602 | -.003947 | -.053254 | .003934 | -.026282 | .010797 |
| 18 | .012546 | -.003051 | .040107 | .015043 | -.021523 | .004201 |
| 19 | .010728 | .002619 | -.028712 | .020263 | -.019124 | .002439 |
| 20 | .005997 | .010553 | -.025925 | .017889 | -.009277 | .009013 |
| 21 | .004391 | .013079 | -.027572 | .008379 | .003345 | .017814 |
| 22 | .007640 | .017220 | -.031805 | -.003257 | .011293 | .021846 |
| 23 | .007651 | .022158 | -.031226 | -.007969 | .019040 | .016192 |
| 24 | -.001222 | .023688 | -.020673 | -.018240 | .015026 | -.003991 |
| 25 | -.014280 | .017592 | -.010642 | -.028522 | .005149 | -.019406 |
| 26 | -.021471 | .006843 | -.002989 | -.033995 | -.004059 | -.025781 |
| 27 | -.018898 | -.000733 | -.005669 | -.027707 | -.002764 | -.020106 |
| 28 | -.015294 | -.001138 | -.005107 | -.016958 | .006510 | -.013506 |
| 29 | -.011840 | .001946 | -.005666 | -.017094 | .022006 | -.013308 |
| 30 | -.007866 | .005886 | .001041 | -.018283 | .029850 | -.012700 |
| 31 | -.000403 | .011569 | .009568 | -.012463 | .028079 | -.009709 |
| 32 | -.000368 | .014743 | .011802 | -.003173 | .021960 | -.004374 |
| 33 | -.008480 | .013043 | .020088 | -.000102 | .014486 | -.003074 |
| 34 | -.012754 | .013422 | .021065 | -.001910 | .021058 | -.006417 |
| 35 | -.011731 | .016185 | .018788 | .004864 | .020885 | -.012465 |
| 36 | -.004278 | .014587 | .014012 | .007307 | .014742 | -.012774 |
| 37 | .001603 | .016378 | .008712 | .007983 | .020763 | -.013117 |
| 38 | .004012 | .011110 | .012024 | .008120 | .017839 | -.024140 |
| 39 | .005942 | .006279 | .019084 | .009824 | .011012 | -.038826 |
| 40 | .004814 | .002963 | .029047 | .007205 | .002682 | -.049742 |
| 41 | .005768 | -.004714 | .039464 | .000494 | -.002492 | -.055189 |
| 42 | .012117 | -.014206 | .034522 | -.007576 | -.010966 | -.052766 |
| 43 | .021424 | -.019878 | .024897 | -.008345 | -.012816 | -.041572 |
| 44 | .028201 | -.024254 | .022381 | -.014965 | -.019293 | -.032540 |
| 45 | .029835 | -.027498 | .017313 | -.014785 | -.016041 | -.025875 |
| 46 | .029772 | -.025530 | .011305 | -.005306 | -.009018 | -.016195 |
| 47 | .021891 | -.018615 | .004666 | .004523 | -.008071 | .002056 |
| 48 | .010711 | -.011420 | .001011 | .008642 | -.009854 | .012209 |
| 49 | .000094 | -.006250 | -.000327 | .005848 | -.006114 | .019201 |
| 50 | -.003251 | .002374 | -.006505 | -.003084 | -.000794 | .028438 |
| 51 | -.002943 | .010756 | -.020735 | -.005810 | -.002237 | .037638 |
| 52 | -.005067 | .012774 | -.029086 | -.003238 | -.006440 | .045553 |
| 53 | -.002850 | .016260 | -.034973 | -.001362 | -.009318 | .057642 |
| 54 | -.008943 | .020130 | -.039991 | .000893 | -.015264 | .058466 |
| 55 | -.019575 | .032824 | -.041742 | .001112 | -.013242 | .048198 |
| 56 | -.031018 | .036867 | -.035082 | -.004582 | -.004185 | .026627 |
| 57 | -.041085 | .029220 | -.021708 | -.010605 | -.000313 | .007536 |
| 58 | -.051101 | .011961 | -.009622 | -.012517 | -.005058 | .002927 |
| 59 | -.060878 | -.005697 | .013590 | -.006961 | -.012013 | -.003454 |
| 60 | -.058101 | -.015200 | .026586 | .003525 | -.007847 | .004138 |

RUN NC 98 46M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12650 10E 01 | 0.15745 10E 01 | 0.61881 10E 00 | 0.30845 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .859626 | .826968 | .733423 | .761205 |
| 2 | .683594 | .617768 | .416401 | .535897 |
| 3 | .535964 | .470892 | .218758 | .386866 |
| 4 | .415239 | .360443 | .107758 | .283931 |
| 5 | .325915 | .270342 | .055344 | .210393 |
| 6 | .245994 | .197249 | .007571 | .153930 |
| 7 | .178749 | .135920 | -.041365 | .106136 |
| 8 | .122059 | .078598 | -.069411 | .049601 |
| 9 | .078201 | .030069 | -.073786 | -.008077 |
| 10 | .033182 | -.016762 | -.066037 | -.060037 |
| 11 | -.020258 | -.068001 | -.075065 | -.095779 |
| 12 | -.078471 | -.116766 | -.112926 | -.128759 |
| 13 | -.130923 | -.157964 | -.138501 | -.153863 |
| 14 | -.172575 | -.185462 | -.144686 | -.178453 |
| 15 | -.207252 | -.208482 | -.147192 | -.186953 |
| 16 | -.228712 | -.235570 | -.143380 | -.1807d5 |
| 17 | -.238690 | -.266892 | -.138703 | -.182895 |
| 18 | -.241281 | -.291093 | -.142277 | -.180144 |
| 19 | -.238392 | -.310027 | -.130846 | -.179291 |
| 20 | -.229918 | -.316741 | -.105568 | -.191159 |
| 21 | -.229247 | -.317165 | -.076798 | -.190055 |
| 22 | -.229493 | -.306585 | -.064003 | -.180203 |
| 23 | -.229343 | -.296835 | -.077102 | -.162799 |
| 24 | -.230578 | -.282479 | -.102404 | -.144015 |
| 25 | -.223148 | -.257969 | -.109330 | -.131451 |
| 26 | -.207774 | -.235881 | -.099557 | -.111732 |
| 27 | -.183459 | -.217785 | -.095858 | -.108489 |
| 28 | -.159597 | -.200970 | -.091218 | -.101979 |
| 29 | -.143702 | -.174053 | -.083189 | -.097842 |
| 30 | -.126093 | -.134558 | -.061740 | -.075365 |
| 31 | -.103856 | -.070392 | -.036574 | -.032102 |
| 32 | -.078676 | -.019884 | -.019868 | .012940 |
| 33 | -.062161 | .001904 | -.008825 | .032617 |
| 34 | -.061253 | .029440 | -.016418 | .038772 |
| 35 | -.062852 | .059131 | -.017272 | .042600 |
| 36 | -.052124 | .080207 | -.009311 | .039102 |
| 37 | -.039109 | .087050 | -.008936 | .030440 |
| 38 | -.026165 | .087866 | -.006320 | .029130 |
| 39 | -.012890 | .089581 | -.008568 | .037082 |
| 40 | -.001316 | .090485 | -.005088 | .025909 |
| 41 | .004792 | .088748 | .018135 | .008647 |
| 42 | .012038 | .093533 | .046534 | -.000084 |
| 43 | .014196 | .100885 | .066594 | -.009019 |
| 44 | .008682 | .092812 | .082307 | -.031440 |
| 45 | .000661 | .087679 | .080164 | -.032697 |
| 46 | -.009627 | .089234 | .071611 | -.041577 |
| 47 | -.009137 | .088042 | .067356 | -.065193 |
| 48 | -.005723 | .072630 | .053590 | -.084888 |
| 49 | -.005547 | .045230 | .034693 | -.084572 |
| 50 | -.004223 | .017827 | .023462 | -.078977 |
| 51 | -.007953 | .000147 | .025951 | -.078299 |
| 52 | -.012275 | -.021847 | .034467 | -.095315 |
| 53 | -.018817 | -.027900 | .040283 | -.099005 |
| 54 | -.030237 | -.023741 | .032837 | -.097016 |
| 55 | -.036595 | -.028174 | .019616 | -.097936 |
| 56 | -.043906 | -.028885 | .011177 | -.092378 |
| 57 | -.054740 | -.026308 | -.009120 | -.073790 |
| 58 | -.056926 | -.033016 | -.033541 | -.058954 |
| 59 | -.047861 | -.045918 | -.047772 | -.055516 |
| 60 | -.036736 | -.046299 | -.038172 | -.044457 |

RUN NO 98 46M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-03 |
| 0 | .014045 | -.041670 | -.046017 | -.013997 | -.031679 | .143961 |
| 1 | -.018389 | -.476585 | -.236336 | -.009864 | -.305494 | .774252 |
| 2 | -.207580 | -.642726 | -.138163 | .020115 | -.454400 | .273517 |
| 3 | -.256263 | -.662039 | -.050339 | -.077677 | -.597785 | -.277670 |
| 4 | .027220 | -.459293 | -.019265 | -.190959 | -.421550 | -.326903 |
| 5 | .146525 | -.310588 | -.032521 | -.198024 | -.197324 | -.056880 |
| 6 | .058891 | -.148447 | -.052695 | -.130393 | -.151953 | .016146 |
| 7-8 | .003071 | -.083180 | -.013216 | -.011184 | -.115366 | .243237 |
| 9-11 | -.012820 | -.137137 | -.000444 | .025713 | -.057692 | -.108895 |
| 12-15 | -.024779 | -.087569 | .003465 | .012555 | -.053869 | .000785 |
| 16-20 | -.000082 | -.035495 | -.004719 | .005110 | -.033370 | -.050866 |
| 21-27 | -.018096 | -.027348 | .003361 | .016369 | -.018019 | -.106037 |
| 28-36 | -.000040 | -.005799 | .000961 | .001917 | -.011835 | -.047885 |
| 37-47 | .001995 | -.003731 | -.001403 | .001702 | -.009317 | .027264 |
| 48-60 | -.001058 | -.003695 | .000687 | -.000745 | -.003999 | -.010217 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .072354 | .361010 | -.245120 | .040823 | -.123975 | .070855 |
| 2 | .081306 | -.028948 | -.260708 | .081050 | -.166863 | .109777 |
| 3 | .123121 | -.534933 | -.242649 | .127361 | -.210591 | .121167 |
| 4 | .073183 | -.577796 | -.157312 | .114285 | -.160008 | .089774 |
| 5 | .004678 | -.528712 | -.107783 | .058764 | -.104026 | .076066 |
| 6 | .019963 | -.676686 | -.060339 | .041452 | -.080701 | .045222 |
| 7-8 | .022237 | -.529125 | -.015498 | .075200 | -.037009 | .035755 |
| 9-11 | -.027360 | -.395752 | .001551 | .000482 | -.016431 | .016679 |
| 12-15 | -.026580 | -.114945 | .011696 | .001852 | -.002527 | .006726 |
| 16-20 | .005417 | -.070322 | -.002044 | -.000412 | -.005834 | -.004003 |
| 21-27 | .002337 | -.010633 | -.004783 | .001368 | -.005938 | .005563 |
| 28-36 | -.003716 | -.020500 | -.001130 | -.002613 | -.004361 | -.000176 |
| 37-47 | -.001857 | -.021808 | -.000051 | -.001629 | -.002201 | -.001039 |
| 48-60 | -.000987 | -.008878 | .000294 | -.001479 | -.000012 | .000155 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-03 |
| 0 | .021897 | .009914 | .023026 | .036962 |
| 1 | .180821 | .144844 | .304721 | .291365 |
| 2 | .212216 | .243205 | .494342 | .355172 |
| 3 | .219337 | .297143 | .617550 | .437492 |
| 4 | .147940 | .182521 | .513352 | .345552 |
| 5 | .086834 | .084884 | .439490 | .205771 |
| 6 | .060252 | .071508 | .381993 | .165421 |
| 7-8 | .042360 | .063122 | .296142 | .120360 |
| 9-11 | .032903 | .043993 | .255934 | .079651 |
| 12-15 | .022190 | .029345 | .175782 | .068188 |
| 16-20 | .011101 | .017710 | .118334 | .045979 |
| 21-27 | .008063 | .012810 | .095219 | .029197 |
| 28-36 | .004025 | .007720 | .043759 | .021317 |
| 37-47 | .003082 | .004817 | .029967 | .015694 |
| 48-60 | .002084 | .002981 | .016874 | .011181 |

RUN NO 98 46M 7-3-63 1631-1727(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12504 10E 01 | 0.63563 10E 00 | 0.55749 10E-01 | 0.55872 .0E 00 | 0.49003 10E-01 | 0.24910 10E-01 |
| 0 | -.055089 | -.491595 | -.327108 | -.091902 | -.490176 | .078117 |
| 1 | -.043621 | -.184388 | -.245899 | .053181 | -.211055 | .066126 |
| 2 | .027208 | -.012929 | -.187709 | -.047455 | -.058045 | .067567 |
| 3 | .018378 | .058799 | -.064615 | -.028396 | -.036297 | -.055916 |
| 4 | -.042384 | .089583 | .008913 | .019179 | -.032888 | -.084024 |
| 5 | -.014178 | .027784 | .026168 | .056894 | .006698 | -.062229 |
| 6 | .024169 | .066195 | .015186 | .020545 | -.029031 | -.027765 |
| 7 | .009957 | .007027 | -.049827 | -.018203 | -.039467 | .050551 |
| 8 | -.045255 | .020298 | -.024259 | .015817 | .058047 | -.015134 |
| 9 | -.019878 | .083079 | -.015102 | .030552 | .058419 | .032514 |
| 10 | .046640 | .058850 | .033060 | -.011157 | .066412 | .048221 |
| 11 | .007348 | .094870 | .103234 | .008184 | .040008 | .002029 |
| 12 | -.022608 | .119708 | .135832 | -.036339 | .086705 | .003024 |
| 13 | .047752 | .046807 | .126604 | -.057900 | .099000 | -.020896 |
| 14 | -.004483 | -.043908 | .139998 | .012765 | .071956 | -.050631 |
| 15 | -.026700 | -.046708 | .137079 | -.017678 | -.061642 | -.002938 |
| 16 | -.018914 | -.041491 | .079115 | -.055745 | .029135 | .041754 |
| 17 | .026983 | -.084126 | .095906 | .010595 | .069472 | .031363 |
| 18 | -.035782 | -.033067 | .147438 | .091213 | .066003 | -.001899 |
| 19 | -.032428 | -.043305 | .100951 | .027582 | .118829 | .011493 |
| 20 | .064451 | -.020558 | .046672 | -.038777 | .160374 | .027962 |
| 21 | .141902 | .040885 | .022338 | -.075339 | .070826 | -.014639 |
| 22 | .124435 | .023767 | .002800 | -.031513 | -.041462 | -.032249 |
| 23 | .113312 | -.021815 | -.013264 | -.047045 | -.093917 | .001512 |
| 24 | .069124 | .003610 | -.030185 | .001550 | -.054174 | -.020697 |
| 25 | .025344 | .003987 | -.014067 | -.005858 | .038304 | -.023265 |
| 26 | -.004622 | .007848 | -.053828 | -.037982 | .006241 | .008429 |
| 27 | -.066388 | -.036656 | -.088234 | .081647 | .009813 | .019113 |
| 28 | -.083849 | -.028763 | -.061326 | .084574 | -.049652 | .011877 |
| 29 | -.067021 | -.004830 | -.065105 | .068008 | -.009969 | -.041720 |
| 30 | .001449 | .045484 | -.069658 | -.059952 | -.056699 | .020646 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .000596 | ..005661 | -.021866 | -.065978 | -.033374 | .031964 |
| 1 | -.154468 | -.063224 | -.370202 | .105272 | -.281672 | .069241 |
| 2 | -.058521 | -.155663 | -.405494 | .106874 | -.274062 | .022299 |
| 3 | -.001592 | -.295762 | -.242773 | -.148591 | -.209511 | .097479 |
| 4 | -.089467 | -.272334 | -.084115 | -.412533 | -.152781 | .188842 |
| 5 | .033572 | -.136633 | -.125112 | -.661850 | -.118751 | .301880 |
| 6 | .007806 | -.144977 | -.178925 | -.175685 | -.059603 | .567409 |
| 7 | -.116348 | -.264236 | -.202114 | .188956 | -.120584 | .645387 |
| 8 | -.028771 | -.280537 | -.169891 | -.237361 | -.171966 | .379542 |
| 9-11 | -.022428 | -.163071 | -.027719 | .104741 | -.112603 | .141445 |
| 12-14 | -.10569 | -.126075 | .006901 | .480079 | -.061027 | -.179981 |
| 15-21 | -.035996 | -.072855 | -.002143 | -.361412 | -.087006 | -.104675 |
| 22-30 | .036547 | -.095423 | -.028527 | -.768883 | -.045348 | .078936 |

RUN NC 98 46M 7-3-63 1631-1727(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12504 10E 01 | 0.63563 10E 00 | 0.55749 10E-01 | 0.55872 10E 00 | 0.49003 10E-01 | 0.24910 10E-01 |
| 1 | .000837 | .012346 | -.121210 | .035451 | -.083814 | .141655 |
| 2 | -.020000 | .013516 | -.090791 | -.034719 | -.063248 | .060632 |
| 3 | -.053086 | .022705 | -.079637 | -.036397 | -.071815 | .042592 |
| 4 | -.061344 | -.029105 | .014229 | -.049654 | -.032381 | -.039542 |
| 5 | -.086483 | -.047070 | .026197 | -.060303 | -.001209 | -.004957 |
| 6 | -.091569 | -.034583 | .064542 | -.055607 | -.014861 | -.041634 |
| 7 | -.087219 | -.102892 | .107837 | -.085852 | -.007960 | -.106002 |
| 8 | -.045165 | -.032198 | .051091 | -.066738 | .016960 | -.053495 |
| 9 | -.018985 | -.010395 | .018709 | -.038361 | -.046178 | -.027635 |
| 10 | -.079172 | .008219 | .053858 | -.085070 | -.066239 | -.058384 |
| 11 | -.067201 | -.005527 | .072820 | -.061223 | -.005938 | -.095168 |
| 12 | -.059485 | .023814 | .091900 | -.071095 | -.009758 | -.102876 |
| 13 | -.029631 | -.035982 | .079199 | -.029455 | -.020526 | -.079964 |
| 14 | -.026572 | -.016754 | .054418 | -.016360 | -.007633 | -.073781 |
| 15 | .027652 | .003796 | .038622 | .069225 | .015461 | -.033127 |
| 16 | .096158 | .020424 | -.032788 | .089081 | .056432 | .004634 |
| 17 | .112331 | .005682 | -.046504 | .061035 | .062862 | .038216 |
| 18 | .096677 | .018725 | -.027014 | .040941 | .039142 | .052681 |
| 19 | .076404 | .026568 | -.048772 | .056333 | .047240 | .095596 |
| 20 | .121102 | .015524 | -.039284 | .090858 | .107237 | .054563 |
| 21 | .036580 | .079099 | -.006398 | .076649 | .035761 | .007154 |
| 22 | -.049682 | .107697 | .013151 | .010917 | .001270 | .051481 |
| 23 | -.041899 | .070776 | -.024907 | .018485 | .030966 | .063619 |
| 24 | .018723 | -.005829 | -.078199 | .043285 | -.016741 | .096143 |
| 25 | .000412 | .001089 | -.042361 | .026507 | -.008864 | .120036 |
| 26 | -.004819 | -.010444 | .014494 | .046845 | -.024333 | .088313 |
| 27 | .04613 | .008407 | .041179 | .012512 | .010769 | -.011956 |
| 28 | .001696 | -.039310 | .062275 | -.066698 | .039541 | -.022998 |
| 29 | -.058011 | -.016408 | .070991 | -.057727 | -.022565 | -.004116 |
| 30 | -.101937 | -.012798 | .032340 | -.091325 | -.043890 | -.000833 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-03 | 10E-03 |
| 1 | -.288873 | -.055142 | .163616 | -.126253 | -.230233 | -.746871 |
| 2 | -.469531 | -.104925 | .114967 | -.196068 | -.875383 | -.665014 |
| 3 | -.347772 | -.059841 | -.023696 | -.119114 | -.696751 | .142925 |
| 4 | .041133 | -.007651 | -.135002 | .034248 | -.064016 | .616031 |
| 5 | .015450 | .006361 | -.108544 | .036561 | -.424739 | .332197 |
| 6 | -.126685 | .070799 | -.080219 | -.018600 | -.827544 | .218143 |
| 7 | .039642 | .085010 | -.127289 | -.012959 | -.719328 | .437260 |
| 8 | .144192 | .062505 | -.159822 | .029480 | -.627267 | .553682 |
| 9-11 | .040578 | -.007369 | -.052756 | .011932 | -.288798 | .247178 |
| 12-14 | -.029136 | .006348 | -.030179 | .020690 | -.254697 | .286169 |
| 15-21 | .027133 | -.014159 | -.013252 | .024147 | -.123371 | .131185 |
| 22-30 | -.003238 | .009881 | -.037168 | .023044 | -.117236 | .221407 |

RUN NO 98 46M 7-3-63 1631-1727(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.14225 10E 01 | 0.10991 10E 01 | 0.28402 10E 00 | 0.21848 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .517848 | .343334 | .122695 | .500629 |
| 2 | .203599 | -.041495 | .058821 | .252151 |
| 3 | .067142 | -.054546 | -.080579 | .162620 |
| 4 | -.047354 | .014371 | -.049041 | .046745 |
| 5 | -.089607 | -.019241 | -.045982 | .018609 |
| 6 | -.102756 | .008795 | -.111918 | .030398 |
| 7 | -.007557 | .001364 | -.108894 | .112968 |
| 8 | -.039169 | -.067850 | -.033148 | .051759 |
| 9 | -.106363 | -.055475 | -.081421 | -.079008 |
| 10 | -.118930 | -.131177 | -.035883 | .207725 |
| 11 | -.182508 | -.109152 | -.066046 | -.161993 |
| 12 | -.227111 | -.087156 | -.141196 | -.198523 |
| 13 | -.185503 | -.160167 | -.041680 | .254063 |
| 14 | -.098089 | -.163445 | -.065917 | -.239320 |
| 15 | -.062427 | -.013902 | -.030363 | -.145952 |
| 16 | -.059900 | .013516 | -.032420 | -.175894 |
| 17 | -.117873 | .009626 | .032072 | -.209953 |
| 18 | -.133462 | -.039840 | .107023 | -.155761 |
| 19 | -.052328 | -.104112 | .057407 | -.178151 |
| 20 | -.050523 | -.161748 | .011080 | -.216682 |
| 21 | -.093302 | -.084877 | -.023035 | -.137436 |
| 22 | -.063183 | .017630 | -.047604 | .031669 |
| 23 | -.033468 | .123560 | .076917 | .046557 |
| 24 | -.064320 | .092358 | -.005188 | .024792 |
| 25 | -.085040 | .001628 | .035652 | -.003915 |
| 26 | -.008681 | .065285 | .003236 | .011914 |
| 27 | .092426 | .019821 | .017859 | -.002510 |
| 28 | .079117 | .077690 | .068638 | .098730 |
| 29 | .092708 | .000154 | .088517 | .142338 |
| 30 | .119389 | .094703 | -.062065 | .171587 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .098702 | .060606 | .003484 | .034320 |
| 1 | .140543 | .701525 | .068816 | .340982 |
| 2 | .164513 | .851628 | .131934 | .333493 |
| 3 | .153090 | .792871 | .189529 | .219609 |
| 4 | .115009 | .569204 | .161608 | .105727 |
| 5 | .089795 | .434892 | .126628 | .092402 |
| 6 | .091771 | .419695 | .147542 | .101356 |
| 7 | .106924 | .678028 | .158513 | .139998 |
| 8 | .103289 | .698863 | .116384 | .149085 |
| 9-11 | .048790 | .611862 | .104004 | .081050 |
| 12-14 | .035747 | .486580 | .123248 | .031644 |
| 15-21 | .033982 | .428593 | .088815 | .060740 |
| 22-30 | .027394 | .233857 | .161726 | .046743 |

RUN NO 98 91M 7-3-63 1631-1727(EST)

GROSS STATISTICS

Z CU
TRANSITIONAL WIND SPEED 10.7 M/SEC SIGMA A 6.70 DEG
 WIND DIRECTION 294 DEG SIGMA E 4.5 DEG
 SOLAR RAD. 0.45 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|-----------|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| VARIANCES | | | | |
| U | 0.20462E 01 | 0.14342E 01 | 0.77126E 00 | 0.11206E 01 |
| V | 0.14549E 01 | 0.12543E 01 | 0.10098E 01 | 0.76284E 00 |
| W | 0.64760E 00 | 0.67090E 00 | 0.58667E 00 | 0.26789E-00 |
| T | 0.16706E-00 | 0.36341E-02 | 0.21300E-02 | 0.26064E-02 |
| E | 0.20744E 01 | 0.16798E 01 | 0.11839E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.13344 | 0.11172 | 0.08192 | 0.09875 |
| V | 0.11252 | 0.10447 | 0.09374 | 0.08147 |
| W | 0.07507 | 0.07641 | 0.07145 | 0.04828 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.13695E-00 | 0.12318E-01 | -0.45430E-02 | -0.17975E-01 |
| U,W | -0.36633E-00 | -0.37112E-00 | -0.21773E-00 | -0.26679E-00 |
| U,T | -0.12724E-00 | -0.30526E-01 | -0.87101E-02 | -0.28113E-01 |
| V,W | -0.24553E-01 | -0.19741E-01 | -0.15875E-01 | -0.12766E-01 |
| V,T | -0.33132E-02 | -0.17569E-01 | -0.13413E-01 | -0.12961E-01 |
| W,T | 0.47684E-02 | 0.48724E-02 | 0.14418E-02 | 0.56745E-02 |
| WE | 0.15608E-00 | 0.18972E-00 | 0.85346E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.07937 | 0.00918 | -0.00515 | -0.01944 |
| U,W | -0.31823 | -0.37834 | -0.32368 | -0.48694 |
| U,T | -0.21771 | -0.42282 | -0.21490 | -0.52020 |
| V,W | -0.02530 | -0.02152 | -0.02063 | -0.02824 |
| V,T | -0.00672 | -0.26022 | -0.28921 | -0.29068 |
| W,T | 0.01450 | 0.09868 | 0.04079 | 0.21475 |

RUN NC 98 914 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|--------------------|-------------------|--------------------|--------------------|
| | 0.88256 10E 00 | 0.67271 10E 00 | 0.40521 10E -01 | 0.76980 10E 00 | 0.46370 10E -01 | 0.35344 10E -01 |
| 0 | -.005227 | -.323813 | -.214879 | -.020774 | -.289183 | .040749 |
| 1 | -.014661 | -.296330 | -.199739 | -.013826 | -.256139 | .054877 |
| 2 | -.027495 | -.245356 | -.174561 | -.013359 | -.212050 | .072070 |
| 3 | -.036610 | -.194284 | -.151941 | -.012111 | -.172441 | .085459 |
| 4 | -.041005 | -.155516 | -.129322 | -.011785 | -.137843 | .092913 |
| 5 | -.042475 | -.120919 | -.106956 | -.012080 | -.108095 | .082714 |
| 6 | -.041934 | -.092719 | -.087432 | -.008938 | -.089355 | .069116 |
| 7 | -.035597 | -.068370 | -.073601 | -.007648 | -.060695 | .059626 |
| 8 | -.028105 | -.045613 | -.063785 | -.002447 | -.032720 | .045898 |
| 9 | -.022835 | -.020598 | -.053866 | -.009200 | -.010418 | .024866 |
| 10 | -.007220 | -.000735 | -.043212 | -.011374 | -.008868 | .005061 |
| 11 | .008233 | .012945 | -.035357 | -.009547 | .033231 | -.011189 |
| 12 | .017450 | .022027 | -.029393 | -.007025 | .062113 | -.018870 |
| 13 | .022375 | .031879 | -.024703 | -.001884 | .080416 | -.010709 |
| 14 | .028365 | .045707 | -.026781 | -.007169 | .089546 | -.000100 |
| 15 | .039553 | .055492 | -.033450 | -.006967 | .092773 | .004919 |
| 16 | .041723 | .056170 | -.029585 | -.010355 | .098363 | .001824 |
| 17 | .044420 | .049335 | -.014098 | -.007281 | .108832 | -.006071 |
| 18 | .048559 | .043759 | .008547 | .002964 | .112031 | -.023416 |
| 19 | .048721 | .048618 | .026286 | .006845 | .110369 | -.040432 |
| 20 | .046268 | .056316 | .033336 | .002855 | .105515 | -.040690 |
| 21 | .043154 | .063386 | .038371 | .000235 | .101360 | -.030075 |
| 22 | .041823 | .066215 | .045192 | -.003717 | .100494 | -.022341 |
| 23 | .043277 | .062144 | .056689 | -.013607 | .097332 | -.015638 |
| 24 | .044413 | .060754 | .060913 | -.020659 | .093388 | -.014250 |
| 25 | .036872 | .065863 | .057975 | -.009695 | .080061 | -.018619 |
| 26 | .028522 | .079804 | .058716 | .002055 | .065678 | -.031253 |
| 27 | .015653 | .083873 | .065648 | .012125 | .054382 | -.052971 |
| 28 | .003068 | .079759 | .074032 | .017095 | .027808 | -.058278 |
| 29 | -.008242 | .072679 | .073292 | .016723 | .001948 | -.045145 |
| 30 | -.012089 | .072283 | .060944 | .012094 | -.015765 | -.034415 |
| 31 | -.007542 | .068320 | .044507 | .005578 | -.031114 | -.027527 |
| 32 | -.003963 | .063949 | .038020 | .000609 | -.040663 | -.028142 |
| 33 | -.008002 | .056215 | .041702 | .002255 | -.046882 | -.028185 |
| 34 | -.014365 | .048047 | .051130 | -.002418 | -.053161 | -.021122 |
| 35 | -.019089 | .038632 | .058383 | -.006587 | -.056385 | -.012559 |
| 36 | -.027641 | .024359 | .061027 | -.013753 | -.052569 | -.010412 |
| 37 | -.041628 | .012240 | .071011 | -.012043 | -.049267 | -.008636 |
| 38 | -.055843 | .010692 | .081806 | -.000114 | -.041076 | -.007792 |
| 39 | -.071843 | .012672 | .089259 | .004198 | -.036069 | -.017393 |
| 40 | -.080629 | .019563 | .088329 | .004469 | -.027300 | -.029125 |
| 41 | -.080109 | .031045 | .086509 | .012941 | -.022759 | -.031668 |
| 42 | -.072754 | .030973 | .090380 | .019567 | -.022860 | -.030042 |
| 43 | -.064129 | .038581 | .096544 | .017311 | -.018931 | -.033917 |
| 44 | -.053900 | .048803 | .099574 | .011195 | -.011590 | -.032419 |
| 45 | -.041329 | .053474 | .102050 | .006782 | -.000575 | -.018901 |
| 46 | -.030764 | .050202 | .103849 | .010843 | .007571 | -.011605 |
| 47 | -.023853 | .037979 | .101677 | .018554 | .008393 | -.002240 |
| 48 | -.022094 | .031667 | .093516 | .022935 | .016421 | -.000627 |
| 49 | -.014983 | .022299 | .087562 | .024450 | .027177 | -.005162 |
| 50 | .000376 | .019761 | .081447 | .022775 | .038657 | -.006080 |
| 51 | .010672 | .012977 | .074947 | .019885 | .049371 | -.009266 |
| 52 | .015787 | .004319 | .063851 | .020662 | .043607 | -.008651 |
| 53 | .017971 | -.006915 | .043840 | .019349 | .034067 | -.009186 |
| 54 | .027018 | -.017900 | .020971 | .017140 | .034654 | .000549 |
| 55 | .044080 | -.025616 | .001301 | .006859 | .033836 | .010410 |
| 56 | .063619 | -.020385 | -.018661 | -.004939 | .034321 | .015841 |
| 57 | .078296 | -.015139 | -.032913 | -.015169 | .029432 | .013059 |
| 58 | .088639 | -.008995 | -.046287 | -.014889 | .028590 | .009348 |
| 59 | .091325 | .001321 | -.054745 | -.002318 | .025387 | .014942 |
| 60 | .082752 | .004511 | -.056391 | .014153 | .014522 | .018769 |

RUN NO 98 91M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.88256 10E 00 | 0.67271 10E 00 | 0.40521 10E-01 | 0.76980 10E 00 | 0.46370 10E-01 | 0.35344 10E-01 |
| 1 | -.000079 | -.038846 | -.026364 | -.013566 | -.027123 | .016963 |
| 2 | .000495 | -.064476 | -.049654 | -.020112 | -.044127 | .019940 |
| 3 | .005462 | -.071138 | -.061946 | -.030351 | -.056717 | .021613 |
| 4 | .007955 | -.074708 | -.065637 | -.036110 | -.066422 | .026994 |
| 5 | .012108 | -.084121 | -.061703 | -.032833 | -.078806 | .034117 |
| 6 | .009106 | -.092389 | -.055064 | -.023698 | -.078174 | .041191 |
| 7 | .007880 | -.089476 | -.057347 | -.018880 | -.077349 | .043060 |
| 8 | .007709 | -.085264 | -.065532 | -.016665 | -.080290 | .038261 |
| 9 | .008660 | -.085861 | -.070910 | -.010680 | -.080266 | .042392 |
| 10 | .010259 | -.080919 | -.072139 | -.004426 | -.073429 | .042647 |
| 11 | .018001 | -.073030 | -.063366 | -.004508 | -.069120 | .030636 |
| 12 | .024474 | -.066650 | -.058153 | .004153 | -.070280 | .021839 |
| 13 | .032635 | -.063041 | -.055843 | .021765 | -.063571 | .015925 |
| 14 | .044729 | -.059967 | -.054690 | .031350 | -.052781 | .006547 |
| 15 | .047354 | -.055435 | -.054093 | .030419 | -.050796 | -.004658 |
| 16 | .043400 | -.050933 | -.053949 | .022411 | -.049169 | -.016616 |
| 17 | .036311 | -.046979 | -.059837 | .010679 | -.042719 | -.019378 |
| 18 | .028385 | -.043631 | -.065538 | .005718 | -.031993 | -.009505 |
| 19 | .027046 | -.043330 | -.064877 | .008171 | -.028606 | .013201 |
| 20 | .029861 | -.042480 | -.063921 | .012859 | -.024368 | .035773 |
| 21 | .029674 | -.040571 | -.057353 | .019831 | -.027972 | .046213 |
| 22 | .024165 | -.039038 | -.048905 | .016138 | -.029606 | .044165 |
| 23 | .021343 | -.030215 | -.041340 | .005634 | -.025866 | .039376 |
| 24 | .022568 | -.012875 | -.035117 | .002818 | -.021023 | .031795 |
| 25 | .021086 | -.002257 | -.030536 | .009429 | -.016815 | .029173 |
| 26 | .016053 | .002141 | -.030108 | .013887 | -.007447 | .025082 |
| 27 | .005277 | .015 15 | -.031919 | .008560 | -.002697 | .028917 |
| 28 | .000528 | .034136 | -.025669 | -.003490 | .001581 | .027823 |
| 29 | -.002173 | .043695 | -.017082 | -.014041 | .014389 | .020796 |
| 30 | -.004693 | .049802 | -.006634 | -.023823 | .029360 | .008942 |
| 31 | -.011063 | .049955 | .006998 | -.036953 | .038035 | -.013375 |
| 32 | -.017274 | .046215 | .024327 | -.037309 | .038817 | -.028013 |
| 33 | -.023638 | .047467 | .034731 | -.038389 | .023841 | -.025634 |
| 34 | -.030914 | .048215 | .041474 | -.038437 | .010864 | -.022867 |
| 35 | -.037585 | .043990 | .045092 | -.029078 | .004726 | -.020322 |
| 36 | -.037803 | .038025 | .051201 | -.022392 | .005350 | -.014438 |
| 37 | -.037029 | .032732 | .063981 | -.023098 | .011246 | -.015029 |
| 38 | -.032844 | .026733 | .076709 | -.014654 | .009967 | -.015390 |
| 39 | -.030227 | .020578 | .084939 | -.001871 | .000175 | -.011177 |
| 40 | -.032827 | .020570 | .091466 | .012038 | -.001235 | -.012231 |
| 41 | -.037994 | .025269 | .093762 | .015352 | .007224 | -.014680 |
| 42 | -.042292 | .027953 | .082857 | .014514 | .017809 | -.021451 |
| 43 | -.037164 | .020281 | .061543 | .02256+ | .027511 | -.019162 |
| 44 | -.030879 | .019441 | .044659 | .032458 | .031978 | -.002465 |
| 45 | -.016024 | .023723 | .031439 | .034500 | .038577 | .009254 |
| 46 | -.000345 | .033246 | .013909 | .029140 | .038110 | .013244 |
| 47 | .013547 | .039256 | -.002412 | .022802 | .039121 | .011125 |
| 48 | .028283 | .041538 | -.015456 | .012026 | .044096 | .014530 |
| 49 | .045449 | .035214 | -.025964 | .004592 | .049334 | .018097 |
| 50 | .056592 | .037564 | -.033354 | .000295 | .042351 | .009379 |
| 51 | .061424 | .036928 | -.036786 | .002653 | .039940 | -.001218 |
| 52 | .064546 | .032830 | -.041382 | .012315 | .037171 | -.003590 |
| 53 | .066440 | .017016 | -.047994 | .022057 | .033114 | -.005365 |
| 54 | .067738 | -.000701 | -.055414 | .024505 | .029001 | -.000884 |
| 55 | .064736 | -.01 131 | -.055922 | .031157 | .023379 | .005355 |
| 56 | .056002 | -.021237 | -.044928 | .037275 | .015824 | -.001446 |
| 57 | .041782 | -.027549 | -.035012 | .044563 | .006024 | -.014703 |
| 58 | .028772 | -.028857 | -.031376 | .049847 | -.002405 | -.019340 |
| 59 | .020880 | -.027951 | -.031734 | .046295 | -.010432 | -.009252 |
| 60 | .013234 | -.024487 | -.027828 | .038889 | -.015617 | -.004228 |

RUN NC 98 91M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | I |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.77125 10E 00 | 0.10099 10E 01 | 0.58676 10E 00 | 0.21290 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .874292 | .836608 | .737487 | .792184 |
| 2 | .719453 | .629654 | .436798 | .569116 |
| 3 | .590855 | .474747 | .251640 | .429428 |
| 4 | .481097 | .365330 | .133338 | .340836 |
| 5 | .391658 | .273917 | .049627 | .266322 |
| 6 | .310247 | .202062 | -.012565 | .207792 |
| 7 | .229727 | .140709 | -.052263 | .148649 |
| 8 | .160095 | .079715 | -.078535 | .107788 |
| 9 | .096327 | .018854 | -.095537 | .067932 |
| 10 | .045595 | -.041748 | -.108595 | .020542 |
| 11 | .007439 | -.094276 | -.117596 | -.025386 |
| 12 | -.025800 | -.133417 | -.118563 | -.066046 |
| 13 | -.060465 | -.180155 | -.115221 | -.079735 |
| 14 | -.091431 | -.217319 | -.116601 | -.085732 |
| 15 | -.113009 | -.265112 | -.112032 | -.097475 |
| 16 | -.128365 | -.266891 | -.101367 | -.102290 |
| 17 | -.140740 | -.289808 | -.099877 | -.114003 |
| 18 | -.160816 | -.302335 | -.100084 | -.141297 |
| 19 | -.184809 | -.294860 | -.095063 | -.171737 |
| 20 | -.205175 | -.286940 | -.098439 | -.209488 |
| 21 | -.227207 | -.274611 | -.104533 | -.232637 |
| 22 | -.244251 | -.258972 | -.103781 | -.248851 |
| 23 | -.254128 | -.238324 | -.099811 | -.267979 |
| 24 | -.262108 | -.219725 | -.088980 | -.270505 |
| 25 | -.269712 | -.192555 | -.092826 | -.261008 |
| 26 | -.279719 | -.168759 | -.090621 | -.249858 |
| 27 | -.291953 | -.149652 | -.085768 | -.236975 |
| 28 | -.298658 | -.136646 | -.085093 | -.218678 |
| 29 | -.288466 | -.113434 | -.070348 | -.197687 |
| 30 | -.265355 | -.074766 | -.050932 | -.164661 |
| 31 | -.229415 | -.019980 | -.044507 | -.119269 |
| 32 | -.194650 | .030215 | -.045097 | -.081452 |
| 33 | -.162148 | .064030 | -.041050 | -.070539 |
| 34 | -.132761 | .086771 | -.041287 | -.064335 |
| 35 | -.111173 | .095290 | -.028563 | -.052539 |
| 36 | -.093331 | .091951 | -.009127 | -.054316 |
| 37 | -.072012 | .084817 | .036630 | -.066897 |
| 38 | -.056904 | .074388 | .046165 | -.051801 |
| 39 | -.052836 | .057970 | .054259 | -.029183 |
| 40 | -.053561 | .033059 | .035456 | -.017501 |
| 41 | -.054663 | .021372 | .007528 | -.007084 |
| 42 | -.047334 | .020177 | -.013969 | .026883 |
| 43 | -.041382 | .018140 | -.012412 | .036609 |
| 44 | -.041479 | .008110 | -.015343 | .01077 |
| 45 | -.048982 | -.009583 | -.021427 | .020316 |
| 46 | -.049331 | -.032998 | -.018418 | .012728 |
| 47 | -.045056 | -.046565 | -.026626 | .011685 |
| 48 | -.039032 | -.057521 | -.051235 | .016283 |
| 49 | -.026899 | -.066207 | -.060291 | .010256 |
| 50 | -.011781 | -.063822 | -.037900 | -.004708 |
| 51 | -.003241 | -.054976 | -.009192 | -.007645 |
| 52 | .001983 | -.049177 | .003921 | .023984 |
| 53 | .008070 | -.042810 | .019246 | .050566 |
| 54 | .008690 | -.039385 | .026305 | .049752 |
| 55 | .012580 | -.034849 | .034394 | .046729 |
| 56 | .012188 | -.030911 | .032341 | .036482 |
| 57 | .007257 | -.020145 | .018592 | .029745 |
| 58 | .002084 | -.005227 | .008741 | .027692 |
| 59 | -.003014 | .014240 | .005443 | .024471 |
| 60 | -.007441 | .033056 | .023655 | .014230 |

(x)

RUN NC 98 91M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|-----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | -.002385 | -.046414 | -.039093 | -.070955 | -.017040 | .112884 |
| 1 | .017364 | -.401369 | -.292134 | -.409872 | -.133485 | .977315 |
| 2 | -.093396 | -.408872 | -.211168 | -.183285 | -.210212 | .920195 |
| 3 | -.205418 | -.355019 | -.110835 | -.103418 | -.311987 | .658988 |
| 4 | -.081775 | -.237389 | -.062944 | -.150008 | -.232315 | .332696 |
| 5 | .019877 | -.166537 | -.029684 | -.146435 | -.086710 | .156466 |
| 6 | .027564 | -.153228 | -.034416 | -.274539 | -.048914 | .108653 |
| 7-8 | .044460 | -.082228 | -.047293 | -.072910 | -.047669 | -.043153 |
| 9-11 | .031138 | -.046325 | -.014216 | -.018081 | -.019835 | -.159056 |
| 12-15 | .008817 | -.032355 | -.008374 | -.000035 | -.020271 | -.116956 |
| 16-20 | .005427 | -.019596 | -.001579 | -.057495 | -.010379 | -.047614 |
| 21-27 | .003477 | -.005636 | -.002625 | .005010 | -.006954 | -.029290 |
| 28-36 | .003203 | -.004298 | -.002068 | -.028524 | -.002888 | .005120 |
| 37-47 | .000641 | -.000714 | -.0000807 | -.005794 | -.003233 | -.016526 |
| 48-60 | .000702 | -.001150 | -.000327 | -.016913 | -.001344 | -.005278 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | .095140 | -.139784 | -.115672 | -.027527 | -.114202 | .491660 |
| 2 | .127859 | -.226548 | -.143269 | .141763 | -.136795 | .447557 |
| 3 | .073277 | -.217969 | -.090317 | .097075 | -.119899 | .268183 |
| 4 | -.049013 | -.103598 | -.008169 | -.670865 | -.073124 | .087470 |
| 5 | -.030854 | -.046138 | -.031518 | -.872957 | -.038428 | .287223 |
| 6 | -.012162 | -.064769 | -.034995 | -.346453 | -.033154 | .436686 |
| 7-8 | -.005237 | -.052358 | -.017972 | -.424235 | -.020337 | .065403 |
| 9-11 | .017852 | -.011826 | -.008130 | -.008590 | -.007755 | -.102880 |
| 12-15 | -.008592 | -.010268 | -.011387 | -.109544 | -.002412 | .052347 |
| 16-20 | .000641 | -.009985 | -.003283 | .056333 | -.000643 | .010752 |
| 21-27 | -.002305 | -.005991 | .002361 | -.009787 | -.001375 | .021212 |
| 28-36 | -.000125 | -.000319 | -.000553 | -.023311 | -.002370 | .004565 |
| 37-47 | .000438 | .000135 | .000616 | -.008528 | .000612 | .010864 |
| 48-60 | .000574 | .000418 | -.000015 | -.006691 | -.001016 | .002981 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-03 |
| 0 | .016724 | .009388 | .025512 | .030529 |
| 1 | .144868 | .097325 | .329126 | .282653 |
| 2 | .153602 | .142187 | .461192 | .335990 |
| 3 | .129417 | .184628 | .566216 | .315438 |
| 4 | .070920 | .136366 | .490451 | .176600 |
| 5 | .045501 | .065281 | .410129 | .102249 |
| 6 | .045786 | .045822 | .411220 | .104076 |
| 7-8 | .030162 | .036528 | .326644 | .099776 |
| 9-11 | .015701 | .028025 | .228477 | .046466 |
| 12-15 | .009739 | .018308 | .160214 | .045493 |
| 16-20 | .006471 | .012322 | .107941 | .027172 |
| 21-27 | .003872 | .007277 | .072908 | .021641 |
| 28-36 | .002453 | .004703 | .047583 | .012719 |
| 37-47 | .001805 | .002608 | .028143 | .008656 |
| 48-60 | .001103 | .001815 | .017092 | .005526 |

RUN NC 98 91M 7-3-63 1631-1727(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.92511 10E 00 | 0.54830 10E 00 | 0.54087 10E-01 | 0.45229 10E 00 | 0.44615 10E-01 | 0.26443 10E-01 |
| 0 | -.019430 | -.486571 | -.519777 | -.028226 | -.290510 | .214594 |
| 1 | .001265 | -.297687 | -.440513 | .002184 | -.106667 | .178053 |
| 2 | .015782 | -.136136 | -.281354 | .010755 | -.013713 | .073440 |
| 3 | -.008211 | .006509 | -.153614 | .025824 | -.059305 | .019948 |
| 4 | -.054607 | .103087 | -.051917 | .027325 | -.050294 | -.050219 |
| 5 | -.021785 | .091669 | .017032 | .035870 | .034523 | -.036048 |
| 6 | .050814 | .058998 | -.025211 | .008749 | .003109 | .002448 |
| 7 | .009052 | .029243 | .018470 | -.035186 | .000344 | -.027945 |
| 8 | -.017429 | .035555 | .054214 | -.068899 | .006343 | -.012116 |
| 9 | .004174 | .041538 | .111695 | -.022070 | -.022777 | .002497 |
| 10 | .025436 | .079865 | .169259 | .014163 | .051924 | -.054315 |
| 11 | -.032425 | .122288 | .212297 | .024647 | .086359 | -.076431 |
| 12 | -.045570 | .124649 | .193432 | .033488 | .063258 | -.067426 |
| 13 | -.010787 | .056884 | .174769 | .027921 | .070523 | -.082866 |
| 14 | .020633 | .036441 | .166060 | -.048482 | .031012 | -.030500 |
| 15 | .036210 | -.012199 | .172176 | -.053812 | -.059057 | -.037669 |
| 16 | .018753 | .007396 | .185329 | -.030874 | -.030746 | -.042273 |
| 17 | -.003457 | .045376 | .159201 | -.000951 | .077908 | -.092820 |
| 18 | -.023155 | .113790 | .135355 | .088519 | .061797 | -.058564 |
| 19 | .016452 | .027674 | .124372 | .076148 | .013850 | -.103242 |
| 20 | -.013221 | -.015337 | .102945 | .028509 | .035303 | -.016524 |
| 21 | .012168 | -.036128 | .068880 | -.010953 | .070895 | -.013893 |
| 22 | .021011 | -.047934 | .052636 | -.021464 | .012983 | -.011057 |
| 23 | .072459 | -.030817 | .021100 | -.059432 | -.025612 | .044814 |
| 24 | .053476 | -.013159 | -.005563 | -.059599 | -.043326 | .029374 |
| 25 | .057971 | .042644 | -.048834 | -.067819 | -.019456 | .046509 |
| 26 | .003183 | -.000995 | -.068817 | -.012188 | -.021285 | .013922 |
| 27 | -.010224 | -.025419 | -.054158 | -.018344 | -.091676 | .055546 |
| 28 | -.021152 | -.027715 | -.089883 | .026575 | -.070205 | .082699 |
| 29 | -.026295 | -.088828 | -.147566 | .027671 | -.005967 | .117316 |
| 30 | .003921 | -.137594 | -.202236 | .017769 | -.017792 | .159401 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 0 | -.052146 | -.003819 | -.013725 | .002729 | -.018131 | -.005320 |
| 1 | -.568950 | -.182601 | -.558255 | .013722 | -.141174 | .066999 |
| 2 | -.141159 | -.287941 | -.681922 | .010513 | -.145072 | .102915 |
| 3 | .058218 | -.328322 | -.511739 | .027240 | -.119083 | .077289 |
| 4 | -.163750 | -.265869 | -.263053 | .013797 | -.081916 | .049306 |
| 5 | -.136315 | -.232316 | -.187753 | -.007094 | -.045828 | .055953 |
| 6 | -.192348 | -.216898 | -.161510 | .010060 | -.025488 | .049891 |
| 7 | .508453 | -.241086 | -.177033 | -.051147 | -.078075 | .058895 |
| 8 | .986801 | -.280378 | -.183374 | -.101691 | -.095930 | .067354 |
| 9-11 | .065442 | -.102539 | -.083033 | .010120 | -.010297 | .021035 |
| 12-14 | -.389098 | -.046626 | -.011614 | .002883 | -.053316 | .010186 |
| 15-21 | -.221630 | -.031741 | -.020300 | -.009353 | -.072039 | .005239 |
| 22-30 | -.065443 | -.040749 | -.006984 | -.007730 | -.017866 | -.006389 |

RUN NC 98 91M 7-3-63 1631-1727(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.92511 10E 00 | 0.54830 10E 00 | 0.54087 10E-01 | 0.45229 10E 00 | 0.44615 10E-01 | 0.26443 10E-01 |
| 1 | .008335 | -.063699 | -.067499 | -.041060 | -.114195 | .031276 |
| 2 | .007576 | -.062963 | -.073027 | -.004001 | -.117044 | .054245 |
| 3 | -.025479 | .010447 | -.067658 | -.068014 | -.101381 | .019991 |
| 4 | -.055543 | -.018561 | -.025532 | -.039112 | -.087385 | .017090 |
| 5 | -.042996 | .034734 | -.053168 | -.056621 | -.038958 | -.019845 |
| 6 | -.092136 | -.024188 | -.028290 | -.073901 | -.063523 | -.050530 |
| 7 | -.116797 | -.021397 | -.000130 | -.180231 | -.085762 | -.059042 |
| 8 | -.067487 | -.018675 | .004457 | -.101634 | -.043088 | -.013375 |
| 9 | .030926 | -.030113 | -.026602 | -.084932 | .022375 | -.003386 |
| 10 | .040947 | -.003823 | -.042402 | -.074825 | .048432 | -.027073 |
| 11 | .069466 | .043509 | -.019757 | -.024769 | .079955 | -.040784 |
| 12 | .078482 | .029258 | -.006693 | .012003 | .088512 | -.046048 |
| 13 | -.006578 | .020301 | .032609 | .046638 | .071268 | -.037755 |
| 14 | -.014156 | .016666 | .029543 | -.010314 | .052007 | -.043361 |
| 15 | -.017025 | .055775 | .017703 | -.002468 | -.007972 | .003397 |
| 16 | .020370 | -.022483 | -.020733 | .094022 | -.032125 | .106847 |
| 17 | .037313 | .010029 | -.028424 | .084237 | -.044583 | .122110 |
| 18 | .057219 | .027999 | .000700 | .067902 | .005130 | .081356 |
| 19 | .071249 | -.001136 | .062217 | .062973 | .021892 | .027762 |
| 20 | .044202 | -.005973 | .080297 | .050339 | .039705 | -.056544 |
| 21 | .002385 | -.043813 | .086458 | .044740 | -.005335 | -.046951 |
| 22 | -.051271 | .057685 | .064210 | .024669 | .037498 | .005300 |
| 23 | -.126026 | .015181 | .043651 | -.012921 | -.005609 | .027416 |
| 24 | -.133540 | .011611 | .014109 | .014752 | -.088613 | .029239 |
| 25 | -.073726 | -.041317 | .017429 | .021365 | -.099624 | .028328 |
| 26 | -.045217 | -.081131 | .031428 | -.010977 | -.048401 | -.028654 |
| 27 | .003513 | -.045656 | .056716 | .003063 | .016111 | -.038646 |
| 28 | .037575 | -.033292 | .059940 | .049664 | .074858 | -.054892 |
| 29 | .038931 | .030204 | .055289 | -.007453 | .087248 | -.045611 |
| 30 | -.022735 | .020566 | .008021 | -.025845 | .052062 | -.051347 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-03 | 10E-01 | 10E-02 | 10E-03 |
| 1 | -.042761 | .199854 | -.377778 | -.113723 | -.015226 | -.165021 |
| 2 | -.129819 | -.197543 | -.993012 | -.184585 | -.069454 | -.319124 |
| 3 | -.244394 | -.564009 | -.794000 | -.156468 | -.158513 | -.130861 |
| 4 | -.134498 | -.393708 | -.588205 | -.012995 | -.172671 | .378172 |
| 5 | -.042169 | -.056060 | -.695896 | .048409 | -.107416 | .369112 |
| 6 | .082949 | .066419 | -.432399 | .041996 | -.008080 | .001732 |
| 7 | .252977 | -.272316 | -.609096 | .033302 | .003034 | .207002 |
| 8 | .117947 | -.547734 | -.854382 | -.005542 | -.072886 | .595802 |
| 9-11 | -.050914 | -.595979 | -.049048 | -.033025 | -.062673 | .039154 |
| 12-14 | .032783 | -.238269 | -.382200 | -.002822 | -.014727 | -.044856 |
| 15-21 | -.004322 | -.223310 | .003503 | -.007997 | -.018832 | .036836 |
| 22-30 | .008705 | .304606 | -.151051 | -.027375 | .001227 | -.060972 |

RUN NC 98 91M 7-3-63 1631-1727(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.11215 10E 01 | 0.76311 10E 00 | 0.26807 10E 00 | 0.26084 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .640783 | .336031 | .128967 | .637197 |
| 2 | .327905 | .034290 | .090980 | .365707 |
| 3 | .069268 | .053632 | -.087312 | .227129 |
| 4 | -.040267 | .005508 | -.090608 | .132741 |
| 5 | -.081374 | -.128546 | -.138860 | .031356 |
| 6 | -.086803 | -.053293 | .005140 | -.013274 |
| 7 | -.040979 | -.096967 | -.012023 | -.067048 |
| 8 | -.058896 | -.117307 | -.069027 | -.107704 |
| 9 | -.090213 | -.119157 | -.067873 | -.163914 |
| 10 | -.173518 | -.144004 | -.102813 | -.272591 |
| 11 | -.260568 | -.102973 | -.145154 | -.322306 |
| 12 | -.294781 | -.034187 | -.060248 | -.263133 |
| 13 | -.233240 | -.110202 | -.119121 | -.220481 |
| 14 | -.163611 | -.107160 | -.004211 | -.150366 |
| 15 | -.081121 | .023372 | -.017055 | -.129098 |
| 16 | -.084982 | .018203 | .023573 | -.147261 |
| 17 | -.108976 | -.060713 | -.071423 | -.172159 |
| 18 | -.149253 | -.046579 | -.074929 | -.111205 |
| 19 | -.098538 | -.053579 | .053355 | -.105834 |
| 20 | -.044528 | -.049064 | .022104 | -.129821 |
| 21 | -.006753 | -.139067 | .048393 | -.126101 |
| 22 | -.007292 | .006411 | -.005051 | -.077741 |
| 23 | -.040505 | .043449 | .002847 | -.016130 |
| 24 | .010986 | .079332 | .099948 | -.004411 |
| 25 | .001057 | .044045 | -.055735 | -.012284 |
| 26 | .000140 | -.014515 | .034468 | .034556 |
| 27 | -.006772 | .032077 | -.024611 | .045392 |
| 28 | .003875 | .099994 | .046429 | .077290 |
| 29 | .071013 | -.002906 | .034492 | .143938 |
| 30 | .167766 | .044906 | .191191 | .228301 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|----------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .008358 | .023963 | -.000550 | .037014 |
| 1 | .130454 | .423532 | .074401 | .413196 |
| 2 | .161266 | .583063 | .138689 | .458754 |
| 3 | .150983 | .663209 | .174699 | .399011 |
| 4 | .099988 | .607344 | .141388 | .249325 |
| 5 | .075146 | .477294 | .118501 | .139550 |
| 6 | .078305 | .346020 | .123225 | .095367 |
| 7 | .093655 | .377456 | .146570 | .124424 |
| 8 | .091462 | .369391 | .171496 | .140904 |
| 9-11 | .036209 | .311667 | .117390 | .072815 |
| 12-14 | .025442 | .242806 | .069309 | .064790 |
| 15-21 | .013241 | .336383 | .098261 | .046433 |
| 22-30 | .014960 | .178320 | .142660 | .030450 |

RUN NC 98 46M 7-3-63 1631-1727(EST)
 RUN NC 98 91M 7-3-63 1631-1727(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .615881 | .534333 | .499938 | .609995 |
| 1 | .593815 | .626515 | .356788 | .620072 |
| 2 | .547262 | .586286 | .319134 | .435750 |
| 3 | .496385 | .585217 | .322584 | .351596 |
| 4 | .363552 | .555635 | .329479 | .404314 |
| 5 | .138820 | .398642 | .315212 | .332530 |
| 6 | .126944 | .330002 | .314256 | .123809 |
| 7-8 | .155573 | .272100 | .221306 | .067913 |
| 9-11 | .078287 | .178824 | .236348 | .082669 |
| 12-15 | .142004 | .140796 | .154939 | .169241 |
| 16-20 | .169208 | .119445 | .114946 | .124060 |
| 21-27 | .119369 | .127387 | .112799 | .089579 |
| 28-36 | .109347 | .085129 | .138115 | .124613 |
| 37-47 | .114179 | .062180 | .130040 | .133009 |
| 48-60 | .120781 | .100536 | .099946 | .119727 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|----------|---------|
| | 10E 00 | 10E 00 | 10E 01 | 10E 00 |
| 0 | .908213 | .547141 | -.179452 | .645157 |
| 1 | .958303 | .885275 | .062443 | .841959 |
| 2 | .881493 | .869764 | .059511 | .846208 |
| 3 | .756782 | .807870 | .054658 | .706110 |
| 4 | .703976 | .702718 | .041921 | .557777 |
| 5 | .670330 | .611234 | .033337 | .548509 |
| 6 | .696050 | .552638 | .048633 | .542667 |
| 7 | .765704 | .723160 | .062654 | .685994 |
| 8 | .786815 | .832714 | .062575 | .831979 |
| 9-11 | .397533 | .653591 | .023901 | .456685 |
| 12-14 | .604751 | .517301 | .035628 | .100627 |
| 15-21 | .498393 | .629494 | .026210 | .503835 |
| 22-30 | .279813 | .334206 | .035201 | .398028 |

RUN NO 99A 15M 7-3-63 1807-1923(EST)

GROSS STATISTICS

2 AC AS WIND SPEED 5.29 M/SEC SIGMA A 13.6 DEG
TRANSITIONAL WIND DIRECTION 321 DEG SIGMA E 9.1 DEG
 SOLAR RAD. 0.06 LY/MIN

WITH NO POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN 301 PT BLOCK AVG

VARIANCES

| | | | | |
|----------|-------------|-------------|-------------|-------------|
| <i>U</i> | 0.35124E 01 | 0.28194E 01 | 0.18014E 01 | 0.19987E 01 |
| <i>V</i> | 0.15093E 01 | 0.12903E 01 | 0.11608E 01 | 0.59401E 00 |
| <i>W</i> | 0.55040E 00 | 0.54575E 00 | 0.50435E 00 | 0.15826E-00 |
| <i>T</i> | 0.49754E-00 | 0.30245E-02 | 0.21534E-02 | 0.18276E-02 |
| <i>E</i> | 0.27860E 01 | 0.23278E 01 | 0.17332E 01 | |

GUSTINESS RATIOS

U **0.35428** **0.31741** **0.25371** **0.26725**
V **0.23224** **0.21473** **0.20366** **0.14569**
W **0.14024** **0.13965** **0.13425** **0.07520**

COVARIANCES

| | | | | |
|-----|--------------|---------------|--------------|--------------|
| U,V | -0.31709E-00 | -0.69882E-01 | -0.72787E-02 | -0.11048E-00 |
| U,W | -0.43826E-00 | -0.44574E-00 | -0.33153E-00 | -0.27463E-00 |
| L,T | -0.23603E-00 | 0.36509E-01 | 0.17992E-01 | 0.31366E-01 |
| V,W | 0.89945E-02 | -0.111303E-01 | -0.16876E-01 | 0.29198E-01 |
| V,T | -0.14327E-00 | -0.16773E-01 | -0.15770E-01 | -0.83664E-02 |
| W,T | 0.78582E-04 | -0.11183E-01 | -0.94596E-02 | -0.60791E-02 |
| WE | -0.13512E-00 | -0.87156E-01 | -0.15847E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|--------|----------|----------|----------|----------|
| U, V | -0.13772 | -0.03664 | -0.00503 | -0.10140 |
| U, W | -0.31520 | -0.35934 | -0.34782 | -0.48829 |
| U, T | -0.17855 | 0.39536 | 0.28887 | 0.51896 |
| V, W | 0.00987 | -0.01347 | -0.02206 | 0.09523 |
| V, T | -0.16533 | -0.26849 | -0.31542 | -0.25392 |
| W, T | 0.00015 | -0.27524 | -0.28704 | -0.35744 |

RUN NC 99A 15M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NU BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14461 10E-01 | 0.95329 10E-00 | 0.62286 10E-01 | 0.76525 10E-00 | 0.49999 10E-01 | 0.32960 10E-01 |
| 0 | -.005059 | -.347823 | .288738 | -.022185 | -.315322 | -.286779 |
| 1 | -.008361 | -.302032 | .279707 | -.012149 | -.257890 | -.231784 |
| 2 | -.014730 | -.220953 | .252430 | .009835 | -.187222 | -.159041 |
| 3 | -.025505 | -.153011 | .218252 | .029805 | -.130566 | -.114025 |
| 4 | -.035375 | -.101179 | .184995 | .038915 | -.094433 | -.078121 |
| 5 | -.039275 | -.061042 | .149565 | .051356 | -.066154 | -.050862 |
| 6 | -.041247 | -.038500 | .112703 | .049601 | -.045480 | -.036292 |
| 7 | -.037489 | -.020676 | .076706 | .048455 | -.032898 | -.023734 |
| 8 | -.037197 | -.010991 | .045218 | .049395 | -.021111 | -.004853 |
| 9 | -.038236 | -.006029 | .029312 | .047221 | -.016970 | .013037 |
| 10 | -.036038 | -.003859 | .018168 | .036107 | -.017984 | .031166 |
| 11 | -.032947 | -.002438 | .007118 | .023711 | -.003900 | .040274 |
| 12 | -.030859 | .000032 | -.005962 | .014464 | .024202 | .036121 |
| 13 | -.027116 | .004638 | -.026780 | .012685 | .046117 | .027432 |
| 14 | -.024416 | .014391 | -.048900 | .008736 | .063646 | .025017 |
| 15 | -.020257 | .024033 | -.064705 | -.005882 | .075199 | .030469 |
| 16 | -.011069 | .027896 | -.076672 | -.026105 | .081162 | .036159 |
| 17 | .000767 | .027539 | -.086351 | -.030353 | .076677 | .051044 |
| 18 | .013419 | .040338 | -.099564 | -.031908 | .077275 | .059113 |
| 19 | .025017 | .051946 | -.105069 | -.028479 | .080485 | .055132 |
| 20 | .035637 | .060123 | -.111184 | -.025553 | .074976 | .055152 |
| 21 | .046497 | .067896 | -.118597 | -.021551 | .070311 | .063573 |
| 22 | .055104 | .075349 | -.124686 | -.020695 | .075300 | .067627 |
| 23 | .055578 | .082604 | -.130658 | -.027953 | .079585 | .072043 |
| 24 | .057810 | .085372 | -.127951 | -.036975 | .084687 | .067395 |
| 25 | .057790 | .086575 | -.117776 | -.029035 | .087656 | .054267 |
| 26 | .051704 | .084132 | -.108540 | -.025015 | .084630 | .050282 |
| 27 | .044105 | .085988 | -.103747 | -.024476 | .077059 | .051585 |
| 28 | .032282 | .082529 | -.089760 | -.026249 | .062584 | .046718 |
| 29 | .025880 | .076650 | -.081232 | -.019029 | .050895 | .038946 |
| 30 | .024762 | .063520 | -.068096 | -.014285 | .037610 | .037579 |
| 31 | .020479 | .056815 | -.058528 | -.016807 | .024084 | .029553 |
| 32 | .019597 | .057588 | -.049363 | -.022755 | .012661 | .019585 |
| 33 | .015112 | .054233 | -.039963 | -.028684 | -.000505 | .007689 |
| 34 | .008231 | .055472 | -.030218 | -.033957 | -.002681 | -.000268 |
| 35 | .005843 | .058451 | -.021456 | -.023645 | .001767 | -.003135 |
| 36 | .001376 | .058201 | -.006810 | -.012014 | .006004 | -.004971 |
| 37 | .002586 | .043585 | -.005986 | -.012299 | .009844 | -.010012 |
| 38 | .005843 | .021438 | -.008907 | -.022224 | .003246 | -.008503 |
| 39 | .005299 | .005597 | .012992 | -.018597 | -.013440 | -.002104 |
| 40 | .000376 | .003049 | .024597 | -.014926 | -.030027 | .001739 |
| 41 | -.004030 | .007035 | .034708 | -.012230 | -.033008 | -.002870 |
| 42 | -.007505 | .010140 | .041619 | .001142 | -.035761 | -.018624 |
| 43 | -.016309 | .006907 | .048446 | .023272 | -.039292 | -.030184 |
| 44 | -.021953 | .002401 | .053792 | .028126 | -.038569 | -.035346 |
| 45 | -.024252 | -.002683 | .049614 | .022034 | -.038994 | -.030310 |
| 46 | -.030291 | -.010386 | .045791 | .013271 | -.045216 | -.025483 |
| 47 | -.036351 | -.020393 | .046929 | .009459 | -.043546 | -.027550 |
| 48 | -.036667 | -.031155 | .044302 | .009332 | -.037948 | -.022094 |
| 49 | -.037056 | -.034847 | .040269 | .016074 | -.032818 | -.018786 |
| 50 | -.038993 | -.031560 | .044976 | .017549 | -.022908 | -.017116 |
| 51 | -.035961 | -.019467 | .051120 | .012825 | -.016048 | -.011136 |
| 52 | -.025085 | -.008763 | .045579 | .011839 | -.015152 | -.000907 |
| 53 | -.010950 | -.010204 | .036781 | .007524 | -.009209 | .008858 |
| 54 | .005888 | -.021150 | .029600 | .001461 | .001007 | .012503 |
| 55 | .014954 | -.029663 | .024257 | .010895 | .009635 | .010598 |
| 56 | .021860 | -.032944 | .018399 | .024681 | .013996 | -.000563 |
| 57 | .027224 | -.032879 | .010263 | .028227 | .021404 | -.008963 |
| 58 | .029196 | -.027994 | .000585 | .030753 | .026834 | -.012248 |
| 59 | .029940 | -.017281 | -.005134 | .031396 | .026351 | -.010249 |
| 60 | .033097 | -.009496 | -.014934 | .024876 | .021008 | -.013805 |

RUN NC 99A 15M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14461 10E 01 | 0.95329 10E 00 | 0.62286 10E-01 | 0.76525 10E 00 | 0.49999 10E-01 | 0.32960 10E-01 |
| 1 | .012860 | -.043406 | .041106 | .013314 | -.000910 | -.039660 |
| 2 | .017330 | -.056457 | .076715 | .017293 | .005776 | -.055095 |
| 3 | .015283 | -.046413 | .101154 | .024178 | .007186 | -.04688 |
| 4 | .014588 | -.048268 | .117358 | .010790 | .005056 | -.044804 |
| 5 | .013201 | -.046604 | .125029 | .011773 | .004017 | -.044262 |
| 6 | .017181 | -.049503 | .124963 | .014040 | .011724 | -.038154 |
| 7 | .014885 | -.049378 | .123843 | .010758 | .020892 | -.033291 |
| 8 | .006567 | -.045016 | .124106 | -.000191 | .030526 | -.040592 |
| 9 | .006227 | -.037159 | .121479 | -.005297 | .039105 | -.047475 |
| 10 | .007165 | -.031189 | .112287 | -.006004 | .033512 | -.046992 |
| 11 | .007120 | -.029894 | .102264 | .007252 | .023737 | -.041456 |
| 12 | .004811 | -.023369 | .097844 | .019341 | .017986 | -.042967 |
| 13 | -.003798 | -.016677 | .100705 | .019445 | .013265 | -.059245 |
| 14 | -.017141 | -.010933 | .102421 | .012947 | .005931 | -.074954 |
| 15 | -.022696 | .000067 | .095979 | .012758 | -.005040 | -.080468 |
| 16 | -.022075 | .002953 | .090291 | .018528 | -.016455 | -.072546 |
| 17 | -.022433 | .007934 | .081820 | .025243 | -.025952 | -.052810 |
| 18 | -.016207 | .016728 | .072345 | .038010 | -.027546 | -.026627 |
| 19 | -.015429 | .022985 | .061729 | .034524 | -.021986 | -.015497 |
| 20 | -.021508 | .027283 | .056934 | .010119 | -.019125 | -.013472 |
| 21 | -.031865 | .026149 | .051188 | -.008424 | -.013352 | -.017967 |
| 22 | -.036654 | .027073 | .039908 | -.013052 | -.007872 | -.027803 |
| 23 | -.044148 | .025855 | .037177 | -.020148 | -.008218 | -.038419 |
| 24 | -.053706 | .019254 | .035207 | -.031832 | -.005794 | -.044354 |
| 25 | -.056633 | .010739 | .033608 | -.033144 | .002007 | -.039471 |
| 26 | -.054461 | .004316 | .027975 | -.024140 | .001210 | -.031951 |
| 27 | -.051270 | .002921 | .018462 | -.011795 | -.002450 | -.019951 |
| 28 | -.044184 | .007150 | .007882 | -.004455 | -.000441 | -.008046 |
| 29 | -.029282 | .007594 | -.010074 | -.000043 | .000920 | .003083 |
| 30 | -.017314 | .002745 | -.025341 | -.002554 | -.001009 | .012850 |
| 31 | -.004285 | -.003006 | -.032858 | -.002815 | -.006345 | .018003 |
| 32 | .012229 | .000094 | -.036625 | .002407 | -.013637 | .025788 |
| 33 | .023687 | .003454 | -.038804 | .013680 | -.014923 | .038389 |
| 34 | .026267 | .005539 | -.040420 | .020733 | -.008188 | .051330 |
| 35 | .030584 | .004260 | -.042333 | .018430 | -.000547 | .049674 |
| 36 | .034282 | .005028 | -.048376 | .013394 | -.002503 | .041938 |
| 37 | .038004 | -.002797 | -.055975 | .012841 | -.011340 | .047116 |
| 38 | .040844 | -.013664 | -.053798 | .015467 | -.017127 | .054051 |
| 39 | .035517 | -.026023 | -.049409 | .012993 | -.011793 | .065210 |
| 40 | .026164 | -.032380 | -.044167 | .005575 | -.000910 | .068048 |
| 41 | .018700 | -.034649 | -.035367 | -.017312 | .007460 | .057322 |
| 42 | .015776 | -.037126 | -.030495 | -.036077 | .018490 | .045396 |
| 43 | .014237 | -.031046 | -.027026 | -.041165 | .026793 | .028866 |
| 44 | .018003 | -.024626 | -.025236 | -.025315 | .029317 | .022477 |
| 45 | .025298 | -.012993 | -.032037 | -.000924 | .021362 | .012663 |
| 46 | .030585 | -.006081 | -.035947 | .017015 | .011860 | .007292 |
| 47 | .038467 | -.003420 | -.033917 | .025473 | .000733 | .007520 |
| 48 | .042212 | .012618 | -.031237 | .024567 | -.006839 | .010240 |
| 49 | .045514 | .023097 | -.030601 | .030757 | -.006872 | .005347 |
| 50 | .045640 | .030580 | -.032543 | .026208 | -.011205 | -.003137 |
| 51 | .040083 | .034640 | -.023973 | .021874 | -.014129 | -.010196 |
| 52 | .033800 | .043833 | -.014860 | .021845 | -.018055 | -.016762 |
| 53 | .030604 | .053218 | -.011151 | .017549 | -.017151 | -.023500 |
| 54 | .027998 | .056907 | -.010925 | -.000955 | .013528 | -.030315 |
| 55 | .024694 | .056412 | -.011465 | -.013955 | -.006141 | -.034303 |
| 56 | .018392 | .059507 | -.007235 | -.029464 | .005542 | -.034661 |
| 57 | .008568 | .053678 | .001008 | -.039475 | .016236 | -.038787 |
| 58 | -.002964 | .040602 | .005061 | -.043976 | .019519 | -.043903 |
| 59 | -.016114 | .029235 | .009938 | -.039727 | .020420 | -.040283 |
| 60 | -.028128 | .014928 | .016710 | -.038597 | .025247 | -.035362 |

RUN NO 99A 15M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.18015 10E 01 | 0.11609 10E 01 | 0.50446 10E 00 | 0.21535 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .850384 | .779132 | .619839 | .776231 |
| 2 | .668186 | .523799 | .259127 | .534923 |
| 3 | .529864 | .337170 | .095927 | .373792 |
| 4 | .421316 | .205856 | .011^55 | .264399 |
| 5 | .327535 | .111095 | -.033234 | .186689 |
| 6 | .241496 | .045362 | -.044055 | .123953 |
| 7 | .169077 | -.001049 | -.045611 | .072016 |
| 8 | .106686 | -.032010 | -.038043 | .020617 |
| 9 | .052592 | -.051077 | -.055783 | -.012199 |
| 10 | .008468 | -.063837 | -.065209 | -.046316 |
| 11 | -.026124 | -.077435 | -.056235 | -.078876 |
| 12 | -.053698 | -.096774 | -.052665 | -.105534 |
| 13 | -.087602 | -.115854 | -.043631 | -.116813 |
| 14 | -.122761 | -.128193 | -.046269 | -.133404 |
| 15 | -.147411 | -.130446 | -.054304 | -.155184 |
| 16 | -.167774 | -.123520 | -.058836 | -.175889 |
| 17 | -.187665 | -.126637 | -.061829 | -.190666 |
| 18 | -.213654 | -.141114 | -.070409 | -.204241 |
| 19 | -.240633 | -.150739 | -.071319 | -.209973 |
| 20 | -.262659 | -.148756 | -.067129 | -.204119 |
| 21 | -.278565 | -.150776 | -.068746 | -.192244 |
| 22 | -.288380 | -.168113 | -.073246 | -.186378 |
| 23 | -.291054 | -.188047 | -.091825 | -.180649 |
| 24 | -.284199 | -.191337 | -.114982 | -.183431 |
| 25 | -.269867 | -.192259 | -.122770 | -.178607 |
| 26 | -.253016 | -.172563 | -.120254 | -.169756 |
| 27 | -.241005 | -.142069 | -.108148 | -.159577 |
| 28 | -.230854 | -.115051 | -.074210 | -.141687 |
| 29 | -.207821 | -.105619 | -.046216 | -.132865 |
| 30 | -.172182 | -.085498 | -.037203 | -.116897 |
| 31 | -.136097 | -.053910 | -.025726 | -.092004 |
| 32 | -.107633 | -.029175 | -.007550 | -.063975 |
| 33 | -.085288 | -.006610 | .001358 | -.037496 |
| 34 | -.069782 | .010657 | .003270 | -.019237 |
| 35 | -.064784 | .020721 | -.016762 | .002419 |
| 36 | -.061269 | .013192 | -.034076 | .017638 |
| 37 | -.049854 | .001284 | -.024349 | .023603 |
| 38 | -.030281 | .000437 | .003425 | .030419 |
| 39 | -.007817 | -.009968 | .027485 | .041767 |
| 40 | .008418 | -.017763 | .034116 | .051485 |
| 41 | .010929 | -.035111 | .017372 | .065385 |
| 42 | -.002755 | -.038117 | .014263 | .082220 |
| 43 | -.007215 | -.035365 | .011076 | .093805 |
| 44 | -.003629 | -.025187 | .013581 | .098135 |
| 45 | .000561 | -.016842 | .008738 | .095708 |
| 46 | .010413 | .002595 | .011536 | .090856 |
| 47 | .020410 | .019906 | .016483 | .074510 |
| 48 | .027612 | .029558 | .025759 | .064540 |
| 49 | .035597 | .032605 | .039970 | .057233 |
| 50 | .041266 | .039745 | .037541 | .049584 |
| 51 | .041421 | .040324 | .012557 | .051024 |
| 52 | .042204 | .042051 | -.004773 | .043859 |
| 53 | .044061 | .035970 | -.013393 | .026851 |
| 54 | .051479 | .029040 | -.013601 | -.000125 |
| 55 | .068064 | .019043 | -.020867 | -.024853 |
| 56 | .077870 | .003589 | -.020969 | -.027065 |
| 57 | .084684 | -.000824 | .002446 | -.041668 |
| 58 | .085118 | -.009178 | .015986 | -.054935 |
| 59 | .081545 | -.006777 | .000793 | -.058017 |
| 60 | .076426 | .002937 | -.004972 | -.050770 |

RUN NC 99A 15M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 0 | -.022035 | -.039510 | .033179 | .006528 | -.010712 | -.006554 |
| 1 | -.206328 | -.446611 | .315744 | .101262 | -.144619 | -.080117 |
| 2 | -.268293 | -.524653 | .437499 | .124201 | -.234108 | -.121825 |
| 3 | -.172909 | -.434641 | .441666 | .077657 | -.267185 | -.138434 |
| 4 | .076935 | -.232646 | .620607 | -.005195 | -.158740 | -.089539 |
| 5 | .158145 | -.189301 | .101010 | -.039019 | -.087395 | -.059474 |
| 6 | .112590 | -.204011 | .082604 | -.067623 | -.069625 | -.057008 |
| 7-8 | -.003835 | -.200478 | .072310 | -.058732 | -.059263 | -.052810 |
| 9-11 | .032542 | -.129077 | .035713 | .026212 | -.054554 | -.027434 |
| 12-15 | .017892 | -.076273 | .004842 | -.021125 | -.040113 | -.017543 |
| 16-20 | .006540 | -.037334 | .002506 | -.005009 | -.015226 | -.017875 |
| 21-27 | -.003454 | -.019765 | .003760 | -.003485 | -.015511 | -.006361 |
| 28-36 | .000247 | -.011777 | -.000051 | -.003947 | -.007817 | -.006126 |
| 37-47 | -.000504 | -.004298 | -.000686 | .000893 | -.003350 | -.003499 |
| 48-60 | .001209 | -.001308 | .000060 | -.000150 | -.003727 | -.001284 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | -.152210 | -.029353 | .265995 | .292974 | -.061535 | -.645198 |
| 2 | -.125100 | -.046879 | .314066 | .309668 | .086578 | -.897569 |
| 3 | .091030 | -.123881 | .260822 | .431784 | .317187 | -.627397 |
| 4 | .191047 | -.167883 | .125680 | .306702 | .379428 | -.074330 |
| 5 | .057162 | -.110367 | .084326 | -.070399 | .303438 | -.122140 |
| 6 | -.035313 | -.077529 | .081452 | -.388775 | .200613 | -.160758 |
| 7-8 | .053124 | -.022373 | .044589 | .304458 | -.207830 | -.003290 |
| 9-11 | -.009401 | -.034779 | .031432 | .220871 | -.114591 | -.237310 |
| 12-15 | .024237 | -.019298 | .004459 | .090703 | .037454 | -.019004 |
| 16-20 | -.001834 | -.019490 | .005509 | -.042728 | .047755 | -.108020 |
| 21-27 | .012690 | -.014985 | -.002337 | .078758 | -.028942 | -.021459 |
| 28-36 | -.001628 | -.007903 | .001257 | -.031553 | -.013707 | -.025437 |
| 37-47 | .003139 | -.001631 | -.000514 | .018130 | -.003423 | -.003759 |
| 48-60 | -.001626 | .003302 | -.000180 | .036581 | -.006196 | .004159 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-03 |
| 0 | .024401 | .006363 | .016315 | .018803 |
| 1 | .255790 | .089321 | .207180 | .180670 |
| 2 | .319463 | .125585 | .301315 | .267384 |
| 3 | .311658 | .142035 | .347895 | .309611 |
| 4 | .184617 | .106226 | .263037 | .205612 |
| 5 | .102388 | .072317 | .220945 | .137477 |
| 6 | .088680 | .069551 | .250172 | .119829 |
| 7-8 | .080141 | .067735 | .262981 | .092846 |
| 9-11 | .044049 | .041758 | .201698 | .070484 |
| 12-15 | .027211 | .029285 | .165126 | .044250 |
| 16-20 | .017164 | .016447 | .130027 | .033241 |
| 21-27 | .011823 | .011681 | .086057 | .022306 |
| 28-36 | .007744 | .007220 | .065967 | .013417 |
| 37-47 | .004581 | .004532 | .042321 | .009183 |
| 48-60 | .003118 | .003156 | .023924 | .006293 |

RUN NC 99A 15M 7-13-63 1807-1923(EST)
 301 POINT RUNNING MEAN, 11 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10894 10E 01 | 0.56238 10E 00 | 0.60427 10E-01 | 0.30655 10E 00 | 0.32939 10E-01 | 0.17003 10E-01 |
| 0 | -.101411 | -.488332 | .519064 | .095247 | -.253998 | -.357527 |
| 1 | -.120044 | -.212230 | .334130 | .104059 | -.082265 | -.099029 |
| 2 | -.036766 | -.027081 | .153186 | -.023795 | .046733 | .028003 |
| 3 | -.006193 | .046774 | .079735 | -.037334 | .036347 | .033880 |
| 4 | -.023319 | .096945 | .042025 | -.030237 | .023669 | .021802 |
| 5 | -.000298 | .071075 | -.012562 | .006648 | .040348 | .029751 |
| 6 | .066851 | .061609 | -.102495 | .008545 | .057877 | .067003 |
| 7 | .061895 | .085562 | -.160753 | -.067453 | .060457 | .082764 |
| 8 | .063982 | .104345 | -.176879 | -.039292 | .033567 | .081458 |
| 9 | .057988 | .045260 | -.158059 | .037234 | .034607 | .010463 |
| 10 | .067893 | .023844 | -.145181 | .010182 | .024314 | -.010816 |
| 11 | -.018935 | .035625 | -.101998 | -.014398 | .026304 | .007889 |
| 12 | -.038916 | .011522 | -.070123 | -.026145 | -.007153 | -.019053 |
| 13 | -.048774 | -.008068 | -.092824 | .045944 | -.071749 | -.022300 |
| 14 | -.058680 | -.027949 | -.062436 | .001174 | -.048724 | -.060169 |
| 15 | -.017593 | -.016991 | -.009725 | -.017910 | -.069178 | .037957 |
| 16 | .068631 | .027495 | -.043553 | -.066064 | -.016347 | .069925 |
| 17 | .014196 | -.025761 | -.027021 | -.029388 | .030747 | -.007482 |
| 18 | -.024563 | -.015209 | .001879 | .074591 | -.021028 | .009519 |
| 19 | -.007613 | -.007677 | .043905 | .055091 | -.039598 | .000532 |
| 20 | -.052190 | -.022047 | .047519 | .046343 | -.017646 | .041371 |
| 21 | -.026429 | -.009180 | .013992 | .037643 | .034532 | .023656 |
| 22 | .012813 | .034069 | .039407 | -.038967 | .002296 | .032401 |
| 23 | .007322 | .061444 | .022789 | -.035980 | -.012028 | .061277 |
| 24 | .039572 | .059421 | .030033 | -.026395 | -.023620 | -.008319 |
| 25 | .047833 | .040121 | .071485 | .004605 | -.039174 | -.032994 |
| 26 | .043913 | -.009071 | .069847 | .011233 | .008566 | -.065295 |
| 27 | .035566 | -.065070 | .043462 | -.037898 | .020832 | -.005807 |
| 28 | .022862 | -.052307 | .019012 | -.006491 | .003489 | -.024437 |
| 29 | -.037701 | -.077147 | .024603 | .033680 | -.010057 | -.073786 |
| 30 | -.038414 | -.076564 | .039198 | -.010676 | -.016047 | -.042515 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 0 | -.021795 | .000634 | .008537 | .021253 | .004487 | .029428 |
| 1 | -.094102 | -.063469 | .230605 | .069851 | .183124 | -.092493 |
| 2 | -.115374 | -.125608 | .429825 | .145052 | -.002349 | -.208032 |
| 3 | -.252579 | -.235058 | .563965 | .325865 | -.544492 | -.322308 |
| 4 | -.320134 | -.292329 | .441601 | .309975 | -.950026 | -.534950 |
| 5 | -.253534 | -.249210 | .283033 | .347211 | -.793135 | -.575769 |
| 6 | -.097447 | -.213598 | .168712 | .505523 | -.397900 | -.407213 |
| 7 | .085669 | -.175984 | .090624 | .251157 | -.321123 | -.230952 |
| 8 | .034776 | -.156317 | .065227 | .088922 | -.500743 | -.146713 |
| 9-11 | -.074317 | -.152558 | .109901 | .310589 | -.424298 | -.286427 |
| 12-14 | -.068516 | -.112890 | .107893 | .480509 | -.570281 | -.408953 |
| 15-21 | .008884 | -.067041 | .054778 | -.048781 | -.337979 | -.210160 |
| 22-30 | .047393 | -.054651 | .026590 | -.197760 | -.158666 | -.171318 |

RUN NO 99A 15M 7-3-63 1807-1923(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10894 10E-01 | 0.56238 10E-01 | 0.60427 10E-01 | 0.30655 10E-01 | 0.32939 10E-01 | 0.17003 10E-01 |
| 1 | -.003177 | -.024802 | .161813 | .010183 | .038471 | -.111873 |
| 2 | -.018668 | .036894 | .171112 | -.000271 | -.010194 | -.133943 |
| 3 | -.003667 | .058891 | .125270 | -.040496 | -.000069 | -.068991 |
| 4 | .021203 | -.003525 | .107624 | -.056015 | .009084 | -.027941 |
| 5 | .050541 | .028370 | .103733 | -.014058 | -.030748 | -.083534 |
| 6 | .001040 | .021413 | .103614 | -.082860 | .002085 | -.088524 |
| 7 | -.059528 | -.070657 | .098297 | -.049049 | -.015331 | -.037250 |
| 8 | -.049117 | -.060507 | .091392 | .026473 | .006694 | -.000517 |
| 9 | -.094411 | .028815 | .042119 | -.039488 | .076476 | -.001844 |
| 10 | -.084741 | .036198 | -.015558 | .008804 | .107728 | .001777 |
| 11 | -.013829 | .059246 | -.025066 | .008650 | .066370 | .014421 |
| 12 | -.005200 | .043513 | -.036097 | -.006613 | .049340 | .041106 |
| 13 | -.010330 | .008120 | -.068338 | -.006163 | .036029 | .021008 |
| 14 | .064686 | .039938 | -.106251 | .057710 | .007296 | -.014451 |
| 15 | .033261 | -.001815 | -.093377 | .012551 | -.005320 | .025024 |
| 16 | -.032033 | -.034038 | -.053126 | -.028410 | .015591 | .047724 |
| 17 | -.005021 | -.032035 | -.041096 | .012003 | .025627 | .031776 |
| 18 | .012513 | -.022737 | -.017645 | -.025283 | .009494 | -.016294 |
| 19 | .038896 | -.051047 | .020951 | .010503 | -.043439 | .021932 |
| 20 | .064211 | -.013361 | .019809 | .003792 | -.024451 | .043221 |
| 21 | .050460 | .035586 | .022733 | -.000517 | -.085678 | -.007421 |
| 22 | .068122 | -.002789 | .038735 | .021764 | -.139612 | .003621 |
| 23 | .067794 | .026471 | .047790 | .043283 | -.141546 | .010114 |
| 24 | .040248 | .063909 | .036302 | .046985 | -.122103 | -.000829 |
| 25 | -.056711 | -.013132 | .052285 | -.034068 | -.051077 | -.061447 |
| 26 | -.095642 | -.055513 | .051526 | -.046174 | -.046641 | -.015116 |
| 27 | -.094835 | -.007313 | .047122 | -.016784 | -.005125 | .005653 |
| 28 | -.039020 | -.018998 | .046621 | .008058 | .050480 | -.024967 |
| 29 | -.001591 | .013086 | .023869 | -.012195 | .017302 | -.015661 |
| 30 | .038388 | .078347 | -.015864 | -.024628 | -.025020 | -.049954 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | -.103611 | .035936 | .108717 | -.286306 | .549163 | -.159782 |
| 2 | -.162131 | .031685 | .213869 | -.384464 | .551574 | -.343432 |
| 3 | -.042066 | .006462 | .353802 | -.432930 | -.258223 | -.04396 |
| 4 | .132972 | -.021196 | .251808 | -.333719 | -.484004 | -.423148 |
| 5 | .144436 | .036090 | .082734 | -.105938 | -.157642 | -.307951 |
| 6 | .118859 | .105670 | .059178 | .117099 | .010821 | -.204041 |
| 7 | -.066693 | .065440 | .097183 | .082620 | .465373 | -.128311 |
| 8 | -.190205 | .003327 | .100956 | .120380 | .396153 | -.120224 |
| 9-11 | -.061688 | -.044725 | .099165 | .121015 | -.082152 | -.197989 |
| 12-14 | .021057 | .016775 | .046595 | .038978 | .105723 | -.257793 |
| 15-21 | .001786 | -.048366 | .029292 | .011726 | .140269 | .018053 |
| 22-30 | .020970 | .012419 | .004006 | .020505 | .030228 | -.013138 |

RUN NO 99A 15⁴ 7-3-63 1807-1923(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.19986 10E 01 | 0.59385 10E 00 | 0.15824 10E 00 | 0.18270 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .540519 | .223354 | .164777 | .514099 |
| 2 | .183324 | -.092612 | -.073869 | .264810 |
| 3 | .048927 | -.077636 | -.099423 | .195296 |
| 4 | -.051391 | -.165990 | -.093540 | .150827 |
| 5 | -.119974 | -.095773 | -.135707 | .056345 |
| 6 | -.139060 | -.034049 | -.111952 | -.076758 |
| 7 | -.240547 | -.012446 | -.022064 | -.134233 |
| 8 | -.294773 | .027187 | -.093193 | -.118362 |
| 9 | -.254061 | -.060777 | -.022108 | -.160609 |
| 10 | -.191330 | -.094398 | .004328 | -.199052 |
| 11 | -.187590 | -.137287 | -.032415 | -.225770 |
| 12 | -.165882 | -.127156 | -.007163 | -.152907 |
| 13 | -.140526 | .071461 | .012958 | -.208002 |
| 14 | -.037372 | .132986 | .019424 | -.184214 |
| 15 | .131005 | .078444 | -.038398 | -.168250 |
| 16 | .135493 | .020250 | -.086295 | -.151521 |
| 17 | .082693 | -.061174 | -.002450 | -.047274 |
| 18 | .111663 | .037090 | -.007203 | -.058443 |
| 19 | .131420 | .055232 | .070770 | -.026039 |
| 20 | .090176 | -.048573 | .078606 | -.062358 |
| 21 | .063744 | -.102255 | .040678 | -.064650 |
| 22 | .025539 | -.113971 | -.011262 | .029144 |
| 23 | -.080844 | -.130130 | -.008897 | .060336 |
| 24 | -.099216 | -.009703 | -.054111 | .091976 |
| 25 | -.056368 | -.008326 | -.077334 | .141030 |
| 26 | -.014468 | .053811 | -.001659 | .120433 |
| 27 | .014097 | .037777 | .043453 | .055764 |
| 28 | -.000961 | .015398 | .047092 | .046069 |
| 29 | -.006129 | -.037089 | .123449 | .052285 |
| 30 | .037601 | -.029132 | .017394 | .044732 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .005780 | .018280 | .001734 | .025838 |
| 1 | .077278 | .157546 | .023197 | .227434 |
| 2 | .170762 | .177067 | .042546 | .270864 |
| 3 | .306014 | .289948 | .072133 | .253211 |
| 4 | .274679 | .379882 | .084499 | .154743 |
| 5 | .145245 | .272966 | .095639 | .101703 |
| 6 | .107572 | .240340 | .104743 | .078122 |
| 7 | .111609 | .382186 | .083485 | .070596 |
| 8 | .097904 | .475676 | .075966 | .051056 |
| 9-11 | .083250 | .299906 | .075004 | .051981 |
| 12-14 | .064472 | .268681 | .069799 | .063748 |
| 15-21 | .047079 | .237336 | .068465 | .044317 |
| 22-30 | .027338 | .209812 | .063749 | .036648 |

RUN NO 99A 46M 7-3-63 1807-1923(EST)

GROSS STATISTICS

| | | |
|-------------------------|------------------------|------------------|
| 2 AC AS TRANSITIONAL | WIND SPEED 7.89 M/SEC | SIGMA A 10.1 DEG |
| | WIND DIRECTION 327 DEG | SIGMA E 6.1 DEG |
| | SOLAR RAD. 0.06 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.30855E 01 | 0.22884E 01 | 0.12931E 01 | 0.17359E 01 |
| V | 0.18141E 01 | 0.13752E 01 | 0.12476E 01 | 0.66361E 00 |
| W | 0.64605E 00 | 0.63818E 00 | 0.55696E 00 | 0.26711E-00 |
| T | 0.42948E-00 | 0.41312E-02 | 0.29901E-02 | 0.28079E-02 |
| E | 0.27728E 01 | 0.21509E 01 | 0.15488E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.22263 | 0.19173 | 0.14412 | 0.16699 |
| V | 0.17071 | 0.14863 | 0.14157 | 0.10325 |
| W | 0.10187 | 0.10125 | 0.09459 | 0.06550 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.14492E-00 | 0.61406E-02 | 0.81508E-01 | -0.19918E-01 |
| U,W | -0.62041E 00 | -0.58540E 00 | -0.36583E-00 | -0.39903E-00 |
| U,T | -0.17740E-00 | 0.62802E-01 | 0.34730E-01 | 0.51833E-01 |
| V,W | 0.15830E-01 | 0.22417E-02 | -0.19577E-01 | 0.81950E-02 |
| V,T | -0.20941E-00 | 0.34588E-02 | 0.45674E-02 | 0.74510E-03 |
| W,T | -0.19203E-01 | -0.26451E-01 | -0.20353E-01 | -0.15651E-01 |
| WE | -0.16253E-01 | 0.16942E-00 | 0.15418E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.06125 | 0.00346 | 0.05417 | -0.01856 |
| U,W | -0.43942 | -0.48441 | -0.43108 | -0.58600 |
| U,T | -0.15411 | 0.64590 | 0.55853 | 0.74242 |
| V,W | 0.01462 | 0.00239 | -0.02348 | 0.01946 |
| V,T | -0.23724 | 0.04589 | 0.07478 | 0.01726 |
| W,T | -0.03646 | -0.51515 | -0.49875 | -0.57147 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12700 10E 01 | 0.84862 10E 00 | 0.62170 10E-01 | 0.83364 10E 00 | 0.61073 10E-01 | 0.40808 10E-01 |
| 0 | .064186 | -.431088 | .558414 | -.023215 | .074664 | -.498764 |
| 1 | .058533 | -.376826 | .530600 | -.022821 | .062262 | -.415722 |
| 2 | .053760 | -.295373 | .472425 | -.022377 | .050805 | -.301177 |
| 3 | .047218 | -.225929 | .407207 | -.019876 | .037163 | -.215599 |
| 4 | .039464 | -.163499 | .343400 | -.015937 | .024317 | -.150139 |
| 5 | .032148 | -.107936 | .285214 | -.008859 | .017753 | -.105045 |
| 6 | .024476 | -.068274 | .235486 | -.009802 | .014460 | -.080564 |
| 7 | .019936 | -.042419 | .195375 | -.016670 | .012924 | -.058455 |
| 8 | .017459 | -.026681 | .157980 | -.017449 | .011493 | -.038110 |
| 9 | .012745 | -.012273 | .119348 | -.013185 | .008207 | -.021627 |
| 10 | .006546 | -.001360 | .081273 | -.008435 | .001079 | -.010301 |
| 11 | -.001429 | .005884 | .046574 | -.002920 | .000522 | -.004232 |
| 12 | -.009528 | .014716 | .014852 | -.003472 | .013310 | .002385 |
| 13 | -.019502 | .021593 | -.015485 | .011436 | .020199 | .018031 |
| 14 | -.026359 | .029693 | -.044026 | .015600 | .009847 | .041434 |
| 15 | -.029655 | .044226 | -.074682 | .015431 | -.009205 | .067318 |
| 16 | -.028105 | .056820 | -.101998 | .012868 | -.017959 | .090551 |
| 17 | -.027996 | .073594 | -.126472 | .017752 | -.023330 | .111915 |
| 18 | -.028866 | .085204 | -.146893 | .024561 | -.030168 | .120208 |
| 19 | -.033487 | .094701 | -.164656 | .040446 | -.039488 | .125539 |
| 20 | -.043729 | .101475 | -.180564 | .052269 | -.050685 | .136734 |
| 21 | -.049673 | .111871 | -.197500 | .056036 | -.053017 | .151873 |
| 22 | -.047128 | .118050 | -.208499 | .047672 | -.046519 | .150568 |
| 23 | -.039344 | .123374 | -.215665 | .034033 | -.035913 | .149563 |
| 24 | -.028546 | .127468 | -.219807 | .014346 | -.027359 | .158585 |
| 25 | -.019226 | .132718 | -.220134 | -.006515 | -.021243 | .160788 |
| 26 | -.017661 | .129915 | -.213260 | -.009652 | -.016680 | .152568 |
| 27 | -.021862 | .114568 | -.204549 | -.011842 | -.015935 | .134239 |
| 28 | -.024259 | .098770 | -.190330 | -.011828 | -.016880 | .108699 |
| 29 | -.023015 | .084523 | -.172493 | -.007919 | -.021117 | .074522 |
| 30 | -.022612 | .066849 | -.154200 | .003339 | -.026315 | .041857 |
| 31 | -.022997 | .044985 | -.137003 | .012082 | -.030721 | .024797 |
| 32 | -.019906 | .026681 | -.120805 | .006007 | -.026921 | .019689 |
| 33 | -.012822 | .009713 | -.107841 | -.002104 | -.015230 | .016514 |
| 34 | -.006516 | -.007443 | -.092616 | -.010802 | -.006693 | .003105 |
| 35 | -.004137 | -.017395 | -.077961 | -.011096 | -.008254 | -.012763 |
| 36 | -.000571 | -.019447 | -.064747 | -.012935 | -.010167 | -.015464 |
| 37 | .008339 | -.012349 | -.057716 | -.016111 | -.007707 | -.012657 |
| 38 | .017223 | .000659 | -.057190 | -.020408 | -.001124 | -.011478 |
| 39 | .020042 | .008433 | -.052965 | -.014711 | .002990 | -.015416 |
| 40 | .024223 | .004900 | -.040349 | -.008463 | .011978 | -.026571 |
| 41 | .025973 | -.006532 | -.026237 | -.007557 | .018977 | -.043320 |
| 42 | .028361 | -.021639 | -.014242 | -.010851 | .022471 | -.057449 |
| 43 | .037062 | -.032565 | -.003217 | -.019874 | .028166 | -.068165 |
| 44 | .045444 | -.040534 | .001273 | -.034219 | .031320 | -.074525 |
| 45 | .052607 | -.046155 | .005402 | -.037913 | .032706 | -.081503 |
| 46 | .054493 | -.050265 | .014888 | -.028401 | .030427 | -.080960 |
| 47 | .048590 | -.045944 | .025698 | -.019879 | .028711 | -.071848 |
| 48 | .039018 | -.035008 | .029164 | -.018123 | .028426 | -.062036 |
| 49 | .036489 | -.022728 | .024697 | -.017363 | .028774 | -.048221 |
| 50 | .033858 | -.017401 | .019293 | -.016637 | .029180 | -.033584 |
| 51 | .027937 | -.006645 | .014339 | -.009447 | .024731 | -.021670 |
| 52 | .021865 | .006147 | .010596 | .000905 | .020876 | -.015305 |
| 53 | .010972 | .012778 | .003103 | .014873 | .016028 | -.010685 |
| 54 | -.004657 | .016355 | -.001197 | .025914 | .013928 | -.003614 |
| 55 | -.016666 | .024211 | -.005608 | .026644 | .015995 | .010998 |
| 56 | -.022715 | .036385 | -.010991 | .014145 | .016653 | .026270 |
| 57 | -.022173 | .046771 | -.011275 | -.000008 | .021426 | .039950 |
| 58 | -.024864 | .044638 | -.006248 | -.000881 | .018246 | .049124 |
| 59 | -.028626 | .040991 | -.006138 | -.007107 | .013484 | .054795 |
| 60 | -.034127 | .044217 | -.010868 | -.006691 | .003491 | .059930 |

RUN NC 99A 46M 7-3-63 1807-1925(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12700 10E 01 | 0.84862 10E 00 | 0.62170 10E-01 | 0.83364 10E 00 | 0.61073 10E-01 | 0.40808 10E-01 |
| 1 | -.008663 | -.007792 | .025311 | .009943 | .003918 | -.006333 |
| 2 | -.017764 | -.014555 | .046182 | .013145 | .009599 | -.016402 |
| 3 | -.019240 | -.019488 | .057127 | .020529 | .011527 | -.028720 |
| 4 | -.019509 | -.013645 | .059892 | .024048 | .014862 | -.037406 |
| 5 | -.024797 | -.012693 | .063974 | .015610 | .021842 | -.041184 |
| 6 | -.027472 | -.006389 | .060488 | .000609 | .028775 | -.032260 |
| 7 | -.023798 | .001960 | .058673 | -.003737 | .035023 | -.028075 |
| 8 | -.019390 | .005694 | .059502 | .005483 | .038840 | -.028574 |
| 9 | -.014246 | .011190 | .056972 | .003163 | .043425 | -.028456 |
| 10 | -.009003 | .014766 | .052693 | -.006398 | .050667 | -.025746 |
| 11 | -.005857 | .021911 | .046849 | -.002823 | .050369 | -.020476 |
| 12 | -.004510 | .024821 | .043070 | .005282 | .039793 | -.013293 |
| 13 | .000783 | .024701 | .041647 | .019409 | .023457 | -.010913 |
| 14 | .007863 | .019132 | .038696 | .024750 | .012206 | -.008941 |
| 15 | .008993 | .014798 | .034363 | .019120 | .003975 | -.012042 |
| 16 | .008830 | .011948 | .033523 | .017249 | .003803 | -.020701 |
| 17 | .004817 | .004667 | .035057 | .010080 | .005028 | -.020489 |
| 18 | .003765 | -.005049 | .030990 | -.012625 | .010313 | -.010749 |
| 19 | .003321 | -.014398 | .027799 | -.036693 | .019647 | -.001138 |
| 20 | .002184 | -.017936 | .025227 | -.040085 | .024987 | .002109 |
| 21 | -.000571 | -.012012 | .019167 | -.031636 | .028966 | -.002568 |
| 22 | -.002095 | -.004364 | .007908 | -.019882 | .027885 | -.004359 |
| 23 | -.005317 | .000842 | -.002461 | -.011314 | .016031 | -.006783 |
| 24 | -.002518 | .007173 | -.007983 | -.001758 | .004950 | -.003588 |
| 25 | .008647 | .018586 | -.014241 | .003833 | -.001736 | -.006501 |
| 26 | .025298 | .022112 | -.018332 | .008762 | .002490 | -.011473 |
| 27 | .042224 | .011848 | -.014964 | .015037 | .004402 | -.013960 |
| 28 | .051503 | .006526 | -.009867 | .020842 | -.000247 | -.012159 |
| 29 | .050736 | .000369 | -.006193 | .027400 | -.010485 | -.009399 |
| 30 | .050335 | -.008642 | -.002193 | .029393 | -.022065 | -.009361 |
| 31 | .047145 | -.010784 | -.000310 | .029701 | -.028284 | -.001873 |
| 32 | .041463 | -.008809 | -.000816 | .023442 | -.026639 | .008903 |
| 33 | .039326 | -.008238 | -.000822 | .018314 | -.024956 | .015757 |
| 34 | .040634 | -.008149 | .001725 | .018401 | -.024932 | .015299 |
| 35 | .034336 | -.014677 | .008900 | .024167 | -.028989 | .012000 |
| 36 | .023057 | -.021874 | .014152 | .017294 | -.026344 | .009858 |
| 37 | .010528 | -.023641 | .017426 | -.000282 | -.018423 | .010429 |
| 38 | .001913 | -.029735 | .020735 | -.010957 | -.010147 | .004566 |
| 39 | -.001905 | -.030594 | .022843 | -.011956 | -.005694 | .005166 |
| 40 | -.001656 | -.030828 | .022522 | -.006463 | -.011285 | .011945 |
| 41 | .002007 | -.031047 | .019495 | .000254 | -.016753 | .012554 |
| 42 | .010527 | -.027073 | .012412 | .012804 | -.021269 | .003518 |
| 43 | .017687 | -.018717 | .003940 | .018829 | -.024403 | .001034 |
| 44 | .014202 | -.013345 | .001034 | .021204 | -.025517 | -.000836 |
| 45 | .007391 | -.012453 | .003891 | .021857 | -.027843 | .002621 |
| 46 | .008671 | -.020662 | .007211 | .023611 | -.032842 | .008913 |
| 47 | .008346 | -.025397 | .007896 | .027145 | -.037862 | .017217 |
| 48 | .004322 | -.025752 | .003094 | .025910 | -.036173 | .023603 |
| 49 | .001529 | -.028337 | -.000300 | .009073 | -.030400 | .029721 |
| 50 | -.007347 | -.027503 | -.003558 | -.012899 | -.024217 | .031639 |
| 51 | -.017371 | -.023147 | -.005849 | -.029754 | -.017229 | .030111 |
| 52 | -.028461 | -.016315 | -.006796 | -.042625 | -.008151 | .031863 |
| 53 | -.037568 | -.001731 | -.013799 | -.048338 | .006923 | .033352 |
| 54 | -.043985 | .010370 | -.020545 | -.047615 | .018924 | .027355 |
| 55 | -.046578 | .010238 | -.026363 | -.046858 | .029481 | .020834 |
| 56 | -.044664 | .015122 | -.033514 | -.048730 | .031493 | .019580 |
| 57 | -.042470 | .026310 | -.037995 | -.049675 | .030862 | .019644 |
| 58 | -.038848 | .031131 | -.040498 | -.044145 | .026546 | .009302 |
| 59 | -.027077 | .033341 | -.041990 | -.037033 | .021972 | -.004409 |
| 60 | -.013610 | .039031 | -.043595 | -.023357 | .014885 | -.014580 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12928 10E 01 | 0.12476 10E 01 | 0.55704 10E 00 | 0.29896 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .869282 | .794456 | .725975 | .836168 |
| 2 | .708518 | .552371 | .430270 | .654722 |
| 3 | .581974 | .380891 | .247736 | .525590 |
| 4 | .472407 | .246962 | .131993 | .422986 |
| 5 | .380301 | .146258 | .051555 | .342278 |
| 6 | .302266 | .066851 | .002738 | .275753 |
| 7 | .238559 | .009526 | -.026286 | .212643 |
| 8 | .181163 | -.042929 | -.052847 | .150190 |
| 9 | .121827 | -.090409 | -.066169 | .102665 |
| 10 | .063553 | -.125707 | -.068955 | .061981 |
| 11 | .010303 | -.146249 | -.060935 | .026911 |
| 12 | -.038023 | -.146953 | -.055845 | -.017021 |
| 13 | -.079949 | -.146107 | -.067140 | -.065411 |
| 14 | -.112695 | -.150183 | -.089838 | -.111944 |
| 15 | -.139069 | -.159103 | -.110415 | -.153527 |
| 16 | -.162794 | -.168764 | -.125916 | -.191927 |
| 17 | -.191567 | -.167714 | -.136256 | -.232289 |
| 18 | -.213832 | -.150178 | -.149652 | -.262519 |
| 19 | -.226907 | -.144212 | -.151715 | -.285520 |
| 20 | -.243828 | -.142423 | -.159677 | -.303321 |
| 21 | -.262727 | -.162173 | -.167580 | -.315034 |
| 22 | -.275798 | -.179887 | -.156859 | -.316014 |
| 23 | -.288052 | -.184297 | -.150327 | -.323302 |
| 24 | -.291792 | -.186093 | -.154206 | -.332277 |
| 25 | -.292216 | -.182304 | -.178343 | -.325751 |
| 26 | -.286413 | -.168222 | -.189244 | -.306072 |
| 27 | -.275415 | -.151620 | -.171521 | -.285309 |
| 28 | -.261622 | -.137473 | -.135504 | -.260636 |
| 29 | -.266482 | -.116470 | -.100997 | -.226450 |
| 30 | -.220668 | -.091359 | -.055821 | -.184747 |
| 31 | -.177735 | -.055234 | -.015066 | -.151216 |
| 32 | -.140524 | -.027808 | .007989 | -.125610 |
| 33 | -.111828 | -.005343 | .017693 | -.099335 |
| 34 | -.085087 | .011039 | .036064 | -.073712 |
| 35 | -.062301 | .021021 | .051063 | -.045087 |
| 36 | -.048578 | .032684 | .051042 | -.028593 |
| 37 | -.047824 | .033173 | .044644 | -.012421 |
| 38 | -.050046 | .032222 | .032756 | -.000355 |
| 39 | -.044544 | .033491 | .020919 | .011151 |
| 40 | -.031992 | .033360 | .030059 | .026431 |
| 41 | -.026354 | .029514 | .045382 | .047280 |
| 42 | -.022478 | .034701 | .064978 | .068641 |
| 43 | -.014049 | .045063 | .071127 | .074362 |
| 44 | .000049 | .039667 | .065886 | .075323 |
| 45 | .013318 | .034964 | .066217 | .075173 |
| 46 | .018954 | .034806 | .066915 | .070132 |
| 47 | .021603 | .035369 | .058155 | .064446 |
| 48 | .025226 | .028674 | .052546 | .057688 |
| 49 | .022299 | .028305 | .045350 | .047546 |
| 50 | .022456 | .041111 | .037907 | .040240 |
| 51 | .018434 | .052304 | .026009 | .035224 |
| 52 | .010014 | .055105 | .025420 | .030049 |
| 53 | .000404 | .050777 | .034166 | .025348 |
| 54 | -.009427 | .034310 | .044442 | .019477 |
| 55 | -.017556 | .017653 | .030553 | .013440 |
| 56 | -.021931 | .009931 | .002408 | .009669 |
| 57 | -.026187 | .016589 | -.022548 | .005310 |
| 58 | -.029732 | .016582 | -.038006 | -.006773 |
| 59 | -.030759 | .008997 | -.030209 | -.020457 |
| 60 | -.027744 | .001828 | -.025560 | -.029897 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-03 | 10E-02 |
| 0 | -.000754 | -.060443 | .092056 | .002700 | .000713 | -.023162 |
| 1 | .069793 | -.476737 | .800053 | .001335 | .480477 | -.214773 |
| 2 | .212181 | -.601148 | .880453 | -.057980 | .995592 | -.317935 |
| 3 | .256947 | -.620751 | .745636 | -.104875 | .974286 | -.349071 |
| 4 | .107566 | -.342357 | .356742 | -.054844 | .303245 | -.181585 |
| 5 | .051513 | -.179129 | .158253 | .004622 | .069616 | -.077528 |
| 6 | .021695 | -.199076 | .124270 | .038683 | -.002386 | -.077056 |
| 7-8 | .004389 | -.221128 | .114696 | .007774 | .203721 | -.106100 |
| 9-11 | .011946 | -.123989 | .059899 | -.006830 | .272677 | -.073390 |
| 12-15 | .018745 | -.056638 | .032000 | -.013553 | .035237 | -.039568 |
| 16-20 | -.005073 | -.031193 | .014489 | .005474 | .091792 | -.031271 |
| 21-27 | .000338 | -.017336 | .003761 | .004145 | -.012883 | -.013585 |
| 28-36 | .001724 | -.013435 | .003177 | -.002445 | .010345 | -.008727 |
| 37-47 | .001850 | -.006467 | .000888 | .000667 | .021169 | -.005989 |
| 48-60 | .001610 | -.003093 | .000561 | -.000464 | .015383 | -.002673 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .131592 | -.048008 | .127096 | .384742 | .446218 | -.337126 |
| 2 | -.036954 | .437871 | .112745 | -.019129 | .871437 | -.402111 |
| 3 | -.131654 | .192875 | .124929 | .029892 | .731604 | -.323662 |
| 4 | -.055834 | -.082083 | .099573 | .460595 | .292186 | -.250217 |
| 5 | -.009338 | .026113 | .041070 | .464492 | .191183 | -.243826 |
| 6 | -.064286 | -.207124 | .023937 | -.000853 | .241903 | -.227954 |
| 7-8 | -.065106 | -.591161 | .038710 | -.231025 | -.002998 | -.078647 |
| 9-11 | .008003 | -.043421 | .012873 | .497542 | -.231260 | -.080619 |
| 12-15 | .000202 | -.082034 | .009379 | -.047739 | .103604 | .013891 |
| 16-20 | -.002522 | -.019999 | .004048 | .055827 | -.025305 | .019522 |
| 21-27 | -.006643 | .001396 | .000178 | -.089941 | .019751 | .026790 |
| 28-36 | .001331 | .015360 | .000653 | .072237 | -.010918 | -.009490 |
| 37-47 | .002583 | .009366 | -.001275 | .008881 | -.005580 | .005245 |
| 48-60 | -.000107 | -.016741 | .000759 | .003361 | -.003970 | -.005957 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-03 |
| 0 | .026810 | .005480 | .021842 | .041468 |
| 1 | .225437 | .084884 | .292739 | .432561 |
| 2 | .254042 | .137357 | .504604 | .566795 |
| 3 | .232669 | .168769 | .631438 | .558444 |
| 4 | .129294 | .126763 | .428251 | .287455 |
| 5 | .070031 | .091926 | .276724 | .128069 |
| 6 | .061170 | .088989 | .301421 | .112884 |
| 7-8 | .047656 | .071876 | .319996 | .110348 |
| 9-11 | .026866 | .038951 | .237366 | .077044 |
| 12-15 | .019187 | .025968 | .140127 | .044019 |
| 16-20 | .010626 | .019185 | .108737 | .032360 |
| 21-27 | .006767 | .010227 | .067319 | .021250 |
| 28-36 | .004662 | .007440 | .047019 | .013535 |
| 37-47 | .003109 | .004733 | .028512 | .009782 |
| 48-60 | .001854 | .002874 | .019409 | .006142 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10740 10E 01 | 0.68134 10E 00 | 0.69847 10E-01 | 0.42119 10E 00 | 0.43179 10E-01 | 0.27391 10E-01 |
| 0 | -.018545 | -.585663 | .742084 | .019457 | .017256 | -.571375 |
| 1 | -.037193 | -.346906 | .467250 | .040595 | -.017191 | -.267509 |
| 2 | -.088338 | -.149140 | .140107 | .088862 | -.076515 | -.017798 |
| 3 | -.057301 | -.032511 | -.037971 | .012568 | -.047925 | .034503 |
| 4 | -.043287 | .034771 | -.129230 | -.003644 | -.028546 | .057300 |
| 5 | -.010602 | .111152 | -.159660 | -.007990 | .009401 | .099298 |
| 6 | -.026751 | .201286 | -.163668 | -.018467 | -.009573 | .197445 |
| 7 | .009323 | .176688 | -.123945 | .016253 | -.019219 | .162735 |
| 8 | .079184 | .131186 | -.059772 | -.048558 | .037182 | .054010 |
| 9 | .072714 | .139271 | -.048960 | -.070536 | .046707 | -.005743 |
| 10 | .061766 | .160115 | -.102178 | -.056799 | .066386 | .036683 |
| 11 | .059271 | .124088 | -.085197 | -.052859 | .061393 | .086762 |
| 12 | .016626 | .024969 | -.044829 | .011313 | .009677 | .012563 |
| 13 | .027157 | -.033267 | -.048788 | -.016787 | .003485 | -.055932 |
| 14 | -.027774 | -.052648 | -.045506 | .038963 | -.033143 | -.095574 |
| 15 | -.012282 | -.011720 | -.027686 | .008880 | -.042202 | -.025388 |
| 16 | .053068 | -.057890 | .013770 | -.059755 | .045656 | -.027006 |
| 17 | .064242 | -.139419 | .059659 | .009816 | .044245 | -.071690 |
| 18 | -.001260 | -.061108 | .042888 | .008773 | .015569 | -.013310 |
| 19 | -.051986 | -.053282 | .035080 | .112287 | -.033049 | -.009854 |
| 20 | -.078205 | -.052927 | -.005770 | .039642 | -.007963 | .005688 |
| 21 | -.077712 | .016652 | -.075624 | .008689 | -.024988 | .035592 |
| 22 | -.033823 | .043359 | -.093991 | .037632 | -.008322 | .075302 |
| 23 | .013373 | .014174 | -.050874 | .000838 | .017203 | .061505 |
| 24 | .009321 | .019301 | .011133 | .013064 | .013157 | .013945 |
| 25 | .032462 | .001115 | .077933 | -.037729 | .030567 | -.016365 |
| 26 | .016463 | .023021 | .115388 | -.009451 | -.009601 | -.055345 |
| 27 | .050878 | .019622 | .095927 | -.035201 | .000497 | -.043968 |
| 28 | .099359 | .076033 | .001526 | -.040736 | .024015 | .008498 |
| 29 | .012959 | .085316 | -.053602 | -.037055 | .012839 | .028895 |
| 30 | .015384 | .078183 | -.093883 | -.036748 | .034749 | .070074 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-02 |
| 0 | -.014085 | -.016045 | .027048 | .017154 | -.020655 | -.004752 |
| 1 | -.125098 | -.131224 | .270925 | .097305 | -.382805 | -.031915 |
| 2 | -.218232 | -.299195 | .401337 | .462406 | -.573894 | -.057457 |
| 3 | -.288439 | -.624916 | .582181 | .924428 | -.694911 | -.137511 |
| 4 | -.129014 | -.671023 | .620565 | .588424 | -.407621 | -.198458 |
| 5 | -.003001 | -.423293 | .518521 | .151989 | .039769 | -.165603 |
| 6 | .071923 | -.267392 | .498605 | .005216 | .399510 | .124395 |
| 7 | .174556 | -.230995 | .514455 | -.209943 | .472662 | -.115594 |
| 8 | .060928 | -.184050 | .360753 | .001914 | -.005406 | -.089776 |
| 9-11 | .006824 | -.118356 | .221363 | .076841 | .175364 | -.041632 |
| 12-14 | .061065 | -.124082 | .149115 | -.343983 | .368153 | -.097101 |
| 15-21 | .015290 | -.067896 | .082701 | -.183561 | .069681 | -.038966 |
| 22-30 | -.004946 | -.057727 | .038174 | .097429 | .002325 | -.024893 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10740 10E-01 | 0.68134 10E-00 | 0.69847 10E-01 | 0.42119 10E-00 | 0.43179 10E-01 | 0.27391 10E-01 |
| 1 | .041009 | -.010548 | .072374 | .074923 | .035246 | -.033220 |
| 2 | .052783 | -.048645 | .066623 | .014049 | .016992 | -.004550 |
| 3 | .104626 | -.064661 | .067401 | .090798 | -.021631 | -.014212 |
| 4 | .054723 | -.085029 | .065778 | .036783 | -.030000 | .021082 |
| 5 | .008692 | -.064036 | .029106 | -.001884 | -.019526 | .043909 |
| 6 | -.014673 | .005339 | -.003622 | -.012108 | .032435 | -.007144 |
| 7 | -.025557 | -.014319 | .015978 | .023702 | .010500 | -.031793 |
| 8 | -.024282 | -.036777 | .039091 | .027274 | .062587 | -.016143 |
| 9 | -.028381 | -.013628 | .025762 | -.029385 | .055445 | .025136 |
| 10 | -.009327 | .035605 | -.017016 | -.052695 | .013948 | -.015226 |
| 11 | -.049944 | .045153 | -.018056 | -.044980 | .025033 | -.039921 |
| 12 | -.055050 | .056188 | .015127 | -.056110 | .035273 | -.049626 |
| 13 | .008182 | .009120 | .029228 | -.010712 | -.034794 | -.016738 |
| 14 | .052013 | .033481 | .014280 | .034347 | -.100034 | -.030867 |
| 15 | .033780 | .016945 | -.008118 | .009858 | -.070422 | -.012333 |
| 16 | -.074166 | .041619 | -.040469 | -.070540 | -.038780 | -.004989 |
| 17 | -.032203 | .033471 | -.055862 | -.031363 | -.021855 | -.002155 |
| 18 | .004542 | .018553 | -.023352 | .013045 | .004262 | -.009429 |
| 19 | -.012636 | .001061 | -.011657 | .043239 | .023324 | .029780 |
| 20 | -.019119 | .025478 | -.007390 | .015334 | .052788 | -.002023 |
| 21 | -.000325 | -.018584 | -.009635 | .009015 | -.003012 | .044508 |
| 22 | .044595 | -.022964 | -.015322 | .031678 | -.049077 | .051371 |
| 23 | .066805 | -.032873 | .016639 | .054970 | -.031719 | .036877 |
| 24 | .052725 | -.041983 | .024564 | .064042 | .012685 | .009598 |
| 25 | .045473 | -.012465 | .027149 | .035034 | -.000070 | -.010301 |
| 26 | .010566 | -.001301 | .008794 | .030377 | -.029707 | -.024108 |
| 27 | -.004657 | .000594 | .028300 | -.040355 | .012907 | .003533 |
| 28 | -.035387 | -.013738 | .056010 | -.015121 | .049243 | -.030185 |
| 29 | -.030548 | -.004478 | .041392 | -.075870 | .028854 | -.031277 |
| 30 | -.022116 | -.017529 | .026742 | -.059802 | .012478 | -.013117 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | -.049273 | .019402 | .065201 | -.151182 | .048505 | -.232213 |
| 2 | .006238 | -.062379 | .105571 | .012453 | .374962 | -.140081 |
| 3 | .129759 | -.155097 | .122845 | .601284 | .437216 | .141578 |
| 4 | .176204 | -.126796 | .077856 | .733779 | -.167834 | .188816 |
| 5 | .217569 | -.062533 | .086691 | .506597 | -.768584 | -.036493 |
| 6 | .206811 | -.032957 | .102315 | .369544 | -.405915 | -.077931 |
| 7 | .078273 | -.003329 | .064233 | .121175 | .374545 | -.087373 |
| 8 | .056944 | -.010957 | .038076 | .138855 | .324963 | -.068898 |
| 9-11 | .036308 | -.001534 | .055931 | .411195 | .312163 | -.192963 |
| 12-14 | -.034671 | .044718 | -.021660 | -.189164 | .130675 | -.044567 |
| 15-21 | -.010242 | -.014233 | .031877 | .162037 | .073456 | -.018854 |
| 22-30 | .035767 | .016424 | .005569 | .360348 | -.013494 | -.051621 |

RUN NC 99A 46M 7-3-63 1807-1923(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.17374 10E 01 | 0.66397 10E 00 | 0.26719 10E 00 | 0.28080 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .613645 | .115356 | .259381 | .500274 |
| 2 | .267597 | -.017671 | .035156 | .050496 |
| 3 | .043041 | -.081179 | -.015208 | -.102761 |
| 4 | -.090269 | -.052311 | .027846 | -.131384 |
| 5 | -.172733 | -.034391 | -.060922 | -.140054 |
| 6 | -.223657 | -.071175 | -.182376 | -.142185 |
| 7 | -.197565 | -.056492 | -.217015 | -.101653 |
| 8 | -.184504 | -.090120 | -.178916 | -.005545 |
| 9 | -.175977 | -.100076 | -.199285 | .021879 |
| 10 | -.233869 | -.050348 | -.119230 | -.079771 |
| 11 | -.199845 | -.123064 | -.103316 | -.098620 |
| 12 | -.146458 | .017617 | -.044595 | -.049182 |
| 13 | -.133252 | -.038009 | .021305 | -.061610 |
| 14 | -.084718 | -.016966 | .073109 | -.072481 |
| 15 | -.024327 | -.002206 | .012971 | -.058906 |
| 16 | .042362 | .070147 | .047317 | -.022463 |
| 17 | .120472 | .023742 | .110245 | .042423 |
| 18 | .105047 | .025735 | .031343 | .013777 |
| 19 | .117447 | .054773 | .058983 | .023414 |
| 20 | .104762 | .C63892 | -.000477 | -.027477 |
| 21 | .018237 | -.007820 | .010181 | -.071959 |
| 22 | .007567 | -.016875 | .030503 | -.106876 |
| 23 | .010873 | -.027291 | -.011442 | -.045165 |
| 24 | .041883 | .008326 | -.018845 | .022824 |
| 25 | .075166 | .009737 | -.035658 | .112562 |
| 26 | .088216 | -.053951 | -.027506 | .155340 |
| 27 | .032361 | -.067787 | -.015116 | .168638 |
| 28 | -.083255 | -.137014 | -.048858 | .053467 |
| 29 | -.110315 | -.053863 | .009226 | -.036481 |
| 30 | -.135229 | .005653 | -.058783 | -.111849 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .007789 | .020265 | .004248 | .020030 |
| 1 | .085662 | .140440 | .055270 | .147869 |
| 2 | .171685 | .230289 | .129943 | .180111 |
| 3 | .268167 | .400992 | .257687 | .218678 |
| 4 | .227994 | .391851 | .275384 | .227360 |
| 5 | .148572 | .281414 | .181314 | .219095 |
| 6 | .135255 | .263997 | .105043 | .240148 |
| 7 | .136170 | .287103 | .080274 | .261210 |
| 8 | .098949 | .293390 | .082360 | .197453 |
| 9-11 | .061234 | .315757 | .103315 | .134860 |
| 12-14 | .041551 | .281670 | .131920 | .122577 |
| 15-21 | .028836 | .258922 | .090894 | .067512 |
| 22-30 | .021071 | .337374 | .101322 | .037013 |

RUN NC 99A 15M 7-3-63 1807-1923(EST)
 RUN NC 99A 46M 7-3-63 1807-1923(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .672709 | .211053 | .197638 | .376018 |
| 1 | .556387 | .548894 | .258552 | .377962 |
| 2 | .452955 | .501038 | .342595 | .444685 |
| 3 | .336419 | .466147 | .365882 | .482869 |
| 4 | .180854 | .498475 | .310780 | .343608 |
| 5 | .035802 | .488070 | .307003 | .100325 |
| 6 | .036089 | .315788 | .347964 | .134006 |
| 7-8 | .095860 | .191960 | .216004 | .147579 |
| 9-11 | .047808 | .223648 | .191085 | .139832 |
| 12-15 | .090789 | .204845 | .103447 | .134287 |
| 16-20 | .087512 | .090280 | .063153 | .073531 |
| 21-27 | .109260 | .132687 | .071213 | .093336 |
| 28-36 | .114692 | .060183 | .152076 | .079881 |
| 37-47 | .114032 | .078691 | .097667 | .083279 |
| 48-60 | .131518 | .109023 | .073419 | .078508 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .854845 | .652535 | .293738 | .676655 |
| 1 | .776635 | .477153 | .253469 | .680214 |
| 2 | .790824 | .307220 | .229485 | .696755 |
| 3 | .801083 | .422105 | .256017 | .701478 |
| 4 | .762286 | .576501 | .348150 | .680879 |
| 5 | .699588 | .557918 | .358734 | .625060 |
| 6 | .672640 | .347394 | .286158 | .446003 |
| 7 | .676704 | .302838 | .219649 | .537005 |
| 8 | .696056 | .490759 | .266682 | .605117 |
| 9-11 | .624661 | .639834 | .330270 | .289808 |
| 12-14 | .491960 | .423815 | .489280 | .620272 |
| 15-21 | .256990 | .402621 | .387453 | .339533 |
| 22-30 | .208087 | .261150 | .409371 | .245416 |

RUN NO 100A 15M 7-3-63 2124-2224(EST)

GROSS STATISTICS

| | | |
|-------------------|------------------------|------------------|
| I AC AS STABLE | WIND SPEED 3.79 M/SEC | SIGMA A 11.9 DEG |
| | WIND DIRECTION 316 deg | SIGMA E 9.1 DEG |
| | VELOCITY RAD. 0 LY/MIN | |

| | | | |
|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.14032E 01 | 0.11279E 01 | 0.82147E 00 | 0.77178E 00 |
| V | 0.60118E 00 | 0.55678E 00 | 0.48412E-00 | 0.31305E-00 |
| W | 0.29403E-00 | 0.28391E-00 | 0.25959E-00 | 0.10536E-00 |
| T | 0.23626E-00 | 0.56693E-02 | 0.32117E-02 | 0.39125E-02 |
| E | 0.11492E 01 | 0.98437E 00 | 0.78259E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.31255 | 0.28022 | 0.23914 | 0.23180 |
| V | 0.20458 | 0.19688 | 0.18358 | 0.14763 |
| W | 0.14307 | 0.14059 | 0.13443 | 0.08564 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.59422E-01 | -0.20654E-01 | 0.38055E-02 | -0.38475E-01 |
| U,W | -0.21453E-00 | -0.19881E-00 | -0.15650E-00 | -0.13484E-00 |
| U,T | 0.13738E-00 | 0.32278E-01 | 0.13531E-01 | 0.27890E-01 |
| V,W | -0.13217E-01 | -0.11896E-01 | -0.13697E-01 | -0.61569E-02 |
| V,T | -0.62771E-01 | -0.17540E-01 | -0.12617E-01 | -0.11889E-01 |
| W,T | -0.43155E-02 | -0.65129E-02 | -0.47106E-02 | -0.36607E-02 |

| | | | |
|----|--------------|--------------|--------------|
| WE | -0.51161E-01 | -0.26658E-01 | -0.50145E-02 |
|----|--------------|--------------|--------------|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.06470 | -0.02606 | 0.00604 | -0.07828 |
| U,W | -0.33399 | -0.25133 | -0.33912 | -0.47286 |
| U,T | 0.23859 | 0.40364 | 0.25344 | 0.50754 |
| V,W | -0.03144 | -0.02992 | -0.03861 | -0.03390 |
| V,T | -0.16656 | -0.31219 | -0.31996 | -0.33972 |
| W,T | -0.01637 | -0.16234 | -0.15314 | -0.18030 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.63051 10E 00 | 0.46172 10E 00 | 0.51356 10E-01 | 0.35448 10E 00 | 0.39428 10E-01 | 0.28873 10E-01 |
| 0 | .006075 | -.338971 | .263162 | -.038679 | -.320158 | -.162753 |
| 1 | .002857 | -.310607 | .260705 | -.035461 | -.269520 | -.138499 |
| 2 | -.005251 | -.252956 | .247462 | -.026885 | -.206107 | -.098601 |
| 3 | -.008008 | -.187582 | .216321 | -.024466 | -.164783 | -.065928 |
| 4 | -.007581 | -.134886 | .180613 | -.029040 | -.131313 | -.048196 |
| 5 | -.003014 | -.095743 | .145811 | -.028374 | -.107163 | -.030540 |
| 6 | .004539 | -.057919 | .106128 | -.034373 | -.087027 | -.009628 |
| 7 | .008710 | -.025421 | .068163 | -.036482 | -.063337 | -.004412 |
| 8 | .005255 | .000095 | .039548 | -.024785 | -.042277 | .007927 |
| 9 | -.009529 | .027243 | .017670 | -.020585 | -.028793 | .026199 |
| 10 | -.021307 | .055071 | .000457 | -.019333 | -.005699 | .038100 |
| 11 | -.028363 | .073243 | -.013412 | -.019272 | .020589 | .048903 |
| 12 | -.030968 | .087025 | -.022629 | -.015423 | .049804 | .057702 |
| 13 | -.023140 | .094145 | -.031563 | .001594 | .062039 | .050229 |
| 14 | -.017909 | .090400 | -.038146 | .013852 | .071778 | .038608 |
| 15 | -.019167 | .081458 | -.046579 | .024932 | .090302 | .026262 |
| 16 | -.021190 | .077658 | -.057107 | .038192 | .104169 | .018642 |
| 17 | -.026672 | .074907 | -.059345 | .044272 | .110313 | .018636 |
| 18 | -.029529 | .070339 | -.057319 | .051209 | .109685 | .024352 |
| 19 | -.025972 | .068277 | -.058493 | .055095 | .105119 | .026917 |
| 20 | -.029853 | .075896 | -.059427 | .054719 | .103602 | .019189 |
| 21 | -.029705 | .082601 | -.057087 | .049551 | .104907 | .007791 |
| 22 | -.019722 | .085347 | -.060101 | .047240 | .101551 | .001296 |
| 23 | -.008669 | .090359 | -.065988 | .044154 | .101529 | .000553 |
| 24 | .000996 | .094530 | -.068147 | .045699 | .101469 | .003987 |
| 25 | .011798 | .093337 | -.073638 | .036308 | .093240 | .004763 |
| 26 | .020928 | .079928 | -.078317 | .033742 | .083930 | -.003464 |
| 27 | .030002 | .059767 | -.081535 | .037818 | .081974 | -.003430 |
| 28 | .038091 | .038961 | -.077250 | .033017 | .079330 | -.001296 |
| 29 | .038635 | .025112 | -.065662 | .021512 | .070245 | .001179 |
| 30 | .037394 | .014677 | -.054413 | .007655 | .054362 | .001633 |
| 31 | .036582 | .002890 | -.041357 | .001785 | .029346 | -.005650 |
| 32 | .036463 | -.012271 | -.030238 | -.005995 | .015695 | -.000194 |
| 33 | .035648 | -.033384 | -.019955 | -.006314 | .010171 | .006406 |
| 34 | .040458 | -.046174 | -.017693 | .001163 | .001460 | .004431 |
| 35 | .038525 | -.054446 | -.018111 | -.004604 | -.005836 | .005624 |
| 36 | .036290 | -.051515 | -.021115 | -.021156 | -.008452 | .008472 |
| 37 | .034081 | -.049833 | -.022925 | -.049481 | -.010793 | .015456 |
| 38 | .030643 | -.044359 | -.019598 | -.062734 | -.018269 | .013492 |
| 39 | .025282 | -.037833 | -.018914 | -.056058 | -.036413 | .017744 |
| 40 | .020563 | -.031562 | -.022448 | -.050143 | -.050962 | .034127 |
| 41 | .024919 | -.028180 | -.026444 | -.052931 | -.060662 | .041642 |
| 42 | .026886 | -.014928 | -.033839 | -.048215 | -.052255 | .036778 |
| 43 | .023517 | -.000249 | -.038235 | -.044344 | -.042327 | .032307 |
| 44 | .014946 | .010901 | -.034562 | -.033097 | -.035031 | .023445 |
| 45 | .006637 | .010776 | -.028350 | -.019371 | -.029776 | .003958 |
| 46 | .001582 | .017667 | -.027637 | -.013503 | -.030776 | -.011308 |
| 47 | -.001975 | .032956 | -.033693 | .002435 | -.035026 | -.025525 |
| 48 | -.009857 | .038031 | -.036500 | .005701 | -2 .320946 | -.033696 |
| 49 | -.017223 | .041805 | -.037912 | .010893 | -18.357904 | -.039507 |
| 50 | -.027826 | .050218 | -.039585 | .010808 | -19.493840 | -.025729 |
| 51 | -.042358 | .050983 | -.033519 | .002025 | -23.724988 | -.005644 |
| 52 | -.048382 | .043781 | -.024244 | -.001475 | -29.650254 | -.002621 |
| 53 | -.047754 | .030344 | -.021240 | -.000139 | -36.425425 | -.000164 |
| 54 | -.049846 | .023624 | -.017111 | .000001 | -29.945489 | -.002606 |
| 55 | -.052042 | .021785 | -.011115 | .003001 | -19.791072 | .003562 |
| 56 | -.050373 | .016072 | -.005539 | .002038 | -2.845885 | .015757 |
| 57 | -.046363 | .007185 | .002638 | .000005 | 8.738480 | .017443 |
| 58 | -.037601 | -.005796 | .011250 | .004739 | 7.617149 | .012100 |
| 59 | -.024783 | -.016848 | .011971 | .003533 | 13.847434 | .012979 |
| 60 | -.016578 | -.021575 | .007085 | .000813 | 16.117315 | .006454 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.63051 10E 00 | 0.46172 10E 00 | 0.51356 10E-01 | 0.35448 10E 00 | 0.39428 10E-01 | 0.28873 10E-01 |
| 1 | .018638 | -.018030 | .043896 | -.002701 | -.013755 | -.064405 |
| 2 | .032664 | -.018522 | .079355 | .000859 | -.015747 | -.095497 |
| 3 | .038234 | -.012485 | .101044 | -.001564 | -.011985 | -.102951 |
| 4 | .035703 | -.002001 | .117904 | .000361 | -.011238 | -.103449 |
| 5 | .032677 | .006810 | .122576 | .005139 | -.008142 | -.092084 |
| 6 | .032609 | .008271 | .115718 | .003635 | -.013732 | -.077934 |
| 7 | .031193 | -.001461 | .109786 | .007570 | -.020210 | -.067166 |
| 8 | .030532 | -.008581 | .101522 | .000508 | -.020967 | -.063379 |
| 9 | .030650 | -.001726 | .094999 | -.018470 | -.017996 | -.068119 |
| 10 | .034815 | .007886 | .093001 | -.030793 | -.018403 | -.072193 |
| 11 | .044733 | .019639 | .087916 | -.028807 | -.023498 | -.075257 |
| 12 | .056795 | .015662 | .077492 | -.018780 | -.023145 | -.077385 |
| 13 | .063133 | .010953 | .068663 | -.014682 | -.017567 | -.075051 |
| 14 | .061205 | .014129 | .063658 | -.010815 | -.011577 | -.062890 |
| 15 | .047990 | .018133 | .058505 | -.009377 | -.000087 | -.051133 |
| 16 | .030192 | .013710 | .058525 | -.012673 | .006732 | -.038168 |
| 17 | .022095 | .010226 | .060347 | -.004982 | .007139 | -.029951 |
| 18 | .024539 | .007200 | .064737 | .008231 | .010537 | -.023584 |
| 19 | .029764 | .000581 | .063390 | .014314 | .006680 | -.023429 |
| 20 | .029271 | -.005265 | .062337 | .007455 | -.001210 | -.028727 |
| 21 | .029676 | -.016082 | .055930 | .003871 | -.007735 | -.025396 |
| 22 | .029236 | -.019041 | .047870 | .007353 | -.016620 | -.020229 |
| 23 | .031958 | -.021863 | .038825 | .012063 | -.018643 | -.014076 |
| 24 | .026679 | -.022209 | .026407 | .016675 | -.013128 | -.002181 |
| 25 | .021057 | -.019974 | .012814 | .021614 | -.015677 | .010588 |
| 26 | .015306 | -.013822 | .006156 | .021003 | -.018573 | .021223 |
| 27 | .010709 | -.010667 | -.003937 | .016404 | -.020603 | .028045 |
| 28 | .006155 | -.015859 | .016594 | .011086 | -.021964 | .034171 |
| 29 | .000179 | -.020732 | -.028356 | -.001119 | -.014208 | .041297 |
| 30 | -.007987 | -.022824 | -.027087 | .002873 | -.001521 | .042468 |
| 31 | -.021976 | -.018154 | -.019303 | -.001867 | .005497 | .036397 |
| 32 | -.033892 | -.006669 | -.019450 | .003435 | .008292 | .030131 |
| 33 | -.038128 | .003070 | -.022367 | .013600 | .004089 | .038852 |
| 34 | -.043948 | .006381 | -.018616 | .021203 | -.004382 | .037886 |
| 35 | -.062596 | .012430 | -.010753 | .012484 | -.003012 | .012567 |
| 36 | -.087143 | .024854 | -.007233 | -.004424 | .003024 | -.010089 |
| 37 | -.106310 | .034846 | -.004088 | -.015440 | .017496 | -.018070 |
| 38 | -.114168 | .039702 | -.000591 | -.021387 | .030344 | -.029294 |
| 39 | -.112001 | .041698 | -.003483 | -.023807 | .040022 | -.025894 |
| 40 | -.105200 | .040628 | -.002857 | -.021896 | .047097 | -.017606 |
| 41 | -.090011 | .040487 | -.000573 | -.020137 | .045739 | -.018193 |
| 42 | -.074791 | .038271 | .004885 | -.021256 | .030633 | -.021938 |
| 43 | -.065369 | .029055 | .008655 | -.031111 | .021480 | -.019141 |
| 44 | -.060328 | .016117 | .005925 | -.035233 | .018453 | -.008893 |
| 45 | -.050432 | .009116 | -.002673 | -.034118 | .017101 | .001726 |
| 46 | -.033730 | .004468 | -.011017 | -.030119 | .017489 | .011080 |
| 47 | -.015212 | -.000040 | -.018687 | -.027953 | .021538 | .012074 |
| 48 | -.006426 | -.000477 | -.024968 | -.027000 | 2 .316943 | .009607 |
| 49 | -.000359 | -.006774 | -.030767 | -.024973 | 18 .356609 | .014259 |
| 50 | .003395 | -.011256 | -.037503 | -.023217 | 19 .487017 | .018352 |
| 51 | .010540 | -.011927 | -.041817 | -.014050 | 23 .723333 | .014202 |
| 52 | .022331 | -.012732 | -.039635 | -.005957 | 29 .652641 | .011351 |
| 53 | .030846 | -.003411 | -.036125 | -.007538 | 36 .431989 | .015054 |
| 54 | .040173 | .004799 | -.035237 | -.000040 | 29 .942364 | .021979 |
| 55 | .047227 | .009334 | -.031798 | .018032 | 19 .777689 | .025743 |
| 56 | .052652 | .010070 | -.023928 | .028584 | 2 .823919 | .028622 |
| 57 | .053948 | .004858 | -.018581 | .031870 | -8 .770311 | .027228 |
| 58 | .058154 | -.002560 | -.015156 | .032418 | -7 .650842 | .025017 |
| 59 | .067943 | -.005745 | -.014162 | .037979 | -13 .881470 | .021644 |
| 60 | .082718 | -.012991 | -.020272 | .038104 | -16 .159415 | .011701 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.82126 10E 00 | 0.48407 10E 00 | 0.25958 10E 00 | 0.32114 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .852088 | .796044 | .661198 | .805617 |
| 2 | .664163 | .566750 | .346809 | .589876 |
| 3 | .514372 | .413727 | .182822 | .436946 |
| 4 | .399608 | .296166 | .088351 | .313406 |
| 5 | .303750 | .217824 | .026807 | .215469 |
| 6 | .213333 | .147374 | -.000864 | .144522 |
| 7 | .128589 | .077681 | -.028520 | .092297 |
| 8 | .049419 | .029092 | -.064054 | .055114 |
| 9 | -.016077 | -.002052 | -.079201 | .020735 |
| 10 | -.066315 | -.024845 | -.073222 | -.013588 |
| 11 | -.107032 | -.053738 | -.075572 | -.048443 |
| 12 | -.148671 | -.095642 | -.106510 | -.085641 |
| 13 | -.185535 | -.131425 | -.116934 | -.111739 |
| 14 | -.214225 | -.159109 | -.116338 | -.130372 |
| 15 | -.224156 | -.186561 | -.120149 | -.137550 |
| 16 | -.233887 | -.210801 | -.134675 | -.136770 |
| 17 | -.239062 | -.230739 | -.135459 | -.142492 |
| 18 | -.241240 | -.242534 | -.112618 | -.160786 |
| 19 | -.243243 | -.241483 | -.092636 | -.184664 |
| 20 | -.245641 | -.241044 | -.076669 | -.197818 |
| 21 | -.250874 | -.245958 | -.077414 | -.213207 |
| 22 | -.259916 | -.239627 | -.093095 | -.224410 |
| 23 | -.260252 | -.241873 | -.106235 | -.224014 |
| 24 | -.249303 | -.248830 | -.125842 | -.217552 |
| 25 | -.245331 | -.240275 | -.138481 | -.205773 |
| 26 | -.234119 | -.234396 | -.124588 | -.182680 |
| 27 | -.213387 | -.224994 | -.111382 | -.168823 |
| 28 | -.187484 | -.209285 | -.082917 | -.153960 |
| 29 | -.149087 | -.192591 | -.047593 | -.140561 |
| 30 | -.103165 | -.162933 | -.001632 | -.125026 |
| 31 | -.046079 | -.116428 | .034491 | -.094627 |
| 32 | -.001854 | -.073825 | .053007 | -.073148 |
| 33 | .035484 | -.039201 | .060492 | -.051639 |
| 34 | .061247 | -.011891 | .059009 | -.029673 |
| 35 | .081219 | .000724 | .047276 | -.007462 |
| 36 | .090093 | .010814 | .031470 | .005182 |
| 37 | .089692 | .025327 | .018659 | .011209 |
| 38 | .091907 | .039807 | .019926 | .024305 |
| 39 | .101987 | .061252 | .021783 | .036571 |
| 40 | .103705 | .078548 | .011751 | .037855 |
| 41 | .098084 | .081913 | .001575 | .031483 |
| 42 | .079711 | .072982 | -.011499 | .018922 |
| 43 | .048359 | .061491 | -.028103 | .019851 |
| 44 | .010387 | .054495 | -.035649 | .020346 |
| 45 | -.024517 | .053872 | -.021234 | .018565 |
| 46 | -.053027 | .059267 | -.002030 | .017289 |
| 47 | -.076685 | .074039 | -.001601 | .013676 |
| 48 | -.094222 | .090718 | -.004554 | .004664 |
| 49 | -.099006 | .100347 | -.000933 | .000060 |
| 50 | -.087875 | .100552 | -.001794 | .000441 |
| 51 | -.079207 | .095418 | -.025876 | -.002526 |
| 52 | -.069687 | .088631 | -.029846 | -.013785 |
| 53 | -.066248 | .081500 | -.002512 | -.028079 |
| 54 | -.060072 | .090015 | -.001569 | -.027217 |
| 55 | -.053409 | .087644 | -.004394 | -.026308 |
| 56 | -.040563 | .073969 | -.001968 | -.020111 |
| 57 | -.026596 | .071811 | -.001889 | -.008586 |
| 58 | -.010974 | .069213 | -.000926 | -.002443 |
| 59 | -.002403 | .058469 | -.002493 | -.001125 |
| 60 | .011594 | .054412 | .028557 | -.010570 |

RUN NO 100A 15M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-01 | 10E-03 |
| 0 | -.057341 | -.012196 | .041049 | .010218 | -.063173 | -.034049 |
| 1 | -.711826 | -.134657 | .305650 | -.099293 | .167601 | -.347057 |
| 2 | -.415455 | -.210641 | .30410 | -.514323 | -.090480 | -.419872 |
| 3 | .499371 | -.299506 | .278607 | -.772178 | -.014112 | -.528795 |
| 4 | .657807 | -.233852 | .190044 | -.208487 | .027381 | -.661623 |
| 5 | .054818 | -.128791 | .115643 | .215948 | -.090583 | -.615154 |
| 6 | -.208097 | -.127450 | .097864 | .141825 | .094463 | -.393673 |
| 7-8 | -.066533 | -.095585 | .059123 | .113432 | -.018391 | -.267501 |
| 9-11 | -.086777 | -.026153 | .018502 | -.053142 | -.002227 | -.088389 |
| 12-15 | .054181 | -.028968 | -.002290 | .000209 | -.009539 | -.103705 |
| 16-20 | .107814 | -.012763 | -.000776 | -.041607 | -.003164 | -.061748 |
| 21-27 | -.007268 | -.006176 | -.000395 | -.005063 | -.000202 | -.041338 |
| 28-36 | .010144 | -.000394 | -.002522 | -.013749 | .002337 | -.027431 |
| 37-47 | .003173 | -.000845 | -.000339 | .007973 | -.002146 | .002945 |
| 48-60 | -.007135 | -.000760 | .000264 | -.001643 | .000165 | -.006076 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-01 | 10E-03 |
| 1 | .052764 | .039759 | .197010 | -.035092 | .093973 | -.628594 |
| 2 | .163281 | -.050448 | .199742 | -.011563 | -.104516 | -.764703 |
| 3 | .105114 | .207874 | .180269 | -.219766 | .117040 | -.915491 |
| 4 | -.013191 | .247599 | .108647 | -.170803 | -.106375 | -.632757 |
| 5 | .029979 | -.205952 | .057726 | .059481 | .066623 | -.230666 |
| 6 | .030859 | -.274980 | .069659 | .098685 | -.022083 | -.251253 |
| 7-9 | -.00433 | -.076461 | .064985 | .128322 | .017301 | -.271592 |
| 9-11 | .021081 | .009170 | .017427 | .019110 | -.016659 | -.205264 |
| 12-15 | .013960 | -.060797 | .012939 | -.058177 | .004707 | -.172014 |
| 16-20 | .001446 | -.114505 | -.000340 | -.007591 | -.001629 | -.048150 |
| 21-27 | .001722 | -.003819 | .000806 | .006109 | -.002226 | -.024187 |
| 28-36 | -.000743 | -.020087 | .001357 | .004068 | .002274 | -.020369 |
| 37-47 | -.000058 | -.008408 | -.000641 | -.018204 | -.002242 | -.006599 |
| 48-60 | .000012 | -.004418 | -.000337 | .000745 | .000824 | -.000857 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .008445 | .016094 | .008548 | .043455 |
| 1 | .085146 | .407690 | .111163 | .358924 |
| 2 | .121541 | .692788 | .174039 | .443573 |
| 3 | .151952 | .782578 | .240243 | .473896 |
| 4 | .104880 | .477326 | .207640 | .308695 |
| 5 | .053833 | .279239 | .142564 | .190288 |
| 6 | .051599 | .259195 | .139377 | .180098 |
| 7-8 | .036533 | .206398 | .133794 | .153050 |
| 9-11 | .018398 | .158953 | .094182 | .093111 |
| 12-15 | .012807 | .094947 | .073685 | .071808 |
| 16-20 | .008416 | .061686 | .056225 | .034593 |
| 21-27 | .005623 | .048927 | .040612 | .026236 |
| 28-36 | .003172 | .025511 | .027576 | .018454 |
| 37-47 | .001948 | .020841 | .018615 | .012426 |
| 48-60 | .001355 | .011001 | .012262 | .007445 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.49111 10E 00 | 0.28502 10E 00 | 0.54931 10E-01 | 0.18151 10E 00 | 0.34981 10E-01 | 0.20302 10E-01 |
| 0 | -.078344 | -.473085 | .507728 | -.033921 | -.339875 | -.180316 |
| 1 | -.039482 | -.125192 | .350588 | -.078214 | -.162910 | -.045925 |
| 2 | -.020782 | -.011069 | .211351 | .054410 | -.025823 | -.041183 |
| 3 | .034389 | -.014707 | .107519 | .005323 | -.017892 | -.021132 |
| 4 | .029018 | -.018300 | .015569 | -.085386 | -.027364 | .002723 |
| 5 | .011110 | .046345 | -.063088 | .018538 | -.018059 | -.027764 |
| 6 | .014476 | .004919 | -.051003 | .009350 | .045074 | -.020314 |
| 7 | .010554 | -.045256 | -.037104 | .091281 | .060441 | -.043688 |
| 8 | .008922 | .001156 | -.009345 | .016264 | .092936 | -.016724 |
| 9 | -.052062 | .104288 | -.040942 | .063079 | .061541 | .004210 |
| 10 | -.017293 | .078811 | -.058889 | .083728 | .058943 | -.012826 |
| 11 | -.011600 | .042172 | -.124183 | -.000172 | .046462 | .015296 |
| 12 | .027029 | .091091 | -.208505 | -.029743 | .042100 | .057866 |
| 13 | .004198 | .106633 | -.182399 | .027520 | .060531 | .048821 |
| 14 | .002527 | .039800 | -.127768 | .016332 | .039366 | .021108 |
| 15 | -.000483 | .057127 | -.121211 | -.009277 | .035067 | .041237 |
| 16 | .047290 | .041959 | -.086800 | -.124513 | -.008575 | .099955 |
| 17 | .007583 | -.022230 | -.008998 | -.084130 | -.059490 | .055494 |
| 18 | -.039375 | .022840 | .067273 | -.059545 | -.058300 | .041276 |
| 19 | -.047265 | .052311 | .036965 | -.050363 | -.041880 | .060842 |
| 20 | .001231 | -.007617 | -.046337 | -.087322 | -.008450 | .095575 |
| 21 | .012045 | -.009903 | -.053847 | -.044488 | .011601 | .040090 |
| 22 | .034457 | -.021017 | -.064180 | -.000651 | .027473 | .010410 |
| 23 | .033361 | -.070493 | -.069345 | .029111 | .071926 | .063493 |
| 24 | .100778 | -.044940 | -.034181 | .011243 | .032314 | .029427 |
| 25 | .012199 | .012255 | .041064 | .069054 | .040594 | -.016364 |
| 26 | .016612 | -.007736 | .053427 | .108595 | .059264 | -.045580 |
| 27 | -.007904 | -.112864 | .018178 | .092478 | .023545 | -.069443 |
| 28 | .035842 | -.072222 | -.004913 | .031499 | .013768 | -.018556 |
| 29 | .027300 | .071235 | -.039662 | .038296 | .021990 | -.074624 |
| 30 | -.016114 | .042905 | -.048894 | .051245 | -.002188 | -.080162 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | -.029489 | -.003715 | .036076 | -.014108 | -.006417 | -.032726 |
| 1 | -.261518 | -.079677 | .402255 | .128269 | -.079056 | -.642558 |
| 2 | -.112501 | -.120721 | .473604 | .008451 | -.112039 | -.548745 |
| 3 | -.133492 | -.116154 | .441533 | -.410891 | -.159288 | -.133583 |
| 4 | -.219834 | -.059838 | .250118 | -.342784 | -.125378 | .005481 |
| 5 | -.316482 | -.039387 | .149711 | .032531 | -.054534 | -.098347 |
| 6 | -.746321 | -.048938 | .246809 | .053150 | -.056150 | -.149898 |
| 7 | -.632056 | -.072464 | .292921 | .057337 | -.054491 | -.214941 |
| 8 | -.227130 | -.082265 | .147861 | .102671 | -.022219 | -.214916 |
| 9-11 | -.150933 | -.063419 | .037946 | -.092251 | -.056976 | -.138270 |
| 12-14 | -.300816 | -.029283 | .046762 | -.150366 | -.061223 | -.090079 |
| 15-21 | .076017 | -.062107 | .038004 | -.095701 | -.032891 | -.085291 |
| 22-30 | -.122028 | -.044783 | .028427 | .208077 | -.017682 | -.190804 |

RUN NC 100A 15N 7-3-63 2124-2224(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.49111 10E 00 | 0.23502 10E 00 | 0.54931 10E-01 | 0.18151 10E 00 | 0.34981 10E-01 | 0.20302 10E-01 |
| 1 | .008182 | .014179 | .155437 | -.031538 | .018072 | -.144261 |
| 2 | -.026730 | -.002890 | .181248 | .019472 | .078158 | .108693 |
| 3 | -.108628 | .008000 | .175631 | .024729 | .125984 | -.058176 |
| 4 | -.183480 | .037469 | .169713 | -.071117 | .177243 | -.090823 |
| 5 | -.076547 | .015177 | .132678 | .023095 | .158082 | -.022164 |
| 6 | .027457 | -.033231 | .084256 | .054490 | .101389 | .010493 |
| 7 | -.020957 | -.043714 | .112145 | .048485 | .093051 | -.027615 |
| 8 | -.031611 | .034759 | .113539 | -.026503 | .073545 | -.062601 |
| 9 | -.027232 | .027517 | .058792 | -.086125 | -.014178 | .013288 |
| 10 | -.014619 | .030949 | .053658 | -.019375 | -.025171 | .044845 |
| 11 | -.017840 | .015581 | .055412 | .001062 | -.027835 | .024240 |
| 12 | .013792 | -.045335 | .007740 | .012707 | -.046345 | .048255 |
| 13 | .0109051 | -.070799 | -.038678 | .087161 | -.101822 | .069056 |
| 14 | -.093147 | -.008058 | -.039452 | .045034 | -.118719 | .058934 |
| 15 | .025533 | .011607 | -.056886 | -.015563 | -.083390 | .086943 |
| 16 | .009181 | -.055092 | -.088579 | -.006793 | .004971 | .061865 |
| 17 | .033086 | -.032863 | -.042024 | -.006781 | .001149 | -.000396 |
| 18 | .008707 | -.007213 | .000073 | -.010687 | -.009812 | -.076932 |
| 19 | .017905 | .055762 | -.000743 | -.025549 | -.026944 | -.093436 |
| 20 | .006475 | .077483 | -.057741 | -.017327 | .029319 | -.037986 |
| 21 | -.048726 | .058614 | -.008116 | -.080658 | .024483 | -.104497 |
| 22 | -.087569 | .015794 | -.034514 | -.026495 | .060959 | -.005205 |
| 23 | -.045746 | .010134 | -.046882 | .031076 | .024260 | .021238 |
| 24 | -.034823 | -.055057 | -.016625 | .004277 | .049770 | -.004190 |
| 25 | -.004104 | -.033228 | .029159 | .009251 | .018278 | -.049138 |
| 26 | -.051544 | .029944 | .036576 | -.062251 | .008210 | -.035137 |
| 27 | .001154 | .010332 | .063231 | .030211 | -.002409 | -.012898 |
| 28 | .007740 | .020426 | .124368 | .031134 | -.039463 | -.064108 |
| 29 | .030406 | .007271 | .086191 | .056595 | -.025218 | -.056320 |
| 30 | .078355 | -.037437 | -.005236 | .045543 | .004796 | .012311 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | -.033834 | -.049655 | .227314 | .042839 | .049252 | -.007752 |
| 2 | -.084975 | -.012370 | .304995 | .074157 | .109472 | -.143088 |
| 3 | -.167530 | .192927 | .329692 | -.000557 | .197871 | -.611704 |
| 4 | -.121388 | .128341 | .204193 | .023978 | .160978 | -.661197 |
| 5 | -.041160 | -.172242 | .112218 | .182074 | .052059 | -.210662 |
| 6 | -.046062 | .014877 | .105513 | .089319 | .001272 | -.174554 |
| 7 | -.058264 | .293845 | .138065 | -.176210 | -.003058 | -.447029 |
| 8 | -.044566 | .165667 | .104572 | -.270991 | -.001277 | -.345425 |
| 9-11 | .074356 | -.140482 | .056402 | .071748 | -.025782 | -.279602 |
| 12-14 | .069060 | -.021606 | .016728 | .036010 | -.021007 | -.022169 |
| 15-21 | -.023463 | .074981 | .027480 | -.144466 | .003526 | -.199828 |
| 22-30 | .012087 | .011904 | .004502 | .014393 | -.007967 | .010902 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.77118 10E 00 | 0.31275 10E 00 | 0.10534 10E 00 | 0.39127 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .428614 | .261535 | .167538 | .621834 |
| 2 | .156526 | -.103660 | .009383 | .356624 |
| 3 | .079089 | -.127509 | -.010822 | .218395 |
| 4 | .031705 | .021249 | -.046887 | .100221 |
| 5 | -.136250 | .061232 | -.063957 | -.012208 |
| 6 | -.090739 | -.032751 | -.067186 | -.102444 |
| 7 | -.053063 | -.170285 | .016599 | -.081643 |
| 8 | -.085119 | -.159753 | -.106920 | -.085303 |
| 9 | -.142852 | -.231093 | -.169560 | -.145107 |
| 10 | -.170410 | -.141166 | -.149681 | -.136512 |
| 11 | -.186078 | -.116162 | -.092895 | -.165052 |
| 12 | -.271580 | -.027368 | -.012876 | -.233007 |
| 13 | -.228533 | -.067258 | -.067343 | -.278479 |
| 14 | -.146156 | -.047440 | -.037518 | -.2 259 |
| 15 | -.114196 | -.000515 | -.026767 | -.228863 |
| 16 | -.099638 | .137930 | .018959 | -.114609 |
| 17 | .049309 | .155930 | .113434 | -.007971 |
| 18 | .085703 | .124578 | -.059770 | .026241 |
| 19 | .021442 | .024630 | -.047763 | -.021276 |
| 20 | .021408 | .029176 | .008118 | -.108042 |
| 21 | .050146 | .056687 | -.010358 | -.162852 |
| 22 | .068209 | .031056 | .016108 | -.163623 |
| 23 | .095517 | -.013869 | .016212 | -.136502 |
| 24 | .107543 | .033986 | .031316 | -.081669 |
| 25 | .104898 | -.013318 | -.057003 | -.028928 |
| 26 | .067786 | -.160941 | -.029776 | .030187 |
| 27 | .125990 | -.176490 | .018324 | .074661 |
| 28 | .054112 | -.005898 | -.015715 | .048448 |
| 29 | -.139654 | -.008820 | -.041386 | .013489 |
| 30 | -.156100 | -.078411 | -.019693 | .025497 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-03 |
| 0 | .028589 | .003247 | .017534 | .059410 |
| 1 | .494605 | .046216 | .344350 | .589314 |
| 2 | .849071 | .137999 | .554430 | .627643 |
| 3 | .968980 | .280394 | .761233 | .562887 |
| 4 | .569624 | .243323 | .682135 | .365087 |
| 5 | .360252 | .109016 | .459526 | .223946 |
| 6 | .452642 | .076266 | .350091 | .266831 |
| 7 | .541061 | .106640 | .430808 | .279473 |
| 8 | .417847 | .122809 | .524523 | .121239 |
| 9-11 | .242838 | .209503 | .525950 | .095462 |
| 12-14 | .216443 | .186525 | .283700 | .079466 |
| 15-21 | .256587 | .107430 | .457284 | .071404 |
| 22-30 | .172532 | .097909 | .469840 | .057849 |

RUN NO 100A 46M 7-3-63 2124-2224(EST)

GROSS STATISTICS

I AC AS
STABLE WIND SPEED 6.07 M/SEC SIGMA A 9.40 DEG
 WIND DIRECTION 322 DEG SIGMA E 5.9 DEG
 SOLAR RAD. 0 LY/MIN

WITH NO WITH 301 POINT WITH 61 POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN RUNNING MEAN 10 PT BLOCK AVG

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.11177E 01 | 0.95716E 00 | 0.69355E 00 | 0.64441E 00 |
| V | 0.94902E 00 | 0.76079E 00 | 0.73207E 00 | 0.38418E-00 |
| W | 0.35457E-00 | 0.35539E-00 | 0.33140E-00 | 0.14197E-00 |
| T | 0.18933E-00 | 0.10679E-01 | 0.73670E-02 | 0.73984E-02 |
| E | 0.12106E 01 | 0.10368E 01 | 0.87857E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.17417 | 0.16118 | 0.13721 | 0.13225 |
| V | 0.16049 | 0.14370 | 0.14096 | 0.10211 |
| W | 0.09810 | 0.09821 | 0.09484 | 0.06207 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.11154E-01 | -0.49122E-01 | -0.38331E-03 | -0.59340E-01 |
| U,W | -0.24344E-00 | -0.23895E-00 | -0.20098E-00 | -0.14539E-00 |
| U,T | 0.80654E-01 | 0.61662E-01 | 0.37734E-01 | 0.49835E-01 |
| V,W | 0.37921E-01 | 0.43659E-01 | 0.35313E-01 | 0.19738E-01 |
| V,T | -0.14300E-00 | 0.31116E-02 | 0.90485E-02 | -0.14010E-02 |
| W,T | -0.39522E-01 | -0.26258E-01 | -0.21831E-01 | -0.15976E-01 |
| WE | 0.49645E-01 | 0.26491E-01 | 0.26055E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.01102 | -0.05756 | -0.00054 | -0.11926 |
| U,W | -0.38671 | -0.40969 | -0.41918 | -0.48068 |
| U,T | 0.17533 | 0.60991 | 0.52786 | 0.72174 |
| V,W | 0.06537 | 0.08396 | 0.07169 | 0.08451 |
| V,T | -0.33737 | 0.03452 | 0.12321 | -0.02628 |
| W,T | -0.15254 | -0.42623 | -0.44184 | -0.49293 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| 4 | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.71264 10E 00 | 0.47944 10E 00 | 0.71487 10E-01 | 0.49258 10E 00 | 0.73447 10E-01 | 0.49413 10E-01 |
| 0 | -.000439 | -.419151 | .527927 | .071570 | .123326 | -.441755 |
| 1 | -.003002 | -.365836 | .498348 | .060705 | .097322 | -.370398 |
| 2 | -.000836 | -.278624 | .439900 | .039459 | .063086 | -.272499 |
| 3 | -.001442 | -.201039 | .368708 | .023452 | .040573 | -.197357 |
| 4 | -.008501 | -.130335 | .294200 | .007955 | .029846 | -.134852 |
| 5 | -.012037 | -.072605 | .231233 | .000916 | .021836 | -.082573 |
| 6 | -.010724 | -.036130 | .177473 | -.002207 | .012218 | -.040321 |
| 7 | -.002513 | -.006338 | .126605 | -.010536 | .004094 | -.012495 |
| 8 | .006884 | .012470 | .081337 | -.031655 | -.001873 | -.009232 |
| 9 | .016888 | .027392 | .041210 | -.053839 | .004538 | -.006099 |
| 10 | .029574 | .039578 | .007771 | -.067943 | -.001958 | .004408 |
| 11 | .035123 | .056664 | -.020987 | -.064563 | -.000095 | .018471 |
| 12 | .043196 | .065972 | -.045683 | -.051943 | .000464 | .035875 |
| 13 | .046694 | .069979 | -.064781 | -.035203 | -.005605 | .043878 |
| 14 | .044241 | .060947 | -.078721 | -.026545 | -.009516 | .047984 |
| 15 | .040049 | .044217 | -.094356 | -.018388 | -.012987 | .056288 |
| 16 | .036534 | .028091 | -.107520 | -.013085 | -.015016 | .049647 |
| 17 | .026128 | .034519 | -.125069 | -.005669 | -.018518 | .049770 |
| 18 | .010832 | .053348 | -.144652 | .002313 | -.016633 | .066397 |
| 19 | .000537 | .071025 | -.163734 | .010757 | -.011659 | .089785 |
| 20 | -.004486 | .096543 | -.181118 | .014254 | -.008047 | .100308 |
| 21 | -.004978 | .112401 | -.192392 | .016852 | -.012649 | .093609 |
| 22 | -.002400 | .115850 | -.193194 | .023934 | -.023613 | .094596 |
| 23 | -.005164 | .117522 | -.189814 | .025777 | -.032621 | .105020 |
| 24 | -.013944 | .116306 | -.189137 | .027848 | -.033405 | .116851 |
| 25 | -.019164 | .105795 | -.181283 | .018310 | -.023816 | .119797 |
| 26 | -.026223 | .094609 | -.165205 | .009210 | -.017565 | .114570 |
| 27 | -.032676 | .089988 | -.145297 | .002719 | -.018233 | .098752 |
| 28 | -.031960 | .080549 | -.125018 | .001732 | -.023375 | .079558 |
| 29 | -.020331 | .067588 | -.103974 | .004903 | -.036082 | .068582 |
| 30 | -.014226 | .048414 | -.082631 | .009564 | -.047112 | .053455 |
| 31 | -.007609 | .028828 | -.065359 | .013587 | -.047983 | .030073 |
| 32 | -.003172 | .017096 | -.052919 | .017119 | -.043554 | .011967 |
| 33 | -.003206 | .010811 | -.048722 | .013213 | -.034114 | .007270 |
| 34 | -.014823 | .006103 | -.048521 | .009797 | -.024643 | .002896 |
| 35 | -.025971 | .001514 | -.048210 | .008764 | -.014482 | -.005933 |
| 36 | -.029495 | .006292 | -.044071 | .002462 | .000032 | -.011239 |
| 37 | -.026723 | .010013 | -.031467 | -.007202 | .012626 | -.013091 |
| 38 | -.027135 | .010470 | -.018589 | -.002301 | .015856 | -.004643 |
| 39 | -.028262 | .009946 | -.007759 | .009797 | .018617 | .011689 |
| 40 | -.035711 | .001474 | .000353 | .017855 | .019990 | .025103 |
| 41 | -.045626 | -.010895 | .006199 | .020161 | .020315 | .026876 |
| 42 | -.043787 | -.022600 | .015474 | .023190 | .024798 | .021602 |
| 43 | -.037393 | -.031278 | .027350 | .015617 | .030946 | .020681 |
| 44 | -.036263 | -.036287 | .031927 | .006161 | .033614 | .009893 |
| 45 | -.039813 | -.040356 | .036292 | -.010294 | .034019 | -.007829 |
| 46 | -.033070 | -.042931 | .040577 | -.017290 | .026347 | -.020999 |
| 47 | -.026174 | -.040884 | .044842 | -.005267 | .007477 | -.026650 |
| 48 | -.021592 | -.039416 | .048295 | .007077 | -.012023 | -.025653 |
| 49 | -.015976 | -.043030 | .055275 | .013717 | -.027296 | -.029819 |
| 50 | -.012981 | -.053764 | .055404 | .023292 | -.043685 | -.029000 |
| 51 | -.010570 | -.053656 | .048357 | .028862 | -.050395 | -.021589 |
| 52 | -.006606 | -.045176 | .043456 | .020128 | -.050295 | -.012521 |
| 53 | .006943 | -.030178 | .034368 | .002266 | -.048910 | -.016349 |
| 54 | .016209 | -.018851 | .027122 | -.005858 | -.043087 | -.024247 |
| 55 | .019513 | -.017767 | .027416 | -.008963 | -.031987 | -.024978 |
| 56 | .023397 | -.018326 | .030248 | -.010203 | -.020897 | -.023251 |
| 57 | .028238 | -.020797 | .031758 | -.004813 | -.009520 | -.029769 |
| 58 | .028304 | -.025074 | .033506 | .003204 | -.002546 | -.035325 |
| 59 | .026650 | -.036231 | .033169 | .004058 | .007805 | -.029297 |
| 60 | .033413 | -.045714 | .033353 | -.005215 | .016697 | -.01369 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.71264 10E 00 | 0.47944 10E 00 | 0.71487 10E-01 | 0.49258 10E 00 | 0.73447 10E-01 | 0.49413 10E-01 |
| 1 | -.009450 | -.012486 | .017152 | -.016077 | .006866 | -.003848 |
| 2 | -.010663 | -.011159 | .034357 | -.032970 | .013235 | -.012990 |
| 3 | -.014985 | -.002601 | .047010 | -.046357 | .017265 | -.029283 |
| 4 | -.018052 | .008935 | .054399 | -.058607 | .013078 | -.042832 |
| 5 | -.019134 | .019399 | .057578 | -.059028 | .006234 | -.049048 |
| 6 | -.008492 | .027960 | .060460 | -.054691 | -.000926 | -.043673 |
| 7 | -.000037 | .032252 | .062504 | -.049260 | -.004161 | -.041100 |
| 8 | .005410 | .028425 | .065488 | -.046488 | -.009586 | -.041173 |
| 9 | .008864 | .022327 | .067510 | -.041891 | -.005759 | -.033874 |
| 10 | .016853 | .018566 | .073389 | -.026652 | -.000679 | -.034098 |
| 11 | .021279 | .015403 | .080082 | -.015431 | -.002180 | -.034590 |
| 12 | .017714 | .024563 | .082583 | -.006425 | .004639 | -.040524 |
| 13 | .008398 | .028416 | .083436 | -.008091 | .013370 | -.047320 |
| 14 | -.001131 | .016768 | .084827 | -.012895 | .017504 | -.046507 |
| 15 | -.003810 | .002737 | .086563 | -.012178 | .015036 | -.039552 |
| 16 | -.003844 | -.006711 | .083576 | -.010782 | .011638 | -.029293 |
| 17 | -.005858 | -.011726 | .077431 | -.010889 | .013574 | -.008323 |
| 18 | -.005969 | -.014673 | .066537 | -.015444 | .020172 | .014881 |
| 19 | -.002734 | -.016069 | .063452 | -.020164 | .026269 | .023066 |
| 20 | .007388 | -.018900 | .072093 | -.022440 | .024188 | .021642 |
| 21 | .019612 | -.014400 | .077161 | -.015101 | .011369 | .013783 |
| 22 | .027325 | -.002417 | .072655 | -.005513 | -.001057 | .009713 |
| 23 | .035122 | .003258 | .057966 | .004680 | -.008073 | .010903 |
| 24 | .033870 | .005008 | .045861 | .006283 | -.012813 | .013864 |
| 25 | .026449 | .005858 | .034587 | .009669 | -.012648 | .014882 |
| 26 | .022148 | .001990 | .028252 | .013435 | -.012078 | .009519 |
| 27 | .020172 | -.004112 | .029829 | .008895 | -.010650 | -.009079 |
| 28 | .014434 | -.012123 | .031026 | .006574 | -.011574 | .000316 |
| 29 | .004518 | -.017991 | .022705 | .003413 | -.009863 | .001746 |
| 30 | .001281 | -.019925 | .010979 | -.004629 | -.001073 | -.000648 |
| 31 | .004791 | -.020393 | .006592 | -.009034 | .006669 | .001990 |
| 32 | .005144 | -.020727 | .003495 | -.008437 | .005748 | .008589 |
| 33 | .002097 | -.019755 | -.006233 | -.005278 | .004214 | .017351 |
| 34 | -.001166 | -.017524 | -.022157 | -.000003 | .003490 | .020003 |
| 35 | .000887 | -.014866 | -.034502 | .010834 | -.000057 | .021034 |
| 36 | .010618 | -.011305 | -.045617 | .023232 | -.003757 | .021495 |
| 37 | .016914 | -.008101 | -.053416 | .030655 | -.011356 | .018626 |
| 38 | .017986 | -.004620 | -.060536 | .026205 | -.019127 | .013186 |
| 39 | .016015 | .001753 | -.067340 | .021573 | -.022696 | .011622 |
| 40 | .012132 | .003530 | -.069999 | .006170 | -.022574 | .019959 |
| 41 | .010463 | -.002941 | -.068163 | .000413 | -.025617 | .028779 |
| 42 | .001384 | -.009017 | -.069799 | -.002155 | -.031078 | .051325 |
| 43 | -.007669 | -.012226 | -.070344 | .002522 | -.029377 | .062708 |
| 44 | -.016119 | -.012252 | -.069517 | .009317 | -.029190 | .056138 |
| 45 | -.017967 | -.005726 | -.069751 | .015102 | -.032875 | .048104 |
| 46 | -.017634 | .001105 | -.066662 | .022268 | -.035762 | .043511 |
| 47 | -.015736 | -.002635 | -.057135 | .022251 | -.038846 | .034257 |
| 48 | -.014103 | -.006644 | -.047106 | .015069 | -.034477 | .023393 |
| 49 | -.017184 | -.009953 | -.041952 | .001899 | -.025962 | .011234 |
| 50 | -.017337 | -.007353 | -.044487 | -.002014 | -.023866 | -.002977 |
| 51 | -.013604 | -.004984 | -.042147 | -.003421 | -.021584 | -.015023 |
| 52 | -.001679 | -.001380 | -.035349 | -.004369 | -.015482 | -.027587 |
| 53 | .008153 | .005945 | -.029326 | .003319 | -.014694 | -.042232 |
| 54 | .008355 | .013709 | -.021900 | .012119 | -.017564 | -.051931 |
| 55 | .008522 | .010775 | -.017349 | .012896 | -.018083 | -.058018 |
| 56 | .003452 | .003294 | -.015150 | .010727 | -.013144 | -.053825 |
| 57 | -.001309 | .004193 | -.015697 | .006030 | -.000416 | -.047415 |
| 58 | -.010336 | .008031 | -.014519 | -.007342 | .014051 | -.040691 |
| 59 | -.016769 | .014109 | -.008303 | -.017764 | .025379 | -.040256 |
| 60 | -.007081 | .020752 | .003116 | -.013425 | .029119 | -.050648 |

RUN NO 100A 46M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALLY D. AT T=0 VARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.69363 10E 00 | 0.73217 10E 00 | 0.33139 10E 00 | 0.73677 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .849180 | .815144 | .725452 | .834833 |
| 2 | .663816 | .583342 | .428379 | .641395 |
| 3 | .515998 | .416006 | .238934 | .500971 |
| 4 | .392666 | .298559 | .107433 | .382975 |
| 5 | .287302 | .206905 | .001140 | .281036 |
| 6 | .199820 | .132285 | -.061133 | .204555 |
| 7 | .120924 | .069346 | -.080081 | .143153 |
| 8 | .053411 | .003929 | -.075359 | .102765 |
| 9 | .005478 | -.046710 | -.072119 | .069086 |
| 10 | -.038088 | -.088450 | -.083635 | .023356 |
| 11 | -.072395 | -.123916 | -.096923 | -.022307 |
| 12 | -.099963 | -.149778 | -.103477 | -.057669 |
| 13 | -.123800 | -.166730 | -.105339 | -.081444 |
| 14 | -.139857 | -.189122 | -.098551 | -.105635 |
| 15 | -.154935 | -.200764 | -.093035 | -.137467 |
| 16 | -.165766 | -.203825 | -.071525 | -.160524 |
| 17 | -.188699 | -.199512 | -.074449 | -.183864 |
| 18 | -.214509 | -.200028 | -.088225 | -.209319 |
| 19 | -.231321 | -.199560 | -.097989 | -.233287 |
| 20 | -.249792 | -.205053 | -.100601 | -.252357 |
| 21 | -.267962 | -.215220 | -.098922 | -.258319 |
| 22 | -.275942 | -.232142 | -.098838 | -.263832 |
| 23 | -.271476 | -.240888 | -.105646 | -.272022 |
| 24 | -.263420 | -.226964 | -.125779 | -.270244 |
| 25 | -.238665 | -.206948 | -.130270 | -.259035 |
| 26 | -.212096 | -.194024 | -.140287 | -.239757 |
| 27 | -.195686 | -.186614 | -.145183 | -.218337 |
| 28 | -.175884 | -.179995 | -.137841 | -.196627 |
| 29 | -.149132 | -.165069 | -.124546 | -.183171 |
| 30 | -.123236 | -.141463 | -.102689 | -.162895 |
| 31 | -.093299 | -.106617 | -.054994 | -.127393 |
| 32 | -.076256 | -.064538 | -.08473 | -.101232 |
| 33 | -.071769 | -.025705 | .010640 | -.090008 |
| 34 | -.071112 | .002387 | .026709 | -.080083 |
| 35 | -.070826 | .020712 | .031703 | -.067077 |
| 36 | -.066988 | .030917 | .038475 | -.044920 |
| 37 | -.056945 | .035107 | .029851 | -.027243 |
| 38 | -.041190 | .041592 | .009087 | -.023861 |
| 39 | -.022115 | .059212 | -.004134 | -.021009 |
| 40 | .000494 | .074399 | .002559 | -.013395 |
| 41 | .020150 | .087212 | .016460 | -.008605 |
| 42 | .045591 | .095710 | .029915 | -.001714 |
| 43 | .063330 | .097381 | .033776 | .005505 |
| 44 | .074190 | .102378 | .032423 | .016139 |
| 45 | .082686 | .109623 | .031933 | .034855 |
| 46 | .084888 | .109765 | .037279 | .047672 |
| 47 | .081741 | .096377 | .045370 | .046352 |
| 48 | .079592 | .082844 | .048124 | .041536 |
| 49 | .079583 | .084607 | .042755 | .042336 |
| 50 | .074666 | .081297 | .055959 | .037743 |
| 51 | .061729 | .070591 | .046013 | .035802 |
| 52 | .053511 | .045045 | .037326 | .042722 |
| 53 | .046054 | .023766 | .035370 | .046984 |
| 54 | .039029 | .013248 | .020296 | .057700 |
| 55 | .037543 | .008044 | .001224 | .067492 |
| 56 | .038747 | .010192 | -.002997 | .072930 |
| 57 | .040353 | .009800 | -.000159 | .075455 |
| 58 | .044220 | .004580 | .009707 | .076352 |
| 59 | .050004 | -.003165 | .019691 | .068680 |
| 60 | .054220 | -.013300 | .025914 | .047969 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|---------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .047621 | -.011744 | .069458 | -.018224 | .005192 | -.021967 |
| 1 | .869675 | -.180315 | .639441 | -.265759 | .090105 | -.234369 |
| 2 | .404788 | -.280659 | .809472 | -.134527 | .124274 | -.307243 |
| 3 | -.468022 | -.308171 | .808552 | .241285 | .116709 | -.320723 |
| 4 | -.695771 | -.200200 | .475694 | .627795 | .044940 | -.205929 |
| 5 | -.647101 | -.141218 | .249664 | .816670 | .050875 | -.119506 |
| 6 | -.299362 | -.145138 | .179314 | .735276 | .077763 | -.123015 |
| 7-8 | .282535 | -.150171 | .177486 | .312940 | .035636 | -.135386 |
| 9-11 | .240417 | -.054533 | .064903 | .004825 | .036161 | -.074462 |
| 12-15 | -.009198 | -.048182 | .036622 | .019766 | .017876 | -.049456 |
| 16-20 | -.038780 | -.013543 | .014838 | .146844 | .015973 | -.016095 |
| 21-27 | -.025269 | -.010644 | .005088 | -.008425 | .011423 | -.018554 |
| 28-36 | .008529 | -.005776 | .001330 | .014689 | .005702 | -.009722 |
| 37-47 | .014073 | -.004274 | .002747 | .010639 | .002486 | -.006118 |
| 48-60 | .008489 | -.001218 | .000967 | -.002424 | .001915 | -.002550 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .509515 | -.062538 | .279390 | -.418515 | .028584 | -.175853 |
| 2 | .215667 | .225423 | .299766 | -.595426 | .391229 | -.668374 |
| 3 | -.189042 | .385579 | .157289 | -.615198 | .151333 | -.740953 |
| 4 | -.193400 | .292723 | .021171 | -.490312 | -.043833 | -.582156 |
| 5 | -.059266 | .191690 | .030065 | -.446873 | -.124005 | -.470105 |
| 6 | .020486 | .131633 | .019160 | -.381766 | -.249460 | -.043202 |
| 7-8 | -.258446 | -.124407 | .013210 | -.363240 | .231747 | .077058 |
| 9-11 | -.251182 | -.066438 | .012489 | -.053145 | .161424 | -.167765 |
| 12-15 | .029211 | -.118667 | .007564 | -.017105 | .125908 | .080477 |
| 16-20 | .005556 | -.055547 | .001686 | -.015252 | .000854 | .021708 |
| 21-27 | .018163 | -.019021 | -.000572 | .035429 | -.025008 | .042216 |
| 28-36 | -.037563 | -.009803 | -.000959 | -.010631 | -.016283 | -.008482 |
| 37-47 | -.004950 | -.002677 | -.000459 | .000581 | .006507 | .003089 |
| 48-60 | -.013059 | -.001170 | -.000218 | .007749 | .008072 | -.004873 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .007851 | .002862 | .010772 | .010038 |
| 1 | .083019 | .055035 | .162426 | .099259 |
| 2 | .111790 | .096780 | .261133 | .123623 |
| 3 | .116547 | .116351 | .313367 | .120961 |
| 4 | .075021 | .077067 | .236928 | .072079 |
| 5 | .047939 | .052084 | .200261 | .041029 |
| 6 | .037494 | .048279 | .227895 | .034558 |
| 7-8 | .035017 | .035261 | .205222 | .032776 |
| 9-11 | .017370 | .020305 | .142888 | .020618 |
| 12-15 | .010980 | .015176 | .100431 | .013236 |
| 16-20 | .006575 | .010118 | .051468 | .007085 |
| 21-27 | .004451 | .006134 | .039531 | .005224 |
| 28-36 | .002719 | .003877 | .029146 | .003424 |
| 37-47 | .001914 | .002160 | .017290 | .002394 |
| 48-60 | .001205 | .001471 | .011356 | .001350 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.49743 10E 00 | 0.30252 10E 00 | 0.69082 10E-01 | 0.23340 10E 00 | 0.53297 10E-01 | 0.32414 10E-01 |
| 0 | -.119293 | -.480609 | .721386 | .084569 | -.026287 | -.492862 |
| 1 | .017676 | -.092264 | .400950 | -.080305 | -.046950 | -.177371 |
| 2 | -.039752 | .032131 | .118866 | .059894 | -.071185 | .034364 |
| 3 | -.072923 | .059417 | .021739 | .023397 | -.106652 | .058182 |
| 4 | -.062468 | .040885 | -.046452 | .015909 | -.025292 | .088708 |
| 5 | -.013305 | -.006384 | -.053257 | -.008298 | -.024758 | .067428 |
| 6 | .073494 | -.026934 | -.090373 | -.028677 | .047243 | .025783 |
| 7 | .077558 | .080226 | -.172723 | -.032096 | .088735 | .070283 |
| 8 | .010201 | .036275 | -.162686 | .011439 | .061136 | .039775 |
| 9 | .067370 | .001860 | -.096594 | .021108 | .073213 | -.009555 |
| 10 | .096915 | -.085605 | -.049994 | -.031026 | .088542 | -.106753 |
| 11 | .089640 | -.035919 | -.027797 | -.038433 | .080933 | -.064200 |
| 12 | .005684 | .018447 | -.054020 | -.004611 | .030090 | -.042803 |
| 13 | -.013038 | .092962 | -.114065 | .040697 | -.006745 | .085634 |
| 14 | -.040833 | .067947 | -.099425 | .043754 | -.030772 | .138880 |
| 15 | -.018124 | .042917 | -.051630 | .002223 | .008438 | .072428 |
| 16 | -.004723 | -.024199 | .027152 | -.078479 | .027781 | -.011813 |
| 17 | -.027529 | -.019130 | .024132 | .026162 | -.014823 | -.025054 |
| 18 | .015492 | .036198 | -.027973 | .051534 | -.080974 | -.027426 |
| 19 | -.022991 | .043262 | -.057500 | -.013603 | -.062268 | .022438 |
| 20 | -.076283 | .063044 | -.047328 | -.009214 | -.044607 | .054330 |
| 21 | -.088887 | -.002847 | .003782 | -.022309 | -.068738 | .032746 |
| 22 | -.026489 | -.055705 | .025552 | -.003831 | -.014446 | -.019905 |
| 23 | .043983 | .000472 | .007747 | .006324 | .069031 | -.005437 |
| 24 | -.008377 | .000125 | .003138 | .024088 | .020084 | .011170 |
| 25 | .012483 | .078943 | -.032536 | .032705 | .039150 | .053473 |
| 26 | .062684 | .014744 | -.030564 | -.028866 | .037875 | .045831 |
| 27 | .057686 | -.033072 | .016069 | .046539 | -.009316 | -.080133 |
| 28 | .009484 | -.044514 | .026068 | -.027205 | .015525 | -.080048 |
| 29 | -.019986 | .046996 | -.053636 | -.065219 | -.026420 | -.001445 |
| 30 | -.023086 | .070390 | -.115338 | .064843 | -.025916 | .069001 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .004143 | -.077293 | .024160 | .005325 | .003732 | -.006602 |
| 1 | .002942 | -.650065 | .339259 | .015639 | -.017291 | -.062903 |
| 2 | -.060831 | -.627326 | .471632 | .043668 | -.094537 | -.064271 |
| 3 | -.142329 | -.526935 | .582334 | .098052 | -.189598 | -.063107 |
| 4 | -.105175 | -.510333 | .542262 | .125899 | -.133002 | -.080164 |
| 5 | -.017433 | -.747531 | .455463 | .066722 | -.015207 | -.128946 |
| 6 | .038399 | -.950960 | .378836 | -.042715 | .026475 | -.173384 |
| 7 | .067000 | -.892178 | .306980 | -.077073 | .070340 | -.145306 |
| 8 | .022258 | -.562648 | .201284 | -.077110 | .065426 | -.059558 |
| 9-11 | .038334 | -.807829 | .224668 | -.178580 | .041140 | -.094784 |
| 12-14 | -.031422 | -.793680 | .179337 | .060307 | -.000239 | -.065198 |
| 15-21 | -.033514 | -.485719 | .102981 | .068490 | .004986 | -.055747 |
| 22-30 | -.055496 | -.585115 | .061002 | .395877 | .000614 | -.032430 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.49743 10E 00 | 0.30252 10E 00 | 0.69082 10E-01 | 0.23340 10E 00 | 0.53297 10E-01 | 0.32414 10E-01 |
| 1 | .000896 | .009003 | .100956 | -.056784 | .004450 | -.056476 |
| 2 | .050729 | -.006871 | .096184 | -.044752 | -.024531 | -.007517 |
| 3 | .028974 | -.023219 | .064811 | .010791 | -.042124 | -.036958 |
| 4 | .002585 | -.022700 | -.035691 | -.016171 | -.023045 | .035166 |
| 5 | -.022236 | -.006455 | -.015369 | .022637 | -.033860 | -.033257 |
| 6 | -.018814 | .030798 | -.011163 | -.002839 | .042162 | -.081905 |
| 7 | -.033901 | .052020 | .012748 | -.010978 | .060703 | -.049006 |
| 8 | -.059338 | .019714 | -.009558 | -.026087 | .014960 | .013527 |
| 9 | -.009850 | -.020984 | -.024536 | .021549 | -.036063 | -.003817 |
| 10 | .001068 | -.046038 | -.052566 | -.028858 | -.027852 | .059907 |
| 11 | .024066 | -.075058 | .030250 | .048822 | -.082880 | .035168 |
| 12 | .054533 | -.029668 | .034729 | .070167 | -.000719 | .040816 |
| 13 | .030429 | -.030386 | .028653 | .046856 | .049298 | .005198 |
| 14 | -.000921 | -.022212 | .010917 | -.043800 | .041750 | .033274 |
| 15 | .027987 | -.024177 | -.013287 | .004607 | -.048670 | .065690 |
| 16 | -.004495 | -.041645 | .005232 | -.020032 | -.027220 | .058533 |
| 17 | .047799 | -.000463 | .035832 | -.019377 | -.024959 | -.007254 |
| 18 | .028989 | -.027954 | .036141 | .013315 | .029717 | -.021173 |
| 19 | .009150 | -.002202 | .024014 | -.030780 | .022569 | -.013341 |
| 20 | .021446 | -.034589 | -.091031 | .077661 | -.020216 | .030576 |
| 21 | .018380 | .052837 | -.060498 | .078447 | -.006009 | -.010964 |
| 22 | -.134122 | .113092 | -.041690 | -.106453 | .113270 | -.078533 |
| 23 | -.051373 | .099597 | .006168 | -.019059 | .029891 | -.100610 |
| 24 | -.005545 | .062154 | .019572 | -.090566 | .018112 | -.099526 |
| 25 | -.025730 | .042236 | -.015647 | -.086228 | .043971 | -.027246 |
| 26 | -.020430 | .046175 | -.037824 | -.014766 | -.004310 | .019356 |
| 27 | -.038515 | .008355 | -.028695 | -.044452 | .025265 | .038133 |
| 28 | .017548 | .013309 | .042224 | .059992 | -.117556 | -.053513 |
| 29 | .042505 | .061095 | .025796 | .117538 | -.056166 | -.055248 |
| 30 | -.004098 | -.023617 | .004392 | .061939 | .011638 | .025869 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .174539 | -.368743 | .038725 | .078493 | -.20944 | .168969 |
| 2 | -.103754 | -.176935 | .017096 | .026365 | -.256579 | -.065504 |
| 3 | -.445529 | .299680 | .007163 | -.147042 | .017269 | -.591602 |
| 4 | .051712 | .156995 | .062934 | -.161996 | -.046302 | -.438619 |
| 5 | .544745 | -.164713 | .109172 | -.131247 | -.276495 | -.014584 |
| 6 | .598292 | -.241308 | .102661 | .036629 | -.394050 | .085854 |
| 7 | .687400 | -.407471 | .105271 | .059014 | -.734491 | .204322 |
| 8 | .243947 | -.164099 | .088852 | -.295786 | -.675029 | .112119 |
| 9-11 | -.013559 | .245689 | -.15647 | -.191963 | .552779 | -.287553 |
| 12-14 | .008432 | .036243 | .037709 | -.137195 | -.002118 | -.231010 |
| 15-21 | -.142206 | .027039 | -.004672 | -.069531 | .110112 | .032351 |
| 22-30 | -.115600 | -.008762 | .039049 | .102298 | -.142696 | -.299315 |

RUN NC 100A 46M 7-3-63 2124-2224(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.64474 10E 00 | 0.38377 10E 00 | 0.14194 10E 00 | 0.74019 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .446062 | .135704 | .055452 | .489841 |
| 2 | .116334 | -.123871 | -.064111 | .117020 |
| 3 | .011587 | -.175102 | -.133139 | -.017415 |
| 4 | -.027611 | -.053204 | -.085412 | -.099021 |
| 5 | -.037156 | -.054440 | -.037823 | -.110985 |
| 6 | -.085993 | -.061757 | -.012628 | -.117304 |
| 7 | -.206453 | -.074510 | -.072224 | -.185374 |
| 8 | -.196232 | .063040 | -.039500 | -.156322 |
| 9 | -.102749 | .016121 | -.024389 | -.115084 |
| 10 | -.071589 | -.028610 | .075311 | -.097329 |
| 11 | -.060930 | -.125729 | .034904 | .000241 |
| 12 | -.085877 | -.061523 | -.063070 | -.035870 |
| 13 | -.142291 | .006468 | -.131971 | -.161892 |
| 14 | -.082013 | -.104376 | -.078121 | -.220623 |
| 15 | -.043726 | -.063999 | -.035653 | -.099131 |
| 16 | .008295 | .068957 | .076775 | .025531 |
| 17 | .013624 | .224077 | -.028532 | .085269 |
| 18 | -.080452 | .102650 | .107663 | .041074 |
| 19 | -.096652 | -.033162 | -.041441 | -.028972 |
| 20 | -.049753 | -.076382 | -.028942 | -.060377 |
| 21 | .021026 | -.054596 | -.015729 | .009621 |
| 22 | -.014940 | .066055 | .112319 | .031589 |
| 23 | -.021242 | .026084 | .054546 | .040605 |
| 24 | .025670 | .017751 | -.048583 | .047380 |
| 25 | -.028668 | -.020366 | -.041641 | -.031361 |
| 26 | -.004680 | .026635 | -.000729 | -.049416 |
| 27 | .027923 | -.068033 | .088108 | .035113 |
| 28 | .109021 | -.069761 | -.028996 | .029864 |
| 29 | .023770 | -.144300 | -.064879 | -.053498 |
| 30 | -.042126 | -.067470 | -.002808 | -.130359 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-03 |
| 0 | .030695 | .009831 | .035297 | .020585 |
| 1 | .420979 | .052837 | .254320 | .381994 |
| 2 | .558282 | .090473 | .374977 | .601638 |
| 3 | .651615 | .163312 | .504591 | .771668 |
| 4 | .602644 | .155020 | .465195 | .684771 |
| 5 | .496742 | .119690 | .546200 | .603172 |
| 6 | .391477 | .185520 | .767134 | .610088 |
| 7 | .335235 | .282684 | .833730 | .537534 |
| 8 | .266088 | .234225 | .624113 | .314920 |
| 9-11 | .282727 | .190877 | .687872 | .374647 |
| 12-14 | .276651 | .225049 | .657716 | .223405 |
| 15-21 | .164120 | .145545 | .559303 | .187664 |
| 22-30 | .134066 | .167765 | .789815 | .124346 |

RUN NC 100A 15M 7-3-63 2124-2224(EST)
 RUN NC 100A 46M 7-3-63 2124-2224(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .468167 | .076104 | .198807 | .384993 |
| 1 | .325606 | .360658 | .416149 | .473106 |
| 2 | .211674 | .333377 | .381822 | .442480 |
| 3 | .230822 | .295067 | .278546 | .460097 |
| 4 | .195239 | .275253 | .172160 | .353772 |
| 5 | .074739 | .290075 | .089187 | .155220 |
| 6 | .136834 | .277136 | .061245 | .261953 |
| 7-8 | .090497 | .135488 | .102899 | .145578 |
| 9-11 | .162780 | .094243 | .111550 | .139859 |
| 12-15 | .142963 | .098184 | .150190 | .121932 |
| 16-20 | .171239 | .118880 | .059421 | .136341 |
| 21-27 | .13425 | .076753 | .115810 | .187873 |
| 28-36 | .072915 | .073775 | .115612 | .159181 |
| 37-47 | .113765 | .086067 | .071905 | .124775 |
| 48-60 | .117625 | .114470 | .056064 | .113877 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .954876 | .227118 | .287243 | .725366 |
| 1 | .695511 | .143969 | .388622 | .776310 |
| 2 | .490333 | .494798 | .374179 | .672210 |
| 3 | .378929 | .673079 | .307138 | .565433 |
| 4 | .506214 | .639952 | .330847 | .534684 |
| 5 | .704067 | .549126 | .249746 | .591148 |
| 6 | .641096 | .457154 | .243504 | .705935 |
| 7 | .729159 | .408657 | .335142 | .762635 |
| 8 | .560591 | .335377 | .373575 | .577150 |
| 9-11 | .180236 | .500644 | .576379 | .318025 |
| 12-14 | .421502 | .232489 | .343599 | .518200 |
| 15-21 | .340539 | .232568 | .248906 | .528716 |
| 22-30 | .278331 | .259867 | .207394 | .260425 |

RUN NO 1008 46M 7-3-63 2235-2335(EST)

GROSS STATISTICS

| | | | | |
|--------|----------------|------------|---------|----------|
| CLEAR | WIND SPEED | 7.40 M/SEC | SIGMA A | 7.70 DEG |
| STABLE | WIND DIRECTION | 321 DEG | SIGMA E | 5.0 DEG |
| | SOLAR RAD. | 0 LY/MIN | | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.15265E 01 | 0.12911E 01 | 0.79334E 00 | 0.94874E 00 |
| V | 0.91357E 00 | 0.87508E 00 | 0.74941E 00 | 0.36031E-00 |
| W | 0.36833E-00 | 0.37341E-00 | 0.34708E-00 | 0.12814E-00 |
| T | 0.52525E-01 | 0.15989E-01 | 0.10841E-01 | 0.10790E-01 |
| E | 0.14042E 01 | 0.12448E 01 | 0.94492E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.16696 | 0.15355 | 0.12036 | 0.13163 |
| V | 0.12916 | 0.12275 | 0.11698 | 0.08112 |
| W | 0.08201 | 0.08258 | 0.07961 | 0.04837 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.78147E-01 | -0.14513E-01 | -0.35722E-02 | -0.14432E-01 |
| U,W | -0.32186E-00 | -0.32030E-00 | -0.23409E-00 | -0.20396E-00 |
| U,T | 0.13683E-00 | 0.10273E-00 | 0.56085E-01 | 0.84107E-01 |
| V,W | 0.19577E-01 | 0.19835E-01 | 0.20249E-01 | 0.16891E-01 |
| V,T | 0.23115E-01 | 0.71808E-02 | 0.10013E-01 | 0.23030E-02 |
| W,T | -0.34867E-01 | -0.35841E-01 | -0.27760E-01 | -0.20178E-01 |

| | | | | |
|----|-------------|-------------|-------------|--|
| WE | 0.51924E-01 | 0.82258E-01 | 0.63988E-01 | |
|----|-------------|-------------|-------------|--|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.06618 | -0.01406 | -0.00463 | -0.02468 |
| U,W | -0.42925 | -0.46131 | -0.44610 | -0.58498 |
| U,T | 0.48323 | 0.71500 | 0.60477 | 0.83126 |
| V,W | 0.03375 | 0.03573 | 0.03970 | 0.07861 |
| V,T | 0.10552 | 0.06252 | 0.11109 | 0.03693 |
| W,T | -0.25068 | -0.46385 | -0.45256 | -0.54266 |

RUN NC 10CB 46M 7-3-63 2235-2335(EST)
61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.77098 10E 00 | 0.52472 10E 00 | 0.92734 10E-01 | 0.50996 10E 00 | 0.90127 10E-01 | 0.61338 10E-01 |
| 0 | -.004546 | -.446051 | .604815 | .039839 | .111072 | -.452471 |
| 1 | -.009459 | -.379339 | .567786 | .030175 | .087852 | -.376057 |
| 2 | -.013417 | -.282050 | .493395 | .025769 | .061110 | -.268209 |
| 3 | -.007993 | -.205778 | .413201 | .023982 | .041342 | -.188146 |
| 4 | -.001093 | -.149457 | .333927 | .022816 | .027663 | -.124068 |
| 5 | .004634 | -.105319 | .261274 | .023916 | .020033 | -.073349 |
| 6 | .010156 | -.072099 | .199000 | .023575 | .014448 | -.040203 |
| 7 | .008718 | -.049834 | .146092 | .015324 | .014581 | -.010672 |
| 8 | .000261 | -.035319 | .103148 | .002297 | .012463 | .004338 |
| 9 | -.007057 | -.015570 | .069455 | .001968 | .001530 | .009653 |
| 10 | -.015797 | .003199 | .041282 | -.002225 | -.017484 | .010246 |
| 11 | -.017453 | .018192 | .013615 | -.012455 | -.022174 | .017362 |
| 12 | -.016176 | .028219 | -.014241 | -.027289 | -.010329 | .022358 |
| 13 | -.012881 | .045522 | -.047499 | -.033194 | -.000650 | .030399 |
| 14 | -.000155 | .065728 | -.082352 | -.029259 | .000977 | .045144 |
| 15 | .006856 | .075763 | -.108985 | -.032304 | -.000848 | .051549 |
| 16 | .009807 | .081869 | -.132436 | -.034211 | -.007273 | .048527 |
| 17 | .007094 | .089469 | -.154993 | -.038520 | -.008825 | .047245 |
| 18 | .006943 | .090780 | -.172485 | -.040356 | -.004730 | .052968 |
| 19 | .010777 | .090090 | -.187579 | -.040888 | -.006457 | .060863 |
| 20 | .014625 | .087739 | -.199076 | -.044261 | -.013976 | .064603 |
| 21 | .014534 | .084085 | -.206098 | -.047757 | -.019617 | .073865 |
| 22 | .013620 | .081338 | -.204266 | -.037233 | -.025537 | .075049 |
| 23 | .013817 | .083568 | -.200436 | -.017788 | -.029804 | .075504 |
| 24 | .012744 | .088801 | -.193310 | .000325 | -.030829 | .081068 |
| 25 | .012898 | .096959 | -.185369 | .019507 | -.033246 | .087564 |
| 26 | .015905 | .098825 | -.173767 | .026925 | -.038417 | .088126 |
| 27 | .012873 | .094577 | -.157926 | .029823 | -.043698 | .086522 |
| 28 | .009856 | .079446 | -.138028 | .031197 | -.044613 | .085412 |
| 29 | .005186 | .073580 | -.120022 | .023635 | -.036891 | .079505 |
| 30 | .005172 | .069882 | -.102119 | .014295 | -.030246 | .078531 |
| 31 | -.003110 | .056265 | -.083429 | .012084 | -.023786 | .067140 |
| 32 | -.012203 | .046962 | -.073407 | .007178 | -.009763 | .053263 |
| 33 | -.019697 | .039776 | -.064970 | .010441 | -.001006 | .039424 |
| 34 | -.028409 | .034676 | -.056216 | .016917 | -.001696 | .033361 |
| 35 | -.033354 | .035195 | -.050350 | .022997 | -.004861 | .035430 |
| 36 | -.028712 | .037469 | -.05 884 | .039715 | -.007043 | .043283 |
| 37 | -.019776 | .035935 | -.047277 | .054956 | -.006512 | .049940 |
| 38 | -.013297 | .034977 | -.039303 | .053625 | -.001491 | .050274 |
| 39 | -.011667 | .026330 | -.033325 | .049655 | .001530 | .045179 |
| 40 | -.014193 | .017866 | -.025408 | .040385 | .000325 | .040338 |
| 41 | -.019090 | .011483 | -.022795 | .031264 | -.010342 | .04030J |
| 42 | -.015105 | .010042 | -.023143 | .016534 | -.012972 | .043859 |
| 43 | -.008966 | .014829 | -.024758 | .002355 | -.007078 | .042354 |
| 44 | -.002973 | .015970 | -.023502 | .000449 | -.003174 | .034165 |
| 45 | -.001004 | .015293 | -.021692 | .010925 | .003496 | .023834 |
| 46 | -.001362 | .008915 | -.020641 | .020980 | .013252 | .019164 |
| 47 | .002107 | .000511 | -.021498 | .016500 | .019929 | .006567 |
| 48 | .006017 | -.009100 | -.020621 | .004460 | .028725 | -.009332 |
| 49 | .009596 | -.009956 | -.020054 | -.012252 | .033260 | -.021643 |
| 50 | .013059 | -.006076 | -.018741 | -.031553 | .027842 | -.034744 |
| 51 | .014666 | -.001393 | -.013618 | -.049102 | .024681 | -.039730 |
| 52 | .018723 | .005658 | -.016069 | -.057081 | .021043 | -.034656 |
| 53 | .016079 | .005973 | -.022301 | -.048683 | .007931 | -.030714 |
| 54 | .008146 | .001324 | -.026117 | -.039445 | .001201 | -.032173 |
| 55 | .003289 | .004556 | -.031441 | -.034281 | -.001101 | -.031107 |
| 56 | -.000970 | .009378 | -.039033 | -.02143 | -.009788 | -.027227 |
| 57 | -.003780 | -.002477 | -.039365 | -.019333 | -.016714 | -.027367 |
| 58 | -.004462 | -.015785 | -.029336 | -.019653 | -.021051 | -.025312 |
| 59 | -.005056 | -.026837 | -.017245 | -.020544 | -.022156 | -.026931 |
| 60 | -.004477 | -.040014 | -.002730 | -.018981 | -.024616 | -.023450 |

RUN NC 1008 46M 7-3-63 2235-2335(LST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.77098 10E 00 | 0.52472 10E 00 | 0.92734 10E-01 | 0.50996 10E 00 | 0.90127 10E-01 | 0.61338 10E-01 |
| 1 | -.013633 | -.019015 | .011078 | .007867 | -.006386 | .009087 |
| 2 | -.018195 | -.023458 | .026123 | .015545 | -.013572 | .008971 |
| 3 | -.014297 | -.024570 | .038359 | .015877 | -.015396 | .008424 |
| 4 | -.008257 | -.024406 | .04690 | .015754 | -.021812 | .003266 |
| 5 | -.005350 | -.020004 | .044169 | .016087 | -.027895 | -.005841 |
| 6 | -.001745 | -.013668 | .042318 | .005671 | -.032877 | -.007638 |
| 7 | .007523 | -.009307 | .041248 | .000092 | -.038248 | -.009565 |
| 8 | .019027 | -.009570 | .037196 | -.000481 | -.045540 | -.006557 |
| 9 | .026445 | -.007301 | .029978 | .000679 | -.055127 | -.002962 |
| 10 | .035161 | -.000527 | .026795 | .011133 | -.061840 | -.006397 |
| 11 | .036936 | .002281 | .022825 | .027939 | -.066222 | -.006196 |
| 12 | .042436 | .009639 | .018682 | .048595 | -.070988 | -.007021 |
| 13 | .044598 | .006268 | .011935 | .055357 | -.072270 | -.000987 |
| 14 | .040244 | -.002750 | .009030 | .052753 | -.061262 | -.000281 |
| 15 | .034539 | -.011474 | .011682 | .038301 | -.042119 | .001069 |
| 16 | .03155 | -.018295 | .020242 | .018293 | -.025663 | .003241 |
| 17 | .026313 | -.020693 | .028083 | -.001880 | -.011289 | .000715 |
| 18 | .016764 | -.017984 | .032927 | -.018260 | .003427 | -.006372 |
| 19 | .003560 | -.017376 | .031582 | -.026510 | .011793 | -.006172 |
| 20 | -.010472 | -.017389 | .023448 | -.031000 | .016795 | -.004998 |
| 21 | -.021255 | -.019816 | .023423 | -.028950 | .029823 | -.002738 |
| 22 | -.023884 | -.024734 | .023101 | -.022321 | .035222 | -.002199 |
| 23 | -.016955 | -.027779 | .023928 | -.014250 | .034595 | .003035 |
| 24 | -.013100 | -.029263 | .022176 | -.009973 | .030996 | .012657 |
| 25 | -.003934 | -.024899 | .015341 | -.008781 | .030150 | .018859 |
| 26 | .006916 | -.016518 | .009335 | -.009933 | .028668 | .015103 |
| 27 | .013546 | -.007810 | .003750 | -.007977 | .023080 | .009582 |
| 28 | .019030 | -.010728 | .002210 | -.007406 | .014796 | .004986 |
| 29 | .025398 | -.012697 | .002678 | -.010485 | .007901 | .002431 |
| 30 | -.2806 | -.010410 | .008561 | -.014395 | .001889 | -.008495 |
| 31 | .033891 | -.010521 | .011892 | -.011550 | -.001647 | -.015501 |
| 32 | .033362 | .001267 | .011283 | -.000465 | -.005773 | -.018001 |
| 33 | .026616 | .011362 | .006061 | .013050 | -.004567 | -.013724 |
| 34 | .019747 | .012556 | .002240 | .026026 | -.000399 | -.003879 |
| 35 | .015607 | .012032 | .000735 | .036035 | .006958 | .003688 |
| 36 | .013671 | .006057 | -.002840 | .030775 | .011437 | .005867 |
| 37 | .014951 | .004766 | -.005199 | .017280 | .011743 | .000395 |
| 38 | .018688 | .007220 | -.009172 | .017770 | .008359 | .001312 |
| 39 | .021913 | .012519 | -.009011 | .016389 | .005724 | .003446 |
| 40 | .021816 | .024523 | -.004979 | .002826 | -.004670 | -.000587 |
| 41 | .017324 | .025232 | -.001448 | -.004655 | -.015476 | -.006179 |
| 42 | .012775 | .025926 | .003034 | .002436 | -.030406 | -.008030 |
| 43 | .011379 | .019726 | .011630 | .015497 | -.043700 | -.007785 |
| 44 | .003438 | .015344 | .013971 | .010950 | -.045467 | -.001338 |
| 45 | .000709 | .018164 | .013701 | .007647 | -.032921 | .008791 |
| 46 | .002478 | .020271 | .006926 | .013780 | -.023633 | .015769 |
| 47 | .006633 | .020265 | .003266 | .023250 | -.022942 | .008889 |
| 48 | .007327 | .022240 | .003395 | .027223 | -.035018 | -.007998 |
| 49 | -.001230 | .025909 | -.002004 | .029555 | -.040631 | -.020265 |
| 50 | -.010573 | .027514 | -.007440 | .019525 | -.032969 | -.027080 |
| 51 | -.017459 | .032479 | -.009551 | .007571 | -.016118 | -.030228 |
| 52 | -.032639 | .040720 | -.014778 | -.005910 | .000566 | -.022979 |
| 53 | -.044924 | .036910 | -.022083 | -.017953 | .015869 | -.015091 |
| 54 | -.050881 | .019632 | -.025992 | -.029840 | .026432 | -.009170 |
| 55 | -.050842 | .003352 | -.025162 | -.041478 | .034161 | .000869 |
| 56 | -.046994 | -.003297 | -.018783 | -.040403 | .034495 | .003307 |
| 57 | -.047294 | -.010256 | -.014967 | -.034902 | .029565 | .000036 |
| 58 | -.052182 | -.007931 | -.013652 | -.024043 | .020979 | -.001101 |
| 59 | -.047197 | -.002882 | -.016977 | -.017696 | .007490 | .004987 |
| 60 | -.040174 | .004078 | -.021759 | -.016085 | .000651 | .008879 |

RUN NC 1008 46M 7-3-63 2235-2335(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.79329 10E 00 | 0.74930 10E 00 | 0.34707 10E 00 | 0.10840 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .857614 | .770251 | .705662 | .832961 |
| 2 | .680528 | .498886 | .395266 | .628979 |
| 3 | .537227 | .298488 | .206026 | .473865 |
| 4 | .414712 | .153888 | .077324 | .364149 |
| 5 | .321180 | .066174 | .000657 | .278537 |
| 6 | .240710 | .001340 | -.044888 | .200322 |
| 7 | .173985 | -.042789 | -.063752 | .132553 |
| 8 | .116251 | -.058922 | -.058140 | .068526 |
| 9 | .057081 | -.071506 | -.050006 | .024234 |
| 10 | .002909 | -.085774 | -.050450 | -.005186 |
| 11 | -.042483 | -.097284 | -.056933 | -.028931 |
| 12 | -.075012 | -.111714 | -.069257 | -.062575 |
| 13 | -.103449 | -.116382 | -.079960 | -.103838 |
| 14 | -.129771 | -.115363 | -.088795 | -.142491 |
| 15 | -.143342 | -.110047 | -.086870 | -.173040 |
| 16 | -.160397 | -.108248 | -.071483 | -.191039 |
| 17 | -.182027 | -.119105 | -.079034 | -.211443 |
| 18 | -.200335 | -.130496 | -.100707 | -.227510 |
| 19 | -.216582 | -.143466 | -.120095 | -.234746 |
| 20 | -.230186 | -.145108 | -.123402 | -.242056 |
| 21 | -.244852 | -.141815 | -.126522 | -.252753 |
| 22 | -.256282 | -.131959 | -.122220 | -.257804 |
| 23 | -.261564 | -.133915 | -.125852 | -.248859 |
| 24 | -.261158 | -.142519 | -.135419 | -.240176 |
| 25 | -.260331 | -.144750 | -.146127 | -.224764 |
| 26 | -.255315 | -.154510 | -.153309 | -.206804 |
| 27 | -.245092 | -.161127 | -.132680 | -.187704 |
| 28 | -.225566 | -.156669 | -.110937 | -.168868 |
| 29 | -.205174 | -.140087 | -.100103 | -.148336 |
| 30 | -.178799 | -.108165 | -.079885 | -.124572 |
| 31 | -.147175 | -.075227 | -.035497 | -.089305 |
| 32 | -.117777 | -.048191 | .009928 | -.049619 |
| 33 | -.096615 | -.020933 | .034446 | -.022073 |
| 34 | -.078424 | .000494 | .045076 | -.000778 |
| 35 | -.062941 | -.002802 | .029573 | .011693 |
| 36 | -.046538 | .003681 | .003877 | .011633 |
| 37 | -.035033 | .026756 | .002131 | .007848 |
| 38 | -.018984 | .038783 | -.009927 | .006397 |
| 39 | -.006268 | .042125 | -.008843 | .006904 |
| 40 | .001354 | .036666 | -.003548 | .009239 |
| 41 | .002514 | .042540 | -.003903 | .005053 |
| 42 | -.001436 | .053695 | -.004657 | -.000663 |
| 43 | -.004381 | .059934 | -.010508 | -.005559 |
| 44 | -.012424 | .065215 | -.007081 | -.008143 |
| 45 | -.024693 | .077082 | -.000926 | -.004600 |
| 46 | -.027353 | .082824 | .019711 | -.005954 |
| 47 | -.026374 | .069740 | .040862 | -.006066 |
| 48 | -.023612 | .048796 | .056997 | -.005490 |
| 49 | -.024738 | .036320 | .052641 | -.006390 |
| 50 | -.014569 | .045739 | .038793 | -.010871 |
| 51 | -.000007 | .057268 | .020463 | -.020852 |
| 52 | .004799 | .066766 | -.010693 | -.036562 |
| 53 | .001732 | .055209 | -.017611 | -.046490 |
| 54 | -.008026 | .041713 | -.007951 | -.045743 |
| 55 | -.024332 | .023212 | -.010584 | -.042840 |
| 56 | -.032252 | .002851 | -.022198 | -.040184 |
| 57 | -.030010 | -.017369 | -.013412 | -.035598 |
| 58 | -.028308 | -.034163 | -.006561 | -.029088 |
| 59 | -.021506 | -.038551 | -.009940 | -.023056 |
| 60 | -.011360 | -.040802 | -.004558 | -.014354 |

RUN NC 100B 46M 7-3-63 2235-2335(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|---------|----------|
| | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | -.034862 | -.023974 | .011234 | .021290 | .005669 | -.022868 |
| 1 | .005850 | -.294585 | .104921 | -.148958 | .109295 | -.323373 |
| 2 | -.133070 | -.359402 | .119999 | .137410 | .152548 | -.380515 |
| 3 | -.397876 | -.348759 | .114859 | .829453 | .129823 | -.335632 |
| 4 | -.031536 | -.237407 | .069769 | .742882 | .056839 | -.235781 |
| 5 | .365635 | -.161644 | .033654 | .194597 | .046938 | -.189045 |
| 6 | .113607 | -.129432 | .022600 | -.073196 | .073475 | -.176978 |
| 7-8 | -.106536 | -.098731 | .022243 | -.151057 | .067182 | -.159793 |
| 9-11 | -.230437 | -.077292 | .013740 | .003191 | .019239 | -.105570 |
| 12-15 | -.023176 | -.047673 | .005426 | .042004 | .022005 | -.060802 |
| 16-20 | .086383 | -.027566 | .002051 | .007404 | .025097 | -.029644 |
| 21-27 | .027407 | -.015423 | .001231 | .041188 | .002527 | -.023112 |
| 28-36 | .023733 | -.009893 | .000576 | -.003038 | .006116 | -.012588 |
| 37-47 | .010203 | -.005245 | .000340 | .015176 | .004229 | -.008235 |
| 48-60 | .000988 | -.002572 | .000097 | .012173 | .002818 | -.003177 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | .113406 | -.439626 | .161023 | .225085 | -.000601 | -.056139 |
| 2 | .052932 | -.420173 | .122628 | .165509 | -.106332 | -.031398 |
| 3 | .038813 | -.035823 | .086085 | .423890 | -.189050 | -.097183 |
| 4 | .052112 | .114210 | .050432 | .481815 | -.156369 | -.106440 |
| 5 | .002154 | -.104698 | .047175 | .075369 | -.046035 | -.034610 |
| 6 | -.064296 | -.266293 | .063281 | -.288803 | .035547 | .095429 |
| 7-8 | -.064338 | -.254356 | .054966 | -.219851 | .063857 | -.000606 |
| 9-11 | -.002548 | -.126689 | .006848 | .279781 | -.007029 | .136227 |
| 12-15 | -.007092 | -.014591 | .004121 | .045297 | -.009067 | .032214 |
| 16-20 | -.004846 | -.067254 | -.002874 | -.031307 | .001172 | .057015 |
| 21-27 | -.005332 | -.008729 | -.001324 | .006677 | -.000346 | -.004986 |
| 28-36 | -.000306 | -.024140 | -.001444 | .011991 | -.000546 | .005860 |
| 37-47 | -.000039 | -.009287 | -.000591 | -.017428 | .000727 | .022096 |
| 48-60 | -.000001 | -.000952 | -.000474 | .002632 | .001013 | -.001134 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .011855 | .029127 | .009955 | .014096 |
| 1 | .116509 | .442621 | .178339 | .131682 |
| 2 | .138612 | .728311 | .273577 | .165625 |
| 3 | .134513 | .859214 | .322155 | .179549 |
| 4 | .081968 | .607915 | .239776 | .118403 |
| 5 | .046437 | .491859 | .174639 | .062714 |
| 6 | .044486 | .520392 | .191506 | .051724 |
| 7-8 | .034163 | .436365 | .207329 | .047223 |
| 9-11 | .018439 | .310343 | .152122 | .031761 |
| 12-15 | .012874 | .200702 | .110612 | .018324 |
| 16-20 | .007628 | .115020 | .059845 | .012538 |
| 21-27 | .004422 | .078121 | .047220 | .008615 |
| 28-36 | .003082 | .043945 | .030638 | .004827 |
| 37-47 | .001995 | .033235 | .021203 | .002927 |
| 48-60 | .001272 | .019507 | .012521 | .002174 |

RUN NC 1008 46M 7-3-63 2235-2335(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.58443 10E-00 | 0.34867 10E-00 | 0.10114 10E-00 | 0.21486 10E-00 | 0.62328 10E-01 | 0.37185 10E-01 |
| 0 | -.024694 | -.584964 | .831556 | .078610 | .036949 | -.542638 |
| 1 | -.038253 | -.236012 | .479246 | -.006830 | -.025578 | -.183346 |
| 2 | -.007735 | -.026162 | .178825 | -.048452 | -.042801 | -.005315 |
| 3 | -.006048 | .034698 | .070633 | .016282 | -.058444 | .059420 |
| 4 | -.004691 | .085947 | -.028382 | .019793 | -.043857 | .098232 |
| 5 | .033663 | .056881 | -.105733 | -.019676 | .001257 | .047316 |
| 6 | .001550 | -.007246 | -.116222 | -.026773 | -.029522 | -.000728 |
| 7 | .018164 | -.015774 | -.095127 | .009438 | .071201 | -.038958 |
| 8 | -.013391 | .086452 | -.160080 | .038697 | .063549 | .036080 |
| 9 | -.070923 | .104764 | -.212614 | .085779 | -.008574 | .084029 |
| 10 | -.015852 | .098375 | -.268622 | .011131 | .015863 | .078777 |
| 11 | .050409 | .145084 | -.274237 | -.026939 | .057346 | .115894 |
| 12 | .075216 | .093669 | -.198121 | -.059957 | .017623 | .059849 |
| 13 | .047285 | .007821 | -.131909 | -.071789 | .062304 | .015693 |
| 14 | .031395 | -.035252 | -.032596 | -.006800 | .015360 | -.037578 |
| 15 | .002924 | -.033235 | .031533 | .051549 | .002200 | -.022474 |
| 16 | .015258 | -.058089 | .052162 | .000807 | .029885 | -.039904 |
| 17 | .015346 | .009423 | .056052 | -.016288 | .004636 | .043731 |
| 18 | -.001206 | .030776 | .074223 | -.051332 | -.009283 | .051888 |
| 19 | -.024543 | .061377 | .047141 | -.025896 | -.044528 | .079077 |
| 20 | -.044265 | .034593 | .088246 | .008503 | -.052870 | .018441 |
| 21 | -.049392 | -.007847 | .158179 | .033797 | -.040224 | -.039757 |
| 22 | -.055461 | -.117775 | .196231 | .093155 | -.026243 | -.089045 |
| 23 | -.054209 | -.076522 | .107769 | .016555 | -.057901 | -.094217 |
| 24 | -.036871 | -.042841 | .082892 | .030240 | .005518 | -.079473 |
| 25 | .002421 | .002070 | .008139 | -.009299 | .053778 | .007607 |
| 26 | .006997 | .042801 | -.075142 | -.020215 | .037249 | .023386 |
| 27 | -.022988 | .011100 | -.063441 | .019691 | -.014222 | -.012495 |
| 28 | .032909 | .024950 | -.073318 | -.003918 | .010081 | .033200 |
| 29 | .048033 | -.045766 | -.063708 | -.043892 | .009819 | .018924 |
| 30 | .067674 | -.015813 | -.087235 | -.055928 | .023373 | -.019625 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | -.004901 | -.007111 | .003579 | .007601 | -.002018 | -.004883 |
| 1 | -.064464 | -.080567 | .040039 | .038486 | -.033370 | -.065732 |
| 2 | -.503012 | -.139171 | .092345 | .074851 | -.084910 | -.117220 |
| 3 | -.494766 | -.195559 | .141963 | -.018692 | -.108823 | -.151485 |
| 4 | .269317 | -.170587 | .100200 | -.171517 | -.018294 | -.131600 |
| 5 | .052209 | -.112691 | .050982 | -.048992 | .026384 | -.110423 |
| 6 | -.599725 | -.065074 | .038790 | .105913 | .016193 | -.073175 |
| 7 | -.726823 | -.117629 | .049260 | .245850 | .048055 | -.120239 |
| 8 | -.482103 | -.197196 | .063467 | .279366 | .055524 | -.207095 |
| 9-11 | .389916 | -.124709 | .032450 | -.162111 | .043984 | -.128240 |
| 12-14 | -.319607 | -.060675 | .020552 | .216883 | .007516 | -.059006 |
| 15-21 | -.040468 | -.060383 | .020182 | .196826 | .002640 | -.061946 |
| 22-30 | .213586 | -.045630 | .009501 | .021479 | .037576 | -.059374 |

RUN NC 1008 46M 7-3-63 2235-2335(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.58443 10E 00 | 0.34867 10E 00 | 0.10114 10E 00 | 0.21485 10E 00 | 0.62328 10E-01 | 0.37185 10E-01 |
| 1 | .072046 | -.022846 | .036170 | .119067 | -.103493 | -.005988 |
| 2 | .070822 | -.041714 | .056432 | .016208 | -.022810 | .003021 |
| 3 | .086506 | .001011 | .032572 | .089527 | -.042570 | -.010213 |
| 4 | .076771 | .026933 | .010917 | .071868 | -.041640 | -.013162 |
| 5 | .005263 | .014091 | -.005749 | .050702 | -.007486 | -.019136 |
| 6 | -.007707 | -.031267 | -.016025 | .011048 | .029649 | .005076 |
| 7 | .018483 | -.004673 | -.023735 | -.011250 | .053090 | .002194 |
| 8 | .068947 | -.020604 | -.034719 | .099256 | -.042642 | .027098 |
| 9 | .050798 | -.015291 | -.022798 | -.033059 | -.036990 | .026710 |
| 10 | .034283 | .077060 | -.011214 | -.032711 | -.084600 | -.026147 |
| 11 | .035137 | .037314 | -.005740 | -.005259 | -.062748 | -.034698 |
| 12 | -.005874 | -.015526 | -.031991 | -.031696 | -.055689 | .019082 |
| 13 | .008231 | .001811 | -.012933 | -.023862 | -.050079 | .000710 |
| 14 | -.044277 | .001947 | .035284 | -.028938 | .054175 | -.048001 |
| 15 | -.062710 | .001595 | .037629 | -.049857 | .058688 | -.017642 |
| 16 | -.049009 | .041633 | .048210 | -.046681 | .082454 | -.050251 |
| 17 | -.045127 | .052052 | .038950 | -.026820 | .022103 | -.032359 |
| 18 | -.032901 | .007833 | .026484 | .043905 | .018835 | -.013312 |
| 19 | -.089975 | -.029786 | .027422 | -.031406 | .102890 | -.012861 |
| 20 | -.108211 | -.013137 | .003219 | -.026930 | .095335 | .031556 |
| 21 | -.038224 | .006938 | .013601 | -.009356 | .081603 | -.041697 |
| 22 | -.019083 | .006422 | -.001467 | .064546 | .033133 | -.025771 |
| 23 | .015759 | .014815 | -.019177 | -.041324 | .013910 | .001045 |
| 24 | .020788 | -.034416 | -.005992 | .076453 | -.041419 | .046351 |
| 25 | .072889 | -.046594 | -.008791 | .064721 | -.054846 | .017546 |
| 26 | .050409 | -.039575 | .010699 | .003057 | -.069224 | -.014665 |
| 27 | .070578 | -.004595 | -.009305 | .029453 | -.078289 | .008594 |
| 28 | .055572 | .005980 | -.035101 | -.001455 | -.094817 | .041850 |
| 29 | .061330 | .015082 | -.057100 | -.029241 | -.049991 | .019494 |
| 30 | .044070 | -.020277 | -.023469 | -.031250 | -.010788 | .043204 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 1 | .033744 | .233028 | .023342 | .030952 | -.026742 | -.342444 |
| 2 | .137737 | .029371 | -.048505 | .263867 | -.111615 | .002252 |
| 3 | .142676 | -.188540 | -.027042 | .538947 | -.061697 | .143965 |
| 4 | .026652 | -.131799 | .114061 | .427855 | .063760 | -.104752 |
| 5 | .035472 | -.051556 | .150543 | .242075 | -.010930 | -.233252 |
| 6 | .077095 | -.024694 | .081308 | .183853 | -.111498 | -.123375 |
| 7 | .094170 | .053467 | .065788 | .176809 | -.144245 | -.008925 |
| 8 | .107589 | .071153 | .089069 | .176368 | -.105984 | .002856 |
| 9-11 | .033987 | -.393318 | .031922 | .128584 | -.00438 | .164037 |
| 12-14 | -.029882 | -.037983 | .038655 | -.060264 | -.007327 | -.132950 |
| 15-21 | .024142 | .066574 | -.008833 | .198014 | -.057490 | -.001876 |
| 22-30 | .004862 | .020805 | -.005562 | .195948 | -.026776 | -.048277 |

RUN NC 1008 46M 7-3-63 2235-2335(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.94840 10E 00 | 0.36014 10E 00 | 0.12819 10E 00 | 0.10787 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .552922 | .123954 | .125226 | .487140 |
| 2 | .208656 | -.069431 | -.116815 | .146910 |
| 3 | .057515 | -.128053 | -.118031 | .074388 |
| 4 | -.020905 | -.112199 | -.086104 | -.038827 |
| 5 | -.113836 | -.001467 | -.058956 | -.135805 |
| 6 | -.129832 | -.154350 | .042189 | -.160444 |
| 7 | -.120977 | -.029340 | .130292 | -.105878 |
| 8 | -.188073 | .000072 | -.098013 | -.151548 |
| 9 | -.260707 | -.042969 | -.174095 | -.190993 |
| 10 | -.332308 | -.080177 | -.084902 | -.211885 |
| 11 | -.331239 | -.145611 | -.054547 | -.236113 |
| 12 | -.205877 | -.037997 | -.068743 | -.198374 |
| 13 | -.130221 | -.077567 | -.007234 | -.133904 |
| 14 | -.070098 | -.002725 | .070392 | -.016856 |
| 15 | -.003697 | .046700 | .000818 | .038708 |
| 16 | .075313 | .115744 | .119769 | .046692 |
| 17 | .078348 | .212300 | -.059947 | .044046 |
| 18 | .081129 | .086406 | -.035491 | .060184 |
| 19 | .078392 | -.036280 | -.039664 | .025425 |
| 20 | .083671 | -.071228 | -.048928 | .120030 |
| 21 | .144811 | -.065198 | -.048806 | .191825 |
| 22 | .195072 | .050862 | .059602 | .196067 |
| 23 | .125011 | -.086217 | .108816 | .107946 |
| 24 | .091464 | .090562 | .039832 | .090989 |
| 25 | .015698 | -.019787 | .021322 | -.035766 |
| 26 | -.062045 | .028822 | -.057183 | -.106006 |
| 27 | -.067887 | -.014250 | -.032262 | -.107799 |
| 28 | -.036744 | -.142579 | -.100458 | -.146201 |
| 29 | -.025173 | -.097081 | .075189 | -.110574 |
| 30 | -.058166 | -.102889 | .092241 | -.110470 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-02 | 10E-02 |
| 0 | .002681 | .004458 | .036269 | .006413 |
| 1 | .043425 | .032771 | .283663 | .047648 |
| 2 | .102404 | .085571 | .402254 | .097108 |
| 3 | .155910 | .195138 | .567397 | .150972 |
| 4 | .110843 | .210113 | .574698 | .112577 |
| 5 | .055306 | .121896 | .429503 | .069526 |
| 6 | .041662 | .134339 | .270187 | .058760 |
| 7 | .053523 | .248370 | .534904 | .062730 |
| 8 | .066996 | .232671 | .920334 | .073618 |
| 9-11 | .040131 | .163558 | .863826 | .036799 |
| 12-14 | .024402 | .178519 | .420943 | .031932 |
| 15-21 | .021882 | .128558 | .593063 | .032486 |
| 22-30 | .013447 | .181625 | .562257 | .018398 |

RUN NO 1008 91H 7-3-63 2235-2335(EST)

GROSS STATISTICS

| | | |
|-----------------|------------------------|------------------|
| CLEAR STABLE | WIND SPEED 8.85 M/SEC | SIGMA A 5.20 DEG |
| | WIND DIRECTION 318 DEG | SIGMA E 3.4 DEG |
| | SOLAR RAD. 0 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN |
|--|-------------------------|--------------------------------|-------------------------------|-----------------|
| | | | | 10 PT BLOCK AVG |

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.97565E 00 | 0.75288E 00 | 0.48724E-00 | 0.52918E 00 |
| V | 0.61916E 00 | 0.46611E-00 | 0.44401E-00 | 0.23213E-00 |
| W | 0.26316E-00 | 0.25276E-00 | 0.24086E-00 | 0.10135E-00 |
| T | 0.40001E-01 | 0.12895E-01 | 0.92815E-02 | 0.85138E-02 |
| E | 0.92898E 00 | 0.73588E 00 | 0.58606E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.11161 | 0.09804 | 0.07887 | 0.08220 |
| V | 0.08891 | 0.07714 | 0.07529 | 0.05444 |
| W | 0.05796 | 0.05681 | 0.05546 | 0.03597 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.13118E-00 | 0.51791E-01 | 0.51094E-01 | 0.34963E-01 |
| U,W | -0.19689E-00 | -0.18155E-00 | -0.12518E-00 | -0.11762E-00 |
| U,T | 0.85408E-01 | 0.66607E-01 | 0.39455E-01 | 0.53182E-01 |
| V,W | -0.45537E-01 | -0.25439E-01 | -0.32322E-01 | -0.15183E-01 |
| V,T | 0.25541E-01 | 0.12910E-01 | 0.11285E-01 | 0.86918E-02 |
| W,T | -0.23717E-01 | -0.24760E-01 | -0.19944E-01 | -0.14995E-01 |
| WE | 0.50869E-02 | 0.17078E-01 | 0.19976E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.16877 | 0.08743 | 0.10985 | 0.09976 |
| U,W | -0.38858 | -0.41617 | -0.35541 | -0.50791 |
| U,T | 0.43233 | 0.67600 | 0.58670 | 0.79233 |
| V,W | -0.11281 | -0.07412 | -0.09884 | -0.09899 |
| V,T | 0.16230 | 0.16652 | 0.17579 | 0.19552 |
| W,T | -0.23116 | -0.43370 | -0.42180 | -0.51047 |

RUN NC 100B 91M 7-3-63 2235-2335(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.46517 10E 00 | 0.34260 10E 00 | 0.67260 10E-01 | 0.32704 10E 00 | 0.64205 10E-01 | 0.47288 10E-01 |
| 0 | .109846 | -.365504 | .586824 | -.099068 | .175693 | -.421631 |
| 1 | .099057 | -.327309 | .556196 | -.083446 | .160127 | -.352340 |
| 2 | .083364 | -.261932 | .483610 | -.055934 | .130677 | -.260094 |
| 3 | .066770 | -.200563 | .399758 | -.033727 | .100917 | -.182857 |
| 4 | .045272 | -.142749 | .314678 | -.017554 | .074076 | -.116767 |
| 5 | .030446 | -.086437 | .231639 | -.006660 | .052518 | -.063708 |
| 6 | .023924 | -.046550 | .166105 | -.004485 | .028055 | -.030288 |
| 7 | .018292 | -.027481 | .115103 | -.000059 | .00990 | -.012204 |
| 8 | .011179 | -.015483 | .071093 | .008285 | -.002295 | .002405 |
| 9 | .004309 | .004059 | .030554 | .016000 | -.008430 | .015419 |
| 10 | -.004137 | .026497 | -.010347 | .026310 | -.015404 | .026665 |
| 11 | -.008407 | .048083 | -.044726 | .039105 | -.020281 | .032199 |
| 12 | -.003957 | .066881 | -.067891 | .039219 | -.019837 | .040851 |
| 13 | .004625 | .076560 | -.087981 | .022964 | -.013043 | .058904 |
| 14 | .007206 | .078933 | -.104188 | .003265 | -.009158 | .074653 |
| 15 | -.000002 | .082784 | -.119604 | -.004902 | -.015056 | .083160 |
| 16 | -.009555 | .086178 | -.135918 | -.007153 | -.019898 | .088686 |
| 17 | -.016597 | .089862 | -.149436 | -.005293 | -.026124 | .092063 |
| 18 | -.034095 | .100443 | -.161939 | .018418 | -.041648 | .094829 |
| 19 | -.055189 | .112896 | -.180190 | .049451 | -.060381 | .101920 |
| 20 | -.072740 | .122248 | -.192731 | .064246 | -.073936 | .107265 |
| 21 | -.090096 | .129085 | -.197135 | .064367 | -.085688 | .111707 |
| 22 | -.098535 | .128488 | -.195747 | .060710 | -.095752 | .115498 |
| 23 | -.100503 | .115505 | -.188583 | .062735 | -.096708 | .112369 |
| 24 | -.097702 | .104053 | -.183676 | .062585 | -.095799 | .101606 |
| 25 | -.093670 | .086806 | -.174322 | .054683 | -.089742 | .085717 |
| 26 | -.089289 | .066067 | -.159328 | .046136 | -.079317 | .078138 |
| 27 | -.080577 | .053623 | -.141323 | .035037 | -.061104 | .067683 |
| 28 | -.068221 | .042793 | -.118719 | .021371 | -.043982 | .055324 |
| 29 | -.048152 | .032973 | -.100958 | .000791 | -.028087 | .043854 |
| 30 | -.027674 | .025144 | -.088984 | -.016843 | -.010086 | .023450 |
| 31 | -.012723 | .008695 | -.071677 | -.025045 | .004960 | -.009485 |
| 32 | .008648 | -.012179 | -.051960 | -.029905 | .016891 | -.029932 |
| 33 | .035823 | -.032481 | -.032724 | -.042312 | .027136 | -.037526 |
| 34 | .057842 | -.050389 | -.014183 | -.049055 | .034582 | -.042934 |
| 35 | .069132 | -.063114 | .001096 | -.050032 | .046358 | -.049402 |
| 36 | .074122 | -.067162 | .009010 | -.057607 | .051294 | -.050859 |
| 37 | .072746 | -.063074 | .011285 | -.072205 | .049544 | -.045257 |
| 38 | .068621 | -.066260 | .015271 | -.084421 | .041521 | -.038378 |
| 39 | .062598 | -.066930 | .013628 | -.081749 | .035687 | -.033271 |
| 40 | .054029 | -.058032 | .007230 | -.074917 | .036004 | -.024803 |
| 41 | .048369 | -.040881 | .000089 | -.068980 | .038346 | -.020615 |
| 42 | .050768 | -.027446 | -.002993 | -.060007 | .043646 | -.018704 |
| 43 | .062805 | -.023252 | .003156 | -.052370 | .055466 | -.022514 |
| 44 | .072262 | -.023546 | .013133 | -.046258 | .058629 | -.023428 |
| 45 | .072568 | -.019973 | .018719 | -.031331 | .050609 | -.019717 |
| 46 | .067781 | -.018150 | .019904 | -.018593 | .041034 | -.015239 |
| 47 | .061836 | -.025246 | .022047 | -.004341 | .035010 | -.024514 |
| 48 | .051973 | -.028948 | .026145 | .000319 | .027228 | -.02797 |
| 49 | .039241 | -.023647 | .026238 | .006070 | .016972 | -.040002 |
| 50 | .025967 | -.013810 | .023899 | .014559 | .006300 | -.044169 |
| 51 | .007335 | .002564 | .015980 | .027804 | -.007360 | -.038803 |
| 52 | -.018139 | .024871 | .001425 | .040929 | -.025748 | -.025864 |
| 53 | -.042550 | .039796 | -.008548 | .057952 | -.048643 | -.010846 |
| 54 | -.061138 | .042866 | -.014825 | .074444 | -.073107 | .005185 |
| 55 | -.069789 | .046860 | -.021992 | .080331 | -.079255 | .020546 |
| 56 | -.072637 | .047125 | -.021923 | .069079 | -.075635 | .027892 |
| 57 | -.074069 | .046649 | -.018662 | .057212 | -.067918 | .031086 |
| 58 | -.076983 | .041672 | -.012701 | .049897 | -.064157 | .031424 |
| 59 | -.076490 | .032425 | -.003349 | .037087 | -.056465 | .029470 |
| 60 | -.073367 | .021420 | .004274 | .026112 | -.044592 | .035337 |

RUN NC 1008 91M 7-3-63 2235-2335(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.46517 10E 00 | 0.34260 10E 00 | 0.67260 10E-01 | 0.32704 10E 00 | 0.64205 10E-01 | 0.47288 10E-01 |
| 1 | -.002122 | -.009834 | .014631 | -.010322 | .007558 | .010671 |
| 2 | .000139 | -.003536 | .022492 | -.013810 | .016604 | .007360 |
| 3 | .001229 | .009048 | .025915 | -.011649 | .016997 | .006028 |
| 4 | .000631 | .012956 | .033344 | -.017603 | .011538 | .005512 |
| 5 | -.001811 | .011126 | .041195 | -.028349 | .005549 | .004145 |
| 6 | -.003266 | .007186 | .044862 | -.030290 | .002630 | .000013 |
| 7 | -.002697 | .005560 | .044520 | -.028751 | .001414 | -.008097 |
| 8 | -.000778 | .011305 | .040425 | -.028125 | -.001286 | -.012845 |
| 9 | -.004742 | .015643 | .035421 | -.026115 | -.006179 | -.016962 |
| 10 | -.009482 | .011089 | .033963 | -.019644 | -.007762 | -.019623 |
| 11 | -.010615 | .002068 | .032741 | -.016875 | -.004074 | -.021317 |
| 12 | -.010638 | -.000756 | .029436 | -.008427 | -.007798 | -.019007 |
| 13 | -.014171 | -.002819 | .026475 | -.004385 | -.007520 | -.016413 |
| 14 | -.011956 | .006093 | .019984 | -.003347 | -.006447 | -.013238 |
| 15 | -.009671 | -.007965 | .015898 | -.007123 | -.005550 | -.012103 |
| 16 | -.012375 | -.002602 | .011164 | -.010012 | -.004079 | -.016644 |
| 17 | -.016804 | .010879 | .001162 | -.012613 | -.004333 | -.018496 |
| 18 | -.009111 | .019125 | -.002297 | -.004189 | -.005362 | -.010470 |
| 19 | .010241 | .022771 | .001589 | .004488 | -.007419 | -.008613 |
| 20 | .026065 | .025100 | .001973 | .011801 | -.011255 | -.004734 |
| 21 | .033541 | .026216 | .002496 | .018281 | -.016022 | .000530 |
| 22 | .034695 | .022782 | .006630 | .016856 | -.015997 | .005370 |
| 23 | .031851 | .014997 | .011615 | .002004 | -.009454 | .008764 |
| 24 | .027366 | .006860 | .021433 | -.014528 | .000359 | .003355 |
| 25 | .019059 | -.004281 | .030157 | -.021480 | .012051 | .000570 |
| 26 | .006936 | -.018122 | .027235 | -.025100 | .020597 | -.000558 |
| 27 | .001972 | -.030012 | .018036 | -.022369 | .019515 | .001210 |
| 28 | -.002986 | -.031635 | .006698 | -.019276 | .015347 | .007548 |
| 29 | -.001264 | -.031284 | .000568 | -.011870 | .010584 | .019878 |
| 30 | .004546 | -.032734 | .001001 | -.000577 | -.001818 | .023248 |
| 31 | .008928 | -.032316 | .002292 | .000409 | -.010427 | .018275 |
| 32 | .012503 | -.026166 | .006991 | .004080 | -.009956 | .016463 |
| 33 | .014606 | -.029089 | .017900 | .007790 | -.006012 | .014105 |
| 34 | .011033 | -.030580 | .027922 | .007222 | -.003655 | .012203 |
| 35 | .008942 | -.035630 | .030428 | .013650 | -.000806 | .014203 |
| 36 | .012901 | -.042298 | .029451 | .018281 | .003670 | .017259 |
| 37 | .018721 | -.044925 | .026815 | .020174 | .005159 | .020176 |
| 38 | .020883 | -.044036 | .021526 | .022592 | .000564 | .023206 |
| 39 | .016870 | -.039271 | .014681 | .027149 | -.007940 | .025570 |
| 40 | .013209 | -.032323 | .007817 | .025478 | -.014650 | .032109 |
| 41 | .019473 | -.030806 | .006133 | .024618 | -.017488 | .035839 |
| 42 | .023080 | -.026880 | .007906 | .018225 | -.022149 | .030944 |
| 43 | .017873 | -.022785 | .006035 | .000609 | -.015818 | .01894 |
| 44 | .012121 | -.015883 | .003125 | -.014296 | -.014529 | .012794 |
| 45 | .008290 | -.006683 | .003172 | -.017098 | -.025759 | .009416 |
| 46 | .009938 | .001236 | .002205 | -.012480 | -.035520 | .007950 |
| 47 | .009610 | .006434 | -.001883 | -.002545 | -.043975 | .006254 |
| 48 | .009400 | .011668 | -.008414 | .000169 | -.044657 | -.001531 |
| 49 | .010097 | .020500 | -.014381 | .003255 | -.038156 | -.012628 |
| 50 | .009401 | .023299 | -.018149 | .009667 | -.035346 | -.021900 |
| 51 | .011565 | .028413 | -.021049 | .020189 | -.031258 | -.030213 |
| 52 | .014199 | .031125 | -.026583 | .035003 | -.029086 | -.034769 |
| 53 | .009382 | .037872 | -.033448 | .048545 | -.032828 | -.038528 |
| 54 | .000480 | .051458 | -.038541 | .053993 | -.033266 | -.038803 |
| 55 | -.007757 | .060543 | -.044371 | .054921 | -.029125 | -.036947 |
| 56 | -.007249 | .062499 | -.051833 | .048898 | -.024717 | -.034006 |
| 57 | -.004929 | .058423 | -.061625 | .042847 | -.019020 | -.031800 |
| 58 | -.004615 | .050451 | -.064859 | .030225 | -.010543 | -.024959 |
| 59 | -.004064 | .040296 | -.055085 | .020290 | .001262 | -.017237 |
| 60 | -.008308 | .035366 | -.046449 | .012529 | .009185 | -.016532 |

RUN NC 100B 91M i-3-63 2235-2335(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.48730 10E 00 | 0.44403 10E 00 | 0.24087 10E 00 | 0.92837 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .862434 | .799713 | .721350 | .849588 |
| 2 | .686123 | .546112 | .421285 | .656446 |
| 3 | .538765 | .372365 | .238854 | .497222 |
| 4 | .411071 | .253603 | .118472 | .365901 |
| 5 | .298828 | .161440 | .034107 | .253493 |
| 6 | .205213 | .091374 | -.015288 | .160216 |
| 7 | .127499 | .030752 | -.050703 | .093302 |
| 8 | .064701 | -.021817 | -.078234 | .049622 |
| 9 | .014906 | -.069279 | -.094009 | .010477 |
| 10 | -.025019 | -.108460 | -.113331 | -.027454 |
| 11 | -.056981 | -.133717 | -.130328 | -.054007 |
| 12 | -.089990 | -.152216 | -.136080 | -.081419 |
| 13 | -.126351 | -.176641 | -.138770 | -.117538 |
| 14 | -.158969 | -.186976 | -.131351 | -.146126 |
| 15 | -.184023 | -.175110 | -.112378 | -.167022 |
| 16 | -.212668 | -.162757 | -.111892 | -.180297 |
| 17 | -.243234 | -.167125 | -.113808 | -.192944 |
| 18 | -.262042 | -.171478 | -.115238 | -.210827 |
| 19 | -.265863 | -.166184 | -.129233 | -.230727 |
| 20 | -.265943 | -.163546 | -.132704 | -.244178 |
| 21 | -.263738 | -.164439 | -.137629 | -.263365 |
| 22 | -.256934 | -.163664 | -.145021 | -.271731 |
| 23 | -.248578 | -.163411 | -.141322 | -.264892 |
| 24 | -.239393 | -.164280 | -.137478 | -.253056 |
| 25 | -.224042 | -.161601 | -.124203 | -.240917 |
| 26 | -.205476 | -.161011 | -.110759 | -.229556 |
| 27 | -.188699 | -.152282 | -.097835 | -.211226 |
| 28 | -.168742 | -.145718 | -.090018 | -.192638 |
| 29 | -.146641 | -.139992 | -.083405 | -.176402 |
| 30 | -.118484 | -.103429 | -.049301 | -.146597 |
| 31 | -.085102 | -.056760 | .002360 | -.107022 |
| 32 | -.056512 | -.016905 | .018144 | -.067141 |
| 33 | -.036283 | .013408 | .027414 | -.043115 |
| 34 | -.020063 | .026998 | .038343 | -.024455 |
| 35 | -.000799 | .028037 | .054745 | -.003207 |
| 36 | .012420 | .019861 | .063104 | .008460 |
| 37 | .021373 | .024278 | .066585 | .009324 |
| 38 | .017765 | .034159 | .058050 | .014174 |
| 39 | .006573 | .038623 | .041153 | .021129 |
| 40 | -.000070 | .028240 | .019025 | .027712 |
| 41 | -.005303 | .019568 | .006462 | .039726 |
| 42 | -.008835 | .025293 | .007610 | .052115 |
| 43 | -.006690 | .032746 | .028897 | .066266 |
| 44 | -.003290 | .034924 | .039264 | .072335 |
| 45 | -.004738 | .029859 | .047219 | .067838 |
| 46 | -.006521 | .016118 | .056302 | .063728 |
| 47 | -.010291 | .011106 | .061487 | .070015 |
| 48 | -.012860 | .024611 | .065799 | .079133 |
| 49 | -.009159 | .045084 | .063250 | .082401 |
| 50 | -.005388 | .062551 | .054675 | .078390 |
| 51 | -.010606 | .063573 | .044214 | .068271 |
| 52 | -.016812 | .056301 | .036643 | .059229 |
| 53 | -.010872 | .047512 | .024613 | .040435 |
| 54 | -.005175 | .041767 | .011436 | .014673 |
| 55 | .006096 | .031096 | -.011071 | -.010184 |
| 56 | .021022 | .017869 | -.024776 | -.022938 |
| 57 | .030322 | .013424 | -.018376 | -.027515 |
| 58 | .036837 | .014617 | -.014487 | -.028050 |
| 59 | .041328 | .003824 | -.011019 | -.031204 |
| 60 | .048139 | -.013533 | -.014034 | -.036029 |
| | | 139 | | |

RUN NC 1008 91M 7-3-63 2235-2335(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .001286 | -.012261 | .065392 | .003104 | .010629 | -.015465 |
| 1 | .025015 | -.101021 | .601390 | .141710 | .091622 | -.140931 |
| 2 | .113486 | -.176730 | .773383 | -.283480 | .190361 | -.242064 |
| 3 | .163952 | -.253136 | .833072 | -.817772 | .263580 | -.330156 |
| 4 | .033560 | -.174905 | .534508 | -.345364 | .121718 | -.232644 |
| 5 | -.037115 | -.080016 | .280924 | .077452 | .019618 | -.115647 |
| 6 | .019557 | -.070748 | .217276 | -.232214 | .060434 | -.102103 |
| 7-8 | .058106 | -.069235 | .185950 | -.396881 | .107076 | -.115730 |
| 9-11 | .010505 | -.036663 | .085358 | -.023279 | .025384 | -.075461 |
| 12-15 | .006294 | -.027030 | .042895 | -.106429 | .012355 | -.045924 |
| 16-20 | .005436 | -.005518 | .013759 | -.054814 | .007763 | -.020845 |
| 21-27 | -.001156 | -.003911 | .004141 | -.026477 | .005538 | -.010515 |
| 28-36 | .001143 | -.004409 | .003739 | -.013143 | .001209 | -.009539 |
| 37-47 | .001177 | -.001072 | .000523 | -.002802 | .000621 | -.005320 |
| 48-60 | .000402 | -.000661 | -.000017 | -.002184 | -.000400 | -.003375 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .301460 | -.187008 | .115858 | -.154813 | -.214646 | .036393 |
| 2 | -.071451 | .207089 | .069269 | -.226036 | -.011260 | -.299677 |
| 3 | -.215871 | .233310 | .055848 | -.182946 | -.139068 | -.305016 |
| 4 | -.168689 | -.123873 | .071187 | -.147054 | .062008 | .010021 |
| 5 | -.055168 | -.076383 | .055652 | -.230952 | .239328 | .056983 |
| 6 | .164648 | .107994 | .036363 | -.199359 | .172619 | .127611 |
| 7-8 | .156990 | .140607 | .010416 | .028510 | .051572 | .117897 |
| 9-11 | -.099581 | -.094754 | .005882 | -.045210 | .191958 | .064571 |
| 12-15 | .020632 | .015358 | -.002058 | .040235 | .038996 | .016582 |
| 16-20 | .020658 | -.025418 | .000235 | -.005592 | .024290 | .011634 |
| 21-27 | -.016199 | -.044246 | .003700 | -.022443 | .006822 | .020977 |
| 28-36 | -.007614 | -.007869 | .000979 | -.013039 | -.019340 | .019712 |
| 37-47 | -.005568 | -.003483 | -.000042 | .005768 | -.006732 | .009328 |
| 48-60 | -.002934 | .000344 | -.000109 | -.000695 | -.002717 | .003667 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .060434 | .022417 | .004909 | .010054 |
| 1 | .603313 | .314754 | .093668 | .102966 |
| 2 | .779956 | .497653 | .183254 | .144024 |
| 3 | .859793 | .612242 | .256001 | .156475 |
| 4 | .589913 | .467091 | .206895 | .097463 |
| 5 | .326170 | .332265 | .152133 | .058071 |
| 6 | .253679 | .305274 | .151385 | .052085 |
| 7-8 | .216400 | .227838 | .143014 | .046872 |
| 9-11 | .144220 | .134282 | .089126 | .028475 |
| 12-15 | .066908 | .100513 | .069059 | .016763 |
| 16-20 | .042308 | .064269 | .044405 | .008140 |
| 21-27 | .027392 | .042605 | .030517 | .005690 |
| 28-36 | .017706 | .026561 | .020250 | .003856 |
| 37-47 | .011615 | .015033 | .013282 | .002267 |
| 48-60 | .007327 | .008727 | .008150 | .001547 |

RUN NC 100B 91M 7-3-63 2235-2335(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.35059 10E 00 | 0.23167 10E 00 | 0.67124 10E-01 | 0.15343 10E 00 | 0.44453 10E-01 | 0.29375 10E-01 |
| 0 | .099728 | -.50707 | .792302 | -.098961 | .195528 | -.510445 |
| 1 | .066607 | -.24622 | .418232 | -.018105 | .079273 | -.188034 |
| 2 | -.005733 | -.063160 | .154901 | .040244 | -.011686 | -.003855 |
| 3 | -.031273 | -.064319 | .074338 | -.019770 | -.023242 | -.039094 |
| 4 | .070647 | -.033102 | -.023935 | -.109648 | .050003 | .009198 |
| 5 | .026251 | .065662 | -.078576 | .048513 | -.025991 | .048840 |
| 6 | -.067093 | .119175 | -.139071 | .076187 | -.054625 | .125818 |
| 7 | .025770 | .135125 | -.135700 | .018919 | .044648 | .125168 |
| 8 | .048058 | .119665 | -.165814 | .003554 | .026488 | .049143 |
| 9 | .047445 | .116221 | -.183209 | -.091662 | .080351 | .044262 |
| 10 | -.040945 | .108357 | -.162711 | .000618 | -.007853 | .065665 |
| 11 | -.025132 | .077686 | -.102659 | .005712 | -.064983 | .027999 |
| 12 | -.026704 | .092928 | -.070690 | .047010 | -.031615 | .077505 |
| 13 | .028059 | .033662 | .001096 | -.016735 | -.043042 | .004178 |
| 14 | .039851 | -.057468 | .090070 | .062670 | .020011 | -.044349 |
| 15 | -.043243 | -.026459 | .056245 | -.003454 | .037112 | -.025233 |
| 16 | -.047495 | -.091708 | .050802 | -.007701 | -.027548 | -.035929 |
| 17 | -.032117 | -.101717 | .050557 | .021888 | -.077803 | -.031755 |
| 18 | -.005948 | -.069119 | .041336 | -.004914 | -.040117 | -.080367 |
| 19 | -.021148 | -.044888 | .053145 | .018811 | -.039560 | -.033384 |
| 20 | .009242 | -.022757 | -.034417 | -.025495 | -.001561 | -.005397 |
| 21 | -.079959 | .045053 | -.045217 | -.020219 | -.050633 | .024466 |
| 22 | -.037191 | -.002913 | -.053727 | -.016698 | -.004958 | .035983 |
| 23 | .024488 | .003222 | -.072876 | .055180 | .008436 | .013783 |
| 24 | -.040953 | .077342 | -.074291 | .066744 | -.021037 | .075806 |
| 25 | .010739 | .108250 | -.129896 | -.005379 | .037566 | .066866 |
| 26 | .008044 | .100607 | -.116407 | -.003907 | -.027463 | .089613 |
| 27 | -.054585 | .075705 | -.099663 | .007455 | -.033096 | .048238 |
| 28 | -.020479 | .112541 | -.125379 | .032059 | .006056 | .115402 |
| 29 | .021587 | .024311 | -.049452 | -.078895 | .031703 | .018845 |
| 30 | .011972 | .032201 | .007379 | .031456 | .017153 | -.010927 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|---------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-03 | 10E-02 |
| 0 | .116138 | -.007607 | .059237 | -.012269 | .136711 | -.008129 |
| 1 | .693003 | -.053991 | .370804 | -.116314 | .968393 | -.055583 |
| 2 | .414855 | -.088049 | .429394 | -.101174 | .710470 | -.077010 |
| 3 | .129862 | -.172716 | .696296 | -.077401 | .306236 | -.150488 |
| 4 | .110906 | -.170395 | .737321 | -.043694 | .234075 | -.164808 |
| 5 | .173651 | -.084370 | .447633 | -.071557 | .420307 | -.107265 |
| 6 | .167010 | -.050494 | .258220 | -.156370 | .503885 | -.086786 |
| 7 | .217026 | -.054377 | .238742 | -.095654 | .791255 | -.081184 |
| 8 | .283734 | -.044607 | .261719 | .043825 | .953879 | -.059107 |
| 9-11 | .025879 | -.028840 | .203222 | .154372 | .023517 | -.035974 |
| 12-14 | .522980 | -.049774 | .156823 | -.234841 | .701673 | -.079858 |
| 15-21 | .018519 | -.038986 | .130067 | -.163861 | .382749 | -.056027 |
| 22-30 | -.001640 | -.017271 | .089424 | .016639 | .076516 | -.034804 |

RUN NC 1008 91M 7-3-63 2235-2335(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.35059 10E 00 | 0.23167 10E 00 | 0.67124 10E-01 | 0.15343 10E 00 | 0.44453 10E-01 | 0.29375 10E-01 |
| 1 | .000106 | -.029968 | .066435 | -.097817 | -.005527 | .011511 |
| 2 | .013954 | -.026173 | .072235 | .005144 | -.029015 | .028585 |
| 3 | .039234 | -.046486 | .078640 | -.027056 | -.042409 | .017417 |
| 4 | .024157 | -.021672 | .061376 | .023393 | -.058013 | .041669 |
| 5 | -.019105 | .024941 | .019364 | .005915 | -.035597 | -.009929 |
| 6 | -.030174 | .066024 | -.004078 | -.002672 | .004914 | -.042430 |
| 7 | -.058170 | .037106 | .021370 | -.102867 | .048287 | -.008160 |
| 8 | -.028423 | -.023596 | .030716 | -.041302 | .091733 | .002158 |
| 9 | .059746 | -.023705 | .013930 | .021694 | -.056571 | .008236 |
| 10 | .112119 | -.017274 | -.001049 | .084495 | -.136855 | .001011 |
| 11 | .040516 | .039640 | -.024313 | .006018 | -.026880 | -.031640 |
| 12 | .009626 | -.011265 | .013293 | -.009149 | .021861 | -.037981 |
| 13 | .054526 | -.060222 | -.000838 | .050838 | -.026647 | .091334 |
| 14 | .038232 | -.043403 | -.042167 | .025657 | -.057788 | .058589 |
| 15 | .029589 | -.019290 | -.017498 | .086086 | -.040982 | .022081 |
| 16 | .023891 | -.019348 | .014294 | -.014689 | .018317 | -.034665 |
| 17 | .041925 | .008235 | -.030181 | -.016801 | -.002870 | -.025138 |
| 18 | -.023435 | -.028978 | .012494 | -.018012 | .033290 | .010518 |
| 19 | -.070414 | -.018444 | .043547 | .036526 | .055873 | -.036431 |
| 20 | -.079307 | .040085 | .013183 | .020527 | .088300 | -.061159 |
| 21 | -.072168 | .013012 | .031176 | -.029679 | .052296 | .000678 |
| 22 | -.042343 | .018222 | -.019853 | -.060640 | .007250 | .031508 |
| 23 | -.025141 | .064957 | -.024714 | -.026903 | -.028991 | -.019836 |
| 24 | .017277 | .083693 | .008240 | .039565 | -.034768 | -.095189 |
| 25 | .014705 | .016702 | .012651 | -.006249 | .010801 | .037554 |
| 26 | -.025778 | -.018782 | -.001934 | .007131 | .045834 | .059381 |
| 27 | -.056630 | .007472 | -.045295 | -.024583 | .082237 | .008531 |
| 28 | .020954 | .032782 | -.041251 | .000875 | .021716 | -.045665 |
| 29 | .008813 | .032185 | -.072408 | -.078002 | .031944 | -.005257 |
| 30 | .021543 | -.050942 | -.036927 | .017418 | .003298 | .025690 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 |
| 1 | .471417 | -.127821 | .066583 | .074285 | -.527071 | .036779 |
| 2 | .332873 | -.034171 | .077517 | -.041257 | -.541646 | .072176 |
| 3 | -.283804 | .150416 | .115164 | -.192498 | -.071372 | -.040180 |
| 4 | -.413760 | -.004690 | .115856 | -.149975 | .143910 | .008822 |
| 5 | .210755 | -.222954 | .071254 | .020356 | -.484882 | .299183 |
| 6 | .410987 | -.224567 | .068055 | .079305 | -.759806 | .301132 |
| 7 | .420924 | -.246159 | .090213 | .043999 | -.478950 | .059443 |
| 8 | .533241 | -.233368 | .070853 | -.046195 | -.432795 | .024496 |
| 9-11 | -.245143 | -.113930 | .043245 | -.235911 | .566694 | .115187 |
| 12-14 | -.036450 | .184390 | -.020719 | -.017565 | -.283792 | -.165485 |
| 15-21 | -.028794 | -.066877 | .024364 | -.110621 | .037072 | .074691 |
| 22-3C | .000047 | -.019569 | .001039 | -.149429 | .068255 | -.084070 |

RUN NC 1008 91M 7-3-63 2235-2335(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.52938 10E 00 | 0.23218 10E 00 | 0.10139 10E 00 | 0.85110 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .525246 | .035824 | .042328 | .421058 |
| 2 | .191570 | -.125756 | -.007030 | .088966 |
| 3 | .106361 | -.083890 | .020387 | .007396 |
| 4 | -.039784 | -.095394 | .021814 | -.043250 |
| 5 | -.109404 | .005831 | -.022025 | -.070177 |
| 6 | -.145708 | -.066093 | -.107026 | -.168896 |
| 7 | -.175234 | -.007438 | -.082237 | -.145762 |
| 8 | -.261001 | -.074798 | -.134096 | -.109006 |
| 9 | -.265351 | .059356 | -.112835 | -.116878 |
| 10 | -.230073 | -.066712 | -.142112 | -.107604 |
| 11 | -.165842 | -.001326 | -.036085 | -.069945 |
| 12 | -.081199 | -.057168 | -.127605 | -.056448 |
| 13 | .004161 | .024834 | -.073761 | .029628 |
| 14 | .075294 | -.006693 | -.006964 | .053804 |
| 15 | .083637 | -.008578 | -.036318 | .011099 |
| 16 | .134450 | .045329 | .164560 | .005949 |
| 17 | .154320 | -.001372 | -.007636 | -.002882 |
| 18 | .122173 | .012916 | .162908 | .035335 |
| 19 | .086261 | -.021040 | .057741 | .019833 |
| 20 | -.043680 | -.057718 | .060514 | -.065589 |
| 21 | -.054705 | -.034359 | .032650 | -.019427 |
| 22 | -.076565 | -.003142 | .009657 | .013544 |
| 23 | -.129546 | -.063965 | .059912 | .008646 |
| 24 | -.121148 | .056244 | -.048738 | -.066216 |
| 25 | -.209319 | .018997 | -.078874 | -.109926 |
| 26 | -.203001 | -.107364 | -.051562 | -.081232 |
| 27 | -.135432 | -.056527 | -.108526 | -.068034 |
| 28 | -.161899 | -.012237 | -.113847 | -.081589 |
| 29 | -.098587 | .030651 | .022078 | -.013960 |
| 30 | .009276 | -.004872 | -.065414 | .052485 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-03 |
| 0 | .053884 | .005343 | .021180 | .078863 |
| 1 | .331042 | .043922 | .178998 | .492663 |
| 2 | .412258 | .047601 | .414369 | .557684 |
| 3 | .746420 | .068737 | .776900 | .804136 |
| 4 | .777472 | .088614 | .634971 | .850467 |
| 5 | .403768 | .086745 | .303881 | .666390 |
| 6 | .224542 | .088410 | .283801 | .508617 |
| 7 | .241913 | .109432 | .328782 | .443660 |
| 8 | .249918 | .113310 | .288794 | .428615 |
| 9-11 | .223499 | .108369 | .340071 | .341729 |
| 12-14 | .135381 | .121058 | .412780 | .354576 |
| 15-21 | .139543 | .105115 | .466590 | .236097 |
| 22-30 | .082477 | .123661 | .588145 | .202975 |

RUV NC 1008 46M 7-3-63 2235-2335(EST)
 RUN NC 1008 91M 7-3-63 2235-2335(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .395489 | .018917 | .309116 | .518493 |
| 1 | .428315 | .566017 | .327825 | .547804 |
| 2 | .396824 | .504063 | .207529 | .532817 |
| 3 | .322283 | .417664 | .106119 | .505478 |
| 4 | .218707 | .330065 | .072513 | .408894 |
| 5 | .159168 | .348578 | .113330 | .250397 |
| 6 | .041282 | .371397 | .189576 | .148534 |
| 7-8 | .071560 | .204970 | .265020 | .199724 |
| 9-11 | .076910 | .130306 | .087194 | .161397 |
| 12-15 | .121561 | .068382 | .095717 | .095457 |
| 16-20 | .072183 | .098741 | .126774 | .106631 |
| 21-27 | .081691 | .125797 | .110080 | .071942 |
| 28-36 | .086031 | .089462 | .097642 | .116685 |
| 37-47 | .107837 | .099798 | .102651 | .099423 |
| 48-60 | .111110 | .094656 | .099734 | .111120 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 01 | 10E 00 | 10E 00 | 10E 01 |
| 0 | .104043 | .104522 | .145963 | .100837 |
| 1 | .083883 | .109695 | .491642 | .084643 |
| 2 | .050899 | .242003 | .309085 | .054669 |
| 3 | .044695 | .472135 | .261702 | .058242 |
| 4 | .059520 | .575144 | .301102 | .069871 |
| 5 | .062261 | .664378 | .396918 | .072944 |
| 6 | .018966 | .588547 | .097114 | .063260 |
| 7 | .014573 | .569206 | .144046 | .046279 |
| 8 | .052148 | .564955 | .371226 | .056093 |
| 9-11 | .038778 | .636159 | .530113 | .043289 |
| 12-14 | .047732 | .376663 | .311299 | .053008 |
| 15-21 | .039406 | .411688 | .216371 | .051462 |
| 22-30 | .026976 | .264939 | .266450 | .028249 |

RUN NO 101A 15M 7-4-63 0814-0930(EST)

GROSS STATISTICS

I CU
UNSTABLE WIND SPEED 5.59 M/SEC SIGMA A 14.9 DEG
 WIND DIRECTION 284 DEG SIGMA E 7.8 DEG
 SOLAR RAD. 1.05 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.21777E 01 | 0.20444E 01 | 0.12252E 01 | 0.15083E 01 |
| V | 0.19820E 01 | 0.16056E 01 | 0.80335E 00 | 0.11929E 01 |
| W | 0.45769E-00 | 0.46308E-00 | 0.42638E-00 | 0.18793E-00 |
| T | 0.72156E 00 | 0.12703E-00 | 0.40174E-01 | 0.11002E-00 |
| E | 0.23087E 01 | 0.20566E 01 | 0.12280E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.26399 | 0.25578 | 0.19809 | 0.21970 |
| V | 0.25185 | 0.22668 | 0.15034 | 0.19538 |
| W | 0.17102 | 0.12173 | 0.11681 | 0.07755 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.37772E-00 | -0.28638E-00 | 0.24755E-01 | -0.30193E-00 |
| U,W | -0.38765E-00 | -0.39528E-00 | -0.31358E-00 | -0.27649E-00 |
| U,T | -0.44038E-00 | -0.27594E-00 | -0.12535E-00 | -0.22725E-00 |
| V,W | -0.22327E-01 | -0.16186E-01 | -0.14314E-01 | -0.77274E-02 |
| V,T | 0.16859E-00 | 0.78880E-01 | 0.24295E-01 | 0.65248E-01 |
| W,T | 0.62682E-01 | 0.30109E-01 | 0.21678E-01 | 0.26123E-01 |
| WE | 0.10262E-00 | 0.84749E-01 | 0.12098E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.18181 | -0.15807 | 0.02494 | -0.22510 |
| U,W | -0.38829 | -0.40625 | -0.43382 | -0.51934 |
| U,T | -0.35131 | -0.54147 | -0.56478 | -0.55786 |
| V,W | -0.02344 | -0.01877 | -0.02446 | -0.01632 |
| V,T | 0.14098 | 0.17466 | 0.13524 | 0.18010 |
| W,T | 0.10907 | 0.12414 | 0.16563 | 0.18167 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.99237 10E 00 | 0.72297 10E 00 | 0.22192 10E 00 | 0.58522 10E 00 | 0.17964 10E 00 | 0.13087 10E 00 |
| 0 | .024664 | -.433760 | -.564944 | -.024267 | .135153 | .165451 |
| 1 | .018609 | -.391313 | -.509217 | -.020675 | .112523 | .172339 |
| 2 | .004778 | -.320000 | -.428876 | -.011839 | .086142 | .151190 |
| 3 | -.009428 | -.256665 | -.356921 | -.003349 | .067995 | .138810 |
| 4 | -.020075 | -.201860 | -.300077 | -.004080 | .056589 | .117736 |
| 5 | -.024889 | -.160881 | -.252485 | -.007642 | .044069 | .098081 |
| 6 | -.020643 | -.123414 | -.209166 | -.008839 | .030528 | .083515 |
| 7 | -.020622 | -.087079 | -.165694 | -.010270 | .024191 | .071767 |
| 8 | -.020409 | -.050628 | -.122952 | -.010526 | .020814 | .045726 |
| 9 | -.018350 | -.018660 | -.080881 | -.008953 | .015492 | .026898 |
| 10 | -.015546 | .005590 | -.042560 | -.016664 | .009755 | .012986 |
| 11 | -.007633 | .019891 | -.003199 | -.021212 | .001626 | -.000019 |
| 12 | .000686 | .034672 | .029315 | -.022085 | -.005218 | -.013902 |
| 13 | .007434 | .061656 | .054964 | -.018535 | -.013668 | -.038570 |
| 14 | .016591 | .092709 | .077170 | -.025971 | -.015653 | -.059210 |
| 15 | .022553 | .111203 | .092036 | -.028735 | -.016194 | -.067653 |
| 16 | .024882 | .127321 | .106094 | -.016561 | -.014971 | -.071503 |
| 17 | .023885 | .140465 | .119318 | -.008301 | -.016107 | -.073011 |
| 18 | .019533 | .141571 | .126539 | -.003675 | -.020163 | -.067948 |
| 19 | .013575 | .140150 | .135674 | -.008015 | -.021310 | -.058839 |
| 20 | .004954 | .138214 | .143360 | .023001 | -.017546 | -.050385 |
| 21 | .001936 | .138999 | .152441 | .027206 | -.016122 | -.051987 |
| 22 | .001544 | .136622 | .162916 | .026234 | -.017669 | -.051791 |
| 23 | -.003910 | .133064 | .168777 | .022249 | -.015446 | -.048557 |
| 24 | -.014787 | .128276 | .170901 | .030173 | -.013756 | -.046984 |
| 25 | -.024033 | .123487 | .168658 | .036759 | -.018486 | -.041884 |
| 26 | -.022344 | .116782 | .164740 | .034740 | -.027485 | -.038727 |
| 27 | -.016409 | .111630 | .152322 | .030617 | -.031750 | -.036222 |
| 28 | -.013052 | .105839 | .139581 | .031132 | -.038096 | -.033228 |
| 29 | -.010150 | .094324 | .129589 | .037137 | -.043452 | -.030434 |
| 30 | -.008486 | .070700 | .116563 | .047158 | -.040837 | -.023412 |
| 31 | -.003965 | .045747 | .101010 | .049932 | -.042176 | -.018118 |
| 32 | -.007017 | .024553 | .083320 | .046533 | -.041979 | -.017714 |
| 33 | -.014787 | .008808 | .068495 | .040919 | -.035162 | -.014893 |
| 34 | -.019343 | .000862 | .053950 | .035644 | -.021743 | -.011118 |
| 35 | -.025851 | .000450 | .044078 | .032991 | -.010502 | -.014093 |
| 36 | -.034879 | .003051 | .037553 | .035342 | .003707 | -.016582 |
| 37 | -.039709 | .000921 | .030035 | .033200 | .015948 | .019873 |
| 38 | -.043447 | -.004029 | .022601 | .024774 | .027531 | -.022578 |
| 39 | -.043240 | -.010263 | .023658 | .012281 | .033531 | -.025866 |
| 40 | -.039903 | -.019747 | .025552 | .000251 | .036721 | -.017914 |
| 41 | -.031612 | -.032717 | .026087 | -.015611 | .038097 | -.008328 |
| 42 | -.023317 | -.039499 | .026777 | -.023904 | .034185 | .001983 |
| 43 | -.012999 | -.038908 | .026301 | -.029835 | .025614 | .000064 |
| 44 | -.008329 | -.038970 | .030482 | -.034752 | .021474 | .001704 |
| 45 | -.000738 | -.032544 | .034542 | -.043809 | .018959 | -.000197 |
| 46 | .008950 | -.025198 | .041458 | -.057355 | .015801 | -.010181 |
| 47 | .022047 | -.014416 | .042897 | -.059573 | .003264 | -.021153 |
| 48 | .028725 | -.005714 | .042703 | -.054521 | -.005105 | -.024788 |
| 49 | .031165 | .001802 | .044907 | -.047262 | -.007406 | -.027758 |
| 50 | .035699 | .010104 | .044627 | -.036507 | -.007409 | .026745 |
| 51 | .039803 | .020723 | .041711 | -.027178 | -.014957 | -.020988 |
| 52 | .043806 | .021559 | .036409 | -.021757 | -.026126 | -.023609 |
| 53 | .045507 | .012012 | .025745 | -.027567 | -.030939 | -.029744 |
| 54 | .045545 | -.006759 | .024241 | -.035710 | -.028056 | -.028813 |
| 55 | .045095 | -.023679 | .024173 | -.041328 | -.019920 | -.022954 |
| 56 | .044813 | -.029030 | .021568 | -.036525 | -.014727 | -.017561 |
| 57 | .044263 | -.026086 | .016245 | -.037857 | -.017103 | -.019978 |
| 58 | .042374 | -.023120 | .004169 | -.035343 | -.022140 | -.025088 |
| 59 | .042511 | -.027586 | -.011011 | -.028564 | -.026133 | -.019708 |
| 60 | .037106 | -.030134 | -.026311 | -.014123 | -.028159 | -.002414 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.99237 10E 00 | 0.72297 10E 00 | 0.22192 10E 00 | 0.58522 10E 00 | 0.17964 10E 00 | 0.13087 10E 00 |
| 1 | .015166 | -.056076 | -.037531 | -.009103 | .005638 | -.013341 |
| 2 | .036566 | -.084583 | -.066285 | -.005365 | .014088 | -.015877 |
| 3 | .058113 | -.089035 | -.089039 | .002703 | .020317 | -.006341 |
| 4 | .076244 | -.082611 | -.107946 | .010802 | .031313 | .013086 |
| 5 | .090062 | -.066613 | -.124056 | .015563 | .047013 | .033184 |
| 6 | .100361 | -.057137 | -.136282 | .025891 | .054902 | .040115 |
| 7 | .104575 | -.051977 | -.143798 | .034701 | .056124 | .050528 |
| 8 | .105010 | -.046626 | -.153626 | .038981 | .051951 | .055126 |
| 9 | .099431 | -.037222 | -.164914 | .038700 | .046823 | .055416 |
| 10 | .096495 | -.026708 | -.168578 | .039907 | .039489 | .050928 |
| 11 | .094228 | -.010822 | -.163487 | .045018 | .036307 | .047590 |
| 12 | .091964 | -.006126 | -.158983 | .046246 | .036605 | .046116 |
| 13 | .081472 | -.006267 | -.153837 | .042041 | .029987 | .049922 |
| 14 | .073392 | -.001190 | -.151344 | .037806 | .025368 | .057432 |
| 15 | .065140 | -.000530 | -.143445 | .037247 | .021083 | .055755 |
| 16 | .054029 | -.004017 | -.132287 | .023837 | .017484 | .052183 |
| 17 | .038095 | -.002653 | -.123905 | .006643 | .016591 | .056236 |
| 18 | .028278 | .001028 | -.111950 | .003295 | .012060 | .050177 |
| 19 | .023576 | -.001781 | -.100705 | .007743 | .010247 | .031814 |
| 20 | .024898 | -.014034 | -.090803 | .005037 | .008697 | .017192 |
| 21 | .024627 | -.025585 | -.076978 | -.000314 | .011685 | .006085 |
| 22 | .016007 | -.030739 | -.056986 | -.012558 | .012836 | -.005710 |
| 23 | -.001666 | -.030306 | -.037538 | -.021157 | .007938 | -.011810 |
| 24 | -.018547 | -.025070 | -.028403 | -.029283 | -.000550 | -.010858 |
| 25 | -.039265 | -.016282 | -.022265 | -.027892 | -.007773 | -.008926 |
| 26 | -.055101 | -.017113 | -.017805 | -.024295 | -.014174 | -.013707 |
| 27 | -.058296 | -.020661 | -.010295 | -.017137 | -.015094 | -.025013 |
| 28 | -.055231 | -.017645 | -.000830 | -.014265 | -.011741 | -.032868 |
| 29 | -.055252 | -.007330 | .001859 | -.017620 | -.013884 | -.028150 |
| 30 | -.048970 | .007319 | .003674 | -.021913 | -.013368 | -.022166 |
| 31 | -.043139 | .017281 | .008592 | -.021884 | -.020530 | -.020101 |
| 32 | -.037686 | .018009 | .015593 | -.026390 | -.022197 | -.013673 |
| 33 | -.034186 | .014968 | .020283 | -.033194 | -.023633 | -.008189 |
| 34 | -.022791 | .010749 | .019754 | -.042773 | -.021891 | -.007382 |
| 35 | -.012011 | .002107 | .023116 | -.050420 | -.014313 | -.007144 |
| 36 | -.002675 | .000956 | .027988 | -.045813 | -.011263 | -.007956 |
| 37 | .010327 | .002822 | .027639 | -.028870 | -.001959 | -.012908 |
| 38 | .022099 | .005630 | .025757 | -.014748 | .013247 | -.012717 |
| 39 | .031779 | .011187 | .029040 | -.003215 | .032739 | -.010610 |
| 40 | .034207 | .015157 | .033126 | .001624 | .048746 | -.010014 |
| 41 | .044058 | .015682 | .037040 | .007746 | .059088 | -.011652 |
| 42 | .055911 | .018808 | .038086 | .014935 | .066816 | -.015895 |
| 43 | .058816 | .018414 | .039831 | .020392 | .065847 | -.022698 |
| 44 | .057874 | .020571 | .041072 | .029008 | .059517 | -.022539 |
| 45 | .057079 | .024509 | .045501 | .038027 | .046070 | -.014869 |
| 46 | .056231 | .022811 | .051504 | .042785 | .032273 | -.010125 |
| 47 | .048877 | .022415 | .051642 | .042402 | .015517 | -.006755 |
| 48 | .036193 | .018917 | .046646 | .042387 | .010391 | .000417 |
| 49 | .022269 | .014039 | .042883 | .036819 | .008102 | .000844 |
| 50 | .012481 | .016697 | .041203 | .024569 | .004726 | -.001223 |
| 51 | .004953 | .019581 | .043352 | .011927 | -.001598 | .001459 |
| 52 | -.002109 | .019749 | .047367 | -.002222 | -.005119 | .001458 |
| 53 | -.009059 | .015972 | .051722 | -.008303 | -.009508 | -.001735 |
| 54 | -.012119 | .011207 | .054948 | -.009984 | -.013877 | -.003703 |
| 55 | -.014933 | .010368 | .055502 | -.008717 | -.018144 | -.004034 |
| 56 | -.015451 | .002660 | .057240 | -.002225 | -.018958 | -.004887 |
| 57 | -.011302 | -.003166 | .057092 | -.000977 | -.018461 | -.008901 |
| 58 | -.007246 | -.004679 | .054818 | -.000267 | -.015234 | -.006706 |
| 59 | -.005704 | -.006179 | .049935 | .002861 | -.010046 | .000139 |
| 60 | -.008215 | -.012551 | .047678 | .012347 | -.014457 | -.006703 |

RUN NC 101A 154 7-4-63 0814-0930(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | I |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12260 10E 01 | 0.80329 10E 00 | 0.42634 10E 00 | 0.40173 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .860184 | .812164 | .686560 | .851314 |
| 2 | .688443 | .599187 | .385972 | .699049 |
| 3 | .551594 | .457865 | .216998 | .583641 |
| 4 | .446016 | .350339 | .118232 | .498939 |
| 5 | .357916 | .254114 | .057460 | .426250 |
| 6 | .280050 | .170295 | .035125 | .361599 |
| 7 | .203308 | .106912 | .011673 | .297321 |
| 8 | .130723 | .056551 | -.024991 | .240744 |
| 9 | .062618 | .021165 | -.071440 | .184077 |
| 10 | .000321 | -.000228 | -.090849 | .134274 |
| 11 | -.044814 | -.019352 | -.087466 | .083632 |
| 12 | -.094607 | -.046399 | -.083259 | .036875 |
| 13 | -.137281 | -.075436 | -.092122 | .000123 |
| 14 | -.174156 | -.095063 | -.097751 | -.039487 |
| 15 | -.196036 | -.102296 | -.104595 | -.074438 |
| 16 | -.216010 | -.104949 | -.116233 | -.106330 |
| 17 | -.239985 | -.117054 | -.110492 | -.132032 |
| 18 | -.257757 | -.135439 | -.102810 | -.156103 |
| 19 | -.266944 | -.154807 | -.109557 | -.175996 |
| 20 | -.276188 | -.161890 | -.114966 | -.195122 |
| 21 | -.287962 | -.178610 | -.121634 | -.213025 |
| 22 | -.289162 | -.194558 | -.144630 | -.232329 |
| 23 | -.284835 | -.202247 | -.152613 | -.250867 |
| 24 | -.278881 | -.207989 | -.154247 | -.267127 |
| 25 | -.270841 | -.213176 | -.159019 | -.280349 |
| 26 | -.259001 | -.219030 | -.153143 | -.282154 |
| 27 | -.239453 | -.212590 | -.153833 | -.275768 |
| 28 | -.215706 | -.193467 | -.144805 | -.272448 |
| 29 | -.188256 | -.171415 | -.118781 | -.272126 |
| 30 | -.151214 | -.143575 | -.085778 | -.253401 |
| 31 | -.109732 | -.110175 | -.043472 | -.222574 |
| 32 | -.067341 | -.094564 | -.004485 | -.196062 |
| 33 | -.032879 | -.081380 | .020264 | -.177417 |
| 34 | -.008281 | -.068069 | -.022634 | -.162921 |
| 35 | .007180 | -.048890 | .030409 | -.148915 |
| 36 | .012322 | -.033250 | .025652 | -.141578 |
| 37 | .018398 | -.021179 | .025679 | -.122895 |
| 38 | .024801 | -.013031 | .028620 | -.104433 |
| 39 | .026849 | -.006390 | .032249 | -.097022 |
| 40 | .021911 | .002630 | .035349 | -.092129 |
| 41 | .018264 | .003332 | .038147 | -.085489 |
| 42 | .018977 | -.012194 | .031835 | -.081632 |
| 43 | .023998 | -.025635 | .019939 | -.082694 |
| 44 | .021975 | -.033917 | .014225 | -.085322 |
| 45 | .016987 | -.039528 | .022690 | -.080024 |
| 46 | .007428 | -.043052 | .029087 | -.077283 |
| 47 | -.004728 | -.047335 | .034940 | -.069806 |
| 48 | -.013369 | -.047899 | .015867 | -.066907 |
| 49 | -.024383 | -.040633 | .009231 | -.059605 |
| 50 | -.035936 | -.030380 | .010691 | -.046288 |
| 51 | -.042335 | -.024633 | .010214 | -.034969 |
| 52 | -.045602 | -.017943 | .005780 | -.023670 |
| 53 | -.039162 | .001413 | .014014 | -.008981 |
| 54 | -.032814 | .019912 | .032668 | -.003578 |
| 55 | -.024251 | .026968 | .041272 | -.001595 |
| 56 | -.017613 | .033353 | .044010 | -.004165 |
| 57 | -.007500 | .039024 | .040236 | -.003449 |
| 58 | .007740 | .040239 | .029525 | .001919 |
| 59 | .021359 | .039890 | .022630 | .016507 |
| 60 | .029052 | .039830 | .022576 | .031166 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | -.255674 | -.031385 | -.029726 | .043265 | .075120 | .053380 |
| 1 | -.128989 | -.403871 | -.245750 | -.408368 | .388888 | .468902 |
| 2 | .161406 | -.584866 | -.262340 | -.780873 | .402012 | .523192 |
| 3 | -.580350 | -.654087 | -.240477 | -.198194 | .380740 | .540592 |
| 4 | -.466089 | -.407863 | -.142102 | .531341 | .171106 | .390382 |
| 5 | .165997 | -.204649 | -.072423 | .201143 | .155504 | .209038 |
| 6 | .311374 | -.151052 | -.058748 | .014655 | .204851 | .084173 |
| 7-8 | .792733 | -.110632 | -.039374 | -.140946 | .043585 | .010982 |
| 9-11 | .169686 | -.082731 | -.018749 | -.091290 | .071593 | .024634 |
| 12-15 | .142112 | -.035799 | -.016455 | -.032566 | .046720 | .014005 |
| 16-20 | .112745 | -.029838 | -.009874 | -.038335 | .017498 | .007548 |
| 21-27 | .021727 | -.011748 | -.005558 | -.042813 | .020668 | -.005569 |
| 28-36 | -.005415 | -.006689 | -.002680 | .006294 | .015490 | .001364 |
| 37-47 | .009389 | -.004670 | -.001718 | .009672 | .004230 | -.005276 |
| 48-60 | -.001561 | -.001425 | -.001194 | -.002555 | .005592 | -.007367 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .232079 | -.088665 | -.145057 | .012519 | .238593 | .173957 |
| 2 | .275016 | -.100122 | -.147937 | .060765 | .201001 | .254598 |
| 3 | .402208 | -.079304 | -.117070 | .104740 | .312003 | .260980 |
| 4 | .269152 | -.071036 | -.058889 | .047524 | .216330 | .118485 |
| 5 | .050371 | -.099867 | -.022434 | -.002304 | .044558 | -.021131 |
| 6 | .043889 | -.118133 | -.006873 | -.004492 | .107411 | -.076024 |
| 7-8 | .044498 | -.081945 | -.006384 | -.026698 | .031250 | -.016709 |
| 9-11 | -.009639 | -.041261 | -.003078 | -.007968 | -.018755 | -.028909 |
| 12-15 | -.003782 | -.027465 | -.002983 | -.004877 | -.021837 | -.048589 |
| 16-20 | -.003694 | -.021336 | -.001348 | -.001934 | -.008562 | -.013392 |
| 21-27 | -.001388 | -.003825 | .000043 | -.002793 | .007376 | -.008329 |
| 28-36 | -.001895 | -.002389 | -.000522 | -.002833 | .001906 | .004621 |
| 37-47 | -.001281 | -.001915 | -.000160 | -.000519 | -.004206 | -.002911 |
| 48-60 | -.000864 | .000720 | .000039 | -.000543 | .000135 | .001605 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .017748 | .013936 | .014529 | .124568 |
| 1 | .169388 | .108914 | .230971 | .893725 |
| 2 | .216288 | .118510 | .368311 | .841685 |
| 3 | .232389 | .112701 | .441473 | .648238 |
| 4 | .145626 | .071327 | .310517 | .332740 |
| 5 | .072841 | .046405 | .218705 | .187254 |
| 6 | .060019 | .048047 | .246613 | .169622 |
| 7-8 | .046061 | .039302 | .223139 | .121464 |
| 9-11 | .025294 | .022678 | .144911 | .075576 |
| 12-15 | .017809 | .014409 | .115557 | .053558 |
| 16-20 | .012138 | .008585 | .097052 | .037095 |
| 21-27 | .007414 | .007061 | .053746 | .025698 |
| 28-36 | .004456 | .004829 | .043146 | .015875 |
| 37-47 | .003000 | .002715 | .027545 | .011470 |
| 48-60 | .002012 | .001757 | .018585 | .008848 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13406 10E 01 | 0.53244 10E 00 | 0.40721 10E 00 | 0.47355 10E 00 | 0.36218 10E 00 | 0.14384 10E 00 |
| 0 | -.225219 | -.519293 | -.558064 | -.016318 | .180151 | .181607 |
| 1 | -.211531 | -.197671 | -.385077 | -.029230 | .140323 | .076005 |
| 2 | -.158433 | .013371 | -.215398 | -.015928 | .096683 | -.003410 |
| 3 | -.116398 | .055607 | -.103534 | .029697 | .041808 | -.028569 |
| 4 | -.069145 | .051321 | -.021837 | -.018391 | .012478 | -.052768 |
| 5 | .011201 | .102647 | .047192 | -.070153 | -.050314 | -.070611 |
| 6 | .052651 | .047212 | .059874 | -.034245 | -.092559 | -.027620 |
| 7 | .056589 | .065225 | .066406 | -.000342 | -.115375 | .016028 |
| 8 | .087067 | .062622 | .090992 | -.009290 | -.129843 | .032546 |
| 9 | .127374 | -.024005 | .118636 | -.024274 | -.145617 | .068458 |
| 10 | .125879 | .021338 | .125760 | .013338 | -.113920 | .053672 |
| 11 | .083779 | .047426 | .139405 | .031395 | -.080954 | .018491 |
| 12 | .051072 | .056794 | .162644 | .037535 | -.062807 | -.017447 |
| 13 | .035155 | .099789 | .213930 | .045513 | -.048076 | -.053346 |
| 14 | .010865 | .057027 | .194338 | .010507 | -.003018 | -.048592 |
| 15 | -.019273 | .034225 | .148538 | .039913 | .039766 | -.045025 |
| 16 | -.034501 | .033267 | .126287 | .022430 | .093545 | -.073666 |
| 17 | -.043302 | .027486 | .085294 | .043876 | .121683 | -.070573 |
| 18 | -.063494 | -.072047 | .031070 | .015607 | .139597 | -.033731 |
| 19 | -.044606 | -.075596 | -.008707 | .017611 | .125846 | -.021009 |
| 20 | -.008564 | -.094467 | -.044699 | .004003 | .104453 | .018785 |
| 21 | .023064 | -.066818 | -.051181 | -.014603 | .075229 | .016313 |
| 22 | .065457 | .014198 | -.026710 | -.073999 | .022296 | -.038195 |
| 23 | .092548 | .023059 | -.040352 | -.054603 | -.015162 | -.043264 |
| 24 | .112199 | -.005649 | -.065674 | -.035178 | -.041143 | -.013479 |
| 25 | .104258 | -.016590 | -.081275 | -.018705 | -.064209 | .018459 |
| 26 | .089796 | .012433 | -.088691 | -.014560 | -.070053 | .036942 |
| 27 | .072269 | -.089416 | -.112546 | .025475 | -.060873 | .094213 |
| 28 | .045028 | -.126378 | -.116573 | .016141 | -.039241 | .104485 |
| 29 | .000620 | -.042809 | -.130038 | .072519 | -.023140 | .097687 |
| 30 | -.002905 | .006509 | -.127622 | .055266 | -.013271 | .088572 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 0 | -.086258 | .004494 | -.001977 | -.067898 | -.007893 | -.013241 |
| 1 | -.566021 | -.046774 | -.255780 | -.528290 | -.036429 | .157648 |
| 2 | -.601418 | -.154875 | -.415102 | -.628790 | .070111 | .170549 |
| 3 | -.852201 | -.231041 | -.397245 | -.211415 | .234287 | -.007761 |
| 4 | -.714599 | -.171710 | -.202776 | .441940 | .191187 | -.013160 |
| 5 | -.211527 | -.168272 | -.156009 | .280194 | .047927 | .256488 |
| 6 | -.064351 | -.256053 | -.186991 | .121807 | .030460 | .462584 |
| 7 | -.060625 | -.231897 | -.156435 | .006846 | .025641 | .383965 |
| 8 | -.026889 | -.150339 | -.096054 | -.239894 | -.000147 | .216025 |
| 9-11 | -.027343 | -.125472 | -.067948 | -.199686 | .011066 | .080205 |
| 12-14 | .025912 | -.134264 | -.031737 | -.352328 | .004528 | .087725 |
| 15-21 | -.029039 | -.101291 | -.035813 | .265336 | .005160 | .098375 |
| 22-30 | .014807 | -.045905 | -.018381 | -.012930 | .005296 | .035880 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13406 10E 01 | 0.53244 10E 00 | 0.40721 10E 00 | 0.47356 10E 00 | 0.36218 10E 00 | 0.14384 10E 00 |
| 1 | .092535 | -.023395 | -.120837 | .031971 | .023917 | .051025 |
| 2 | .086333 | .018284 | -.139293 | .019894 | .018747 | .046409 |
| 3 | .051091 | .045010 | -.131180 | -.035603 | -.001388 | .029363 |
| 4 | .044409 | .074914 | -.1111974 | -.034752 | -.021744 | .024324 |
| 5 | .007130 | .110451 | -.086382 | -.014858 | -.049040 | .023402 |
| 6 | -.044284 | .084540 | -.079453 | -.035194 | -.069205 | .021181 |
| 7 | -.059117 | .077620 | -.098182 | -.050269 | -.058370 | .030871 |
| 8 | -.067418 | .102175 | -.100360 | -.056274 | -.016548 | .044439 |
| 9 | -.014451 | .070735 | -.090259 | -.027787 | .011883 | .067000 |
| 10 | .014049 | -.012892 | -.098321 | -.002912 | .022566 | .058122 |
| 11 | .028925 | .018194 | -.082030 | .016800 | .043566 | .062424 |
| 12 | .022694 | -.038185 | -.057149 | .008209 | .063015 | .013358 |
| 13 | .053916 | -.066438 | -.004580 | .030614 | .089249 | -.057748 |
| 14 | .088148 | -.116751 | .013362 | .071105 | .110940 | -.091143 |
| 15 | .076094 | -.101399 | .030666 | .053155 | .097920 | -.086642 |
| 16 | .068332 | -.101755 | .057822 | .045234 | .098955 | -.088147 |
| 17 | .057648 | -.054431 | .073864 | -.000553 | .085368 | -.076563 |
| 18 | .043789 | -.070912 | .065993 | .001385 | .072327 | -.064458 |
| 19 | .054595 | -.041752 | .034135 | .034059 | .062355 | -.029517 |
| 20 | .077264 | .000803 | .027856 | .047298 | .051268 | .012513 |
| 21 | .029336 | -.000393 | .018304 | .007642 | .028662 | .026817 |
| 22 | .000901 | -.000127 | .023504 | -.043880 | .020649 | .044469 |
| 23 | -.001220 | .046356 | .010975 | -.006834 | .019832 | .071536 |
| 24 | -.031105 | .083306 | .023656 | -.039301 | -.008024 | .046843 |
| 25 | -.055131 | .046094 | .025605 | -.002275 | -.048189 | .021108 |
| 26 | -.068933 | .074730 | -.000353 | .002036 | -.065223 | .034917 |
| 27 | -.096100 | .065048 | -.035663 | -.058232 | -.092669 | .049256 |
| 28 | -.113172 | .005448 | -.045235 | -.080493 | -.102517 | .040146 |
| 29 | -.043600 | .035965 | -.036073 | .007612 | -.084850 | .054170 |
| 30 | .005659 | .050102 | -.005941 | .042435 | -.059318 | .029558 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 1 | .311048 | .018147 | -.185452 | .028312 | .110637 | .043679 |
| 2 | -.025214 | .151919 | -.215799 | -.533645 | -.031030 | .262571 |
| 3 | -.133295 | .236317 | -.178465 | -.861835 | -.105360 | .376264 |
| 4 | .168169 | .074775 | -.061708 | -.217748 | -.031606 | -.010897 |
| 5 | .339382 | -.060830 | -.034054 | .380274 | .032037 | -.194060 |
| 6 | .340355 | -.052546 | -.075396 | .424788 | .043851 | .078922 |
| 7 | .259252 | -.022747 | -.087355 | .204889 | .035322 | .227859 |
| 8 | .145841 | -.018056 | -.060911 | .005023 | .030546 | .155988 |
| 9-11 | .041613 | -.025594 | -.037188 | .105785 | .012774 | .027849 |
| 12-14 | .089392 | -.029014 | -.018384 | .402983 | -.003025 | .060266 |
| 15-21 | .053364 | -.009711 | -.012127 | .050336 | .004264 | .025479 |
| 22-30 | .000453 | .003303 | -.002637 | -.039313 | .000462 | .010420 |

RUN NC 101A 15H 7-4-63 0814-0930(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.15073 10E 01 | 0.11924 10E 01 | 0.18808 10E 00 | 0.11001 10E 00 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .584992 | .683975 | .115114 | .802429 |
| 2 | .271533 | .454134 | -.054264 | .562857 |
| 3 | .132989 | .284862 | -.113206 | .347168 |
| 4 | .033407 | .137956 | -.077869 | .171673 |
| 5 | -.094156 | -.008235 | -.100971 | .024706 |
| 6 | -.119876 | -.094909 | -.025412 | -.077083 |
| 7 | -.150840 | -.209701 | -.075667 | -.159994 |
| 8 | -.181887 | -.295371 | -.115457 | -.245871 |
| 9 | -.198298 | -.314255 | -.074223 | -.266445 |
| 10 | -.214570 | -.320303 | -.027718 | -.335842 |
| 11 | -.246822 | -.359721 | -.005514 | -.360539 |
| 12 | -.236012 | -.331062 | -.048376 | -.382104 |
| 13 | -.281377 | -.288785 | -.128813 | -.388362 |
| 14 | -.247915 | -.227155 | -.007856 | -.331530 |
| 15 | -.143226 | -.161006 | -.059798 | -.275502 |
| 16 | -.093144 | -.045118 | -.030467 | -.219644 |
| 17 | -.026008 | -.023803 | -.039538 | -.154117 |
| 18 | .083948 | .094316 | .194107 | -.079205 |
| 19 | .139932 | .119182 | -.009348 | -.027836 |
| 20 | .151218 | .141091 | .045370 | .018830 |
| 21 | .107931 | .107813 | .070472 | .050720 |
| 22 | .049748 | .103629 | -.002085 | .055966 |
| 23 | .062272 | .086482 | .021570 | .075260 |
| 24 | .080554 | .026811 | -.028664 | .112069 |
| 25 | .097665 | .027972 | -.043954 | .157014 |
| 26 | .095620 | -.001425 | -.109880 | .183658 |
| 27 | .129715 | -.025799 | .101234 | .210683 |
| 28 | .093560 | -.023742 | .084799 | .235806 |
| 29 | .001415 | -.000666 | -.003199 | .263387 |
| 30 | -.045781 | -.026044 | -.031683 | .262208 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-01 |
| 0 | .006359 | .012916 | .002727 | .010671 |
| 1 | .116833 | .138478 | .030036 | .180135 |
| 2 | .209325 | .215284 | .057854 | .254604 |
| 3 | .248396 | .258670 | .089395 | .242862 |
| 4 | .146011 | .152935 | .079083 | .127524 |
| 5 | .089043 | .064641 | .082991 | .070402 |
| 6 | .107153 | .055760 | .117591 | .059878 |
| 7 | .097068 | .049713 | .111339 | .050166 |
| 8 | .059983 | .033732 | .081724 | .033846 |
| 9-11 | .048754 | .027773 | .085757 | .021829 |
| 12-14 | .037604 | .021597 | .091618 | .010780 |
| 15-21 | .034370 | .016536 | .079886 | .007961 |
| 22-30 | .018901 | .013531 | .083650 | .005457 |

RUN NO 101A 46M 7-4-63 0814-0930(EST)

GROSS STATISTICS

1 CU
UNSTABLE WIND SPEED 6.93 M/SEC SIGMA A 13.4 DEG
 WIND DIRECTION 290 DEG SIGMA E 7.8 DEG
 SOLAR RAD. 1.05 LY/MIN

WITH NO POINT WITH 301 POINT WITH 61 POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN RUNNING MEAN 10 PT BLOCK AVG

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| L | 0.20160E 01 | 0.17276E 01 | 0.83451E 00 | 0.14154E 01 |
| V | 0.23732E 01 | 0.17244E 01 | 0.84290E 00 | 0.13086E 01 |
| W | 0.63339E 00 | 0.59535E 00 | 0.46432E-00 | 0.34350E-00 |
| T | 0.35788E-00 | 0.45842E-01 | 0.17007E-01 | 0.38057E-01 |
| E | 0.25113E 01 | 0.20237E 01 | 0.10709E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|----------|---------|---------|---------|
| L | -0.20489 | 0.18966 | 0.13183 | 0.17168 |
| V | 0.22230 | 0.18949 | 0.13247 | 0.16507 |
| W | 0.11484 | 0.11134 | 0.09833 | 0.08457 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| L,V | -0.19052E-00 | -0.17504E-00 | 0.49798E-01 | -0.18473E-00 |
| L,W | -0.52450E 00 | -0.48012E-00 | -0.25862E-00 | -0.39079E-00 |
| L,T | -0.23230E-00 | -0.64418E-01 | -0.31649E-01 | -0.52817E-01 |
| V,W | 0.94467E-01 | -0.29843E-01 | -0.41412E-01 | -0.23529E-01 |
| V,T | -0.10160E-00 | -0.10810E-00 | -0.29423E-01 | -0.96177E-01 |
| W,T | 0.11699E-00 | 0.37842E-01 | 0.15040E-01 | 0.33253E-01 |
| LE | 0.58055E 00 | 0.39019E-00 | 0.15618E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| L,V | -0.08710 | -0.10142 | 0.05937 | -0.13573 |
| L,W | -0.46416 | -0.47342 | -0.41544 | -0.56045 |
| L,T | -0.27348 | -0.22890 | -0.26565 | -0.22757 |
| V,W | -0.07746 | -0.02945 | -0.06620 | -0.03509 |
| V,T | -0.11025 | -0.38450 | -0.24575 | -0.43098 |
| W,T | 0.24573 | 0.22906 | 0.16925 | 0.29084 |

RUN NC 101A 46M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.83876 10E 00 | 0.62263 10E 00 | 0.11919 10E 00 | 0.62559 10E 00 | 0.11975 10E 00 | 0.88896 10E-01 |
| 0 | .059628 | -.415502 | -.265761 | -.066477 | -.245906 | .169315 |
| 1 | .054790 | -.385938 | -.251287 | -.060447 | -.215250 | .166340 |
| 2 | .051602 | -.331123 | -.221551 | -.046918 | -.173556 | .143142 |
| 3 | .048736 | -.282306 | -.186822 | -.033462 | -.138211 | .121103 |
| 4 | .048328 | -.243061 | -.157583 | -.029174 | -.114668 | .102875 |
| 5 | .046181 | -.199831 | -.131490 | -.032327 | -.102337 | .088559 |
| 6 | .040684 | -.157880 | -.106960 | -.029043 | -.088502 | .081233 |
| 7 | .036554 | -.125490 | -.088873 | -.016915 | -.075527 | .063019 |
| 8 | .030551 | -.100238 | -.070056 | -.002558 | -.064419 | .054105 |
| 9 | .026542 | -.070017 | -.051817 | .010148 | -.047569 | .041117 |
| 10 | .018668 | -.031706 | -.034146 | .019265 | -.030735 | .023950 |
| 11 | .006765 | .004585 | -.014381 | .025225 | -.011607 | .013635 |
| 12 | -.006189 | .030720 | .002891 | .031149 | .003554 | .004222 |
| 13 | -.019100 | .055048 | .017204 | .034719 | .014248 | -.006178 |
| 14 | -.030716 | .080151 | .025927 | .032859 | .018000 | -.013266 |
| 15 | -.039765 | .101724 | .031051 | .030051 | .025937 | -.014679 |
| 16 | -.047732 | .115493 | .034851 | .029145 | .034786 | -.015483 |
| 17 | -.052843 | .124579 | .037462 | .031495 | .044842 | -.015703 |
| 18 | -.054274 | .130163 | .043506 | .034186 | .058973 | -.015802 |
| 19 | -.056362 | .138215 | .048365 | .038885 | .074269 | -.016443 |
| 20 | -.057920 | .147254 | .047923 | .038562 | .083360 | -.016026 |
| 21 | -.056077 | .149833 | .050620 | .033490 | .086199 | -.018426 |
| 22 | -.045574 | .143069 | .056601 | .025683 | .082794 | -.026219 |
| 23 | -.035535 | .136370 | .059472 | .017705 | .078749 | -.032256 |
| 24 | -.033911 | .132753 | .061574 | .013862 | .074232 | -.034083 |
| 25 | -.034081 | .126332 | .064734 | .004760 | .069985 | -.040774 |
| 26 | -.032284 | .122462 | .074050 | -.001621 | .073027 | -.048963 |
| 27 | -.028899 | .117463 | .084921 | .001698 | .075158 | -.057636 |
| 28 | -.025802 | .109622 | .092088 | .012236 | .072952 | -.063588 |
| 29 | -.025076 | .101042 | .099328 | .015203 | .067734 | -.068962 |
| 30 | -.019361 | .088322 | .100246 | .005414 | .058738 | -.066626 |
| 31 | -.014384 | .073012 | .096581 | -.012605 | .051356 | -.059937 |
| 32 | -.009596 | .056068 | .090835 | -.026990 | .044987 | -.058393 |
| 33 | -.000240 | .038644 | .079306 | -.033313 | .034740 | -.057159 |
| 34 | .016432 | -.019887 | .064986 | -.045789 | .021718 | -.055857 |
| 35 | .030665 | .002380 | .047438 | -.052559 | .005897 | -.051603 |
| 36 | .038875 | -.007390 | .034238 | -.047165 | -.013782 | -.048658 |
| 37 | .047387 | -.008952 | .028726 | -.040975 | -.033163 | -.054834 |
| 38 | .054879 | -.004030 | .026080 | -.038054 | -.042166 | -.053215 |
| 39 | .060287 | -.000271 | .024747 | -.040407 | -.044355 | -.042902 |
| 40 | .059174 | .000691 | .024045 | -.041704 | -.051516 | -.035320 |
| 41 | .055383 | -.002555 | .026776 | -.040486 | -.058001 | -.032632 |
| 42 | .047646 | -.003002 | .029650 | -.033325 | -.060121 | -.033817 |
| 43 | .036816 | -.000816 | .029926 | -.020079 | -.060338 | -.034475 |
| 44 | .022116 | .003357 | .032597 | -.003788 | -.064985 | -.036132 |
| 45 | .007688 | .008395 | .033981 | .008917 | -.071991 | -.036043 |
| 46 | -.000068 | .010060 | .036289 | .017720 | -.071014 | -.029868 |
| 47 | -.005661 | .009259 | .037176 | .025339 | -.065734 | -.019403 |
| 48 | -.007469 | .017371 | .035827 | .026908 | -.052754 | -.009398 |
| 49 | -.010123 | .021380 | .034083 | .027371 | -.038802 | -.000801 |
| 50 | -.009905 | .027303 | .025949 | .025205 | -.028663 | .007074 |
| 51 | -.006211 | .035812 | .018359 | .025735 | -.024151 | .006864 |
| 52 | -.004676 | .046063 | .009332 | .023360 | -.024569 | .010292 |
| 53 | -.001498 | .051131 | .002636 | .018671 | -.019171 | .013223 |
| 54 | -.001218 | .049112 | -.000655 | .021844 | -.002985 | .009273 |
| 55 | -.000869 | .045071 | -.006061 | .018368 | .014014 | .004519 |
| 56 | -.001127 | .041563 | -.012749 | .012689 | .030568 | -.002975 |
| 57 | -.002967 | .037509 | -.013631 | .010719 | .041998 | -.004994 |
| 58 | -.004089 | .029874 | -.015188 | .007634 | .044541 | -.011758 |
| 59 | -.005436 | .021605 | -.013132 | .008900 | .046801 | -.017337 |
| 60 | -.005417 | .013099 | -.013526 | .006816 | .049105 | -.021341 |

RUN NC 101A 46M 7-4-63 0814-0930(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.83876 10E 00 | 0.62263 10E 00 | 0.11919 10E 00 | 0.62559 10E 00 | 0.11975 10E 00 | 0.88896 10E-01 |
| 1 | .014098 | -.040995 | -.027517 | -.004636 | -.028058 | .005599 |
| 2 | .030311 | -.067942 | -.048505 | -.001092 | -.044168 | .017770 |
| 3 | .043938 | -.085556 | -.063664 | .009450 | -.058936 | .029569 |
| 4 | .057453 | -.097538 | -.080184 | .017275 | -.073953 | .039679 |
| 5 | .068060 | -.107561 | -.091933 | .017222 | -.082002 | .046544 |
| 6 | .071744 | -.111202 | -.100587 | .016444 | -.078297 | .054006 |
| 7 | .072465 | -.113780 | -.109583 | .021814 | -.068710 | .061311 |
| 8 | .068727 | -.115370 | -.117597 | .026693 | -.056702 | .065014 |
| 9 | .063669 | -.112300 | -.120108 | .027954 | -.052080 | .069905 |
| 10 | .063447 | -.107707 | -.125229 | .024118 | -.048566 | .076684 |
| 11 | .063850 | -.104934 | -.129739 | .016505 | -.043717 | .080421 |
| 12 | .064512 | -.098090 | -.132403 | .016088 | -.042901 | .079190 |
| 13 | .067228 | -.084713 | -.129705 | .017410 | -.038156 | .082079 |
| 14 | .066982 | -.070064 | -.125268 | .016936 | -.031366 | .080988 |
| 15 | .064940 | -.062020 | -.116834 | .015642 | -.024295 | .076626 |
| 16 | .059529 | -.055246 | -.104057 | .016663 | -.024750 | .072978 |
| 17 | .051094 | -.048518 | -.091904 | .013247 | -.023053 | .060125 |
| 18 | .037916 | -.040913 | -.079606 | .007386 | -.023951 | .043921 |
| 19 | .020422 | -.027517 | -.066087 | .001578 | -.025577 | .030836 |
| 20 | .001490 | -.017419 | -.048763 | -.006649 | -.023420 | .015613 |
| 21 | -.017111 | -.007420 | -.033626 | -.011489 | -.018823 | .000576 |
| 22 | -.031835 | .005146 | -.022936 | -.013888 | -.018156 | -.010283 |
| 23 | -.046905 | .018590 | -.014917 | -.014509 | -.014712 | -.008982 |
| 24 | -.059134 | .029885 | -.008278 | -.019579 | -.005299 | -.009295 |
| 25 | -.065117 | .039766 | -.000479 | -.020956 | .004630 | -.011892 |
| 26 | -.071692 | .047959 | .012745 | -.021953 | .011565 | -.021813 |
| 27 | -.079142 | .054884 | .027850 | -.018394 | .014627 | -.028510 |
| 28 | -.084902 | .066364 | .035935 | -.019505 | .013719 | -.032569 |
| 29 | -.086408 | .074010 | .036947 | -.019680 | .016099 | -.031956 |
| 30 | -.079993 | .073010 | .035397 | -.022577 | .017432 | -.034558 |
| 31 | -.071562 | .069065 | .030747 | -.022022 | .019784 | -.030056 |
| 32 | -.066471 | .060592 | .022958 | -.025303 | .022699 | -.025124 |
| 33 | -.061992 | .051500 | .019620 | -.020742 | .026093 | -.028939 |
| 34 | -.048638 | .045405 | .017601 | -.012310 | .028229 | -.032019 |
| 35 | -.037563 | .037075 | .012225 | -.002152 | .030256 | -.030586 |
| 36 | -.032294 | .028942 | .010587 | .005378 | .030438 | -.031126 |
| 37 | -.027576 | .019772 | .010427 | .017791 | .031463 | -.032389 |
| 38 | -.017048 | .011278 | .005462 | .036493 | .020274 | -.032189 |
| 39 | -.011009 | -.001269 | .000894 | .045941 | .005244 | -.027412 |
| 40 | -.011183 | -.012603 | .003212 | .045851 | .002575 | -.023573 |
| 41 | -.005214 | -.023167 | .007694 | .040805 | .007066 | -.021350 |
| 42 | .008818 | -.026916 | .013535 | .035928 | .014953 | -.020439 |
| 43 | .025864 | -.037321 | .013765 | .033837 | .020456 | -.017351 |
| 44 | .039862 | -.048865 | .010535 | .032802 | .028184 | -.016588 |
| 45 | .052443 | -.050869 | .007460 | .029519 | .033550 | -.007320 |
| 46 | .065438 | -.039856 | .008283 | .034674 | .040387 | .013187 |
| 47 | .080710 | -.028761 | .006874 | .042532 | .040138 | .027045 |
| 48 | .093915 | -.018144 | .004355 | .046208 | .036124 | .033304 |
| 49 | .104987 | -.006622 | .004682 | .044057 | .032546 | .042108 |
| 50 | .105G>8 | .004274 | .008442 | .037821 | .025811 | .041647 |
| 51 | .102602 | .011140 | .011887 | .027264 | .014770 | .037265 |
| 52 | .101966 | .018988 | .010412 | .019718 | .007198 | .037462 |
| 53 | .100066 | .029451 | .007521 | .016032 | -.001941 | .041394 |
| 54 | .093762 | .033708 | .008615 | .014100 | -.015172 | .040385 |
| 55 | .082594 | .033494 | .011028 | .005634 | -.019477 | .031982 |
| 56 | .072268 | .027602 | .008831 | -.005216 | -.020222 | .021772 |
| 57 | .065251 | .019892 | .008712 | -.011515 | -.022090 | .011595 |
| 58 | .059244 | .022024 | .013473 | -.015147 | -.023245 | .002495 |
| 59 | .049970 | .024420 | .021249 | -.020166 | -.022410 | -.010980 |
| 60 | .034748 | .023572 | .028211 | -.015544 | -.014815 | -.023140 |

RUN NC 101A 46M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.83479 10E 00 | 0.84274 10E 00 | 0.46439 10E 00 | 0.17017 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | -.880971 | .838380 | .782655 | .846035 |
| 2 | .736572 | .642834 | .536467 | .667203 |
| 3 | .619477 | .488436 | .374366 | .526909 |
| 4 | .522925 | .375110 | .263356 | .424985 |
| 5 | .431020 | .293559 | .175658 | .351680 |
| 6 | .340556 | .225798 | .102942 | .291864 |
| 7 | .261846 | .174391 | .055913 | .243016 |
| 8 | .188713 | .138808 | .014190 | .193539 |
| 9 | .117822 | .102379 | -.018371 | .139744 |
| 10 | .047977 | .064196 | -.048920 | .090797 |
| 11 | -.020598 | .020855 | -.080443 | .047253 |
| 12 | -.077732 | -.018056 | -.097888 | .011458 |
| 13 | -.128744 | -.050812 | -.120284 | -.015429 |
| 14 | -.172529 | -.081720 | -.145717 | -.034019 |
| 15 | -.210297 | -.112141 | -.161999 | -.057275 |
| 16 | -.240067 | -.141048 | -.171281 | -.083239 |
| 17 | -.258654 | -.167873 | -.178644 | -.111847 |
| 18 | -.279995 | -.191993 | -.185422 | -.142843 |
| 19 | -.300662 | -.209317 | -.192534 | -.174042 |
| 20 | -.310908 | -.227520 | -.193300 | -.186083 |
| 21 | -.317310 | -.246491 | -.188885 | -.189090 |
| 22 | -.317747 | -.263102 | -.183259 | -.190781 |
| 23 | -.317525 | -.273119 | -.182870 | -.199926 |
| 24 | -.308375 | -.281193 | -.188554 | -.214056 |
| 25 | -.292124 | -.271800 | -.197125 | -.221665 |
| 26 | -.274384 | -.256329 | -.199442 | -.224903 |
| 27 | -.256633 | -.241668 | -.185303 | -.224197 |
| 28 | -.244129 | -.225806 | -.168054 | -.218091 |
| 29 | -.225796 | -.208068 | -.150713 | -.208311 |
| 30 | -.197055 | -.185718 | -.119036 | -.193639 |
| 31 | -.157809 | -.156998 | -.075478 | -.177575 |
| 32 | -.118157 | -.137094 | -.027604 | -.163281 |
| 33 | -.079783 | -.124073 | .007291 | -.139938 |
| 34 | -.050897 | -.115179 | .030550 | -.116792 |
| 35 | -.025998 | -.100869 | .047030 | -.090188 |
| 36 | -.009111 | -.088507 | .057406 | -.072253 |
| 37 | .007275 | -.071881 | .056091 | -.056928 |
| 38 | .021332 | -.046208 | .045394 | -.055340 |
| 39 | .028586 | -.022078 | .041323 | -.063221 |
| 40 | .029820 | -.002717 | .041846 | -.065014 |
| 41 | .024375 | .010411 | .044409 | -.056431 |
| 42 | .021159 | .015585 | .038895 | -.054834 |
| 43 | .019598 | .014502 | .030899 | -.063251 |
| 44 | .019094 | .016220 | .022288 | -.066551 |
| 45 | .009577 | .018009 | .017444 | -.061093 |
| 46 | -.005553 | .024518 | .010362 | -.059682 |
| 47 | -.018069 | .027710 | .001663 | -.053939 |
| 48 | -.027794 | .025699 | -.009375 | -.051421 |
| 49 | -.037675 | .028269 | -.004459 | -.042326 |
| 50 | -.047274 | .043407 | .000512 | -.033695 |
| 51 | -.056189 | .063868 | -.004024 | -.027623 |
| 52 | -.061793 | .080053 | -.017212 | -.027164 |
| 53 | -.069262 | .088998 | -.020380 | -.031074 |
| 54 | -.070306 | .076769 | -.019425 | -.036231 |
| 55 | -.063542 | .058108 | -.018197 | -.037784 |
| 56 | -.057692 | .035232 | -.024799 | -.032578 |
| 57 | -.049364 | .017579 | -.027552 | -.032757 |
| 58 | -.044317 | .011973 | -.021330 | -.020282 |
| 59 | -.040310 | .011382 | -.014000 | -.028701 |
| 60 | -.032431 | .013585 | -.013528 | -.036662 |

RUN NO 101A 46M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 0 | .004731 | -.050705 | -.09876 | -.003409 | -.098130 | .056703 |
| 1 | .052666 | -.473329 | -.791364 | -.001719 | -.503454 | .437506 |
| 2 | .148017 | -.567412 | -.751221 | -.042735 | -.606716 | .379865 |
| 3 | .225833 | -.577539 | -.560107 | -.124657 | -.611715 | .235276 |
| 4 | .100669 | -.343166 | -.298723 | -.098369 | -.245701 | .128168 |
| 5 | -.010064 | -.150919 | -.216565 | -.028185 | -.105839 | .118907 |
| 6 | -.004274 | -.105482 | -.210587 | -.030112 | -.120986 | .097785 |
| 7-8 | -.034118 | -.061558 | -.070392 | -.006565 | -.074560 | .032772 |
| 9-11 | .009304 | -.044833 | -.055943 | -.001822 | -.060751 | .017695 |
| 12-15 | .003741 | -.029884 | -.038081 | -.004471 | -.053201 | .020862 |
| 16-20 | -.000631 | -.012590 | -.012039 | -.007733 | -.031489 | .009526 |
| 21-27 | .003723 | -.008779 | -.006334 | -.004883 | -.017895 | .002534 |
| 28-36 | .000328 | -.005106 | -.003049 | .001521 | -.007157 | -.001250 |
| 37-47 | .000294 | -.001020 | -.000810 | -.000189 | -.005135 | .000333 |
| 48-60 | .001313 | -.000789 | -.001576 | -.000098 | -.003984 | -.003240 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | -.000533 | -.107454 | -.513215 | .191408 | -.152061 | .150346 |
| 2 | .160585 | -.201473 | -.562728 | .156205 | -.257193 | .241701 |
| 3 | .334278 | -.293618 | -.544109 | .719191 | -.257289 | .272982 |
| 4 | .169467 | -.188783 | -.291572 | .539464 | -.160965 | .120583 |
| 5 | -.003158 | -.052618 | -.052875 | -.074369 | -.111709 | .011867 |
| 6 | -.018005 | -.050442 | .018240 | -.041079 | -.112371 | -.032541 |
| 7-8 | .032433 | -.040388 | -.016762 | .007330 | -.090993 | -.019260 |
| 9-11 | .021299 | -.012188 | -.021684 | -.008860 | -.028410 | .012618 |
| 12-15 | -.008891 | -.011991 | -.005571 | -.066509 | -.010443 | -.006368 |
| 16-20 | -.003079 | -.003313 | -.003670 | -.007650 | .008966 | -.001631 |
| 21-27 | .000017 | -.003097 | -.002885 | -.063009 | -.005685 | -.001048 |
| 28-36 | .000339 | -.002265 | -.003094 | -.001799 | -.004641 | -.003283 |
| 37-47 | -.001177 | -.000248 | .000623 | .003945 | -.002444 | .000191 |
| 48-60 | .000067 | -.000632 | -.000797 | .001030 | -.000350 | -.000351 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .014800 | .014368 | .034922 | .053357 |
| 1 | .137267 | .127890 | .389945 | .335517 |
| 2 | .167641 | .148897 | .562840 | .308955 |
| 3 | .171473 | .134760 | .664414 | .253641 |
| 4 | .101547 | .072970 | .452426 | .143319 |
| 5 | .048156 | .041824 | .273095 | .085895 |
| 6 | .037435 | .037556 | .273096 | .079740 |
| 7-8 | .024503 | .034728 | .219175 | .060867 |
| 9-11 | .014739 | .023709 | .155034 | .040904 |
| 12-15 | .010166 | .016609 | .099813 | .028095 |
| 16-20 | .005840 | .009206 | .066310 | .019369 |
| 21-27 | .004354 | .006055 | .046702 | .010947 |
| 28-36 | .002766 | .003361 | .030567 | .006925 |
| 37-47 | .001558 | .002189 | .017786 | .004476 |
| 48-60 | .001265 | .001632 | .012426 | .003415 |

RUN NC 101A 46M 7-4-63 0814-0930(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13616 10E 01 | 0.69786 10E 00 | 0.23218 10E 00 | 0.67080 10E 00 | 0.22317 10E 00 | 0.11438 10E 00 |
| 0 | -.135670 | -.559985 | -.227486 | -.035075 | -.430951 | .290714 |
| 1 | -.133393 | -.346050 | -.156335 | -.005175 | -.354927 | .712233 |
| 2 | -.142774 | -.166612 | -.089261 | .018153 | -.276690 | .138994 |
| 3 | -.126514 | -.060340 | -.024444 | -.012341 | -.195022 | .050834 |
| 4 | -.088712 | -.012903 | .009853 | -.008958 | -.121702 | -.001641 |
| 5 | -.077343 | .053051 | .020397 | .019510 | -.029290 | -.011589 |
| 6 | -.046427 | .057426 | -.003550 | -.004358 | .084132 | .000686 |
| 7 | -.011825 | .028190 | -.010728 | -.030850 | .134862 | .022179 |
| 8 | .034922 | .056084 | -.035414 | -.021278 | .162309 | .040405 |
| 9 | .091868 | .132002 | -.057263 | -.035182 | .166596 | .066474 |
| 10 | .135129 | .177057 | -.033983 | -.051115 | .154923 | .030419 |
| 11 | .130136 | .163630 | .020642 | -.063310 | .138888 | -.026716 |
| 12 | .109157 | .166294 | .093077 | -.090364 | .088635 | -.083922 |
| 13 | .111043 | .174923 | .128887 | -.077427 | .036731 | -.100428 |
| 14 | .044929 | .169037 | .184423 | -.003282 | .034550 | -.146146 |
| 15 | .003760 | .136895 | .219238 | .045679 | .025507 | -.192712 |
| 16 | -.011025 | .069248 | .206425 | .080382 | .009540 | -.205863 |
| 17 | .021722 | .052228 | .162801 | .087522 | -.019226 | -.174438 |
| 18 | .034408 | .054770 | .114621 | .052267 | -.059875 | -.125937 |
| 19 | .033132 | .025379 | .048580 | .044341 | -.049710 | -.093340 |
| 20 | .028394 | -.061356 | -.018907 | .030177 | -.042499 | -.029664 |
| 21 | .026709 | -.126680 | -.067295 | .012446 | -.014760 | -.008612 |
| 22 | .029547 | -.125803 | -.076073 | -.012117 | .021351 | -.014387 |
| 23 | .022469 | -.150534 | -.053279 | .029740 | .060722 | -.031422 |
| 24 | .015179 | -.132340 | -.043338 | .039883 | .082812 | -.001170 |
| 25 | .016483 | -.118324 | -.062519 | .007851 | .128715 | .039558 |
| 26 | .012494 | -.055211 | -.100400 | -.002970 | .127348 | .102098 |
| 27 | -.006757 | -.058730 | -.143297 | .002363 | .113939 | .149930 |
| 28 | .013459 | -.109390 | -.181299 | .023093 | .103562 | .149982 |
| 29 | .025147 | -.059193 | -.147190 | .013959 | .063030 | .104147 |
| 30 | .016708 | -.038169 | -.147168 | -.019337 | .012723 | .131829 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.075237 | .002652 | .004078 | -.029739 | -.030116 | .043427 |
| 1 | -.703008 | -.320661 | -.094048 | -.115851 | -.174915 | .759624 |
| 2 | -.762231 | -.637931 | -.132628 | .008838 | -.185760 | .755182 |
| 3 | -.672832 | -.655277 | -.047143 | .120587 | -.235359 | .268392 |
| 4 | -.280190 | -.301691 | .032070 | .042075 | -.181375 | -.007299 |
| 5 | .127829 | -.227644 | -.044444 | -.101052 | -.079515 | .308317 |
| 6 | .226643 | -.256506 | -.098078 | -.073232 | -.035350 | .485979 |
| 7 | .034483 | -.255384 | -.057541 | .039837 | -.005297 | .326423 |
| 8 | -.097707 | -.261334 | -.023436 | .030918 | .002511 | .168425 |
| 9-11 | .002716 | -.148194 | -.013227 | -.021165 | -.008315 | .067033 |
| 12-14 | .048486 | -.058857 | -.011391 | -.000232 | -.015387 | .059047 |
| 15-21 | -.000416 | -.077354 | -.004021 | -.030864 | -.004206 | .012408 |
| 22-30 | -.012300 | -.048452 | -.005611 | .003232 | -.006561 | .035959 |

RUN NC 101A 46M 7-4-63 C814-0930(EST)
301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13616 10E 01 | 0.69786 10E 00 | 0.23218 10E 00 | 0.67080 10E 00 | 0.22317 10E'00 | 0.11438 10E 00 |
| 1 | .058671 | -.046155 | -.104984 | .033602 | -.031362 | .055158 |
| 2 | .065784 | .030400 | -.122951 | .030310 | -.020440 | .042123 |
| 3 | .054740 | .099446 | -.119651 | .005586 | -.024508 | .006104 |
| 4 | .094350 | .072511 | -.126125 | .034669 | -.032610 | .004614 |
| 5 | .126376 | .106033 | -.112922 | -.006681 | -.037517 | .022948 |
| 6 | .081356 | .124990 | -.095061 | -.049810 | -.045646 | -.004888 |
| 7 | .033425 | .105161 | -.105399 | -.075233 | -.040816 | .015965 |
| 8 | .015091 | .059305 | -.100647 | -.071820 | -.038243 | .048193 |
| 9 | -.009920 | .046352 | -.093804 | -.037433 | -.021093 | .073828 |
| 10 | -.021328 | .038505 | -.112046 | -.010627 | -.000130 | .093138 |
| 11 | .000705 | -.030930 | -.109948 | .005141 | .054742 | .074961 |
| 12 | .049976 | -.037912 | -.084842 | .072980 | .100493 | .067962 |
| 13 | .063668 | -.018051 | -.062090 | .063700 | .077111 | .078760 |
| 14 | .059555 | -.033394 | -.038567 | .042347 | .044071 | .055049 |
| 15 | .032747 | -.055058 | .005541 | -.013291 | .005400 | .007882 |
| 16 | .045596 | -.077516 | .009287 | .002401 | -.021771 | .010859 |
| 17 | .048240 | -.072243 | -.001475 | .018911 | -.028622 | -.007185 |
| 18 | .058524 | -.075997 | -.008161 | .015247 | -.029233 | -.018046 |
| 19 | .045838 | -.088651 | .008658 | .023699 | -.040301 | -.032674 |
| 20 | .053111 | -.085151 | .012579 | .025452 | -.010064 | -.062874 |
| 21 | .032596 | -.044441 | .029517 | .004236 | .020160 | -.073932 |
| 22 | .006486 | -.044357 | .044263 | .016921 | .054139 | -.104627 |
| 23 | -.014843 | -.025775 | .069421 | .005707 | .042543 | -.107222 |
| 24 | -.020637 | -.001996 | .085531 | -.031930 | .023703 | -.085033 |
| 25 | -.034746 | .012124 | .059695 | -.010998 | .012865 | -.036195 |
| 26 | -.081245 | .042855 | .054688 | -.015515 | -.023851 | .006272 |
| 27 | -.064909 | .051590 | .040926 | .030821 | -.018526 | .044978 |
| 28 | -.055875 | .056318 | .000628 | .072642 | -.003617 | .077643 |
| 29 | -.059948 | .058889 | .003124 | .102256 | .022448 | .065039 |
| 30 | -.052795 | .037090 | .036482 | .128537 | .045092 | .044817 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .572648 | .034860 | -.159889 | .004059 | .027083 | .348109 |
| 2 | .297809 | .257947 | -.134692 | -.057322 | -.163540 | .296783 |
| 3 | .224288 | .290344 | -.080847 | -.077453 | -.407126 | -.017859 |
| 4 | .357822 | .106611 | -.036191 | .002009 | -.464067 | -.153772 |
| 5 | .307451 | .013899 | -.027460 | .099780 | -.050115 | .007909 |
| 6 | .147698 | -.036364 | -.035570 | .146493 | .329577 | .078034 |
| 7 | -.012442 | -.074092 | -.042575 | .099378 | .092018 | .135242 |
| 8 | -.134700 | -.055937 | -.022335 | -.009000 | -.178421 | .104838 |
| 9-11 | -.001267 | -.028623 | -.011762 | -.014128 | -.041917 | .048437 |
| 12-14 | .054423 | -.032531 | -.009280 | .000070 | -.064579 | .048584 |
| 15-21 | .043857 | -.053065 | -.007663 | .026521 | -.032761 | .035369 |
| 22-30 | -.006554 | .005502 | -.000391 | -.017496 | -.015906 | .001973 |

RUN NC 101A 46M 7-4-63 0814-0930(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.14165 10E 01 | 0.13088 10E 01 | 0.34381 10E 00 | 0.38055 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .663919 | .698080 | .374047 | .770054 |
| 2 | .398781 | .445215 | .126597 | .517077 |
| 3 | .242862 | .255092 | .034893 | .289637 |
| 4 | .142963 | .110523 | .028879 | .093033 |
| 5 | .011134 | .025745 | -.069993 | -.042449 |
| 6 | -.037747 | -.086455 | -.102104 | -.127948 |
| 7 | -.047839 | -.189494 | -.046811 | -.154159 |
| 8 | -.135609 | -.234714 | -.087860 | -.158427 |
| 9 | -.248827 | -.258468 | -.136240 | -.141370 |
| 10 | -.361553 | -.288911 | -.174583 | -.162869 |
| 11 | -.378655 | -.292300 | -.136360 | -.218352 |
| 12 | -.402471 | -.255521 | -.133041 | -.271884 |
| 13 | -.379919 | -.211261 | -.155913 | -.269634 |
| 14 | -.348704 | -.188862 | -.174589 | -.272712 |
| 15 | -.282796 | -.122208 | -.105694 | -.228226 |
| 16 | -.198445 | -.060455 | -.062897 | -.153011 |
| 17 | -.146204 | -.007885 | -.050176 | -.065604 |
| 18 | -.096357 | .088312 | -.052287 | -.023227 |
| 19 | -.008206 | .091846 | -.018060 | -.024345 |
| 20 | .095021 | .064336 | .038448 | -.052758 |
| 21 | .152020 | .008846 | .075359 | -.069939 |
| 22 | .182135 | -.021871 | .028121 | -.069625 |
| 23 | .205608 | -.056325 | .081670 | -.095728 |
| 24 | .201145 | -.042550 | .016545 | -.084214 |
| 25 | .188085 | -.014348 | .063716 | -.046672 |
| 26 | .136156 | .004903 | .022243 | .033052 |
| 27 | .163878 | .031406 | .031779 | .076859 |
| 28 | .168996 | .031881 | .108565 | .110142 |
| 29 | .090185 | -.005201 | -.002110 | .099147 |
| 30 | .025151 | -.002082 | .039342 | .110292 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .007680 | .022646 | .011484 | .072051 |
| 1 | .183490 | .177856 | .224803 | .648338 |
| 2 | .291646 | .222273 | .342449 | .714489 |
| 3 | .274642 | .253441 | .363466 | .671877 |
| 4 | .108878 | .168060 | .234871 | .444483 |
| 5 | .056190 | .079507 | .185429 | .302962 |
| 6 | .068424 | .065403 | .190697 | .310175 |
| 7 | .073739 | .059212 | .180025 | .263612 |
| 8 | .073771 | .039276 | .166222 | .122361 |
| 9-11 | .040140 | .036435 | .136103 | .058468 |
| 12-14 | .022648 | .026937 | .104242 | .051307 |
| 15-21 | .024703 | .013800 | .112194 | .028847 |
| 22-30 | .015735 | .014498 | .099002 | .026313 |

RUN NC 101A 15M 7-4-63 0814-0930(EST)
 RUN NC 101A 46M 7-4-63 0814-0930(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .642055 | .589816 | .688829 | .482498 |
| 1 | .467089 | .555571 | .459698 | .360992 |
| 2 | .410797 | .624330 | .432213 | .256564 |
| 3 | .428971 | .551918 | .470225 | .171271 |
| 4 | .417042 | .402834 | .496888 | .110909 |
| 5 | .207972 | .315592 | .414795 | .046004 |
| 6 | .068006 | .349287 | .381423 | .122102 |
| 7-8 | .061026 | .264417 | .258142 | .125471 |
| 9-11 | .085803 | .171394 | .086487 | .085455 |
| 12-15 | .082558 | .113684 | .207932 | .070268 |
| 16-20 | .067101 | .117856 | .090446 | .067886 |
| 21-27 | .104042 | .137508 | .079574 | .165809 |
| 28-36 | .093481 | .057611 | .087354 | .082097 |
| 37-47 | .095082 | .100035 | .103499 | .121959 |
| 48-60 | .075354 | .090013 | .089997 | .120274 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .891551 | .910075 | .721346 | .708270 |
| 1 | .936041 | .954743 | .742421 | .801999 |
| 2 | .933785 | .941388 | .712067 | .695412 |
| 3 | .892789 | .898384 | .727959 | .445731 |
| 4 | .787509 | .828287 | .768850 | .249610 |
| 5 | .720691 | .759097 | .760638 | .557754 |
| 6 | .756050 | .674461 | .697621 | .650176 |
| 7 | .599297 | .567239 | .611832 | .428781 |
| 8 | .323215 | .594879 | .545723 | .298436 |
| 9-11 | .362282 | .680424 | .442833 | .227238 |
| 12-14 | .383390 | .591248 | .367509 | .309595 |
| 15-21 | .452641 | .402208 | .485531 | .217146 |
| 22-30 | .186547 | .181116 | .437490 | .139946 |

RUN NO 1018 46M 7-4-63 0944-1100(EST)

GROSS STATISTICS

6 CU
UNSTABLE WIND SPEED 6.98 M/SEC SIGMA A 14.1 DEG
 WIND DIRECTION 289 DEG SIGMA E 7.4 DEG
 SOLAR RAD. 0.93 LY/MIN

WITH NO WITH 301 POINT WITH 61 POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN RUNNING MEAN 10 PT BLOCK AVG

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.23965E 01 | 0.15578E 01 | 0.76045E 00 | 0.12311E 01 |
| V | 0.28160E 01 | 0.16325E 01 | 0.10070E 01 | 0.12096E 01 |
| W | 0.63096E 00 | 0.57375E 00 | 0.48613E-00 | 0.27035E-00 |
| T | 0.34094E-00 | 0.53139E-01 | 0.20259E-01 | 0.45279E-01 |
| E | 0.29217E 01 | 0.18822E 01 | 0.11268E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.22179 | 0.17881 | 0.12493 | 0.15896 |
| V | 0.24041 | 0.18305 | 0.14377 | 0.15757 |
| W | 0.11380 | 0.10852 | 0.09989 | 0.07449 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.22020E-00 | 0.92876E-01 | 0.11751E-00 | 0.78059E-01 |
| U,W | -0.48609E-00 | -0.35949E-00 | -0.23202E-00 | -0.25781E-00 |
| U,T | -0.83691E-01 | -0.11887E-00 | -0.31717E-01 | -0.10794E-00 |
| V,W | 0.14544E-01 | -0.25427E-01 | -0.44603E-01 | 0.38582E-02 |
| V,T | 0.15692E-00 | -0.99291E-01 | -0.44491E-01 | -0.86050E-01 |
| W,T | 0.63006E-01 | 0.17489E-01 | 0.18029E-02 | 0.17425E-01 |
| WE | 0.31910E-00 | 0.26223E-00 | 0.10292E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.08476 | 0.05824 | 0.13428 | 0.06397 |
| U,W | -0.39530 | -0.38025 | -0.38161 | -0.44688 |
| U,T | -0.09259 | -0.41316 | -0.25553 | -0.45718 |
| V,W | 0.01091 | -0.02627 | -0.06375 | 0.00675 |
| V,T | 0.16014 | -0.33712 | -0.31149 | -0.36769 |
| W,T | 0.13585 | 0.10016 | 0.01817 | 0.15749 |

RUN NO 101B 46M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,V | V,T | W,T |
|----|-------------------|-------------------|-------------------|--------------|-------------------|-------------------|
| | 0.87505 10E 00 | 0.60793 10E 00 | 0.12413 10E 00 | 0. 10E 00 | 0.14285 10E 00 | 0.99245 10E-01 |
| 0 | .134314 | -.381608 | -.255695 | -.063985 | -.311547 | .017820 |
| 1 | .131652 | -.342697 | -.246168 | -.054318 | -.279567 | .023742 |
| 2 | .120056 | -.281384 | -.223106 | -.040398 | -.240614 | .020976 |
| 3 | .110092 | -.225267 | -.203265 | -.026805 | -.202200 | .014463 |
| 4 | .102740 | -.173123 | -.179626 | -.016706 | -.169434 | .002578 |
| 5 | .090929 | -.121294 | -.150835 | -.018696 | -.142344 | -.003793 |
| 6 | .073454 | -.078197 | -.115955 | -.016966 | -.114574 | -.004623 |
| 7 | .053863 | -.044666 | -.082489 | -.003119 | -.085133 | -.004710 |
| 8 | .038461 | -.027185 | -.057519 | .014051 | -.057541 | -.010270 |
| 9 | .026721 | -.016451 | -.041329 | .022863 | -.038252 | -.005948 |
| 10 | .007318 | -.002210 | -.034507 | .033418 | -.018686 | -.000333 |
| 11 | -.010851 | .010132 | -.025319 | .037999 | .000389 | .008827 |
| 12 | -.022801 | .023429 | -.011412 | .038673 | .015202 | .018042 |
| 13 | -.030212 | .034157 | -.000402 | .030993 | .021290 | .026452 |
| 14 | -.034639 | .039622 | -.006059 | .018098 | .032337 | .034240 |
| 15 | -.042057 | .048742 | .012126 | .006986 | .042954 | .037177 |
| 16 | -.050313 | .058428 | .019133 | .001374 | .052643 | .034360 |
| 17 | -.058963 | .066968 | .028704 | .008691 | .060881 | .036846 |
| 18 | -.067652 | .081214 | .036609 | .021885 | .070449 | .035998 |
| 19 | -.078107 | .096455 | .042366 | .028868 | .078631 | .028104 |
| 20 | -.088437 | .108406 | .056353 | .034638 | .086755 | .009585 |
| 21 | -.091579 | .117388 | .071637 | .036607 | .092999 | -.004402 |
| 22 | -.085719 | .127769 | .082124 | .034731 | .091171 | -.021634 |
| 23 | -.079786 | .131788 | .090318 | .023654 | .084057 | -.029860 |
| 24 | -.077357 | .137617 | .096146 | .011272 | .077047 | -.036481 |
| 25 | -.078725 | .140939 | .098151 | .003525 | .069938 | -.038381 |
| 26 | -.076727 | .135423 | .097517 | -.000556 | .062705 | -.032676 |
| 27 | -.069200 | .122534 | .091137 | -.005056 | .058056 | -.020291 |
| 28 | -.058330 | .104781 | .084730 | -.015379 | .057721 | -.005262 |
| 29 | -.045343 | .088656 | .072185 | -.021847 | .060702 | .001594 |
| 30 | -.035417 | .073154 | .062890 | -.023914 | .054155 | .003476 |
| 31 | -.026571 | .057612 | .059772 | -.019452 | .042467 | .000421 |
| 32 | -.014948 | .044918 | .057438 | -.014480 | .037773 | -.005077 |
| 33 | -.009673 | .034072 | .056780 | -.010709 | .035031 | -.007079 |
| 34 | -.010283 | .021349 | .053625 | -.007862 | .030917 | -.009676 |
| 35 | -.007148 | .012481 | .051801 | -.006147 | .028726 | -.018201 |
| 36 | -.005396 | .009524 | .052431 | -.002301 | .026879 | -.027227 |
| 37 | -.002726 | .010291 | .055090 | .000638 | .025126 | -.025661 |
| 38 | -.000036 | .013347 | .054771 | .004174 | .026206 | -.021489 |
| 39 | -.001588 | .012589 | .056980 | .009591 | .029652 | -.019277 |
| 40 | -.001636 | .005469 | .055417 | .011349 | .027850 | -.020426 |
| 41 | .004514 | -.003125 | .049724 | .006868 | .023590 | -.020194 |
| 42 | .015244 | -.014605 | .046061 | .001990 | .017881 | -.020465 |
| 43 | .026000 | -.035664 | .042771 | .000001 | .012419 | -.015606 |
| 44 | .035561 | -.053586 | .041311 | -.002649 | .005735 | -.003512 |
| 45 | .044927 | -.063926 | .039668 | -.010667 | .004092 | .002222 |
| 46 | .053435 | -.067671 | .037916 | -.021637 | .008211 | .002759 |
| 47 | .056435 | -.058194 | .032992 | -.033907 | .016593 | .002961 |
| 48 | .052726 | -.049495 | .028627 | -.036828 | .025413 | .002427 |
| 49 | .053739 | -.045376 | .026036 | -.043797 | .037008 | .005533 |
| 50 | .047330 | -.041220 | .024442 | -.053430 | .049985 | .005525 |
| 51 | .037874 | -.036149 | .021374 | -.061526 | .059006 | .010781 |
| 52 | .030849 | -.034029 | .016544 | -.057359 | .061572 | .010918 |
| 53 | .025796 | -.034447 | .008434 | -.042628 | .061058 | .007088 |
| 54 | .019784 | -.032437 | -.008737 | -.024735 | .059701 | .006498 |
| 55 | .010735 | -.030042 | -.027276 | -.007611 | .059471 | .000493 |
| 56 | .001679 | -.032775 | -.043953 | .008520 | .053855 | -.004934 |
| 57 | -.008302 | -.034461 | -.054791 | .016516 | .043521 | -.002637 |
| 58 | -.015426 | -.035408 | -.059853 | .018544 | .024423 | .002524 |
| 59 | -.018901 | -.030471 | -.061921 | .019433 | .004803 | .009408 |
| 60 | -.020203 | -.014089 | -.066472 | .019907 | -.011558 | .015994 |

RUN NC 101B 46M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.87505 10E 00 | 0.60793 10E 00 | 0.12413 10E 00 | 0.69961 10E 00 | 0.14285 10E 00 | 0.99245 10E-01 |
| 1 | -.014614 | -.037036 | -.010598 | -.006545 | -.022440 | .002369 |
| 2 | -.024287 | -.054924 | -.014856 | -.011494 | -.036606 | .011239 |
| 3 | -.031657 | -.060520 | -.019629 | -.016151 | -.050873 | .022084 |
| 4 | -.039314 | -.062842 | -.020795 | -.022330 | -.059712 | .021998 |
| 5 | -.043256 | -.065968 | -.022908 | -.021394 | -.063260 | .027801 |
| 6 | -.045103 | -.068340 | -.025966 | -.017130 | -.062600 | .024285 |
| 7 | -.049848 | -.067077 | -.031568 | -.016645 | -.062764 | .020823 |
| 8 | -.051464 | -.062685 | -.033568 | -.015474 | -.062213 | .018090 |
| 9 | -.055319 | -.063043 | -.031977 | -.026261 | -.061405 | .017319 |
| 10 | -.062905 | -.060554 | -.029061 | -.042677 | -.057843 | .015085 |
| 11 | -.069521 | -.055623 | -.019629 | -.048507 | -.049636 | .009621 |
| 12 | -.074549 | -.047797 | -.009707 | -.040894 | -.037079 | .009631 |
| 13 | -.076578 | -.046420 | -.008350 | -.035070 | -.029394 | .013130 |
| 14 | -.078185 | -.043777 | -.009673 | -.033881 | -.027624 | .011969 |
| 15 | -.074764 | -.042385 | -.009182 | -.036389 | -.030954 | .010409 |
| 16 | -.071550 | -.038835 | -.005727 | -.039478 | -.034417 | .005452 |
| 17 | -.060877 | -.039056 | -.003901 | -.044430 | -.036046 | -.003090 |
| 18 | -.046793 | -.040478 | -.007224 | -.042440 | -.037301 | -.013958 |
| 19 | -.033960 | -.039733 | -.013093 | -.032279 | -.038531 | -.015749 |
| 20 | -.022613 | -.035789 | -.013362 | -.027178 | -.038422 | -.012906 |
| 21 | -.011109 | -.030216 | -.015524 | -.015140 | -.034199 | -.009998 |
| 22 | -.001105 | -.025130 | -.026956 | -.004237 | -.024615 | -.003006 |
| 23 | .003749 | -.020438 | -.043214 | .021531 | -.022286 | .007740 |
| 24 | .006984 | -.018247 | -.051247 | .027531 | -.021447 | .012219 |
| 25 | .012016 | -.012778 | -.053752 | .034349 | -.021958 | .013723 |
| 26 | .015081 | -.001268 | -.051215 | .047582 | -.025370 | .018035 |
| 27 | .019840 | .011760 | -.047733 | .062152 | -.023766 | .012067 |
| 28 | .023171 | .021710 | -.043592 | .073393 | -.018771 | .009076 |
| 29 | .024167 | .027897 | -.041649 | .075488 | -.015473 | .005324 |
| 30 | .021789 | .032241 | -.039282 | .064625 | -.011072 | .005290 |
| 31 | .021677 | .034002 | -.035473 | .044204 | -.009992 | .002214 |
| 32 | .019700 | .038083 | -.029264 | .028113 | -.009600 | -.002202 |
| 33 | .016039 | .040870 | -.024489 | .018165 | -.010374 | -.000713 |
| 34 | .018498 | .042931 | -.022695 | .017877 | -.005221 | .003733 |
| 35 | .022122 | .043036 | -.019485 | .022333 | .001865 | .006179 |
| 36 | .026021 | .033571 | -.011066 | .021745 | .008895 | .004436 |
| 37 | .028093 | .026362 | -.002149 | .024589 | .013451 | -.000501 |
| 38 | .029639 | .024516 | -.000193 | .028695 | .013063 | -.002972 |
| 39 | .033382 | .022431 | -.001129 | .035621 | .011455 | .005942 |
| 40 | .037568 | .014027 | -.002343 | .037123 | .012184 | .007906 |
| 41 | .037157 | .003782 | .001551 | .034859 | .015231 | .007109 |
| 42 | .038547 | .004330 | .008997 | .027015 | .022373 | .006829 |
| 43 | .036722 | .009579 | .016675 | .012072 | .027189 | .001883 |
| 44 | .032017 | .010566 | .023525 | -.010127 | .029761 | -.006581 |
| 45 | .031682 | .008393 | .023170 | -.024559 | .033200 | -.009870 |
| 46 | .037530 | .002345 | .022965 | -.026461 | .038223 | -.009262 |
| 47 | .041362 | -.005183 | .023267 | -.016819 | .038391 | -.012449 |
| 48 | .048808 | -.011079 | .022848 | -.011105 | .038297 | -.017332 |
| 49 | .053225 | -.014796 | .024303 | -.009594 | .038078 | -.016470 |
| 50 | .053719 | -.017703 | .023954 | -.015282 | .036112 | -.010099 |
| 51 | .051647 | -.017920 | .020701 | -.019055 | .035257 | -.000085 |
| 52 | .047108 | -.017784 | .020760 | -.016833 | .036461 | .008785 |
| 53 | .040491 | -.021587 | .018864 | -.018545 | .037309 | .017616 |
| 54 | .039929 | -.025054 | .012362 | -.011776 | .040231 | .024217 |
| 55 | .039405 | -.028747 | .005594 | -.003588 | .046419 | .023725 |
| 56 | .034268 | -.028138 | -.001960 | .002916 | .050550 | .027477 |
| 57 | .026970 | -.018185 | -.005530 | .010487 | .047149 | .031154 |
| 58 | .019613 | -.012136 | -.007555 | .011437 | .043974 | .027064 |
| 59 | .015065 | -.012898 | -.008164 | .011555 | .044805 | .028315 |
| 60 | .012059 | -.013387 | -.005965 | .012104 | .046579 | .032816 |

RUN NO 1018 46M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.76038 10E 00 | 0.10070 10E 01 | 0.48605 10E 00 | 0.20265 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .866660 | .855838 | .766593 | .846583 |
| 2 | .707811 | .683995 | .482258 | .681570 |
| 3 | .582810 | .552366 | .287318 | .558511 |
| 4 | .478832 | .454625 | .154645 | .458781 |
| 5 | .385718 | .368924 | .058703 | |
| 6 | .302677 | .290695 | -.008627 | .387739 |
| 7 | .221355 | .215161 | -.049518 | .322043 |
| 8 | .150585 | .143794 | -.076579 | .258156 |
| 9 | .089148 | .082862 | -.095072 | .194140 |
| 10 | .033194 | .028672 | -.107699 | |
| 11 | -.017614 | -.018955 | -.108936 | .095535 |
| 12 | -.060887 | -.057903 | -.100666 | .046855 |
| 13 | -.092394 | -.089830 | -.085976 | .002331 |
| 14 | -.114674 | -.121579 | -.079885 | -.025111 |
| 15 | -.134301 | -.149117 | -.093970 | |
| 16 | -.155278 | -.169040 | -.114036 | -.090211 |
| 17 | -.178936 | -.188367 | -.136482 | -.120611 |
| 18 | -.204910 | -.207680 | -.148539 | -.152321 |
| 19 | -.228417 | -.224335 | -.146847 | -.176682 |
| 20 | -.244328 | -.237775 | -.137582 | |
| 21 | -.257577 | -.251650 | -.144010 | -.226844 |
| 22 | -.269175 | -.256315 | -.148995 | -.248198 |
| 23 | -.281028 | -.259348 | -.148453 | -.258528 |
| 24 | -.286194 | -.261696 | -.151582 | -.256188 |
| 25 | -.287429 | -.258448 | -.143570 | |
| 26 | -.285227 | -.249955 | -.125781 | -.250960 |
| 27 | -.272523 | -.240863 | -.112166 | -.248039 |
| 28 | -.259072 | -.222420 | -.097814 | -.244283 |
| 29 | -.241773 | -.201288 | -.067637 | -.242496 |
| 30 | -.212645 | -.179126 | -.030905 | |
| 31 | -.179304 | -.150317 | -.011470 | -.204339 |
| 32 | -.153515 | -.118946 | .002886 | -.177935 |
| 33 | -.134218 | -.095376 | .010829 | -.149730 |
| 34 | -.108382 | -.075937 | .022320 | -.134716 |
| 35 | -.084650 | -.050050 | .028449 | |
| 36 | -.065180 | -.030935 | .019029 | -.115202 |
| 37 | -.054444 | -.024028 | -.004300 | -.096477 |
| 38 | -.047111 | -.028090 | -.026172 | -.076584 |
| 39 | -.035456 | -.023010 | -.031801 | -.070870 |
| 40 | -.026881 | -.015922 | -.025603 | |
| 41 | -.022588 | -.017335 | -.025923 | -.064656 |
| 42 | -.016528 | -.014595 | -.018839 | -.061063 |
| 43 | -.006598 | -.012407 | -.008800 | -.055175 |
| 44 | -.006680 | -.010487 | -.005394 | -.052891 |
| 45 | .017986 | -.014362 | .030337 | |
| 46 | .026744 | -.028821 | .051326 | -.062003 |
| 47 | .028748 | -.041480 | .059812 | -.060655 |
| 48 | .029909 | -.049490 | .059640 | -.061075 |
| 49 | .031313 | -.052113 | .054149 | -.067471 |
| 50 | .030861 | -.053367 | .057305 | |
| 51 | .030294 | -.053879 | .061218 | -.060800 |
| 52 | .037424 | -.059679 | .060697 | -.052565 |
| 53 | .050910 | -.067373 | .057994 | -.047334 |
| 54 | .064428 | -.076460 | .053905 | -.049444 |
| 55 | .072887 | -.078411 | .045136 | |
| 56 | .075503 | -.074011 | .037778 | -.039493 |
| 57 | .070720 | -.062845 | .037959 | -.030159 |
| 58 | .067778 | -.043061 | .038737 | -.016534 |
| 59 | .063536 | -.025841 | .032795 | -.000404 |
| 60 | .056260 | -.015093 | .016651 | -.020951 |
| | | 165 | | .042824 |

RUN NC 1018 46M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | -.000804 | -.026824 | -.111295 | .056781 | -.123043 | .149251 |
| 1 | .183387 | -.316554 | -.880311 | .149218 | -.899192 | .993143 |
| 2 | .348309 | -.442894 | -.816407 | -.381395 | -.895409 | .577287 |
| 3 | .370587 | -.435826 | -.597066 | -.844623 | -.827826 | -.227308 |
| 4 | .178950 | -.226599 | -.316525 | -.907968 | -.530721 | -.585777 |
| 5 | .058002 | -.127358 | -.172180 | -.589469 | -.288937 | -.334915 |
| 6 | .019280 | -.130300 | -.156772 | -.179990 | -.191935 | .188619 |
| 7-8 | .035048 | -.140216 | -.154995 | -.452425 | -.154979 | .973878 |
| 9-11 | -.002703 | -.062797 | -.027806 | .071785 | -.077783 | -.031807 |
| 12-15 | .001010 | -.030764 | -.002400 | -.063743 | -.041213 | .039668 |
| 16-20 | .001238 | -.010068 | .000748 | -.110569 | -.030049 | .020413 |
| 21-27 | .005991 | -.011385 | -.012194 | -.045703 | -.020220 | -.046465 |
| 28-36 | -.000989 | -.006004 | -.002911 | .016022 | -.006239 | -.032265 |
| 37-47 | -.000580 | -.003033 | -.000843 | -.023731 | -.008162 | -.015001 |
| 48-60 | -.000612 | -.001584 | .001411 | -.005388 | -.006549 | -.021151 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-03 |
| 1 | -.144466 | -.108295 | -.284135 | .011628 | -.368653 | .554929 |
| 2 | -.243646 | -.154095 | -.137101 | -.094938 | -.337140 | .426036 |
| 3 | -.216924 | -.153903 | .008435 | -.144230 | -.212362 | .408074 |
| 4 | -.100010 | -.063634 | -.024512 | -.041523 | -.144839 | .566632 |
| 5 | -.005340 | -.032213 | -.112815 | .045231 | -.141449 | .623518 |
| 6 | .040485 | -.053953 | -.092048 | .042862 | -.112869 | .416605 |
| 7-8 | .005873 | -.039476 | -.003918 | -.022340 | -.077534 | -.003808 |
| 9-11 | -.024148 | -.014093 | .005090 | .001876 | -.009751 | .198644 |
| 12-15 | -.002384 | -.011223 | .001892 | -.013158 | -.014273 | -.073322 |
| 16-20 | -.000684 | -.007643 | -.011311 | .005810 | -.003843 | -.009130 |
| 21-27 | -.001573 | -.005511 | -.001192 | -.000143 | .001168 | -.040069 |
| 28-36 | -.000678 | -.001359 | .000325 | -.000110 | -.001690 | -.029776 |
| 37-47 | -.000710 | -.000891 | -.001699 | -.000279 | -.002501 | -.013058 |
| 48-60 | .000152 | -.000381 | -.001671 | .000023 | -.001623 | .030159 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .014284 | .019480 | .020509 | .053288 |
| 1 | .127761 | .164006 | .282491 | .396435 |
| 2 | .147820 | .182894 | .435002 | .392891 |
| 3 | .135348 | .175538 | .530867 | .331662 |
| 4 | .076803 | .106340 | .430993 | .184920 |
| 5 | .045542 | .058732 | .316083 | .098909 |
| 6 | .040248 | .051097 | .289264 | .084976 |
| 7-8 | .030164 | .037857 | .313824 | .070107 |
| 9-11 | .014434 | .020756 | .203259 | .043357 |
| 12-15 | .009732 | .013816 | .115085 | .029056 |
| 16-20 | .006349 | .010155 | .087798 | .020693 |
| 21-27 | .004526 | .006627 | .051008 | .013110 |
| 28-36 | .002671 | .003848 | .033342 | .007724 |
| 37-47 | .001839 | .002467 | .019097 | .006340 |
| 48-60 | .001208 | .001795 | .012145 | .004101 |

RUN NO 101B 46M 7-4-63 0944-1100(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12199 10E 01 | 0.57649 10E 00 | 0.23604 10E 00 | 0.57158 10E 00 | 0.23403 10E 00 | 0.11060 10E 00 |
| 0 | .063991 | -.447196 | -.457293 | .006750 | -.367690 | .157553 |
| 1 | -.016562 | -.239314 | -.362605 | .052875 | -.251817 | .129339 |
| 2 | -.065673 | -.083910 | -.251278 | .039260 | -.153378 | .101895 |
| 3 | -.058848 | -.011230 | -.154288 | -.006110 | -.070250 | .072975 |
| 4 | -.019401 | .002924 | -.075095 | .004581 | -.006104 | .029906 |
| 5 | .018792 | .029142 | -.012932 | -.031989 | .047564 | -.003702 |
| 6 | .025976 | .084475 | .009784 | .008681 | .061191 | -.037134 |
| 7 | .041801 | .127804 | .059875 | .031284 | .059778 | -.049698 |
| 8 | .076073 | .168401 | .102843 | -.007645 | .066592 | -.094023 |
| 9 | .069745 | .163509 | .126226 | -.046295 | .102086 | -.087728 |
| 10 | .018555 | .075439 | .144811 | .000351 | .138361 | -.058159 |
| 11 | -.009378 | .039448 | .145945 | -.001358 | .158997 | -.037122 |
| 12 | -.027097 | .022480 | .140711 | -.012343 | .140648 | -.016048 |
| 13 | -.055638 | .000983 | .130253 | -.043041 | .110931 | -.008077 |
| 14 | -.073687 | -.028340 | .110357 | -.046369 | .053463 | -.007754 |
| 15 | -.082248 | -.034208 | .104154 | -.014852 | .003133 | -.030305 |
| 16 | -.095953 | -.076449 | .071773 | -.010665 | -.051845 | .006505 |
| 17 | -.063635 | -.120261 | .038478 | -.013918 | -.085286 | .023677 |
| 18 | .014224 | -.124468 | -.003029 | .011444 | -.126797 | .057179 |
| 19 | .029841 | -.078286 | -.030977 | .018446 | -.115379 | .048686 |
| 20 | .023332 | -.023406 | -.033368 | .037762 | -.055251 | .027544 |
| 21 | .057984 | .021570 | -.024518 | .022563 | -.023848 | -.001131 |
| 22 | .060974 | .079566 | .001533 | .009918 | .025891 | -.050136 |
| 23 | .038563 | .081855 | .025703 | .042321 | .049713 | -.045424 |
| 24 | .057730 | .063815 | .044672 | .009311 | .036113 | -.025232 |
| 25 | .073778 | .018904 | .021970 | -.008268 | -.002205 | -.030016 |
| 26 | .080700 | .061277 | .005297 | -.030355 | -.045173 | -.018189 |
| 27 | .074197 | .052965 | -.008445 | .000722 | -.030588 | -.006753 |
| 28 | .045924 | .060527 | .020824 | .000881 | .029311 | -.001103 |
| 29 | .026849 | .078311 | .023446 | -.001791 | .023132 | .017250 |
| 30 | .010824 | .056498 | .035203 | .022023 | -.019300 | -.011949 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 0 | -.024480 | -.022065 | -.023426 | .013430 | -.008499 | .040185 |
| 1 | -.034209 | -.100554 | -.192021 | .267095 | -.067642 | .245981 |
| 2 | .059907 | -.168316 | -.224721 | .573125 | -.122692 | .306632 |
| 3 | -.129572 | -.396169 | -.227090 | .606421 | -.188286 | .456192 |
| 4 | -.343699 | -.426502 | -.131096 | .074860 | -.125838 | .386193 |
| 5 | -.103731 | -.208578 | -.062658 | .072974 | -.031248 | .165110 |
| 6 | .160160 | -.119743 | -.058239 | .380702 | -.045814 | .081892 |
| 7 | .160568 | -.103640 | -.046030 | .283077 | -.076529 | .005109 |
| 8 | .102012 | -.048882 | -.032561 | .159670 | -.049988 | -.061342 |
| 9-11 | .090223 | -.133723 | -.027784 | .188967 | -.018170 | .043056 |
| 12-14 | .119818 | -.091663 | -.009958 | -.433527 | -.012081 | -.005413 |
| 15-21 | .041609 | -.748399 | -.008669 | -.093379 | -.011573 | .013752 |
| 22-30 | .035735 | -.14747 | -.004984 | -.181594 | -.009558 | .011712 |

RUN NO 1018 '46M 7-4-63 0944-1100(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12199 10E 01 | 0.57649 10E 00 | 0.23604 10E 00 | 0.57158 10E 00 | 0.23403 10E 00 | 0.11060 10E 00 |
| 1 | .006583 | -.089555 | -.045054 | .015017 | -.019630 | .036474 |
| 2 | .091661 | -.111056 | -.073271 | .084085 | .001189 | .048458 |
| 3 | .147174 | -.092761 | -.083377 | .138272 | .023375 | .055714 |
| 4 | .190561 | -.078549 | -.062203 | .127998 | .064910 | .064664 |
| 5 | .204441 | -.091182 | -.036869 | .095882 | .084306 | .037080 |
| 6 | .143271 | -.073245 | -.012830 | .074266 | .084113 | .034944 |
| 7 | .084198 | -.037415 | .008942 | .024843 | .041953 | -.000098 |
| 8 | -.000203 | -.021993 | .043569 | -.005530 | -.003882 | -.037682 |
| 9 | -.087549 | .026285 | .064468 | .008294 | -.071330 | -.035065 |
| 10 | -.093750 | .069593 | .067389 | -.000248 | -.104096 | -.006895 |
| 11 | -.144512 | .074365 | .078003 | -.095097 | -.106730 | -.017937 |
| 12 | -.176618 | .065220 | .090287 | -.168449 | -.087650 | -.007359 |
| 13 | -.164350 | .035111 | .113192 | -.136426 | -.078692 | -.032152 |
| 14 | -.114355 | .030627 | .090371 | -.120213 | -.073364 | -.063717 |
| 15 | -.070183 | .010688 | .046861 | -.045910 | -.076028 | -.073442 |
| 16 | -.020814 | .007810 | -.012906 | .036705 | -.057685 | -.017639 |
| 17 | .042056 | .048074 | -.085697 | .061822 | -.028369 | .054167 |
| 18 | .098335 | .008770 | -.132170 | .090361 | .023274 | .151141 |
| 19 | .131901 | -.021675 | -.151030 | .064890 | .063083 | .140702 |
| 20 | .189805 | -.007273 | -.148055 | .060238 | .083290 | .108286 |
| 21 | .185987 | -.023214 | -.134703 | -.000807 | .095104 | .057493 |
| 22 | .146149 | .004745 | -.116641 | .026063 | .104529 | .044095 |
| 23 | .099878 | .006877 | -.100831 | -.015815 | .099392 | .023778 |
| 24 | .058435 | .013161 | -.079655 | .011108 | .099362 | .031257 |
| 25 | .007928 | -.015085 | -.052940 | -.009415 | .104784 | .003582 |
| 26 | -.016053 | -.032161 | -.025278 | -.019844 | .111973 | -.015894 |
| 27 | -.033112 | -.033361 | -.005074 | -.021303 | .086606 | -.024979 |
| 28 | -.058146 | -.018696 | .000419 | -.042651 | .036813 | -.045734 |
| 29 | -.113419 | -.011839 | .014065 | -.038818 | .025492 | -.066904 |
| 30 | -.136715 | -.031857 | .058755 | -.012523 | .022596 | -.111239 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .027014 | -.000039 | .016258 | -.014208 | -.433957 | .085232 |
| 2 | .099788 | -.083872 | .040160 | .056901 | -.163084 | -.026843 |
| 3 | .801071 | -.200392 | -.052032 | .241488 | .752549 | .174988 |
| 4 | .996159 | -.218334 | -.106491 | .305474 | .793279 | .311189 |
| 5 | .295271 | -.136829 | -.033968 | .102203 | .112105 | .084376 |
| 6 | -.062878 | -.050886 | -.005739 | -.040307 | -.185448 | .051942 |
| 7 | -.091126 | -.009039 | -.027879 | .034817 | -.334335 | .169716 |
| 8 | -.142318 | -.008948 | -.021590 | .089056 | -.412075 | .028603 |
| 9-11 | -.113672 | -.052756 | -.000929 | -.042934 | -.075460 | -.029124 |
| 12-14 | -.014166 | -.027605 | -.002195 | -.009573 | -.036132 | .019348 |
| 15-21 | -.034388 | -.007632 | .000959 | -.019533 | -.019101 | .011896 |
| 22-30 | -.024825 | -.003612 | -.000839 | -.002516 | -.032230 | -.012690 |

RUN NO 1018 46M 7-4-63 0944-1100(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12303 10E 01 | 0.12095 10E 01 | 0.27 13 10E 00 | 0.45283 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .673044 | .553230 | .242726 | .778993 |
| 2 | .379451 | .212023 | .100508 | .525936 |
| 3 | .195258 | .014772 | .047344 | .327372 |
| 4 | .061410 | -.128131 | -.052019 | .191412 |
| 5 | -.036181 | -.197785 | -.010807 | .065702 |
| 6 | -.127660 | -.180724 | -.085680 | -.001286 |
| 7 | -.224771 | -.113014 | -.152870 | -.057135 |
| 8 | -.292572 | -.078611 | -.222665 | -.127400 |
| 9 | -.305165 | -.145242 | -.189033 | -.230730 |
| 10 | -.278903 | -.187793 | -.167890 | -.302639 |
| 11 | -.259223 | -.179118 | -.070674 | -.324024 |
| 12 | -.240658 | -.166996 | -.059648 | -.289488 |
| 13 | -.187495 | -.105504 | -.055163 | -.249423 |
| 14 | -.109352 | -.028066 | -.015094 | -.193159 |
| 15 | -.041798 | .022179 | -.026982 | -.158238 |
| 16 | .055946 | .103765 | -.003076 | -.127512 |
| 17 | .099204 | .153514 | .136208 | -.117132 |
| 18 | .145646 | .177838 | .090355 | -.092030 |
| 19 | .104064 | .145036 | -.008841 | -.060915 |
| 20 | .067633 | .051401 | .065733 | -.074247 |
| 21 | .027804 | .050105 | .081587 | -.098551 |
| 22 | -.022934 | -.026910 | -.031472 | -.118277 |
| 23 | -.053090 | -.092630 | .024807 | -.128261 |
| 24 | -.105885 | -.165109 | -.014881 | -.131334 |
| 25 | -.091149 | -.148414 | .065780 | -.077578 |
| 26 | -.088029 | -.088621 | -.015937 | .000641 |
| 27 | -.105787 | -.084676 | .007112 | .049667 |
| 28 | -.108662 | -.059029 | -.070942 | .033276 |
| 29 | -.072251 | -.011778 | -.083552 | .026566 |
| 30 | -.046311 | .073241 | -.043898 | .050117 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .014525 | .010800 | .011274 | .120043 |
| 1 | .123193 | .063613 | .092305 | .927795 |
| 2 | .173330 | .092822 | .171252 | .934657 |
| 3 | .237180 | .161104 | .278159 | .840390 |
| 4 | .179503 | .144744 | .246932 | .521371 |
| 5 | .081265 | .083398 | .150675 | .241926 |
| 6 | .060530 | .093956 | .103173 | .178383 |
| 7 | .059946 | .108913 | .086078 | .209376 |
| 8 | .043004 | .087311 | .075862 | .201763 |
| 9-11 | .039974 | .044775 | .122379 | .110911 |
| 12-14 | .027064 | .026167 | .089726 | .053835 |
| 15-21 | .016443 | .025062 | .090707 | .041011 |
| 22-30 | .012764 | .019647 | .113568 | .025194 |

RUN NO 101B 91M 7-4-63 0944-1100(EST)

GROSS STATISTICS

6 CU
UNSTABLE WIND SPEED 7.97 M/SEC SIGMA A 11.5 DEG
 WIND DIRECTION 286 DEG SIGMA E 6.3 DEG
 SOLAR RAD. 0.93 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.21417E 01 | 0.11407E 01 | 0.50628E 00 | 0.92835E 00 |
| V | 0.23882E 01 | 0.13860E 01 | 0.75353E 00 | 0.10807E 01 |
| W | 0.67295E 00 | 0.61094E 00 | 0.51213E 00 | 0.35421E-00 |
| T | 0.34173E-00 | 0.69044E-01 | 0.23758E-01 | 0.60608E-01 |
| E | 0.26015E 01 | 0.15691E 01 | 0.88597E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.18362 | 0.13400 | 0.08928 | 0.12089 |
| V | 0.19390 | 0.14771 | 0.10892 | 0.13043 |
| W | 0.10293 | 0.09807 | 0.08999 | 0.07467 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.23473E-00 | 0.12536E-00 | 0.27065E-01 | 0.11691E-00 |
| U,W | -0.31207E-00 | -0.19908E-00 | -0.72051E-01 | -0.16796E-00 |
| U,T | 0.59951E-01 | -0.51997E-01 | -0.61244E-02 | -0.49520E-01 |
| V,W | -0.14278E-01 | -0.72487E-01 | -0.51989E-02 | -0.78707E-01 |
| V,T | 0.20153E-00 | -0.83530E-01 | -0.32949E-01 | -0.73081E-01 |
| W,T | -0.13246E-01 | -0.10323E-01 | -0.18428E-01 | -0.18312E-02 |

| | | | | |
|----|-------------|-------------|-------------|--|
| WE | 0.38025E-00 | 0.21305E-00 | 0.66829E-01 | |
|----|-------------|-------------|-------------|--|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.10379 | 0.09971 | 0.04382 | 0.11672 |
| U,W | -0.25994 | -0.23848 | -0.14150 | -0.29289 |
| U,T | 0.07008 | -0.18528 | -0.05584 | -0.20877 |
| V,W | -0.01126 | -0.07878 | -0.09837 | -0.12721 |
| V,T | 0.22308 | -0.27003 | -0.24626 | -0.28555 |
| W,T | -0.02762 | -0.05026 | -0.16706 | -0.01250 |

RUN NC 1018 91M 7-4-63 0944-1100(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.61783 10E 00 | 0.50941 10E 00 | 0.10972 10E 00 | 0.62124 10E 00 | 0.13381 10E 00 | 0.11033 10E 00 |
| 0 | .043736 | -.141480 | -.055974 | -.008439 | -.246204 | -.166968 |
| 1 | .038941 | -.135912 | -.052138 | -.006478 | -.229624 | -.137665 |
| 2 | .032053 | -.121601 | -.047590 | -.007134 | -.207606 | -.100988 |
| 3 | .028357 | -.106187 | -.042338 | -.010002 | -.188198 | -.068677 |
| 4 | .025156 | -.091569 | -.031795 | -.014085 | -.162166 | -.041824 |
| 5 | .025198 | -.074290 | -.022279 | -.011576 | -.135674 | -.029380 |
| 6 | .026301 | -.056760 | -.015083 | -.006252 | -.113412 | -.022771 |
| 7 | .019683 | -.045596 | -.01829 | -.004713 | -.091765 | -.012711 |
| 8 | .010654 | -.031536 | -.008412 | -.002534 | -.074866 | -.004468 |
| 9 | .002655 | -.008726 | -.006519 | -.002483 | -.053474 | .005673 |
| 10 | -.001811 | .006867 | -.005650 | -.001523 | -.031548 | .015644 |
| 11 | -.006327 | .022207 | -.005016 | -.000614 | -.012459 | .022545 |
| 12 | -.010770 | .035569 | -.004645 | -.000273 | -.004125 | .025888 |
| 13 | -.014479 | .048351 | -.002940 | -.000678 | .021492 | .026683 |
| 14 | -.015699 | .060181 | -.003717 | -.000829 | .032661 | .031302 |
| 15 | -.012296 | .065499 | -.003154 | -.001378 | .047813 | .033138 |
| 16 | -.008550 | .071391 | -.004178 | .003572 | .056894 | .035389 |
| 17 | -.007944 | .075605 | -.002427 | .000346 | .062344 | .047013 |
| 18 | -.005957 | .073132 | .000311 | -.010133 | .066049 | .056386 |
| 19 | -.003765 | .068244 | .005225 | -.013660 | .066794 | .062020 |
| 20 | -.003306 | .061714 | .012572 | -.015790 | .070177 | .060234 |
| 21 | -.004823 | .052731 | .011409 | -.019483 | .068701 | .058519 |
| 22 | -.010187 | .041631 | .016226 | -.025269 | .065706 | .059956 |
| 23 | -.011889 | .024798 | .027193 | -.030714 | .060831 | .059682 |
| 24 | -.006204 | .007895 | .033763 | -.034890 | .057333 | .059221 |
| 25 | -.002963 | -.000025 | .036921 | -.042651 | .056903 | .056420 |
| 26 | -.003500 | -.004028 | .035288 | -.044342 | .052478 | .051157 |
| 27 | -.004918 | -.002342 | .025234 | -.039334 | .045452 | .042070 |
| 28 | -.000170 | -.004074 | .013187 | -.030593 | .044252 | .028326 |
| 29 | .006177 | -.003602 | .001344 | -.022703 | .047534 | .010418 |
| 30 | .010633 | -.003909 | -.005526 | -.017178 | .046023 | -.009752 |
| 31 | .014479 | .000182 | -.012651 | -.013129 | .047256 | -.023373 |
| 32 | .023100 | .001120 | -.016831 | -.006639 | .047388 | -.029358 |
| 33 | .028336 | .001003 | -.024069 | -.001898 | .041984 | -.030763 |
| 34 | .029438 | .002010 | -.032546 | .002922 | .042873 | -.029723 |
| 35 | .027809 | -.004505 | -.037378 | .007965 | .043682 | -.029527 |
| 36 | .023154 | -.016074 | -.041212 | .014417 | .041684 | -.030268 |
| 37 | .021534 | -.017589 | -.045178 | .023229 | .043229 | -.027231 |
| 38 | .018118 | -.018268 | -.045612 | .032864 | .047138 | -.020009 |
| 39 | .013001 | -.023696 | -.040921 | .041614 | .046218 | -.008618 |
| 40 | .007831 | -.023427 | -.035731 | .042197 | .045755 | -.002750 |
| 41 | .002908 | -.022417 | -.031579 | .038210 | .047472 | -.000921 |
| 42 | -.002534 | -.019486 | -.023813 | .034339 | .045074 | .004617 |
| 43 | -.006435 | -.010777 | -.020452 | .035750 | .044288 | .003844 |
| 44 | -.014780 | -.004269 | -.017956 | .039979 | .043749 | -.001899 |
| 45 | -.021592 | .000721 | -.014005 | .044723 | .042540 | -.003731 |
| 46 | -.025493 | .009794 | -.010650 | .050224 | .043305 | -.003749 |
| 47 | -.028653 | .018584 | -.011516 | .049662 | .047871 | -.003910 |
| 48 | -.033181 | .021299 | -.008110 | .041963 | .051827 | .002363 |
| 49 | -.036226 | .024944 | -.006489 | .038277 | .052979 | .005256 |
| 50 | -.043626 | .028307 | -.001273 | .037320 | .049726 | .005738 |
| 51 | -.047177 | .027555 | -.001064 | .034260 | .042095 | .014113 |
| 52 | -.048199 | .028967 | -.004633 | .031165 | .029168 | .014092 |
| 53 | -.049214 | .022382 | -.006050 | .028758 | .016791 | .014792 |
| 54 | -.043701 | .017120 | -.006332 | .028216 | .006453 | .017484 |
| 55 | -.028002 | .014346 | -.004733 | .026645 | -.000474 | .015353 |
| 56 | -.016474 | .009517 | .004197 | .023250 | -.004773 | .008281 |
| 57 | -.008029 | .004210 | .010203 | .015370 | -.007554 | .002664 |
| 58 | -.002532 | .000465 | .020568 | .004912 | -.012943 | -.007190 |
| 59 | -.001213 | -.000607 | .035827 | .000587 | -.023162 | -.016216 |
| 60 | .000567 | -.005264 | .050306 | -.000727 | -.032350 | -.019141 |

RUN NC 101B 91M 7-4-63 0944-1100(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.61783 10E 00 | 0.50941 10E 00 | 0.10972 10E 00 | 0.62124 10E 00 | 0.13381 10E 00 | 0.11033 10E 00 |
| 1 | -.008632 | -.041523 | -.007758 | .009941 | -.014630 | .004230 |
| 2 | -.012506 | -.072476 | -.008470 | .020053 | -.023635 | .002849 |
| 3 | -.016982 | -.092128 | -.015710 | .030672 | -.031847 | .001851 |
| 4 | -.022861 | -.106992 | -.023281 | .035702 | -.033591 | .003818 |
| 5 | -.024526 | -.123312 | -.029614 | .033570 | -.033846 | .008762 |
| 6 | -.030774 | -.137705 | -.033166 | .032799 | -.031720 | .009006 |
| 7 | -.042145 | -.141803 | -.035131 | .033047 | -.033169 | .006165 |
| 8 | -.046850 | -.139274 | -.036679 | .029494 | -.037525 | .005609 |
| 9 | -.044989 | -.134742 | -.041774 | .026502 | -.044803 | .009987 |
| 10 | -.044974 | -.131452 | -.041179 | .025869 | -.046421 | .018078 |
| 11 | -.045992 | -.126754 | -.032271 | .028903 | -.041695 | .024221 |
| 12 | -.047009 | -.120287 | -.022099 | .030511 | -.031031 | .026549 |
| 13 | -.046790 | -.113878 | -.014905 | .030147 | -.014621 | .023328 |
| 14 | -.051890 | -.100520 | -.005215 | .033398 | -.005814 | .021103 |
| 15 | -.057020 | -.087127 | .001078 | .035879 | -.005282 | .023213 |
| 16 | -.061757 | -.072529 | .003137 | .034687 | -.008981 | .028229 |
| 17 | -.063296 | -.057306 | .004380 | .034788 | -.013056 | .026146 |
| 18 | -.059142 | -.045409 | .000238 | .036927 | -.015804 | .026623 |
| 19 | -.050538 | -.034712 | -.005380 | .034983 | -.020407 | .022378 |
| 20 | -.042278 | -.022881 | -.008386 | .027242 | -.023993 | .019738 |
| 21 | -.034656 | -.013522 | -.013835 | .015376 | -.027285 | .019999 |
| 22 | -.023702 | -.002027 | -.014225 | .004390 | -.029352 | .011911 |
| 23 | -.011418 | .007962 | -.009885 | -.005018 | -.027285 | .012998 |
| 24 | -.000282 | .014555 | -.010329 | -.012012 | -.023966 | .017880 |
| 25 | .005204 | .021955 | -.011192 | -.019681 | -.020186 | .023171 |
| 26 | .008253 | .034043 | -.006129 | -.024570 | -.020499 | .027504 |
| 27 | .013530 | .044249 | -.004245 | -.022419 | -.022645 | .026835 |
| 28 | .017132 | .050244 | -.007629 | -.021810 | -.024419 | .027012 |
| 29 | .018158 | .057946 | -.007831 | -.021727 | -.024838 | .029265 |
| 30 | .023857 | .057239 | -.007366 | -.022709 | -.021045 | .034477 |
| 31 | .032128 | .045377 | -.010017 | -.024418 | -.014051 | .038431 |
| 32 | .041724 | .035484 | -.010175 | -.022699 | -.006592 | .039234 |
| 33 | .050132 | .025151 | -.013788 | -.019232 | -.003205 | .031998 |
| 34 | .058640 | .020064 | -.017002 | -.016933 | -.002187 | .013686 |
| 35 | .067326 | .016326 | -.023102 | -.011915 | -.001037 | .001455 |
| 36 | .068214 | .014645 | -.024457 | -.005185 | -.000574 | -.002099 |
| 37 | .063424 | .012290 | -.018991 | .000619 | .001016 | -.006711 |
| 38 | .057426 | .011485 | -.022616 | .000693 | .001905 | -.016086 |
| 39 | .051517 | .012967 | -.029452 | -.002640 | -.001514 | -.018736 |
| 40 | .047107 | .016004 | -.036707 | -.009594 | -.006173 | -.017386 |
| 41 | .047607 | .022801 | -.041714 | -.013892 | -.012797 | -.016128 |
| 42 | .049394 | .030508 | -.038460 | -.019655 | -.019706 | -.020423 |
| 43 | .048841 | .032602 | -.035170 | -.027187 | -.018925 | -.021129 |
| 44 | .045907 | .036233 | -.031989 | -.034935 | -.011594 | -.019734 |
| 45 | .039877 | .044756 | -.024270 | -.034972 | -.008381 | -.020703 |
| 46 | .036308 | .044996 | -.016807 | -.028495 | -.010087 | -.024345 |
| 47 | .032097 | .048983 | -.012766 | -.016802 | -.011158 | -.022619 |
| 48 | .024733 | .051204 | -.008008 | -.007590 | -.004310 | -.017159 |
| 49 | .014879 | .050836 | -.006424 | -.003938 | -.005769 | -.016020 |
| 50 | .006581 | .049196 | -.003657 | .018465 | .012299 | -.018069 |
| 51 | .000405 | .045524 | .001956 | .029665 | .018332 | -.014155 |
| 52 | -.007615 | .040906 | .007515 | .032599 | .020815 | -.016881 |
| 53 | -.011234 | .039884 | .010892 | .031441 | .022087 | -.022206 |
| 54 | -.009091 | .035130 | .019918 | .031944 | .024291 | -.023118 |
| 55 | -.005801 | .023750 | .027512 | .035383 | .025682 | -.018790 |
| 56 | -.004613 | .016770 | .027109 | .034925 | .032732 | -.019743 |
| 57 | -.005449 | .010731 | .023197 | .029305 | .040335 | -.022386 |
| 58 | -.007998 | .006662 | .015700 | .023914 | .042360 | -.023528 |
| 59 | -.011070 | .002350 | .007221 | .013080 | .041891 | -.027376 |
| 60 | -.016523 | -.007013 | .002024 | .000229 | .042272 | -.029376 |

RUN NC 101B 91M 7-4-63 0944-1100(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.50661 10E 00 | 0.75346 10E 00 | 0.51222 10E 00 | 0.23763 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | -.872133 | -.877819 | -.820818 | .864227 |
| 2 | .712420 | .717053 | .592045 | .717036 |
| 3 | .577840 | .585388 | .417766 | .610213 |
| 4 | .463280 | .471349 | .281849 | .516938 |
| 5 | .369308 | .376573 | .180493 | .437821 |
| 6 | .288489 | .296086 | .096115 | .365465 |
| 7 | .212996 | .223151 | .021974 | .299603 |
| 8 | .146243 | .158323 | -.035634 | .240076 |
| 9 | .087130 | .096650 | -.076258 | .177347 |
| 10 | -.036164 | .037606 | -.105231 | .116919 |
| 11 | -.011203 | -.015780 | -.127213 | .065328 |
| 12 | -.051257 | -.061729 | -.138569 | .027298 |
| 13 | -.093804 | -.103896 | -.152525 | -.01195. |
| 14 | -.136555 | -.132867 | -.168746 | -.054672 |
| 15 | -.173262 | -.161147 | -.178686 | -.097528 |
| 16 | -.205160 | -.184225 | -.189483 | -.143997 |
| 17 | -.233558 | -.204665 | -.202223 | -.186142 |
| 18 | -.255729 | -.222244 | -.214986 | -.217881 |
| 19 | -.274200 | -.232078 | -.229141 | -.241329 |
| 20 | -.286003 | -.232934 | -.236780 | -.254324 |
| 21 | -.292972 | -.229397 | -.240350 | -.263018 |
| 22 | -.300262 | -.224852 | -.238794 | -.267679 |
| 23 | -.303208 | -.226187 | -.223161 | -.273118 |
| 24 | -.300016 | -.227877 | -.199564 | -.277323 |
| 25 | -.292727 | -.226110 | -.170679 | -.276693 |
| 26 | -.280008 | -.219035 | -.151467 | -.279172 |
| 27 | -.262797 | -.206888 | -.135568 | -.270027 |
| 28 | -.237800 | -.193395 | -.122209 | -.261581 |
| 29 | -.207852 | -.173352 | -.102910 | -.258271 |
| 30 | -.172930 | -.142518 | -.070012 | -.240994 |
| 31 | -.136167 | -.108155 | -.033550 | -.214178 |
| 32 | -.099619 | -.082687 | -.013441 | -.190017 |
| 33 | -.070282 | -.063300 | -.009998 | -.166562 |
| 34 | -.054322 | -.052186 | -.000578 | -.153609 |
| 35 | -.044649 | -.038283 | .025651 | -.138876 |
| 36 | -.037271 | -.024921 | .050048 | -.122102 |
| 37 | -.027479 | -.018277 | .061641 | -.111329 |
| 38 | -.017074 | -.017521 | .059943 | -.099373 |
| 39 | -.015032 | -.014163 | .056386 | -.084015 |
| 40 | -.012313 | -.013026 | .059141 | -.070453 |
| 41 | -.008026 | -.015501 | .059882 | -.066363 |
| 42 | -.005500 | -.021957 | .065129 | -.059221 |
| 43 | -.003586 | -.031740 | .067131 | -.045190 |
| 44 | -.003066 | -.049723 | .061422 | -.032143 |
| 45 | -.003137 | -.072675 | .048095 | -.021304 |
| 46 | -.001612 | -.099075 | .036285 | -.010103 |
| 47 | .000588 | -.122364 | .028349 | -.010592 |
| 48 | .011999 | -.132338 | .021068 | -.014908 |
| 49 | .026088 | -.132301 | .012653 | -.012579 |
| 50 | .043920 | -.133915 | .003415 | -.001763 |
| 51 | .059390 | -.136630 | -.001609 | .002437 |
| 52 | .072359 | -.133339 | .007085 | .016102 |
| 53 | .080206 | -.120960 | .015885 | .024970 |
| 54 | .087573 | -.107347 | .022556 | .036961 |
| 55 | .094891 | -.095468 | .021021 | .050822 |
| 56 | .097327 | -.088050 | .021170 | .059975 |
| 57 | .095331 | -.076279 | .029820 | .065522 |
| 58 | .092332 | -.063515 | .045178 | .082031 |
| 59 | .084096 | -.050060 | .058016 | .095555 |
| 60 | .076244 | -.031586 | .059054 | .093392 |

RUN NO 1018 91M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .180713 | -.016431 | -.053272 | -.189865 | -.108032 | .006746 |
| 1 | .548980 | -.097658 | -.112577 | -.646607 | -.835597 | -.097327 |
| 2 | .287475 | -.125626 | -.096886 | .189272 | -.771440 | -.236645 |
| 3 | .600377 | -.183574 | -.152421 | .358579 | -.645183 | -.353205 |
| 4 | .574291 | -.159054 | -.051705 | -.368529 | -.448141 | -.245020 |
| 5 | .125265 | -.085332 | .023114 | -.393511 | -.242098 | -.070884 |
| 6 | .157769 | -.029366 | -.043153 | .021338 | -.109425 | -.061034 |
| 7-8 | .076065 | .006411 | -.061190 | .117579 | -.053508 | -.117355 |
| 9-11 | -.071497 | -.012789 | -.006386 | -.009050 | -.044277 | -.054206 |
| 12-15 | .041347 | -.005338 | -.005260 | .036010 | -.022894 | -.039307 |
| 16-20 | .042195 | -.003126 | .001131 | .011574 | -.008586 | -.031049 |
| 21-27 | .012467 | .000415 | .000431 | -.010294 | -.004954 | -.010451 |
| 28-36 | .005836 | -.001779 | -.001731 | -.009356 | -.007011 | -.005802 |
| 37-47 | .011931 | .000511 | -.001468 | .001740 | -.005286 | -.007903 |
| 48-60 | -.001271 | .000157 | -.000378 | -.005813 | -.001316 | -.003065 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | -.063843 | -.145491 | -.168675 | .477233 | -.272033 | .192324 |
| 2 | -.160521 | -.226506 | -.068500 | .896386 | -.171870 | .118394 |
| 3 | -.127090 | -.253056 | -.079646 | .949809 | -.105417 | .004424 |
| 4 | -.004110 | -.177593 | -.104401 | .403683 | -.079066 | -.011022 |
| 5 | .019231 | -.076498 | -.064337 | -.017132 | -.089103 | .020895 |
| 6 | .006024 | -.029331 | -.056272 | -.094615 | -.101907 | -.020414 |
| 7-8 | -.005526 | -.029963 | -.010015 | .300892 | -.022458 | -.020304 |
| 9-11 | -.000240 | -.000242 | .028183 | .102582 | .015799 | .007253 |
| 12-15 | .002310 | -.003607 | -.007277 | .027195 | -.031395 | .006002 |
| 16-20 | -.004275 | -.003633 | .003055 | -.014258 | -.000100 | -.005602 |
| 21-27 | -.000021 | -.004084 | -.000723 | -.007723 | -.000443 | .005500 |
| 28-36 | -.000721 | .000124 | -.002645 | -.010919 | -.000789 | .001777 |
| 37-47 | -.000844 | .000009 | -.002688 | .006237 | -.001234 | .000116 |
| 48-60 | .000291 | -.000095 | -.001321 | -.000733 | -.001468 | .000495 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .081877 | .018130 | .021087 | .067055 |
| 1 | .783174 | .130620 | .358620 | .502262 |
| 2 | .965196 | .134279 | .614456 | .508607 |
| 3 | .954345 | .132833 | .792015 | .418965 |
| 4 | .567243 | .088242 | .582771 | .220764 |
| 5 | .282215 | .047408 | .365360 | .117127 |
| 6 | .222778 | .038365 | .317968 | .088023 |
| 7-8 | .196630 | .026038 | .280749 | .068540 |
| 9-11 | .118419 | .016696 | .171753 | .049117 |
| 12-15 | .067233 | .010394 | .098546 | .025834 |
| 16-20 | .044005 | .006307 | .066649 | .021088 |
| 21-27 | .025913 | .003847 | .040740 | .012654 |
| 28-36 | .016025 | .002373 | .023453 | .009201 |
| 37-47 | .011793 | .001590 | .016447 | .006719 |
| 48-60 | .007429 | .000920 | .009294 | .004083 |

RUN NC 101B 91M 7-4-63 0944-1100(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10017 10E 01 | 0.57356 10E 00 | 0.23732 10E 00 | 0.61858 10E 00 | 1.25595 10E 00 | 0.14655 10E 00 |
| 0 | .116710 | -.292829 | -.208667 | -.127238 | -.285530 | -.012496 |
| 1 | .089912 | -.215133 | -.198460 | -.075575 | -.223834 | .031318 |
| 2 | .069914 | -.144107 | -.163014 | -.074898 | -.147568 | .062737 |
| 3 | .041714 | -.140471 | -.132364 | -.031445 | -.100400 | .032953 |
| 4 | .017309 | -.059680 | -.097240 | .052460 | -.030878 | -.000718 |
| 5 | -.036701 | .018539 | -.052352 | .068815 | .019233 | -.005548 |
| 6 | -.048027 | .038769 | .012321 | .067630 | .055153 | -.039049 |
| 7 | -.055209 | .052184 | .038136 | .081262 | .068036 | -.062873 |
| 8 | -.068448 | .078899 | .018352 | .079199 | .093434 | -.034935 |
| 9 | -.080978 | .100080 | -.000793 | .056127 | .125018 | -.004194 |
| 10 | -.068370 | .084493 | .009490 | .067239 | .134213 | -.006009 |
| 11 | -.059243 | .126069 | .036495 | .070557 | .116200 | -.002311 |
| 12 | -.069497 | .092089 | .052277 | .014716 | .091363 | -.021656 |
| 13 | -.056242 | .021491 | .051744 | -.021011 | .088287 | -.001770 |
| 14 | -.017420 | -.003656 | .025109 | -.047828 | .056341 | -.004975 |
| 15 | .015376 | .009232 | .000529 | -.129249 | -.001408 | .052217 |
| 16 | .028840 | -.015787 | .026662 | -.142775 | -.043195 | .018248 |
| 17 | .030048 | -.008448 | .083971 | -.090108 | -.066134 | -.001570 |
| 18 | .045527 | -.012827 | .115924 | -.071800 | -.090333 | -.006444 |
| 19 | .039703 | -.013504 | .126480 | .013415 | -.056626 | -.028953 |
| 20 | .025794 | -.023748 | .114629 | .034631 | -.029663 | -.016514 |
| 21 | .021014 | -.021733 | .102978 | .057295 | .015985 | -.031605 |
| 22 | -.022438 | .003564 | .092438 | .058609 | .064364 | -.053550 |
| 23 | -.030607 | .010750 | .074585 | .080976 | .084024 | -.065212 |
| 24 | -.015642 | .044117 | .060452 | .062621 | .072484 | -.034220 |
| 25 | -.001414 | .070206 | .047341 | .073132 | .064266 | -.029962 |
| 26 | .012364 | .053937 | .053483 | .014480 | .026353 | -.002385 |
| 27 | .021904 | .063781 | .049095 | -.032341 | -.000880 | .012045 |
| 28 | .005672 | .057025 | .035616 | .026168 | -.027808 | .021593 |
| 29 | .009415 | .047332 | .000792 | .006401 | -.067036 | .036562 |
| 30 | .024513 | .014652 | -.061668 | -.037013 | -.086985 | .075037 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.030752 | -.045947 | -.027898 | .010394 | -.006268 | -.020997 |
| 1 | .015426 | -.268482 | -.187820 | .042088 | -.083988 | .060216 |
| 2 | .212527 | -.294115 | -.132335 | -.005646 | -.127440 | .084612 |
| 3 | .382753 | -.368916 | -.077672 | -.193775 | -.183547 | .147511 |
| 4 | .287642 | -.275039 | -.070470 | -.296254 | -.136394 | .245286 |
| 5 | .076055 | -.113296 | -.051211 | -.102815 | -.034704 | .124779 |
| 6 | .043652 | -.047926 | -.014272 | -.003335 | -.027694 | .015164 |
| 7 | .067237 | -.040533 | -.011475 | -.079645 | -.043295 | -.000581 |
| 8 | .021671 | -.058063 | -.009257 | -.075726 | -.020940 | -.066063 |
| 9-11 | -.006391 | -.004389 | .013533 | .010381 | -.014247 | -.118250 |
| 12-14 | -.002578 | -.020642 | -.012708 | .015324 | -.002243 | -.024510 |
| 15-21 | .019092 | -.037804 | .000315 | -.010055 | -.010083 | -.063888 |
| 22-30 | .009246 | -.007003 | .000735 | -.022018 | -.002730 | -.007123 |

RUN NC 101B 91W 7-4-63 0944-1100(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| | 0.10017 10E 01 | 0.57356 10E 00 | 0.2732 10E 00 | 0.61859 10E 00 | 0.25595 10E 00 | 0.14655 10E 00 |
| 1 | -.006161 | -.124383 | -.005336 | .040943 | -.042063 | .045759 |
| 2 | -.009427 | -.066024 | .021525 | .008321 | -.050264 | .041659 |
| 3 | .038730 | -.046399 | .034727 | -.029766 | -.057319 | .043530 |
| 4 | .047326 | -.044035 | .056820 | -.043778 | -.048120 | -.011132 |
| 5 | .030982 | -.018832 | .089388 | -.055407 | -.020511 | -.020745 |
| 6 | .018191 | -.035180 | .111473 | -.025442 | .017583 | -.036785 |
| 7 | .003777 | -.076873 | .127386 | -.058073 | .021307 | -.020529 |
| 8 | -.035618 | .007986 | .145316 | .005179 | .009158 | -.005150 |
| 9 | -.045813 | .072649 | .130470 | .011915 | -.011650 | -.038891 |
| 10 | -.045889 | .063983 | .108097 | .013450 | -.028957 | -.054635 |
| 11 | -.057184 | .044906 | .109466 | .020518 | -.034498 | -.066016 |
| 12 | -.035413 | .027204 | .081168 | .018273 | -.014103 | -.046381 |
| 13 | -.028377 | .024205 | .045556 | .011713 | -.017331 | -.047868 |
| 14 | -.017784 | .019374 | .010181 | -.041406 | -.027729 | -.010998 |
| 15 | .014882 | .039987 | -.056197 | -.026277 | -.037154 | .002705 |
| 16 | .052489 | .034960 | -.119714 | .004176 | -.067183 | .035744 |
| 17 | .050544 | .019221 | -.148690 | .054434 | -.074897 | .076962 |
| 18 | .053297 | -.015760 | -.158865 | .010140 | -.056584 | .112422 |
| 19 | .109891 | -.050780 | -.152927 | .019986 | -.032476 | .119151 |
| 20 | .119795 | -.053126 | -.111058 | .034479 | -.008129 | .093165 |
| 21 | .137242 | -.083478 | -.082089 | -.026082 | .027987 | .071999 |
| 22 | .127543 | -.054339 | -.076996 | -.078453 | .078575 | .056419 |
| 23 | .074645 | .001176 | -.041856 | -.040293 | .115989 | .054545 |
| 24 | .006552 | -.016976 | .002097 | -.026330 | .151528 | .006440 |
| 25 | -.053424 | -.044713 | .023865 | -.071174 | .162815 | -.020709 |
| 26 | -.066507 | -.030623 | -.002486 | -.026351 | .162335 | -.021789 |
| 27 | -.040389 | .001135 | -.037781 | .021529 | .145126 | -.027771 |
| 28 | -.014157 | .036731 | -.054345 | .081809 | .152442 | -.007278 |
| 29 | .004071 | .021897 | -.039238 | .112162 | .167962 | -.007803 |
| 30 | .023179 | .042892 | -.034280 | .081006 | .167348 | -.020311 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .057907 | .014478 | .084643 | -.407927 | -.502601 | -.046757 |
| 2 | -.118799 | -.010555 | .141611 | -.448408 | -.265651 | -.264773 |
| 3 | .060319 | -.125557 | .085689 | -.754092 | .103154 | -.014983 |
| 4 | .251373 | -.155745 | -.040353 | -.496804 | -.309300 | .324459 |
| 5 | .076585 | -.078304 | -.039239 | -.326478 | -.390202 | .128067 |
| 6 | -.000975 | -.049821 | .001036 | -.027434 | -.217588 | .001527 |
| 7 | -.032708 | -.026076 | -.009049 | .795873 | -.367243 | .120144 |
| 8 | -.076754 | .006622 | -.015344 | .695581 | -.282263 | .160255 |
| 9-11 | -.045835 | -.083319 | .001444 | .277639 | .036549 | .120664 |
| 12-14 | -.025611 | -.042241 | -.003425 | .218636 | -.007772 | -.016760 |
| 15-21 | .006433 | -.043744 | -.003404 | .150280 | -.037357 | .003671 |
| 22-30 | .013518 | -.011703 | -.001085 | .023874 | -.020392 | .040155 |

RUN NC 101B 9IM 7-4-63 0944-1100(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.92881 10E 00 | 0.10804 10E 01 | 0.35419 10E 00 | 0.60636 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .719590 | .612122 | .241866 | .806147 |
| 2 | .462038 | .330193 | .062348 | .565257 |
| 3 | .325239 | .140311 | .069339 | .384841 |
| 4 | .217002 | -.039803 | .040619 | .239987 |
| 5 | .123309 | -.205813 | -.045449 | .106984 |
| 6 | .045135 | -.227411 | -.019514 | -.011830 |
| 7 | -.066079 | -.177473 | -.076441 | -.126267 |
| 8 | -.163951 | -.173474 | -.277718 | -.211015 |
| 9 | -.175544 | -.224395 | -.133759 | -.270775 |
| 10 | -.206895 | -.247297 | -.151863 | -.321604 |
| 11 | -.277518 | -.183893 | -.136559 | -.330804 |
| 12 | -.300986 | -.173899 | -.114365 | -.299663 |
| 13 | -.285695 | -.142799 | -.054423 | -.255546 |
| 14 | -.272715 | -.030618 | -.059851 | -.213793 |
| 15 | -.193655 | .095958 | -.036800 | -.152466 |
| 16 | -.161848 | .196170 | .065136 | -.101773 |
| 17 | -.141049 | .186048 | .084207 | -.074648 |
| 18 | -.128524 | .192044 | .133887 | -.058562 |
| 19 | -.158260 | .138240 | .066915 | -.058420 |
| 20 | -.155027 | -.001282 | .057852 | -.069794 |
| 21 | -.095203 | -.095675 | .011080 | -.091662 |
| 22 | -.029143 | -.143448 | -.018060 | -.131347 |
| 23 | .009587 | -.150943 | .047121 | -.131876 |
| 24 | .055277 | -.171104 | -.055779 | -.097561 |
| 25 | .051422 | -.170416 | -.074603 | -.057800 |
| 26 | .012730 | -.173866 | -.153173 | -.026965 |
| 27 | .016494 | -.114693 | -.089347 | -.018094 |
| 28 | .002071 | -.101547 | -.053674 | -.007613 |
| 29 | -.001519 | -.024235 | -.029189 | .004087 |
| 30 | .052270 | .052275 | -.097380 | .005933 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-01 |
| 0 | .024220 | .012358 | .024113 | .016874 |
| 1 | .190518 | .081103 | .165190 | .127842 |
| 2 | .193518 | .104225 | .243516 | .131407 |
| 3 | .157620 | .176356 | .373095 | .124214 |
| 4 | .085756 | .168228 | .293941 | .078979 |
| 5 | .047487 | .082292 | .136145 | .033450 |
| 6 | .033668 | .069819 | .108767 | .019540 |
| 7 | .038401 | .087130 | .114082 | .021319 |
| 8 | .033057 | .059855 | .102993 | .017651 |
| 9-11 | .023749 | .025258 | .153267 | .012758 |
| 12-14 | .019921 | .013009 | .128240 | .. .80 |
| 15-21 | .011763 | .022585 | .147571 | .004544 |
| 22-30 | .006999 | .015230 | .125445 | .002472 |

RUN NC 1018 46M 7-4-63 0944-1100(EST)
 RUN NC 1018 91M 7-4-63 0944-1100(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .483275 | .561256 | .523318 | .583961 |
| 1 | .343101 | .761662 | .368985 | .536991 |
| 2 | .267337 | .649279 | .323747 | .506229 |
| 3 | .177664 | .573544 | .314471 | .514345 |
| 4 | .095100 | .490124 | .325996 | .500262 |
| 5 | .097960 | .372539 | .344434 | .373815 |
| 6 | .155349 | .449761 | .290264 | .186873 |
| 7-8 | .073886 | .351577 | .229097 | .101625 |
| 9-11 | .057086 | .126863 | .255032 | .081431 |
| 12-15 | .045975 | .066898 | .139873 | .122362 |
| 16-20 | .129586 | .097257 | .085850 | .092272 |
| 21-27 | .126396 | .092829 | .134627 | .109095 |
| 28-36 | .072841 | .148112 | .096545 | .092434 |
| 37-47 | .087528 | .093694 | .117017 | .144246 |
| 48-60 | .095089 | .095460 | .092995 | .133147 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .926447 | .927468 | .826692 | .876068 |
| 1 | .878976 | .865100 | .71845 | .893192 |
| 2 | .823441 | .821334 | .772902 | .869040 |
| 3 | .783921 | .871510 | .760792 | .838449 |
| 4 | .715941 | .907284 | .714473 | .816959 |
| 5 | .507749 | .893517 | .598310 | .749543 |
| 6 | .302948 | .895102 | .420653 | .547493 |
| 7 | .267360 | .868107 | .379580 | .570625 |
| 8 | .315296 | .773284 | .436743 | .514722 |
| 9-11 | .320518 | .572199 | .310961 | .520330 |
| 12-14 | .313872 | .519076 | .359184 | .609488 |
| 15-21 | .203747 | .486170 | .351670 | .428618 |
| 22-30 | .324918 | .169968 | .261617 | .279426 |

RUN NO 101C 15M 7-4-63 1122-1238(EST)

GROSS STATISTICS

7 CU SC
UNSTABLE WIND SPEED 5.76 M/SEC SIGMA A 15.7 DEG
 WIND DIRECTION 296 DEG SIGMA E 8.9 DEG
 SOLAR RAD. 0.66 LY/MIN

WITH NO WITH 301 POINT WITH 61 POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN RUNNING MEAN 10 PT BLOCK AVG

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.29559E 01 | 0.26263E 01 | 0.16437E 01 | 0.18275E 01 |
| V | 0.24135E 01 | 0.16742E 01 | 0.11743E 01 | 0.10130E 01 |
| W | 0.64308E 00 | 0.63929E 00 | 0.57997E 00 | 0.21308E-00 |
| T | 0.13435E-00 | 0.41117E-01 | 0.17517E-01 | 0.33681E-01 |
| E | 0.30062E 01 | 0.24699E 01 | 0.16990E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.29848 | 0.28135 | 0.22258 | 0.23469 |
| V | 0.26971 | 0.22464 | 0.18814 | 0.17473 |
| W | 0.13922 | 0.13881 | 0.13222 | 0.08014 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.58844E 00 | -0.27951E-00 | -0.14696E-01 | -0.26758E-00 |
| U,W | -0.52708E 00 | -0.47438E-00 | -0.37090E-00 | -0.31905E-00 |
| U,T | -0.19178E-00 | -0.16783E-00 | -0.80295E-01 | -0.13743E-00 |
| V,W | 0.82790E-02 | -0.30672E-01 | -0.53874E-01 | 0.82583E-02 |
| V,T | 0.66311E-01 | 0.59935E-01 | 0.27674E-01 | 0.38930E-01 |
| W,T | 0.77255E-02 | 0.75490E-02 | 0.55711E-02 | 0.13112E-01 |
| WE | -0.11591E-00 | -0.12741E-01 | -0.53844E-02 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.22031 | -0.13330 | -0.01058 | -0.19666 |
| U,W | -0.38230 | -0.36610 | -0.37988 | -0.51129 |
| U,T | -0.30432 | -0.51072 | -0.47320 | -0.55395 |
| V,W | 0.00665 | -0.02965 | -0.06528 | 0.01778 |
| V,T | 0.11645 | 0.22844 | 0.19295 | 0.21076 |
| W,T | 0.02628 | 0.04656 | 0.05527 | 0.15478 |

RUN NO 101C 15M 7-4-63 1122-1238(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13895 10E 01 | 0.97652 10E 00 | 0.16970 10E 00 | 0.82551 10E 00 | 0.14346 10E 00 | 0.10082 10E 00 |
| 0 | -.010525 | -.379635 | -.473350 | -.065370 | .192776 | .055079 |
| 1 | -.003447 | -.339491 | -.426270 | -.049839 | .140752 | .104257 |
| 2 | .002045 | -.268588 | -.361627 | -.039173 | .083079 | .129088 |
| 3 | .005128 | -.210903 | -.313700 | -.024356 | .043718 | .132577 |
| 4 | .007804 | -.164688 | -.263160 | -.016548 | .016612 | .118615 |
| 5 | .009153 | -.117984 | -.214764 | -.018560 | -.003259 | .098462 |
| 6 | .008827 | -.080752 | -.172607 | -.014514 | -.014672 | .077686 |
| 7 | .006440 | -.053208 | -.136610 | -.007078 | -.022721 | .058188 |
| 8 | .002724 | -.033522 | -.094896 | .005628 | -.025554 | .049505 |
| 9 | -.000036 | -.008141 | -.058174 | .021324 | -.021041 | .043386 |
| 10 | .000183 | .016771 | -.025683 | .018912 | -.013691 | .023292 |
| 11 | .006956 | .035197 | .006706 | .015449 | -.016500 | .001892 |
| 12 | .009224 | .057238 | .031345 | .003989 | -.016957 | -.019327 |
| 13 | .006455 | .079988 | .057760 | -.003555 | -.011929 | -.038863 |
| 14 | .002387 | .096121 | .082575 | -.001648 | -.010440 | -.046942 |
| 15 | -.004688 | .108649 | .103228 | .018151 | -.019191 | -.052412 |
| 16 | -.013434 | .117553 | .118291 | .032626 | -.023399 | -.062532 |
| 17 | -.019066 | .128369 | .132144 | .041404 | -.021622 | -.074293 |
| 18 | -.028369 | .134334 | .142279 | .042810 | -.016584 | -.080776 |
| 19 | -.033769 | .130337 | .150937 | .038073 | -.015243 | -.076323 |
| 20 | -.038465 | .122927 | .152834 | .035410 | -.010775 | -.073090 |
| 21 | -.041989 | .114515 | .150094 | .036220 | -.010485 | -.075972 |
| 22 | -.035797 | .105828 | .148197 | .029192 | -.010924 | -.076074 |
| 23 | -.026007 | .104117 | .145049 | .016501 | -.010090 | -.073376 |
| 24 | -.021922 | .103123 | .139988 | .011515 | -.008803 | -.065177 |
| 25 | -.015448 | .091015 | .135580 | .006247 | -.012018 | -.065399 |
| 26 | -.008707 | .082141 | .125072 | .004698 | -.016199 | -.057092 |
| 27 | -.002570 | .071167 | .113010 | .000246 | -.019058 | -.043428 |
| 28 | .003326 | .057142 | .103219 | -.008430 | -.016713 | -.040237 |
| 29 | .005649 | .041757 | .088551 | -.012995 | -.009028 | -.039225 |
| 30 | .007560 | .025190 | .070448 | -.026730 | .004777 | -.038355 |
| 31 | .012747 | .001930 | .050137 | -.038039 | .019390 | -.033517 |
| 32 | .012460 | -.011975 | .031437 | -.027080 | .025868 | -.023789 |
| 33 | .007272 | -.021996 | .012831 | -.013127 | .026968 | -.012051 |
| 34 | .003215 | -.029725 | -.000119 | -.000631 | .025939 | -.003897 |
| 35 | -.002846 | -.027610 | -.005695 | .011149 | .026851 | .005985 |
| 36 | -.000112 | -.025495 | -.007880 | .020288 | .021240 | .019767 |
| 37 | .003483 | -.035039 | -.006177 | .013128 | .019535 | .028246 |
| 38 | .004954 | -.044768 | -.004066 | -.004225 | .021070 | .026718 |
| 39 | .005909 | -.053843 | -.000025 | -.017771 | .018770 | .017430 |
| 40 | .006188 | -.058746 | .003740 | -.024544 | .012953 | .004664 |
| 41 | .011494 | -.050486 | .001988 | -.026847 | .008228 | .001463 |
| 42 | .013825 | -.033119 | .000698 | -.022435 | .004856 | -.002416 |
| 43 | .017765 | -.022381 | .002732 | -.019049 | .003024 | -.003225 |
| 44 | .021385 | -.007023 | .001367 | -.019166 | -.000494 | .000452 |
| 45 | .020991 | .004899 | .002710 | -.021026 | -.000616 | .000987 |
| 46 | .019237 | .006839 | .006419 | -.017300 | .002770 | .009262 |
| 47 | .018264 | .010918 | .007822 | -.015737 | .008445 | .008922 |
| 48 | .020080 | .014335 | .009261 | -.008775 | .005201 | .010795 |
| 49 | .027869 | .015806 | .012212 | -.003363 | -.006768 | .020721 |
| 50 | .032800 | .017415 | .017832 | .004449 | -.023399 | .025867 |
| 51 | .026648 | .026921 | .021065 | .017494 | -.028663 | .021011 |
| 52 | .015117 | .038186 | .022022 | .019439 | -.015903 | .010680 |
| 53 | .005523 | .043874 | .016220 | .020008 | -.005904 | .000589 |
| 54 | -.002506 | .043910 | .011441 | .008863 | -.002933 | -.011795 |
| 55 | -.007992 | .036803 | .002517 | .003937 | -.005982 | -.019812 |
| 56 | -.011419 | .022277 | -.006221 | .003224 | -.011262 | -.012909 |
| 57 | -.014285 | .000640 | -.012091 | .002020 | -.015825 | .001938 |
| 58 | -.018913 | -.011041 | -.016002 | .004795 | -.020334 | .009987 |
| 59 | -.025093 | -.010692 | -.014496 | .011457 | -.019119 | .011545 |
| 60 | -.029779 | -.012489 | -.011870 | .012003 | -.019863 | .009961 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|----------|----------|----------|----------|----------|----------|
| | 0.13895 | 0.97652 | 0.16970 | 0.82551 | 0.14346 | 0.10082 |
| | 10E 01 | 10E 00 |
| 1 | .017654 | -.038811 | -.038126 | -.017579 | .015589 | .006141 |
| 2 | .038164 | -.060506 | -.061118 | -.014681 | .024444 | .006817 |
| 3 | .046532 | -.060887 | -.084264 | -.001185 | .015641 | .003681 |
| 4 | .050008 | -.059524 | -.104321 | .004228 | .008079 | .011091 |
| 5 | .052073 | -.069122 | -.117479 | .003055 | .010231 | .005757 |
| 6 | .051532 | -.071017 | -.127273 | -.003842 | .008023 | .007451 |
| 7 | .039178 | -.062005 | -.135874 | -.004581 | -.006738 | .010646 |
| 8 | .027056 | -.052350 | -.137457 | .005196 | -.016779 | .009420 |
| 9 | .017247 | -.039972 | -.138047 | .012767 | -.017708 | .002975 |
| 10 | .001918 | -.023273 | -.143878 | .003466 | -.013283 | .006044 |
| 11 | -.010298 | -.005596 | -.147247 | -.004132 | -.009623 | .014587 |
| 12 | -.012703 | .001752 | -.144334 | -.011085 | -.005072 | .026170 |
| 13 | -.010581 | .012871 | -.140206 | -.008377 | -.000962 | .038287 |
| 14 | -.007087 | .017525 | -.133849 | -.004896 | .004465 | .038181 |
| 15 | -.004371 | .021966 | -.120420 | -.001914 | .009234 | .036268 |
| 16 | .001840 | .020861 | -.105522 | -.001401 | .004604 | .034999 |
| 17 | .004397 | .022397 | -.096241 | .005524 | .002150 | .031251 |
| 18 | .008233 | .020934 | -.086506 | .007517 | .010073 | .030710 |
| 19 | .008426 | .023101 | -.074979 | .009195 | .021163 | .030444 |
| 20 | .014175 | .028085 | -.063329 | .008971 | .026373 | .035819 |
| 21 | .019327 | .036439 | -.046574 | .007523 | .031509 | .037164 |
| 22 | .012934 | .032073 | -.031481 | .016045 | .031161 | .036063 |
| 23 | .009318 | .026591 | -.014553 | .017830 | .031695 | .034953 |
| 24 | .008861 | .021150 | -.00951 | .020672 | .034922 | .028473 |
| 25 | .010734 | .012982 | -.014139 | .023495 | .037156 | .016766 |
| 26 | .010382 | .009498 | .020925 | .022314 | .037310 | .003220 |
| 27 | .008180 | .010873 | .023007 | .017349 | .035788 | -.005158 |
| 28 | .006335 | .012958 | .021083 | .016493 | .027077 | -.011134 |
| 29 | .004353 | .021414 | .020742 | .021246 | .017257 | -.007746 |
| 30 | .007922 | .024511 | .025253 | .024112 | .017507 | -.010736 |
| 31 | .010959 | .019513 | .032798 | .015761 | .020035 | -.017323 |
| 32 | .011642 | .008708 | .037024 | .005997 | .020401 | -.018318 |
| 33 | .015754 | -.002142 | .041795 | .007391 | .019252 | -.026363 |
| 34 | .024627 | -.002640 | .042523 | .013634 | .012010 | -.026507 |
| 35 | .027647 | -.004056 | .033352 | .026295 | .002380 | -.028559 |
| 36 | .026184 | -.006787 | .026631 | .032952 | -.000920 | -.027696 |
| 37 | .027273 | -.014340 | .022831 | .024603 | -.000413 | -.028266 |
| 38 | .024897 | -.018607 | .014801 | .008040 | .002138 | -.022282 |
| 39 | .024985 | -.019941 | .008986 | -.004216 | -.000599 | -.007609 |
| 40 | .027586 | -.021891 | .010168 | -.012507 | .002403 | .003847 |
| 41 | .029414 | -.019612 | .003145 | -.010608 | .001923 | .008387 |
| 42 | .024879 | -.009772 | -.003423 | -.011927 | .004122 | .008702 |
| 43 | .011861 | .001453 | -.007240 | -.017760 | .004374 | .002745 |
| 44 | -.003061 | .000247 | -.008007 | -.028438 | -.001187 | .003149 |
| 45 | -.014602 | -.003344 | -.010261 | -.035777 | -.010969 | .012126 |
| 46 | -.025186 | -.006632 | -.013877 | -.028900 | -.022801 | .015494 |
| 47 | -.035136 | -.009242 | -.016740 | -.025330 | -.028920 | .007355 |
| 48 | -.048044 | -.015245 | -.016877 | -.029918 | -.026542 | .002218 |
| 49 | -.059461 | -.012863 | -.014280 | -.035097 | -.024952 | -.004854 |
| 50 | -.071751 | -.007288 | -.013223 | -.038341 | -.027077 | -.005397 |
| 51 | -.083102 | -.007974 | -.011406 | -.046742 | -.029638 | .001078 |
| 52 | -.093602 | -.005575 | -.007691 | -.058917 | -.034453 | .012622 |
| 53 | -.099575 | -.001438 | -.009029 | -.067995 | -.038731 | .017369 |
| 54 | -.096510 | .004384 | -.006476 | -.062370 | -.039354 | .013022 |
| 55 | -.087641 | .006706 | .006564 | -.050084 | -.037057 | .006441 |
| 56 | -.077282 | .010519 | .013473 | -.036315 | -.040832 | .002544 |
| 57 | -.065189 | .011081 | .021644 | -.022568 | -.042726 | -.004906 |
| 58 | -.051391 | .011250 | .027597 | -.009540 | -.037743 | -.013396 |
| 59 | -.047240 | .005526 | .025937 | -.008752 | -.029418 | -.018237 |
| 60 | -.044261 | .002110 | .022889 | -.007574 | -.025297 | -.014630 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16436 10E 01 | 0.11746 10E 01 | 0.58017 10E 00 | 0.17521 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .846067 | .797681 | .644130 | .822686 |
| 2 | .659429 | .568859 | .323907 | .638787 |
| 3 | .514875 | .410806 | .150525 | .517202 |
| 4 | .392384 | .298249 | .065133 | .425256 |
| 5 | .286086 | .214756 | .018293 | .347012 |
| 6 | .201765 | .148085 | -.013935 | .274675 |
| 7 | .133172 | .080983 | -.037349 | .220116 |
| 8 | .071394 | .023868 | -.065025 | .171719 |
| 9 | .014226 | -.013332 | -.093019 | .131719 |
| 10 | -.042125 | -.038355 | -.102112 | .095361 |
| 11 | -.089844 | -.071243 | -.098172 | .059432 |
| 12 | -.130248 | -.091374 | -.096953 | .026849 |
| 13 | -.168638 | -.101220 | -.101706 | -.007996 |
| 14 | -.193736 | -.115878 | -.113971 | -.049450 |
| 15 | -.207952 | -.147229 | -.121439 | -.099802 |
| 16 | -.217707 | -.174887 | -.126619 | -.137062 |
| 17 | -.232592 | -.201034 | -.121072 | -.173503 |
| 18 | -.250866 | -.221975 | -.113558 | -.205167 |
| 19 | -.262712 | -.231680 | -.106690 | -.227184 |
| 20 | -.272817 | -.234093 | -.092774 | -.233626 |
| 21 | -.269078 | -.242325 | -.083399 | -.236904 |
| 22 | -.251719 | -.239044 | -.093427 | -.243965 |
| 23 | -.226112 | -.227376 | -.113860 | -.257833 |
| 24 | -.200646 | -.209146 | -.111848 | -.266755 |
| 25 | -.182399 | -.193324 | -.070900 | -.269548 |
| 26 | -.157241 | -.192377 | -.047654 | -.265423 |
| 27 | -.135807 | -.189004 | -.051977 | -.257747 |
| 28 | -.119125 | -.170915 | -.047613 | -.241208 |
| 29 | -.097681 | -.139263 | -.021130 | -.216344 |
| 30 | -.066931 | -.099777 | -.004212 | -.181986 |
| 31 | -.030129 | -.065925 | .022070 | -.144855 |
| 32 | -.002707 | -.033444 | .038865 | -.114385 |
| 33 | .016601 | -.004269 | .038774 | -.090876 |
| 34 | .026476 | .011903 | .039556 | -.071460 |
| 35 | .030677 | .024237 | .044929 | -.057810 |
| 36 | .034326 | .033482 | .034460 | -.047334 |
| 37 | .044161 | .040200 | .040610 | -.042343 |
| 38 | .050750 | .050439 | .056057 | -.040419 |
| 39 | .047899 | .053310 | .062523 | -.039107 |
| 40 | .040771 | .049943 | .044488 | -.033100 |
| 41 | .032204 | .050405 | .015560 | -.023338 |
| 42 | .018697 | .054105 | -.017549 | -.015017 |
| 43 | .004679 | .051942 | -.029679 | -.000719 |
| 44 | -.023205 | .049134 | -.022580 | .010732 |
| 45 | -.050525 | .041130 | -.009055 | .018672 |
| 46 | -.062004 | .042923 | -.011084 | .017074 |
| 47 | -.060348 | .050339 | -.007502 | .015682 |
| 48 | -.062392 | .057120 | -.012259 | .020443 |
| 49 | -.071207 | .049485 | -.024788 | .021284 |
| 50 | -.079485 | .032939 | -.010953 | .013029 |
| 51 | -.079916 | .019674 | -.014127 | .007476 |
| 52 | -.078918 | .016074 | -.026344 | .008046 |
| 53 | -.071946 | .012847 | -.038455 | .013885 |
| 54 | -.054381 | -.000444 | -.040755 | .012818 |
| 55 | -.030165 | -.009255 | -.038418 | .014935 |
| 56 | .002884 | -.008480 | -.026580 | .020653 |
| 57 | .030176 | -.019953 | -.005063 | .020737 |
| 58 | .048536 | -.036882 | .014356 | .026063 |
| 59 | .066760 | -.053534 | .017422 | .022564 |
| 60 | .073354 | -.069858 | .008855 | .010137 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 0 | -.023123 | -.033320 | -.018846 | .001895 | .038056 | .010706 |
| 1 | -.057001 | -.366145 | -.140588 | -.001926 | .125583 | .237465 |
| 2 | .054726 | -.577805 | -.162334 | -.053741 | .142185 | .376683 |
| 3 | .106776 | -.771012 | -.170010 | -.115480 | .251761 | .419283 |
| 4 | .030178 | -.546278 | -.106954 | -.095898 | .232231 | .229242 |
| 5 | -.052687 | -.255963 | -.047472 | -.039212 | .161425 | .053367 |
| 6 | -.089306 | -.185860 | -.031181 | .004600 | .185024 | .001226 |
| 7-8 | .000035 | -.134853 | -.023802 | -.028145 | .180063 | -.025205 |
| 9-11 | .002393 | -.104097 | -.014007 | -.024488 | .140079 | -.018411 |
| 12-15 | -.020768 | -.060070 | -.007604 | -.008275 | .073301 | -.021682 |
| 16-20 | -.000904 | -.027726 | -.005081 | -.022963 | .048504 | -.038159 |
| 21-27 | -.004126 | -.018743 | -.002949 | -.001595 | .034687 | -.018416 |
| 28-36 | -.002816 | -.013658 | -.002723 | -.000550 | .019865 | -.016881 |
| 37-47 | -.002774 | -.003365 | -.001398 | -.002102 | .013404 | -.011294 |
| 48-60 | -.001540 | -.000983 | -.000589 | -.001481 | .009331 | -.010899 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .155806 | .036435 | -.821292 | .610044 | .184005 | .124317 |
| 2 | .074365 | -.011467 | -.903367 | .195937 | .061794 | .128999 |
| 3 | .034808 | -.122557 | -.905606 | -.431967 | -.085169 | .079600 |
| 4 | .123026 | -.185522 | -.481939 | -.142879 | -.078269 | -.042042 |
| 5 | .105553 | -.157540 | -.136450 | -.117860 | .003158 | -.064913 |
| 6 | .127250 | -.126718 | -.059861 | .061162 | .060561 | -.000994 |
| 7-8 | .136800 | -.082569 | -.050661 | .046090 | .048721 | .008531 |
| 9-11 | .036447 | -.028437 | -.035740 | -.120424 | .044417 | .013358 |
| 12-15 | -.003885 | -.006047 | -.021257 | -.086199 | .020324 | -.000944 |
| 16-20 | .005831 | -.015222 | .000875 | -.060961 | .006092 | .001873 |
| 21-27 | .000176 | -.012912 | -.008120 | -.148873 | .015304 | .002536 |
| 28-36 | -.001916 | -.002668 | -.004326 | -.011949 | -.000609 | .002497 |
| 37-47 | -.002546 | .002552 | -.005136 | -.012369 | -.004725 | .001914 |
| 48-60 | -.002331 | .000084 | -.001516 | .008237 | -.000966 | -.003358 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .022365 | .011227 | .018405 | .043657 |
| 1 | .186716 | .108668 | .204308 | .304188 |
| 2 | .237390 | .156459 | .335588 | .320703 |
| 3 | .287945 | .182054 | .507126 | .286953 |
| 4 | .215061 | .118936 | .464068 | .151811 |
| 5 | .114362 | .067118 | .328534 | .073291 |
| 6 | .084380 | .060564 | .305409 | .065034 |
| 7-8 | .067633 | .056068 | .285641 | .063729 |
| 9-11 | .042491 | .038046 | .216460 | .047524 |
| 12-15 | .028740 | .021241 | .166947 | .024409 |
| 16-20 | .014997 | .016951 | .138617 | .019125 |
| 21-27 | .010132 | .010894 | .090054 | .013542 |
| 28-36 | .007302 | .006388 | .064806 | .009526 |
| 37-47 | .004539 | .004486 | .043277 | .005996 |
| 48-60 | .002899 | .002892 | .031686 | .004230 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13597 10E 01 | 0.62395 10E 00 | 0.24816 10E 00 | 0.46418 10E 00 | 0.18462 10E 00 | 0.84720 10E-01 |
| 0 | -.196795 | -.511342 | -.553800 | .017791 | .210866 | .154774 |
| 1 | -.185191 | -.202413 | -.377074 | .044943 | .145731 | .087058 |
| 2 | -.157192 | -.000122 | -.182851 | .073930 | .109201 | -.024676 |
| 3 | -.108703 | -.010585 | -.097304 | .024671 | .090562 | -.010531 |
| 4 | -.059384 | -.004332 | -.000373 | .005269 | .059940 | .016009 |
| 5 | -.001131 | .063706 | .076341 | .005376 | .007044 | .024242 |
| 6 | .034069 | .060798 | .115498 | .001394 | -.055815 | .012796 |
| 7 | .081849 | .028770 | .36807 | -.015608 | -.092484 | .030122 |
| 8 | .142746 | .077276 | .476703 | -.050943 | -.124296 | -.013587 |
| 9 | .152913 | .092280 | .171676 | -.051099 | -.149395 | -.044397 |
| 10 | .103575 | .096266 | .153705 | -.014854 | -.151843 | -.063477 |
| 11 | .077334 | .089419 | .122608 | .005793 | -.113062 | -.053629 |
| 12 | .086245 | .064936 | .111762 | .025464 | -.068464 | -.036034 |
| 13 | .068756 | .077890 | .099443 | -.020381 | -.032929 | -.080772 |
| 14 | .045577 | .050917 | .098189 | -.058085 | -.014034 | -.081400 |
| 15 | .019359 | -.018703 | .008340 | -.059772 | .018250 | -.040571 |
| 16 | -.047200 | -.069607 | -.091682 | -.015659 | .030496 | .033003 |
| 17 | -.028964 | -.106325 | -.112951 | .017950 | .021611 | .031821 |
| 18 | -.037762 | -.069478 | -.068791 | -.008775 | .039241 | .019851 |
| 19 | -.045936 | -.010376 | -.014207 | .016348 | .033452 | .014727 |
| 20 | -.034080 | -.052367 | -.006236 | .048209 | .035152 | .056072 |
| 21 | -.063446 | -.005211 | .005929 | .055177 | .072910 | .011513 |
| 22 | -.051963 | .021834 | .009587 | .073442 | .065212 | .006831 |
| 23 | -.017963 | -.003492 | .000764 | .016082 | .054769 | .007381 |
| 24 | .016345 | -.012627 | .001369 | -.035674 | .055088 | .046556 |
| 25 | .015128 | .031298 | -.001721 | -.027731 | .061014 | .040452 |
| 26 | .015472 | .061789 | .001782 | -.049345 | .048093 | -.012351 |
| 27 | .015749 | .033722 | -.014290 | -.055050 | .038001 | -.016134 |
| 28 | .022187 | .013823 | -.016303 | -.020665 | .009511 | -.022195 |
| 29 | .004931 | .039336 | .001478 | -.001762 | .002952 | -.047944 |
| 30 | .045241 | .070895 | .023637 | -.044313 | -.037195 | -.047963 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 0 | -.037520 | -.012049 | -.005799 | .048653 | .000042 | -.000368 |
| 1 | -.355175 | -.109223 | -.094775 | .377783 | .020584 | .074402 |
| 2 | -.643382 | -.215311 | -.173356 | .640483 | .074239 | .174019 |
| 3 | -.930608 | -.370262 | -.260250 | .801892 | .120105 | .199222 |
| 4 | -.627932 | -.299074 | -.217458 | .327775 | .083730 | .036090 |
| 5 | -.205276 | -.132569 | -.111859 | .281440 | .026596 | -.050755 |
| 6 | -.046742 | -.138981 | -.079566 | .328002 | -.008184 | .026141 |
| 7 | .022066 | -.207935 | -.088564 | .248483 | -.011104 | .104994 |
| 8 | .040229 | -.177969 | -.054969 | .377955 | .002318 | .093422 |
| 9-11 | -.041998 | -.143261 | -.043598 | .148026 | .006589 | .119073 |
| 12-14 | .034799 | -.112298 | -.022113 | .342570 | .006410 | .054983 |
| 15-21 | -.001086 | -.134674 | -.025512 | -.169485 | .006663 | .053720 |
| 22-30 | -.005010 | -.052610 | -.008235 | .028719 | .005108 | -.009759 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13597 10E 01 | 0.62395 10E 00 | 0.24816 10E 00 | 0.46418 10E 00 | 0.18462 10E 00 | 0.84720 10E-01 |
| 1 | .009712 | -.010382 | -.159094 | -.006261 | .050866 | .060603 |
| 2 | -.024552 | .065742 | -.185100 | .007010 | .105542 | .086638 |
| 3 | -.031397 | .050814 | -.180874 | -.025514 | .100914 | .058193 |
| 4 | -.049845 | .029985 | -.185751 | -.073619 | .076077 | .043219 |
| 5 | -.104399 | .031870 | -.158271 | -.118361 | .054834 | .042384 |
| 6 | -.078869 | .030387 | -.090357 | -.058810 | .054470 | .003876 |
| 7 | .021300 | .018735 | -.044279 | .025951 | .083814 | -.018591 |
| 8 | .037405 | -.015504 | -.013219 | .053413 | .033955 | .004158 |
| 9 | .012820 | -.062819 | .037839 | .016109 | -.000794 | -.041037 |
| 10 | .023491 | -.065833 | .043966 | .004685 | .011921 | -.054074 |
| 11 | .077118 | -.079672 | .057462 | .046635 | .052749 | -.035128 |
| 12 | .123802 | -.055098 | .082468 | .075020 | .063231 | -.044950 |
| 13 | .103677 | -.025619 | .09504 | .045042 | .043021 | -.063329 |
| 14 | .011843 | -.014732 | .079628 | .020333 | -.003849 | -.051672 |
| 15 | .004277 | .035664 | .072657 | -.034972 | -.021741 | -.024193 |
| 16 | .021776 | .034097 | .044631 | .037139 | -.019886 | -.026732 |
| 17 | .024850 | .025823 | -.042094 | .062118 | -.007834 | .004535 |
| 18 | -.014239 | .011374 | -.065303 | .036585 | -.024069 | .053090 |
| 19 | .015738 | .065113 | -.056791 | .053575 | .002418 | .058988 |
| 20 | -.008621 | .003247 | -.044750 | -.003040 | .013637 | .020400 |
| 21 | -.059280 | -.047917 | -.031671 | -.046121 | -.026755 | .002708 |
| 22 | -.055693 | -.005905 | .009875 | -.068361 | -.045682 | .004665 |
| 23 | -.024492 | .021453 | .040559 | -.116553 | -.026821 | -.016290 |
| 24 | .010137 | -.012902 | .057072 | -.067711 | -.029422 | -.027621 |
| 25 | .017583 | -.024631 | .035537 | -.031952 | -.055755 | -.004045 |
| 26 | -.021430 | -.010846 | .014525 | -.025552 | -.076141 | .005622 |
| 27 | -.013117 | .028144 | -.014443 | .005331 | -.055941 | .010425 |
| 28 | -.001701 | .000345 | -.041406 | .030659 | -.034396 | .028385 |
| 29 | -.016199 | .037179 | .073042 | .004438 | -.061705 | .059785 |
| 30 | -.014722 | .102046 | -.037214 | -.038479 | -.023542 | .065250 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .194695 | -.043216 | -.026902 | .036405 | .545961 | -.085177 |
| 2 | -.005596 | -.018950 | -.068923 | -.015867 | .561451 | -.005775 |
| 3 | -.329724 | .064813 | -.144936 | -.103308 | .436768 | .149295 |
| 4 | -.388715 | .160162 | -.166550 | -.089478 | .301616 | .230499 |
| 5 | -.140988 | .120493 | -.094236 | -.053638 | .265005 | .128968 |
| 6 | .052055 | .001668 | -.045103 | -.029505 | .290472 | .060040 |
| 7 | .126054 | -.036844 | -.053787 | .045278 | .222568 | .099175 |
| 8 | .081550 | -.007066 | -.033643 | .051074 | .032752 | .072604 |
| 9-11 | .121704 | .021950 | -.012879 | .060518 | .125573 | .040445 |
| 12-14 | -.102268 | -.007209 | -.015878 | -.032352 | -.012747 | .021004 |
| 15-21 | .052454 | -.032662 | -.012399 | -.007301 | -.024501 | .003124 |
| 22-30 | .005126 | -.019090 | -.001959 | -.006973 | -.017704 | -.003251 |

RUN NO 101C 15M 7-4-63 1122-1238(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.18277 10E 01 | 0.10115 10E 01 | 0.21301 10E 00 | 0.33695 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .539689 | .500784 | .101454 | .744481 |
| 2 | .234910 | .201848 | -.029871 | .465690 |
| 3 | .150687 | .082420 | .018524 | .269657 |
| 4 | -.002022 | .017808 | -.049066 | .103814 |
| 5 | -.166583 | -.052539 | -.112563 | -.046103 |
| 6 | -.172022 | -.138191 | -.078601 | -.150186 |
| 7 | -.221056 | -.113935 | -.039648 | -.204268 |
| 8 | -.318522 | -.052539 | -.047308 | -.245871 |
| 9 | -.306090 | -.083393 | -.118196 | -.239436 |
| 10 | -.242807 | -.164377 | -.088439 | -.211073 |
| 11 | -.232146 | -.189072 | -.057631 | -.197915 |
| 12 | -.162576 | -.152446 | -.011412 | -.193526 |
| 13 | -.109176 | -.183675 | -.058135 | -.181398 |
| 14 | -.063296 | -.172340 | -.095558 | -.158432 |
| 15 | .043104 | -.059558 | .045106 | -.051259 |
| 16 | .188103 | .016033 | .017676 | .055039 |
| 17 | .214608 | .120341 | .059981 | .091888 |
| 18 | .138473 | .100649 | .014742 | .038728 |
| 19 | .036303 | -.042139 | .009359 | -.003411 |
| 20 | -.001423 | -.106432 | .063221 | -.006195 |
| 21 | -.013597 | -.098842 | .022150 | -.044154 |
| 22 | .007236 | -.133423 | -.104030 | -.089113 |
| 23 | .004944 | -.105821 | .062763 | -.084795 |
| 24 | .010162 | .019794 | .022346 | -.068834 |
| 25 | -.031568 | .090070 | -.039699 | -.021214 |
| 26 | -.034035 | .077215 | -.064632 | .025606 |
| 27 | .000770 | .012214 | -.024154 | .051639 |
| 28 | .018384 | -.038788 | .048160 | .041283 |
| 29 | -.031576 | -.026273 | -.018238 | .000098 |
| 30 | -.060876 | -.047521 | -.072657 | -.036911 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| * | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .005847 | .011137 | .004717 | .078437 |
| 1 | .085058 | .093150 | .050123 | .482099 |
| 2 | .178621 | .108364 | .084211 | .527081 |
| 3 | .306439 | .121648 | .131292 | .623685 |
| 4 | .274759 | .096177 | .123009 | .500423 |
| 5 | .135041 | .055480 | .091567 | .276935 |
| 6 | .079646 | .058547 | .091423 | .198961 |
| 7 | .098314 | .080400 | .098644 | .187656 |
| 8 | .077277 | .050669 | .089112 | .101997 |
| 9-11 | .059964 | .030658 | .082723 | .072615 |
| 12-14 | .036817 | .033704 | .062711 | .050007 |
| 15-21 | .052231 | .024266 | .108712 | .038568 |
| 22-30 | .025848 | .019990 | .101552 | .021781 |

RUN NO 101C 46M 7-4-63 1122-1238(EST)

GROSS STATISTICS

7 CU SC
UNSTABLE WIND SPEED 7.84 M/SEC SIGMA A 14.4 DEG
 WIND DIRECTION 304 DEG SIGMA E 7.5 DEG
 SOLAR RAD. 0.66 LY/MIN

WITH NO POINT WITH 301 POINT WITH 61 POINT 301 PT RUN MEAN
RUNNING MEAN RUNNING MEAN RUNNING MEAN 10 PT BLOCK AVG

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.26693E 01 | 0.20089E 01 | 0.11676E 01 | 0.15094E 01 |
| V | 0.35468E 01 | 0.19165E 01 | 0.12429E 01 | 0.12853E 01 |
| W | 0.80055E 00 | 0.75924E 00 | 0.67376E 00 | 0.33191E-00 |
| T | 0.67779E-01 | 0.21203E-01 | 0.10784E-01 | 0.16747E-01 |
| E | 0.35083E 01 | 0.22426E 01 | 0.15421E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.20839 | 0.18079 | 0.13782 | 0.15671 |
| V | 0.24022 | 0.17658 | 0.14220 | 0.14461 |
| W | 0.11412 | 0.11114 | 0.10470 | 0.07348 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.46497E-00 | -0.17457E-00 | 0.15453E-01 | -0.19412E-00 |
| U,W | -0.67750E 00 | -0.59804E 00 | -0.40033E-00 | -0.41077E-00 |
| U,T | -0.73322E-01 | -0.42596E-01 | -0.30222E-01 | -0.33827E-01 |
| V,W | 0.15627E-00 | 0.37220E-01 | 0.33195E-02 | 0.55527E-01 |
| V,T | -0.22679E-00 | -0.12633E-00 | -0.62391E-01 | -0.96587E-01 |
| W,T | 0.84614E-02 | 0.17052E-01 | 0.13634E-01 | 0.12031E-01 |
| WE | 0.76740E 00 | 0.47224E-00 | 0.26315E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.15112 | -0.08897 | 0.01283 | -0.13937 |
| U,W | -0.46347 | -0.48424 | -0.45136 | -0.58033 |
| U,T | -0.17238 | -0.20639 | -0.26934 | -0.21276 |
| V,W | 0.09274 | 0.03086 | 0.00363 | 0.08501 |
| V,T | -0.46255 | -0.62670 | -0.53893 | -0.65833 |
| W,T | 0.03632 | 0.13440 | 0.15995 | 0.16137 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12043 10E 01 | 0.88699 10E 00 | 0.11220 10E 00 | 0.91495 10E 00 | 0.11574 10E 00 | 0.85246 10E-01 |
| 0 | .012430 | -.451462 | -.269273 | .003710 | -.538628 | .159729 |
| 1 | -.006440 | -.385482 | -.248607 | -.001338 | -.460289 | .151466 |
| 2 | -.006752 | -.287153 | -.214432 | .004533 | -.364079 | .134477 |
| 3 | -.013938 | -.07329 | -.182344 | .019727 | -.291081 | .108616 |
| 4 | -.020001 | -.152054 | -.149945 | .031666 | -.235678 | .078723 |
| 5 | -.027133 | -.106468 | -.120110 | .040913 | -.187712 | .049687 |
| 6 | -.030461 | -.068303 | -.096362 | .045819 | -.148642 | .032101 |
| 7 | -.030469 | -.036248 | -.073399 | .042343 | -.113007 | .018386 |
| 8 | -.031081 | -.016924 | -.046585 | .043740 | -.075117 | .009343 |
| 9 | -.029126 | .001508 | -.023072 | .038446 | -.040316 | -.000587 |
| 10 | -.023196 | .018984 | -.J06010 | .031356 | -.012099 | -.004958 |
| 11 | -.015816 | .032005 | .013486 | .023609 | .017028 | -.012141 |
| 12 | -.013765 | .043890 | .031446 | .013347 | .041976 | -.019820 |
| 13 | -.005631 | .057231 | .043378 | .003038 | .062126 | -.029076 |
| 14 | .001527 | .069428 | .049029 | .002567 | .086551 | -.036033 |
| 15 | .011490 | .073935 | .050144 | .006532 | .104583 | -.037794 |
| 16 | .020531 | .077339 | .051694 | .010846 | .114028 | -.041447 |
| 17 | .029998 | .078443 | .050386 | .015518 | .124513 | -.048090 |
| 18 | .040923 | .077270 | .050279 | .008723 | .135296 | -.047688 |
| 19 | .045607 | .082410 | .050782 | -.007107 | .138835 | -.041643 |
| 20 | .046311 | .083527 | .053107 | -.024242 | .135109 | -.035195 |
| 21 | .042855 | .082789 | .058859 | -.1979 | .132972 | -.032660 |
| 22 | .039649 | .084612 | .057958 | -.037744 | .132441 | -.031055 |
| 23 | .030799 | .082250 | .056794 | -.047355 | .126794 | -.024106 |
| 24 | .024657 | .074166 | .055795 | -.057876 | .125133 | -.014736 |
| 25 | .017059 | .068616 | .057764 | -.065549 | .124767 | -.007691 |
| 26 | .004207 | .064372 | .065097 | -.061044 | .122726 | -.008042 |
| 27 | -.005777 | .058855 | .066494 | -.053296 | .118590 | -.014236 |
| 28 | -.005896 | .052277 | .060621 | -.053761 | .110009 | -.016392 |
| 29 | -.011687 | .045833 | .058742 | -.044579 | .099576 | -.025106 |
| 30 | -.013360 | .039721 | .049074 | -.036627 | .085975 | -.026305 |
| 31 | -.012387 | .025562 | .037448 | -.033116 | .069799 | -.024215 |
| 32 | -.006782 | .012778 | .025969 | -.033405 | .058413 | -.021375 |
| 33 | -.000020 | .006963 | .017056 | -.027710 | .044216 | -.019896 |
| 34 | .007010 | .008304 | .005563 | -.029837 | .025471 | -.011606 |
| 35 | .013278 | .018475 | -.000232 | -.031832 | .010926 | .001350 |
| 36 | .017542 | .023340 | -.002398 | -.037263 | -.000629 | .007646 |
| 37 | .015743 | .024579 | -.002021 | -.033834 | -.007950 | .009901 |
| 38 | .009137 | .031355 | -.000327 | -.030810 | -.011876 | .014634 |
| 39 | -.000470 | .038615 | .001585 | -.022091 | -.012797 | .015789 |
| 40 | -.011054 | .047912 | .008381 | -.017275 | -.016855 | .010821 |
| 41 | -.016484 | .055513 | .017029 | -.009209 | -.019884 | .002862 |
| 42 | -.014766 | .053833 | .021496 | -.001064 | -.014761 | .000363 |
| 43 | -.011310 | .054194 | .021609 | .003056 | -.007160 | -.006129 |
| 44 | -.010976 | .050276 | .022305 | .002901 | .002491 | -.006889 |
| 45 | -.014483 | .039012 | .023665 | .012968 | .016780 | -.010856 |
| 46 | -.011998 | .024935 | .020990 | .022071 | .023538 | -.014436 |
| 47 | -.011216 | .013363 | .022431 | .036988 | .026744 | -.019639 |
| 48 | -.011048 | .001487 | .028285 | .049492 | .027655 | -.020854 |
| 49 | -.014328 | -.006019 | .034429 | .061215 | .029882 | -.023141 |
| 50 | -.009750 | -.011502 | .037683 | .067492 | .027548 | -.024975 |
| 51 | -.005979 | -.016911 | .035881 | .073559 | .023020 | -.027383 |
| 52 | -.001409 | -.016579 | .033581 | .070459 | .024164 | -.028655 |
| 53 | .005405 | -.013259 | .030666 | .061210 | .034141 | -.024330 |
| 54 | .008152 | -.014982 | .029276 | .045440 | .038176 | -.015842 |
| 55 | .008042 | -.016028 | .026777 | .031863 | .038265 | -.010651 |
| 56 | .007600 | -.019031 | .026729 | .022986 | .035748 | -.007334 |
| 57 | .010143 | -.020112 | .025118 | .018628 | .029680 | -.003904 |
| 58 | .008431 | -.012986 | .024431 | .019226 | .019419 | -.007795 |
| 59 | .003691 | -.010935 | .025871 | .016964 | .010561 | -.008764 |
| 60 | -.007074 | -.016631 | .029834 | .010664 | .008766 | -.005633 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 6L PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.12043 10E 01 | 0.88699 10E 00 | 0.11220 10E 00 | 0.91495 10E 00 | 0.11574 10E 00 | 0.85246 10E-01 |
| 1 | -.008736 | -.022348 | -.019008 | -.023723 | -.026110 | -.014675 |
| 2 | -.016791 | -.026981 | -.026040 | -.030574 | -.039828 | -.023527 |
| 3 | -.017987 | -.028231 | -.034490 | -.032063 | -.047936 | -.027178 |
| 4 | -.017008 | -.034425 | -.042947 | -.026624 | -.054359 | -.026086 |
| 5 | -.014252 | -.037147 | -.044970 | -.015779 | -.057037 | -.023471 |
| 6 | -.012337 | -.036110 | -.047017 | -.009878 | -.060523 | -.029227 |
| 7 | -.010641 | -.032376 | -.052720 | -.012366 | -.062708 | -.033791 |
| 8 | -.009680 | -.034070 | -.058440 | -.011015 | -.064478 | -.023437 |
| 9 | -.009270 | -.040970 | -.061457 | -.006015 | -.067377 | -.014285 |
| 10 | -.008735 | -.042995 | -.066718 | -.000665 | -.064699 | -.009182 |
| 11 | -.006087 | -.039586 | -.068332 | .001457 | -.061939 | -.010606 |
| 12 | -.009501 | -.032633 | -.065151 | -.005709 | -.062445 | -.015912 |
| 13 | -.015060 | -.027296 | -.058858 | -.007830 | -.058554 | -.021424 |
| 14 | -.017355 | -.021524 | -.052506 | -.005015 | -.055377 | -.022217 |
| 15 | -.019697 | -.021079 | -.047646 | -.001410 | -.053633 | -.020349 |
| 16 | -.010401 | -.021079 | -.051112 | .001723 | -.047829 | -.019755 |
| 17 | .000356 | -.021687 | -.055203 | .005087 | -.043050 | -.021126 |
| 18 | .006387 | -.017442 | -.056076 | .015940 | -.038987 | -.012885 |
| 19 | .007845 | -.011811 | -.056417 | .020403 | -.033969 | -.000862 |
| 20 | .001237 | -.014553 | -.056302 | .018702 | -.034116 | .008385 |
| 21 | -.007717 | -.015911 | -.056321 | .012046 | -.036608 | .020318 |
| 22 | -.012228 | -.014857 | -.056091 | .009949 | -.034761 | .034618 |
| 23 | -.018010 | -.011669 | -.052599 | .005242 | -.034329 | .041464 |
| 24 | -.025840 | -.001831 | -.040109 | -.010674 | -.035488 | .031974 |
| 25 | -.036125 | .007122 | -.023559 | -.026299 | -.036806 | .020942 |
| 26 | -.042230 | .005380 | -.011838 | -.034890 | -.037182 | .016354 |
| 27 | -.041962 | .005132 | -.002902 | -.035606 | -.034925 | .015685 |
| 28 | -.037823 | .003409 | .007681 | -.022056 | -.025251 | .016727 |
| 29 | -.031186 | .003149 | .016491 | -.008586 | -.014320 | .019908 |
| 30 | -.022920 | .001843 | .021441 | .002899 | -.002968 | .030434 |
| 31 | -.014554 | .002677 | .023580 | .014962 | .005503 | .046273 |
| 32 | -.007556 | .003079 | .023734 | .026118 | .006891 | .052873 |
| 33 | -.006827 | .005485 | .022985 | .026518 | .004590 | .048419 |
| 34 | -.005152 | .013015 | .020347 | .023443 | .002601 | .045857 |
| 35 | -.003206 | .017773 | .020325 | .021462 | .007238 | .042338 |
| 36 | .001514 | .018780 | .021534 | .012657 | .015967 | .033246 |
| 37 | .007553 | .012701 | .018448 | .010766 | .020523 | .019769 |
| 38 | .013253 | .007643 | .016150 | .010956 | .023418 | .009943 |
| 39 | .024465 | .004479 | .008591 | .024542 | .030625 | .010012 |
| 40 | .033274 | .001973 | .001345 | .029436 | .034829 | .012562 |
| 41 | .035827 | .006259 | -.000090 | .031166 | .039294 | .014923 |
| 42 | .032681 | .008640 | .004109 | .024442 | .041801 | .013886 |
| 43 | .029455 | .013087 | .008532 | .014591 | .045680 | .007696 |
| 44 | .028211 | .023102 | .013247 | .011658 | .045497 | -.001849 |
| 45 | .033538 | .032725 | .018376 | .012952 | .041904 | -.011490 |
| 46 | .031087 | .029804 | .02315 | .006295 | .043864 | -.023948 |
| 47 | .026660 | .034138 | .029198 | -.001079 | .049878 | -.032110 |
| 48 | .020951 | .037223 | .027783 | -.004286 | .052055 | -.036073 |
| 49 | .011520 | .035292 | .027121 | -.001458 | .048661 | -.032190 |
| 50 | .006281 | .030970 | .025664 | -.006844 | .042067 | -.028790 |
| 51 | .005022 | .026324 | .020721 | .013852 | .029596 | -.018961 |
| 52 | .002737 | .020949 | .014012 | .017079 | .022551 | -.004029 |
| 53 | .001225 | .013973 | .011330 | .010839 | .023066 | -.005101 |
| 54 | -.004486 | .009838 | .013388 | -.002602 | .025439 | -.012714 |
| 55 | -.006265 | .015308 | .014773 | -.005866 | .023811 | -.017250 |
| 56 | -.010142 | .014795 | .014628 | -.000650 | .019168 | -.017854 |
| 57 | -.019073 | .003024 | .021656 | -.007036 | .011517 | -.024581 |
| 58 | -.030313 | -.015246 | .030412 | -.02263 | .005800 | -.031336 |
| 59 | -.027787 | -.027497 | .026371 | -.030476 | .002848 | -.036159 |
| 60 | -.017514 | -.027990 | .018500 | -.027893 | .006422 | -.034625 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.11075 10E 01 | 0.12423 10E 01 | 0.67387 10E 00 | 0.10784 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .860168 | .819099 | .734149 | .835990 |
| 2 | .681546 | .615571 | .429383 | .668835 |
| 3 | .542061 | .464107 | .238988 | .549361 |
| 4 | .430189 | .358799 | .129345 | .449545 |
| 5 | .327657 | .278372 | .048523 | .359716 |
| 6 | .226866 | .214871 | .004399 | .290304 |
| 7 | .140246 | .149635 | -.024071 | .233973 |
| 8 | .076854 | .089873 | -.039740 | .167621 |
| 9 | .018002 | .034390 | -.055061 | .107524 |
| 10 | -.033648 | -.009112 | -.066694 | .050785 |
| 11 | -.072325 | -.044692 | -.077965 | -.006754 |
| 12 | -.101312 | -.077130 | -.098479 | -.066205 |
| 13 | -.124593 | -.108149 | -.125607 | -.117692 |
| 14 | -.147662 | -.143004 | -.147088 | -.164820 |
| 15 | -.165043 | -.173622 | -.151660 | -.204774 |
| 16 | -.177030 | -.192310 | -.150859 | -.232748 |
| 17 | -.189733 | -.206192 | -.141774 | -.256153 |
| 18 | -.205044 | -.218741 | -.130759 | -.278033 |
| 19 | -.213258 | -.225931 | -.126288 | -.290499 |
| 20 | -.217481 | -.223495 | -.125956 | -.300209 |
| 21 | -.218454 | -.227090 | -.120627 | -.305273 |
| 22 | -.215950 | -.233404 | -.114197 | -.304329 |
| 23 | -.208040 | -.224979 | -.104944 | -.300725 |
| 24 | -.195789 | -.214338 | -.099252 | -.294604 |
| 25 | -.189499 | -.209311 | -.102675 | -.283015 |
| 26 | -.178252 | -.213322 | -.108086 | -.263744 |
| 27 | -.165172 | -.220362 | -.095893 | -.236532 |
| 28 | -.145107 | -.222630 | -.089777 | -.197254 |
| 29 | -.121880 | -.210323 | -.079023 | -.160148 |
| 30 | -.101215 | -.182998 | -.059086 | -.120960 |
| 31 | -.069139 | -.142543 | -.036654 | -.080300 |
| 32 | -.034416 | -.111434 | -.016831 | -.052224 |
| 33 | -.011957 | -.079733 | -.003355 | -.022851 |
| 34 | -.008332 | -.052123 | -.018443 | -.005781 |
| 35 | -.005433 | -.026709 | .014408 | .034017 |
| 36 | .005851 | -.007860 | .015277 | .053693 |
| 37 | .014802 | .009234 | .008510 | .067265 |
| 38 | .010120 | .022167 | .007754 | .075454 |
| 39 | -.004244 | .028306 | .013469 | .075463 |
| 40 | -.018676 | .032709 | .011426 | .079078 |
| 41 | -.035256 | .041668 | .012176 | .077799 |
| 42 | -.054950 | .041708 | .012311 | .065386 |
| 43 | -.070895 | .042727 | -.012452 | .049418 |
| 44 | -.078222 | .031082 | -.033518 | .037814 |
| 45 | -.075116 | .018203 | -.029468 | .017049 |
| 46 | -.071570 | .011550 | -.013149 | .001867 |
| 47 | -.070956 | .010977 | .000744 | -.007642 |
| 48 | -.070696 | .011811 | .027024 | -.018948 |
| 49 | -.072712 | .011833 | .043495 | -.027179 |
| 50 | -.071888 | .014072 | .052110 | -.032693 |
| 51 | -.062970 | .013872 | .052384 | -.041860 |
| 52 | -.052231 | .007702 | .048636 | -.048948 |
| 53 | -.041128 | -.005009 | .036481 | -.059173 |
| 54 | -.035708 | -.012116 | .027941 | -.074367 |
| 55 | -.030921 | -.022448 | .012868 | -.087476 |
| 56 | -.022080 | -.025921 | .008875 | -.094734 |
| 57 | -.014550 | -.010655 | .010343 | -.102040 |
| 58 | -.016143 | -.003093 | .001730 | -.100403 |
| 59 | -.018434 | -.004338 | -.008489 | -.091665 |
| 60 | -.010800 | -.009282 | -.014571 | -.085487 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .002442 | -.052842 | -.088505 | -.005899 | -.010860 | .029239 |
| 1 | -.044250 | -.488518 | -.584190 | .118951 | -.091670 | .200540 |
| 2 | -.105803 | -.548826 | -.578394 | .183099 | -.108020 | .217729 |
| 3 | -.127173 | -.565995 | -.568629 | .074840 | -.112045 | .250018 |
| 4 | -.046506 | -.463209 | -.390413 | -.064610 | -.071295 | .201330 |
| 5 | .056812 | -.306406 | -.230732 | -.065765 | -.038613 | .136863 |
| 6 | .131790 | -.218385 | -.199039 | -.045288 | -.031551 | .103422 |
| 7-8 | .056269 | -.199048 | -.102423 | -.012501 | -.019512 | .043893 |
| 9-11 | .015048 | -.122957 | -.038426 | -.050860 | -.014793 | .052476 |
| 12-15 | .012269 | -.080167 | -.035096 | .003781 | -.009304 | .016001 |
| 16-20 | .005830 | -.043788 | -.015278 | -.006818 | -.006578 | .000685 |
| 21-27 | .004103 | -.029462 | -.008130 | .005642 | -.003851 | -.002446 |
| 28-36 | .004213 | -.015085 | -.005806 | .002688 | -.002674 | .000984 |
| 37-47 | .000291 | -.007538 | -.002643 | .003461 | -.001473 | .001098 |
| 48-60 | -.001097 | -.004510 | -.001466 | .000847 | -.001018 | .000410 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | -.126884 | -.093139 | -.324638 | .103497 | -.339932 | .059414 |
| 2 | -.092775 | -.128162 | -.327847 | -.315342 | -.344830 | -.052695 |
| 3 | .010605 | -.109862 | -.232590 | -.216161 | -.208711 | -.126802 |
| 4 | .005918 | -.071448 | -.060535 | -.154362 | -.100880 | -.059282 |
| 5 | -.080976 | -.042381 | .003571 | -.633483 | -.102391 | -.011197 |
| 6 | -.048154 | -.027007 | -.043586 | -.664167 | -.070960 | -.05523 |
| 7-8 | .014449 | -.019392 | -.037404 | -.010724 | -.022483 | -.01687 |
| 9-11 | -.036374 | -.003891 | .011106 | -.458398 | -.023893 | -.01897 |
| 12-15 | -.000308 | -.014541 | -.018724 | -.095581 | -.011638 | .005514 |
| 16-20 | -.009541 | -.003797 | -.000268 | -.138111 | -.008810 | -.005462 |
| 21-27 | .002157 | -.004640 | -.002575 | .001042 | -.002894 | -.003964 |
| 28-36 | .000442 | -.005188 | -.003836 | -.032689 | -.003499 | .002223 |
| 37-47 | .001405 | -.002138 | -.003161 | -.026245 | -.001639 | -.001805 |
| 48-60 | .000280 | .000037 | -.000075 | -.007067 | .000229 | .000053 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .022541 | .014649 | .027014 | .020122 |
| 1 | .164898 | .150671 | .370911 | .152778 |
| 2 | .179595 | .195301 | .561872 | .190741 |
| 3 | .192752 | .202279 | .702210 | .211813 |
| 4 | .142748 | .124642 | .588694 | .126602 |
| 5 | .082849 | .075909 | .439134 | .051707 |
| 6 | .066630 | .068590 | .389329 | .041202 |
| 7-8 | .052340 | .045491 | .325087 | .033482 |
| 9-11 | .027987 | .034772 | .273916 | .022987 |
| 12-15 | .015656 | .021663 | .201881 | .016922 |
| 16-20 | .010333 | .016336 | .122541 | .010281 |
| 21-27 | .007599 | .009434 | .085600 | .006711 |
| 28-36 | .004555 | .006156 | .055868 | .005445 |
| 37-47 | .002724 | .004079 | .031021 | .003426 |
| 48-60 | .001689 | .002892 | .020545 | .002552 |

RUN NO 101C 46M 7-4-63 1122-1238(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13923 10E 01 | 0.70823 10E 00 | 0.15893 10E 00 | 0.65307 10E 00 | 0.14656 10E 00 | 0.74548 10E-01 |
| 0 | -.139419 | -.579990 | -.212834 | .085025 | -.659047 | .161389 |
| 1 | -.145773 | -.236809 | -.092971 | .108436 | -.454043 | .038706 |
| 2 | -.090817 | -.112820 | -.016338 | .049460 | -.271132 | -.023758 |
| 3 | -.100219 | -.042585 | .034829 | .028132 | -.162715 | -.045466 |
| 4 | -.095114 | .093617 | .085439 | .069428 | -.072093 | -.075722 |
| 5 | -.062008 | .070808 | .114217 | .106291 | .010927 | -.105573 |
| 6 | -.016261 | .064922 | .091903 | .016987 | .035179 | -.075732 |
| 7 | .025385 | .074165 | .018026 | .004972 | .025306 | -.026032 |
| 8 | .100335 | .095258 | -.044427 | -.069094 | .029486 | .010299 |
| 9 | .122552 | .140265 | -.029472 | -.068204 | .081086 | .006159 |
| 10 | .136825 | .136908 | -.023212 | -.061910 | .117039 | .015596 |
| 11 | .089375 | .061028 | -.032184 | -.055310 | .172008 | .040542 |
| 12 | .104375 | .056918 | -.033743 | -.062252 | .247004 | .022202 |
| 13 | .102379 | .078621 | -.013319 | -.066214 | .268693 | .013587 |
| 14 | .101413 | .036227 | -.058509 | -.076355 | .232555 | .065456 |
| 15 | .112076 | -.043829 | -.092908 | -.084572 | .139143 | .082470 |
| 16 | .098864 | -.059210 | -.079740 | -.102658 | .056796 | .084081 |
| 17 | .070063 | -.066272 | -.049819 | -.054895 | .025007 | .066188 |
| 18 | -.007829 | -.115028 | -.025496 | -.022205 | .013186 | .057039 |
| 19 | -.077210 | -.014800 | .055533 | .066726 | .039704 | -.028204 |
| 20 | -.122975 | .027148 | .101501 | .081012 | .046536 | -.066344 |
| 21 | -.124196 | .009533 | .091820 | .060869 | .088127 | -.048876 |
| 22 | -.131901 | -.035124 | .070474 | .069543 | .098028 | -.019405 |
| 23 | -.084325 | -.014702 | .050494 | .073279 | .028866 | -.010410 |
| 24 | -.046546 | -.026341 | .043139 | .034668 | -.058043 | .006822 |
| 25 | -.066355 | -.035107 | .051563 | .021447 | -.107587 | .006035 |
| 26 | -.055548 | -.015667 | .027684 | .017243 | -.122120 | .002435 |
| 27 | .005131 | .029387 | .024005 | .003145 | -.122255 | -.003751 |
| 28 | .002741 | .042459 | .028269 | -.043031 | .073298 | .006622 |
| 29 | .026553 | .008219 | .000603 | -.076135 | -.050996 | .004267 |
| 30 | .016871 | .016294 | -.034648 | -.031465 | -.018550 | -.005497 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.004205 | -.019163 | -.041979 | .011537 | -.015389 | -.002915 |
| 1 | -.352663 | -.155985 | -.078939 | .156306 | -.157405 | -.105542 |
| 2 | -.790451 | -.308128 | .131066 | .254558 | -.182380 | -.120464 |
| 3 | -.825157 | -.521796 | -.032916 | .219585 | -.156817 | .005973 |
| 4 | -.168687 | -.470819 | -.495628 | .004877 | -.080427 | .184059 |
| 5 | .024870 | -.271338 | -.479718 | -.026943 | -.042123 | .167572 |
| 6 | .001728 | -.208296 | -.392393 | -.004426 | -.061479 | .125547 |
| 7 | .178153 | -.266934 | -.541363 | -.067639 | -.086150 | .186201 |
| 8 | .110925 | -.232241 | -.415885 | -.041144 | -.048424 | .140764 |
| 9-11 | -.094176 | -.180897 | -.055190 | .064589 | -.017990 | .032840 |
| 12-14 | -.027975 | -.046942 | -.040385 | .047663 | -.015183 | .024262 |
| 15-21 | -.025263 | -.115426 | -.105887 | -.023177 | -.015502 | .057081 |
| 22-30 | .045802 | -.123636 | -.077182 | -.016352 | -.009261 | .036247 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.13923 10E 01 | 0.70823 10E 00 | 0.15893 10E 00 | 0.65307 10E 00 | 0.14656 10E 00 | 0.74548 10E-01 |
| 1 | -.027094 | -.043656 | -.057393 | .006530 | -.056774 | .036405 |
| 2 | -.011570 | -.056533 | -.087293 | .058330 | -.057154 | .072820 |
| 3 | -.005176 | -.042177 | -.075138 | .066834 | -.044144 | .112785 |
| 4 | .022745 | -.060044 | -.064865 | .104802 | -.001877 | .07282 |
| 5 | .043658 | -.040825 | -.042126 | .097891 | .033700 | .045132 |
| 6 | .043421 | -.082680 | -.042509 | .079340 | .046817 | .037267 |
| 7 | .086633 | -.059686 | -.051946 | .082787 | .043639 | .039781 |
| 8 | .042217 | -.072864 | -.027434 | .034073 | .028702 | -.000815 |
| 9 | -.002044 | -.023283 | -.002330 | .029568 | .005466 | -.006022 |
| 10 | -.011987 | -.006318 | -.003232 | -.023749 | -.016760 | -.033382 |
| 11 | .001110 | -.005196 | -.021360 | -.044266 | -.010949 | -.045393 |
| 12 | .017356 | .003470 | -.039007 | -.016571 | .009965 | -.014502 |
| 13 | -.002066 | .043493 | -.034637 | -.013771 | .025777 | .020650 |
| 14 | -.025563 | .069814 | .005752 | -.052513 | .029382 | -.020548 |
| 15 | .014863 | .033093 | -.009071 | -.053788 | .029920 | -.053443 |
| 16 | .008306 | .056947 | -.038389 | -.074208 | .014224 | -.008808 |
| 17 | -.049264 | .020819 | .004032 | -.083513 | -.030010 | -.015942 |
| 18 | -.050561 | -.007708 | -.001730 | -.052607 | -.068610 | .004798 |
| 19 | -.022448 | -.020521 | -.007418 | -.009702 | -.060511 | .002872 |
| 20 | .006739 | .017821 | .020855 | -.007359 | -.024176 | -.002783 |
| 21 | -.003141 | .049209 | .063825 | .014214 | -.009654 | .000960 |
| 22 | .026654 | .008702 | .054214 | .020071 | .042580 | -.037183 |
| 23 | .080010 | .006566 | -.001218 | .023657 | .102639 | -.059297 |
| 24 | .075860 | -.012287 | -.012225 | .011949 | .079461 | -.039049 |
| 25 | .032014 | -.013339 | -.002591 | -.016935 | .033811 | -.025138 |
| 26 | .04J535 | -.068901 | .008906 | .000711 | .032425 | -.064601 |
| 27 | .005160 | -.050540 | .010665 | .046696 | .017438 | -.012046 |
| 28 | -.035631 | -.029298 | .013572 | .009508 | -.014553 | .010768 |
| 29 | -.043217 | .000037 | .008509 | .005758 | -.026555 | .027029 |
| 30 | -.019261 | .011428 | .008913 | .035570 | -.009086 | .047473 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .145958 | -.076411 | -.380085 | .037318 | .095346 | .028024 |
| 2 | .164361 | -.157104 | -.348712 | .164505 | .074453 | .113481 |
| 3 | .194005 | -.205300 | -.266870 | .254771 | .034013 | .173206 |
| 4 | .022512 | -.108700 | -.237776 | .150795 | -.123077 | .188731 |
| 5 | -.061034 | -.002378 | -.269977 | .041151 | -.092732 | .136519 |
| 6 | -.086519 | .025325 | -.176249 | .023146 | -.128092 | .081028 |
| 7 | -.197915 | -.024597 | -.110715 | -.018923 | -.344031 | .056115 |
| 8 | -.144158 | -.033323 | -.092325 | -.054674 | -.242796 | .010413 |
| 9-11 | -.002792 | -.033432 | -.096931 | -.000451 | -.056319 | .031800 |
| 12-14 | -.029333 | -.013171 | -.011638 | -.023161 | -.029623 | -.038705 |
| 15-21 | -.002042 | -.006862 | -.013136 | .000748 | -.013478 | -.005960 |
| 22-30 | -.022341 | .014779 | .020590 | -.019485 | -.015617 | .011877 |

RUN NC 101C 46M 7-4-63 1122-1238(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.15099 10E 01 | 0.12839 10E 01 | 0.33219 10E 00 | 0.16729 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .534965 | .569997 | .111745 | .687603 |
| 2 | .270933 | .265310 | .023694 | .400681 |
| 3 | .120712 | .128475 | .036717 | .282037 |
| 4 | -.075313 | .057485 | -.111670 | .164225 |
| 5 | -.188579 | -.021791 | -.037584 | .009273 |
| 6 | -.196250 | -.066268 | -.074366 | -.070470 |
| 7 | -.166122 | -.058112 | -.046919 | -.028936 |
| 8 | -.168998 | -.071226 | -.092811 | -.026068 |
| 9 | -.177402 | -.122582 | -.140553 | -.100094 |
| 10 | -.170677 | -.154538 | -.161362 | -.147431 |
| 11 | -.139828 | -.259822 | .016008 | -.157762 |
| 12 | -.126039 | -.341629 | -.081838 | -.213552 |
| 13 | -.142280 | -.336743 | -.074840 | -.284727 |
| 14 | -.101139 | -.264421 | -.048195 | -.243174 |
| 15 | .004920 | -.154374 | .032361 | -.132932 |
| 16 | .041900 | -.079999 | .083039 | -.064866 |
| 17 | .058915 | .002767 | .076028 | -.043493 |
| 18 | .022894 | .014893 | .198486 | -.007392 |
| 19 | -.006467 | -.002576 | .309916 | -.029064 |
| 20 | -.046624 | -.020664 | -.039756 | -.085011 |
| 21 | -.024453 | -.071554 | -.057101 | -.110483 |
| 22 | .009601 | -.063192 | .034360 | -.065389 |
| 23 | .010820 | .013137 | -.023186 | -.005058 |
| 24 | .001535 | .133109 | .032357 | .010516 |
| 25 | .024160 | .205146 | .020582 | .015377 |
| 26 | .043156 | .206342 | -.050671 | .084794 |
| 27 | .038669 | .177464 | -.027923 | .068233 |
| 28 | .040747 | .086991 | -.035562 | .003538 |
| 29 | .083439 | .035978 | .048515 | .005729 |
| 30 | .073837 | -.048164 | -.104586 | .036011 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .007977 | .010973 | .012620 | .055386 |
| 1 | .098779 | .142552 | .085005 | .309717 |
| 2 | .151728 | .193714 | .141562 | .283537 |
| 3 | .205701 | .184297 | .240408 | .247735 |
| 4 | .186919 | .096991 | .224175 | .152249 |
| 5 | .133258 | .052204 | .132488 | .095899 |
| 6 | .107718 | .074671 | .119334 | .103668 |
| 7 | .106887 | .106544 | .156392 | .116123 |
| 8 | .079280 | .069860 | .133822 | .067272 |
| 9-11 | .041549 | .036731 | .142929 | .030307 |
| 12-14 | .022682 | .038088 | .083713 | .028107 |
| 15-21 | .037305 | .026412 | .142868 | .032202 |
| 22-30 | .028417 | .019991 | .176604 | .013781 |

RUN NC 101C 15M 7-4-63 1122-1238(EST)
 RUN NC 101C 46M 7-4-63 1122-1238(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .597897 | .437598 | .488596 | .279606 |
| 1 | .488599 | .698493 | .400397 | .382718 |
| 2 | .349492 | .614581 | .392840 | .289813 |
| 3 | .273294 | .540906 | .437082 | .115391 |
| 4 | .213524 | .463457 | .444394 | .067944 |
| 5 | .095732 | .379350 | .351259 | .055553 |
| 6 | .194672 | .350818 | .328287 | .074642 |
| 7-8 | .127804 | .324699 | .304737 | .076638 |
| 9-11 | .141490 | .142328 | .221648 | .113248 |
| 12-15 | .173802 | .159842 | .149499 | .098538 |
| 16-20 | .113759 | .095394 | .168384 | .155023 |
| 21-27 | .092642 | .086502 | .091750 | .101926 |
| 28-36 | .124371 | .118926 | .092424 | .139137 |
| 37-47 | .099763 | .085826 | .092865 | .079774 |
| 48-60 | .111099 | .104188 | .135957 | .095433 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .562683 | .855488 | .661169 | .631206 |
| 1 | .808667 | .803529 | .568014 | .463500 |
| 2 | .835183 | .811736 | .500257 | .271538 |
| 3 | .839367 | .802345 | .612250 | .171097 |
| 4 | .797032 | .808899 | .624020 | .086517 |
| 5 | .664598 | .780071 | .373235 | .278003 |
| 6 | .573718 | .735875 | .385338 | .446116 |
| 7 | .612435 | .823783 | .606255 | .501501 |
| 8 | .549633 | .832761 | .486780 | .409779 |
| 9-11 | .365937 | .623123 | .396306 | .517716 |
| 12-14 | .193829 | .571510 | .355977 | .274150 |
| 15-21 | .272560 | .501577 | .540797 | .192859 |
| 22-30 | .307655 | .352993 | .212635 | .253942 |

RUN NO 102A 46M 7-4-63 1307-1423(EST)

GROSS STATISTICS

7 SC SIGMA A 14.6 DEG
UNSTABLE WIND SPEED 8.11 M/SEC SIGMA E 7.6 DEG
WIND DIRECTION 305 DEG
SOLAR RAD. 0.76 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.40323E 01 | 0.28916E 01 | 0.15251E 01 | 0.22542E 01 |
| V | 0.42096E 01 | 0.22477E 01 | 0.13875E 01 | 0.15403E 01 |
| W | 0.86789E 00 | 0.85290E 00 | 0.72417E 00 | 0.42277E-00 |
| T | 0.29070E-00 | 0.41567E-01 | 0.17595E-01 | 0.33530E-01 |
| E | 0.45549E 01 | 0.29973E 01 | 0.18189E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.24760 | 0.20968 | 0.15233 | 0.18513 |
| V | 0.25299 | 0.18486 | 0.14524 | 0.15303 |
| W | 0.11487 | 0.11387 | 0.10493 | 0.08017 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.53052E-01 | -0.37552E-00 | -0.13286E-01 | -0.35775E-00 |
| U,W | -0.83643E 00 | -0.75949E 00 | -0.46827E-00 | -0.54814E 00 |
| U,T | -0.30269E-00 | -0.11904E-00 | -0.55303E-01 | -0.10408E-00 |
| V,W | -0.27260E-01 | 0.11017E-00 | 0.14239E-01 | 0.86587E-01 |
| V,T | -0.39167E-00 | -0.11394E-00 | -0.74092E-01 | -0.81708E-01 |
| W,T | 0.72073E-01 | 0.41798E-01 | 0.23085E-01 | 0.34521E-01 |
| WE | 0.34874E-00 | 0.57590E 00 | 0.20670E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.01288 | -0.14730 | -0.00913 | -0.19200 |
| U,W | -0.44712 | -0.48362 | -0.44543 | -0.56149 |
| U,T | -0.27958 | -0.34336 | -0.33749 | -0.37857 |
| V,W | -0.01426 | 0.07957 | 0.01420 | 0.10730 |
| V,T | -0.35406 | -0.37278 | -0.47420 | -0.35954 |
| W,T | 0.14349 | 0.22199 | 0.20451 | 0.28995 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14553 10E 01 | 0.10512 10E 01 | 0.16385 10E 00 | 0.10025 10E 01 | 0.15626 10E 00 | 0.11287 10E 00 |
| 0 | -.008879 | -.445412 | -.337496 | .014119 | -.474136 | .204518 |
| 1 | -.010786 | -.400775 | -.316890 | .005896 | -.397917 | .186078 |
| 2 | -.010601 | -.327923 | -.281643 | -.001532 | -.299295 | .157951 |
| 3 | -.006900 | -.259651 | -.244343 | -.000334 | -.228256 | .127723 |
| 4 | -.009891 | -.20319% | -.205560 | .003873 | -.173226 | .098533 |
| 5 | -.011040 | -.160119 | -.172825 | .009652 | -.136227 | .064154 |
| 6 | -.008974 | -.118735 | -.143551 | .010853 | -.106470 | .041170 |
| 7 | -.010143 | -.075745 | -.112966 | .000451 | -.079498 | .025339 |
| 8 | -.009058 | -.040804 | -.083196 | -.010838 | -.059130 | .013907 |
| 9 | -.004719 | -.014846 | -.055317 | -.009075 | -.041490 | .005034 |
| 10 | -.002286 | .005486 | -.028446 | -.002922 | -.027769 | -.003191 |
| 11 | -.002542 | .027639 | -.002876 | -.003753 | -.009988 | -.008259 |
| 12 | -.005183 | .052326 | .022849 | -.006910 | .016420 | -.014898 |
| 13 | -.010623 | .077433 | .047122 | -.009565 | .042477 | -.018065 |
| 14 | -.019260 | .095311 | .065742 | -.007202 | .061996 | -.016354 |
| 15 | -.026659 | .103621 | .080669 | .004252 | .076691 | -.015254 |
| 16 | -.027752 | .104675 | .097967 | .014098 | .090851 | -.023959 |
| 17 | -.024229 | .102374 | .110894 | .017097 | .107612 | -.031269 |
| 18 | -.018444 | .104051 | .123207 | .020253 | .122229 | -.037729 |
| 19 | -.011563 | .107471 | .134433 | .020084 | .133584 | -.043833 |
| 20 | -.004278 | .105894 | .135412 | .016651 | .141071 | -.047160 |
| 21 | -.000920 | .100174 | .128762 | .016203 | .140248 | -.045984 |
| 22 | -.001989 | .095509 | .127044 | .018680 | .138755 | -.045991 |
| 23 | -.005772 | .092779 | .127789 | .018114 | .135506 | -.047404 |
| 24 | -.008570 | .095323 | .126679 | .015921 | .133794 | -.046444 |
| 25 | -.005989 | .097686 | .124577 | .016327 | .132109 | -.045588 |
| 26 | .002108 | .104544 | .120903 | .021471 | .126943 | -.052321 |
| 27 | .003942 | .104102 | .121222 | .023410 | .119254 | -.055069 |
| 28 | .002643 | .098691 | .120168 | .019272 | .108681 | -.057327 |
| 29 | -.001740 | .091115 | .116156 | .008995 | .096843 | -.056237 |
| 30 | -.006241 | .083449 | .109243 | .011753 | .081056 | -.059467 |
| 31 | -.009387 | .079680 | .098762 | .020162 | .058734 | -.064767 |
| 32 | -.014084 | .078663 | .086967 | .019124 | .039289 | -.064474 |
| 33 | -.013138 | .076210 | .070097 | .012118 | .025937 | -.058832 |
| 34 | -.012601 | .064361 | .052398 | .002949 | .019750 | -.046315 |
| 35 | -.004492 | .053324 | .032417 | -.003895 | .014542 | -.032529 |
| 36 | .008638 | .044329 | .013791 | -.004849 | .010921 | -.029318 |
| 37 | .020452 | .031849 | .000392 | -.013221 | .012507 | -.016066 |
| 38 | .032264 | .022948 | -.014895 | -.022331 | .011705 | .002960 |
| 39 | .039928 | .013006 | -.030662 | -.027282 | .009773 | .021373 |
| 40 | .041128 | .001450 | -.042041 | -.026069 | .004200 | .024329 |
| 41 | .041569 | -.016133 | -.050551 | -.022631 | -.000374 | .021092 |
| 42 | .041214 | -.034361 | -.059913 | -.024648 | -.007295 | .015995 |
| 43 | .042622 | -.048577 | -.073428 | -.01756 | -.015931 | .021384 |
| 44 | .044158 | -.054183 | -.082797 | -.01455 | -.022883 | .021058 |
| 45 | .041316 | -.058529 | -.088527 | -.047380 | -.023392 | .018289 |
| 46 | .037016 | -.068898 | -.091309 | -.051649 | -.032505 | .021813 |
| 47 | .031919 | -.075019 | -.087511 | -.050590 | -.045230 | .024647 |
| 48 | .024193 | -.074783 | -.080198 | -.049675 | -.052665 | .028425 |
| 49 | .021279 | -.080412 | -.073794 | -.051843 | -.051817 | .036169 |
| 50 | .019631 | -.083412 | -.066603 | -.046338 | -.044834 | .038553 |
| 51 | .017276 | -.084007 | -.059940 | -.038384 | -.043014 | .034851 |
| 52 | .015210 | -.083112 | -.055212 | -.030085 | -.039218 | .038620 |
| 53 | .004438 | -.080218 | -.042150 | -.023949 | -.036319 | .035798 |
| 54 | -.010178 | -.064914 | -.027639 | -.016437 | -.034394 | .030731 |
| 55 | -.025547 | -.047575 | -.012683 | -.012566 | -.029377 | .031120 |
| 56 | -.035388 | -.029969 | .000792 | -.011021 | -.021742 | .027913 |
| 57 | -.036486 | -.011133 | .013992 | -.00453 | -.018492 | .017091 |
| 58 | -.031923 | .006513 | .022005 | .005115 | -.011917 | .003177 |
| 59 | -.027238 | .022078 | .029871 | .018808 | -.003191 | -.011562 |
| 60 | -.023843 | .031252 | .041477 | .033518 | .012079 | -.023295 |

RUN NC 102A .46H 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.14553 10E 01 | 0.10512 10E 01 | 0.16385 10E 00 | 0.10025 10E 01 | 0.15626 10E 00 | 0.11267 10E 00 |
| 1 | -.003255 | -.019273 | -.016357 | -.013922 | -.024421 | .001251 |
| 2 | -.003749 | -.032368 | -.032333 | -.024524 | -.036800 | .005807 |
| 3 | -.004063 | -.038087 | -.043163 | -.030314 | -.041692 | .008654 |
| 4 | .003015 | -.043629 | -.057933 | -.032871 | -.040794 | .009931 |
| 5 | .008467 | -.050619 | -.073030 | -.036891 | -.042177 | .010020 |
| 6 | .012298 | -.052696 | -.079692 | -.035897 | -.040142 | .016088 |
| 7 | .018308 | -.050820 | -.078600 | -.024431 | -.041826 | .023571 |
| 8 | .023608 | -.046690 | -.074361 | -.022599 | -.048007 | .024798 |
| 9 | .021890 | -.040513 | -.066369 | -.025900 | -.053447 | .026589 |
| 10 | .016158 | -.036441 | -.061661 | -.025244 | -.057290 | .026659 |
| 11 | .009686 | -.032799 | -.060976 | -.035642 | -.059891 | .020266 |
| 12 | .002981 | -.025900 | -.057910 | -.044342 | -.060523 | .012936 |
| 13 | .000873 | -.018252 | -.055604 | -.042970 | -.063231 | .006335 |
| 14 | .005459 | -.012277 | -.052838 | -.035643 | -.066200 | .006466 |
| 15 | .008218 | -.013220 | -.046626 | -.022625 | -.066179 | .015955 |
| 16 | .009753 | -.016366 | -.041466 | -.009080 | -.060469 | .023545 |
| 17 | .008597 | -.020265 | -.040418 | .001853 | -.055786 | .028642 |
| 18 | .001550 | -.024535 | -.040383 | -.001918 | -.050937 | .028053 |
| 19 | -.011796 | -.026841 | -.034121 | -.016847 | -.043419 | .023645 |
| 20 | -.031669 | -.025256 | -.015789 | -.027381 | -.040214 | .012594 |
| 21 | -.044952 | -.025596 | -.002139 | -.036515 | -.036982 | .005013 |
| 22 | -.052717 | -.022399 | .006370 | -.035802 | -.032717 | .003545 |
| 23 | -.057666 | -.017096 | .015174 | -.029556 | -.035100 | .007917 |
| 24 | -.058892 | -.012431 | .023391 | -.025289 | -.035907 | .008439 |
| 25 | -.055847 | -.009108 | .030169 | -.017751 | -.029736 | .004014 |
| 26 | -.049304 | -.005865 | .032946 | -.011194 | -.020040 | -.002895 |
| 27 | -.040728 | .001850 | .035976 | -.005888 | -.004960 | -.007126 |
| 28 | -.034071 | .013228 | .037365 | -.006412 | -.004420 | -.007727 |
| 29 | -.027439 | .022451 | .037470 | -.008678 | .007910 | -.009703 |
| 30 | -.017950 | .027300 | .035457 | -.000969 | .011930 | -.009422 |
| 31 | -.008399 | .028771 | .036984 | .008637 | .013568 | -.012245 |
| 32 | -.002549 | .028868 | .037584 | .014647 | .016094 | -.012755 |
| 33 | .004861 | .031744 | .033050 | .020330 | .018907 | -.010198 |
| 34 | .011058 | .032605 | .022214 | .024689 | .022292 | -.009167 |
| 35 | .015809 | .031141 | .011954 | .023164 | .027038 | -.013992 |
| 36 | .021634 | .028057 | .004413 | .020775 | .028787 | -.016107 |
| 37 | .028305 | .025124 | -.005188 | .022335 | .030082 | -.011389 |
| 38 | .036280 | .026329 | -.014263 | .028353 | .035267 | -.009417 |
| 39 | .037305 | .020616 | -.015535 | .028156 | .038413 | -.013488 |
| 40 | .036744 | .016212 | -.017525 | .020127 | .044194 | -.011948 |
| 41 | .032905 | .019794 | -.019047 | .015984 | .046914 | -.002561 |
| 42 | .028090 | .021832 | -.021845 | .017304 | .049877 | .002608 |
| 43 | .020997 | .024927 | -.022029 | .023065 | .053591 | .010464 |
| 44 | .018860 | .029023 | -.018875 | .020446 | .053683 | .012132 |
| 45 | .015312 | .031765 | -.012102 | .018688 | .052690 | .011423 |
| 46 | .013251 | .033484 | -.006546 | .018025 | .051376 | .016860 |
| 47 | .011532 | .030470 | -.002449 | .014064 | .047346 | .018505 |
| 48 | .011192 | .019664 | -.004336 | .013173 | .041630 | .016748 |
| 49 | .018684 | .007502 | -.010428 | .017885 | .034755 | .020216 |
| 50 | .027022 | .005782 | -.012068 | .020138 | .026305 | .022658 |
| 51 | .029200 | .005361 | -.011082 | .009876 | .020668 | .013654 |
| 52 | .026868 | .002839 | -.010536 | -.001628 | .008188 | .002136 |
| 53 | .025692 | -.001925 | -.012193 | .001008 | .001916 | -.002236 |
| 54 | .020912 | -.004177 | -.010150 | .004638 | -.000886 | -.004012 |
| 55 | .012350 | -.012351 | -.007134 | .005508 | -.007919 | -.003733 |
| 56 | .004657 | -.011639 | -.001683 | .005674 | -.011678 | -.002341 |
| 57 | -.007616 | -.009375 | .003935 | .005929 | -.018288 | .004816 |
| 58 | -.026326 | -.009061 | .010567 | .003225 | -.026497 | .010475 |
| 59 | -.039102 | -.006891 | .018084 | -.002756 | -.030662 | .010180 |
| 60 | -.045733 | -.009161 | .020880 | -.010945 | -.035135 | .003845 |

RUN NO 102A 46M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.15259 10E 01 | 0.13879 10E 01 | 0.72416 10E 00 | 0.17593 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .886884 | .808559 | .742354 | .833208 |
| 2 | .740259 | .583837 | .463620 | .41801 |
| 3 | .613670 | .419191 | .295130 | .499271 |
| 4 | .505372 | .301572 | .193019 | .386227 |
| 5 | .413321 | .230325 | .109225 | .304715 |
| 6 | .327433 | .177293 | .043539 | .234680 |
| 7 | .246529 | .134497 | -.001656 | .172937 |
| 8 | .173286 | .100796 | -.034327 | .131954 |
| 9 | .104745 | .070079 | -.066294 | .094852 |
| 10 | .036300 | .040484 | -.093623 | .058454 |
| 11 | -.024719 | .005937 | -.109954 | .018772 |
| 12 | -.080692 | -.038278 | -.117093 | .025805 |
| 13 | -.137702 | -.073347 | -.129700 | -.073442 |
| 14 | -.185119 | -.099947 | -.149089 | -.108514 |
| 15 | -.220432 | -.114779 | -.151318 | -.139818 |
| 16 | -.248394 | -.135536 | -.144374 | -.169008 |
| 17 | -.269265 | -.162493 | -.139202 | -.190220 |
| 18 | -.285524 | -.185743 | -.134375 | -.215743 |
| 19 | -.301080 | -.204426 | -.127084 | -.235022 |
| 20 | -.307796 | -.219483 | -.122951 | -.239973 |
| 21 | -.310014 | -.226432 | -.101813 | -.233503 |
| 22 | -.314254 | -.230125 | -.088793 | -.224786 |
| 23 | -.323753 | -.237621 | -.094834 | -.224379 |
| 24 | -.327475 | -.246522 | -.113927 | -.228361 |
| 25 | -.325385 | -.247910 | -.130614 | -.235728 |
| 26 | -.323936 | -.244540 | -.147196 | -.239125 |
| 27 | -.313897 | -.237257 | -.154088 | -.237023 |
| 28 | -.290984 | -.220965 | -.149421 | -.222538 |
| 29 | -.258551 | -.203010 | -.131768 | -.201552 |
| 30 | -.221142 | -.179295 | -.107651 | -.179192 |
| 31 | -.182749 | -.142072 | -.073601 | -.151289 |
| 32 | -.150963 | -.104248 | -.053431 | -.127316 |
| 33 | -.125751 | -.076552 | -.042552 | -.101995 |
| 34 | -.100716 | -.055946 | -.032027 | -.069372 |
| 35 | -.074077 | -.037445 | -.023014 | -.04269 |
| 36 | -.044186 | -.024022 | -.013967 | -.029741 |
| 37 | -.015675 | -.023977 | -.005908 | -.015726 |
| 38 | .015084 | -.026851 | -.022566 | -.002750 |
| 39 | .042309 | -.022782 | -.031021 | -.009514 |
| 40 | .069398 | -.022553 | .030292 | .01671 |
| 41 | .044080 | -.020495 | .034570 | .026291 |
| 42 | .116874 | -.012545 | .040476 | .036616 |
| 43 | .134957 | .003677 | .045083 | .048836 |
| 44 | .145899 | .014265 | .039630 | .058443 |
| 45 | .151804 | .011160 | .046696 | .064760 |
| 46 | .155871 | .010766 | .068321 | .072711 |
| 47 | .155852 | .016289 | .075395 | .074750 |
| 48 | .151698 | .022580 | .073544 | .067683 |
| 49 | .148612 | .025987 | .074258 | .054115 |
| 50 | .143950 | .026834 | .071162 | .044861 |
| 51 | .133854 | .032264 | .067694 | .036243 |
| 52 | .113807 | .037854 | .072781 | .030148 |
| 53 | .089333 | .045589 | .073616 | .031437 |
| 54 | .061180 | .053177 | .064131 | .033342 |
| 55 | .032287 | .056462 | .050765 | .030474 |
| 56 | .003795 | .063744 | .039704 | .019120 |
| 57 | -.022450 | .067933 | .028960 | .004075 |
| 58 | -.040654 | .065384 | .008721 | -.008472 |
| 59 | -.056888 | .058548 | -.006843 | -.027453 |
| 60 | -.068763 | .038120 | -.020053 | -.047958 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 0 | -.037993 | -.066770 | -.009671 | .177118 | -.008632 | .040439 |
| 1 | -.176583 | -.638730 | -.095671 | .647897 | -.095562 | .358462 |
| 2 | -.030001 | -.855879 | -.136978 | -.358378 | -.128845 | .445656 |
| 3 | .055759 | -.846712 | -.135495 | -.517610 | -.129788 | .390372 |
| 4 | -.002900 | -.539147 | -.063794 | .361829 | -.073412 | .199078 |
| 5 | .013940 | -.419229 | -.034522 | .356216 | -.035587 | .182375 |
| 6 | .010389 | -.301215 | -.025768 | .205530 | -.026849 | .187314 |
| 7-8 | -.048494 | -.159765 | -.010240 | .113637 | -.028837 | .109366 |
| 9-11 | .015301 | -.110326 | -.009699 | -.161051 | -.022849 | .072944 |
| 12-15 | .001479 | -.067141 | -.004418 | .020445 | -.014377 | .026477 |
| 16-20 | -.002085 | -.034158 | -.002313 | .018803 | -.007876 | .006593 |
| 21-27 | .000013 | -.024977 | -.001214 | .128512 | -.005955 | .005514 |
| 28-36 | .000891 | -.007658 | -.000542 | -.004435 | -.003108 | .006901 |
| 37-47 | .004156 | -.006314 | -.000564 | .031383 | -.002242 | .001471 |
| 48-60 | -.000864 | -.003206 | -.000174 | .005351 | -.001002 | .002533 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-03 |
| 1 | -.122797 | -.086508 | -.236369 | -.127071 | -.371141 | .790466 |
| 2 | -.066558 | -.178123 | -.345390 | -.157141 | -.465242 | .954384 |
| 3 | .137523 | -.159810 | -.482597 | -.102767 | -.298881 | .958526 |
| 4 | .192515 | -.065298 | -.317090 | -.028078 | -.067663 | .219698 |
| 5 | .008254 | -.056978 | -.068271 | -.042614 | -.032891 | -.062676 |
| 6 | -.95252 | -.087253 | -.040549 | -.057506 | -.017931 | .140062 |
| 7-8 | -.006859 | -.062699 | -.079977 | -.011923 | -.027150 | .126888 |
| 9-11 | -.009493 | -.001467 | -.016466 | -.013467 | -.042487 | -.124937 |
| 12-15 | -.024379 | -.007013 | .012947 | -.019644 | -.023197 | ..042318 |
| 16-20 | .004150 | -.001095 | .010349 | .006278 | -.018125 | .040904 |
| 21-27 | -.002961 | -.005607 | -.007940 | -.003237 | -.004206 | .013574 |
| 28-36 | .003370 | -.001437 | -.002864 | -.001035 | -.003843 | -.039990 |
| 37-47 | -.001834 | .001064 | .003288 | .000348 | .000501 | .002030 |
| 48-60 | -.001646 | -.000187 | .001100 | .000690 | -.002236 | -.003643 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10F-02 |
| 0 | .022601 | .016853 | .037087 | .034571 |
| 1 | .226518 | .175550 | .460964 | .256532 |
| 2 | .315534 | .216513 | .709309 | .299957 |
| 3 | .319253 | .206339 | .818249 | .290280 |
| 4 | .169954 | .117696 | .617418 | .164209 |
| 5 | .095608 | .066249 | .527402 | .095920 |
| 6 | .075978 | .064463 | .499341 | .082133 |
| 7-8 | .046793 | .059402 | .342736 | .062093 |
| 9-11 | .028861 | .043851 | .255669 | .052526 |
| 12-15 | .019381 | .031501 | .172661 | .030564 |
| 16-20 | .011511 | .018187 | .124382 | .017808 |
| 21-27 | .007128 | .012303 | .087052 | .013375 |
| 28-36 | .004188 | .006662 | .059595 | .007598 |
| 37-47 | .002981 | .005116 | .034895 | .005817 |
| 48-60 | .001941 | .003053 | .023084 | .003501 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|----------|----------|----------|----------|----------|----------|
| | 10E 01 | 10E 00 |
| 0 | -.191971 | -.561499 | -.378495 | .107331 | -.359567 | .290006 |
| 1 | -.186461 | -.310164 | -.257080 | .102230 | -.224260 | .163757 |
| 2 | -.162545 | -.136669 | -.151030 | .087169 | -.114702 | .103241 |
| 3 | -.115601 | -.042094 | -.094863 | .044853 | -.079123 | .038778 |
| 4 | -.067184 | .005156 | -.078860 | .002531 | -.065347 | .027346 |
| 5 | -.032029 | .007520 | -.052536 | -.032978 | -.035915 | .005701 |
| 6 | -.015091 | .122090 | .023169 | -.000502 | -.011490 | -.036653 |
| 7 | .030521 | .148655 | .044403 | .007482 | -.008115 | -.056683 |
| 8 | .067568 | .136807 | .060724 | -.038658 | -.013156 | -.057096 |
| 9 | .079621 | .060193 | .065199 | -.084396 | .009122 | -.023479 |
| 10 | .059589 | .034947 | .080088 | -.086913 | .024362 | -.023439 |
| 11 | .095067 | .032148 | .075372 | -.068733 | .026828 | -.040631 |
| 12 | .110928 | .037789 | .089630 | -.056177 | .029529 | -.056614 |
| 13 | .135976 | .086152 | .112770 | -.057417 | .039751 | -.081061 |
| 14 | .161800 | .065127 | .108126 | -.066543 | .045324 | -.091750 |
| 15 | .154735 | .060202 | .116889 | -.051826 | .042528 | -.102489 |
| 16 | .110234 | .062748 | .110785 | .007307 | .051618 | -.094258 |
| 17 | .081578 | .056661 | .088470 | .033590 | .061016 | -.095720 |
| 18 | .060218 | -.002720 | .050130 | .033367 | .063492 | -.019297 |
| 19 | .023584 | -.037930 | .029056 | .050710 | .070918 | -.011690 |
| 20 | -.014378 | -.057032 | .006895 | .051223 | .067341 | .054431 |
| 21 | -.063824 | .015119 | .024522 | .058325 | .087577 | .043524 |
| 22 | -.102685 | .052762 | .028600 | .083278 | .081453 | .020138 |
| 23 | -.108446 | -.006460 | .036880 | .055978 | .066203 | .027540 |
| 24 | -.105717 | -.029536 | .044317 | -.006481 | .065968 | .059246 |
| 25 | -.096061 | .008100 | .039861 | -.038398 | .035197 | .073635 |
| 26 | -.085815 | .012133 | .051552 | -.050913 | .003922 | .051729 |
| 27 | -.082871 | .052464 | .065179 | -.019487 | -.004737 | -.006088 |
| 28 | -.064157 | .040130 | .040254 | -.035989 | -.044166 | .015150 |
| 29 | -.050136 | .054115 | .014841 | -.002872 | -.084999 | .007476 |
| 30 | -.020926 | .049043 | -.018001 | .010084 | -.135109 | -.028587 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.002819 | -.040845 | -.014106 | -.000249 | -.032529 | .019391 |
| 1 | -.085178 | -.445667 | -.189760 | .079537 | -.179558 | .398207 |
| 2 | -.133032 | -.589953 | -.206427 | .224473 | -.124509 | .577238 |
| 3 | -.104087 | -.697423 | -.166078 | .314397 | -.076764 | .490423 |
| 4 | -.022203 | -.601241 | -.087870 | .129098 | -.061005 | .228339 |
| 5 | -.020738 | -.530046 | -.061532 | .014845 | -.050663 | .286311 |
| 6 | -.025196 | -.466762 | -.061045 | .056153 | -.040802 | .317627 |
| 7 | -.007231 | -.270161 | -.034165 | .057941 | -.040022 | .149516 |
| 8 | .002565 | -.098486 | -.018074 | .060298 | -.033721 | .042676 |
| 9-11 | -.004335 | -.179351 | -.030687 | .039482 | -.025593 | .091716 |
| 12-14 | .003375 | -.229569 | -.033002 | -.066558 | -.023513 | .124933 |
| 15-21 | .001404 | -.086035 | -.012462 | .007516 | -.016271 | .042792 |
| 22-30 | .000026 | -.100875 | -.011617 | -.000277 | -.009307 | .075333 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.18636 10E 01 | 0.97621 10E 00 | 0.27498 10E 00 | 0.80673 10E 00 | 0.22724 10E 00 | 0.11904 10E 00 |
| 1 | .008813 | -.014967 | -.070450 | -.051975 | -.056688 | .026476 |
| 2 | -.005477 | -.007822 | -.089254 | -.046389 | -.065906 | .026428 |
| 3 | .011308 | .031907 | -.100293 | -.033023 | -.049515 | .027803 |
| 4 | .037005 | .035127 | -.138036 | -.026779 | -.031922 | .016494 |
| 5 | .065719 | .026290 | -.146291 | -.011001 | -.031128 | .023327 |
| 6 | .050093 | -.015313 | -.142354 | -.031509 | -.051506 | -.008858 |
| 7 | .046793 | -.021643 | -.133949 | -.064975 | -.031398 | -.010940 |
| 8 | .097378 | .001455 | -.128474 | -.011799 | -.000502 | -.016668 |
| 9 | .108072 | .017777 | -.107493 | .038990 | .013153 | .017809 |
| 10 | .076866 | .022889 | -.091771 | .009013 | .046581 | .028705 |
| 11 | .042766 | .017499 | -.082338 | .019960 | .057321 | .044889 |
| 12 | .027111 | .051666 | -.076515 | -.012785 | .073224 | .041098 |
| 13 | .010649 | .000019 | -.068526 | -.013188 | .074030 | .036030 |
| 14 | -.015373 | -.024114 | -.020540 | -.021093 | .054698 | -.015582 |
| 15 | -.045609 | -.046308 | .005513 | -.046772 | .025024 | -.033629 |
| 16 | .001675 | -.000793 | -.002465 | .007371 | .016205 | .004518 |
| 17 | -.013952 | -.004005 | .006460 | .000689 | -.008658 | -.034113 |
| 18 | -.024484 | -.020025 | .013665 | .049688 | -.018967 | -.033164 |
| 19 | -.018734 | -.028828 | .049429 | .066773 | -.035214 | -.048509 |
| 20 | -.025372 | -.022203 | .026472 | .050588 | -.043941 | -.029866 |
| 21 | -.011133 | -.052607 | -.031818 | .042017 | -.050471 | -.010345 |
| 22 | -.030208 | -.063597 | -.044894 | .027677 | -.070713 | .004232 |
| 23 | -.057271 | -.027390 | -.026478 | -.029297 | -.078763 | .010179 |
| 24 | -.081752 | .002941 | .028978 | -.059784 | -.058208 | -.005335 |
| 25 | -.059684 | .037303 | .031412 | -.018899 | -.040392 | .026535 |
| 26 | -.051574 | .050066 | .058739 | -.034159 | -.037806 | .030751 |
| 27 | -.037068 | .069742 | .090822 | -.008057 | -.013875 | .036891 |
| 28 | .002194 | .033077 | .104837 | .001817 | .032002 | .016144 |
| 29 | .012888 | .016113 | .093165 | -.026870 | .054411 | .013415 |
| 30 | .051666 | .061341 | .083913 | -.003026 | .061083 | .029241 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .529310 | .092638 | -.202330 | -.050512 | .122880 | .068038 |
| 2 | .570716 | .762164 | -.167442 | -.092633 | -.003321 | .108305 |
| 3 | .309137 | .418492 | -.118512 | -.085202 | -.549838 | .055565 |
| 4 | -.056432 | -.248649 | -.047039 | -.057376 | -.615632 | -.045121 |
| 5 | -.234138 | .210823 | -.016105 | -.109914 | -.181734 | .044529 |
| 6 | -.160689 | .482200 | -.022101 | -.054689 | .000337 | .149964 |
| 7 | .023333 | .713182 | -.006749 | .045818 | -.022253 | .118268 |
| 8 | .045955 | .198678 | .001290 | -.002049 | -.133050 | .039142 |
| 9-11 | -.053569 | -.734058 | -.005801 | -.070963 | -.153420 | -.020598 |
| 12-14 | -.023984 | -.560290 | -.004756 | -.025394 | -.114422 | .018359 |
| 15-21 | .042241 | .047456 | -.008788 | -.017814 | -.001083 | .013378 |
| 22-30 | .024307 | .096080 | .001547 | .005825 | -.011443 | .016354 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.22551 10E 01 | 0.15400 10E 01 | 0.42259 10E 00 | 0.33530 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .647545 | .614669 | .253680 | .747453 |
| 2 | .347925 | .338837 | .082470 | .515333 |
| 3 | .197908 | .192640 | -.027669 | .342803 |
| 4 | .147938 | .132011 | -.027700 | .202598 |
| 5 | .086621 | .029500 | -.014145 | .062088 |
| 6 | -.076461 | -.017256 | -.173036 | -.075454 |
| 7 | -.121678 | -.107229 | -.159378 | -.157253 |
| 8 | -.151369 | -.146924 | -.154442 | -.199091 |
| 9 | -.142176 | -.227405 | -.074929 | -.239069 |
| 10 | -.165393 | -.232048 | -.073166 | -.256008 |
| 11 | -.157700 | -.256855 | -.103405 | -.254683 |
| 12 | -.180644 | -.226797 | -.082397 | -.271445 |
| 13 | -.237140 | -.224033 | -.125160 | -.263643 |
| 14 | -.220100 | -.201322 | -.081407 | -.230480 |
| 15 | -.195024 | -.175877 | -.041526 | -.197175 |
| 16 | -.188166 | -.151651 | .017178 | -.128041 |
| 17 | -.180492 | -.181477 | -.053562 | -.070736 |
| 18 | -.118715 | -.139205 | .007542 | -.022394 |
| 19 | -.046744 | -.072961 | .066619 | -.002986 |
| 20 | -.019415 | .048462 | .086974 | .017988 |
| 21 | -.080682 | .095475 | .038844 | -.008281 |
| 22 | -.094265 | .156274 | .079084 | -.023076 |
| 23 | -.052504 | .155805 | .107973 | -.046591 |
| 24 | -.029477 | .092659 | .048963 | -.064006 |
| 25 | -.033550 | .077810 | .040026 | -.062221 |
| 26 | -.028704 | .119466 | .028381 | -.075519 |
| 27 | -.018228 | .098519 | .012955 | -.090131 |
| 28 | -.036253 | .097138 | -.013947 | -.047271 |
| 29 | -.021558 | .081296 | -.041298 | .015221 |
| 30 | .011416 | .058710 | -.067189 | .100564 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .038621 | .022199 | .004975 | .081471 |
| 1 | .361409 | .204415 | .128309 | .612085 |
| 2 | .379937 | .261103 | .277539 | .664112 |
| 3 | .324713 | .244129 | .386811 | .652287 |
| 4 | .204980 | .132569 | .308022 | .401653 |
| 5 | .152474 | .095105 | .259727 | .212946 |
| 6 | .135148 | .071943 | .244342 | .175469 |
| 7 | .094303 | .052983 | .196239 | .130290 |
| 8 | .059186 | .067674 | .150449 | .074095 |
| 9-11 | .070651 | .053771 | .148744 | .063270 |
| 12-14 | .072627 | .038437 | .197253 | .056783 |
| 15-21 | .032484 | .027882 | .123343 | .034017 |
| 22-30 | .026948 | .020976 | .179933 | .028505 |

RUN NO 102A 91M 7-4-63 1307-1423(EST)

GROSS STATISTICS

7 SEC
UNSTABLE WIND SPEED 9.51 M/SEC SIGMA A 11.5 DEG
 WIND DIRECTION 301 DEG SIGMA E 6.6 DEG
 SOLAR RAD. 0.76 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.37020E 01 | 0.20009E 01 | 0.86058E 00 | 0.16411E 01 |
| V | 0.35446E 01 | 0.19907E 01 | 0.95700E 00 | 0.15696E 01 |
| W | 0.89661E 00 | 0.82107E 00 | 0.64415E 00 | 0.47305E-00 |
| T | 0.34173E-00 | 0.70557E-01 | 0.25014E-01 | 0.60026E-01 |
| E | 0.40716E 01 | 0.24069E 01 | 0.12309E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.20232 | 0.14874 | 0.09755 | 0.13471 |
| V | 0.19797 | 0.14836 | 0.10287 | 0.13174 |
| W | 0.09957 | 0.09528 | 0.08439 | 0.07232 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.32910E-00 | -0.11061E-00 | 0.82424E-01 | -0.14529E-00 |
| U,W | -0.70715E 00 | -0.46793E-00 | -0.16948E-00 | -0.41317E-00 |
| U,T | -0.41262E-00 | -0.10918E-00 | -0.28796E-01 | -0.10371E-00 |
| V,W | -0.45576E-01 | 0.12640E-00 | 0.32516E-01 | 0.12072E-00 |
| V,T | -0.54828E 00 | -0.17695E-00 | -0.86834E-01 | -0.14248E-00 |
| W,T | 0.10576E-00 | 0.21750E-01 | 0.56475E-03 | 0.25281E-01 |
| WE | 0.75968E 00 | 0.47132E-00 | 0.88890E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.09085 | -0.05542 | 0.09082 | -0.09053 |
| U,W | -0.38814 | -0.36507 | -0.22763 | -0.46893 |
| U,T | -0.36685 | -0.29057 | -0.19627 | -0.33044 |
| V,W | -0.02557 | 0.09886 | 0.04141 | 0.14010 |
| V,T | -0.49817 | -0.47216 | -0.56123 | -0.46417 |
| W,T | 0.19107 | 0.09036 | 0.00445 | 0.15004 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| | 0.90780 10E 00 | 0.74491 10E 00 | 0.14675 10E 00 | 0.78532 10E 00 | 0.15471 10E 00 | .0.12695 10E 00 |
| 0 | .090849 | -.227464 | -.196341 | .041515 | -.561137 | .004429 |
| 1 | .086312 | -.214385 | -.191091 | .034927 | -.494309 | .007124 |
| 2 | .072151 | -.188292 | -.175756 | .027376 | -.404577 | .010239 |
| 3 | .057710 | -.157051 | -.161450 | .028415 | -.335777 | .012751 |
| 4 | .047307 | -.127085 | -.146066 | .032498 | -.278431 | .013746 |
| 5 | .043397 | -.106604 | -.130374 | .039779 | -.228108 | .007113 |
| 6 | .045287 | -.089434 | -.116220 | .039298 | -.187653 | .002821 |
| 7 | .040746 | -.072613 | -.104238 | .033145 | -.151793 | .010125 |
| 8 | .034233 | -.061857 | -.092696 | .018073 | -.113170 | .018133 |
| 9 | .027948 | -.057064 | -.079755 | .010069 | -.074653 | .021142 |
| 10 | .023211 | -.049519 | -.064842 | .011003 | -.038805 | .015872 |
| 11 | .020263 | -.037324 | -.050455 | .017515 | -.008352 | .005794 |
| 12 | .010594 | -.021954 | -.028667 | .023099 | .020616 | -.005216 |
| 13 | -.000686 | -.010736 | -.005417 | .024273 | .045823 | -.013484 |
| 14 | -.007718 | -.001048 | .011864 | .024142 | .067623 | -.014627 |
| 15 | -.014548 | .010651 | .024939 | .017488 | .082540 | -.012351 |
| 16 | -.020662 | .024752 | .032704 | .008176 | .096939 | -.012451 |
| 17 | -.030993 | .037132 | .044514 | -.001437 | .113295 | -.013805 |
| 18 | -.041880 | .038811 | .059299 | -.010104 | .127562 | -.012419 |
| 19 | -.047852 | .035909 | .073063 | -.009530 | .139227 | -.014567 |
| 20 | -.053363 | .036074 | .086565 | -.004754 | .146199 | -.017212 |
| 21 | -.055460 | .037565 | .094344 | -.005859 | .150759 | -.017957 |
| 22 | -.049414 | .044767 | .099408 | -.007922 | .155726 | -.021695 |
| 23 | -.046104 | .052913 | .105708 | -.009915 | .157852 | -.023807 |
| 24 | -.043727 | .066944 | .104669 | -.020016 | .157641 | -.019419 |
| 25 | -.036262 | .078655 | .099147 | -.028910 | .153542 | -.016358 |
| 26 | -.031313 | .085324 | .095304 | -.030300 | .143574 | -.020073 |
| 27 | -.033929 | .083614 | .092768 | -.033600 | .132857 | -.017099 |
| 28 | -.035691 | .080082 | .085945 | -.033157 | .120940 | -.012454 |
| 29 | -.029950 | .076397 | .073400 | -.035362 | .106481 | -.003289 |
| 30 | -.024613 | .071830 | .061885 | -.037815 | .089828 | .008234 |
| 31 | -.022051 | .068052 | .053626 | -.041779 | .071381 | .021303 |
| 32 | -.020169 | .063548 | .047337 | -.053461 | .060994 | .034505 |
| 33 | -.019532 | .054243 | .039362 | -.066482 | .059562 | .042878 |
| 34 | -.017353 | .048072 | .029709 | -.072608 | .061700 | .043153 |
| 35 | -.016733 | .039669 | .023918 | -.065059 | .055466 | .036622 |
| 36 | -.014651 | .028614 | .019766 | -.053821 | .044801 | .029515 |
| 37 | -.015484 | .019059 | .017454 | -.043051 | .040805 | .026824 |
| 38 | -.013915 | .010279 | .017183 | -.032555 | .044988 | .029365 |
| 39 | -.014843 | .004344 | .020263 | -.025438 | .049275 | .035214 |
| 40 | -.015571 | .003518 | .023450 | -.025158 | .055548 | .041243 |
| 41 | -.019813 | .000163 | .027017 | -.025374 | .061244 | .041374 |
| 42 | -.023542 | -.003188 | .028152 | -.016732 | .059864 | .036456 |
| 43 | -.022288 | -.001225 | .023898 | -.005076 | .057254 | .030189 |
| 44 | -.023276 | .003086 | .019215 | .001086 | .051059 | .024994 |
| 45 | -.021648 | .005251 | .013975 | .002879 | .045633 | .023225 |
| 46 | -.015624 | .004190 | .005415 | .007841 | .035421 | .023538 |
| 47 | -.014249 | -.000927 | -.001650 | .007575 | .023148 | .025747 |
| 48 | -.012178 | -.003263 | -.006389 | .007744 | .020381 | .020693 |
| 49 | -.007674 | -.002810 | -.009654 | .009313 | .028578 | .011531 |
| 50 | -.005619 | -.002548 | -.008400 | .013558 | .034100 | .003199 |
| 51 | -.007248 | -.003733 | -.007234 | .024749 | .039976 | -.005175 |
| 52 | -.009430 | -.000612 | -.003623 | .029704 | .046211 | -.013470 |
| 53 | -.010376 | .002726 | .000623 | .028925 | .051290 | -.021603 |
| 54 | -.010387 | .007416 | .007017 | .033109 | .053047 | -.027303 |
| 55 | -.008997 | .011725 | .009478 | .037660 | .052534 | -.030717 |
| 56 | -.007392 | .014645 | .009014 | .042845 | .047583 | -.033021 |
| 57 | -.002587 | .011258 | .008004 | .043261 | .037233 | -.034484 |
| 58 | .004245 | .006973 | .006200 | .043484 | .027392 | -.037978 |
| 59 | .012736 | .008298 | .002676 | .042849 | .015033 | -.035601 |
| 60 | .023835 | .016274 | -.006711 | .046770 | -.002413 | -.033025 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.90780 10E 00 | 0.74491 10E 00 | 0.14675 10E 00 | 0.78532 10E 00 | 0.15471 10E 00 | 0.12695 10E 00 |
| 1 | -.022703 | -.010324 | -.013277 | -.009207 | -.027094 | .017530 |
| 2 | -.038489 | -.015166 | -.019184 | -.021551 | -.045737 | .026161 |
| 3 | -.047050 | -.024223 | -.023438 | -.032015 | -.056869 | .030833 |
| 4 | -.055181 | -.037617 | -.027089 | -.044152 | -.068178 | .033670 |
| 5 | -.060641 | -.046405 | -.027791 | -.057209 | -.079324 | .035944 |
| 6 | -.065560 | -.046011 | -.023825 | -.065740 | -.088655 | .038780 |
| 7 | -.070645 | -.047787 | -.023282 | -.069164 | -.093825 | .037476 |
| 8 | -.077111 | -.050291 | -.024427 | -.072293 | -.097236 | .034499 |
| 9 | -.085106 | -.049701 | -.023547 | -.079705 | -.099022 | .031000 |
| 10 | -.092938 | -.049880 | -.019369 | -.083373 | -.102479 | .030173 |
| 11 | -.094109 | -.049876 | -.023443 | -.084421 | -.104733 | .028378 |
| 12 | -.088079 | -.049332 | -.030193 | -.080182 | -.103055 | .026824 |
| 13 | -.083615 | -.047427 | -.034970 | -.068829 | -.098621 | .028582 |
| 14 | -.081981 | -.046353 | -.038387 | -.057572 | -.089475 | .029928 |
| 15 | -.080039 | -.047868 | -.042678 | -.055010 | -.080263 | .028330 |
| 16 | -.079563 | -.044815 | -.045978 | -.052524 | -.070112 | .028661 |
| 17 | -.072555 | -.042955 | -.048597 | -.044819 | -.057952 | .026126 |
| 18 | -.059915 | -.040383 | -.047086 | -.034494 | -.046231 | .020485 |
| 19 | -.047886 | -.034608 | -.042827 | -.024697 | -.037360 | .014662 |
| 20 | -.035128 | -.032522 | -.041716 | -.012341 | -.029685 | .014062 |
| 21 | -.019905 | -.032992 | -.044033 | -.002395 | -.025132 | .012254 |
| 22 | -.002296 | -.035784 | -.045549 | .003882 | -.024838 | .007931 |
| 23 | .015364 | -.039789 | -.044280 | .009058 | -.022445 | .002021 |
| 24 | .026377 | -.033620 | -.041500 | .009574 | -.017847 | -.004907 |
| 25 | .036726 | -.018693 | -.038640 | .012284 | -.013940 | -.005361 |
| 26 | .045376 | -.003940 | -.032553 | .016707 | -.006669 | -.002546 |
| 27 | .049814 | .007801 | -.022293 | .028287 | -.001564 | -.002732 |
| 28 | .054202 | .015081 | -.016822 | .045006 | -.002466 | -.000345 |
| 29 | .056803 | .019377 | -.016715 | .059615 | -.002693 | .003621 |
| 30 | .059690 | .022521 | -.017376 | .060300 | -.001796 | -.001497 |
| 31 | .061022 | .023692 | -.017185 | .055182 | .001158 | -.010641 |
| 32 | .062046 | .030145 | -.016910 | .051287 | .003924 | -.018251 |
| 33 | .063099 | .038598 | -.011375 | .049940 | .009010 | -.021181 |
| 34 | .064647 | .043030 | -.004924 | .049779 | .014078 | -.015544 |
| 35 | .063276 | .041602 | -.001592 | .051912 | .014743 | -.004985 |
| 36 | .063654 | .038261 | .000470 | .052004 | .013123 | .000264 |
| 37 | .064663 | .038419 | .003451 | .049574 | .012497 | -.000224 |
| 38 | .060635 | .044063 | .009049 | .044889 | .011341 | .000178 |
| 39 | .054875 | .050228 | .014745 | .041858 | .009081 | .005001 |
| 40 | .053212 | .050467 | .015749 | .032768 | .005067 | .006678 |
| 41 | .051793 | .044284 | .017342 | .017684 | .004199 | .004436 |
| 42 | .048739 | .034588 | .019875 | .002119 | .003738 | .000932 |
| 43 | .042322 | .022563 | .020923 | -.009222 | .003233 | -.001474 |
| 44 | .034771 | .013535 | .018140 | -.015475 | .000158 | -.000916 |
| 45 | .029153 | .011226 | .012593 | -.015016 | -.002196 | -.001579 |
| 46 | .026335 | .011897 | .007801 | -.010794 | -.001270 | -.004131 |
| 47 | .020708 | .008458 | .002909 | -.008190 | -.000840 | -.009250 |
| 48 | .012934 | .002557 | -.004044 | -.007149 | -.001976 | -.013331 |
| 49 | .007889 | -.003324 | -.008390 | -.005639 | -.000374 | -.013603 |
| 50 | .006202 | -.008285 | -.007008 | .003078 | .000780 | -.009427 |
| 51 | .000955 | -.010788 | -.003346 | .013479 | -.001150 | -.001271 |
| 52 | -.003438 | -.011916 | -.002500 | .016338 | .000585 | .001110 |
| 53 | -.015673 | -.011491 | -.003237 | .012317 | .004359 | .005049 |
| 54 | -.030386 | -.015550 | -.004868 | .005380 | .010565 | .014432 |
| 55 | -.047437 | -.023445 | -.002667 | .003280 | .018946 | .021838 |
| 56 | -.056573 | -.030541 | -.001245 | .002189 | .025500 | .020879 |
| 57 | -.058469 | -.035563 | .001619 | .006567 | .035021 | .020276 |
| 58 | -.053820 | -.037079 | .008418 | .006846 | .041691 | .012647 |
| 59 | -.046166 | -.038732 | .011510 | .004897 | .045737 | .002533 |
| 60 | -.040841 | -.037446 | .013553 | .006763 | .049300 | .001252 |

RUN NC 102A 9:11M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.86108 10E 00 | 0.95705 10E 00 | 0.64441 10E 00 | 0.25009 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .871896 | .855398 | .788382 | .866241 |
| 2 | .710026 | .676115 | .541048 | .691931 |
| 3 | .585152 | .543550 | .376218 | .565570 |
| 4 | .485100 | .444295 | .261062 | .474057 |
| 5 | .402809 | .364739 | .174403 | .387929 |
| 6 | .338629 | .296916 | .108092 | .316462 |
| 7 | .283193 | .239260 | .058551 | .260765 |
| 8 | .230923 | .184028 | .027026 | .205418 |
| 9 | .167730 | .132452 | -.002254 | .148617 |
| 10 | .097271 | .077667 | -.033374 | .092510 |
| 11 | .036896 | .020958 | -.057243 | .037662 |
| 12 | -.013701 | -.031071 | -.083997 | -.017787 |
| 13 | -.057706 | -.077667 | -.113716 | -.064596 |
| 14 | -.095233 | -.118839 | -.135061 | -.099971 |
| 15 | -.130072 | -.153814 | -.154927 | -.123893 |
| 16 | -.165052 | -.180092 | -.168237 | -.147418 |
| 17 | -.197292 | -.206040 | -.173982 | -.178662 |
| 18 | -.225122 | -.232385 | -.174030 | -.208735 |
| 19 | -.246316 | -.255856 | -.169808 | -.229884 |
| 20 | -.265404 | -.275977 | -.175850 | -.236102 |
| 21 | -.280728 | -.294109 | -.190466 | -.235649 |
| 22 | -.288338 | -.307022 | -.206698 | -.240127 |
| 23 | -.295760 | -.311244 | -.211190 | -.242088 |
| 24 | -.297908 | -.308915 | -.210499 | -.249174 |
| 25 | -.293774 | -.299194 | -.193749 | -.252754 |
| 26 | -.286525 | -.282423 | -.172912 | -.241849 |
| 27 | -.271163 | -.266376 | -.153981 | -.224314 |
| 28 | -.254309 | -.245756 | -.135547 | -.205150 |
| 29 | -.231617 | -.221698 | -.128211 | -.184737 |
| 30 | -.206345 | -.190761 | -.111066 | -.154369 |
| 31 | -.183076 | -.156732 | -.087009 | -.117223 |
| 32 | -.161722 | -.133769 | -.072512 | -.091042 |
| 33 | -.136056 | -.121227 | -.055222 | -.079101 |
| 34 | -.106592 | -.108189 | -.038852 | -.072991 |
| 35 | -.086199 | -.092733 | -.025136 | -.060608 |
| 36 | -.067393 | -.076411 | -.006976 | -.049041 |
| 37 | -.055626 | -.065464 | .016450 | -.047132 |
| 38 | -.044585 | -.058337 | .050234 | -.050210 |
| 39 | -.042765 | -.044223 | .068385 | -.054306 |
| 40 | -.045272 | -.032250 | .067837 | -.067292 |
| 41 | -.040432 | -.024605 | .058977 | -.079581 |
| 42 | -.035484 | -.015393 | .053184 | -.078319 |
| 43 | -.033044 | -.007731 | .043639 | -.072304 |
| 44 | -.028941 | .004903 | .044047 | -.067552 |
| 45 | -.025226 | .012955 | .040198 | -.065552 |
| 46 | -.019985 | .024972 | .038870 | -.059108 |
| 47 | -.015484 | .037947 | .034722 | -.053888 |
| 48 | -.007944 | .048164 | .021108 | -.064305 |
| 49 | .001706 | .048875 | .011834 | -.086090 |
| 50 | .005388 | .044797 | .012469 | -.094494 |
| 51 | .011044 | .036446 | .023016 | -.092061 |
| 52 | .014891 | .023562 | .032452 | -.096044 |
| 53 | .014876 | .008728 | .040375 | -.106135 |
| 54 | .012728 | -.005425 | .034043 | -.111187 |
| 55 | .008779 | -.013208 | .020746 | -.111946 |
| 56 | .010357 | -.017044 | .011658 | -.106436 |
| 57 | .011193 | -.010744 | -.002914 | -.094607 |
| 58 | .010673 | -.001862 | -.013336 | -.075859 |
| 59 | .011391 | .005453 | -.019319 | -.052373 |
| 60 | .016227 | .017757 | -.026820 | -.025438 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .005393 | -.073345 | -.109428 | .006597 | -.019364 | .019151 |
| 1 | .190979 | -.441812 | -.868507 | .153888 | -.164435 | -.021124 |
| 2 | .230944 | -.404249 | -.898960 | .148990 | -.171968 | .029152 |
| 3 | .193639 | -.301359 | -.723192 | .032902 | -.156072 | .134615 |
| 4 | .093922 | -.122434 | -.286402 | -.029240 | -.097744 | .041222 |
| 5 | .007514 | -.075331 | -.021290 | .013207 | -.049669 | -.056529 |
| 6 | -.016316 | -.090039 | .000444 | .010032 | -.033636 | -.030247 |
| 7-8 | .012908 | -.048208 | -.053699 | -.001313 | -.029901 | -.007135 |
| 9-11 | .023997 | -.045140 | -.024045 | .000845 | -.015853 | -.009494 |
| 12-15 | .014901 | -.018390 | -.029453 | -.015411 | -.012238 | .017748 |
| 16-20 | .008709 | -.007900 | .000943 | .014928 | -.007694 | -.019018 |
| 21-27 | .001949 | -.005008 | -.003457 | .004845 | -.004227 | -.002639 |
| 28-36 | -.000641 | .001306 | -.003746 | .001685 | -.003106 | .003104 |
| 37-47 | .000486 | -.001768 | -.000105 | .000835 | -.001674 | -.002702 |
| 48-60 | -.000731 | -.000274 | .001376 | .000302 | -.000913 | .000157 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | -.095004 | -.120557 | -.397765 | -.074951 | -.587446 | .147202 |
| 2 | -.317572 | -.184325 | -.276535 | -.208350 | -.567218 | .163020 |
| 3 | -.354204 | -.145999 | -.097449 | -.258835 | -.512727 | .163457 |
| 4 | -.134589 | -.023382 | .024994 | -.117532 | -.307268 | .099456 |
| 5 | -.003400 | -.011356 | -.002009 | -.019873 | -.148029 | .040555 |
| 6 | .019256 | -.032553 | -.024506 | -.019412 | -.062345 | .032859 |
| 7-8 | -.014999 | -.014563 | -.046360 | .008163 | .003763 | .034242 |
| 9-11 | -.011118 | .000051 | -.030019 | .002962 | -.024079 | .026569 |
| 12-15 | -.013173 | .004618 | -.001248 | -.000212 | -.011608 | .003129 |
| 16-20 | -.004219 | .002247 | -.006245 | .005274 | -.006271 | .005873 |
| 21-27 | -.002525 | -.000289 | .000376 | -.001374 | -.009733 | .005174 |
| 28-36 | -.000812 | -.003402 | -.006169 | .000399 | -.001940 | .001266 |
| 37-47 | -.000362 | .000058 | -.000135 | .000888 | .000090 | .001940 |
| 48-60 | .000664 | -.000661 | -.000918 | .000239 | .000373 | -.000153 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .020616 | .016028 | .057954 | .069227 |
| 1 | .163826 | .157346 | .579636 | .477789 |
| 2 | .176614 | .186799 | .808974 | .469397 |
| 3 | .157255 | .172748 | .904954 | .428596 |
| 4 | .085793 | .095226 | .597965 | .263804 |
| 5 | .041687 | .047824 | .390101 | .129919 |
| 6 | .033045 | .036008 | .365289 | .097421 |
| 7-8 | .026621 | .033219 | .295812 | .082250 |
| 9-11 | .017025 | .020708 | .211035 | .052507 |
| 12-15 | .013381 | .016545 | .152457 | .038835 |
| 16-20 | .008158 | .009446 | .091746 | .022432 |
| 21-27 | .004306 | .006283 | .062767 | .016131 |
| 28-36 | .003126 | .003826 | .040328 | .010646 |
| 37-47 | .001927 | .002339 | .025223 | .004754 |
| 48-60 | .001156 | .001514 | .014948 | .003295 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16041 10E 01 | 0.88040 10E 00 | 0.31366 10E 00 | 0.86218 10E 00 | 0.30717 10E 00 | 0.16857 10E 00 |
| 0 | -.090576 | -.469299 | -.330649 | .140019 | -.463829 | .149970 |
| 1 | -.106968 | -.348485 | -.270478 | .108532 | -.314386 | .131244 |
| 2 | -.121436 | -.201349 | -.176589 | .048242 | -.177633 | .111402 |
| 3 | -.122267 | -.078124 | -.106970 | .024751 | -.107427 | .096664 |
| 4 | -.097902 | .008889 | -.061470 | .014797 | -.047583 | .078458 |
| 5 | -.048340 | .093812 | -.026033 | .032984 | -.022260 | .002486 |
| 6 | .012680 | .139684 | .008471 | .028560 | -.025545 | -.051902 |
| 7 | .072675 | .147902 | .019989 | -.020718 | -.046060 | -.051263 |
| 8 | .092227 | .115636 | .051403 | -.062469 | .015039 | -.075504 |
| 9 | .102002 | .062958 | .090684 | -.069852 | .068317 | -.073846 |
| 10 | .112857 | .028413 | .117025 | -.091865 | .059387 | -.063191 |
| 11 | .122962 | .035596 | .122035 | -.081283 | .036862 | -.063419 |
| 12 | .127910 | .030760 | .124150 | -.082451 | .044262 | -.050093 |
| 13 | .124541 | .027018 | .111040 | -.089457 | .040137 | -.028603 |
| 14 | .124154 | .016053 | .089258 | -.111287 | .025474 | .004160 |
| 15 | .104458 | .021434 | .069518 | -.060690 | .036312 | -.038031 |
| 16 | .057014 | .038285 | .048700 | .018096 | .069000 | -.072431 |
| 17 | .009816 | .035638 | .023905 | .013306 | .110172 | -.032890 |
| 18 | .000549 | .010109 | .003162 | -.001233 | .128358 | .023204 |
| 19 | -.009548 | .001991 | -.016895 | -.008585 | .166967 | .069152 |
| 20 | -.046998 | -.013191 | -.013808 | .041791 | .190388 | .037931 |
| 21 | -.089078 | -.023397 | .000049 | .094647 | .162115 | .025901 |
| 22 | -.109935 | .007740 | -.012108 | .118697 | .133525 | -.011404 |
| 23 | -.122211 | .013533 | -.018734 | .101531 | .115648 | -.013348 |
| 24 | -.135306 | -.010210 | .003904 | .061625 | .106241 | .006187 |
| 25 | -.101970 | -.017630 | .026380 | .012534 | .079378 | .018374 |
| 26 | -.071188 | .036920 | .042313 | .003628 | .008039 | -.000386 |
| 27 | -.042808 | .109412 | .067125 | .030684 | -.066257 | -.053715 |
| 28 | -.003859 | .167914 | .066638 | .043605 | -.137978 | -.083828 |
| 29 | .031602 | .146462 | .034366 | -.016475 | -.189014 | -.054374 |
| 30 | .063310 | .088145 | -.020116 | -.073119 | -.189327 | .004001 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .049432 | -.065383 | -.023555 | -.014241 | -.044465 | .061486 |
| 1 | -.292987 | -.431938 | -.195075 | .082739 | -.322341 | .480659 |
| 2 | -.903810 | -.495962 | -.225839 | .304313 | -.233943 | .635322 |
| 3 | -.940809 | -.637673 | -.221422 | .349318 | -.136568 | .752283 |
| 4 | -.224587 | -.635605 | -.114375 | .081227 | -.136614 | .485071 |
| 5 | .035575 | -.571081 | -.045356 | -.017183 | .108920 | .239468 |
| 6 | .074587 | -.434308 | -.046928 | .013802 | -.053913 | .113321 |
| 7 | .137439 | -.248257 | -.052368 | .040370 | -.066499 | -.079035 |
| 8 | .170924 | -.128617 | -.047693 | .074653 | -.085077 | -.125428 |
| 9-11 | .089078 | -.064321 | -.027045 | .092215 | -.058053 | -.051181 |
| 12-14 | -.004704 | -.093551 | -.012106 | .020288 | -.012427 | .054237 |
| 15-21 | .012468 | -.036634 | -.006741 | .008978 | -.024419 | .029634 |
| 22-30 | .008307 | -.024348 | -.002922 | -.002995 | -.013854 | .003510 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16041 10E 01 | 0.88040 10E 00 | 0.31366 10E 00 | 0.86218 10E 00 | 0.30717 10E 00 | 0.16859 10E 00 |
| 1 | -.016361 | -.068326 | -.058578 | -.021961 | -.085738 | .028808 |
| 2 | .027258 | -.081461 | -.109360 | .016769 | -.098952 | .019837 |
| 3 | .057132 | -.061383 | -.113231 | .050382 | -.095350 | .009242 |
| 4 | .057829 | -.071075 | -.102399 | .034213 | -.084845 | -.027350 |
| 5 | .034368 | -.091073 | -.097553 | .002047 | -.075115 | -.047713 |
| 6 | .007719 | -.096722 | -.083562 | .020317 | -.037955 | -.040754 |
| 7 | .021282 | -.078581 | -.066305 | -.023387 | -.018600 | -.076399 |
| 8 | .043655 | -.027830 | -.049919 | -.012509 | -.035183 | -.073298 |
| 9 | .059363 | -.005416 | -.048739 | .047803 | -.002449 | -.061296 |
| 10 | .049721 | -.006972 | -.043017 | .038983 | .035059 | -.052121 |
| 11 | .036930 | -.005340 | -.022534 | -.001368 | .056223 | -.040300 |
| 12 | .007524 | -.008285 | .000886 | -.036955 | .078882 | -.032464 |
| 13 | .004990 | -.019477 | .016912 | -.001447 | .095853 | .000259 |
| 14 | -.001812 | .049784 | .024120 | -.030794 | .073535 | -.028615 |
| 15 | .003197 | -.035225 | .020513 | -.050628 | .032995 | -.030176 |
| 16 | -.006535 | -.002883 | .030295 | -.022456 | .021347 | -.008130 |
| 17 | -.019581 | .034149 | .046319 | .019135 | .006950 | .049231 |
| 18 | -.038280 | .057752 | .048521 | .006972 | -.004987 | .071825 |
| 19 | -.068508 | -.001590 | .056915 | -.023298 | -.026712 | .078836 |
| 20 | -.069176 | -.057091 | .030135 | -.001039 | -.041760 | .087660 |
| 21 | -.050313 | -.053616 | -.015728 | -.016433 | -.058509 | -.053505 |
| 22 | -.070645 | -.016529 | -.007203 | -.035417 | -.089601 | .047707 |
| 23 | -.089395 | .003443 | .016489 | -.028968 | -.099950 | .020862 |
| 24 | -.105239 | .006595 | .04702 | -.014281 | -.094997 | -.01392 |
| 25 | -.102508 | .060967 | .079070 | -.023194 | -.052507 | -.046683 |
| 26 | -.089255 | .089823 | .082597 | -.052497 | -.029537 | -.054026 |
| 27 | -.044370 | .107639 | .074556 | -.046694 | -.016933 | -.024448 |
| 28 | -.003309 | .122411 | .055084 | -.021178 | -.007414 | -.017958 |
| 29 | .048445 | .114657 | .022473 | .028289 | .017581 | .000017 |
| 30 | .079766 | .099342 | -.013579 | .056494 | -.025796 | .015557 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 |
| 1 | .198226 | -.276759 | -.077943 | -.096468 | -.000618 | -.354343 |
| 2 | .389676 | -.238536 | -.117606 | .616483 | -.027417 | -.439179 |
| 3 | .180370 | -.223513 | -.119349 | .752822 | -.115633 | -.183334 |
| 4 | .014268 | -.187742 | -.071962 | .451059 | -.111635 | .180646 |
| 5 | .044731 | -.123656 | -.038388 | .016807 | -.042136 | .117030 |
| 6 | .046870 | -.092185 | -.039535 | .129411 | -.021724 | .137345 |
| 7 | .085112 | .020668 | -.028753 | .718925 | -.024783 | .209881 |
| 8 | .092875 | .061971 | -.019165 | .616081 | -.038946 | .067166 |
| 9-11 | -.067435 | -.053485 | -.007295 | -.486404 | -.015902 | .051908 |
| 12-14 | -.095673 | -.069004 | -.007867 | -.318543 | -.007274 | .030587 |
| 15-21 | -.028575 | -.009574 | .002977 | -.308564 | -.007216 | -.001842 |
| 22-30 | -.010749 | .003922 | .001789 | -.013233 | -.003647 | .022933 |

RUN NC 102A 91M 7-4-63 1307-1423(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16380 10E 01 | 0.15709 10E 01 | 0.47320 10E 00 | 0.60064 10E-01 |
| 0 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| 1 | .732521 | .682926 | .375829 | .773313 |
| 2 | .437054 | .384966 | .087771 | .534991 |
| 3 | .245979 | .234791 | -.037230 | .352486 |
| 4 | .101674 | .138320 | -.083184 | .177345 |
| 5 | -.018790 | .051832 | -.093250 | .040377 |
| 6 | -.093403 | -.029906 | -.188041 | -.040498 |
| 7 | -.157848 | -.089566 | -.147236 | -.065600 |
| 8 | -.181784 | -.224014 | -.159769 | -.170198 |
| 9 | -.210471 | -.319037 | -.115629 | -.270843 |
| 10 | -.221123 | -.328545 | .007956 | -.298311 |
| 11 | -.214139 | -.310642 | .042485 | -.309698 |
| 12 | -.221862 | -.304837 | .039978 | -.315598 |
| 13 | -.223582 | -.284120 | -.078026 | -.266588 |
| 14 | -.216694 | -.234227 | -.054879 | -.174618 |
| 15 | -.203732 | -.189976 | -.057379 | -.124111 |
| 16 | -.143145 | -.173914 | -.053195 | -.107584 |
| 17 | -.089411 | -.158113 | .043514 | -.103217 |
| 18 | -.020075 | -.086214 | .017884 | -.105234 |
| 19 | .057767 | -.029980 | -.060637 | -.143126 |
| 20 | .050164 | .023791 | -.056773 | -.172555 |
| 21 | .004067 | .088069 | -.008987 | -.128935 |
| 22 | -.015255 | .112031 | .018340 | -.091779 |
| 23 | .008638 | .121006 | .034023 | -.073876 |
| 24 | .005000 | .080193 | -.002149 | -.047857 |
| 25 | -.036770 | .083941 | -.000724 | -.013515 |
| 26 | -.067570 | .117736 | -.029381 | .041101 |
| 27 | -.081110 | .176441 | .015044 | .084008 |
| 28 | -.116688 | .218734 | -.011217 | .128298 |
| 29 | -.101110 | .233694 | -.088386 | .186385 |
| 30 | -.026557 | .157717 | -.152383 | .206534 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-01 |
| 0 | .029354 | .014168 | .025631 | .013423 |
| 1 | .243997 | .210771 | .216145 | .117751 |
| 2 | .284719 | .300762 | .275957 | .124792 |
| 3 | .290358 | .294451 | .371383 | .113388 |
| 4 | .186654 | .157437 | .424107 | .074927 |
| 5 | .123129 | .085326 | .433836 | .037148 |
| 6 | .114381 | .060956 | .372546 | .020808 |
| 7 | .083575 | .052338 | .265648 | .027788 |
| 8 | .051988 | .066079 | .161833 | .027608 |
| 9-11 | .045129 | .059563 | .216659 | .012315 |
| 12-14 | .029143 | .029537 | .169837 | .004662 |
| 15-21 | .019153 | .024216 | .131211 | .006296 |
| 22-30 | .010689 | .014223 | .137643 | .003974 |

RUN NC 102A 46M 7-4-63 1307-1423(EST)
 RUN NC 102A 91M 7-4-63 1307-1423(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .584320 | .420880 | .658983 | .557616 |
| 1 | .528081 | .714724 | .611705 | .591973 |
| 2 | .480007 | .658585 | .598101 | .436787 |
| 3 | .413779 | .548108 | .567016 | .332918 |
| 4 | .207010 | .427124 | .512350 | .301531 |
| 5 | .061463 | .381482 | .457843 | .287046 |
| 6 | .042072 | .265998 | .351605 | .296211 |
| 7-8 | .063575 | .158779 | .391436 | .307555 |
| 9-11 | .065537 | .238342 | .175263 | .158660 |
| 12-15 | .080609 | .119709 | .228691 | .175729 |
| 16-20 | .117027 | .119075 | .152451 | .126958 |
| 21-27 | .105005 | .077574 | .108339 | .089162 |
| 28-36 | .089894 | .111934 | .090699 | .113499 |
| 37-47 | .090400 | .101069 | .107305 | .145522 |
| 48-60 | .110354 | .105546 | .155571 | .140706 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .894558 | .932664 | .757901 | .797141 |
| 1 | .891787 | .941142 | .740736 | .819348 |
| 2 | .847911 | .940194 | .729569 | .865255 |
| 3 | .785554 | .884398 | .719468 | .912689 |
| 4 | .708530 | .724922 | .691174 | .880304 |
| 5 | .772684 | .572195 | .704353 | .747447 |
| 6 | .804236 | .502672 | .741339 | .680104 |
| 7 | .683299 | .589537 | .769599 | .693567 |
| 8 | .394038 | .814909 | .684034 | .778160 |
| 9-11 | .377780 | .779850 | .547922 | .517890 |
| 12-14 | .612777 | .605514 | .651196 | .348081 |
| 15-21 | .230359 | .438793 | .490278 | .382189 |
| 22-30 | .258684 | .176218 | .431222 | .189321 |

RUN NO 103A 15M 7-4-63 1504-1620(EST)

GROSS STATISTICS

3 SC
UNSTABLE WIND SPEED 5.90 M/SEC SIGMA A 15.9 DEG
 WIND DIRECTION 300 DEG SIGMA E 8.9 DEG
 SOLAR RAD. 0.93 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.36948E 01 | 0.29049E 01 | 0.19003E 01 | 0.20198E 01 |
| V | 0.31162E 01 | 0.23866E 01 | 0.14202E 01 | 0.15976E 01 |
| W | 0.68747E 00 | 0.57658E 00 | 0.63606E 00 | 0.24426E-00 |
| T | 0.97609E-01 | 0.34948E-01 | 0.15805E-01 | 0.32458E-01 |
| E | 0.37492E 01 | 0.29843E 01 | 0.19783E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.32579 | 0.28888 | 0.23365 | 0.24088 |
| V | 0.29920 | 0.26184 | 0.20199 | 0.21423 |
| W | 0.14053 | 0.13941 | 0.13518 | 0.08377 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.62138E 00 | -0.30630E-00 | -0.76591E-01 | -0.24494E-00 |
| U,W | -0.54505E 00 | -0.51076E 00 | -0.39944E-00 | -0.32068E-00 |
| U,T | -0.38611E-00 | -0.22138E-00 | -0.99338E-01 | -0.18315E-00 |
| V,W | 0.22109E-01 | 0.43341E-01 | 0.50448E-01 | 0.25883E-01 |
| V,T | 0.13180E-00 | 0.10289E-00 | 0.35736E-01 | 0.80694E-01 |
| W,T | 0.23384E-01 | 0.13626E-01 | 0.24976E-02 | 0.16610E-01 |
| WE | -0.20613E-00 | -0.66287E-01 | 0.72040E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.18313 | -0.11633 | -0.04662 | -0.13636 |
| U,W | -0.34199 | -0.36433 | -0.36332 | -0.45654 |
| U,T | -0.64295 | -0.64986 | -0.57320 | -0.71533 |
| V,W | 0.01511 | 0.03411 | 0.05308 | 0.04143 |
| V,T | 0.23899 | 0.33323 | 0.23853 | 0.35438 |
| W,T | 0.09027 | 0.08288 | 0.02491 | 0.18655 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16430 10E 01 | 0.10995 10E 01 | 0.17331 10E 00 | 0.95043 10E 00 | 0.14981 10E 00 | 0.10026 10E 00 |
| 0 | -.046612 | -.363109 | -.573247 | .052975 | .238561 | .024780 |
| 1 | -.036455 | -.320465 | -.517372 | .056973 | .186651 | .068709 |
| 2 | -.021329 | -.255113 | -.441347 | .046681 | .123678 | .094103 |
| 3 | -.016316 | -.194966 | -.376067 | .036709 | .082196 | .090166 |
| 4 | -.019513 | -.149571 | -.309614 | .027582 | .054304 | .075544 |
| 5 | -.015358 | -.106039 | -.248457 | .012432 | .030603 | .058758 |
| 6 | -.008954 | -.069301 | -.195814 | .002863 | .015106 | .045980 |
| 7 | -.009904 | -.042598 | -.147660 | .004561 | .012652 | .034119 |
| 8 | -.016477 | -.015212 | -.108516 | .005351 | .016682 | .018294 |
| 9 | -.028996 | .005155 | -.076023 | -.000550 | .020808 | .001492 |
| 10 | -.038054 | .018603 | -.041895 | .002568 | .018621 | -.004004 |
| 11 | -.044294 | .029842 | -.011366 | .008985 | .008183 | .000157 |
| 12 | -.044267 | .042160 | .013639 | .007247 | -.004632 | .005751 |
| 13 | -.044450 | .053828 | .033062 | .017995 | -.010317 | .016884 |
| 14 | -.034285 | .063401 | .057070 | .024057 | -.010839 | .027741 |
| 15 | -.025694 | .071563 | .077657 | .020588 | -.006046 | .031841 |
| 16 | -.021907 | .077894 | .092101 | .007077 | -.000668 | .021576 |
| 17 | -.012978 | .080027 | .107219 | -.009161 | -.004019 | .010710 |
| 18 | -.002175 | .085077 | .123196 | -.018583 | -.005950 | -.012863 |
| 19 | .007210 | .092056 | .135764 | -.020460 | -.007200 | -.026922 |
| 20 | .009498 | .094498 | .143422 | -.016393 | -.012649 | -.032879 |
| 21 | .012824 | .093840 | .150255 | -.013729 | -.022126 | -.041771 |
| 22 | .018906 | .091120 | .157536 | -.011327 | -.030395 | -.045545 |
| 23 | .017917 | .095564 | .163041 | -.016795 | -.032603 | -.045645 |
| 24 | .013030 | .096068 | .166632 | -.024625 | -.037164 | -.043567 |
| 25 | .013700 | .095384 | .164974 | -.030942 | -.038720 | -.046403 |
| 26 | .021204 | .089686 | .165409 | -.028397 | -.036099 | -.046416 |
| 27 | .032728 | .082087 | .161934 | -.027740 | -.034984 | -.045130 |
| 28 | .034835 | .074931 | .156744 | -.028939 | -.032867 | -.047287 |
| 29 | .028783 | .068559 | .145879 | -.021753 | -.029722 | -.044250 |
| 30 | .025309 | .066268 | .130365 | -.021340 | -.025725 | -.052865 |
| 31 | .031598 | .057636 | .114108 | -.025215 | -.019323 | -.063200 |
| 32 | .034867 | .045542 | .099193 | -.022912 | -.013845 | -.068074 |
| 33 | .036536 | .035589 | .087113 | -.010928 | -.008917 | -.059344 |
| 34 | .037296 | .024801 | .072945 | -.005328 | -.000032 | -.047007 |
| 35 | .030673 | .009982 | .056465 | -.017613 | .004450 | -.031488 |
| 36 | .029476 | -.008941 | .043522 | -.020785 | -.002392 | -.014679 |
| 37 | .030445 | -.019363 | .031918 | -.020004 | -.013536 | .005397 |
| 38 | .024177 | -.023151 | .017322 | -.015502 | -.013430 | .022702 |
| 39 | .023392 | -.025198 | .007094 | -.012135 | -.010970 | .029933 |
| 40 | .030928 | -.029373 | .005558 | -.011957 | -.009602 | .030035 |
| 41 | .029348 | -.031001 | .012564 | -.013263 | -.004385 | .023384 |
| 42 | .028377 | .034915 | .014908 | -.014373 | -.004499 | .020016 |
| 43 | .027196 | -.042858 | .011284 | -.012045 | -.008730 | .018419 |
| 44 | .019849 | -.043970 | .006458 | -.009198 | -.012007 | .020795 |
| 45 | .009907 | -.048918 | .005206 | .000923 | -.022455 | .026603 |
| 46 | .005248 | -.043112 | .001320 | .008631 | -.032476 | .029306 |
| 47 | .003916 | -.033717 | -.002287 | .013742 | -.046172 | .026976 |
| 48 | -.006045 | -.027287 | -.008105 | .016530 | -.052994 | .030555 |
| 49 | -.007352 | -.022685 | -.008052 | .010182 | -.053956 | .025263 |
| 50 | -.008681 | -.019886 | -.007835 | .006842 | -.051655 | .008130 |
| 51 | -.005134 | -.020476 | -.003879 | .008090 | -.052999 | -.003419 |
| 52 | .004286 | -.017820 | .005235 | .005109 | -.055764 | -.007849 |
| 53 | .011397 | -.004891 | .012890 | .002405 | -.062179 | -.002175 |
| 54 | .018498 | -.007224 | .018295 | -.002717 | -.070046 | -.009014 |
| 55 | .025145 | .010196 | .015560 | -.014577 | -.072358 | -.020005 |
| 56 | .029473 | .014181 | .014022 | -.016183 | -.072100 | -.022081 |
| 57 | .036472 | .012521 | .021636 | -.012588 | -.071152 | -.025633 |
| 58 | .040144 | .007454 | .030646 | -.010784 | -.072075 | -.032057 |
| 59 | .035191 | .012235 | .034553 | -.004352 | -.061052 | -.038439 |
| 60 | .024975 | .029209 | .031103 | -.005717 | -.038184 | -.039349 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16430 10E 01 | 0.10995 10E 01 | 0.17331 10E 00 | 0.95043 10E 00 | 0.14981 10E 00 | 0.10026 10E 00 |
| 1 | .017930 | -.033746 | -.042290 | .004488 | -.001906 | .009663 |
| 2 | .031324 | -.048688 | -.071519 | .006595 | -.001632 | .013647 |
| 3 | .039643 | -.054771 | -.085534 | .012129 | -.002314 | .011508 |
| 4 | .035644 | -.052588 | -.096460 | .016546 | -.002719 | .013557 |
| 5 | .026440 | -.045330 | -.105484 | .021017 | -.003910 | .012367 |
| 6 | .021488 | -.024444 | -.118902 | .017815 | -.004192 | .018911 |
| 7 | .024549 | -.009189 | -.127132 | .005595 | -.004213 | .034469 |
| 8 | .023382 | .001901 | -.135898 | -.011154 | -.006272 | .044878 |
| 9 | .018448 | .013496 | -.142749 | -.017369 | -.009599 | .052487 |
| 10 | .013256 | .022091 | -.148191 | -.022451 | -.014964 | .064205 |
| 11 | .005819 | .026236 | -.149761 | -.029754 | -.023235 | .075725 |
| 12 | -.000013 | .026196 | -.145678 | -.032710 | -.027121 | .077474 |
| 13 | -.000341 | .024457 | -.142040 | -.026358 | -.026298 | .068371 |
| 14 | -.002296 | .027274 | -.140188 | -.020514 | -.021070 | .062513 |
| 15 | -.006028 | .027866 | -.135542 | -.024047 | -.011997 | .048725 |
| 16 | -.007101 | .020259 | -.124674 | -.033238 | -.004539 | .044678 |
| 17 | -.009203 | .021419 | -.113148 | -.040359 | .002896 | .044943 |
| 18 | -.015215 | .023484 | -.101623 | -.041314 | .012415 | .037807 |
| 19 | -.016388 | .019841 | -.084907 | -.032971 | .019892 | .023114 |
| 20 | -.019231 | .014762 | -.070777 | -.026140 | .026880 | .014009 |
| 21 | -.013721 | .001555 | -.053643 | -.025775 | .035279 | .011527 |
| 22 | -.007518 | -.002525 | -.035547 | -.016874 | .033487 | .005030 |
| 23 | -.008403 | -.000671 | -.019812 | -.009795 | .027313 | .000287 |
| 24 | -.014303 | -.006026 | -.004326 | -.014133 | .025590 | -.003605 |
| 25 | -.021334 | -.014676 | .009419 | -.015902 | .019565 | -.011040 |
| 26 | -.025775 | -.010754 | .016636 | -.013061 | .007855 | -.018940 |
| 27 | -.028589 | -.004495 | .021766 | -.009062 | -.000455 | -.033236 |
| 28 | -.040438 | .001629 | .024933 | .003592 | -.010619 | -.036076 |
| 29 | -.050721 | .005741 | .025844 | .006647 | -.014909 | -.030536 |
| 30 | -.050656 | .000101 | .026747 | .004784 | -.012766 | -.029804 |
| 31 | -.044220 | -.008950 | .023593 | .004857 | -.014706 | -.028262 |
| 32 | -.036587 | -.007970 | .017802 | .001610 | -.016572 | -.022021 |
| 33 | -.029966 | -.003303 | .007574 | .005725 | -.020607 | -.016722 |
| 34 | -.021628 | .002308 | .001384 | .008554 | -.025771 | -.019718 |
| 35 | -.014266 | .002403 | -.004439 | .007170 | -.021262 | -.015411 |
| 36 | -.004658 | .005669 | -.007274 | .006394 | -.011678 | -.006942 |
| 37 | .003215 | -.002185 | -.002822 | .016857 | -.006302 | -.006863 |
| 38 | .010760 | -.010413 | .003122 | .031947 | -.003547 | -.015825 |
| 39 | .017770 | -.004791 | .001514 | .032780 | .008684 | -.017581 |
| 40 | .026867 | -.005994 | -.001581 | .033851 | .017295 | -.025796 |
| 41 | .041479 | -.010218 | .005114 | .041161 | .020507 | -.036542 |
| 42 | .048931 | -.005948 | .010732 | .045687 | .016465 | -.045531 |
| 43 | .048799 | -.004011 | .014505 | .042114 | .010133 | -.041314 |
| 44 | .050862 | -.006663 | .012252 | .038258 | .008242 | -.035572 |
| 45 | .045408 | -.008640 | .012009 | .024821 | .007120 | -.019580 |
| 46 | .040299 | .003517 | .008543 | .017545 | .006509 | .001873 |
| 47 | .032459 | .007511 | .005008 | .011457 | .002253 | .013837 |
| 48 | .024429 | .006563 | .001940 | .011014 | -.002949 | .014864 |
| 49 | .023300 | .012160 | .001383 | .003553 | -.001926 | .025172 |
| 50 | .033778 | .013510 | .006022 | -.014510 | -.004228 | .035740 |
| 51 | .032655 | .008241 | .010119 | -.029701 | .002134 | .037544 |
| 52 | .027030 | .001479 | .012304 | -.035287 | .000337 | .035322 |
| 53 | .024753 | -.003883 | .013902 | -.027977 | .001767 | .036334 |
| 54 | .016961 | -.010477 | .018918 | -.015485 | -.002272 | .028350 |
| 55 | .007907 | -.013747 | .026722 | -.009063 | -.003950 | .020188 |
| 56 | .003890 | -.013797 | .034812 | -.004578 | -.004372 | .012621 |
| 57 | .000731 | -.013237 | .039562 | -.013549 | -.000275 | .013849 |
| 58 | -.001642 | -.013088 | .042834 | -.016476 | -.001694 | .014086 |
| 59 | -.006962 | -.015031 | .045574 | -.011177 | -.005369 | .010789 |
| 60 | -.008276 | -.022991 | .047602 | -.009507 | -.008740 | .001344 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.19007 10E 01 | 0.14202 10E 01 | 0.63605 10E 00 | 0.15803 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .845850 | .788255 | .644076 | .834834 |
| 2 | .673753 | .552087 | .331767 | .656676 |
| 3 | .541273 | .382072 | .154725 | .532894 |
| 4 | .421060 | .247155 | .075177 | .434334 |
| 5 | .316304 | .154392 | .032484 | .349256 |
| 6 | .232617 | .103163 | .000452 | .281984 |
| 7 | .158539 | .063811 | -.024217 | .228715 |
| 8 | .089370 | .034293 | -.032850 | .182647 |
| 9 | .033969 | .009816 | -.022016 | .139820 |
| 10 | -.022717 | -.019724 | -.019858 | .090257 |
| 11 | -.071253 | -.050598 | -.041103 | .043577 |
| 12 | -.102620 | -.081251 | -.069389 | .002759 |
| 13 | -.125956 | -.115293 | -.084818 | -.036012 |
| 14 | -.147199 | -.135705 | -.098319 | -.075414 |
| 15 | -.169366 | -.140097 | -.124849 | -.106172 |
| 16 | -.187433 | -.142488 | -.135093 | -.132313 |
| 17 | -.202061 | -.138868 | -.139141 | -.164016 |
| 18 | -.219772 | -.139616 | -.132159 | -.188042 |
| 19 | -.237052 | -.132991 | -.119101 | -.206589 |
| 20 | -.247708 | -.137250 | -.115015 | -.218081 |
| 21 | -.253820 | -.149534 | -.110929 | -.226949 |
| 22 | -.258880 | -.161407 | -.114001 | -.232998 |
| 23 | -.263276 | -.162802 | -.117337 | -.235533 |
| 24 | -.262018 | -.179475 | -.120012 | -.237033 |
| 25 | -.252075 | -.190305 | -.118999 | -.232613 |
| 26 | -.239298 | -.183224 | -.116673 | -.230105 |
| 27 | -.220652 | -.169501 | -.109478 | -.224683 |
| 28 | -.198673 | -.154864 | -.101385 | -.223456 |
| 29 | -.169930 | -.135679 | -.091663 | -.210294 |
| 30 | -.138025 | -.103218 | -.070365 | -.183113 |
| 31 | -.100895 | -.069589 | -.043396 | -.146207 |
| 32 | -.070699 | -.040754 | -.028744 | -.114506 |
| 33 | -.048566 | -.008523 | -.019133 | -.099490 |
| 34 | -.034527 | .010798 | -.012202 | -.085570 |
| 35 | -.017536 | .023497 | -.002968 | -.079295 |
| 36 | -.000931 | .022655 | .001276 | -.080670 |
| 37 | .015144 | .016876 | .013109 | -.077612 |
| 38 | .029236 | .006934 | .002999 | -.063391 |
| 39 | .037378 | .001648 | .000798 | -.051796 |
| 40 | .034854 | .005299 | .015263 | -.048849 |
| 41 | .024615 | .015067 | .026263 | -.054493 |
| 42 | .016004 | .022298 | .044738 | -.055554 |
| 43 | .017307 | .016953 | .064903 | -.048439 |
| 44 | .016131 | .010393 | .070770 | -.042619 |
| 45 | .015917 | -.000437 | .065803 | -.045567 |
| 46 | .019087 | -.007141 | .061487 | -.047624 |
| 47 | .027528 | -.020240 | .069583 | -.052621 |
| 48 | .032130 | -.035036 | .066731 | -.061031 |
| 49 | .029561 | -.027853 | .059299 | -.054909 |
| 50 | .027915 | -.022443 | .070721 | -.047503 |
| 51 | .019731 | -.036510 | .072306 | -.035845 |
| 52 | .001849 | -.050249 | .048840 | -.026348 |
| 53 | -.016663 | -.055531 | .010345 | -.031553 |
| 54 | -.023990 | -.051763 | -.008151 | -.043152 |
| 55 | -.023303 | -.045117 | -.002244 | -.035478 |
| 56 | -.027549 | -.041778 | .005325 | -.030056 |
| 57 | -.028525 | -.036888 | .015507 | -.032012 |
| 58 | -.027346 | -.038816 | .017663 | -.028944 |
| 59 | -.029064 | -.034616 | .006635 | -.014546 |
| 60 | -.032788 | -.017392 | -.016904 | .002778 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 0 | -.041334 | -.039001 | -.026025 | .007119 | .089577 | .031050 |
| 1 | -.341196 | -.443616 | -.196048 | .119855 | .515050 | .239907 |
| 2 | -.241777 | -.660457 | -.209194 | .130215 | .408200 | .270256 |
| 3 | -.020859 | -.730529 | -.186679 | .076195 | .356150 | .186614 |
| 4 | .104450 | -.445406 | -.103027 | .014260 | .238015 | .004844 |
| 5 | .076429 | -.290605 | -.058334 | .011516 | .158367 | .015261 |
| 6 | .039155 | -.269409 | -.051269 | .027203 | .209433 | .078097 |
| 7-8 | -.039323 | -.186222 | -.035858 | .053534 | .190818 | .053197 |
| 9-11 | -.070809 | -.112817 | -.019883 | .035701 | .125031 | -.013268 |
| 12-15 | -.008975 | -.057231 | -.010296 | -.005449 | .115177 | -.037561 |
| 16-20 | -.002619 | -.033353 | -.005416 | .002831 | .035887 | -.016648 |
| 21-27 | -.015384 | -.020192 | -.003598 | -.001767 | .039652 | -.025127 |
| 28-36 | -.010429 | -.013203 | -.002527 | .003261 | .024460 | -.013873 |
| 37-47 | .000038 | -.005308 | -.001928 | -.004514 | .013065 | -.012826 |
| 48-60 | -.000660 | -.003766 | -.000805 | -.003031 | .007963 | -.007427 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | -.121292 | .041757 | -.965201 | -.090019 | .001318 | .122685 |
| 2 | -.020146 | .042855 | -.959738 | -.113215 | -.011193 | .209032 |
| 3 | .196987 | .017286 | -.889531 | -.039794 | -.051526 | .220162 |
| 4 | .156388 | -.046019 | -.496897 | .051672 | -.115695 | .084703 |
| 5 | .033004 | -.099653 | -.105061 | .049523 | -.075421 | -.014346 |
| 6 | .107233 | -.128806 | .027078 | .058906 | .072408 | -.066563 |
| 7-8 | .078050 | -.099442 | -.070750 | .029297 | .073274 | -.032900 |
| 9-11 | .031116 | -.065178 | -.040812 | .019459 | -.025042 | -.011271 |
| 12-15 | .021694 | -.021831 | -.034027 | -.010529 | -.006623 | .016381 |
| 16-20 | .021252 | -.010287 | -.022637 | -.004079 | .007369 | .004113 |
| 21-27 | -.006144 | -.001057 | -.012096 | .002003 | -.003033 | .004472 |
| 28-36 | -.002432 | -.007569 | -.001109 | -.001105 | -.000685 | .001273 |
| 37-47 | .002473 | .000777 | -.000602 | .001452 | -.000735 | .000739 |
| 48-60 | .001393 | -.003004 | .002510 | .001130 | -.000429 | -.001854 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-02 |
| 0 | .027776 | .018299 | .015355 | .040292 |
| 1 | .247100 | .143404 | .287050 | .287789 |
| 2 | .313935 | .170869 | .493950 | .287437 |
| 3 | .334494 | .186793 | .590502 | .22385 |
| 4 | .213452 | .130108 | .422893 | .147385 |
| 5 | .121178 | .085172 | .321751 | .078370 |
| 6 | .105461 | .085006 | .295737 | .064189 |
| 7-8 | .084145 | .068334 | .270727 | .053937 |
| 9-11 | .042719 | .046675 | .258865 | .039305 |
| 12-15 | .028100 | .036202 | .193075 | .025645 |
| 16-20 | .01776 | .018957 | .135804 | .015124 |
| 21-27 | .011012 | .011984 | .109056 | .010811 |
| 28-36 | .008134 | .008235 | .063837 | .007798 |
| 37-47 | .005901 | .006151 | .046613 | .005204 |
| 48-60 | .003769 | .003783 | .036971 | .003369 |

RUV NC 103A 15M 7-4-63 1504-1620(EST)
301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.17958 10E 01 | 0.70204 10E 00 | 0.25593 10E 00 | 0.62438 10E 00 | 0.22762 10E 00 | 0.88984 10E-01 |
| 0 | -.136396 | -.456778 | -.715629 | .041453 | .354514 | .186664 |
| 1 | -.139032 | -.163211 | -.499499 | .016873 | .295356 | .133212 |
| 2 | -.072665 | -.011802 | -.289791 | -.016992 | .229595 | .076613 |
| 3 | -.032836 | .045926 | -.151893 | -.063513 | .170999 | -.014045 |
| 4 | -.031754 | .030950 | -.056706 | -.012345 | .126367 | -.009936 |
| 5 | -.044661 | .020883 | -.002409 | .000801 | .075105 | -.026963 |
| 6 | -.062656 | .066537 | .035008 | .014622 | .071361 | -.067311 |
| 7 | -.116610 | .051829 | .030046 | .066040 | .094780 | -.041129 |
| 8 | -.123815 | .012928 | .021938 | .056364 | .078773 | -.004578 |
| 9 | -.089393 | .034562 | .058841 | .020309 | .020567 | -.032040 |
| 10 | -.018088 | .041847 | .060130 | -.033078 | -.056617 | -.050775 |
| 11 | .068400 | .000797 | .066057 | -.081485 | -.135392 | -.029817 |
| 12 | .087253 | .009160 | .089386 | -.038378 | -.172871 | -.012125 |
| 13 | .121841 | .049704 | .111643 | -.015952 | .205990 | -.012975 |
| 14 | .123698 | -.019807 | .138178 | -.001505 | .196143 | .009595 |
| 15 | .081994 | -.028598 | .143974 | .026147 | -.186225 | .024531 |
| 16 | .105895 | -.049286 | .139155 | .024331 | -.182323 | .027938 |
| 17 | .119787 | -.011457 | .138788 | -.005220 | -.148134 | -.004065 |
| 18 | .092252 | .071751 | .135134 | -.033836 | -.092939 | -.015892 |
| 19 | .094510 | .043712 | .152459 | -.061398 | -.078718 | .003053 |
| 20 | .049796 | .048863 | .152560 | -.003780 | -.067063 | .003123 |
| 21 | .001426 | -.038390 | .097360 | .023117 | -.039325 | .060484 |
| 22 | -.025499 | -.024972 | .062476 | .045716 | -.011717 | .061327 |
| 23 | -.025605 | -.004706 | .060028 | .063062 | -.006257 | .024973 |
| 24 | -.013011 | .045333 | .080388 | .078001 | -.000914 | -.023085 |
| 25 | .026481 | .052723 | .076303 | .051202 | -.017375 | -.051817 |
| 26 | .033386 | .078164 | .035012 | .060225 | -.031440 | .046695 |
| 27 | .042344 | .090105 | .014565 | .024911 | -.056203 | -.085414 |
| 28 | .016175 | .049600 | -.024942 | .033288 | -.041469 | -.068223 |
| 29 | .028985 | -.006242 | -.053129 | -.025391 | -.033504 | -.010049 |
| 30 | .045275 | -.050602 | -.073863 | -.014541 | -.029590 | .015071 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.016617 | -.022917 | -.047681 | -.002117 | .036516 | .027496 |
| 1 | -.115909 | -.158771 | -.354225 | -.009915 | .277854 | .121039 |
| 2 | -.085784 | -.159483 | -.303042 | .020999 | .244685 | .153833 |
| 3 | -.012107 | -.220131 | -.214898 | -.005018 | .128386 | .256704 |
| 4 | .040333 | -.259780 | -.162161 | -.052000 | .001362 | .243002 |
| 5 | .010018 | -.233820 | -.157989 | -.044022 | .004059 | .192935 |
| 6 | -.027714 | -.182548 | -.136295 | -.029000 | .050172 | .145393 |
| 7 | -.043924 | -.187212 | -.108380 | .075315 | .062103 | .114959 |
| 8 | -.044932 | -.220357 | -.084283 | .154640 | .045502 | .150597 |
| 9-11 | -.004169 | -.150709 | -.054160 | .034136 | .004317 | .048220 |
| 12-14 | -.003897 | -.142347 | -.031009 | .021890 | .004127 | .041750 |
| 15-21 | .000667 | -.089267 | -.022416 | -.004057 | .007145 | -.008014 |
| 22-30 | .004366 | -.094629 | -.017894 | .005971 | .003133 | .029478 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.17958 10E 01 | 0.70204 10E 00 | 0.25593 10E 00 | 0.62438 10E 00 | 0.22762 10E 00 | 0.88984 10E-01 |
| 1 | -.001468 | .016481 | -.159036 | -.047254 | -.029379 | .079404 |
| 2 | -.035057 | .040517 | -.173461 | -.097499 | -.030889 | .101546 |
| 3 | -.068788 | .000371 | -.144962 | -.082456 | -.060360 | .067297 |
| 4 | -.018944 | .017685 | -.126023 | -.077189 | -.054420 | .079855 |
| 5 | -.017545 | .017536 | -.084012 | -.119685 | -.051620 | .116010 |
| 6 | -.066556 | .023124 | -.058789 | -.110016 | -.075894 | .121515 |
| 7 | -.068541 | .059346 | -.060494 | -.111863 | -.055608 | .122709 |
| 8 | -.065056 | .018114 | -.052024 | -.085954 | -.042172 | .075201 |
| 9 | -.068986 | .038132 | -.031182 | -.090488 | -.017250 | .067821 |
| 10 | -.048309 | .032415 | -.017309 | -.090855 | .036289 | .057782 |
| 11 | -.030675 | .041063 | -.041153 | -.008084 | .055885 | .027110 |
| 12 | -.001354 | .031342 | -.032818 | .034104 | .082014 | .011637 |
| 13 | .026787 | .024828 | -.017370 | .049829 | .106737 | .006027 |
| 14 | -.002091 | .005480 | -.011573 | .038468 | .090244 | -.013147 |
| 15 | .057372 | -.001142 | .001816 | .089018 | .108546 | -.030539 |
| 16 | .058955 | -.051205 | .019194 | .088194 | .103549 | -.057110 |
| 17 | .040516 | -.031907 | .002962 | .074793 | .064045 | -.023119 |
| 18 | .002018 | .030861 | -.024971 | .027520 | .016834 | .000444 |
| 19 | .002665 | .003335 | -.155 | .023448 | -.007385 | -.032382 |
| 20 | .033105 | -.039683 | .019793 | .023399 | -.015353 | -.090522 |
| 21 | .016101 | -.008870 | .054438 | .044457 | -.030169 | -.087476 |
| 22 | .014230 | -.066914 | .046220 | .011173 | -.033504 | -.138813 |
| 23 | .022648 | -.045851 | .049321 | .005496 | -.042414 | -.026345 |
| 24 | -.024826 | .033209 | .045461 | -.043825 | -.082642 | .039098 |
| 25 | -.022238 | .049967 | .058812 | -.014265 | -.086571 | .038670 |
| 26 | -.040982 | -.005654 | .060793 | -.026747 | -.086890 | -.005304 |
| 27 | -.003773 | -.034443 | .053312 | -.026590 | -.041659 | -.010089 |
| 28 | .045194 | .019828 | .043932 | -.015849 | -.007582 | -.002093 |
| 29 | .053181 | .043606 | .018249 | -.031411 | .020974 | -.002788 |
| 30 | .039655 | -.001809 | .028505 | .026765 | .036646 | -.045837 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 | 10E-02 |
| 1 | -.310508 | .114206 | -.098713 | -.153222 | .357069 | .314585 |
| 2 | -.442674 | .116017 | -.101526 | -.272152 | -.242445 | .405887 |
| 3 | -.406075 | .059168 | -.090510 | -.306057 | -.910296 | .359010 |
| 4 | -.057900 | -.016234 | -.082210 | -.117495 | -.545754 | .155063 |
| 5 | .125100 | -.015231 | -.072378 | .017933 | .076567 | .065244 |
| 6 | .053151 | .008211 | -.061525 | .010158 | .138640 | .013019 |
| 7 | -.079531 | .030396 | -.060828 | -.037733 | .004097 | .014722 |
| 8 | -.100239 | .010613 | -.043758 | -.045935 | -.027938 | .045951 |
| 9-11 | -.067625 | .026762 | -.033089 | -.020116 | -.060324 | .061770 |
| 12-14 | .033978 | .017576 | -.014207 | -.034491 | .007751 | .071967 |
| 15-21 | .089449 | .002881 | -.012259 | .012755 | .003342 | .011743 |
| 22-30 | -.036106 | -.022485 | -.001737 | .007546 | -.045656 | -.009947 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.20192 10E 01 | 0.15971 10E 01 | 0.24409 10E 00 | 0.32439 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .522541 | .609191 | .124672 | .760947 |
| 2 | .191014 | .384116 | -.052351 | .505672 |
| 3 | .054051 | .245546 | -.046978 | .335005 |
| 4 | -.019069 | .097812 | -.039532 | .182378 |
| 5 | -.085685 | -.021151 | .076756 | .081237 |
| 6 | -.122896 | -.096544 | -.087111 | .039468 |
| 7 | -.097571 | -.095191 | -.076155 | .011263 |
| 8 | -.091965 | -.118207 | -.096435 | -.019482 |
| 9 | -.135031 | -.222590 | -.008095 | -.068027 |
| 10 | -.076615 | -.224000 | -.089995 | -.117301 |
| 11 | -.004420 | -.211583 | -.149183 | -.190066 |
| 12 | -.039865 | -.274755 | -.133205 | -.250425 |
| 13 | -.068556 | -.309434 | -.191379 | -.291380 |
| 14 | -.046450 | -.225474 | .005525 | -.326416 |
| 15 | -.048392 | -.129891 | -.035502 | -.312505 |
| 16 | -.040091 | -.052058 | .045191 | -.269815 |
| 17 | -.044157 | -.016580 | .028213 | -.223654 |
| 18 | -.092734 | .045083 | -.065699 | -.175712 |
| 19 | -.165439 | .072831 | .048420 | -.178413 |
| 20 | -.196739 | .029497 | .073272 | -.185108 |
| 21 | -.090214 | .084230 | .158966 | -.144446 |
| 22 | -.053161 | .083125 | .000244 | -.096717 |
| 23 | -.078592 | -.000709 | .064333 | -.089634 |
| 24 | -.085734 | -.074732 | .040858 | -.094072 |
| 25 | -.080217 | -.127616 | .039930 | -.056695 |
| 26 | -.041439 | -.150858 | -.038522 | -.008942 |
| 27 | -.015507 | -.136346 | -.082588 | .018260 |
| 28 | .046581 | -.142215 | .010693 | .050791 |
| 29 | .084110 | -.095599 | -.035671 | .051894 |
| 30 | .115693 | -.099346 | .040892 | .063856 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .026134 | .026646 | .001945 | .105394 |
| 1 | .209123 | .211141 | .058500 | .783789 |
| 2 | .191981 | .253380 | .127225 | .696483 |
| 3 | .185616 | .273386 | .171344 | .467492 |
| 4 | .202712 | .159543 | .106175 | .234622 |
| 5 | .183577 | .081176 | .066178 | .195893 |
| 6 | .135079 | .095415 | .084937 | .218941 |
| 7 | .116134 | .091369 | .110113 | .195731 |
| 8 | .101638 | .063972 | .120392 | .123133 |
| 9-11 | .083961 | .036382 | .096491 | .070073 |
| 12-14 | .053771 | .022667 | .141627 | .041501 |
| 15-21 | .047527 | .031088 | .092614 | .034384 |
| 22-30 | .036014 | .027611 | .118144 | .019984 |

RUN NO 103A 46M 7-4-63 1504-1620(EST)

GROSS STATISTICS

3 SC
UNSTABLE WIND SPEED 8.21 M/SEC SIGMA A 13.4 DEG
 WIND DIRECTION 306 DEG SIGMA E 7.8 DEG
 SOLAR RAD. 0.93 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.37658E 01 | 0.28614E 01 | 0.16136E 01 | 0.22085E 01 |
| V | 0.37983E 01 | 0.28888E 01 | 0.17175E 01 | 0.20503E 01 |
| W | 0.96532E 00 | 0.93020E 00 | 0.79485E 00 | 0.45423E-00 |
| T | 0.64134E-01 | 0.33156E-01 | 0.18031E-01 | 0.24963E-01 |
| E | 0.62647E 01 | 0.33404E 01 | 0.20630E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.23637 | 0.20604 | 0.15472 | 0.18101 |
| V | 0.23738 | 0.20702 | 0.15963 | 0.17441 |
| W | 0.11967 | 0.11748 | 0.10859 | 0.08209 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | -0.63708E 00 | -0.10391E-00 | -0.30497E-01 | -0.83097E-01 |
| U,W | -0.91892E 00 | -0.83877E 00 | -0.49343E-00 | -0.62924E 00 |
| U,T | -0.19552E-00 | -0.15232E-00 | -0.67477E-01 | -0.13400E-00 |
| V,W | 0.80553E-01 | 0.12545E-01 | 0.53031E-01 | -0.69951E-02 |
| V,T | -0.22886E-00 | -0.15469E-00 | -0.96391E-01 | -0.10889E-00 |
| W,T | 0.57952E-01 | 0.56957E-01 | 0.24166E-01 | 0.49181E-01 |
| WE | 0.41897E-00 | 0.41258E-00 | 0.30758E-00 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | -0.16845 | -0.03614 | -0.01832 | -0.03905 |
| U,W | -0.48196 | -0.51412 | -0.43570 | -0.62824 |
| U,T | -0.39784 | -0.49454 | -0.39592 | -0.57068 |
| V,W | 0.04207 | 0.00765 | 0.04539 | -0.00725 |
| V,T | -0.46369 | -0.49982 | -0.54822 | -0.48130 |
| W,T | 0.23291 | 0.32432 | 0.20203 | 0.46186 |

RUN NO 103A 46M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16647 10E 01 | 0.11326 10E 01 | 0.17045 10E 00 | 0.11685 10E 01 | 0.17585 10E 00 | 0.11964 10E 00 |
| 0 | -.018308 | -.435866 | -.395939 | .045635 | -.547974 | .202111 |
| 1 | -.013827 | -.384328 | -.379884 | .041209 | -.466035 | .182939 |
| 2 | -.005622 | -.304021 | -.344085 | .033022 | -.354495 | .155050 |
| 3 | .001629 | -.240207 | -.306599 | .035323 | -.270336 | .131139 |
| 4 | .005244 | -.187844 | -.268758 | .038140 | -.211356 | .109083 |
| 5 | .009963 | -.139799 | -.231127 | .032233 | -.163741 | .098970 |
| 6 | .017524 | -.100599 | -.197020 | .021881 | -.134421 | .088079 |
| 7 | .021092 | -.073760 | -.165100 | .017817 | -.112508 | .074674 |
| 8 | .021641 | -.053732 | -.136654 | .015958 | -.087706 | .058211 |
| 9 | .016258 | -.038270 | -.105809 | .007450 | -.067236 | .044187 |
| 10 | .013373 | -.015820 | -.078553 | -.000100 | -.048473 | .030872 |
| 11 | .017464 | .008284 | -.055239 | -.004537 | -.034701 | .015827 |
| 12 | .021729 | .028745 | -.037105 | -.004281 | -.015172 | .004362 |
| 13 | .018781 | .046658 | -.015088 | -.012496 | .008431 | -.000910 |
| 14 | .013592 | .069183 | .009299 | -.019918 | .029768 | -.005253 |
| 15 | .008233 | .086317 | .033297 | -.018259 | .051372 | -.013758 |
| 16 | .001686 | .095119 | .057300 | -.018871 | .075321 | -.022461 |
| 17 | -.005324 | .100868 | .078940 | -.020587 | .100001 | -.033565 |
| 18 | -.012099 | .106867 | .100592 | -.018968 | .115956 | -.044200 |
| 19 | -.014271 | .109726 | .121890 | -.020713 | .125349 | -.057509 |
| 20 | -.014559 | .110190 | .137921 | -.024169 | .134554 | -.064493 |
| 21 | -.010433 | .113742 | .150493 | -.024167 | .134296 | -.062317 |
| 22 | -.005877 | .123078 | .157784 | -.024175 | .140487 | -.059174 |
| 23 | -.006518 | .130017 | .160688 | -.021034 | .156324 | -.068273 |
| 24 | -.009261 | .130588 | .158272 | -.020184 | .170236 | -.070487 |
| 25 | -.009925 | .114330 | .150794 | -.016928 | .177607 | -.065017 |
| 26 | -.013565 | .094305 | .144015 | -.015764 | .176873 | -.056652 |
| 27 | -.014739 | .074053 | .138295 | -.011577 | .168014 | -.054163 |
| 28 | -.015887 | .060252 | .133842 | -.001197 | .154688 | -.055707 |
| 29 | -.019827 | .048881 | .129433 | .007264 | .143364 | -.056452 |
| 30 | -.023248 | .037464 | .121478 | .012161 | .132004 | -.054351 |
| 31 | -.022735 | .026142 | .112063 | .009421 | .112929 | -.043213 |
| 32 | -.020506 | .016076 | .100976 | .006491 | .096297 | -.037612 |
| 33 | -.019742 | .004338 | .091344 | .004995 | .084217 | -.038080 |
| 34 | -.024448 | .000939 | .088571 | .010511 | .080608 | -.045449 |
| 35 | -.026647 | -.000124 | .087075 | .009364 | .076692 | -.047056 |
| 36 | -.026621 | .000259 | .085859 | .009930 | .075831 | -.044722 |
| 37 | -.022916 | .001461 | .080643 | .013878 | .072207 | -.050639 |
| 38 | -.013627 | -.001790 | .070306 | .009012 | .059243 | -.051314 |
| 39 | -.006502 | -.008848 | .058918 | -.000134 | .045615 | -.042316 |
| 40 | .001079 | -.009219 | .049210 | -.009418 | .028792 | -.032220 |
| 41 | .007446 | .002589 | .043045 | -.009704 | .016066 | -.030822 |
| 42 | .015074 | .017934 | .036167 | -.003020 | .007192 | -.030608 |
| 43 | .022156 | .029220 | .029576 | .002334 | .004294 | -.026331 |
| 44 | .020087 | .032208 | .026506 | .001477 | -.000202 | -.024793 |
| 45 | .006851 | .028748 | .025085 | .002770 | -.006761 | -.022059 |
| 46 | -.007701 | .018891 | .023030 | .001633 | -.014122 | -.017744 |
| 47 | -.013351 | .014794 | .013113 | .001426 | -.021033 | -.012849 |
| 48 | -.016011 | .014124 | .007747 | .000971 | -.028071 | -.001624 |
| 49 | -.017671 | .008762 | .005568 | -.001290 | -.034920 | .012188 |
| 50 | -.016794 | .003117 | .002812 | -.007313 | -.037393 | .022973 |
| 51 | -.016994 | -.002804 | -.000243 | -.008065 | -.035095 | .028961 |
| 52 | -.017794 | -.012782 | -.007812 | -.002354 | -.029804 | .033722 |
| 53 | -.013201 | -.013396 | -.013402 | -.002429 | -.029756 | .035926 |
| 54 | -.010341 | -.009160 | -.018288 | -.008495 | -.030476 | .042100 |
| 55 | -.010989 | -.005620 | -.023168 | -.008265 | -.028608 | .037724 |
| 56 | -.008711 | .000927 | -.025500 | -.008493 | -.032673 | .032170 |
| 57 | .001897 | .004034 | -.029119 | -.004832 | -.043648 | .022431 |
| 58 | .015254 | .003330 | -.035907 | -.005234 | -.057052 | .015639 |
| 59 | .028231 | -.000213 | -.039135 | -.007623 | -.060707 | .013440 |
| 60 | .036083 | -.005304 | -.040649 | -.008940 | -.062826 | .013193 |

RUN NO 103A 46M 7-4-63 1504-1620(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.16647 10E 01 | 0.11326 10E 01 | 0.17045 10E 00 | 0.11685 10E 01 | 0.17585 10E 00 | 0.11964 10E 00 |
| 1 | .003367 | -.027707 | -.026796 | .003928 | -.020750 | .006187 |
| 2 | .004058 | -.039781 | -.047804 | .001311 | -.030985 | .011225 |
| 3 | .003011 | -.045728 | -.062633 | -.003515 | -.039606 | .022642 |
| 4 | .001844 | -.047636 | -.072285 | -.014434 | -.048220 | .032200 |
| 5 | .010377 | -.043803 | -.085701 | -.019822 | -.053059 | .042259 |
| 6 | .020544 | -.036688 | -.102474 | -.018677 | -.052993 | .054236 |
| 7 | .023607 | -.020686 | -.111804 | -.016905 | -.052137 | .063018 |
| 8 | .027789 | -.010301 | -.116647 | -.021321 | -.056108 | .064462 |
| 9 | .031280 | -.004444 | -.123709 | -.023580 | -.056563 | .067132 |
| 10 | .033401 | -.004504 | -.127368 | -.023344 | -.056659 | .060950 |
| 11 | .038453 | -.001981 | -.130714 | -.026384 | -.056068 | .048030 |
| 12 | .046597 | .006240 | -.129843 | -.025145 | -.058521 | .040944 |
| 13 | .052232 | .018449 | -.125069 | -.017485 | -.058420 | .040605 |
| 14 | .056574 | .026252 | -.115590 | -.010547 | -.059046 | .041630 |
| 15 | .056535 | .029160 | -.105591 | -.001240 | -.060220 | .049201 |
| 16 | .050106 | .031280 | -.096530 | .002251 | -.056472 | .054627 |
| 17 | .038653 | .035646 | -.085974 | -.001331 | -.051240 | .055877 |
| 18 | .026249 | .032978 | -.071810 | -.014913 | -.049170 | .040873 |
| 19 | .017554 | .029882 | -.056979 | -.025827 | -.049585 | .031446 |
| 20 | .013773 | .024046 | -.044516 | -.022275 | -.043414 | .028411 |
| 21 | .015172 | .020010 | -.038155 | -.017812 | -.033353 | .025104 |
| 22 | .016059 | .015616 | -.034337 | -.019536 | -.027853 | .017103 |
| 23 | .013404 | .015476 | -.030615 | -.016308 | -.024161 | .010487 |
| 24 | .015555 | .020726 | -.028391 | -.010340 | -.020150 | .006749 |
| 25 | .011610 | .015335 | -.026336 | -.007702 | -.015288 | -.004224 |
| 26 | .005897 | .010085 | -.023429 | -.006033 | -.012752 | -.016057 |
| 27 | .003197 | .011540 | -.020120 | -.005131 | -.007838 | -.024034 |
| 28 | .004445 | .006298 | -.014743 | -.001598 | -.004817 | -.029753 |
| 29 | -.00.242 | -.000554 | -.009857 | -.001713 | -.002885 | -.025491 |
| 30 | -.015364 | -.005785 | -.003542 | -.004551 | -.001807 | -.015671 |
| 31 | -.023621 | -.015285 | .004361 | .009610 | .000762 | -.005520 |
| 32 | -.034492 | -.019318 | .012041 | .007272 | .003186 | -.003327 |
| 33 | -.047938 | -.023983 | .018924 | -.006074 | .002504 | -.013184 |
| 34 | -.053943 | -.033906 | .021055 | -.010585 | .004476 | -.019377 |
| 35 | -.059397 | -.039993 | .025201 | -.009022 | .007248 | -.021880 |
| 36 | -.061548 | -.043508 | .026192 | -.012849 | .014401 | -.025210 |
| 37 | -.059931 | -.050934 | .025840 | -.002647 | .018241 | -.020220 |
| 38 | -.054597 | -.058332 | .024868 | .013070 | .026726 | -.016940 |
| 39 | -.049627 | -.062315 | .022877 | .026253 | .033958 | -.010982 |
| 40 | -.044755 | -.057008 | .019702 | .028837 | .040688 | .000797 |
| 41 | -.037077 | -.047770 | .016342 | .034610 | .047808 | .010350 |
| 42 | -.030719 | -.042235 | .015285 | .036585 | .050621 | .015261 |
| 43 | -.027045 | -.034285 | .014490 | .036181 | .056945 | .022369 |
| 44 | -.019180 | -.012647 | .015641 | .033399 | .060162 | .027131 |
| 45 | -.0104P1 | .005551 | .019690 | .020450 | .054630 | .020834 |
| 46 | -.002214 | .018053 | .024321 | .012270 | .053267 | .012922 |
| 47 | .005633 | .030598 | .023857 | .008750 | .054188 | .006041 |
| 48 | .010765 | .037830 | .023934 | .005374 | .055938 | .002810 |
| 49 | .013030 | .040729 | .025529 | -.004891 | .051152 | -.006680 |
| 50 | .012372 | .037486 | .026036 | -.017835 | .046504 | -.018301 |
| 51 | .009002 | .033527 | .025145 | -.028985 | .042814 | -.026258 |
| 52 | .003586 | .031329 | .026589 | -.036460 | .042928 | -.031781 |
| 53 | -.0004P7 | .031095 | .030144 | -.040705 | .042416 | -.036396 |
| 54 | .001621 | .019970 | .031060 | -.042244 | .036783 | -.041450 |
| 55 | .011585 | .005622 | .025315 | -.038742 | .029786 | -.039827 |
| 56 | .025140 | -.004410 | .016143 | -.025205 | .022513 | -.031322 |
| 57 | .033406 | -.003854 | .011234 | -.006427 | .012876 | -.028480 |
| 58 | .035816 | .002517 | .009881 | .001043 | .007074 | -.023795 |
| 59 | .030571 | .009547 | .011655 | -.001314 | .003640 | -.016908 |
| 60 | .023136 | .014512 | .014095 | -.005060 | -.004748 | -.017029 |

RUN NC 103A 46M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16136 10E 01 | 0.17174 10E 01 | 0.79501 10E 00 | 0.18005 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .872069 | .826865 | .737531 | .845213 |
| 2 | .711072 | .618075 | .455350 | .669586 |
| 3 | .580737 | .466082 | .289296 | .540060 |
| 4 | .471394 | .352149 | .180032 | .439785 |
| 5 | .376453 | .266039 | .093790 | .357608 |
| 6 | .293592 | .206339 | .035542 | .291659 |
| 7 | .220099 | .158673 | .012770 | .240955 |
| 8 | .157324 | .111653 | .004792 | .195977 |
| 9 | .103548 | .074521 | -.006242 | .156542 |
| 10 | .052852 | .038804 | -.026369 | .120233 |
| 11 | .002307 | .005148 | -.052803 | .085525 |
| 12 | -.043676 | -.022754 | -.074721 | .041249 |
| 13 | -.082099 | -.046536 | -.091560 | -.007287 |
| 14 | -.115326 | -.073824 | -.126934 | -.047896 |
| 15 | -.146534 | -.099848 | -.160554 | -.087367 |
| 16 | -.175264 | -.129867 | -.176028 | -.129915 |
| 17 | -.202924 | -.162504 | -.183980 | -.170329 |
| 18 | -.231188 | -.189039 | -.188206 | -.191870 |
| 19 | -.251379 | -.211825 | -.190628 | -.208961 |
| 20 | -.263810 | -.230111 | -.200858 | -.227484 |
| 21 | -.272303 | -.237841 | -.205512 | -.239786 |
| 22 | -.278723 | -.250590 | -.202801 | -.257550 |
| 23 | -.279546 | -.263215 | -.197339 | -.282853 |
| 24 | -.272298 | -.275493 | -.184264 | -.301852 |
| 25 | -.254291 | -.279155 | -.154363 | -.312891 |
| 26 | -.238684 | -.270560 | -.132356 | -.311315 |
| 27 | -.223832 | -.261273 | -.105534 | -.293253 |
| 28 | -.204432 | -.245070 | -.082281 | -.274845 |
| 29 | -.182459 | -.221012 | -.060809 | -.257826 |
| 30 | -.159990 | -.194106 | -.038524 | -.239720 |
| 31 | -.134482 | -.158271 | -.013181 | -.210416 |
| 32 | -.112075 | -.128399 | .008744 | -.188448 |
| 33 | -.094783 | -.107272 | .024384 | -.172058 |
| 34 | -.085658 | -.090987 | .037756 | -.161829 |
| 35 | -.076827 | -.076543 | .048530 | -.154485 |
| 36 | -.071556 | -.072128 | .042068 | -.149554 |
| 37 | -.065982 | -.074485 | .024697 | -.138166 |
| 38 | -.061069 | -.066573 | .024031 | -.120640 |
| 39 | -.051404 | -.059587 | .032949 | -.099703 |
| 40 | -.043039 | -.048608 | .035391 | -.077133 |
| 41 | -.044064 | -.032329 | .021875 | -.060637 |
| 42 | -.049630 | -.0166 | .015318 | -.049604 |
| 43 | -.058222 | .007721 | .012992 | -.042633 |
| 44 | -.062059 | .026343 | .016980 | -.037257 |
| 45 | -.053942 | .042311 | .016095 | -.027485 |
| 46 | -.039856 | .054702 | .023667 | -.014342 |
| 47 | -.026632 | .066108 | .033135 | -.001554 |
| 48 | -.013901 | .073463 | .032833 | .012151 |
| 49 | -.001388 | .077307 | .026317 | .026070 |
| 50 | .009175 | .080966 | .016720 | .027271 |
| 51 | .015652 | .079616 | .010985 | .028085 |
| 52 | .023488 | .069435 | .009236 | .031867 |
| 53 | .034233 | .060483 | .019154 | .039585 |
| 54 | .039603 | .055808 | .031313 | .042994 |
| 55 | .045866 | .046050 | .041964 | .047987 |
| 56 | .047757 | .040320 | .024614 | .058865 |
| 57 | .051122 | .048515 | -.001050 | .067127 |
| 58 | .056837 | .057888 | -.019519 | .077453 |
| 59 | .063417 | .049227 | -.029894 | .083302 |
| 60 | .069596 | .034614 | -.034904 | .084160 |

RUN NO 103A 46M 7-4-63 1504-1620(EST)
 S1 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.008599 | -.091063 | -.022868 | .013831 | -.013965 | .067097 |
| 1 | .094121 | -.711545 | -.185660 | .086620 | -.159214 | .579768 |
| 2 | .109511 | -.832036 | -.186395 | .112663 | -.186699 | .581382 |
| 3 | .014503 | -.893822 | -.143710 | .153888 | -.154928 | .436395 |
| 4 | -.084537 | -.605380 | -.066429 | .112483 | -.074374 | .232119 |
| 5 | -.072418 | -.286305 | -.026688 | .028731 | -.041697 | .117624 |
| 6 | -.062843 | -.203455 | -.016242 | -.003270 | -.038767 | .058259 |
| 7-8 | -.061619 | -.207902 | -.019332 | .011449 | -.038747 | .075202 |
| 9-11 | -.004135 | -.123408 | -.009983 | -.008224 | -.029662 | .036603 |
| 12-15 | -.022726 | -.090324 | -.003834 | -.000387 | -.017230 | .029786 |
| 16-20 | .003724 | -.036976 | -.002292 | .001745 | -.011640 | .021464 |
| 21-27 | -.010272 | -.027978 | -.000701 | .003577 | -.006555 | .011869 |
| 28-36 | -.000446 | -.017349 | -.000687 | .007380 | -.004163 | .001871 |
| 37-47 | .001037 | -.007349 | -.000170 | .000109 | -.002061 | .005286 |
| 48-60 | -.000809 | -.003584 | -.000043 | -.000918 | -.001369 | .001466 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .138539 | .008794 | -.835197 | -.095976 | -.439896 | .222319 |
| 2 | .320291 | .075107 | -.828938 | -.106845 | -.510125 | .255341 |
| 3 | .253169 | -.007919 | -.672036 | -.061798 | -.320423 | .259151 |
| 4 | -.019425 | -.169917 | -.354098 | -.017889 | -.136867 | .125052 |
| 5 | -.039188 | -.125135 | -.162337 | -.036110 | -.085212 | .009701 |
| 6 | -.013998 | -.082183 | -.056609 | -.012734 | -.019630 | .020391 |
| 7-8 | -.078823 | -.077141 | .035609 | -.015370 | -.054181 | .026544 |
| 9-11 | .022092 | -.031034 | -.026697 | .029141 | -.032137 | -.021293 |
| 12-15 | -.019081 | -.027606 | -.009745 | -.007462 | -.011216 | -.021723 |
| 16-20 | .011079 | .001182 | -.007658 | .017984 | -.004776 | .009505 |
| 21-27 | .007922 | -.007419 | -.010379 | .003157 | -.002489 | -.002397 |
| 28-36 | -.000506 | -.002902 | .002542 | -.002390 | -.006431 | -.001156 |
| 37-47 | -.000822 | -.002188 | -.001720 | .001670 | -.001442 | .003172 |
| 48-60 | .000276 | .000500 | -.000187 | .001779 | -.000304 | .001436 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E-02 |
| 0 | .032969 | .023239 | .004236 | .038037 |
| 1 | .275886 | .242072 | .050547 | .343637 |
| 2 | .304930 | .294478 | .079528 | .365391 |
| 3 | .286365 | .265477 | .101210 | .291591 |
| 4 | .178667 | .142844 | .074367 | .143205 |
| 5 | .094747 | .084758 | .041015 | .078509 |
| 6 | .068402 | .078574 | .033080 | .068544 |
| 7-8 | .061290 | .078327 | .037946 | .064496 |
| 9-11 | .036474 | .050488 | .031361 | .046907 |
| 12-15 | .022502 | .032063 | .021844 | .028258 |
| 16-20 | .012786 | .021481 | .012926 | .017570 |
| 21-27 | .008993 | .012813 | .009309 | .012142 |
| 28-36 | .005434 | .008239 | .006779 | .007862 |
| 37-47 | .003556 | .005395 | .004004 | .005117 |
| 48-60 | .002297 | .003316 | .002508 | .003515 |

RUN NC 103A 46M 7-4-63 1504-1620(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.21288 10E 01 | 0.10018 10E 01 | 0.23482 10E 00 | 0.96540 10E 00 | 0.22629 10E 00 | 0.10649 10E 00 |
| 0 | -.039035 | -.628104 | -.570626 | -.007245 | -.481183 | .461828 |
| 1 | -.013397 | -.370445 | -.405010 | -.003624 | -.307886 | .299047 |
| 2 | -.021357 | -.155772 | -.195703 | -.040457 | -.144778 | .156942 |
| 3 | -.024861 | -.082660 | -.058482 | -.047893 | -.044392 | .079146 |
| 4 | -.001818 | .030606 | .047515 | -.038249 | -.009029 | -.029764 |
| 5 | -.003391 | .093545 | .096770 | -.041481 | -.015439 | .039924 |
| 6 | .002812 | .149958 | .115336 | -.014550 | .001967 | -.101156 |
| 7 | -.011092 | .169720 | .149571 | .002442 | .015813 | .134781 |
| 8 | -.060127 | .151729 | .167878 | .035689 | .056707 | -.127163 |
| 9 | -.125904 | .130815 | .182130 | .084181 | .113221 | -.152611 |
| 10 | -.142325 | .102896 | .168588 | .092583 | .109140 | -.115942 |
| 11 | -.108406 | .095870 | .124185 | .065505 | .138415 | -.105335 |
| 12 | -.054718 | .057448 | .078711 | .063636 | .144866 | -.090875 |
| 13 | -.037848 | .040216 | .064839 | .078818 | .123051 | -.071551 |
| 14 | -.004632 | .028694 | .036400 | .041825 | .065162 | -.044809 |
| 15 | .039791 | .027776 | -.002676 | -.001880 | -.015437 | -.012744 |
| 16 | .085441 | -.014637 | -.024855 | -.058922 | -.054051 | .032135 |
| 17 | .094970 | -.015895 | -.031099 | -.043411 | -.017429 | .020836 |
| 18 | .077852 | .009084 | -.058446 | -.072048 | .015863 | .053315 |
| 19 | .056734 | -.074191 | -.088475 | -.017004 | .040207 | .061574 |
| 20 | .075260 | -.125484 | -.153419 | .002689 | .047351 | .101272 |
| 21 | .102771 | -.118958 | -.163932 | -.042525 | .011352 | .124208 |
| 22 | .113193 | -.095743 | -.114069 | .006123 | .013579 | .078491 |
| 23 | .129996 | -.028079 | -.063171 | -.036033 | .033665 | .042614 |
| 24 | .129538 | .034145 | -.021283 | -.051460 | .034106 | .003887 |
| 25 | .130637 | .090429 | .030596 | -.043696 | .030166 | -.031822 |
| 26 | .094921 | .099248 | .081919 | -.029688 | .058722 | -.058220 |
| 27 | .025688 | .099452 | .113988 | .057940 | .040908 | -.126226 |
| 28 | -.017590 | .101002 | .136435 | .059749 | .061160 | -.142540 |
| 29 | -.080163 | .069155 | .142260 | .053308 | .050965 | -.112977 |
| 30 | -.084739 | .028827 | .101045 | .056171 | .058827 | -.068701 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|---------|
| | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-01 | 10E-02 |
| 0 | -.173347 | -.047109 | -.009569 | .016362 | -.015832 | .029894 |
| 1 | -.870671 | -.349156 | -.065594 | .000379 | -.135224 | .278502 |
| 2 | -.016163 | -.609670 | -.151100 | -.162390 | -.152557 | .590301 |
| 3 | .626503 | -.975347 | -.258221 | -.260502 | -.166701 | .948596 |
| 4 | .186487 | -.841176 | -.203911 | -.065725 | -.114824 | .715571 |
| 5 | -.347257 | -.630501 | -.131480 | .154741 | -.044506 | .427956 |
| 6 | -.463477 | -.513694 | -.104282 | .160447 | -.036081 | .343162 |
| 7 | -.136944 | -.291414 | -.069262 | .039831 | -.075926 | .231996 |
| 8 | .146105 | -.242788 | -.070439 | .024625 | -.085639 | .201787 |
| 9-11 | .124409 | -.185421 | -.054568 | .006129 | -.048147 | .155568 |
| 12-14 | -.084711 | -.175005 | -.020740 | .043092 | -.025262 | .099097 |
| 15-21 | -.010673 | -.137545 | -.016967 | -.000189 | -.013709 | .066690 |
| 22-30 | -.043611 | -.077364 | -.007143 | -.021271 | -.013754 | .066918 |

RUN NC 103A 46M 7-4-63 1504-1620(EST)
301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.21288 10E 01 | 0.10018 10E 01 | 0.23482 10E 00 | 0.96540 10E 00 | 0.22629 10E 00 | 0.10649 10E 00 |
| 1 | -.000208 | -.023712 | -.115841 | -.049255 | -.065790 | .075924 |
| 2 | .005684 | .047738 | -.124268 | -.064799 | -.073085 | .079263 |
| 3 | -.009187 | -.000287 | -.125578 | -.062519 | -.048623 | .041741 |
| 4 | -.024498 | -.006349 | -.095138 | -.036385 | -.032239 | .069511 |
| 5 | .012478 | .082016 | -.060961 | -.028772 | -.019882 | .069095 |
| 6 | .031138 | .056648 | -.040234 | -.014787 | -.051801 | .037861 |
| 7 | .042727 | .074358 | -.031064 | .043809 | -.065365 | .092745 |
| 8 | .045307 | .080011 | -.030412 | .049896 | -.053101 | .093890 |
| 9 | .057240 | .020500 | -.021246 | .025098 | -.026755 | .034509 |
| 10 | .047372 | -.015240 | -.010678 | .015072 | .005413 | -.002179 |
| 11 | .013692 | -.020443 | .008727 | -.017680 | .008090 | -.050195 |
| 12 | -.013223 | -.014755 | .053563 | .010220 | .018944 | -.053323 |
| 13 | -.041704 | -.039607 | .052744 | .009152 | .032367 | -.050111 |
| 14 | -.015453 | -.081589 | .063600 | .041769 | .067961 | -.049134 |
| 15 | .015398 | -.063147 | .067786 | .065446 | .086880 | -.048693 |
| 16 | .049559 | -.059918 | .013537 | .065315 | .060699 | -.023756 |
| 17 | .073109 | -.052135 | -.002718 | .067890 | .050143 | -.024865 |
| 18 | .072757 | -.083509 | .013974 | .015675 | .016967 | -.093583 |
| 19 | .029140 | -.042235 | .037855 | -.009877 | .020280 | -.081987 |
| 20 | -.014556 | .010713 | .050860 | -.038304 | .014335 | -.042318 |
| 21 | -.044300 | .000742 | .039165 | -.063039 | -.015299 | -.037437 |
| 22 | -.040977 | .037463 | .013794 | -.052391 | -.039489 | .009367 |
| 23 | -.056302 | .049439 | -.008042 | -.053288 | -.088453 | .051563 |
| 24 | -.048600 | .047545 | -.031094 | -.035229 | -.078692 | .047757 |
| 25 | -.066325 | .078380 | -.034078 | -.042199 | -.102868 | .071112 |
| 26 | -.066821 | .048973 | -.024435 | -.058950 | -.092784 | .036442 |
| 27 | -.057195 | .032280 | -.016526 | -.062445 | -.041926 | .024108 |
| 28 | -.037167 | .040323 | -.003685 | -.060762 | -.017572 | .014018 |
| 29 | -.034190 | .084822 | .018634 | .009479 | .007610 | .035143 |
| 30 | .007755 | .045511 | .009454 | .063818 | .068902 | .057290 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | -.377146 | -.022596 | -.118199 | .093003 | -.044478 | .030067 |
| 2 | .219547 | .160131 | -.553175 | .000962 | -.349695 | .262147 |
| 3 | .019770 | .286501 | -.881276 | -.162944 | -.695253 | .393208 |
| 4 | .040362 | .068661 | -.699212 | -.128725 | -.285594 | .193437 |
| 5 | -.171876 | -.097245 | -.449350 | -.093723 | .034434 | .051765 |
| 6 | -.366577 | -.084047 | -.313231 | -.197937 | -.065523 | -.017942 |
| 7 | -.039815 | -.083524 | -.397733 | -.166953 | -.141406 | -.039674 |
| 8 | .215458 | -.047556 | -.493816 | -.015785 | -.191193 | .103964 |
| 9-11 | .028597 | .039459 | -.163741 | .005088 | -.236691 | .107894 |
| 12-14 | .075382 | .005446 | -.080100 | -.043890 | -.052107 | .008996 |
| 15-21 | -.038236 | -.048522 | -.070234 | .007011 | -.031007 | .055658 |
| 22-30 | .006822 | -.025705 | -.050288 | -.012246 | .006436 | -.019221 |

RUN NC 103A 46M 7-4-63 1504-1620(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.22091 10E 01 | 0.20514 10E 01 | 0.45431 10E 00 | 0.24962 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .624423 | .631326 | .316002 | .665151 |
| 2 | .304943 | .325772 | .032466 | .331397 |
| 3 | .110606 | .147642 | .089410 | .110013 |
| 4 | -.056170 | .054288 | -.016128 | -.039136 |
| 5 | -.115673 | .047565 | -.035360 | -.086091 |
| 6 | -.139057 | -.018035 | -.170028 | -.130084 |
| 7 | -.210673 | -.055646 | -.180955 | -.155458 |
| 8 | -.224103 | -.090442 | -.079517 | -.192662 |
| 9 | -.204998 | -.120015 | -.124458 | -.225230 |
| 10 | -.155890 | -.126677 | -.197469 | -.213139 |
| 11 | -.156615 | -.208344 | -.198374 | -.208693 |
| 12 | -.133544 | -.258348 | -.087714 | -.181180 |
| 13 | -.100672 | -.270431 | -.046121 | -.165948 |
| 14 | -.075175 | -.228889 | -.079841 | -.106409 |
| 15 | -.024033 | -.141445 | -.072925 | -.016194 |
| 16 | .014897 | -.099837 | .000723 | .023731 |
| 17 | .015484 | -.129116 | .017693 | -.003029 |
| 18 | .027285 | -.115766 | .000180 | .012349 |
| 19 | .054817 | -.134973 | .031771 | .066428 |
| 20 | .110074 | -.115150 | .134661 | .105216 |
| 21 | .117602 | -.017942 | .179068 | .133088 |
| 22 | .073144 | -.001000 | .115013 | .102570 |
| 23 | .004864 | -.049315 | .112242 | .055325 |
| 24 | -.058677 | -.099517 | .004995 | .015044 |
| 25 | -.157127 | -.095330 | -.050195 | -.039122 |
| 26 | -.189441 | -.069673 | .027963 | -.130705 |
| 27 | -.159158 | -.037180 | -.072088 | -.194430 |
| 28 | -.143531 | .031591 | -.136591 | -.194114 |
| 29 | -.114561 | .065652 | -.056098 | -.199321 |
| 30 | -.086795 | .076075 | .014652 | -.171321 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-02 |
| 0 | .026176 | .030864 | .010853 | .032661 |
| 1 | .180359 | .310319 | .158678 | .224907 |
| 2 | .240702 | .327261 | .341714 | .310040 |
| 3 | .337804 | .276157 | .497203 | .409845 |
| 4 | .283249 | .165461 | .363797 | .306993 |
| 5 | .197827 | .114823 | .259538 | .199271 |
| 6 | .166402 | .120838 | .227811 | .170794 |
| 7 | .122396 | .130283 | .174595 | .151399 |
| 8 | .106212 | .115691 | .191718 | .146866 |
| 9-11 | .080750 | .072074 | .146736 | .094226 |
| 12-14 | .049001 | .055521 | .203731 | .048315 |
| 15-21 | .034997 | .027412 | .172500 | .032896 |
| 22-30 | .027082 | .027800 | .135992 | .025676 |

RUN NC 103A 15M 7-4-63 1504-1620(EST)
 RUN NC 103A 46M 7-4-63 1504-1620(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .468914 | .366365 | .448919 | .374829 |
| 1 | .388239 | .735610 | .363311 | .269402 |
| 2 | .247308 | .688020 | .309155 | .221574 |
| 3 | .193637 | .590878 | .298111 | .247228 |
| 4 | .210576 | .488565 | .290526 | .291146 |
| 5 | .158617 | .450681 | .252989 | .288047 |
| 6 | .085465 | .403282 | .156833 | .259524 |
| 7-8 | .203065 | .329688 | .16340 | .083103 |
| 9-11 | .141724 | .311121 | .212871 | .082226 |
| 12-15 | .055530 | .187922 | .215750 | .078028 |
| 16-20 | .055500 | .156690 | .162931 | .089352 |
| 21-27 | .070421 | .068446 | .116384 | .124509 |
| 28-36 | .104925 | .125797 | .064055 | .089622 |
| 37-47 | .103268 | .086380 | .102072 | .118746 |
| 48-60 | .103565 | .125937 | .082013 | .099963 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .981887 | .862847 | .736782 | .089042 |
| 1 | .841427 | .918301 | .522937 | .092376 |
| 2 | .660947 | .894625 | .603121 | .172299 |
| 3 | .618227 | .866936 | .689204 | .397993 |
| 4 | .664732 | .836456 | .727218 | .616250 |
| 5 | .717180 | .829999 | .500839 | .628998 |
| 6 | .632463 | .819758 | .265413 | .438886 |
| 7 | .357869 | .758711 | .216633 | .172898 |
| 8 | .300973 | .691265 | .401595 | .086620 |
| 9-11 | .326731 | .702125 | .289257 | .258601 |
| 12-14 | .134046 | .624449 | .255192 | .180600 |
| 15-21 | .265038 | .424550 | .209659 | .292469 |
| 22-30 | .270121 | .345753 | .256413 | .313255 |

RUN NO 1038 46M 7-4-63 1637-1753(EST)

GROSS STATISTICS

| | | |
|----------------------|------------------------|------------------|
| I CU TRANSITIONAL | WIND SPEED 6.52 M/SEC | SIGMA A 11.5 DEG |
| | WIND DIRECTION 296 DEG | SIGMA E 7.3 DEG |
| | SOLAR RAD. 0.41 LY/MIN | |

| | | | |
|-------------------------|--------------------------------|-------------------------------|------------------------------------|
| WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.25019E 01 | 0.15272E 01 | 0.90243E 00 | 0.12173E 01 |
| V | 0.18385E 01 | 0.13436E 01 | 0.10087E 01 | 0.89547E 00 |
| W | 0.56498E 00 | 0.55528E 00 | 0.47201E-00 | 0.28706E-00 |
| T | 0.13201E-01 | 0.75029E-02 | 0.47594E-02 | 0.53601E-02 |
| E | 0.24527E 01 | 0.17130E 01 | 0.11916E 01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.24260 | 0.18954 | 0.14570 | 0.16922 |
| V | 0.20796 | 0.17778 | 0.15404 | 0.14514 |
| W | 0.11528 | 0.11429 | 0.10537 | 0.08217 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.87066E-01 | 0.14509E-00 | 0.14640E-00 | 0.12427E-00 |
| U,W | -0.43039E-00 | -0.43173E-00 | -0.27810E-00 | -0.34388E-00 |
| U,T | -0.90601E-01 | -0.31426E-01 | -0.17665E-01 | -0.28038E-01 |
| V,W | -0.71372E-01 | -0.71347E-01 | -0.60329E-01 | -0.40708E-01 |
| V,T | -0.74490E-01 | -0.50550E-01 | -0.32188E-01 | -0.40896E-01 |
| W,T | 0.42692E-02 | 0.33536E-02 | 0.30583E-02 | 0.42243E-02 |
| WE | 0.11066E-00 | 0.19111E-00 | 0.98034E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.04060 | 0.10129 | 0.15344 | 0.11903 |
| U,W | -0.36201 | -0.46883 | -0.42612 | -0.58174 |
| U,T | -0.49854 | -0.29358 | -0.26955 | -0.34712 |
| V,W | -0.07003 | -0.08260 | -0.08743 | -0.08029 |
| V,T | -0.47815 | -0.50347 | -0.46455 | -0.59029 |
| W,T | 0.04943 | 0.05196 | 0.06453 | 0.10769 |

RUN NC 1038 46M 7-4-63 1637-1753(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.95419 10E 00 | 0.65273 10E 00 | 0.65555 10E-01 | 0.69001 10E 00 | 0.64299 10E-01 | 0.47406 10E-01 |
| 0 | .153291 | -.425990 | -.269348 | -.087842 | -.464615 | .064265 |
| 1 | .151012 | -.395640 | -.262287 | -.079865 | -.406744 | .075312 |
| 2 | .139937 | -.342789 | -.240738 | -.064088 | -.335514 | .079993 |
| 3 | .126526 | -.288014 | -.213887 | -.053580 | -.284534 | .080153 |
| 4 | .116023 | -.236033 | -.187842 | -.038296 | -.245647 | .070399 |
| 5 | .103137 | -.190849 | -.163292 | -.022993 | -.202068 | .058216 |
| 6 | .089247 | -.153706 | -.139152 | -.017185 | -.162276 | .059186 |
| 7 | .072088 | -.121638 | -.114820 | -.005249 | -.129996 | .055583 |
| 8 | .056777 | -.089274 | -.088127 | .006398 | -.094315 | .040944 |
| 9 | .045845 | -.056929 | -.062542 | .018323 | -.061823 | .018522 |
| 10 | .033286 | -.029270 | -.043243 | .025918 | -.028599 | .001280 |
| 11 | .017698 | .000077 | -.026383 | .029057 | .002568 | -.011742 |
| 12 | .006371 | .027300 | -.007815 | .027125 | .022724 | -.017689 |
| 13 | -.003410 | .050100 | .008365 | .018351 | .043463 | -.018733 |
| 14 | -.017622 | .068579 | .025665 | .013855 | .068016 | -.022875 |
| 15 | -.035431 | .090992 | .050049 | .015547 | .093041 | -.032468 |
| 16 | -.054820 | .114670 | .073284 | .023085 | .115146 | -.051177 |
| 17 | -.071664 | .129156 | .091290 | .030719 | .134670 | -.069092 |
| 18 | -.086041 | .142678 | .108354 | .027835 | .153463 | -.076702 |
| 19 | -.097446 | .153992 | .124691 | .023573 | .164972 | -.072496 |
| 20 | -.106167 | .163207 | .137511 | .024940 | .166107 | -.063217 |
| 21 | -.110737 | .171384 | .146043 | .026155 | .167934 | -.061501 |
| 22 | -.118032 | .178654 | .157352 | .022707 | .171325 | -.062366 |
| 23 | -.123603 | .180447 | .167782 | .014238 | .172483 | -.058179 |
| 24 | -.126335 | .175481 | .170583 | .006196 | .178302 | -.053622 |
| 25 | -.125428 | .169439 | .166801 | .004183 | .177104 | -.051484 |
| 26 | -.119070 | .158113 | .161638 | .009250 | .169795 | -.051245 |
| 27 | -.107537 | .143573 | .153986 | .010822 | .165178 | -.050618 |
| 28 | -.096801 | .134220 | .143368 | .002896 | .163281 | -.044895 |
| 29 | -.088301 | .123985 | .131591 | -.005388 | .152993 | -.032691 |
| 30 | -.082856 | .111115 | .121791 | -.004834 | .132999 | -.027004 |
| 31 | -.075194 | .094770 | .109533 | .002145 | .101288 | -.023941 |
| 32 | -.064043 | .078029 | .089644 | .008236 | .073710 | -.019189 |
| 33 | -.048631 | .058802 | .068630 | .010665 | .055783 | -.019711 |
| 34 | -.027945 | .045521 | .046936 | .005200 | .039636 | -.007216 |
| 35 | -.007245 | .029807 | .028627 | -.004900 | .016405 | .008670 |
| 36 | .007129 | .016029 | .017555 | -.010655 | -.008405 | .021376 |
| 37 | .017849 | .008058 | .003716 | -.014147 | -.030161 | .030019 |
| 38 | .025249 | .004452 | -.010796 | -.010399 | -.042139 | .038131 |
| 39 | .030888 | -.001645 | -.023081 | -.011701 | -.047733 | .039987 |
| 40 | .040323 | -.009757 | -.035678 | -.009078 | -.049333 | .044570 |
| 41 | .048679 | -.024839 | -.047613 | -.006971 | -.055161 | .045695 |
| 42 | .055611 | -.041057 | -.056206 | -.002612 | -.055420 | .049896 |
| 43 | .063083 | -.050528 | -.067395 | .002008 | -.053584 | .052531 |
| 44 | .074373 | -.058947 | -.076251 | .000857 | -.050521 | .053461 |
| 45 | .083333 | -.072248 | -.082745 | .000202 | -.046602 | .061805 |
| 46 | .090521 | -.079876 | -.088770 | .001481 | -.044271 | .066210 |
| 47 | .096728 | -.081230 | -.090069 | .003491 | -.041173 | .056611 |
| 48 | .105252 | -.077634 | -.092151 | -.002677 | -.031782 | .047150 |
| 49 | .106557 | -.069614 | -.092827 | -.008305 | -.030490 | .040103 |
| 50 | .101638 | -.058224 | -.089011 | -.010865 | -.028542 | .035253 |
| 51 | .092500 | -.043584 | -.088495 | -.013325 | -.022924 | .033285 |
| 52 | .079133 | -.035069 | -.081115 | -.017025 | -.018818 | .027924 |
| 53 | .062328 | -.031071 | -.070664 | -.016459 | -.020295 | .017463 |
| 54 | .047634 | -.026658 | -.060556 | -.015791 | -.017790 | .006789 |
| 55 | .037908 | -.025604 | -.053307 | -.014195 | -.009520 | -.004187 |
| 56 | .023688 | -.023035 | -.047189 | -.006576 | .000603 | -.014233 |
| 57 | .007946 | -.024166 | -.037525 | .005673 | .012393 | -.024578 |
| 58 | -.005421 | -.021675 | -.024860 | .018040 | .019219 | -.031952 |
| 59 | -.016250 | -.014720 | -.011243 | .019375 | .017268 | -.027189 |
| 60 | -.027248 | -.012066 | -.005985 | .015327 | .017948 | -.020206 |

RUN NC 103B 46M 7-4-63 1637-1753(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.95419 10E 00 | 0.65273 10E 00 | 0.65555 10E-01 | 0.69001 10E 00 | 0.69299 10E-01 | 0.47406 10E-01 |
| 1 | -.005777 | -.036063 | -.021531 | -.010721 | -.024406 | .002409 |
| 2 | -.007229 | -.057848 | -.039617 | -.021828 | -.047252 | .013014 |
| 3 | -.007677 | -.067159 | -.056635 | -.030044 | -.066456 | .016315 |
| 4 | -.011579 | -.069054 | -.070417 | -.044385 | -.078937 | .010921 |
| 5 | -.018259 | -.070824 | -.078447 | -.050963 | -.089490 | .008914 |
| 6 | -.026803 | -.078188 | -.084716 | -.055442 | -.088753 | .012062 |
| 7 | -.031276 | -.084783 | -.090028 | -.058321 | -.084702 | .019611 |
| 8 | -.033338 | -.091017 | -.091270 | -.057150 | -.086080 | .019273 |
| 9 | -.035710 | -.093560 | -.095229 | -.055886 | -.090407 | .014070 |
| 10 | -.034879 | -.093867 | -.098898 | -.050403 | -.087887 | .003791 |
| 11 | -.032241 | -.088826 | -.102090 | -.048472 | -.079044 | .000236 |
| 12 | -.034186 | -.080340 | -.102362 | -.053828 | -.070968 | -.002280 |
| 13 | -.037723 | -.066131 | -.096404 | -.050313 | -.068833 | .002286 |
| 14 | -.039950 | -.050442 | -.087015 | -.040070 | -.071242 | .005655 |
| 15 | -.040111 | -.032521 | -.074356 | -.036839 | -.071706 | .011438 |
| 16 | -.041202 | -.013555 | -.061014 | -.037502 | -.063639 | .013721 |
| 17 | -.038567 | -.000392 | -.048874 | -.032919 | -.057168 | .018142 |
| 18 | -.035131 | .008674 | -.034204 | -.029033 | -.046158 | .017762 |
| 19 | -.036278 | .020489 | -.018736 | -.023302 | -.032123 | .017899 |
| 20 | -.036617 | .028205 | -.002582 | -.017142 | -.018993 | .018790 |
| 21 | -.032850 | .033118 | .010442 | -.009590 | -.009746 | .015183 |
| 22 | -.027595 | .043278 | .014287 | .002610 | -.005142 | .009064 |
| 23 | -.023758 | .050448 | .019699 | .015165 | -.006566 | .004314 |
| 24 | -.021070 | .050009 | .024319 | .032437 | -.011006 | .005540 |
| 25 | -.017824 | .044016 | .026755 | .040878 | -.014721 | .013353 |
| 26 | -.011801 | .035428 | .027379 | .039331 | -.012841 | .019623 |
| 27 | -.006690 | .032823 | .025018 | .032880 | -.008377 | .024930 |
| 28 | .001157 | .032045 | .020174 | .029268 | .006219 | .027624 |
| 29 | .014264 | .033824 | .017593 | .026622 | .017834 | .030089 |
| 30 | .026879 | .029614 | .018956 | .023702 | .033663 | .028651 |
| 31 | .031426 | .024860 | .025430 | .031207 | .045630 | .027481 |
| 32 | .037780 | .021514 | .029649 | .038574 | .056608 | .025666 |
| 33 | .044117 | .016282 | .031152 | .038432 | .061223 | .020205 |
| 34 | .049261 | .007247 | .027672 | .035475 | .063084 | .019459 |
| 35 | .051039 | .001511 | .020167 | .029678 | .059503 | .013260 |
| 36 | .053244 | -.005351 | .014723 | .031137 | .062829 | .010254 |
| 37 | .055515 | -.009693 | .010229 | .035909 | .064644 | .010107 |
| 38 | .061856 | -.016203 | .001658 | .036755 | .061347 | .008544 |
| 39 | .071111 | -.027205 | -.007633 | .035827 | .55321 | .005425 |
| 40 | .074473 | -.035481 | -.016873 | .028094 | .042736 | .003074 |
| 41 | .065453 | -.037693 | -.021747 | .017147 | .027827 | .005562 |
| 42 | .053758 | -.037365 | -.026953 | .007292 | .014528 | .005082 |
| 43 | .041079 | -.031644 | -.028546 | .000048 | .005496 | -.001071 |
| 44 | .029927 | -.024340 | -.029516 | -.003826 | -.001153 | -.007947 |
| 45 | .020541 | -.016887 | -.031983 | -.010231 | -.004597 | -.012122 |
| 46 | .013626 | -.012773 | -.031014 | -.010803 | -.008180 | -.013011 |
| 47 | .005299 | -.008496 | -.028690 | -.012507 | -.010257 | -.017193 |
| 48 | .001292 | -.001038 | -.022635 | -.022781 | -.009616 | -.027901 |
| 49 | .000567 | .001220 | -.016823 | -.031650 | -.010798 | -.030974 |
| 50 | .002205 | .006201 | -.015365 | -.032852 | -.011070 | -.024629 |
| 51 | .005828 | .007204 | -.018083 | -.029998 | -.011459 | -.019087 |
| 52 | .002858 | .007600 | -.016674 | -.032266 | -.012849 | -.023550 |
| 53 | -.000761 | .010872 | -.021328 | -.029060 | -.016810 | -.021283 |
| 54 | -.002426 | .015481 | -.017753 | -.022847 | -.018666 | -.017159 |
| 55 | -.001905 | .023521 | -.012587 | -.022912 | -.016572 | -.016150 |
| 56 | .001549 | .027152 | -.006987 | -.023392 | -.015511 | -.014827 |
| 57 | .000094 | .029124 | -.000046 | -.019333 | -.019823 | -.013820 |
| 58 | -.010862 | .026797 | .013900 | -.011237 | -.021881 | -.018177 |
| 59 | -.023053 | .026772 | .023230 | -.001477 | -.017366 | -.020103 |
| 60 | -.027603 | .031501 | .028791 | .007131 | -.016025 | -.021686 |

RUN NC 1038 46M 7-4-63 1637-1753(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.90263 10E 00 | 0.10087 10E 01 | 0.47202 10E 00 | 0.47610 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .886552 | .840414 | .782314 | .785681 |
| 2 | .743147 | .649825 | .527140 | .585336 |
| 3 | .618170 | .512081 | .345631 | .461885 |
| 4 | .509270 | .400375 | .218762 | .377139 |
| 5 | .413074 | .299506 | .124485 | .293650 |
| 6 | .323615 | .213243 | .064813 | .222886 |
| 7 | .237255 | .141516 | .020607 | .161884 |
| 8 | .167443 | .078385 | -.004305 | .111606 |
| 9 | .094684 | .023160 | -.024155 | .069995 |
| 10 | .026304 | -.025687 | -.045353 | .029442 |
| 11 | -.037475 | -.067698 | -.078291 | -.008138 |
| 12 | -.096748 | -.097123 | -.116356 | -.036293 |
| 13 | -.147858 | -.129166 | -.143075 | -.071554 |
| 14 | -.190172 | -.165726 | -.151805 | -.099091 |
| 15 | -.228829 | -.199308 | -.166550 | -.137271 |
| 16 | -.265524 | -.217745 | -.178411 | -.167363 |
| 17 | -.292692 | -.228666 | -.177861 | -.198377 |
| 18 | -.317788 | -.244968 | -.177214 | -.218951 |
| 19 | -.339482 | -.257571 | -.184788 | -.241912 |
| 20 | -.355561 | -.259768 | -.187415 | -.263001 |
| 21 | -.364888 | -.262082 | -.189485 | -.282168 |
| 22 | -.372520 | -.272990 | -.189418 | -.281625 |
| 23 | -.374661 | -.282965 | -.187729 | -.282767 |
| 24 | -.370418 | -.287701 | -.180017 | -.286583 |
| 25 | -.353812 | -.286803 | -.172309 | -.277278 |
| 26 | -.328677 | -.277441 | -.157882 | -.263909 |
| 27 | -.299057 | -.266196 | -.144510 | -.251098 |
| 28 | -.266138 | -.245582 | -.132758 | -.234479 |
| 29 | -.229752 | -.210686 | -.106048 | -.217524 |
| 30 | -.191161 | -.168724 | -.058259 | -.192856 |
| 31 | -.145532 | -.116804 | -.006465 | -.149643 |
| 32 | -.101993 | -.073187 | .023865 | -.113528 |
| 33 | -.059689 | -.042430 | .044552 | -.086288 |
| 34 | -.020529 | -.015355 | .050418 | -.061909 |
| 35 | .008962 | .013482 | .053402 | -.030403 |
| 36 | .028824 | .041423 | .045913 | -.003544 |
| 37 | .043639 | .064268 | .024774 | .018550 |
| 38 | .053218 | .079400 | -.003690 | .023708 |
| 39 | .062133 | .087307 | -.016863 | .034331 |
| 40 | .076116 | .083830 | -.016566 | .044938 |
| 41 | .091904 | .076574 | -.007798 | .050003 |
| 42 | .109291 | .068418 | -.003620 | .045195 |
| 43 | .118576 | .058734 | -.007660 | .053232 |
| 44 | .123980 | .048213 | -.002889 | .056898 |
| 45 | .122166 | .034064 | .001321 | .057747 |
| 46 | .116957 | .019725 | .004481 | .057293 |
| 47 | .112665 | .007275 | .016974 | .058411 |
| 48 | .110150 | .000246 | .028578 | .047722 |
| 49 | .102081 | .002975 | .030887 | .048085 |
| 50 | .090650 | -.004266 | .025798 | .043524 |
| 51 | .075416 | -.018244 | .023252 | .045333 |
| 52 | .060591 | -.019090 | .022754 | .039568 |
| 53 | .047010 | -.010003 | .017511 | .038156 |
| 54 | .033909 | .001306 | .011201 | .027324 |
| 55 | .022754 | .009902 | .014839 | .018836 |
| 56 | .011433 | .012022 | .011057 | .022601 |
| 57 | .001910 | .015921 | .019967 | .017389 |
| 58 | -.002529 | .022621 | .011810 | .006143 |
| 59 | -.004042 | .028785 | -.000824 | .005077 |
| 60 | -.007585 | .025568 | -.003345 | .004304 |

RUN NC 103B 46M 7-4-63 1637-1753(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 0 | .001726 | -.033494 | -.021731 | -.003731 | -.040213 | -.000286 |
| 1 | .254978 | -.450393 | -.356619 | -.041799 | -.494178 | .042964 |
| 2 | .521414 | -.649726 | -.551841 | -.076082 | -.705536 | .127860 |
| 3 | .505848 | -.644212 | -.504390 | -.111084 | -.715542 | .161087 |
| 4 | .126513 | -.321546 | -.161226 | -.099085 | -.340804 | .064948 |
| 5 | -.005103 | -.148563 | -.037226 | -.069405 | -.137814 | .012697 |
| 6 | .015442 | -.109840 | -.052378 | -.050432 | -.141832 | .002431 |
| 7-8 | .033840 | -.094171 | -.051496 | -.034181 | -.089420 | -.009597 |
| 9-11 | .017643 | -.053489 | -.022306 | -.015026 | -.064830 | -.002111 |
| 12-15 | -.001303 | -.031078 | -.004854 | -.000607 | -.031860 | -.007355 |
| 16-20 | .005676 | -.016058 | -.007757 | -.010542 | -.028081 | .003978 |
| 21-27 | .003919 | -.006134 | -.001200 | -.000486 | -.017523 | -.007097 |
| 28-36 | -.001422 | -.004035 | -.000404 | -.001695 | -.013464 | -.000330 |
| 37-47 | -.001002 | -.001654 | .000753 | -.002060 | -.005500 | -.000969 |
| 48-60 | -.000405 | -.001385 | .000264 | .001005 | -.004833 | -.001510 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-03 |
| 1 | -.081353 | -.054930 | -.156390 | -.039365 | -.142007 | .644876 |
| 2 | -.201056 | -.107849 | -.190038 | -.127537 | -.235160 | .272420 |
| 3 | -.135238 | -.213445 | -.247673 | -.174093 | -.239250 | -.038637 |
| 4 | .027756 | -.208341 | -.167258 | -.085861 | -.102790 | .069037 |
| 5 | .011659 | -.094337 | -.053063 | -.023169 | -.062828 | .151897 |
| 6 | -.021378 | -.028906 | -.009119 | -.009565 | -.068948 | .074584 |
| 7-8 | .002824 | .003007 | .010566 | -.015820 | -.013175 | .092962 |
| 9-11 | .003894 | -.010953 | -.016900 | -.000637 | -.028128 | .029579 |
| 12-15 | .006812 | -.019292 | -.004171 | -.000153 | .000540 | -.014583 |
| 16-20 | -.004489 | -.008626 | .002530 | .003879 | -.000356 | .052703 |
| 21-27 | -.002492 | -.002911 | -.001027 | .000060 | .001808 | -.016815 |
| 28-36 | -.000433 | -.000808 | -.000144 | -.001590 | -.000917 | -.022340 |
| 37-47 | -.000913 | -.000456 | -.000796 | .000035 | .000932 | -.010010 |
| 48-60 | .000358 | .000200 | -.000012 | .001092 | -.000985 | .003388 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E-01 | 10E-03 |
| 0 | .010984 | .008855 | .026280 | .056651 |
| 1 | .124091 | .113922 | .343367 | .598275 |
| 2 | .183868 | .166011 | .515485 | .797365 |
| 3 | .200102 | .184729 | .636274 | .799146 |
| 4 | .110137 | .110047 | .484456 | .424270 |
| 5 | .049011 | .057249 | .290719 | .211212 |
| 6 | .039172 | .058412 | .247210 | .208880 |
| 7-8 | .031630 | .042975 | .245019 | .185228 |
| 9-11 | .016636 | .025730 | .169388 | .124928 |
| 12-15 | .011006 | .015296 | .123436 | .076835 |
| 16-20 | .006398 | .010568 | .065513 | .057318 |
| 21-27 | .004282 | .006771 | .047225 | .044934 |
| 28-36 | .002468 | .004934 | .028357 | .031104 |
| 37-47 | .001827 | .002839 | .017935 | .020746 |
| 48-60 | .001145 | .001816 | .011982 | .015723 |

RUN NO 103B 46M 7-4-63 1637-1753(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10446 10E-01 | 0.59150 10E-01 | 0.80789 10E-01 | 0.50749 10E-01 | 0.69315 10E-01 | 0.39248 10E-01 |
| 0 | .118961 | -.581366 | -.347058 | -.080214 | -.590006 | .107631 |
| 1 | .059537 | -.325874 | -.232681 | -.017696 | -.334554 | .052164 |
| 2 | -.022569 | -.100305 | -.086620 | -.007701 | -.131849 | -.011413 |
| 3 | -.042826 | -.021602 | -.026852 | -.015202 | -.038851 | .000395 |
| 4 | -.002750 | -.013021 | -.044432 | .011914 | -.051476 | .049272 |
| 5 | .052530 | -.012489 | -.044621 | .014859 | -.008900 | .025893 |
| 6 | -.005732 | .047727 | .037378 | -.010761 | .029209 | -.016878 |
| 7 | -.057186 | .091906 | .092580 | .015928 | .050393 | -.028964 |
| 8 | -.030645 | .107277 | .117007 | -.007227 | .085630 | -.023053 |
| 9 | -.027787 | .114041 | .134411 | -.034474 | .099703 | -.017886 |
| 10 | -.059052 | .145467 | .124056 | .017818 | .164296 | -.015349 |
| 11 | -.073986 | .126225 | .131403 | .081389 | .203791 | -.041881 |
| 12 | -.065146 | .134092 | .134662 | .050309 | .160413 | -.047986 |
| 13 | -.066953 | .124302 | .137185 | .012605 | .128038 | -.043680 |
| 14 | -.049585 | .079584 | .110214 | .039669 | .128345 | -.078918 |
| 15 | -.013752 | .027545 | .077091 | .005365 | .078676 | -.023533 |
| 16 | -.007149 | .051277 | .050693 | .029239 | .023243 | -.066337 |
| 17 | .006963 | .022598 | .040408 | .026403 | .003525 | -.041679 |
| 18 | .055940 | -.023817 | -.049628 | -.002243 | -.068590 | .018690 |
| 19 | .057146 | -.078515 | -.141021 | -.023767 | -.083620 | .061827 |
| 20 | .045221 | -.059522 | -.157419 | .016040 | -.112764 | .043651 |
| 21 | .109154 | -.057965 | -.176129 | .048748 | -.103178 | .078630 |
| 22 | .117932 | -.058648 | -.179397 | .028594 | -.132951 | .055416 |
| 23 | .114504 | -.113884 | -.167218 | -.073406 | -.137856 | .086215 |
| 24 | .072478 | -.060447 | -.097831 | -.034220 | -.047253 | .061511 |
| 25 | .067176 | .056714 | -.044887 | -.072375 | .071093 | .024247 |
| 26 | .064955 | .033342 | -.004011 | -.082862 | .113481 | .009341 |
| 27 | .032964 | .022140 | .054367 | -.085518 | .102029 | .026225 |
| 28 | .064219 | .024705 | .021164 | -.091403 | .066193 | -.013700 |
| 29 | .007901 | .055259 | .065349 | -.024767 | .048036 | -.041425 |
| 30 | -.060770 | .027532 | .097369 | .019195 | .056875 | -.037542 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | -.033277 | -.017471 | .004114 | .104507 | -.044313 | -.036100 |
| 1 | -.127434 | -.238095 | -.119679 | -.121040 | -.345624 | .128345 |
| 2 | .152482 | -.414914 | -.481080 | -.639548 | -.552992 | .749060 |
| 3 | .278071 | -.517565 | -.653809 | -.448569 | -.678918 | .785059 |
| 4 | .036446 | -.317399 | -.249271 | -.029038 | -.329035 | -.021176 |
| 5 | -.031917 | -.184803 | -.106322 | .018396 | -.139634 | .030273 |
| 6 | .030479 | -.180850 | -.155846 | -.143392 | -.205433 | .283524 |
| 7 | .060493 | -.169872 | -.069224 | -.533576 | -.219153 | .032067 |
| 8 | .086364 | -.177042 | -.079749 | -.414766 | -.235481 | -.055179 |
| 9-11 | .109384 | -.161899 | -.141243 | .064311 | -.172490 | .159158 |
| 12-14 | .157545 | -.143863 | -.137158 | -.263207 | -.154936 | .460184 |
| 15-21 | -.002737 | -.066924 | -.026233 | -.178851 | -.078188 | .139698 |
| 22-30 | .014183 | -.043923 | -.020801 | -.122217 | -.055521 | .014357 |

RUN NC 1038 46M 7-4-63 1637-1753(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.10446 10E 01 | 0.59150 10E 00 | 0.80789 10E-01 | 0.50749 10E 00 | 0.69315 10E-01 | 0.39248 10E-01 |
| 1 | -.020265 | -.063611 | -.097435 | -.037961 | -.094832 | .062100 |
| 2 | .016939 | .024578 | -.089780 | .014127 | -.077896 | .087811 |
| 3 | .074248 | .027071 | -.102245 | .054913 | -.042721 | .113623 |
| 4 | .080035 | .006998 | -.096971 | .033907 | -.032037 | .089471 |
| 5 | .032139 | .025911 | -.065603 | -.000044 | -.097836 | .038005 |
| 6 | .020660 | .040487 | -.038701 | -.005238 | -.053589 | .028363 |
| 7 | .023264 | .012330 | -.032769 | .034480 | -.024444 | .046401 |
| 8 | -.013488 | -.011934 | -.025223 | -.036066 | -.023836 | .011610 |
| 9 | .024345 | .007709 | -.059515 | -.029247 | -.007681 | .030292 |
| 10 | .109979 | .027750 | -.098068 | .114997 | .024507 | .067515 |
| 11 | .123603 | .005300 | -.107730 | .116937 | .059882 | .066112 |
| 12 | .040459 | -.023520 | -.074340 | .025870 | .008869 | .049440 |
| 13 | .034419 | -.011164 | -.049820 | .026310 | .011266 | -.000943 |
| 14 | .030852 | .016762 | -.050477 | -.000319 | .023721 | .043098 |
| 15 | -.007870 | -.002058 | -.010142 | .020670 | .036870 | .065162 |
| 16 | -.035420 | -.021032 | .022968 | .002530 | .020599 | .043879 |
| 17 | -.054905 | -.030244 | .085217 | -.025844 | .019647 | -.035287 |
| 18 | -.053567 | -.043774 | .137295 | .021149 | .022849 | -.069756 |
| 19 | -.075096 | -.018348 | .104776 | -.043968 | .002618 | -.055744 |
| 20 | -.052727 | -.011975 | .097415 | -.038756 | -.023521 | -.043644 |
| 21 | -.023863 | -.027944 | .067672 | -.026208 | .022333 | -.068849 |
| 22 | -.010998 | -.006427 | .050462 | -.056060 | .039978 | -.052850 |
| 23 | -.006198 | -.014643 | .025093 | -.057594 | .067866 | -.065302 |
| 24 | -.039406 | -.006550 | .008711 | -.059694 | .028372 | -.054653 |
| 25 | -.010644 | .014450 | -.043543 | -.029793 | .015493 | -.029847 |
| 26 | .017776 | .019586 | -.061187 | -.011949 | -.005094 | -.015192 |
| 27 | -.000383 | .032645 | -.048937 | -.005805 | .003279 | -.020510 |
| 28 | -.099347 | .034214 | -.009196 | -.077018 | -.053350 | .001732 |
| 29 | -.086664 | .056300 | -.004426 | -.071323 | -.063290 | -.019777 |
| 30 | -.036042 | .014512 | -.023258 | -.052230 | -.050917 | -.006722 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|---------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .243519 | .047915 | -.271803 | .850262 | -.001292 | .121542 |
| 2 | .275105 | .474580 | -.344362 | .765861 | -.093155 | .126239 |
| 3 | .117816 | .478082 | -.193772 | -.025745 | -.147605 | .065121 |
| 4 | -.068958 | .087810 | .011283 | -.350248 | -.136812 | .035899 |
| 5 | .037246 | .069158 | -.130626 | .127284 | -.081378 | .078371 |
| 6 | .179976 | .014640 | -.227605 | .507903 | -.034273 | .074641 |
| 7 | .126158 | -.180542 | -.136650 | .609173 | -.036208 | .048671 |
| 8 | .002288 | -.237302 | -.074754 | .145000 | -.027434 | .044081 |
| 9-11 | -.121374 | -.282789 | -.008364 | -.495995 | -.072713 | .004407 |
| 12-14 | -.014962 | -.015776 | -.044501 | .004906 | -.044218 | .007566 |
| 15-21 | -.028917 | -.519019 | -.029671 | -.249314 | -.026325 | .001189 |
| 22-30 | -.003073 | -.163276 | -.017103 | -.082160 | -.004732 | .002310 |

RUN NC 1038 46M 7-4-63 1637-1753(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.12175 10E 01 | 0.89626 10E 00 | 0.28735 10E 00 | 0.53606 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .580834 | .443882 | .257347 | .566684 |
| 2 | .271125 | .104311 | .010582 | .263424 |
| 3 | .156256 | .005787 | .012225 | .112096 |
| 4 | .112663 | .022292 | -.073315 | .065342 |
| 5 | .044762 | -.020917 | -.077572 | -.015710 |
| 6 | -.089802 | -.015506 | -.030435 | -.087349 |
| 7 | -.185762 | -.028083 | -.075432 | -.157771 |
| 8 | -.227195 | -.094450 | -.050546 | -.200698 |
| 9 | -.256987 | -.125213 | -.121981 | -.211294 |
| 10 | -.264657 | -.167157 | -.172743 | -.248976 |
| 11 | -.250073 | -.171619 | -.144753 | -.232337 |
| 12 | -.264159 | -.154930 | -.117621 | -.209573 |
| 13 | -.249644 | -.144006 | -.114226 | -.199160 |
| 14 | -.179658 | -.138121 | -.073445 | -.148513 |
| 15 | -.124496 | -.081510 | .003610 | -.144575 |
| 16 | -.120729 | .061914 | .032248 | -.099427 |
| 17 | -.096880 | .018793 | .051848 | -.063386 |
| 18 | -.015752 | -.003190 | .045152 | .070943 |
| 19 | .091531 | -.008977 | .105054 | .146851 |
| 20 | .107527 | -.008683 | .020221 | .183903 |
| 21 | .117835 | -.002706 | .001740 | .175713 |
| 22 | .124984 | .032335 | .005916 | .172080 |
| 23 | .153758 | .093897 | .038703 | .146195 |
| 24 | .071041 | -.006531 | .007400 | .041340 |
| 25 | -.054015 | -.101369 | .002656 | -.046552 |
| 26 | -.046659 | -.107200 | -.008108 | -.115563 |
| 27 | -.045144 | .013306 | .056259 | -.152580 |
| 28 | -.003003 | -.017593 | -.009796 | -.100348 |
| 29 | .005463 | -.048503 | -.070281 | -.076325 |
| 30 | .036220 | -.054288 | -.020970 | -.089635 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-03 |
| 0 | .007062 | .095334 | .007933 | .051445 |
| 1 | .115523 | .720930 | .098473 | .450666 |
| 2 | .184560 | .867994 | .179018 | .712899 |
| 3 | .208828 | .970323 | .255535 | .878762 |
| 4 | .120263 | .652017 | .192368 | .513028 |
| 5 | .067566 | .379343 | .108725 | .311479 |
| 6 | .057286 | .405260 | .122169 | .320576 |
| 7 | .040280 | .532222 | .166156 | .221869 |
| 8 | .041506 | .548425 | .163253 | .210527 |
| 9-11 | .043657 | .447798 | .128917 | .208769 |
| 12-14 | .043436 | .316777 | .098043 | .172347 |
| 15-21 | .023440 | .255170 | .116643 | .104379 |
| 22-30 | .017874 | .183222 | .098672 | .083015 |

RUN NO 1038 91M 7-4-63 1637-1753(EST)

GROSS STATISTICS

| | | |
|----------------------|------------------------|------------------|
| I CU TRANSITIONAL | WIND SPEED 7.64 M/SEC | SIGMA A 8.90 DEG |
| | WIND DIRECTION 294 DEG | SIGMA E 5.9 DEG |
| | SOLAR RAD. 0.41 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| L | 0.22668E 01 | 0.11329E 01 | 0.56177E 00 | 0.91262E 00 |
| V | 0.14933E 01 | 0.11581E 01 | 0.85150E 00 | 0.82237E 00 |
| W | 0.57839E 00 | 0.55563E 00 | 0.44764E-00 | 0.29561E-00 |
| T | 0.18574E-01 | 0.86029E-02 | 0.44757E-02 | 0.66193E-02 |
| E | 0.21693E 01 | 0.14235E 01 | 0.93051E 00 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| L | 0.19707 | 0.13931 | 0.09810 | 0.12504 |
| V | 0.15995 | 0.14086 | 0.12079 | 0.11870 |
| W | 0.09954 | 0.09757 | 0.08757 | 0.07117 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| L,V | 0.32042E-00 | 0.18962E-00 | 0.93249E-01 | 0.16922E-00 |
| L,W | -0.31335E-00 | -0.31450E-00 | -0.13810E-00 | -0.26439E-00 |
| L,T | -0.11981E-00 | -0.31610E-01 | -0.67076E-02 | -0.29186E-01 |
| V,W | -0.58029E-01 | -0.68607E-01 | -0.21655E-01 | -0.56126E-01 |
| V,T | -0.78253E-01 | -0.37994E-01 | -0.21449E-01 | -0.32736E-01 |
| W,T | -0.95991E-03 | 0.15497E-02 | -0.48510E-02 | 0.42003E-02 |
| WE | 0.10991E-00 | 0.45834E-01 | 0.42506E-01 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| L,V | 0.17416 | 0.16555 | 0.13482 | 0.19533 |
| L,W | -0.27366 | -0.39641 | -0.27538 | -0.50903 |
| L,T | -0.58390 | -0.32020 | -0.13377 | -0.37551 |
| V,W | -0.06244 | -0.08553 | -0.03507 | -0.11383 |
| V,T | -0.46987 | -0.38064 | -0.34742 | -0.46370 |
| W,T | -0.00926 | 0.02242 | -0.10838 | 0.09495 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM + COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.69159 10E 00 | 0.50149 10E 00 | 0.50147 10E-01 | 0.61735 10E 00 | 0.61734 10E-01 | 0.44765 10E-01 |
| 0 | .134777 | -.275359 | -.133437 | -.035105 | -.347047 | -.108362 |
| 1 | .130074 | -.260164 | -.123774 | -.034461 | -.321325 | -.088330 |
| 2 | .119385 | -.225505 | -.109216 | -.032272 | -.288151 | -.057572 |
| 3 | .109666 | -.189746 | -.092626 | -.025009 | -.257279 | -.036508 |
| 4 | .095346 | -.155156 | -.080767 | -.013845 | -.227498 | -.022004 |
| 5 | .074974 | -.121193 | -.071914 | .001534 | -.202791 | -.009265 |
| 6 | .054649 | -.094588 | -.063342 | .020305 | -.177190 | .003001 |
| 7 | .035155 | -.072968 | -.055236 | .032107 | -.155937 | .009349 |
| 8 | .018032 | -.054315 | -.045825 | .037527 | -.134517 | .015264 |
| 9 | .003881 | -.038667 | -.035806 | .036221 | -.109407 | .020803 |
| 10 | -.010771 | -.018983 | -.028607 | .026685 | -.081323 | .021361 |
| 11 | -.026478 | -.002624 | -.018843 | .015849 | -.053818 | .014240 |
| 12 | -.035772 | .005673 | -.005234 | .005148 | -.023484 | .010321 |
| 13 | -.042150 | .010952 | .012655 | -.000372 | .004255 | .011093 |
| 14 | -.045770 | .016709 | .031388 | .000105 | .024682 | .013011 |
| 15 | -.047764 | .022284 | .043042 | .000442 | .048107 | .016720 |
| 16 | -.054060 | .028041 | .054197 | .002525 | .073726 | .020300 |
| 17 | -.058559 | .040592 | .060825 | .002930 | .097791 | .017676 |
| 18 | -.060107 | .046046 | .064189 | .001742 | .116864 | .015826 |
| 19 | -.060774 | .053252 | .068112 | .000211 | .127619 | .019061 |
| 20 | -.060737 | .060659 | .070697 | .001245 | .137169 | .022116 |
| 21 | -.063006 | .072694 | .067896 | -.001388 | .147880 | .027357 |
| 22 | -.063857 | .085385 | .065851 | -.004781 | .160443 | .026337 |
| 23 | -.066441 | .094161 | .066099 | -.006029 | .171681 | .019782 |
| 24 | -.063886 | .098633 | .064052 | -.006931 | .176833 | .020560 |
| 25 | -.059385 | .105508 | .058252 | -.006689 | .179257 | .020606 |
| 26 | -.052319 | .113629 | .051186 | -.003572 | .173826 | .014520 |
| 27 | -.047429 | .117164 | .048463 | -.003195 | .162363 | .001599 |
| 28 | -.043041 | .118610 | .045409 | -.006780 | .145403 | -.009234 |
| 29 | -.039439 | .113606 | .041338 | -.014637 | .128817 | -.017665 |
| 30 | -.033842 | .108987 | .032596 | .020384 | .109684 | -.026853 |
| 31 | -.028022 | .106007 | .022227 | .018210 | .092146 | -.033359 |
| 32 | -.018894 | .100160 | .010644 | .011562 | .075227 | -.030362 |
| 33 | -.006701 | .088382 | -.001393 | .005725 | .060877 | -.020552 |
| 34 | .005568 | .076716 | -.014746 | .003168 | .049075 | -.010125 |
| 35 | .017777 | .070864 | -.027133 | .000494 | .034624 | -.005379 |
| 36 | .028804 | .061996 | -.033137 | -.005949 | .026300 | -.000750 |
| 37 | .041541 | .047813 | -.039529 | -.015080 | .024677 | .002346 |
| 38 | .054758 | .026945 | -.047877 | -.025150 | .021130 | .005779 |
| 39 | .063877 | .008068 | -.056361 | -.029641 | .015155 | .012013 |
| 40 | .066935 | -.007532 | -.060043 | -.026429 | .005587 | .016725 |
| 41 | .068824 | -.018160 | -.061758 | -.020942 | -.000161 | .020074 |
| 42 | .064664 | -.024558 | -.065011 | -.015015 | -.005855 | .026185 |
| 43 | .054098 | -.031631 | -.063414 | -.011039 | -.011172 | .033424 |
| 44 | .042339 | -.041132 | -.062367 | -.009093 | -.012892 | .037117 |
| 45 | .031992 | -.046279 | -.055371 | -.009011 | .016880 | .038205 |
| 46 | .025954 | -.048247 | -.046040 | -.010110 | -.017894 | .040288 |
| 47 | .024917 | -.047895 | -.038471 | -.006883 | -.016018 | .037858 |
| 48 | .027953 | -.047339 | -.031770 | -.004974 | -.011988 | .033089 |
| 49 | .026732 | -.047362 | -.025444 | -.006934 | -.007102 | .023062 |
| 50 | .022600 | -.044253 | -.018480 | -.009841 | -.003814 | .011285 |
| 51 | .018799 | -.044104 | -.009551 | -.013717 | .000617 | .000702 |
| 52 | .013716 | -.047257 | -.000465 | -.021967 | .005720 | -.003481 |
| 53 | .009262 | -.049987 | .011245 | -.031573 | .013384 | -.002887 |
| 54 | .001065 | -.046911 | .023203 | -.034211 | .019814 | -.003677 |
| 55 | -.007190 | -.041251 | .031596 | -.043471 | .018723 | -.004691 |
| 56 | -.014706 | -.035697 | .043238 | -.042302 | .013328 | -.007186 |
| 57 | -.018944 | -.036232 | .054451 | -.035405 | .006168 | -.013538 |
| 58 | -.020417 | -.042052 | .063765 | -.027911 | -.001965 | -.015902 |
| 59 | -.025352 | -.044879 | .066592 | -.018565 | -.008924 | -.011540 |
| 60 | -.029151 | -.048239 | .061716 | -.005830 | -.015998 | -.011425 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.69159 10E 00 | 0.50149 10E 00 | 0.50147 10E-01 | 0.61735 10E 00 | 0.61734 10E-01 | 0.44765 10E-01 |
| 1 | .015661 | -.029720 | -.028678 | .000100 | -.021056 | .017757 |
| 2 | .025781 | -.054496 | -.047737 | -.000035 | -.038103 | .037612 |
| 3 | .036129 | -.074900 | -.063511 | -.002601 | -.050524 | .053464 |
| 4 | .041180 | -.092565 | -.071765 | -.007089 | -.059700 | .057194 |
| 5 | .045484 | -.095504 | -.078527 | -.013686 | -.068007 | .054869 |
| 6 | .051536 | -.093101 | -.085479 | -.018843 | -.073939 | .046186 |
| 7 | .056312 | -.089293 | -.092153 | -.017728 | -.078580 | .043131 |
| 8 | .057291 | -.086737 | -.097410 | -.013944 | -.080338 | .046664 |
| 9 | .060337 | -.085101 | -.100072 | -.008497 | -.079648 | .049685 |
| 10 | .061765 | -.080167 | -.100879 | -.004393 | -.081004 | .056287 |
| 11 | .056263 | -.074302 | -.103828 | -.001486 | -.084790 | .061120 |
| 12 | .047047 | -.068300 | -.099712 | -.000028 | -.090693 | .064221 |
| 13 | .040905 | -.065830 | -.093362 | -.001330 | -.095975 | .063611 |
| 14 | .039483 | -.059309 | -.089630 | -.010151 | -.099233 | .064379 |
| 15 | .035618 | -.054787 | -.091145 | -.018650 | -.105021 | .057652 |
| 16 | .036188 | -.045474 | -.095350 | .033525 | -.105172 | .053667 |
| 17 | .043558 | -.032979 | -.096453 | .044868 | -.097397 | .043361 |
| 18 | .046385 | -.020206 | -.090572 | .052878 | -.089861 | .034707 |
| 19 | .044080 | -.009907 | -.083398 | .059359 | -.084756 | .026344 |
| 20 | .040084 | -.004201 | -.078533 | .061262 | -.081531 | .020658 |
| 21 | .032138 | .003386 | -.070839 | .063959 | -.079948 | .020516 |
| 22 | .024954 | .011822 | -.065884 | .065377 | -.081126 | .021026 |
| 23 | .020486 | .021155 | -.060638 | .065767 | -.080298 | .023034 |
| 24 | .014307 | .030066 | -.053883 | .063151 | -.075526 | .026273 |
| 25 | .010332 | .040207 | -.046185 | .056866 | -.065385 | .028008 |
| 26 | .001784 | .047648 | -.036732 | .047815 | -.054529 | .024419 |
| 27 | -.006653 | .048414 | -.025332 | .033464 | -.039257 | .015713 |
| 28 | -.011661 | .044458 | -.013145 | .018957 | -.023743 | .006319 |
| 29 | -.014687 | .044477 | -.000929 | .005886 | -.007351 | -.001060 |
| 30 | -.021126 | .040607 | -.013309 | -.007281 | .007681 | -.004669 |
| 31 | -.024178 | .038848 | .026416 | -.011435 | .020772 | -.003723 |
| 32 | -.025767 | .038811 | .036482 | -.009145 | .031957 | -.003495 |
| 33 | -.026434 | .041130 | .042485 | -.006817 | .040955 | -.007448 |
| 34 | -.030695 | .033274 | .046205 | -.008226 | .051317 | -.011673 |
| 35 | -.033156 | .021098 | .053756 | -.015699 | .060688 | -.011222 |
| 36 | -.031725 | .013009 | .059111 | -.025179 | .065633 | -.011167 |
| 37 | -.028085 | .010708 | .057199 | -.031049 | .067025 | -.008803 |
| 38 | -.024831 | .007156 | .053949 | -.035162 | .068414 | -.004757 |
| 39 | -.021229 | .003597 | .048816 | -.041383 | .065647 | -.003918 |
| 40 | -.016846 | -.001117 | .045195 | -.049676 | .058063 | -.011339 |
| 41 | -.010573 | -.004573 | .043750 | -.057218 | .052128 | -.024111 |
| 42 | -.006612 | -.004397 | .041008 | -.060702 | .044055 | -.034451 |
| 43 | -.008990 | -.002727 | .039714 | -.064674 | .030252 | -.038549 |
| 44 | -.013316 | -.004540 | .040080 | -.069153 | .017746 | -.040954 |
| 45 | -.017329 | -.004915 | .036862 | -.067082 | .007627 | -.036370 |
| 46 | -.019408 | -.004491 | .033059 | -.061165 | -.001810 | -.032316 |
| 47 | -.019823 | -.000398 | .032958 | -.051062 | -.004453 | -.034764 |
| 48 | -.015138 | .004691 | .033369 | -.034357 | -.005035 | -.039883 |
| 49 | -.009179 | .009970 | .029251 | -.014713 | -.007235 | -.039917 |
| 50 | -.005632 | .012674 | .021238 | .002980 | -.007749 | -.032842 |
| 51 | -.005329 | .013985 | .014283 | .019078 | -.005303 | -.024452 |
| 52 | -.002911 | .019257 | .000971 | .025327 | -.002608 | -.016135 |
| 53 | .000395 | .024761 | -.007421 | .026566 | .000275 | -.007573 |
| 54 | .000769 | .032301 | -.013242 | .027785 | .002307 | -.003045 |
| 55 | .006156 | .037173 | -.015673 | .034269 | -.000875 | .002524 |
| 56 | .018137 | .039666 | -.020824 | .043029 | -.006962 | .018648 |
| 57 | .024477 | .040683 | -.026657 | .046442 | -.011260 | .036714 |
| 58 | .032846 | .042452 | -.031707 | .047460 | -.012203 | .050042 |
| 59 | .041839 | .042587 | -.035918 | .046061 | -.010303 | .054911 |
| 60 | .046907 | .038127 | -.039751 | .037365 | -.004131 | .050521 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.56178 10E 00 | 0.85139 10E 00 | 0.44766 10E 00 | 0.44763 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .868438 | .882742 | .805180 | .849326 |
| 2 | .707564 | .723395 | .553378 | .680824 |
| 3 | .577087 | .591683 | .368846 | .555835 |
| 4 | .467357 | .481788 | .242988 | .450810 |
| 5 | .366007 | .384219 | .151106 | .367228 |
| 6 | .276075 | .304184 | .080394 | .286306 |
| 7 | .201453 | .234760 | .022467 | .218222 |
| 8 | .139774 | .165999 | -.030926 | .157428 |
| 9 | .083553 | .102502 | -.076784 | .102546 |
| 10 | .026512 | .048029 | -.111376 | .060270 |
| 11 | -.022086 | .003196 | -.129823 | .015170 |
| 12 | -.068043 | -.038199 | -.131477 | -.036099 |
| 13 | -.114923 | -.077982 | -.123433 | -.076626 |
| 14 | -.155863 | -.116515 | -.119181 | -.112922 |
| 15 | -.191248 | -.155754 | -.126912 | -.145497 |
| 16 | -.221858 | -.197381 | -.134428 | -.177518 |
| 17 | -.255233 | -.243643 | -.131594 | -.204504 |
| 18 | -.282056 | -.283541 | -.128877 | -.219476 |
| 19 | -.300138 | -.316081 | -.142334 | -.224516 |
| 20 | -.312936 | -.343519 | -.164063 | -.230672 |
| 21 | -.323594 | -.361801 | -.179668 | -.243863 |
| 22 | -.327132 | -.372009 | -.181917 | -.249604 |
| 23 | -.325457 | -.372576 | -.185298 | -.254982 |
| 24 | -.320317 | -.365959 | -.187081 | -.259918 |
| 25 | -.304180 | -.354885 | -.179419 | -.257292 |
| 26 | -.277850 | -.341245 | -.164785 | -.252488 |
| 27 | -.254748 | -.317733 | -.149810 | -.240231 |
| 28 | -.234788 | -.289738 | -.137991 | -.223275 |
| 29 | -.206982 | -.260593 | -.125333 | -.204584 |
| 30 | -.167946 | -.223405 | -.105429 | -.179552 |
| 31 | -.125445 | -.180451 | -.081084 | -.150600 |
| 32 | -.087532 | -.142161 | -.066727 | -.120249 |
| 33 | -.055546 | -.110010 | -.050599 | -.091091 |
| 34 | -.028035 | -.090289 | -.026406 | -.061359 |
| 35 | -.001569 | -.075853 | -.010856 | -.034306 |
| 36 | .017934 | -.063095 | -.000789 | -.024175 |
| 37 | .031701 | -.052509 | .006458 | -.034627 |
| 38 | .048476 | -.037309 | .009190 | -.042650 |
| 39 | .061572 | -.018500 | .007159 | -.039401 |
| 40 | .068054 | .002395 | .010979 | -.029717 |
| 41 | .068393 | .019586 | .015041 | -.024211 |
| 42 | .072768 | .035605 | .015518 | -.020734 |
| 43 | .072705 | .050470 | .011651 | -.017494 |
| 44 | .074470 | .061524 | .016433 | -.011676 |
| 45 | .078584 | .071208 | .013874 | -.002100 |
| 46 | .076358 | .078136 | .008247 | -.007135 |
| 47 | .072988 | .079253 | .005296 | -.019621 |
| 48 | .068686 | .074833 | .007679 | -.023415 |
| 49 | .061665 | .073741 | .019395 | -.016639 |
| 50 | .048209 | .070169 | .035168 | -.010847 |
| 51 | .037944 | .059135 | .051425 | -.011435 |
| 52 | .032159 | .051233 | .067139 | -.014479 |
| 53 | .029687 | .047226 | .063782 | -.011454 |
| 54 | .019571 | .042149 | .054611 | -.003914 |
| 55 | .008902 | .036317 | .045118 | .008888 |
| 56 | .004576 | .034205 | .038875 | .013142 |
| 57 | .003374 | .040513 | .041307 | .003868 |
| 58 | .002927 | .046862 | .050927 | -.002004 |
| 59 | .002109 | .048943 | .063300 | .000538 |
| 60 | .007592 | .048095 | .072809 | .004300 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .008152 | -.027519 | -.021545 | .022674 | -.055420 | .000358 |
| 1 | .092109 | -.284615 | -.104841 | .181165 | -.524861 | -.283424 |
| 2 | .211046 | -.341377 | -.162661 | -.052152 | -.607208 | -.349477 |
| 3 | .284998 | -.262582 | -.202578 | -.211585 | -.523602 | -.568081 |
| 4 | .149559 | -.097668 | -.083402 | -.194205 | -.206973 | -.689904 |
| 5 | .066572 | -.086660 | -.009567 | -.407285 | -.036226 | -.313741 |
| 6 | .072961 | -.099148 | -.010275 | -.602681 | -.034079 | -.193651 |
| 7-8 | .026231 | -.058679 | -.001025 | -.341224 | -.046261 | -.421515 |
| 9-11 | .004161 | -.024879 | -.016306 | -.248457 | -.024732 | -.183357 |
| 12-15 | .001580 | -.015093 | -.007770 | .100784 | -.019094 | -.092078 |
| 16-20 | -.000910 | -.006256 | -.003572 | .040170 | -.010248 | -.086047 |
| 21-27 | .001774 | -.002028 | -.002074 | -.000327 | -.005895 | -.043040 |
| 28-36 | .001271 | -.001745 | -.000607 | .000540 | -.003778 | -.031989 |
| 37-47 | .000351 | -.000484 | -.000431 | .001804 | -.002656 | -.007261 |
| 48-60 | -.000146 | .000141 | -.000713 | -.002515 | -.001875 | -.005065 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 1 | .124505 | -.056299 | -.223417 | .095205 | -.292954 | .112022 |
| 2 | .164387 | -.124953 | -.245496 | .090159 | -.295894 | .116043 |
| 3 | .142012 | -.179614 | -.169088 | -.029390 | -.181155 | .081984 |
| 4 | .051643 | -.130351 | -.039954 | -.107439 | -.003378 | .042279 |
| 5 | .019016 | -.050370 | -.021714 | -.045868 | -.004414 | .025214 |
| 6 | .032803 | -.029380 | -.036833 | .000119 | -.045180 | .010571 |
| 7-8 | .022775 | -.030032 | -.017010 | .021258 | -.012224 | .005830 |
| 9-11 | -.005728 | -.017048 | -.007176 | -.002223 | -.017486 | .020179 |
| 12-15 | .006806 | -.003941 | -.005859 | .006105 | .002728 | .006432 |
| 16-20 | .001327 | -.000305 | -.002508 | .001505 | -.003501 | .000264 |
| 21-27 | .001207 | .001459 | -.001720 | -.001097 | -.001375 | -.002612 |
| 28-36 | -.000727 | -.001187 | -.000208 | -.000049 | .000126 | -.000291 |
| 37-47 | .001369 | -.000437 | -.000762 | .000098 | .000148 | -.000653 |
| 48-60 | .000583 | -.000471 | -.000465 | -.000315 | -.000214 | -.000325 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-00 | 10E-00 | 10E-01 | 10E-03 |
| 0 | .008571 | .009643 | .024327 | .096318 |
| 1 | .077879 | .132194 | .357705 | .746969 |
| 2 | .105152 | .178545 | .518664 | .820625 |
| 3 | .112582 | .171907 | .581449 | .776078 |
| 4 | .064245 | .088459 | .425670 | .462710 |
| 5 | .030144 | .040190 | .316749 | .247545 |
| 6 | .025038 | .033575 | .310441 | .204223 |
| 7-8 | .021430 | .034866 | .261837 | .157406 |
| 9-11 | .013190 | .019391 | .140077 | .104654 |
| 12-15 | .007618 | .010745 | .097997 | .061878 |
| 16-20 | .004328 | .007284 | .072718 | .041330 |
| 21-27 | .003098 | .004028 | .039830 | .029700 |
| 28-36 | .002047 | .002780 | .023362 | .018168 |
| 37-47 | .001277 | .001507 | .013575 | .013169 |
| 48-60 | .000881 | .000978 | .008900 | .008332 |

RUN NO 1038 91M 7-4-63 1637-1753(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.86602 10E 00 | 0.51907 10E 00 | 0.77709 10E-01 | 0.49275 10E 00 | 0.73768 10E -1 | 0.44214 10E-01 |
| 0 | .195393 | -.509356 | -.375578 | -.113905 | -.443770 | .094999 |
| 1 | .112466 | -.354189 | -.322203 | -.062516 | -.306270 | .145469 |
| 2 | .061632 | -.224811 | -.242128 | -.080334 | -.087399 | .152016 |
| 3 | .059434 | -.075057 | -.203324 | -.084031 | .002940 | .083560 |
| 4 | .058153 | -.071168 | -.140942 | -.045919 | .013484 | .073679 |
| 5 | .010896 | -.037534 | -.059492 | -.017304 | .043550 | .032477 |
| 6 | -.032560 | .016563 | .045731 | .003039 | .057179 | -.044420 |
| 7 | -.055928 | .107587 | .098514 | .102992 | .024565 | -.090466 |
| 8 | -.046523 | .174200 | .117448 | .095152 | .046851 | -.090280 |
| 9 | -.039428 | .146722 | .146090 | .036044 | .076412 | -.079369 |
| 10 | -.018286 | .079922 | .150933 | -.005929 | .055731 | -.082563 |
| 11 | -.040560 | .092721 | .136150 | .030764 | .026038 | -.054374 |
| 12 | -.108310 | .161823 | .183838 | .083537 | .030506 | -.105802 |
| 13 | -.116425 | .181613 | .178934 | .073846 | .015116 | -.094779 |
| 14 | -.063439 | .181172 | .169097 | .052539 | .022558 | -.084160 |
| 15 | -.019546 | .128716 | .118800 | .037749 | .045173 | -.060032 |
| 16 | -.044781 | .070210 | .109501 | .059159 | .053333 | -.056781 |
| 17 | -.025382 | .049604 | .083689 | -.018519 | .059222 | -.022315 |
| 18 | .020299 | .026821 | .022337 | -.034830 | .028610 | -.002477 |
| 19 | .077079 | -.024422 | -.036193 | -.046593 | -.007993 | .067316 |
| 20 | .075658 | -.057765 | -.063093 | -.070830 | -.004393 | .082545 |
| 21 | .051490 | -.071012 | -.087253 | -.065929 | .032402 | .068297 |
| 22 | .041628 | -.042386 | -.085480 | .004269 | -.000593 | .084954 |
| 23 | .002831 | -.018341 | -.071482 | .030695 | -.014154 | .073169 |
| 24 | -.046783 | -.020833 | -.032134 | .027131 | .002706 | .060414 |
| 25 | .013730 | -.033276 | .017107 | -.023668 | .001711 | .032139 |
| 26 | .014832 | -.024116 | .043667 | -.027604 | .041224 | -.012496 |
| 27 | .006784 | -.001572 | .037342 | -.049179 | .084155 | -.062618 |
| 28 | -.042395 | -.033739 | .038959 | .026832 | .049728 | -.032130 |
| 29 | -.044182 | -.026597 | .044806 | .030554 | .040946 | -.029797 |
| 30 | -.003832 | -.027869 | .026305 | -.012229 | -.016390 | -.025935 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-01 | 10E-02 | 10E-01 | 10E-02 | 10E-02 |
| 0 | .014793 | -.021088 | -.047254 | -.001689 | -.048399 | .001936 |
| 1 | .184974 | -.338039 | -.579813 | -.070797 | -.338068 | .097303 |
| 2 | .309995 | -.493491 | -.804201 | -.142554 | -.351461 | .208702 |
| 3 | .351718 | -.503016 | -.792086 | -.175212 | -.372688 | .243572 |
| 4 | .137916 | -.269353 | -.350059 | -.082920 | -.334945 | .101557 |
| 5 | .048348 | -.168407 | -.155948 | -.026959 | -.316264 | .043054 |
| 6 | .123857 | -.174585 | -.139016 | -.042684 | .268662 | .036138 |
| 7 | .075928 | -.107943 | -.027180 | .010021 | -.202886 | -.018523 |
| 8 | -.009276 | -.040602 | .017845 | .075248 | -.199200 | -.044274 |
| 9-11 | -.003574 | -.108123 | -.005689 | .021502 | -.178962 | -.021348 |
| 12-14 | .085545 | -.070565 | -.047733 | -.030287 | -.094760 | .002653 |
| 15-21 | .042877 | -.009162 | -.024020 | -.008119 | -.051493 | -.026661 |
| 22-30 | .024473 | -.035808 | -.006289 | -.015673 | -.005283 | -.004600 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.86602 10E 00 | 0.51907 10E 00 | 0.77709 10E-01 | 0.49275 10E 00 | 0.73768 10E-01 | 0.44214 10E-01 |
| 1 | .074324 | -.059204 | -.121162 | .024684 | -.113631 | .100337 |
| 2 | .078995 | .008162 | -.175877 | .097655 | -.164076 | .117213 |
| 3 | .063846 | .031996 | -.170944 | .056215 | -.102328 | .132117 |
| 4 | .058727 | .024078 | -.148388 | -.016058 | -.038401 | .135831 |
| 5 | .042164 | .028357 | -.155266 | .028169 | -.032254 | .124403 |
| 6 | .068871 | .024004 | -.162704 | .032577 | .008132 | .124951 |
| 7 | .052775 | -.025365 | -.130832 | -.009721 | .047556 | .074832 |
| 8 | .039346 | -.016499 | -.099884 | -.021131 | .040879 | .032013 |
| 9 | .061239 | .038108 | -.095047 | .005422 | .018003 | .039755 |
| 10 | .085604 | .060330 | -.086615 | -.013529 | .039172 | .018798 |
| 11 | .081143 | .054087 | -.063383 | .022735 | .044446 | .006239 |
| 12 | .023867 | .029952 | -.039780 | .037510 | .009074 | .015856 |
| 13 | .015143 | .020906 | -.020581 | .052032 | -.003919 | .015314 |
| 14 | -.029344 | .012781 | .017188 | .018011 | .015937 | .026785 |
| 15 | -.041506 | .036382 | .029952 | -.024759 | .023218 | .030856 |
| 16 | -.047993 | .021247 | .037153 | -.091180 | -.019982 | -.017946 |
| 17 | -.061306 | .015496 | .060545 | -.043785 | -.041502 | -.054563 |
| 18 | -.107370 | -.006275 | .080266 | -.048439 | -.050384 | -.043337 |
| 19 | -.086467 | .022275 | .076671 | -.012222 | -.011148 | -.017562 |
| 20 | -.023801 | .020831 | .039471 | .029792 | .024267 | -.005803 |
| 21 | .016760 | -.036345 | .042627 | .034367 | .040231 | .013187 |
| 22 | -.000157 | -.053610 | .029487 | .044198 | .025631 | -.002074 |
| 23 | -.005532 | -.052702 | .045290 | .023659 | .008688 | -.071492 |
| 24 | .002055 | -.069898 | .059021 | -.030830 | .022961 | -.090724 |
| 25 | .004858 | -.067730 | .048869 | -.061980 | .019874 | -.121115 |
| 26 | .005147 | -.024128 | .030751 | -.038448 | .008086 | -.088005 |
| 27 | .029136 | -.044993 | .026469 | .015053 | -.027453 | -.076332 |
| 28 | .040367 | -.055980 | .026520 | -.025969 | -.018634 | -.059441 |
| 29 | .002452 | -.004731 | .011072 | .008119 | -.014991 | -.009885 |
| 30 | -.000191 | .000312 | .008343 | .040563 | .019970 | .017211 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|---------|----------|----------|----------|----------|----------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 | 10E-02 | 10E-02 |
| 1 | .194636 | .963592 | -.433068 | .239061 | .010807 | .164855 |
| 2 | .293081 | .590765 | -.530651 | .455394 | -.026104 | .191270 |
| 3 | .242914 | -.122938 | -.461206 | .514392 | -.099504 | .175991 |
| 4 | .016823 | -.120619 | -.233923 | .233129 | -.209522 | .143519 |
| 5 | .003850 | .085551 | -.147300 | .373914 | -.232486 | .108093 |
| 6 | .121214 | .152337 | -.145409 | .996828 | -.174163 | .079006 |
| 7 | .116064 | .288316 | -.111662 | .613915 | -.168731 | .029189 |
| 8 | .068036 | -.040918 | -.071961 | -.130437 | -.148941 | -.007131 |
| 9-11 | .030221 | -.574523 | -.061474 | .381907 | -.084513 | .018591 |
| 12-14 | .062620 | -.090681 | -.057695 | .231388 | -.043451 | .027609 |
| 15-21 | .013346 | -.349254 | .001083 | -.350851 | .002350 | .009459 |
| 22-30 | .000392 | -.080576 | -.003095 | .023468 | .002784 | .004564 |

RUN NC 103B 91M 7-4-63 1637-1753(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.91229 10E 00 | 0.82210 10E 00 | 0.29534 10E 00 | 0.66192 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .656630 | .468194 | .332716 | .669614 |
| 2 | .384061 | .08855 | .085901 | .364581 |
| 3 | .284285 | -.104785 | .030216 | .206013 |
| 4 | .195876 | -.076159 | -.004469 | .074057 |
| 5 | .050881 | -.039656 | -.011582 | -.042089 |
| 6 | -.065596 | -.021614 | .043689 | -.086794 |
| 7 | -.159988 | -.014777 | -.142229 | -.138968 |
| 8 | -.251786 | -.018685 | -.215422 | -.176486 |
| 9 | -.262732 | -.133475 | -.177442 | -.198076 |
| 10 | -.201622 | -.144407 | -.109025 | -.208000 |
| 11 | -.206888 | -.072095 | -.150087 | -.170107 |
| 12 | -.283552 | -.057818 | -.126193 | -.160503 |
| 13 | -.320366 | -.116847 | -.142942 | -.148447 |
| 14 | -.290027 | -.151127 | -.200367 | -.122244 |
| 15 | -.208684 | -.120291 | -.046799 | -.120774 |
| 16 | -.141305 | -.074162 | -.021382 | -.146302 |
| 17 | -.144384 | -.046692 | .017638 | -.140268 |
| 18 | -.089508 | -.060373 | .019163 | -.149401 |
| 19 | .009628 | -.063524 | .003165 | -.152273 |
| 20 | .069452 | -.013872 | .083952 | -.105360 |
| 21 | .063749 | -.013917 | .130034 | -.053703 |
| 22 | .057995 | .004900 | -.006799 | -.035216 |
| 23 | .051274 | .061552 | -.016880 | -.010587 |
| 24 | .034627 | .073992 | .015614 | -.007073 |
| 25 | .005213 | .100115 | .027222 | -.046130 |
| 26 | -.012539 | .063290 | .068221 | -.023521 |
| 27 | -.020232 | .066577 | .099485 | .009363 |
| 28 | -.017592 | .035374 | .002681 | .045868 |
| 29 | .003119 | .035266 | -.032509 | .066793 |
| 30 | .038483 | .029218 | .062943 | .062973 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|----------|
| | 10E 00 | 10E-01 | 10E-01 | 10E-02 |
| 0 | .011850 | .035120 | .009239 | .008654 |
| 1 | .132886 | .513683 | .158626 | .093353 |
| 2 | .170287 | .689496 | .266109 | .103863 |
| 3 | .165259 | .660454 | .322985 | .097106 |
| 4 | .090737 | .480943 | .213956 | .075556 |
| 5 | .055048 | .486189 | .127937 | .058180 |
| 6 | .048564 | .515767 | .127503 | .038310 |
| 7 | .029302 | .552875 | .119297 | .028404 |
| 8 | .015442 | .559823 | .101977 | .0128813 |
| 9-11 | .023692 | .556440 | .154423 | .020809 |
| 12-14 | .021968 | .307343 | .109232 | .013116 |
| 15-21 | .017361 | .226406 | .097755 | .011232 |
| 22-30 | .009526 | .123916 | .086241 | .005725 |

RUN NO 1038 46M 7-4-63 1637-1753(EST)
 RUN NO 1038 91M 7-4-63 1637-1753(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .688876 | .394474 | .586939 | .494327 |
| 1 | .482766 | .652557 | .455972 | .386436 |
| 2 | .391983 | .559609 | .447343 | .373889 |
| 3 | .355648 | .477006 | .469797 | .391873 |
| 4 | .248699 | .397404 | .438182 | .300140 |
| 5 | .099908 | .327775 | .329295 | .155359 |
| 6 | .103809 | .275841 | .336636 | .101333 |
| 7-8 | .142348 | .236918 | .301754 | .059568 |
| 9-11 | .097904 | .223578 | .284502 | .166028 |
| 12-15 | .084808 | .157170 | .118394 | .117373 |
| 16-20 | .111873 | .084896 | .064485 | .073144 |
| 21-27 | .059647 | .103228 | .066036 | .131772 |
| 28-36 | .085758 | .086750 | .115838 | .087791 |
| 37-47 | .103809 | .087607 | .098308 | .142342 |
| 48-60 | .064646 | .109202 | .118979 | .090245 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .853470 | .747481 | .924513 | .782705 |
| 1 | .805468 | .764826 | .674715 | .785122 |
| 2 | .766720 | .766733 | .634697 | .698707 |
| 3 | .721192 | .727423 | .633970 | .607649 |
| 4 | .673319 | .662183 | .672056 | .573847 |
| 5 | .688810 | .600045 | .686796 | .646266 |
| 6 | .668846 | .498976 | .503386 | .490364 |
| 7 | .523940 | .564933 | .507040 | .388430 |
| 8 | .376429 | .728349 | .488799 | .586919 |
| 9-11 | .447411 | .710166 | .409740 | .385621 |
| 12-14 | .343390 | .350016 | .412403 | .416274 |
| 15-21 | .384513 | .429111 | .498444 | .370216 |
| 22-30 | .259330 | .279123 | .299610 | .290069 |

RUN NO 104 46M 7-4-63 2030-2126(EST)

GROSS STATISTICS

| | | |
|-----------------------|------------------------|------------------|
| SAS CS VERY STABLE | WIND SPEED 5.94 M/SEC | SIGMA A 4.80 DEG |
| | WIND DIRECTION 252 DEG | SIGMA E 1.6 DEG |
| | SOLAR RAD. 0 LY/MIN | |

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.29818E-00 | 0.11130E-00 | 0.94279E-01 | 0.52102E-01 |
| V | 0.23152E-00 | 0.80527E-01 | 0.69908E-01 | 0.27752E-01 |
| W | 0.28263E-01 | 0.27144E-01 | 0.26405E-01 | 0.63736E-02 |
| T | 0.13542E-00 | 0.18647E-01 | 0.12627E-01 | 0.12115E-01 |
| E | 0.27898E-00 | 0.10951E-00 | 0.95298E-01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.09193 | 0.05616 | 0.05169 | 0.03843 |
| V | 0.08100 | 0.04777 | 0.04451 | 0.02805 |
| W | 0.02830 | 0.02774 | 0.02736 | 0.01344 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.13906E-00 | 0.11448E-01 | 0.59757E-02 | 0.29804E-02 |
| U,W | -0.22487E-01 | -0.21589E-01 | -0.21055E-01 | -0.66736E-02 |
| U,T | -0.93442E-01 | 0.24827E-01 | 0.18617E-01 | 0.15277E-01 |
| V,W | -0.11480E-01 | -0.66598E-02 | -0.51190E-02 | -0.12724E-04 |
| V,T | -0.95165E-01 | 0.84327E-02 | 0.35350E-02 | 0.43591E-02 |
| W,T | -0.40724E-02 | -0.64833E-02 | -0.62894E-02 | -0.19110E-02 |
| WE | -0.38818E-02 | 0.26296E-02 | 0.29317E-02 | |

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.52927 | 0.12092 | 0.07361 | 0.07838 |
| U,W | -0.24495 | -0.39277 | -0.42200 | -0.36622 |
| U,T | -0.46502 | 0.54496 | 0.53958 | 0.60808 |
| V,W | -0.14192 | -0.14245 | -0.11915 | -0.00096 |
| V,T | -0.53746 | 0.21761 | 0.11898 | 0.23773 |
| W,T | -0.06583 | -0.28817 | -0.34444 | -0.21747 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.81185 10E-01 | 0.49895 10E-01 | 0.34503 10E-01 | 0.42965 10E-01 | 0.29711 10E-01 | 0.18260 10E-01 |
| 0 | .074004 | -.421796 | .539377 | -.119168 | .118705 | -.344415 |
| 1 | .054469 | -.296778 | .465537 | -.076594 | .080469 | -.246936 |
| 2 | .011786 | -.150825 | .337790 | -.012429 | .013185 | -.123946 |
| 3 | -.031023 | -.061291 | .236028 | .042663 | -.029646 | -.052059 |
| 4 | -.047425 | .001682 | .158753 | .058489 | -.044073 | -.008945 |
| 5 | -.052780 | .029958 | .105744 | .046440 | -.040725 | .012911 |
| 6 | -.049430 | .029883 | .068887 | .043081 | -.039126 | .018655 |
| 7 | -.023715 | .018509 | .048030 | .023651 | -.014337 | .014862 |
| 8 | -.006424 | -.001029 | .030346 | .007169 | .001232 | .011313 |
| 9 | .001613 | -.024724 | .019795 | -.007371 | .009892 | .008038 |
| 10 | .009723 | -.026589 | -.002158 | -.021681 | .012942 | .021103 |
| 11 | .004097 | .001511 | -.034299 | -.013497 | .007199 | .039834 |
| 12 | -.000150 | .037458 | -.067948 | -.010271 | .007936 | .057990 |
| 13 | -.000580 | .060636 | -.094894 | .008148 | .009097 | .067013 |
| 14 | -.004697 | .083753 | -.113954 | .005524 | .010098 | .067843 |
| 15 | .001136 | .090886 | -.115742 | .006528 | .015329 | .052548 |
| 16 | .014945 | .084561 | -.114541 | -.013571 | .022369 | .040300 |
| 17 | .028480 | .069732 | -.114057 | -.025110 | .032826 | .033036 |
| 18 | .041915 | .045879 | -.106844 | -.019046 | .038649 | .029976 |
| 19 | .049895 | .036485 | -.101639 | -.026958 | .043478 | .020793 |
| 20 | .047113 | .031919 | -.100168 | -.022533 | .046050 | .021469 |
| 21 | .039104 | .037681 | -.098109 | -.006535 | .038313 | .022925 |
| 22 | .037464 | .035239 | -.097529 | .010731 | .025869 | .028774 |
| 23 | .047670 | .049466 | -.095004 | .013447 | .015776 | .029895 |
| 24 | .046027 | .058014 | -.101027 | -.002317 | .002539 | .025579 |
| 25 | .032949 | .062261 | -.100532 | -.031132 | .002108 | .022770 |
| 26 | .024673 | .051521 | -.096582 | -.035667 | .009611 | .015937 |
| 27 | .013666 | .029800 | -.080927 | -.015548 | .004471 | .009429 |
| 28 | .007720 | .008677 | -.066501 | -.008922 | -.006913 | .006365 |
| 29 | -.000435 | .004720 | -.060522 | .002153 | -.025577 | .016103 |
| 30 | -.007074 | .006275 | -.060712 | .021962 | -.041102 | .012574 |
| 31 | -.020480 | -.010779 | -.053015 | .019434 | -.046365 | -.008208 |
| 32 | -.042302 | -.014167 | -.047897 | .018467 | -.057635 | -.014351 |
| 33 | -.052172 | -.003817 | -.041187 | .021984 | -.055554 | -.006087 |
| 34 | -.046870 | -.003472 | -.037350 | .013045 | -.049985 | -.010321 |
| 35 | -.036475 | -.013587 | -.030549 | -.002119 | -.033184 | -.015675 |
| 36 | -.020500 | -.022847 | -.019317 | -.017014 | -.005856 | -.028338 |
| 37 | -.015635 | -.024783 | -.003701 | -.022032 | .000424 | -.038238 |
| 38 | -.029153 | -.036309 | .007256 | -.009071 | -.008389 | -.040690 |
| 39 | -.042179 | -.032973 | .000041 | .007657 | -.019297 | -.025597 |
| 40 | -.057754 | -.021468 | -.005232 | .024867 | -.039460 | -.005218 |
| 41 | -.068197 | -.019367 | -.001752 | .020312 | -.055439 | .005058 |
| 42 | -.057192 | -.017747 | .003192 | .017841 | -.055028 | .005769 |
| 43 | -.044670 | -.013303 | .009341 | .020943 | -.040291 | -.001027 |
| 44 | -.044226 | .001657 | .012422 | .022859 | -.029039 | -.000722 |
| 45 | -.034284 | .014713 | .014355 | .011953 | -.016754 | .012097 |
| 46 | -.009779 | .025867 | .011888 | -.011670 | -.008082 | .028995 |
| 47 | .003602 | .037198 | .002239 | -.011069 | -.010447 | .038987 |
| 48 | .009871 | .039106 | -.008840 | -.007945 | -.010681 | .049120 |
| 49 | .003876 | .026257 | -.007458 | .002165 | -.005529 | .047946 |
| 50 | .000157 | .022656 | -.016287 | .016871 | -.008304 | .042010 |
| 51 | .005732 | .015574 | -.013106 | .017639 | -.016061 | .041328 |
| 52 | .022624 | .002762 | -.008482 | .003521 | -.012666 | .028832 |
| 53 | .048372 | -.007959 | .000807 | -.012669 | .002747 | .010425 |
| 54 | .059472 | -.011842 | .011255 | -.017652 | .019809 | -.002174 |
| 55 | .067878 | -.028501 | .025411 | -.026057 | .043120 | -.012351 |
| 56 | .072468 | -.045522 | .031213 | -.029617 | .063399 | -.025230 |
| 57 | .064291 | -.036857 | .027201 | -.032614 | .071799 | -.033769 |
| 58 | .040064 | -.024960 | .021016 | -.016783 | .066900 | -.038775 |
| 59 | .026317 | -.031501 | .015524 | -.013675 | .067300 | -.035173 |
| 60 | .014141 | -.031819 | .014054 | .010531 | .062976 | -.029339 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.81185 10E-01 | 0.49895 10E-01 | 0.34503 10E-01 | 0.42965 10E-01 | 0.29711 10E-01 | 0.18260 10E-01 |
| 1 | .018262 | -.014832 | .073194 | .001852 | .009345 | -.013753 |
| 2 | .013482 | -.016940 | .099843 | -.012564 | .011572 | -.013230 |
| 3 | .000989 | -.015367 | .107656 | -.018515 | .007402 | -.000865 |
| 4 | -.004717 | -.034020 | .110503 | -.020867 | -.009234 | .019571 |
| 5 | -.012085 | -.042925 | .102874 | -.034727 | -.022928 | .051086 |
| 6 | -.017412 | -.051691 | .097212 | -.034368 | -.022106 | .074887 |
| 7 | -.024790 | -.047938 | .103264 | -.032190 | -.013384 | .077857 |
| 8 | -.040690 | -.031148 | .113732 | -.038194 | -.007276 | .056390 |
| 9 | -.0045915 | -.009911 | .120806 | -.030907 | .005997 | .024798 |
| 10 | -.043172 | .015284 | .123319 | -.015562 | .018371 | -.001161 |
| 11 | -.037979 | .029939 | .115387 | .000952 | .017292 | -.004197 |
| 12 | -.025357 | .030995 | .106793 | .015376 | .004085 | .000616 |
| 13 | -.019524 | .034559 | .097060 | .024167 | -.006128 | .010797 |
| 14 | -.020166 | .039022 | .084941 | .005990 | -.001487 | .020336 |
| 15 | -.019619 | .036518 | .072178 | -.005402 | -.005173 | .033421 |
| 16 | -.008117 | .021501 | .073230 | -.004655 | -.006988 | .026979 |
| 17 | .003042 | .009338 | .065815 | .000709 | -.005554 | .014630 |
| 18 | .004134 | .006004 | .057120 | -.006536 | .013720 | .004879 |
| 19 | .003315 | -.001222 | .060598 | -.011860 | .028197 | -.002657 |
| 20 | -.001801 | -.002864 | .058739 | -.018547 | .026511 | -.002177 |
| 21 | -.015796 | -.014739 | .052285 | -.029093 | .029798 | .007007 |
| 22 | -.013824 | -.003174 | .034558 | -.027732 | .030543 | .017352 |
| 23 | -.009900 | .004328 | .011358 | -.025615 | .021408 | .032193 |
| 24 | -.006087 | .002496 | -.008511 | -.023805 | .014861 | .042923 |
| 25 | -.006031 | -.008720 | -.025021 | -.033793 | .012450 | .049654 |
| 26 | .005095 | -.023357 | -.032479 | -.017118 | .000479 | .041603 |
| 27 | .018347 | -.023558 | -.035109 | -.001687 | -.002976 | .032114 |
| 28 | .019297 | -.012632 | -.033647 | -.004913 | .006868 | .021665 |
| 29 | .028701 | -.007956 | -.029565 | .005481 | .010482 | .008133 |
| 30 | .032021 | .006783 | -.023715 | .016412 | .007083 | -.013124 |
| 31 | .027708 | .007554 | -.029037 | .021823 | .007938 | -.007510 |
| 32 | .020897 | -.007717 | -.035282 | .020821 | .002909 | -.001814 |
| 33 | .024403 | -.015495 | -.038772 | .034429 | -.007581 | -.007230 |
| 34 | .022269 | -.005307 | -.043646 | .026342 | -.010212 | .016980 |
| 35 | .019884 | -.008996 | -.041825 | .013082 | -.009115 | -.020723 |
| 36 | .016412 | -.017207 | -.033432 | -.000064 | -.013970 | -.019868 |
| 37 | .027910 | -.031741 | -.024171 | .014681 | -.019422 | -.009079 |
| 38 | .027768 | -.034863 | -.018498 | .016397 | -.010972 | -.006231 |
| 39 | .011713 | -.024300 | -.013630 | .002281 | -.004224 | -.017392 |
| 40 | .000545 | -.014287 | -.009532 | -.002025 | -.003185 | -.024311 |
| 41 | .003677 | -.006088 | -.011097 | .009950 | -.007405 | -.022364 |
| 42 | .015793 | .008084 | -.018385 | .014835 | -.017740 | -.021285 |
| 43 | .019630 | .017780 | -.017979 | .023620 | -.027362 | -.021489 |
| 44 | .014859 | .015199 | -.014303 | .02171 | -.033329 | -.021213 |
| 45 | .005157 | .014553 | -.016518 | .004946 | -.033944 | -.016269 |
| 46 | .002138 | .014682 | -.020073 | .011447 | -.031334 | -.014641 |
| 47 | .003041 | .007391 | -.014196 | .030086 | -.033482 | -.021355 |
| 48 | -.011078 | .000689 | -.004652 | .020814 | -.029299 | -.022541 |
| 49 | -.024463 | -.004768 | .002708 | .006458 | -.018757 | -.015708 |
| 50 | -.021620 | -.010415 | .000259 | .009542 | -.013868 | .001163 |
| 51 | -.015174 | -.016633 | -.005197 | .011347 | -.008532 | .009251 |
| 52 | -.026468 | -.018989 | -.001917 | .004452 | -.004908 | .002523 |
| 53 | -.048308 | -.018130 | .000081 | -.014242 | -.004315 | .004188 |
| 54 | -.054831 | -.022162 | .005583 | -.027626 | .010260 | .002620 |
| 55 | -.051487 | -.018283 | .010883 | -.029785 | .024907 | -.007404 |
| 56 | -.036940 | -.001491 | .012761 | -.019208 | .033914 | -.016676 |
| 57 | -.027369 | .020824 | .013903 | .001945 | .033290 | -.018073 |
| 58 | -.040025 | .031684 | .001474 | -.002478 | .034686 | -.004222 |
| 59 | -.044519 | .039155 | -.011935 | -.028617 | .039572 | .006417 |
| 60 | -.027241 | .042896 | -.018562 | -.043432 | .022458 | .014571 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.94279 10E-01 | 0.69909 10E-01 | 0.26405 10E-01 | 0.12627 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .773129 | .612552 | .575485 | .809622 |
| 2 | .500871 | .271499 | .211639 | .576078 |
| 3 | .313803 | .111837 | .041472 | .414525 |
| 4 | .183103 | .024631 | -.049201 | .310192 |
| 5 | .094190 | -.010898 | -.078889 | .235717 |
| 6 | .037979 | -.029621 | -.039547 | .190777 |
| 7 | .005591 | -.060364 | -.011260 | .151408 |
| 8 | .000250 | -.091996 | -.004385 | .113828 |
| 9 | -.007593 | -.111046 | -.002485 | .072764 |
| 10 | -.032015 | -.107362 | -.008996 | .022869 |
| 11 | -.064935 | -.112844 | -.032339 | -.041051 |
| 12 | -.091565 | -.089062 | -.076754 | -.092822 |
| 13 | -.125113 | -.070831 | -.099227 | -.135849 |
| 14 | -.172675 | -.066702 | -.093112 | -.169769 |
| 15 | -.206434 | -.081699 | -.073754 | -.179822 |
| 16 | -.213793 | -.069658 | -.039258 | -.181032 |
| 17 | -.198538 | -.036554 | -.016345 | -.197330 |
| 18 | -.169113 | -.016247 | -.012241 | -.206518 |
| 19 | -.146662 | -.007200 | -.029245 | -.214278 |
| 20 | -.130227 | .002457 | -.058504 | -.226777 |
| 21 | -.125479 | -.019141 | -.077940 | -.239602 |
| 22 | -.114956 | -.050890 | -.091540 | -.242730 |
| 23 | -.114249 | -.061060 | -.119515 | -.230569 |
| 24 | -.127294 | -.083729 | -.111897 | -.211307 |
| 25 | -.138522 | -.097245 | -.104344 | -.192719 |
| 26 | -.132714 | -.097288 | -.095680 | -.176038 |
| 27 | -.109181 | -.080750 | -.095406 | -.161520 |
| 28 | -.085727 | -.095041 | -.092988 | -.158426 |
| 29 | -.070788 | -.107738 | -.096784 | -.158565 |
| 30 | -.053160 | -.103906 | -.065881 | -.142829 |
| 31 | -.031994 | -.080565 | -.008657 | -.110086 |
| 32 | -.021926 | -.066610 | -.008463 | -.081701 |
| 33 | -.027549 | -.046568 | -.002591 | -.051260 |
| 34 | -.040291 | -.011078 | -.009825 | -.027301 |
| 35 | -.038937 | .022176 | -.012642 | -.010730 |
| 36 | -.033519 | .037245 | -.004384 | .010148 |
| 37 | -.038201 | .054845 | .010684 | .034758 |
| 38 | -.036994 | .056892 | .031545 | .043942 |
| 39 | -.035295 | .064310 | .013943 | .030530 |
| 40 | -.027119 | .051799 | -.006478 | .007180 |
| 41 | -.016251 | .040464 | .001639 | -.004106 |
| 42 | -.010547 | .028212 | .021104 | -.006765 |
| 43 | .006398 | .027907 | .021597 | -.001944 |
| 44 | .020220 | .028851 | .006646 | .006680 |
| 45 | .038171 | .034894 | .006968 | .006956 |
| 46 | .047324 | .020561 | .010131 | -.007564 |
| 47 | .034132 | .015214 | .014194 | -.023304 |
| 48 | .019613 | .001902 | .012609 | -.027690 |
| 49 | .016922 | -.023220 | .012753 | -.029775 |
| 50 | .012356 | -.041800 | .005626 | -.029145 |
| 51 | .000464 | -.038935 | .010233 | -.024904 |
| 52 | -.000917 | -.032976 | .041595 | -.019879 |
| 53 | .017871 | -.011886 | .037708 | -.002381 |
| 54 | .041805 | .008798 | .021645 | .014043 |
| 55 | .064234 | .038662 | .017297 | .023951 |
| 56 | .065489 | .046989 | .030998 | .029610 |
| 57 | .046167 | .040274 | .050112 | .030275 |
| 58 | .020300 | .035614 | .068873 | .025033 |
| 59 | .010586 | .022878 | .066944 | .014982 |
| 60 | .012782 | .019845 | .040362 | .011658 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-03 | 10E-03 | 10E-03 |
| 0 | .005531 | -.005578 | .016980 | -.029160 | .031805 | -.020708 |
| 1 | .046361 | -.080550 | .194491 | -.080662 | .330532 | -.224121 |
| 2 | -.031124 | -.136871 | .256753 | .071142 | .090834 | -.339628 |
| 3 | -.118846 | -.199466 | .280937 | .176330 | -.277948 | -.550718 |
| 4 | -.024597 | -.166388 | .206514 | .035771 | -.169887 | -.545054 |
| 5 | .077946 | -.101481 | .142499 | -.139145 | .169568 | -.399482 |
| 6 | .066194 | -.093843 | .110740 | -.227505 | .309864 | -.399306 |
| 7-8 | .027851 | -.078577 | .073360 | -.243003 | .169155 | -.287582 |
| 9-11 | .057199 | -.099422 | .061119 | -.370919 | .222785 | -.238225 |
| 12-15 | .065109 | -.100928 | .051226 | -.458881 | .264869 | -.273201 |
| 16-20 | .021044 | -.037018 | .019757 | -.168289 | .132948 | -.126150 |
| 21-27 | .005704 | -.030528 | .013761 | -.109987 | .070015 | -.090478 |
| 28-36 | .004134 | -.016084 | .005946 | -.029172 | .037201 | -.053779 |
| 37-47 | -.003528 | -.013555 | .003091 | -.005124 | .001659 | -.032574 |
| 48-60 | .001479 | -.005971 | .000802 | -.028190 | .004525 | -.014851 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | -.198923 | -.094958 | .113007 | -.224651 | .111013 | .242353 |
| 2 | -.787926 | .087997 | .147742 | -.343890 | .128075 | .240919 |
| 3 | -.965237 | .060995 | .152881 | -.207667 | -.064517 | .128189 |
| 4 | -.328772 | -.259342 | .086705 | -.029778 | -.156741 | .058179 |
| 5 | -.097348 | -.493992 | .035981 | -.181039 | -.064844 | .148186 |
| | -.108800 | -.565065 | .027308 | -.411591 | -.005912 | .174012 |
| | .193255 | -.472746 | .029841 | -.242474 | .005078 | .039391 |
| | .364458 | .031156 | .011041 | -.072413 | -.071146 | .000408 |
| 12-15 | .085070 | .135378 | .022253 | .087601 | .121717 | -.161391 |
| 16-20 | .007508 | -.004776 | .010459 | -.040823 | .042059 | -.010691 |
| 21-27 | .116962 | -.032669 | .002940 | .025148 | .007600 | .010533 |
| 28-36 | .037147 | -.034870 | .003646 | .004805 | -.013700 | -.007799 |
| 37-47 | .035315 | -.015978 | .002114 | .040003 | .005591 | -.004766 |
| 48-60 | -.005276 | .019551 | -.000028 | -.001814 | .000646 | .003024 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-01 | 10E-02 | 10E-02 | 10E-02 |
| 0 | .005133 | .022792 | .005232 | .014895 |
| 1 | .068524 | .253396 | .093657 | .144682 |
| 2 | .096512 | .378874 | .143747 | .183597 |
| 3 | .112035 | .457197 | .162717 | .197446 |
| 4 | .092138 | .361440 | .116526 | .130175 |
| 5 | .068558 | .387921 | .096167 | .071701 |
| 6 | .050693 | .499838 | .119175 | .058428 |
| 7-8 | .040132 | .360770 | .118915 | .042975 |
| 9-11 | .038220 | .249814 | .092255 | .034528 |
| 12-15 | .026750 | .205140 | .116787 | .032492 |
| 16-20 | .014710 | .183647 | .07008 | .016914 |
| 21-27 | .009661 | .121578 | .047026 | .011265 |
| 28-36 | .005860 | .083600 | .035473 | .006744 |
| 37-47 | .004039 | .061209 | .026212 | .004191 |
| 48-60 | .002256 | .039241 | .016503 | .002547 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.37990 10E-01 | 0.18212 10E-01 | 0.25114 10E-01 | 0.13292 10E-01 | 0.18329 10E-01 | 0.87867 10E-02 |
| 0 | .078451 | -.366429 | .608335 | -.000957 | .237828 | -.217486 |
| 1 | .076990 | -.005020 | .246079 | -.072171 | .222900 | .003394 |
| 2 | .118371 | .075974 | .074786 | -.026764 | .214310 | .023121 |
| 3 | .032057 | .013788 | .014839 | -.013555 | .105033 | -.000527 |
| 4 | -.009289 | -.008843 | -.004850 | -.000758 | .081625 | .002459 |
| 5 | .045434 | .009004 | .003682 | .005437 | .057738 | .035722 |
| 6 | .054551 | -.053695 | -.009857 | .018791 | .078010 | -.024403 |
| 7 | .005410 | .027789 | .024684 | .017424 | .017946 | -.004539 |
| 8 | .018203 | -.012942 | -.016157 | .025942 | -.048603 | .009209 |
| 9 | -.041302 | .026990 | -.068062 | -.024141 | -.123082 | .037070 |
| 10 | -.024615 | .012479 | -.034582 | -.046240 | -.104837 | .012896 |
| 11 | -.022078 | .023257 | .013532 | -.047644 | -.093849 | -.014855 |
| 12 | -.051270 | -.001672 | .030834 | .036878 | -.148640 | -.054998 |
| 13 | -.030107 | .154679 | -.085455 | .011169 | -.129171 | .052271 |
| 14 | -.122068 | -.006596 | -.150375 | .016212 | -.158480 | .021094 |
| 15 | -.071207 | .016011 | -.156680 | .052030 | -.092191 | .040899 |
| 16 | -.015618 | .048211 | -.044746 | .046378 | -.047506 | .034956 |
| 17 | -.035875 | .078267 | -.048526 | .008081 | .007556 | .040235 |
| 18 | .019114 | -.030188 | .038812 | -.018524 | .051785 | -.041620 |
| 19 | -.107775 | -.073346 | .034757 | -.021051 | -.012595 | -.040112 |
| 20 | -.054208 | -.079009 | .000196 | .015523 | .018784 | -.024166 |
| 21 | -.007376 | -.011954 | -.011281 | -.020074 | .034548 | -.030575 |
| 22 | -.020175 | .046226 | .012218 | -.01403 | -.005906 | -.028985 |
| 23 | -.051226 | .030751 | .003235 | -.0135 | -.031344 | .052354 |
| 24 | -.059245 | -.108465 | .027879 | .024615 | -.028156 | -.060537 |
| 25 | .033494 | -.028134 | -.041762 | .013237 | .035609 | -.000566 |
| 26 | .007741 | -.063720 | -.086371 | .004858 | -.037284 | -.011733 |
| 27 | -.037006 | .049976 | -.128725 | .047585 | -.061739 | .046796 |
| 28 | -.063513 | .058057 | -.057880 | .059693 | -.069147 | .063024 |
| 29 | .006178 | -.038726 | -.005201 | .045233 | -.032730 | .073505 |
| 30 | .062798 | .030269 | -.037801 | -.037362 | -.027475 | .017689 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-02 | 10E-03 | 10E-02 | 10E-03 | 10E-02 | 10E-03 |
| 0 | .008782 | .003361 | .029267 | -.025520 | .017131 | -.005488 |
| 1 | .132624 | -.140867 | .160227 | -.150674 | .125018 | -.039499 |
| 2 | .124625 | -.307479 | .142380 | -.110171 | .136076 | -.068975 |
| 3 | .065859 | -.284366 | .121865 | -.067381 | .122131 | -.075840 |
| 4 | .011691 | -.02 | .072277 | -.035622 | .041129 | -.027442 |
| 5 | -.000424 | -.034720 | .082595 | -.117920 | -.006371 | -.063866 |
| 6 | .015235 | -.239941 | .114038 | -.196172 | .009111 | -.108297 |
| 7 | .029175 | -.267435 | .085149 | -.070797 | .020733 | -.047071 |
| 8 | .014556 | -.207726 | .048997 | .075097 | .010999 | -.018322 |
| 9-11 | .022459 | -.333447 | .088280 | .019225 | .019134 | -.115249 |
| 12-14 | -.027102 | -.352777 | .033636 | -.023670 | -.011887 | -.031689 |
| 15-21 | -.025330 | -.423192 | .044953 | .052969 | -.006108 | -.127419 |
| 22-30 | .019550 | -.283230 | .042059 | .078464 | .004843 | -.095472 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.37990 10E-01 | 0.18212 10E-01 | 0.25114 10E-01 | 0.13292 10E-01 | 0.18329 10E-01 | 0.87867 10E-02 |
| 1 | -.043789 | -.013116 | .192351 | -.051265 | .019004 | .082581 |
| 2 | .006381 | .016839 | .161414 | -.034669 | -.010588 | .063252 |
| 3 | .016088 | -.030766 | .097930 | .006915 | -.000497 | .033066 |
| 4 | .040962 | -.011096 | .067832 | .042318 | -.023012 | -.031254 |
| 5 | .024050 | .007893 | .020133 | .053614 | -.046360 | -.025045 |
| 6 | .007996 | .102146 | .006840 | -.001715 | .004817 | -.058697 |
| 7 | .041775 | .067239 | -.000174 | .032035 | .030266 | -.068612 |
| 8 | .080661 | -.021446 | -.025666 | .061079 | .031712 | -.017591 |
| 9 | .004718 | -.048521 | -.052637 | .016222 | .053752 | .027177 |
| 10 | -.075626 | .022571 | -.042560 | -.024894 | .086977 | -.036590 |
| 11 | -.006924 | .086808 | .049627 | .064124 | -.012683 | -.101746 |
| 12 | -.002869 | .003715 | .099285 | .026187 | .036313 | -.025068 |
| 13 | -.032576 | .006373 | .086938 | -.002119 | .099405 | .012923 |
| 14 | -.058167 | -.057581 | .040320 | .016000 | .117529 | .047870 |
| 15 | .002592 | -.062999 | .010306 | .084595 | .040371 | -.016013 |
| 16 | -.087828 | -.001464 | -.087609 | .044353 | .099409 | .015362 |
| 17 | -.101044 | .002065 | -.087627 | .031208 | .124771 | .014427 |
| 18 | -.018437 | -.025174 | -.018544 | -.037305 | .114770 | .025385 |
| 19 | -.076274 | .042457 | -.037001 | -.072583 | .111772 | -.005660 |
| 20 | -.030705 | .035281 | -.055843 | -.033126 | .063468 | .019411 |
| 21 | -.076710 | -.010452 | -.063780 | -.016982 | .057928 | .010020 |
| 22 | .002822 | -.078187 | -.055402 | .052722 | -.019343 | .000101 |
| 23 | .018270 | -.059511 | -.000049 | -.004252 | .068787 | .013958 |
| 24 | -.077930 | .001091 | .031237 | -.066783 | -.016594 | -.029095 |
| 25 | -.005723 | -.016550 | .041334 | -.132053 | -.030699 | .024829 |
| 26 | .020937 | .033098 | .024828 | .029115 | -.033208 | .023254 |
| 27 | .068313 | .015840 | -.055343 | .076862 | -.043810 | -.004486 |
| 28 | -.000734 | -.091872 | -.113060 | .040612 | -.000257 | .050436 |
| 29 | .021537 | .020031 | -.031645 | -.005951 | -.071509 | -.026827 |
| 30 | .051225 | .048632 | .030671 | .001712 | -.066556 | -.047647 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-03 | 10E-03 | 10E-02 | 10E-03 | 10E-03 | 10E-03 |
| 1 | -.502593 | .097945 | .027826 | .257763 | .863107 | -.105449 |
| 2 | .420396 | .174155 | .049528 | .176404 | .072345 | -.104396 |
| 3 | .665160 | .143166 | .040793 | .014694 | -.344836 | -.041136 |
| 4 | .131486 | .111470 | .034249 | -.029689 | -.088478 | .071156 |
| 5 | -.103726 | -.126214 | .086033 | .018045 | -.050395 | .115865 |
| 6 | -.160847 | -.118090 | .109705 | -.061004 | -.140016 | .096033 |
| 7 | -.285956 | -.013921 | .066021 | -.162104 | .032748 | .094852 |
| 8 | -.254290 | -.174435 | .020730 | -.096981 | .107585 | .131152 |
| 9-11 | .056817 | -.023391 | .048052 | -.104310 | .124939 | .114276 |
| 12-14 | -.418495 | .200560 | .025144 | -.103941 | -.019630 | .009473 |
| 15-21 | -.072014 | -.077906 | .019814 | -.007362 | .031119 | .022784 |
| 22-30 | -.098571 | -.075238 | .003300 | .016078 | .007890 | .028252 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | I |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.52053 10E-01 | 0.27727 10E-01 | 0.63722 10E-02 | 0.12116 10E-01 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .282361 | .320397 | .021356 | .521950 |
| 2 | .028498 | .299990 | -.092581 | .187639 |
| 3 | -.008570 | .060950 | -.164948 | .066316 |
| 4 | -.061795 | .114068 | -.028598 | -.016301 |
| 5 | -.019055 | .070723 | .047601 | -.042543 |
| 6 | .006042 | -.047002 | .136955 | -.064740 |
| 7 | -.007621 | -.037550 | -.055868 | -.044705 |
| 8 | -.070558 | -.080800 | -.045300 | -.055324 |
| 9 | -.084863 | -.093646 | -.111528 | -.086713 |
| 10 | -.013710 | -.084245 | -.053941 | -.031600 |
| 11 | -.006838 | -.177936 | .023294 | .034907 |
| 12 | -.059365 | -.103214 | .057577 | .084113 |
| 13 | -.158955 | -.121182 | -.114156 | -.108851 |
| 14 | -.159485 | .006398 | .014535 | .256404 |
| 15 | -.144275 | -.064344 | .012998 | -.257192 |
| 16 | -.026668 | -.012867 | -.154916 | -.162471 |
| 17 | -.047648 | -.046138 | -.081463 | -.038005 |
| 18 | .083214 | .050458 | -.003048 | .056481 |
| 19 | .047737 | .101643 | -.032358 | .010061 |
| 20 | .094941 | .017811 | .085447 | -.024647 |
| 21 | .015076 | .128337 | -.100532 | -.027143 |
| 22 | .005651 | -.099040 | -.108377 | .003785 |
| 23 | .042721 | -.025125 | -.021239 | -.027288 |
| 24 | .080430 | -.194847 | .137394 | .007892 |
| 25 | -.029375 | -.164975 | .069362 | -.041642 |
| 26 | -.029036 | -.142241 | .038633 | -.176617 |
| 27 | -.151633 | -.119462 | -.107061 | -.200732 |
| 28 | -.061628 | -.031002 | .054552 | -.077751 |
| 29 | .024958 | -.045625 | .086493 | .036357 |
| 30 | -.108248 | -.040873 | .028818 | .058593 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-02 | 10E-02 | 10E-03 | 10E-02 |
| 0 | .059983 | .071325 | .016835 | .025350 |
| 1 | .333063 | .324807 | .196844 | .142714 |
| 2 | .361578 | .273126 | .217022 | .124660 |
| 3 | .372055 | .297218 | .180308 | .109383 |
| 4 | .220571 | .207978 | .161061 | .081654 |
| 5 | .221608 | .109308 | .185663 | .095606 |
| 6 | .332718 | .114487 | .167636 | .112243 |
| 7 | .303893 | .101112 | .167039 | .072987 |
| 8 | .210361 | .098836 | .232719 | .031464 |
| 9-11 | .280417 | .083284 | .434525 | .062581 |
| 12-14 | .165458 | .094596 | .306988 | .026183 |
| 15-21 | .189741 | .050604 | .272483 | .030049 |
| 22-30 | .178067 | .131097 | .350675 | .020458 |

RUN NO 104 91M 7-4-63 2030-2126(EST)

GROSS STATISTICS

S AS CS WIND SPEED 8.17 M/SEC SIGMA A 4.50 DEG
VERY STABLE WIND DIRECTION 260 DEG SIGMA E .77 DEG
 SOLAR RAD. 0 LY/MIN

| | WITH NO RUNNING MEAN | WITH 301 POINT RUNNING MEAN | WITH 61 POINT RUNNING MEAN | 301 PT RUN MEAN 10 PT BLOCK AVG |
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|
|--|-------------------------|--------------------------------|-------------------------------|------------------------------------|

VARIANCES

| | | | | |
|---|-------------|-------------|-------------|-------------|
| U | 0.99759E 00 | 0.23524E-01 | 0.15999E-01 | 0.16540E-01 |
| V | 0.34260E-00 | 0.63547E-01 | 0.26899E-01 | 0.50439E-01 |
| W | 0.11470E-01 | 0.86899E-02 | 0.90263E-02 | 0.40905E-02 |
| T | 0.17952E-01 | 0.35420E-02 | 0.16005E-02 | 0.29238E-02 |
| E | 0.67583E 00 | 0.47896E-01 | 0.25963E-01 | |

GUSTINESS RATIOS

| | | | | |
|---|---------|---------|---------|---------|
| U | 0.12225 | 0.01877 | 0.01548 | 0.01574 |
| V | 0.07164 | 0.03085 | 0.02007 | 0.02749 |
| W | 0.01311 | 0.01141 | 0.01163 | 0.00783 |

COVARIANCES

| | | | | |
|-----|--------------|--------------|--------------|--------------|
| U,V | 0.14530E-00 | 0.10449E-01 | 0.46576E-02 | 0.82311E-02 |
| U,W | 0.11761E-01 | -0.99391E-03 | -0.20262E-02 | -0.27609E-03 |
| U,T | -0.52046E-02 | 0.16458E-02 | 0.11800E-02 | 0.11915E-02 |
| V,W | 0.42007E-02 | -0.38434E-02 | -0.31797E-02 | -0.10864E-02 |
| V,T | 0.30442E-01 | 0.80778E-02 | 0.31927E-02 | 0.65819E-02 |
| W,T | 0.15163E-03 | -0.65597E-03 | -0.71420E-03 | -0.24927E-03 |

| | | | | |
|----|--------------|--------------|--------------|--|
| WE | -0.34395E-02 | -0.14854E-02 | -0.10684E-02 | |
|----|--------------|--------------|--------------|--|

NORMALIZED COVARIANCES

| | | | | |
|-----|----------|----------|----------|----------|
| U,V | 0.24855 | 0.27025 | 0.22451 | 0.28497 |
| U,W | 0.10995 | -0.06952 | -0.16861 | -0.03357 |
| U,T | -0.03889 | 0.18030 | 0.23318 | 0.17134 |
| V,W | 0.06701 | -0.16355 | -0.20406 | -0.07564 |
| V,T | 0.38816 | 0.53842 | 0.48659 | 0.54200 |
| W,T | 0.01057 | -0.11824 | -0.18791 | -0.07208 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.20750 10E-01 | 0.12022 10E-01 | 0.50611 10E-02 | 0.15588 10E-01 | 0.65625 10E-02 | 0.38020 10E-02 |
| 0 | .224680 | -.168211 | .233368 | -.204273 | .486331 | .188004 |
| 1 | .195634 | -.151805 | .212321 | -.124586 | .418588 | -.146305 |
| 2 | .134893 | -.114335 | .173579 | -.031712 | .308064 | -.088715 |
| 3 | .075984 | -.064059 | .123942 | .019733 | .212259 | -.039099 |
| 4 | .027314 | -.027708 | .075237 | .045291 | .139453 | -.012725 |
| 5 | .002349 | -.006443 | .033165 | .061633 | .074240 | .001107 |
| 6 | -.009933 | -.011011 | .015593 | .052443 | .023106 | .002602 |
| 7 | -.024821 | -.031361 | .003134 | .025363 | -.007577 | -.005939 |
| 8 | -.030297 | -.046598 | -.010775 | .000635 | -.031281 | -.007920 |
| 9 | -.025723 | -.040030 | -.027087 | -.012645 | -.049518 | .005229 |
| 10 | -.032295 | -.017380 | -.044956 | -.011214 | -.064084 | .021530 |
| 11 | -.038450 | .007176 | -.046222 | -.018673 | -.069222 | .026935 |
| 12 | -.041856 | .022800 | -.045884 | -.019148 | -.065551 | .021490 |
| 13 | -.042665 | .030039 | -.042028 | -.022864 | -.062372 | .023825 |
| 14 | -.033268 | .023322 | -.037506 | -.023954 | -.070170 | .033698 |
| 15 | -.024056 | .029681 | -.036900 | -.005359 | -.082196 | .048747 |
| 16 | -.029364 | .040192 | -.042524 | .008781 | -.084066 | .061147 |
| 17 | -.030774 | .051508 | -.050771 | .016832 | -.089384 | .065444 |
| 18 | -.027257 | .045738 | -.055775 | .029263 | -.094731 | .059489 |
| 19 | -.019077 | .043884 | -.053307 | .028245 | -.094846 | .046860 |
| 20 | -.002376 | .033781 | .045377 | .002235 | -.087300 | .030107 |
| 21 | .010022 | .012848 | -.029715 | -.025188 | -.074490 | .019675 |
| 22 | .021350 | -.010178 | -.014927 | -.040965 | -.069611 | .010656 |
| 23 | .022547 | -.021519 | -.011136 | -.053473 | -.066493 | .000215 |
| 24 | .011604 | -.018301 | -.009585 | -.045516 | -.069707 | -.004774 |
| 25 | .004913 | -.004448 | -.006863 | -.033327 | -.076469 | -.017422 |
| 26 | -.001076 | -.004123 | -.006615 | -.020965 | -.072742 | -.031092 |
| 27 | -.009470 | .005514 | -.005410 | -.000427 | -.061554 | -.035260 |
| 28 | -.010551 | .021555 | -.001705 | .022518 | -.046540 | -.036498 |
| 29 | -.006952 | .036977 | .001386 | .034059 | -.029499 | -.028707 |
| 30 | .002925 | .043251 | .004304 | .024639 | .000565 | -.023772 |
| 31 | .003753 | .070033 | .001323 | .013395 | .031740 | -.017403 |
| 32 | .004608 | .095755 | .007043 | .010377 | .048708 | -.018595 |
| 33 | -.006826 | .106677 | .003430 | .015239 | .054585 | -.018285 |
| 34 | -.015872 | .097977 | .006056 | .029515 | .051511 | -.019924 |
| 35 | -.023936 | .088331 | .008041 | .048324 | .032469 | -.014978 |
| 36 | -.026846 | .063804 | .006823 | .068667 | .008487 | .000322 |
| 37 | -.017512 | .035231 | .004698 | .077607 | -.006635 | .011669 |
| 38 | -.011649 | .028641 | -.006251 | .061683 | -.010691 | .007226 |
| 39 | -.012893 | .033663 | -.008448 | .050331 | -.012620 | .007515 |
| 40 | -.020752 | .030041 | -.012684 | .043257 | -.013763 | .009779 |
| 41 | -.029130 | .010513 | -.011822 | .050965 | -.010444 | .012598 |
| 42 | -.021519 | -.009879 | -.004114 | .058569 | -.001769 | .014131 |
| 43 | -.010534 | -.032245 | .007930 | .045902 | .017220 | .011032 |
| 44 | -.008442 | -.046495 | .015872 | .030025 | .033439 | -.001891 |
| 45 | -.014865 | -.052868 | .017136 | .016542 | .033559 | -.017622 |
| 46 | -.014701 | -.048570 | .029108 | -.005807 | .037619 | -.028406 |
| 47 | -.010062 | -.036369 | .038572 | -.033534 | .042316 | -.029527 |
| 48 | -.002494 | -.030304 | .038888 | -.033547 | .029387 | -.018157 |
| 49 | -.008269 | -.035182 | .033361 | -.031490 | .013680 | -.002037 |
| 50 | -.010378 | -.025208 | .021680 | -.030998 | .003922 | .010744 |
| 51 | -.010016 | -.001536 | .008174 | -.037533 | -.000287 | .021696 |
| 52 | -.004390 | .008732 | -.012705 | -.039724 | -.005120 | .020470 |
| 53 | .001465 | .009795 | -.033957 | -.044083 | -.009999 | .019552 |
| 54 | -.012953 | .011973 | -.053495 | -.048485 | -.019181 | .024756 |
| 55 | -.025298 | .013282 | -.061333 | -.046595 | -.022985 | .022207 |
| 56 | -.024204 | .005016 | -.056213 | -.038028 | -.018527 | .025706 |
| 57 | -.017019 | -.006363 | -.049369 | -.029362 | -.011552 | .022761 |
| 58 | -.013392 | -.001311 | -.043193 | -.035914 | -.003674 | .009823 |
| 59 | .000183 | .008420 | -.036637 | -.040837 | .010781 | -.001603 |
| 60 | .007259 | -.000337 | -.031186 | -.038719 | .008015 | .001999 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
61 PCINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.20750 10E-01 | 0.12022 10E-01 | 0.50611 10E-02 | 0.15588 10E-01 | 0.65625 10E-02 | 0.38020 10E-02 |
| 1 | .034310 | -.000204 | .048723 | .004380 | .017892 | .009020 |
| 2 | .044784 | .024433 | .071477 | -.013172 | .033741 | .016653 |
| 3 | .044354 | .024891 | .080426 | -.025091 | .043731 | .015729 |
| 4 | .042917 | .019457 | .089307 | -.021954 | .042633 | .022416 |
| 5 | .051966 | .001567 | .107183 | -.025483 | .045483 | .023529 |
| 6 | .055416 | -.007376 | .116521 | -.028228 | .037055 | .026021 |
| 7 | .042773 | -.008516 | .115255 | -.030742 | .024912 | .026625 |
| 8 | .035291 | -.003903 | .114141 | -.027119 | .021462 | .009531 |
| 9 | .033293 | .009949 | .109835 | -.011665 | .022612 | -.000506 |
| 10 | .037058 | .021121 | .097927 | -.001443 | .021626 | -.004530 |
| 11 | .034141 | .027597 | .085262 | .008452 | .012157 | -.001469 |
| 12 | .014838 | .037783 | .070221 | .017447 | .010805 | .001731 |
| 13 | -.003303 | .035592 | .056500 | .016475 | .017200 | .000059 |
| 14 | -.006549 | .020426 | .054319 | .029262 | .019329 | -.016055 |
| 15 | .003254 | -.003334 | .051435 | .039807 | .021740 | -.024048 |
| 16 | .007060 | -.004879 | .044924 | .041740 | .022245 | -.023826 |
| 17 | .004973 | .003339 | .030396 | .035875 | .012488 | -.017196 |
| 18 | .020947 | .002514 | .027923 | .014995 | .003157 | -.006907 |
| 19 | .028222 | -.012751 | .026856 | .000893 | -.001982 | -.004915 |
| 20 | .028277 | -.020403 | .026983 | -.008798 | -.003263 | -.007636 |
| 21 | .021208 | -.029685 | .029642 | -.017198 | -.012840 | -.003929 |
| 22 | .019736 | -.041949 | .032301 | -.023708 | -.022315 | -.002776 |
| 23 | .021923 | -.049295 | .029875 | -.029210 | -.026057 | -.007806 |
| 24 | .016024 | -.065282 | .026515 | -.021061 | -.020706 | -.020975 |
| 25 | .008123 | -.073740 | .009459 | -.011233 | -.011355 | -.026493 |
| 26 | -.000134 | -.082991 | -.007941 | -.012477 | -.007123 | -.028690 |
| 27 | -.014376 | -.076582 | -.017585 | .001240 | -.006857 | -.028247 |
| 28 | -.038195 | -.063654 | -.019670 | .017474 | -.007120 | -.026469 |
| 29 | -.046487 | -.048565 | -.012834 | .014425 | -.007284 | -.024235 |
| 30 | -.039929 | -.033167 | -.010628 | -.002071 | -.004249 | -.029981 |
| 31 | -.029718 | -.020668 | -.016547 | .002226 | .002595 | -.035797 |
| 32 | -.018127 | -.017247 | -.018414 | .026373 | -.000573 | -.040723 |
| 33 | .009994 | -.031059 | -.004653 | .026505 | -.003794 | -.044485 |
| 34 | .029129 | -.046183 | .005522 | .017674 | -.004388 | -.037687 |
| 35 | .030404 | -.043183 | .002693 | .006906 | .000481 | -.027132 |
| 36 | .033049 | -.024090 | .004304 | .013207 | .014131 | -.028013 |
| 37 | .035597 | -.008649 | -.004710 | .025112 | .023940 | -.029398 |
| 38 | .036317 | -.001705 | -.016309 | .027307 | .031102 | -.026077 |
| 39 | .031582 | .005681 | -.026170 | .031579 | .039115 | -.020973 |
| 40 | .025378 | .005913 | -.026910 | .028657 | .047943 | -.010889 |
| 41 | .024823 | .003370 | -.023259 | .020990 | .045465 | .016630 |
| 42 | .004313 | .015292 | -.029572 | .004802 | .044625 | .028743 |
| 43 | -.023339 | .035931 | -.043068 | -.011925 | .044922 | .030908 |
| 44 | -.039757 | .043707 | -.052428 | -.020032 | .042945 | .027148 |
| 45 | -.032587 | .026150 | -.045040 | -.025700 | .031941 | .031817 |
| 46 | -.026207 | .016804 | -.031893 | -.023791 | .020814 | .030556 |
| 47 | -.022247 | .024834 | -.025077 | -.010752 | .003426 | .031938 |
| 48 | -.012899 | .027166 | -.024001 | .002799 | -.012456 | .030075 |
| 49 | -.005129 | .032913 | -.031215 | .009676 | -.032712 | .032540 |
| 50 | -.007910 | .034091 | -.062258 | .007032 | -.050600 | .034828 |
| 51 | -.011379 | .038802 | -.047438 | .006269 | -.059711 | .031147 |
| 52 | -.006305 | .034673 | -.044729 | .027707 | -.063289 | .020169 |
| 53 | .001122 | .020360 | -.040679 | .026651 | -.061335 | .017982 |
| 54 | .011305 | .019281 | -.041118 | .016107 | -.063876 | .022254 |
| 55 | .023499 | .019807 | -.046221 | .019817 | -.068714 | .021208 |
| 56 | .037744 | .013708 | -.044872 | .023322 | -.064893 | .017329 |
| 57 | .039593 | .028913 | -.039071 | .025960 | -.056863 | .011389 |
| 58 | .036340 | .048538 | -.031716 | .022082 | -.053327 | .007015 |
| 59 | .028364 | .047289 | -.033638 | .028892 | -.056571 | .009315 |
| 60 | .022155 | .034075 | -.034096 | .038170 | -.048774 | .010437 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16003 10E-01 | 0.26906 10E-01 | 0.90312 10E-02 | 0.16006 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .749594 | .755315 | .715471 | .865311 |
| 2 | .502138 | .499320 | .443751 | .701625 |
| 3 | .324770 | .331853 | .310203 | .561501 |
| 4 | .216495 | .202054 | .224745 | .439336 |
| 5 | .149195 | .094255 | .137702 | .330067 |
| 6 | .102667 | .020254 | .084399 | .238823 |
| 7 | .062856 | -.008837 | .059412 | .161285 |
| 8 | .015835 | -.009607 | .036121 | .085783 |
| 9 | -.036513 | -.008346 | -.003577 | .023866 |
| 10 | -.070533 | -.014440 | -.058823 | -.019964 |
| 11 | -.081588 | -.022695 | -.085606 | -.047573 |
| 12 | -.086320 | -.035397 | -.103667 | -.069904 |
| 13 | -.100536 | -.056764 | -.114900 | -.099550 |
| 14 | -.100725 | -.074369 | -.124164 | -.129465 |
| 15 | -.103139 | -.091458 | -.145914 | -.153784 |
| 16 | -.117287 | -.110246 | -.168239 | -.183664 |
| 17 | -.119064 | -.120378 | -.186155 | -.218493 |
| 18 | -.119586 | -.144571 | -.188491 | -.247485 |
| 19 | -.105908 | -.154208 | -.170313 | -.265124 |
| 20 | -.097274 | -.146706 | -.146912 | -.268702 |
| 21 | -.086412 | -.130053 | -.152587 | -.269773 |
| 22 | -.070902 | -.126960 | -.163215 | -.268587 |
| 23 | -.062173 | -.128518 | -.168801 | -.261590 |
| 24 | -.064815 | -.133114 | -.141065 | -.254827 |
| 25 | -.076378 | -.148119 | -.133679 | -.241867 |
| 26 | -.081072 | -.153782 | -.118321 | -.216756 |
| 27 | -.102373 | -.145482 | -.102057 | -.187783 |
| 28 | -.116383 | -.135589 | -.098375 | -.165147 |
| 29 | -.120240 | -.103563 | -.095453 | -.153335 |
| 30 | -.121123 | -.043619 | -.072432 | -.130001 |
| 31 | -.114292 | .005084 | -.058114 | -.092067 |
| 32 | -.097328 | .022600 | -.042469 | -.054550 |
| 33 | -.083733 | .035684 | -.034056 | -.028317 |
| 34 | -.087830 | .024991 | -.016637 | -.008421 |
| 35 | -.092689 | .005821 | -.002970 | .002818 |
| 36 | -.085271 | -.017442 | .000059 | .002964 |
| 37 | -.086935 | -.028968 | .016735 | .006635 |
| 38 | -.097474 | -.032274 | .042375 | .010745 |
| 39 | -.108523 | -.023580 | .040921 | .006900 |
| 40 | -.102042 | -.010949 | .051013 | .004868 |
| 41 | -.089339 | -.001940 | .044210 | .000377 |
| 42 | -.070353 | .008977 | .022318 | .008632 |
| 43 | -.032882 | .028449 | .001380 | .025887 |
| 44 | .007978 | .036317 | .018799 | .031620 |
| 45 | .038997 | .027962 | .039928 | .032824 |
| 46 | .055532 | .034411 | .049643 | .040768 |
| 47 | .056917 | .047935 | .055999 | .043000 |
| 48 | .061446 | .041856 | .033613 | .036987 |
| 49 | .056396 | .017515 | .008832 | .025863 |
| 50 | .029425 | -.001046 | -.004318 | .013750 |
| 51 | -.008980 | -.009981 | -.028549 | .004899 |
| 52 | -.032583 | -.013996 | -.040552 | -.001484 |
| 53 | -.042932 | -.026857 | -.031635 | -.008676 |
| 54 | -.051876 | -.038457 | -.020826 | -.011292 |
| 55 | -.036411 | -.040938 | -.011091 | -.015736 |
| 56 | -.016741 | -.048922 | -.033012 | -.026216 |
| 57 | -.009875 | -.056177 | -.044658 | -.028117 |
| 58 | -.021237 | -.050733 | -.030045 | -.026998 |
| 59 | -.013976 | -.040893 | -.026121 | -.023063 |
| 60 | -.020104 | -.028536 | -.021606 | -.025248 |

RUN NO 104 91M 7-4-63 2030-2126(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COSPECTRUM

| K | U,V | U,W | U,T | V,W | W,T | |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-04 |
| 0 | .052403 | -.015294 | .021652 | -.010005 | .037757 | -.077825 |
| 1 | .345796 | -.279632 | .106164 | -.175271 | .248392 | -.287350 |
| 2 | .317467 | -.327656 | .123446 | -.101085 | .337088 | -.369309 |
| 3 | .380972 | -.217938 | .170255 | .058226 | .453392 | -.781052 |
| 4 | .511316 | -.155410 | .166582 | -.056924 | .387367 | -.981764 |
| 5 | .538610 | -.254854 | .134638 | -.187681 | .262886 | -.675408 |
| 6 | .425271 | -.122615 | .089921 | -.079493 | .210438 | -.190709 |
| 7-8 | .276736 | .025485 | .070415 | -.097118 | .212527 | -.193418 |
| 9-11 | .235828 | -.117597 | .047868 | -.284073 | .122598 | -.382508 |
| 12-15 | .130867 | -.092257 | .017930 | -.144275 | .054117 | -.231002 |
| 16-20 | .067295 | -.033597 | .012212 | -.095050 | .037235 | -.198703 |
| 21-27 | .032756 | .005252 | -.001938 | -.050019 | .019113 | -.039123 |
| 28-36 | -.001178 | -.001422 | .002100 | -.049087 | .013078 | -.045321 |
| 37-47 | .009490 | .002368 | .001106 | -.018076 | .003632 | -.015139 |
| 48-60 | -.000017 | -.002081 | .001032 | -.012837 | .003036 | -.020289 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | W,T | |
|-------|----------|----------|---------|----------|----------|----------|
| | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-04 | 10E-04 |
| 1 | .238464 | -.208845 | .146195 | .062282 | .472857 | -.462636 |
| 2 | .217768 | -.020475 | .174317 | -.006329 | .306078 | -.064561 |
| 3 | .240946 | .187875 | .161685 | -.019129 | .685251 | .316805 |
| 4 | .222221 | .126021 | .121918 | -.012639 | .853711 | .148375 |
| 5 | .102650 | -.038930 | .087196 | -.110763 | .248395 | .078993 |
| 6 | .131918 | -.076826 | .061040 | -.205929 | .213375 | .271948 |
| 7-8 | .223556 | -.011897 | .043872 | -.084963 | .232689 | .149165 |
| 9-11 | -.007410 | .020693 | .002248 | .044889 | .317404 | .001440 |
| 12-15 | .045165 | .053930 | .003812 | -.001617 | .038092 | .023826 |
| 16-20 | .007773 | -.004986 | .009036 | .003009 | .032756 | -.037838 |
| 21-27 | .039449 | -.010966 | .007873 | .010798 | -.018449 | .032933 |
| 28-36 | .003477 | -.007635 | .002621 | .012394 | -.004100 | .000361 |
| 37-47 | .000956 | -.006339 | .000103 | .007440 | -.009860 | -.000349 |
| 48-60 | .002151 | -.006280 | .000277 | -.002430 | .013806 | -.005002 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-02 | 10E-02 | 10E-02 | 10E-03 |
| 0 | .019937 | .037157 | .007253 | .028916 |
| 1 | .164294 | .239890 | .067988 | .220630 |
| 2 | .173991 | .275205 | .094155 | .267818 |
| 3 | .161707 | .304756 | .111962 | .287239 |
| 4 | .135618 | .221935 | .082679 | .187113 |
| 5 | .128069 | .149413 | .055791 | .101968 |
| 6 | .099362 | .137764 | .045923 | .080117 |
| 7-8 | .068579 | .149616 | .034974 | .074102 |
| 9-11 | .053195 | .116477 | .028804 | .042188 |
| 12-15 | .035153 | .064899 | .021297 | .018279 |
| 16-20 | .029917 | .034110 | .016170 | .014303 |
| 21-27 | .015972 | .027322 | .010459 | .008067 |
| 28-36 | .010972 | .021537 | .009513 | .005945 |
| 37-47 | .007533 | .012556 | .005152 | .003644 |
| 48-60 | .006360 | .008704 | .003426 | .002742 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED COSPECTRUM COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.28896 10E-01 | 0.82286 10E-02 | 0.69567 10E-02 | 0.14363 10E-01 | 0.12142 10E-01 | 0.34578 10E-02 |
| 0 | .284852 | -.033553 | .171277 | -.075644 | .542053 | -.072090 |
| 1 | .215838 | -.022109 | .127679 | -.047781 | .411164 | -.062453 |
| 2 | .175774 | .038211 | .114868 | -.017052 | .319637 | -.056197 |
| 3 | .154153 | .051253 | .102527 | .032601 | .274797 | -.047473 |
| 4 | .110723 | .060622 | .079553 | .061563 | .207681 | .006918 |
| 5 | .076407 | .059058 | .048169 | .020842 | .127472 | .033353 |
| 6 | .091197 | -.042122 | .028164 | .010648 | .057749 | .029354 |
| 7 | .053118 | -.014834 | .014601 | .025284 | -.002987 | .054325 |
| 8 | .009050 | -.026618 | .005921 | .018826 | -.057027 | .025066 |
| 9 | -.037997 | -.005283 | .014533 | .004708 | -.075313 | .050308 |
| 10 | -.087954 | .005896 | -.010452 | -.023658 | -.103523 | .024660 |
| 11 | -.147296 | .047041 | -.050114 | .021079 | -.135821 | .039058 |
| 12 | -.166251 | .024851 | -.088681 | -.019690 | -.178415 | -.010870 |
| 13 | -.163089 | .016411 | -.094993 | -.028136 | -.208495 | .006159 |
| 14 | -.205787 | .071123 | -.100354 | -.025957 | -.207251 | .035884 |
| 15 | -.186010 | .078561 | -.090045 | .025460 | -.177950 | .042907 |
| 16 | -.179716 | .024541 | -.089705 | .017089 | -.170799 | .014216 |
| 17 | -.202925 | -.034148 | -.112135 | .012430 | -.155976 | .006331 |
| 18 | -.212992 | -.077781 | -.164528 | -.006105 | -.141923 | .002782 |
| 19 | -.197633 | -.070382 | -.182530 | .012445 | -.119578 | .005112 |
| 20 | -.184306 | -.099075 | -.174769 | .031464 | -.104584 | -.001463 |
| 21 | -.196503 | -.084100 | -.192749 | .002082 | -.104977 | -.020068 |
| 22 | -.150449 | -.037312 | -.183535 | -.013835 | -.080609 | -.039538 |
| 23 | -.102026 | -.018186 | -.160589 | -.023972 | -.040461 | -.045073 |
| 24 | -.090128 | -.038363 | -.121947 | -.033994 | -.035843 | -.052618 |
| 25 | -.029349 | -.047868 | -.062635 | -.023260 | -.030507 | -.011067 |
| 26 | .011649 | .006723 | -.023913 | -.028028 | -.014232 | -.012019 |
| 27 | .020906 | .023035 | -.008993 | .000223 | -.025744 | .016961 |
| 28 | .037916 | -.010586 | .001137 | -.020949 | -.031924 | .020186 |
| 29 | .095266 | -.016572 | .011411 | -.062455 | -.026117 | .006185 |
| 30 | .150188 | .014477 | .042926 | -.056503 | -.036418 | .030104 |

COSPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|---------|----------|
| | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-02 | 10E-04 |
| 0 | -.004308 | .032861 | -.000842 | .016853 | .024676 | .051866 |
| 1 | .293005 | .150799 | .502938 | .041840 | .191711 | -.130236 |
| 2 | .298352 | .012314 | .412860 | -.013470 | .172795 | -.560601 |
| 3 | .120790 | -.044726 | .108887 | -.050487 | .114038 | -.728050 |
| 4 | .012817 | .086247 | .058660 | -.138024 | .047834 | -.530290 |
| 5 | .004715 | .052771 | .048317 | -.217839 | .026355 | -.490885 |
| 6 | .008269 | -.123148 | .022215 | -.160568 | .021607 | -.300080 |
| 7 | .034241 | -.135219 | .066397 | -.115207 | .016850 | -.038884 |
| 8 | .036983 | -.080652 | .028198 | -.119584 | .007548 | .045822 |
| 9-11 | .013764 | -.079611 | -.018455 | -.101094 | .007118 | .026672 |
| 12-14 | .002599 | .004180 | .021097 | -.039878 | .009947 | .108667 |
| 15-21 | .012606 | -.016734 | .015492 | .031219 | .008904 | -.038174 |
| 22-30 | .006415 | .024443 | .014479 | -.025855 | .005196 | -.011823 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED QUADRATURE COVARIANCE

| M | U,V | U,W | U,T | V,W | V,T | W,T |
|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 0.28896 10E-01 | 0.82286 10E-02 | 0.69567 10E-02 | 0.14363 10E-01 | 0.12142 10E-01 | 0.34578 10E-02 |
| 1 | .083096 | .000664 | .066842 | .014151 | .022776 | -.021070 |
| 2 | .107167 | -.039683 | .030505 | .039702 | .038872 | -.083989 |
| 3 | .137057 | -.032024 | .020889 | .022063 | .051809 | -.076464 |
| 4 | .159045 | .039129 | .020455 | .031822 | .076166 | -.087290 |
| 5 | .149959 | .095300 | .016493 | -.003248 | .054731 | -.051517 |
| 6 | .152030 | .099841 | .040048 | -.027649 | .056937 | -.053543 |
| 7 | .154091 | .053275 | .101223 | -.061990 | .100185 | -.054083 |
| 8 | .149370 | .01731 | .124485 | -.058875 | .113426 | -.057880 |
| 9 | .113715 | -.004354 | .106994 | .008185 | .091987 | -.084520 |
| 10 | .132174 | -.061490 | .138273 | .007296 | .069168 | -.030668 |
| 11 | .110324 | -.067206 | .109638 | -.006002 | .064004 | -.027108 |
| 12 | .115021 | -.050427 | .097954 | -.023688 | .056536 | .013700 |
| 13 | .099388 | -.066443 | .138498 | -.006984 | .064523 | -.009621 |
| 14 | .067089 | -.048355 | .142683 | -.016673 | .043365 | -.023861 |
| 15 | .019690 | -.027001 | .142939 | -.060029 | -.004104 | .041633 |
| 16 | -.027699 | -.067198 | .121855 | -.076674 | -.019961 | .043325 |
| 17 | -.044258 | -.017922 | .099039 | -.025151 | -.024138 | .011925 |
| 18 | -.051678 | .076136 | .045055 | .036655 | -.039031 | .001502 |
| 19 | -.051620 | .053606 | .021892 | .015503 | -.041845 | .083478 |
| 20 | -.026176 | -.016153 | .040480 | .024086 | -.053545 | .059698 |
| 21 | -.041888 | .047477 | .030510 | .065187 | -.078081 | .015318 |
| 22 | -.059733 | .091277 | .031097 | .072935 | -.075697 | -.012577 |
| 23 | -.074715 | .043705 | .036779 | .068020 | -.073803 | -.027188 |
| 24 | -.064815 | .075522 | .040392 | .067401 | -.094069 | -.020302 |
| 25 | -.052367 | .069922 | .020514 | .056148 | -.118835 | -.029089 |
| 26 | -.041598 | .046375 | -.002443 | .046431 | -.124283 | -.020371 |
| 27 | -.051317 | .007290 | -.044223 | .043662 | -.108950 | -.005935 |
| 28 | -.054102 | -.003256 | -.064165 | .017870 | -.104842 | -.016079 |
| 29 | -.045238 | -.038816 | -.075487 | -.013684 | -.097172 | .019251 |
| 30 | -.045554 | -.039716 | -.058572 | -.013125 | -.062673 | -.024152 |

QUADRATURE SPECTRUM

| K | U,V | U,W | U,T | V,W | V,T | W,T |
|-------|----------|----------|----------|----------|----------|----------|
| | 10E-02 | 10E-03 | 10E-03 | 10E-03 | 10E-03 | 10E-03 |
| 1 | .246574 | -.027185 | .647220 | -.160183 | .511402 | -.083711 |
| 2 | .220255 | .022153 | .249437 | -.124196 | .535904 | -.104909 |
| 3 | .130730 | .197549 | -.035616 | .088903 | .232411 | -.097230 |
| 4 | .038646 | .164301 | -.079683 | .081520 | -.009724 | -.037402 |
| 5 | .031685 | -.038589 | -.009855 | .041157 | -.016150 | -.021811 |
| 6 | .041194 | -.140233 | .002978 | .207464 | .010908 | -.024535 |
| 7 | .022734 | -.155611 | -.005047 | .227324 | .019415 | -.018437 |
| 8 | -.002738 | -.133764 | .064894 | .076300 | .015346 | -.029455 |
| 9-11 | .010849 | -.033307 | .067328 | -.045986 | .047197 | -.009416 |
| 12-14 | .002128 | .037349 | .020190 | .008655 | -.059042 | .011732 |
| 15-21 | .007702 | .027710 | .031801 | -.000262 | .022134 | .005922 |
| 22-30 | -.000073 | .003438 | .008163 | -.033247 | -.011860 | .009829 |

RUN NC 104 91M 7-4-63 2030-2126(EST)
 301 PCINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

NORMALIZED AUTOCOVARIANCE

| M | U | V | W | T |
|----|-------------------|-------------------|-------------------|-------------------|
| | 0.16555 10E-01 | 0.50437 10E-01 | 0.40899 10E-02 | 0.29233 10E-02 |
| 0 | 1.000000 | 1.000000 | 1.000000 | 1.000000 |
| 1 | .703107 | .773618 | .244410 | .759482 |
| 2 | .524661 | .623228 | -.072137 | .530683 |
| 3 | .364178 | .505136 | -.108770 | .397638 |
| 4 | .222891 | .367579 | -.071290 | .306278 |
| 5 | .122246 | .235537 | -.135268 | .208903 |
| 6 | .108838 | .108830 | -.098702 | .112680 |
| 7 | .065368 | .021778 | .053701 | .016627 |
| 8 | -.038742 | -.078937 | .003690 | -.053573 |
| 9 | -.096907 | -.158099 | -.054656 | -.072162 |
| 10 | -.165780 | -.234631 | -.166088 | -.139953 |
| 11 | -.266578 | -.311551 | -.133627 | -.204189 |
| 12 | -.259720 | -.377387 | .054419 | -.256529 |
| 13 | -.266781 | -.411347 | -.016340 | -.294468 |
| 14 | -.280614 | -.435417 | -.016640 | -.286629 |
| 15 | -.241646 | -.411895 | -.056120 | -.267389 |
| 16 | -.188186 | -.377786 | .055745 | -.280392 |
| 17 | -.135321 | -.383376 | .025112 | -.254254 |
| 18 | -.102580 | -.354166 | .093675 | -.205016 |
| 19 | -.079678 | -.316626 | -.000798 | -.131772 |
| 20 | -.120503 | -.293622 | -.040741 | -.060192 |
| 21 | -.134022 | -.277260 | .03533 | .001922 |
| 22 | -.106985 | -.213304 | -.147698 | .049276 |
| 23 | -.074540 | -.126645 | -.108037 | .074858 |
| 24 | -.053658 | -.095131 | .049155 | .054496 |
| 25 | -.008843 | -.038702 | .048253 | .030859 |
| 26 | -.028897 | .042410 | .050961 | .023120 |
| 27 | -.029718 | .111222 | -.081972 | -.029213 |
| 28 | -.026160 | .184024 | -.012510 | -.078201 |
| 29 | .003455 | .236402 | .000426 | -.105947 |
| 30 | -.003426 | .240804 | .061639 | -.112751 |

POWER SPECTRUM

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E-02 | 10E-01 | 10E-03 | 10E-03 |
| 0 | .068437 | .013739 | .012656 | .142228 |
| 1 | .406965 | .150545 | .113137 | .782043 |
| 2 | .347889 | .143459 | .152331 | .667676 |
| 3 | .255716 | .087063 | .229584 | .463116 |
| 4 | .121886 | .034089 | .244954 | .184914 |
| 5 | .062407 | .019919 | .189420 | .142283 |
| 6 | .072159 | .015634 | .205754 | .135756 |
| 7 | .085971 | .014889 | .271619 | .094095 |
| 8 | .064304 | .009610 | .272950 | .081389 |
| 9-11 | .037075 | .005731 | .224087 | .059658 |
| 12-14 | .015902 | .005481 | .149200 | .060090 |
| 15-21 | .021633 | .005223 | .177008 | .030920 |
| 22-30 | .020272 | .004714 | .129521 | .018536 |

RUN NC 104 46M 7-4-63 2030-2126(EST)
 RUN NC 104 91M 7-4-63 2030-2126(EST)
 61 POINT RUNNING MEAN, NO BLOCK AVERAGING

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .167842 | .020522 | .452932 | .222717 |
| 1 | .195640 | .054907 | .323055 | .103715 |
| 2 | .187763 | .027473 | .230588 | .158023 |
| 3 | .129273 | .124038 | .149824 | .292530 |
| 4 | .149303 | .142337 | .128520 | .310006 |
| 5 | .118217 | .136313 | .225159 | .120683 |
| 6 | .074374 | .261165 | .294831 | .111833 |
| 7-8 | .078246 | .273043 | .210914 | .189299 |
| 9-11 | .127264 | .096509 | .169617 | .117986 |
| 12-15 | .134115 | .115724 | .113581 | .109274 |
| 16-20 | .169574 | .157174 | .129685 | .081056 |
| 21-27 | .185183 | .085997 | .054779 | .075829 |
| 28-36 | .094973 | .148968 | .085152 | .104236 |
| 37-47 | .103107 | .118545 | .111229 | .126038 |
| 48-60 | .128105 | .132165 | .108527 | .110932 |

301 POINT RUNNING MEAN, 10 POINT BLOCK AVERAGE

COHERENCE WITH QUADRATURE

| K | U | V | W | T |
|-------|---------|---------|---------|---------|
| | 10E 00 | 10E 00 | 10E 00 | 10E 00 |
| 0 | .147093 | .146658 | .622044 | .553422 |
| 1 | .612005 | .386665 | .665410 | .313345 |
| 2 | .324973 | .444498 | .568083 | .386901 |
| 3 | .100318 | .305501 | .529570 | .412944 |
| 4 | .210263 | .251103 | .559733 | .331528 |
| 5 | .175857 | .212148 | .621114 | .324587 |
| 6 | .206999 | .199593 | .356654 | .338930 |
| 7 | .112457 | .238741 | .110717 | .302280 |
| 8 | .243201 | .244682 | .168661 | .172312 |
| 9-11 | .387122 | .151066 | .315300 | .168096 |
| 12-14 | .376558 | .253183 | .128774 | .163879 |
| 15-21 | .242915 | .289341 | .328669 | .334202 |
| 22-30 | .257406 | .257325 | .460897 | .221720 |

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author)

Meteorology Department
Massachusetts Institute of Technology
Cambridge, Massachusetts

2a. REPORT SECURITY CLASSIFICATION

UNCLASSIFIED

2b. GROUP

3. REPORT TITLE

ROUND HILL TURBULENCE MEASUREMENTS - Data Tabulations for Runs 96A through 104 (Volume II)

4. DESCRIPTIVE NOTES (Type of report and inclusive dates)

Data Report (Volume II of Five Volumes)

5. AUTHOR(S) (Last name, first name, initial)

H. E. Cramer, F. A. Record, and J. E. Tillman

6. REPORT DATE

December 1966

7a. TOTAL NO. OF PAGES

263

7b. NO. OF REFS

8a. CONTRACT OR GRANT NO.

Grant DA-AMC-28-043-65-G10

b. PROJECT NO.

9a. ORIGINATOR'S REPORT NUMBER(S)

ECOM-65-G10

c. DA Task 1V0-14501-B53A-08

9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)

d.

10. AVAILABILITY/LIMITATION NOTICES

Qualified requesters may obtain copies of this report from the Defense Documentation Center, Cameron Station, Alexandria, Virginia 22314.

11. SUPPLEMENTARY NOTES

12. SPONSORING MILITARY ACTIVITY

U.S.Army Electronics Command
Atmospheric Sciences Lab, Research
Division, Fort Huachuca, Arizona

13. ABSTRACT

This volume contains the data summaries for Runs 96A through 104. Vertical profiles of mean wind speed and air temperature are presented in Section I and the turbulence statistics are presented in Section II. For a description of the field experiments and the data processing procedures, reference should be made to Volume I of this series.

(AD-66 1033)

UNCLASSIFIED

Security Classification

| 14. KEY WORDS | LINK A | | LINK B | | LINK C | |
|---|---|----|--------|----|--------|----|
| | ROLE | WT | ROLE | WT | ROLE | WT |
| Data summaries | | | | | | |
| Vertical profiles | | | | | | |
| Turbulence statistics | | | | | | |
| INSTRUCTIONS | | | | | | |
| 1. ORIGINATING ACTIVITY: Enter the name and address of the contractor, subcontractor, grantee, Department of Defense activity or other organization (<i>corporate author</i>) issuing the report. | 10. AVAILABILITY/LIMITATION NOTICES: Enter any limitations on further dissemination of the report, other than those imposed by security classification, using standard statements such as: | | | | | |
| 2a. REPORT SECURITY CLASSIFICATION: Enter the overall security classification of the report. Indicate whether "Restricted Data" is included. Marking is to be in accordance with appropriate security regulations. | (1) "Qualified requesters may obtain copies of this report from DDC." | | | | | |
| 2b. GROUP: Automatic downgrading is specified in DoD Directive 5200.10 and Armed Forces Industrial Manual. Enter the group number. Also, when applicable, show that optional markings have been used for Group 3 and Group 4 as authorized. | (2) "Foreign announcement and dissemination of this report by DDC is not authorized." | | | | | |
| 3. REPORT TITLE: Enter the complete report title in all capital letters. Titles in all cases should be unclassified. If a meaningful title cannot be selected without classification, show title classification in all capitals in parenthesis immediately following the title. | (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through _____." | | | | | |
| 4. DESCRIPTIVE NOTES: If appropriate, enter the type of report, e.g., interim, progress, summary, annual, or final. Give the inclusive dates when a specific reporting period is covered. | (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through _____." | | | | | |
| 5. AUTHOR(S): Enter the name(s) of author(s) as shown on or in the report. Enter last name, first name, middle initial. If military, show rank and branch of service. The name of the principal author is an absolute minimum requirement. | (5) "All distribution of this report is controlled. Qualified DDC users shall request through _____." | | | | | |
| 6. REPORT DATE: Enter the date of the report as day, month, year; or month, year. If more than one date appears on the report, use date of publication. | If the report has been furnished to the Office of Technical Services, Department of Commerce, for sale to the public, indicate this fact and enter the price, if known. | | | | | |
| 7a. TOTAL NUMBER OF PAGES: The total page count should follow normal pagination procedures, i.e., enter the number of pages containing information. | 11. SUPPLEMENTARY NOTES: Use for additional explanatory notes. | | | | | |
| 7b. NUMBER OF REFERENCES: Enter the total number of references cited in the report. | 12. SPONSORING MILITARY ACTIVITY: Enter the name of the departmental project office or laboratory sponsoring (<i>paying for</i>) the research and development. Include address. | | | | | |
| 8a. CONTRACT OR GRANT NUMBER: If appropriate, enter the applicable number of the contract or grant under which the report was written. | 13. ABSTRACT: Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached. | | | | | |
| 8b, 8c, & 8d. PROJECT NUMBER: Enter the appropriate military department identification, such as project number, subproject number, system numbers, task number, etc. | It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (U). | | | | | |
| 9a. ORIGINATOR'S REPORT NUMBER(S): Enter the official report number by which the document will be identified and controlled by the originating activity. This number must be unique to this report. | There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words. | | | | | |
| 9b. OTHER REPORT NUMBER(S): If the report has been assigned any other report numbers (<i>either by the originator or by the sponsor</i>), also enter this number(s). | 14. KEY WORDS: Key words are technically meaningful terms or short phrases that characterize a report and may be used as index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, rules, and weights is optional. | | | | | |

Security Classification