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RELATIVE MOTION BETWEEN LCU AND MARINER MODELS IN A SEAWAY,(U)
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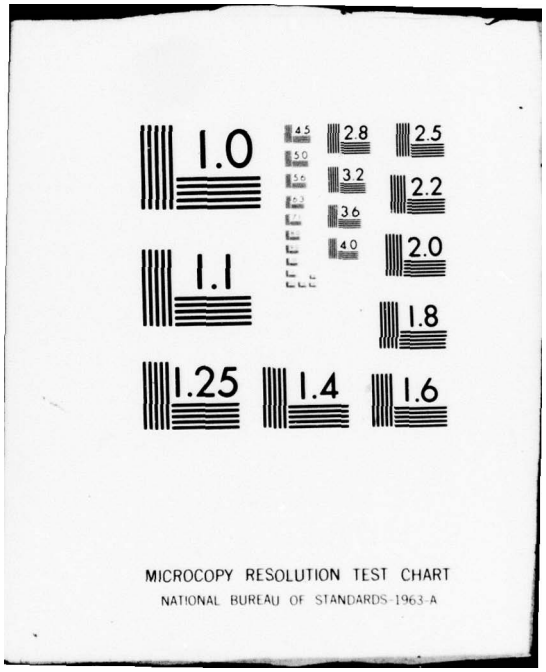
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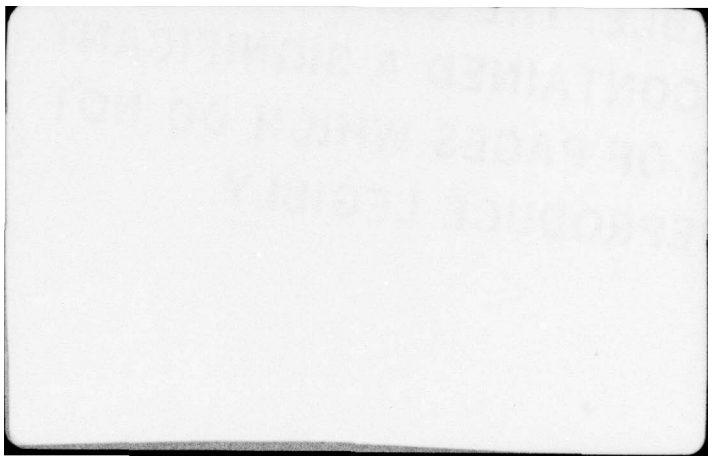

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Department of Ocean Engineering
SHIP MODEL TOWING TANK

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(6) RELATIVE MOTION BETWEEN LCU AND MARINER MODELS IN A SEAWAY,

(10) Martin A. Abkowitz

For
Naval Coastal Systems Laboratory

APPROVED
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Ship Model Towing Tank
Cambridge, Massachusetts 02139

RELATIVE MOTION BETWEEN LCU AND MARINER MODELS IN A SEAWAY

Martin A. Abkowitz

A program of model seakeeping tests was carried out in the MIT Ship Model Towing Tank for the purpose of estimating the relative motion between the deck of an LCU and the top end of a cargo boom on a Mariner ship during a typical offshore unloading situation. A five foot long Mariner model, scale 1 to 96 (1/8 inch = 1 foot), was available at the Tank and the LCU model was built to this scale. Tests were carried out in scaled sea states 3 and 4 which were simulated by irregular seas of the Pierson-Moskowitz spectra representing fully developed seas of wind speeds of 15 knots and 18 knots respectively.

In each of the two sea states, tests were carried out with the models at zero forward speed oriented as follows.

Beam Seas

Series 1 - LCU to leeward of Mariner

Series 2 - LCU to windward of Mariner

Quartering Seas (45° heading to waves)

Series 3 - LCU to leeward of Mariner

Series 4 - LCU to windward of Mariner

Head Seas

Series 5 - LCU to starboard of Mariner

Instrumentation and Measurements

The key measurement to be made during the model tests was the relative motion between the deck of the LCU and the top of the boom, in unloading position, on the Mariner ship, while the models were free to heave, roll, and pitch but were constrained in sway, surge, and yaw. Originally, when the tests were proposed, we thought that some simple mechanical transducer could be devised to measure the relative motion. However, at the necessary scaling, the LCU model weight was limited to less than one pound, precluding the use of a mechanical transducer for relative motion measurement. It became necessary to devise, design, and construct an electronic transducer requiring an element of very small weight to be located on the LCU model. The instrument designed and built consisted of (1) an electrical spark generator located on the LCU model, with an electrical system off the model for generating a high voltage spark at the rate of about one hundred a second, (2) a miniature sensitive microphone located on the Mariner model at the scaled position of the top of the boom, (3) electronic equipment which measured the time elapsed for the spark sound to reach the microphone (measurement made 100 times per second) and converting this time in a relative distance between the two, and (4) electronic equipment for digitally displaying, graphically recording, and inputing on tape the relative motion. The instrument as developed after much effort worked very well.

Two wave measurement probes were used. One was located on the windward side of the models (between the wave generator and the models)

and one close by the models on the leeward side (between the models and the beach). The wave probe on the windward side can indicate the very complex wave system which excites the LCU (when on the windward side), made up of the combination of the oncoming wave, the reflected wave off of the Mariner, the radiating damping wave of the Mariner motion, and the reflected wave of the LCU damping off the Mariner. Measurement by the wave probe on the lee side is a good indicator of the breakwater effect of the Mariner hull (i.e. masking effect). The leeward probe was placed about 1 foot from the models in order to effectively measure the wave system transmitted through the Mariner. The probe on the windward side was placed 23.5 feet from the models (a good distance) in order to help indicate how long an irregular wave sample could be obtained without being contaminated by the waves which were reflected from and radiated from the models being rereflected by the wave generator reaching the model again. This procedure assures that the excitation on the models comes only from an oncoming far field wave system of a given spectrum.

Figures 1 and 2 show the relative position of the models in the test setup, the simulated full scale loading conditions, key dimensions, centers of gravity, metacentric height (GM), and radii of gyration (k, x refers to roll and y to pitch axes). The top of the boom is 85 feet above the LCU centerline.

Test Results

The data obtained during the test consisted of water surface elevation measurements at the locations of the windward and leeward wave probes and the measurement of the distance between the LCU center deck and the top of the Mariner cargo boom. These data were taken for each of the two sea states and each of the five relative orientations of the models. The waves were also measured when there were no models in the tank in order to establish the wave spectra being generated in the tank. With the models present, the generated spectra cannot be measured because of wave reflection effects.

The measured data was then spectral analyzed to give the wave and motion response spectra, and from the spectra the values of the root mean square and significant response (average of the 1/3 highest) were calculated. The spectra and the calculated R.M.S. and significant values are given in Tables 1 to 34.

Figures 3 through 7 give the wave relative motion spectra for the two sea states according to the following schedule which also indicates the test numbers used to identify the data tabulated in Tables 1 to 34.

Figure 3 - Beam Seas - LCU to leeward - Tests 115, 118
(15 and 18 refer to spectra of wind speeds, 15 and 18 knots respectively)

Figure 4 - Beam Seas - LCU to windward - Tests 215, 218

Figure 5 - Quartering Seas (45°) - LCU to leeward - Tests 315, 318

Figure 6 - Quartering Seas - LCU to windward - Tests 415, 418

Figure 7 - Head Seas - LCU to starboard - Tests 515, 518

Tests 015 and 018A refer to the case where there are no models in the tank.

From Figures 3-5, when one compares windward and leeward wave measurements, it is obvious that the Mariner has a very severe breakwater (masking) effect on the oncoming wave system. Also, comparing Figure 3 to Figure 4 and Figure 5 to Figure 6, the relative motion response is greatly reduced by this masking effect. It is interesting to note that Figure 3 shows a spike response at the Mariner's roll natural frequency (0.4 rad/sec.). Apparently this frequency is generated by the summation of the various oncoming and reflected waves as shown on the windward wave measurements and the LCU cannot act as a breakwater to the much larger Mariner. A similar, smaller spike is observed in Figure 4 at the Mariner's natural roll frequency. During the tests in beam seas, for demonstration purposes, a wave was generated with a frequency equal to the Mariner's natural roll frequency and with such a small wave height that it was barely visible. The Mariner rolled excessively, with little LCU motion, resulting in a very large relative motion between boom top and LCU deck.

Tables 31 and 32 give the significant wave height (double amplitude) in the tank (without models) for a wind speed of 15 knots as 5.06 feet at the windward probe and 3.52 feet at the leeward probe. This decrease is

expected since in a long narrow tank, especially at the higher frequencies of which the lower sea states are composed, the dissipation of wave energy by the tank walls cannot be neglected. One must remember that the distance between the two probes in the tank is approximately 25 feet with the leeward probe just one foot from the models. Hence, one estimates that at the model location a significant wave height of 4 feet was generated. From Figure 8, which shows the characteristics of fully developed sea spectra, it is seen that this value of significant wave height corresponds to a 15 knot wind speed sea state. Similarly, from Tables 33 and 34, a 6.0 foot significant wave height spectrum corresponding to an 18 knot wind speed sea state existed at the models during the tests of the higher sea state.

The following list summarizes the data and results given in Tables 1 to 34. Numbers refer to full scale values of <u>double amplitude</u> of the harmonic response.

Test No.	Significant Wave Height Generated in feet	Significant Relative Displacement in feet (double amplitude)
115	4	3.4
118	6	6.5
215	4	5.6
218	6	10.5
315	4	2.8
318	6	4.3
415	4	5.9
418	6	9.6
515	4	3.5
518	6	5.2

In reading the tables, the following abbreviations should be noted.

- last two digits of test number indicate wind speed
- B•D DISPL indicates distance between Boom top to LCU Deck
- WAVWIND - measurements on the windward wave probe
- WAVLEE - measurements on the leeward wave probe

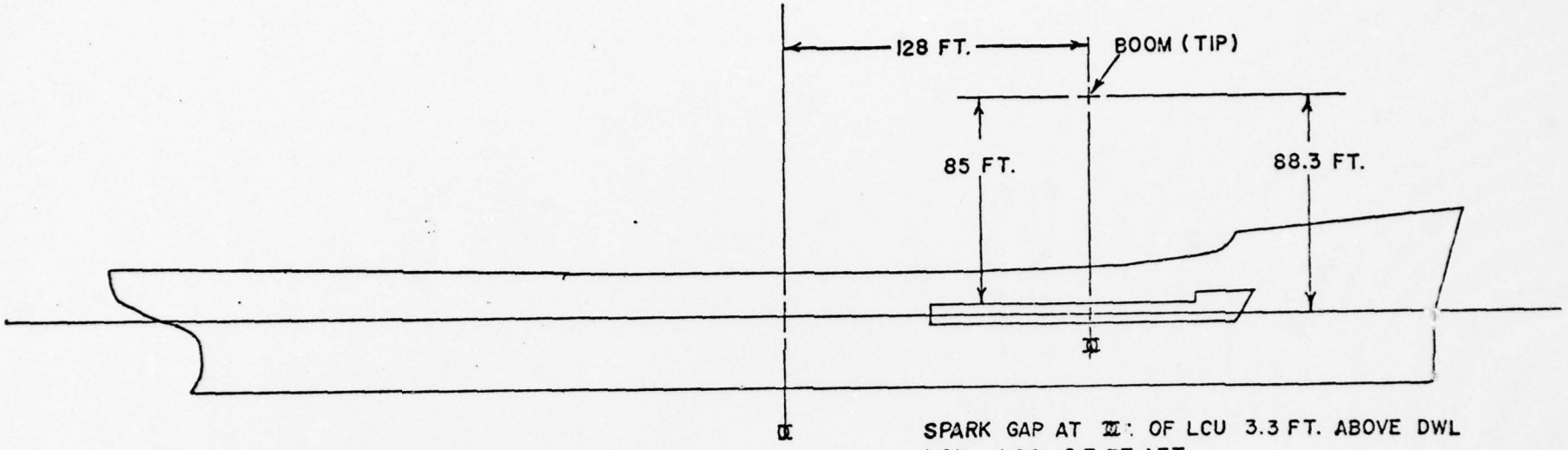
The significant values multiplied by 1.28 will give the average of the 1/10th highest responses; by 1.67 will give the 1/100th highest; and by 2.64 will give the average of the one millionth highest response.

One can obtain the relative velocity spectra (for boom top-deck motion) by multiplying the displacement spectra by the frequency. From these new spectra, the statistics of the relative velocity can be readily computed.

Additional Remarks

In observing the model motions during a test, even those tests where the relative motion was small, there was actually large roll motion on the LCU model when it was on the windward side. Since both the roll axis and the LCU reference point are on the centerline plane, the LCU roll motion contributes little to the relative motion being measured. In direct contrast, since the boom top (reference point) is located a large distance from the Mariner roll axis, roll motions of the Mariner contribute greatly to the relative motion.

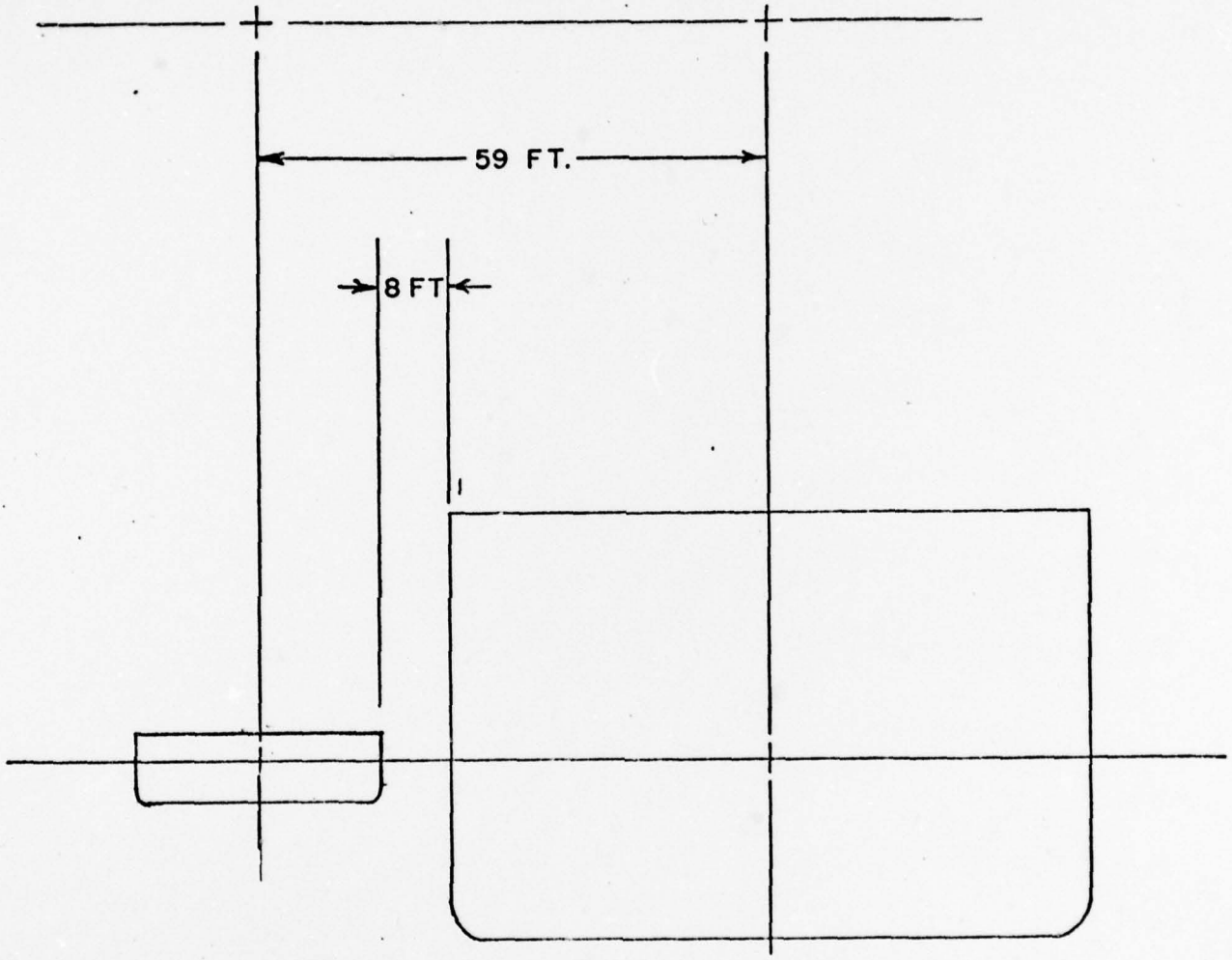
The breakwater effect of the Mariner on the LCU is tremendous. As can be seen from the figures, reflected waves play a significant role in the excitation of the LCU when on the windward side and the masking effect kills most of the excitation when the LCU is on the leeward side. It is doubted whether valid estimates of the motion responses could be predicted by a theory (computer program) which does not take these effects into account. Also, extreme difficulty can be expected to properly account for these masking effects in a simulation mathematical model. The towing tank tests appear to be the only practical approach. Full scale trials suffer from the forcible acceptance of whatever seaway happens to exist at the time and are relatively extremely expensive.



C4 CARGO SHIP LCG = 7.62 FT. AFT
LCB = 7.62 FT. AFT
LOA = 564 FT.
k_y = 141 FT.

SPARK GAP AT ⊠: OF LCU 3.3 FT. ABOVE DWL
LCU LCG = 6.7 FT. AFT
LCB = 8.8 FT. AFT
LOA = 134 FT.
k_y = 34 FT.

FIGURE 1



LCU			C4 CARGO SHIP		
Δ	=	352 TONS	Δ	=	18,670 TONS
KG	=	8.8 FT.	KG	=	25.9 FT.
GM	=	8.8 FT.	GM	=	5 FT.
B	=	29 FT.	B	=	76 FT.
k_x	=	11.6 FT.	k_x	=	30.4 FT.

FIGURE 2

BEAM SEAS - LCU TO LEEWARD

SEA STATE 3 15kts

SEA STATE 4 18kts

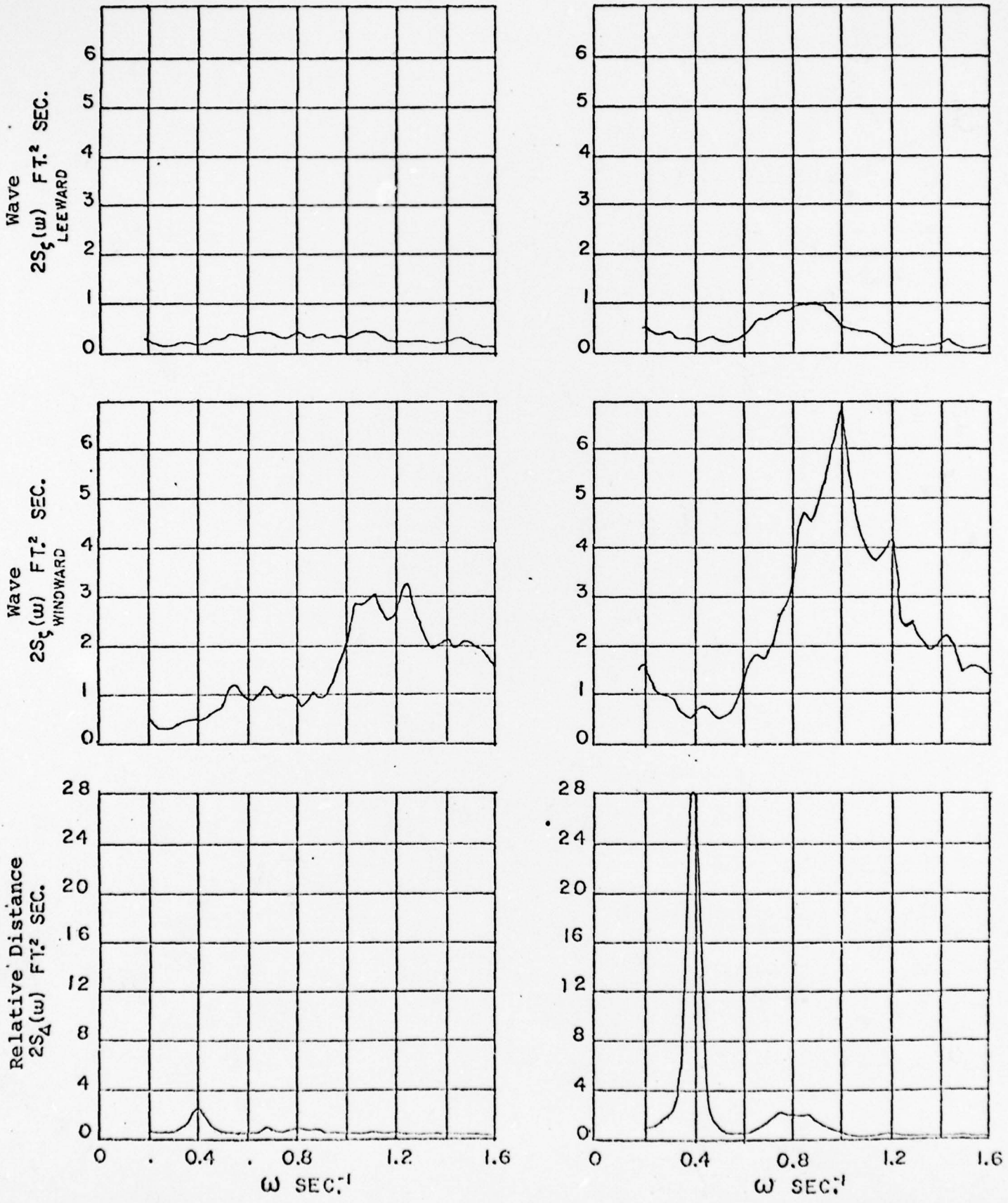


FIGURE 3

BEAM SEAS - LCU TO WINDWARD

SEA STATE 3 15kts

SEA STATE 4 18kts

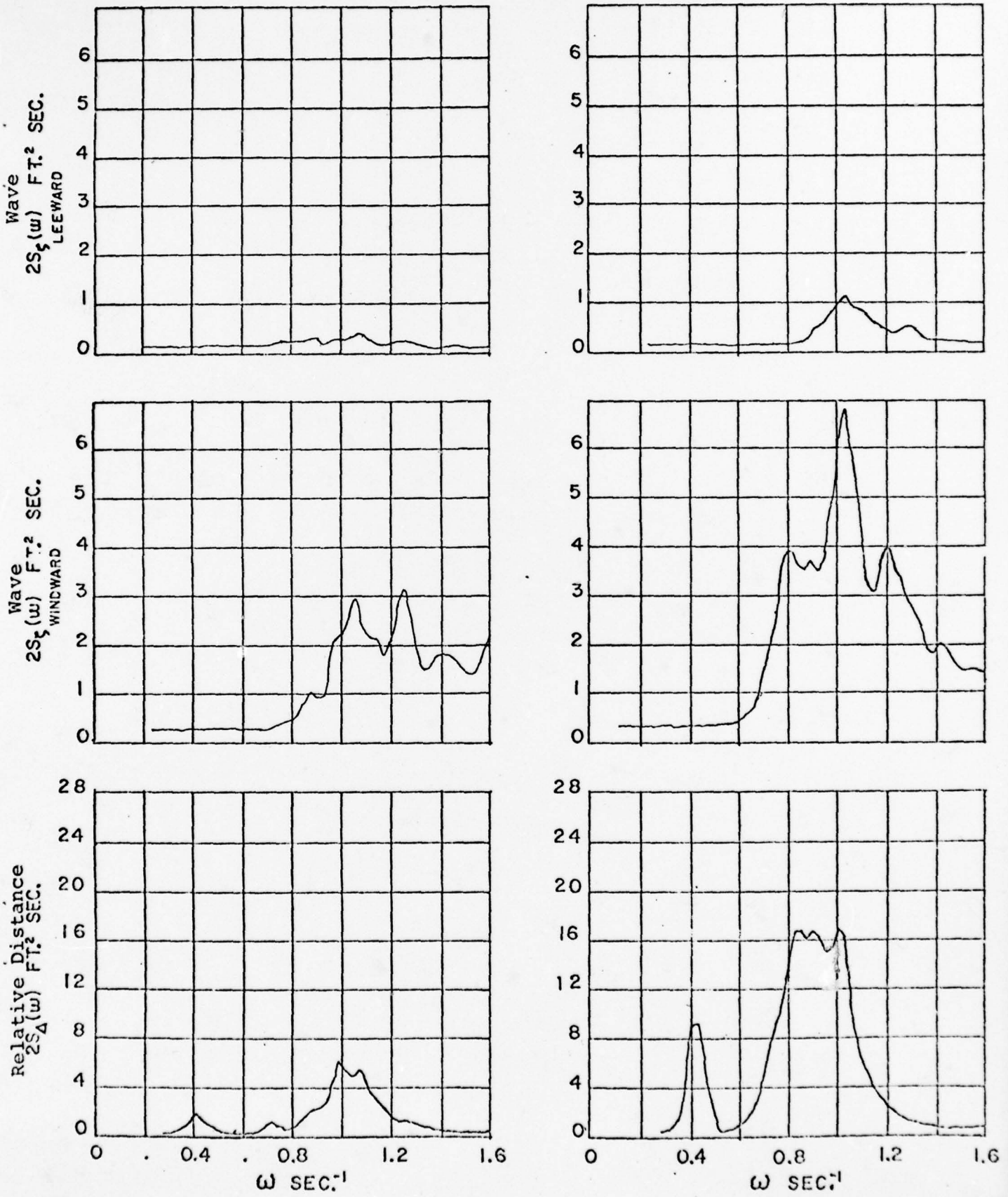


FIGURE 4.

SKEWED SEAS - LCU TO LEEWARD

SEA STATE 3 15kts

SEA STATE 4 18kts

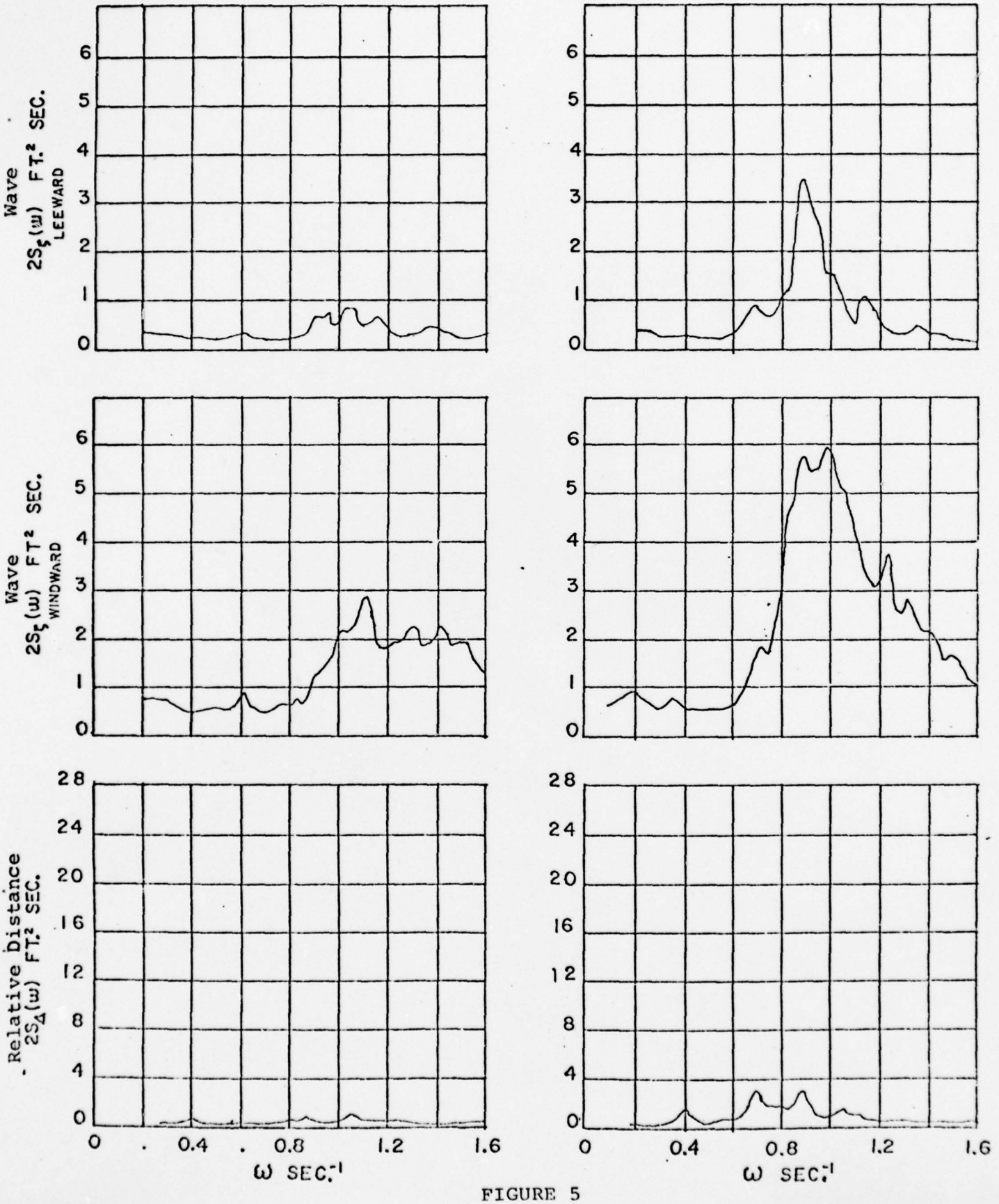


FIGURE 5

SKEWED SEAS - LCU TO WINDWARD

SEA STATE 3 15kts

SEA STATE 4 18kts

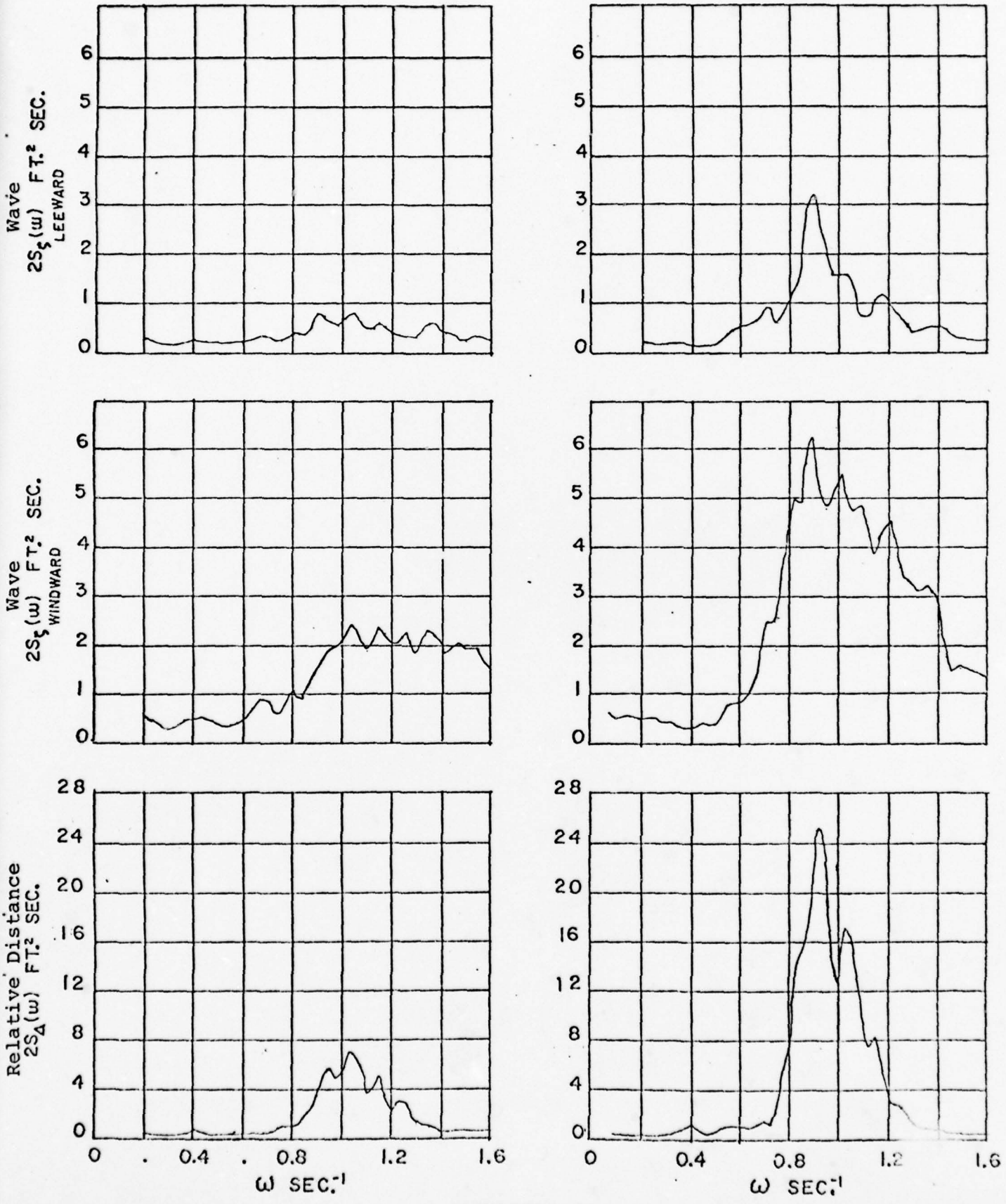


FIGURE 6

HEAD SEAS - LCU TO STARBOARD

SEA STATE 3 15kts

SEA STATE 4 18kts

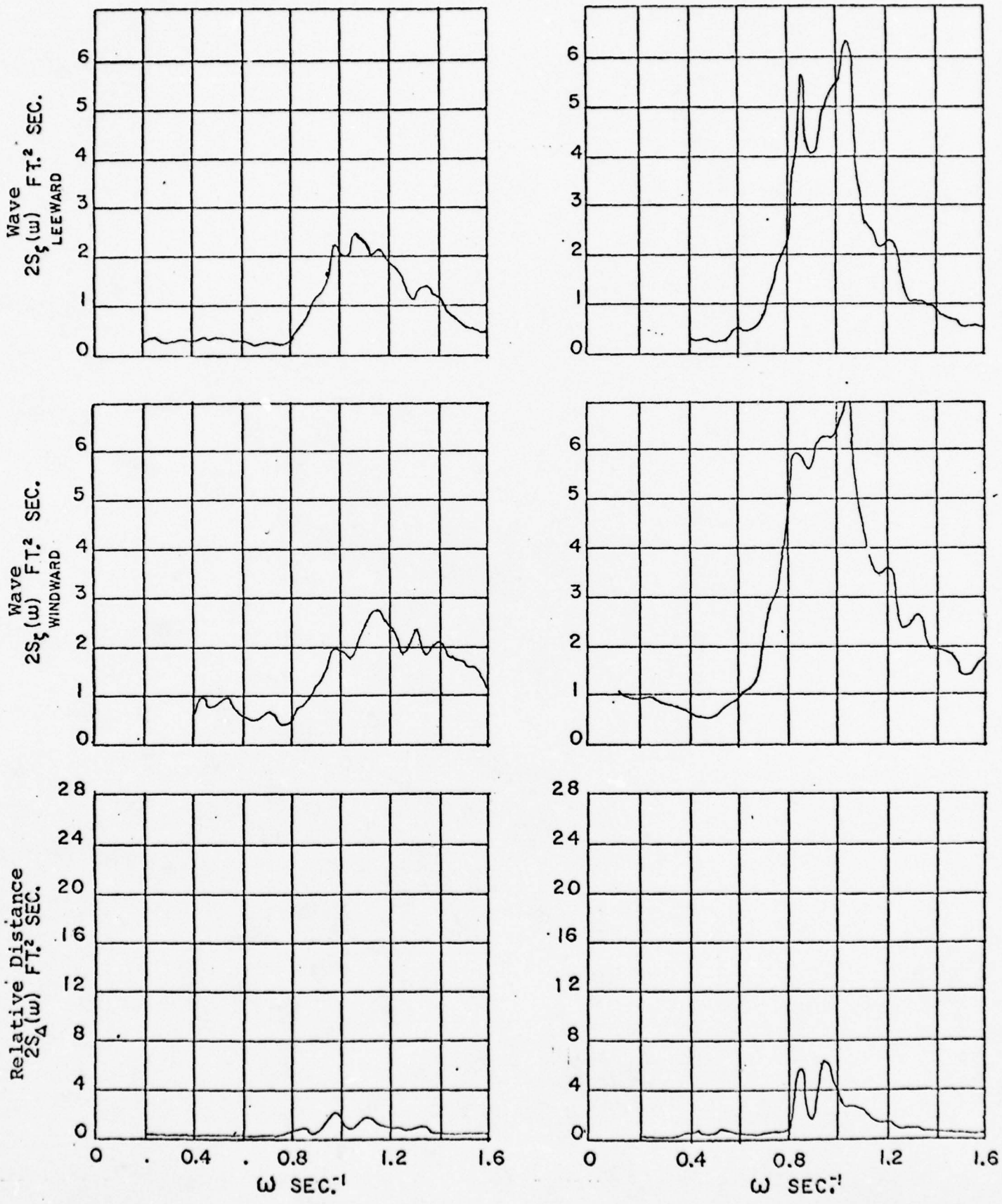
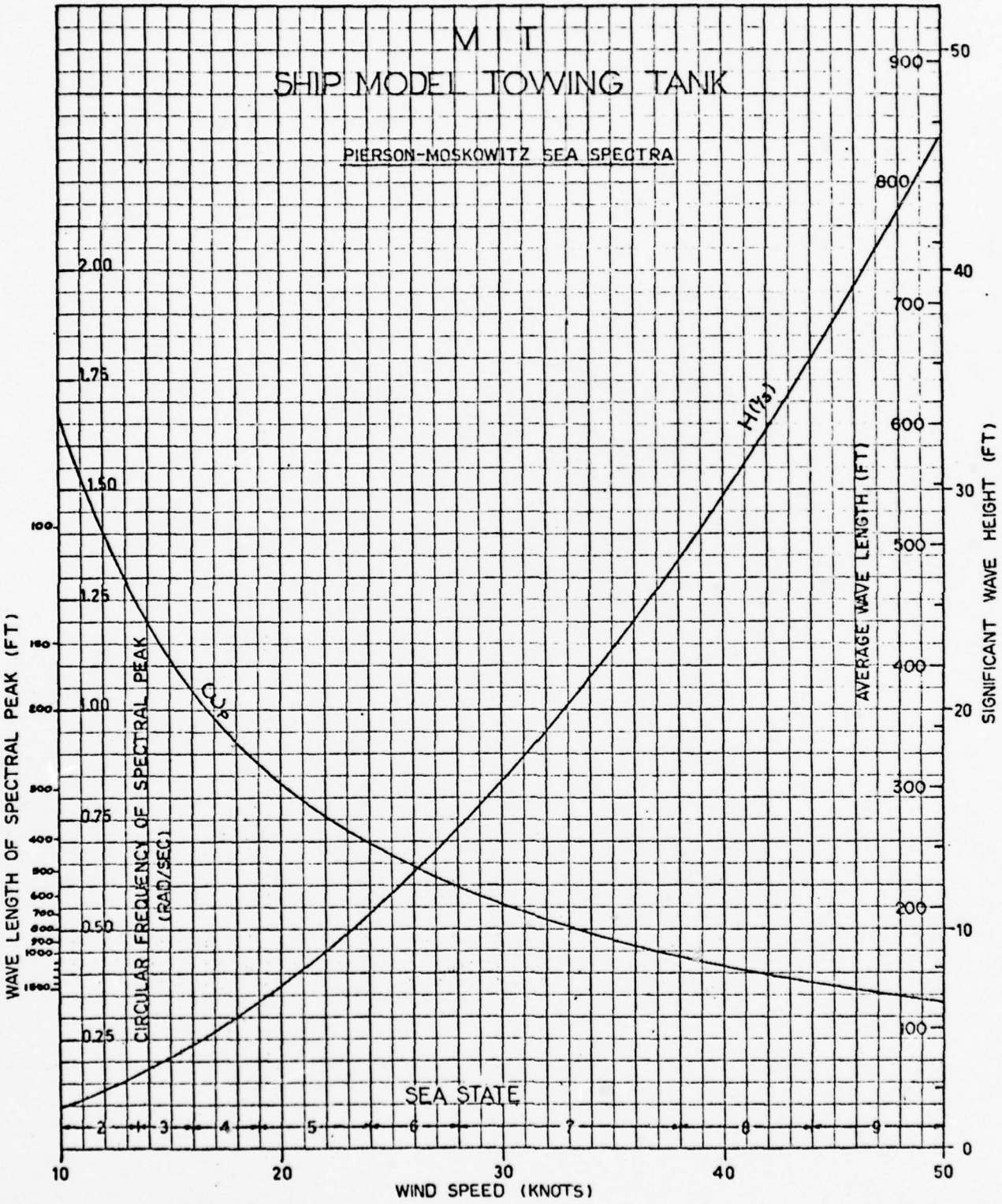


FIGURE 7



Principal Parameters for Fully Developed Seaways

Figure 8

TEST 11B B-C DISPL

REAL MEAN = 352.92621CTS
INTEGER MEAN = 353 CTS
RMS VALUE 1.13435 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 11B B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	4.392234	0.000000	27.595563	1.286848
0.026720	4.203436	0.004253	26.412534	0.582849
0.053440	3.698721	0.008505	23.239746	0.275101
0.080159	2.926452	0.012758	18.387695	0.228254
0.106879	2.010181	0.017010	12.630342	0.190975
0.133599	1.340220	0.021263	8.420853	0.169131
0.160319	0.926486	0.025516	5.821285	0.209362
0.187039	0.529592	0.029768	3.327526	0.399190
0.213758	0.365881	0.034021	2.298856	0.365946
0.240478	0.423145	0.038273	2.658722	0.259733
0.267198	0.470431	0.042526	2.955803	0.179837
0.293918	0.587281	0.046778	3.689956	-0.060238
0.320638	0.829513	0.051031	5.214457	-0.095396
0.347357	1.121351	0.055284	6.520242	-0.044837
0.374077	1.725420	0.059536	10.841133	0.098027
0.400797	2.568268	0.063789	16.136982	0.094349
0.427517	2.236424	0.068041	14.051868	0.095031
0.454237	1.122222	0.072294	6.511518	0.044950
0.480956	0.622207	0.076547	3.856878	0.005956
0.507676	0.534814	0.080799	3.360333	-0.037664
0.534396	0.453924	0.085052	3.103417	-0.105384
0.561116	0.478705	0.089304	3.007752	-0.057142
0.587836	0.377578	0.093557	2.374885	0.019826
0.614555	0.344386	0.097809	2.163854	0.069676
0.641275	0.604465	0.102062	3.797964	0.099167
0.667995	0.888675	0.106315	5.579539	0.023078
0.694715	0.780053	0.110567	4.901217	-0.051838
0.721434	0.573507	0.114820	3.603453	-0.102243
0.748154	0.533160	0.119072	3.349941	-0.054346
0.774874	0.521886	0.123325	3.279063	0.012754
0.801594	0.498225	0.127578	3.130337	0.002800
0.828314	0.562576	0.131830	3.537259	0.044654
0.855034	0.712443	0.136083	4.476414	0.012287
0.881753	0.817707	0.140335	5.137804	0.014652
0.908473	0.821308	0.144588	5.034769	-0.014180
0.935193	0.701644	0.148841	4.408557	-0.085715
0.961913	0.584715	0.153093	3.673858	-0.052699
0.988632	0.405246	0.157346	2.548361	0.005877
1.015352	0.410841	0.161598	2.581388	0.064760
1.042072	0.335583	0.165851	2.108531	0.094193
1.068792	0.216445	0.170103	1.359965	0.043099
1.095511	0.182039	0.174356	1.143784	0.013037
1.122231	0.238517	0.178609	1.501158	-0.037250
1.148951	0.316953	0.182861	1.991477	-0.024365
1.175671	0.336786	0.187114	2.116051	-0.017843
1.202391	0.382565	0.191366	2.406267	0.004611
1.229111	0.439545	0.195619	2.761768	0.028408
1.255830	0.359576	0.199872	2.255280	0.047970
1.282550	0.292664	0.204124	1.838236	0.012353
1.309270	0.404441	0.208377	2.541176	-0.030976
1.335990	0.534684	0.212629	3.355520	-0.039100
1.362709	0.474845	0.216882	2.983562	-0.071069
1.389429	0.365836	0.221135	2.298615	-0.002156
1.416149	0.325464	0.225387	2.044958	0.033054
1.442869	0.264788	0.229640	1.663714	0.024395
1.469588	0.211559	0.233892	1.329517	0.009221
1.496308	0.166711	0.238145	1.060050	-0.003021
1.523028	0.165953	0.242397	1.042712	-0.021169
1.549747	0.226447	0.246650	1.422806	-0.012456
1.576467	0.248206	0.250903	1.555585	0.000284
1.603188	0.237775	0.255150	1.493982	0.014441

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(0.01376)

ZEROTH MOMENT = 1.28688
SECOND MOMENT = 0.00347
FOURTH MOMENT = 0.00007
BROADNESS FACTOR (SQRT(1.-M2**2/(M0*M4))) = 0.92675

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 4.53737
4.0*RMS*SQRT(1.0-(BROADNESS**2/2.0)) = 3.42749

TABLE 1

TEST115 WAVHINC

REAL MEAN = 11453.835806CTS
INTEGER MEAN = 11454 CTS
RMS VALUE 1.55134 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST115 WAVHINC

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	3.686452	0.000000	23.162918	2.406643
0.026722	2.652741	0.004253	16.667664	-0.672123
0.053440	1.250154	0.008505	8.106524	0.183237
0.080155	1.112756	0.012758	6.551651	0.442744
0.106875	1.363861	0.017010	8.654674	-0.134478
0.133595	1.245185	0.021263	7.848858	0.316290
0.160315	0.816665	0.025516	5.131283	0.300888
0.187035	0.601076	0.029768	3.776684	-0.026239
0.213758	0.500511	0.034021	3.144804	0.069186
0.240476	0.350855	0.038273	2.456067	0.118600
0.267158	0.327428	0.042526	2.057289	0.044182
0.293918	0.330455	0.046778	2.076327	0.015640
0.320636	0.385198	0.051031	2.445403	0.088656
0.347357	0.445648	0.055284	2.800087	0.084375
0.374077	0.479344	0.059536	3.011806	-0.071098
0.400797	0.465352	0.063785	2.523850	0.116160
0.427517	0.502974	0.068041	3.160281	0.024523
0.454237	0.628085	0.072294	3.946373	0.027851
0.480956	0.655564	0.076547	4.115033	0.144473
0.507676	0.776552	0.080799	4.879217	0.033900
0.534396	1.113380	0.085052	6.955575	0.072604
0.561116	1.170550	0.089304	7.354784	0.057918
0.587836	0.965423	0.093557	6.065531	0.046554
0.614555	0.900034	0.097805	5.652781	0.139287
0.641275	0.965754	0.102062	6.053355	0.050543
0.667995	1.110070	0.106315	6.574776	0.114702
0.694715	1.064754	0.110567	6.692255	0.078413
0.721434	0.853763	0.114820	5.615679	0.019153
0.748154	0.921715	0.119072	5.751331	0.133117
0.774874	0.997072	0.123325	6.264788	0.131810
0.801594	0.900309	0.127578	5.656907	0.052550
0.828314	0.767924	0.131830	4.550669	0.065636
0.855034	0.872879	0.136083	5.484462	0.024002
0.881753	1.006736	0.140335	6.325507	0.064900
0.908473	0.549971	0.144588	5.568846	0.084241
0.935193	1.026347	0.148841	6.448730	0.024403
0.961913	1.443150	0.153093	9.067827	0.030953
0.988632	1.828745	0.157346	11.490342	0.085377
1.015352	2.371853	0.161598	14.902790	-0.044881
1.042072	2.810054	165851	17.656342	0.019850
1.068791	2.801657	0.170103	17.603577	-0.004658
1.095511	2.958541	0.174356	18.591583	0.100545
1.122231	3.051784	0.178605	19.174927	-0.064459
1.148952	2.735664	0.182861	17.188650	0.118298
1.175671	2.531884	0.187114	15.908257	-0.040378
1.202391	2.653235	0.191366	16.670776	-0.035689
1.229111	3.070064	0.195619	19.254800	0.062607
1.255830	3.227320	0.199872	20.277847	0.057875
1.282550	2.840426	0.204124	17.846524	0.008082
1.309270	2.428012	0.208377	15.255648	0.240017
1.335990	2.162203	0.212625	13.572955	0.251040
1.362705	1.964128	0.216882	12.340577	-0.028980
1.389425	2.048445	0.221135	12.870781	0.112727
1.416145	2.140018	0.225387	13.446132	-0.002016
1.442865	1.571313	0.229640	12.386127	0.065522
1.469588	2.075951	0.233852	13.043834	-0.047210
1.496308	2.051658	0.238145	12.890544	0.042118
1.523028	1.845830	0.242397	11.600022	0.150110
1.549747	1.950254	0.246650	12.254055	-0.027534
1.576468	1.812033	0.250903	11.385337	-0.014721
1.603188	1.588875	0.255155	9.983154	0.135717

BRANCHES 5558 (06ARR) 33F0 (17F0R)
ARGS AT 62CC

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.00315)
ZEROTH MOMENT = 2.40684
SECOND MOMENT = 0.74538
FOURTH MOMENT = 4.49506
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.84996

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 6.20538

TABLE 2

REAL MEAN = 6063.76503CTS
INTEGER MEAN = 6064 CTS
RMS VALUE 0.72001 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 115 WAVLEE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.528555	0.000000	12.117717	0.529993
0.026720	1.256238	0.004253	7.925741	0.078574
0.053440	0.454367	0.008505	3.106199	0.005739
0.080159	0.453725	0.012758	3.102166	0.091505
0.106879	0.584557	0.017010	3.675642	0.086449
0.133599	0.473228	0.021263	2.973379	0.086273
0.160319	0.335206	0.025516	2.131795	0.084118
0.187039	0.285538	0.029768	1.819219	0.054507
0.213758	0.225555	0.034021	1.444873	0.016370
0.240478	0.174205	0.038273	1.054562	0.060036
0.267198	0.146158	0.042526	0.518339	0.021744
0.293918	0.153956	0.046778	0.567585	0.041487
0.320638	0.150688	0.051031	1.158131	0.033535
0.347357	0.224512	0.055284	1.410653	0.024270
0.374077	0.210427	0.059536	1.322151	0.012818
0.400797	0.172361	0.063789	1.082978	0.039631
0.427517	0.157786	0.068041	1.242725	0.023100
0.454237	0.254482	0.072294	1.558957	0.038316
0.480956	0.265165	0.076547	1.666125	0.044255
0.507676	0.257995	0.080799	1.872380	0.027506
0.534396	0.300628	0.085052	2.351557	0.056293
0.561116	0.351760	0.089304	2.461503	0.031772
0.587836	0.300183	0.093557	2.388759	0.031597
0.614555	0.423538	0.097809	2.535505	0.037220
0.641275	0.395658	0.102062	2.485594	0.050293
0.667995	0.405637	0.106315	2.548656	0.034763
0.694715	0.382083	0.110567	2.400701	0.043184
0.721434	0.328511	0.114820	2.066611	0.042220
0.748154	0.325754	0.119072	2.071906	0.056801
0.774874	0.367651	0.123325	2.310272	0.055381
0.801594	0.387616	0.127578	2.435465	0.041297
0.828314	0.353501	0.131830	2.221111	0.043097
0.855034	0.315700	0.136083	1.583600	0.037168
0.881753	0.317737	0.140335	1.956400	0.044582
0.908473	0.346445	0.144588	2.176776	0.031733
0.935193	0.352815	0.148841	2.216025	0.047946
0.961913	0.353056	0.153093	2.223340	0.042654
0.988632	0.366251	0.157346	2.301226	0.035784
1.015352	0.367350	0.161598	2.308125	0.025817
1.042072	0.368882	0.165851	2.443406	0.019944
1.068791	0.435883	0.170103	2.738734	0.018448
1.095511	0.438020	0.174356	2.752159	0.025497
1.122231	0.384158	0.178609	2.413984	0.033594
1.148952	0.300265	0.182861	1.886649	0.024300
1.175671	0.224988	0.187114	1.413013	0.010191
1.202351	0.202154	0.191366	1.270173	0.014086
1.229111	0.215646	0.195619	1.354546	0.018354
1.255830	0.242754	0.199872	1.525266	0.022133
1.282550	0.245011	0.204124	1.539449	0.033863
1.309270	0.219010	0.208377	1.376078	0.010177
1.335990	0.218367	0.212629	1.372042	0.018236
1.362709	0.216367	0.216882	1.359476	0.019676
1.389429	0.213504	0.221135	1.341482	0.040395
1.416149	0.245171	0.225387	1.565585	0.037416
1.442869	0.325826	0.229640	1.521962	0.019452
1.469588	0.310590	0.233892	1.551492	0.016777
1.496308	0.224117	0.238145	1.408167	0.032286
1.523028	0.150638	0.242397	0.946465	0.069663
1.549747	0.125315	0.246650	0.812536	0.017958
1.576468	0.115681	0.250903	0.751977	0.021966
1.603188	0.116596	0.255155	0.735109	0.030559

ERROR=55 0598 (06A0A) 33F0 (17F0F)
ARG1 AT 02CC

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60319)
ZEROTH MOMENT = 0.52955
SECOND MOMENT = 0.36602
FOURTH MOMENT = 0.50813
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.70675

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 2.91200

TABLE 3

TEST 118 B-C DISP

REAL MEAN = 533.70874 CTS
INTEGER MEAN = 534 CTS
RMS VALUE 1.85501 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 118 B-C DISP

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.277566	0.000000	14.310369	3.441057
0.026720	1.426526	0.004253	8.563051	1.792962
0.053440	0.564372	0.008505	3.546055	-0.250140
0.080159	0.677637	0.012758	4.257721	-1.380972
0.106879	0.755810	0.017010	5.000222	-1.801189
0.133599	0.735001	0.021263	4.643275	-1.596902
0.160319	0.676186	0.025516	4.248001	-0.404493
0.187039	0.810043	0.029768	5.085649	1.279658
0.213758	0.570047	0.034021	6.054587	2.201655
0.240478	1.115661	0.038273	7.035035	1.531520
0.267198	1.306577	0.042526	8.211580	0.259282
0.293918	1.803671	0.046778	11.332758	-1.051225
0.320638	2.240640	0.051031	14.078354	-1.755475
0.347357	7.672813	0.055284	48.205722	-1.394324
0.374077	24.200104	0.059536	152.053726	-0.227954
0.400797	38.184215	0.063789	165.653030	0.976596
0.427517	15.104032	0.068041	94.521420	1.633932
0.454237	3.593435	0.072294	22.578217	1.390890
0.480956	1.455831	0.076547	5.358580	0.417037
0.507676	0.879523	0.080799	5.526207	-0.757741
0.534396	0.646075	0.085052	4.055410	-1.466086
0.561116	0.525953	0.089304	3.384912	-1.240304
0.587836	0.535950	0.093557	3.352603	-0.316442
0.614555	0.615647	0.097809	3.853357	0.682073
0.641275	0.874855	0.102062	5.456501	1.358643
0.667995	1.154344	0.106315	7.504252	1.276818
0.694715	1.464575	0.110567	9.202154	0.486997
0.721434	1.800055	0.114820	11.310105	-0.486706
0.748154	2.032515	0.119072	12.770655	-1.130848
0.774874	1.587540	0.123325	12.488083	-1.062879
0.801594	1.554515	0.127578	12.531534	-0.378009
0.828314	1.528857	0.131830	12.115365	0.446557
0.855034	1.568121	0.136083	12.366066	1.096485
0.881753	2.018431	0.140335	12.682174	1.124510
0.908473	1.585853	0.144588	5.564458	0.526519
0.935193	1.101904	0.148841	6.523466	-0.275644
0.961913	2.062187	0.153093	5.417281	-0.834480
0.988632	0.556855	0.157346	3.750173	-0.929384
1.015352	0.358605	0.161598	2.504507	-0.490020
1.042072	0.388506	0.165851	2.442937	0.268253
1.068791	0.363641	0.170103	2.284824	0.842868
1.095511	0.266011	0.174356	1.671399	0.872141
1.122231	0.317792	0.178609	1.596749	0.523600
1.148951	0.459370	0.182861	3.137632	-0.048117
1.175671	0.625547	0.187114	3.955561	-0.568835
1.202391	0.613679	0.191366	3.855861	-0.787091
1.229111	0.455604	0.195619	2.862645	-0.480757
1.255830	0.365650	0.199872	2.322829	0.116296
1.282550	0.385320	0.204124	2.421084	0.619811
1.309270	0.345551	0.208377	2.173673	0.720382
1.335990	0.251238	0.212629	1.578577	0.518119
1.362709	0.185141	0.216882	1.163272	0.073991
1.389429	0.165432	0.221135	1.064569	-0.414243
1.416149	0.155282	0.225387	1.000795	-0.651258
1.442869	0.156372	0.229640	0.582514	-0.485458
1.469588	0.188445	0.233892	1.184037	-0.013986
1.496308	0.246132	0.238145	1.546454	0.504056
1.523028	0.357165	0.242397	1.847121	0.684284
1.549747	0.324240	0.246650	2.037302	0.521592
1.576468	0.358596	0.250903	2.504018	-0.148935
1.603188	0.460773	0.255155	2.522535	-0.270732

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.05551)
ZEROTH MOMENT = 3.44106
SECOND MOMENT = 0.08727
FOURTH MOMENT = 0.36526
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.69797

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 7.42004
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 6.40339

TABLE 4

TEST 118 HAVHING

REAL MEAN = 11006.00701 CTS
INTEGER MEAN = 11000 CTS
RMS VALUE 1.97100 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 118 HAVHING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	5.621672	0.000000	35.322886	3.885256
0.026720	3.362679	0.004253	21.128326	-0.841212
0.053440	1.027265	0.008505	6.454510	-0.820486
0.080159	1.043526	0.012758	6.556752	1.276263
0.106879	1.095655	0.017010	6.884206	0.269440
0.133599	0.945491	0.021263	5.940655	-0.351360
0.160319	1.025555	0.025516	6.443780	0.165279
0.187039	1.454618	0.029768	9.139637	0.208202
0.213758	1.508058	0.034021	9.475425	-0.054083
0.240478	1.198998	0.038273	7.533529	0.119901
0.267198	1.028952	0.042526	6.465114	0.163590
0.293918	0.973580	0.046778	6.117106	0.105510
0.320638	0.889553	0.051031	5.589223	0.075184
0.347357	0.659745	0.055284	4.145301	0.245788
0.374077	0.545586	0.059536	3.428016	0.082515
0.400797	0.564058	0.063789	3.544081	0.159666
0.427517	0.596242	0.068041	3.746257	0.298349
0.454237	0.740082	0.072294	4.650071	-0.034140
0.480956	0.721305	0.076547	4.532115	0.049956
0.507676	0.579012	0.080799	3.638042	0.266591
0.534396	0.561896	0.085052	3.530455	0.122900
0.561116	0.615993	0.089304	3.870400	0.034024
0.587836	0.818395	0.093557	5.142129	0.169475
0.614555	1.237850	0.097809	7.777641	0.065705
0.641275	1.654430	0.102062	10.395092	0.095733
0.667995	1.812678	0.106315	11.389354	0.043933
0.694715	1.789220	0.110567	11.242000	0.161442
0.721434	2.035990	0.114820	12.792500	0.146744
0.748154	2.502516	0.119072	15.726286	0.012485
0.774874	2.757581	0.123325	17.326385	0.243579
0.801594	3.372356	0.127578	21.189392	0.128796
0.828314	4.384815	0.131830	27.550598	0.158083
0.855034	4.050748	0.136083	25.451684	0.191734
0.881753	4.526953	0.140335	28.443680	0.063933
0.908473	4.784816	0.144588	30.063889	0.169387
0.935193	5.127743	0.148841	32.218552	0.254109
0.961913	5.658156	0.153093	35.551458	0.018429
0.988632	6.609786	0.157346	41.530502	0.077859
1.015352	6.501573	0.161598	40.850586	0.121085
1.042072	5.569790	0.165851	34.996017	0.175139
1.068791	4.961164	0.170103	31.171921	0.027728
1.095511	4.413373	0.174356	27.730242	0.062845
1.122231	4.015427	0.178609	25.229675	0.210634
1.148951	3.741250	0.182861	23.506573	0.088843
1.175671	3.840736	0.187114	24.132065	-0.036583
1.202391	4.117932	0.191366	25.873734	0.207659
1.229111	3.462381	0.195619	21.754776	0.044204
1.255830	2.542614	0.199872	15.975714	0.112129
1.282550	2.430842	0.204124	15.273433	0.205986
1.309270	2.477546	0.208377	15.566878	0.116251
1.335990	2.289406	0.212629	14.384760	0.102888
1.362709	2.057178	0.216882	12.925633	0.170952
1.389429	1.981239	0.221135	12.448453	0.109750
1.416149	2.142550	0.225387	13.462035	0.024265
1.442869	2.203353	0.229640	13.844074	0.104752
1.469588	2.031685	0.233892	12.765452	0.146127
1.496308	1.681194	0.238145	10.563255	0.026033
1.523028	1.433043	0.242397	9.004071	0.112000
1.549748	1.552077	0.246650	9.751588	0.138066
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)

ZEROTH MOMENT = 3.88886
SECOND MOMENT = 3.07451
FOURTH MOMENT = 8.41771
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.53539

TABLE 5

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 7.88427
4.0*RMS*SQRT(1.0-BROADNESS**2/2.0) = 7.29741

TEST 118 WAVLEF

REAL MEAN = 17385.45685CTS
INTEGER MEAN = 17385 CTS
RMS VALUE 1.32750 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 118 WAVLFE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	41.540222	0.000000	261.004883	1.763304
0.026720	21.222687	0.004253	133.346069	1.183293
0.053440	0.646654	0.008505	4.025346	0.926619
0.080159	0.420897	0.012758	2.644574	1.197438
0.106879	0.417640	0.017010	2.580125	1.270397
0.133599	0.348623	0.021263	2.190461	1.054930
0.160319	0.402741	0.025516	2.530454	1.031980
0.187039	0.457010	0.029768	3.122807	1.127621
0.213758	0.454345	0.034021	2.854736	1.110696
0.240478	0.384651	0.038273	2.417088	1.106125
0.267198	0.401229	0.042526	2.520558	1.099248
0.293918	0.392386	0.046778	2.465432	1.123731
0.320638	0.361736	0.051031	2.272852	1.098381
0.347357	0.304228	0.055284	1.511522	1.103753
0.374077	0.230141	0.059536	1.446015	1.141887
0.400797	0.203213	0.063789	1.275569	1.105252
0.427517	0.233585	0.068041	1.467660	1.086493
0.454237	0.294545	0.072294	1.853195	1.099257
0.480956	0.321078	0.076547	1.851726	1.109888
0.507676	0.246432	0.080799	1.548377	1.082218
0.534396	0.219368	0.085052	1.378327	1.131875
0.561116	0.249709	0.089304	1.568971	1.097177
0.587836	0.313982	0.093557	1.972805	1.088775
0.614555	0.401594	0.097809	2.523287	1.028265
0.641275	0.539044	0.102062	3.386915	1.082012
0.667995	0.646712	0.106315	4.063410	1.075923
0.694715	0.662154	0.110567	4.160439	1.092576
0.721434	0.750906	0.114820	4.715565	1.087331
0.748154	0.866318	0.119072	5.443205	1.082670
0.774874	0.850784	0.123325	5.345631	1.053600
0.801594	0.891641	0.127578	5.602346	1.091188
0.828314	0.983438	0.131830	6.179121	1.094888
0.855034	0.993829	0.136083	6.244411	1.077966
0.881753	0.994620	0.140335	6.249381	1.087509
0.908473	0.585340	0.144588	6.216206	1.112005
0.935193	0.900015	0.148841	5.565119	1.091236
0.961912	0.823381	0.153093	5.173453	1.082357
0.988632	0.639195	0.157346	4.016204	1.067171
1.015352	0.483348	0.161598	3.036963	1.085835
1.042072	0.405448	0.165851	2.547502	1.084515
1.068791	0.407030	0.170103	2.557445	1.066545
1.095511	0.414011	0.174356	2.601309	1.048617
1.122231	0.388954	0.178609	2.443870	1.064032
1.148952	0.292458	0.182861	1.837568	1.069820
1.175671	0.170080	0.187114	1.068644	1.060738
1.202391	0.123883	0.191366	0.778378	1.049441
1.229111	0.139204	0.195619	0.874644	1.054132
1.255830	0.140043	0.199872	0.879915	1.078493
1.282550	0.123411	0.204124	0.775415	1.073668
1.309270	0.128428	0.208377	0.806935	1.054016
1.335990	0.133865	0.212629	0.841125	1.050965
1.362709	0.131695	0.216882	0.827452	1.068607
1.389429	0.158420	0.221135	0.995380	1.046266
1.416149	0.223042	0.225387	1.401417	1.030988
1.442869	0.233477	0.229640	1.466978	1.050535
1.469588	0.159950	0.233892	1.004996	1.040023
1.496308	0.096848	0.238145	0.608513	1.035271
1.523028	0.070438	0.242397	0.442574	[illegible]
1.549747	0.076688	0.246650	0.481847	1.033196
1.576468	0.127001	0.250903	0.786655	1.042250
1.603188	0.155512	0.255155	0.958472	1.037703

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(0.00000)
ZEROTH MOMENT = 1.76330
SECOND MOMENT = 0.00765
FOURTH MOMENT = 0.00063
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.97340

TABLE 6

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.31100

TEST 213 B-C DISPL

REAL MEAN = 2482.63672CTS
INTEGER MEAN = 2483 CTS
RMS VALUE 1.47376 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 213 B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.758246	0.000000	4.764203	0.171962
0.026720	0.559600	0.004253	3.516068	-0.592577
0.053440	0.308010	0.008505	1.935283	-0.710178
0.080159	0.220336	0.012758	1.384411	0.970420
0.106879	0.216662	0.017010	1.361326	-0.346013
0.133599	0.282514	0.021263	1.775066	-0.655581
0.160319	0.316019	0.025516	1.985603	0.503838
0.187039	0.293495	0.029768	1.843229	0.111160
0.213758	0.279396	0.034021	1.755497	-0.169768
0.240478	0.296688	0.038273	1.864145	0.356362
0.267198	0.304225	0.042526	1.911526	0.074292
0.293918	0.391133	0.046778	2.457561	-0.313060
0.320638	0.608906	0.051031	3.825871	-0.020531
0.347357	0.725985	0.055284	4.561135	0.258555
0.374077	1.258827	0.059536	7.909444	-0.048170
0.400797	1.926933	0.063789	12.107278	0.104629
0.427517	1.733415	0.068041	10.891395	0.103028
0.454237	0.991436	0.072294	6.229378	0.023659
0.480956	0.535085	0.076547	3.362038	0.023483
0.507676	0.270018	0.080799	1.696570	-0.017131
0.534396	0.160472	0.085052	1.008277	-0.036080
0.561116	0.145445	0.089304	0.913860	-0.106991
0.587836	0.141089	0.093557	0.886489	0.114244
0.614555	0.157805	0.097809	0.991521	0.163012
0.641275	0.170532	0.102062	1.071484	-0.063559
0.667995	0.270139	0.106315	1.697331	-0.037673
0.694715	0.742164	0.110567	4.650586	0.093114
0.721434	1.147824	0.114820	7.211992	0.011503
0.748154	0.880252	0.119072	5.530786	-0.156538
0.774874	0.611156	0.123325	3.840072	0.043928
0.801594	0.822158	0.127578	5.277808	0.115435
0.828314	1.202152	0.131830	7.553556	-0.085171
0.855034	1.744028	0.136083	10.958051	0.082906
0.881753	2.275552	0.140335	14.297713	0.137886
0.908473	2.423656	0.144588	15.228282	-0.219596
0.935193	2.800381	0.148841	17.595306	-0.019985
0.961913	4.584133	0.153093	28.802563	0.176653
0.988632	6.116714	0.157346	38.432449	-0.145850
1.015352	5.471254	0.161598	34.376907	-0.063426
1.042072	4.994609	0.165851	31.382050	0.236024
1.068791	5.501547	0.170103	34.567230	-0.021542
1.095511	4.669211	0.174356	29.337524	-0.043522
1.122231	3.406773	0.178609	21.405380	0.104519
1.148951	2.985195	0.182861	18.756561	-0.115391
1.175671	2.346105	0.187114	14.741010	-0.046643
1.202351	1.643223	0.191366	10.324673	0.091992
1.229111	1.442843	0.195619	9.065652	-0.015949
1.255830	1.420054	0.199872	8.553876	-0.007344
1.282550	1.349728	0.204124	8.480571	0.094617
1.309270	1.057881	0.208377	6.658151	0.017124
1.335990	0.771530	0.212629	4.847668	-0.014597
1.362709	0.646655	0.216882	4.063051	-0.029034
1.389429	0.683645	0.221135	4.295467	-0.020645
1.416145	0.704254	0.225387	4.425012	0.008195
1.442865	0.706783	0.229640	4.440850	0.044649
1.469588	0.643836	0.233892	4.045316	0.010249
1.496308	0.523397	0.238145	3.288602	0.015316
1.523028	0.520725	0.242397	3.271838	0.030687
1.549747	0.565895	0.246650	3.580758	-0.017879
1.576468	0.563656	0.250903	3.541604	-0.013987
1.603188	0.555353	0.255155	3.489384	-0.009329

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60319)
ZEROTH MOMENT = 2.17156
SECOND MOMENT = 0.19374
FOURTH MOMENT = 0.03638
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.46778

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.89503
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 5.56321

TABLE 7

TEST 215 WAVWIND

REAL MEAN = 10183.50000CTS
INTEGER MEAN = 10184 CTS
RMS VALUE 1.33484 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 215 WAVWIND

VELOCITY = 0.0000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.824306	0.000000	17.745636	1.781810
0.026720	1.675633	0.004253	10.553446	-0.737223
0.053440	0.457475	0.008505	2.874400	0.142097
0.080155	0.415180	0.012758	2.608654	0.469374
0.106875	0.501223	0.017010	3.145275	-0.181597
0.133595	0.452836	0.021263	3.056540	0.061628
0.160315	0.367810	0.025516	2.311018	0.211195
0.187035	0.332553	0.029768	2.085454	0.018528
0.213758	0.330107	0.034021	2.074122	0.042388
0.240478	0.257285	0.038273	1.616567	0.073386
0.267198	0.237898	0.042526	1.454757	0.123691
0.293918	0.254131	0.046778	1.596750	-0.034918
0.320638	0.273503	0.051031	1.720584	0.099692
0.347357	0.315207	0.055284	1.980507	0.102274
0.374077	0.313503	0.059536	1.972308	-0.061929
0.400797	0.291885	0.063789	1.833964	0.140642
0.427517	[illegible]	0.068041	1.755671	0.095472
0.454237	0.267080	0.072294	1.678113	-0.062466
0.480956	0.280222	0.076547	1.760690	0.210944
0.507676	0.284038	0.080799	1.784666	-0.031148
0.534396	0.273247	0.085052	1.716859	0.111560
0.561116	0.305917	0.089304	1.922132	0.054704
0.587836	0.323175	0.093557	2.030570	0.035123
0.614555	0.303439	0.097809	1.906564	0.131124
0.641275	0.305765	0.102062	1.921201	0.000648
0.667995	0.331993	0.106315	2.085974	0.0777[illegible]
0.694715	0.316534	0.110567	1.988843	0.123655
0.721434	0.305372	0.114820	1.918711	0.006969
0.748154	0.371743	0.119072	2.335730	0.107829
0.774874	0.422485	0.123325	2.654551	0.048261
0.801594	0.463656	0.127578	2.913237	0.107359
0.828314	0.577812	0.131830	3.630458	0.032744
0.855034	0.796565	0.136083	5.004588	0.035274
0.881753	1.000456	0.140335	6.286049	0.136023

0.908473	0.953873	0.144588	5.993358	0.041656
0.935193	0.965397	0.148841	6.065702	-0.020933
0.961913	1.563489	0.153093	9.823650	0.159516
0.988632	2.182534	0.157346	13.713266	-0.002032
1.015352	2.255229	0.161598	14.155152	0.012619
1.042072	2.573514	0.165851	16.169861	0.118357
1.068791	2.916952	0.170103	18.328003	0.039665
1.095511	2.494591	0.174356	15.673975	-0.044024
1.122231	2.206154	0.178609	13.861924	0.157437
1.148950	2.149520	0.182861	13.505832	-0.001902
1.175671	1.804575	0.187114	11.338502	0.053173
1.202391	2.014625	0.191366	12.658289	0.095387
1.229111	2.834797	0.195619	17.811554	0.051001
1.255830	3.112840	0.199872	19.558548	0.053144
1.282550	2.630231	0.204124	16.526230	0.084870
1.309270	1.880733	0.208377	11.816951	0.028375
1.335990	1.475245	0.212629	9.254355	0.063621
1.362709	1.602620	0.216882	10.069559	0.051095
1.389429	1.755157	0.221135	11.053362	0.085866
1.416149	1.808595	0.225387	11.363735	-0.006173
1.442865	1.741771	0.229640	10.943868	0.096774
1.469588	1.544121	0.233892	9.701957	0.032192
1.496308	1.419518	0.238145	8.921608	0.044251
1.523028	1.427026	0.242397	8.966267	0.099822
1.549747	1.430591	0.246650	8.991182	0.009372
1.576468	1.744995	0.250903	10.964128	0.058790
1.603188	2.072510	0.255155	13.024479	0.080569

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.423551)
ZEROTH MOMENT = 1.78181
SECOND MOMENT = 0.27240
FOURTH MOMENT = 0.77170
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.48268

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.33938
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 5.01876

TABLE 8

TEST 215 WAVLEE

REAL MEAN = 5213.1835SCTS
INTEGER MEAN = 5213 CTS
RMS VALUE 0.55185 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 215 WAVLEE

VELOCITY = 0.00000 FPS
LAGS = 64
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.617106	0.000000	10.160579	0.350339
0.026720	0.545475	0.004253	5.565752	0.028128
0.053440	0.246865	0.008505	1.551123	0.017523
0.080159	0.214545	0.012758	1.348567	0.097179
0.106879	0.223068	0.017010	1.401525	0.045504
0.133599	0.236612	0.021263	1.486674	0.029440
0.160318	0.232665	0.025516	1.461184	0.047519
0.187038	0.225434	0.029768	1.416441	0.038539
0.213758	0.152288	0.034021	1.206922	0.035503
0.240478	0.134063	0.038273	0.842343	0.044671
0.267198	0.123444	0.042526	0.775619	0.033516
0.293918	0.127344	0.046778	0.800129	0.022212
0.320638	0.143177	0.051031	0.859606	0.047840
0.347357	0.171964	0.055284	1.080483	0.025951
0.374077	0.162123	0.059536	1.018648	0.019917
0.400797	0.148423	0.063789	0.932567	0.058943
0.427517	0.139920	0.068041	0.879145	0.035044
0.454237	0.124358	0.072294	0.781617	0.033038
0.480956	0.119778	0.076547	0.752534	0.058937
0.507676	0.125306	0.080799	0.686752	0.033532
0.534396	0.118406	0.085052	0.743567	0.038550
0.561116	0.145151	0.089304	0.912259	0.040848
0.587836	0.134076	0.093557	0.842422	0.036788
0.614555	0.127643	0.097809	0.802006	0.034870
0.641275	0.125350	0.102062	0.976344	0.034720
0.667995	0.172164	0.106315	1.081738	0.032090
0.694715	0.152521	0.110567	0.958320	0.044448
0.721434	0.154393	0.114820	0.970080	0.028103
0.748154	0.210723	0.119072	1.324011	0.029223
0.774874	0.229784	0.123325	1.443777	0.051144
0.801594	0.227265	0.127578	1.302286	0.039736
0.828314	0.236915	0.131830	1.458880	0.022117
0.855034	0.286565	0.136083	1.754256	0.032997
0.881753	0.297932	0.140335	1.871560	0.044828
0.908473	0.245395	0.144588	1.567018	0.036928
0.935193	0.154857	0.148841	1.224323	0.033351
0.961913	0.230452	0.153093	1.447970	0.034864
0.988632	0.345758	0.157346	1.921136	0.032460
1.015352	0.314608	0.161598	1.976737	0.027752
1.042072	0.356397	0.165851	2.201611	0.046344
1.068791	0.416894	0.170103	2.619423	0.024863
1.095511	0.366125	0.174356	2.312556	0.020570
1.122231	0.268384	0.178609	1.686328	0.045374
1.148951	0.155544	0.182861	1.228640	0.021307
1.175671	0.145265	0.187114	0.912754	0.032558
1.202391	0.185984	0.191366	1.168573	0.045848
1.229111	0.242211	0.195619	1.521854	0.040402
1.255830	0.234533	0.199872	1.473611	0.039349
1.282550	0.228878	0.204124	1.438033	0.037298
1.309270	0.213973	0.208377	1.344433	0.025795
1.335990	0.170314	0.212629	1.070114	0.030684
1.362709	0.145308	0.216882	0.938131	0.030944
1.389429	0.143105	0.221135	0.899179	0.028674
1.416149	0.139288	0.225387	0.875022	0.027937
1.442869	0.150867	0.229640	0.947527	0.021789
1.469588	0.155822	0.233892	0.979060	0.026610
1.496308	0.131085	0.238145	0.823659	0.034213
1.523028	0.121451	0.242397	0.763095	0.027514
1.549747	0.130617	0.246650	0.820653	0.024747
1.576468	0.144751	0.250903	0.909498	0.027457
1.603188	0.154167	0.255155	0.968658	0.027365

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.603188)
ZEROTH MOMENT = 0.35834
SECOND MOMENT = 0.06687
FOURTH MOMENT = 0.38318
BANDWIDTH FACTOR (SQRT(1.-M**2/(M0*M4))) = 0.68514

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.*M**0.5 = 0.59787
...*SQRT(1.-M**2/(M0*M4)) = 0.87110

TABLE 9

TEST 618 B-C DISP

REAL MEAN = 3579.238 COUNTS
INTEGER MEAN = 3579 CTS
RMS VALUE 2.76657 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 618 B-C DISP

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.153410	0.000000	13.530273	7.656122
0.026720	1.385468	0.004253	8.705181	-0.865815
0.053440	0.592934	0.008505	3.725516	-4.553073
0.080155	0.616518	0.012758	3.873658	0.348212
0.106875	0.702675	0.017010	4.415038	1.411363
0.133595	0.716865	0.021263	4.504217	-0.708990
0.160315	0.640332	0.025516	4.023327	-0.216967
0.187035	0.602735	0.029768	3.787054	1.681616
0.213758	0.550300	0.034021	3.457650	0.604235
0.240478	0.441335	0.038273	2.772989	0.271363
0.267195	0.456176	0.042526	2.866236	-0.184459
0.293918	0.538071	0.046778	3.380801	-0.027012
0.320638	0.698905	0.051031	4.391353	-0.215066
0.347357	1.424445	0.055284	8.950076	-0.057043
0.374077	4.419166	0.059536	27.766449	-0.209078
0.400797	9.016956	0.063789	56.655212	0.779220
0.427517	9.279408	0.068041	58.304245	0.770213
0.454237	4.867730	0.072294	30.584854	-0.228152
0.480956	1.712407	0.076547	10.759371	-0.107398
0.507676	0.819973	0.080799	5.152044	-0.072108
0.534396	0.538144	0.085052	3.381258	-0.661241
0.561116	0.608333	0.089304	3.822268	-0.103313
0.587836	0.857920	0.093557	5.390468	0.568472
0.614555	1.204823	0.097809	7.570128	0.318623
0.641275	1.808141	0.102062	11.360883	0.293975
0.667995	2.677468	0.106315	16.823029	0.185179
0.694715	5.062159	0.110567	31.806473	-0.422334
0.721434	7.443566	0.114820	46.769302	-0.151312
0.748154	8.517423	0.119072	53.516541	0.120731
0.774874	10.485015	0.123325	65.879288	-0.321352
0.801594	13.590734	0.127578	85.393057	0.087196
0.828314	16.630325	0.131830	104.491409	0.776778
0.855034	16.712280	0.136083	105.006348	0.186583
0.881753	16.031326	0.140335	100.727783	-0.348705
0.908473	16.840500	0.144588	105.811981	0.029276
0.935193	16.081238	0.148841	101.041357	-0.037552
0.961913	15.045231	0.153093	94.531567	-0.229551
0.988632	15.401415	0.157346	96.765543	0.149507
1.015352	16.880417	0.161598	106.062775	0.137972
1.042072	16.271404	0.165851	102.236740	0.156598
1.068791	10.980756	0.170103	68.994370	0.278892
1.095511	6.642501	0.174356	41.736065	-0.166314
1.122231	5.322275	0.178609	33.440857	-0.295575
1.148952	4.012983	0.182861	25.214310	0.047438
1.175671	3.165057	0.187114	19.511774	-0.253983
1.202391	2.762327	0.191366	17.356216	0.148361
1.229111	2.098016	0.195619	13.182221	0.569009
1.255830	1.681958	0.199872	10.568264	-0.173297
1.282550	1.512562	0.204124	9.503706	-0.246615
1.309270	1.184394	0.208377	7.441766	0.404791
1.335990	0.879523	0.212629	5.526203	0.149246
1.362705	0.817178	0.216882	5.134481	-0.416686
1.389425	0.788615	0.221135	4.955038	-0.098509
1.416149	0.711966	0.225387	4.473415	0.263388
1.442865	0.692555	0.229640	4.351704	0.279178
1.469588	0.704776	0.233892	4.428235	0.002026
1.496308	0.724572	0.238145	4.552635	-0.214690
1.522028	0.862654	0.242357	5.417007	-0.008114
1.549747	0.771772	0.246604	4.845185	0.309795
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.08315)

ZEROTH MOMENT = 7.65612
SECOND MOMENT = 0.17753
FOURTH MOMENT = 0.02465
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.46032

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*SQRT(M0) = 11.06788
[illegible] = 10.44816

TABLE 10

TEST 618 WAVMING

REAL MEAN = 10875.65931CTS
INTEGER MEAN = 10876 CTS
RMS VALUE 1.79724 PHYSICAL UNITS

START CALCULATING SPECTRA FOR

TEST 618 WAVMING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95959

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	3.211948	0.000000	20.185640	3.230062
0.026720	2.018828	0.004253	12.682528	-1.695595
0.053440	0.438562	0.008505	2.755578	-0.771478
0.080155	0.407099	0.012758	2.557881	1.132650
0.106875	0.453268	0.017010	2.847518	0.066062
0.133595	0.422821	0.021263	2.656666	-0.266939
0.160315	0.413495	0.025516	2.598068	0.108857
0.187035	0.386515	0.029768	2.428544	0.111897
0.213755	0.359283	0.034021	2.257442	0.108296
0.240478	0.390821	0.038273	2.453302	0.176046
0.267195	0.440345	0.042526	2.766756	0.015425
0.293915	0.462754	0.046778	2.907622	-0.100522
0.320638	0.471908	0.051031	2.965084	0.282138
0.347357	0.457514	0.055284	2.874642	0.218820
0.374077	0.398625	0.059536	2.504661	-0.263323
0.400797	0.370592	0.063789	2.328458	0.170785
0.427517	0.344924	0.068041	2.167223	0.269677
0.454237	0.324534	0.072294	2.035109	-0.158323
0.480956	0.388751	0.076547	2.442595	0.142588
0.507676	0.402562	0.080799	2.529371	0.165938
0.534396	0.347058	0.085052	2.180621	-0.041435
0.561116	0.361210	0.089304	2.269584	0.144144
0.587836	0.419718	0.093557	2.637166	0.156786
0.614555	0.506445	0.097809	3.182114	-0.098000
0.641275	0.593035	0.102062	3.725293	0.167457
0.667995	0.710633	0.106315	4.456454	0.145762
0.694715	1.191118	0.110567	7.484016	-0.043545
0.721434	1.732414	0.114820	10.885079	0.128527
0.748154	2.348550	0.119072	14.756625	0.117621
0.774874	3.283175	0.123325	20.629555	0.047490
0.801594	3.866484	0.127578	24.293839	0.023728
0.828314	3.921262	0.131830	24.601592	0.116621
0.855034	3.594462	0.136083	22.584671	0.116659
0.881753	3.531068	0.140335	22.186356	0.030989
0.908473	3.686320	0.144588	23.161835	0.085783
0.935193	3.509665	0.148841	22.051855	0.046768
0.961913	3.881585	0.153093	24.351235	0.118634
0.988632	4.871557	0.157346	30.608502	0.061385
1.015352	6.114531	0.161598	38.421249	0.076182
1.042072	6.768818	0.165851	42.529739	0.049107
1.068751	5.654155	0.170103	35.526108	0.122841
1.095511	4.095548	0.174356	25.733078	0.063741
1.122231	3.253736	0.178605	20.655160	-0.003755
1.148952	3.120626	0.182861	19.607468	0.163154
1.175671	3.716500	0.187114	23.351456	-0.039377
1.202351	3.988186	0.191366	25.058502	0.047368
1.229111	3.625037	0.195619	22.776779	0.244700
1.255830	3.323201	0.199872	20.880255	-0.069501
1.282550	2.877651	0.204124	18.080811	-0.014298
1.309270	2.627384	0.208377	16.508347	0.170031
1.335990	2.312257	0.212629	14.530462	0.050958
1.362709	1.871650	0.216882	11.760173	0.041644
1.389429	1.797540	0.221135	11.294751	-0.005446
1.416149	2.007713	0.225387	12.614834	0.119776
1.442869	1.924160	0.229640	12.085852	0.134446
1.469588	1.675120	0.233892	10.525135	0.011988
1.496308	1.570925	0.238145	9.870411	0.065074
1.523028	1.490785	0.242397	9.366876	0.087011
1.549747	1.421823	0.246650	8.933574	0.092851
1.576468	1.481464	0.250902	9.308597	0.049304
1.603186	1.551337	0.255155	9.747339	0.003706

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 3.23006
SECOND MOMENT = 3.25814
FOURTH MOMENT = 5.16054
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.47262

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 7.18896
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 6.77562

TABLE 11

TEST 218 WAVLEF

REAL MEAN = 4806.16757CTS
INTEGER MEAN = 4806 CTS
RMS VALUE 0.76687 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 218 WAVLEF

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.600610	0.000000	10.056920	0.588092
0.026720	0.898540	0.004253	5.645714	-0.005884
0.053440	0.193383	0.008505	1.215062	-0.151612
0.080159	0.274720	0.012758	1.726115	0.129673
0.106879	0.361023	0.017010	2.268376	0.166461
0.133599	0.272645	0.021263	1.713101	-0.016219
0.160319	0.149735	0.025516	0.940815	-0.032973
0.187039	0.125680	0.029768	0.789671	0.067324
0.213758	0.144100	0.034021	0.905404	0.101640
0.240478	0.161620	0.038273	1.015450	0.014312
0.267198	0.187146	0.042526	1.175870	0.000737
0.293918	0.205301	0.046778	1.289948	0.057766
0.320638	0.202287	0.051031	1.271009	0.051737
0.347357	0.190876	0.055284	1.199306	0.029130
0.374077	0.168928	0.059536	1.061406	0.021173
0.400797	0.153406	0.063789	0.963875	0.043190
0.427517	0.155140	0.068041	0.974772	0.009332
0.454237	0.167742	0.072294	1.053953	0.017506
0.480956	0.184015	0.076547	1.156202	0.044340
0.507676	0.171399	0.080799	1.076934	0.021103
0.534396	0.150996	0.085052	0.948735	0.035269
0.561116	0.168826	0.089304	1.060762	0.042420
0.587836	0.196915	0.093557	1.237250	0.027579
0.614555	0.216487	0.097809	1.360227	0.056121
0.641275	0.233893	0.102062	1.469596	0.034576
0.667995	0.306964	0.106315	1.928711	0.028631
0.694715	0.475165	0.110567	2.985577	0.059520
0.721434	0.567275	0.114820	3.564257	0.050456
0.748154	0.659514	0.119072	4.143850	0.041645
0.774874	0.836587	0.123325	5.256420	0.054364
0.801594	0.917613	0.127578	5.765534	0.033507
0.828314	1.030556	0.131830	6.475172	0.052074
0.855034	1.104597	0.136083	6.940388	0.045027
0.881753	0.984886	0.140335	6.188222	0.049703
0.908473	0.868562	0.144588	5.457337	0.041116
0.935193	0.741856	0.148841	4.661216	0.037176
0.961913	0.597152	0.153093	3.752018	0.025903
0.988632	0.506085	0.157346	3.179849	0.056154
1.015352	0.424754	0.161598	2.668801	0.031422
1.042072	0.426781	0.165851	2.681546	0.026467
1.068791	0.473127	0.170103	2.972743	0.021876
1.095511	0.504930	0.174356	3.172569	0.045324
1.122231	0.464847	0.178609	2.920722	0.041860
1.148951	0.317248	0.182861	1.993325	0.012399
1.175671	0.239358	0.187114	1.503925	0.014598
1.202391	0.284500	0.191366	1.787566	0.054490
1.229111	0.334204	0.195619	2.099863	0.054376
1.255830	0.300034	0.199872	1.885178	0.023261
1.282550	0.235258	0.204124	1.478168	0.018876
1.309270	0.202474	0.208377	1.272181	0.055217
1.335990	0.185653	0.212629	1.166451	0.031388
1.362709	0.187828	0.216882	1.180157	0.022373
1.389429	0.191772	0.221135	1.204942	0.035622
1.416149	0.180442	0.225387	1.133754	0.029421
1.442869	0.195130	0.229640	1.226038	0.041540
1.469588	0.207194	0.233892	1.301838	0.048462
1.496308	0.181100	0.238145	1.137882	0.015115
1.523028	0.196605	0.242397	1.235331	0.032695
1.549747	0.242775	0.246650	1.525397	0.054514
1.576468	[illegible]	[illegible]	[illegible]	0.021574
1.603188	[illegible]	[illegible]	[illegible]	0.057297

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.603151)

ZEROTH MOMENT = 0.58805
SECOND MOMENT = 0.46557
FOURTH MOMENT = 0.55705
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.61775

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 3.06745
[illegible] = 2.75936

TABLE 12

TEST 315 B-C DISPL

REAL MEAN = 1255.85111CTS
INTEGER MEAN = 1300 CTS
RMS VALUE 0.78807 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 315 B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55959

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.511205	0.000000	5.455209	0.621050
0.026720	0.535546	0.004253	5.505852	-0.038348
0.053440	0.313825	0.008505	1.971848	-0.058145
0.080159	0.235164	0.012758	1.477702	0.117394
0.106879	0.210526	0.017010	1.322777	0.035556
0.133599	0.155156	0.021263	1.226263	-0.040665
0.160319	0.157546	0.025516	0.992423	0.056543
0.187039	0.150146	0.029768	0.561104	0.043756
0.213758	0.192225	0.034021	1.207785	0.110741
0.240478	0.155902	0.038273	1.256022	0.053798
0.267198	0.210766	0.042526	1.324280	0.013343
0.293918	0.227608	0.046778	1.430123	0.029944
0.320638	0.216951	0.051031	1.363355	0.045437
0.347357	0.234744	0.055284	1.474542	-0.006717
0.374077	0.452848	0.059536	2.845328	0.005597
0.400797	0.686670	0.063789	4.314473	0.102719
0.427517	0.511168	0.068041	3.211761	0.061611
0.454237	0.229255	0.072294	1.440449	0.002138
0.480956	0.184890	0.076547	1.161659	0.068322
0.507676	0.200285	0.080799	1.258425	0.028137
0.534396	0.175210	0.085052	1.100880	-0.028736
0.561116	0.156306	0.089304	0.982102	0.056903
0.587836	0.196028	0.093557	1.231675	0.038774
0.614555	0.247539	0.097809	1.555332	0.003548
0.641275	0.252269	0.102062	1.585055	0.088560
0.667995	0.218418	0.106315	1.372357	0.055799
0.694715	0.215873	0.110567	1.356367	0.015567
0.721434	0.279366	0.114820	1.755305	0.013448
0.748154	0.373278	0.119072	2.345378	0.020553
0.774874	0.508256	0.123325	3.157239	-0.006577
0.801594	0.610315	0.127578	3.834723	0.050227
0.828314	0.623566	0.131830	3.917582	0.057947
0.855034	0.658882	0.136083	4.391155	0.033731
0.881753	0.754228	0.140335	4.738555	0.055503
0.908473	0.647464	0.144588	4.068138	0.031442
0.935153	0.482013	0.148841	3.028579	-0.029890
0.961913	0.362435	0.153093	2.277249	0.035496
0.988632	0.348505	0.157346	2.189748	0.029351
1.015352	0.537611	0.161598	3.377512	-0.005874
1.042072	0.536264	0.165851	5.882720	0.062328
1.068791	0.565372	0.170103	6.050745	0.049431
1.095511	0.587655	0.174356	3.652372	0.019176
1.122231	0.445470	0.178609	2.824103	0.026234
1.148952	0.467015	0.182861	3.060008	0.026935
1.175671	0.470765	0.187114	2.957901	-0.002477
1.202391	0.512028	0.191366	3.217168	0.049921
1.229111	0.527920	0.195619	3.317020	0.023575
1.255830	0.420688	0.199872	2.643264	0.027987
1.282550	0.298386	0.204124	1.874826	0.060978
1.309270	0.254505	0.208377	1.595126	0.039760
1.335990	0.253866	0.212629	1.595087	-0.005267
1.362709	0.225557	0.216882	1.417215	0.027021
1.389429	0.216401	0.221135	1.359686	0.020303
1.416149	0.228030	0.225387	1.432754	0.013042
1.442869	0.244028	0.229640	1.538258	0.022114
1.469588	0.308015	0.233852	1.935342	0.072443
1.496308	0.351137	0.238145	2.206261	0.009195
1.523028	0.311207	0.242397	1.955368	0.023656
1.549747	0.337043	0.246650	2.117703	0.055635
1.576468	0.426675	0.250903	2.680905	0.022057
1.603188	0.452012	0.255155	2.840076	0.024119

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 0.62108
SECOND MOMENT = 0.54537
FOURTH MOMENT = 0.80035
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.62678

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 3.15227
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 2.82577

TABLE 13

TEST 315 WAVHING

REAL MEAN = 6531.37651CTS
INTEGER MEAN = 6531 CTS
RMS VALUE 1.40231 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 315 WAVHING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.184666	0.000000	7.443474	1.966475
0.026720	0.807237	0.004253	5.072219	-0.658755
0.053440	0.461211	0.008505	2.897874	0.126916
0.080155	0.514456	0.012758	3.232672	0.282987
0.106875	0.583176	0.017010	3.664203	-0.197471
0.133599	0.763653	0.021263	4.798172	0.010958
0.160319	0.855331	0.025516	5.562657	0.110166
0.187039	0.795276	0.029768	5.024505	-0.050039
0.213758	0.772725	0.034021	4.855173	-0.152880
0.240478	0.703244	0.038273	4.418614	0.110945
0.267198	0.602547	0.042526	3.785912	-0.038369
0.293918	0.734952	0.046778	4.617837	0.014492
0.320638	0.751155	0.051031	4.719668	0.050114
0.347357	0.530052	0.055284	3.330417	-0.014376
0.374077	0.420923	0.059536	2.644738	-0.018347
0.400797	0.452420	0.063785	2.842635	0.078491
0.427517	0.471553	0.068041	2.962855	-0.033461
0.454237	0.506721	0.072294	3.183821	0.069876
0.480956	0.536887	0.076547	3.373363	-0.006985
0.507676	0.562468	0.080799	3.534050	-0.007361
0.534396	0.609017	0.085052	3.826569	0.118443
0.561116	0.596126	0.089304	3.745571	0.039544
0.587836	0.684545	0.093557	4.301148	-0.004669
0.614555	0.890585	0.097809	5.595700	0.053349
0.641275	0.872648	0.102062	5.483007	-0.028257
0.667995	0.661060	0.106315	4.153561	0.042219
0.694715	0.488835	0.110567	3.071439	0.021938
0.721434	0.477148	0.114820	2.958010	-0.002809
0.748154	0.614372	0.119072	3.860211	-0.033429
0.774874	0.642705	0.123325	4.038233	0.092045
0.801594	0.652532	0.127578	4.099978	-0.023132
0.828314	0.713250	0.131830	4.481482	0.052130
0.855034	0.671385	0.136083	4.218439	0.079119
0.881753	0.721761	0.140335	4.511547	-0.098465
0.908473	1.087921	0.144588	6.835609	0.070783
0.935193	1.305295	0.148841	8.226564	-0.007529
0.961913	1.507834	0.153093	9.474023	0.008978
0.988632	1.858325	0.157346	11.676200	-0.024353
1.015352	2.143072	0.161598	13.465315	0.058669
1.042072	2.145285	0.165851	13.475250	0.003590
1.068751	2.326544	0.170103	14.618105	0.044691
1.095511	2.806821	0.174356	17.635773	0.060385
1.122231	2.801104	0.178609	17.576652	0.054533
1.148952	2.275785	0.182861	14.295181	0.069074
1.175671	1.795845	0.187114	11.283627	-0.015231
1.202351	1.841285	0.191366	11.569157	0.018196
1.229111	1.923223	0.195619	12.087738	0.019571
1.255830	1.966347	0.199872	12.354520	0.027774
1.282550	2.097591	0.204124	13.179555	0.012462
1.309270	2.240316	0.208377	14.076323	-0.032831
1.335990	2.161814	0.212625	13.583076	0.019074
1.362705	1.845770	0.216882	11.622444	0.032926
1.389429	1.930232	0.221135	12.128025	-0.030876
1.416149	2.240007	0.225387	14.074361	0.068595
1.442865	2.108453	0.229640	13.247799	-0.008726
1.469588	1.835857	0.233892	11.560163	0.053284
1.496308	1.938274	0.238145	12.178536	0.058172
1.523028	1.938670	0.242397	12.162172	-0.012778
1.549747	1.594565	0.246650	10.031515	0.256566
1.576468	1.351770	0.250563	8.493403	0.019885
1.603188	1.295687	0.255155	8.141040	-0.074276

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 1.56648
SECOND MOMENT = 0.35761
FOURTH MOMENT = 3.50151
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.82498

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.60928
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 5.20845

TABLE 14

TEST 318 HAYLEE

MEAN MEAN = 2579.24635CTS
INTEGER MEAN = 2595 CTS
APB VALUE = 0.76247 PHYSICAL UNITS

START SPECTRAL SPECTR FOR

TEST 318 HAYLEE

VELOCITY = 0.00002 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.002000	1.273451	0.000000	0.001328	0.578308
0.026720	0.753856	0.004253	4.736615	-0.041961
0.053440	0.235615	0.008505	1.505569	-0.016234
0.080155	0.258385	0.012758	1.623525	0.129150
0.106875	0.272248	0.017010	1.710035	0.003503
0.133595	0.252573	0.021263	1.038250	-0.020070
0.160315	0.310352	0.025516	1.550253	0.000226
0.187035	0.295365	0.029768	1.856563	0.025880
0.213758	0.326273	0.034021	2.050031	-0.038664
0.240478	0.338635	0.038273	2.077463	0.243196
0.267198	0.252632	0.042526	1.826456	0.234759
0.293918	0.366651	0.046778	1.526554	0.236133
0.320638	0.251203	0.051031	1.825682	0.026800
0.347357	0.222281	0.055284	1.383562	0.006568
0.374077	0.155063	0.059536	1.252749	0.055805
0.400797	0.223050	0.063789	1.401717	0.010724
0.427517	0.211370	0.068041	1.328877	0.035350
0.454237	0.188442	0.072294	1.183752	0.024669
0.480956	0.191004	0.076547	1.200111	0.030710
0.507676	0.226612	0.080799	1.423842	0.018655
0.534396	0.237415	0.085052	1.491721	0.016065
0.561116	0.224613	0.089304	1.411284	0.055267
0.587836	0.273960	0.093557	1.721340	0.040821
0.614555	0.350492	0.097809	2.202207	-0.023408
0.641275	0.326219	0.102062	2.049653	0.057305
0.667995	0.251777	0.106315	1.581564	0.052859
0.694715	0.210568	0.110567	1.323035	-0.007755
0.721434	0.197524	0.114820	1.243552	0.032752
0.748154	0.226060	0.119072	1.420380	0.046078
0.774874	0.261758	0.123325	1.644677	-0.006219
0.801594	0.242658	0.127578	1.524616	0.044089
0.828314	0.225100	0.131830	1.414832	0.067513
0.855034	0.274315	0.136083	1.723557	-0.015208
0.881753	0.462827	0.140335	2.908226	0.055901

0.908473	0.631570	0.144588	3.970783	0.027243
0.935193	0.696638	0.148841	4.378016	-0.026070
0.961913	0.637295	0.153093	4.004243	0.063811
0.988632	0.568365	0.157346	3.574529	0.027213
1.015352	0.565068	0.161598	3.553829	0.021986
1.042072	0.862853	0.165851	5.421719	0.048710
1.068791	0.863565	0.170103	5.426546	0.036091
1.095511	0.452097	0.174356	2.840687	0.025364
1.122231	0.468451	0.178608	2.853257	0.045236
1.148950	0.666007	0.182861	4.184647	0.041017
1.175671	0.565347	0.187114	3.552179	0.011841
1.202391	0.368156	0.191366	2.262525	0.028667
1.229111	0.328771	0.195619	1.540263	0.035624
1.255830	0.287488	0.199872	1.806342	0.010730
1.282550	0.237023	0.204124	1.489257	0.031787
1.309270	0.301115	0.208377	1.891564	0.010374
1.335990	0.445555	0.212629	2.755528	0.026959
1.362709	0.448585	0.216882	2.778218	0.013324
1.389429	0.395458	0.221135	2.519121	0.031079
1.416149	0.403960	0.225387	2.538153	0.043489
1.442869	0.375472	0.229640	2.384253	0.005228
1.469588	0.367367	0.233892	1.932864	0.059654
1.496308	0.221134	0.238145	1.385428	0.026981
1.523028	0.247875	0.242397	1.306116	0.023312
1.549747	0.244468	0.246650	1.536039	0.020533
1.576468	0.290599	0.250903	1.862850	0.011222
1.603188	0.318418	0.255155	1.581811	0.019329

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT EL 1.48315)

ZEROTH MOMENT = 0.87831
SECOND MOMENT = 0.52872
FOURTH MOMENT = 0.76866
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.62458

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*M0**.5 = 3.74184
4.0*M0**.5*SQRT(1.0-M2**2/M0/M4) = 2.72922

TABLE 15

TEST 318 B-C DISPL

REAL MEAN = 2155.5710 CTS
INTEGER MEAN = 2156 CTS
RMS VALUE 1.17332 PHYSICAL UNITS

START SCHEDULING SPECTR FOR

TEST 318 B-C DISPL
C

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.685224	0.000000	4.330523	1.376687
0.026720	0.543246	0.004253	3.413314	0.017640
0.053440	0.395354	0.008506	2.484088	-0.623266
0.080159	0.366479	0.012758	2.440556	0.003532
0.106879	0.352221	0.017011	2.424359	0.000491
0.133599	0.431052	0.021263	2.708383	-0.050985
0.160319	0.410771	0.025516	2.580552	-0.141591
0.187039	0.318251	0.029768	1.999883	0.017900
0.213758	0.271514	0.034021	1.705571	0.141271
0.240478	0.287173	0.038273	1.804358	0.115725
0.267198	0.255446	0.042526	1.881472	0.013082
0.293918	0.284215	0.046778	1.785778	-0.064808
0.320638	0.354455	0.051031	2.227358	-0.138020
0.347357	0.528552	0.055284	3.505485	-0.075970
0.374077	1.017362	0.059536	6.392271	0.161610
0.400797	1.399157	0.063789	8.751411	0.074174
0.427517	1.084826	0.068041	6.816165	-0.161679
0.454237	0.545865	0.072294	3.429752	0.060757
0.480956	0.326593	0.076547	2.052042	0.230859
0.507676	0.369350	0.080799	2.320697	-0.041132
0.534396	0.605564	0.085052	3.804868	-0.216967
0.561116	0.701626	0.089304	4.408448	-0.017277
0.587836	0.651818	0.093557	4.095453	0.101744
0.614555	0.686454	0.097809	4.313367	0.049673
0.641275	0.798850	0.102062	5.019321	0.072240
0.667995	1.755095	0.106315	11.027550	0.032549
0.694715	3.047938	0.110567	19.150757	-0.078527
0.721434	2.766888	0.114820	17.357446	-0.027558
0.748154	1.875316	0.119072	11.808052	0.100640
0.77487	1.737267	0.123325	10.91557	-0.021705
0.801594	1.741571	0.127578	10.942616	-0.138134
0.828314	1.579754	0.131830	9.926138	0.011402
0.855034	1.502656	0.136083	11.554588	0.173650
0.881753	2.874309	0.140335	18.055814	0.028916
0.908473	2.544468	0.144588	18.500641	-0.123570
0.935193	1.755406	0.148841	11.280870	-0.056597
0.961913	0.555267	0.153093	6.253444	0.102962
0.988632	0.880797	0.157346	5.534213	0.043480
1.015352	0.588553	0.161598	6.214023	-0.071342
1.042072	1.281412	0.165851	8.051350	-0.005193
1.068791	1.277811	0.170103	8.028723	0.063098
1.095511	1.051253	0.174356	6.856546	0.034223
1.122231	0.556720	0.178609	6.262579	0.042902
1.148952	0.746145	0.182861	4.688165	0.005006
1.175671	0.565323	0.187114	3.577164	-0.121939
1.202391	0.505804	0.191366	3.203151	-0.008379
1.229111	0.450251	0.195619	2.825010	0.134622
1.255830	0.416740	0.199872	2.618452	0.078015
1.282550	0.412660	0.204124	2.592816	-0.035927
1.309270	0.435316	0.208377	2.735168	0.005120
1.335990	0.415022	0.212629	2.632750	0.018469
1.362709	0.340547	0.216882	2.142234	0.030443
1.389429	0.252845	0.221135	1.840024	-0.009944
1.416149	0.277864	0.225387	1.745869	-0.050158
1.442869	0.248211	0.229640	1.555555	0.027544
1.469588	0.258222	0.233892	1.622458	0.092424
1.496308	0.282038	0.238145	1.772058	-0.037705
1.523028	0.262038	0.242397	1.646431	-0.054502
1.549747	0.234554	0.246650	1.473747	0.000300
1.576468	0.236515	0.250903	1.486067	0.022086
1.603188	0.248480	0.255155	1.561279	-0.048127

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 1.37665
SECOND MOMENT = 1.00045
FOURTH MOMENT = 1.11345
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.58230

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 4.65315
4.0*RMS*SQRT(1.0-EPS**2/2.0) = 4.27687

TABLE 16

TEST 318 MAVMINC

REAL MEAN = 7584.761726CTS
INTEGER MEAN = 7580 CTS
RMS VALUE 1.85242 PHYSICAL UNITS

START SMOOTHING SPECTRA FOR

18 MAVMINC

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.50505

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.410635	0.000000	15.146469	3.431478
0.026720	1.558732	0.004253	10.045129	-0.992262
0.053440	0.741255	0.008505	4.657441	-0.852232
0.080[illegible]	0.6[illegible]	0.012[illegible]	4.[illegible]	1.[illegible]
0.10[illegible]	0.6[illegible]	0.01[illegible]	4.0[illegible]	0.1[illegible]
0.133555	0.621414	0.021263	3.904462	-0.367677
0.160315	0.754927	0.025516	4.743223	-0.099400
0.187035	0.538765	0.029768	5.858459	0.337108
0.213758	0.572030	0.034021	5.667624	0.030122
0.240478	0.666474	0.038273	4.200147	-0.097701
0.267198	0.526612	0.042526	3.308758	0.073613
0.293918	0.574738	0.046778	3.611185	0.101834
0.320638	0.703454	0.051031	4.419534	0.025106
0.347357	0.775418	0.055284	4.872053	0.016737
0.374077	0.686095	0.059536	4.310859	0.011007
0.400797	0.553531	0.063789	3.477940	0.149060
0.427517	0.506424	0.068041	3.181556	0.075473
0.454237	0.540727	0.072294	3.354347	-0.049378
0.480956	0.575062	0.076547	3.613017	0.092653
0.507676	0.537937	0.080799	3.379556	0.206962
0.534396	0.505256	0.085052	3.200003	-0.017758
0.561116	0.537285	0.089304	3.375887	-0.022798
0.587836	0.584864	0.093557	3.674809	0.020566
0.614555	0.650300	0.097809	4.085555	0.144511
0.641275	0.801207	0.102062	5.034134	-0.089114
0.667995	1.126582	0.106315	7.078524	-0.019327
0.694715	1.655415	0.110567	10.426437	0.155837
0.721434	1.824355	0.114820	11.462785	-0.086787
0.748154	1.644983	0.119072	10.335734	0.095396
0.774874	2.258803	0.123325	14.192479	0.231165
0.801594	3.652854	0.127578	23.203148	-0.214396
0.828314	4.582137	0.131830	28.790421	0.254630
0.855034	4.732684	0.136083	29.735825	0.306056
0.881753	5.487895	0.140335	34.481451	-0.058521
0.908473	5.710337	0.144588	35.875105	-0.124817
0.935193	4.434525	0.148841	27.862561	0.174141
0.961913	4.454556	0.153093	27.988044	0.222634
0.988632	5.937480	0.157346	37.306250	-0.210098
1.015352	5.637771	0.161598	35.423157	0.068268
1.042072	4.098703	0.16[illegible]851	25.752514	0.191159
1.068791	3.932313	0.170103	24.707443	-0.071551
1.095511	4.297925	0.174356	27.004654	0.021264
1.122231	3.879548	0.178609	24.375516	0.096867
1.148952	3.337478	0.182861	20.969555	0.018106
1.175671	3.050340	0.187114	15.417175	-0.003860
1.202391	3.347615	0.191366	21.033707	0.085171
1.229111	3.726174	0.195619	23.412247	0.046817
1.255830	3.320558	0.199872	20.866440	0.041424
1.282550	2.628463	0.204124	16.515121	0.008749
1.309270	2.543077	0.208377	15.978621	0.021407
1.335990	2.768682	0.212629	17.395645	0.116802
1.362709	2.496372	0.216882	15.657734	-0.028479
1.389429	2.166392	0.221135	13.611844	0.003425
1.416149	2.077285	0.225387	13.051965	0.072951
1.442869	1.796135	0.229640	11.285472	0.052032
1.469588	1.582776	0.233892	5.544875	0.057730
1.496308	1.648884	0.238145	10.360248	-0.097951
1.523028	1.634542	0.242397	10.270133	0.090635
1.549747	1.372403	0.246650	8.623063	0.062466
1.576466	1.127556	0.250903	7.087150	-0.113090
1.603186	1.045195	0.255150	6.567188	0.113768

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.603151)
ZEROTH MOMENT = 3.43148
SECOND MOMENT = 3.64276
FOURTH MOMENT = 5.33242
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.49653

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*M0**0.5 = 7.40976
4.0*M0**0.5*SQRT(1.0-BROAD**2/2.0) = 6.93758

TABLE 17

TEST 310 WAVLEE

REAL MEAN = 4767.15620CTS
INTEGER MEAN = 4767 CTS
RMS VALUE 1.06127 PHYSICAL UNITS

START COMPUTING SPECTR FOR

TEST 310 WAVLEE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95959

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.044100	0.000000	12.843457	1.126295
0.026720	1.240744	0.004253	7.795822	-0.076199
0.053440	0.383981	0.008505	2.412622	-0.414943
0.080159	0.404270	0.012758	2.540104	0.282556
0.106879	0.435527	0.017010	2.736492	0.261023
0.133599	0.325853	0.021263	2.047357	-0.201387
0.160319	0.342878	0.025516	2.154367	-0.226882
0.187039	0.454644	0.029768	2.856612	0.232054
0.213758	0.386864	0.034021	2.430748	0.004524
0.240478	0.270459	0.038273	1.699342	-0.061943
0.267198	0.250603	0.042526	1.574587	0.118452
0.293918	0.259032	0.046778	1.627544	0.150787
0.320638	0.332603	0.051031	2.089804	-0.093367
0.347357	0.396431	0.055284	2.490840	-0.044372
0.374077	0.337050	0.059536	2.117749	0.211091
0.400797	0.264807	0.063789	1.663829	0.040364
0.427517	0.237376	0.068041	1.491477	-0.069588
0.454237	0.215854	0.072294	1.356504	0.073689
0.480956	0.213446	0.076547	1.341123	0.131459
0.507676	0.217456	0.080799	1.366313	0.047867
0.534396	0.201909	0.085052	1.268634	-0.028458
0.561116	0.200037	0.089304	1.254568	0.068458
0.587836	0.282524	0.093557	1.775149	0.095762
0.614555	0.376456	0.097809	2.365341	-0.045626
0.641275	0.494284	0.102062	3.105678	0.016338
0.667995	0.724825	0.106315	4.554212	0.121356
0.694715	0.950866	0.110567	5.974463	0.006365
0.721434	0.860508	0.114820	5.406734	-0.037228
0.748154	0.661887	0.119072	4.158760	0.144087
0.774874	0.840345	0.123325	5.280044	0.084947
0.801594	1.077154	0.127578	6.767959	-0.045207
0.828314	1.156511	0.131830	7.266575	0.060121
0.855034	1.864399	0.136083	11.714363	0.106030
0.881753	3.132414	0.140335	19.681534	0.085134
0.908473	3.357250	0.144588	21.094223	-0.002995
0.935193	2.546140	0.148841	15.997867	0.043647
0.961913	1.863518	0.153093	11.708827	0.120186
0.988632	1.530155	0.157346	9.614248	0.054508
1.015352	1.483648	0.161598	9.322037	0.007117
1.042072	1.247458	0.165851	7.838013	0.024262
1.068791	0.888925	0.170103	5.585280	0.078963
1.095511	0.842845	0.174356	5.295779	0.017513
1.122231	0.967167	0.178609	6.076850	-0.023012
1.148952	1.025635	0.182861	6.444253	0.048292
1.175671	0.800615	0.187114	5.030675	0.054052
1.202391	0.497842	0.191366	3.128035	-0.006963
1.229111	0.368733	0.195619	2.316817	0.029755
1.255830	0.354592	0.199872	2.227969	0.079688
1.282550	0.304962	0.204124	1.916130	0.011855
1.309270	0.310833	0.208377	1.953021	0.003760
1.335990	0.468232	0.212629	2.941986	0.095506
1.362709	0.504835	0.216882	3.171955	0.015791
1.389429	0.367344	0.221135	2.308052	-0.014533
1.416149	0.255385	0.225387	1.601115	0.073028
1.442869	0.313760	0.229640	1.971411	0.055818
1.469588	0.265611	0.233892	1.668885	0.004616
1.496308	0.171486	0.238145	1.077478	0.012739
1.523028	0.145841	0.242397	0.916338	0.052914
1.549747	0.163751	0.246650	1.028876	0.050874
1.576468	0.154786	0.250903	0.972551	-0.001685
1.603188	0.147138	0.255155	0.924458	-0.004800

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60315)
ZEROTH MOMENT = 1.12630
SECOND MOMENT = 0.51153
FOURTH MOMENT = 1.06356
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.55096

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 4.24508
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 3.90714

TABLE 18

TEST 415 B-C DISPL

REAL MEAN = 3161.532626TE
INTEGER MEAN = 3162 CTE
RMS VALUE 1.053586 PHYSICAL UNITS

c TEST 415 B-D DISPL

START SUBROUTINE SPECTR FOR

TEST 415 B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.00559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.554908	0.000000	3.737514	2.371173
0.026720	0.465624	0.004253	2.998732	-0.867261
0.053440	0.281513	0.008505	1.768758	-0.854342
0.080159	0.210854	0.012758	1.325086	1.311237
0.106879	0.227353	0.017010	1.428560	-0.356470
0.133599	0.276335	0.021263	1.736289	-0.570966
0.160319	0.332828	0.025516	2.051219	0.509312
0.187038	0.344735	0.029768	2.166031	0.064264
0.213758	0.256815	0.034021	1.614571	-0.204175
0.240478	0.253023	0.038273	1.589789	0.070549
0.267198	0.248565	0.042526	1.436113	0.129168
0.293918	0.208656	0.046778	1.311274	-0.125947
0.320638	0.249465	0.051031	1.316185	-0.064616
0.347357	0.231842	0.055284	1.456706	0.116705
0.374077	0.245112	0.059536	2.570526	-0.024660
0.400797	0.263052	0.063789	4.543321	-0.005767
0.427517	0.254643	0.068041	4.113243	0.078026
0.454237	0.326695	0.072294	2.052708	0.040689
0.480956	0.242568	0.076547	1.524857	0.023052
0.507676	0.301444	0.080799	1.854029	-0.033085
0.534396	0.324545	0.085052	1.913535	-0.042978
0.561116	0.256684	0.089304	1.612751	0.058228
0.587836	0.249028	0.093557	1.656351	0.025376
0.614555	0.278754	0.097805	1.751463	-0.028553
0.641275	0.234358	0.102062	1.472615	0.031427
0.667995	0.247645	0.106315	1.556026	0.133129
0.694715	0.315733	0.110567	2.008541	-0.135903
0.721434	0.483679	0.114820	3.039045	-0.022081
0.748154	0.817592	0.119072	5.136518	0.174470
0.774874	1.043254	0.123325	6.523510	-0.275683
0.801594	1.014665	0.127578	6.375356	0.104697
0.828314	1.345921	0.131830	8.456542	0.286780
0.855034	2.030263	0.136083	12.756517	-0.381645
0.881753	2.651044	0.140335	16.508525	0.180407

0.908473	3.550264	0.144588	22.306961	0.211709
0.935193	5.027540	0.148841	31.551476	-0.389571
0.961913	5.728240	0.153093	35.951592	0.150597
0.988632	4.572083	0.157346	31.240524	0.126536
1.015352	5.545546	0.161598	34.868820	-0.158997
1.042072	6.858593	0.165851	43.347397	0.100019
1.068791	5.864014	0.170103	36.467657	0.027147
1.095511	3.677364	0.174356	23.105560	-0.040658
1.122231	4.811952	0.178608	25.208084	0.014810
1.148950	4.521648	0.182861	28.523630	-0.023926
1.175670	3.487120	0.187114	21.910217	0.012519
1.202391	2.287714	0.191366	14.374130	-0.039157
1.229111	2.662164	0.195619	17.583505	0.014046
1.255830	2.756128	0.199872	17.566588	0.084066
1.282550	1.658563	0.204124	10.421056	-0.045031
1.309270	1.114880	0.208377	7.004954	-0.023176
1.335990	1.087256	0.212629	6.831679	0.009559
1.362709	0.524118	0.216882	3.294405	-0.014132
1.389429	0.656505	0.221135	4.126271	-0.100674
1.416149	0.575097	0.225387	3.613442	0.107247
1.442869	0.531391	0.229640	3.338829	0.088278
1.469588	0.489983	0.233892	3.077182	-0.131386
1.496308	0.547113	0.238145	3.436287	0.064189
1.523028	0.547885	0.242397	3.441461	0.142611
1.549747	0.515288	0.246650	3.237607	-0.208288
1.576468	0.458496	0.250903	2.880814	0.003598
1.603188	0.423447	0.255155	2.660594	0.203364

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT BI 1.602319)
ZEROTH MOMENT = 2.37117
SECOND MOMENT = 2.87231
FOURTH MOMENT = 3.31766
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.39868

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.00*M0**.5 = 6.18948
4.00*M0**.5*SQRT(1.0-BROAD**2/2.0) = 5.98963

TABLE 19

TEST 415 WAVING

REAL MEAN = 12354.10537CTS
INTEGER MEAN = 12354 CTS
RMS VALUE 1.41256 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 415 WAVING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.900431	0.000000	5.657574	1.996452
0.026720	0.849815	0.004253	5.339569	-0.712348
0.053442	0.804288	0.008505	5.653488	0.112528
0.080159	0.831784	0.012758	5.226252	0.314791
0.106875	0.872413	0.017010	5.481535	-0.058435
0.133595	0.878276	0.021263	5.518365	0.012313
0.160315	0.798677	0.025516	5.018238	0.077785
0.187035	0.661866	0.029768	4.158626	0.015039
0.213758	0.574465	0.034021	3.605470	-0.051025
0.240478	0.505513	0.038273	3.176229	0.044798
0.267198	0.387362	0.042526	2.433868	-0.202344
0.293918	0.312783	0.046778	1.965271	-0.059967
0.320638	0.320762	0.051031	2.015428	-0.053818
0.347357	0.383598	0.055284	2.410216	0.013267
0.374077	0.461216	0.059536	2.857507	-0.000268
0.400797	0.501205	0.063785	3.145165	0.005617
0.427517	0.515745	0.068041	3.240548	0.025657
0.454237	0.525781	0.072294	3.263247	-0.078662
0.480556	0.466853	0.076547	2.533327	-0.044943
0.507676	0.390664	0.080799	2.454617	0.051580
0.534356	0.354738	0.085052	2.228887	0.000194
0.561116	0.376853	0.085304	2.368027	0.004580
0.587836	0.409518	0.093557	2.575590	-0.030312
0.614555	0.508797	0.097825	3.196866	0.017643
0.641275	0.682520	0.102062	4.292788	0.021474
0.667595	0.861252	0.106315	5.411641	0.038217
0.694715	0.845647	0.110567	5.313356	-0.033151
0.721434	0.623393	0.114820	3.516851	-0.023282
0.748154	0.607452	0.119072	3.816735	0.058149
0.774874	0.868446	0.123325	5.456609	-0.042675
0.801594	1.031947	0.127578	6.483514	-0.009635
0.828314	0.975140	0.131830	6.126986	0.028954
0.855034	0.928116	0.136083	5.831522	-0.068711
0.881753	1.124745	0.140335	7.066583	0.084354
0.908473	1.360978	0.144588	8.551277	-0.037985
0.935193	1.556510	0.148841	10.233684	-0.017683
0.961913	1.506236	0.153053	11.577232	0.009445
0.988632	1.978521	0.157346	12.431250	0.029912
1.015352	2.131148	0.161558	13.390359	-0.029877
1.042072	2.366933	0.165851	14.834558	0.001253
1.068751	2.142715	0.170103	13.463278	0.037087
1.095511	1.853447	0.174356	11.856877	-0.012773
1.122231	2.055397	0.178605	13.150858	-0.002846
1.148952	2.348464	0.182861	14.755836	0.039831
1.175671	2.253070	0.187114	14.156455	-0.020829
1.202351	2.035415	0.191366	12.814024	-0.023463
1.229111	2.071815	0.195615	13.017554	0.047453
1.255830	2.245795	0.199872	14.135878	-0.011067
1.282550	2.095026	0.204124	13.166579	-0.018753
1.309270	1.883577	0.208377	11.834865	-0.013305
1.335958	2.002179	0.212629	12.557045	0.028695
1.362709	2.281736	0.216882	14.336572	-0.001489
1.389429	2.140942	0.221135	13.451932	-0.013504
1.416145	1.887583	0.225387	11.862549	0.033409
1.442865	1.920051	0.229640	12.064034	0.000734
1.469588	2.026468	0.233852	12.732676	-0.036088
1.496302	1.946315	0.238145	12.225056	0.040237
1.523028	1.921284	0.242357	12.071781	0.007651
1.549747	1.910202	0.246650	12.052421	-0.038136
1.576468	1.722767	0.250903	10.849554	0.003969
1.603188	1.585052	0.255155	5.584389	0.034975

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 1.55648
SECOND MOMENT = 0.44003
FOURTH MOMENT = 4.00076
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.51579

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.65184
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 5.26253

TABLE 20

TEST 415 WAVLEE

REAL MEAN = 12537.03516CTS
INTEGER MEAN = 12537 CTS
RMS VALUE 0.91657 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 415 WAVLEE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	5.005917	0.000000	56.610577	0.840832
0.026720	4.771530	0.004253	25.582408	0.164523
0.053440	0.480487	0.008505	3.018991	0.196133
0.080159	0.449757	0.012758	2.825504	0.360715
0.106879	0.454105	0.017010	2.853248	0.259106
0.133599	0.426208	0.021263	2.677944	0.226448
0.160319	0.399185	0.025516	2.508178	0.264551
0.187039	0.338041	0.029768	2.123572	0.271478
0.213758	0.265855	0.034021	1.670415	0.195524
0.240478	0.223270	0.038273	1.402847	0.243366
0.267198	0.187066	0.042526	1.175385	0.237216
0.293918	0.160988	0.046778	1.011518	0.211772
0.320638	0.170265	0.051031	1.069805	0.212251
0.347357	0.208857	0.055284	1.312288	0.193608
0.374077	0.247865	0.059536	1.557384	0.269141
0.400797	0.259441	0.063789	1.630115	0.210066
0.427517	0.250952	0.068041	1.576780	0.236771
0.454237	0.232955	0.072294	1.463701	0.234474
0.480956	0.200933	0.076547	1.262458	0.222224
0.507676	0.183908	0.080799	1.155531	0.248259
0.534396	0.195342	0.085052	1.227370	0.196728
0.561116	0.202135	0.089304	1.270050	0.261887
0.587836	0.215403	0.093557	1.353416	0.215980
0.614555	0.244381	0.097805	1.535451	0.206560
0.641275	0.289645	0.102062	1.819919	0.252014
0.667995	0.348371	0.106315	2.188880	0.259388
0.694715	0.336411	0.110567	2.113735	0.178322
0.721434	0.257694	0.114820	1.619140	0.227051
0.748154	0.245034	0.119072	1.539593	0.276544
0.774874	0.326573	0.123325	2.05 429	0.193851
0.801594	0.380961	0.127578	2.393650	0.220642
0.828314	0.369180	0.131830	2.319623	0.244296
0.855034	0.356160	0.136083	2.237820	0.205311
0.881753	0.531584	0.140335	3.340038	0.248595
0.908473	0.807005	0.144588	5.070564	0.207776
0.935193	0.795755	0.148841	4.999875	0.235071
0.961913	0.632536	0.153093	3.974335	0.236487
0.988632	0.576860	0.157346	3.624520	0.213859
1.015352	0.671846	0.161598	4.221332	0.235975
1.042072	0.755200	0.165851	4.556351	0.224688
1.068791	0.700106	0.170103	4.398855	0.225440
1.095511	0.471618	0.174356	2.963261	0.209375
1.122231	0.457126	0.178609	2.872211	0.243332
1.148952	0.618125	0.182861	3.883753	0.229408
1.175671	0.595685	0.187114	3.742821	0.190718
1.202391	0.411682	0.191366	2.586673	0.240431
1.229111	0.292053	0.195619	1.835023	0.208996
1.255830	0.310134	0.199872	1.948628	0.229207
1.282550	0.327064	0.204124	2.055001	0.200991
1.309270	0.307409	0.208377	1.931508	0.231910
1.335990	0.473058	0.212629	2.972314	0.224230
1.362709	0.641046	0.216882	4.027812	0.200716
1.389429	0.533677	0.221135	3.353150	0.216485
1.416149	0.382490	0.225387	2.403257	0.263230
1.442869	0.293694	0.229640	1.845333	0.206771
1.469588	0.235202	0.233892	1.477820	0.199335
1.496308	0.278088	0.238145	1.747278	0.236677
1.523028	0.335356	0.242357	2.107352	0.218992
1.549747	0.359600	0.246650	2.259438	0.207367
1.576468	0.318151	0.250903	1.999251	0.206439
1.603188	0.264392	0.255155	1.661227	0.236686

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60319)
ZEROTH MOMENT = 0.84083
SECOND MOMENT = 0.57044
FOURTH MOMENT = 0.84732
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.73707

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 3.66788
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 3.13033

TABLE 21

TEST 412 B-C DIESEL

REAL MEAN = 2018.07553CTS
INTEGER MEAN = 2018 CTS
RMS VALUE 2.58183 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 412 B-C DIESEL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.572087	0.000000	3.554530	6.665839
0.026720	0.511566	0.004253	3.213565	-1.861302
0.053440	0.436766	0.008505	2.744284	-4.007769
0.080155	0.406325	0.012758	2.553038	3.666749
0.106875	0.373382	0.017010	2.346028	0.915749
0.133595	0.387833	0.021263	2.436525	-0.883983
0.160315	0.421774	0.025516	2.650086	0.583055
0.187035	0.385573	0.029768	2.450275	1.528234
0.213750	0.337157	0.034021	2.118422	-0.654893
0.240478	0.305305	0.038273	1.918286	-0.626687
0.267158	0.287810	0.042526	1.808366	0.440981
0.293918	0.346885	0.046778	2.175944	0.383422
0.320638	0.473571	0.051031	2.978045	-0.303521
0.347357	0.646765	0.055284	4.063395	-0.374760
0.374077	0.991045	0.059536	6.226518	0.284693
0.400797	1.196451	0.063789	7.517776	0.147516
0.427517	0.935157	0.068041	5.876015	-0.244199
0.454237	0.594204	0.072294	3.733454	0.201393
0.480956	0.505854	0.076547	3.178372	0.186747
0.507676	0.561028	0.080799	3.525045	-0.403742
0.534396	0.770621	0.085052	4.841556	0.122710
0.561116	0.997100	0.089304	6.264967	0.391496
0.587836	1.021583	0.093557	6.421305	-0.513495
0.614555	0.993135	0.097809	6.240078	-0.190258
0.641275	1.029880	0.102062	6.470523	0.837376
0.667995	1.262551	0.106315	7.935354	-0.205172
0.694715	1.324165	0.110567	8.319976	-0.832245
0.721434	1.188934	0.114820	7.470294	0.776994
0.748154	2.123932	0.119072	13.345057	0.322600
0.774874	4.954099	0.123325	31.127518	-1.103254
0.801594	8.428913	0.127578	52.960419	0.549520
0.828314	11.515315	0.131830	72.352855	0.631304
0.855034	14.365705	0.136083	90.262405	-1.058160
0.881753	15.323046	0.140335	96.277527	0.323135
0.908473	18.746048	0.144588	117.784882	0.768650
0.935193	25.004574	0.148841	157.110886	-0.872647
0.961913	21.946884	0.153093	137.896332	-0.020574
0.988632	13.127558	0.157346	82.483124	0.610209
1.015352	12.272588	0.161598	77.110547	-0.305884
1.042072	17.135574	0.165851	107.665585	-0.193519
1.068791	15.855785	0.170103	99.581291	0.173358
1.095511	8.860833	0.174356	55.675529	0.232223
1.122231	7.599437	0.178609	47.748672	-0.136736
1.148952	8.018525	0.182861	50.381882	-0.236868
1.175671	5.569557	0.187114	34.995070	0.238727
1.202391	3.052195	0.191366	19.177536	0.109587
1.229111	2.973852	0.195619	18.685257	-0.281465
1.255830	2.750854	0.199872	17.284134	-0.013549
1.282550	1.767073	0.204124	11.102844	0.339389
1.309270	1.471871	0.208377	9.248040	-0.106762
1.335990	1.256783	0.212629	7.896557	-0.375018
1.362705	0.976670	0.216882	6.136558	0.362737
1.389425	0.913744	0.221135	5.741221	0.188642
1.416149	0.763525	0.225387	4.797367	-0.167696
1.442869	0.554063	0.229640	3.481281	0.132177
1.469588	0.494595	0.233892	3.107566	0.264109
1.496308	0.462324	0.238145	2.904868	-0.348047
1.523028	0.387587	0.242397	2.437756	0.081318
1.549747	0.403180	0.246650	2.533255	0.892419
1.576468	0.481748	0.250903	3.026916	-0.325305
1.603188	0.507631	0.255155	3.185539	0.071808

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60315)
ZEROTH MOMENT = 6.66884
SECOND MOMENT = 0.32406
FOURTH MOMENT = 0.05567
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.38333

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 10.32731
4.0*RMS*SQRT(1.0-BROADNESS**2/2.0) = 9.55980

TABLE 22

TEST 412 WAVEINC

REAL MEAN = 11002.382 CNTS
INTEGER MEAN = 11000 CTS
RMS VALUE 1.53481 PHYSICAL UNITS

START SLERCUTINF SPECTR FOR

TEST 412 WAVEINC

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.834455	0.000000	11.526469	2.742305
0.026720	1.216388	0.004253	7.642741	-1.272728
0.053440	0.571816	0.008505	3.592825	-1.069589
0.080159	0.520285	0.012758	3.269077	1.184709
0.106879	0.562068	0.017010	3.531579	0.170112
0.133599	0.573283	0.021263	3.602045	-0.206688
0.160319	0.522609	0.025516	3.283649	-0.185553
0.187039	0.509304	0.029768	3.200052	0.253768
0.213758	0.434585	0.034021	2.730116	0.115374
0.240478	0.364710	0.038273	2.291543	-0.098322
0.267198	0.373543	0.042526	2.345555	0.028400
0.293918	0.427122	0.046778	2.683688	0.065269
0.320638	0.430216	0.051031	2.703126	0.088140
0.347357	0.347258	0.055284	2.181885	-0.043680
0.374077	0.295107	0.059536	1.854213	0.048438
0.400797	0.330535	0.063789	2.076835	0.029465
0.427517	0.357041	0.068041	2.243356	0.070805
0.454237	0.357662	0.072294	2.456884	-0.055691
0.480956	0.398889	0.076547	2.504409	0.093516
0.507676	0.367361	0.080799	2.308154	0.103774
0.534396	0.540606	0.085052	3.396728	-0.092774
0.561116	0.764550	0.089304	4.803810	0.132174
0.587836	0.754134	0.093557	4.738360	0.005743
0.614555	0.813266	0.097809	5.109802	0.068875
0.641275	1.027070	0.102062	6.453271	0.062800
0.667995	1.345456	0.106315	8.454001	0.003909
0.694715	2.123604	0.110567	13.339287	-0.018261
0.721434	2.510607	0.114820	15.500273	0.004267
0.748154	2.518755	0.119072	15.826075	0.129677
0.774874	3.386380	0.123325	21.277252	0.084316
0.801594	4.603550	0.127578	28.925201	-0.112392
0.828314	4.962262	0.131830	31.157784	0.009784
0.855034	4.947285	0.136083	31.084229	0.263928
0.881753	5.695585	0.140335	35.788556	-0.086464
0.908473	6.135362	0.144588	38.574759	-0.098386
0.935193	5.305811	0.148841	33.337387	0.182989
0.961913	4.793822	0.153093	30.120468	0.051999
0.988632	5.209661	0.157346	32.733201	-0.038679
1.015352	5.450471	0.161598	34.246323	-0.036420
1.042072	5.025635	0.165[illegible]	31.577011	0.050594
1.068791	4.765545	0.170103	29.942885	0.004250
1.095511	4.801538	0.174356	30.168515	0.027774
1.122231	4.333457	0.178609	27.228169	0.015925
1.148951	3.887270	0.182861	24.424438	-0.027983
1.175671	4.172475	0.187114	26.216431	0.033523
1.202391	4.515070	0.191366	28.369019	0.034750
1.229111	4.221366	0.195619	26.523621	0.071189
1.255830	3.607550	0.199872	22.667160	0.059020
1.282550	3.315516	0.204124	20.857132	-0.009772
1.309270	3.240412	0.208377	20.360107	0.130456
1.335990	3.101550	0.212629	19.487010	0.069071
1.362709	3.205411	0.216882	20.155048	0.051491
1.389429	3.002652	0.221135	18.866470	-0.053763
1.416149	2.285852	0.225387	14.362675	0.096570
1.442869	1.713026	0.229640	10.766395	0.110866
1.469588	1.448001	0.233892	9.098058	0.001435
1.496308	1.455645	0.238145	9.357411	0.081923
1.523028	1.518022	0.242397	9.537888	0.017898
1.549747	1.462518	0.246650	9.155586	-0.004144
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.603151)

ZEROTH MOMENT = 3.74831
SECOND MOMENT = 4.12550
FOURTH MOMENT = 6.81421
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.46489

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 7.73806
4.0*RMS*SQRT(1.0-(BROAD**2/2.0)) = 7.30759

TABLE 23

TEST 41E WAVES

REAL MEAN = 0000.000002CTS
INTEGER MEAN = 0000 CTS
RMS VALUE 1.17551 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 41E WAVES

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95595

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	5.658767	0.000000	35.554543	1.391243
0.026720	4.978760	0.004253	31.281053	0.004236
0.053440	0.367445	0.008505	2.308724	-0.223064
0.080155	0.305738	0.012758	1.546013	0.604986
0.106875	0.322064	0.017010	2.023710	0.440105
0.133595	0.256381	0.021263	1.610880	0.059272
0.160315	0.230142	0.025516	1.446028	0.193041
0.187035	0.235734	0.029768	1.506255	0.427960
0.213755	0.200087	0.034021	1.255511	0.213937
0.240478	0.174056	0.038273	1.053875	0.097401
0.267195	0.164688	0.042526	1.034766	0.347116
0.293918	0.175346	0.046778	1.101733	0.364646
0.320638	0.151547	0.051031	1.000041	0.114694
0.347357	0.175477	0.055284	1.102556	0.199221
0.374077	0.141631	0.059536	0.889854	0.344830
0.400797	0.134424	0.063789	0.844611	0.248556
0.427517	0.146933	0.068041	0.923209	0.194768
0.454237	0.159860	0.072294	1.004431	0.205189
0.480956	0.164438	0.076547	1.033158	0.335529
0.507676	0.165086	0.080799	1.037264	0.246461
0.534396	0.259568	0.085052	1.630512	0.158309
0.561116	0.384702	0.089304	2.417151	0.283411
0.587836	0.443028	0.093557	2.783628	0.301174
0.614555	0.510574	0.097809	3.210546	0.175005
0.641275	0.562591	0.102062	3.534862	0.245872
0.667995	0.682418	0.106315	4.287761	0.305120
0.694715	0.917265	0.110567	5.762553	0.164927
0.721434	0.819380	0.114820	5.148318	0.225527
0.748154	0.562402	0.119072	3.533673	0.331169
0.774874	0.822776	0.123325	5.169753	0.231798
0.801594	1.182980	0.127578	7.432879	0.195949
0.828314	1.357182	0.131830	8.527423	0.251816
0.855034	2.002573	0.136083	12.582048	0.269293
0.881753	2.568365	0.140335	16.658787	0.280131
0.908473	3.153985	0.144588	15.817053	0.184194
0.935193	2.577487	0.148841	16.154641	0.220369
0.961913	1.995518	0.153093	12.565819	0.306500
0.988632	1.587176	0.157346	9.972523	0.252618
1.015352	1.582108	0.161598	9.940675	0.185005
1.042072	1.583085	0.165851	9.946816	0.202401
1.068791	1.126567	0.170103	7.078428	0.303439
1.095511	0.760161	0.174356	4.776234	0.251861
1.122231	0.768805	0.178609	4.830571	0.169056
1.148950	1.012552	0.182861	6.364016	0.251101
1.175671	1.142465	0.187114	7.178317	0.223959
1.202391	0.980303	0.191366	6.159428	0.221809
1.229111	0.826141	0.195619	5.190756	0.244432
1.255830	0.750760	0.199872	4.568453	0.247399
1.282550	0.653015	0.204124	4.103040	0.184024
1.309270	0.466467	0.208377	2.930858	0.238498
1.335990	0.485347	0.212629	3.074655	0.268623
1.362709	0.538882	0.216882	3.385855	0.190931
1.389425	0.511482	0.221135	3.213734	0.276796
1.416145	0.523828	0.225387	3.291260	0.268962
1.442865	0.462521	0.229640	2.906119	0.219644
1.469588	0.342824	0.233892	2.154024	0.216677
1.496308	0.272746	0.238145	1.713716	0.217113
1.523028	0.250836	0.242397	1.572879	0.230798
1.549747	0.268728	0.246650	1.814130	0.228791
1.576468	0.310805	0.250903	1.949181	0.217878
1.603188	0.252585	0.255155	1.646586	0.186215

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60315)
ZEROTH MOMENT = 1.38184
SECOND MOMENT = 1.00000
FOURTH MOMENT = 1.37150
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.61797

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 4.70204
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 4.24376

TABLE 24

TEST 515 B-C DISPL

REAL MEAN = 1743.61257CTS
INTEGER MEAN = 1744 CTS
RMS VALUE 0.94377 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 515 B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.630778	0.000000	3.963293	0.890692
0.026720	0.502915	0.004253	3.159536	-0.302092
0.053440	0.308063	0.008505	1.935616	-0.146444
0.080159	0.214154	0.012758	1.345823	0.314088
0.106879	0.178133	0.017010	1.119240	-0.040893
0.133599	0.157555	0.021263	0.989572	-0.080807
0.160319	0.164911	0.025516	1.036164	0.088223
0.187039	0.195360	0.029768	1.227486	0.025340
0.213758	0.192698	0.034021	1.210757	-0.023595
0.240478	0.163067	0.038273	1.025606	0.242265
0.267198	0.144678	0.042526	0.909036	0.021943
0.293918	0.147010	0.046778	0.923650	-0.019178
0.320638	0.161896	0.051031	1.017221	0.047761
0.347357	0.159982	0.055284	1.005156	0.006531
0.374077	0.130716	0.059536	0.821310	0.025508
0.400797	0.122600	0.063789	0.770317	-0.018095
0.427517	0.150752	0.068041	0.947201	0.027251
0.454237	0.160640	0.072294	1.009332	0.081446
0.480956	0.141125	0.076547	0.886714	-0.090487
0.507676	0.130657	0.080799	0.821155	0.017642
0.534396	0.144661	0.085052	0.908530	0.123938
0.561116	0.152277	0.089304	0.956785	-0.080370
0.587836	0.151165	0.093557	0.949800	-0.038290
0.614555	0.181719	0.097809	1.141772	0.118658
0.641275	0.224421	0.102062	1.410078	-0.017025
0.667995	0.237047	0.106315	1.489408	-0.123930
0.694715	0.214205	0.110567	1.345885	0.145466
0.721434	0.260690	0.114820	1.637566	0.001569
0.748154	0.419294	0.119072	2.634500	-0.107309
0.774874	0.532203	0.123325	3.343929	0.087651
0.801594	0.586577	0.127578	3.685570	0.052024
0.828314	0.813352	0.131830	5.110441	-0.056089
0.855034	0.547076	0.136083	5.550655	-0.007533
0.881753	0.661994	0.140335	4.159433	0.043314
0.908473	0.425853	0.144588	2.700844	0.013963
0.935193	0.966532	0.148841	6.072898	-0.040233
0.961913	1.969733	0.153093	12.376159	0.040124
0.988632	2.034428	0.157346	12.782685	-0.002826
1.015352	1.210467	0.161598	7.605592	0.007195
1.042072	0.821056	0.165851	5.158847	-0.029615
1.068791	1.230667	0.170103	7.732510	0.019060
1.095511	1.736029	0.174356	10.907789	-0.016982
1.122231	1.696637	0.178609	10.660285	0.004911
1.148552	1.236215	0.182861	7.767365	0.023143
1.175671	0.887388	0.187114	5.575626	-0.026102
1.202351	0.852634	0.191366	5.357255	0.004509
1.229111	0.822571	0.195619	5.168366	0.025004
1.255830	0.747554	0.199872	4.697222	-0.006672
1.282550	0.718303	0.204124	4.513222	-0.007055
1.309270	0.837882	0.208377	5.264569	0.005361
1.335990	0.953454	0.212625	5.990730	0.021808
1.362709	0.745152	0.216882	4.707059	-0.007378
1.389429	0.490706	0.221135	3.083156	-0.028285
1.416149	0.457078	0.225387	2.871889	0.076353
1.442869	0.499148	0.229640	3.136238	-0.032796
1.469588	0.481367	0.233892	3.024517	-0.028787
1.496308	0.452548	0.238145	3.094748	0.050750
1.523028	0.457174	0.242397	2.872507	0.020422
1.549747	0.393466	0.246650	2.472219	-0.049278
1.576468	0.496102	0.250903	3.117482	0.026339
1.603188	0.593364	0.255155	3.728213	0.055621

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 0.85005
SECOND MOMENT = 1.00003
FOURTH MOMENT = 1.40500
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.48462

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 3.77000
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 3.54649

TABLE 25

TEST 518 WAVEINC

REAL MEAN = 5823.51172CTS
INTEGER MEAN = 5824 CTS
RMS VALUE 1.40552 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 518 WAVEINC

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.131644	0.000000	7.110331	1.986901
0.026720	0.923945	0.004253	5.805344	-0.626096
0.053440	0.712348	0.008505	4.475816	0.086586
0.080159	0.665725	0.012758	4.208630	0.267635
0.106879	0.570175	0.017010	3.582537	-0.303307
0.133599	0.425170	0.021263	2.671420	0.039246
0.160319	0.355137	0.025516	2.256526	0.131451
0.187039	0.433883	0.029768	2.726170	0.026022
0.213758	0.614616	0.034021	3.861749	-0.015527
0.240478	0.806706	0.038273	5.068681	0.061142
0.267198	0.738324	0.042526	4.639026	-0.017053
0.293918	0.618555	0.046778	3.886453	0.073475
0.320638	0.718844	0.051031	4.516630	0.023112
0.347357	0.754582	0.055284	4.741179	0.031510
0.374077	0.642525	0.059536	4.037101	0.067995
0.400797	0.684465	0.063789	4.300644	-0.014506
0.427517	0.909059	0.068041	5.711787	-0.019501
0.454237	0.917619	0.072294	5.765572	0.049917
0.480956	0.774640	0.076547	4.867203	-0.042473
0.507676	0.826255	0.080799	5.191514	0.019184
0.534396	0.950454	0.085052	5.972132	-0.007947
0.561116	0.902278	0.089304	5.669179	-0.066894
0.587836	0.720724	0.093557	4.528445	0.034297
0.614555	0.574575	0.097809	3.610186	0.054910
0.641275	0.497001	0.102062	3.122746	-0.032017
0.667995	0.542413	0.106315	3.408083	0.001871
0.694715	0.653023	0.110567	4.103062	-0.010216
0.721434	0.627280	0.114820	3.941317	0.057073
0.748154	0.484210	0.119072	3.042375	-0.004958
0.774874	0.358958	0.123325	2.306729	0.084786
0.801594	0.526115	0.127578	3.305701	0.015703
0.828314	0.753896	0.131830	4.736866	-0.022716
0.855034	0.838374	0.136083	5.267657	0.044554
0.881753	0.972540	0.140335	6.110697	-0.067955

0.908473	1.188848	0.144588	7.469755	-0.018613
0.935153	1.271671	0.148841	7.990146	0.027010
0.961913	1.585205	0.153093	9.985291	0.042725
0.988632	1.984779	0.157346	12.470736	0.036392
1.015352	1.921777	0.161598	12.074879	-0.028109
1.042072	1.779891	0.165851	11.183365	0.119045
1.068791	2.095415	0.170103	13.165905	-0.074510
1.095511	2.436667	0.174356	15.310032	0.012987
1.122231	2.595655	0.178609	16.309235	0.053018
1.148952	2.755800	0.182861	17.315201	-0.024797
1.175671	2.533834	0.187114	15.920550	-0.015646
1.202351	2.347747	0.191366	14.751328	0.041960
1.225111	2.175763	0.195619	13.670722	-0.041517
1.255830	1.882785	0.199872	11.829905	0.051053
1.282550	2.088562	0.204124	13.122822	-0.025997
1.305270	2.329728	0.208377	14.638113	-0.008319
1.335950	2.080345	0.212629	13.071194	0.069768
1.362705	1.860765	0.216882	11.691527	-0.013651
1.385425	2.005128	0.221135	12.623720	0.028516
1.416145	2.038926	0.225387	12.810550	0.085961
1.442865	1.800450	0.229640	11.312814	-0.055948
1.465588	1.722182	0.233892	10.820750	0.007920
1.496328	1.701285	0.238145	10.689515	0.069714
1.523028	1.603987	0.242397	9.552485	-0.084161
1.545747	1.553451	0.246650	5.760865	0.079897
1.576468	1.352697	0.250903	8.459248	0.250760
1.603188	1.142423	0.255155	7.178053	-0.054182

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60315)
ZEROTH MOMENT = 1.98650
SECOND MOMENT = 2.38612
FOURTH MOMENT = 3.75276
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.83093

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 5.63830
4*0*RMS*SQRT(1.0-EPSILON**2/2.0) = 4.22587

TABLE 26

TEST 515 WAVLEF

REAL MEAN = 2403.56777CTS
INTEGER MEAN = 2404 CTS
RMS VALUE 1.15561 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 515 WAVLEE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95559

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.719755	0.000000	10.805816	1.335423
0.026720	1.029010	0.004253	6.465459	-0.470974
0.053440	0.321880	0.008505	2.022429	-0.099246
0.080159	0.280511	0.012758	1.762501	0.490626
0.106879	0.240584	0.017010	1.511635	-0.251965
0.133599	0.216137	0.021263	1.358030	-0.023245
0.160315	0.195945	0.025516	1.231181	0.198209
0.187039	0.198521	0.029768	1.247344	0.044450
0.213758	0.260476	0.034021	1.636621	-0.050493
0.240478	0.329255	0.038273	2.068753	0.128260
0.267198	0.289775	0.042526	1.820709	0.039099
0.293918	0.241675	0.046778	1.518451	0.031131
0.320638	0.304132	0.051031	1.910918	0.052551
0.347357	0.342135	0.055284	2.149659	0.040469
0.374077	0.293593	0.059536	1.844700	0.062082
0.400797	0.286362	0.063789	1.799268	0.005566
0.427517	0.357580	0.068041	2.246743	0.071142
0.454237	0.367361	0.072294	2.308155	0.019678
0.480956	0.316241	0.076547	1.986999	0.027023
0.507676	0.325313	0.080799	2.045137	0.061299
0.534396	0.366943	0.085052	2.305573	0.006148
0.561116	0.336077	0.089304	2.111633	0.046029
0.587836	0.290646	0.093557	1.826184	0.013345
0.614555	0.276465	0.097809	1.737082	0.063012
0.641275	0.241191	0.102062	1.515446	0.031638
0.667995	0.222015	0.106315	1.394959	0.001075
0.694715	0.254458	0.110567	1.598806	0.075015
0.721434	0.249130	0.114820	1.565331	0.036917
0.748154	0.198345	0.119072	1.246241	0.024177
0.774874	0.224283	0.123325	1.409209	0.066322
0.801594	0.345842	0.127578	2.172588	0.058503
0.828314	0.474158	0.131830	2.975477	-0.005376
0.855034	0.617438	0.136083	3.875477	0.030570
0.881753	0.893862	0.140335	5.616302	0.076092
0.908473	1.099000	0.144588	6.905220	-0.053645
0.935193	1.210041	0.148841	7.602912	0.038354
0.961913	1.747501	0.153093	10.979875	0.125762
0.988632	2.238608	0.157346	14.065551	-0.021490
1.015352	2.066574	0.161598	12.987178	0.026791
1.042072	2.052432	0.165851	12.895810	0.103599
1.068791	2.451225	0.170103	15.401525	-0.004365
1.095511	2.337671	0.174356	14.688021	0.021326
1.122231	2.048746	0.178605	12.872651	0.070910
1.148950	2.112018	0.182861	13.270198	0.044202
1.175671	2.022517	0.187114	12.707850	-0.026169
1.202391	1.864238	0.191366	11.712052	0.100706
1.229111	1.701474	0.195619	10.690677	-0.000989
1.255830	1.490637	0.199872	9.365947	0.035701
1.282550	1.254353	0.204124	7.881330	0.063192
1.309270	1.121593	0.208377	7.047179	-0.011180
1.335990	1.333531	0.212629	8.381335	0.099444
1.362709	1.402257	0.216882	8.810640	0.003444
1.389429	1.227154	0.221135	7.710686	0.038236
1.416149	1.065350	0.225387	6.654040	0.069760
1.442869	0.828618	0.229640	5.206323	0.019185
1.469588	0.718485	0.233892	4.514373	0.003888
1.496308	0.661416	0.238145	4.155756	0.075728
1.523028	0.564600	0.242397	3.547551	0.002657
1.549747	0.560292	0.246650	3.520421	0.024399
1.576468	0.515422	0.250903	3.238469	0.079234
1.603188	0.462747	0.255155	2.907524	-0.002125

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)
ZEROTH MOMENT = 1.33548
SECOND MOMENT = 1.54012
FOURTH MOMENT = 2.31040
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.48084

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 4.62242
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 4.34703

TABLE 27

TEST 518 B-C DISPL

REAL MEAN = 1603.711151CTS
INTEGER MEAN = 1604 CTS
RMS VALUE 1.37262 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 518 B-C DISPL

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.565725	0.000000	5.837742	1.884645
0.026720	0.555560	0.004253	6.220227	-0.412527
0.053440	0.361005	0.008505	2.268284	-0.787357
0.080155	0.267671	0.012758	1.680633	0.781988
0.106875	0.271583	0.017010	1.708522	0.172758
0.133595	0.273512	0.021263	1.721040	-0.556354
0.160315	0.266631	0.025516	1.680554	0.179103
0.187035	0.255805	0.029768	1.863732	0.425020
0.213755	0.274782	0.034021	1.726505	-0.134585
0.240478	0.265202	0.038273	1.666814	-0.125548
0.267158	0.274120	0.042526	1.722349	0.138516
0.293518	0.253575	0.046778	1.555775	0.079593
0.320638	0.276450	0.051031	1.737288	0.009304
0.347357	0.357306	0.055284	2.245023	0.009303
0.374077	0.450558	0.059536	2.831153	-0.007909
0.400757	0.593947	0.063785	3.731878	0.054888
0.427517	0.615110	0.068041	3.864852	0.163332
0.454237	0.462130	0.072294	2.903646	-0.037285
0.480956	0.412760	0.076547	2.593442	-0.097529
0.507676	0.547021	0.080799	3.437037	0.243847
0.534356	0.714515	0.085052	4.485428	0.100387
0.561116	0.655845	0.089304	4.357281	-0.308715
0.587836	0.533113	0.093557	3.345648	0.053138
0.614555	0.406743	0.097809	2.555640	0.431528
0.641275	0.350592	0.102062	2.205350	-0.104768
0.667995	0.341356	0.106315	2.144806	-0.344636
0.694715	0.441541	0.110567	2.776795	0.369344
0.721434	0.545256	0.114820	3.425545	0.232967
0.748154	0.565522	0.119072	3.553279	-0.421597
0.774874	0.557566	0.123325	3.505807	0.024367
0.801554	0.924733	0.127578	5.810266	0.434752
0.828314	3.489442	0.131830	21.868256	-0.005263
0.855034	5.551055	0.136083	34.878326	-0.267398
0.881753	3.415540	0.140335	21.462582	0.201891
0.908473	1.544140	0.144588	9.702116	0.235709
0.935153	3.578374	0.148841	22.483587	-0.204287
0.961913	6.225035	0.153093	35.113068	-0.069479
0.988632	5.548368	0.157346	34.861420	0.281405
1.015352	3.362246	0.161598	21.125610	0.003891
1.042072	2.733620	0.165851	17.175842	-0.106205
1.068751	2.720042	0.170103	17.090530	0.065967
1.095511	2.462853	0.174356	15.474564	0.069512
1.122231	2.152267	0.178609	13.523054	0.058284
1.148552	1.614515	0.182861	10.146033	-0.059571
1.175671	1.311338	0.187114	8.239382	-0.040549
1.202351	1.377821	0.191366	8.657481	0.138061
1.225111	1.115512	0.195615	7.011484	0.111727
1.255830	0.758065	0.199872	4.763062	-0.179820
1.282550	0.756545	0.204124	4.753510	0.021699
1.305270	0.870721	0.208377	5.470901	0.180417
1.335550	0.881337	0.212625	5.034540	0.003025
1.362705	0.704313	0.216882	4.425331	-0.123325
1.385425	0.636723	0.221135	4.000651	0.054401
1.416145	0.523286	0.225387	3.287904	0.211139
1.442865	0.516858	0.229640	3.210065	-0.034010
1.469588	0.506338	0.233892	3.181417	-0.137470
1.496308	0.426705	0.238145	2.681050	0.178743
1.523028	0.356681	0.242397	2.564587	0.110589
1.549747	0.354401	0.246650	2.478057	-0.172548
1.576468	0.411557	0.250903	2.585787	0.015041
1.603188	0.443066	0.255155	2.783888	0.174893

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60351)
ZEROTH MOMENT = 1.00400
SECOND MOMENT = 1.78001
FOURTH MOMENT = 2.18454
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.47996

SIGNIFICANT WAVE HEIGHT, H(1/3)
4*SQRT(M0) = 4.05130

TABLE 28

TEST 518 WAVING

REAL MEAN = 5520.5100CTS
INTEGER MEAN = 5525 CTS
RMS VALUE 2.00022 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 518 WAVING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	10.665231	0.000000	67.036756	1.244526
0.022720	5.787541	0.004255	36.326530	-0.817269
0.053440	0.815646	0.008505	5.124857	-1.007267
0.080155	0.743061	0.012758	4.668789	1.527231
0.106875	0.654526	0.017010	5.626484	0.580559
0.133595	1.026270	0.021263	6.448244	-0.360132
0.160315	0.566270	0.025516	6.071254	0.206634
0.187035	0.530135	0.029768	5.844212	0.462534
0.213758	0.541003	0.034021	5.512458	0.184554
0.240478	0.515547	0.038273	5.752550	0.290253
0.267198	0.872482	0.042526	5.481965	0.201596
0.293518	0.847748	0.046778	5.326554	0.178528
0.320638	0.812263	0.051031	5.163681	0.431451
0.347357	0.753327	0.055284	4.733253	0.264423
0.374077	0.704802	0.059536	4.428400	0.095633
0.400757	0.586450	0.063789	3.684774	0.330534
0.427517	0.520530	0.068041	3.270583	0.369281
0.454237	0.582815	0.072254	3.661557	0.128518
0.480556	0.578576	0.076547	3.637811	0.305851
0.507676	0.579056	0.080795	3.638567	0.347078
0.534356	0.658034	0.085052	4.134551	0.195574
0.561116	0.738015	0.089304	4.637113	0.278127
0.587836	0.862623	0.093557	5.420017	0.318851
0.614555	1.006516	0.097809	6.326640	0.200329
0.641275	1.057755	0.102062	6.857676	0.391147
0.667555	1.255538	0.106315	7.851288	0.146064
0.694715	1.553537	0.110567	12.528278	0.257050
0.721434	2.762854	0.114820	17.355520	0.384762
0.748154	3.101407	0.119072	19.486710	0.298380
0.774874	3.804256	0.123325	23.902847	0.135555
0.801554	4.852327	0.127578	30.487546	0.233587
0.828314	5.866745	0.131830	36.861847	0.443371
0.855034	5.935976	0.136083	37.321560	0.176168
0.881753	5.383613	0.140335	33.826233	0.131108
0.908473	5.632418	0.144588	35.385481	0.413299
0.935193	6.162713	0.148841	38.721466	0.195517
0.961513	6.249284	0.153053	39.265411	0.210873
0.988632	6.022870	0.157346	37.842804	0.339421
1.015352	6.658508	0.161558	41.836635	0.102095
1.042072	7.334002	0.165851	46.080887	0.171487
1.068751	6.114745	0.170103	38.420074	0.342667
1.095511	4.798146	0.174356	30.147644	0.254770
1.122231	4.253401	0.178605	26.576227	0.108625
1.148552	3.626661	0.182861	22.755683	0.356274
1.175671	3.371532	0.187114	21.183560	0.132528
1.202351	3.565645	0.191366	22.428757	0.297531
1.229111	3.258076	0.195615	20.672165	0.352338
1.255830	2.681664	0.199872	16.845380	0.149431
1.282550	2.366858	0.204124	14.871404	0.180749
1.309270	2.525767	0.208377	15.865804	0.417471
1.335990	2.655544	0.212625	16.535117	0.331828
1.362709	2.330636	0.216882	14.643817	0.105406
1.389425	1.945620	0.221135	12.224680	0.278342
1.416145	1.988752	0.225387	12.445431	0.335197
1.442865	1.953430	0.229640	12.273811	0.265533
1.469588	1.863402	0.233852	11.708102	0.183753
1.496308	1.682082	0.238145	10.568833	0.333978
1.523028	1.350658	0.242357	8.486437	0.103878
1.549747	1.356823	0.246650	8.525169	0.367577
1.576468	1.607526	0.250903	10.102059	0.279564
1.603188	1.738155	0.255155	10.921176	0.097541

ERRCROSS 55AF (2AA0H) 33F0 (17F0H)
ARGS AT 020C

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.603151)
ZEROTH MOMENT = 4.24483
SECOND MOMENT = 4.10056
FOURTH MOMENT = 5.55163
BANDWIDTH FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.5398

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*M0 = 8.24850
... = 7.41477

TABLE 29

TEST 510 WAVLER

REAL MEAN = 2553.50580 CTS
INTEGER MEAN = 2554 CTS
RMS VALUE 1.06720 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 510 WAVLFE

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95955

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	2.778374	0.000000	17.457031	2.647388
0.026720	1.551295	0.004293	5.558426	-0.622280
0.053440	0.421801	0.008505	2.650256	-0.980342
0.080155	0.757076	0.012758	5.006150	1.243532
0.106875	1.116703	0.017010	7.025017	0.269585
0.133555	0.782156	0.021263	4.514680	-0.597805
0.160315	0.521025	0.025516	3.273658	0.182821
0.187035	0.573585	0.029768	3.603541	0.317152
0.213758	0.540071	0.034021	3.353363	-0.085915
0.240478	0.473706	0.038273	2.576385	0.007455
0.267158	0.426440	0.042526	2.675400	0.048888
0.293518	0.385542	0.046778	2.424545	0.021735
0.320638	0.362736	0.051031	2.279138	0.141905
0.347357	0.381375	0.055284	2.356273	-0.020106
0.374077	0.401644	0.059536	2.523603	-0.150174
0.400797	0.325044	0.063789	2.067444	0.225146
0.427517	0.246347	0.068041	1.547846	0.127406
0.454237	0.258113	0.072294	1.621774	-0.239041
0.480956	0.263317	0.076547	1.654472	0.166727
0.507676	0.214500	0.080799	1.347741	0.201066
0.534396	0.200015	0.085052	1.254430	-0.169499
0.561116	0.256771	0.089304	1.664666	0.044507
0.587836	0.455665	0.093557	2.863050	0.196356
0.614555	0.499977	0.097809	3.141449	0.032429
0.641275	0.438823	0.102062	2.757205	-0.012294
0.667995	0.478514	0.106315	3.006595	0.052123
0.694715	0.767271	0.110567	4.820907	0.169168
0.721434	1.143774	0.114820	7.186543	0.143583
0.748154	1.481008	0.119072	9.305219	0.005195
0.774874	1.964895	0.123325	12.345804	0.023201
0.801594	2.430062	0.127578	15.268531	0.251445
0.828314	3.803713	0.131830	23.899429	0.087650
0.855034	5.601087	0.136083	35.192657	-0.093574
0.881753	5.298621	0.140335	33.292221	0.248645
0.908473	4.057932	0.144588	25.496735	0.216949
0.935193	4.135272	0.148841	25.982681	-0.130490
0.961912	4.926553	0.153093	30.954437	0.092313
0.988632	5.215854	0.157346	32.772430	0.266124
1.015352	5.561251	0.161598	34.942368	-0.082004
1.042072	6.276201	0.165851	39.434540	0.021055
1.068791	5.406231	0.170103	33.968353	0.121664
1.095511	3.336777	0.174356	20.965551	0.011219
1.122231	2.622088	0.178609	16.475067	0.085510
1.148952	2.536851	0.182861	15.939504	-0.003760
1.175671	2.172812	0.187114	13.652183	-0.054248
1.202391	2.278575	0.191366	14.316719	0.186580
1.229111	2.176651	0.195619	13.678856	-0.024444
1.255830	1.683587	0.199872	10.578289	-0.086951
1.282550	1.336760	0.204124	8.399100	0.125637
1.309270	1.075541	0.208377	6.757820	0.047116
1.335990	1.010867	0.212625	6.351465	0.000726
1.362705	1.045615	0.216882	6.569754	0.002174
1.389425	0.963805	0.221135	6.055775	0.065142
1.416145	0.834135	0.225387	5.241026	0.144513
1.442865	0.748118	0.229640	4.700566	0.020701
1.469588	0.733533	0.233892	4.611435	0.002168
1.496308	0.656452	0.238145	4.124564	0.136984
1.523028	0.538600	0.242397	3.384123	0.063014
1.549747	0.559100	0.246650	3.513433	0.011404
1.576468	0.575532	0.250903	3.616175	0.047261
1.603188	0.536845	0.255155	3.373054	0.129793

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT S(1.60319)
ZEROTH MOMENT = 2.64735
SECOND MOMENT = 2.55811
FOURTH MOMENT = 3.20626
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.47860

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 6.50832
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 6.12430

TABLE 30

TEST 815 WAVING

REAL MEAN = 3547.77500 CTS
INTEGER MEAN = 3548 CTS
RMS VALUE 1.33165 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST 815 WAVING

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.95999

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.215247	0.000000	1.352435	1.773295
0.026720	0.215635	0.004253	1.354877	-0.858242
0.053440	0.221968	0.008505	1.394667	0.108075
0.080159	0.248123	0.012758	1.559002	0.336327
0.106879	0.282422	0.017010	1.774511	-0.370979
0.133599	0.281123	0.021263	1.766350	0.019339
0.160319	0.265588	0.025516	1.668738	0.087764
0.187039	0.291255	0.029768	1.830009	-0.044655
0.213758	0.334041	0.034021	2.098841	0.008634
0.240478	0.359353	0.038273	2.257882	0.029396
0.267198	0.378856	0.042526	2.380675	-0.001354
0.293918	0.389350	0.046778	2.446365	-0.012668
0.320638	0.402940	0.051031	2.531747	-0.011124
0.347357	0.466180	0.055284	2.929058	0.020691
0.374077	0.543438	0.059536	3.414523	-0.054596
0.400797	0.545443	0.063789	3.427116	0.039567
0.427517	0.487735	0.068041	3.064528	0.013058
0.454237	0.431655	0.072294	2.712172	-0.028228
0.480956	0.393572	0.076547	2.472866	0.010627
0.507676	0.387645	0.080799	2.435670	0.016814
0.534396	0.368336	0.085052	2.314325	-0.023450
0.561116	0.334447	0.089304	2.101351	-0.044143
0.587836	0.346058	0.093557	2.174344	0.063224
0.614555	0.332004	0.097809	2.086042	-0.025460
0.641275	0.279287	0.102062	1.754812	-0.040719
0.667995	0.284565	0.106315	1.787959	0.084061
0.694715	0.302412	0.110567	1.900109	-0.029902
0.721434	0.273361	0.114820	1.717580	-0.021431
0.748154	0.275516	0.119072	1.731119	0.040032
0.774874	0.366113	0.123325	2.300316	-0.007831
0.801594	0.427169	0.127578	2.683949	-0.030462
0.828314	0.472932	0.131830	2.971519	0.037229
0.855034	0.679540	0.136083	4.269674	-0.024851
0.881753	0.955601	0.140335	6.004215	0.033608
0.908473	0.983426	0.144588	6.179047	-0.007901
0.935193	0.981704	0.148841	6.168226	-0.016093
0.961913	1.301124	0.153093	8.175200	-0.004044
0.988632	1.715100	0.157346	10.776253	0.039352
1.015352	2.254912	0.161598	14.168032	-0.021474
1.042072	2.576655	0.165851	16.189606	-0.052525
1.068791	2.279858	0.170103	14.324767	0.075529
1.095511	2.168954	0.174356	13.628150	-0.056133
1.122231	2.566452	0.178609	16.125488	-0.006275
1.148952	2.749822	0.182861	17.277634	0.055909
1.175671	2.667357	0.187114	16.759506	-0.039812
1.202391	2.599945	0.191366	16.335937	0.000011
1.229111	2.517641	0.195619	15.818005	0.009692
1.255830	2.635555	0.199872	16.559700	-0.002825
1.282550	2.643575	0.204124	16.610052	-0.006488
1.309270	2.298200	0.208377	14.440014	0.006684
1.335990	2.079726	0.212629	13.067305	0.009463
1.362709	1.978025	0.216882	12.428174	-0.003393
1.389429	1.834436	0.221135	11.526103	-0.032438
1.416149	1.879030	0.225387	11.806254	0.052789
1.442869	1.984736	0.229640	12.470467	-0.027846
1.469588	1.825466	0.233892	11.469866	-0.008454
1.496308	1.657702	0.238145	10.415651	0.016192
1.523028	1.645126	0.242397	10.336623	0.013992
1.549747	1.610575	0.246650	10.119539	-0.007289
1.576467	1.454795	0.250903	9.140857	-0.047777
1.603188	1.410352	0.255155	8.861763	0.076304

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60315)

ZEROTH MOMENT = 1.77330
SECOND MOMENT = 0.38022
FOURTH MOMENT = 3.57258
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.44262

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*SQRT(M0) = 5.32661
4.0*SQRT(M0)*SQRT(1.0-BROAD**2/2.0) = 5.05912

TABLE 31

```
REAL MEAN =          2575.15523CTS
INTEGER MEAN =       2575 CTS
RMS VALUE              1.02500 PHYSICAL UNITS
```

C TEST C/S WAVLEE

START SUBROUTINE SPECTR FOR

TEST 015 WAVLEE

```
VELOCITY =     0.00000 FPS
LAGS     =  60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE =     1.55555
```

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.104657	0.000000	0.657579	1.050633
0.026720	0.104923	0.004253	0.655127	-0.530857
0.053440	0.107576	0.008505	0.675520	-0.023917
0.080159	0.140771	0.012758	0.884450	0.324911
0.106879	0.172375	0.017010	1.083061	-0.232545
0.133599	0.147983	0.021263	0.929806	-0.043375
0.160319	0.118276	0.025516	0.743153	0.118518
0.187039	0.122088	0.029768	0.769739	-0.030841
0.213758	0.131641	0.034021	0.827124	-0.039890
0.240478	0.143508	0.038273	0.901685	0.046015
0.267198	0.165562	0.042526	1.040254	-0.007316
0.293918	0.159254	0.046778	1.000621	-0.026020
0.320638	0.140535	0.051031	0.883035	-0.020385
0.347357	0.181358	0.055284	1.139759	0.016287
0.374077	0.247186	0.059536	1.553115	-0.019098
0.400797	0.236374	0.063789	1.485184	0.005320
0.427517	0.178121	0.068041	1.119164	-0.006714
0.454237	0.163075	0.072294	1.024631	0.007168
0.480956	0.170508	0.076547	1.071332	0.000571
0.507676	0.156003	0.080799	0.980158	-0.016975
0.534396	0.141727	0.085052	0.890455	0.014020
0.561116	0.141272	0.089304	0.887637	-0.038888
0.587836	0.139270	0.093557	0.875056	0.042970
0.614555	0.131684	0.097809	0.827354	-0.035638
0.641275	0.119572	0.102062	0.751254	0.012693
0.667995	0.119321	0.106315	0.749718	0.014907
0.694715	0.123290	0.110567	0.774655	0.019841
0.721434	0.125573	0.114820	0.788557	-0.030852
0.748154	0.154182	0.119072	0.968757	0.019772
0.774874	0.154342	0.123325	1.221076	0.019167
0.801594	0.222785	0.127578	1.387260	-0.054372
0.828314	0.238973	0.131830	1.501513	0.049767
0.855034	0.335704	0.136083	2.109253	-0.039501
0.881753	0.639716	0.140335	4.019455	0.054933

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.908473	0.856756	0.144588	5.383408	-0.022876
0.935193	0.907700	0.148841	5.703247	-0.001753
0.961913	1.179536	0.153093	7.411242	0.029553
0.988632	1.465473	0.157346	9.232970	-0.016401
1.015352	1.660576	0.161598	10.433705	-0.027729
1.042072	1.775036	0.165851	11.152875	0.033806
1.068791	1.741796	0.170103	10.944032	-0.023510
1.095511	1.740858	0.174356	10.938385	0.005534
1.122231	1.836971	0.178609	11.542030	-0.014111
1.148952	1.847908	0.182861	11.587741	0.018964
1.175671	1.710723	0.187114	10.748789	-0.000876
1.202391	1.463037	0.191366	9.192530	-0.037632
1.229111	1.517267	0.195619	9.533271	0.031831
1.255830	1.509505	0.199872	9.487036	0.007449
1.282550	1.266509	0.204124	7.957710	-0.037892
1.309270	1.228053	0.208377	7.716084	0.018672
1.335990	1.246166	0.212629	7.829893	0.006736
1.362709	1.027578	0.216882	6.456423	-0.005641
1.389429	0.833475	0.221135	5.236877	-0.030056
1.416149	0.920018	0.225387	5.780221	0.047372
1.442869	1.167741	0.229640	7.337132	-0.032240
1.469588	1.154359	0.233892	7.253250	-0.013185
1.496308	0.826041	0.238145	5.190168	0.027063
1.523028	0.654879	0.242397	4.114727	-0.004748
1.549747	0.760897	0.246650	4.780854	-0.025505
1.576468	0.766114	0.250903	4.813633	0.021625
1.603188	0.674531	0.255155	4.238203	0.001022

```
THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(      1.60315)
      ZEROTH MOMENT =          1.09063
      SECOND MOMENT =         1.35866
      FOURTH MOMENT =          2.24415
      BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) =          0.41268

      SIGNIFICANT WAVE HEIGHT, H(1/3)
                 4.0*RMS =          4.18002
                 4.0*RMS*SQRT(1.0-BROAD**2/2.0) =          3.92197
```

TABLE 32

TEST C18A

REAL MEAN = 5070.0273 CTS
INTEGER MEAN = 5070 CTS
RMS VALUE 1.78542 PHYSICAL UNITS

START SUBROUTINE SPECTR FOR

TEST #18A *WAVWIND*

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.99995

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	1.265297	0.000000	7.573573	3.202222
0.026720	0.541624	0.004253	5.516400	-1.165228
0.053440	0.464668	0.008505	2.515220	-0.692328
0.080159	0.366565	0.012758	2.360658	0.021928
0.106879	0.362257	0.017010	3.184265	0.159625
0.133599	0.454603	0.021263	3.107056	-0.260649
0.160319	0.476023	0.025516	2.990537	-0.138411
0.187039	0.530590	0.029768	3.333756	0.151963
0.213758	0.525283	0.034021	3.324326	0.111627
0.240478	0.466500	0.038273	2.933618	-0.006470
0.267198	0.462418	0.042526	2.905460	-0.114950
0.293918	0.502566	0.046779	3.160225	0.127235
0.320638	0.485565	0.051031	3.050518	0.073846
0.347357	0.515159	0.055284	3.236841	-0.047411
0.374077	0.471435	0.059536	2.962137	0.014844
0.400757	0.365711	0.063785	2.297828	0.016644
0.427517	0.362453	0.068041	2.277360	0.066603
0.454237	0.360453	0.072294	2.264752	0.041209
0.480956	0.362658	0.076547	1.901905	-0.078224
0.507676	0.295265	0.080799	1.855227	0.158750
0.534396	0.367531	0.085052	2.309265	0.023382
0.561116	0.520445	0.089304	3.270075	-0.072962
0.587836	0.586245	0.093557	3.683512	0.006414
0.614555	0.451212	0.097809	3.086373	0.177226
0.641275	0.538229	0.102062	3.381758	-0.013979
0.667995	0.923046	0.106315	5.755666	-0.123646
0.694715	1.586508	0.110567	9.968322	0.115294
0.721434	1.861575	0.114820	11.696621	0.046504
0.748154	1.905124	0.119072	11.970244	-0.021065
0.774874	2.618771	0.123325	16.454224	0.130648
0.801594	3.849319	0.127578	24.185589	-0.065987
0.828314	4.422427	0.131830	27.786526	-0.036402
0.855034	4.274857	0.136083	26.859570	0.129254
0.881753	4.505574	0.140335	28.309357	0.062189
0.908473	3.962657	0.144588	24.898361	-0.084734
0.935193	3.475630	0.148841	21.863155	-0.032010
0.961913	4.551765	0.153093	28.599579	0.204720
0.988632	4.839524	0.157346	30.407623	-0.051963
1.015352	3.985256	0.161598	25.040100	-0.109405
1.042072	3.535874	0.165851	22.216553	0.045866
1.068791	3.851101	0.170103	24.157174	0.137495
1.095511	4.156257	0.174356	26.113281	-0.198044
1.122231	4.218150	0.178609	26.503418	0.043425
1.148952	3.986553	0.182861	25.050766	0.082866
1.175671	3.545385	0.187114	22.301468	-0.025695
1.202391	3.552473	0.191366	22.320847	-0.025079
1.229111	3.252346	0.195619	20.435089	0.014687
1.255830	2.681971	0.199872	16.851318	0.079696
1.282550	2.536721	0.204124	15.938685	-0.093632
1.309270	2.681821	0.208377	16.850372	-0.113178
1.335950	2.541592	0.212625	18.482574	0.198070
1.362705	2.864625	0.216882	17.998562	0.006444
1.389425	2.440101	0.221135	15.331604	-0.013585
1.416145	2.302275	0.225387	14.465648	0.126929
1.442865	2.256713	0.229640	14.175345	0.146559
1.469588	2.004022	0.233892	12.591635	-0.074100
1.496308	2.043436	0.238145	12.839887	0.073704
1.523028	2.130651	0.242397	13.387871	0.038160
1.549747	1.762753	0.246650	11.075700	-0.050432
1.576468	1.509502	0.250903	9.486954	0.100892
1.603188	1.543541	0.255155	9.658354	-0.062145

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT 0(1.60315)
ZEROTH MOMENT = 3.20222
SECOND MOMENT = 3.60820
FOURTH MOMENT = 9.46570
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.47062

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 7.15750
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 6.74636

REAL MEAN = 3056.07666CTS
INTEGER MEAN = 3056 CTS
RMS VALUE 1.50741 PHYSICAL UNITS

START SMOOTHING SPECTR FOR

TEST K18A WAVES

VELOCITY = 0.00000 FPS
LAGS = 60
SPECTRAL UNITS = (PHYSICAL UNITS)**2*SEC
SAMPLING RATE = 1.55555

OMEGA	S(OMEGA)	FREQUENCY	S(FREQ)	AUTOCOR
0.000000	0.632876	0.000000	3.576480	2.272286
0.026720	0.466487	0.004253	2.530523	-0.810113
0.053440	0.232088	0.008505	1.458252	-0.014770
0.080159	0.226352	0.012758	1.422465	0.077543
0.106875	0.281851	0.017010	1.771174	0.165662
0.133595	0.232802	0.021263	1.462737	-0.391769
0.160319	0.225743	0.025516	1.418388	-0.036972
0.187035	0.274233	0.029768	1.723058	0.229091
0.213758	0.251208	0.034021	1.578385	-0.010660
0.240478	0.150388	0.038273	1.156225	-0.078114
0.267158	0.165575	0.042526	1.042850	0.031036
0.293518	0.165593	0.046778	1.042568	0.050618
0.320638	0.185536	0.051031	1.150887	-0.025571
0.347357	0.225081	0.055284	1.435358	0.008301
0.374077	0.220811	0.059536	1.387354	0.007483
0.400797	0.160530	0.063789	1.011154	0.023726
0.427517	0.133482	0.068041	0.838654	-0.012525
0.454237	0.163164	0.072294	1.025150	0.085115
0.480556	0.170651	0.076547	1.072232	-0.083272
0.507676	0.146503	0.080799	0.520500	0.053756
0.534356	0.133373	0.085052	0.838005	0.069061
0.561116	0.163725	0.089304	1.028712	-0.024445
0.587836	0.247865	0.093557	1.557375	-0.057768
0.614555	0.350780	0.097809	2.204013	0.056710
0.641275	0.424321	0.102062	2.666086	0.059589
0.667995	0.625479	0.106315	3.929998	-0.073113
0.694715	1.043707	0.110567	6.557803	0.017277
0.721434	1.212503	0.114820	7.620854	0.027495
0.748154	1.247524	0.119072	7.838426	0.058552
0.774874	1.564517	0.123325	11.566434	0.033515
0.801594	3.086314	0.127578	19.391076	-0.101335
0.828314	3.404586	0.131830	21.771149	0.030752
0.855034	3.146121	0.136083	19.767654	0.143679
0.881753	3.658151	0.140335	23.236160	-0.039688
0.908473	4.356853	0.144588	27.374508	-0.076551
0.935193	4.265504	0.148841	26.803467	0.048839
0.961913	4.375537	0.153093	27.519558	0.140267
0.988632	4.482646	0.157346	28.165258	-0.087606
1.015352	3.744878	0.161598	23.529755	-0.066348
1.042072	3.174387	0.165851	19.945267	0.109633
1.068791	3.215864	0.170103	20.231003	-0.002022
1.095511	3.152678	0.174356	20.060156	-0.081351
1.122231	3.062057	0.178609	19.239471	0.049794
1.148952	2.704575	0.182861	16.995880	0.022398
1.175671	2.346471	0.187114	14.743310	-0.039358
1.202351	2.213051	0.191366	13.510035	-0.024456
1.229111	2.112678	0.195619	13.274344	0.055434
1.255830	1.846050	0.199872	11.599375	-0.024818
1.282550	1.651423	0.204124	10.376159	-0.015571
1.309270	1.811274	0.208377	11.380567	0.014934
1.335990	1.761540	0.212629	11.068085	-0.044658
1.362709	1.420110	0.216882	8.922812	0.098210
1.389429	1.130815	0.221135	7.103259	-0.062467
1.416149	0.574330	0.225387	6.121543	-0.062593
1.442865	1.015867	0.229640	6.382882	0.076477
1.469588	1.056326	0.233892	6.688418	0.037355
1.496308	1.165154	0.238148	7.346012	-0.064600
1.523028	1.000258	0.242357	6.661757	-0.010494
1.549747	0.761362	0.246650	4.783780	0.078919
1.576468	0.601558	0.250903	3.777811	-0.029068
1.603188	0.581771	0.255156	3.655378	-0.057210

THE SPECTRAL MOMENTS WERE COMPUTED
USING A HIGH FREQUENCY TRUNCATION
AT W(1.60319)
ZEROTH MOMENT = 2.27825
SECOND MOMENT = 0.45803
FOURTH MOMENT = 3.35558
BROADNESS FACTOR (SQRT(1.0-M2**2/(M0*M4))) = 0.43812

SIGNIFICANT WAVE HEIGHT, H(1/3)
4.0*RMS = 6.02964
4.0*RMS*SQRT(1.0-BROAD**2/2.0) = 5.73300

TABLE 34