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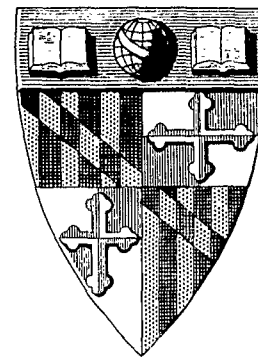
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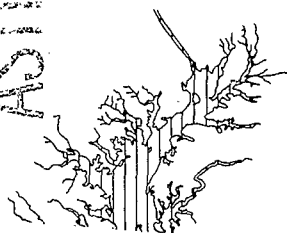


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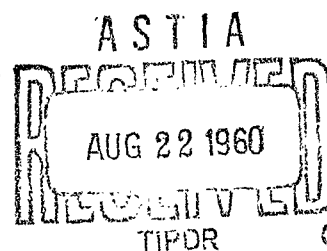
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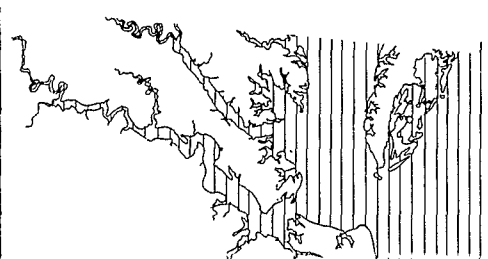
TECHNICAL REPORT XIX

SURFACE WAVES AT SHORT
FETCHES AND LOW WIND
SPEEDS—A FIELD STUDY

by Blair Kinsman



Volume 3



Reference 60-1 May 1960

CHESAPEAKE BAY INSTITUTE
THE JOHNS HOPKINS UNIVERSITY

TECHNICAL REPORT XIX

SURFACE WAVES AT SHORT FETCHES AND LOW WIND SPEEDS
A FIELD STUDY

Volume 3

Appendices III and IV

by

Blair Kinsman

"Merely corroborative detail, intended to
give artistic verisimilitude to an otherwise
bald and unconvincing narrative."

W. S. Gilbert, The Mikado

This report contains results of work carried out for the
Office of Naval Research of the Department of the Navy
under research project NR 083-016, Contract Nonr 248(20).

This report does not necessarily constitute
final publication of the material presented.

Reference 60-1
May 1960

D. W. Pritchard
Director

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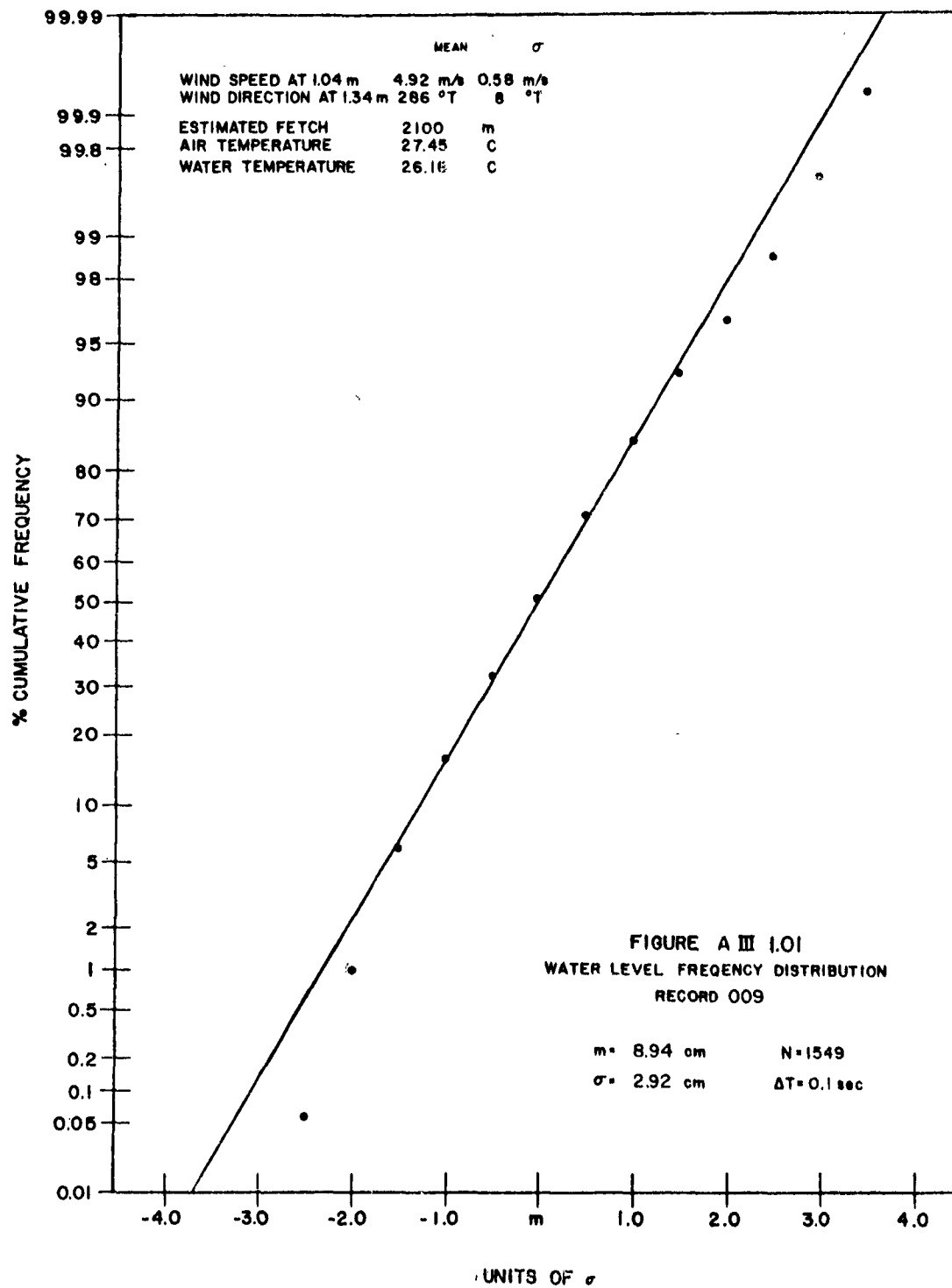
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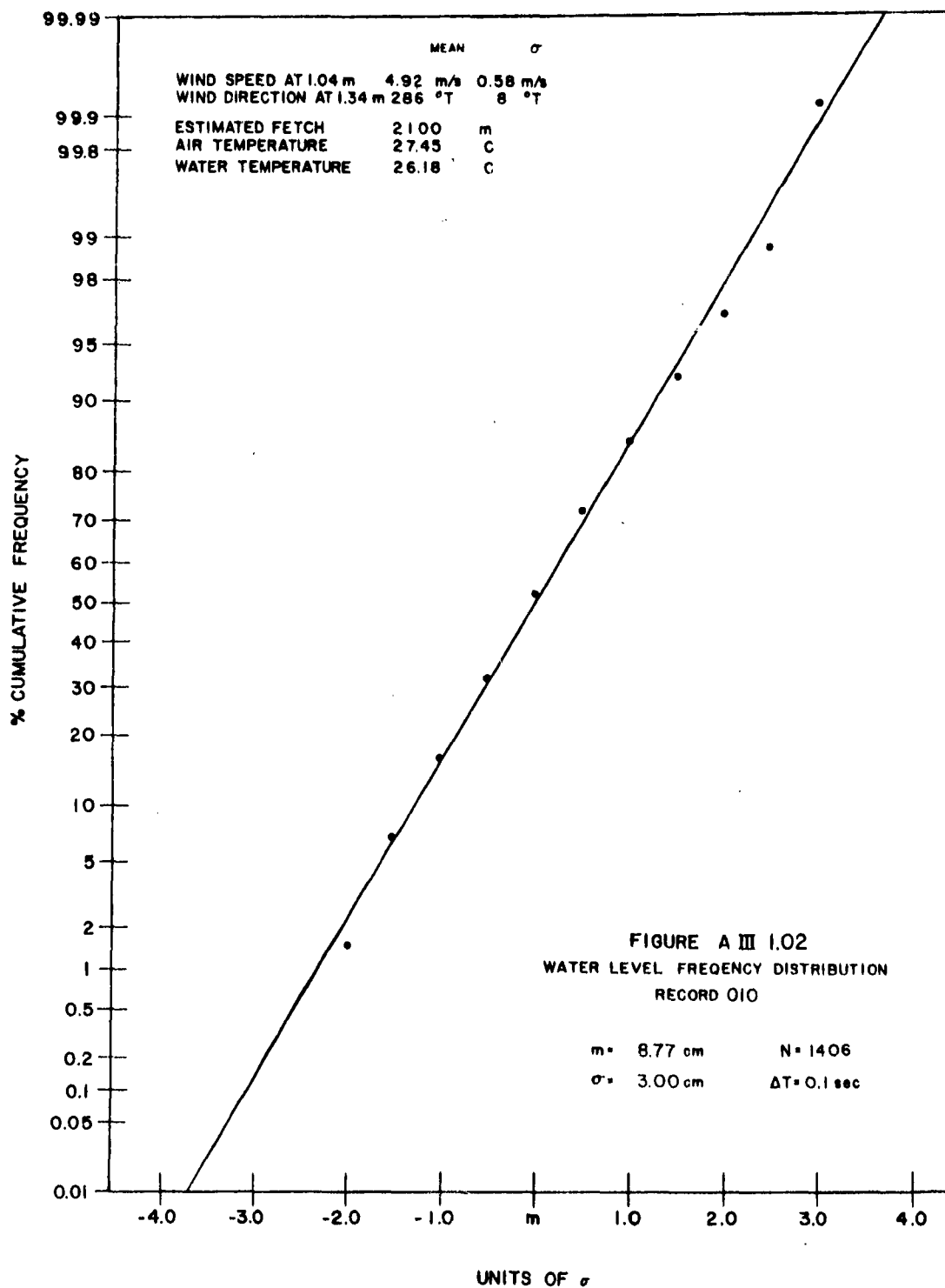
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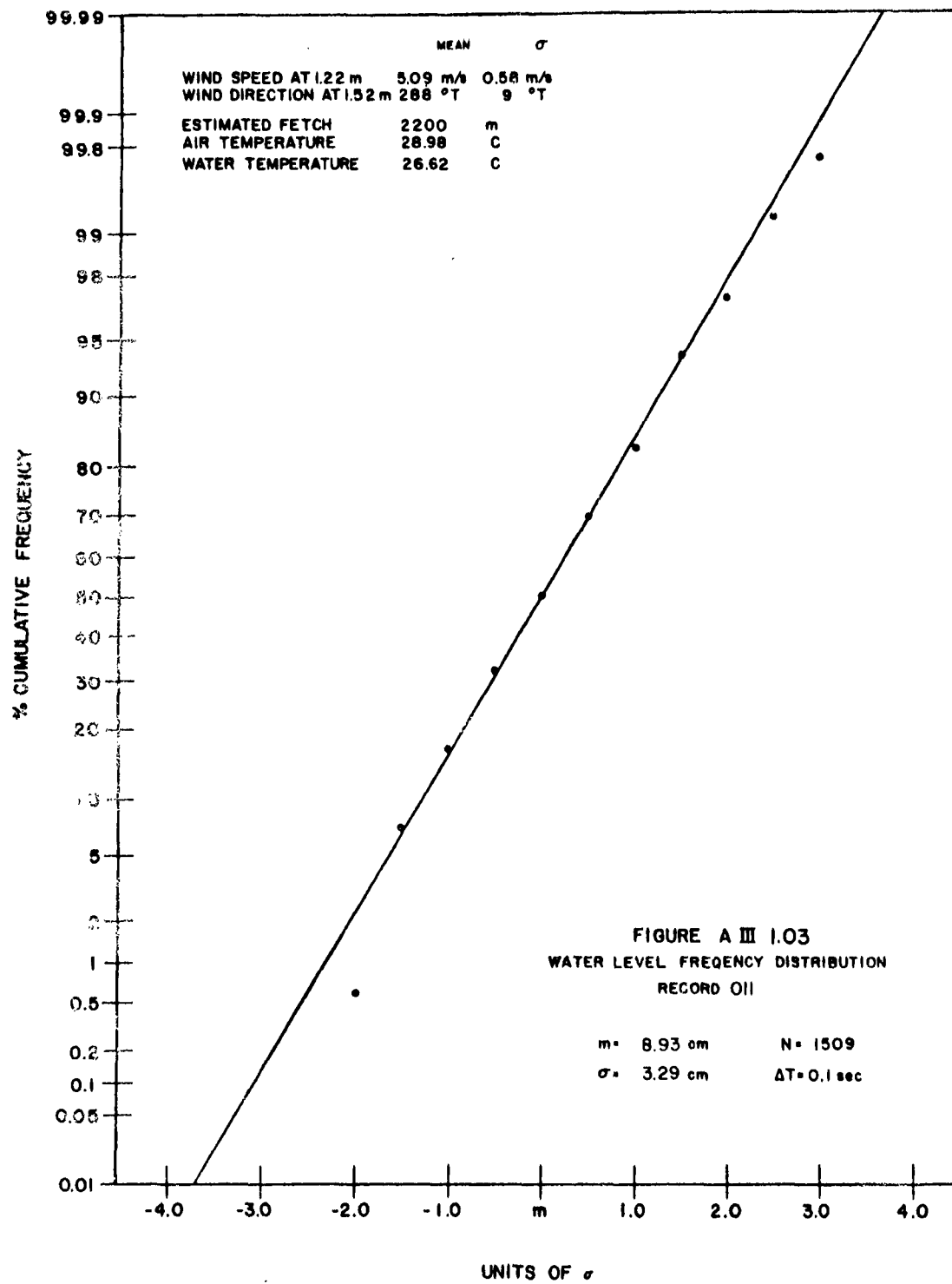
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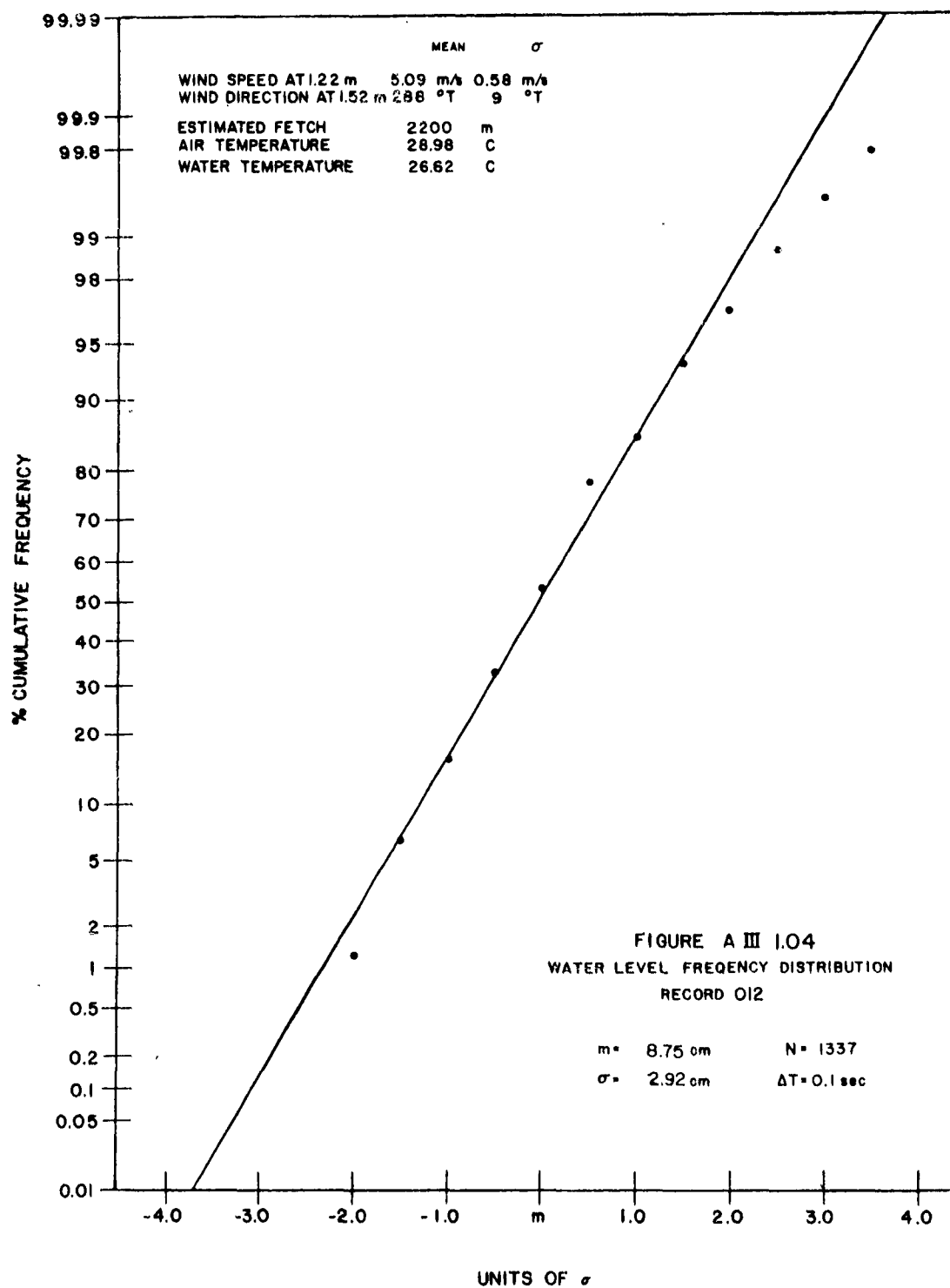
Figures AIII 1.01 to AIII 1.24 on pages AIII-3 to AIII-26 show the frequency expressed as a cumulative per cent ordinate versus the distance from mean water level in units of the standard deviation for each record. The line entered is the Gaussian.

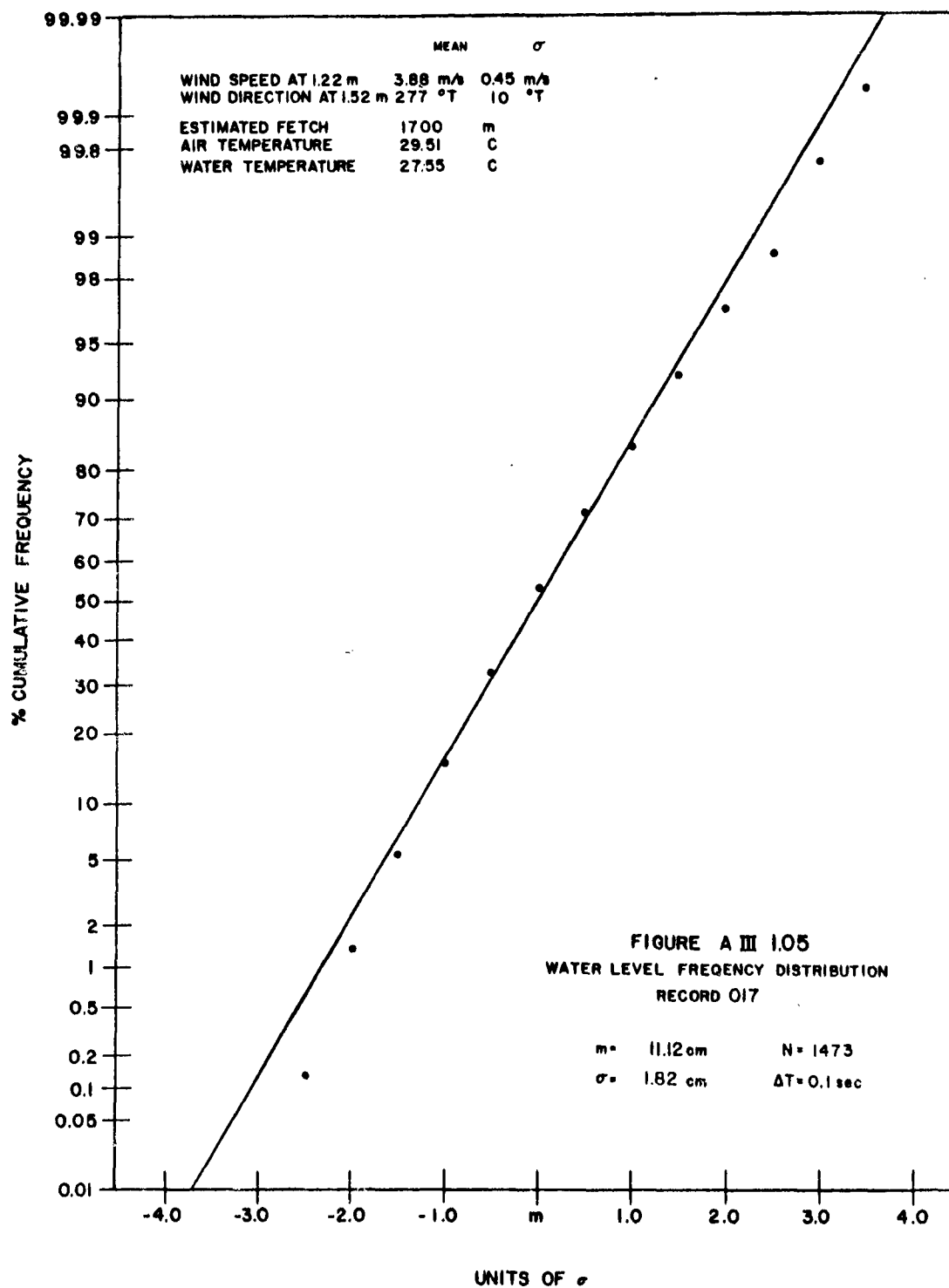
Tables AIII 1.01 to AIII 1.24 on pages AIII-27 to AIII-38 contain the results of the $1/2\text{-}\sigma$ frequency-sort computer program. Each sort interval is $\sigma/2$ long; the interval to which the count belongs is indicated by giving the point farthest from the mean. Thus a count identified by 1.5σ is the count for the interval from 1.0σ to 1.5σ , and that for -0.5σ is the count for the interval from the mean to -0.5σ . The computer program was arranged so that the value of σ used was of a higher precision than the data points to be sorted, so that no ambiguity arises at interval end points.

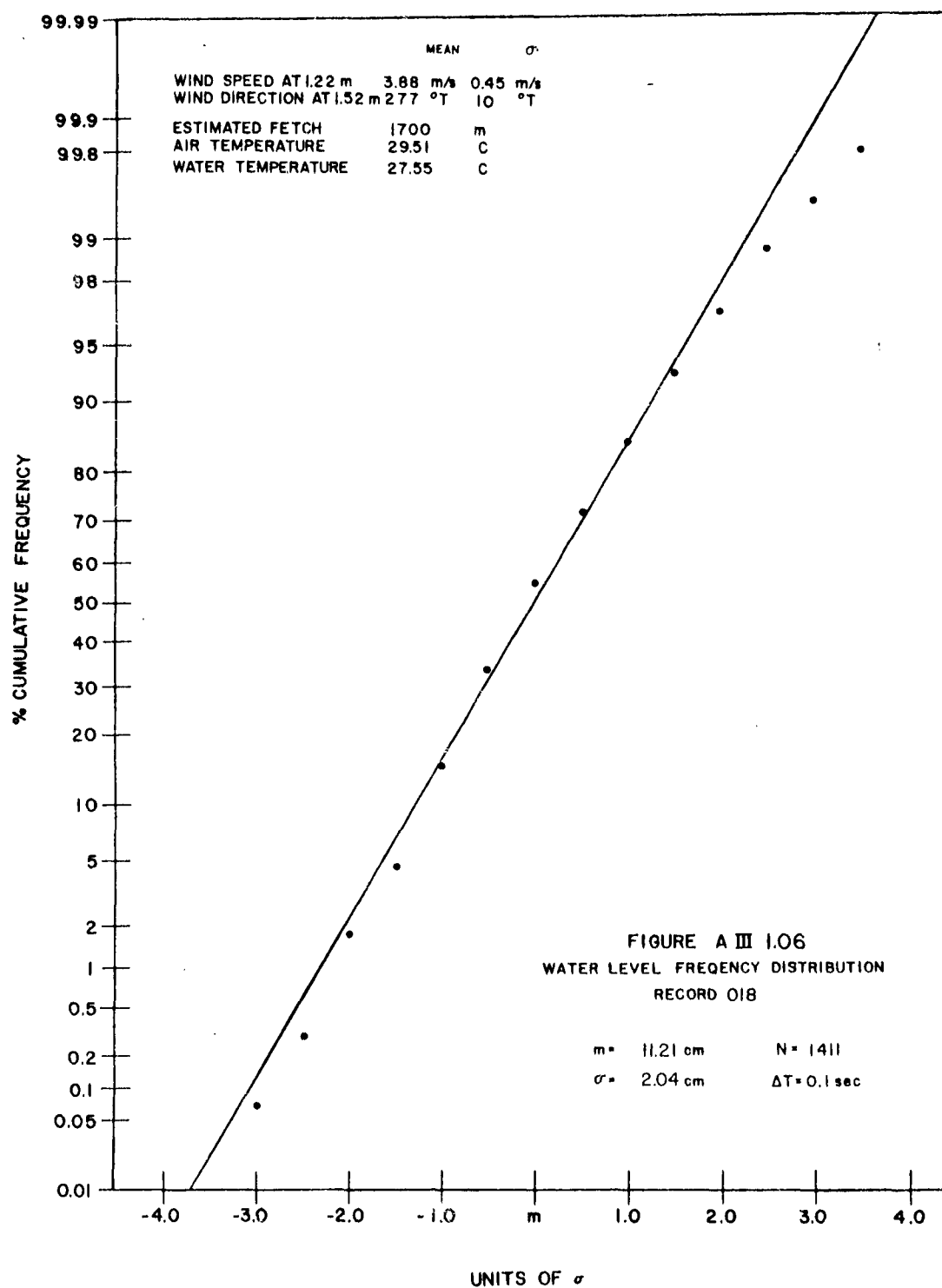


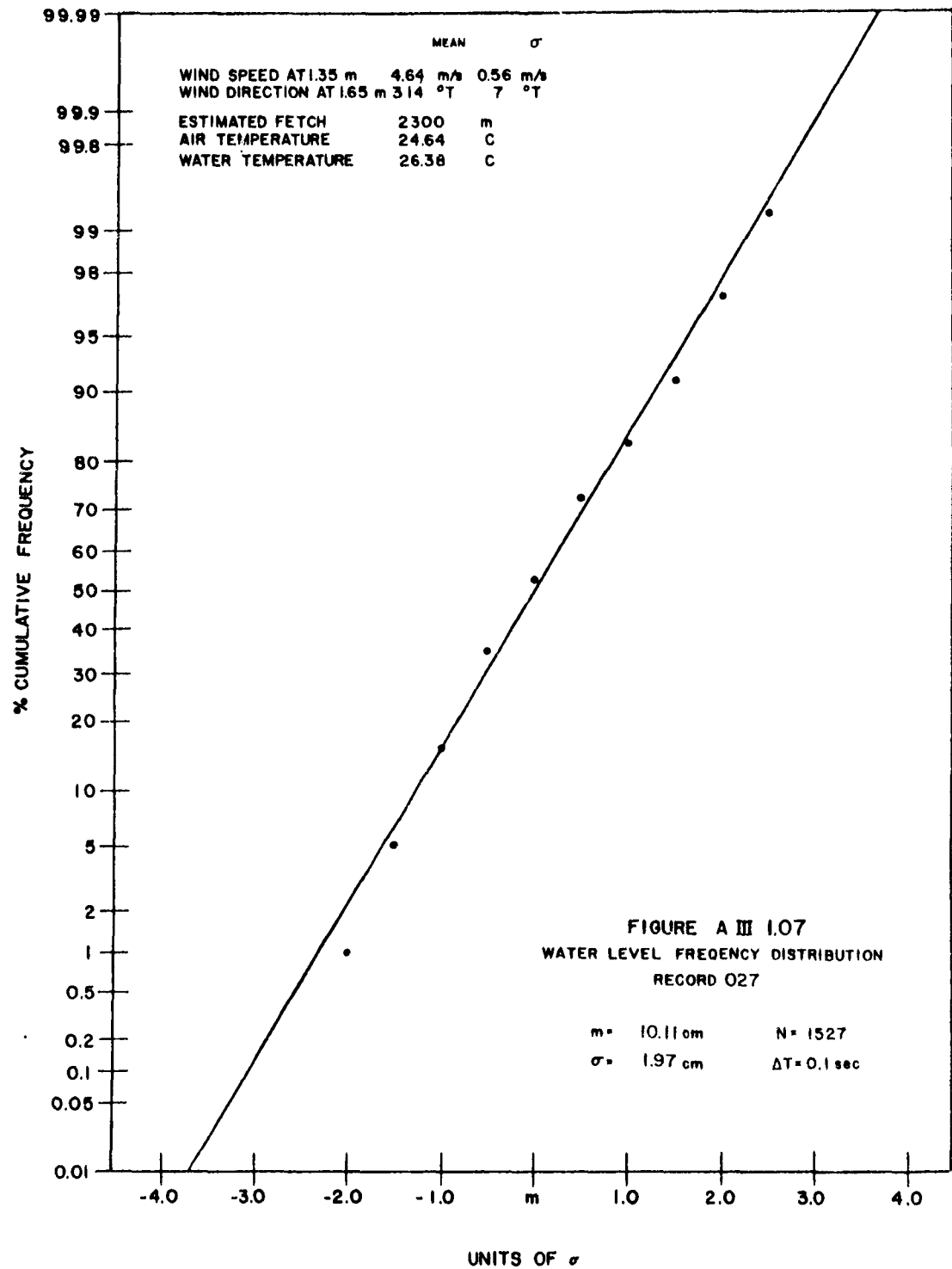


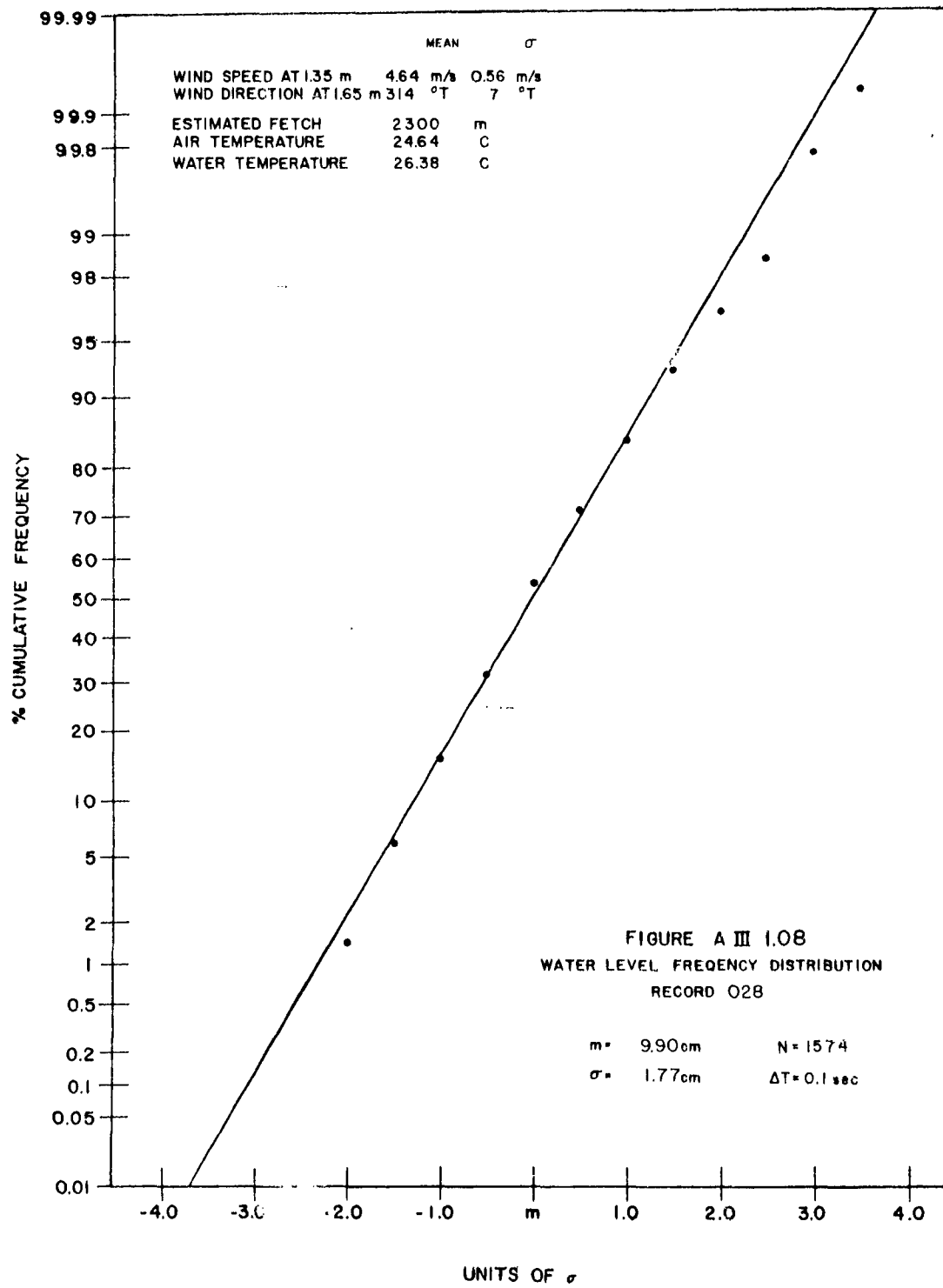


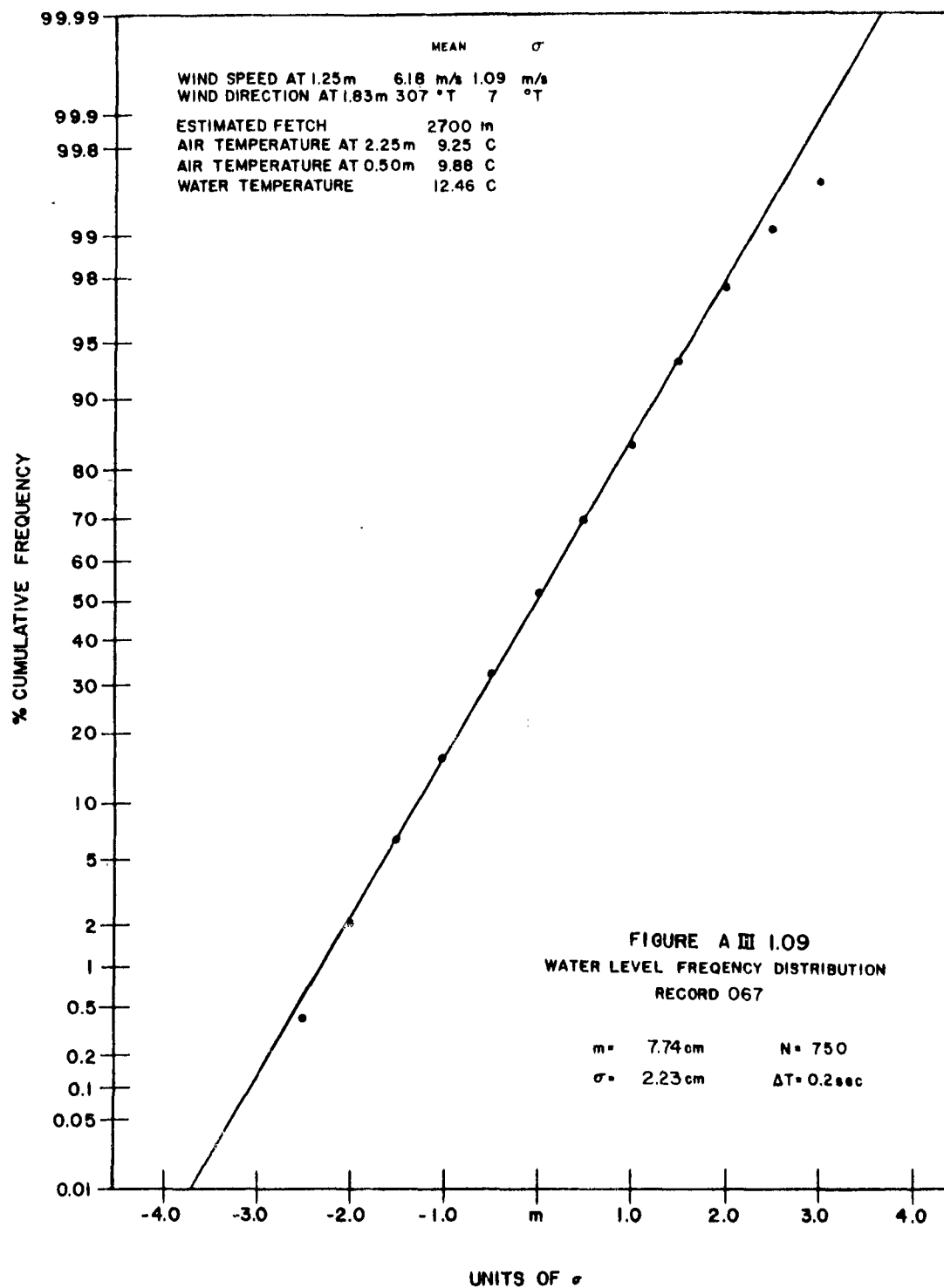


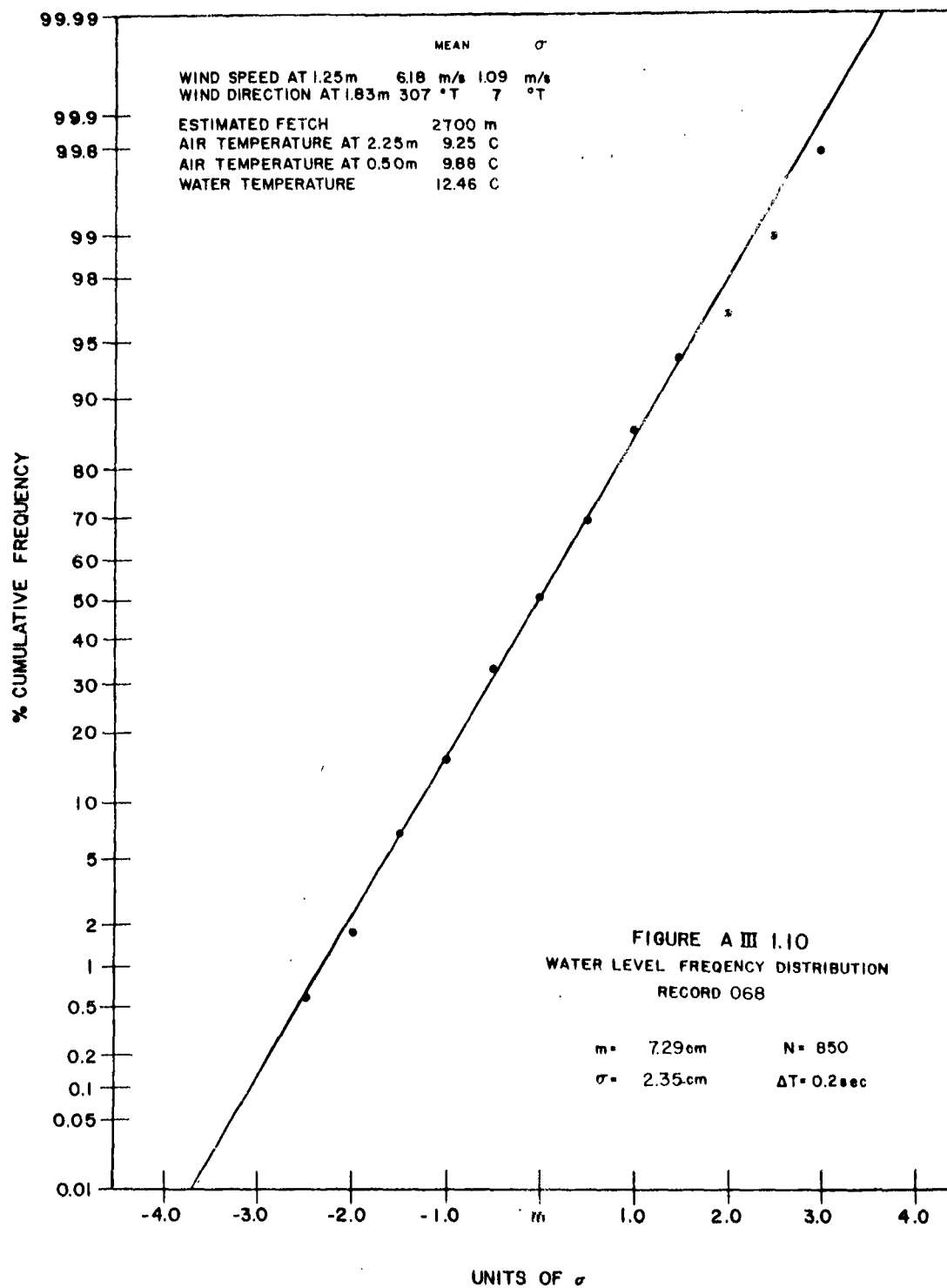


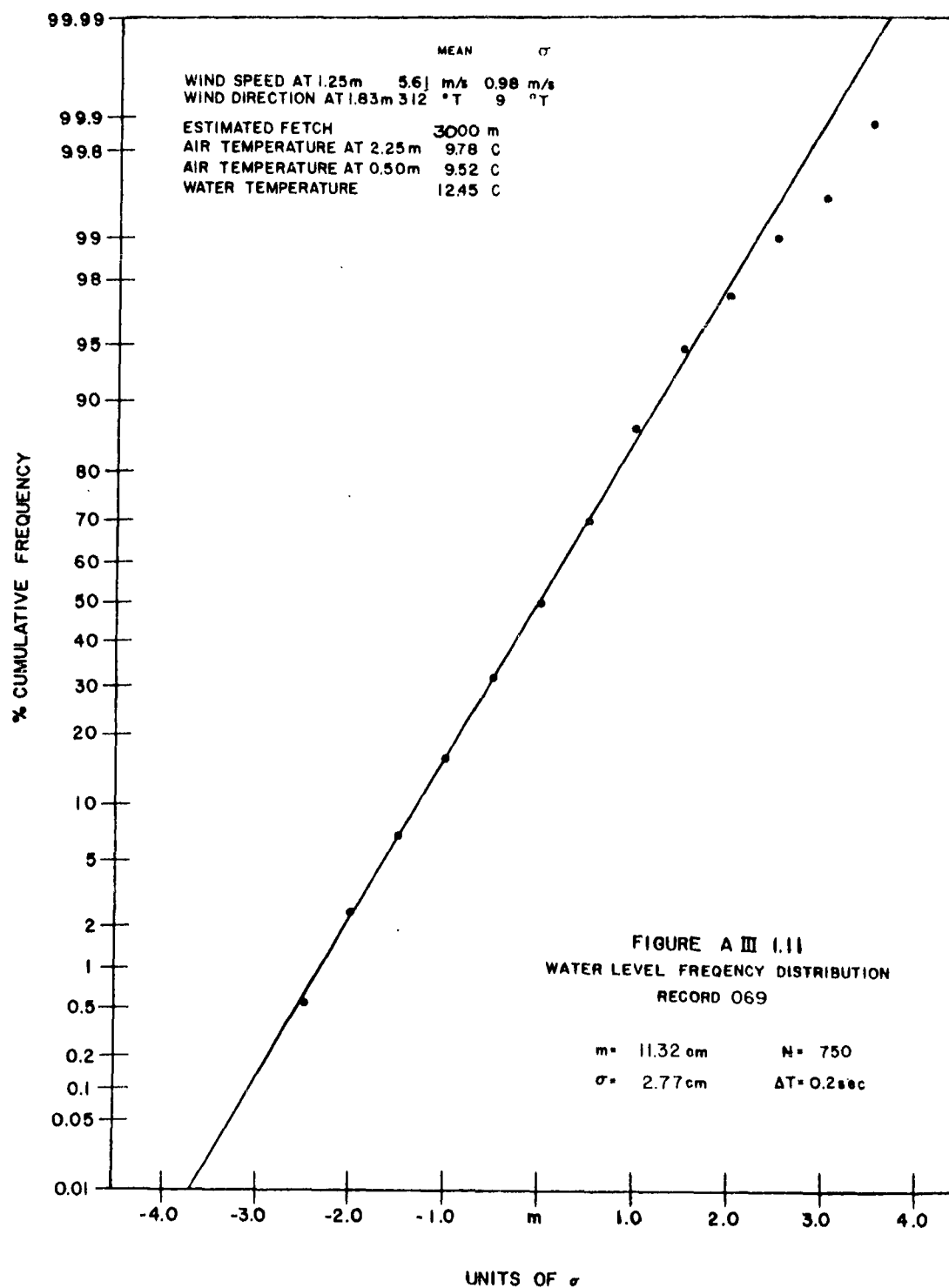


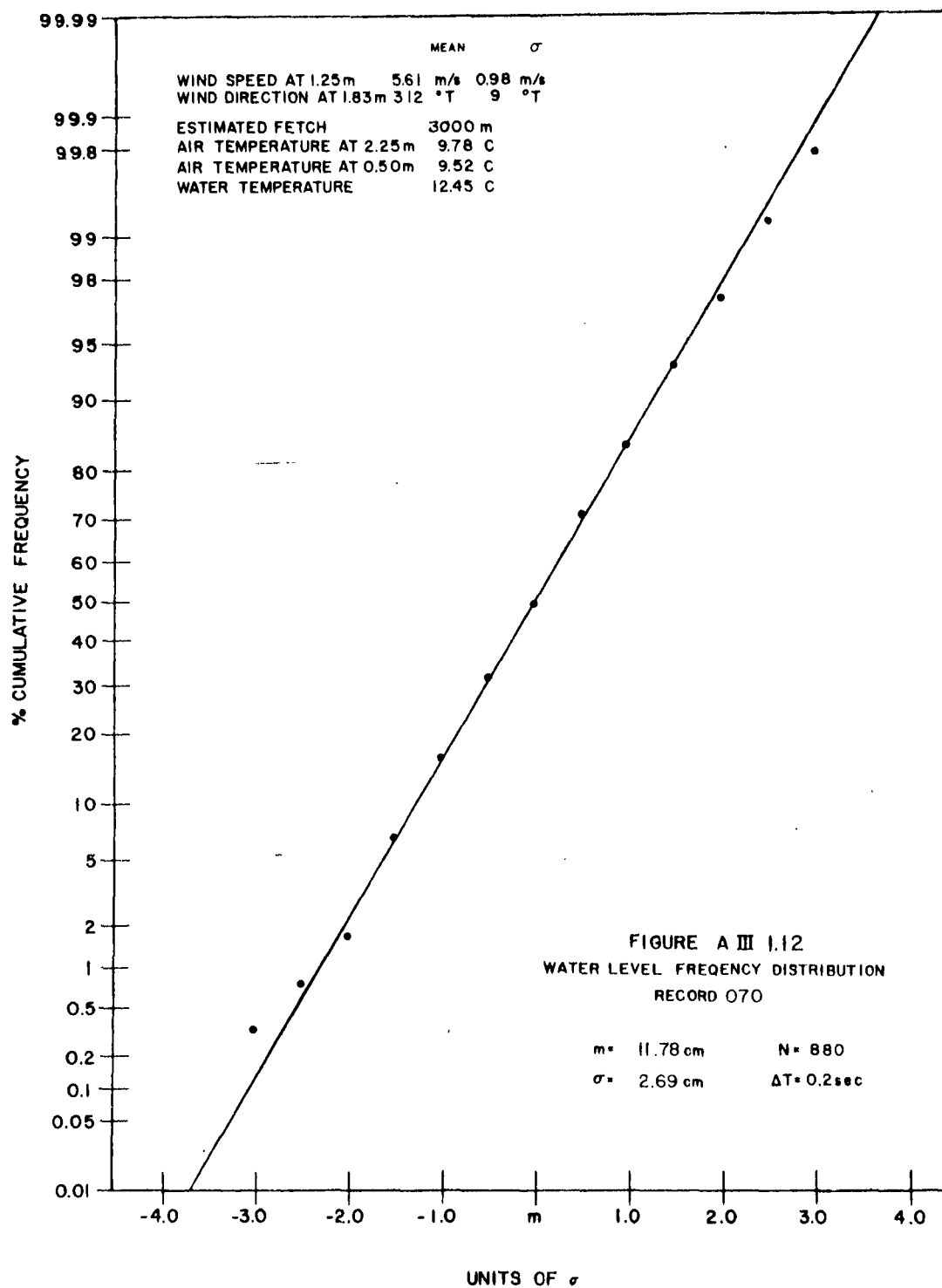


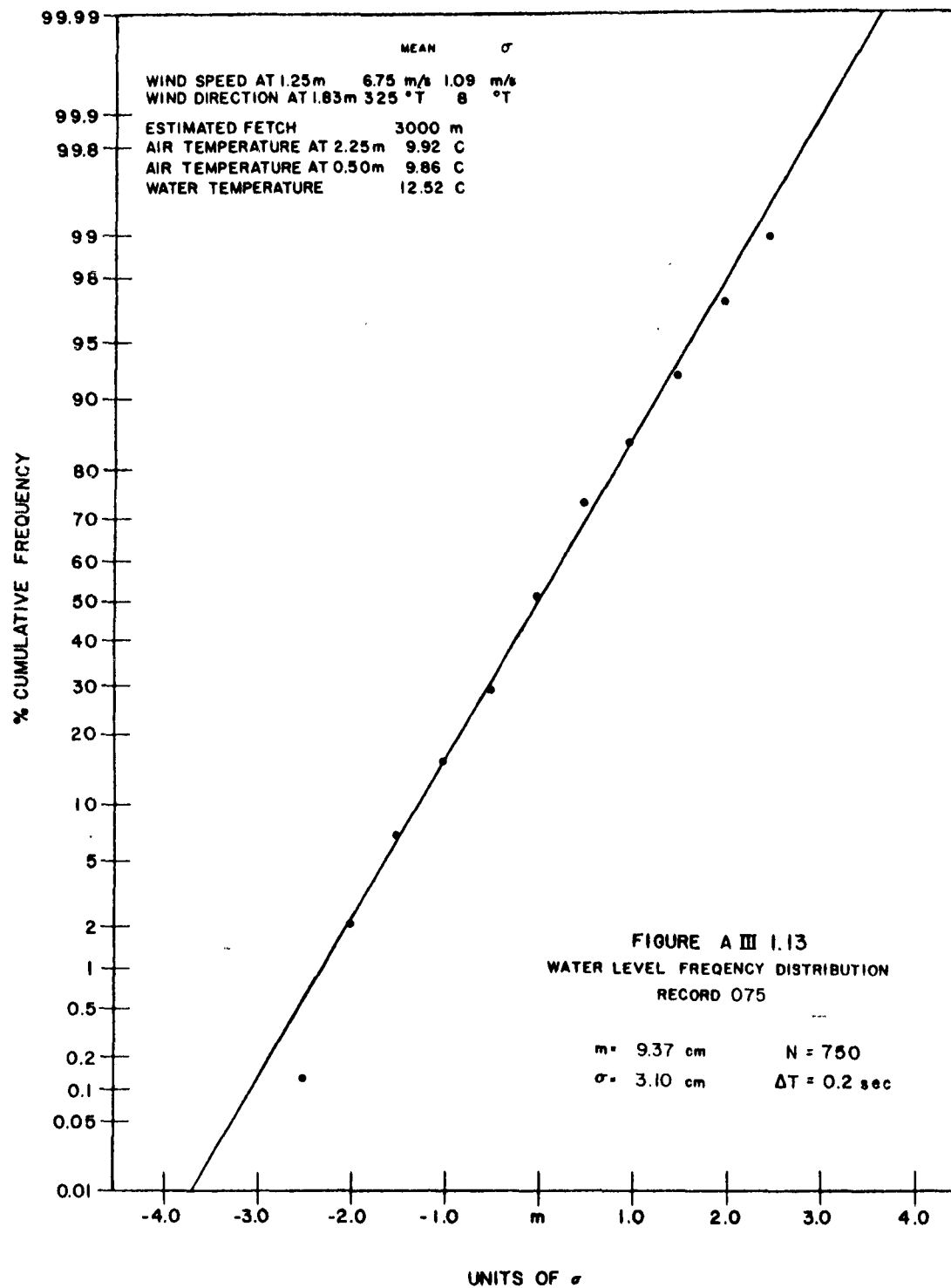


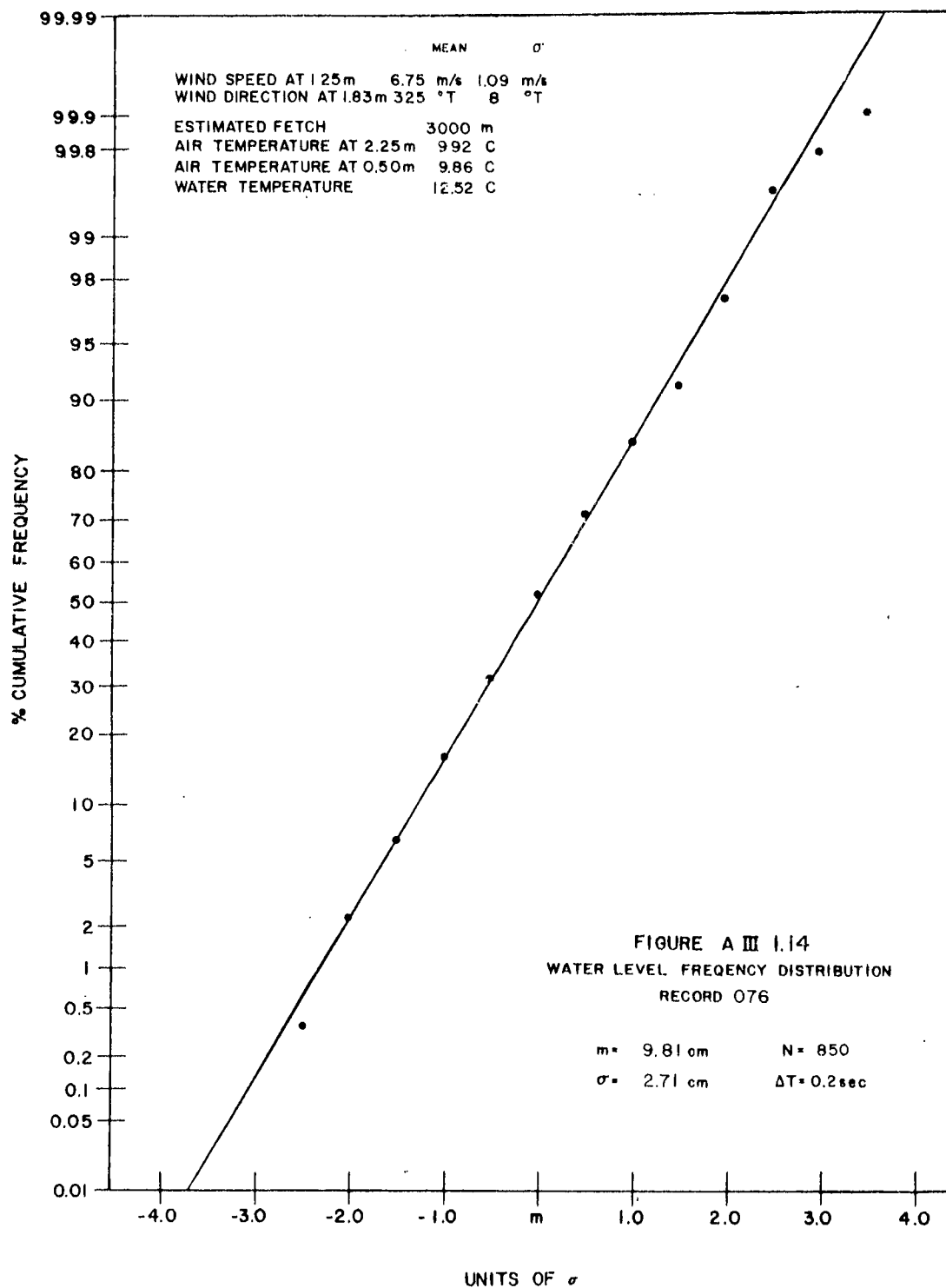


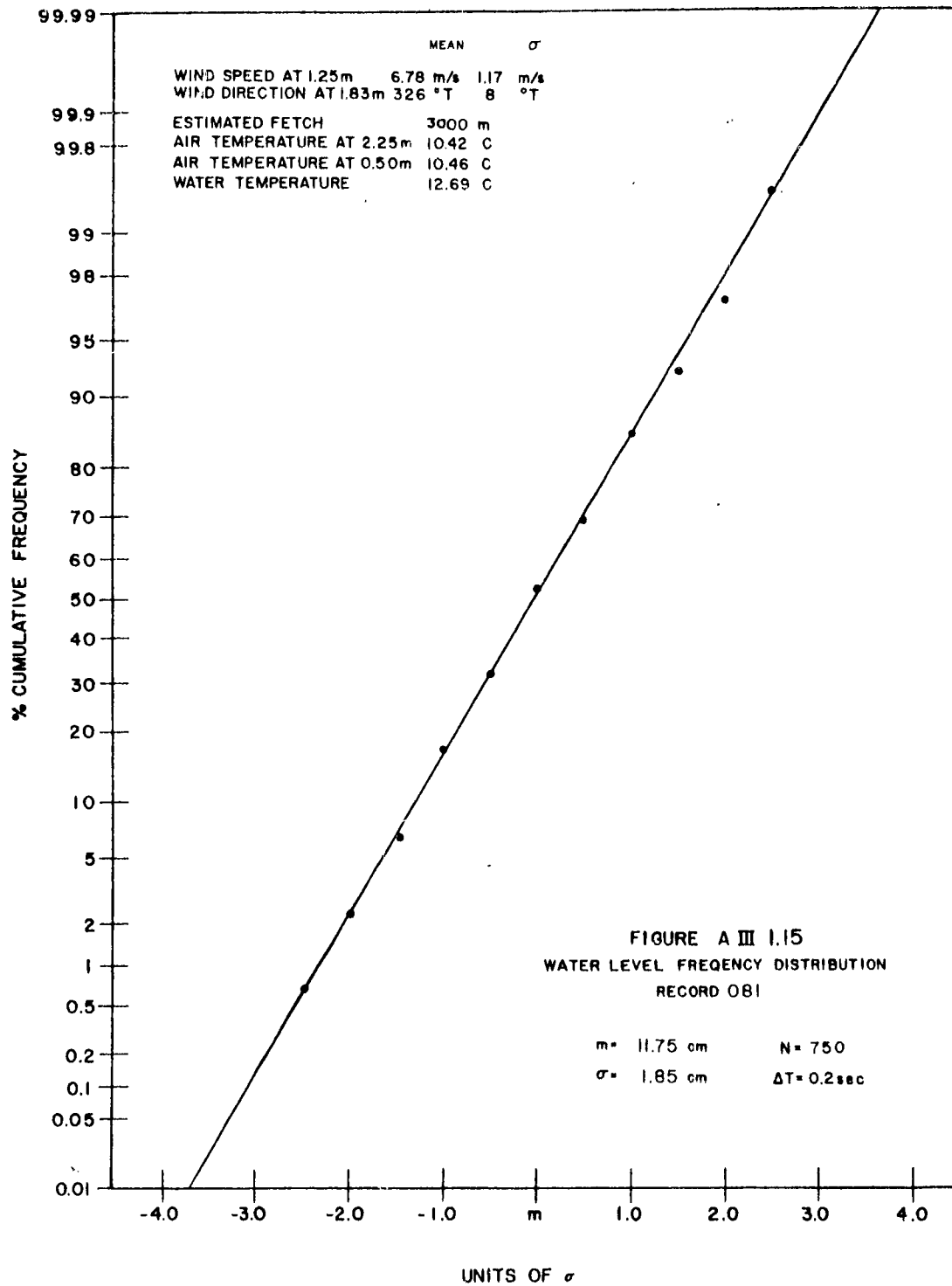


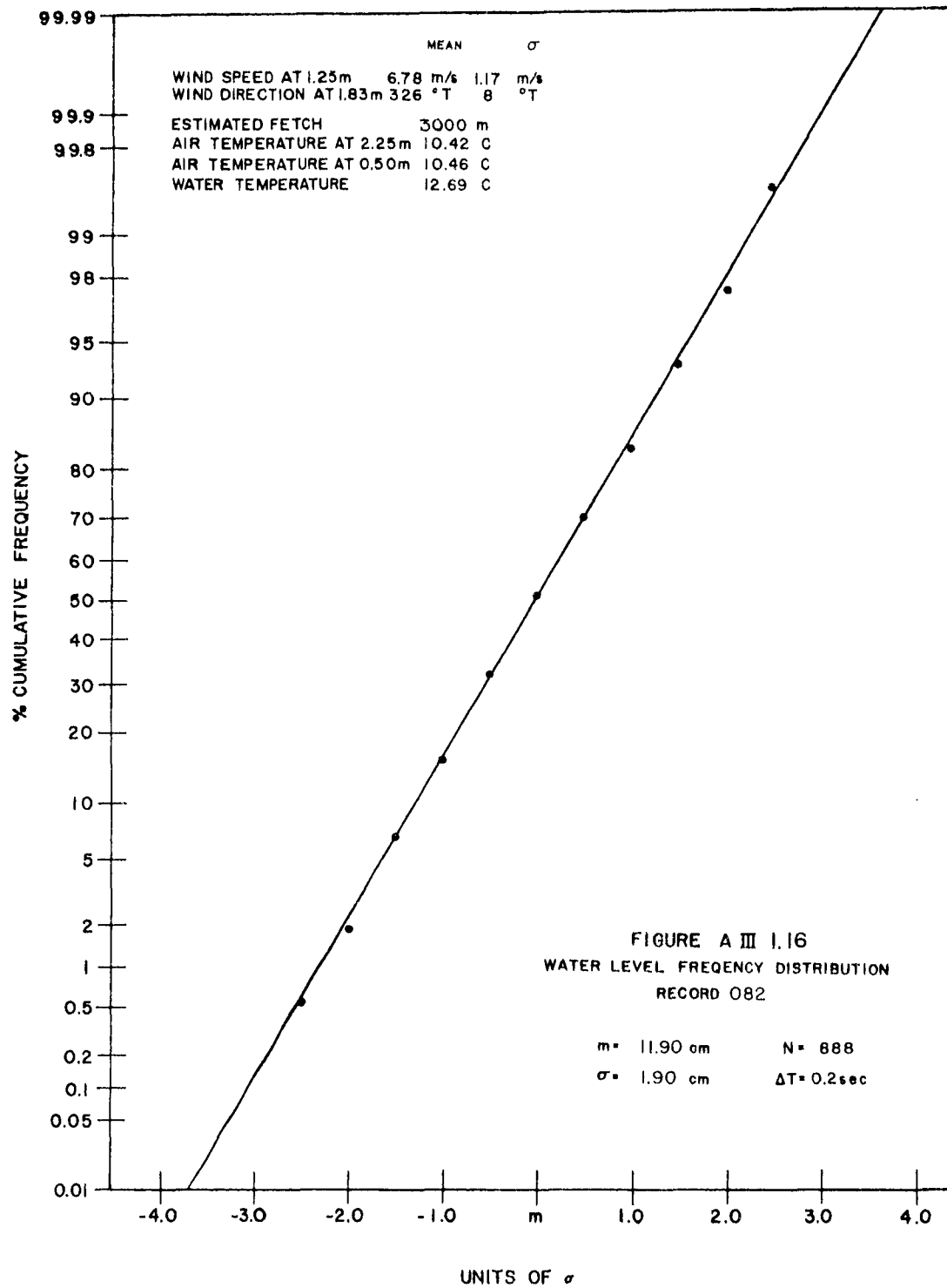


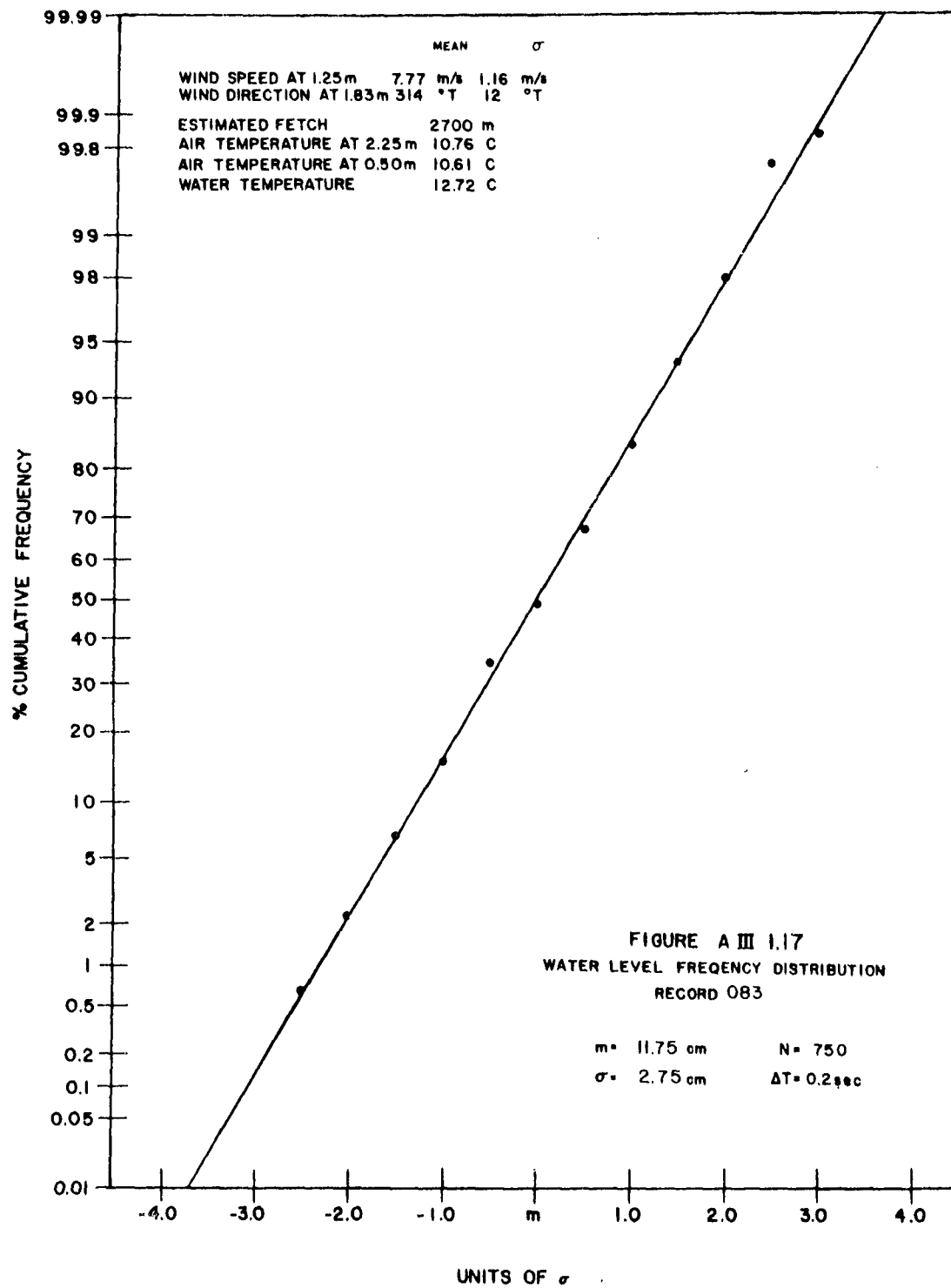


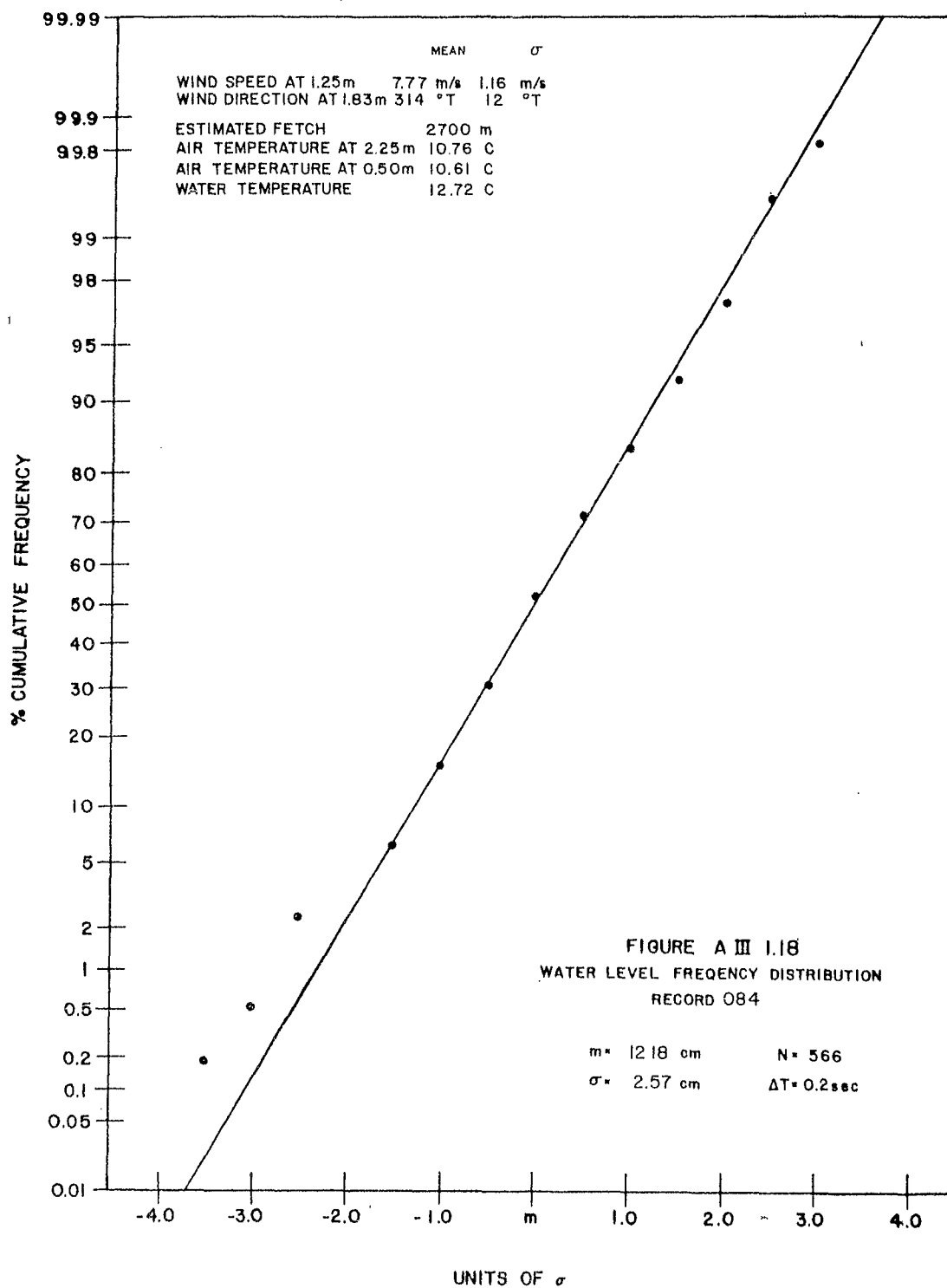


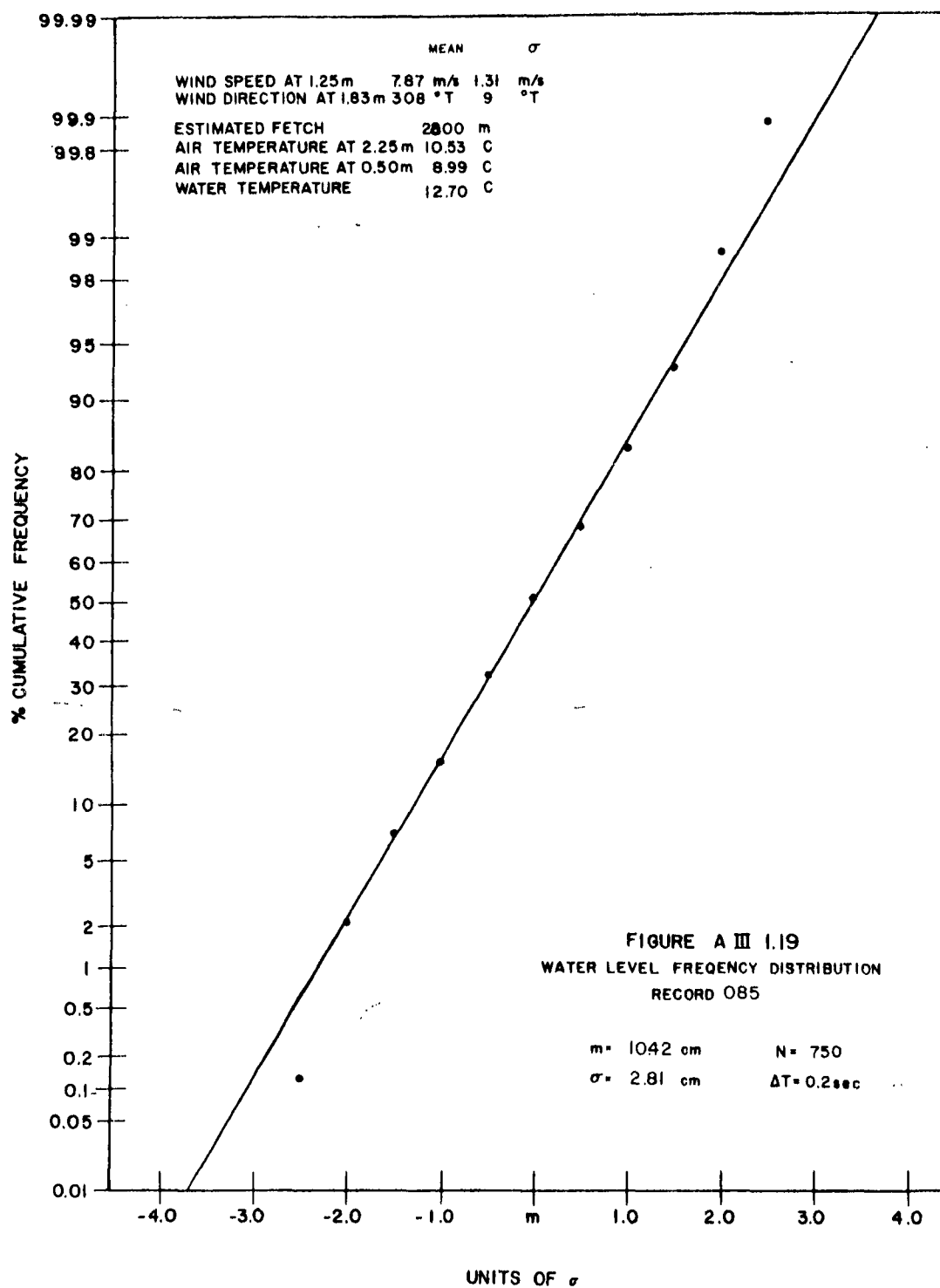


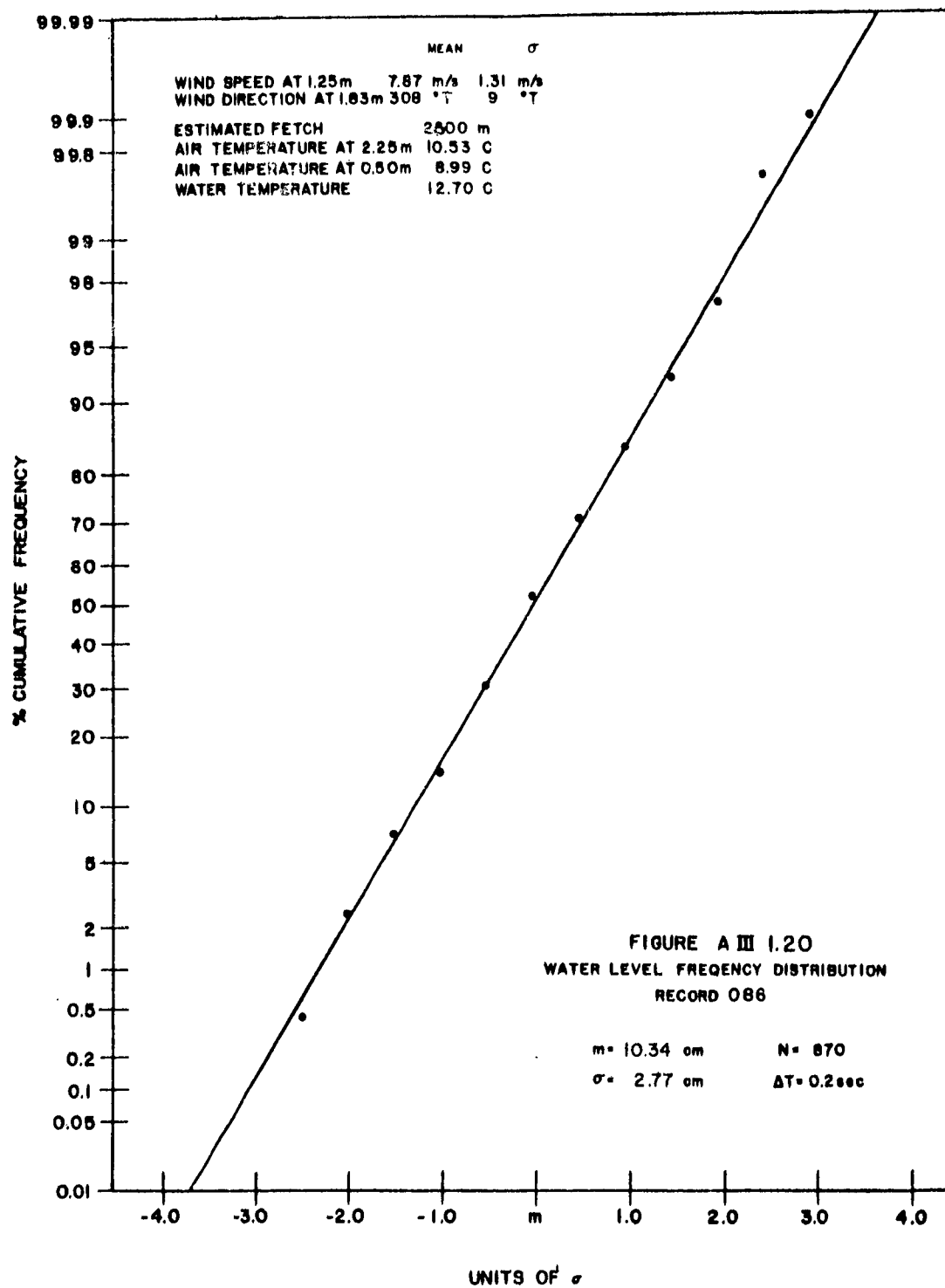


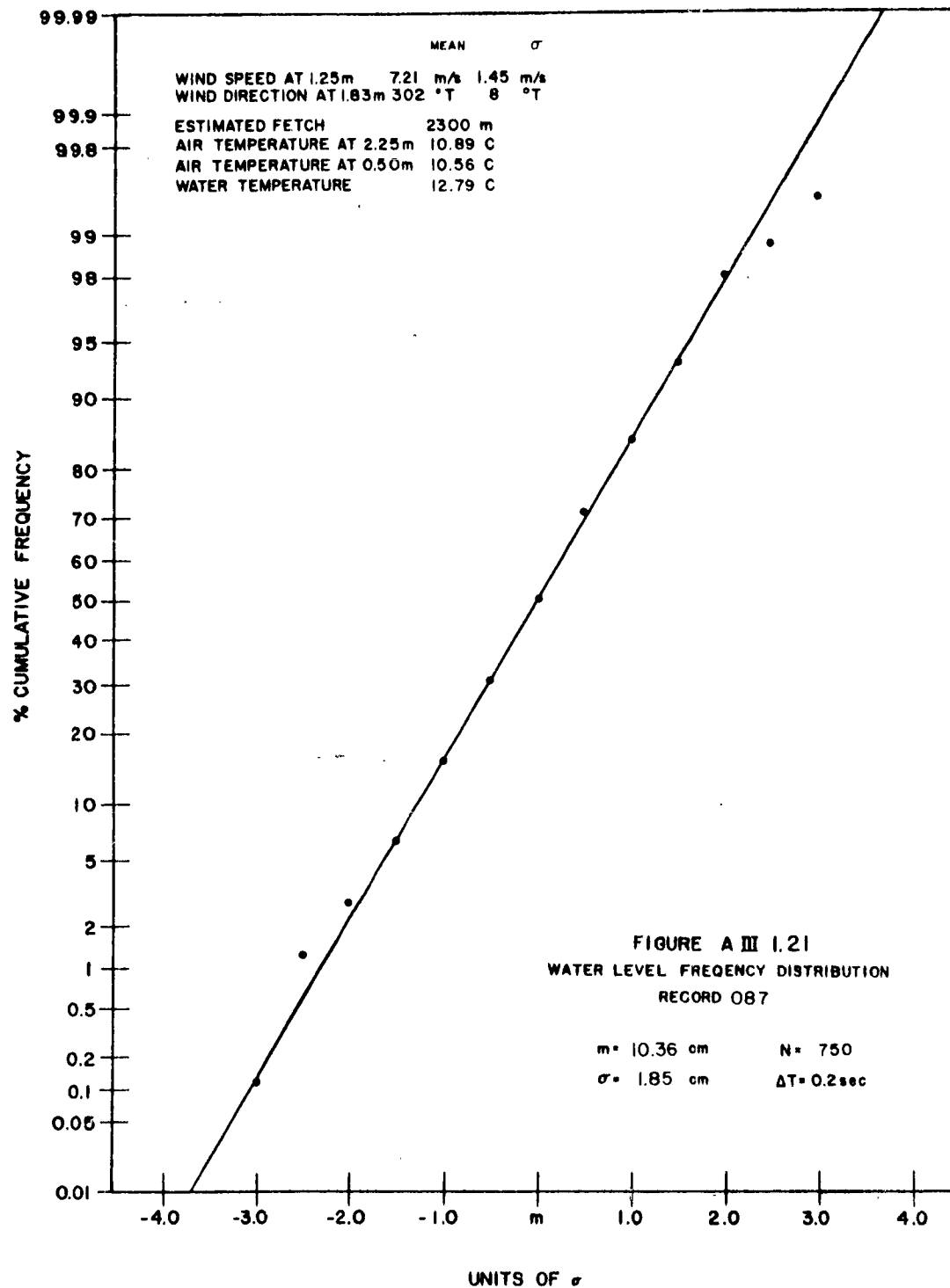


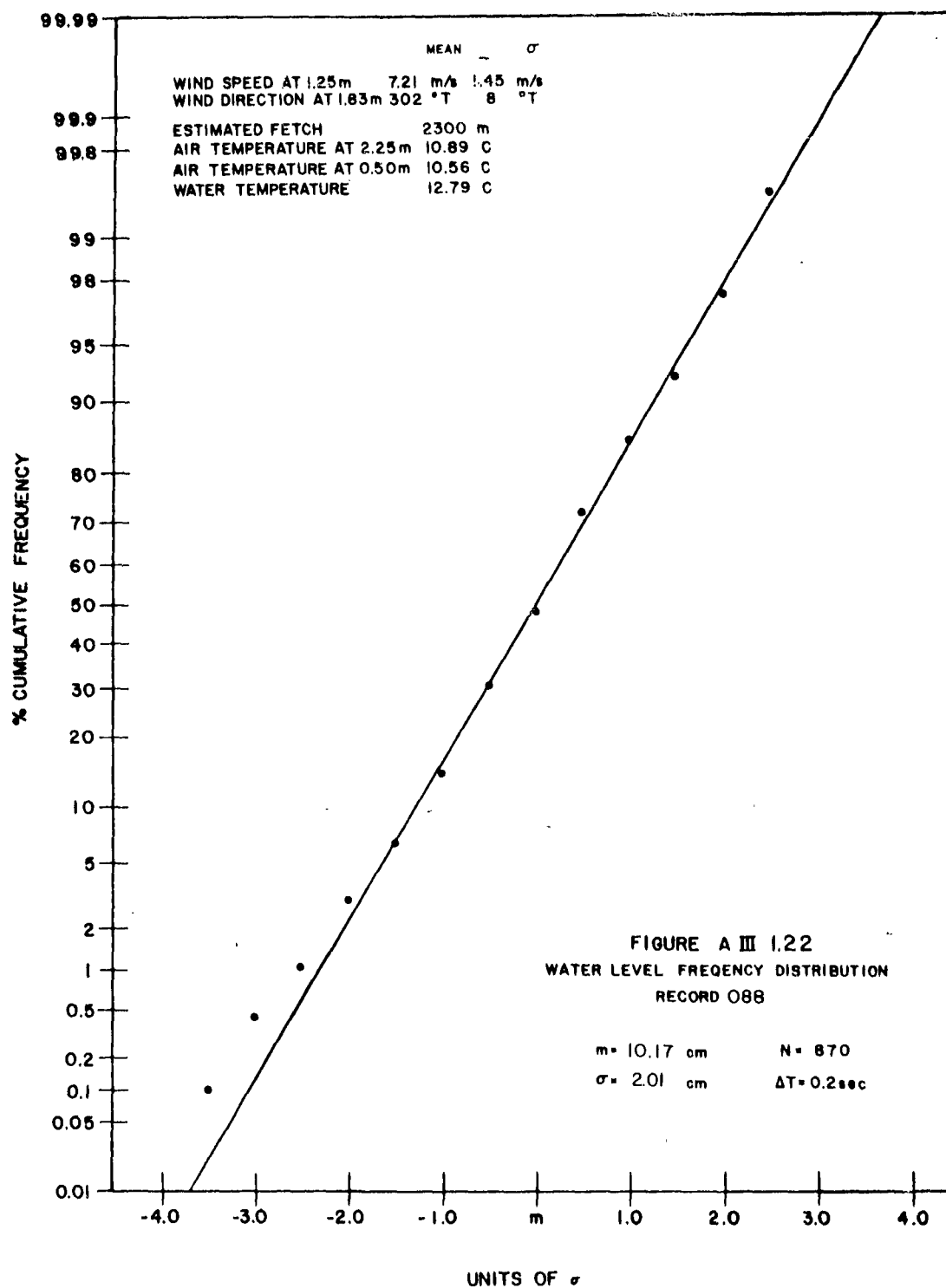


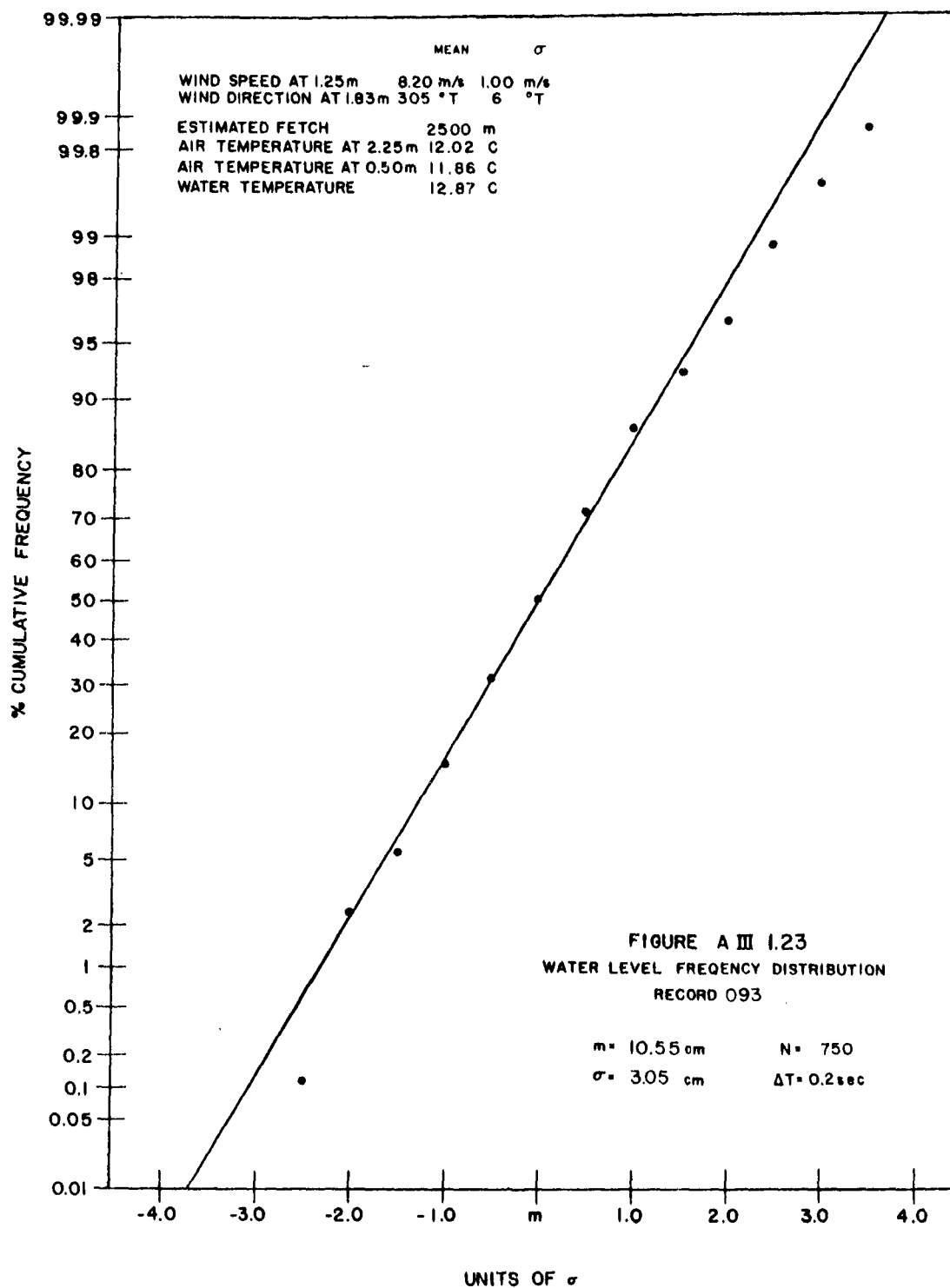












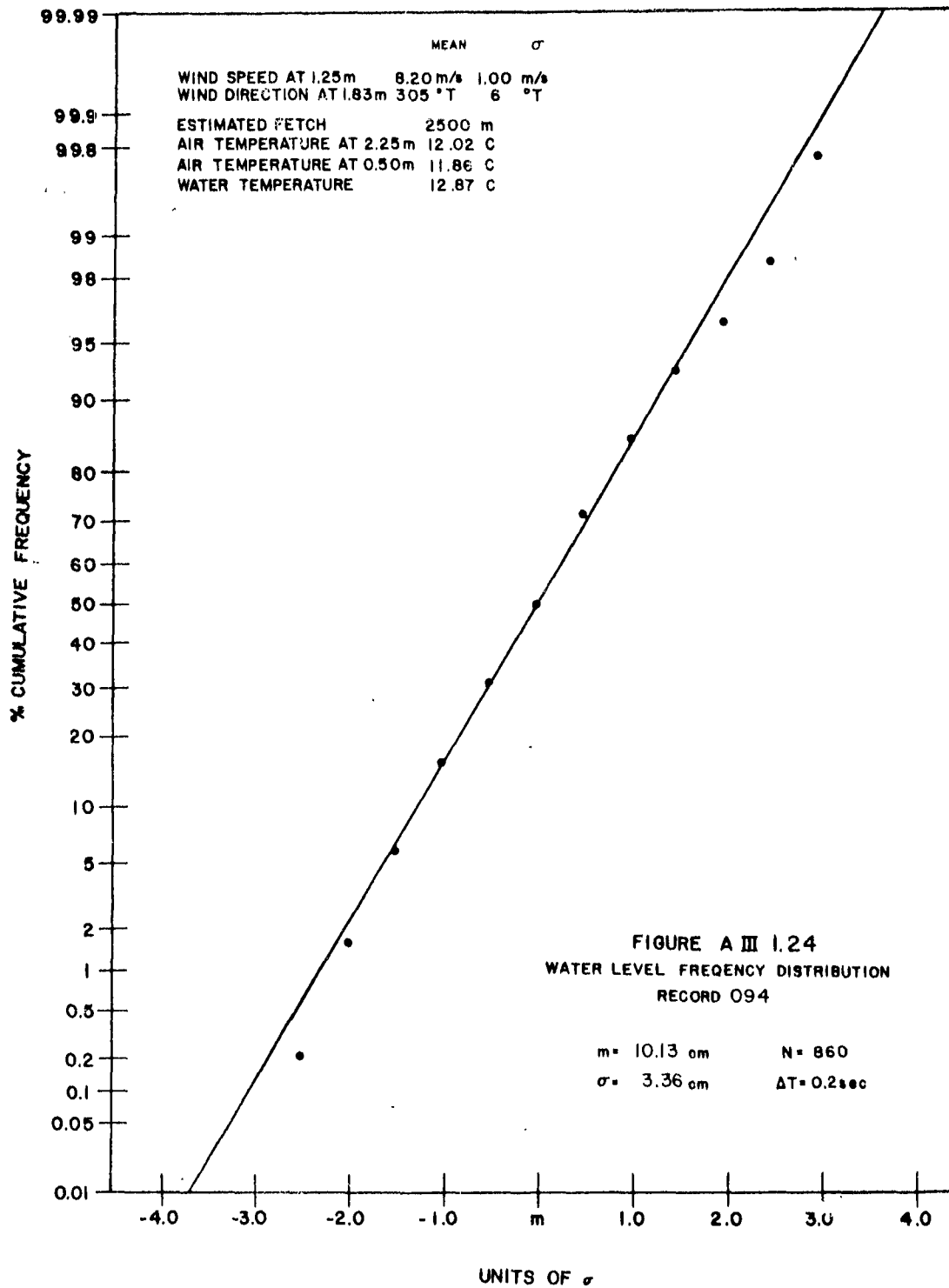


TABLE A III 1.01

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 009

Mean = 8.91 cm σ = 2.91 cm ΔT = 0.1 sec N = 1549

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.06
-2.5	15	0.97
-2.0	79	5.10
-1.5	160	10.33
-1.0	242	15.62
-0.5	305	19.69
0.5	300	19.37
1.0	210	13.56
1.5	124	8.01
2.0	56	3.62
2.5	35	2.26
3.0	16	1.03
3.5	5	0.32
4.0	1	0.06
4.5		

TABLE A III 1.02

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 010

Mean = 8.74 cm σ = 2.99 cm ΔT = 0.1 sec N = 1406

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	22	1.56
-2.0	76	5.41
-1.5	128	9.10
-1.0	217	15.43
-0.5	287	20.41
0.5	273	19.42
1.0	180	12.80
1.5	115	8.18
2.0	59	4.20
2.5	31	2.20
3.0	17	1.21
3.5	1	0.07
4.0		
4.5		

MEAN σ WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °TESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 °C
WATER TEMPERATURE 26.18 °C

TABLE A III 1.03
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 011

Mean = 8.90 cm σ = 3.28 cm
 ΔT = 0.1 sec N = 1509

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	9	0.60
-2.0	98	6.49
-1.5	147	9.74
-1.0	242	16.04
-0.5	259	17.16
0.5	297	19.68
1.0	200	13.25
1.5	162	10.74
2.0	51	3.38
2.5	32	2.12
3.0	8	0.53
3.5	4	0.27
4.0		
4.5		

TABLE A III 1.04
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 012

Mean = 8.73 cm σ = 2.91 cm
 ΔT = 0.1 sec N = 1337

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	16	1.20
-2.0	67	5.01
-1.5	129	9.65
-1.0	222	16.60
-0.5	267	19.97
0.5	245	18.32
1.0	185	13.84
1.5	116	8.68
2.0	47	3.52
2.5	25	1.87
3.0	11	0.82
3.5	4	0.30
4.0	3	0.22
4.5		

	MEAN	σ
WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T
ESTIMATED FETCH	2200	m
AIR TEMPERATURE	28.98	C
WATER TEMPERATURE	26.62	C

TABLE A III 1.05
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 017

Mean = 11.12 cm σ = 1.82 cm
 ΔT = 0.1 sec N = 1473

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	2	0.14
-2.5	19	1.29
-2.0	61	4.14
-1.5	144	9.78
-1.0	258	17.52
-0.5	303	20.57
0.5	269	18.26
1.0	175	11.88
1.5	129	8.76
2.0	66	4.48
2.5	27	1.83
3.0	16	1.09
3.5	3	0.20
4.0	1	0.07
4.5		

TABLE A III 1.06
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 018

Mean = 11.21 cm σ = 2.03 cm
 ΔT = 0.1 sec N = 1411

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.07
-3.0	3	0.21
-2.5	20	1.42
-2.0	40	2.83
-1.5	140	9.92
-1.0	273	19.35
-0.5	290	20.55
0.5	244	17.29
1.0	170	12.05
1.5	123	8.72
2.0	59	4.18
2.5	30	2.13
3.0	10	0.71
3.5	5	0.35
4.0	3	0.21
4.5		

	MEAN	σ
WIND SPEED AT 1.22 m	3.88 m/s	0.45 m/s
WIND DIRECTION AT 1.52 m	277 °T	10 °T
ESTIMATED FETCH	1700	m
AIR TEMPERATURE	29.51	C
WATER TEMPERATURE	27.55	C

TABLE A III 1.07
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 027

Mean = 10.11 cm σ = 1.97 cm
 ΔT = 0.1 sec N = 1527

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	17	1.11
-2.0	61	3.99
-1.5	161	10.54
-1.0	303	19.84
-0.5	280	18.34
0.5	251	16.44
1.0	194	12.70
1.5	130	8.51
2.0	85	5.57
2.5	34	2.23
3.0	11	0.72
3.5		
4.0		
4.5		

TABLE A III 1.08
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 028

Mean = 9.89 cm σ = 1.77 cm
 ΔT = 0.1 sec N = 1574

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	23	1.46
-2.0	70	4.45
-1.5	144	9.15
-1.0	264	16.77
-0.5	346	21.98
0.5	257	16.33
1.0	227	14.42
1.5	128	8.13
2.0	61	3.88
2.5	30	1.91
3.0	20	1.27
3.5	3	0.19
4.0	1	0.06
4.5		

	MEAN	σ
WIND SPEED AT 1.35 m	4.64 m/s	0.56 m/s
WIND DIRECTION AT 1.65 m	314 °T	7 °T
ESTIMATED FETCH	2300	m
AIR TEMPERATURE	24.64	C
WATER TEMPERATURE	26.38	C

TABLE A III 1.09
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 067

Mean = 7.75 cm σ = 2.23 cm
 ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	3	0.40
-2.5	13	1.73
-2.0	33	4.40
-1.5	70	9.33
-1.0	122	16.27
-0.5	146	19.47
0.5	135	18.00
1.0	105	14.00
1.5	74	9.87
2.0	31	4.13
2.5	11	1.47
3.0	4	0.53
3.5	3	0.40
4.0		
4.5		

TABLE A III 1.10
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 068

Mean = 7.30 cm σ = 2.36 cm
 ΔT = 0.2 sec N = 850

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.59
-2.5	10	1.18
-2.0	42	4.94
-1.5	73	8.59
-1.0	148	17.41
-0.5	151	17.76
0.5	157	18.47
1.0	144	16.94
1.5	66	7.76
2.0	23	2.71
2.5	22	2.59
3.0	7	0.82
3.5	2	0.24
4.0		
4.5		

MEAN σ

WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T

ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C

TABLE A III 1.11
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 069

Mean = 11.32 cm σ = 2.78 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	4	0.53
-2.5	14	1.87
-2.0	33	4.40
-1.5	68	9.07
-1.0	119	15.87
-0.5	134	17.87
0.5	147	19.60
1.0	127	16.93
1.5	62	8.27
2.0	22	2.93
2.5	12	1.60
3.0	4	0.53
3.5	3	0.40
4.0	1	0.13
4.5		

TABLE A III 1.12
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 070

Mean = 11.78 cm σ = 2.69 cm

ΔT = 0.2 sec N = 880

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	3	0.34
-3.0	4	0.45
-2.5	8	0.91
-2.0	44	5.00
-1.5	82	9.32
-1.0	140	15.91
-0.5	157	17.84
0.5	186	21.14
1.0	114	12.95
1.5	84	9.55
2.0	35	3.98
2.5	16	1.82
3.0	5	0.57
3.5	2	0.23
4.0		
4.5		

MEAN σ

WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
 WIND DIRECTION AT 1.83m 312 °T 9 °T

ESTIMATED FETCH 3000 m
 AIR TEMPERATURE AT 2.25m 9.78 C
 AIR TEMPERATURE AT 0.50m 9.52 C
 WATER TEMPERATURE 12.45 C

TABLE A III 1.13
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 075

Mean = 9.37 cm σ = 3.11 cm
 ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	14	1.87
-2.0	37	4.93
-1.5	65	8.67
-1.0	100	13.33
-0.5	171	22.80
0.5	163	21.73
1.0	82	10.93
1.5	58	7.73
2.0	37	4.93
2.5	14	1.87
3.0	8	1.07
3.5		
4.0		
4.5		

TABLE A III 1.14
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 076

Mean = 9.82 cm σ = 2.72 cm
 ΔT = 0.2 sec N = 850

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	3	0.35
-2.5	16	1.88
-2.0	35	4.12
-1.5	82	9.65
-1.0	129	15.18
-0.5	174	20.47
0.5	164	19.29
1.0	111	13.06
1.5	63	7.41
2.0	50	5.88
2.5	19	2.24
3.0	2	0.24
3.5	1	0.12
4.0	1	0.12
4.5		

MEAN σ

WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T

ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C

TABLE A III 1.15
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 081

Mean = 11.75 cm $\sigma = 1.86$ cm
 AT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.67
-2.5	12	1.60
-2.0	31	4.13
-1.5	77	10.27
-1.0	110	14.67
-0.5	157	20.93
0.5	120	16.00
1.0	124	16.53
1.5	56	7.47
2.0	35	4.67
2.5	19	2.53
3.0	4	0.53
3.5		
4.0		
4.5		

TABLE A III 1.16
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 082

Mean = 11.90 cm $\sigma = 1.91$ cm
 AT = 0.2 sec N = 888

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.56
-2.5	12	1.35
-2.0	44	4.95
-1.5	79	8.90
-1.0	145	16.33
-0.5	172	19.37
0.5	167	18.81
1.0	112	12.61
1.5	90	10.14
2.0	40	4.50
2.5	18	2.03
3.0	4	0.45
3.5		
4.0		
4.5		

MEAN σ

WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
 WIND DIRECTION AT 1.83m 326 °T 8 °T

ESTIMATED FETCH 3000 m
 AIR TEMPERATURE AT 2.25m 10.42 C
 AIR TEMPERATURE AT 0.50m 10.46 C
 WATER TEMPERATURE 12.69 C

TABLE A III 1.17
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 083

Mean = 11.75 cm σ = 2.75 cm ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.67
-2.5	12	1.60
-2.0	34	4.53
-1.5	63	8.40
-1.0	144	19.20
-0.5	111	14.80
0.5	136	18.13
1.0	124	16.53
1.5	70	9.33
2.0	36	4.80
2.5	13	1.73
3.0	1	0.13
3.5	1	0.13
4.0		
4.5		

TABLE A III 1.18
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 084

Mean = 12.18 cm σ = 2.58 cm ΔT = 0.2 sec N = 566

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.18
-3.0	2	0.35
-2.5	10	1.77
-2.0	21	3.71
-1.5	51	9.01
-1.0	85	15.02
-0.5	126	22.26
0.5	107	18.90
1.0	72	12.72
1.5	47	8.30
2.0	28	4.95
2.5	13	2.30
3.0	2	0.35
3.5	1	0.18
4.0		
4.5		

MEAN σ

WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T

ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C

TABLE A III 1.19

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 085

Mean = 10.42 cm σ = 2.81 cm ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	15	2.00
-2.0	38	5.07
-1.5	62	8.27
-1.0	125	16.67
-0.5	144	19.20
0.5	125	16.67
1.0	115	15.33
1.5	72	9.60
2.0	43	5.73
2.5	9	1.20
3.0	1	0.13
3.5		
4.0		
4.5		

TABLE A III 1.20

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 086

Mean = 10.34 cm σ = 2.78 cm ΔT = 0.2 sec N = 870

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	4	0.46
-2.5	19	2.18
-2.0	41	4.71
-1.5	63	7.24
-1.0	141	16.21
-0.5	188	21.61
0.5	163	18.74
1.0	115	13.22
1.5	70	8.05
2.0	42	4.83
2.5	21	2.41
3.0	2	0.23
3.5	1	0.11
4.0		
4.5		

MEAN σ WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °TESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C

TABLE A III 1.21

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 087

Mean = 10.36 cm σ = 1.86 cm
 ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.13
-3.0	9	1.20
-2.5	12	1.60
-2.0	28	3.73
-1.5	66	8.80
-1.0	114	15.20
-0.5	147	19.60
0.5	160	21.33
1.0	98	13.07
1.5	65	8.67
2.0	35	4.67
2.5	6	0.80
3.0	5	0.67
3.5	4	0.53
4.0		
4.5		

TABLE A III 1.22

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 088

Mean = 10.17 cm σ = 2.01 cm
 ΔT = 0.2 sec N = 870

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0	1	0.11
-3.5	3	0.34
-3.0	6	0.69
-2.5	17	1.95
-2.0	30	3.45
-1.5	69	7.93
-1.0	137	15.75
-0.5	162	18.62
0.5	201	23.10
1.0	115	13.22
1.5	65	7.47
2.0	42	4.83
2.5	18	2.07
3.0	4	0.46
3.5		
4.0		
4.5		

MEAN σ WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °TESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C

TABLE A III 1.23
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 093

Mean = 10.55cm $\sigma = 3.06$ cm $\Delta T = 0.2$ sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	18	2.40
-2.0	23	3.07
-1.5	74	9.87
-1.0	118	15.73
-0.5	149	19.87
0.5	156	20.80
1.0	109	14.53
1.5	46	6.13
2.0	28	3.73
2.5	19	2.53
3.0	6	0.80
3.5	2	0.27
4.0	1	0.13
4.5		

TABLE A III 1.24
FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 094

Mean = 10.13 cm $\sigma = 3.36$ cm $\Delta T = 0.2$ sec N = 860

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	2	0.23
-2.5	13	1.51
-2.0	39	4.53
-1.5	85	9.88
-1.0	133	15.47
-0.5	162	18.84
0.5	185	21.51
1.0	114	13.26
1.5	66	7.67
2.0	29	3.37
2.5	19	2.21
3.0	11	1.28
3.5	2	0.23
4.0		
4.5		

MEAN σ

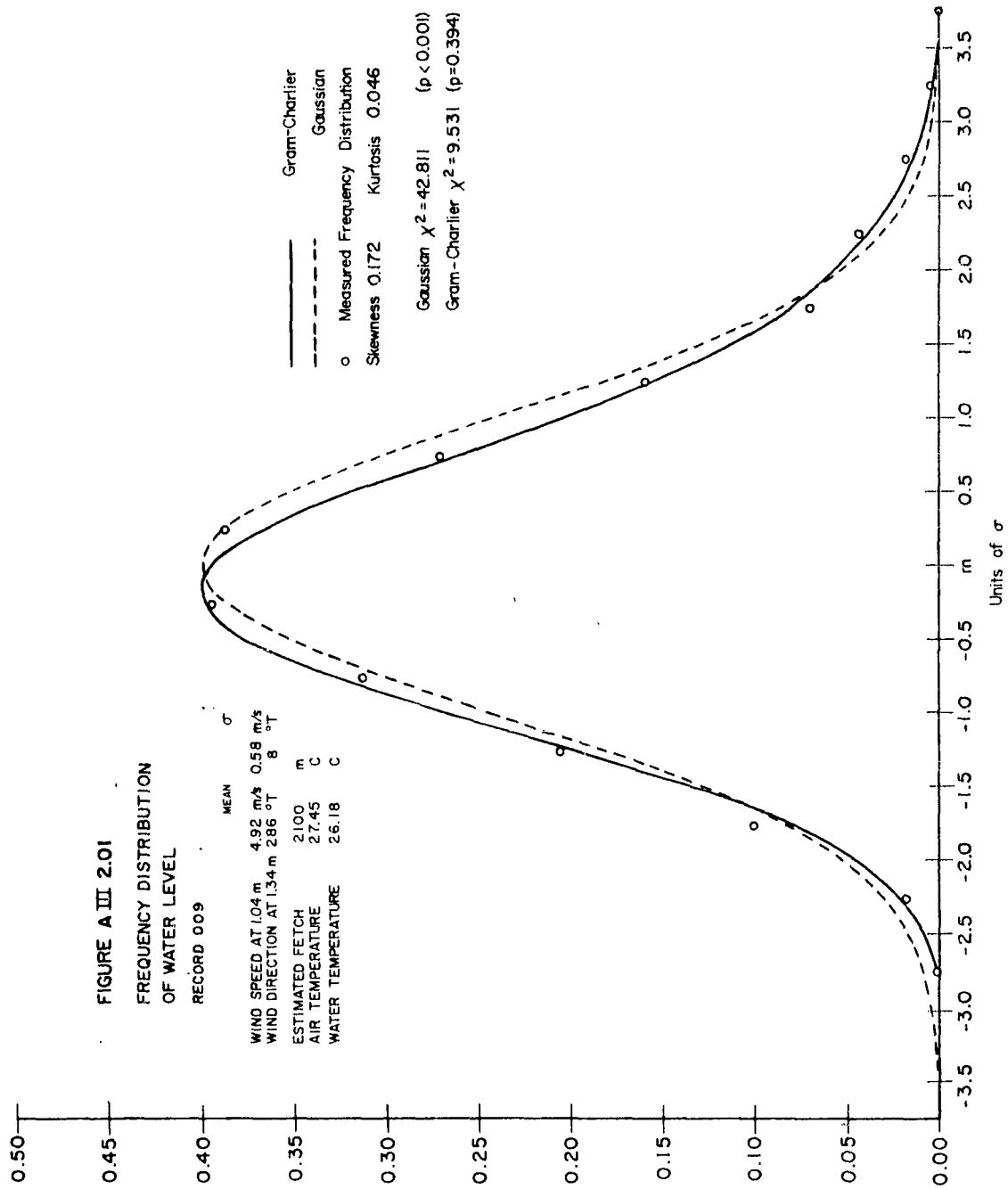
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T

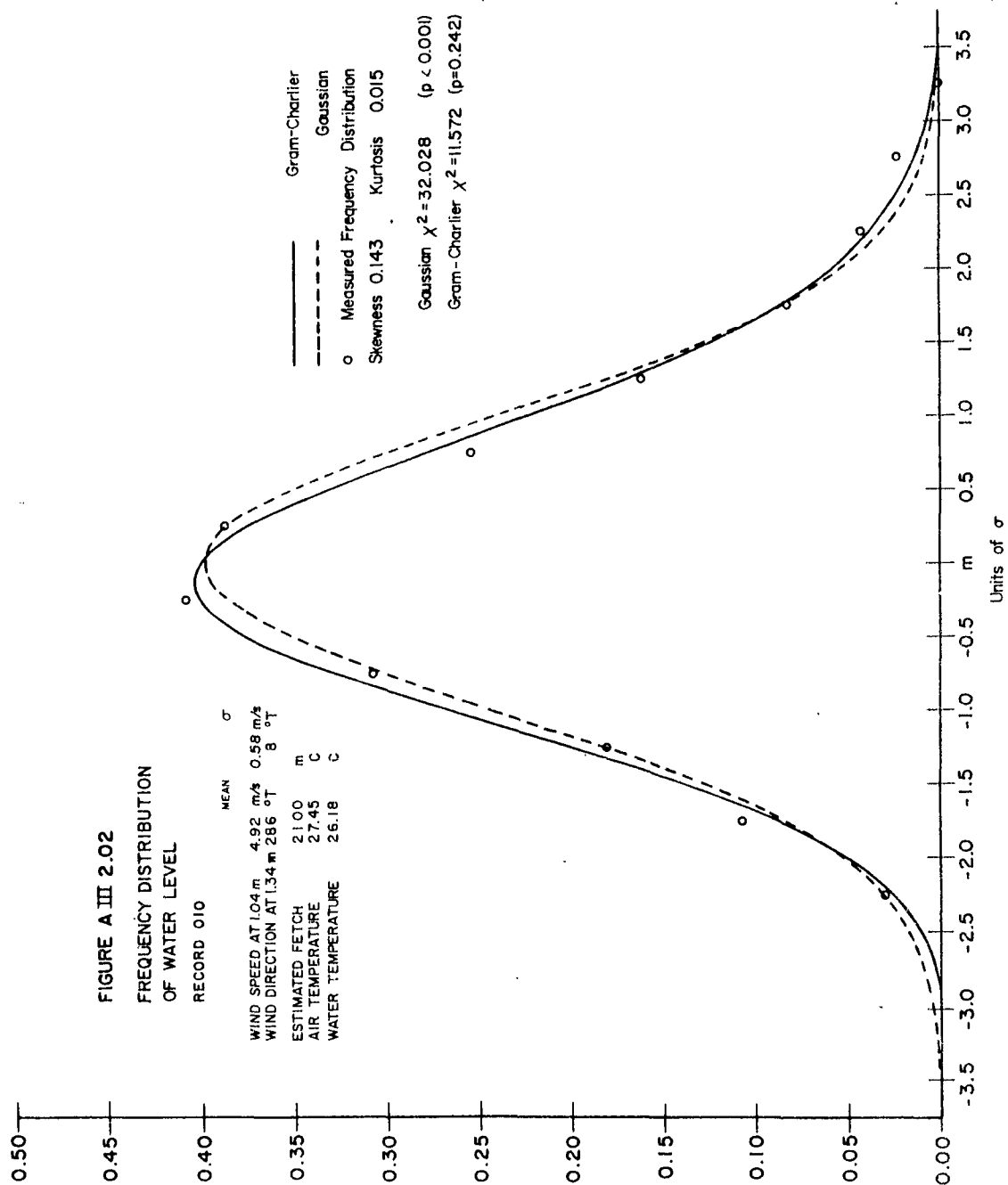
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C

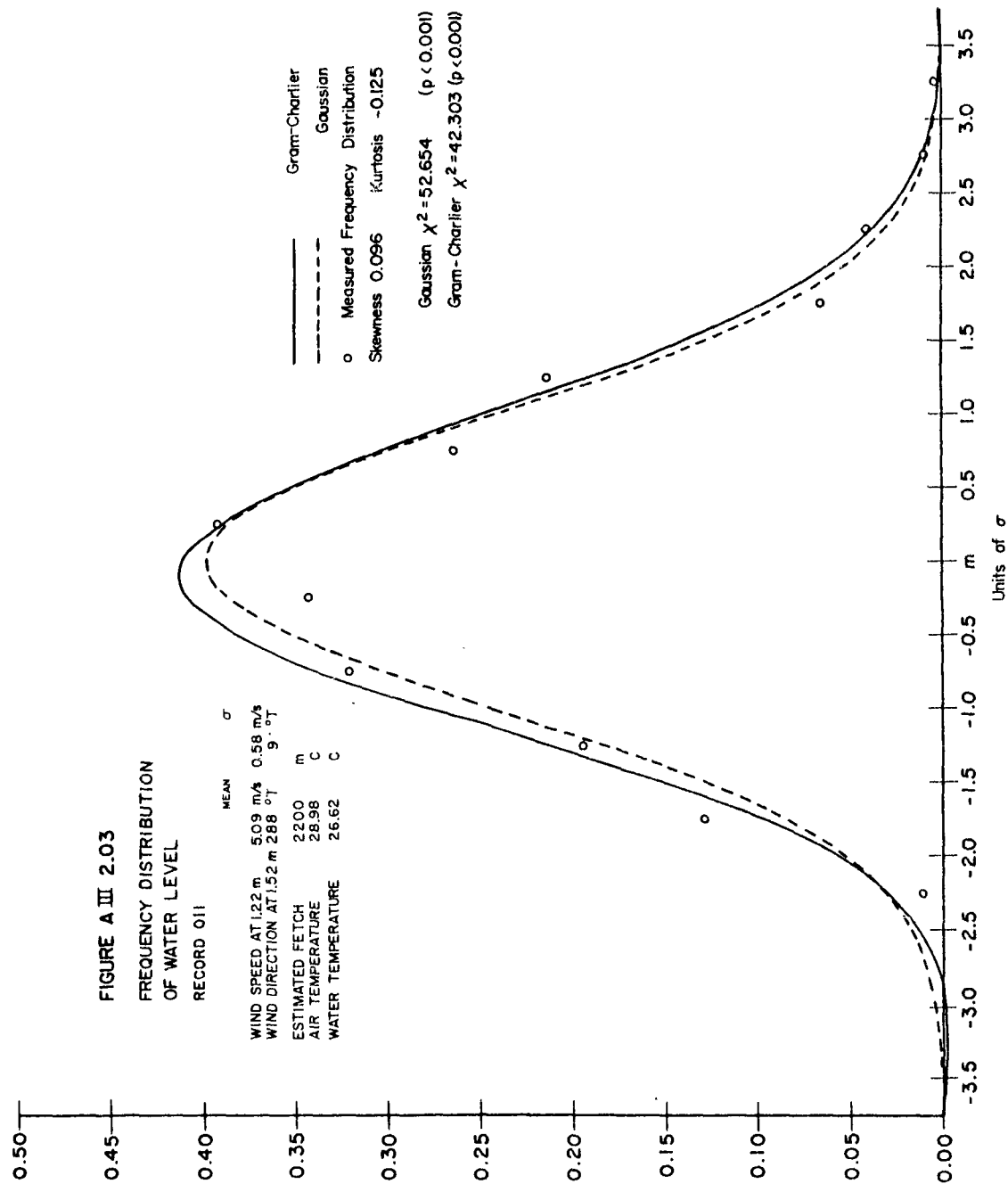
Gram-Charlier A-Series Three-Term Fits to Frequency Distributions of Water Heights

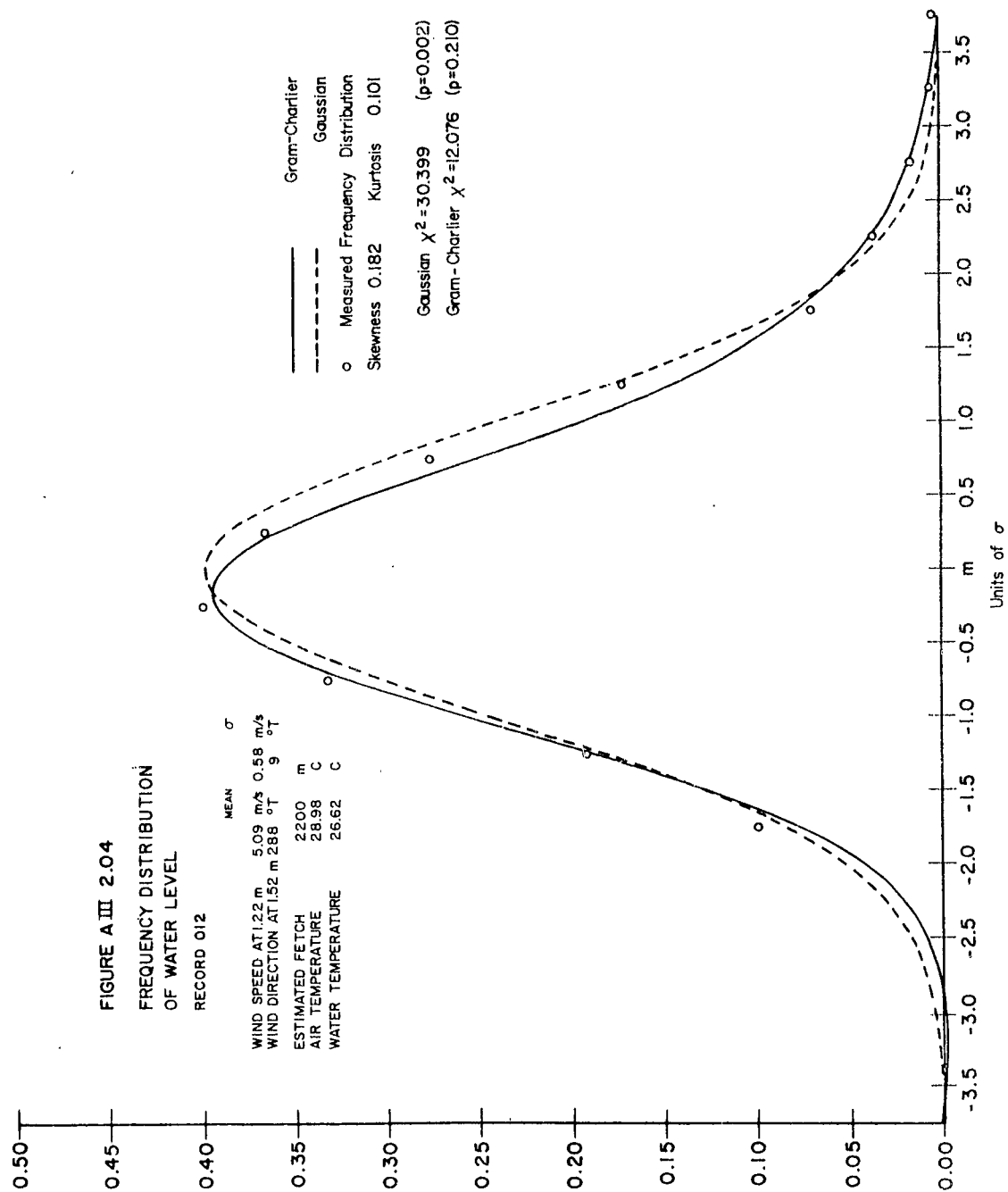
Figures AIII 2.01 to AIII 2.24 on pages AIII-40 to AIII-63 show how the first three terms of the Gram-Charlier A-series fit the empirical frequency distributions of water heights. Also showed are the Gaussian and the measured values. The measured values are histogrammic and therefore correspond to the integrated values of the two curves. These integrated values usually lie so close to the curves that to avoid confusion they have not been entered. The probabilities showed for the chi-square values are based on eleven degrees of freedom for the Gaussian and nine for the Gram-Charlier.

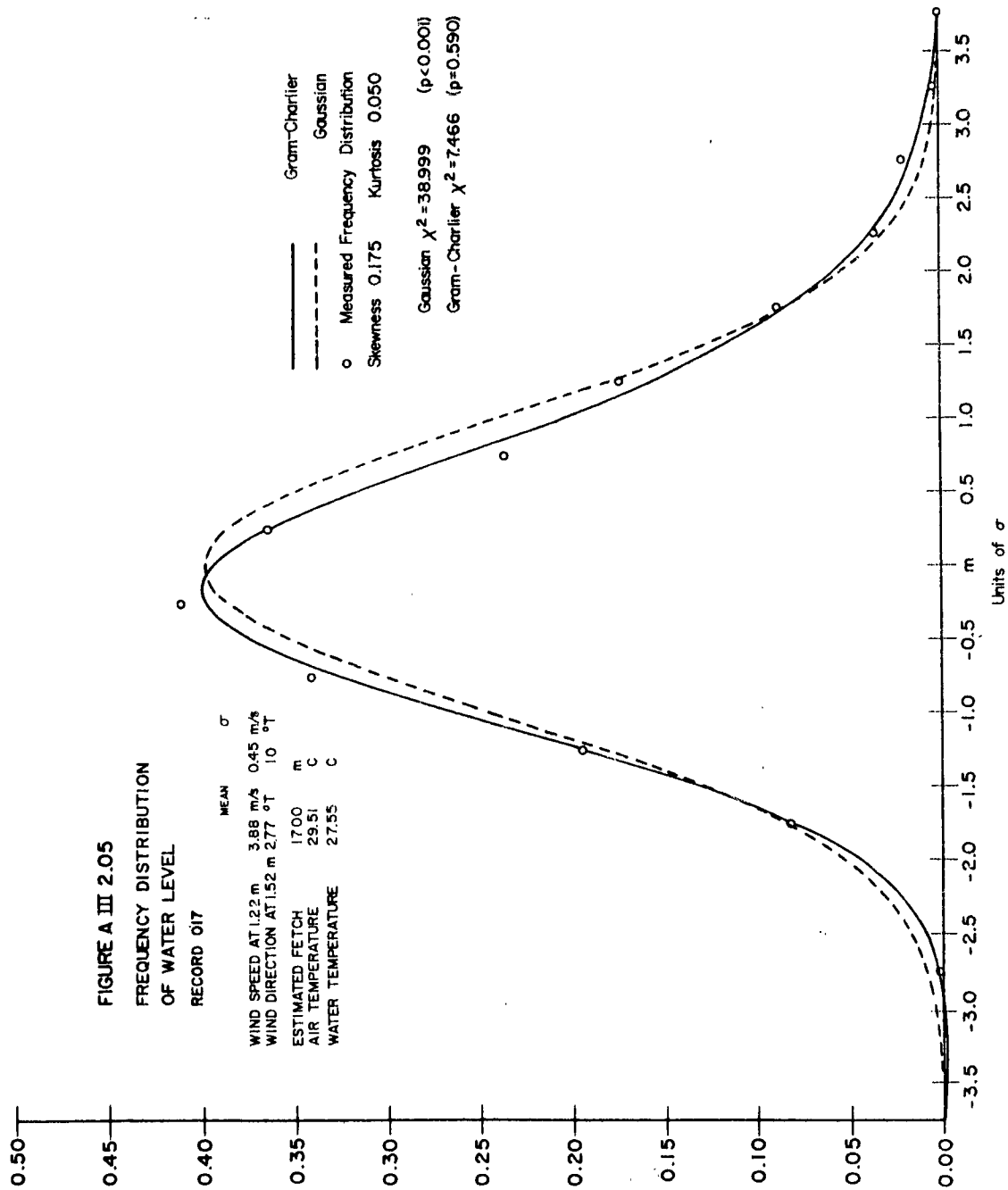
Tables AIII 2.01 to AIII 2.24 on pages AIII-64 to AIII-87 show the corrections expressed in per cent to be added to the Gaussian to produce the three-term Gram-Charlier fits.

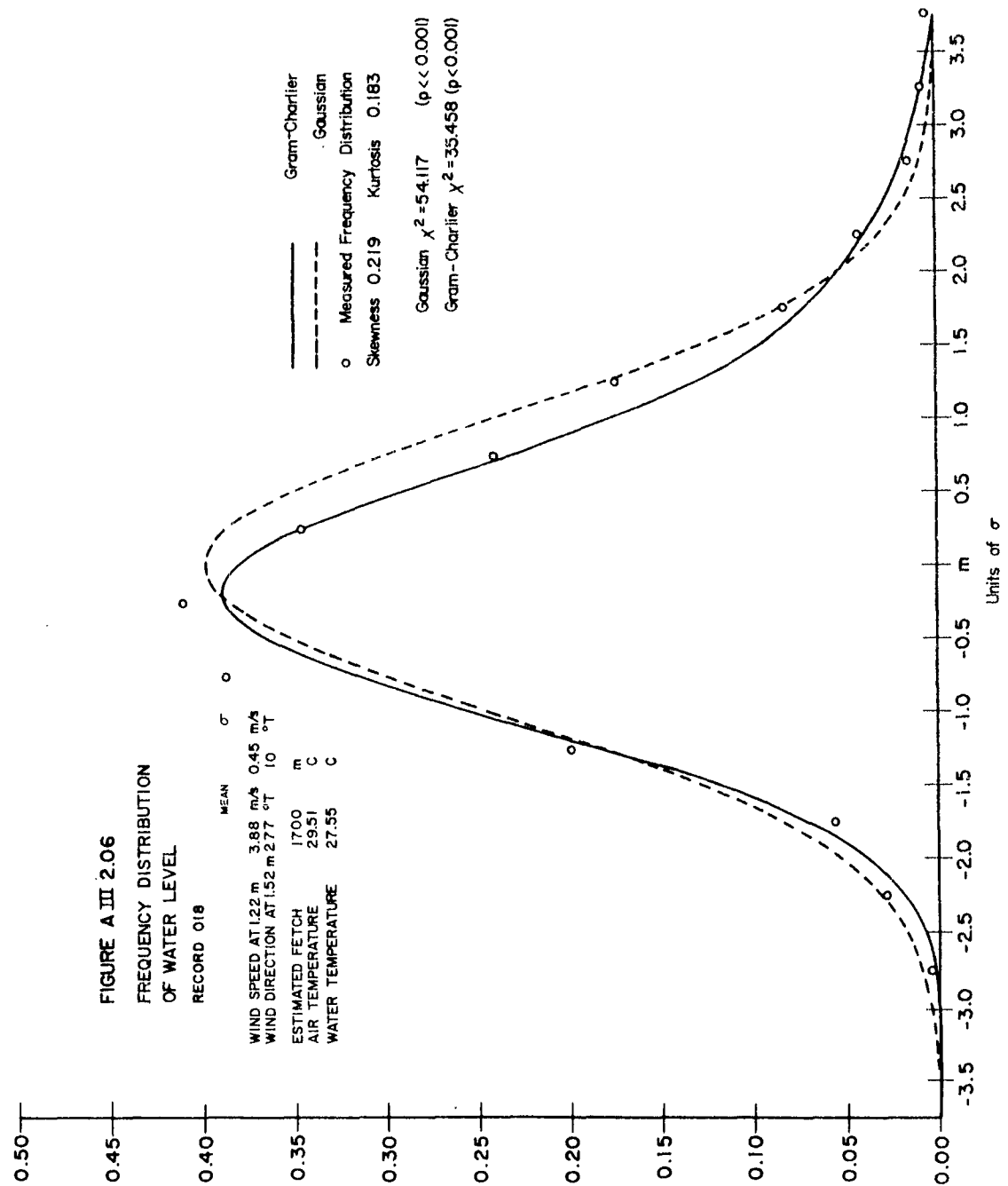


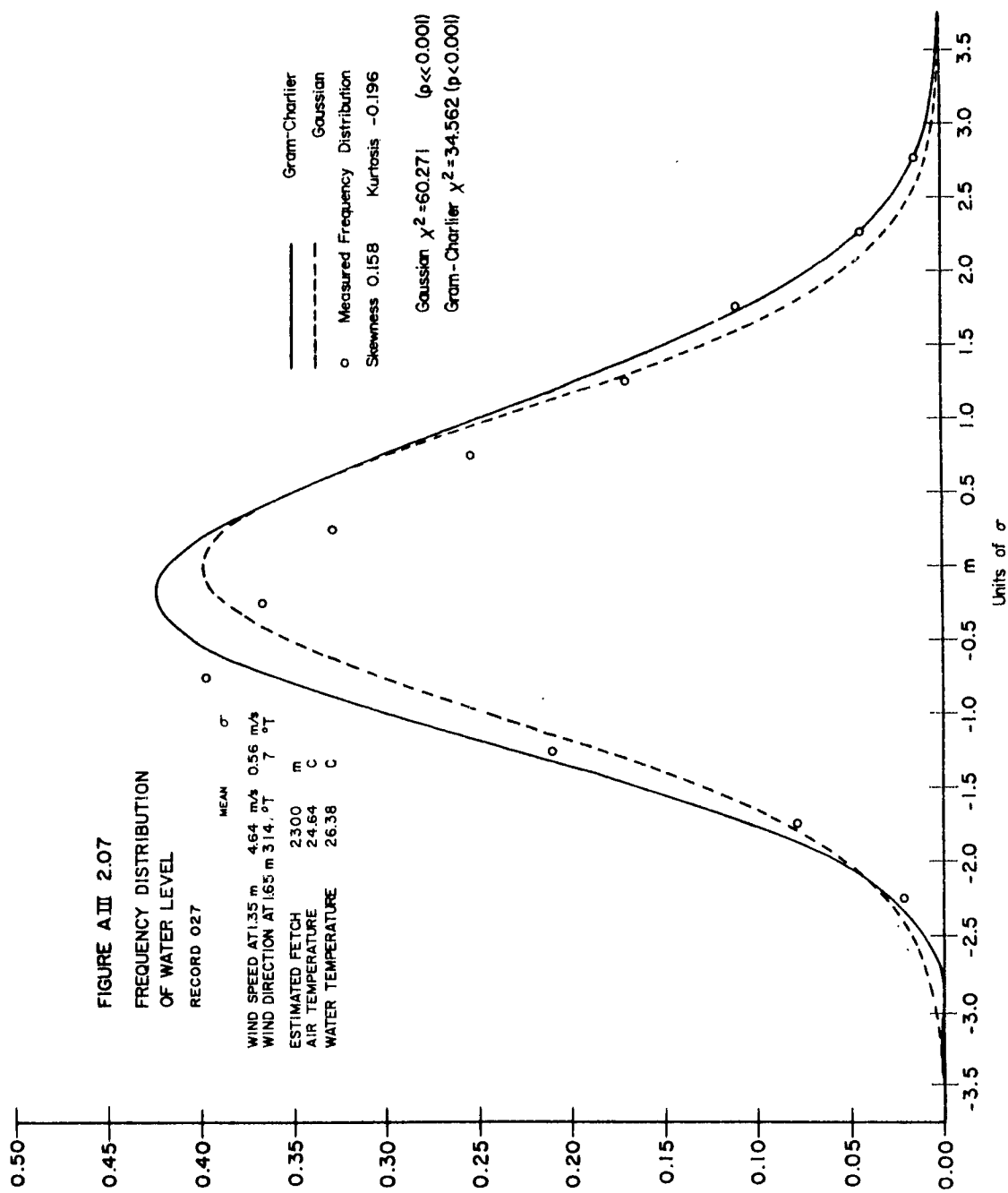


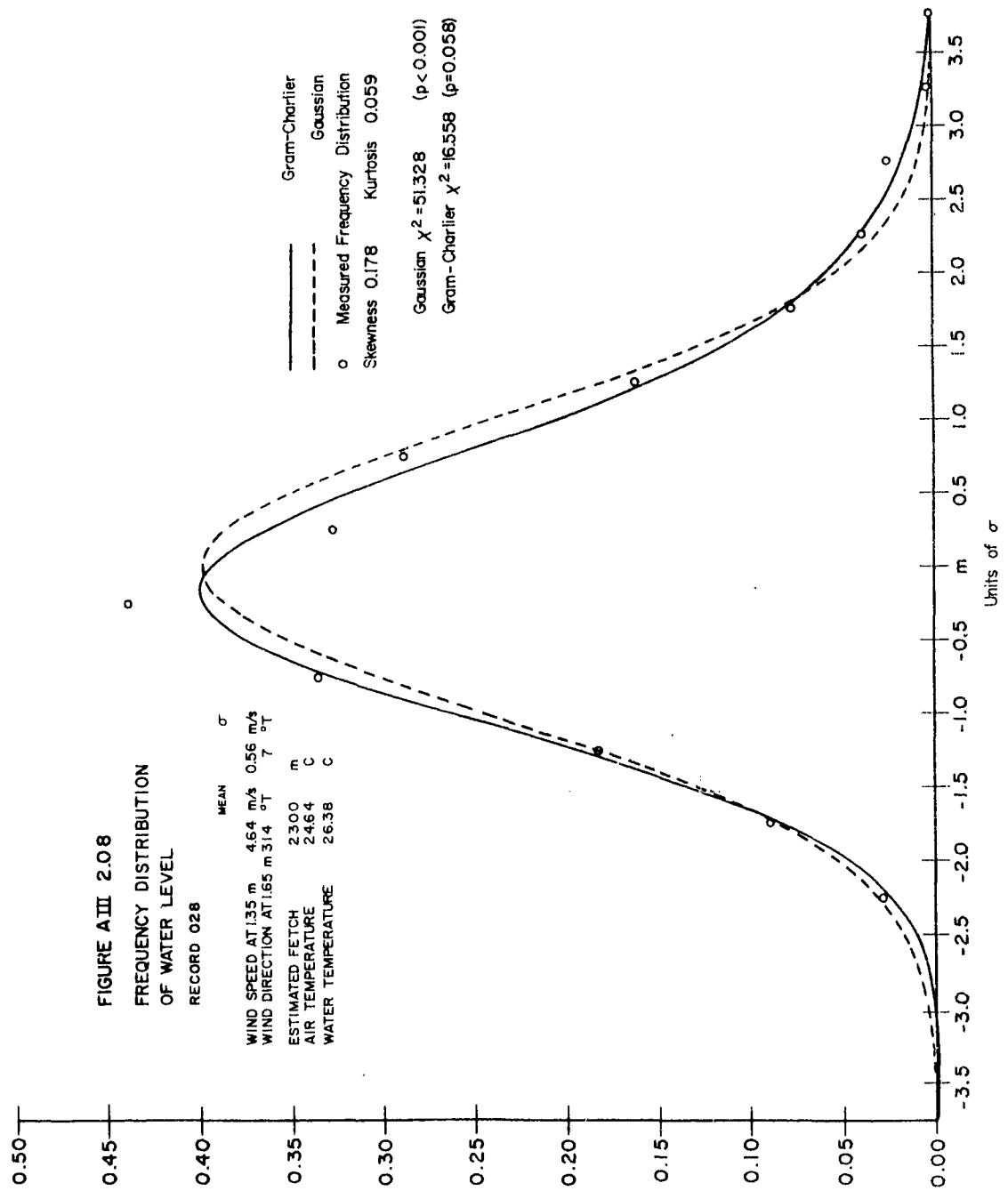


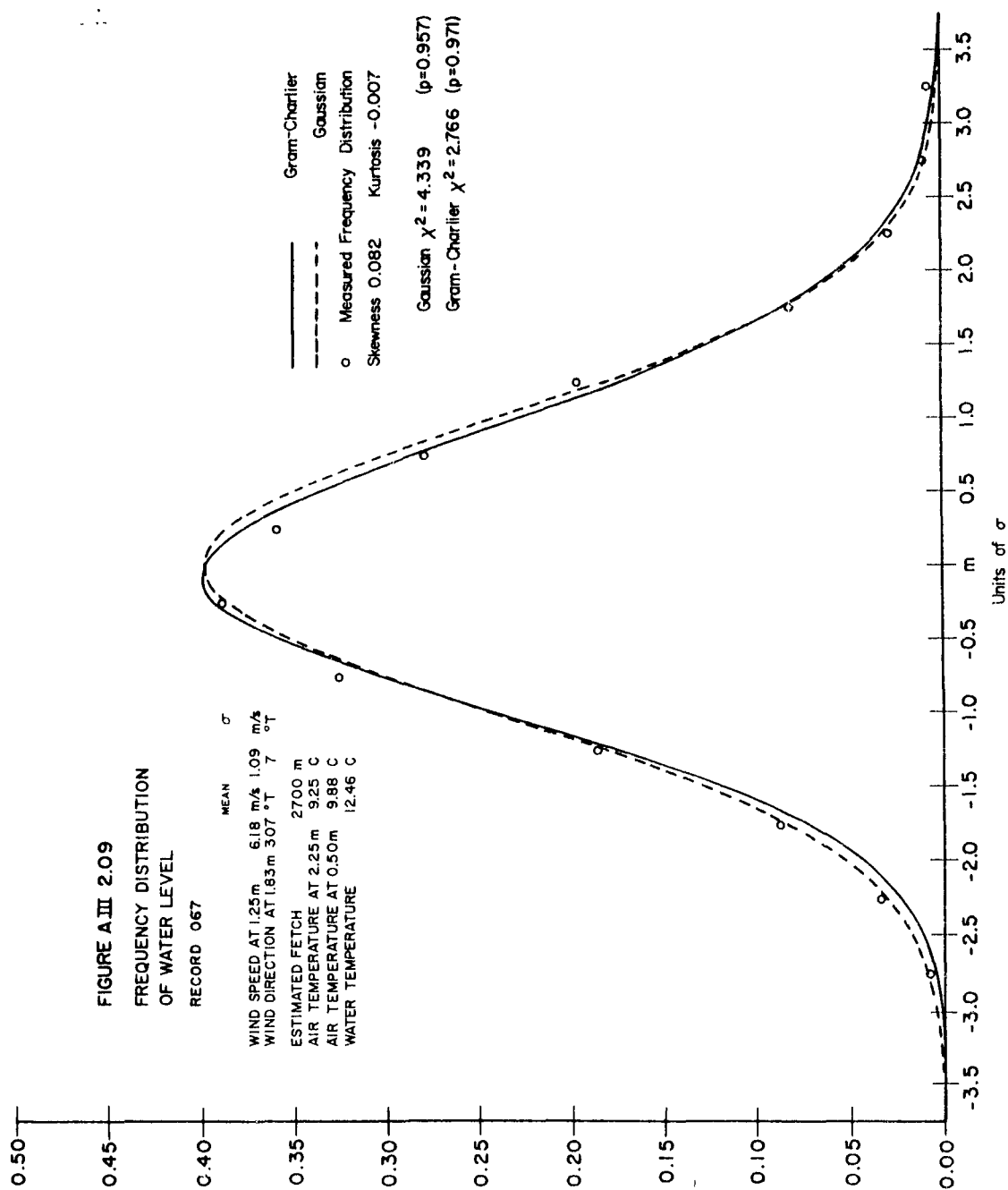


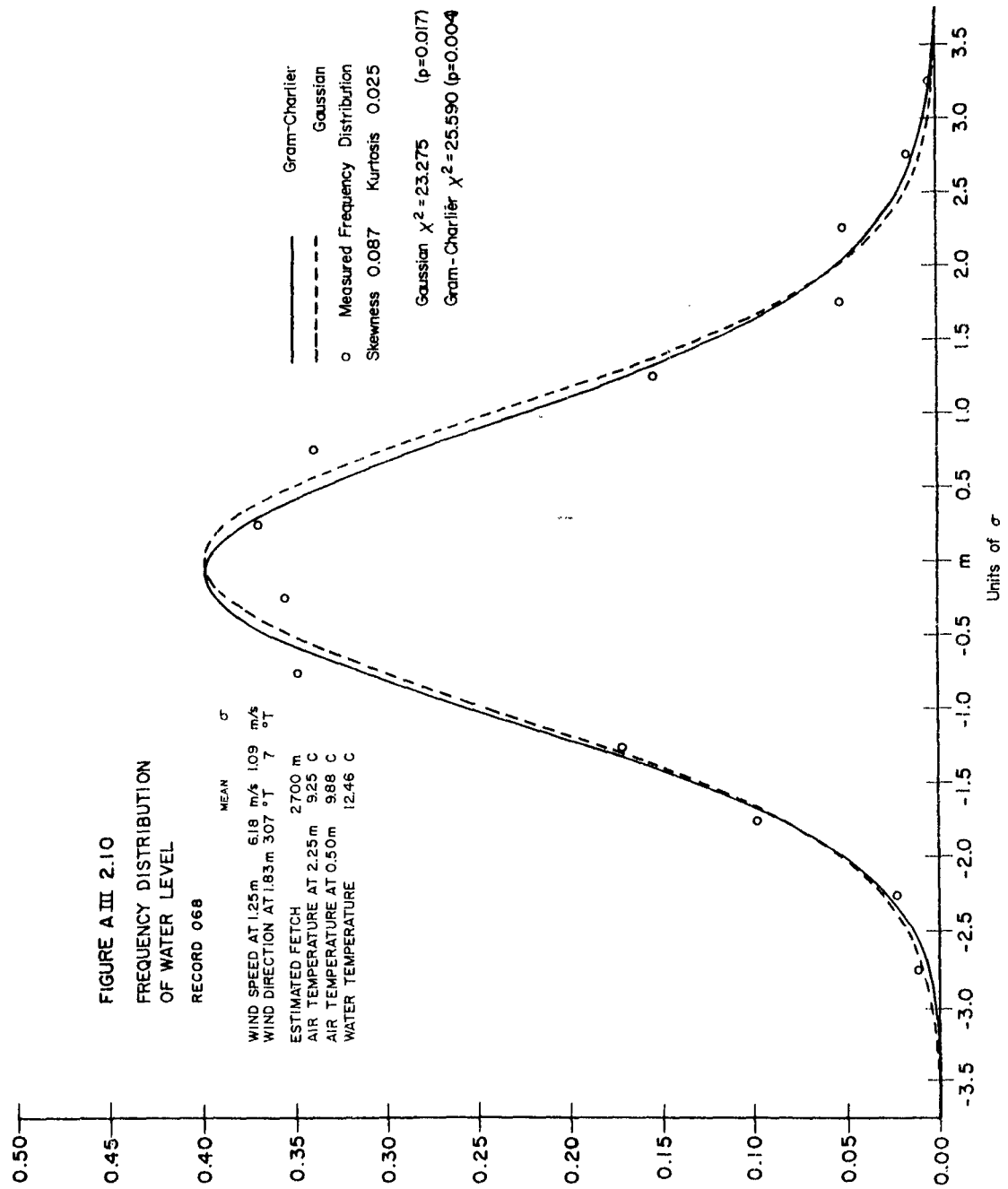


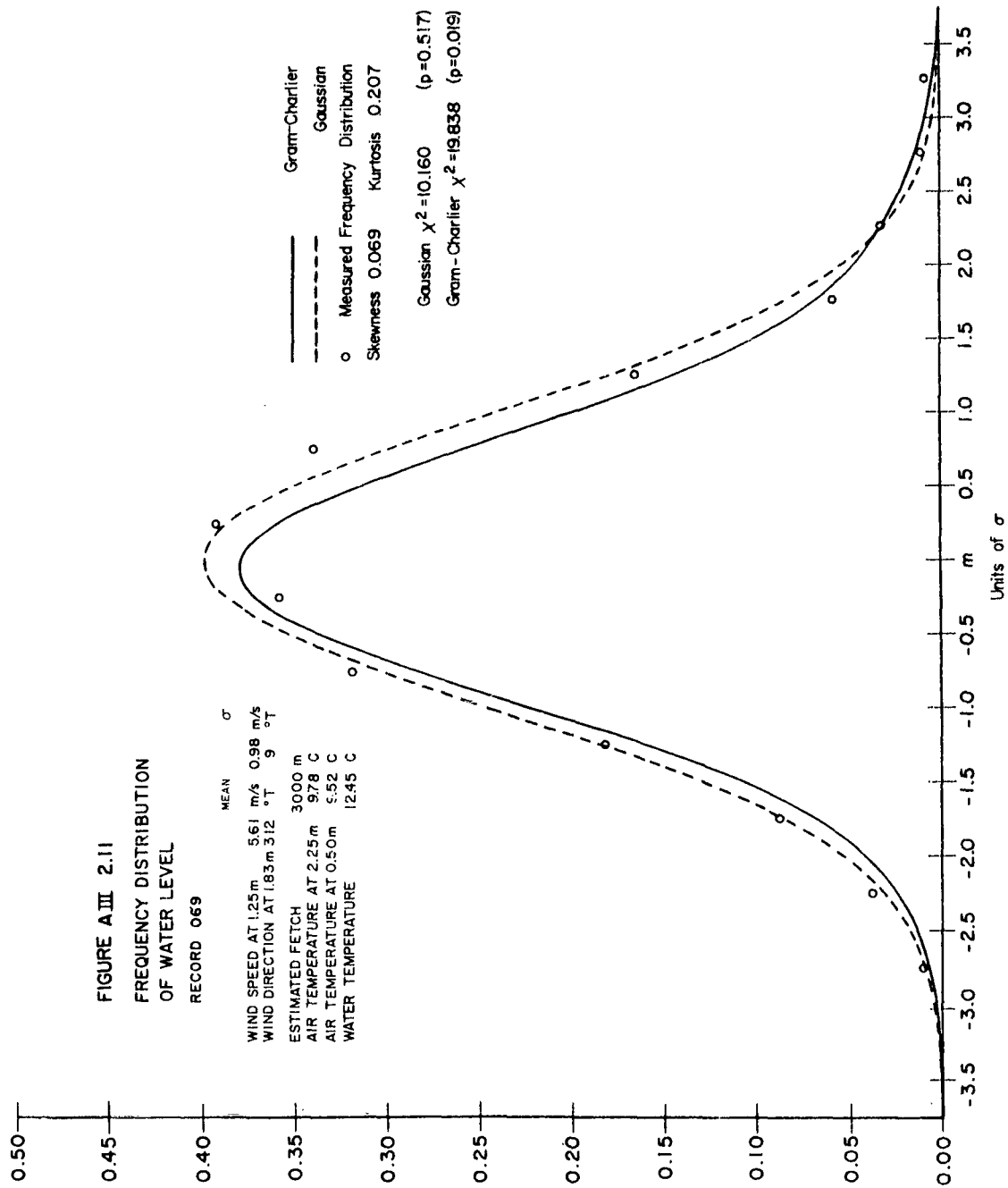


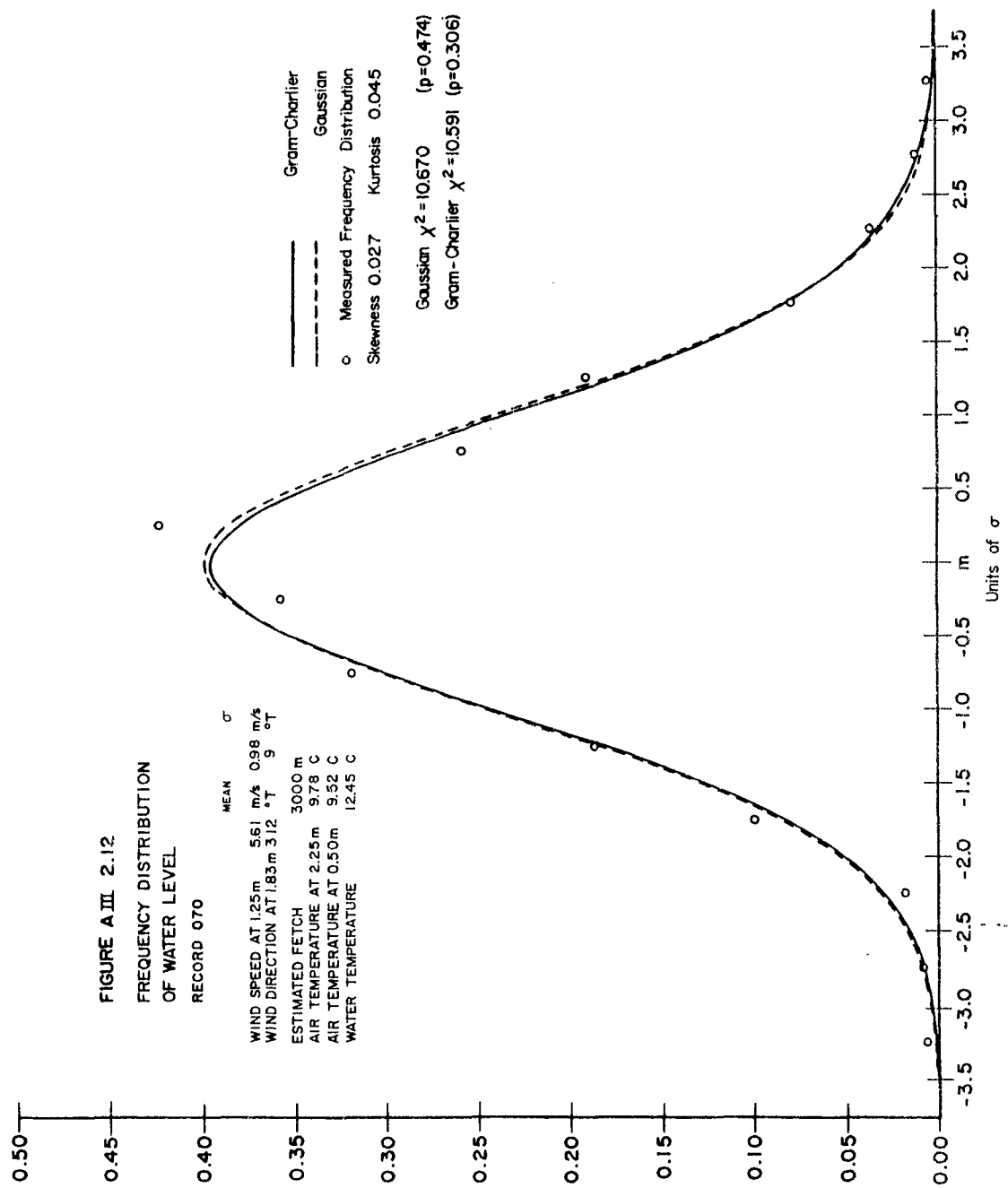


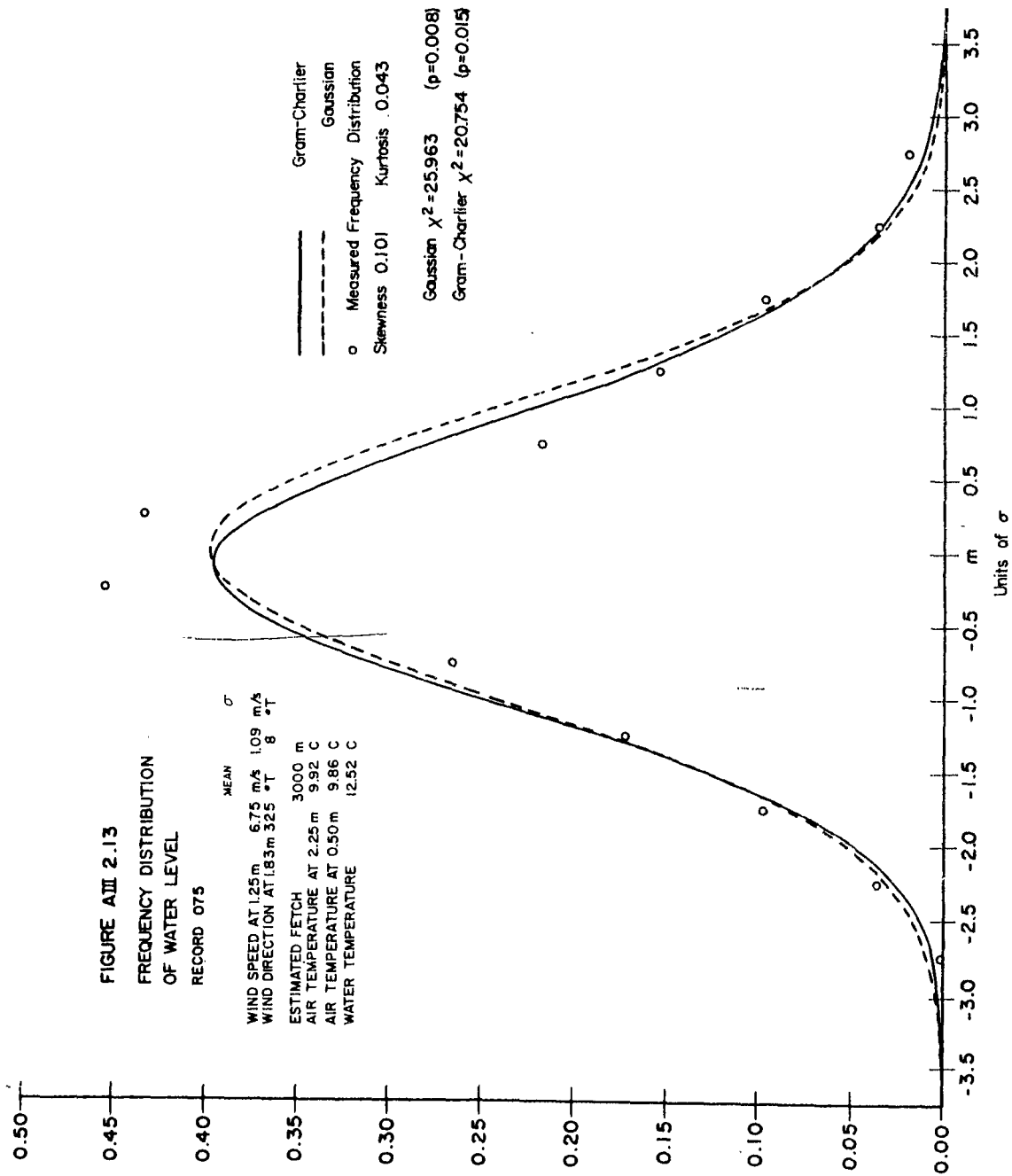


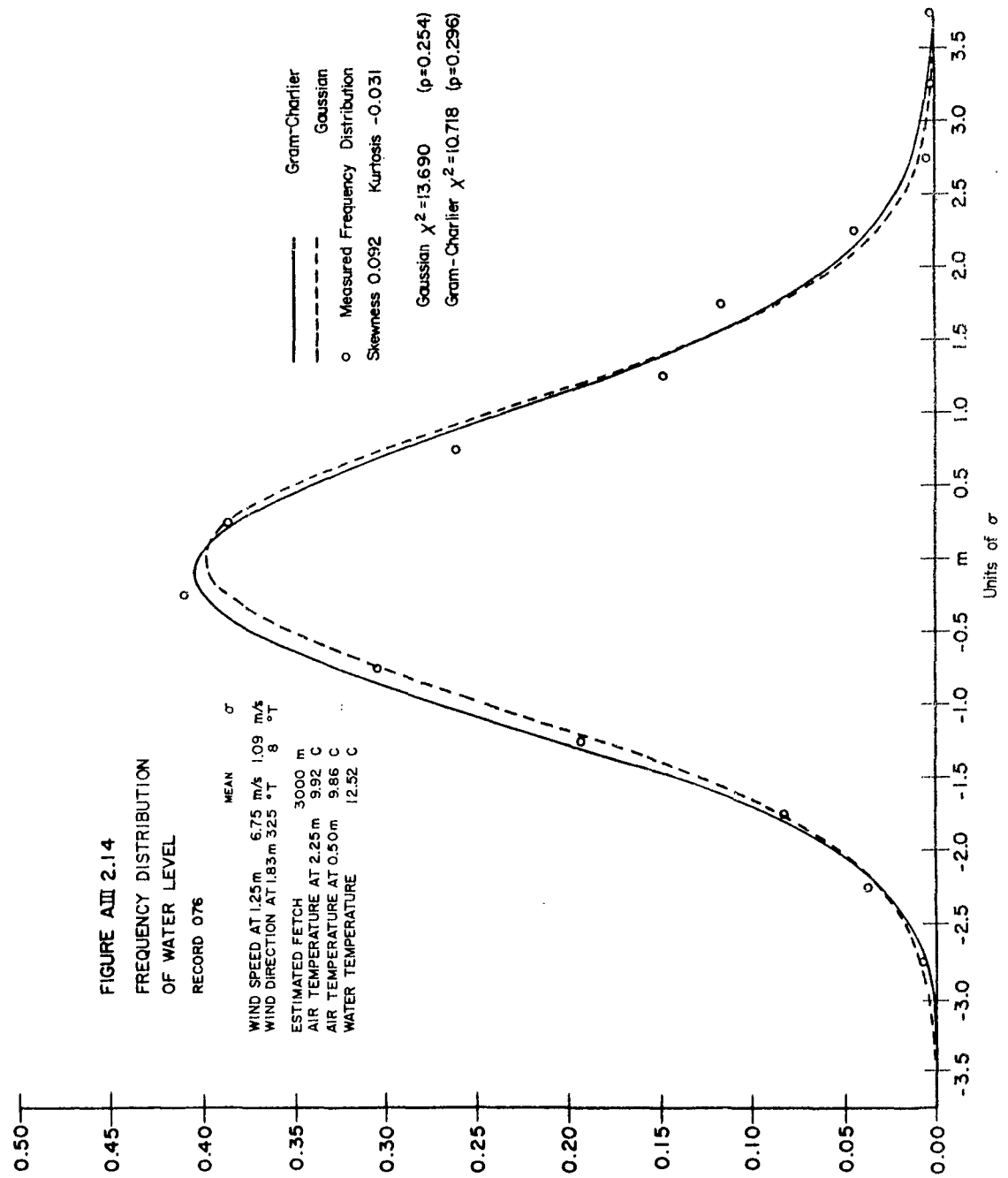


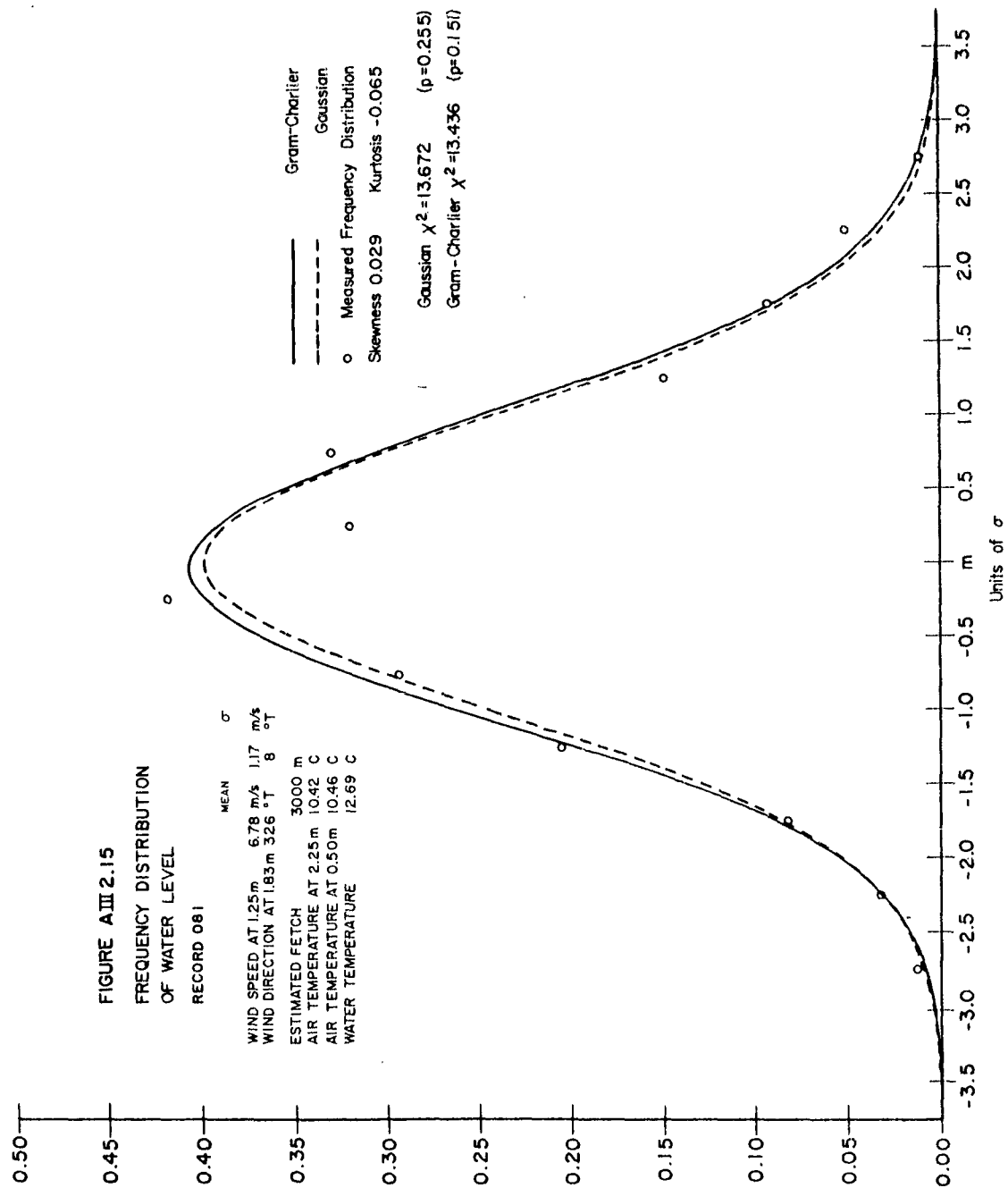


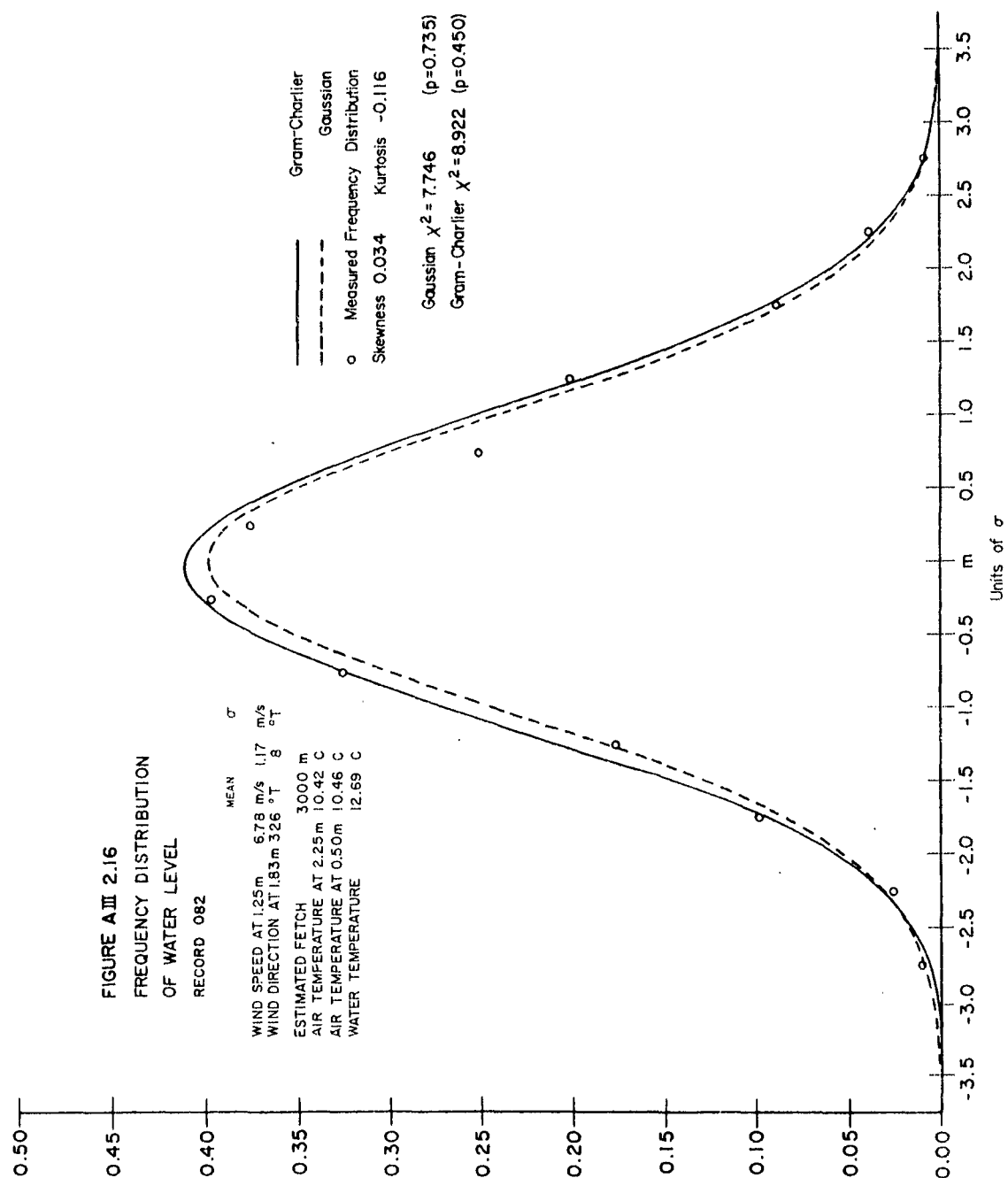


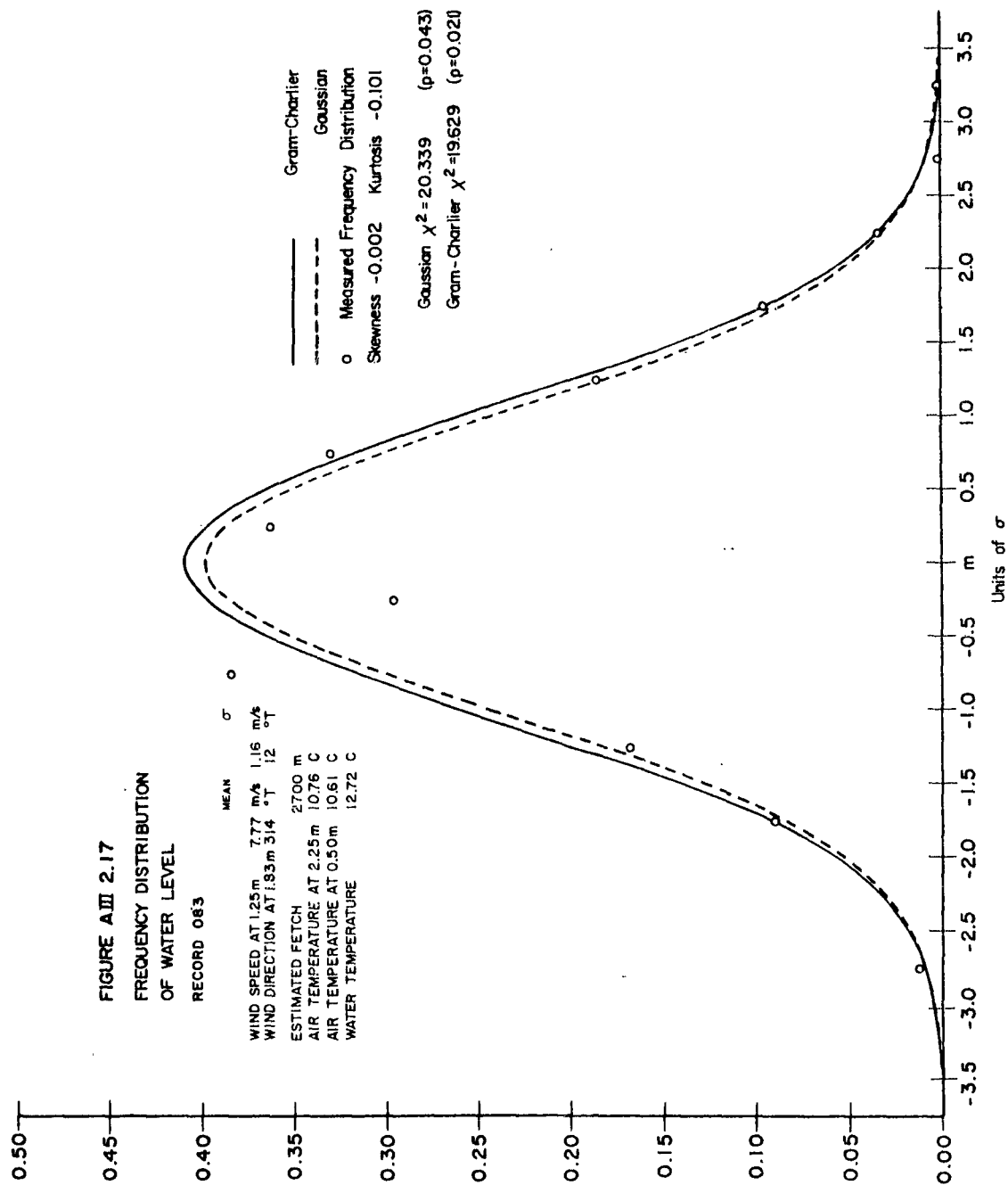


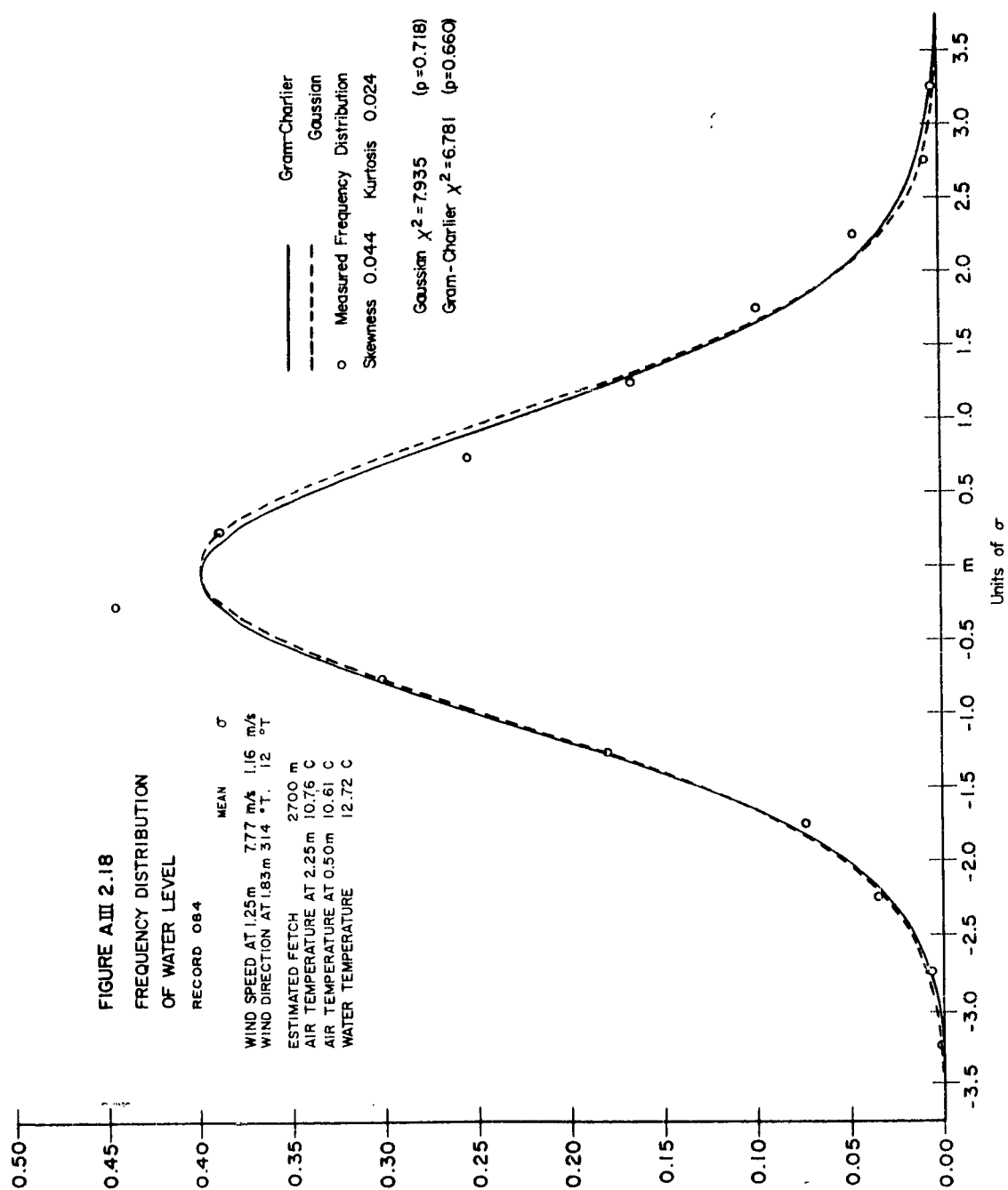


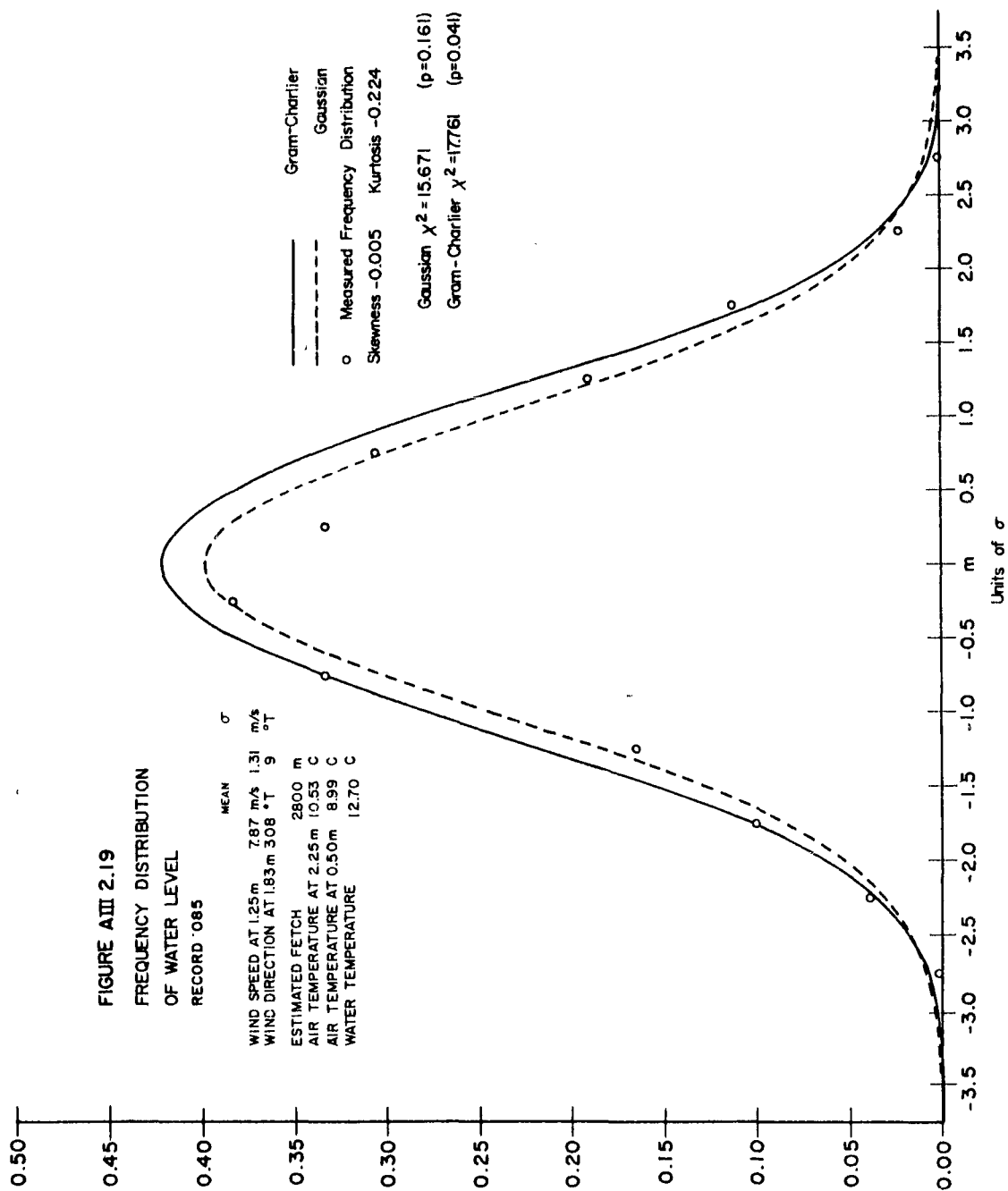


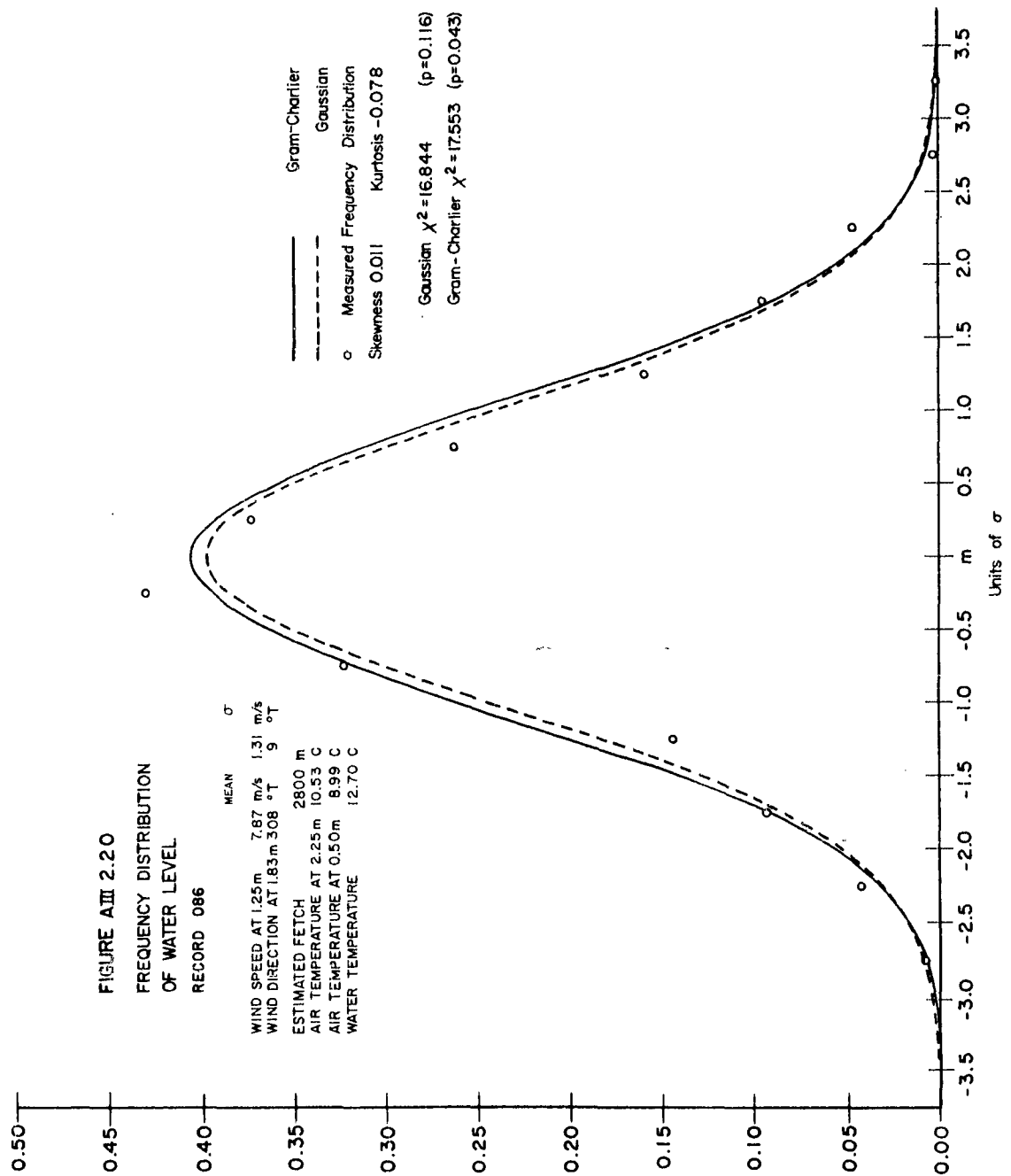


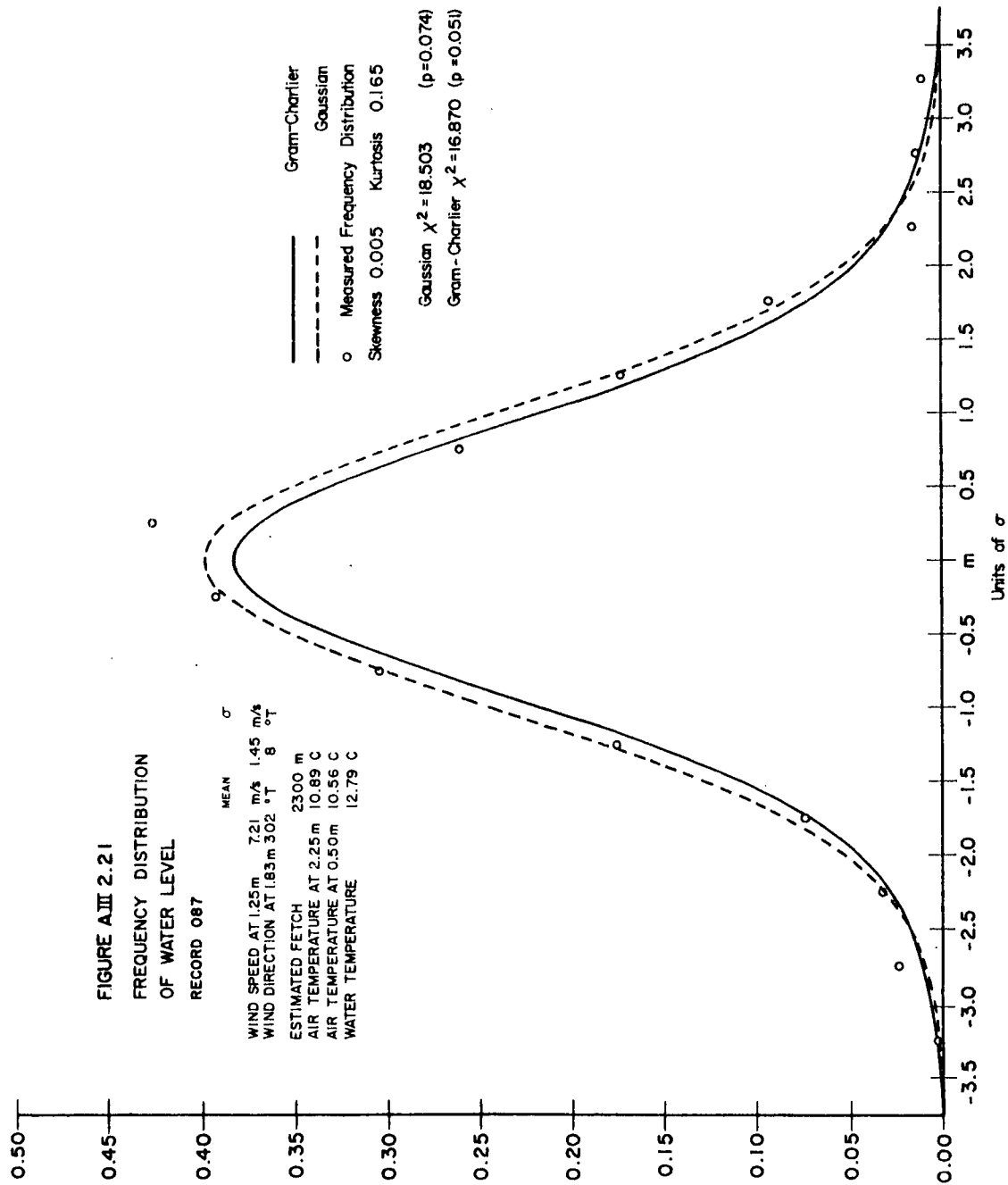


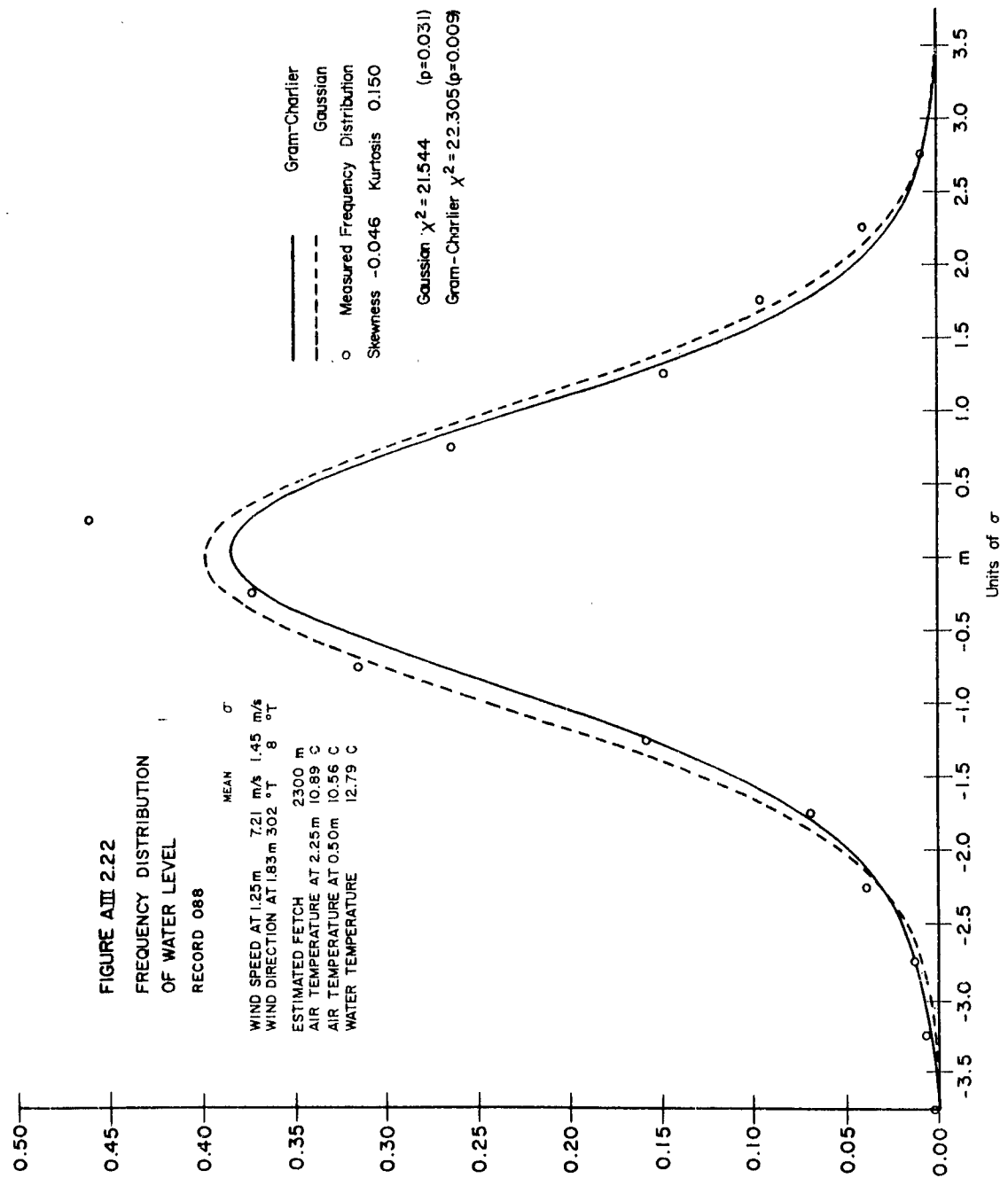


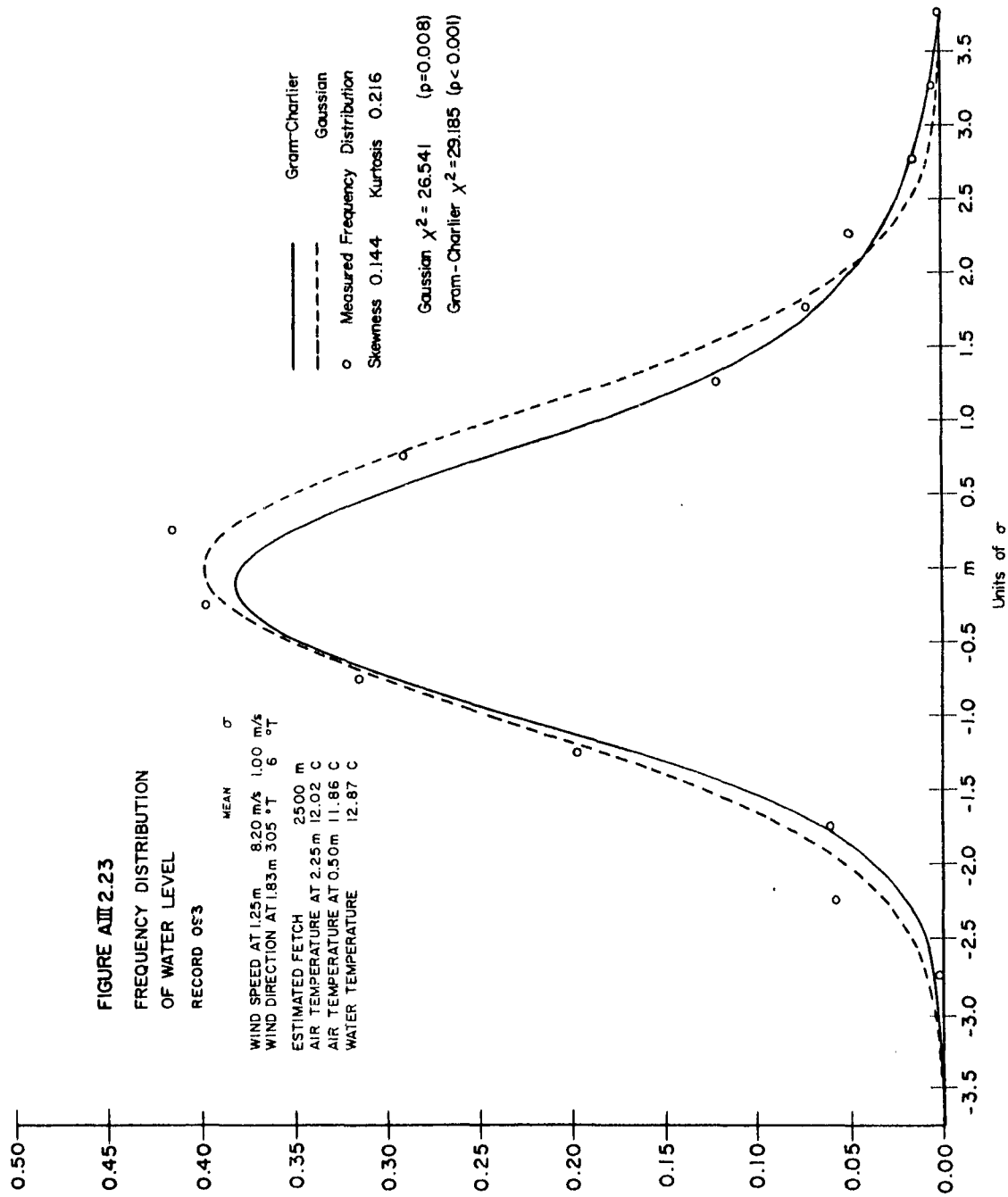












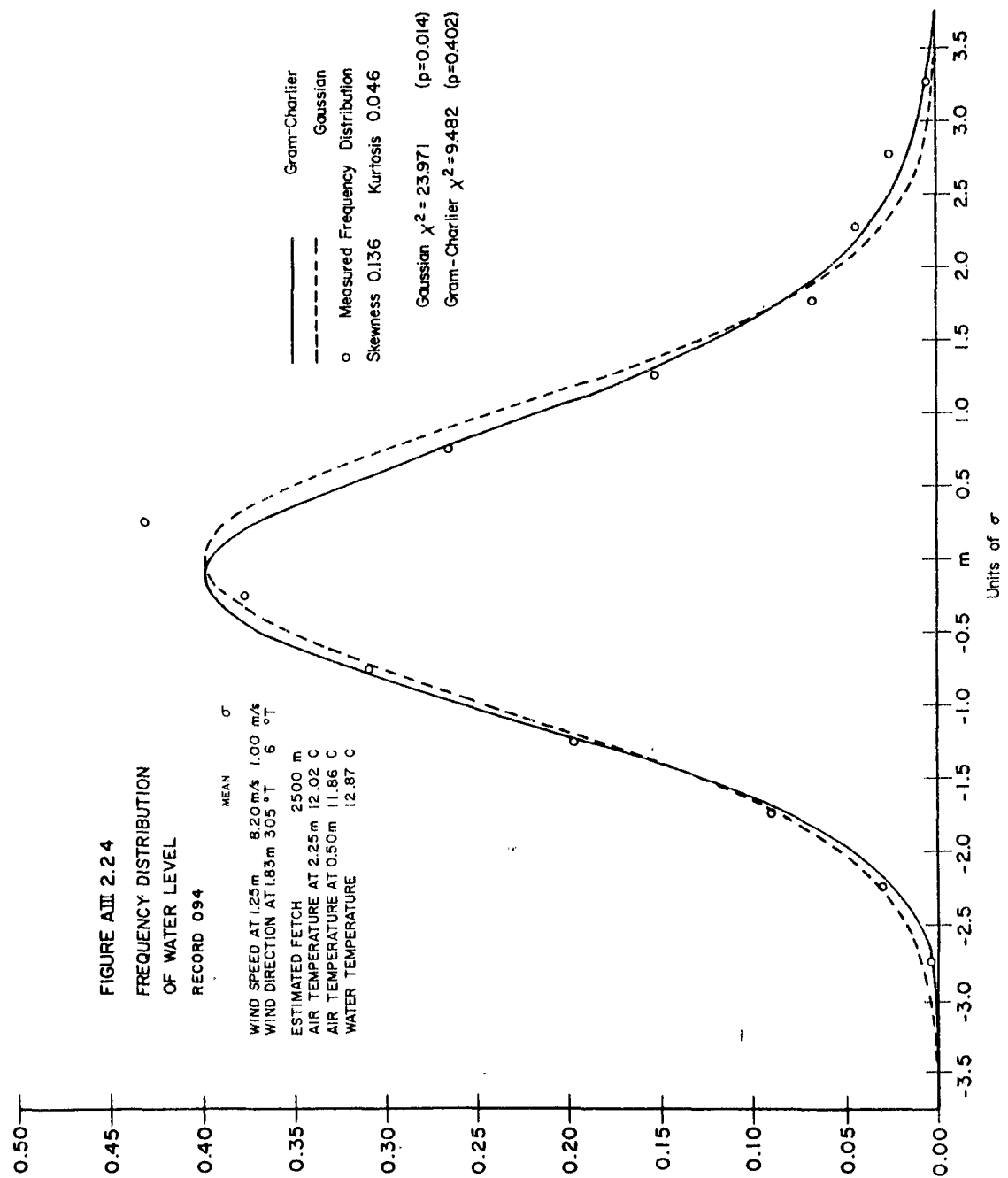


TABLE A III 2.01
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 009

N = 1549 $\Delta T = 0.1$ sec Mean = 8.91 cm $\sigma = 2.91$ cm

Skewness = 0.172

Kurtosis = 0.046

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
 Wind Direction at 1.34 m : mean 286 °T σ 8 °T

Estimated Fetch 2100 m

Air Temperature 27.45 C

Water Temperature 26.18 C

t (σ)	Correction For - t (%)	Correction For + t (%)	t (σ)	Correction For - t (%)	Correction For + t (%)
0.0	-1.15	-1.15	2.1	-20.82	13.14
0.1	0.54	-2.88	2.2	-26.51	19.91
0.2	2.15	-4.63	2.3	-32.79	27.61
0.3	3.66	-6.36	2.4	-39.66	36.30
0.4	5.00	-8.02	2.5	-47.13	46.03
0.5	6.18	-9.58	2.6	-55.23	56.87
0.6	7.15	-11.01	2.7	-63.95	68.87
0.7	7.88	-12.26	2.8	-73.32	82.08
0.8	8.35	-13.29	2.9	-83.33	96.57
0.9	8.54	-14.06	3.0	-94.00	112.40
1.0	8.40	-14.54	3.1	-105.33	129.63
1.1	7.92	-14.66	3.2	-117.34	148.32
1.2	7.06	-14.40	3.3	-130.02	168.54
1.3	5.82	-13.70	3.4	-143.37	190.35
1.4	4.16	-12.54	3.5	-157.42	213.82
1.5	2.07	-10.83	3.6	-172.14	239.00
1.6	-0.49	-8.57	3.7	-187.56	265.98
1.7	-3.53	-5.67	3.8	-203.67	294.81
1.8	-7.06	-2.10	3.9	-220.47	325.54
1.9	-11.10	2.18	4.0	-237.95	358.31
2.0	-15.69	7.25			

TABLE A III 2.02
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 010

N = 1406 $\Delta T = 0.1$ sec Mean = 8.74 cm $\sigma = 2.99$ cm
Skewness = 0.143 Kurtosis = -0.015

Wind Speed at 1.04 m : mean 4.92 m/s $\sigma = 0.58$ m/s
Wind Direction at 1.34 m : mean 286 ° T $\sigma = 8$ ° T

Estimated Fetch 2100 m

Air Temperature 27.45 C Water Temperature 26.18 C

$\dagger$ (σ)	Correction For $-\dagger$ (%)	Correction For $+\dagger$ (%)	$\dagger$ (σ)	Correction For $-\dagger$ (%)	Correction For $+\dagger$ (%)
0.0	0.38	0.38			
0.1	1.81	-1.05	2.1	-12.86	15.36
0.2	3.22	-2.42	2.2	-18.21	20.37
0.3	4.60	-3.72	2.3	-24.27	25.95
0.4	5.91	-4.93	2.4	-31.02	32.12
0.5	7.10	-6.00	2.5	-38.55	38.91
0.6	8.18	-6.92	2.6	-46.87	46.33
0.7	9.09	-7.67	2.7	-56.01	54.41
0.8	9.80	-8.20	2.8	-66.03	63.17
0.9	10.30	-8.50	2.9	-76.94	72.62
1.0	10.53	-8.53	3.0	-88.80	82.80
1.1	10.49	-8.29	3.1	-101.63	93.71
1.2	10.12	-7.72	3.2	-115.48	105.38
1.3	9.41	-6.83	3.3	-130.39	117.83
1.4	8.30	-5.58	3.4	-146.39	131.07
1.5	6.79	-3.93	3.5	-163.52	145.12
1.6	4.84	-1.88	3.6	-181.81	160.01
1.7	2.39	0.61	3.7	-201.32	175.76
1.8	-0.57	3.55	3.8	-222.08	192.36
1.9	-4.07	6.97	3.9	-244.12	209.84
2.0	-8.15	10.91	4.0	-267.49	228.25

TABLE A III 2.03

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 011

N = 1509

 $\Delta T = 0.1$ sec

Mean = 8.90 cm

 $\sigma = 3.28$ cm

Skewness = 0.096

Kurtosis = -0.125

Wind Speed at 1.22 m :

mean 5.09 m/s

 $\sigma = 0.58$ m/s

Wind Direction at 1.52 m :

mean 288 °T

 $\sigma = 9$ °T

Estimated Fetch 2200 m

Air Temperature 28.98 C

Water Temperature 26.62 C

$\uparrow$ (σ)	Correction For $-\uparrow$ (%)	Correction For $+\uparrow$ (%)	$\uparrow$ (σ)	Correction For $-\uparrow$ (%)	Correction For $+\uparrow$ (%)
0.0	3.13	3.13			
0.1	4.13	2.23	2.1	0.95	19.91
0.2	5.26	1.48	2.2	-3.98	21.92
0.3	6.47	0.89	2.3	-9.81	23.89
0.4	7.74	0.46	2.4	-16.63	25.77
0.5	9.02	0.22	2.5	-24.50	27.50
0.6	10.31	0.17	2.6	-33.51	29.05
0.7	11.56	0.32	2.7	-43.74	30.40
0.8	12.74	0.66	2.8	-55.27	31.47
0.9	13.81	1.19	2.9	-68.20	32.22
1.0	14.73	1.93	3.0	-82.60	32.60
1.1	15.46	2.86	3.1	-98.58	32.56
1.2	15.96	3.98	3.2	-116.24	32.04
1.3	16.16	5.26	3.3	-135.67	30.99
1.4	16.03	6.71	3.4	-156.96	29.30
1.5	15.51	8.31	3.5	-180.23	26.97
1.6	14.55	10.05	3.6	-205.58	23.90
1.7	13.09	11.89	3.7	-233.11	20.03
1.8	11.06	13.82	3.8	-262.94	15.28
1.9	8.40	15.82	3.9	-295.18	9.58
2.0	5.06	16.86	4.0	-329.94	2.86

TABLE A III 2.04

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 012

N * 1337

 $\Delta T = 0.1$ sec

Mean = 8.73 cm

 $\sigma = 2.91$ cm

Skewness = 0.182

Kurtosis = 0.101

Wind Speed at 1.22 m :

mean 5.09 m/s

 $\sigma = 0.58$ m/s

Wind Direction at 1.52 m :

mean 288 °T

 $\sigma = 9$ °T

Estimated Fetch 2200 m

Air Temperature 28.98 C

Water Temperature 26.62 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-2.53	-2.53			
0.1	-0.76	-4.38	2.1	-26.39	9.53
0.2	0.86	-6.32	2.2	-31.81	17.31
0.3	2.33	-8.27	2.3	-37.64	26.26
0.4	3.58	-10.20	2.4	-43.88	36.50
0.5	4.61	-12.07	2.5	-50.50	48.08
0.6	5.38	-13.84	2.6	-57.51	61.11
0.7	5.86	-15.46	2.7	-64.88	75.66
0.8	6.04	-16.86	2.8	-72.59	91.83
0.9	5.90	-18.02	2.9	-80.65	109.71
1.0	5.40	-18.86	3.0	-89.20	129.40
1.1	4.54	-19.34	3.1	-97.64	150.98
1.2	3.31	-19.41	3.2	-106.53	174.57
1.3	1.67	-18.99	3.3	-115.66	200.26
1.4	-0.36	-18.02	3.4	-125.99	228.13
1.5	-2.79	-16.45	3.5	-134.49	258.33
1.6	-5.67	-14.21	3.6	-144.14	290.92
1.7	-8.96	-11.22	3.7	-153.87	326.03
1.8	-12.67	-7.43	3.8	-163.12	364.34
1.9	-16.82	-2.76	3.9	-173.51	404.27
2.0	-21.39	2.87	4.0	-183.33	447.61

TABLE A III 2.05
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 017

N = 1473 $\Delta T = 0.1$ sec Mean = 11.12 cm $\sigma = 1.82$ cm
 Skewness = 0.175 Kurtosis = 0.050

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
 Wind Direction at 1.52 m : mean 277 °T σ 10 °T

Estimated Fetch. 1700 m

Air Temperature 29.51 C Water Temperature 27.55 C

$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)	$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)
0.0	-1.25	-1.25			
0.1	0.47	-3.01	2.1	-21.44	13.10
0.2	2.10	-4.80	2.2	-27.20	20.02
0.3	3.62	-6.56	2.3	-33.54	27.90
0.4	4.99	-8.27	2.4	-40.47	36.81
0.5	6.17	-9.87	2.5	-48.00	46.80
0.6	7.14	-11.34	2.6	-56.14	57.92
0.7	7.87	-12.63	2.7	-64.90	70.24
0.8	8.33	-13.69	2.8	-74.29	83.81
0.9	8.50	-14.50	2.9	-84.32	98.72
1.0	8.34	-15.00	3.0	-95.00	115.00
1.1	7.82	-15.16	3.1	-106.32	132.74
1.2	6.93	-14.91	3.2	-118.31	151.99
1.3	5.64	-14.22	3.3	-130.94	172.82
1.4	3.94	-13.04	3.4	-144.24	195.30
1.5	1.80	-11.32	3.5	-158.20	219.50
1.6	-0.81	-9.03	3.6	-172.83	245.49
1.7	-3.91	-6.09	3.7	-188.11	273.35
1.8	-7.50	-2.46	3.8	-204.06	303.12
1.9	-11.61	1.91	3.9	-220.66	334.90
2.0	-16.25	7.09	4.0	-247.91	378.75

TABLE A III 2.06
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 018

N = 1411 $\Delta T = 0.1$ sec Mean = 11.21 cm $\sigma = 2.03$ cm

Skewness = 0.219

Kurtosis = 0.183

Wind Speed at 1.22 m :

mean 3.88 m/s

σ 0.45 m/s

Wind Direction at 1.52 m :

mean 277 °T

σ 10 °T

Estimated Fetch 1700 m

Air Temperature 29.51 °C

Water Temperature 27.55 °C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-4.58	-4.58	2.1	-36.89	6.35
0.1	-2.48	-6.84	2.2	-42.69	16.41
0.2	-0.62	-9.26	2.3	-48.75	28.15
0.3	0.98	-11.76	2.4	-55.04	41.68
0.4	2.29	-14.29	2.5	-61.50	57.12
0.5	3.27	-16.81	2.6	-68.11	74.63
0.6	4.09	-19.23	2.7	-74.79	94.33
0.7	4.14	-21.52	2.8	-81.51	116.35
0.8	3.98	-23.58	2.9	-88.20	140.86
0.9	3.40	-25.38	3.0	-94.80	168.00
1.0	2.40	-26.80	3.1	-101.25	197.91
1.1	0.96	-27.78	3.2	-107.49	230.77
1.2	-0.92	-28.26	3.3	-113.44	266.70
1.3	-3.25	-28.11	3.4	-120.67	304.25
1.4	-6.02	-27.28	3.5	-124.16	348.52
1.5	-9.21	-25.63	3.6	-128.77	394.73
1.6	-12.87	-23.15	3.7	-132.77	444.71
1.7	-16.92	-19.64	3.8	-136.07	498.63
1.8	-21.36	-15.06	3.9	-138.55	556.67
1.9	-26.19	-9.27	4.0	-140.18	619.02
2.0	-31.38	-2.18			

TABLE A III 2.07

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 027

N = 1527

 $\Delta T = 0.1$ sec

Mean = 10.11 cm

 $\sigma = 1.97$ cm

Skewness = 0.158

Kurtosis = -0.196

Wind Speed at 1.35 m :

mean 4.64 m/s

 $\sigma = 0.56$ m/s

Wind Direction at 1.65 m :

mean 314 °T

 $\sigma = 7$ °T

Estimated Fetch 2300 m

Air Temperature 24.64 C

Water Temperature 26.38 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	4.90	4.90			
0.1	6.57	3.41	2.1	0.76	31.94
0.2	8.41	2.17	2.2	-7.25	35.39
0.3	10.37	1.17	2.3	-16.71	38.77
0.4	12.41	0.45	2.4	-27.73	42.05
0.5	14.49	0.01	2.5	-40.44	45.14
0.6	16.56	-0.12	2.6	-54.98	48.00
0.7	18.56	0.06	2.7	-71.46	50.54
0.8	20.44	0.56	2.8	-90.03	52.71
0.9	22.15	1.39	2.9	-110.83	54.43
1.0	23.60	2.54	3.0	-134.00	55.60
1.1	24.74	4.00	3.1	-159.68	56.16
1.2	25.49	5.77	3.2	-188.03	56.01
1.3	25.77	7.83	3.3	-219.21	55.05
1.4	25.50	10.16	3.4	-253.36	53.20
1.5	24.59	12.73	3.5	-290.66	50.36
1.6	22.99	15.57	3.6	-331.27	46.41
1.7	20.56	18.60	3.7	-375.36	41.26
1.8	17.23	21.79	3.8	-423.11	34.79
1.9	12.89	25.09	3.9	-474.69	26.89
2.0	7.44	28.50	4.0	-530.30	17.44

TABLE A III 2.08

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 028

N = 1574 $\Delta T = 0.1$ sec Mean = 9.89 cm $\sigma = 1.77$ cm

Skewness = 0.178

Kurtosis = 0.059

Wind Speed at 1.35 m :

mean 4.64 m/s

 $\sigma = 0.56$ m/s

Wind Direction at 1.65 m :

mean 314 °T

 $\sigma = 7$ °T

Estimated Fetch 2300 m

Air Temperature 24.64 °C

Water Temperature 26.38 °C

t (σ)	Correction For - t (%)	Correction For + t (%)	t (σ)	Correction For - t (%)	Correction For + t (%)
0.0	-1.48	-1.48			
0.1	0.27	-3.27	2.1	-22.49	12.65
0.2	1.92	-5.10	2.2	-28.26	19.78
0.3	3.44	-6.92	2.3	-34.57	27.93
0.4	4.81	-8.67	2.4	-41.45	37.15
0.5	5.98	-10.34	2.5	-48.92	47.50
0.6	6.93	-11.87	2.6	-56.95	59.05
0.7	7.63	-13.23	2.7	-65.58	71.88
0.8	8.04	-14.36	2.8	-74.79	86.03
0.9	8.15	-15.23	2.9	-84.60	101.58
1.0	7.94	-15.80	3.0	-95.00	118.60
1.1	7.36	-16.00	3.1	-106.00	137.16
1.2	6.41	-15.81	3.2	-117.59	157.33
1.3	5.05	-15.17	3.3	-129.78	179.20
1.4	3.27	-14.01	3.4	-142.55	202.81
1.5	-1.06	-12.30	3.5	-155.92	228.26
1.6	-1.63	-9.99	3.6	-169.88	255.62
1.7	-4.78	-7.00	3.7	-184.39	284.97
1.8	-8.43	-3.31	3.8	-199.48	316.38
1.9	-12.60	1.16	3.9	-215.14	349.94
2.0	17.28	6.46	4.0	-231.34	385.72

TABLE A III 2.09

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 067

N = 750

 $\Delta T = 0.2 \text{ sec}$ Mean = 7.75 cm $\sigma = 2.23 \text{ cm}$

Skewness = 0.082

Kurtosis = -0.007

Wind Speed at 1.25m:

mean 6.18 m/s

 σ 1.09 m/s

Wind Direction at 1.83m:

mean 307 °T

 σ 7 °T

Estimated Fetch

2700 m

Air Temperature at 2.25m

9.25 C

Air Temperature at 0.50m

9.88 C

Water Temperature

12.46 C

$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)	$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)
0.0	-0.18	-0.18			
0.1	0.64	-1.00	2.1	-7.51	8.67
0.2	1.43	-1.81	2.2	-10.56	11.56
0.3	2.18	-2.60	2.3	-14.01	14.79
0.4	2.88	-3.34	2.4	-17.85	18.37
0.5	3.50	-4.02	2.5	-22.13	22.29
0.6	4.04	-4.62	2.6	-26.84	26.60
0.7	4.47	-5.13	2.7	-32.03	31.29
0.8	4.78	-5.54	2.8	-37.71	36.37
0.9	4.97	-5.81	2.9	-43.89	41.87
1.0	5.00	-5.94	3.0	-50.60	47.80
1.1	4.87	-5.89	3.1	-57.86	54.16
1.2	4.56	-5.68	3.2	-65.69	60.97
1.3	4.06	-5.26	3.3	-74.10	68.24
1.4	3.34	-4.62	3.4	-83.12	75.98
1.5	2.41	-3.75	3.5	-92.78	84.20
1.6	1.23	-2.61	3.6	-103.10	92.92
1.7	-0.19	-1.21	3.7	-114.08	102.14
1.8	-1.88	0.48	3.8	-125.75	111.89
1.9	-3.85	2.49	3.9	-138.16	122.16
2.0	-6.11	4.83	4.0	-151.29	142.97

TABLE A III 2.10

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 068

N = 850 $\Delta T = 0.2$ sec Mean = 7.30 cm $\sigma = 2.36$ cm

Skewness = 0.087

Kurtosis = 0.025

Wind Speed at 1.25m:

mean 6.18 m/s

 σ 1.09 m/s

Wind Direction at 1.83m:

mean 307 °T

 σ 7 °T

Estimated Fetch

2700 m

Air Temperature at 2.25m

925 C

Air Temperature at 0.50m

988 C

Water Temperature

12.46 C

$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)	$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)
0.0	-0.63	-0.63	2.1	-10.68	6.50
0.1	0.23	-1.51	2.2	-13.53	9.95
0.2	1.05	-2.39	2.3	-16.68	13.86
0.3	1.79	-3.27	2.4	-20.12	18.30
0.4	2.47	-4.11	2.5	-23.86	23.26
0.5	3.07	-4.91	2.6	-27.90	28.80
0.6	3.54	-5.64	2.7	-32.26	34.92
0.7	3.91	-6.29	2.8	-36.92	41.68
0.8	4.13	-6.81	2.9	-41.90	49.10
0.9	4.22	-7.22	3.0	-47.20	57.20
1.0	4.13	-7.47	3.1	-52.82	66.02
1.1	3.88	-7.54	3.2	-58.77	75.61
1.2	3.44	-7.42	3.3	-65.04	85.98
1.3	2.80	-7.08	3.4	-71.63	97.17
1.4	1.95	-6.49	3.5	-78.56	109.22
1.5	0.88	-5.64	3.6	-85.81	122.15
1.6	-0.42	-4.50	3.7	-93.39	136.01
1.7	-1.96	-3.04	3.8	-101.30	150.84
1.8	-3.74	-1.24	3.9	-109.54	166.66
1.9	-5.78	0.94	4.0	-118.09	183.51
2.0	-8.09	3.51			

TABLE A III 2.11
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 069

N = 750 $\Delta T = 0.2 \text{ sec}$ Mean = 11.32 cm $\sigma = 2.78 \text{ cm}$

Skewness = 0.069

Kurtosis = 0.207

Wind Speed at 1.25m :

mean 5.61 m/s

$\sigma = 0.98 \text{ m/s}$

Wind Direction at 1.83m :

mean 312 °T

$\sigma = 9 \text{ °T}$

Estimated Fetch

3000 m

Air Temperature at 2.25m

9.78 C

Air Temperature at 0.50m

9.52 C

Water Temperature

12.45 C

$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)	$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)
0.0	-5.18	-5.18			
0.1	-4.58	-5.96	2.1	-24.08	-10.46
0.2	-4.23	-6.95	2.2	-24.17	-5.55
0.3	-4.08	-8.10	2.3	-23.76	0.46
0.4	-4.18	-9.40	2.4	-22.80	7.68
0.5	-4.49	-10.81	2.5	-21.17	16.21
0.6	-5.04	-12.32	2.6	-18.80	26.18
0.7	-5.79	-13.87	2.7	-15.59	37.69
0.8	-6.75	-15.43	2.8	-11.46	50.88
0.9	-7.90	-16.96	2.9	-6.29	65.87
1.0	-9.20	-18.40	3.0	0.00	82.80
1.1	-10.64	-19.70	3.1	7.54	101.80
1.2	-12.19	-20.81	3.2	16.43	113.01
1.3	-13.82	-21.76	3.3	26.80	146.58
1.4	-15.48	-22.18	3.4	38.76	172.64
1.5	-17.14	-22.32	3.5	52.44	201.36
1.6	-18.75	-21.99	3.6	67.95	232.89
1.7	-20.25	-21.11	3.7	85.46	267.40
1.8	-21.59	-19.61	3.8	105.07	304.05
1.9	-22.73	-17.39	3.9	126.95	345.99
2.0	-23.58	-14.38	4.0	151.22	390.42

TABLE A III 2.12

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 070

N = 880

 $\Delta T = 0.2$ secMean = 11.78 cm $\sigma = 2.69$ cm

Skewness = 0.027

Kurtosis = 0.045

Wind Speed at 1.25m :

mean 5.61 m/s

 $\sigma = 0.98$ m/s

Wind Direction at 1.83m :

mean 312 °T

 $\sigma = 9$ °T

Estimated Fetch

3000 m

Air Temperature at 2.25m

9.78 C

Air Temperature at 0.50m

9.52 C

Water Temperature

12.45 C

$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)	$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)
0.0	-1.13	-1.13			
0.1	-0.84	-1.42	2.1	-6.41	-1.09
0.2	-0.68	-1.74	2.2	-6.87	0.41
0.3	-0.53	-2.11	2.3	-7.27	2.21
0.4	-0.46	-2.50	2.4	-7.60	4.32
0.5	-0.42	-2.90	2.5	-7.85	6.77
0.6	-0.46	-3.32	2.6	-8.00	9.60
0.7	-0.56	-3.72	2.7	-8.02	12.82
0.8	-0.71	-4.11	2.8	-7.92	16.48
0.9	-0.93	-4.47	2.9	-7.64	20.60
1.0	-1.20	-4.80	3.0	-7.20	25.20
1.1	-1.53	-5.07	3.1	-6.56	30.32
1.2	-1.91	-5.27	3.2	-5.69	36.01
1.3	-2.33	-5.39	3.3	-4.59	42.27
1.4	-2.78	-5.40	3.4	-3.21	49.17
1.5	-3.28	-5.30	3.5	-1.55	56.73
1.6	-3.80	-5.06	3.6	0.43	64.97
1.7	-4.33	-4.67	3.7	2.75	73.95
1.8	-4.87	-4.09	3.8	5.46	83.70
1.9	-5.40	-3.32	3.9	8.55	94.27
2.0	-5.93	-2.33	4.0	12.07	105.67

TABLE A III 2.13

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 075

N = 750

 $\Delta T = 0.2$ secMean = 9.37 cm $\sigma = 3.11$ cm

Skewness = 0.101

Kurtosis = 0.043

Wind Speed at 1.25m:

mean 6.75 m/s

 $\sigma = 1.09$ m/s

Wind Direction at 1.83m:

mean 325 °T

 $\sigma = 8$ °T

Estimated Fetch

3000 m

Air Temperature at 2.25m

992 C

Air Temperature at 0.50m

986 C

Water Temperature

12.52 C

$\downarrow$ (σ)	Correction For $-\downarrow$ (%)	Correction For $+\uparrow$ (%)	$\downarrow$ (σ)	Correction For $-\downarrow$ (%)	Correction For $+\uparrow$ (%)
0.0	-1.08	-1.08			
0.1	-0.09	-2.11	2.1	-13.56	6.38
0.2	0.83	-3.15	2.2	-16.72	10.54
0.3	1.67	-4.21	2.3	-20.15	15.31
0.4	2.41	-5.23	2.4	-23.87	20.73
0.5	3.04	-6.22	2.5	-28.09	25.97
0.6	3.53	-7.13	2.6	-32.14	33.68
0.7	3.88	-7.96	2.7	-36.71	41.29
0.8	4.06	-8.66	2.8	-41.53	49.71
0.9	4.06	-9.22	2.9	-46.63	59.01
1.0	3.86	-9.60	3.0	-52.00	69.20
1.1	3.48	-9.78	3.1	-57.63	80.35
1.2	2.87	-9.73	3.2	-63.52	92.48
1.3	2.04	-9.42	3.3	-69.65	101.67
1.4	0.99	-8.81	3.4	-76.02	119.94
1.5	-0.31	-7.89	3.5	-82.64	135.36
1.6	-1.86	-6.60	3.6	-89.47	151.97
1.7	-3.67	-4.93	3.7	-96.51	169.81
1.8	5.73	-2.83	3.8	-103.76	188.96
1.9	8.07	-0.27	3.9	-111.20	209.44
2.0	10.67	2.79	4.0	-118.81	231.33

TABLE A III 2.14

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 076

N = 850

 $\Delta T = 0.2 \text{ sec}$ Mean = 9.82 cm $\sigma = 2.72 \text{ cm}$

Skewness = 0.092

Kurtosis = -0.031

Wind Speed at 1.25m :

mean 6.75 m/s

 σ

1.09 m/s

Wind Direction at 1.83m :

mean 325 °T

 σ

8 °T

Estimated Fetch

3000 m

Air Temperature at 2.25m

9.92 C

Air Temperature at 0.50m

9.86 C

Water Temperature

12.52 C

$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)	$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)
0.0	0.78	0.78			
0.1	1.70	-0.12	2.1	-6.49	11.67
0.2	2.64	-0.98	2.2	-10.08	14.64
0.3	3.59	-1.77	2.3	-14.40	17.90
0.4	4.50	-2.46	2.4	-19.18	21.44
0.5	6.37	-3.07	2.5	-24.55	25.29
0.6	6.16	-3.56	2.6	-30.53	29.43
0.7	6.86	-3.92	2.7	-37.27	33.87
0.8	7.45	-4.13	2.8	-44.51	38.61
0.9	7.90	-4.18	2.9	-52.57	43.65
1.0	8.20	-4.06	3.0	-61.40	49.00
1.1	8.31	-3.77	3.1	-71.03	54.65
1.2	8.21	-3.27	3.2	-81.49	60.61
1.3	7.88	-2.56	3.3	-91.83	66.87
1.4	7.28	-1.64	3.4	-105.08	73.42
1.5	6.40	-0.50	3.5	-118.28	80.28
1.6	5.21	0.89	3.6	-132.49	87.43
1.7	3.67	2.53	3.7	-147.72	94.88
1.8	1.77	4.41	3.8	-164.01	102.60
1.9	-0.55	6.55	3.9	-181.44	110.62
2.0	-3.29	8.97	4.0	-200.03	118.91

TABLE A III 2.15
GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 081

N = 750

 $\Delta T = 0.2 \text{ sec}$ Mean = 11.75 cm $\sigma = 1.86 \text{ cm}$

Skewness = 0.029

Kurtosis = -0.065

Wind Speed at 1.25m:

mean 6.78 m/s

 $\sigma = 1.17 \text{ m/s}$

Wind Direction at 1.83m:

mean 326 °T

 $\sigma = 8 \text{ °T}$

Estimated Fetch

3000 m

Air Temperature at 2.25m

10.42 C

Air Temperature at 0.50m

10.46 C

Water Temperature

12.69 C

$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)	$\uparrow$ (σ)	Correction For - $\uparrow$ (%)	Correction For + $\uparrow$ (%)
0.0	1.63	1.63			
0.1	1.95	1.37	2.1	2.56	8.28
0.2	2.32	1.18	2.2	0.76	8.68
0.3	2.75	1.07	2.3	-1.43	8.75
0.4	3.23	1.03	2.4	-4.03	8.77
0.5	3.73	1.07	2.5	-7.07	8.63
0.6	4.25	1.19	2.6	-10.61	8.29
0.7	4.79	1.39	2.7	-14.67	7.73
0.8	5.30	1.66	2.8	-19.29	6.91
0.9	5.80	1.99	2.9	-24.52	5.82
1.0	6.26	2.40	3.0	-30.40	4.40
1.1	6.66	2.86	3.1	-36.98	2.64
1.2	6.99	3.37	3.2	-44.29	0.51
1.3	7.22	3.92	3.3	-52.39	-2.05
1.4	7.32	4.50	3.4	-61.32	-5.06
1.5	7.29	5.11	3.5	-71.15	-8.55
1.6	7.08	5.72	3.6	-81.89	-12.57
1.7	6.67	6.31	3.7	-93.63	-17.17
1.8	6.05	6.89	3.8	-106.41	-22.37
1.9	5.18	7.42	3.9	-120.28	-28.22
2.0	4.03	7.89	4.0	-135.29	-34.77

TABLE A III 2.16

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 082

N = 888

 $\Delta T = 0.2$ secMean = 11.90 cm $\sigma = 1.91$ cm

Skewness = 0.034

Kurtosis = -0.116

Wind Speed at 1.25m:

mean 6.78 m/s

 $\sigma = 1.17$ m/s

Wind Direction at 1.83m:

mean 326 °T

 $\sigma = 8$ °T

Estimated Fetch

3000 m

Air Temperature at 2.25m

10.42 °C

Air Temperature at 0.50m

10.46 °C

Water Temperature

12.69 °C

$\dagger$ (σ)	Correction For $-\dagger$ (%)	Correction For $+\dagger$ (%)	$\dagger$ (σ)	Correction For $-\dagger$ (%)	Correction For $+\dagger$ (%)
0.0	2.90	2.90			
0.1	3.29	2.61	2.1	6.32	13.04
0.2	3.80	2.46	2.2	3.74	12.92
0.3	4.40	2.42	2.3	0.56	12.50
0.4	5.09	2.51	2.4	-3.27	11.75
0.5	5.85	2.73	2.5	-8.82	10.60
0.6	6.66	3.06	2.6	-13.15	9.01
0.7	7.50	3.52	2.7	-19.32	6.94
0.8	8.36	4.08	2.8	-26.40	4.32
0.9	9.19	4.73	2.9	-34.47	1.09
1.0	10.00	5.46	3.0	-43.60	-2.80
1.1	10.73	6.27	3.1	-53.86	-7.42
1.2	11.37	7.13	3.2	-65.33	-12.81
1.3	11.87	8.01	3.3	-78.09	-19.07
1.4	12.20	8.90	3.4	-92.21	-26.25
1.5	12.34	9.78	3.5	-107.80	-34.42
1.6	12.21	10.61	3.6	-124.93	-43.65
1.7	11.80	11.38	3.7	-143.70	-54.04
1.8	11.05	12.03	3.8	-164.18	-65.64
1.9	9.93	12.55	3.9	-186.48	-78.54
2.0	8.36	12.90	4.0	-210.70	-92.84

TABLE A III 2.17

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 083

N = 750 $\Delta T = 0.2$ sec Mean = 11.75 cm $\sigma = 2.75$ cm

Skewness = -0.002

Kurtosis = -0.101

Wind Speed at 1.25m :

mean 7.77 m/s $\sigma = 1.16$ m/s

Wind Direction at 1.83m :

mean 314 °T $\sigma = 12$ °T

Estimated Fetch

2700 m

Air Temperature at 2.25m

10.76 C

Air Temperature at 0.50m

10.61 C

Water Temperature

12.72 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	2.53	2.53			
0.1	2.55	2.59	2.1	8.63	8.23
0.2	2.69	2.77	2.2	7.52	6.98
0.3	2.91	3.03	2.3	6.04	5.34
0.4	3.23	3.39	2.4	4.13	3.25
0.5	3.64	3.82	2.5	1.75	0.67
0.6	4.12	4.34	2.6	-1.15	-2.45
0.7	4.68	4.92	2.7	-4.62	-6.16
0.8	5.28	5.54	2.8	-8.72	-10.52
0.9	5.93	6.19	2.9	-13.48	-15.58
1.0	6.60	6.86	3.0	-19.00	-21.40
1.1	7.27	7.53	3.1	-25.30	-28.04
1.2	7.93	8.17	3.2	-32.48	-35.56
1.3	8.55	8.77	3.3	-40.56	-44.04
1.4	9.09	9.29	3.4	-49.63	-53.51
1.5	9.55	9.71	3.5	-59.76	-64.08
1.6	9.89	9.99	3.6	-71.00	-75.78
1.7	10.08	10.10	3.7	-83.44	-88.72
1.8	10.08	10.02	3.8	-97.15	-102.95
1.9	9.87	9.71	3.9	-112.21	-118.55
2.0	9.39	9.13	4.0	-128.67	-135.61

TABLE A III 2.18

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 084

N = 566

 $\Delta T = 0.2$ secMean = 12.18 cm $\sigma = 2.58$ cm

Skewness = 0.044

Kurtosis = 0.024

Wind Speed at 1.25m'

mean 7.77 m/s

 $\sigma = 1.16$ m/s

Wind Direction at 1.83m'

mean 314 °T

 $\sigma = 12$ °T

Estimated Fetch

2700 m

Air Temperature at 2.25m

10.76 °C

Air Temperature at 0.50m

10.61 °C

Water Temperature

12.72 °C

t (σ)	Correction For - (%)	Correction For + t (%)	t (σ)	Correction For - t (%)	Correction For + t (%)
0.0	-0.60	-0.60			
0.1	-0.17	-1.05	2.1	-6.34	2.34
0.2	0.22	-1.52	2.2	-7.66	4.22
0.3	0.57	-1.99	2.3	-8.08	6.38
0.4	0.88	-2.46	2.4	-10.60	8.84
0.5	1.13	-2.91	2.5	-12.11	11.63
0.6	1.31	-3.33	2.6	-13.89	14.77
0.7	1.44	-3.72	2.7	-15.71	18.27
0.8	1.48	-4.06	2.8	-17.59	22.17
0.9	1.45	-4.33	2.9	-19.56	26.46
1.0	1.33	-4.53	3.0	-21.60	31.20
1.1	1.13	-4.65	3.1	-23.71	36.39
1.2	0.84	-4.66	3.2	-25.90	42.06
1.3	0.44	-4.56	3.3	-28.14	48.24
1.4	-0.04	-4.32	3.4	-30.44	54.94
1.5	-0.64	-3.94	3.5	-32.77	62.19
1.6	-1.33	-3.39	3.6	-35.15	70.03
1.7	-2.13	-2.67	3.7	-37.55	78.47
1.8	-3.02	-1.76	3.8	-39.99	87.53
1.9	-4.03	-0.63	3.9	-42.42	97.26
2.0	-5.13	0.73	4.0	-44.87	107.67

TABLE A III 2.19

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 085

N = 750 $\Delta T = 0.2$ sec Mean = 10.42 cm $\sigma = 2.81$ cm

Skewness = -0.005

Kurtosis = -0.224

Wind Speed at 1.25m

mean 7.87 m/s

 σ 1.31 m/s

Wind Direction at 1.83m

mean 308 °T

 σ 9 °T

Estimated Fetch

2800 m

Air Temperature at 2.25m

10.53 C

Air Temperature at 0.50m

8.99 C

Water Temperature

12.70 C

$\uparrow$ (σ)	Correction For - (%)	Correction For + $\uparrow$ (%)	$\uparrow$ (σ)	Correction For - (%)	Correction For + $\uparrow$ (%)
0.0	5.60	5.60			
0.1	5.66	5.76	2.1	19.18	18.20
0.2	5.95	6.15	2.2	16.75	15.41
0.3	6.44	6.74	2.3	13.49	11.73
0.4	7.15	7.53	2.4	9.28	7.08
0.5	8.05	8.51	2.5	4.03	1.33
0.6	9.13	9.65	2.6	-2.36	-5.62
0.7	10.35	10.93	2.7	-10.02	-13.88
0.8	11.69	12.31	2.8	-19.07	-23.59
0.9	13.12	13.78	2.9	-29.62	-34.84
1.0	14.60	15.26	3.0	-41.80	-47.80
1.1	16.09	16.75	3.1	-55.74	-62.58
1.2	17.55	18.17	3.2	-71.59	-79.31
1.3	18.92	19.48	3.3	-89.46	-98.14
1.4	20.14	20.62	3.4	-109.53	-119.23
1.5	21.16	21.54	3.5	-131.92	-142.72
1.6	21.92	22.16	3.6	-156.80	-168.76
1.7	22.35	22.41	3.7	-184.33	-197.51
1.8	22.36	22.22	3.8	-214.65	-229.15
1.9	21.90	21.52	3.9	-247.95	-263.83
2.0	20.86	20.20	4.0	-284.40	-301.74

TABLE A III 2.20

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 086

N = 870 $\Delta T = 0.2$ sec Mean = 10.34 cm $\sigma = 2.78$ cm

Skewness = 0.011

Kurtosis = -0.078

Wind Speed at 1.25m:

mean 7.87 m/s

 $\sigma = 1.31$ m/s

Wind Direction at 1.83m:

mean 308 °T

 $\sigma = 9$ °T

Estimated Fetch

2800 m

Air Temperature at 2.25m

10.53 C

Air Temperature at 0.50m

8.99 C

Water Temperature

12.70 C

$\downarrow$ (σ)	Correction For - $\downarrow$ (%)	Correction For + $\uparrow$ (%)	$\downarrow$ (σ)	Correction For - $\downarrow$ (%)	Correction For + $\uparrow$ (%)
0.0	1.95	1.95			
0.1	2.10	1.88	2.1	5.42	7.60
0.2	2.33	1.89	2.2	4.12	7.08
0.3	2.62	1.98	2.3	2.46	6.32
0.4	2.98	2.14	2.4	0.42	5.28
0.5	3.38	2.38	2.5	-2.05	3.91
0.6	3.85	2.69	2.6	-4.97	2.19
0.7	4.35	3.07	2.7	-8.41	0.09
0.8	4.87	3.49	2.8	-12.40	-2.46
0.9	5.40	3.96	2.9	-16.97	-5.47
1.0	5.93	4.47	3.0	-22.20	-9.00
1.1	6.44	5.00	3.1	-28.11	-13.09
1.2	6.91	5.53	3.2	-34.76	-17.78
1.3	7.30	6.06	3.3	-42.21	-23.11
1.4	7.63	6.57	3.4	-50.50	-29.16
1.5	7.84	7.02	3.5	-59.69	-35.95
1.6	7.93	7.41	3.6	-69.83	-37.53
1.7	7.86	7.72	3.7	-80.98	-51.98
1.8	7.60	7.92	3.8	-93.21	-61.33
1.9	7.14	7.98	3.9	-106.56	-71.64
2.0	6.42	7.88	4.0	-121.12	-82.98

TABLE A III 2.21

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 087

N = 750

 $\Delta T = 0.2$ sec

Mean = 10.36 cm

 $\sigma = 1.86$ cm

Skewness = 0.005

Kurtosis = 0.165

Wind Speed at 1.25m

mean 7.21 m/s

 $\sigma = 1.45$ m/s

Wind Direction at 1.83m

mean 302 °T

 $\sigma = 8$ °T

Estimated Fetch

2300 m

Air Temperature at 2.25m

10.89 C

Air Temperature at 0.50m

10.56 C

Water Temperature

12.79 C

$\uparrow$ (σ)	Correction For - (%)	Correction For + (%)	$\uparrow$ (σ)	Correction For - (%)	Correction For + (%)
0.0	-4.13	-4.13			
0.1	-4.15	-4.25	2.1	-14.26	-13.28
0.2	-4.35	-4.55	2.2	-12.52	-11.18
0.3	-4.71	-5.01	2.3	-10.17	-8.38
0.4	-5.22	-5.60	2.4	-7.13	-4.93
0.5	-5.87	-6.33	2.5	-3.33	-0.63
0.6	-6.66	-7.18	2.6	1.31	4.57
0.7	-7.55	-8.11	2.7	6.88	10.74
0.8	-8.53	-9.15	2.8	13.45	17.97
0.9	-9.57	-10.23	2.9	21.13	26.35
1.0	-10.67	-11.33	3.0	30.00	36.00
1.1	-11.76	-12.42	3.1	40.16	47.00
1.2	-12.84	-13.46	3.2	51.71	59.43
1.3	-13.86	-14.42	3.3	64.76	73.44
1.4	-14.77	-15.25	3.4	79.40	89.10
1.5	-15.54	-15.92	3.5	95.75	106.55
1.6	-16.11	-16.35	3.6	113.92	125.88
1.7	-16.45	-16.51	3.7	136.04	147.22
1.8	-16.49	-16.35	3.8	156.20	170.70
1.9	-16.18	-15.80	3.9	180.55	196.43
2.0	-15.46	-14.80	4.0	207.20	224.54

TABLE A III 2.22

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 088

N = 870

 $\Delta T = 0.2$ secMean = 10.17 cm $\sigma = 2.01$ cm

Skewness = -0.046

Kurtosis = 0.150

Wind Speed at 1.25m :

mean 7.21 m/s

 $\sigma = 1.45$ m/s

Wind Direction at 1.83m :

mean 302 °T

 $\sigma = 8$ °T

Estimated Fetch

2300 m

Air Temperature at 2.25m

10.89 C

Air Temperature at 0.50m

10.56 C

Water Temperature

12.79 C

$\downarrow$ (σ)	Correction For $-\downarrow$ (%)	Correction For $+\downarrow$ (%)	$\downarrow$ (σ)	Correction For $-\downarrow$ (%)	Correction For $+\downarrow$ (%)
0.0	-3.75	-3.75			
0.1	-4.28	-3.36	2.1	-7.97	-17.05
0.2	-4.96	-3.14	2.2	-4.56	-16.98
0.3	-5.75	-3.07	2.3	-0.37	-16.53
0.4	-6.66	-3.18	2.4	4.68	-15.64
0.5	-7.66	-3.44	2.5	10.66	-14.26
0.6	-8.72	-3.86	2.6	17.66	-12.32
0.7	-9.82	-4.44	2.7	25.77	-9.75
0.8	-10.93	-5.15	2.8	35.06	-6.50
0.9	-12.02	-5.98	2.9	45.65	-2.47
1.0	-13.07	-6.93	3.0	57.60	2.40
1.1	-14.02	-7.98	3.1	71.04	8.20
1.2	-14.83	-9.09	3.2	86.04	15.00
1.3	-15.47	-10.25	3.3	102.74	22.90
1.4	-15.88	-11.42	3.4	121.22	31.96
1.5	-16.03	-12.57	3.5	141.09	42.31
1.6	-15.88	-13.68	3.6	163.98	54.02
1.7	-15.28	-14.70	3.7	188.50	67.20
1.8	-14.27	-15.59	3.8	215.25	81.93
1.9	-12.76	-16.32	3.9	244.38	98.34
2.0	-10.68	-16.82	4.0	275.98	116.52

TABLE A III 2.23

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 093

N = 750

 $\Delta T = 0.2 \text{ sec}$

Mean = 10.55 cm

 $\sigma = 3.06 \text{ cm}$

Skewness = 0.144

Kurtosis = 0.216

Wind Speed at 1.25m

mean 8.20 m/s

 $\sigma = 1.00 \text{ m/s}$

Wind Direction at 1.83m

mean 305 °T

 $\sigma = 6 \text{ °T}$

Estimated Fetch

2500 m

Air Temperature at 2.25m

12.02 C

Air Temperature at 0.50m

11.86 C

Water Temperature

12.87 C

$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)	$\dagger$ (σ)	Correction For - $\dagger$ (%)	Correction For + $\dagger$ (%)
0.0	-5.40	-5.40			
0.1	-4.06	-6.94	2.1	-32.23	-3.81
0.2	-2.99	-8.67	2.2	-34.94	3.92
0.3	-2.17	-10.55	2.3	-37.44	13.12
0.4	-1.53	-12.53	2.4	-39.69	23.91
0.5	-1.39	-14.59	2.5	-41.59	36.41
0.6	-1.45	-16.65	2.6	-43.08	50.78
0.7	-1.83	-18.69	2.7	-44.07	67.13
0.8	-2.52	-20.64	2.8	-44.48	85.62
0.9	-3.51	-22.43	2.9	-44.23	106.39
1.0	-4.80	-24.00	3.0	-43.20	129.60
1.1	-6.38	-25.28	3.1	-41.31	155.41
1.2	-8.23	-26.21	3.2	-38.46	183.96
1.3	-10.34	-26.68	3.3	-34.53	215.43
1.4	-12.66	-26.64	3.4	-29.41	249.99
1.5	-15.19	-25.99	3.5	-22.99	287.81
1.6	-17.87	-24.63	3.6	-15.15	329.07
1.7	-20.68	-22.48	3.7	-5.75	373.95
1.8	-23.57	-19.43	3.8	5.30	422.64
1.9	-26.49	-15.37	3.9	18.18	475.32
2.0	-29.40	-10.20	4.0	33.00	532.20

TABLE A III 2.24

GRAM-CHARLIER SKEWNESS AND
KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 094

N = 860

 $\Delta T = 0.2$ secMean = 10.13 cm $\sigma = 3.36$ cm

Skewness = 0.136

Kurtosis = 0.046

Wind Speed at 1.25m

mean 8.20 m/s

 $\sigma = 1.00$ m/s

Wind Direction at 1.83m

mean 305 °T

 $\sigma = 6$ °T

Estimated Fetch

2500 m

Air Temperature at 2.25m

12.02 C

Air Temperature at 0.50m

11.86 C

Water Temperature

12.87 C

$\uparrow$ (σ)	Correction For $-\uparrow$ (%)	Correction For $+\uparrow$ (%)	$\uparrow$ (σ)	Correction For $-\uparrow$ (%)	Correction For $+\uparrow$ (%)
0.0	-1.15	-1.15			
0.1	0.19	-2.53	2.1	-17.26	9.58
0.2	1.44	-3.92	2.2	-21.65	15.05
0.3	2.61	-5.31	2.3	-26.47	21.29
0.4	3.64	-6.66	2.4	-31.71	28.35
0.5	4.53	-7.93	2.5	-37.38	36.28
0.6	5.25	-9.11	2.6	-43.50	45.14
0.7	5.78	-10.16	2.7	-50.05	54.97
0.8	6.09	-11.03	2.8	-57.06	65.82
0.9	6.18	-11.70	2.9	-64.50	77.74
1.0	6.00	-12.14	3.0	-72.40	90.80
1.1	5.56	-12.30	3.1	-80.74	105.04
1.2	4.82	-12.16	3.2	-89.54	120.52
1.3	3.78	-11.66	3.3	-98.77	137.29
1.4	2.41	-10.79	3.4	-108.45	155.43
1.5	0.72	-9.48	3.5	-118.57	174.97
1.6	-1.34	-7.72	3.6	-129.12	195.98
1.7	-3.75	-5.45	3.7	-140.10	218.52
1.8	-6.54	-2.62	3.8	-151.50	242.64
1.9	-9.71	0.79	3.9	-163.32	268.42
2.0	-13.29	4.85	4.0	-175.55	295.91

A IV - 1

Surface Waves at Short Fetches and Low Wind Speeds--a Field Study

APPENDIX IV SPECTRAL ANALYSIS OF THE WATER SURFACE

Autocovariance Functions of the Water Surface

Figures AIV 1.01 to AIV 1.24 on pages AIV-3 to AIV-26 show the autocovariance functions of the wave records. Tables AIV 1.01 to AIV 1.24 on pages AIV-27 to AIV-38 are the values from which the plots were made. An autocovariance function is an autocorrelation function computed with mean deviations rather than with raw data. Both figures and tables have been scaled to one at zero.

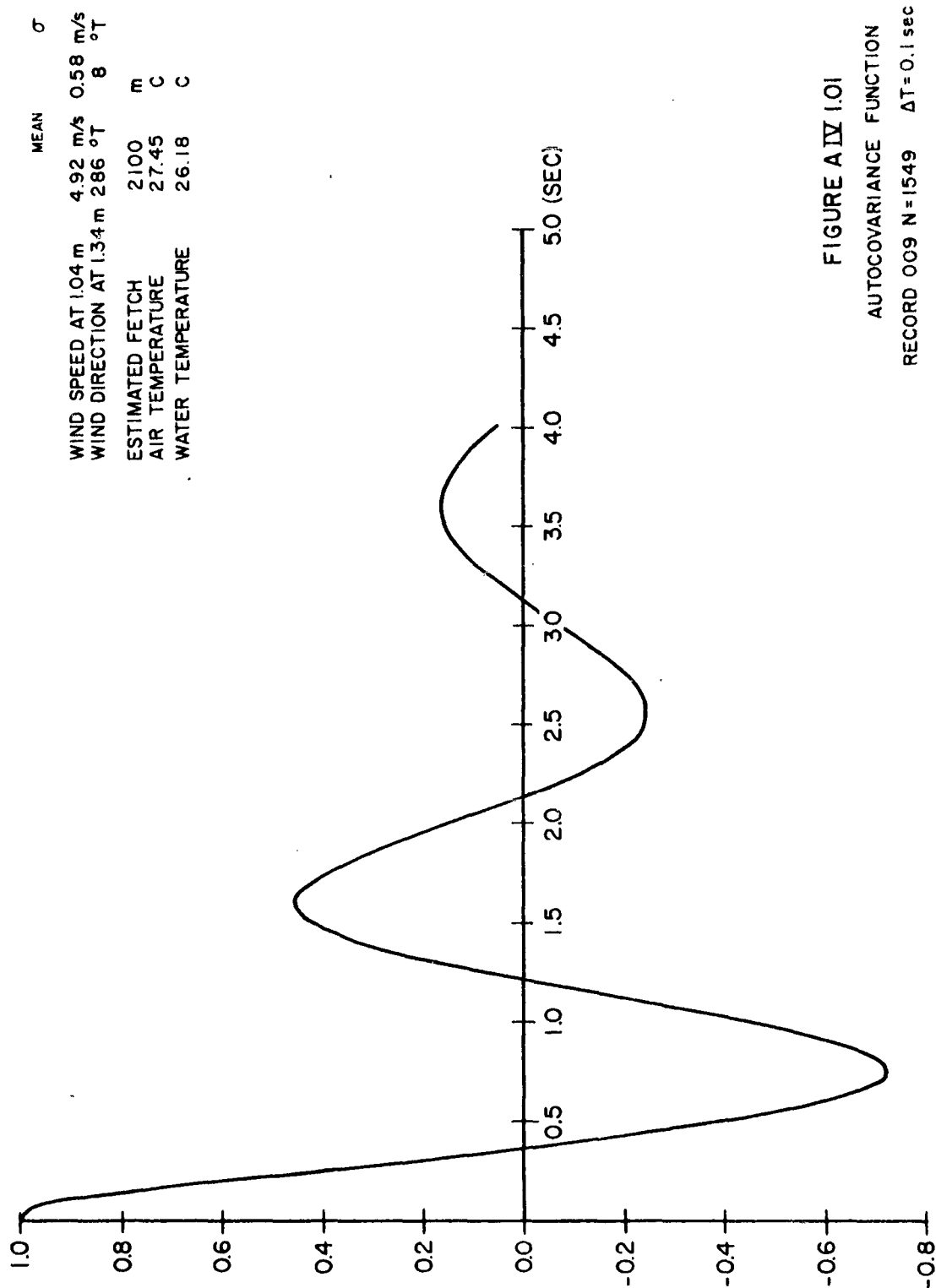


FIGURE AIV 1.01
AUTOCOVARANCE FUNCTION
RECORD 009 N=1549 $\Delta T=0.1$ sec

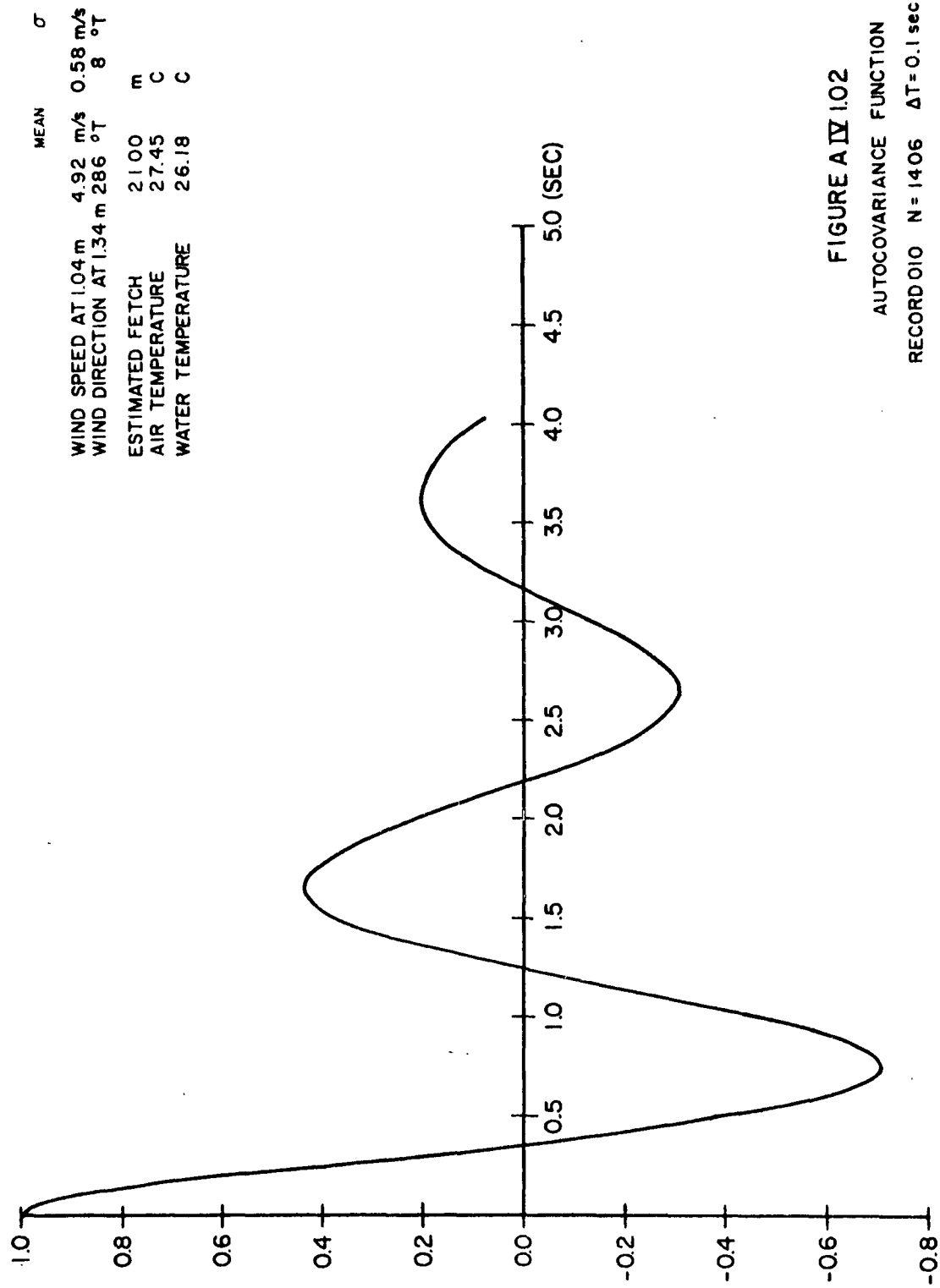


FIGURE A IV 1.02
 AUTOCOVARANCE FUNCTION
 RECORD 010 N = 1406 $\Delta T = 0.1$ sec

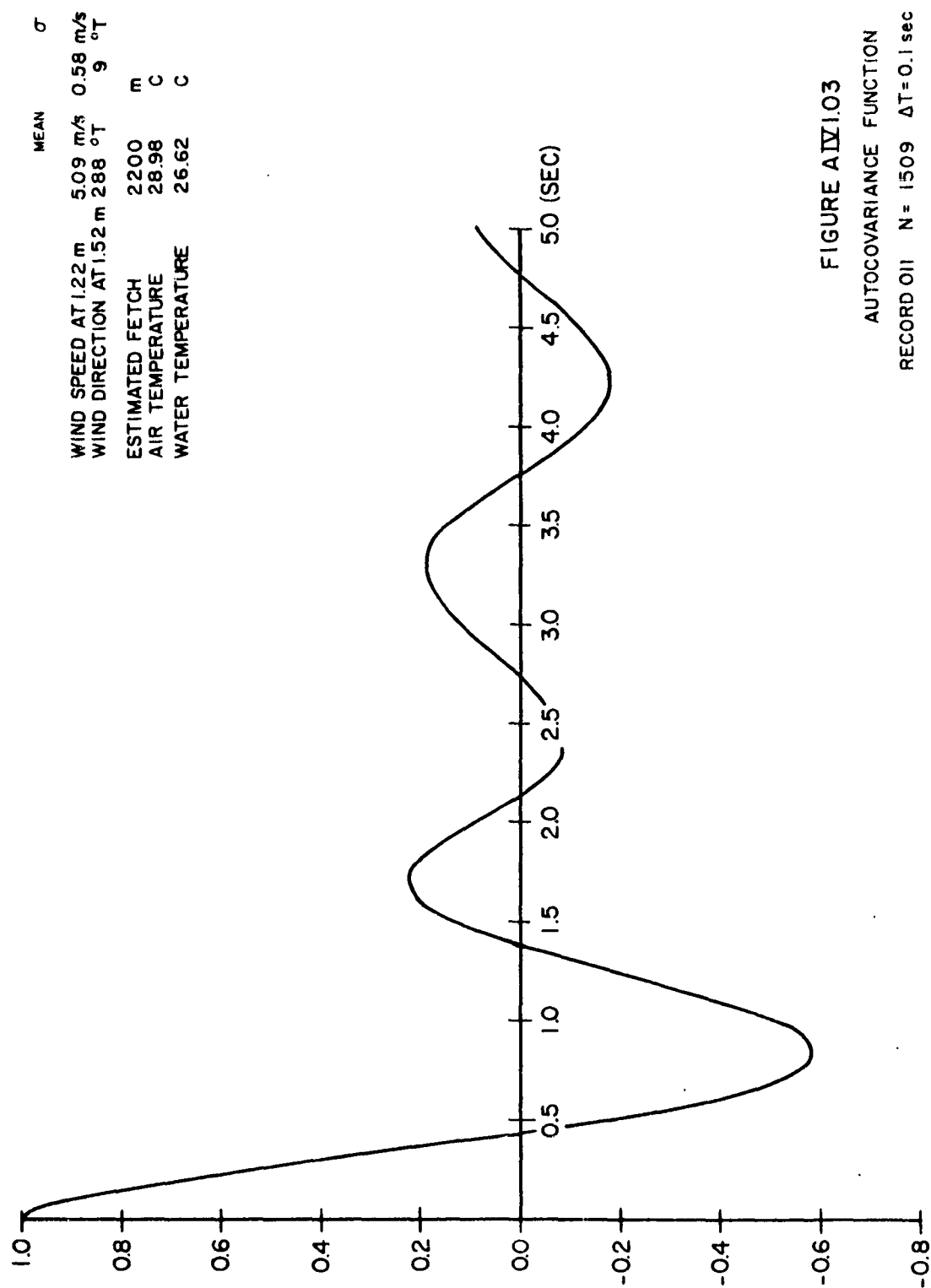


FIGURE AIV.103

AUTOCOVARANCE FUNCTION

RECORD 011 N = 1509 $\Delta T = 0.1$ sec

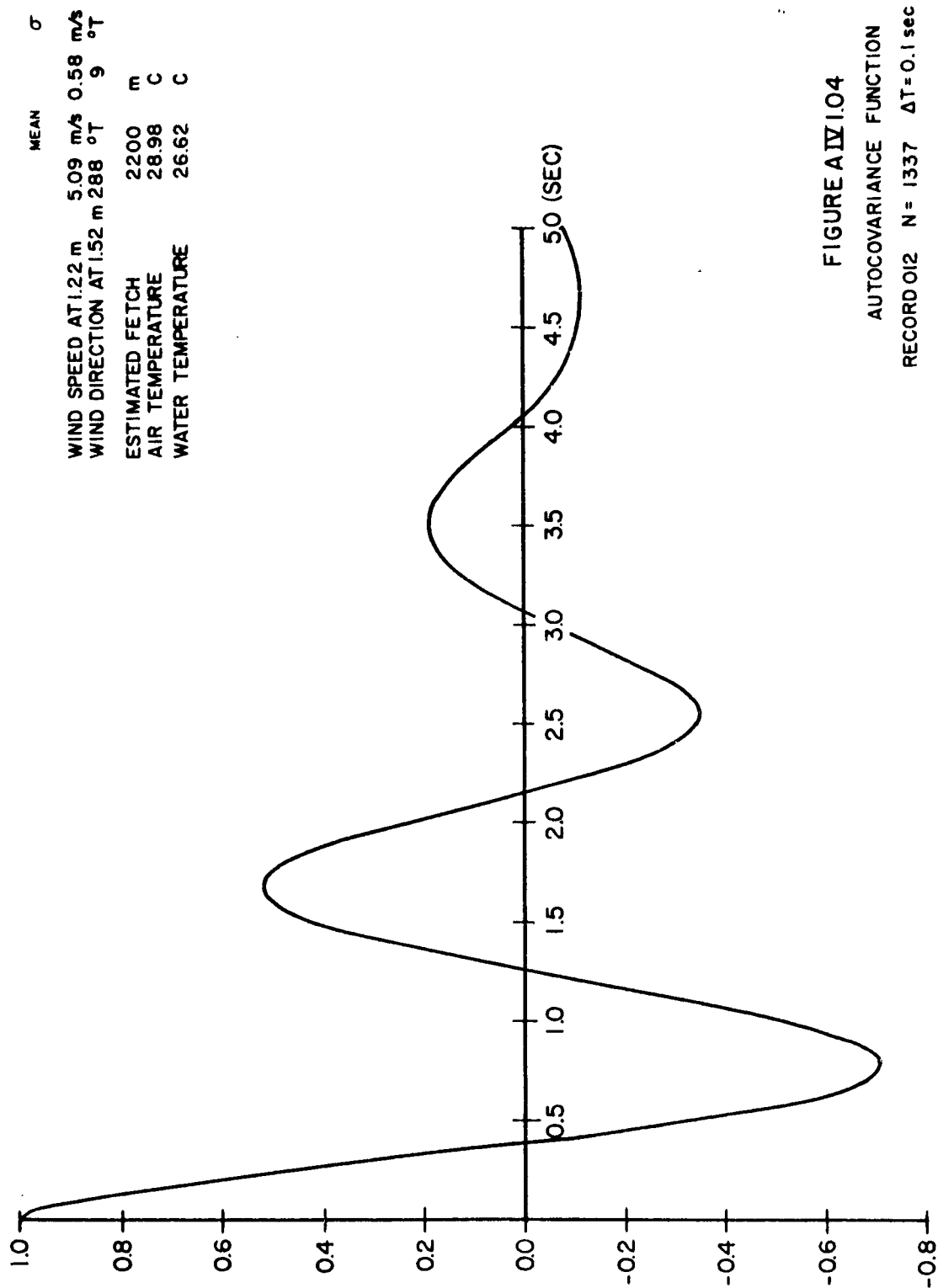


FIGURE A IV 1.04

AUTOCOVARANCE FUNCTION

RECORD 012 N = 1337 $\Delta T = 0.1 \text{ sec}$

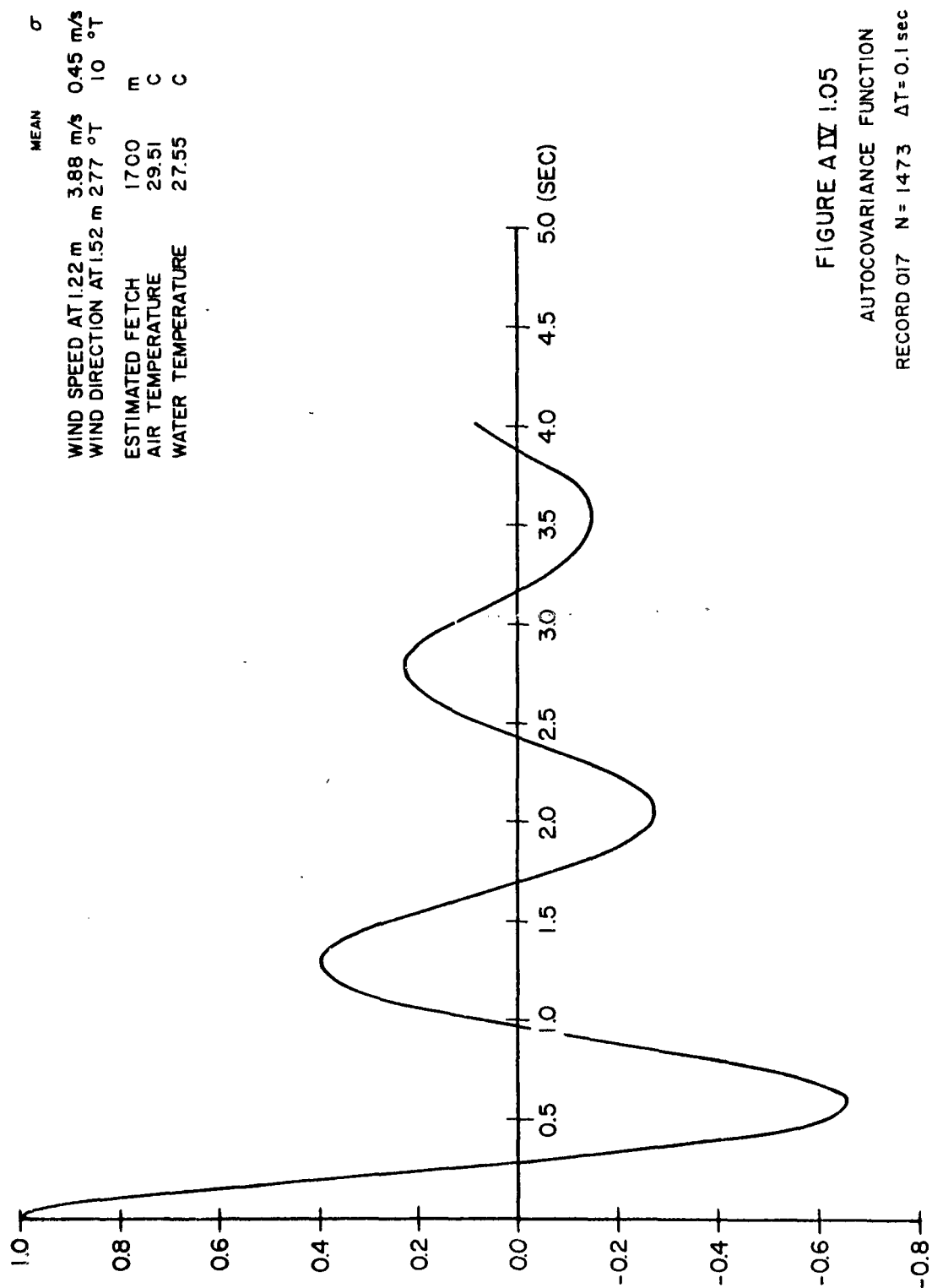


FIGURE A IV 1.05

AUTOCOVARANCE FUNCTION

RECORD 017 N = 1473 $\Delta T = 0.1$ sec

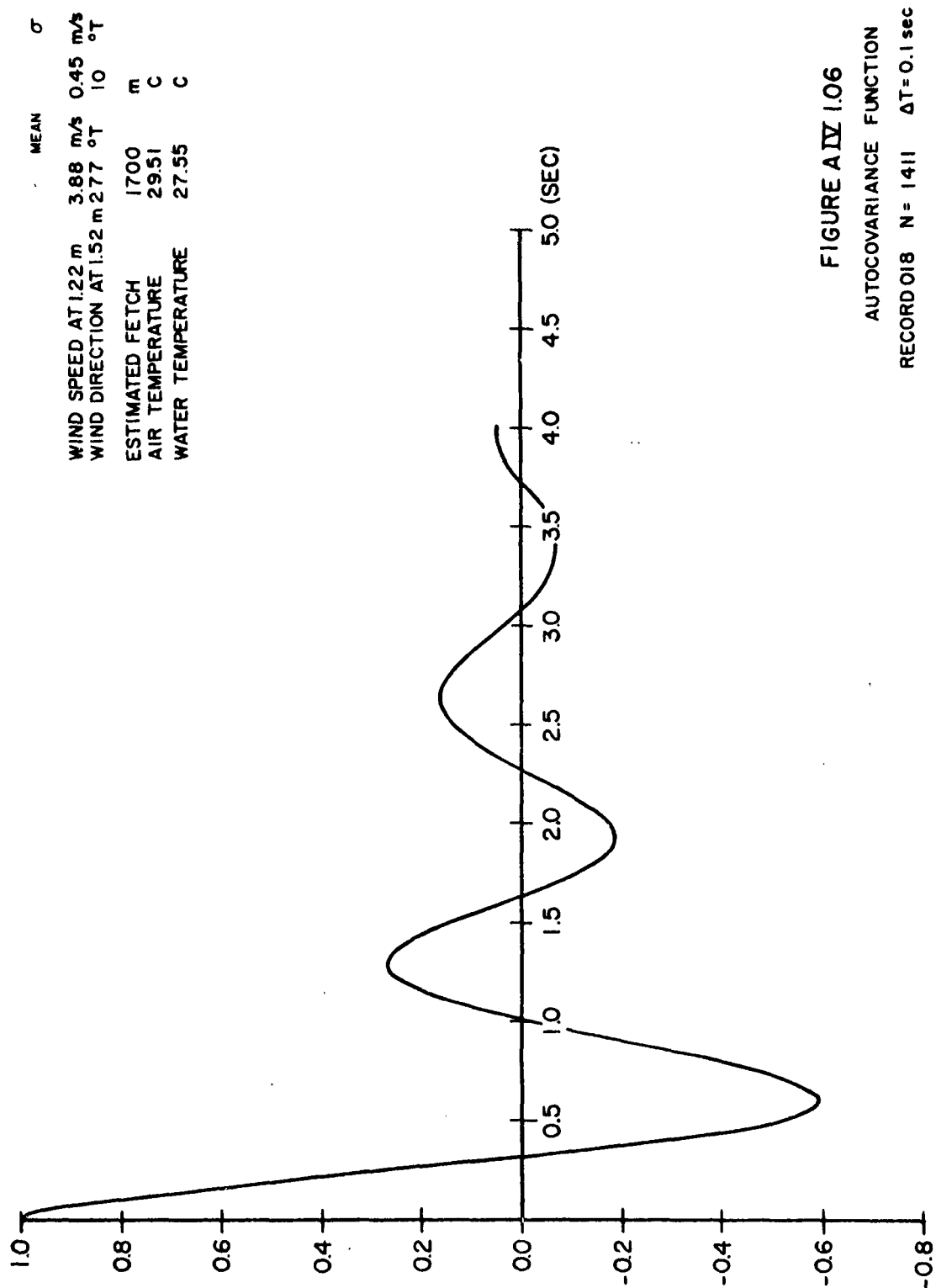


FIGURE A IV 1.06
 AUTOCOVARIANCE FUNCTION
 RECORD 018 N = 1411 $\Delta T = 0.1 \text{ sec}$

	MEAN	σ
WIND SPEED AT 1.35 m	4.64 m/s	0.56 m/s
WIND DIRECTION AT 165 m	314 $^{\circ}$ T	7 $^{\circ}$ T
ESTIMATED FETCH	2300	m
AIR TEMPERATURE	24.64	C
WATER TEMPERATURE	26.38	C

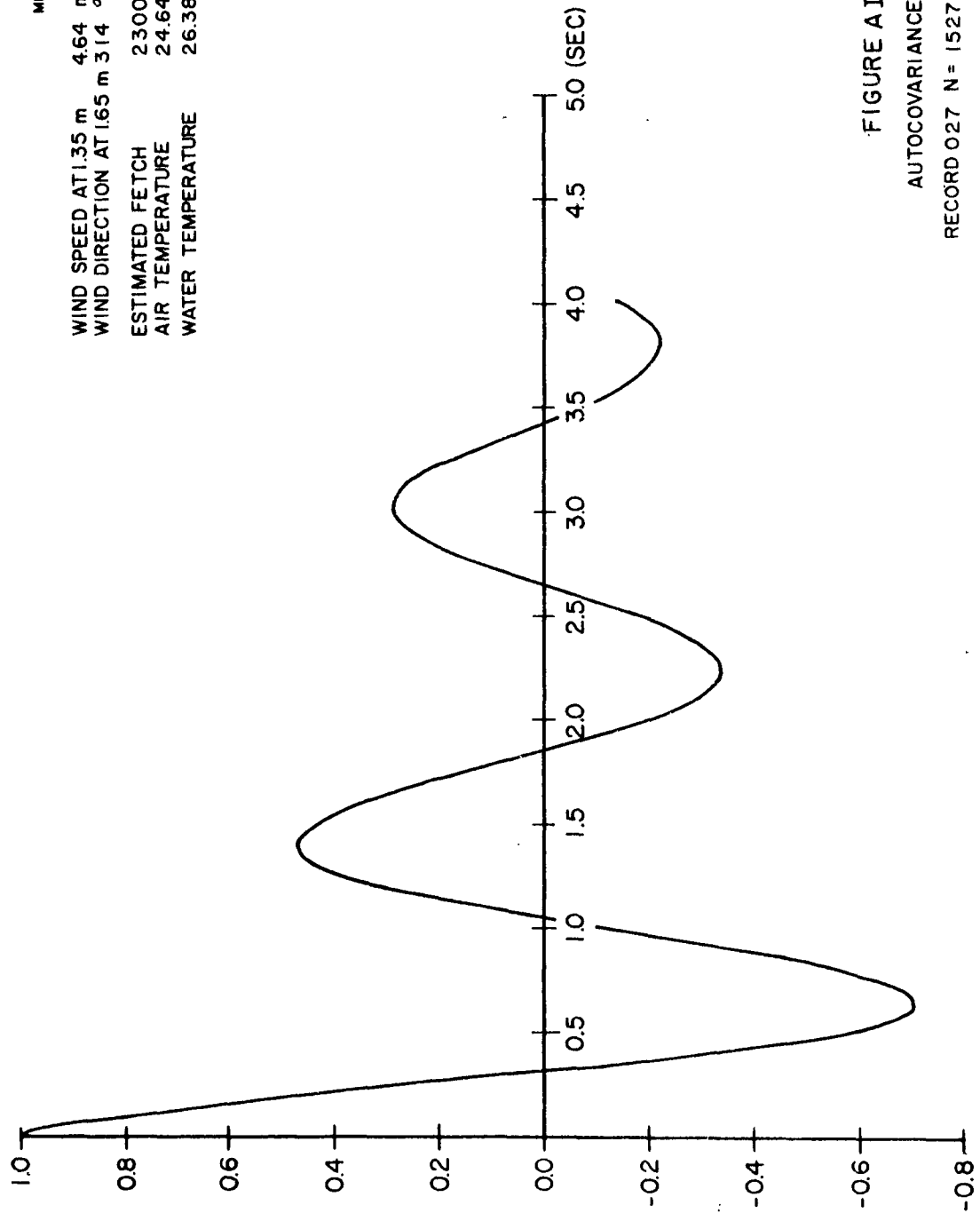
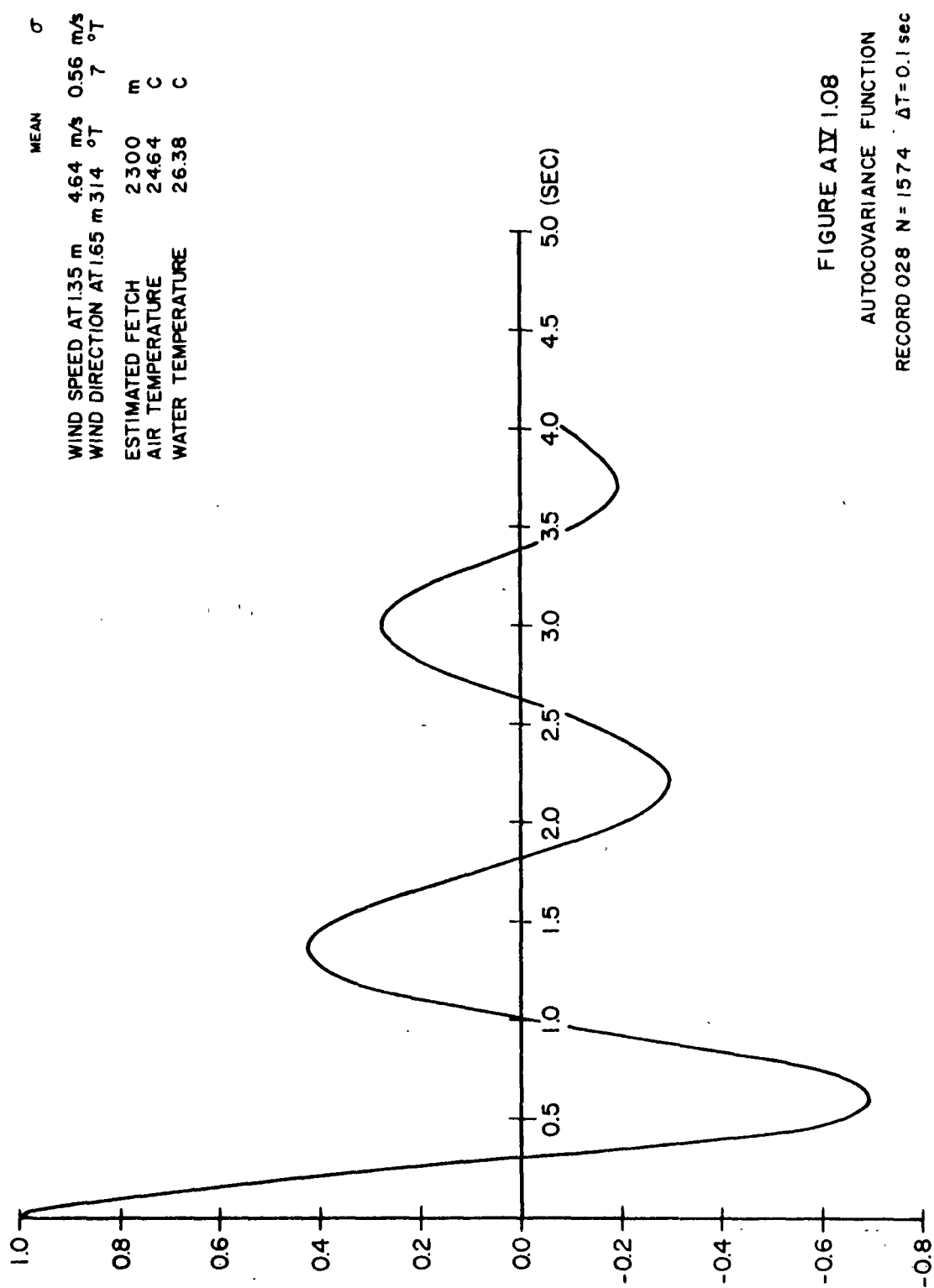


FIGURE A IV 1.07
AUTOCOVARANCE FUNCTION
RECORD 027 N= 1527 $\Delta T=0.1$ sec



	MEAN	σ
WIND SPEED AT 1.25m	6.18 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	307 °T	7 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	9.25 °C	
AIR TEMPERATURE AT 0.50m	9.88 °C	
WATER TEMPERATURE	12.46 °C	

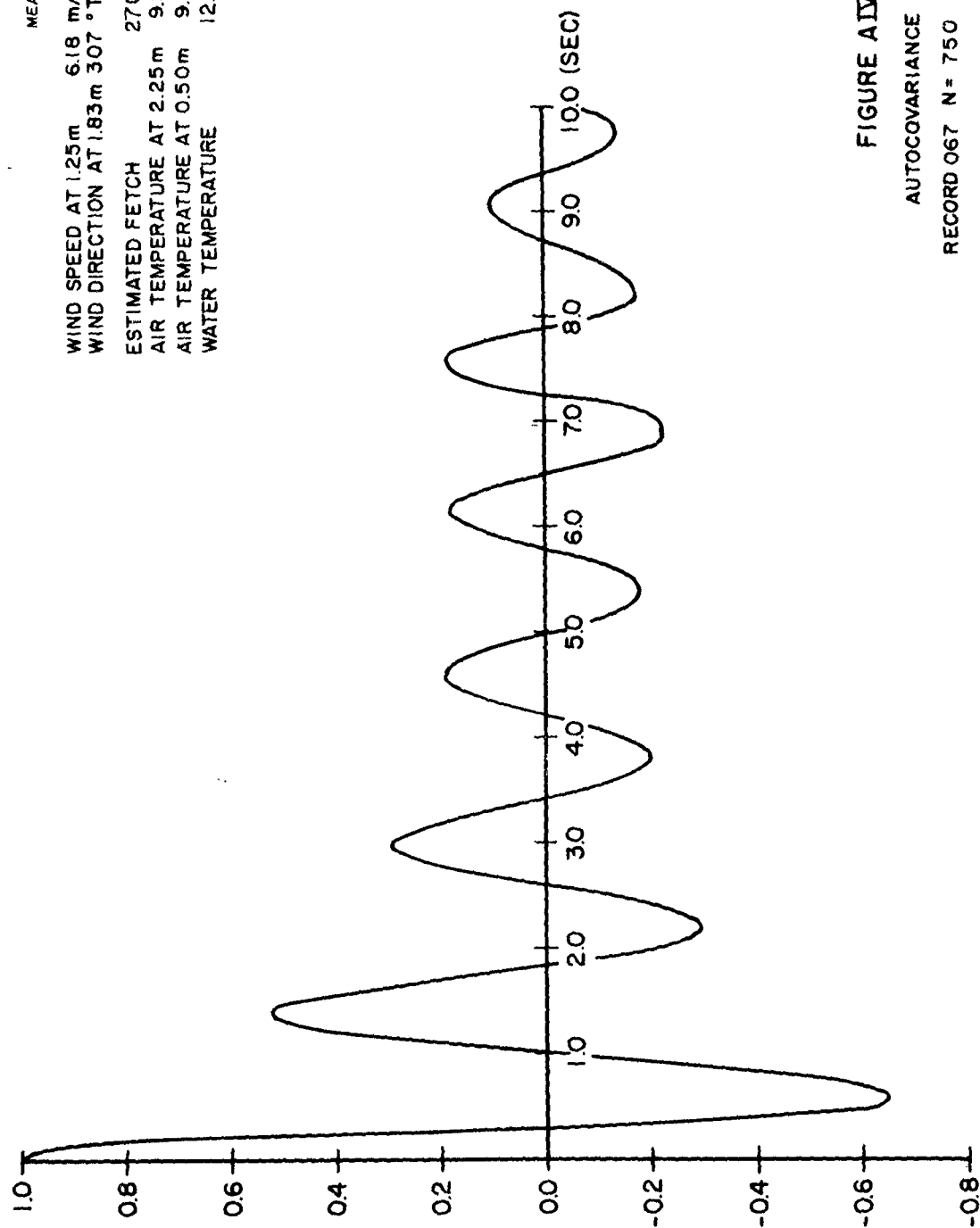


FIGURE AIV 1.09
AUTOCOVARANCE FUNCTION
RECORD 067 N = 750 $\Delta T = 0.2 \text{ sec}$

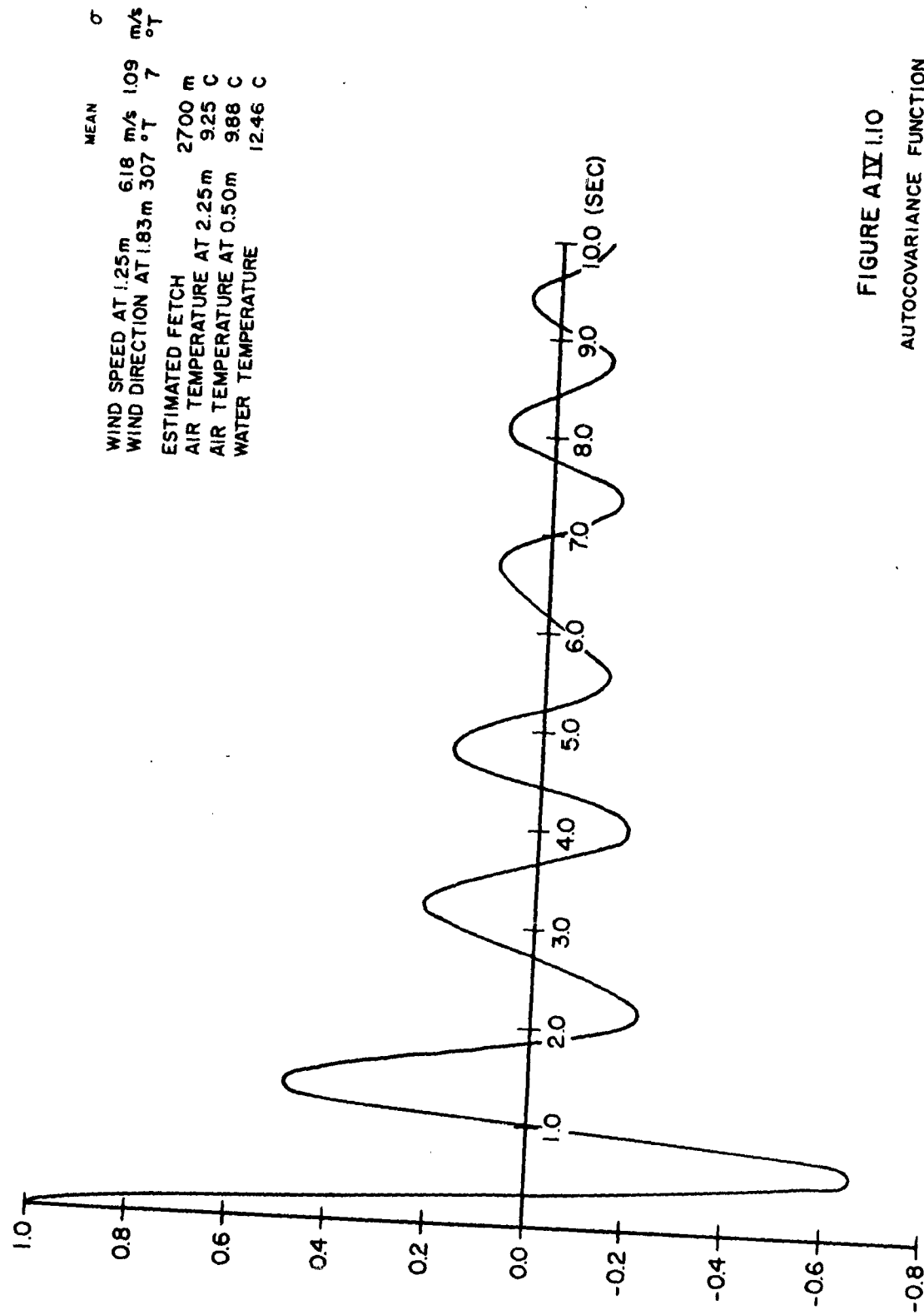


FIGURE AIV.1.10
AUTOCOVARANCE FUNCTION
RECORD 068 N = 850 $\Delta T = 0.2 \text{ sec}$

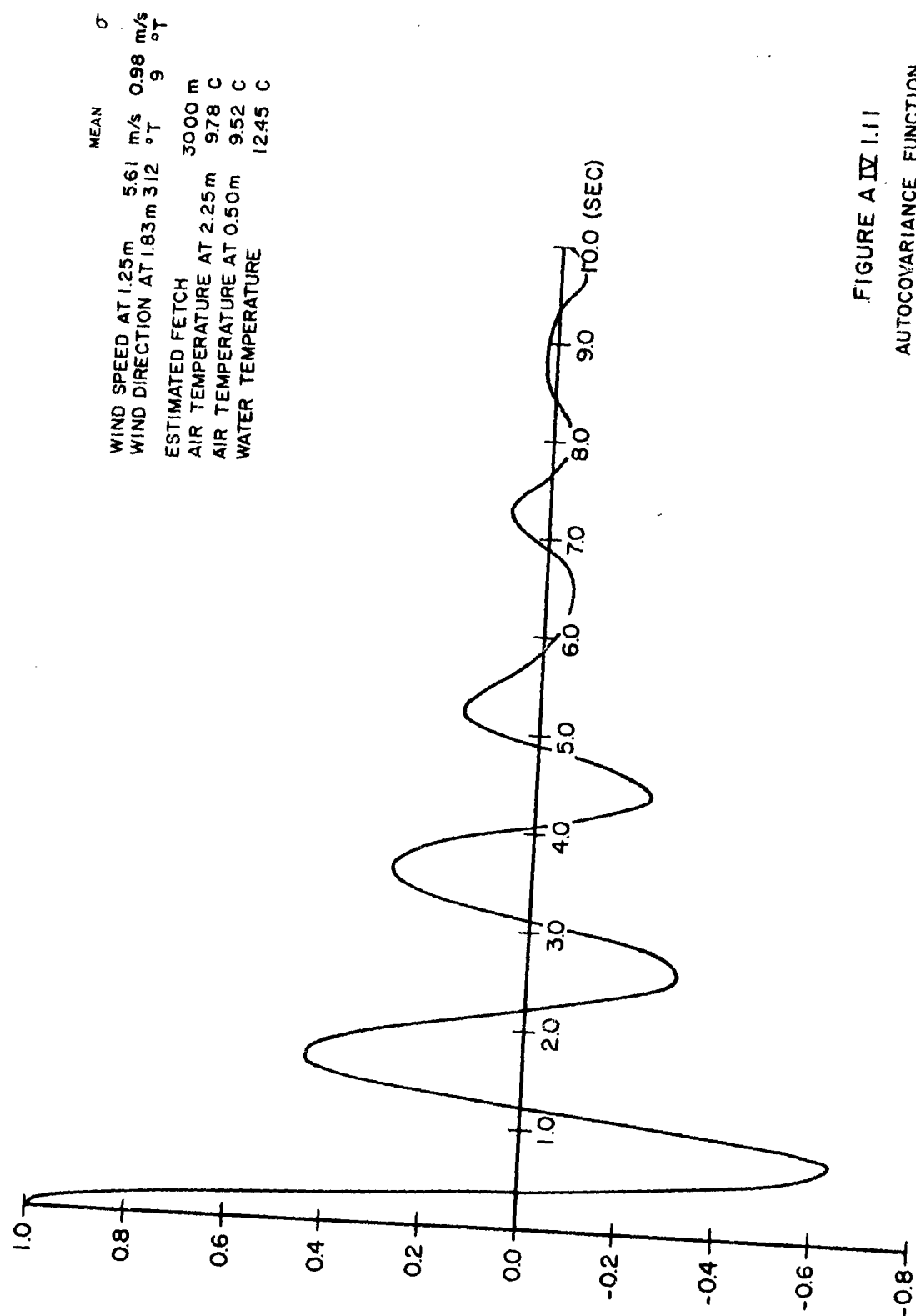


FIGURE A IV 1.11
 AUTOCOVARANCE FUNCTION
 RECORD 069 N = 750 $\Delta T = 0.2 \text{ sec}$

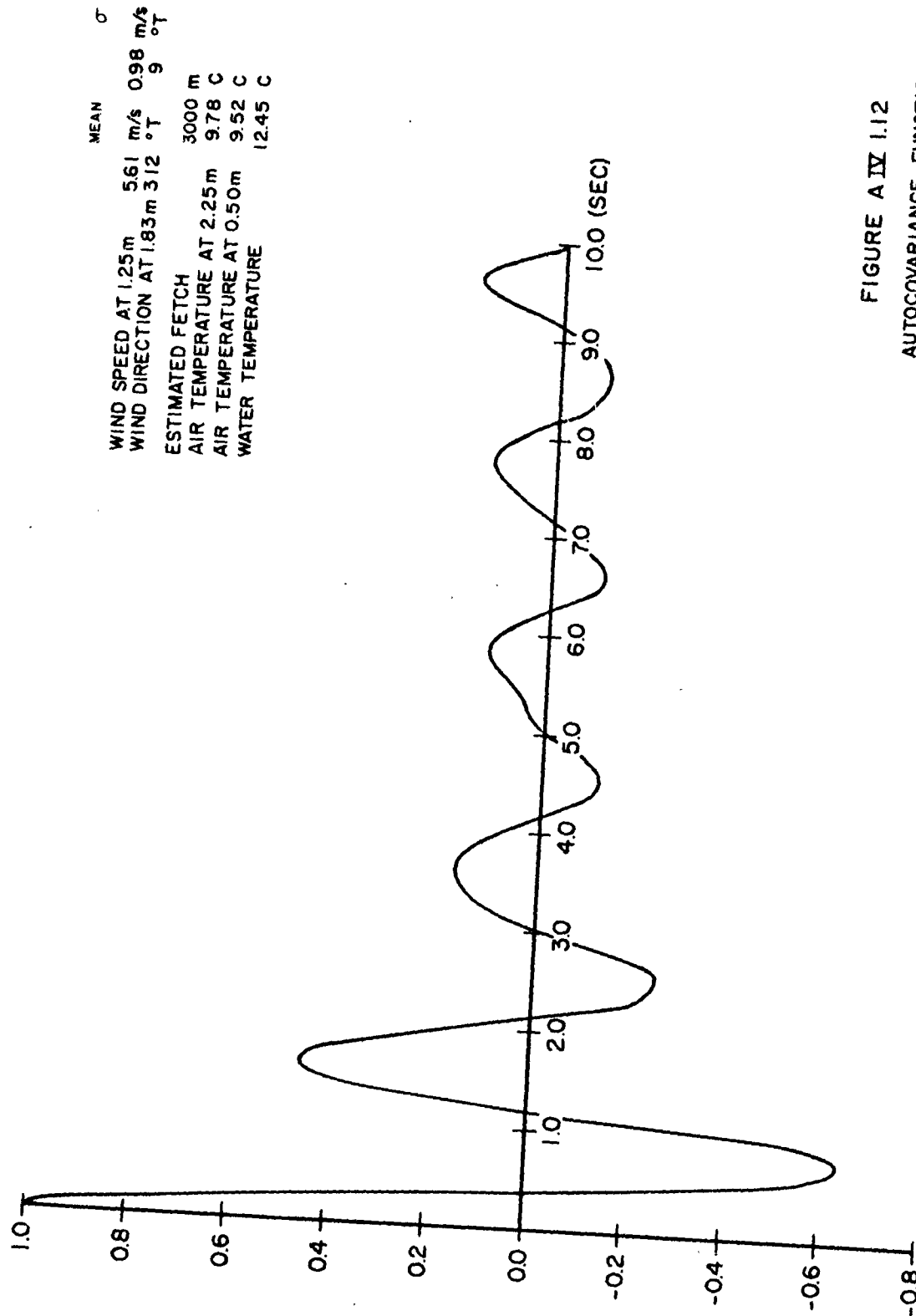


FIGURE A IV 1.12
AUTOCOVARANCE FUNCTION
RECORD 070 N= 880 $\Delta T=0.2\text{sec}$

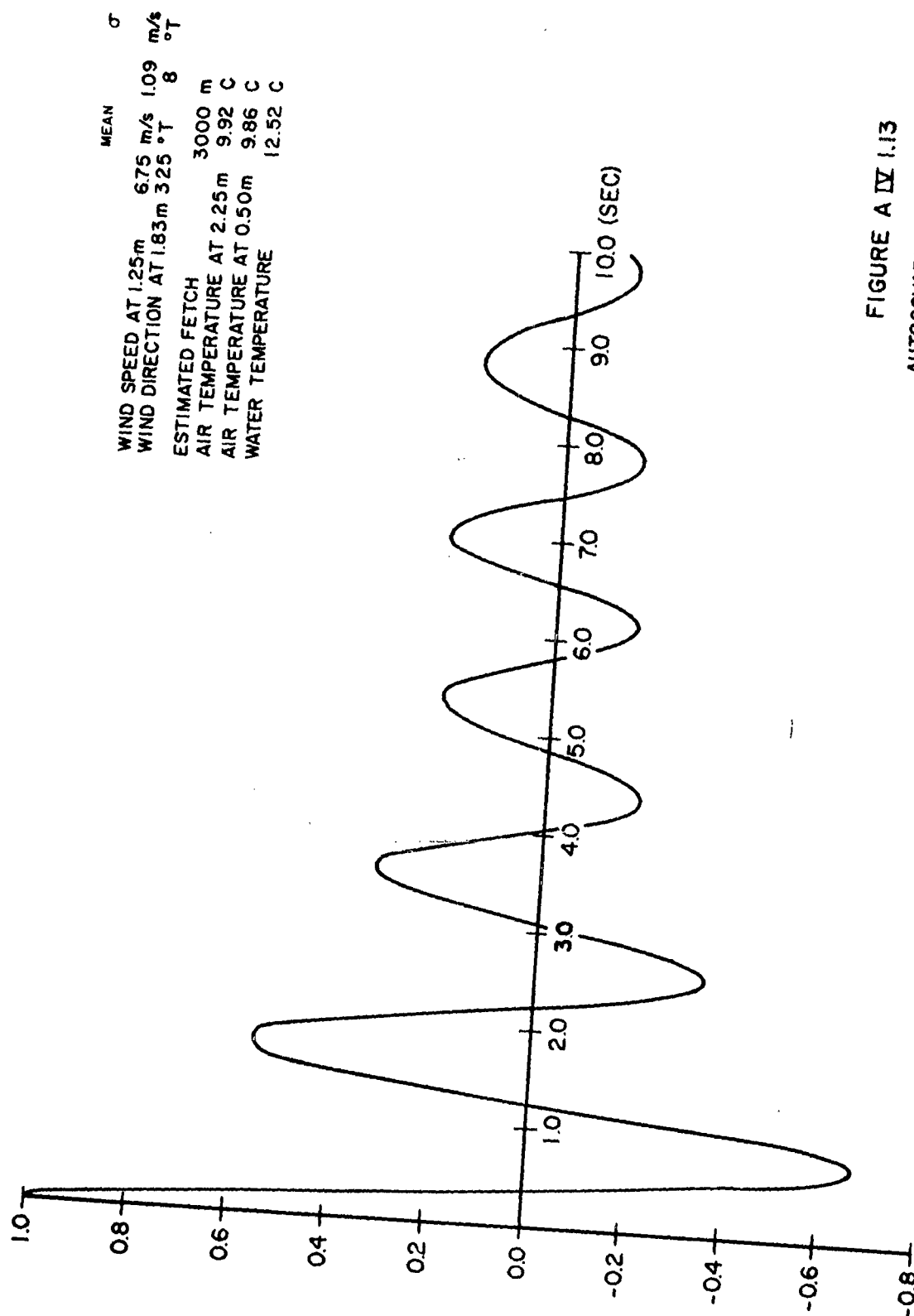


FIGURE A IV 1.13
AUTOCOVARANCE FUNCTION
RECORD 075 N= 750 $\Delta T=0.2\text{sec}$

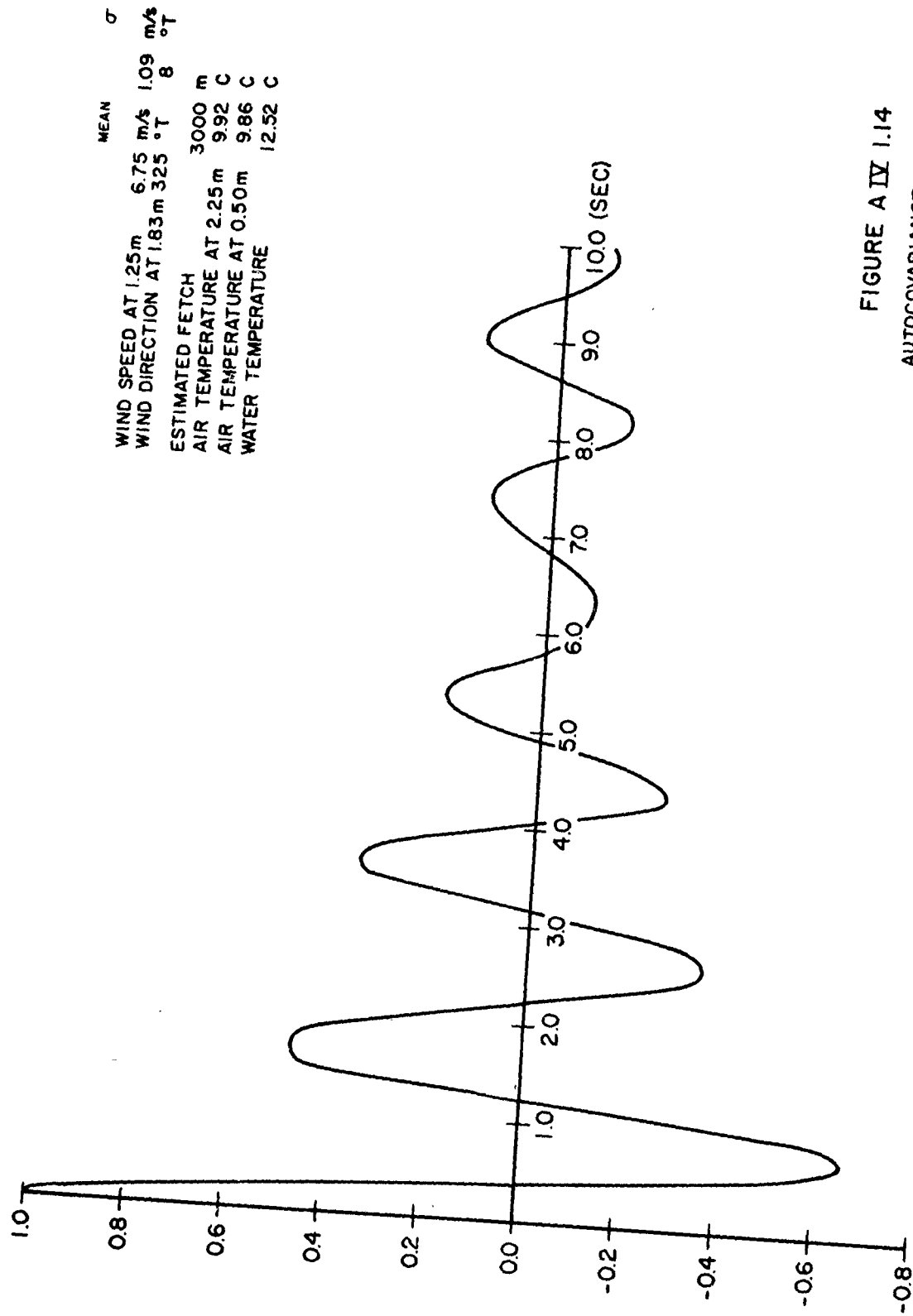


FIGURE A IV 1.14
AUTOCOVARANCE FUNCTION
RECORD 076 N = 850 $\Delta T = 0.2 \text{ sec}$

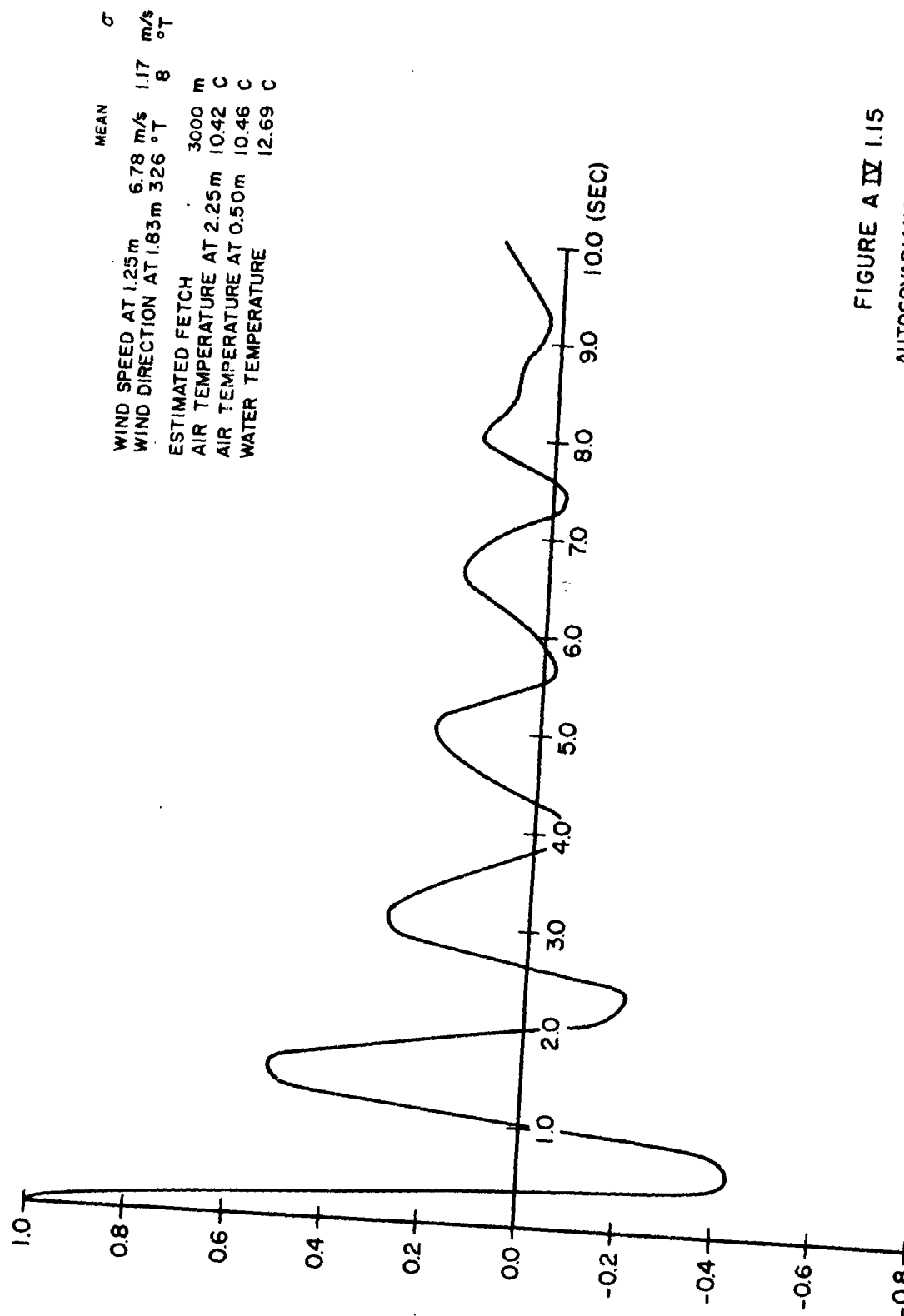


FIGURE A IV 1.15
 AUTOCOVARANCE FUNCTION
 RECORD 081 N = 750 $\Delta T = 0.2 \text{ sec}$

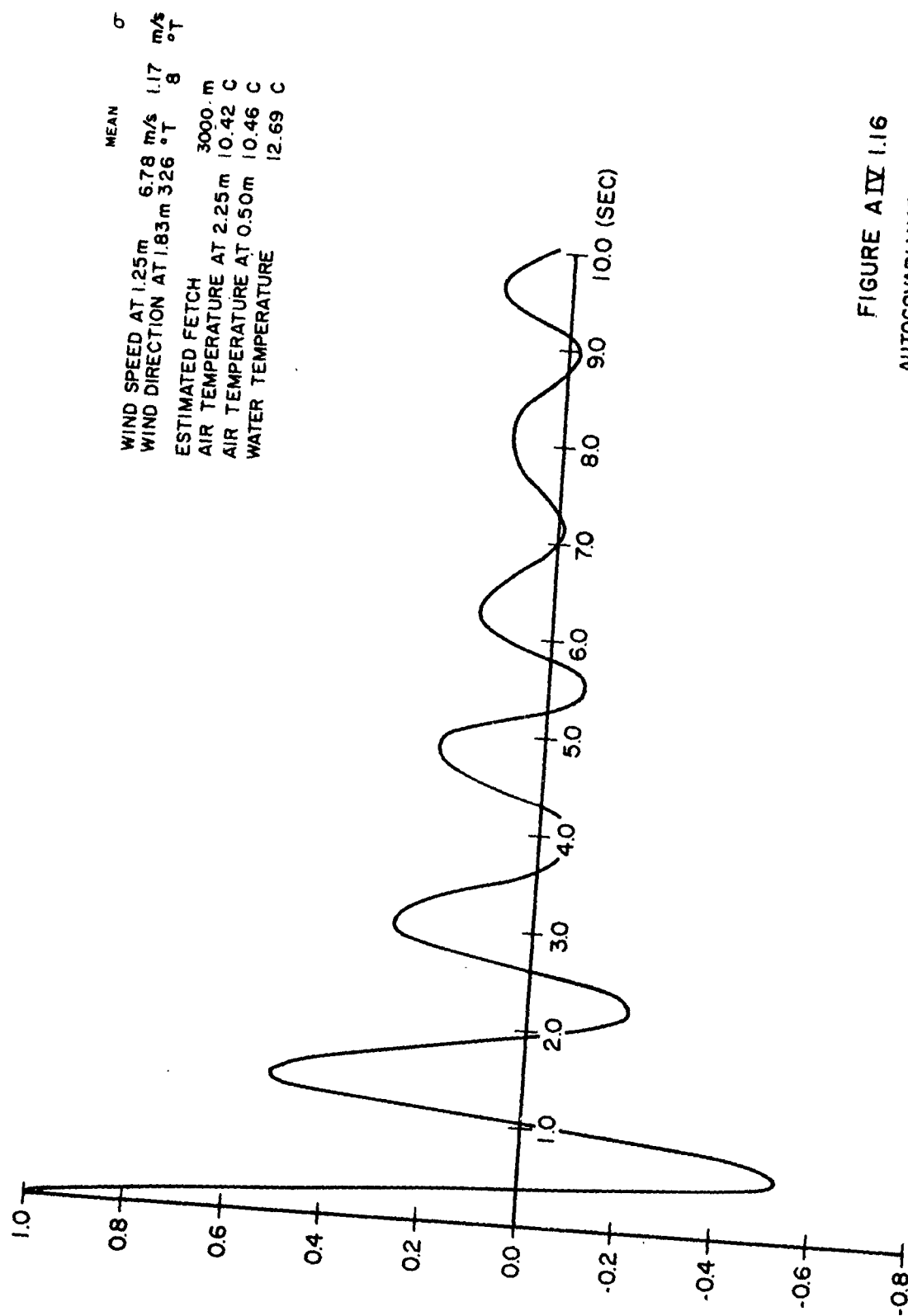


FIGURE AIV 1.16
AUTOCOVARANCE FUNCTION
RECORD 082 N = 888 $\Delta T = 0.2 \text{ sec}$

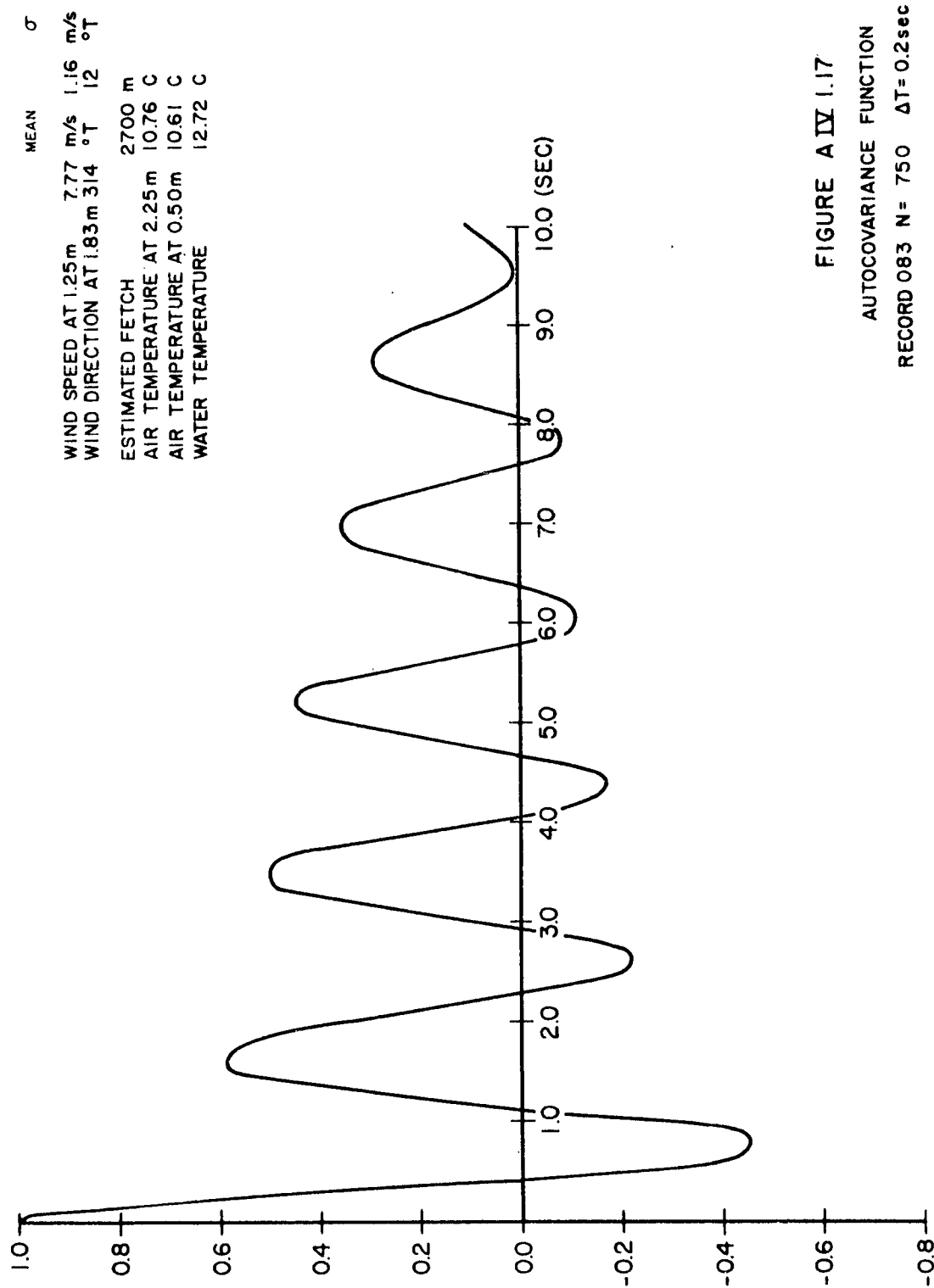


FIGURE A IV 1.17

AUTOCOVARANCE FUNCTION

RECORD 083 N = 750 $\Delta T = 0.2 \text{ sec}$

	MEAN	σ
WIND SPEED AT 1.25m	7.77 m/s	1.16 m/s
WIND DIRECTION AT 1.83m	314 °T	12 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	10.76 C	
AIR TEMPERATURE AT 0.50m	10.61 C	
WATER TEMPERATURE	12.72 C	

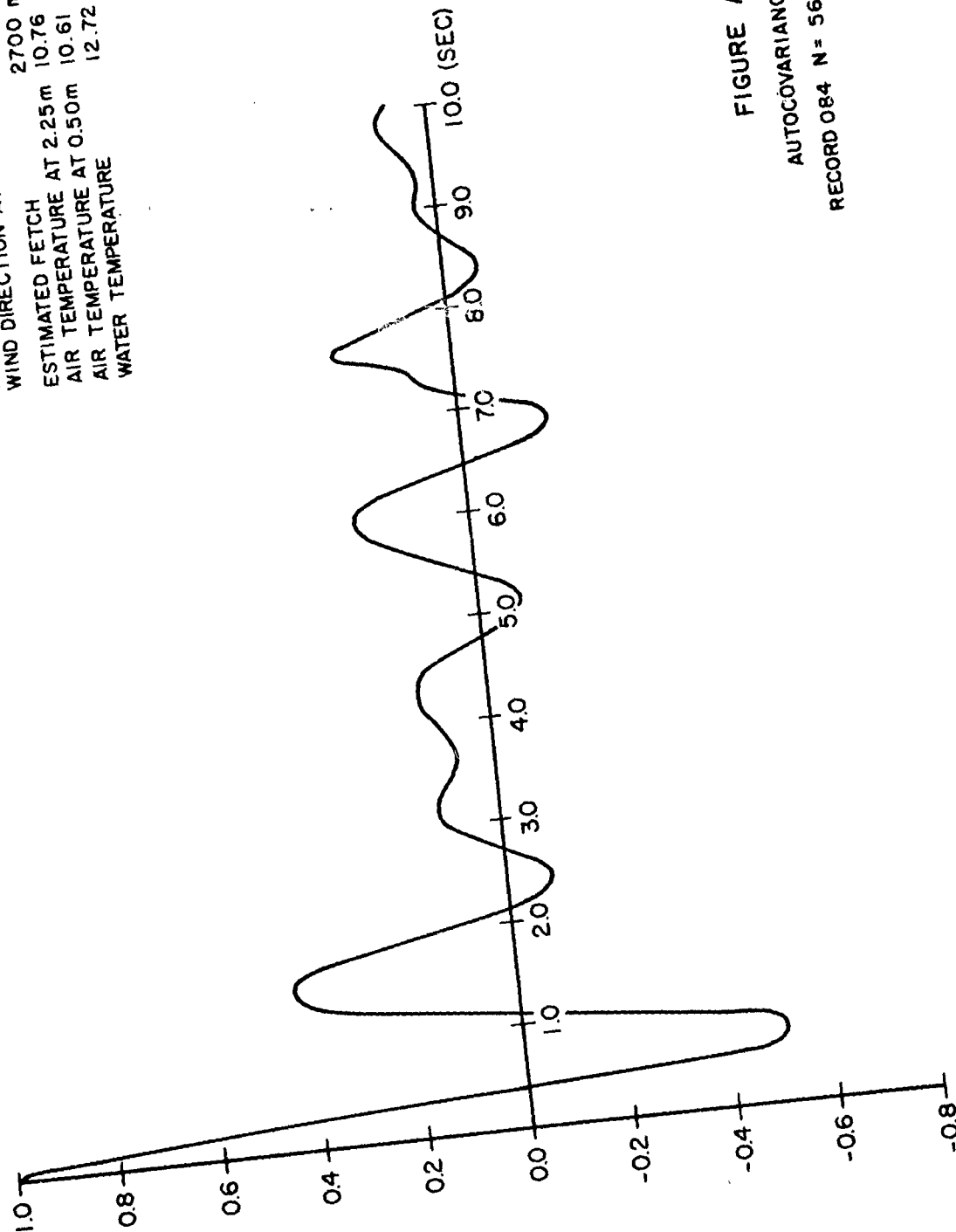


FIGURE A IV 1.18
 AUTOCOVARIANCE FUNCTION
 RECORD 084 N = 566 $\Delta T = 0.2 \text{ sec}$

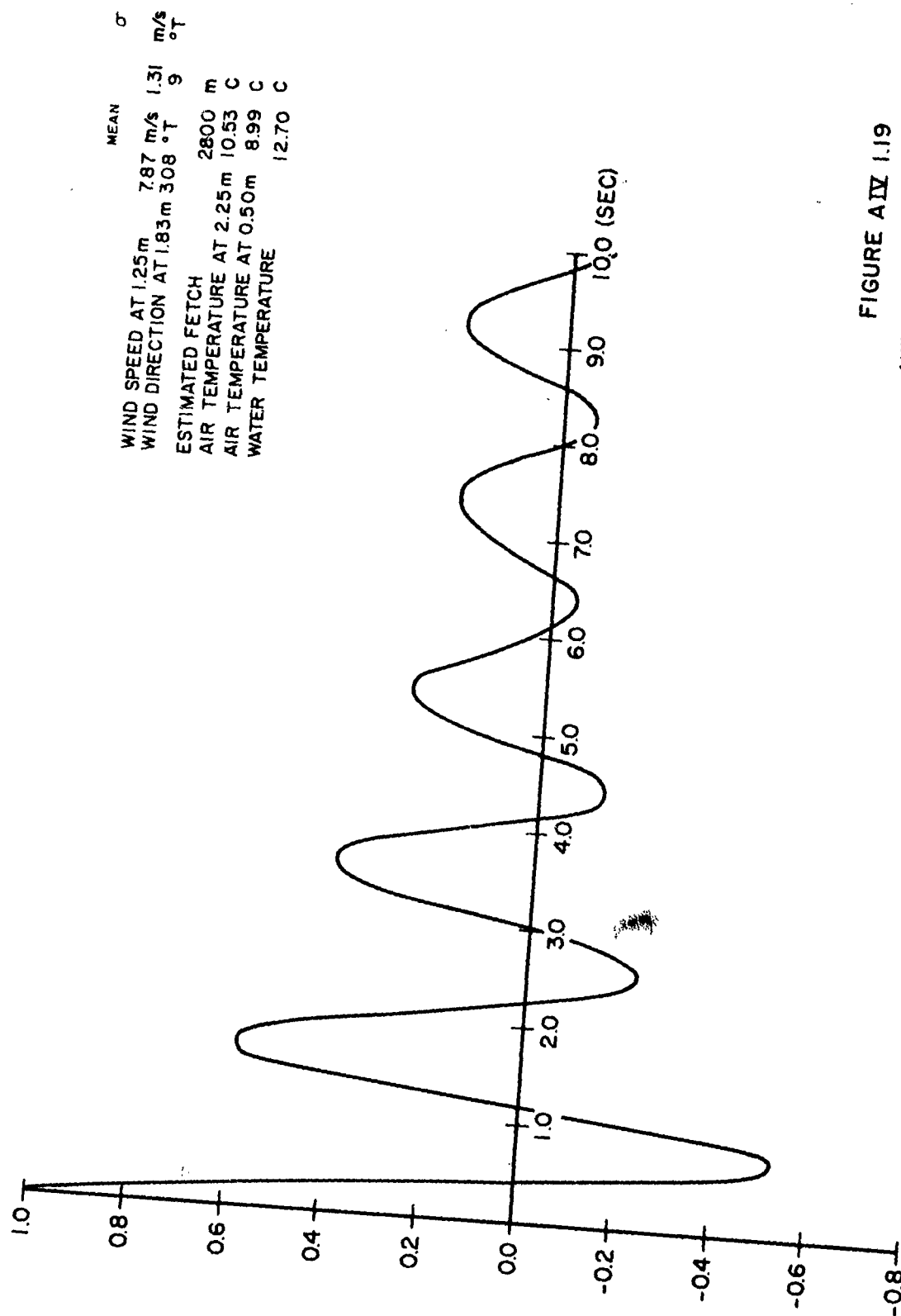


FIGURE AIV 1.19
AUTOCOVARANCE FUNCTION
RECORD 085 N = 750 $\Delta T = 0.2 \text{ sec}$

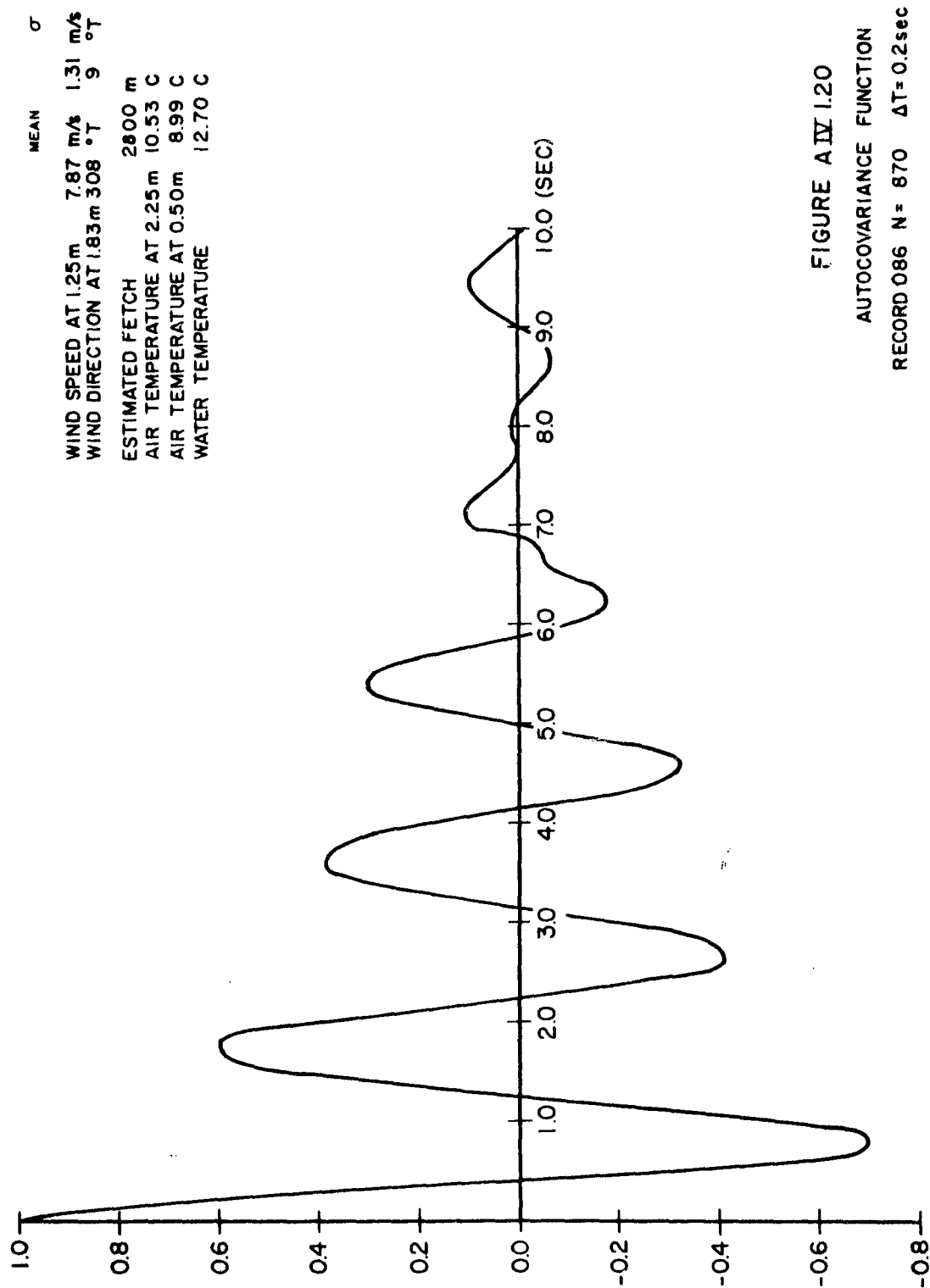


FIGURE AIV 1.20

AUTOCOVARANCE FUNCTION

RECORD 086 N = 870 $\Delta T = 0.2 \text{ sec}$

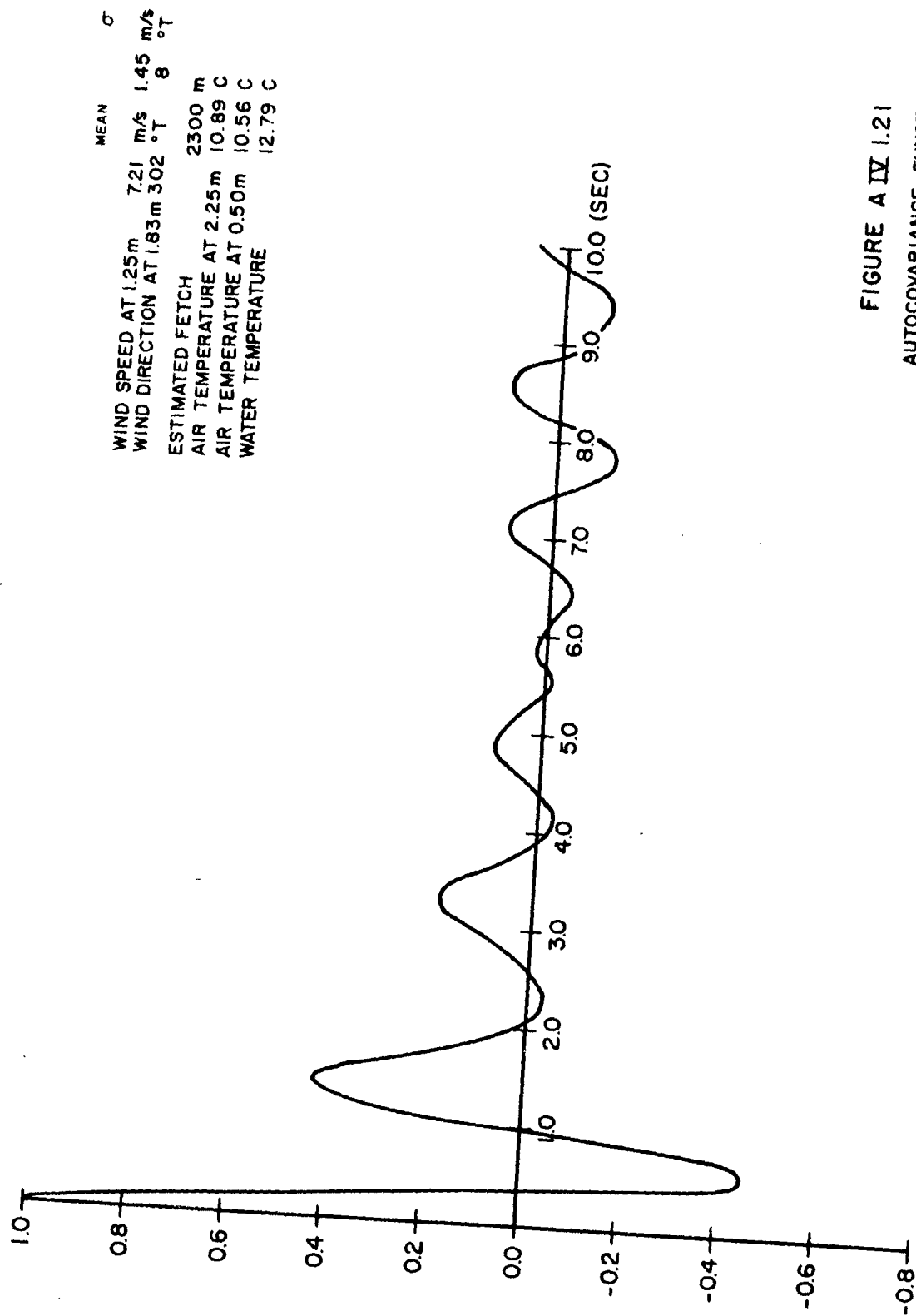


FIGURE A IV 1.21
AUTOCOVARIANCE FUNCTION
RECORD 087 N = 750 $\Delta T = 0.2 \text{ sec}$

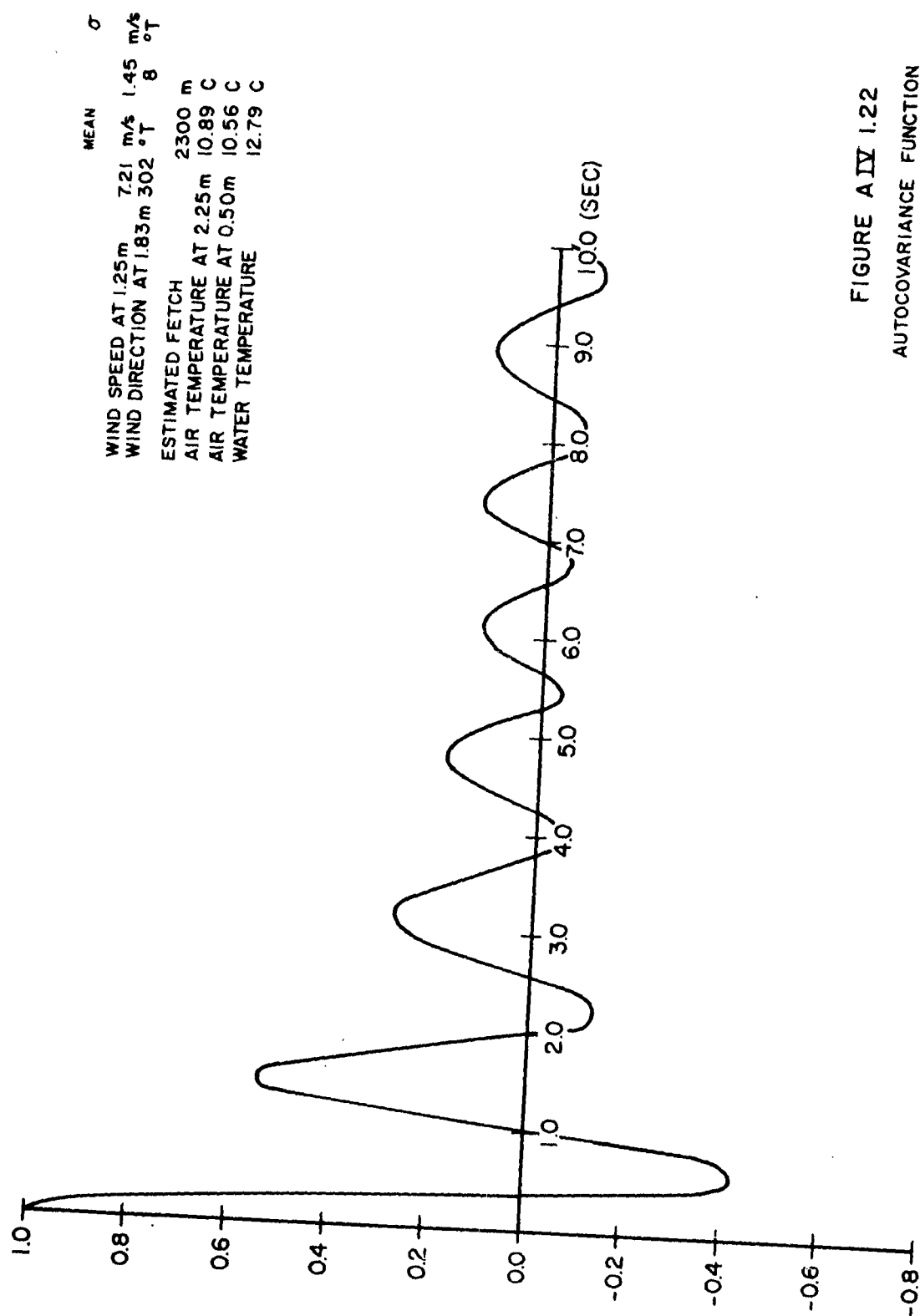
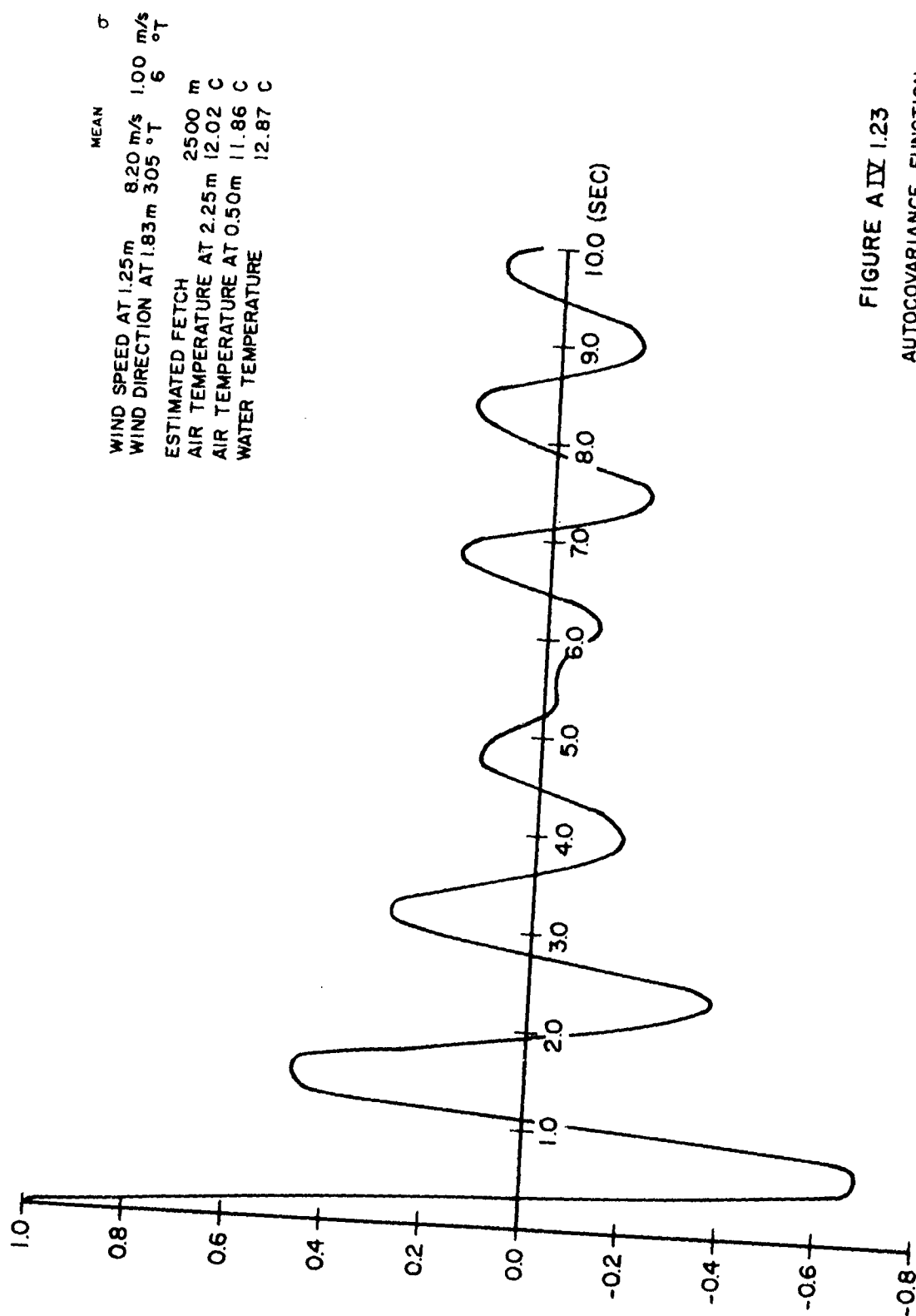


FIGURE AIV 1.22
 AUTOCOVARANCE FUNCTION
 RECORD 088 N = 870 $\Delta T = 0.2 \text{ sec}$



MEAN σ

WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T

ESTIMATED FETCH 2500 m

AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C

FIGURE AIV 1.23
AUTOCOVARANCE FUNCTION
RECORD 093 N= 750 $\Delta T=0.2\text{sec}$

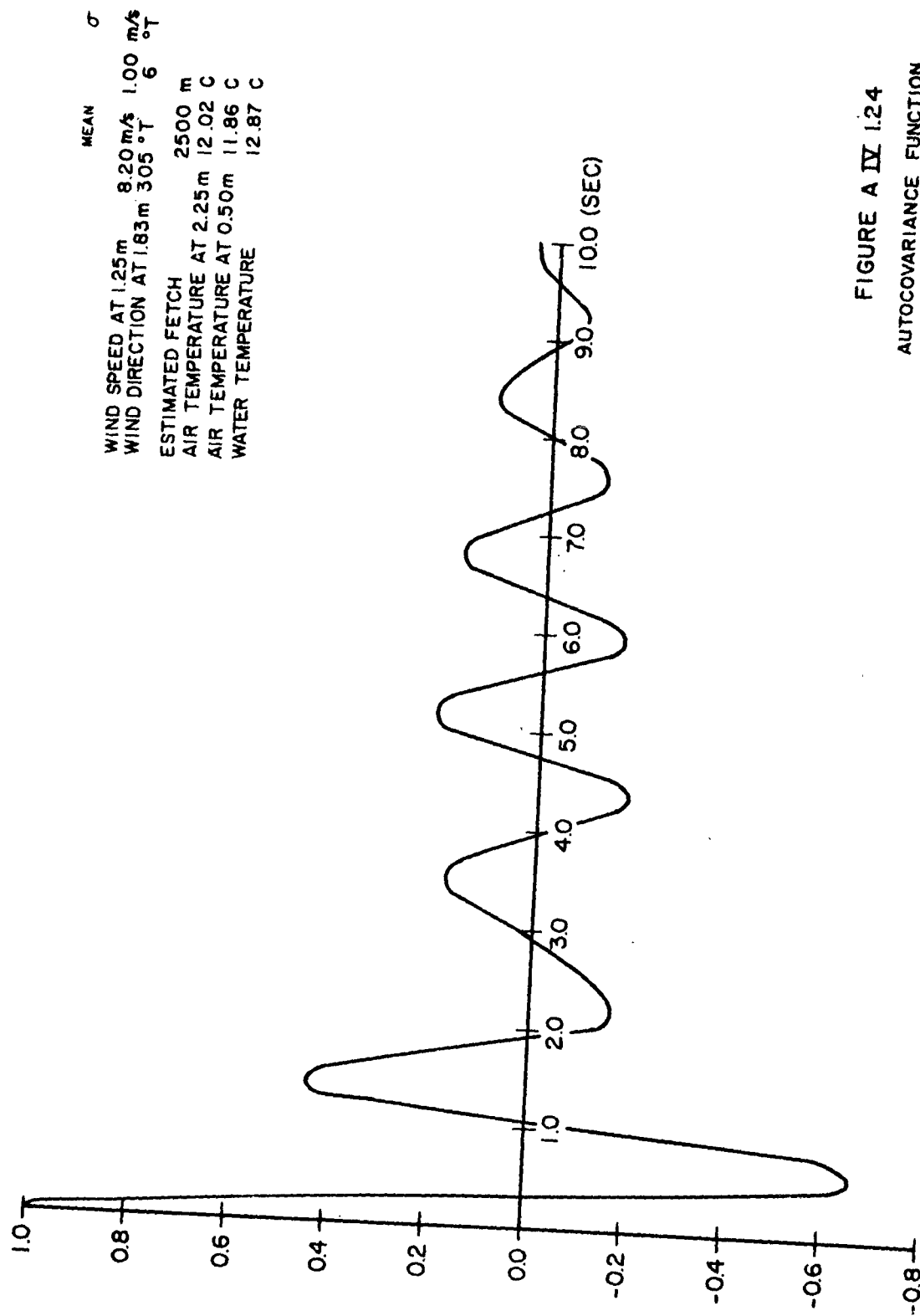


FIGURE A IV 1.24
AUTOCOVARANCE FUNCTION
RECORD 094 N= 860 $\Delta T= 0.2 \text{ sec}$

TABLE A IV 1.01
AUTOCOVARANCE FUNCTION
RECORD 009

N = 1549

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.901	2.6	-.244
0.2	.635	2.7	-.222
0.3	.288	2.8	-.182
0.4	-.070	2.9	-.130
0.5	-.377	3.0	-.072
0.6	-.594	3.1	-.013
0.7	-.708	3.2	.044
0.8	-.714	3.3	.096
0.9	-.620	3.4	.136
1.0	.452	3.5	.160
1.1	-.243	3.6	.167
1.2	-.023	3.7	.155
1.3	.176	3.8	.129
1.4	.329	3.9	.094
1.5	.421	4.0	.055
1.6	.451	4.1	
1.7	.426	4.2	
1.8	.358	4.3	
1.9	.264	4.4	
2.0	.154	4.5	
2.1	.041	4.6	
2.2	-.065	4.7	
2.3	-.152	4.8	
2.4	-.213	4.9	
2.5	-.242	5.0	

TABLE A IV 1.02
AUTOCOVARANCE FUNCTION
RECORD 010

N = 1406

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.892	2.6	-.303
0.2	.627	2.7	-.294
0.3	.277	2.8	-.254
0.4	-.077	2.9	-.190
0.5	-.378	3.0	-.111
0.6	-.588	3.1	-.028
0.7	-.696	3.2	.051
0.8	-.696	3.3	.120
0.9	-.608	3.4	.170
1.0	-.457	3.5	.200
1.1	-.268	3.6	.208
1.2	-.069	3.7	.199
1.3	.118	3.8	.172
1.4	.272	3.9	.131
1.5	.379	4.0	.077
1.6	.434	4.1	
1.7	.437	4.2	
1.8	.395	4.3	
1.9	.317	4.4	
2.0	.213	4.5	
2.1	.095	4.6	
2.2	-.023	4.7	
2.3	-.129	4.8	
2.4	-.216	4.9	
2.5	-.276	5.0	

MEAN CT

WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T

ESTIMATED FETCH 21.00 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C

TABLE A IV 1.03
AUTOCOVARANCE FUNCTION
RECORD 011

N = 1509

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.910	2.6	-.050
0.2	.686	2.7	-.012
0.3	.396	2.8	.028
0.4	.094	2.9	.072
0.5	-.177	3.0	.116
0.6	-.389	3.1	.154
0.7	-.527	3.2	.178
0.8	-.588	3.3	.184
0.9	-.580	3.4	.169
1.0	-.510	3.5	.135
1.1	-.400	3.6	.085
1.2	-.263	3.7	.023
1.3	-.117	3.8	-.042
1.4	.019	3.9	-.100
1.5	.128	4.0	-.145
1.6	.197	4.1	-.173
1.7	.220	4.2	-.182
1.8	.199	4.3	-.173
1.9	.146	4.4	-.149
2.0	.078	4.5	-.115
2.1	.009	4.6	-.074
2.2	-.046	4.7	-.028
2.3	-.080	4.8	.016
2.4	-.089	4.9	.054
2.5	-.078	5.0	.082

TABLE A IV 1.04
AUTOCOVARANCE FUNCTION
RECORD 012

N = 1337

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.886	2.6	-.336
0.2	.632	2.7	-.288
0.3	.303	2.8	-.210
0.4	-.034	2.9	-.120
0.5	-.330	3.0	-.030
0.6	-.554	3.1	.049
0.7	-.679	3.2	.111
0.8	-.705	3.3	.157
0.9	-.642	3.4	.186
1.0	-.505	3.5	.195
1.1	-.319	3.6	.182
1.2	-.109	3.7	.153
1.3	.100	3.8	.113
1.4	.286	3.9	.066
1.5	.428	4.0	.017
1.6	.511	4.1	-.028
1.7	.523	4.2	-.062
1.8	.468	4.3	-.085
1.9	.360	4.4	-.100
2.0	.215	4.5	-.109
2.1	.054	4.6	-.113
2.2	-.100	4.7	-.115
2.3	-.224	4.8	-.109
2.4	-.308	4.9	-.095
2.5	-.345	5.0	-.069

MEAN σ

WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 288 °T 9 °T

ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 °C
WATER TEMPERATURE 26.62 °C

TABLE A IV 1.05
AUTOCOVARANCE FUNCTION
RECORD 017

N = 1473

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.822	2.6	.168
0.2	.431	2.7	.222
0.3	-.011	2.8	.230
0.4	-.375	2.9	.189
0.5	-.594	3.0	.115
0.6	-.654	3.1	.035
0.7	-.573	3.2	-.037
0.8	-.393	3.3	-.092
0.9	-.162	3.4	-.131
1.0	.068	3.5	-.150
1.1	.256	3.6	-.144
1.2	.372	3.7	-.108
1.3	.405	3.8	-.047
1.4	.360	3.9	.030
1.5	.257	4.0	.089
1.6	.122	4.1	
1.7	-.010	4.2	
1.8	-.130	4.3	
1.9	-.222	4.4	
2.0	-.270	4.5	
2.1	-.265	4.6	
2.2	-.210	4.7	
2.3	-.127	4.8	
2.4	-.025	4.9	
2.5	.078	5.0	

TABLE A IV 1.06
AUTOCOVARANCE FUNCTION
RECORD 018

N = 1411

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.851	2.6	.161
0.2	.495	2.7	.155
0.3	.080	2.8	.120
0.4	-.278	2.9	.075
0.5	-.509	3.0	.028
0.6	-.592	3.1	-.014
0.7	-.542	3.2	-.045
0.8	-.402	3.3	-.064
0.9	-.219	3.4	-.072
1.0	-.031	3.5	-.067
1.1	.127	3.6	-.042
1.2	.231	3.7	-.005
1.3	.268	3.8	.030
1.4	.233	3.9	.049
1.5	.147	4.0	.047
1.6	.033	4.1	
1.7	-.075	4.2	
1.8	-.151	4.3	
1.9	-.184	4.4	
2.0	-.173	4.5	
2.1	-.125	4.6	
2.2	-.056	4.7	
2.3	.018	4.8	
2.4	.085	4.9	
2.5	.135	5.0	

MEAN σ

WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T

ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C

TABLE A IV 1.07
AUTOCOVARANCE FUNCTION
RECORD 027

N = 1527

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.850	2.6	-.044
0.2	.501	2.7	.080
0.3	.086	2.8	.187
0.4	-.290	2.9	.261
0.5	-.562	3.0	.289
0.6	-.697	3.1	.269
0.7	-.695	3.2	.204
0.8	-.571	3.3	.109
0.9	-.361	3.4	.006
1.0	-.109	3.5	-.088
1.1	.132	3.6	-.166
1.2	.319	3.7	-.215
1.3	.432	3.8	-.228
1.4	.466	3.9	-.200
1.5	.429	4.0	-.136
1.6	.336	4.1	
1.7	.205	4.2	
1.8	.057	4.3	
1.9	-.089	4.4	
2.0	-.211	4.5	
2.1	-.296	4.6	
2.2	-.337	4.7	
2.3	-.328	4.8	
2.4	-.269	4.9	
2.5	-.168	5.0	

TABLE A IV 1.08
AUTOCOVARANCE FUNCTION
RECORD 028

N = 1574

 $\Delta T = 0.1 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.845	2.6	-.029
0.2	.479	2.7	.083
0.3	.052	2.8	.183
0.4	-.328	2.9	.254
0.5	-.590	3.0	.277
0.6	-.699	3.1	.254
0.7	-.657	3.2	.181
0.8	-.497	3.3	.080
0.9	-.272	3.4	-.026
1.0	-.031	3.5	-.114
1.1	.178	3.6	-.172
1.2	.331	3.7	-.193
1.3	.413	3.8	-.178
1.4	.426	3.9	-.135
1.5	.378	4.0	-.078
1.6	.283	4.1	
1.7	.158	4.2	
1.8	.023	4.3	
1.9	-.103	4.4	
2.0	-.206	4.5	
2.1	-.272	4.6	
2.2	-.296	4.7	
2.3	-.277	4.8	
2.4	-.220	4.9	
2.5	-.134	5.0	

MEAN σ

WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T

ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C

TABLE A IV 1.09
AUTOCOVARANCE FUNCTION
RECORD 067

N = 750

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.541	5.2	-.132
0.4	-.240	5.4	-.184
0.6	-.648	5.6	-.131
0.8	-.523	5.8	.011
1.0	-.080	6.0	.146
1.2	.364	6.2	.178
1.4	.522	6.4	.088
1.6	.365	6.6	-.078
1.8	.066	6.8	-.219
2.0	-.196	7.0	-.216
2.2	-.299	7.2	-.040
2.4	-.224	7.4	.155
2.6	-.014	7.6	.189
2.8	.205	7.8	.068
3.0	.294	8.0	-.091
3.2	.206	8.2	-.176
3.4	.032	8.4	-.146
3.6	-.130	8.6	-.044
3.8	-.202	8.8	.052
4.0	-.151	9.0	.108
4.2	-.005	9.2	.080
4.4	.135	9.4	-.025
4.6	.196	9.6	-.125
4.8	.133	9.8	-.134
5.0	-.006	10.0	-.058

TABLE A IV 1.10
AUTOCOVARANCE FUNCTION
RECORD 068

N = 850

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.555	5.2	.028
0.4	-.207	5.4	-.094
0.6	-.652	5.6	-.128
0.8	-.562	5.8	-.090
1.0	-.104	6.0	-.044
1.2	.347	6.2	-.003
1.4	.490	6.4	.053
1.6	.342	6.6	.090
1.8	.071	6.8	.091
2.0	-.145	7.0	.002
2.2	-.217	7.2	-.106
2.4	-.167	7.4	-.145
2.6	-.070	7.6	-.094
2.8	.036	7.8	.010
3.0	.143	8.0	.092
3.2	.221	8.2	.089
3.4	.186	8.4	.014
3.6	.042	8.6	-.074
3.8	-.101	8.8	-.111
4.0	-.184	9.0	-.063
4.2	-.165	9.2	.024
4.4	-.040	9.4	.062
4.6	.109	9.6	.018
4.8	.180	9.8	-.064
5.0	.144	10.0	-.103

MEAN σ

WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T

ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C

TABLE A IV 1.11
AUTOCOVARANCE FUNCTION

RECORD 069

N = 750

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.627	5.2	.160
0.4	-.064	5.4	.121
0.6	-.550	5.6	.052
0.8	-.637	5.8	.004
1.0	-.401	6.0	-.020
1.2	-.033	6.2	-.040
1.4	.281	6.4	-.061
1.6	.445	6.6	-.059
1.8	.418	6.8	-.021
2.0	.241	7.0	.042
2.2	.012	7.2	.083
2.4	-.193	7.4	.059
2.6	-.310	7.6	.006
2.8	-.287	7.8	-.027
3.0	-.123	8.0	-.038
3.2	.098	8.2	-.028
3.4	.253	8.4	.001
3.6	.287	8.6	.019
3.8	.223	8.8	.020
4.0	.068	9.0	.018
4.2	-.127	9.2	.012
4.4	-.238	9.4	-.011
4.6	-.196	9.6	-.047
4.8	.051	9.8	-.052
5.0	.098	10.0	.001

TABLE A IV 1.12
AUTOCOVARANCE FUNCTION

RECORD 070

N = 880

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.624	5.2	.031
0.4	-.067	5.4	.054
0.6	-.554	5.6	.087
0.8	-.636	5.8	.116
1.0	-.382	6.0	.096
1.2	.004	6.2	.024
1.4	.324	6.4	-.064
1.6	.463	6.6	-.109
1.8	.399	6.8	-.089
2.0	.187	7.0	-.043
2.2	-.067	7.2	.006
2.4	-.229	7.4	.063
2.6	-.250	7.6	.113
2.8	-.155	7.8	.123
3.0	-.017	8.0	.072
3.2	.102	8.2	-.012
3.4	.154	8.4	-.079
3.6	.166	8.6	-.103
3.8	.151	8.8	-.099
4.0	.080	9.0	-.054
4.2	-.020	9.2	.031
4.4	-.099	9.4	.128
4.6	-.113	9.6	.163
4.8	-.071	9.8	.095
5.0	-.011	10.0	-.023

MEAN 0°

WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T

ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 9.52 C
WATER TEMPERATURE 12.45 C

TABLE A IV 1.13
AUTOCOVARANCE FUNCTION
RECORD 075

N = 750 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.670	5.2	.197
0.4	.037	5.4	.217
0.6	-.482	5.6	.138
0.8	-.670	5.8	-.002
1.0	-.518	6.0	-.133
1.2	-.147	6.2	-.171
1.4	.249	6.4	-.101
1.6	.517	6.6	.034
1.8	.559	6.8	.165
2.0	.366	7.0	.224
2.2	.043	7.2	.179
2.4	-.239	7.4	.048
2.6	-.353	7.6	-.088
2.8	-.287	7.8	-.160
3.0	-.105	8.0	-.144
3.2	.107	8.2	-.053
3.4	.277	8.4	.069
3.6	.331	8.6	.153
3.8	.242	8.8	.179
4.0	.053	9.0	.152
4.2	-.126	9.2	.071
4.4	-.195	9.4	-.036
4.6	-.152	9.6	-.110
4.8	-.042	9.8	-.127
5.0	.093	10.0	-.099

TABLE A IV 1.14
AUTOCOVARANCE FUNCTION
RECORD 076

N = 850 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.632	5.2	.183
0.4	-.046	5.4	.196
0.6	-.525	5.6	.108
0.8	-.655	5.8	-.002
1.0	-.492	6.0	-.069
1.2	-.141	6.2	-.097
1.4	.238	6.4	-.097
1.6	.462	6.6	-.064
1.8	.468	6.8	-.009
2.0	.298	7.0	.055
2.2	.044	7.2	.108
2.4	-.201	7.4	.126
2.6	-.351	7.6	.096
2.8	-.341	7.8	.006
3.0	-.183	8.0	-.106
3.2	.043	8.2	-.158
3.4	.251	8.4	-.108
3.6	.351	8.6	-.001
3.8	.281	8.8	.101
4.0	.067	9.0	.152
4.2	-.162	9.2	.117
4.4	-.265	9.4	.028
4.6	-.219	9.6	-.058
4.8	-.089	9.8	-.103
5.0	.067	10.0	-.098

MEAN σ

WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T

ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C

TABLE A IV 1.15
AUTOCOVARANCE FUNCTION
RECORD 081

N = 750

 $\Delta T = 0.2$ sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.586	5.2	.183
0.4	-.076	5.4	.062
0.6	-.427	5.6	-.024
0.8	-.408	5.8	-.014
1.0	-.123	6.0	.022
1.2	.253	6.2	.071
1.4	.513	6.4	.138
1.6	.524	6.6	.177
1.8	.308	6.8	.165
2.0	.024	7.0	.107
2.2	-.176	7.2	.024
2.4	-.196	7.4	-.023
2.6	-.042	7.6	.008
2.8	.167	7.8	.097
3.0	.289	8.0	.155
3.2	.286	8.2	.122
3.4	.211	8.4	.091
3.6	.126	8.6	.085
3.8	.018	8.8	.075
4.0	-.068	9.0	.047
4.2	-.042	9.2	.029
4.4	.047	9.4	.050
4.6	.129	9.6	.071
4.8	.188	9.8	.101
5.0	.222	10.0	.137

TABLE A IV 1.16
AUTOCOVARANCE FUNCTION
RECORD 082

N = 888

 $\Delta T = 0.2$ sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.564	5.2	.040
0.4	-.147	5.4	-.061
0.6	-.523	5.6	-.067
0.8	-.444	5.8	.012
1.0	-.070	6.0	.111
1.2	.334	6.2	.153
1.4	.523	6.4	.138
1.6	.438	6.6	.099
1.8	.185	6.8	.044
2.0	-.071	7.0	.003
2.2	-.204	7.2	-.002
2.4	-.174	7.4	.023
2.6	.001	7.6	.061
2.8	.201	7.8	.095
3.0	.290	8.0	.107
3.2	.253	8.2	.108
3.4	.141	8.4	.084
3.6	.032	8.6	.024
3.8	-.042	8.8	-.020
4.0	-.070	9.0	-.018
4.2	-.032	9.2	.041
4.4	.073	9.4	.115
4.6	.184	9.6	.146
4.8	.226	9.8	.108
5.0	.173	10.0	.034

MEAN σ

WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T

ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C

TABLE A IV 1.17
AUTOCOVARANCE FUNCTION
RECORD 083

N = 750

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.694	5.2	.445
0.4	.108	5.4	.376
0.6	-.343	5.6	.192
0.8	-.457	5.8	-.010
1.0	-.248	6.0	-.119
1.2	.118	6.2	-.093
1.4	.440	6.4	.030
1.6	.584	6.6	.197
1.8	.544	6.8	.327
2.0	.352	7.0	.359
2.2	.097	7.2	.281
2.4	-.121	7.4	.127
2.6	-.218	7.6	-.020
2.8	-.150	7.8	-.085
3.0	.067	8.0	-.033
3.2	.328	8.2	.103
3.4	.499	8.4	.240
3.6	.488	8.6	.295
3.8	.305	8.8	.261
4.0	.056	9.0	.179
4.2	-.131	9.2	.083
4.4	-.178	9.4	.022
4.6	-.069	9.6	.018
4.8	.145	9.8	.050
5.0	.350	10.0	.104

TABLE A IV 1.18
AUTOCOVARANCE FUNCTION
RECORD 084

N = 566

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.632	5.2	-.067
0.4	-.037	5.4	.011
0.6	-.490	5.6	.119
0.8	-.507	5.8	.204
1.0	-.192	6.0	.221
1.2	.184	6.2	.171
1.4	.413	6.4	.035
1.6	.435	6.6	-.114
1.8	.296	6.8	-.170
2.0	.101	7.0	-.102
2.2	-.045	7.2	.056
2.4	-.083	7.4	.198
2.6	-.038	7.6	.233
2.8	.042	7.8	.159
3.0	.112	8.0	.035
3.2	.120	8.2	-.053
3.4	.093	8.4	-.066
3.6	.075	8.6	-.024
3.8	.088	8.8	.029
4.0	.115	9.0	.045
4.2	.140	9.2	.035
4.4	.133	9.4	.047
4.6	.077	9.6	.081
4.8	-.017	9.8	.102
5.0	-.075	10.0	.084

MEAN σ

WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T

ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C

TABLE A IV 1.19
AUTOCOVARANCE FUNCTION
RECORD 085

N = 750 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.688	5.2	.245
0.4	.085	5.4	.273
0.6	-.386	5.6	.225
0.8	-.531	5.8	.134
1.0	-.357	6.0	.045
1.2	-.000	6.2	-.025
1.4	.362	6.4	-.051
1.6	.579	6.6	-.016
1.8	.568	6.8	.060
2.0	.358	7.0	.137
2.2	.075	7.2	.189
2.4	-.153	7.4	.207
2.6	-.235	7.6	.182
2.8	-.181	7.8	.107
3.0	-.025	8.0	.003
3.2	.183	8.2	-.063
3.4	.351	8.4	-.058
3.6	.406	8.6	.011
3.8	.321	8.8	.112
4.0	.142	9.0	.192
4.2	-.039	9.2	.216
4.4	-.139	9.4	.185
4.6	-.125	9.6	.105
4.8	-.015	9.8	-.001
5.0	.131	10.0	-.077

TABLE A IV 1.20
AUTOCOVARANCE FUNCTION
RECORD 086

N = 870 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.687	5.2	.218
0.4	.054	5.4	.303
0.6	-.481	5.6	.236
0.8	-.700	5.8	.064
1.0	-.566	6.0	-.098
1.2	-.179	6.2	-.173
1.4	.263	6.4	-.148
1.6	.561	6.6	-.059
1.8	.605	6.8	-.036
2.0	.405	7.0	.101
2.2	.071	7.2	.101
2.4	-.241	7.4	.054
2.6	-.414	7.6	.015
2.8	-.385	7.8	.007
3.0	-.182	8.0	.012
3.2	.085	8.2	.001
3.4	.301	8.4	-.036
3.6	.390	8.6	-.067
3.8	.339	8.8	-.058
4.0	.163	9.0	-.004
4.2	-.075	9.2	.063
4.4	-.279	9.4	.099
4.6	-.327	9.6	.079
4.8	-.196	9.8	.025
5.0	.026	10.0	-.022

MEAN σ

WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T

ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C

TABLE A IV 1.21
AUTOCOVARANCE FUNCTION
RECORD 087

N = 750

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.550	5.2	.048
0.4	-.139	5.4	.005
0.6	-.447	5.6	-.005
0.8	-.331	5.8	.018
1.0	.029	6.0	.012
1.2	.346	6.2	-.015
1.4	.434	6.4	-.041
1.6	.322	6.6	-.027
1.8	.144	6.8	.025
2.0	.022	7.0	.082
2.2	-.025	7.2	.086
2.4	-.030	7.4	.017
2.6	.006	7.6	-.075
2.8	.055	7.8	-.125
3.0	.116	8.0	-.096
3.2	.183	8.2	.003
3.4	.179	8.4	.090
3.6	.102	8.6	.097
3.8	.020	8.8	.024
4.0	-.024	9.0	-.054
4.2	-.033	9.2	-.083
4.4	-.001	9.4	-.099
4.6	.047	9.6	-.067
4.8	.091	9.8	.016
5.0	.087	10.0	.059

TABLE A IV 1.22
AUTOCOVARANCE FUNCTION
RECORD 088

N = 870

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.593	5.2	.041
0.4	-.069	5.4	-.047
0.6	-.430	5.6	-.027
0.8	-.385	5.8	.064
1.0	-.073	6.0	.115
1.2	.308	6.2	.118
1.4	.534	6.4	.061
1.6	.489	6.6	-.027
1.8	.259	6.8	-.058
2.0	-.000	7.0	.012
2.2	-.139	7.2	.109
2.4	-.119	7.4	.133
2.6	.005	7.6	.083
2.8	.151	7.8	.001
3.0	.253	8.0	-.061
3.2	.274	8.2	-.068
3.4	.200	8.4	-.013
3.6	.098	8.6	.066
3.8	-.002	8.8	.113
4.0	-.059	9.0	.115
4.2	-.025	9.2	.066
4.4	.074	9.4	-.017
4.6	.156	9.6	-.089
4.8	.185	9.8	-.092
5.0	.143	10.0	-.016

MEAN σ

WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T

ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C

TABLE A IV 1.23
AUTOCOVARANCE FUNCTION
RECORD 093

N = 750

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.564	5.2	.024
0.4	-.181	5.4	-.027
0.6	-.663	5.6	-.019
0.8	-.669	5.8	-.028
1.0	-.299	6.0	-.077
1.2	.160	6.2	-.102
1.4	.461	6.4	-.041
1.6	.476	6.6	.096
1.8	.261	6.8	.187
2.0	-.041	7.0	.133
2.2	-.287	7.2	-.031
2.4	-.370	7.4	-.179
2.6	-.247	7.6	-.185
2.8	.002	7.8	-.067
3.0	.228	8.0	.060
3.2	.286	8.2	.150
3.4	.185	8.4	.170
3.6	.014	8.6	.069
3.8	-.125	8.8	-.082
4.0	-.174	9.0	-.165
4.2	-.142	9.2	-.138
4.4	-.041	9.4	-.026
4.6	.072	9.6	.097
4.8	.125	9.8	.123
5.0	.099	10.0	.056

TABLE A IV 1.24
AUTOCOVARANCE FUNCTION
RECORD 094

N = 860

 $\Delta T = 0.2 \text{ sec}$

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.573	5.2	.217
0.4	-.187	5.4	.156
0.6	-.650	5.6	.013
0.8	-.605	5.8	-.117
1.0	-.207	6.0	-.166
1.2	.229	6.2	-.113
1.4	.442	6.4	.004
1.6	.383	6.6	.123
1.8	.159	6.8	.173
2.0	-.065	7.0	.131
2.2	-.165	7.2	.031
2.4	-.153	7.4	-.066
2.6	-.095	7.6	-.115
2.8	-.043	7.8	-.086
3.0	.017	8.0	-.002
3.2	.100	8.2	.078
3.4	.171	8.4	.112
3.6	.176	8.6	.093
3.8	.105	8.8	.039
4.0	-.017	9.0	-.028
4.2	-.133	9.2	-.063
4.4	-.182	9.4	-.040
4.6	-.116	9.6	.005
4.8	.031	9.8	.038
5.0	.166	10.0	.040

MEAN σ

WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T

ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C

Low-Resolution Spectra of the Water Surface

Figures AIV 2.01.0 to AIV 2.24.0 on pages AIV-40 to AIV-63 show the spectrum of each wave record on rectangular coordinates. The 10% and 90% confidence limits are also showed whenever it has been possible to do so. The term "low resolution" means one power estimate for each 0.1 cps as opposed to the "high-resolution" analyses which show one power estimate for each 0.05 cps. Each estimate is an average over a frequency band 0.2 cps wide with the exception of the end points, as explained in section 6.01.

Figures AIV 2.01.1 to AIV 2.24.1 on pages AIV-64 to AIV-87 show the same spectra over the band from 0.7 to 2.1 cps on a logarithm versus logarithm scale.

Tables AIV 2.01 to AIV 2.24 on pages AIV-88 to AIV-111 record the values from which the rectangular and log-log plots were made. They also contain the 10%, 50%, and 90% confidence limits.

FIGURE AIV 2.01.0

POWER SPECTRUM

RECORD 009

N = 1549 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 61

MEAN σ

WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s

WIND DIRECTION AT 1.34 m 286 °T 8 °T

ESTIMATED FETCH 2100 m

AIR TEMPERATURE 27.45 C

WATER TEMPERATURE 26.18 C

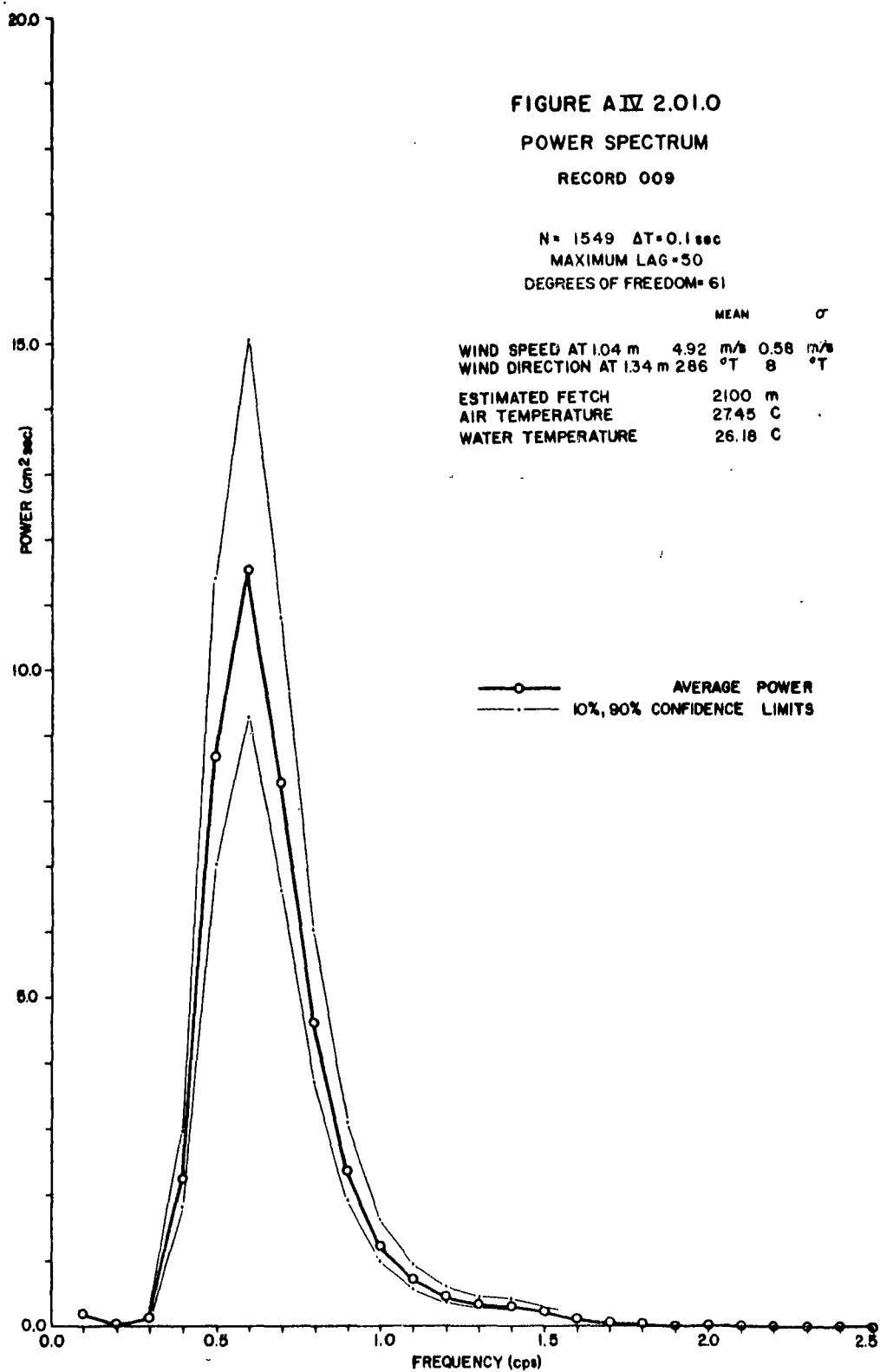


FIGURE A IV 2.02.0

POWER SPECTRUM

RECORD 010

N = 1406 $\Delta T = 0.1 \text{ sec}$
 MAXIMUM LAG = 50
 DEGREES OF FREEDOM = 56

	MEAN	σ
WIND SPEED AT 1.04 m	4.92 m/s	0.58 m/s
WIND DIRECTION AT 1.34 m	286 °T	8 °T
ESTIMATED FETCH	2100 m	
AIR TEMPERATURE	27.45 C	
WATER TEMPERATURE	26.18 C	

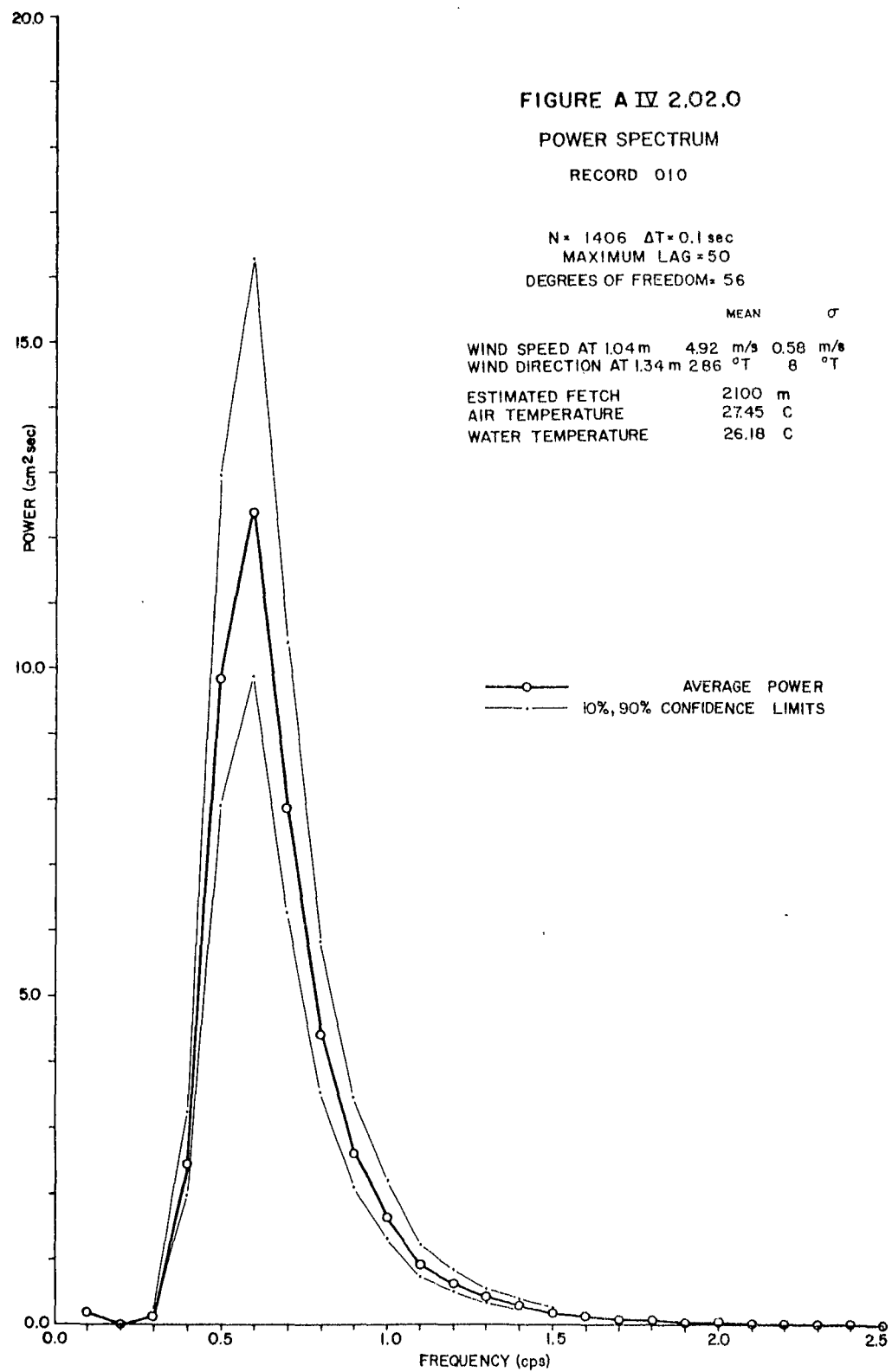


FIGURE AIV 2.03.0

POWER SPECTRUM

RECORD 011

N = 1509 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 60

MEAN σ

WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T

ESTIMATED FETCH 2200 m

AIR TEMPERATURE 28.98 °C

WATER TEMPERATURE 26.62 °C

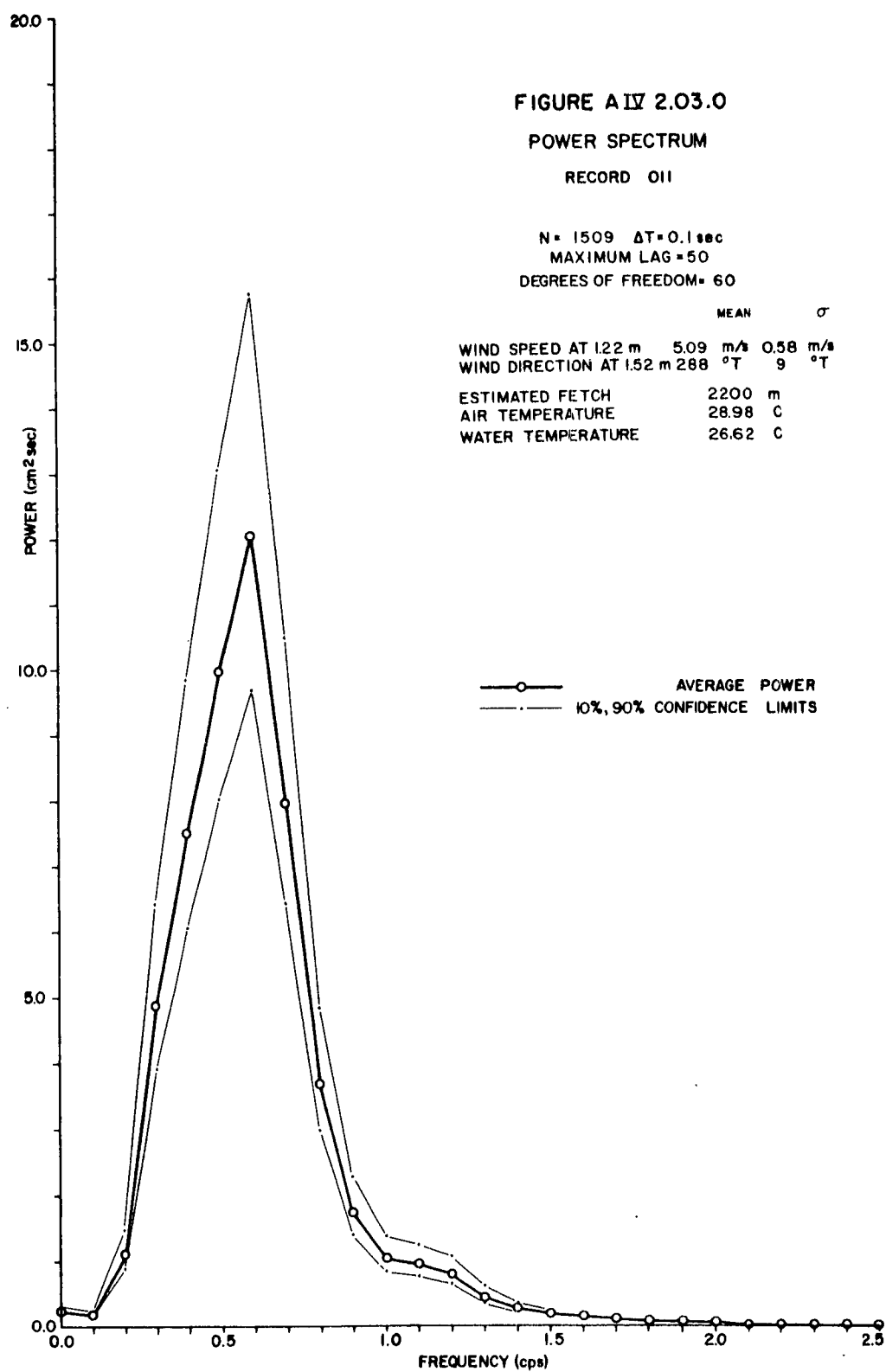


FIGURE A IV 2.04.0

POWER SPECTRUM

RECORD 012

N = 1337 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 53

MEAN

 σ

WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s

WIND DIRECTION AT 1.52 m 288 °T 9 °T

ESTIMATED FETCH 2200 m

AIR TEMPERATURE 28.98 C

WATER TEMPERATURE 26.62 C

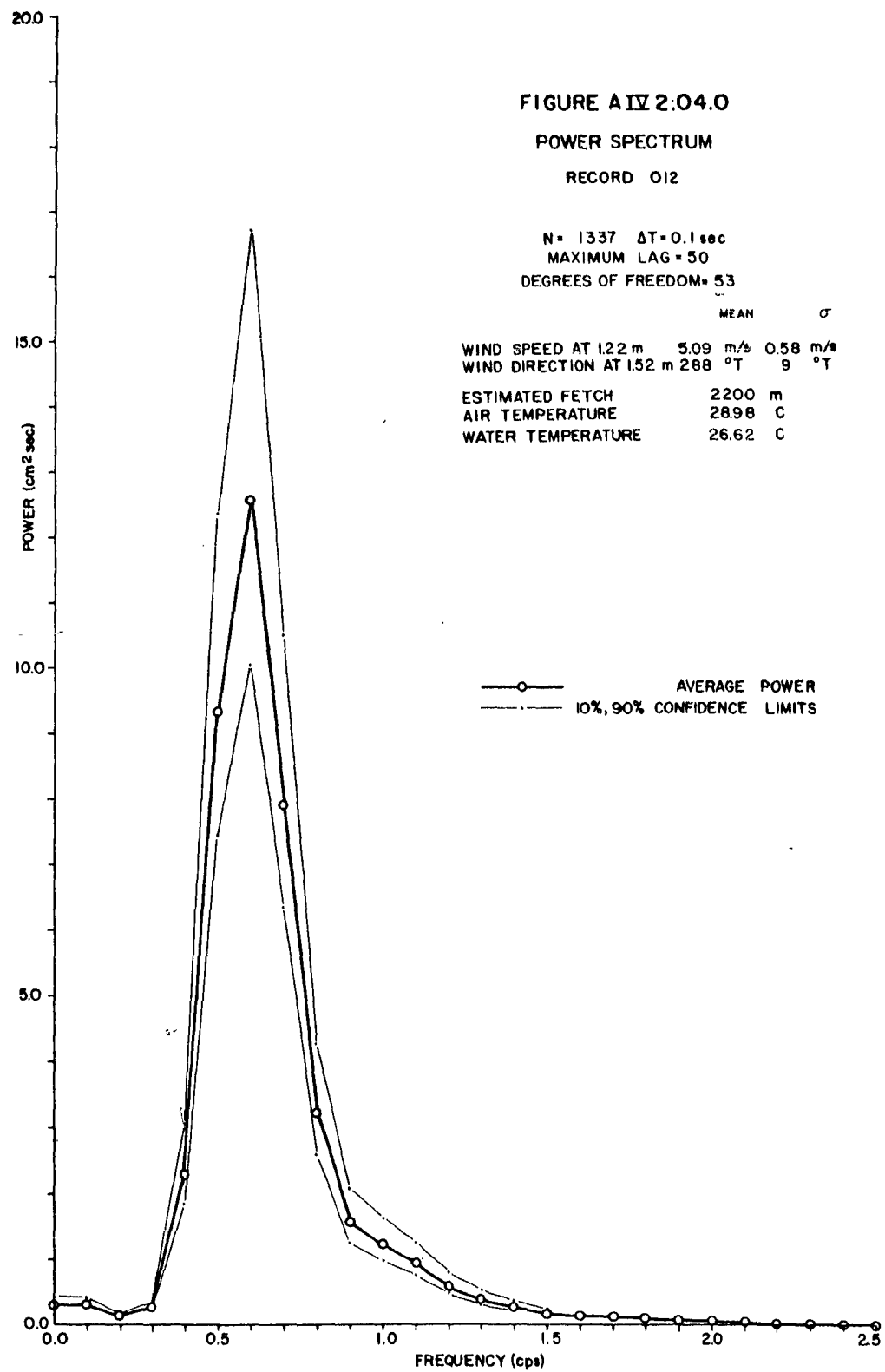


FIGURE AIV 2.05.0

POWER SPECTRUM

RECORD 017

N = 1473 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 58

MEAN σ

WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
 WIND DIRECTION AT 1.52 m 277 °T 10 °T

ESTIMATED FETCH 1700 m
 AIR TEMPERATURE 29.51 °C
 WATER TEMPERATURE 27.55 °C

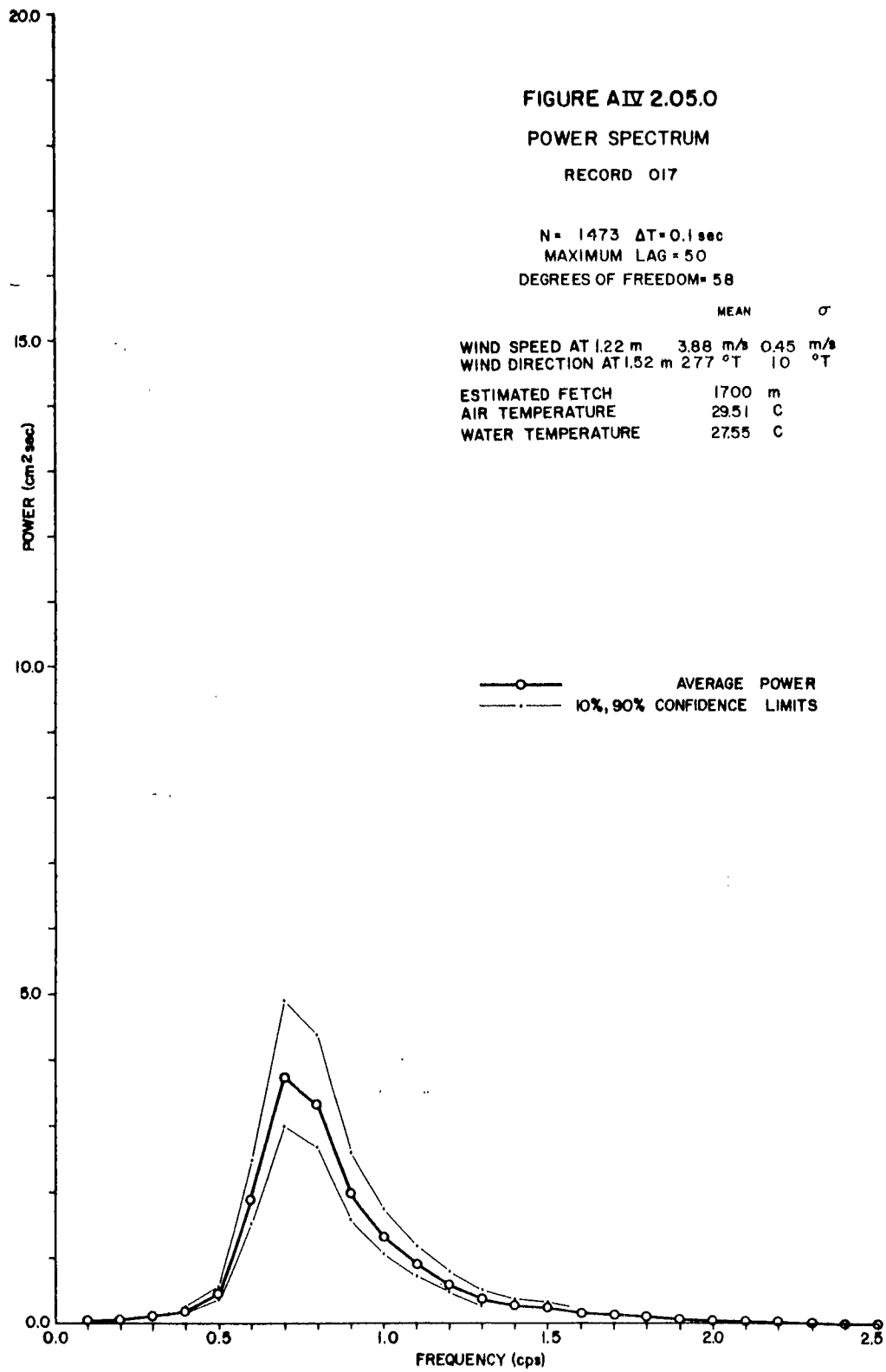


FIGURE AIV 2.06.0

POWER SPECTRUM

RECORD 018

N = 1411 $\Delta T = 0.1$ sec

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 56

MEAN

 σ

WIND SPEED AT 1.22 m 3.88 m/s 045 m/s
 WIND DIRECTION AT 1.52 m 277 °T 10 °T

ESTIMATED FETCH 1700 m
 AIR TEMPERATURE 29.51 °C
 WATER TEMPERATURE 27.55 °C

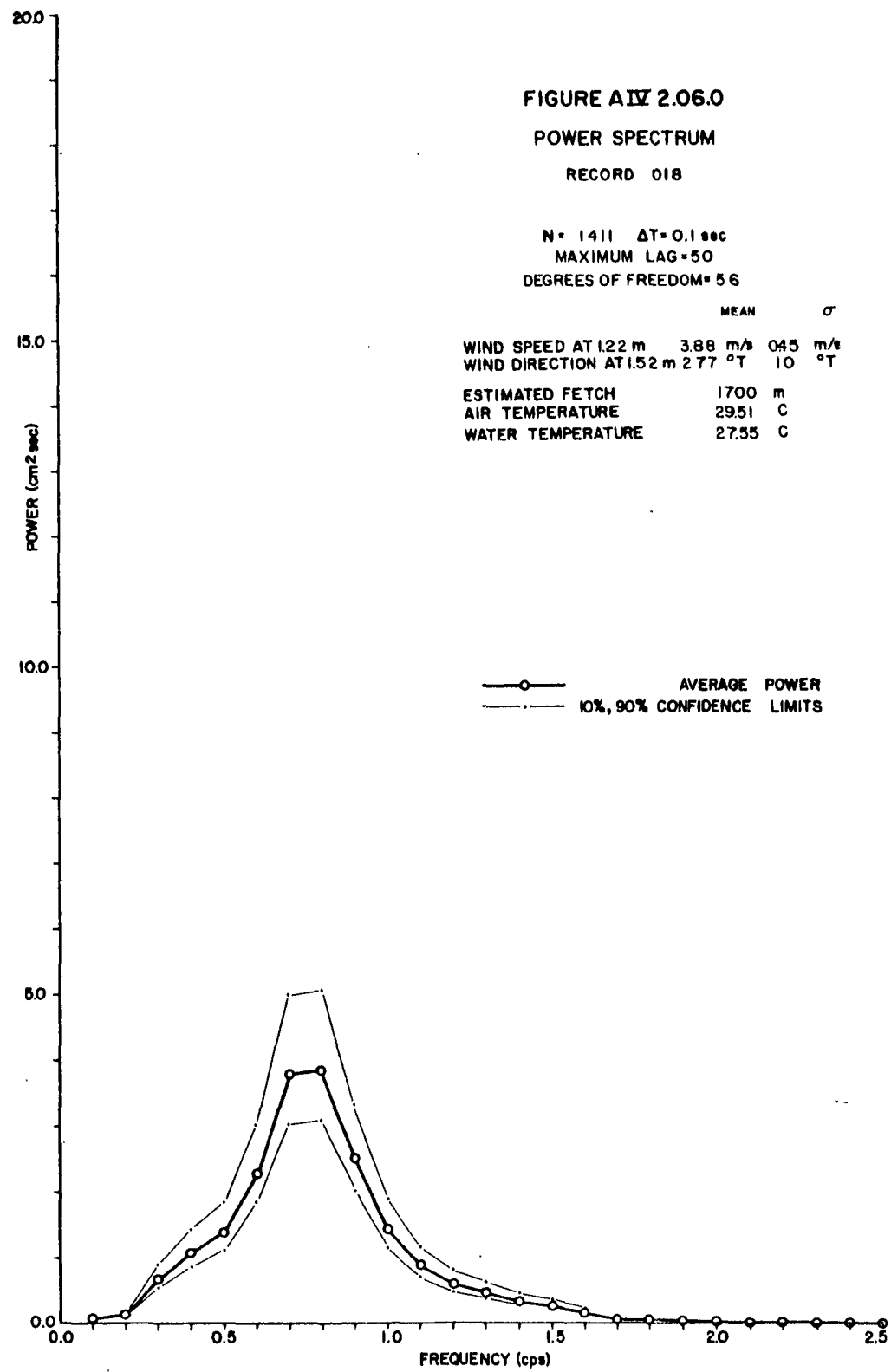


FIGURE AIV 2.07.0

POWER SPECTRUM

RECORD 027

N = 1527 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 60

MEAN σ

WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
 WIND DIRECTION AT 1.65 m 314 °T 7 °T

ESTIMATED FETCH 2300 m
 AIR TEMPERATURE 24.64 C
 WATER TEMPERATURE 26.38 C

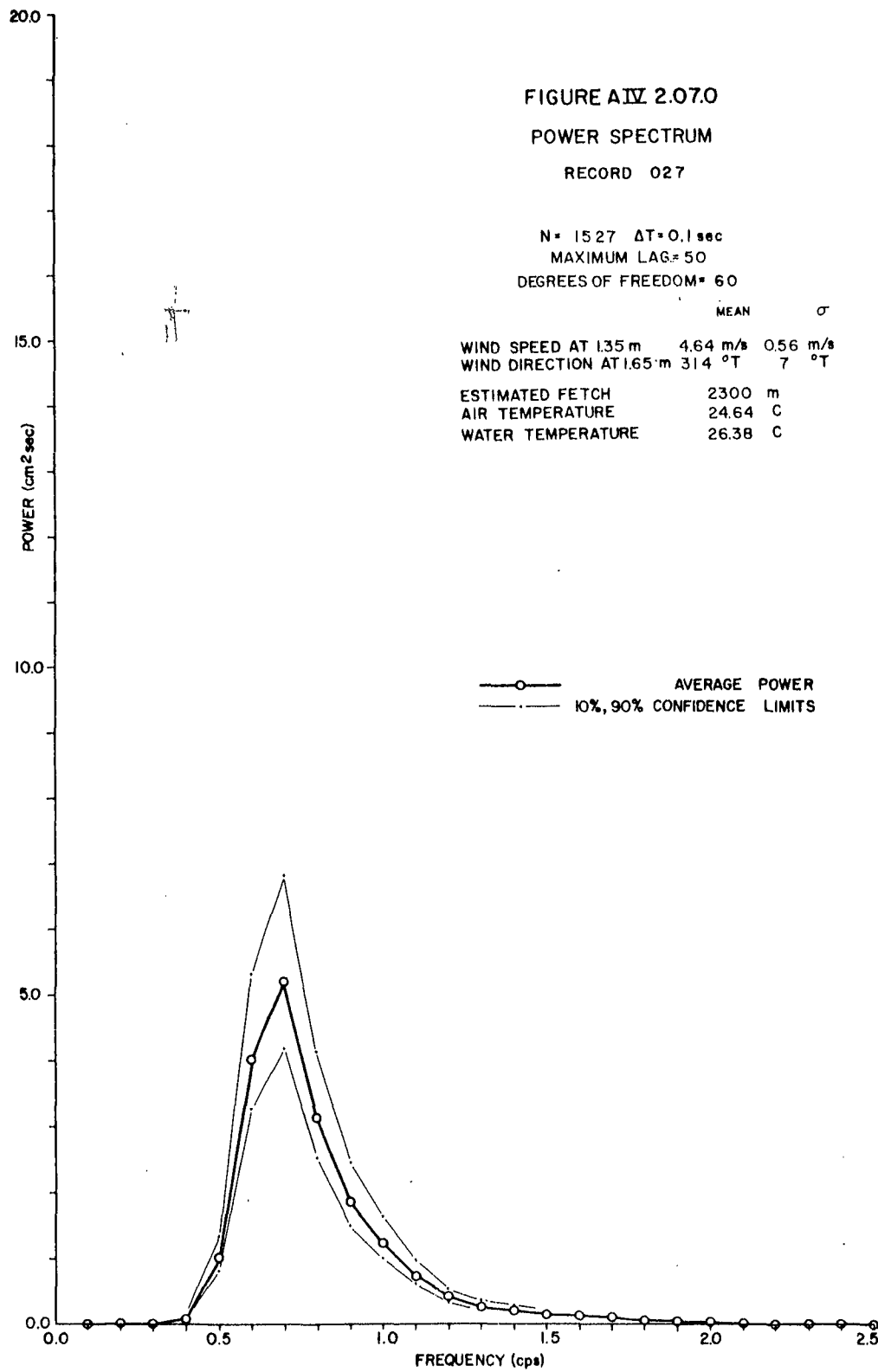


FIGURE AIV 2.08.0

POWER SPECTRUM

RECORD 028

N = 1574 $\Delta T = 0.1 \text{ sec}$

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 62

MEAN

 σ

WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s

WIND DIRECTION AT 1.65 m 314 °T 7 °T

ESTIMATED FETCH 2300 m

AIR TEMPERATURE 24.64 °C

WATER TEMPERATURE 26.38 °C

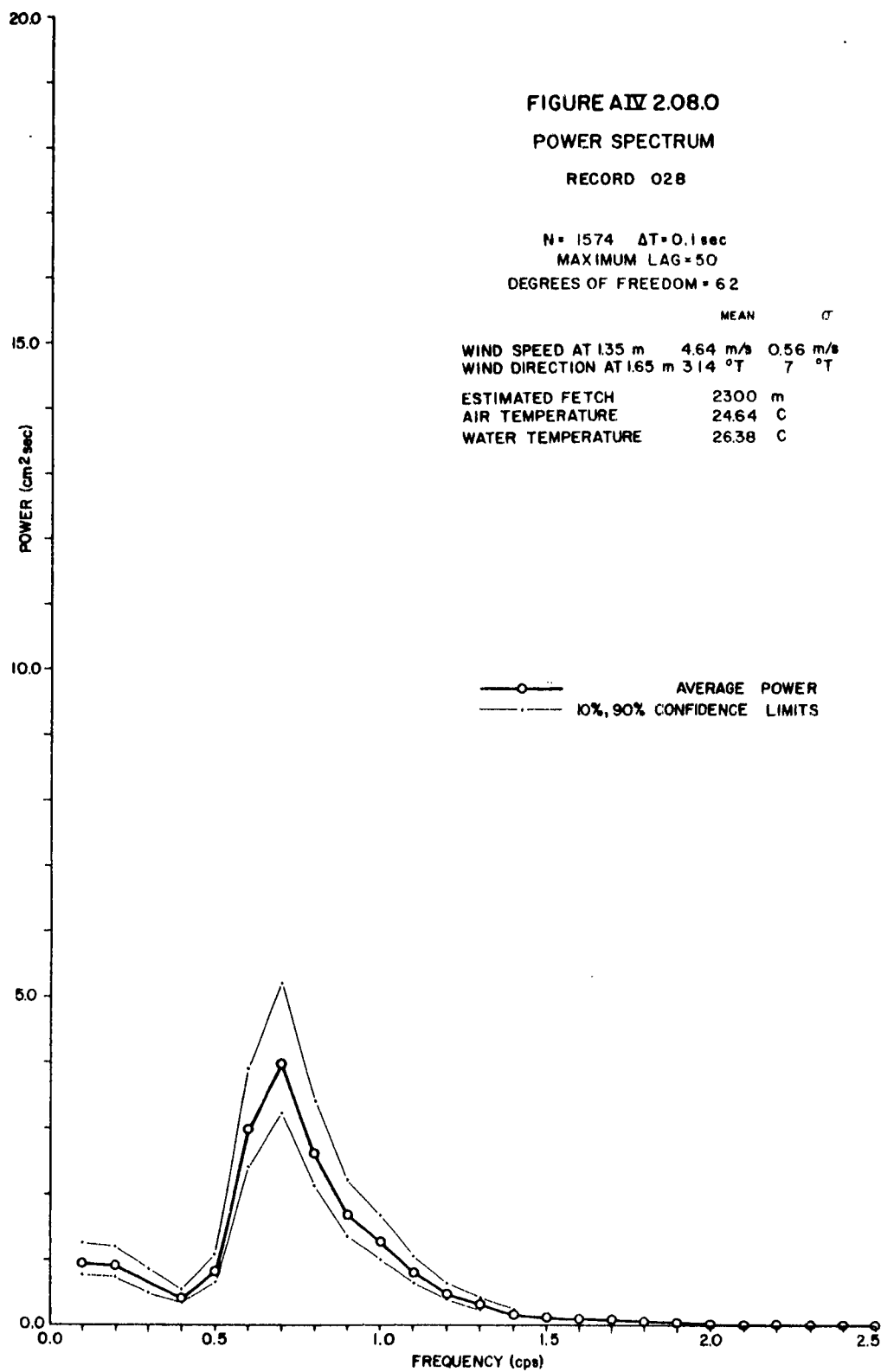


FIGURE AIV 2.09.0

POWER SPECTRUM

RECORD 067

N = 750 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 59

MEAN

 σ

WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
 WIND DIRECTION AT 1.83m 307 °T 7 °T

ESTIMATED FETCH 2700 m
 AIR TEMPERATURE AT 2.25m 9.25 C
 AIR TEMPERATURE AT 0.50m 9.88 C
 WATER TEMPERATURE 12.46 C

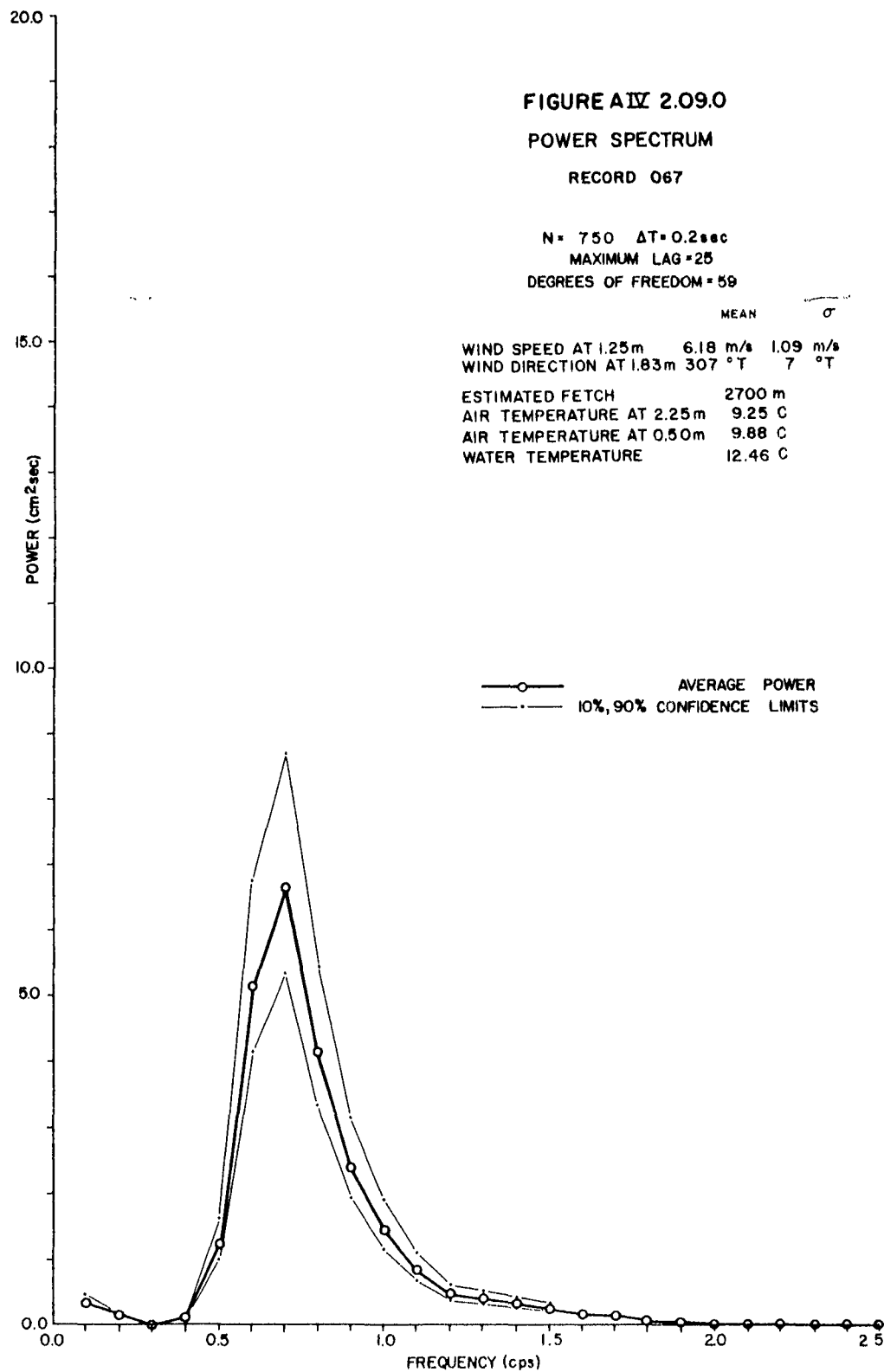


FIGURE A IV 2.10.0

POWER SPECTRUM

RECORD 068

N = 850 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 67

MEAN σ

WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
 WIND DIRECTION AT 1.83m 307 °T 7 °T

ESTIMATED FETCH 2700 m
 AIR TEMPERATURE AT 2.25m 9.25 C
 AIR TEMPERATURE AT 0.50m 9.88 C
 WATER TEMPERATURE 12.46 C

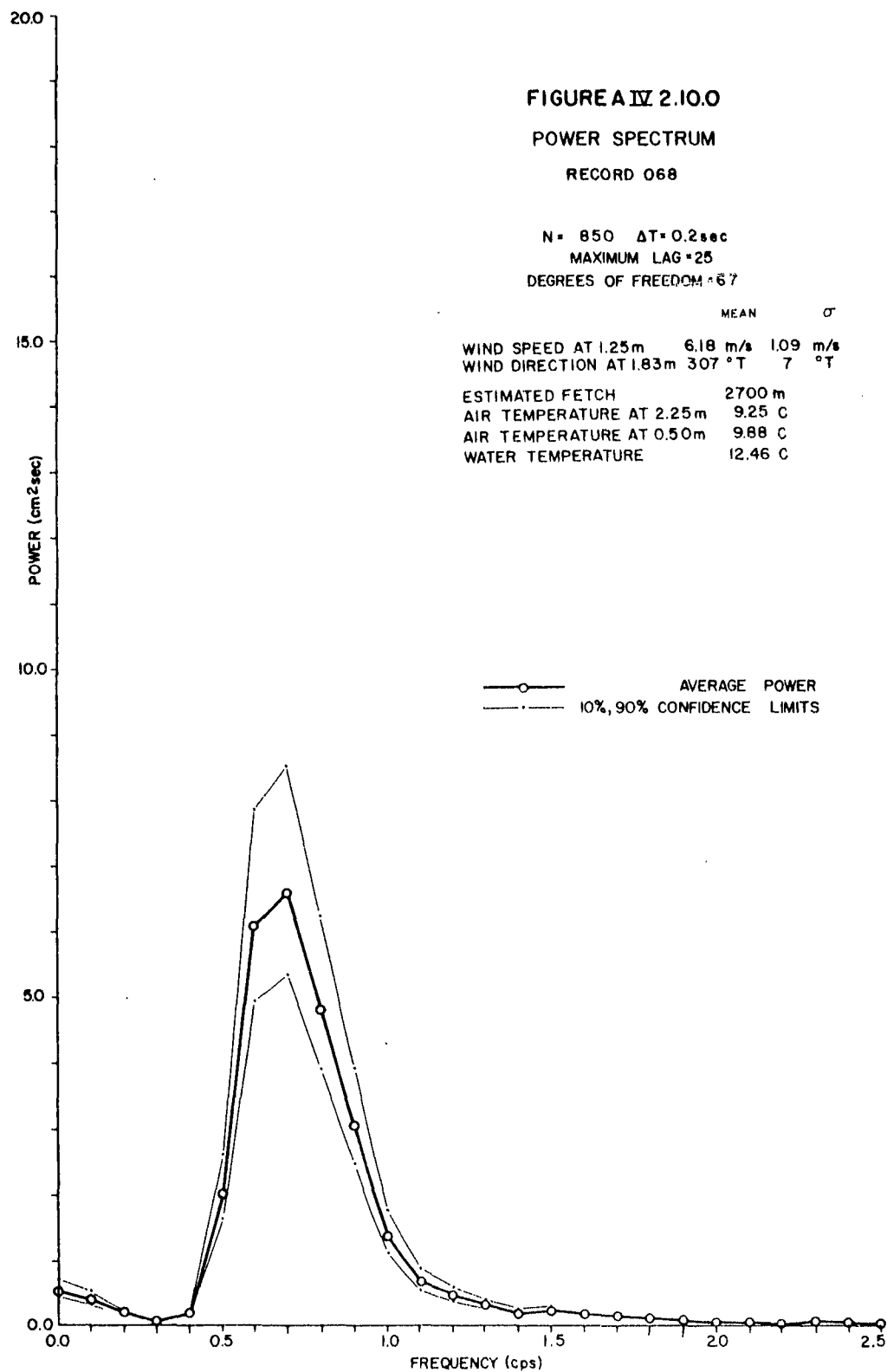


FIGURE A IV 2.11.0

POWER SPECTRUM

RECORD 069

N = 750 $\Delta T = 0.2 \text{ sec}$
 MAXIMUM LAG = 25
 DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	5.61 m/s	0.98 m/s
WIND DIRECTION AT 1.83m	312 °T	9 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.78 C	
AIR TEMPERATURE AT 0.50m	9.52 C	
WATER TEMPERATURE	12.45 C	

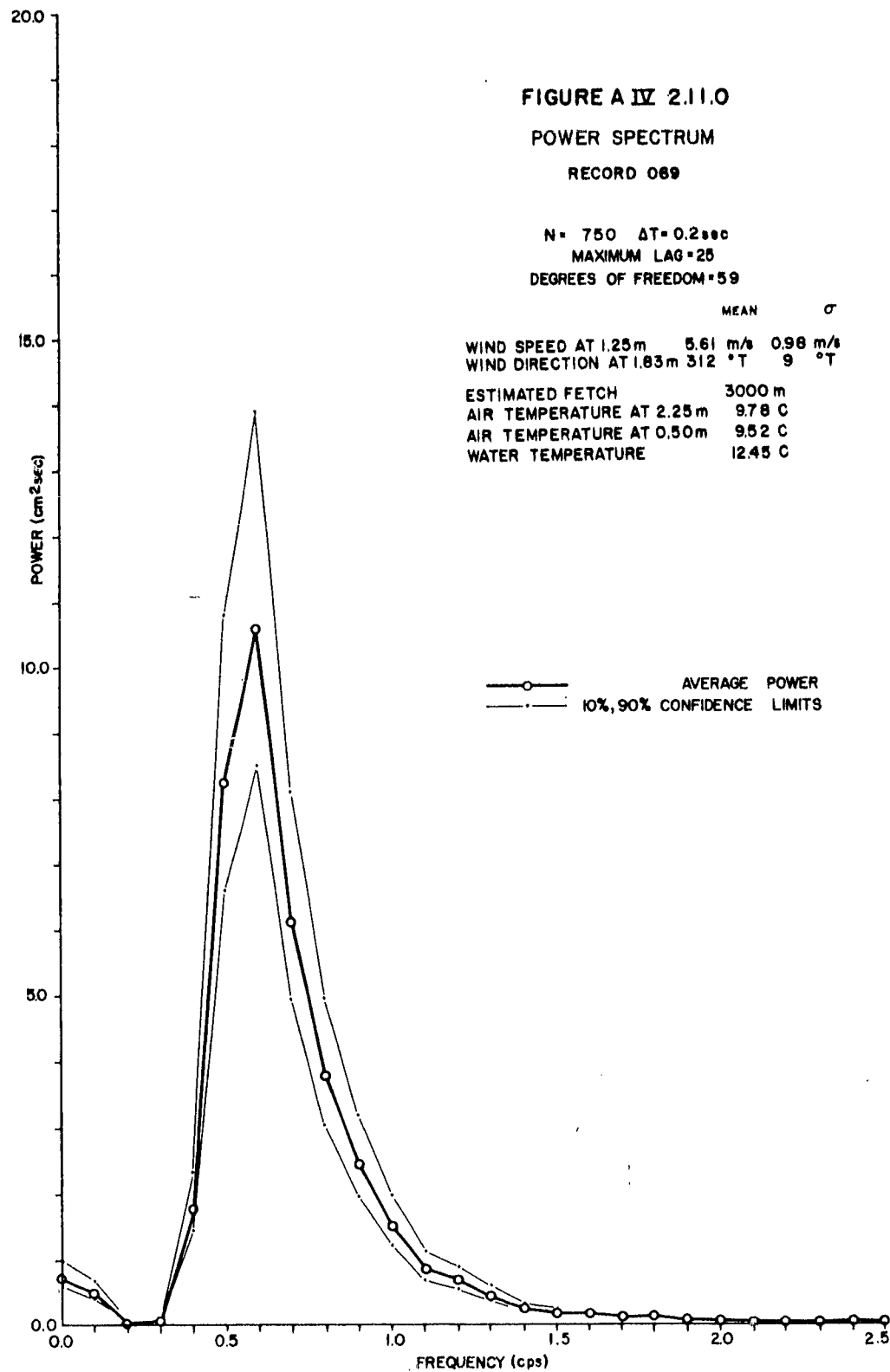


FIGURE A IV 2.12.0

POWER SPECTRUM

RECORD 070

N = 880 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 70

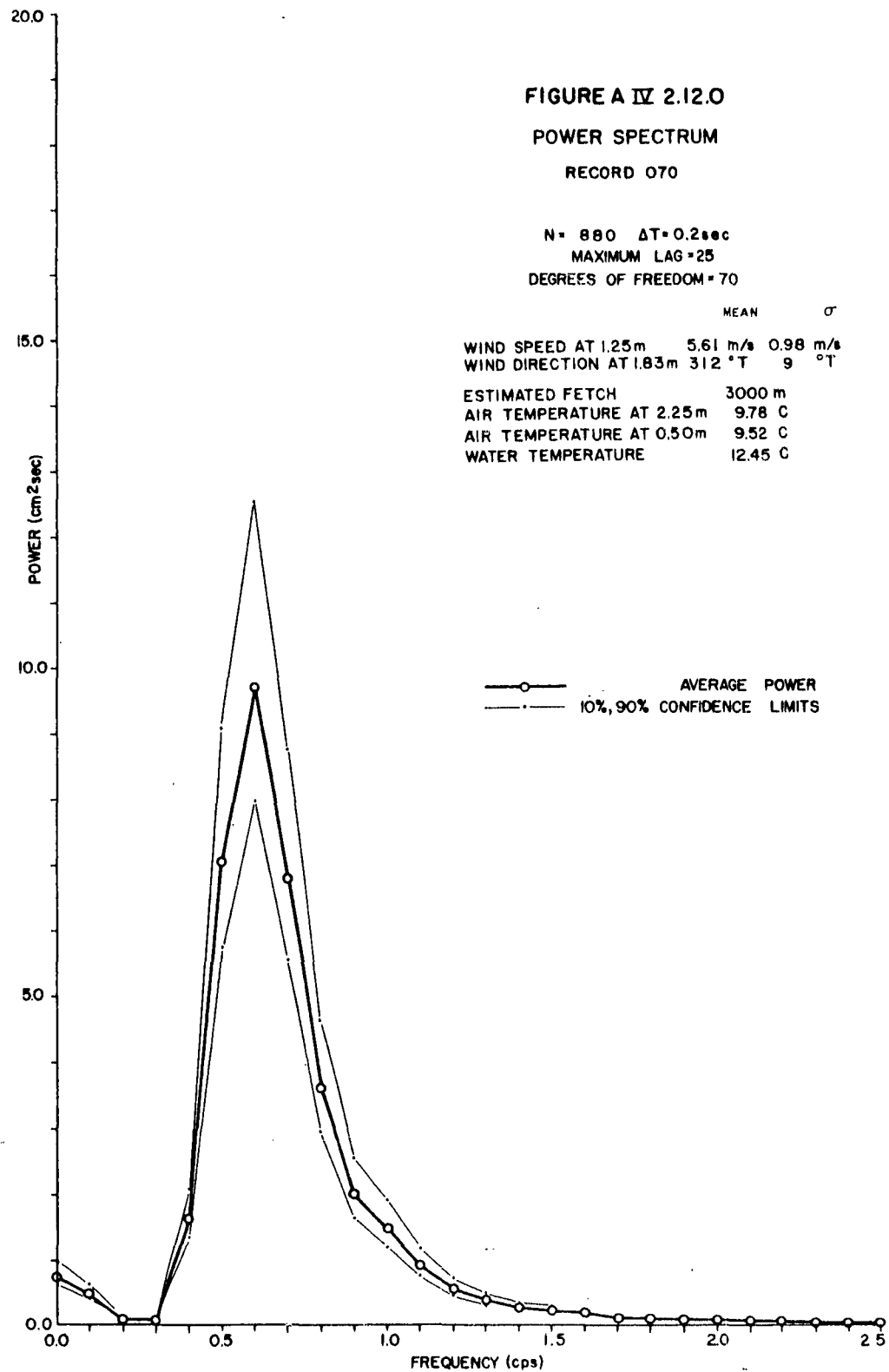
MEAN σ WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T

ESTIMATED FETCH 3000 m

AIR TEMPERATURE AT 2.25m 9.78 C

AIR TEMPERATURE AT 0.50m 9.52 C

WATER TEMPERATURE 12.45 C



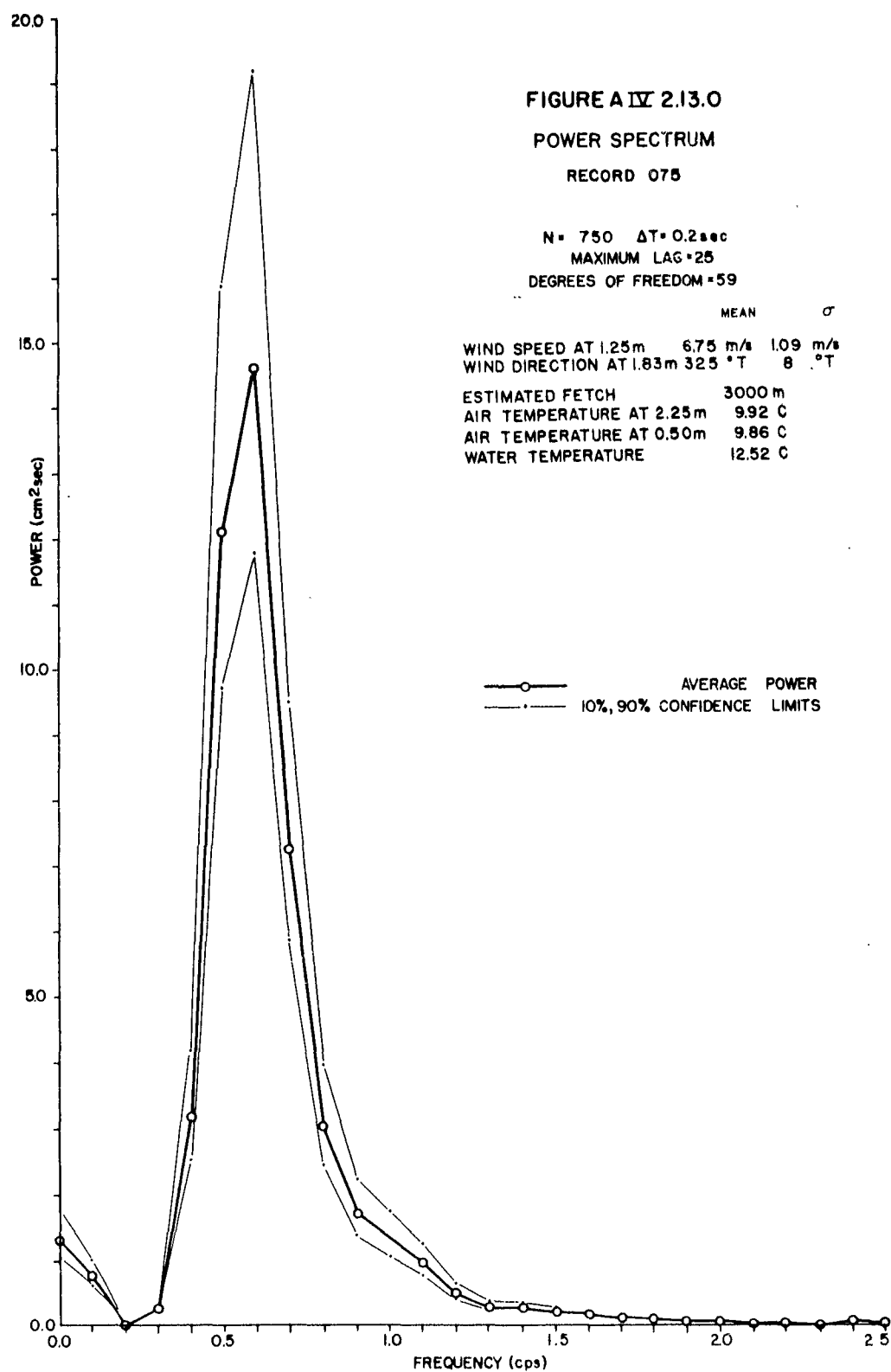


FIGURE AIV 2.14.0

POWER SPECTRUM

RECORD 076

N = 850 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 67

MEAN σ

WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
 WIND DIRECTION AT 1.83m 325 °T 8 °T

ESTIMATED FETCH 3000 m
 AIR TEMPERATURE AT 2.25m 9.92 C
 AIR TEMPERATURE AT 0.50m 9.86 C
 WATER TEMPERATURE 12.52 C

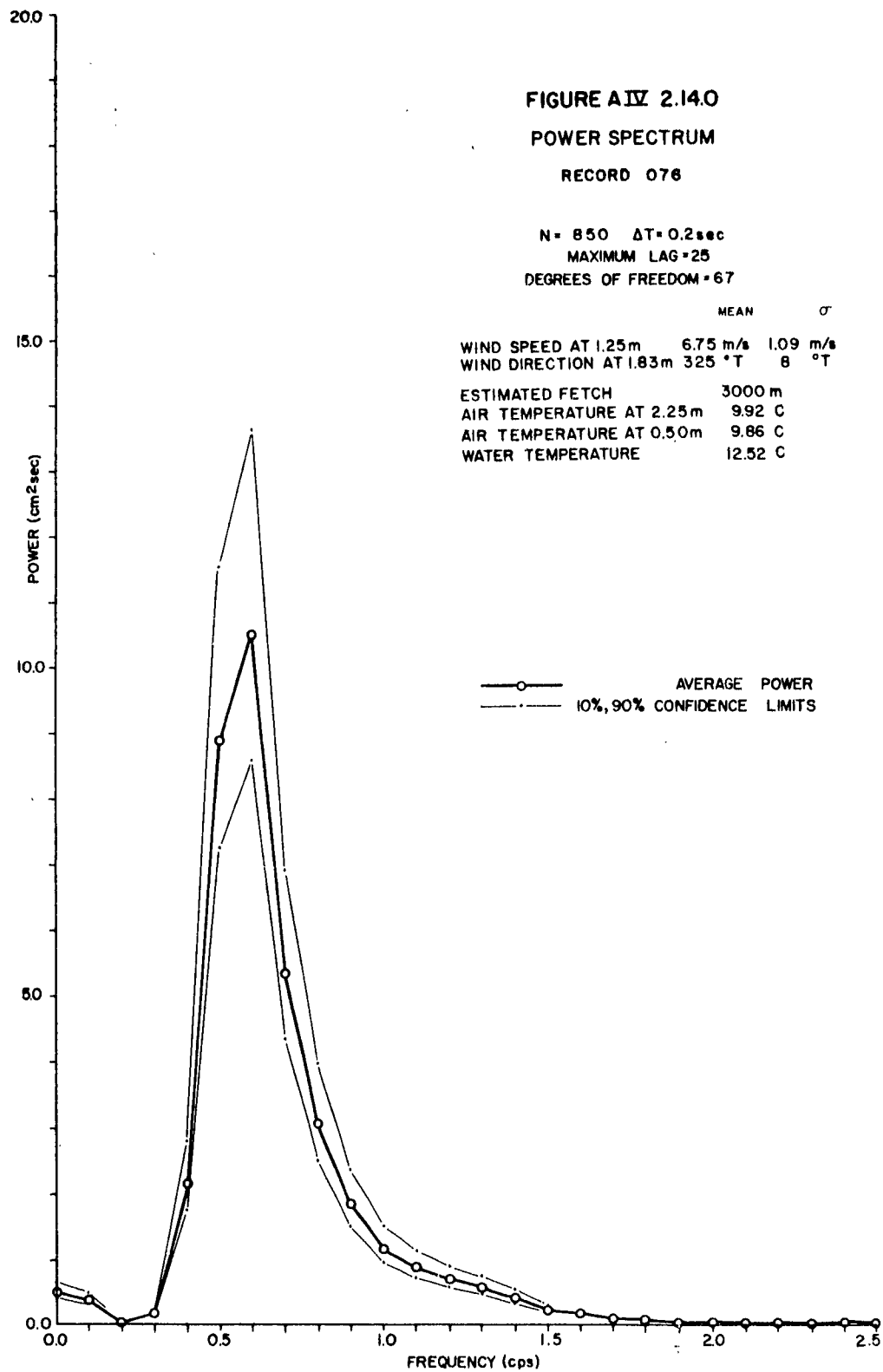


FIGURE A IV 2.15.0

POWER SPECTRUM

RECORD 081

N = 750 $\Delta T = 0.2 \text{ sec}$
 MAXIMUM LAG = 25
 DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	6.78 m/s	1.17 m/s
WIND DIRECTION AT 1.83m	326 °T	8 °T

ESTIMATED FETCH	3000 m
AIR TEMPERATURE AT 2.25m	10.42 °C
AIR TEMPERATURE AT 0.50m	10.46 °C
WATER TEMPERATURE	12.69 °C

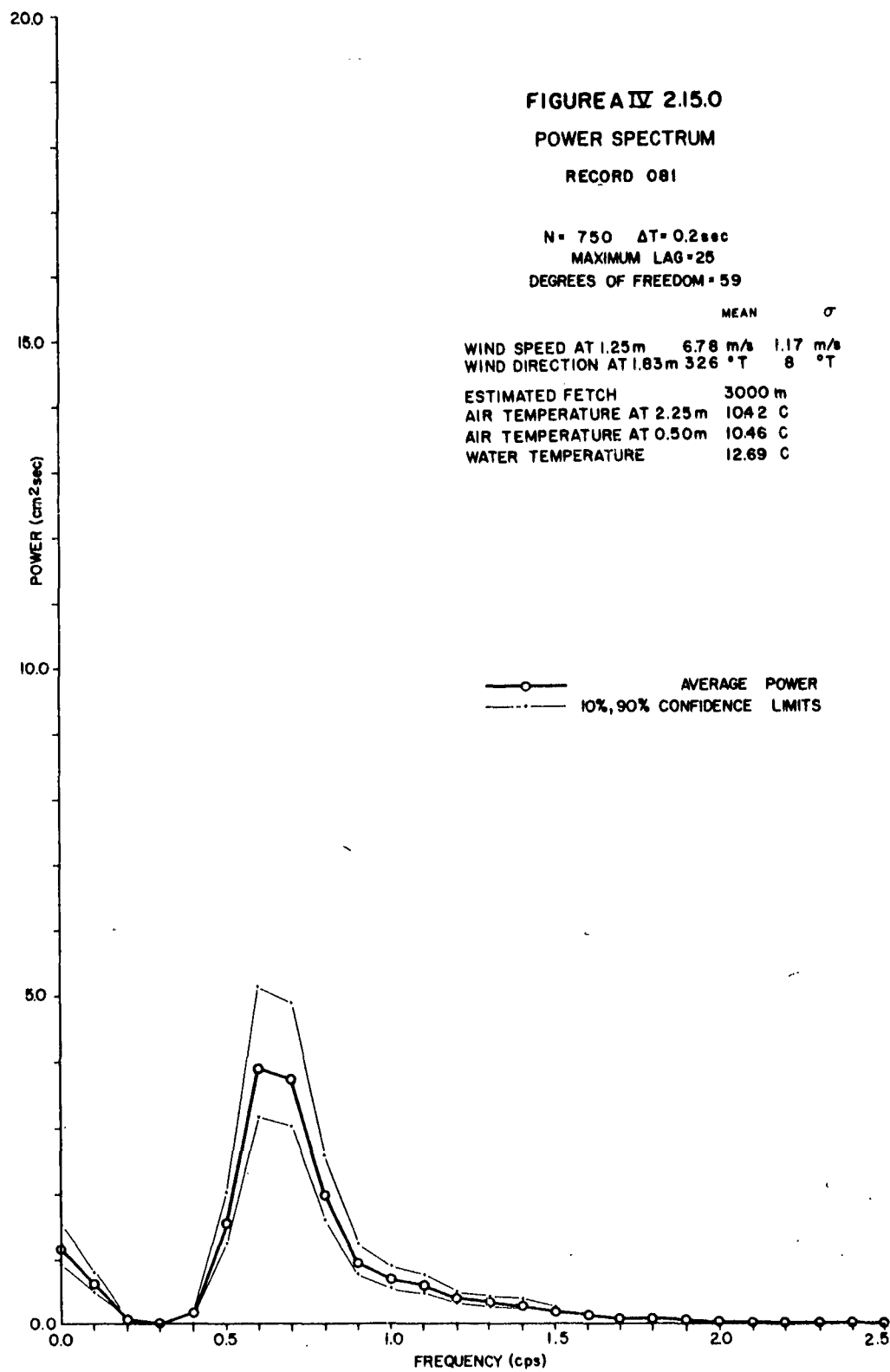


FIGURE AIV 2.16.0

POWER SPECTRUM

RECORD 082

N = 888 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 70

MEAN σ

WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
 WIND DIRECTION AT 1.83m 326 °T 8 °T

ESTIMATED FETCH 3000 m
 AIR TEMPERATURE AT 2.25m 10.42 C
 AIR TEMPERATURE AT 0.50m 10.46 C
 WATER TEMPERATURE 12.69 C

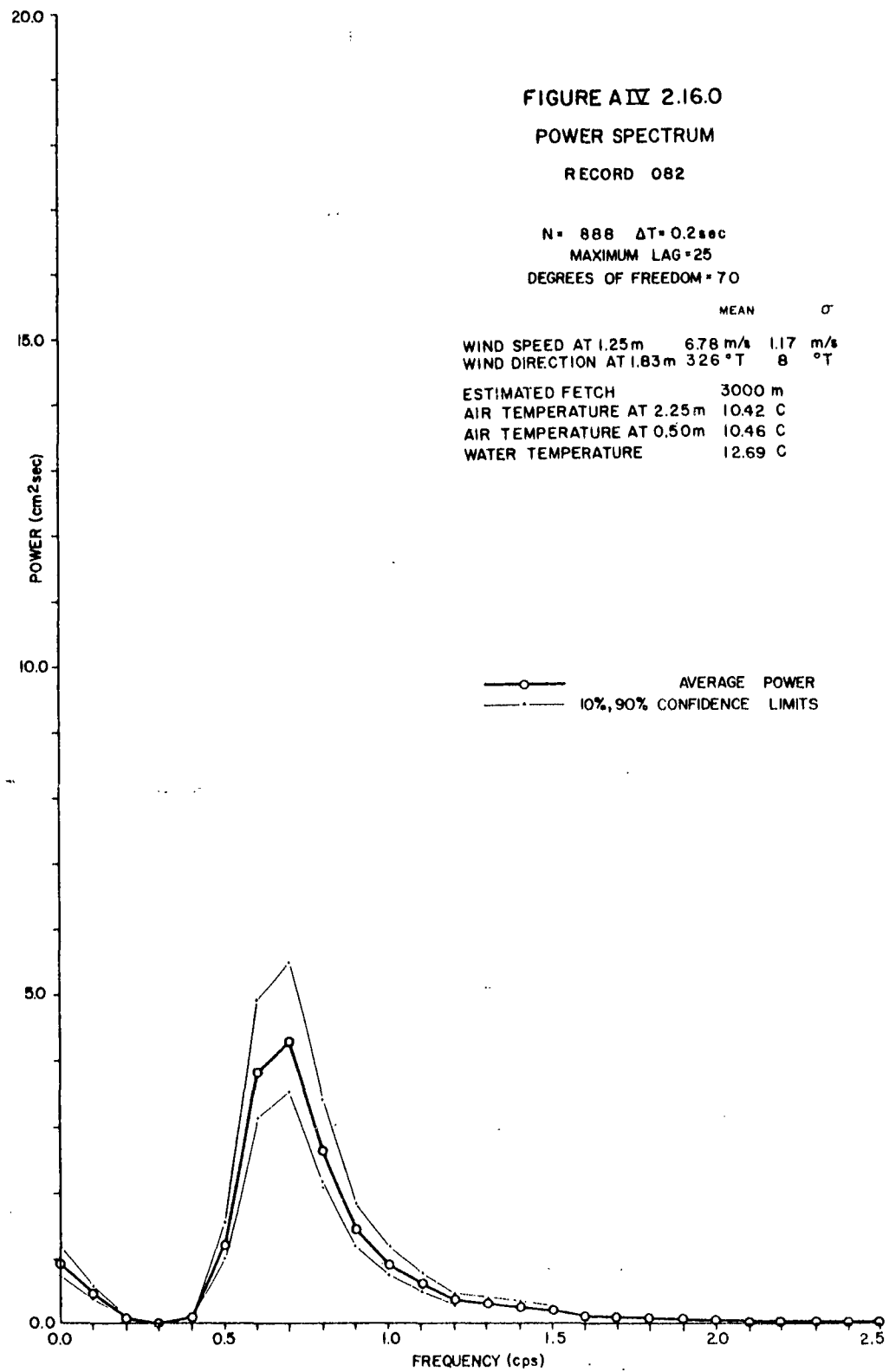


FIGURE A IV 2.17.0

POWER SPECTRUM

RECORD 083

N = 750 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 59

MEAN σ

WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
 WIND DIRECTION AT 1.83m 314 °T 12 °T

ESTIMATED FETCH 2700m
 AIR TEMPERATURE AT 2.25m 10.76 C
 AIR TEMPERATURE AT 0.50m 10.61 C
 WATER TEMPERATURE 12.72 C

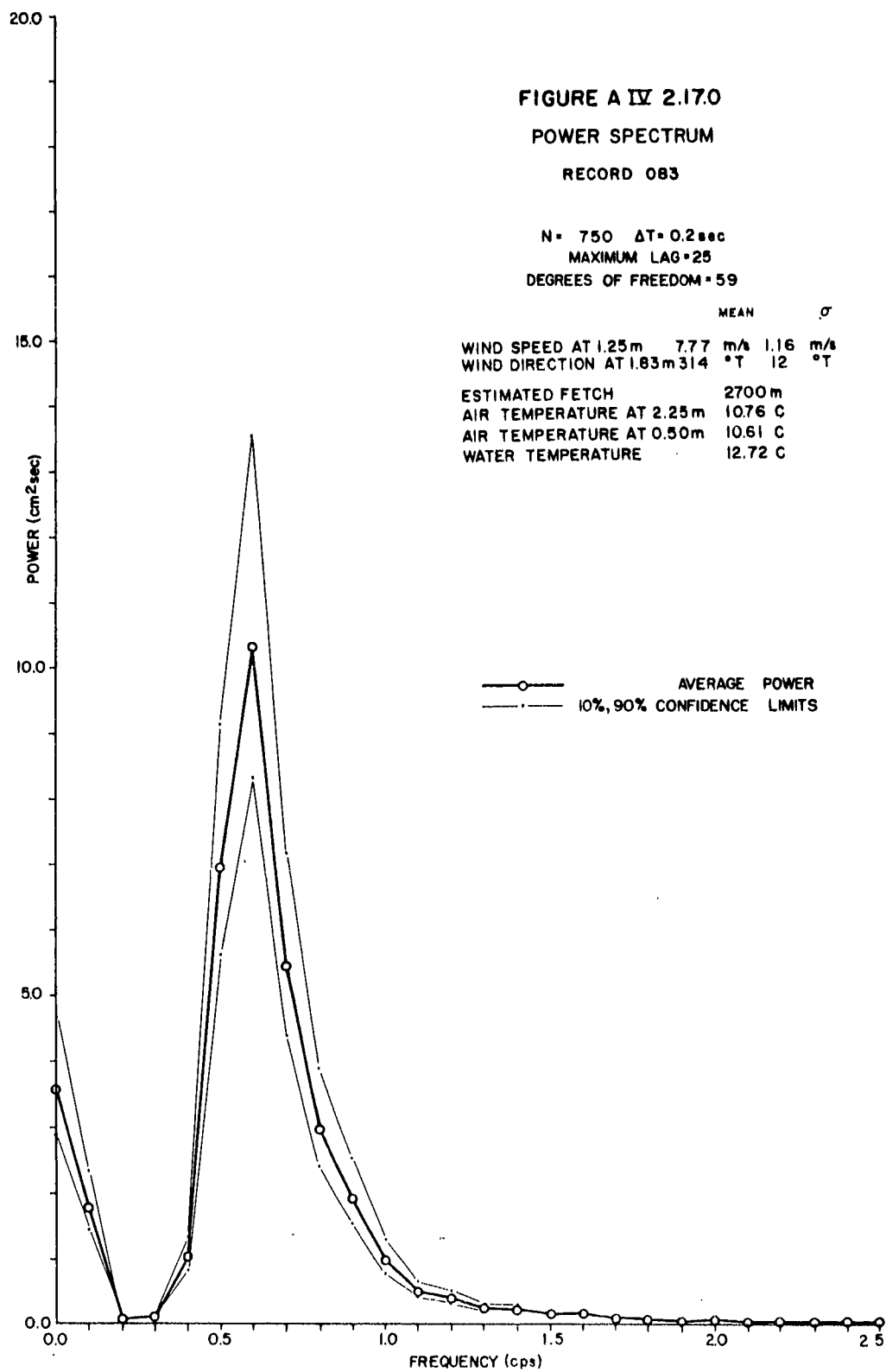


FIGURE AIV 2.18.0

POWER SPECTRUM

RECORD 084

N = 566 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 45

MEAN

 σ

WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
 WIND DIRECTION AT 1.83m 314 °T 12 °T

ESTIMATED FETCH 2700m
 AIR TEMPERATURE AT 2.25m 10.76 C
 AIR TEMPERATURE AT 0.50m 10.61 C
 WATER TEMPERATURE 12.72 C

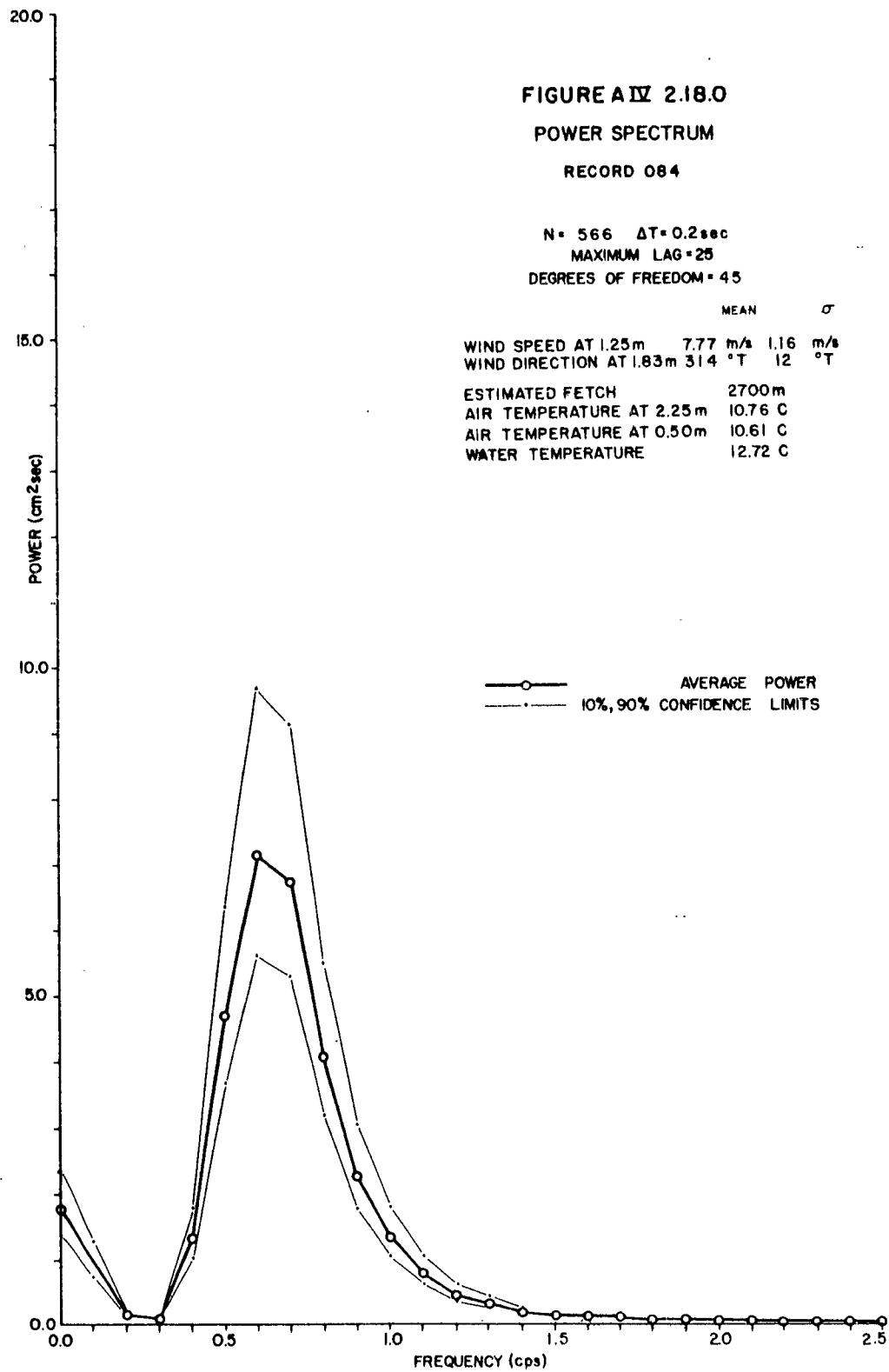


FIGURE A IV 2.19.0

POWER SPECTRUM

RECORD 085

N = 750 $\Delta T = 0.2 \text{ sec}$
 MAXIMUM LAG = 25
 DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	7.87 m/s	1.31 m/s
WIND DIRECTION AT 1.83m	308 °T	9 °T
ESTIMATED FETCH	2800m	
AIR TEMPERATURE AT 2.25m	10.53 C	
AIR TEMPERATURE AT 0.50m	8.99 C	
WATER TEMPERATURE	12.70 C	

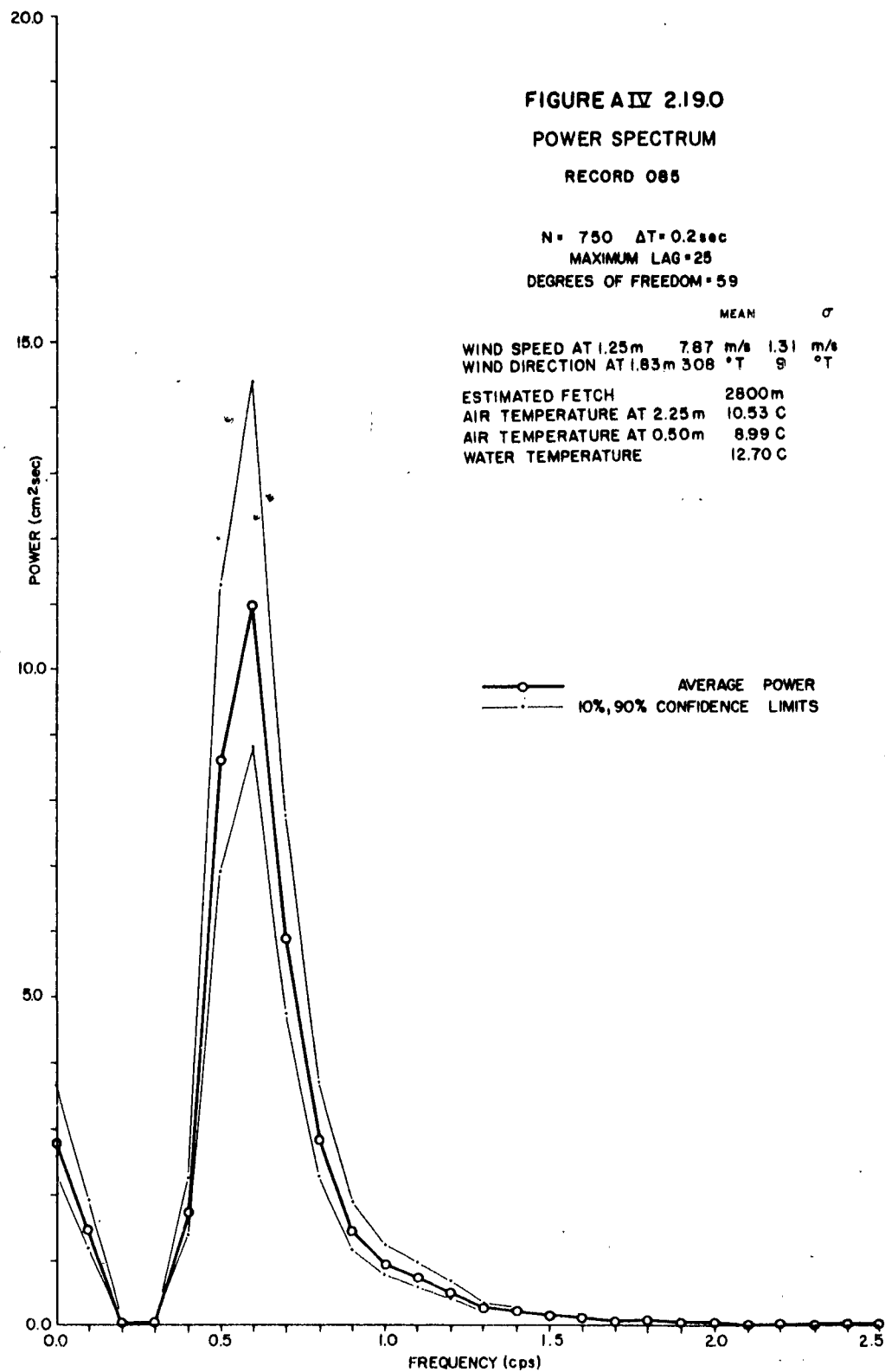


FIGURE AIV 2.20.0

POWER SPECTRUM

RECORD 086

N = 870 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 69

MEAN σ

WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
 WIND DIRECTION AT 1.83m 308 °T 9 °T

ESTIMATED FETCH 2800 m
 AIR TEMPERATURE AT 2.25m 10.53 C
 AIR TEMPERATURE AT 0.50m 8.99 C
 WATER TEMPERATURE 12.70 C

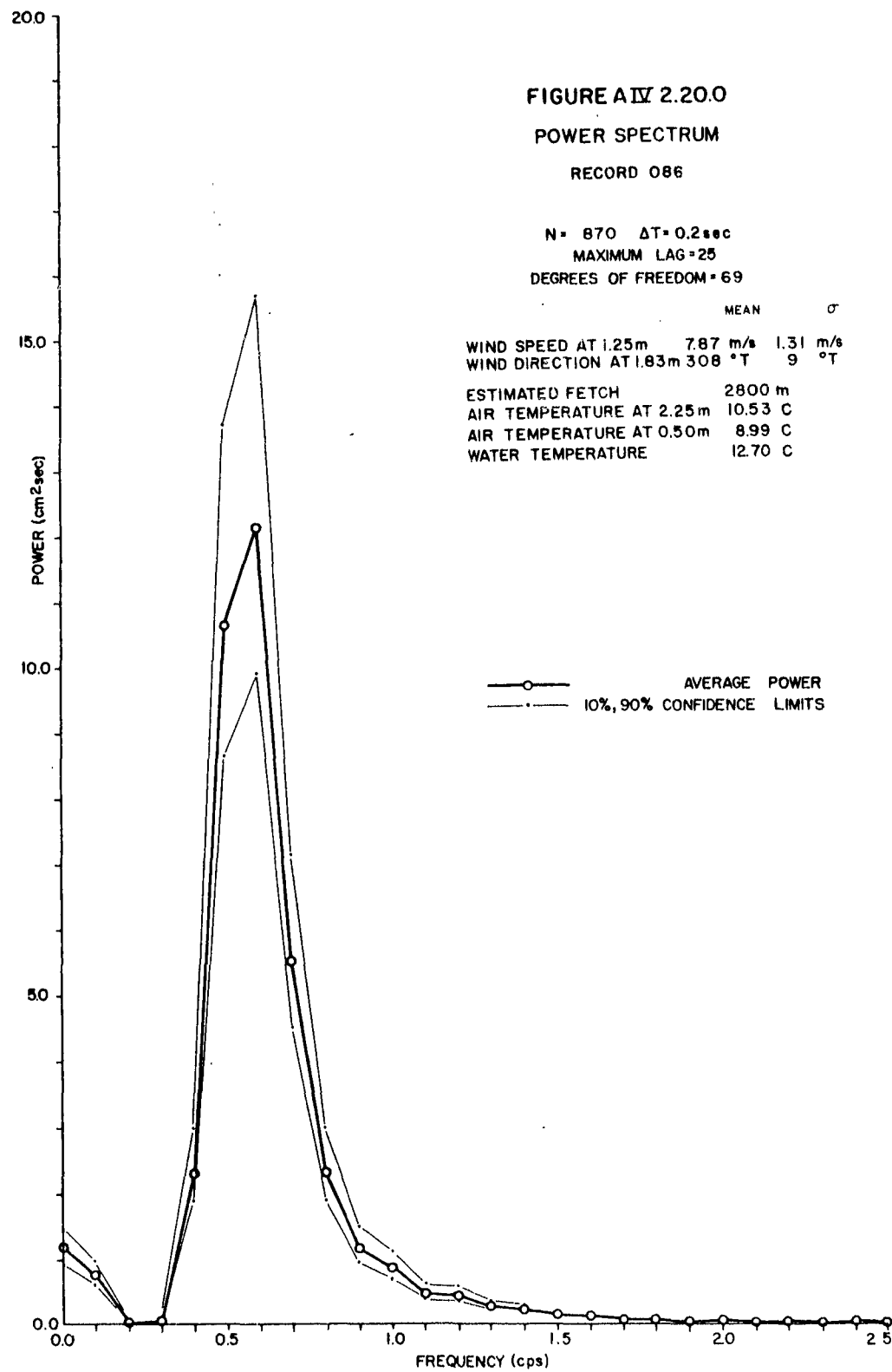


FIGURE A IV 2.21.0

POWER SPECTRUM

RECORD 087

N = 750 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 59

MEAN σ WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T

ESTIMATED FETCH 2300 m

AIR TEMPERATURE AT 2.25m 10.89 C

AIR TEMPERATURE AT 0.50m 10.56 C

WATER TEMPERATURE 12.79 C

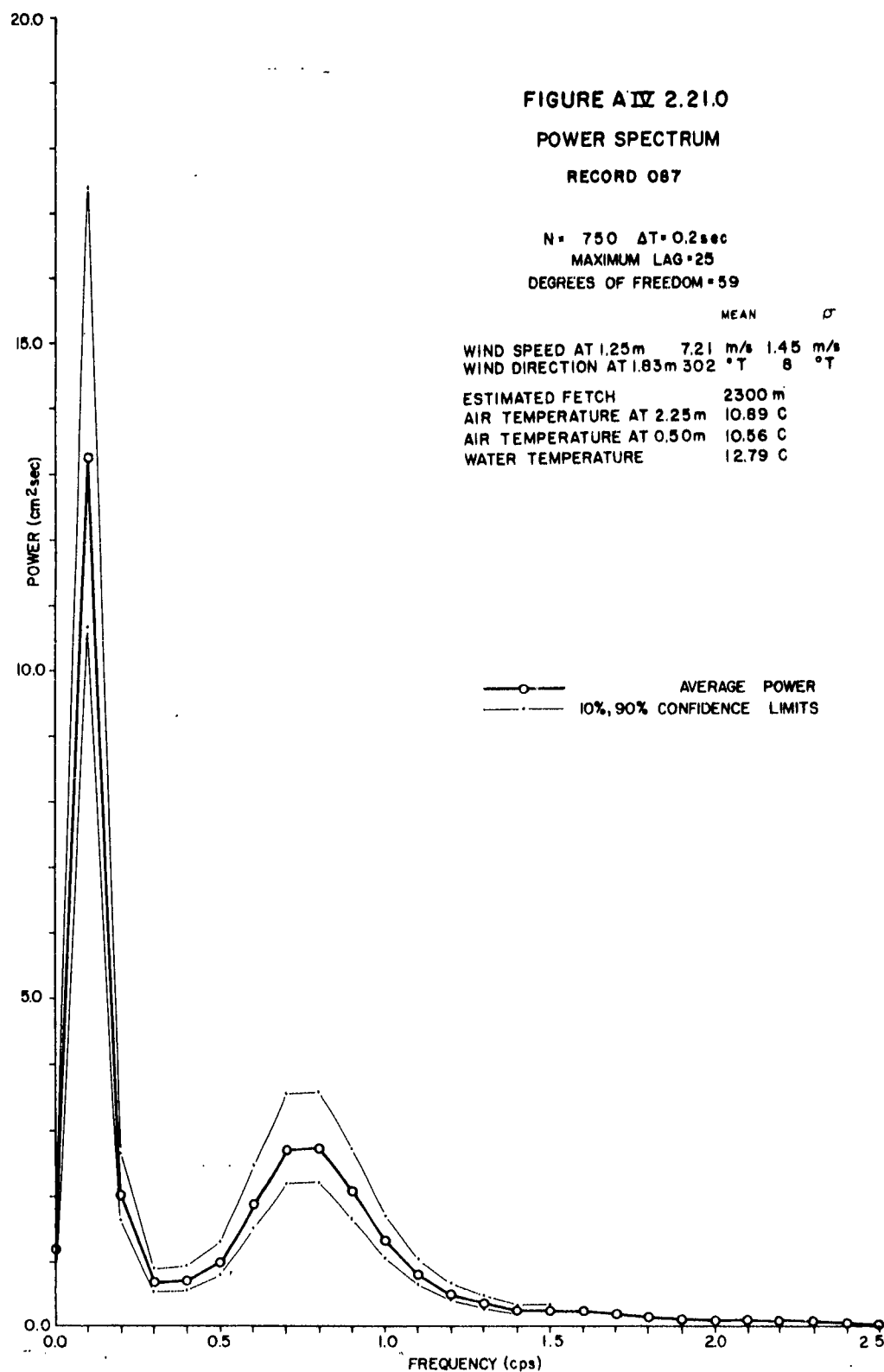


FIGURE AIX 2.22.0

POWER SPECTRUM

RECORD 088

N = 870 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 69

MEAN σ

WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
 WIND DIRECTION AT 1.83m 302 °T 8 °T

ESTIMATED FETCH 2300m
 AIR TEMPERATURE AT 2.25m 10.89 C
 AIR TEMPERATURE AT 0.50m 10.56 C
 WATER TEMPERATURE 12.79 C

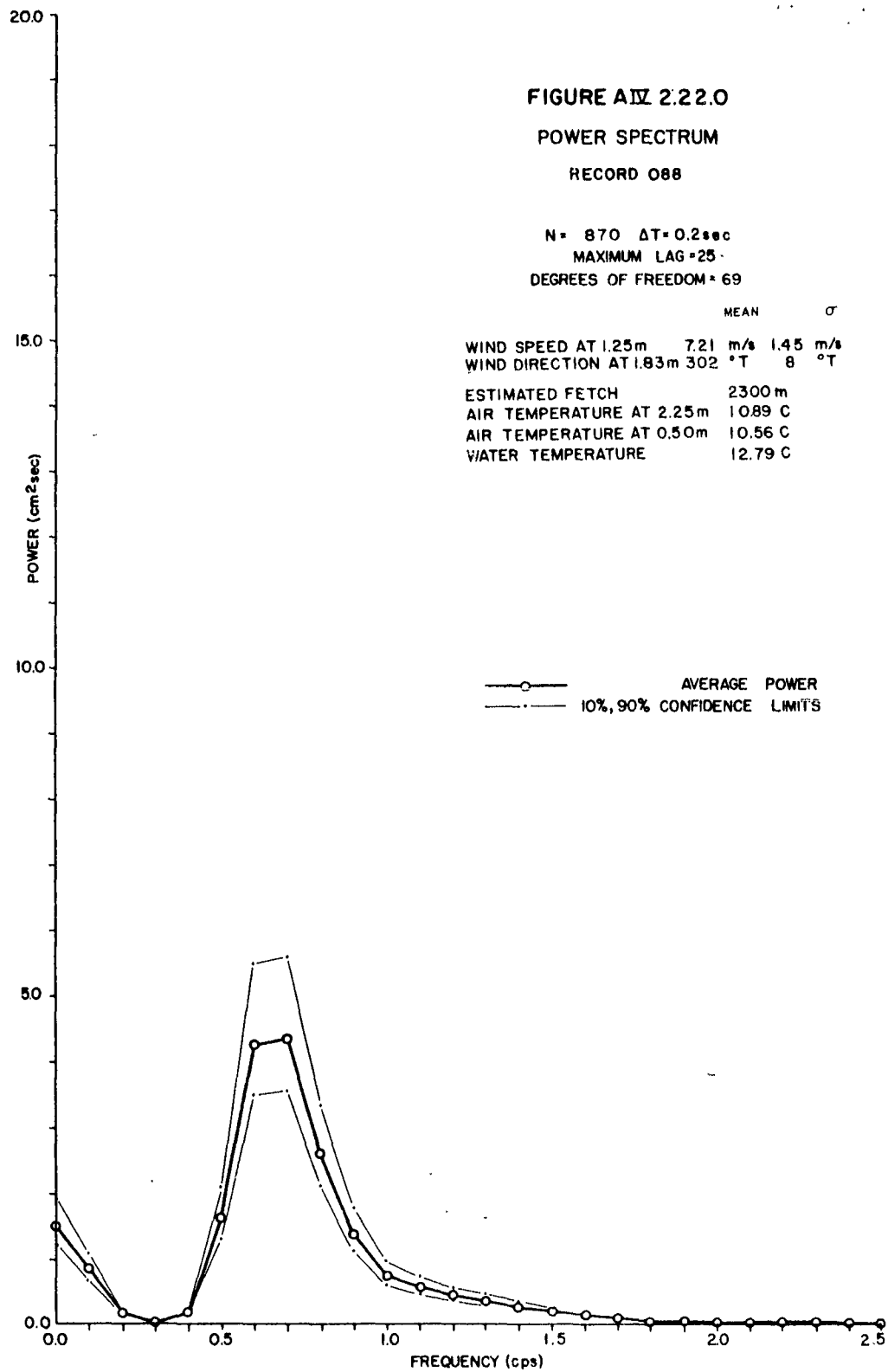


FIGURE AIV 2.23.0

POWER SPECTRUM

RECORD 093

N = 750 $\Delta T = 0.2 \text{ sec}$

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 59

MEAN σ

WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s

WIND DIRECTION AT 1.83m 305 °T 6 °T

ESTIMATED FETCH 2500m

AIR TEMPERATURE AT 2.25m 12.02 C

AIR TEMPERATURE AT 0.50m 11.86 C

WATER TEMPERATURE 12.87 C

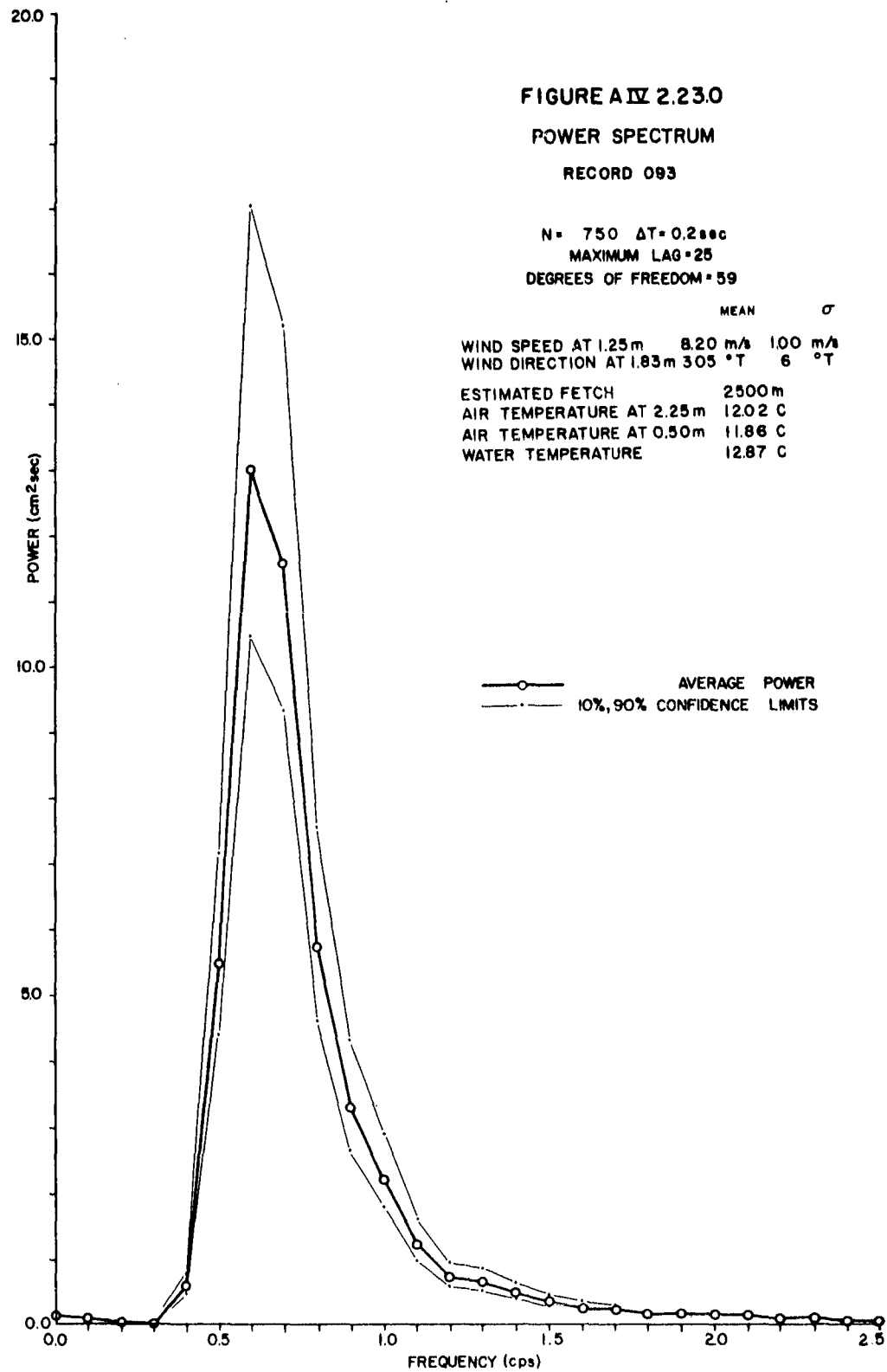


FIGURE AIV 2.24.0

POWER SPECTRUM

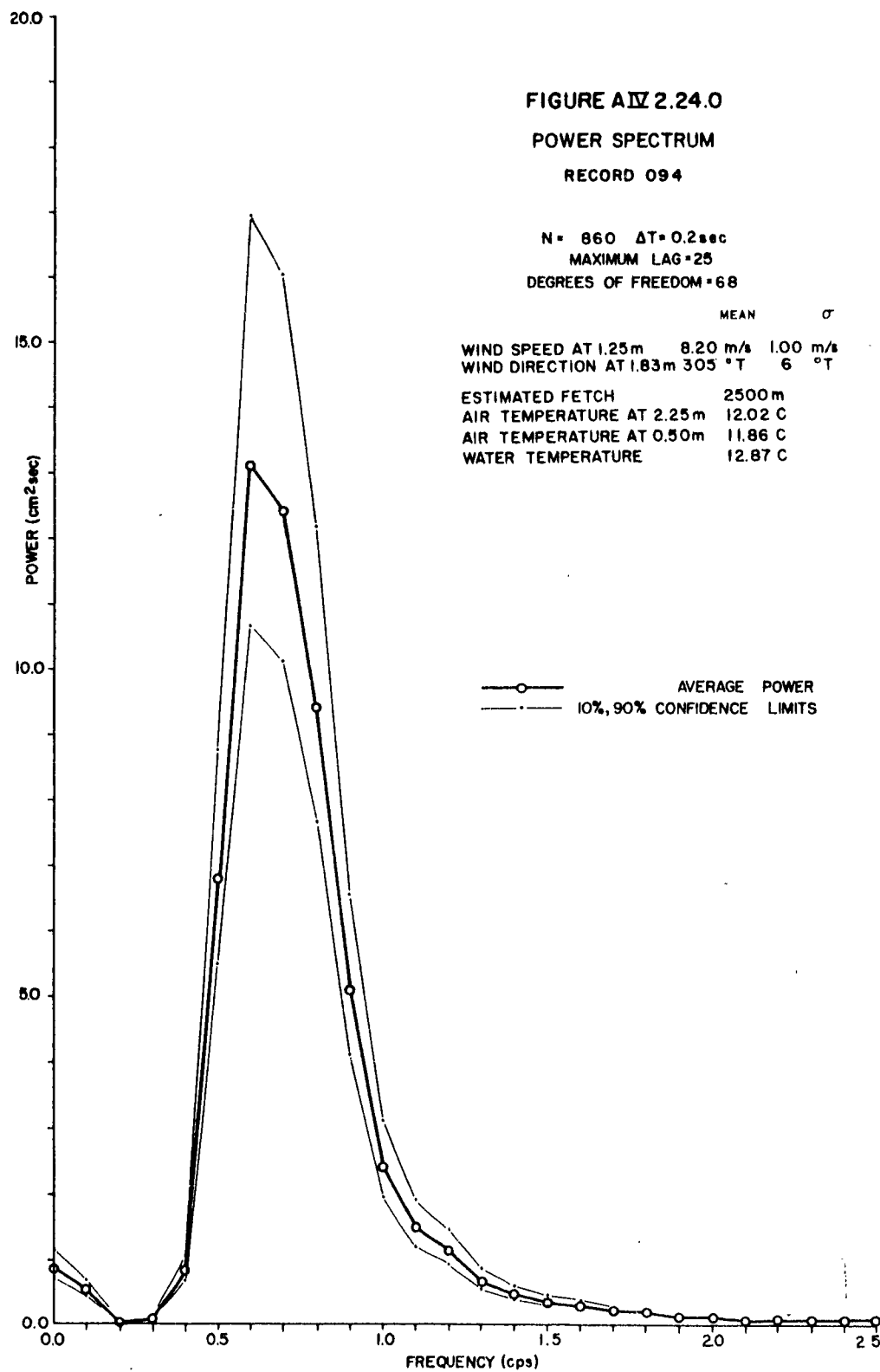
RECORD 094

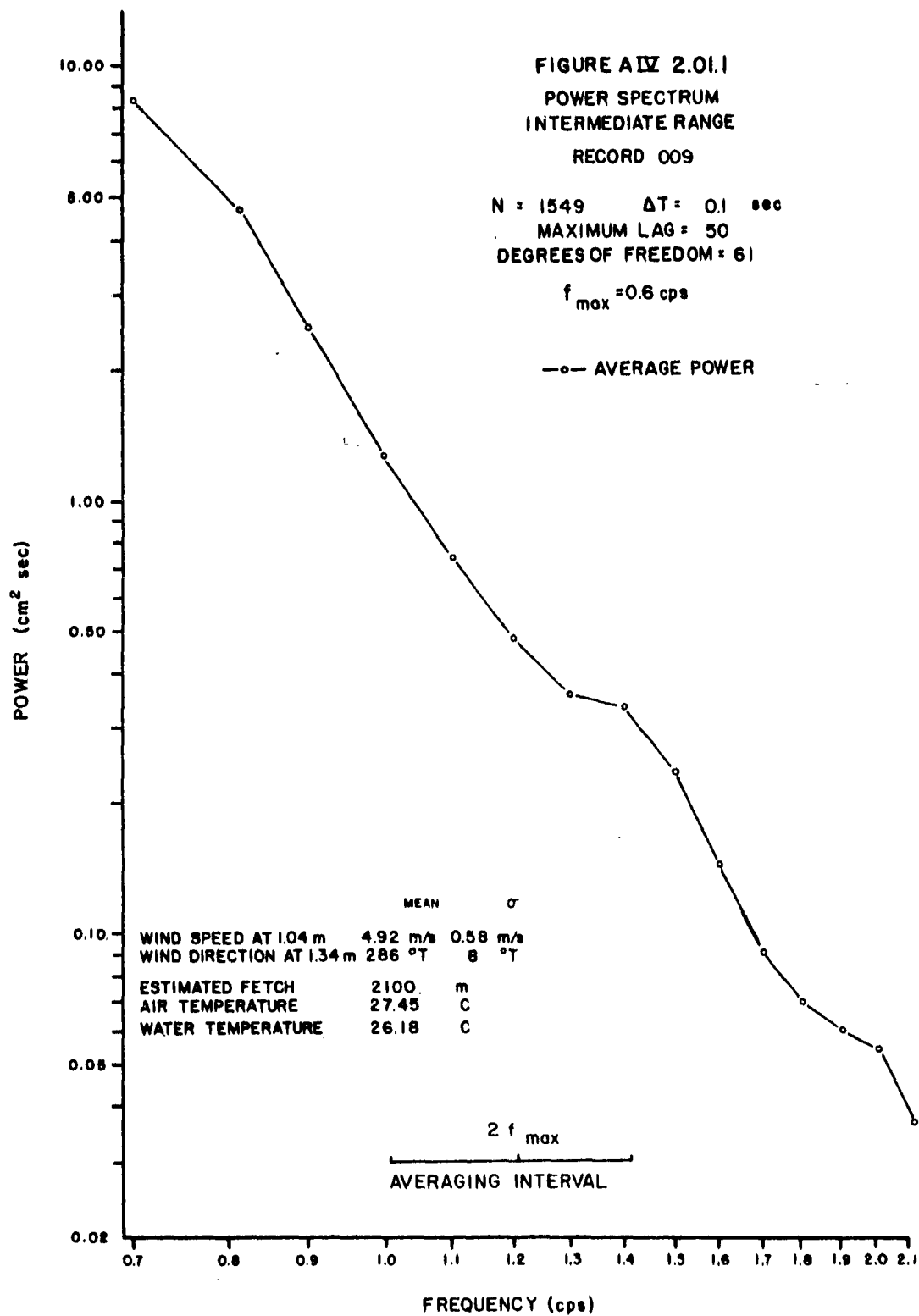
N = 860 $\Delta T = 0.2 \text{ sec}$
 MAXIMUM LAG = 25
 DEGREES OF FREEDOM = 68

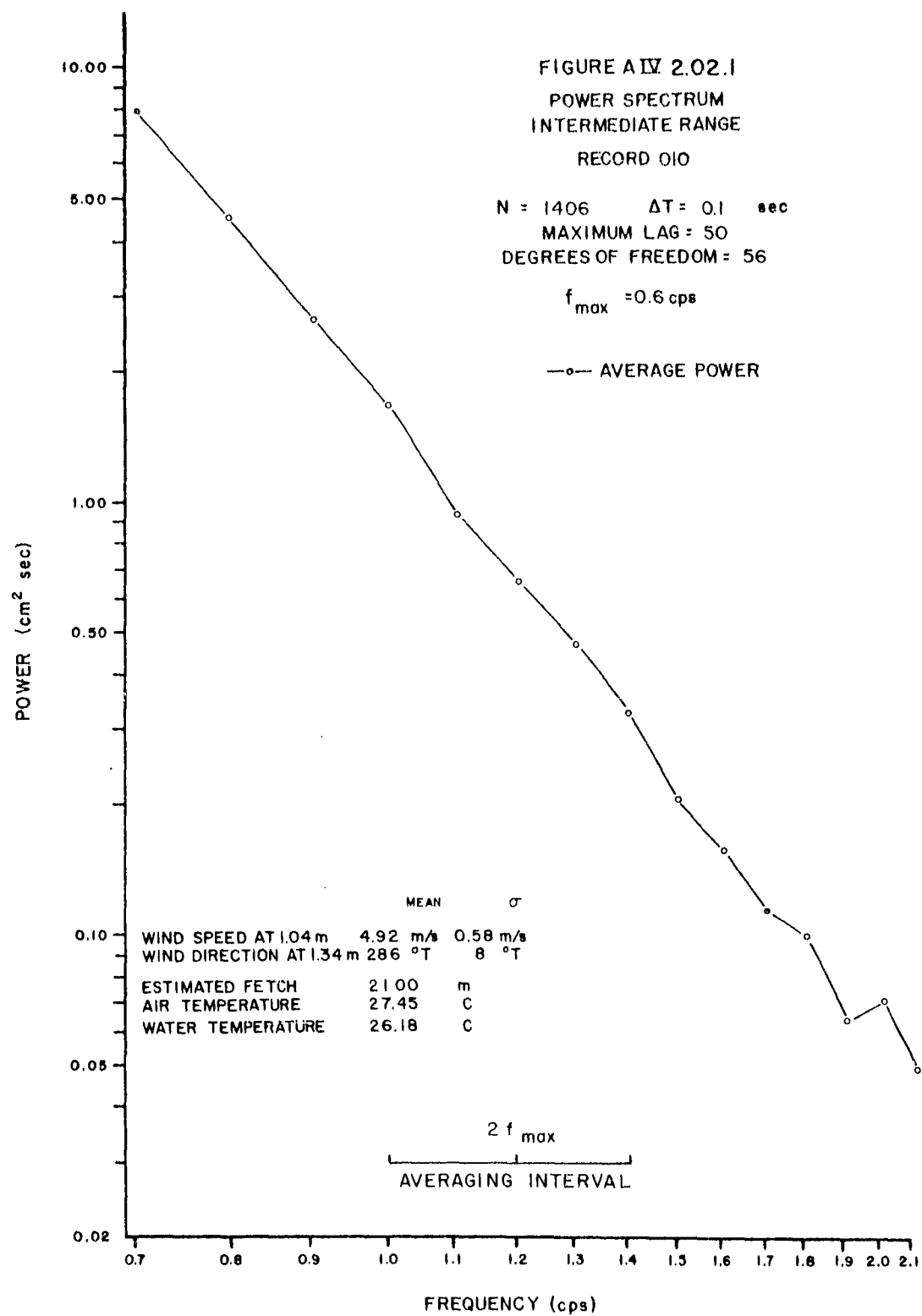
MEAN σ

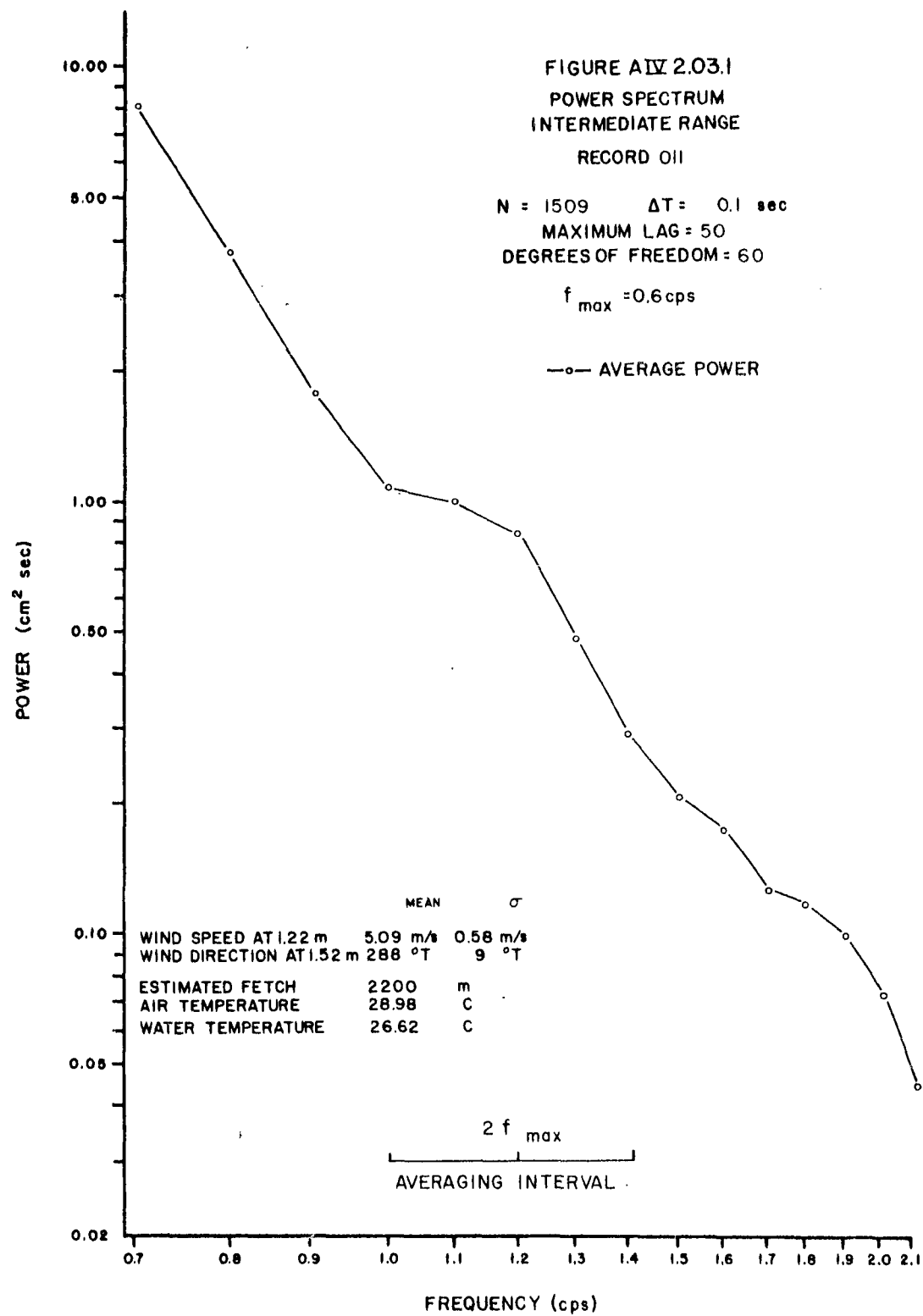
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
 WIND DIRECTION AT 1.83m 305 °T 6 °T

ESTIMATED FETCH 2500m
 AIR TEMPERATURE AT 2.25m 12.02 C
 AIR TEMPERATURE AT 0.50m 11.86 C
 WATER TEMPERATURE 12.87 C









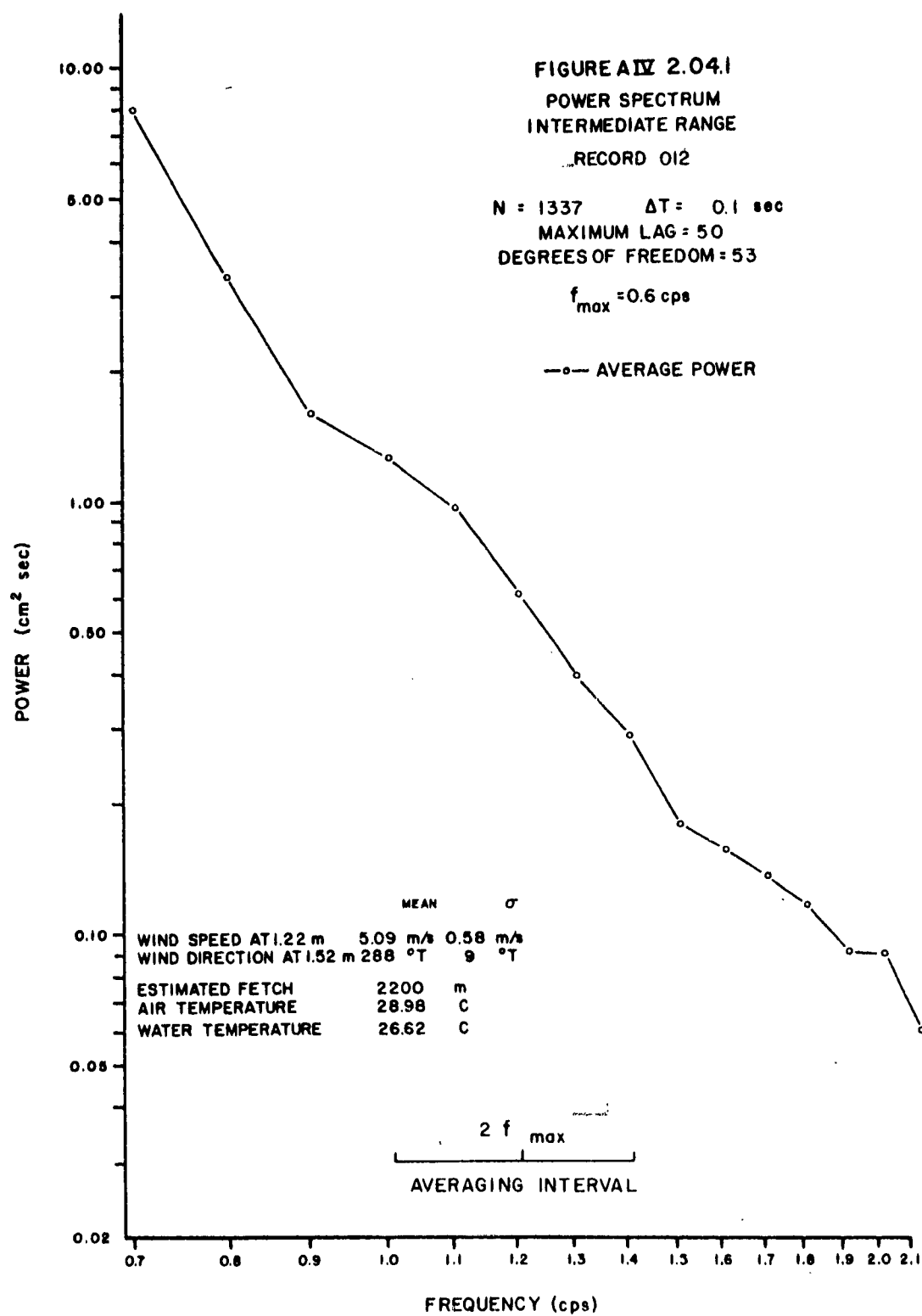


FIGURE AIV 2.05.1
POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 017

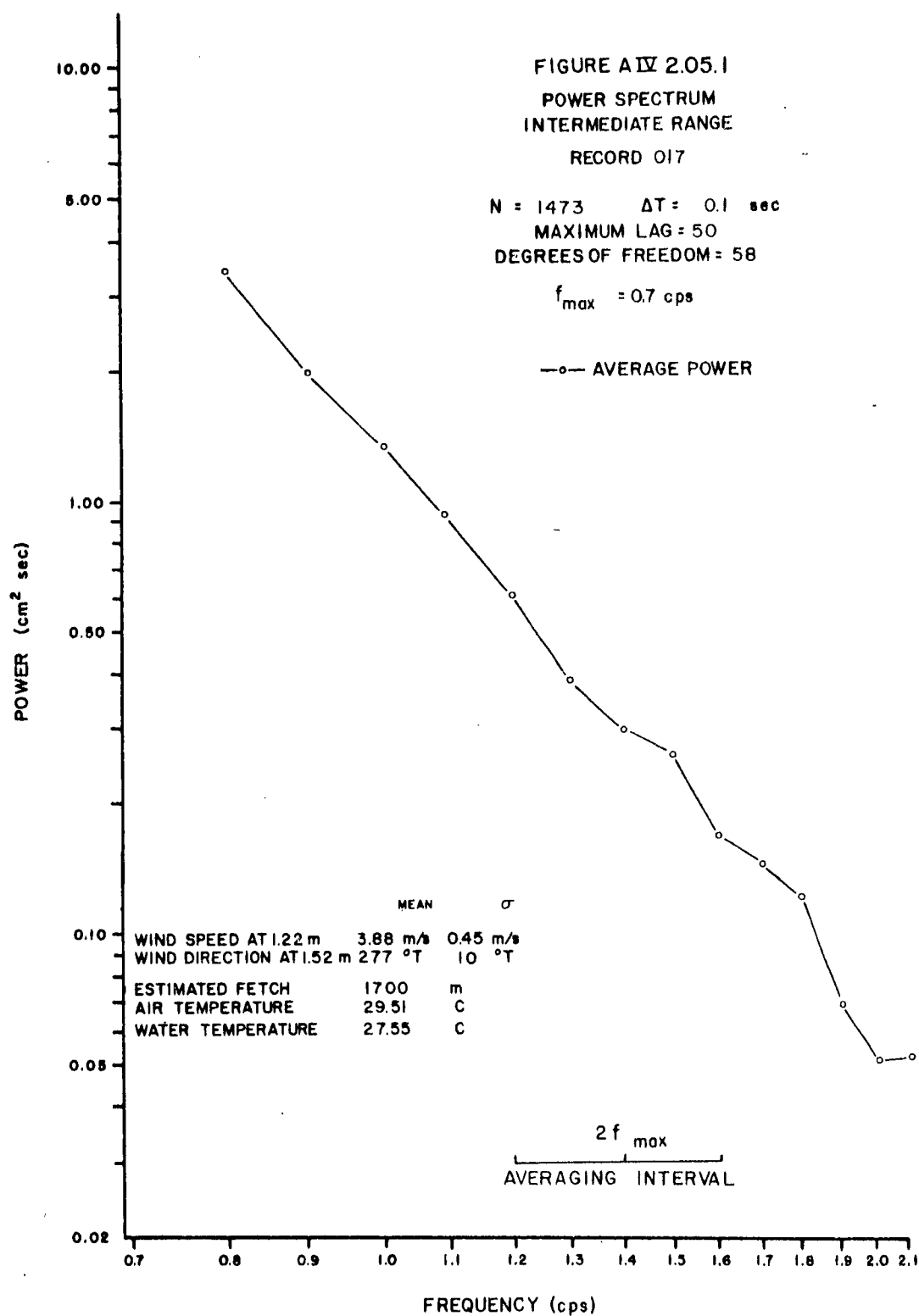
$N = 1473$ $\Delta T = 0.1 \text{ sec}$

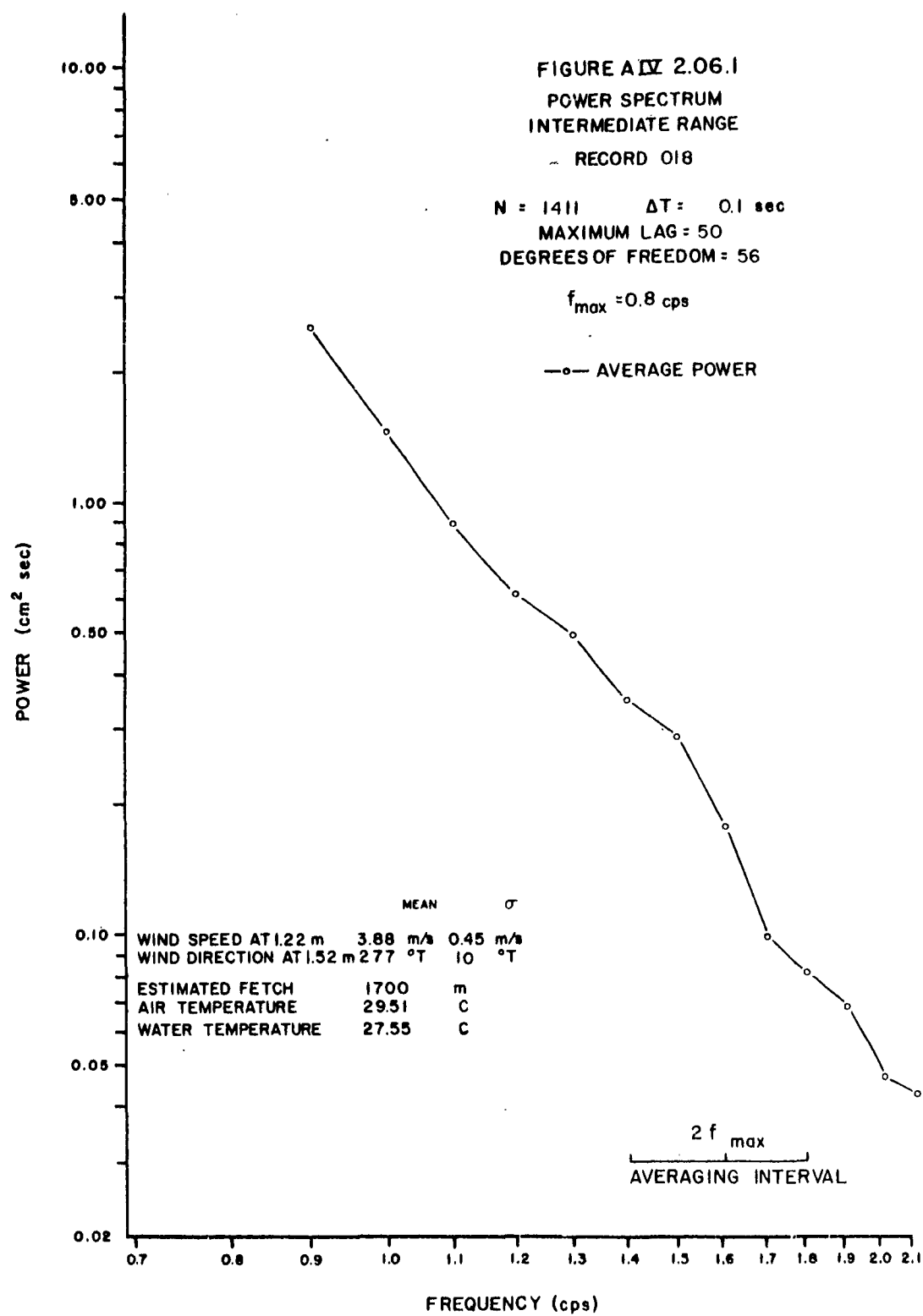
MAXIMUM LAG = 50

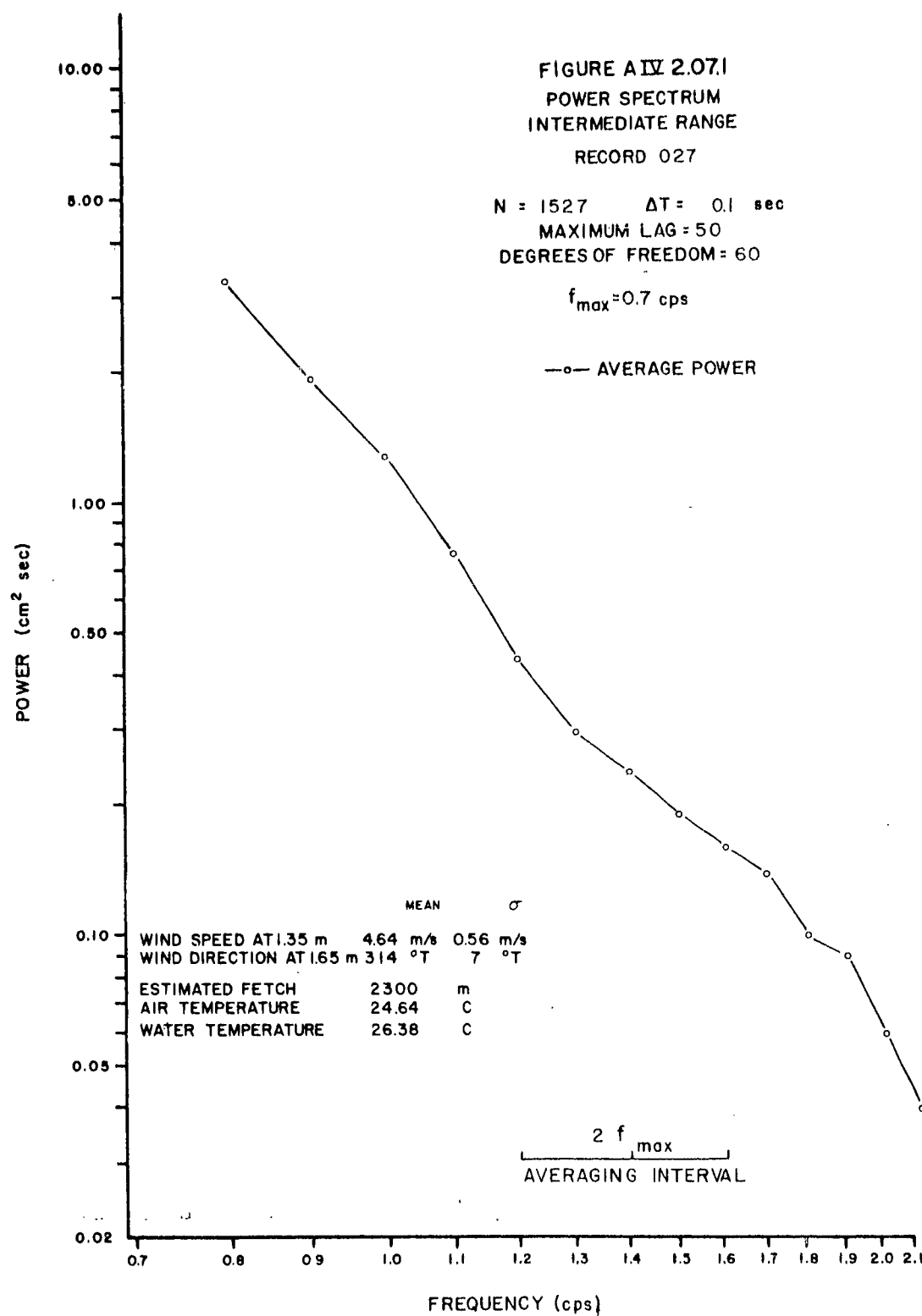
DEGREES OF FREEDOM = 58

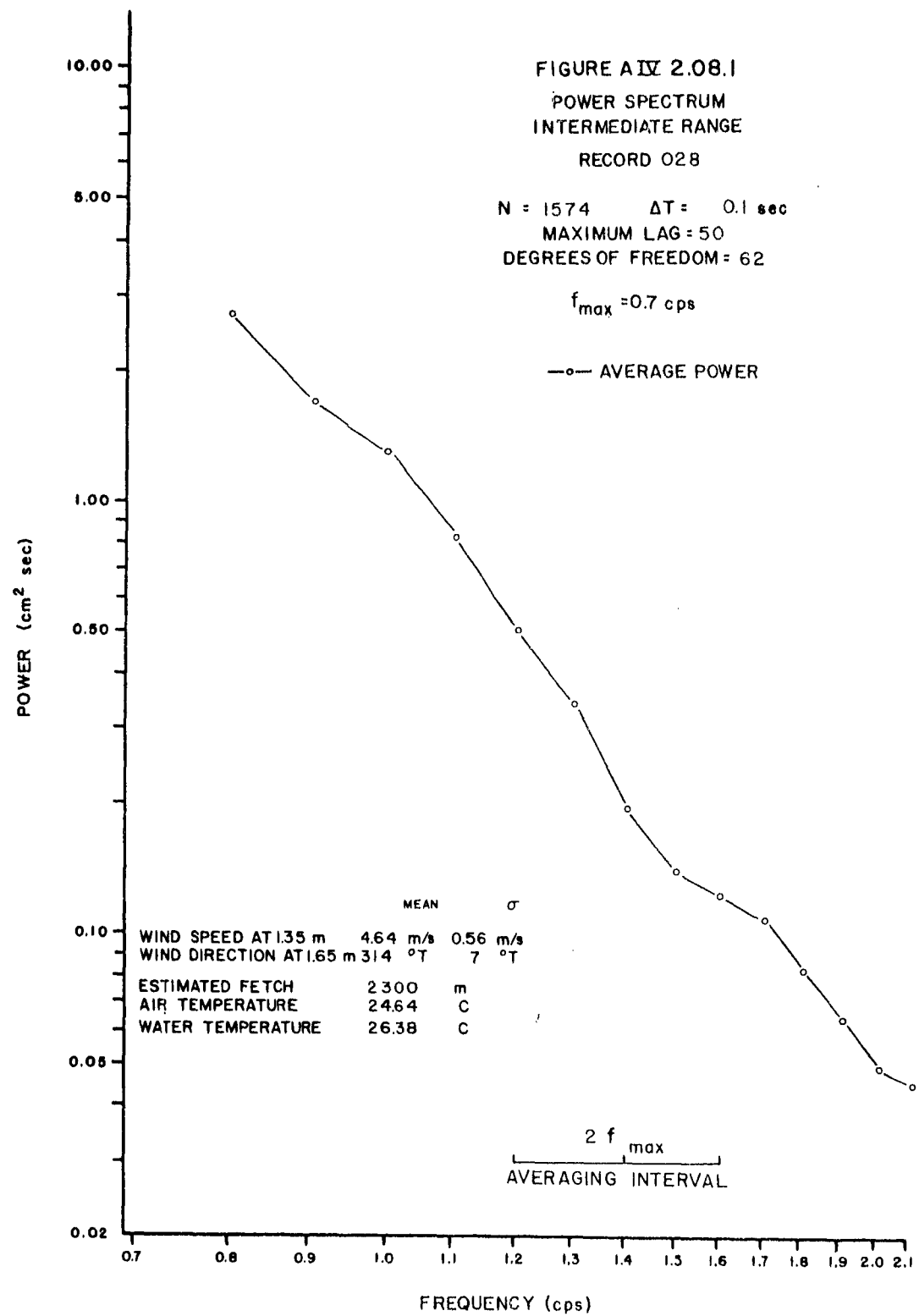
$f_{\max} = 0.7 \text{ cps}$

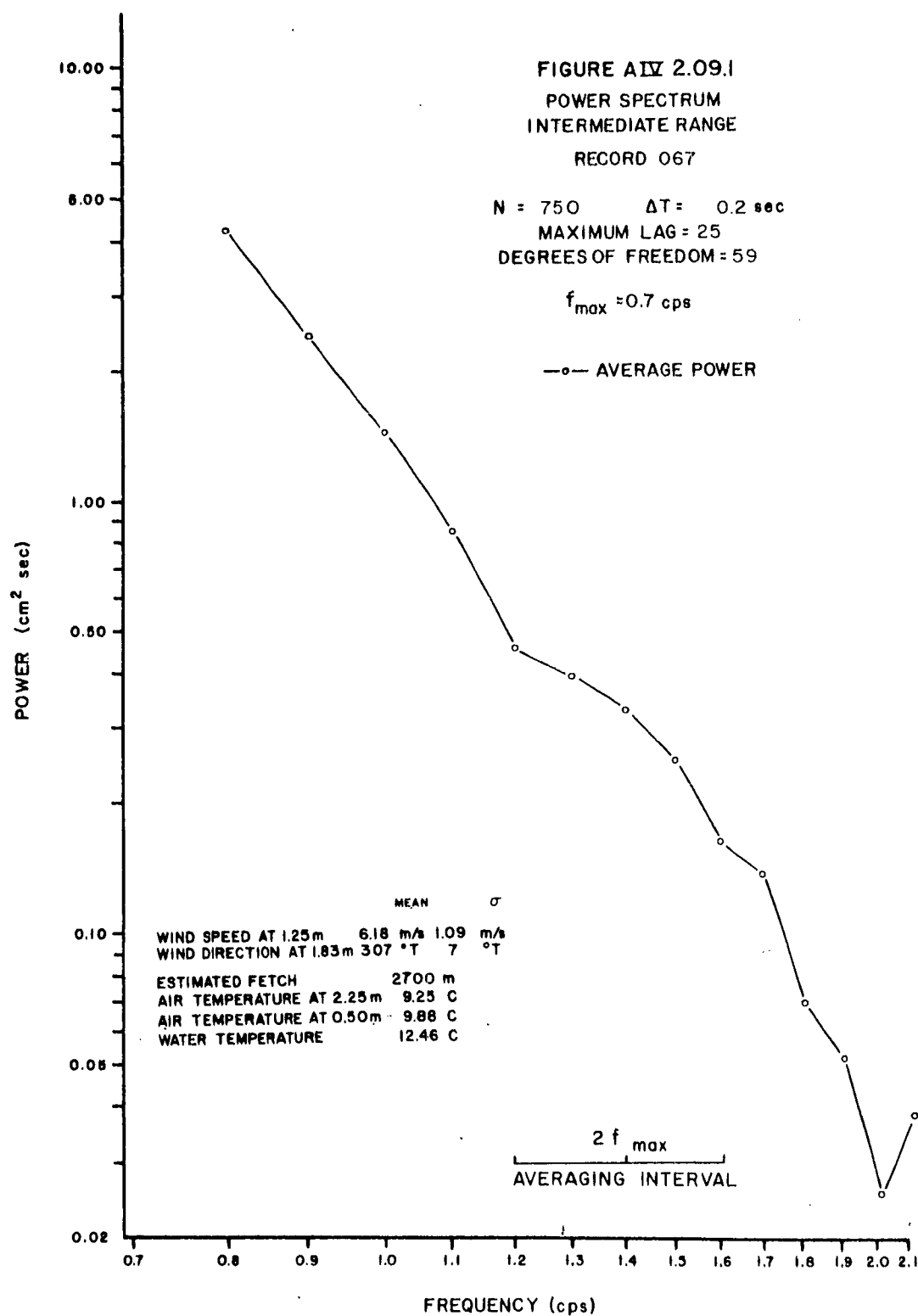
—○— AVERAGE POWER











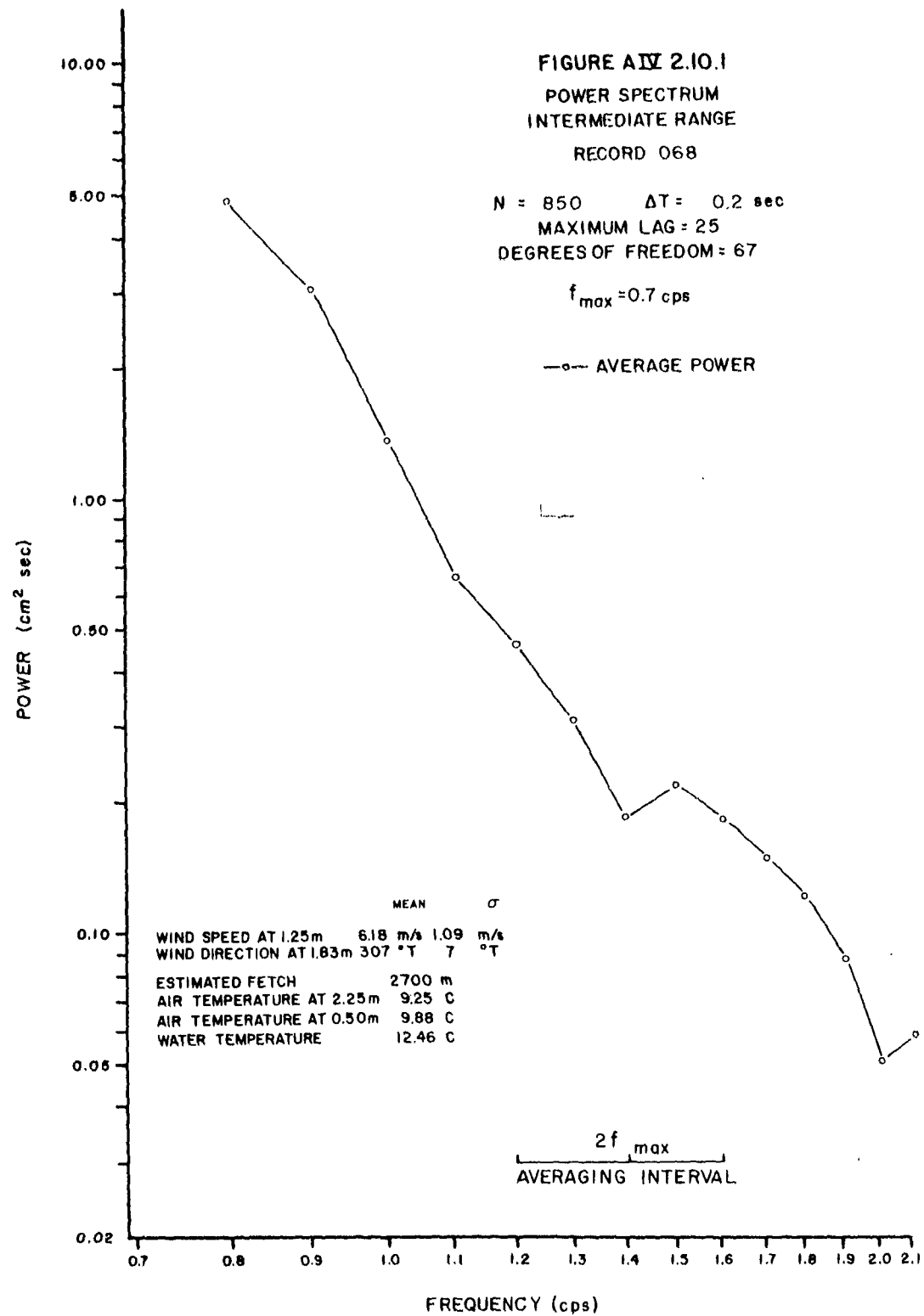


FIGURE A IV 2.11.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 069

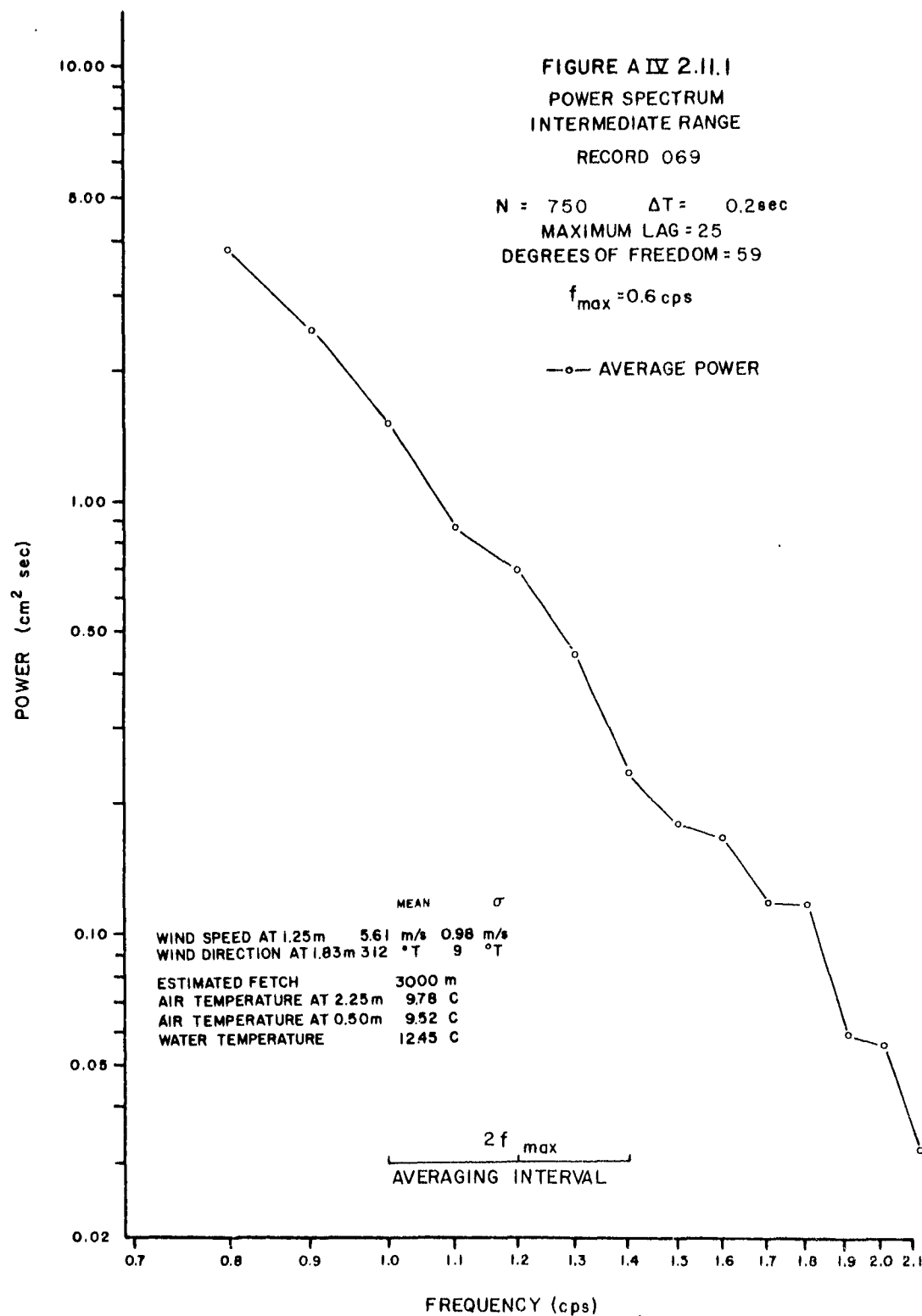
$N = 750$ $\Delta T = 0.2 \text{ sec}$

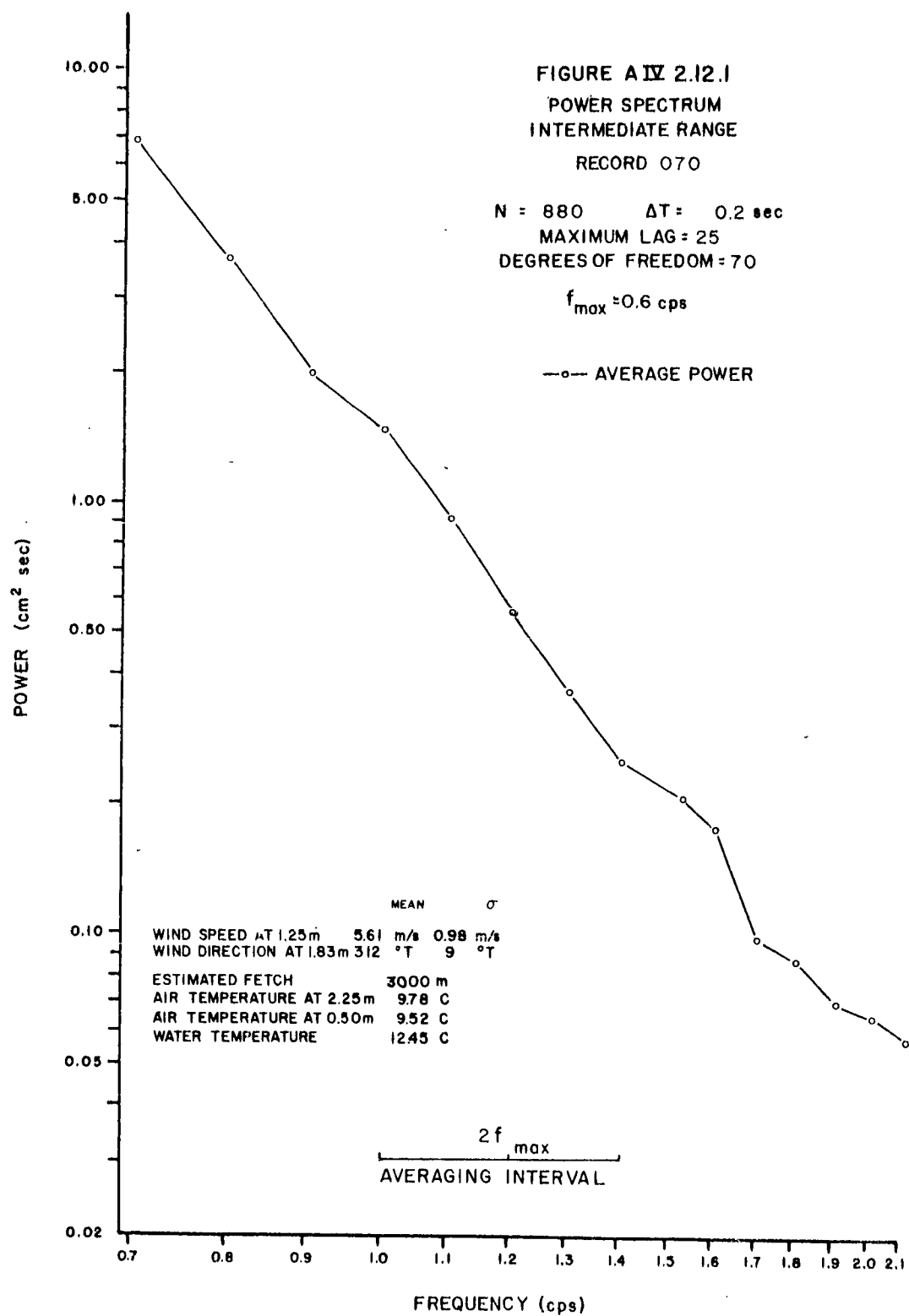
MAXIMUM LAG = 25

DEGREES OF FREEDOM = 59

$f_{\max} = 0.6 \text{ cps}$

—○— AVERAGE POWER





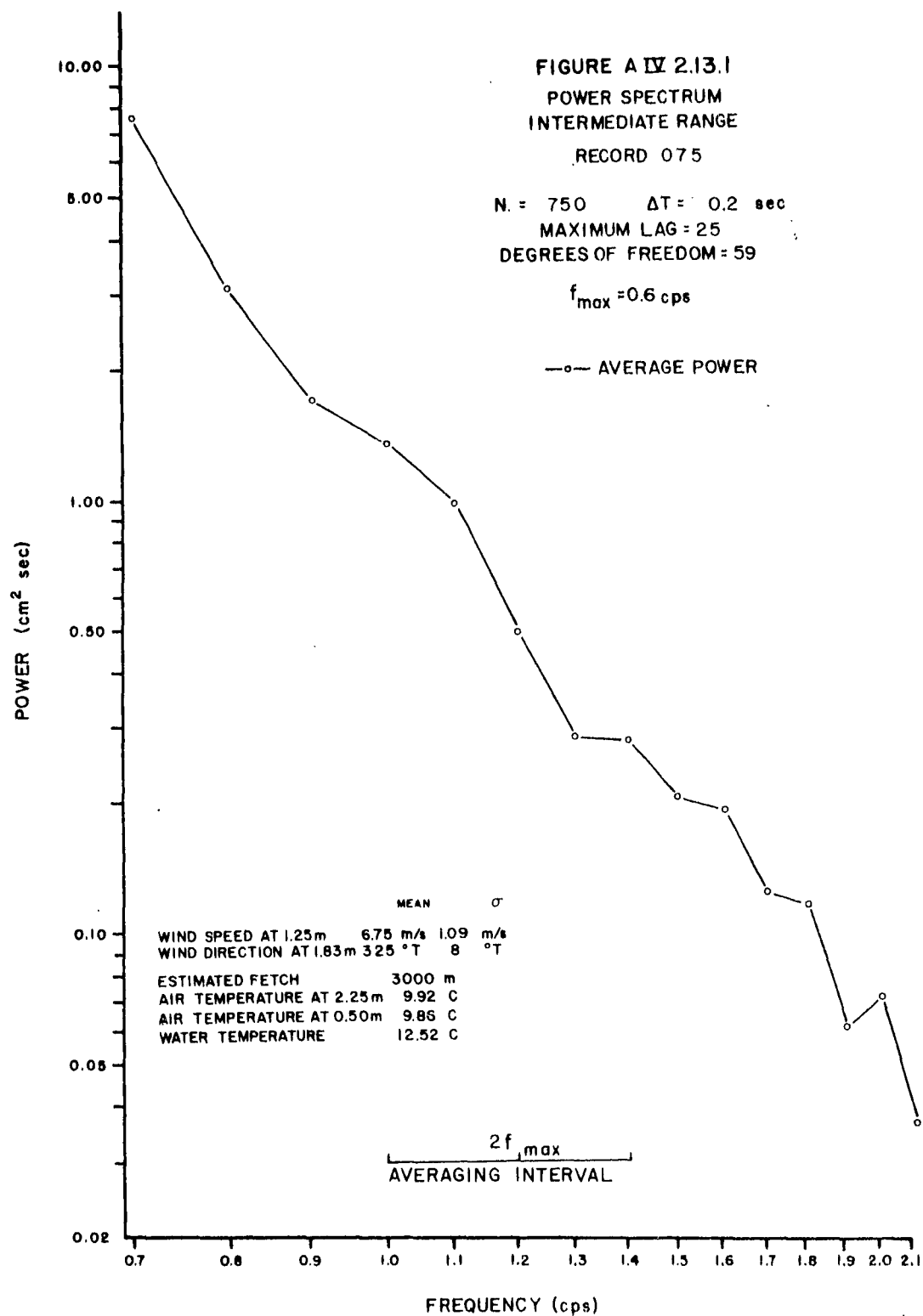


FIGURE A IV 2.14.1

POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 076

N = 850 $\Delta T = 0.2$ sec

MAXIMUM LAG = 25

DEGREES OF FREEDOM = 67

 $f_{\max} = 0.6$ cps

—o— AVERAGE POWER

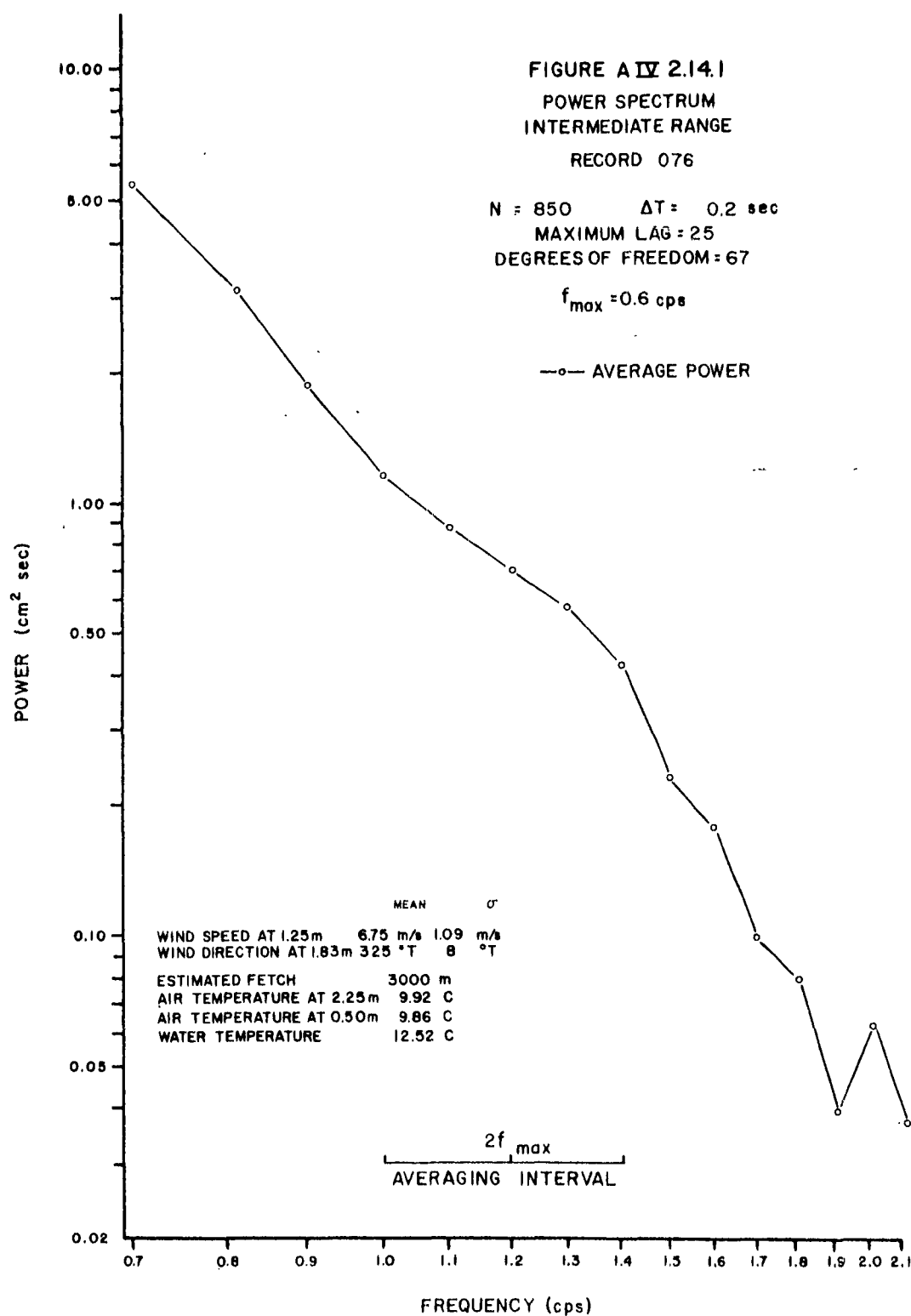


FIGURE A IV 2.15.1

POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 081

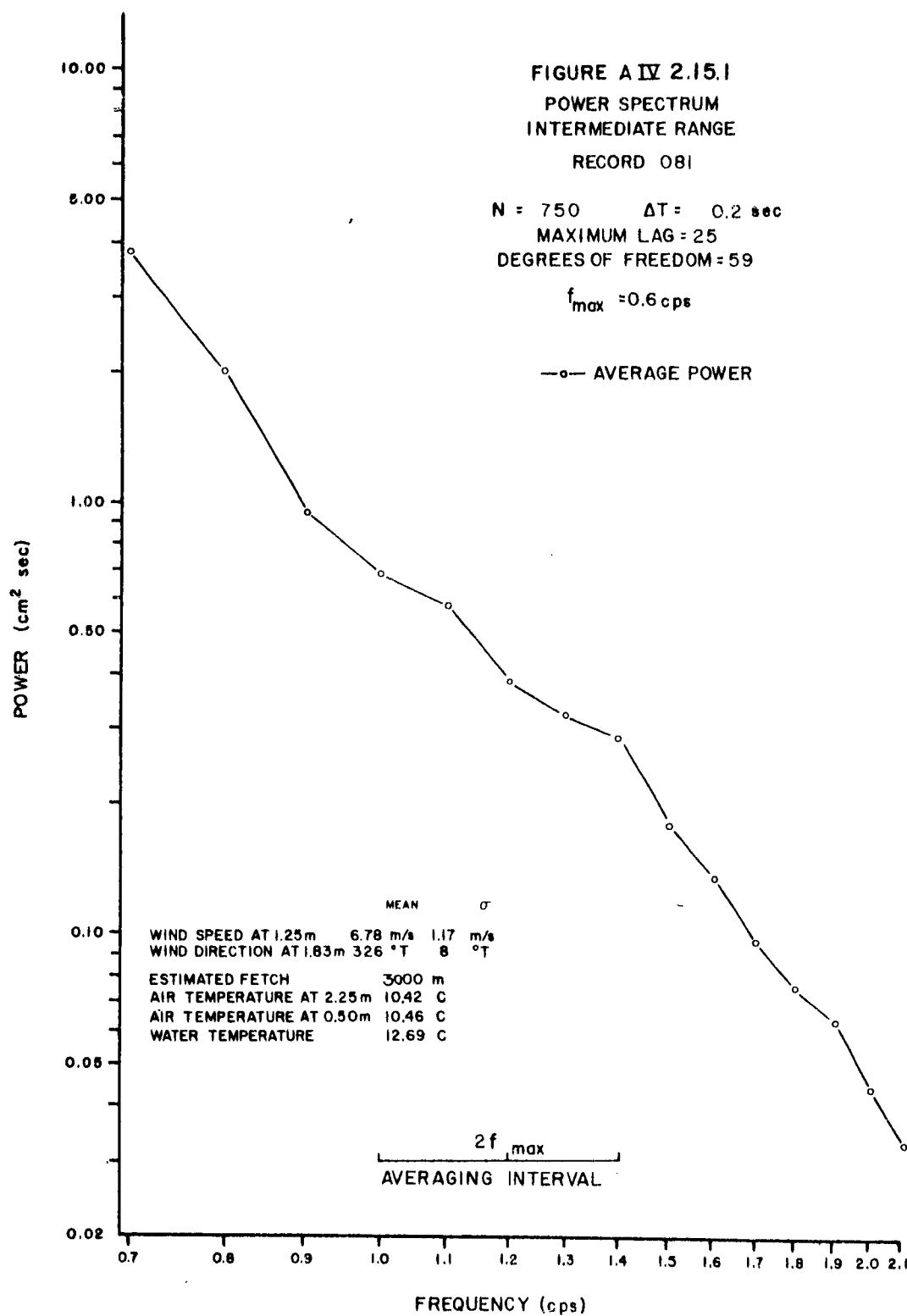
N = 750 $\Delta T = 0.2$ sec

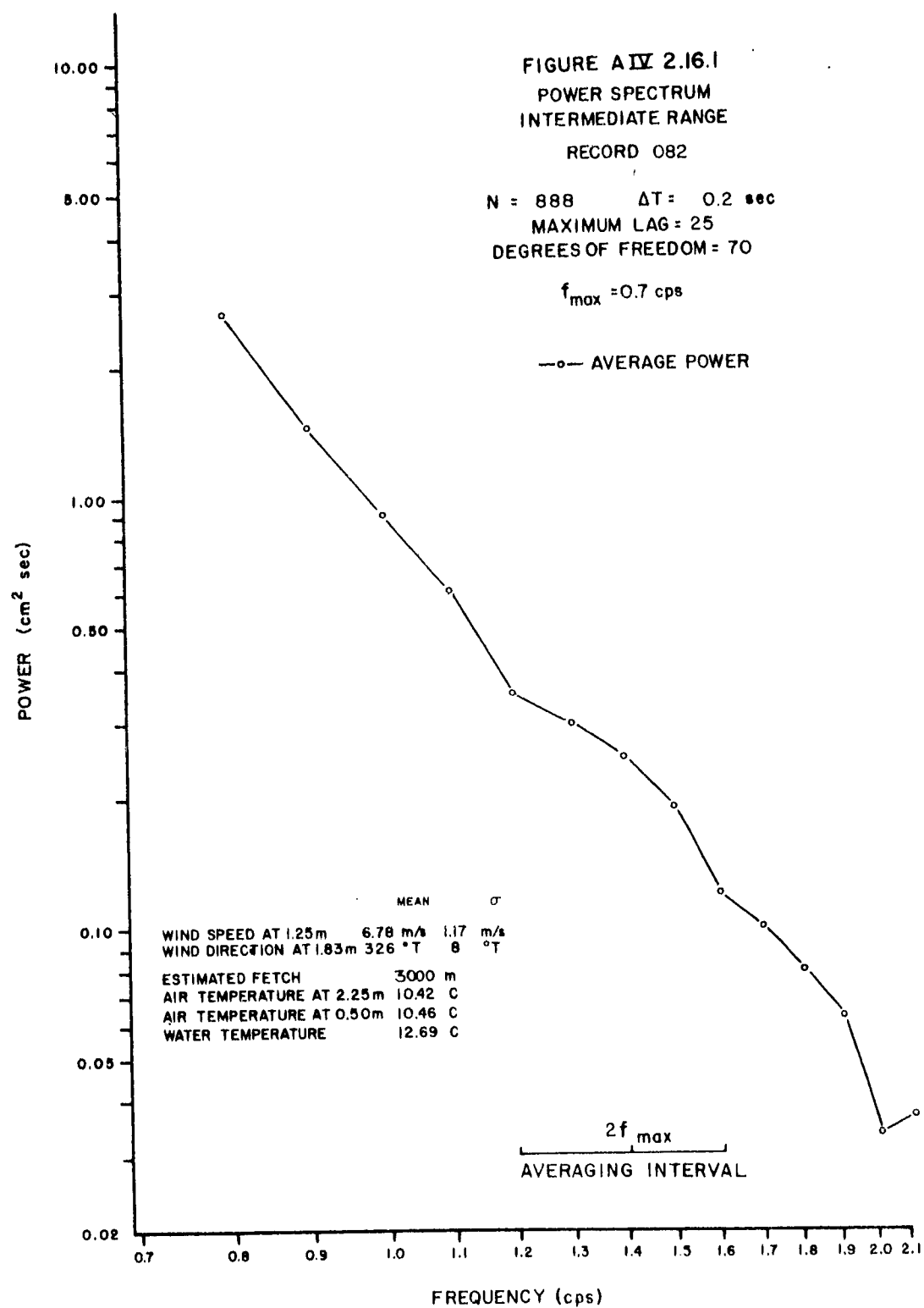
MAXIMUM LAG = 25

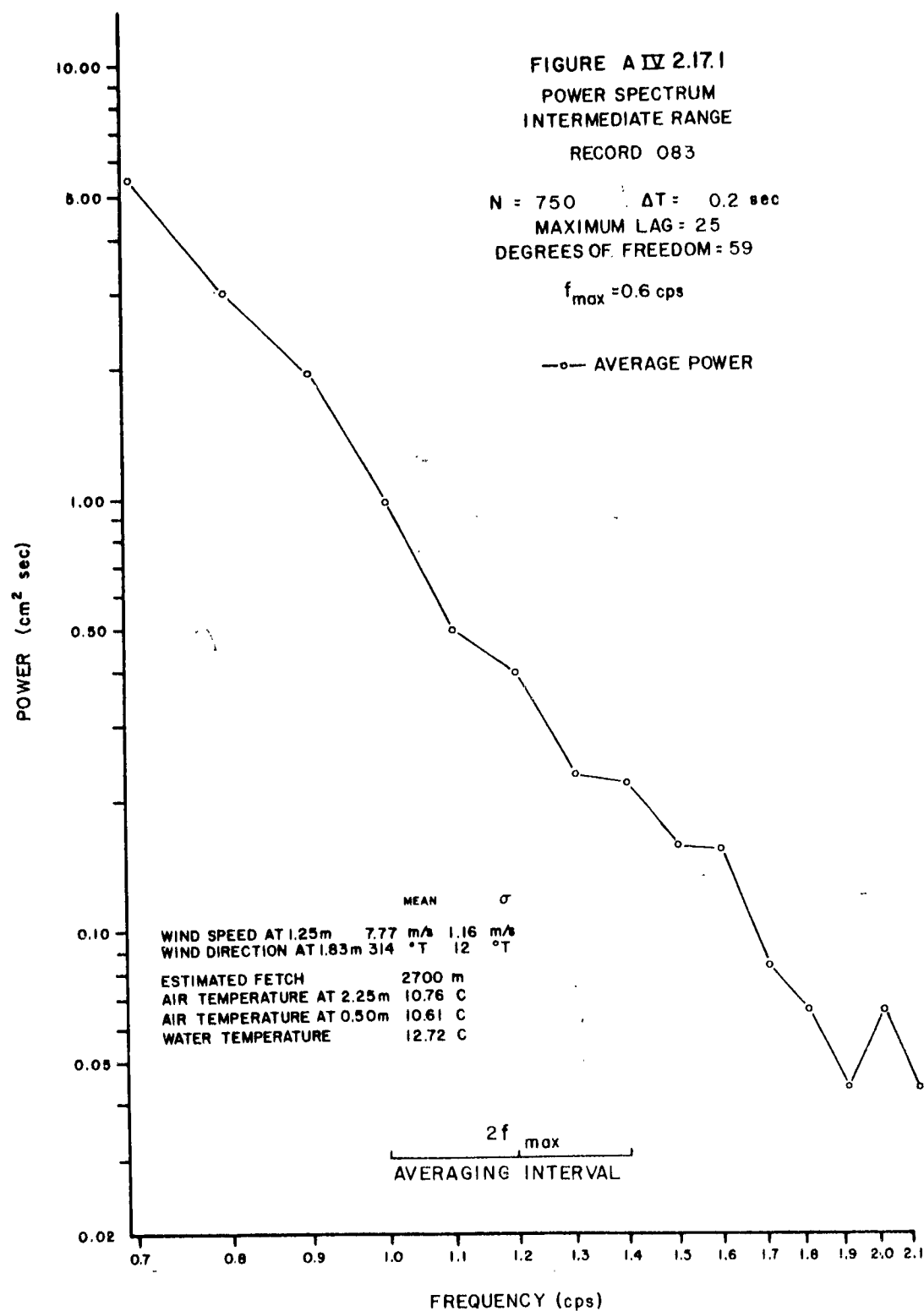
DEGREES OF FREEDOM = 59

 $f_{max} = 0.6$ cps

—o— AVERAGE POWER







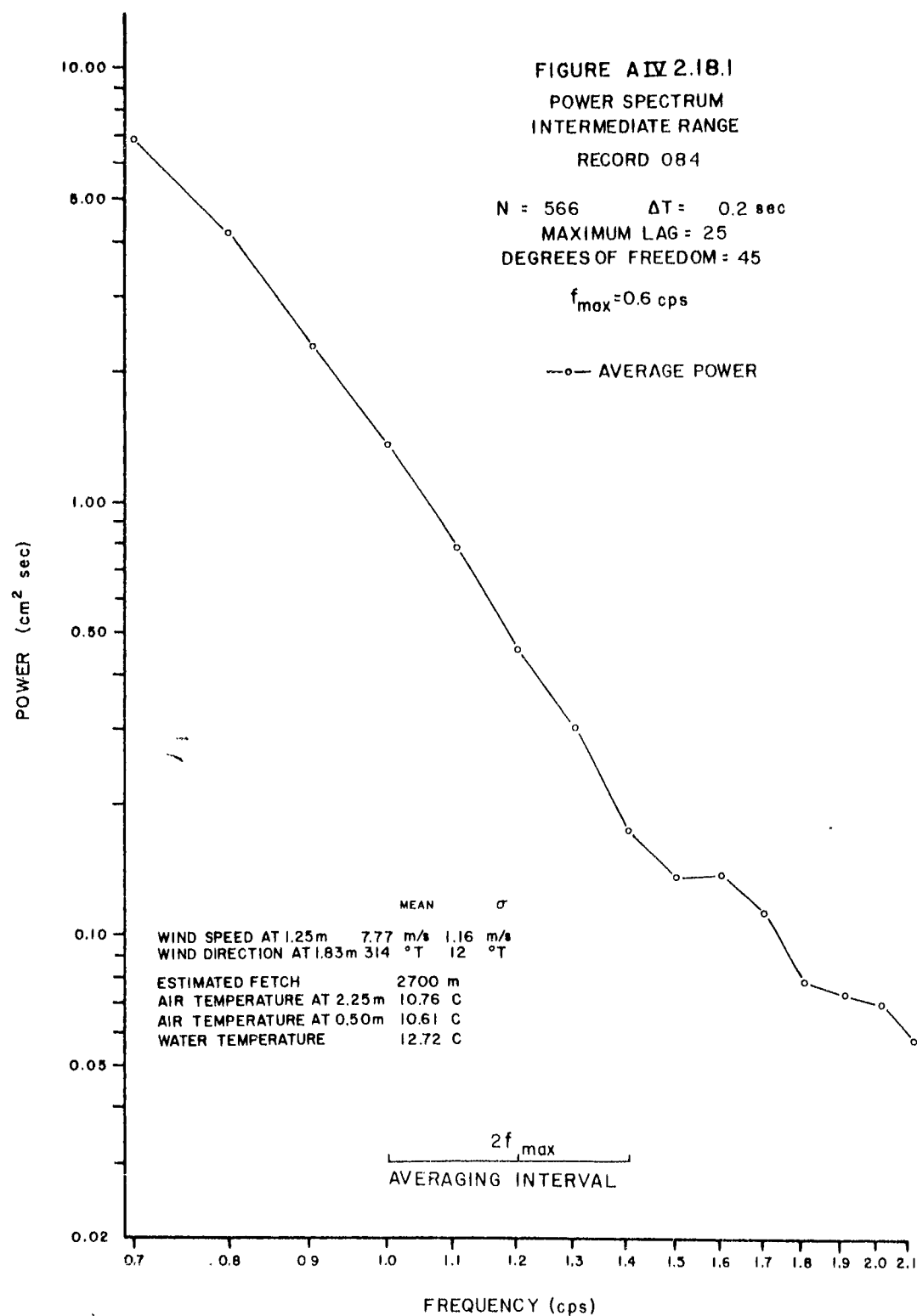


FIGURE AIV 2.19.1

POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 085

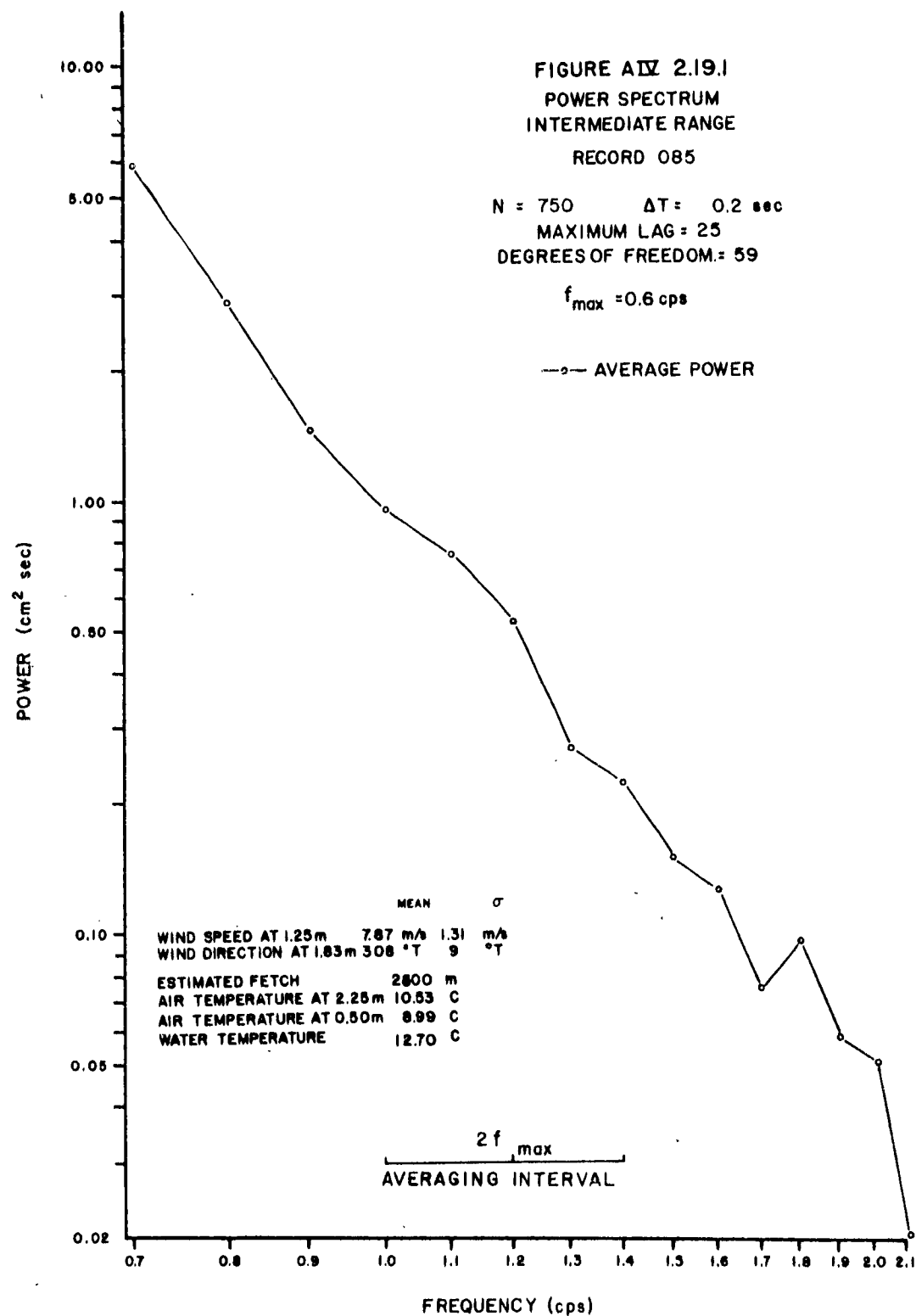
N = 750 $\Delta T = 0.2$ sec

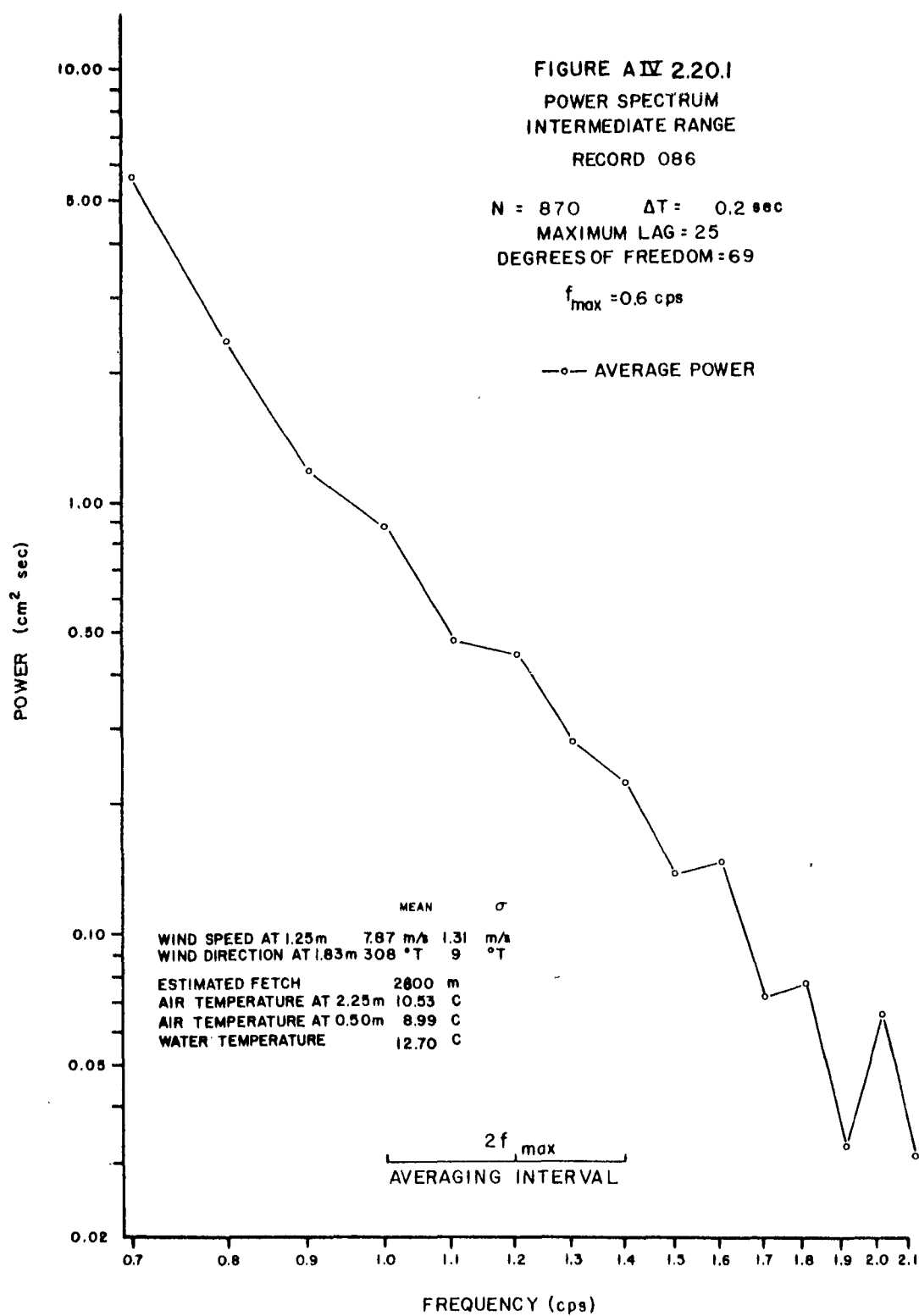
MAXIMUM LAG = 25

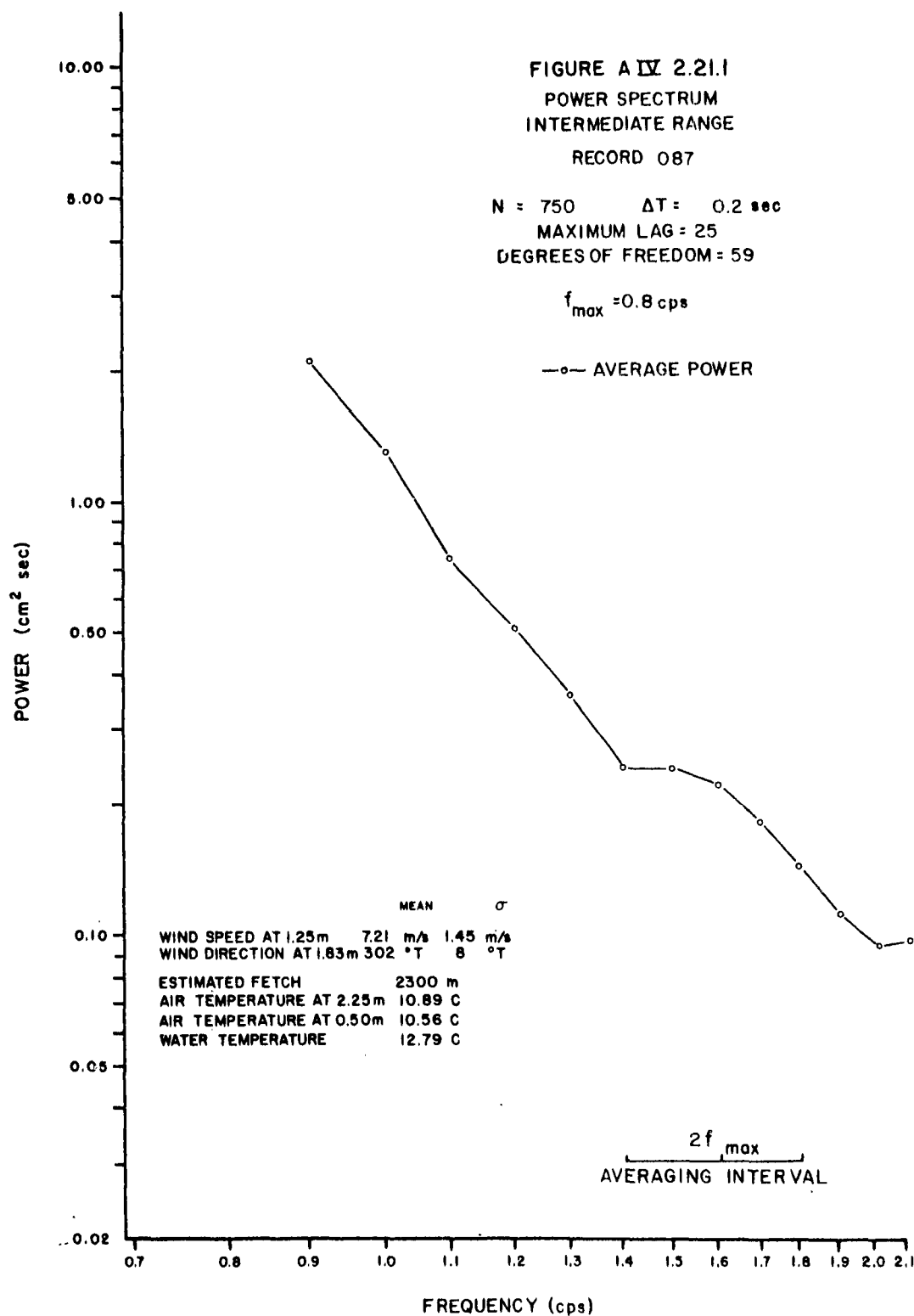
DEGREES OF FREEDOM = 59

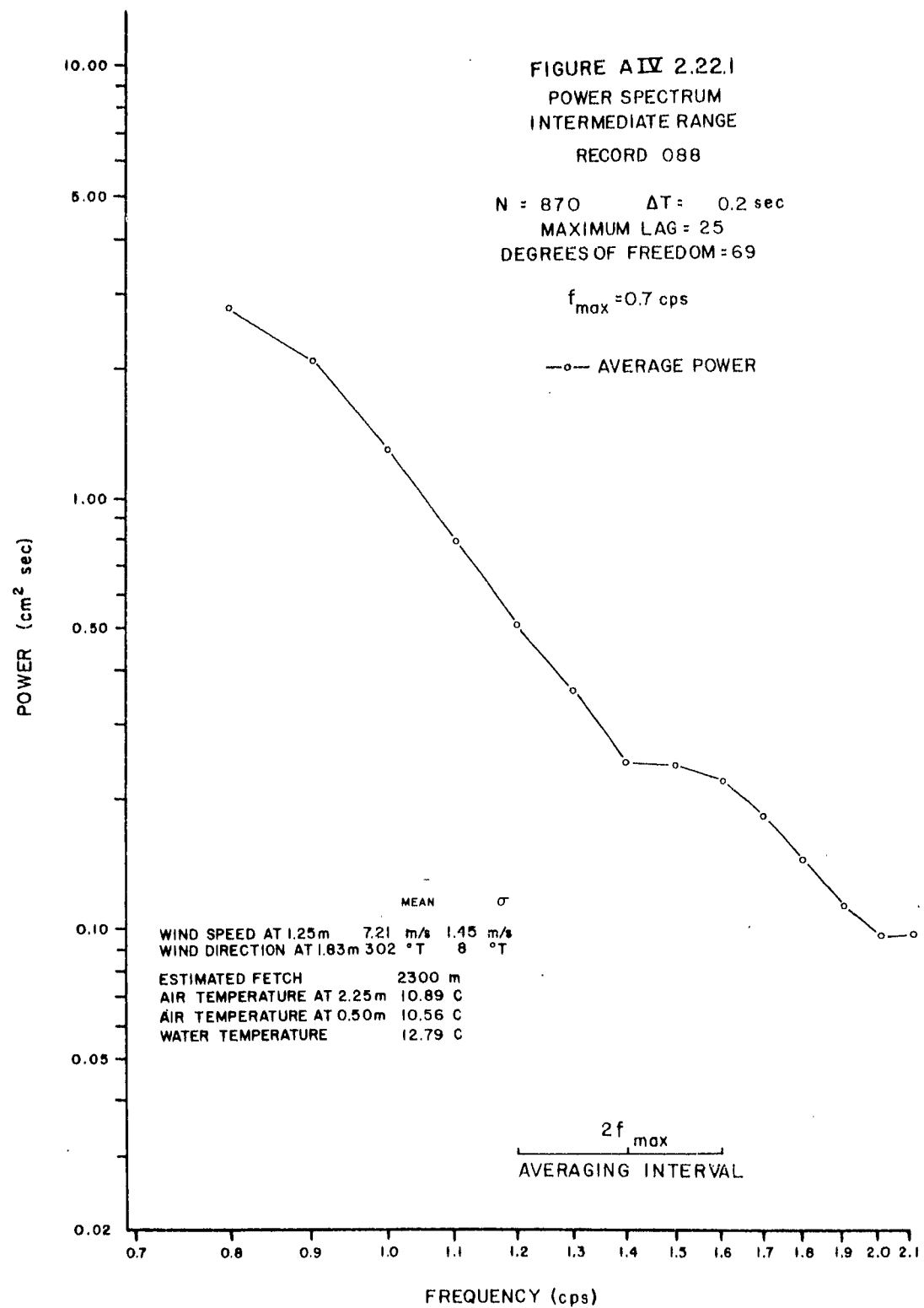
 $f_{max} = 0.6$ cps

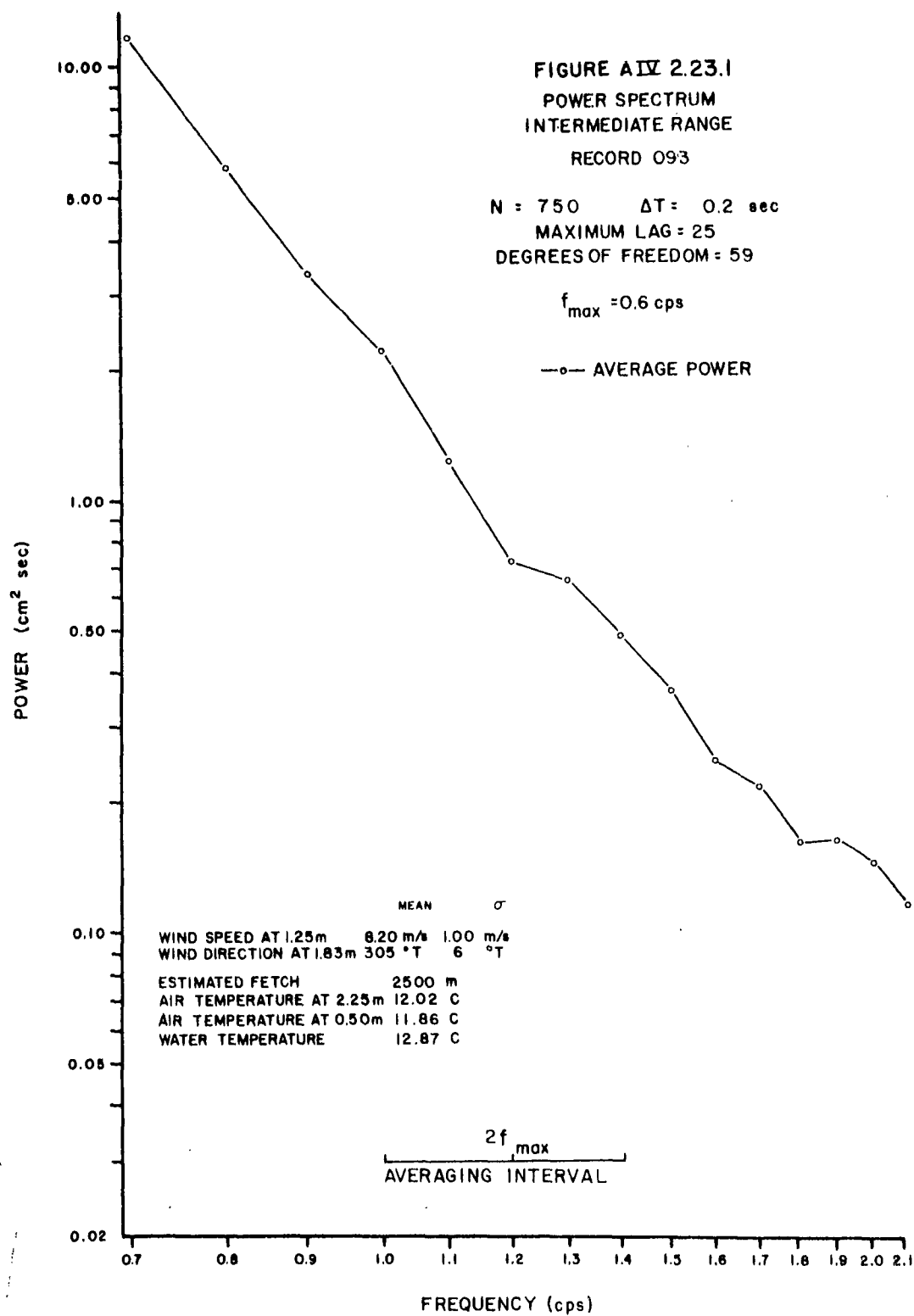
—•— AVERAGE POWER











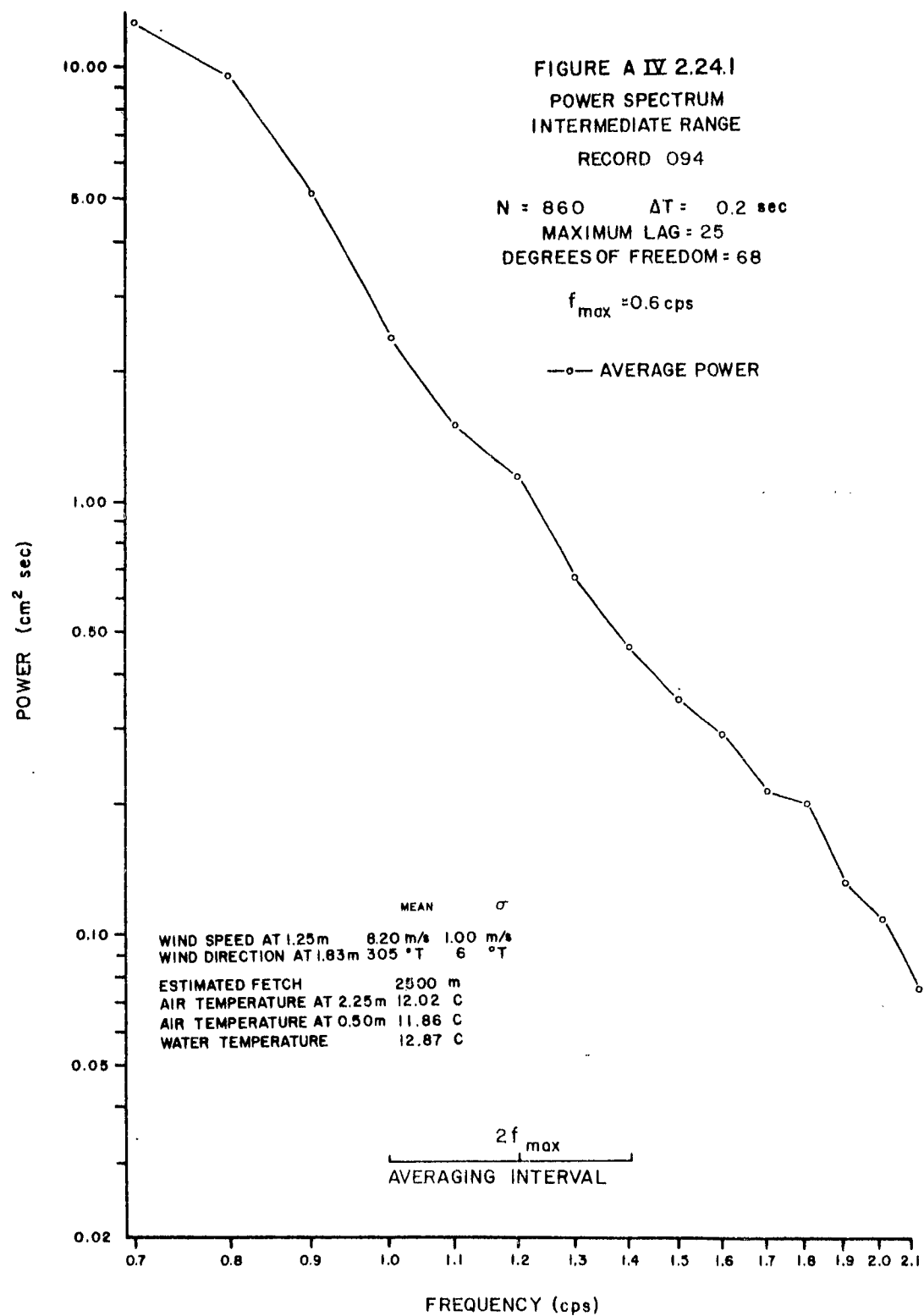


TABLE A IV 2.01
POWER SPECTRUM
RECORD 009

N = 1549 $\Delta T = 0.1$ sec Maximum Lag = 50 Degrees of Freedom = 61

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m : mean 286 ° T σ 8 ° T

Estimated Fetch 2100 m

Air Temperature 27.45 C

Water Temperature 26.18 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	---	---	---	---
0.1	.208, 0	.168, 0	.272, 0	.206, 0
0.2	.525, -1	.422, -1	.685, -1	.520, -1
0.3	.145, 0	.116, 0	.189, 0	.144, 0
0.4	.226, 1	.182, 0	.296, 1	.224, 1
0.5	.865, 1	.700, 1	.114, 2	.860, 1
0.6	.115, 2	.925, 1	.150, 2	.114, 2
0.7	.825, 1	.660, 1	.108, 2	.815, 1
0.8	.461, 1	.371, 1	.600, 1	.456, 1
0.9	.237, 1	.191, 1	.310, 1	.234, 1
1.0	.124, 1	.995, 0	.162, 1	.122, 1
1.1	.730, 0	.585, 0	.950, 0	.720, 0
1.2	.474, 0	.382, 0	.620, 0	.470, 0
1.3	.351, 0	.282, 0	.458, 0	.348, 0
1.4	.329, 0	.265, 0	.430, 0	.326, 0
1.5	.232, 0	.187, 0	.304, 0	.230, 0
1.6	.144, 0	.116, 0	.189, 0	.143, 0
1.7	.900, -1	.725, -1	.118, 0	.895, -1
1.8	.690, -1	.555, -1	.900, -1	.680, -1
1.9	.595, -1	.478, -1	.775, -1	.590, -1
2.0	.540, -1	.434, -1	.705, -1	.535, -1
2.1	.366, -1	.295, -1	.479, -1	.363, -1
2.2	.268, -1	.216, -1	.350, -1	.265, -1
2.3	.216, -1	.174, -1	.283, -1	.214, -1
2.4	.222, -1	.178, -1	.290, -1	.220, -1
2.5	.122, -1	.980, -2	.159, -1	.120, -1

TABLE A IV 2.02
POWER SPECTRUM
RECORD 010

N = 1406 $\Delta T = 0.1 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 56

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m : mean 286 °T σ 8 °T

Estimated Fetch 2100 m

Air Temperature 27.45 C

Water Temperature 26.18 C

Frequency (cps)	Power ($\text{cm}^2 \text{ sec}$)	10% Confidence Limit ($\text{cm}^2 \text{ sec}$)	90% Confidence Limit ($\text{cm}^2 \text{ sec}$)	50% Confidence Limit ($\text{cm}^2 \text{ sec}$)
0.0	---	---	---	---
0.1	.206, 0	.166, 0	.272, 0	.204, 0
0.2	-.428, -2	-.342, -2	-.565, -2	-.424, -2
0.3	.158, 0	.126, 0	.208, 0	.156, 0
0.4	.246, 1	.196, 1	.324, 1	.244, 1
0.5	.980, 1	.785, 1	.129, 2	.970, 1
0.6	.124, 2	.985, 1	.162, 2	.122, 2
0.7	.785, 1	.625, 1	.104, 2	.775, 1
0.8	.441, 1	.353, 1	.580, 1	.436, 1
0.9	.261, 1	.209, 1	.344, 1	.258, 1
1.0	.164, 1	.132, 1	.217, 1	.163, 1
1.1	.920, 0	.735, 0	.122, 1	.910, 0
1.2	.645, 0	.520, 0	.855, 0	.640, 0
1.3	.441, 0	.353, 0	.580, 0	.436, 0
1.4	.320, 0	.256, 0	.422, 0	.317, 0
1.5	.204, 0	.164, 0	.270, 0	.202, 0
1.6	.158, 0	.126, 0	.208, 0	.156, 0
1.7	.112, 0	.900, -1	.148, 0	.111, 0
1.8	.985, -1	.785, -1	.130, 0	.975, -1
1.9	.635, -1	.505, -1	.835, -1	.630, -1
2.0	.700, -1	.560, -1	.925, -1	.695, -1
2.1	.487, -1	.390, -1	.640, -1	.482, -1
2.2	.393, -1	.314, -1	.520, -1	.389, -1
2.3	.200, -1	.160, -1	.264, -1	.198, -1
2.4	.254, -1	.204, -1	.336, -1	.252, -1
2.5	.148, -1	.119, -1	.196, -1	.147, -1

TABLE A IV 2.03
POWER SPECTRUM
RECORD 011

N = 1509 $\Delta T = 0.1$ sec Maximum Lag = 50 Degrees of Freedom = 60

Wind Speed at 1.22 m : mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m : mean 288 °T σ 9 °T

Estimated Fetch 2200 m

Air Temperature 28.98 C

Water Temperature 26.62 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.258, 0	.208, 0	.338, 0	.256, 0
0.1	.205, 0	.165, 0	.268, 0	.203, 0
0.2	.112, 1	.900, 0	.147, 0	.111, 1
0.3	.487, 1	.392, 1	.640, 1	.482, 1
0.4	.750, 1	.605, 1	.980, 1	.745, 1
0.5	.995, 1	.800, 1	.130, 2	.985, 1
0.6	.120, 2	.965, 1	.157, 2	.118, 2
0.7	.795, 1	.640, 1	.104, 2	.790, 1
0.8	.368, 1	.296, 1	.482, 1	.365, 1
0.9	.174, 1	.140, 1	.228, 1	.172, 1
1.0	.105, 1	.845, 0	.138, 1	.104, 1
1.1	.970, 0	.780, 0	.126, 1	.960, 0
1.2	.825, 0	.660, 0	.108, 1	.815, 0
1.3	.472, 0	.380, 0	.620, 0	.467, 0
1.4	.286, 0	.230, 0	.374, 0	.282, 0
1.5	.203, 0	.164, 0	.266, 0	.201, 0
1.6	.171, 0	.138, 0	.224, 0	.169, 0
1.7	.124, 0	.990, -1	.162, 0	.122, 0
1.8	.116, 0	.935, -1	.152, 0	.115, 0
1.9	.975, -1	.785, -1	.128, 0	.965, -1
2.0	.720, -1	.580, -1	.940, -1	.715, -1
2.1	.441, -1	.354, -1	.575, -1	.436, -1
2.2	.478, -1	.384, -1	.625, -1	.474, -1
2.3	.386, -1	.310, -1	.505, -1	.382, -1
2.4	.303, -1	.244, -1	.396, -1	.300, -1
2.5	.237, -1	.190, -1	.310, -1	.234, -1

TABLE A IV 2.04
POWER SPECTRUM
RECORD 012

N = 1337 $\Delta T = 0.1$ sec Maximum Lag = 50 Degrees of Freedom = 53

Wind Speed at 1.22 m : mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m : mean 288 °T σ 9 °T

Estimated Fetch 2200 m

Air Temperature 28.98 C

Water Temperature 26.62 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.334, 0	.266, 0	.442, 0	.330, 0
0.1	.318, 0	.254, 0	.422, 0	.315, 0
0.2	.145, 0	.116, 0	.192, 0	.144, 0
0.3	.261, 0	.208, 0	.346, 0	.258, 0
0.4	.228, 1	.182, 1	.302, 1	.226, 1
0.5	.930, 1	.740, 1	.123, 2	.920, 1
0.6	.126, 2	.100, 2	.166, 2	.124, 2
0.7	.790, 1	.630, 1	.104, 2	.780, 1
0.8	.320, 1	.256, 1	.425, 1	.317, 1
0.9	.156, 1	.124, 1	.206, 1	.154, 1
1.0	.122, 1	.970, 0	.162, 1	.121, 1
1.1	.945, 0	.750, 0	.125, 1	.935, 0
1.2	.595, 0	.472, 0	.785, 0	.585, 0
1.3	.388, 0	.310, 0	.515, 0	.384, 0
1.4	.281, 0	.224, 0	.372, 0	.278, 0
1.5	.174, 0	.138, 0	.230, 0	.172, 0
1.6	.152, 0	.122, 0	.202, 0	.151, 0
1.7	.133, 0	.106, 0	.176, 0	.132, 0
1.8	.114, 0	.910, -1	.152, 0	.113, 0
1.9	.890, -1	.710, -1	.118, 0	.880, -1
2.0	.885, -1	.705, -1	.118, 0	.880, -1
2.1	.590, -1	.468, -1	.780, -1	.580, -1
2.2	.461, -1	.367, -1	.610, -1	.456, -1
2.3	.410, -1	.327, -1	.545, -1	.406, -1
2.4	.428, -1	.341, -1	.565, -1	.424, -1
2.5	.327, -1	.260, -1	.434, -1	.324, -1

TABLE A IV 2.05
POWER SPECTRUM
RECORD 017

N = 1473 $\Delta T = 0.1 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 58

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
Wind Direction at 1.52 m : mean 277 ° T σ 10 ° T

Estimated Fetch 1700 m

Air Temperature 29.51 C

Water Temperature 27.55 C

Frequency (cps)	Power ($\text{cm}^2 \text{ sec}$)	10% Confidence Limit ($\text{cm}^2 \text{ sec}$)	90% Confidence Limit ($\text{cm}^2 \text{ sec}$)	50% Confidence Limit ($\text{cm}^2 \text{ sec}$)
0.0	---	---	---	---
0.1	.480, -1	.386, -1	.630, -1	.476, -1
0.2	.555, -1	.444, -1	.725, -1	.545, -1
0.3	.120, 0	.960, -1	.158, 0	.119, 0
0.4	.198, 0	.158, 0	.260, 0	.196, 0
0.5	.450, 0	.360, 0	.590, 0	.446, 0
0.6	.187, 1	.150, 1	.246, 1	.186, 1
0.7	.371, 1	.298, 1	.487, 1	.367, 1
0.8	.332, 1	.266, 1	.436, 1	.328, 1
0.9	.196, 1	.158, 1	.258, 1	.194, 1
1.0	.132, 1	.106, 1	.173, 1	.130, 1
1.1	.895, 0	.720, 0	.118, 1	.885, 0
1.2	.595, 0	.478, 0	.785, 0	.590, 0
1.3	.380, 0	.304, 0	.499, 0	.376, 0
1.4	.290, 0	.232, 0	.380, 0	.287, 0
1.5	.257, 0	.206, 0	.338, 0	.254, 0
1.6	.166, 0	.132, 0	.218, 0	.164, 0
1.7	.143, 0	.114, 0	.188, 0	.142, 0
1.8	.120, 0	.955, -1	.157, 0	.118, 0
1.9	.685, -1	.550, -1	.900, -1	.680, -1
2.0	.510, -1	.410, -1	.670, -1	.505, -1
2.1	.520, -1	.419, -1	.685, -1	.515, -1
2.2	.500, -1	.401, -1	.655, -1	.496, -1
2.3	.378, -1	.302, -1	.496, -1	.374, -1
2.4	.232, -1	.186, -1	.306, -1	.230, -1
2.5	.188, -1	.150, -1	.246, -1	.186, -1

TABLE A IV 2.06
POWER SPECTRUM
RECORD 018

N = 1411 $\Delta T = 0.1 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 56

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
Wind Direction at 1.52 m : mean 277 ° T σ 10 ° T

Estimated Fetch 1700 m

Air Temperature 29.51 C

Water Temperature 27.55 C

Frequency (cps)	Power ($\text{cm}^2 \text{ sec}$)	10% Confidence Limit ($\text{cm}^2 \text{ sec}$)	90% Confidence Limit ($\text{cm}^2 \text{ sec}$)	50% Confidence Limit ($\text{cm}^2 \text{ sec}$)
0.0	---	---	---	---
0.1	.900, -1	.720, -1	.118, 0	.890, -1
0.2	.149, 0	.120, 0	.197, 0	.148, 0
0.3	.685, 0	.550, 0	.905, 0	.680, 0
0.4	.109, 1	.870, 0	.144, 1	.108, 1
0.5	.140, 1	.112, 1	.184, 1	.138, 1
0.6	.228, 1	.182, 1	.301, 1	.226, 1
0.7	.378, 1	.302, 1	.498, 1	.374, 1
0.8	.384, 1	.307, 1	.505, 1	.380, 1
0.9	.250, 1	.200, 1	.330, 1	.248, 1
1.0	.142, 1	.114, 1	.187, 1	.140, 1
1.1	.875, 0	.700, 0	.116, 1	.865, 0
1.2	.605, 0	.484, 0	.800, 0	.600, 0
1.3	.487, 0	.390, 0	.640, 0	.482, 0
1.4	.346, 0	.278, 0	.457, 0	.344, 0
1.5	.281, 0	.224, 0	.370, 0	.278, 0
1.6	.176, 0	.140, 0	.232, 0	.174, 0
1.7	.980, -1	.785, -1	.130, 0	.970, -1
1.8	.810, -1	.645, -1	.106, 0	.800, -1
1.9	.675, -1	.540, -1	.890, -1	.665, -1
2.0	.470, -1	.376, -1	.620, -1	.465, -1
2.1	.424, -1	.338, -1	.560, -1	.420, -1
2.2	.360, -1	.288, -1	.474, -1	.356, -1
2.3	.332, -1	.265, -1	.437, -1	.328, -1
2.4	.266, -1	.212, -1	.350, -1	.263, -1
2.5	.188, -1	.151, -1	.248, -1	.186, -1

TABLE A IV 2.07
POWER SPECTRUM
RECORD 027

N = 1527 $\Delta T = 0.1 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 60

Wind Speed at 1.35 m : mean 4.64 m/s σ 0.56 m/s
Wind Direction at 1.65 m : mean 314 °T σ 7 °T

Estimated Fetch 2300 m

Air Temperature 24.64 C

Water Temperature 26.38 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	---	---	---	---
0.1	-.101, -1	-.815, -2	-.132, -1	-.100, -1
0.2	.336, -1	.270, -1	.440, -1	.332, -1
0.3	.182, -1	.146, -1	.238, -1	.180, -1
0.4	.950, -1	.765, -1	.124, 0	.945, -1
0.5	.102, 1	.825, 0	.134, 1	.102, 1
0.6	.404, 1	.324, 1	.530, 1	.400, 1
0.7	.520, 1	.418, 1	.680, 1	.515, 1
0.8	.314, 1	.252, 1	.411, 1	.310, 1
0.9	.186, 1	.150, 1	.244, 1	.184, 1
1.0	.124, 1	.100, 1	.163, 1	.123, 1
1.1	.740, 0	.595, 0	.970, 0	.735, 0
1.2	.419, 0	.337, 0	.550, 0	.415, 0
1.3	.283, 0	.228, 0	.370, 0	.280, 0
1.4	.230, 0	.185, 0	.302, 0	.228, 0
1.5	.182, 0	.146, 0	.238, 0	.180, 0
1.6	.152, 0	.122, 0	.198, 0	.150, 0
1.7	.131, 0	.105, 0	.171, 0	.130, 0
1.8	.960, -1	.775, -1	.126, 0	.950, -1
1.9	.860, -1	.690, -1	.112, 0	.850, -1
2.0	.570, -1	.458, -1	.745, -1	.565, -1
2.1	.386, -1	.310, -1	.505, -1	.382, -1
2.2	.305, -1	.245, -1	.400, -1	.302, -1
2.3	.332, -1	.266, -1	.434, -1	.328, -1
2.4	.210, -1	.170, -1	.276, -1	.208, -1
2.5	.198, -1	.159, -1	.259, -1	.196, -1

TABLE A IV 2.08
POWER SPECTRUM
RECORD 028

N = 1574 $\Delta T = 0.1$ sec Maximum Lag = 50 Degrees of Freedom = 62

Wind Speed at 1.35 m : mean 4.64 m/s σ 0.56 m/s
Wind Direction at 1.65 m : mean 314 °T σ 7 °T

Estimated Fetch 2300 m

Air Temperature 24.64 C

Water Temperature 26.38 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	---	---	---	---
0.1	.955, 0	.770, 0	.125, 1	.945, 0
0.2	.930, 0	.750, 0	.122, 1	.920, 0
0.3	.665, 0	.535, 0	.865, 0	.655, 0
0.4	.422, 0	.340, 0	.550, 0	.417, 0
0.5	.825, 0	.665, 0	.108, 1	.815, 0
0.6	.296, 1	.239, 1	.386, 1	.294, 1
0.7	.397, 1	.320, 1	.520, 1	.393, 1
0.8	.261, 1	.210, 1	.340, 1	.258, 1
0.9	.168, 1	.136, 1	.220, 1	.167, 1
1.0	.128, 1	.104, 1	.168, 1	.128, 1
1.1	.805, 0	.650, 0	.105, 1	.795, 0
1.2	.494, 0	.398, 0	.645, 0	.489, 0
1.3	.334, 0	.269, 0	.435, 0	.330, 0
1.4	.192, 0	.154, 0	.250, 0	.190, 0
1.5	.138, 0	.111, 0	.180, 0	.136, 0
1.6	.121, 0	.975, -1	.158, 0	.120, 0
1.7	.106, 0	.850, -1	.138, 0	.104, 0
1.8	.720, -1	.580, -1	.935, -1	.710, -1
1.9	.635, -1	.510, -1	.825, -1	.630, -1
2.0	.494, -1	.398, -1	.645, -1	.489, -1
2.1	.450, -1	.362, -1	.585, -1	.446, -1
2.2	.327, -1	.264, -1	.426, -1	.324, -1
2.3	.320, -1	.258, -1	.418, -1	.317, -1
2.4	.294, -1	.237, -1	.384, -1	.291, -1
2.5	.320, -1	.258, -1	.418, -1	.317, -1

TABLE A IV 2.09
POWER SPECTRUM
RECORD 067

N = 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 59
 Wind Speed at 1.25m' mean 6.18 m/s σ 1.09 m/s
 Wind Direction at 1.83m' mean 307 °T σ 7 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 9.25 C
 Air Temperature at 0.50m 9.88 C
 Water Temperature 12.46 C

Frequency (cps)	Power ($\text{cm}^2 \text{ sec}$)	10% Confidence Limit ($\text{cm}^2 \text{ sec}$)	90% Confidence Limit ($\text{cm}^2 \text{ sec}$)	50% Confidence Limit ($\text{cm}^2 \text{ sec}$)
0.0	.498, 0	.400, 0	.655, 0	.493, 0
0.1	.348, 0	.279, 0	.456, 0	.344, 0
0.2	.146, 0	.117, 0	.192, 0	.144, 0
0.3	-.760, -2	-.610, -2	-.995, -2	-.750, -2
0.4	.975, -1	.785, -1	.128, 0	.970, -1
0.5	.122, 1	.975, 0	.160, 1	.120, 1
0.6	.510, 1	.411, 1	.670, 1	.505, 1
0.7	.660, 1	.530, 1	.865, 1	.650, 1
0.8	.412, 1	.330, 1	.540, 1	.408, 1
0.9	.237, 1	.190, 1	.311, 1	.235, 1
1.0	.142, 1	.114, 1	.186, 1	.140, 1
1.1	.830, 0	.665, 0	.109, 1	.825, 0
1.2	.452, 0	.364, 0	.595, 0	.448, 0
1.3	.388, 0	.312, 0	.510, 0	.384, 0
1.4	.324, 0	.260, 0	.425, 0	.321, 0
1.5	.249, 0	.200, 0	.326, 0	.246, 0
1.6	.160, 0	.129, 0	.210, 0	.159, 0
1.7	.136, 0	.109, 0	.178, 0	.134, 0
1.8	.690, -1	.555, -1	.905, -1	.685, -1
1.9	.515, -1	.413, -1	.675, -1	.510, -1
2.0	.252, -1	.203, -1	.331, -1	.250, -1
2.1	.380, -1	.306, -1	.499, -1	.377, -1
2.2	.293, -1	.236, -1	.384, -1	.290, -1
2.3	.470, -1	.378, -1	.615, -1	.466, -1
2.4	.215, -1	.172, -1	.282, -1	.212, -1
2.5	.112, -1	.895, -2	.146, -1	.110, -1

TABLE A IV 2.10
POWER SPECTRUM
RECORD 068

N= 850 $\Delta T=0.2$ sec Maximum Lag=25 Degrees of Freedom= 67
 Wind Speed at 1.25m' mean 6.18 m/s σ 1.09 m/s
 Wind Direction at 1.83m' mean 307 °T σ 7 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 9.25 C
 Air Temperature at 0.50m 9.88 C
 Water Temperature 12.46 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.545, 0	.442, 0	.705, 0	.540, 0
0.1	.398, 0	.324, 0	.515, 0	.394, 0
0.2	.188, 0	.152, 0	.242, 0	.186, 0
0.3	.760, -1	.620, -1	.985, -1	.755, -1
0.4	.160, 0	.130, 0	.206, 0	.158, 0
0.5	.200, 1	.162, 1	.258, 1	.198, 1
0.6	.605, 1	.490, 1	.780, 1	.600, 1
0.7	.655, 1	.530, 1	.845, 1	.645, 1
0.8	.478, 1	.388, 1	.620, 1	.474, 1
0.9	.301, 1	.244, 1	.389, 1	.298, 1
1.0	.135, 1	.110, 1	.174, 1	.134, 1
1.1	.660, 0	.535, 0	.855, 0	.655, 0
1.2	.458, 0	.372, 0	.590, 0	.454, 0
1.3	.308, 0	.250, 0	.399, 0	.306, 0
1.4	.182, 0	.147, 0	.234, 0	.180, 0
1.5	.216, 0	.176, 0	.280, 0	.214, 0
1.6	.179, 0	.145, 0	.231, 0	.177, 0
1.7	.148, 0	.120, 0	.190, 0	.146, 0
1.8	.120, 0	.980, -1	.156, 0	.120, 0
1.9	.855, -1	.695, -1	.110, 0	.850, -1
2.0	.505, -1	.409, -1	.650, -1	.499, -1
2.1	.580, -1	.470, -1	.750, -1	.575, -1
2.2	.445, -1	.361, -1	.575, -1	.440, -1
2.3	.525, -1	.426, -1	.680, -1	.520, -1
2.4	.409, -1	.332, -1	.530, -1	.405, -1
2.5	.334, -1	.270, -1	.431, -1	.330, -1

TABLE AIV 2.11
POWER SPECTRUM
RECORD 069

N = 750 $\Delta T = 0.2$ sec Maximum Lag = 25 Degrees of Freedom = 59
 Wind Speed at 1.25m : mean 5.61 m/s σ 0.98 m/s
 Wind Direction at 1.83m : mean 312 °T σ 9 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.78 C
 Air Temperature at 0.50m 9.52 C
 Water Temperature 12.45 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.750, 0	.605, 0	.985, 0	.745, 0
0.1	.510, 0	.409, 0	.670, 0	.505, 0
0.2	.520, -1	.419, -1	.685, -1	.515, -1
0.3	.720, -1	.580, -1	.945, -1	.715, -1
0.4	.176, 1	.142, 1	.230, 1	.174, 1
0.5	.820, 1	.655, 1	.108, 2	.810, 1
0.6	.106, 2	.845, 1	.138, 2	.104, 2
0.7	.610, 1	.492, 1	.805, 1	.605, 1
0.8	.376, 1	.302, 1	.492, 1	.372, 1
0.9	.242, 1	.194, 1	.316, 1	.239, 1
1.0	.149, 1	.120, 1	.196, 1	.148, 1
1.1	.840, 0	.675, 0	.110, 1	.830, 0
1.2	.675, 0	.540, 0	.885, 0	.665, 0
1.3	.438, 0	.351, 0	.575, 0	.433, 0
1.4	.230, 0	.185, 0	.302, 0	.228, 0
1.5	.176, 0	.142, 0	.232, 0	.174, 0
1.6	.166, 0	.133, 0	.217, 0	.164, 0
1.7	.117, 0	.940, -1	.154, 0	.116, 0
1.8	.116, 0	.935, -1	.153, 0	.116, 0
1.9	.580, -1	.464, -1	.760, -1	.575, -1
2.0	.555, -1	.446, -1	.730, -1	.550, -1
2.1	.319, -1	.256, -1	.418, -1	.316, -1
2.2	.440, -1	.353, -1	.575, -1	.436, -1
2.3	.280, -1	.225, -1	.368, -1	.278, -1
2.4	.510, -1	.411, -1	.670, -1	.505, -1
2.5	.464, -1	.372, -1	.610, -1	.459, -1

TABLE A IV 2.12
POWER SPECTRUM
RECORD 070

N = 880 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 70
 Wind Speed at 1.25m : mean 5.61 m/s σ 0.98 m/s
 Wind Direction at 1.83m : mean 312 °T σ 9 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.78 C
 Air Temperature at 0.50m 9.52 C
 Water Temperature 12.45 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.745, 0	.605, 0	.955, 0	.735, 0
0.1	.476, 0	.388, 0	.610, 0	.471, 0
0.2	.790, -1	.645, -1	.102, 0	.780, -1
0.3	.615, -1	.500, -1	.790, -1	.610, -1
0.4	.160, 1	.130, 1	.206, 1	.158, 1
0.5	.700, 1	.570, 1	.900, 1	.695, 1
0.6	.965, 1	.790, 1	.124, 2	.960, 1
0.7	.675, 1	.550, 1	.870, 1	.670, 1
0.8	.358, 1	.291, 1	.460, 1	.354, 1
0.9	.196, 1	.160, 1	.252, 1	.194, 1
1.0	.144, 1	.118, 1	.186, 1	.143, 1
1.1	.895, 0	.725, 0	.114, 1	.885, 0
1.2	.540, 0	.440, 0	.695, 0	.535, 0
1.3	.360, 0	.294, 0	.463, 0	.356, 0
1.4	.245, 0	.200, 0	.315, 0	.242, 0
1.5	.205, 0	.167, 0	.264, 0	.203, 0
1.6	.172, 0	.140, 0	.221, 0	.170, 0
1.7	.960, -1	.780, -1	.124, 0	.950, -1
1.8	.860, -1	.700, -1	.111, 0	.855, -1
1.9	.690, -1	.565, -1	.890, -1	.685, -1
2.0	.635, -1	.515, -1	.815, -1	.625, -1
2.1	.565, -1	.458, -1	.725, -1	.560, -1
2.2	.466, -1	.379, -1	.600, -1	.461, -1
2.3	.260, -1	.212, -1	.334, -1	.257, -1
2.4	.416, -1	.340, -1	.535, -1	.412, -1
2.5	.411, -1	.334, -1	.530, -1	.407, -1

TABLE A IV 2.13
POWER SPECTRUM
RECORD 075

N = 750 $\Delta T = 0.2$ sec Maximum Lag = 25 Degrees of Freedom = 59
 Wind Speed at 1.25m : mean 6.75 m/s σ 1.09 m/s
 Wind Direction at 1.83m : mean 325 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.92 C
 Air Temperature at 0.50m 9.86 C
 Water Temperature 12.52 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.131, 1	.105, 1	.172, 1	.130, 1
0.1	.760, 0	.610, 0	.100, 1	.755, 0
0.2	.283, -1	.227, -1	.371, -1	.280, -1
0.3	.260, 0	.208, 0	.340, 0	.257, 0
0.4	.316, 1	.254, 1	.415, 1	.313, 1
0.5	.120, 2	.965, 1	.158, 2	.119, 2
0.6	.146, 2	.117, 2	.191, 2	.144, 2
0.7	.720, 1	.580, 1	.945, 1	.715, 1
0.8	.301, 1	.242, 1	.394, 1	.298, 1
0.9	.168, 1	.136, 1	.221, 1	.167, 1
1.0	.131, 1	.106, 1	.172, 1	.130, 1
1.1	.945, 0	.760, 0	.124, 1	.935, 0
1.2	.486, 0	.390, 0	.640, 0	.482, 0
1.3	.278, 0	.223, 0	.364, 0	.275, 0
1.4	.272, 0	.219, 0	.358, 0	.270, 0
1.5	.200, 0	.161, 0	.263, 0	.198, 0
1.6	.189, 0	.152, 0	.248, 0	.187, 0
1.7	.121, 0	.975, -1	.159, 0	.120, 0
1.8	.116, 0	.925, -1	.152, 0	.114, 0
1.9	.600, -1	.481, -1	.785, -1	.595, -1
2.0	.710, -1	.570, -1	.930, -1	.705, -1
2.1	.362, -1	.291, -1	.476, -1	.359, -1
2.2	.560, -1	.448, -1	.730, -1	.555, -1
2.3	.362, -1	.291, -1	.476, -1	.359, -1
2.4	.610, -1	.490, -1	.800, -1	.605, -1
2.5	.505, -1	.406, -1	.665, -1	.500, -1

TABLE AIV 2.14
POWER SPECTRUM
RECORD 076

N = 850 $\Delta T = 0.2$ sec Maximum Lag = 25 Degrees of Freedom = 67
 Wind Speed at 1.25m : mean 6.75 m/s σ 1.09 m/s
 Wind Direction at 1.83m : mean 325 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.92 C
 Air Temperature at 0.50m 9.86 C
 Water Temperature 12.52 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.500, 0	.406, 0	.645, 0	.496, 0
0.1	.373, 0	.302, 0	.482, 0	.370, 0
0.2	.332, -1	.269, -1	.429, -1	.328, -1
0.3	.156, 0	.126, 0	.201, 0	.154, 0
0.4	.213, 1	.173, 1	.276, 1	.211, 1
0.5	.885, 1	.720, 1	.114, 2	.875, 1
0.6	.104, 2	.850, 1	.136, 2	.104, 2
0.7	.530, 1	.430, 1	.685, 1	.525, 1
0.8	.304, 1	.246, 1	.392, 1	.300, 1
0.9	.181, 1	.146, 1	.234, 1	.179, 1
1.0	.114, 1	.920, 0	.147, 1	.112, 1
1.1	.855, 0	.695, 0	.110, 1	.845, 0
1.2	.680, 0	.550, 0	.880, 0	.670, 0
1.3	.560, 0	.455, 0	.725, 0	.555, 0
1.4	.412, 0	.334, 0	.530, 0	.408, 0
1.5	.228, 0	.185, 0	.295, 0	.226, 0
1.6	.176, 0	.142, 0	.228, 0	.174, 0
1.7	.975, -1	.790, -1	.126, 0	.965, -1
1.8	.790, -1	.640, -1	.102, 0	.780, -1
1.9	.394, -1	.319, -1	.510, -1	.390, -1
2.0	.610, -1	.496, -1	.790, -1	.605, -1
2.1	.368, -1	.298, -1	.476, -1	.364, -1
2.2	.496, -1	.402, -1	.640, -1	.492, -1
2.3	.270, -1	.219, -1	.349, -1	.268, -1
2.4	.510, -1	.413, -1	.660, -1	.505, -1
2.5	.431, -1	.350, -1	.555, -1	.426, -1

TABLE A IV 2.15
POWER SPECTRUM
RECORD 081

N= 750 $\Delta T=0.2$ sec Maximum Lag=25 Degrees of Freedom= 59
 Wind Speed at 1.25m' mean 6.78m/s σ 1.17m/s
 Wind Direction at 1.83m' mean 326 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 1042 C
 Air Temperature at 0.50m 1046 C
 Water Temperature 12.69 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.116, 1	.925, 0	.152, 1	.114, 1
0.1	.605, 0	.486, 0	.795, 0	.600, 0
0.2	.935, -1	.750, -1	.122, 0	.925, -1
0.3	.342, -1	.274, -1	.448, -1	.338, -1
0.4	.161, 0	.129, 0	.211, 0	.159, 0
0.5	.152, 1	.122, 1	.199, 1	.150, 1
0.6	.388, 1	.312, 1	.510, 1	.384, 1
0.7	.370, 1	.298, 1	.486, 1	.366, 1
0.8	.195, 1	.156, 1	.256, 1	.193, 1
0.9	.925, 0	.740, 0	.121, 1	.915, 0
1.0	.660, 0	.530, 0	.865, 0	.650, 0
1.1	.565, 0	.454, 0	.740, 0	.560, 0
1.2	.378, 0	.304, 0	.496, 0	.374, 0
1.3	.314, 0	.252, 0	.412, 0	.310, 0
1.4	.280, 0	.225, 0	.368, 0	.278, 0
1.5	.176, 0	.142, 0	.230, 0	.174, 0
1.6	.132, 0	.106, 0	.172, 0	.130, 0
1.7	.945, -1	.760, -1	.124, 0	.935, -1
1.8	.740, -1	.595, -1	.970, -1	.730, -1
1.9	.630, -1	.505, -1	.825, -1	.625, -1
2.0	.438, -1	.351, -1	.575, -1	.433, -1
2.1	.324, -1	.260, -1	.425, -1	.321, -1
2.2	.272, -1	.219, -1	.358, -1	.270, -1
2.3	.206, -1	.166, -1	.270, -1	.204, -1
2.4	.206, -1	.165, -1	.270, -1	.204, -1
2.5	.177, -1	.142, -1	.232, -1	.175, -1

TABLE AIV 2.16
POWER SPECTRUM
RECORD 082

N= 888 $\Delta T=0.2$ sec Maximum Lag=25 Degrees of Freedom= 70
 Wind Speed at 1.25m' mean 6.78m/s σ 1.17 m/s
 Wind Direction at 1.83m' mean 326 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 10.42 C
 Air Temperature at 0.50m 10.46 C
 Water Temperature 12.69 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.905, 0	.740, 0	.116, 1	.900, 0
0.1	.450, 0	.366, 0	.580, 0	.446, 0
0.2	.740, -1	.605, -1	.950, -1	.735, -1
0.3	.760, -2	.620, -2	.980, -2	.755, -2
0.4	.108, 0	.880, -1	.139, 0	.107, 0
0.5	.118, 1	.965, 0	.152, 0	.117, 1
0.6	.378, 1	.308, 1	.486, 1	.374, 1
0.7	.424, 1	.346, 1	.545, 1	.420, 1
0.8	.260, 1	.212, 1	.334, 1	.257, 1
0.9	.140, 1	.114, 1	.180, 1	.138, 1
1.0	.880, 0	.720, 0	.114, 1	.875, 0
1.1	.590, 0	.482, 0	.760, 0	.585, 0
1.2	.340, 0	.276, 0	.436, 0	.336, 0
1.3	.290, 0	.236, 0	.374, 0	.288, 0
1.4	.240, 0	.196, 0	.308, 0	.238, 0
1.5	.184, 0	.150, 0	.237, 0	.182, 0
1.6	.118, 0	.965, -1	.152, 0	.118, 0
1.7	.970, -1	.790, -1	.125, 0	.965, -1
1.8	.775, -1	.635, -1	.100, 0	.770, -1
1.9	.605, -1	.494, -1	.780, -1	.600, -1
2.0	.326, -1	.266, -1	.420, -1	.324, -1
2.1	.360, -1	.294, -1	.463, -1	.356, -1
2.2	.324, -1	.264, -1	.416, -1	.321, -1
2.3	.355, -1	.289, -1	.456, -1	.352, -1
2.4	.184, -1	.150, -1	.238, -1	.183, -1
2.5	.138, -1	.112, -1	.176, -1	.136, -1

TABLE AIV 2.17
POWER SPECTRUM
RECORD 083

N= 750 $\Delta T=0.2$ sec Maximum Lag=25 Degrees of Freedom= 59
 Wind Speed at 1.25m: mean 7.77 m/s σ 1.16 m/s
 Wind Direction at 1.83m: mean 314 °T σ 12 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 10.76 C
 Air Temperature at 0.50m 10.61 C
 Water Temperature 12.72 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.358, 1	.287, 1	.469, 1	.354, 1
0.1	.176, 1	.141, 1	.230, 1	.174, 1
0.2	.640, -1	.515, -1	.840, -1	.635, -1
0.3	.100, 0	.805, -1	.132, 0	.995, -1
0.4	.100, 1	.805, 0	.132, 1	.995, 0
0.5	.690, 1	.555, 1	.905, 1	.685, 1
0.6	.102, 2	.825, 1	.134, 2	.102, 2
0.7	.540, 1	.434, 1	.710, 1	.535, 1
0.8	.293, 1	.236, 1	.384, 1	.290, 1
0.9	.190, 1	.152, 1	.248, 1	.188, 1
1.0	.955, 0	.765, 0	.125, 1	.945, 0
1.1	.481, 0	.386, 0	.630, 0	.476, 0
1.2	.384, 0	.308, 0	.505, 0	.380, 0
1.3	.225, 0	.180, 0	.295, 0	.222, 0
1.4	.216, 0	.174, 0	.284, 0	.214, 0
1.5	.152, 0	.122, 0	.200, 0	.151, 0
1.6	.150, 0	.121, 0	.198, 0	.149, 0
1.7	.805, -1	.645, -1	.106, 0	.795, -1
1.8	.740, -1	.595, -1	.970, -1	.735, -1
1.9	.427, -1	.343, -1	.560, -1	.422, -1
2.0	.645, -1	.520, -1	.845, -1	.640, -1
2.1	.424, -1	.340, -1	.555, -1	.420, -1
2.2	.590, -1	.473, -1	.770, -1	.585, -1
2.3	.360, -1	.289, -1	.472, -1	.356, -1
2.4	.575, -1	.462, -1	.755, -1	.570, -1
2.5	.456, -1	.366, -1	.600, -1	.452, -1

TABLE A IV 2.18
POWER SPECTRUM
RECORD 084

N = 566 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 45
 Wind Speed at 1.25m mean 7.77 m/s σ 1.16 m/s
 Wind Direction at 1.83m mean 314 °T σ 12 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 10.76 C
 Air Temperature at 0.50m 10.61 C
 Water Temperature 12.72 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.176, 1	.137, 1	.238, -1	.173, 1
0.1	.930, 0	.725, 0	.126, 1	.915, 0
0.2	.146, 0	.114, 0	.198, 0	.144, 0
0.3	.780, -1	.610, 0	.106, 0	.770, -1
0.4	.130, 1	.102, 1	.176, 1	.128, 1
0.5	.466, 1	.364, 1	.630, 1	.458, 1
0.6	.710, 1	.555, 1	.960, 1	.700, 1
0.7	.670, 1	.525, 1	.905, 1	.660, 1
0.8	.404, 1	.316, 1	.545, 1	.398, 1
0.9	.222, 1	.174, 1	.300, 1	.219, 1
1.0	.132, 1	.102, 1	.178, 1	.130, 1
1.1	.765, 0	.600, 0	.104, 1	.755, 0
1.2	.442, 0	.346, 0	.600, 0	.436, 0
1.3	.296, 0	.231, 0	.400, 0	.292, 0
1.4	.170, 0	.132, 0	.229, 0	.167, 0
1.5	.132, 0	.104, 0	.178, 0	.130, 0
1.6	.134, 0	.104, 0	.181, 0	.132, 0
1.7	.110, 0	.855, -1	.148, 0	.108, 0
1.8	.760, -1	.595, -1	.102, 0	.745, -1
1.9	.715, -1	.560, -1	.965, -1	.705, -1
2.0	.680, -1	.535, -1	.920, -1	.670, -1
2.1	.560, -1	.436, -1	.755, -1	.550, -1
2.2	.398, -1	.312, -1	.540, -1	.392, -1
2.3	.445, -1	.348, -1	.600, -1	.438, -1
2.4	.402, -1	.314, -1	.540, -1	.396, -1
2.5	.300, -1	.234, -1	.406, -1	.296, -1

TABLE A IV 2.19
POWER SPECTRUM

RECORD 085

N= 750 $\Delta T=0.2$ sec Maximum Lag=25 Degrees of Freedom= 59

Wind Speed at 1.25m : mean 7.87m/s σ 1.31 m/s

Wind Direction at 1.83m : mean 308 °T σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

Frequency (cpe)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.282, 1	.226, 1	.369, 1	.278, 1
0.1	.144, 1	.116, 1	.189, 1	.143, 1
0.2	.474, -1	.380, -1	.620, -1	.468, -1
0.3	.525, -1	.422, -1	.690, -1	.520, -1
0.4	.170, 1	.137, 1	.224, 1	.169, 1
0.5	.855, 1	.685, 1	.112, 2	.845, 1
0.6	.109, 2	.875, 1	.143, 2	.108, 2
0.7	.585, 1	.471, 1	.770, 1	.580, 1
0.8	.280, 1	.225, 1	.368, 1	.278, 1
0.9	.142, 1	.114, 1	.186, 1	.141, 1
1.0	.935, 0	.750, 0	.123, 1	.925, 0
1.1	.735, 0	.590, 0	.965, 0	.730, 0
1.2	.515, 0	.415, 0	.680, 0	.510, 0
1.3	.265, 0	.212, 0	.348, 0	.262, 0
1.4	.220, 0	.177, 0	.288, 0	.218, 0
1.5	.149, 0	.120, 0	.196, 0	.148, 0
1.6	.126, 0	.102, 0	.166, 0	.125, 0
1.7	.745, -1	.595, -1	.975, -1	.735, -1
1.8	.955, -1	.765, -1	.125, 0	.945, -1
1.9	.575, -1	.462, -1	.755, -1	.570, -1
2.0	.505, -1	.405, -1	.660, -1	.499, -1
2.1	.207, -1	.166, -1	.272, -1	.205, -1
2.2	.420, -1	.336, -1	.550, -1	.415, -1
2.3	.218, -1	.176, -1	.286, -1	.216, -1
2.4	.456, -1	.366, -1	.595, -1	.451, -1
2.5	.404, -1	.324, -1	.530, -1	.400, -1

TABLE A IV 2.20
POWER SPECTRUM

RECORD 086

N = 870 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 69
 Wind Speed at 1.25m' mean 7.87 m/s σ 1.31 m/s
 Wind Direction at 1.83m' mean 308 °T σ 9 °T
 Estimated Fetch 2800 m
 Air Temperature at 2.25m 10.53 C
 Air Temperature at 0.50m 8.99 C
 Water Temperature 12.70 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.117, 1	.950, 0	.150, 1	.116, 1
0.1	.755, 0	.615, 0	.975, 0	.750, 0
0.2	.650, -2	.530, -2	.840, -2	.645, -2
0.3	.700, -1	.570, -1	.900, -1	.695, -1
0.4	.230, 1	.187, 1	.296, 1	.228, 1
0.5	.106, 2	.860, 1	.136, 2	.105, 2
0.6	.121, 2	.985, 1	.156, 2	.120, 2
0.7	.550, 1	.448, 1	.710, 1	.545, 1
0.8	.229, 1	.186, 1	.295, 1	.227, 1
0.9	.115, 1	.935, 0	.148, 1	.114, 1
1.0	.855, 0	.695, 0	.110, 1	.845, 0
1.1	.468, 0	.380, 0	.605, 0	.464, 0
1.2	.434, 0	.354, 0	.560, 0	.430, 0
1.3	.270, 0	.220, 0	.348, 0	.268, 0
1.4	.220, 0	.179, 0	.283, 0	.218, 0
1.5	.134, 0	.109, 0	.172, 0	.132, 0
1.6	.144, 0	.116, 0	.184, 0	.142, 0
1.7	.700, -1	.570, -1	.905, -1	.695, -1
1.8	.755, -1	.615, -1	.975, -1	.750, -1
1.9	.330, -1	.268, -1	.424, -1	.326, -1
2.0	.645, -1	.525, -1	.830, -1	.640, -1
2.1	.308, -1	.251, -1	.398, -1	.306, -1
2.2	.470, -1	.383, -1	.605, -1	.466, -1
2.3	.146, -1	.119, -1	.189, -1	.145, -1
2.4	.635, -1	.515, -1	.820, -1	.630, -1
2.5	.560, -1	.456, -1	.725, -1	.555, -1

TABLE AIV 2.21
POWER SPECTRUM
RECORD 087

N= 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag=25 Degrees of Freedom= 59
 Wind Speed at 1.25m: mean 7.21 m/s σ 1.45 m/s
 Wind Direction at 1.83m: mean 302 °T σ 8 °T
 Estimated Fetch 2300 m
 Air Temperature at 2.25m 10.89 C
 Air Temperature at 0.50m 10.56 C
 Water Temperature 12.79 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.116, 1	.935, 0	.152, 1	.115, 1
0.1	.132, 2	.106, 2	.173, 2	.130, 2
0.2	.200, 1	.160, 1	.262, 1	.198, 1
0.3	.660, 0	.530, 0	.865, 0	.655, 0
0.4	.690, 0	.555, 0	.905, 0	.680, 0
0.5	.975, 0	.785, 0	.128, 1	.970, 0
0.6	.184, 1	.148, 1	.242, 1	.182, 1
0.7	.268, 1	.215, 1	.351, 1	.265, 1
0.8	.270, 1	.217, 1	.354, 1	.268, 1
0.9	.204, 1	.164, 1	.268, 1	.202, 1
1.0	.127, 1	.102, 1	.166, 1	.126, 1
1.1	.770, 0	.620, 0	.101, 1	.765, 0
1.2	.494, 0	.396, 0	.650, 0	.489, 0
1.3	.348, 0	.279, 0	.456, 0	.344, 0
1.4	.238, 0	.191, 0	.312, 0	.236, 0
1.5	.236, 0	.190, 0	.310, 0	.234, 0
1.6	.218, 0	.174, 0	.285, 0	.215, 0
1.7	.178, 0	.142, 0	.232, 0	.176, 0
1.8	.140, 0	.112, 0	.184, 0	.139, 0
1.9	.110, 0	.890, -1	.145, 0	.110, 0
2.0	.930, -1	.745, -1	.122, 0	.920, -1
2.1	.955, -1	.765, -1	.125, 0	.945, -1
2.2	.780, -1	.625, -1	.102, 0	.770, -1
2.3	.790, -1	.635, -1	.104, 0	.780, -1
2.4	.505, -1	.407, -1	.665, -1	.500, -1
2.5	.120, -1	.960, -2	.156, -1	.118, -1

TABLE A IV 2.22
POWER SPECTRUM
RECORD 088

N = 870 $\Delta T = 0.2$ sec Maximum Lag = 25 Degrees of Freedom = 69
 Wind Speed at 1.25 m: mean 7.21 m/s σ 1.45 m/s
 Wind Direction at 1.83 m: mean 302 °T σ 8 °T
 Estimated Fetch 2300 m
 Air Temperature at 2.25m 10.89 C
 Air Temperature at 0.50m 10.56 C
 Water Temperature 12.79 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.150, 1	.122, 1	.193, 1	.148, 1
0.1	.845, 0	.685, 0	.108, 1	.835, 0
0.2	.144, 0	.118, 0	.186, 0	.143, 0
0.3	.710, -2	.575, -2	.915, -2	.705, -2
0.4	.189, 0	.154, 0	.243, 0	.187, 0
0.5	.162, 1	.132, 1	.208, 1	.160, 1
0.6	.424, 1	.345, 1	.545, 1	.420, 1
0.7	.432, 1	.352, 1	.555, 1	.428, 1
0.8	.257, 1	.209, 1	.331, 1	.254, 1
0.9	.136, 1	.110, 1	.175, 1	.134, 1
1.0	.740, 0	.605, 0	.955, 0	.735, 0
1.1	.555, 0	.452, 0	.715, 0	.550, 0
1.2	.434, 0	.354, 0	.560, 0	.430, 0
1.3	.360, 0	.293, 0	.464, 0	.356, 0
1.4	.260, 0	.212, 0	.334, 0	.257, 0
1.5	.198, 0	.160, 0	.254, 0	.196, 0
1.6	.152, 0	.124, 0	.196, 0	.151, 0
1.7	.985, -1	.800, -1	.126, 0	.975, -1
1.8	.590, -1	.481, -1	.760, -1	.585, -1
1.9	.530, -1	.433, -1	.685, -1	.525, -1
2.0	.355, -1	.288, -1	.457, -1	.352, -1
2.1	.434, -1	.354, -1	.560, -1	.430, -1
2.2	.406, -1	.330, -1	.525, -1	.402, -1
2.3	.370, -1	.302, -1	.477, -1	.366, -1
2.4	.181, -1	.147, -1	.233, -1	.179, -1
2.5	.143, -1	.116, -1	.184, -1	.142, -1

TABLE A IV 2.23
POWER SPECTRUM

RECORD 093

N = 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 59
 Wind Speed at 1.25m : mean 8.20m/s σ 1.00 m/s
 Wind Direction at 1.83m : mean 305 °T σ 6 °T

Estimated Fetch 2500 m
 Air Temperature at 2.25m 12.02 C
 Air Temperature at 0.50m 11.86 C
 Water Temperature 12.87 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.152, 0	.122, 0	.198, 0	.150, 0
0.1	.101, 0	.810, -1	.132, 0	.100, 0
0.2	.650, -1	.520, -1	.855, -1	.645, -1
0.3	.182, -1	.146, -1	.240, -1	.181, -1
0.4	.590, 0	.475, 0	.775, 0	.585, 0
0.5	.545, 1	.436, 1	.710, 1	.535, 1
0.6	.130, 2	.104, 2	.170, 2	.128, 2
0.7	.115, 2	.925, 1	.151, 2	.114, 2
0.8	.570, 1	.458, 1	.750, 1	.565, 1
0.9	.326, 1	.262, 1	.428, 1	.324, 1
1.0	.218, 1	.175, 1	.286, 1	.216, 1
1.1	.120, 1	.960, 0	.157, 1	.118, 1
1.2	.700, 0	.565, 0	.920, 0	.695, 0
1.3	.635, 0	.510, 0	.835, 0	.630, 0
1.4	.474, 0	.380, 0	.620, 0	.468, 0
1.5	.352, 0	.283, 0	.462, 0	.349, 0
1.6	.246, 0	.198, 0	.323, 0	.244, 0
1.7	.211, 0	.170, 0	.277, 0	.209, 0
1.8	.159, 0	.128, 0	.208, 0	.158, 0
1.9	.160, 0	.128, 0	.210, 0	.158, 0
2.0	.144, 0	.116, 0	.190, 0	.143, 0
2.1	.114, 0	.920, -1	.150, 0	.114, 0
2.2	.935, -1	.750, -1	.122, 0	.925, -1
2.3	.102, 0	.820, -1	.134, 0	.102, 0
2.4	.585, -1	.471, -1	.770, -1	.580, -1
2.5	.361, -1	.290, -1	.474, -1	.358, -1

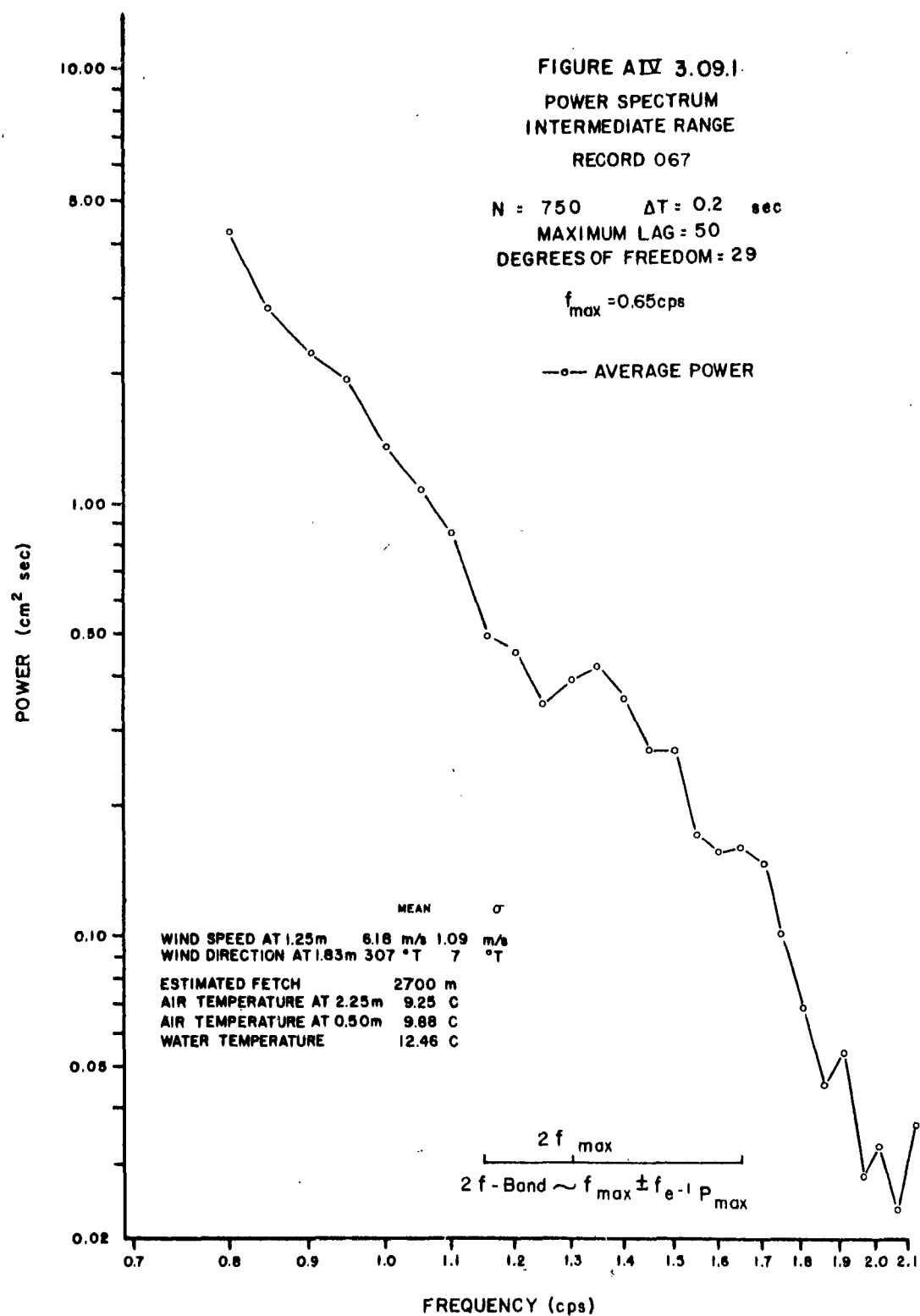
TABLE A IV 2.24
POWER SPECTRUM
RECORD 094

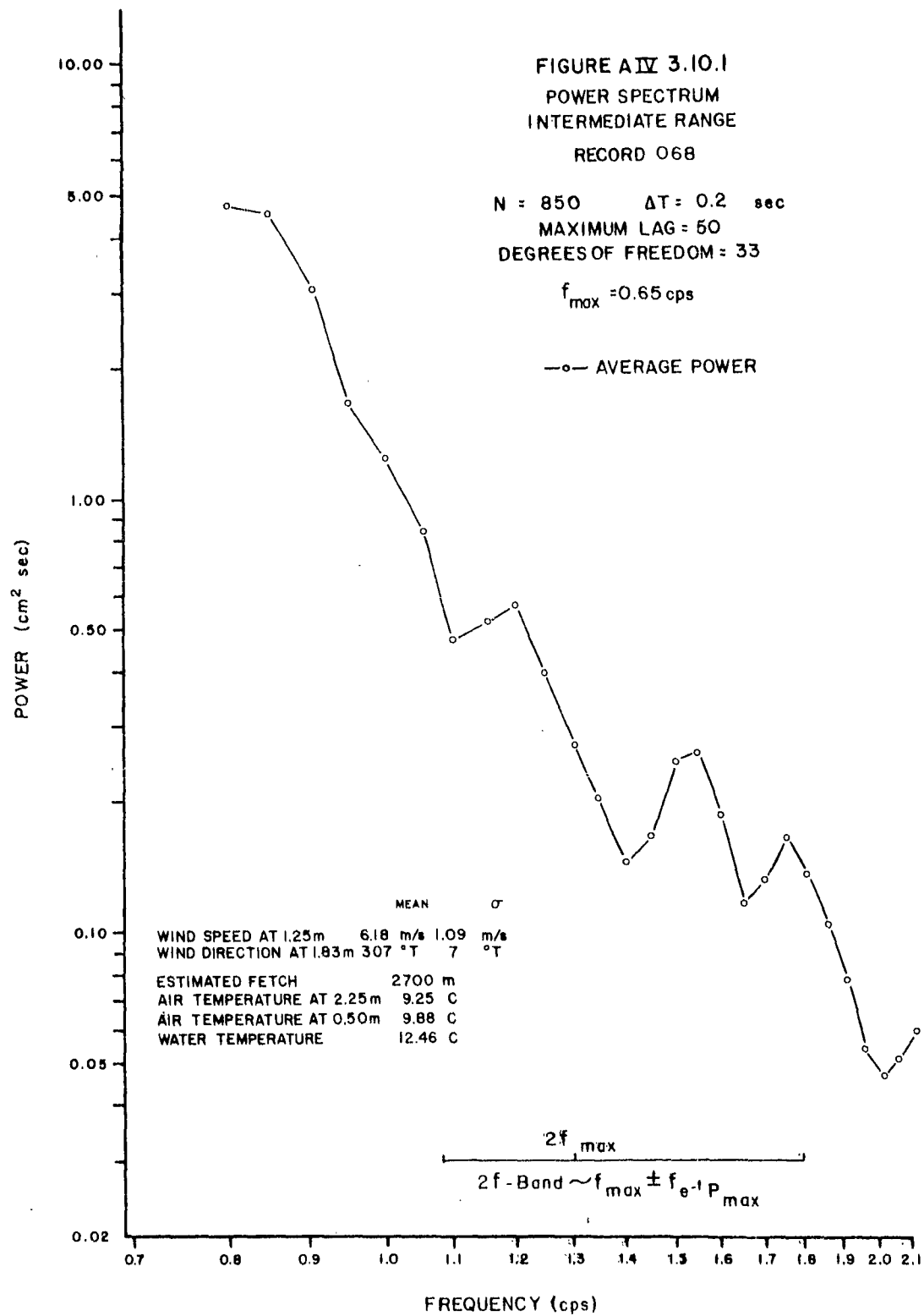
N = 860 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 25 Degrees of Freedom = 68
 Wind Speed at 1.25m' mean 8.20m/s σ 1.00 m/s
 Wind Direction at 1.83m' mean 305 °T σ 6 °T
 Estimated Fetch 2500 m
 Air Temperature at 2.25m 12.02 C
 Air Temperature at 0.50m 11.86 C
 Water Temperature 12.87 C

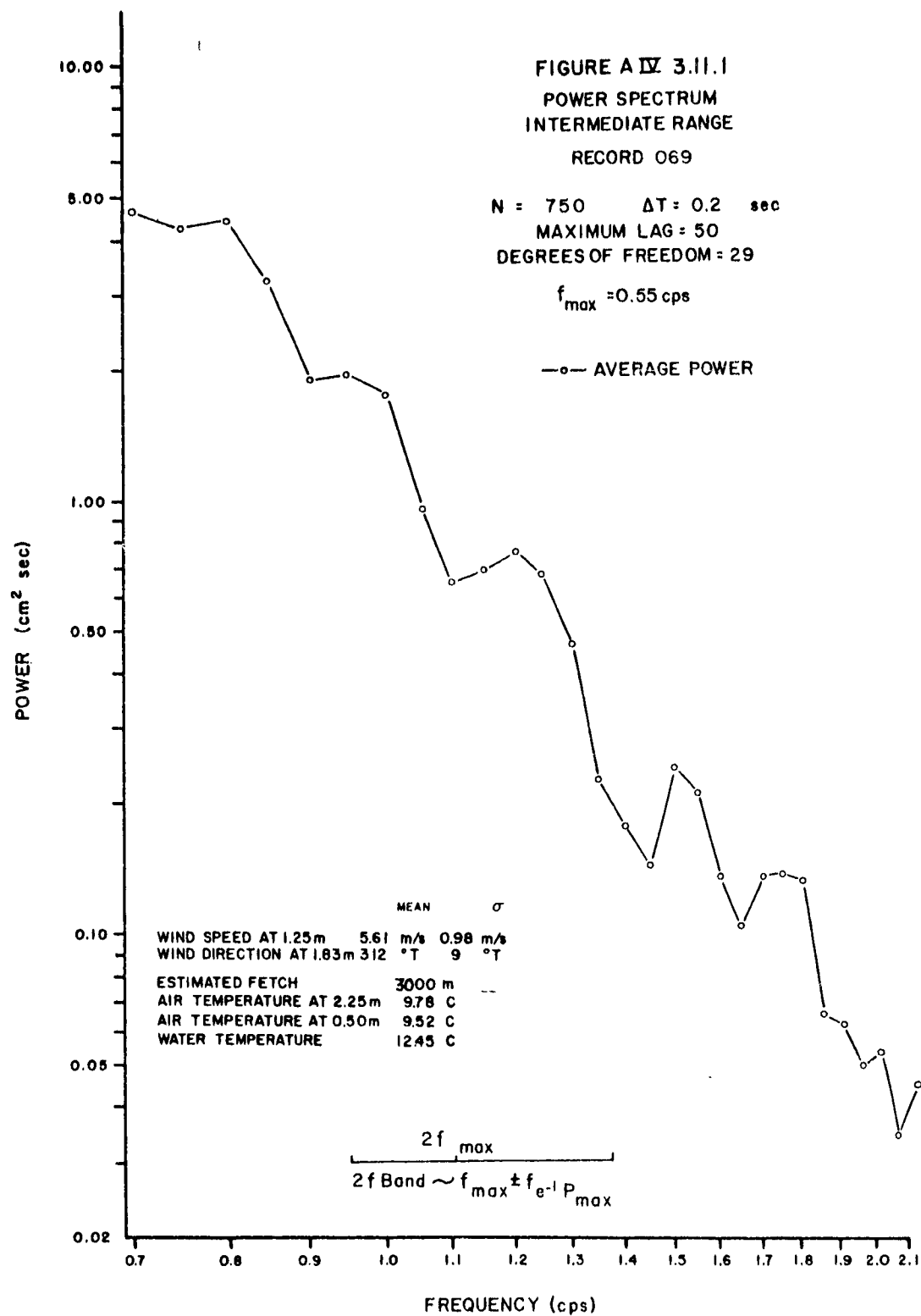
Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.0	.890, 0	.725, 0	.115, 1	.885, 0
0.1	.525, 0	.428, 0	.680, 0	.520, 0
0.2	.342, -1	.278, -1	.442, -1	.338, -1
0.3	.960, -1	.780, -1	.124, 0	.950, -1
0.4	.815, 0	.660, 0	.105, 1	.805, 0
0.5	.675, 1	.545, 1	.870, 1	.665, 0
0.6	.130, 2	.106, 2	.168, 2	.130, 2
0.7	.124, 2	.100, 2	.160, 2	.122, 2
0.8	.935, 1	.760, 1	.121, 2	.925, 1
0.9	.505, 1	.410, 1	.650, 1	.499, 1
1.0	.238, 1	.193, 1	.306, 1	.236, 1
1.1	.146, 1	.118, 1	.188, 1	.144, 1
1.2	.110, 1	.900, 0	.142, 1	.110, 1
1.3	.645, 0	.525, 0	.835, 0	.640, 0
1.4	.452, 0	.368, 0	.585, 0	.448, 0
1.5	.340, 0	.276, 0	.438, 0	.336, 0
1.6	.286, 0	.232, 0	.368, 0	.282, 0
1.7	.209, 0	.170, 0	.270, 0	.207, 0
1.8	.194, 0	.157, 0	.250, 0	.192, 0
1.9	.128, 0	.104, 0	.166, 0	.127, 0
2.0	.106, 0	.860, -1	.136, 0	.105, 0
2.1	.740, -1	.600, -1	.950, -1	.730, -1
2.2	.945, -1	.770, -1	.122, 0	.935, -1
2.3	.790, -1	.645, -1	.102, 0	.785, -1
2.4	.970, -1	.790, -1	.125, 0	.960, -1
2.5	.760, -1	.615, -1	.980, -1	.750, -1

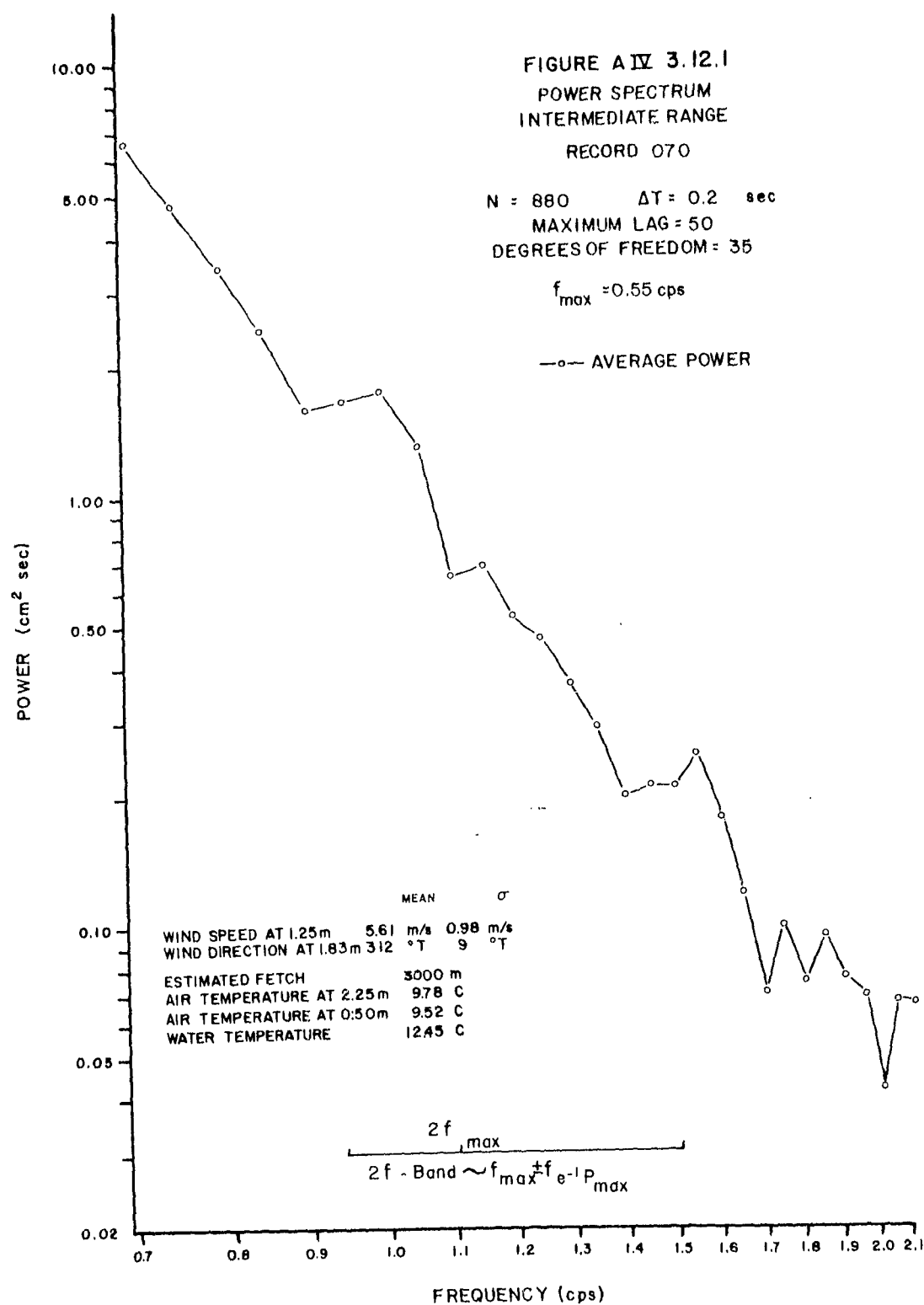
High-Resolution Spectra of the Water Surface--Plots of the Band from
0.7 to 2.1 cps

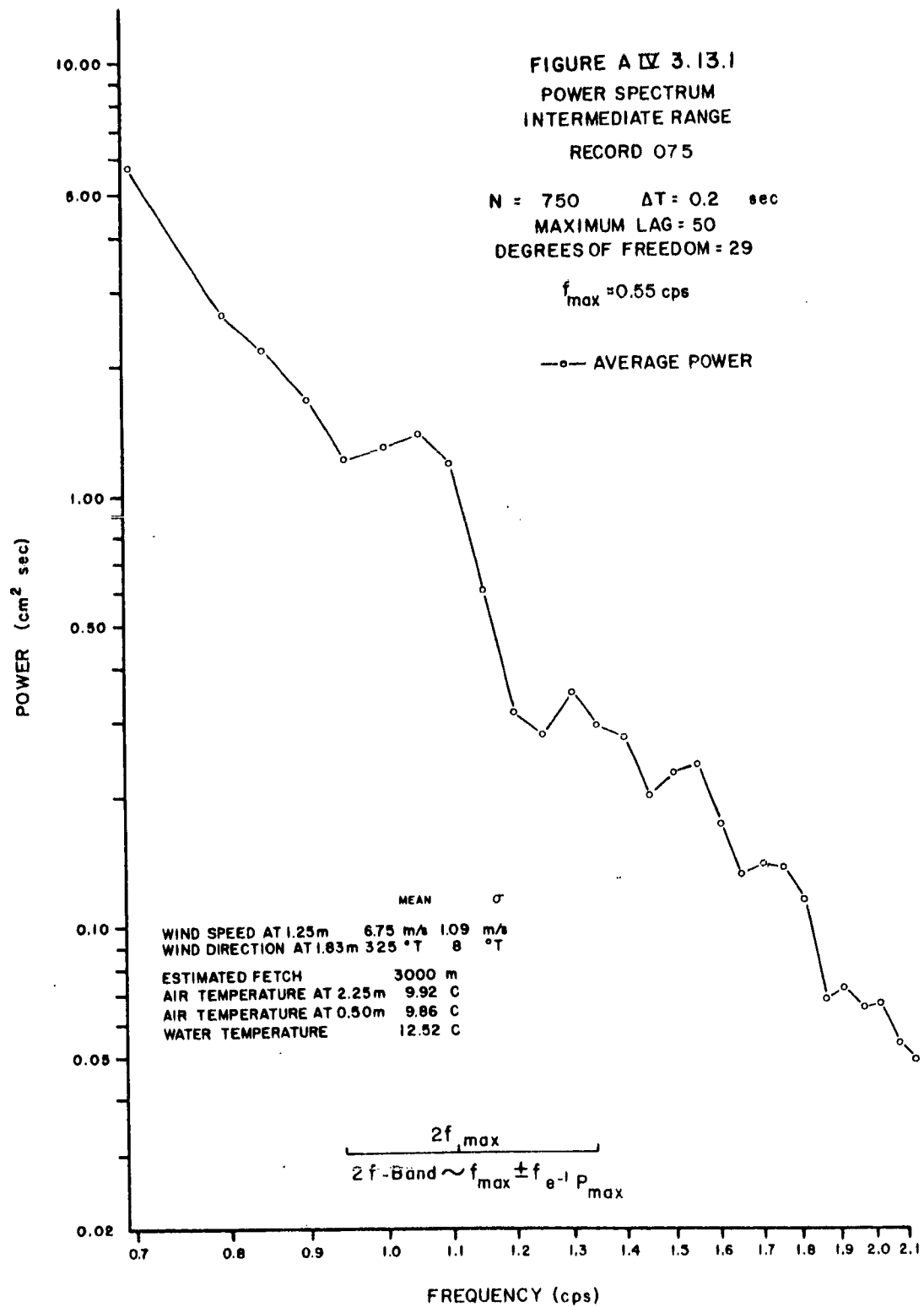
Figures AIV 3.09.1 to AIV 3.24.1 on pages AIV-113 to AIV-128 show the spectrum of each November record on the band from 0.7 to 2.1 cps on a logarithm versus logarithm scale. The power estimates occur every 0.05 cps as opposed to the 0.1 cps previously used. Each estimate is the average power in a band 0.1 cps wide. There are no high-resolution analyses for the July records; consequently, there are no figures numbered AIV 3.01.1 to AIV 3.08.1.











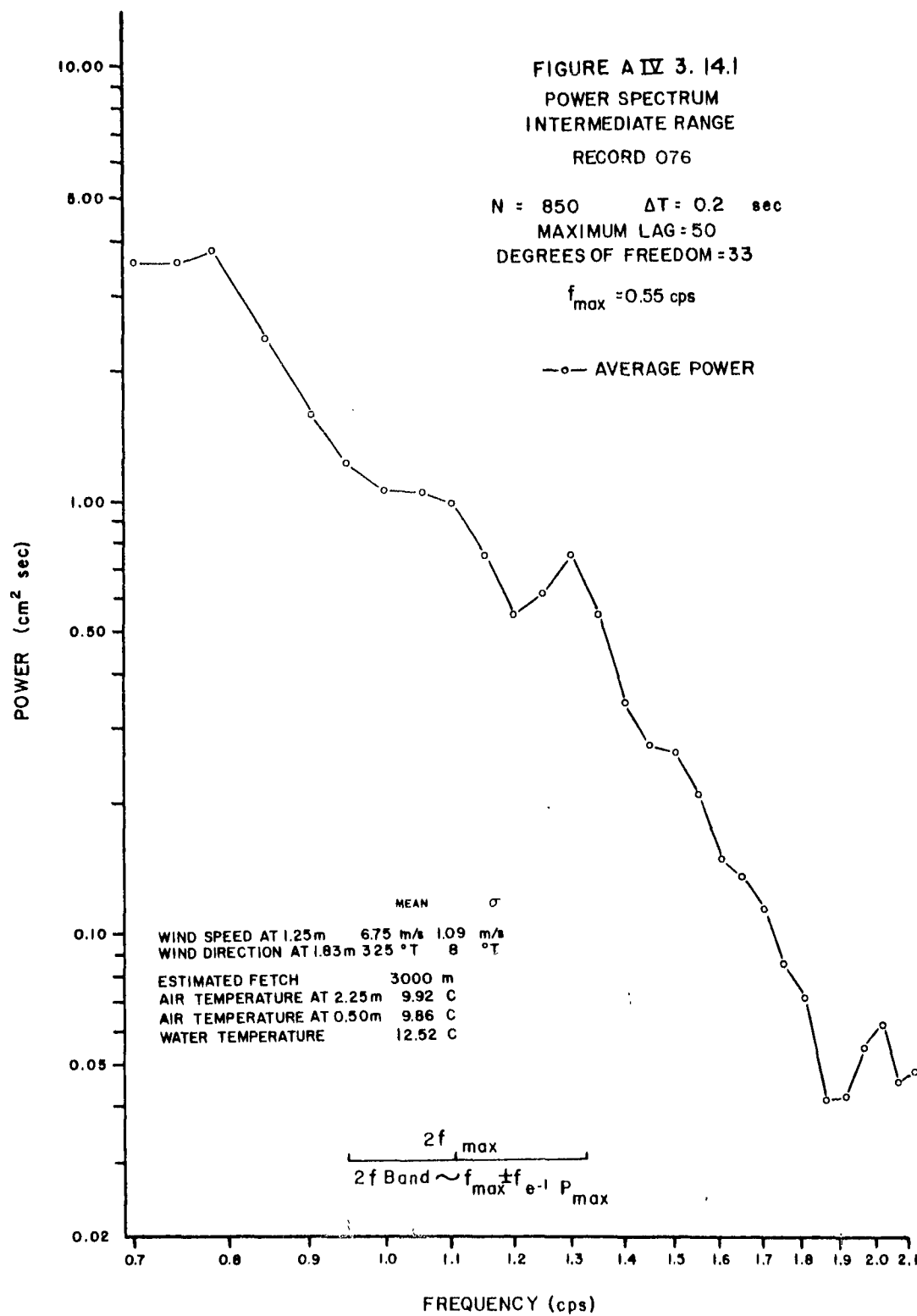


FIGURE A IV 3.15.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 081

$N = 750$ $\Delta T = 0.2$ sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29

$f_{\max} = 0.60$ cps

—○— AVERAGE POWER

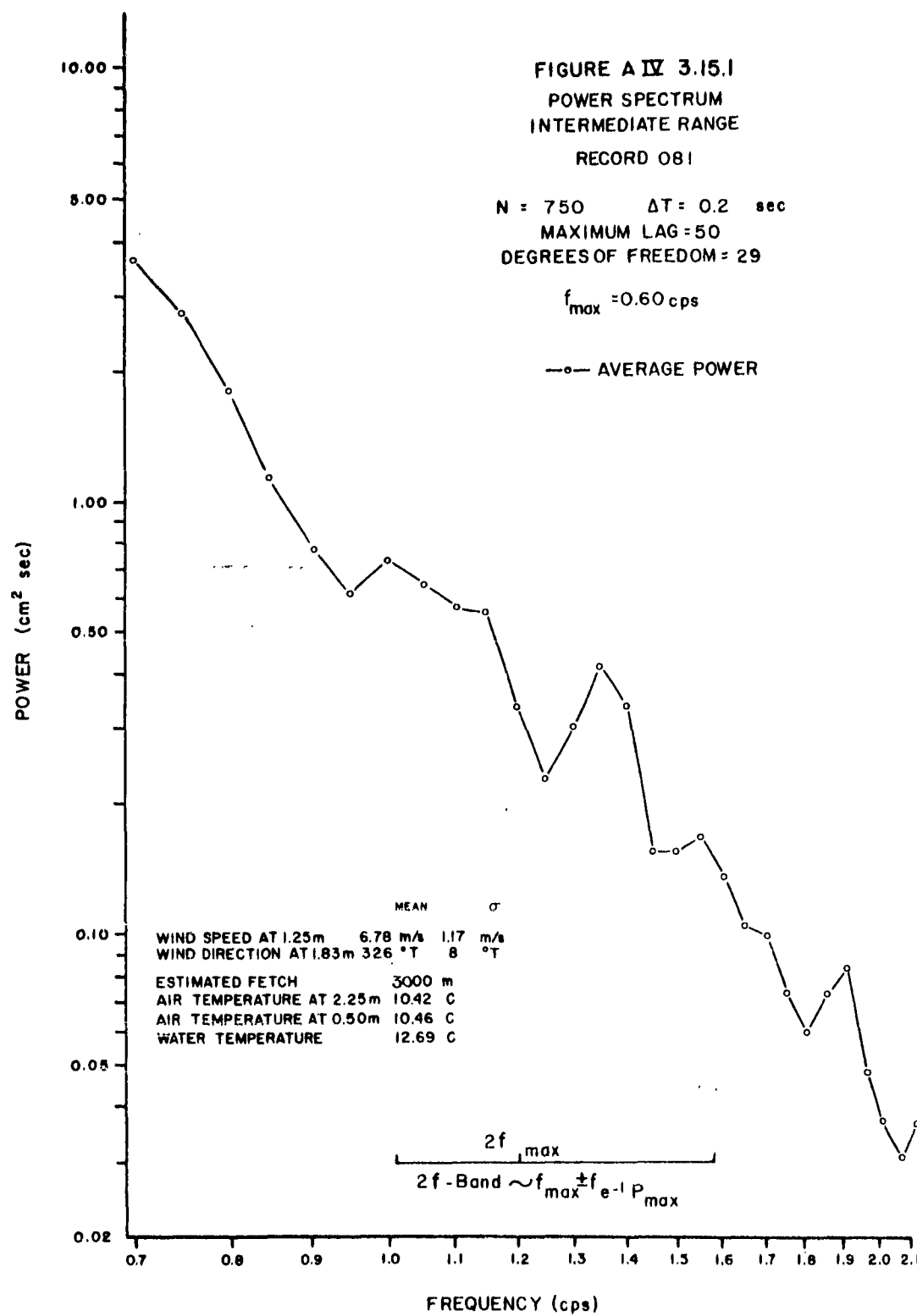


FIGURE AIV 3.16.1

POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 082

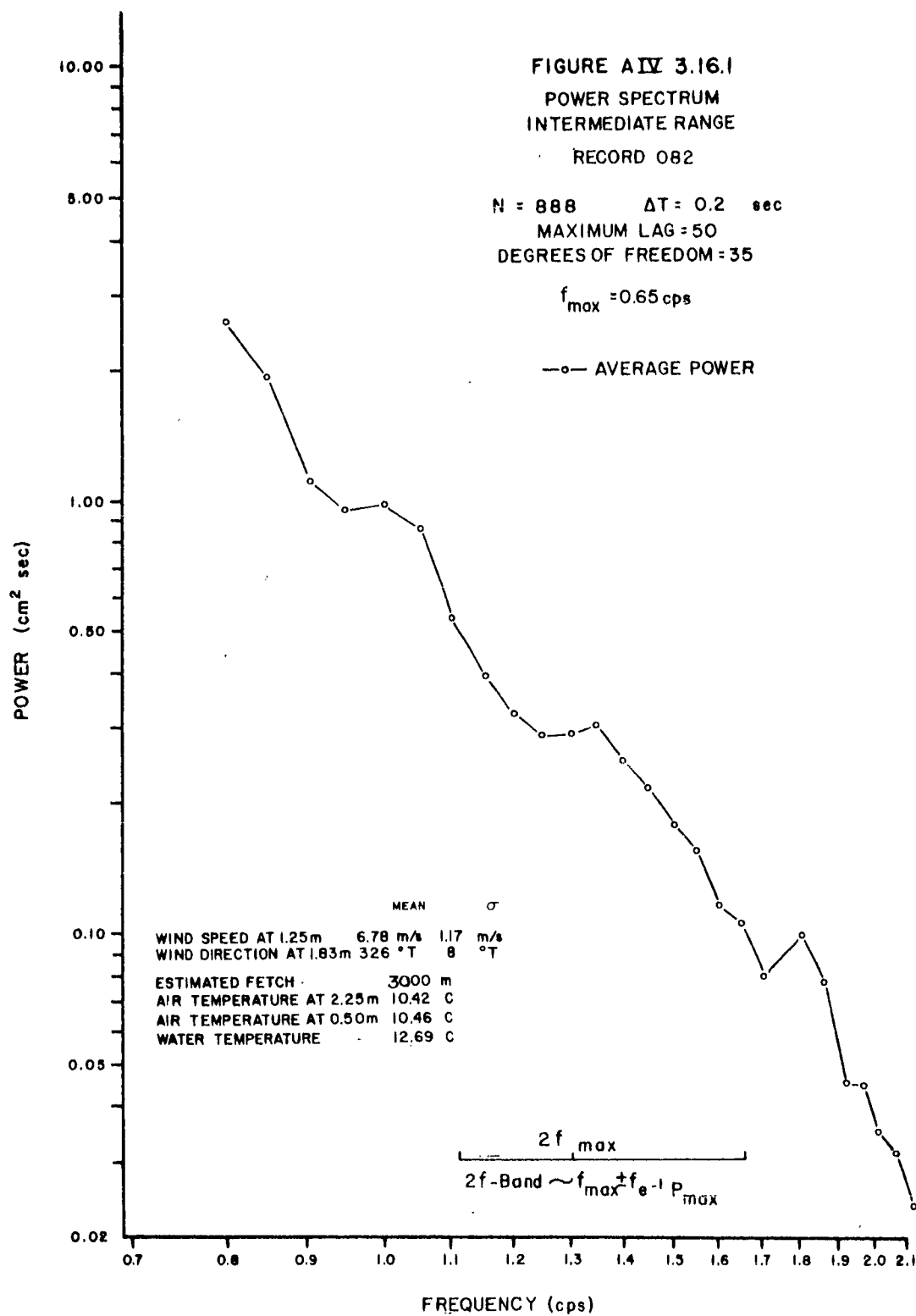
N = 888 $\Delta T = 0.2$ sec

MAXIMUM LAG = 50

DEGREES OF FREEDOM = 35

 $f_{\max} = 0.65$ cps

—○— AVERAGE POWER



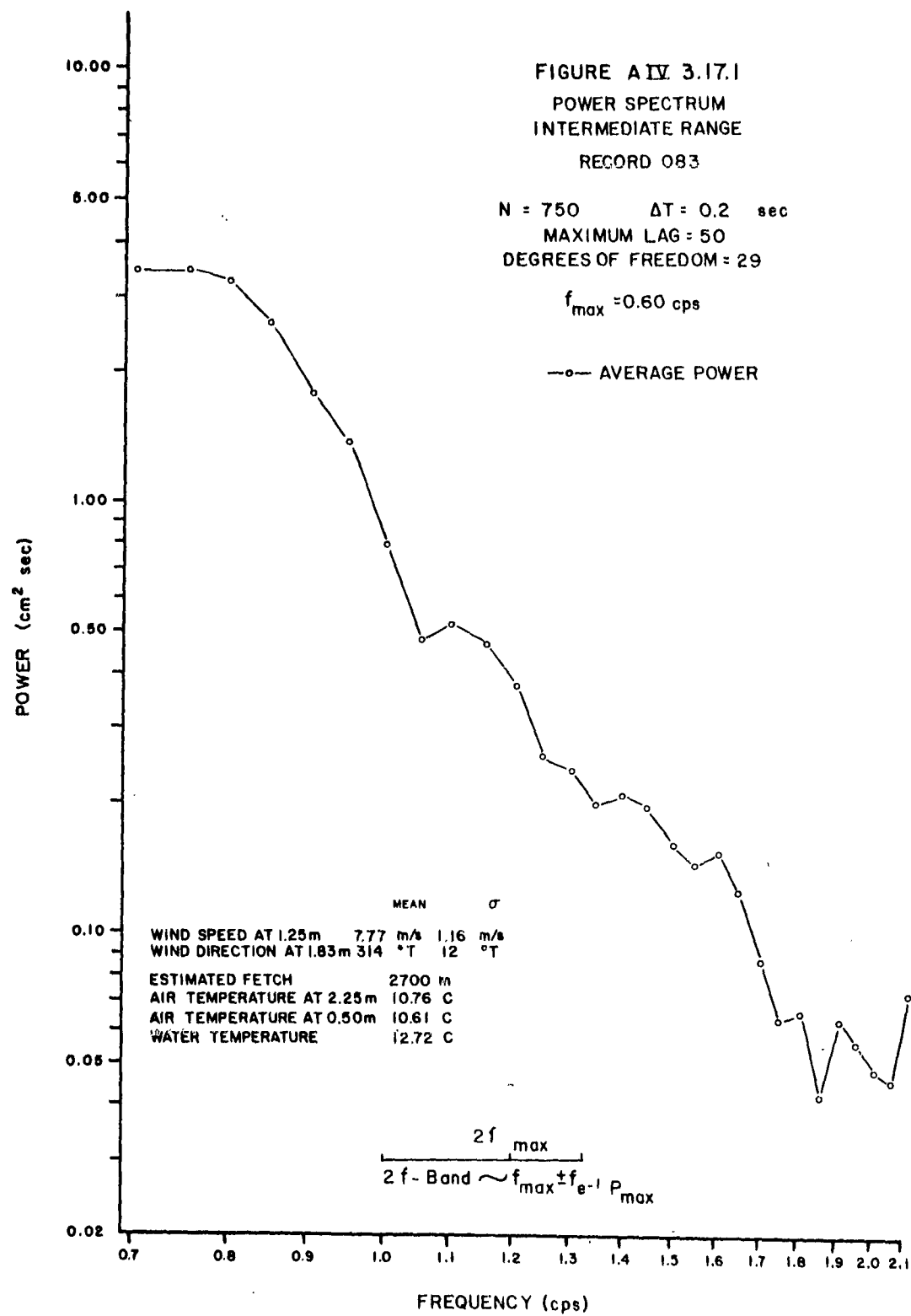


FIGURE AIV 3.18.1

POWER SPECTRUM
INTERMEDIATE RANGE

RECORD 084

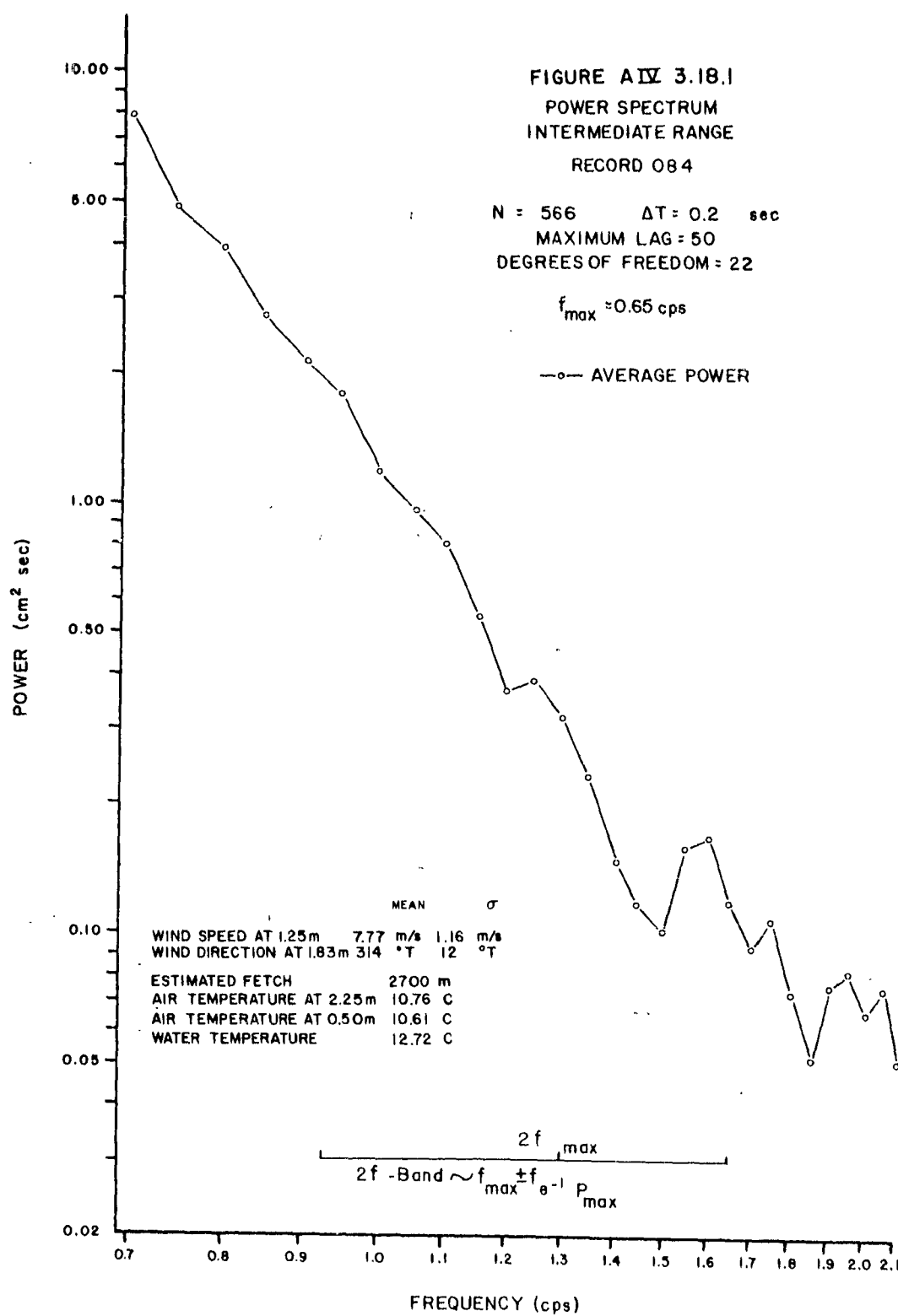
N = 566 $\Delta T = 0.2$ sec

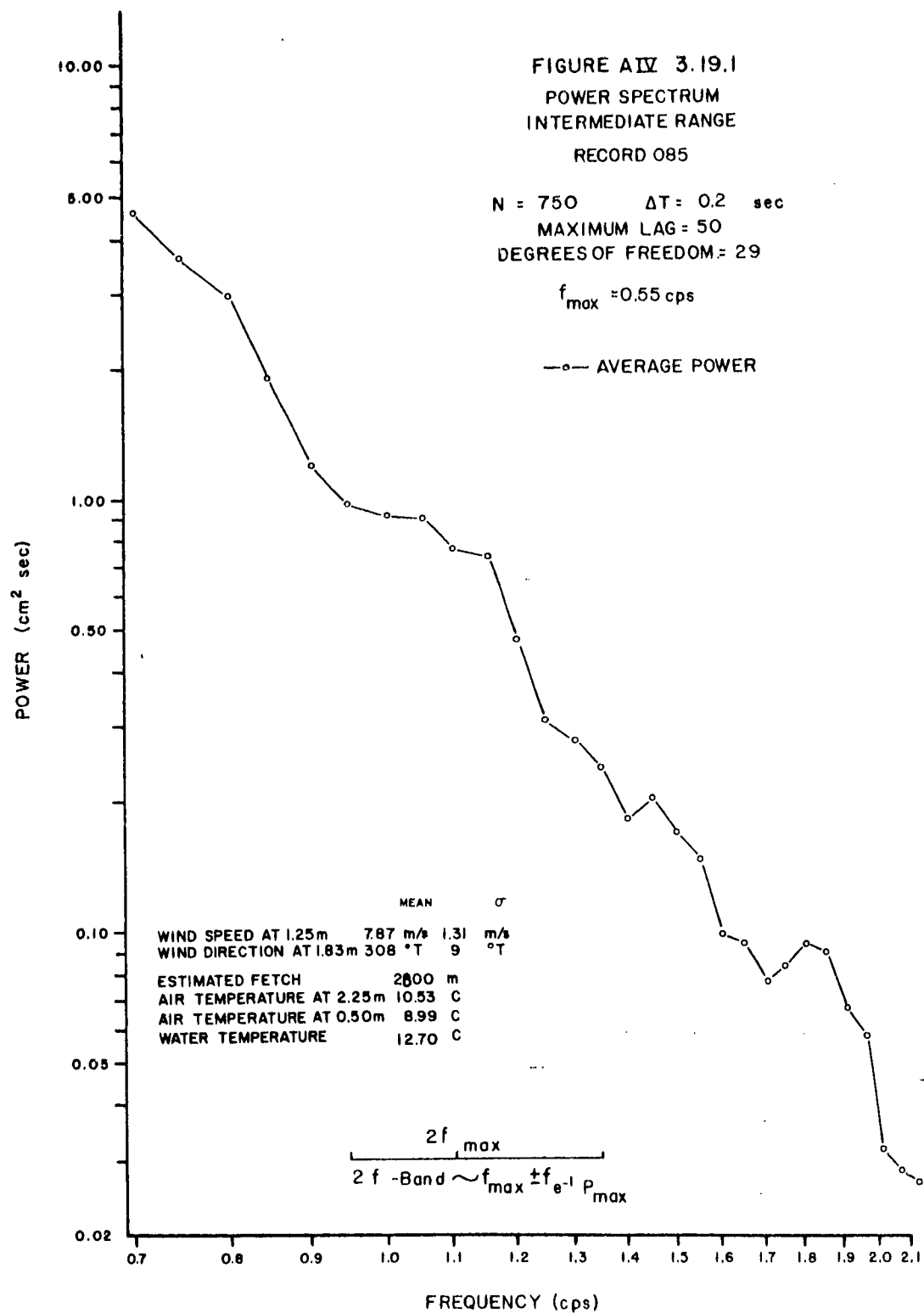
MAXIMUM LAG = 50

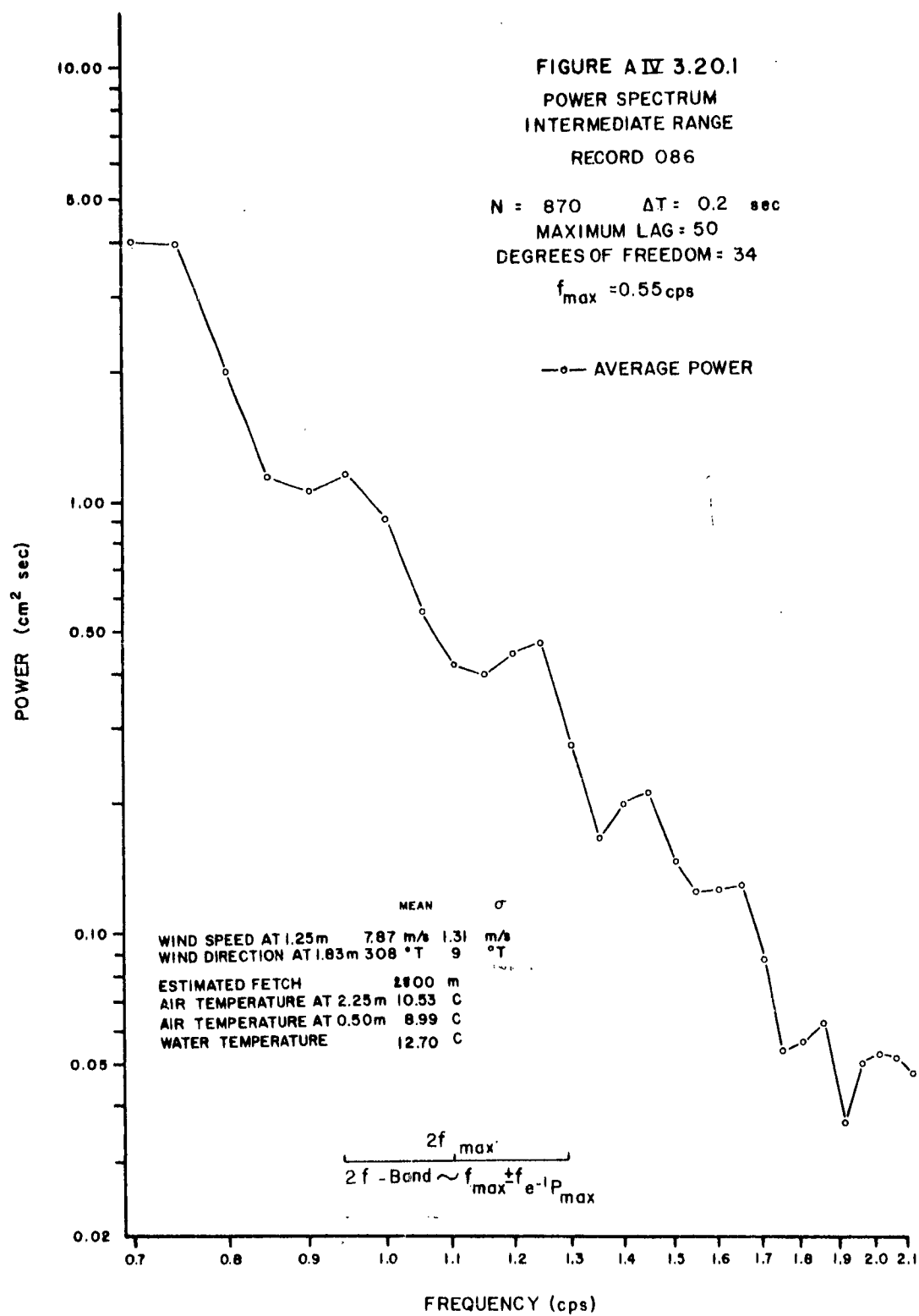
DEGREES OF FREEDOM = 22

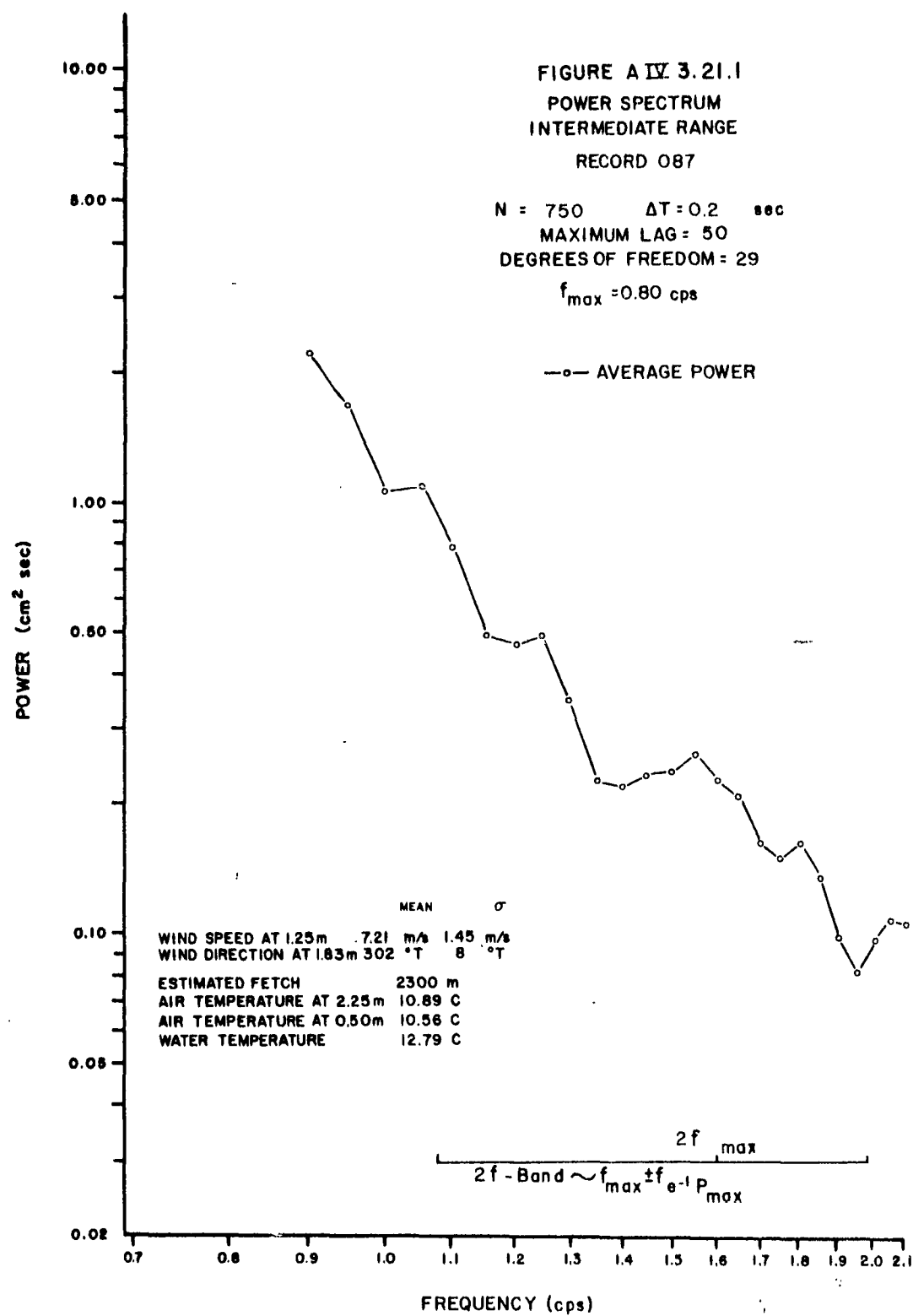
 $f_{\max} \approx 0.65$ cps

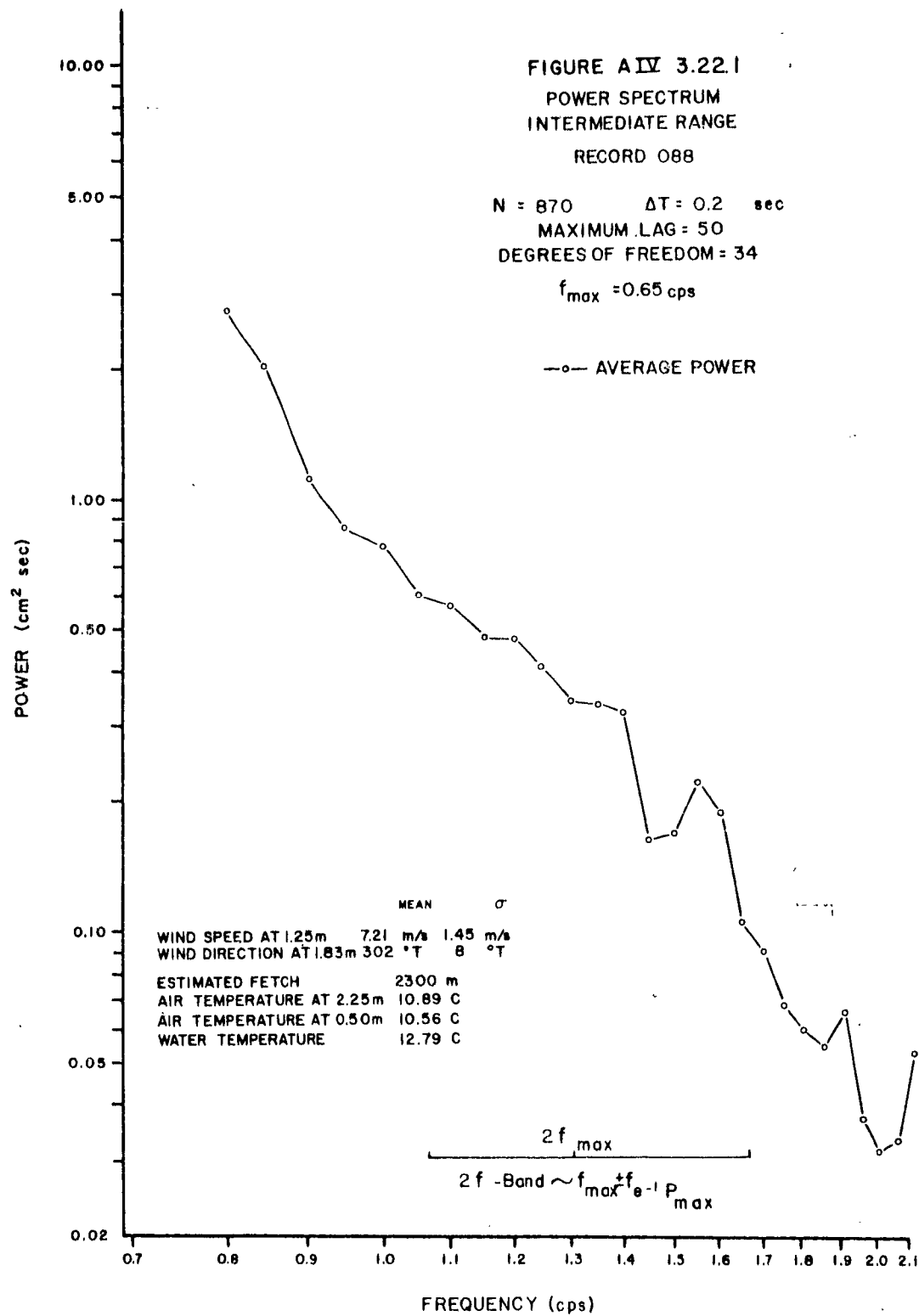
—○— AVERAGE POWER

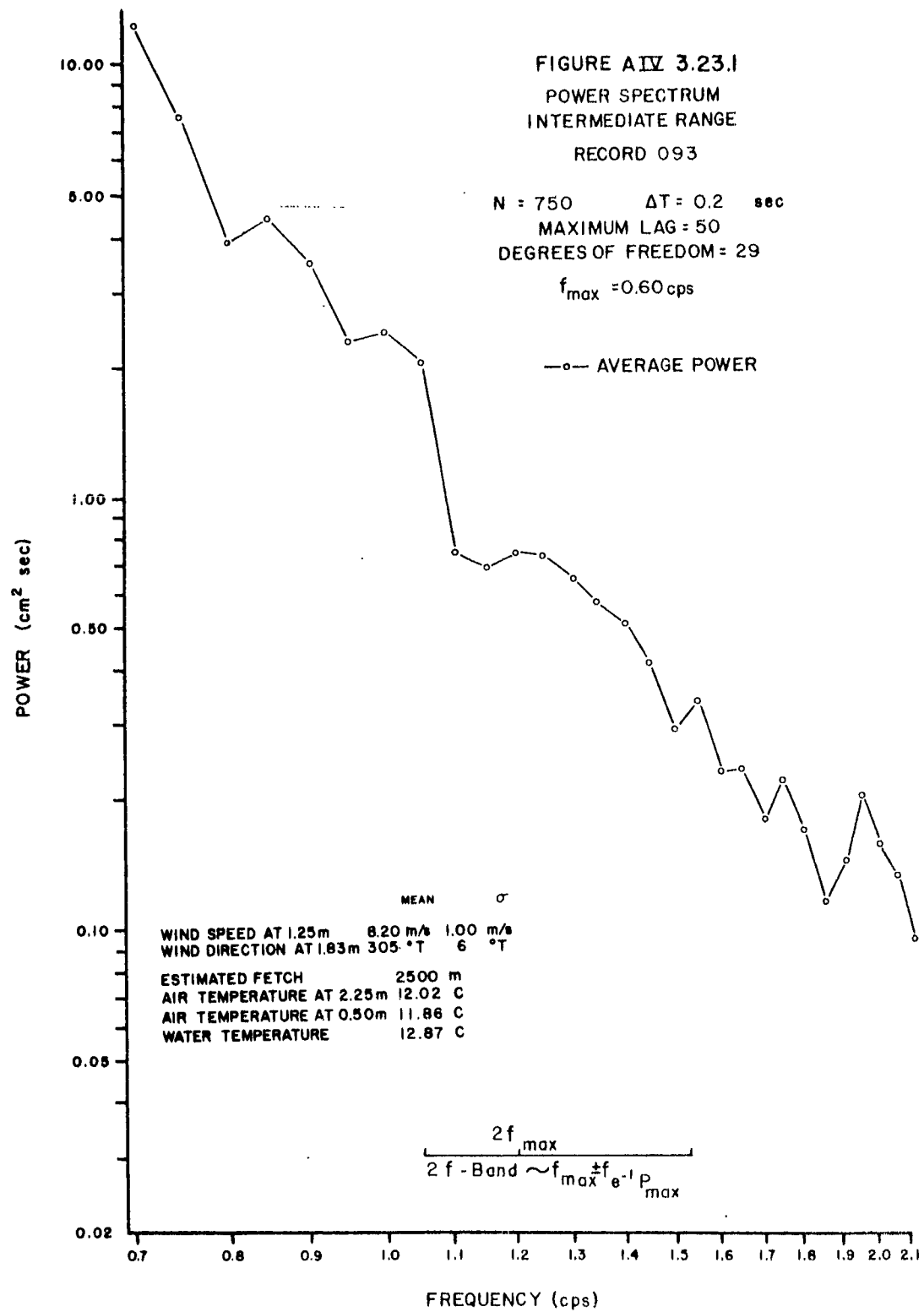


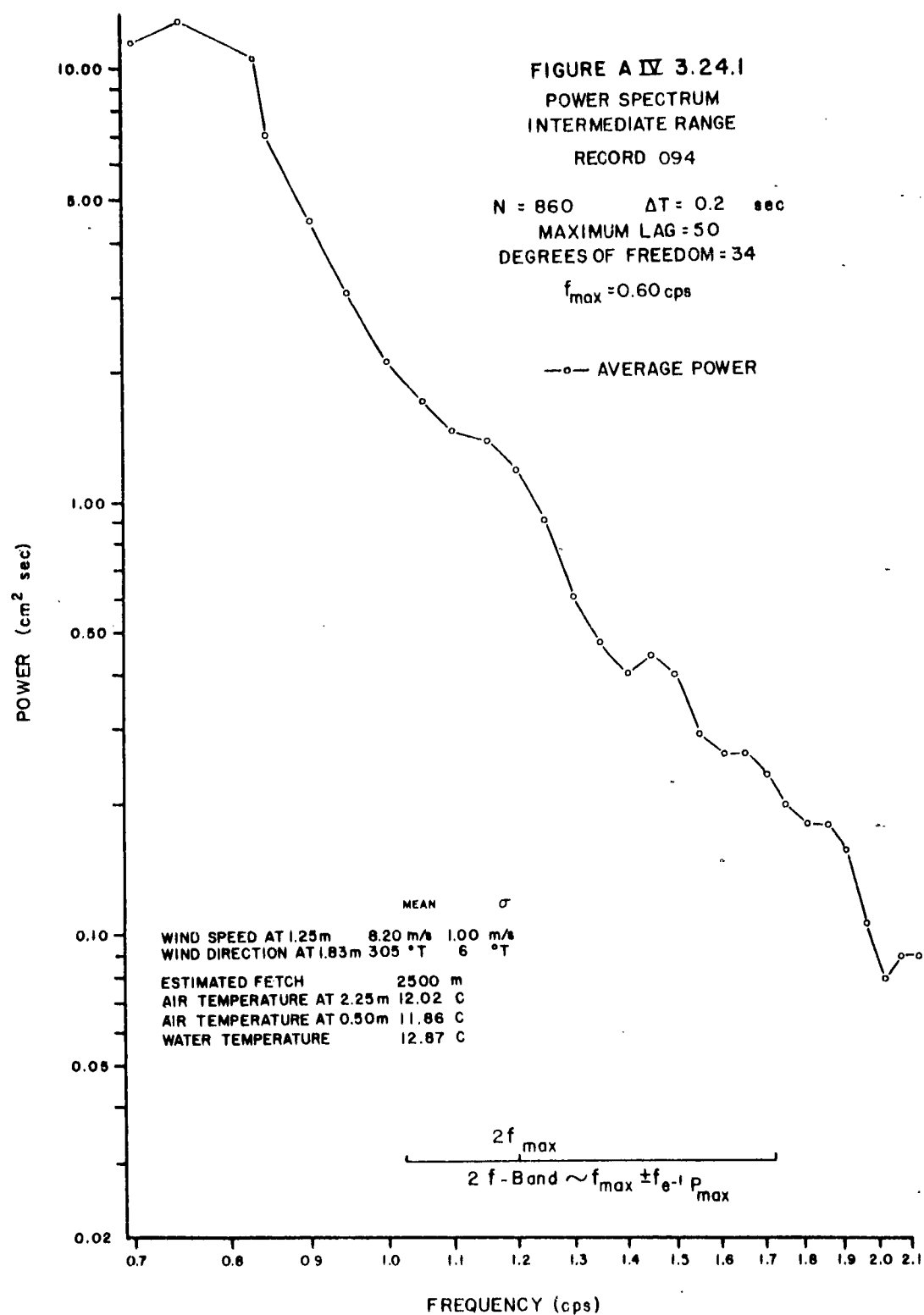












High-Resolution Spectra of the Water Surface--Tables of Values from
0.0 to 2.5 cps

Tables AIV 3.09 to AIV 3.24 on pages AIV-130 to AIV-161 list the values of the average power at each 0.5 cps from 0.0 to 2.5 cps. They also show the 10%, 50%, and 90% confidence limits. There are no high-resolution analyses for the July records; consequently, there are no tables numbered AIV 3.01 to AIV 3.08.

TABLE A IV 3.09

POWER SPECTRUM

RECORD 067

N= 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag= 50 Degrees of Freedom= 29Wind Speed at 1.25m: mean 6.18 m/s σ 1.09 m/sWind Direction at 1.83m: mean 307 °T σ 7 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 9.25 C

Air Temperature at 0.50m 9.88 C

Water Temperature 12.46 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.910, 0	.675, 0	.133, 1	.890, 0
0.05	.104, 1	.775, 0	.153, 1	.102, 1
0.10	.550, 0	.408, 0	.806, 0	.538, 0
0.15	.128, 0	.950, -1	.188, 0	.125, 0
0.20	.191, -1	.142, -1	.279, -1	.187, -1
0.25	.459, -1	.340, -1	.672, -1	.449, -1
0.30	.189, -2	.140, -2	.277, -2	.185, -2
0.35	.387, -1	.287, -1	.566, -1	.378, -1
0.40	.275, -2	.204, -2	.403, -2	.269, -2
0.45	.120, 0	.889, -1	.176, 0	.117, 0
0.50	.469, 0	.348, 0	.686, 0	.458, 0
0.55	.172, 1	.128, 1	.252, 1	.169, 1
0.60	.525, 1	.389, 1	.768, 1	.513, 1
0.65	.947, 1	.702, 1	.139, 2	.926, 1
0.70	.751, 1	.557, 1	.110, 2	.735, 1
0.75	.453, 1	.336, 1	.664, 1	.443, 1
0.80	.412, 1	.306, 1	.603, 1	.403, 1
0.85	.278, 1	.206, 1	.408, 1	.272, 1
0.90	.218, 1	.162, 1	.319, 1	.213, 1
0.95	.190, 1	.141, 1	.279, 1	.186, 1
1.00	.131, 1	.973, 0	.192, 1	.128, 1
1.05	.105, 1	.782, 0	.154, 1	.103, 1
1.10	.839, 0	.622, 0	.123, 1	.820, 0
1.15	.483, 0	.358, 0	.707, 0	.472, 0
1.20	.445, 0	.330, 0	.651, 0	.435, 0

TABLE A IV 3.09

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence, Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.331, 0	.245, 0	.484, 0	.324, 0
1.30	.381, 0	.283, 0	.558, 0	.373, 0
1.35	.407, 0	.302, 0	.597, 0	.398, 0
1.40	.344, 0	.255, 0	.504, 0	.337, 0
1.45	.264, 0	.196, 0	.387, 0	.259, 0
1.50	.264, 0	.196, 0	.387, 0	.259, 0
1.55	.169, 0	.126, 0	.248, 0	.166, 0
1.60	.153, 0	.114, 0	.224, 0	.150, 0
1.65	.157, 0	.116, 0	.230, 0	.153, 0
1.70	.145, 0	.107, 0	.212, 0	.141, 0
1.75	.988, -1	.733, -1	.145, 0	.966, -1
1.80	.669, -1	.496, -1	.979, -1	.654, -1
1.85	.448, -1	.332, -1	.655, -1	.438, -1
1.90	.535, -1	.397, -1	.783, -1	.523, -1
1.95	.277, -1	.206, -1	.406, -1	.271, -1
2.00	.326, -1	.242, -1	.478, -1	.319, -1
2.05	.236, -1	.175, -1	.346, -1	.231, -1
2.10	.367, -1	.272, -1	.537, -1	.359, -1
2.15	.308, -1	.229, -1	.451, -1	.301, -1
2.20	.390, -1	.289, -1	.571, -1	.381, -1
2.25	.304, -1	.226, -1	.445, -1	.297, -1
2.30	.468, -1	.347, -1	.685, -1	.458, -1
2.35	.440, -1	.326, -1	.644, -1	.430, -1
2.40	.459, -1	.341, -1	.673, -1	.449, -1
2.45	.186, -1	.138, -1	.273, -1	.182, -1
2.50	.908, -2	.674, -2	.133, -1	.888, -2

TABLE A IV 3.10
POWER SPECTRUM
RECORD 068

N = 850 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 33
 Wind Speed at 1.25 m: mean 6.18 m/s σ 1.09 m/s
 Wind Direction at 1.83 m: mean 307 °T σ 7 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25 m 9.25 C
 Air Temperature at 0.50 m 9.88 C
 Water Temperature 12.46 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.890, 0	.670, 0	.127, 1	.873, 0
0.05	.993, 0	.748, 0	.141, 1	.973, 0
0.10	.561, 0	.422, 0	.799, 0	.550, 0
0.15	.157, 0	.119, 0	.224, 0	.154, 0
0.20	.895, -1	.674, -1	.128, 0	.877, -1
0.25	.109, 0	.821, -1	.155, 0	.107, 0
0.30	.103, 0	.779, -1	.147, 0	.101, 0
0.35	.885, -1	.666, -1	.126, 0	.867, -1
0.40	.813, -1	.612, -1	.116, 0	.797, -1
0.45	.129, 0	.969, -1	.183, 0	.126, 0
0.50	.566, 0	.426, 0	.806, 0	.555, 0
0.55	.357, 1	.268, 1	.508, 1	.349, 1
0.60	.818, 1	.616, 1	.117, 2	.802, 1
0.65	.849, 1	.639, 1	.121, 2	.832, 1
0.70	.607, 1	.457, 1	.865, 1	.595, 1
0.75	.535, 1	.403, 1	.762, 1	.524, 1
0.80	.471, 1	.354, 1	.671, 1	.461, 1
0.85	.443, 1	.334, 1	.631, 1	.434, 1
0.90	.301, 1	.227, 1	.429, 1	.295, 1
0.95	.165, 1	.124, 1	.235, 1	.162, 1
1.00	.121, 1	.914, 0	.173, 1	.119, 1
1.05	.828, 0	.624, 0	.118, 1	.812, 0
1.10	.465, 0	.350, 0	.662, 0	.455, 0
1.15	.514, 0	.387, 0	.733, 0	.504, 0
1.20	.561, 0	.422, 0	.799, 0	.550, 0

TABLE A IV 3.10

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.392, 0	.295, 0	.558, 0	.384, 0
1.30	.269, 0	.202, 0	.383, 0	.263, 0
1.35	.201, 0	.151, 0	.287, 0	.197, 0
1.40	.146, 0	.110, 0	.207, 0	.143, 0
1.45	.164, 0	.123, 0	.233, 0	.160, 0
1.50	.247, 0	.186, 0	.352, 0	.242, 0
1.55	.255, 0	.192, 0	.363, 0	.250, 0
1.60	.182, 0	.137, 0	.259, 0	.178, 0
1.65	.116, 0	.876, -1	.166, 0	.114, 0
1.70	.130, 0	.980, -1	.185, 0	.128, 0
1.75	.163, 0	.123, 0	.232, 0	.160, 0
1.80	.135, 0	.101, 0	.192, 0	.132, 0
1.85	.102, 0	.767, -1	.145, 0	.998, -1
1.90	.767, -1	.577, -1	.109, 0	.751, -1
1.95	.540, -1	.407, -1	.770, -1	.529, -1
2.00	.477, -1	.360, -1	.680, -1	.468, -1
2.05	.509, -1	.384, -1	.726, -1	.499, -1
2.10	.592, -1	.446, -1	.843, -1	.580, -1
2.15	.581, -1	.438, -1	.828, -1	.570, -1
2.20	.458, -1	.345, -1	.653, -1	.449, -1
2.25	.370, -1	.279, -1	.528, -1	.363, -1
2.30	.469, -1	.353, -1	.668, -1	.460, -1
2.35	.597, -1	.449, -1	.850, -1	.585, -1
2.40	.576, -1	.434, -1	.821, -1	.565, -1
2.45	.466, -1	.351, -1	.664, -1	.457, -1
2.50	.390, -1	.294, -1	.556, -1	.383, -1

TABLE A IV 3.11
POWER SPECTRUM
RECORD 069

N = 750 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 29
 Wind Speed at 1.25m : mean 5.61 m/s σ 0.98 m/s
 Wind Direction at 1.83m : mean 312 °T σ 9 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.78 C
 Air Temperature at 0.50m 9.52 C
 Water Temperature 12.45 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.106, 1	.783, 0	.154, 1	.103, 1
0.05	.900, 0	.668, 0	.132, 1	.881, 0
0.10	.362, 0	.269, 0	.530, 0	.354, 0
0.15	.112, 0	.832, -1	.164, 0	.110, 0
0.20	.241, -1	.179, -1	.353, -1	.235, -1
0.25	.540, -1	.401, -1	.791, -1	.528, -1
0.30	.653, -2	.485, -2	.957, -2	.639, -2
0.35	.772, -1	.572, -1	.113, 0	.755, -1
0.40	.281, 0	.209, 0	.412, 0	.275, 0
0.45	.255, 1	.189, 1	.374, 1	.250, 1
0.50	.880, 1	.653, 1	.129, 2	.860, 1
0.55	.146, 2	.108, 2	.214, 2	.143, 2
0.60	.129, 2	.954, 1	.188, 2	.126, 2
0.65	.746, 1	.553, 1	.109, 2	.730, 1
0.70	.454, 1	.337, 1	.664, 1	.444, 1
0.75	.418, 1	.310, 1	.612, 1	.409, 1
0.80	.434, 1	.322, 1	.636, 1	.425, 1
0.85	.312, 1	.231, 1	.456, 1	.305, 1
0.90	.186, 1	.138, 1	.273, 1	.182, 1
0.95	.190, 1	.141, 1	.279, 1	.186, 1
1.00	.172, 1	.127, 1	.252, 1	.168, 1
1.05	.931, 0	.691, 0	.136, 1	.911, 0
1.10	.638, 0	.473, 0	.934, 0	.624, 0
1.15	.674, 0	.500, 0	.987, 0	.659, 0
1.20	.746, 0	.553, 0	.109, 1	.730, 0

TABLE A IV 3.11

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.664, 0	.492, 0	.972, 0	.649, 0
1.30	.456, 0	.339, 0	.668, 0	.446, 0
1.35	.222, 0	.165, 0	.325, 0	.217, 0
1.40	.174, 0	.129, 0	.255, 0	.170, 0
1.45	.141, 0	.105, 0	.207, 0	.138, 0
1.50	.238, 0	.176, 0	.348, 0	.232, 0
1.55	.208, 0	.155, 0	.305, 0	.204, 0
1.60	.135, 0	.100, -2	.197, 0	.132, 0
1.65	.103, 0	.767, -1	.151, 0	.101, 0
1.70	.132, 0	.981, -1	.194, 0	.129, 0
1.75	.135, 0	.100, 0	.198, 0	.132, 0
1.80	.130, 0	.962, -1	.190, 0	.127, 0
1.85	.648, -1	.481, -1	.949, -1	.634, -1
1.90	.617, -1	.458, -1	.904, -1	.604, -1
1.95	.497, -1	.369, -1	.728, -1	.487, -1
2.00	.530, -1	.393, -1	.776, -1	.518, -1
2.05	.342, -1	.254, -1	.501, -1	.335, -1
2.10	.452, -1	.335, -1	.661, -1	.442, -1
2.15	.327, -1	.243, -1	.479, -1	.320, -1
2.20	.406, -1	.302, -1	.595, -1	.397, -1
2.25	.297, -1	.220, -1	.435, -1	.290, -1
2.30	.400, -1	.297, -1	.586, -1	.391, -1
2.35	.316, -1	.235, -1	.463, -1	.309, -1
2.40	.412, -1	.305, -1	.603, -1	.403, -1
2.45	.211, -1	.157, -1	.310, -1	.207, -1
2.50	.170, -1	.126, -1	.248, -1	.166, -1

TABLE AIV 3.12
POWER SPECTRUM
RECORD 070

N = 880 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 35
 Wind Speed at 1.25m: mean 5.61 m/s σ 0.98 m/s
 Wind Direction at 1.83m: mean 312 °T σ 9 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.78 C
 Air Temperature at 0.50m 9.52 C
 Water Temperature 12.45 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.101, 1	.763, 0	.142, 1	.987, 0
0.05	.767, 0	.581, 0	.108, 1	.751, 0
0.10	.412, 0	.312, 0	.580, 0	.403, 0
0.15	.581, -1	.440, -1	.819, -1	.570, -1
0.20	.972, -1	.737, -1	.137, 0	.953, -1
0.25	-.597, -2	-.452, -2	-.841, -2	-.585, -2
0.30	.880, -1	.666, -1	.124, 0	.862, -1
0.35	.334, -1	.253, -1	.470, -1	.327, -1
0.40	.300, 0	.227, 0	.422, 0	.294, 0
0.45	.215, 1	.163, 1	.302, 1	.210, 1
0.50	.839, 1	.635, 1	.118, 2	.822, 1
0.55	.116, 2	.881, 1	.164, 2	.114, 2
0.60	.105, 2	.799, 1	.149, 2	.103, 2
0.65	.900, 1	.682, 1	.127, 2	.882, 1
0.70	.648, 1	.491, 1	.913, 1	.635, 1
0.75	.462, 1	.350, 1	.651, 1	.453, 1
0.80	.330, 1	.250, 1	.464, 1	.323, 1
0.85	.237, 1	.180, 1	.334, 1	.232, 1
0.90	.154, 1	.117, 1	.217, 1	.151, 1
0.95	.160, 1	.121, 1	.225, 1	.157, 1
1.00	.170, 1	.129, 1	.240, 1	.167, 1
1.05	.127, 1	.963, 0	.179, 1	.125, 1
1.10	.633, 0	.479, 0	.891, 0	.620, 0
1.15	.664, 0	.503, 0	.935, 0	.650, 0
1.20	.514, 0	.375, 0	.742, 0	.524, 0

TABLE A IV 3.12

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.457, 0	.346, 0	.643, 0	.448, 0
1.30	.356, 0	.270, 0	.501, 0	.349, 0
1.35	.287, 0	.217, 0	.404, 0	.281, 0
1.40	.193, 0	.146, 0	.272, 0	.189, 0
1.45	.208, 0	.157, 0	.293, 0	.204, 0
1.50	.206, 0	.156, 0	.290, 0	.202, 0
1.55	.241, 0	.183, 0	.340, 0	.236, 0
1.60	.173, 0	.131, 0	.244, 0	.170, 0
1.65	.116, 0	.881, -1	.164, 0	.114, 0
1.70	.679, -1	.514, -1	.956, -1	.666, -1
1.75	.972, -1	.737, -1	.137, 0	.953, -1
1.80	.725, -1	.550, -1	.102, 0	.711, -1
1.85	.916, -1	.694, -1	.129, 0	.897, -1
1.90	.736, -1	.557, -1	.104, 0	.721, -1
1.95	.669, -1	.507, -1	.942, -1	.655, -1
2.00	.409, -1	.310, -1	.576, -1	.401, -1
2.05	.653, -1	.495, -1	.920, -1	.640, -1
2.10	.643, -1	.487, -1	.906, -1	.630, -1
2.15	.695, -1	.526, -1	.978, -1	.681, -1
2.20	.341, -1	.258, -1	.480, -1	.334, -1
2.25	.299, -1	.227, -1	.422, -1	.293, -1
2.30	.160, -1	.121, -1	.225, -1	.157, -1
2.35	.381, -1	.289, -1	.537, -1	.374, -1
2.40	.343, -1	.260, -1	.483, -1	.336, -1
2.45	.612, -1	.464, -1	.862, -1	.600, -1
2.50	.525, -1	.397, -1	.739, -1	.514, -1

TABLE AIV 3.13
POWER SPECTRUM
RECORD 075

N = 750 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 29
 Wind Speed at 1.25m mean 6.75 m/s σ 1.09 m/s
 Wind Direction at 1.83m mean 325 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.92 C
 Air Temperature at 0.50m 9.86 C
 Water Temperature 12.52 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.217, 1	.161, 1	.317, 1	.212, 1
0.05	.137, 1	.102, 1	.201, 1	.134, 1
0.10	.300, 0	.223, 0	.440, 0	.294, 0
0.15	.136, 0	.101, 0	.199, 0	.133, 0
0.20	.293, -2	.218, -2	.429, -2	.287, -2
0.25	.905, -1	.672, -1	.133, 0	.886, -1
0.30	.260, -2	.193, -2	.381, -2	.255, -2
0.35	.199, 0	.147, 0	.291, 0	.194, 0
0.40	.138, 1	.102, 1	.202, 1	.135, 1
0.45	.535, 1	.397, 1	.783, 1	.523, 1
0.50	.119, 2	.882, 1	.174, 2	.116, 2
0.55	.213, 2	.158, 2	.312, 2	.208, 2
0.60	.183, 2	.136, 2	.268, 2	.179, 2
0.65	.880, 1	.653, 1	.129, 2	.860, 1
0.70	.566, 1	.420, 1	.829, 1	.553, 1
0.75	.399, 1	.296, 1	.584, 1	.390, 1
0.80	.258, 1	.192, 1	.378, 1	.253, 1
0.85	.211, 1	.157, 1	.310, 1	.207, 1
0.90	.162, 1	.120, 1	.237, 1	.158, 1
0.95	.118, 1	.874, 0	.172, 1	.115, 1
1.00	.126, 1	.931, 0	.184, 1	.123, 1
1.05	.134, 1	.992, 0	.196, 1	.131, 1
1.10	.115, 1	.851, 0	.168, 1	.112, 1
1.15	.581, 0	.431, 0	.851, 0	.569, 0
1.20	.305, 0	.226, 0	.447, 0	.298, 0

TABLE AIV 3.13

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.272, 0	.202, 0	.398, 0	.266, 0
1.30	.338, 0	.251, 0	.495, 0	.331, 0
1.35	.286, 0	.212, 0	.418, 0	.279, 0
1.40	.263, 0	.195, 0	.386, 0	.258, 0
1.45	.196, 0	.145, 0	.287, 0	.192, 0
1.50	.221, 0	.164, 0	.324, 0	.216, 0
1.55	.231, 0	.171, 0	.338, 0	.226, 0
1.60	.167, 0	.124, 0	.244, 0	.163, 0
1.65	.129, 0	.954, -1	.188, 0	.126, 0
1.70	.136, 0	.101, 0	.199, 0	.133, 0
1.75	.132, 0	.977, -1	.193, 0	.129, 0
1.80	.112, 0	.828, -1	.163, 0	.109, 0
1.85	.659, -1	.489, -1	.964, -1	.644, -1
1.90	.700, -1	.519, -1	.102, 0	.684, -1
1.95	.638, -1	.473, -1	.934, -1	.624, -1
2.00	.648, -1	.481, -1	.949, -1	.634, -1
2.05	.525, -1	.389, -1	.768, -1	.513, -1
2.10	.483, -1	.358, -1	.707, -1	.472, -1
2.15	.313, -1	.232, -1	.458, -1	.306, -1
2.20	.491, -1	.364, -1	.719, -1	.480, -1
2.25	.505, -1	.374, -1	.739, -1	.494, -1
2.30	.499, -1	.370, -1	.730, -1	.488, -1
2.35	.413, -1	.306, -1	.605, -1	.404, -1
2.40	.443, -1	.329, -1	.649, -1	.434, -1
2.45	.180, -1	.134, -1	.264, -1	.176, -1
2.50	.115, -1	.850, -2	.168, -1	.112, -1

TABLE AIV 3.14
POWER SPECTRUM
RECORD 076

N=850 $\Delta T=0.2$ sec Maximum Lag=50 Degrees of Freedom=33
 Wind Speed at 1.25m: mean 6.75 m/s σ 1.09 m/s
 Wind Direction at 1.83m: mean 325 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 9.92 C
 Air Temperature at 0.50m 9.86 C
 Water Temperature 12.52 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.541, 0	.408, 0	.771, 0	.530, 0
0.05	.414, 0	.312, 0	.590, 0	.406, 0
0.10	.194, 0	.146, 0	.277, 0	.191, 0
0.15	.120, 0	.907, -1	.171, 0	.118, 0
0.20	.530, -1	.399, -1	.755, -1	.519, -1
0.25	.633, -1	.477, -1	.901, -1	.620, -1
0.30	.274, -1	.206, -1	.390, -1	.268, -1
0.35	.126, 0	.949, -1	.180, 0	.124, 0
0.40	.741, 0	.558, 0	.106, 1	.726, 0
0.45	.308, 1	.232, 1	.439, 1	.302, 1
0.50	.952, 1	.717, 1	.136, 2	.933, 1
0.55	.160, 2	.120, 2	.228, 2	.157, 2
0.60	.125, 2	.938, 1	.177, 2	.122, 2
0.65	.643, 1	.484, 1	.916, 1	.630, 1
0.70	.347, 1	.261, 1	.495, 1	.340, 1
0.75	.347, 1	.261, 1	.494, 1	.340, 1
0.80	.368, 1	.277, 1	.524, 1	.360, 1
0.85	.230, 1	.173, 1	.328, 1	.225, 1
0.90	.156, 1	.117, 1	.222, 1	.153, 1
0.95	.119, 1	.895, 0	.169, 1	.116, 1
1.00	.103, 1	.779, 0	.147, 1	.101, 1
1.05	.102, 1	.771, 0	.146, 1	.100, 1
1.10	.947, 0	.713, 0	.135, 1	.928, 0
1.15	.725, 0	.546, 0	.103, 1	.711, 0
1.20	.530, 0	.399, 0	.755, 0	.519, 0

TABLE A IV 3.14

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.592, 0	.446, 0	.843, 0	.580, 0
1.30	.725, 0	.546, 0	.103, 1	.711, 0
1.35	.525, 0	.395, 0	.748, 0	.514, 0
1.40	.332, 0	.250, 0	.473, 0	.325, 0
1.45	.267, 0	.201, 0	.380, 0	.262, 0
1.50	.253, 0	.190, 0	.360, 0	.248, 0
1.55	.203, 0	.153, 0	.289, 0	.199, 0
1.60	.145, 0	.109, 0	.207, 0	.142, 0
1.65	.133, 0	.999, -1	.189, 0	.130, 0
1.70	.112, 0	.841, -1	.159, 0	.109, 0
1.75	.839, -1	.631, -1	.119, 0	.822, -1
1.80	.705, -1	.531, -1	.100, 0	.691, -1
1.85	.405, -1	.305, -1	.577, -1	.397, -1
1.90	.415, -1	.312, -1	.591, -1	.406, -1
1.95	.540, -1	.407, -1	.770, -1	.529, -1
2.00	.607, -1	.457, -1	.865, -1	.595, -1
2.05	.441, -1	.332, -1	.629, -1	.433, -1
2.10	.476, -1	.358, -1	.678, -1	.466, -1
2.15	.415, -1	.312, -1	.591, -1	.406, -1
2.20	.419, -1	.316, -1	.597, -1	.411, -1
2.25	.356, -1	.268, -1	.507, -1	.349, -1
2.30	.370, -1	.279, -1	.528, -1	.363, -1
2.35	.349, -1	.263, -1	.498, -1	.342, -1
2.40	.334, -1	.252, -1	.476, -1	.328, -1
2.45	.198, -1	.149, -1	.281, -1	.194, -1
2.50	.141, -1	.106, -1	.200, -1	.138, -1

POWER SPECTRUM

RECORD 081

N = 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 29Wind Speed at 1.25m mean 6.78 m/s σ 1.17 m/sWind Direction at 1.83m mean 326 °T σ 8 °T

Estimated Fetch 30 00 m

Air Temperature at 2.25m 1042 C

Air Temperature at 0.50m 1046 C

Water Temperature 12.69 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.212, 1	.158, 1	.311, 1	.208, 1
0.05	.123, 1	.912, 0	.180, 1	.120, 1
0.10	.333, 0	.247, 0	.487, 0	.326, 0
0.15	.123, 0	.912, -1	.180, 0	.120, 0
0.20	.421, -1	.313, -1	.617, -1	.412, -1
0.25	.264, -1	.196, -1	.386, -1	.258, -1
0.30	.268, -1	.199, -1	.392, -1	.262, -1
0.35	.478, -1	.355, -1	.700, -1	.467, -1
0.40	.895, -1	.664, -1	.131, 0	.875, -1
0.45	.161, 0	.119, 0	.235, 0	.157, 0
0.50	.695, 0	.515, 0	.102, 1	.679, 0
0.55	.276, 1	.205, 1	.404, 1	.270, 1
0.60	.525, 1	.389, 1	.768, 1	.513, 1
0.65	.502, 1	.372, 1	.734, 1	.491, 1
0.70	.360, 1	.267, 1	.527, 1	.352, 1
0.75	.272, 1	.202, 1	.398, 1	.266, 1
0.80	.180, 1	.134, 1	.264, 1	.176, 1
0.85	.111, 1	.821, 0	.162, 1	.108, 1
0.90	.767, 0	.569, 0	.112, 1	.750, 0
0.95	.602, 0	.447, 0	.881, 0	.589, 0
1.00	.725, 0	.538, 0	.106, 1	.709, 0
1.05	.633, 0	.469, 0	.926, 0	.619, 0
1.10	.561, 0	.416, 0	.821, 0	.548, 0
1.15	.545, 0	.405, 0	.798, 0	.533, 0
1.20	.330, 0	.245, 0	.483, 0	.323, 0

TABLE AIV.3.15

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.227, 0	.168, 0	.332, 0	.222, 0
1.30	.296, 0	.219, 0	.433, 0	.289, 0
1.35	.404, 0	.300, 0	.592, 0	.395, 0
1.40	.332, 0	.247, 0	.487, 0	.325, 0
1.45	.153, 0	.113, 0	.224, 0	.149, 0
1.50	.152, 0	.113, 0	.222, 0	.148, 0
1.55	.166, 0	.123, 0	.243, 0	.163, 0
1.60	.137, 0	.102, 0	.200, 0	.134, 0
1.65	.103, 0	.763, -1	.151, 0	.101, 0
1.70	.977, -1	.725, -1	.143, 0	.956, -1
1.75	.772, -1	.572, -1	.113, 0	.755, -1
1.80	.592, -1	.439, -1	.866, -1	.579, -1
1.85	.720, -1	.534, -1	.105, 0	.704, -1
1.90	.823, -1	.611, -1	.121, 0	.805, -1
1.95	.477, -1	.354, -1	.698, -1	.466, -1
2.00	.368, -1	.273, -1	.539, -1	.360, -1
2.05	.306, -1	.227, -1	.448, -1	.299, -1
2.10	.365, -1	.271, -1	.535, -1	.357, -1
2.15	.332, -1	.247, -1	.487, -1	.325, -1
2.20	.257, -1	.190, -1	.376, -1	.251, -1
2.25	.211, -1	.157, -1	.310, -1	.207, -1
2.30	.181, -1	.134, -1	.264, -1	.177, -1
2.35	.208, -1	.154, -1	.304, -1	.203, -1
2.40	.247, -1	.184, -1	.362, -1	.242, -1
2.45	.172, -1	.127, -1	.252, -1	.168, -1
2.50	.130, -1	.965, -2	.191, -1	.127, -1

TABLE AIV 3.16
POWER SPECTRUM
RECORD 082

N=888 $\Delta T=0.2$ sec Maximum Lag=50 Degrees of Freedom=35
 Wind Speed at 1.25m: mean 6.78 m/s σ 1.17 m/s
 Wind Direction at 1.83m: mean 326 °T σ 8 °T
 Estimated Fetch 3000 m
 Air Temperature at 2.25m 10.42 °C
 Air Temperature at 0.50m 10.46 °C
 Water Temperature 12.69 °C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.173, 1	.131, 1	.244, 1	.170, 1
0.05	.101, 1	.764, 0	.142, 1	.102, 1
0.10	.270, 0	.205, 0	.380, 0	.265, 0
0.15	.540, -1	.409, -1	.761, -1	.529, -1
0.20	.313, -1	.237, -1	.441, -1	.307, -1
0.25	.628, -2	.475, -2	.884, -2	.615, -2
0.30	.352, -1	.267, -1	.496, -1	.345, -1
0.35	.102, -1	.776, -2	.144, -1	.100, -1
0.40	.525, -1	.398, -1	.739, -1	.514, -1
0.45	.111, 0	.842, -1	.157, 0	.109, 0
0.50	.510, 0	.387, 0	.719, 0	.500, 0
0.55	.188, 1	.143, 1	.265, 1	.185, 1
0.60	.474, 1	.359, 1	.667, 1	.464, 1
0.65	.581, 1	.440, 1	.819, 1	.570, 1
0.70	.436, 1	.330, 1	.614, 1	.427, 1
0.75	.315, 1	.239, 1	.443, 1	.309, 1
0.80	.257, 1	.194, 1	.362, 1	.252, 1
0.85	.190, 1	.144, 1	.267, 1	.186, 1
0.90	.109, 1	.822, 0	.153, 1	.106, 1
0.95	.936, 0	.709, 0	.132, 1	.918, 0
1.00	.952, 0	.721, 0	.134, 1	.933, 0
1.05	.839, 0	.635, 0	.118, 1	.822, 0
1.10	.520, 0	.394, 0	.732, 0	.509, 0
1.15	.382, 0	.289, 0	.538, 0	.374, 0
1.20	.314, 0	.238, 0	.443, 0	.308, 0

TABLE AIV 3.16

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.280, 0	.212, 0	.394, 0	.274, 0
1.30	.285, 0	.216, 0	.401, 0	.279, 0
1.35	.297, 0	.225, 0	.418, 0	.291, 0
1.40	.245, 0	.186, 0	.345, 0	.240, 0
1.45	.212, 0	.161, 0	.299, 0	.208, 0
1.50	.174, 0	.132, 0	.245, 0	.170, 0
1.55	.151, 0	.114, 0	.212, 0	.148, 0
1.60	.113, 0	.857, -1	.159, 0	.111, 0
1.65	.105, 0	.795, -1	.148, 0	.103, 0
1.70	.787, -1	.596, -1	.111, 0	.771, -1
1.75	.864, -1	.655, -1	.122, 0	.847, -1
1.80	.967, -1	.733, -1	.136, 0	.948, -1
1.85	.761, -1	.577, -1	.107, 0	.746, -1
1.90	.449, -1	.340, -1	.633, -1	.440, -1
1.95	.443, -1	.336, -1	.624, -1	.434, -1
2.00	.344, -1	.260, -1	.484, -1	.337, -1
2.05	.310, -1	.235, -1	.437, -1	.304, -1
2.10	.237, -1	.179, -1	.333, -1	.232, -1
2.15	.410, -1	.311, -1	.578, -1	.402, -1
2.20	.381, -1	.288, -1	.536, -1	.373, -1
2.25	.372, -1	.282, -1	.524, -1	.365, -1
2.30	.282, -1	.214, -1	.397, -1	.276, -1
2.35	.305, -1	.231, -1	.430, -1	.299, -1
2.40	.293, -1	.222, -1	.412, -1	.287, -1
2.45	.313, -1	.237, -1	.441, -1	.307, -1
2.50	.248, -1	.188, -1	.350, -1	.243, -1

TABLE AIV 3.17
POWER SPECTRUM
RECORD 083.

N = 750 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 29
 Wind Speed at 1.25m : mean 7.77 m/s σ 1.16 m/s
 Wind Direction at 1.83m : mean 314 °T σ 12 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 10.76 C
 Air Temperature at 0.50m 10.61 C
 Water Temperature 12.72 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.662, 1	.491, 1	.970, 1	.648, 1
0.05	.342, 1	.253, 1	.500, 1	.334, 1
0.10	.433, 0	.321, 0	.633, 0	.423, 0
0.15	.139, 0	.103, 0	.204, 0	.136, 0
0.20	.276, -1	.205, -1	.404, -1	.270, -1
0.25	.941, -1	.698, -1	.138, 0	.921, -1
0.30	-.247, -2	-.184, -2	-.362, -2	-.242, -2
0.35	.114, 0	.843, -1	.166, 0	.111, 0
0.40	.269, 0	.200, 0	.394, 0	.263, 0
0.45	.110, 1	.817, 0	.161, 1	.108, 1
0.50	.508, 1	.377, 1	.744, 1	.497, 1
0.55	.146, 2	.108, 2	.213, 2	.142, 2
0.60	.149, 2	.110, 2	.218, 2	.145, 2
0.65	.617, 1	.458, 1	.904, 1	.604, 1
0.70	.339, 1	.252, 1	.496, 1	.332, 1
1.75	.340, 1	.252, 1	.498, 1	.333, 1
0.80	.318, 1	.236, 1	.466, 1	.311, 1
0.85	.254, 1	.188, 1	.371, 1	.248, 1
0.90	.183, 1	.135, 1	.267, 1	.179, 1
0.95	.134, 1	.992, 0	.196, 1	.131, 1
1.00	.782, 0	.580, 0	.114, 1	.765, 0
1.05	.469, 0	.348, 0	.686, 0	.458, 0
1.10	.511, 0	.379, 0	.749, 0	.500, 0
1.15	.460, 0	.342, 0	.674, 0	.450, 0
1.20	.371, 0	.275, 0	.543, 0	.363, 0

TABLE A IV 3.17

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.253, 0	.187, 0	.370, 0	.247, 0
1.30	.236, 0	.175, 0	.345, 0	.230, 0
1.35	.198, 0	.147, 0	.289, 0	.193, 0
1.40	.208, 0	.155, 0	.305, 0	.204, 0
1.45	.195, 0	.145, 0	.285, 0	.191, 0
1.50	.160, 0	.119, 0	.234, 0	.156, 0
1.55	.143, 0	.106, 0	.209, 0	.140, 0
1.60	.151, 0	.112, 0	.221, 0	.148, 0
1.65	.123, 0	.916, -1	.181, 0	.121, 0
1.70	.859, -1	.637, -1	.126, 0	.840, -1
1.75	.633, -1	.469, -1	.926, -1	.619, -1
1.80	.653, -1	.485, -1	.957, -1	.639, -1
1.85	.421, -1	.312, -1	.616, -1	.412, -1
1.90	.628, -1	.466, -1	.919, -1	.614, -1
1.95	.561, -1	.416, -1	.821, -1	.548, -1
2.00	.483, -1	.358, -1	.707, -1	.472, -1
2.05	.457, -1	.339, -1	.669, -1	.447, -1
2.10	.720, -1	.534, -1	.105, -1	.704, -1
2.15	.450, -1	.334, -1	.658, -1	.440, -1
2.20	.417, -1	.309, -1	.610, -1	.408, -1
2.25	.444, -1	.329, -1	.650, -1	.434, -1
2.30	.597, -1	.443, -1	.874, -1	.584, -1
2.35	.422, -1	.313, -1	.618, -1	.413, -1
2.40	.326, -1	.242, -1	.477, -1	.318, -1
2.45	.125, -1	.927, -2	.183, -1	.122, -1
2.50	.104, -1	.775, -2	.153, -1	.102, -1

TABLE A IV 3.18
POWER SPECTRUM
RECORD 084

N = 566 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 22
 Wind Speed at 1.25m: mean 7.77 m/s σ 1.16 m/s
 Wind Direction at 1.83m: mean 314 °T σ 12 °T
 Estimated Fetch 2700 m
 Air Temperature at 2.25m 10.76 C
 Air Temperature at 0.50m 10.61 C
 Water Temperature 12.72 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.321, 1	.229, 1	.506, 1	.309, 1
0.05	.209, 1	.149, 1	.330, 1	.202, 1
0.10	.612, 0	.436, 0	.966, 0	.590, 0
0.15	.792, -1	.564, -1	.125, 0	.764, -1
0.20	.751, -1	.535, -1	.118, 0	.724, -1
0.25	.586, -1	.418, -1	.925, -1	.565, -1
0.30	.890, -1	.634, -1	.140, 0	.858, -1
0.35	.751, -1	.535, -1	.118, 0	.724, -1
0.40	.322, 0	.229, 0	.507, 0	.310, 0
0.45	.199, 1	.142, 1	.314, 1	.192, 1
0.50	.607, 1	.432, 1	.958, 1	.585, 1
0.55	.669, 1	.476, 1	.105, 2	.645, 1
0.60	.633, 1	.451, 1	.998, 1	.610, 1
0.65	.885, 1	.630, 1	.140, 2	.853, 1
0.70	.777, 1	.553, 1	.123, 2	.749, 1
0.75	.474, 1	.337, 1	.747, 1	.457, 1
0.80	.381, 1	.271, 1	.600, 1	.367, 1
0.85	.266, 1	.189, 1	.420, 1	.256, 1
0.90	.209, 1	.149, 1	.329, 1	.201, 1
0.95	.177, 1	.126, 1	.279, 1	.171, 1
1.00	.117, 1	.835, 0	.185, 1	.113, 1
1.05	.941, 0	.671, 0	.148, 1	.908, 0
1.10	.787, 0	.561, 0	.124, 1	.759, 0
1.15	.530, 0	.377, 0	.836, 0	.511, 0
1.20	.359, 0	.255, 0	.566, 0	.346, 0

TABLE AIV 3.18

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.378, 0	.269, 0	.596, 0	.364, 0
1.30	.310, 0	.221, 0	.489, 0	.299, 0
1.35	.228, 0	.162, 0	.359, 0	.220, 0
1.40	.144, 0	.103, 0	.227, 0	.139, 0
1.45	.117, 0	.832, -1	.184, 0	.113, 0
1.50	.998, -1	.711, -1	.157, 0	.962, -1
1.55	.156, 0	.111, 0	.247, 0	.151, 0
1.60	.165, 0	.117, 0	.260, 0	.159, 0
1.65	.118, 0	.843, -1	.187, 0	.114, 0
1.70	.911, -1	.649, -1	.144, 0	.878, -1
1.75	.107, 0	.762, -1	.169, 0	.103, 0
1.80	.720, -1	.513, -1	.114, 0	.694, -1
1.85	.511, -1	.364, -1	.807, -1	.493, -1
1.90	.746, -1	.531, -1	.118, 0	.719, -1
1.95	.803, -1	.572, -1	.127, 0	.774, -1
2.00	.653, -1	.465, -1	.103, 0	.630, -1
2.05	.741, -1	.528, -1	.117, 0	.714, -1
2.10	.501, -1	.357, -1	.790, -1	.483, -1
2.15	.399, -1	.284, -1	.630, -1	.385, -1
2.20	.408, -1	.291, -1	.644, -1	.394, -1
2.25	.420, -1	.299, -1	.662, -1	.405, -1
2.30	.310, -1	.221, -1	.489, -1	.299, -1
2.35	.525, -1	.374, -1	.828, -1	.506, -1
2.40	.597, -1	.425, -1	.941, -1	.575, -1
2.45	.451, -1	.321, -1	.712, -1	.435, -1
2.50	.248, -1	.176, -1	.390, -1	.239, -1

TABLE AIV 3.19
POWER SPECTRUM
RECORD 085

N= 750 $\Delta T=0.2$ sec Maximum Lag=50 Degrees of Freedom= 29
 Wind Speed at 1.25m: mean 7.87 m/s σ 1.31 m/s
 Wind Direction at 1.83m: mean 308 °T σ 9 °T
 Estimated Fetch 2800 m
 Air Temperature at 2.25m 10.53 C
 Air Temperature at 0.50m 8.99 C
 Water Temperature 12.70 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.496, 1	.368, 1	.726, 1	.485, 1
0.05	.274, 1	.203, 1	.401, 1	.268, 1
0.10	.535, 0	.397, 0	.783, 0	.523, 0
0.15	.823, -1	.611, -1	.121, 0	.805, -1
0.20	.409, -1	.303, -1	.599, -1	.400, -1
0.25	-.116, -1	-.863, -2	-.170, -1	-.114, -1
0.30	.367, -1	.273, -1	.538, -1	.359, -1
0.35	.110, -1	.817, -2	.161, -1	.108, -1
0.40	.327, 0	.242, 0	.478, 0	.320, 0
0.45	.209, 1	.155, 1	.307, 1	.205, 1
0.50	.916, 1	.679, 1	.134, 2	.896, 1
0.55	.162, 2	.120, 2	.237, 2	.158, 2
0.60	.128, 2	.950, 1	.188, 2	.125, 2
0.65	.756, 1	.561, 1	.111, 2	.740, 1
0.70	.451, 1	.334, 1	.660, 1	.441, 1
0.75	.363, 1	.269, 1	.532, 1	.355, 1
0.80	.291, 1	.216, 1	.426, 1	.284, 1
0.85	.185, 1	.137, 1	.270, 1	.181, 1
0.90	.117, 1	.870, 0	.172, 1	.115, 1
0.95	.926, 0	.687, 0	.136, 1	.906, 0
1.00	.895, 0	.664, 0	.131, 1	.875, 0
1.05	.880, 0	.653, 0	.129, 1	.860, 0
1.10	.756, 0	.561, 0	.111, 1	.740, 0
1.15	.720, 0	.534, 0	.105, 1	.704, 0
1.20	.460, 0	.341, 0	.673, 0	.450, 0

TABLE AIV 3.19

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.301, 0	.224, 0	.441, 0	.295, 0
1.30	.270, 0	.200, 0	.395, 0	.264, 0
1.35	.235, 0	.174, 0	.343, 0	.229, 0
1.40	.179, 0	.132, 0	.261, 0	.175, 0
1.45	.200, 0	.148, 0	.293, 0	.196, 0
1.50	.166, 0	.123, 0	.243, 0	.163, 0
1.55	.145, 0	.107, 0	.212, 0	.141, 0
1.60	.972, -1	.721, -1	.142, 0	.951, -1
1.65	.936, -1	.695, -1	.137, 0	.916, -1
1.70	.761, -1	.565, -1	.111, 0	.745, -1
1.75	.818, -1	.607, -1	.120, 0	.800, -1
1.80	.926, -1	.687, -1	.136, 0	.906, -1
1.85	.880, -1	.653, -1	.129, 0	.860, -1
1.90	.659, -1	.489, -1	.964, -1	.644, -1
1.95	.571, -1	.424, -1	.836, -1	.558, -1
2.00	.316, -1	.234, -1	.462, -1	.309, -1
2.05	.281, -1	.209, -1	.412, -1	.275, -1
2.10	.266, -1	.197, -1	.389, -1	.260, -1
2.15	.369, -1	.274, -1	.540, -1	.361, -1
2.20	.283, -1	.210, -1	.415, -1	.277, -1
2.25	.361, -1	.268, -1	.529, -1	.353, -1
2.30	.327, -1	.242, -1	.478, -1	.320, -1
2.35	.313, -1	.232, -1	.459, -1	.306, -1
2.40	.170, -1	.126, -1	.249, -1	.167, -1
2.45	.288, -1	.213, -1	.421, -1	.281, -1
2.50	.290, -1	.215, -1	.425, -1	.284, -1

TABLE AIV 3.20
POWER SPECTRUM
RECORD 086

N = 870 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 34

Wind Speed at 1.25m :

mean 7.87 m/s

σ 1.31 m/s

Wind Direction at 1.83m :

mean 308 °T

σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.150, 1	.114, 1	.213, 1	.147, 1
0.05	.116, 1	.874, 0	.164, 1	.113, 1
0.10	.489, 0	.369, 0	.692, 0	.479, 0
0.15	.457, -1	.345, -1	.647, -1	.448, -1
0.20	.485, -1	.366, -1	.687, -1	.475, -1
0.25	-.162, -1	-.122, -1	-.229, -1	-.158, -1
0.30	.298, -1	.225, -1	.423, -1	.292, -1
0.35	-.181, -2	-.137, -2	-.257, -2	-.177, -2
0.40	.384, 0	.290, 0	.544, 0	.376, 0
0.45	.309, 1	.233, 1	.437, 1	.303, 1
0.50	.122, 2	.925, 1	.173, 2	.120, 2
0.55	.193, 2	.146, 2	.273, 2	.189, 2
0.60	.144, 2	.109, 2	.204, 2	.141, 2
0.65	.623, 1	.470, 1	.882, 1	.610, 1
0.70	.393, 1	.296, 1	.556, 1	.385, 1
0.75	.386, 1	.291, 1	.547, 1	.378, 1
0.80	.192, 1	.145, 1	.272, 1	.188, 1
0.85	.112, 1	.843, 0	.158, 1	.109, 1
0.90	.104, 1	.789, 0	.148, 1	.102, 1
0.95	.113, 1	.851, 0	.160, 1	.110, 1
1.00	.890, 0	.672, 0	.126, 1	.872, 0
1.05	.545, 0	.412, 0	.772, 0	.534, 0
0.10	.413, 0	.312, 0	.584, 0	.404, 0
1.15	.390, 0	.295, 0	.552, 0	.382, 0
1.20	.433, 0	.327, 0	.613, 0	.424, 0

TABLE AIV 3.20

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.456, 0	.344, 0	.646, 0	.447, 0
1.30	.269, 0	.203, 0	.381, 0	.264, 0
1.35	.162, 0	.122, 0	.229, 0	.158, 0
1.40	.197, 0	.148, 0	.278, 0	.193, 0
1.45	.208, 0	.157, 0	.294, 0	.204, 0
1.50	.144, 0	.108, 0	.203, 0	.141, 0
1.55	.123, 0	.929, -1	.174, 0	.120, 0
1.60	.124, 0	.936, -1	.176, 0	.122, 0
1.65	.128, 0	.964, -1	.181, 0	.125, 0
1.70	.859, -1	.649, -1	.122, 0	.842, -1
1.75	.530, -1	.400, -1	.751, -1	.519, -1
1.80	.561, -1	.424, -1	.794, -1	.550, -1
1.85	.612, -1	.462, -1	.867, -1	.600, -1
1.90	.365, -1	.276, -1	.517, -1	.358, -1
1.95	.500, -1	.378, -1	.708, -1	.490, -1
2.00	.520, -1	.392, -1	.736, -1	.509, -1
2.05	.509, -1	.385, -1	.721, -1	.499, -1
2.10	.467, -1	.352, -1	.661, -1	.457, -1
2.15	.448, -1	.338, -1	.635, -1	.439, -1
2.20	.271, -1	.205, -1	.384, -1	.266, -1
2.25	.246, -1	.186, -1	.349, -1	.242, -1
2.30	.228, -1	.172, -1	.323, -1	.223, -1
2.35	.363, -1	.274, -1	.514, -1	.355, -1
2.40	.378, -1	.286, -1	.536, -1	.371, -1
2.45	.321, -1	.242, -1	.455, -1	.315, -1
2.50	.179, -1	.135, -1	.253, -1	.175, -1

TABLE A IV 3.21
POWER SPECTRUM
RECORD 087

N = 750 $\Delta T = 0.2 \text{ sec}$ Maximum Lag = 50 Degrees of Freedom = 29
 Wind Speed at 1.25m mean 7.21 m/s $\sigma = 1.45 \text{ m/s}$
 Wind Direction at 1.83m mean 302 °T $\sigma = 8 \text{ °T}$
 Estimated Fetch 2300 m
 Air Temperature at 2.25m 10.89 C
 Air Temperature at 0.50m 10.56 C
 Water Temperature 12.79 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.191, 1	.142, 1	.280, 1	.187, 1
0.05	.295, 2	.219, 2	.432, 2	.289, 2
0.10	.756, 1	.561, 1	.111, 2	.740, 1
0.15	.202, 1	.150, 1	.295, 1	.197, 1
0.20	.111, 1	.824, 0	.163, 1	.109, 1
0.25	.684, 0	.508, 0	.100, 1	.669, 0
0.30	.576, 0	.427, 0	.844, 0	.564, 0
0.35	.736, 0	.546, 0	.108, 1	.720, 0
0.40	.648, 0	.481, 0	.949, 0	.634, 0
0.45	.664, 0	.492, 0	.972, 0	.649, 0
0.50	.839, 0	.622, 0	.123, 1	.820, 0
0.55	.122, 1	.905, 0	.179, 1	.119, 1
0.60	.172, 1	.127, 1	.252, 1	.168, 1
0.65	.267, 1	.198, 1	.391, 1	.261, 1
0.70	.280, 1	.208, 1	.411, 1	.274, 1
0.75	.280, 1	.208, 1	.411, 1	.274, 1
0.80	.314, 1	.233, 1	.459, 1	.307, 1
0.85	.225, 1	.167, 1	.329, 1	.220, 1
0.90	.218, 1	.161, 1	.319, 1	.213, 1
0.95	.164, 1	.121, 1	.240, 1	.160, 1
1.00	.102, 1	.756, 0	.149, 1	.996, 0
1.05	.106, 1	.790, 0	.156, 1	.104, 1
1.10	.772, 0	.572, 0	.113, 1	.755, 0
1.15	.482, 0	.358, 0	.706, 0	.471, 0
1.20	.460, 0	.342, 0	.674, 0	.450, 0

TABLE A IV 3.21

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.486, 0	.361, 0	.712, 0	.475, 0
1.30	.346, 0	.256, 0	.506, 0	.338, 0
1.35	.223, 0	.165, 0	.326, 0	.218, 0
1.40	.218, 0	.161, 0	.319, 0	.213, 0
1.45	.229, 0	.170, 0	.336, 0	.224, 0
1.50	.234, 0	.173, 0	.342, 0	.228, 0
1.55	.257, 0	.190, 0	.376, 0	.251, 0
1.60	.221, 0	.164, 0	.323, 0	.216, 0
1.65	.206, 0	.153, 0	.302, 0	.202, 0
1.70	.159, 0	.118, 0	.233, 0	.155, 0
1.75	.147, 0	.109, 0	.215, 0	.144, 0
1.80	.159, 0	.118, 0	.233, 0	.155, 0
1.85	.132, 0	.981, -1	.194, 0	.129, 0
1.90	.972, -1	.721, -1	.142, 0	.951, -1
1.95	.803, -1	.595, -1	.118, 0	.785, -1
2.00	.947, -1	.702, -1	.139, 0	.926, -1
2.05	.106, 0	.786, -1	.155, 0	.104, 0
2.10	.104, 0	.775, -1	.153, 0	.102, 0
2.15	.797, -1	.592, -1	.117, 0	.780, -1
2.20	.633, -1	.469, -1	.926, -1	.619, -1
2.25	.880, -1	.653, -1	.129, 0	.860, -1
2.30	.839, -1	.622, -1	.123, 0	.820, -1
2.35	.705, -1	.523, -1	.103, 0	.689, -1
2.40	.633, -1	.469, -1	.926, -1	.619, -1
2.45	.346, -1	.257, -1	.507, -1	.339, -1
2.50	.178, -1	.132, -1	.261, -1	.174, -1

TABLE A IV 3.22
POWER SPECTRUM
RECORD 088

N=870 $\Delta T=0.2$ sec Maximum Lag=50 Degrees of Freedom=34

Wind Speed at 1.25m

mean 7.21 m/s

σ 1.45 m/s

Wind Direction at 1.83m

mean 302 °T

σ 8 °T

Estimated Fetch 2300 m

Air Temperature at 2.25m 10.89 C

Air Temperature at 0.50m 10.56 C

Water Temperature 12.79 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.275, 1	.208, 1	.390, 1	.270, 1
0.05	.210, 1	.159, 1	.297, 1	.206, 1
0.10	.715, 0	.540, 0	.101, 1	.701, 0
0.15	.121, 0	.913, -1	.171, 0	.118, 0
0.20	.972, -2	.734, -2	.138, -1	.953, -2
0.25	.427, -1	.323, -1	.605, -1	.418, -1
0.30	.337, -2	.255, -2	.478, -2	.331, -2
0.35	.472, -1	.356, -1	.668, -1	.462, -1
0.40	.276, -1	.208, -1	.391, -1	.270, -1
0.45	.216, 0	.163, 0	.305, 0	.211, 0
0.50	.911, 0	.688, 0	.129, 1	.892, 0
0.55	.298, 1	.225, 1	.423, 1	.292, 1
0.60	.498, 1	.376, 1	.705, 1	.488, 1
0.65	.607, 1	.459, 1	.860, 1	.595, 1
0.70	.457, 1	.345, 1	.648, 1	.448, 1
0.75	.273, 1	.206, 1	.387, 1	.268, 1
0.80	.265, 1	.201, 1	.376, 1	.260, 1
0.85	.197, 1	.148, 1	.278, 1	.193, 1
0.90	.108, 1	.812, 0	.152, 1	.105, 1
0.95	.833, 0	.629, 0	.118, 1	.817, 0
1.00	.751, 0	.567, 0	.106, 1	.736, 0
1.05	.581, 0	.439, 0	.823, 0	.570, 0
1.10	.545, 0	.412, 0	.772, 0	.534, 0
1.15	.467, 0	.353, 0	.662, 0	.458, 0
1.20	.462, 0	.349, 0	.654, 0	.453, 0

TABLE AIV 3.22

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.395, 0	.298, 0	.559, 0	.387, 0
1.30	.330, 0	.249, 0	.467, 0	.323, 0
1.35	.325, 0	.245, 0	.460, 0	.318, 0
1.40	.313, 0	.237, 0	.444, 0	.307, 0
1.45	.158, 0	.120, 0	.224, 0	.155, 0
1.50	.163, 0	.123, 0	.230, 0	.159, 0
1.55	.213, 0	.161, 0	.302, 0	.209, 0
1.60	.184, 0	.139, 0	.260, 0	.180, 0
1.65	.103, 0	.777, -1	.146, 0	.101, 0
1.70	.880, -1	.664, -1	.125, 0	.862, -1
1.75	.664, -1	.501, -1	.940, -1	.650, -1
1.80	.586, -1	.443, -1	.831, -1	.575, -1
1.85	.530, -1	.400, -1	.751, -1	.519, -1
1.90	.638, -1	.482, -1	.904, -1	.625, -1
1.95	.365, -1	.275, -1	.517, -1	.357, -1
2.00	.306, -1	.231, -1	.433, -1	.299, -1
2.05	.326, -1	.246, -1	.462, -1	.320, -1
2.10	.514, -1	.389, -1	.729, -1	.504, -1
2.15	.374, -1	.282, -1	.529, -1	.366, -1
2.20	.488, -1	.368, -1	.691, -1	.478, -1
2.25	.434, -1	.328, -1	.614, -1	.425, -1
2.30	.361, -1	.272, -1	.511, -1	.353, -1
2.35	.202, -1	.153, -1	.286, -1	.198, -1
2.40	.300, -1	.227, -1	.426, -1	.294, -1
2.45	.205, -1	.155, -1	.290, -1	.201, -1
2.50	.164, -1	.124, -1	.232, -1	.161, -1

TABLE AIV 3.23
POWER SPECTRUM
RECORD 093

N=750 $\Delta T=0.2$ sec Maximum Lag=50 Degrees of Freedom=29
 Wind Speed at 1.25m: mean 8.20 m/s σ 1.00 m/s
 Wind Direction at 1.83m: mean 305 °T σ 6 °T
 Estimated Fetch 2500 m
 Air Temperature at 2.25m 12.02 C
 Air Temperature at 0.50m 11.86 C
 Water Temperature 12.87 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.220, 0	.163, 0	.323, 0	.216, 0
0.05	.219, 0	.162, 0	.320, 0	.214, 0
0.10	.175, 0	.130, 0	.257, 0	.172, 0
0.15	.296, -1	.219, -1	.433, -1	.289, -1
0.20	.502, -1	.372, -1	.734, -1	.491, -1
0.25	.109, -1	.809, -2	.160, -1	.107, -1
0.30	.592, -1	.439, -1	.866, -1	.579, -1
0.35	.189, -1	.140, -1	.276, -1	.185, -1
0.40	.138, 0	.103, 0	.203, 0	.135, 0
0.45	.710, 0	.527, 0	.104, 1	.694, 0
0.50	.307, 1	.227, 1	.449, 1	.300, 1
0.55	.983, 1	.729, 1	.144, 2	.961, 1
0.60	.175, 2	.130, 2	.256, 2	.171, 2
0.65	.156, 2	.116, 2	.229, 2	.153, 2
0.70	.121, 2	.897, 1	.177, 2	.118, 2
0.75	.746, 1	.553, 1	.109, 2	.730, 1
0.80	.378, 1	.280, 1	.553, 1	.369, 1
0.85	.432, 1	.321, 1	.633, 1	.423, 1
0.90	.340, 1	.252, 1	.498, 1	.333, 1
0.95	.222, 1	.164, 1	.325, 1	.217, 1
1.00	.237, 1	.176, 1	.346, 1	.231, 1
1.05	.198, 1	.147, 1	.290, 1	.194, 1
1.10	.731, 0	.542, 0	.107, 1	.714, 0
1.15	.669, 0	.496, 0	.979, 0	.654, 0
1.20	.731, 0	.542, 0	.107, 1	.714, 0

TABLE AIV 3.23

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.710, 0	.527, 0	.104, 1	.694, 0
1.30	.633, 0	.469, 0	.926, 0	.619, 0
1.35	.550, 0	.408, 0	.806, 0	.538, 0
1.40	.500, 0	.371, 0	.732, 0	.489, 0
1.45	.407, 0	.302, 0	.596, 0	.398, 0
1.50	.285, 0	.211, 0	.417, 0	.279, 0
1.55	.330, 0	.245, 0	.484, 0	.323, 0
1.60	.228, 0	.169, 0	.334, 0	.223, 0
1.65	.230, 0	.171, 0	.337, 0	.225, 0
1.70	.175, 0	.130, 0	.256, 0	.171, 0
1.75	.218, 0	.161, 0	.319, 0	.213, 0
1.80	.166, 0	.123, 0	.243, 0	.163, 0
1.85	.114, 0	.847, -1	.167, 0	.112, 0
1.90	.141, 0	.105, 0	.207, 0	.138, 0
1.95	.200, 0	.148, 0	.292, 0	.195, 0
2.00	.154, 0	.114, 0	.225, 0	.150, 0
2.05	.130, 0	.962, -1	.190, 0	.127, 0
2.10	.931, -1	.691, -1	.136, 0	.911, -1
2.15	.952, -1	.706, -1	.139, 0	.931, -1
2.20	.869, -1	.645, -1	.127, 0	.850, -1
2.25	.116, 0	.863, -1	.170, 0	.114, 0
2.30	.993, -1	.737, -1	.145, 0	.971, -1
2.35	.972, -1	.721, -1	.142, 0	.951, -1
2.40	.669, -1	.496, -1	.979, -1	.654, -1
2.45	.684, -1	.508, -1	.100, 0	.669, -1
2.50	.556, -1	.412, -1	.814, -1	.544, -1

TABLE AIV 3.24
POWER SPECTRUM
RECORD 094

N = 860 $\Delta T = 0.2$ sec Maximum Lag = 50 Degrees of Freedom = 34
 Wind Speed at 1.25m: mean 8.20 m/s σ 1.00 m/s
 Wind Direction at 1.83m: mean 305 °T σ 6 °T
 Estimated Fetch 2500 m
 Air Temperature at 2.25m 12.02 C
 Air Temperature at 0.50m 11.86 C
 Water Temperature 12.87 C

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
0.00	.137, 1	.103, 1	.194, 1	.134, 1
0.05	.813, 0	.614, 0	.115, 1	.797, 0
0.10	.204, 0	.154, 0	.289, 0	.200, 0
0.15	.823, -1	.622, -1	.117, 0	.807, -1
0.20	.365, -1	.275, -1	.517, -1	.357, -1
0.25	.823, -1	.622, -1	.117, 0	.807, -1
0.30	.586, -1	.443, -1	.831, -1	.575, -1
0.35	.792, -1	.598, -1	.112, 0	.776, -1
0.40	.149, 0	.112, 0	.211, 0	.146, 0
0.45	.890, 0	.672, 0	.126, 1	.872, 0
0.50	.447, 1	.337, 1	.633, 1	.438, 1
0.55	.135, 2	.102, 2	.191, 2	.132, 2
0.60	.176, 2	.133, 2	.249, 2	.172, 2
0.65	.120, 2	.905, 1	.170, 2	.117, 2
0.70	.112, 2	.847, 1	.159, 2	.110, 2
0.75	.126, 2	.952, 1	.179, 2	.124, 2
0.80	.102, 2	.769, 1	.144, 2	.998, 1
0.85	.684, 1	.517, 1	.969, 1	.671, 1
0.90	.438, 1	.331, 1	.620, 1	.429, 1
0.95	.294, 1	.222, 1	.416, 1	.288, 1
1.00	.208, 1	.157, 1	.295, 1	.204, 1
1.05	.162, 1	.122, 1	.229, 1	.158, 1
1.10	.140, 1	.106, 1	.199, 1	.138, 1
1.15	.133, 1	.101, 1	.189, 1	.131, 1
1.20	.113, 1	.855, 0	.160, 1	.111, 1

TABLE A IV 3.24

(continued)

Frequency (cps)	Power (cm ² sec)	10% Confidence Limit (cm ² sec)	90% Confidence Limit (cm ² sec)	50% Confidence Limit (cm ² sec)
1.25	.875, 0	.661, 0	.124, 1	.857, 0
1.30	.586, 0	.443, 0	.831, 0	.575, 0
1.35	.457, 0	.345, 0	.648, 0	.448, 0
1.40	.385, 0	.291, 0	.545, 0	.377, 0
1.45	.425, 0	.321, 0	.603, 0	.417, 0
1.50	.388, 0	.293, 0	.549, 0	.380, 0
1.55	.280, 0	.212, 0	.397, 0	.275, 0
1.60	.252, 0	.190, 0	.357, 0	.247, 0
1.65	.253, 0	.191, 0	.358, 0	.248, 0
1.70	.227, 0	.172, 0	.322, 0	.223, 0
1.75	.194, 0	.147, 0	.275, 0	.191, 0
1.80	.173, 0	.131, 0	.246, 0	.170, 0
1.85	.171, 0	.129, 0	.243, 0	.168, 0
1.90	.152, 0	.115, 0	.215, 0	.149, 0
1.95	.103, 0	.781, -1	.146, 0	.101, 0
2.00	.777, -1	.587, -1	.110, 0	.761, -1
2.05	.869, -1	.657, -1	.123, 0	.852, -1
2.10	.864, -1	.653, -1	.122, 0	.847, -1
2.15	.828, -1	.626, -1	.117, 0	.812, -1
2.20	.792, -1	.598, -1	.112, 0	.776, -1
2.25	.921, -1	.696, -1	.130, 0	.902, -1
2.30	.869, -1	.657, -1	.123, 0	.852, -1
2.35	.936, -1	.707, -1	.133, 0	.918, -1
2.40	.864, -1	.653, -1	.122, 0	.847, -1
2.45	.664, -1	.501, -1	.940, -1	.650, -1
2.50	.449, -1	.339, -1	.636, -1	.440, -1

"I ca'n't believe that!" said Alice.

"Ca'n't you?" the Queen said in a pitying tone. "Try again: draw a long breath, and shut your eyes."

Alice laughed. "There's no use trying," she said: "one ca'n't believe impossible things."

"I daresay you haven't had much practice," said the Queen.

Lewis Carroll, Through the Looking-glass