1 Superintendent RKR
2 Asst. Superintendent
Admin. Officer
Ch. Interpretation
Ch. Ranger
Ch. Maintenance
3 Resource Mgt Spec
Supv. Pk Ranger(S)
Supr. Pk Ranger(Va)
Park Naturalist(Va)

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SOUTH JETTY, OCEAN CITY, MARYLAND
MONITORING PROGRAM

DATA REPORT - FISCAL YEAR 1988

Prepared By:
U.S. Army Corps of Engineers
Baltimore, District

JUNE 1988

"PLEASE DO NOT DESTROY -- [illegible] OF
NATURAL RESOURCES MANAGEME[illegible]ISION
ASSATEAGUE ISLAND NATIONAL SEASHORE"

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1. DESCRIPTION OF PROJECT

a. The subject project is the major rehabilitation of the existing south jetty at Ocean City, Maryland, shown on Figures 1 and 2. Prior studies have indicated that due to the low height and permeability of the structure, significant quantities (about 40,000 cy./yr.) of sand are transported northward along the shoreline of Assateague Island and then through and over the nearshore section of the jetty. Once on the inlet side of the jetty, the sand is transported along the northern shoreline of Assateague Island by tidal currents and wave action, and eventually, deposits in a shoal which encroaches on the existing Federal navigation channel, as shown on Figure 3. As a result, maintenance dredging in the channel has been required on an annual basis.

b. The primary feature of the project is the rehabilitation of the structure to create a littoral barrier and thus eliminate or substantially reduce the shoaling problem. To accomplish this purpose, a new jetty section has been constructed, offset 30 feet southward of the existing jetty centerline. The existing jetty has been left intact. The new jetty section has been constructed at +7.5 feet NGVD and consists of successive layers of bedding material, corestone, intermediate stone, one layer of capstone, and pre-cast concrete units along the centerline to form a core that will be impermeable to sand transport. The incorporation of pre-cast concrete units along the centerline was required to minimize the number of void channels in the capstone layer which have proven to be a significant sand transport pathway through the existing structure. Figure 4 shows the plan view. Figure 5 shows the profile and Figures 6 and 7 show typical cross sections of these features.

c. Based on a numerical model analysis of the inlet hydraulics and an analysis of the shoaling patterns in the inlet, it has been determined that the existing alignment of the outer jetty section is required to maintain the sediment flushing ability of the inlet. It has also been determined that this section of the jetty, although in a ravelled condition, is not contributing to the shoaling problem north of Assateague Island (the primary reason for the rehabilitation study). Thus, rehabilitation of the outer jetty section is not needed to solve this problem at this time. However, the numerical model analysis indicated that the loss of substantial sections of the outer jetty by foundation failure induced by enlargement of a scour hole immediately north of the jetty beginning at about Sta. 15+00 would result in a significant increase in shoaling in the inlet. The location of this increased shoaling would be at the throat of the inlet between the existing ends of the north and south jetties. As a result of the shoaling and the submerged

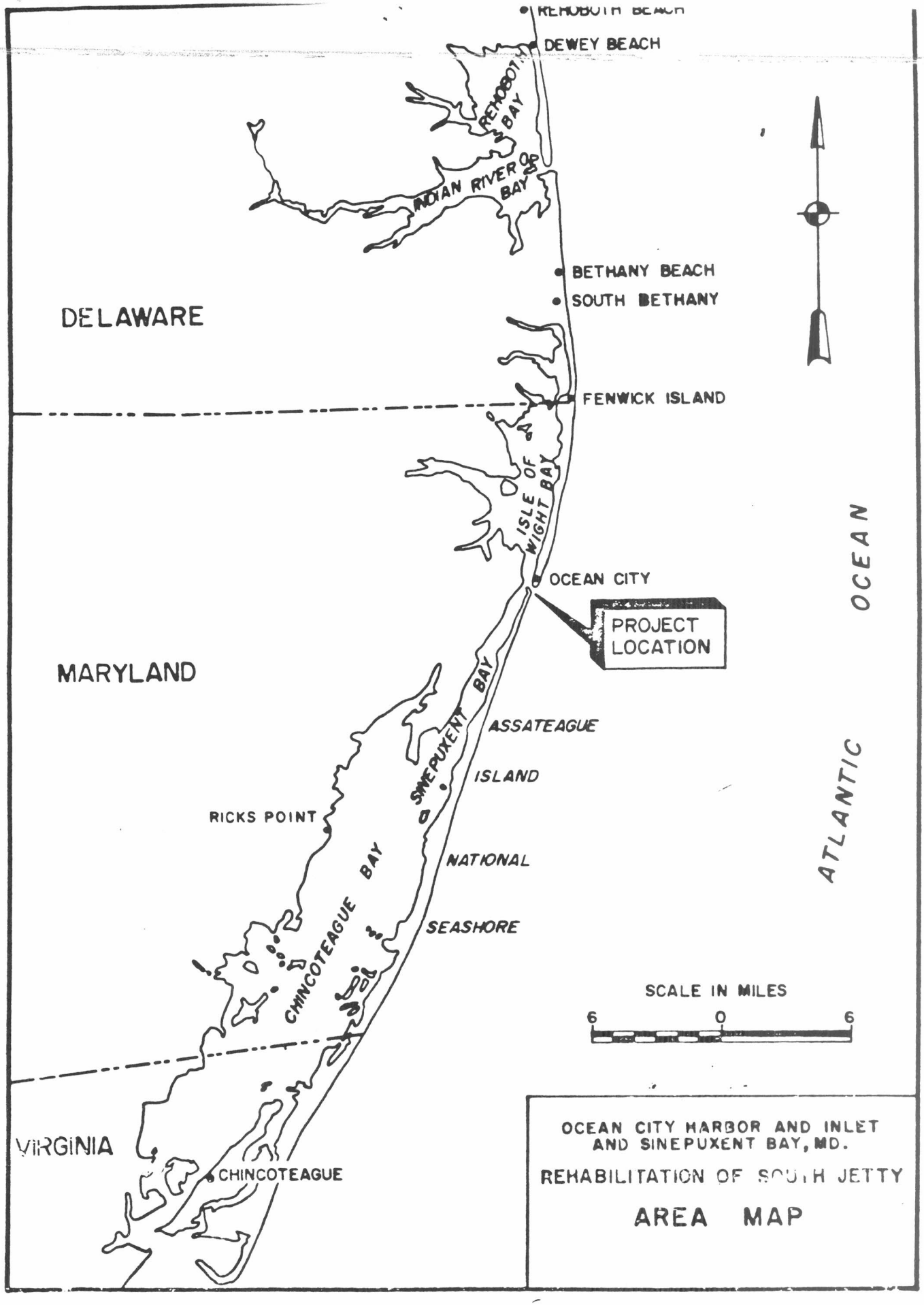

REHOBOTH BEACH
DEWEY BEACH
REHOBOTH BAY
INDIAN RIVER BAY
BETHANY BEACH
SOUTH BETHANY
DELAWARE
FENWICK ISLAND
ISLE OF WIGHT BAY
OCEAN CITY
PROJECT LOCATION
OCEAN
MARYLAND
SINEPUXENT BAY
ASSATEAGUE
ISLAND
RICKS POINT
NATIONAL
SEASHORE
CHINCOTEAGUE BAY
ATLANTIC
SCALE IN MILES
6 0 6
VIRGINIA
CHINCOTEAGUE
OCEAN CITY HARBOR AND INLET
AND SINEPUXENT BAY, MD.
REHABILITATION OF SOUTH JETTY
AREA MAP

FIGURE 1

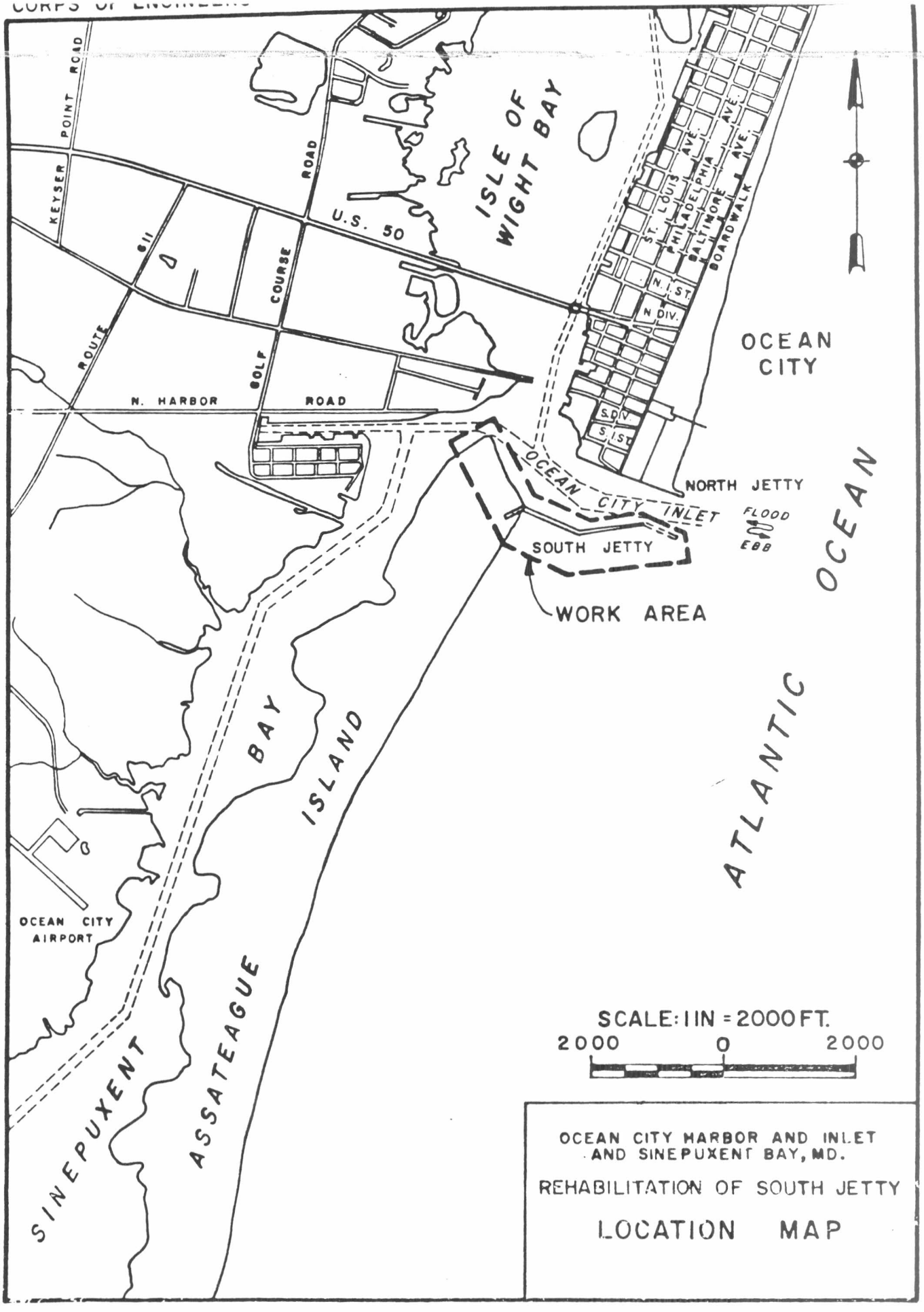

CORPS OF ENGINEERS
POINT ROAD
KEYSER
ROUTE 611
U.S. 50
COURSE
GOLF
ROUTE
N. HARBOR ROAD
ISLE OF WIGHT BAY
ST. LOUIS AVE.
PHILADELPHIA AVE.
BALTIMORE AVE.
BOARDWALK
N. 1 ST.
N. DIV.
S. DIV.
S. 1 ST.
OCEAN CITY
OCEAN CITY INLET
NORTH JETTY
SOUTH JETTY
FLOOD
EBB
WORK AREA
OCEAN
ATLANTIC
BAY
ISLAND
ASSATEAGUE
SINEPUXENT
OCEAN CITY AIRPORT
SCALE: 1 IN = 2000 FT.
2000 0 2000
OCEAN CITY HARBOR AND INLET
AND SINEPUXENT BAY, MD.
REHABILITATION OF SOUTH JETTY
LOCATION MAP

FIGURE 2

stone resulting from the failure of the outer jetty section, navigation through the inlet would be very hazardous. Stability analyses indicated that the existing outer jetty section was marginally stable. Any enlargement of the scour hole area would decrease this marginal stability and eventually lead to failure. To prevent this failure, the scour hole was filled with sand hydraulically, as shown in Figure 8, to elevation -30.0 feet NGVD and then armored with a protective blanket composed of several layers of 50 to 200 pound stone. The elevation of the fill was limited to -30 feet NGVD, instead of the original design elevation of -20.0 feet NGVD, to facilitate construction. In addition, an armored stability berm was placed on the inlet side of the jetty from Sta. 14+50 to Sta. 23+00.

d. By rendering the structure sand-tight, the source of material in the problem shoal will be eliminated or at least significantly reduced. Due to the elimination of this source of sand, it is anticipated that the northern shoreline of Assateague Island will begin to erode rapidly due to tidal current and wave action. This shoreline recession could eventually reach the inshore tie-out of the jetty and result in a breach in that location which would allow significant quantities of sand to be transported into the navigation channel. To stabilize this shoreline area, three headland breakwaters were constructed as shown on Figure 4. Each of these breakwaters was constructed by placing successive layers of bedding material, corestone, intermediate stone, and capstone tc an elevation of +6.0 NGVD with side slopes of 1V on 2H. The crest width of each breakwater is 12 feet. The plan view and typical cross sections of the breakwaters are shown on Figures 4 and 9, respectively. Breakwater No.1 ties into the existing south jetty at about Sta. 4+36 and is 340 feet long. Breakwaters No. 2 and 3 are 200 feet long. The spacing between the breakwaters is 300 feet.

e. The construction cost for the rehabilitation project was $5.9 million. The construction of the project was completed in December 1985.

2. PREDICTED DESIGN PERFORMANCE

a. Introduction

The plan detailed above is expected to eliminate or significantly reduce the shoaling problem in the Federal navigation channel leading into West Ocean City Harbor.

b. Coastal Processes Analysis

Studies conducted by Dean et al. (1978) prior to project construction concluded that the primary source of the sand shoaling in the navigation channel is northerly moving longshore transport along the Assateague Island shoreline. This conclusion was reached after conducting sand tracer tests and swash measurements in the vicinity of the south jetty. Figure 3 indicates the sand transport pathway of this material.

Essentially, this northerly moving longshore sand transport washes through and over the inshore end of the south jetty and is then transported by tidal and wave induced currents along the northern shoreline of Assateague Island. This transport continues until the sand reaches and resides temporarily as a shoal along the northwest shoreline of Assateague Island. From this point, ebb tidal currents from Sinepuxent Bay transport the sand northward towards the navigation channel where the stronger southerly moving ebb tidal currents from the Isle of Wight Bay are encountered and cause the sand to deposit into the problem shoal area.

This localized northerly sand transport was determined to be a result of the sheltering effect of the north and south jetties and the wave transformation effects of the offshore ebb-tide shoal.

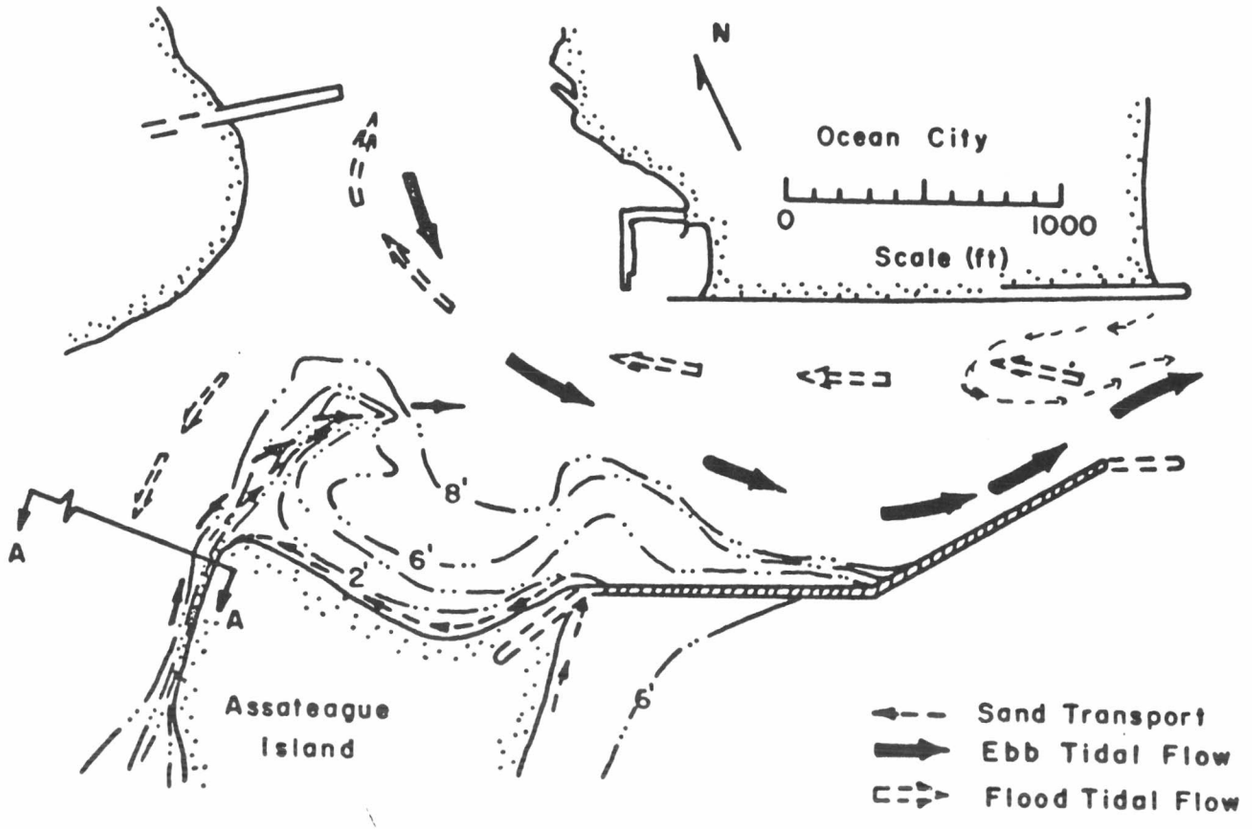
c. Sand - Tightening

In order to eliminate or significantly reduce the shoaling problem in the navigation channel, transportation of sand through and over the south jetty had to be eliminated. Field observations of the existing structure indicated that the capstone was located within the primary sediment transport zone, i.e., from the sand bottom to the spring tide water level, and that the associated void channels resulting from the capstone placement provided the pathway for the sand transport through the structure. In addition, the exisiting height of the jetty allowed transport of sand overtop during higher tide occurrences.

Due to the large size of the capstone (6-15 tons) required for stability in this area, placement of the units to eliminate the void channels was not possible. Even if it were possible during initial placement, subsequent movement and/or settlement of the units would open up the voids between the units. The most obvious solution would be to rebuild the jetty cross section with the capstone placed higher and out of the primary sediment transport zone. However, rebuilding the structure according to this criteria would result in a height of about +12 to +15 feet NGVD, and would not be cost effective. As a result, the approach selected was to rebuild the structure with the minimum crest height increase required to preclude significant sand transport overtop of the structure and to incorporate an impermeable core wall in the structure cross section. The minimum crest height was determined to be +7.5 feet NGVD. Rectangular precast concrete units were used to form the impermeable core wall. These units are 6-feet wide by 2 feet long by 5 to 6-feet high and include steel reinforcement for strength. A 2-foot long tongue-in-groove interlock joint is used to maintain alignment and impermeability between units.

d. Design Still Water Level and Design Wave Analysis

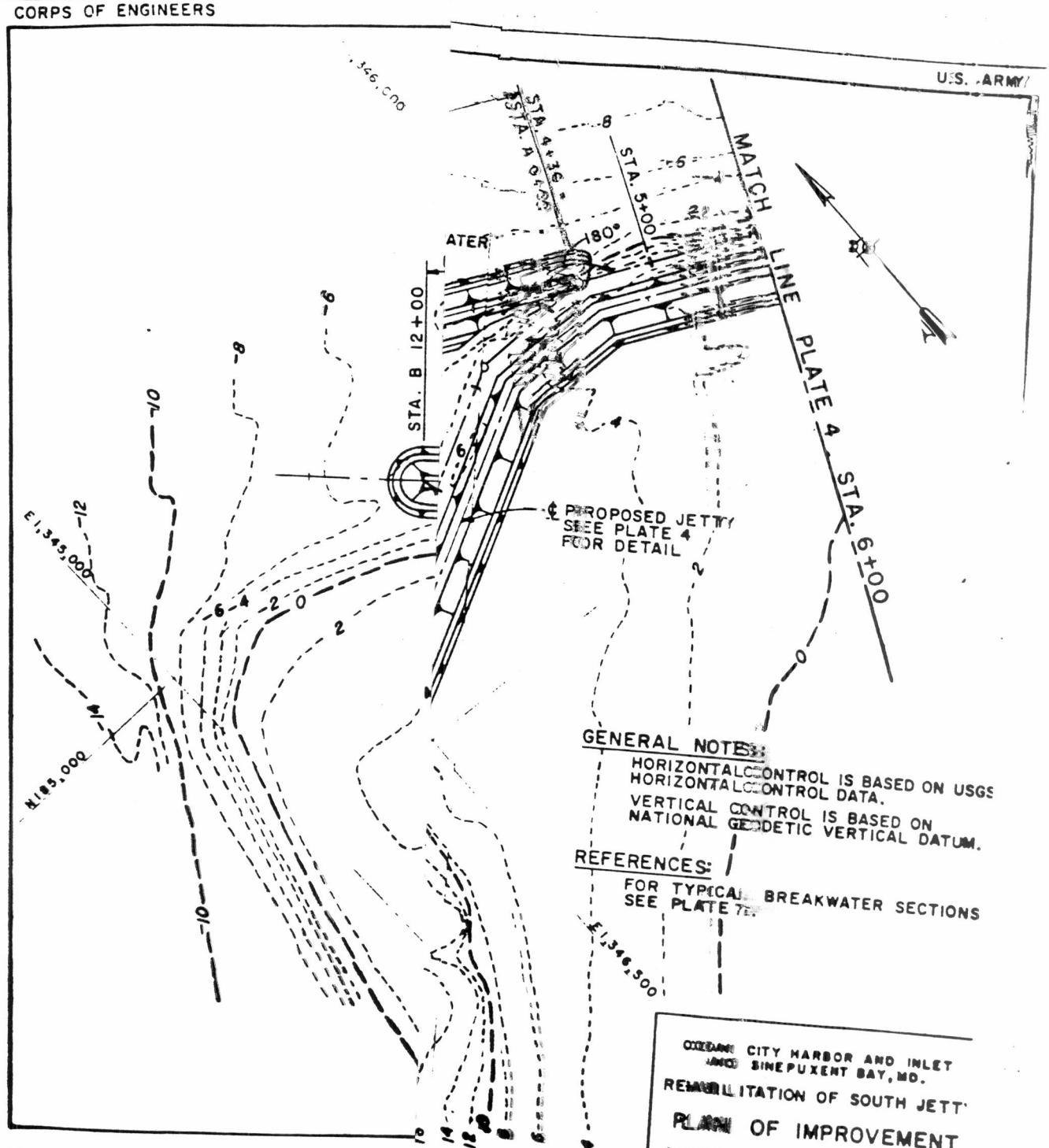
Following recommendations in the Shore Protection Manual, an analysis was conducted to determine the design water level that would allow for the full impact of storm waves on the structure. The results of this analysis indicated that a design still water level of about +8 feet NGVD produced the maximum impact on the structure. Since the 100-year storm tide frequency determined by NOAA is +8.3 feet NGVD for the area, this value was selected as the design still water level for the structure.



SAND TRANSPORT PATHWAY
FIGURE 3

CORPS OF ENGINEERS

U.S. ARMY



OCEAN CITY HARBOR AND INLET AND SINEPUXENT BAY, MD.

REHABILITATION OF SOUTH JETTY

PLAN OF IMPROVEMENT

NORTH ASSATEAGUE ISLAND

D.N. NO. 3 PLATE

Using the design still water level = +8.3 feet NGVD, the existing bathymetry in the vicinity of the jetty was analyzed to determine the maximum wave height that would impact on the structure. This analysis indicated that a reasonable value for the maximum design wave height would be 18 feet. However, this value would be appropriate only for the outer sections of the structure. Moving shoreward, the shallower water depths result in lower design wave heights.

e. Stability Analysis

The structures are comprised of a bedding layer and a core of quarry-run stone (w/200 to w/4000) covered by one layer of intermediate stone (w/10) and an exterior layer of large capstone (w). The individual capstone weights were selected based on the stability formula developed by Hudson (1958). These weights are shown in Table 1.

TABLE 1
CAPSTONE REQUIRED FOR SOUTH JETTY REHABILITATION

Station	Allowable Weight Range
0.00 to 7+50	6-8 tons
7+50 to 9+50	6-10 tons
9+50 to 12+83	10-15 tons
Breakwaters	3-5 tons

f. Crest Elevation and Width Analysis

The crest elevation of the south jetty was raised from +4.7 feet NGVD to +7.5 feet NGVD. This elevation was determined to be the minimum crest height of the structure as dictated by the capstone and underlayer widths required for stability under design wave conditions. A similar analysis for the headland breakwaters resulted in a crest height of +6.0 feet NGVD.

As recommended in the SPM, a crest width equal to the combined widths of three capstone widths was selected for the jetty and breakwaters. These crest widths are 16-18 feet and 12 feet for the jetty and breakwaters, respectively.

g. Shoreline Response Analysis

The existing sand transport over and through the low and permeable south jetty has provided a stabilizing effect on the northern shoreline of Assateague Island. As a result, the effects of eliminating this sand source to the area were evaluated. Based on an analysis of historical aerial photographs, radar wave imagery of waves along this shoreline and sediment transport patterns in the area, it was concluded that significant erosion of the shoreline would occur if the supply of sand to the area was interrupted. To prevent this erosion which would eventually result in a breach in the island in the area near the inshore end of the jetty, three headland breakwaters were

constructed as shown on Figure 10. The configuration of these breakwaters was developed using aerial photographs, radar wave imagery of the inlet area and a relationship developed by Sylvester and Ho (1972) concerning the development of crenulate bays between headland breakwaters. The predicted equilibrium shoreline along the northern end of Assateague Island with the breakwaters in place is shown on Figure 10.

3. MONITORING PROGRAM OBJECTIVES

a. Verification of Conclusion of Studies Relating to the Cause of the Problem Shoal

Comprehensive studies were completed which concluded that the problem shoal area is a result of sand transport through and over the nearshore section of the existing south jetty. The monitoring program will provide the data necessary to verify the conclusions of the project study and the procedures used during the study for use on similar problems.

b. Evaluation of the Effectiveness of the Rehabilitated Cross Section as a Littoral Barrier

A number of assumptions were made during the study concerning the distribution of longshore sand transport in the offshore direction and the vertical distribution from the bottom. Based on these assumptions, the length and height of the structure to be rendered sand-tight were selected and the precast concrete core wall units were incorporated to increase the impermeability of the structure. Data collected during the monitoring program would provide an opportunity to review these assumptions in view of the structure's performance and to verify/modify the design procedures for future projects.

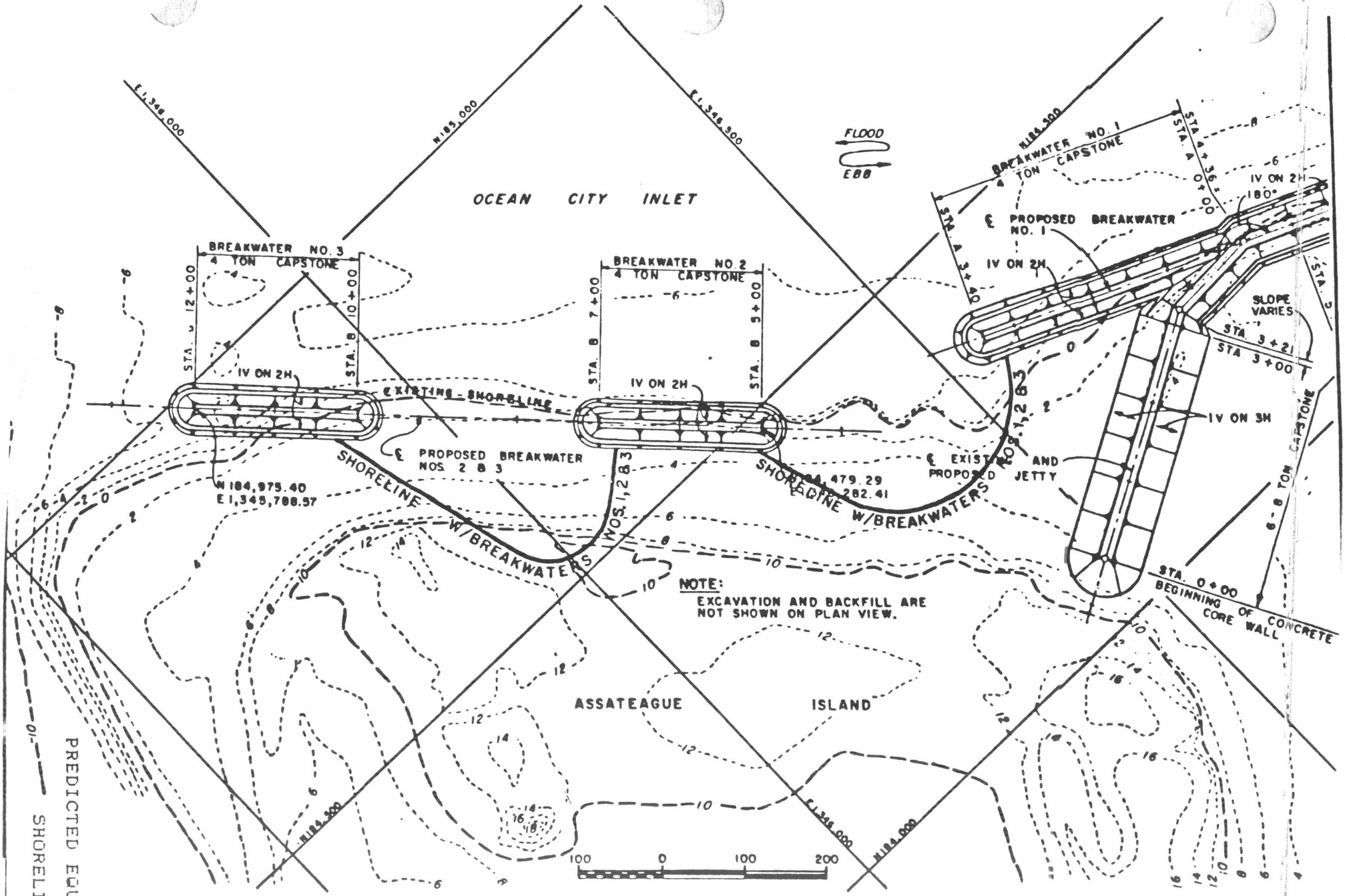
c. Evaluation of the Effectiveness of the Shoreline Stabilization on the Northern Shoreline of Assateague Island

The monitoring program data, particularly the periodic profile/bathymetric surveys and aerial photograph, will enable an evaluation of the interaction between the shoreline and the structures to be made. This evaluation will provide insight into these interactions and aid in the development of useful design criteria for future projects.

d. Verification/Calibration of the Shore Protection Manual Longshore Transport Formula

The fundamental formula for calculating the longshore sand transport rate is $Q = K P1_s$, in which:

Q = longshore sand transport rate
K = empirical coefficient
$P1_s$ = longshore energy flux factor



PREDICTED EQUILIBRIUM SHORELINE

FIGURE 10

The empirical coefficient K is basically determined by measuring the quantity of sand transported during a given time period and comparing that value to the value of p1 calculated from the wave conditions existing during the same time period, i.e., K = P1 /Q. This value of K has varied somewhat significantly throughout recent years and is based, for a large part, on data from the Pacific Coast. Determination of the value of K for use at a particular site, in this case an Atlantic Coast site, is advisable if possible. By measuring the amount of sand, Q, accumulated at a total littoral barrier, such as the rehabilitated south jetty, and comparing this quantity to the value of longshore wave energy flux, P1 , calculated for the wave conditions during the time period involved, would result in an additional determination of the empirical coefficient K. This value could then be compared to the value presented in the SPM for further verification of the SPM formula. This analysis would be possible with the data obtained from the proposed monitoring program.

e. Calculation of the Distribution of Longshore Sand Transport Across the Surf Zone

No verified methodology is available to determine the distribution of longshore sand transport across the surf zone. A knowledge of this distribution could be used to develop a functional design procedure to determine the length and height of jetties and groins for a particular coastal area. For example, the ability to define the location of the maximum longshore transport rate across the surf zone would allow the selection of the structure length to be made to achieve the desired degree of effectiveness of trapping littoral drift. This distribution can be developed as discussed by Fulford (1983) by measuring the sand trapped by the rehabilitated south jetty. Comparison of this distribution with wave data during the same time period would be useful in the development of functional design criteria for jetties and groins. Data collected during the monitoring program could be used in this development.

f. Shoreline and Profile Response/Onshore-Offshore Sand Transport

Periodic bathymetry surveys and aerial photography in conjunction with wave gage data could be analyzed to determine the effects of the south jetty on shoreline and profile response. Essentially, the existing eroded profiles are milder than the "equilibrium profile" that would be expected without the jetty's effect. Following rehabilitation of the south jetty, these profiles would be expected to accrete and evolve through the "equilibrium" stage to a stage of "steeper than equilibrium" which would result in the onset of offshore sand transport. Data from the monitoring program would enable this phenomenon to be analyzed.

4. ELEMENTS OF THE MONITORING PROGRAM

a. Wave, Tide and Wind Data

(1) Deepwater wave data will be obtained during the duration of the monitoring program with a Wave Rider Buoy gage located in about 50 feet of water east of the south jetty location as shown on Figure 11.

(2) Nearshore wave data for a short term period of about two to four weeks will be obtained with a directional pressure wave gage (PUV gage) located in about 14 feet of water between the northern end of Assateague Island and the ebb tide shoal as shown on Figure 11. This data will be used in conjunction with the deepwater wave data to analyze the wave transformation effects of the ebb tide shoal.

(3) Tide elevation data will be obtained from the NOAA tide gage located on the fishing pier at Ocean City, Maryland as shown in Figure 11.

(4) Wind data will be obtained from the anemometer located at the Ocean City Coast Guard Station as shown in Figure 11.

b. Profile Surveys/Sediment Sampling

(1) Twenty beach profiles located as shown in enclosure 1 will be surveyed on a semi-annual basis (Spring and Fall) out to the -30 foot NGVD contour (where applicable). Sediment samples will be obtained along these profiles at specified intervals.

(2) These same profiles will be surveyed out to wading depth during the summer and winter seasons.

c. Navigation Channel Surveys

An annual hydrographic survey of the navigation channel through Ocean City Inlet will be obtained.

d. Side Scan Sonar Surveys

An annual side scan sonar survey will be obtained to monitor the performance of the toe of the rehabilitated jetty, the stability berm on the outer section of the jetty and the armor layer covering the scour hole area.

e. Aerial Photography

Aerial photography of the inlet area and the northern 45,000 feet of Assateague Island will be obtained to evaluate response of the inlet and shoreline to the jetty construction. Photography will be obtained at low tide and at a scale of 1 inch = 1000 feet.

f. Site Inspections

Site inspections of the project area will be made to document the project performance. These site inspections will be made as necessary to document significant storm effects on the project area.

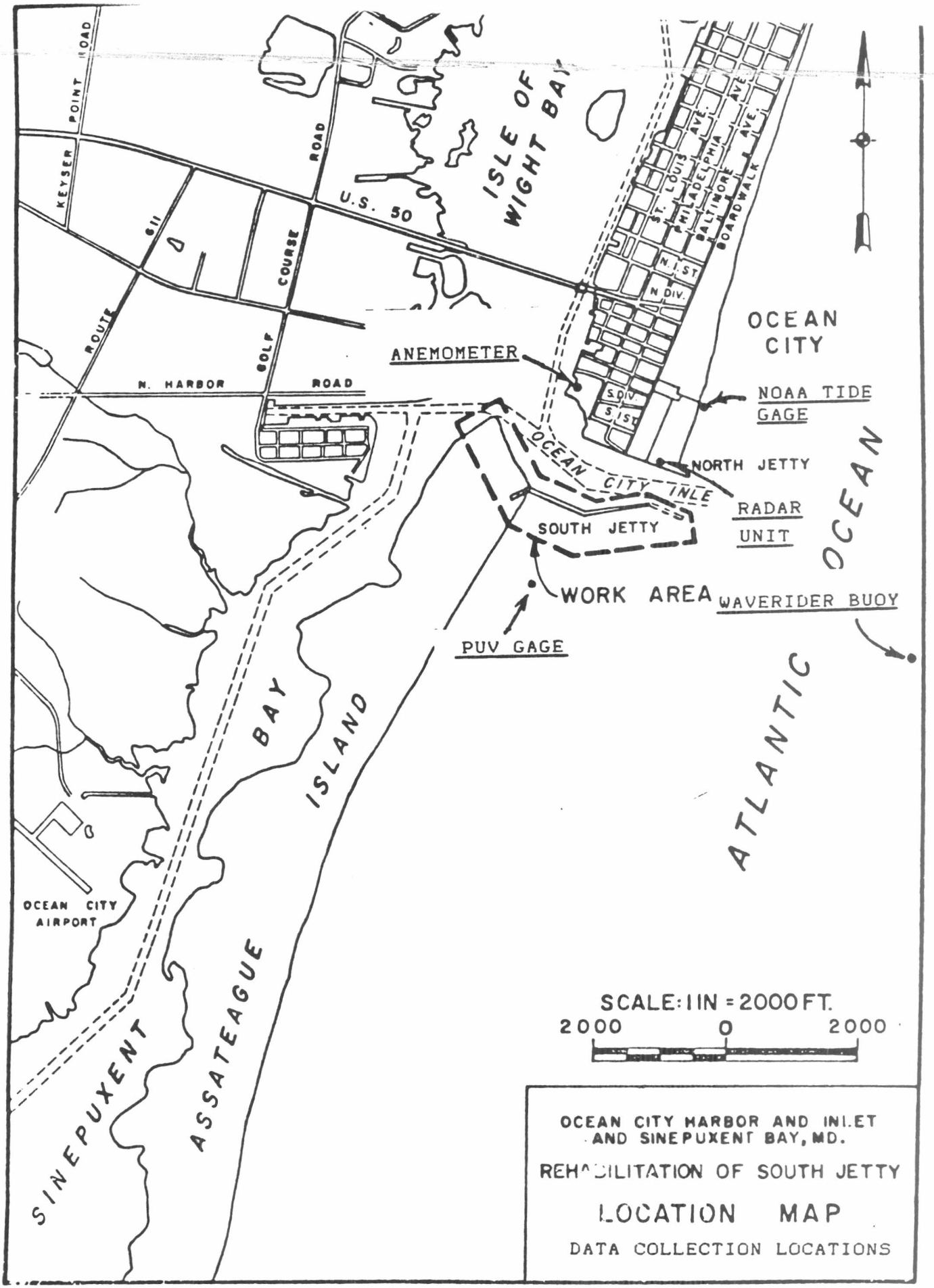

POINT
KEYSER
ROAD
U.S. 50
ISLE OF WIGHT BAY
ST. LOUIS AVE.
PHILADELPHIA AVE.
BALTIMORE AVE.
BOARDWALK
N. 1 ST.
N. DIV.
OCEAN CITY
ANEMOMETER
NOAA TIDE GAGE
ROUTE
COURSE
GOLF
N. HARBOR ROAD
S. DIV.
S. 1 ST.
OCEAN CITY INLE
NORTH JETTY
RADAR UNIT
SOUTH JETTY
WORK AREA
WAVERIDER BUOY
PUV GAGE
ATLANTIC OCEAN
BAY
ISLAND
OCEAN CITY AIRPORT
SINEPUXENT
ASSATEAGUE
SCALE: 1 IN = 2000 FT.
2000
0
2000
OCEAN CITY HARBOR AND INLET AND SINEPUXENT BAY, MD.
REHABILITATION OF SOUTH JETTY
LOCATION MAP
DATA COLLECTION LOCATIONS

FIGURE 11

g. Management and Reporting

Data collection activities will be managed by the Baltimore District with assistance from CERC as deemed necessary. The District will prepare an annual report containing a summary of the prototype data collected for the reporting period (one year) and will compare the data to previously collected data. A final report will be prepared in the last year of the monitoring program discussing all data collection efforts, analysis, and conclusions concerning the monitoring of the project's performance.

5. DATA COLLECTION - FISCAL YEAR 1986

Per agreement with CERC MCCP Program Coordinator, Michael Hemsley, WESCP-P, the initiation of the monitoring program data collection effort was scheduled for the 3rd quarter of FY 1986 due to prohibitive winter weather conditions.

2 April 1986 - CERC/NAB deployed a Wave Rider wave gage buoy in 50 feet of water offshore of Ocean City, Maryland. A shore based receiver station was established in the Ocean City Life Saving Museum located at the southern end of the boardwalk in Ocean City. Wave data transmission from the buoy to the receiving station to the CERC computer was initiated. Wave data collection continued until 12 September 1986 with a total of 18 days of downtime due to communication problems.

16 - 23 May 1986 - A horizontal and vertical control survey for offshore profile surveys along the northern end of Assateague Island, Maryland was completed by Arctec, Inc. of Columbia, Maryland (under contract to the Baltimore District).

June 1986 - Reduction and analysis of the survey data by Arctec is completed and the data submitted to NABPL. Plots of these profiles are presented in Appendix A.

27 August 1986 - CERC deployed a directional wave gage about 1/2 mile offshore of Ocean City and initiated its operation. Two subsequent deployments were made on 17 November 1986 and 22 February 1987. The first two deployments (27 August and 17 November) were unsuccessful due to electronic problems with the gages. The last deployment which lasted until 12 May was successful in collecting the raw wave data which is continuing to be processed. No further directional wave data collection is anticipated.

September 1986 - Aerial photographs of the inlet area and the northern 45,000 feet of Assateague Island were taken at a scale of 1" = 400' with 20% overlap.

12 September 1986 - December 4, 1986 - wave rider buoy inoperable due to malfunction of receiver.

6. DATA COLLECTION - FISCAL YEAR 1987

October 1986 - A resurvey of the offshore profiles along the northern end of Assateague Island, Maryland was completed by Arctec, Inc. of Columbia, Maryland (under contract to the Baltimore District). Plots of these profiles are presented in Appendix B.

4 December 1986 - January 23, 1987 - wave rider buoy operational and collected deep water wave data. The gage was lost sometime between the end of January and the end of February 1987 and has not been recovered to date.

25 February 1987 - another wave rider buoy was deployed in the approximate location of previous gage. Receiver problems occurred again in late April 1987. To date the problems are still being resolved by CERC. Data analysis from the wave rider gage is continuing.

August 1987 - A resurvey of the offshore profiles along the northern end of Assateague Island, Maryland was completed by the Waterways Experiment Station's Field Research Facility. Plots of these profiles compared to the June 1986 and October 1986 profiles are shown in Appendix C.

7. Data Collection - Fiscal Year 1988

December 1987 - Aerial photographs of the inlet area and the northern 45,000 feet of Assateague Island were taken at a scale of 1" = 400' with 20% overlap.

June 1988 - A resurvey of the offshore profiles noted above is scheduled.

June 1988 - Aerial photographs of the northern end of Assateague Island and the inlet is scheduled.

June 1988 - Processing of wave data from wave rider buoy was completed. (See Appendix D)

8. PRELIMINARY FINDINGS

A total of twelve profiles from line "T" to AI-18 as indicated on enclosure 1, surveyed in October 1984 (as part of a separate study of Assateague Island) and June 1986, were compared. Profile Line "T" showed a slight seaward translation of the shoreline at MHW but indicates erosion in the offshore below a depth of about 10 feet. A general trend of landward recession of the shoreline and erosion of the offshore profile seems to exist for the remaining profiles.

Another survey was performed in October 1986 and 18 lines from line "T" to line AI-34 were compared to the June 1986 survey. Profile line "T" showed a seaward translation of material to a depth of approximately 20'. Profile line AI-1 through AI-4 show the dune height has been lowered without much change to the remainder of the profile while the remaining profiles showed very little change whatsoever.

In general the August 1987 survey plot well with the 1986 surveys. The largest offshore change is in the order of 2 ft of accretion and occurred at line 2.

Since the completion of the south jetty rehabilitation, making it an impermeable structure, it appears that material is beginning to accumulate on its south side as expected, while little or no effects are occurring elsewhere.

9. SCHEDULE AND COST ESTIMATES

Schedule and cost estimates for the monitoring program are presented in Figure 12. Cost estimates were prepared in coordination with CERC MCCP program coordinator, Mr. Michael Hemsley, WESCD-P.

MONITORING SELECTED COASTAL PROJECTS REPORT	DATE PREPARED: 15 August 1985	RCS DAEN-CWE(OT)1116
WORK UNIT TITLE: Monitoring of South Jetty Rehabilitation Project, Ocean City, MD		CURRENT NUMBER/CODE:

TASK SCHEDULE BY QUARTERS

TASKS	PRIOR YEARS	CURRENT YR (FY 85) 1st	2d	3d	4th	BUDGET YR (BY) (FY 86) 1st	2d	3d	4th	BY+1 (FY 87) 1st	2d	3d	4th	BY+2 FY 88	BY+3 FY 89	BY+4 FY	BY+5 FY
1. Wave Data																	
a. Waverider Buoy						20.0	5.0	5.0	5.0	20.0	5.0	5.0	5.0	25.0			
b. PUV Gage							15.0										
c. Radar Unit						2.5	0.5	0.5	0.5	1.0	1.0	1.0	1.0				
2. LEO						1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0			
3. Beach Profiles/Sediment Samples						20.0		20.0		20.0		20.0		40.0			
4. Channel Survey								NC				NC		NC			
5. Side Scan Sonar Survey								10.0				10.0					
6. Aerial Photography						1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0	3.0			
7. Site Inspections						2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0			
8. Management, Analysis and Reporting			2.0	4.0	4.0	1.0	1.0	1.0	2.0	3.0	3.0	3.0	6.0	24.0			
9. Publication															15.0		
FINANCIAL REQUIREMENTS QUARTERLY OBLIGATIONS			2.0	4.0	4.0	48.5	27.5	41.5	12.5	49.0	15.0	44.0	17.0	100.0	15.0		

* 1,000's of dollars

DAILY SCHEDULE OF EVENTS

EVENT	DATES	EVENT	DATES

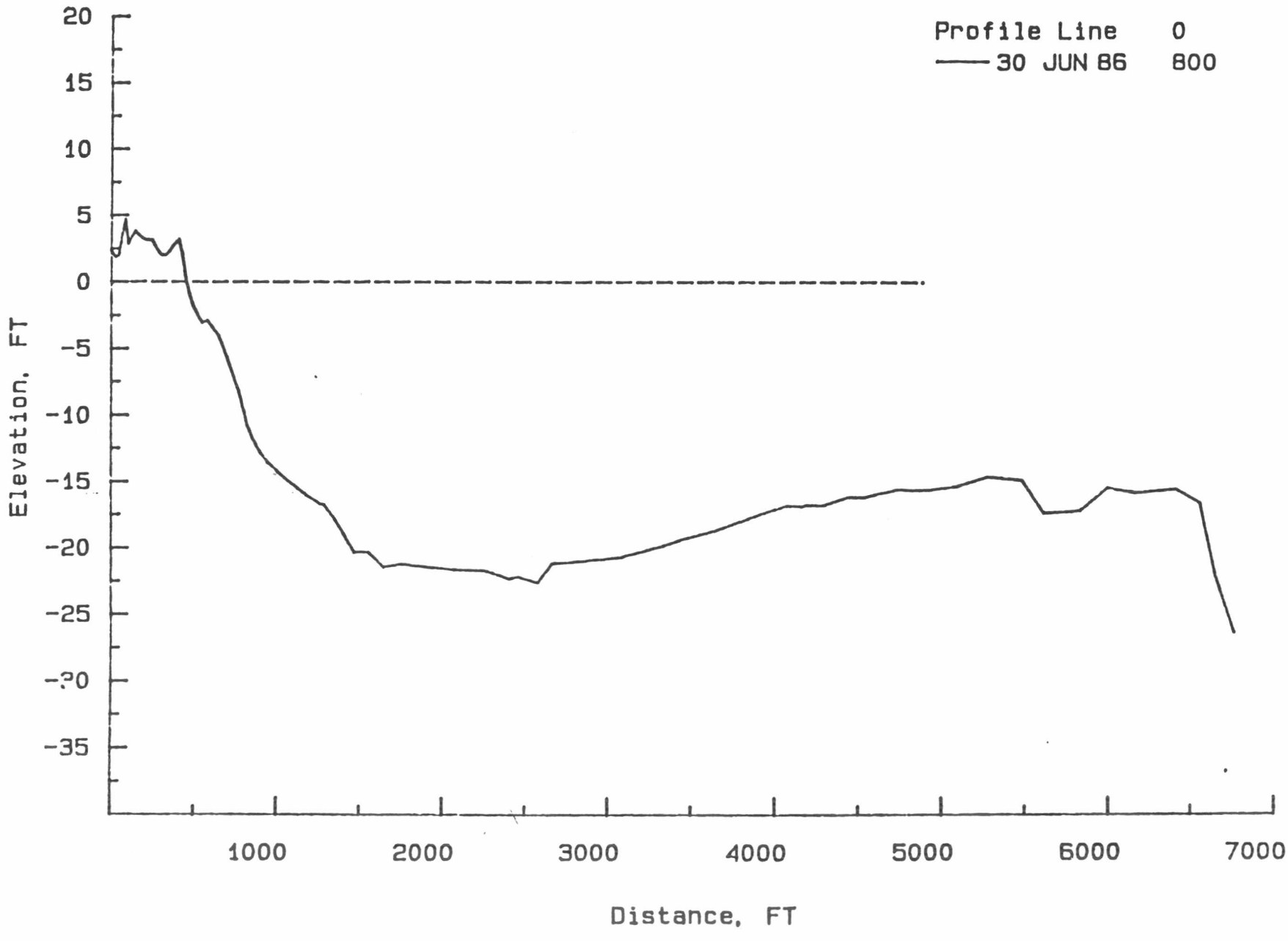
ENG FORM 1 FEB 80 4708-R (OT)

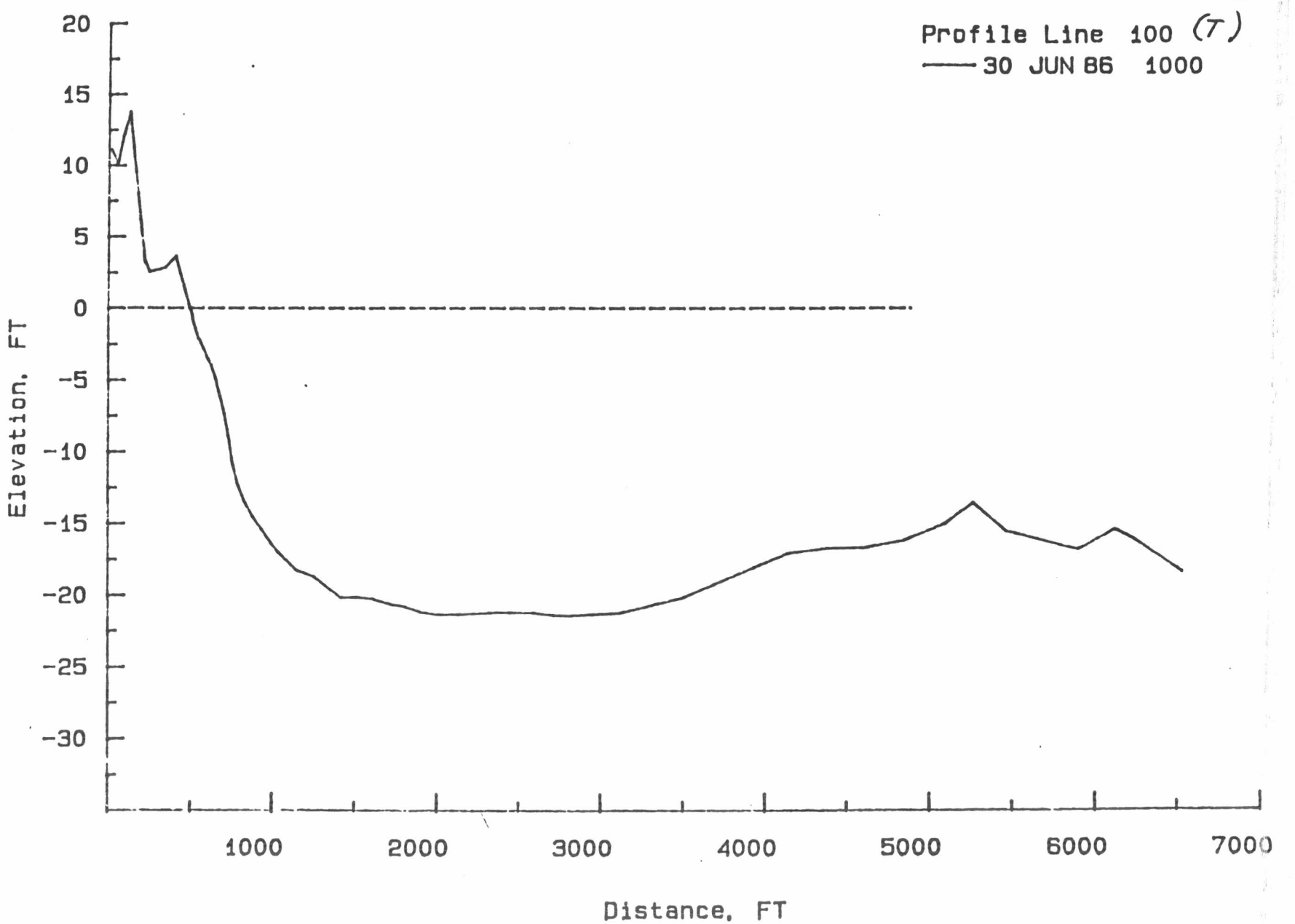
SCHEDULE AND COST ESTIMATES

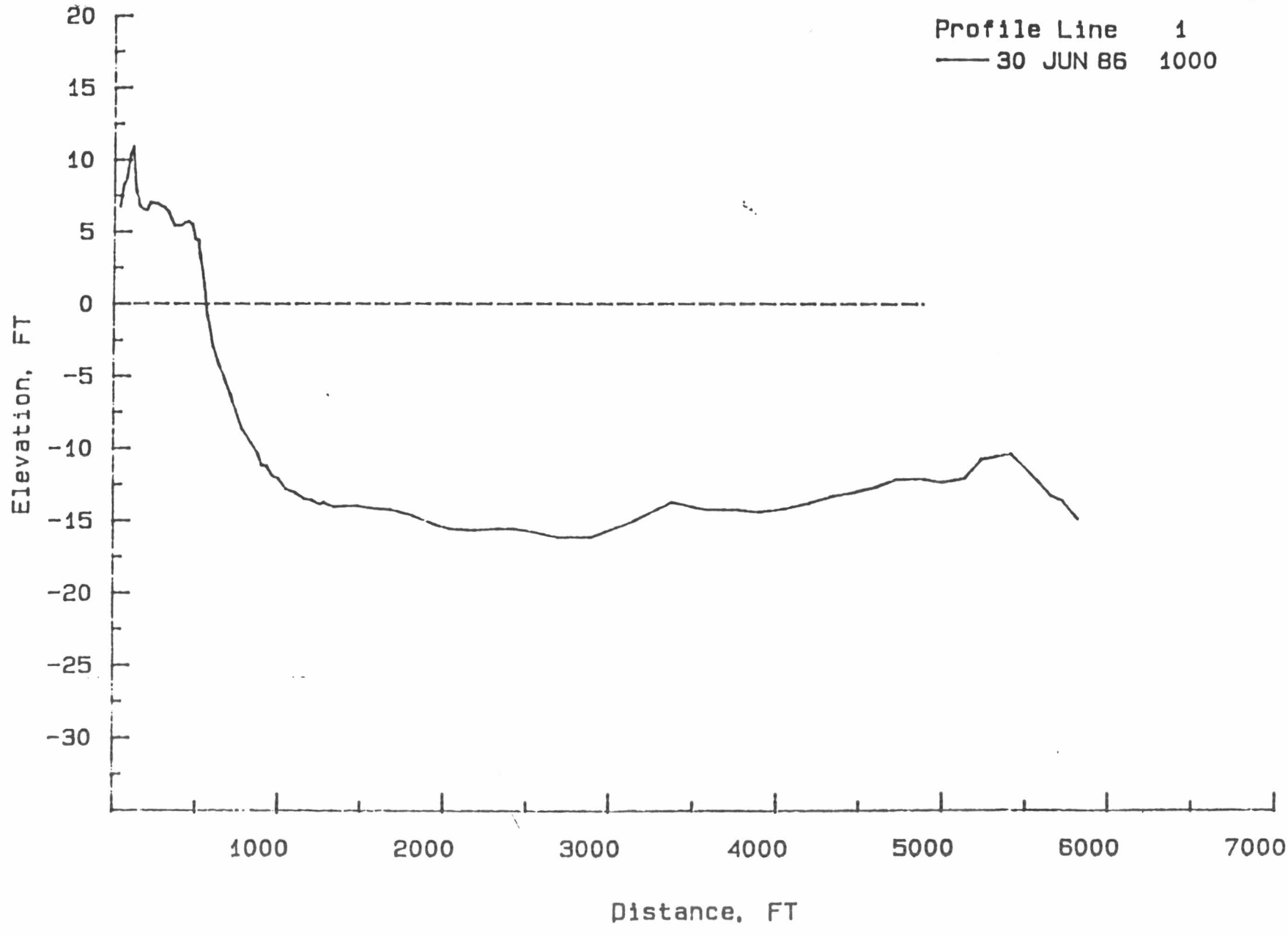
FIGURE 12

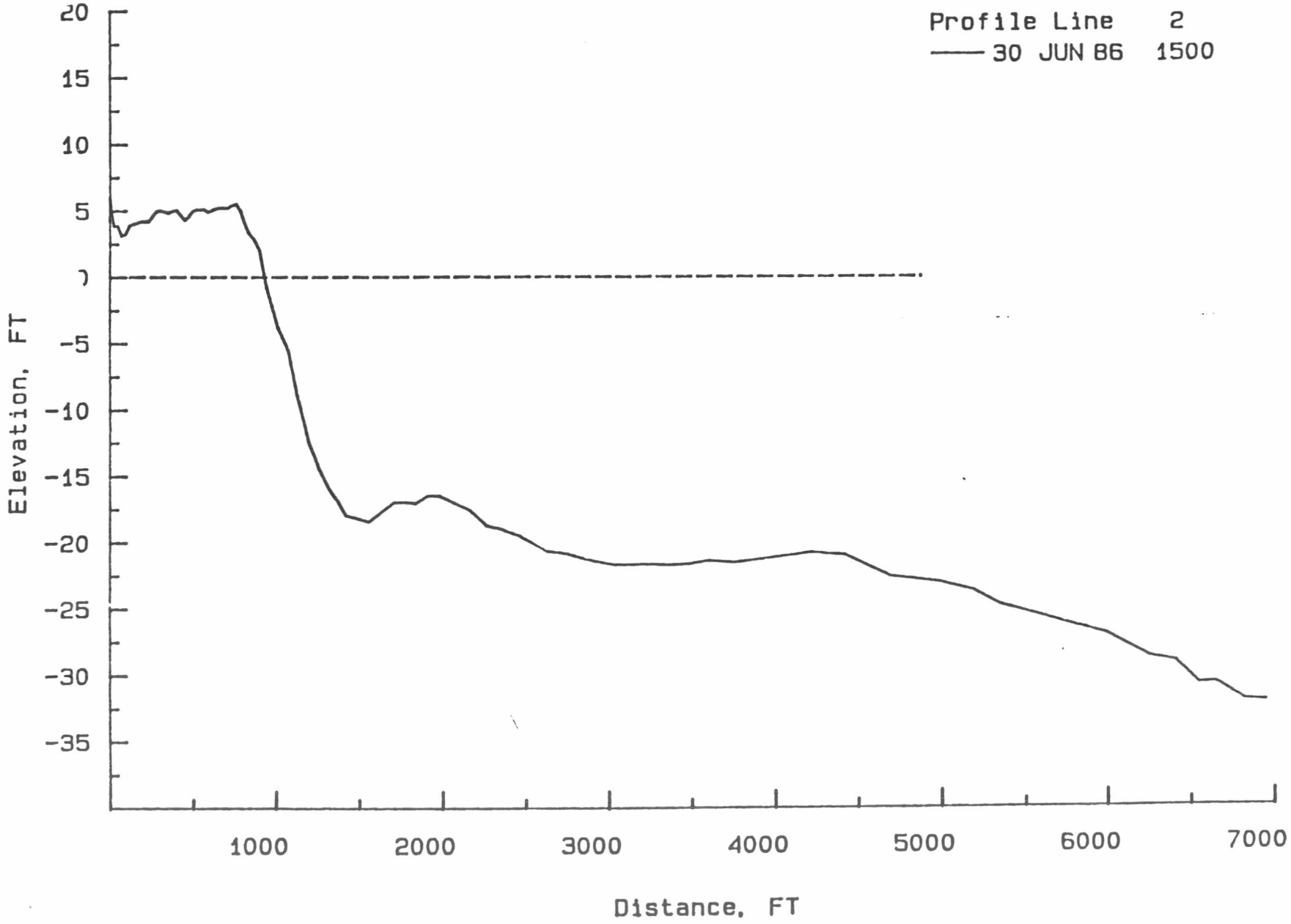
APPENDIX A

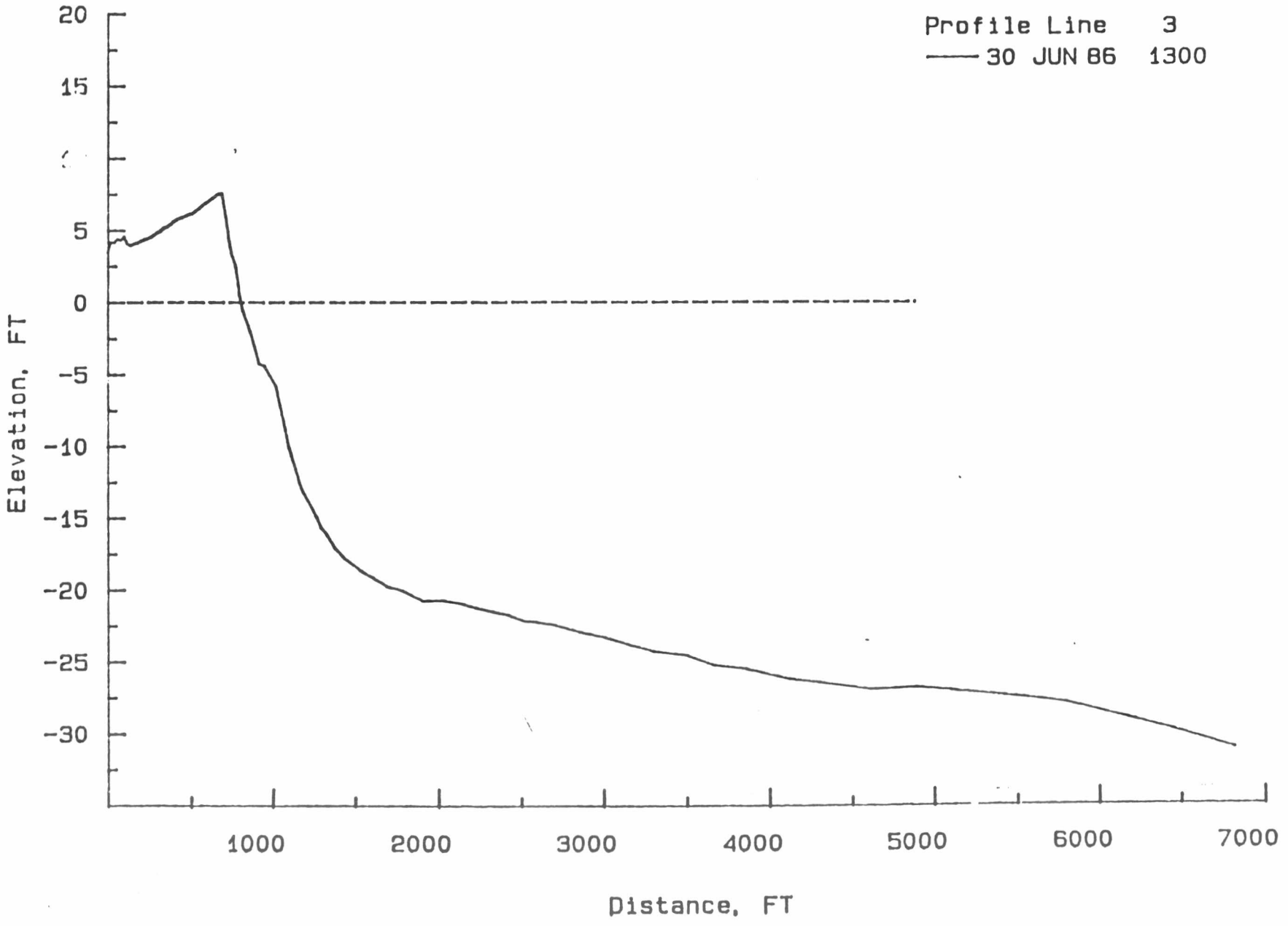
PROFILE SURVEY - MAY 1986

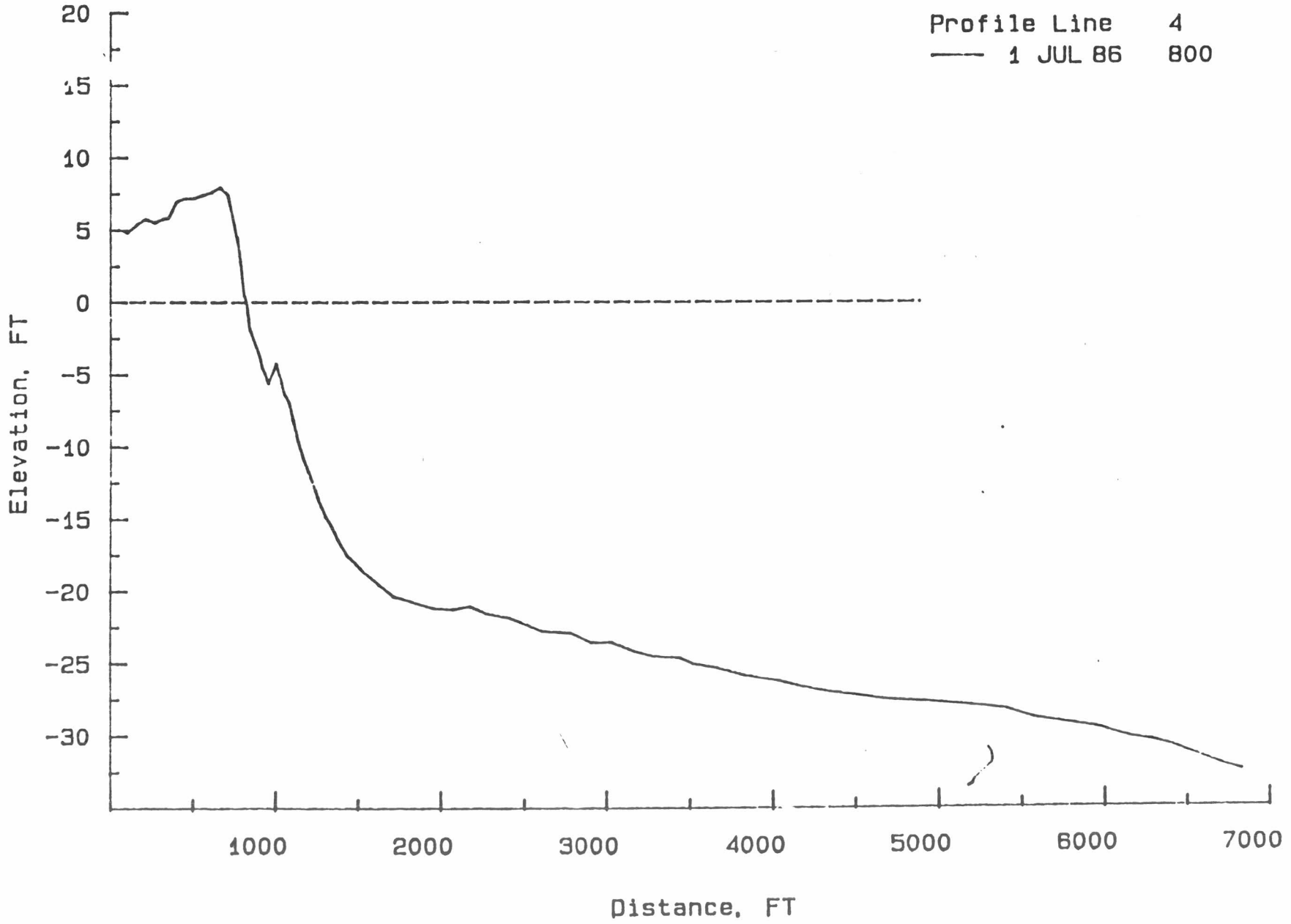

Profile Line 0
30 JUN 86 800
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

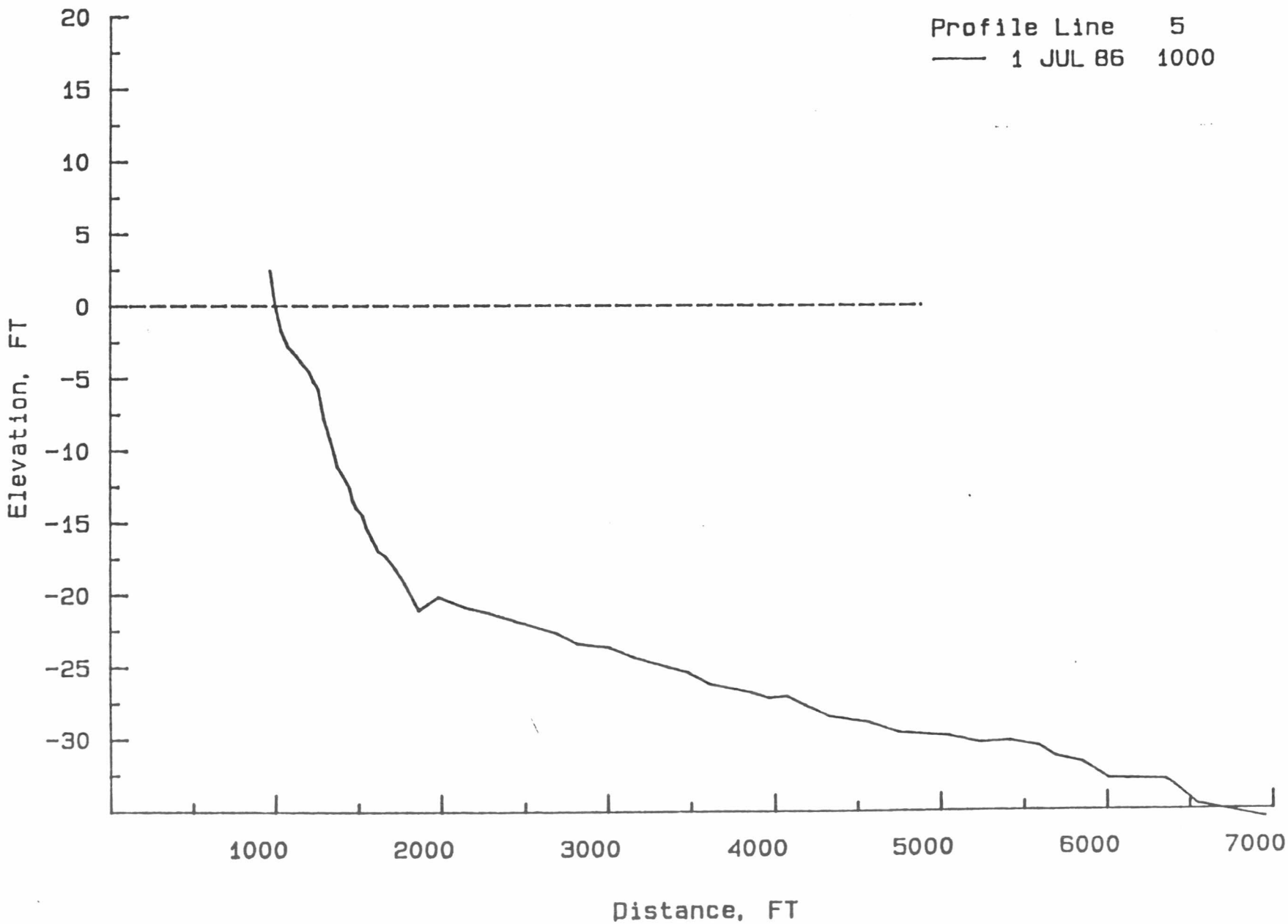

Profile Line 100 (T)
30 JUN 86 1000
20
15
10
5
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-5
-10
-15
-20
-25
-30
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

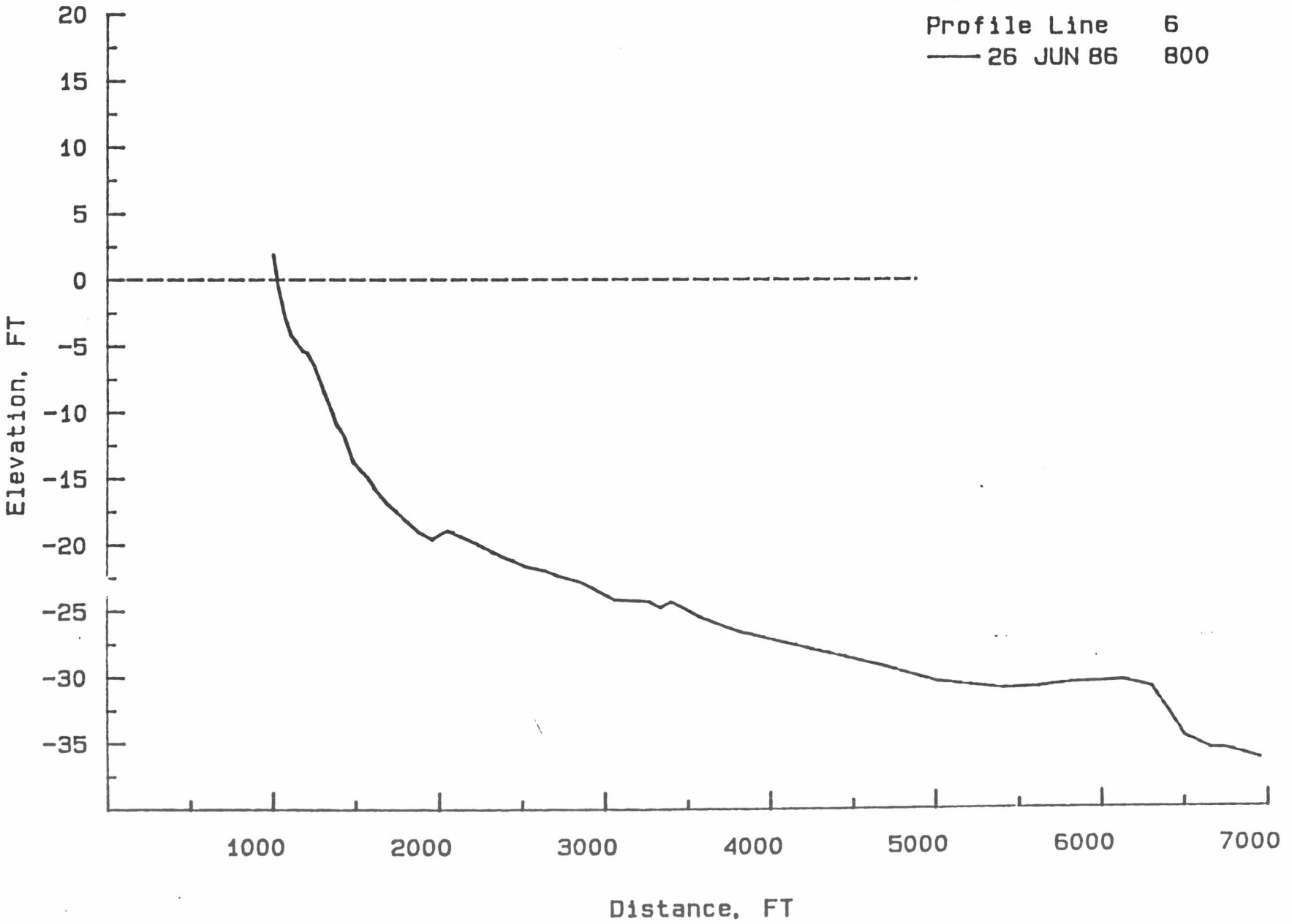

Profile Line 1
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20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

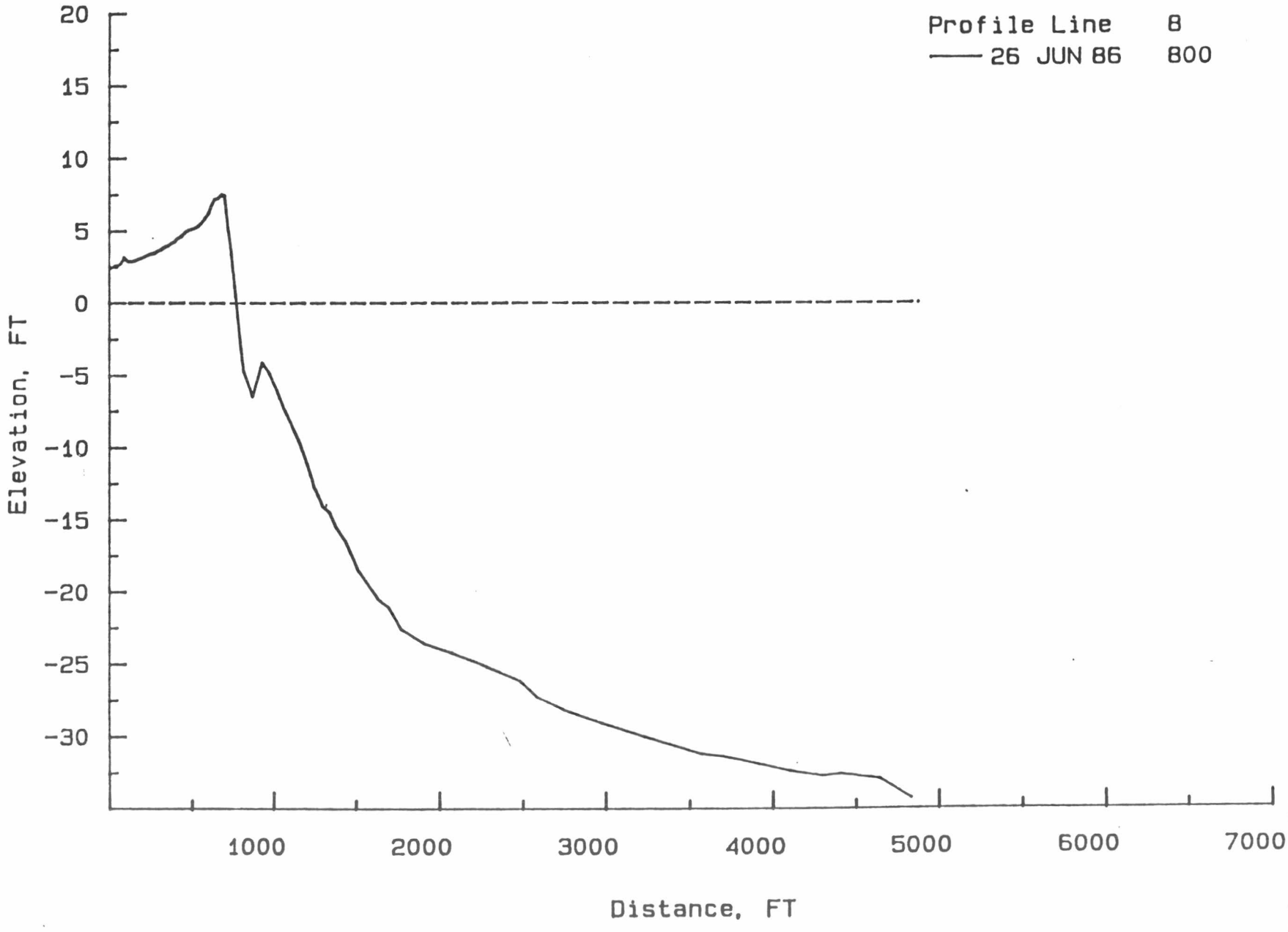

Profile Line 2
30 JUN 86 1500
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

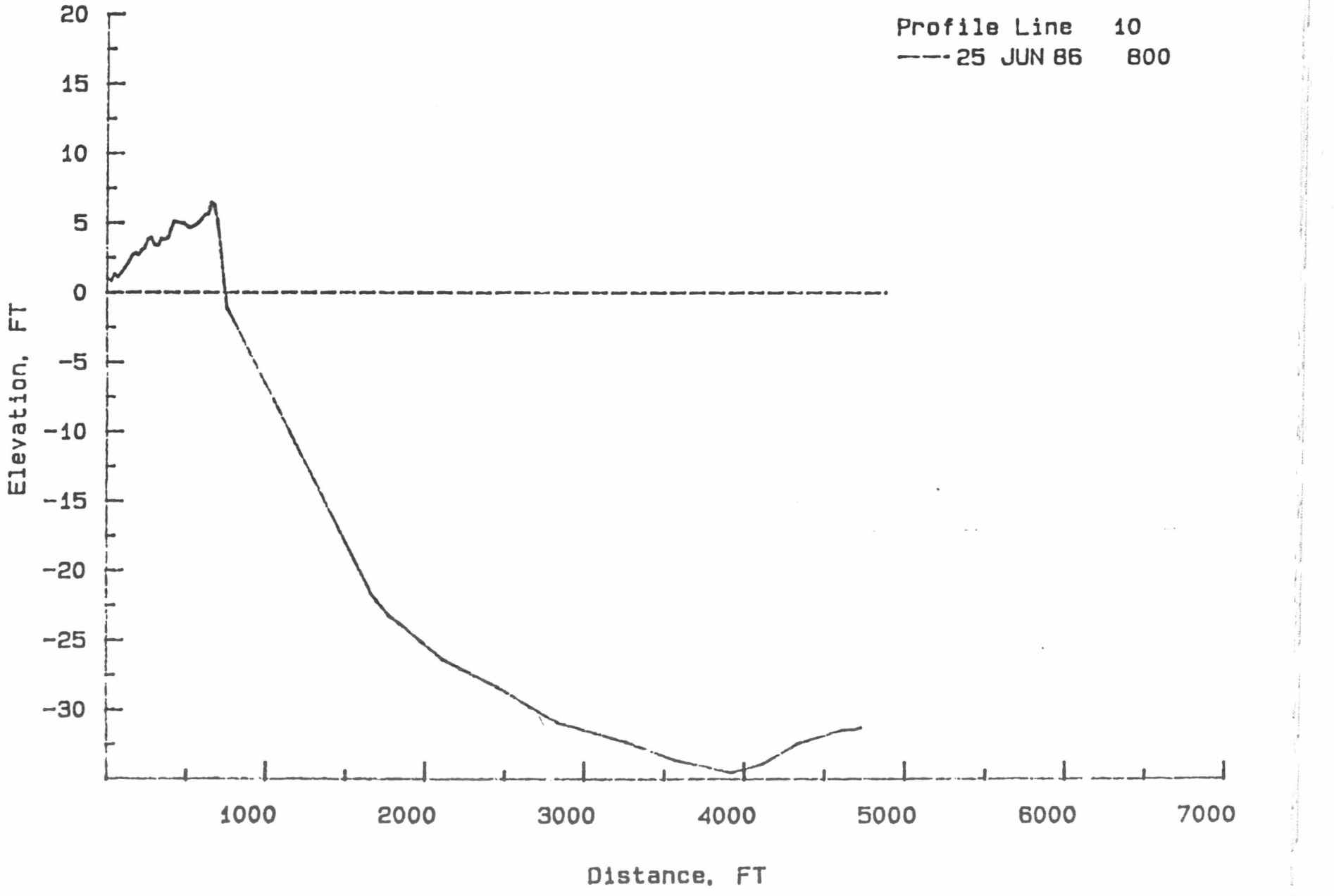

Profile Line 3
30 JUN 86 1300
20
15
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-15
-20
-25
-30
Elevation, FT
1000
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4000
5000
6000
7000
Distance, FT

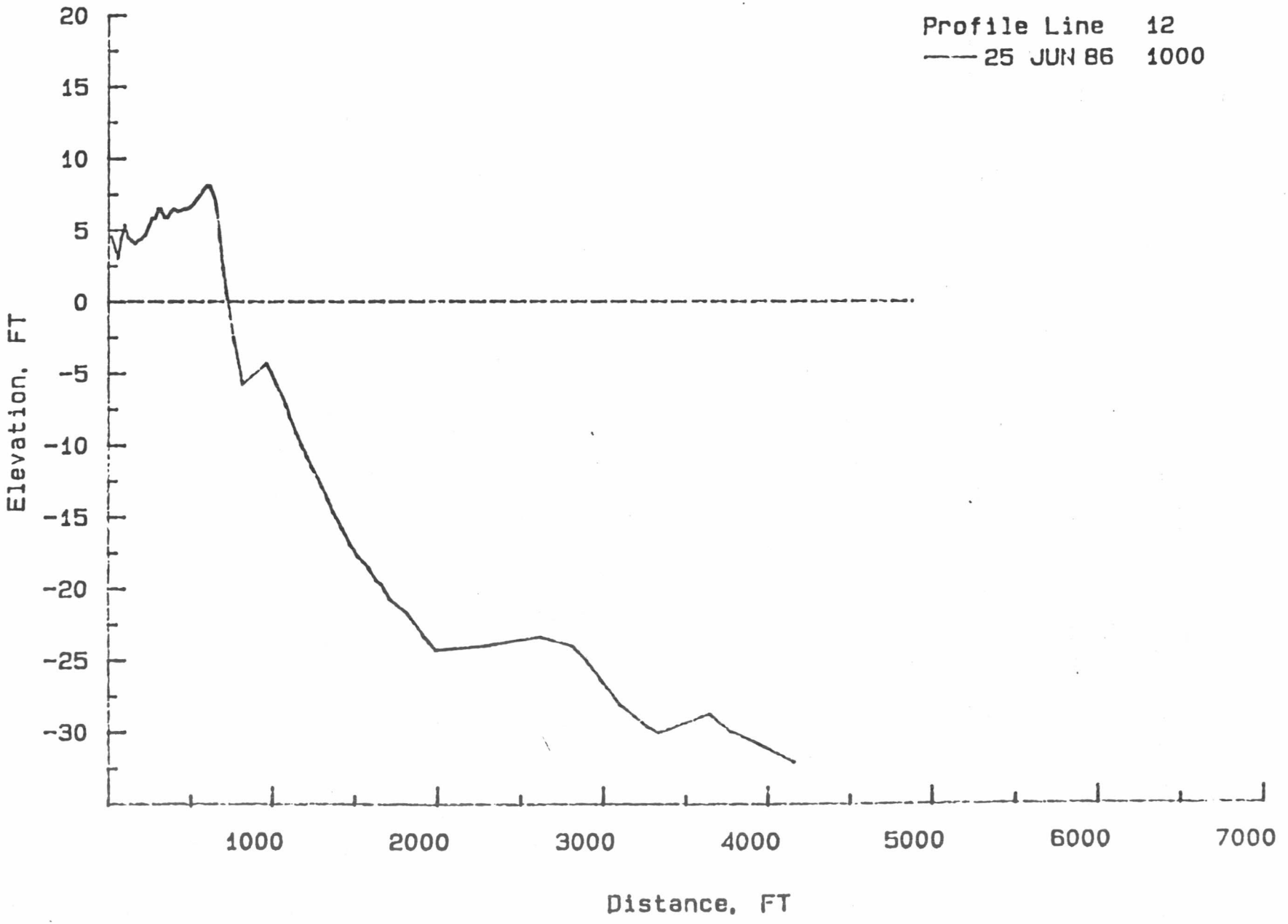

Profile Line 4
1 JUL 86 800
20
15
10
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-5
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-15
-20
-25
-30
Elevation, FT
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2000
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4000
5000
6000
7000
Distance, FT

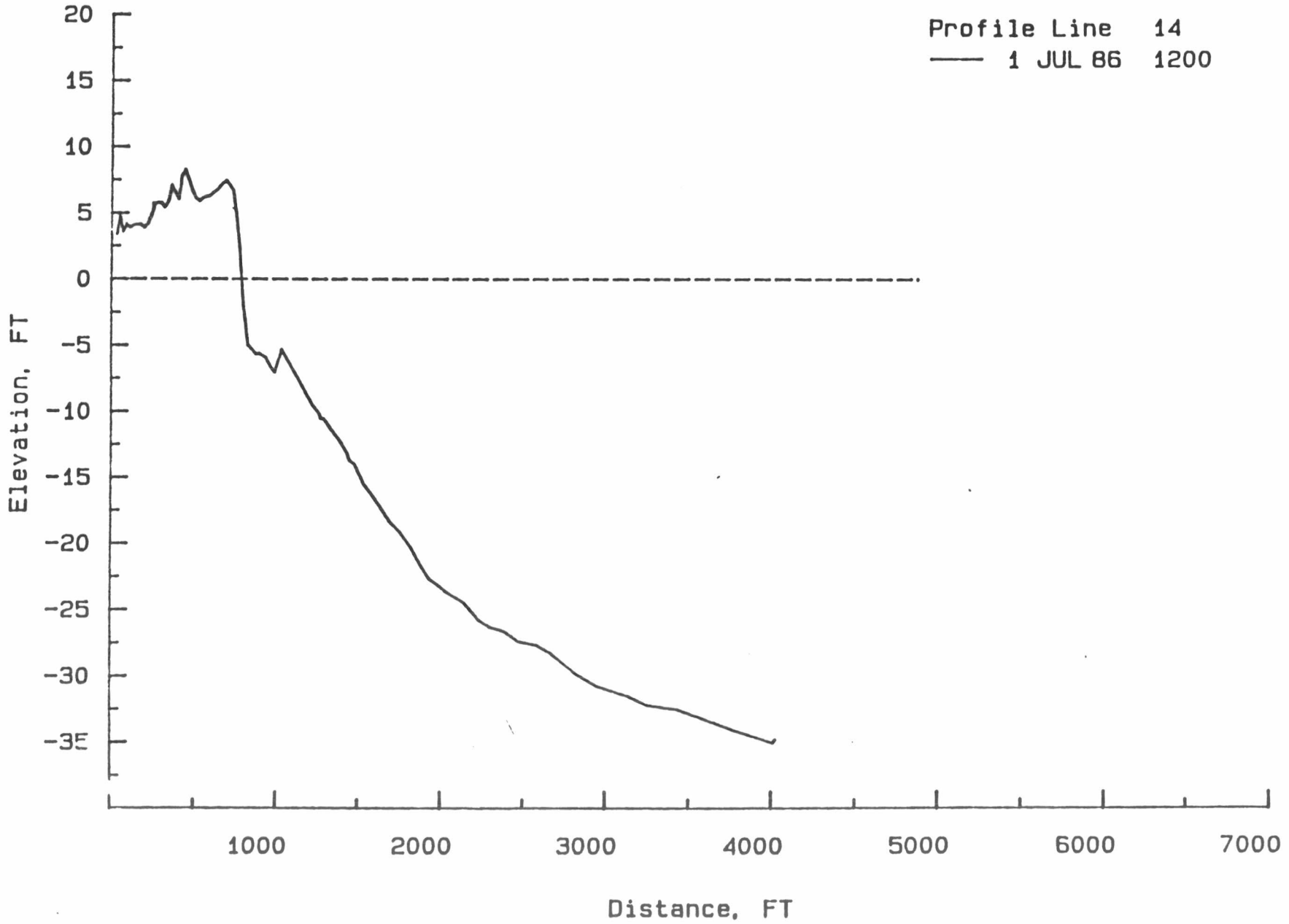

Profile Line 5
1 JUL 86 1000
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
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4000
5000
6000
7000
Distance, FT

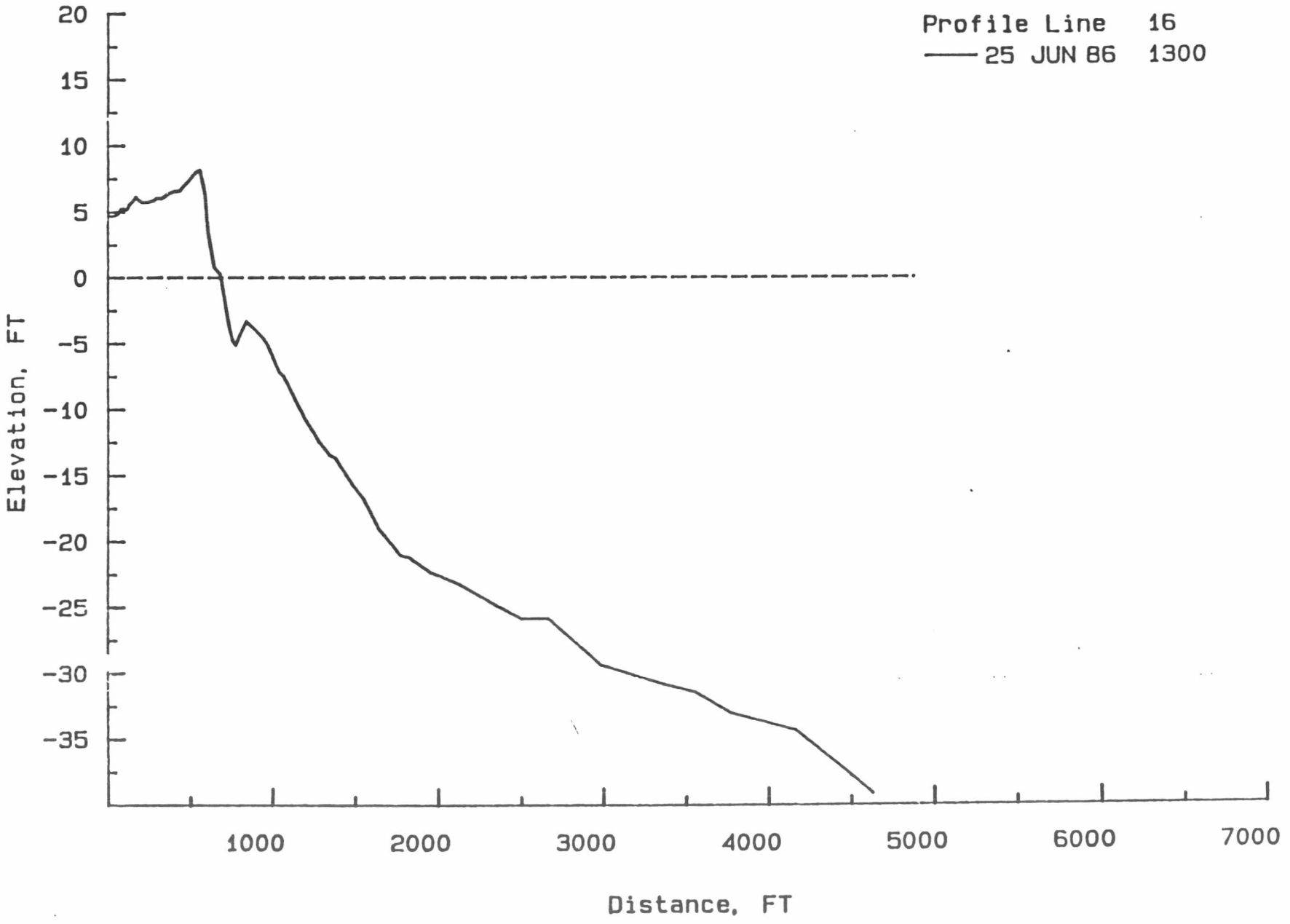

Profile Line 6
26 JUN 86 800
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

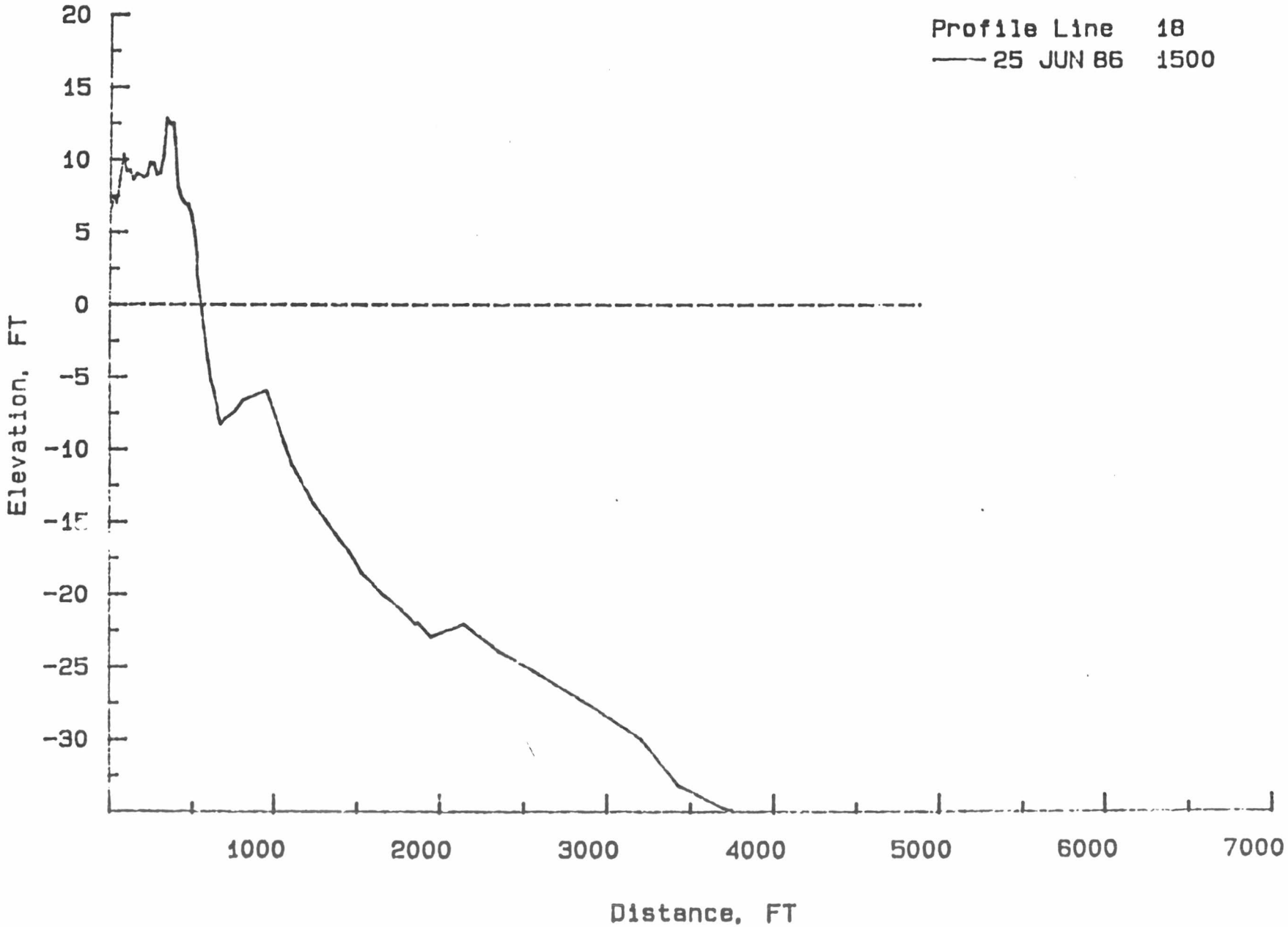

Profile Line 8
26 JUN 86 800
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
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2000
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4000
5000
6000
7000
Distance, FT

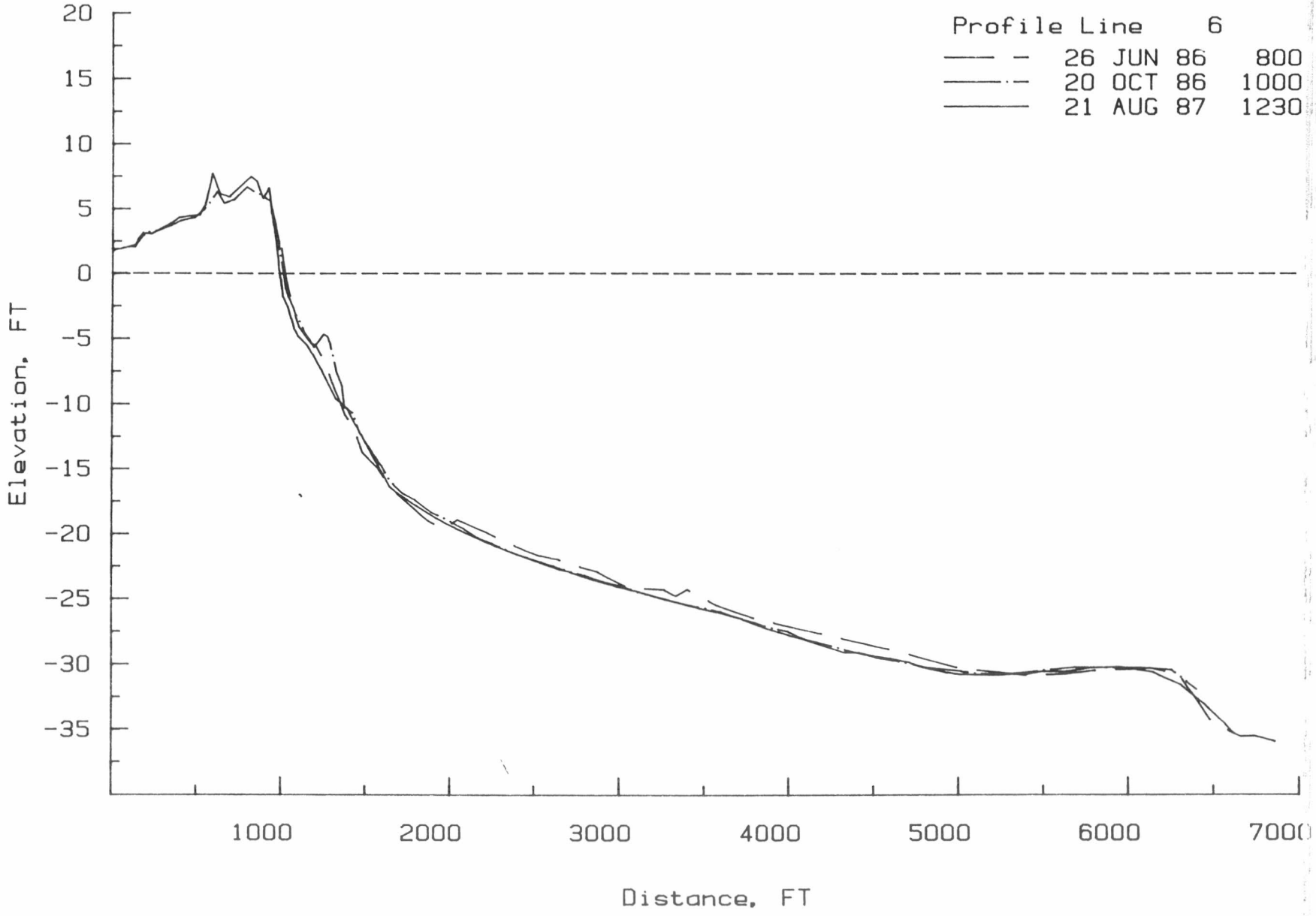

Profile Line 10
25 JUN 86 800
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
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2000
3000
4000
5000
6000
7000
Distance, FT

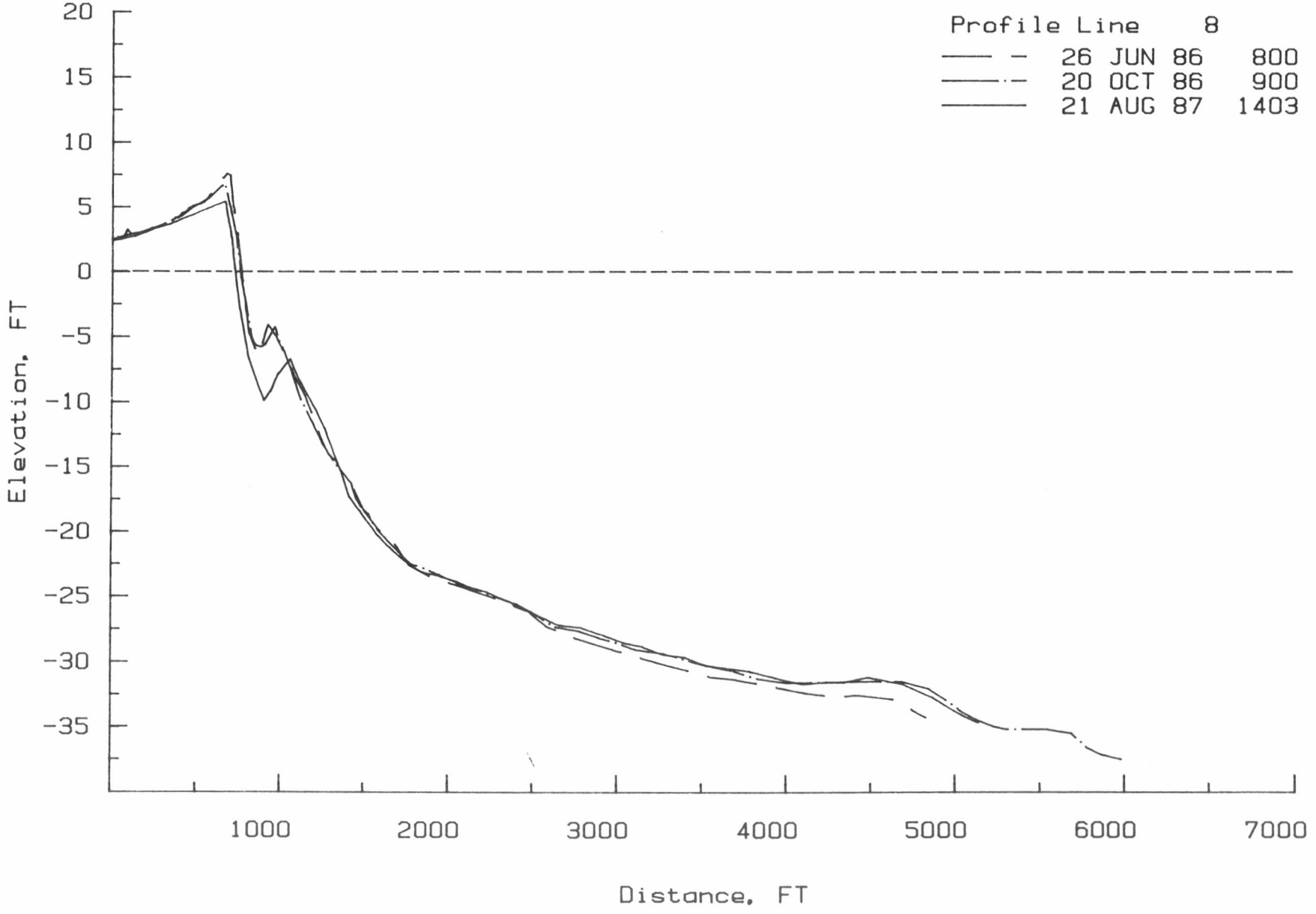

Profile Line 12
25 JUN 86 1000
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
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2000
3000
4000
5000
6000
7000
Distance, FT

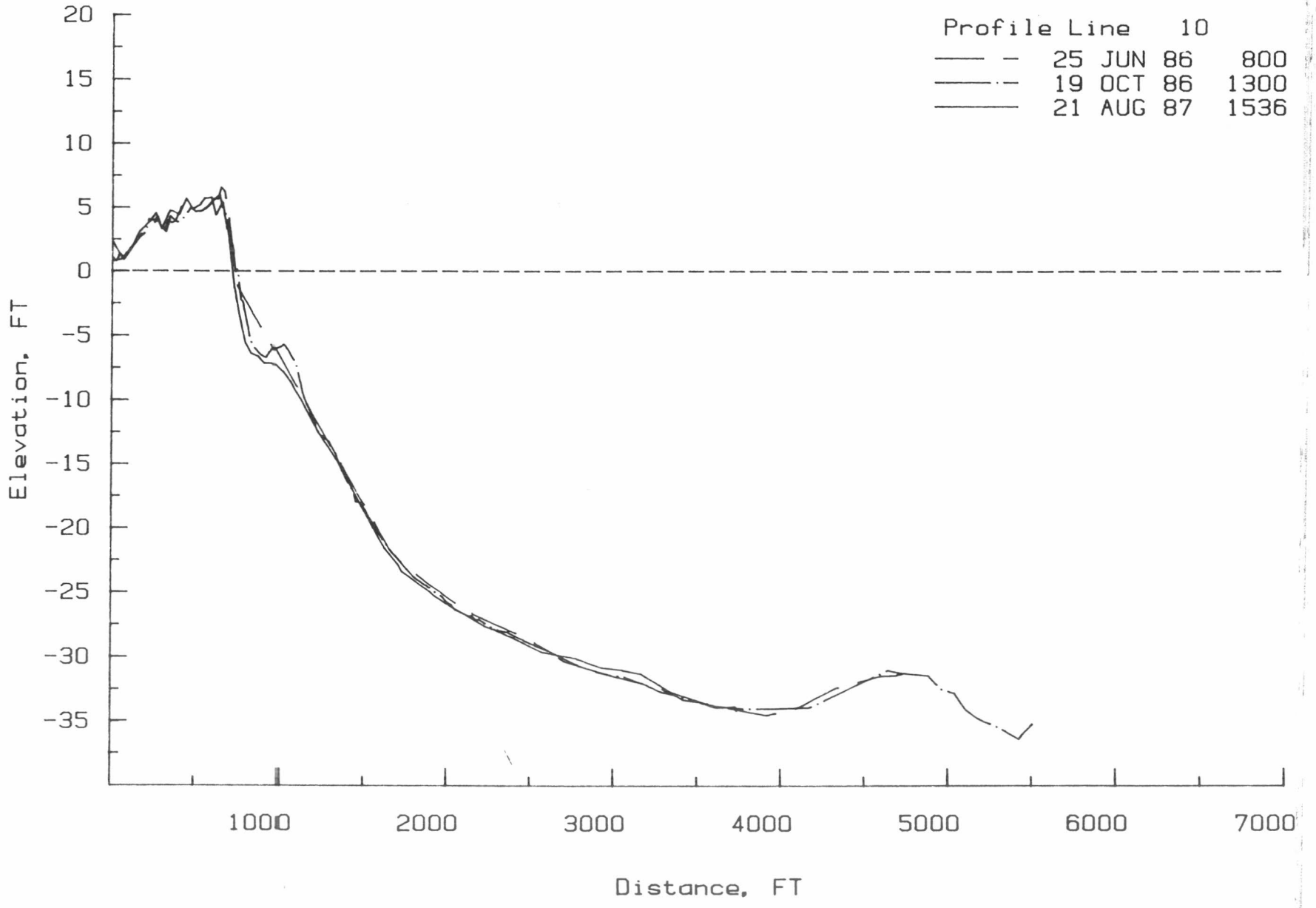

Profile Line 14
1 JUL 86 1200
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
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4000
5000
6000
7000
Distance, FT

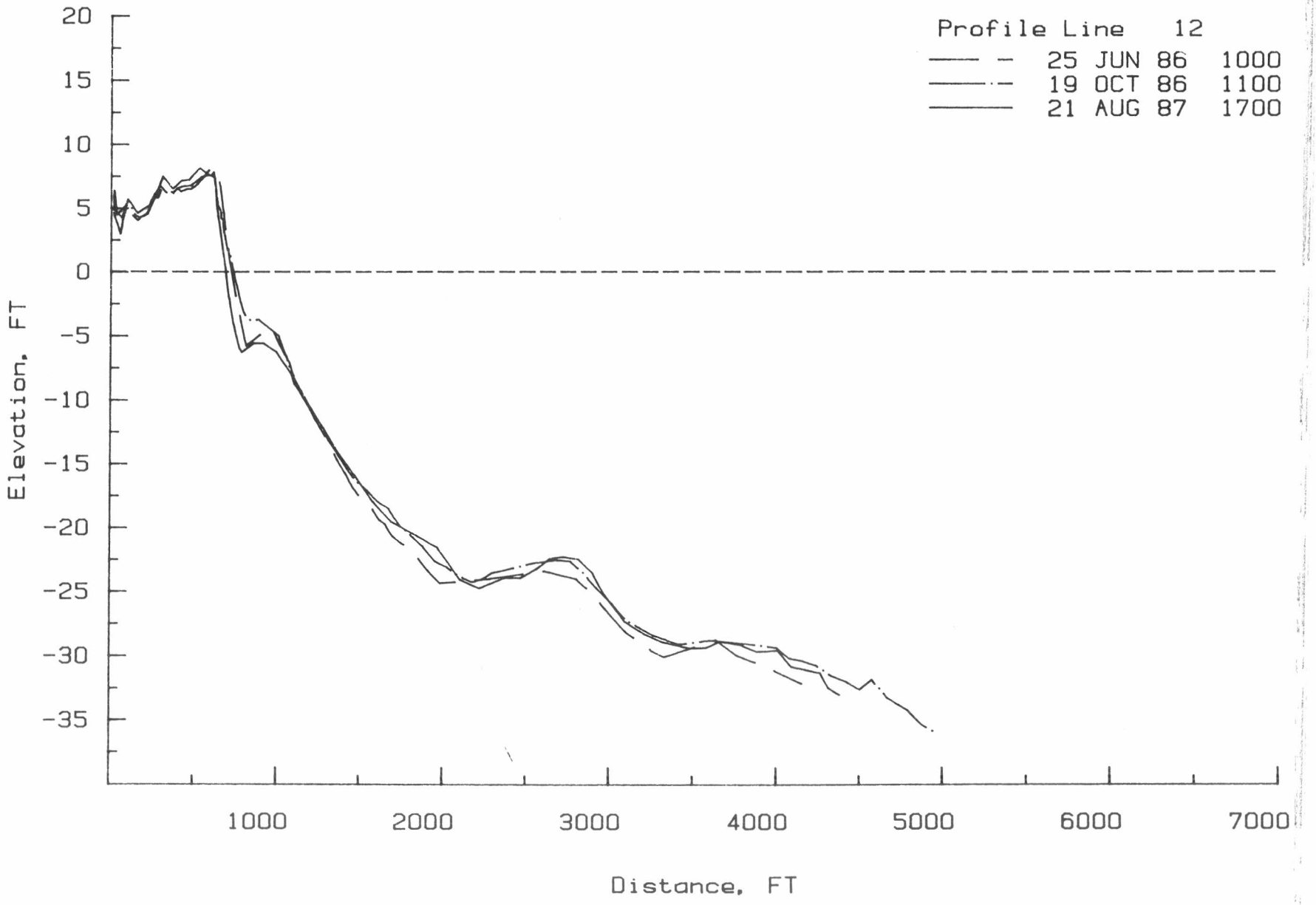

Profile Line 16
25 JUN 86 1300
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
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3000
4000
5000
6000
7000
Distance, FT

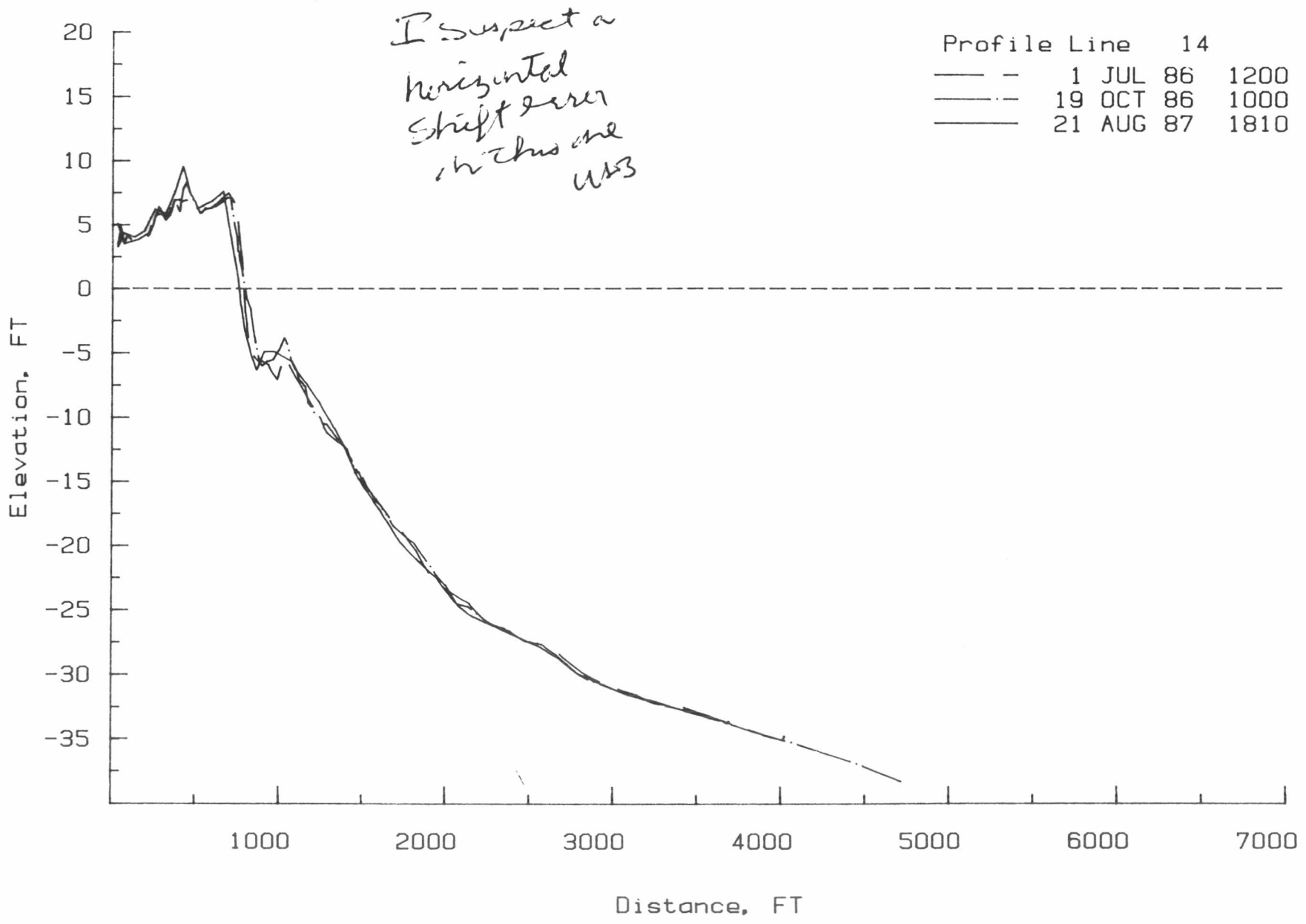

Profile Line 18
25 JUN 86 1500
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
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4000
5000
6000
7000
Distance, FT

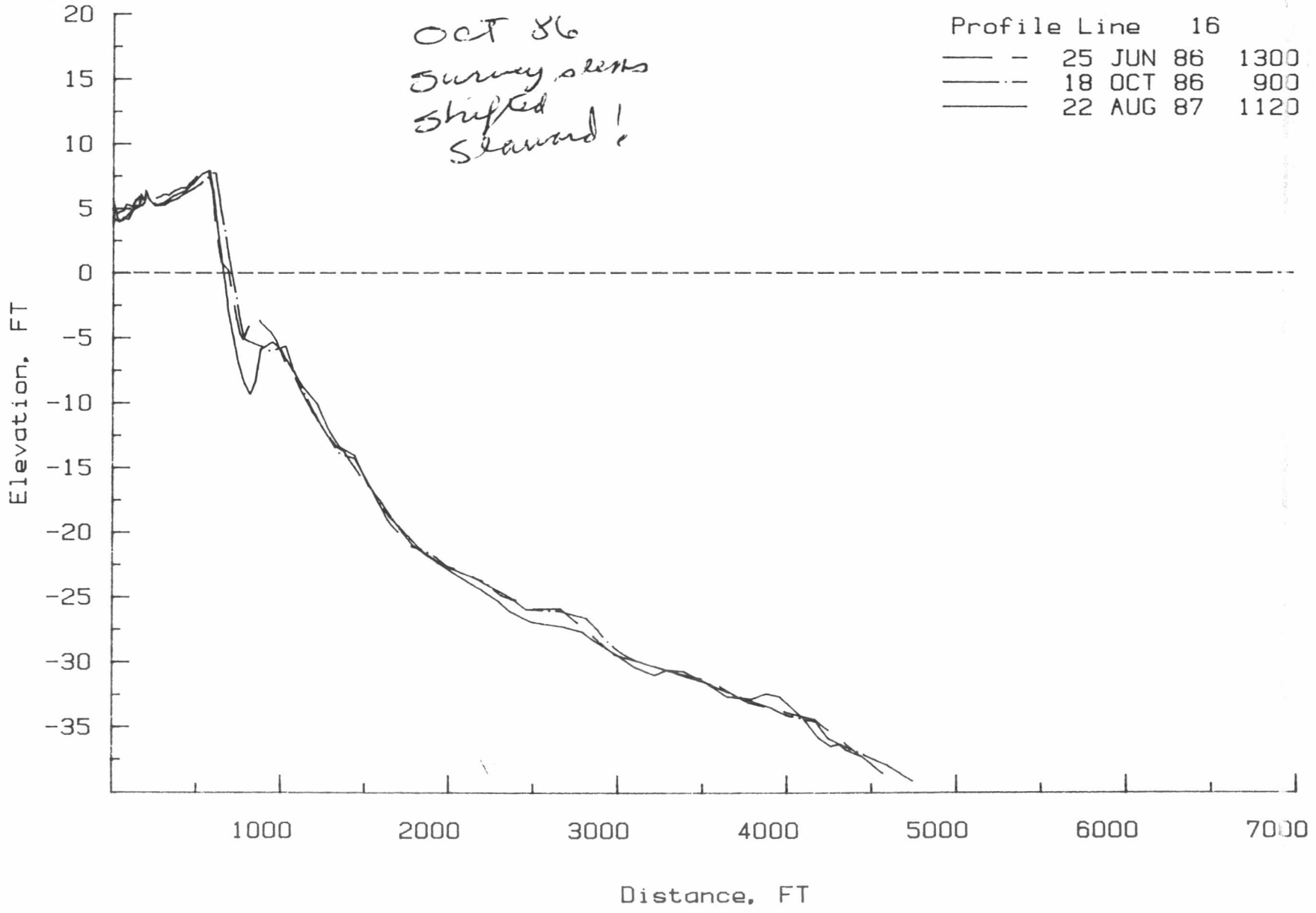

Profile Line 6
26 JUN 86 800
20 OCT 86 1000
21 AUG 87 1230
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

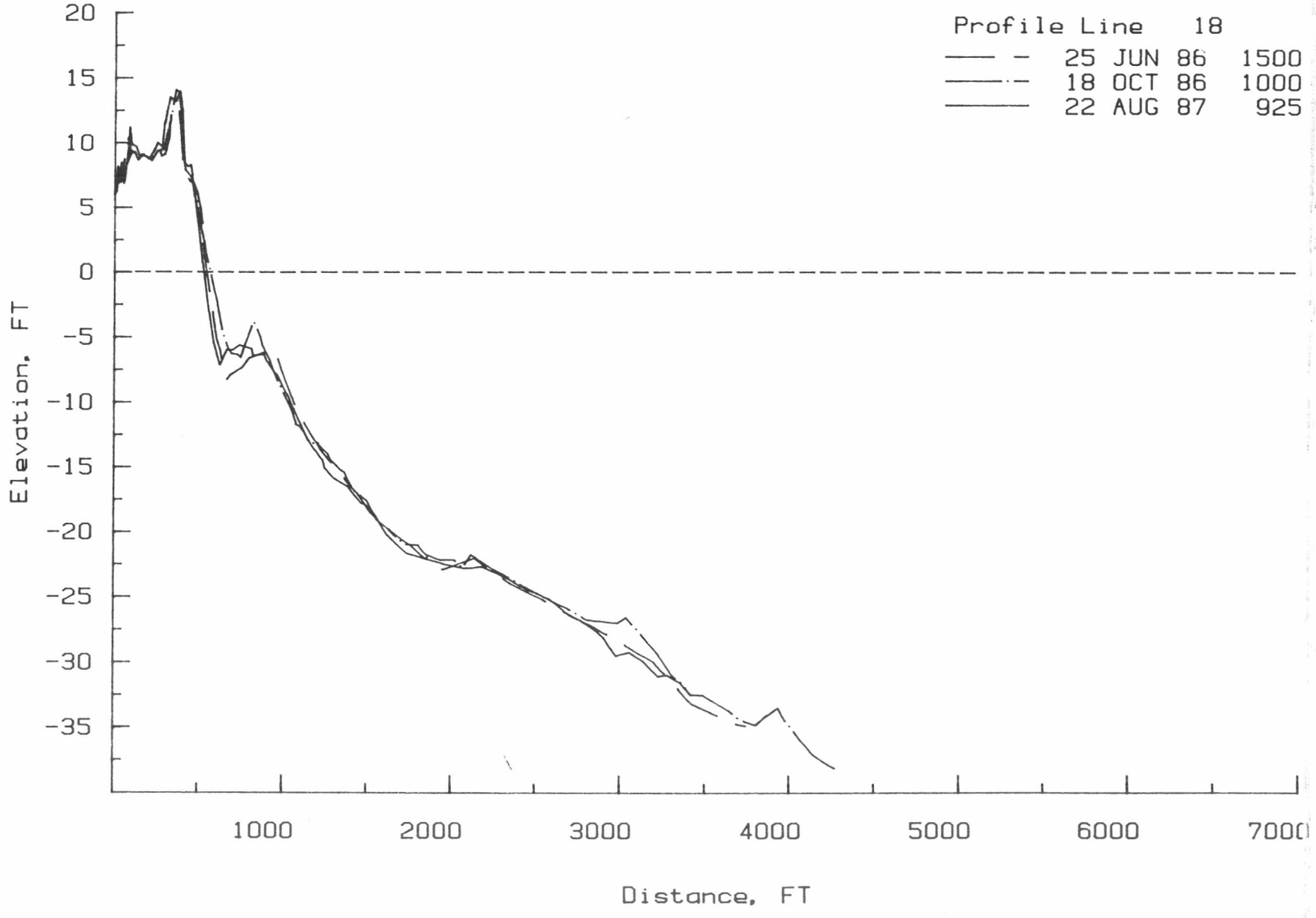

Profile Line 8
26 JUN 86 800
20 OCT 86 900
21 AUG 87 1403
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

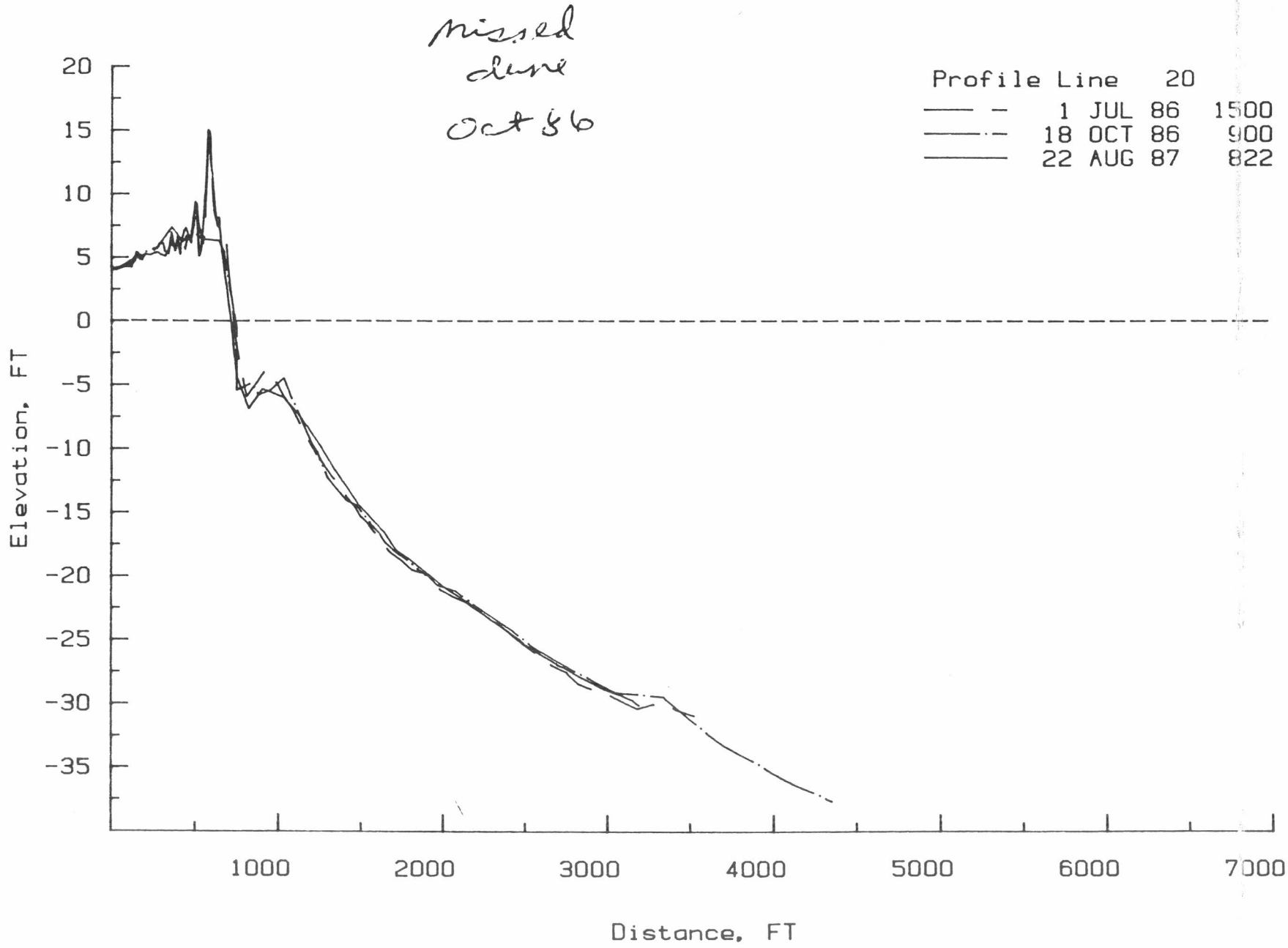

Profile Line 10
25 JUN 86 800
19 OCT 86 1300
21 AUG 87 1536
Elevation, FT
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1000
2000
3000
4000
5000
6000
7000
Distance, FT

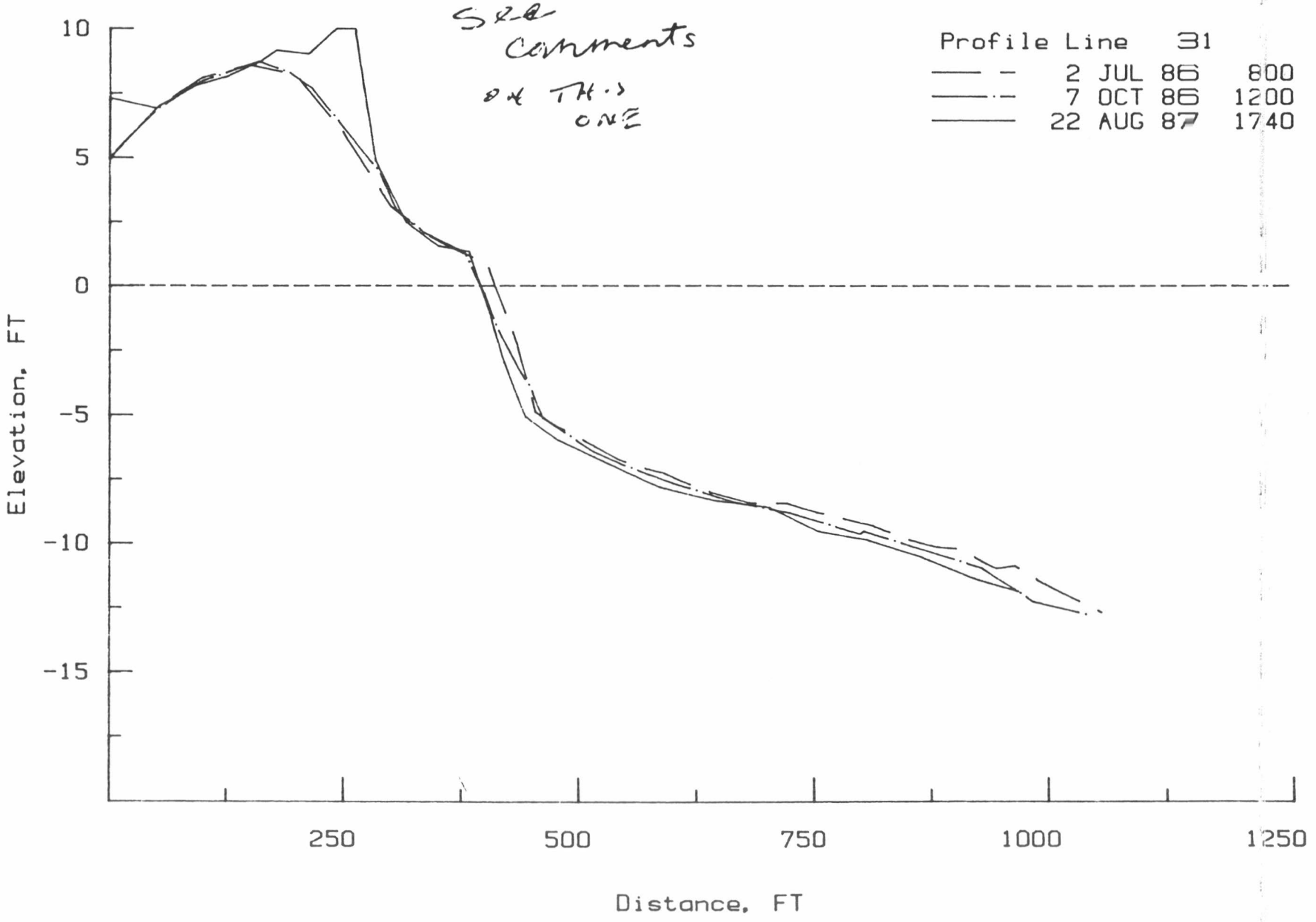

Profile Line 12
25 JUN 86 1000
19 OCT 86 1100
21 AUG 87 1700
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT

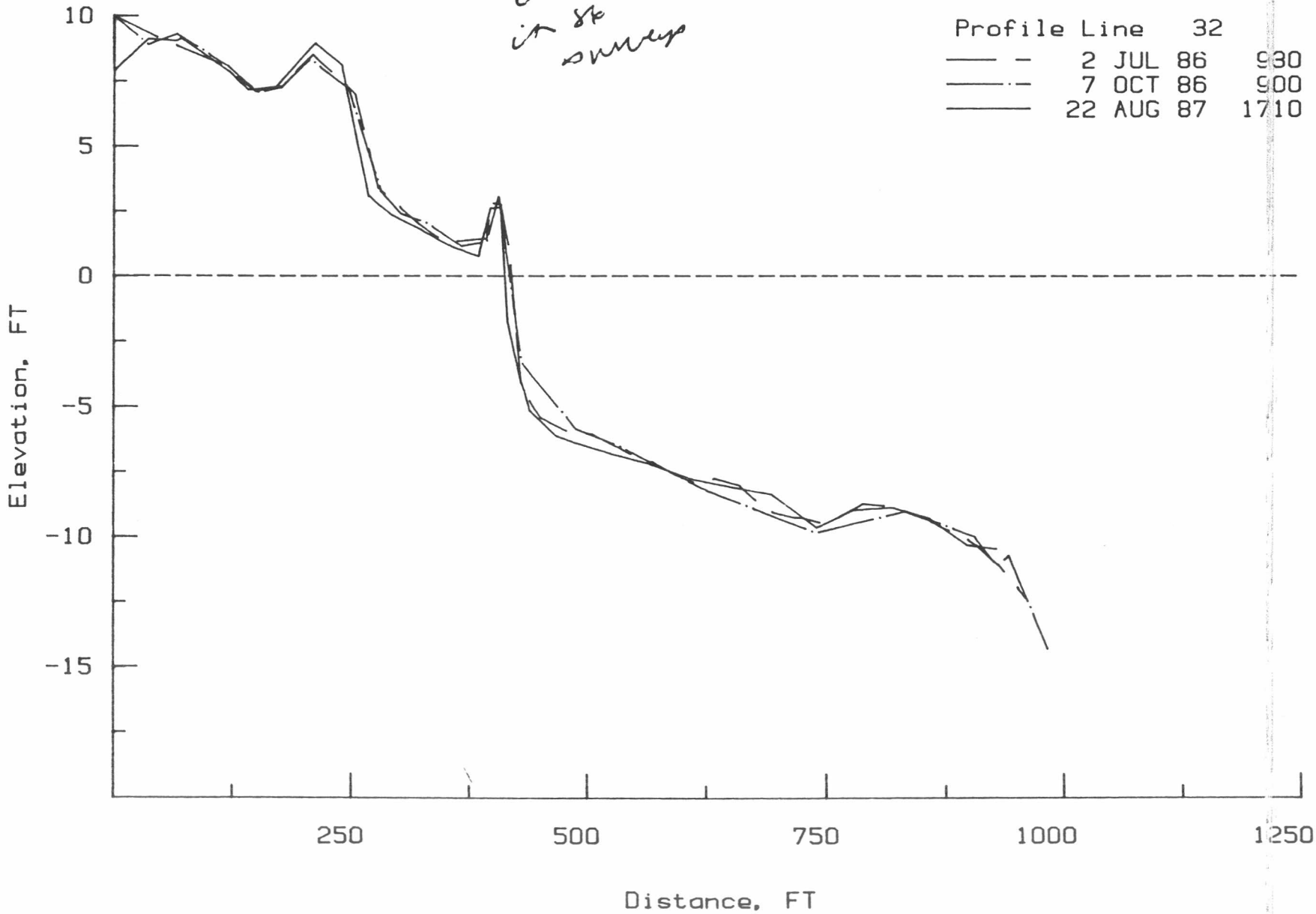

I suspect a horizontal shift error in this one as well
Profile Line 14
1 JUL 86 1200
19 OCT 86 1000
21 AUG 87 1810
Elevation, FT
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1000
2000
3000
4000
5000
6000
7000
Distance, FT

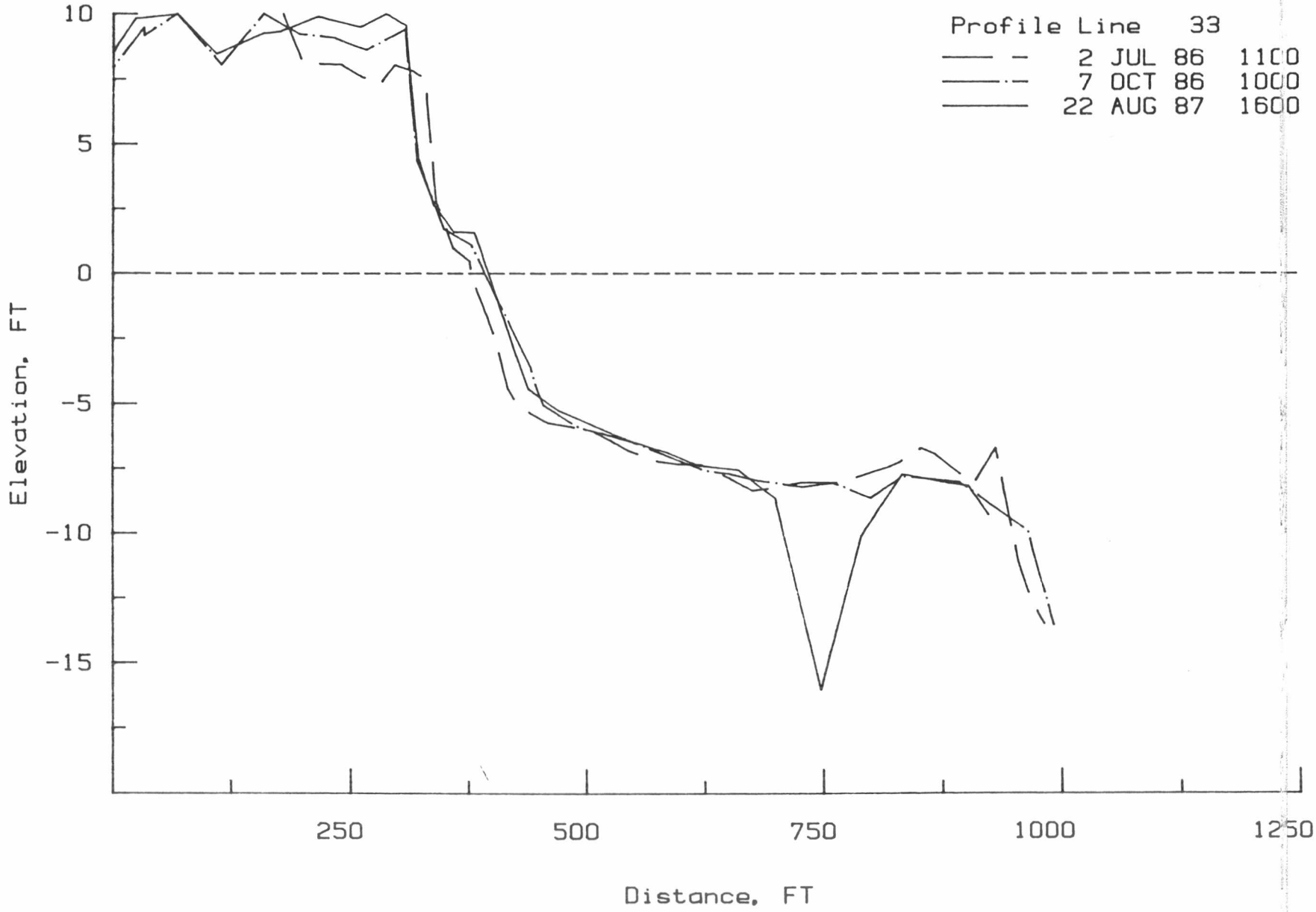

Oct 86
Survey alerts
shifted
Seaward!
Profile Line 16
25 JUN 86 1300
18 OCT 86 900
22 AUG 87 1120
Elevation, FT
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1000
2000
3000
4000
5000
6000
7000
Distance, FT


Profile Line 18
25 JUN 86 1500
18 OCT 86 1000
22 AUG 87 925
Elevation, FT
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1000
2000
3000
4000
5000
6000
7000
Distance, FT

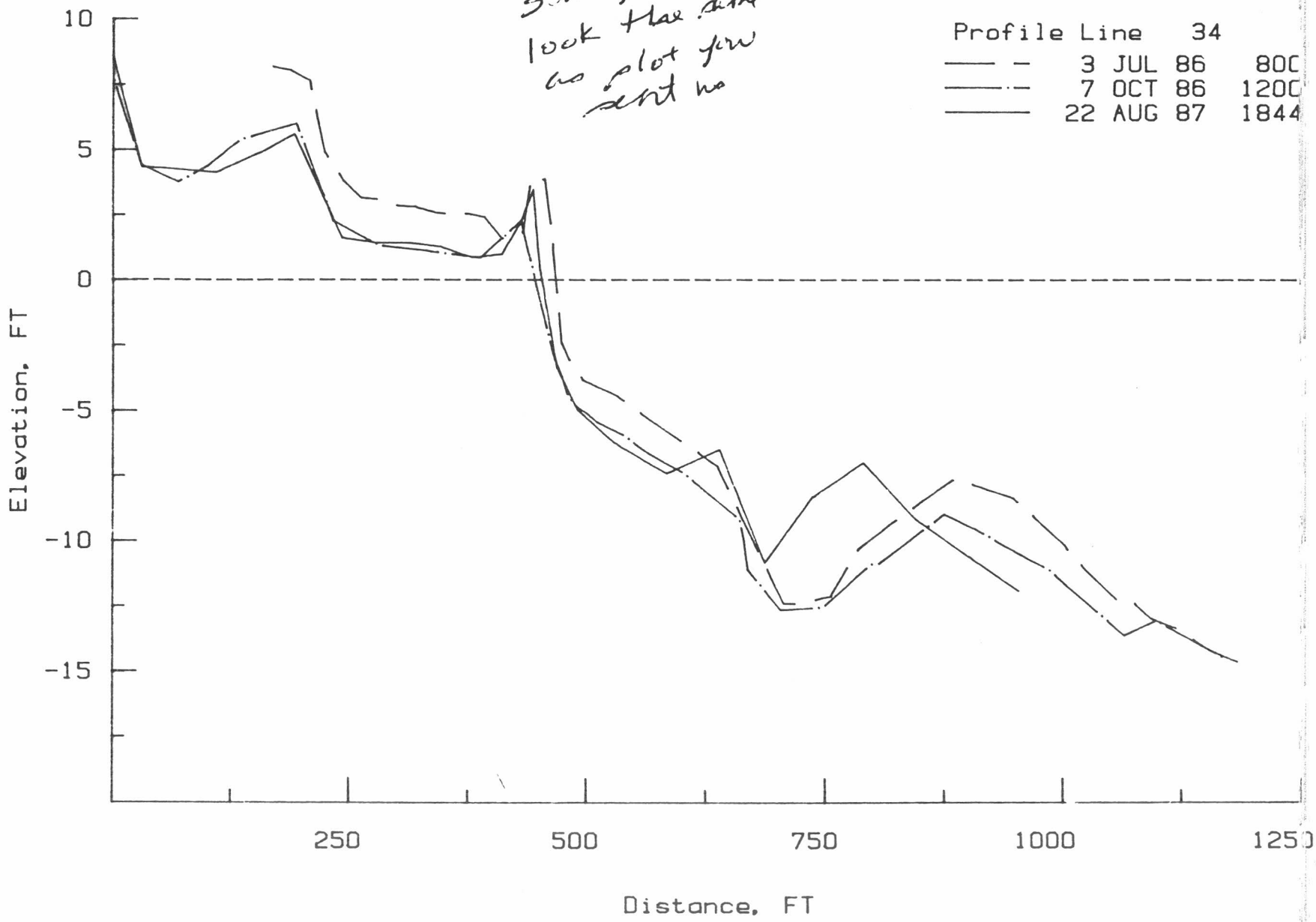

missed dune Oct 86
Profile Line 20
1 JUL 86 1500
18 OCT 86 900
22 AUG 87 822
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT


SEE Comments ON THIS ONE
Profile Line 31
2 JUL 86 800
7 OCT 86 1200
22 AUG 87 1740
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
Distance, FT


Pipe top included in 8k surveys
Profile Line 32
2 JUL 86 930
7 OCT 86 900
22 AUG 87 1710
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
Distance, FT


Profile Line 33
2 JUL 86 1100
7 OCT 86 1000
22 AUG 87 1600
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
Distance, FT

JUL 86 survey doesn't look like same as plot you sent me



APPENDIX D

WAVE DATA - OCEAN CITY, MD

JUNE 1986 - NOV 1987

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	4	2	2300	0.78	8.83	0.7	1.1	0.8	5.4	12.7	15.0	20.5	5.8	12.1	3.5	1.5	2.4	2.3	1.9	0.7	1.2	1.4	0.6	0.7
1986	4	4	1700	1.21	8.83	0.0	0.1	0.7	0.8	2.3	10.9	19.3	10.1	5.0	6.7	8.2	5.7	4.7	2.3	3.9	2.3	1.6	3.1	1.2
1986	4	4	2300	1.02	9.75	0.1	0.5	0.8	0.9	9.6	30.3	10.2	3.2	6.5	2.0	4.7	4.6	4.8	2.4	4.1	1.1	1.9	1.8	0.8
1986	4	5	600	1.03	8.83	0.1	0.2	0.7	1.1	2.3	8.6	23.5	7.8	10.8	3.5	7.8	7.8	2.8	4.2	1.8	3.2	3.0	1.3	0.8
1986	4	5	1100	1.41	8.83	0.1	0.2	0.5	0.2	2.0	11.0	11.1	3.0	1.7	4.2	3.2	4.8	2.0	1.6	1.5	4.2	4.1	8.3	6.6
1986	4	5	1700	1.41	5.02	0.0	0.1	0.4	0.3	0.6	3.2	2.2	4.8	3.2	2.8	2.4	5.6	2.9	4.3	11.9	8.2	5.5	5.9	4.6
1986	4	5	2300	1.55	5.63	0.1	0.1	0.4	0.3	2.5	1.5	3.7	1.5	3.0	1.2	2.3	9.7	16.0	13.3	6.6	4.3	4.0	3.8	3.3
1986	4	6	600	1.89	6.87	0.0	0.0	0.1	0.4	1.4	3.7	2.3	6.9	6.2	24.4	8.1	10.4	2.9	2.2	2.5	3.0	2.3	1.1	1.3
1986	4	6	1100	1.79	7.42	0.1	0.1	0.3	0.2	2.4	4.6	9.6	4.7	9.8	6.1	2.9	2.4	7.2	5.2	4.8	8.5	6.1	1.7	2.6
1986	4	6	1700	1.74	7.42	0.0	0.1	0.2	0.7	1.9	1.8	9.8	13.5	15.8	12.9	8.3	3.4	5.3	5.5	4.7	2.0	1.7	1.1	1.3
1986	4	6	2300	1.58	8.06	0.1	0.1	0.2	0.4	0.8	3.8	11.6	12.1	5.9	11.1	6.9	7.5	6.9	5.4	2.5	2.4	4.0	1.8	1.2
1986	4	7	600	1.45	8.06	0.0	0.1	0.2	0.6	3.3	4.9	9.4	12.5	12.5	10.9	4.0	7.5	5.6	4.6	4.3	2.9	1.7	0.9	1.9
1986	4	7	1100	1.50	8.83	0.0	0.2	0.3	0.5	11.2	6.3	14.0	14.0	4.2	5.5	6.2	6.7	4.3	6.0	3.5	1.0	3.0	2.2	1.4
1986	4	7	1700	1.26	8.83	0.0	0.1	0.4	2.3	9.0	6.8	25.5	10.7	8.3	4.9	9.4	5.9	1.7	2.6	1.6	1.9	1.0	1.3	0.6
1986	4	7	2300	1.16	5.99	0.1	0.1	0.3	1.4	8.9	10.7	9.7	7.6	12.1	7.9	4.0	12.9	4.0	4.3	3.3	3.8	1.1	1.3	0.8
1986	4	8	600	1.09	8.06	0.0	0.1	0.5	0.8	2.7	5.6	20.4	21.5	11.3	6.4	6.2	1.8	2.3	2.9	2.5	2.1	1.3	1.1	0.7
1986	4	8	1100	1.13	7.42	0.1	0.3	1.0	0.9	4.5	7.9	7.0	10.5	11.5	9.0	10.6	7.7	4.1	5.2	1.9	3.0	0.8	0.4	0.9
1986	4	8	1700	0.92	9.75	0.3	1.1	0.7	0.7	4.2	18.8	11.9	7.8	6.8	3.9	3.5	2.6	2.2	1.8	6.9	1.1	1.1	2.8	0.5
1986	4	8	2300	1.02	8.06	0.2	2.0	1.5	0.7	3.2	17.7	11.2	14.1	4.5	3.9	3.4	3.2	2.1	2.7	1.9	3.5	2.5	4.0	2.7
1986	4	9	600	1.00	9.75	0.1	1.6	2.7	1.4	3.4	10.2	6.3	7.7	6.4	2.0	5.4	4.7	4.2	5.8	5.5	2.8	3.9	1.5	1.3
1986	4	9	1100	0.89	9.75	0.3	1.9	3.8	3.3	4.8	8.5	7.7	6.5	5.8	3.9	1.6	2.5	1.7	3.6	0.9	2.0	0.7	1.7	0.7
1986	4	9	1700	0.81	8.83	0.2	1.0	2.7	2.1	3.6	3.1	9.2	8.2	2.0	2.0	1.6	1.7	2.0	0.9	0.3	0.8	4.2	3.1	1.8
1986	4	9	2300	0.95	9.75	0.1	1.1	1.1	4.7	5.3	7.0	4.1	2.8	3.8	5.0	0.9	1.4	2.1	0.5	0.6	0.3	1.2	0.8	1.6
1986	4	10	600	0.81	9.75	0.1	0.2	4.8	3.8	10.9	12.0	4.0	2.9	1.3	1.4	0.8	1.2	0.7	0.3	0.3	1.2	2.8	1.4	2.3
1986	4	10	1100	0.75	9.75	0.1	0.8	2.0	4.8	9.6	15.8	6.6	2.9	0.9	0.4	0.7	0.5	0.2	0.3	0.3	0.5	0.5	0.6	1.2
1986	4	10	1700	0.86	12.34	0.2	1.2	3.1	6.4	5.3	3.3	5.0	1.3	0.4	0.1	0.1	0.4	0.5	2.0	3.5	1.8	3.2	3.7	1.5
1986	4	10	2300	0.78	12.34	0.1	1.1	4.2	8.0	5.4	4.0	5.3	1.2	0.4	0.2	0.3	0.7	0.3	0.4	0.4	0.4	0.6	2.4	3.0
1986	4	11	600	0.69	14.22	0.1	2.2	13.7	11.5	10.7	7.7	6.5	2.2	0.6	1.0	0.8	0.9	0.7	0.5	1.4	1.7	2.1	3.0	1.9
1986	4	11	1100	0.58	14.22	0.0	0.4	18.1	8.2	15.8	9.2	5.7	2.5	1.8	1.8	1.3	2.4	1.8	0.6	0.8	0.4	0.5	0.9	0.6
1986	4	11	1700	0.67	14.22	0.1	1.1	16.0	8.6	2.2	5.4	3.6	3.2	0.8	0.6	2.5	0.6	5.6	3.7	6.3	4.2	8.4	5.9	4.1
1986	4	11	2300	0.98	5.31	0.1	0.6	6.3	6.8	4.4	2.0	3.7	1.6	1.6	3.4	5.1	9.2	4.0	10.1	3.3	3.4	3.3	2.7	2.0
1986	4	12	600	0.72	5.02	0.1	1.5	7.8	4.9	11.0	3.5	2.4	0.8	1.1	1.2	1.6	2.5	3.3	8.7	11.4	1.9	3.4	2.9	3.3
1986	4	12	1100	0.75	12.34	0.1	0.2	5.1	7.9	4.5	2.9	4.1	1.3	1.8	3.8	3.4	3.9	1.3	2.1	3.1	7.0	4.9	1.5	2.2
1986	4	12	1700	0.76	12.34	0.1	0.4	6.6	14.9	5.4	2.6	1.1	1.4	3.8	2.4	4.7	4.8	4.9	2.5	2.7	1.5	1.5	1.7	1.7
1986	4	12	2300	0.86	12.34	0.3	0.3	1.4	6.7	6.4	3.3	4.0	1.5	3.7	1.6	1.5	5.0	3.7	2.9	4.3	1.1	2.3	1.2	3.0
1986	4	13	600	0.57	9.75	0.1	0.4	1.9	5.4	10.2	13.6	7.0	7.3	4.2	8.4	4.1	4.4	5.0	3.0	3.1	1.6	1.8	0.6	1.4
1986	4	13	1100	0.60	9.75	0.4	0.4	2.7	6.6	11.1	11.8	3.3	6.4	5.2	4.0	7.4	2.4	1.1	4.0	2.7	2.6	1.0	0.9	0.5
1986	4	13	1700	0.78	8.06	0.2	0.4	0.5	4.0	3.5	4.3	4.7	4.8	1.5	1.1	3.6	1.1	1.1	1.9	1.2	4.4	2.3	2.5	3.7
1986	4	13	2300	1.35	4.53	0.2	0.3	0.3	1.0	1.2	1.7	1.4	1.7	0.3	1.0	0.7	0.6	3.2	2.1	4.5	5.6	9.5	2.9	8.9
1986	4	14	600	1.54	5.63	0.1	0.2	0.3	0.5	1.4	0.8	0.6	0.4	1.5	1.4	14.8	11.9	15.5	8.3	4.7	2.5	2.4	2.5	2.9
1986	4	14	1100	1.26	5.02	0.1	0.6	0.8	1.1	1.9	1.3	0.7	0.7	0.9	0.8	4.3	5.5	6.9	7.7	8.4	4.2	3.3	2.5	2.2
1986	4	14	1700	1.16	6.87	0.2	0.9	0.8	0.8	2.6	2.1	2.5	1.6	9.3	11.3	6.9	6.8	5.8	4.8	4.2	3.5	2.8	3.5	1.8
1986	4	14	2300	1.02	5.99	0.1	1.9	1.5	1.5	1.5	1.0	1.7	1.5	1.3	4.6	9.6	17.0	9.6	4.9	8.0	5.8	3.3	3.0	1.5
1986	4	15	600	0.94	5.31	0.1	5.0	1.0	0.8	1.9	6.3	2.3	1.4	5.1	8.1	7.5	8.8	6.2	11.0	4.9	4.0	4.9	2.8	3.6
1986	4	15	1100	0.84	5.99	0.1	3.8	2.0	1.0	1.4	5.6	4.7	6.8	9.6	6.7	8.9	10.8	5.2	3.6	1.7	2.6	3.4	4.3	2.6
1986	4	15	1700	1.02	9.75	0.1	4.1	4.5	0.7	4.0	8.9	6.2	4.9	6.4	2.5	4.4	3.1	7.4	2.4	4.6	2.9	1.5	1.1	0.8
1986	4	15	2300	1.87	5.02	0.1	0.8	0.4	0.3	2.6	4.0	1.9	1.9	3.3	1.7	1.0	3.1	2.9	7.4	17.2	12.5	9.5	3.7	3.3
1986	4	16	600	2.32	5.31	0.1	0.2	0.5	0.5	0.9	1.0	1.4	2.3	4.0	3.9	14.6	10.0	11.9	18.1	4.4	4.6	2.8	1.3	1.6
1986	4	16	1100	2.05	5.99	0.0	0.7	1.1	0.3	1.3	3.3	3.7	1.8	10.6	12.1	9.4	20.2	2.6	4.3	4.6	3.0	2.8	1.6	2.6
1986	4	16	1700	2.31	8.06	0.1	0.2	0.6	0.5	2.6	5.8	11.9	12.6	7.5	9.6	5.5	7.2	5.4	8.0	3.3	3.4	3.4	1.3	1.9
1986	4	16	2300	2.08	9.75	0.0	0.2	1.6	1.7	3.6	22.1	9.2	12.9	6.4	8.4	9.6	4.3	2.0	5.0	0.9	0.9	3.5	1.8	0.5
1986	4	17	600	1.86	8.06	0.1	0.2	1.4	1.8	2.3	7.0	15.6	18.0	15.4	3.1	7.6	6.9	3.1	1.7	1.8	1.8	1.2	1.3	1.7
1986	4	17	1100	1.59	8.06	0.0	0.1	1.0	2.8	4.4	4.7	11.4	23.7	7.1	6.2	11.1	4.5	6.1	2.6	2.8	2.5	1.4	0.8	2.0
1986	4	17	1700	1.63	8.06	0.1	0.3	3.4	5.4	4.0	8.4	9.3	23.1	8.5	5.0	10.4	3.6	5.1	1.4	1.5	0.6	1.2	1.0	1.2
1986	4	17	2300	2.25	5.02	0.0	0.2	1.3	2.4	3.9	5.1	4.3	6.2	4.1	2.6	3.8	2.5	3.4	5.7	12.6	5.7	4.8	3.6	1.8
1986	4	18	300	3.11	8.83	0.0	0.0	0.3	3.7	3.9	13.9	14.6	2.8	12.8	12.1	2.0	3.1	5.6	2.7	4.2	3.1	1.6	1.5	1.1
1986	4	19	459	2.89	9.75	0.0	0.1	0.3	2.9	7.7	13.7	10.7	6.3	3.1	5.2	4.3	5.9	5.6	4.3	1.8	2.7	4.1	3.3	2.8
1986	4	18	800	2.66	8.83	0.1	0.1	0.4	4.4	5.1	5.6	10.5	4.7	3.0	7.8	9.2	5.1	2.7	4.8	3.2	6.4	4.6	5.3	1.5
1986	4	18	1000	2.71	8.83	0.0	0.0	0.4	1.7	5.9	4.6	11.2	3.0	8.6	4.3	3.4	7.6	6.2	3.7	4.3	3.1	6.4	4.5	3.3
1986	4	18	1100	2.86	6.40	0.0	0.1	0.2	1.7	2.1	9.6	3.5	6.5	4.8	6.6	10.6	7.1	3.7	4.8	8.1	6.1	1.9	3.7	1.1
1986	4	18	1200	2.99	6.87	0.1	0.1	0.2	2.5	8.5	4.3	9.5	3.9	6.0	11.9	6.8	4.0	1.8	3.9	2.7	5.5	3.3	3.1	5.7
1986	4	18	1400	3.18	9.75	0.1	0.1	0.2	0.6	6.5	13.6	12.1	7.0	9.1	5.6	4.2	6.7	4.3	3.3	2.3	1.8	4.7	3.0	2.4
1986	4	18	1600	3.11	8.83	0.1	0.1	0.5	2.2	2.6	6.1	11.5	7.9	6.1	5.9	6.3	4.8	5.4	4.4	4.0	5.2	6.6	3.9	2.5
1986	4	18	1700	3.03	8.06	0.1	0.1	0.6	1.5	2.4	7.1	4.2	25.0	4.8	8.8	3.8	6.2	3.5	3.1	5.3	3.1	3.0	2.0	4.2
1986	4	18	1800	3.10	6.40	0.1	0.0	0.4	2.8	6.0	10.9	6.0	4.0	10.1	11.9	15.8	5.0	4.9	3.8	2.0	1.9	1.4	0.7	1.1
1986	4	18	2000	2.76	9.75	0.0	0.1	0.8	1.4	14.8	19.3	12.7	3.7	2.9	8.0	3.8	3.5	3.9	2.7	1.9	1.6	2.4	1.5	2.7
1986	4	18	2300	2.45	10.89	0.1	0.1	0.4	6.7	12.2	6.3	7.6	8.9	4.2	8.6	4.6	4.8	3.1	4.7	0.5	3.0	3.1	2.3	1.3
1986	4	19	600	2.74	12.34	0.1	0.6	2.6	19.8	12.9	8.1	6.4	6.4	4.0	7.4	7.5	3.0	1.4	1.8	2.7	1.4	1.4	1.7	2.0
1986	4	19	1100	2.38	12.34	0.6	1.7	10.7	17.1	5.4	5.8	8.5	3.9	2.5	5.9	4.4	5.2	2.2	3.0	1.5	0.9	3.4	0.8	2.1
1986	4	19	1700	2.38	14.22	0.7	6.5	11.2	10.3	9.7	8.2	5.4	6.5	2.6	4.1	4.9	3.3	1.5	3.6	2.1	1.5	3.7	2.5	1.0
1986	4	19	2300	2.13	14.22	0.4	5.9	23.8	9.0	2.8	6.8	6.7	9.9	8.1	4.8	2.5	1.0	3.2	1.8	2.9	0.7	1.6	1.2	0.9
1986	4	20	600	2.05	12.34	0.2	3.1	8.4	14.1	11.1	6.4	12.1	5.4	11.6	2.3	4.1	5.7	2.3	2.1	1.8	2.0	0.5	1.0	0.6
1986	4	20	1100	2.00	12.34	0.2	2.6	11.9	24.7	9.9	8.6	4.4	5.3	7.8	3.0	5.2	1.7	2.3	2.0	1.8	0.9	1.1	0.6	1.2
1986	4	20	1700	1.68	12.34	0.1	0.7	10.1	17.3	12.9	10.2	4.3	5.1	4.8	3.5	6.7	2.9	2.1	1.5	1.6	4.0	2.3	1.6	0.6
1986	4	20	2300	1.88	14.22	0.1	1.8	23.2	18.3	6.9	5.7	3.4	3.8	5.1	3.9	3.5	2.5	2.4	0.9	1.0	2.5	0.8	0.9	0.6
1986	4	21	600	2.00	12.34	0.0	0.2	6.0	26.0	5.7	5.6	2.5	3.2	2.3	3.3	1.6	6.1	2.3	2.8	4.6	4.1	5.4	2.3	1.5
1986	4	21	1100	1.73	12.34	0.0	0.6	4.5	16.6	5.6	9.6	2.2	3.4	2.4	0.9	1.5	1.6	3.6	6.5	7.3	2.7	2.9	2.0	2.4
1986	4	21	1700	1.63	10.89	0.0	0.2	0.7	11.2	11.9	6.6	4.1	3.7	4.6	4.5	5.1	1.5	3.8	6.3	3.1	3.5	4.4	5.1	2.1
1986	4	21	2300	1.41	10.89	0.0	0.2	3.0	6.2	8.6	5.3	3.2	5.2	4.7	6.5	5.8	4.8	7.1	3.8	5.0	4.3	4.6	1.1	1.9
1986	4	22	600	1.68	8.06	0.0	0.0	0.0	0.2	1.0	16.6	7.3	10.8	17.3	4.6	12.4	5.7	3.9	4.0	2.0	2.3	0.0	2.3	1.9

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	4	22	1100	1.36	10.89	0.0	0.2	1.1	1.3	12.6	3.6	10.1	10.8	11.0	7.1	8.1	7.4	2.0	3.0	2.9	2.1	1.7	1.1	3.0
1986	4	22	1700	1.18	8.06	0.0	0.2	1.8	1.3	2.4	15.3	11.0	23.4	10.7	2.5	5.2	3.3	1.8	4.4	1.7	1.4	1.0	1.5	0.9
1986	4	22	2300	1.18	9.75	0.1	0.1	2.1	3.6	2.4	10.3	9.8	5.3	3.8	7.6	1.8	2.1	3.0	2.7	3.2	1.4	0.7	1.6	2.5
1986	4	23	600	1.14	3.95	0.0	0.1	2.0	0.8	2.9	2.5	2.2	1.5	4.5	0.8	1.0	0.9	0.6	3.9	1.8	3.9	5.2	5.3	6.2
1986	4	23	1100	1.05	4.32	0.1	0.3	1.7	1.4	2.0	4.8	3.9	2.2	3.1	1.3	0.9	1.7	1.8	2.2	3.4	5.9	5.1	7.6	3.2
1986	4	23	1700	0.97	3.95	0.0	0.2	1.1	1.2	1.5	2.3	2.9	4.2	1.0	1.1	0.4	1.1	2.5	2.5	1.5	2.9	3.4	1.6	2.7
1986	4	23	2300	1.15	4.76	0.0	0.2	1.3	1.9	1.5	2.7	1.3	1.5	0.7	0.4	1.1	2.6	3.9	8.7	2.8	12.1	6.3	6.5	4.0
1986	4	24	600	1.16	4.76	0.0	0.2	0.5	0.9	0.9	0.8	0.6	0.8	2.1	2.1	3.3	2.9	3.0	4.0	4.2	10.8	5.3	4.3	7.0
1986	4	24	1100	1.54	6.87	0.1	0.1	0.3	0.6	0.4	0.6	2.9	10.3	9.7	15.2	9.4	7.5	3.7	3.6	8.4	2.0	5.2	1.7	2.3
1986	4	24	1700	1.40	7.42	0.0	0.1	0.3	0.8	0.8	0.7	1.6	6.5	13.5	8.9	5.0	3.5	2.0	4.0	3.3	5.1	1.6	4.2	6.3
1986	4	24	2300	1.28	6.87	0.1	0.1	0.4	1.3	1.6	1.6	6.0	7.8	5.7	14.8	10.2	3.8	3.2	2.4	1.8	3.8	2.0	2.1	2.0
1986	4	25	600	0.86	8.06	0.1	0.4	1.4	4.3	2.6	7.7	4.3	11.4	4.8	11.2	2.2	4.1	3.6	2.5	2.8	2.6	2.5	1.1	1.3
1986	4	25	1100	0.84	6.87	0.1	0.3	1.1	1.3	4.4	2.8	5.4	3.5	4.0	9.2	6.4	5.1	2.4	4.2	4.7	2.0	1.1	1.9	2.0
1986	4	25	1700	0.81	6.87	0.1	0.3	2.3	3.9	2.3	3.1	1.8	2.2	5.1	7.8	3.1	2.4	5.3	2.3	1.5	2.6	2.6	6.7	6.5
1986	4	25	2300	0.91	9.75	0.1	0.3	2.0	5.5	4.3	12.3	7.7	7.4	7.1	5.9	3.8	10.7	4.0	2.8	4.0	3.0	2.6	1.4	1.9
1986	4	26	600	1.42	9.75	0.0	0.1	0.8	0.9	5.7	30.3	15.8	7.3	8.8	6.1	5.6	4.1	2.8	1.5	1.6	1.6	1.0	0.7	0.6
1986	4	26	1100	1.38	8.83	0.0	0.0	0.5	0.4	0.9	9.8	17.8	14.7	9.0	8.6	7.5	7.1	4.6	4.3	2.3	1.7	1.0	2.3	1.6
1986	4	26	1700	1.12	8.06	0.1	0.1	0.7	1.8	2.5	6.9	14.6	16.4	9.9	12.9	6.8	4.3	3.3	1.8	1.4	2.6	2.3	1.7	0.9
1986	4	26	2300	1.21	8.06	0.1	0.1	0.4	1.9	1.7	6.1	11.1	23.9	8.4	11.1	5.3	3.0	5.3	1.6	2.8	2.9	2.9	2.0	1.0
1986	4	27	600	0.98	7.42	0.1	0.1	0.7	1.4	3.5	6.7	7.8	12.6	14.4	3.9	4.2	4.0	10.1	5.4	5.9	2.4	2.7	1.4	2.0
1986	4	27	1100	0.93	7.42	0.1	0.1	0.6	1.0	2.8	3.8	6.0	8.0	11.8	8.2	9.4	8.2	8.7	5.4	4.3	3.6	2.2	0.7	2.2
1986	4	27	1700	0.97	7.42	0.0	0.2	0.4	5.2	1.9	5.9	11.9	8.3	21.0	5.5	6.3	5.5	2.3	3.9	3.5	1.6	2.0	1.9	1.8
1986	4	27	2300	1.06	8.06	0.1	0.1	0.3	0.2	1.9	3.8	5.9	27.2	3.5	11.2	3.8	6.4	1.2	3.0	2.8	2.6	3.0	1.5	1.5
1986	4	28	600	0.84	8.06	0.1	0.3	0.2	1.1	2.8	12.6	14.4	15.2	4.2	8.8	4.1	8.6	1.8	2.7	3.4	2.9	1.4	4.0	2.7
1986	4	28	1100	1.16	8.83	0.1	0.1	0.2	0.8	2.6	3.9	22.9	14.1	14.3	8.1	3.0	5.3	4.2	5.8	2.0	2.7	2.0	1.9	0.8
1986	4	28	1700	1.15	8.83	0.1	0.2	0.3	0.6	2.6	12.1	13.6	7.1	7.2	6.3	5.8	5.6	7.5	2.6	11.6	3.3	1.5	2.0	1.9
1986	4	28	2300	1.14	9.75	0.2	0.1	0.1	0.4	1.1	18.1	9.8	13.9	8.9	13.2	4.6	5.3	3.1	2.6	3.7	3.6	3.2	1.2	0.4
1986	4	29	600	1.06	9.75	0.3	0.1	0.3	0.6	2.0	16.0	8.5	12.5	11.9	9.2	6.1	7.0	4.0	3.7	2.9	3.4	1.7	0.5	1.2
1986	4	29	1100	0.98	8.06	0.2	0.1	0.3	0.3	3.0	7.2	11.7	14.6	5.3	13.0	5.8	7.6	8.7	5.6	1.7	1.6	2.0	2.4	0.8
1986	4	29	1700	0.98	6.87	0.5	0.2	0.3	0.8	2.1	3.6	5.8	7.6	9.2	9.8	7.3	6.2	5.8	7.6	3.9	2.5	3.3	2.8	3.6
1986	4	29	2300	0.79	6.87	0.3	0.6	0.7	0.6	2.6	6.7	6.8	7.4	13.0	17.6	5.0	8.3	2.8	2.1	4.6	3.0	1.4	0.9	0.6
1986	4	30	600	0.67	8.06	1.2	0.6	1.8	1.2	4.0	5.7	8.3	14.8	10.6	6.6	3.2	1.7	1.6	5.4	2.7	2.6	3.0	2.5	1.8
1986	4	30	1100	0.74	8.06	0.5	1.2	2.3	0.9	1.6	2.0	5.8	9.2	3.6	6.8	2.3	4.0	2.6	1.2	1.5	2.4	2.2	0.4	0.6
1986	4	30	1700	0.65	2.69	0.5	3.5	2.1	2.4	0.9	5.8	3.5	6.3	4.6	7.8	6.1	2.0	1.0	1.5	1.5	2.0	1.9	0.7	1.6
1986	4	30	2300	0.58	6.87	0.4	6.8	3.8	1.9	2.4	5.8	5.2	3.9	4.5	8.1	4.4	1.8	2.4	2.2	3.3	3.0	2.0	1.2	0.7
1986	5	1	600	0.49	16.79	0.6	10.3	5.3	5.4	3.0	2.8	6.5	8.1	5.8	6.9	3.1	3.3	4.1	2.6	3.8	3.3	1.7	1.9	1.4
1986	5	1	1100	0.46	14.22	0.6	5.7	10.2	5.9	1.9	3.7	6.2	5.1	8.5	5.2	4.3	6.8	3.0	4.7	2.2	1.1	2.2	1.2	1.1
1986	5	1	1700	0.85	3.15	0.2	2.5	1.4	2.0	1.0	1.1	2.0	1.5	1.2	1.0	1.4	1.8	1.5	1.3	0.8	0.7	0.4	0.6	0.6
1986	5	1	2300	0.85	4.32	0.2	4.0	5.1	1.6	0.5	1.5	1.2	0.9	0.9	0.7	0.6	0.8	1.1	1.4	1.3	3.9	2.7	11.2	8.9
1986	5	2	600	0.82	4.53	0.1	2.5	3.8	3.4	2.1	0.9	1.4	1.8	1.3	1.2	1.8	1.6	3.7	4.0	7.2	5.9	8.6	3.2	3.8
1986	5	2	1100	0.69	5.31	0.2	4.1	3.1	5.3	1.9	1.7	2.5	3.6	6.1	2.2	4.9	7.7	10.3	10.4	2.7	5.0	5.1	1.8	2.2
1986	5	2	1700	0.91	5.99	0.1	3.6	1.5	1.5	1.4	1.3	5.3	7.6	5.1	9.0	6.0	9.4	3.8	4.0	2.4	3.4	1.7	1.9	1.8
1986	5	2	2300	0.98	8.06	0.1	1.1	1.0	1.0	0.6	2.4	4.4	10.7	6.5	8.7	4.8	3.0	2.4	1.6	1.7	1.7	1.9	1.9	1.2
1986	5	3	600	1.01	4.53	0.0	0.9	2.9	0.9	0.6	0.8	1.5	4.0	2.6	2.0	1.2	1.7	1.4	2.1	4.2	4.0	10.9	3.6	3.9
1986	5	3	1100	0.82	3.64	0.1	1.5	3.6	0.9	0.9	1.5	1.9	3.3	1.5	1.4	2.4	2.3	4.6	4.8	4.3	2.1	3.4	3.3	1.2
1986	5	3	1700	0.87	4.53	0.1	0.4	2.9	0.9	0.7	1.0	1.9	1.9	1.0	0.6	0.4	0.4	0.6	2.6	1.5	4.5	10.9	10.1	3.4
1986	5	3	2300	0.87	3.79	0.1	0.5	2.3	1.5	0.6	0.8	1.4	1.3	0.3	0.3	0.2	0.3	0.3	0.9	3.6	4.2	2.8	5.3	5.6
1986	5	4	600	0.64	12.34	0.1	0.9	6.2	6.6	1.5	2.8	1.6	2.2	2.0	1.5	0.9	0.5	0.4	0.3	1.0	0.8	0.5	1.1	3.1
1986	5	4	1100	0.69	3.95	0.2	0.6	5.6	2.7	1.6	3.0	2.7	2.1	1.0	0.8	0.9	2.2	0.8	2.9	2.4	3.9	5.4	4.8	5.1
1986	5	4	1700	0.56	12.34	0.1	0.6	3.7	10.4	2.5	2.9	2.1	1.0	1.3	0.7	1.1	1.1	0.9	1.6	0.7	0.5	1.7	3.1	1.5
1986	5	4	2300	0.34	12.34	0.4	2.0	10.0	18.9	3.8	5.5	5.7	6.7	1.9	1.0	1.6	2.0	1.7	1.4	0.8	1.8	1.5	4.3	0.6
1986	5	5	600	1.15	4.53	0.0	0.3	0.8	0.8	0.8	0.3	0.7	0.4	0.2	0.1	0.2	0.2	0.7	2.0	1.8	13.1	14.3	12.0	1.2
1986	5	5	1100	1.02	3.64	0.1	0.2	2.1	0.8	1.0	1.5	0.6	0.5	0.2	0.3	0.2	0.5	3.2	5.9	4.0	8.1	5.1	6.3	4.0
1986	5	5	1700	0.93	5.31	0.1	0.2	0.8	1.8	0.7	0.5	1.7	0.8	0.4	0.6	0.3	1.1	2.0	10.4	5.6	5.8	8.2	5.3	2.0
1986	5	5	2300	0.85	4.13	0.0	0.6	1.0	1.6	0.4	1.7	2.0	1.2	0.7	0.8	0.7	1.3	3.6	2.1	3.5	7.5	6.3	8.6	9.3
1986	5	6	600	1.16	4.53	0.0	0.3	0.5	0.5	0.6	0.9	1.1	1.5	2.3	2.2	6.0	6.4	3.4	8.8	4.7	6.9	16.0	7.3	4.1
1986	5	6	1100	1.24	5.31	0.1	0.3	0.3	0.4	0.3	1.0	2.9	1.4	3.0	9.6	9.8	6.6	8.6	10.3	6.4	3.4	.5	2.4	3.5
1986	5	6	1700	0.99	5.02	0.0	0.4	1.4	1.5	1.7	1.8	3.5	4.8	5.2	3.8	6.3	6.1	7.7	6.4	9.8	6.1	5.0	4.2	2.5
1986	5	6	2300	1.12	4.76	0.0	0.2	0.6	0.9	0.5	0.8	0.9	3.0	2.5	1.5	4.0	6.4	5.1	5.3	5.2	7.6	6.0	1.1	2.9
1986	5	7	600	0.79	6.87	0.1	0.2	1.0	3.3	1.4	2.0	3.1	1.8	1.6	8.5	7.2	5.8	5.1	3.4	3.8	2.5	5.9	3.7	2.9
1986	5	7	1100	0.74	5.99	0.1	0.4	4.7	1.6	2.4	0.6	1.6	2.8	1.2	4.1	4.7	11.7	2.1	6.4	7.2	4.7	4.3	2.3	2.8
1986	5	7	1700	0.69	5.02	0.1	0.2	1.8	6.3	0.8	3.2	2.6	1.8	2.5	3.1	4.2	4.5	1.6	7.8	9.5	5.3	9.1	2.0	2.8
1986	5	7	2300	0.70	5.31	0.2	0.2	3.3	1.5	1.1	2.4	3.1	2.3	2.7	4.8	4.1	3.9	6.0	7.2	6.3	3.3	3.3	5.6	2.5
1986	5	8	600	0.60	5.63	0.4	0.6	1.8	2.6	2.1	2.7	2.8	2.7	3.9	3.1	10.0	6.8	10.3	7.6	8.3	2.6	5.9	4.8	1.8
1986	5	8	1100	0.66	5.63	0.1	0.4	0.7	3.1	2.0	3.2	1.8	1.5	1.3	3.5	3.7	4.5	10.8	4.1	4.8	4.0	3.5	2.7	3.4
1986	5	12	1700	1.66	12.34	0.0	0.2	4.7	18.0	8.8	7.5	5.9	6.3	5.7	3.8	5.3	4.8	2.2	3.8	6.2	2.1	1.2	2.1	1.5
1986	5	12	2300	1.87	8.06	0.0	0.4	3.9	10.1	8.0	10.7	7.6	12.7	11.7	3.0	5.4	5.8	2.0	2.1	3.0	1.4	1.0	1.1	1.0
1986	5	13	600	1.89	12.34	0.2	2.8	7.2	15.1	12.5	14.5	2.9	4.4	4.6	2.2	3.0	6.8	4.9	0.9	1.8	1.5	2.0	1.3	1.4
1986	5	13	1100	1.73	10.89	0.3	1.0	6.4	8.4	13.2	6.7	13.2	9.7	6.5	2.7	2.6	4.1	5.8	1.8	1.4	3.8	1.4	1.6	0.9
1986	5	13	1700	1.57	14.22	0.2	1.1	12.7	9.1	2.9	12.6	9.0	8.2	6.1	2.9	3.9	5.0	5.5	2.8	2.5	1.7	1.8	2.5	1.0
1986	5	13	2300	1.54	12.34	0.1	0.4	3.9	24.5	2.5	9.0	2.1	9.4	2.3	7.3	6.1	4.4	3.7	2.7	2.3	2.5	2.0	1.5	2.1
1986	5	14	600	1.24	12.34	0.0	0.8	3.9	15.8	12.8	7.5	5.7	3.7	3.4	7.0	4.7	5.8	2.8	3.6	2.3	2.5	2.1	2.1	2.2
1986	5	14	1100	1.22	10.89	0.0	0.2	2.9	8.5	14.1	6.9	9.0	4.7	7.4	4.9	3.5	6.2	6.5	3.9	1.8	2.2	1.4	1.6	1.1
1986	5	14	1700	1.33	8.83	0.0	0.3	4.1	6.7	8.6	11.9	15.5	7.1	5.5	4.2	4.0	3.5	1.4	3.1	1.6	2.0	1.3	1.6	2.3
1986	5	14	2300	1.26	12.34	0.1	0.4	2.3	14.6	10.8	4.5	3.6	9.1	4.8	3.9	3.0	2.8	8.1	3.4	1.9	2.8	0.8	3.1	1.5
1986	5	15	600	1.15	12.34	0.0	0.4	2.9	23.1	11.8	7.2	10.5	4.1	2.5	2.7	4.7	2.3	1.2	4.2	4.1	0.9	2.8	2.2	1.8
1986	5	15	1100	1.27	12.34	0.1	0.1	3.4	17.6	9.5	16.9	6.7	2.5	4.6	5.8	5.4	1.5	2.7	3.3	1.9	1.9	2.7	1.4	2.2
1986	5	15	1700	1.22	12.34	0.0	0.2	0.5	17.4	8.4	6.8	9.7	13.1	4.5	4.2	2.7	3.6	5.4	6.3	2.3	3.3	0.8	1.4	0.6
1986	5	15	2300	1.14	10.89	0.0	0.2	0.3	23.5	28.2	5.2	4.0	4.0	3.5	2.1	2.4	4.7	5.5	2.1	1.7	2.1	1.0	1.4	0.9
1986	5	16	600	1.12	10.89	0.1	0.1	0.7	10.5	16.5	12.5	7.0	7.6	3.4	7.4	3.0	2.0	7.6	1.3	1.7	4.1	3.4	1.4	1.7

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	5	16	1100	1.02	10.89	0.0	0.1	0.4	5.6	22.1	15.7	9.5	7.3	5.7	5.9	3.7	3.9	2.9	3.3	0.7	1.0	1.2	1.7	1.6
1986	5	16	1700	1.04	10.89	0.0	0.1	0.8	2.0	22.1	16.9	9.5	6.8	5.4	4.2	2.5	2.9	2.0	1.3	1.4	0.6	1.4	0.8	0.5
1986	5	16	2300	0.91	9.75	0.1	0.1	0.6	2.4	12.7	14.6	13.1	6.3	7.0	1.8	2.9	1.9	1.5	0.8	1.3	1.3	0.4	1.0	1.0
1986	5	17	600	1.06	10.89	0.0	0.1	0.5	2.9	15.1	12.2	8.7	4.1	4.0	4.3	4.8	3.5	1.2	0.8	0.9	0.8	0.9	0.8	0.9
1986	5	17	1100	0.94	10.89	0.1	0.1	0.4	1.9	14.9	11.5	12.3	5.9	3.1	2.0	1.6	1.1	1.6	0.9	1.0	1.1	0.9	5.2	2.8
1986	5	17	1700	0.86	8.83	0.0	0.0	0.8	0.9	8.7	11.5	17.6	15.3	2.2	4.3	2.0	1.0	1.3	1.7	0.9	3.2	1.8	2.6	4.9
1986	5	17	2300	0.76	9.75	0.1	0.1	1.0	3.1	6.3	13.3	7.5	10.6	3.2	3.8	1.9	0.9	1.6	1.6	2.5	2.6	1.8	0.9	1.3
1986	5	18	600	0.75	8.83	0.1	0.2	0.3	3.3	3.7	9.4	17.9	3.6	8.3	3.3	4.5	2.7	1.7	3.9	4.4	3.7	3.0	1.3	1.6
1986	5	18	1100	0.72	8.83	0.1	0.1	2.2	2.4	4.7	13.4	13.4	7.5	8.6	4.0	2.0	2.0	1.8	2.6	3.0	5.3	2.7	1.7	1.6
1986	5	18	1700	0.85	9.75	0.1	0.2	0.6	1.9	4.6	12.6	6.2	4.7	2.0	3.2	1.2	1.4	4.2	4.1	2.0	3.6	1.7	5.2	2.8
1986	5	18	2300	0.93	3.79	0.1	0.1	0.3	1.3	1.9	4.1	2.8	2.5	2.8	2.7	2.4	1.8	2.6	3.5	6.6	4.6	3.1	4.9	3.0
1986	5	19	600	1.16	4.76	0.1	0.0	0.2	0.5	2.8	2.7	6.3	1.7	1.9	2.3	0.8	1.3	2.6	5.9	9.7	10.6	2.2	4.4	5.0
1986	5	19	1100	1.02	5.31	0.0	0.0	0.3	1.5	2.3	7.0	3.6	3.3	1.8	1.1	0.5	0.7	3.7	10.2	5.8	4.3	1.3	5.8	2.4
1986	5	19	1700	1.12	4.13	0.0	0.0	0.1	0.3	1.5	5.6	4.6	2.5	1.1	0.7	1.3	0.3	1.5	2.7	1.9	4.9	6.8	7.0	8.8
1986	5	19	2300	0.86	3.64	0.1	0.1	0.9	1.2	3.5	3.4	3.4	5.4	1.5	2.8	1.3	4.3	2.7	2.8	1.5	2.9	1.3	5.1	3.7
1986	5	20	600	0.93	4.32	0.0	0.1	0.4	0.6	1.2	3.4	3.1	2.3	2.2	0.6	1.4	1.2	4.1	3.2	3.0	7.5	5.3	10.0	8.3
1986	5	20	1100	1.03	4.53	0.1	0.1	0.2	0.8	1.0	3.2	4.4	1.3	1.1	1.4	0.8	1.8	1.7	7.3	2.0	6.1	15.3	3.2	4.7
1986	5	20	1700	1.18	5.31	0.1	0.1	0.1	0.3	0.9	1.4	2.3	1.6	1.2	1.9	3.3	3.9	3.8	10.9	7.2	7.6	7.6	5.4	5.6
1986	5	20	2300	1.18	6.40	0.1	0.1	0.1	0.4	0.8	4.0	2.7	1.6	5.0	2.4	18.7	13.0	2.8	5.2	5.5	2.8	3.0	2.5	2.3
1986	5	21	600	1.28	4.76	0.1	0.1	0.1	0.3	3.2	3.7	3.0	3.3	0.9	4.0	3.9	7.1	2.5	5.0	5.8	8.4	1.6	5.8	3.5
1986	5	21	1100	1.17	6.40	0.0	0.0	0.2	0.8	3.6	3.5	2.9	2.3	2.3	8.9	19.6	5.8	7.0	9.6	3.3	2.5	2.7	2.5	4.0
1986	5	21	1700	1.32	6.87	0.1	0.1	0.1	0.3	1.0	3.8	6.0	4.6	10.7	11.7	5.1	8.2	5.8	11.6	3.2	6.2	1.4	2.0	3.4
1986	5	21	2300	1.17	6.40	0.0	0.1	0.3	0.7	0.9	7.0	2.7	5.3	5.2	12.3	16.2	4.2	4.7	6.8	6.0	6.3	1.9	1.9	3.5
1986	5	22	600	1.09	6.87	0.1	0.1	0.1	0.3	1.2	2.4	9.0	12.0	8.8	15.8	8.3	2.2	7.6	3.7	1.6	1.8	4.9	1.5	2.1
1986	5	22	1100	0.97	7.42	0.2	0.1	0.1	0.7	1.1	4.0	7.9	4.9	16.9	11.4	9.4	4.8	4.9	2.8	3.9	3.4	3.3	2.1	2.7
1986	5	22	1700	1.07	7.42	0.1	0.1	0.1	0.4	1.0	1.4	7.9	6.9	26.6	18.0	6.4	5.2	3.4	1.8	2.2	2.1	1.9	2.3	1.5
1986	5	22	2300	1.21	6.87	0.0	0.1	0.1	0.2	1.2	1.8	3.4	9.5	14.1	32.3	5.7	5.3	3.6	2.1	3.3	3.3	2.4	1.3	2.0
1986	5	23	600	0.98	6.87	0.0	0.1	0.2	0.2	0.8	1.0	8.9	3.8	17.0	24.1	6.5	3.8	3.8	4.0	3.2	4.8	1.2	1.5	1.8
1986	5	23	1100	0.91	6.87	0.2	0.3	0.3	0.3	0.9	1.5	11.2	11.4	9.4	18.3	7.7	5.6	5.6	2.4	4.4	3.7	1.5	2.6	2.2
1986	5	23	1700	0.66	6.87	0.2	0.4	0.3	0.8	1.2	5.2	8.0	5.6	6.9	14.2	7.9	4.6	4.1	3.6	4.8	4.7	4.3	2.7	1.6
1986	5	23	2300	0.73	6.87	0.3	0.5	0.5	0.6	0.6	6.0	5.2	6.7	7.4	14.4	11.4	6.5	8.5	7.4	6.3	3.0	1.8	2.6	1.6
1986	5	24	600	0.53	6.87	0.2	1.9	1.5	0.7	1.9	7.1	6.1	4.0	12.0	21.5	12.0	4.2	6.2	7.6	1.2	1.7	1.1	1.8	1.4
1986	5	24	1100	0.61	6.87	0.4	1.4	1.0	0.3	0.4	5.3	7.3	8.1	7.9	12.6	7.6	9.3	6.1	6.0	3.2	2.3	1.8	0.7	1.6
1986	5	24	1700	0.57	5.99	0.3	2.6	2.3	1.8	1.1	2.5	5.5	8.8	10.9	4.2	6.5	11.1	2.7	2.7	1.6	0.6	1.8	0.9	2.0
1986	5	24	2300	0.65	6.40	0.1	2.7	3.0	1.5	0.9	5.0	4.5	8.4	3.7	10.1	19.3	7.1	2.6	1.4	1.6	2.1	0.6	0.6	0.3
1986	5	25	600	0.46	8.06	0.4	3.7	13.3	6.4	2.0	8.0	8.1	15.6	5.7	7.0	6.8	3.9	1.3	1.6	2.5	2.2	0.8	1.4	0.7
1986	5	25	1100	0.53	6.40	0.3	1.7	5.2	2.4	2.4	2.7	6.6	9.1	3.9	5.6	9.6	6.1	6.1	1.7	2.2	1.0	1.4	2.3	0.9
1986	5	25	1700	0.60	12.34	0.2	0.9	4.5	8.4	1.6	3.9	4.1	2.8	2.3	2.4	2.3	3.4	3.2	1.0	0.9	0.9	0.6	0.4	0.6
1986	5	25	2300	0.54	10.89	0.3	2.1	5.2	7.5	8.1	3.5	3.5	6.1	6.4	4.5	4.6	2.4	2.4	1.7	2.0	1.5	1.4	1.4	0.4
1986	5	26	600	0.42	9.75	0.4	1.6	10.1	9.0	7.4	13.9	7.3	6.4	4.6	2.3	6.6	2.1	3.1	3.4	3.1	1.4	1.6	0.5	0.9
1986	5	26	1100	0.51	4.53	0.2	1.0	3.0	7.2	6.4	6.8	3.8	5.3	2.6	2.5	5.3	7.7	3.0	2.8	9.2	3.4	12.7	2.1	1.9
1986	5	26	1700	0.66	8.83	0.2	1.2	1.7	2.7	4.2	5.3	10.7	1.8	1.6	0.7	2.1	1.6	1.2	3.4	3.6	1.4	1.4	1.4	1.8
1986	5	26	2300	1.65	5.99	0.1	0.1	0.6	0.6	0.9	0.5	2.0	2.1	2.3	3.2	7.5	13.1	12.4	12.8	4.6	6.6	5.0	4.4	1.5
1986	5	27	600	1.26	8.83	0.1	0.3	0.5	2.1	2.1	8.6	13.8	10.0	8.7	9.4	5.4	6.3	3.7	5.5	2.4	1.7	1.3	1.4	1.2
1986	5	27	1100	1.34	8.83	0.0	0.2	1.2	0.6	0.6	7.7	18.7	17.6	8.5	7.3	3.9	6.5	5.0	2.6	2.2	2.5	3.1	2.5	0.7
1986	5	27	1700	1.46	8.83	0.1	0.2	0.5	0.4	6.2	13.9	15.9	8.4	2.6	4.1	11.9	1.2	8.9	5.2	3.4	2.2	2.2	1.1	3.0
1986	5	27	2300	1.16	9.75	0.0	0.1	1.9	2.4	3.1	15.6	13.8	5.7	6.3	3.5	6.0	2.4	3.9	1.7	4.6	1.1	1.0	2.2	0.9
1986	5	28	600	0.93	9.75	0.1	0.2	1.9	2.5	10.3	21.3	8.5	9.9	4.3	5.2	2.5	3.5	2.4	4.0	1.6	1.8	1.5	0.6	1.4
1986	5	28	1100	0.91	8.83	0.1	0.3	0.7	1.5	5.0	10.3	27.7	6.9	4.6	5.9	4.4	2.6	3.0	1.5	0.6	1.2	1.5	0.7	1.3
1986	5	28	1700	0.81	9.75	0.1	0.4	2.2	7.8	10.5	13.6	10.7	7.0	2.7	3.6	2.9	2.2	2.7	1.6	1.8	1.2	1.6	0.4	1.9
1986	5	28	2300	0.69	9.75	0.1	0.2	2.3	7.2	9.8	16.9	16.8	12.9	9.2	2.5	1.6	3.3	1.6	0.9	1.7	0.3	0.5	0.9	0.3
1986	5	29	600	0.64	10.89	0.3	0.6	1.2	6.0	28.6	11.6	15.1	10.4	2.2	3.1	2.1	1.1	0.6	1.5	0.6	0.4	0.7	2.3	1.1
1986	5	29	1100	0.62	9.75	0.1	0.2	0.8	8.7	17.1	38.8	12.3	7.0	4.2	1.4	0.8	0.7	1.3	0.5	0.6	0.2	0.2	0.3	0.2
1986	5	29	1700	0.56	9.75	0.2	0.3	1.9	16.3	22.8	23.8	12.4	4.6	3.8	0.7	0.5	0.7	0.6	1.0	1.0	0.4	0.7	0.4	0.8
1986	5	30	2300	0.78	3.38	0.1	0.7	0.9	1.5	1.8	2.2	2.0	4.9	1.4	0.4	0.5	0.6	0.6	0.2	0.7	0.7	0.5	0.6	1.8
1986	5	31	600	0.51	8.83	0.2	0.8	3.1	0.7	5.1	2.8	8.9	6.8	4.6	2.8	1.8	0.9	0.9	2.2	1.0	1.8	1.2	2.4	1.6
1986	5	31	1100	0.57	4.13	0.2	0.5	1.6	2.7	2.6	1.3	5.4	4.9	1.8	0.6	0.4	0.7	0.3	0.7	1.4	2.7	1.9	6.2	12.8
1986	5	31	1700	0.51	3.79	0.3	1.9	1.9	3.2	1.6	1.1	5.2	7.2	5.3	3.7	0.8	1.1	1.5	1.3	1.0	2.0	0.8	2.7	6.9
1986	5	31	2300	0.46	8.83	0.1	1.9	2.2	1.8	3.8	2.2	6.0	3.5	2.0	0.7	0.5	1.5	1.4	1.6	3.7	3.2	2.5	3.1	4.2
1986	6	1	600	0.58	3.95	0.1	1.4	1.5	1.2	1.9	1.1	3.9	1.4	2.6	1.1	0.5	1.6	0.5	0.9	2.1	5.2	4.0	4.3	4.9
1986	6	1	1100	0.62	5.63	0.1	1.4	1.4	1.0	1.3	1.8	4.9	1.6	1.7	0.8	1.7	3.9	14.3	11.4	6.2	4.4	6.1	4.3	2.8
1986	6	1	1700	0.75	5.63	0.1	0.7	0.3	0.8	0.6	1.1	3.2	1.8	1.0	1.2	0.8	2.0	9.9	6.2	7.6	5.8	3.5	3.4	4.5
1986	6	1	2300	0.77	3.05	0.1	1.6	1.0	0.3	0.7	0.4	1.1	1.3	1.2	0.8	0.8	1.4	2.5	2.7	2.8	4.2	2.6	1.5	2.9
1986	6	2	600	0.85	4.13	0.1	0.3	1.0	0.4	0.4	0.8	1.2	1.2	0.8	1.4	1.8	2.3	1.9	1.6	4.7	3.5	5.4	6.3	10.8
1986	6	2	1100	0.75	4.76	0.1	0.5	1.5	1.4	1.0	0.7	2.4	1.6	2.9	2.2	1.8	6.1	4.0	7.0	4.9	9.4	5.1	4.3	8.6
1986	6	2	1700	0.87	5.31	0.0	0.1	0.6	0.5	0.3	1.0	1.3	1.1	1.4	1.9	3.4	5.7	5.4	15.6	8.6	5.3	4.3	6.4	5.3
1986	6	2	2300	0.97	5.99	0.1	0.2	0.8	0.3	0.3	0.4	1.4	1.5	1.3	2.5	2.8	7.3	1.9	1.9	2.8	1.1	3.4	5.9	5.4
1986	6	3	600	1.92	5.83	0.2	0.1	0.3	0.1	0.1	0.2	0.3	0.5	0.9	1.5	4.9	4.1	9.8	4.9	6.4	7.7	8.7	8.8	3.1
1986	6	3	1100	1.50	5.99	0.3	0.0	0.3	0.1	0.1	0.2	0.3	1.0	1.1	8.6	7.6	9.0	2.8	5.7	7.5	5.8	5.7	4.0	4.3
1986	6	3	1700	1.30	6.40	0.2	0.1	0.2	0.1	0.2	0.4	1.4	0.6	3.3	11.2	12.5	7.8	9.0	10.2	4.8	3.2	4.3	1.5	2.6
1986	6	3	2300	1.17	5.99	0.4	0.2	0.3	0.3	0.5	0.7	1.6	1.9	10.6	9.2	12.2	13.3	6.0	5.8	4.5	5.1	1.9	1.6	2.5
1986	6	4	600	1.05	5.99	4.4	0.2	0.2	0.6	0.6	1.3	2.8	2.6	4.4	4.1	2.7	6.8	5.0	3.2	4.2	5.1	3.3	4.3	4.0
1986	6	4	1100	0.93	5.83	8.2	0.2	0.3	0.7	5.1	3.8	4.6	5.9	2.1	4.1	5.4	5.8	9.7	3.2	1.4	6.0	2.4	1.4	2.3
1986	6	4	1700	0.92	9.75	3.5	1.8	0.2	0.6	2.1	9.5	9.2	5.9	6.9	6.6	4.7	1.4	2.6	5.7	2.7	3.4	3.7	1.6	0.9
1986	6	4	2300	1.05	8.83	5.6	3.3	0.4	0.4	0.9	1.5	8.9	4.9	7.7	6.4	5.0	6.9	2.4	2.7	1.5	1.5	1.8	1.5	2.0
1986	6	5	600	0.77	8.06	2.2	1.5	0.5	0.3	0.7	2.9	6.7	10.3	3.6	5.5	7.5	4.1	7.8	3.5	3.2	2.0	1.9	2.1	2.2
1986	6	5	1100	0.82	16.79	1.1	16.8	0.5	0.2	0.7	2.0	5.3	10.2	4.9	9.1	5.3	5.0	2.7	2.4	1.7	2.2	1.5	1.5	1.9
1986	6	5	1700	0.92	16.79	0.4	14.1	0.3	0.6	1.1	1.0	5.1	2.8	8.9	5.6	6.7	9.2	6.0	3.5	3.1	2.4	3.5	1.8	0.9
1986	6	5	2300	0.92	16.79	0.4	26.1	0.6	0.5	0.5	2.6	1.8	4.0	6.4	4.2	8.3	3.1	5.4	2.1	2.4	2.3	2.0	5.3	1.7
1986	6	6	600	0.89	16.79	0.1	33.7	1.1	0.7	0.4	5.0	1.3	3.5	2.0	10.7	9.6	4.8	5.9	4.2	1.0	1.0	2.5	0.9	0.4

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	6	6	1100	0.93	7.42	0.6	7.9	3.3	2.5	2.5	1.5	7.0	4.5	9.6	4.2	3.4	2.9	4.6	3.5	4.3	1.8	3.4	1.4	2.6
1986	6	6	1700	1.16	10.89	0.1	10.8	2.7	1.2	18.7	9.0	4.6	5.8	3.1	6.3	5.3	3.4	2.7	7.1	5.0	1.1	3.3	1.5	0.6
1986	6	10	1700	0.73	14.22	0.1	3.4	13.4	2.2	2.5	3.1	2.4	6.8	11.6	8.6	6.9	7.6	3.3	2.7	2.4	1.3	1.2	0.8	0.3
1986	6	10	2300	0.88	14.22	0.2	1.3	12.2	1.8	1.0	0.6	3.0	3.6	5.1	5.0	2.5	3.9	0.7	1.3	1.2	1.1	0.7	0.5	0.9
1986	6	11	600	0.89	14.22	0.1	0.2	6.9	2.3	0.6	1.5	1.4	4.2	6.6	2.5	2.5	3.1	1.1	1.6	0.9	0.6	0.8	0.5	1.6
1986	6	11	1100	1.26	4.32	0.0	0.1	1.5	0.7	0.6	0.6	0.9	2.5	4.1	2.8	1.4	1.8	2.4	4.2	3.0	2.4	10.4	11.2	3.7
1986	6	11	1700	1.40	4.53	0.1	0.1	1.8	0.4	0.7	0.9	1.4	1.5	1.6	0.7	0.5	1.1	4.1	6.9	4.8	8.1	12.6	5.3	3.7
1986	6	11	2300	1.11	4.76	0.0	0.1	3.6	1.9	0.4	0.9	1.5	5.1	5.5	2.9	2.5	4.9	4.6	3.9	6.3	7.0	4.4	2.5	4.5
1986	6	12	600	0.96	8.06	0.1	0.9	5.3	2.1	0.7	3.4	7.6	10.6	6.5	8.4	4.6	5.4	4.2	2.2	7.2	5.1	3.5	3.6	2.2
1986	6	12	1100	1.14	5.63	0.0	0.2	1.3	3.2	0.6	0.8	2.8	0.9	5.1	3.9	3.3	7.5	11.9	4.2	3.7	5.9	2.5	3.3	6.0
1986	6	12	1700	1.16	5.02	0.1	0.3	1.9	4.2	0.8	1.3	2.8	2.1	3.8	3.9	1.4	2.9	6.3	6.0	9.2	6.1	8.1	5.2	4.3
1986	6	13	1700	1.36	7.42	0.0	0.1	0.7	0.6	1.6	0.4	3.9	8.3	12.7	10.6	7.3	10.1	5.7	5.1	9.1	4.0	2.3	4.0	1.5
1986	6	13	2300	1.05	5.99	0.0	0.1	0.6	2.1	1.1	0.9	4.3	10.6	3.5	7.7	3.6	16.1	10.4	7.1	6.4	4.1	3.6	3.8	2.1
1986	6	14	600	0.98	8.06	0.1	0.3	0.8	4.9	1.1	3.5	10.2	12.6	12.1	9.1	10.5	5.7	4.3	5.1	3.1	3.0	2.0	3.6	1.2
1986	6	14	1100	0.71	8.83	0.1	0.3	0.4	3.7	3.4	9.4	12.6	11.2	6.3	12.2	4.1	3.5	4.0	2.6	5.4	3.0	3.2	1.2	0.9
1986	6	14	1700	0.70	8.06	0.1	0.4	2.8	3.3	3.2	6.7	15.1	16.1	5.7	8.4	3.3	4.8	3.6	3.7	3.4	3.2	2.0	1.8	2.3
1986	6	16	2300	1.40	5.99	0.1	0.1	0.3	1.1	1.7	0.7	0.6	1.4	4.1	6.4	8.4	10.9	5.4	2.8	7.3	2.9	4.1	4.4	1.7
1986	6	17	600	1.25	5.99	0.1	0.1	0.1	1.3	1.3	0.6	1.3	2.0	2.2	7.1	5.0	8.7	4.9	6.6	5.7	4.3	4.6	3.4	1.5
1986	6	17	1100	0.99	5.31	0.2	0.3	0.5	1.9	1.2	0.6	2.8	1.2	4.8	3.5	7.3	7.2	4.2	11.8	4.7	3.6	8.0	6.1	3.2
1986	6	17	1700	1.14	3.95	0.4	0.6	0.1	1.9	1.2	0.9	0.9	1.9	2.3	3.4	1.8	4.9	4.9	3.2	2.4	2.5	2.3	5.8	6.8
1986	6	17	2300	0.96	3.38	0.6	0.6	0.2	1.3	2.6	1.6	1.4	3.6	2.1	0.9	3.5	5.7	3.2	1.3	1.9	2.1	1.4	2.2	2.2
1986	6	18	600	0.73	5.31	0.3	5.3	0.4	2.7	3.8	2.5	2.6	3.9	5.6	3.6	3.3	16.0	10.7	18.5	1.6	2.1	3.2	1.3	1.9
1986	6	18	1100	1.53	5.63	0.1	0.5	0.1	1.0	0.5	1.0	1.0	0.6	0.3	0.6	2.0	3.7	16.2	7.4	12.6	10.7	4.4	6.4	2.5
1986	6	18	1700	1.00	5.63	0.2	2.4	0.3	0.9	1.2	1.9	2.0	2.5	2.8	1.7	2.9	5.8	13.5	7.0	5.8	4.7	6.3	3.0	4.6
1986	6	18	2300	0.66	16.79	1.2	18.4	1.3	3.2	3.7	3.5	7.2	2.7	4.8	2.3	1.9	1.1	1.1	1.7	2.6	2.8	1.6	5.2	2.7
1986	6	19	600	0.48	16.79	0.5	10.3	2.9	1.2	4.7	4.1	9.1	7.5	4.5	7.9	7.8	1.4	2.4	1.2	1.5	1.7	4.1	1.5	0.9
1986	6	19	1100	0.46	8.83	0.5	5.3	2.9	4.1	4.5	8.3	13.3	8.6	8.7	4.3	6.7	4.6	2.8	2.1	2.9	3.5	2.4	1.0	1.1
1986	6	19	1700	0.77	2.86	0.3	2.2	3.0	2.1	0.9	0.9	6.0	6.4	4.2	1.5	2.4	1.3	1.3	1.5	0.6	1.2	0.4	0.6	0.2
1986	6	19	2300	1.00	4.13	0.1	2.1	5.5	0.6	1.2	1.8	2.8	1.3	1.1	0.7	0.9	1.2	1.0	1.0	2.5	3.3	4.6	7.0	9.2
1986	6	20	600	1.63	6.40	0.0	0.4	1.4	0.2	0.3	0.9	0.6	1.7	2.1	3.6	22.7	12.6	3.6	2.8	7.1	2.6	5.6	3.4	2.5
1986	6	20	1100	1.10	6.40	0.0	1.3	2.6	0.2	0.4	0.6	1.6	2.5	3.3	7.5	9.6	6.2	5.0	3.8	5.2	6.1	7.1	4.6	5.7
1986	6	20	1700	0.97	5.63	0.1	0.2	2.7	0.3	0.6	2.2	2.8	3.3	4.1	4.2	6.8	7.1	12.0	9.1	5.3	3.8	3.4	5.2	2.1
1986	6	23	2300	1.17	10.89	0.0	0.1	0.2	5.0	17.6	12.2	5.2	2.3	4.4	5.0	2.6	5.3	5.3	2.9	3.3	1.7	3.1	2.0	1.6
1986	6	24	600	1.04	6.40	0.1	0.1	0.4	0.8	1.5	5.0	4.6	3.7	6.9	3.0	13.0	6.5	11.4	3.1	4.9	4.4	6.1	4.3	3.1
1986	6	24	1100	1.20	6.40	0.1	0.2	0.6	0.3	1.0	4.0	2.7	1.6	6.6	4.9	9.3	5.2	6.0	7.3	6.2	3.8	3.0	3.8	1.3
1986	6	24	1700	1.16	5.31	0.0	0.2	0.3	0.4	4.0	4.0	5.1	2.0	4.3	4.0	4.9	6.7	6.3	9.2	4.2	7.3	6.1	5.2	2.8
1986	6	24	1900	1.20	6.40	0.0	0.2	0.2	0.5	1.8	3.2	5.0	6.4	8.1	7.6	16.6	5.8	4.3	4.7	2.8	5.1	2.9	2.4	3.3
1986	6	24	2300	1.21	6.40	0.1	0.2	0.1	0.4	0.9	1.9	4.6	6.0	9.4	8.9	15.2	11.8	6.5	6.5	1.4	1.6	2.5	3.2	2.8
1986	6	25	600	0.92	5.63	0.1	0.5	0.3	0.4	1.1	7.7	7.3	6.6	3.9	6.7	6.3	4.7	8.4	5.0	1.8	4.0	4.0	3.4	5.4
1986	6	25	1100	0.89	8.83	0.1	0.1	0.8	0.6	1.1	2.8	9.9	4.3	8.9	9.4	3.8	3.5	3.1	1.9	4.7	4.3	2.9	1.1	2.2
1986	6	25	1700	1.02	4.13	0.1	0.2	1.1	0.7	0.8	3.3	5.5	2.5	4.2	4.2	2.7	3.6	4.2	3.8	4.7	7.2	8.0	2.3	10.0
1986	6	25	2300	0.75	8.06	0.1	0.4	2.4	0.6	0.7	2.6	10.2	18.9	5.7	5.9	1.4	2.0	3.1	1.9	2.9	3.3	2.2	2.4	4.6
1986	6	26	600	0.57	9.75	0.1	0.5	4.4	2.4	2.6	11.5	7.7	6.9	5.1	2.9	5.3	2.0	2.2	2.6	2.0	1.4	1.1	0.5	0.8
1986	6	26	1100	0.46	8.06	0.2	0.6	5.4	2.0	3.2	10.2	7.2	18.5	9.4	5.1	3.9	2.5	3.8	1.9	0.8	1.2	0.7	0.5	0.7
1986	6	26	1700	0.64	8.83	0.2	0.4	4.0	2.3	2.4	6.3	9.1	6.1	4.4	2.5	1.0	2.4	0.6	2.4	1.5	0.8	1.4	1.4	1.0
1986	6	26	2300	1.08	3.95	0.0	0.3	1.4	0.6	0.9	2.1	2.3	4.0	3.6	1.3	1.2	0.5	0.3	0.9	0.5	0.5	0.9	4.0	8.5
1986	6	27	600	0.70	8.83	0.1	0.4	3.5	1.7	8.0	6.7	8.3	3.7	2.8	2.0	1.5	1.8	1.3	0.8	2.5	0.6	0.5	1.1	2.4
1986	6	27	1100	0.94	4.76	0.1	0.1	0.9	1.1	1.4	3.1	4.1	6.7	0.9	2.0	1.5	0.8	2.1	2.0	7.9	14.8	3.8	4.1	3.9
1986	6	27	1700	1.41	5.02	0.1	0.1	1.1	0.4	0.6	1.8	2.1	1.1	1.7	0.6	0.7	1.5	2.2	5.2	8.4	4.9	7.6	6.6	4.1
1986	6	27	2300	1.43	5.63	0.0	0.1	0.8	0.8	0.7	2.9	3.5	0.7	0.9	3.7	6.3	5.8	10.5	5.4	9.9	4.9	8.2	7.0	3.8
1986	6	28	600	1.66	8.06	0.1	0.1	0.3	0.8	0.5	1.4	3.4	13.1	6.7	3.3	7.6	6.9	4.2	5.4	2.2	3.9	5.1	2.3	2.3
1986	6	28	1100	1.29	6.87	0.1	0.1	0.2	0.5	0.6	3.5	5.1	3.8	6.8	16.9	12.4	6.2	4.1	5.2	3.7	7.1	3.4	2.5	3.4
1986	6	28	1700	1.21	6.87	0.0	0.1	0.3	0.7	0.7	3.1	5.5	4.9	2.7	13.5	7.4	7.3	6.3	3.4	7.6	6.3	5.6	5.0	1.8
1986	6	28	2300	0.90	5.99	0.1	0.2	0.1	0.4	1.6	5.1	7.7	6.1	5.8	6.8	5.0	8.9	7.3	5.1	6.0	3.5	3.5	5.9	5.1
1986	6	29	600	1.05	8.83	0.0	0.2	0.3	1.2	1.1	3.7	9.4	7.8	5.3	4.6	4.5	7.6	4.2	2.3	3.7	3.6	4.6	2.1	2.2
1986	6	29	1100	1.06	5.99	0.1	0.2	0.2	0.5	1.0	2.4	8.1	2.5	1.4	4.4	5.5	9.0	6.9	8.7	8.2	5.9	6.0	5.5	2.3
1986	6	29	1700	0.96	5.99	0.1	0.2	0.2	0.5	0.5	3.1	6.0	1.2	1.9	3.3	8.2	11.7	9.0	6.3	5.3	4.1	6.5	3.9	4.0
1986	6	29	2300	0.93	4.53	0.1	0.1	0.1	0.6	1.4	5.4	4.4	3.4	2.8	1.6	2.8	6.6	3.4	2.5	3.4	6.0	8.6	6.9	7.3
1986	6	30	600	0.76	8.83	0.1	0.2	1.0	1.2	1.1	9.0	21.0	5.2	2.4	3.8	6.1	3.2	2.9	2.2	1.8	4.5	5.8	2.4	1.2
1986	6	30	1100	0.90	8.83	0.1	0.2	0.3	0.3	1.3	5.6	9.8	5.2	3.6	2.1	3.6	3.5	4.2	1.4	2.0	2.7	1.2	2.3	3.5
1986	6	30	1700	0.91	5.02	0.1	0.3	0.2	0.3	0.7	2.3	3.6	3.7	4.0	4.5	3.1	5.9	8.3	8.3	8.8	5.0	7.7	4.5	5.2
1986	6	30	2300	0.67	5.02	0.3	0.5	1.2	0.9	1.4	5.8	4.6	3.2	2.5	3.7	7.5	5.6	4.6	3.9	11.4	1.9	2.5	3.8	8.5
1986	7	1	600	0.64	8.83	0.1	0.9	1.1	0.6	0.9	2.5	18.4	11.0	4.2	6.2	10.1	4.9	2.7	3.4	2.2	1.0	2.8	2.3	1.2
1986	7	1	1100	0.82	3.15	0.1	0.3	0.3	0.7	1.1	3.9	2.5	2.6	3.4	5.9	5.2	3.3	1.2	0.9	1.3	0.8	0.7	0.6	0.6
1986	7	1	1700	0.64	8.83	0.1	0.5	1.3	0.3	1.2	4.2	7.1	1.8	1.8	3.6	3.2	6.7	2.9	4.6	2.3	3.2	4.8	2.1	0.9
1986	7	1	2300	0.66	3.51	0.1	0.6	3.2	1.2	2.1	2.9	8.0	3.2	3.3	5.8	3.0	2.9	1.6	1.0	2.0	2.3	2.4	2.1	3.3
1986	7	2	600	0.67	5.99	0.1	0.8	1.3	0.7	1.7	1.8	2.8	3.7	6.9	3.1	3.6	10.7	5.2	3.0	2.5	1.9	1.6	1.0	1.7
1986	7	2	1100	1.00	5.63	0.1	0.4	0.5	0.4	0.9	1.9	2.4	1.3	1.9	1.3	6.5	3.2	10.0	7.2	3.4	1.5	1.9	1.3	2.0
1986	7	2	1700	1.16	4.76	0.0	0.2	1.5	0.3	0.6	0.8	1.2	1.3	1.3	0.5	3.3	4.0	2.3	7.6	8.2	16.6	4.5	4.8	5.2
1986	7	2	2300	0.92	5.99	0.1	0.3	2.9	0.6	0.6	2.2	1.7	2.1	4.4	2.3	6.8	13.7	11.3	11.1	3.8	4.1	6.1	2.7	1.6
1986	7	3	600	1.14	7.42	0.1	0.3	0.8	0.3	0.7	0.8	2.5	7.0	21.9	16.9	5.6	3.7	7.0	6.0	5.5	3.0	2.8	3.5	2.2
1986	7	3	1100	0.97	8.06	0.2	0.1	1.4	0.4	1.2	3.5	4.9	14.8	6.8	9.9	5.6	9.4	5.7	4.6	6.0	2.7	1.6	3.9	2.4
1986	7	3	1700	0.78	6.87	0.1	0.4	1.9	2.5	1.6	7.0	6.4	5.8	7.3	14.2	8.1	5.2	6.3	2.1	3.3	2.1	0.5	0.8	1.8
1986	7	3	2300	0.79	6.87	0.1	0.2	3.6	1.1	2.1	5.1	10.1	4.0	5.8	11.3	10.3	1.6	3.2	2.5	3.0	2.0	1.2	1.8	0.9
1986	7	4	600	0.60	8.06	0.1	0.3	2.3	5.9	2.3	13.4	3.1	16.2	9.7	7.3	3.5	4.0	1.9	1.6	5.0	1.8	2.3	0.9	1.7
1986	7	4	1100	0.85	8.83	0.1	0.3	0.9	2.3	3.2	7.7	9.3	2.3	1.7	1.3	1.3	0.8	1.2	0.8	1.4	0.7	1.1	2.8	3.5
1986	7	4	1700	0.81	5.63	0.1	0.2	0.8	5.6	2.5	1.9	7.1	6.8	8.1	6.7	6.4	3.8	8.3	2.7	4.5	2.9	3.2	1.6	2.4
1986	7	4	2300	0.89	7.42	0.1	0.3	0.7	3.8	1.4	4.3	6.2	7.3	10.1	4.5	2.2	1.4	3.3	1.6	1.1	1.9	1.0	2.4	1.7
1986	7	5	600	0.81	3.05	0.0	0.2	0.5	4.2	1.7	3.3	6.2	7.4	6.2	4.5	3.7	2.2	1.2	0.5	0.7	0.6	0.5	0.3	0.6
1986	7	5	1100	0.87	6.87	0.2	0.2	0.9	2.0	1.3	0.9	1.8	7.7	7.8	9.2	2.2	3.0	0.8	1.1	2.3	1.8	1.7	7.2	3.0

UAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date			Time	Hmo	Tp																			
Yr	Mo	Dy	(gmt)	(m)	(sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	7	5	1700	0.98	3.64	0.0	0.3	0.2	0.8	1.1	2.2	2.5	2.0	5.1	1.8	2.9	1.4	2.2	1.4	2.3	1.7	1.7	3.0	3.6
1986	7	5	2300	1.09	3.95	0.0	0.2	0.2	0.7	1.3	2.4	2.5	3.7	3.8	2.1	0.4	0.4	0.8	0.4	0.8	0.5	2.8	5.5	13.1
1986	7	6	600	0.82	8.06	0.1	0.2	0.5	0.9	2.0	1.8	2.5	8.5	8.1	5.6	5.5	3.1	1.5	1.5	2.0	3.4	6.5	6.2	3.4
1986	7	6	1100	0.81	8.06	0.1	0.1	0.3	0.6	0.8	1.7	7.9	8.0	5 2	4.6	7.5	4.0	4.9	1.9	3.9	3.0	2.5	2.7	4.3
1986	7	6	1700	0.60	8.83	0.1	0.1	1.9	1.8	2.3	3.9	9.3	8.1	8.8	5.1	3.4	1.5	2.1	1.3	2.7	3.7	2.5	3.4	3.7
1986	7	6	2300	0.64	8.06	0.2	0.2	0.8	2.2	3.3	3.7	10.1	13.2	5.9	5.5	8.0	2.8	2.2	2.0	2.8	1.0	1.9	1.2	0.6
1986	7	7	600	0.61	8.83	0.1	0.1	0.6	1.1	1.5	3.8	21.1	9.1	17.8	5.8	2.5	4.1	4.2	1.1	0.4	1.0	2.7	0.8	0.9
1986	7	7	1100	0.60	8.83	0.1	0.1	1.4	2.3	3.3	6.2	13.6	8.1	5.3	2.3	5.4	4.4	3.0	1.8	2.6	1.5	0.8	2.5	2.2
1986	7	8	2300	0.46	8.06	0.5	0.4	0.8	1.9	5.3	8.5	11.0	19.3	8.5	4.6	2.8	3.4	1.4	1.0	2.5	1.6	1.9	0.9	1.8
1986	7	9	600	0.57	8.06	0.2	0.3	0.4	1.1	1.9	5.8	11.8	12.7	4.8	2.1	1.8	0.3	0.8	0.6	1.3	1.5	2.7	1.2	1.0
1986	7	9	1100	0.61	8.83	0.1	0.3	0.8	1.1	1.5	3.3	11.0	10.5	6.6	3.8	1.2	0.7	0.4	0.6	0.6	0.7	1.1	0.8	1.1
1986	7	9	1700	0.67	8.83	0.2	0.3	1.2	2.4	2.8	4.6	12.6	4.8	8.0	0.4	3.0	0.8	1.7	0.8	1.6	1.5	2.5	2.6	4.2
1986	7	9	2300	0.64	3.95	0.7	0.5	0.5	2.4	5.7	4.0	5.2	6.5	2.0	3.0	1.5	0.7	3.1	0.6	3.1	2.0	2.0	2.2	1.3
1986	7	10	600	0.53	8.83	0.5	1.0	0.8	1.3	8.0	8.0	14.4	9.3	1.3	1.4	0.6	2.1	2.7	0.9	2.7	1.3	3.5	4.8	5.0
1986	7	10	1100	0.53	8.83	0.2	0.5	0.3	1.3	5.7	3.4	13.7	10.4	2.5	2.4	1.7	1.5	1.1	1.7	1.1	1.1	0.5	1.7	2.0
1986	7	10	1700	0.58	8.06	0.3	1.7	1.1	1.0	3.7	5.0	7.9	9.4	2.7	7.2	7.2	3.2	7.8	3.3	2.7	1.1	1.2	2.3	1.3
1986	7	10	2300	0.56	8.06	0.2	1.0	1.1	1.0	4.9	2.0	5.2	6.8	5.2	5.0	3.5	2.1	1.9	3.5	6.3	4.8	2.7	5.9	1.8
1986	7	11	600	0.51	8.40	0.3	1.0	1.0	1.9	1.7	4.5	6.4	8.6	3.3	9.8	14.7	2.7	3.6	0.9	1.2	1.4	1.7	1.0	0.5
1986	7	11	1100	0.66	8.06	0.1	1.0	0.5	0.3	1.0	2.6	7.3	12.3	9.5	6.3	6.5	5.5	5.4	1.4	1.3	1.6	1.6	2.3	2.3
1986	7	11	1700	0.76	7.42	0.1	1.0	0.7	0.4	0.6	1.4	3.1	3.9	13.8	4.8	2.0	2.2	2.5	3.9	6.1	11.1	3.2	2.6	4.1
1986	7	11	2300	0.71	3.79	0.1	1.0	1.3	1.1	0.7	1.0	2.0	3.8	5.1	3.4	4.3	3.7	5.9	4.6	1.2	2.4	5.3	2.9	1.5
1986	7	12	600	0.71	4.76	0.0	1.0	0.9	0.4	0.3	0.9	7.6	1.6	2.7	3.5	4.8	2.4	1.8	1.7	2.5	8.9	6.3	7.1	7.0
1986	7	12	1100	0.70	6.40	0.1	0.7	2.6	1.0	0.5	0.8	2.5	6.0	3.3	1.2	6.1	3.1	2.2	2.9	1.5	4.9	2.9	4.7	5.5
1986	7	12	1700	0.98	3.64	0.0	0.3	1.8	0.5	0.3	0.7	1.4	1.4	2.6	3.1	2.7	2.9	1.4	1.2	1.9	2.5	1.4	3.3	2.5
1986	7	12	2300	0.93	4.53	0.1	0.2	1.4	0.6	0.3	0.2	0.7	1.2	2.2	2.5	1.2	1.9	1.3	2.4	5.6	2.8	11.7	10.5	10.9
1986	7	13	600	0.81	4.76	0.1	0.4	1.6	0.9	0.6	0.4	2.4	1.8	4.2	3.5	2.8	3.6	5.1	6.6	5.5	13.6	7.7	7.6	6.0
1986	7	13	1100	0.82	6.87	0.1	0.1	1.2	1.0	0.8	0.5	1.4	1.7	5.8	12.2	8.5	3.7	7.4	7.4	7.0	6.3	2.8	4.3	5.3
1986	7	13	1700	0.91	6.87	0.1	0.4	1.9	1.2	1.1	1.1	1.5	2.3	11.3	12.5	5.4	9.6	7.0	8.8	1.6	3.4	3.8	5.1	1.1
1986	7	13	2300	1.10	6.87	0.1	0.0	1.9	0.7	0.7	0.6	0.5	1.4	8.1	10.9	8.7	6.0	5.7	7.5	4.4	3.8	1.3	7.3	2.6
1986	7	14	600	1.06	6.87	0.2	0.1	0.9	0.7	1.1	0.8	2.0	3.8	6.8	11.1	8.9	7.7	6.3	8.5	7.9	7.2	4.5	2.7	2.4
1986	7	14	1100	0.89	5.99	0.2	0.2	1.8	1.2	0.8	1.1	2.1	1.7	11.4	10.5	8.3	14.8	5.0	3.5	3.8	4.9	2.4	2.2	1.9
1986	7	14	1700	0.98	6.87	0.3	0.3	1.0	4.3	0.7	0.5	3.2	5.8	8.1	10.9	7.1	4.8	3.4	5.8	2.6	2.8	1.0	1.1	1.3
1986	7	14	2300	0.79	6.40	0.1	0.3	0.5	1.2	1.7	2.8	2.4	3.5	8.4	9.3	9.5	4.3	6.1	5.1	7.4	4.1	3.8	0.8	2.4
1986	7	15	600	0.86	6.87	0.2	0.2	0.5	1.1	2.3	1.8	3.4	6.0	5.1	12.9	10.9	5.8	6.1	5.1	4.8	5.0	2.9	3.3	5.0
1986	7	15	1100	0.77	3.51	0.2	0.3	0.4	3.3	0.8	2.9	4.0	4.2	4.6	2.4	1.0	3.1	3.7	3.4	1.4	1.7	1.6	1.5	1.9
1986	7	15	2300	0.64	10.89	0.8	0.7	0.9	2.2	8.8	2.4	4.7	4.5	7.1	2.8	4.4	3.5	6.6	3.5	1.5	3.8	2.1	3.5	2.2
1986	7	16	600	0.57	10.89	0.5	1.4	0.8	2.6	10.8	6.3	5.9	6.3	5.5	3.7	5.4	2.6	4.2	3.0	2.8	2.6	1.7	3.5	4.6
1986	7	16	1100	0.54	8.83	0.5	1.0	2.5	4.2	8.8	4.1	16.7	5.7	3.6	14.8	3.5	1.4	2.5	1.3	0.8	2.5	2.3	1.1	1.5
1986	7	16	1700	0.67	9.75	0.2	0.8	0.8	2.5	7.6	9.5	4.1	5.3	6.9	5.7	6.8	6.2	1.6	3.3	3.4	1.4	1.0	1.3	1.3
1986	7	16	2300	0.70	9.75	0.2	1.1	0.7	2.2	4.3	9.8	6.7	3.2	1.6	1.5	1.2	0.6	0.6	1.3	0.9	1.2	0.9	0.6	1.8
1986	7	17	600	0.70	8.06	0.8	0.5	1.2	1.4	3.1	5.0	10.1	10.4	9.6	5.0	2.8	1.4	1.5	1.0	1.9	1.5	2.2	2.1	1.7
1986	7	17	1100	0.72	4.13	0.3	0.8	1.1	2.3	5.7	5.1	5.2	7.3	8.3	5.1	5.5	1.0	2.0	2.0	0.5	1.2	4.9	3.2	9.6
1986	7	17	1700	0.64	8.83	0.4	1.2	1.2	2.7	3.1	7.4	18.5	5.7	2.8	5.0	3.1	1.5	1.0	0.8	2.2	1.9	2.5	2.7	1.5
1986	7	17	2300	0.53	8.06	0.5	2.1	4.1	3.3	7.0	9.3	7.7	15.2	8.9	1.6	1.9	1.0	1.4	1.3	1.7	2.1	1.7	1.8	2.9
1986	7	18	600	0.58	6.87	0.4	1.5	4.1	3.7	4.9	7.0	7.2	6.0	9.8	10.6	9.0	1.7	2.7	4.2	3.3	4.8	0.9	2.6	2.1
1986	7	18	1100	0.51	8.06	0.2	0.9	4.0	4.3	4.7	7.5	5.6	13.9	6.2	2.7	1.3	3.6	5.0	2.2	2.3	3.0	4.6	3.1	1.7
1986	7	18	1700	0.49	8.06	0.1	0.5	1.5	5.2	4.3	1.7	9.4	24.3	3.9	6.7	5.1	0.8	4.6	3.2	5.9	4.4	1.8	2.9	1.4
1986	7	18	2300	0.57	8.06	0.2	1.3	1.9	3.0	3.9	4.0	8.6	12.3	4.5	3.6	3.6	2.8	3.5	2.6	2.6	5.3	6.2	6.0	1.2
1986	7	19	600	0.51	7.42	0.2	1.2	3.2	4.0	3.4	3.2	12.9	7.6	14.7	9.2	4.2	2.8	4.0	3.4	6.3	2.5	3.2	2.3	2.1
1986	7	19	1100	0.56	8.83	0.1	2.2	2.5	3.2	6.0	7.4	9.0	5.9	3.0	1.3	1.5	1.5	2.2	3.7	5.5	7.4	2.2	2.9	3.8
1986	7	19	1700	0.60	7.42	0.1	0.7	2.5	3.2	6.0	6.5	6.5	1.5	7.3	4.1	2.1	1.4	1.7	1.3	1.6	0.7	0.3	1.0	1.4
1986	7	19	2300	0.87	3.64	0.1	0.4	1.8	1.9	3.5	1.4	2.3	7.0	4.2	1.0	2.0	2.6	1.8	1.7	0.9	1.4	1.1	1.1	2.6
1986	7	20	600	0.75	7.42	0.1	0.3	0.6	1.8	2.6	1.7	2.3	7.2	8.5	2.6	2.6	1.5	1.8	2.2	1.9	1.7	1.1	1.9	3.2
1986	7	20	1100	0.78	3.95	0.0	0.2	0.7	1.6	4.0	2.8	2.9	1.8	4.7	3.3	5.3	1.5	2.1	2.0	6.2	1.6	1.6	3.9	9.7
1986	7	20	1700	0.73	4.13	0.1	0.4	1.1	2.7	4.4	3.8	1.8	5.3	7.9	4.4	2.2	1.9	3.4	2.1	3.1	1.3	1.5	3.6	8.6
1986	7	20	2300	0.81	8.06	0.2	0.2	1.8	1.9	2.7	4.8	3.3	7.3	4.2	3.7	4.6	0.7	2.7	2.5	4.0	3.0	5.7	4.8	2.8
1986	7	21	600	0.84	10.89	0.2	0.2	2.9	10.4	19.1	10.5	4.5	6.7	5.4	1.7	2.2	0.9	2.3	1.4	1.6	1.6	0.8	1.7	3.4
1986	7	21	1100	1.01	9.75	0.1	0.2	1.0	8.8	15.3	18.2	15.3	5.0	7.8	2.9	2.0	2.6	2.0	1.5	1.4	0.5	0.6	1.9	0.3
1986	7	21	1700	0.96	10.89	0.1	0.2	1.8	7.8	24.0	17.8	11.8	9.9	1.2	2.3	3.1	2.0	1.9	0.9	2.2	0.6	1.4	1.1	1.9
1986	7	21	2300	0.99	9.75	0.1	0.3	1.4	0.8	16.3	21.8	15.1	7.1	7.6	6.6	2.2	2.9	2.1	1.3	1.3	1.0	0.6	1.1	1.4
1986	7	22	600	0.78	9.75	0.1	0.3	0.5	1.2	13.5	31.7	13.8	9.9	5.5	2.6	5.4	2.4	3.0	1.3	1.2	1.1	0.8	1.4	0.8
1986	7	22	1100	0.66	9.75	0.1	0.8	1.3	2.4	2.8	25.7	14.3	10.6	1.8	5.7	4.5	3.8	4.4	1.8	1.6	2.8	1.3	1.4	0.9
1986	7	22	1700	0.65	8.83	0.1	2.0	1.5	4.2	3.9	10.9	12.6	9.9	7.5	7.4	2.3	0.9	2.4	2.3	1.1	1.4	1.1	0.3	0.4
1986	7	22	2300	0.70	6.87	0.1	0.8	2.1	2.1	2.4	5.1	8.8	11.9	9.9	13.0	1.2	6.8	4.3	2.0	1,2	0.6	0.6	1.2	2.2
1986	7	23	600	0.54	8.06	0.3	1.1	3.5	5.3	2.6	3.4	13.2	17.6	7.2	8.0	6.3	5.0	2.2	2.2	1.3	3.3	1.9	1.4	1.0
1986	7	23	1100	0.75	6.87	0.1	0.2	3.0	0.9	2.8	3.3	7.0	9.8	11.5	15.8	5.8	5.5	2.5	2.4	4.2	2.4	2.8	1.9	2.6
1986	7	23	1700	0.83	4.76	0.1	0.4	2.1	0.6	4.0	4.2	4.3	6.1	6.4	6.9	2.2	3.7	1.8	1.4	2.6	7.0	5.6	3.2	2.8
1986	7	23	2300	0.96	4.76	0.1	0.3	0.7	2.0	1.7	1.5	4.8	2.0	3.9	5.6	2.9	4.8	1.7	4.6	2.9	7.5	2.6	3.6	6.0
1986	7	24	600	0.81	3.79	0.1	0.3	0.4	1.2	2.1	1.0	1.3	3.1	3.1	5.6	4.6	4.9	5.8	4.0	2.8	1.8	6.2	5.8	2.7
1986	7	24	1100	0.74	3.51	0.1	0.2	2.3	1.5	1.1	1.3	3.0	2.7	3.8	6.1	4.6	2.3	3.5	1.5	4.9	4.9	2.6	1.7	2.5
1986	7	24	1700	0.93	6.40	0.0	0.2	0.6	1.7	0.7	1.1	3.5	2.6	4.0	4.2	9.4	3.6	3.9	1.3	2.6	2.1	3.2	2.4	6.8
1986	7	24	2300	0.93	3.64	0.0	0.1	1.0	1.0	0.3	2.2	2.8	4.3	2.1	2.8	4.1	5.3	1.5	7.0	2.3	4.3	2.2	5.7	7.1
1986	7	25	600	0.96	5.02	0.1	0.2	0.5	1.6	0.5	2.2	3.5	5.6	2.3	3.8	5.5	3.8	5.1	5.1	6.6	4.7	4.0	2.4	3.1
1986	7	25	1100	0.93	3.79	0.1	0.1	1.2	2.0	1.4	2.2	1.0	5.4	2.5	4.5	5.3	5.6	4.5	5.3	2.8	2.9	2.9	5.5	5.0
1986	7	25	1700	0.93	7.42	0.2	0.2	0.3	0.9	0.9	1.9	4.2	5.8	9.9	7.7	3.0	7.5	2.5	2.7	2.5	5.3	5.2	1.9	3.9
1986	7	25	2300	0.98	3.79	0.1	0.1	0.3	2.2	1.6	1.4	4.9	7.0	6.5	2.7	4.2	2.2	4.4	3.2	2.2	2.6	1.1	1.5	5.0
1986	7	26	600	1.13	8.06	0.1	0.2	0.1	1.1	2.2	0.9	7.3	8.9	3.4	1.8	4.4	4.1	2.0	1.6	4.9	5.9	7.8	6.5	6.3
1986	7	26	1100	1.02	7.42	0.0	0.2	0.4	0.6	1.5	1.5	1.7	9.9	13.1	2.1	2.6	3.0	4.4	3.3	9.9	2.4	2.6	4.7	3.1
1986	7	26	1700	1.01	5.02	0.2	0.2	0.1	1.2	2.8	4.3	4.6	3.1	2.9	1.6	2.1	2.4	4.8	3.2	9.5	3.5	2.4	4.6	4.3
1986	7	26	2300	1.04	4.76	0.1	0.2	0.3	0.4	1.2	3.4	2.5	3.9	3.0	2.9	1.6	3.3	7.7	7.9	8.3	8.4	4.7	2.4	3.5

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	7	27	600	1.15	5.63	0.1	0.6	0.3	0.6	0.6	3.4	2.9	3.9	1.6	2.5	1.9	9.3	14.4	4.9	7.7	5.8	4.6	5.1	1.8
1986	7	27	1100	1.13	6.40	0.0	0.6	0.3	0.4	0.7	2.8	1.8	3.2	3.6	10.5	12.3	5.8	11.0	8.2	9.6	4.6	5.8	3.2	1.7
1986	7	27	1700	0.98	5.99	0.3	0.5	0.3	0.5	1.4	0.7	5.6	4.7	1.2	6.0	8.9	14.5	11.5	8.1	4.1	1.6	2.5	2.3	2.4
1986	7	27	2300	0.84	4.32	0.1	0.9	1.0	0.8	1.8	2.2	2.8	3.8	5.1	3.0	3.1	5.6	3.3	6.7	6.2	6.1	3.0	6.9	2.4
1986	7	28	600	0.84	8.83	0.1	1.4	0.7	0.5	1.0	3.4	14.3	8.4	2.7	9.8	3.3	8.8	7.3	5.2	2.4	4.5	3.4	0.9	1.6
1986	7	28	1100	0.75	8.83	0.1	0.3	1.0	1.0	0.9	6.4	20.0	8.3	6.9	4.9	4.7	6.8	8.2	7.6	5.5	1.4	1.0	1.9	1.1
1986	7	28	1700	0.72	8.83	0.1	0.8	1.3	1.1	0.4	3.9	16.1	11.1	3.3	8.5	6.6	4.7	5.9	5.2	5.4	4.6	1.7	4.2	1.9
1986	7	28	2300	0.65	7.42	0.2	0.8	3.2	0.6	1.3	2.6	7.1	5.8	14.4	10.1	7.6	11.0	9.1	2.0	5.3	2.3	3.0	2.0	1.9
1986	7	29	600	0.66	8.06	0.2	1.4	6.9	0.5	0.5	2.4	7.3	13.4	8.0	6.8	6.4	6.3	7.7	5.0	3.5	1.8	2.3	5.3	1.3
1986	7	29	1100	0.69	5.99	0.1	1.4	1.5	0.8	0.4	2.5	2.6	18.4	12.4	4.4	8.3	20.2	5.9	3.1	2.6	1.6	1.9	1.8	1.0
1986	7	29	1700	0.79	5.31	0.2	0.2	2.3	1.4	0.5	0.8	1.0	7.8	8.3	6.4	10.1	9.0	4.6	13.5	6.1	5.1	4.5	2.2	1.5
1986	7	29	2300	0.76	6.87	0.1	0.2	0.6	1.0	1.9	1.6	2.2	8.8	4.2	9.0	6.3	7.8	4.0	0.9	3.1	4.3	1.6	2.3	1.3
1986	7	30	600	0.75	5.99	0.0	0.2	1.2	1.3	0.8	2.7	2.3	7.6	9.2	8.1	11.4	15.2	5.6	4.6	3.3	4.3	3.6	1.3	2.0
1986	7	30	1100	0.74	6.87	0.1	.3	0.8	1.5	0.5	1.8	3.9	7.8	8.9	14.9	6.2	4.8	5.4	6.5	4.2	4.2	2.2	4.0	2.1
1986	7	30	1700	0.65	5.99	0.2	0.4	2.7	0.9	0.9	3.4	4.0	6.1	4.3	7.0	4.8	10.7	7.6	3.3	3.7	3.7	3.4	2.4	2.9
1986	7	30	2300	0.57	5.99	0.2	0.5	2.3	3.3	1.5	3.7	6.4	5.9	6.5	6.3	3.8	12.1	5.4	2.0	2.0	2.3	1.3	1.1	0.6
1986	7	31	600	0.53	7.42	0.2	0.3	1.5	4.5	1.9	1.7	5.2	7.6	13.4	8.3	12.1	7.1	3.6	7.0	3.7	1.0	2.1	0.8	0.2
1986	7	31	1100	0.57	5.63	0.2	0.5	1.4	2.5	1.3	1.8	2.1	6.9	8.1	11.1	4.5	4.2	12.5	7.6	3.4	1.5	1.0	1.1	0.4
1986	7	31	1700	0.86	6.40	0.1	0.0	0.4	1.1	0.6	0.5	1.7	4.8	4.6	4.1	20.4	13.7	9.1	8.0	13.2	2.0	2.0	2.1	2.1
1986	7	31	2300	0.83	6.87	0.2	0.1	0.2	0.9	0.8	0.7	1.8	5.7	6.9	15.5	11.3	5.4	3.6	4.1	5.3	2.5	4.2	1.2	1.9
1986	7	17	600	0.70	8.06	0.8	0.5	1.2	1.4	3.1	5.0	10.1	10.4	9.6	5.0	2.8	1.4	1.5	1.0	1.9	1.5	2.2	2.1	1.7
1986	7	17	1100	0.72	4.13	0.3	0.8	1.1	2.3	5.7	5.1	5.2	7.3	8.3	5.1	5.5	1.0	2.0	2.0	0.5	1.2	4.9	3.2	9.6
1986	7	17	1700	0.64	8.83	0.4	1.2	1.2	2.7	3.1	7.4	18.5	5.7	2.8	5.0	3.1	1.5	1.0	0.8	2.2	1.9	2.5	2.7	1.5
1986	7	17	2300	0.53	8.06	0.5	2.1	4.1	3.3	7.0	9.3	7.7	15.2	8.9	1.6	1.9	1.0	1.4	1.3	1.7	2.1	1.7	1.8	2.9
1986	7	18	600	0.58	6.87	0.4	1.5	4.1	3.7	4.9	7.0	7.2	6.0	9.8	10.6	9.0	1.7	2.7	4.2	3.3	4.8	0.9	2.6	2.1
1986	7	18	1100	0.51	8.06	0.2	0.9	4.0	4.3	4.7	7.5	5.6	13.9	6.2	2.7	1.3	3.6	5.0	2.2	2.3	3.0	4.6	3.1	1.7
1986	7	18	1700	0.49	8.06	0.1	0.5	1.5	5.2	4.3	1.7	9.4	24.3	3.9	6.7	5.1	0.8	4.6	3.2	5.9	4.4	1.8	2.9	1.4
1986	7	18	2300	0.57	8.06	0.2	1.3	1.9	3.0	3.9	4.0	8.6	12.3	4.5	3.6	3.6	2.8	3.5	2.6	2.6	5.3	6.2	6.0	1.2
1986	7	19	600	0.51	7.42	0.2	1.2	3.2	4.0	3.4	3.2	12.9	7.6	14.7	9.2	4.2	2.8	4.0	3.4	6.3	2.5	3.2	2.3	2.1
1986	7	19	1100	0.56	8.83	0.1	2.2	2.5	3.2	6.0	7.4	9.0	5.9	3.0	1.3	1.5	1.5	2.2	3.7	5.5	7.4	2.2	2.9	3.8
1986	7	19	1700	0.60	7.42	0.1	0.7	2.5	3.2	6.0	6.5	6.5	1.5	7.3	4.1	2.1	1.4	1.7	1.3	1.6	0.7	0.3	1.0	1.4
1986	7	19	2300	0.87	3.64	0.1	0.4	1.8	1.9	3.5	1.4	2.3	7.0	4.2	1.0	2.0	2.6	1.8	1.7	0.9	1.4	1.1	1.1	2.6
1986	7	20	600	0.75	7.42	0.1	0.3	0.6	1.8	2.6	1.7	2.3	7.2	8.5	2.6	2.6	1.5	1.8	2.2	1.9	1.7	1.1	1.9	3.2
1986	7	20	1100	0.78	3.95	0.0	0.2	0.7	1.6	4.0	2.8	2.9	1.8	4.7	3.3	5.3	1.5	2.1	2.0	6.2	1.6	1.6	3.9	9.7
1986	7	20	1700	0.73	4.13	0.1	0.4	1.1	2.7	4.4	3.8	1.8	5.3	7.9	4.4	2.2	1.9	3.4	2.1	3.1	1.3	1.5	3.6	8.6
1986	7	20	2300	0.81	8.06	0.2	0.2	1.8	1.9	2.7	4.8	3.3	7.3	4.2	3.7	4.6	0.7	2.7	2.5	4.0	3.0	5.7	4.8	2.8
1986	7	21	600	0.84	10.89	0.2	0.2	2.9	10.4	19.1	10.5	4.5	6.7	5.4	1.7	2.2	0.9	2.3	1.4	1.6	1.6	0.8	1.7	3.4
1986	7	21	1100	1.01	9.75	0.1	0.2	1.0	8.8	15.3	18.2	15.3	5.0	7.8	2.9	2.0	2.6	2.0	1.5	1.4	0.5	0.6	1.9	0.3
1986	7	21	1700	0.96	10.89	0.1	0.2	1.8	7.8	24.0	17.8	11.8	9.9	1.2	2.3	3.1	2.0	1.9	0.9	2.2	0.6	1.4	1.1	1.9
1986	7	21	2300	0.99	9.75	0.1	0.3	1.4	0.8	16.3	21.8	15.1	7.1	7.6	6.6	2.2	2.9	2.1	1.3	1.3	1.0	0.6	1.1	1.4
1986	7	22	600	0.78	9.75	0.1	0.3	0.5	1.2	13.5	31.7	13.8	9.9	5.5	2.6	5.4	2.4	3.0	1.3	1.2	1.1	0.8	1.4	0.8
1986	7	22	1100	0.66	9.75	0.1	0.8	1.3	2.4	2.8	25.7	14.3	10.6	1.8	5.7	4.5	3.8	4.4	1.8	1.6	2.8	1.3	1.4	0.9
1986	7	22	1700	0.65	8.83	0.1	2.0	1.5	4.2	3.9	10.9	12.6	9.9	7.5	7.4	2.3	0.9	2.4	2.3	1.1	1.4	1.1	0.3	0.4
1986	7	22	2300	0.70	6.87	0.1	0.8	2.1	2.1	2.4	5.1	8.8	11.9	9.9	13.0	1.2	6.8	4.3	2.0	1.2	0.6	0.6	1.2	2.2
1986	7	23	600	0.54	8.06	0.3	1.1	3.5	5.3	2.6	3.4	13.2	17.6	7.2	8.0	6.3	5.0	2.2	2.2	1.3	3.3	1.9	1.4	1.0
1986	7	23	1100	0.75	6.87	0.1	0.2	3.0	0.9	2.8	3.3	7.0	9.8	11.5	15.8	5.8	5.5	2.5	2.4	4.2	2.4	2.8	1.9	2.6
1986	7	23	1700	0.83	4.76	0.1	0.4	2.1	0.6	4.0	4.2	4.3	6.1	6.4	6.9	2.2	3.7	1.8	1.4	2.6	7.0	5.6	3.2	2.8
1986	7	23	2300	0.96	4.76	0.1	0.3	0.7	2.0	1.7	1.5	4.8	2.0	3.9	5.6	2.9	4.8	1.7	4.6	2.9	7.5	2.6	3.6	6.0
1986	7	24	600	0.81	3.79	0.1	0.3	0.4	1.2	2.1	1.0	1.3	3.1	3.1	5.6	4.6	4.9	5.8	4.0	2.8	1.8	6.2	5.8	2.7
1986	7	24	1100	0.74	3.51	0.1	0.2	2.3	1.5	1.1	1.3	3.0	2.7	3.8	6.1	4.6	2.3	3.5	1.5	4.9	4.9	2.6	1.7	2.5
1986	7	24	1700	0.93	6.40	0.0	0.2	0.6	1.7	0.7	1.1	3.5	2.6	4.0	4.2	9.4	3.6	3.9	1.3	2.6	2.1	3.2	2.4	6.8
1986	7	24	2300	0.93	3.64	0.0	0.1	1.0	1.0	0.3	2.2	2.8	4.3	2.1	2.8	4.1	5.3	1.5	7.0	2.3	4.3	2.2	5.7	7.1
1986	7	25	600	0.96	5.02	0.1	0.2	0.5	1.6	0.5	2.2	3.5	5.6	2.3	3.8	5.5	3.8	5.1	5.1	6.6	4.7	4.0	2.4	3.1
1986	7	25	1100	0.93	3.79	0.1	0.1	1.2	2.0	1.4	2.2	1.0	5.4	2.5	4.5	5.3	5.6	4.5	5.3	2.8	2.9	2.9	5.5	5.0
1986	7	25	1700	0.93	7.42	0.2	0.2	0.3	0.9	0.9	1.9	4.2	5.8	9.9	7.7	3.0	7.5	2.5	2.7	2.5	5.3	5.2	1.9	3.9
1986	7	25	2300	0.98	3.79	0.1	0.1	0.3	2.2	1.6	1.4	4.9	7.0	6.5	2.7	4.2	2.2	4.4	3.2	2.2	2.6	1.1	1.5	5.0
1986	7	26	600	1.13	8.06	0.1	0.2	0.1	1.1	2.2	0.9	7.3	8.9	3.4	1.8	4.4	4.1	2.0	1.6	4.9	5.9	7.8	6.5	6.3
1986	7	26	1100	1.02	7.42	0.0	0.2	0.4	0.6	1.5	1.5	1.7	9.9	13.1	2.1	2.6	3.0	4.4	3.3	9.9	2.4	2.6	4.7	3.1
1986	7	26	1700	1.01	5.02	0.2	0.2	0.1	1.2	2.8	4.3	4.6	3.1	2.9	1.6	2.1	2.4	4.8	3.2	9.5	3.5	2.4	4.6	4.3
1986	7	26	2300	1.04	4.76	0.1	0.2	0.3	0.4	1.2	3.4	2.5	3.9	3.0	2.9	1.6	3.3	7.7	7.9	8.3	8.4	4.7	2.4	3.5
1986	7	27	600	1.15	5.63	0.1	0.6	0.3	0.6	0.6	3.4	2.9	3.9	1.6	2.5	1.9	9.3	14.4	4.9	7.7	5.8	4.6	5.1	1.8
1986	7	27	1100	1.13	6.40	0.0	0.6	0.3	0.4	0.7	2.8	1.8	3.2	3.6	10.5	12.3	5.8	11.0	8.2	9.6	4.6	5.8	3.2	1.7
1986	7	27	1700	0.98	5.99	0.3	0.5	0.3	0.5	1.4	0.7	5.6	4.7	1.2	6.0	8.9	14.5	11.5	8.1	4.1	1.6	2.5	2.3	2.4
1986	7	27	2300	0.84	4.32	0.1	0.9	1.0	0.8	1.8	2.2	2.8	3.8	5.1	3.0	3.1	5.6	3.3	6.7	6.2	6.1	3.0	6.9	2.4
1986	7	28	600	0.84	8.83	0.1	1.4	0.7	0.5	1.0	3.4	14.3	8.4	2.7	9.8	3.3	8.8	7.3	5.2	2.4	4.5	3.4	0.9	1.6
1986	7	28	1100	0.75	8.83	0.1	0.3	1.0	1.0	0.9	6.4	20.0	8.3	6.9	4.9	4.7	6.8	8.2	7.6	5.5	1.4	1.0	1.9	1.1
1986	7	28	1700	0.72	8.83	0.1	0.8	1.3	1.1	0.4	3.9	16.1	11.1	3.3	8.5	6.6	4.7	5.9	5.2	5.4	4.6	1.7	4.2	1.9
1986	7	28	2300	0.65	7.42	0.2	0.8	3.2	0.6	1.3	2.6	7.1	5.8	14.4	10.1	7.6	11.0	9.1	2.0	5.3	2.3	3.0	2.0	1.9
1986	7	29	600	0.66	8.06	0.2	1.4	6.9	0.5	0.5	2.4	7.3	13.4	8.0	6.8	6.4	6.3	7.7	5.0	3.5	1.8	2.3	5.3	1.3
1986	7	29	1100	0.69	5.99	0.1	1.4	1.5	0.8	0.4	2.5	2.6	18.4	12.4	4.4	8.3	20.2	5.9	3.1	2.6	1.6	1.9	1.8	1.0
1986	7	29	1700	0.79	5.31	0.2	0.2	2.3	1.4	0.5	0.8	1.0	7.8	8.3	6.4	10.1	9.0	4.6	13.5	6.1	5.1	4.5	2.2	1.5
1986	7	29	2300	0.76	6.87	0.1	0.2	0.6	1.0	1.9	1.6	2.2	8.8	4.2	9.0	6.3	7.8	4.0	0.9	3.1	4.3	1.6	2.3	1.3
1986	7	30	600	0.75	5.99	0.0	0.2	1.2	1.3	0.8	2.7	2.3	7.6	9.2	8.1	11.4	15.2	5.6	4.6	3.3	4.3	3.6	1.3	2.0
1986	7	30	1100	0.74	6.87	0.1	0.3	0.8	1.5	0.5	1.8	3.9	7.8	8.9	14.9	6.2	4.8	5.4	6.5	4.2	4.2	2.2	4.0	2.1
1986	7	30	1700	0.65	5.99	0.2	0.4	2.7	0.9	0.9	3.4	4.0	6.1	4.3	7.0	4.8	10.7	7.6	3.3	3.7	3.7	3.4	2.4	2.9
1986	7	30	2300	0.57	5.99	0.2	0.5	2.3	3.3	1.5	3.7	6.4	5.9	6.5	6.3	3.8	12.1	5.4	2.0	2.0	2.3	1.3	1.1	0.6
1986	7	31	600	0.53	7.42	0.2	0.3	1.5	4.5	1.9	1.7	5.2	7.6	13.4	8.3	12.1	7.1	3.6	7.0	3.7	1.0	2.1	0.8	0.2
1986	7	31	1100	0.57	5.63	0.2	0.5	1.4	2.5	1.3	1.8	2.1	6.9	8.1	11.1	4.5	4.2	12.5	7.6	3.4	1.5	1.0	1.1	0.4
1986	7	31	1700	0.86	6.40	0.1	0.0	0.4	1.1	0.6	0.5	1.7	4.8	4.6	4.1	20.4	13.7	9.1	8.0	13.2	2.0	2.0	2.1	2.1
1986	7	31	2300	0.83	6.87	0.2	0.1	0.2	0.9	0.8	0.7	1.8	5.7	6.9	15.5	11.3	5.4	3.6	4.1	5.3	2.5	4.2	1.2	1.9

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	8	1	600	0.92	5.63	0.1	0.1	0.3	0.6	0.7	0.7	3.7	4.8	6.4	3.1	5.8	11.3	12.6	4.0	7.4	4.9	4.0	6.6	1.7
1986	8	1	1100	0.87	5.63	0.1	0.2	0.2	0.7	0.4	1.2	2.2	4.4	3.0	7.9	6.6	5.3	10.4	7.7	6.9	9.1	3.7	3.2	1.0
1986	8	1	1700	0.86	7.42	0.1	0.1	0.3	0.6	0.3	0.9	2.5	5.7	13.8	8.4	7.1	5.9	4.8	4.1	8.5	4.1	4.0	2.9	3.3
1986	8	1	2300	0.92	8.06	0.1	0.6	0.5	0.5	0.7	0.7	4.5	10.6	9.2	10.6	4.9	2.4	2.9	4.2	2.3	7.1	3.3	3.6	2.3
1986	8	2	600	0.96	5.63	0.0	0.5	0.4	0.7	0.4	1.9	3.3	3.5	6.7	8.4	7.1	5.9	10.9	6.4	5.5	1.9	1.9	2.0	1.1
1986	8	2	1100	0.90	8.06	0.2	1.0	0.4	0.7	0.5	1.2	6.4	9.2	6.1	8.0	1.8	4.5	6.7	5.0	3.8	2.8	2.4	2.6	3.0
1986	8	2	1700	0.79	7.42	0.1	0.7	0.9	0.6	1.1	5.1	3.1	8.0	11.8	4.3	7.9	5.7	5.3	3.9	4.0	1.9	2.1	3.0	1.3
1986	8	2	2300	1.07	6.87	0.1	0.8	0.8	0.3	0.3	2.1	5.3	6.6	5.4	11.8	5.3	3.7	2.2	2.4	2.1	3.6	1.7	2.5	2.1
1986	8	3	600	1.46	6.40	0.1	0.3	1.3	0.3	1.0	0.8	1.6	1.6	3.4	4.6	12.1	11.0	6.8	10.1	3.0	3.6	3.9	4.2	4.7
1986	8	3	1100	1.35	6.87	0.0	0.4	0.5	0.3	0.3	0.8	3.4	3.2	5.4	18.3	16.4	9.4	9.1	6.1	1.9	1.7	2.7	2.0	1.5
1986	8	3	1700	1.05	5.63	0.1	0.1	0.9	0.2	0.4	1.6	5.1	4.3	7.0	16.7	4.0	7.3	21.6	4.6	4.3	4.6	3.5	2.7	1.5
1986	8	3	2300	0.99	6.87	0.1	0.3	1.2	0.5	0.3	1.1	0.8	4.8	11.6	28.3	15.1	5.6	3.2	3.9	3.7	3.6	4.2	2.0	1.5
1986	8	4	600	0.81	6.40	0.2	0.2	1.1	0.9	0.4	0.7	1.2	4.6	2.9	20.1	21.0	11.6	8.1	3.8	5.1	4.5	2.8	1.0	1.3
1986	8	4	1100	0.81	6.40	0.1	0.2	3.2	1.0	0.5	0.8	1.3	4.2	8.4	12.0	18.2	9.5	6.9	5.5	3.7	3.3	4.2	1.4	1.9
1986	8	4	1700	0.79	5.63	0.1	0.1	2.3	1.1	0.6	1.1	2.2	2.6	10.1	14.9	11.2	6.7	16.3	7.6	5.0	3.0	1.4	2.5	1.7
1986	8	4	2300	0.79	5.99	0.2	0.4	1.9	0.8	0.7	1.6	3.9	5.2	4.4	5.0	4.1	15.0	5.5	11.8	3.3	6.8	2.8	3.4	1.5
1986	8	5	600	0.58	7.42	0.2	0.6	4.2	1.5	2.9	2.6	6.6	6.9	13.4	11.6	9.6	5.6	5.0	6.3	2.5	5.9	0.9	2.0	1.6
1986	8	5	1100	0.64	6.40	0.2	0.2	1.7	3.0	1.4	1.4	2.8	7.8	5.5	7.8	10.4	7.8	4.8	4.7	4.7	7.3	2.4	3.8	3.6
1986	8	5	1700	0.64	8.06	0.2	1.0	1.3	2.3	1.2	2.4	9.6	11.3	7.3	10.1	9.1	3.2	4.2	3.2	4.0	2.3	1.4	1.2	1.1
1986	8	5	2300	0.73	6.40	0.0	0.5	0.8	1.2	0.9	1.2	3.8	3.2	5.3	7.0	8.9	7.8	3.3	1.3	2.9	1.7	1.8	1.3	1.0
1986	8	6	600	0.60	6.87	0.2	0.4	0.9	3.0	0.9	1.8	8.5	5.6	5.4	11.9	5.3	7.5	3.6	3.1	1.6	2.3	1.4	0.7	2.5
1986	8	6	1100	0.71	5.99	0.1	0.3	0.8	2.4	2.0	2.0	2.2	3.0	4.5	6.6	5.1	11.8	2.8	2.7	3.9	3.8	3.0	1.0	1.8
1986	8	6	1700	0.71	5.99	0.1	0.2	0.3	1.7	1.9	4.8	4.7	7.5	7.3	7.3	4.6	9.0	2.4	2.0	2.5	1.4	2.4	2.1	1.9
1986	8	6	2300	0.91	3.15	0.2	0.4	0.6	0.2	0.6	0.8	1.9	3.1	2.9	2.7	3.5	6.1	1.7	1.1	2.4	1.4	3.7	1.0	3.8
1986	8	7	600	1.04	4.32	0.1	0.2	0.3	0.3	0.5	1.7	1.9	2.9	2.5	1.8	2.2	2.9	1.7	2.5	2.0	3.9	6.5	16.1	8.5
1986	8	7	1100	0.87	3.79	0.1	0.1	0.3	0.8	0.3	2.5	3.3	5.3	6.3	4.1	5.3	2.8	3.3	2.8	5.4	3.3	5.7	4.7	6.4
1986	8	7	1700	0.85	7.42	0.1	0.3	0.5	0.5	0.9	2.8	5.8	5.8	6.1	2.6	2.8	1.3	1.3	2.0	1.6	2.9	5.1	5.5	5.4
1986	8	7	2300	1.03	4.13	0.1	0.1	0.3	0.2	0.4	1.4	2.1	4.8	3.5	4.8	3.8	2.6	2.3	2.3	1.7	1.5	5.0	6.4	7.5
1986	8	8	600	0.96	5.02	0.1	0.2	0.5	0.4	0.6	2.5	2.9	2.9	1.7	2.8	1.6	1.0	3.5	7.2	21.4	11.5	3.4	5.6	1.4
1986	8	8	1100	0.93	4.53	0.2	0.1	0.5	0.3	0.4	1.0	4.5	4.5	2.3	1.3	1.6	2.4	7.6	8.8	6.6	4.3	9.3	7.1	3.7
1986	8	8	1700	1.16	5.63	0.1	0.2	0.4	0.1	0.4	0.7	1.3	3.1	1.9	3.2	2.9	6.6	11.7	8.8	6.8	3.5	5.1	4.0	3.8
1986	8	11	2300	0.87	7.42	0.1	0.1	0.4	1.0	0.6	0.5	1.8	3.5	15.0	10.6	11.7	5.4	3.4	6.2	4.4	5.1	7.9	2.5	4.2
1986	8	12	600	0.71	5.31	0.1	0.1	0.4	1.4	1.0	0.5	0.9	0.9	4.2	7.8	8.4	10.1	7.4	13.9	11.2	10.0	5.8	1.4	3.7
1986	8	12	1100	0.57	5.99	0.4	0.2	1.9	5.3	1.5	0.7	0.9	1.5	1.9	5.7	10.7	13.7	10.1	5.6	4.6	8.1	3.3	4.6	1.7
1986	8	12	1700	0.70	2.42	0.3	0.1	1.5	4.6	4.2	0.6	0.8	1.8	5.1	2.6	5.5	6.1	3.1	4.1	6.2	2.3	2.2	0.5	2.2
1986	8	12	2300	0.93	4.76	0.1	0.1	0.2	1.8	3.5	0.3	0.4	1.1	1.6	1.3	2.5	7.8	3.6	4.2	8.4	11.7	9.7	4.7	4.9
1986	8	13	600	1.29	4.76	0.1	0.1	0.1	1.1	0.7	0.4	0.4	0.6	0.6	0.8	0.7	0.7	2.1	5.4	6.8	8.6	8.3	3.7	3.9
1986	8	13	1100	1.72	5.99	0.1	0.1	0.1	0.3	0.3	0.2	0.3	0.5	0.5	2.2	5.7	15.6	8.8	7.4	9.2	1.8	3.7	4.3	3.9
1986	8	13	1700	1.73	6.40	0.0	0.1	0.2	0.3	0.5	0.1	0.3	1.2	3.0	9.1	18.3	6.1	12.9	7.0	4.4	6.1	2.8	2.2	2.1
1986	8	13	2300	1.31	5.31	0.1	0.1	0.1	0.3	0.3	0.2	0.6	1.2	5.4	3.2	7.1	7.2	6.8	12.8	5.0	3.8	4.4	2.3	3.2
1986	8	14	600	1.36	5.99	0.0	0.2	0.1	0.2	0.4	0.8	0.4	0.6	2.5	4.7	6.2	23.3	3.5	4.3	5.8	7.6	5.0	5.1	3.4
1986	8	14	1100	1.24	5.99	0.0	0.1	0.1	0.1	0.4	0.4	0.5	0.9	1.8	2.8	8.9	15.5	7.9	8.1	3.1	5.8	6.4	1.6	5.0
1986	8	14	1700	1.22	5.31	0.1	0.2	0.1	0.2	0.3	0.3	0.6	2.4	1.1	2.3	7.7	7.0	8.7	9.1	5.5	8.4	3.6	6.5	3.4
1986	8	14	2300	1.04	5.63	0.1	0.2	0.1	0.4	1.3	2.3	5.9	6.2	7.2	4.9	3.5	1.6	8.5	4.0	6.8	5.4	4.9	2.2	2.6
1986	8	15	600	0.98	5.63	0.1	0.1	0.2	0.2	0.6	1.5	2.8	8.0	9.8	4.6	7.9	8.2	10.4	4.2	7.1	4.6	4.7	2.6	2.4
1986	8	15	1100	0.92	6.87	0.1	0.2	0.1	0.2	0.7	1.0	4.2	7.2	2.3	11.3	8.6	5.9	10.1	2.0	5.5	4.2	4.4	2.9	4.3
1986	8	15	1700	0.82	6.40	0.0	0.1	0.3	0.4	0.7	1.4	4.3	4.8	3.2	6.7	24.9	11.6	3.7	2.1	4.1	4.3	2.1	3.9	1.0
1986	8	15	2300	0.81	5.31	0.0	0.1	0.4	0.2	0.4	2.9	5.5	4.8	8.5	4.7	6.7	8.9	8.2	11.9	3.8	2.3	1.7	2.9	2.2
1986	8	16	600	0.72	8.06	0.0	0.6	0.8	0.2	1.4	4.7	2.3	17.7	6.0	4.5	4.6	7.9	7.4	2.8	4.9	1.2	1.6	3.9	2.5
1986	8	16	1100	0.61	8.83	0.1	0.2	2.2	1.3	1.6	3.4	12.3	3.3	4.1	7.0	5.9	7.3	5.0	2.3	5.1	3.7	2.0	2.1	2.0
1986	8	16	1700	0.74	7.42	0.1	0.2	1.8	0.3	2.6	2.7	11.6	9.4	15.3	6.9	6.1	4.4	2.2	3.4	2.3	2.4	3.5	0.8	1.5
1986	8	16	2300	0.72	8.06	0.1	0.4	1.2	0.4	1.4	8.4	6.1	9.8	4.8	9.3	6.5	5.8	3.7	2.1	2.6	3.3	0.9	1.7	2.7
1986	8	17	600	0.84	8.83	0.1	0.0	0.7	0.3	1.4	4.7	25.0	7.5	6.3	5.5	5.9	4.6	2.8	2.3	2.0	1.7	1.9	1.5	0.8
1986	8	17	1100	0.93	9.75	0.0	0.2	1.3	0.3	1.5	16.5	13.1	9.7	5.9	0.8	2.5	3.5	1.5	2.0	1.3	2.2	2.1	2.0	2.6
1986	8	17	1700	1.11	6.40	0.0	0.0	0.6	1.6	0.8	2.3	7.2	7.2	5.0	6.3	8.5	6.7	4.6	4.8	2.6	2.3	2.3	2.3	1.9
1986	8	17	2300	2.20	8.06	0.0	0.0	0.2	0.3	3.7	4.6	7.8	24.0	9.4	2.1	3.0	5.3	7.8	2.9	2.9	2.2	2.7	2.9	3.0
1986	8	18	200	2.46	8.83	0.0	0.1	0.2	1.5	2.8	13.0	17.7	4.7	3.3	7.6	11.2	4.4	2.2	3.2	3.8	2.1	4.8	3.1	2.2
1986	8	19	459	3.39	10.89	0.2	0.1	0.3	2.8	11.1	10.4	7.2	5.3	3.1	6.4	6.2	6.2	5.6	8.7	5.7	3.2	2.3	3.4	1.4
1986	8	18	700	3.83	5.99	0.1	0.2	0.1	0.9	6.9	7.1	3.5	4.8	7.5	5.0	11.8	12.1	5.7	7.3	8.4	3.0	1.9	2.1	1.1
1986	8	19	1700	1.00	8.83	0.1	0.2	0.8	1.6	1.9	5.7	15.4	8.2	10.9	15.1	6.0	4.0	9.1	3.7	1.8	1.0	1.6	1.6	1.0
1986	8	19	2300	1.19	6.87	0.1	0.1	0.4	0.8	1.4	2.9	3.4	7.2	11.6	13.3	7.8	11.3	7.3	4.8	4.6	3.3	3.0	3.0	1.6
1986	8	20	600	1.01	7.42	0.3	0.1	0.6	1.2	2.6	2.2	6.7	4.3	12.1	8.4	11.6	4.5	5.5	4.8	0.7	4.4	0.7	1.8	1.9
1986	8	20	1100	1.16	6.40	0.4	0.1	0.8	1.8	2.1	4.6	3.7	4.5	3.0	2.9	8.2	2.7	4.6	1.7	3.5	1.8	1.9	1.5	2.7
1986	8	20	1700	1.82	5.31	0.1	0.1	0.3	0.3	3.4	3.9	2.9	3.0	0.9	1.9	2.2	2.3	6.0	23.1	9.9	8.6	2.6	2.6	4.0
1986	8	20	2300	2.15	6.40	0.1	0.2	0.6	0.3	0.5	1.5	1.6	2.4	2.8	6.2	10.5	8.7	5.8	5.3	9.7	3.5	3.8	5.0	3.2
1986	8	21	600	2.17	5.99	0.0	0.2	0.4	0.5	0.6	1.5	1.0	1.7	2.2	6.7	9.6	13.2	11.4	6.0	4.1	3.3	11.8	3.9	2.0
1986	8	21	1100	2.13	7.42	0.0	0.3	0.1	0.3	0.3	1.6	6.6	2.6	16.3	6.1	12.9	5.2	2.8	4.7	6.2	5.0	3.8	4.0	2.1
1986	8	21	1700	1.94	7.42	0.0	0.4	0.2	0.8	0.6	1.7	5.3	11.0	17.4	15.6	5.5	7.7	2.5	6.8	4.2	2.2	1.3	2.0	2.3
1986	8	21	2300	1.59	6.87	0.0	0.6	0.1	3.5	7.4	6.1	4.4	3.2	8.1	13.4	10.1	8.4	2.0	5.1	5.9	3.5	1.3	3.2	2.7
1986	8	22	600	1.41	7.42	0.0	1.2	1.1	1.6	11.3	5.5	3.8	2.5	11.5	6.4	5.6	2.5	2.7	5.0	2.1	2.0	7.2	3.9	1.5
1986	8	22	1100	1.71	5.99	0.1	0.5	1.3	2.5	7.5	3.2	3.0	4.4	1.3	6.4	6.1	9.8	9.4	7.5	4.6	2.8	1.3	4.1	3.8
1986	8	22	1700	1.31	12.34	0.1	1.8	8.3	11.1	5.9	2.8	2.1	2.0	1.5	3.4	8.2	6.6	7.8	2.8	2.6	4.8	3.3	2.6	1.7
1986	8	22	2300	1.18	12.34	0.1	0.6	5.8	15.7	9.1	7.3	4.8	4.1	7.0	6.3	3.5	4.8	4.2	0.8	1.6	2.6	1.6	1.1	1.0
1986	8	23	600	1.22	14.22	0.2	1.5	11.7	9.0	6.6	8.9	7.4	5.7	7.0	11.5	4.4	2.4	4.3	2.1	1.2	2.9	1.3	1.1	1.3
1986	8	23	1100	1.21	12.34	0.1	2.5	13.3	18.3	6.0	5.9	7.0	5.8	4.2	6.2	3.7	3.6	4.3	4.1	1.5	1.6	0.9	0.9	1.4
1986	8	23	1700	1.38	10.89	0.1	1.8	13.2	21.6	24.6	6.1	4.7	1.1	2.8	1.8	1.4	1.0	0.9	1.6	1.3	0.6	0.6	0.9	0.4
1986	8	23	2300	1.66	12.34	0.1	0.2	4.7	10.6	5.8	2.6	6.0	4.9	7.7	5.6	3.3	0.9	0.8	0.9	1.0	0.9	1.3	3.5	4.5
1986	8	24	600	1.91	4.53	0.0	0.3	11.3	9.4	4.2	2.8	3.0	1.0	1.5	1.5	1.3	0.9	3.5	4.8	9.8	4.9	18.7	2.9	1.4
1986	8	24	1100	1.33	12.34	0.1	0.4	15.6	16.0	15.4	5.8	4.2	2.0	2.3	0.8	0.7	1.1	1.9	2.5	6.0	4.0	2.2	2.1	1.4
1986	8	24	1700	1.32	12.34	0.1	0.4	4.2	21.9	7.7	6.0	2.7	1.7	1.3	0.7	1.4	1.9	1.1	3.3	5.2	5.8	2.6	3.5	3.2

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	8	24	2300	1.13	12.34	0.0	0.2	2.8	35.0	7.8	5.4	3.9	3.1	2.6	1.2	0.3	0.7	1.1	3.8	1.9	1.0	3.2	2.7	1.5
1986	8	25	600	1.05	12.34	0.1	0.2	5.0	16.6	14.0	4.9	1.9	0.6	0.5	0.3	0.5	0.3	2.7	2.8	2.8	4.1	4.4	2.2	3.5
1986	8	25	1100	1.02	12.34	0.0	0.2	4.7	10.5	9.5	4.1	4.3	2.2	1.0	0.6	0.2	0.7	1.2	3.3	3.5	3.6	4.8	7.7	4.4
1986	8	25	1700	0.96	5.63	0.0	0.2	4.4	10.4	6.2	3.5	3.0	0.9	0.7	1.2	1.6	1.6	13.9	2.3	6.2	7.0	4.4	6.8	3.3
1986	8	25	2300	0.76	12.34	0.1	0.3	3.6	29.2	15.4	4.6	1.5	1.3	0.7	0.3	0.2	0.4	0.6	1.0	2.2	2.1	2.4	2.7	1.0
1986	8	26	600	0.81	10.89	0.1	0.7	1.6	8.1	17.0	2.9	4.8	1.6	0.6	0.2	0.2	0.3	0.3	0.2	0.8	2.2	5.0	5.9	7.0
1986	8	26	1100	0.87	8.06	0.0	0.1	1.9	7.2	7.5	4.4	2.7	8.5	1.7	0.6	0.3	0.3	0.3	0.2	1.0	1.8	1.4	4.4	7.9
1986	8	26	1700	1.07	12.34	0.1	0.2	2.1	10.5	5.4	1.7	2.5	2.4	0.9	0.8	0.2	0.5	0.2	0.8	1.0	0.8	1.3	7.3	8.4
1986	8	26	2300	1.28	4.53	0.1	0.2	2.0	3.7	4.6	2.0	0.7	0.8	0.2	0.2	0.2	0.3	0.6	1.2	2.5	10.1	13.7	5.0	9.8
1986	8	27	600	1.57	5.02	0.0	0.1	0.7	2.1	0.8	0.8	1.8	0.7	0.2	0.6	0.9	3.0	2.3	13.3	17.0	7.9	9.0	7.8	3.8
1986	8	27	1100	1.58	4.76	0.1	0.1	0.4	1.0	1.0	0.9	0.3	0.5	0.6	0.3	0.5	1.7	7.9	12.7	7.1	20.3	2.4	6.3	3.5
1986	8	27	1700	1.22	4.76	0.0	0.1	0.7	4.1	1.4	1.0	1.1	0.8	0.8	0.3	0.8	4.1	5.5	12.4	10.1	20.5	4.4	1.3	2.7
1986	8	27	2300	0.88	5.31	0.0	0.4	1.8	3.5	4.7	4.5	1.2	1.0	0.8	0.6	0.6	1.4	1.7	5.8	4.7	5.1	4.7	4.9	4.6
1986	8	28	600	0.81	10.89	0.1	1.0	1.1	4.9	8.3	2.8	2.5	1.4	2.7	1.0	2.5	3.1	8.0	4.0	4.0	4.0	3.9	3.7	3.6
1986	8	28	1100	0.91	4.76	0.1	0.2	1.3	4.7	5.8	1.9	1.6	1.8	1.9	3.6	3.5	7.5	3.9	3.7	2.7	9.5	6.8	7.5	2.9
1986	8	28	1700	1.60	5.31	0.0	0.1	0.4	0.7	0.2	0.9	0.6	0.3	0.3	0.5	1.0	2.8	12.0	16.1	10.3	13.9	2.3	3.8	2.9
1986	8	28	2300	1.45	5.31	0.0	0.1	0.1	0.7	0.6	0.8	0.5	1.1	2.2	3.5	8.1	8.0	8.0	16.0	5.5	3.0	5.2	1.5	2.2
1986	8	29	600	1.52	4.53	0.0	0.1	0.3	0.7	0.4	0.4	0.8	2.2	3.5	8.7	6.8	5.4	8.6	3.4	7.4	4.3	12.6	3.6	5.1
1986	8	29	1100	1.00	6.87	0.0	0.1	0.4	0.6	2.1	1.3	0.8	1.6	2.5	9.7	8.1	8.2	4.9	3.9	3.1	4.2	4.7	3.5	3.7
1986	8	29	1700	1.06	5.02	0.1	0.1	0.4	0.5	1.9	0.9	0.5	1.0	2.1	2.5	8.1	3.2	7.3	5.9	11.4	8.6	1.9	6.9	2.0
1986	8	29	2300	0.79	5.31	0.2	0.1	0.8	0.6	2.1	3.4	1.7	2.3	2.8	3.7	7.1	3.8	3.3	9.2	4.3	5.2	6.9	8.3	2.8
1986	8	30	600	0.61	5.99	0.1	0.3	1.2	1.2	2.9	6.2	3.4	7.4	9.1	5.1	2.5	9.2	7.4	4.7	2.0	5.9	1.5	1.0	2.1
1986	8	30	1100	0.73	8.06	0.1	0.3	0.8	1.3	3.8	2.8	5.2	7.0	6.0	6.8	3.0	4.6	3.9	3.3	2.9	1.9	0.4	1.2	1.4
1986	8	30	1700	0.77	8.83	0.1	0.1	0.6	0.9	1.4	2.2	7.9	4.3	5.1	1.8	4.4	4.2	3.1	2.5	4.6	3.4	3.6	3.2	3.0
1986	8	30	2300	0.71	7.42	0.1	0.7	0.8	2.0	1.5	3.3	5.0	6.7	9.1	4.5	2.8	4.6	5.6	2.8	2.8	2.0	5.6	1.5	3.3
1986	8	31	600	0.72	8.06	0.1	0.3	1.7	1.5	1.9	6.1	7.9	7.9	5.7	7.1	4.8	5.6	5.5	2.7	2.1	3.5	3.5	5.7	2.4
1986	8	31	1100	0.75	8.06	0.2	0.4	0.9	1.4	2.9	3.1	6.2	10.1	4.6	9.4	7.8	3.0	3.1	2.9	2.8	2.7	1.8	2.3	3.7
1986	8	31	1700	0.93	8.06	0.1	0.2	0.3	1.0	1.8	5.6	6.1	13.5	7.6	5.1	3.4	5.9	2.7	1.2	1.1	1.4	1.5	0.9	1.3
1986	8	31	2300	0.81	8.06	0.1	0.6	1.0	1.4	2.4	7.4	11.1	13.5	7.4	8.0	6.7	6.2	4.2	1.4	2.4	1.6	2.0	0.7	1.0
1986	9	1	600	0.92	6.87	0.2	0.2	0.8	1.1	1.9	3.8	12.8	9.6	10.1	16.7	2.2	5.8	5.0	1.7	3.2	1.3	1.6	4.3	1.6
1986	9	1	1100	0.96	8.83	0.1	0.4	0.6	0.9	1.3	11.3	11.9	7.9	9.1	6.8	3.9	4.8	3.8	3.0	2.4	1.3	0.6	1.4	0.9
1986	9	1	1700	0.88	8.06	0.1	0.5	1.0	1.0	0.9	3.5	8.4	11.2	3.8	7.6	5.2	1.8	1.9	4.0	4.7	3.0	1.5	1.9	1.1
1986	9	1	2300	0.87	6.40	0.1	0.2	0.5	0.5	2.1	5.1	5.1	6.7	10.1	4.8	10.5	2.9	1.9	4.4	2.4	2.4	3.5	2.7	3.2
1986	9	2	600	0.83	5.99	0.1	0.2	0.6	0.9	1.1	3.1	5.2	9.3	6.8	5.4	2.7	10.9	6.1	5.1	5.2	3.7	4.6	1.4	3.7
1986	9	2	1100	0.84	5.99	0.1	0.3	0.7	0.7	2.7	2.8	8.2	8.1	8.8	7.0	9.8	10.1	4.8	5.8	3.9	3.5	3.0	2.8	1.1
1986	9	2	1700	0.83	8.06	0.1	0.4	0.8	1.0	1.8	1.4	4.7	11.4	8.7	4.7	2.9	2.4	3.5	5.8	2.1	2.4	2.4	2.5	2.0
1986	9	2	2300	0.86	7.42	0.1	0.3	0.7	0.8	1.3	2.0	3.2	6.8	10.4	7.3	6.9	3.2	1.8	3.3	2.5	1.5	3.8	2.4	3.4
1986	9	3	600	0.76	7.42	0.1	0.3	0.6	0.9	1.6	3.7	3.8	6.6	8.1	3.3	4.7	3.8	3.6	4.2	2.5	2.2	3.5	2.8	3.1
1986	9	3	1100	0.89	5.63	0.1	0.2	1.1	1.3	1.1	2.6	6.5	3.8	5.5	3.3	5.3	6.1	8.4	3.5	7.3	3.9	3.3	6.9	4.2
1986	9	3	1700	0.76	8.83	0.1	0.1	0.6	1.9	2.0	3.0	8.1	3.3	6.3	4.7	4.3	3.7	3.3	3.6	6.1	4.2	4.7	2.4	2.1
1986	9	3	2300	1.00	7.42	0.0	0.1	0.8	0.8	0.8	2.5	3.8	3.1	7.0	5.0	3.7	2.9	2.2	1.9	1.7	2.5	3.8	1.7	3.8
1986	9	4	600	1.07	5.31	0.0	0.1	0.2	0.5	0.9	0.7	3.9	4.2	2.9	2.3	4.2	6.1	3.3	7.2	5.0	2.8	4.9	5.7	5.6
1986	9	4	1100	1.20	4.32	0.0	0.1	0.5	0.3	0.5	0.6	1.6	3.6	3.4	2.4	2.3	1.1	1.2	3.6	6.1	10.1	4.7	10.9	4.4
1986	9	4	1700	1.27	5.02	0.0	0.0	0.3	0.6	0.6	1.3	3.8	10.1	7.8	4.0	4.4	8.3	4.2	4.3	10.8	5.3	5.2	3.0	2.8
1986	9	4	2300	1.30	6.40	0.1	0.1	1.2	0.6	1.2	1.2	3.0	7.6	2.6	5.1	11.6	8.3	9.3	4.2	5.0	3.8	8.5	4.4	3.3
1986	9	5	600	1.12	6.87	0.0	0.1	1.3	1.5	1.1	3.0	3.8	2.8	10.6	13.3	9.9	9.4	4.3	7.2	4.1	2.0	4.2	4.0	1.9
1986	9	5	1100	1.22	6.87	0.1	0.1	1.7	4.5	0.5	1.2	3.1	5.2	13.1	18.4	7.6	8.6	5.2	2.9	3.3	3.1	2.5	2.1	1.4
1986	9	5	1700	1.21	8.06	0.0	0.1	0.4	3.6	1.3	1.6	3.7	20.1	6.5	10.6	7.4	11.5	2.2	3.7	1.9	3.2	3.7	1.5	2.1
1986	9	5	2300	1.45	7.42	0.0	0.1	0.2	1.2	5.0	7.9	5.7	14.6	18.2	5.2	6.7	4.5	2.0	3.9	1.3	0.9	1.2	1.4	0.9
1986	9	6	600	1.06	8.06	0.0	0.1	0.2	4.2	2.4	2.9	18.9	20.7	13.4	4.8	3.3	2.1	2.5	1.6	0.5	1.0	1.4	1.0	1.6
1986	9	6	1100	1.11	5.99	0.0	0.1	0.1	3.1	2.9	7.1	4.7	9.0	5.5	8.0	7.5	11.1	4.6	2.9	2.4	3.4	2.8	4.0	2.1
1986	9	6	1700	0.90	8.06	0.0	0.2	0.3	1.0	6.1	2.7	10.0	11.8	8.6	6.4	3.3	6.7	2.1	5.7	4.4	2.2	1.7	1.5	4.6
1986	9	6	2300	0.78	5.99	0.1	0.2	0.2	0.7	6.1	1.5	11.4	10.6	10.4	6.9	8.1	13.5	3.1	1.9	2.1	1.9	3.2	1.9	1.3
1986	9	7	600	0.65	9.75	0.1	0.5	0.9	1.1	5.1	20.0	12.0	8.8	7.0	9.3	3.5	6.9	3.8	2.6	3.7	2.3	1.5	1.8	0.9
1986	9	7	1100	0.88	8.06	0.0	0.2	0.8	1.1	5.3	4.6	9.2	14.9	14.4	4.4	4.0	1.7	1.4	3.5	1.7	1.3	0.9	0.5	1.2
1986	9	7	1700	0.81	9.75	0.1	0.4	0.9	1.2	4.7	17.8	10.8	9.6	10.6	6.1	1.5	1.2	1.5	0.5	0.6	1.6	1.4	0.6	0.9
1986	9	7	2300	0.81	9.75	0.1	0.1	2.3	3.2	2.9	11.0	7.8	8.6	9.0	2.1	3.9	2.5	0.9	2.7	3.4	5.9	3.3	4.8	3.7
1986	9	8	600	0.82	8.83	0.1	0.1	1.1	2.7	2.4	7.9	15.8	4.6	2.9	4.2	1.6	2.5	1.8	4.0	4.3	7.3	1.7	2.5	1.6
1986	9	8	1100	1.07	3.64	0.0	0.1	0.7	3.3	1.4	2.8	6.0	7.6	5.3	3.0	1.7	0.7	1.0	0.8	1.0	1.9	1.8	6.8	5.8
1986	9	8	1700	0.73	12.34	0.1	0.1	0.7	10.1	2.2	1.9	5.8	8.7	5.6	5.4	1.9	2.1	1.5	0.9	1.3	0.6	1.5	2.2	3.3
1986	9	8	2300	0.86	10.89	0.1	0.1	0.8	5.4	12.0	2.5	3.3	8.5	5.7	8.6	8.8	5.1	3.1	0.9	2.7	1.4	1.6	2.0	4.1
1986	9	9	600	0.65	6.87	0.0	0.1	2.7	5.8	6.6	5.9	3.4	6.0	6.3	14.5	4.5	1.5	3.5	4.7	2.8	2.8	1.8	3.0	2.2
1986	9	9	1100	0.74	10.89	0.0	0.1	0.7	5.7	9.4	3.2	4.0	4.5	4.6	5.3	9.3	4.3	4.4	1.5	3.2	2.7	4.6	1.3	2.6
1986	9	9	1700	0.67	7.42	0.1	0.1	0.7	1.6	6.6	5.7	4.4	4.7	13.1	4.4	8.2	8.3	2.9	4.7	1.6	5.2	2.3	1.4	2.8
1986	9	9	2300	0.58	6.87	0.0	0.2	0.8	3.6	3.6	8.6	4.0	1.7	5.6	12.5	5.2	2.0	8.9	6.0	3.3	1.9	2.3	1.3	2.1
1986	9	10	600	0.56	9.75	0.2	0.6	1.0	3.6	4.8	12.6	6.6	11.4	3.8	8.2	4.9	4.0	2.5	3.7	2.7	1.4	3.5	1.8	0.6
1986	9	10	1100	0.56	8.83	0.1	0.2	0.4	2.7	7.9	10.5	20.8	5.4	9.7	9.0	7.7	2.1	2.2	2.9	1.9	2.2	1.1	0.7	0.5
1986	9	10	1700	0.70	8.06	0.1	0.1	0.5	2.3	3.3	7.2	5.4	7.4	3.8	5.1	7.2	4.6	5.3	2.1	2.1	3.6	1.7	1.0	1.1
1986	9	10	2300	0.77	9.75	0.2	0.2	0.4	1.4	3.2	8.4	4.9	2.3	2.2	3.1	2.4	2.7	3.2	2.9	1.6	0.9	0.7	0.6	1.9
1986	9	11	600	1.09	4.32	0.1	0.2	0.3	0.3	4.0	2.1	1.2	2.2	2.2	0.5	0.9	1.1	1.2	0.9	1.7	1.5	5.7	10.0	9.4
1986	9	11	1100	1.21	4.53	0.0	0.1	0.2	0.3	1.2	2.1	1.6	1.3	2.5	3.0	1.7	1.4	1.9	2.7	2.3	3.8	11.1	8.4	7.2
1986	9	11	1700	1.28	4.13	0.0	0.1	0.2	0.5	0.5	2.2	2.2	1.5	1.1	1.2	2.3	0.7	3.1	1.5	2.1	3.1	3.1	10.2	13.7
1986	9	11	2300	1.18	4.53	0.1	0.1	0.1	0.6	1.0	1.8	1.1	0.9	0.5	1.6	2.0	2.2	2.3	2.1	1.6	4.1	15.4	14.5	10.2
1986	9	12	600	1.59	5.02	0.0	0.0	0.2	0.3	1.0	2.1	1.6	1.4	1.2	0.7	3.3	7.7	8.6	11.0	11.4	6.7	4.2	3.8	1.1
1986	9	12	1100	1.28	5.31	0.0	0.1	0.2	0.1	1.3	1.2	2.0	0.4	0.8	1.0	1.6	3.8	6.3	9.5	4.9	8.1	5.6	7.5	4.6
1986	9	12	1700	1.29	4.76	0.1	0.1	0.5	0.2	0.4	1.1	2.2	2.1	5.4	4.0	5.1	6.4	6.7	4.7	5.8	7.2	6.4	2.9	3.1
1986	12	4	1700	1.04	9.75	0.0	0.1	1.4	2.9	9.5	22.1	10.8	7.3	1.5	1.1	0.8	0.8	0.6	0.5	0.9	0.8	3.2	2.7	3.0
1986	12	4	2300	0.84	9.75	0.0	0.2	2.0	4.6	14.4	20.6	11.4	13.6	5.5	3.5	2.2	0.5	0.6	0.8	0.6	0.4	0.2	0.3	0.3
1986	12	5	1100	0.69	9.75	0.1	0.6	2.0	6.7	9.1	16.9	14.9	15.7	1.3	1.3	0.4	0.5	0.1	0.3	0.2	0.3	0.4	0.5	0.6
1986	12	5	1700	0.90	3.64	0.1	0.3	2.7	6.6	2.3	7.6	5.9	2.1	0.6	0.5	0.3	0.3	0.4	0.5	1.2	0.8	3.1	5.7	4.1

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	12	5	2300	0.78	3.95	0.1	0.6	2.5	3.6	4.7	5.2	6.1	1.7	1.5	0.3	0.4	0.2	0.2	0.6	0.9	1.5	4.7	1.4	6.2
1986	12	6	1100	0.69	8.83	0.1	2.8	6.0	5.7	4.9	2.8	10.5	6.9	3.3	0.8	1.1	0.9	0.9	1.3	1.8	2.3	1.9	3.4	2.0
1986	12	6	1700	0.62	14.22	0.2	3.1	18.1	4.5	3.6	13.1	12.5	6.5	1.9	2.0	0.9	0.6	1.3	0.7	1.7	0.7	3.1	2.7	3.1
1986	12	6	2300	0.53	8.06	0.2	1.6	11.4	5.3	4.6	9.6	10.1	12.6	6.4	4.1	0.9	0.6	1.0	0.4	0.3	1.0	0.6	0.5	0.5
1986	12	7	1100	0.46	12.34	0.4	5.2	9.0	20.1	5.5	7.8	14.8	9.7	5.3	3.2	2.3	0.9	0.5	0.7	0.6	0.5	0.8	0.6	0.3
1986	12	7	1700	0.46	14.22	0.5	5.7	30.2	8.4	2.8	12.1	7.5	5.9	4.4	4.2	2.0	1.6	1.1	1.0	1.7	0.5	0.5	0.7	0.3
1986	12	7	2300	0.64	8.06	0.1	5.2	5.4	4.3	2.9	3.3	5.3	5.7	3.2	2.5	1.7	1.5	0.5	0.6	0.6	0.7	0.8	0.5	0.6
1986	12	8	1100	0.67	8.83	0.0	1.4	3.3	1.8	1.4	3.9	7.3	2.5	2.7	1.4	0.9	5.5	7.3	5.3	6.3	4.2	6.3	6.3	3.8
1986	12	8	1700	0.56	8.83	0.1	0.7	2.1	1.2	0.9	2.3	12.7	4.7	5.2	1.9	1.3	0.8	0.5	0.5	1.2	0.9	3.2	4.9	1.9
1986	12	8	2300	0.66	3.05	0.1	1.6	3.9	1.8	0.7	2.5	5.0	5.5	1.8	1.2	1.6	1.3	1.6	1.1	1.7	1.2	0.9	1.0	1.0
1986	12	9	1100	1.01	5.63	0.0	0.2	0.9	0.6	0.7	2.5	5.1	2.9	1.3	1.8	2.6	5.4	29.9	9.3	3.8	4.9	7.1	1.5	0.9
1986	12	9	1700	1.38	6.40	0.0	0.2	0.5	0.7	2.0	1.8	2.7	3.5	11.9	12.1	21.2	3.5	8.3	7.5	4.8	3.1	1.7	2.3	1.5
1986	12	9	2300	1.38	7.42	0.0	0.1	0.1	0.7	3.3	3.5	5.4	7.0	14.7	8.9	3.6	5.5	1.6	2.1	4.4	2.2	10.0	3.8	4.2
1986	12	10	1100	1.53	8.83	0.1	0.2	0.3	0.5	3.3	6.9	12.0	5.9	7.4	4.4	8.1	4.6	5.8	6.4	4.7	3.6	1.6	2.5	4.8
1986	12	10	1700	1.36	8.06	0.0	0.2	0.7	0.6	2.6	7.8	6.7	16.6	11.7	15.5	2.3	2.3	5.7	3.5	2.2	3.1	3.4	2.3	1.8
1986	12	10	2300	0.98	9.75	0.1	0.4	0.8	0.6	1.7	11.8	10.0	7.1	9.8	4.5	5.2	6.1	3.4	6.7	7.4	3.7	3.1	2.6	1.9
1986	12	11	1100	1.11	3.95	0.1	0.6	0.4	0.6	2.8	3.0	2.8	2.3	1.9	2.9	1.9	1.5	0.7	0.6	1.4	2.8	8.1	7.9	5.4
1986	12	11	1700	1.06	4.32	0.5	1.3	0.6	0.7	1.1	2.8	4.4	3.7	2.0	2.6	3.7	2.0	1.0	1.2	3.3	2.6	4.3	7.5	3.1
1986	12	11	2300	1.64	5.02	0.1	0.6	0.2	0.1	0.7	1.1	1.2	1.1	1.7	3.6	2.4	5.1	6.2	6.4	22.9	8.1	4.1	7.4	3.2
1986	12	12	400	1.53	7.42	0.1	0.4	0.2	0.2	0.8	1.9	4.0	3.4	16.2	11.1	15.4	8.0	7.7	3.5	4.2	2.5	1.8	2.5	2.1
1986	12	12	1100	1.33	6.87	0.1	0.6	0.5	0.3	0.5	4.2	4.9	9.8	16.4	18.1	12.9	2.2	4.3	5.9	1.0	0.9	1.7	2.3	1.7
1986	12	12	1700	1.34	7.42	0.0	1.1	0.6	0.2	0.5	2.8	6.3	11.2	30.4	4.0	15.6	5.1	4.5	3.5	2.3	3.0	1.2	0.6	0.9
1986	12	12	2300	1.11	6.87	0.1	0.9	1.6	0.1	0.8	3.1	8.4	7.2	8.4	12.0	6.9	3.7	3.5	3.0	2.2	1.0	2.3	2.7	1.6
1986	12	13	1100	1.03	3.79	0.0	1.3	1.6	0.9	0.4	0.9	1.1	0.7	0.7	0.7	0.6	1.4	1.3	1.8	2.5	3.1	3.6	1.5	2.8
1986	12	13	1700	1.24	5.31	0.1	0.2	0.4	0.2	0.2	0.4	0.7	0.2	0.4	1.1	1.2	1.5	3.8	12.0	6.1	6.9	5.3	5.6	6.8
1986	12	13	2300	1.21	5.63	0.2	0.4	0.8	0.2	0.2	0.5	0.6	1.2	4.7	1.1	5.8	2.6	9.6	6.8	8.9	3.2	5.0	5.5	4.4
1986	12	14	1100	0.81	5.99	0.1	3.8	1.6	1.0	1.2	3.0	2.5	3.0	1.6	7.8	5.0	9.1	2.5	3.7	6.8	5.4	5.4	6.1	1.6
1986	12	14	1700	0.60	8.06	0.1	4.8	5.0	2.2	3.0	3.1	3.8	5.4	5.2	5.0	4.9	3.6	4.3	3.3	3.6	2.2	3.4	2.9	3.3
1986	12	14	2300	0.74	3.05	0.1	0.7	2.3	2.0	2.8	4.6	4.2	4.0	4.4	2.3	2.7	3.8	2.1	1.2	2.6	1.1	1.4	1.4	1.0
1986	12	15	1100	0.61	4.53	0.5	1.1	2.9	3.4	5.8	5.8	2.8	2.6	1.4	0.6	1.0	1.1	1.5	1.7	1.9	3.5	6.2	3.2	5.9
1986	12	15	1700	0.51	10.89	0.7	0.4	3.6	9.2	11.1	11.0	5.1	3.2	2.0	1.5	0.9	1.4	0.5	0.7	0.3	1.4	0.8	1.9	1.3
1986	12	15	2300	0.48	9.75	0.8	0.4	6.3	13.3	11.5	14.2	12.7	3.4	3.0	3.3	0.8	1.9	2.0	1.4	0.3	1.1	0.6	0.5	1.0
1986	12	16	1100	0.61	9.75	0.4	0.8	2.2	4.1	8.8	21.6	14.0	3.1	2.3	0.7	2.3	0.5	0.4	1.6	0.5	2.0	0.6	1.0	1.2
1986	12	16	1700	0.53	9.75	0.6	0.7	1.9	6.0	14.4	21.6	8.9	7.9	2.1	0.7	0.9	1.1	0.9	0.6	0.7	0.6	0.4	0.5	0.7
1986	12	16	2300	0.48	9.75	0.5	2.0	1.3	4.8	14.4	24.1	6.9	10.1	4.9	1.1	1.3	1.0	1.1	1.0	1.9	1.7	1.5	1.2	1.1
1986	12	17	1100	0.62	10.89	0.3	0.7	1.3	0.9	24.6	9.7	12.3	3.1	2.7	0.9	1.5	0.9	1.3	0.9	1.5	1.3	0.6	1.9	0.5
1986	12	17	1700	0.74	9.75	0.3	1.2	0.7	3.3	6.8	9.6	5.7	2.6	1.3	0.6	0.5	0.9	0.4	1.4	0.8	1.1	1.7	2.7	4.3
1986	12	17	2300	1.06	9.75	0.2	0.3	0.2	1.0	0.9	9.1	3.7	2.5	1.9	0.9	0.4	0.5	1.1	3.9	4.4	3.7	5.7	7.7	4.1
1986	12	18	1100	1.72	6.40	0.4	0.5	0.3	0.4	1.0	1.9	2.1	4.7	7.3	12.7	15.8	6.7	9.3	6.3	2.5	4.4	2.7	2.1	2.4
1986	12	18	1700	2.00	7.42	0.2	0.4	0.1	0.1	1.7	5.0	4.9	6.0	15.1	12.2	10.7	10.2	6.1	7.4	4.7	2.6	1.4	2.3	1.3
1986	12	18	2300	1.70	6.87	0.1	0.7	0.2	0.3	4.4	2.6	10.5	11.1	15.9	16.9	8.8	3.5	8.6	2.3	1.5	1.1	1.1	1.4	0.5
1986	12	19	1100	1.21	4.76	0.2	2.3	3.2	2.6	5.0	3.7	4.0	1.6	0.7	0.6	0.5	0.5	1.9	2.2	6.1	6.6	2.9	3.4	2.7
1986	12	19	1700	1.46	4.53	0.2	3.4	6.6	7.7	3.2	1.4	0.8	0.4	0.5	0.8	1.3	1.0	4.1	6.9	4.5	5.0	9.4	3.9	6.0
1986	12	19	2300	1.29	14.22	0.2	1.8	8.4	7.4	3.9	2.5	1.0	2.5	3.4	3.2	2.1	3.5	4.1	4.5	6.1	6.2	5.1	4.0	2.8
1986	12	20	1100	1.51	9.75	0.6	8.3	8.4	12.0	8.1	14.6	3.7	7.1	2.0	1.7	1.1	2.0	2.6	1.2	0.6	0.6	1.7	2.0	2.0
1986	12	20	1700	1.45	14.22	0.4	4.4	16.0	7.1	12.7	8.3	6.0	4.1	2.6	2.9	1.3	1.6	1.2	3.5	1.6	1.9	4.3	0.9	1.7
1986	12	20	2300	1.40	14.22	0.3	3.7	19.4	10.3	10.5	11.5	5.0	3.0	2.0	2.8	0.9	1.6	3.1	2.1	2.4	1.4	1.7	1.5	1.2
1986	12	21	1100	1.30	12.34	0.8	3.7	16.7	17.0	7.6	9.1	4.2	2.4	1.2	3.4	2.4	1.9	1.3	0.9	1.2	0.9	2.3	1.1	1.9
1986	12	21	1700	1.72	12.34	0.2	0.7	4.4	9.8	5.4	1.7	1.9	1.7	3.2	1.2	3.8	3.4	6.7	7.9	6.9	3.3	9.3	3.3	2.5
1986	12	21	2300	1.44	12.34	0.1	0.2	3.7	9.1	3.0	3.5	3.9	2.8	2.3	6.5	4.3	5.5	5.1	4.4	1.3	6.8	3.2	3.6	1.9
1986	12	22	1100	1.50	12.34	0.1	0.2	0.6	9.8	8.9	8.7	7.5	2.1	2.3	4.5	3.6	3.7	4.2	2.8	4.8	2.5	1.8	3.7	4.5
1986	12	22	1700	1.21	5.63	0.2	0.1	1.6	5.6	7.6	7.8	1.5	5.8	1.7	4.1	4.7	7.6	9.8	8.3	3.8	2.5	2.6	2.3	1.6
1986	12	22	2300	0.94	10.89	0.1	0.6	4.4	7.4	15.6	5.9	5.9	6.5	3.6	7.6	4.4	5.5	3.0	3.7	6.2	2.9	2.3	1.5	1.4
1986	12	23	1100	0.89	10.89	0.1	0.6	1.6	8.9	24.1	18.8	9.4	9.2	4.8	4.4	1.6	3.3	1.8	1.6	1.0	1.6	0.8	0.4	0.3
1986	12	23	1700	0.72	10.89	0.1	0.1	2.4	6.9	27.7	6.1	14.6	5.3	7.3	4.3	3.1	5.1	2.1	2.1	0.8	0.7	0.9	0.6	0.7
1986	12	23	2300	0.61	9.75	0.2	0.6	0.8	8.4	11.9	26.6	9.4	14.2	6.0	6.4	1.5	0.7	1.5	0.9	1.3	0.6	1.0	0.4	0.2
1986	12	24	1100	0.78	2.78	0.1	0.2	1.2	3.5	4.6	6.2	8.1	2.4	1.1	1.8	1.6	0.6	0.7	0.9	0.7	0.4	0.9	0.7	0.6
1986	12	24	1700	1.83	5.31	0.0	0.1	0.3	0.5	0.8	0.9	1.0	0.6	0.8	0.6	2.3	2.2	7.5	18.0	17.6	8.8	5.7	1.8	5.7
1986	12	24	2200	2.81	7.42	0.1	0.1	0.0	0.3	0.5	1.0	1.6	16.3	17.8	7.6	7.1	6.3	3.8	5.0	8.9	2.9	2.6	4.0	1.8
1986	12	24	2300	3.04	7.42	0.0	0.0	0.1	0.1	0.5	2.9	8.6	15.4	29.9	8.8	3.4	2.2	5.3	1.6	1.1	3.3	2.0	1.3	2.3
1986	12	25	0	3.24	7.42	0.1	0.0	0.1	0.1	0.5	2.0	8.9	19.2	28.2	8.1	9.4	3.6	2.4	2.5	3.4	1.5	0.6	2.1	0.6
1986	12	25	200	3.28	8.83	0.1	0.1	0.1	0.1	0.9	2.9	22.6	12.9	9.7	9.0	10.3	6.0	4.2	4.1	3.9	1.6	1.5	1.2	0.7
1986	12	25	400	4.90	8.06	0.1	0.2	0.6	9.4	16.2	11.2	8.2	27.8	4.2	2.8	2.2	3.1	2.7	1.3	1.8	2.1	0.8	0.7	1.0
1986	12	25	600	3.39	10.89	0.1	0.1	0.8	3.5	16.5	7.9	16.4	3.9	11.8	8.7	3.5	6.1	2.0	3.4	1.0	2.2	0.7	1.9	2.3
1986	12	25	800	3.32	12.34	0.1	0.3	4.4	14.6	10.9	11.9	6.7	13.2	6.0	3.4	4.5	3.9	4.5	2.5	2.8	1.0	1.1	1.5	0.6
1986	12	25	1000	2.68	12.34	0.1	0.1	3.0	22.9	18.5	8.0	9.4	5.1	4.3	4.6	2.8	5.2	2.5	2.1	2.9	1.1	1.0	0.7	0.6
1986	12	25	1100	2.64	12.34	0.0	0.2	0.8	17.7	14.0	15.6	11.1	5.9	4.6	3.9	5.8	4.2	3.6	1.8	1.6	1.1	0.8	0.7	1.1
1986	12	25	1300	2.27	12.34	0.1	0.2	2.5	21.3	15.0	5.7	11.6	10.0	2.4	6.4	3.1	4.1	3.9	2.1	0.8	2.8	0.7	0.6	0.9
1986	12	25	1700	2.36	10.89	0.0	0.0	0.3	4.0	23.3	12.7	13.6	10.9	7.6	3.4	2.8	3.7	4.7	2.0	1.1	1.3	1.2	2.2	1.3
1986	12	25	2300	1.67	10.89	0.0	0.1	1.5	3.4	25.2	14.5	10.6	9.6	6.2	5.0	1.9	6.1	1.9	2.5	1.3	1.8	0.7	2.4	1.5
1986	12	26	1100	1.21	9.75	0.1	0.1	1.0	6.6	21.1	26.5	6.4	12.8	3.5	3.1	3.3	2.8	1.2	0.8	1.4	0.4	0.4	0.3	0.3
1986	12	26	1700	1.32	9.75	0.0	0.1	0.4	2.6	10.3	38.8	12.1	6.9	2.7	1.2	1.4	0.5	0.5	1.4	0.5	0.2	0.3	0.3	0.2
1986	12	26	2300	1.21	9.75	0.0	0.1	0.4	4.1	11.9	39.7	6.3	3.2	2.5	2.3	1.0	0.6	0.4	0.5	0.6	0.3	0.7	0.8	1.0
1986	12	27	1100	1.05	9.75	0.0	0.1	0.2	1.0	2.8	15.5	13.1	6.1	1.3	2.7	1.4	1.7	3.5	2.8	5.5	4.5	7.6	2.6	2.2
1986	12	27	1700	0.86	8.83	0.1	0.1	0.3	0.6	3.8	5.0	12.1	5.6	4.9	0.8	0.5	0.8	1.2	3.5	3.4	3.4	2.5	1.7	4.7
1986	12	27	2300	0.81	8.06	0.1	0.3	0.1	1.7	3.4	8.7	15.4	17.9	1.5	2.3	2.8	1.1	1.6	1.9	5.1	4.3	1.3	2.4	2.3
1986	12	28	1100	0.91	4.32	0.1	0.1	0.3	1.3	2.1	2.3	3.0	5.4	1.6	1.6	1.7	1.1	1.5	2.7	1.6	2.3	5.5	7.2	3.8
1986	12	28	1700	0.84	3.15	0.0	0.2	0.2	0.4	1.7	1.3	5.1	4.0	3.4	1.5	2.1	1.8	2.2	1.2	1.1	2.1	1.7	2.3	1.1
1986	12	28	2300	0.77	4.53	0.1	0.2	0.2	0.6	3.3	4.4	2.9	3.1	4.8	3.4	1.7	2.8	1.9	1.9	2.2	1.4	7.3	3.3	4.1
1986	12	29	1100	0.84	5.02	0.1	0.1	0.6	0.7	1.2	3.0	2.8	5.9	4.8	2.5	3.7	4.6	2.9	3.5	12.6	5.5	10.9	2.0	5.6

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1986	12	29	1700	0.70	5.31	0.1	0.4	0.7	1.3	2.3	2.4	3.9	7.8	5.2	6.0	3.4	4.8	6.1	8.2	6.8	5.5	7.5	4.3	1.7
1986	12	29	2300	0.79	8.83	0.0	0.2	0.7	2.2	3.7	8.7	14.6	5.0	3.7	3.3	6.1	6.0	3.9	5.1	4.9	1.6	5.0	4.3	3.6
1986	12	30	1100	0.93	4.13	0.0	0.1	0.5	2.8	3.4	7.1	4.6	9.4	4.7	2.8	2.2	2.1	4.2	2.2	1.9	6.1	2.9	7.4	12.1
1986	12	30	1700	1.22	5.31	0.0	0.0	0.5	1.1	1.1	3.4	3.2	4.2	2.5	4.2	1.3	4.6	3.0	10.3	8.7	7.0	4.6	2.3	4.2
1986	12	30	2300	1.49	5.99	0.0	0.1	0.3	0.6	1.8	1.6	2.0	3.0	6.7	13.1	12.3	17.6	4.7	4.2	2.0	1.4	1.4	2.3	2.0
1986	12	31	500	1.34	7.42	0.0	0.1	0.0	0.4	5.3	2.5	12.7	17.1	22.3	9.1	3.2	2.8	3.5	1.7	1.5	1.1	1.0	0.6	1.0
1986	12	31	1100	1.72	9.75	0.1	0.1	0.1	2.0	4.5	15.2	13.0	14.2	7.0	5.6	1.6	1.5	1.9	4.5	2.0	3.7	3.0	3.0	1.5
1986	12	31	1700	1.37	8.06	0.1	0.1	0.4	3.8	10.8	11.9	10.0	13.0	5.3	5.4	2.8	4.0	2.7	2.1	1.8	2.6	2.1	2.5	0.7
1986	12	31	2300	1.43	9.75	0.1	0.1	0.6	7.4	8.1	19.8	11.4	8.1	4.9	4.8	2.3	2.3	1.7	1.7	2.4	2.8	1.8	1.9	2.3
1987	1	1	1100	1.26	12.34	0.1	0.4	5.7	13.8	10.8	11.2	3.1	8.9	6.3	1.8	3.8	1.1	2.9	3.9	2.3	1.6	1.2	1.0	1.7
1987	1	1	1700	1.52	4.32	0.1	0.8	5.8	6.5	5.0	2.1	1.3	2.8	2.7	0.9	0.8	0.6	1.0	0.9	4.4	2.5	5.9	9.2	6.3
1987	1	1	2300	2.82	6.40	0.1	0.4	2.8	2.4	2.8	1.1	1.4	2.0	6.0	7.2	13.2	11.1	5.3	10.8	5.6	2.0	2.5	4.0	1.7
1987	1	2	0	3.10	6.40	0.1	0.4	3.3	2.0	1.5	1.0	1.2	4.8	6.0	6.7	12.1	11.6	4.8	10.3	6.4	4.0	3.9	3.0	1.5
1987	1	2	200	3.43	7.42	0.1	0.2	0.9	1.5	1.6	3.7	13.1	6.4	15.9	7.6	9.5	7.7	2.8	2.9	4.5	1.9	2.3	2.6	3.1
1987	1	2	400	4.05	9.75	0.1	0.3	1.5	2.0	9.2	12.8	9.6	12.6	7.7	6.2	2.6	6.8	4.0	4.3	4.0	1.8	1.7	1.3	0.8
1987	1	2	500	4.23	8.83	0.1	1.0	3.5	8.1	8.2	3.6	17.3	12.9	3.2	6.2	3.5	4.7	3.7	4.7	3.9	2.5	0.8	1.0	1.6
1987	1	2	600	4.29	10.89	0.1	0.8	2.7	6.7	21.5	8.0	5.0	4.5	3.8	7.0	2.0	8.2	5.0	4.2	2.9	1.1	1.5	3.1	1.4
1987	1	2	800	4.30	9.75	0.3	0.5	5.3	14.4	16.8	18.3	11.6	10.9	1.9	1.0	1.5	2.7	2.0	2.0	2.1	0.7	1.6	1.0	0.6
1987	1	2	1000	4.04	12.34	0.3	0.5	11.9	26.4	11.2	14.2	9.5	6.0	1.9	1.5	2.0	3.3	1.8	2.5	1.7	0.7	0.4	0.5	0.2
1987	1	2	1100	3.42	12.34	0.1	0.6	3.8	22.2	22.1	19.1	10.0	2.8	2.7	1.0	1.5	2.3	2.1	1.5	0.8	1.1	0.4	0.6	0.8
1987	1	2	1200	3.46	10.89	0.1	0.4	2.7	25.3	31.8	16.6	1.4	4.4	3.3	1.9	2.2	1.2	1.0	0.6	0.3	0.5	0.6	0.3	0.4
1987	1	2	1400	2.69	10.89	0.1	1.1	9.4	18.7	23.1	15.8	5.8	3.4	2.4	2.9	1.7	2.3	2.9	2.5	0.7	0.5	0.6	0.5	0.6
1987	1	2	1700	2.16	12.34	0.1	1.2	10.4	24.0	18.7	12.6	5.4	2.3	5.1	2.5	2.0	0.9	2.0	0.9	1.4	0.6	0.7	1.1	0.3
1987	1	2	2300	1.82	10.89	0.0	0.4	2.9	14.6	24.3	11.9	11.5	6.8	1.7	2.0	1.6	1.1	0.7	2.0	1.7	1.3	1.9	1.9	1.7
1987	1	3	500	1.29	12.34	0.2	0.6	7.2	16.0	11.9	9.6	2.7	3.2	2.6	2.8	3.3	3.0	2.0	1.1	3.9	2.2	3.0	3.4	2.2
1987	1	3	1100	1.16	9.75	0.1	1.0	2.9	2.1	6.8	7.8	4.8	2.0	2.1	1.3	4.4	2.0	1.8	2.7	3.3	1.7	2.2	5.6	4.4
1987	1	3	1700	0.86	5.63	0.1	0.7	2.3	3.3	2.2	3.0	2.2	2.0	0.9	2.3	3.7	3.5	5.5	2.8	2.9	2.1	2.3	2.6	3.7
1987	1	3	2300	0.65	12.34	0.1	0.5	5.2	7.2	4.6	6.2	3.9	1.8	2.4	1.4	0.6	1.2	1.7	0.8	2.1	4.1	3.8	4.1	3.5
1987	1	4	500	0.58	10.89	0.2	2.1	3.7	4.3	4.8	3.4	3.3	4.2	3.2	2.1	2.0	0.9	0.7	0.7	0.5	1.0	1.5	1.7	2.4
1987	1	4	1100	0.76	3.05	0.2	0.5	2.5	2.3	3.7	3.3	1.3	1.0	2.3	2.1	1.6	0.7	0.5	0.4	0.8	2.1	3.1	1.6	3.8
1987	1	4	1700	0.94	5.31	0.0	0.4	0.8	2.8	1.2	1.2	0.6	1.3	1.6	1.7	0.9	2.6	3.6	12.6	4.9	12.0	8.4	5.5	6.4
1987	1	4	2300	0.73	3.51	0.1	0.4	2.1	3.2	1.7	2.7	0.6	2.2	1.3	0.8	1.0	2.8	1.9	1.6	1.3	1.4	1.0	1.9	3.2
1987	1	5	1100	1.29	4.32	0.0	0.2	0.4	1.7	0.9	1.6	1.5	0.7	0.8	0.2	0.6	0.4	2.1	3.3	6.2	7.9	5.0	13.6	10.2
1987	1	5	1700	1.61	6.40	0.0	0.1	0.4	1.0	0.6	1.1	1.0	1.0	1.3	5.1	10.9	3.6	8.6	9.4	6.1	4.7	3.6	7.1	5.1
1987	1	5	2300	1.11	6.40	0.0	0.2	0.6	0.9	1.3	1.2	2.8	1.6	7.2	11.3	11.7	8.7	4.4	2.3	3.1	4.1	4.5	4.3	2.9
1987	1	6	1100	1.02	5.99	0.1	0.2	0.3	1.6	0.6	0.9	1.6	1.0	0.9	3.3	2.5	12.0	3.7	6.3	4.4	4.9	2.6	6.2	3.8
1987	1	6	1700	0.98	5.31	0.1	0.2	0.3	1.9	3.0	1.9	5.7	2.5	5.4	2.2	3.5	5.1	10.0	10.3	5.2	4.1	3.5	4.8	1.7
1987	1	6	2300	0.84	7.42	0.1	0.3	0.6	1.8	1.4	4.4	3.7	5.4	14.7	6.2	4.9	8.1	7.9	4.9	7.8	2.3	3.0	2.9	1.6
1987	1	7	1100	1.23	4.76	0.0	0.2	0.5	0.6	0.4	1.8	6.3	3.3	3.1	1.2	1.9	2.0	3.8	6.1	11.4	12.4	10.7	6.8	2.1
1987	1	7	1700	0.91	3.64	0.1	0.5	1.0	1.1	1.8	2.5	4.2	4.5	5.0	1.9	6.3	6.0	5.8	3.9	6.8	5.1	4.9	2.2	3.3
1987	1	7	2300	0.81	8.83	0.1	0.3	0.9	0.7	1.4	3.0	7.4	4.1	5.4	2.4	3.5	2.0	2.8	4.1	5.6	3.3	1.9	4.1	2.0
1987	1	8	1100	0.62	3.05	0.1	0.3	1.9	4.9	3.0	1.7	1.0	2.1	1.4	0.9	1.1	0.7	0.5	0.7	0.6	1.4	2.9	2.0	1.5
1987	1	8	1700	0.81	4.13	0.1	0.3	1.0	2.8	1.5	1.1	1.4	0.9	0.9	1.1	1.0	1.1	1.0	1.4	3.3	6.4	7.1	6.1	7.5
1987	1	8	2300	0.77	4.53	0.1	0.2	1.2	2.5	2.1	1.7	1.8	1.6	0.9	0.6	0.6	2.2	2.4	1.7	5.1	8.1	9.5	5.2	2.2
1987	1	9	1100	0.51	4.32	0.3	1.5	3.8	5.4	6.6	5.4	2.1	3.5	3.3	0.9	1.5	2.4	1.9	3.0	3.3	6.2	4.0	9.6	3.3
1987	1	9	1700	0.42	9.75	0.6	1.2	4.8	4.4	7.7	9.4	6.3	5.5	4.9	4.0	2.6	4.2	2.9	1.7	1.9	2.5	1.9	2.0	2.4
1987	1	9	2300	0.36	10.89	0.2	1.9	8.0	13.4	18.2	6.0	4.6	6.5	1.5	4.2	2.0	2.1	0.7	3.7	1.5	3.2	1.3	0.9	1.0
1987	1	10	1100	0.64	3.51	0.1	1.4	2.3	4.0	1.6	2.2	2.5	1.2	2.0	1.5	1.0	0.9	1.4	0.6	0.5	0.9	0.9	1.5	1.2
1987	1	10	1700	1.09	5.31	0.1	0.2	0.8	1.0	0.7	2.9	0.7	0.8	0.8	1.2	1.9	7.2	5.9	11.9	9.7	10.5	7.3	5.1	6.7
1987	1	10	2300	1.93	8.06	0.0	0.1	0.1	0.2	0.3	2.4	11.5	23.9	9.7	14.7	4.8	4.3	3.5	4.3	1.9	3.4	3.4	1.1	1.3
1987	1	11	1100	1.21	8.06	0.0	0.1	0.7	1.5	5.1	12.3	11.6	19.8	8.3	4.0	3.0	0.8	2.4	1.2	1.1	0.9	0.9	0.8	0.6
1987	1	11	1700	1.09	3.05	0.1	0.1	0.3	0.4	3.8	9.4	7.7	2.3	1.2	1.6	0.8	0.2	0.4	0.4	0.5	0.5	0.3	0.9	0.5
1987	1	11	2300	0.90	10.89	0.1	0.2	0.3	2.8	6.3	3.7	2.6	2.3	0.8	1.0	0.5	0.3	1.0	0.7	1.4	2.0	3.7	3.4	4.5
1987	1	12	1100	0.88	4.53	0.1	0.1	0.7	1.5	3.8	2.5	3.1	2.7	1.4	2.2	2.1	3.8	2.7	4.6	4.7	4.3	5.8	2.1	4.1
1987	1	12	1700	0.86	5.02	0.1	0.5	0.5	0.6	1.4	4.4	4.2	2.7	1.9	1.8	1.4	1.0	2.1	4.3	7.1	1.1	2.4	4.8	2.7
1987	1	12	2300	0.72	8.83	0.2	0.6	2.4	0.8	1.8	1.5	7.5	2.9	1.8	3.5	2.3	1.2	2.0	1.2	2.1	2.8	2.0	1.5	1.3
1987	1	13	1100	0.67	2.30	0.2	0.4	1.8	3.7	4.2	2.0	0.7	0.8	0.8	0.6	0.3	0.3	0.2	1.6	0.9	0.7	1.3	1.8	3.9
1987	1	13	1700	0.81	2.55	0.1	0.3	1.4	1.2	1.2	2.5	1.0	0.8	1.0	0.7	0.4	0.4	0.2	0.7	1.0	1.1	1.9	3.7	4.4
1987	1	13	2300	0.64	3.38	0.1	0.9	1.5	2.6	3.7	2.8	1.3	1.1	0.6	0.8	2.7	0.9	2.5	1.8	3.6	5.0	5.0	3.4	6.3
1987	1	14	1100	0.36	12.34	0.9	2.6	4.0	10.8	5.7	5.8	10.1	2.9	3.0	2.9	5.6	3.1	3.0	4.6	5.3	5.1	1.5	1.4	3.2
1987	1	14	1700	0.71	3.51	0.2	0.7	1.4	1.3	0.8	2.4	1.4	0.9	0.8	1.6	2.4	1.6	0.6	0.9	1.0	1.4	0.3	0.7	0.8
1987	1	14	2300	0.73	4.32	0.1	0.3	0.5	1.5	1.5	1.3	1.9	2.3	1.7	1.6	2.5	1.0	0.7	0.9	4.1	3.6	9.5	10.8	9.2
1987	1	15	500	0.98	5.99	0.1	0.2	0.5	0.8	0.5	0.7	0.9	0.6	1.6	5.2	5.9	17.5	7.6	10.5	6.8	5.8	2.8	3.3	5.8
1987	1	15	1100	1.26	6.40	0.0	0.1	0.3	0.5	0.4	0.4	0.7	1.0	2.5	8.3	17.9	9.3	6.5	15.0	3.0	5.6	4.8	2.7	2.7
1987	1	15	1700	0.97	5.63	0.1	0.1	0.7	0.9	0.5	0.4	0.6	0.8	2.6	6.6	8.8	15.6	17.3	6.1	4.2	3.5	5.8	4.6	2.8
1987	1	15	2300	0.81	4.53	0.1	0.3	0.1	1.2	1.5	0.6	0.8	0.5	2.0	2.1	3.4	6.2	8.6	8.2	6.6	8.2	9.6	4.6	6.8
1987	1	16	1100	0.87	3.26	0.3	0.3	0.7	0.5	1.2	1.3	1.3	1.9	2.2	4.7	4.5	6.0	3.4	1.9	4.0	3.2	3.0	3.8	2.2
1987	1	16	1700	0.86	3.38	0.3	0.8	0.2	0.5	0.8	0.6	1.5	2.2	6.5	1.7	2.5	1.0	1.2	1.4	3.2	1.2	3.2	3.8	1.7
1987	1	16	2300	0.76	3.79	0.5	2.0	1.2	1.3	0.5	1.5	2.7	3.8	4.3	4.5	3.6	1.5	1.5	1.5	5.7	1.4	2.2	3.5	3.2
1987	1	17	1100	1.79	5.63	0.1	1.8	1.0	0.2	0.3	0.1	0.3	0.6	1.2	1.6	7.6	12.3	12.5	6.1	6.6	2.7	2.2	2.7	5.9
1987	1	17	1700	1.93	6.87	0.0	1.0	0.9	0.5	0.1	0.6	2.3	6.1	8.1	9.4	7.9	5.1	6.1	6.7	4.3	2.4	2.8	4.1	3.5
1987	1	17	2300	1.55	6.87	0.1	1.1	2.2	0.3	0.3	0.4	0.5	0.8	5.1	10.7	6.8	3.7	6.3	3.1	7.1	4.4	3.3	4.3	7.2
1987	1	18	1100	1.88	5.99	0.1	0.4	0.7	0.6	0.2	0.6	1.9	3.0	2.4	10.3	4.2	10.8	6.4	7.5	9.0	6.6	8.2	2.3	3.3
1987	1	18	1700	1.70	6.40	0.1	0.1	1.7	0.4	0.3	0.6	2.6	4.6	9.2	8.5	17.9	5.4	10.3	7.6	2.2	2.8	2.9	1.5	2.7
1987	1	18	2300	1.89	7.42	0.1	0.1	0.7	0.6	0.3	2.6	15.6	8.8	24.5	8.2	6.8	4.7	6.6	3.7	1.5	0.5	2.1	0.7	0.9
1987	1	19	1100	1.25	9.75	0.1	0.1	0.7	1.4	5.0	25.0	16.7	10.2	8.6	4.7	4.8	2.0	2.0	1.9	1.8	1.8	1.1	2.7	1.1
1987	1	19	1700	1.48	9.75	0.0	0.1	0.3	1.1	5.4	15.9	5.2	6.7	5.6	2.7	5.4	2.8	4.2	1.5	2.3	3.1	2.8	6.1	2.2
1987	1	19	2300	1.91	6.40	0.0	0.1	0.1	0.5	1.4	3.6	7.7	7.7	6.1	4.5	13.2	8.5	4.9	3.7	4.8	3.1	4.6	2.9	1.2
1987	1	20	1100	1.27	8.83	0.0	0.1	0.4	1.1	1.0	5.8	28.8	12.4	8.3	5.8	6.7	4.3	7.1	1.5	1.3	0.7	1.5	1.0	0.3
1987	1	20	1700	1.40	8.83	0.1	0.0	0.3	1.2	3.4	6.6	16.6	10.4	10.4	14.3	2.9	3.9	1.2	1.5	1.4	1.3	2.2	0.8	0.8

COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	1	20	2300	1.22	7.42	0.0	0.2	0.2	0.6	2.6	16.1	11.6	12.2	16.7	10.8	2.5	2.9	3.7	1.2	2.9	1.5	0.9	1.5	0.8
1987	1	21	1100	1.00	9.75	0.1	0.5	2.2	3.4	11.5	21.3	19.5	9.3	5.4	3.8	4.3	4.6	1.0	2.4	1.0	1.1	0.6	0.8	0.5
1987	1	21	1700	1.14	9.75	0.0	0.2	1.0	10.0	16.3	18.8	10.6	3.7	4.0	3.3	3.0	2.9	1.6	2.0	1.0	1.2	0.5	0.2	0.5
1987	1	21	2300	0.98	10.89	0.1	0.3	1.3	10.9	25.7	18.5	9.2	12.4	4.2	1.3	3.9	0.7	1.8	0.8	0.9	0.4	0.3	0.4	0.3
1987	1	22	1100	1.29	10.89	0.0	0.3	1.0	8.0	12.8	4.1	3.8	1.3	1.6	0.8	0.7	0.6	0.9	0.7	0.7	0.9	2.4	2.8	3.4
1987	1	22	1700	3.11	6.40	0.0	0.0	0.1	0.6	1.5	2.0	1.9	4.3	7.9	15.0	19.7	9.0	5.3	4.5	2.9	3.7	4.9	2.5	1.1
1987	1	22	1900	4.16	8.06	0.1	0.1	0.2	0.5	1.1	4.5	17.8	20.7	12.1	10.1	6.7	2.6	4.6	2.7	2.7	2.1	1.2	1.2	2.0
1987	1	22	2100	4.11	9.75	0.1	0.1	0.1	0.4	3.7	28.0	25.7	14.2	5.1	2.8	4.0	2.2	1.7	2.2	0.7	1.2	0.9	0.9	0.4
1987	1	22	2300	3.39	9.75	0.0	0.1	0.2	5.5	18.7	19.4	13.3	6.7	8.7	2.5	3.4	2.1	3.0	1.9	1.0	1.0	0.9	0.6	1.7
1987	1	23	100	3.12	9.75	0.0	0.0	0.3	4.6	15.5	32.9	12.2	8.9	3.1	2.8	2.4	2.0	0.7	0.6	1.0	0.9	1.1	1.0	0.6
1987	1	23	1100	1.40	12.34	0.1	0.2	3.2	20.1	3.3	8.9	10.0	7.2	5.5	2.0	1.9	1.2	1.7	1.6	2.5	2.1	2.3	4.1	1.9
1987	1	23	1600	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	1	29	2100	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	1	29	2300	0.00	26.26	18.3	12.6	8.6	6.0	4.4	3.5	3.0	2.5	2.1	1.7	1.4	1.2	1.1	0.9	0.8	0.7	0.6	0.6	0.5
1987	1	30	100	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	1	31	459	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	2	21	1700	1.64	6.87	2.0	2.3	2.3	1.8	1.8	1.6	2.1	3.6	1.2	6.0	3.4	2.3	1.8	2.4	1.3	2.0	0.7	1.8	3.6
1987	2	21	2300	1.41	2.14	3.3	3.0	2.1	4.0	1.7	3.0	1.7	2.6	2.1	1.3	2.7	3.5	1.9	2.1	3.1	1.7	1.8	1.3	2.2
1987	2	22	1100	1.00	4.32	2.2	2.6	1.6	4.6	1.1	2.9	1.6	1.9	2.8	2.0	2.0	2.3	2.0	1.5	2.1	4.5	4.2	5.3	0.9
1987	2	22	1700	1.26	8.06	3.0	1.1	2.2	3.6	1.2	2.1	2.3	4.1	2.3	1.5	3.1	2.3	0.5	2.3	2.4	4.0	3.3	2.0	1.8
1987	2	22	2300	1.26	2.55	2.0	1.9	3.8	1.4	2.6	1.9	1.5	2.9	3.3	1.9	2.3	2.4	3.0	1.2	1.7	0.9	3.4	2.7	2.0
1987	2	23	1100	1.36	3.26	1.4	2.3	2.2	3.3	3.2	3.3	1.6	1.0	2.8	2.1	2.4	1.8	1.5	1.6	1.3	2.3	4.2	3.0	1.4
1987	2	23	1400	2.52	2.30	1.7	1.6	2.2	1.7	2.8	2.1	2.1	1.9	4.0	3.0	1.2	4.1	1.9	2.3	1.9	2.7	1.9	1.9	2.5
1987	2	23	1700	2.36	6.87	1.1	1.0	2.0	2.2	3.4	2.9	3.1	2.3	2.4	6.0	2.0	2.1	2.0	2.4	4.1	1.5	2.7	1.8	2.7
1987	2	23	2300	1.22	4.13	2.0	2.7	1.1	2.2	2.2	3.3	2.4	2.6	2.9	0.8	2.0	2.5	3.1	2.8	1.7	1.8	1.0	4.0	7.7
1987	2	24	1100	1.54	2.86	1.3	2.3	3.2	2.0	1.9	1.6	1.4	2.5	1.7	2.5	3.2	1.4	2.2	1.9	2.5	3.3	1.3	3.8	2.2
1987	2	24	1700	1.37	8.83	0.6	3.7	1.7	1.7	2.5	1.6	4.7	3.2	2.1	2.6	1.0	1.5	1.9	4.4	1.8	0.9	2.8	2.3	2.0
1987	2	24	1800	0.18	3.05	1.7	2.1	1.9	2.6	3.5	3.8	1.7	2.5	1.3	1.7	1.8	2.5	1.7	2.6	2.5	2.2	3.3	2.4	3.0
1987	2	24	2300	0.18	2.62	2.7	0.9	3.2	3.6	2.5	3.4	1.9	2.6	3.5	2.5	3.2	3.3	2.1	2.2	1.6	2.2	3.3	1.6	1.4
1987	2	25	1100	0.13	3.05	1.9	2.7	2.2	1.8	1.1	4.3	0.8	2.0	2.3	1.5	1.9	3.6	3.0	1.6	2.0	2.3	2.4	1.4	3.0
1987	2	25	1700	1.32	10.89	0.3	5.3	12.1	9.5	16.7	2.0	0.8	2.2	1.3	1.1	0.6	1.5	3.5	3.0	2.6	2.1	3.8	1.8	1.3
1987	2	25	2300	1.06	14.22	0.4	5.6	19.2	6.8	6.4	1.5	2.2	0.5	1.6	2.2	2.7	2.7	1.0	2.8	3.0	5.0	3.0	4.5	1.5
1987	2	26	1100	1.58	14.22	0.1	0.4	8.7	6.9	3.4	1.7	1.1	1.9	1.0	1.3	1.5	2.5	4.2	3.3	3.2	3.4	7.7	6.0	6.7
1987	2	27	1100	1.31	4.53	0.1	0.5	4.9	7.1	3.3	1.8	1.9	1.8	2.1	1.4	1.8	2.6	9.1	6.7	5.1	4.1	10.9	5.5	3.1
1987	2	27	1700	1.14	5.63	0.0	0.2	3.2	6.9	4.0	6.0	1.6	3.1	4.1	1.5	1.9	2.3	7.2	6.5	5.6	4.0	6.3	3.1	6.2
1987	2	27	2300	1.32	10.89	0.1	0.4	1.7	9.4	11.5	3.7	5.3	4.8	3.7	1.3	1.9	2.0	5.6	3.0	3.2	4.4	1.1	5.6	3.3
1987	2	28	1100	1.46	10.89	0.2	0.6	3.3	7.9	11.5	6.6	8.6	5.1	3.2	1.5	3.4	2.6	4.0	4.1	5.8	3.3	2.6	4.0	1.8
1987	2	28	1700	1.47	12.34	0.3	1.4	7.9	12.7	6.5	3.3	7.3	6.3	4.1	2.7	2.6	1.2	2.2	6.1	2.5	3.5	4.4	4.5	3.1
1987	2	28	2300	1.74	5.02	0.2	1.4	5.1	7.5	4.9	5.2	5.0	4.7	3.4	2.4	4.1	4.7	5.6	5.8	8.9	5.3	2.9	1.5	3.6
1987	3	1	1100	1.93	5.63	0.1	1.1	2.1	9.1	4.9	3.2	3.7	2.8	2.2	3.2	5.3	5.4	9.8	8.3	6.2	2.0	3.5	2.0	4.1
1987	3	1	1700	2.85	8.83	0.2	0.7	0.8	2.9	2.7	6.3	13.8	7.4	6.9	3.7	11.4	4.5	6.2	3.5	2.3	5.8	2.8	2.1	1.9
1987	3	1	1900	2.78	6.40	0.1	0.7	1.0	2.3	5.2	10.1	6.1	8.0	7.1	4.5	10.6	6.1	7.2	2.8	3.1	4.2	4.1	5.2	1.4
1987	3	1	2300	2.58	10.89	0.1	1.5	1.4	5.5	16.3	14.0	6.2	3.0	10.7	7.7	4.4	4.8	2.1	3.6	2.8	1.8	1.2	1.8	1.1
1987	3	2	0	2.56	9.75	0.4	1.9	5.0	9.0	12.9	17.0	6.5	8.6	3.2	7.7	2.2	2.0	3.1	3.5	1.6	2.7	2.5	1.4	1.1
1987	3	2	1100	2.06	10.89	0.3	1.0	2.5	9.0	20.1	12.0	12.6	4.0	7.3	4.9	4.4	4.8	1.4	1.4	4.1	1.6	0.8	1.3	1.5
1987	3	2	1700	1.51	10.89	0.4	1.2	2.0	10.9	16.8	12.2	6.1	7.1	3.7	4.2	5.3	2.7	2.0	2.8	2.3	2.0	1.9	2.0	0.8
1987	3	2	2300	1.38	10.89	0.2	3.3	4.1	7.5	18.1	6.3	6.3	5.2	9.9	4.1	2.2	1.6	2.0	3.4	0.9	1.4	2.2	1.6	0.9
1987	3	3	600	0.91	10.89	0.9	5.4	9.5	12.9	17.0	8.0	1.9	4.3	1.8	2.0	4.7	5.7	4.4	2.5	2.2	2.5	0.5	0.6	0.7
1987	3	3	1100	0.78	9.75	1.0	4.7	6.2	6.3	9.3	15.6	10.2	8.3	4.9	8.9	2.0	2.9	4.0	2.7	1.8	0.9	1.8	1.0	1.0
1987	3	3	1700	0.78	9.75	0.5	2.5	1.8	6.7	9.3	17.4	10.7	4.5	2.0	2.1	3.3	1.4	0.9	2.1	1.7	1.2	1.6	0.7	0.8
1987	3	3	2300	0.81	8.83	0.5	3.7	6.1	2.4	3.7	5.0	25.3	5.7	3.7	1.9	1.4	0.4	1.1	0.8	1.2	0.8	1.0	1.0	0.6
1987	3	4	1100	0.85	10.89	1.1	1.6	4.6	3.2	12.2	8.7	8.7	4.5	3.5	2.6	1.9	0.4	0.5	0.4	0.9	1.3	1.0	1.2	2.2
1987	3	4	1700	0.92	3.79	0.2	0.6	1.4	1.2	5.5	8.1	2.5	2.8	3.2	1.5	1.3	0.6	0.9	1.2	1.9	1.7	2.6	1.7	5.1
1987	3	4	2300	0.95	3.95	0.2	1.2	1.5	1.7	6.2	4.2	2.6	1.9	1.4	2.0	0.7	0.8	1.3	2.1	1.2	4.5	3.6	2.0	4.3
1987	3	5	600	1.14	4.76	0.2	1.0	0.5	1.7	3.4	2.8	4.1	2.4	2.1	1.5	4.7	4.7	6.9	5.8	5.9	9.1	4.1	1.6	5.2
1987	3	5	1100	1.75	7.42	0.1	0.1	0.2	0.6	1.6	2.2	2.5	8.2	20.0	8.2	6.5	11.1	2.5	6.5	3.1	2.5	2.8	5.4	2.0
1987	3	5	1700	1.57	7.42	0.1	0.3	0.2	0.6	3.9	1.4	1.9	4.5	15.2	4.8	8.6	11.5	11.4	3.9	2.8	3.5	3.6	2.8	3.1
1987	3	5	2300	1.32	7.42	0.1	0.3	0.5	0.4	2.3	2.4	2.1	3.9	17.8	11.3	13.9	9.1	9.0	3.6	2.6	1.3	0.8	1.7	1.2
1987	3	6	600	1.16	9.75	0.1	0.3	0.6	1.2	3.8	11.8	3.8	6.1	6.9	10.7	8.0	6.3	4.0	4.0	7.8	2.5	5.0	2.1	2.5
1987	3	6	1100	0.98	9.75	0.1	0.4	0.5	1.2	3.7	19.4	12.8	5.5	4.6	7.9	3.3	7.5	4.6	7.1	4.3	2.5	2.5	2.2	1.2
1987	3	6	1700	1.06	9.75	0.1	0.2	0.2	1.4	15.3	18.7	13.3	10.0	3.8	2.5	5.3	8.6	3.2	2.8	1.7	2.3	1.0	1.6	1.4
1987	3	6	2300	1.05	9.75	0.1	0.2	0.3	1.2	3.2	21.9	6.0	2.6	2.4	3.0	2.5	3.0	3.3	2.0	1.1	1.3	1.0	0.5	0.6
1987	3	7	600	0.74	9.75	0.1	0.8	0.3	1.6	4.9	28.1	9.8	7.8	8.7	5.4	5.0	2.6	0.5	1.1	1.4	0.6	0.3	0.5	0.4
1987	3	7	1100	0.65	8.83	0.3	1.3	2.5	1.8	5.6	14.4	22.0	7.7	9.0	3.2	4.9	3.4	2.2	1.5	0.3	0.7	0.9	0.7	0.5
1987	3	7	1700	0.56	8.83	0.2	0.5	2.8	1.9	2.8	8.5	21.1	6.2	3.6	5.6	2.6	3.3	7.1	5.4	2.1	1.5	0.7	0.9	0.9
1987	3	7	2300	0.64	3.51	0.1	0.4	1.8	1.0	1.4	1.1	3.1	3.2	4.2	1.8	2.9	2.5	1.7	1.4	1.3	0.6	0.7	0.7	0.9
1987	3	8	600	0.62	4.32	0.3	0.6	0.7	1.7	1.6	4.6	3.0	2.7	1.8	2.5	5.4	1.2	1.7	1.5	1.0	2.6	2.3	6.5	4.6
1987	3	8	1100	0.51	3.79	0.4	0.6	1.5	2.9	3.3	1.3	5.0	4.8	3.8	3.2	2.6	4.4	2.9	4.4	2.6	0.8	1.9	1.5	2.9
1987	3	8	1700	0.57	3.51	0.2	1.0	2.0	4.9	2.8	2.7	2.8	4.1	1.2	4.8	3.0	2.7	2.1	1.3	1.8	1.5	1.4	2.3	4.2
1987	3	8	2300	0.70	3.51	0.3	0.4	1.8	1.4	2.1	0.9	1.3	2.9	2.0	3.2	1.1	3.3	2.1	1.0	1.3	0.5	0.9	1.0	3.8
1987	3	9	600	0.48	6.87	0.4	0.9	2.0	3.1	4.8	2.2	2.6	5.4	6.0	10.1	7.9	5.3	5.7	4.8	2.3	1.5	1.8	1.3	1.2
1987	3	9	1100	0.46	8.06	0.6	1.2	2.7	3.5	1.8	5.4	6.5	10.1	8.9	9.0	2.0	4.3	5.2	5.8	3.8	1.5	0.8	1.5	1.5
1987	3	9	1700	0.71	7.42	0.1	0.4	1.9	1.0	1.2	3.4	7.2	14.8	15.1	9.8	5.4	8.5	1.1	2.9	1.7	1.0	1.4	0.7	0.5
1987	3	9	2300	0.93	6.40	0.1	0.3	0.6	1.2	0.6	3.4	7.3	7.6	10.0	13.3	14.8	8.4	3.1	2.6	2.6	5.5	3.5	2.3	2.1
1987	3	11	459	2.88	6.87	0.1	0.1	0.1	0.1	0.1	0.2	1.5	2.3	13.3	21.3	9.7	5.9	5.9	4.2	2.5	2.3	3.9	3.7	3.0
1987	3	10	600	3.11	7.42	0.1	0.1	0.1	0.1	0.3	0.7	2.4	8.3	14.4	14.1	9.4	4.6	12.2	4.1	5.8	1.4	2.9	2.8	2.9
1987	3	10	700	3.04	7.42	0.1	0.1	0.1	0.1	0.2	0.5	4.8	11.8	20.3	9.4	9.3	6.4	5.2	2.8	4.1	1.7	2.9	2.1	1.7
1987	3	10	900	3.37	7.42	0.1	0.1	0.2	0.3	1.0	2.1	6.6	11.5	20.4	5.4	7.5	4.4	8.6	4.6	3.2	1.9	1.6	3.5	4.3
1987	3	10	1100	3.79	8.83	0.1	0.1	0.1	0.4	7.9	13.1	13.3	12.9	9.3	6.2	3.8	3.6	5.2	1.5	1.9	2.7	1.7	2.9	2.1
1987	3	10	1500	3.70	9.75	0.1	0.1	0.3	2.0	11.8	14.9	11.5	8.0	3.1	6.8	3.9	5.6	5.7	3.1	1.4	1.9	2.4	3.2	1.8

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date			Time	Hmo	Tp																			
Yr	Mo	Dy	(gmt)	(m)	(sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	3	10	1700	3.35	10.89	0.2	0.1	0.5	4.8	15.9	11.7	10.4	7.5	4.0	3.1	4.4	2.6	3.5	8.3	3.9	2.9	1.9	1.5	1.8
1987	3	10	1900	3.41	10.89	0.2	0.3	1.0	6.3	10.4	6.9	6.7	6.8	8.4	4.5	5.2	7.5	2.8	4.3	5.2	3.1	2.2	3.3	2.8
1987	3	10	2100	3.38	9.75	0.0	0.1	1.7	4.6	11.3	19.7	6.4	8.0	5.4	5.4	3.7	3.9	3.2	2.9	2.5	2.4	3.2	2.7	1.8
1987	3	10	2300	3.34	10.89	0.1	0.1	0.7	5.1	16.6	10.6	10.4	4.6	4.2	2.0	4.4	8.4	2.3	5.6	3.5	2.1	2.3	1.9	2.3
1987	3	11	100	2.99	9.75	0.1	0.3	1.2	5.8	11.8	12.1	6.7	4.3	5.0	6.5	7.2	5.9	5.2	3.8	1.2	4.5	1.9	3.5	1.4
1987	3	11	300	2.93	8.83	0.1	0.1	1.1	6.9	7.3	10.8	12.0	6.7	5.1	5.9	5.6	5.9	2.7	5.1	2.3	1.0	3.1	2.2	1.7
1987	3	12	459	3.24	9.75	0.1	0.2	1.1	3.5	9.9	16.3	12.0	10.5	10.2	4.4	3.5	5.2	2.7	2.5	2.3	4.2	1.2	1.5	1.2
1987	3	11	600	2.90	8.06	0.1	0.1	0.7	6.2	5.4	6.9	11.4	12.8	9.6	4.9	5.4	5.0	1.3	5.4	2.0	1.5	2.5	1.5	2.8
1987	3	11	700	2.90	8.83	0.1	0.3	0.8	4.7	8.6	4.6	14.3	8.7	4.3	5.7	9.6	4.6	2.5	4.5	2.5	2.4	2.3	1.9	1.3
1987	3	11	900	2.84	9.75	0.2	0.2	0.8	4.6	5.5	10.7	5.9	7.5	6.4	10.4	8.3	3.7	3.7	3.9	4.7	2.7	3.0	1.2	1.7
1987	3	11	1100	2.56	10.89	0.1	0.2	0.9	3.7	11.7	3.9	8.0	5.5	5.1	5.4	8.4	4.7	7.9	4.2	4.0	2.0	1.9	1.5	3.8
1987	3	11	1300	2.66	6.87	0.1	0.3	0.5	3.8	9.3	8.0	6.2	5.6	8.9	9.5	6.0	7.9	3.9	2.9	4.8	2.6	1.3	2.1	1.3
1987	3	11	1700	2.55	12.34	0.1	0.3	1.0	13.7	13.5	5.9	5.0	6.3	8.7	3.8	5.7	5.0	3.5	1.4	1.6	2.0	1.4	1.5	2.0
1987	3	11	2300	2.31	8.83	0.1	0.4	1.2	6.3	2.3	8.2	9.1	8.5	8.0	5.7	2.0	4.3	5.4	6.7	4.0	3.3	2.5	1.3	1.8
1987	3	12	600	2.16	9.75	0.1	0.7	2.2	2.3	4.6	11.5	5.8	5.5	6.2	8.1	6.5	5.7	4.3	3.4	5.2	2.5	3.0	2.0	2.2
1987	3	12	1100	2.34	9.75	0.1	0.5	1.0	9.1	7.0	11.7	5.0	6.1	4.6	6.5	9.3	5.8	2.9	5.1	2.8	3.0	2.4	3.0	1.0
1987	3	12	1700	2.35	12.34	0.0	0.1	2.1	12.0	9.9	8.0	7.1	4.7	4.8	9.2	3.0	4.8	3.4	4.4	1.7	2.8	3.0	3.0	1.6
1987	3	12	2300	2.45	7.42	0.1	0.3	2.1	3.4	8.6	7.7	3.1	8.9	11.6	9.3	6.0	6.2	3.1	4.2	5.7	3.2	1.5	1.3	1.6
1987	3	13	600	2.77	10.89	0.1	0.1	1.7	3.2	19.4	3.6	8.2	10.6	12.4	5.8	2.8	2.9	2.8	3.0	1.9	2.8	3.2	1.6	1.8
1987	3	13	800	2.70	6.87	0.1	0.2	0.8	4.9	3.3	9.3	9.5	5.4	9.7	12.0	5.7	6.1	3.4	1.9	3.4	3.0	3.5	1.6	1.8
1987	3	13	1000	2.95	10.89	0.1	0.1	0.9	6.0	10.9	8.2	8.8	10.5	9.3	7.2	6.1	2.5	3.2	2.0	2.6	2.1	3.4	2.7	0.8
1987	3	13	1100	2.81	8.06	0.0	0.2	1.0	4.5	3.7	9.9	8.7	19.6	10.4	3.3	7.4	4.6	1.4	7.1	1.6	1.2	2.2	1.6	0.6
1987	3	13	1700	2.66	8.06	0.1	0.1	0.7	4.6	3.8	6.2	10.4	17.7	6.1	7.1	5.9	2.9	2.6	2.3	3.3	3.6	3.9	2.3	1.6
1987	3	13	2300	2.53	7.42	0.1	0.0	0.4	4.9	6.7	10.9	12.4	8.4	14.9	5.9	3.6	6.6	4.3	2.6	1.9	1.9	1.7	1.3	0.9
1987	3	14	600	2.21	9.75	0.0	0.1	1.2	7.1	9.5	12.6	10.2	10.5	3.4	5.6	3.5	3.6	2.8	2.9	2.3	3.4	1.9	1.6	0.9
1987	3	14	1100	2.13	10.89	0.1	0.2	1.6	11.6	14.3	10.5	7.3	9.2	4.5	3.9	3.7	5.4	3.9	2.7	4.1	1.3	1.2	1.8	1.0
1987	3	14	1700	2.01	10.89	0.1	0.3	3.7	16.1	21.5	4.9	5.7	7.8	5.8	10.3	1.9	3.5	2.7	1.1	0.9	2.3	1.2	1.3	0.6
1987	3	14	2300	2.16	12.34	0.0	0.4	3.2	28.4	15.3	7.0	3.4	7.2	3.6	9.5	3.7	4.7	2.2	1.5	2.0	1.1	0.3	1.3	0.5
1987	3	15	600	1.84	12.34	0.1	0.5	13.1	22.5	8.2	9.9	3.6	6.0	7.2	6.0	5.8	1.9	2.5	2.7	1.1	0.8	1.2	1.0	1.4
1987	3	15	1100	2.01	12.34	0.1	0.3	16.7	22.5	10.5	3.7	3.7	6.4	4.8	2.6	6.3	4.7	3.4	1.9	2.3	1.8	1.3	0.7	1.0
1987	3	15	1700	1.76	12.34	0.1	0.3	4.5	37.2	8.2	4.6	4.3	6.9	3.1	1.9	4.8	4.2	2.2	0.6	1.3	1.0	1.8	1.0	0.8
1987	3	15	2300	1.73	12.34	0.1	1.0	8.2	24.7	14.0	5.1	1.7	1.2	1.9	1.8	2.5	2.5	3.1	3.6	3.1	2.0	4.3	4.3	1.0
1987	3	16	600	1.42	12.34	0.1	0.5	5.9	17.5	5.4	6.2	6.5	6.2	4.3	3.8	3.5	3.7	1.5	3.0	4.9	5.9	2.7	2.7	0.7
1987	3	16	1100	1.60	10.89	0.1	0.4	3.3	18.1	19.8	5.9	4.7	3.9	6.2	2.7	3.0	3.5	2.3	2.6	1.2	2.3	1.2	1.5	2.9
1987	3	16	1700	1.48	12.34	0.1	0.5	3.7	20.6	8.5	4.1	3.1	4.4	4.1	1.5	2.5	2.7	3.1	2.3	4.1	3.4	2.2	2.7	3.0
1987	3	16	2300	1.76	10.89	0.1	1.6	3.7	4.1	24.0	5.4	4.1	3.7	1.9	3.5	4.9	2.9	5.4	6.8	6.9	6.6	1.5	2.1	1.8
1987	3	17	600	1.40	14.22	0.0	0.8	12.1	6.1	8.6	3.3	4.2	2.5	1.3	2.2	2.1	2.5	1.9	3.1	2.4	1.3	2.4	1.1	1.6
1987	3	17	1100	1.26	12.34	0.1	0.3	2.4	36.0	5.5	2.0	2.4	2.2	1.8	1.1	3.3	2.3	2.8	3.5	3.0	3.2	2.1	3.5	1.0
1987	3	17	1700	1.40	12.34	0.1	0.1	1.9	13.0	5.0	2.3	3.1	2.8	3.4	3.8	4.3	5.6	6.9	2.5	3.0	4.3	3.6	4.3	0.8
1987	3	17	2300	1.03	10.89	0.2	0.2	1.6	14.1	23.6	6.7	2.7	2.3	4.4	4.6	3.4	3.4	2.8	2.8	2.3	2.7	2.1	1.2	1.1
1987	3	18	600	1.07	12.34	0.1	0.1	0.4	12.0	8.4	2.0	3.5	2.3	3.5	0.5	1.2	2.2	1.9	1.5	1.6	1.3	1.2	1.2	1.3
1987	3	18	1100	0.99	10.89	0.1	0.2	0.4	4.4	9.9	4.6	2.4	2.9	4.7	4.6	4.4	4.2	4.8	5.3	2.1	3.8	2.9	3.1	4.3
1987	3	18	1700	1.01	4.32	0.1	0.2	0.3	2.1	4.3	5.0	2.6	1.8	3.4	3.0	3.2	2.3	7.1	3.6	5.9	2.9	5.2	8.7	6.8
1987	3	18	2300	1.02	5.99	0.1	0.2	0.3	1.3	4.4	3.7	3.3	4.6	1.9	9.1	5.5	12.0	6.3	6.8	5.3	3.2	2.6	1.3	1.7
1987	3	19	600	0.85	5.99	0.1	0.5	1.0	1.2	4.8	4.2	5.1	8.7	6.7	5.1	8.1	10.0	7.5	3.9	6.0	4.0	3.8	2.5	2.1
1987	3	19	1100	0.76	9.75	0.1	0.3	2.1	0.9	7.5	19.9	5.5	8.9	3.5	3.9	4.7	3.7	6.5	5.5	2.2	1.9	2.5	1.9	1.1
1987	3	19	1700	0.94	10.89	0.2	0.2	0.5	3.8	6.6	5.7	3.8	5.1	4.3	1.7	3.0	1.6	1.6	2.4	1.6	4.5	2.0	0.9	1.7
1987	3	19	2300	0.70	9.75	0.2	0.5	1.3	4.1	5.9	12.0	3.9	2.9	4.6	3.7	4.3	3.6	1.5	3.4	3.9	3.2	3.2	5.5	3.1
1987	3	20	600	0.57	12.34	0.7	0.8	4.1	8.3	6.5	6.3	7.3	6.5	4.8	4.5	2.4	3.7	1.7	2.5	2.4	1.4	1.8	0.9	0.5
1987	3	20	1100	0.64	10.89	0.3	0.4	0.5	4.6	10.6	8.0	4.3	3.9	4.3	2.3	3.1	1.5	2.6	1.2	1.5	2.1	2.2	1.0	1.8
1987	3	20	1700	0.66	8.83	0.2	0.3	1.4	1.3	6.5	4.5	7.9	6.5	3.9	2.7	3.0	0.5	0.9	0.7	0.5	0.7	1.3	1.1	0.8
1987	3	20	2300	0.64	2.86	0.2	0.9	0.5	1.6	3.4	3.5	2.4	2.0	4.5	2.5	2.6	3.2	2.6	1.9	1.8	1.6	1.5	5.9	1.4
1987	3	21	600	0.69	7.42	0.2	0.5	1.6	4.0	5.6	4.7	2.6	2.7	5.7	3.1	5.5	2.5	1.6	1.9	1.1	2.0	2.0	2.3	2.7
1987	3	21	1100	0.70	3.26	0.1	0.7	1.4	2.4	2.3	3.0	0.8	2.2	1.3	1.7	1.8	0.9	0.5	2.9	3.9	3.6	3.2	4.1	3.5
1987	3	21	1700	0.94	3.79	0.2	0.3	0.6	0.6	1.8	2.1	1.1	1.2	0.6	1.5	1.3	0.8	0.7	1.1	0.3	4.6	5.8	5.3	7.3
1987	3	21	2300	0.61	10.89	0.3	0.3	0.6	1.8	9.6	8.9	4.6	3.6	2.1	2.8	0.9	0.5	2.2	1.1	2.3	1.3	1.6	1.4	1.3
1987	3	22	600	0.73	8.83	0.1	0.3	0.2	4.5	4.7	5.8	7.6	4.1	1.3	1.1	1.7	3.3	1.5	1.5	0.3	1.1	2.2	1.9	1.0
1987	3	22	1100	1.02	3.64	0.1	0.1	0.3	0.7	1.2	5.8	1.8	0.9	0.2	0.5	0.5	0.4	0.7	0.3	0.8	0.5	1.5	3.2	4.1
1987	3	22	1700	1.83	5.99	0.1	0.1	0.2	0.3	0.6	1.0	0.7	0.5	0.9	4.2	12.8	13.1	11.4	7.3	6.5	5.1	2.1	1.6	3.9
1987	3	22	2300	1.40	6.87	0.1	0.1	0.2	0.4	1.2	2.8	2.3	4.9	8.8	18.8	9.8	7.8	7.7	4.7	5.4	4.9	2.1	1.5	0.7
1987	3	23	600	1.76	8.06	0.1	0.1	0.1	2.3	3.3	8.4	12.0	16.9	14.8	7.3	8.7	7.5	1.4	2.2	3.6	2.3	0.9	1.2	1.2
1987	3	23	1100	2.06	10.89	0.1	0.5	1.0	4.9	16.0	7.3	11.1	12.1	3.5	8.1	5.8	3.3	4.6	3.1	2.5	1.9	0.9	1.0	0.9
1987	3	23	1700	2.30	12.34	0.1	0.2	3.7	16.7	11.5	13.1	6.3	12.8	5.3	4.1	4.7	4.6	2.6	1.4	1.1	1.4	1.0	0.5	1.2
1987	3	23	2300	1.83	9.75	0.1	0.1	0.9	12.1	8.9	15.1	11.4	9.9	7.4	6.0	4.1	2.4	2.6	3.8	2.2	2.6	1.1	0.9	2.2
1987	3	24	600	1.96	10.89	0.1	0.2	2.2	16.5	18.7	3.2	7.7	6.3	6.6	15.7	2.8	0.7	3.5	1.3	4.5	2.2	0.6	1.7	0.6
1987	3	24	1100	1.76	9.75	0.0	0.2	6.1	7.0	10.6	15.9	13.2	5.9	8.3	5.6	4.6	3.4	3.3	1.4	2.4	1.7	0.5	2.0	1.7
1987	3	24	1700	1.77	10.89	0.1	0.4	3.6	17.8	22.4	9.9	3.7	5.1	4.0	5.8	5.8	2.5	3.0	3.6	3.2	1.9	1.4	0.7	0.6
1987	3	24	2300	1.79	12.34	0.1	0.4	6.1	19.3	13.8	12.9	8.5	4.1	7.4	3.3	4.5	3.2	2.3	1.2	2.0	2.1	1.1	1.6	1.0
1987	3	25	600	1.46	12.34	0.1	0.1	2.2	18.7	12.5	6.0	9.2	9.8	3.4	7.6	5.6	5.9	1.4	2.6	3.5	1.9	1.6	1.0	0.8
1987	3	25	1100	1.28	10.89	0.1	0.3	3.0	13.8	17.8	8.8	5.7	8.2	5.6	4.5	7.6	0.8	3.2	2.1	1.6	2.5	4.2	0.6	1.9
1987	3	25	1700	1.29	10.89	0.0	0.2	0.7	3.8	13.3	6.7	12.5	8.7	8.0	7.8	9.8	4.5	2.4	5.4	3.5	2.1	1.0	0.6	1.6
1987	3	25	2300	1.24	9.75	0.0	0.3	4.0	11.7	10.6	21.0	13.9	3.0	2.6	1.8	1.9	5.3	4.2	2.3	3.0	1.3	1.4	1.2	0.9
1987	3	26	600	1.62	10.89	0.0	0.2	1.4	10.4	19.0	9.0	9.1	2.9	1.6	1.9	4.4	2.7	2.5	1.1	0.9	0.6	0.9	1.2	1.6
1987	3	26	1100	1.43	10.89	0.1	0.4	1.4	9.9	20.9	3.5	5.1	3.9	1.9	1.6	2.1	1.9	1.8	1.8	2.6	0.8	2.0	5.6	5.2
1987	3	26	1700	1.24	9.75	0.0	0.8	1.2	10.8	7.6	16.8	7.3	8.1	6.3	6.3	1.3	2.1	2.1	0.8	1.2	0.6	1.6	1.4	4.0
1987	3	26	2300	1.19	10.89	0.0	0.6	3.9	13.0	13.1	4.5	6.4	7.4	4.9	6.6	3.3	2.9	3.6	1.9	2.6	3.9	1.4	1.1	1.4
1987	3	27	600	1.07	10.89	0.1	0.1	1.4	13.3	13.5	10.8	9.3	4.6	6.1	4.2	4.8	1.8	4.3	4.0	3.1	1.5	1.2	2.5	0.8
1987	3	27	1100	1.16	10.89	0.1	0.1	0.5	12.2	15.4	9.8	7.6	11.1	7.2	3.4	3.7	1.8	3.8	1.8	3.7	2.5	1.5	0.9	1.2
1987	3	27	1700	1.06	10.89	0.1	0.1	0.3	3.6	11.9	8.9	9.9	5.7	5.7	9.4	5.2	9.6	6.4	2.2	4.1	4.6	1.5	1.7	0.4
1987	3	27	2300	0.98	10.89	0.1	0.2	1.1	1.2	19.5	7.4	4.1	8.4	4.1	10.4	5.3	4.1	2.8	5.0	4.5	1.9	2.3	1.7	0.8

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	3	28	600	0.90	9.75	0.2	0.7	0.5	2.0	2.8	10.7	6.5	4.8	3.9	7.8	8.0	8.7	5.8	4.3	5.1	3.7	3.1	2.4	1.9
1987	3	28	1100	1.22	8.83	0.1	0.5	1.2	1.3	3.0	6.4	16.6	8.1	3.7	8.6	4.8	7.1	2.5	3.7	1.5	1.8	0.9	2.6	1.5
1987	3	28	1700	1.66	5.63	0.0	0.4	0.6	1.0	1.6	2.8	6.6	4.6	4.1	3.4	10.4	7.5	10.6	6.6	2.7	3.5	4.7	2.4	1.7
1987	3	28	2300	1.59	6.40	0.1	0.4	1.1	2.5	3.5	4.1	7.8	5.7	4.2	8.8	20.8	6.7	5.8	7.1	3.5	1.5	4.1	1.0	1.1
1987	3	29	600	1.61	8.06	0.0	0.2	0.3	1.5	3.3	11.4	11.2	25.9	7.1	11.5	10.3	4.3	1.6	2.1	2.0	0.7	0.7	1.0	0.4
1987	3	29	1100	1.54	9.75	0.1	0.3	1.1	1.5	15.0	16.3	9.7	6.9	11.3	5.8	6.7	3.1	2.9	3.5	1.0	2.3	3.0	0.8	1.2
1987	3	29	1700	1.38	8.06	0.1	0.3	0.5	11.4	13.5	10.4	9.9	15.2	5.8	4.2	5.5	5.9	2.6	3.3	1.3	1.8	0.9	1.2	1.1
1987	3	29	2300	1.54	10.89	0.1	0.3	0.9	7.6	17.9	8.2	10.9	4.6	5.6	7.5	9.0	3.9	4.8	5.7	1.7	2.0	1.2	1.5	0.8
1987	3	30	600	1.22	9.75	0.1	0.4	1.5	15.3	14.4	20.1	8.8	6.9	7.7	2.8	3.9	2.7	1.4	1.8	1.3	1.6	0.5	0.5	0.7
1987	3	30	1100	1.52	10.89	0.1	0.2	1.1	6.8	15.8	12.9	6.8	8.3	4.2	2.2	2.9	2.9	2.3	1.6	1.5	1.3	1.4	1.2	2.9
1987	3	30	1700	1.71	4.53	0.1	0.2	0.7	2.9	12.3	8.3	3.0	2.8	1.8	1.2	1.5	1.9	2.0	3.4	7.1	12.8	13.8	2.7	1.4
1987	3	30	2300	2.20	4.76	0.1	0.4	1.6	3.0	5.3	2.8	2.9	1.7	1.9	2.9	2.2	3.5	7.8	9.7	8.8	10.7	5.3	5.7	3.2
1987	3	31	600	3.27	9.75	0.1	0.5	1.0	2.3	13.0	14.8	11.3	9.3	8.9	5.4	2.3	5.2	4.6	3.5	1.2	2.0	2.7	0.8	1.7
1987	3	31	800	3.06	8.06	0.0	0.3	1.6	2.8	9.2	9.2	10.1	14.2	3.5	7.0	3.3	3.8	3.7	1.8	5.8	4.3	2.5	3.0	2.0
1987	3	31	1000	3.01	9.75	0.1	0.5	3.8	7.3	7.9	15.9	6.2	5.5	3.1	8.5	4.4	5.0	6.9	5.1	1.5	2.1	2.1	1.7	2.2
1987	3	31	1100	3.07	10.89	0.1	0.3	1.6	5.9	23.4	13.8	8.2	4.1	2.2	3.2	3.2	5.3	8.6	2.4	1.8	3.2	1.8	1.0	0.7
1987	3	31	1200	2.71	10.89	0.1	0.7	3.5	4.2	13.7	8.1	7.3	3.1	5.7	8.3	4.1	6.6	3.8	2.9	4.7	2.6	3.4	3.7	1.8
1987	3	31	1400	3.02	12.34	0.2	0.7	7.4	15.6	7.8	5.2	4.9	3.0	4.3	4.6	2.5	4.0	5.1	3.6	3.2	3.4	3.7	4.6	2.0
1987	3	31	1600	3.37	10.89	0.1	0.4	1.7	10.7	16.8	8.0	5.2	5.6	6.8	4.6	5.9	4.3	4.4	4.0	1.2	1.9	3.4	1.9	2.3
1987	3	31	1700	3.51	12.34	0.1	0.5	3.7	22.7	12.0	3.9	3.3	3.4	5.1	3.3	4.4	12.1	2.5	2.2	2.7	1.9	2.9	0.8	2.4
1987	3	31	1800	2.91	10.89	0.2	0.6	3.3	11.9	13.4	10.6	3.5	4.4	8.1	5.3	10.8	5.0	1.4	2.8	2.6	1.8	2.6	1.4	1.0
1987	3	31	2000	2.98	12.34	0.2	0.5	3.4	19.4	13.7	9.1	6.7	6.9	3.4	5.9	4.7	3.5	4.1	2.6	2.6	1.4	1.2	0.9	1.2
1987	3	31	2200	3.09	12.34	0.1	0.5	10.8	26.0	7.5	12.7	4.8	4.3	5.5	2.0	3.4	5.3	3.2	4.2	0.6	1.2	0.5	0.4	1.1
1987	3	31	2300	2.74	10.89	0.2	0.5	6.3	17.0	17.5	9.8	12.2	2.1	4.6	3.3	2.4	2.1	3.2	3.9	0.6	1.2	1.7	1.1	0.7
1987	4	1	0	2.76	12.34	0.1	1.0	12.2	21.6	11.4	12.4	5.0	5.4	3.7	4.3	3.0	2.1	1.1	3.0	0.4	1.1	0.4	0.7	0.4
1987	4	1	200	2.58	12.34	0.1	0.9	15.0	27.5	7.4	8.4	4.4	5.8	5.2	4.9	1.8	4.3	2.4	1.0	0.5	0.6	1.0	0.6	0.9
1987	4	1	600	2.00	12.34	0.1	0.4	3.5	35.7	8.3	10.9	6.8	1.0	1.8	1.9	0.9	1.0	1.9	0.7	1.0	1.2	0.7	1.3	1.5
1987	4	1	1100	1.50	10.89	0.1	0.4	2.4	10.1	28.8	10.9	10.6	5.4	3.8	1.0	1.8	1.0	0.5	1.2	0.8	0.9	1.1	0.3	1.2
1987	4	1	1700	1.34	12.34	0.1	0.9	6.4	24.7	19.0	12.6	5.8	2.3	1.4	0.6	0.9	0.2	0.4	1.5	1.6	1.9	1.6	1.0	2.4
1987	4	1	2300	1.16	12.34	0.0	0.6	2.6	30.7	9.7	17.3	9.1	3.5	5.4	3.1	0.9	0.9	0.5	0.1	0.4	0.5	0.2	0.4	0.7
1987	4	2	600	1.21	10.89	0.1	0.3	1.4	8.5	22.0	8.1	2.5	1.5	0.7	1.4	0.5	0.3	0.3	0.2	0.4	0.6	1.7	2.3	4.0
1987	4	2	1100	1.55	10.89	0.1	0.2	1.2	2.6	9.4	5.9	6.2	6.6	2.7	0.8	0.8	0.6	1.5	2.9	2.9	5.6	5.7	3.8	3.5
1987	4	2	1700	1.70	4.76	0.0	0.4	0.9	3.1	2.7	1.7	2.7	1.9	1.7	2.9	0.9	1.6	7.5	5.6	5.1	9.5	4.5	3.4	5.3
1987	4	2	2300	2.03	5.31	0.1	0.1	0.5	1.7	3.3	1.9	1.3	0.6	0.6	2.1	2.3	9.4	13.2	15.2	12.0	3.3	3.5	4.0	3.8
1987	4	3	600	1.31	9.75	0.1	0.1	2.1	1.2	4.8	8.5	1.9	1.7	0.9	2.1	5.2	7.6	4.4	4.0	2.7	3.6	3.9	5.4	2.4
1987	4	3	1100	0.97	10.89	0.1	0.2	0.8	2.5	7.2	6.6	3.4	2.4	2.3	2.9	1.8	0.9	6.7	2.8	3.7	2.8	1.7	1.2	1.9
1987	4	3	1700	1.05	3.95	0.2	0.7	1.9	3.0	3.7	3.7	3.4	1.7	2.0	3.6	2.4	5.4	4.1	1.6	2.1	0.9	1.4	1.6	5.4
1987	4	3	2300	1.44	4.53	0.0	0.5	0.7	1.2	1.7	5.7	3.8	3.8	3.3	3.0	5.5	1.4	1.3	1.3	2.2	9.1	11.8	6.7	7.0
1987	4	4	600	1.64	4.76	0.1	0.2	0.6	0.9	2.1	3.5	2.4	2.0	4.5	7.3	2.7	3.2	2.8	4.9	7.5	10.5	7.0	3.9	3.7
1987	4	4	1100	1.96	5.99	0.1	0.1	0.1	0.4	2.9	7.0	5.9	3.8	4.4	8.3	5.5	15.9	5.7	3.7	5.8	5.9	1.5	3.6	1.9
1987	4	4	1700	2.60	10.89	0.1	0.0	0.3	1.3	30.5	7.4	4.1	4.6	3.8	2.0	5.4	5.2	2.6	4.2	3.2	1.5	2.9	3.9	3.3
1987	4	4	1900	3.01	6.40	0.0	0.1	0.2	2.9	9.0	9.3	3.6	5.8	3.7	2.5	14.4	9.9	9.2	2.7	2.6	5.1	2.1	1.4	1.4
1987	4	4	2100	2.75	10.89	0.1	0.1	0.6	6.7	14.4	5.6	5.3	3.8	5.0	9.3	6.7	5.8	5.0	3.5	3.9	2.7	2.6	1.7	2.6
1987	4	4	2300	2.53	10.89	0.1	0.1	0.4	2.8	13.1	11.4	5.4	9.0	4.7	7.5	3.6	7.8	3.7	2.9	3.1	3.7	3.1	1.5	1.4
1987	4	5	600	2.09	9.75	0.1	0.1	0.5	3.8	9.3	20.7	11.3	7.2	5.0	4.9	3.9	4.4	1.0	2.3	2.3	3.4	2.8	2.0	1.4
1987	4	5	1100	2.08	10.89	0.1	0.1	0.3	5.1	22.9	14.2	4.7	7.0	1.7	3.8	5.6	4.1	1.8	4.6	1.9	2.2	5.0	1.9	0.9
1987	4	5	1700	2.00	10.89	0.1	0.1	0.2	3.2	28.0	14.0	8.3	6.3	7.4	5.2	3.1	1.5	5.0	1.7	3.2	0.9	1.8	1.5	0.6
1987	4	5	2300	1.52	10.89	0.0	0.2	0.2	2.5	16.1	9.2	9.2	7.7	10.7	5.5	4.7	2.8	3.9	4.7	1.9	6.3	1.0	2.3	1.1
1987	4	6	600	1.22	8.83	0.0	0.4	0.2	1.7	7.0	8.7	17.8	6.3	5.3	8.2	4.9	9.1	5.5	3.3	1.9	3.8	2.1	3.3	1.0
1987	4	6	1100	1.16	8.06	0.1	0.4	0.7	1.3	2.5	8.3	14.1	28.7	8.2	7.4	4.8	3.5	1.3	1.1	3.3	3.3	0.9	1.0	2.0
1987	4	6	1700	0.89	7.42	0.1	0.3	0.8	1.3	1.8	4.7	11.5	4.2	22.1	5.9	5.2	4.9	6.8	2.1	5.5	1.7	2.1	0.8	1.3
1987	4	6	2300	0.82	8.06	0.2	0.4	0.9	0.7	7.7	13.4	8.2	13.9	9.2	3.5	5.1	4.2	3.6	2.4	2.4	1.3	2.4	2.4	0.8
1987	4	7	600	0.81	6.87	0.2	0.6	0.5	0.4	2.2	7.4	9.3	12.7	10.0	14.4	4.4	7.2	4.9	2.5	1.4	1.2	0.5	0.6	1.0
1987	4	7	1100	0.73	7.42	0.4	1.3	1.5	0.8	1.5	8.5	6.8	12.1	17.4	8.6	3.9	2.3	2.9	2.7	2.2	1.9	1.0	2.0	1.1
1987	4	7	1700	0.83	7.42	0.2	0.8	1.6	0.8	1.8	5.4	4.5	7.1	11.3	4.6	5.5	3.2	2.3	2.0	5.1	1.5	2.3	1.7	1.2
1987	4	7	2300	0.74	5.99	0.8	1.2	1.7	0.6	0.8	1.3	5.1	2.0	6.1	2.5	5.2	8.0	3.8	4.2	3.8	2.0	4.0	4.4	3.9
1987	4	8	600	0.57	14.22	0.2	3.2	10.7	3.3	2.2	2.8	7.1	6.5	2.3	5.5	8.4	6.0	5.5	6.8	3.3	1.8	5.4	1.1	2.9
1987	4	8	1100	0.66	5.99	0.2	0.8	7.1	9.1	5.9	6.5	2.8	4.6	3.2	4.6	6.8	14.4	2.0	4.5	1.2	1.4	1.8	1.5	0.9
1987	4	8	1700	0.66	12.34	0.1	0.8	2.0	12.1	5.8	7.4	7.2	8.4	6.4	4.8	8.3	4.4	6.1	2.4	2.2	1.6	2.7	0.9	1.0
1987	4	8	2300	0.67	12.34	0.2	1.2	8.0	14.0	8.8	10.1	6.9	3.7	2.5	3.1	5.4	6.7	2.4	4.5	2.7	1.6	1.8	1.7	2.4
1987	4	9	600	0.77	12.34	0.0	0.7	2.8	16.0	5.7	3.7	4.2	6.4	4.3	4.8	3.8	5.4	3.4	0.7	1.3	0.3	1.1	0.9	0.6
1987	4	9	1100	0.79	12.34	0.3	0.6	5.2	17.4	4.7	3.1	6.0	2.7	2.3	2.1	4.9	4.8	3.4	2.4	1.1	0.8	1.2	0.7	1.0
1987	4	9	1700	0.82	12.34	0.1	0.3	5.2	12.9	6.8	3.4	4.8	6.8	2.4	2.0	2.6	1.9	0.8	0.7	0.7	0.6	0.5	1.2	1.0
1987	4	9	2300	0.61	12.34	0.2	0.4	15.9	16.0	6.3	6.9	5.7	11.0	5.5	1.5	2.2	3.6	2.0	1.2	1.7	1.4	1.0	0.9	1.2
1987	4	10	600	0.58	12.34	0.2	0.5	2.3	20.8	12.9	6.0	8.1	3.1	8.2	4.3	2.1	2.5	1.0	1.1	3.1	1.5	1.6	1.3	1.6
1987	4	10	1100	0.57	12.34	0.2	0.7	1.7	27.6	20.2	4.3	4.4	4.0	5.0	2.4	4.2	1.2	1.9	1.2	0.6	0.6	0.9	1.0	1.1
1987	4	10	1700	0.46	10.89	0.2	0.8	2.1	5.6	20.2	14.5	14.8	3.8	7.3	4.7	1.5	1.6	1.0	0.6	0.4	1.1	0.8	0.8	0.7
1987	4	10	2300	0.67	12.34	0.1	0.9	1.1	12.1	5.2	4.4	1.2	2.5	2.1	0.6	1.4	1.7	0.6	0.7	0.3	0.4	0.3	0.4	1.0
1987	4	11	600	0.49	12.34	0.1	0.7	1.5	11.5	8.5	7.1	5.6	2.8	5.3	1.6	1.7	2.7	1.8	1.3	1.2	0.4	0.3	0.9	0.5
1987	4	11	1100	0.49	3.26	0.1	1.2	1.4	3.5	5.3	2.2	3.2	1.9	4.9	2.1	4.3	2.7	2.4	2.7	1.8	1.9	0.9	0.5	1.4
1987	4	11	1700	0.69	4.13	0.2	0.2	0.7	3.8	5.2	2.5	1.6	1.5	2.7	1.1	0.9	0.9	0.5	0.6	0.3	0.3	2.4	7.0	7.7
1987	4	11	2300	0.90	3.51	0.1	0.3	0.7	2.1	2.1	1.8	1.0	1.0	0.9	1.0	0.6	0.3	0.6	0.4	0.8	0.3	0.5	0.6	1.9
1987	4	12	600	0.73	4.76	0.1	0.2	0.7	0.6	5.1	3.1	1.1	1.2	1.3	1.1	0.8	1.6	2.6	1.5	4.8	16.3	4.0	13.0	3.2
1987	4	12	1100	0.74	4.76	0.0	0.3	0.7	0.9	2.6	1.0	1.7	1.5	2.1	2.8	2.7	2.4	3.8	3.6	10.5	19.6	11.7	7.6	2.8
1987	4	12	1700	0.78	5.99	0.1	0.2	0.6	1.5	4.4	2.2	3.4	5.1	4.3	3.3	6.2	8.9	5.5	3.0	3.9	4.4	3.5	3.5	5.1
1987	4	12	2300	1.42	7.42	0.0	0.1	0.2	0.6	0.5	0.5	0.9	3.0	13.3	7.3	4.2	5.6	1.8	3.2	2.8	2.5	6.2	3.9	4.4
1987	4	13	600	0.91	6.87	0.0	0.4	0.4	0.7	1.2	0.9	0.9	1.0	5.6	21.8	8.2	3.4	4.0	5.3	6.3	5.9	5.1	4.3	3.1
1987	4	13	1100	1.21	6.87	0.1	0.1	0.1	0.2	0.4	1.0	1.9	6.7	6.9	16.2	8.1	8.5	8.4	4.4	2.8	5.9	3.7	2.7	1.9
1987	4	13	1700	1.06	7.42	0.1	0.2	0.1	0.3	0.9	2.0	3.1	8.7	13.4	6.6	8.6	1.4	1.0	2.0	1.4	1.1	0.8	0.5	0.5
1987	4	13	2300	1.61	5.02	0.0	0.0	0.2	0.3	0.1	0.3	0.5	5.4	3.1	3.1	1.5	2.2	4.8	6.3	15.4	13.3	10.4	4.9	3.0

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	4	14	600	1.41	8.83	0.1	0.1	0.2	0.7	4.6	9.9	11.4	8.1	10.9	9.4	5.6	4.7	2.1	3.5	1.4	1.1	2.9	3.0	1.7
1987	4	14	1100	1.89	9.75	0.0	0.1	0.6	4.1	6.8	26.1	10.9	8.0	8.9	3.5	2.7	6.8	3.0	2.7	3.0	1.6	1.2	1.2	0.4
1987	4	14	1700	1.54	12.34	0.1	0.2	3.7	14.2	12.7	13.3	11.4	4.8	7.5	5.3	4.0	2.8	1.1	3.2	2.5	1.3	1.7	0.8	2.4
1987	4	14	2300	1.66	10.89	0.1	0.3	1.9	6.6	16.0	11.7	6.8	8.3	6.8	6.1	5.4	4.4	2.5	3.4	4.1	1.9	2.1	1.3	2.5
1987	4	15	600	1.40	12.34	0.2	0.6	13.1	17.1	7.6	14.1	5.7	4.7	4.6	3.0	6.5	2.2	3.2	3.0	1.3	1.2	2.0	1.8	0.9
1987	4	15	1100	1.57	12.34	0.1	0.4	2.3	24.6	17.5	5.0	5.6	7.1	3.1	5.2	5.3	3.7	2.0	3.1	3.0	2.8	1.2	1.1	1.0
1987	4	15	1700	1.46	12.34	0.1	0.4	13.4	20.4	6.6	12.6	3.2	8.1	3.8	2.8	5.2	2.8	2.3	1.2	1.8	1.2	0.9	0.9	0.9
1987	4	15	2300	1.42	12.34	0.1	0.2	2.9	23.4	16.8	6.7	6.4	5.8	2.2	2.7	2.9	4.1	2.0	1.5	1.4	1.5	2.4	1.3	1.0
1987	4	16	600	1.51	10.89	0.1	0.1	0.5	12.8	15.4	8.3	6.3	3.1	3.3	2.5	1.7	3.5	4.4	3.1	2.8	5.6	1.8	3.7	3.4
1987	4	16	1100	1.69	4.53	0.1	0.1	0.2	2.7	6.3	3.5	3.8	3.0	2.0	2.5	3.4	4.5	4.1	3.4	4.9	3.8	8.3	3.7	4.3
1987	4	16	1700	2.11	5.99	0.0	0.1	0.1	2.2	5.3	1.5	1.5	2.3	5.3	2.5	3.4	14.0	12.0	3.1	7.3	5.4	4.9	4.6	1.9
1987	4	16	2300	2.51	6.40	0.1	0.0	0.1	0.3	2.8	10.2	6.6	2.3	6.2	8.8	10.9	10.3	5.9	4.5	3.2	2.6	2.9	3.0	1.5
1987	4	17	200	3.09	7.42	0.1	0.1	0.1	0.1	1.8	3.6	3.7	3.3	14.1	11.9	9.9	6.3	5.0	11.7	4.5	7.0	1.6	1.9	1.7
1987	4	17	400	2.60	6.87	0.1	0.1	0.2	0.3	1.8	5.3	10.8	9.8	7.8	11.9	8.9	2.5	6.2	7.7	3.3	2.5	3.8	2.4	2.2
1987	4	17	600	2.46	8.06	0.0	0.1	0.1	0.4	3.3	4.3	4.6	14.6	11.3	10.9	7.0	6.0	6.8	2.3	3.0	1.5	3.6	2.0	3.0
1987	4	17	900	2.93	6.87	0.1	0.0	0.1	0.1	3.0	7.0	8.6	10.9	8.9	13.5	12.2	3.0	4.1	3.5	3.8	6.1	2.3	1.3	1.2
1987	4	17	1100	2.43	6.87	0.1	0.1	0.1	0.5	2.5	6.2	8.5	9.6	10.3	12.3	3.0	7.3	6.1	4.2	3.8	2.0	2.6	2.4	2.6
1987	4	17	1700	1.91	6.40	0.1	0.1	0.3	0.6	1.8	9.6	9.6	10.2	4.5	8.6	11.4	5.3	3.0	6.3	2.0	3.5	4.4	4.3	2.8
1987	4	17	2300	1.99	9.75	0.1	0.0	0.1	0.3	8.5	16.9	8.1	7.5	6.4	8.7	7.0	5.9	5.7	4.6	1.8	1.9	2.5	1.6	1.5
1987	4	18	600	1.89	9.75	0.1	0.1	0.4	2.8	13.1	23.2	7.9	5.6	6.0	4.2	6.6	1.5	6.5	1.7	3.0	1.6	1.8	0.8	1.6
1987	4	18	1100	2.21	9.75	0.0	0.1	0.3	0.8	3.4	29.4	11.1	6.7	7.6	4.2	6.2	2.5	3.7	4.1	1.4	1.7	1.8	0.9	1.5
1987	4	18	1700	1.89	9.75	0.0	0.1	1.0	0.9	10.4	17.5	13.5	4.1	7.9	1.9	4.5	5.6	4.4	3.1	1.0	1.7	3.3	1.4	1.6
1987	4	18	2300	1.68	8.83	0.1	0.1	0.3	3.1	9.6	10.6	15.6	5.5	7.3	6.9	5.4	4.8	2.1	3.2	1.8	2.4	1.5	1.7	1.5
1987	4	19	600	1.64	8.83	0.1	0.1	0.9	0.7	5.9	11.0	16.5	8.5	4.7	3.5	4.6	4.3	1.0	1.6	2.3	1.6	2.1	1.6	2.8
1987	4	19	1100	1.72	8.83	0.0	0.1	0.6	1.5	3.8	10.1	24.5	9.6	3.0	5.0	4.2	2.7	3.0	2.3	2.7	1.1	1.6	2.2	2.6
1987	4	19	1700	1.78	9.75	0.0	0.2	0.1	3.3	3.2	10.3	6.8	5.6	6.3	2.1	3.2	2.7	3.2	3.0	5.8	5.3	5.0	4.9	3.3
1987	4	19	2300	1.74	8.83	0.0	0.1	0.1	2.2	6.0	12.3	15.9	7.5	5.8	2.6	3.7	1.9	2.4	6.8	1.5	4.4	2.4	1.9	2.2
1987	4	20	600	1.70	9.75	0.1	0.4	0.2	2.5	4.5	12.9	4.4	9.1	5.6	2.4	2.4	4.4	4.0	6.4	3.9	3.4	4.1	3.1	1.1
1987	4	20	1100	2.28	9.75	0.0	0.1	0.1	0.3	9.2	11.4	1.7	1.8	2.2	2.3	3.0	4.3	4.6	9.6	5.9	10.0	8.3	2.9	1.8
1987	4	20	1700	2.37	6.87	0.0	0.1	0.1	0.6	5.5	5.8	4.5	3.2	6.6	11.1	8.1	6.2	4.0	7.2	2.2	2.6	2.8	6.3	2.8
1987	4	20	2300	2.28	7.42	0.1	0.1	0.1	0.8	2.0	3.8	6.8	4.2	11.8	10.7	5.2	4.3	7.0	3.5	2.4	4.3	5.3	3.0	2.8
1987	4	21	600	1.94	8.83	0.0	0.1	0.2	0.6	5.6	4.7	11.5	2.9	8.1	9.0	6.0	3.5	4.6	4.4	5.2	4.7	6.0	2.5	2.0
1987	4	21	1100	1.98	8.83	0.0	0.1	0.2	0.5	2.6	6.7	8.1	5.3	3.9	6.4	5.7	7.0	6.3	3.1	4.2	3.6	4.5	5.3	2.9
1987	4	21	1700	2.05	6.40	0.0	0.0	0.1	0.1	0.6	3.7	13.4	10.0	6.9	3.1	14.2	8.0	2.6	2.8	0.9	6.3	3.0	1.7	2.7
1987	4	21	2300	1.64	6.87	0.0	0.1	0.2	0.2	1.1	3.1	6.7	7.2	9.4	10.1	4.7	8.6	7.9	4.2	5.7	3.5	1.3	2.8	1.9
1987	4	22	600	1.43	7.42	0.1	0.1	0.4	0.4	2.4	7.8	13.5	8.9	14.6	5.3	6.1	4.7	4.6	7.1	3.8	2.3	2.7	1.7	2.0
1987	4	22	1100	1.24	8.06	0.1	0.1	0.2	1.4	3.7	9.8	11.6	16.5	8.1	5.0	5.2	5.7	4.5	2.8	4.0	5.2	2.7	1.6	2.0
1987	4	22	1700	1.18	6.87	0.1	0.1	0.4	0.4	5.2	7.7	11.2	11.8	7.1	12.7	11.6	3.6	6.4	3.7	2.0	2.6	2.4	1.4	2.2
1987	4	22	2300	2.12	5.02	0.0	0.1	0.2	0.2	0.7	3.8	3.4	2.6	2.5	1.7	2.2	2.2	1.8	7.9	17.3	15.8	8.3	3.8	2.8
1987	4	23	600	2.16	6.87	0.0	0.0	0.1	0.1	0.4	1.3	5.5	5.3	17.6	18.6	11.5	3.7	4.7	2.2	2.0	2.3	2.3	1.8	2.0
1987	4	23	1100	1.82	7.42	0.1	0.1	0.1	0.1	0.5	4.2	11.6	9.0	15.8	4.2	3.1	4.5	3.2	2.8	3.9	2.4	4.1	3.9	2.7
1987	4	23	1700	1.67	6.40	0.0	0.1	0.1	0.3	0.7	2.8	4.3	15.3	6.6	4.1	18.2	8.5	6.2	1.6	3.6	2.3	1.5	2.2	3.0
1987	4	23	2300	1.54	7.42	0.1	0.1	0.1	0.2	0.3	3.8	2.8	9.5	15.0	5.9	6.8	5.7	4.0	4.8	2.3	2.3	1.7	6.2	1.1
1987	4	24	600	1.32	7.42	0.1	0.1	0.2	0.4	0.7	3.1	2.8	8.4	9.7	9.4	9.4	3.9	5.8	6.4	4.1	2.4	2.5	5.9	4.4
1987	4	24	1100	1.16	8.83	0.1	0.1	0.3	0.4	0.8	4.1	13.9	9.3	10.2	7.7	8.2	4.7	2.8	2.0	2.3	4.8	1.8	3.5	2.8
1987	4	24	1700	1.11	8.83	0.1	0.2	0.4	0.3	0.1	2.1	14.4	12.5	7.9	13.1	2.7	11.2	7.3	5.5	3.8	2.2	2.2	1.2	1.4
1987	4	24	2300	1.14	8.06	0.0	0.1	0.1	0.3	0.3	2.5	9.0	26.0	7.8	13.3	3.3	4.4	1.7	5.3	6.7	2.5	2.0	2.0	0.4
1987	4	25	600	2.81	5.63	0.0	0.1	0.0	0.1	0.1	0.1	1.8	5.0	3.2	7.4	14.8	5.9	25.4	6.2	4.2	2.2	5.2	1.3	1.3
1987	4	25	800	3.10	6.87	0.1	0.0	0.1	0.2	0.1	0.4	1.2	4.8	6.4	19.4	10.5	11.3	7.5	7.4	1.5	3.3	3.9	2.0	1.5
1987	4	25	1000	3.33	7.42	0.1	0.1	0.1	0.1	0.3	1.0	1.9	17.7	19.3	5.2	9.8	3.0	4.4	7.8	5.5	3.6	2.7	3.3	1.9
1987	4	25	1100	3.25	8.06	0.1	0.1	0.1	0.2	0.4	1.6	8.3	21.2	12.5	5.0	4.4	6.8	4.1	3.6	5.3	3.9	3.0	3.6	2.5
1987	4	25	1200	3.24	8.83	0.1	0.0	0.1	0.2	1.1	2.1	16.9	11.8	8.9	5.6	6.3	3.2	5.0	6.3	4.7	6.4	3.5	1.8	2.8
1987	4	25	1400	3.61	8.06	0.0	0.1	0.1	0.2	1.4	6.9	16.9	18.8	8.6	3.8	5.2	6.4	4.4	3.9	3.1	2.7	1.2	2.1	3.6
1987	4	25	1600	3.69	8.83	0.1	0.0	0.1	0.3	3.1	10.7	18.2	14.2	7.7	6.6	5.0	3.6	4.0	4.9	2.8	1.1	2.7	1.7	2.7
1987	4	25	1700	3.52	8.83	0.1	0.1	0.2	0.9	3.9	8.1	21.2	12.9	5.7	2.5	10.4	5.9	2.5	4.7	3.3	1.9	3.9	0.8	1.2
1987	4	25	1800	3.51	9.75	0.1	0.1	0.2	0.8	5.7	13.3	8.6	6.2	12.1	4.8	6.1	4.5	3.2	3.8	6.7	2.8	2.6	2.7	2.5
1987	4	25	2000	3.57	8.83	0.0	0.1	0.2	1.8	3.9	11.7	13.8	6.8	10.8	12.5	5.9	4.4	3.9	2.8	2.6	5.8	2.9	0.7	0.9
1987	4	25	2200	3.41	9.75	0.1	0.1	0.3	1.4	6.8	15.4	3.1	8.5	6.3	7.3	13.9	3.9	2.0	5.7	7.6	3.6	1.3	0.6	1.7
1987	4	25	2300	3.71	8.06	0.1	0.1	0.7	5.5	3.4	7.3	8.6	12.8	10.3	3.7	8.5	3.0	4.7	5.4	2.0	3.2	1.4	2.2	1.8
1987	4	26	0	3.66	8.06	0.0	0.1	0.2	3.5	12.7	6.7	10.4	16.6	4.3	4.9	4.0	4.1	2.2	5.2	2.7	4.9	2.5	3.4	1.9
1987	4	26	200	3.38	10.89	0.1	0.1	0.6	2.1	17.8	10.5	12.0	6.3	3.4	4.4	4.3	9.1	4.4	1.9	1.5	4.9	2.2	1.8	1.1
1987	4	26	400	3.51	10.89	0.1	0.2	0.3	5.2	18.5	18.1	8.0	4.2	3.8	4.5	1.9	6.1	6.7	1.1	3.3	1.3	2.7	1.7	1.6
1987	4	26	600	3.15	8.06	0.1	0.2	0.4	4.1	9.2	9.6	7.8	10.1	6.2	2.5	5.0	8.8	4.6	5.2	3.2	3.2	2.1	2.3	1.6
1987	4	26	800	3.24	8.83	0.0	0.1	0.4	7.4	7.6	5.9	15.5	3.9	6.9	5.7	11.6	4.9	2.8	1.8	4.5	3.0	2.8	1.6	1.1
1987	4	26	1000	3.38	10.89	0.1	0.1	0.3	2.0	16.4	3.8	9.8	8.6	9.3	9.5	7.7	1.8	2.2	4.7	1.8	2.6	3.5	1.5	1.2
1987	4	26	1100	3.06	6.40	0.1	0.1	0.7	2.6	9.2	2.8	7.9	6.6	4.6	10.7	12.4	4.9	6.6	3.5	2.3	3.8	1.7	2.2	2.9
1987	4	26	1200	3.11	10.89	0.1	0.1	0.2	3.7	13.4	5.8	6.1	9.9	7.3	9.2	6.6	7.6	2.3	2.5	2.5	2.6	2.5	2.6	1.8
1987	4	26	1400	2.85	10.89	0.1	0.1	0.2	1.7	15.3	7.8	4.4	2.6	7.2	6.3	6.2	3.9	5.1	4.3	8.9	1.5	3.2	3.1	4.0
1987	4	26	1600	2.94	5.83	0.1	0.1	0.2	3.5	6.3	6.3	4.0	9.4	10.0	4.2	6.7	2.4	10.6	5.1	3.8	2.7	1.4	4.9	1.7
1987	4	26	1700	3.14	10.89	0.0	0.1	0.3	1.8	11.6	7.2	8.9	4.7	4.8	5.7	10.5	8.4	6.2	5.1	1.9	3.5	2.1	1.6	1.7
1987	4	26	1800	3.21	9.75	0.0	0.1	0.3	1.7	6.6	11.1	3.5	6.5	8.5	8.9	7.5	6.0	4.2	4.5	3.1	6.3	2.3	2.1	2.0
1987	4	26	2000	3.05	7.42	0.1	0.1	0.2	2.3	11.3	4.0	5.2	5.3	14.6	6.2	3.8	5.6	4.3	6.9	1.4	8.2	3.3	1.2	1.5
1987	4	26	2200	3.17	8.06	0.0	0.1	0.2	2.5	5.1	11.4	7.4	12.2	4.4	4.9	8.0	7.1	5.0	6.1	5.8	2.7	1.9	4.0	1.5
1987	4	26	2300	2.86	7.42	0.1	0.1	0.6	3.7	8.9	8.4	4.6	7.7	11.3	7.7	5.6	3.7	5.0	2.0	5.5	3.4	4.8	2.0	2.1
1987	4	27	600	2.13	8.06	0.1	0.2	0.9	5.1	10.6	10.8	5.1	14.5	5.1	5.5	5.6	3.4	2.2	2.3	1.9	3.6	4.3	2.6	0.5
1987	4	27	1100	2.65	9.75	0.1	0.2	0.9	3.0	9.1	10.9	7.4	8.7	5.6	6.6	4.9	5.3	4.9	2.0	5.5	2.0	4.9	3.7	2.5
1987	4	27	2300	2.24	10.89	0.1	0.1	1.7	6.4	14.3	6.8	7.6	10.9	2.5	4.1	5.0	7.7	1.2	3.6	3.7	2.8	1.8	2.4	1.5
1987	4	28	600	2.04	10.89	0.0	0.4	3.1	9.6	17.2	4.5	5.0	8.2	9.8	1.5	5.6	9.9	2.9	4.8	1.2	2.6	2.2	1.9	1.3
1987	4	28	1100	2.27	12.34	0.1	0.5	2.6	15.1	6.6	6.6	7.0	11.3	12.1	7.4	3.8	2.8	5.0	1.7	2.7	3.4	1.7	0.9	0.6
1987	4	28	1700	1.74	10.89	0.2	0.8	3.0	11.5	12.7	6.2	5.5	10.5	11.1	5.7	3.6	3.7	3.5	6.5	2.3	1.7	0.9	1.0	1.5

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date			Time	Hmo	Tp																			
Yr	Mo	Dy	(gmt)	(m)	(sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	4	28	2300	1.80	10.89	0.1	0.8	6.4	8.6	15.3	14.0	6.8	3.8	5.4	4.1	5.5	4.7	3.0	5.1	5.4	1.3	1.5	1.2	0.5
1987	4	29	600	1.36	10.89	0.1	0.3	8.7	18.7	20.1	7.5	6.5	3.9	2.7	4.4	4.5	3.2	1.1	1.8	0.6	0.8	1.0	0.9	0.9
1987	4	29	1100	1.29	8.83	0.1	0.3	4.8	17.3	8.3	7.3	17.9	5.7	7.3	5.6	3.9	2.5	1.8	1.6	2.0	0.4	0.7	0.4	0.9
1987	4	29	1700	1.11	12.34	0.1	0.2	7.6	14.3	11.5	2.9	9.9	1.8	1.5	2.0	1.2	1.2	0.6	0.9	0.7	0.9	0.5	0.4	0.8
1987	4	29	2300	1.76	5.31	0.1	0.1	5.2	6.2	4.0	0.7	1.1	0.9	0.4	0.2	0.6	1.0	2.8	14.1	9.7	9.3	7.2	3.3	2.1
1987	4	30	600	1.57	6.87	0.0	0.2	3.7	2.7	2.1	0.9	0.7	3.3	11.8	26.1	11.2	5.1	7.2	2.5	3.1	3.1	1.0	0.8	3.3
1987	4	30	1100	1.34	6.40	0.0	0.4	4.9	7.3	2.2	1.7	4.2	6.2	9.1	9.4	10.4	7.8	3.2	2.3	2.0	1.8	3.3	1.7	1.9
1987	4	30	1700	1.25	12.34	0.1	0.7	12.5	13.4	4.1	1.3	4.0	1.9	1.8	2.1	3.5	3.1	3.6	1.9	4.1	2.2	2.3	2.8	1.3
1987	4	30	2300	1.16	14.22	0.1	0.8	15.4	11.6	4.5	2.0	1.3	4.9	3.6	3.4	5.1	7.7	4.9	7.6	1.4	3.7	1.1	2.0	1.8
1987	5	1	600	0.90	14.22	0.1	1.2	22.5	13.1	4.9	3.9	1.0	4.0	6.1	3.7	5.4	6.0	5.0	5.7	2.1	1.5	2.4	2.8	2.2
1987	5	1	1100	0.82	12.34	0.3	0.5	4.5	23.5	18.9	7.6	3.1	3.3	3.9	2.2	2.3	2.2	2.7	2.8	2.2	2.1	4.3	3.0	1.0
1987	5	1	1700	0.69	12.34	0.2	0.3	9.3	19.0	18.1	4.2	4.2	4.7	9.1	6.8	1.6	0.7	2.9	2.2	2.2	1.8	1.9	2.3	0.9
1987	5	1	2300	0.74	12.34	0.3	0.4	0.8	18.7	12.2	6.4	3.3	1.3	3.4	2.7	3.9	4.5	3.8	2.0	3.6	6.2	2.8	0.9	2.3
1987	5	2	600	0.61	12.34	0.6	0.9	2.8	17.4	13.0	9.3	3.2	3.3	3.0	7.0	4.4	8.0	3.4	2.7	2.7	1.5	1.0	0.8	0.7
1987	5	2	1100	0.66	10.89	0.6	1.4	1.3	5.1	16.6	7.8	8.2	6.2	5.6	7.3	6.1	10.8	3.5	3.2	4.3	2.9	0.6	0.6	1.6
1987	5	2	1700	0.66	12.34	0.5	1.3	1.1	8.8	8.5	8.7	2.8	3.1	4.3	7.3	6.3	6.2	6.3	7.5	4.4	3.0	2.9	1.8	1.6
1987	5	2	2300	0.81	5.31	0.1	1.5	1.5	2.6	3.3	5.9	4.3	2.4	4.5	3.0	3.8	2.1	4.7	8.1	0.9	2.4	3.3	3.3	2.0
1987	5	3	600	0.75	12.34	0.3	2.1	3.5	7.2	1.5	3.6	5.4	5.6	3.4	6.2	4.2	4.4	1.5	1.8	2.6	1.9	1.6	2.0	1.0
1987	5	3	1100	0.79	6.87	0.2	1.0	0.7	3.6	7.4	3.3	2.6	6.0	5.5	12.4	7.8	3.5	5.5	4.3	2.6	1.5	2.1	0.9	1.7
1987	5	3	1700	0.79	5.31	0.1	1.9	1.5	3.6	7.9	3.3	2.2	1.8	3.2	3.4	3.2	8.0	5.2	9.6	5.2	1.4	6.8	4.4	2.8
1987	5	3	2300	0.98	5.99	0.0	2.3	1.1	2.0	6.2	3.3	3.1	1.9	4.7	1.7	4.2	6.3	4.9	2.7	1.5	1.5	1.3	1.2	1.9
1987	5	4	600	1.63	5.31	0.1	0.5	0.2	1.9	3.9	1.1	0.6	0.7	1.0	1.3	0.6	3.4	3.9	16.1	5.6	7.4	4.4	5.1	2.8
1987	5	4	1100	2.33	6.87	0.0	0.2	0.1	0.2	1.2	0.8	1.0	1.7	4.4	19.3	10.9	3.6	6.6	6.6	3.2	5.1	4.8	6.7	4.3
1987	5	4	1200	2.71	6.40	0.1	0.2	0.3	0.2	1.2	0.6	1.4	2.8	5.1	11.9	16.3	6.0	9.0	4.6	5.5	5.2	5.9	4.2	2.2
1987	5	4	1400	2.99	6.87	0.1	0.1	0.1	0.1	0.3	0.7	2.3	7.8	11.9	20.6	4.3	4.8	4.7	5.8	1.9	3.0	6.8	5.8	1.6
1987	5	4	1700	2.56	6.87	0.1	0.2	0.3	0.1	0.9	1.0	4.9	10.8	9.4	13.9	7.1	7.7	3.6	4.9	4.4	4.8	2.5	3.2	2.1
1987	5	4	2200	2.82	6.40	0.1	0.1	0.2	0.3	0.4	3.9	7.5	11.0	11.6	6.1	11.7	5.3	4.8	5.4	6.3	5.1	3.1	1.3	3.2
1987	5	4	2300	2.53	8.83	0.1	0.1	0.2	0.4	1.2	5.4	9.7	8.3	7.8	6.6	8.9	5.3	7.5	4.3	4.4	4.1	3.1	3.8	2.1
1987	5	5	400	2.62	8.06	0.0	0.1	0.2	0.2	0.8	9.6	7.0	11.6	7.2	7.0	3.0	6.7	4.9	5.0	6.1	3.0	2.2	5.0	1.1
1987	5	5	600	2.64	8.83	0.1	0.1	0.2	0.2	1.4	5.3	9.6	8.7	9.3	6.6	5.7	9.2	7.2	5.6	4.5	4.1	2.2	1.5	1.3
1987	5	5	1100	2.02	8.06	0.0	0.1	0.1	0.3	1.4	4.7	11.0	11.3	9.9	8.0	7.5	3.8	5.4	1.5	3.8	3.7	2.7	2.6	1.7
1987	5	5	1700	1.64	8.06	0.0	0.1	0.9	0.3	0.2	2.7	13.6	14.7	6.6	7.9	12.3	8.4	2.5	1.8	4.2	3.9	2.0	1.5	1.3
1987	5	5	2300	1.09	8.06	0.0	0.2	1.1	0.5	1.0	3.8	9.0	12.3	10.4	6.9	6.7	3.1	6.5	9.4	5.9	5.1	1.5	2.9	2.2
1987	5	6	600	1.14	8.06	0.1	0.4	2.2	0.8	1.6	2.4	5.8	16.6	5.8	7.1	4.6	5.8	3.3	1.4	1.1	1.0	0.7	0.8	0.4
1987	5	6	1100	0.82	6.40	0.0	0.2	3.8	1.1	1.2	3.1	3.3	5.2	4.7	3.2	8.6	2.9	5.9	2.3	4.2	1.6	1.6	3.1	2.9
1987	5	6	1700	0.70	8.83	0.1	0.2	4.7	3.2	2.5	5.6	10.2	9.0	2.8	6.7	4.5	6.4	3.7	1.7	3.6	2.9	1.6	2.6	1.9
1987	5	6	2300	0.64	12.34	0.1	0.4	4.3	13.3	1.5	8.6	10.3	11.2	8.9	2.3	1.3	2.1	0.8	1.6	0.9	0.6	0.6	0.7	1.5
1987	5	7	600	0.84	8.06	0.1	0.4	0.6	6.3	3.3	3.1	6.7	6.8	4.8	3.8	1.9	1.2	0.5	0.4	0.2	0.5	0.9	4.0	3.3
1987	5	7	1100	0.71	8.83	0.1	0.5	2.9	3.0	5.1	1.7	9.4	7.3	6.2	8.8	3.4	2.0	1.1	0.6	1.2	1.1	0.8	2.6	4.3
1987	5	7	1700	0.86	8.83	0.1	0.4	3.1	4.5	3.0	4.5	9.7	3.0	7.8	3.5	2.2	1.3	1.4	1.4	1.5	1.4	3.1	3.0	2.3
1987	5	7	2300	1.04	9.75	0.1	0.1	1.1	4.4	4.8	9.8	6.2	7.0	5.4	3.2	1.4	0.2	0.2	0.2	0.3	0.3	1.5	1.4	1.7
1987	5	8	600	1.06	8.06	0.1	0.2	0.4	5.1	6.8	8.4	16.5	26.5	12.5	5.1	1.0	0.3	0.6	0.3	0.4	0.3	0.7	0.2	0.6
1987	5	8	1100	1.33	9.75	0.0	0.1	0.8	1.9	5.1	15.8	9.2	2.9	2.8	1.2	0.8	0.9	0.7	0.6	2.2	3.2	1.5	0.8	0.8
1987	5	8	1700	1.33	9.75	0.1	0.1	1.1	2.0	8.9	18.3	14.5	5.6	8.3	2.7	0.6	1.1	0.5	0.8	1.3	1.1	2.0	3.0	3.0
1987	6	25	1700	0.87	9.75	0.1	0.3	0.4	0.4	1.4	14.1	13.4	8.8	4.8	9.8	6.9	5.7	4.8	4.5	4.6	1.4	2.0	1.8	3.9
1987	6	25	2300	1.04	8.06	0.1	0.2	0.3	0.8	1.1	5.8	5.9	22.9	1.9	6.1	12.6	9.5	4.2	3.0	3.7	3.1	4.4	2.6	1.1
1987	6	26	1100	0.99	8.06	0.1	0.3	1.1	1.3	5.3	5.1	12.5	17.5	14.8	10.3	5.8	4.2	3.5	2.5	0.6	1.0	1.4	0.4	0.4
1987	6	26	2300	1.10	8.06	0.1	0.2	0.5	0.5	2.1	4.7	10.5	22.6	6.0	12.8	4.1	3.8	3.4	3.5	2.8	2.9	2.0	1.0	1.0
1987	6	27	600	1.25	8.06	0.0	0.1	0.3	0.8	3.7	14.3	7.6	16.7	8.1	7.4	3.0	5.6	2.8	3.3	3.7	1.8	2.1	0.8	2.3
1987	6	27	1100	1.15	8.83	0.1	0.1	0.2	1.1	1.4	3.9	19.2	3.3	12.0	5.5	4.1	3.1	4.1	8.4	3.3	2.0	2.2	2.3	1.3
1987	6	29	1700	0.90	3.05	0.1	0.4	0.5	0.8	1.5	3.3	4.1	2.7	4.9	6.4	5.5	1.2	1.1	1.3	0.7	0.4	0.3	0.5	0.5
1987	6	29	2300	1.18	3.95	0.2	0.4	0.3	0.4	0.4	1.0	3.5	2.7	4.0	4.5	2.7	1.5	1.6	0.8	0.4	0.8	4.8	6.8	4.9
1987	6	30	600	1.09	4.32	0.1	0.3	1.0	0.3	1.2	1.9	3.4	2.5	5.0	1.7	1.3	1.2	1.8	2.8	7.2	4.2	5.7	9.9	4.6
1987	6	30	1100	1.07	4.53	0.1	0.1	0.9	0.8	0.9	2.0	1.7	4.7	3.8	1.7	2.8	1.9	2.2	2.6	8.3	6.7	9.2	2.5	3.4
1987	7	1	1700	0.91	4.32	0.1	0.3	5.3	3.8	1.1	1.8	4.1	6.0	2.2	3.2	1.9	2.2	2.2	1.5	1.4	1.9	3.4	9.4	2.3
1987	7	1	2300	0.98	5.02	0.1	0.1	1.9	7.0	1.8	1.7	2.4	3.0	2.8	1.5	1.4	2.1	1.3	5.3	10.6	4.2	4.4	3.2	4.3
1987	7	2	600	1.14	5.31	0.1	0.2	1.1	3.5	1.9	2.0	1.1	1.6	1.7	1.0	2.4	0.9	7.6	10.0	6.8	5.9	6.9	5.1	3.2
1987	7	2	1100	1.21	5.63	0.0	0.2	0.6	2.0	2.2	0.9	2.1	6.1	3.2	3.6	6.8	8.9	11.0	5.7	9.2	5.1	6.6	2.2	2.0
1987	7	2	1700	1.24	5.31	0.1	0.2	0.4	2.0	1.5	1.3	0.9	2.2	1.8	2.9	3.9	9.0	8.1	10.1	6.2	3.7	1.6	2.4	1.2
1987	7	2	2300	1.18	4.13	0.1	0.1	0.6	3.5	0.8	0.9	1.6	0.9	2.2	2.4	4.2	4.2	8.3	6.2	4.5	6.8	5.9	3.9	8.5
1987	7	3	600	1.25	5.99	0.1	0.2	0.4	3.0	2.7	2.3	3.0	2.7	4.5	2.8	2.4	10.8	7.4	7.5	2.7	6.8	4.4	4.2	1.3
1987	7	3	1100	1.34	6.40	0.1	0.0	0.2	2.0	0.4	0.6	3.2	3.4	7.3	10.0	13.9	7.6	8.5	4.2	5.7	5.8	2.5	2.8	2.2
1987	7	3	1700	1.29	4.53	0.1	0.1	0.3	0.6	1.4	0.4	3.5	4.1	3.2	9.4	10.4	7.8	6.1	4.8	4.0	4.0	12.2	3.4	1.7
1987	7	3	2300	1.09	6.87	0.1	0.1	0.2	0.5	1.3	0.9	3.2	9.2	5.3	15.9	15.6	7.4	3.9	2.5	4.0	4.6	2.8	2.5	0.9
1987	7	4	600	1.27	6.40	0.2	0.2	0.2	1.1	1.4	1.0	2.5	3.0	7.4	6.8	10.6	7.6	10.4	4.5	4.7	3.3	3.7	4.3	3.5
1987	7	4	1100	1.22	6.40	0.1	0.1	0.1	0.5	1.0	0.2	1.7	4.1	1.4	8.1	12.5	9.4	6.7	9.0	6.5	3.6	3.6	2.4	3.9
1987	7	4	1700	1.14	5.63	0.1	0.2	0.2	0.6	0.5	0.8	1.7	1.6	1.7	2.5	6.4	10.1	13.3	9.7	5.4	4.4	2.0	2.9	2.5
1987	7	4	2300	1.11	5.99	0.1	0.5	0.3	0.3	1.5	0.4	3.0	1.8	5.3	8.6	5.0	11.3	9.1	9.3	6.0	5.0	1.1	1.9	3.4
1987	7	5	600	1.07	6.40	0.1	0.1	0.3	0.2	0.4	0.8	1.0	3.1	1.6	7.2	13.0	7.8	11.8	3.6	2.0	3.3	2.5	6.9	1.6
1987	7	5	1100	1.00	5.63	0.1	0.3	0.2	0.4	1.1	0.7	3.1	4.1	3.9	8.4	11.9	11.3	16.1	7.7	3.1	6.5	3.3	3.4	2.2
1987	7	5	1700	1.06	6.40	0.1	0.8	0.4	0.3	0.8	0.9	1.4	4.3	5.4	9.2	14.7	11.4	11.3	6.6	2.4	4.7	3.7	2.0	3.1
1987	7	5	2300	1.02	6.40	0.1	0.3	0.6	0.1	0.5	1.1	0.8	4.2	5.7	6.1	11.7	8.4	4.6	2.8	4.9	4.6	2.5	3.2	1.9
1987	7	6	600	0.85	5.99	0.2	0.3	0.5	0.5	0.4	0.8	2.1	6.4	4.1	10.5	8.7	11.0	7.8	3.8	3.2	7.7	3.9	3.3	2.9
1987	7	6	1100	0.77	6.87	0.1	0.1	2.1	0.3	0.3	0.6	2.9	3.9	3.4	9.6	4.7	2.8	5.5	3.9	3.8	3.9	3.3	2.3	1.2
1987	7	6	1700	0.82	3.79	0.1	0.1	1.1	0.6	0.3	0.5	0.9	4.4	3.0	4.9	5.5	4.5	6.4	4.7	4.3	5.7	2.4	4.1	2.6
1987	7	6	2300	0.81	4.32	0.1	0.2	2.5	0.7	0.3	1.1	3.4	0.9	4.8	1.8	3.2	3.9	4.1	7.0	3.3	9.5	2.7	9.6	8.5
1987	7	7	600	0.81	5.02	0.2	0.2	2.5	0.6	0.4	0.5	1.9	1.3	2.1	3.7	2.7	7.3	8.9	8.4	12.6	3.2	4.3	2.3	5.2
1987	7	7	1100	1.01	5.99	0.1	0.2	1.5	0.3	0.3	0.4	0.9	2.3	1.8	4.3	14.0	18.9	16.0	5.4	3.0	3.5	2.8	2.2	2.5
1987	7	7	1700	0.99	5.99	0.1	0.2	1.8	0.9	0.7	0.8	0.6	2.2	6.6	5.0	3.5	20.4	15.2	7.1	3.7	2.5	5.0	2.0	4.2
1987	7	7	2300	0.94	6.40	0.2	0.1	1.4	1.4	1.3	1.8	2.2	7.3	3.4	14.3	15.4	6.7	8.2	5.6	5.0	2.9	4.8	2.5	1.3

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	7	8	600	0.93	5.63	0.1	0.1	1.0	1.2	1.1	2.3	5.6	2.9	9.9	8.4	5.5	6.6	10.5	7.4	3.0	4.7	3.8	2.4	2.2
1987	7	8	1100	0.87	6.87	0.1	0.2	1.3	0.9	1.8	0.9	9.0	7.9	7.1	14.6	5.0	9.0	5.9	1.9	3.3	4.8	2.4	3.7	1.8
1987	7	8	1700	0.81	8.83	0.2	0.3	1.3	1.1	1.3	2.1	11.7	5.7	9.6	7.1	11.7	3.2	4.5	6.2	2.5	3.8	1.5	1.2	0.8
1987	7	8	2300	0.72	8.06	0.2	0.5	1.2	3.9	3.8	8.8	9.5	10.4	5.7	3.7	5.1	4.8	1.4	4.4	2.2	1.6	2.7	4.1	2.7
1987	7	9	600	0.71	8.83	0.2	0.3	1.1	3.3	3.7	8.0	16.1	11.6	7.8	5.6	6.1	3.4	5.6	3.5	2.3	1.3	3.0	1.9	0.4
1987	7	9	1100	0.67	8.83	0.5	0.2	0.8	4.7	6.8	7.7	12.6	8.2	3.7	2.5	5.2	5.0	4.8	7.8	2.2	2.3	0.8	1.5	1.5
1987	7	9	1700	0.64	8.83	0.3	0.5	1.9	10.1	5.3	6.6	11.9	5.8	10.6	4.7	4.4	5.4	3.9	2.0	2.5	2.3	2.2	2.5	1.1
1987	7	9	2300	0.73	8.83	0.3	0.3	0.9	3.7	6.3	6.3	16.4	13.6	8.6	10.5	3.2	2.3	2.0	2.5	2.0	1.2	0.4	1.9	1.7
1987	7	10	600	0.56	8.83	0.1	0.4	1.7	2.7	2.4	12.2	17.7	14.7	7.6	6.4	6.5	2.0	5.0	2.1	0.8	1.4	0.9	1.1	1.0
1987	7	10	1100	0.66	8.83	0.1	0.8	1.9	2.5	5.5	8.2	15.9	9.7	15.0	7.1	2.9	2.4	2.3	1.9	1.2	1.1	1.6	1.0	1.0
1987	7	10	1700	0.53	8.83	0.2	0.3	1.7	3.1	2.0	6.1	25.7	11.4	11.9	3.9	2.1	6.8	2.9	2.5	2.0	0.6	0.8	0.7	0.8
1987	7	10	2300	0.51	6.87	0.3	0.8	1.3	2.3	6.4	9.5	5.7	6.7	8.0	11.1	7.6	2.3	4.5	2.1	1.6	1.2	1.5	0.9	0.6
1987	7	11	600	0.44	8.83	0.4	1.0	1.9	2.4	2.7	7.5	19.3	15.9	13.1	3.8	2.9	7.2	2.7	1.4	1.5	1.1	1.2	1.2	0.9
1987	7	11	1100	0.54	8.06	0.3	0.6	0.6	2.8	3.7	4.4	8.4	16.0	14.6	12.7	1.9	1.5	3.4	1.2	1.7	1.5	1.4	1.4	2.0
1987	7	11	1700	0.41	7.42	0.4	1.1	1.2	1.5	4.3	5.8	8.9	7.8	16.9	6.6	4.5	2.6	2.0	0.5	0.9	1.7	0.7	1.2	2.0
1987	7	11	2300	0.46	7.42	0.5	0.8	1.2	2.1	9.1	9.4	5.8	9.5	13.8	4.6	2.9	3.4	3.3	1.5	1.0	1.3	2.0	2.3	1.2
1987	7	12	600	0.41	8.83	0.6	0.9	2.0	3.3	4.3	9.3	14.8	11.5	11.4	10.0	6.7	1.1	1.6	2.7	4.1	1.3	1.5	0.8	0.3
1987	7	12	1100	0.46	8.83	0.2	1.2	4.5	3.3	2.2	5.9	14.6	6.9	9.6	10.0	4.2	6.1	4.9	3.9	1.5	2.1	1.9	1.4	1.6
1987	7	12	1700	0.48	8.06	0.3	1.2	1.4	4.1	4.5	9.3	10.7	18.1	4.8	5.6	2.5	2.6	2.8	2.8	0.9	0.6	0.6	0.6	0.5
1987	7	12	2300	0.53	7.42	0.8	0.6	2.9	1.9	1.7	9.1	8.1	11.6	13.6	7.8	4.6	1.7	2.4	1.0	1.8	1.8	0.6	0.8	1.0
1987	7	13	600	0.48	9.75	0.4	0.8	0.9	2.3	7.0	19.9	13.7	11.2	6.2	2.2	3.0	3.0	1.4	0.4	2.6	1.2	0.6	0.5	0.4
1987	7	13	1100	0.56	8.83	1.1	1.6	1.9	2.0	2.1	4.7	13.1	13.0	10.7	6.6	8.1	2.8	1.7	4.4	5.8	2.4	0.9	0.7	0.6
1987	7	13	1700	0.56	8.06	1.0	1.1	0.8	2.4	3.2	10.1	13.6	22.5	6.4	3.2	3.1	3.5	2.3	1.5	1.8	2.0	0.6	1.4	1.0
1987	7	13	2300	0.66	8.06	0.6	0.8	1.0	1.0	2.0	7.4	8.1	9.2	6.6	6.7	3.1	2.0	3.3	1.5	0.4	0.9	1.6	1.0	0.9
1987	7	14	600	0.60	8.06	0.2	1.3	0.9	1.1	6.0	9.5	11.1	19.1	6.6	3.5	3.3	2.7	1.5	1.6	1.1	0.7	1.4	1.3	0.4
1987	7	14	1100	0.64	8.06	0.6	1.3	1.3	1.9	2.2	6.5	12.6	20.6	4.0	7.7	2.9	2.4	2.2	1.0	2.0	1.1	1.2	0.6	0.3
1987	7	14	1700	0.81	2.95	0.2	1.9	1.1	1.0	2.6	6.2	7.2	5.4	6.2	1.8	1.2	1.2	1.1	1.5	0.7	0.6	0.3	0.8	0.7
1987	7	14	2300	0.81	8.83	0.2	0.6	0.9	0.9	0.6	9.6	10.4	9.0	8.5	4.0	1.3	0.9	0.8	1.5	1.3	2.0	1.9	3.8	4.6
1987	7	15	600	0.77	9.75	0.2	0.5	1.7	1.0	2.1	7.4	6.9	1.9	3.1	0.8	2.0	2.0	4.9	4.2	6.6	3.3	1.3	0.8	3.2
1987	7	15	1100	0.76	3.15	0.1	0.6	2.8	0.4	1.3	1.1	4.1	4.2	4.2	1.9	1.4	0.4	0.6	0.8	0.8	2.5	2.8	2.3	2.0
1987	7	15	1700	0.65	3.79	0.2	1.3	2.9	2.1	1.4	5.9	4.2	1.4	2.6	2.7	3.1	1.4	1.4	1.4	3.3	3.8	2.3	6.7	5.0
1987	7	15	2300	0.56	12.34	0.2	1.0	1.3	11.1	2.2	5.8	3.4	3.9	3.7	1.1	1.3	2.6	2.1	2.0	1.6	2.9	3.0	1.8	1.2
1987	7	16	600	0.51	8.06	0.6	2.1	3.0	7.4	2.0	4.7	5.3	11.9	3.1	3.3	2.9	1.4	1.5	0.7	1.6	1.2	2.0	0.7	0.5
1987	7	16	1100	0.54	12.34	0.4	0.9	2.4	11.1	2.2	3.0	10.7	4.6	7.7	2.6	2.6	4.2	2.1	0.8	1.3	0.9	1.4	1.0	0.4
1987	7	16	1700	0.49	12.34	0.4	1.6	2.8	9.8	2.3	5.1	8.1	9.3	7.5	5.3	4.2	2.9	5.3	4.3	3.8	1.3	1.7	0.4	1.0
1987	7	16	2300	0.46	6.87	0.7	1.1	2.1	4.9	2.8	7.6	3.2	8.5	8.8	13.6	11.3	4.9	8.8	2.3	2.1	0.4	0.4	0.5	0.2
1987	7	17	600	0.70	5.99	0.2	1.2	1.6	5.0	2.2	3.6	3.2	4.2	6.5	4.1	4.1	9.4	2.2	4.6	1,6	3.7	3.4	6.4	3.4
1987	7	17	1100	0.64	6.87	0.3	1.2	1.9	3.7	2.2	1.0	10.8	4.9	7.2	11.6	7.3	4.2	5.8	1.9	2.2	2.5	4.7	2.2	2.7
1987	7	17	1700	0.67	6.87	0.6	1.0	1.4	3.8	1.9	3.2	3.6	1.9	4.3	7.9	5.6	2.9	2.2	1.2	2.2	1.6	3.4	3.3	2.0
1987	7	17	2300	0.73	4.32	0.1	0.4	0.4	0.7	1.9	0.7	1.0	5.5	5.0	2.8	2.7	4.3	2.1	3.9	4.2	6.5	5.7	11.7	5.2
1987	7	18	600	0.70	8.83	0.3	0.7	1.5	0.9	1.8	4.6	10.8	5.2	9.0	8.4	4.5	2.5	2.4	1.3	3.8	7.8	4.0	2.7	3.5
1987	7	18	1100	0.60	5.99	0.2	0.7	1.0	2.7	3.4	3.3	7.7	9.5	8.5	2.1	4.5	12.5	9.7	2.5	1.2	3.0	1.3	2.6	0.7
1987	7	18	1700	0.66	7.42	0.5	0.4	0.6	0.7	2.1	1.5	10.8	9.5	23.8	5.2	6.3	3.7	2.9	3.5	2.8	4.0	4.0	1.1	1.1
1987	7	18	2300	0.97	3.79	0.3	0.3	0.4	0.5	1.0	2.0	5.7	6.0	1.5	0.7	1.1	0.8	1.2	0.5	1.4	0.9	1.0	2.3	4.1
1987	7	19	600	0.71	8.83	0.5	0.8	1.1	0.6	2.1	10.7	13.5	6.1	3.5	2.0	1.8	1.0	0.5	0.9	0.8	1.4	1.4	3.7	5.2
1987	7	19	1100	0.70	8.83	0.2	0.5	1.1	1.2	3.5	6.1	9.9	6.4	4.7	2.5	1.3	0.8	0.5	2.2	1.9	3.7	9.9	8.3	3.9
1987	7	19	1700	0.65	4.53	0.4	1.0	1.0	0.7	2.4	3.4	11.2	10.4	5.8	3.9	1.1	0.6	1.1	2.0	2.8	3.9	14.5	7.0	3.3
1987	7	19	2300	0.65	8.83	0.3	1.5	1.0	2.3	5.6	5.1	18.5	12.3	3.4	2.5	1.0	1.0	0.7	1.1	1.3	1.9	6.3	3.5	2.7
1987	7	20	600	0.64	9.75	0.3	0.6	1.5	1.3	12.6	21.3	15.1	17.6	4.2	8.1	4.9	1.4	0.9	0.6	0.2	0.4	0.5	0.4	0.5
1987	7	20	1100	0.64	8.83	0.4	1.2	2.2	1.2	8.0	9.4	29.2	11.7	8.6	9.4	2.5	1.9	1.4	1.5	0.8	0.3	0.8	1.6	0.3
1987	7	20	1700	0.71	8.06	0.1	0.9	0.6	0.9	1.1	18.1	18.3	25.2	7.9	5.9	6.2	0.7	0.5	0.2	0.8	0.7	0.8	0.4	1.1
1987	7	20	2300	0.77	8.83	0.2	0.5	0.9	0.8	1.1	9.6	20.2	4.7	7.2	4.9	4.4	11.9	3.0	3.6	2.9	1.3	0.9	1.6	0.6
1987	7	21	600	0.83	8.83	0.2	0.5	0.2	0.5	1.5	8.3	13.7	5.1	2.0	3.5	3.1	1.2	0.6	1.8	1.5	3.0	3.3	7.4	4.3
1987	7	21	1100	0.76	4.32	0.2	0.7	0.7	0.4	1.1	8.6	12.7	8.1	2.2	1.3	1.1	0.6	1.5	1.1	0.7	3.8	6.3	15.4	8.4
1987	7	22	2300	0.62	8.06	0.5	2.0	0.6	0.9	4.8	10.7	2.8	11.2	10.1	7.9	6.6	4.8	3.0	3.2	1.0	1.2	0.8	1.7	0.6
1987	7	23	600	0.69	6.87	0.2	0.8	1.0	0.6	3.0	4.4	9.8	10.9	8.5	11.0	10.1	5.3	3.2	1.5	3.6	2.5	2.5	1.3	1.5
1987	7	23	1100	0.86	5.99	0.1	0.4	0.9	0.3	2.6	6.6	10.5	1.6	5.3	3.9	10.9	11.0	4.2	9.9	1.9	5.1	5.8	2.9	1.9
1987	7	23	1700	0.74	8.06	0.2	1.0	0.8	0.6	3.9	5.1	6.8	14.2	5.8	3.2	1.1	2.3	7.1	4.7	4.7	3.5	1.4	4.3	2.4
1987	7	23	2300	0.73	7.42	0.1	0.6	0.7	0.3	2.5	3.8	6.1	4.8	6.7	4.8	4.7	5.5	5.4	1.9	3.5	5.2	2.7	3.3	2.1
1987	7	24	600	0.69	8.06	0.1	0.7	1.2	1.2	2.5	7.0	4.2	10.7	5.2	4.3	1.6	1.9	2.7	3.2	2.6	2.7	2.6	2.2	1.1
1987	7	24	1100	0.66	6.87	0.1	0.6	1.9	1.2	5.8	3.9	3.3	7.9	4.6	8.8	4.8	5.7	3.3	4.3	4.6	2.5	1.6	3.1	2.1
1987	7	27	2300	1.12	6.40	0.6	1.5	1.1	0.7	0.3	0.6	1.9	2.2	2.3	6.8	25.6	15.1	16.8	2.1	2.5	2.6	1.1	1.8	1.9
1987	7	28	600	0.69	6.40	1.8	3.8	2.0	3.4	1.6	2.6	2.3	4.6	4.4	5.9	9.9	4.9	3.1	7.3	3.8	3.3	3.0	2.3	1.5
1987	7	28	1100	0.65	5.99	1.6	2.4	3.5	3.9	1.7	1.8	3.7	6.2	5.2	7.7	6.1	9.5	4.7	4.9	2.4	4.6	1.4	2.6	1.8
1987	7	28	1700	0.87	2.86	1.2	1.1	1.7	1.8	0.9	1.2	1.6	1.3	1.5	1.0	2.3	2.7	3.4	1.8	3.0	1.6	2.5	0.9	0.8
1987	7	28	2300	0.87	4.76	1.5	1.9	2.8	0.9	1.5	0.8	1.6	0.6	0.6	0.8	0.8	2.7	2.7	1.5	3.5	8.5	6.3	3.0	8.2
1987	7	29	600	0.69	14.22	3.0	0.6	9.8	3.2	0.9	2.1	1.9	3.4	1.8	2.3	1.2	2.2	4.3	1.6	2.9	2.9	5.7	3.5	2.7
1987	7	29	1100	0.69	2.14	2.2	1.9	5.2	3.1	1.3	1.3	1.1	1.5	1.5	1.0	1.2	1.4	2.2	2.6	4.0	1.1	0.9	2.1	4.8
1987	7	29	1700	0.79	3.79	1.5	2.1	2.4	3.4	1.2	0.8	1.3	0.8	0.8	1.1	1.8	1.7	1.1	1.0	0.8	0.5	0.6	0.6	3.0
1987	7	29	2300	0.94	5.31	0.8	1.4	1.7	1.8	0.3	0.7	1.1	1.6	0.4	1.2	1.6	1.7	9.6	13.5	12.9	7.4	1.4	1.9	1.4
1987	7	30	200	3.71	20.48	4.6	2.4	1.7	3.8	3.6	2.7	2.3	2.3	3.7	2.7	3.4	4.4	4.0	1.1	2.2	1.0	1.1	1.3	2.4
1987	7	30	400	2.78	5.02	1.5	2.6	1.9	1.7	2.8	2.0	3.7	3.2	1.4	1.4	1.2	1.8	1.5	1.7	5.3	2.8	1.6	1.8	1.5
1987	7	30	600	3.00	20.48	4.8	2.5	1.6	1.9	2.7	1.7	1.8	1.9	0.9	2.0	1.5	1.5	2.3	2.0	4.5	3.1	3.8	2.6	2.0
1987	7	30	800	2.86	8.83	1.8	2.1	3.5	1.8	1.1	1.4	4.5	2.0	2.5	1.8	3.5	1.1	1.5	1.8	1.2	2.0	2.9	2.8	1.3
1987	7	30	1000	2.90	5.02	2.7	2.7	3.3	4.3	2.5	1.6	2.2	3.3	2.0	2.5	2.1	1.8	2.3	1.9	5.2	1.7	1.8	1.3	1.4
1987	7	30	1100	2.97	5.02	2.3	2.3	1.9	0.6	4.2	1.8	2.1	2.0	1.4	1.8	1.2	2.3	2.9	2.6	4.8	3.5	1.7	2.4	1.6
1987	7	30	1200	3.15	2.86	5.5	3.0	3.8	3.6	1.2	0.6	1.4	1.9	2.2	2.6	2.5	2.0	1.5	1.5	1.2	2.7	1.2	1.8	1.4
1987	7	30	1500	3.07	2.48	1.8	3.3	4.6	4.3	2.1	2.1	2.6	2.6	4.9	2.3	1.4	1.6	2.3	0.8	1.7	2.2	1.4	0.9	1.5
1987	7	30	1700	3.04	3.26	2.3	2.0	2.2	3.5	2.0	1.4	0.8	2.0	0.7	2.6	2.1	1.6	2.2	4.3	1.8	0.6	4.0	2.1	2.3
1987	7	30	1900	3.03	2.55	2.1	1.6	2.3	3.4	1.5	3.2	2.0	2.0	3.8	2.5	3.8	3.4	1.6	3.0	2.2	3.1	3.0	2.8	1.0

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date			Time	Hmo	Tp																		
Yr	Mo	Dy	(gmt)	(m)	(sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	7	30	2100	3.08	3.64	2.3	0.5	3.0	2.3	1.7	2.1	2.2	2.5	2.6	4.3	2.5	2.5	2.2	2.0	2.5	1.1	2.3	2.2	1.8
1987	7	30	2300	3.11	8.06	4.4	1.6	0.9	1.8	2.4	2.5	2.4	4.4	1.4	2.3	2.2	1.6	3.9	1.4	2.7	1.4	1.9	1.1	2.7
1987	7	31	100	3.04	10.89	1.3	3.9	2.8	1.7	4.3	3.4	2.0	1.9	2.7	3.3	0.9	1.4	1.8	1.4	0.9	1.9	2.5	3.7	2.2
1987	7	31	300	2.80	2.19	3.8	1.8	2.8	1.0	2.6	2.8	1.5	1.7	3.1	1.7	2.0	2.5	1.2	2.1	1.7	0.9	1.8	2.8	2.5
1987	8	1	459	3.12	5.02	1.0	3.0	3.1	2.1	3.1	3.6	1.5	1.3	2.3	0.8	2.2	4.3	3.7	2.6	4.3	3.8	1.6	1.3	1.2
1987	7	31	600	3.15	4.32	1.8	1.8	1.6	2.8	1.6	1.5	1.8	1.7	2.3	2.1	1.7	1.3	1.8	2.0	3.6	3.5	1.8	7.4	2.2
1987	7	31	700	2.94	8.06	1.3	1.6	1.5	2.8	2.9	2.0	3.1	4.2	3.0	3.0	4.0	2.0	3.0	2.7	2.6	2.2	2.0	3.1	1.6
1987	7	31	900	3.06	6.40	1.2	2.0	3.0	0.9	2.8	3.4	2.4	1.7	2.3	3.4	4.5	1.6	1.6	2.0	2.1	1.6	3.6	3.2	2.8
1987	7	31	1100	3.06	8.06	3.0	2.9	3.3	1.2	1.6	2.6	2.7	4.2	3.0	1.4	2.3	2.1	2.0	2.4	1.4	1.8	1.4	2.5	3.1
1987	7	31	1300	3.34	2.24	1.8	1.0	2.8	2.0	1.8	1.4	1.6	2.5	3.0	3.4	1.8	1.2	1.9	1.5	1.5	2.0	2.7	2.1	2.6
1987	8	20	1100	0.61	10.89	0.0	0.2	0.9	7.7	27.0	4.9	10.4	11.2	2.6	3.4	2.0	2.0	1.4	1.1	0.7	1.0	0.8	1.1	0.6
1987	8	19	2300	0.69	3.26	0.1	0.1	2.4	9.4	6.6	2.5	8.5	2.6	4.3	1.0	1.4	1.3	3.0	1.5	1.4	0.7	1.1	1.5	0.7
1987	8	20	600	0.60	10.89	0.2	0.3	0.9	4.5	14.8	14.4	5.8	7.0	9.5	5.2	2.4	2.1	3.4	2.2	1.0	0.5	0.8	2.2	2.0
1987	8	20	1100	0.61	10.89	0.0	0.2	0.9	7.7	27.0	4.9	10.4	11.2	2.6	3.4	2.0	2.0	1.4	1.1	0.7	1.0	0.8	1.1	0.6
1987	8	20	1700	0.67	10.89	0.1	0.1	0.4	4.8	19.0	5.7	4.5	7.0	6.7	2.5	1.6	2.0	1.4	0.8	0.9	0.4	0.7	0.5	1.0
1987	8	20	2300	0.62	10.89	0.1	0.3	0.9	7.5	15.1	7.8	7.8	4.2	4.5	1.2	0.9	0.3	1.0	0.8	0.9	0.8	1.4	0.7	0.6
1987	8	21	600	0.51	8.83	0.1	0.3	0.7	3.6	13.7	9.1	21.0	9.3	5.6	2.3	2.0	2.4	1.5	1.2	1.8	1.0	0.7	0.6	1.0
1987	8	21	1100	0.60	10.89	0.1	0.4	0.6	4.5	14.5	7.7	5.5	3.3	3.8	2.3	1.3	0.6	1.1	0.4	0.7	1.0	0.2	0.5	0.5
1987	8	21	1700	0.77	4.13	0.1	0.2	0.2	0.9	2.8	3.5	5.2	5.0	2.0	1.4	0.8	0.6	1.1	0.4	0.9	2.5	3.6	5.1	11.0
1987	8	21	2300	0.70	4.53	0.1	0.3	0.4	4.7	4.5	3.2	7.2	4.5	1.8	1.0	0.9	1.3	1.5	1.3	3.3	7.7	7.9	5.4	2.6
1987	8	22	600	0.72	3.38	0.1	0.2	0.5	1.2	5.2	5.3	5.5	1.3	2.6	1.4	1.1	0.6	0.9	1.1	2.3	3.1	1.9	1.3	0.6
1987	8	22	1100	1.09	3.79	0.1	0.1	0.3	2.8	1.4	1.0	1.2	2.3	0.6	0.3	0.3	0.3	0.2	0.3	0.5	0.6	3.5	5.6	6.1
1987	8	22	1700	0.93	5.31	0.1	0.1	0.4	1.6	2.2	1.5	1.8	2.1	1.0	0.4	0.4	1.0	3.6	11.1	5.1	10.9	5.1	8.1	7.5
1987	8	22	2300	0.98	3.95	0.1	0.2	0.3	1.5	6.5	1.4	3.5	2.4	0.7	0.7	1.2	1.8	1.8	2.9	5.6	2.2	5.0	5.7	3.7
1987	8	23	600	0.92	4.76	0.1	0.1	0.2	1.1	1.8	4.7	4.6	4.7	1.3	5.5	3.8	4.7	5.8	6.7	7.9	10.0	5.7	6.4	1.2
1987	8	23	1100	0.93	5.63	0.0	0.1	0.6	1.8	1.8	1.7	1.4	4.9	3.1	2.3	1.4	5.6	15.2	6.8	4.7	4.9	5.5	3.0	0.9
1987	8	23	1700	1.06	5.02	0.1	0.0	0.3	0.9	2.1	1.0	0.6	2.5	5.4	2.1	1.3	2.2	6.8	2.0	9.6	8.9	7.4	2.9	3.5
1987	8	23	2300	1.18	4.32	0.1	0.1	0.2	0.3	1.0	2.9	0.7	0.6	1.9	5.8	4.0	6.0	6.6	3.2	1.4	4.3	5.2	7.1	6.7
1987	8	24	600	0.74	2.30	0.1	0.2	1.6	0.8	3.5	2.2	1.7	0.9	1.9	2.4	4.1	2.4	1.9	1.8	1.2	2.2	3.0	5.7	1.9
1987	8	24	1100	0.98	4.32	0.1	0.2	0.5	1.0	0.9	2.8	1.7	0.9	0.7	0.6	0.5	0.5	0.6	2.4	1.9	6.1	7.8	14.8	10.8
1987	8	24	1700	0.82	4.13	0.1	0.5	0.8	1.2	0.5	1.4	2.9	1.2	0.6	1.1	1.5	1.1	2.2	3.2	5.3	6.5	6.2	6.0	7.0
1987	8	24	2300	0.60	4.76	0.2	0.8	1.6	3.8	1.7	6.3	2.0	2.9	2.0	1.2	1.8	1.0	2.3	3.4	6.5	8.7	3.3	6.0	6.6
1987	8	25	600	0.58	3.05	0.2	0.8	5.1	2.1	3.1	7.2	4.3	2.2	1.7	1.2	0.9	0.6	2.6	1.2	0.7	1.2	1.0	1.7	1.9
1987	8	25	1100	0.54	10.89	0.3	0.6	5.8	4.2	8.1	6.0	6.7	2.6	3.3	2.4	2.9	4.2	1.5	1.9	1.3	2.2	1.3	1.8	1.0
1987	8	25	1700	0.93	3.38	0.1	0.4	1.4	1.0	3.4	1.9	1.2	0.9	1.4	0.8	0.6	0.9	1.0	0.7	0.2	0.3	0.4	0.3	2.0
1987	8	25	2300	1.22	4.53	0.1	0.3	1.2	1.6	1.0	3.2	1.0	0.5	0.6	0.3	0.6	0.4	0.6	1.8	2.2	9.4	13.9	7.3	6.1
1987	8	26	600	0.67	5.02	0.1	0.6	1.3	9.3	10.0	13.8	4.7	3.9	1.1	0.8	1.1	0.6	2.5	3.9	13.9	3.8	4.6	2.6	2.4
1987	8	26	1100	0.66	10.89	0.2	0.4	1.3	10.1	11.5	9.3	4.1	2.4	3.0	1.7	1.5	1.9	1.3	3.8	1.8	6.7	6.5	5.4	4.9
1987	8	26	1700	0.57	10.89	0.2	0.7	3.1	7.4	8.1	7.5	2.8	3.6	1.1	1.2	1.2	1.4	0.5	1.7	3.3	4.4	5.7	5.9	3.6
1987	8	26	2300	0.54	10.89	0.4	0.9	0.9	4.8	23.1	16.2	7.6	6.9	2.2	1.6	2.6	2.2	1.2	1.3	0.6	0.3	0.6	0.7	2.2
1987	8	27	600	0.51	10.89	0.4	0.6	0.8	8.4	21.9	8.1	6.8	4.8	2.0	1.4	0.7	1.2	1.7	1.7	1.3	0.6	1.0	0.6	0.2
1987	8	27	1100	0.98	3.51	0.0	0.1	0.8	2.6	6.2	4.9	2.0	0.8	1.3	0.3	0.6	0.4	0.5	0.3	0.3	0.3	0.6	0.5	3.3
1987	8	27	1700	0.86	4.13	0.2	0.3	0.7	2.2	11.6	3.2	1.7	1.3	1.3	0.7	0.3	0.5	0.5	1.5	3.1	4.3	8.3	12.4	15.5
1987	8	27	2300	0.86	8.83	0.1	0.3	0.6	1.8	6.4	4.1	7.7	2.5	0.6	0.9	1.3	2.2	3.6	6.2	7.0	4.5	6.9	4.9	4.0
1987	8	28	600	0.77	5.02	0.1	0.6	0.9	2.4	3.5	4.4	6.0	1.4	0.9	0.8	1.2	1.9	3.8	3.8	6.0	3.9	2.3	1.9	5.4
1987	8	28	1100	0.98	4.13	0.1	0.3	0.5	1.9	1.9	4.2	4.8	1.7	0.7	0.9	2.4	2.4	1.5	5.0	3.4	8.4	8.2	3.4	10.0
1987	8	28	1700	0.97	5.31	0.1	0.3	2.1	3.0	2.9	4.8	3.1	2.5	1.7	1.8	6.3	4.7	8.3	9.3	3.6	8.9	4.9	6.9	2.7
1987	8	28	2300	0.98	5.63	0.2	0.1	0.9	1.0	1.8	3.8	1.8	3.6	7.3	6.8	4.9	6.5	7.3	3.6	3.8	4.1	2.5	5.1	3.5
1987	8	29	600	0.93	5.31	0.1	0.3	1.3	0.8	2.3	1.9	3.0	5.9	10.4	7.3	7.5	5.9	8.3	11.4	9.2	3.0	1.6	4.0	2.0
1987	8	29	1100	0.99	4.32	0.1	0.2	0.5	1.0	2.0	2.0	2.8	3.1	3.8	4.9	3.4	4.9	4.6	6.3	3.9	3.1	6.4	10.1	3.6
1987	8	29	1700	0.85	7.42	0.2	0.3	0.7	2.6	3.5	2.0	2.1	10.4	13.6	4.1	6.9	2.7	6.0	6.5	6.3	4.7	1.6	1.6	3.8
1987	8	29	2300	0.87	5.63	0.1	0.6	0.6	1.7	1.6	2.3	2.5	4.9	2.6	5.2	1.7	3.2	6.7	2.0	4.7	2.5	1.1	1.6	4.6
1987	8	30	600	0.88	4.13	0.2	0.6	0.9	1.2	4.7	2.8	1.8	2.1	1.4	2.5	5.4	3.7	3.2	3.5	3.7	4.9	6.6	6.0	6.7
1987	8	30	1100	1.08	5.02	0.1	0.2	0.4	0.7	0.9	1.9	1.6	2.8	3.0	2.3	3.2	3.7	1.8	4.4	8.3	6.8	7.1	4.7	3.9
1987	8	30	1700	1.04	5.02	0.2	0.2	0.2	0.5	1.2	2.4	1.4	2.6	2.9	2.8	6.7	4.7	4.8	8.4	13.1	10.6	3.1	4.4	3.2
1987	8	30	2300	0.75	5.31	0.4	0.7	0.9	0.7	3.4	1.5	2.2	2.9	1.4	4.7	2.2	3.3	9.0	13.8	9.1	4.3	2.6	4.8	2.1
1987	8	31	600	0.65	5.31	0.2	0.6	1.8	2.3	2.4	4.3	3.2	2.7	2.2	3.8	2.0	3.0	4.0	7.0	6.9	6.6	3.8	3.8	5.3
1987	8	31	1100	0.60	9.75	0.9	0.6	2.1	3.3	2.1	11.8	7.3	7.6	2.9	5.1	2.9	4.3	1.9	3.6	5.1	4.8	2.7	2.0	1.1
1987	8	31	1700	0.67	8.83	0.9	0.2	2.1	3.3	2.0	4.3	7.9	7.8	4.7	2.2	3.0	3.1	4.1	1.6	1.6	2.3	3.8	1.6	1.0
1987	8	31	2300	0.77	3.15	0.4	0.2	2.7	2.5	1.1	1.6	4.8	5.6	5.1	1.0	5.1	2.4	4.7	1.7	0.9	1.7	0.7	1.2	0.9
1987	9	1	2300	0.64	8.83	1.1	1.0	2.8	1.7	1.2	6.3	6.9	5.4	5.8	2.7	3.6	6.7	3.2	5.0	4.4	6.0	2.4	2.9	1.8
1987	9	2	600	0.62	8.06	0.6	0.8	3.3	1.8	3.5	5.2	3.1	7.0	6.4	3.3	1.9	6.7	3.3	4.7	2.2	1.0	2.7	1.9	5.6
1987	9	2	1100	0.54	7.42	0.6	2.8	1.0	5.5	1.7	9.3	1.7	15.5	17.0	6.9	2.5	2.8	2.4	1.3	0.9	2.2	0.9	0.7	1.9
1987	9	2	1700	0.62	7.42	0.2	1.2	1.4	2.2	1.9	4.8	5.1	6.9	7.0	2.5	5.3	6.6	6.2	4.5	2.7	1.9	2.6	2.0	0.8
1987	9	2	2300	0.78	3.38	0.2	0.9	1.6	2.8	1.2	3.0	3.4	5.4	4.0	3.0	1.4	1.6	0.9	1.3	1.6	0.6	0.8	0.6	3.5
1987	9	3	600	0.65	3.79	0.6	2.9	1.0	2.8	1.4	1.5	5.3	2.1	2.1	6.9	2.8	4.5	3.5	2.0	2.2	1.7	1.8	1.9	5.4
1987	9	3	1100	0.77	2.86	0.2	1.7	1.4	3.0	1.0	1.3	1.5	4.2	1.7	1.0	1.2	1.4	1.8	3.0	1.5	2.8	1.2	2.1	3.0
1987	9	3	1700	1.22	4.53	0.2	0.5	1.2	0.8	0.4	0.6	0.8	0.6	1.0	0.8	1.2	3.0	2.4	1.7	11.7	10.1	14.3	6.7	5.0
1987	9	3	2300	1.09	5.02	0.1	0.5	0.6	0.4	0.2	0.4	1.3	0.6	0.8	0.6	1.2	1.7	2.3	4.3	17.6	15.1	7.5	3.9	5.0
1987	9	4	600	1.29	4.32	0.2	0.4	0.2	0.7	0.3	0.5	0.6	0.5	0.3	1.0	1.4	0.7	3.5	6.9	9.8	10.8	5.3	13.3	4.0
1987	9	4	1100	1.33	4.76	0.2	0.2	0.4	0.5	0.8	0.7	1.0	0.3	0.4	0.6	1.6	1.3	1.8	9.3	14.0	14.3	9.3	3.9	3.6
1987	9	4	1700	1.23	4.76	0.1	0.3	0.6	1.1	0.6	0.4	1.7	0.6	0.8	0.6	1.0	2.4	4.6	8.9	8.8	9.7	6.2	5.1	7.3
1987	9	4	2300	1.37	6.40	0.1	0.4	0.7	0.5	0.4	0.8	1.3	0.6	1.2	3.8	10.0	8.9	8.5	6.6	6.4	2.3	8.4	3.5	2.6
1987	9	5	600	1.63	5.63	0.1	0.2	1.5	0.3	0.8	0.4	0.5	1.1	4.8	2.9	8.9	7.9	13.3	4.6	6.6	2.0	8.5	3.5	3.9
1987	9	5	1100	1.84	5.63	0.2	0.1	0.9	0.4	0.9	1.1	3.1	3.1	4.5	11.4	5.2	10.2	11.6	7.2	5.4	3.4	4.3	4.4	4.2
1987	9	5	1700	1.89	6.40	0.1	0.1	0.6	1.2	0.5	1.0	1.9	7.3	8.9	5.6	11.4	9.2	5.6	4.1	7.9	4.3	4.9	2.8	2.0
1987	9	5	2300	1.76	6.87	0.1	0.3	2.3	1.1	0.6	0.3	2.9	8.7	4.5	14.0	7.9	3.3	5.3	8.2	7.2	3.0	5.3	1.8	1.2
1987	9	6	600	1.58	7.42	0.0	0.1	3.0	1.6	1.5	0.3	3.0	7.9	18.7	12.1	7.8	5.2	4.7	3.4	3.8	4.1	2.6	2.0	1.8
1987	9	6	1100	1.45	7.42	0.1	0.2	2.0	1.6	2.3	1.0	4.9	6.8	11.1	9.2	7.3	10.2	2.6	5.3	4.1	4.8	2.7	2.4	1.8
1987	9	6	1700	1.36	7.42	0.1	0.1	1.5	7.5	3.6	3.9	2.9	7.1	12.8	5.3	4.6	10.7	3.5	2.9	1.1	4.3	3.9	2.8	3.0

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	9	6	2300	1.38	10.89	0.1	0.5	1.9	4.2	13.6	6.5	3.6	6.3	8.1	11.7	1.7	6.3	4.9	3.5	1.7	2.1	2.8	1.7	2.4
1987	9	7	600	1.17	8.06	0.0	0.3	2.4	2.7	7.2	6.5	5.1	11.1	5.2	6.2	6.2	3.3	2.7	1.8	6.6	8.9	2.1	3.0	2.8
1987	9	7	1100	1.28	8.83	0.0	0.3	3.0	2.0	10.8	5.9	12.6	10.1	5.9	7.2	5.6	2.6	3.5	2.7	2.6	2.2	4.0	3.6	0.6
1987	9	7	1700	1.04	9.75	0.1	0.2	2.0	2.8	15.4	18.0	4.3	3.8	9.5	3.2	6.8	7.8	5.0	1.7	3.2	1.7	0.9	2.1	0.8
1987	9	7	2300	1.18	9.75	0.1	0.6	1.2	2.8	3.8	20.4	7.2	4.6	7.4	5.7	4.8	3.3	1.5	5.2	5.6	6.1	2.3	1.5	2.3
1987	9	8	600	1.08	8.83	0.0	0.3	0.4	1.7	2.8	6.8	12.7	11.1	9.5	4.9	5.9	2.9	4.8	4.6	1.3	1.4	3.8	1.3	1.4
1987	9	8	1100	1.46	8.83	0.1	0.3	0.6	0.9	1.0	3.7	12.0	7.9	8.4	7.5	6.8	5.2	3.1	2.8	2.8	1.0	2.3	1.6	4.7
1987	9	9	1700	1.21	6.40	0.1	0.8	3.2	2.3	0.8	0.9	2.9	5.6	4.4	10.3	19.2	13.5	4.6	5.4	3.3	3.0	3.0	1.4	0.8
1987	9	9	2300	1.14	6.40	0.1	1.1	4.6	0.9	0.9	2.1	2.8	4.1	6.2	9.8	11.4	6.2	7.7	7.3	6.3	1.5	1.8	0.9	2.4
1987	9	10	600	0.79	8.83	0.1	0.7	7.9	5.4	1.4	2.4	17.6	3.6	11.8	5.0	6.6	5.9	5.1	3.0	2.9	2.9	4.6	2.3	1.9
1987	9	10	1100	0.81	6.40	0.1	0.2	10.1	8.6	2.9	1.8	2.7	4.5	7.0	8.9	12.5	10.2	3.1	2.2	5.5	1.3	4.2	2.0	1.3
1987	9	10	1700	0.71	6.40	0.0	0.5	3.6	4.9	2.3	4.5	3.9	5.5	10.8	9.2	21.6	3.5	3.7	3.2	2.0	1.8	1.4	0.8	0.8
1987	9	10	2300	0.75	6.40	0.2	0.3	3.7	1.6	5.4	1.7	2.7	9.9	8.0	7.7	15.1	4.3	6.5	3.1	1.1	0.9	1.7	0.5	1.5
1987	9	11	600	0.81	8.83	0.2	1.1	7.6	2.8	1.8	3.9	14.0	12.3	7.4	10.7	8.3	4.6	2.6	1.2	1.6	1.4	0.9	1.0	0.3
1987	9	11	1100	0.66	6.87	0.1	0.8	7.2	10.3	3.1	1.6	5.5	8.4	7.6	11.3	10.6	3.1	5.1	1.5	3.0	1.5	1.6	2.1	1.1
1987	9	11	1700	0.69	6.87	0.2	1.0	4.1	5.2	1.8	3.6	3.3	2.4	5.5	8.7	1.9	3.6	3.9	3.3	1.7	2.6	2.1	0.9	1.5
1987	9	11	2300	0.87	12.34	0.1	0.4	4.4	7.8	1.6	1.6	2.0	1.3	7.1	3.8	6.7	2.4	1.6	1.4	3.4	1.2	3.2	3.5	2.6
1987	9	12	600	1.12	5.02	0.1	0.3	1.5	2.3	0.6	0.6	0.4	1.1	2.3	2.2	1.3	4.0	2.2	5.6	14.6	8.3	4.1	3.1	8.4
1987	9	12	1100	1.51	5.99	0.0	0.2	0.9	0.9	0.6	0.2	0.8	0.6	2.8	6.8	13.4	15.9	11.1	6.9	1.9	4.7	5.0	2.9	2.6
1987	9	12	1700	1.18	5.99	0.1	0.2	1.5	1.9	0.8	1.0	1.5	1.8	13.7	5.7	8.1	13.9	8.4	3.9	3.4	6.8	5.4	3.6	2.2
1987	9	12	2300	1.29	5.99	0.1	0.1	0.3	2.5	4.2	1.7	1.2	1.4	3.5	10.1	9.4	11.6	4.7	11.1	3.3	4.3	6.1	3.2	2.0
1987	9	13	600	1.26	6.87	0.1	0.1	0.5	3.2	5.7	4.1	3.8	5.2	4.5	14.0	6.6	12.8	8.3	1.8	4.4	2.8	3.5	1.6	4.3
1987	9	13	1100	1.24	5.99	0.0	0.2	0.6	2.4	11.0	6.5	3.3	3.0	10.7	11.8	8.3	14.5	2.6	1.1	2.6	1.3	1.7	1.6	1.7
1987	9	13	1700	1.41	10.89	0.0	0.2	1.3	4.6	25.2	5.0	8.0	3.0	3.3	4.5	1.9	2.1	3.1	2.7	2.7	1.9	1.4	1.2	1.5
1987	9	13	2300	1.28	9.75	0.1	0.1	0.6	7.6	10.5	11.8	8.8	8.4	1.8	3.3	9.0	4.1	2.9	1.9	2.8	1.0	0.7	0.5	1.2
1987	9	14	600	1.33	10.89	0.1	0.1	0.6	3.0	14.3	6.9	4.0	4.2	2.9	8.2	10.1	7.7	6.2	4.4	5.6	3.3	1.4	1.7	2.2
1987	9	14	1100	1.13	8.83	0.0	0.1	0.3	6.1	8.6	13.5	14.3	6.6	5.5	6.3	7.5	6.6	7.4	3.3	1.6	1.9	2.0	0.7	1.8
1987	9	14	1700	1.13	9.75	0.1	0.1	0.4	1.6	7.5	15.0	8.1	9.5	3.8	3.9	3.4	1.7	2.1	4.3	2.8	2.1	1.5	1.4	1.3
1987	9	14	2300	0.85	9.75	0.1	0.1	1.3	1.3	7.8	19.1	7.9	9.0	11.9	2.9	3.0	2.9	6.4	1.9	2.0	1.9	1.7	1.5	1.9
1987	9	15	1100	0.71	7.42	0.3	0.3	1.0	2.5	5.7	5.6	16.8	13.5	17.0	10.6	5.3	2.8	1.6	3.5	1.1	0.7	2.7	1.2	1.0
1987	9	15	1700	0.81	8.83	0.1	0.5	0.8	1.5	8.7	11.1	17.5	9.5	4.7	3.9	3.3	5.9	1.8	2.6	1.1	2.0	1.2	0.4	1.3
1987	9	15	2300	0.83	9.75	0.2	0.5	0.6	1.4	2.5	11.2	6.3	5.8	7.9	2.9	2.6	2.0	1.3	0.8	1.9	0.8	1.1	2.0	3.9
1987	9	16	600	0.90	8.83	0.1	1.0	0.5	2.4	4.5	4.6	8.6	5.3	4.4	3.4	5.6	3.0	1.9	1.4	1.8	1.8	4.9	7.8	8.2
1987	9	16	1100	0.77	8.06	0.1	1.0	0.6	3.4	4.6	6.7	1.4	7.7	2.7	2.1	1.6	2.7	1.4	3.7	3.1	3.5	6.1	5.6	3.9
1987	9	16	1700	0.77	8.83	0.2	3.7	0.7	1.1	1.8	5.9	8.8	8.6	3.4	2.8	2.4	3.3	2.7	3.2	2.0	4.0	4.5	7.1	6.9
1987	9	16	2300	0.81	8.06	0.2	1.7	0.5	2.8	3.3	4.6	7.3	9.1	3.5	1.4	1.2	2.3	1.0	1.2	2.5	1.8	4.0	5.1	3.3
1987	9	17	600	0.91	4.53	0.1	1.0	3.4	1.7	3.0	3.4	3.3	4.1	1.8	1.2	1.2	1.6	1.1	1.7	1.1	3.4	12.0	5.1	6.3
1987	9	17	1100	0.97	4.32	0.2	0.8	1.0	1.8	0.6	3.3	4.6	2.0	1.2	0.6	0.8	1.3	3.6	3.5	6.9	6.8	5.4	10.0	5.1
1987	9	17	1700	0.99	3.95	0.1	0.6	2.1	1.7	1.8	3.9	2.1	1.9	0.9	1.0	0.8	1.2	2.8	4.2	7.1	2.7	2.6	6.1	4.3
1987	9	17	2300	1.12	3.79	0.1	0.3	7.3	3.0	2.2	2.5	2.3	1.7	0.9	0.9	0.9	2.0	2.3	2.7	7.6	6.2	4.4	7.6	4.9
1987	9	18	600	0.94	5.02	0.1	0.4	1.7	3.9	1.8	3.5	2.0	2.4	1.7	0.9	1.7	1.0	2.7	9.1	15.3	5.8	8.8	3.8	3.3
1987	9	18	1100	1.06	5.63	0.0	0.3	5.6	5.3	1.0	1.9	1.7	0.6	1.0	1.1	2.4	6.9	10.9	9.9	8.1	8.7	4.5	3.7	2.4
1987	9	18	1700	0.93	5.99	0.1	0.4	2.8	3.2	2.9	4.0	1.6	1.9	1.5	2.3	3.4	12.2	5.3	9.6	8.3	7.8	5.3	4.4	4.9
1987	9	18	2300	0.86	5.31	0.1	0.1	2.6	5.2	1.3	2.8	4.7	2.0	0.9	2.7	1.2	1.8	13.2	18.4	9.9	2.3	6.6	2.9	2.3
1987	9	19	600	1.02	9.75	0.1	0.2	0.8	3.0	4.0	11.9	2.3	1.9	3.1	4.7	6.5	9.4	3.8	4.6	5.6	0.9	2.1	1.3	1.1
1987	9	19	1100	1.49	8.83	0.1	0.4	0.7	1.0	1.0	5.4	7.7	4.6	7.4	6.2	6.0	2.3	6.6	2.4	4.9	1.7	4.1	2.8	1.4
1987	9	19	1700	1.63	6.87	0.1	0.1	0.1	0.7	0.5	2.3	9.4	8.4	7.8	10.7	10.3	6.4	3.4	2.4	4.4	5.1	4.2	3.4	1.5
1987	9	19	2300	1.81	8.83	0.1	0.2	0.2	0.8	0.8	3.3	10.8	7.6	9.3	3.7	5.2	2.4	7.3	5.2	4.3	6.0	4.1	4.1	2.8
1987	9	20	600	1.63	8.83	0.0	0.0	0.2	0.2	0.5	6.9	12.3	10.4	7.2	8.6	3.5	1.9	3.1	3.4	4.7	4.4	6.9	2.7	1.8
1987	9	20	1100	1.64	8.83	0.1	0.2	0.2	0.5	0.6	2.8	13.9	7.2	3.2	6.4	4.5	5.0	5.9	4.1	4.8	5.7	4.0	4.3	2.5
1987	9	20	1700	1.16	8.83	0.1	0.0	0.3	0.4	0.9	2.6	14.8	5.2	11.6	7.0	4.1	3.1	5.9	3.3	8.1	4.1	1.4	3.9	2.7
1987	9	20	2300	1.26	8.06	0.1	0.1	0.2	0.5	1.1	2.7	9.0	19.2	14.2	4.2	5.9	3.6	3.8	6.3	2.6	1.4	1.6	2.2	1.6
1987	9	21	600	1.01	9.75	0.1	0.1	0.5	1.3	4.1	13.9	9.6	8.1	10.5	2.5	9.2	2.6	3.1	4.7	3.8	2.2	1.5	0.8	1.7
1987	9	21	1100	1.03	9.75	0.2	0.1	0.9	2.0	3.5	16.8	13.9	5.4	6.0	3.9	3.2	3.2	5.9	0.7	4.3	5.2	0.9	2.8	1.7
1987	9	21	1700	0.93	9.75	0.0	0.2	0.7	1.4	5.6	31.3	14.6	9.4	9.1	2.4	3.0	1.5	4.0	2.0	1.2	1.0	1.4	0.6	1.6
1987	9	21	2300	0.95	8.83	0.2	0.3	0.4	3.4	7.8	6.6	11.6	5.9	8.9	3.7	5.4	3.8	5.8	4.3	2.0	4.9	2.0	2.0	1.2
1987	9	22	600	0.88	9.75	0.1	0.2	0.3	1.1	7.7	16.3	12.8	2.1	2.6	2.2	2.3	1.4	1.8	1.3	2.2	2.0	1.1	0.7	1.6
1987	9	22	1100	0.76	8.83	0.1	0.2	0.4	2.2	8.9	11.5	23.9	6.4	4.3	7.4	3.8	3.0	2.0	1.8	0.8	0.6	0.7	1.3	0.9
1987	9	22	1700	0.78	8.83	0.4	0.3	0.5	1.7	5.8	10.8	12.5	4.8	3.7	2.2	2.3	1.8	0.8	1.4	1.1	0.8	2.5	2.2	1.6
1987	9	22	2300	0.89	9.75	0.1	0.3	0.3	1.3	5.2	12.5	4.8	5.7	3.7	3.8	1.0	1.1	0.8	1.0	1.8	3.3	3.9	3.6	2.0
1987	9	23	600	0.75	9.75	0.4	0.8	0.6	1.4	7.3	10.0	7.6	8.2	3.7	2.2	1.3	0.8	0.3	0.7	0.9	1.4	1.7	2.5	1.2
1987	9	23	1100	0.65	8.06	0.3	0.4	1.6	1.4	4.9	10.9	9.4	14.9	8.7	4.2	2.0	2.3	1.2	0.6	0.7	0.3	0.6	0.9	0.5
1987	9	23	1700	0.64	8.83	0.3	0.9	0.6	2.1	8.2	12.5	12.8	10.4	2.5	1.5	1.2	0.5	0.6	0.3	0.9	1.3	0.8	0.8	1.3
1987	9	23	2300	0.60	8.06	0.4	1.1	2.2	1.8	6.0	8.5	5.9	12.3	7.6	1.8	1.1	0.8	0.7	0.6	0.4	0.3	0.5	0.5	0.8
1987	9	24	600	0.49	10.89	0.6	2.1	3.1	3.3	12.7	8.1	10.5	7.1	4.2	1.9	1.3	0.7	0.2	0.6	0.4	0.6	0.5	0.7	0.3
1987	9	24	1100	0.51	10.89	1.2	3.0	2.7	3.8	10.1	8.9	6.1	7.0	2.2	1.4	0.5	0.8	0.5	0.8	0.6	0.6	1.2	1.9	0.6
1987	9	24	1700	0.56	8.83	0.6	2.3	5.2	1.8	3.6	3.3	13.0	1.5	1.0	0.3	0.5	0.4	0.4	1.3	1.0	1.4	0.4	1.5	2.1
1987	9	24	2300	0.54	9.75	0.2	1.3	4.2	2.8	4.4	7.1	6.8	3.5	1.0	0.9	0.5	0.4	0.6	0.3	0.6	2.6	1.8	1.0	1.5
1987	9	25	600	0.53	14.22	0.6	4.1	9.0	8.2	3.6	5.8	4.4	4.5	0.6	0.6	0.3	0.3	0.2	0.6	0.3	0.5	0.7	1.4	2.5
1987	9	25	1100	1.05	4.32	0.1	0.5	1.4	2.7	1.0	1.6	0.8	0.8	0.2	0.3	0.1	0.1	0.1	0.5	0.4	3.2	9.0	16.4	7.5
1987	9	25	1700	1.09	5.31	0.0	0.6	1.4	1.7	0.9	1.7	1.4	0.3	0.5	0.4	0.8	3.1	10.5	10.9	10.3	3.2	6.6	2.5	2.7
1987	9	25	2300	0.86	5.31	0.1	1.8	1.8	3.1	2.0	2.5	1.3	0.4	0.2	0.4	0.8	1.6	5.8	13.4	12.2	4.9	7.2	2.9	3.4
1987	9	26	600	0.60	14.22	0.2	4.8	21.8	10.3	3.9	2.7	2.3	0.2	0.5	0.1	0.2	0.7	0.5	1.3	1.6	5.3	6.6	1.7	3.5
1987	9	26	1100	0.67	14.22	0.1	1.1	28.9	28.6	4.1	3.5	1.9	0.5	0.6	0.4	0.7	0.7	2.6	1.3	1.9	1.9	1.7	1.7	1.4
1987	9	26	1700	0.72	10.89	0.2	0.6	12.3	14.4	30.7	6.2	1.9	1.2	0.4	0.5	0.6	0.5	0.6	0.7	0.6	1.2	1.3	0.9	0.5
1987	9	26	2300	0.85	9.75	0.1	0.2	1.8	4.4	6.1	20.1	5.6	2.7	0.5	0.2	0.2	0.2	0.2	0.3	0.5	1.1	1.1	1.0	2.2
1987	9	27	600	0.71	9.75	0.1	0.3	3.6	7.8	6.7	14.8	12.6	14.6	1.9	0.6	0.3	0.2	0.3	0.3	0.3	0.5	1.2	1.0	5.5
1987	9	27	1100	0.64	12.34	0.1	0.5	4.7	13.3	7.3	6.4	12.4	12.3	10.1	5.8	1.9	1.1	0.6	0.4	0.3	0.5	0.2	1.0	0.7
1987	9	27	1700	0.61	8.06	0.2	0.3	2.9	11.0	4.1	5.9	17.0	18.6	9.4	5.7	3.0	0.8	0.7	0.4	0.2	0.4	0.7	0.4	1.5
1987	9	27	2300	0.58	8.06	0.1	0.5	2.5	5.0	5.6	8.6	5.7	19.0	10.2	2.0	3.8	1.6	2.4	0.9	0.6	0.8	0.6	0.9	0.3

USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

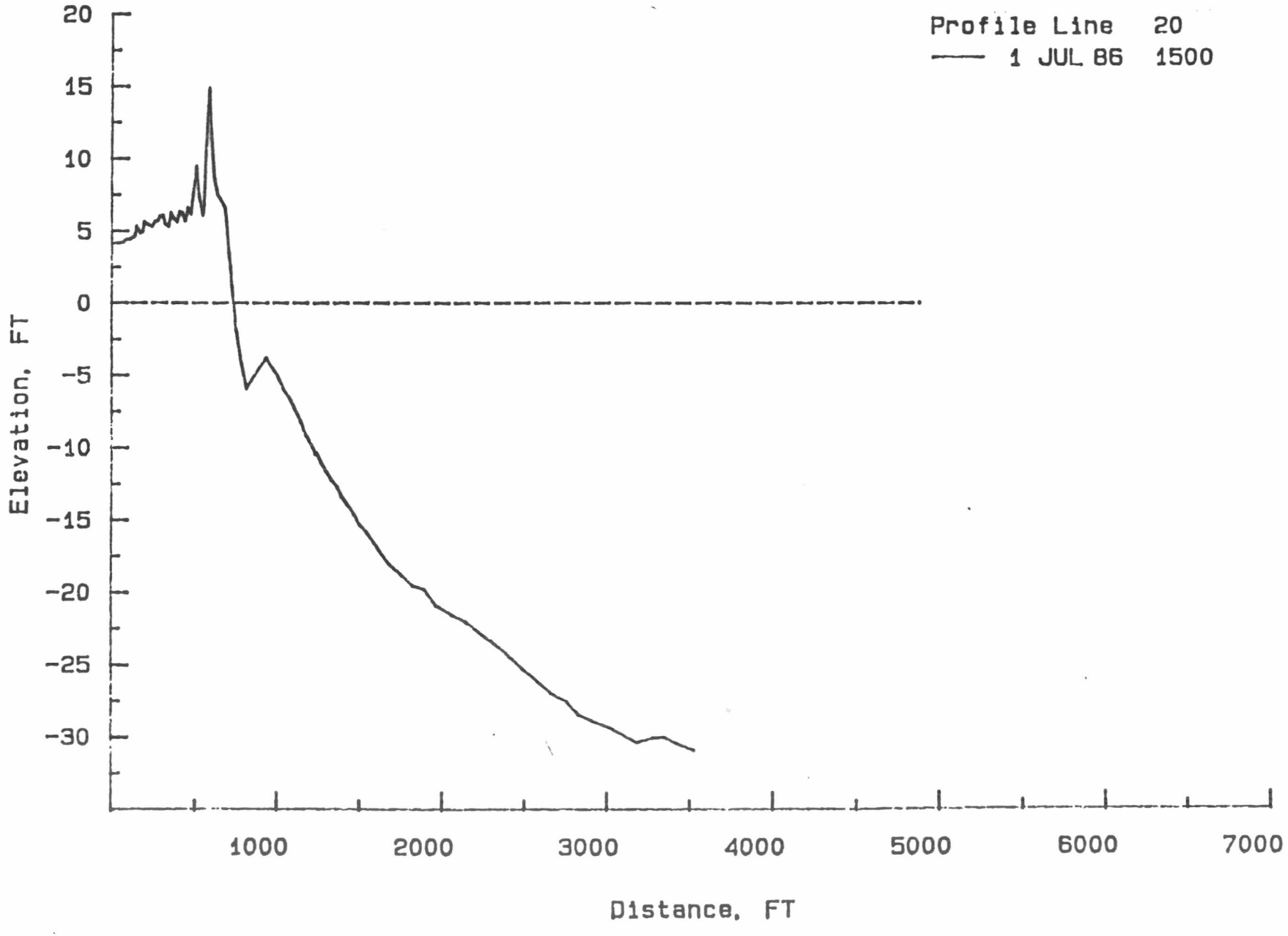
PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

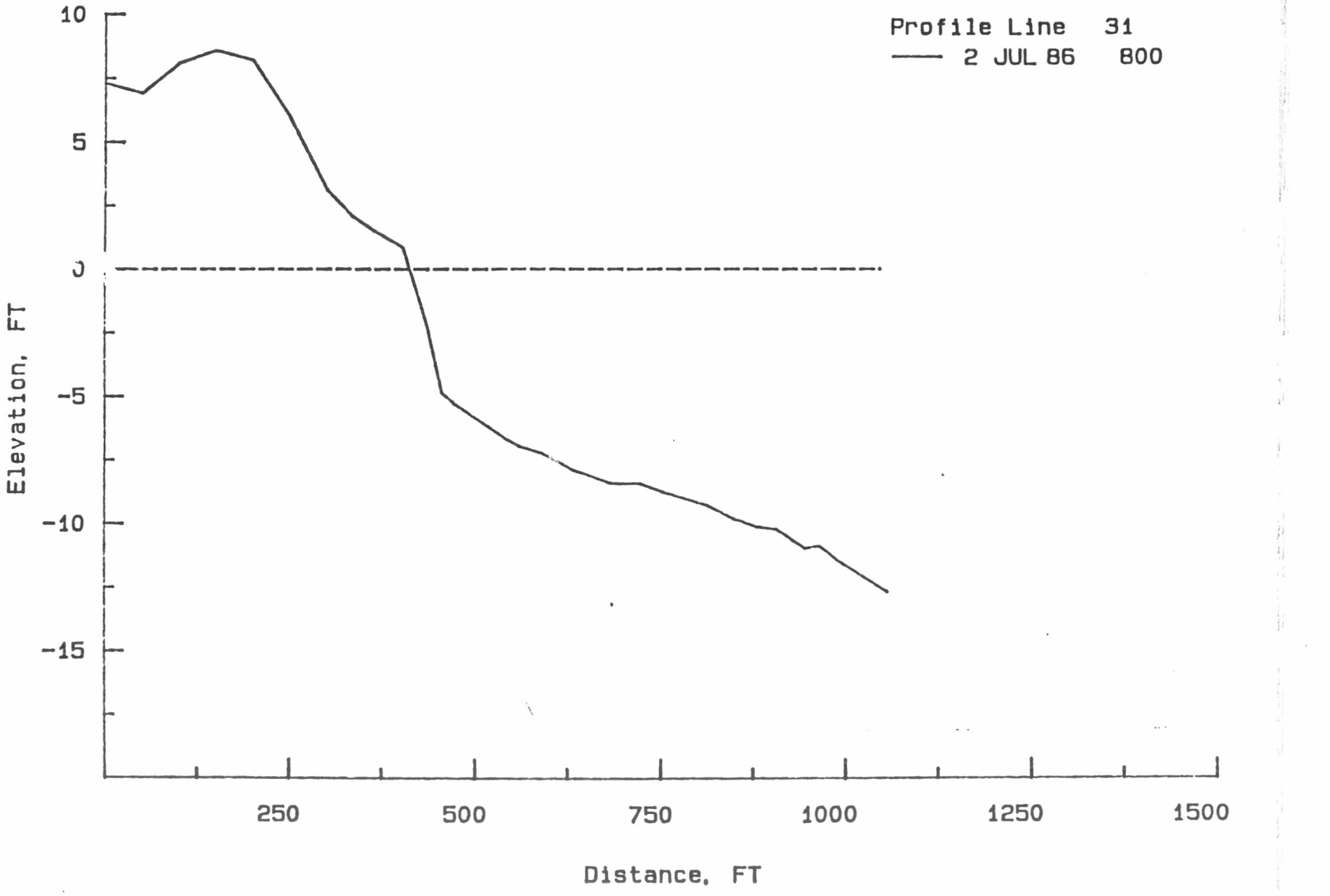
Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	9	28	600	0.60	7.42	0.1	0.7	4.5	8.4	4.9	2.7	0.9	7.9	8.8	5.5	1.0	1.5	0.6	1.5	1.4	1.5	0.6	0.2	0.9
1987	9	28	1100	0.53	8.83	0.3	0.7	6.7	6.3	4.7	7.0	11.3	6.4	5.4	10.0	3.8	1.1	1.1	0.9	0.6	0.7	0.7	0.5	0.3
1987	9	28	1700	0.54	14.22	0.3	0.5	9.9	3.4	6.0	5.4	7.5	5.0	3.6	8.0	5.3	3.3	2.4	0.9	1.6	1.2	1.5	0.8	1.2
1987	9	28	2300	0.87	3.15	0.2	0.2	2.6	4.3	2.4	2.0	2.6	4.0	3.7	2.3	1.2	1.3	1.1	0.5	0.4	0.8	0.5	0.5	0.3
1987	9	29	600	0.57	12.34	0.2	0.7	1.7	13.3	2.3	5.0	4.2	2.5	10.5	3.5	1.7	4.6	1.4	0.5	0.3	0.4	0.3	0.4	0.4
1987	9	29	1100	0.49	12.34	0.1	1.0	1.9	13.3	7.2	5.3	10.5	2.2	6.6	7.5	8.4	6.5	2.5	3.2	4.8	0.8	1.2	1.5	0.6
1987	9	29	1700	0.57	12.34	0.1	0.4	4.0	16.4	7.7	6.8	4.7	3.0	9.8	5.6	5.3	2.7	2.0	3.5	4.1	3.1	1.6	1.8	2.2
1987	9	29	2300	0.56	5.63	0.4	0.6	1.8	7.3	4.6	4.0	4.5	5.3	8.7	6.9	4.3	6.3	8.9	7.2	2.3	2.7	2.9	2.0	2.0
1987	9	30	600	0.87	4.53	0.1	0.4	1.0	8.1	2.0	1.5	1.4	0.8	2.5	5.6	2.4	3.3	2.3	2.2	2.4	2.3	8.7	1.4	1.5
1987	9	30	1100	1.18	3.51	0.1	0.1	0.3	1.9	1.1	1.3	2.3	2.8	1.7	6.5	6.8	3.6	2.6	2.3	3.5	2.2	1.5	6.3	3.3
1987	9	30	1700	1.15	5.63	0.0	0.3	0.4	2.5	1.4	1.4	2.4	6.2	2.6	6.2	4.5	4.3	7.4	3.1	4.3	3.3	5.5	3.7	2.3
1987	9	30	2300	0.93	8.06	0.0	0.5	0.4	2.6	5.2	3.8	4.1	13.4	12.1	5.5	3.4	4.9	5.1	4.9	4.9	3.5	2.2	3.8	3.2
1987	10	1	600	0.97	8.06	0.1	1.2	1.0	2.5	0.8	3.9	6.4	16.6	6.1	11.3	8.2	10.6	2.9	2.5	1.8	2.1	1.6	0.7	0.7
1987	10	1	1100	0.90	3.26	0.1	0.5	0.5	2.3	2.3	2.3	2.4	4.8	5.5	1.6	0.9	2.3	1.2	0.5	2.1	0.7	1.9	1.5	2.5
1987	10	1	1700	0.98	2.69	0.1	0.4	0.8	1.2	2.7	1.8	4.4	2.8	3.3	1.3	1.3	1.1	2.1	1.3	1.5	1.3	1.8	2.3	2.7
1987	10	1	2300	0.81	4.76	0.3	0.2	1.9	0.9	1.7	4.1	3.7	2.0	1.0	1.2	2.4	1.7	2.9	3.3	3.4	5.1	5.0	5.0	3.9
1987	10	2	600	0.57	5.63	0.2	0.4	1.1	2.1	2.6	2.8	4.8	4.7	4.6	4.1	5.1	7.4	10.4	3.8	4.8	2.0	1.8	4.2	2.3
1987	10	2	1100	0.56	9.75	0.5	0.6	3.1	2.3	8.6	13.2	6.4	2.9	1.6	1.7	2.0	3.0	0.4	1.1	1.5	1.7	3.2	2.5	1.6
1987	10	2	1700	1.24	4.76	0.1	0.2	0.3	1.3	1.0	0.9	2.4	0.6	0.6	0.2	0.5	0.3	1.2	3.2	3.4	10.6	7.2	7.8	8.8
1987	10	2	2300	1.85	5.63	0.1	0.1	0.2	1.5	3.3	2.7	3.1	2.8	0.4	0.8	4.3	12.6	20.1	8.9	8.9	2.0	2.3	2.4	3.0
1987	10	3	600	1.53	5.02	0.1	0.1	0.1	0.8	5.0	4.3	2.0	5.8	1.8	0.9	1.2	1.5	5.5	5.0	18.6	4.1	1.5	3.3	6.2
1987	10	3	1100	1.20	9.75	0.2	0.1	0.4	1.7	3.2	14.3	10.4	11.6	2.5	1.1	0.9	1.7	1.6	7.2	6.3	4.1	4.3	2.5	2.7
1987	10	3	1700	1.01	8.06	0.1	0.3	0.2	1.3	4.0	11.4	10.6	17.6	3.2	2.8	4.0	1.4	1.3	1.8	3.4	5.2	3.2	2.4	1.5
1987	10	3	2300	1.69	5.31	0.1	0.1	0.2	0.2	0.6	2.0	3.7	2.4	0.9	3.4	4.1	4.6	9.6	9.9	8.3	6.6	4.1	5.9	2.1
1987	10	4	600	1.53	5.99	0.1	0.2	0.1	0.1	0.7	1.7	1.5	5.0	7.2	6.3	5.0	7.4	3.3	6.4	6.2	0.9	3.4	3.0	2.8
1987	10	4	1100	1.13	5.02	0.0	0.1	0.3	0.2	1.3	3.9	4.1	7.1	3.8	5.6	5.0	3.8	3.2	5.3	10.0	4.3	3.4	2.8	1.8
1987	10	4	1700	1.05	4.53	0.1	0.1	0.4	0.4	0.4	0.9	2.8	1.3	0.8	1.9	1.3	1.7	1.2	3.2	4.3	4.4	11.9	2.6	6.1
1987	10	4	2300	0.74	4.76	0.1	0.4	0.5	1.0	2.9	5.7	3.4	2.4	1.6	1.9	2.7	1.4	1.1	2.0	3.6	6.5	6.4	3.7	3.9
1987	10	5	600	0.46	9.75	0.9	0.6	1.3	1.7	6.8	10.6	3.6	4.1	4.7	3.5	2.2	2.3	1.8	2.0	1.2	1.8	0.4	1.9	0.4
1987	10	5	1100	0.51	9.75	0.3	0.5	1.6	2.8	3.2	17.6	4.2	5.2	2.3	1.2	2.6	1.1	0.5	2.0	3.8	3.8	1.4	0.8	1.4
1987	10	5	1700	0.41	9.75	0.2	0.6	0.5	2.5	7.8	20.4	14.6	6.4	6.1	3.5	2.9	1.2	1.6	1.2	1.1	1.3	0.6	1.1	0.6
1987	10	5	2300	0.78	3.26	0.0	0.3	0.7	1.5	2.3	3.1	6.1	3.9	1.2	1.2	0.6	0.5	0.6	0.6	0.4	0.4	0.1	0.7	0.5
1987	10	6	600	0.93	4.32	0.1	0.4	0.4	0.8	2.7	2.7	7.3	7.1	3.1	2.4	1.3	0.3	0.3	0.7	0.7	2.8	6.2	9.0	6.7
1987	10	6	1100	1.00	9.75	0.1	0.3	1.2	5.8	2.8	6.1	4.0	2.3	2.8	2.5	0.8	1.1	0.9	1.4	2.8	6.1	3.6	2.3	3.0
1987	10	6	1700	1.10	10.89	0.1	0.1	0.5	2.7	8.4	4.7	6.4	3.2	1.4	0.3	0.8	0.4	0.9	1.6	4.3	3.3	2.6	6.9	2.9
1987	10	6	2300	1.58	4.76	0.1	0.1	0.5	1.5	2.6	6.5	7.0	2.0	2.5	0.7	0.5	0.5	1.9	3.1	10.5	12.4	4.2	5.0	4.5
1987	10	7	600	1.89	5.31	0.0	0.1	0.3	2.4	3.0	2.3	1.7	2.6	0.9	2.0	2.3	3.8	11.6	15.1	11.7	10.3	4.2	2.1	2.3
1987	10	7	1100	1.34	5.02	0.1	0.2	0.7	3.0	7.6	7.6	5.9	3.3	0.9	0.9	1.9	0.9	3.9	1.9	16.2	4.7	3.7	4.0	2.2
1987	10	7	1700	1.09	10.89	0.1	0.1	1.3	4.9	13.9	10.5	5.2	10.8	3.0	4.4	3.0	1.3	3.8	7.3	5.1	3.3	4.3	1.1	2.5
1987	10	7	2300	1.21	10.89	0.1	0.1	0.3	4.8	15.4	8.5	5.0	4.7	6.9	8.3	8.0	14.8	2.7	5.4	2.0	2.1	0.9	0.8	1.3
1987	10	8	600	0.98	10.89	0.0	0.1	0.2	5.0	17.2	9.7	3.5	4.0	1.5	7.0	4.4	1.2	1.1	1.6	1.4	1.3	1.5	1.0	1.3
1987	10	8	1100	1.00	10.89	0.1	0.1	0.6	4.3	14.3	9.3	7.7	6.4	4.5	3.7	2.5	2.2	1.0	0.7	0.7	1.0	0.7	1.5	1.1
1987	10	8	1700	0.79	10.89	0.0	0.2	0.4	6.6	25.3	11.4	9.4	4.2	4.7	2.4	1.2	1.5	0.8	0.5	0.6	0.3	0.5	1.0	1.1
1987	10	8	2300	0.66	8.83	0.1	0.2	0.4	3.4	13.9	12.8	18.7	6.4	3.7	2.4	1.0	0.7	1.5	0.9	0.7	0.3	0.5	0.2	0.3
1987	10	9	600	0.72	9.75	0.1	0.2	0.2	1.4	11.0	18.4	6.7	1.8	1.6	0.3	0.6	0.3	0.4	0.4	0.4	1.1	3.3	3.9	2.4
1987	10	9	1100	0.74	9.75	0.1	0.6	1.0	2.3	4.7	17.3	6.9	4.5	1.6	0.7	0.6	0.7	0.6	0.3	0.2	0.5	0.8	1.8	2.0
1987	10	9	1700	0.64	10.89	0.4	3.3	3.1	3.2	26.0	19.7	5.1	2.0	2.6	0.9	0.9	0.3	0.8	1.0	0.9	2.0	2.5	2.0	1.7
1987	10	9	2300	0.89	9.75	0.2	1.7	0.6	1.6	2.3	13.8	6.4	13.4	1.1	1.2	0.2	0.4	0.1	0.4	0.5	0.4	0.5	0.3	0.2
1987	10	10	600	0.79	3.64	0.2	1.0	0.8	4.7	8.0	2.5	4.8	2.5	3.0	1.4	2.3	2.0	0.7	0.5	0.6	0.6	0.4	0.5	2.2
1987	10	10	1100	0.67	7.42	0.3	2.2	1.5	4.5	4.2	6.9	4.9	1.9	7.1	5.0	1.1	1.2	1.3	0.5	0.5	0.9	0.3	2.0	2.2
1987	10	10	1700	0.65	10.89	0.5	5.4	5.7	5.9	11.0	4.1	8.2	5.8	6.3	2.1	1.3	0.7	0.3	0.5	0.4	0.3	0.6	0.3	0.3
1987	10	10	2300	0.76	3.51	0.1	2.1	1.4	3.6	4.5	3.3	3.4	4.1	8.4	3.0	2.7	2.1	1.0	0.9	0.3	0.1	0.2	0.5	0.4
1987	10	11	600	0.64	10.89	0.5	3.0	4.9	7.5	12.5	6.2	5.3	4.2	1.9	3.1	1.5	1.8	2.5	1.7	3.6	1.6	1.0	0.4	0.5
1987	10	11	1100	0.64	8.06	0.3	2.3	5.6	6.9	9.9	6.9	6.2	10.4	9.0	2.0	1.5	1.0	1.4	2.0	1.1	0.9	0.5	0.6	1.2
1987	10	11	1700	0.75	10.89	0.3	1.7	1.9	4.7	8.5	7.3	8.4	7.6	6.3	2.6	1.2	1.6	1.0	1.1	0.4	0.5	0.5	0.2	0.3
1987	10	11	2300	1.35	4.32	0.1	0.4	0.9	1.1	1.8	2.6	4.3	3.3	2.3	3.6	2.1	0.9	0.4	0.7	1.2	6.0	5.0	14.7	11.8
1987	10	12	600	1.81	5.63	0.1	0.4	0.3	0.6	1.0	1.6	2.3	1.3	0.3	1.7	4.1	6.7	11.3	9.9	7.0	4.6	5.6	6.6	6.0
1987	10	12	1100	1.79	5.99	0.1	0.4	0.2	0.6	0.7	0.8	2.6	1.8	4.1	2.5	4.9	14.6	13.6	5.9	5.4	4.6	4.1	6.1	3.3
1987	10	12	1700	1.43	5.99	0.0	0.5	0.5	0.3	0.6	1.5	4.9	2.2	2.0	4.2	10.7	10.9	3.0	6.2	4.6	3.7	5.6	3.2	4.3
1987	10	12	2300	1.31	6.87	0.1	0.2	0.6	0.7	1.4	1.9	4.7	2.5	2.9	8.3	7.5	5.5	5.4	5.4	5.0	3.6	4.9	4.5	2.5
1987	10	13	600	1.82	5.99	0.0	0.4	0.5	0.3	0.6	0.8	2.0	2.0	3.9	4.2	4.6	10.1	6.9	9.2	9.0	7.4	5.8	2.8	2.9
1987	10	13	1100	2.21	5.63	0.0	0.2	0.1	0.2	0.2	1.0	1.4	2.2	3.3	6.7	6.7	7.4	11.4	7.3	4.9	2.7	9.2	5.3	3.8
1987	10	13	1700	2.11	6.40	0.1	0.2	0.3	0.3	0.3	0.9	2.5	7.9	6.7	8.4	8.6	8.3	5.5	5.1	3.7	5.1	6.4	2.7	1.5
1987	10	13	2300	2.03	7.42	0.0	0.1	0.2	0.3	1.1	2.0	6.0	6.3	9.7	8.9	2.6	4.3	7.1	2.4	5.3	7.1	7.2	2.1	3.4
1987	10	14	600	1.97	6.87	0.1	0.1	0.5	0.4	2.1	1.7	5.8	2.7	3.8	10.0	6.1	5.3	6.9	10.0	4.2	3.2	6.2	5.6	4.0
1987	10	14	1100	2.04	8.83	0.1	0.2	0.8	1.7	2.2	3.0	10.5	7.3	4.0	5.4	8.1	3.9	5.3	3.4	4.8	1.5	6.0	5.8	3.2
1987	10	14	1700	2.06	6.87	0.2	0.2	0.5	1.6	3.0	5.2	7.3	4.3	7.4	15.6	5.3	3.0	9.1	4.8	6.2	3.4	1.5	4.3	1.3
1987	10	14	2300	1.85	5.99	0.1	0.2	0.6	4.3	3.5	4.4	8.5	4.7	5.5	4.3	5.0	10.6	3.5	2.3	2.7	3.6	3.8	5.0	2.6
1987	10	15	600	2.04	8.83	0.1	0.3	1.4	6.7	10.4	8.7	14.3	4.2	3.2	6.6	7.1	6.9	2.5	1.5	2.3	4.8	2.2	1.6	1.4
1987	10	15	1100	1.78	10.89	0.1	0.2	1.8	4.2	17.1	12.5	5.4	2.2	8.9	3.7	6.6	2.5	4.9	1.8	2.0	2.2	2.7	2.8	2.1
1987	10	15	1700	1.91	6.87	0.1	0.0	0.7	6.8	7.8	4.4	4.4	6.6	10.1	14.7	5.5	4.8	2.4	3.7	5.5	1.9	2.2	0.8	2.0
1987	10	15	2300	1.63	12.34	0.1	0.3	2.0	14.5	14.1	10.7	5.9	5.0	3.4	3.1	3.1	5.6	3.9	8.9	2.2	2.1	2.5	2.1	1.8
1987	10	16	600	1.59	10.89	0.1	0.1	1.0	18.4	25.2	6.5	10.1	5.6	5.0	3.7	2.6	3.5	3.7	2.2	1.9	1.1	2.3	1.6	0.6
1987	10	16	1100	1.37	9.75	0.0	0.1	0.2	5.5	9.8	18.6	10.9	6.9	3.4	5.8	3.5	2.9	8.0	7.7	3.5	2.1	1.7	0.6	0.9
1987	10	16	1700	1.31	9.75	0.1	0.1	0.3	1.6	7.8	17.2	8.3	7.2	14.5	5.6	3.7	3.7	3.2	5.1	1.5	1.3	4.4	1.0	1.3
1987	10	16	2300	1.21	9.75	0.1	0.1	0.3	4.3	8.7	16.3	8.7	3.1	5.5	11.1	2.1	3.2	3.8	5.7	3.2	2.0	2.8	2.5	0.9
1987	10	17	600	1.22	8.83	0.1	0.1	0.1	1.2	8.2	10.1	11.6	3.9	8.9	4.6	4.7	3.2	3.2	3.6	2.5	5.8	1.5	1.6	2.9
1987	10	17	1100	1.28	9.75	0.1	0.1	0.1	2.0	4.4	13.4	11.2	8.4	3.3	6.2	6.9	3.6	1.8	2.6	2.9	3.0	5.9	2.7	4.1
1987	10	17	1700	1.28	8.83	0.1	0.1	0.3	1.5	8.4	13.1	14.8	13.0	4.1	6.9	6.5	3.4	4.7	2.8	1.8	1.2	1.1	1.5	0.9
1987	10	17	2300	1.16	9.75	0.2	0.2	0.3	4.6	13.3	15.4	6.9	5.0	7.2	3.2	6.4	2.5	9.6	4.1	3.7	2.1	1.1	1.9	1.1

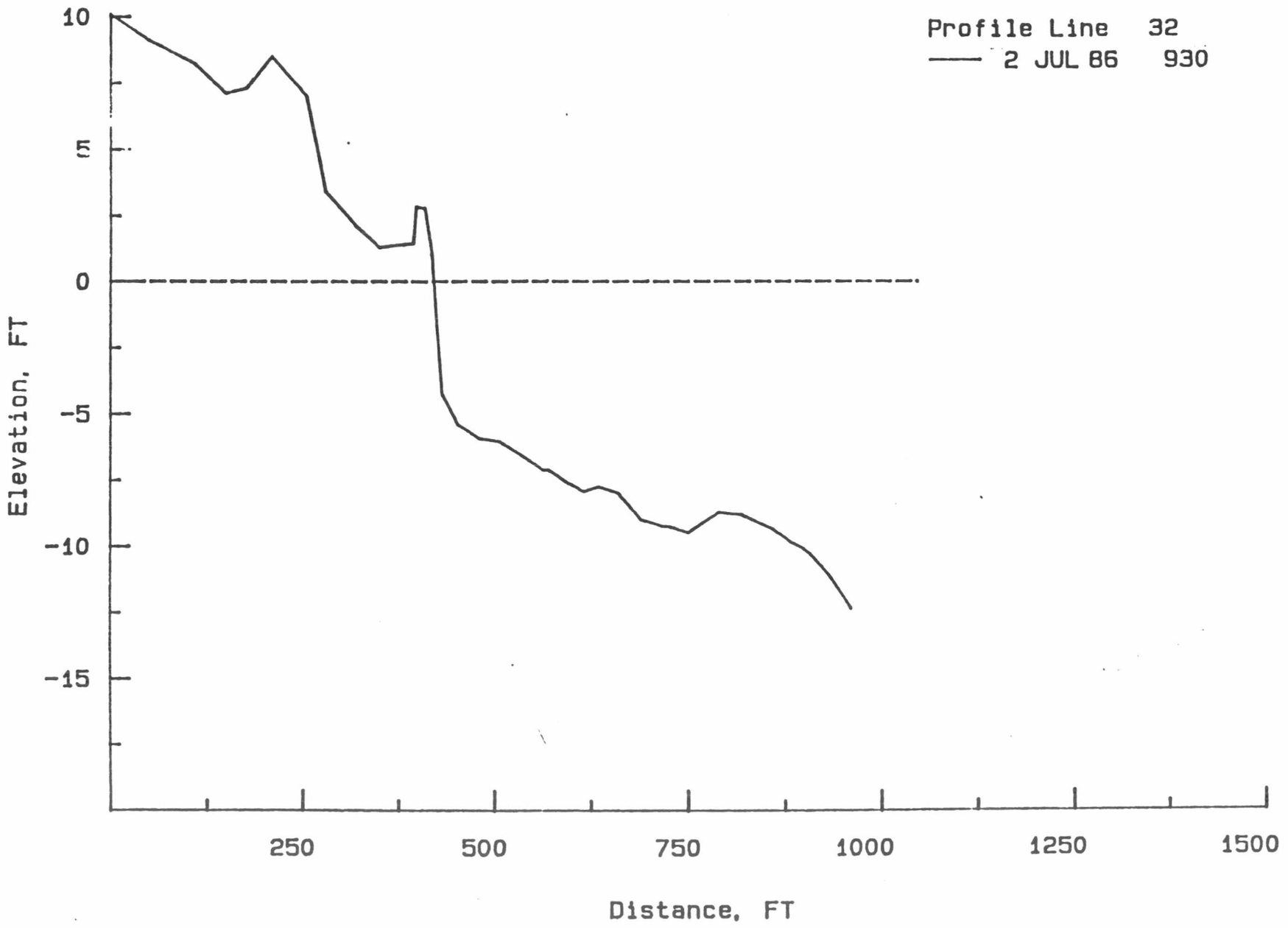
USAE WATERWAYS EXPERIMENT STATION
COASTAL ENGINEERING RESEARCH CENTER
MONITORING COMPLETED COASTAL PROJECTS PROGRAM
OCEAN CITY, MD.

PERCENTAGE OF ENERGY IN FREQUENCY BANDS
AT THE FOLLOWING BAND CENTER FREQUENCIES

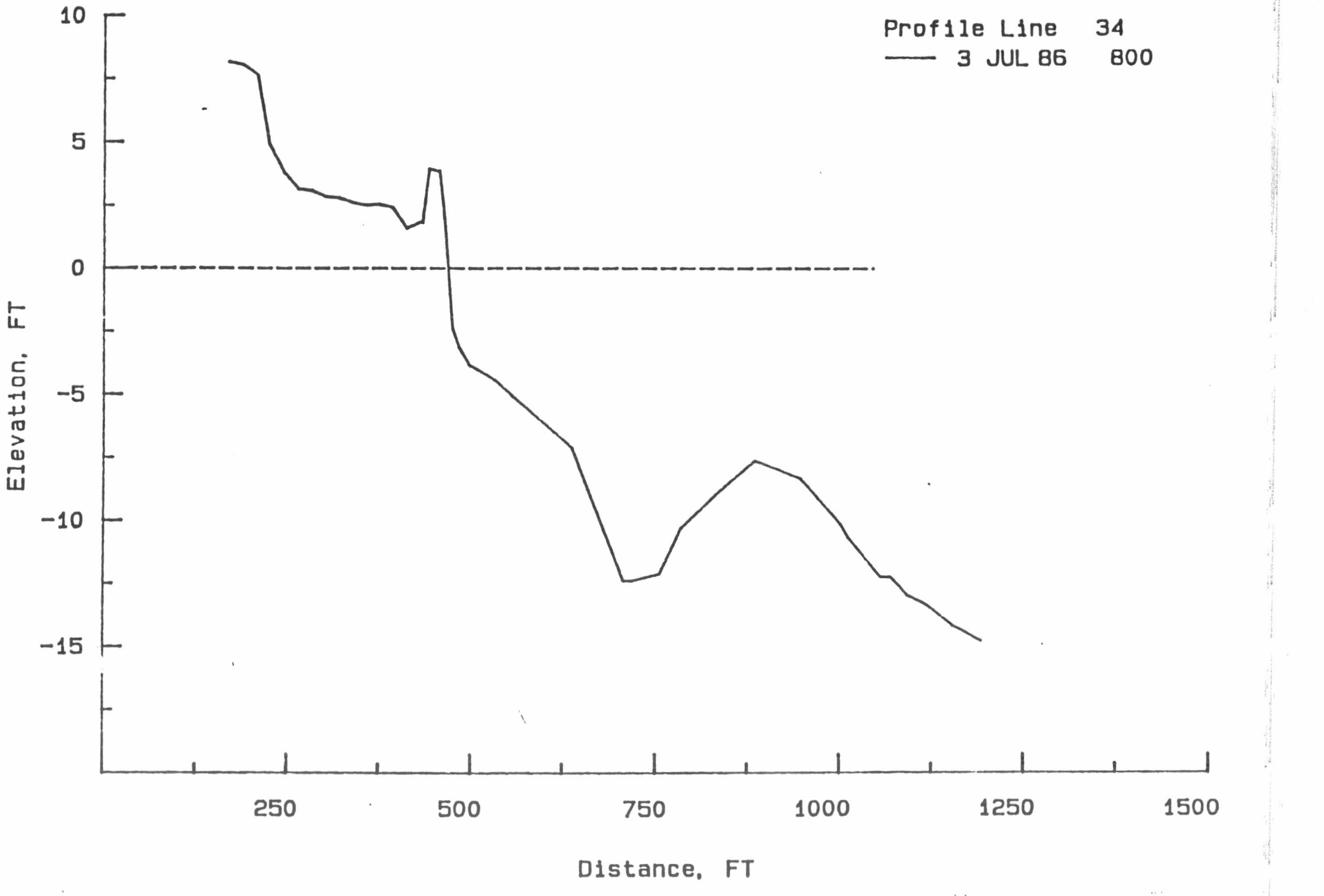
Date Yr	Mo	Dy	Time (gmt)	Hmo (m)	Tp (sec)	.049	.060	.070	.081	.092	.103	.113	.124	.135	.146	.156	.167	.178	.188	.199	.210	.221	.231	.242
1987	10	18	600	1.14	9.75	0.2	0.1	0.2	1.5	6.8	14.9	10.2	9.9	14.3	7.1	5.4	2.7	4.1	3.3	1.9	1.2	4.5	1.6	1.7
1987	10	18	1100	1.11	9.75	0.2	0.1	0.2	1.3	3.4	15.0	11.1	9.3	11.9	7.3	6.4	3.1	2.1	5.7	2.6	1.9	1.0	1.0	0.7
1987	10	18	1700	1.16	9.75	0.1	0.1	0.1	0.9	5.4	15.8	7.1	6.4	11.2	5.7	3.1	2.3	4.4	2.2	2.8	1.2	1.7	1.2	1.2
1987	10	18	2300	1.02	8.83	0.1	0.1	0.1	0.4	4.5	7.2	28.1	13.5	6.0	5.5	4.4	3.0	3.3	2.0	2.3	2.5	1.4	1.3	2.2
1987	10	19	600	0.95	10.89	0.1	0.1	0.1	0.5	15.0	12.7	13.2	13.7	11.1	5.6	3.8	5.2	3.4	1.4	3.8	1.9	1.5	0.6	1.0
1987	10	19	1100	0.88	9.75	0.1	0.2	0.2	0.4	2.4	18.2	15.6	15.3	4.0	9.1	7.5	6.5	3.8	2.5	1.2	1.5	1.5	0.9	0.8
1987	10	19	1700	0.89	8.83	0.1	0.2	0.3	0.4	4.9	12.2	20.6	13.5	9.6	4.4	3.6	4.4	3.8	2.0	2.0	1.8	1.2	0.8	0.6
1987	10	19	2300	1.00	9.75	0.1	0.2	0.5	1.0	10.5	18.8	12.6	9.4	5.0	6.8	5.2	2.2	3.7	0.8	0.9	2.0	2.2	2.7	1.8
1987	10	20	600	0.99	8.83	0.1	0.1	0.5	0.4	7.2	14.1	20.4	10.8	8.5	11.9	3.9	2.5	2.3	1.8	0.6	0.9	1.3	1.8	1.0
1987	10	20	1100	0.90	8.06	0.1	0.1	0.3	1.3	2.8	11.9	12.9	17.9	13.7	10.8	6.7	2.2	3.5	0.9	0.7	1.8	1.4	1.0	0.9
1987	10	20	1700	0.94	8.06	0.1	0.1	2.6	2.5	12.7	7.3	10.2	14.2	8.1	5.9	2.9	4.0	2.9	1.0	3.8	1.5	1.5	1.5	1.3
1987	10	20	2300	0.89	8.83	0.1	0.1	0.7	4.9	3.9	9.9	21.9	12.8	8.9	5.4	3.3	3.2	1.6	1.9	1.7	1.3	0.6	0.7	0.3
1987	10	21	600	1.11	8.83	0.1	0.1	0.6	2.1	6.9	7.4	9.0	2.3	5.4	4.1	2.1	1.8	1.6	0.9	0.6	1.3	3.6	3.2	1.5
1987	10	21	1100	0.93	8.06	0.1	0.3	1.0	5.1	4.1	7.0	7.5	11.6	7.7	2.5	4.8	2.8	2.5	1.3	3.4	1.5	1.8	4.2	6.4
1987	10	21	1700	1.09	9.75	0.1	0.1	1.1	2.5	5.8	10.0	5.8	4.7	2.2	1.7	1.3	1.4	0.3	1.0	0.7	1.0	0.5	0.8	0.6
1987	10	21	2300	0.86	9.75	0.1	0.2	1.0	4.2	7.9	11.7	10.1	6.8	3.9	2.9	1.8	1.2	0.3	0.2	0.6	0.8	0.6	0.6	0.7
1987	10	22	600	0.82	4.76	0.1	0.3	1.5	7.8	6.5	3.6	3.9	1.4	1.2	2.2	0.7	0.4	0.6	0.7	2.2	8.1	1.3	3.0	1.3
1987	10	22	1100	0.77	10.89	0.2	0.3	2.2	6.0	8.9	4.1	3.7	2.7	0.9	0.4	0.6	0.5	1.3	1.5	1.3	2.1	1.7	5.5	2.9
1987	10	22	1700	0.88	3.95	0.0	0.3	0.9	4.6	6.5	1.8	1.9	0.9	0.5	0.5	0.7	0.9	0.6	1.7	3.6	3.8	4.1	4.4	4.7
1987	10	22	2300	0.74	10.89	0.2	0.4	1.5	7.3	16.0	7.3	1.6	2.6	1.2	0.8	2.3	1.9	4.5	4.6	5.5	3.2	6.0	1.9	2.9
1987	10	23	600	0.53	9.75	0.2	1.1	1.8	6.1	6.6	11.4	8.3	2.9	2.8	1.7	2.2	3.1	5.2	1.4	1.8	3.7	2.4	1.5	1.6
1987	10	23	1100	0.69	3.38	0.1	1.0	1.4	6.9	5.9	7.5	3.5	3.8	0.9	1.0	0.8	1.0	1.4	1.1	1.0	1.1	0.6	0.7	0.7
1987	10	23	1700	0.72	10.89	0.3	0.5	2.0	2.8	7.6	5.9	2.1	4.0	1.3	1.1	1.1	2.0	1.4	0.7	0.6	0.3	0.5	0.9	0.9
1987	10	23	2300	0.88	3.26	0.2	0.8	0.4	2.5	3.8	5.7	1.0	1.4	1.6	1.3	1.3	2.2	0.9	0.4	0.9	0.7	0.6	0.4	0.7
1987	10	24	600	0.76	3.64	0.2	0.7	4.9	2.3	2.0	1.8	5.9	3.5	4.3	1.8	1.7	1.4	1.1	1.6	0.8	0.5	0.5	0.8	3.6
1987	10	24	1100	0.67	7.42	0.2	0.7	6.9	3.1	4.3	8.0	5.3	2.9	13.7	3.7	4.1	3.4	2.8	1.2	2.2	1.0	0.8	0.8	1.0
1987	10	24	1700	0.61	8.06	0.2	0.7	3.1	3.2	6.4	6.6	9.9	13.1	8.2	8.0	9.4	3.2	4.1	1.5	2.1	0.4	0.7	2.1	0.5
1987	10	24	2300	0.66	7.42	0.3	0.9	6.1	9.1	4.2	2.5	6.7	7.5	11.6	6.8	6.2	5.2	2.6	1.9	2.6	3.2	1.6	1.5	0.5
1987	10	25	600	0.67	9.75	0.1	1.3	3.2	9.0	4.1	15.0	5.2	4.2	7.7	5.5	3.7	6.5	2.3	2.5	2.2	0.8	1.6	1.0	0.4
1987	10	25	1100	0.83	7.42	0.2	0.7	2.9	3.5	1.9	6.2	5.3	6.7	12.6	6.9	7.0	6.7	3.0	2.5	3.3	3.1	2.3	1.4	0.6
1987	10	25	1700	1.31	4.53	0.0	0.3	0.9	0.7	2.2	1.3	3.0	2.8	4.6	4.0	1.8	4.5	6.3	5.7	4.3	5.6	6.7	3.2	3.7
1987	10	25	2300	1.20	9.75	0.1	0.1	0.8	2.3	3.5	13.2	9.1	3.2	4.1	2.2	2.4	2.1	0.9	1.4	0.8	1.0	2.0	5.5	11.8
1987	10	26	600	1.14	8.83	0.0	0.3	1.4	4.4	2.9	10.5	12.6	10.2	4.2	1.0	1.0	1.2	1.2	0.9	2.3	2.6	2.8	5.0	3.8
1987	10	26	1100	1.46	5.02	0.1	0.1	0.6	3.1	5.6	8.4	4.3	2.7	1.4	1.2	1.7	3.3	6.9	3.4	9.1	3.5	6.2	3.7	4.1
1987	10	26	1700	1.14	9.75	0.0	0.2	0.7	3.5	9.9	16.6	10.4	7.5	0.9	3.0	1.5	0.9	1.7	3.9	3.0	3.0	3.3	2.8	2.8
1987	10	26	2300	1.11	10.89	0.0	0.2	1.5	2.1	30.9	16.2	11.0	6.0	6.9	2.5	1.2	1.7	1.3	0.8	1.3	1.4	0.9	0.7	2.1
1987	10	27	600	1.06	9.75	0.1	0.2	0.8	7.9	10.0	19.7	11.2	5.2	2.8	1.8	2.6	1.9	5.1	3.7	2.0	3.7	2.1	1.3	2.0
1987	10	27	1100	1.11	9.75	0.1	0.2	0.8	4.6	9.9	14.4	8.3	5.2	3.8	1.4	0.9	1.5	0.6	1.4	1.3	2.2	1.4	1.9	6.6
1987	10	27	1700	1.21	10.89	0.5	0.5	1.8	4.0	6.5	4.8	5.9	6.2	3.3	2.2	3.8	3.0	1.1	0.9	2.1	1.6	2.5	3.2	1.8
1987	10	27	2300	1.87	4.76	0.0	0.4	0.3	0.3	1.1	1.1	4.3	1.8	3.5	1.0	2.6	3.7	2.9	9.3	13.2	17.8	2.9	5.7	1.7
1987	10	28	600	1.72	8.06	0.0	0.5	0.3	0.7	2.0	3.6	11.6	17.3	14.4	5.4	4.3	1.4	5.1	3.1	2.1	3.0	2.8	1.4	0.6
1987	10	28	1100	1.58	8.06	0.0	0.1	0.3	0.6	2.0	6.7	11.9	34.9	9.9	3.4	1.7	1.7	1.2	1.3	0.9	1.2	0.6	0.9	1.0
1987	10	28	1700	1.35	8.83	0.1	0.1	0.4	0.8	2.9	20.2	20.9	17.8	7.9	3.6	3.0	2.0	1.5	0.9	0.8	1.4	1.1	0.9	0.5
1987	10	28	2300	0.99	7.42	0.0	0.2	0.6	1.3	2.6	11.0	14.6	12.6	22.8	7.3	3.1	2.7	0.8	0.3	0.3	0.2	0.4	1.0	0.6
1987	10	29	600	0.82	8.83	0.1	0.3	1.5	3.3	4.9	10.4	17.7	6.0	3.6	3.7	0.8	2.5	1.7	0.8	0.6	0.5	0.5	0.7	1.1
1987	10	29	1100	0.79	8.83	0.0	0.2	0.3	5.7	6.8	10.9	21.0	11.0	3.2	1.8	0.5	0.6	1.5	0.5	0.2	1.0	0.3	1.3	2.6
1987	10	29	1700	0.69	9.75	0.1	0.5	1.0	4.0	13.8	15.1	13.2	12.7	5.7	1.3	1.5	2.0	1.5	1.2	1.2	1.0	1.9	1.2	1.2
1987	10	29	2300	0.78	8.83	0.2	0.4	0.9	4.0	6.8	7.8	10.9	3.0	4.0	0.7	0.4	0.4	0.9	0.8	0.7	0.7	1.2	0.8	2.3
1987	10	30	600	0.73	8.83	0.1	0.3	0.6	2.4	6.1	8.8	13.5	5.8	4.6	1.7	0.6	1.0	0.6	0.8	0.9	0.5	0.3	0.2	0.5
1987	10	30	1100	0.62	9.75	0.3	0.2	0.7	3.1	7.7	26.2	9.5	2.5	2.5	3.2	1.5	0.5	0.8	0.3	0.8	0.6	0.3	0.7	0.9
1987	10	30	1700	0.82	9.75	0.1	0.3	0.3	3.0	6.3	13.3	9.2	5.1	0.7	1.1	0.9	0.4	0.4	0.9	0.6	0.7	0.5	0.8	1.4
1987	10	30	2300	1.73	5.31	0.1	0.1	0.1	0.7	1.1	2.5	1.4	0.5	0.2	0.4	1.4	5.2	11.3	18.6	11.0	5.0	4.4	4.1	3.9
1987	10	31	600	1.49	5.02	0.1	0.1	0.3	0.5	2.1	1.0	1.7	1.1	1.5	2.4	2.3	4.8	8.0	5.8	9.0	7.0	3.6	5.4	6.2
1987	10	31	1100	1.03	5.99	0.1	0.3	0.8	3.2	4.9	2.0	7.0	3.8	2.5	1.1	2.8	15.6	12.7	3.8	3.4	2.3	3.5	1.5	3.7
1987	10	31	1700	0.93	9.75	0.1	0.2	0.3	4.2	11.9	18.8	4.9	3.3	3.4	1.1	0.4	0.8	1.4	2.8	2.3	2.0	2.8	0.9	1.2
1987	10	31	2300	0.83	9.75	0.2	0.1	1.0	6.1	5.0	12.8	6.3	0.6	2.2	1.6	1.4	1.3	2.1	3.2	2.5	4.7	3.1	3.2	5.4
1987	11	1	600	0.82	8.83	0.1	0.5	1.0	4.2	5.9	7.3	11.5	2.7	1.0	0.5	1.0	1.2	0.8	2.6	4.6	4.4	4.0	1.6	1.4
1987	11	1	1100	0.76	9.75	0.4	0.3	0.6	9.3	11.7	16.5	9.3	5.9	1.6	0.9	1.2	0.6	0.5	1.1	0.8	1.1	2.3	2.6	3.5
1987	11	1	1700	0.74	9.75	0.6	1.3	1.1	3.8	7.9	19.0	11.8	7.0	5.9	2.1	1.1	1.1	1.1	1.0	0.9	1.8	2.2	1.0	0.9
1987	11	1	2300	0.81	9.75	1.8	4.0	3.1	4.7	7.3	10.8	7.9	4.0	4.8	4.2	5.0	0.5	0.7	2.4	1.9	1.8	2.7	2.4	3.1
1987	11	2	600	0.78	8.83	0.8	10.2	6.1	4.4	3.4	9.9	17.7	8.8	5.2	2.7	3.8	2.2	2.2	1.9	0.9	0.8	0.7	1.3	1.5
1987	11	2	1100	0.88	14.22	0.4	6.3	11.6	10.6	10.8	5.5	7.9	7.5	10.2	3.0	0.8	3.4	3.3	1.8	1.5	1.1	1.1	1.8	0.7
1987	11	2	1700	0.96	8.83	0.2	4.3	7.8	8.6	7.0	3.5	12.9	4.8	4.2	2.4	2.8	2.0	4.2	1.4	1.9	1.6	1.4	2.0	1.4
1987	11	2	2300	1.11	14.22	0.2	1.6	8.3	5.1	2.8	8.0	4.8	4.3	2.7	2.7	2.6	2.7	0.9	2.1	2.6	1.8	2.8	1.4	2.7
1987	11	3	600	1.00	12.34	0.1	0.6	2.6	9.8	2.0	1.8	6.7	7.3	3.8	2.3	1.3	8.3	7.1	9.5	3.0	6.7	3.2	3.6	1.7
1987	11	3	1100	1.05	5.83	0.1	1.3	5.7	3.4	3.7	6.5	6.0	8.3	4.4	6.6	1.5	7.0	11.6	6.8	3.0	3.8	4.0	2.8	2.3
1987	11	3	1700	0.93	5.31	0.1	0.3	2.5	1.8	1.7	5.7	6.9	4.3	7.4	7.9	8.6	3.7	4.1	9.1	5.1	3.5	2.4	2.0	2.1
1987	11	3	2300	0.93	9.75	0.3	0.4	2.3	3.8	1.3	8.4	3.5	8.4	6.6	3.3	4.7	4.8	6.0	2.6	3.9	4.3	1.5	1.2	0.8
1987	11	4	600	0.93	6.87	0.1	0.1	0.5	3.0	3.0	6.8	6.2	4.7	9.5	10.6	6.1	9.6	3.3	1.3	3.8	1.6	0.8	0.4	0.9
1987	11	4	1100	0.87	7.42	0.1	0.2	0.7	2.4	5.2	8.4	5.2	1.8	10.2	6.1	5.5	6.0	2.2	2.8	3.0	1.4	1.0	1.8	1.0
1987	11	4	1700	0.91	7.42	0.0	0.3	0.3	1.5	1.5	4.4	4.8	7.2	9.8	6.7	3.8	2.5	1.0	1.0	1.3	1.2	0.7	2.1	0.9
1987	11	4	2300	1.14	3.79	0.1	0.3	0.3	0.7	1.7	3.5	3.8	4.1	4.6	2.8	3.9	0.6	0.5	1.2	0.9	1.5	1.5	1.8	4.3
1987	11	5	600	1.13	5.02	0.0	0.1	0.3	0.2	1.3	2.6	4.2	4.9	2.8	4.2	1.6	1.6	1.8	3.5	10.6	6.6	9.4	7.1	4.7
1987	11	5	1100	0.93	7.42	0.1	0.1	0.4	0.8	0.5	4.1	3.9	3.6	6.3	3.3	2.1	4.3	4.6	2.4	4.8	2.8	4.5	4.1	3.1
1987	11	5	1700	0.79	8.83	0.1	0.5	0.3	0.6	1.3	6.4	14.6	5.9	6.5	3.4	2.8	2.2	1.1	1.0	0.4	1.3	1.0	2.3	1.4
1987	11	5	2300	1.04	4.53	0.0	0.2	0.2	1.1	1.0	1.0	2.9	1.9	0.7	1.2	1.6	1.9	2.5	3.3	6.0	6.5	12.4	3.6	2.5
1987	11	6	600	0.99	4.32	0.2	0.1	0.5	0.4	0.2	0.6	0.8	0.3	0.2	0.2	0.5	1.3	2.5	5.6	0.6	1.3	3.0	10.1	7.7
1987	11	6	1100	0.83	4.13	0.1	0.2	0.3	0.7	0.6	0.2	0.4	0.3	0.3	0.8	1.5	1.9	2.7	7.9	5.2	5.5	8.5	6.8	9.4
1987	11	6	1700	0.78	2.55	0.2	0.3	0.6	0.7	0.6	0.3	0.3	0.4	0.8	0.8	0.4	0.6	1.4	1.0	3.5	0.6	3.0	2.0	2.4
1987	11	6	2300	0.72	3.95	0.2	0.2	0.6	0.7	0.9	1.1	0.5	0.6	0.8	0.4	0.2	1.7	2.3	3.0	2.5	10.5	5.9	4.7	9.0


Profile Line 20
1 JUL 86 1500
Elevation, FT
20
15
10
5
0
-5
-10
-15
-20
-25
-30
1000
2000
3000
4000
5000
6000
7000
Distance, FT


Profile Line 31
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-5
-10
-15
Elevation, FT
250
500
750
1000
1250
1500
Distance, FT

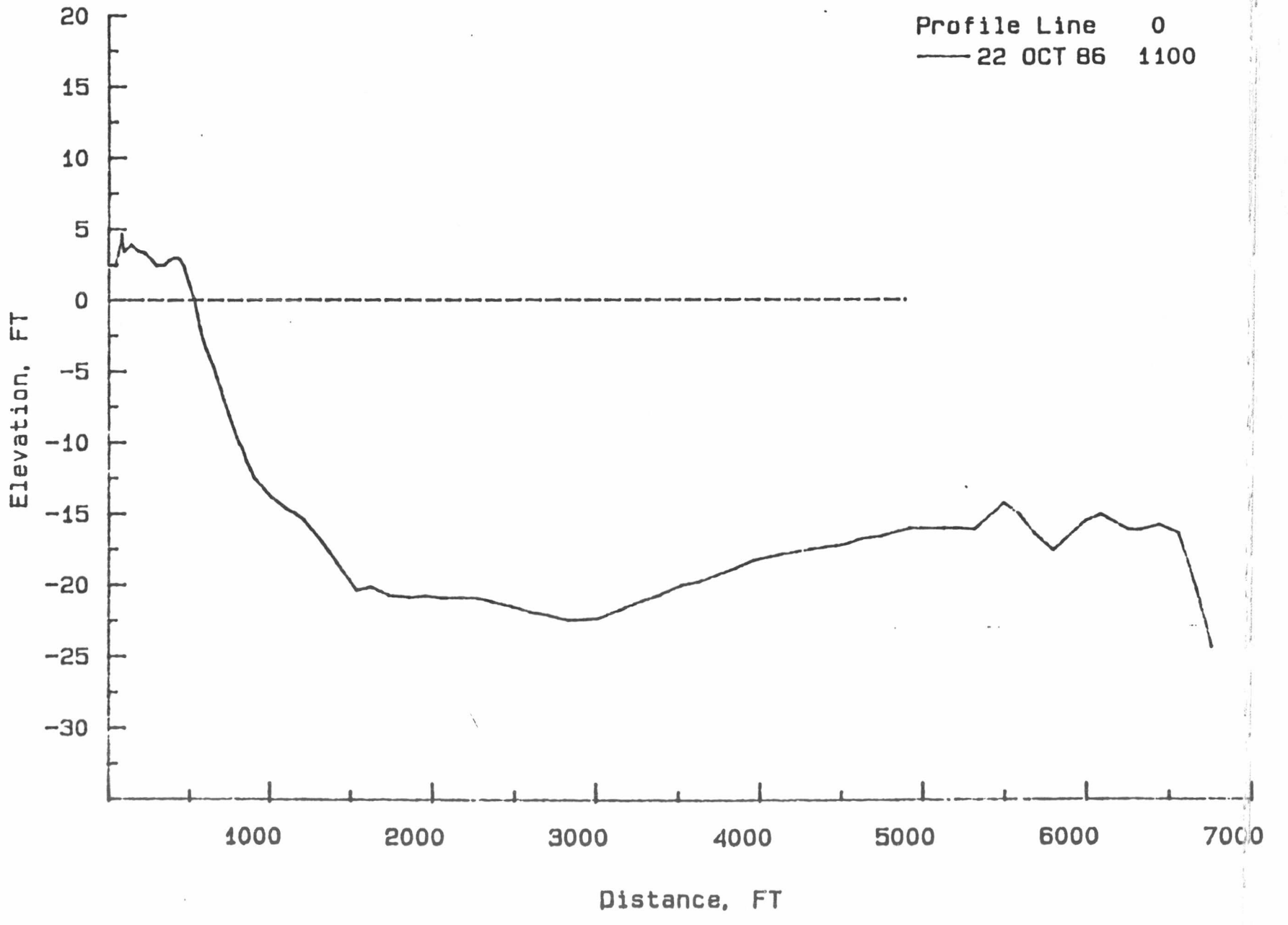

Profile Line 32
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Elevation, FT
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Distance, FT

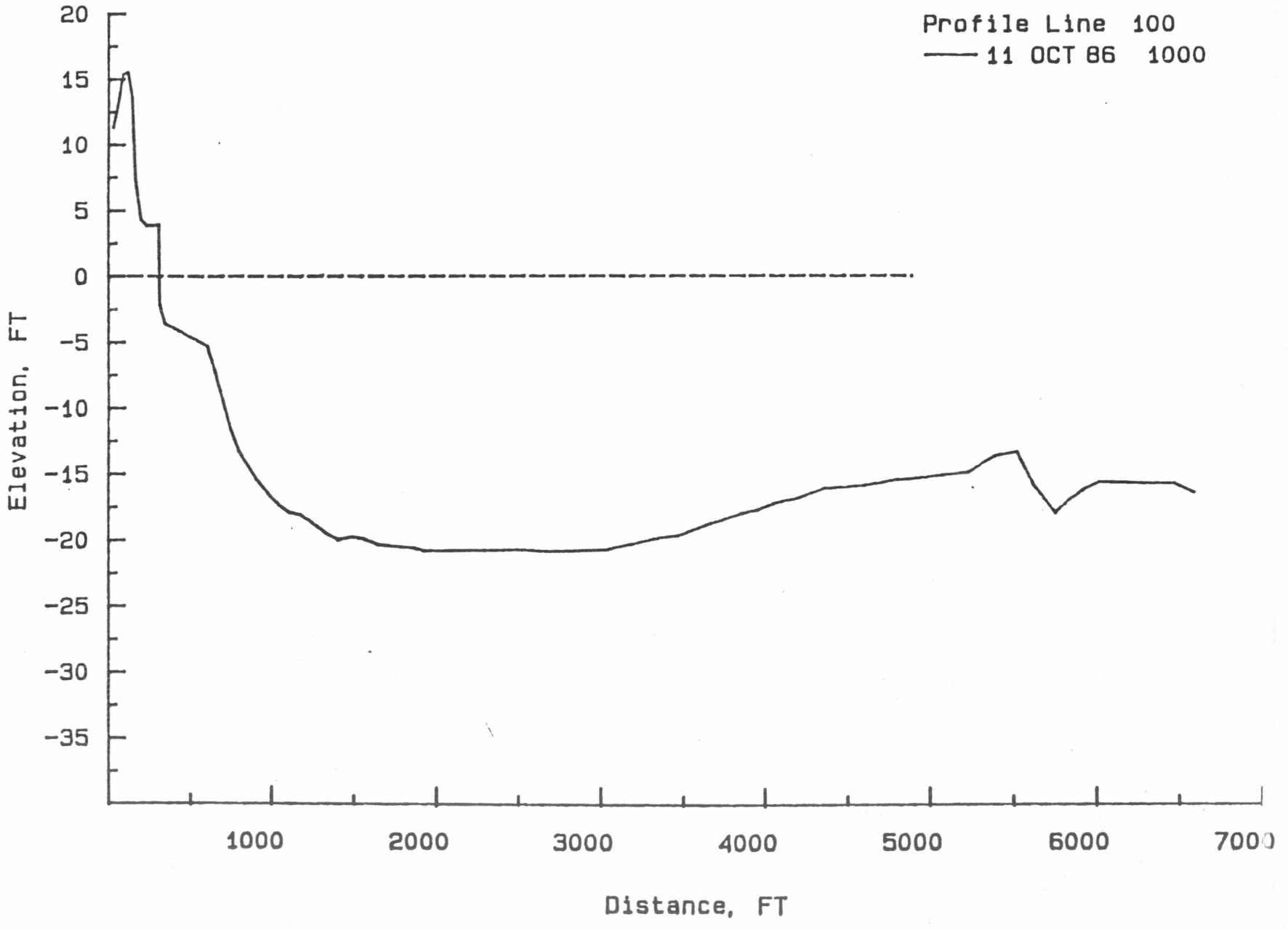

Profile Line 33
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Elevation, FT
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1250
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Distance, FT

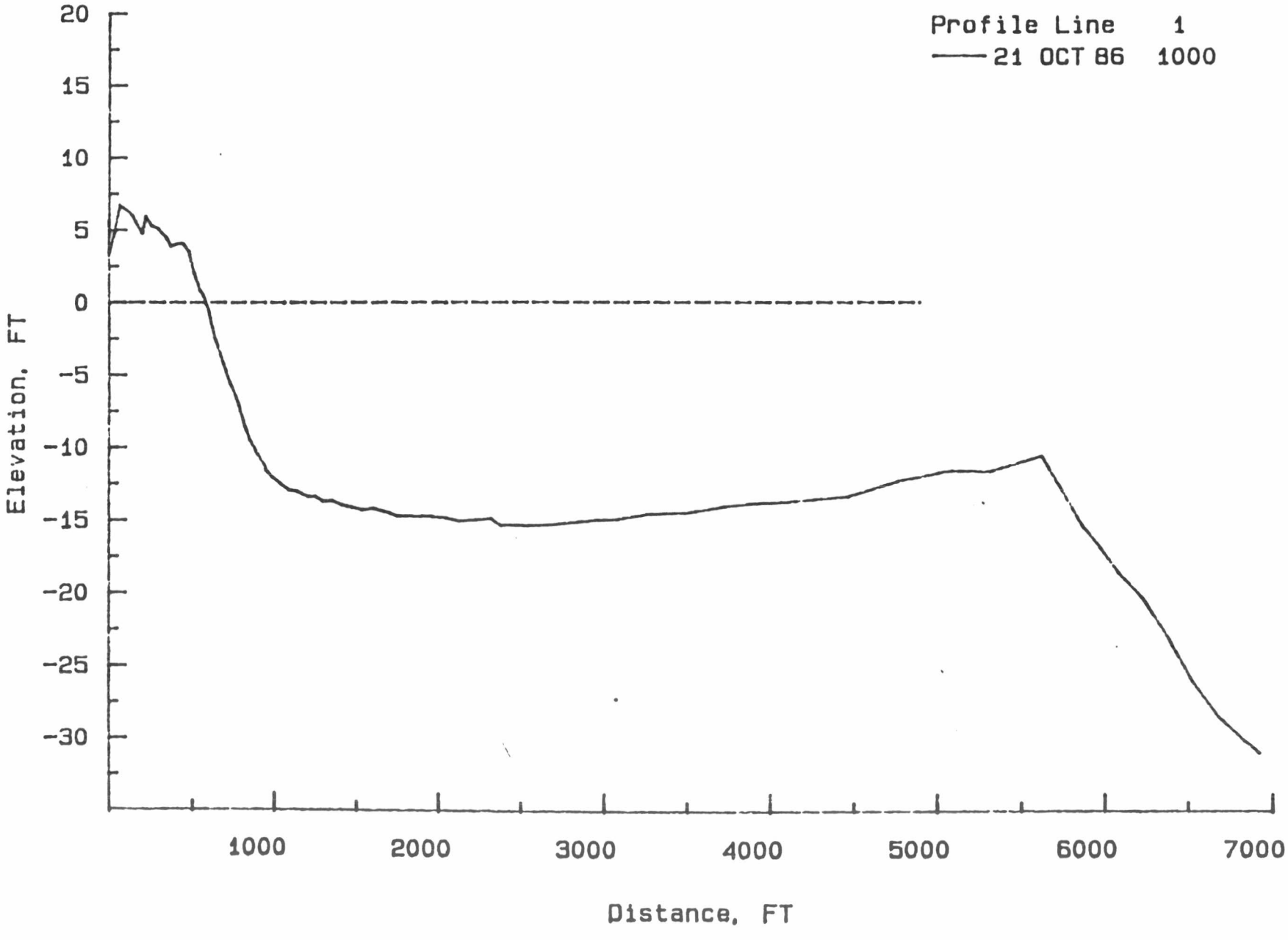

Profile Line 34
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Elevation, FT
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1250
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Distance, FT

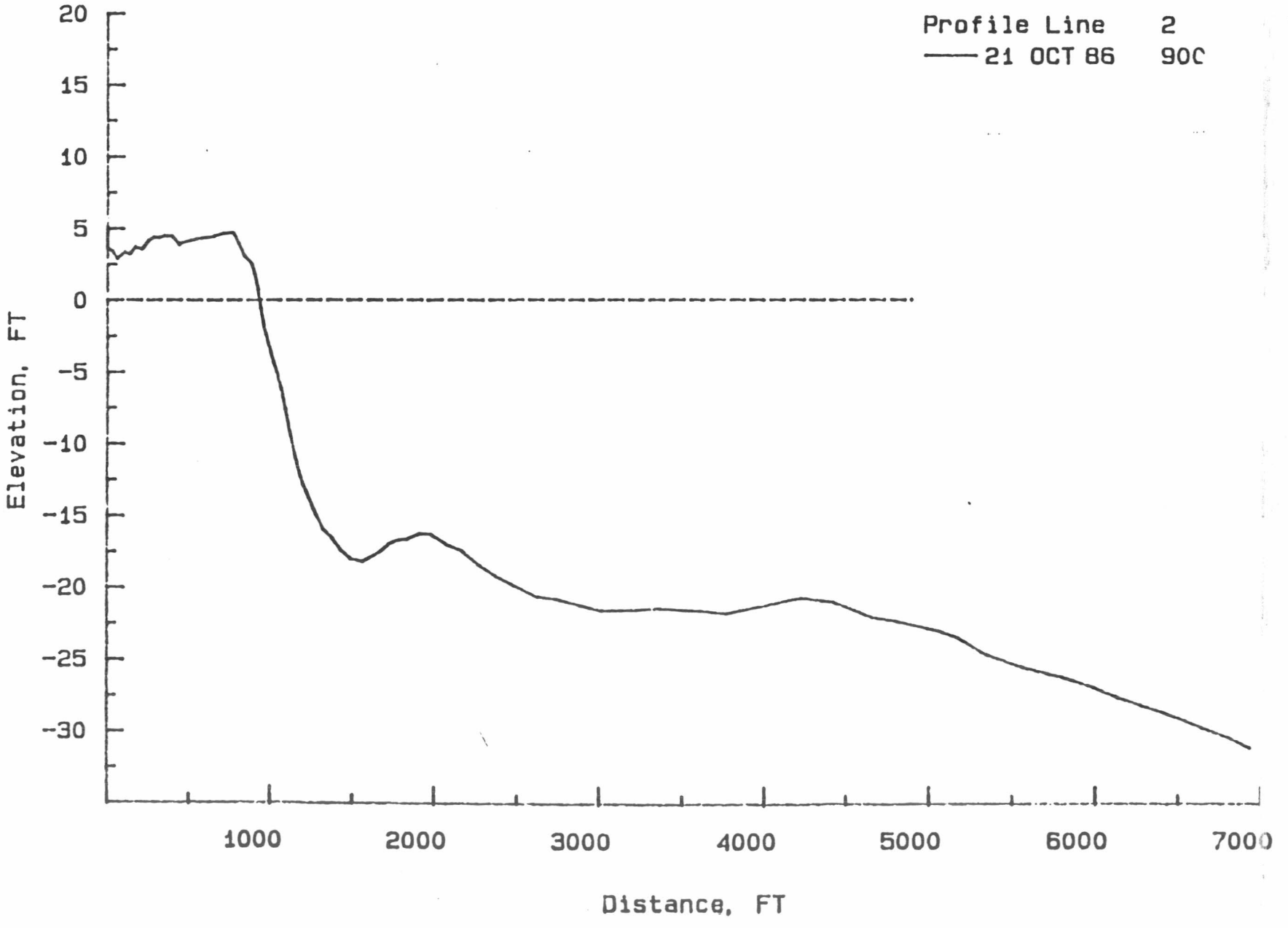
APPENDIX B

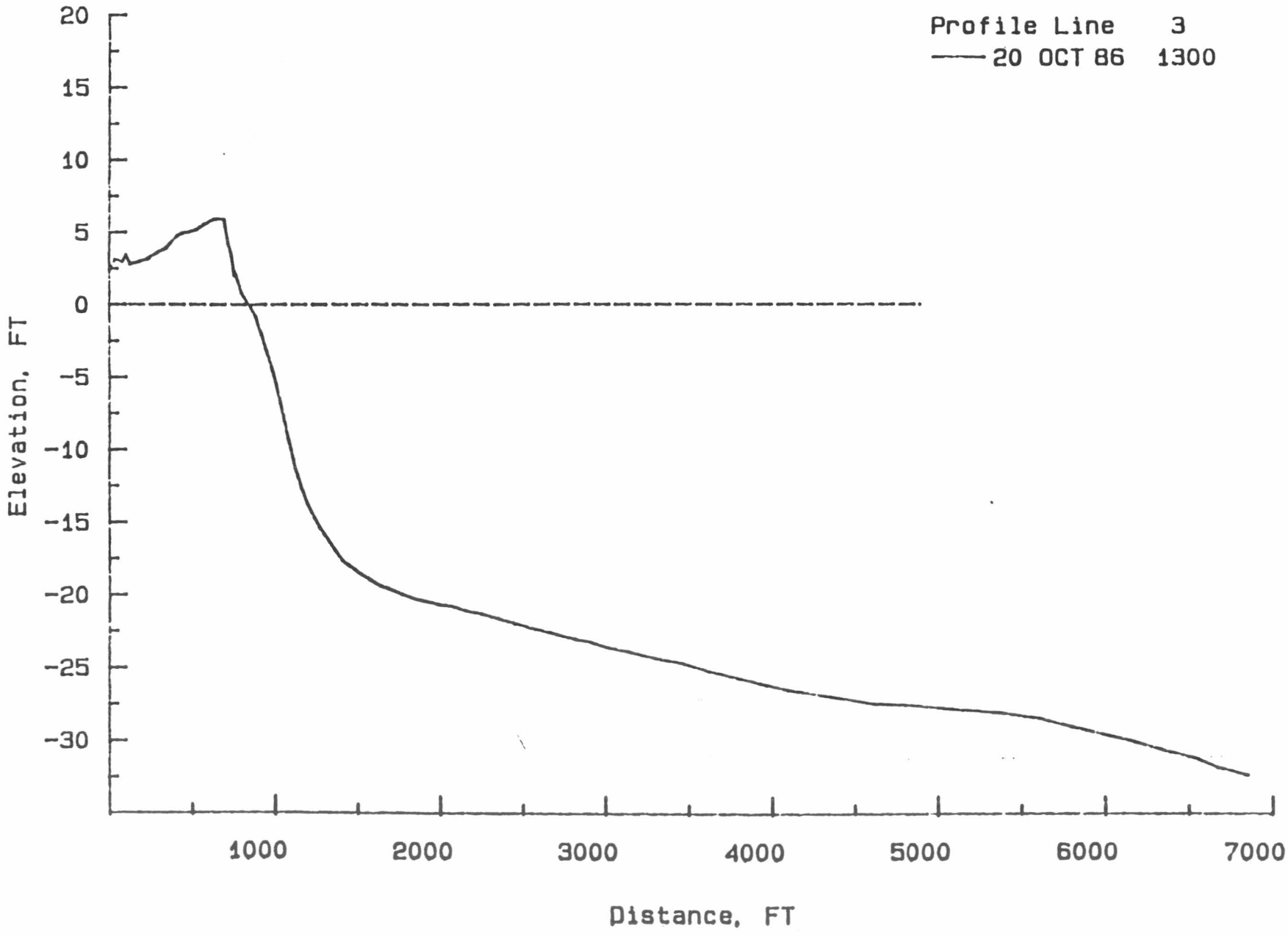
PROFILE SURVEY - OCTOBER 1986

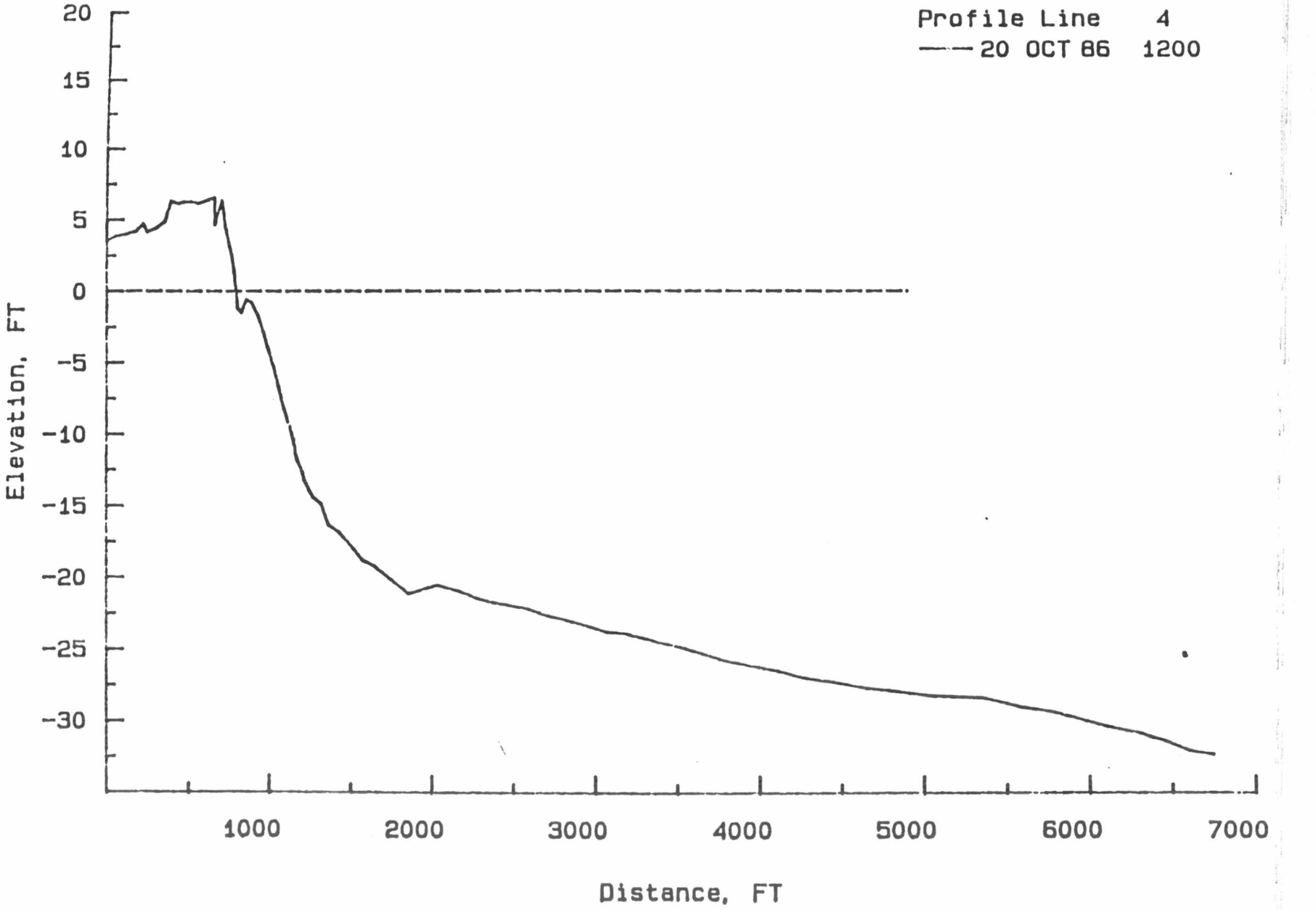

Profile Line 0
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15
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Elevation, FT
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6000
7000
Distance, FT

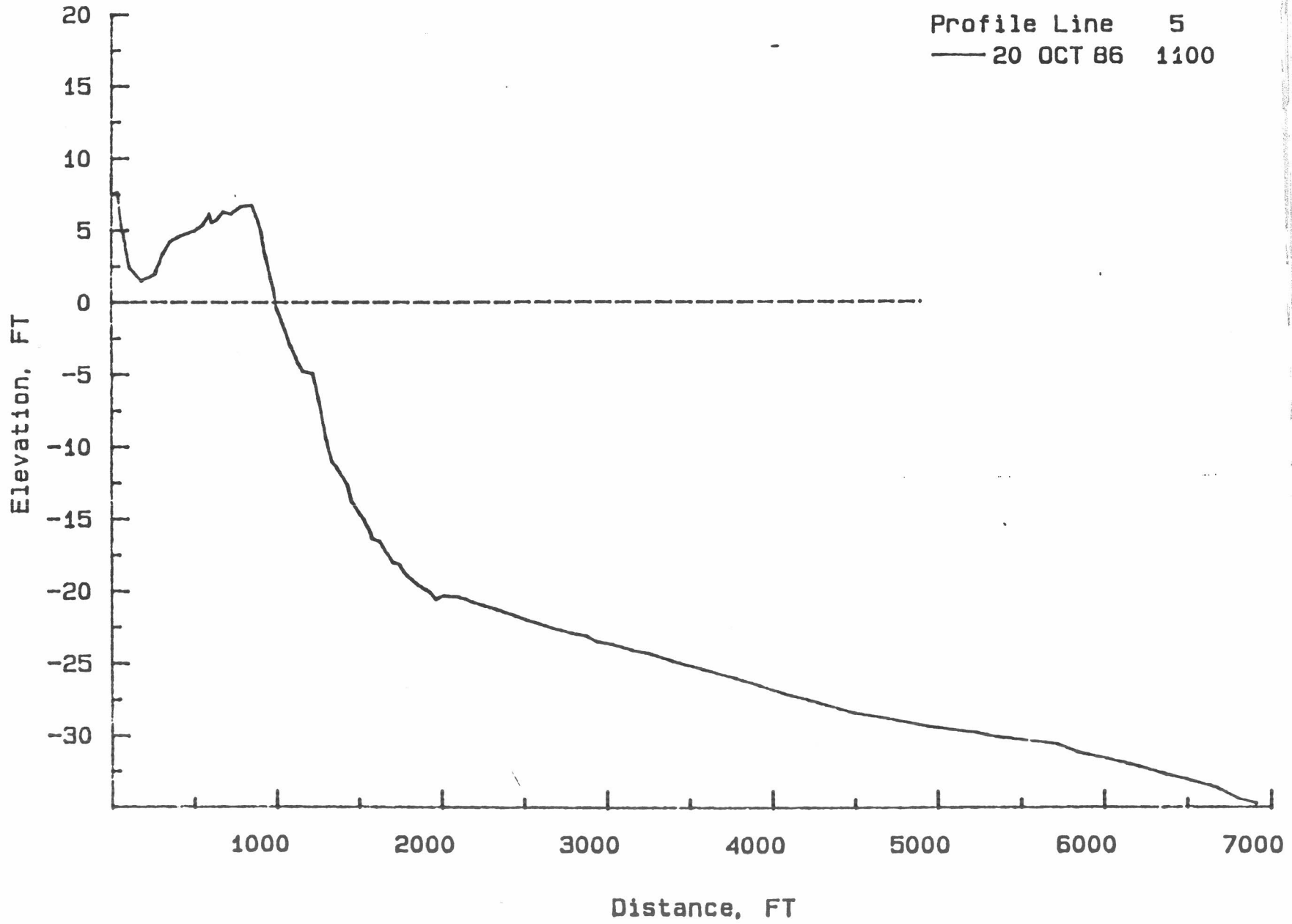

Profile Line 100
11 OCT 86 1000
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Elevation, FT
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7000
Distance, FT

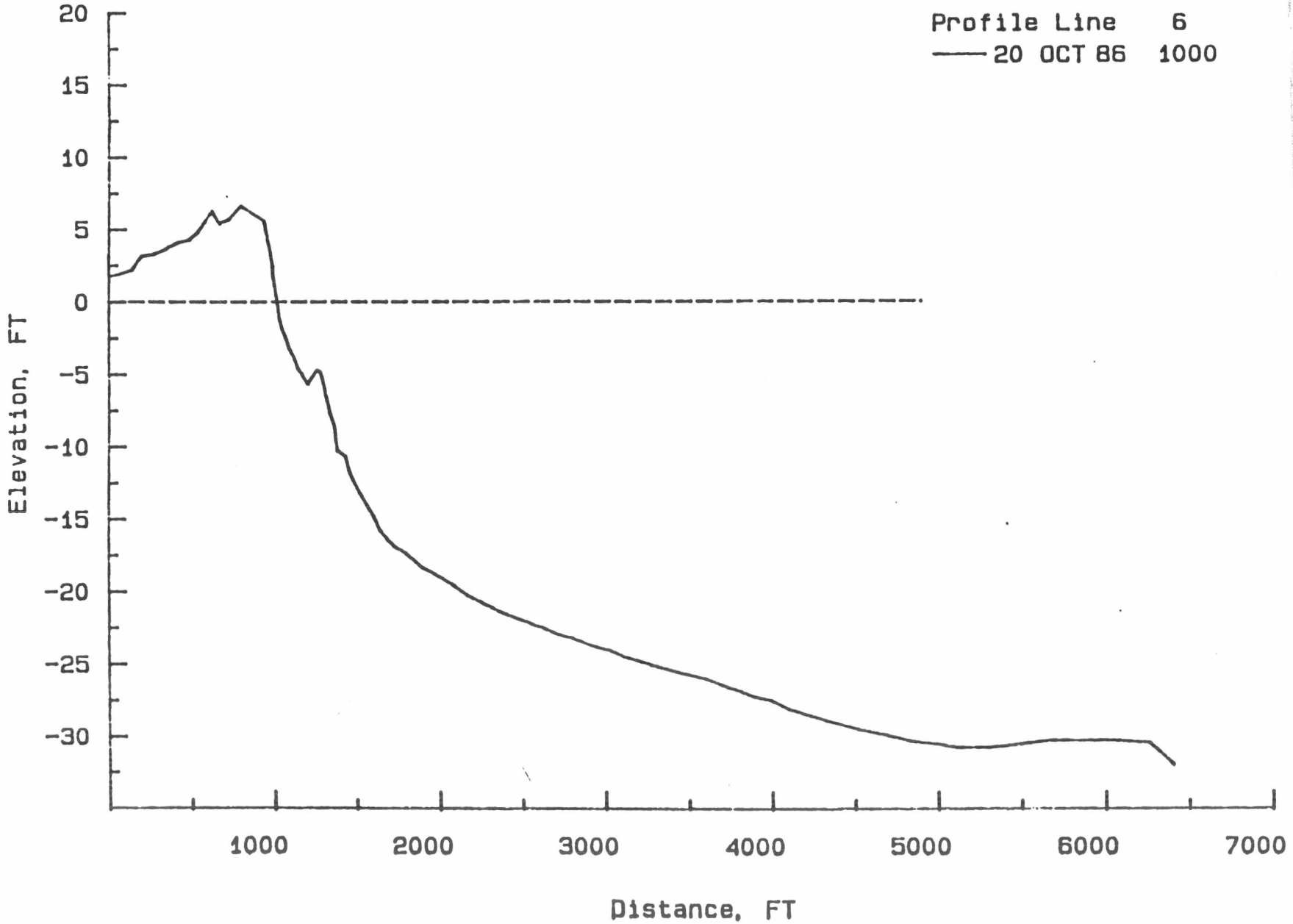

Profile Line 1
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Elevation, FT
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Distance, FT

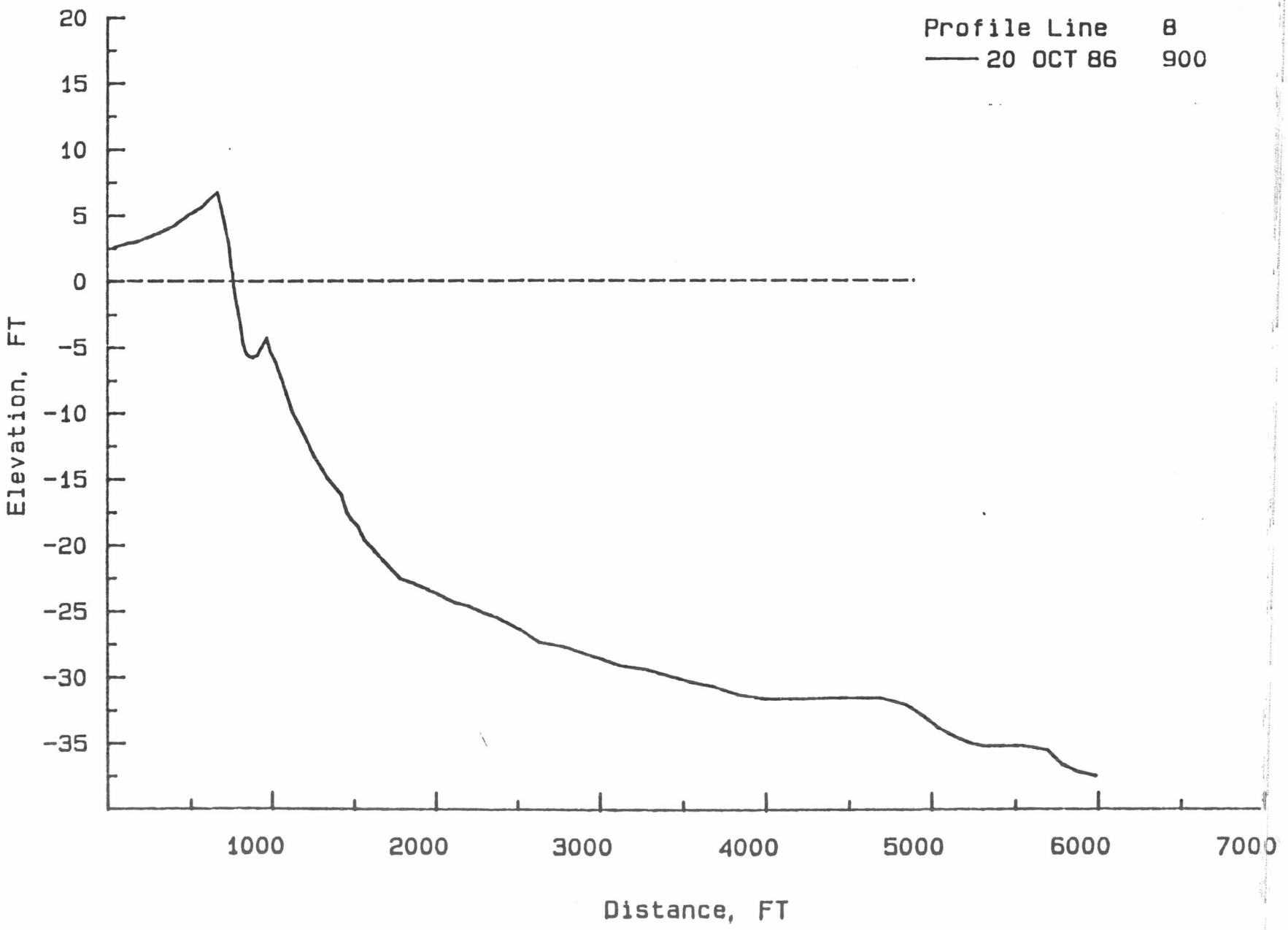

Profile Line 2
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Elevation, FT
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Distance, FT

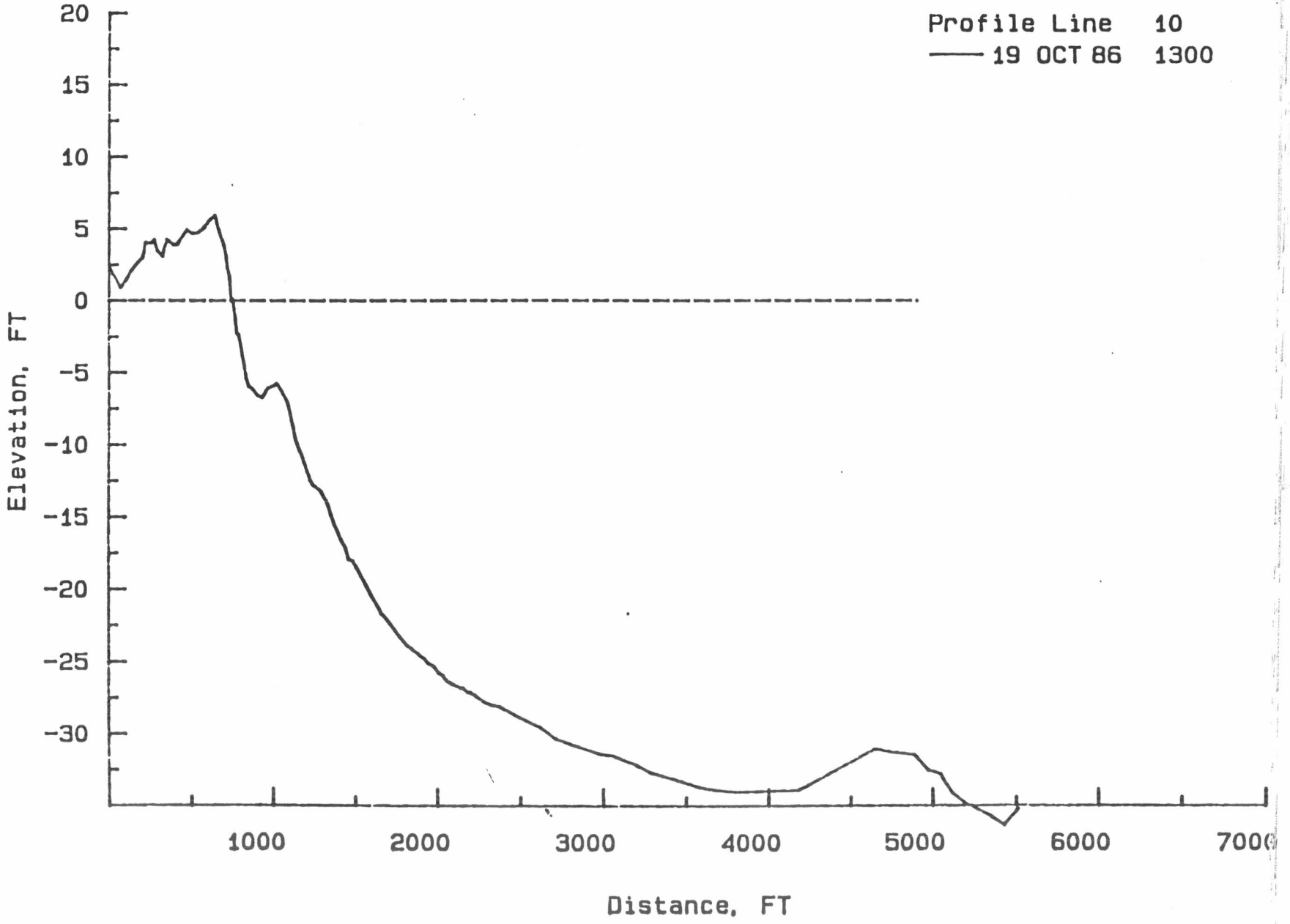

Profile Line 3
20 OCT 86 1300
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Elevation, FT
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4000
5000
6000
7000
Distance, FT

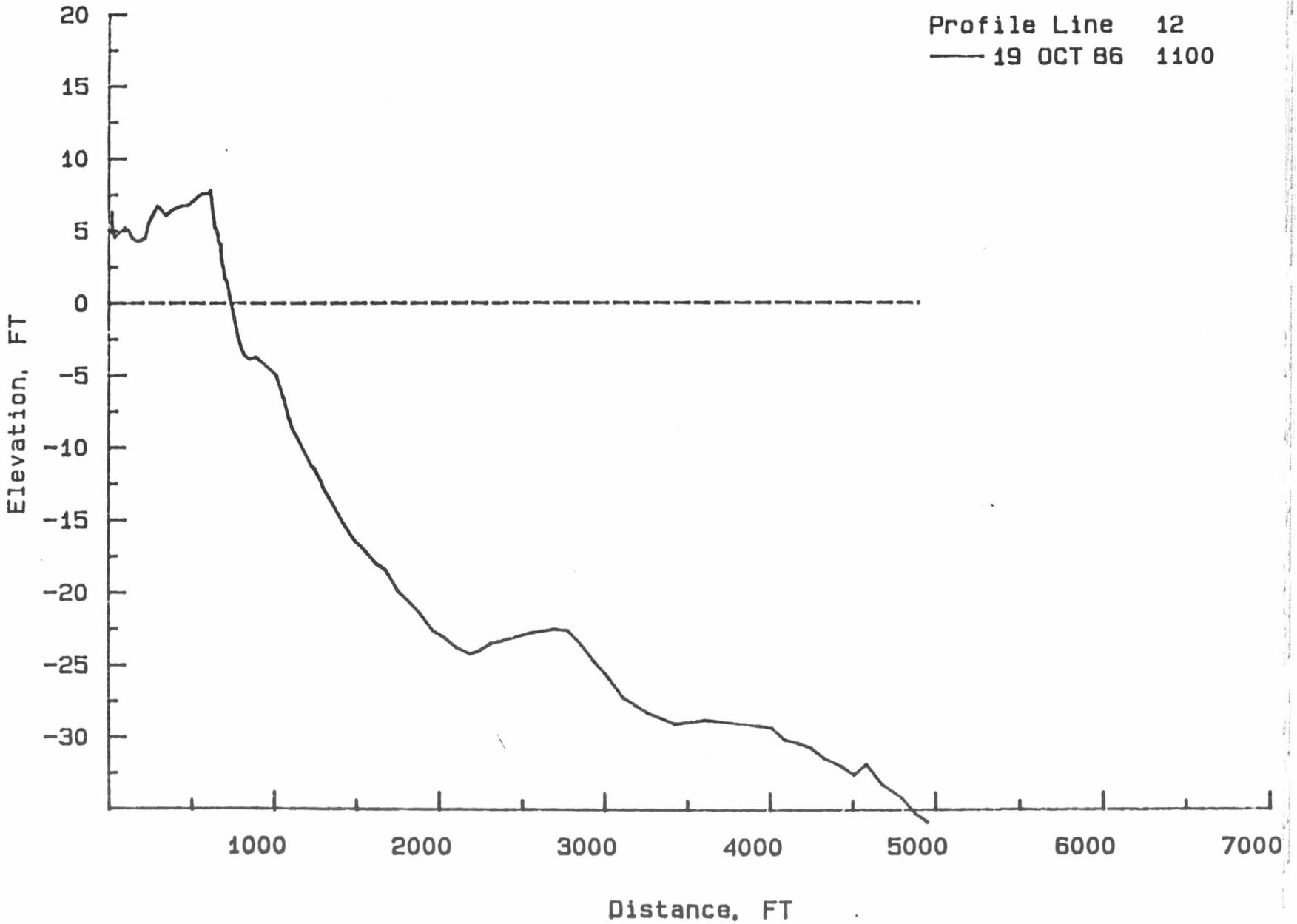

Profile Line 4
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Elevation, FT
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7000
Distance, FT

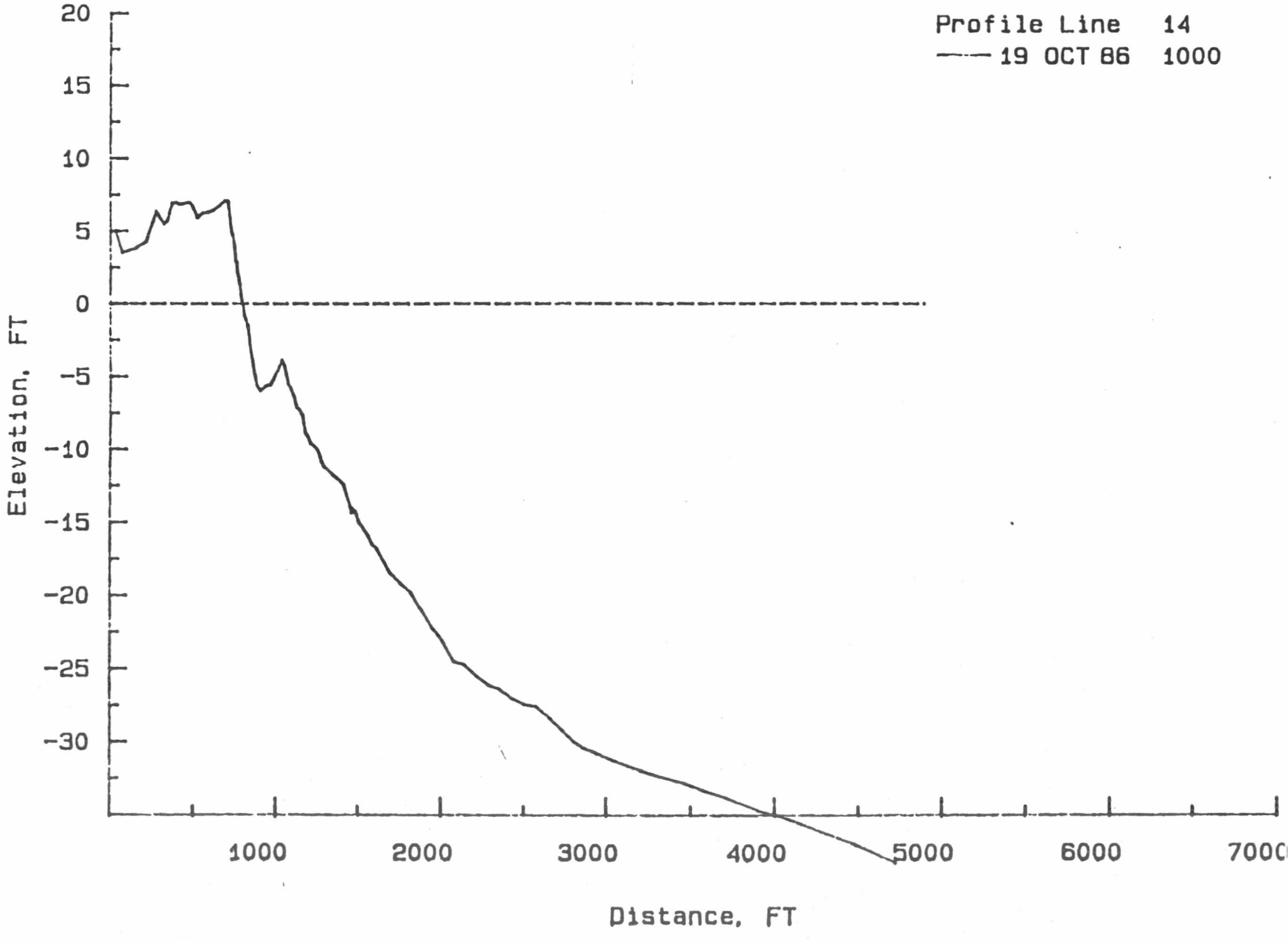

Profile Line 5
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Elevation, FT
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Distance, FT

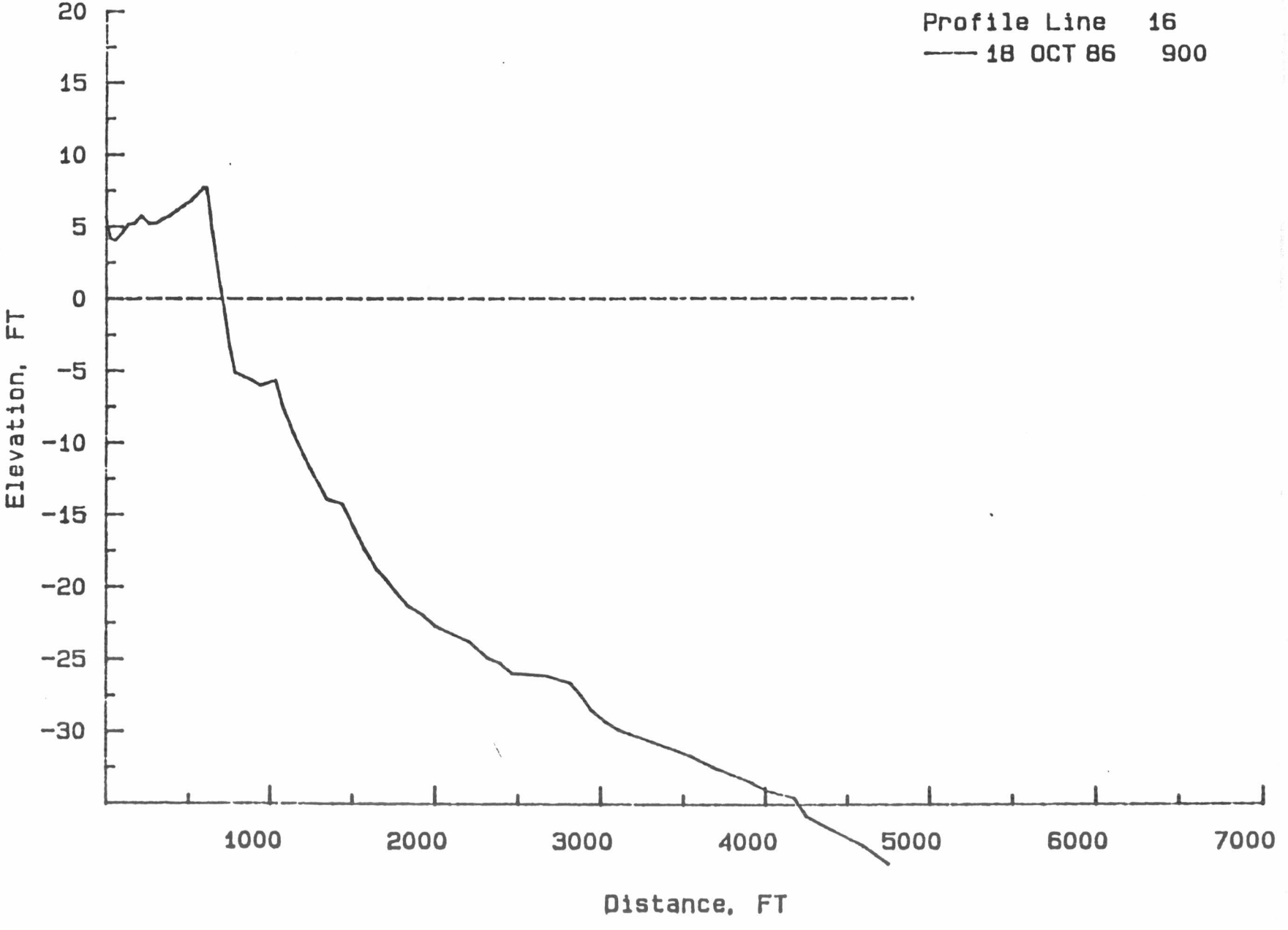

Profile Line 6
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Elevation, FT
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Distance, FT

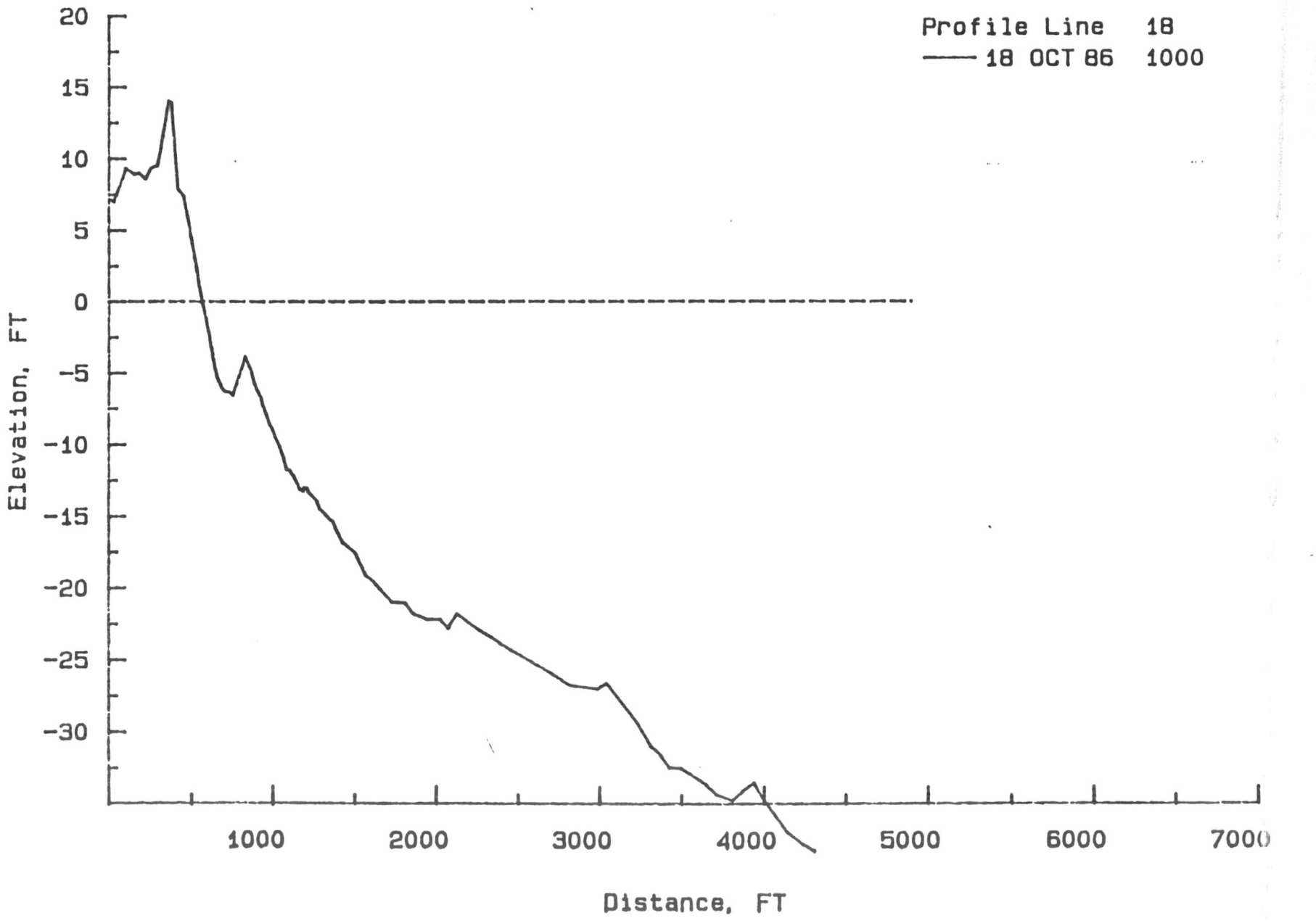

Profile Line 8
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Distance, FT

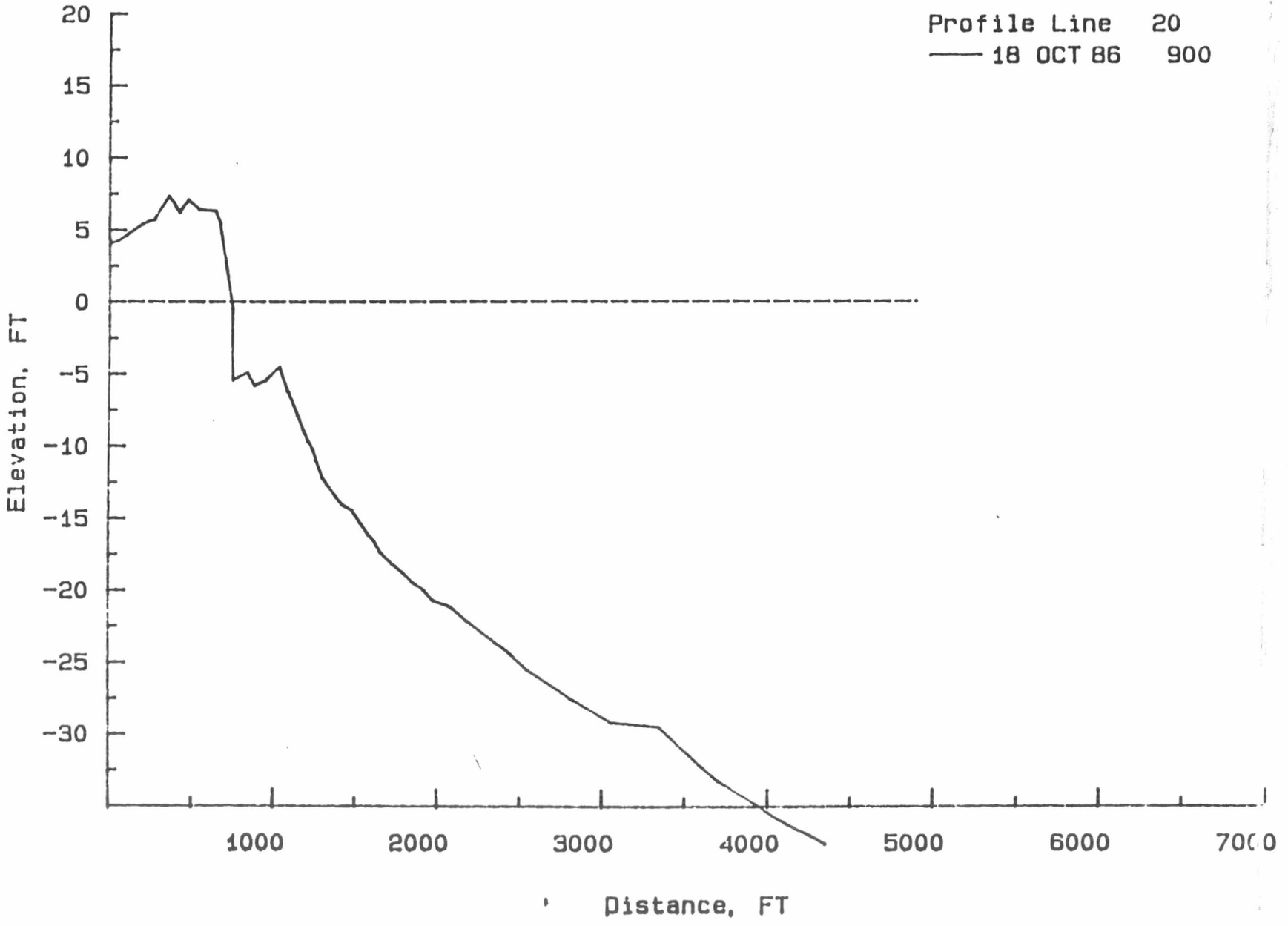

Profile Line 10
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Elevation, FT
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2000
3000
4000
5000
6000
7000
Distance, FT


Profile Line 12
19 OCT 86 1100
20
15
10
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Elevation, FT
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Distance, FT

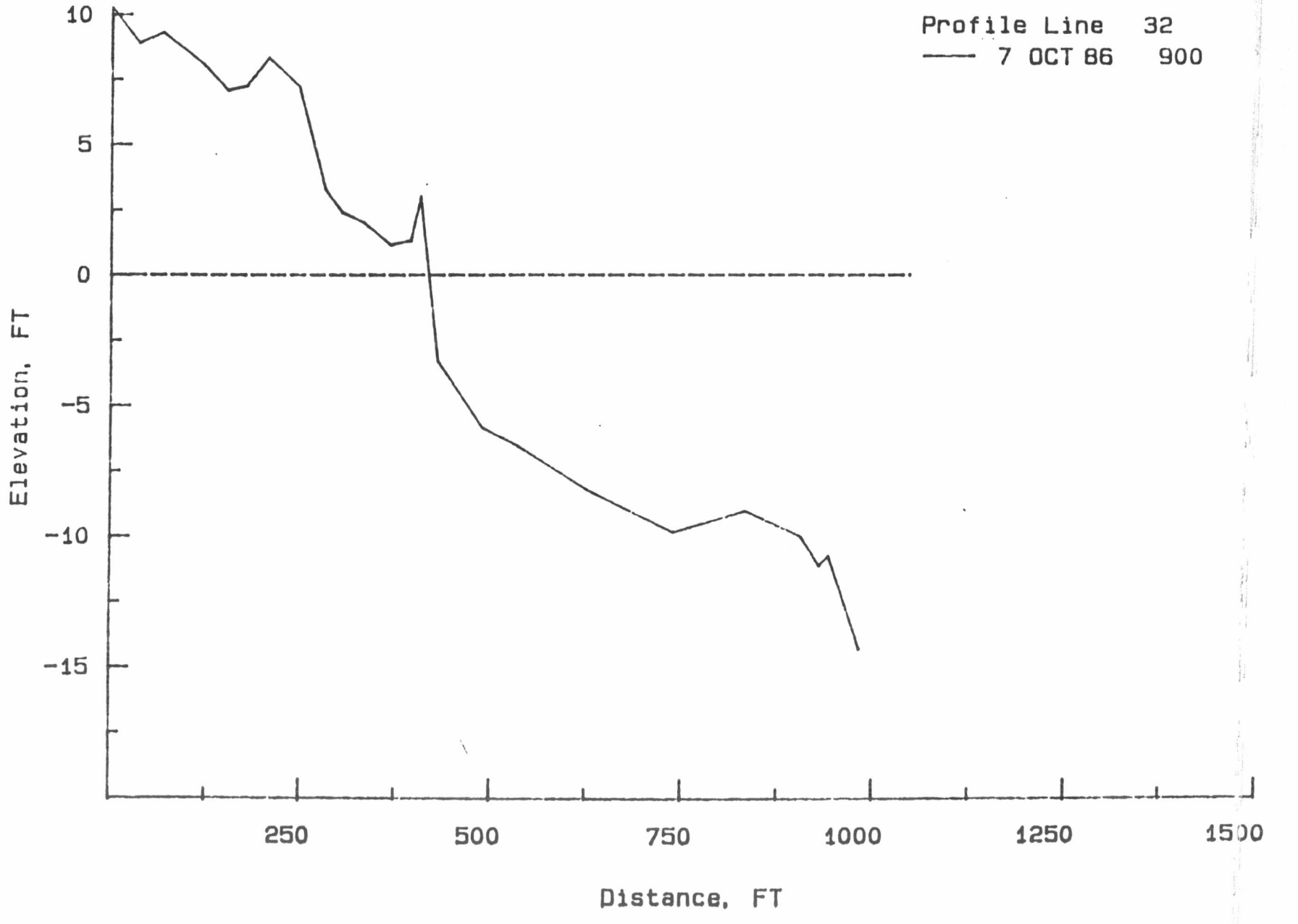

Profile Line 14
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Elevation, FT
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6000
7000
Distance, FT

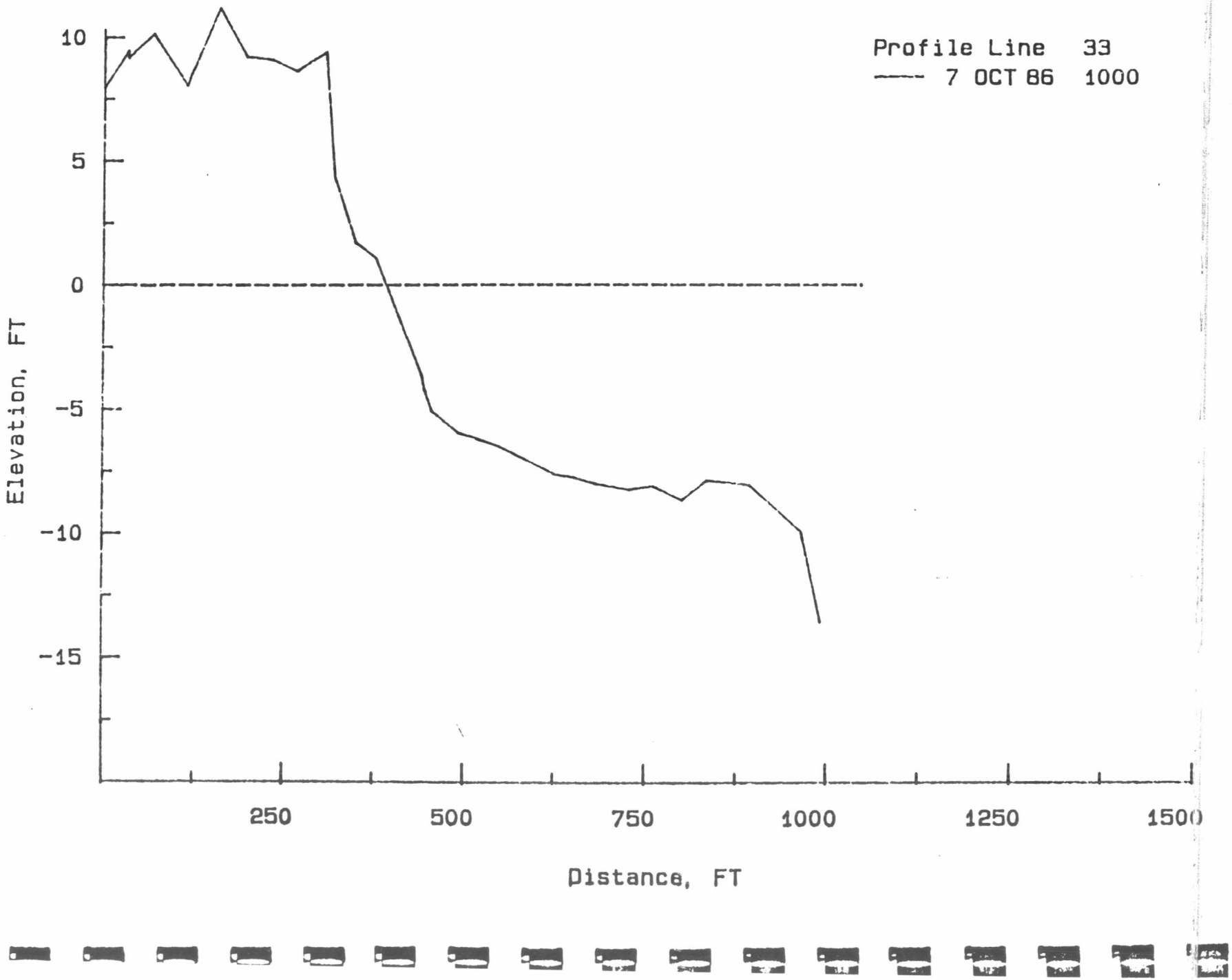

Profile Line 16
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Elevation, FT
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7000
Distance, FT

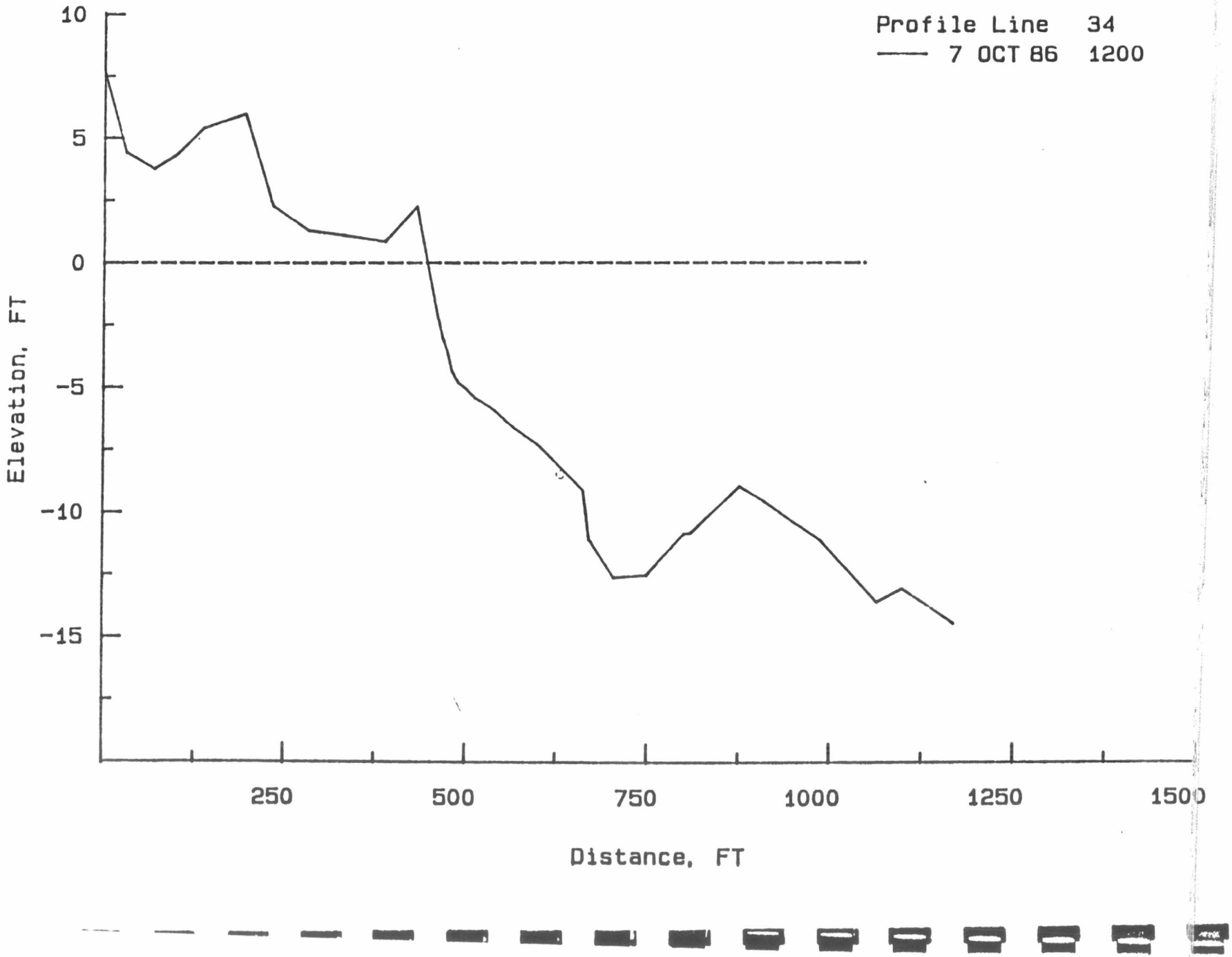

Profile Line 18
18 OCT 86 1000
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Elevation, FT
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2000
3000
4000
5000
6000
7000
Distance, FT


Profile Line 20
18 OCT 86 900
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Elevation, FT
1000
2000
3000
4000
5000
6000
7000
Distance, FT


Profile Line 31
7 OCT 86 1200
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
1500
Distance, FT


Profile Line 32
7 OCT 86 900
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
1500
Distance, FT


Profile Line 33
7 OCT 86 1000
10
5
0
-5
-10
-15
Elevation, FT
250
500
750
1000
1250
1500
Distance, FT


Profile Line 34
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-5
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Elevation, FT
250
500
750
1000
1250
1500
Distance, FT

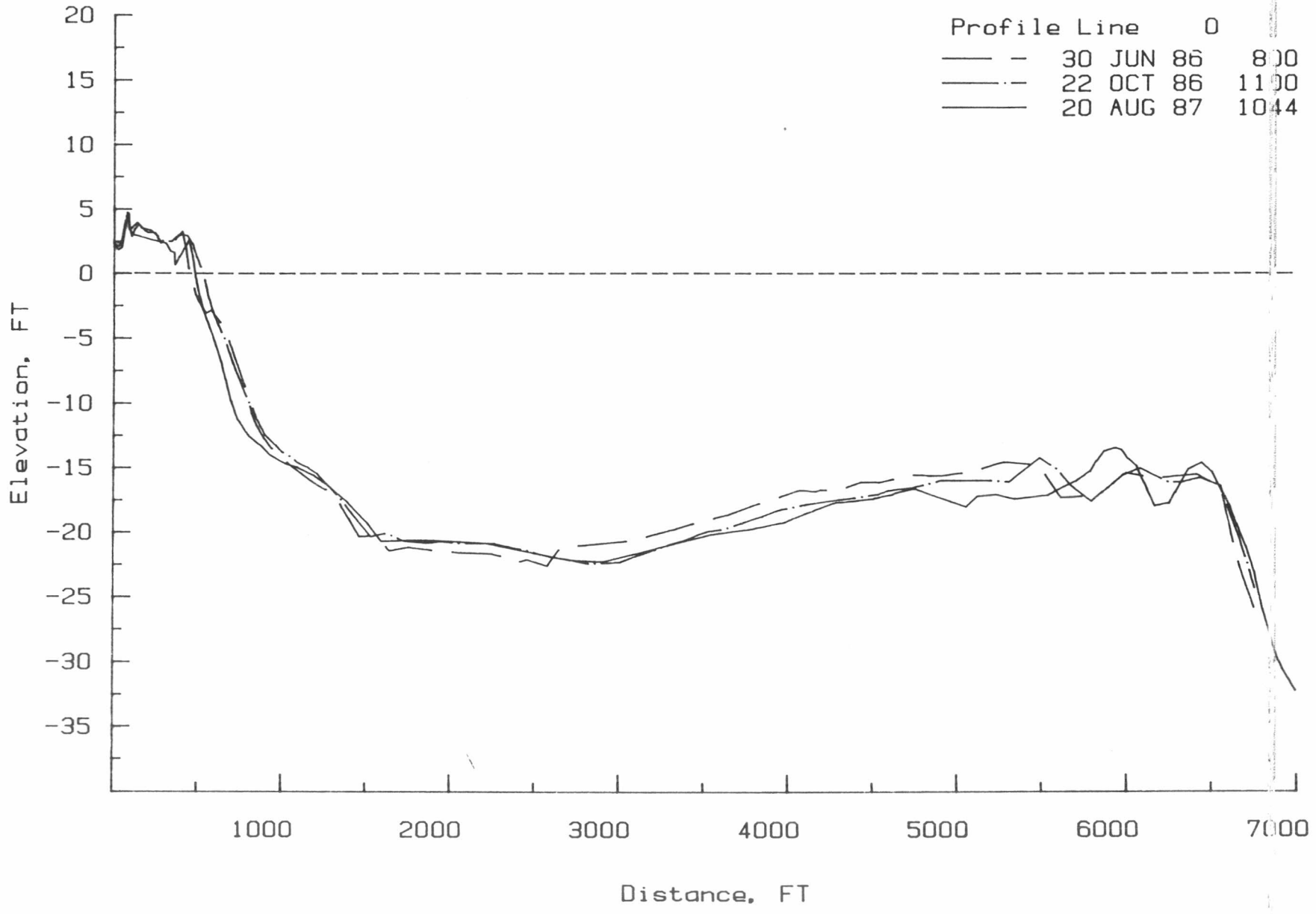
APPENDIX C

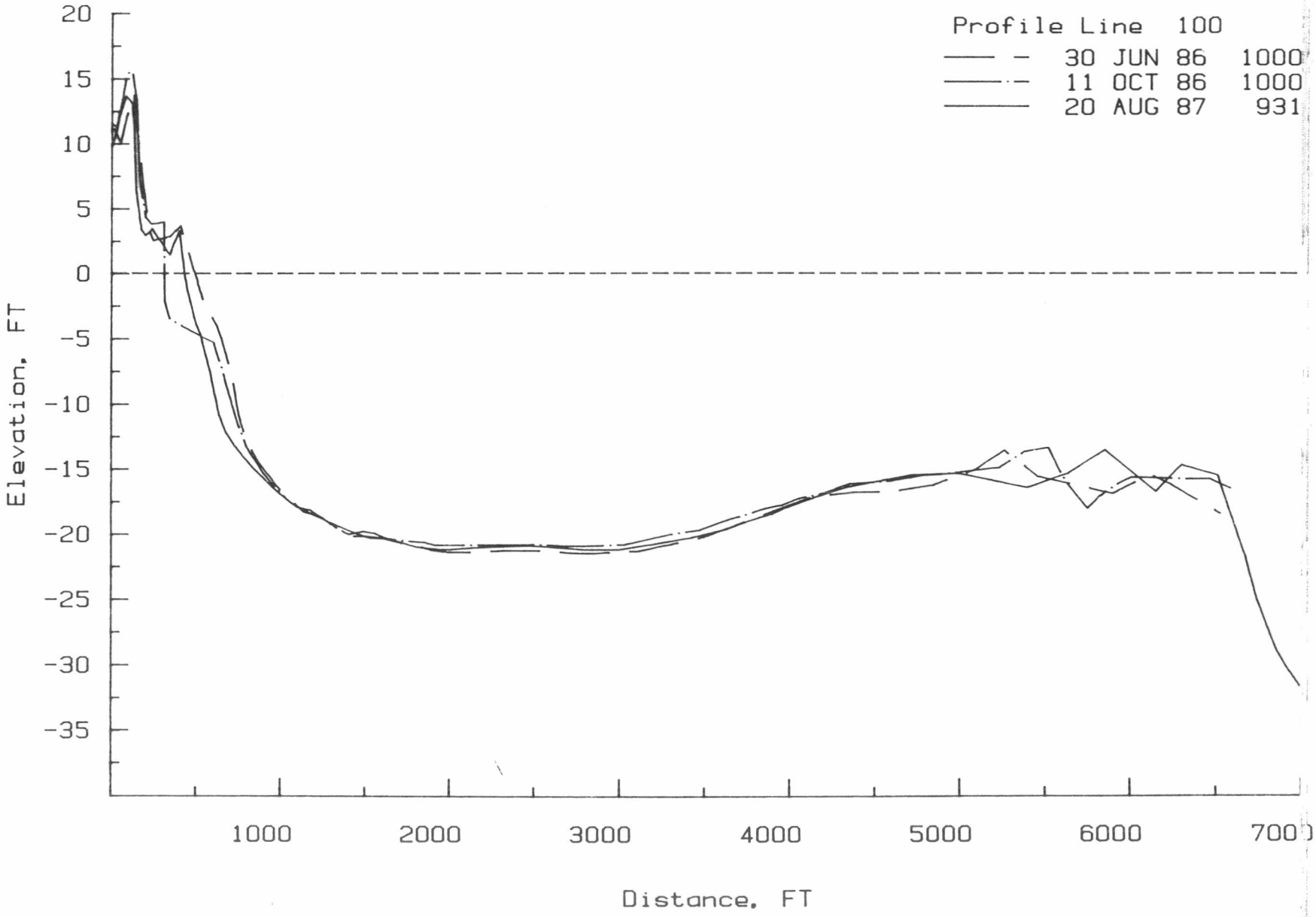
PROFILE SURVEYS

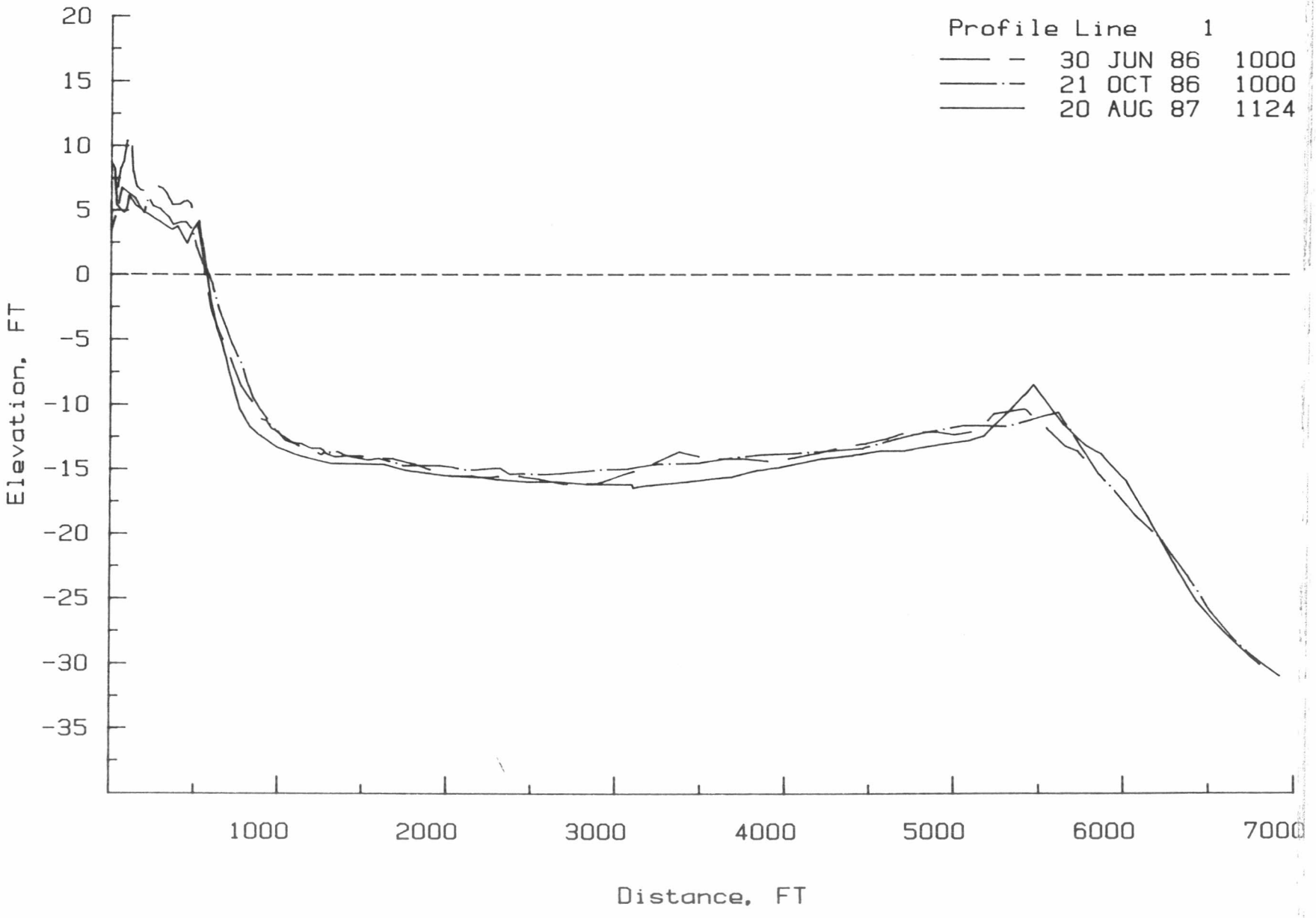
MAY 1986

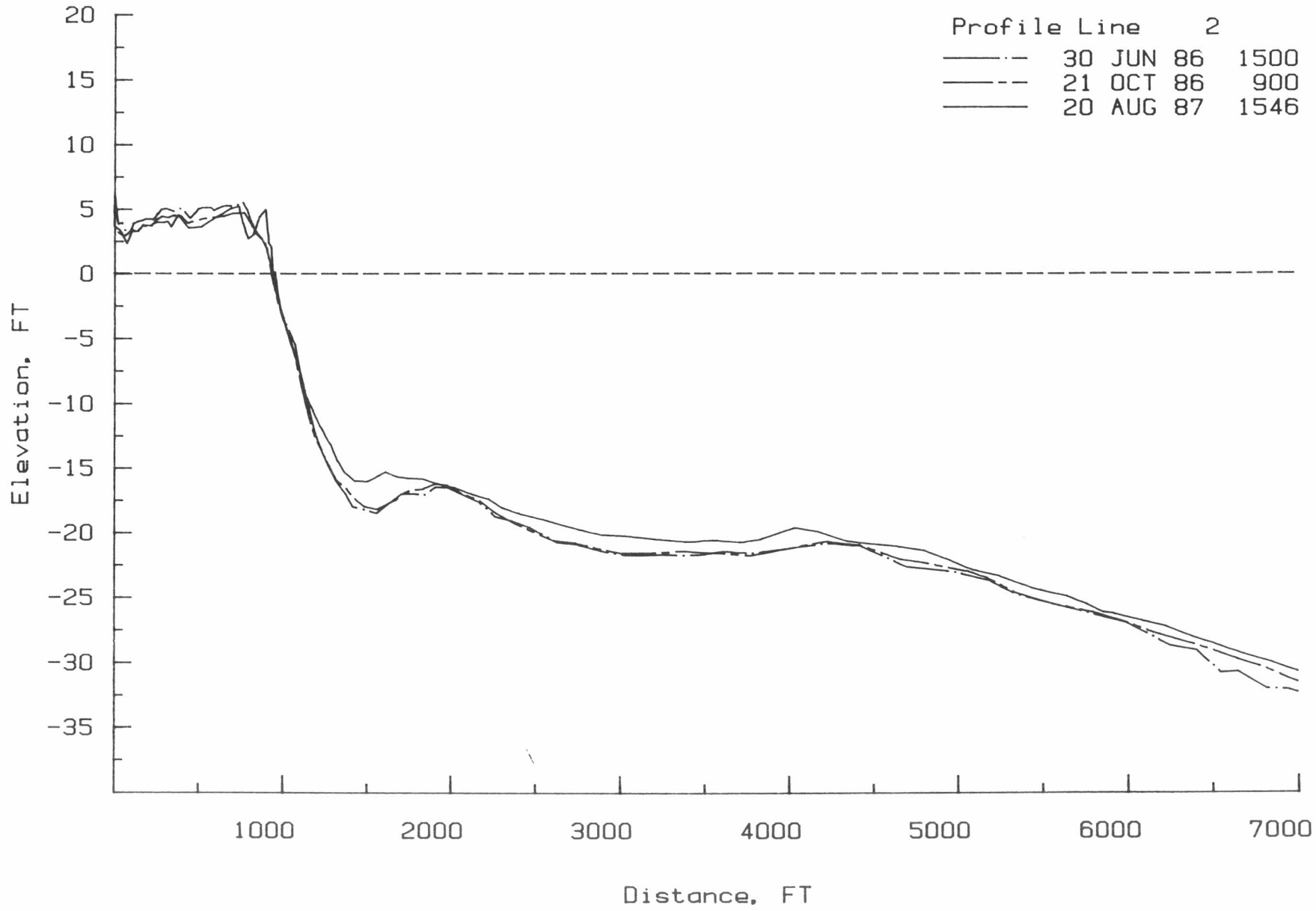
OCT 1986

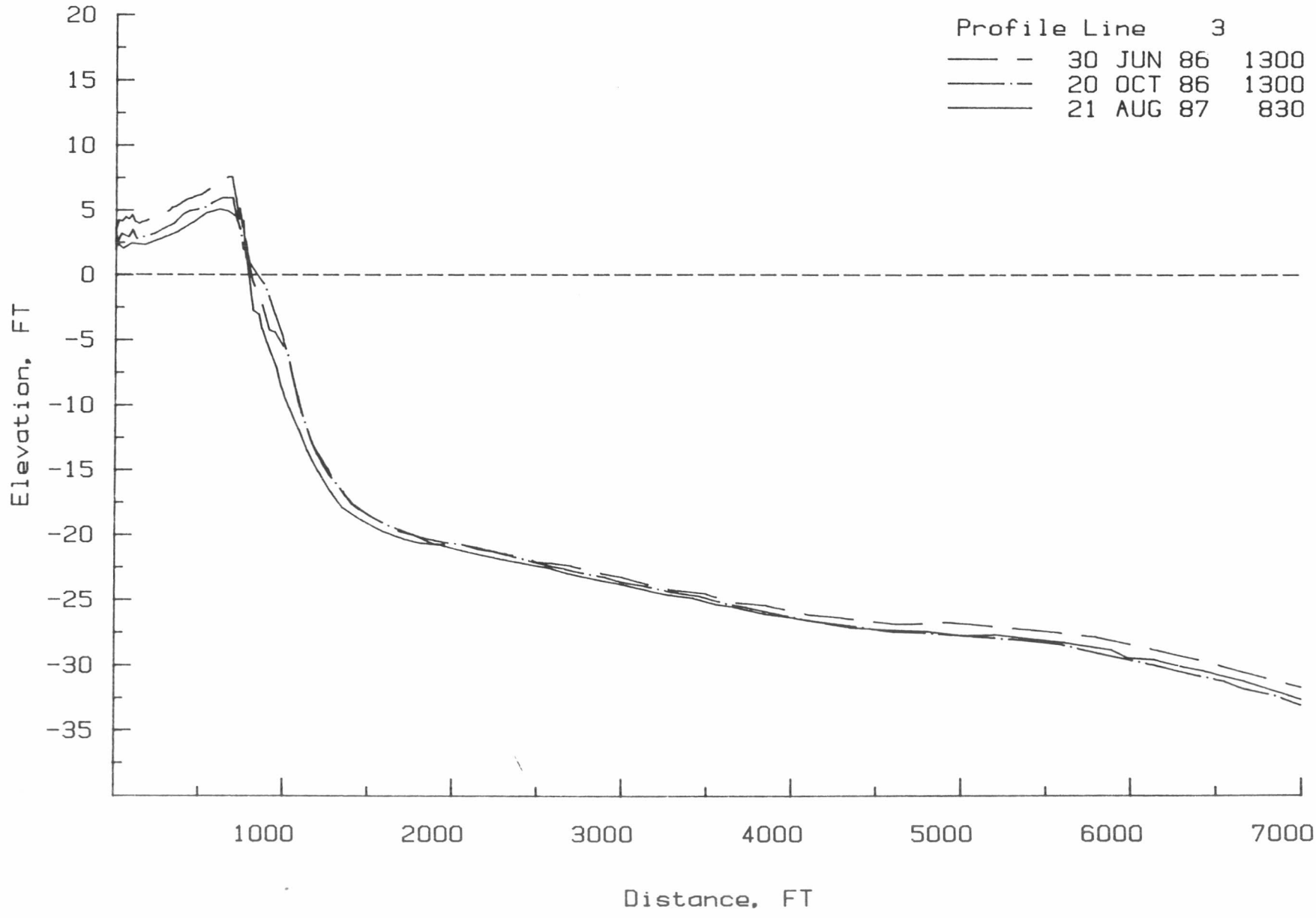
AUGUST 1987

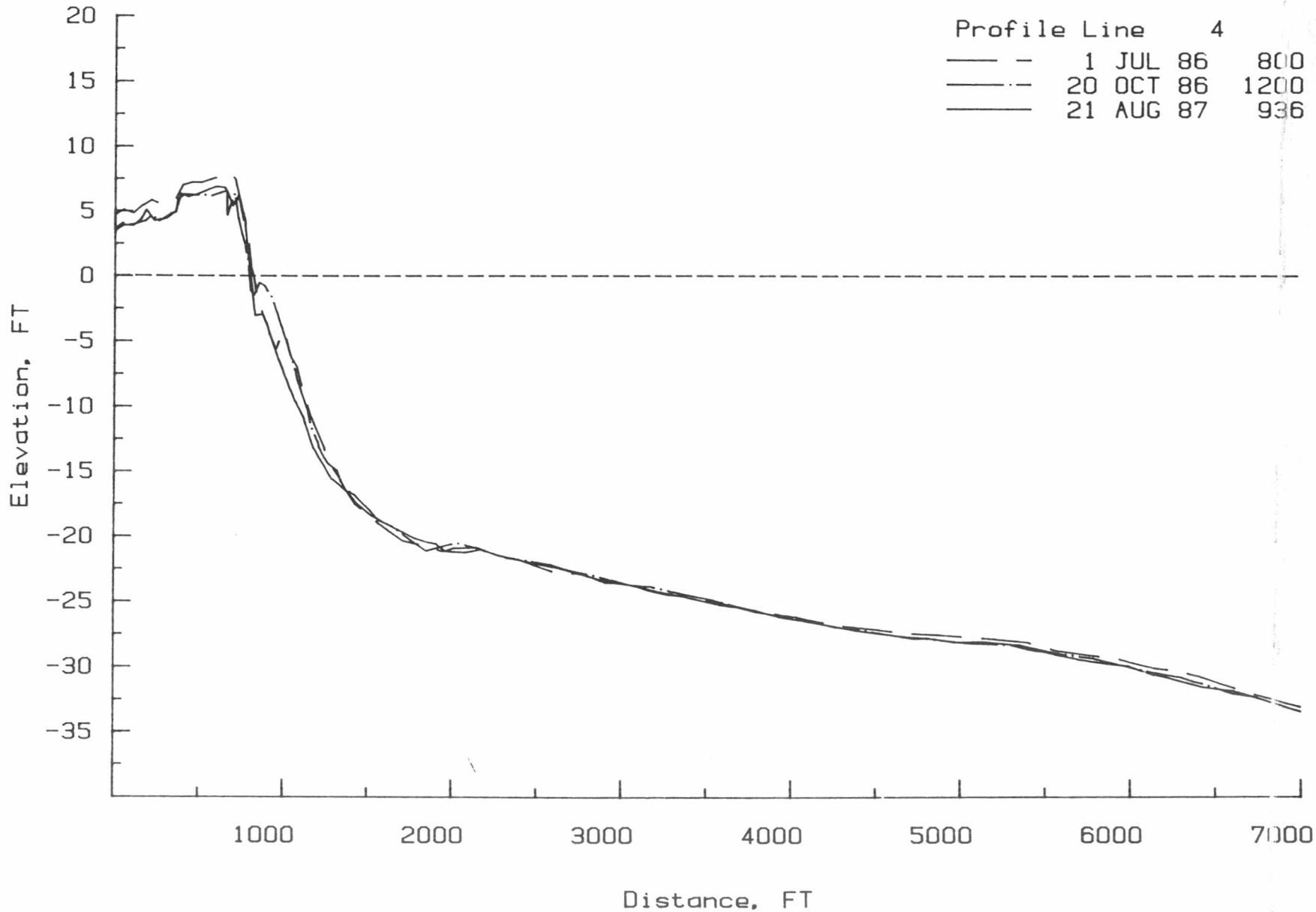

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20 AUG 87 1044
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7000
Distance, FT

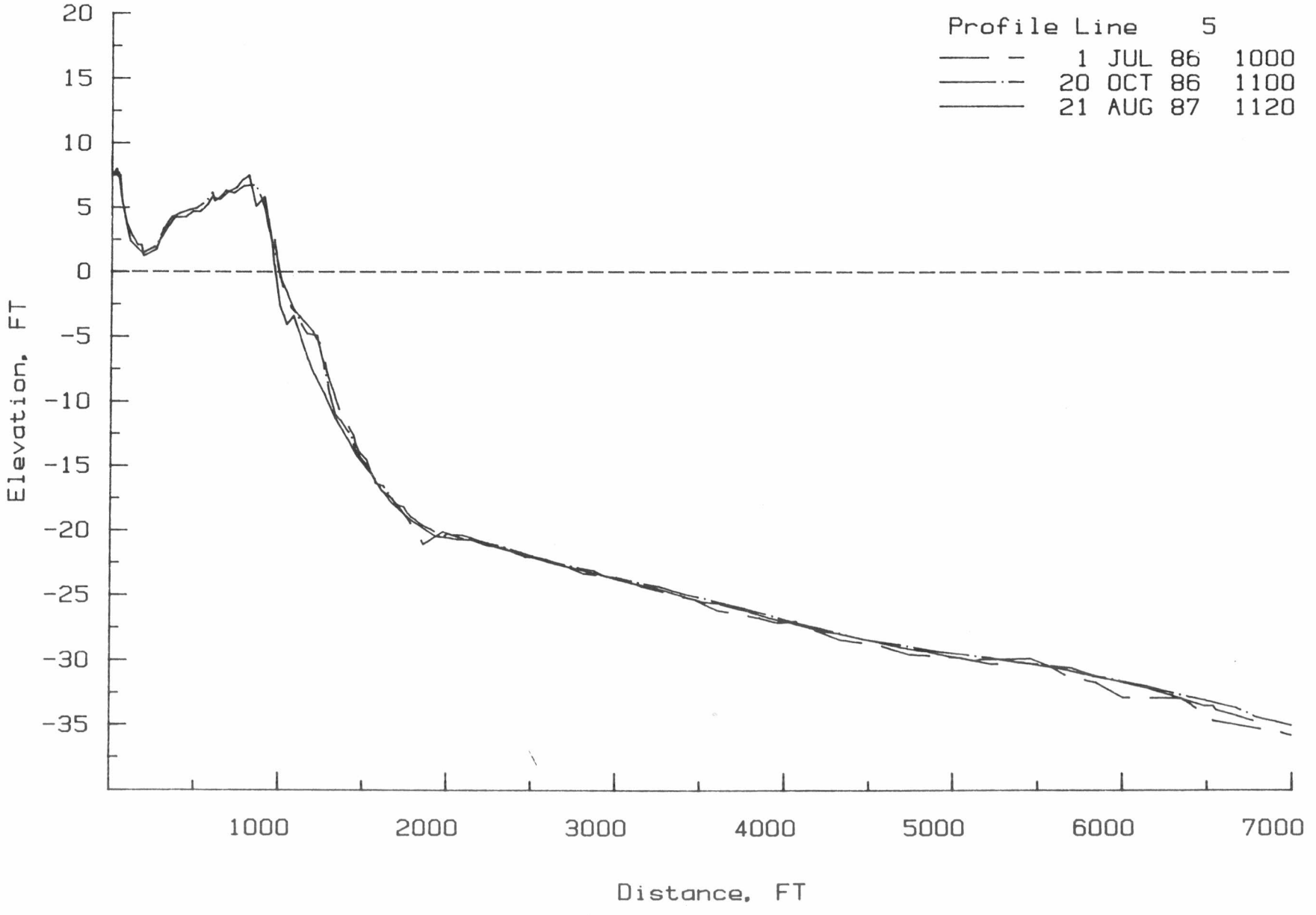

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11 OCT 86 1000
20 AUG 87 931
Elevation, FT
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5000
6000
7000
Distance, FT


Profile Line 1
30 JUN 86 1000
21 OCT 86 1000
20 AUG 87 1124
Elevation, FT
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6000
7000
Distance, FT


Profile Line 2
30 JUN 86 1500
21 OCT 86 900
20 AUG 87 1546
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Elevation, FT
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7000
Distance, FT


Profile Line 3
30 JUN 86 1300
20 OCT 86 1300
21 AUG 87 830
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10
5
0
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Elevation, FT
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6000
7000
Distance, FT


Profile Line 4
1 JUL 86 800
20 OCT 86 1200
21 AUG 87 936
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Elevation, FT
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7000
Distance, FT


Profile Line 5
1 JUL 86 1000
20 OCT 86 1100
21 AUG 87 1120
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15
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5
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Elevation, FT
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7000
Distance, FT