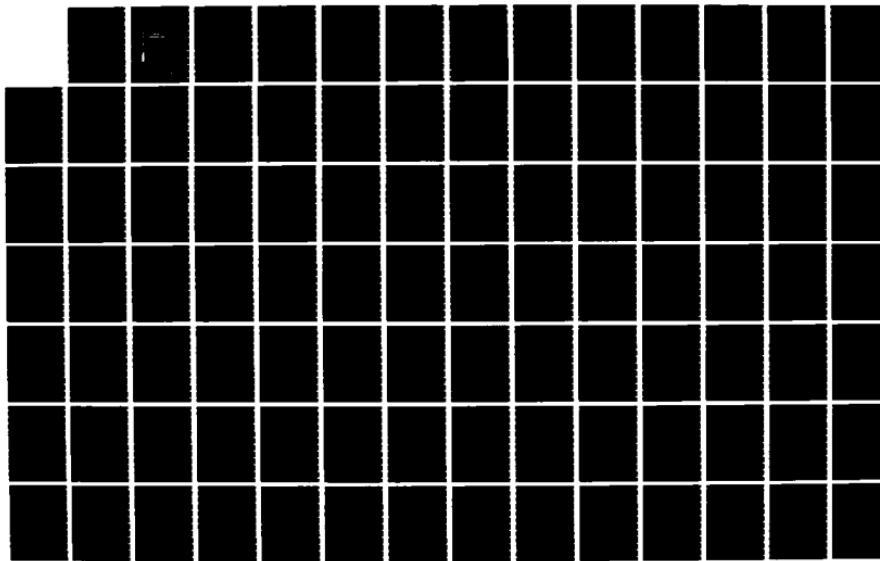
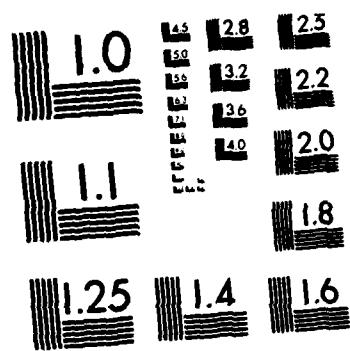


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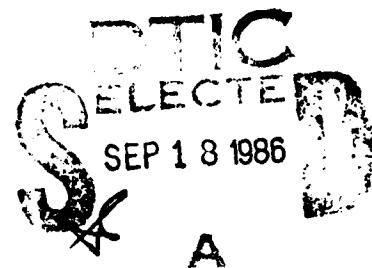
OBSERVATIONS OF TEMPERATURE FINESTRUCTURE  
IN THE GULF OF CALIFORNIA

XBT Data Report

November 1984 / March 1985

Cynthia A. Paden

M. C. Hendershott



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## ABSTRACT

This report contains XBT data collected in the Gulf of California as part of a cooperative research program between Scripps Institution of Oceanography (SIO) and Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE). Data were collected during November 1984 (Pichicuco VI) and March 1985 (Pichicuco VII) on board R/V *New Horizon*. XBT drops were made primarily in three locations: near a ridge at the northern end of Guaymas Basin and near the sills located at the southern end of Ballenas Channel and between the islands of San Lorenzo and San Esteban. Stations at these locations were repeated during various phases of the tide to observe changes in temperature finestructure and to describe the evolution of a frontal system near San Esteban Island.

### *Acknowledgements*

The data presented in this report are in part the result of experiments designed and conducted by Dr. A. Badan-Dangon of Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE).

The successful completion of this work was made possible with the help of many individuals: Roger VanWyckhouse of NORDA, Mississippi, lent the XBT recording equipment. His generosity in assisting us in the preparation and execution of this experiment was greatly appreciated. Thanks also go to the watch standers during the field experiment: Dave Muus, Walt Waldorf, Jim Wells, Janet Becker, David Stadille, Geoff Hargreaves, Pedro Calderon, and Juan Gaviño; the captain and crew of the R/V *New Horizon* who skillfully maneuvered the ship through 5 knot currents; Ana Carrasco for help in digitizing the XBT traces; Lynn Abbott, Jim Charters and Tom Hylas of the SIO Shipboard Computer Group for their assistance in the operation and maintenance of the digitizing system; Jennifer Davis and Vanessa Cunningham for help in shipping the XBT equipment; and especially to Nan Bray with whom we had many helpful discussions about the data processing.

The collection and processing of this data was funded by NASA/JPL Contract 956559, ONR Contract N00014-85-C-0104, NSF Grant No. OCE83-18288, and UC ship funds. The text was typed by Joan Semler and the graphics were done by Mike Clark.

## **INTRODUCTION**

During November 1984 and March 1985, XBT surveys were made in the northern Gulf of California from the R/V *New Horizon*. These data, in conjunction with CTD, current, bottom pressure, and meteorological data (Bray et al., 1986a,b; Merrifield et al., 1986; Candela et al., 1984, 1985) were collected by Scripps Institution of Oceanography (SIO) and Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE) as part of the joint physical oceanography field program, Pichicuco.

The XBT drops were made in three locations: near a ridge at the northern end of Guaymas Basin, and near the sills located at the southern end of Ballenas Channel (Salsipuedes Sill) and between the islands of San Lorenzo and San Esteban (San Esteban Sill) (Figure 1). This system of sills separates the deep waters of the northern and southern gulf, permitting exchange primarily in the upper 500 m. Restriction of the flow, in conjunction with the large tidal ranges in the gulf, results in amplified tidal currents of up to 5 knots during spring tides (Bray and Robles, 1986).

XBT transects were made during spring and neap tides to look for changes in vertical temperature finestructure relative to both the semidiurnal and fortnightly tidal cycles. Surveys were also made through a cold temperature anomaly near San Esteban Sill to describe any changes in the size and horizontal temperature gradients of the frontal system which delineated this region of particularly strong mixing.

## **DATA ACQUISITION**

Temperature profiles were obtained using Sippican T-7 and T-4 Expendable Bathymeterograph (XBT) probes with nominal depths of 760 and 460 meters respectively. These probes contain a thermistor, with a time constant of approximately 110 m/sec, whose resistance is a nonlinear function of temperature (Sippican Corporation, 1973b). Output voltages were recorded simultaneously on a Sippican MK-2A strip-chart recorder and a Bathy Systems digital

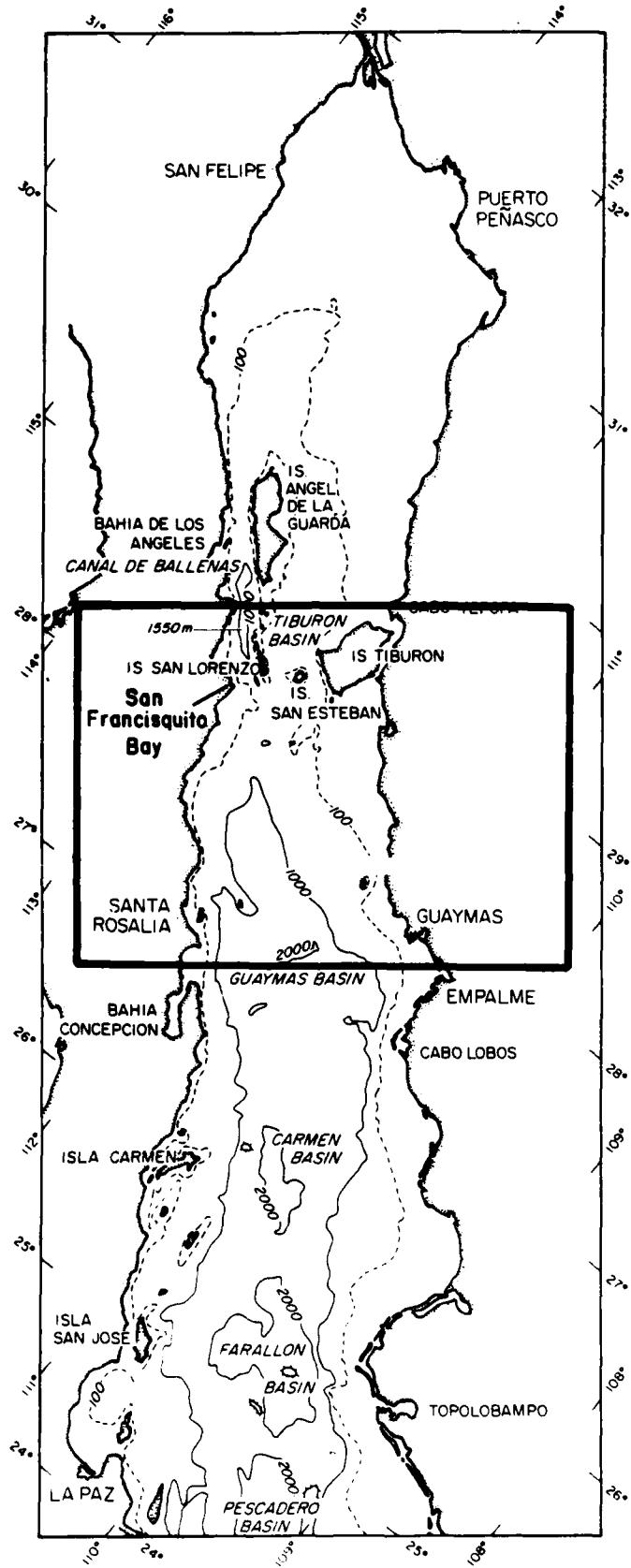


Figure 1. Gulf of California

recorder (Model SD-783-C).

During the November 1984 cruise the signal to the digitizer failed after XBT drop 45. The remaining stations for that cruise, XBT046-XBT176, were hand-digitized on a Bendix digitizer interfaced to the VAX-750 maintained by the SIO Shipboard Computer Group. In March, this problem had been corrected and Stations XBT201-XBT227 were digitized on the Bathy Systems digital recorder. The processing of the two data types is discussed separately below.

#### **DATA PROCESSING**

##### **A. Bathy Systems Digitized XBT Data**

Data acquired by the Bathy Systems Digital Recorder (Bathy Systems Inc., 1979) were written at 10 Hz to a BASF digital cassette. The data were decoded and scaled to obtain the station header information and corresponding time and voltage measurements (see Program XBTFS.FTN, Appendix A). Time is measured in tenths of seconds elapsed since the XBT probe entered the water. With an average fall rate of 6.3 m/s (Sippican Corporation, 1973b), this time interval corresponds to a depth resolution of approximately 0.6 m. Time is converted to depth by considering the fall-rate characteristics of the probe, the fall rate decreasing as the copper telemetry wire is unspooled upon descent. This change in fall rate is accounted for in the depth equation (Bathy Systems Inc., 1979):

$$Z = 6.472 \times t - 2.16E-03 \times t^2 \quad (1)$$

where  $Z$  is depth in meters and  $t$  is time in seconds.

The output from the analog signal conditioning board of the Sippican recorder has a range of -0 to +5 volts corresponding to temperatures of  $-2.2^\circ\text{C}$  to  $+35.5^\circ\text{C}$ . To first order the temperature is a linear function of voltage. In actuality a small, nearly sinusoidal, correction must also be applied to account for the non-linear temperature-resistance characteristics of the XBT thermistor (Sippican Corp., 1973a). This is reflected in the equation for conversion of voltage to

temperature (Bathy Systems Inc., 1979):

$$T = A + B * V + C * V^2 + D * V^3 + E * V^4 \quad (2)$$

$$A = -1.97539$$

$$B = 8.46492$$

$$C = -5.76449 \text{ E-01}$$

$$D = 8.31771 \text{ E-02}$$

$$E = -1.18495 \text{ E-03}$$

where T is temperature in degrees Celsius and V is volts.

#### B. Hand-Digitized XBT Data

The output voltage also drives the pen of the strip-chart recorder. After calibration of the recorder, voltage is a linear function of distance along the X-axis of the chart paper. The chart paper is scaled such that the nonlinear relationship between temperature and resistance is taken into account and temperature/depth pairs can be read directly from the plot. Hand-digitization of the XBT traces is equivalent to deriving a voltage (after appropriate scaling) and nonlinearities must be accounted for separately.

Since the Bathy Systems digitized data could also be hand-digitized, an independent measure of the voltage range for the chart paper could be calculated. Voltages at particular depths for several stations were regressed against corresponding hand-digitized distances along the X-axis. The resulting conversion was 0.6995 volts/inch  $\pm$  .004 with an offset of 0.032 volts  $\pm$  .011 at the 95% confidence interval.

Provided the electronics of the XBT recorder are stable, the voltage scale should remain constant. However, drift in the mechanical components can cause the -0 volt pen position to change. To correct for this offset in the hand-digitized XBT traces, the data are always referenced to the center calibration line. Distance along the X-axis is then scaled as volts using the

slope calculated in the regression analysis, and a voltage offset appropriate for referencing to the calibration position (CALIB):

$$V = (X - \text{CALIB}) * 0.6995 + 2.476 \quad (3)$$

Distances along the Y-axis were converted to time using the known chart paper roll-rate of 1/15 inch per second:

$$\text{time (secs)} = y * 15$$

Temperature and depth were then calculated using equations (1) and (2) (see Program DIGSCL.F77, Appendix B). The depth resolution for the hand-digitized data varied from 0.5 meters to 3 meters depending on the digitization.

#### ***DATA CALIBRATION***

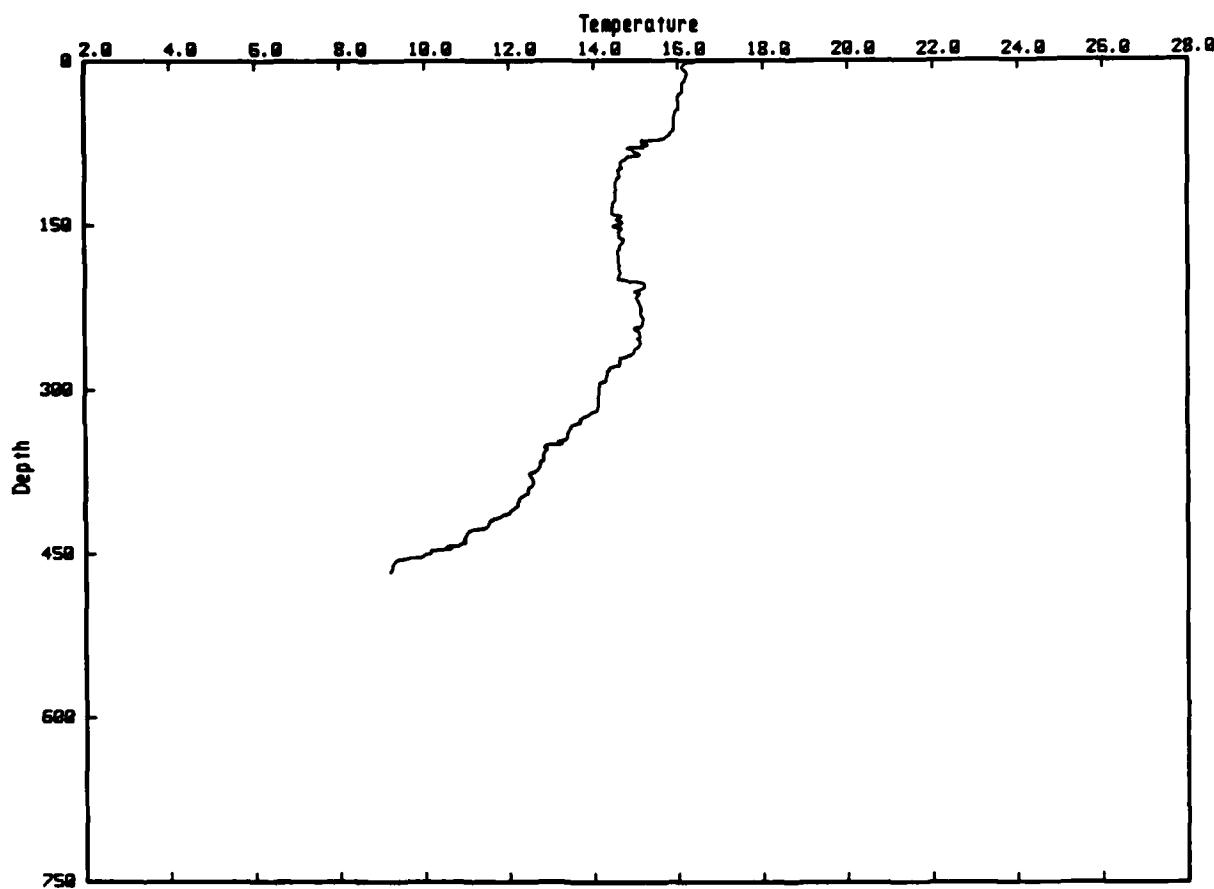
Several XBT drops were made near or during CTD casts away from the sills for intercalibration purposes. Temperatures were compared at approximately 25 depths below the thermocline in 3 corresponding CTD and Bathy Systems digitized XBT drops. Temperature differences had a mean of  $0.0^{\circ}\text{C}$  and a standard deviation of  $0.2^{\circ}\text{C}$ .

Since the collection of XBT data can involve a variety of electrical problems (i.e. instrument noise, cable leakage, short circuits to the ship's hull, etc.), care must be taken in deciding whether a trace is in fact a reflection of the actual temperature structure in the water column. Both CTD and XBT data taken near the sills show a high degree of vertical structure. XBT drops 138 and 139 (Figures 2 and 3) were made during the down- and upcast of CTD Station PC6114 (Figure 4, [Bray et al., 1986b]). Significant changes in temperature finestructure occur on a time scale of minutes. Some CTD casts near the sill show apparent overturning events of approximately 50 meters with temperature inversions of  $1^{\circ}\text{C}$  and greater. Since, in most cases, the possibility of water mass intrusions and/or large overturns could not be eliminated, only

XBT DROP 138

28 39.1N 112 39.8W

24 NOV 84 1954 MST



XBT DROP 138 T-7 RADAR: none GULF COORDS: -24.4 244.6  
JDAY 330 254Z DEPTH 468m/468m SST 18.25 2M TEMPS: SAIL 18.30 XBT 16.13  
GULF OF CALIFORNIA: SILL REGION, DOWNCAST OF CTD STATION PC6114

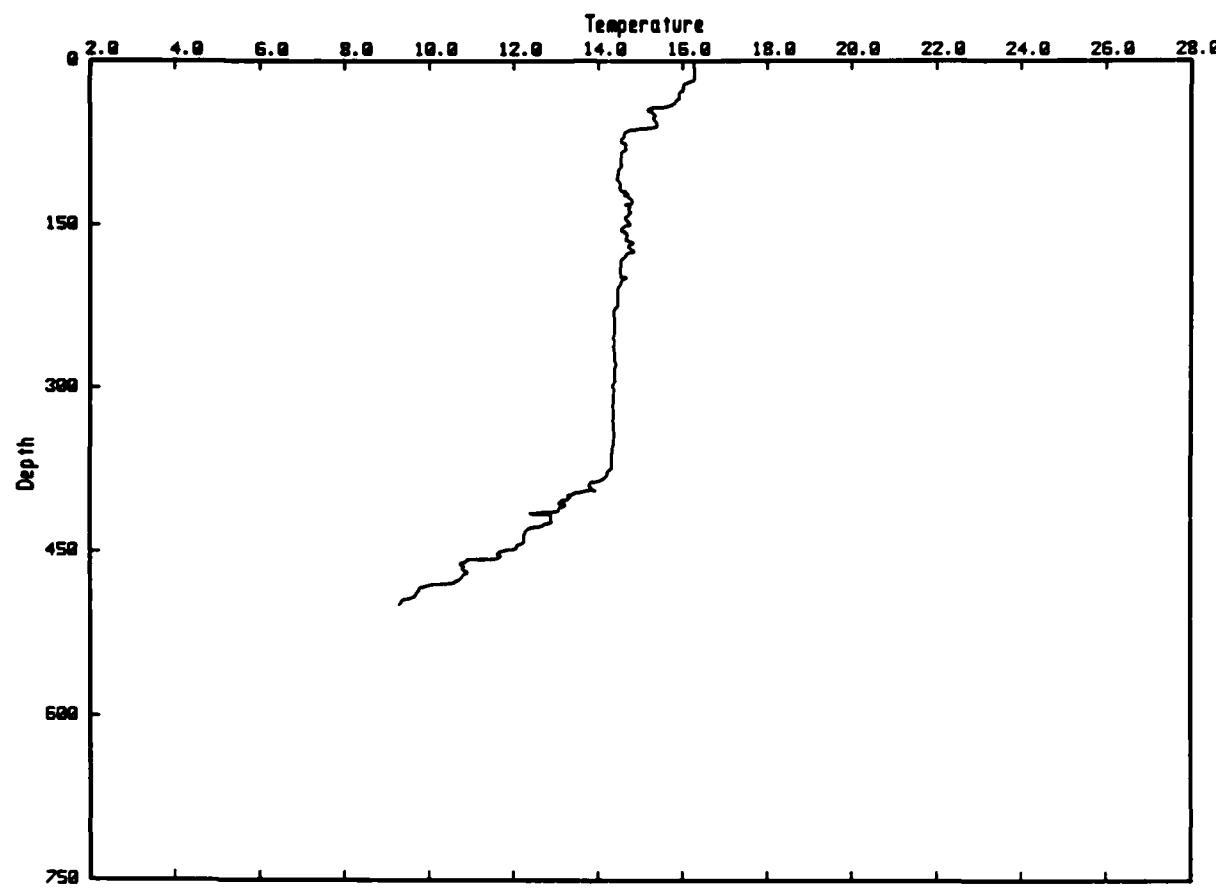
| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.2 | 200 | 14.6 | 390 | 12.4 |
| 20  | 16.1 | 210 | 15.0 | 399 | 12.2 |
| 30  | 16.1 | 220 | 15.1 | 410 | 12.1 |
| 40  | 16.0 | 230 | 15.1 | 420 | 11.6 |
| 50  | 15.9 | 239 | 15.2 | 430 | 11.0 |
| 60  | 15.9 | 250 | 15.1 | 440 | 10.9 |
| 70  | 15.7 | 260 | 15.1 | 450 | 10.1 |
| 80  | 14.8 | 270 | 14.8 | 460 | 9.2  |
| 90  | 14.8 | 280 | 14.4 | 468 | 9.2  |
| 100 | 14.6 | 290 | 14.3 |     |      |
| 110 | 14.5 | 299 | 14.1 |     |      |
| 119 | 14.5 | 309 | 14.1 |     |      |
| 130 | 14.5 | 320 | 14.1 |     |      |
| 140 | 14.4 | 330 | 13.7 |     |      |
| 150 | 14.6 | 340 | 13.4 |     |      |
| 160 | 14.6 | 350 | 13.1 |     |      |
| 169 | 14.6 | 359 | 12.8 |     |      |
| 179 | 14.6 | 370 | 12.7 |     |      |
| 190 | 14.6 | 379 | 12.5 |     |      |

Figure 2. XBT Drop 138

XBT DROP 139

28 37.8N 112 39.2W

24 NOV 84 1957 MST

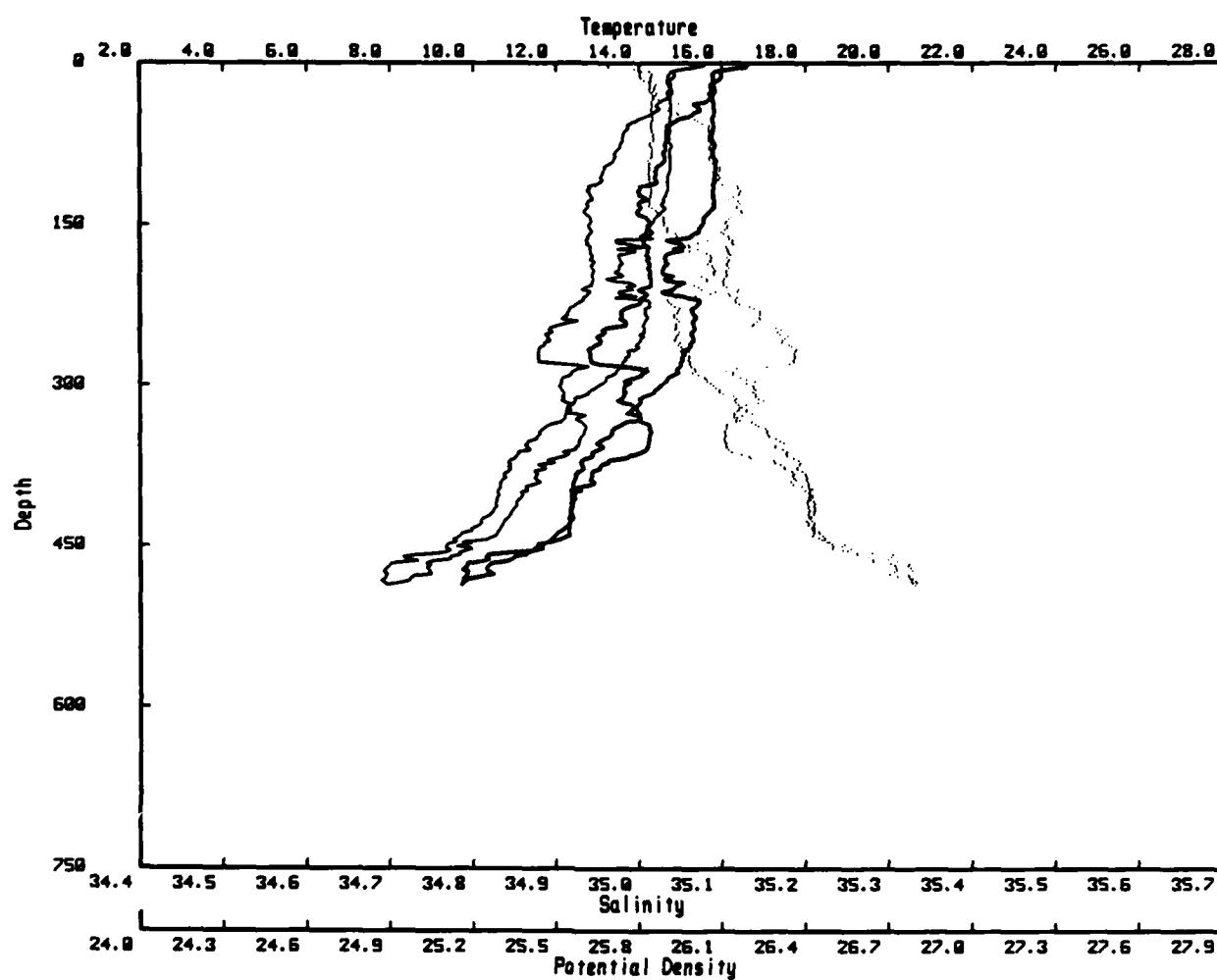


XBT DROP 139 T-7 RADAR: none GULF COORDS: -25.0 242.0  
JDAY 330 257Z DEPTH 498m/498m SST 16.24 2M TEMPS: SAIL 16.32 XBT 16.26  
GULF OF CALIFORNIA: SILL REGION, UPCAST OF CTD STATION PC6114

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.3 | 200 | 14.6 | 390 | 13.8 |
| 20  | 16.1 | 211 | 14.5 | 400 | 13.3 |
| 31  | 15.9 | 220 | 14.5 | 410 | 13.1 |
| 40  | 15.8 | 230 | 14.4 | 420 | 12.9 |
| 50  | 15.4 | 240 | 14.4 | 430 | 12.3 |
| 60  | 15.4 | 250 | 14.4 | 440 | 12.2 |
| 70  | 14.6 | 260 | 14.4 | 450 | 11.7 |
| 80  | 14.7 | 270 | 14.4 | 460 | 10.8 |
| 90  | 14.5 | 280 | 14.4 | 470 | 10.8 |
| 100 | 14.5 | 290 | 14.4 | 480 | 10.0 |
| 110 | 14.5 | 300 | 14.4 | 490 | 9.7  |
| 120 | 14.6 | 310 | 14.4 | 498 | 9.3  |
| 130 | 14.8 | 320 | 14.4 |     |      |
| 140 | 14.7 | 330 | 14.4 |     |      |
| 150 | 14.8 | 340 | 14.4 |     |      |
| 160 | 14.7 | 351 | 14.4 |     |      |
| 170 | 14.7 | 360 | 14.3 |     |      |
| 180 | 14.6 | 369 | 14.3 |     |      |
| 190 | 14.5 | 380 | 14.2 |     |      |

Figure 3. XBT Drop 139

STATION PC6114 : 28 37.6 N 112 38.6 W 24/11/84 245Z 486/ 365m



Day: 330.10 SST: 16.1 Tdry: 99.9 Twet: 99.9 Wspd: 8.8 CTD #: 3  
CAP1-16 REREAD ON NH 7 MAR 85 BWW  
22 JAN 86 ANC CH:LTMIN,LGMIN,CW. POS:CRAD

| PR   | TE     | SA     | SGTH   | PR    | TE     | SA     | SGTH   |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2.0  | 16.600 | 35.079 | 25.688 | 90.0  | 15.855 | 35.038 | 25.831 |
| 10.0 | 15.771 | 35.037 | 25.847 | 100.0 | 15.831 | 35.037 | 25.836 |
| 20.0 | 15.792 | 35.035 | 25.841 | 120.0 | 15.783 | 35.033 | 25.845 |
| 30.0 | 15.770 | 35.038 | 25.848 | 140.0 | 15.619 | 35.023 | 25.875 |
| 40.0 | 15.780 | 35.038 | 25.846 | 160.0 | 15.263 | 35.001 | 25.938 |
| 50.0 | 15.769 | 35.037 | 25.849 | 180.0 | 14.616 | 34.976 | 26.061 |
| 60.0 | 15.789 | 35.037 | 25.844 | 200.0 | 14.629 | 34.960 | 26.047 |
| 70.0 | 15.757 | 35.037 | 25.852 | 300.0 | 14.505 | 34.951 | 26.070 |
| 80.0 | 15.771 | 35.037 | 25.849 | 400.0 | 12.388 | 34.830 | 26.411 |

Figure 4. CTD Station PC6114

those stations with high frequency noise or atypical temperatures were deleted from the report.

Calibration of near surface temperatures were made for all XBT drops. Sea surface temperature measurements were made using a bucket thermometer and subsurface measurements were made by diverting water from the ship's uncontaminated sea water line through a chamber containing a platinum resistance thermometer (PRT). These 2-meter temperatures were recorded continuously on a SAIL system (Serial ASCII Instrumentation Loop). Comparison of the SAIL 2-meter temperatures to the XBT 2-meter temperatures must take into account possible warming affects while water is pumped the full extent of the ship to the sensor location as well as the lag in arrival time. In areas of large horizontal temperature gradients there will be discrepancies between XBT derived SST's and the calibration SSTs. Both temperatures, however, provide an approximate measure of the correct temperature to expect for the XBT surface temperature.

There are two sources of error in obtaining an accurate measure of sea surface temperatures with XBTs: 1) the pen slew rate, and 2) thermal adjustment of the probe's thermistor. With a thermistor time constant of 110 m/sec and an average fall rate of 6.3 m/sec, XBT derived temperatures would not be expected to accurately represent in situ temperatures until after 0.6 secs or 3-4 m below the surface. The biggest source of error, however, when using an analog recorder is the delay in pen response to changes in temperature. At the start of a drop, the pen is located at the calibration temperature position at 16.7 °C. If the surface temperatures are warm, as they are over most of the Gulf of California during spring and summer, it will take some time for the pen to arrive at the appropriate chart position corresponding to the SST. This effect can occur anywhere in the water column where there are strong vertical temperature gradients but is most pronounced at the surface.

Differences between XBT-derived 2-meter temperatures and the bucket (BKT) or SAIL temperatures for Pichicuco VI and VII are plotted in Figures 5 and 6. Outlying points (dark-

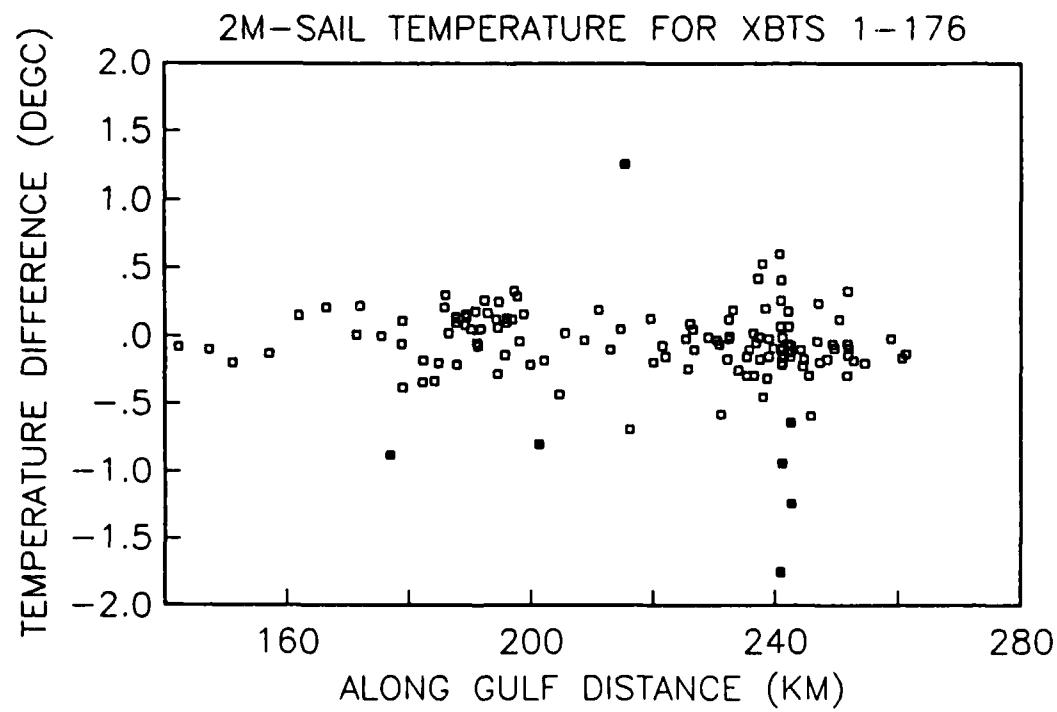
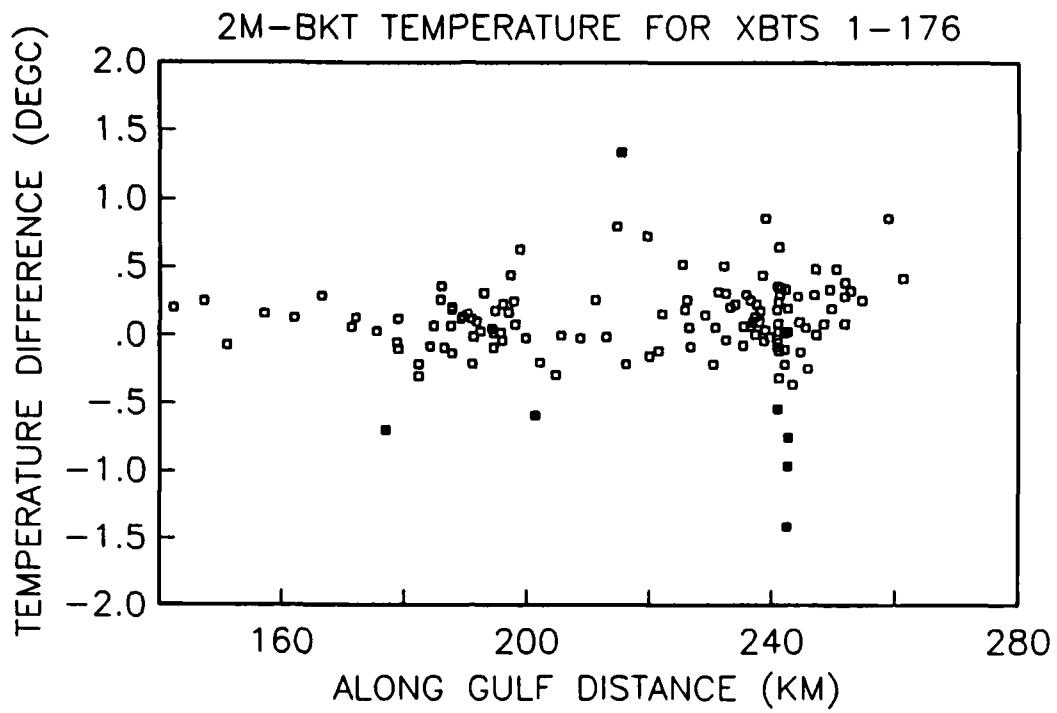


Figure 5. Temperature Differences: XBT versus Bucket and SAIL Calibration Temperatures for November 1984.

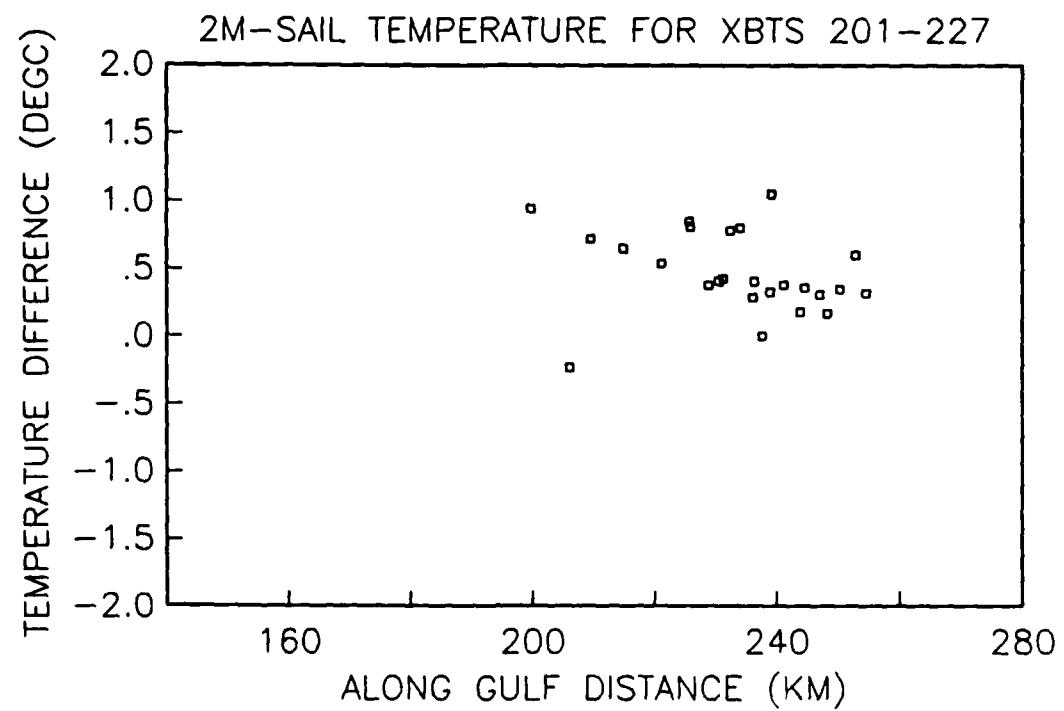
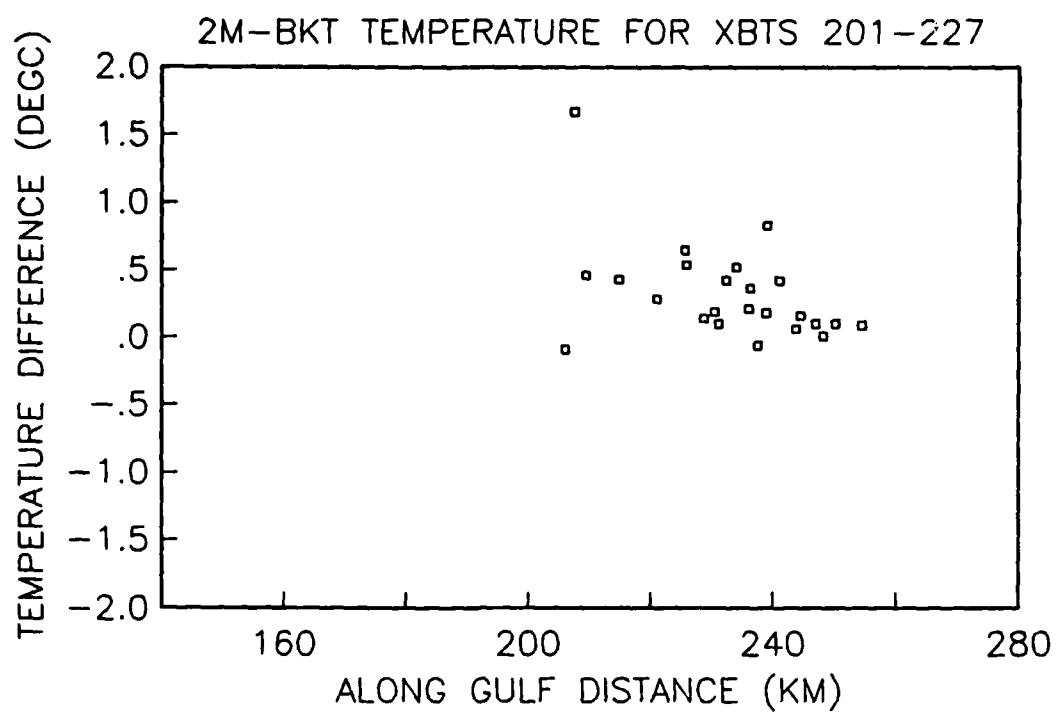


Figure 6. Temperature Differences: XBT versus Bucket and SAIL Calibration Temperatures for March 1985.

ened) present in both plots are attributable to errors in the XBT surface temperature and were deleted from the statistical analysis. Statistics of the temperature differences are presented in Table 1. Errors for Pichicuco VI are within the expected range of  $\pm 0.2^{\circ}\text{C}$ , however, errors for Pichicuco VII are slightly larger than expected with a considerable offset in mean temperatures. Significant offsets can occur if the digitized data are sampled too soon after the start of the drop. Approximately 0.6 seconds are required for the thermistor probe to come into equilibrium with in situ temperatures. This time interval corresponds to a depth of 4 meters. XBT-derived temperatures are in better agreement with the calibration temperatures if these 4-meter temperatures are used in the statistical comparison (Table 1).

The bottom depth for each drop was measured by the ship's acoustic Precision Depth Recorder (PDR). Comparisons of PDR- versus XBT-derived bottom depths show differences on the order of 0-40 m. Changes in fall-rate from that predicted by the depth equation can lead to depth errors of up to 2% of the depth (Stegan et al.. 1975). Discrepancies greater than the expected error are most likely due to the presence of highly variable bathymetry. In areas of steep topography, an XBT may hit bottom at a different location than that predicted from the PDR sounding. In areas of strong currents, such as near the sills, this problem is amplified.

#### *REPORT FORMAT*

The following temperature profiles are presented according to cruise and transect location. The first section includes stations taken during November 1984 (Pichicuco VI). Within this section the data are divided according to geographical location: Guaymas Basin, Ballenas Channel, and San Esteban Sill. The various transects made in each of these areas are presented separately, and are preceded by a map of the station positions. This map is an enlargement of the area marked in Figure 1. Tidal phase information for each of these regions is presented at the beginning of each geographical subsection. Bottom pressure sensors deployed during the Pichicuco field experiment provided the first tidal data for this area of the gulf. Hourly

**Table 1. Statistics for Calibration Temperature Differences ( °C).**

*Pichicuco VI*

| $\Delta T$ | $\bar{X}$ | $\sigma$ |
|------------|-----------|----------|
| XBT2-BKT   | .1        | .2       |
| XBT2-SAIL  | .0        | .2       |

*Pichicuco VII*

| $\Delta T$ | $\bar{X}$ | $\sigma$ |
|------------|-----------|----------|
| XBT2-BKT   | .3        | .2       |
| XBT2-SAIL  | .4        | .3       |
| XBT4-BKT   | -.1       | .1       |
| XBT4-SAIL  | .1        | .2       |

XBT2 = XBT-derived 2-meter temperature

XBT4 = XBT-derived 4-meter temperature

BKT = Bucket thermometer SST

SAIL = SAIL System PRT 2-meter temperature

averages of bottom pressure (mbars) for San Francisquito (Northern Guaymas Basin and Balleñas Channel), and San Esteban are plotted for each period during which XBT data were collected (Merrifield et al., 1986). Additional tidal information for the northern gulf is given in Appendix C. The second section of the report contains data for March 1985 (Pichicuco VII), and is organized in the same manner as Section 1.

Each data page contains a plot of the XBT trace plus a subsample of the data at 10 meter intervals. Across the top of each page are the XBT drop number, latitude and longitude, and local date and time (Mountain Standard Time, MST). Below each plot additional station information is listed as follows: 1) XBT drop number, 2) XBT probe type, 3) radar point\*, range and bearing (if available), 4) distance in km from 27° N, 111° W perpendicular to and parallel to Gulf axis (324° T), 5) Julian day, 6) GMT, 7) PDR bottom depth/XBT depth of failure, 8) bucket thermometer SST (°C), 9) SAIL SST (°C), 10) XBT 2M temperature (°C), and 11) station header: location, name and tidal phase.

The XBT stations presented in this report are listed in Table 2. A number of drops failed due to wire breakage, fouling on the ship, or some other electrical problem. The relatively high failure rate is a result of using XBT probes which had been stored for some time. XBT stations were numbered consecutively, so failed drops will be evident as a missing number in the sequence. Missing stations are listed in Table 3, along with stations which are missing data as a result of some failure at depth. The station names, i.e. MX0-3, listed in the header below each plot are in numerical order, corresponding only to successful drops within each transect.

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\*SE = SW tip of Isla San Esteban  
WL = Punta Willard on Isla Tiburon  
PSWL = Point South of Punta Willard

Table 2. XBT Station List

## PICHICUCO VI

| Station | Lat      | Long      | Date      | MST   | Depth | Across Gulf | Along Gulf |
|---------|----------|-----------|-----------|-------|-------|-------------|------------|
| XBT001  | 28 40.2N | 112 40.8W | 15 NOV 84 | 1333L | 550m  | -24.20km    | 247.00km   |
| XBT002  | 27 43.5N | 112 2.7W  | 20 NOV 84 | 511L  | 1500m | -36.10km    | 125.80km   |
| XBT003  | 27 44.7N | 112 5.1W  | 20 NOV 84 | 531L  | 1500m | -38.00km    | 129.90km   |
| XBT004  | 27 45.7N | 112 7.8W  | 20 NOV 84 | 545L  | 1500m | -39.40km    | 133.20km   |
| XBT005  | 27 47.4N | 112 9.7W  | 20 NOV 84 | 600L  | 1380m | -41.10km    | 138.40km   |
| XBT006  | 27 48.4N | 112 12.2W | 20 NOV 84 | 615L  | 1214m | -43.40km    | 142.30km   |
| XBT007  | 27 49.9N | 112 15.1W | 20 NOV 84 | 630L  | 1260m | -45.60km    | 147.30km   |
| XBT008  | 27 50.9N | 112 17.5W | 20 NOV 84 | 645L  | 1158m | -47.70km    | 151.10km   |
| XBT009  | 27 52.5N | 112 21.2W | 20 NOV 84 | 706L  | 1092m | -50.80km    | 157.10km   |
| XBT010  | 27 54.8N | 112 22.7W | 20 NOV 84 | 720L  | 899m  | -50.30km    | 162.00km   |
| XBT011  | 27 56.9N | 112 24.1W | 20 NOV 84 | 735L  | 982m  | -49.90km    | 166.50km   |
| XBT012  | 27 59.2N | 112 25.8W | 20 NOV 84 | 750L  | 859m  | -49.30km    | 171.40km   |
| XBT015  | 28 2.8N  | 112 28.8W | 20 NOV 84 | 813L  | 982m  | -48.60km    | 179.00km   |
| XBT017  | 28 6.2N  | 112 30.8W | 20 NOV 84 | 834L  | 825m  | -47.50km    | 186.00km   |
| XBT019  | 28 6.9N  | 112 29.4W | 20 NOV 84 | 935L  | 805m  | -45.90km    | 186.50km   |
| XBT020  | 28 7.8N  | 112 29.1W | 20 NOV 84 | 943L  | 768m  | -44.50km    | 187.60km   |
| XBT021  | 28 9.3N  | 112 28.8W | 20 NOV 84 | 951L  | 642m  | -42.20km    | 189.30km   |
| XBT022  | 28 10.6N | 112 28.2W | 20 NOV 84 | 959L  | 568m  | -40.30km    | 190.90km   |
| XBT023  | 28 11.9N | 112 27.8W | 20 NOV 84 | 1007L | 459m  | -38.30km    | 192.40km   |
| XBT024  | 28 13.6N | 112 27.4W | 20 NOV 84 | 1015L | 551m  | -35.90km    | 194.60km   |
| XBT025  | 28 14.8N | 112 27.8W | 20 NOV 84 | 1023L | 720m  | -34.10km    | 196.00km   |
| XBT026  | 28 16.3N | 112 26.8W | 20 NOV 84 | 1031L | 840m  | -31.90km    | 197.80km   |
| XBT027  | 28 16.9N | 112 25.1W | 20 NOV 84 | 1224L | 982m  | -29.20km    | 197.30km   |
| XBT028  | 28 15.9N | 112 25.3W | 20 NOV 84 | 1232L | 810m  | -30.60km    | 196.00km   |
| XBT029  | 28 14.8N | 112 25.7W | 20 NOV 84 | 1246L | 648m  | -32.30km    | 194.70km   |
| XBT030  | 28 13.2N | 112 26.3W | 20 NOV 84 | 1248L | 514m  | -34.90km    | 192.90km   |
| XBT031  | 28 11.7N | 112 26.9W | 20 NOV 84 | 1256L | 660m  | -37.30km    | 191.30km   |
| XBT032  | 28 10.2N | 112 27.4W | 20 NOV 84 | 1304L | 796m  | -39.60km    | 189.50km   |
| XBT033  | 28 8.6N  | 112 28.8W | 20 NOV 84 | 1312L | 885m  | -42.20km    | 187.70km   |
| XBT034  | 28 7.1N  | 112 28.4W | 20 NOV 84 | 1320L | 910m  | -44.40km    | 185.80km   |
| XBT035  | 28 9.4N  | 112 26.8W | 20 NOV 84 | 1525L | 909m  | -39.70km    | 187.70km   |
| XBT036  | 28 10.6N | 112 26.5W | 20 NOV 84 | 1533L | 892m  | -38.00km    | 189.20km   |
| XBT037  | 28 11.3N | 112 26.4W | 20 NOV 84 | 1537L | 804m  | -37.10km    | 190.20km   |
| XBT038  | 28 12.6N | 112 26.1W | 20 NOV 84 | 1545L | 694m  | -35.30km    | 191.80km   |
| XBT040  | 28 14.6N | 112 25.6W | 20 NOV 84 | 1557L | 520m  | -32.40km    | 194.30km   |
| XBT042  | 28 15.4N | 112 25.8W | 20 NOV 84 | 1608L | 579m  | -31.80km    | 195.70km   |
| XBT043  | 28 16.4N | 112 25.5W | 20 NOV 84 | 1616L | 767m  | -30.30km    | 196.90km   |
| XBT044  | 28 18.0N | 112 25.0W | 20 NOV 84 | 1624L | 900m  | -27.90km    | 198.80km   |
| XBT045  | 28 19.0N | 112 24.5W | 20 NOV 84 | 1629L | 1010m | -26.10km    | 199.80km   |
| XBT046  | 28 23.0N | 112 32.0W | 21 NOV 84 | 818L  | 787m  | -31.70km    | 213.00km   |
| XBT047  | 28 21.5N | 112 29.8W | 21 NOV 84 | 830L  | 874m  | -30.40km    | 208.70km   |
| XBT048  | 28 20.2N | 112 28.6W | 21 NOV 84 | 842L  | 904m  | -30.30km    | 205.60km   |
| XBT049  | 28 18.9N | 112 27.0W | 21 NOV 84 | 852L  | 932m  | -29.60km    | 202.10km   |
| XBT050  | 28 17.2N | 112 25.5W | 21 NOV 84 | 906L  | 869m  | -29.40km    | 198.10km   |
| XBT053  | 28 15.0N | 112 21.6W | 21 NOV 84 | 926L  | 823m  | -26.70km    | 191.10km   |
| XBT054  | 28 13.7N | 112 20.2W | 21 NOV 84 | 938L  | 827m  | -26.20km    | 187.80km   |
| XBT056  | 28 11.5N | 112 17.9W | 21 NOV 84 | 958L  | 799m  | -25.60km    | 182.30km   |
| XBT057  | 28 10.1N | 112 16.5W | 21 NOV 84 | 1011L | 752m  | -25.30km    | 178.80km   |
| XBT058  | 28 8.7N  | 112 15.2W | 21 NOV 84 | 1023L | 741m  | -25.10km    | 175.50km   |
| XBT059  | 28 7.1N  | 112 14.0W | 21 NOV 84 | 1035L | 767m  | -25.30km    | 172.00km   |
| XBT060  | 28 10.9N | 112 13.2W | 21 NOV 84 | 1446L | 860m  | -20.00km    | 176.90km   |
| XBT062  | 28 13.9N | 112 16.8W | 21 NOV 84 | 1507L | 915m  | -21.50km    | 184.80km   |
| XBT063  | 28 11.4N | 112 18.1W | 21 NOV 84 | 1522L | 860m  | -26.00km    | 182.30km   |
| XBT065  | 28 8.8N  | 112 18.6W | 21 NOV 84 | 1541L | 433m  | -29.50km    | 178.90km   |
| XBT066  | 28 10.3N | 112 21.7W | 21 NOV 84 | 1556L | 590m  | -32.00km    | 184.20km   |
| XBT067  | 28 12.3N | 112 24.3W | 21 NOV 84 | 1611L | 723m  | -33.20km    | 189.60km   |
| XBT068  | 28 14.2N | 112 26.5W | 21 NOV 84 | 1628L | 850m  | -34.10km    | 194.60km   |
| XBT069  | 28 17.3N | 112 28.6W | 21 NOV 84 | 1642L | 1005m | -33.40km    | 201.30km   |
| XBT070  | 28 18.5N | 112 30.3W | 21 NOV 84 | 1653L | 950m  | -34.40km    | 204.70km   |
| XBT072  | 28 20.5N | 112 33.9W | 21 NOV 84 | 1710L | 810m  | -37.00km    | 211.10km   |
| XBT073  | 28 22.8N | 112 34.8W | 21 NOV 84 | 1725L | 623m  | -35.60km    | 215.40km   |
| XBT074  | 28 24.7N | 112 36.6W | 21 NOV 84 | 1740L | 429m  | -35.90km    | 220.00km   |
| XBT075  | 28 25.9N | 112 36.3W | 21 NOV 84 | 1754L | 281m  | -34.20km    | 221.50km   |
| XBT077  | 28 30.0N | 112 41.3W | 22 NOV 84 | 2318L | 328m  | -36.40km    | 232.40km   |
| XBT079  | 28 21.8N | 112 35.8W | 23 NOV 84 | 418L  | 342m  | -37.80km    | 214.70km   |
| XBT080  | 28 22.0N | 112 36.8W | 23 NOV 84 | 427L  | 224m  | -39.20km    | 216.20km   |

PICHICUCO VI, Contd.

| Station | Lat | Long  | Date      | MST       | Depth | Across Gulf | Along Gulf |          |
|---------|-----|-------|-----------|-----------|-------|-------------|------------|----------|
| XBT081  | 28  | 23.5N | 112 38.0W | 23 NOV 84 | 439L  | 200m        | -39.10km   | 219.60km |
| XBT082  | 28  | 24.0N | 112 39.5W | 23 NOV 84 | 451L  | 165m        | -41.00km   | 222.00km |
| XBT083  | 28  | 25.4N | 112 41.1W | 23 NOV 84 | 503L  | 208m        | -41.10km   | 225.40km |
| XBT084  | 28  | 26.9N | 112 42.5W | 23 NOV 84 | 515L  | 400m        | -41.30km   | 229.00km |
| XBT086  | 28  | 28.0N | 112 44.4W | 23 NOV 84 | 532L  | 654m        | -42.70km   | 232.40km |
| XBT087  | 28  | 29.5N | 112 45.5W | 23 NOV 84 | 544L  | 936m        | -42.50km   | 235.70km |
| XBT089  | 28  | 31.7N | 112 47.5W | 23 NOV 84 | 600L  | 969m        | -42.70km   | 240.90km |
| XBT090  | 28  | 33.4N | 112 48.1W | 23 NOV 84 | 615L  | 929m        | -41.60km   | 244.10km |
| XBT091  | 28  | 34.1N | 112 49.9W | 23 NOV 84 | 630L  | 812m        | -43.20km   | 246.80km |
| XBT093  | 28  | 39.4N | 112 56.6W | 23 NOV 84 | 700L  | 1300m       | -46.30km   | 261.20km |
| XBT094  | 28  | 38.5N | 112 55.5W | 23 NOV 84 | 903L  | 1265m       | -45.80km   | 258.80km |
| XBT095  | 28  | 33.0N | 112 55.3W | 23 NOV 84 | 1905L | 453m        | -51.60km   | 250.40km |
| XBT097  | 28  | 35.9N | 112 52.5W | 23 NOV 84 | 1930L | 1223m       | -44.70km   | 252.00km |
| XBT098  | 28  | 34.6N | 112 51.7W | 23 NOV 84 | 1942L | 965m        | -45.10km   | 249.30km |
| XBT099  | 28  | 33.9N | 112 50.5W | 23 NOV 84 | 1954L | 914m        | -44.30km   | 247.10km |
| XBT101  | 28  | 31.5N | 112 48.6W | 23 NOV 84 | 2010L | 969m        | -43.60km   | 241.10km |
| XBT102  | 28  | 30.0N | 112 48.0W | 23 NOV 84 | 2022L | 351m        | -45.20km   | 238.90km |
| XBT103  | 28  | 28.0N | 112 49.5W | 23 NOV 84 | 2034L | 294m        | -49.40km   | 237.40km |
| XBT106  | 28  | 31.5N | 112 44.8W | 23 NOV 84 | 2107L | 980m        | -39.30km   | 238.00km |
| XBT107  | 28  | 32.7N | 112 42.1W | 23 NOV 84 | 2119L | 244m        | -34.40km   | 237.20km |
| XBT108  | 28  | 33.8N | 112 41.6W | 23 NOV 84 | 2131L | 259m        | -32.60km   | 238.40km |
| XBT109  | 28  | 31.6N | 112 39.5W | 23 NOV 84 | 2150L | 247m        | -32.20km   | 233.10km |
| XBT111  | 28  | 28.6N | 112 42.1W | 23 NOV 84 | 2214L | 634m        | -38.90km   | 231.10km |
| XBT112  | 28  | 27.0N | 112 43.8W | 23 NOV 84 | 2226L | 231m        | -43.00km   | 230.40km |
| XBT113  | 28  | 26.0N | 112 45.8W | 23 NOV 84 | 2238L | 256m        | -46.70km   | 230.80km |
| XBT114  | 28  | 24.0N | 112 44.6W | 23 NOV 84 | 2306L | 224m        | -46.50km   | 226.10km |
| XBT115  | 28  | 25.1N | 112 41.9W | 23 NOV 84 | 2318L | 111m        | -42.50km   | 225.70km |
| XBT116  | 28  | 27.0N | 112 40.0W | 23 NOV 84 | 2330L | 454m        | -37.90km   | 226.70km |
| XBT118  | 28  | 29.1N | 112 38.5W | 23 NOV 84 | 2354L | 424m        | -31.00km   | 226.50km |
| XBT120  | 28  | 34.2N | 112 34.4W | 24 NOV 84 | 339L  | 573m        | -22.60km   | 232.10km |
| XBT121  | 28  | 34.6N | 112 34.1W | 24 NOV 84 | 353L  | 542m        | -21.80km   | 232.40km |
| XBT122  | 28  | 35.2N | 112 34.8W | 24 NOV 84 | 485L  | 558m        | -22.00km   | 233.90km |
| XBT123  | 28  | 36.0N | 112 35.1W | 24 NOV 84 | 412L  | 558m        | -21.50km   | 235.40km |
| XBT124  | 28  | 36.2N | 112 35.8W | 24 NOV 84 | 421L  | 555m        | -22.20km   | 236.40km |
| XBT125  | 28  | 36.1N | 112 36.2W | 24 NOV 84 | 427L  | 511m        | -22.90km   | 236.60km |
| XBT126  | 28  | 36.4N | 112 36.4W | 24 NOV 84 | 433L  | 503m        | -22.80km   | 237.30km |
| XBT127  | 28  | 36.5N | 112 36.9W | 24 NOV 84 | 439L  | 493m        | -23.40km   | 237.90km |
| XBT128  | 28  | 36.9N | 112 37.1W | 24 NOV 84 | 445L  | 488m        | -23.20km   | 238.70km |
| XBT129  | 28  | 37.2N | 112 37.6W | 24 NOV 84 | 457L  | 298m        | -23.50km   | 239.60km |
| XBT130  | 28  | 38.5N | 112 38.6W | 24 NOV 84 | 514L  | 145m        | -23.40km   | 242.50km |
| XBT131  | 28  | 40.0N | 112 39.4W | 24 NOV 84 | 532L  | 345m        | -22.80km   | 245.50km |
| XBT132  | 28  | 41.4N | 112 40.2W | 24 NOV 84 | 544L  | 390m        | -22.40km   | 248.40km |
| XBT133  | 28  | 42.9N | 112 41.4W | 24 NOV 84 | 556L  | 452m        | -22.30km   | 251.80km |
| XBT134  | 28  | 43.3N | 112 41.8W | 24 NOV 84 | 602L  | 435m        | -22.40km   | 252.70km |
| XBT135  | 28  | 44.0N | 112 42.5W | 24 NOV 84 | 614L  | 408m        | -22.60km   | 254.50km |
| XBT137  | 28  | 34.1N | 112 43.5W | 24 NOV 84 | 1508L | 611m        | -34.90km   | 240.80km |
| XBT138  | 28  | 39.1N | 112 39.5W | 24 NOV 84 | 1954L | 468m        | -24.40km   | 244.60km |
| XBT139  | 28  | 37.8N | 112 39.2W | 24 NOV 84 | 1957L | 498m        | -25.00km   | 242.00km |
| XBT140  | 28  | 35.7N | 112 42.6W | 25 NOV 84 | 942L  | 428m        | -31.80km   | 242.20km |
| XBT141  | 28  | 36.1N | 112 42.4W | 25 NOV 84 | 948L  | 488m        | -31.10km   | 242.60km |
| XBT142  | 28  | 36.5N | 112 41.8W | 25 NOV 84 | 952L  | 567m        | -29.90km   | 242.60km |
| XBT143  | 28  | 37.1N | 112 40.8W | 25 NOV 84 | 958L  | 538m        | -27.90km   | 242.50km |
| XBT144  | 28  | 37.3N | 112 40.3W | 25 NOV 84 | 1002L | 481m        | -27.00km   | 242.40km |
| XBT145  | 28  | 37.8N | 112 39.3W | 25 NOV 84 | 1008L | 221m        | -25.10km   | 242.10km |
| XBT146  | 28  | 38.0N | 112 38.2W | 25 NOV 84 | 1014L | 120m        | -23.50km   | 241.40km |
| XBT147  | 28  | 38.1N | 112 37.8W | 25 NOV 84 | 1017L | 111m        | -22.80km   | 241.10km |
| XBT148  | 28  | 43.1N | 112 41.1W | 28 NOV 84 | 1335L | 419m        | -21.70km   | 251.80km |
| XBT149  | 28  | 42.2N | 112 40.2W | 28 NOV 84 | 1341L | 382m        | -21.50km   | 249.60km |
| XBT150  | 28  | 41.0N | 112 39.8W | 28 NOV 84 | 1347L | 348m        | -22.00km   | 247.20km |
| XBT151  | 28  | 40.3N | 112 39.2W | 28 NOV 84 | 1351L | 317m        | -22.20km   | 245.80km |
| XBT152  | 28  | 39.5N | 112 39.0W | 28 NOV 84 | 1355L | 227m        | -22.90km   | 244.40km |
| XBT153  | 28  | 39.0N | 112 38.6W | 28 NOV 84 | 1359L | 115m        | -22.90km   | 243.30km |
| XBT154  | 28  | 38.4N | 112 38.3W | 28 NOV 84 | 1403L | 111m        | -23.10km   | 242.10km |
| XBT155  | 28  | 37.5N | 112 37.8W | 28 NOV 84 | 1408L | 219m        | -23.20km   | 240.10km |
| XBT156  | 28  | 37.0N | 112 37.2W | 28 NOV 84 | 1413L | 319m        | -23.20km   | 238.90km |
| XBT157  | 28  | 36.2N | 112 36.2W | 28 NOV 84 | 1418L | 444m        | -22.80km   | 236.80km |

PICHICUCO VI, Contd.

| Station | Lat      | Long      | Date      | MST   | Depth | Across Gulf | Along Gulf |
|---------|----------|-----------|-----------|-------|-------|-------------|------------|
| XBT158  | 28 35.6N | 112 35.6W | 28 NOV 84 | 1423L | 539m  | -22.60km    | 235.30km   |
| XBT159  | 28 35.1N | 112 34.9W | 28 NOV 84 | 1428L | 555m  | -22.30km    | 233.90km   |
| XBT160  | 28 34.4N | 112 34.6W | 28 NOV 84 | 1433L | 545m  | -22.60km    | 232.50km   |
| XBT161  | 28 34.6N | 112 43.2W | 29 NOV 84 | 1814L | 120m  | -33.80km    | 241.10km   |
| XBT162  | 28 35.0N | 112 42.5W | 29 NOV 84 | 1822L | 474m  | -32.40km    | 241.00km   |
| XBT163  | 28 35.5N | 112 41.9W | 29 NOV 84 | 1828L | 487m  | -31.10km    | 241.20km   |
| XBT164  | 28 35.7N | 112 41.2W | 29 NOV 84 | 1834L | 557m  | -30.00km    | 240.80km   |
| XBT165  | 28 36.3N | 112 40.4W | 29 NOV 84 | 1840L | 568m  | -28.20km    | 241.00km   |
| XBT166  | 28 37.0N | 112 39.8W | 29 NOV 84 | 1846L | 520m  | -26.70km    | 241.40km   |
| XBT167  | 28 37.2N | 112 39.1W | 29 NOV 84 | 1851L | 407m  | -25.50km    | 241.10km   |
| XBT168  | 28 37.4N | 112 38.4W | 29 NOV 84 | 1855L | 284m  | -24.40km    | 240.70km   |
| XBT169  | 28 37.8N | 112 38.1W | 29 NOV 84 | 1900L | 141m  | -23.50km    | 241.00km   |
| XBT170  | 28 38.3N | 112 37.2W | 29 NOV 84 | 1905L | 113m  | -21.80km    | 240.90km   |
| XBT171  | 28 38.6N | 112 36.8W | 29 NOV 84 | 1911L | 86m   | -20.70km    | 240.70km   |
| XBT172  | 28 46.0N | 112 36.7W | 30 NOV 84 | 103L  | 214m  | -12.70km    | 251.90km   |
| XBT173  | 28 47.0N | 112 35.0W | 30 NOV 84 | 114L  | 497m  | -9.30km     | 251.70km   |
| XBT175  | 28 48.6N | 112 32.5W | 30 NOV 84 | 130L  | 506m  | -4.30km     | 251.70km   |
| XBT176  | 28 50.4N | 112 39.0W | 30 NOV 84 | 210L  | 575m  | -10.90km    | 260.60km   |

PICHICUCO VII

| Station | Lat      | Long      | Date     | MST   | Depth | Across Gulf | Along Gulf |
|---------|----------|-----------|----------|-------|-------|-------------|------------|
| XBT201  | 28 17.5N | 112 26.7W | 9 MAR 85 | 652L  | 961m  | -30.70km    | 199.70km   |
| XBT202  | 28 20.6N | 112 30.1W | 9 MAR 85 | 717L  | 760m  | -31.80km    | 207.60km   |
| XBT203  | 28 28.3N | 112 36.9W | 9 MAR 85 | 806L  | 330m  | -32.40km    | 225.70km   |
| XBT204  | 28 31.0N | 112 38.5W | 9 MAR 85 | 828L  | 282m  | -31.50km    | 231.20km   |
| XBT205  | 28 34.2N | 112 38.6W | 9 MAR 85 | 849L  | 612m  | -28.20km    | 236.10km   |
| XBT206  | 28 36.0N | 112 38.7W | 9 MAR 85 | 901L  | 567m  | -26.30km    | 238.90km   |
| XBT208  | 28 44.3N | 112 42.1W | 9 MAR 85 | 2105L | 410m  | -21.70km    | 254.50km   |
| XBT209  | 28 43.5N | 112 41.5W | 9 MAR 85 | 2119L | 449m  | -21.80km    | 252.80km   |
| XBT210  | 28 42.4N | 112 40.6W | 9 MAR 85 | 2125L | 456m  | -21.80km    | 250.20km   |
| XBT211  | 28 41.4N | 112 40.0W | 9 MAR 85 | 2132L | 394m  | -22.10km    | 248.20km   |
| XBT212  | 28 40.6N | 112 40.0W | 9 MAR 85 | 2138L | 396m  | -23.00km    | 247.00km   |
| XBT213  | 28 39.6N | 112 39.0W | 9 MAR 85 | 2145L | 220m  | -22.80km    | 244.50km   |
| XBT214  | 28 38.8N | 112 39.5W | 9 MAR 85 | 2150L | 170m  | -24.30km    | 243.80km   |
| XBT215  | 28 37.6N | 112 38.5W | 9 MAR 85 | 2159L | 300m  | -24.30km    | 241.10km   |
| XBT216  | 28 36.6N | 112 38.0W | 9 MAR 85 | 2204L | 390m  | -24.70km    | 239.10km   |
| XBT217  | 28 35.9N | 112 37.5W | 9 MAR 85 | 2210L | 539m  | -24.80km    | 237.60km   |
| XBT218  | 28 35.4N | 112 37.0W | 9 MAR 85 | 2216L | 519m  | -24.70km    | 236.30km   |
| XBT219  | 28 34.5N | 112 36.0W | 9 MAR 85 | 2222L | 485m  | -24.40km    | 234.00km   |
| XBT220  | 28 33.7N | 112 35.5W | 9 MAR 85 | 2228L | 489m  | -24.60km    | 232.40km   |
| XBT221  | 28 33.0N | 112 34.6W | 9 MAR 85 | 2234L | 520m  | -24.20km    | 230.50km   |
| XBT222  | 28 32.3N | 112 34.0W | 9 MAR 85 | 2240L | 574m  | -24.10km    | 228.80km   |
| XBT223  | 28 31.0N | 112 33.0W | 9 MAR 85 | 2248L | 627m  | -24.20km    | 225.90km   |
| XBT224  | 28 29.0N | 112 31.1W | 9 MAR 85 | 2306L | 828m  | -23.90km    | 221.10km   |
| XBT225  | 28 26.4N | 112 28.7W | 9 MAR 85 | 2324L | 970m  | -23.60km    | 214.90km   |
| XBT226  | 28 24.0N | 112 26.8W | 9 MAR 85 | 2339L | 653m  | -23.70km    | 209.50km   |
| XBT227  | 28 22.6N | 112 25.4W | 9 MAR 85 | 2354L | 900m  | -23.40km    | 206.10km   |

Table 3. Missing and Incomplete XBT Stations

*Missing*                  *Incomplete*

|        |        |
|--------|--------|
| XBT013 | XBT001 |
| XBT014 | XBT036 |
| XBT016 | XBT044 |
| XBT018 | XBT048 |
| XBT039 | XBT058 |
| XBT041 | XBT065 |
| XBT051 | XBT093 |
| XBT052 | XBT094 |
| XBT055 | XBT106 |
| XBT061 |        |
| XBT064 |        |
| XBT071 |        |
| XBT076 |        |
| XBT078 |        |
| XBT085 |        |
| XBT088 |        |
| XBT092 |        |
| XBT096 |        |
| XBT100 |        |
| XBT104 |        |
| XBT105 |        |
| XBT110 |        |
| XBT117 |        |
| XBT119 |        |
| XBT136 |        |
| XBT174 |        |
|        | XBT207 |
|        | XBT228 |

**Pichicuco VI**

**November 1984**

**Guaymas Basin**

**San Francisquito**

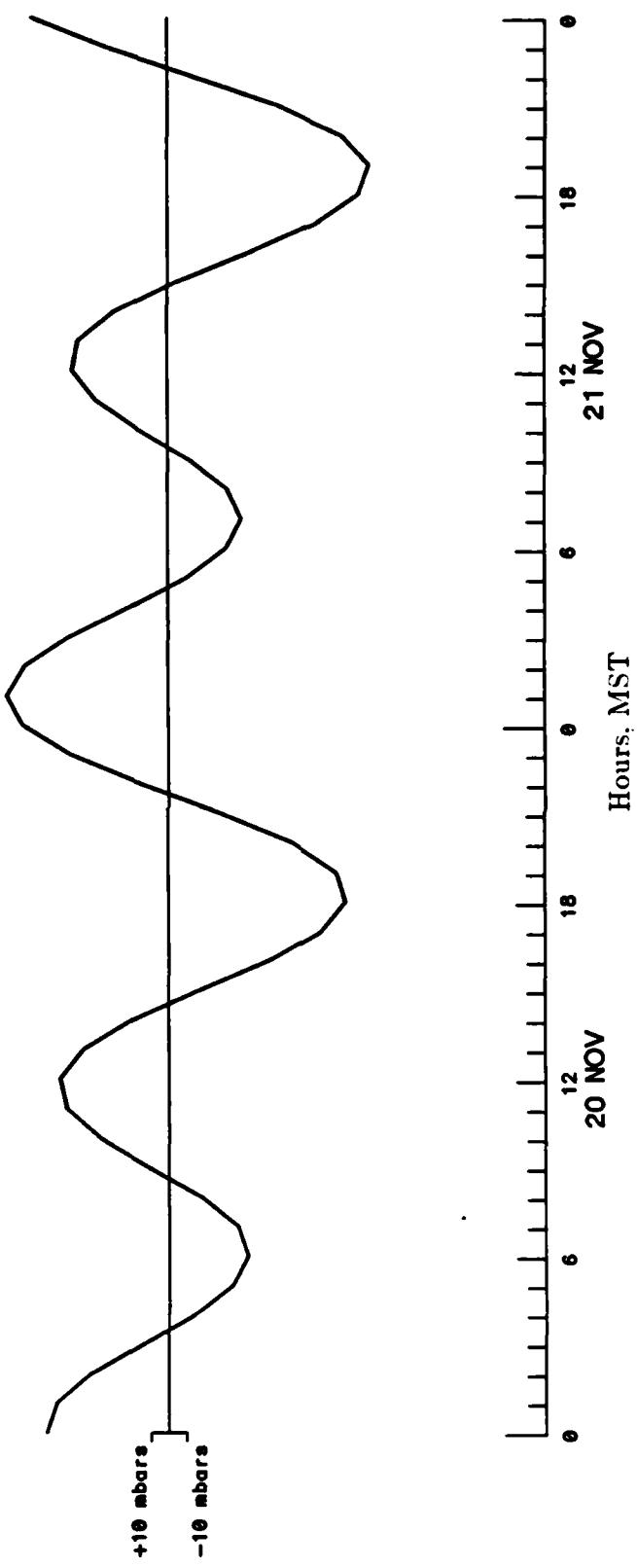


Figure 7. Bottom Pressure at San Francisquito Bay.  
20-21 November 1984.

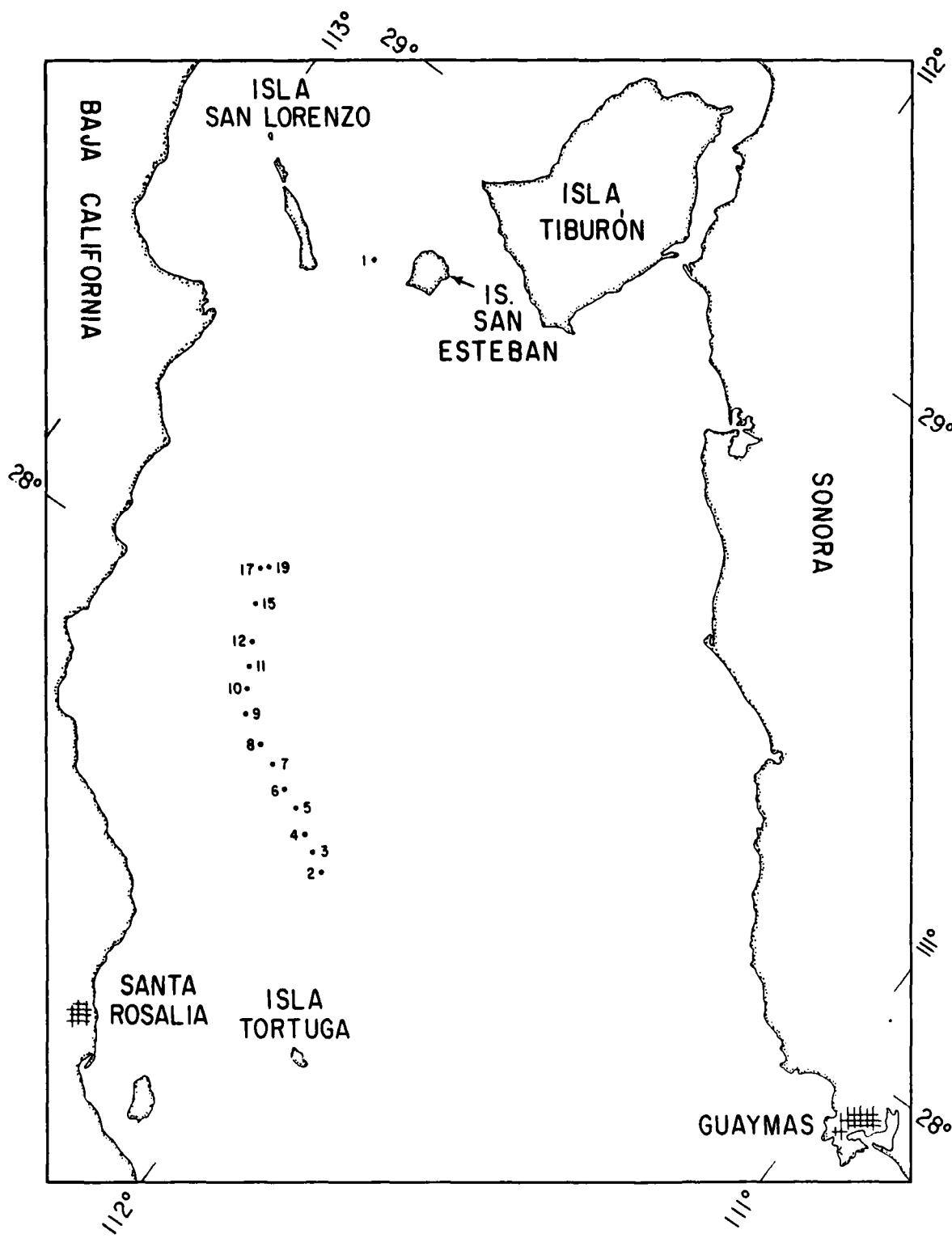
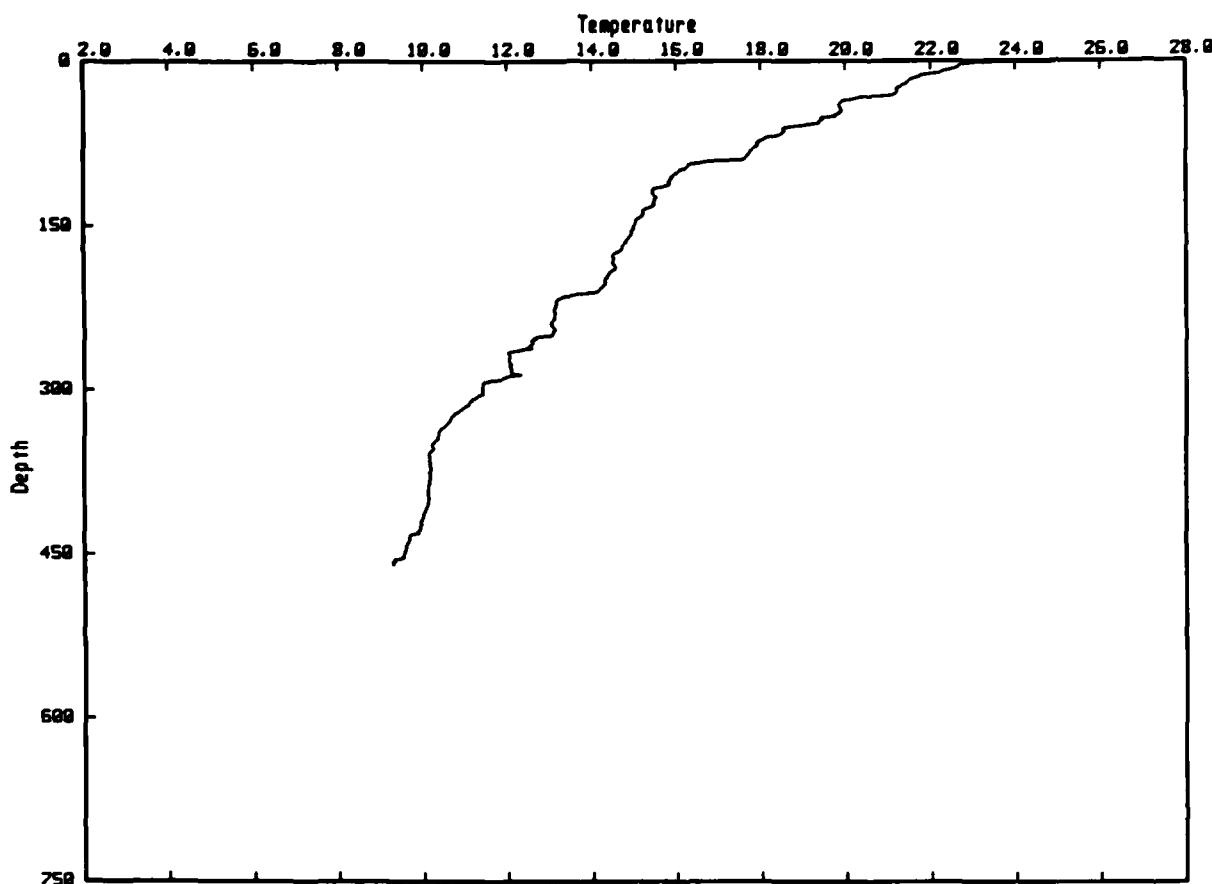


Figure 8. MX0 Section: XBT Station Locations

XBT DROP 001

28 40.2N 112 40.6W

15 NOV 84 1333 MST



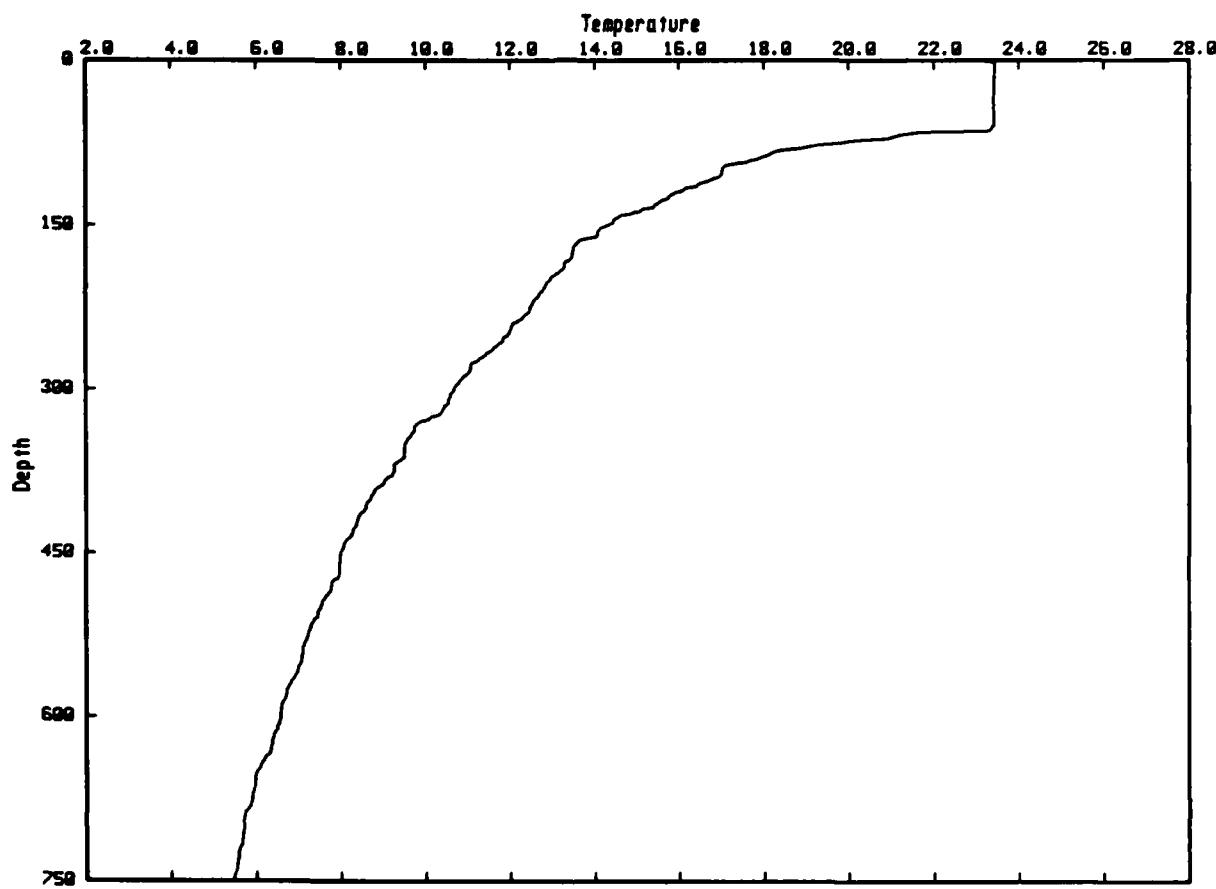
XBT DROP 001 T-4 RADAR: none GULF COORDS: -24.2 247.0  
JDAY 320 2033Z DEPTH 550m/460m SST 22.55 2M TEMPS: SAIL 22.80 XBT 23.04  
GULF OF CALIFORNIA: TEST XBT, LONSDALE SILL

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 22.3 | 200 | 14.3 | 390 | 10.1 |
| 20  | 21.5 | 210 | 14.1 | 400 | 10.1 |
| 30  | 21.2 | 220 | 13.2 | 410 | 10.0 |
| 40  | 19.8 | 230 | 13.1 | 420 | 10.0 |
| 50  | 19.7 | 240 | 13.0 | 430 | 9.9  |
| 60  | 18.7 | 250 | 13.0 | 440 | 9.6  |
| 70  | 18.2 | 260 | 12.5 | 450 | 9.5  |
| 80  | 17.8 | 270 | 12.0 | 460 | 9.3  |
| 90  | 17.6 | 280 | 12.1 |     |      |
| 100 | 16.1 | 290 | 11.8 |     |      |
| 110 | 15.8 | 300 | 11.4 |     |      |
| 120 | 15.4 | 310 | 11.1 |     |      |
| 130 | 15.5 | 320 | 10.8 |     |      |
| 140 | 15.2 | 330 | 10.6 |     |      |
| 150 | 15.0 | 340 | 10.4 |     |      |
| 160 | 14.9 | 350 | 10.2 |     |      |
| 170 | 14.7 | 360 | 10.1 |     |      |
| 180 | 14.5 | 370 | 10.2 |     |      |
| 190 | 14.6 | 380 | 10.2 |     |      |

XBT DROP 002

27 43.5N 112 2.7W

20 NOV 84 0511 MST



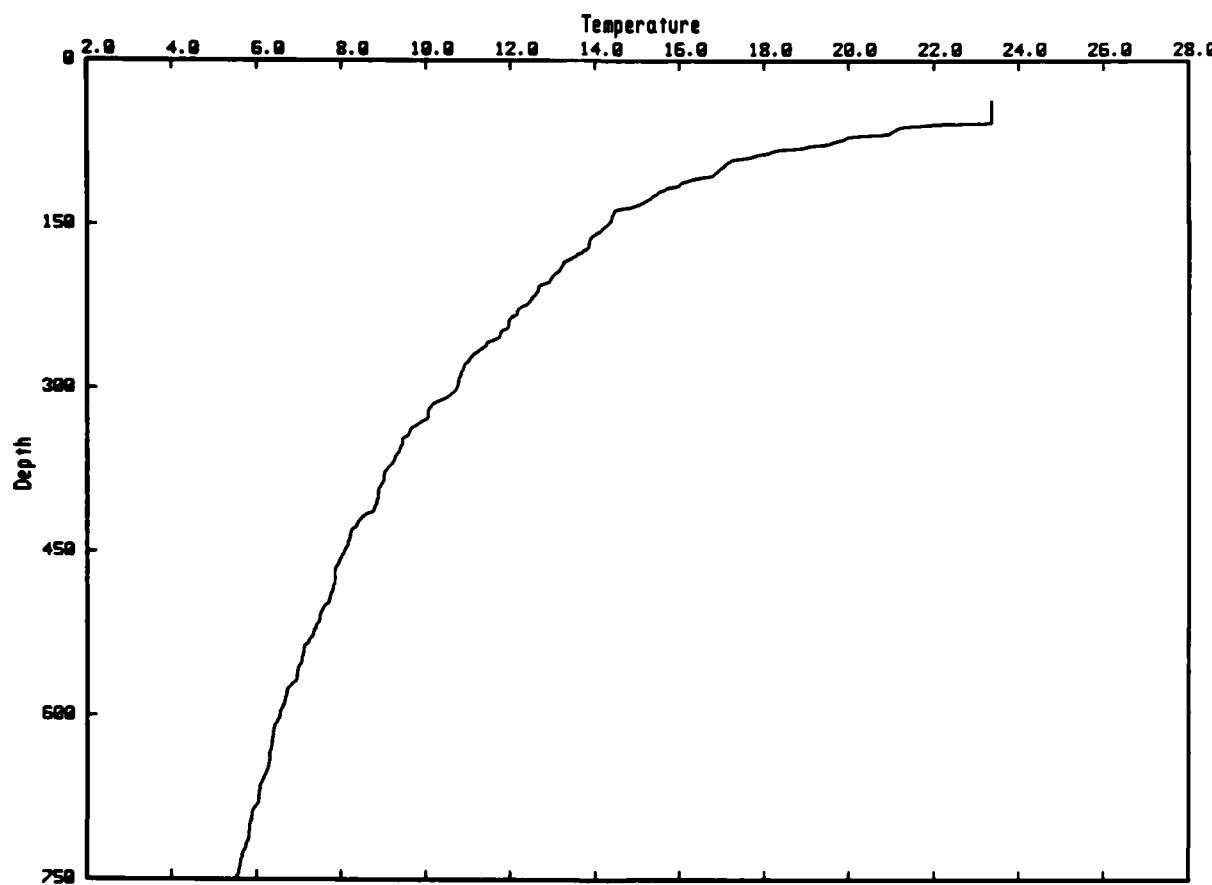
XBT DROP 002 T-7 RADAR: none GULF COORDS: -36.1 125.8  
 JDAY 325 1211Z DEPTH 1500m/760m SST 23.30 2M TEMPS: SAIL 23.54 XBT 23.40  
 GULF OF CALIFORNIA: BEGIN MX0 LINE, MX0-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 23.5 | 200 | 12.9 | 390 | 8.9  | 580 | 6.7  |
| 20  | 23.4 | 210 | 12.8 | 400 | 8.7  | 590 | 6.6  |
| 30  | 23.4 | 220 | 12.6 | 410 | 8.6  | 600 | 6.6  |
| 40  | 23.4 | 230 | 12.4 | 420 | 8.4  | 610 | 6.5  |
| 50  | 23.4 | 240 | 12.1 | 430 | 8.3  | 620 | 6.4  |
| 60  | 23.4 | 250 | 12.0 | 440 | 8.1  | 630 | 6.3  |
| 70  | 21.1 | 260 | 11.7 | 450 | 8.0  | 640 | 6.2  |
| 80  | 18.9 | 270 | 11.4 | 460 | 8.0  | 650 | 6.0  |
| 90  | 17.9 | 280 | 11.1 | 470 | 8.0  | 660 | 6.0  |
| 100 | 17.0 | 290 | 10.9 | 480 | 7.8  | 670 | 5.9  |
| 110 | 16.6 | 300 | 10.7 | 490 | 7.6  | 680 | 5.9  |
| 120 | 16.0 | 310 | 10.5 | 500 | 7.5  | 690 | 5.7  |
| 130 | 15.5 | 320 | 10.4 | 510 | 7.4  | 700 | 5.7  |
| 140 | 14.8 | 330 | 9.9  | 520 | 7.3  | 710 | 5.7  |
| 150 | 14.3 | 340 | 9.7  | 530 | 7.2  | 720 | 5.6  |
| 160 | 14.1 | 350 | 9.5  | 540 | 7.1  | 730 | 5.6  |
| 170 | 13.5 | 360 | 9.5  | 550 | 7.1  | 740 | 5.5  |
| 180 | 13.5 | 370 | 9.3  | 560 | 7.0  | 750 | 5.4  |
| 190 | 13.3 | 380 | 9.1  | 570 | 6.8  | 760 | 5.4  |

XBT DROP 003

27 44.7N 112 5.1W

20 NOV 84 0531 MST



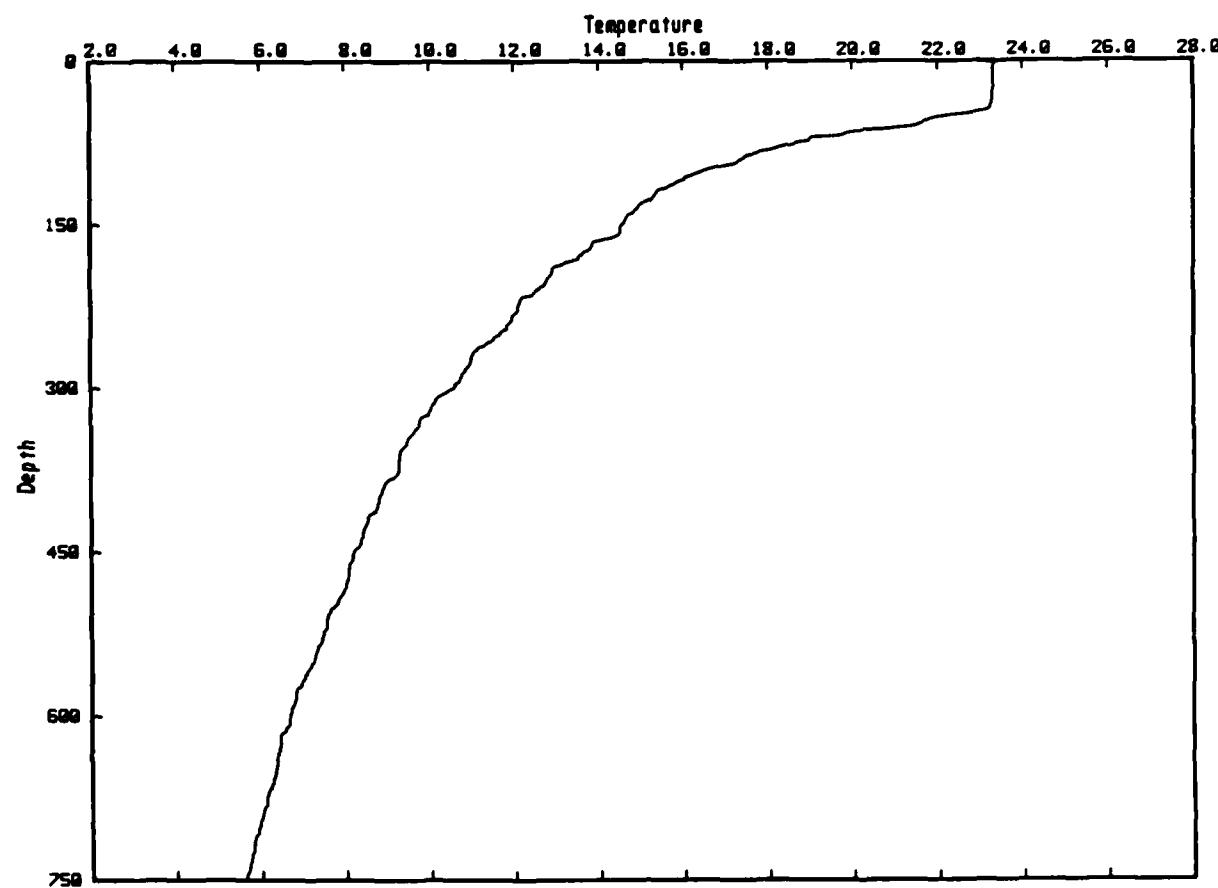
XBT DROP 003 T-7 RADAR: none GULF COORDS: -38.0 129.9  
 JDAY 325 1231Z DEPTH 1500m/760m SST 23.20 2M TEMPS: SAIL 23.48 XBT .00  
 GULF OF CALIFORNIA: MX0-2, SPRING TIDE (NO DATA UNTIL 35 M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 40  | 23.4 | 230 | 12.2 | 420 | 8.5  | 610 | 6.4  |
| 50  | 23.4 | 240 | 12.0 | 430 | 8.3  | 620 | 6.4  |
| 60  | 21.3 | 250 | 11.8 | 440 | 8.2  | 630 | 6.3  |
| 70  | 20.1 | 260 | 11.4 | 450 | 8.1  | 640 | 6.3  |
| 80  | 18.8 | 270 | 11.1 | 460 | 8.0  | 650 | 6.2  |
| 90  | 17.5 | 280 | 10.9 | 470 | 7.9  | 660 | 6.1  |
| 100 | 16.9 | 290 | 10.8 | 480 | 7.8  | 670 | 6.1  |
| 110 | 16.2 | 300 | 10.7 | 490 | 7.7  | 680 | 6.0  |
| 120 | 15.5 | 310 | 10.4 | 500 | 7.6  | 690 | 5.9  |
| 130 | 15.1 | 320 | 10.1 | 510 | 7.5  | 700 | 5.8  |
| 140 | 14.4 | 330 | 10.0 | 520 | 7.4  | 710 | 5.8  |
| 150 | 14.3 | 340 | 9.8  | 530 | 7.3  | 720 | 5.7  |
| 160 | 14.0 | 350 | 9.4  | 540 | 7.1  | 730 | 5.7  |
| 170 | 13.9 | 360 | 9.3  | 550 | 7.1  | 740 | 5.6  |
| 180 | 13.5 | 370 | 9.2  | 560 | 7.0  | 750 | 5.5  |
| 190 | 13.2 | 380 | 9.0  | 570 | 6.9  | 760 | 5.5  |
| 200 | 13.0 | 390 | 8.9  | 580 | 6.7  |     |      |
| 210 | 12.7 | 400 | 8.9  | 590 | 6.6  |     |      |
| 220 | 12.5 | 410 | 8.8  | 600 | 6.6  |     |      |

XBT DROP 004

27 45.7N 112 7.0W

20 NOV 84 0545 MST



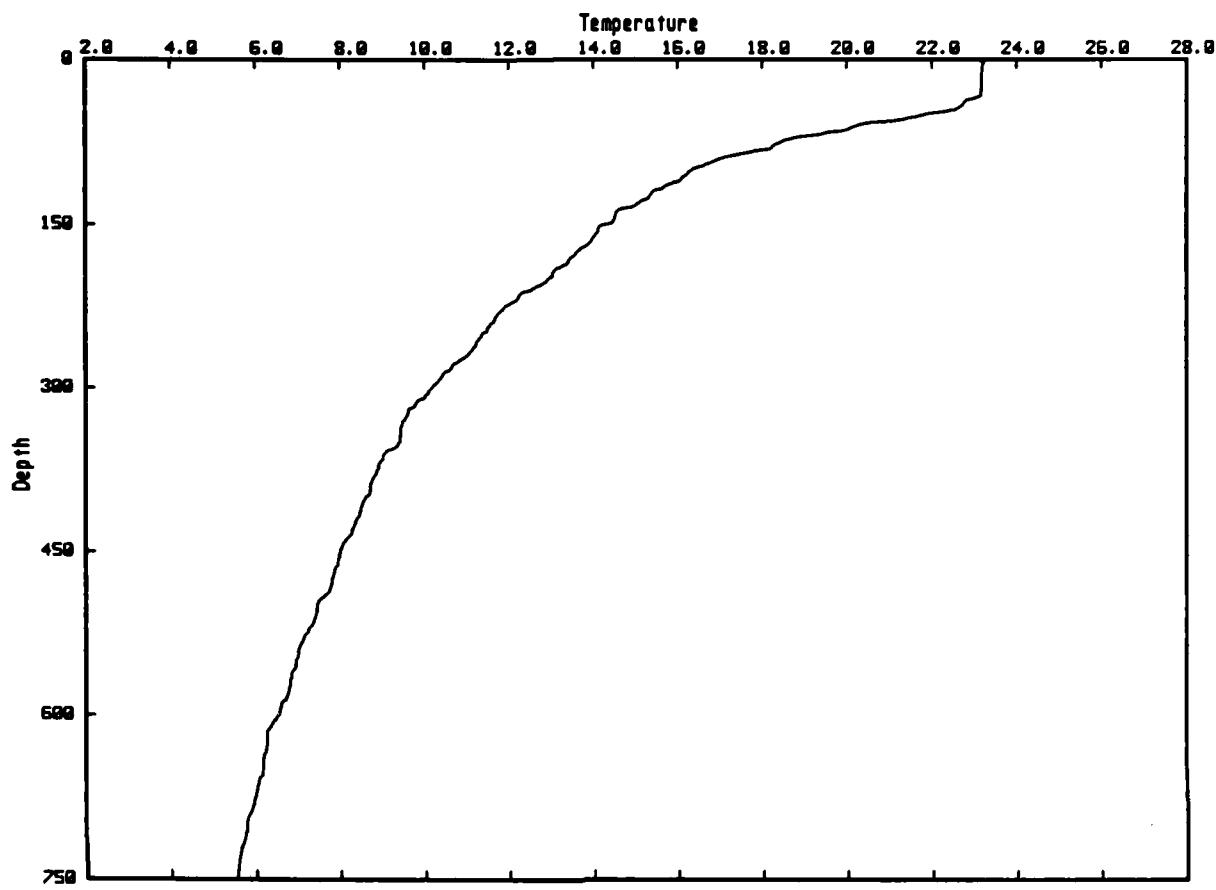
XBT DROP 004 T-7 RADAR: none GULF COORDS: -39.4 133.2  
 JDAY 325 1245Z DEPTH 1500m/760m SST 23.20 2M TEMPS: SAIL 23.45 XBT 23.34  
 GULF OF CALIFORNIA: MX0-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 23.3 | 200 | 12.8 | 390 | 8.9  | 580 | 6.8  |
| 20  | 23.3 | 210 | 12.5 | 400 | 8.8  | 590 | 6.7  |
| 30  | 23.3 | 220 | 12.1 | 410 | 8.7  | 600 | 6.7  |
| 40  | 23.2 | 230 | 12.1 | 420 | 8.5  | 610 | 6.6  |
| 50  | 22.4 | 240 | 11.9 | 430 | 8.4  | 620 | 6.4  |
| 60  | 21.4 | 250 | 11.7 | 440 | 8.3  | 630 | 6.4  |
| 70  | 19.1 | 260 | 11.3 | 450 | 8.2  | 640 | 6.4  |
| 80  | 18.2 | 270 | 11.0 | 460 | 8.1  | 650 | 6.3  |
| 90  | 17.4 | 280 | 10.9 | 470 | 8.1  | 660 | 6.3  |
| 100 | 16.6 | 290 | 10.7 | 480 | 8.0  | 670 | 6.1  |
| 110 | 15.9 | 300 | 10.5 | 490 | 7.9  | 680 | 6.1  |
| 120 | 15.4 | 310 | 10.1 | 500 | 7.7  | 690 | 6.0  |
| 130 | 15.0 | 320 | 10.0 | 510 | 7.6  | 700 | 6.0  |
| 140 | 14.8 | 330 | 9.8  | 520 | 7.5  | 710 | 5.9  |
| 150 | 14.6 | 340 | 9.6  | 530 | 7.4  | 720 | 5.8  |
| 160 | 14.5 | 350 | 9.4  | 540 | 7.3  | 730 | 5.8  |
| 170 | 13.8 | 360 | 9.3  | 550 | 7.2  | 740 | 5.7  |
| 180 | 13.5 | 370 | 9.3  | 560 | 7.1  | 750 | 5.6  |
| 190 | 12.9 | 380 | 9.2  | 570 | 6.9  | 760 | 5.6  |

XBT DROP 005

27 47.4N 112 9.7W

20 NOV 84 0600 MST



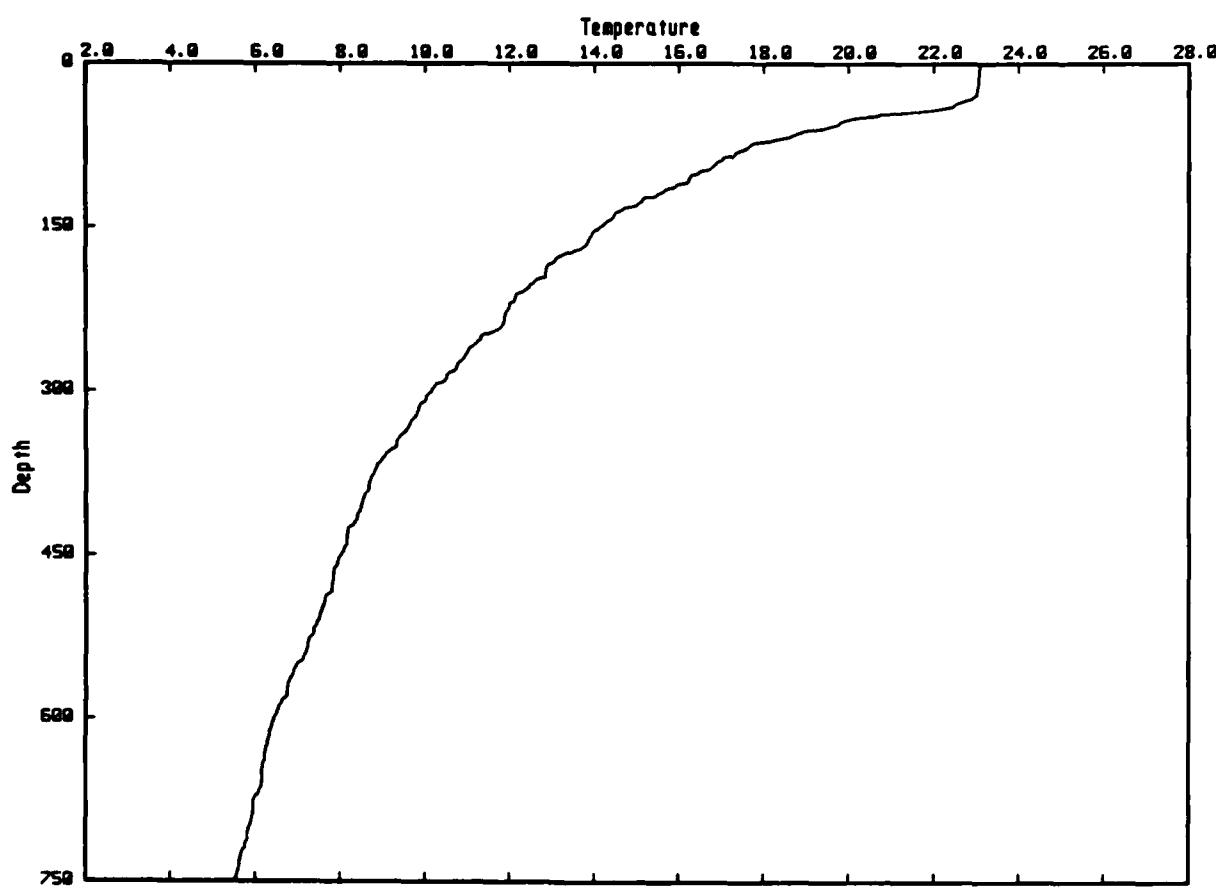
XBT DROP 005 T-7 RADAR: none GULF COORDS: -41.1 138.4  
 JDAY 325 1300Z DEPTH 1380m/760m SST 23.10 2M TEMPS: SAIL 23.32 XBT 23.17  
 GULF OF CALIFORNIA: MX0-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 23.2 | 200 | 12.9 | 390 | 8.7  | 580 | 6.8  |
| 20  | 23.2 | 210 | 12.5 | 400 | 8.6  | 590 | 6.6  |
| 30  | 23.2 | 220 | 12.1 | 410 | 8.5  | 600 | 6.6  |
| 40  | 22.7 | 230 | 11.8 | 420 | 8.4  | 610 | 6.4  |
| 50  | 21.9 | 240 | 11.6 | 430 | 8.3  | 620 | 6.3  |
| 60  | 20.2 | 250 | 11.4 | 440 | 8.1  | 630 | 6.3  |
| 70  | 19.1 | 260 | 11.2 | 450 | 8.0  | 640 | 6.2  |
| 80  | 18.2 | 270 | 11.0 | 460 | 8.0  | 650 | 6.2  |
| 90  | 17.1 | 280 | 10.6 | 470 | 7.9  | 660 | 6.1  |
| 100 | 16.4 | 290 | 10.4 | 480 | 7.8  | 670 | 6.0  |
| 110 | 16.1 | 300 | 10.2 | 490 | 7.6  | 680 | 6.0  |
| 120 | 15.4 | 310 | 9.9  | 500 | 7.5  | 690 | 5.9  |
| 130 | 15.1 | 320 | 9.6  | 510 | 7.4  | 700 | 5.8  |
| 140 | 14.5 | 330 | 9.5  | 520 | 7.3  | 710 | 5.8  |
| 150 | 14.3 | 340 | 9.4  | 530 | 7.1  | 720 | 5.7  |
| 160 | 14.1 | 350 | 9.4  | 540 | 7.0  | 730 | 5.6  |
| 170 | 13.8 | 360 | 9.0  | 550 | 7.0  | 740 | 5.6  |
| 180 | 13.5 | 370 | 8.9  | 560 | 6.9  | 750 | 5.6  |
| 190 | 13.2 | 380 | 8.8  | 570 | 6.8  | 760 | 5.5  |

XBT DROP 006

27 48.4N 112 12.2W

20 NOV 84 0615 MST



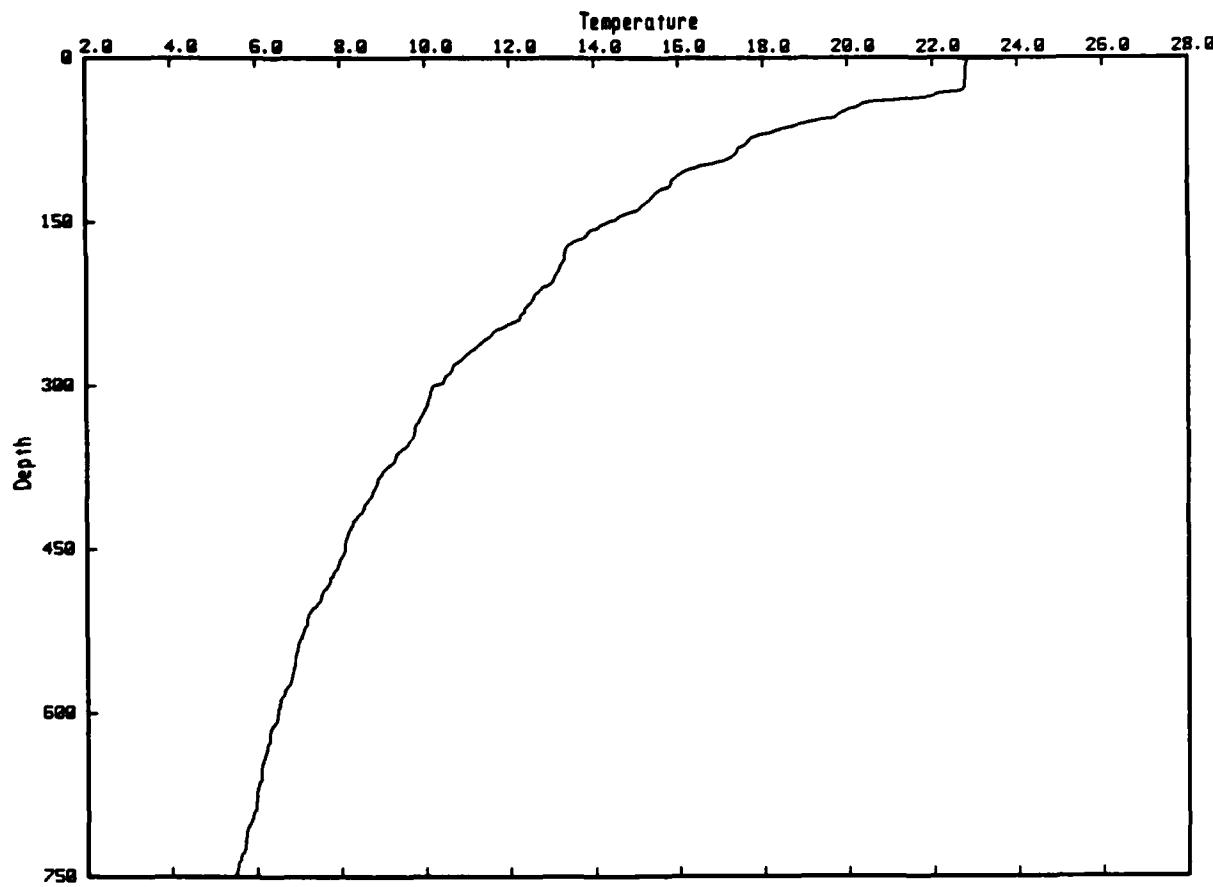
XBT DROP 006 T-7 RADAR: none GULF COORDS: -43.4 142.3  
 JDAY 325 1315Z DEPTH 1214m/760m SST 22.90 2M TEMPS: SAIL 23.18 XBT 23.10  
 GULF OF CALIFORNIA: MX0-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 23.1 | 200 | 12.6 | 390 | 8.7  | 580 | 6.7  |
| 20  | 23.1 | 210 | 12.2 | 400 | 8.5  | 590 | 6.5  |
| 30  | 23.0 | 220 | 12.0 | 410 | 8.5  | 600 | 6.4  |
| 40  | 22.4 | 230 | 11.9 | 420 | 8.3  | 610 | 6.3  |
| 50  | 20.2 | 240 | 11.8 | 430 | 8.2  | 620 | 6.3  |
| 60  | 19.3 | 250 | 11.3 | 440 | 8.1  | 630 | 6.2  |
| 70  | 18.3 | 260 | 11.1 | 450 | 8.0  | 640 | 6.2  |
| 80  | 17.4 | 270 | 10.9 | 460 | 7.9  | 650 | 6.2  |
| 90  | 17.0 | 280 | 10.7 | 470 | 7.8  | 660 | 6.1  |
| 100 | 16.5 | 290 | 10.5 | 480 | 7.8  | 670 | 6.1  |
| 110 | 16.1 | 300 | 10.1 | 490 | 7.6  | 680 | 5.9  |
| 120 | 15.5 | 310 | 9.9  | 500 | 7.6  | 690 | 5.9  |
| 130 | 15.0 | 320 | 9.8  | 510 | 7.5  | 700 | 5.9  |
| 140 | 14.5 | 330 | 9.6  | 520 | 7.4  | 710 | 5.8  |
| 150 | 14.1 | 340 | 9.4  | 530 | 7.2  | 720 | 5.7  |
| 160 | 13.9 | 350 | 9.3  | 540 | 7.2  | 730 | 5.6  |
| 170 | 13.7 | 360 | 9.0  | 550 | 7.0  | 740 | 5.6  |
| 180 | 13.1 | 370 | 8.8  | 560 | 6.9  | 750 | 5.5  |
| 190 | 12.9 | 380 | 8.7  | 570 | 6.8  | 760 | 5.4  |

XBT DROP 007

27 49.9N 112 15.1W

20 NOV 84 0630 MST



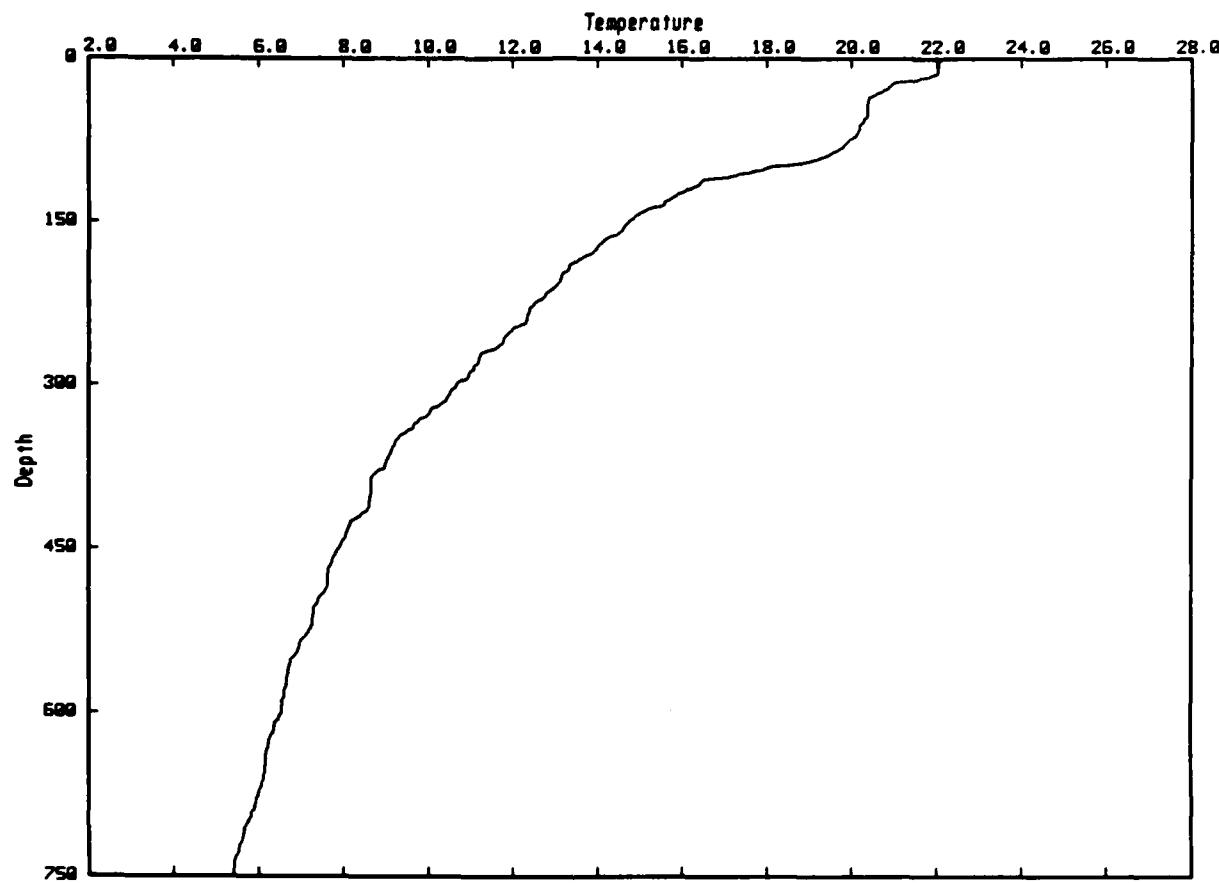
XBT DROP 007 T-7 RADAR: none GULF COORDS: -45.6 147.3  
 JDAY 325 1330Z DEPTH 1260m/760m SST 22.55 2M TEMPS: SAIL 22.90 XBT 22.80  
 GULF OF CALIFORNIA: MX8-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 22.8 | 200 | 13.1 | 390 | 8.9  | 580 | 6.7  |
| 20  | 22.8 | 210 | 12.8 | 400 | 8.7  | 590 | 6.5  |
| 30  | 22.7 | 220 | 12.6 | 410 | 8.6  | 600 | 6.5  |
| 40  | 20.6 | 230 | 12.4 | 420 | 8.4  | 610 | 6.4  |
| 50  | 19.9 | 240 | 12.2 | 430 | 8.2  | 620 | 6.3  |
| 60  | 19.0 | 250 | 11.7 | 440 | 8.1  | 630 | 6.2  |
| 70  | 18.1 | 260 | 11.4 | 450 | 8.1  | 640 | 6.2  |
| 80  | 17.6 | 270 | 11.0 | 460 | 8.0  | 650 | 6.1  |
| 90  | 17.3 | 280 | 10.7 | 470 | 7.9  | 660 | 6.1  |
| 100 | 16.4 | 290 | 10.6 | 480 | 7.7  | 670 | 6.0  |
| 110 | 15.9 | 300 | 10.2 | 490 | 7.6  | 680 | 6.0  |
| 120 | 15.6 | 310 | 10.1 | 500 | 7.4  | 690 | 5.9  |
| 130 | 15.3 | 320 | 10.0 | 510 | 7.2  | 700 | 5.8  |
| 140 | 14.9 | 330 | 9.9  | 520 | 7.2  | 710 | 5.7  |
| 150 | 14.4 | 340 | 9.7  | 530 | 7.1  | 720 | 5.7  |
| 160 | 13.9 | 350 | 9.7  | 540 | 7.0  | 730 | 5.6  |
| 170 | 13.5 | 360 | 9.4  | 550 | 6.9  | 740 | 5.6  |
| 180 | 13.3 | 370 | 9.3  | 560 | 6.9  | 750 | 5.5  |
| 190 | 13.2 | 380 | 9.0  | 570 | 6.8  | 760 | 5.4  |

XBT DROP 008

27 50.9N 112 17.5W

20 NOV 84 0645 MST



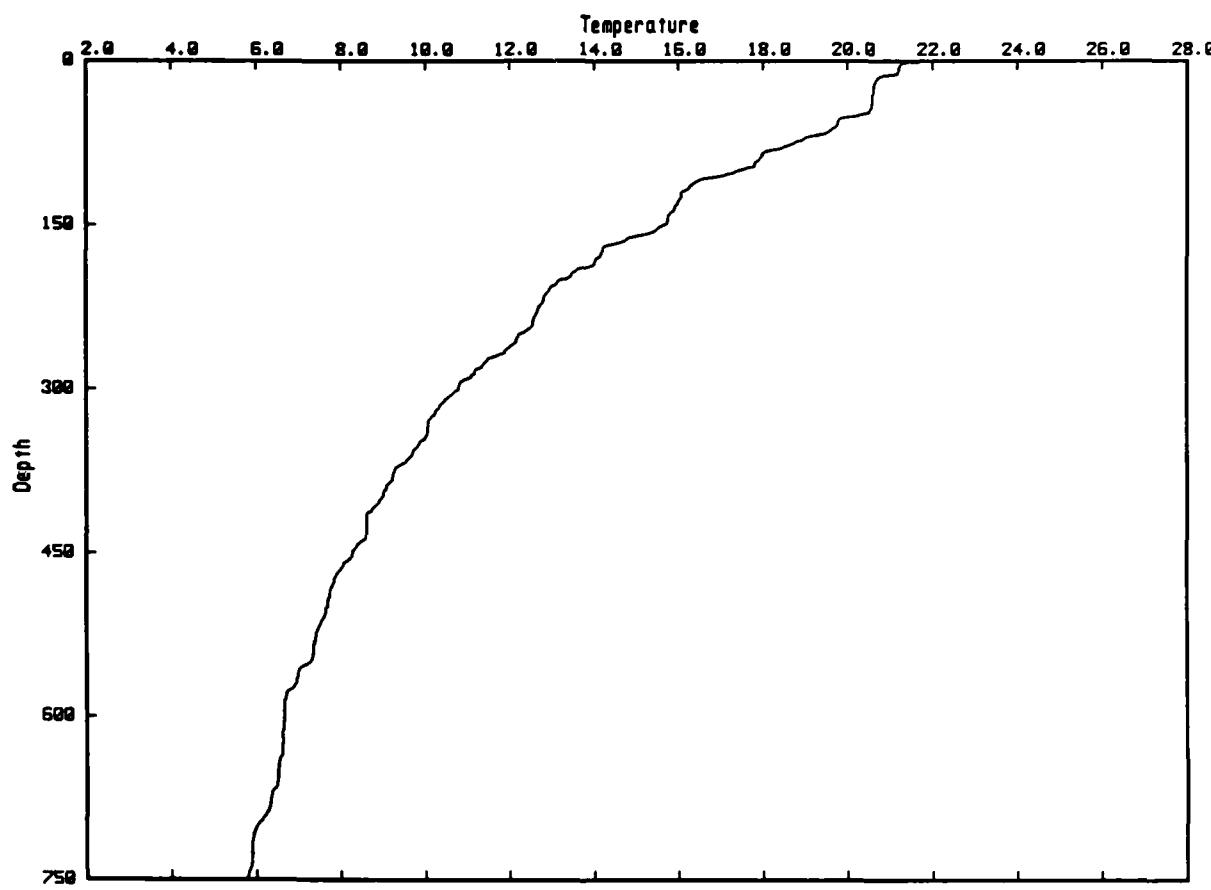
XBT DROP 008 T-7 RADAR: none GULF COORDS: -47.7 151.1  
JDAY 325 1345Z DEPTH 1158m/760m SST 22.20 2M TEMPS: SAIL 22.33 XBT 22.13  
GULF OF CALIFORNIA: MX0-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 22.0 | 200 | 13.2 | 390 | 8.7  | 580 | 6.6  |
| 20  | 21.5 | 210 | 13.0 | 400 | 8.7  | 590 | 6.6  |
| 30  | 20.7 | 220 | 12.7 | 410 | 8.6  | 600 | 6.5  |
| 40  | 20.4 | 230 | 12.4 | 420 | 8.4  | 610 | 6.4  |
| 50  | 20.4 | 240 | 12.3 | 430 | 8.1  | 620 | 6.3  |
| 60  | 20.2 | 250 | 12.0 | 440 | 8.0  | 630 | 6.2  |
| 70  | 20.1 | 260 | 11.8 | 450 | 7.9  | 640 | 6.2  |
| 80  | 19.8 | 270 | 11.3 | 460 | 7.7  | 650 | 6.2  |
| 90  | 19.4 | 280 | 11.2 | 470 | 7.6  | 660 | 6.1  |
| 100 | 18.1 | 290 | 11.0 | 480 | 7.6  | 670 | 6.0  |
| 110 | 16.7 | 300 | 10.7 | 490 | 7.6  | 680 | 5.9  |
| 120 | 16.2 | 310 | 10.5 | 500 | 7.4  | 690 | 5.9  |
| 130 | 15.7 | 320 | 10.2 | 510 | 7.3  | 700 | 5.8  |
| 140 | 15.1 | 330 | 9.9  | 520 | 7.3  | 710 | 5.7  |
| 150 | 14.7 | 340 | 9.6  | 530 | 7.1  | 720 | 5.6  |
| 160 | 14.5 | 350 | 9.3  | 540 | 6.9  | 730 | 5.5  |
| 170 | 14.1 | 360 | 9.1  | 550 | 6.8  | 740 | 5.4  |
| 180 | 13.8 | 370 | 9.0  | 560 | 6.7  | 750 | 5.4  |
| 190 | 13.4 | 380 | 8.8  | 570 | 6.7  | 760 | 5.3  |

XBT DROP 009

27 52.5N 112 21.2W

20 NOV 84 0706 MST



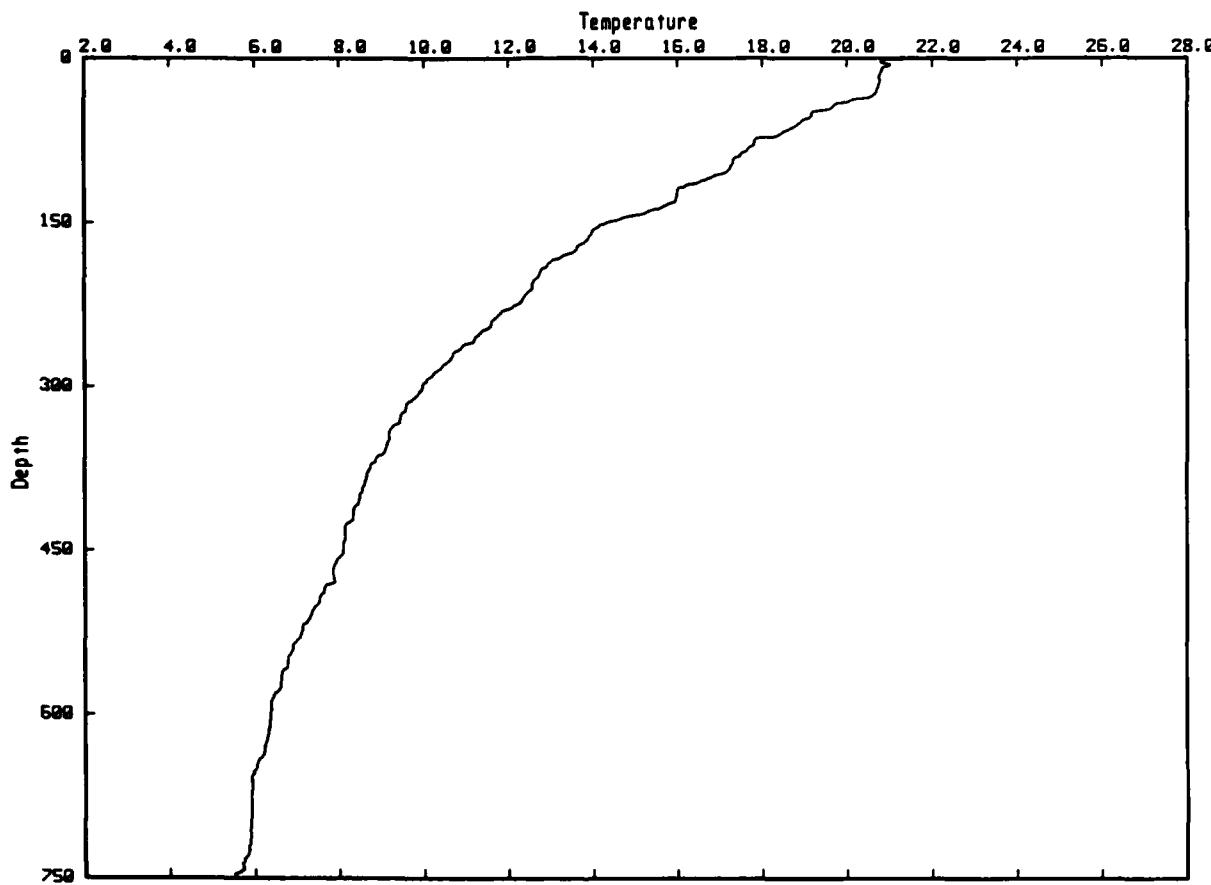
XBT DROP 009 T-7 RADAR: none GULF COORDS: -30.8 157.1  
JDAY 325 1406Z DEPTH 1092m/760m SST 21.15 2M TEMPS: SAIL 21.44 XBT 21.31  
GULF OF CALIFORNIA: MX0-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 21.2 | 200 | 13.3 | 390 | 9.1  | 580 | 6.7  |
| 20  | 20.7 | 210 | 12.9 | 400 | 9.0  | 590 | 6.7  |
| 30  | 20.6 | 220 | 12.8 | 410 | 8.7  | 600 | 6.7  |
| 40  | 20.6 | 230 | 12.7 | 420 | 8.6  | 610 | 6.6  |
| 50  | 20.3 | 240 | 12.6 | 430 | 8.6  | 620 | 6.6  |
| 60  | 19.7 | 250 | 12.2 | 440 | 8.5  | 630 | 6.6  |
| 70  | 19.1 | 260 | 12.0 | 450 | 8.3  | 640 | 6.6  |
| 80  | 18.4 | 270 | 11.6 | 460 | 8.1  | 650 | 6.5  |
| 90  | 17.9 | 280 | 11.3 | 470 | 7.9  | 660 | 6.5  |
| 100 | 17.5 | 290 | 11.0 | 480 | 7.8  | 670 | 6.4  |
| 110 | 16.4 | 300 | 10.8 | 490 | 7.7  | 680 | 6.3  |
| 120 | 16.1 | 310 | 10.5 | 500 | 7.7  | 690 | 6.2  |
| 130 | 16.0 | 320 | 10.2 | 510 | 7.6  | 700 | 6.1  |
| 140 | 15.8 | 330 | 10.1 | 520 | 7.5  | 710 | 5.9  |
| 150 | 15.7 | 340 | 10.1 | 530 | 7.4  | 720 | 5.9  |
| 160 | 15.1 | 350 | 9.8  | 540 | 7.4  | 730 | 5.9  |
| 170 | 14.2 | 360 | 9.7  | 550 | 7.3  | 740 | 5.8  |
| 180 | 14.1 | 370 | 9.4  | 560 | 7.0  | 750 | 5.8  |
| 190 | 13.7 | 380 | 9.2  | 570 | 6.9  | 760 | 5.7  |

XBT DROP 010

27 54.8N 112 22.7W

20 NOV 84 0720 MST



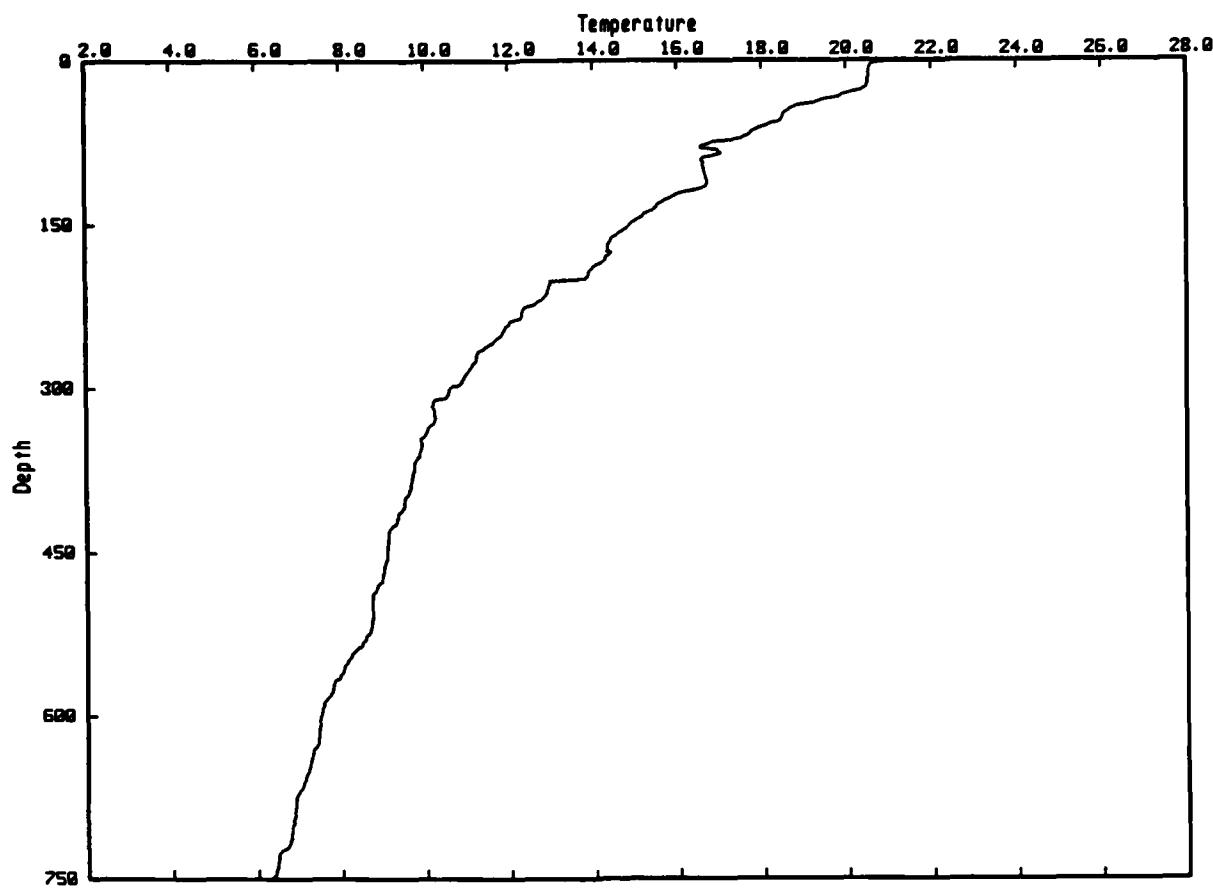
XBT DROP 010 T-7 RADAR: none GULF COORDS: -50.3 162.0  
 JDAY 325 1420Z DEPTH 809m/760m SST 20.80 2M TEMPS: SAIL 20.78 XBT 20.93  
 GULF OF CALIFORNIA: MX00-9, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.8 | 200 | 12.7 | 390 | 8.6  | 580 | 6.5  |
| 20  | 20.8 | 210 | 12.6 | 400 | 8.5  | 590 | 6.4  |
| 30  | 20.7 | 220 | 12.3 | 410 | 8.4  | 600 | 6.4  |
| 40  | 20.1 | 230 | 11.9 | 420 | 8.3  | 610 | 6.3  |
| 50  | 19.2 | 240 | 11.6 | 430 | 8.1  | 620 | 6.3  |
| 60  | 18.9 | 250 | 11.4 | 440 | 8.1  | 630 | 6.2  |
| 70  | 18.4 | 260 | 11.1 | 450 | 8.1  | 640 | 6.1  |
| 80  | 17.8 | 270 | 10.7 | 460 | 7.9  | 650 | 6.0  |
| 90  | 17.5 | 280 | 10.5 | 470 | 7.8  | 660 | 5.9  |
| 100 | 17.3 | 290 | 10.2 | 480 | 7.8  | 670 | 5.9  |
| 110 | 16.7 | 300 | 10.0 | 490 | 7.6  | 680 | 5.9  |
| 120 | 16.0 | 310 | 9.8  | 500 | 7.5  | 690 | 5.9  |
| 130 | 16.0 | 320 | 9.6  | 510 | 7.3  | 700 | 5.9  |
| 140 | 15.3 | 330 | 9.4  | 520 | 7.1  | 710 | 5.9  |
| 150 | 14.4 | 340 | 9.2  | 530 | 7.1  | 720 | 5.9  |
| 160 | 14.0 | 350 | 9.2  | 540 | 6.9  | 730 | 5.8  |
| 170 | 13.7 | 360 | 9.1  | 550 | 6.8  | 740 | 5.7  |
| 180 | 13.4 | 370 | 8.8  | 560 | 6.7  | 750 | 5.5  |
| 190 | 12.9 | 380 | 8.7  | 570 | 6.6  | 760 | 5.4  |

XBT DROP 011

27 56.9N 112 24.1W

20 NOV 84 0735 MST



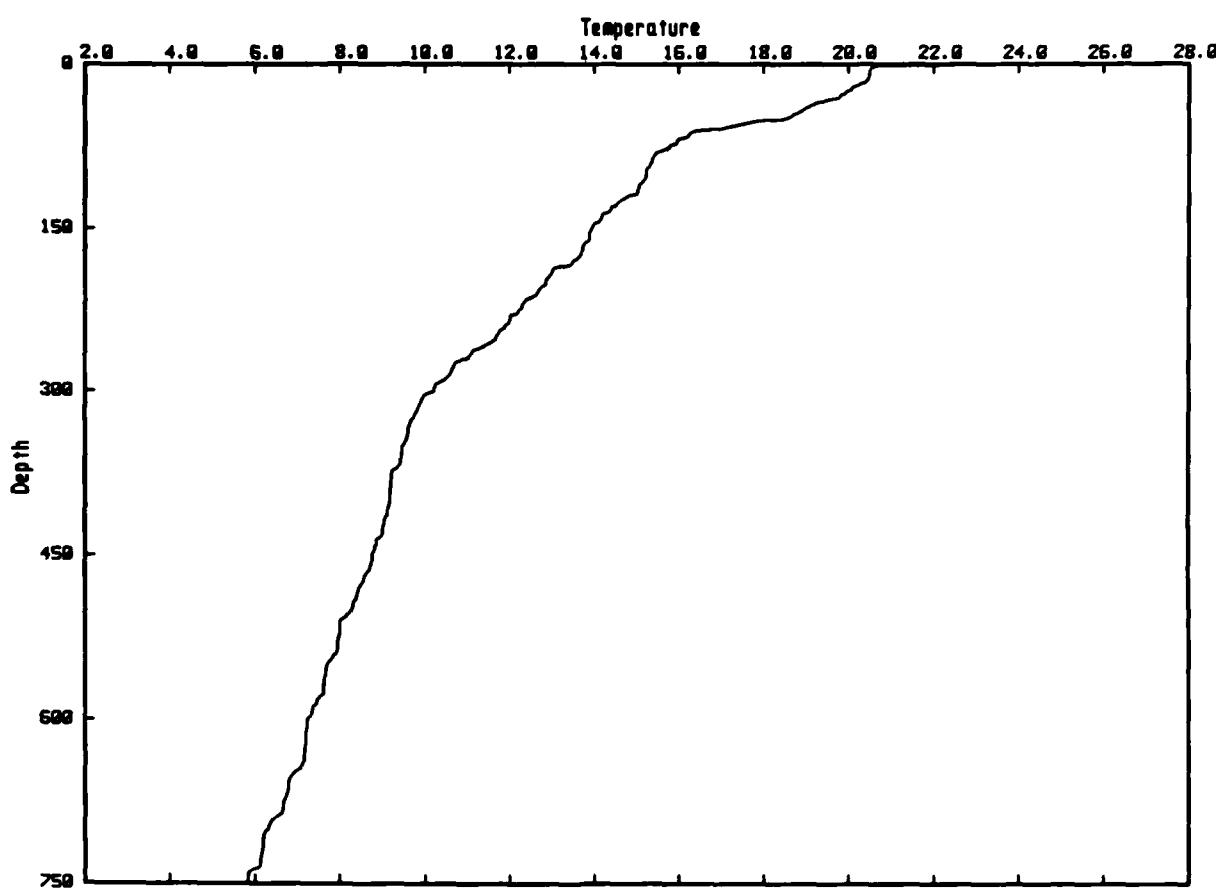
XBT DROP 011 T-7 RADAR: none GULF COORDS: -49.9 166.5  
 JDAY 325 1435Z DEPTH 982m/760m SST 20.60 2M TEMPS: SAIL 20.68 XBT 20.89  
 GULF OF CALIFORNIA: MX0-10, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.5 | 200 | 13.9 | 390 | 9.7  | 580 | 7.7  |
| 20  | 20.5 | 210 | 12.9 | 400 | 9.5  | 590 | 7.6  |
| 30  | 20.1 | 220 | 12.7 | 410 | 9.5  | 600 | 7.5  |
| 40  | 19.1 | 230 | 12.3 | 420 | 9.3  | 610 | 7.5  |
| 50  | 18.5 | 240 | 12.0 | 430 | 9.1  | 620 | 7.5  |
| 60  | 18.1 | 250 | 11.8 | 440 | 9.1  | 630 | 7.4  |
| 70  | 17.6 | 260 | 11.5 | 450 | 9.1  | 640 | 7.3  |
| 80  | 16.5 | 270 | 11.2 | 460 | 9.1  | 650 | 7.2  |
| 90  | 16.6 | 280 | 11.1 | 470 | 9.0  | 660 | 7.1  |
| 100 | 16.6 | 290 | 10.9 | 480 | 8.9  | 670 | 7.0  |
| 110 | 16.7 | 300 | 10.6 | 490 | 8.7  | 680 | 6.9  |
| 120 | 16.3 | 310 | 10.3 | 500 | 8.7  | 690 | 6.9  |
| 130 | 15.6 | 320 | 10.2 | 510 | 8.7  | 700 | 6.8  |
| 140 | 15.2 | 330 | 10.2 | 520 | 8.7  | 710 | 6.8  |
| 150 | 14.9 | 340 | 10.0 | 530 | 8.6  | 720 | 6.7  |
| 160 | 14.6 | 350 | 9.9  | 540 | 8.3  | 730 | 6.5  |
| 170 | 14.4 | 360 | 9.9  | 550 | 8.1  | 740 | 6.4  |
| 180 | 14.3 | 370 | 9.7  | 560 | 8.0  | 750 | 6.3  |
| 190 | 14.0 | 380 | 9.7  | 570 | 7.8  | 760 | 6.2  |

XBT DROP 012

27 59.2N 112 25.6W

20 NOV 84 0750 MST



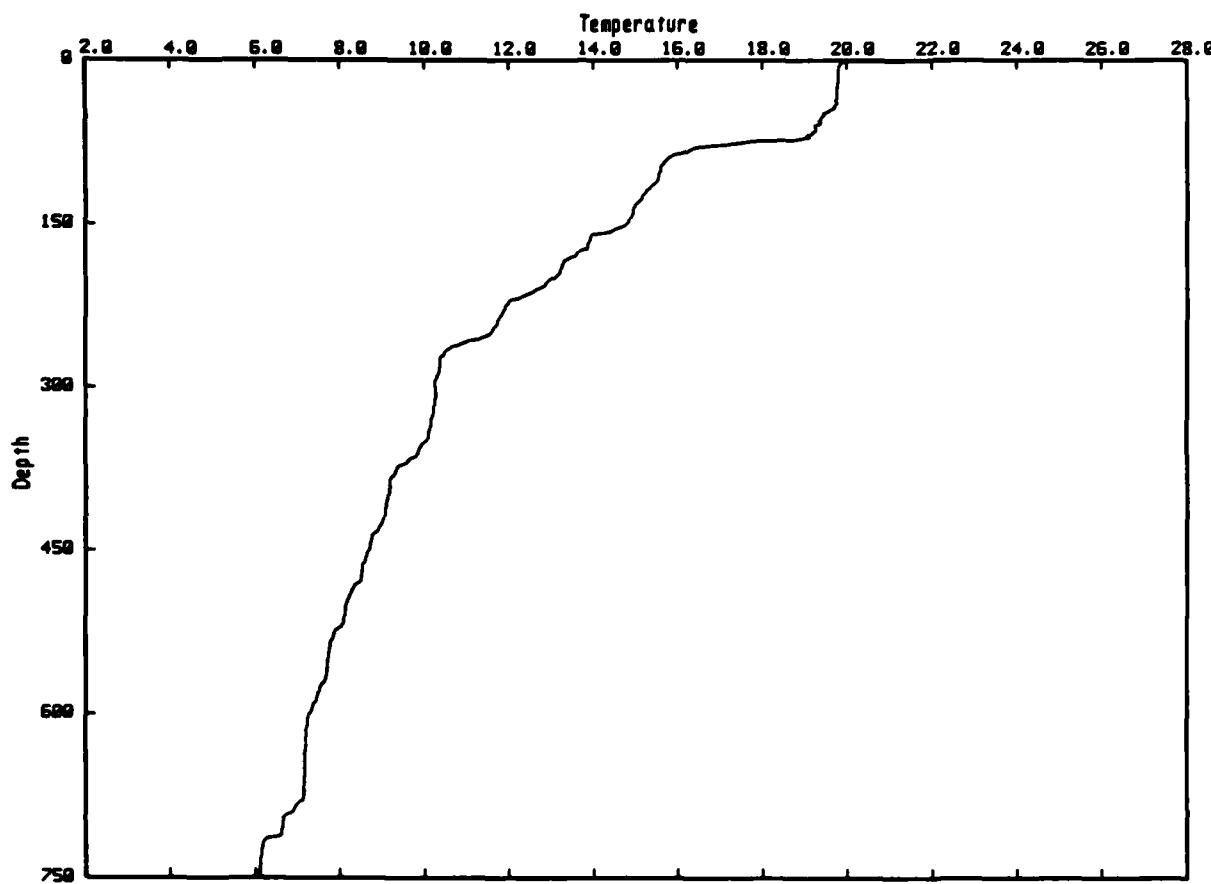
XBT DROP 012 T-7 RADAR: none GULF COORDS: -49.3 171.4  
 JDAY 325 1450Z DEPTH 859m/760m SST 20.55 2M TEMPS: SAIL 20.60 XBT 20.61  
 GULF OF CALIFORNIA: MX0-11, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.5 | 200 | 12.9 | 390 | 9.2  | 580 | 7.5  |
| 20  | 20.2 | 210 | 12.7 | 400 | 9.2  | 590 | 7.4  |
| 30  | 19.8 | 220 | 12.3 | 410 | 9.1  | 600 | 7.3  |
| 40  | 19.0 | 230 | 12.1 | 420 | 9.1  | 610 | 7.2  |
| 50  | 18.5 | 240 | 11.9 | 430 | 9.0  | 620 | 7.2  |
| 60  | 18.6 | 250 | 11.7 | 440 | 8.8  | 630 | 7.2  |
| 70  | 16.0 | 260 | 11.3 | 450 | 8.8  | 640 | 7.1  |
| 80  | 15.5 | 270 | 11.0 | 460 | 8.7  | 650 | 6.9  |
| 90  | 15.4 | 280 | 10.7 | 470 | 8.6  | 660 | 6.8  |
| 100 | 15.2 | 290 | 10.5 | 480 | 8.5  | 670 | 6.7  |
| 110 | 15.1 | 300 | 10.2 | 490 | 8.4  | 680 | 6.7  |
| 120 | 14.9 | 310 | 9.9  | 500 | 8.3  | 690 | 6.5  |
| 130 | 14.4 | 320 | 9.8  | 510 | 8.0  | 700 | 6.3  |
| 140 | 14.2 | 330 | 9.7  | 520 | 8.0  | 710 | 6.2  |
| 150 | 14.0 | 340 | 9.6  | 530 | 8.0  | 720 | 6.2  |
| 160 | 13.9 | 350 | 9.5  | 540 | 7.9  | 730 | 6.1  |
| 170 | 13.7 | 360 | 9.5  | 550 | 7.7  | 740 | 5.9  |
| 180 | 13.5 | 370 | 9.4  | 560 | 7.7  | 750 | 5.8  |
| 190 | 13.0 | 380 | 9.2  | 570 | 7.6  | 760 | 5.8  |

XBT DROP 015

28 2.8N 112 28.0W

20 NOV 84 0813 MST



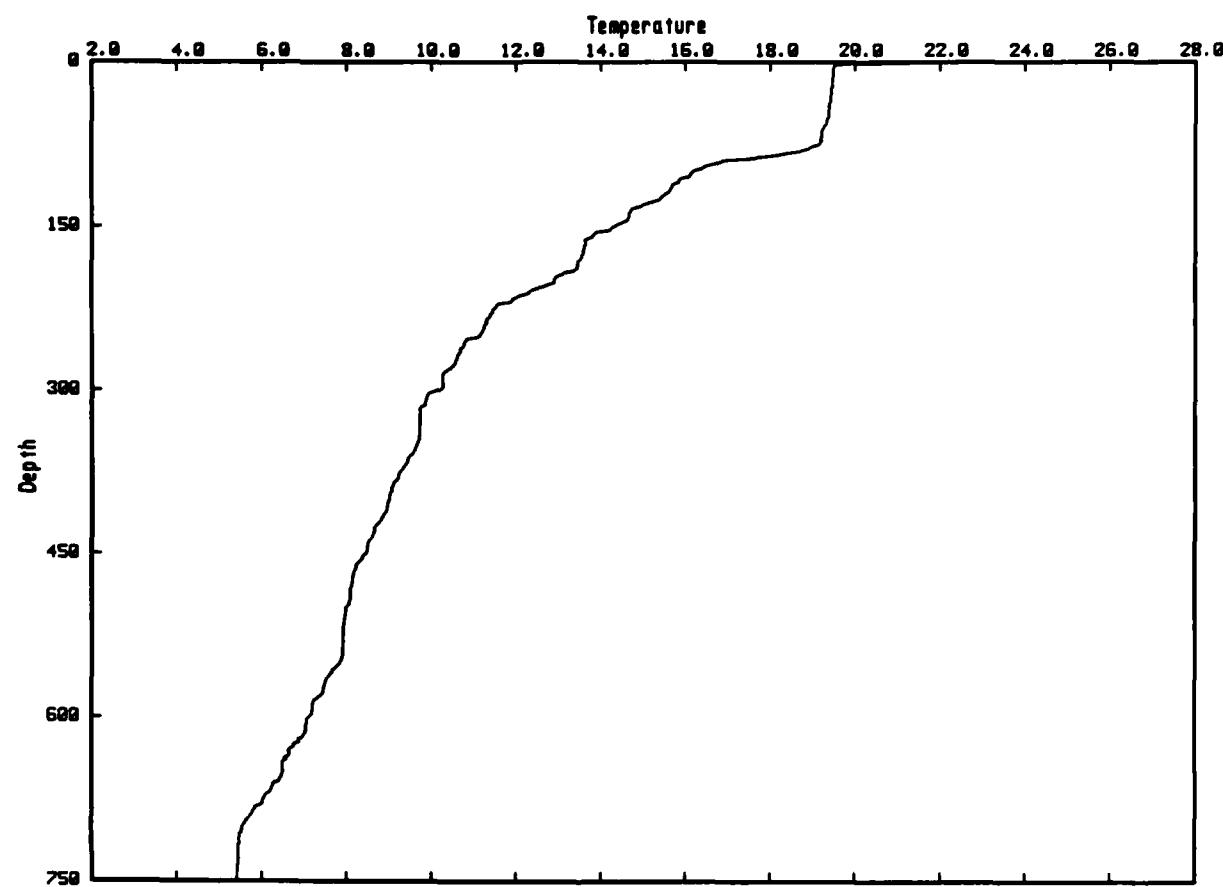
XBT DROP 015 T-7 RADAR: none GULF COORDS: -48.6 179.0  
 JDAY 325 1513Z DEPTH 982m/760m SST 20.00 2M TEMPS: SAIL 20.28 XBT 19.90  
 GULF OF CALIFORNIA: MX9-12, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 13.0 | 390 | 9.2  | 580 | 7.5  |
| 20  | 19.8 | 210 | 12.6 | 400 | 9.1  | 590 | 7.4  |
| 30  | 19.8 | 220 | 12.0 | 410 | 9.1  | 600 | 7.3  |
| 40  | 19.7 | 230 | 11.9 | 420 | 9.1  | 610 | 7.2  |
| 50  | 19.4 | 240 | 11.7 | 430 | 8.9  | 620 | 7.2  |
| 60  | 19.2 | 250 | 11.6 | 440 | 8.7  | 630 | 7.2  |
| 70  | 19.0 | 260 | 10.9 | 450 | 8.7  | 640 | 7.2  |
| 80  | 16.4 | 270 | 10.5 | 460 | 8.6  | 650 | 7.2  |
| 90  | 15.8 | 280 | 10.4 | 470 | 8.5  | 660 | 7.2  |
| 100 | 15.6 | 290 | 10.3 | 480 | 8.4  | 670 | 7.1  |
| 110 | 15.5 | 300 | 10.3 | 490 | 8.2  | 680 | 7.1  |
| 120 | 15.3 | 310 | 10.3 | 500 | 8.1  | 690 | 6.9  |
| 130 | 15.1 | 320 | 10.2 | 510 | 8.1  | 700 | 6.7  |
| 140 | 14.9 | 330 | 10.2 | 520 | 8.0  | 710 | 6.6  |
| 150 | 14.8 | 340 | 10.1 | 530 | 7.8  | 720 | 6.2  |
| 160 | 14.6 | 350 | 10.0 | 540 | 7.8  | 730 | 6.2  |
| 170 | 13.9 | 360 | 9.9  | 550 | 7.7  | 740 | 6.1  |
| 180 | 13.5 | 370 | 9.5  | 560 | 7.7  | 750 | 6.1  |
| 190 | 13.3 | 380 | 9.3  | 570 | 7.6  | 760 | 5.9  |

XBT DROP 017

28 6.2N 112 30.0W

20 NOV 84 0834 MST



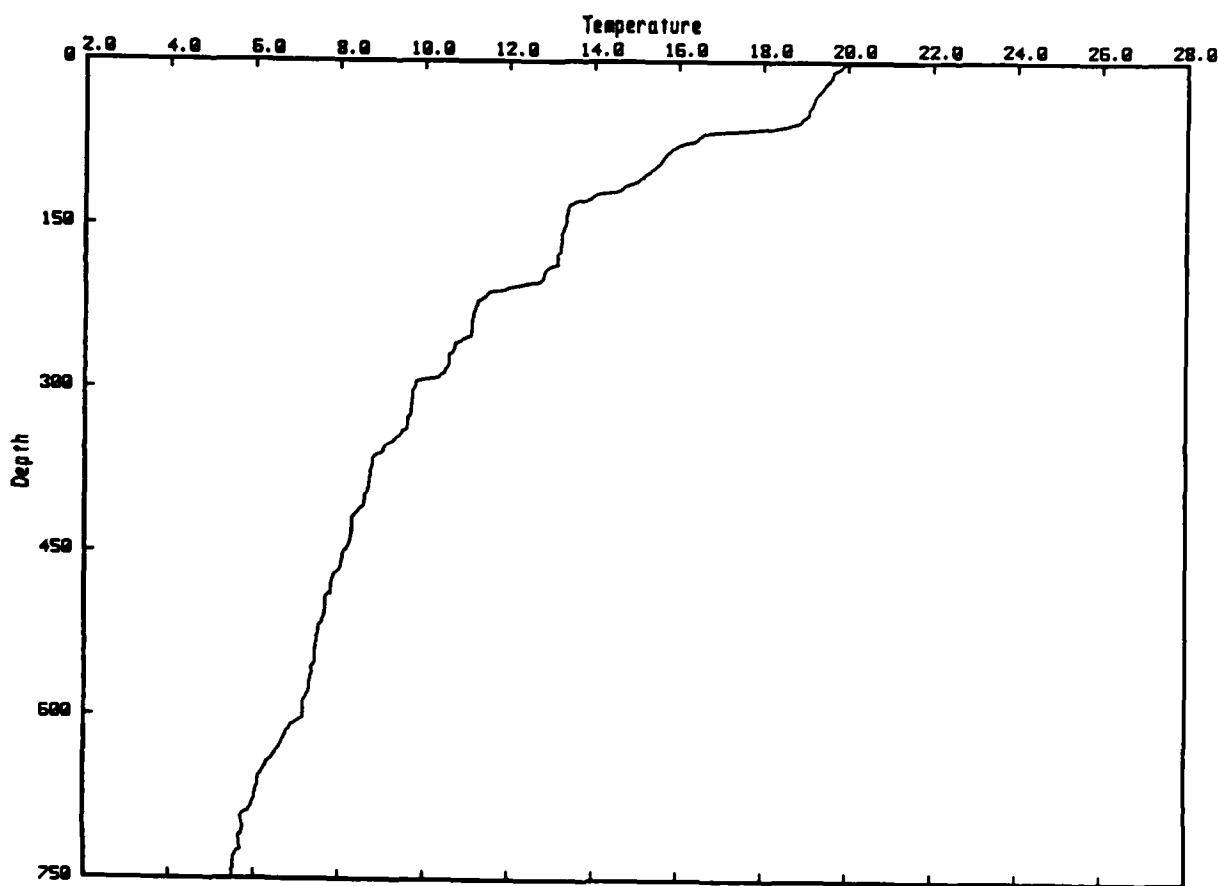
XBT DROP 017 T-7 RADAR: none GULF COORDS: -47.5 186.0  
 JDAY 325 1534Z DEPTH 825m/760m SST 19.60 2M TEMPS: SAIL 19.66 XBT 19.96  
 GULF OF CALIFORNIA: MDX-13, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.5 | 200 | 12.9 | 390 | 9.1  | 580 | 7.4  |
| 20  | 19.5 | 210 | 12.3 | 400 | 9.0  | 590 | 7.2  |
| 30  | 19.4 | 220 | 11.6 | 410 | 8.9  | 600 | 7.1  |
| 40  | 19.4 | 230 | 11.4 | 420 | 8.8  | 610 | 7.1  |
| 50  | 19.4 | 240 | 11.3 | 430 | 8.6  | 620 | 6.9  |
| 60  | 19.3 | 250 | 11.1 | 440 | 8.5  | 630 | 6.8  |
| 70  | 19.2 | 260 | 10.8 | 450 | 8.5  | 640 | 6.5  |
| 80  | 18.8 | 270 | 10.6 | 460 | 8.2  | 650 | 6.5  |
| 90  | 16.9 | 280 | 10.4 | 470 | 8.2  | 660 | 6.3  |
| 100 | 16.2 | 290 | 10.3 | 480 | 8.1  | 670 | 6.2  |
| 110 | 15.8 | 300 | 10.1 | 490 | 8.1  | 680 | 6.0  |
| 120 | 15.6 | 310 | 9.9  | 500 | 8.0  | 690 | 5.7  |
| 130 | 15.0 | 320 | 9.7  | 510 | 8.0  | 700 | 5.6  |
| 140 | 14.7 | 330 | 9.7  | 520 | 7.9  | 710 | 5.5  |
| 150 | 14.3 | 340 | 9.7  | 530 | 7.9  | 720 | 5.5  |
| 160 | 13.8 | 350 | 9.7  | 540 | 7.9  | 730 | 5.4  |
| 170 | 13.6 | 360 | 9.5  | 550 | 7.8  | 740 | 5.4  |
| 180 | 13.5 | 370 | 9.3  | 560 | 7.6  | 750 | 5.4  |
| 190 | 13.4 | 380 | 9.2  | 570 | 7.5  | 760 | 5.3  |

XBT DROP 019

28 6.9N 112 29.4W

20 NOV 84 0935 MST



XBT DROP 019 T-7 RADAR: none GULF COORDS: -45.9 186.5  
 JDAY 325 1635Z DEPTH 805m/760m SST 20.05 2M TEMPS: SAIL 19.94 XBT 19.96  
 GULF OF CALIFORNIA: END MXO LINE, MXO-14, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.6 | 200 | 12.8 | 390 | 8.7  | 580 | 7.3  |
| 20  | 19.5 | 210 | 11.8 | 400 | 8.6  | 590 | 7.2  |
| 30  | 19.3 | 220 | 11.3 | 410 | 8.5  | 600 | 7.2  |
| 40  | 19.1 | 230 | 11.2 | 420 | 8.3  | 610 | 6.9  |
| 50  | 19.0 | 240 | 11.1 | 430 | 8.3  | 620 | 6.7  |
| 60  | 18.4 | 250 | 11.1 | 440 | 8.3  | 630 | 6.6  |
| 70  | 18.5 | 260 | 10.7 | 450 | 8.1  | 640 | 6.4  |
| 80  | 15.8 | 270 | 10.6 | 460 | 8.1  | 650 | 6.2  |
| 90  | 15.6 | 280 | 10.6 | 470 | 7.9  | 660 | 6.1  |
| 100 | 15.3 | 290 | 10.4 | 480 | 7.8  | 670 | 6.1  |
| 110 | 15.0 | 300 | 9.8  | 490 | 7.7  | 680 | 6.0  |
| 120 | 14.5 | 310 | 9.7  | 500 | 7.7  | 690 | 5.8  |
| 130 | 13.5 | 320 | 9.7  | 510 | 7.6  | 700 | 5.8  |
| 140 | 13.4 | 330 | 9.6  | 520 | 7.5  | 710 | 5.7  |
| 150 | 13.3 | 340 | 9.5  | 530 | 7.5  | 720 | 5.7  |
| 160 | 13.3 | 350 | 9.2  | 540 | 7.4  | 730 | 5.5  |
| 170 | 13.2 | 360 | 8.9  | 550 | 7.4  | 740 | 5.5  |
| 180 | 13.2 | 370 | 8.8  | 560 | 7.4  | 750 | 5.5  |
| 190 | 12.9 | 380 | 8.7  | 570 | 7.3  | 760 | 5.4  |

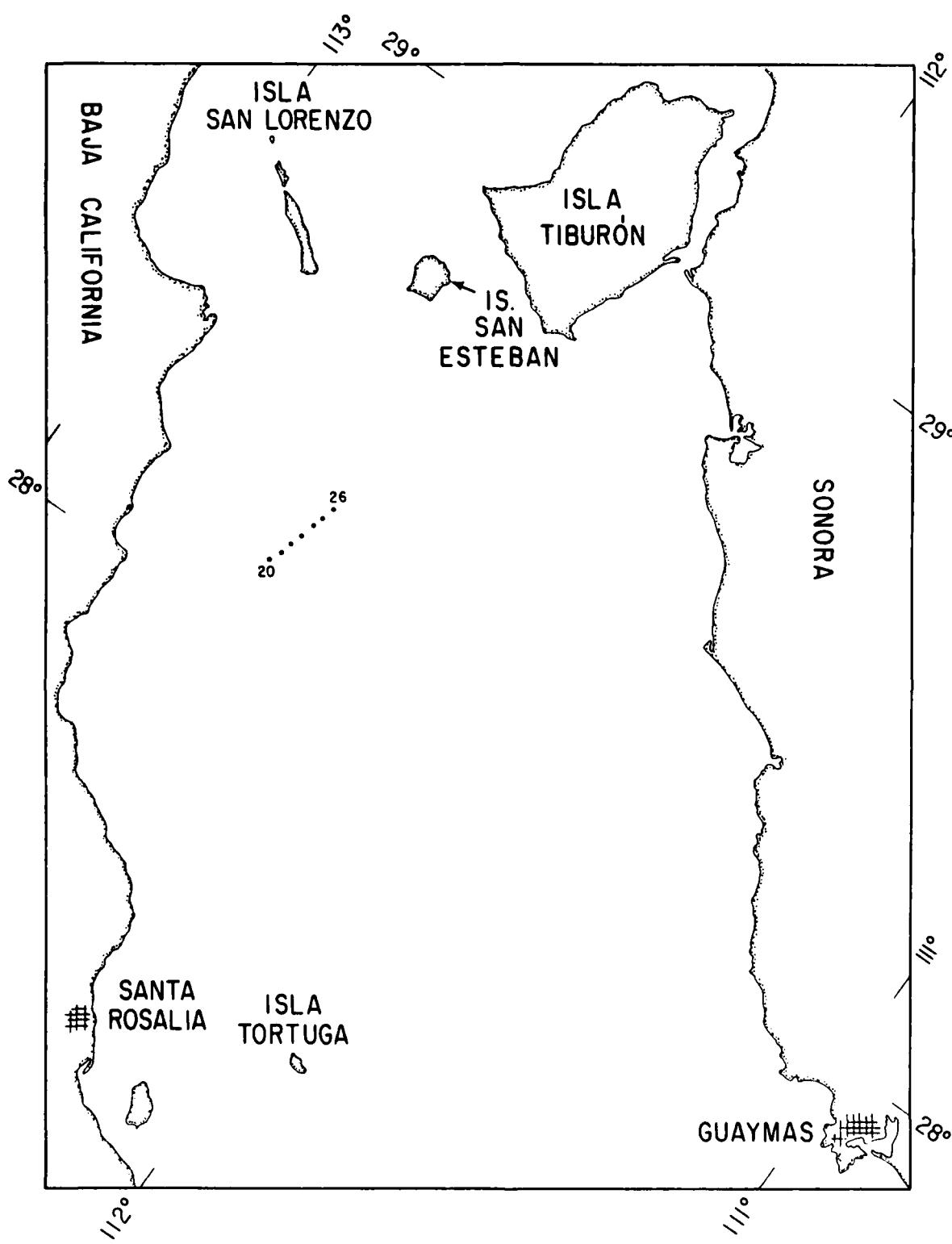
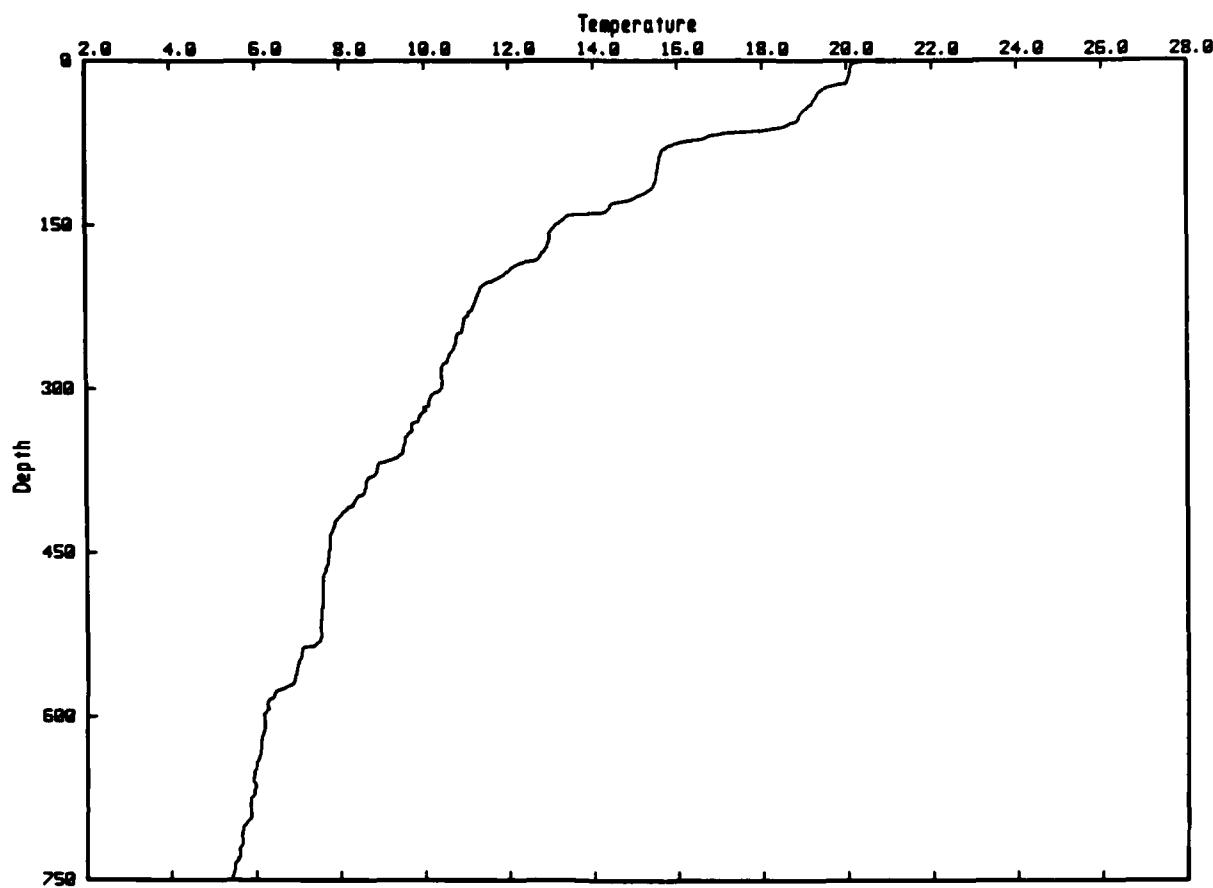


Figure 9. MX1A Section: XBT Station Locations

XBT DROP 020

28 7.8N 112 29.1W

20 NOV 84 0943 MST



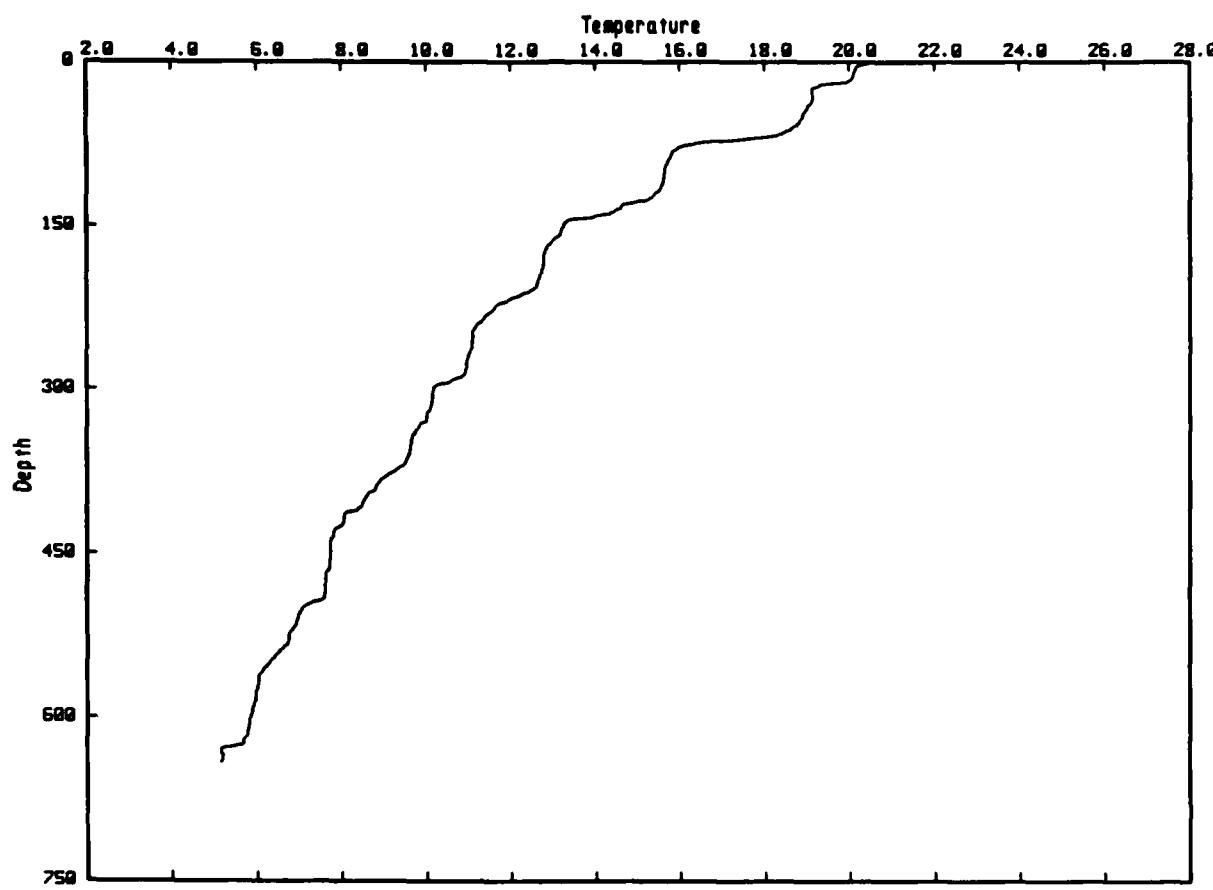
XBT DROP 020 T-7 RADAR: none GULF COORDS: -44.5 187.6  
 JDAY 325 1643Z DEPTH 768m/760m SST 20.20 2M TEMPS: SAIL 20.14 XBT 20.27  
 GULF OF CALIFORNIA: GUAYMAS BASIN, BEGIN MX1A LINE; MX1A-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.7 | 390 | 8.6  | 580 | 6.4  |
| 20  | 20.0 | 210 | 11.3 | 400 | 8.4  | 590 | 6.2  |
| 30  | 19.3 | 220 | 11.2 | 410 | 8.1  | 600 | 6.2  |
| 40  | 19.2 | 230 | 11.0 | 420 | 7.9  | 610 | 6.2  |
| 50  | 18.9 | 240 | 10.9 | 430 | 7.8  | 620 | 6.1  |
| 60  | 18.5 | 250 | 10.8 | 440 | 7.7  | 630 | 6.1  |
| 70  | 16.7 | 260 | 10.7 | 450 | 7.7  | 640 | 6.0  |
| 80  | 15.7 | 270 | 10.6 | 460 | 7.7  | 650 | 5.9  |
| 90  | 15.8 | 280 | 10.4 | 470 | 7.6  | 660 | 5.9  |
| 100 | 15.5 | 290 | 10.4 | 480 | 7.6  | 670 | 5.9  |
| 110 | 15.5 | 300 | 10.4 | 490 | 7.6  | 680 | 5.8  |
| 120 | 15.3 | 310 | 10.1 | 500 | 7.6  | 690 | 5.9  |
| 130 | 14.5 | 320 | 10.0 | 510 | 7.5  | 700 | 5.7  |
| 140 | 14.1 | 330 | 9.8  | 520 | 7.5  | 710 | 5.6  |
| 150 | 13.1 | 340 | 9.6  | 530 | 7.5  | 720 | 5.6  |
| 160 | 13.0 | 350 | 9.5  | 540 | 7.1  | 730 | 5.6  |
| 170 | 12.9 | 360 | 9.4  | 550 | 7.0  | 740 | 5.5  |
| 180 | 12.7 | 370 | 8.9  | 560 | 6.9  | 750 | 5.4  |
| 190 | 12.1 | 380 | 8.7  | 570 | 6.8  | 760 | 5.4  |

XBT DROP 021

28 9.3N 112 28.6W

20 NOV 84 0951 MST



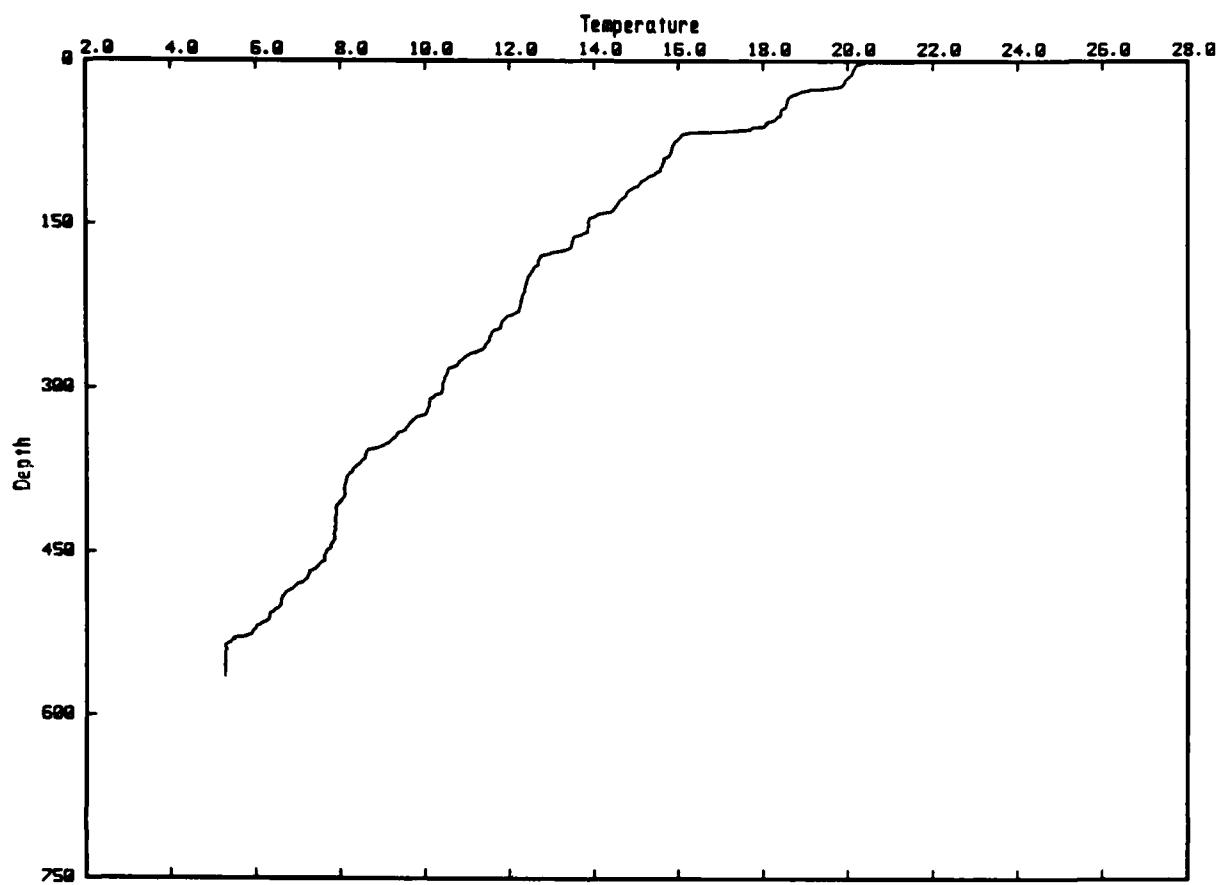
XBT DROP 021 T-7 RADAR: none GULF COORDS: -42.2 189.3  
 JDAY 325 1651Z DEPTH 642m/642m SST 20.30 2M TEMPS: SAIL 20.27 XBT 20.43  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1A-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.7 | 390 | 8.8  | 580 | 6.0  |
| 20  | 19.5 | 210 | 12.4 | 400 | 8.6  | 590 | 5.9  |
| 30  | 19.1 | 220 | 11.8 | 410 | 8.4  | 600 | 5.8  |
| 40  | 19.0 | 230 | 11.5 | 420 | 8.1  | 610 | 5.8  |
| 50  | 18.9 | 240 | 11.2 | 430 | 7.8  | 620 | 5.7  |
| 60  | 18.7 | 250 | 11.1 | 440 | 7.7  | 630 | 5.2  |
| 70  | 17.9 | 260 | 11.1 | 450 | 7.7  | 640 | 5.2  |
| 80  | 15.9 | 270 | 11.0 | 460 | 7.7  |     |      |
| 90  | 15.7 | 280 | 11.0 | 470 | 7.6  |     |      |
| 100 | 15.6 | 290 | 10.7 | 480 | 7.6  |     |      |
| 110 | 15.6 | 300 | 10.2 | 490 | 7.6  |     |      |
| 120 | 15.4 | 310 | 10.1 | 500 | 7.1  |     |      |
| 130 | 14.7 | 320 | 10.1 | 510 | 7.0  |     |      |
| 140 | 14.2 | 330 | 10.0 | 520 | 6.8  |     |      |
| 150 | 13.3 | 340 | 9.8  | 530 | 6.7  |     |      |
| 160 | 13.1 | 350 | 9.6  | 540 | 6.5  |     |      |
| 170 | 12.8 | 360 | 9.6  | 550 | 6.3  |     |      |
| 180 | 12.8 | 370 | 9.5  | 560 | 6.1  |     |      |
| 190 | 12.7 | 380 | 9.0  | 570 | 6.0  |     |      |

XBT DROP 022

28 10.6N 112 28.2W

20 NOV 84 0959 MST



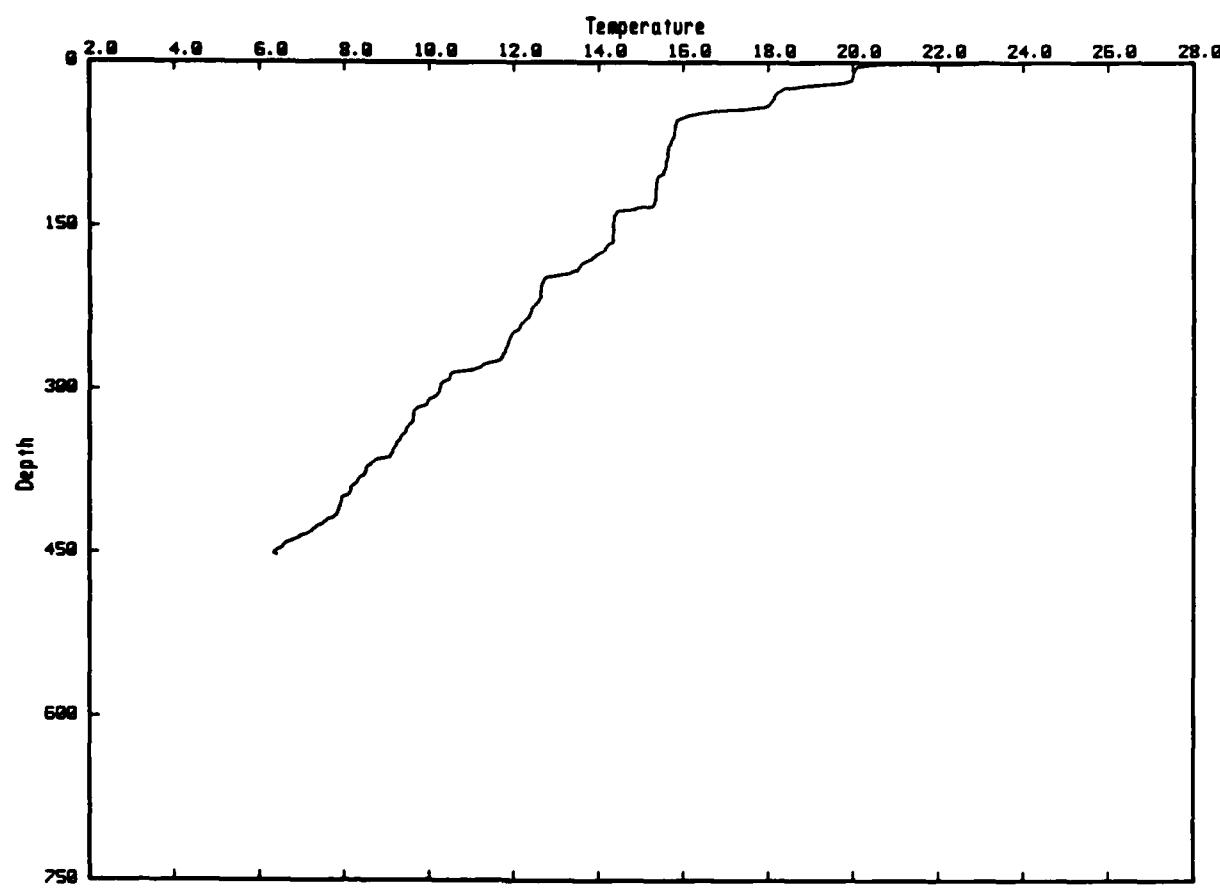
XBT DROP 022 T-7 RADAR: none  
JDAY 325 1859Z DEPTH 568m/566m SST 20.30 2M TEMPS: SAIL 20.24 XBT 20.42  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1A-3 GULF COORDS: -40.3 190.9

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.4 | 390 | 8.1  |
| 20  | 19.9 | 210 | 12.4 | 400 | 8.1  |
| 30  | 18.9 | 220 | 12.3 | 410 | 7.9  |
| 40  | 18.6 | 230 | 12.2 | 420 | 7.9  |
| 50  | 18.4 | 240 | 11.8 | 430 | 7.9  |
| 60  | 18.0 | 250 | 11.6 | 440 | 7.8  |
| 70  | 16.1 | 260 | 11.4 | 450 | 7.7  |
| 80  | 15.8 | 270 | 11.0 | 460 | 7.5  |
| 90  | 15.7 | 280 | 10.7 | 470 | 7.3  |
| 100 | 15.6 | 290 | 10.5 | 480 | 6.9  |
| 110 | 15.2 | 300 | 10.4 | 490 | 6.7  |
| 120 | 14.8 | 310 | 10.1 | 500 | 6.6  |
| 130 | 14.6 | 320 | 10.1 | 510 | 6.3  |
| 140 | 14.3 | 330 | 9.7  | 520 | 6.0  |
| 150 | 13.9 | 340 | 9.4  | 530 | 5.5  |
| 160 | 13.7 | 350 | 9.1  | 540 | 5.3  |
| 170 | 13.5 | 360 | 8.6  | 550 | 5.3  |
| 180 | 12.7 | 370 | 8.4  | 560 | 5.3  |
| 190 | 12.6 | 380 | 8.2  |     |      |

XBT DROP 023

28 11.9N 112 27.8W

20 NOV 84 1007 MST



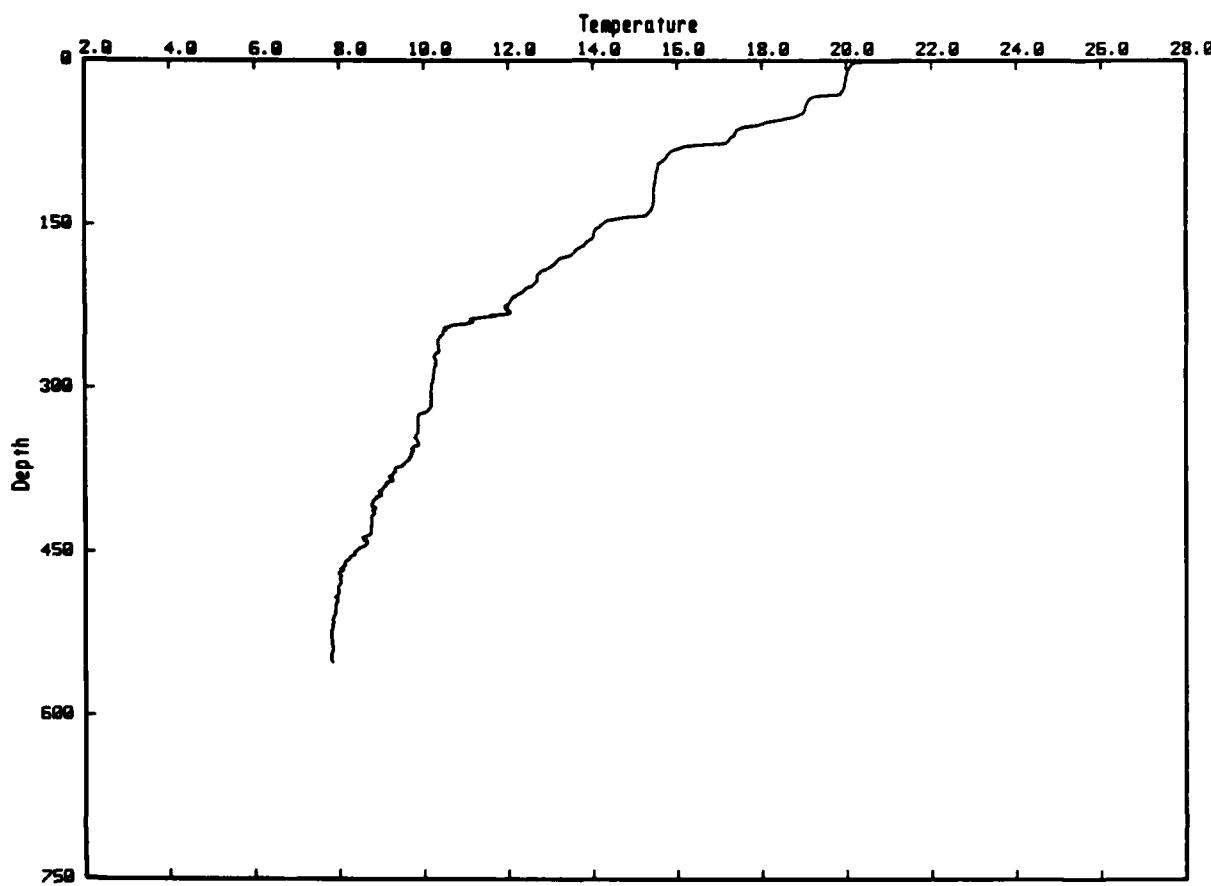
XBT DROP 023 T-7 RADAR: none GULF COORDS: -38.3 192.4  
JDAY 325 1707Z DEPTH 459m/453m SST 20.40 2M TEMPS: SAIL 20.17 XBT 20.43  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1A-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.7 | 390 | 8.1  |
| 20  | 19.4 | 210 | 12.6 | 400 | 7.9  |
| 30  | 18.2 | 220 | 12.5 | 410 | 7.8  |
| 40  | 18.0 | 230 | 12.4 | 420 | 7.6  |
| 50  | 16.1 | 240 | 12.2 | 430 | 7.2  |
| 60  | 15.8 | 250 | 11.9 | 440 | 6.7  |
| 70  | 15.8 | 260 | 11.8 | 450 | 6.4  |
| 80  | 15.6 | 270 | 11.7 |     |      |
| 90  | 15.6 | 280 | 11.2 |     |      |
| 100 | 15.5 | 290 | 10.5 |     |      |
| 110 | 15.4 | 300 | 10.2 |     |      |
| 120 | 15.4 | 310 | 10.0 |     |      |
| 130 | 15.3 | 320 | 9.8  |     |      |
| 140 | 14.4 | 330 | 9.6  |     |      |
| 150 | 14.4 | 340 | 9.4  |     |      |
| 160 | 14.3 | 350 | 9.2  |     |      |
| 170 | 14.2 | 360 | 9.1  |     |      |
| 180 | 13.9 | 370 | 8.6  |     |      |
| 190 | 13.5 | 380 | 8.4  |     |      |

XBT DROP 024

28 13.6N 112 27.4W

20 NOV 84 1015 MST



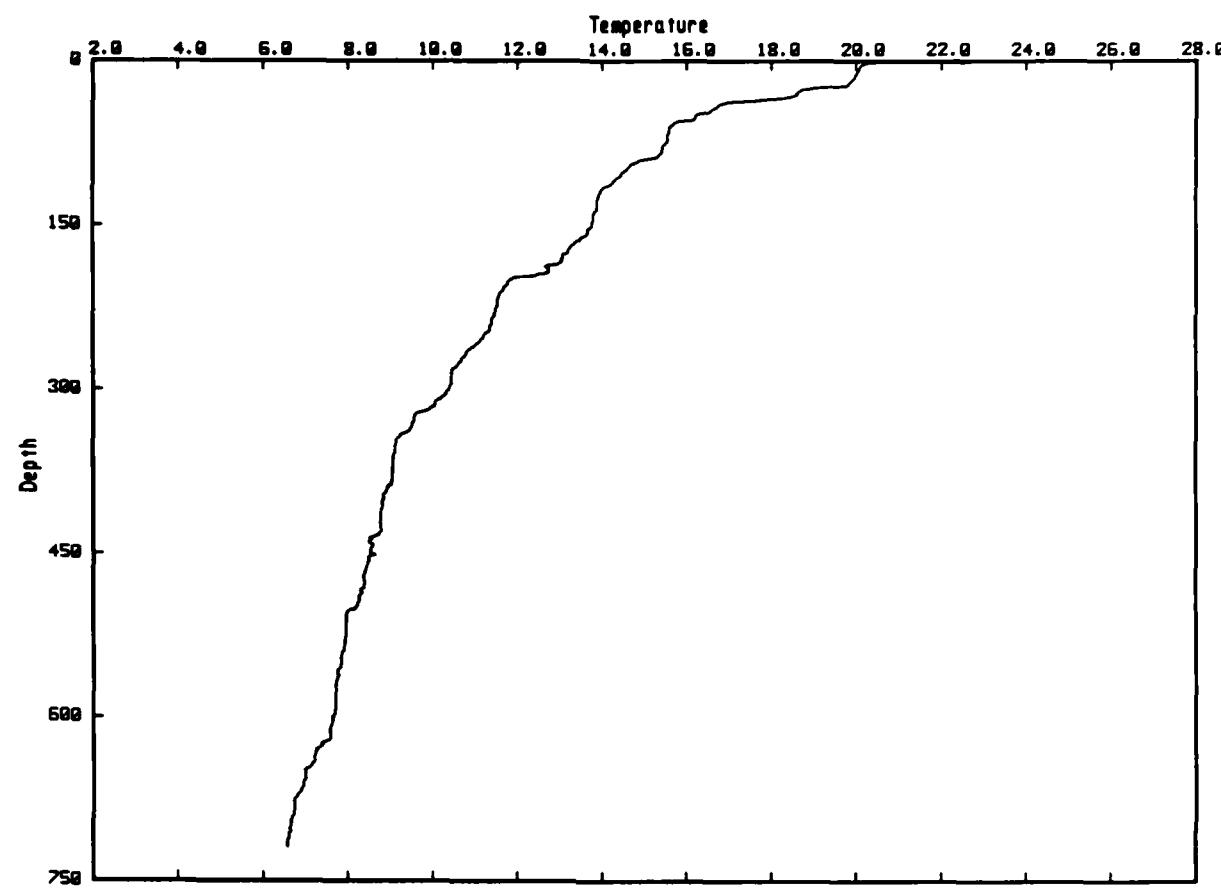
XBT DROP 024 T-7 RADAR: none GULF COORDS: -35.9 194.6  
 JDAY 325 1715Z DEPTH 551m/551m SST 20.20 2M TEMPS: SAIL 20.16 XBT 20.22  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1A-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.7 | 390 | 9.1  |
| 20  | 20.0 | 210 | 12.4 | 400 | 8.9  |
| 30  | 19.9 | 220 | 12.0 | 410 | 8.9  |
| 40  | 19.1 | 230 | 12.0 | 420 | 8.8  |
| 50  | 18.9 | 240 | 11.1 | 430 | 8.7  |
| 60  | 17.8 | 250 | 10.5 | 440 | 8.7  |
| 70  | 17.3 | 260 | 10.4 | 450 | 8.3  |
| 80  | 16.0 | 270 | 10.3 | 460 | 8.1  |
| 90  | 15.7 | 280 | 10.3 | 470 | 8.0  |
| 100 | 15.5 | 290 | 10.2 | 480 | 8.0  |
| 110 | 15.5 | 300 | 10.2 | 490 | 7.9  |
| 120 | 15.5 | 310 | 10.2 | 500 | 7.9  |
| 130 | 15.4 | 320 | 10.1 | 510 | 7.9  |
| 140 | 15.3 | 330 | 9.9  | 520 | 7.8  |
| 150 | 14.2 | 340 | 9.9  | 530 | 7.8  |
| 160 | 14.0 | 350 | 9.9  | 540 | 7.8  |
| 170 | 13.8 | 360 | 9.7  | 550 | 7.8  |
| 180 | 13.3 | 370 | 9.5  |     |      |
| 190 | 13.0 | 380 | 9.2  |     |      |

XBT DROP 025

28 14.8N 112 27.0W

20 NOV 84 1023 MST



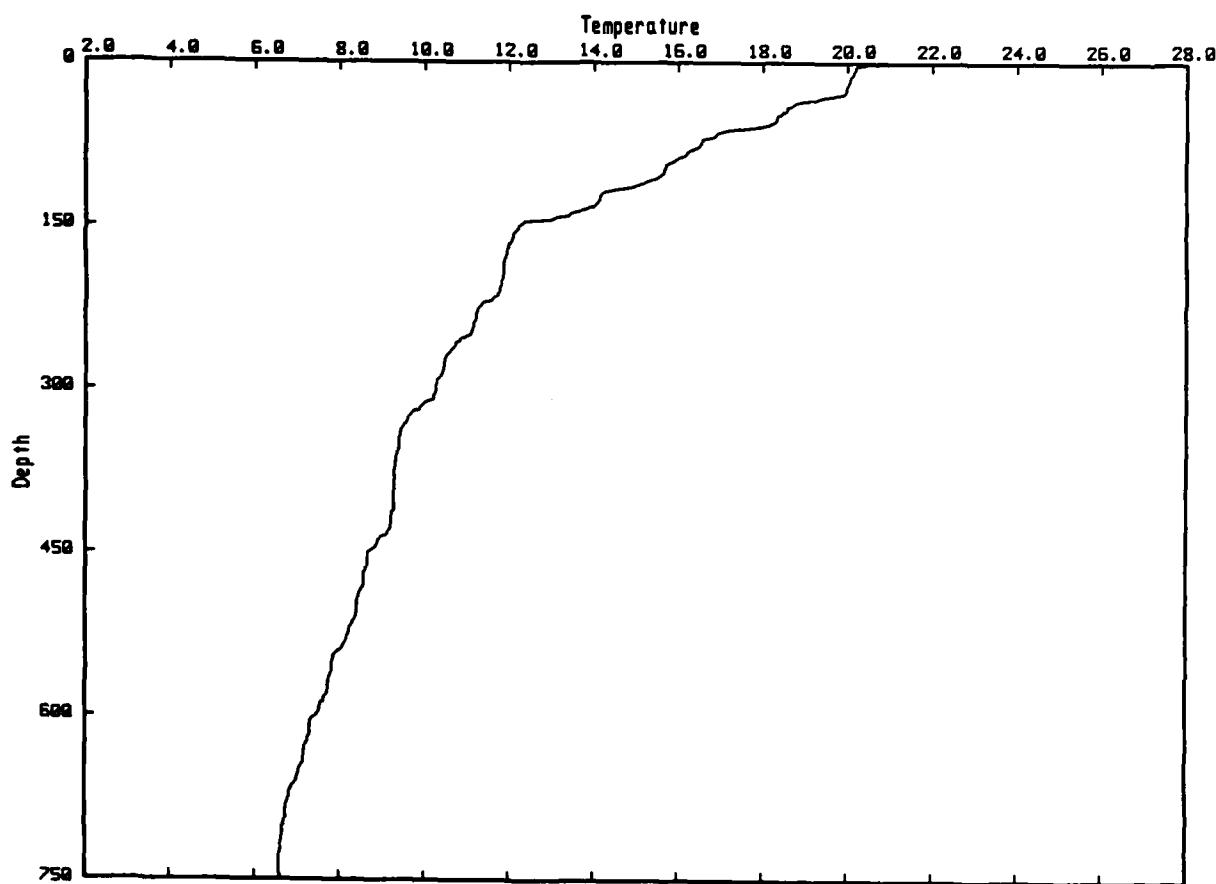
XBT DROP 025 T-7 RADAR: none GULF COORDS: -34.1 196.0  
JDAY 325 1723Z DEPTH 720m/720m SST 20.04 2M TEMPS: SAIL 20.14 XBT 20.27  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1A-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 11.8 | 390 | 8.9  | 580 | 7.7  |
| 20  | 19.8 | 210 | 11.6 | 400 | 8.8  | 590 | 7.7  |
| 30  | 18.6 | 220 | 11.5 | 410 | 8.8  | 600 | 7.6  |
| 40  | 16.8 | 230 | 11.5 | 420 | 8.8  | 610 | 7.6  |
| 50  | 16.2 | 240 | 11.4 | 430 | 8.8  | 620 | 7.6  |
| 60  | 15.6 | 250 | 11.2 | 440 | 8.5  | 630 | 7.2  |
| 70  | 15.6 | 260 | 11.0 | 450 | 8.6  | 640 | 7.2  |
| 80  | 15.4 | 270 | 10.8 | 460 | 8.5  | 650 | 7.0  |
| 90  | 15.1 | 280 | 10.5 | 470 | 8.4  | 660 | 6.9  |
| 100 | 14.6 | 290 | 10.4 | 480 | 8.4  | 670 | 6.8  |
| 110 | 14.3 | 300 | 10.4 | 490 | 8.3  | 680 | 6.7  |
| 120 | 14.0 | 310 | 10.1 | 500 | 8.2  | 690 | 6.7  |
| 130 | 13.9 | 320 | 9.8  | 510 | 8.0  | 700 | 6.7  |
| 140 | 13.8 | 330 | 9.5  | 520 | 8.0  | 710 | 6.6  |
| 150 | 13.8 | 340 | 9.3  | 530 | 7.9  | 720 | 6.6  |
| 160 | 13.6 | 350 | 9.1  | 540 | 7.9  |     |      |
| 170 | 13.3 | 360 | 9.1  | 550 | 7.8  |     |      |
| 180 | 13.1 | 370 | 9.1  | 560 | 7.7  |     |      |
| 190 | 12.7 | 380 | 9.1  | 570 | 7.7  |     |      |

XBT DROP 026

28 16.3N 112 26.6W

20 NOV 84 1031 MST



XBT DROP 026 T-7 RADAR: none GULF COORDS: -31.9 197.8  
 JDAY 325 1731Z DEPTH 840m/760m SST 20.25 2M TEMPS: SAIL 20.21 XBT 20.50  
 GULF OF CALIFORNIA: GUAYMAS BASIN, END MX1A LINE, MX1A-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.8 | 390 | 9.3  | 580 | 7.7  |
| 20  | 20.0 | 210 | 11.8 | 400 | 9.3  | 590 | 7.6  |
| 30  | 19.8 | 220 | 11.4 | 410 | 9.3  | 600 | 7.4  |
| 40  | 18.6 | 230 | 11.3 | 420 | 9.2  | 610 | 7.3  |
| 50  | 18.3 | 240 | 11.2 | 430 | 9.2  | 620 | 7.3  |
| 60  | 17.6 | 250 | 11.1 | 440 | 8.9  | 630 | 7.2  |
| 70  | 16.6 | 260 | 10.7 | 450 | 8.7  | 640 | 7.1  |
| 80  | 16.3 | 270 | 10.5 | 460 | 8.6  | 650 | 7.1  |
| 90  | 15.9 | 280 | 10.4 | 470 | 8.6  | 660 | 7.0  |
| 100 | 15.7 | 290 | 10.3 | 480 | 8.6  | 670 | 6.8  |
| 110 | 15.2 | 300 | 10.3 | 490 | 8.4  | 680 | 6.8  |
| 120 | 14.2 | 310 | 10.1 | 500 | 8.4  | 690 | 6.7  |
| 130 | 14.1 | 320 | 9.7  | 510 | 8.4  | 700 | 6.7  |
| 140 | 13.4 | 330 | 9.6  | 520 | 8.2  | 710 | 6.6  |
| 150 | 12.2 | 340 | 9.4  | 530 | 8.2  | 720 | 6.6  |
| 160 | 12.1 | 350 | 9.4  | 540 | 8.0  | 730 | 6.6  |
| 170 | 12.0 | 360 | 9.4  | 550 | 7.8  | 740 | 6.6  |
| 180 | 11.9 | 370 | 9.3  | 560 | 7.8  | 750 | 6.6  |
| 190 | 11.9 | 380 | 9.3  | 570 | 7.7  | 760 | 6.6  |

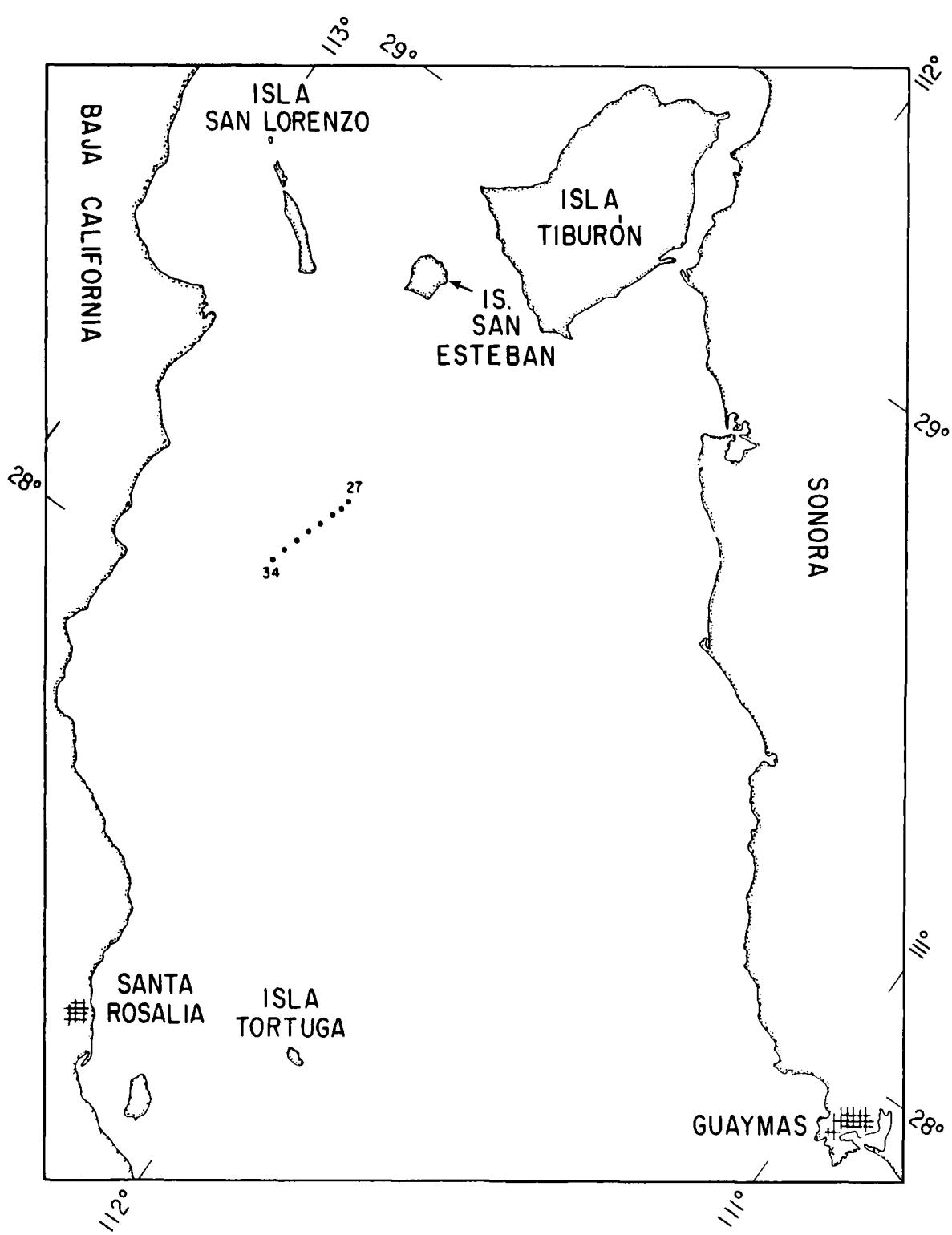
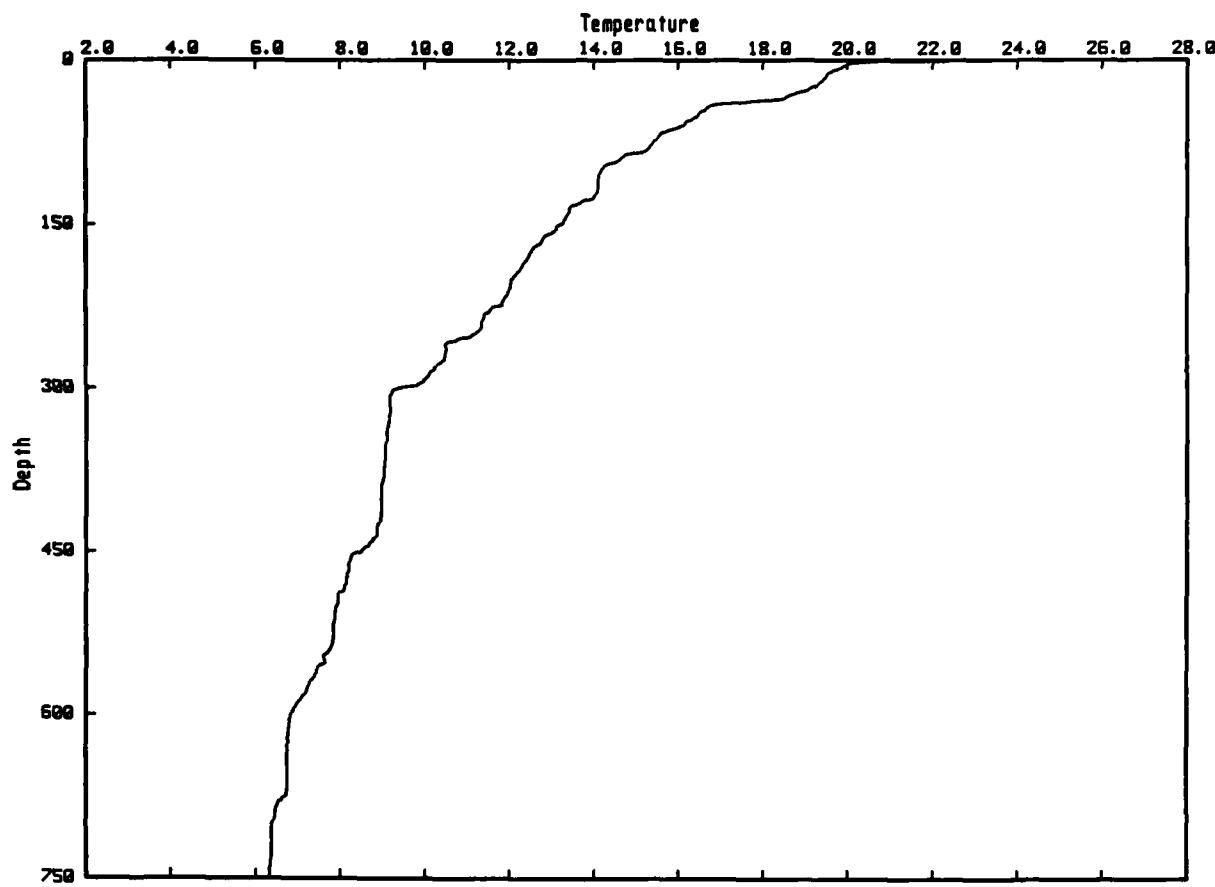


Figure 10. MX1B Section: XBT Station Locations

XBT DROP 027

28 16.9N 112 25.1W

20 NOV 84 1224 MST



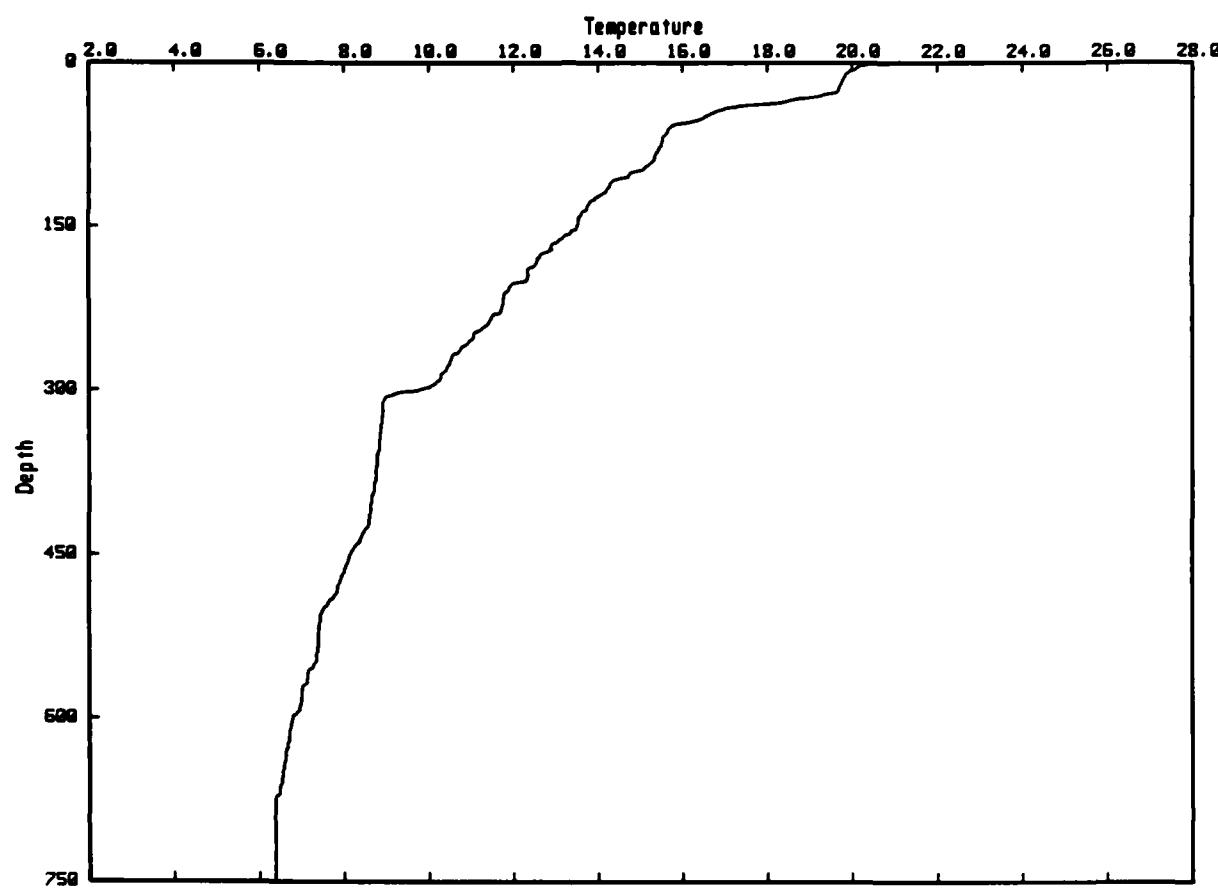
XBT DROP 027 T-7 RADAR: none GULF COORDS: -29.2 197.3  
 JDAY 325 1924Z DEPTH 982m/780m SST 20.05 2M TEMPS: SAIL 20.16 XBT 20.49  
 GULF OF CALIFORNIA: GUAYMAS BASIN, BEGIN MX1B LINE; MX1B-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.7 | 200 | 12.0 | 390 | 9.0  | 580 | 7.2  |
| 20  | 19.4 | 210 | 12.0 | 400 | 9.0  | 590 | 7.0  |
| 30  | 18.8 | 220 | 11.8 | 410 | 9.0  | 600 | 6.8  |
| 40  | 16.9 | 230 | 11.5 | 420 | 8.9  | 610 | 6.8  |
| 50  | 16.5 | 240 | 11.3 | 430 | 8.9  | 620 | 6.8  |
| 60  | 16.1 | 250 | 11.2 | 440 | 8.8  | 630 | 6.8  |
| 70  | 15.5 | 260 | 10.5 | 450 | 8.5  | 640 | 6.8  |
| 80  | 15.3 | 270 | 10.5 | 460 | 8.2  | 650 | 6.8  |
| 90  | 14.7 | 280 | 10.2 | 470 | 8.2  | 660 | 6.7  |
| 100 | 14.2 | 290 | 10.0 | 480 | 8.1  | 670 | 6.7  |
| 110 | 14.1 | 300 | 9.4  | 490 | 8.0  | 680 | 6.5  |
| 120 | 14.1 | 310 | 9.2  | 500 | 7.9  | 690 | 6.5  |
| 130 | 13.7 | 320 | 9.2  | 510 | 7.9  | 700 | 6.4  |
| 140 | 13.4 | 330 | 9.1  | 520 | 7.8  | 710 | 6.4  |
| 150 | 13.2 | 340 | 9.1  | 530 | 7.8  | 720 | 6.4  |
| 160 | 12.8 | 350 | 9.1  | 540 | 7.8  | 730 | 6.4  |
| 170 | 12.6 | 360 | 9.1  | 550 | 7.6  | 740 | 6.3  |
| 180 | 12.4 | 370 | 9.0  | 560 | 7.4  | 750 | 6.3  |
| 190 | 12.3 | 380 | 9.0  | 570 | 7.3  | 760 | 6.3  |

XBT DROP 028

28 15.9N 112 25.3W

20 NOV 84 1232 MST



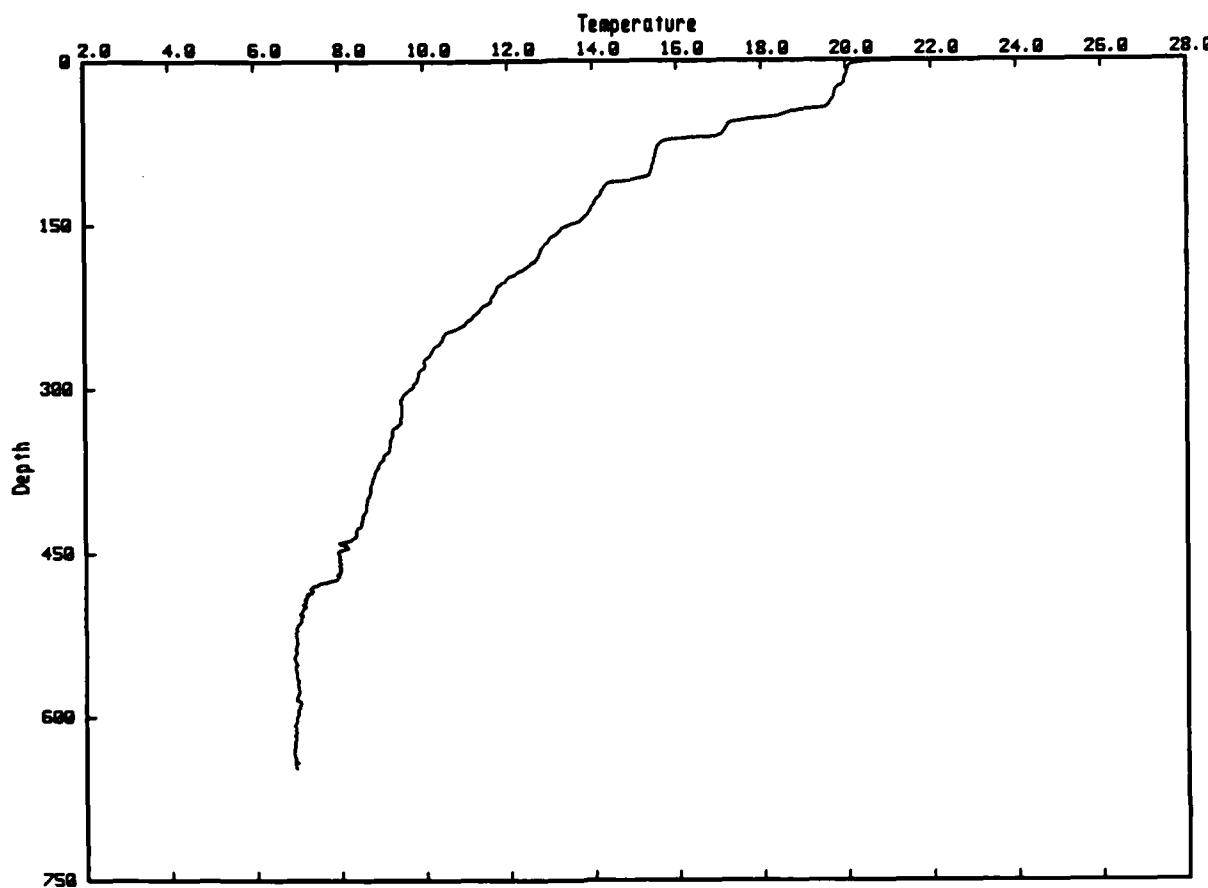
XBT DROP 028 T-7 RADAR: none GULF COORDS: -30.6 196.0  
 JDAY 325 1932Z DEPTH 810m/760m SST 20.42 2M TEMPS: SAIL 20.28 XBT 20.38  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.9 | 200 | 12.3 | 390 | 8.7  | 580 | 7.0  |
| 20  | 19.7 | 210 | 11.9 | 400 | 8.7  | 590 | 7.0  |
| 30  | 19.3 | 220 | 11.8 | 410 | 8.6  | 600 | 6.8  |
| 40  | 17.3 | 230 | 11.7 | 420 | 8.6  | 610 | 6.7  |
| 50  | 16.5 | 240 | 11.4 | 430 | 8.5  | 620 | 6.7  |
| 60  | 15.7 | 250 | 11.1 | 440 | 8.3  | 630 | 6.6  |
| 70  | 15.5 | 260 | 10.8 | 450 | 8.1  | 640 | 6.6  |
| 80  | 15.4 | 270 | 10.6 | 460 | 8.1  | 650 | 6.6  |
| 90  | 15.3 | 280 | 10.4 | 470 | 7.9  | 660 | 6.5  |
| 100 | 14.9 | 290 | 10.3 | 480 | 7.9  | 670 | 6.5  |
| 110 | 14.3 | 300 | 9.8  | 490 | 7.7  | 680 | 6.4  |
| 120 | 14.1 | 310 | 8.9  | 500 | 7.5  | 690 | 6.4  |
| 130 | 13.8 | 320 | 8.9  | 510 | 7.4  | 700 | 6.4  |
| 140 | 13.6 | 330 | 8.9  | 520 | 7.4  | 710 | 6.4  |
| 150 | 13.5 | 340 | 8.9  | 530 | 7.4  | 720 | 6.4  |
| 160 | 13.2 | 350 | 8.8  | 540 | 7.4  | 730 | 6.4  |
| 170 | 12.9 | 360 | 8.8  | 550 | 7.3  | 740 | 6.4  |
| 180 | 12.6 | 370 | 8.8  | 560 | 7.1  | 750 | 6.4  |
| 190 | 12.4 | 380 | 8.8  | 570 | 7.0  | 760 | 6.4  |

XBT DROP 029

28 14.8N 112 25.7W

20 NOV 84 1246 MST



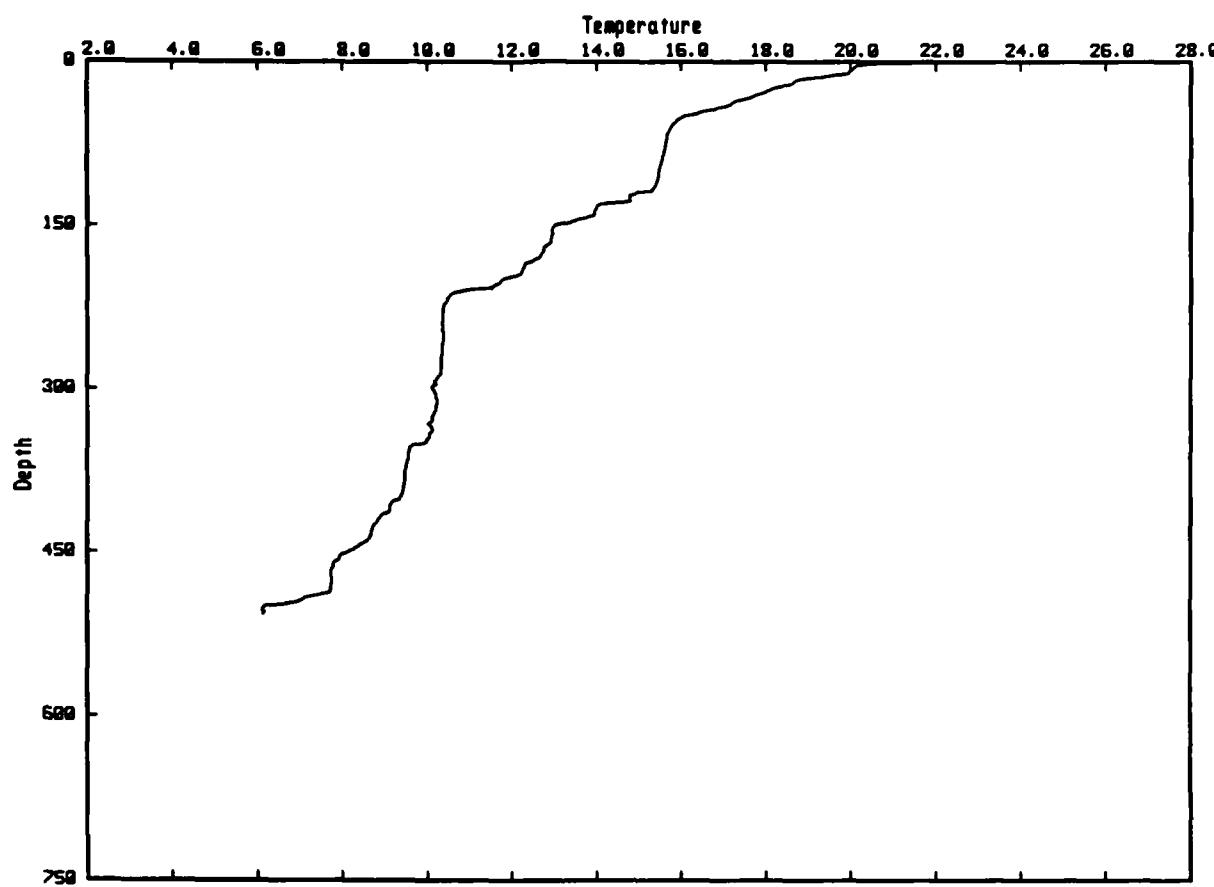
XBT DROP 029 T-7 RADAR: none GULF COORDS: -32.3 194.7  
JDAY 325 1946Z DEPTH 648m/648m SST 20.25 2M TEMPS: SAIL 20.18 XBT 20.43  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.0 | 390 | 8.7  | 580 | 7.0  |
| 20  | 20.0 | 210 | 11.7 | 400 | 8.6  | 590 | 7.0  |
| 30  | 19.7 | 220 | 11.6 | 410 | 8.6  | 600 | 7.0  |
| 40  | 19.6 | 230 | 11.3 | 420 | 8.5  | 610 | 6.9  |
| 50  | 18.5 | 240 | 11.0 | 430 | 8.4  | 620 | 6.9  |
| 60  | 17.2 | 250 | 10.5 | 440 | 8.0  | 630 | 6.9  |
| 70  | 16.7 | 260 | 10.3 | 450 | 8.0  | 640 | 6.9  |
| 80  | 15.5 | 270 | 10.1 | 460 | 8.0  |     |      |
| 90  | 15.5 | 280 | 10.0 | 470 | 7.9  |     |      |
| 100 | 15.4 | 290 | 9.8  | 480 | 7.3  |     |      |
| 110 | 14.7 | 300 | 9.6  | 490 | 7.2  |     |      |
| 120 | 14.2 | 310 | 9.4  | 500 | 7.2  |     |      |
| 130 | 14.0 | 320 | 9.5  | 510 | 7.1  |     |      |
| 140 | 13.9 | 330 | 9.5  | 520 | 7.0  |     |      |
| 150 | 13.5 | 340 | 9.2  | 530 | 7.0  |     |      |
| 160 | 13.1 | 350 | 9.2  | 540 | 6.9  |     |      |
| 170 | 12.8 | 360 | 9.0  | 550 | 6.9  |     |      |
| 180 | 12.7 | 370 | 8.9  | 560 | 6.9  |     |      |
| 190 | 12.4 | 380 | 8.8  | 570 | 7.0  |     |      |

XBT DROP 030

28 13.2N 112 26.3W

20 NOV 84 1248 MST



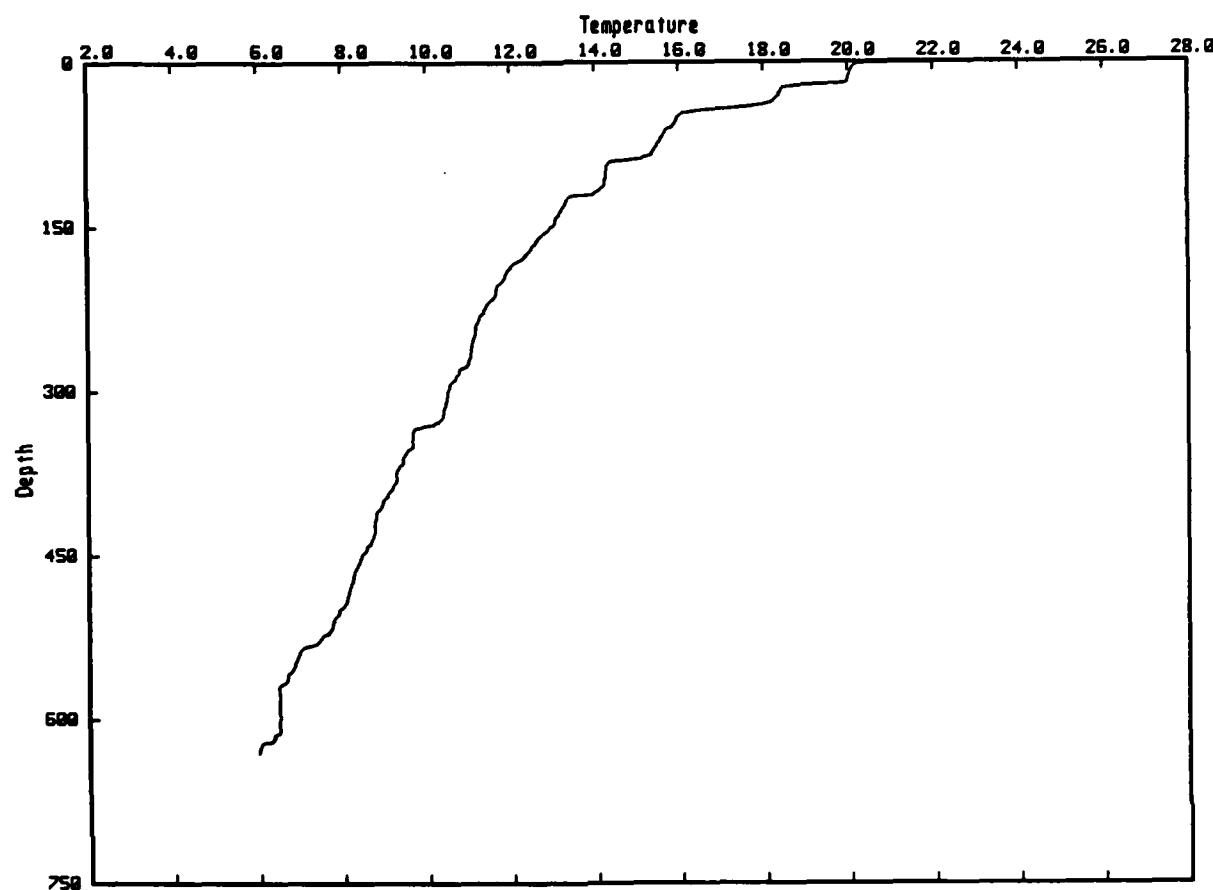
XBT DROP 030 T-7 RADAR: none GULF COORDS: -34.9 192.9  
JDAY 325 1948Z DEPTH 514m/508m SST 20.12 2M TEMPS: SAIL 20.26 XBT 20.43  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 11.8 | 390 | 9.5  |
| 20  | 18.6 | 210 | 10.8 | 400 | 9.4  |
| 30  | 17.8 | 220 | 10.5 | 410 | 9.1  |
| 40  | 17.1 | 230 | 10.4 | 420 | 8.8  |
| 50  | 16.1 | 240 | 10.4 | 430 | 8.7  |
| 60  | 15.8 | 250 | 10.4 | 440 | 8.6  |
| 70  | 15.7 | 260 | 10.4 | 450 | 8.1  |
| 80  | 15.6 | 270 | 10.3 | 460 | 7.8  |
| 90  | 15.6 | 280 | 10.3 | 470 | 7.7  |
| 100 | 15.5 | 290 | 10.3 | 480 | 7.7  |
| 110 | 15.4 | 300 | 10.1 | 490 | 7.3  |
| 120 | 15.0 | 310 | 10.2 | 500 | 6.2  |
| 130 | 14.1 | 320 | 10.2 |     |      |
| 140 | 14.0 | 330 | 10.1 |     |      |
| 150 | 13.0 | 340 | 10.1 |     |      |
| 160 | 12.9 | 350 | 9.9  |     |      |
| 170 | 12.8 | 360 | 9.6  |     |      |
| 180 | 12.6 | 370 | 9.5  |     |      |
| 190 | 12.3 | 380 | 9.5  |     |      |

XBT DROP 031

28 11.7N 112 26.9W

20 NOV 84 1256 MST



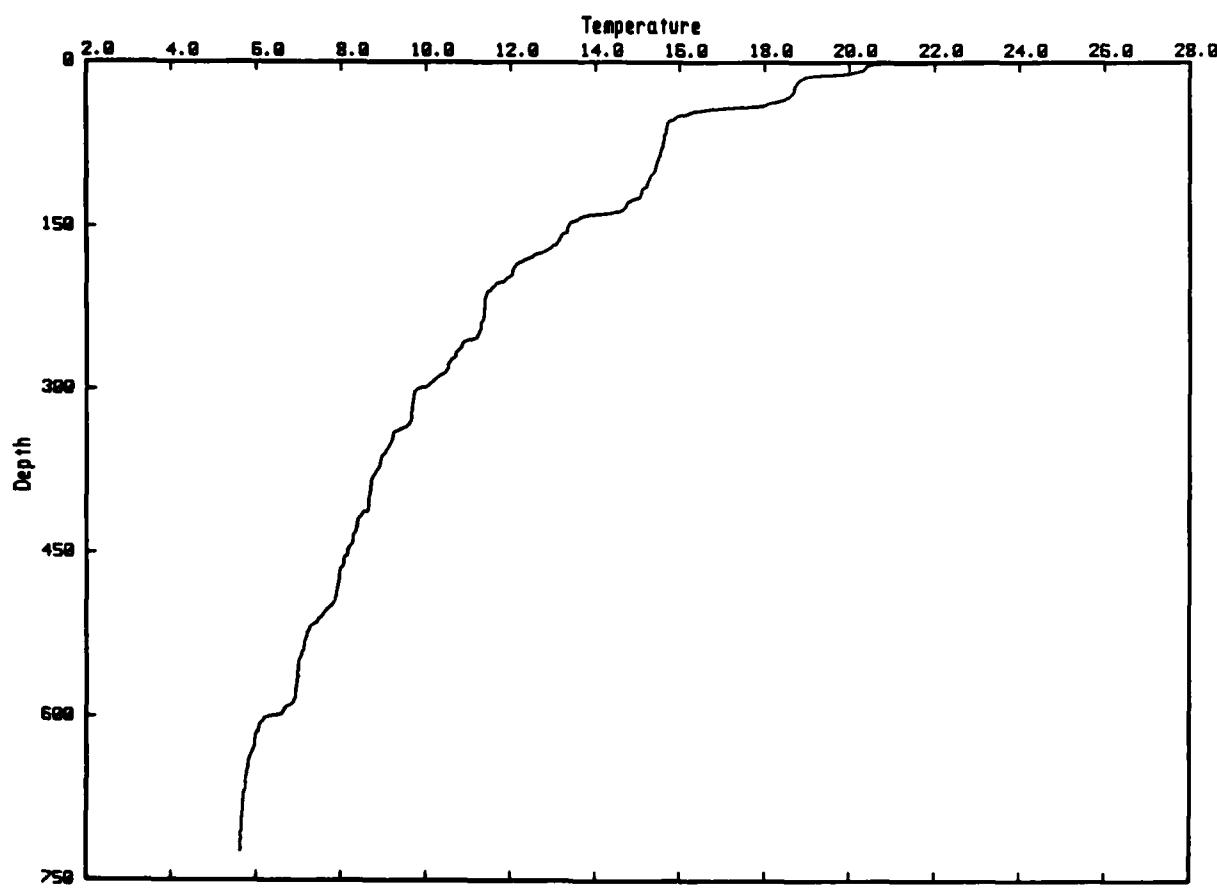
XBT DROP 031 T-7 RADAR: none GULF COORDS: -37.3 191.3  
 JDAY 325 1956Z DEPTH 660m/632m SST 20.25 2M TEMPS: SAIL 20.31 XBT 20.24  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.8 | 390 | 9.2  | 580 | 6.5  |
| 20  | 19.7 | 210 | 11.6 | 400 | 9.0  | 590 | 6.5  |
| 30  | 18.4 | 220 | 11.4 | 410 | 8.8  | 600 | 6.5  |
| 40  | 17.8 | 230 | 11.3 | 420 | 8.8  | 610 | 6.5  |
| 50  | 16.0 | 240 | 11.2 | 430 | 8.7  | 620 | 6.3  |
| 60  | 15.8 | 250 | 11.1 | 440 | 8.6  | 630 | 6.0  |
| 70  | 15.6 | 260 | 11.1 | 450 | 8.4  |     |      |
| 80  | 15.4 | 270 | 11.0 | 460 | 8.3  |     |      |
| 90  | 14.8 | 280 | 10.8 | 470 | 8.2  |     |      |
| 100 | 14.3 | 290 | 10.6 | 480 | 8.2  |     |      |
| 110 | 14.3 | 300 | 10.5 | 490 | 8.1  |     |      |
| 120 | 14.0 | 310 | 10.5 | 500 | 7.9  |     |      |
| 130 | 13.3 | 320 | 10.4 | 510 | 7.8  |     |      |
| 140 | 13.1 | 330 | 10.2 | 520 | 7.7  |     |      |
| 150 | 13.0 | 340 | 9.7  | 530 | 7.4  |     |      |
| 160 | 12.7 | 350 | 9.7  | 540 | 6.9  |     |      |
| 170 | 12.5 | 360 | 9.4  | 550 | 6.9  |     |      |
| 180 | 12.2 | 370 | 9.3  | 560 | 6.7  |     |      |
| 190 | 11.9 | 380 | 9.3  | 570 | 6.5  |     |      |

XBT DROP 032

28 10.2N 112 27.4W

20 NOV 84 1304 MST



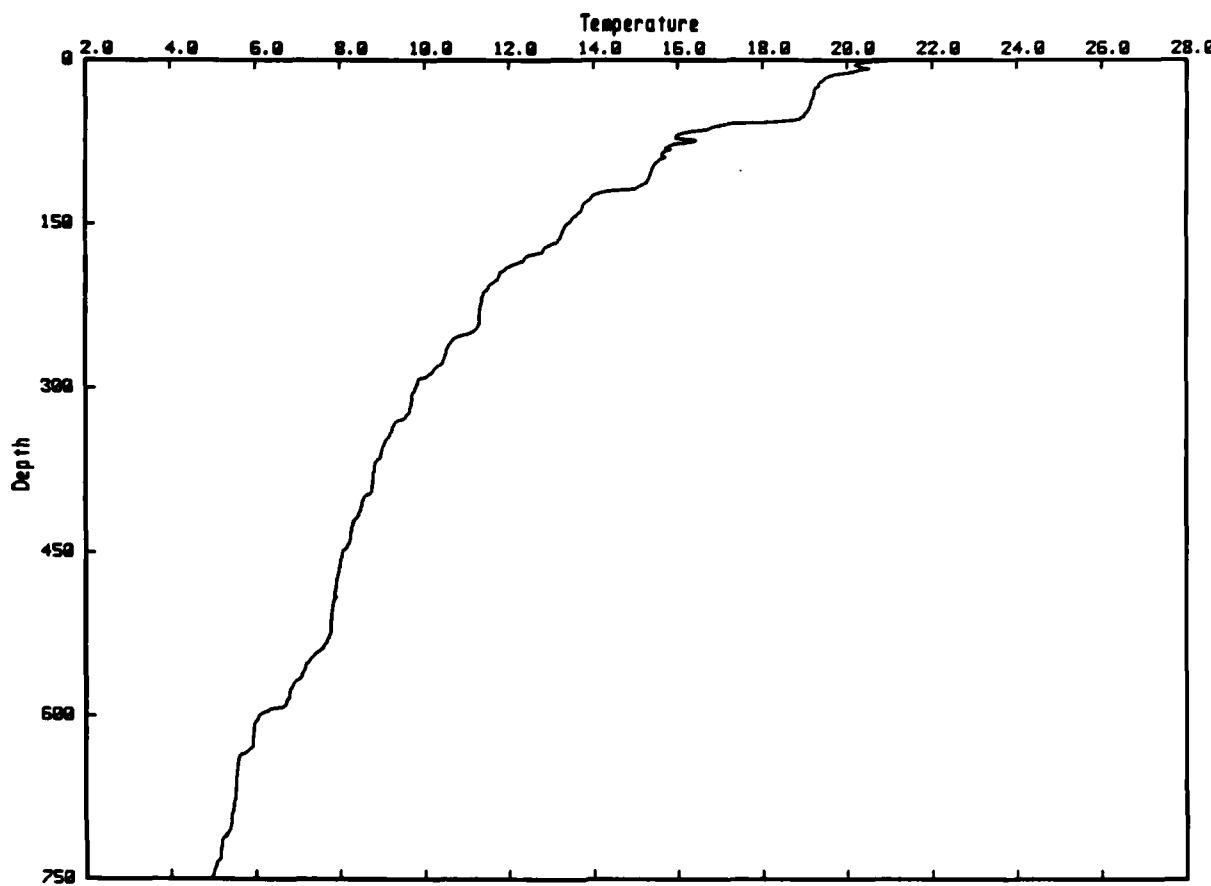
XBT DROP 032 T-7 RADAR: none GULF COORDS: -39.6 189.5  
 JDAY 325 2004Z DEPTH 796m/725m SST 20.44 2M TEMPS: SAIL 20.44 XBT 20.58  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.8 | 390 | 8.7  | 580 | 6.9  |
| 20  | 18.8 | 210 | 11.4 | 400 | 8.7  | 590 | 6.8  |
| 30  | 18.6 | 220 | 11.4 | 410 | 8.6  | 600 | 6.3  |
| 40  | 17.9 | 230 | 11.4 | 420 | 8.4  | 610 | 6.1  |
| 50  | 15.9 | 240 | 11.3 | 430 | 8.4  | 620 | 6.0  |
| 60  | 15.7 | 250 | 11.2 | 440 | 8.3  | 630 | 5.9  |
| 70  | 15.6 | 260 | 10.8 | 450 | 8.2  | 640 | 5.8  |
| 80  | 15.6 | 270 | 10.7 | 460 | 8.0  | 650 | 5.8  |
| 90  | 15.5 | 280 | 10.5 | 470 | 8.0  | 660 | 5.7  |
| 100 | 15.4 | 290 | 10.2 | 480 | 7.9  | 670 | 5.7  |
| 110 | 15.3 | 300 | 9.8  | 490 | 7.9  | 680 | 5.7  |
| 120 | 15.1 | 310 | 9.7  | 500 | 7.7  | 690 | 5.7  |
| 130 | 14.7 | 320 | 9.7  | 510 | 7.5  | 700 | 5.7  |
| 140 | 13.8 | 330 | 9.6  | 520 | 7.3  | 710 | 5.6  |
| 150 | 13.4 | 340 | 9.2  | 530 | 7.2  | 720 | 5.6  |
| 160 | 13.2 | 350 | 9.2  | 540 | 7.1  |     |      |
| 170 | 12.9 | 360 | 9.0  | 550 | 7.0  |     |      |
| 180 | 12.4 | 370 | 8.9  | 560 | 7.0  |     |      |
| 190 | 12.0 | 380 | 8.7  | 570 | 6.9  |     |      |

XBT DROP 033

28 8.6N 112 28.0W

20 NOV 84 1312 MST



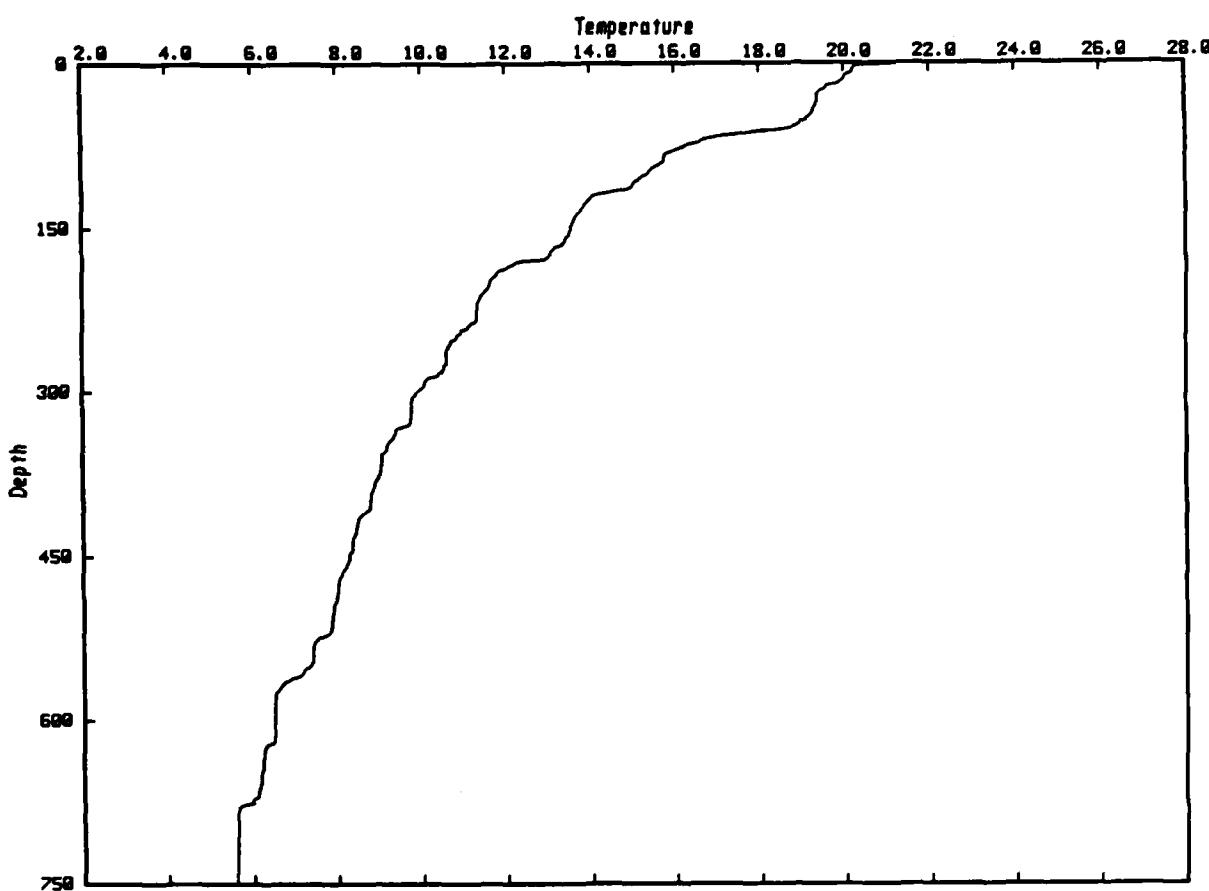
XBT DROP 033 T-7 RADAR: none GULF COORDS: -42.2 187.7  
 JDAY 325 2012Z DEPTH 885m/760m SST 20.35 2M TEMPS: SAIL 20.42 XBT 20.56  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1B-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.3 | 200 | 11.7 | 390 | 8.8  | 580 | 6.8  |
| 20  | 19.4 | 210 | 11.5 | 400 | 8.6  | 590 | 6.7  |
| 30  | 19.2 | 220 | 11.4 | 410 | 8.5  | 600 | 6.1  |
| 40  | 19.1 | 230 | 11.3 | 420 | 8.4  | 610 | 6.0  |
| 50  | 19.0 | 240 | 11.3 | 430 | 8.3  | 620 | 5.9  |
| 60  | 17.0 | 250 | 11.1 | 440 | 8.2  | 630 | 5.9  |
| 70  | 16.0 | 260 | 10.6 | 450 | 8.1  | 640 | 5.6  |
| 80  | 15.7 | 270 | 10.5 | 460 | 8.0  | 650 | 5.6  |
| 90  | 15.7 | 280 | 10.3 | 470 | 8.0  | 660 | 5.6  |
| 100 | 15.4 | 290 | 10.1 | 480 | 7.9  | 670 | 5.5  |
| 110 | 15.3 | 300 | 9.8  | 490 | 7.9  | 680 | 5.5  |
| 120 | 14.5 | 310 | 9.7  | 500 | 7.8  | 690 | 5.5  |
| 130 | 13.9 | 320 | 9.7  | 510 | 7.8  | 700 | 5.4  |
| 140 | 13.7 | 330 | 9.3  | 520 | 7.8  | 710 | 5.3  |
| 150 | 13.4 | 340 | 9.2  | 530 | 7.7  | 720 | 5.2  |
| 160 | 13.3 | 350 | 9.1  | 540 | 7.5  | 730 | 5.2  |
| 170 | 12.9 | 360 | 9.0  | 550 | 7.3  | 740 | 5.0  |
| 180 | 12.4 | 370 | 8.8  | 560 | 7.1  | 750 | 5.0  |
| 190 | 12.0 | 380 | 8.8  | 570 | 6.9  | 760 | 4.9  |

XBT DROP 034

28 7.1N 112 28.4W

20 NOV 84 1320 MST



XBT DROP 034 T-7 RADAR: none GULF COORDS: -44.4 185.8  
 JDAY 325 20202 DEPTH 910m/760m SST 20.27 2M TEMPS: SAIL 20.32 XBT 20.53  
 GULF OF CALIFORNIA: GUAYMAS BASIN, END MX1B LINE; MX1B-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.6 | 390 | 8.8  | 580 | 6.5  |
| 20  | 19.7 | 210 | 11.4 | 400 | 8.8  | 590 | 6.5  |
| 30  | 19.4 | 220 | 11.3 | 410 | 8.6  | 600 | 6.5  |
| 40  | 19.3 | 230 | 11.3 | 420 | 8.5  | 610 | 6.5  |
| 50  | 19.1 | 240 | 11.1 | 430 | 8.4  | 620 | 6.5  |
| 60  | 18.6 | 250 | 10.8 | 440 | 8.3  | 630 | 6.2  |
| 70  | 16.7 | 260 | 10.6 | 450 | 8.3  | 640 | 6.2  |
| 80  | 16.0 | 270 | 10.6 | 460 | 8.2  | 650 | 6.2  |
| 90  | 15.7 | 280 | 10.5 | 470 | 8.0  | 660 | 6.2  |
| 100 | 15.4 | 290 | 10.1 | 480 | 8.0  | 670 | 6.1  |
| 110 | 15.0 | 300 | 9.9  | 490 | 7.9  | 680 | 5.6  |
| 120 | 14.1 | 310 | 9.8  | 500 | 7.9  | 690 | 5.6  |
| 130 | 13.8 | 320 | 9.7  | 510 | 7.8  | 700 | 5.6  |
| 140 | 13.6 | 330 | 9.7  | 520 | 7.8  | 710 | 5.6  |
| 150 | 13.5 | 340 | 9.3  | 530 | 7.4  | 720 | 5.6  |
| 160 | 13.4 | 350 | 9.2  | 540 | 7.4  | 730 | 5.6  |
| 170 | 13.1 | 360 | 9.1  | 550 | 7.3  | 740 | 5.6  |
| 180 | 12.4 | 370 | 9.0  | 560 | 7.1  | 750 | 5.6  |
| 190 | 11.8 | 380 | 8.9  | 570 | 6.6  | 760 | 5.6  |

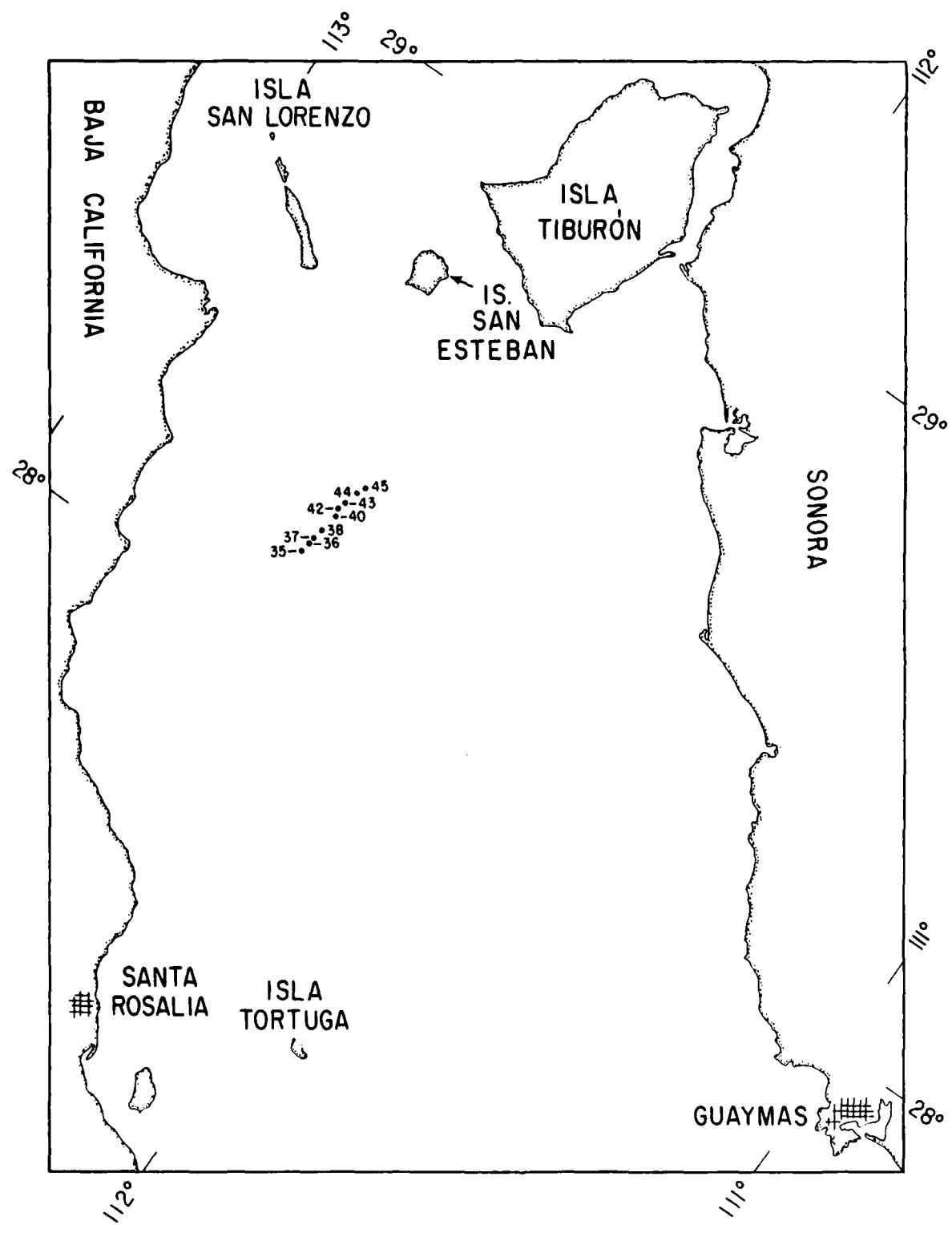
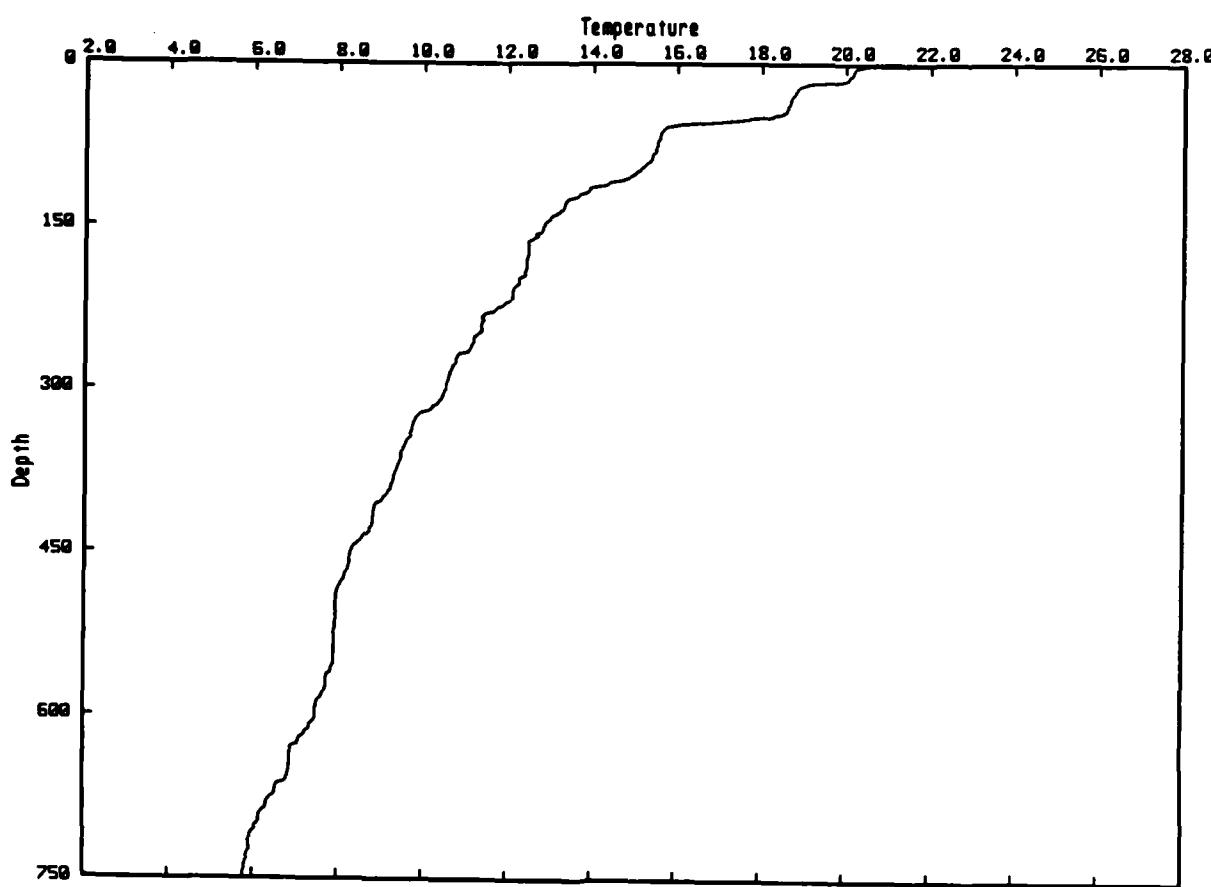


Figure 11. MX1C Section: XBT Station Locations

XBT DROP 035

28 9.4N 112 26.8W

20 NOV 84 1525 MST



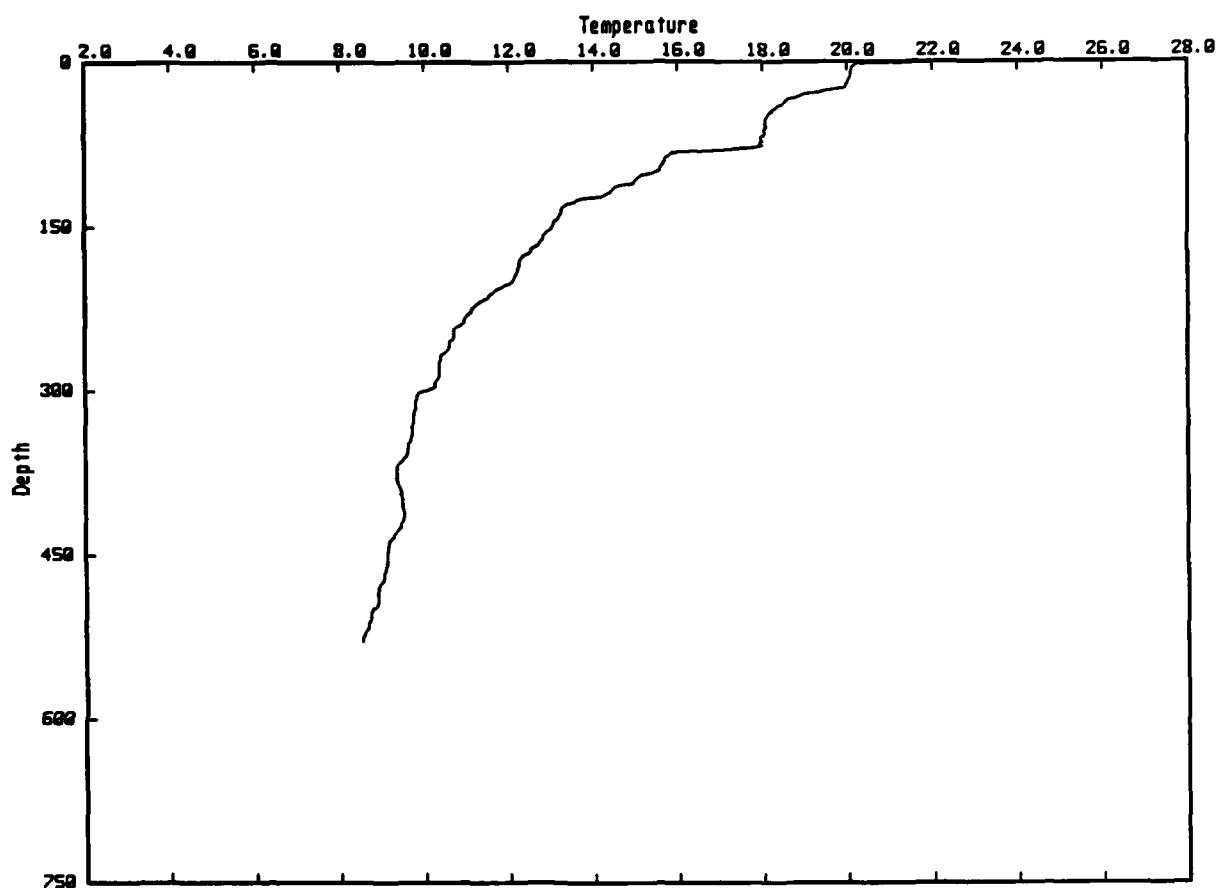
XBT DROP 035 T-7 RADAR: none GULF COORDS: -39.7 187.7  
 JDAY 325 2225Z DEPTH 909m/760m SST 20.25 2M TEMPS: SAIL 20.34 XBT 20.44  
 GULF OF CALIFORNIA: GUAYMAS BASIN, BEGIN MX1C LINE; MX1C-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.2 | 390 | 9.2  | 580 | 7.7  |
| 20  | 18.9 | 210 | 12.1 | 400 | 9.1  | 590 | 7.5  |
| 30  | 18.7 | 220 | 11.9 | 410 | 8.9  | 600 | 7.5  |
| 40  | 18.6 | 230 | 11.5 | 420 | 8.8  | 610 | 7.4  |
| 50  | 17.7 | 240 | 11.4 | 430 | 8.7  | 620 | 7.1  |
| 60  | 15.7 | 250 | 11.3 | 440 | 8.5  | 630 | 6.9  |
| 70  | 15.5 | 260 | 11.1 | 450 | 8.3  | 640 | 6.9  |
| 80  | 15.5 | 270 | 10.8 | 460 | 8.3  | 650 | 6.9  |
| 90  | 15.4 | 280 | 10.7 | 470 | 8.2  | 660 | 6.8  |
| 100 | 15.0 | 290 | 10.6 | 480 | 8.0  | 670 | 6.6  |
| 110 | 14.4 | 300 | 10.5 | 490 | 8.0  | 680 | 6.3  |
| 120 | 13.7 | 310 | 10.4 | 500 | 7.9  | 690 | 6.2  |
| 130 | 13.3 | 320 | 10.1 | 510 | 8.0  | 700 | 6.1  |
| 140 | 13.1 | 330 | 9.8  | 520 | 7.9  | 710 | 5.9  |
| 150 | 12.8 | 340 | 9.7  | 530 | 7.9  | 720 | 5.9  |
| 160 | 12.6 | 350 | 9.6  | 540 | 7.9  | 730 | 5.9  |
| 170 | 12.5 | 360 | 9.5  | 550 | 7.9  | 740 | 5.8  |
| 180 | 12.4 | 370 | 9.4  | 560 | 7.8  | 750 | 5.8  |
| 190 | 12.4 | 380 | 9.3  | 570 | 7.7  | 760 | 5.7  |

XBT DROP 036

28 10.6N 112 26.5W

20 NOV 84 1533 MST



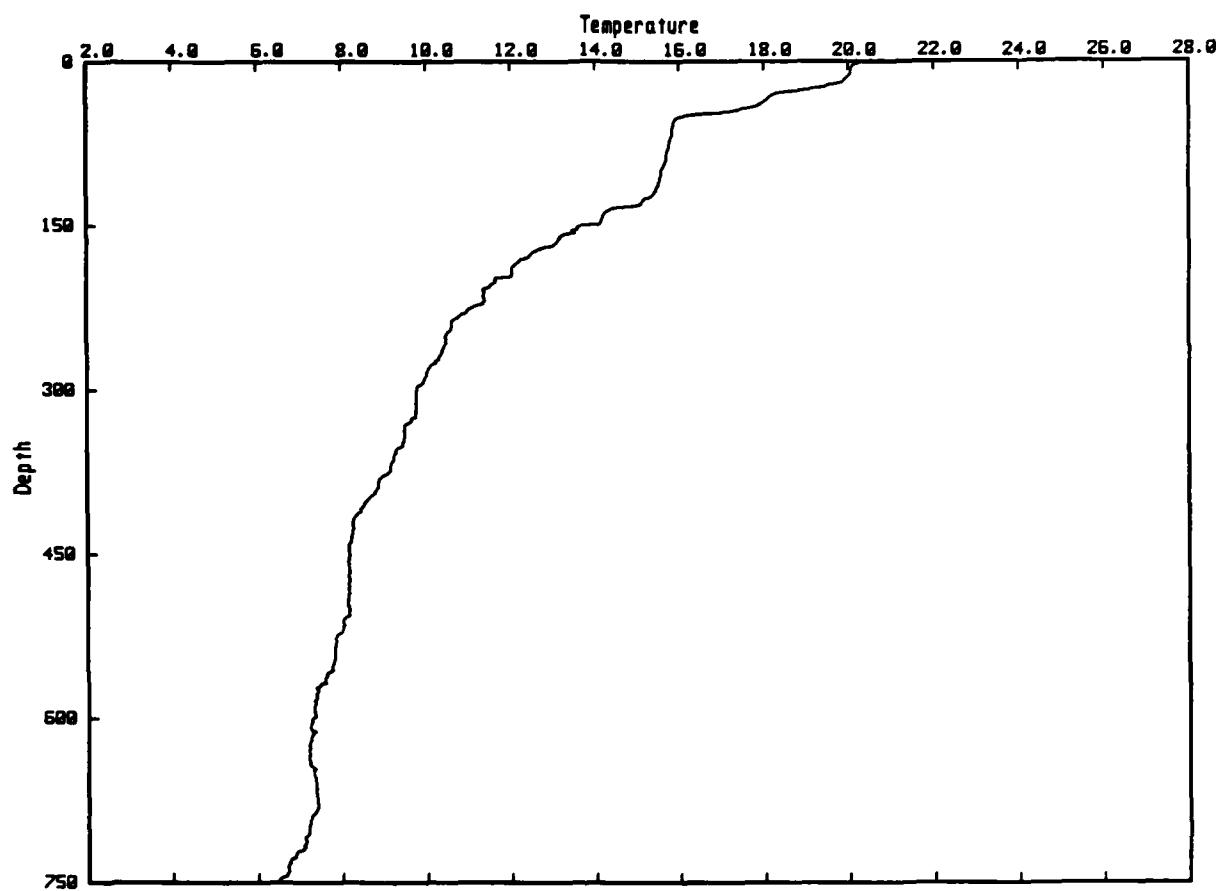
XBT DROP 036 T-7 RADAR: none GULF COORDS: -38.0 189.2  
JDAY 325 2233Z DEPTH 892m/530m SST 20.13 2M TEMPS: SAIL 20.17 XBT 20.25  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-2 (SHORTED AFTER 530 M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.1 | 390 | 9.4  |
| 20  | 20.0 | 210 | 11.6 | 400 | 9.5  |
| 30  | 19.0 | 220 | 11.3 | 410 | 9.5  |
| 40  | 18.4 | 230 | 11.0 | 420 | 9.5  |
| 50  | 18.1 | 240 | 10.9 | 430 | 9.3  |
| 60  | 18.1 | 250 | 10.7 | 440 | 9.2  |
| 70  | 18.0 | 260 | 10.6 | 450 | 9.1  |
| 80  | 17.0 | 270 | 10.4 | 460 | 9.1  |
| 90  | 15.7 | 280 | 10.3 | 470 | 9.0  |
| 100 | 15.5 | 290 | 10.3 | 480 | 8.9  |
| 110 | 15.0 | 300 | 10.0 | 490 | 8.9  |
| 120 | 14.4 | 310 | 9.8  | 500 | 8.7  |
| 130 | 13.4 | 320 | 9.7  | 510 | 8.7  |
| 140 | 13.2 | 330 | 9.7  | 520 | 8.6  |
| 150 | 13.0 | 340 | 9.7  | 530 | 8.5  |
| 160 | 12.8 | 350 | 9.6  |     |      |
| 170 | 12.6 | 360 | 9.6  |     |      |
| 180 | 12.3 | 370 | 9.3  |     |      |
| 190 | 12.2 | 380 | 9.3  |     |      |

XBT DROP 037

28 11.3N 112 26.4W

20 NOV 84 1537 MST



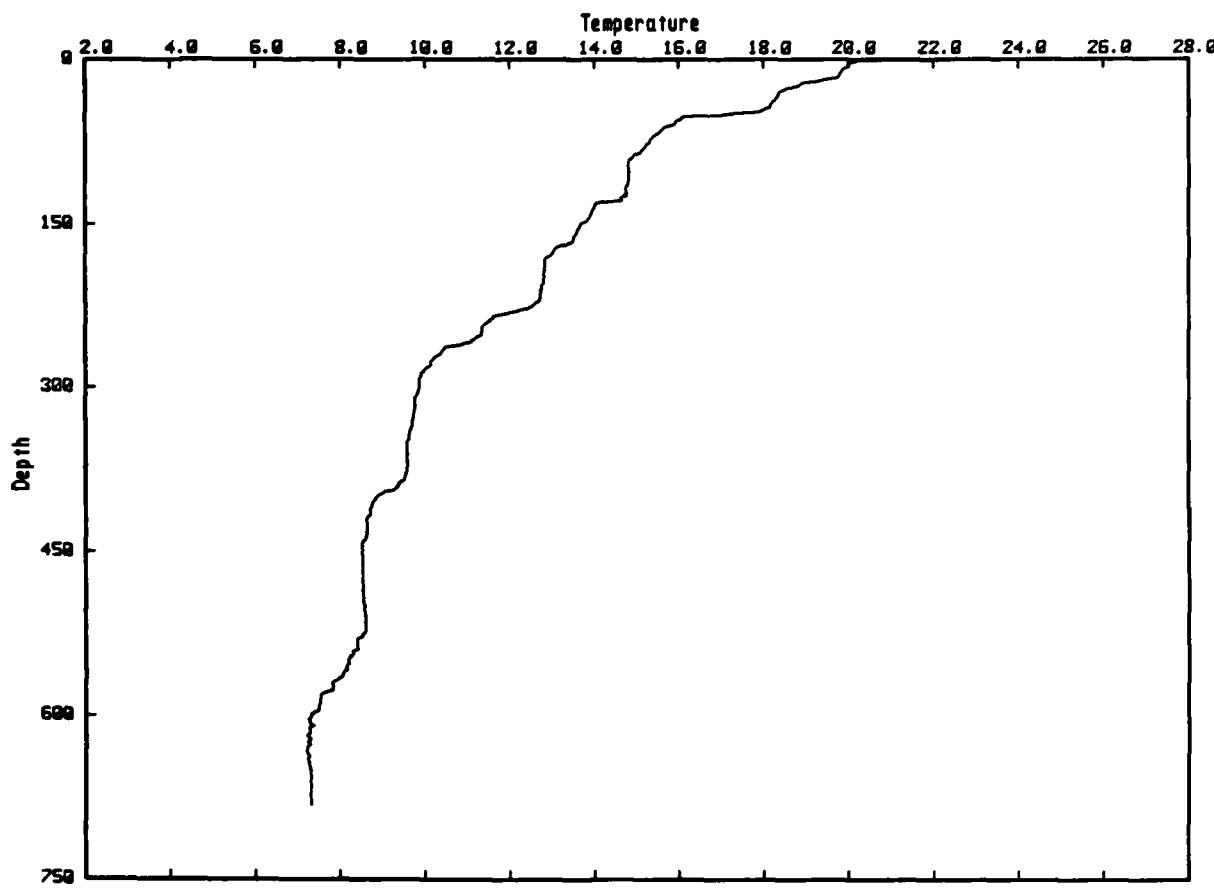
XBT DROP 037 T-7 RADAR: none GULF COORDS: -37.1 190.2  
 JDAY 325 2237Z DEPTH 804m/760m SST 20.10 2M TEMPS: SAIL 20.21 XBT 20.26  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 11.6 | 390 | 8.8  | 580 | 7.4  |
| 20  | 19.8 | 210 | 11.4 | 400 | 8.6  | 590 | 7.3  |
| 30  | 18.3 | 220 | 11.4 | 410 | 8.4  | 600 | 7.3  |
| 40  | 17.9 | 230 | 11.0 | 420 | 8.3  | 610 | 7.2  |
| 50  | 16.2 | 240 | 10.6 | 430 | 8.3  | 620 | 7.2  |
| 60  | 15.9 | 250 | 10.5 | 440 | 8.2  | 630 | 7.2  |
| 70  | 15.8 | 260 | 10.4 | 450 | 8.2  | 640 | 7.2  |
| 80  | 15.7 | 270 | 10.3 | 460 | 8.2  | 650 | 7.3  |
| 90  | 15.7 | 280 | 10.0 | 470 | 8.1  | 660 | 7.4  |
| 100 | 15.6 | 290 | 10.0 | 480 | 8.2  | 670 | 7.4  |
| 110 | 15.5 | 300 | 9.8  | 490 | 8.1  | 680 | 7.4  |
| 120 | 15.4 | 310 | 9.8  | 500 | 8.2  | 690 | 7.3  |
| 130 | 15.1 | 320 | 9.8  | 510 | 8.0  | 700 | 7.2  |
| 140 | 14.2 | 330 | 9.6  | 520 | 8.0  | 710 | 7.1  |
| 150 | 14.1 | 340 | 9.5  | 530 | 7.9  | 720 | 7.0  |
| 160 | 13.2 | 350 | 9.5  | 540 | 7.8  | 730 | 6.7  |
| 170 | 12.8 | 360 | 9.2  | 550 | 7.8  | 740 | 6.7  |
| 180 | 12.4 | 370 | 9.2  | 560 | 7.6  | 750 | 6.5  |
| 190 | 12.0 | 380 | 8.9  | 570 | 7.4  | 760 | 6.4  |

XBT DROP 038

28 12.6N 112 26.1W

20 NOV 84 1545 MST



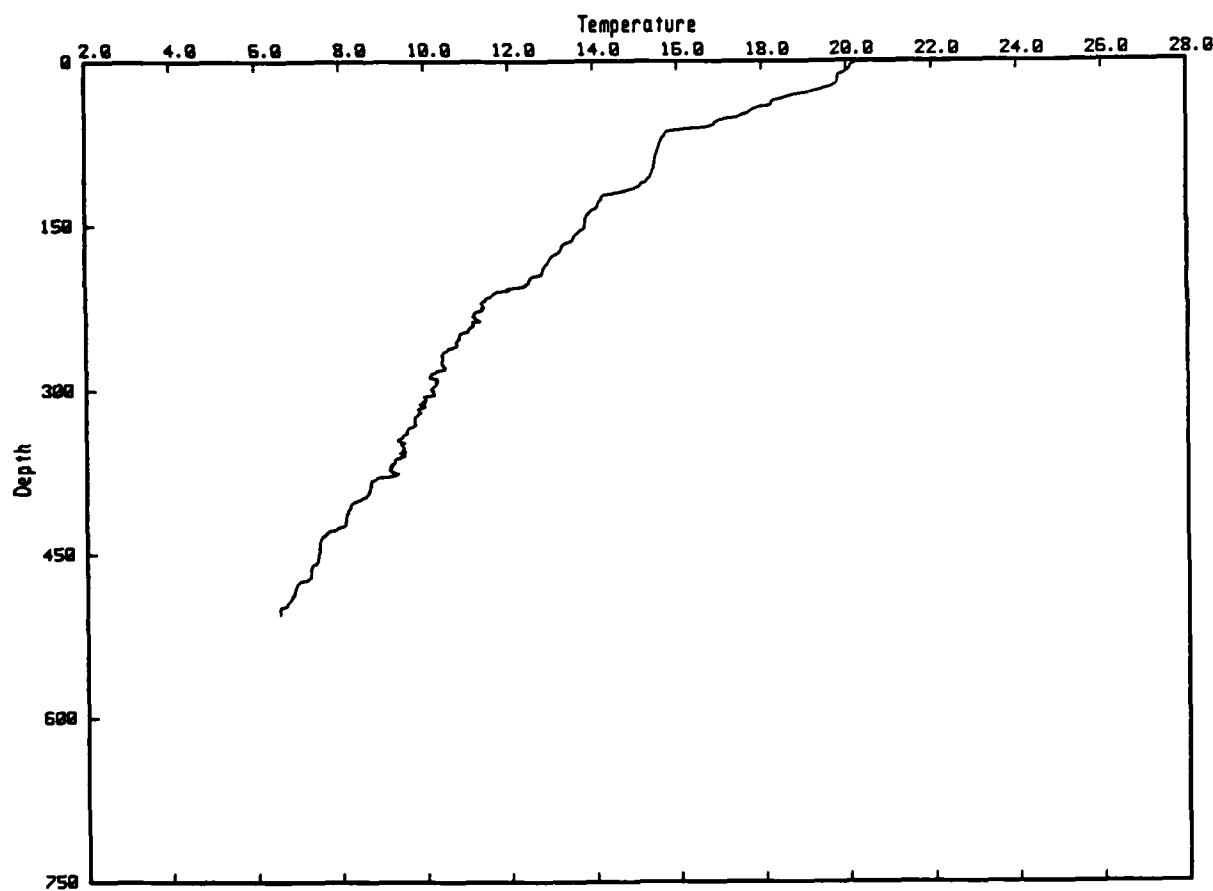
XBT DROP 038 T-7 RADAR: none GULF COORDS: -35.3 191.8  
 JDAY 325 2245Z DEPTH 694m/682m SST 20.12 2M TEMPS: SAIL 20.17 XBT 20.22  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.9 | 200 | 12.8 | 390 | 9.4  | 580 | 7.6  |
| 20  | 19.3 | 210 | 12.7 | 400 | 8.9  | 590 | 7.5  |
| 30  | 18.4 | 220 | 12.7 | 410 | 8.7  | 600 | 7.3  |
| 40  | 18.2 | 230 | 12.2 | 420 | 8.6  | 610 | 7.3  |
| 50  | 17.2 | 240 | 11.5 | 430 | 8.6  | 620 | 7.3  |
| 60  | 15.8 | 250 | 11.3 | 440 | 8.5  | 630 | 7.2  |
| 70  | 15.4 | 260 | 11.0 | 450 | 8.5  | 640 | 7.2  |
| 80  | 15.2 | 270 | 10.3 | 460 | 8.5  | 650 | 7.3  |
| 90  | 14.9 | 280 | 10.1 | 470 | 8.5  | 660 | 7.3  |
| 100 | 14.8 | 290 | 9.9  | 480 | 8.5  | 670 | 7.3  |
| 110 | 14.8 | 300 | 9.9  | 490 | 8.5  | 680 | 7.3  |
| 120 | 14.8 | 310 | 9.8  | 500 | 8.6  |     |      |
| 130 | 14.1 | 320 | 9.8  | 510 | 8.6  |     |      |
| 140 | 13.9 | 330 | 9.7  | 520 | 8.6  |     |      |
| 150 | 13.7 | 340 | 9.6  | 530 | 8.4  |     |      |
| 160 | 13.5 | 350 | 9.6  | 540 | 8.3  |     |      |
| 170 | 13.2 | 360 | 9.6  | 550 | 8.2  |     |      |
| 180 | 12.9 | 370 | 9.6  | 560 | 8.1  |     |      |
| 190 | 12.8 | 380 | 9.5  | 570 | 7.8  |     |      |

XBT DROP 040

28 14.6N 112 25.6W

20 NOV 84 1557 MST



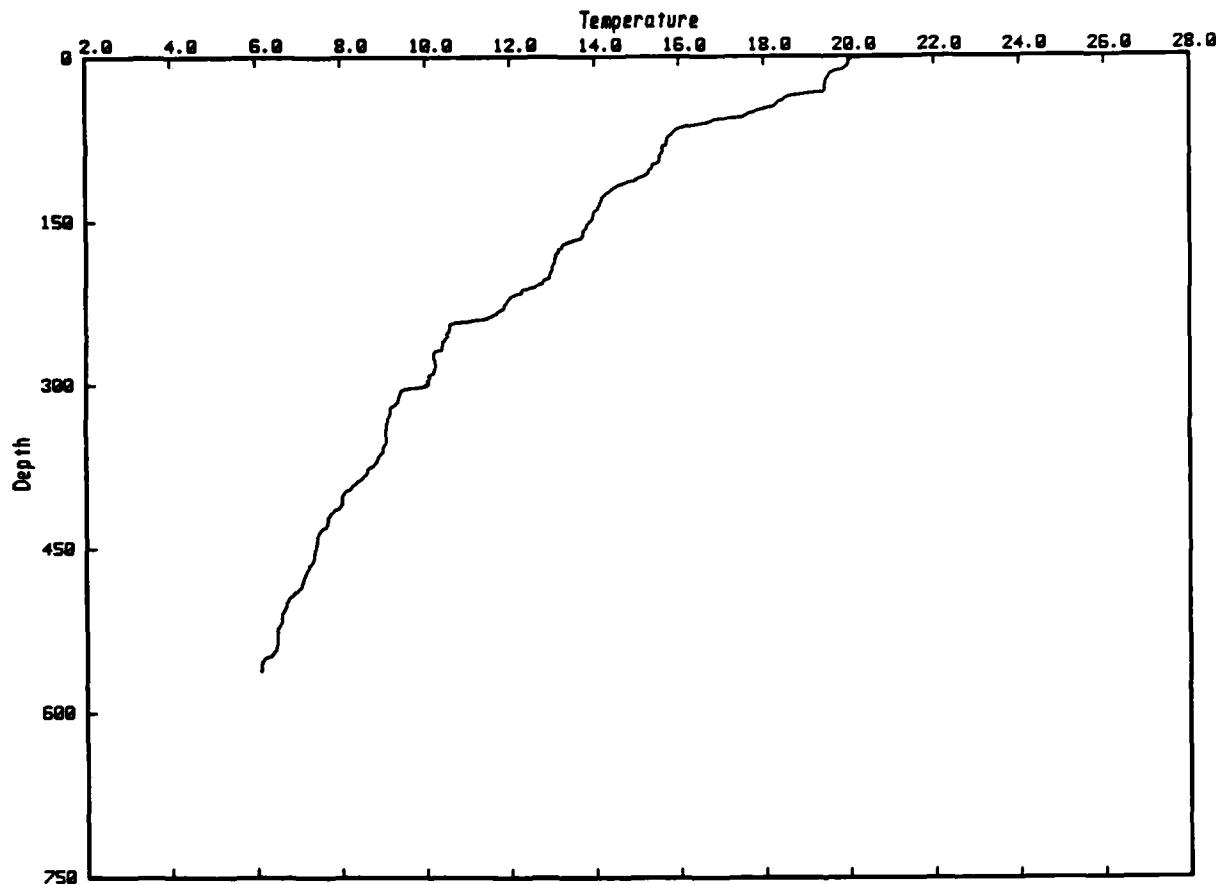
XBT DROP 040 T-7 RADAR: none GULF COORDS: -32.4 194.3  
JDAY 325 2257Z DEPTH 520m/506m SST 20.18 2M TEMPS: SAIL 20.11 XBT 20.23  
GULF OF CALIFORNIA: GUAYMAS BASIN, OVER RIDGE; MX1C-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.5 | 390 | 8.7  |
| 20  | 19.8 | 210 | 11.7 | 400 | 8.5  |
| 30  | 18.9 | 220 | 11.3 | 410 | 8.2  |
| 40  | 18.2 | 230 | 11.2 | 420 | 8.1  |
| 50  | 17.5 | 240 | 11.1 | 430 | 7.7  |
| 60  | 16.7 | 250 | 10.8 | 440 | 7.5  |
| 70  | 15.7 | 260 | 10.8 | 450 | 7.5  |
| 80  | 15.5 | 270 | 10.4 | 460 | 7.3  |
| 90  | 15.5 | 280 | 10.4 | 470 | 7.3  |
| 100 | 15.4 | 290 | 10.3 | 480 | 6.9  |
| 110 | 15.3 | 300 | 10.2 | 490 | 6.8  |
| 120 | 14.7 | 310 | 9.9  | 500 | 6.6  |
| 130 | 14.1 | 320 | 9.9  |     |      |
| 140 | 13.9 | 330 | 9.7  |     |      |
| 150 | 13.8 | 340 | 9.5  |     |      |
| 160 | 13.5 | 350 | 9.4  |     |      |
| 170 | 13.3 | 360 | 9.5  |     |      |
| 180 | 13.0 | 370 | 9.2  |     |      |
| 190 | 12.8 | 380 | 8.9  |     |      |

XBT DROP 042

28 15.4N 112 25.8W

20 NOV 84 1608 MST



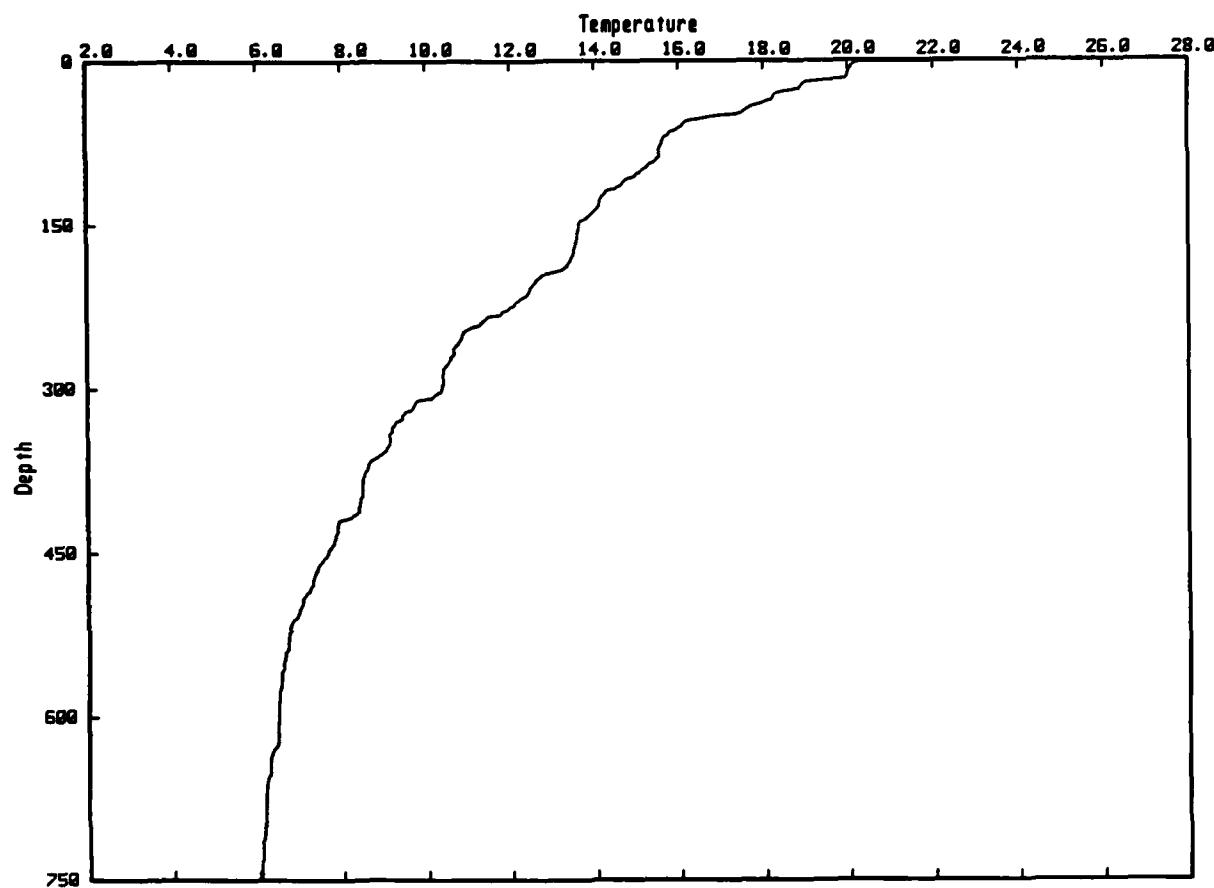
XBT DROP 042 T-7 RADAR: none GULF COORDS: -31.8 195.7  
 JDAY 325 2308Z DEPTH 579m/562m SST 20.08 2M TEMPS: SAIL 20.24 XBT 20.10  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.9 | 200 | 12.9 | 390 | 8.3  |
| 20  | 19.5 | 210 | 12.6 | 400 | 8.0  |
| 30  | 19.4 | 220 | 12.0 | 410 | 8.0  |
| 40  | 18.5 | 230 | 11.8 | 420 | 7.7  |
| 50  | 17.8 | 240 | 11.3 | 430 | 7.6  |
| 60  | 16.7 | 250 | 10.6 | 440 | 7.4  |
| 70  | 15.8 | 260 | 10.4 | 450 | 7.4  |
| 80  | 15.7 | 270 | 10.2 | 460 | 7.3  |
| 90  | 15.5 | 280 | 10.2 | 470 | 7.2  |
| 100 | 15.4 | 290 | 10.1 | 480 | 7.1  |
| 110 | 15.0 | 300 | 10.0 | 490 | 6.9  |
| 120 | 14.5 | 310 | 9.4  | 500 | 6.7  |
| 130 | 14.2 | 320 | 9.2  | 510 | 6.6  |
| 140 | 14.0 | 330 | 9.1  | 520 | 6.5  |
| 150 | 13.9 | 340 | 9.1  | 530 | 6.5  |
| 160 | 13.7 | 350 | 9.1  | 540 | 6.5  |
| 170 | 13.3 | 360 | 9.0  | 550 | 6.2  |
| 180 | 13.1 | 370 | 8.8  | 560 | 6.1  |
| 190 | 13.0 | 380 | 8.6  |     |      |

XBT DROP 043

28 16.4N 112 25.5W

20 NOV 84 1616 MST



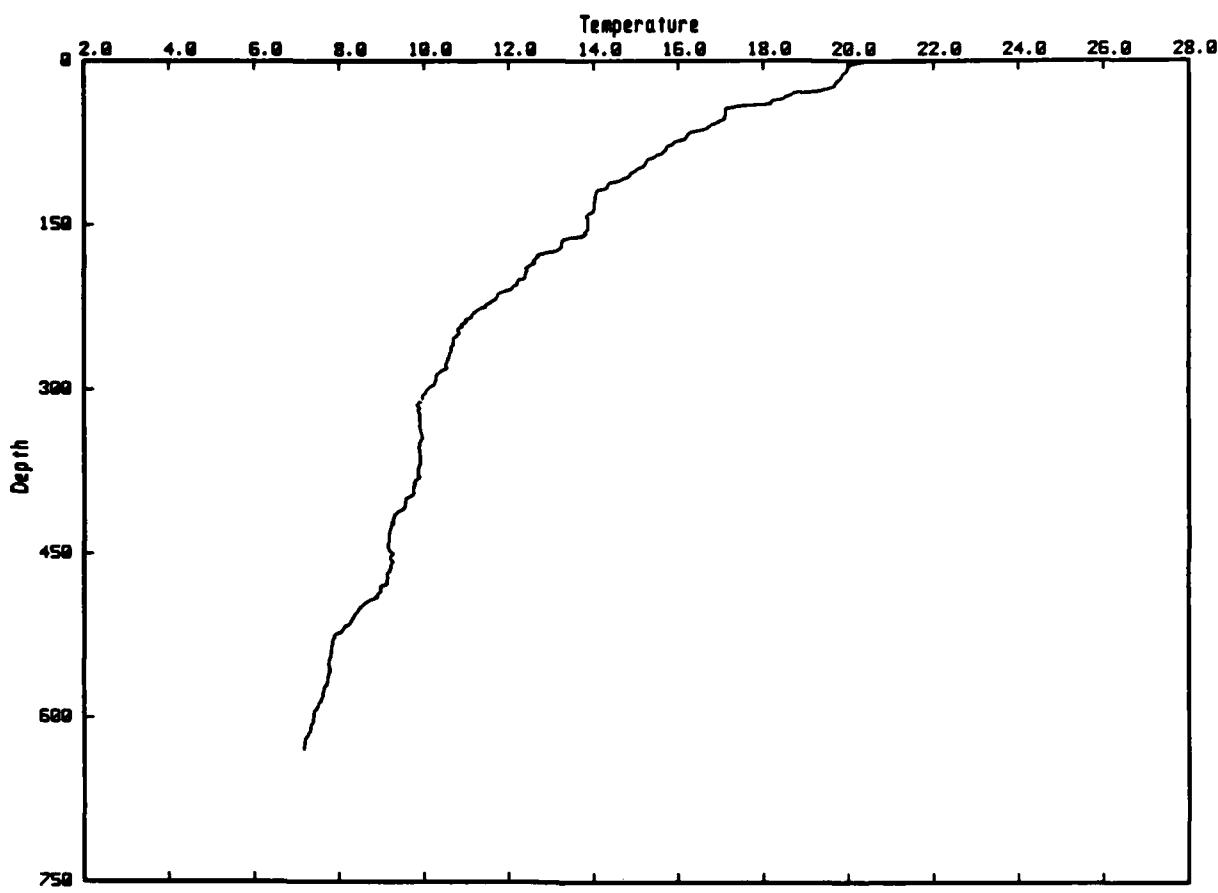
XBT DROP 043 T-7 RADAR: none GULF COORDS: -30.3 196.9  
 JDAY 325 2316Z DEPTH 767m/750m SST 20.11 2M TEMPS: SAIL 20.16 XBT 20.28  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.6 | 390 | 8.5  | 580 | 6.5  |
| 20  | 19.0 | 210 | 12.4 | 400 | 8.4  | 590 | 6.5  |
| 30  | 18.4 | 220 | 12.2 | 410 | 8.4  | 600 | 6.5  |
| 40  | 17.9 | 230 | 11.8 | 420 | 8.0  | 610 | 6.5  |
| 50  | 17.1 | 240 | 11.3 | 430 | 7.9  | 620 | 6.5  |
| 60  | 16.1 | 250 | 10.9 | 440 | 7.8  | 630 | 6.4  |
| 70  | 15.7 | 260 | 10.8 | 450 | 7.6  | 640 | 6.3  |
| 80  | 15.6 | 270 | 10.6 | 460 | 7.5  | 650 | 6.3  |
| 90  | 15.5 | 280 | 10.5 | 470 | 7.3  | 660 | 6.2  |
| 100 | 15.2 | 290 | 10.4 | 480 | 7.3  | 670 | 6.2  |
| 110 | 14.7 | 300 | 10.4 | 490 | 7.1  | 680 | 6.2  |
| 120 | 14.3 | 310 | 9.8  | 500 | 7.0  | 690 | 6.2  |
| 130 | 14.1 | 320 | 9.6  | 510 | 6.9  | 700 | 6.1  |
| 140 | 13.9 | 330 | 9.3  | 520 | 6.8  | 710 | 6.1  |
| 150 | 13.6 | 340 | 9.2  | 530 | 6.7  | 720 | 6.1  |
| 160 | 13.6 | 350 | 9.1  | 540 | 6.6  | 730 | 6.1  |
| 170 | 13.5 | 360 | 8.9  | 550 | 6.6  | 740 | 6.0  |
| 180 | 13.5 | 370 | 8.6  | 560 | 6.5  | 750 | 6.0  |
| 190 | 13.3 | 380 | 8.5  | 570 | 6.5  |     |      |

XBT DROP 044

28 18.0N 112 25.0W

20 NOV 84 1624 MST



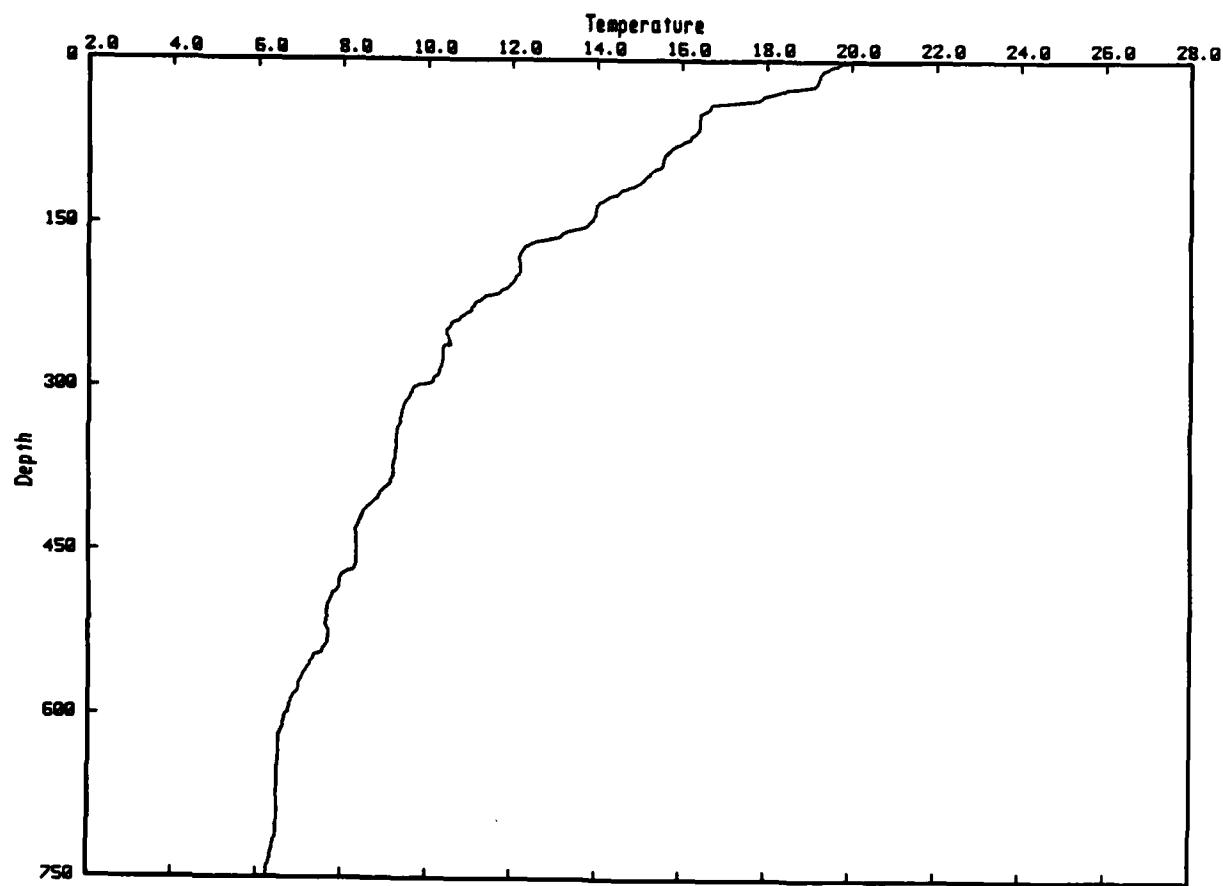
XBT DROP 044 T-7 RADAR: none GULF COORDS: -27.9 198.8  
 JDAY 325 2324Z DEPTH 900m/630m SST 19.70 2M TEMPS: SAIL 20.17 XBT 20.33  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX1C-8, SPRING TIDE (SHORTED AFTER 630 M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 12.2 | 400 | 9.6  | 590 | 7.5  |
| 20  | 19.7 | 210 | 11.9 | 410 | 9.5  | 600 | 7.4  |
| 30  | 18.7 | 220 | 11.6 | 420 | 9.3  | 610 | 7.3  |
| 40  | 18.0 | 230 | 11.2 | 430 | 9.2  | 620 | 7.2  |
| 50  | 17.1 | 240 | 10.9 | 440 | 9.2  | 630 | 7.2  |
| 60  | 16.7 | 250 | 10.8 | 450 | 9.3  |     |      |
| 70  | 16.2 | 260 | 10.7 | 460 | 9.2  |     |      |
| 80  | 15.7 | 270 | 10.6 | 470 | 9.1  |     |      |
| 90  | 15.3 | 280 | 10.5 | 480 | 9.0  |     |      |
| 100 | 15.0 | 290 | 10.3 | 490 | 8.9  |     |      |
| 110 | 14.6 | 300 | 10.1 | 500 | 8.5  |     |      |
| 120 | 14.1 | 320 | 9.9  | 510 | 8.3  |     |      |
| 130 | 14.0 | 330 | 9.9  | 520 | 8.1  |     |      |
| 140 | 13.9 | 340 | 9.9  | 530 | 7.8  |     |      |
| 150 | 13.9 | 350 | 9.9  | 540 | 7.8  |     |      |
| 160 | 13.7 | 360 | 9.9  | 550 | 7.8  |     |      |
| 170 | 13.2 | 370 | 9.9  | 560 | 7.8  |     |      |
| 180 | 12.7 | 380 | 9.9  | 570 | 7.7  |     |      |
| 190 | 12.4 | 390 | 9.7  | 580 | 7.6  |     |      |

XBT DROP 045

28 19.0N 112 24.5W

20 NOV 84 1629 MST



XBT DROP 045 T-7 RADAR: none GULF COORDS: -26.1 199.8  
 JDAY 325 2329Z DEPTH 1010m/760m SST 19.78 2M TEMPS: SAIL 19.97 XBT 19.76  
 GULF OF CALIFORNIA: GUAYMAS BASIN, END MX1C LINE; MX1C-9, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.3 | 200 | 12.1 | 300 | 9.1  | 580 | 6.9  |
| 20  | 19.2 | 210 | 11.8 | 400 | 8.8  | 590 | 6.8  |
| 30  | 18.3 | 220 | 11.2 | 410 | 8.6  | 600 | 6.6  |
| 40  | 18.7 | 230 | 11.0 | 420 | 8.4  | 610 | 6.6  |
| 50  | 16.4 | 240 | 10.6 | 430 | 8.3  | 620 | 6.5  |
| 60  | 16.4 | 250 | 10.4 | 440 | 8.3  | 630 | 6.5  |
| 70  | 16.2 | 260 | 10.5 | 450 | 8.3  | 640 | 6.5  |
| 80  | 15.8 | 270 | 10.4 | 460 | 8.3  | 650 | 6.5  |
| 90  | 15.6 | 280 | 10.3 | 470 | 8.1  | 660 | 6.5  |
| 100 | 15.4 | 290 | 10.2 | 480 | 7.9  | 670 | 6.5  |
| 110 | 15.1 | 300 | 9.7  | 490 | 7.7  | 680 | 6.5  |
| 120 | 14.5 | 310 | 9.5  | 500 | 7.6  | 690 | 6.5  |
| 130 | 14.1 | 320 | 9.4  | 510 | 7.6  | 700 | 6.5  |
| 140 | 13.9 | 330 | 9.3  | 520 | 7.6  | 710 | 6.5  |
| 150 | 13.8 | 340 | 9.3  | 530 | 7.7  | 720 | 6.4  |
| 160 | 13.1 | 350 | 9.3  | 540 | 7.5  | 730 | 6.3  |
| 170 | 12.3 | 360 | 9.2  | 550 | 7.3  | 740 | 6.3  |
| 180 | 12.2 | 370 | 9.2  | 560 | 7.1  | 750 | 6.3  |
| 190 | 12.2 | 380 | 9.2  | 570 | 7.0  | 760 | 6.3  |

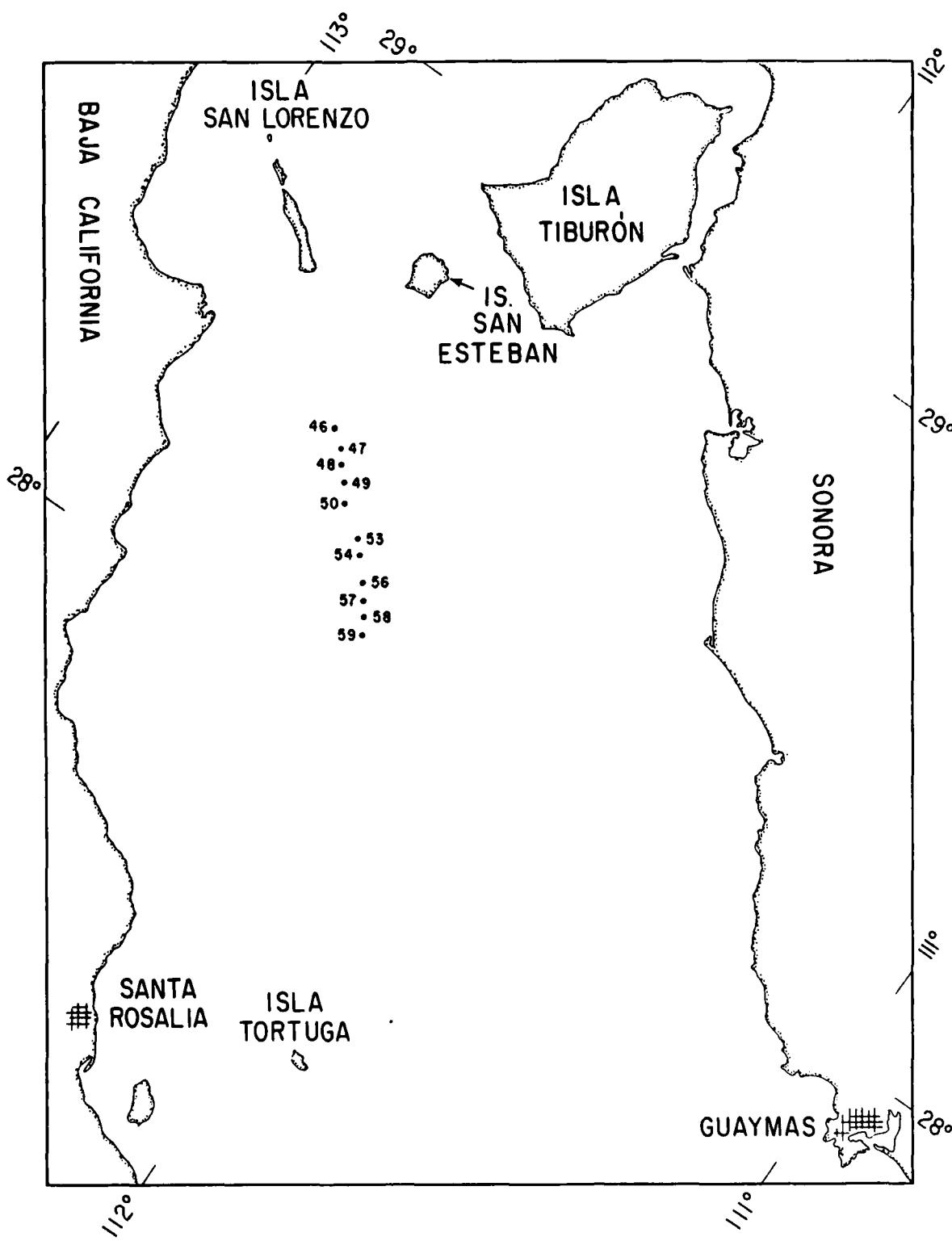
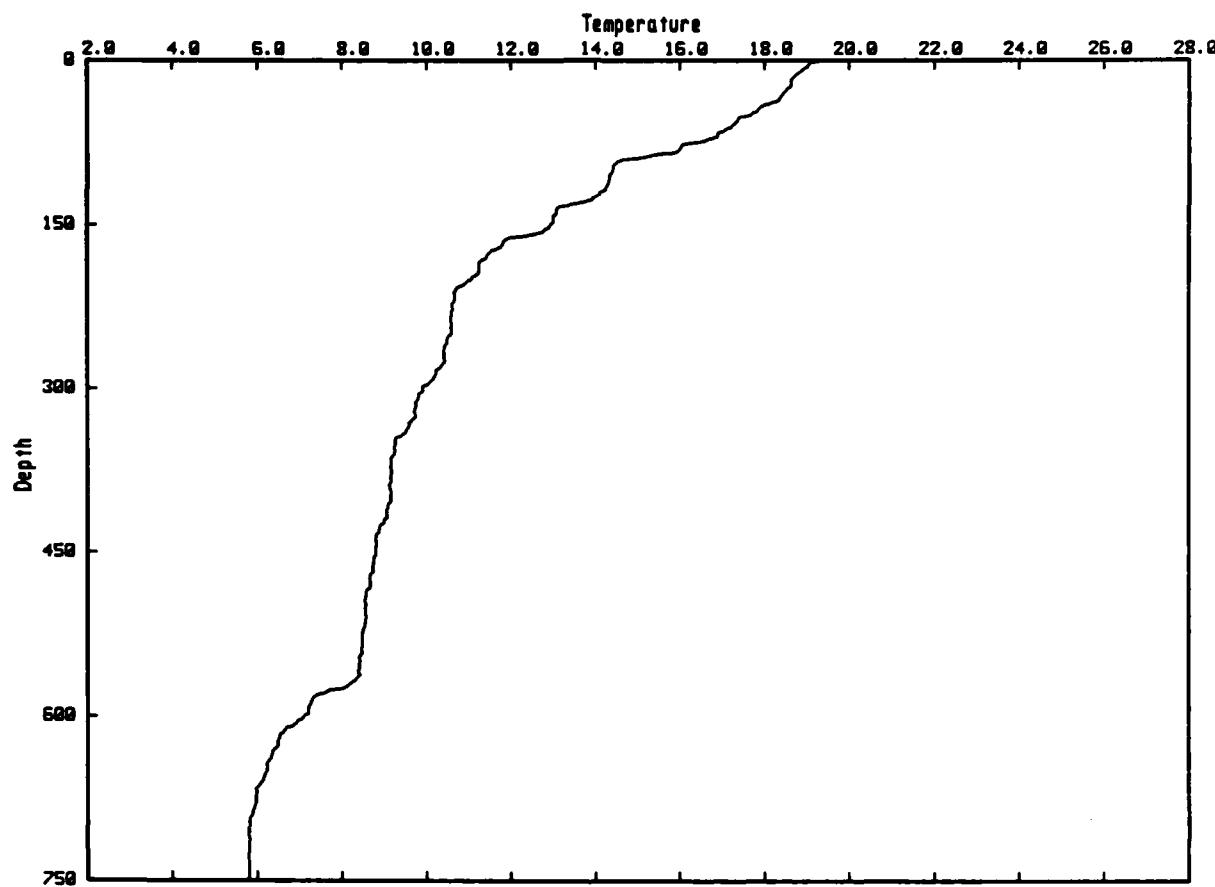


Figure 12. MX2A Section: XBT Station Locations

XBT DROP 046

28 23.0N 112 32.0W

21 NOV 84 0818 MST



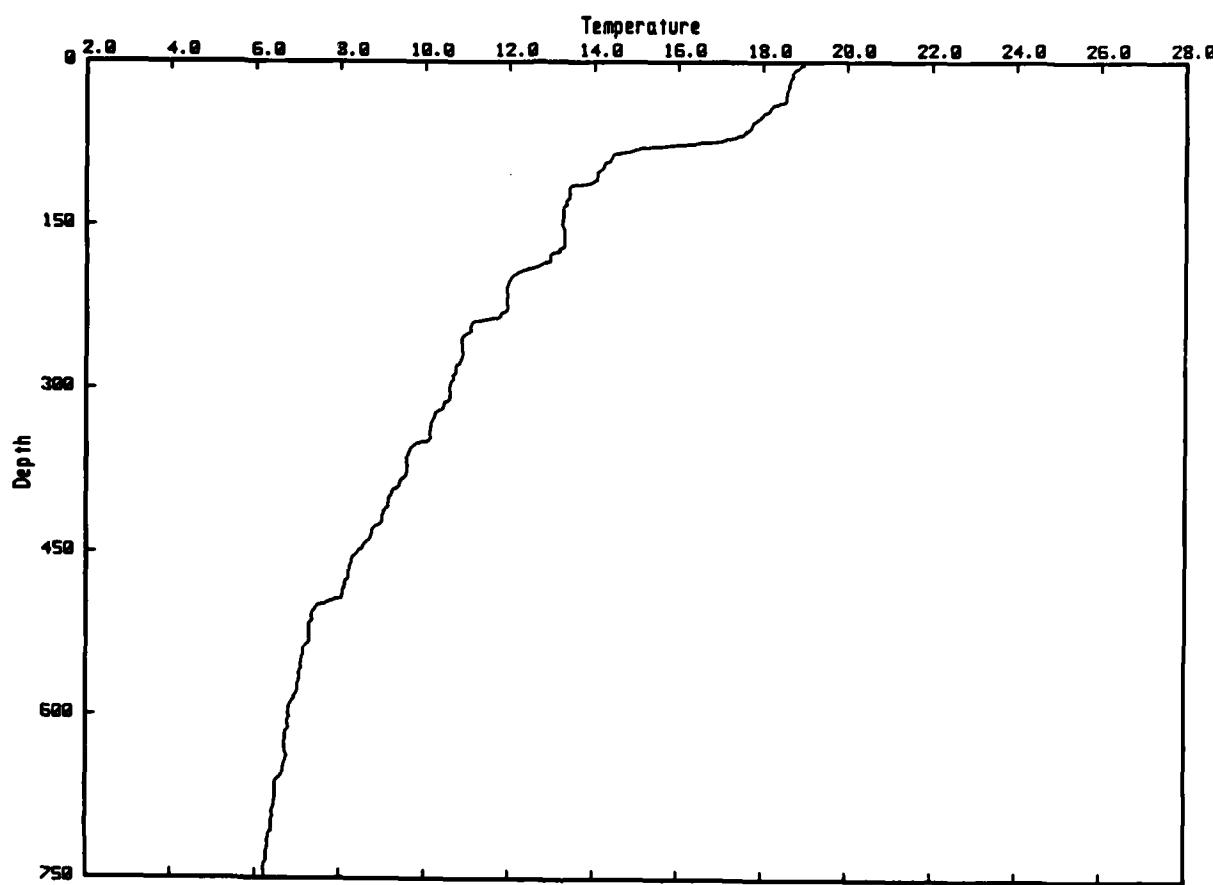
XBT DROP 046 T-7 RADAR: none GULF COORDS: -31.7 213.0  
 JDAY 326 1518Z DEPTH 787m/760m SST 19.05 2M TEMPS: SAIL 19.14 XBT 19.04  
 GULF OF CALIFORNIA: GUAYMAS BASIN, BEGIN MX2A LINE; MX2A-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.9 | 200 | 11.1 | 388 | 9.1  | 580 | 7.5  |
| 20  | 18.6 | 210 | 10.7 | 400 | 9.1  | 590 | 7.2  |
| 30  | 18.4 | 220 | 10.6 | 409 | 9.1  | 600 | 7.1  |
| 40  | 18.0 | 230 | 10.6 | 420 | 9.0  | 610 | 6.7  |
| 50  | 17.6 | 240 | 10.6 | 431 | 8.9  | 620 | 6.5  |
| 60  | 17.2 | 250 | 10.6 | 439 | 8.8  | 630 | 6.4  |
| 70  | 16.8 | 259 | 10.4 | 450 | 8.8  | 640 | 6.3  |
| 80  | 16.0 | 270 | 10.4 | 460 | 8.8  | 650 | 6.2  |
| 90  | 14.7 | 280 | 10.3 | 470 | 8.7  | 660 | 6.1  |
| 100 | 14.4 | 290 | 10.2 | 480 | 8.7  | 670 | 6.0  |
| 110 | 14.3 | 300 | 9.9  | 490 | 8.6  | 679 | 6.0  |
| 120 | 14.1 | 310 | 9.8  | 501 | 8.6  | 690 | 5.9  |
| 130 | 13.7 | 320 | 9.7  | 511 | 8.6  | 700 | 5.8  |
| 140 | 13.1 | 330 | 9.6  | 519 | 8.5  | 710 | 5.8  |
| 150 | 12.9 | 340 | 9.5  | 531 | 8.5  | 720 | 5.8  |
| 160 | 12.4 | 350 | 9.3  | 540 | 8.5  | 730 | 5.8  |
| 170 | 11.8 | 360 | 9.2  | 551 | 8.4  | 741 | 5.8  |
| 180 | 11.4 | 370 | 9.2  | 559 | 8.4  | 750 | 5.8  |
| 190 | 11.2 | 380 | 9.2  | 570 | 8.2  | 759 | 5.8  |

XBT DROP 047

28 21.5N 112 29.8W

21 NOV 84 0830 MST



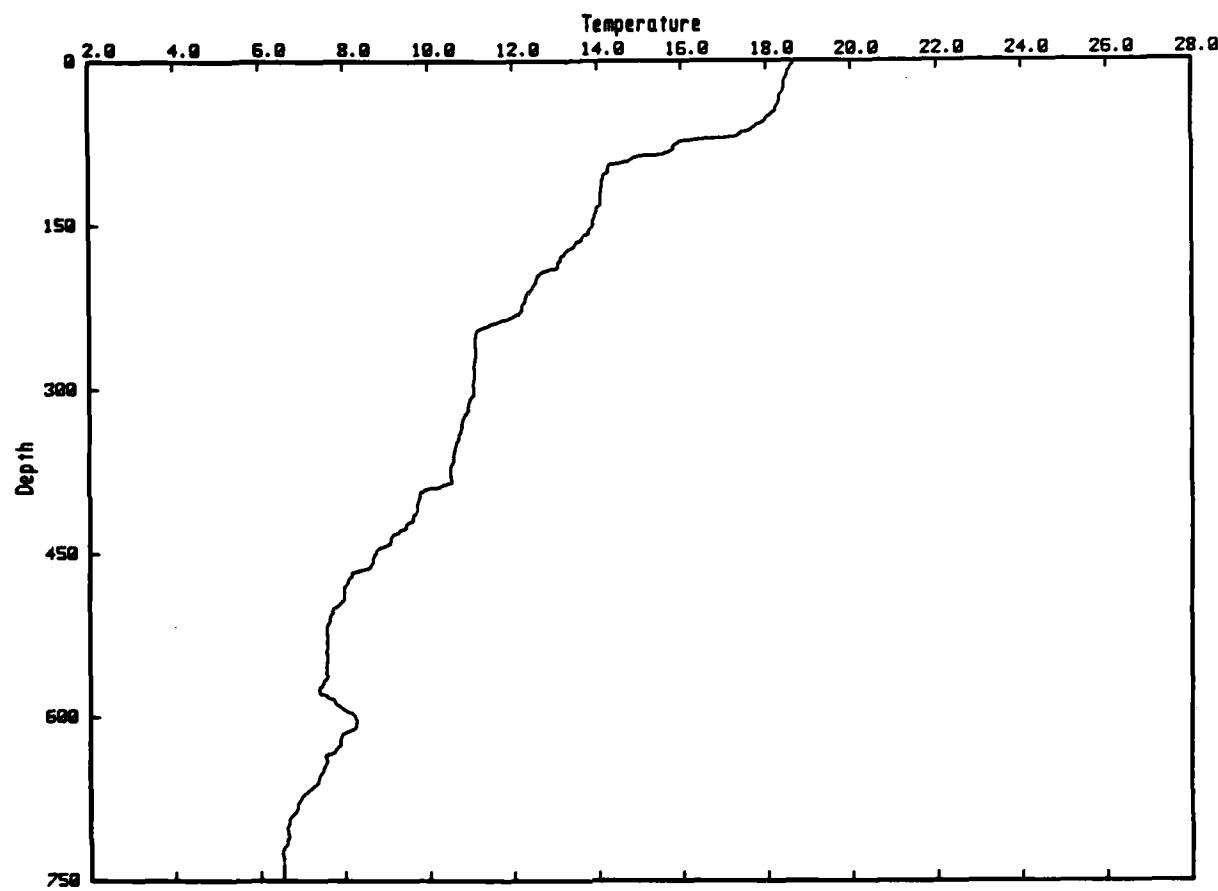
XBT DROP 047 T-7 RADAR: none GULF COORDS: -30.4 208.7  
 JDAY 326 1530Z DEPTH 874m/760m SST 18.90 2M TEMPS: SAIL 18.91 XBT 18.88  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.7 | 200 | 12.0 | 390 | 9.4  | 580 | 7.0  |
| 20  | 18.6 | 210 | 11.9 | 400 | 9.2  | 590 | 6.8  |
| 30  | 18.6 | 219 | 12.0 | 410 | 9.1  | 600 | 6.8  |
| 40  | 18.2 | 230 | 11.8 | 421 | 9.0  | 610 | 6.8  |
| 50  | 18.0 | 239 | 11.1 | 429 | 8.8  | 620 | 6.7  |
| 60  | 17.7 | 250 | 11.0 | 440 | 8.6  | 630 | 6.7  |
| 70  | 17.3 | 260 | 10.9 | 450 | 8.4  | 640 | 6.7  |
| 80  | 15.0 | 271 | 10.9 | 460 | 8.3  | 650 | 6.7  |
| 90  | 14.4 | 279 | 10.7 | 469 | 8.2  | 659 | 6.5  |
| 100 | 14.1 | 290 | 10.7 | 480 | 8.1  | 670 | 6.5  |
| 110 | 14.0 | 300 | 10.6 | 489 | 8.1  | 680 | 6.5  |
| 120 | 13.4 | 310 | 10.6 | 500 | 7.4  | 689 | 6.4  |
| 130 | 13.4 | 320 | 10.3 | 510 | 7.3  | 699 | 6.4  |
| 140 | 13.3 | 329 | 10.2 | 520 | 7.3  | 710 | 6.3  |
| 150 | 13.3 | 340 | 10.1 | 530 | 7.3  | 721 | 6.3  |
| 160 | 13.3 | 350 | 9.8  | 540 | 7.1  | 730 | 6.3  |
| 170 | 13.3 | 360 | 9.8  | 550 | 7.1  | 739 | 6.2  |
| 180 | 13.0 | 370 | 9.8  | 560 | 7.0  | 750 | 6.2  |
| 190 | 12.4 | 380 | 9.5  | 570 | 7.0  | 759 | 6.2  |

XBT DROP 048

28 20.2N 112 28.6W

21 NOV 84 0842 MST



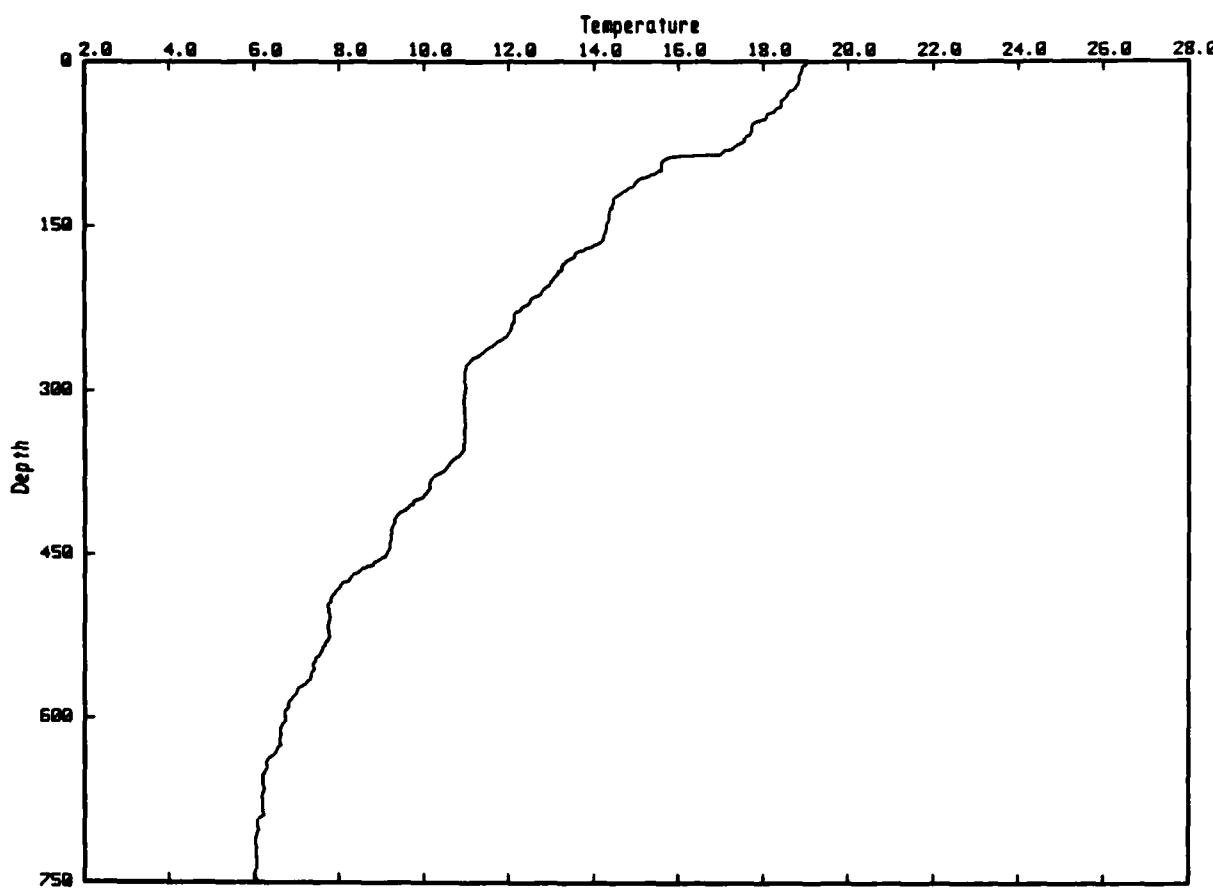
XBT DROP 048 T-7 RADAR: none GULF COORDS: -30.3 205.6  
 JDAY 326 1542Z DEPTH 904m/752m SST 18.60 2M TEMPS: SAIL 18.58 XBT 18.60  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.5 | 200 | 12.5 | 390 | 10.0 | 580 | 7.5  |
| 20  | 18.4 | 210 | 12.4 | 400 | 9.8  | 590 | 7.9  |
| 30  | 18.4 | 220 | 12.3 | 410 | 9.7  | 600 | 8.2  |
| 40  | 18.3 | 230 | 12.2 | 420 | 9.6  | 610 | 8.2  |
| 50  | 18.1 | 240 | 11.4 | 430 | 9.3  | 620 | 7.9  |
| 60  | 17.7 | 250 | 11.1 | 440 | 9.1  | 630 | 7.8  |
| 70  | 17.1 | 259 | 11.1 | 450 | 8.7  | 641 | 7.6  |
| 80  | 15.8 | 271 | 11.1 | 460 | 8.6  | 650 | 7.5  |
| 90  | 14.8 | 280 | 11.1 | 470 | 8.2  | 660 | 7.4  |
| 100 | 14.2 | 291 | 11.1 | 480 | 8.0  | 670 | 7.1  |
| 111 | 14.1 | 299 | 11.1 | 489 | 8.0  | 681 | 6.9  |
| 121 | 14.1 | 310 | 11.0 | 500 | 7.7  | 690 | 6.8  |
| 130 | 14.1 | 320 | 10.9 | 510 | 7.6  | 700 | 6.7  |
| 140 | 13.9 | 329 | 10.8 | 521 | 7.6  | 710 | 6.7  |
| 150 | 13.9 | 341 | 10.7 | 530 | 7.6  | 720 | 6.5  |
| 160 | 13.7 | 350 | 10.6 | 540 | 7.6  | 731 | 6.5  |
| 170 | 13.4 | 359 | 10.6 | 550 | 7.6  | 738 | 6.5  |
| 180 | 13.1 | 371 | 10.5 | 560 | 7.6  | 749 | 6.5  |
| 190 | 12.9 | 381 | 10.5 | 570 | 7.5  |     |      |

XBT DROP 049

28 18.9N 112 27.0W

21 NOV 84 0852 MST



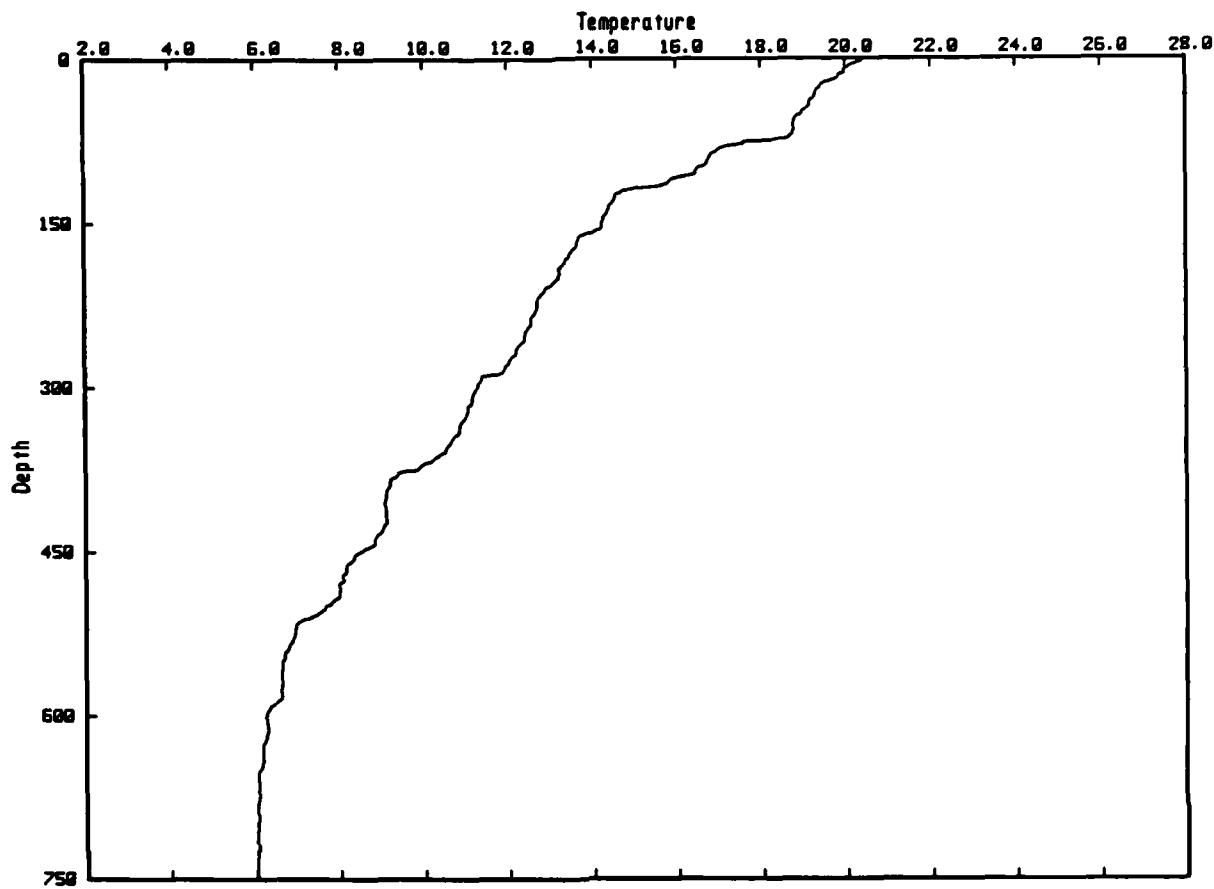
XBT DROP 049 T-7 RADAR: none GULF COORDS: -29.6 202.1  
 JDAY 326 1552Z DEPTH 932m/760m SST 19.15 2M TEMPS: SAIL 19.13 XBT 18.95  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.9 | 200 | 13.0 | 390 | 10.1 | 580 | 6.9  |
| 20  | 18.8 | 210 | 12.8 | 400 | 9.8  | 590 | 6.8  |
| 30  | 18.6 | 220 | 12.5 | 410 | 9.5  | 601 | 6.7  |
| 40  | 18.4 | 230 | 12.1 | 420 | 9.3  | 609 | 6.6  |
| 50  | 18.1 | 241 | 12.1 | 429 | 9.2  | 620 | 6.6  |
| 60  | 17.7 | 250 | 12.0 | 441 | 9.2  | 630 | 6.5  |
| 70  | 17.6 | 260 | 11.6 | 450 | 9.1  | 640 | 6.3  |
| 80  | 17.3 | 270 | 11.1 | 460 | 8.8  | 650 | 6.3  |
| 90  | 15.6 | 281 | 11.0 | 470 | 8.3  | 660 | 6.2  |
| 100 | 15.5 | 289 | 11.0 | 480 | 8.0  | 669 | 6.2  |
| 109 | 15.0 | 300 | 11.0 | 490 | 7.8  | 681 | 6.2  |
| 120 | 14.6 | 309 | 10.9 | 499 | 7.7  | 690 | 6.2  |
| 129 | 14.4 | 320 | 10.9 | 509 | 7.8  | 700 | 6.1  |
| 141 | 14.4 | 330 | 11.0 | 520 | 7.8  | 711 | 6.0  |
| 150 | 14.3 | 340 | 10.9 | 530 | 7.7  | 721 | 6.0  |
| 160 | 14.2 | 350 | 10.9 | 540 | 7.6  | 731 | 6.1  |
| 170 | 13.8 | 360 | 10.8 | 550 | 7.4  | 739 | 6.0  |
| 180 | 13.4 | 370 | 10.5 | 560 | 7.3  | 749 | 6.0  |
| 190 | 13.2 | 379 | 10.2 | 570 | 7.1  | 758 | 6.1  |

XBT DROP 050

28 17.2N 112 25.5W

21 NOV 84 0906 MST



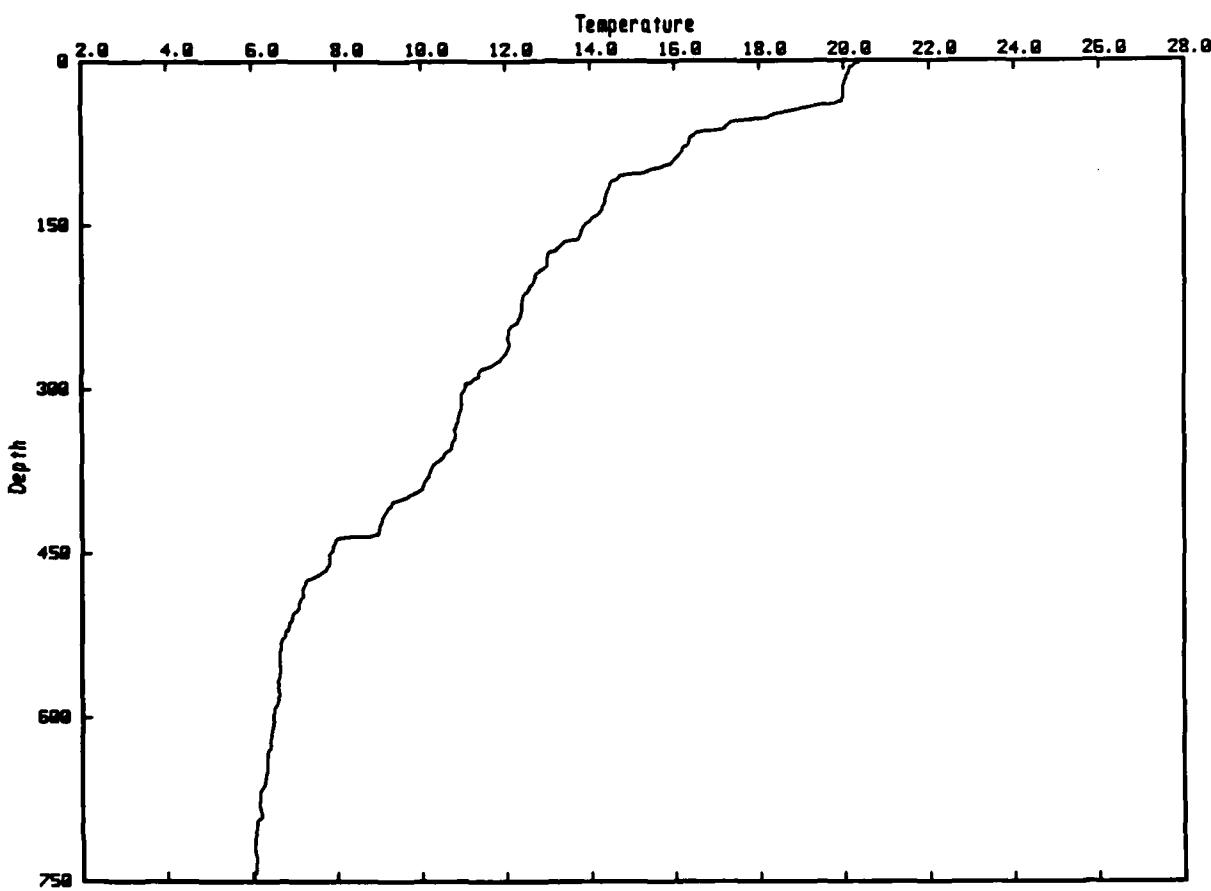
XBT DROP 050 T-7 RADAR: none GULF COORDS: -29.4 198.1  
 JDAY 326 1606Z DEPTH 869m/760m SST 20.20 2M TEMPS: SAIL 20.32 XBT 20.28  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 28.0 | 200 | 13.2 | 390 | 9.2  | 580 | 6.6  |
| 20  | 19.6 | 210 | 12.9 | 400 | 9.1  | 590 | 6.4  |
| 29  | 19.3 | 218 | 12.7 | 411 | 9.1  | 600 | 6.3  |
| 40  | 19.1 | 230 | 12.6 | 420 | 9.1  | 611 | 6.3  |
| 50  | 18.9 | 240 | 12.5 | 430 | 9.0  | 619 | 6.3  |
| 58  | 18.8 | 250 | 12.4 | 440 | 8.8  | 629 | 6.2  |
| 70  | 18.7 | 260 | 12.3 | 451 | 8.4  | 641 | 6.2  |
| 80  | 17.1 | 270 | 12.2 | 460 | 8.2  | 649 | 6.1  |
| 90  | 16.8 | 280 | 11.9 | 470 | 8.1  | 659 | 6.1  |
| 100 | 16.5 | 290 | 11.4 | 480 | 8.0  | 669 | 6.1  |
| 110 | 15.9 | 300 | 11.3 | 490 | 8.0  | 679 | 6.1  |
| 120 | 14.8 | 310 | 11.1 | 500 | 7.6  | 689 | 6.1  |
| 130 | 14.5 | 321 | 11.0 | 510 | 7.3  | 701 | 6.1  |
| 141 | 14.4 | 330 | 10.9 | 520 | 6.9  | 711 | 6.0  |
| 151 | 14.2 | 340 | 10.8 | 531 | 6.9  | 720 | 6.1  |
| 160 | 13.9 | 350 | 10.6 | 540 | 6.8  | 731 | 6.0  |
| 170 | 13.6 | 360 | 10.4 | 550 | 6.6  | 739 | 6.0  |
| 180 | 13.5 | 370 | 10.0 | 560 | 6.6  | 750 | 6.0  |
| 189 | 13.3 | 380 | 9.4  | 571 | 6.6  | 760 | 6.0  |

XBT DROP 053

28 15.0N 112 21.6W

21 NOV 84 0926 MST



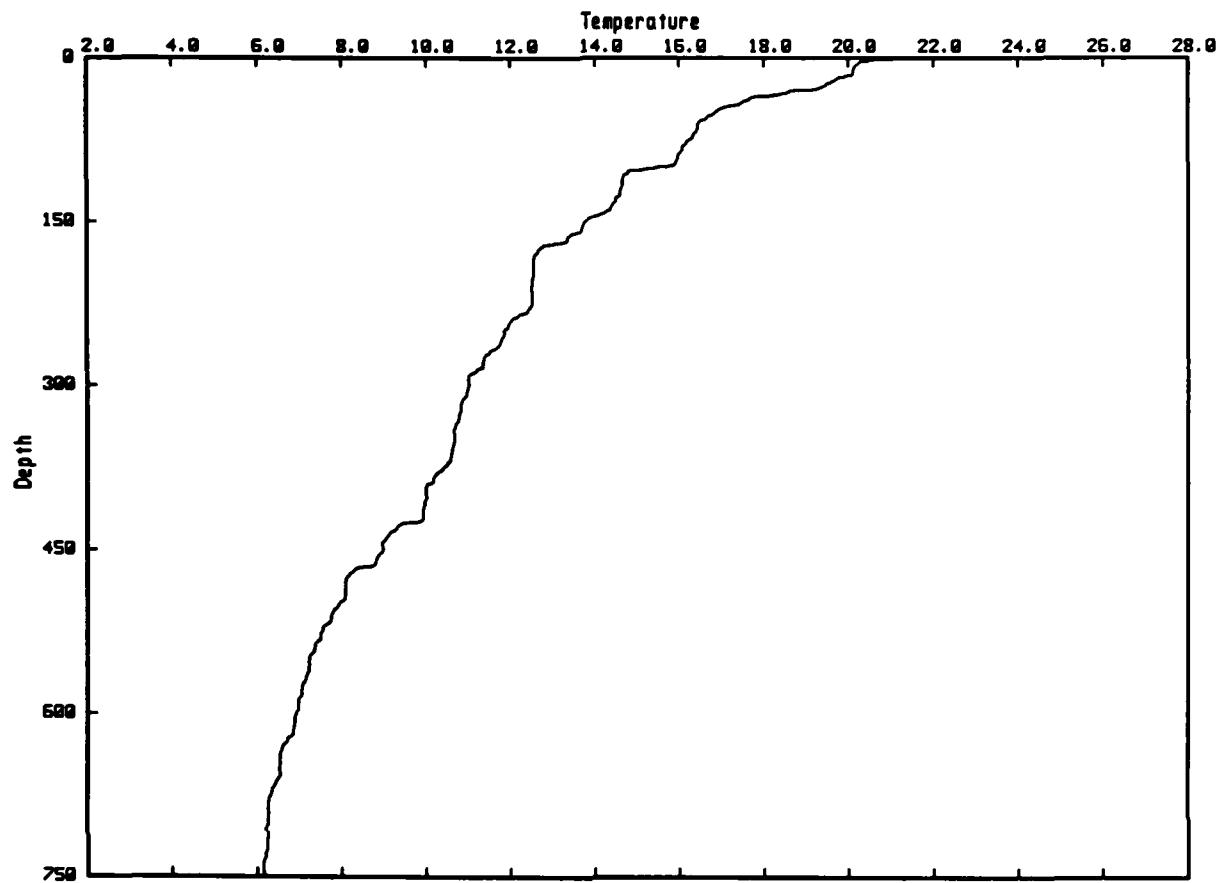
XBT DROP 053 T-7 RADAR: none GULF COORDS: -26.7 191.1  
 JDAY 326 1626Z DEPTH 823m/760m SST 20.45 2M TEMPS: SAIL 20.29 XBT 20.24  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.7 | 390 | 10.0 | 580 | 6.7  |
| 20  | 20.0 | 211 | 12.5 | 400 | 9.6  | 589 | 6.6  |
| 30  | 20.0 | 221 | 12.4 | 409 | 9.2  | 600 | 6.5  |
| 40  | 19.6 | 230 | 12.4 | 419 | 9.1  | 610 | 6.5  |
| 50  | 18.3 | 240 | 12.2 | 430 | 9.0  | 621 | 6.4  |
| 60  | 17.2 | 249 | 12.1 | 440 | 7.9  | 630 | 6.4  |
| 70  | 16.4 | 260 | 12.1 | 450 | 7.8  | 640 | 6.4  |
| 80  | 16.2 | 270 | 11.9 | 460 | 7.8  | 650 | 6.4  |
| 90  | 16.0 | 280 | 11.6 | 470 | 7.6  | 660 | 6.3  |
| 100 | 15.4 | 290 | 11.3 | 480 | 7.2  | 670 | 6.2  |
| 110 | 14.5 | 300 | 11.1 | 490 | 7.2  | 680 | 6.2  |
| 119 | 14.4 | 310 | 11.0 | 499 | 7.1  | 690 | 6.2  |
| 130 | 14.4 | 320 | 10.9 | 511 | 6.9  | 701 | 6.1  |
| 140 | 14.2 | 331 | 10.9 | 520 | 6.9  | 709 | 6.1  |
| 150 | 13.9 | 340 | 10.8 | 530 | 6.7  | 720 | 6.1  |
| 160 | 13.8 | 351 | 10.7 | 540 | 6.7  | 729 | 6.1  |
| 170 | 13.3 | 361 | 10.5 | 550 | 6.7  | 740 | 6.1  |
| 180 | 13.0 | 370 | 10.3 | 560 | 6.7  | 750 | 6.0  |
| 190 | 12.9 | 380 | 10.2 | 571 | 6.6  | 760 | 6.0  |

XBT DROP 054

28 13.7N 112 20.2W

21 NOV 84 0938 MST



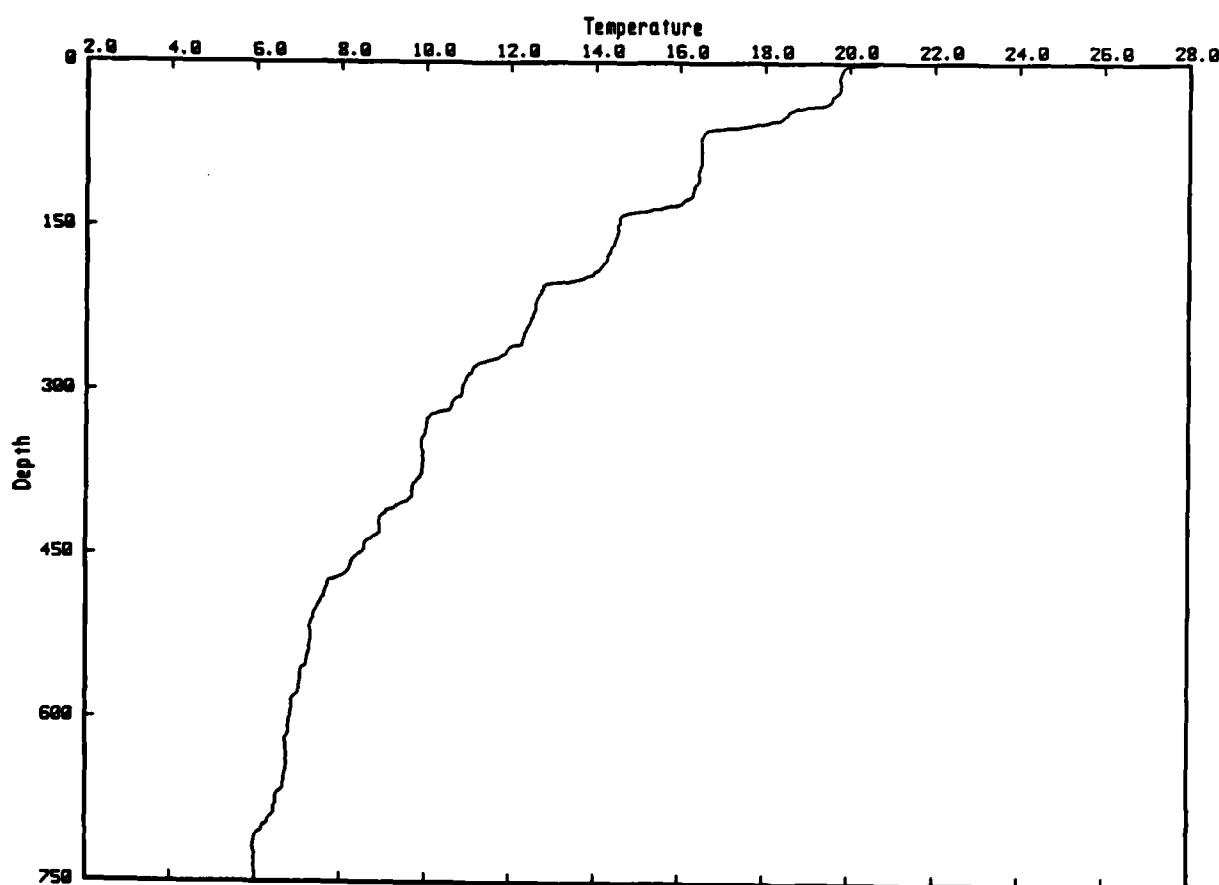
XBT DROP 054 T-7 RADAR: none GULF COORDS: -26.2 187.8  
 JDAY 326 1638Z DEPTH 827m/760m SST 20.40 2M TEMPS: SAIL 20.48 XBT 20.27  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 200 | 12.5 | 390 | 10.0 | 580 | 7.1  |
| 20  | 19.7 | 210 | 12.5 | 400 | 10.0 | 590 | 7.0  |
| 30  | 18.7 | 220 | 12.5 | 410 | 10.0 | 600 | 6.9  |
| 40  | 17.5 | 230 | 12.4 | 419 | 9.9  | 610 | 6.9  |
| 51  | 16.8 | 240 | 12.0 | 430 | 9.3  | 620 | 6.8  |
| 60  | 16.4 | 250 | 11.8 | 440 | 9.0  | 630 | 6.6  |
| 70  | 16.3 | 259 | 11.8 | 450 | 9.0  | 641 | 6.6  |
| 80  | 16.1 | 270 | 11.5 | 460 | 8.8  | 650 | 6.5  |
| 90  | 16.0 | 280 | 11.4 | 470 | 8.3  | 660 | 6.5  |
| 100 | 15.5 | 289 | 11.1 | 481 | 8.1  | 670 | 6.4  |
| 110 | 14.7 | 300 | 11.0 | 490 | 8.1  | 680 | 6.3  |
| 120 | 14.6 | 311 | 10.9 | 501 | 7.9  | 690 | 6.3  |
| 130 | 14.5 | 320 | 10.8 | 510 | 7.8  | 700 | 6.3  |
| 141 | 14.3 | 330 | 10.8 | 520 | 7.6  | 711 | 6.3  |
| 150 | 13.7 | 340 | 10.7 | 531 | 7.5  | 719 | 6.2  |
| 160 | 13.6 | 350 | 10.7 | 540 | 7.4  | 729 | 6.2  |
| 170 | 13.1 | 359 | 10.6 | 550 | 7.3  | 740 | 6.1  |
| 180 | 12.6 | 370 | 10.5 | 560 | 7.2  | 750 | 6.2  |
| 190 | 12.5 | 380 | 10.3 | 570 | 7.1  | 759 | 6.1  |

XBT DROP 056

28 11.5N 112 17.9W

21 NOV 84 0958 MST



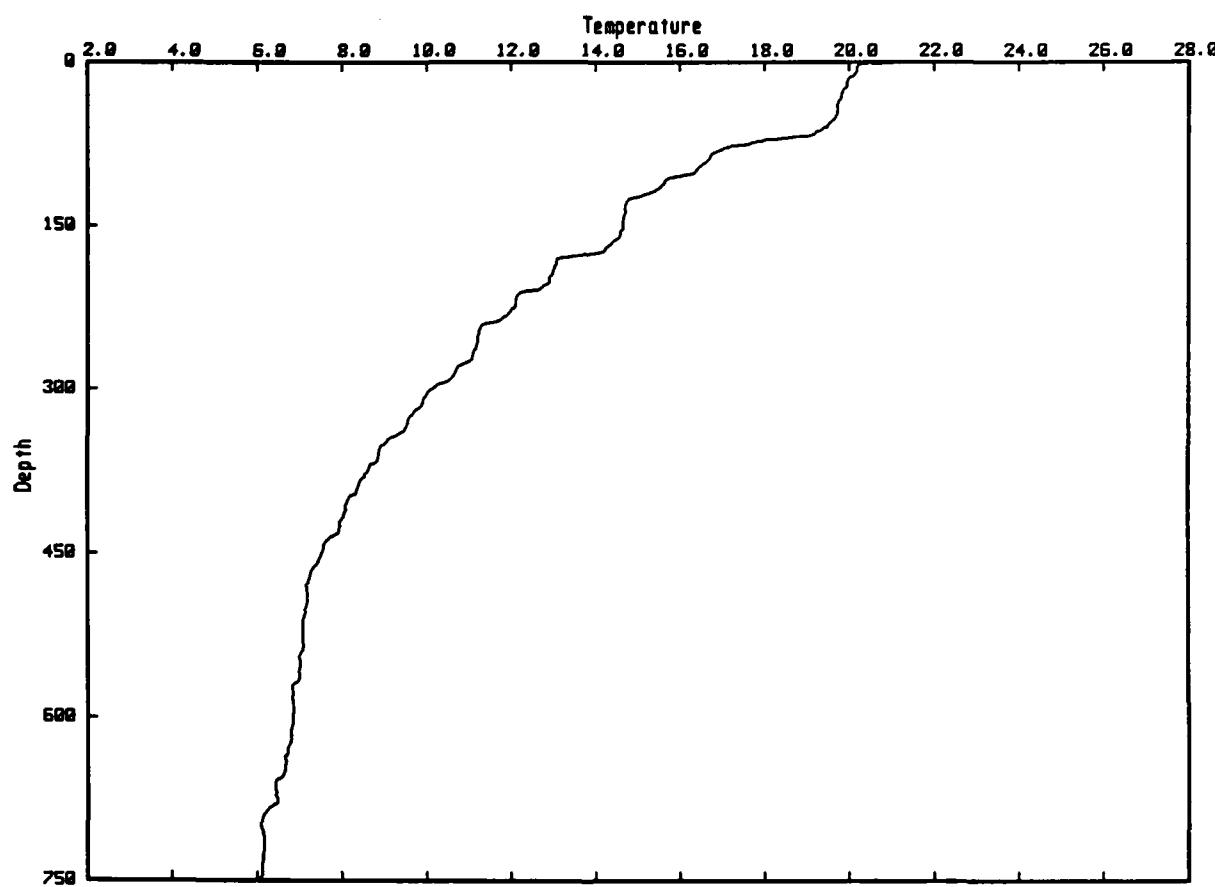
XBT DROP 056 T-7 RADAR: none GULF COORDS: -25.6 182.3  
 JDAY 326 1658Z DEPTH 799m/760m SST 20.10 2M TEMPS: SAIL 20.07 XBT 19.89  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 9   | 19.8 | 200 | 13.4 | 389 | 9.7  | 580 | 6.9  |
| 20  | 19.8 | 210 | 12.7 | 400 | 9.6  | 589 | 6.9  |
| 30  | 19.6 | 221 | 12.6 | 410 | 9.1  | 599 | 6.8  |
| 40  | 19.1 | 229 | 12.6 | 421 | 8.9  | 611 | 6.8  |
| 50  | 18.4 | 239 | 12.5 | 430 | 8.9  | 620 | 6.7  |
| 60  | 17.1 | 249 | 12.3 | 441 | 8.6  | 631 | 6.7  |
| 70  | 16.5 | 260 | 12.0 | 450 | 8.4  | 640 | 6.7  |
| 81  | 16.5 | 270 | 11.7 | 460 | 8.2  | 650 | 6.7  |
| 90  | 16.5 | 281 | 11.1 | 470 | 8.0  | 659 | 6.7  |
| 101 | 16.4 | 289 | 10.9 | 480 | 7.7  | 670 | 6.5  |
| 110 | 16.4 | 300 | 10.9 | 490 | 7.6  | 679 | 6.5  |
| 121 | 16.3 | 310 | 10.7 | 499 | 7.4  | 690 | 6.4  |
| 130 | 15.9 | 320 | 10.3 | 510 | 7.3  | 700 | 6.2  |
| 141 | 14.6 | 330 | 10.0 | 520 | 7.3  | 710 | 6.0  |
| 150 | 14.5 | 340 | 10.0 | 530 | 7.3  | 720 | 6.0  |
| 160 | 14.5 | 351 | 9.9  | 539 | 7.3  | 730 | 6.0  |
| 171 | 14.4 | 360 | 9.9  | 550 | 7.2  | 740 | 6.0  |
| 180 | 14.3 | 369 | 9.9  | 561 | 7.1  | 751 | 6.0  |
| 191 | 14.1 | 380 | 9.8  | 570 | 7.0  | 760 | 6.0  |

XBT DROP 057

28 10.1N 112 16.5W

21 NOV 84 1011 MST



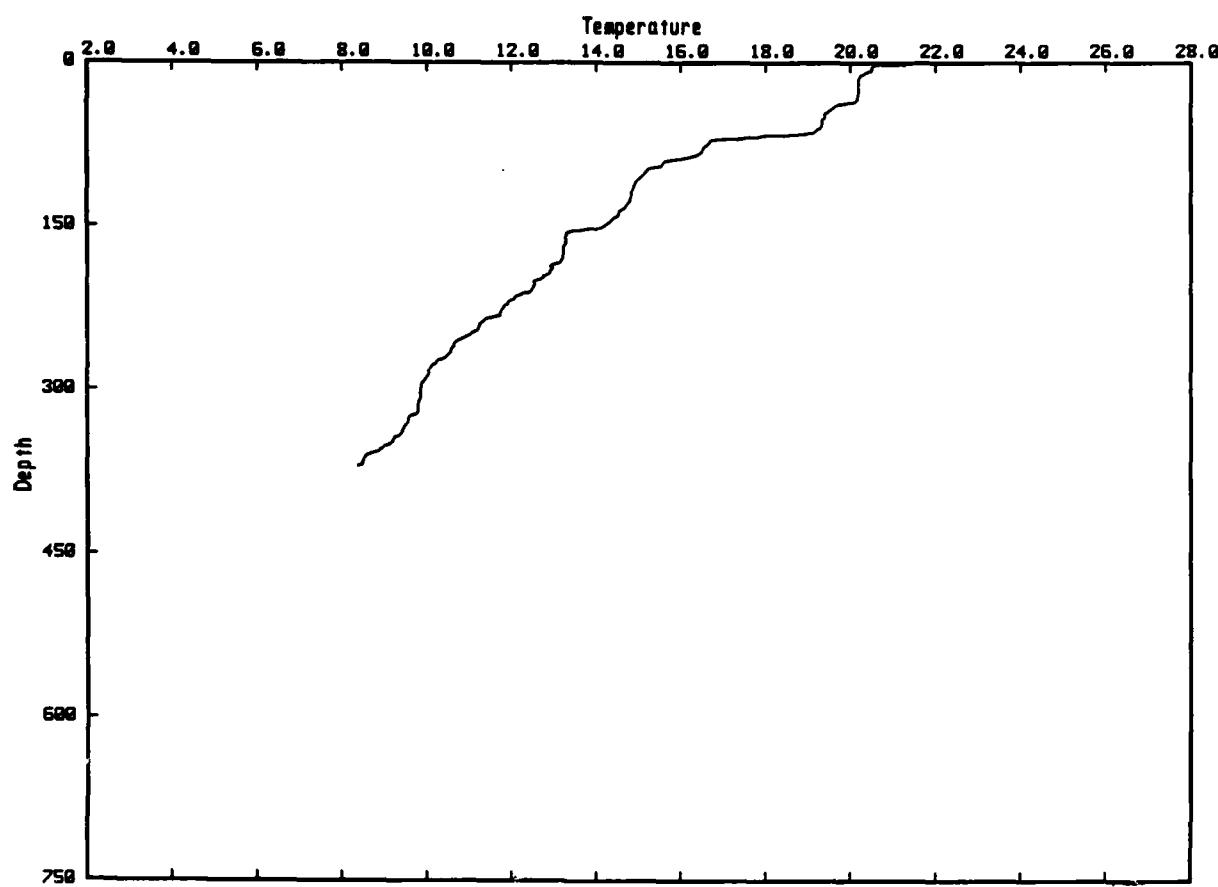
XBT DROP 057 T-7 RADAR: none GULF COORDS: -25.3 178.8  
 JDAY 326 1711Z DEPTH 752m/752m SST 20.25 2M TEMPS: SAIL 20.26 XBT 20.20  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-9, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.2 | 200 | 12.9 | 392 | 8.4  | 581 | 6.8  |
| 19  | 20.0 | 210 | 12.5 | 400 | 8.2  | 590 | 6.9  |
| 30  | 19.8 | 219 | 12.1 | 410 | 8.1  | 601 | 6.8  |
| 41  | 19.7 | 229 | 12.0 | 420 | 8.0  | 609 | 6.8  |
| 51  | 19.7 | 241 | 11.4 | 430 | 7.9  | 619 | 6.8  |
| 60  | 19.4 | 251 | 11.2 | 440 | 7.6  | 631 | 6.7  |
| 70  | 18.4 | 261 | 11.2 | 450 | 7.5  | 640 | 6.7  |
| 80  | 17.0 | 269 | 11.1 | 460 | 7.4  | 652 | 6.6  |
| 90  | 16.7 | 280 | 10.7 | 471 | 7.2  | 659 | 6.4  |
| 100 | 16.4 | 291 | 10.6 | 480 | 7.2  | 670 | 6.4  |
| 110 | 15.6 | 300 | 10.1 | 491 | 7.2  | 680 | 6.4  |
| 120 | 15.3 | 310 | 9.9  | 500 | 7.1  | 689 | 6.1  |
| 130 | 14.7 | 320 | 9.7  | 510 | 7.1  | 701 | 6.1  |
| 140 | 14.7 | 329 | 9.6  | 520 | 7.1  | 710 | 6.2  |
| 151 | 14.6 | 340 | 9.4  | 530 | 7.1  | 721 | 6.2  |
| 160 | 14.6 | 350 | 9.0  | 540 | 7.0  | 730 | 6.1  |
| 170 | 14.3 | 358 | 8.9  | 549 | 7.0  | 740 | 6.1  |
| 180 | 13.2 | 369 | 8.7  | 559 | 7.0  | 750 | 5.9  |
| 190 | 13.0 | 380 | 8.5  | 570 | 6.9  |     |      |

XBT DROP 058

28 8.7N 112 15.2W

21 NOV 84 1023 MST



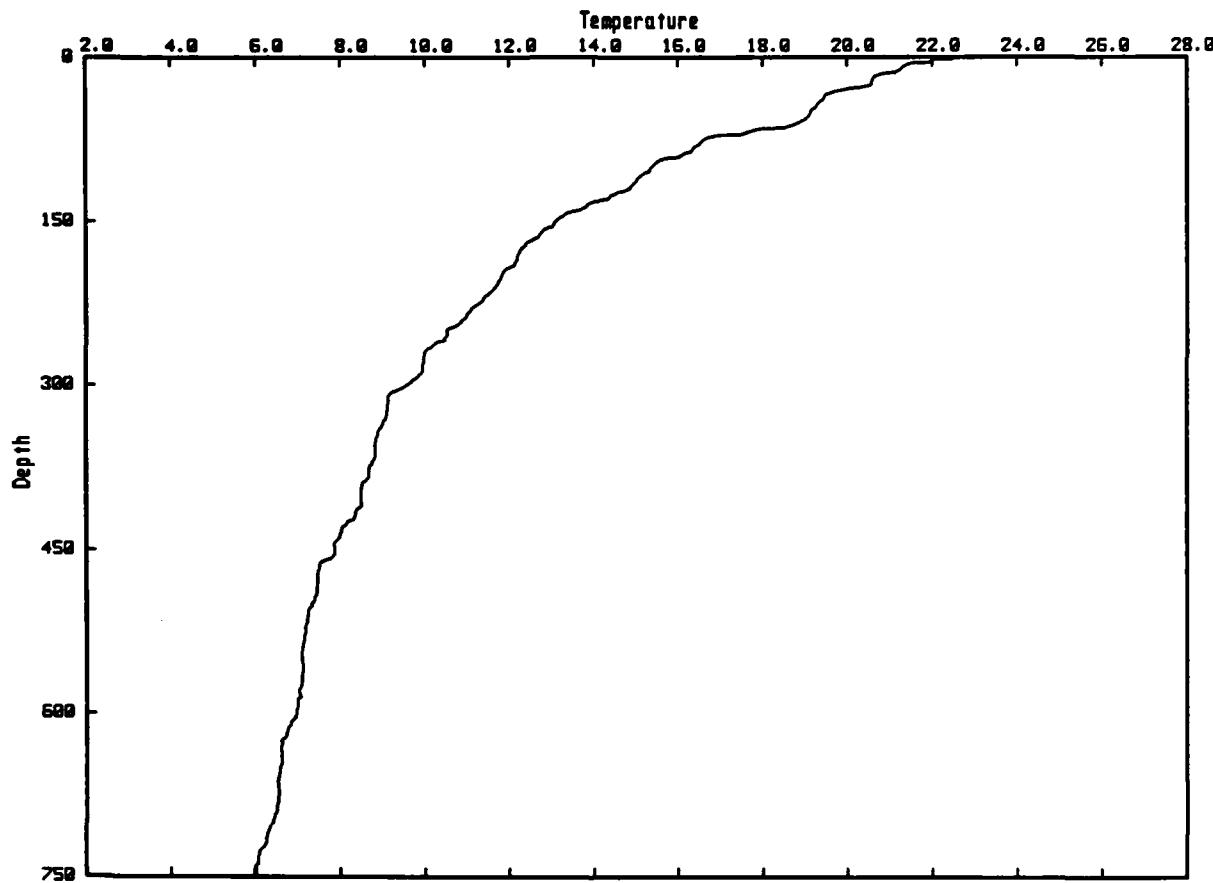
XBT DROP 058 T-7 RADAR: none GULF COORDS: -25.1 175.5  
JDAY 326 1723Z DEPTH 741m/370m SST 20.50 2M TEMPS: SAIL 20.53 XBT 20.53  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX2A-10, SPRING TIDE (BAD BELOW 370M)

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 20.3 | 200 | 12.6 |
| 21  | 20.2 | 210 | 12.5 |
| 30  | 20.2 | 220 | 11.9 |
| 40  | 19.6 | 230 | 11.7 |
| 50  | 19.4 | 240 | 11.3 |
| 60  | 19.3 | 250 | 11.0 |
| 70  | 17.1 | 260 | 10.6 |
| 80  | 16.5 | 270 | 10.4 |
| 90  | 15.6 | 280 | 10.1 |
| 100 | 15.2 | 290 | 10.0 |
| 110 | 14.9 | 300 | 9.8  |
| 120 | 14.8 | 310 | 9.8  |
| 130 | 14.7 | 320 | 9.8  |
| 140 | 14.5 | 330 | 9.5  |
| 150 | 14.2 | 340 | 9.4  |
| 161 | 13.3 | 350 | 9.1  |
| 170 | 13.2 | 360 | 8.6  |
| 181 | 13.2 | 370 | 8.4  |
| 190 | 12.9 |     |      |

XBT DROP 059

28 7.1N 112 14.0W

21 NOV 84 1035 MST



XBT DROP 059 T-7 RADAR: none GULF COORDS: -25.3 172.0  
 JDAY 328 1735Z DEPTH 767m/760m SST 21.85 2M TEMPS: SAIL 21.76 XBT 21.98  
 GULF OF CALIFORNIA: GUAYMAS BASIN, END MX2A LINE; MX2A-11, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 9   | 21.3 | 200 | 11.8 | 390 | 8.5  | 580 | 7.0  |
| 20  | 20.6 | 210 | 11.7 | 400 | 8.5  | 591 | 7.0  |
| 30  | 19.9 | 220 | 11.4 | 410 | 8.5  | 601 | 6.9  |
| 40  | 19.4 | 230 | 11.1 | 420 | 8.3  | 610 | 6.8  |
| 50  | 19.1 | 241 | 10.9 | 430 | 8.0  | 620 | 6.7  |
| 60  | 18.8 | 250 | 10.5 | 440 | 7.9  | 631 | 6.6  |
| 70  | 17.5 | 260 | 10.4 | 450 | 7.9  | 640 | 6.6  |
| 80  | 16.5 | 270 | 10.0 | 460 | 7.6  | 649 | 6.6  |
| 90  | 16.1 | 279 | 10.0 | 470 | 7.5  | 660 | 6.5  |
| 99  | 15.4 | 290 | 9.9  | 480 | 7.5  | 670 | 6.5  |
| 110 | 15.1 | 300 | 9.6  | 490 | 7.4  | 679 | 6.5  |
| 120 | 14.9 | 310 | 9.1  | 500 | 7.3  | 691 | 6.5  |
| 130 | 14.2 | 320 | 9.1  | 510 | 7.2  | 700 | 6.4  |
| 140 | 13.6 | 330 | 9.1  | 519 | 7.2  | 710 | 6.3  |
| 150 | 13.1 | 340 | 8.9  | 531 | 7.1  | 720 | 6.2  |
| 160 | 12.8 | 351 | 8.8  | 541 | 7.1  | 731 | 6.1  |
| 170 | 12.4 | 361 | 8.8  | 550 | 7.1  | 740 | 6.0  |
| 180 | 12.2 | 370 | 8.8  | 560 | 7.1  | 750 | 6.0  |
| 190 | 12.1 | 380 | 8.7  | 569 | 7.1  | 759 | 5.9  |

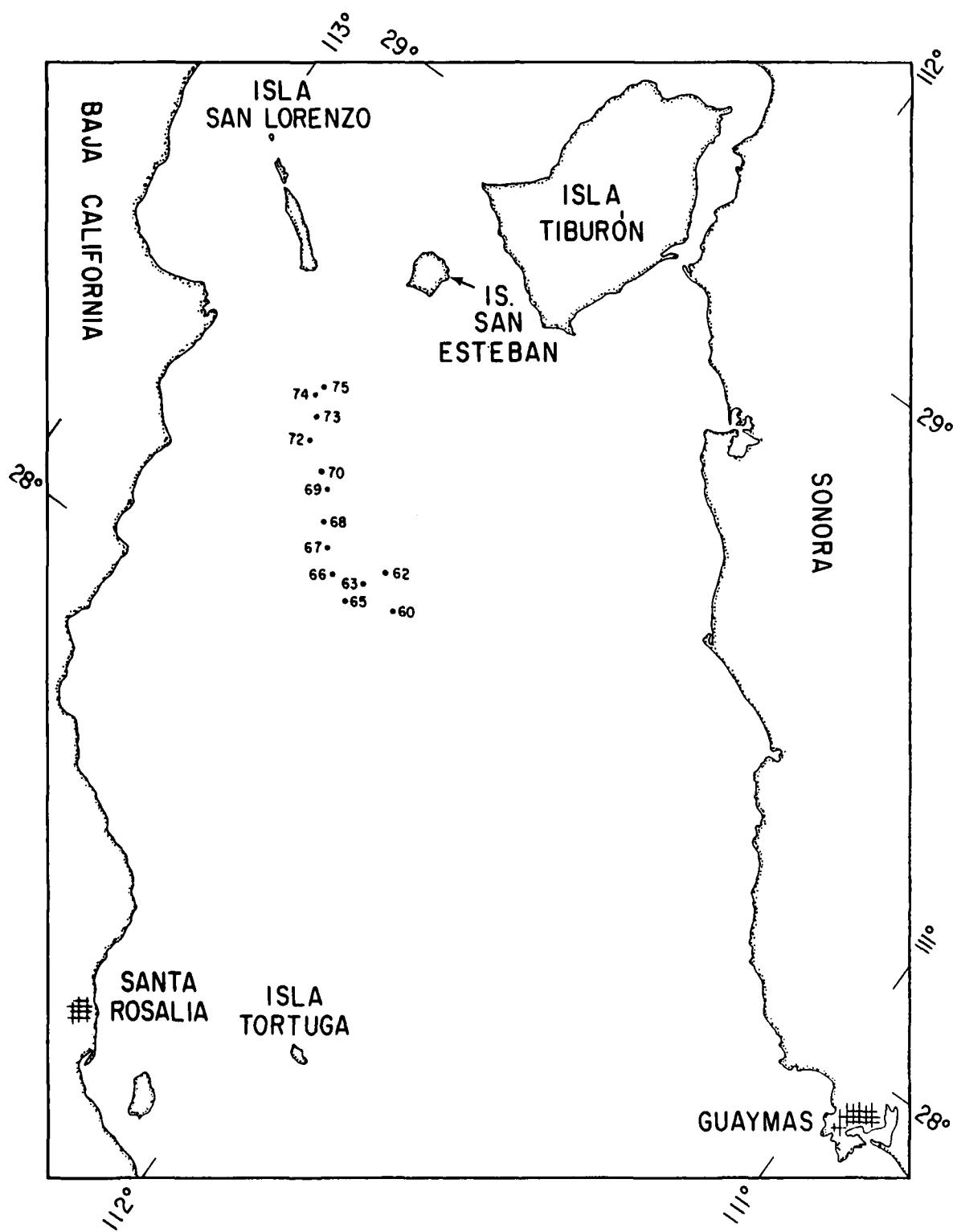
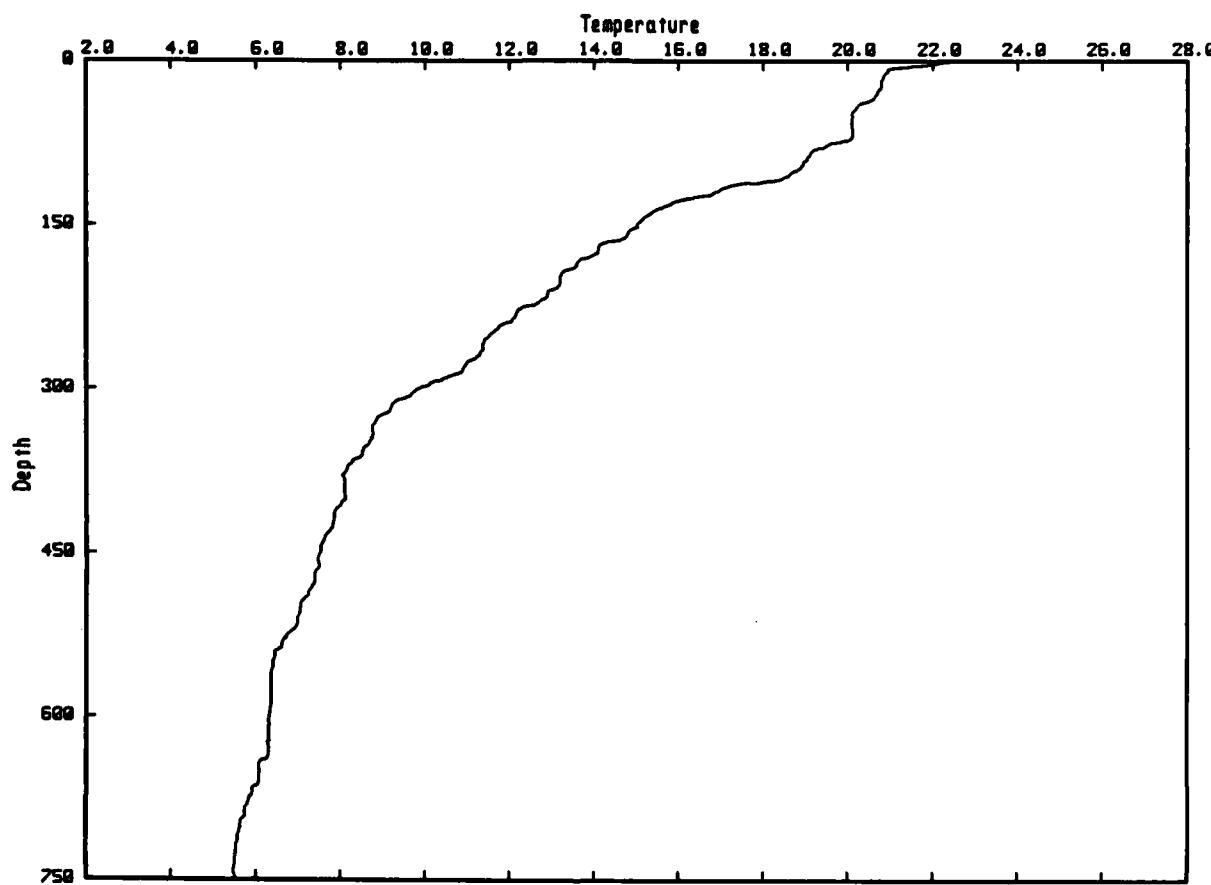


Figure 13. MX2B Section: XBT Station Locations

XBT DROP 060

28 10.9N 112 13.2W

21 NOV 84 1446 MST



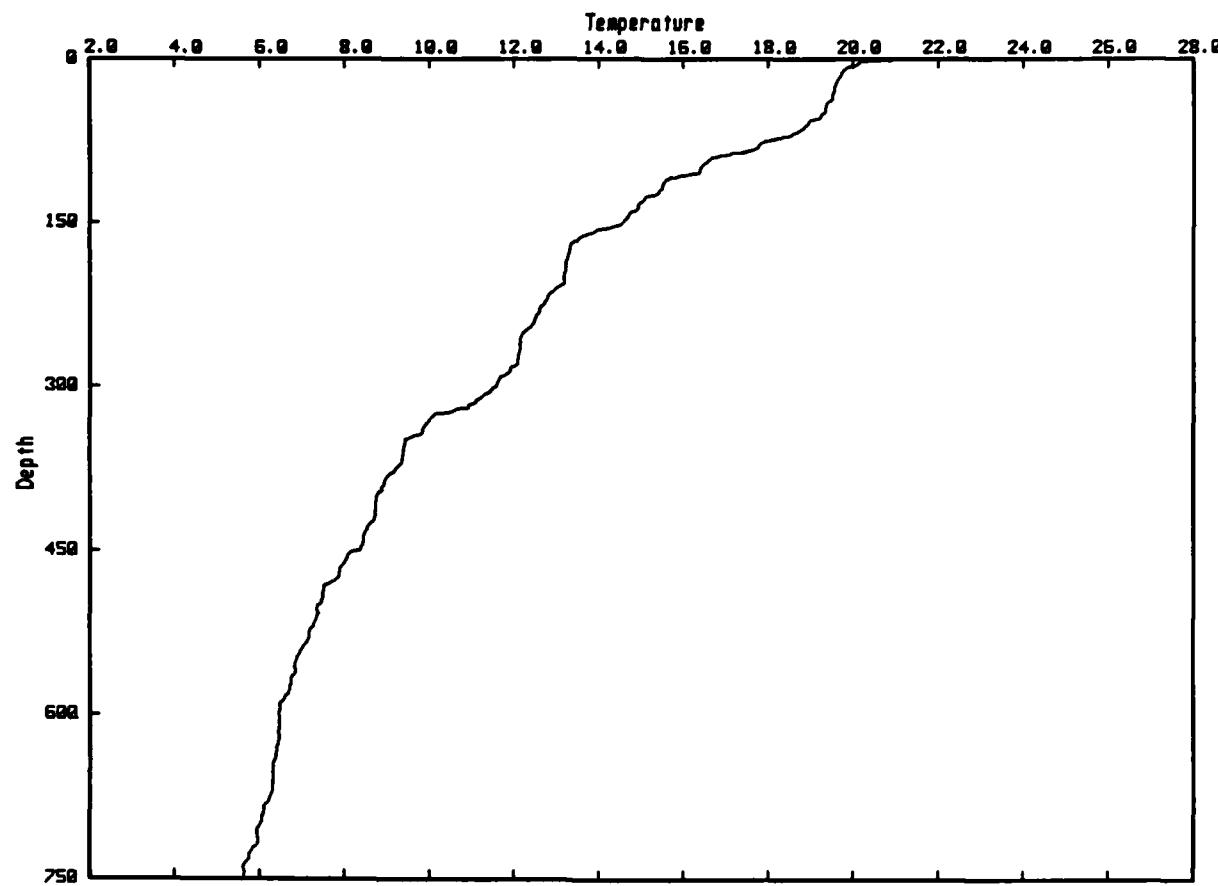
XBT DROP 060 T-7 RADAR: none GULF COORDS: -20.0 176.9  
 JDAY 326 2146Z DEPTH 860m/760m SST 22.55 2M TEMPS: SAIL 22.73 XBT 21.85  
 GULF OF CALIFORNIA: GUAYMAS BASIN:, BEGIN MX2B LINE; MX2B-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 28.9 | 200 | 13.2 | 391 | 8.1  | 580 | 6.4  |
| 20  | 20.8 | 210 | 12.9 | 400 | 8.1  | 590 | 6.4  |
| 30  | 20.7 | 220 | 12.7 | 411 | 7.9  | 600 | 6.3  |
| 40  | 20.3 | 230 | 12.1 | 420 | 7.8  | 610 | 6.3  |
| 50  | 20.1 | 240 | 11.9 | 430 | 7.8  | 620 | 6.3  |
| 60  | 20.1 | 250 | 11.5 | 440 | 7.8  | 630 | 6.3  |
| 70  | 20.1 | 259 | 11.4 | 450 | 7.5  | 640 | 6.1  |
| 80  | 19.3 | 270 | 11.2 | 460 | 7.5  | 649 | 6.1  |
| 90  | 19.0 | 280 | 10.9 | 470 | 7.4  | 650 | 6.1  |
| 100 | 18.8 | 290 | 10.5 | 479 | 7.3  | 669 | 5.9  |
| 110 | 18.1 | 300 | 9.8  | 490 | 7.2  | 680 | 5.8  |
| 120 | 16.9 | 310 | 9.3  | 500 | 7.0  | 690 | 5.8  |
| 130 | 15.8 | 320 | 9.2  | 510 | 7.0  | 700 | 5.6  |
| 140 | 15.3 | 330 | 8.8  | 521 | 6.9  | 709 | 5.6  |
| 150 | 15.0 | 340 | 8.8  | 529 | 6.6  | 720 | 5.5  |
| 160 | 14.8 | 350 | 8.7  | 540 | 6.4  | 731 | 5.5  |
| 170 | 14.1 | 360 | 8.5  | 550 | 6.4  | 739 | 5.5  |
| 180 | 13.8 | 370 | 8.2  | 560 | 6.4  | 749 | 5.5  |
| 190 | 13.5 | 380 | 8.1  | 571 | 6.4  |     |      |

XBT DROP 062

28 13.9N 112 16.8W

21 NOV 84 1507 MST



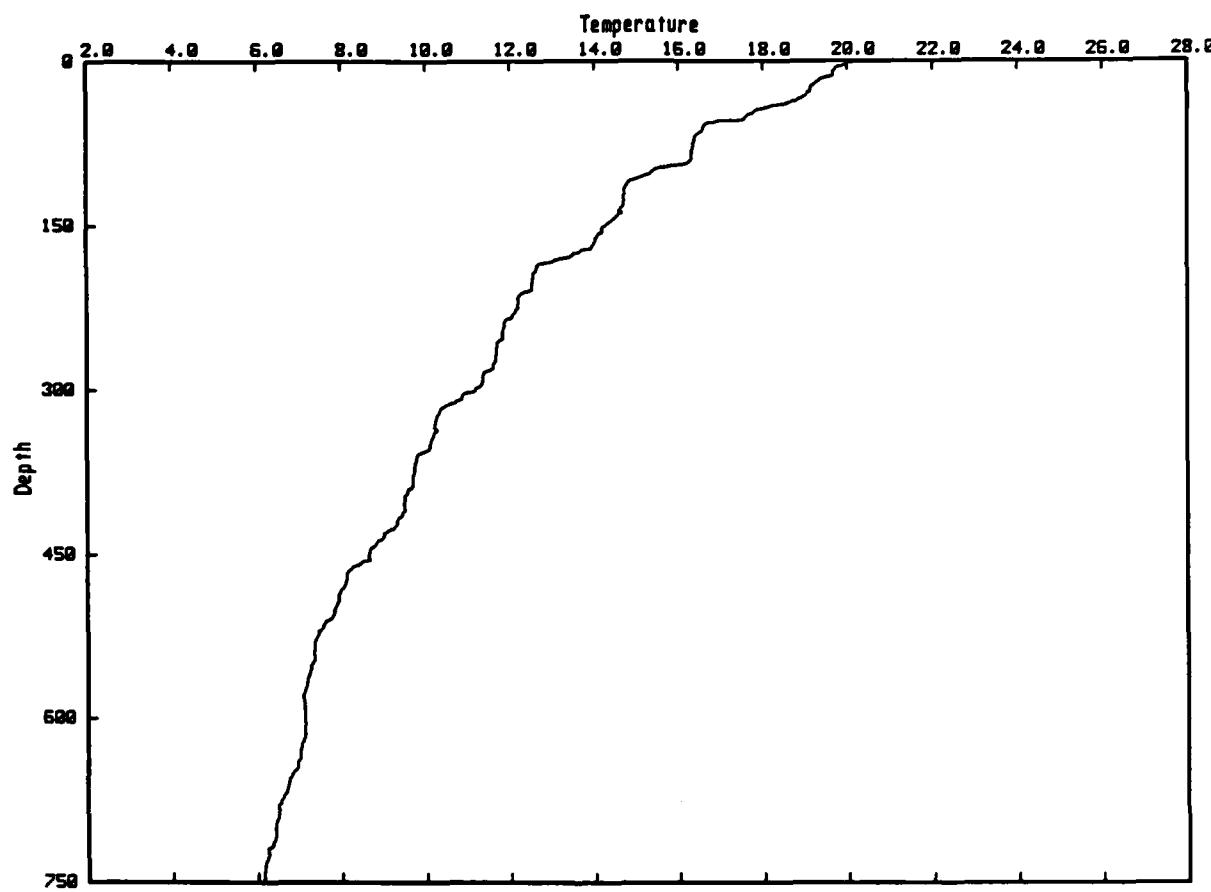
XBT DROP 062 T-7 RADAR: none GULF COORDS: -21.5 184.8  
 JDAY 326 2207Z DEPTH 915m/760m SST 20.07 2M TEMPS: SAIL 20.34 XBT 20.14  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 13.2 | 390 | 8.9  | 580 | 6.7  |
| 20  | 19.8 | 210 | 13.0 | 400 | 8.8  | 590 | 6.5  |
| 30  | 19.6 | 220 | 12.8 | 410 | 8.7  | 600 | 6.4  |
| 40  | 19.4 | 230 | 12.6 | 420 | 8.7  | 610 | 6.5  |
| 50  | 19.3 | 239 | 12.5 | 430 | 8.5  | 619 | 6.4  |
| 60  | 18.9 | 250 | 12.2 | 440 | 8.4  | 630 | 6.4  |
| 70  | 18.5 | 261 | 12.1 | 450 | 8.3  | 639 | 6.4  |
| 80  | 17.8 | 270 | 12.1 | 459 | 8.0  | 650 | 6.3  |
| 90  | 16.7 | 280 | 12.1 | 470 | 7.9  | 659 | 6.3  |
| 100 | 16.4 | 290 | 11.8 | 480 | 7.6  | 670 | 6.3  |
| 110 | 15.6 | 300 | 11.6 | 490 | 7.5  | 680 | 6.2  |
| 120 | 15.4 | 310 | 11.2 | 500 | 7.4  | 690 | 6.1  |
| 130 | 15.0 | 320 | 10.8 | 510 | 7.4  | 700 | 6.0  |
| 140 | 14.7 | 330 | 10.6 | 520 | 7.3  | 710 | 5.9  |
| 150 | 14.6 | 339 | 9.8  | 530 | 7.2  | 721 | 5.9  |
| 160 | 13.8 | 350 | 9.4  | 539 | 7.0  | 731 | 5.8  |
| 170 | 13.4 | 360 | 9.4  | 550 | 6.9  | 741 | 5.6  |
| 181 | 13.3 | 370 | 9.3  | 560 | 6.9  | 750 | 5.6  |
| 191 | 13.2 | 380 | 9.1  | 569 | 6.7  | 760 | 5.5  |

XBT DROP 063

28 11.4N 112 18.1W

21 NOV 84 1522 MST



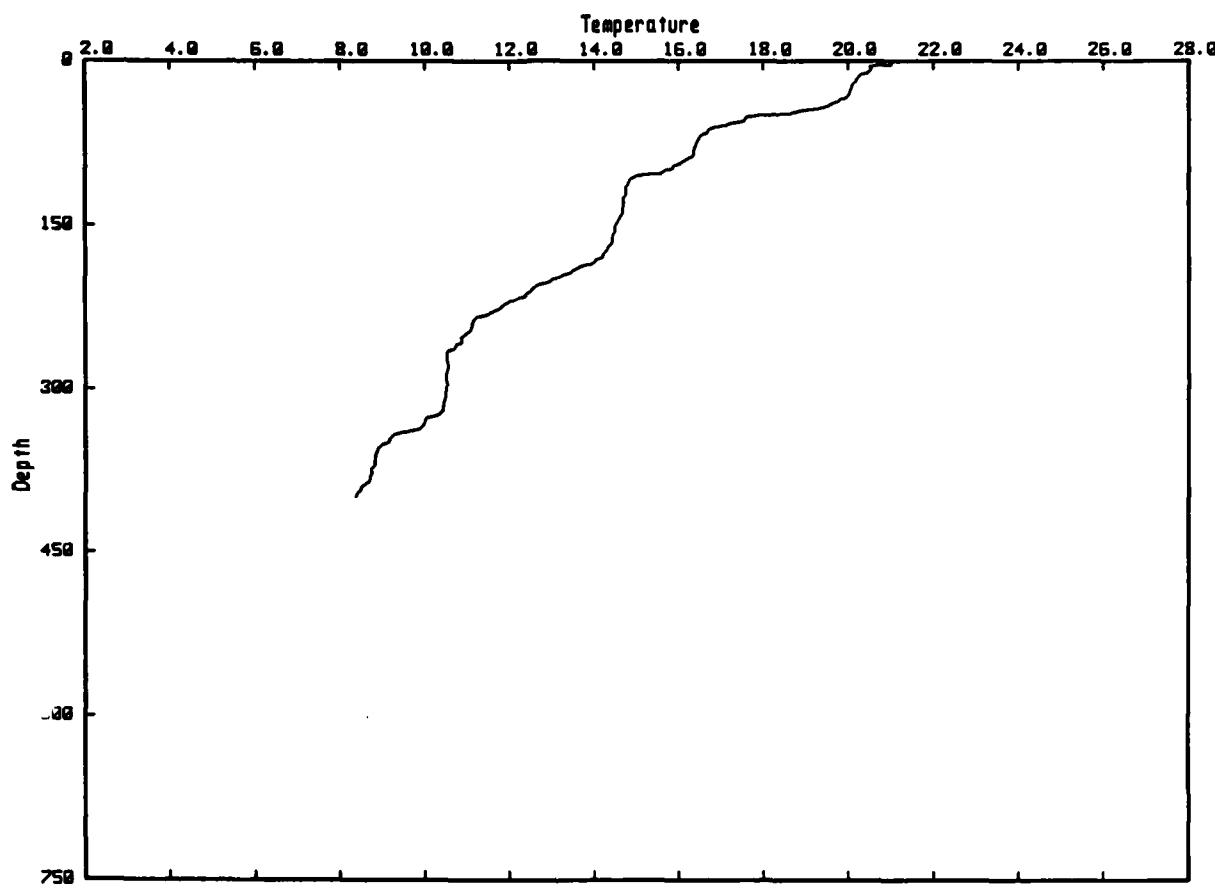
XBT DROP 063 T-7 RADAR: none GULF COORDS: -26.0 182.3  
JDAY 326 2222Z DEPTH 860m/760m SST 20.20 2M TEMPS: SAIL 20.24 XBT 19.90  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.7 | 200 | 12.5 | 390 | 9.6  | 579 | 7.1  |
| 20  | 19.3 | 210 | 12.4 | 400 | 9.5  | 590 | 7.1  |
| 30  | 19.0 | 220 | 12.2 | 410 | 9.5  | 599 | 7.1  |
| 40  | 18.4 | 230 | 12.1 | 420 | 9.3  | 610 | 7.1  |
| 51  | 17.6 | 240 | 11.9 | 430 | 9.0  | 621 | 7.1  |
| 60  | 16.6 | 250 | 11.8 | 440 | 8.8  | 630 | 7.0  |
| 70  | 16.4 | 260 | 11.7 | 450 | 8.7  | 640 | 6.9  |
| 80  | 16.3 | 270 | 11.7 | 460 | 8.4  | 650 | 6.9  |
| 90  | 16.3 | 280 | 11.6 | 470 | 8.1  | 659 | 6.7  |
| 100 | 15.4 | 290 | 11.4 | 480 | 8.1  | 670 | 6.6  |
| 110 | 14.8 | 300 | 11.2 | 490 | 7.9  | 680 | 6.5  |
| 120 | 14.7 | 310 | 10.7 | 500 | 7.8  | 690 | 6.5  |
| 130 | 14.7 | 320 | 10.3 | 510 | 7.7  | 699 | 6.4  |
| 140 | 14.6 | 330 | 10.2 | 520 | 7.5  | 711 | 6.4  |
| 150 | 14.3 | 340 | 10.2 | 530 | 7.4  | 720 | 6.3  |
| 160 | 14.1 | 350 | 10.1 | 540 | 7.3  | 731 | 6.2  |
| 170 | 13.9 | 360 | 9.8  | 550 | 7.3  | 740 | 6.1  |
| 180 | 13.3 | 370 | 9.7  | 560 | 7.2  | 749 | 6.1  |
| 189 | 12.6 | 380 | 9.7  | 570 | 7.2  | 759 | 6.1  |

XBT DROP 065

28 8.8N 112 18.6W

21 NOV 84 1541 MST



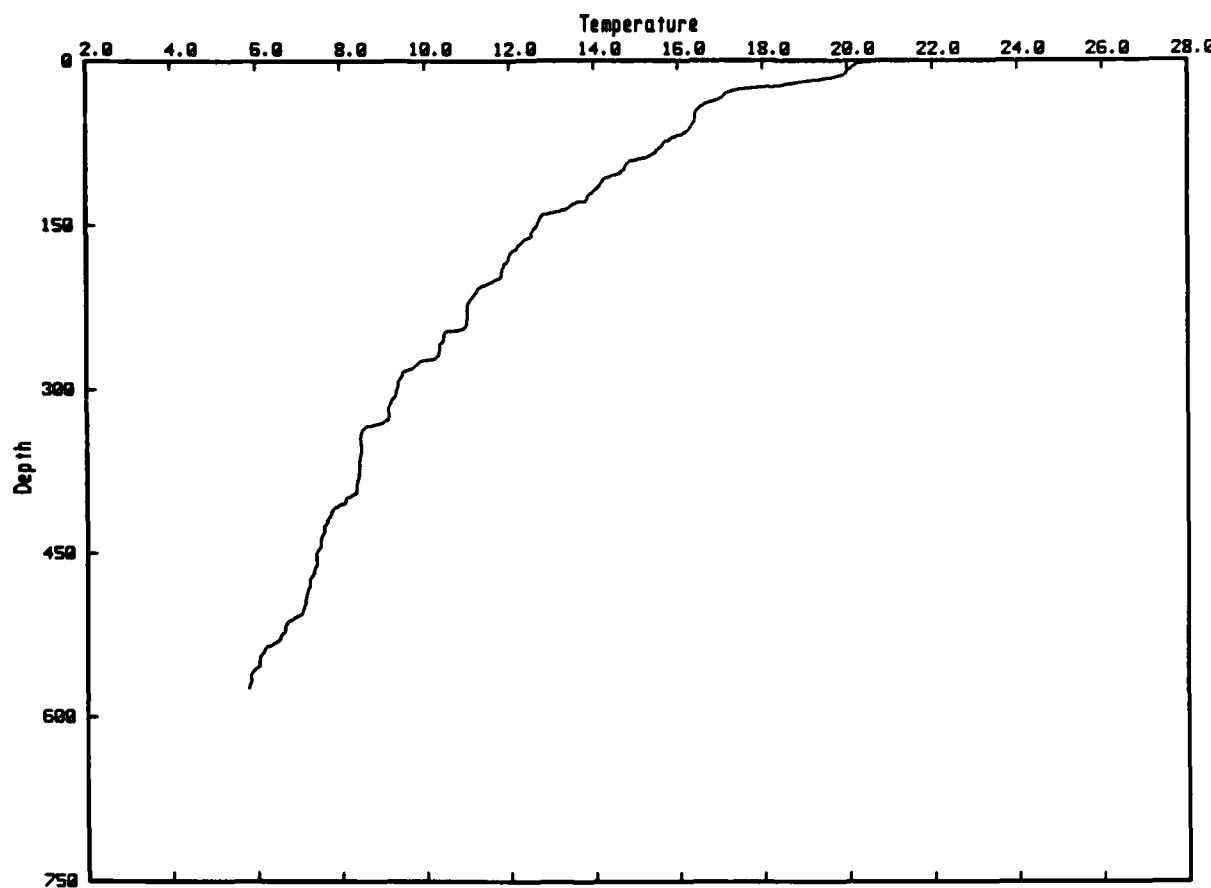
XBT DROP 065 T-7 RADAR: none GULF COORDS: -29.5 178.9  
JDAY 326 2241Z DEPTH 433m/400m SST 20.60 2M TEMPS: SAIL 20.61 XBT 20.72  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-4, SPRING TIDE (BAD BELOW 400M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.5 | 200 | 13.0 | 390 | 8.5  |
| 20  | 20.1 | 211 | 12.5 | 399 | 8.4  |
| 30  | 20.0 | 220 | 12.0 |     |      |
| 40  | 19.6 | 230 | 11.5 |     |      |
| 50  | 17.8 | 240 | 11.1 |     |      |
| 60  | 16.9 | 250 | 10.9 |     |      |
| 70  | 16.5 | 260 | 10.7 |     |      |
| 81  | 16.4 | 269 | 10.5 |     |      |
| 90  | 16.2 | 280 | 10.6 |     |      |
| 100 | 15.7 | 290 | 10.5 |     |      |
| 110 | 14.8 | 300 | 10.5 |     |      |
| 120 | 14.8 | 310 | 10.5 |     |      |
| 130 | 14.7 | 320 | 10.4 |     |      |
| 140 | 14.7 | 330 | 10.0 |     |      |
| 150 | 14.5 | 341 | 9.4  |     |      |
| 160 | 14.4 | 350 | 9.1  |     |      |
| 170 | 14.3 | 360 | 8.8  |     |      |
| 180 | 14.2 | 370 | 8.8  |     |      |
| 190 | 13.6 | 380 | 8.7  |     |      |

XBT DROP 066

28 10.3N 112 21.7W

21 NOV 84 1556 MST



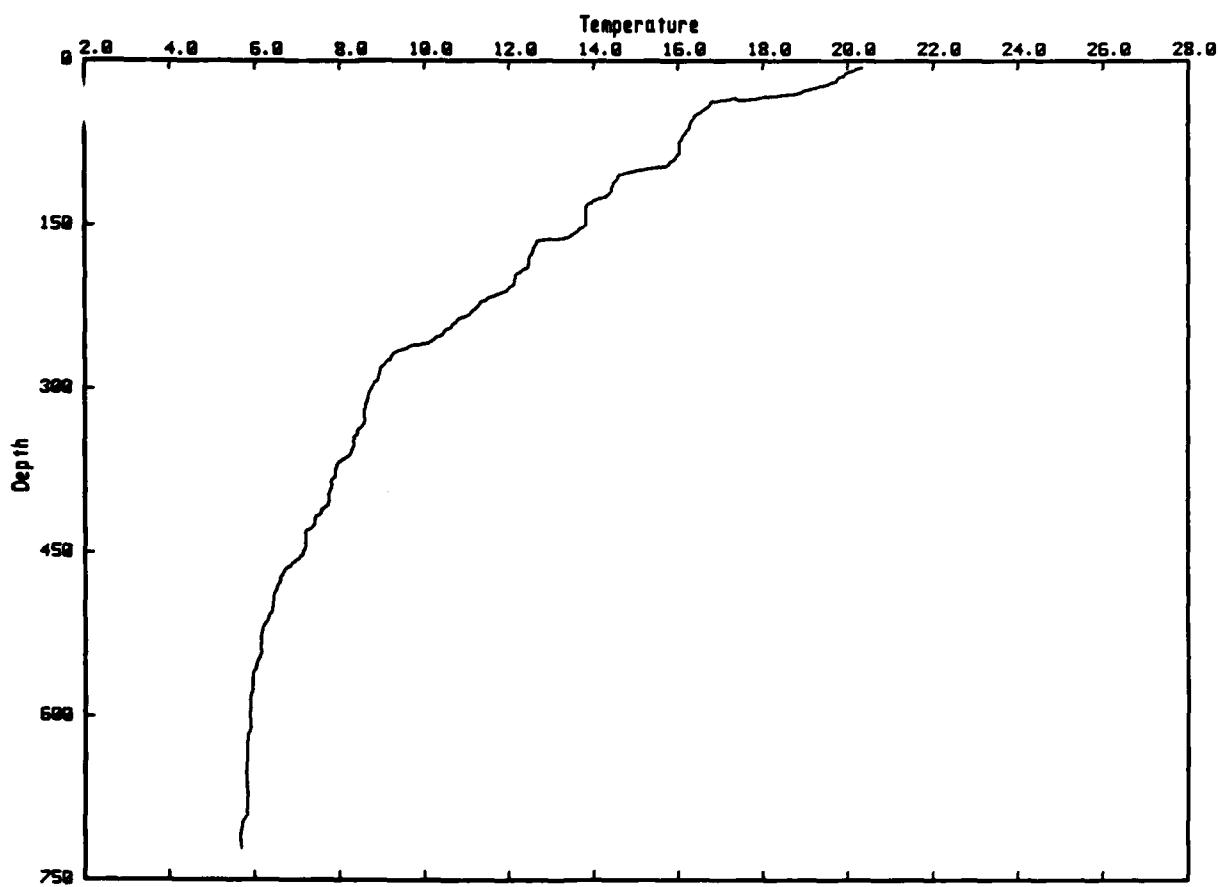
XBT DROP 066 T-7 RADAR: none GULF COORDS: -32.0 184.2  
 JDAY 328 2256Z DEPTH 590m/575m SST 20.26 2M TEMPS: SAIL 20.51 XBT 20.18  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.0 | 200 | 11.6 | 390 | 8.4  |
| 20  | 18.9 | 210 | 11.2 | 399 | 8.1  |
| 30  | 17.1 | 220 | 11.0 | 410 | 7.8  |
| 40  | 16.6 | 229 | 11.0 | 420 | 7.7  |
| 50  | 16.4 | 240 | 11.0 | 430 | 7.6  |
| 60  | 16.3 | 250 | 10.4 | 441 | 7.5  |
| 70  | 15.9 | 260 | 10.3 | 450 | 7.4  |
| 80  | 15.5 | 271 | 10.2 | 460 | 7.4  |
| 90  | 15.1 | 280 | 9.7  | 469 | 7.3  |
| 100 | 14.7 | 289 | 9.4  | 480 | 7.2  |
| 110 | 14.2 | 300 | 9.3  | 490 | 7.2  |
| 120 | 14.0 | 309 | 9.2  | 499 | 7.1  |
| 130 | 13.6 | 321 | 9.1  | 510 | 6.9  |
| 140 | 12.9 | 330 | 9.0  | 520 | 6.7  |
| 149 | 12.7 | 341 | 8.5  | 530 | 6.5  |
| 160 | 12.5 | 349 | 8.5  | 540 | 6.2  |
| 170 | 12.2 | 361 | 8.4  | 550 | 6.1  |
| 180 | 12.0 | 370 | 8.4  | 561 | 5.9  |
| 191 | 11.8 | 379 | 8.4  | 569 | 5.8  |

XBT DROP 067

28 12.3N 112 24.3W

21 NOV 84 1611 MST



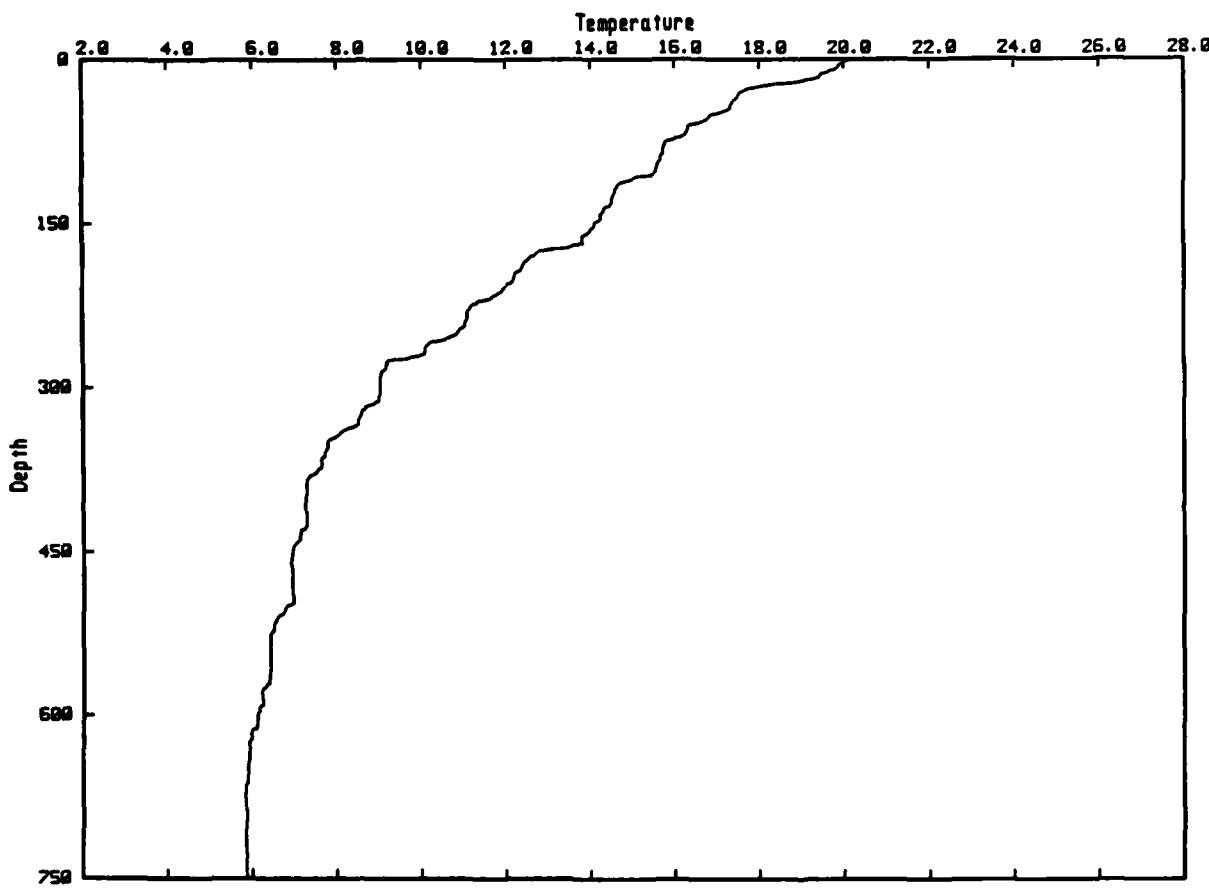
XBT DROP 067 T-7 RADAR: none GULF COORDS: -33.2 189.6  
 JDAY 326 2311Z DEPTH 723m/723m SST 20.30 2M TEMPS: SAIL 20.42 XBT .00  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.1 | 201 | 12.1 | 390 | 7.8  | 580 | 5.9  |
| 20  | 19.6 | 210 | 11.9 | 400 | 7.8  | 590 | 5.9  |
| 30  | 18.9 | 220 | 11.4 | 410 | 7.6  | 600 | 5.9  |
| 40  | 18.8 | 230 | 11.1 | 420 | 7.4  | 610 | 5.9  |
| 50  | 16.4 | 240 | 10.7 | 430 | 7.2  | 619 | 5.8  |
| 60  | 16.3 | 250 | 10.4 | 440 | 7.2  | 630 | 5.8  |
| 70  | 16.1 | 260 | 9.7  | 450 | 7.1  | 641 | 5.8  |
| 80  | 16.0 | 270 | 9.2  | 460 | 6.9  | 650 | 5.8  |
| 90  | 15.9 | 280 | 9.0  | 470 | 6.6  | 660 | 5.8  |
| 100 | 15.1 | 290 | 8.9  | 480 | 6.5  | 670 | 5.8  |
| 110 | 14.5 | 300 | 8.5  | 490 | 6.4  | 681 | 5.8  |
| 120 | 14.4 | 309 | 8.7  | 500 | 6.4  | 690 | 5.8  |
| 130 | 13.9 | 320 | 8.6  | 510 | 6.3  | 700 | 5.7  |
| 140 | 13.8 | 330 | 8.6  | 520 | 6.2  | 710 | 5.7  |
| 150 | 13.8 | 340 | 8.4  | 530 | 6.1  | 720 | 5.7  |
| 160 | 13.5 | 350 | 8.3  | 540 | 6.1  |     |      |
| 170 | 12.6 | 360 | 8.3  | 550 | 6.1  |     |      |
| 180 | 12.5 | 371 | 7.9  | 559 | 6.0  |     |      |
| 190 | 12.4 | 380 | 7.9  | 570 | 5.9  |     |      |

XBT DROP 068

28 14.2N 112 26.5W

21 NOV 84 1626 MST



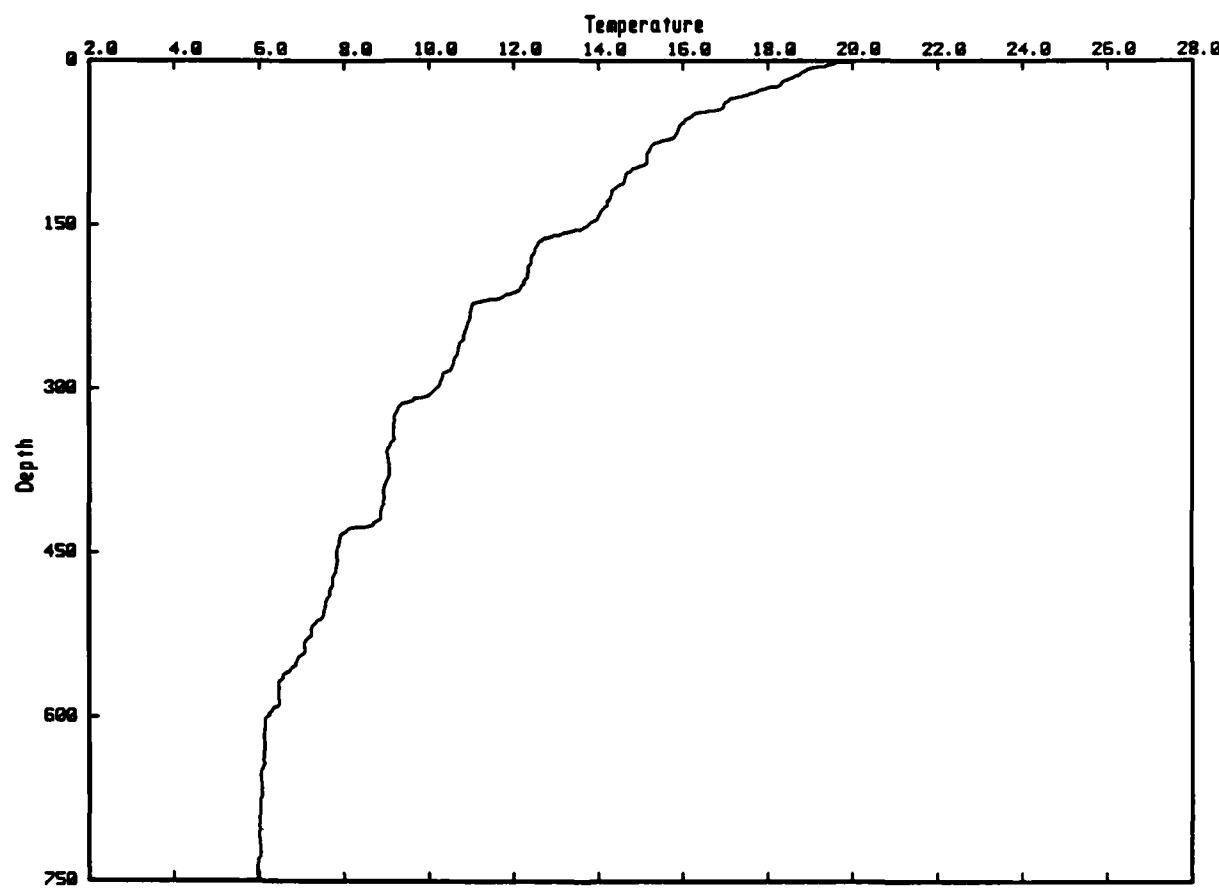
XBT DROP 068 T-7 RADAR: none GULF COORDS: -34.1 194.6  
 JDAY 326 2326Z DEPTH 850m/760m SST 20.05 2M TEMPS: SAIL 20.24 XBT 19.96  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 12.2 | 390 | 7.3  | 580 | 6.2  |
| 20  | 19.0 | 210 | 11.9 | 400 | 7.3  | 590 | 6.2  |
| 30  | 17.6 | 220 | 11.4 | 409 | 7.3  | 599 | 6.1  |
| 40  | 17.3 | 230 | 11.1 | 419 | 7.3  | 610 | 6.1  |
| 50  | 16.9 | 239 | 11.1 | 430 | 7.1  | 620 | 6.0  |
| 60  | 16.4 | 250 | 10.9 | 440 | 7.1  | 630 | 5.9  |
| 70  | 16.2 | 260 | 10.2 | 451 | 6.9  | 640 | 5.9  |
| 80  | 15.7 | 270 | 10.0 | 460 | 6.9  | 652 | 5.9  |
| 90  | 15.7 | 280 | 9.1  | 470 | 6.9  | 660 | 5.9  |
| 100 | 15.6 | 290 | 9.0  | 481 | 6.9  | 670 | 5.8  |
| 110 | 15.6 | 300 | 9.0  | 490 | 6.9  | 679 | 5.8  |
| 120 | 14.6 | 309 | 9.0  | 500 | 6.8  | 690 | 5.9  |
| 130 | 14.5 | 320 | 8.6  | 510 | 6.6  | 701 | 5.9  |
| 140 | 14.3 | 329 | 8.5  | 520 | 6.5  | 711 | 5.8  |
| 150 | 14.1 | 340 | 8.1  | 530 | 6.4  | 719 | 5.9  |
| 160 | 13.9 | 350 | 7.8  | 541 | 6.4  | 730 | 5.9  |
| 170 | 13.6 | 360 | 7.7  | 550 | 6.4  | 739 | 5.9  |
| 180 | 12.6 | 370 | 7.6  | 560 | 6.4  | 751 | 5.9  |
| 190 | 12.4 | 380 | 7.4  | 570 | 6.4  | 758 | 5.9  |

XBT DROP 069

28 17.3N 112 28.6W

21 NOV 84 1642 MST



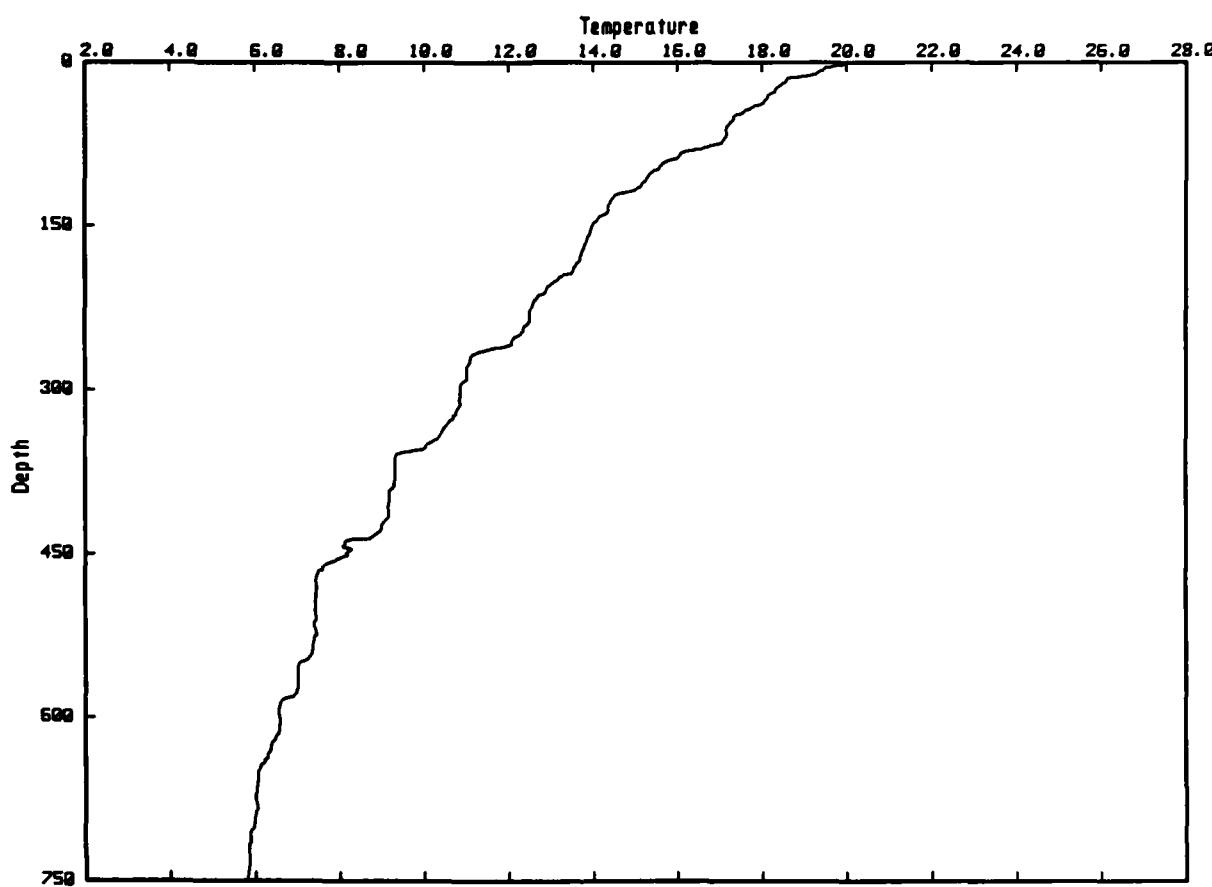
XBT DROP 069 T-7 RADAR: none GULF COORDS: -33.4 201.3  
 JDAY 326 2342Z DEPTH 1005m/760m SST 20.02 2M TEMPS: SAIL 20.23 XBT 19.43  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.9 | 200 | 12.3 | 391 | 8.9  | 579 | 6.5  |
| 20  | 18.3 | 210 | 12.1 | 399 | 8.9  | 590 | 6.4  |
| 30  | 17.6 | 220 | 11.2 | 410 | 8.9  | 600 | 6.2  |
| 39  | 17.0 | 230 | 11.0 | 420 | 8.8  | 610 | 6.1  |
| 50  | 16.2 | 240 | 10.9 | 430 | 8.1  | 620 | 6.1  |
| 60  | 15.9 | 250 | 10.8 | 440 | 7.9  | 631 | 6.1  |
| 70  | 15.8 | 260 | 10.7 | 450 | 7.8  | 640 | 6.1  |
| 80  | 15.2 | 271 | 10.6 | 460 | 7.8  | 650 | 6.0  |
| 90  | 15.1 | 281 | 10.5 | 470 | 7.8  | 661 | 6.1  |
| 100 | 14.8 | 290 | 10.3 | 480 | 7.7  | 670 | 6.1  |
| 110 | 14.6 | 300 | 10.1 | 490 | 7.6  | 679 | 6.0  |
| 120 | 14.3 | 310 | 9.8  | 499 | 7.6  | 690 | 6.0  |
| 130 | 14.2 | 320 | 9.2  | 510 | 7.5  | 700 | 6.0  |
| 140 | 14.0 | 330 | 9.2  | 520 | 7.2  | 711 | 6.0  |
| 150 | 13.8 | 339 | 9.2  | 529 | 7.1  | 719 | 6.1  |
| 160 | 13.0 | 350 | 9.1  | 541 | 7.1  | 730 | 6.0  |
| 170 | 12.5 | 360 | 9.0  | 550 | 6.9  | 741 | 6.0  |
| 180 | 12.4 | 371 | 9.1  | 560 | 6.6  | 751 | 6.0  |
| 190 | 12.4 | 381 | 9.0  | 570 | 6.5  | 759 | 5.9  |

XBT DROP 070

28 18.5N 112 30.3W

21 NOV 84 1653 MST



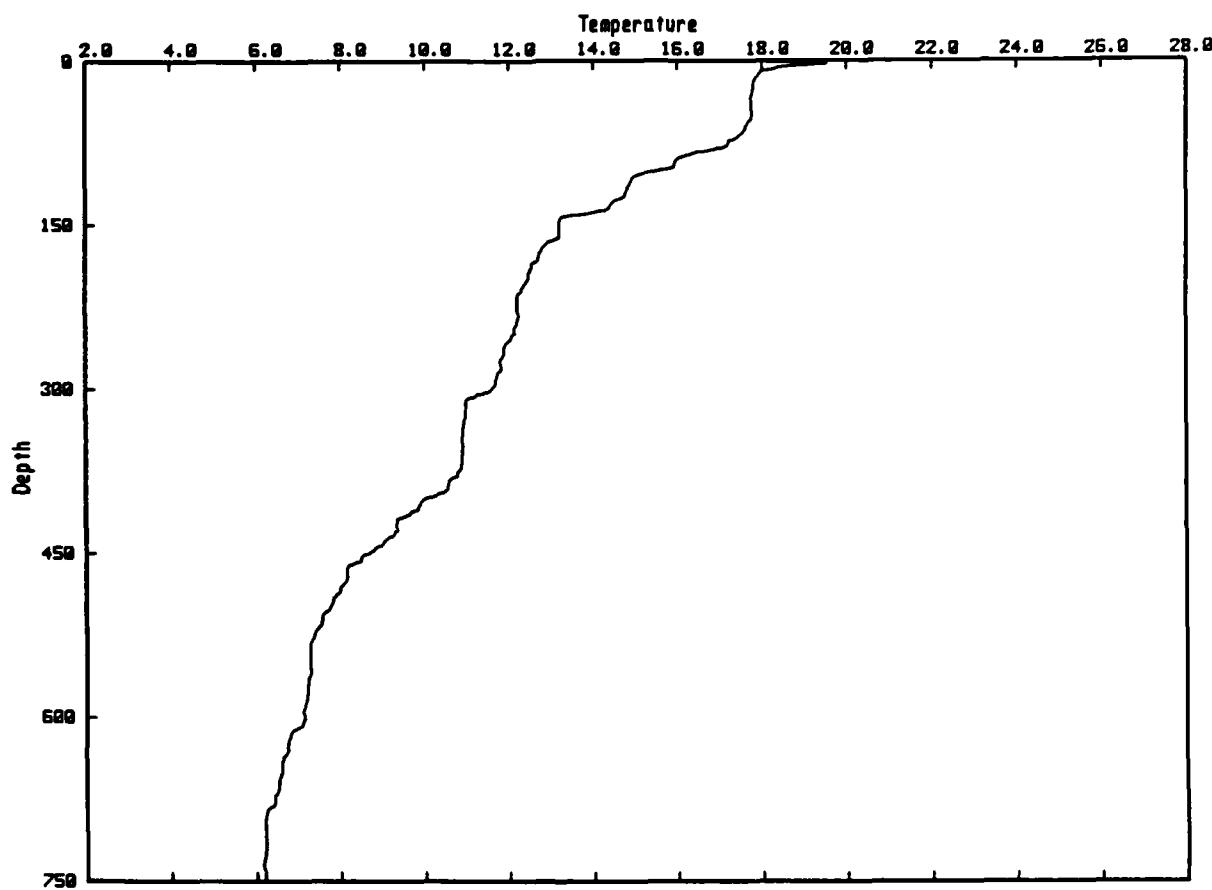
XBT DROP 070 T-7 RADAR: none GULF COORDS: -34.4 204.7  
 JDAY 326 2353Z DEPTH 950m/950m SST 19.95 2M TEMPS: SAIL 20.09 XBT 19.66  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-9, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.3 | 200 | 13.2 | 390 | 9.2  | 580 | 6.9  |
| 20  | 18.5 | 210 | 12.9 | 400 | 9.2  | 591 | 6.6  |
| 30  | 18.1 | 220 | 12.6 | 411 | 9.2  | 601 | 6.6  |
| 40  | 17.8 | 230 | 12.5 | 420 | 9.1  | 610 | 6.6  |
| 50  | 17.3 | 240 | 12.4 | 430 | 8.9  | 620 | 6.5  |
| 60  | 17.2 | 250 | 12.2 | 440 | 8.1  | 630 | 6.4  |
| 70  | 17.1 | 260 | 11.9 | 450 | 8.2  | 640 | 6.2  |
| 80  | 16.4 | 270 | 11.1 | 460 | 7.8  | 650 | 6.1  |
| 90  | 15.8 | 280 | 11.0 | 470 | 7.5  | 660 | 6.1  |
| 100 | 15.4 | 290 | 11.0 | 480 | 7.5  | 670 | 6.0  |
| 110 | 15.2 | 299 | 10.9 | 490 | 7.4  | 680 | 6.1  |
| 120 | 14.7 | 310 | 10.8 | 500 | 7.4  | 690 | 6.0  |
| 130 | 14.4 | 320 | 10.8 | 510 | 7.4  | 700 | 6.0  |
| 140 | 14.2 | 330 | 10.6 | 520 | 7.4  | 710 | 5.9  |
| 151 | 14.0 | 343 | 10.4 | 530 | 7.4  | 720 | 5.9  |
| 160 | 13.9 | 350 | 10.1 | 541 | 7.3  | 729 | 5.9  |
| 170 | 13.8 | 360 | 9.3  | 550 | 7.1  | 740 | 5.8  |
| 180 | 13.7 | 370 | 9.3  | 561 | 7.0  | 749 | 5.8  |
| 190 | 13.5 | 380 | 9.3  | 569 | 7.0  | 760 | 5.8  |

XBT DROP 072

28 20.5N 112 33.9W

21 NOV 84 1710 MST



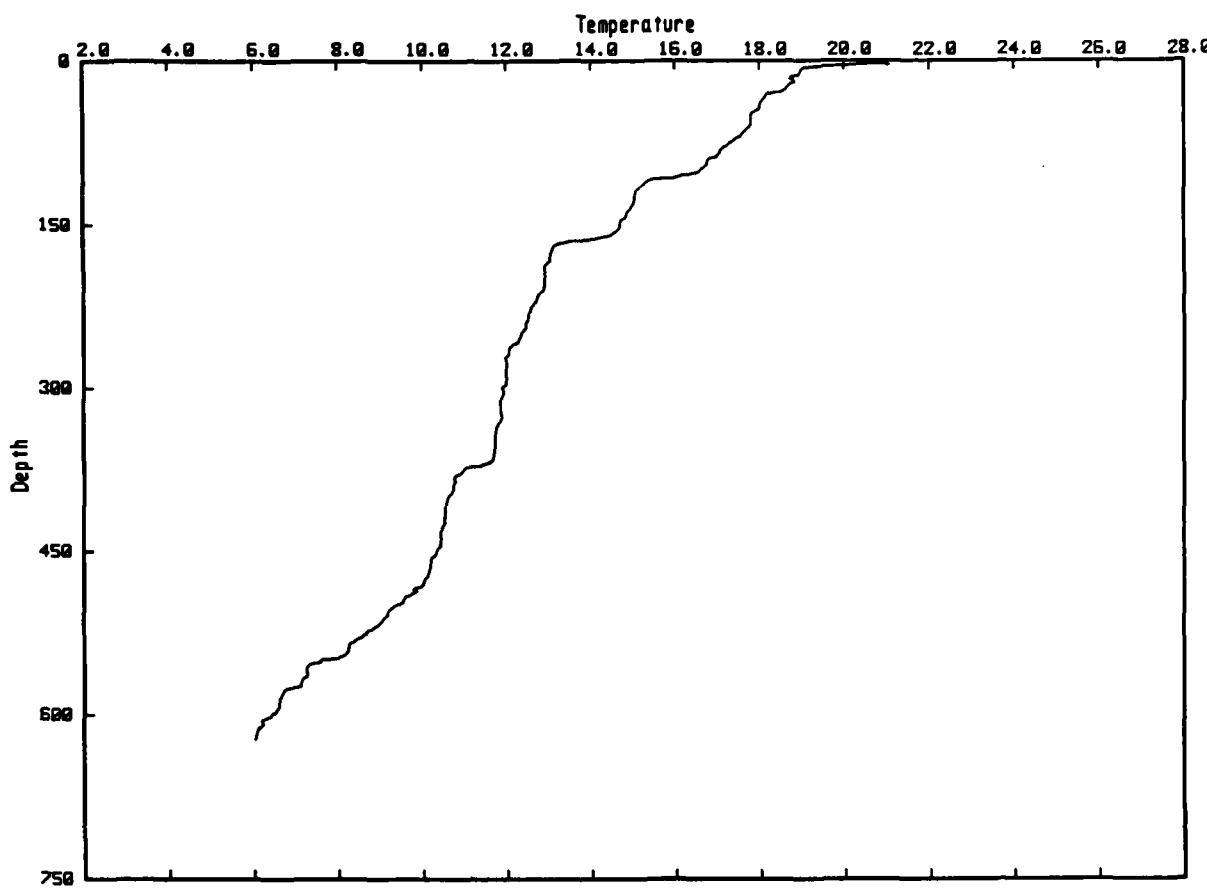
XBT DROP 072 T-7 RADAR: none GULF COORDS: -37.0 211.1  
 JDAY 327 10Z DEPTH 810m/760m SST 18.90 2M TEMPS: SAIL 18.97 XBT 19.16  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-10, SPRING TIDE (POSITION APPROXIMATE)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.0 | 200 | 12.5 | 391 | 10.6 | 581 | 7.2  |
| 20  | 17.8 | 210 | 12.3 | 400 | 10.0 | 591 | 7.1  |
| 31  | 17.8 | 221 | 12.2 | 410 | 9.9  | 599 | 7.1  |
| 39  | 17.8 | 231 | 12.2 | 419 | 9.4  | 610 | 7.0  |
| 49  | 17.8 | 240 | 12.2 | 430 | 9.3  | 619 | 6.8  |
| 60  | 17.6 | 250 | 12.1 | 440 | 9.0  | 629 | 6.8  |
| 70  | 17.4 | 260 | 11.9 | 450 | 8.7  | 639 | 6.6  |
| 80  | 17.0 | 271 | 11.9 | 460 | 8.3  | 651 | 6.6  |
| 91  | 16.0 | 279 | 11.8 | 470 | 8.2  | 659 | 6.5  |
| 100 | 15.5 | 291 | 11.7 | 480 | 8.0  | 670 | 6.5  |
| 110 | 14.9 | 300 | 11.6 | 490 | 7.8  | 681 | 6.4  |
| 121 | 14.8 | 310 | 11.0 | 500 | 7.8  | 688 | 6.3  |
| 131 | 14.4 | 319 | 11.0 | 510 | 7.6  | 699 | 6.2  |
| 140 | 13.9 | 331 | 10.9 | 520 | 7.4  | 709 | 6.2  |
| 149 | 13.2 | 341 | 10.9 | 530 | 7.3  | 721 | 6.2  |
| 159 | 13.2 | 349 | 10.9 | 541 | 7.3  | 734 | 6.2  |
| 170 | 12.8 | 363 | 10.9 | 549 | 7.3  | 741 | 6.2  |
| 180 | 12.7 | 370 | 10.9 | 560 | 7.3  | 747 | 6.2  |
| 190 | 12.5 | 380 | 10.7 | 569 | 7.2  | 758 | 6.2  |

XBT DROP 073

28 22.8N 112 34.8W

21 NOV 84 1725 MST



XBT DROP 073 T-7 RADAR: none GULF COORDS: -35.6 215.4  
 JDAY 327 25Z DEPTH 623m/623m SST 19.04 2M TEMPS: SAIL 19.12 XBT 20.38  
 GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-11, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 11  | 19.0 | 199 | 12.9 | 389 | 10.7 | 581 | 6.7  |
| 20  | 18.8 | 210 | 12.9 | 401 | 10.6 | 590 | 6.6  |
| 30  | 18.2 | 220 | 12.7 | 410 | 10.6 | 600 | 6.4  |
| 40  | 18.0 | 231 | 12.5 | 421 | 10.5 | 610 | 6.2  |
| 50  | 17.8 | 239 | 12.5 | 431 | 10.4 | 619 | 6.1  |
| 60  | 17.7 | 250 | 12.3 | 439 | 10.4 |     |      |
| 70  | 17.5 | 260 | 12.1 | 451 | 10.3 |     |      |
| 80  | 17.1 | 270 | 12.0 | 459 | 10.2 |     |      |
| 90  | 16.8 | 280 | 12.0 | 469 | 10.1 |     |      |
| 100 | 16.6 | 291 | 12.0 | 480 | 10.0 |     |      |
| 110 | 15.4 | 299 | 11.9 | 490 | 9.6  |     |      |
| 121 | 15.1 | 309 | 11.9 | 500 | 9.3  |     |      |
| 129 | 15.0 | 319 | 11.9 | 509 | 9.1  |     |      |
| 140 | 14.9 | 329 | 11.9 | 520 | 8.9  |     |      |
| 151 | 14.7 | 339 | 11.7 | 531 | 8.4  |     |      |
| 160 | 14.4 | 350 | 11.7 | 540 | 8.2  |     |      |
| 170 | 13.1 | 359 | 11.7 | 550 | 7.6  |     |      |
| 179 | 13.0 | 370 | 11.4 | 560 | 7.2  |     |      |
| 190 | 12.9 | 380 | 10.8 | 571 | 7.1  |     |      |

AD-A171 928

OBSERVATIONS OF TEMPERATURE FINESTRUCTURE IN THE GULF  
OF CALIFORNIA XBT D. (U) SCRIPPS INSTITUTION OF  
OCEANOGRAPHY LA JOLLA CA C A PADEN ET AL. MAR 85

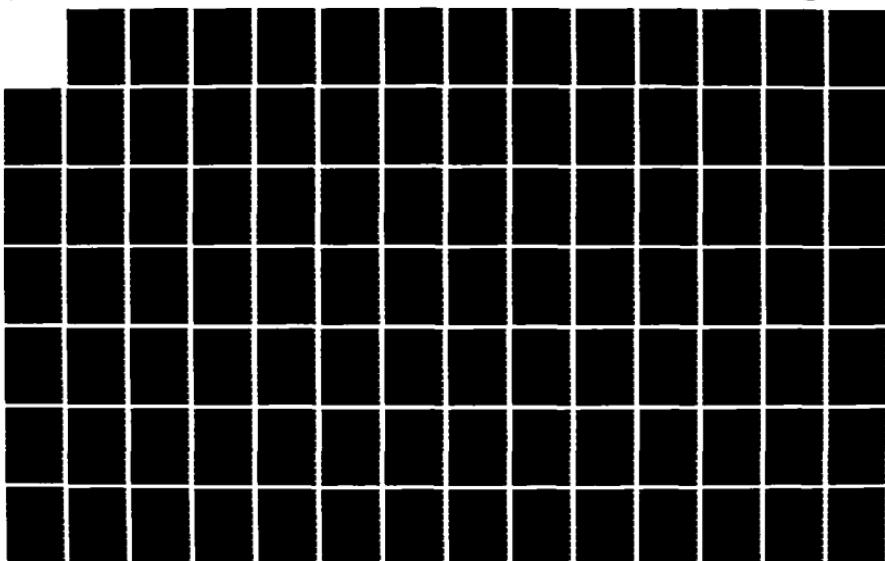
2/3

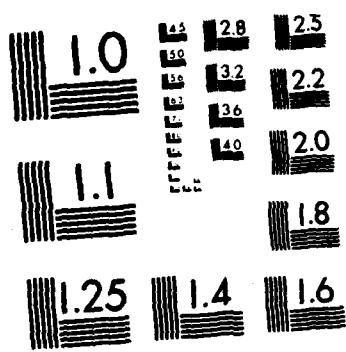
UNCLASSIFIED

SIO-REF-86-14 N88014-85-C-0104

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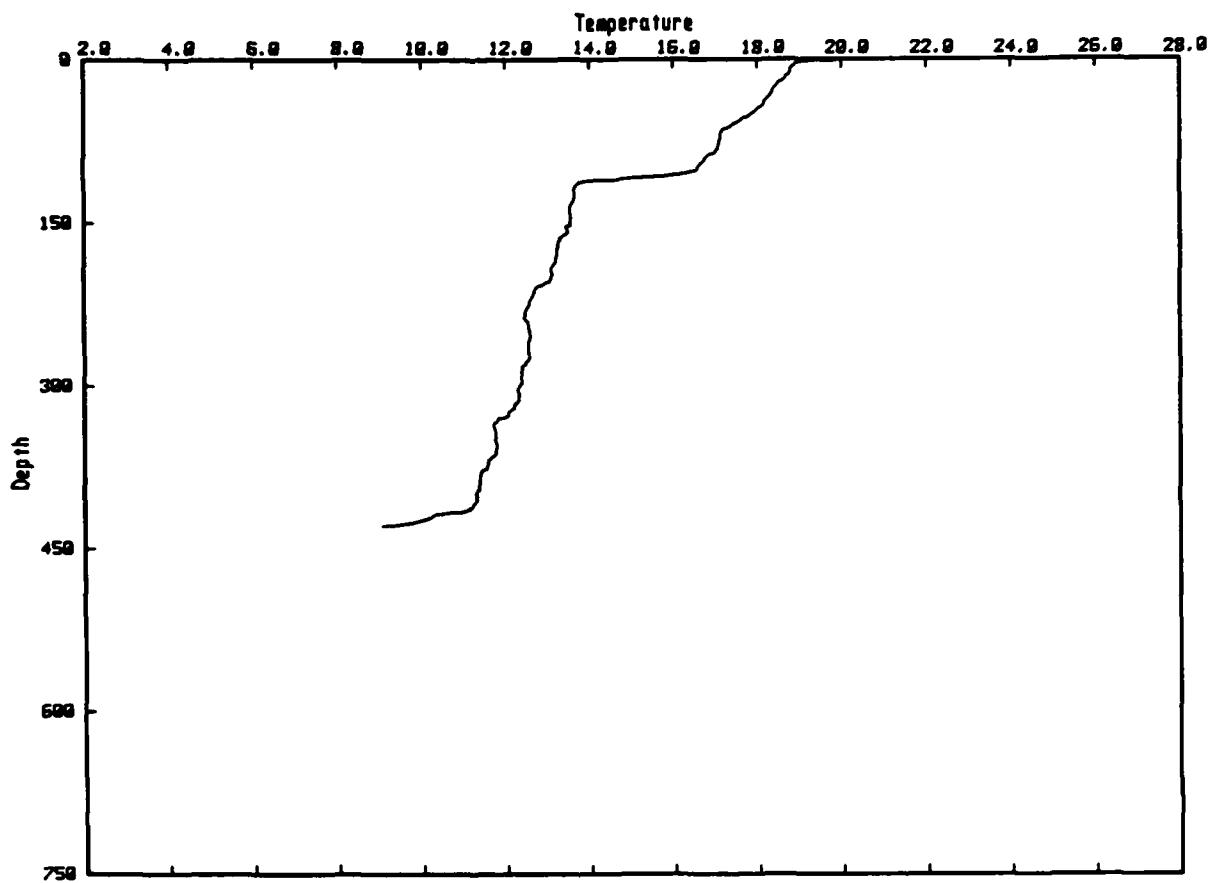


MICROCOPY RESOLUTION TEST CHART

XBT DROP 074

28 24.7N 112 36.6W

21 NOV 84 1740 MST



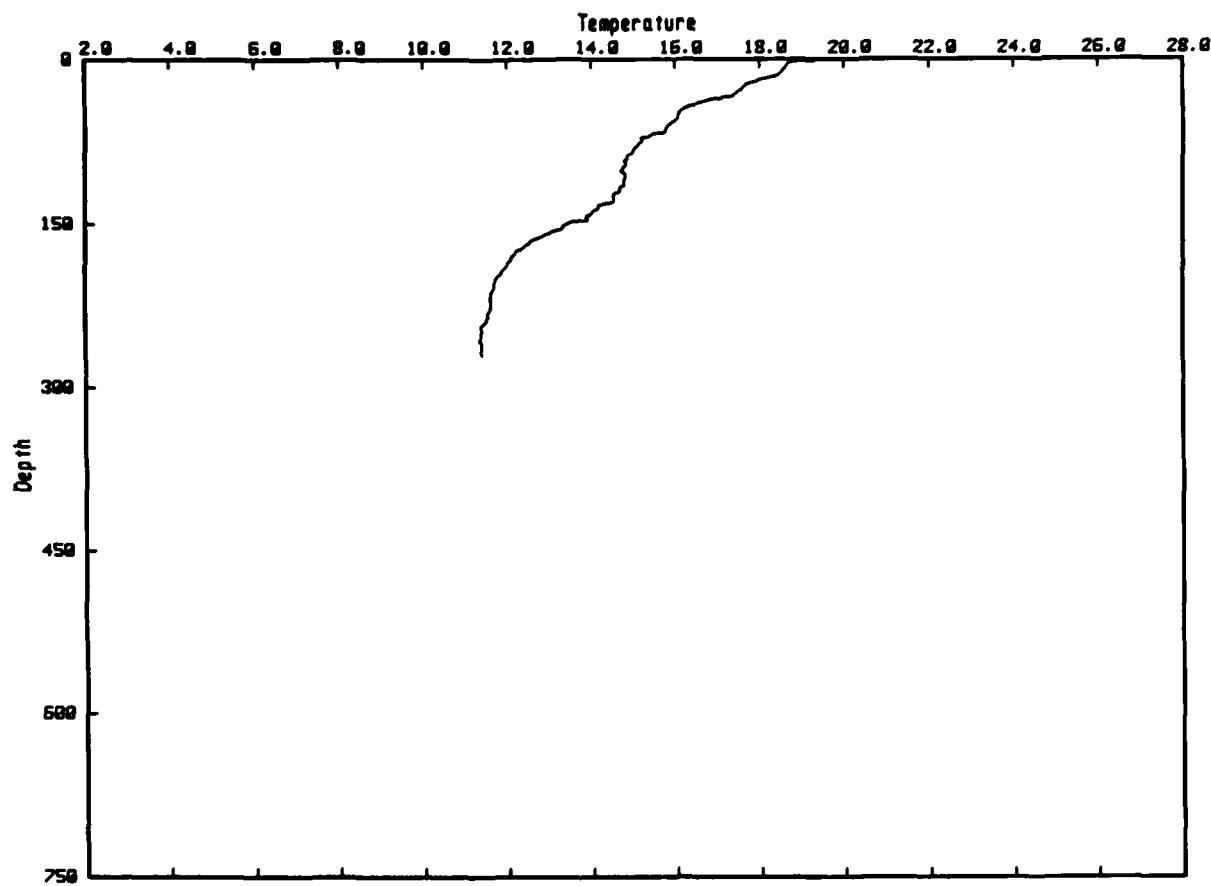
XBT DROP 074 T-7 RADAR: none GULF COORDS: -35.9 220.0  
JDAY 327 40Z DEPTH 429m/429m SST 19.08 2M TEMPS: SAIL 19.12 XBT 18.93  
GULF OF CALIFORNIA: GUAYMAS BASIN, MX2B-12, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 18.8 | 200 | 13.1 | 391 | 11.4 |
| 20  | 18.6 | 211 | 12.7 | 400 | 11.3 |
| 30  | 18.4 | 220 | 12.6 | 410 | 11.2 |
| 40  | 18.2 | 230 | 12.5 | 420 | 10.2 |
| 50  | 17.9 | 240 | 12.5 | 429 | 9.1  |
| 60  | 17.4 | 250 | 12.6 |     |      |
| 69  | 17.1 | 260 | 12.6 |     |      |
| 81  | 17.1 | 271 | 12.6 |     |      |
| 90  | 16.8 | 280 | 12.5 |     |      |
| 100 | 16.6 | 291 | 12.4 |     |      |
| 110 | 14.8 | 300 | 12.3 |     |      |
| 120 | 13.6 | 310 | 12.3 |     |      |
| 131 | 13.6 | 320 | 12.2 |     |      |
| 141 | 13.5 | 330 | 11.8 |     |      |
| 150 | 13.5 | 340 | 11.7 |     |      |
| 161 | 13.5 | 350 | 11.7 |     |      |
| 171 | 13.3 | 359 | 11.8 |     |      |
| 180 | 13.2 | 370 | 11.6 |     |      |
| 190 | 13.1 | 379 | 11.4 |     |      |

XBT DROP 075

28 25.9N 112 36.3W

21 NOV 84 1754 MST



XBT DROP 075 T-7 RADAR: none GULF COORDS: -34.2 221.5  
JDAY 327 54Z DEPTH 281m/271m SST 18.82 2M TEMPS: SAIL 18.78 XBT 18.71  
GULF OF CALIFORNIA: GUAYMAS BASIN, END MX2B LINE; MX2B-13, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 7   | 18.6 | 200 | 11.7 |
| 20  | 18.0 | 210 | 11.7 |
| 30  | 17.5 | 221 | 11.6 |
| 40  | 16.5 | 230 | 11.6 |
| 50  | 16.1 | 240 | 11.5 |
| 60  | 15.8 | 250 | 11.4 |
| 70  | 15.4 | 261 | 11.4 |
| 80  | 15.1 | 270 | 11.4 |
| 90  | 14.9 |     |      |
| 100 | 14.8 |     |      |
| 110 | 14.8 |     |      |
| 120 | 14.7 |     |      |
| 130 | 14.5 |     |      |
| 141 | 14.0 |     |      |
| 150 | 13.4 |     |      |
| 160 | 12.9 |     |      |
| 170 | 12.4 |     |      |
| 180 | 12.1 |     |      |
| 190 | 12.0 |     |      |

**Ballenas Channel**

**San Francisquito**

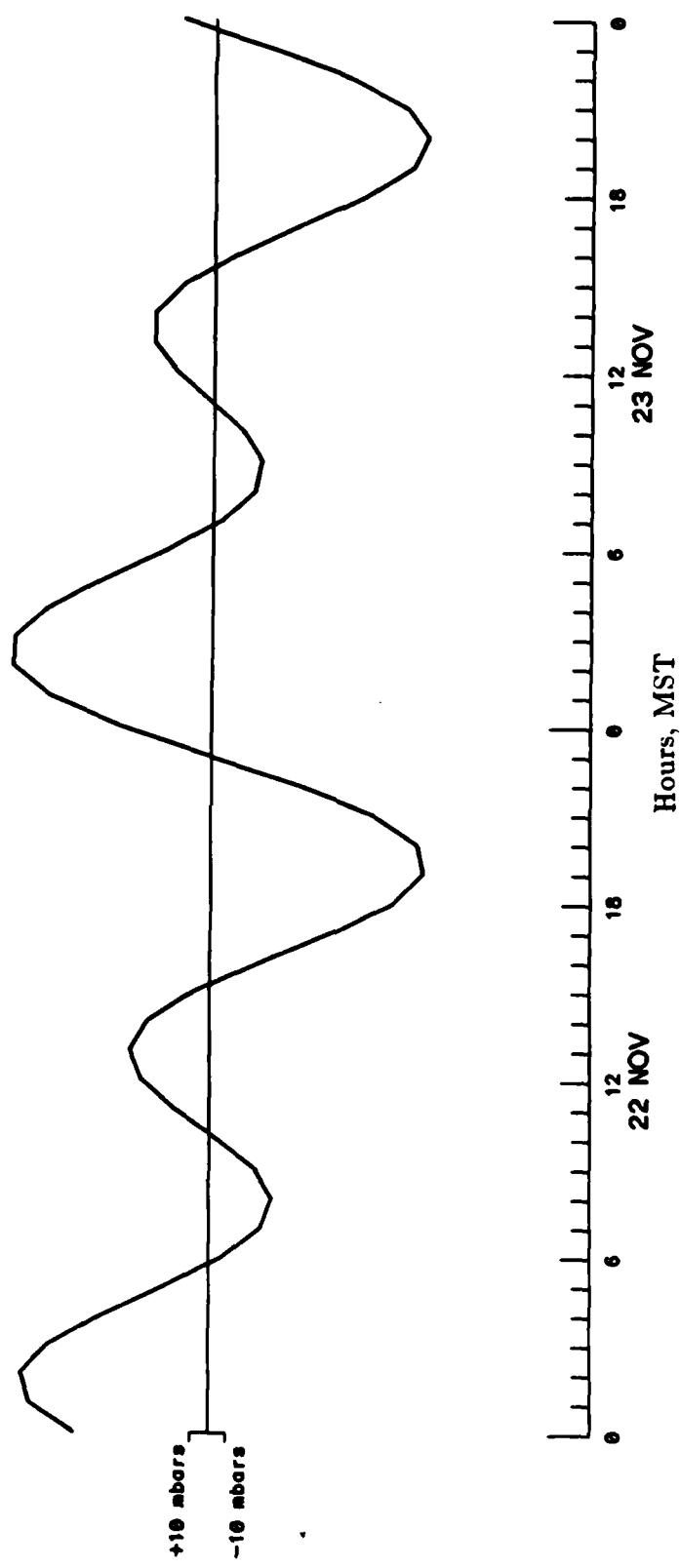


Figure 14. Bottom Pressure at San Francisquito Bay.  
22-23 November 1984.

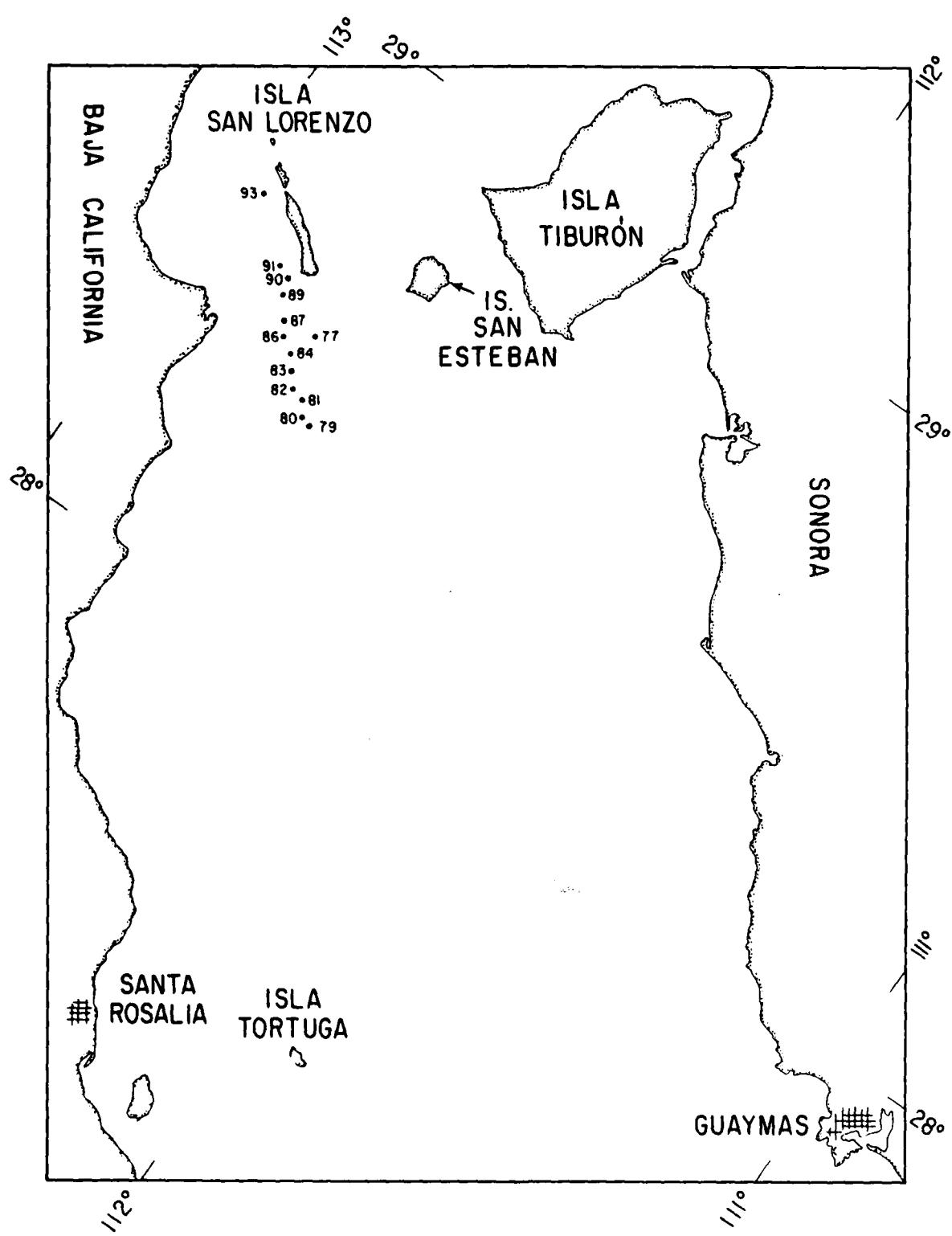
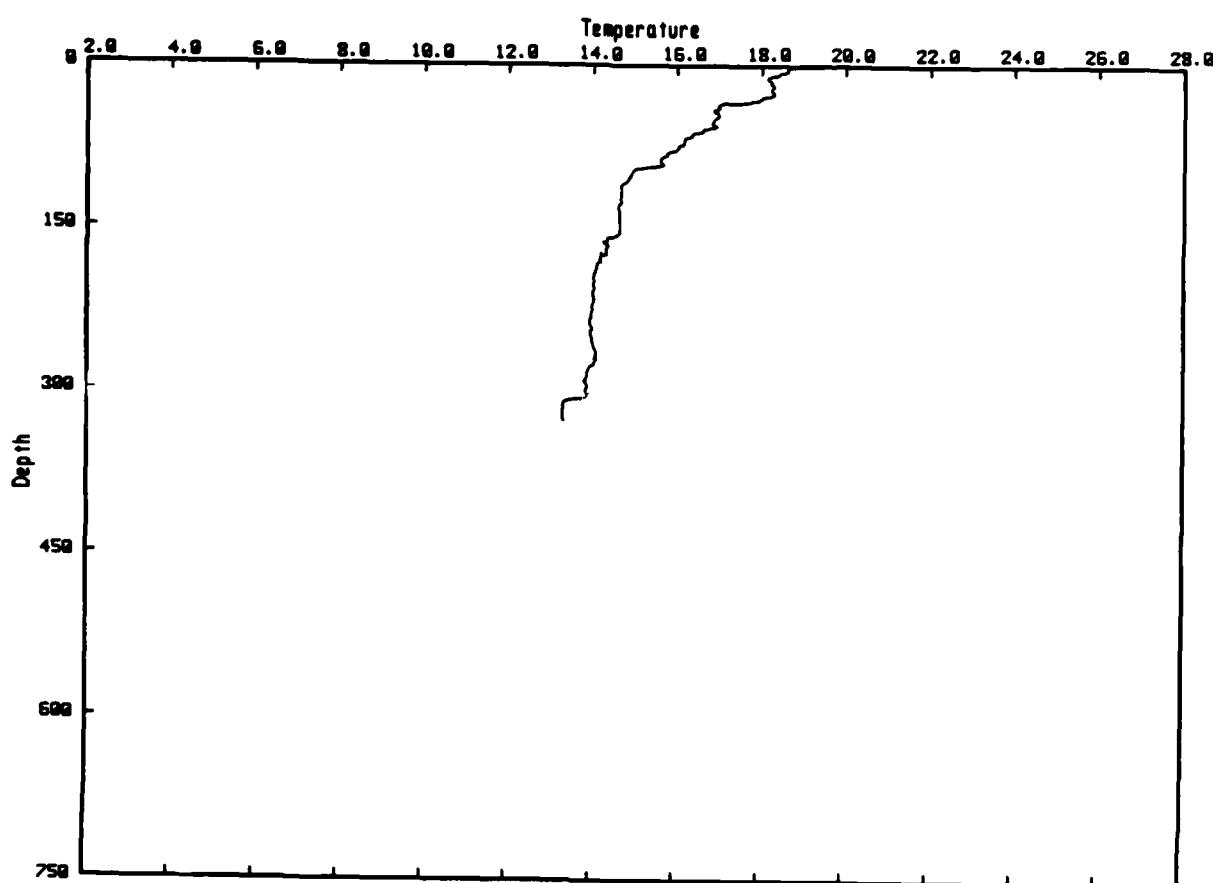


Figure 15. AXBT1 Section: XBT Station Locations

XBT DROP 077

28 30.0N 112 41.3W

22 NOV 84 2318 MST



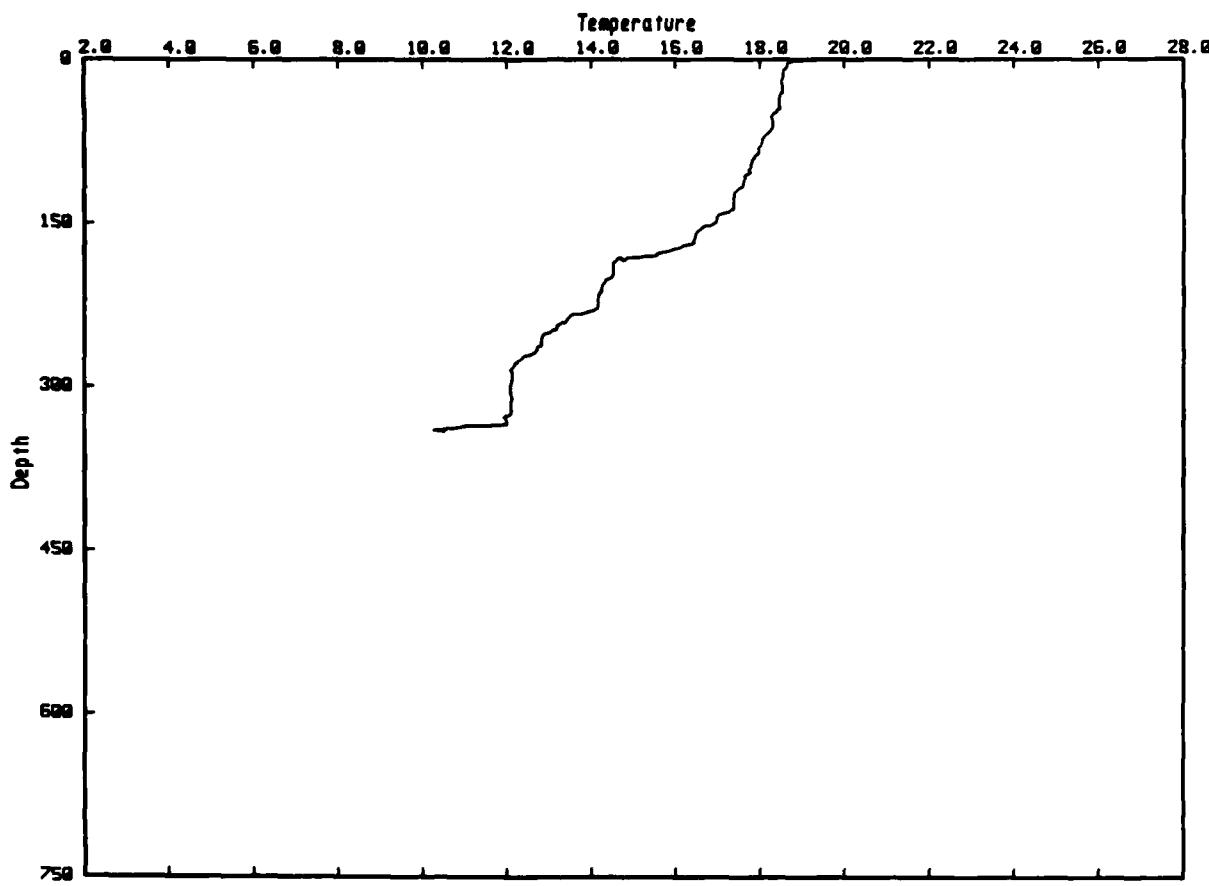
XBT DROP 077 T-4 RADAR: none  
JDAY 328 618Z DEPTH 328m/328m SST .00 2M TEMPS: SAIL 18.65 XBT 18.63  
GULF OF CALIFORNIA: ON CTD STATION PC6088

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 18  | 18.2 | 200 | 14.0 |
| 20  | 18.3 | 211 | 14.0 |
| 30  | 18.0 | 219 | 14.0 |
| 40  | 17.0 | 230 | 14.0 |
| 50  | 16.9 | 240 | 14.0 |
| 60  | 16.6 | 250 | 14.0 |
| 70  | 16.2 | 260 | 14.0 |
| 80  | 15.8 | 270 | 14.0 |
| 90  | 15.6 | 280 | 13.9 |
| 100 | 14.9 | 290 | 13.8 |
| 110 | 14.7 | 301 | 13.8 |
| 121 | 14.7 | 310 | 13.3 |
| 130 | 14.6 | 320 | 13.3 |
| 140 | 14.6 | 327 | 13.3 |
| 151 | 14.6 |     |      |
| 160 | 14.3 |     |      |
| 170 | 14.3 |     |      |
| 180 | 14.2 |     |      |
| 190 | 14.1 |     |      |

XBT DROP 079

28 21.8N 112 35.6W

23 NOV 84 0416 MST



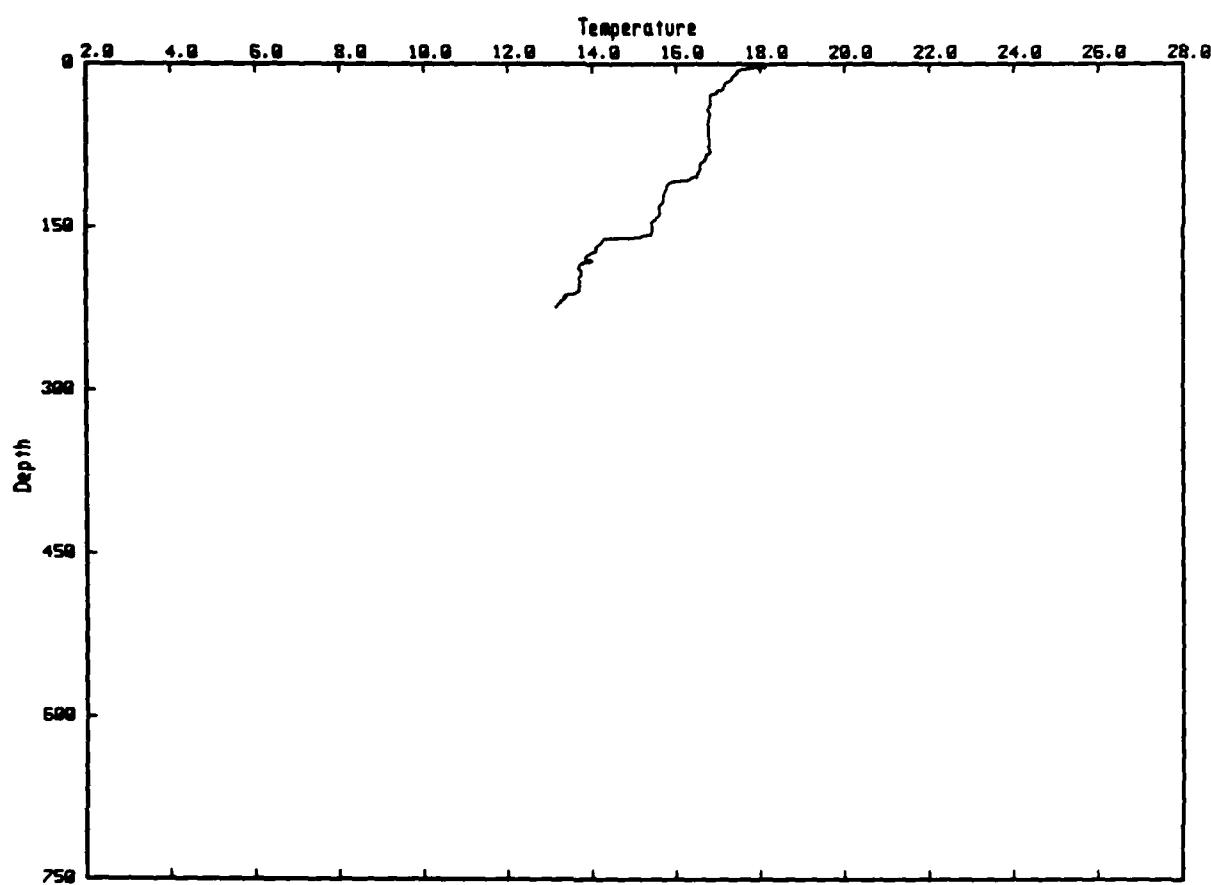
XBT DROP 079 T-7 RADAR: none GULF COORDS: -37.8 214.7  
JDAY 328 1116Z DEPTH 342m/342m SST 17.86 2M TEMPS: SAIL 18.61 XBT 18.66  
GULF OF CALIFORNIA: BEGIN AXBT1 LINE, AXBT1-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.6 | 200 | 14.5 |
| 20  | 18.5 | 210 | 14.2 |
| 30  | 18.6 | 220 | 14.1 |
| 40  | 18.4 | 230 | 14.1 |
| 50  | 18.3 | 240 | 13.4 |
| 60  | 18.3 | 250 | 13.0 |
| 70  | 18.1 | 260 | 12.8 |
| 80  | 18.0 | 270 | 12.6 |
| 90  | 17.9 | 280 | 12.2 |
| 100 | 17.7 | 291 | 12.1 |
| 110 | 17.6 | 301 | 12.1 |
| 120 | 17.5 | 309 | 12.1 |
| 129 | 17.4 | 320 | 12.1 |
| 140 | 17.3 | 330 | 12.0 |
| 151 | 16.9 | 340 | 10.4 |
| 160 | 16.5 |     |      |
| 170 | 16.2 |     |      |
| 180 | 15.3 |     |      |
| 189 | 14.5 |     |      |

XBT DROP 080

28 22.0N 112 36.8W

23 NOV 84 0427 MST



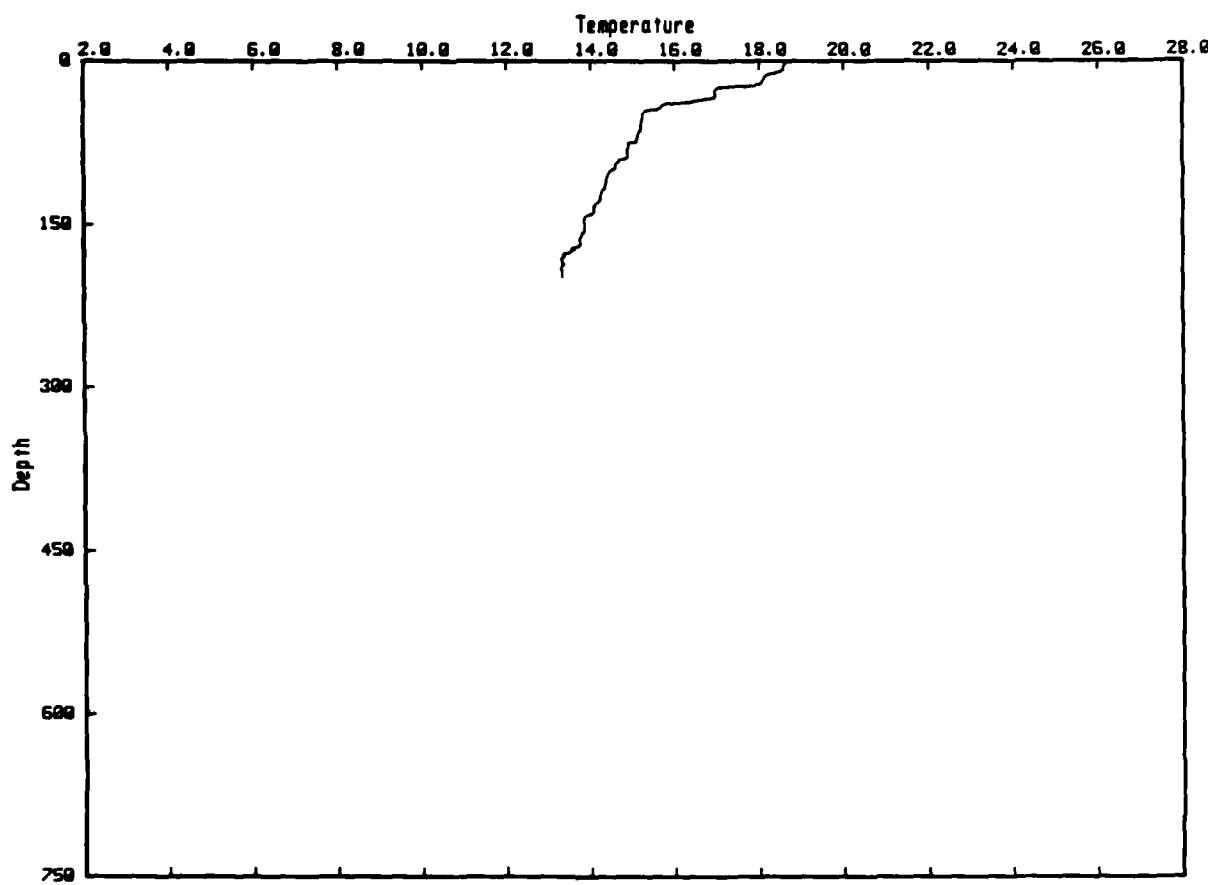
XBT DROP 080 T-7 RADAR: none GULF COORDS: -39.2 216.2  
JDAY 328 1127Z DEPTH 224m/224m SST 17.95 2M TEMPS: SAIL 18.43 XBT 17.74  
GULF OF CALIFORNIA: AXBT1-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 17.4 | 200 | 13.7 |
| 20  | 17.1 | 210 | 13.6 |
| 30  | 16.8 | 220 | 13.2 |
| 41  | 16.8 |     |      |
| 53  | 16.8 |     |      |
| 60  | 16.8 |     |      |
| 71  | 16.8 |     |      |
| 81  | 16.8 |     |      |
| 90  | 16.6 |     |      |
| 100 | 16.5 |     |      |
| 110 | 15.8 |     |      |
| 120 | 15.7 |     |      |
| 130 | 15.6 |     |      |
| 140 | 15.6 |     |      |
| 150 | 15.4 |     |      |
| 160 | 14.9 |     |      |
| 170 | 14.1 |     |      |
| 180 | 13.9 |     |      |
| 190 | 13.7 |     |      |

XBT DROP 081

28 23.5N 112 38.0W

23 NOV 84 0439 MST



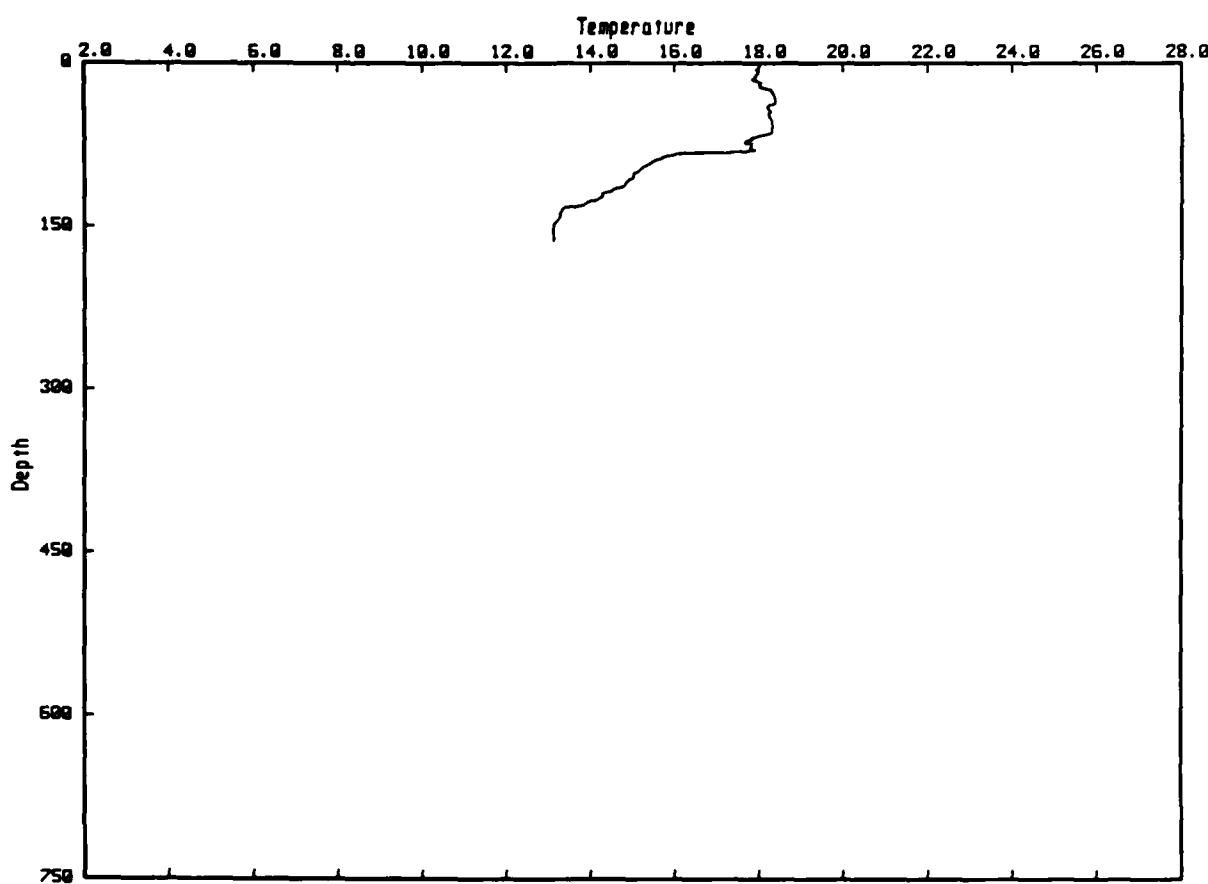
XBT DROP 081 T-7 RADAR: none GULF COORDS: -39.1 219.6  
JDAY 328 1139Z DEPTH 200m/200m SST 17.88 2M TEMPS: SAIL 18.48 XBT 18.61  
GULF OF CALIFORNIA: AXBT1-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.5 | 199 | 13.3 |
| 20  | 18.1 |     |      |
| 31  | 17.0 |     |      |
| 40  | 15.7 |     |      |
| 50  | 15.2 |     |      |
| 60  | 15.2 |     |      |
| 69  | 15.1 |     |      |
| 80  | 14.9 |     |      |
| 90  | 14.8 |     |      |
| 100 | 14.5 |     |      |
| 110 | 14.4 |     |      |
| 120 | 14.3 |     |      |
| 130 | 14.2 |     |      |
| 140 | 14.0 |     |      |
| 151 | 13.9 |     |      |
| 160 | 13.8 |     |      |
| 170 | 13.7 |     |      |
| 180 | 13.4 |     |      |
| 190 | 13.3 |     |      |

XBT DROP 082

28 24.0N 112 39.8W

23 NOV 84 0451 MST



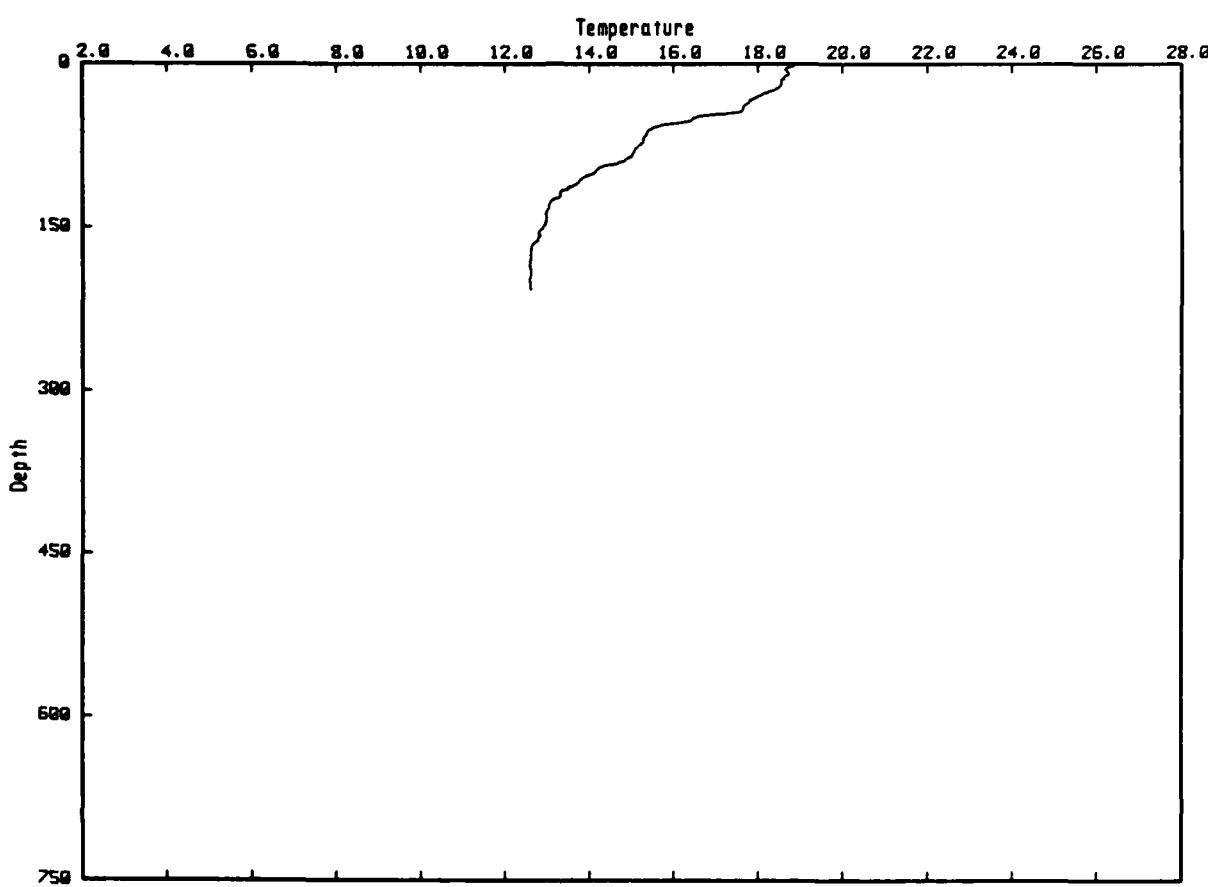
XBT DROP 082 T-4 RADAR: none GULF COORDS: -41.0 222.0  
JDAY 328 1151Z DEPTH 165m/162m SST 17.84 2M TEMPS: SAIL 18.15 XBT 18.00  
GULF OF CALIFORNIA: AXBT1-4, SPRING TIDE

| Z   | TEMP |
|-----|------|
| 10  | 18.0 |
| 20  | 18.0 |
| 30  | 18.4 |
| 40  | 18.2 |
| 50  | 18.3 |
| 60  | 18.3 |
| 70  | 17.8 |
| 80  | 17.8 |
| 90  | 15.5 |
| 100 | 15.1 |
| 110 | 14.8 |
| 120 | 14.3 |
| 130 | 13.8 |
| 140 | 13.3 |
| 150 | 13.1 |
| 160 | 13.1 |

XBT DROP 083

28 25.4N 112 41.1W

23 NOV 84 0503 MST



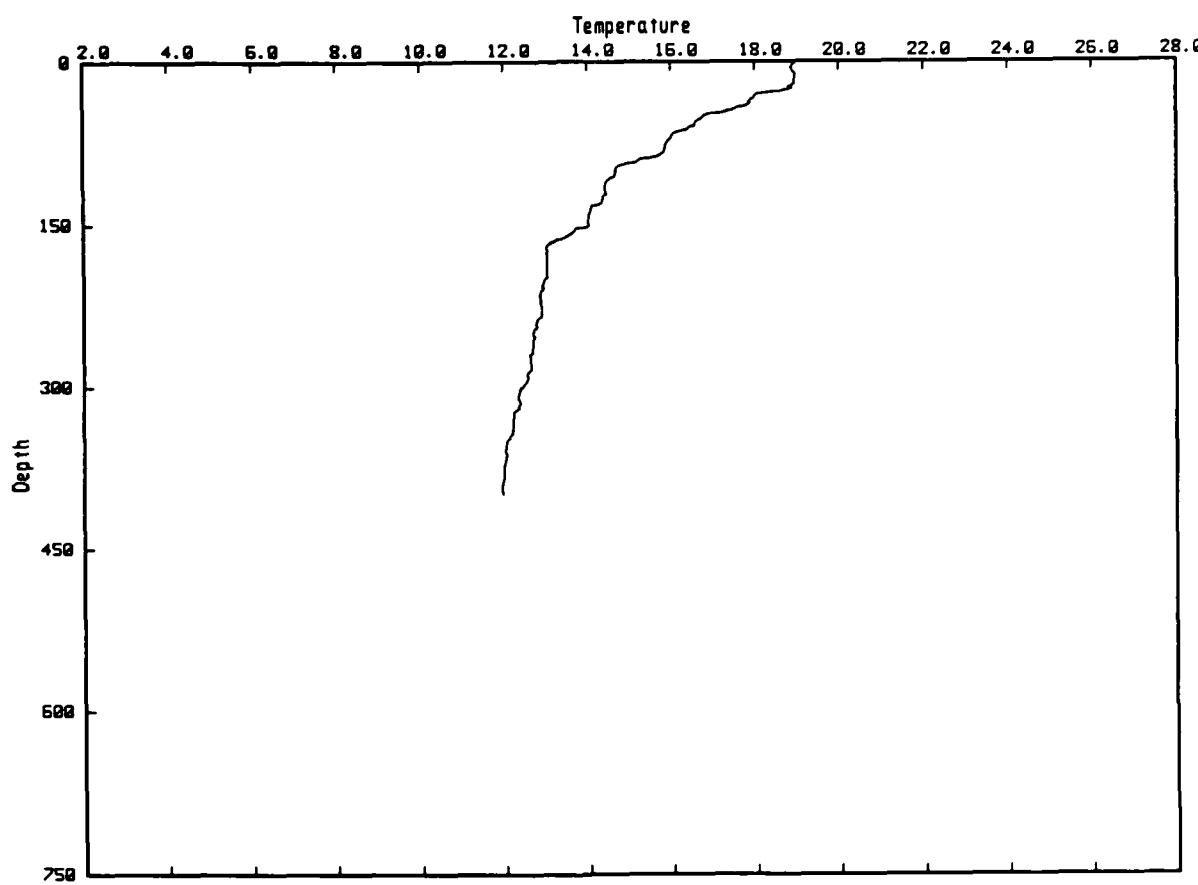
XBT DROP 083 T-4 RADAR: none GULF COORDS: -41.1 225.4  
JDAY 328 1203Z DEPTH 208m/208m SST 18.16 2M TEMPS: SAIL 18.70 XBT 18.68  
GULF OF CALIFORNIA: AXBT1-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 18  | 18.7 | 200 | 12.6 |
| 20  | 18.5 | 207 | 12.6 |
| 30  | 18.0 |     |      |
| 40  | 17.6 |     |      |
| 50  | 16.5 |     |      |
| 60  | 15.4 |     |      |
| 70  | 15.3 |     |      |
| 81  | 15.1 |     |      |
| 90  | 14.7 |     |      |
| 100 | 14.1 |     |      |
| 110 | 13.7 |     |      |
| 120 | 13.3 |     |      |
| 130 | 13.0 |     |      |
| 139 | 13.0 |     |      |
| 150 | 12.9 |     |      |
| 160 | 12.8 |     |      |
| 170 | 12.6 |     |      |
| 180 | 12.6 |     |      |
| 191 | 12.6 |     |      |

XBT DROP 084

28 26.9N 112 42.5W

23 NOV 84 0515 MST



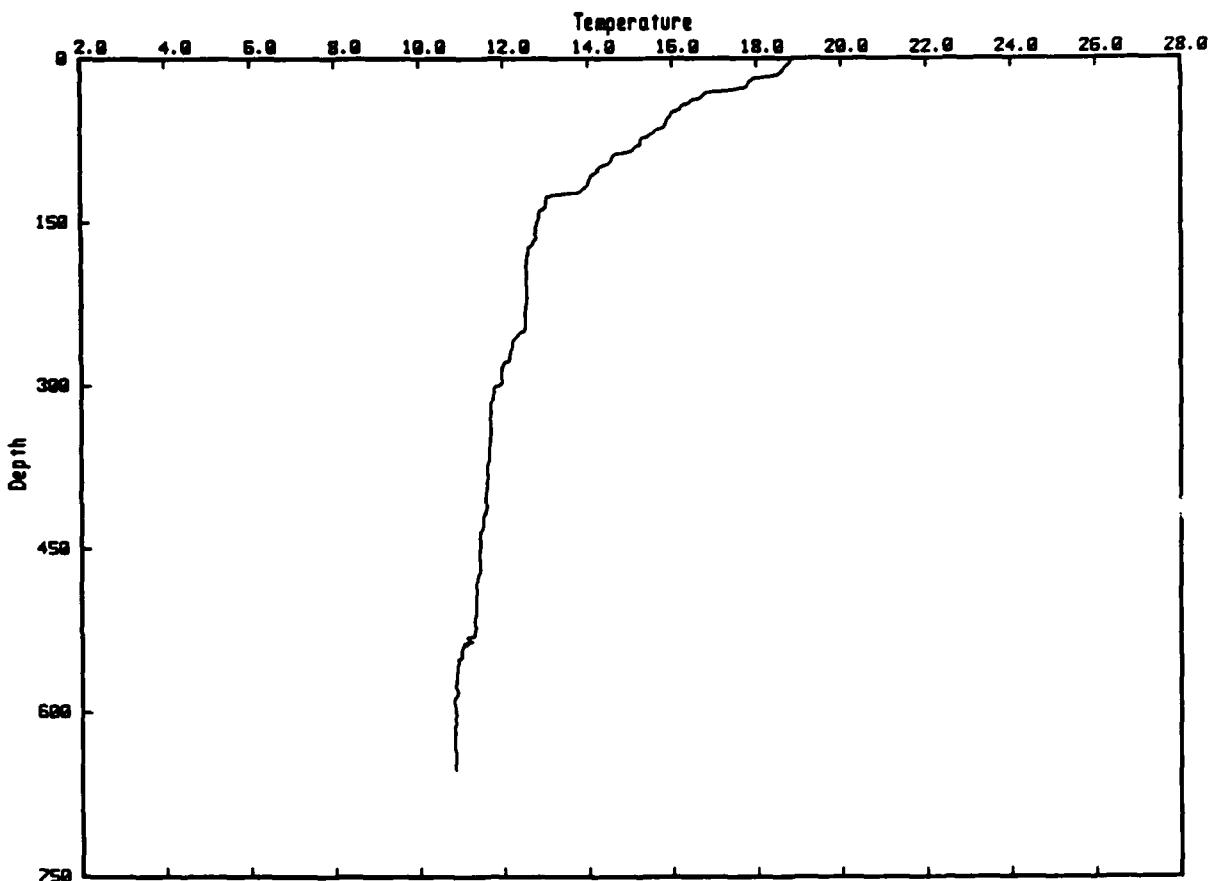
XBT DROP 084 T-4 RADAR: none GULF COORDS: -41.3 229.0  
JDAY 328 1215Z DEPTH 400m/400m SST 18.74 2M TEMPS: SAIL 18.90 XBT 18.89  
GULF OF CALIFORNIA: AXBT1-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 18.9 | 200 | 13.0 | 390 | 12.0 |
| 20  | 19.0 | 210 | 12.9 | 399 | 12.0 |
| 30  | 18.1 | 220 | 12.9 |     |      |
| 40  | 17.8 | 230 | 12.9 |     |      |
| 50  | 16.8 | 240 | 12.8 |     |      |
| 60  | 16.5 | 250 | 12.7 |     |      |
| 69  | 16.0 | 260 | 12.7 |     |      |
| 81  | 15.9 | 270 | 12.6 |     |      |
| 90  | 15.3 | 280 | 12.6 |     |      |
| 100 | 14.7 | 290 | 12.6 |     |      |
| 110 | 14.5 | 300 | 12.4 |     |      |
| 119 | 14.4 | 309 | 12.4 |     |      |
| 130 | 14.3 | 320 | 12.4 |     |      |
| 141 | 14.0 | 330 | 12.2 |     |      |
| 150 | 14.0 | 340 | 12.2 |     |      |
| 160 | 13.6 | 350 | 12.1 |     |      |
| 170 | 13.0 | 359 | 12.0 |     |      |
| 180 | 13.0 | 370 | 12.0 |     |      |
| 190 | 13.0 | 381 | 12.0 |     |      |

XBT DROP 086

28 28.0N 112 44.4W

23 NOV 84 0532 MST



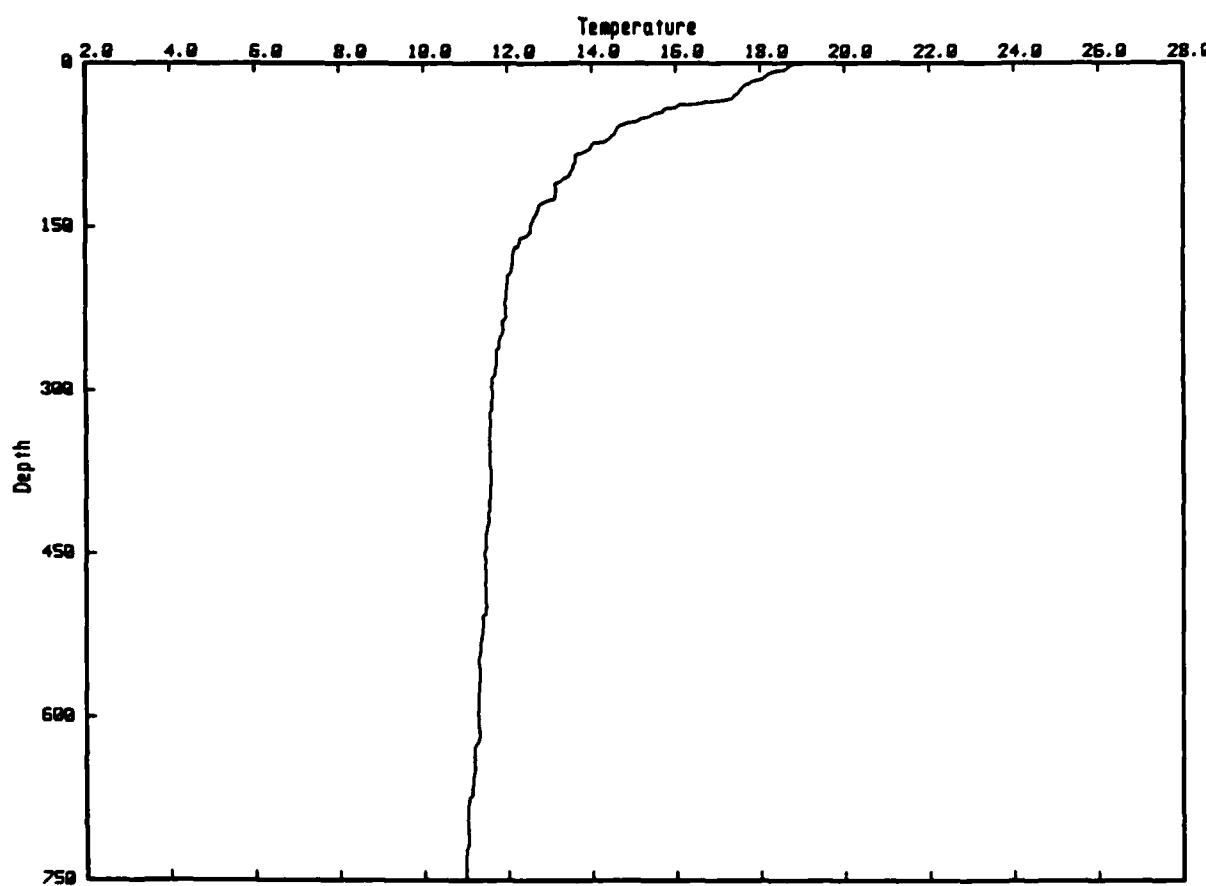
XBT DROP 086 T-7 RADAR: none GULF COORDS: -42.7 232.4  
 JDAY 328 1232Z DEPTH 654m/654m SST 18.50 2M TEMPS: SAIL 18.69 XBT 18.81  
 GULF OF CALIFORNIA: AXBT1-7, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 9   | 18.6 | 200 | 12.5 | 389 | 11.6 | 579 | 10.9 |
| 20  | 17.9 | 210 | 12.5 | 400 | 11.6 | 589 | 10.8 |
| 30  | 17.3 | 221 | 12.6 | 411 | 11.6 | 600 | 10.8 |
| 40  | 16.4 | 230 | 12.5 | 420 | 11.5 | 610 | 10.9 |
| 50  | 16.0 | 241 | 12.5 | 430 | 11.5 | 620 | 10.8 |
| 60  | 15.8 | 250 | 12.5 | 440 | 11.4 | 630 | 10.8 |
| 70  | 15.5 | 260 | 12.2 | 450 | 11.4 | 641 | 10.8 |
| 80  | 15.2 | 270 | 12.2 | 461 | 11.4 | 650 | 10.8 |
| 90  | 14.6 | 279 | 12.0 | 470 | 11.4 |     |      |
| 100 | 14.2 | 289 | 11.9 | 479 | 11.4 |     |      |
| 110 | 14.1 | 300 | 11.9 | 490 | 11.4 |     |      |
| 120 | 13.9 | 310 | 11.7 | 500 | 11.3 |     |      |
| 131 | 13.0 | 319 | 11.7 | 510 | 11.3 |     |      |
| 140 | 12.9 | 330 | 11.7 | 521 | 11.3 |     |      |
| 150 | 12.8 | 340 | 11.7 | 530 | 11.3 |     |      |
| 160 | 12.7 | 351 | 11.7 | 540 | 11.0 |     |      |
| 170 | 12.7 | 359 | 11.7 | 550 | 11.0 |     |      |
| 180 | 12.6 | 369 | 11.6 | 560 | 10.9 |     |      |
| 190 | 12.5 | 379 | 11.6 | 570 | 10.9 |     |      |

XBT DROP 087

28 29.5N 112 45.5W

23 NOV 84 0544 MST



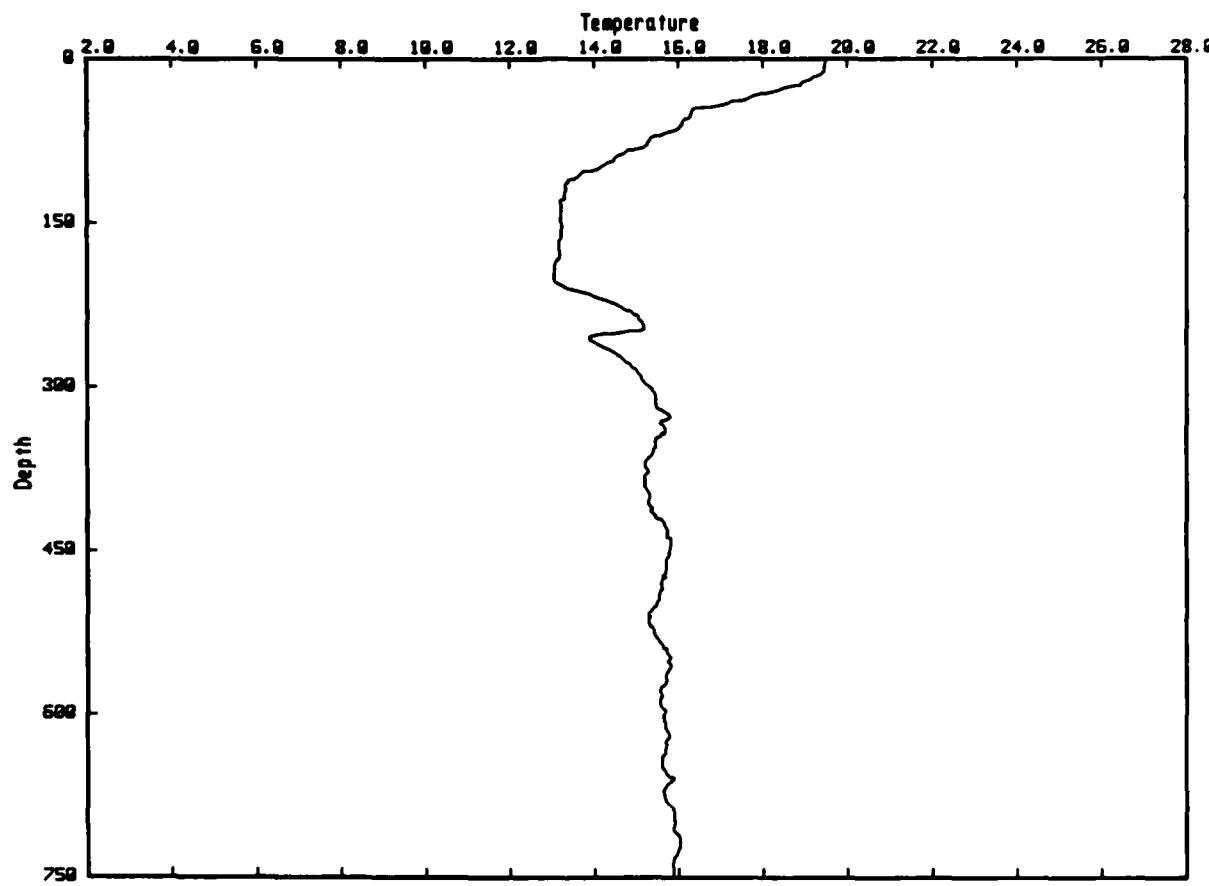
XBT DROP 087 T-7 RADAR: none GULF COORDS: -42.5 235.7  
 JDAY 328 1244Z DEPTH 936m/936m SST 18.38 2M TEMPS: SAIL 18.78 XBT 18.68  
 GULF OF CALIFORNIA: AXBT1-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.2 | 200 | 12.0 | 389 | 11.6 | 582 | 11.3 |
| 20  | 17.6 | 210 | 12.0 | 401 | 11.6 | 590 | 11.3 |
| 30  | 17.4 | 221 | 11.9 | 410 | 11.6 | 599 | 11.3 |
| 40  | 16.8 | 230 | 12.0 | 420 | 11.6 | 609 | 11.3 |
| 50  | 15.3 | 240 | 11.9 | 430 | 11.5 | 620 | 11.3 |
| 59  | 14.6 | 251 | 11.8 | 440 | 11.5 | 629 | 11.2 |
| 70  | 14.4 | 260 | 11.8 | 451 | 11.4 | 641 | 11.2 |
| 80  | 13.9 | 270 | 11.7 | 460 | 11.5 | 652 | 11.2 |
| 90  | 13.8 | 279 | 11.7 | 468 | 11.5 | 661 | 11.2 |
| 100 | 13.5 | 289 | 11.6 | 479 | 11.5 | 670 | 11.1 |
| 110 | 13.2 | 299 | 11.6 | 491 | 11.5 | 680 | 11.1 |
| 121 | 13.1 | 309 | 11.6 | 501 | 11.5 | 692 | 11.1 |
| 130 | 12.8 | 320 | 11.6 | 510 | 11.4 | 701 | 11.0 |
| 141 | 12.6 | 329 | 11.6 | 521 | 11.4 | 710 | 11.1 |
| 150 | 12.6 | 339 | 11.6 | 530 | 11.4 | 720 | 11.0 |
| 160 | 12.4 | 349 | 11.6 | 541 | 11.3 | 731 | 11.0 |
| 170 | 12.2 | 361 | 11.6 | 550 | 11.3 | 740 | 11.0 |
| 180 | 12.1 | 371 | 11.6 | 559 | 11.3 | 750 | 11.0 |
| 189 | 12.1 | 379 | 11.6 | 571 | 11.3 | 760 | 11.0 |

XBT DROP 089

28 31.7N 112 47.5W

23 NOV 84 0600 MST



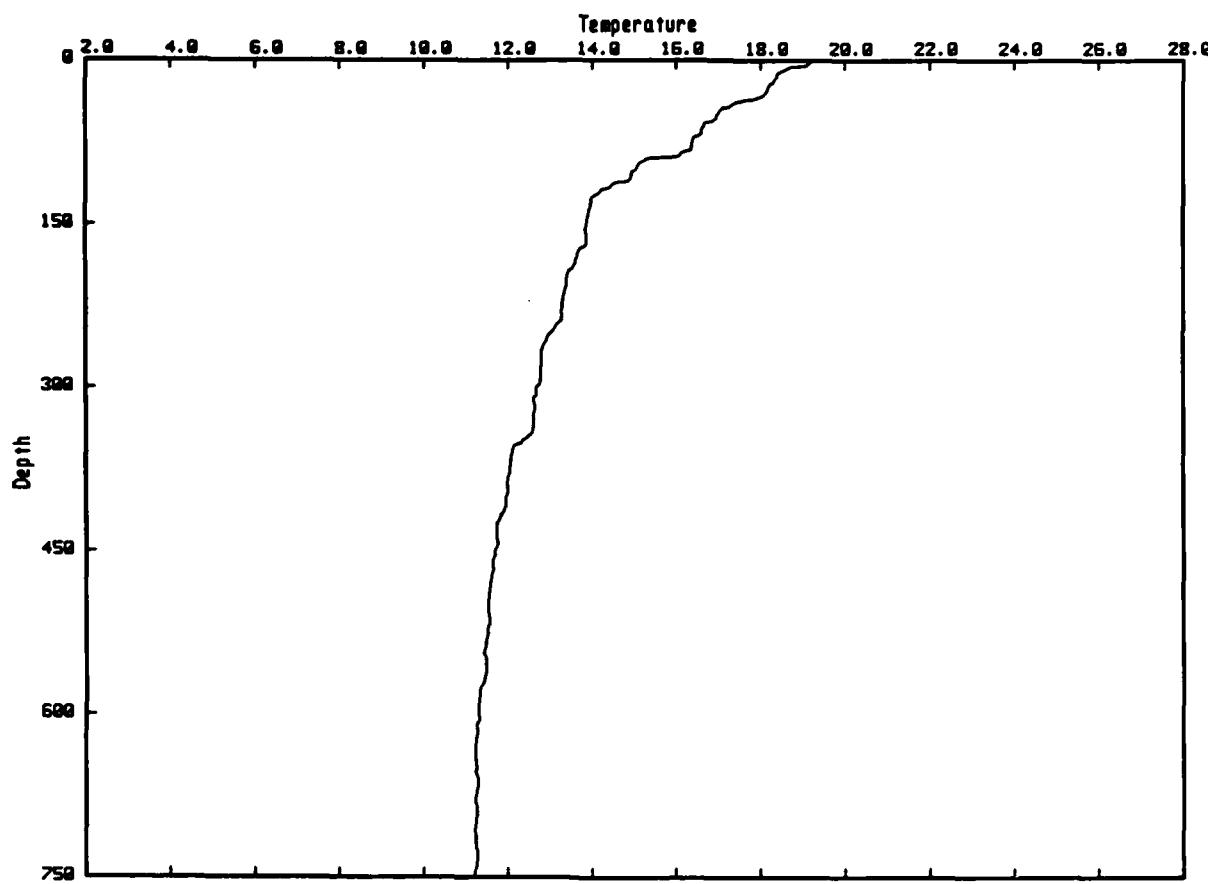
XBT DROP 089 T-7 RADAR: none GULF COORDS: -42.7 240.9  
 JDAY 328 1300Z DEPTH 969m/760m SST 19.13 2M TEMPS: SAIL 19.23 XBT 19.49  
 GULF OF CALIFORNIA: AXBT1-9, SPRING TIDE (BAD BELOW 200M?)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 9   | 19.5 | 200 | 13.1 | 390 | 15.2 | 580 | 15.6 |
| 20  | 19.1 | 210 | 13.3 | 400 | 15.3 | 591 | 15.6 |
| 30  | 18.2 | 220 | 14.2 | 411 | 15.4 | 600 | 15.6 |
| 40  | 17.2 | 230 | 14.8 | 420 | 15.4 | 609 | 15.7 |
| 50  | 16.3 | 240 | 15.1 | 430 | 15.7 | 621 | 15.8 |
| 60  | 16.1 | 250 | 14.6 | 440 | 15.8 | 630 | 15.7 |
| 70  | 15.5 | 260 | 14.1 | 450 | 15.8 | 640 | 15.6 |
| 80  | 15.2 | 270 | 14.6 | 460 | 15.7 | 650 | 15.6 |
| 89  | 14.5 | 280 | 14.9 | 469 | 15.7 | 660 | 15.9 |
| 100 | 14.1 | 290 | 15.1 | 480 | 15.6 | 670 | 15.8 |
| 110 | 13.4 | 300 | 15.3 | 490 | 15.5 | 681 | 15.7 |
| 120 | 13.3 | 309 | 15.5 | 500 | 15.5 | 689 | 15.9 |
| 130 | 13.2 | 320 | 15.5 | 510 | 15.4 | 700 | 15.9 |
| 140 | 13.2 | 330 | 15.7 | 519 | 15.4 | 710 | 16.0 |
| 149 | 13.2 | 340 | 15.7 | 530 | 15.5 | 720 | 16.0 |
| 159 | 13.2 | 350 | 15.4 | 540 | 15.7 | 730 | 15.9 |
| 169 | 13.2 | 360 | 15.4 | 550 | 15.7 | 741 | 15.9 |
| 180 | 13.2 | 369 | 15.2 | 560 | 15.7 | 750 | 15.9 |
| 190 | 13.1 | 380 | 15.2 | 570 | 15.7 | 760 | 15.7 |

XBT DROP 090

28 33.4N 112 48.1W

23 NOV 84 0615 MST



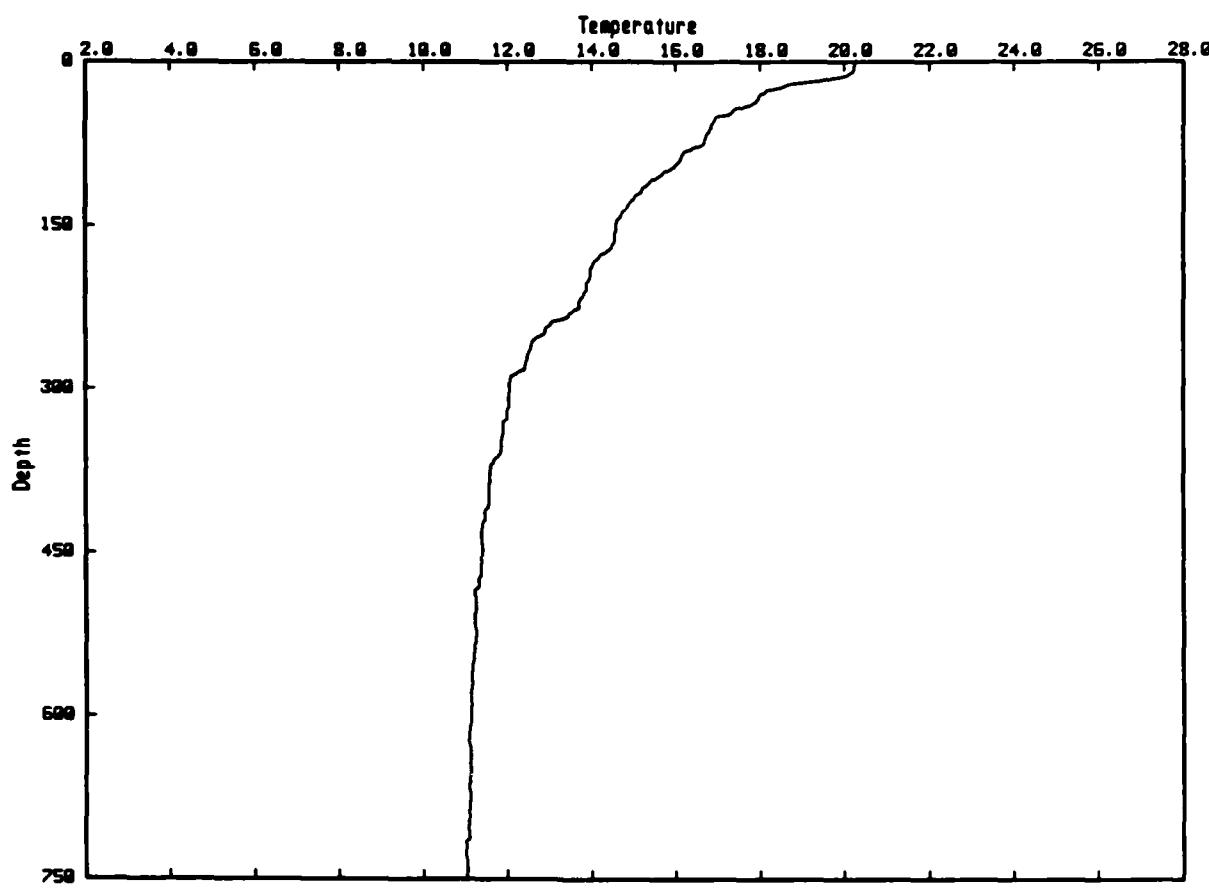
XBT DROP 090 T-7 RADAR: none GULF COORDS: -41.6 244.1  
 JDY 328 1315Z DEPTH 929m/929m SST 18.83 2M TEMPS: SAIL 19.22 XBT 19.12  
 GULF OF CALIFORNIA: AXBT1-10, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 18.5 | 201 | 13.4 | 391 | 12.0 | 579 | 11.3 |
| 20  | 18.3 | 210 | 13.4 | 400 | 12.0 | 590 | 11.3 |
| 30  | 18.1 | 220 | 13.3 | 410 | 11.9 | 601 | 11.3 |
| 40  | 17.4 | 230 | 13.3 | 420 | 11.8 | 610 | 11.3 |
| 50  | 17.0 | 240 | 13.2 | 431 | 11.7 | 619 | 11.3 |
| 60  | 16.7 | 250 | 13.0 | 441 | 11.7 | 630 | 11.2 |
| 70  | 16.5 | 261 | 12.9 | 451 | 11.7 | 639 | 11.2 |
| 80  | 16.4 | 268 | 12.8 | 461 | 11.6 | 651 | 11.2 |
| 90  | 15.3 | 282 | 12.8 | 468 | 11.6 | 659 | 11.3 |
| 100 | 15.0 | 292 | 12.8 | 481 | 11.6 | 671 | 11.2 |
| 110 | 14.9 | 300 | 12.7 | 491 | 11.6 | 680 | 11.2 |
| 120 | 14.2 | 310 | 12.6 | 501 | 11.5 | 690 | 11.3 |
| 130 | 14.0 | 321 | 12.6 | 509 | 11.6 | 698 | 11.2 |
| 139 | 13.9 | 331 | 12.6 | 519 | 11.5 | 710 | 11.2 |
| 149 | 13.9 | 341 | 12.6 | 531 | 11.5 | 720 | 11.2 |
| 160 | 13.9 | 351 | 12.3 | 541 | 11.4 | 730 | 11.3 |
| 170 | 13.8 | 360 | 12.1 | 549 | 11.5 | 741 | 11.2 |
| 180 | 13.6 | 370 | 12.1 | 559 | 11.5 | 749 | 11.2 |
| 190 | 13.5 | 381 | 12.0 | 569 | 11.4 | 761 | 11.2 |

XBT DROP 091

28 34.1N 112 49.9W

23 NOV 84 0630 MST



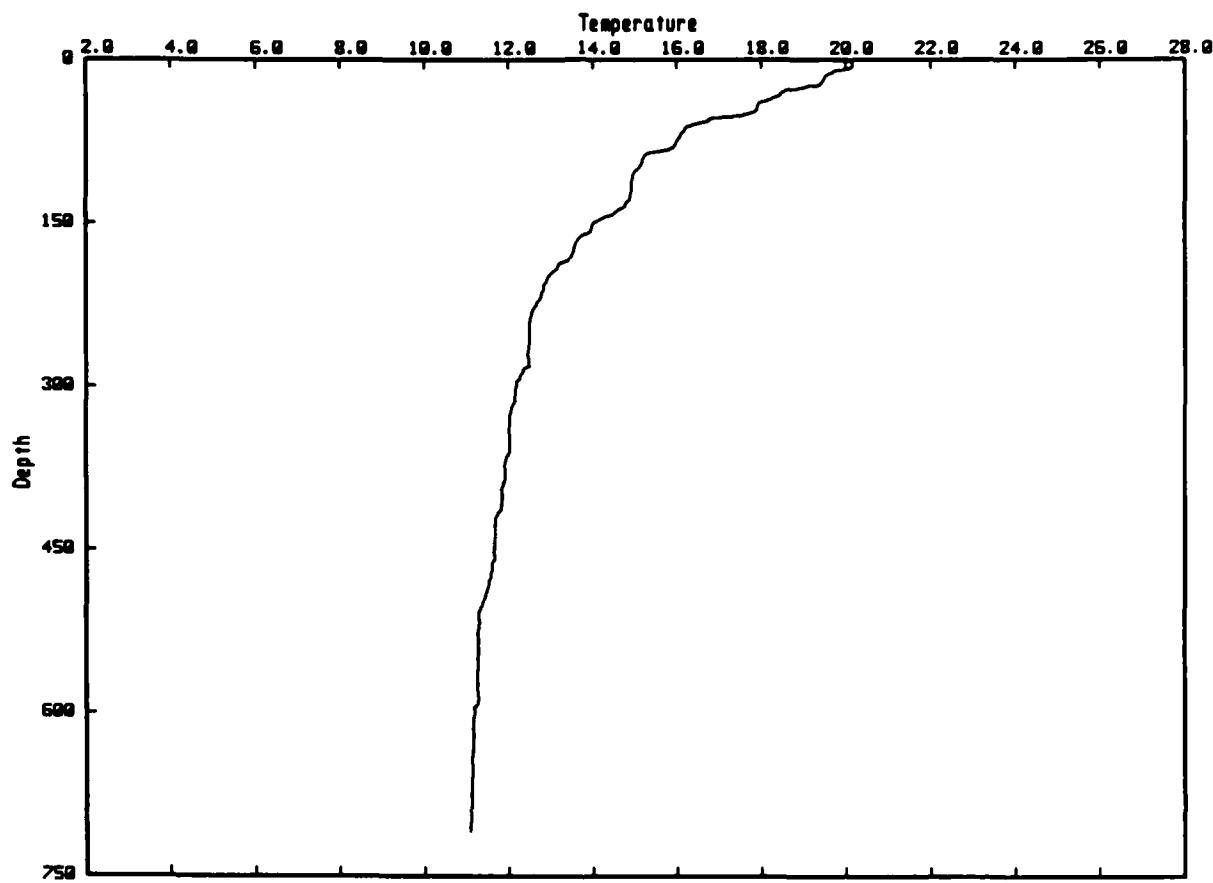
XBT DROP 091 T-7 RADAR: none GULF COORDS: -43.2 246.8  
 JDAY 328 1330Z DEPTH 812m/812m SST 19.94 2M TEMPS: SAIL 20.28 XBT 20.24  
 GULF OF CALIFORNIA: AXBT1-11, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.2 | 200 | 13.9 | 390 | 11.6 | 580 | 11.1 |
| 20  | 18.9 | 210 | 13.9 | 400 | 11.6 | 590 | 11.1 |
| 30  | 18.0 | 220 | 13.7 | 410 | 11.5 | 599 | 11.1 |
| 40  | 17.7 | 230 | 13.6 | 419 | 11.5 | 610 | 11.1 |
| 50  | 17.1 | 240 | 13.6 | 431 | 11.4 | 619 | 11.1 |
| 60  | 16.9 | 250 | 12.9 | 439 | 11.4 | 630 | 11.1 |
| 70  | 16.7 | 260 | 12.6 | 451 | 11.4 | 639 | 11.1 |
| 80  | 16.4 | 270 | 12.5 | 461 | 11.4 | 650 | 11.1 |
| 90  | 16.1 | 280 | 12.4 | 470 | 11.4 | 661 | 11.1 |
| 100 | 15.7 | 290 | 12.1 | 480 | 11.3 | 670 | 11.1 |
| 110 | 15.4 | 300 | 12.1 | 490 | 11.2 | 679 | 11.1 |
| 120 | 15.1 | 309 | 12.0 | 500 | 11.2 | 690 | 11.1 |
| 130 | 14.9 | 321 | 12.0 | 509 | 11.2 | 700 | 11.1 |
| 140 | 14.7 | 330 | 11.9 | 520 | 11.2 | 710 | 11.1 |
| 150 | 14.6 | 340 | 11.9 | 530 | 11.2 | 720 | 11.0 |
| 161 | 14.6 | 349 | 11.9 | 539 | 11.2 | 730 | 11.0 |
| 170 | 14.5 | 360 | 11.8 | 550 | 11.2 | 741 | 11.0 |
| 180 | 14.1 | 370 | 11.6 | 562 | 11.1 | 750 | 11.0 |
| 190 | 14.0 | 380 | 11.6 | 570 | 11.2 | 759 | 11.0 |

XBT DROP 093

28 39.4N 112 56.6W

23 NOV 84 0700 MST



XBT DROP 093 T-7 RADAR: none GULF COORDS: -46.3 261.2  
 JDAY 328 1400Z DEPTH 1300m/710m SST 19.75 2M TEMPS: SAIL 20.30 XBT 20.17  
 GULF OF CALIFORNIA: END AXBT1 LINE, AXBT1-12 (BAD BELOW 710M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 12.9 | 390 | 11.9 | 581 | 11.3 |
| 21  | 19.4 | 209 | 12.8 | 401 | 11.9 | 590 | 11.3 |
| 30  | 18.5 | 220 | 12.7 | 409 | 11.8 | 599 | 11.2 |
| 40  | 17.9 | 230 | 12.6 | 420 | 11.7 | 610 | 11.2 |
| 50  | 17.6 | 240 | 12.5 | 428 | 11.7 | 619 | 11.2 |
| 60  | 16.4 | 249 | 12.5 | 440 | 11.7 | 631 | 11.2 |
| 71  | 16.1 | 260 | 12.5 | 451 | 11.6 | 641 | 11.1 |
| 80  | 15.9 | 270 | 12.4 | 461 | 11.6 | 650 | 11.1 |
| 90  | 15.2 | 280 | 12.5 | 472 | 11.6 | 659 | 11.1 |
| 100 | 15.1 | 290 | 12.3 | 480 | 11.5 | 669 | 11.1 |
| 110 | 14.9 | 300 | 12.2 | 491 | 11.4 | 681 | 11.1 |
| 120 | 14.9 | 310 | 12.1 | 501 | 11.4 | 691 | 11.1 |
| 130 | 14.8 | 320 | 12.1 | 511 | 11.3 | 701 | 11.1 |
| 140 | 14.6 | 330 | 12.0 | 520 | 11.3 | 710 | 11.1 |
| 150 | 14.0 | 340 | 12.0 | 531 | 11.3 |     |      |
| 160 | 13.9 | 350 | 12.0 | 540 | 11.3 |     |      |
| 170 | 13.6 | 360 | 12.0 | 550 | 11.3 |     |      |
| 180 | 13.5 | 371 | 11.9 | 559 | 11.3 |     |      |
| 190 | 13.2 | 379 | 11.9 | 569 | 11.3 |     |      |

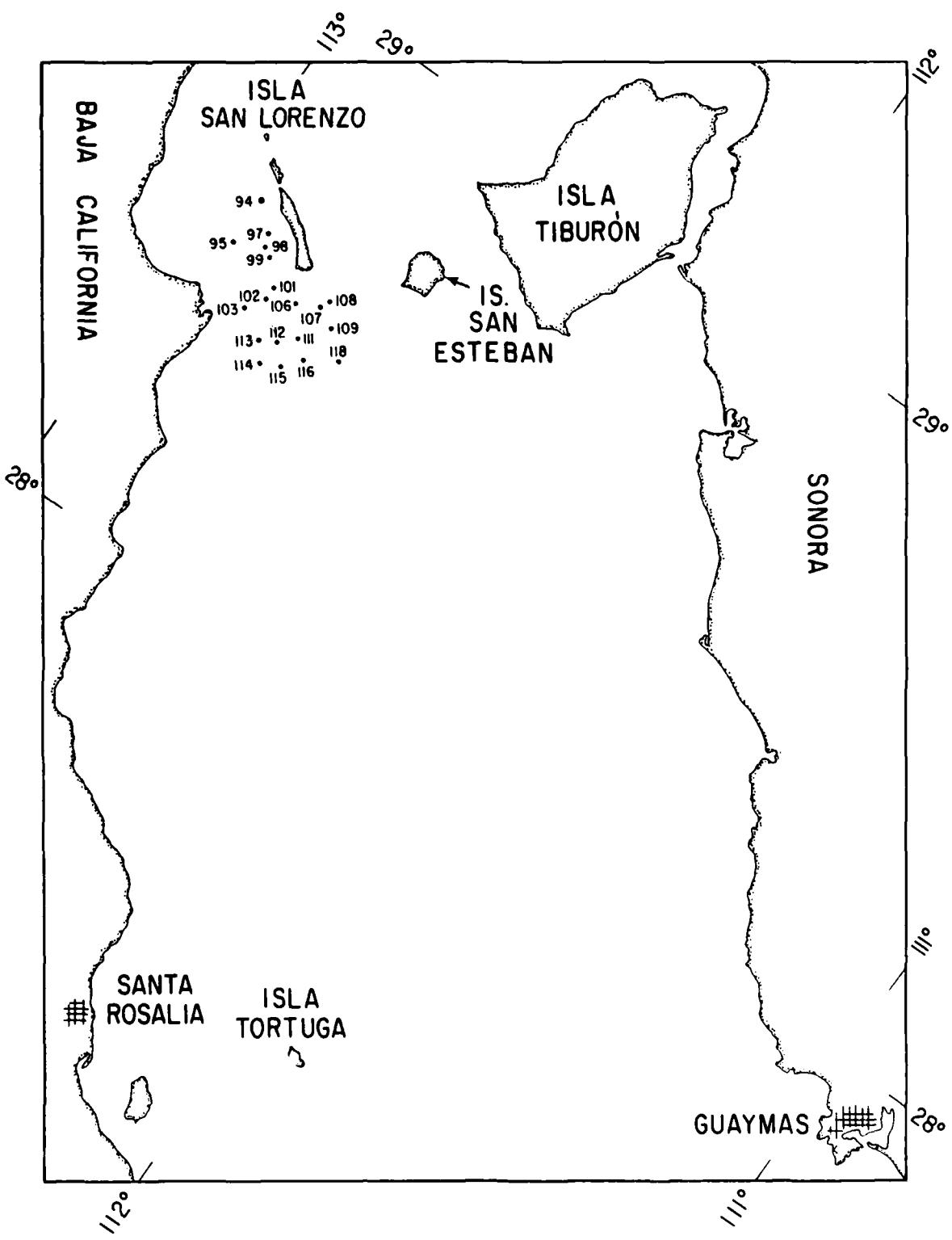
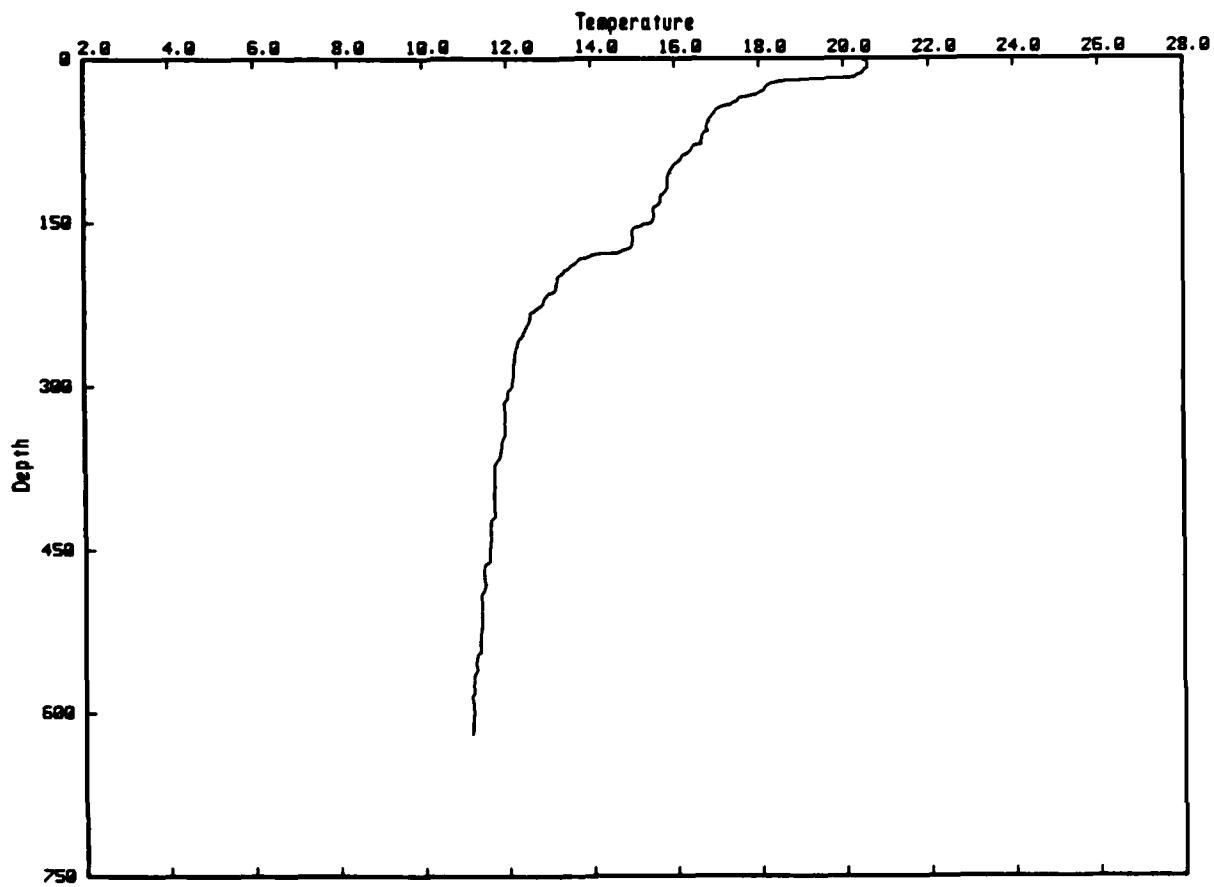


Figure 16. AXBT2 Section: XBT Station Locations

XBT DROP 094

28 38.5N 112 55.5W

23 NOV 84 0903 MST



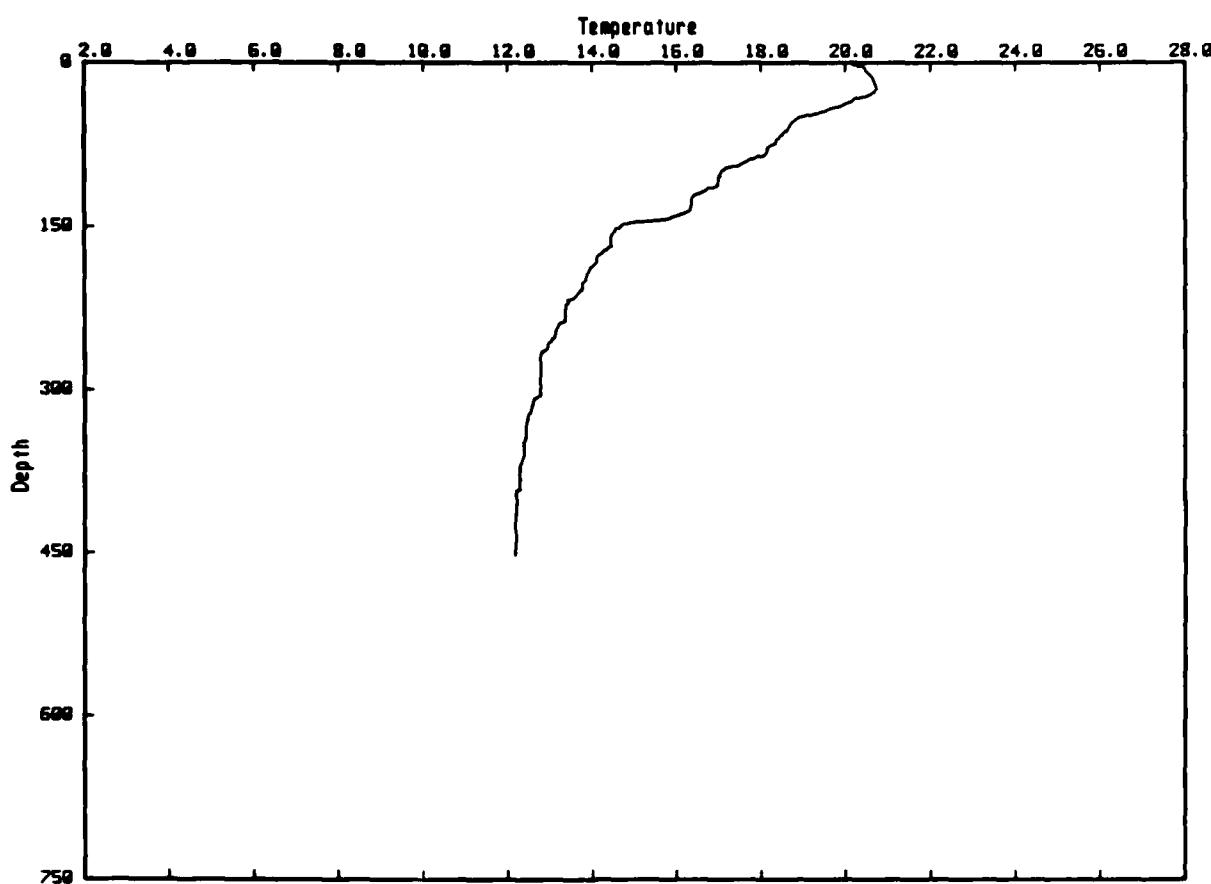
XBT DROP 094 T-7 RADAR: none GULF COORDS: -45.8 258.8  
JDAY 328 1603Z DEPTH 1265m/620m SST 19.70 2M TEMPS: SAIL 20.58 XBT 20.56  
GULF OF CALIFORNIA: UPCAST PC6086 (BAD BELOW 620M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.5 | 201 | 13.2 | 391 | 11.7 | 580 | 11.2 |
| 20  | 19.8 | 209 | 13.2 | 401 | 11.7 | 589 | 11.2 |
| 30  | 18.1 | 220 | 12.9 | 411 | 11.7 | 602 | 11.2 |
| 40  | 17.4 | 230 | 12.7 | 420 | 11.7 | 609 | 11.2 |
| 50  | 16.9 | 239 | 12.5 | 431 | 11.6 | 620 | 11.1 |
| 60  | 16.8 | 250 | 12.4 | 441 | 11.6 |     |      |
| 70  | 16.7 | 261 | 12.3 | 451 | 11.6 |     |      |
| 80  | 16.4 | 271 | 12.2 | 460 | 11.6 |     |      |
| 91  | 16.1 | 280 | 12.2 | 470 | 11.4 |     |      |
| 100 | 16.0 | 290 | 12.1 | 481 | 11.5 |     |      |
| 110 | 15.8 | 300 | 12.1 | 490 | 11.4 |     |      |
| 120 | 15.8 | 310 | 12.0 | 499 | 11.4 |     |      |
| 130 | 15.6 | 318 | 11.9 | 510 | 11.4 |     |      |
| 139 | 15.5 | 331 | 12.0 | 520 | 11.4 |     |      |
| 150 | 15.4 | 343 | 12.0 | 529 | 11.4 |     |      |
| 160 | 15.0 | 349 | 11.9 | 540 | 11.4 |     |      |
| 171 | 15.0 | 360 | 11.9 | 551 | 11.3 |     |      |
| 180 | 14.0 | 371 | 11.7 | 560 | 11.3 |     |      |
| 191 | 13.5 | 380 | 11.7 | 570 | 11.2 |     |      |

XBT DROP 095

28 33.0N 112 55.3W

23 NOV 84 1905 MST



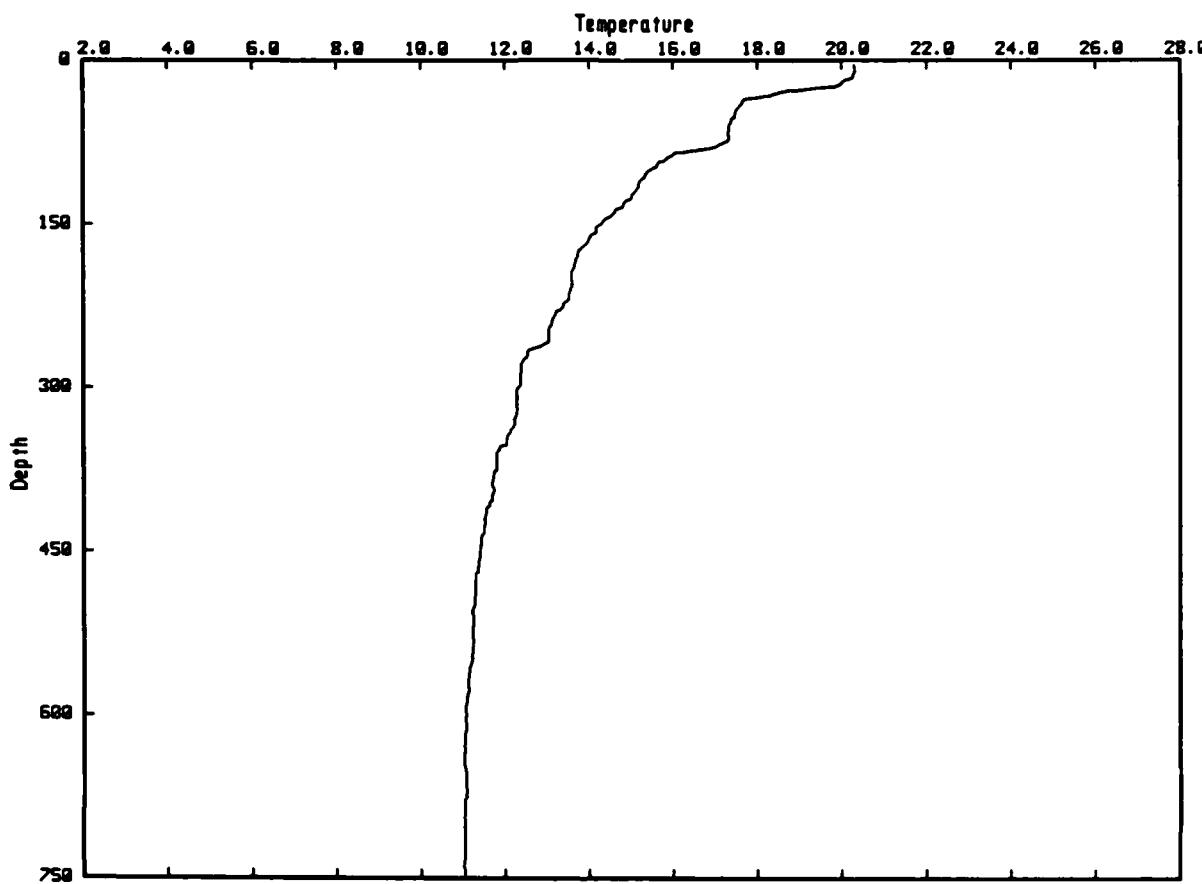
XBT DROP 095 T-7 RADAR: none GULF COORDS: -51.6 250.4  
JDAY 329 2052 DEPTH 453m/453m SST 19.95 2M TEMPS: SAIL 20.32 XBT 20.44  
GULF OF CALIFORNIA: START AXBT2 LINE, AXBT2-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.6 | 200 | 13.8 | 390 | 12.3 |
| 20  | 20.7 | 210 | 13.7 | 400 | 12.2 |
| 30  | 20.5 | 220 | 13.4 | 410 | 12.2 |
| 39  | 19.9 | 230 | 13.4 | 420 | 12.2 |
| 50  | 18.9 | 240 | 13.2 | 430 | 12.2 |
| 60  | 18.6 | 249 | 13.1 | 441 | 12.2 |
| 70  | 18.4 | 261 | 12.9 | 450 | 12.2 |
| 80  | 18.2 | 269 | 12.8 |     |      |
| 90  | 17.7 | 280 | 12.8 |     |      |
| 100 | 17.1 | 289 | 12.8 |     |      |
| 110 | 17.0 | 300 | 12.8 |     |      |
| 120 | 16.5 | 310 | 12.6 |     |      |
| 130 | 16.4 | 320 | 12.6 |     |      |
| 140 | 15.9 | 330 | 12.4 |     |      |
| 150 | 14.7 | 340 | 12.4 |     |      |
| 160 | 14.4 | 350 | 12.4 |     |      |
| 170 | 14.4 | 360 | 12.4 |     |      |
| 181 | 14.1 | 370 | 12.3 |     |      |
| 190 | 13.9 | 379 | 12.3 |     |      |

XBT DROP 097

28 35.9N 112 52.5W

23 NOV 84 1930 MST



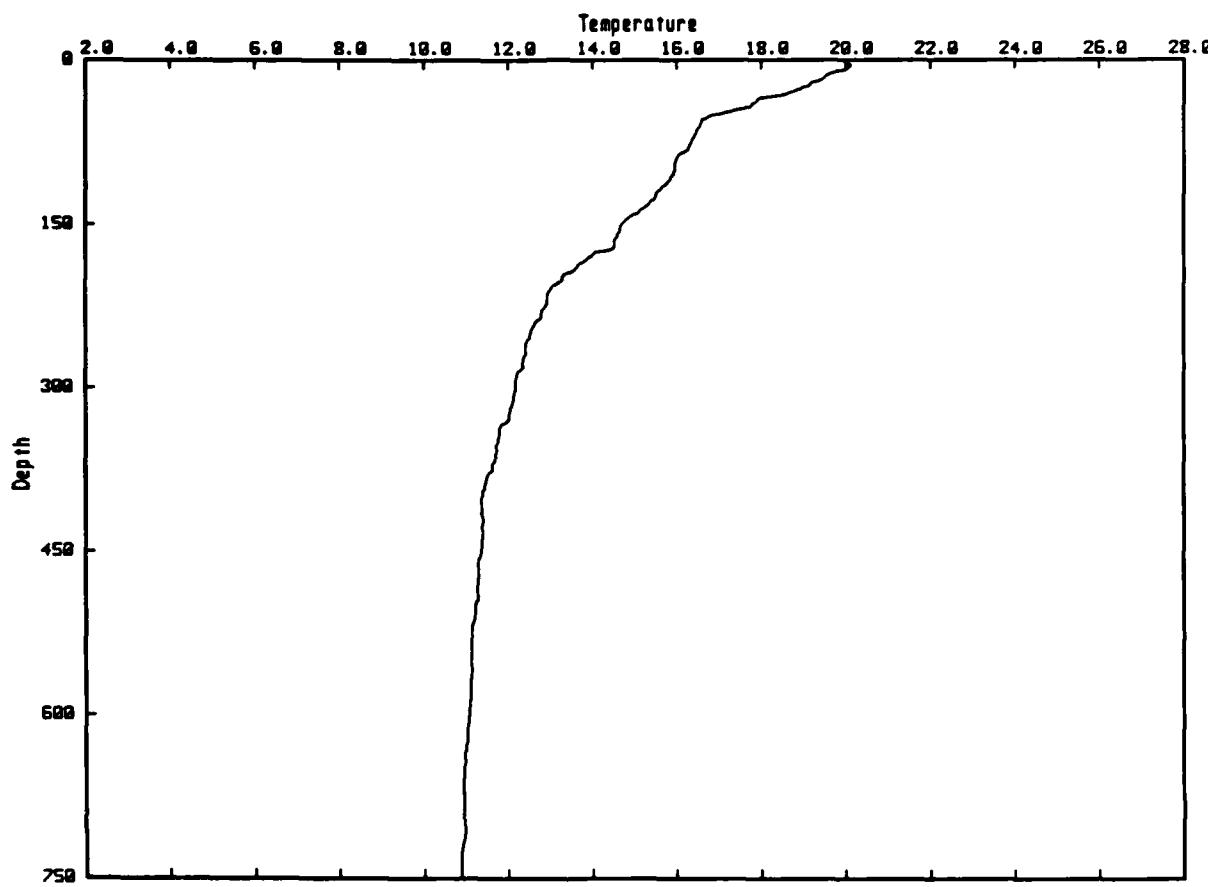
XBT DROP 097 T-7 RADAR: none GULF COORDS: -44.7 252.0  
 JDAY 329 2302 DEPTH 1223m/760m SST 20.05 2M TEMPS: SAIL 20.45 XBT .00  
 GULF OF CALIFORNIA: AXBT2-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 20.3 | 201 | 13.6 | 390 | 11.7 | 581 | 11.1 |
| 20  | 20.0 | 210 | 13.6 | 400 | 11.7 | 590 | 11.1 |
| 30  | 18.5 | 220 | 13.5 | 410 | 11.6 | 600 | 11.1 |
| 40  | 17.6 | 230 | 13.2 | 420 | 11.5 | 611 | 11.1 |
| 50  | 17.5 | 240 | 13.1 | 429 | 11.5 | 621 | 11.1 |
| 60  | 17.3 | 250 | 13.0 | 439 | 11.4 | 630 | 11.0 |
| 70  | 17.3 | 260 | 12.9 | 450 | 11.4 | 641 | 11.0 |
| 80  | 16.9 | 270 | 12.5 | 460 | 11.4 | 650 | 11.1 |
| 89  | 15.9 | 280 | 12.4 | 470 | 11.3 | 660 | 11.1 |
| 100 | 15.5 | 290 | 12.4 | 480 | 11.3 | 671 | 11.1 |
| 110 | 15.2 | 300 | 12.3 | 490 | 11.3 | 681 | 11.0 |
| 120 | 15.1 | 311 | 12.3 | 500 | 11.3 | 690 | 11.1 |
| 131 | 14.8 | 319 | 12.3 | 509 | 11.2 | 699 | 11.1 |
| 140 | 14.6 | 330 | 12.2 | 521 | 11.2 | 710 | 11.0 |
| 150 | 14.3 | 340 | 12.1 | 531 | 11.2 | 721 | 11.1 |
| 160 | 14.1 | 350 | 12.0 | 540 | 11.2 | 730 | 11.0 |
| 170 | 13.9 | 360 | 11.8 | 550 | 11.2 | 740 | 11.0 |
| 180 | 13.7 | 370 | 11.8 | 560 | 11.1 | 750 | 11.1 |
| 190 | 13.6 | 380 | 11.7 | 570 | 11.1 | 759 | 11.1 |

XBT DROP 098

28 34.6N 112 51.7W

23 NOV 84 1942 MST



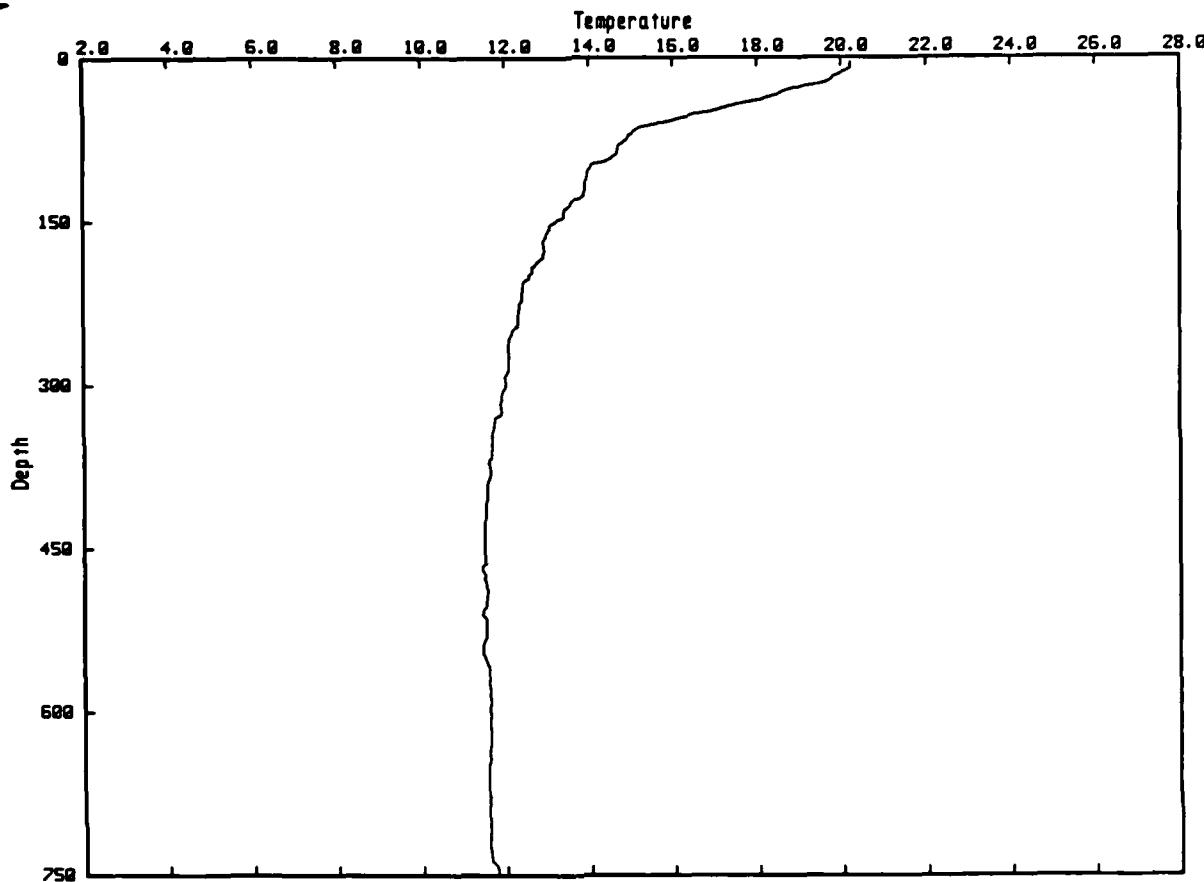
XBT DROP 098 T-7 RADAR: none GULF COORDS: -45.1 249.3  
 JDAY 329 242Z DEPTH 965m/760m SST 19.75 2M TEMPS: SAIL 20.15 XBT 20.09  
 GULF OF CALIFORNIA: AXBT2-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 13.3 | 390 | 11.4 | 580 | 11.1 |
| 20  | 19.3 | 210 | 13.0 | 401 | 11.4 | 590 | 11.1 |
| 30  | 18.7 | 219 | 12.9 | 411 | 11.4 | 600 | 11.1 |
| 40  | 17.8 | 230 | 12.8 | 419 | 11.4 | 610 | 11.0 |
| 50  | 16.9 | 240 | 12.6 | 430 | 11.4 | 620 | 11.0 |
| 60  | 16.5 | 249 | 12.5 | 440 | 11.4 | 631 | 11.0 |
| 70  | 16.4 | 260 | 12.4 | 450 | 11.4 | 641 | 11.0 |
| 80  | 16.3 | 270 | 12.4 | 460 | 11.3 | 649 | 10.9 |
| 90  | 16.0 | 280 | 12.4 | 471 | 11.3 | 659 | 10.9 |
| 101 | 15.9 | 290 | 12.2 | 480 | 11.3 | 668 | 10.9 |
| 110 | 15.8 | 300 | 12.2 | 490 | 11.3 | 679 | 11.0 |
| 120 | 15.6 | 310 | 12.1 | 501 | 11.2 | 691 | 10.9 |
| 130 | 15.4 | 320 | 12.1 | 510 | 11.2 | 700 | 11.0 |
| 140 | 15.1 | 330 | 12.0 | 522 | 11.1 | 710 | 11.0 |
| 150 | 14.7 | 341 | 11.8 | 529 | 11.1 | 720 | 10.9 |
| 160 | 14.6 | 350 | 11.7 | 541 | 11.1 | 729 | 10.9 |
| 170 | 14.5 | 361 | 11.7 | 549 | 11.1 | 740 | 10.9 |
| 180 | 13.9 | 370 | 11.6 | 560 | 11.1 | 751 | 10.9 |
| 190 | 13.6 | 380 | 11.5 | 570 | 11.1 | 760 | 10.9 |

XBT DROP 099

28 33.9N 112 50.5W

23 NOV 84 1954 MST



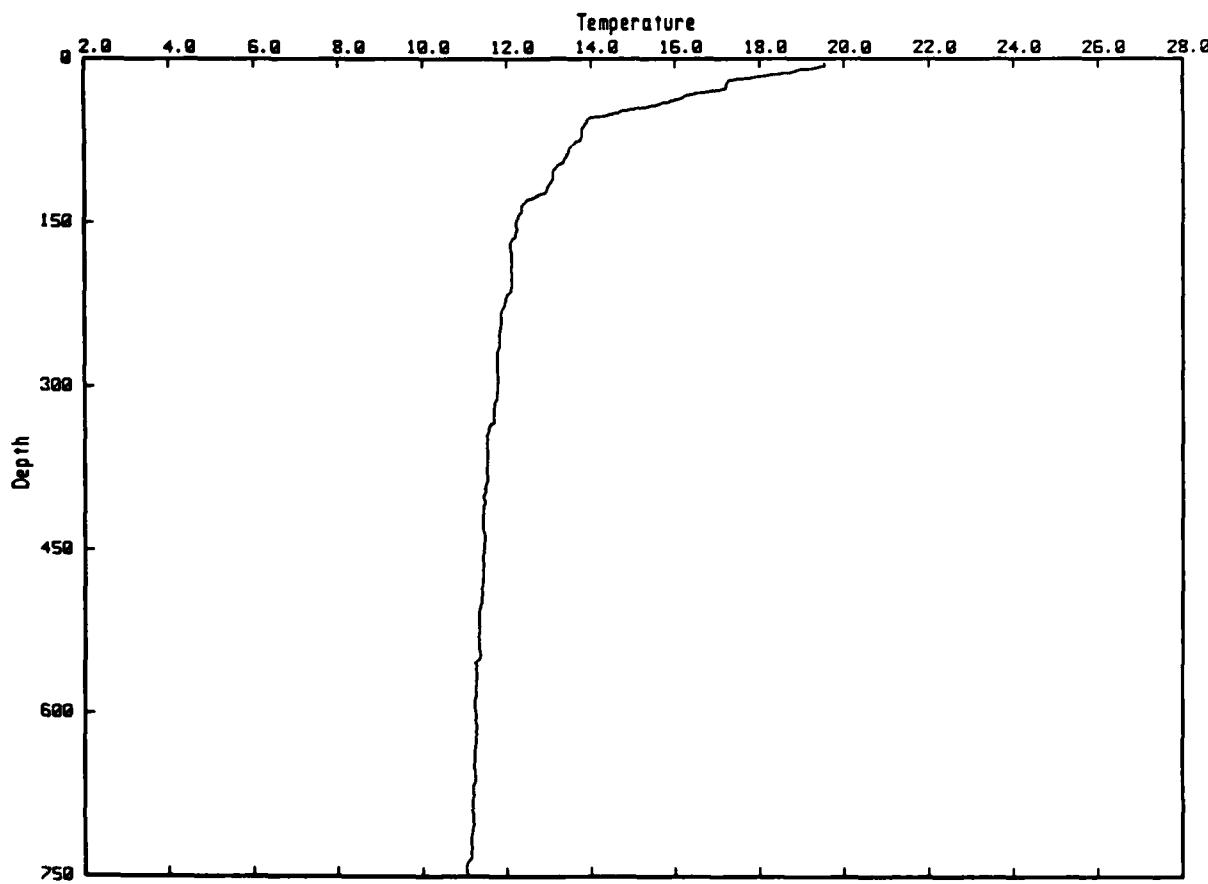
XBT DROP 099 T-7 RADAR: none GULF COORDS: -44.3 247.1  
JDAY 329 254Z DEPTH 914m/760m SST 19.40 2M TEMPS: SAIL 20.32 XBT .00  
GULF OF CALIFORNIA: AXBT2-4. SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 28.2 | 200 | 12.6 | 391 | 11.8 | 581 | 11.6 |
| 20  | 19.8 | 210 | 12.4 | 401 | 11.6 | 590 | 11.6 |
| 30  | 18.7 | 220 | 12.4 | 411 | 11.5 | 599 | 11.6 |
| 40  | 17.9 | 229 | 12.3 | 419 | 11.5 | 609 | 11.6 |
| 50  | 16.8 | 240 | 12.3 | 431 | 11.5 | 618 | 11.6 |
| 60  | 15.7 | 249 | 12.2 | 438 | 11.5 | 629 | 11.6 |
| 70  | 15.0 | 260 | 12.1 | 451 | 11.5 | 641 | 11.6 |
| 80  | 14.7 | 270 | 12.1 | 461 | 11.5 | 651 | 11.6 |
| 90  | 14.6 | 280 | 12.1 | 470 | 11.4 | 658 | 11.6 |
| 100 | 14.0 | 289 | 12.0 | 480 | 11.5 | 669 | 11.6 |
| 110 | 13.9 | 300 | 12.0 | 491 | 11.8 | 680 | 11.6 |
| 120 | 13.9 | 311 | 11.9 | 500 | 11.5 | 690 | 11.6 |
| 130 | 13.7 | 321 | 11.9 | 511 | 11.4 | 701 | 11.6 |
| 140 | 13.4 | 330 | 11.8 | 521 | 11.5 | 710 | 11.6 |
| 150 | 13.2 | 341 | 11.7 | 530 | 11.5 | 720 | 11.6 |
| 160 | 13.0 | 350 | 11.7 | 540 | 11.5 | 729 | 11.6 |
| 170 | 12.9 | 360 | 11.7 | 550 | 11.5 | 740 | 11.7 |
| 180 | 12.9 | 371 | 11.6 | 560 | 11.6 | 751 | 11.8 |
| 190 | 12.7 | 379 | 11.6 | 571 | 11.6 | 760 | 11.8 |

XBT DROP 101

28 31.5N 112 48.0W

23 NOV 84 2010 MST



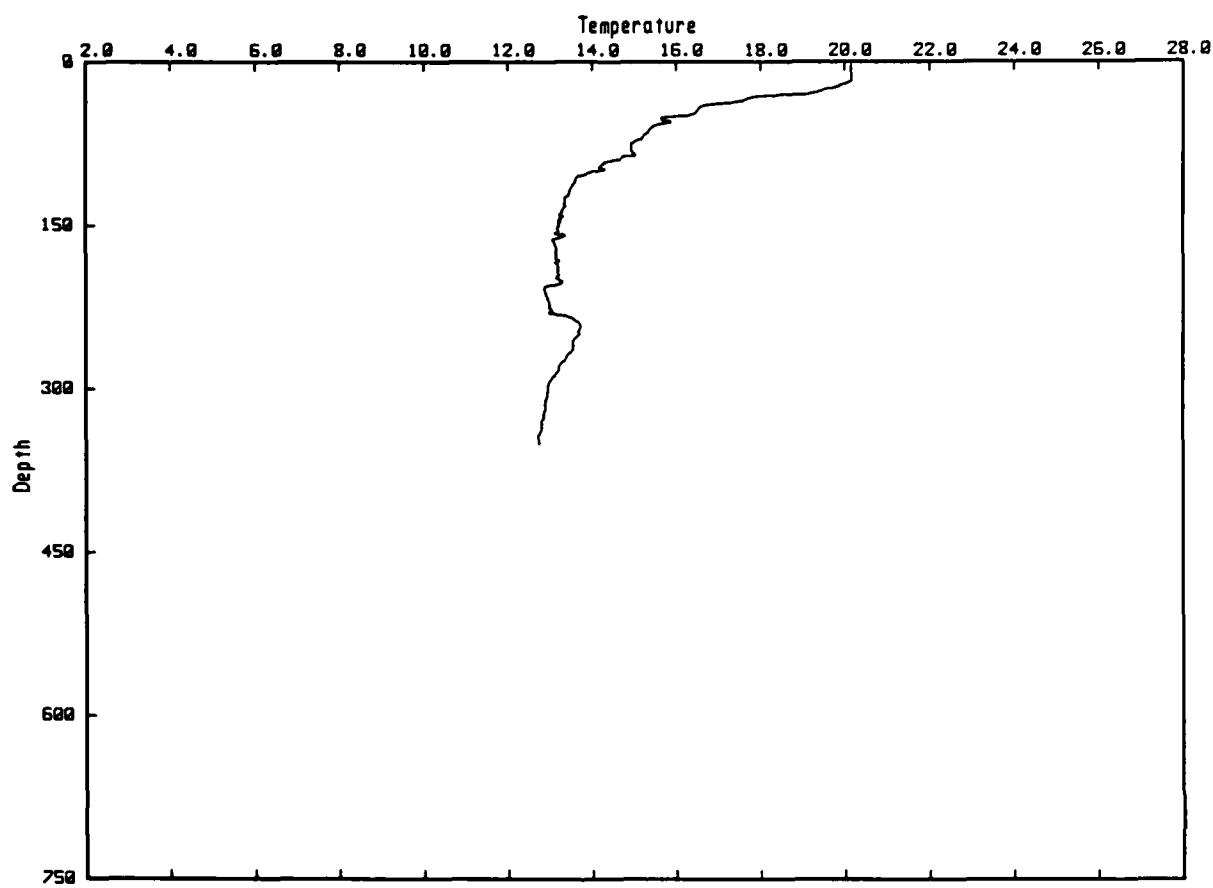
XBT DROP 101 T-7 RADAR: none GULF COORDS: -43.6 241.1  
 JDAY 329 310Z DEPTH 969m/760m SST 19.85 2M TEMPS: SAIL 19.68 XBT 19.54  
 GULF OF CALIFORNIA: AXBT2-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 19.0 | 199 | 12.1 | 391 | 11.5 | 579 | 11.3 |
| 20  | 17.3 | 209 | 12.1 | 400 | 11.4 | 591 | 11.2 |
| 30  | 16.9 | 220 | 12.0 | 409 | 11.4 | 599 | 11.3 |
| 40  | 15.8 | 229 | 11.9 | 421 | 11.4 | 610 | 11.3 |
| 50  | 14.6 | 241 | 11.9 | 430 | 11.4 | 619 | 11.3 |
| 60  | 13.9 | 250 | 11.8 | 440 | 11.5 | 630 | 11.3 |
| 69  | 13.8 | 260 | 11.8 | 451 | 11.4 | 638 | 11.2 |
| 80  | 13.5 | 270 | 11.8 | 459 | 11.4 | 650 | 11.2 |
| 90  | 13.4 | 280 | 11.8 | 470 | 11.4 | 660 | 11.3 |
| 100 | 13.2 | 290 | 11.8 | 480 | 11.4 | 668 | 11.2 |
| 110 | 13.1 | 301 | 11.8 | 491 | 11.4 | 681 | 11.2 |
| 120 | 12.9 | 310 | 11.8 | 499 | 11.4 | 690 | 11.2 |
| 130 | 12.4 | 319 | 11.7 | 510 | 11.4 | 699 | 11.2 |
| 140 | 12.3 | 329 | 11.7 | 519 | 11.4 | 710 | 11.2 |
| 150 | 12.2 | 340 | 11.6 | 529 | 11.3 | 720 | 11.1 |
| 160 | 12.2 | 349 | 11.5 | 540 | 11.3 | 731 | 11.2 |
| 171 | 12.1 | 360 | 11.6 | 551 | 11.3 | 739 | 11.1 |
| 181 | 12.1 | 369 | 11.5 | 561 | 11.3 | 748 | 11.1 |
| 189 | 12.1 | 380 | 11.5 | 570 | 11.3 | 760 | 11.1 |

XBT DROP 102

28 30.0N 112 48.0W

23 NOV 84 2022 MST



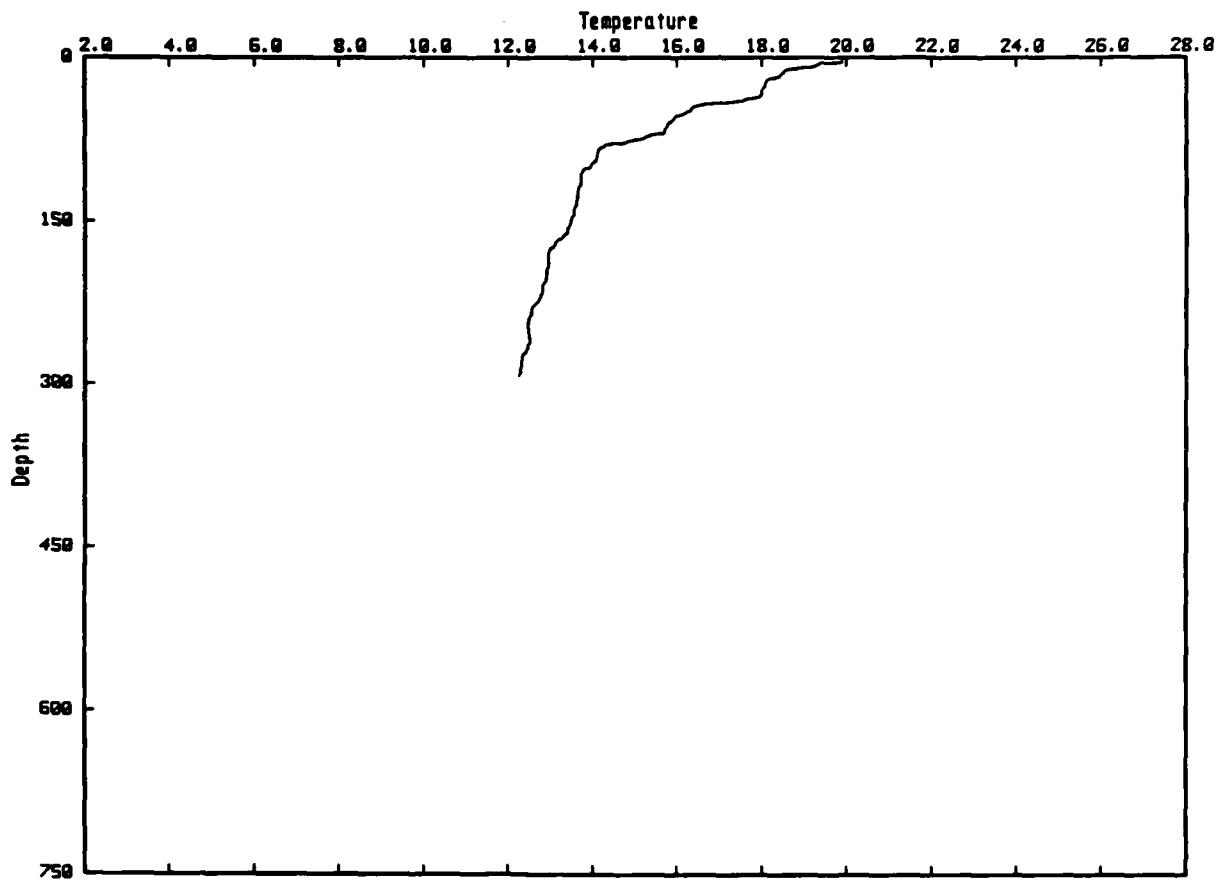
XBT DROP 102 T-7 RADAR: none GULF COORDS: -45.2 238.9  
JDAY 329 322Z DEPTH 351m/760m SST 19.30 2M TEMPS: SAIL 20.18 XBT 20.16  
GULF OF CALIFORNIA: AXBT2-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 20.2 | 200 | 13.2 |
| 20  | 20.0 | 209 | 12.9 |
| 30  | 19.1 | 220 | 13.0 |
| 40  | 16.7 | 230 | 13.0 |
| 50  | 16.0 | 240 | 13.7 |
| 60  | 15.4 | 250 | 13.7 |
| 70  | 15.2 | 260 | 13.6 |
| 80  | 14.9 | 271 | 13.4 |
| 90  | 14.5 | 280 | 13.2 |
| 100 | 14.1 | 290 | 13.1 |
| 110 | 13.6 | 301 | 13.0 |
| 120 | 13.5 | 310 | 12.9 |
| 130 | 13.3 | 320 | 12.9 |
| 140 | 13.2 | 330 | 12.8 |
| 150 | 13.2 | 340 | 12.8 |
| 160 | 13.3 | 350 | 12.7 |
| 170 | 13.2 |     |      |
| 180 | 13.1 |     |      |
| 190 | 13.2 |     |      |

XBT DROP 103

28 28.0N 112 49.5W

23 NOV 84 2034 MST



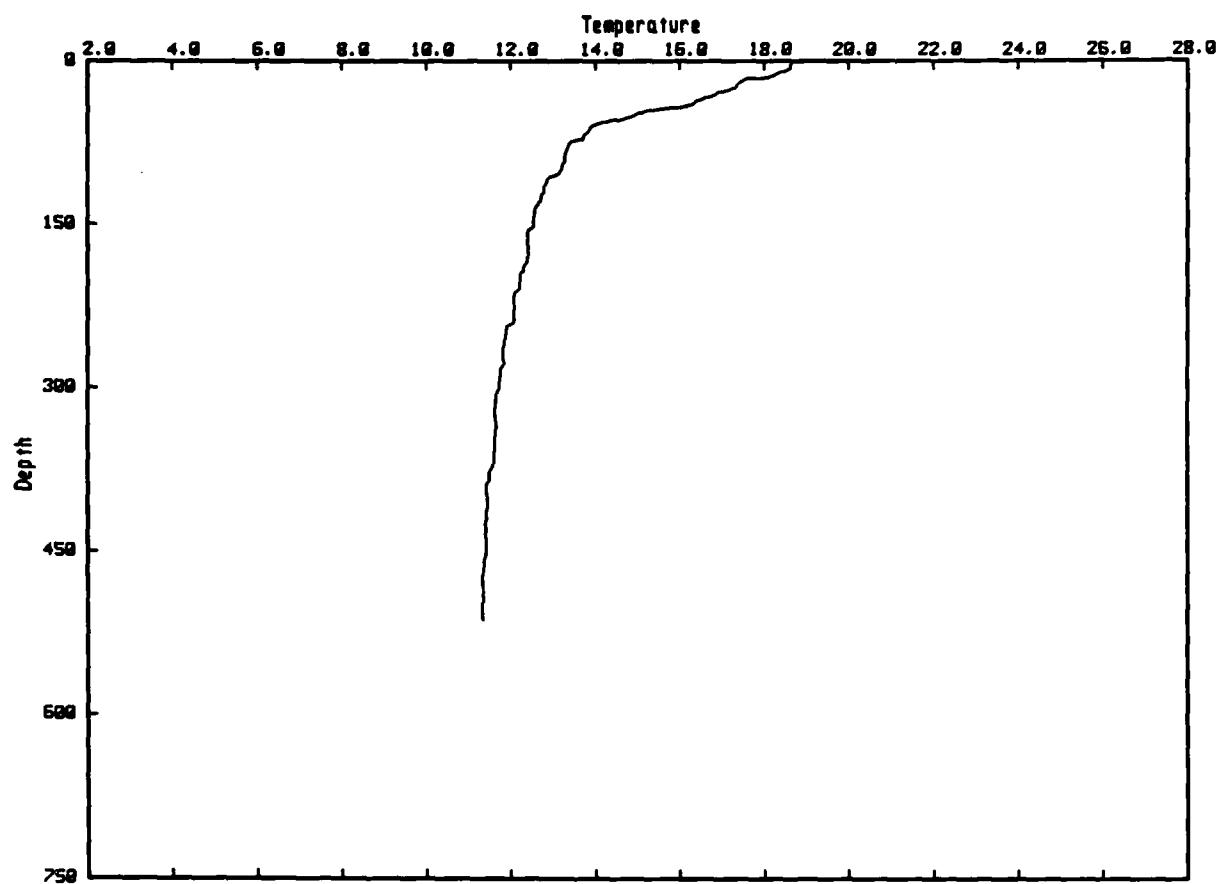
XBT DROP 103 T-7 RADAR: none GULF COORDS: -49.4 237.4  
JDAY 329 334Z DEPTH 294m/294m SST 19.68 2M TEMPS: SAIL 20.08 XBT 19.91  
GULF OF CALIFORNIA: AXBT2-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.8 | 200 | 12.9 |
| 20  | 18.2 | 211 | 12.8 |
| 30  | 18.0 | 221 | 12.7 |
| 40  | 17.4 | 230 | 12.6 |
| 50  | 18.2 | 240 | 12.5 |
| 60  | 15.8 | 250 | 12.5 |
| 70  | 15.5 | 261 | 12.5 |
| 80  | 14.3 | 270 | 12.4 |
| 90  | 14.1 | 280 | 12.3 |
| 100 | 13.9 | 290 | 12.3 |
| 111 | 13.7 |     |      |
| 121 | 13.6 |     |      |
| 131 | 13.6 |     |      |
| 140 | 13.6 |     |      |
| 150 | 13.5 |     |      |
| 160 | 13.4 |     |      |
| 170 | 13.1 |     |      |
| 180 | 12.9 |     |      |
| 190 | 12.9 |     |      |

XBT DROP 106

28 31.5N 112 44.8W

23 NOV 84 2107 MST



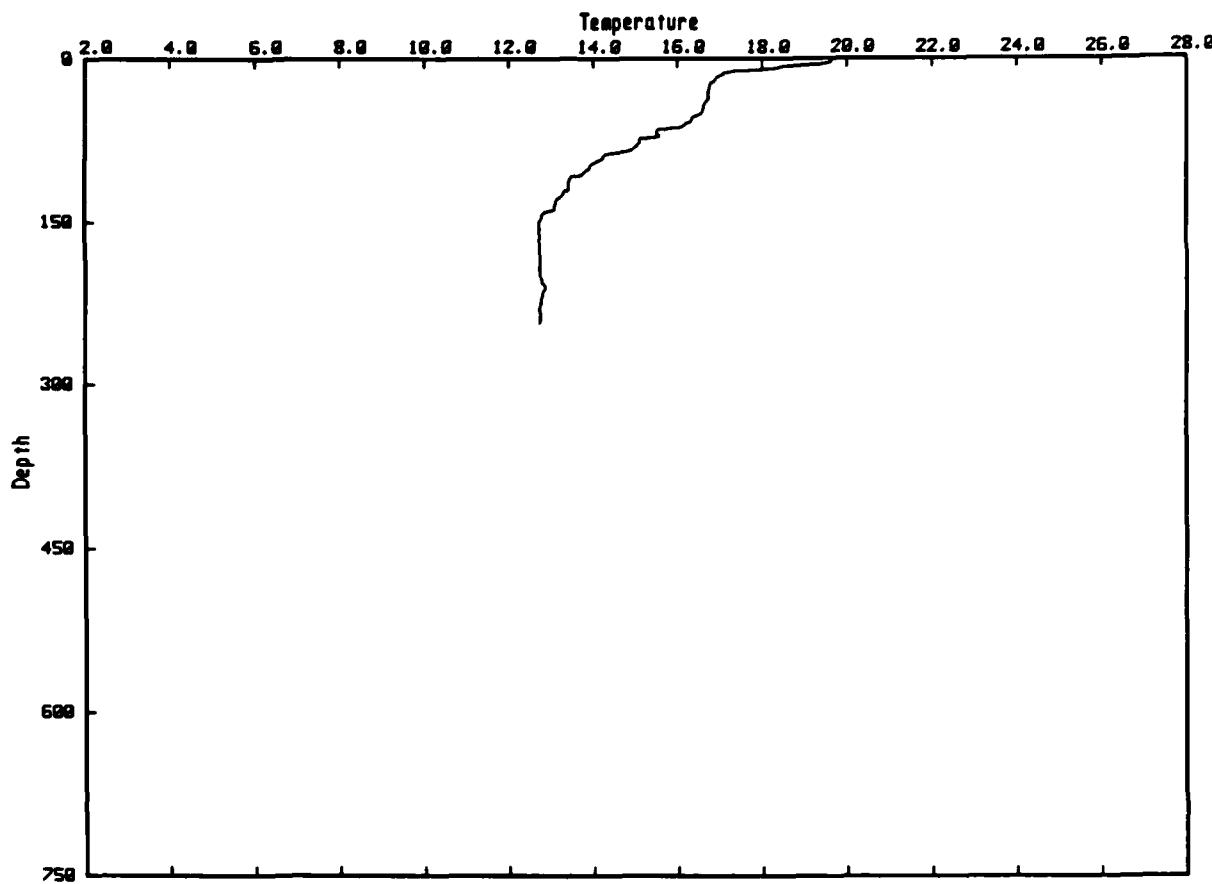
XBT DROP 106 T-7 RADAR: none GULF COORDS: -39.3 238.0  
JDAY 329 407Z DEPTH 980m/512m SST 18.45 2M TEMPS: SAIL 19.08 XBT 18.63  
GULF OF CALIFORNIA: AXBT2-7, SPRING TIDE (BAD AFTER 510 M)

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 18.4 | 201 | 12.2 | 390 | 11.4 |
| 20  | 17.4 | 210 | 12.2 | 400 | 11.4 |
| 30  | 16.9 | 220 | 12.1 | 411 | 11.4 |
| 40  | 16.3 | 230 | 12.1 | 420 | 11.4 |
| 50  | 14.9 | 240 | 12.1 | 430 | 11.4 |
| 60  | 13.9 | 250 | 11.9 | 439 | 11.4 |
| 70  | 13.7 | 259 | 11.9 | 450 | 11.4 |
| 80  | 13.4 | 270 | 11.8 | 461 | 11.4 |
| 90  | 13.3 | 280 | 11.8 | 470 | 11.4 |
| 100 | 13.2 | 290 | 11.7 | 481 | 11.4 |
| 110 | 12.9 | 300 | 11.7 | 489 | 11.4 |
| 120 | 12.8 | 310 | 11.7 | 500 | 11.4 |
| 130 | 12.7 | 320 | 11.6 | 510 | 11.3 |
| 141 | 12.6 | 329 | 11.6 |     |      |
| 150 | 12.6 | 340 | 11.7 |     |      |
| 160 | 12.4 | 350 | 11.6 |     |      |
| 169 | 12.4 | 359 | 11.6 |     |      |
| 179 | 12.4 | 370 | 11.6 |     |      |
| 190 | 12.3 | 380 | 11.5 |     |      |

XBT DROP 107

28 32.7N 112 42.1W

23 NOV 84 2119 MST



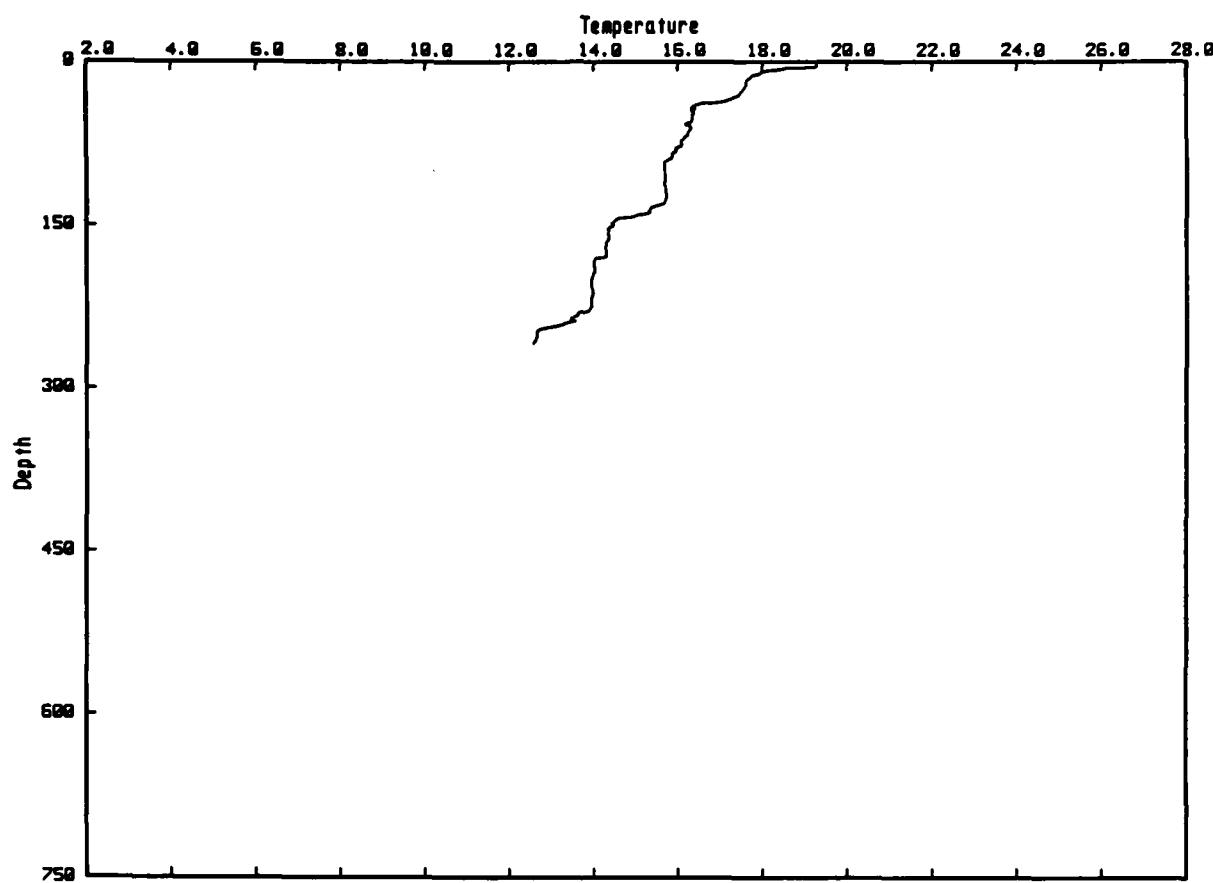
XBT DROP 107 T-7 RADAR: none GULF COORDS: -34.4 237.2  
JDAY 329 419Z DEPTH 244m/244m SST 19.42 2M TEMPS: SAIL 19.14 XBT 19.56  
GULF OF CALIFORNIA: AXBT2-8, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.1 | 200 | 12.8 |
| 20  | 16.9 | 210 | 12.9 |
| 30  | 16.7 | 220 | 12.8 |
| 40  | 16.7 | 231 | 12.7 |
| 50  | 16.6 | 241 | 12.7 |
| 60  | 16.2 |     |      |
| 70  | 15.6 |     |      |
| 80  | 15.0 |     |      |
| 90  | 14.2 |     |      |
| 100 | 13.9 |     |      |
| 110 | 13.4 |     |      |
| 120 | 13.4 |     |      |
| 130 | 13.1 |     |      |
| 140 | 13.0 |     |      |
| 150 | 12.7 |     |      |
| 161 | 12.7 |     |      |
| 171 | 12.7 |     |      |
| 180 | 12.7 |     |      |
| 189 | 12.7 |     |      |

XBT DROP 108

28 33.8N 112 41.6W

23 NOV 84 2131 MST



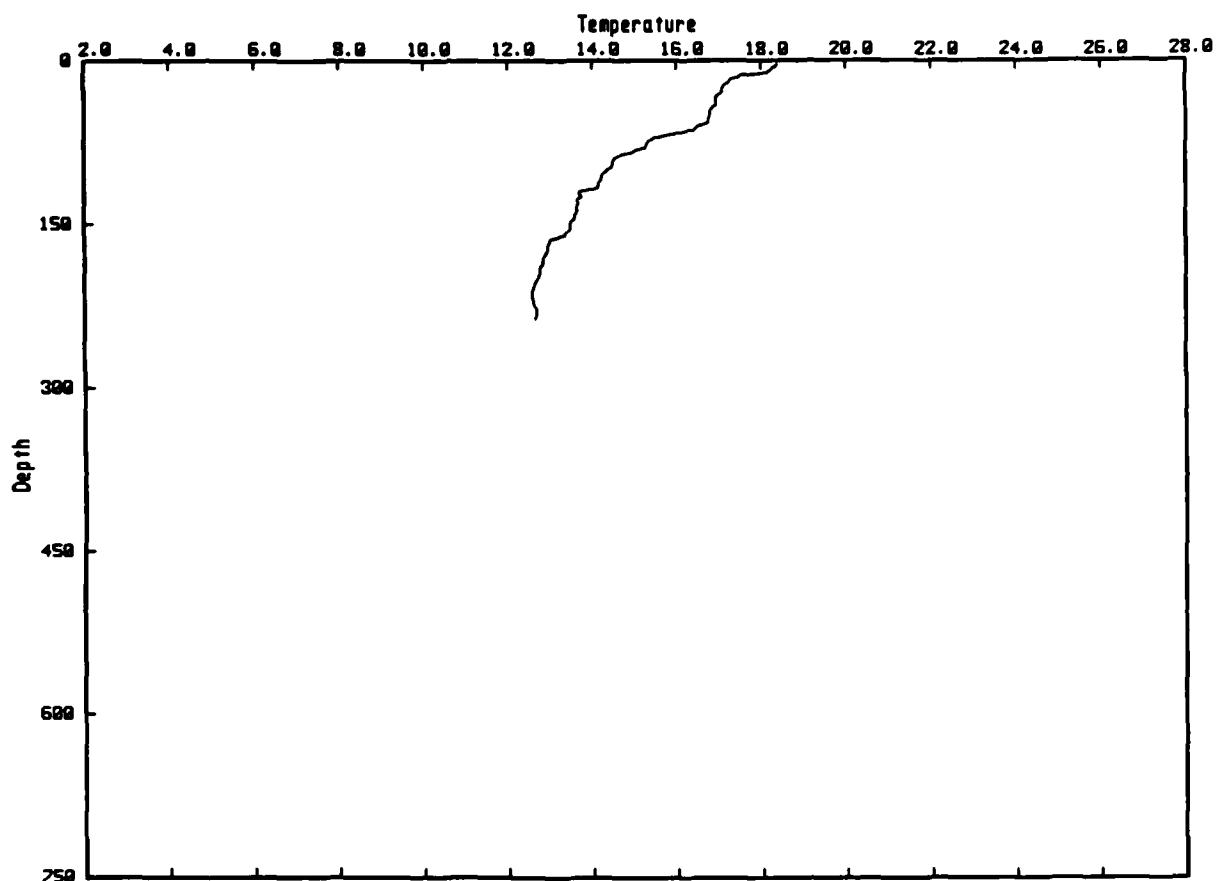
XBT DROP 108 T-7 RADAR: none GULF COORDS: -32.6 238.4  
JDAY 329 431Z DEPTH 259m/259m SST 18.85 2M TEMPS: SAIL 19.09 XBT 19.29  
GULF OF CALIFORNIA: AXBT2-9, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.0 | 200 | 13.9 |
| 21  | 17.8 | 209 | 14.0 |
| 30  | 17.4 | 219 | 13.9 |
| 40  | 16.4 | 230 | 13.6 |
| 50  | 16.4 | 240 | 13.3 |
| 60  | 16.3 | 250 | 12.8 |
| 70  | 16.1 | 259 | 12.6 |
| 80  | 15.9 |     |      |
| 90  | 15.7 |     |      |
| 100 | 15.7 |     |      |
| 110 | 15.7 |     |      |
| 120 | 15.7 |     |      |
| 130 | 15.6 |     |      |
| 140 | 15.1 |     |      |
| 150 | 14.5 |     |      |
| 160 | 14.4 |     |      |
| 170 | 14.3 |     |      |
| 180 | 14.0 |     |      |
| 190 | 14.0 |     |      |

XBT DROP 109

28 31.6N 112 39.5W

23 NOV 84 2150 MST



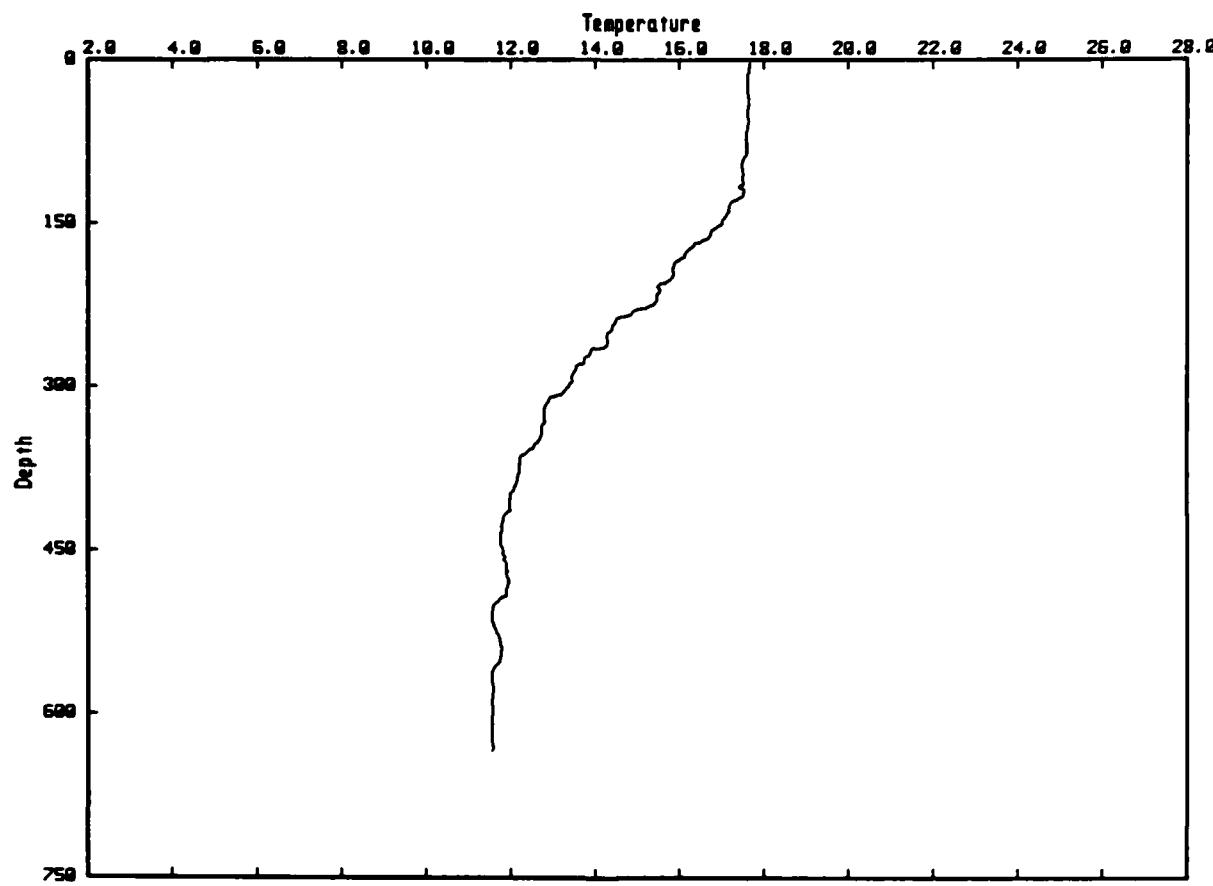
XBT DROP 109 T-7 RADAR: none  
JDAY 329 4502 DEPTH 247m/238m SST 18.17 GULF COORDS: -32.2 233.1  
GULF OF CALIFORNIA: AXBT2-10, SPRING TIDE 2M TEMPS: SAIL 18.19 XBT 18.38

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.2 | 200 | 12.7 |
| 20  | 17.3 | 210 | 12.6 |
| 30  | 17.1 | 220 | 12.6 |
| 41  | 16.9 | 231 | 12.7 |
| 49  | 16.8 | 238 | 12.6 |
| 60  | 16.6 |     |      |
| 70  | 15.6 |     |      |
| 80  | 15.3 |     |      |
| 91  | 14.5 |     |      |
| 100 | 14.4 |     |      |
| 110 | 14.2 |     |      |
| 120 | 13.7 |     |      |
| 130 | 13.7 |     |      |
| 140 | 13.6 |     |      |
| 150 | 13.5 |     |      |
| 160 | 13.3 |     |      |
| 171 | 12.9 |     |      |
| 180 | 12.8 |     |      |
| 190 | 12.8 |     |      |

XBT DROP 111

28 28.6N 112 42.1W

23 NOV 84 2214 MST



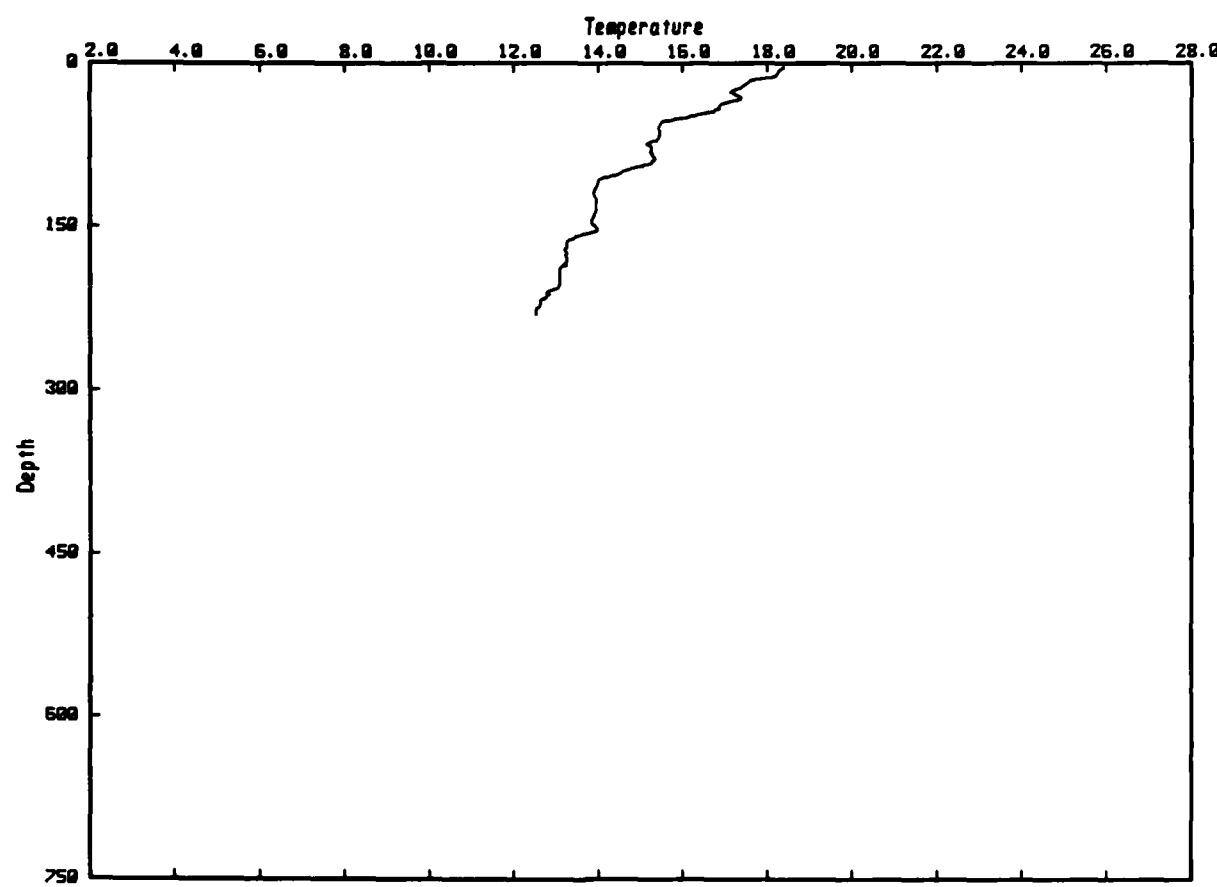
XBT DROP 111 T-7 RADAR: none GULF COORDS: -38.9 231.1  
JDAY 329 514Z DEPTH 634m/634m SST 17.35 2M TEMPS: SAIL 18.25 XBT 17.67  
GULF OF CALIFORNIA: AXBT2-11, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 17.7 | 200 | 15.8 | 390 | 12.1 | 580 | 11.6 |
| 20  | 17.6 | 210 | 15.5 | 399 | 12.0 | 589 | 11.6 |
| 30  | 17.6 | 220 | 15.5 | 410 | 12.0 | 601 | 11.6 |
| 40  | 17.6 | 230 | 14.9 | 419 | 11.8 | 609 | 11.6 |
| 50  | 17.6 | 240 | 14.5 | 430 | 11.8 | 620 | 11.6 |
| 61  | 17.6 | 250 | 14.3 | 440 | 11.8 | 630 | 11.6 |
| 69  | 17.6 | 260 | 14.3 | 450 | 11.8 |     |      |
| 80  | 17.6 | 270 | 13.9 | 460 | 11.9 |     |      |
| 90  | 17.5 | 280 | 13.6 | 470 | 11.9 |     |      |
| 101 | 17.5 | 290 | 13.4 | 480 | 12.0 |     |      |
| 110 | 17.5 | 300 | 13.4 | 490 | 11.9 |     |      |
| 120 | 17.6 | 310 | 13.0 | 500 | 11.6 |     |      |
| 130 | 17.2 | 320 | 12.8 | 511 | 11.6 |     |      |
| 140 | 17.2 | 330 | 12.8 | 520 | 11.6 |     |      |
| 150 | 17.0 | 340 | 12.7 | 530 | 11.7 |     |      |
| 160 | 16.7 | 350 | 12.7 | 540 | 11.8 |     |      |
| 171 | 16.3 | 360 | 12.4 | 550 | 11.7 |     |      |
| 180 | 16.1 | 370 | 12.2 | 559 | 11.6 |     |      |
| 191 | 15.9 | 380 | 12.2 | 570 | 11.6 |     |      |

XBT DROP 112

28 27.0N 112 43.8W

23 NOV 84 2226 MST



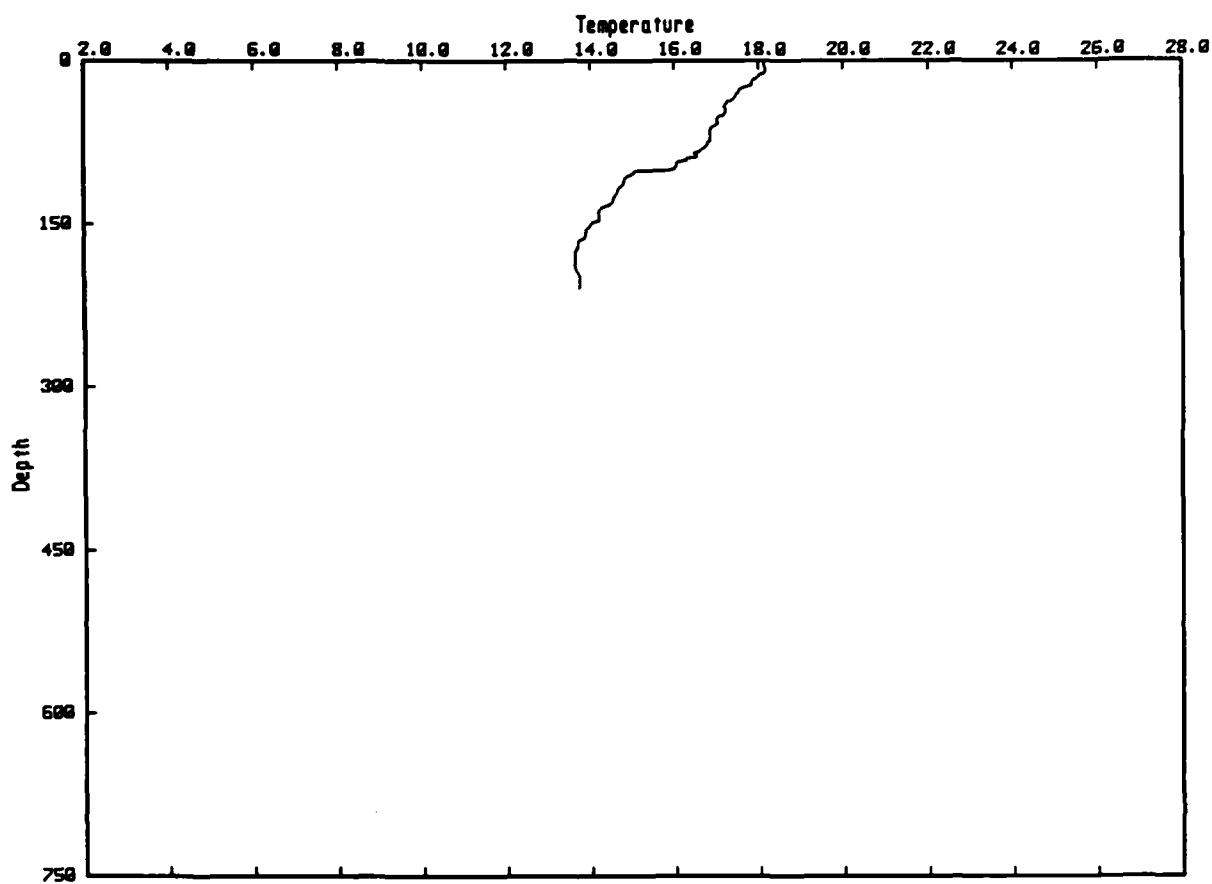
XBT DROP 112 T-7 RADAR: none GULF COORDS: -43.0 230.4  
JDAY 329 526Z DEPTH 231m/231m SST 18.60 2M TEMPS: SAIL 18.42 XBT 18.39  
GULF OF CALIFORNIA: AXBT2-12, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.2 | 200 | 13.1 |
| 20  | 17.5 | 210 | 12.8 |
| 30  | 17.3 | 220 | 12.6 |
| 40  | 16.9 | 230 | 12.5 |
| 50  | 16.1 |     |      |
| 60  | 15.4 |     |      |
| 70  | 15.4 |     |      |
| 81  | 15.2 |     |      |
| 90  | 15.3 |     |      |
| 100 | 14.6 |     |      |
| 110 | 14.0 |     |      |
| 121 | 13.9 |     |      |
| 130 | 13.9 |     |      |
| 140 | 13.9 |     |      |
| 150 | 13.9 |     |      |
| 161 | 13.4 |     |      |
| 170 | 13.2 |     |      |
| 180 | 13.3 |     |      |
| 190 | 13.1 |     |      |

XBT DROP 113

28 26.0N 112 45.8W

23 NOV 84 2238 MST



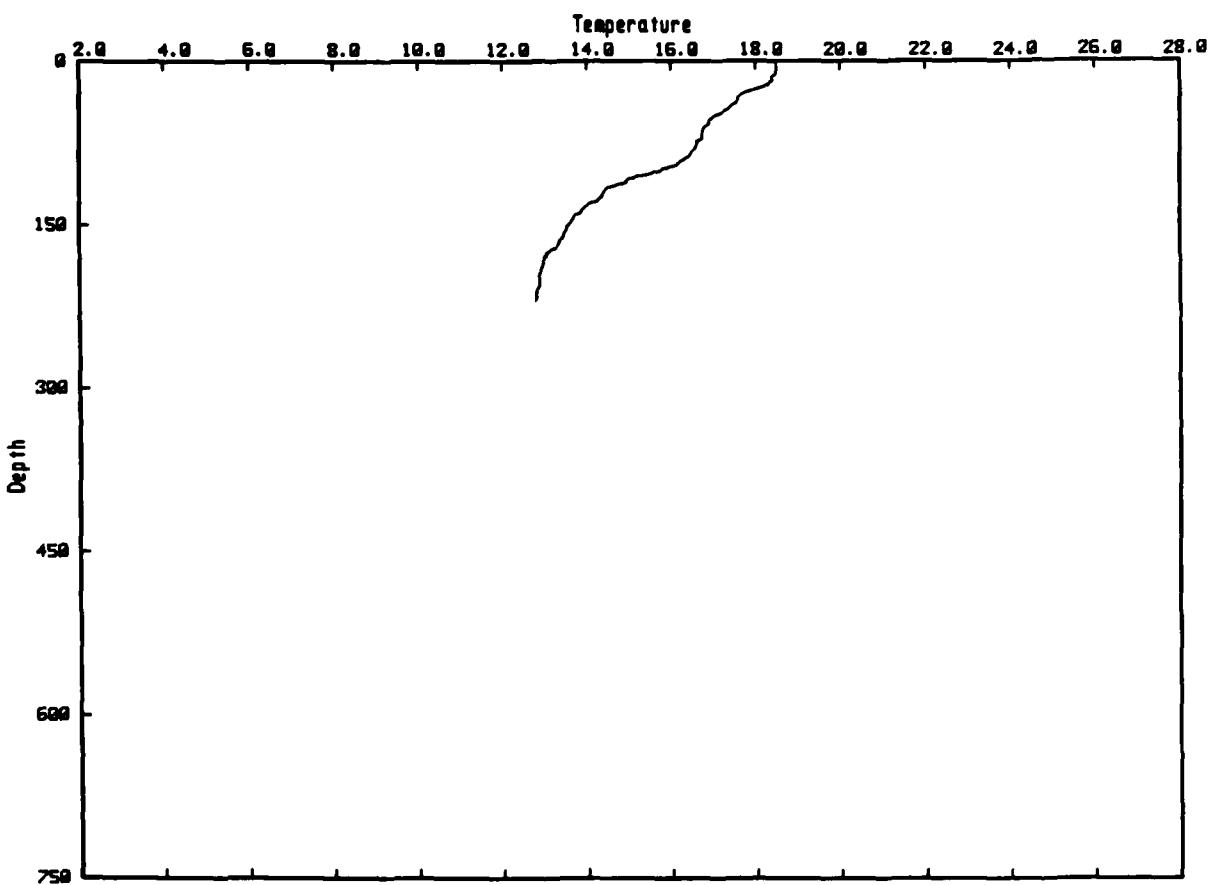
XBT DROP 113 T-7 RADAR: none GULF COORDS: -46.7 230.8  
JDAY 329 538Z DEPTH 250m/209m SST 18.08 2M TEMPS: SAIL 18.20 XBT 18.14  
GULF OF CALIFORNIA: AXBT2-13, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.2 | 200 | 13.7 |
| 20  | 17.9 | 209 | 13.7 |
| 30  | 17.5 |     |      |
| 40  | 17.2 |     |      |
| 50  | 17.2 |     |      |
| 60  | 17.0 |     |      |
| 70  | 16.9 |     |      |
| 80  | 16.7 |     |      |
| 90  | 16.3 |     |      |
| 100 | 16.0 |     |      |
| 110 | 14.8 |     |      |
| 120 | 14.6 |     |      |
| 130 | 14.5 |     |      |
| 140 | 14.2 |     |      |
| 150 | 14.0 |     |      |
| 160 | 13.9 |     |      |
| 170 | 13.7 |     |      |
| 180 | 13.6 |     |      |
| 190 | 13.6 |     |      |

XBT DROP 114

28 24.0N 112 44.0W

23 NOV 84 2306 MST



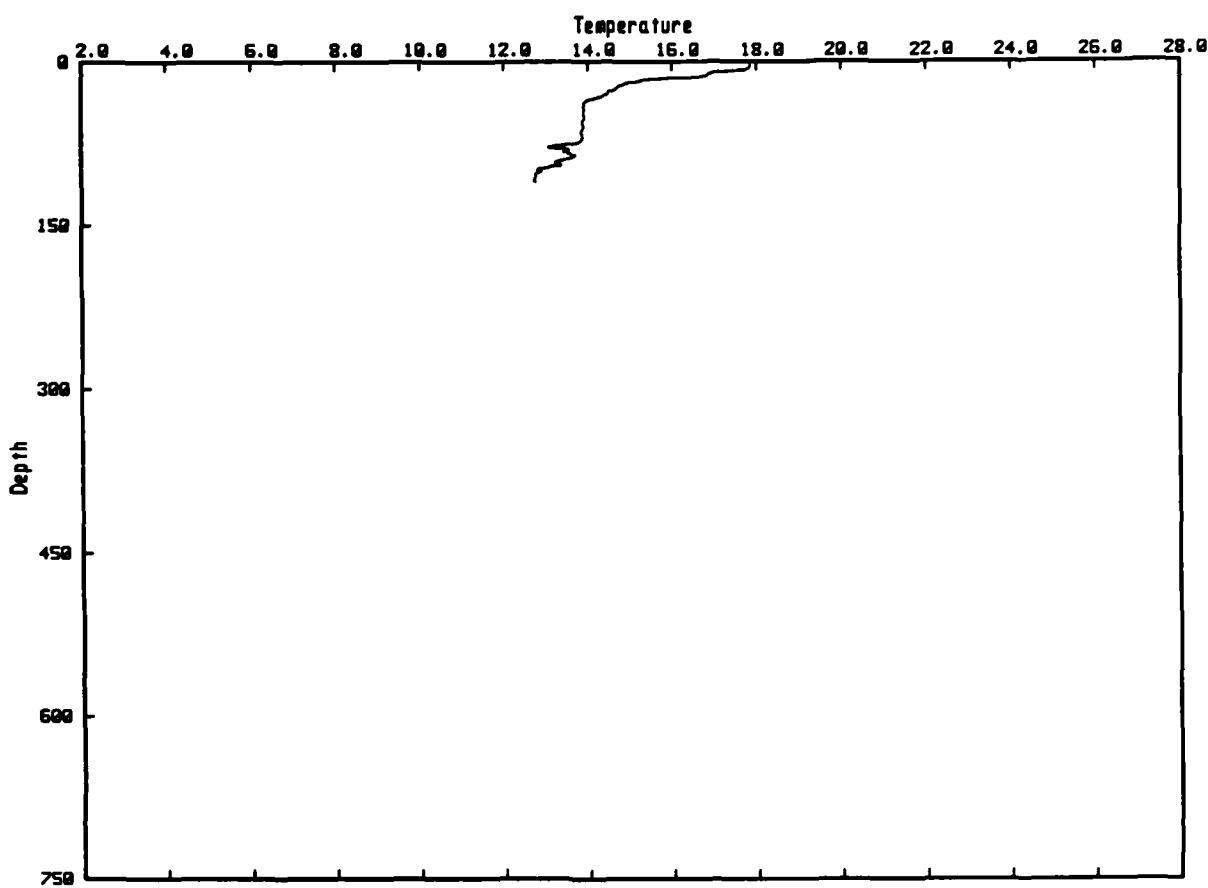
XBT DROP 114 T-7 RADAR: none GULF COORDS: -46.5 226.1  
JDAY 329 606Z DEPTH 224m/219m SST 18.23 2M TEMPS: SAIL 18.40 XBT 18.49  
GULF OF CALIFORNIA: AXBT2-14, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.5 | 200 | 12.9 |
| 20  | 18.3 | 210 | 12.8 |
| 30  | 17.7 | 219 | 12.8 |
| 40  | 17.5 |     |      |
| 50  | 17.1 |     |      |
| 60  | 16.8 |     |      |
| 71  | 16.7 |     |      |
| 80  | 16.6 |     |      |
| 90  | 16.3 |     |      |
| 100 | 15.8 |     |      |
| 109 | 14.9 |     |      |
| 119 | 14.4 |     |      |
| 130 | 14.1 |     |      |
| 140 | 13.8 |     |      |
| 150 | 13.6 |     |      |
| 160 | 13.4 |     |      |
| 170 | 13.3 |     |      |
| 180 | 13.0 |     |      |
| 190 | 12.9 |     |      |

XBT DROP 115

28 25.1N 112 41.9W

23 NOV 84 2318 MST



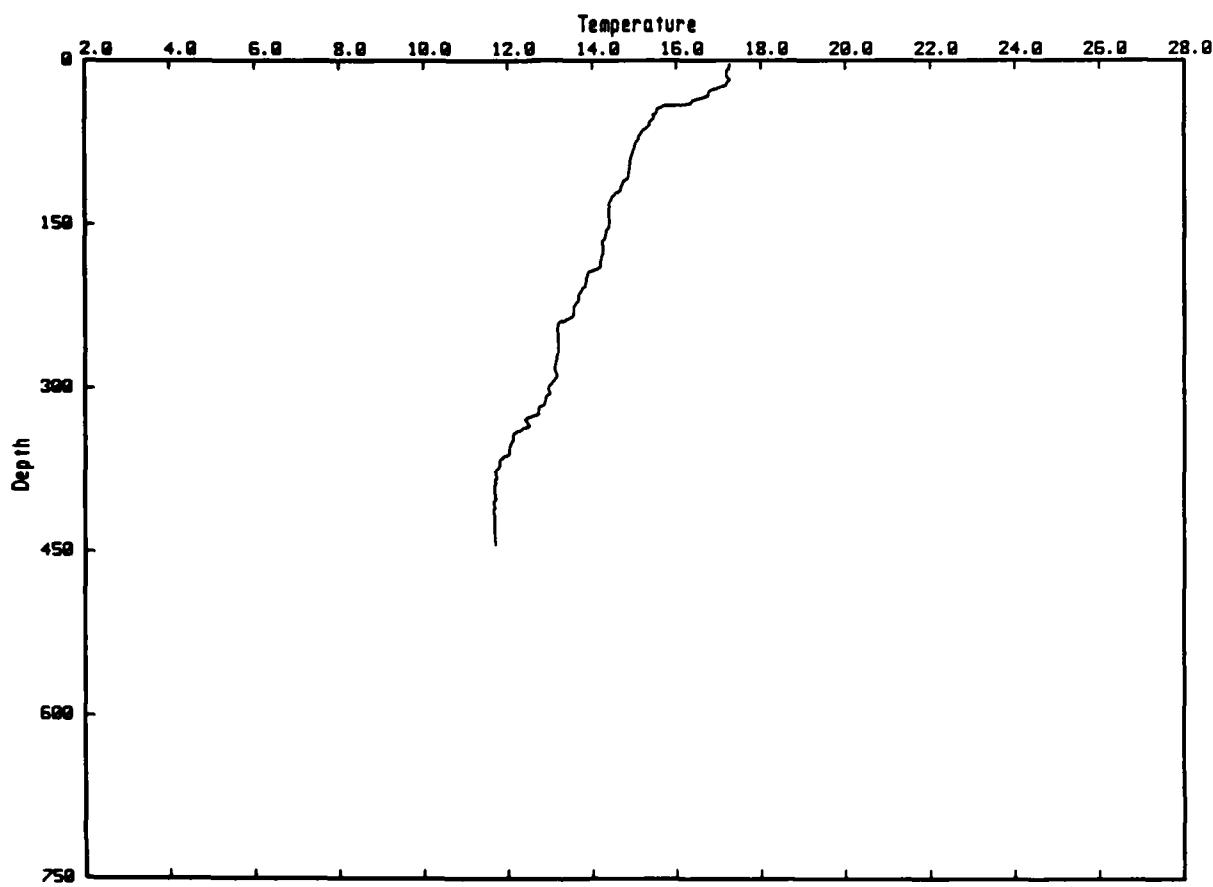
XBT DROP 115 T-7 RADAR: none GULF COORDS: -42.5 225.7  
JDAY 329 618Z DEPTH 111m/111m SST 17.67 2M TEMPS: SAIL 18.10 XBT 17.86  
GULF OF CALIFORNIA: AXBT2-15, SPRING TIDE

| Z   | TEMP |
|-----|------|
| 10  | 17.0 |
| 20  | 14.9 |
| 30  | 14.5 |
| 40  | 13.9 |
| 50  | 13.9 |
| 59  | 13.9 |
| 70  | 13.9 |
| 80  | 13.5 |
| 90  | 13.4 |
| 100 | 12.9 |
| 110 | 12.7 |

XBT DROP 116

28 27.0N 112 40.0W

23 NOV 84 2330 MST



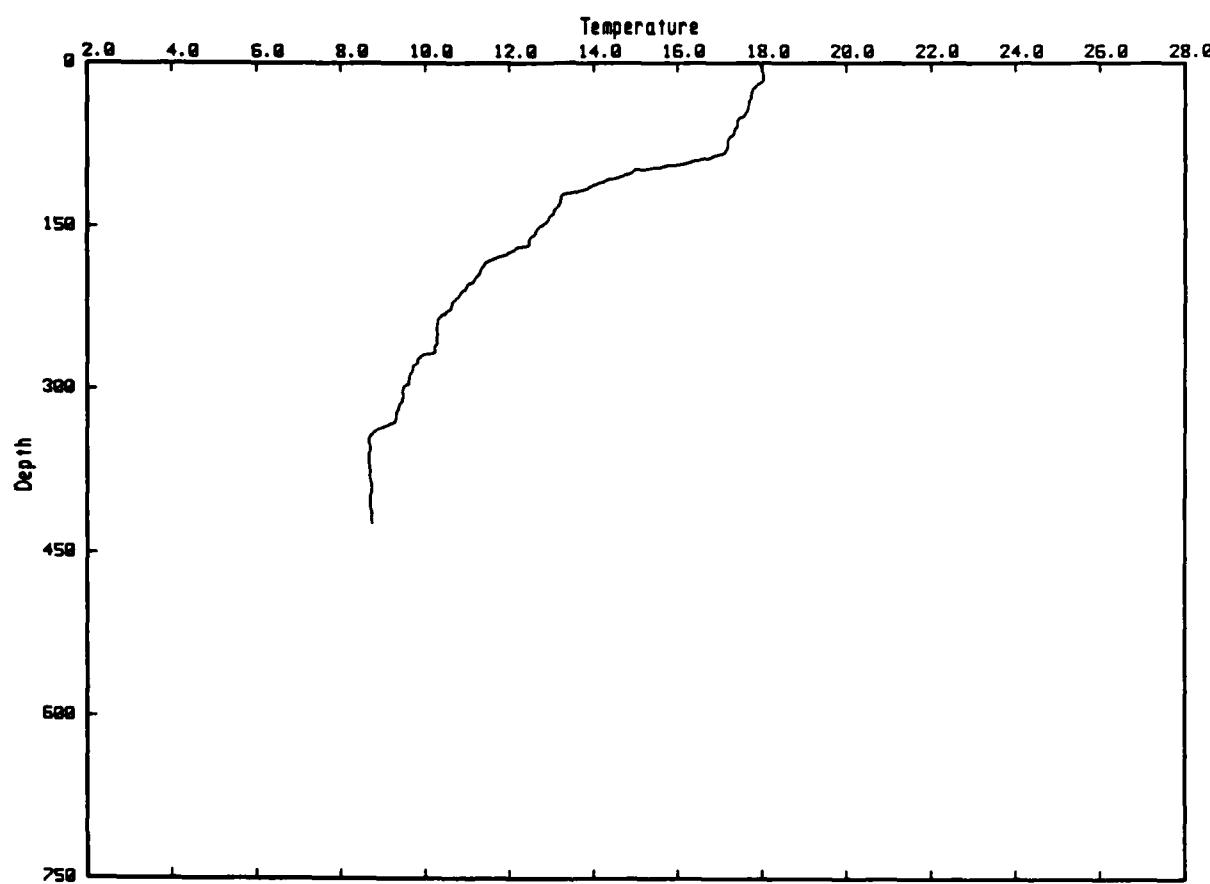
XBT DROP 116 T-7 RADAR: none GULF COORDS: -37.9 226.7  
JDAY 329 830Z DEPTH 454m/444m SST 17.35 2M TEMPS: SAIL 17.37 XBT 17.27  
GULF OF CALIFORNIA: AXBT2-16, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.2 | 199 | 13.9 | 389 | 11.7 |
| 20  | 17.2 | 210 | 13.8 | 399 | 11.7 |
| 30  | 16.8 | 220 | 13.7 | 410 | 11.7 |
| 40  | 16.3 | 230 | 13.6 | 420 | 11.7 |
| 50  | 15.4 | 240 | 13.2 | 429 | 11.7 |
| 60  | 15.4 | 250 | 13.2 | 441 | 11.7 |
| 70  | 15.1 | 260 | 13.2 |     |      |
| 80  | 15.0 | 271 | 13.2 |     |      |
| 90  | 14.9 | 281 | 13.1 |     |      |
| 99  | 14.9 | 290 | 13.2 |     |      |
| 110 | 14.7 | 300 | 13.0 |     |      |
| 120 | 14.6 | 309 | 12.9 |     |      |
| 130 | 14.4 | 320 | 12.7 |     |      |
| 140 | 14.4 | 330 | 12.5 |     |      |
| 150 | 14.4 | 340 | 12.2 |     |      |
| 160 | 14.3 | 350 | 12.1 |     |      |
| 170 | 14.3 | 360 | 12.0 |     |      |
| 180 | 14.2 | 370 | 11.8 |     |      |
| 190 | 14.1 | 380 | 11.7 |     |      |

XBT DROP 118

28 29.1N 112 36.5W

23 NOV 84 2354 MST



XBT DROP 118 T-7 RADAR: none GULF COORDS: -31.0 226.5  
 JDAY 329 654Z DEPTH 424m/424m SST 17.92 2M TEMPS: SAIL 17.93 XBT 17.98  
 GULF OF CALIFORNIA: END AXBT2 LINE, AXBT2-17, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 9   | 18.0 | 200 | 11.2 | 390 | 8.7  |
| 20  | 17.9 | 210 | 10.9 | 400 | 8.7  |
| 30  | 17.7 | 220 | 10.7 | 410 | 8.7  |
| 40  | 17.7 | 230 | 10.5 | 420 | 8.7  |
| 50  | 17.5 | 239 | 10.3 |     |      |
| 60  | 17.4 | 250 | 10.3 |     |      |
| 70  | 17.2 | 260 | 10.2 |     |      |
| 80  | 17.2 | 270 | 9.9  |     |      |
| 90  | 16.3 | 280 | 9.7  |     |      |
| 100 | 14.9 | 290 | 9.6  |     |      |
| 110 | 14.1 | 300 | 9.5  |     |      |
| 120 | 13.3 | 310 | 9.5  |     |      |
| 130 | 13.2 | 321 | 9.3  |     |      |
| 140 | 13.0 | 330 | 9.3  |     |      |
| 150 | 12.7 | 340 | 8.8  |     |      |
| 160 | 12.5 | 349 | 8.7  |     |      |
| 170 | 12.1 | 360 | 8.7  |     |      |
| 180 | 11.6 | 370 | 8.7  |     |      |
| 190 | 11.3 | 380 | 8.7  |     |      |



**San Esteban Sill**



**San Esteban**

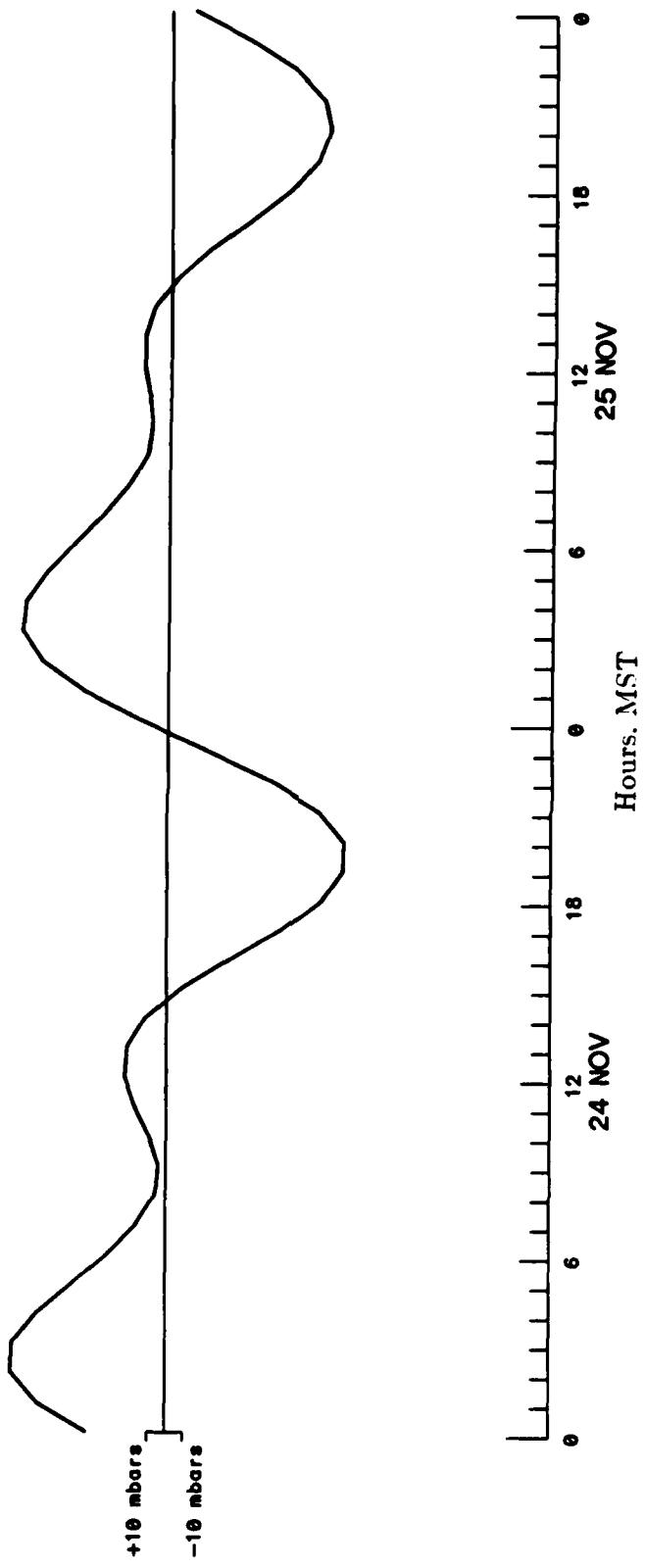


Figure 17. Bottom Pressure at San Esteban Island.  
24-25 November 1984 - Spring Tides



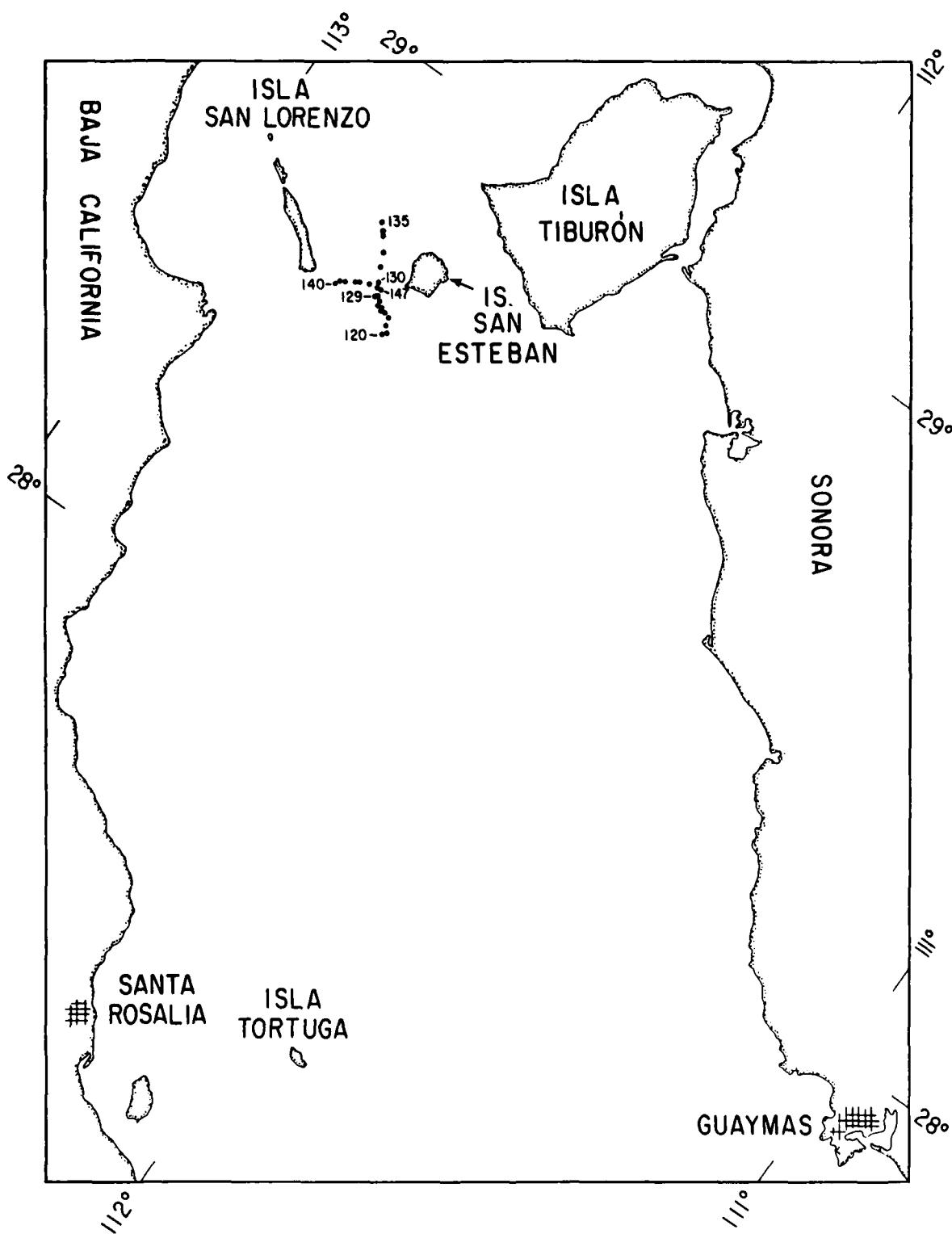


Figure 18. CAP1 Section: XBT Station Locations



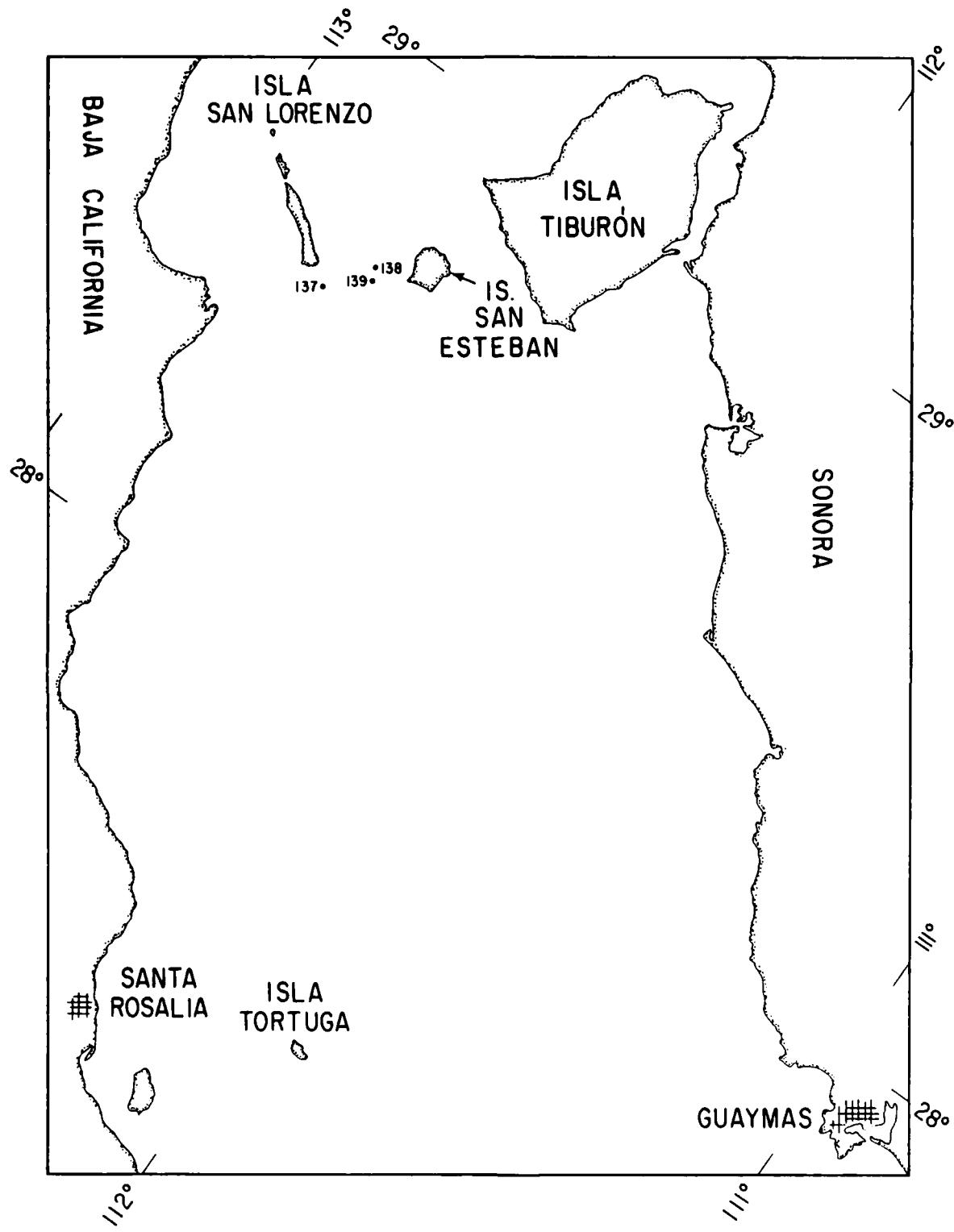


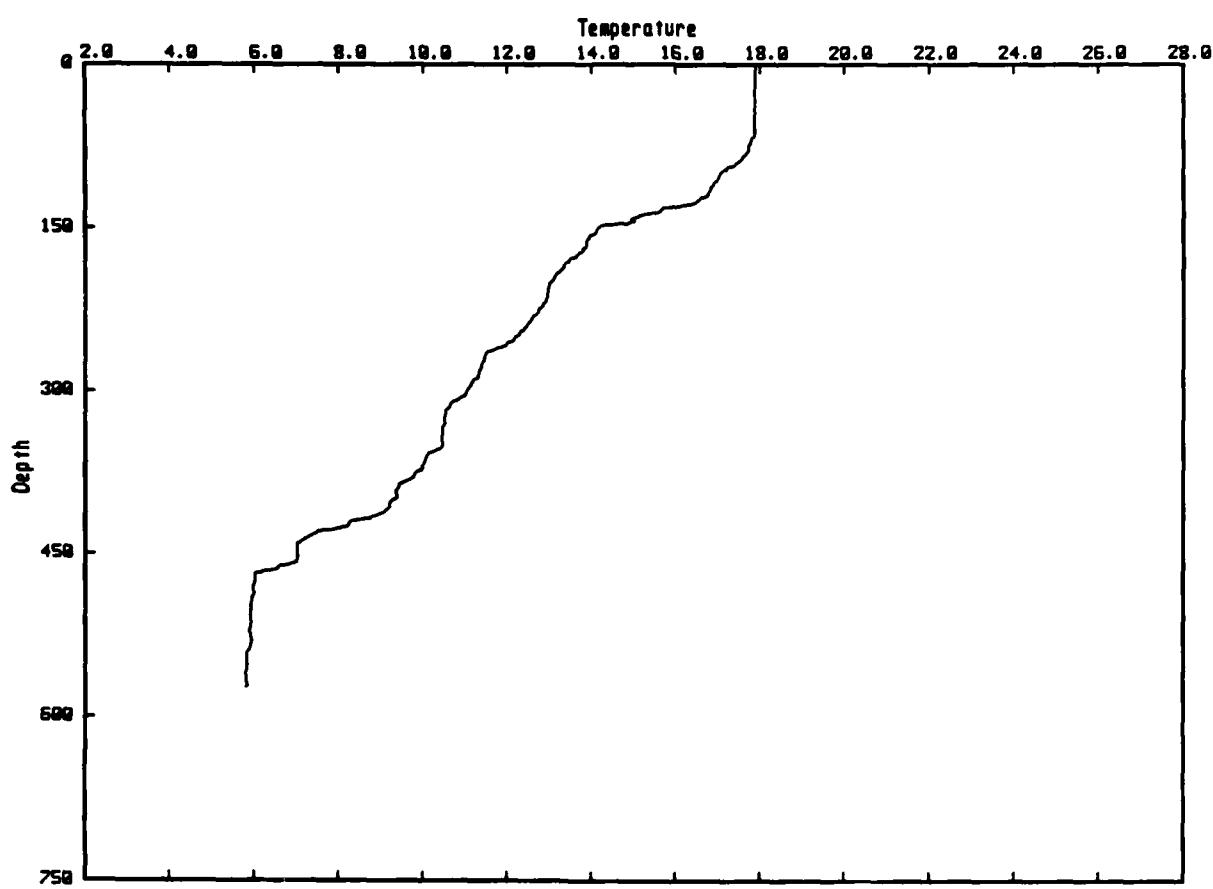
Figure 19. Miscellaneous Sill XBT Stations



XBT DROP 120

28 34.2N 112 34.4W

24 NOV 84 0339 MST



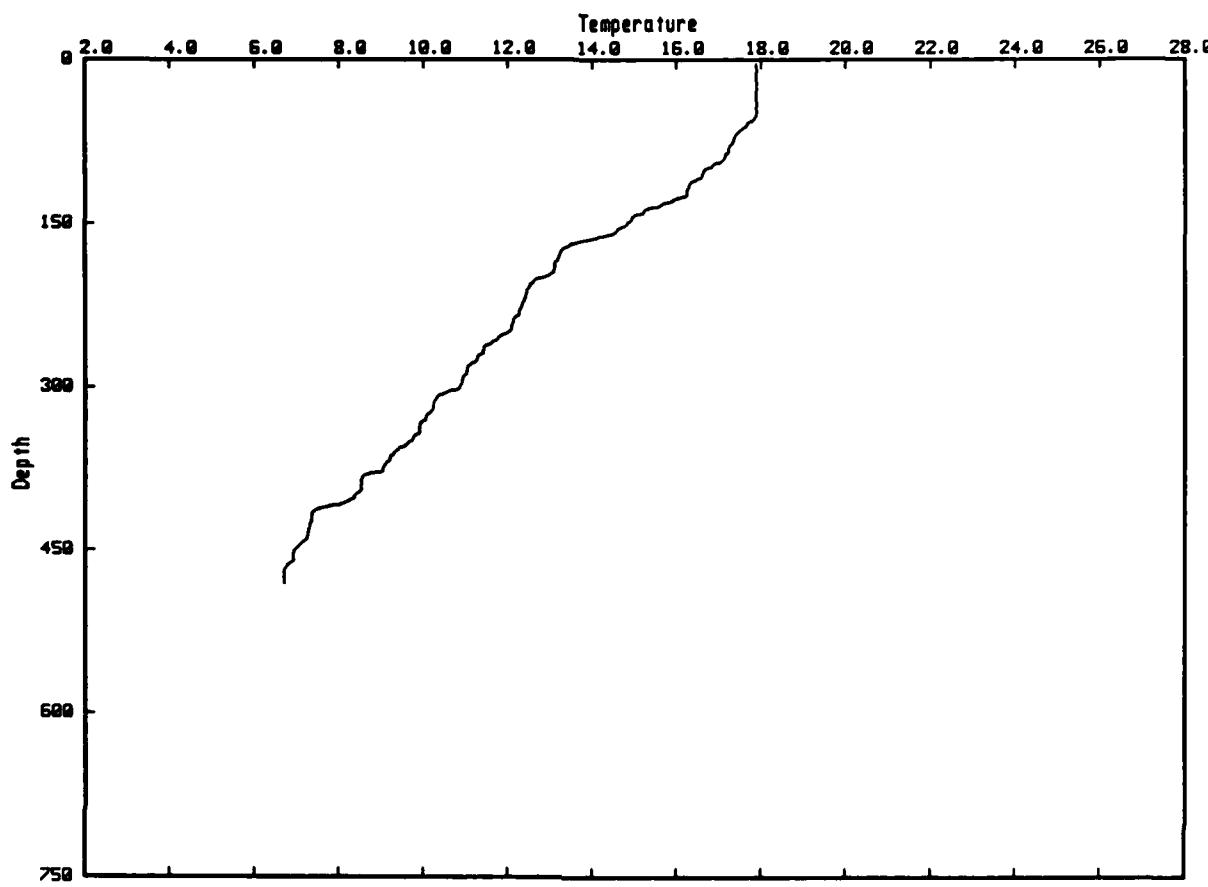
XBT DROP 120 T-7 RADAR: none GULF COORDS: -22.6 232.1  
JDAY 329 1039Z DEPTH 573m/573m SST 17.39 2M TEMPS: SAIL 18.07 XBT 17.90  
GULF OF CALIFORNIA: BEGIN CAP N/S SILL LINE, CXP1-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.9 | 200 | 13.0 | 390 | 9.4  |
| 20  | 17.9 | 210 | 12.9 | 400 | 9.3  |
| 29  | 17.9 | 220 | 12.8 | 410 | 9.1  |
| 41  | 17.9 | 230 | 12.6 | 420 | 8.3  |
| 50  | 17.9 | 240 | 12.5 | 430 | 7.5  |
| 60  | 17.9 | 250 | 12.2 | 440 | 7.1  |
| 70  | 17.8 | 260 | 11.7 | 450 | 7.0  |
| 80  | 17.7 | 270 | 11.4 | 460 | 6.8  |
| 90  | 17.4 | 279 | 11.3 | 470 | 6.0  |
| 100 | 17.1 | 290 | 11.2 | 480 | 6.0  |
| 110 | 16.9 | 300 | 11.0 | 490 | 5.9  |
| 120 | 16.7 | 310 | 10.7 | 498 | 5.9  |
| 130 | 16.0 | 321 | 10.5 | 510 | 5.9  |
| 140 | 15.0 | 330 | 10.5 | 520 | 5.9  |
| 150 | 14.1 | 341 | 10.4 | 530 | 5.9  |
| 160 | 13.9 | 350 | 10.4 | 540 | 5.8  |
| 170 | 13.8 | 359 | 10.1 | 549 | 5.8  |
| 181 | 13.4 | 369 | 10.0 | 560 | 5.8  |
| 190 | 13.3 | 380 | 9.7  | 570 | 5.8  |

XBT DROP 121

28 34.6N 112 34.1W

24 NOV 84 0353 MST



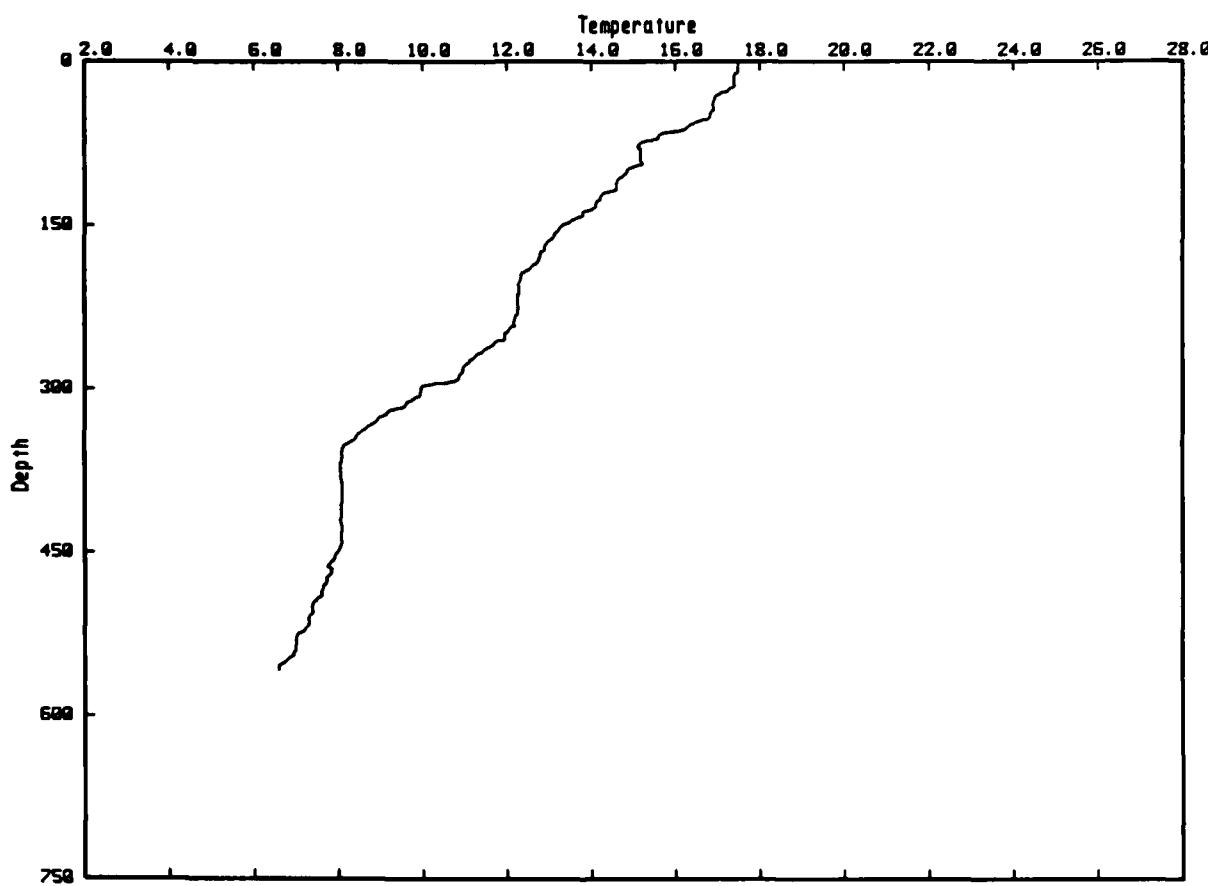
XBT DROP 121 T-7 RADAR: none GULF COORDS: -21.8 232.4  
JDAY 329 1053Z DEPTH 542m/481m SST 17.77 2M TEMPS: SAIL 17.98 XBT .00  
GULF OF CALIFORNIA: SILL LINE, CXP1-2

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.9 | 200 | 12.7 | 391 | 8.5  |
| 19  | 17.9 | 210 | 12.4 | 400 | 8.4  |
| 30  | 17.9 | 220 | 12.4 | 410 | 7.7  |
| 39  | 17.9 | 230 | 12.3 | 420 | 7.4  |
| 50  | 17.9 | 240 | 12.1 | 430 | 7.3  |
| 60  | 17.7 | 251 | 11.9 | 441 | 7.2  |
| 70  | 17.4 | 260 | 11.6 | 451 | 6.9  |
| 80  | 17.2 | 270 | 11.3 | 460 | 6.9  |
| 90  | 17.1 | 280 | 11.1 | 470 | 6.7  |
| 100 | 16.6 | 290 | 10.9 | 480 | 6.7  |
| 110 | 16.4 | 300 | 10.8 |     |      |
| 120 | 16.2 | 310 | 10.3 |     |      |
| 130 | 15.8 | 320 | 10.2 |     |      |
| 140 | 15.2 | 330 | 10.0 |     |      |
| 150 | 14.8 | 340 | 9.9  |     |      |
| 160 | 14.4 | 350 | 9.7  |     |      |
| 171 | 13.4 | 360 | 9.3  |     |      |
| 180 | 13.2 | 369 | 9.1  |     |      |
| 190 | 13.1 | 380 | 8.7  |     |      |

XBT DROP 122

28 35.2N 112 34.8W

24 NOV 84 0405 MST



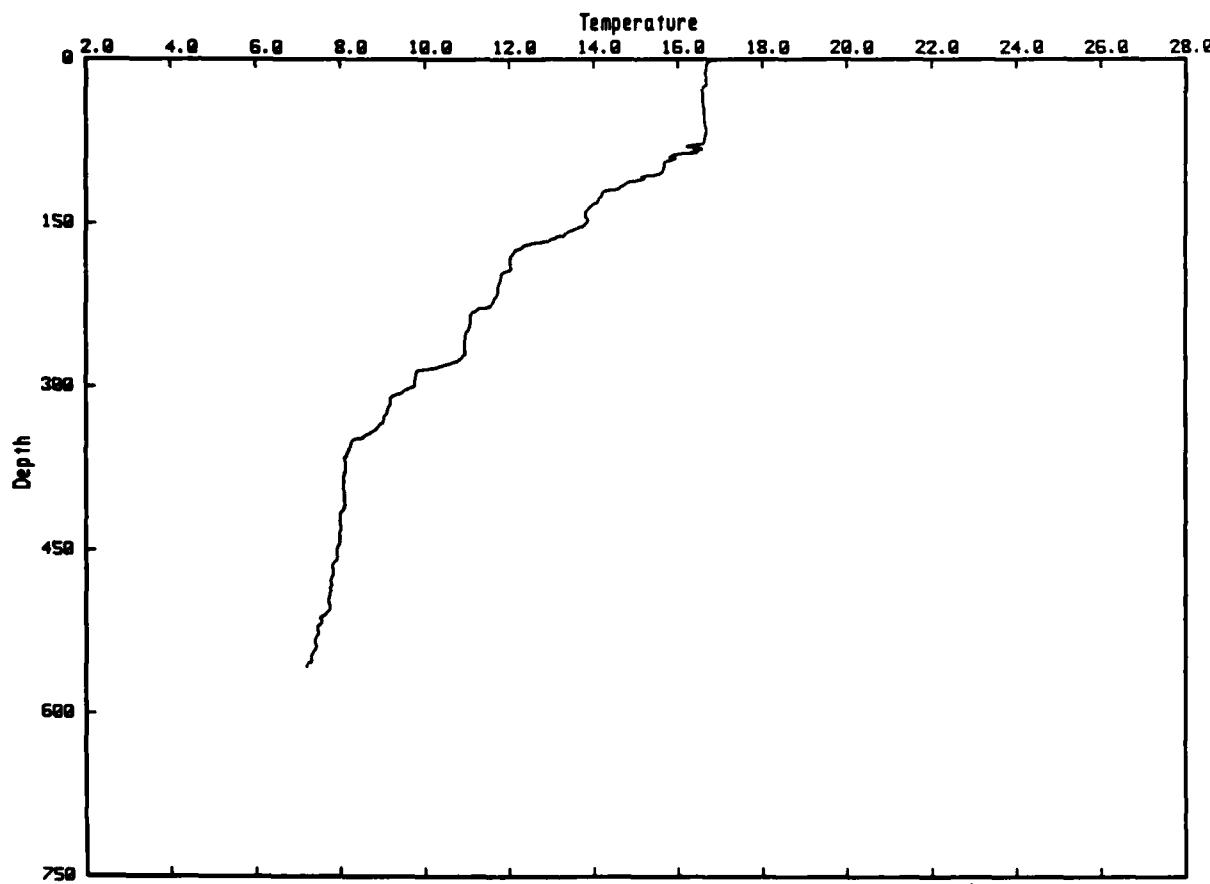
XBT DROP 122 T-7 RADAR: none GULF COORDS: -22.0 233.9  
JDAY 329 1105Z DEPTH 558m/558m SST 17.27 2M TEMPS: SAIL 17.75 XBT 17.50  
GULF OF CALIFORNIA: SILL LINE, CXP1-3

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.5 | 200 | 12.3 | 389 | 8.1  |
| 20  | 17.4 | 210 | 12.3 | 401 | 8.1  |
| 30  | 17.1 | 220 | 12.2 | 409 | 8.1  |
| 39  | 16.9 | 230 | 12.3 | 420 | 8.1  |
| 50  | 16.8 | 240 | 12.2 | 430 | 8.1  |
| 60  | 16.3 | 250 | 11.9 | 441 | 8.1  |
| 70  | 15.6 | 260 | 11.6 | 450 | 8.0  |
| 80  | 15.2 | 270 | 11.2 | 460 | 7.8  |
| 90  | 15.2 | 280 | 11.0 | 470 | 7.8  |
| 100 | 14.9 | 291 | 10.9 | 480 | 7.6  |
| 110 | 14.6 | 300 | 10.0 | 490 | 7.6  |
| 120 | 14.3 | 310 | 9.8  | 500 | 7.4  |
| 130 | 14.1 | 320 | 9.2  | 510 | 7.3  |
| 139 | 13.8 | 330 | 8.9  | 520 | 7.2  |
| 150 | 13.3 | 340 | 8.5  | 530 | 7.0  |
| 160 | 13.1 | 350 | 8.2  | 540 | 7.0  |
| 170 | 12.9 | 360 | 8.1  | 550 | 6.7  |
| 180 | 12.8 | 370 | 8.1  | 558 | 6.6  |
| 190 | 12.5 | 380 | 8.1  |     |      |

XBT DROP 123

28 36.0N 112 35.1W

24 NOV 84 0412 MST



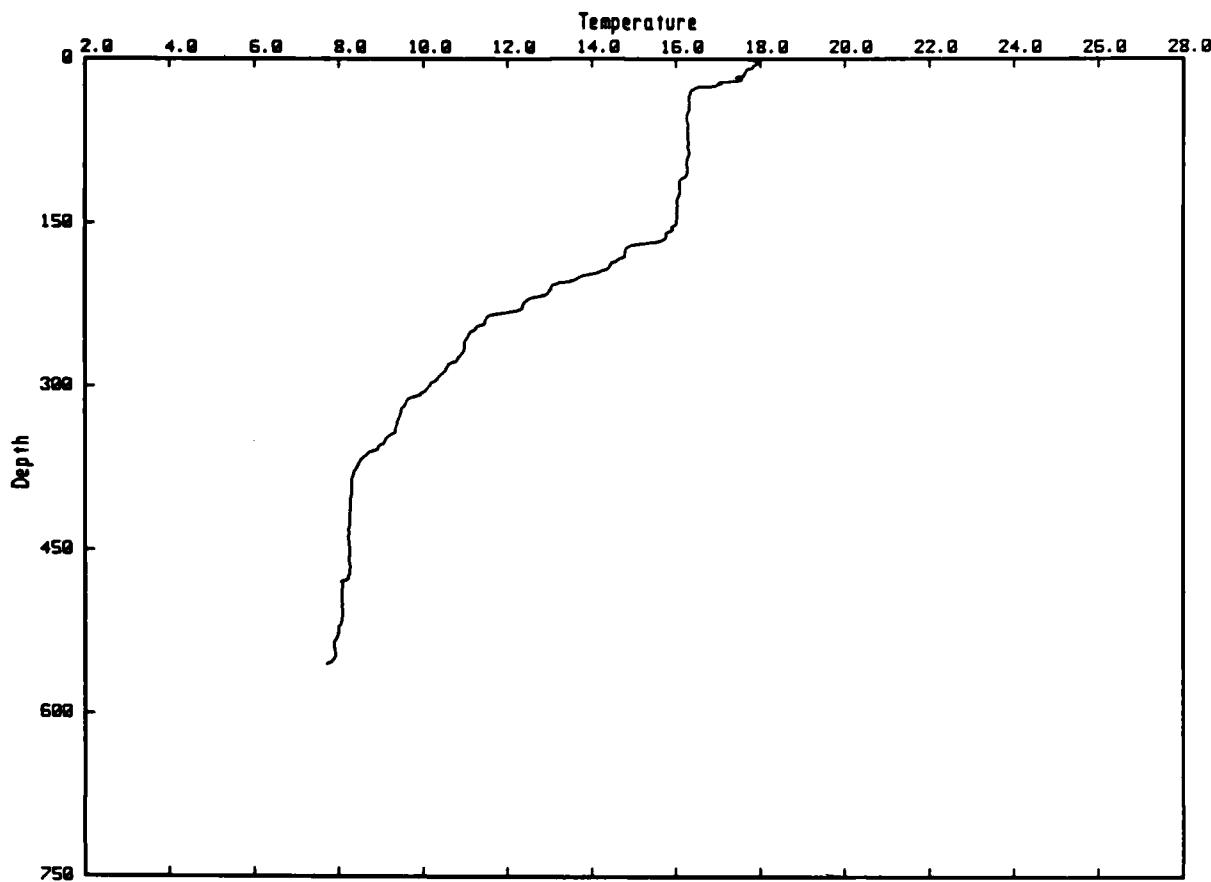
XBT DROP 123 T-7 RADAR: none GULF COORDS: -21.5 235.4  
JDAY 329 1112Z DEPTH 558m/558m SST 16.62 2M TEMPS: SAIL 16.98 XBT 16.69  
GULF OF CALIFORNIA: SILL LINE, CXP1-4

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.7 | 201 | 11.8 | 390 | 8.1  |
| 20  | 16.7 | 210 | 11.7 | 400 | 8.1  |
| 29  | 16.6 | 220 | 11.6 | 410 | 8.1  |
| 41  | 16.6 | 230 | 11.2 | 420 | 8.0  |
| 49  | 16.6 | 241 | 11.1 | 430 | 8.0  |
| 60  | 16.6 | 250 | 11.0 | 441 | 8.0  |
| 71  | 16.6 | 261 | 11.0 | 451 | 7.9  |
| 80  | 16.2 | 270 | 11.0 | 461 | 7.9  |
| 90  | 15.8 | 280 | 10.5 | 471 | 7.8  |
| 100 | 15.7 | 291 | 9.8  | 480 | 7.8  |
| 110 | 15.1 | 300 | 9.8  | 490 | 7.8  |
| 120 | 14.3 | 310 | 9.2  | 500 | 7.8  |
| 130 | 14.1 | 320 | 9.1  | 510 | 7.6  |
| 140 | 13.8 | 330 | 9.0  | 521 | 7.5  |
| 150 | 13.8 | 340 | 8.8  | 529 | 7.4  |
| 160 | 13.3 | 350 | 8.3  | 540 | 7.4  |
| 170 | 12.4 | 360 | 8.2  | 549 | 7.3  |
| 179 | 12.1 | 370 | 8.1  | 558 | 7.2  |
| 190 | 12.0 | 380 | 8.1  |     |      |

XBT DROP 124

28 36.2N 112 35.8W

24 NOV 84 0421 MST



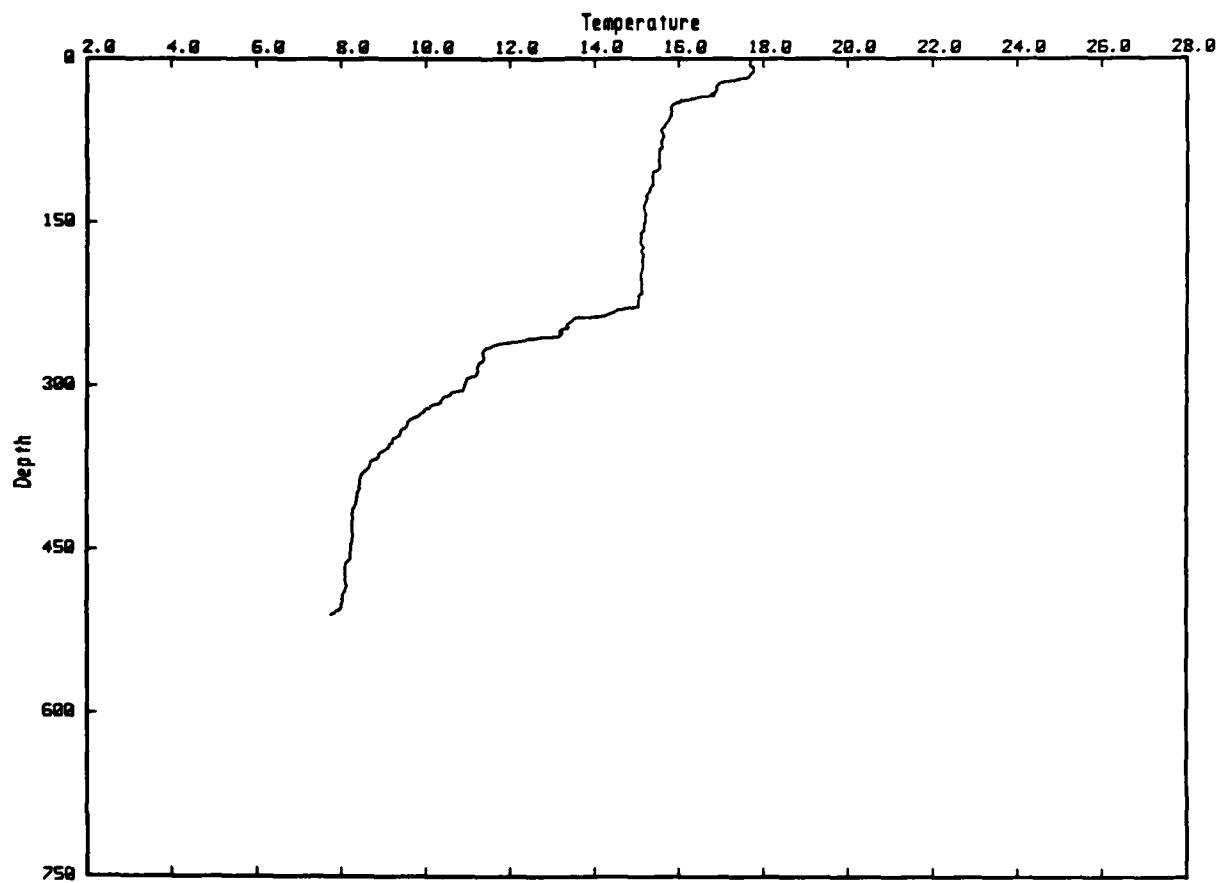
XBT DROP 124 T-7 RADAR: none GULF COORDS: -22.2 236.4  
JDAY 329 1121Z DEPTH 555m/555m SST 17.73 2M TEMPS: SAIL 17.97 XBT 17.99  
GULF OF CALIFORNIA: SILL LINE, CXP1-5

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.7 | 200 | 13.7 | 390 | 8.3  |
| 20  | 17.5 | 210 | 13.0 | 400 | 8.3  |
| 30  | 16.3 | 220 | 12.5 | 411 | 8.3  |
| 39  | 16.3 | 230 | 12.3 | 421 | 8.3  |
| 50  | 16.3 | 240 | 11.5 | 431 | 8.2  |
| 60  | 16.3 | 250 | 11.1 | 440 | 8.2  |
| 71  | 16.3 | 260 | 11.0 | 450 | 8.3  |
| 80  | 16.3 | 270 | 10.9 | 460 | 8.2  |
| 89  | 16.3 | 280 | 10.6 | 470 | 8.3  |
| 99  | 16.3 | 290 | 10.4 | 480 | 8.1  |
| 110 | 16.1 | 300 | 10.1 | 490 | 8.1  |
| 120 | 16.1 | 310 | 9.7  | 500 | 8.1  |
| 130 | 16.0 | 321 | 9.5  | 510 | 8.1  |
| 140 | 16.0 | 330 | 9.4  | 520 | 8.0  |
| 150 | 16.0 | 340 | 9.4  | 530 | 8.0  |
| 160 | 15.8 | 350 | 9.1  | 541 | 7.9  |
| 170 | 14.9 | 361 | 8.7  | 550 | 7.9  |
| 181 | 14.8 | 370 | 8.5  |     |      |
| 191 | 14.4 | 380 | 8.4  |     |      |

XBT DROP 125

28 36.1N 112 36.2W

24 NOV 84 0427 MST



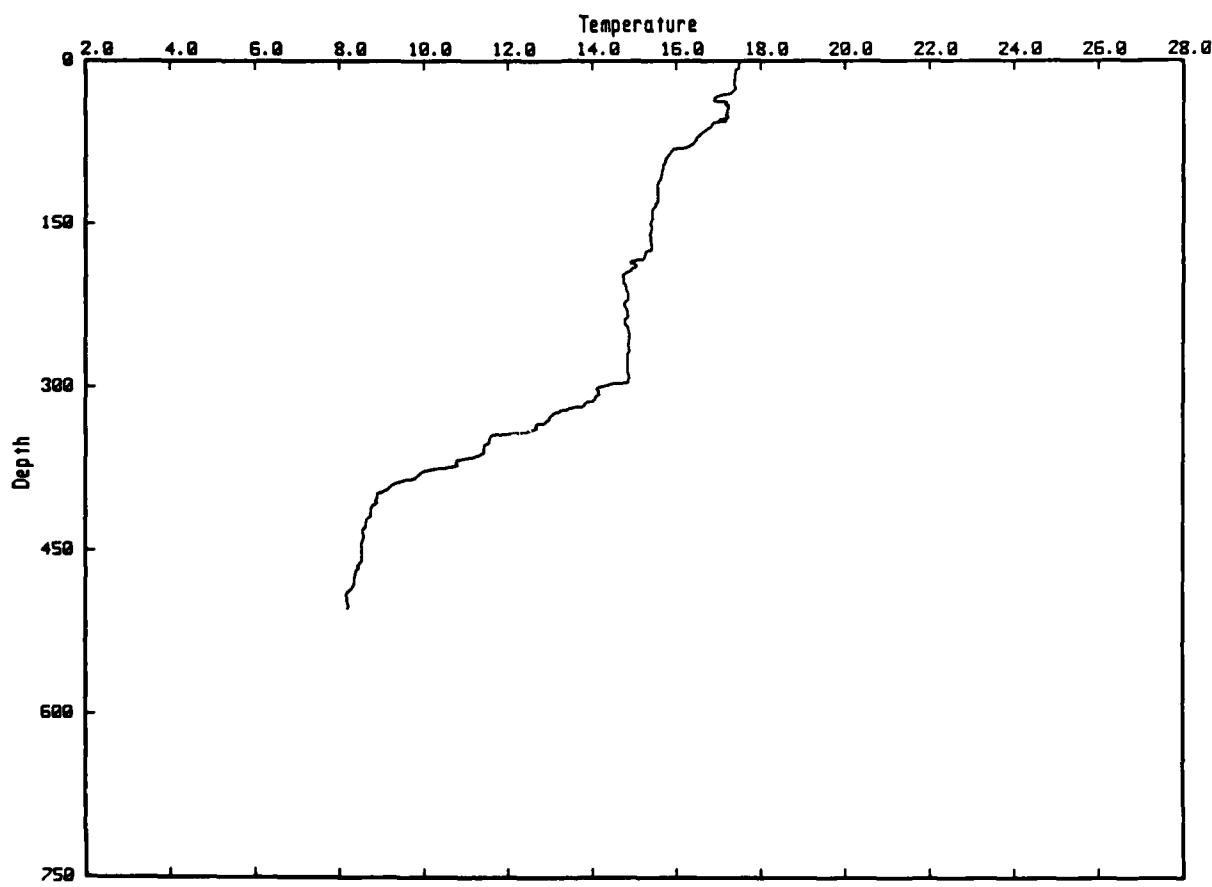
XBT DROP 125 T-7 RADAR: none GULF COORDS: -22.9 236.6  
JDAY 329 1127Z DEPTH 511m/511m SST 17.63 2M TEMPS: SAIL 17.99 XBT 17.70  
GULF OF CALIFORNIA: SILL LINE, CXP1-6

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.8 | 201 | 15.1 | 390 | 8.4  |
| 20  | 17.3 | 209 | 15.1 | 400 | 8.4  |
| 30  | 16.9 | 221 | 15.0 | 410 | 8.3  |
| 40  | 16.1 | 230 | 14.5 | 420 | 8.3  |
| 50  | 15.8 | 240 | 13.5 | 429 | 8.3  |
| 59  | 15.7 | 250 | 13.2 | 439 | 8.3  |
| 70  | 15.6 | 260 | 12.0 | 451 | 8.2  |
| 81  | 15.6 | 270 | 11.4 | 460 | 8.2  |
| 90  | 15.5 | 279 | 11.3 | 470 | 8.1  |
| 100 | 15.5 | 290 | 11.2 | 480 | 8.1  |
| 111 | 15.4 | 304 | 10.9 | 490 | 8.1  |
| 120 | 15.3 | 310 | 10.5 | 500 | 8.0  |
| 129 | 15.2 | 320 | 10.1 | 509 | 7.8  |
| 140 | 15.2 | 330 | 9.7  |     |      |
| 150 | 15.2 | 340 | 9.5  |     |      |
| 160 | 15.1 | 350 | 9.2  |     |      |
| 170 | 15.1 | 360 | 9.0  |     |      |
| 180 | 15.2 | 370 | 8.7  |     |      |
| 189 | 15.1 | 380 | 8.5  |     |      |

XBT DROP 126

28 36.4N 112 36.4W

24 NOV 84 0433 MST



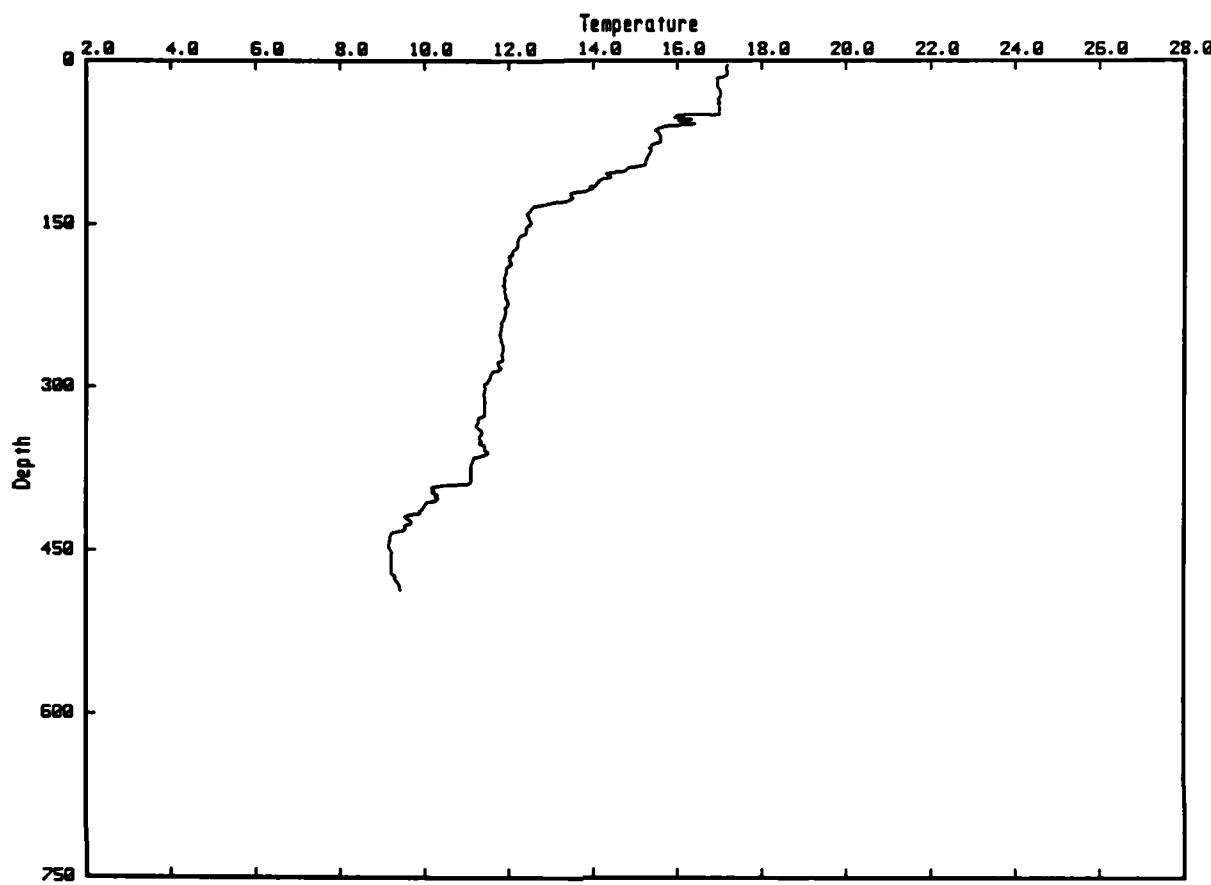
XBT DROP 126 T-7 RADAR: none GULF COORDS: -22.8 237.3  
JDAY 329 1133Z DEPTH 503m/503m SST 17.48 2M TEMPS: SAIL 17.50 XBT 17.49  
GULF OF CALIFORNIA: SILL LINE, CXP1-7

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.4 | 200 | 14.7 | 390 | 9.3  |
| 20  | 17.4 | 209 | 14.8 | 400 | 8.9  |
| 30  | 17.3 | 220 | 14.9 | 410 | 8.8  |
| 40  | 17.2 | 231 | 14.8 | 420 | 8.7  |
| 50  | 17.2 | 240 | 14.8 | 430 | 8.6  |
| 60  | 16.8 | 250 | 14.9 | 439 | 8.6  |
| 70  | 16.5 | 261 | 14.9 | 450 | 8.5  |
| 80  | 16.1 | 270 | 14.9 | 460 | 8.5  |
| 90  | 15.7 | 281 | 14.9 | 470 | 8.4  |
| 100 | 15.7 | 291 | 14.9 | 481 | 8.4  |
| 110 | 15.6 | 300 | 14.1 | 491 | 8.2  |
| 120 | 15.6 | 310 | 14.1 | 501 | 8.2  |
| 130 | 15.6 | 320 | 13.4 |     |      |
| 141 | 15.4 | 330 | 13.0 |     |      |
| 150 | 15.4 | 340 | 12.5 |     |      |
| 160 | 15.4 | 351 | 11.6 |     |      |
| 170 | 15.4 | 360 | 11.4 |     |      |
| 180 | 15.2 | 370 | 10.8 |     |      |
| 190 | 15.0 | 380 | 9.9  |     |      |

XBT DROP 128

28 36.9N 112 37.1W

24 NOV 84 0445 MST



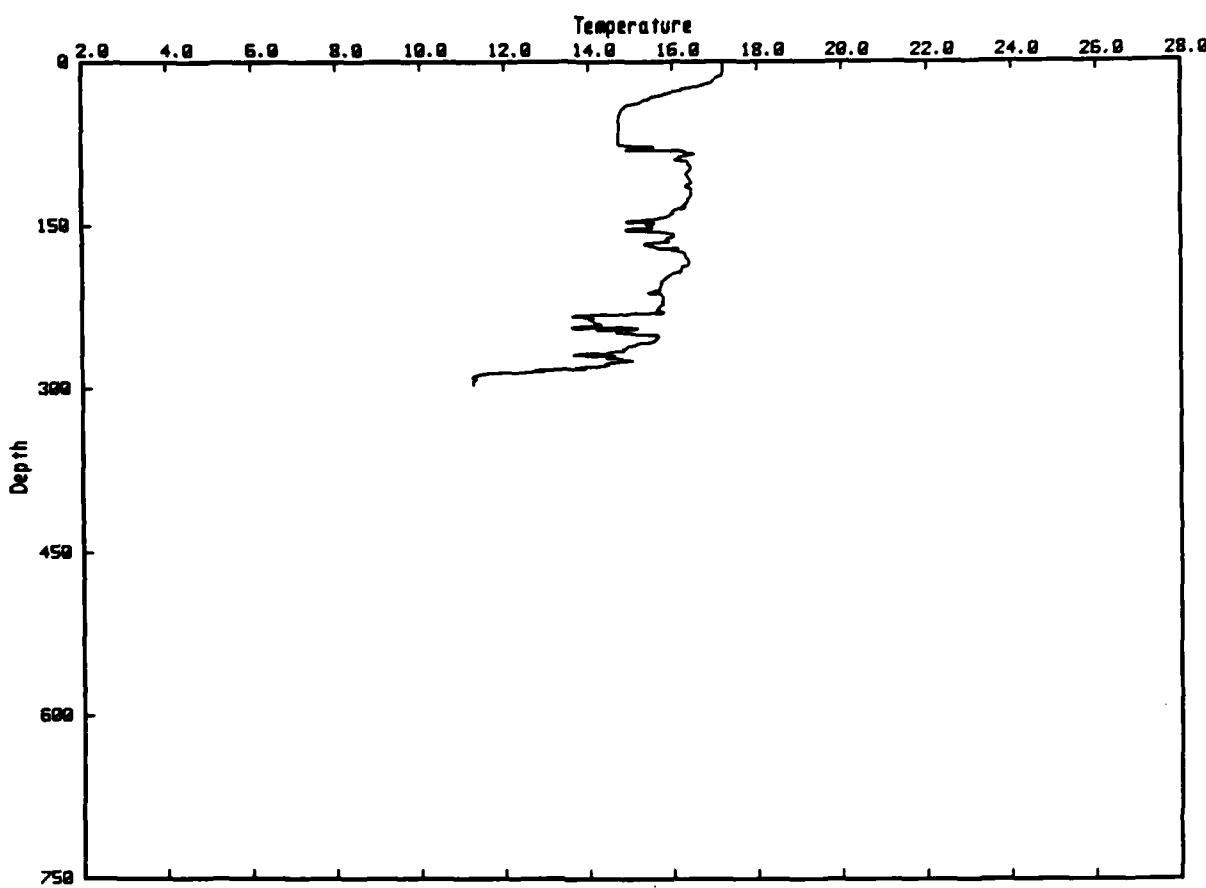
XBT DROP 128 T-7 RADAR: none GULF COORDS: -23.2 238.7  
JDAY 329 1145Z DEPTH 488m/488m SST 17.23 2M TEMPS: SAIL 17.50 XBT 17.19  
GULF OF CALIFORNIA: SILL LINE, CXP1-9

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.2 | 200 | 11.9 | 390 | 10.5 |
| 20  | 17.0 | 210 | 11.9 | 400 | 10.3 |
| 30  | 17.0 | 220 | 12.0 | 410 | 10.0 |
| 40  | 17.0 | 230 | 11.9 | 420 | 9.6  |
| 50  | 16.1 | 240 | 11.8 | 430 | 9.5  |
| 60  | 15.7 | 250 | 11.8 | 440 | 9.2  |
| 69  | 15.6 | 259 | 11.9 | 450 | 9.2  |
| 80  | 15.3 | 269 | 11.8 | 461 | 9.2  |
| 90  | 15.3 | 280 | 11.8 | 470 | 9.2  |
| 100 | 14.8 | 290 | 11.6 | 480 | 9.4  |
| 110 | 14.1 | 301 | 11.4 |     |      |
| 120 | 13.8 | 310 | 11.4 |     |      |
| 130 | 13.0 | 320 | 11.4 |     |      |
| 140 | 12.4 | 329 | 11.3 |     |      |
| 150 | 12.5 | 340 | 11.3 |     |      |
| 160 | 12.3 | 350 | 11.4 |     |      |
| 169 | 12.2 | 360 | 11.5 |     |      |
| 180 | 12.0 | 370 | 11.1 |     |      |
| 191 | 11.9 | 380 | 11.1 |     |      |

XBT DROP 129

28 37.2N 112 37.6W

24 NOV 84 0457 MST



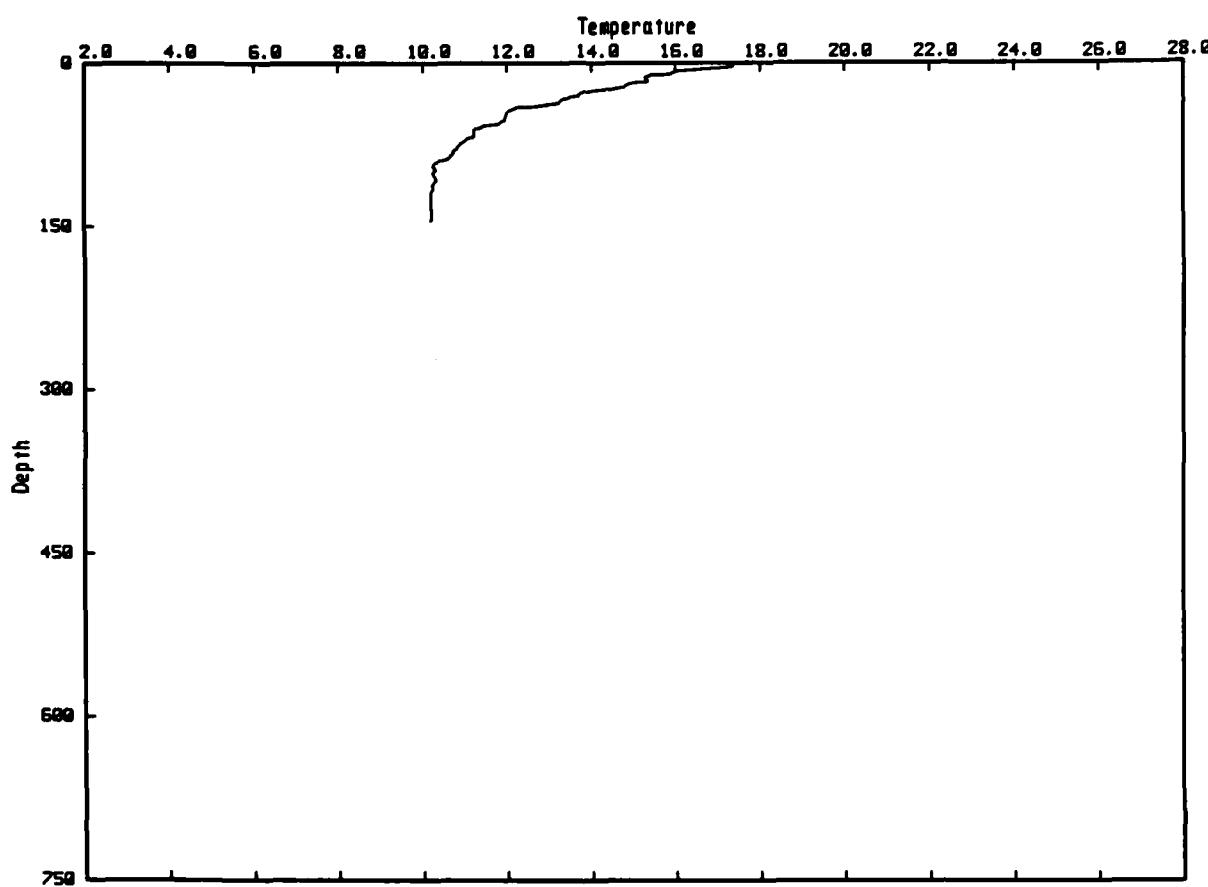
XBT DROP 129 T-7 RADAR: none GULF COORDS: -23.5 239.6  
JDAY 329 1157Z DEPTH 298m/298m SST 17.20 2M TEMPS: SAIL 17.28 XBT 17.19  
GULF OF CALIFORNIA: SILL LINE, CXP1-10 (DATA QUALITY UNCERTAIN)

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 11  | 17.2 | 200 | 15.8 |
| 20  | 16.9 | 210 | 15.6 |
| 30  | 15.8 | 220 | 15.7 |
| 40  | 14.9 | 230 | 15.8 |
| 50  | 14.7 | 240 | 14.2 |
| 60  | 14.7 | 250 | 15.1 |
| 70  | 14.7 | 260 | 15.1 |
| 80  | 14.9 | 270 | 13.9 |
| 90  | 16.1 | 280 | 14.2 |
| 100 | 16.4 | 290 | 11.2 |
| 110 | 16.4 | 298 | 11.2 |
| 120 | 16.4 |     |      |
| 130 | 16.3 |     |      |
| 140 | 16.0 |     |      |
| 150 | 15.5 |     |      |
| 160 | 16.0 |     |      |
| 170 | 15.6 |     |      |
| 180 | 16.3 |     |      |
| 190 | 16.2 |     |      |

XBT DROP 130

28 38.5N 112 38.6W

24 NOV 84 0514 MST



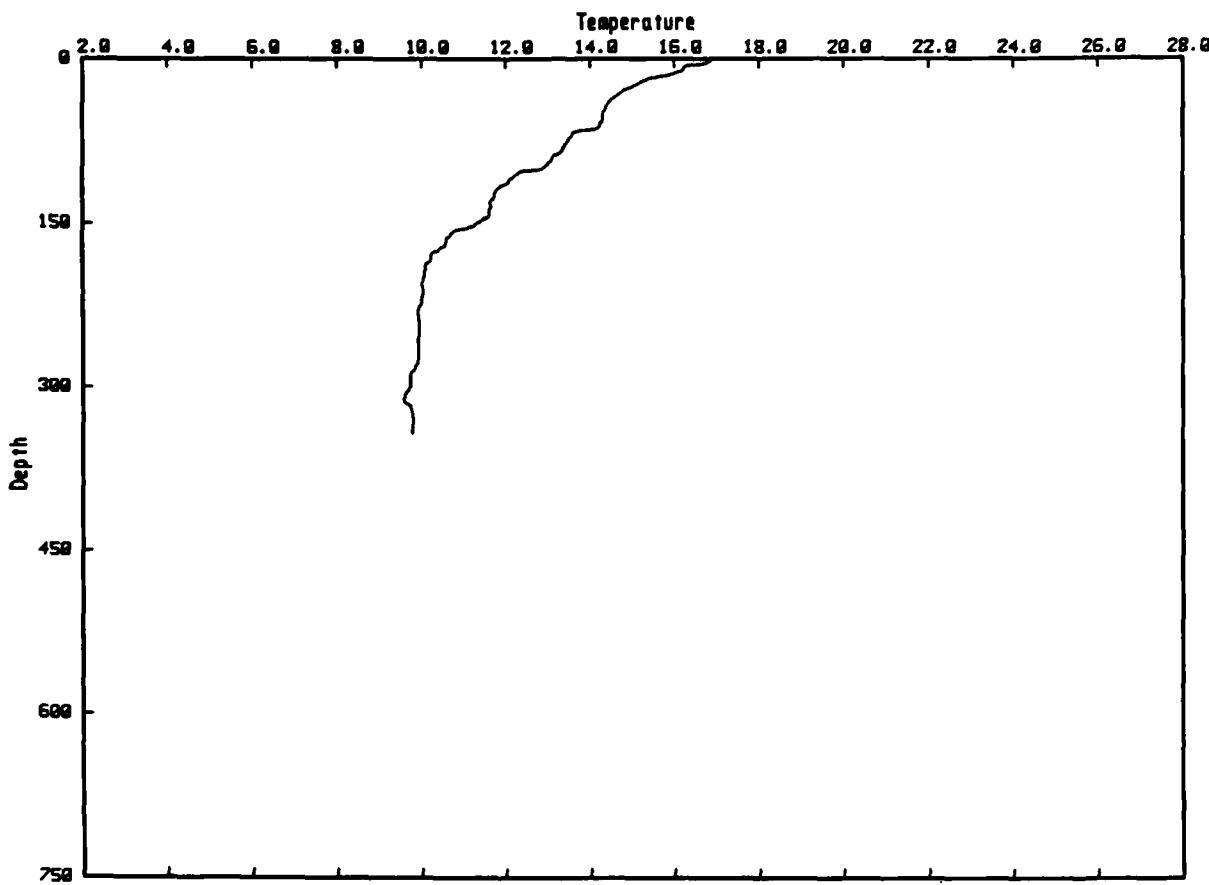
XBT DROP 130 T-7 RADAR: none GULF COORDS: -23.4 242.5  
JDAY 329 1214Z DEPTH 145m/145m SST 17.15 2M TEMPS: SAIL 17.42 XBT 17.35  
GULF OF CALIFORNIA: SILL LINE, CXP1-11

| Z   | TEMP |
|-----|------|
| 10  | 15.9 |
| 20  | 14.9 |
| 30  | 13.7 |
| 40  | 12.7 |
| 50  | 12.6 |
| 60  | 11.3 |
| 70  | 11.1 |
| 80  | 10.7 |
| 90  | 10.4 |
| 100 | 10.3 |
| 110 | 10.3 |
| 119 | 10.2 |
| 130 | 10.2 |
| 141 | 10.2 |

XBT DROP 131

28 40.0N 112 39.4W

24 NOV 84 0532 MST



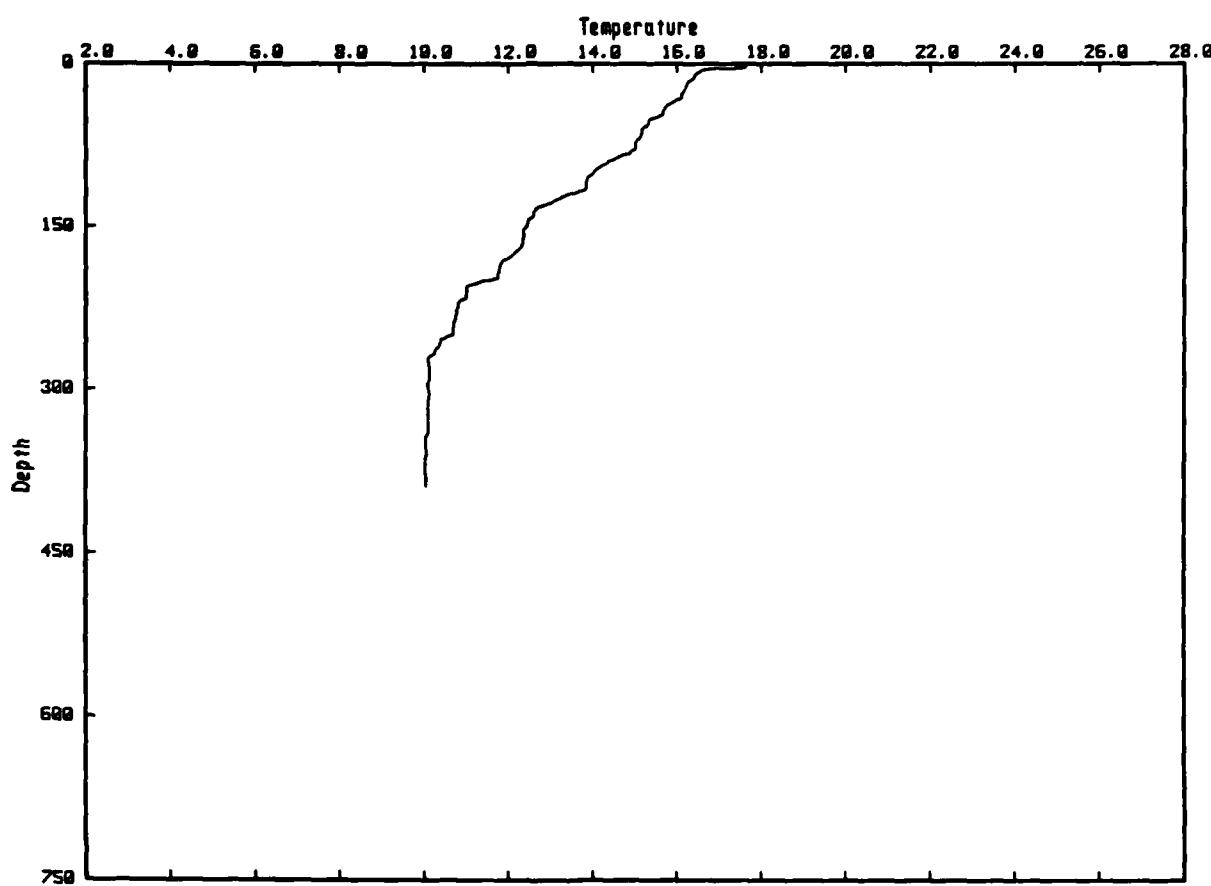
XBT DROP 131 T-7 RADAR: none GULF COORDS: -22.8 245.5  
JDAY 329 1232Z DEPTH 345m/345m SST 16.70 2M TEMPS: SAIL 17.05 XBT 16.76  
GULF OF CALIFORNIA: SILL LINE, CXP1-12

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 16.2 | 200 | 10.0 |
| 20  | 15.3 | 209 | 10.0 |
| 30  | 14.8 | 220 | 10.0 |
| 40  | 14.4 | 229 | 9.9  |
| 50  | 14.3 | 240 | 9.9  |
| 60  | 14.2 | 250 | 9.9  |
| 70  | 13.6 | 260 | 9.9  |
| 80  | 13.4 | 270 | 9.9  |
| 90  | 13.1 | 280 | 9.9  |
| 100 | 12.9 | 290 | 9.7  |
| 110 | 12.1 | 300 | 9.7  |
| 120 | 11.8 | 310 | 9.6  |
| 130 | 11.6 | 320 | 9.8  |
| 140 | 11.6 | 331 | 9.8  |
| 150 | 11.3 | 339 | 9.8  |
| 161 | 10.7 |     |      |
| 170 | 10.6 |     |      |
| 180 | 10.2 |     |      |
| 190 | 10.1 |     |      |

XBT DROP 132

28 41.4N 112 40.2W

24 NOV 84 0544 MST



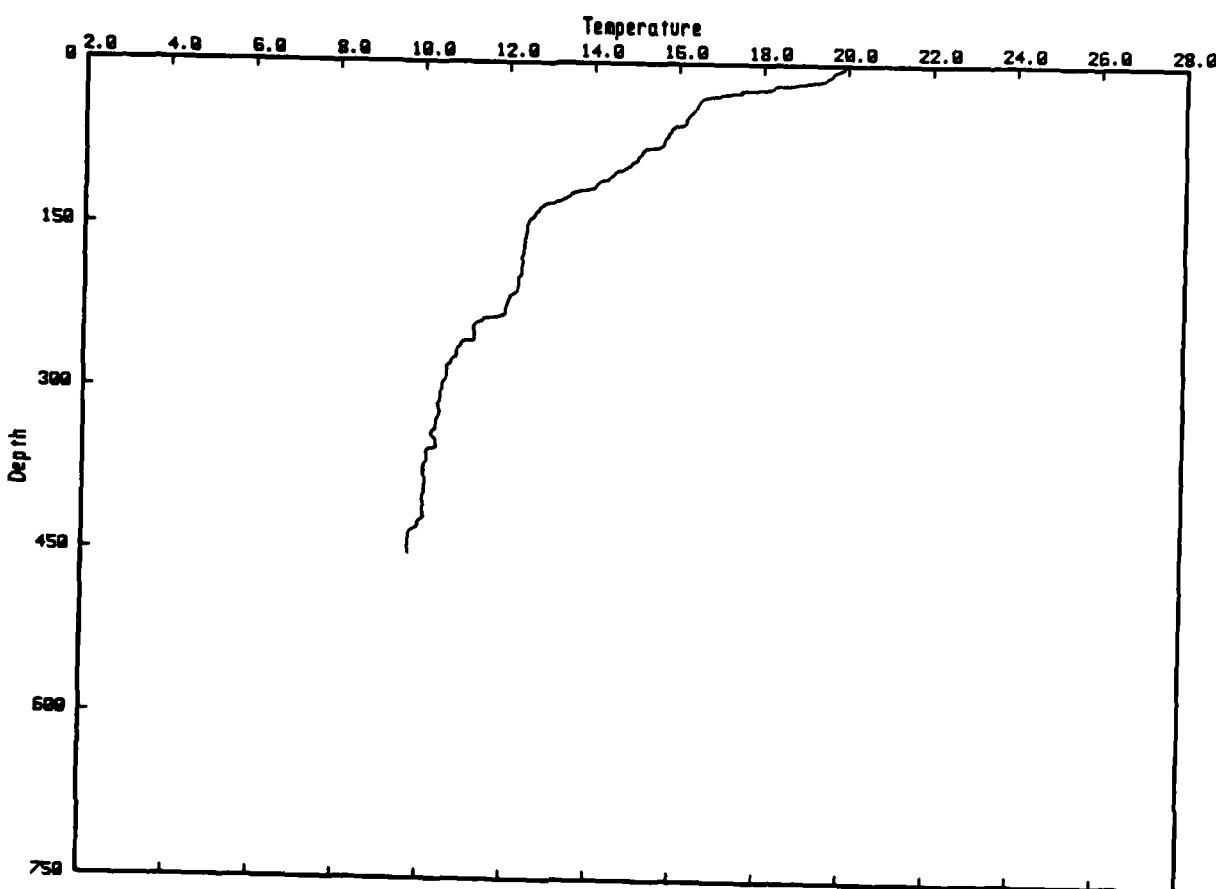
XBT DROP 132 T-7 RADAR: none GULF COORDS: -22.4 248.4  
JDAY 329 1244Z DEPTH 390m/390m SST 17.40 2M TEMPS: SAIL 17.66 XBT 17.49  
GULF OF CALIFORNIA: SILL LINE, CXP1-13

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.4 | 200 | 11.4 | 389 | 10.1 |
| 20  | 16.2 | 210 | 11.0 |     |      |
| 30  | 16.1 | 220 | 10.8 |     |      |
| 40  | 15.7 | 230 | 10.8 |     |      |
| 50  | 15.4 | 240 | 10.7 |     |      |
| 60  | 15.2 | 250 | 10.6 |     |      |
| 70  | 15.1 | 260 | 10.4 |     |      |
| 80  | 14.9 | 270 | 10.1 |     |      |
| 90  | 14.4 | 280 | 10.1 |     |      |
| 100 | 14.0 | 290 | 10.1 |     |      |
| 110 | 13.8 | 300 | 10.1 |     |      |
| 120 | 13.4 | 310 | 10.1 |     |      |
| 130 | 12.9 | 320 | 10.1 |     |      |
| 140 | 12.6 | 330 | 10.1 |     |      |
| 150 | 12.4 | 340 | 10.1 |     |      |
| 160 | 12.4 | 350 | 10.1 |     |      |
| 170 | 12.3 | 360 | 10.1 |     |      |
| 180 | 11.9 | 370 | 10.0 |     |      |
| 190 | 11.8 | 380 | 10.1 |     |      |

XBT DROP 133

28 42.9N 112 41.4W

24 NOV 84 0556 MST



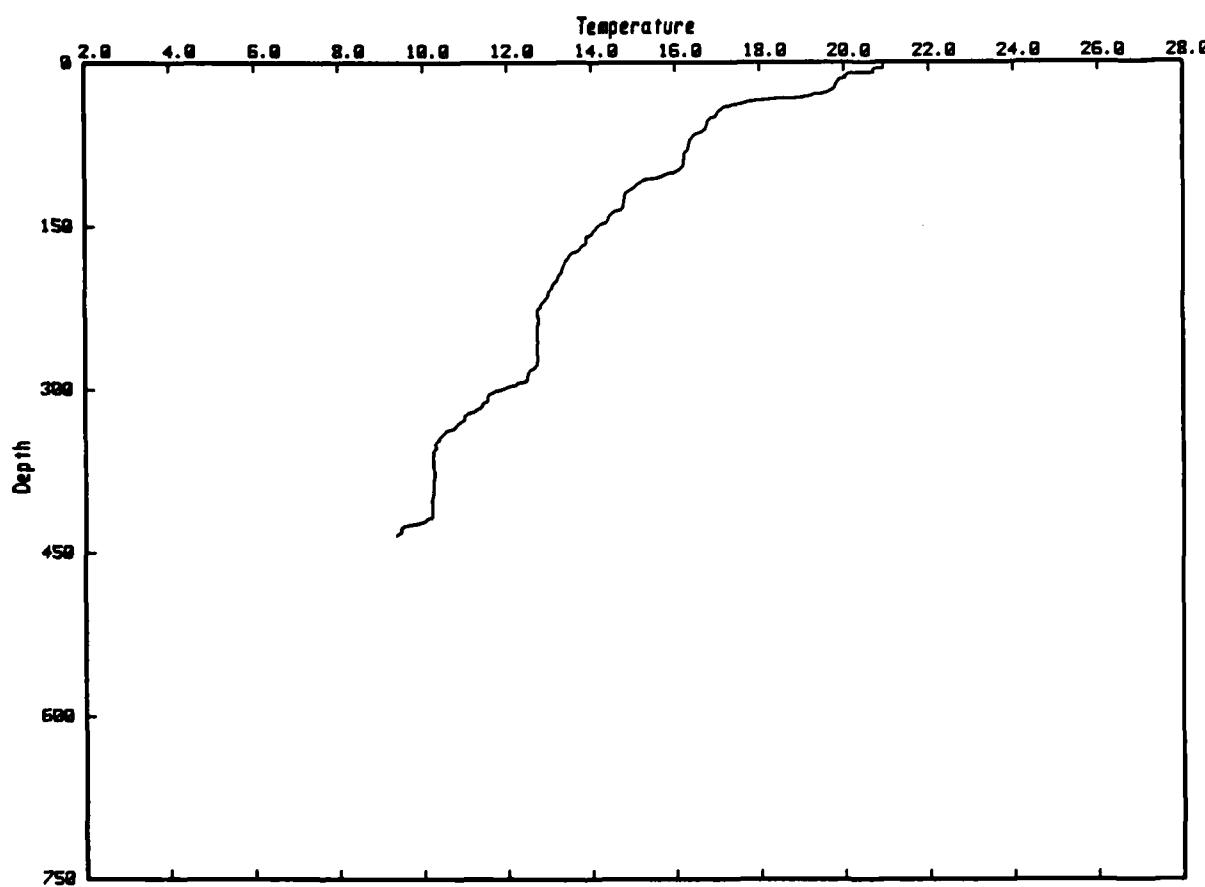
XBT DROP 133 T-7 RADAR: none  
JDAY 329 1256Z DEPTH 452m/452m SST 19.56 GULF COORDS: -22.3 251.8  
GULF OF CALIFORNIA: SILL LINE. CXP1-14 2M TEMPS: SAIL 19.56 XBT 19.89

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.6 | 200 | 12.2 | 390 | 10.1 |
| 20  | 18.3 | 210 | 12.2 | 400 | 10.1 |
| 30  | 16.8 | 220 | 12.0 | 409 | 10.1 |
| 39  | 16.4 | 230 | 11.9 | 420 | 10.1 |
| 50  | 16.2 | 240 | 11.2 | 430 | 9.8  |
| 60  | 15.9 | 249 | 11.2 | 440 | 9.7  |
| 70  | 15.7 | 261 | 10.9 | 450 | 9.7  |
| 80  | 15.2 | 270 | 10.8 |     |      |
| 90  | 15.0 | 280 | 10.6 |     |      |
| 100 | 14.5 | 290 | 10.6 |     |      |
| 110 | 14.1 | 299 | 10.5 |     |      |
| 120 | 13.5 | 309 | 10.4 |     |      |
| 130 | 12.8 | 320 | 10.4 |     |      |
| 140 | 12.6 | 330 | 10.3 |     |      |
| 150 | 12.4 | 341 | 10.2 |     |      |
| 159 | 12.4 | 350 | 10.3 |     |      |
| 171 | 12.4 | 360 | 10.1 |     |      |
| 180 | 12.3 | 370 | 10.1 |     |      |
| 191 | 12.3 | 379 | 10.1 |     |      |

XBT DROP 134

28 43.3N 112 41.8W

24 NOV 84 0602 MST



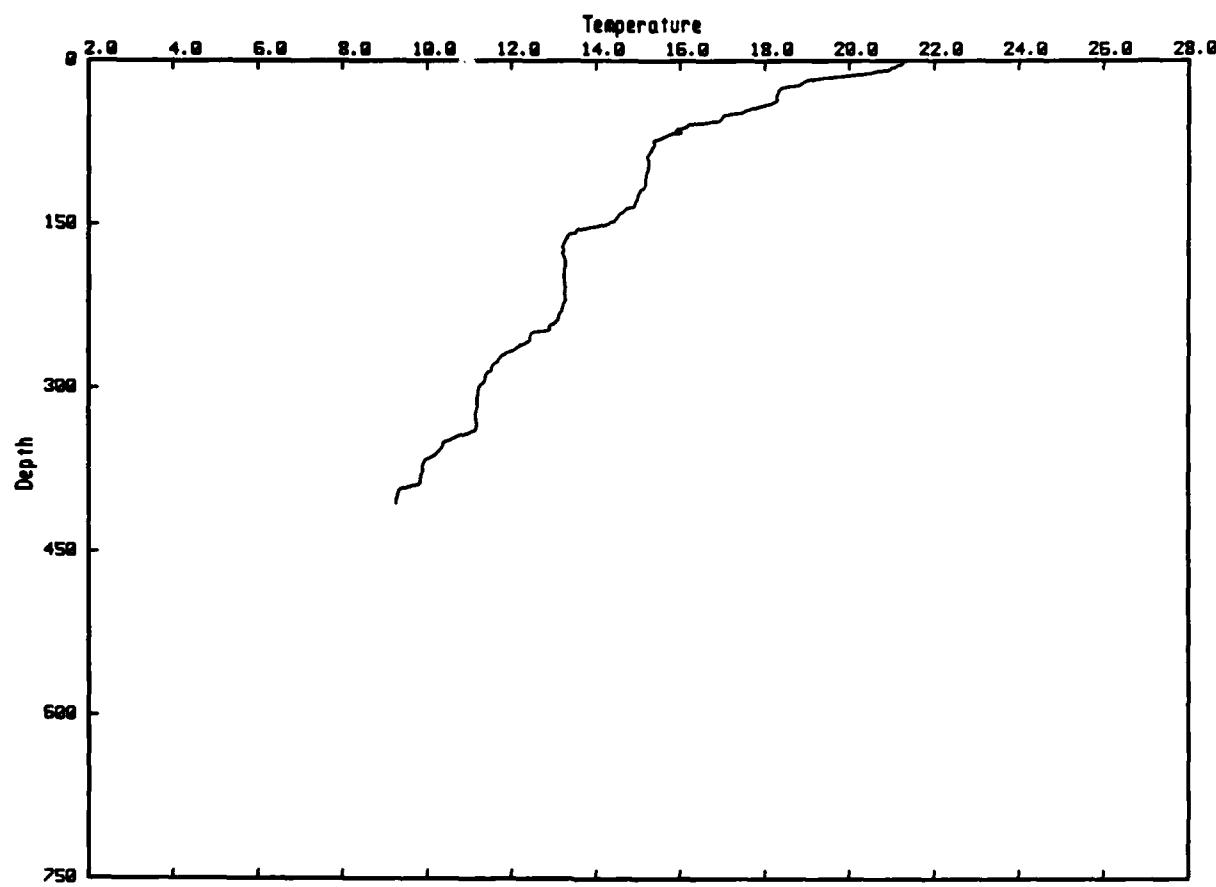
XBT DROP 134 T-7 RADAR: none GULF COORDS: -22.4 252.7  
JDAY 329 1302Z DEPTH 435m/434m SST 20.61 2M TEMPS: SAIL 21.12 XBT 20.94  
GULF OF CALIFORNIA: SILL LINE, CXP1-15

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.2 | 200 | 13.1 | 390 | 10.2 |
| 20  | 19.8 | 211 | 13.0 | 400 | 10.2 |
| 30  | 19.3 | 220 | 12.8 | 410 | 10.2 |
| 40  | 17.3 | 229 | 12.7 | 420 | 10.1 |
| 50  | 16.9 | 239 | 12.7 | 430 | 9.5  |
| 60  | 16.7 | 250 | 12.7 |     |      |
| 70  | 16.4 | 260 | 12.7 |     |      |
| 80  | 16.3 | 271 | 12.7 |     |      |
| 90  | 16.2 | 280 | 12.6 |     |      |
| 100 | 16.0 | 290 | 12.5 |     |      |
| 110 | 15.1 | 300 | 11.8 |     |      |
| 120 | 14.8 | 310 | 11.5 |     |      |
| 131 | 14.8 | 320 | 11.2 |     |      |
| 140 | 14.4 | 330 | 10.9 |     |      |
| 150 | 14.1 | 340 | 10.5 |     |      |
| 160 | 13.9 | 350 | 10.3 |     |      |
| 170 | 13.7 | 360 | 10.2 |     |      |
| 180 | 13.4 | 371 | 10.2 |     |      |
| 191 | 13.3 | 380 | 10.3 |     |      |

XBT DROP 135

28 44.0N 112 42.5W

24 NOV 84 0614 MST



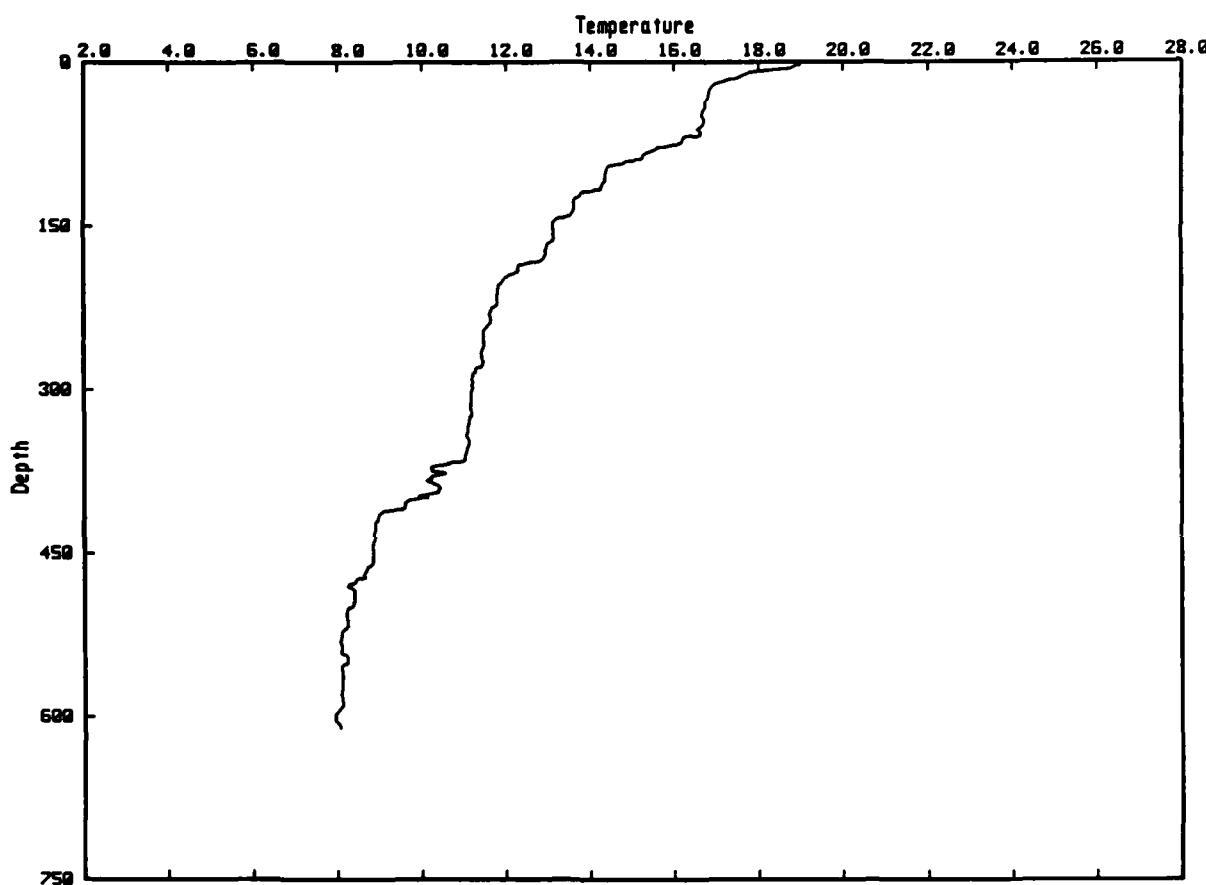
XBT DROP 135 T-7 RADAR: none GULF COORDS: -22.6 254.5  
JDAY 329 1314Z DEPTH 408m/408m SST 20.90 2M TEMPS: SAIL 21.36 XBT 21.16  
GULF OF CALIFORNIA: END CAP SILL LINE, CXP1-16, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.8 | 200 | 13.2 | 390 | 9.6  |
| 20  | 18.9 | 211 | 13.3 | 400 | 9.3  |
| 29  | 18.3 | 220 | 13.3 | 407 | 9.3  |
| 40  | 18.1 | 230 | 13.2 |     |      |
| 50  | 17.1 | 240 | 13.0 |     |      |
| 60  | 16.2 | 250 | 12.4 |     |      |
| 70  | 15.6 | 260 | 12.3 |     |      |
| 79  | 15.3 | 270 | 11.8 |     |      |
| 90  | 15.2 | 280 | 11.5 |     |      |
| 100 | 15.2 | 290 | 11.4 |     |      |
| 110 | 15.2 | 299 | 11.2 |     |      |
| 120 | 15.0 | 309 | 11.2 |     |      |
| 130 | 14.9 | 319 | 11.2 |     |      |
| 140 | 14.6 | 330 | 11.2 |     |      |
| 150 | 14.2 | 340 | 11.1 |     |      |
| 160 | 13.3 | 350 | 10.4 |     |      |
| 170 | 13.2 | 360 | 10.2 |     |      |
| 181 | 13.2 | 370 | 9.9  |     |      |
| 190 | 13.3 | 380 | 9.9  |     |      |

XBT DROP 137

28 34.1N 112 43.6W

24 NOV 84 1508 MST



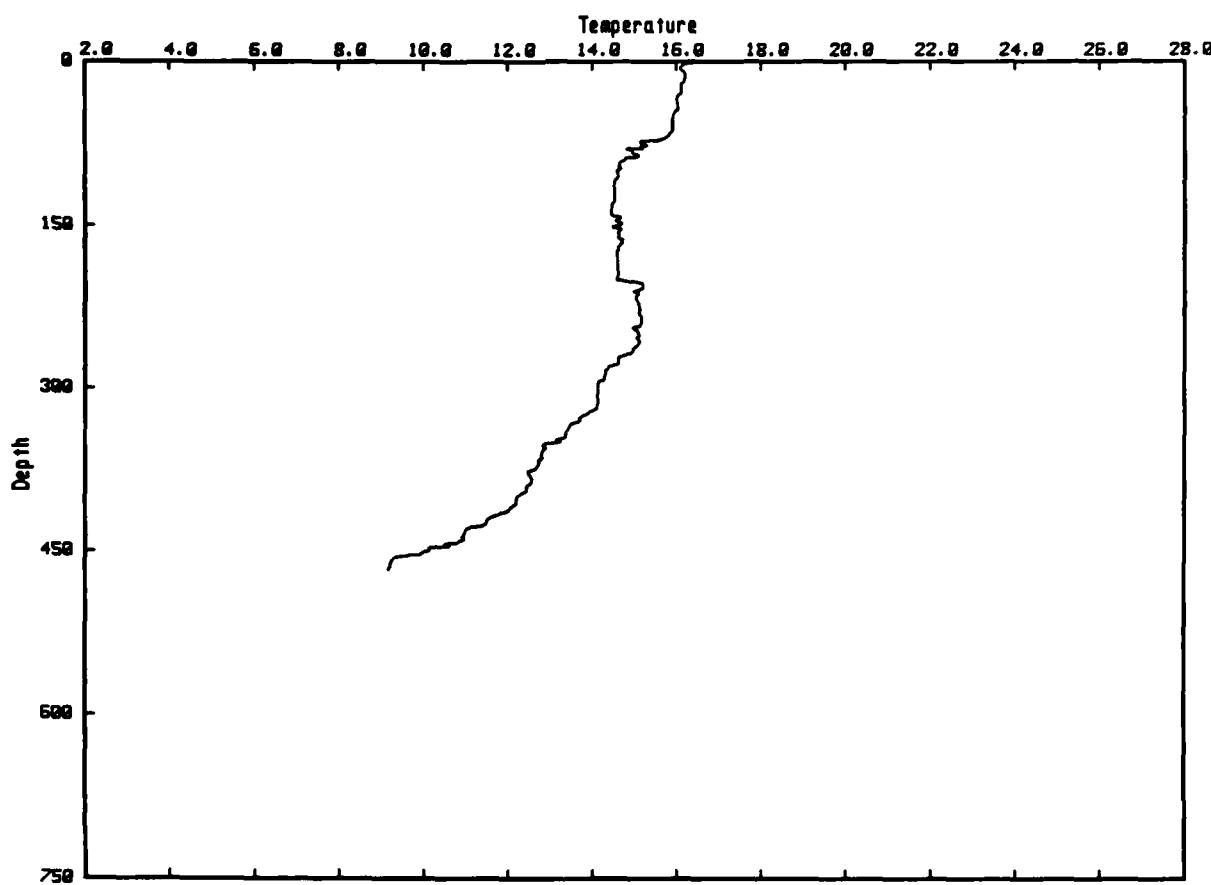
XBT DROP 137 T-7 RADAR: none GULF COORDS: -34.9 240.8  
JDAY 329 2208Z DEPTH 611m/610m SST 18.95 2M TEMPS: SAIL 18.80 XBT 18.87  
GULF OF CALIFORNIA: SILL REGION, NEAR FRONT

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 17.8 | 200 | 11.9 | 390 | 10.4 | 580 | 8.1  |
| 20  | 16.9 | 209 | 11.8 | 400 | 9.9  | 591 | 8.1  |
| 31  | 16.8 | 221 | 11.8 | 410 | 9.5  | 601 | 7.9  |
| 40  | 16.7 | 231 | 11.6 | 420 | 8.9  |     |      |
| 50  | 16.7 | 240 | 11.6 | 430 | 8.9  |     |      |
| 60  | 16.6 | 250 | 11.5 | 439 | 8.8  |     |      |
| 70  | 16.2 | 260 | 11.5 | 450 | 8.8  |     |      |
| 80  | 15.5 | 270 | 11.4 | 460 | 8.8  |     |      |
| 90  | 15.0 | 280 | 11.3 | 470 | 8.6  |     |      |
| 100 | 14.4 | 290 | 11.2 | 480 | 8.2  |     |      |
| 110 | 14.3 | 300 | 11.2 | 489 | 8.4  |     |      |
| 120 | 13.8 | 310 | 11.2 | 500 | 8.3  |     |      |
| 130 | 13.6 | 321 | 11.2 | 510 | 8.2  |     |      |
| 140 | 13.5 | 330 | 11.1 | 520 | 8.1  |     |      |
| 150 | 13.1 | 341 | 11.1 | 530 | 8.1  |     |      |
| 160 | 13.1 | 351 | 11.1 | 540 | 8.1  |     |      |
| 170 | 13.0 | 360 | 11.0 | 550 | 8.2  |     |      |
| 180 | 12.9 | 370 | 10.3 | 560 | 8.1  |     |      |
| 190 | 12.3 | 380 | 10.2 | 569 | 8.1  |     |      |

XBT DROP 138

28 39.1N 112 39.8W

24 NOV 84 1954 MST



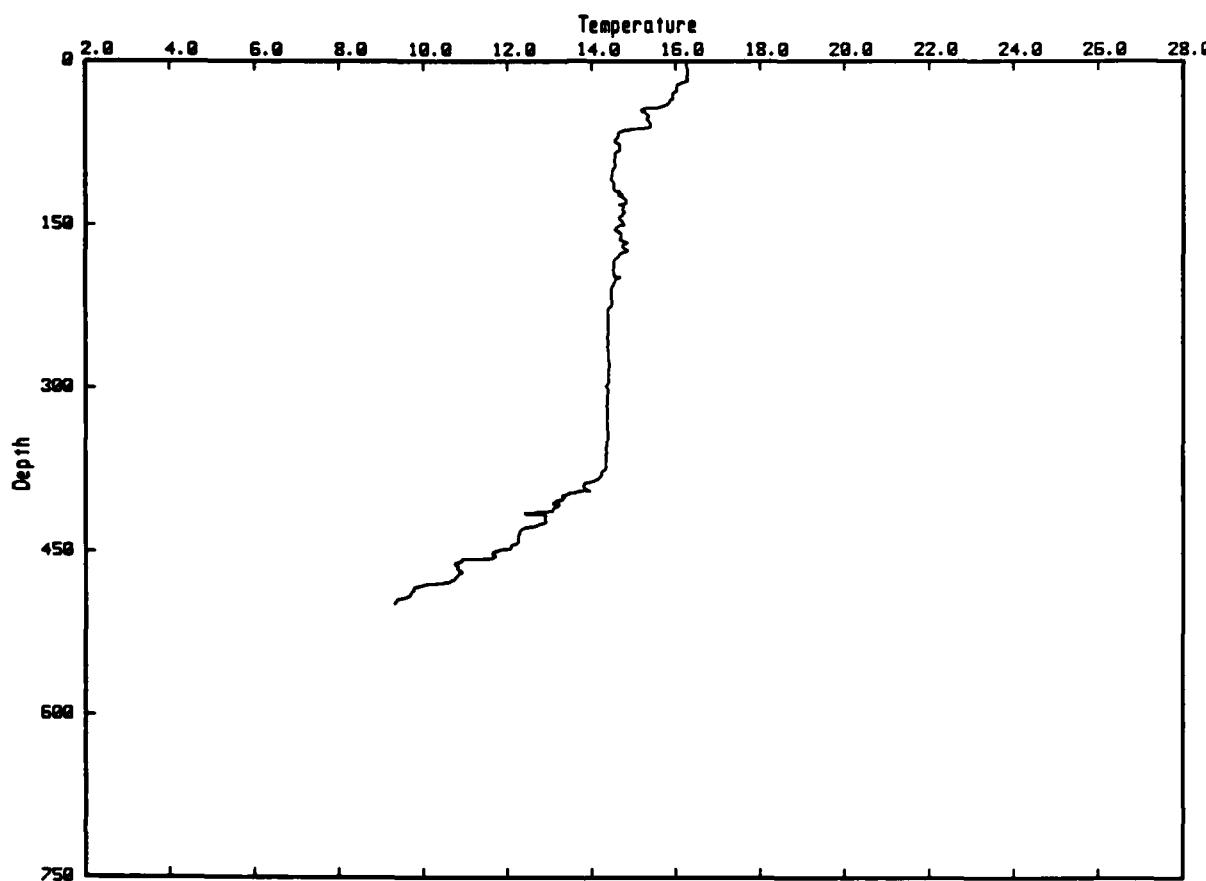
XBT DROP 138 T-7 RADAR: none GULF COORDS: -24.4 244.6  
JDAY 330 254Z DEPTH 468m/468m SST 16.25 2M TEMPS: SAIL 16.30 XBT 16.13  
GULF OF CALIFORNIA: SILL REGION, DOWNCAST OF CTD STATION PC6114

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.2 | 200 | 14.6 | 390 | 12.4 |
| 20  | 16.1 | 210 | 15.0 | 399 | 12.2 |
| 30  | 16.1 | 220 | 15.1 | 410 | 12.1 |
| 40  | 16.0 | 230 | 15.1 | 420 | 11.6 |
| 50  | 15.9 | 239 | 15.2 | 430 | 11.0 |
| 60  | 15.9 | 250 | 15.1 | 440 | 10.9 |
| 70  | 15.7 | 260 | 15.1 | 450 | 10.1 |
| 80  | 14.8 | 270 | 14.8 | 460 | 9.2  |
| 90  | 14.8 | 280 | 14.4 | 468 | 9.2  |
| 100 | 14.6 | 290 | 14.3 |     |      |
| 110 | 14.5 | 299 | 14.1 |     |      |
| 119 | 14.5 | 309 | 14.1 |     |      |
| 130 | 14.5 | 320 | 14.1 |     |      |
| 140 | 14.4 | 330 | 13.7 |     |      |
| 150 | 14.6 | 340 | 13.4 |     |      |
| 160 | 14.6 | 350 | 13.1 |     |      |
| 169 | 14.6 | 359 | 12.8 |     |      |
| 179 | 14.6 | 370 | 12.7 |     |      |
| 190 | 14.6 | 379 | 12.5 |     |      |

XBT DROP 139

28 37.8N 112 39.2W

24 NOV 84 1957 MST



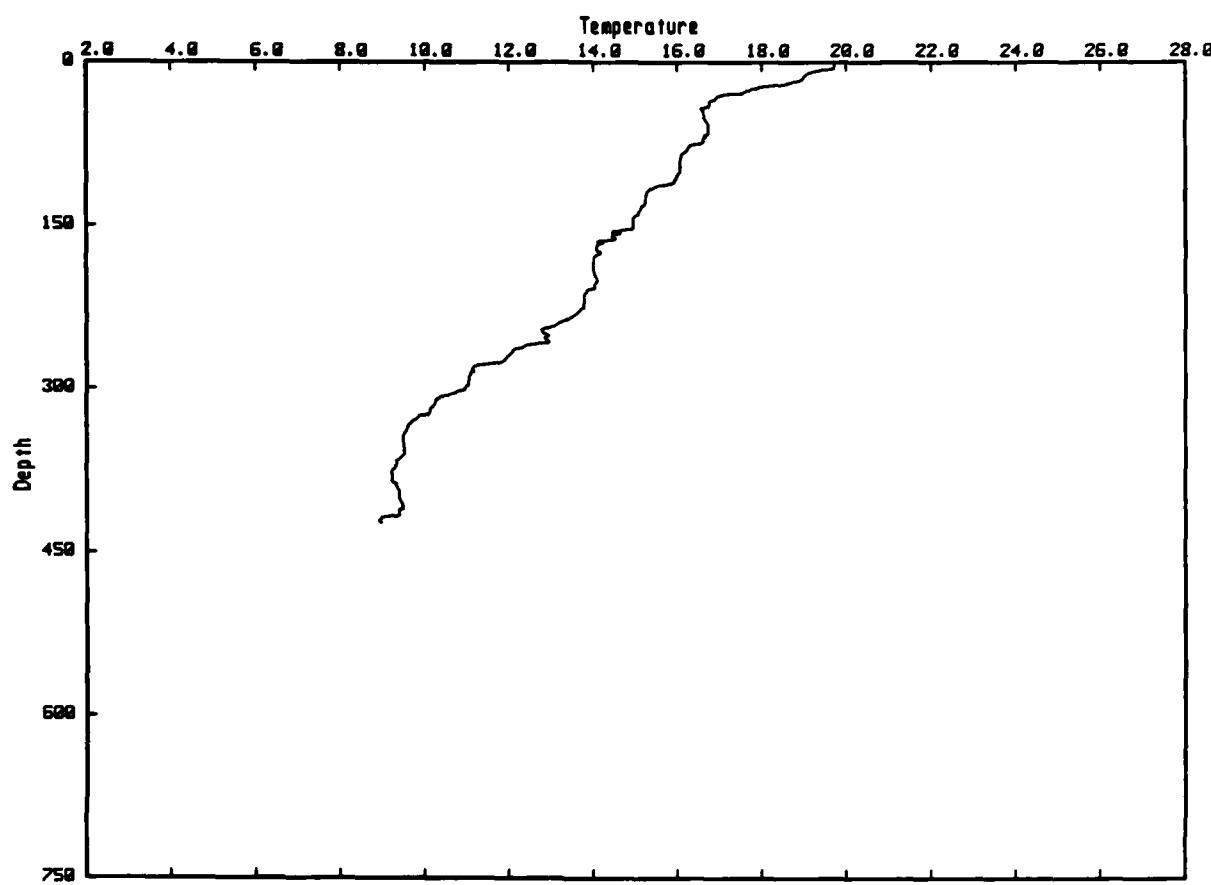
XBT DROP 139 T-7 RADAR: none GULF COORDS: -25.0 242.0  
JDAY 330 257Z DEPTH 498m/498m SST 16.24 2M TEMPS: SAIL 16.32 XBT 16.26  
GULF OF CALIFORNIA: SILL REGION, UPCAST OF CTD STATION PC6114

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.3 | 200 | 14.6 | 390 | 13.8 |
| 20  | 16.1 | 211 | 14.5 | 400 | 13.3 |
| 31  | 15.9 | 220 | 14.5 | 410 | 13.1 |
| 40  | 15.8 | 230 | 14.4 | 420 | 12.9 |
| 50  | 15.4 | 240 | 14.4 | 430 | 12.3 |
| 60  | 15.4 | 250 | 14.4 | 440 | 12.2 |
| 70  | 14.6 | 260 | 14.4 | 450 | 11.7 |
| 80  | 14.7 | 270 | 14.4 | 460 | 10.8 |
| 90  | 14.5 | 280 | 14.4 | 470 | 10.8 |
| 100 | 14.5 | 290 | 14.4 | 480 | 10.0 |
| 110 | 14.5 | 300 | 14.4 | 490 | 9.7  |
| 120 | 14.6 | 310 | 14.4 | 498 | 9.3  |
| 130 | 14.8 | 320 | 14.4 |     |      |
| 140 | 14.7 | 330 | 14.4 |     |      |
| 150 | 14.8 | 340 | 14.4 |     |      |
| 160 | 14.7 | 351 | 14.4 |     |      |
| 170 | 14.7 | 360 | 14.3 |     |      |
| 180 | 14.6 | 369 | 14.3 |     |      |
| 190 | 14.5 | 380 | 14.2 |     |      |

XBT DROP 140

28 35.7N 112 42.6W

25 NOV 84 0942 MST



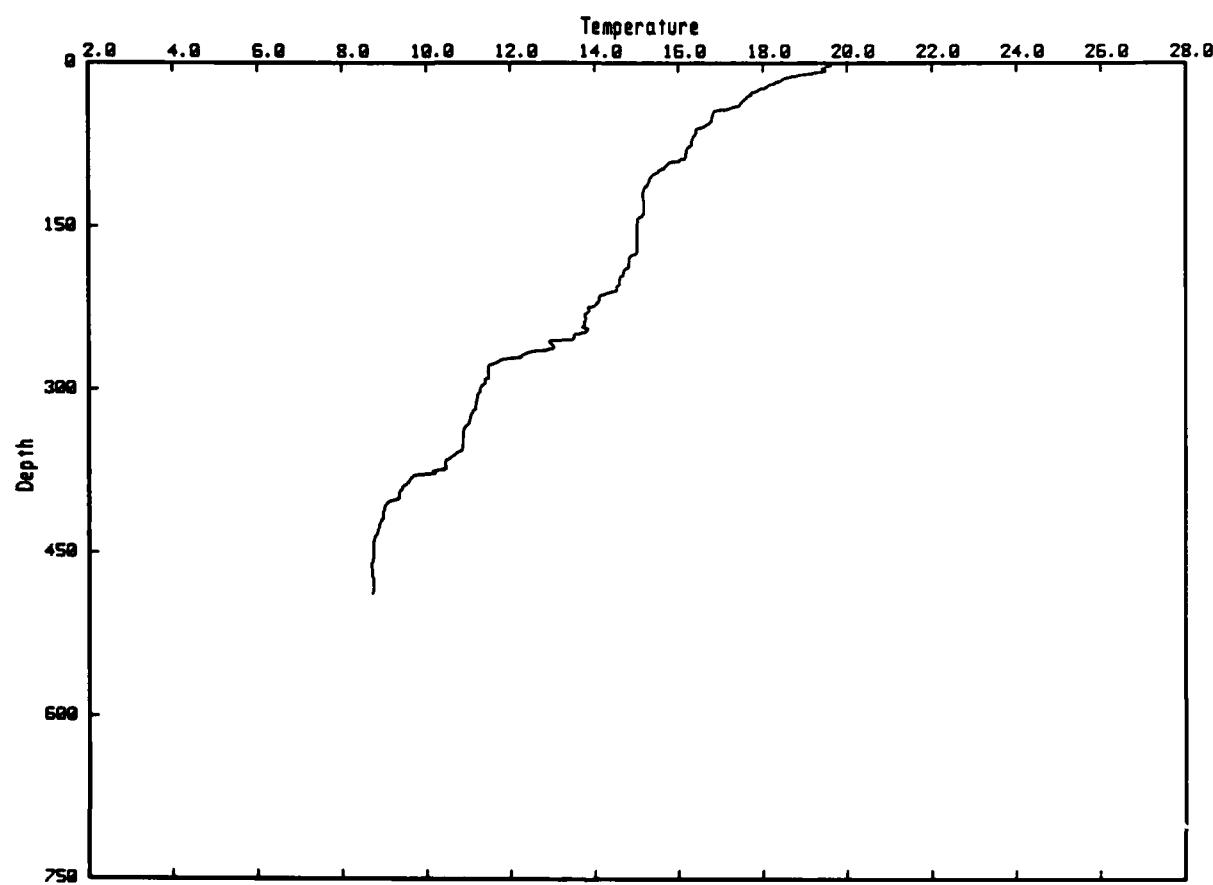
XBT DROP 140 T-7 RADAR: SE 7.1nm 048T GULF COORDS: -31.8 242.2  
JDAY 330 1642Z DEPTH 428m/423m SST 19.38 2M TEMPS: SAIL 19.65 XBT 19.72  
GULF OF CALIFORNIA: BEGIN CAP SL/SE LINE, CXP1-21, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.1 | 200 | 14.1 | 390 | 9.3  |
| 20  | 18.6 | 210 | 13.9 | 400 | 9.4  |
| 30  | 17.1 | 220 | 13.8 | 410 | 9.5  |
| 40  | 16.7 | 230 | 13.6 | 420 | 9.0  |
| 50  | 16.6 | 240 | 13.2 |     |      |
| 60  | 16.7 | 250 | 12.9 |     |      |
| 70  | 16.6 | 260 | 12.5 |     |      |
| 80  | 16.2 | 270 | 12.0 |     |      |
| 90  | 16.1 | 280 | 11.2 |     |      |
| 100 | 16.1 | 289 | 11.1 |     |      |
| 110 | 15.9 | 300 | 10.9 |     |      |
| 121 | 15.3 | 310 | 10.3 |     |      |
| 130 | 15.2 | 320 | 10.1 |     |      |
| 140 | 15.1 | 330 | 9.7  |     |      |
| 150 | 14.9 | 340 | 9.5  |     |      |
| 160 | 14.4 | 350 | 9.5  |     |      |
| 170 | 14.1 | 360 | 9.5  |     |      |
| 180 | 14.0 | 370 | 9.3  |     |      |
| 190 | 14.0 | 379 | 9.2  |     |      |

XBT DROP 141

28 36.1N 112 42.4W

25 NOV 84 0948 MST



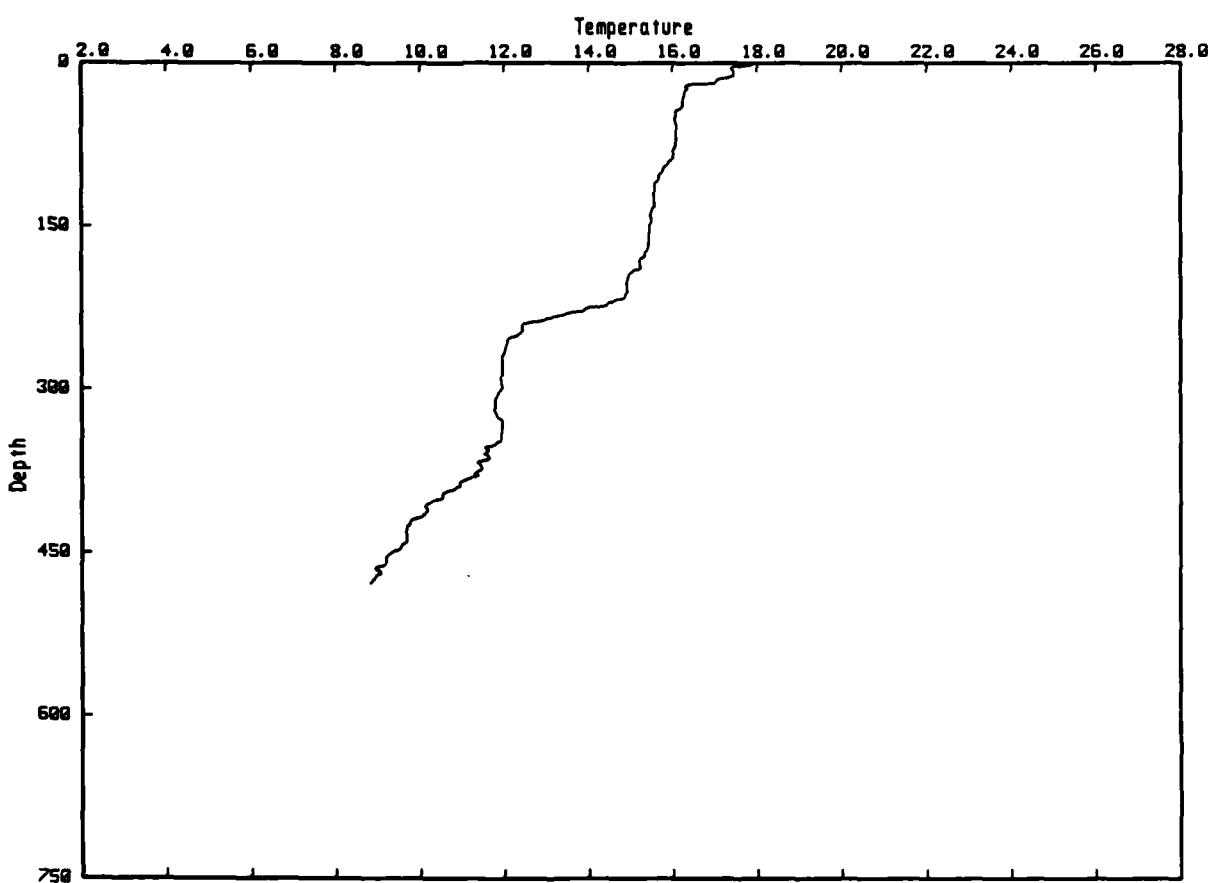
XBT DROP 141 T-7 RADAR: SE 6.4nm 050T GULF COORDS: -31.1 242.6  
JDAY 330 1648Z DEPTH 488m/488m SST 19.47 2M TEMPS: SAIL 19.61 XBT 19.50  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-22

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.1 | 200 | 14.6 | 390 | 9.4  |
| 20  | 18.2 | 210 | 14.4 | 400 | 9.3  |
| 30  | 17.7 | 220 | 14.1 | 410 | 9.0  |
| 40  | 17.3 | 230 | 13.8 | 420 | 8.9  |
| 50  | 16.8 | 240 | 13.8 | 430 | 8.9  |
| 60  | 16.4 | 250 | 13.5 | 440 | 8.7  |
| 70  | 16.3 | 260 | 13.0 | 450 | 8.8  |
| 80  | 16.2 | 270 | 12.2 | 460 | 8.7  |
| 90  | 16.0 | 280 | 11.5 | 470 | 8.7  |
| 100 | 15.5 | 290 | 11.4 | 480 | 8.8  |
| 110 | 15.3 | 299 | 11.3 | 488 | 8.7  |
| 120 | 15.2 | 310 | 11.2 |     |      |
| 131 | 15.2 | 320 | 11.1 |     |      |
| 140 | 15.1 | 330 | 11.0 |     |      |
| 150 | 15.0 | 340 | 10.9 |     |      |
| 160 | 15.0 | 350 | 10.9 |     |      |
| 170 | 15.0 | 360 | 10.6 |     |      |
| 181 | 14.8 | 370 | 10.4 |     |      |
| 190 | 14.7 | 380 | 9.7  |     |      |

XBT DROP 142

28 36.5N 112 41.8W

25 NOV 84 0952 MST



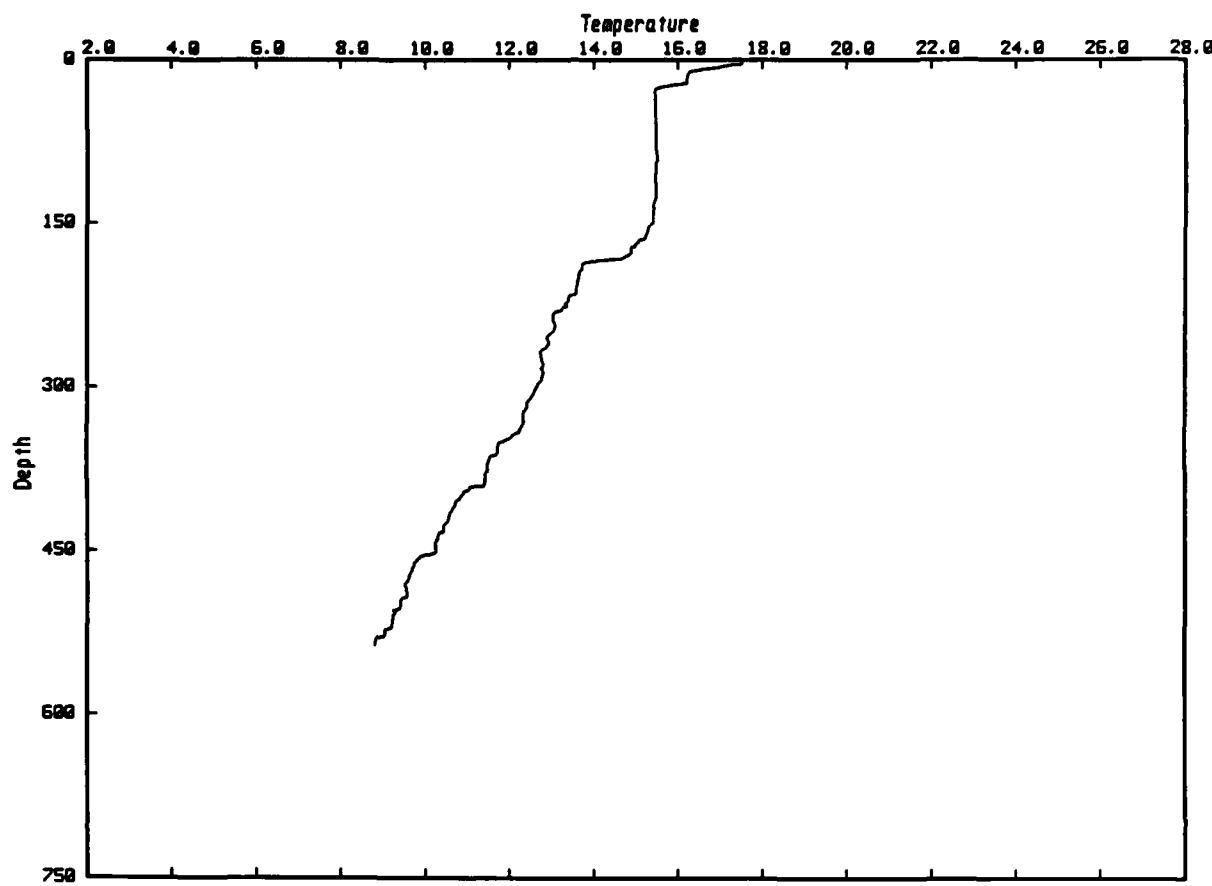
XBT DROP 142 T-7 RADAR: SE 5.8nm 050T GULF COORDS: -29.9 242.6  
JDAY 330 1652Z DEPTH 567m/477m SST 18.20 2M TEMPS: SAIL 18.69 XBT 17.45  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-23

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 17.4 | 200 | 14.9 | 390 | 10.9 |
| 20  | 16.4 | 210 | 14.9 | 400 | 10.5 |
| 30  | 16.3 | 220 | 14.5 | 411 | 10.2 |
| 40  | 16.2 | 230 | 13.5 | 420 | 9.8  |
| 50  | 16.1 | 240 | 12.5 | 431 | 9.7  |
| 60  | 16.1 | 251 | 12.3 | 440 | 9.7  |
| 70  | 16.1 | 261 | 12.0 | 450 | 9.3  |
| 80  | 16.0 | 270 | 12.0 | 460 | 9.2  |
| 90  | 15.9 | 279 | 11.9 | 470 | 9.0  |
| 101 | 15.7 | 289 | 11.9 |     |      |
| 110 | 15.6 | 300 | 11.9 |     |      |
| 120 | 15.6 | 311 | 11.8 |     |      |
| 130 | 15.6 | 320 | 11.8 |     |      |
| 140 | 15.5 | 331 | 12.0 |     |      |
| 150 | 15.4 | 340 | 11.9 |     |      |
| 159 | 15.4 | 350 | 11.8 |     |      |
| 170 | 15.4 | 360 | 11.6 |     |      |
| 180 | 15.2 | 369 | 11.4 |     |      |
| 190 | 15.1 | 380 | 11.3 |     |      |

XBT DROP 143

28 37.1N 112 40.8W

25 NOV 84 0958 MST



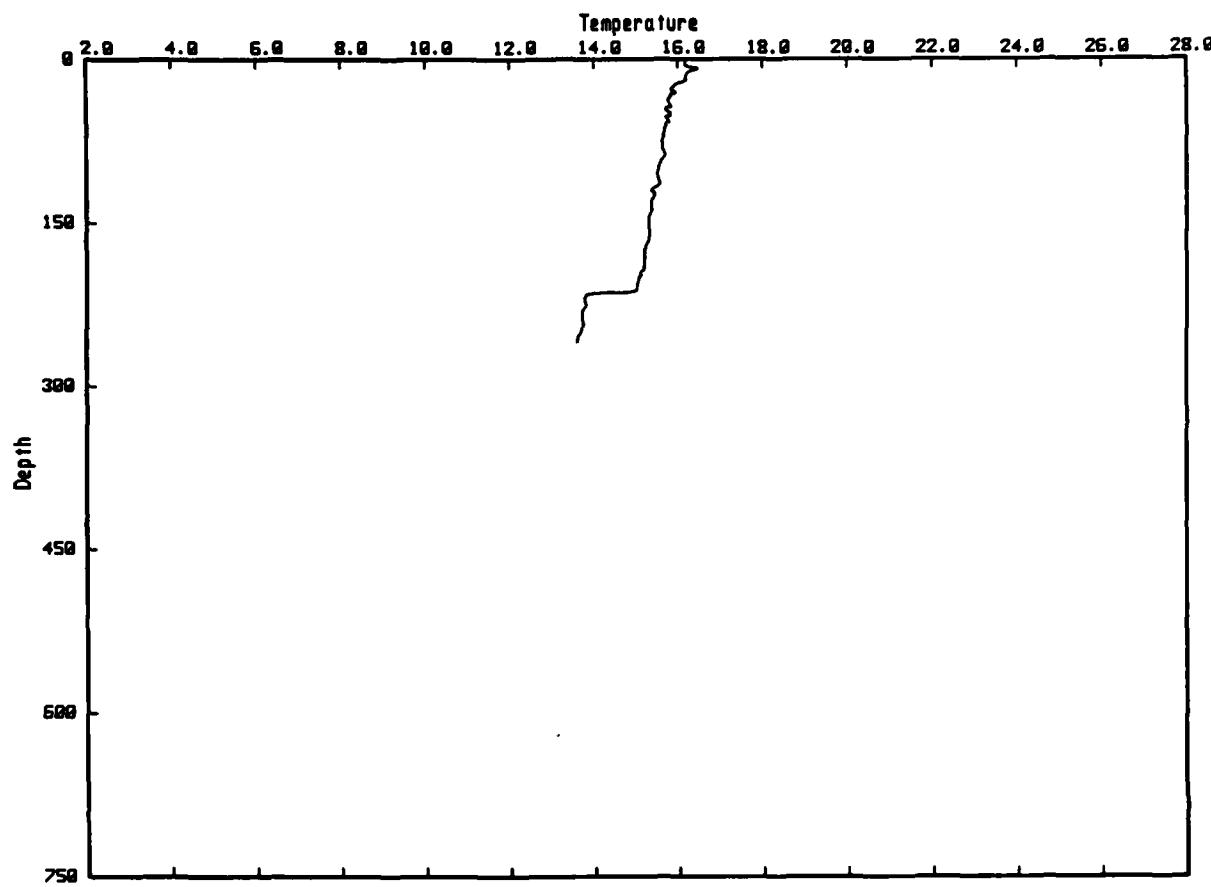
XBT DROP 143 T-7 RADAR: SE 4.6nm 053T GULF COORDS: -27.9 242.5  
JDAY 330 1658Z DEPTH 538m/538m SST 18.47 2M TEMPS: SAIL 18.15 XBT 17.51  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-24

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.4 | 200 | 13.6 | 390 | 11.4 |
| 20  | 16.2 | 210 | 13.6 | 400 | 10.8 |
| 29  | 15.4 | 220 | 13.4 | 410 | 10.7 |
| 41  | 15.5 | 230 | 13.2 | 420 | 10.6 |
| 50  | 15.5 | 240 | 13.1 | 430 | 10.4 |
| 60  | 15.5 | 250 | 13.0 | 440 | 10.3 |
| 71  | 15.5 | 260 | 12.9 | 450 | 10.3 |
| 80  | 15.5 | 270 | 12.7 | 460 | 9.8  |
| 90  | 15.5 | 280 | 12.8 | 470 | 9.7  |
| 99  | 15.5 | 290 | 12.8 | 480 | 9.5  |
| 110 | 15.4 | 300 | 12.6 | 490 | 9.6  |
| 120 | 15.5 | 310 | 12.5 | 500 | 9.4  |
| 129 | 15.4 | 320 | 12.4 | 509 | 9.2  |
| 139 | 15.4 | 329 | 12.3 | 520 | 9.2  |
| 150 | 15.4 | 340 | 12.2 | 530 | 8.9  |
| 160 | 15.2 | 350 | 11.8 | 537 | 8.8  |
| 170 | 15.0 | 361 | 11.7 |     |      |
| 180 | 14.7 | 371 | 11.5 |     |      |
| 190 | 13.7 | 380 | 11.4 |     |      |

XBT DROP 144

28 37.3N 112 40.3W

25 NOV 84 1002 MST



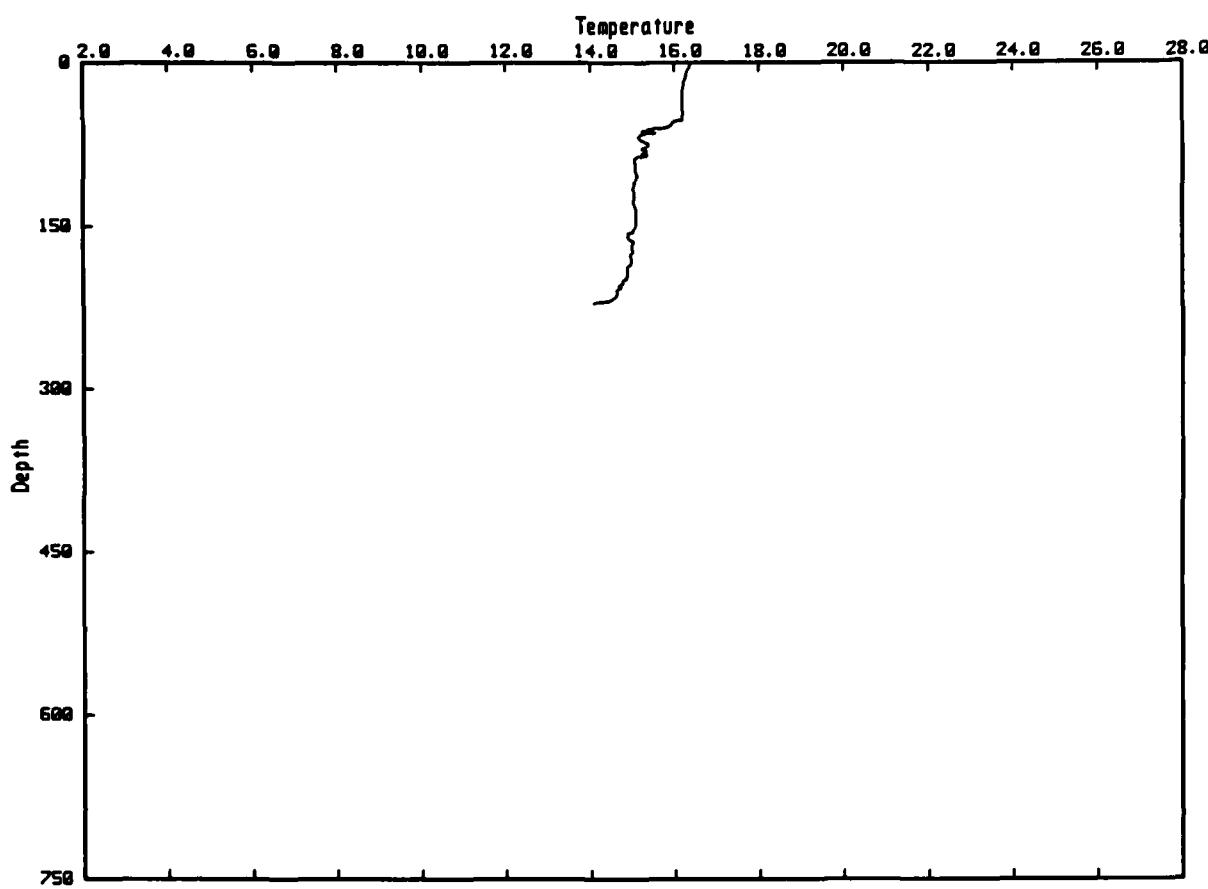
XBT DROP 144 T-7 RADAR: SE 4.3nm 054T GULF COORDS: -27.0 242.4  
JDAY 330 1702Z DEPTH 481m/259m SST 17.60 2M TEMPS: SAIL 16.34 XBT 16.19  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-25

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 16.4 | 200 | 15.1 |
| 20  | 16.1 | 210 | 15.0 |
| 30  | 15.9 | 220 | 13.8 |
| 40  | 15.8 | 230 | 13.7 |
| 50  | 15.8 | 239 | 13.7 |
| 60  | 15.7 | 251 | 13.7 |
| 70  | 15.6 |     |      |
| 80  | 15.6 |     |      |
| 90  | 15.6 |     |      |
| 100 | 15.5 |     |      |
| 110 | 15.5 |     |      |
| 120 | 15.4 |     |      |
| 130 | 15.4 |     |      |
| 140 | 15.4 |     |      |
| 151 | 15.3 |     |      |
| 161 | 15.3 |     |      |
| 170 | 15.3 |     |      |
| 180 | 15.2 |     |      |
| 190 | 15.2 |     |      |

XBT DROP 145

28 37.8N 112 39.3W

25 NOV 84 1008 MST



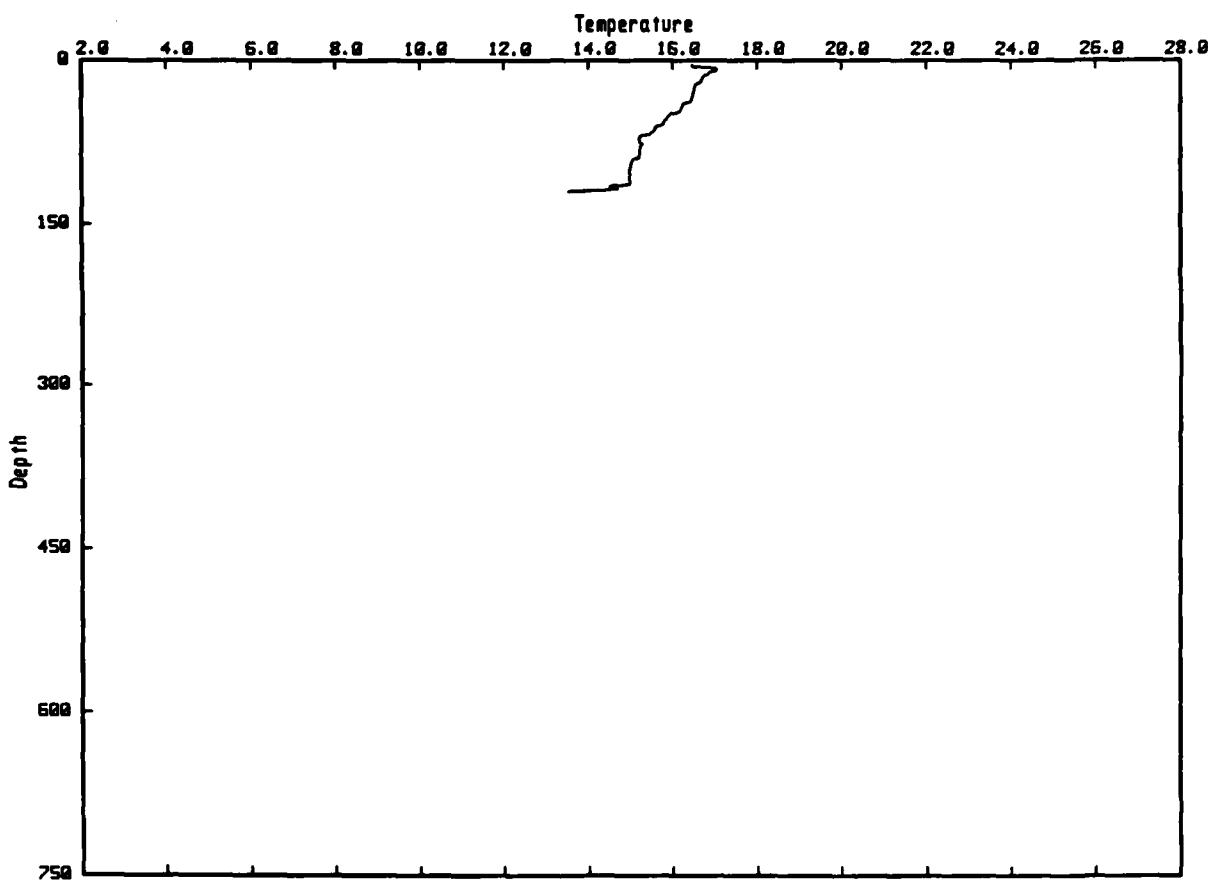
XBT DROP 145 T-7 RADAR: SE 3.3nm 057T GULF COORDS: -25.1 242.1  
JDAY 330 1708Z DEPTH 221m/221m SST 16.58 2M TEMPS: SAIL 16.19 XBT 16.37  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-26

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 16.3 | 200 | 14.8 |
| 20  | 16.2 | 210 | 14.8 |
| 30  | 16.2 | 220 | 14.1 |
| 40  | 16.2 |     |      |
| 51  | 16.2 |     |      |
| 60  | 15.7 |     |      |
| 70  | 15.2 |     |      |
| 80  | 15.3 |     |      |
| 89  | 15.0 |     |      |
| 100 | 15.1 |     |      |
| 110 | 15.1 |     |      |
| 121 | 15.1 |     |      |
| 130 | 15.0 |     |      |
| 140 | 15.1 |     |      |
| 150 | 15.1 |     |      |
| 160 | 14.9 |     |      |
| 170 | 15.0 |     |      |
| 179 | 15.0 |     |      |
| 191 | 14.9 |     |      |

XBT DROP 146

28 38.0N 112 38.2W

25 NOV 84 1014 MST



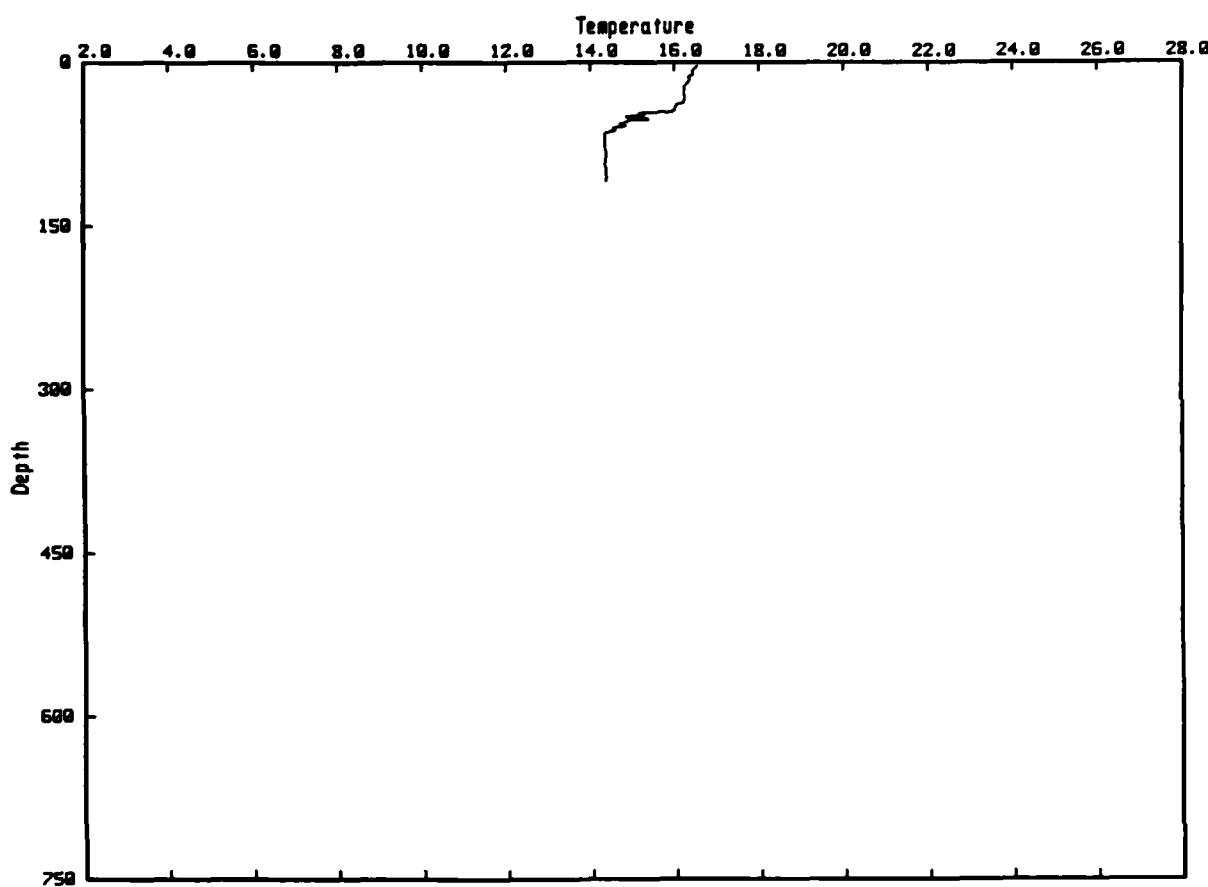
XBT DROP 146 T-7 RADAR: SE 2.5nm 059T GULF COORDS: -23.5 241.4  
JDAY 330 1714Z DEPTH 120m/120m SST 16.50 2M TEMPS: SAIL 16.52 XBT .00  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP1-27

| Z   | TEMP |
|-----|------|
| 10  | 17.0 |
| 20  | 16.7 |
| 29  | 16.5 |
| 40  | 16.2 |
| 50  | 15.9 |
| 60  | 15.6 |
| 70  | 15.2 |
| 80  | 15.2 |
| 90  | 15.1 |
| 100 | 15.0 |
| 110 | 15.0 |
| 120 | 13.5 |

XBT DROP 147

28 38.1N 112 37.8W

25 NOV 84 1017 MST



XBT DROP 147 T-7 RADAR: SE 2.1nm 061T GULF COORDS: -22.8 241.1  
JDAY 330 1717Z DEPTH 111m/111m SST 16.50 2M TEMPS: SAIL 16.54 XBT 16.53  
GULF OF CALIFORNIA: END CAP SL/SE SILL LINE, CXP1-28, SPRING TIDE

| Z   | TEMP |
|-----|------|
| 10  | 16.4 |
| 20  | 16.3 |
| 29  | 16.2 |
| 40  | 16.1 |
| 50  | 14.9 |
| 60  | 14.6 |
| 70  | 14.4 |
| 81  | 14.4 |
| 90  | 14.4 |
| 101 | 14.4 |
| 109 | 14.4 |



**San Esteban**

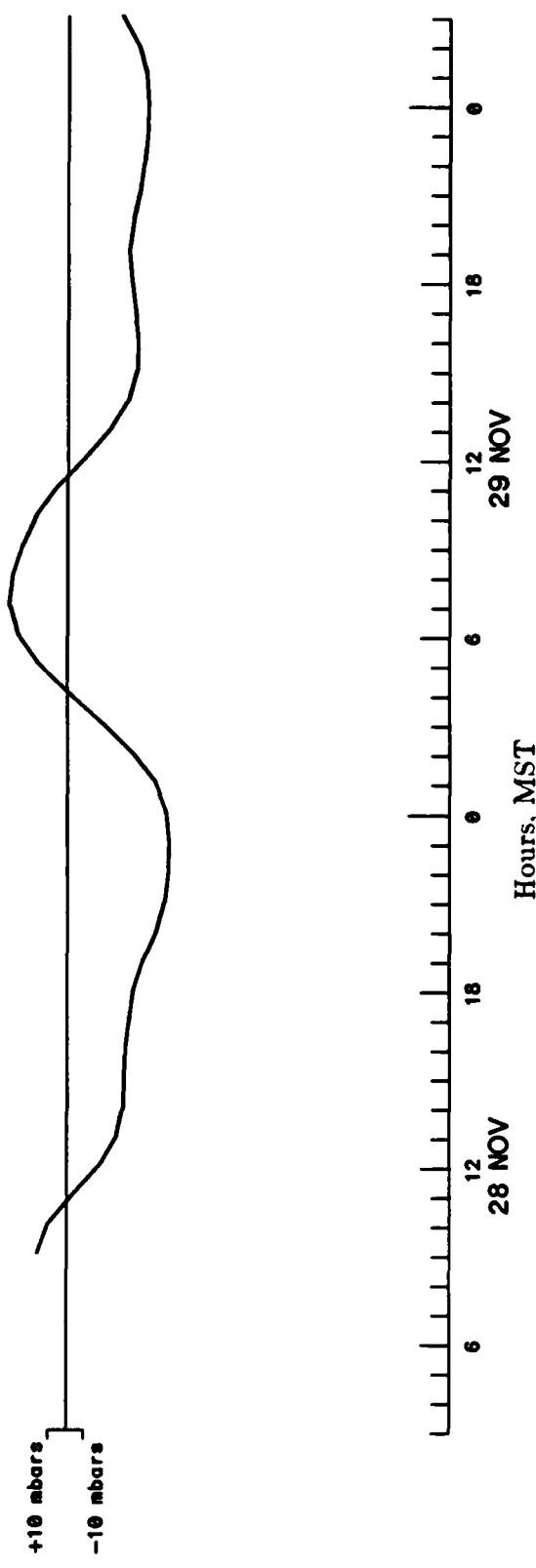


Figure 20. Bottom Pressure at San Esteban Island.  
28-29 November 1984 - Neap Tides.



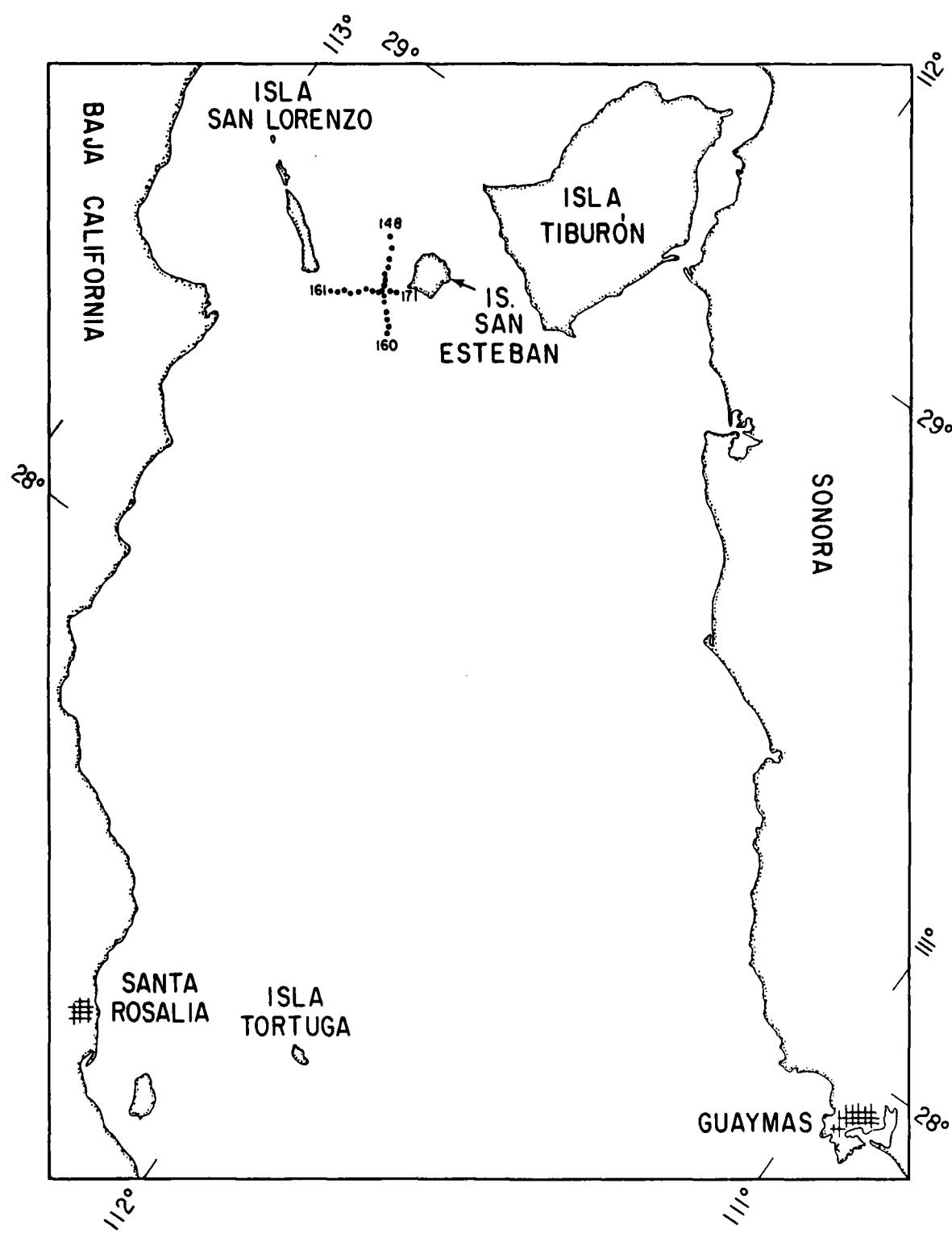


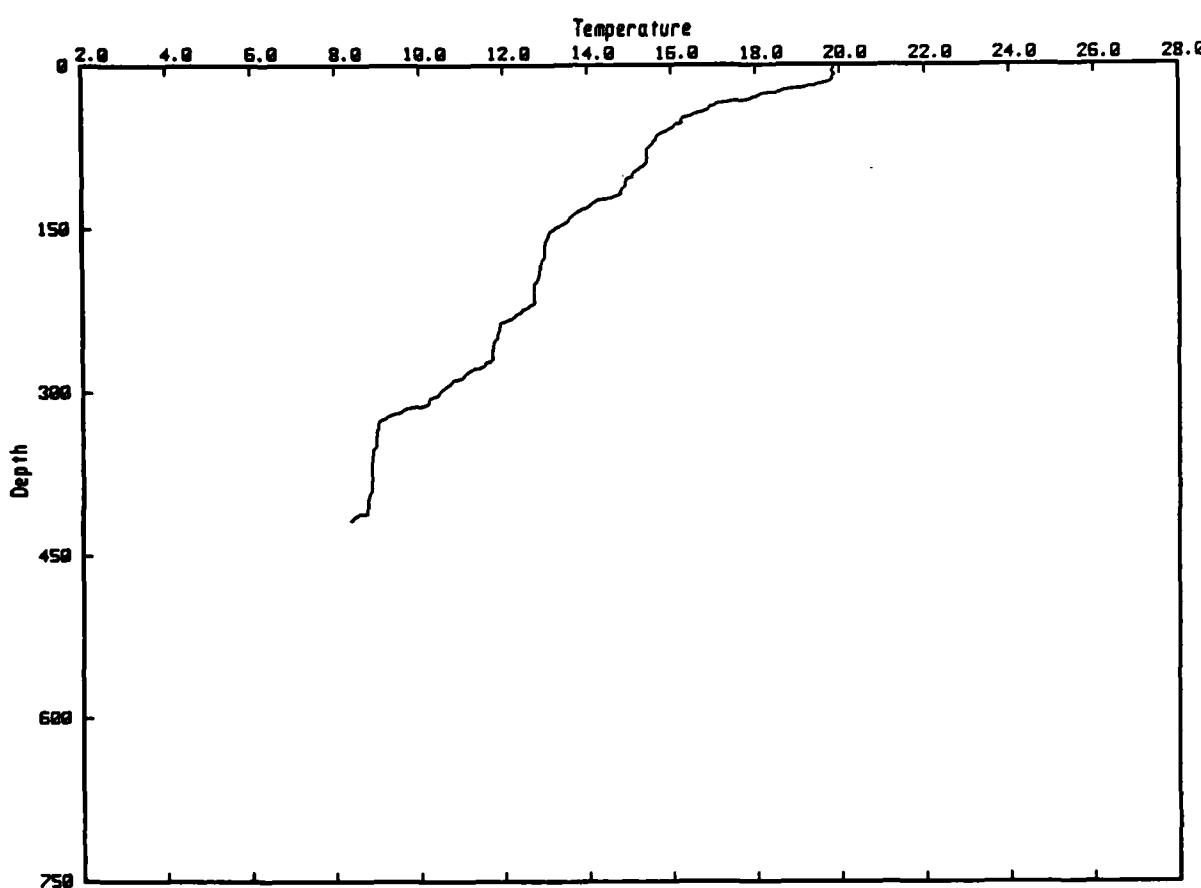
Figure 21. CAP2 Section: XBT Station Locations



XBT DROP 148

28 43.1N 112 41.1W

28 NOV 84 1335 MST



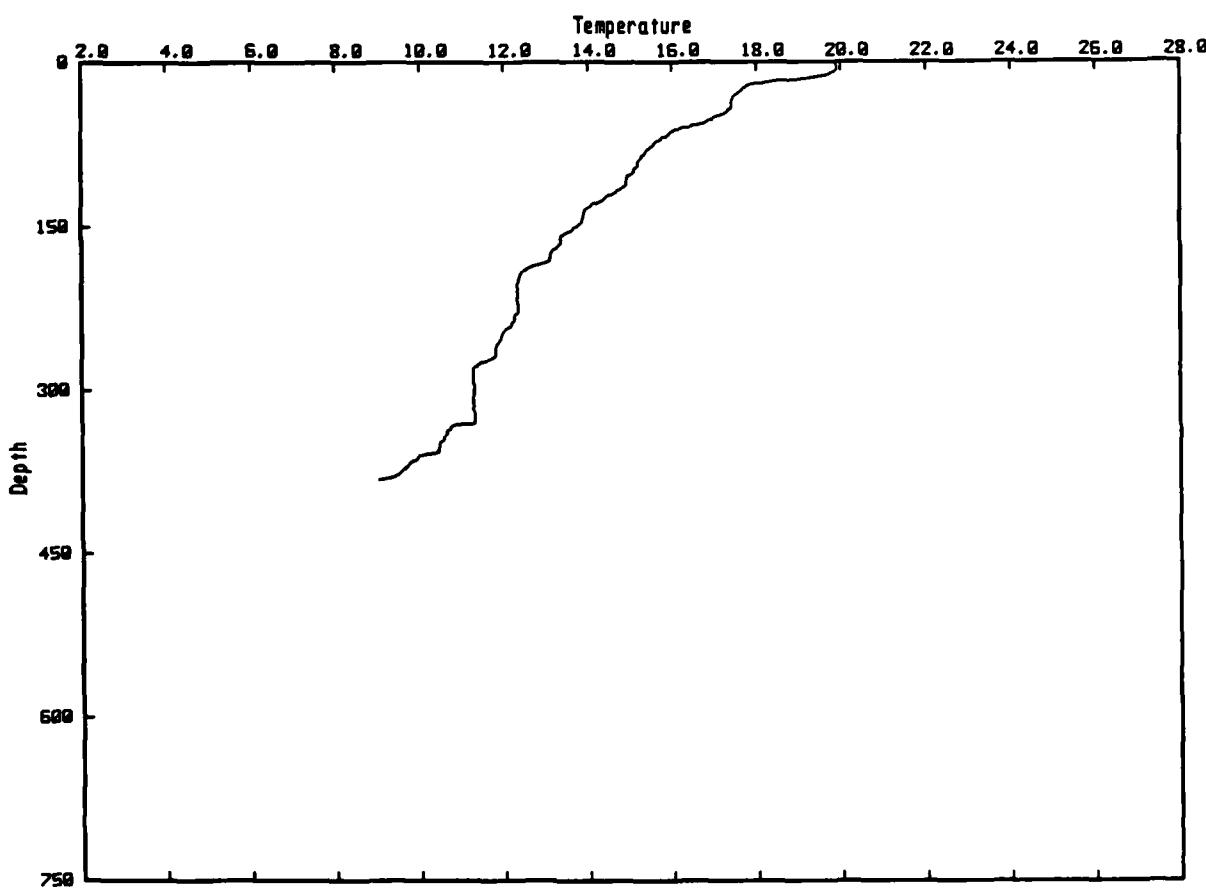
XBT DROP 148 T-7 RADAR: SE 5.5nm 126T GULF COORDS: -21.7 251.8  
JDAY 333 2035Z DEPTH 419m/417m SST 19.75 2M TEMPS: SAIL 19.98 XBT 19.84  
GULF OF CALIFORNIA: BEGIN CAP N/S SILL LINE, CXP2-1, NEAP TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.8 | 200 | 12.7 | 390 | 8.8  |
| 20  | 19.2 | 210 | 12.7 | 399 | 8.7  |
| 30  | 17.9 | 220 | 12.6 | 410 | 8.7  |
| 40  | 16.9 | 230 | 12.2 |     |      |
| 50  | 16.2 | 240 | 11.9 |     |      |
| 60  | 15.9 | 250 | 11.8 |     |      |
| 70  | 15.6 | 260 | 11.7 |     |      |
| 81  | 15.4 | 270 | 11.7 |     |      |
| 90  | 15.4 | 280 | 11.2 |     |      |
| 101 | 15.1 | 290 | 10.8 |     |      |
| 110 | 14.9 | 300 | 10.5 |     |      |
| 120 | 14.7 | 310 | 10.2 |     |      |
| 130 | 14.6 | 320 | 9.4  |     |      |
| 140 | 13.6 | 330 | 9.0  |     |      |
| 150 | 13.2 | 340 | 9.0  |     |      |
| 160 | 13.0 | 350 | 8.9  |     |      |
| 170 | 13.0 | 361 | 8.9  |     |      |
| 180 | 12.9 | 369 | 8.9  |     |      |
| 190 | 12.8 | 381 | 8.8  |     |      |

XBT DROP 149

28 42.2N 112 40.2W

28 NOV 84 1341 MST



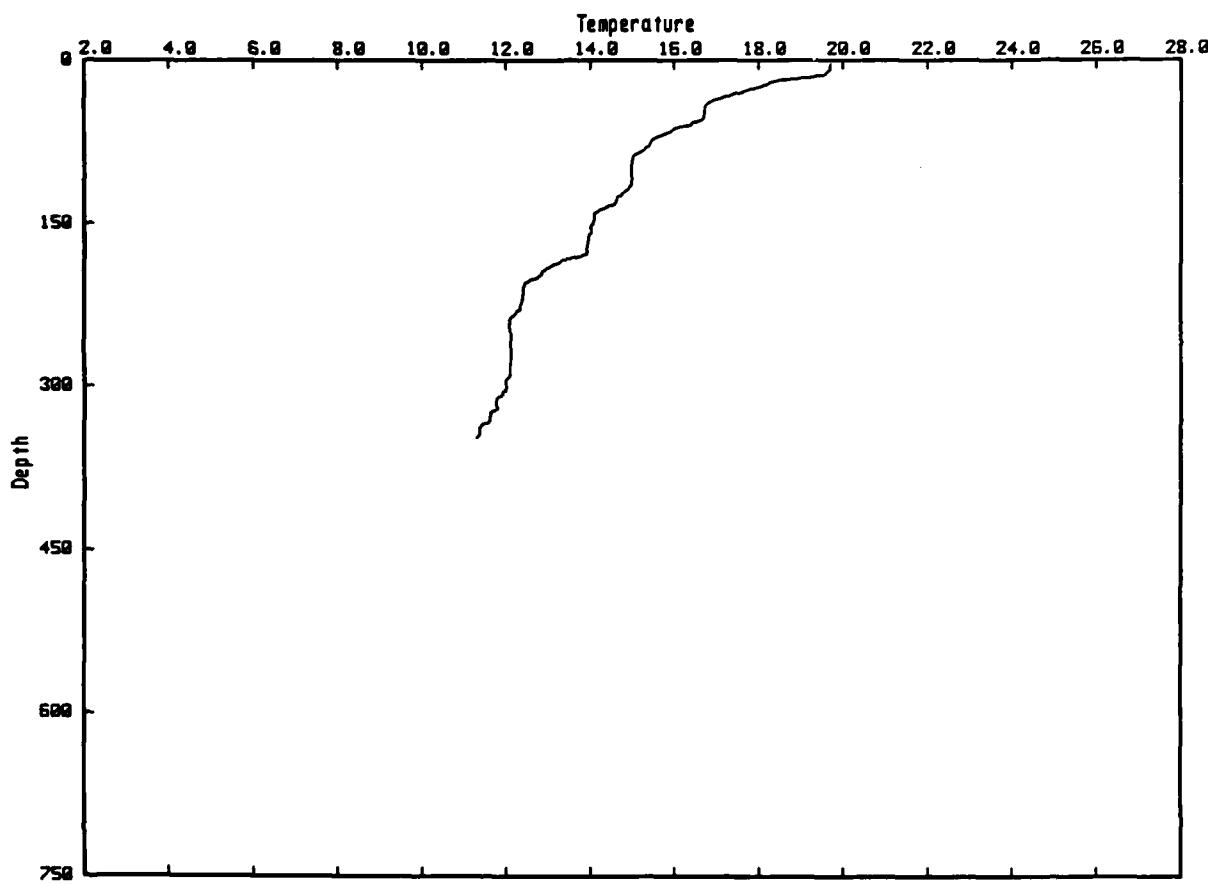
XBT DROP 149 T-7 RADAR: SE 4.5nm 122T GULF COORDS: -21.5 249.6  
JDAY 333 2041Z DEPTH 382m/382m SST 19.70 2M TEMPS: SAIL 19.99 XBT 19.90  
GULF OF CALIFORNIA: SILL LINE, CXP2-2

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 19.8 | 200 | 12.3 |
| 20  | 17.9 | 211 | 12.3 |
| 30  | 17.5 | 219 | 12.3 |
| 40  | 17.4 | 230 | 12.3 |
| 50  | 17.0 | 240 | 12.2 |
| 60  | 16.2 | 251 | 11.9 |
| 70  | 15.7 | 260 | 11.8 |
| 80  | 15.4 | 270 | 11.7 |
| 90  | 15.2 | 279 | 11.3 |
| 100 | 15.1 | 289 | 11.3 |
| 110 | 14.9 | 299 | 11.3 |
| 120 | 14.6 | 311 | 11.3 |
| 130 | 14.1 | 320 | 11.3 |
| 140 | 13.9 | 330 | 11.3 |
| 150 | 13.7 | 340 | 10.6 |
| 160 | 13.4 | 350 | 10.5 |
| 170 | 13.2 | 360 | 10.0 |
| 180 | 13.1 | 370 | 9.7  |
| 190 | 12.5 | 380 | 9.3  |

XBT DROP 150

28 41.0N 112 39.6W

28 NOV 84 1347 MST



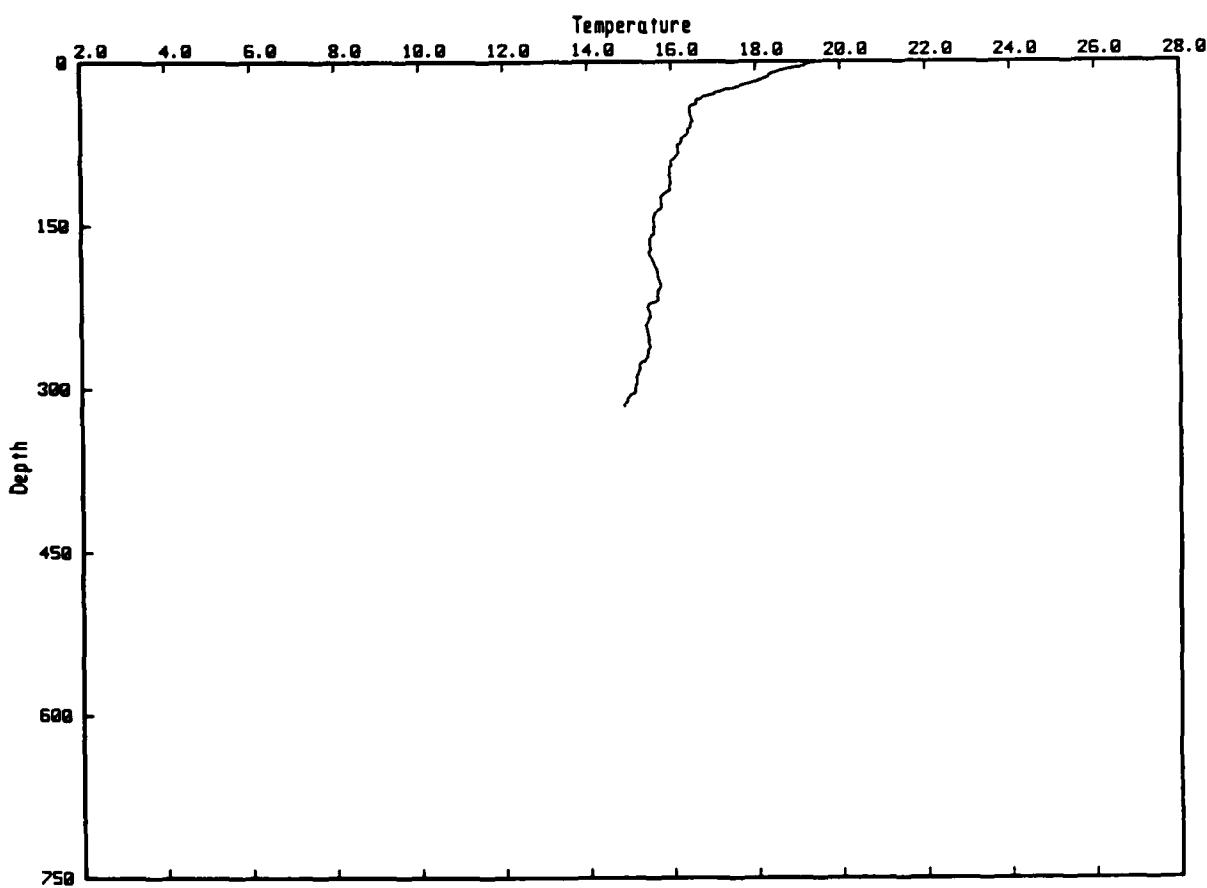
XBT DROP 150 T-7 RADAR: SE 3.5nm 111T GULF COORDS: -22.0 247.2  
JDAY 333 2047Z DEPTH 348m/348m SST 19.70 2M TEMPS: SAIL 19.90 XBT 19.71  
GULF OF CALIFORNIA: SILL LINE, CXP2-3

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 19.7 | 200 | 12.8 |
| 20  | 18.3 | 210 | 12.4 |
| 30  | 17.5 | 220 | 12.4 |
| 40  | 16.8 | 230 | 12.3 |
| 50  | 16.7 | 240 | 12.1 |
| 60  | 16.3 | 250 | 12.1 |
| 70  | 15.6 | 260 | 12.1 |
| 80  | 15.3 | 270 | 12.1 |
| 90  | 15.0 | 280 | 12.1 |
| 99  | 15.0 | 290 | 12.1 |
| 111 | 15.0 | 300 | 12.0 |
| 120 | 14.8 | 310 | 11.8 |
| 130 | 14.6 | 320 | 11.8 |
| 140 | 14.1 | 330 | 11.6 |
| 150 | 14.1 | 340 | 11.4 |
| 159 | 14.0 | 348 | 11.3 |
| 170 | 13.9 |     |      |
| 180 | 13.8 |     |      |
| 190 | 13.0 |     |      |

XBT DROP 151

28 40.3N 112 39.2W

28 NOV 84 1351 MST



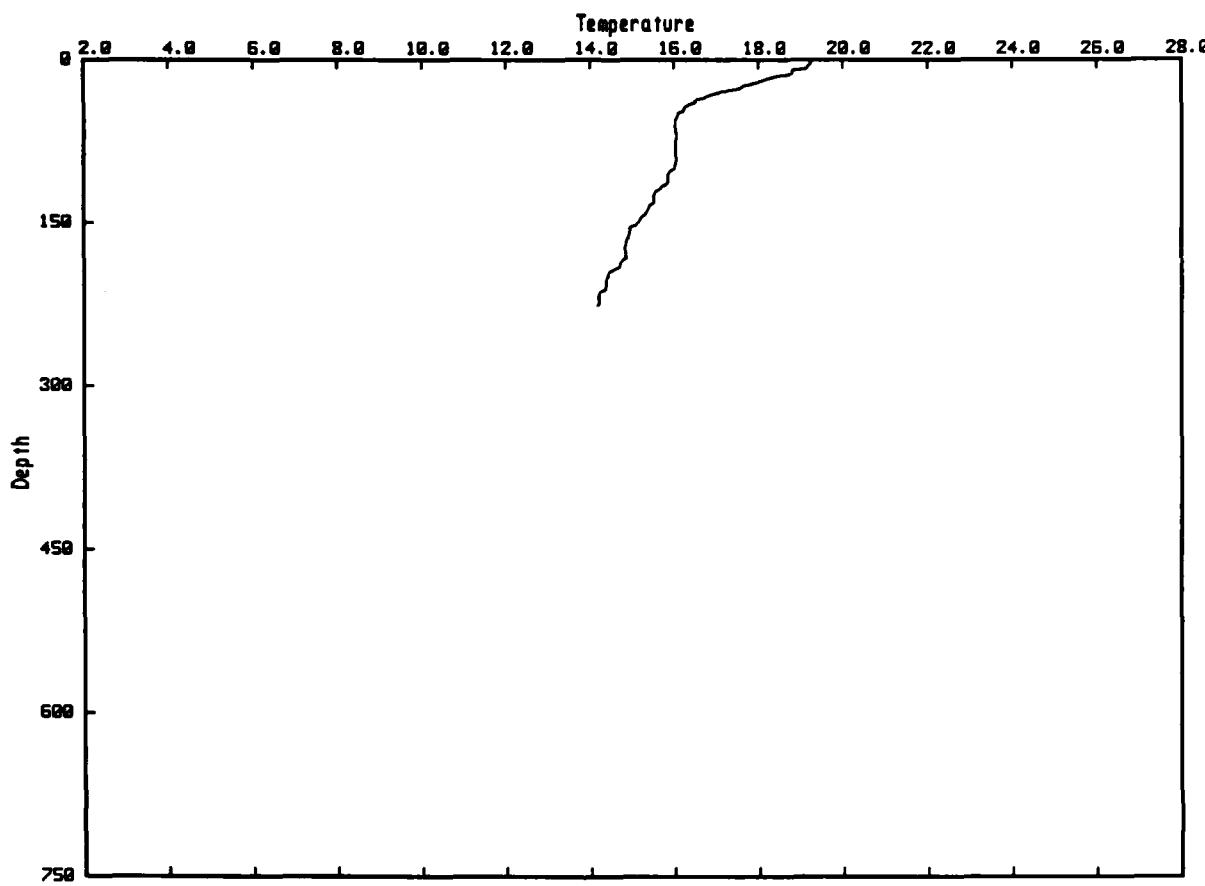
XBT DROP 151 T-7 RADAR: SE 3.0nm 102T GULF COORDS: -22.2 245.8  
JDAY 333 2051Z DEPTH 317m/317m SST 19.40 2M TEMPS: SAIL 19.75 XBT 19.16  
GULF OF CALIFORNIA: SILL LINE, CXP2-4 (CROSSED VISIBLE FRONT)

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.4 | 199 | 15.7 |
| 20  | 17.8 | 210 | 15.7 |
| 30  | 17.0 | 220 | 15.6 |
| 40  | 16.5 | 231 | 15.5 |
| 50  | 16.4 | 240 | 15.4 |
| 61  | 16.4 | 250 | 15.4 |
| 70  | 16.2 | 260 | 15.5 |
| 79  | 16.1 | 270 | 15.4 |
| 90  | 16.0 | 280 | 15.2 |
| 100 | 15.9 | 290 | 15.1 |
| 110 | 16.0 | 301 | 15.1 |
| 120 | 15.9 | 310 | 14.9 |
| 131 | 15.7 |     |      |
| 140 | 15.6 |     |      |
| 150 | 15.6 |     |      |
| 160 | 15.5 |     |      |
| 170 | 15.5 |     |      |
| 180 | 15.5 |     |      |
| 190 | 15.6 |     |      |

XBT DROP 152

28 39.5N 112 39.0W

28 NOV 84 1355 MST



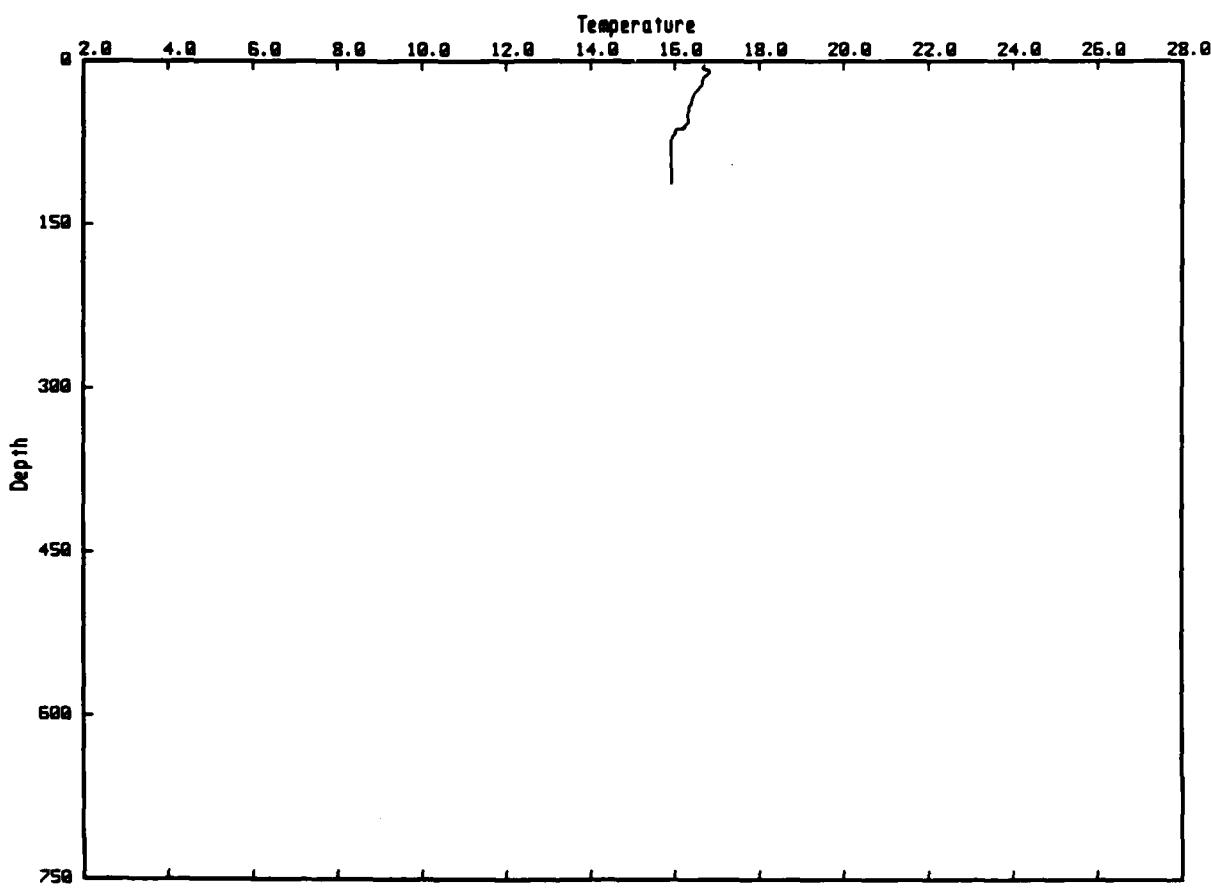
XBT DROP 152 T-7 RADAR: SE 2.6nm 090T GULF COORDS: -22.9 244.4  
JDAY 333 2055Z DEPTH 227m/225m SST 19.14 2M TEMPS: SAIL 19.46 XBT 19.24  
GULF OF CALIFORNIA: SILL LINE, CXP2-5

| Z   | TEMP  | Z   | TEMP |
|-----|-------|-----|------|
| 10  | 18.8  | 200 | 14.4 |
| 20  | 18.0  | 210 | 14.4 |
| 30  | 17.1  | 220 | 14.2 |
| 40  | 16.5  |     |      |
| 50  | 16.1  |     |      |
| 59  | 16.0  |     |      |
| 70  | 16.1  |     |      |
| 81  | 16.0  |     |      |
| 90  | 16.1  |     |      |
| 100 | 16.0  |     |      |
| 110 | 15.9  |     |      |
| 120 | 15.6  |     |      |
| 130 | 15.5  |     |      |
| 140 | 15.3  |     |      |
| 150 | 15.1  |     |      |
| 161 | 14.9  |     |      |
| 170 | 14.9  |     |      |
| 180 | 14.9  |     |      |
| 190 | 14.7  |     |      |
| 200 | 14.4  |     |      |
| 210 | 14.4  |     |      |
| 220 | 14.2  |     |      |
| 227 | 19.14 |     |      |
| 225 | 19.0  |     |      |
| 750 | 19.0  |     |      |

XBT DROP 153

28 39.0N 112 38.6W

28 NOV 84 1359 MST



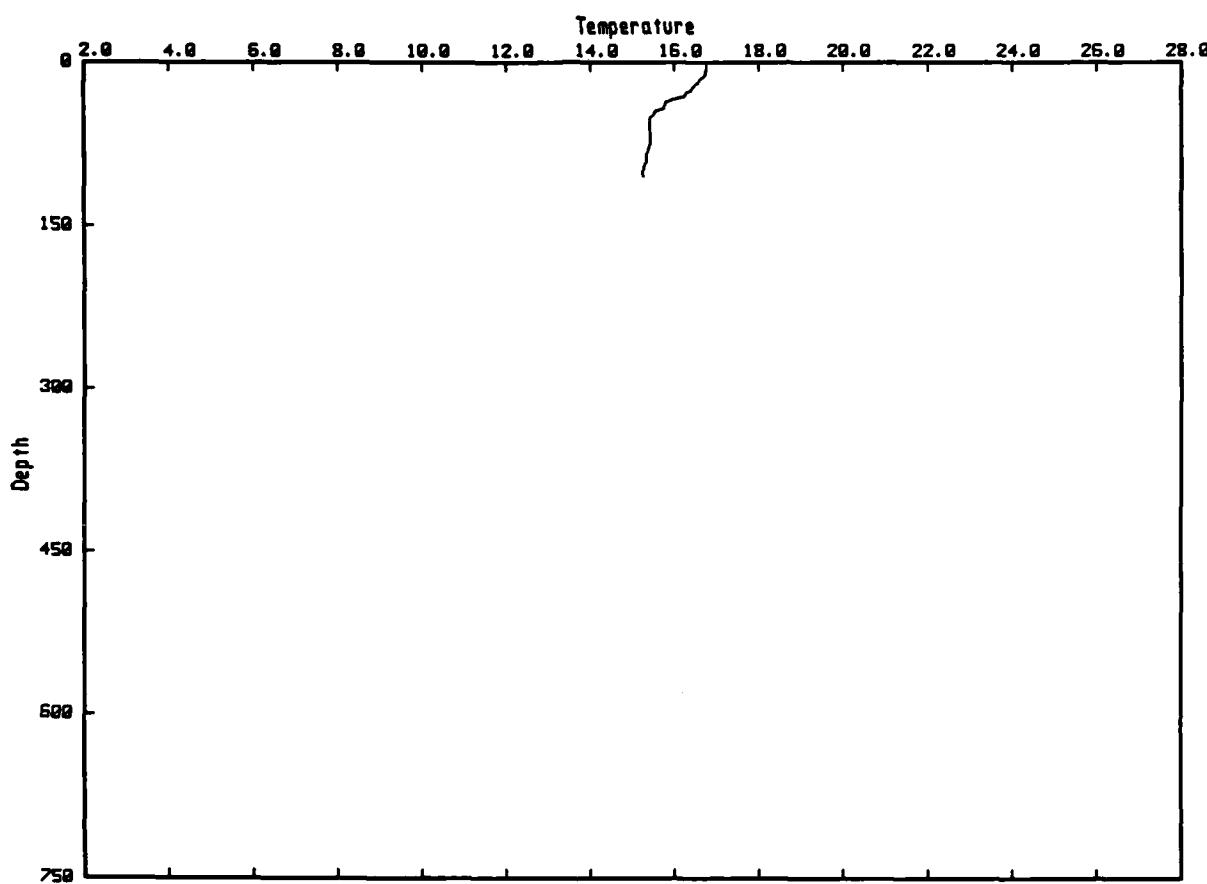
XBT DROP 153 T-7 RADAR: SE 2.3nm 072T GULF COORDS: -22.9 243.3  
JDAY 333 2059Z DEPTH 115m/113m SST 17.07 2M TEMPS: SAIL 18.75 XBT 16.71  
GULF OF CALIFORNIA: SILL LINE, CXP2-6

| Z   | TEMP |
|-----|------|
| 10  | 16.8 |
| 20  | 16.7 |
| 30  | 16.5 |
| 40  | 16.4 |
| 50  | 16.3 |
| 60  | 16.2 |
| 70  | 15.9 |
| 80  | 15.9 |
| 90  | 15.9 |
| 100 | 15.9 |
| 110 | 15.9 |

XBT DROP 154

28 38.4N 112 38.3W

28 NOV 84 1403 MST



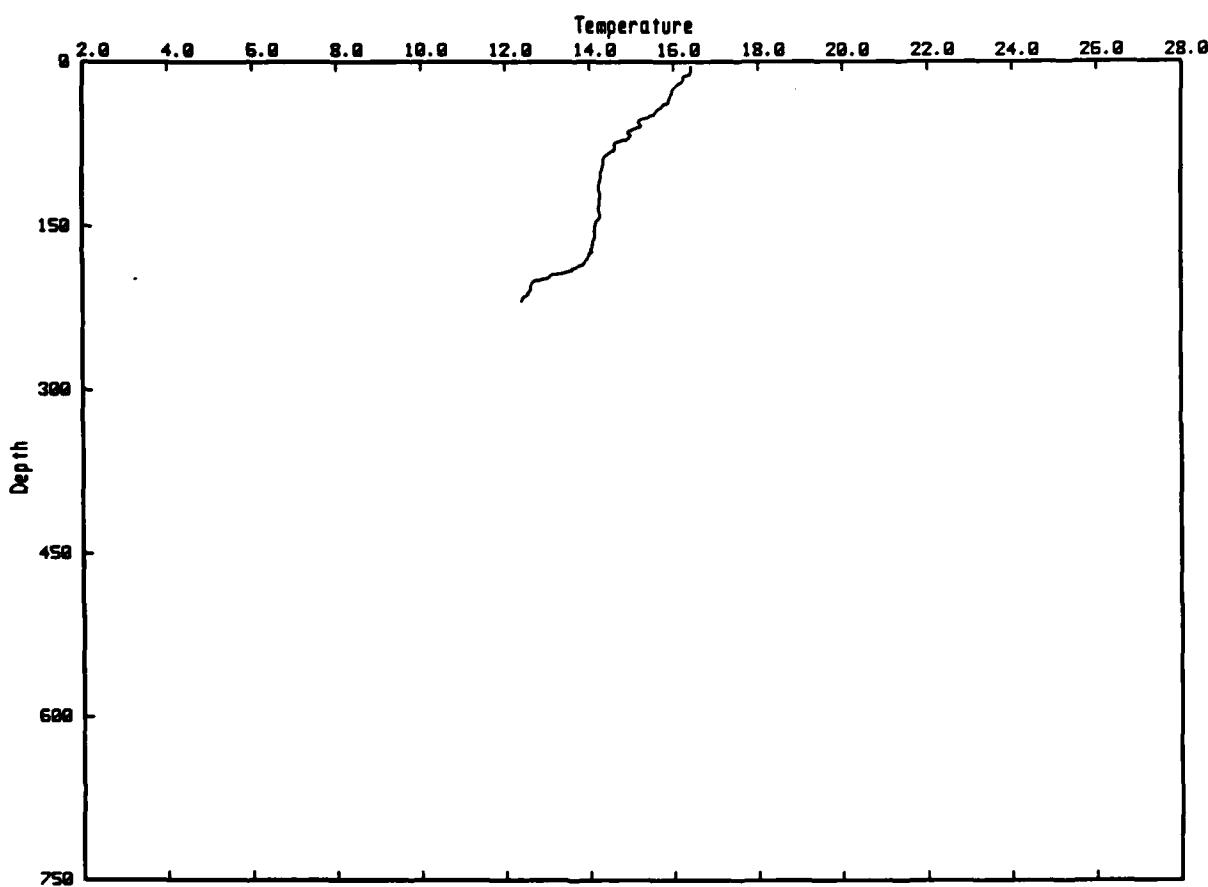
XBT DROP 154 T-7 RADAR: SE 2.3nm 060T GULF COORDS: -23.1 242.1  
JDAY 333 2103Z DEPTH 111m/104m SST 16.86 2M TEMPS: SAIL 16.88 XBT 16.76  
GULF OF CALIFORNIA: SILL LINE, CXP2-7 (IN SURFACE CHOP)

| Z   | TEMP |
|-----|------|
| 11  | 16.7 |
| 20  | 16.5 |
| 30  | 16.3 |
| 40  | 15.8 |
| 51  | 15.4 |
| 60  | 15.4 |
| 70  | 15.4 |
| 80  | 15.4 |
| 91  | 15.3 |
| 100 | 15.2 |

XBT DROP 155

28 37.5N 112 37.6W

28 NOV 84 1408 MST



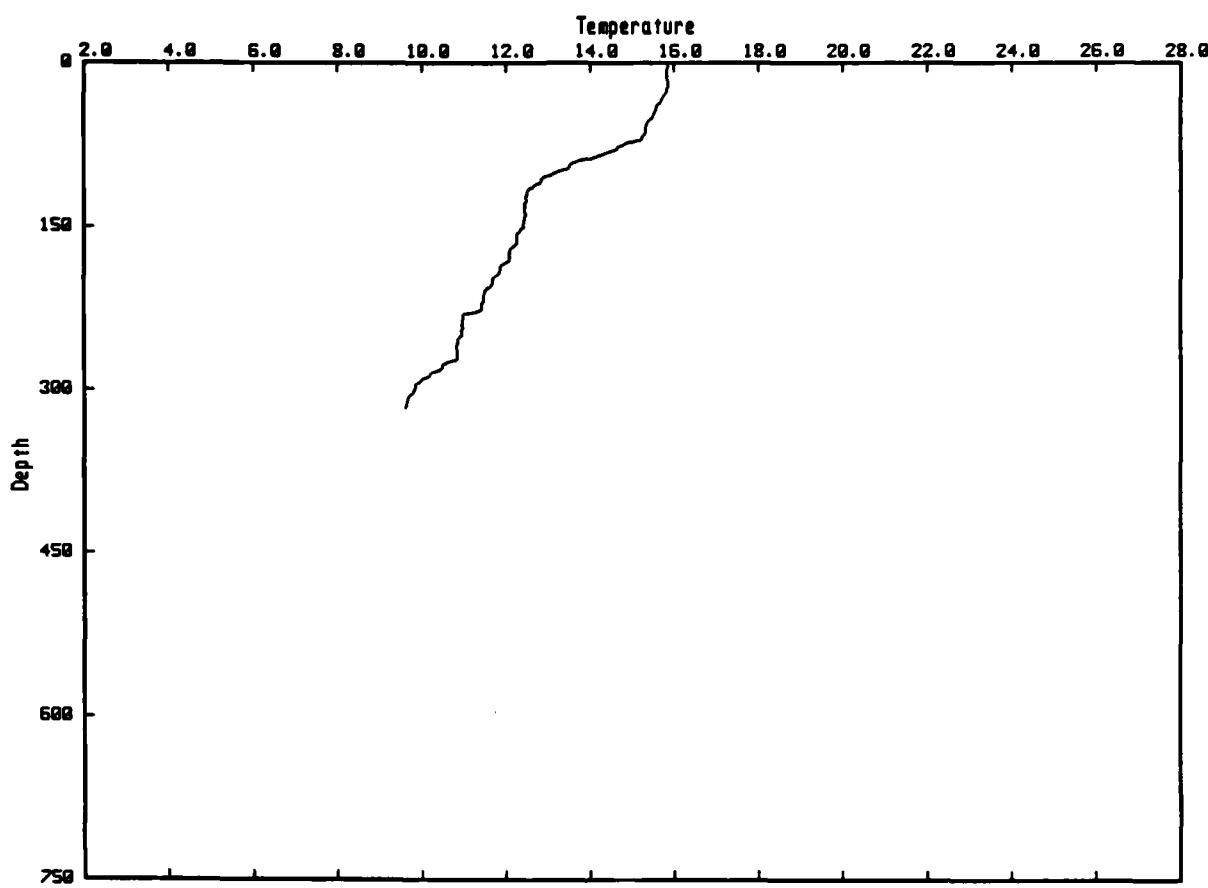
XBT DROP 155 T-7 RADAR: SE 2.6nm 039T GULF COORDS: -23.2 240.1  
JDAY 333 2108Z DEPTH 219m/218m SST 16.46 2M TEMPS: SAIL 16.84 XBT .00  
GULF OF CALIFORNIA: SILL LINE, CXP2-8

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 16.4 | 200 | 12.7 |
| 20  | 16.1 | 210 | 12.6 |
| 30  | 16.0 | 218 | 12.4 |
| 40  | 15.8 |     |      |
| 50  | 15.5 |     |      |
| 60  | 15.1 |     |      |
| 70  | 14.9 |     |      |
| 80  | 14.6 |     |      |
| 90  | 14.3 |     |      |
| 100 | 14.3 |     |      |
| 111 | 14.2 |     |      |
| 119 | 14.3 |     |      |
| 130 | 14.2 |     |      |
| 139 | 14.3 |     |      |
| 150 | 14.1 |     |      |
| 160 | 14.1 |     |      |
| 171 | 14.1 |     |      |
| 180 | 14.0 |     |      |
| 190 | 13.8 |     |      |

XBT DROP 156

28 37.0N 112 37.2W

28 NOV 84 1413 MST



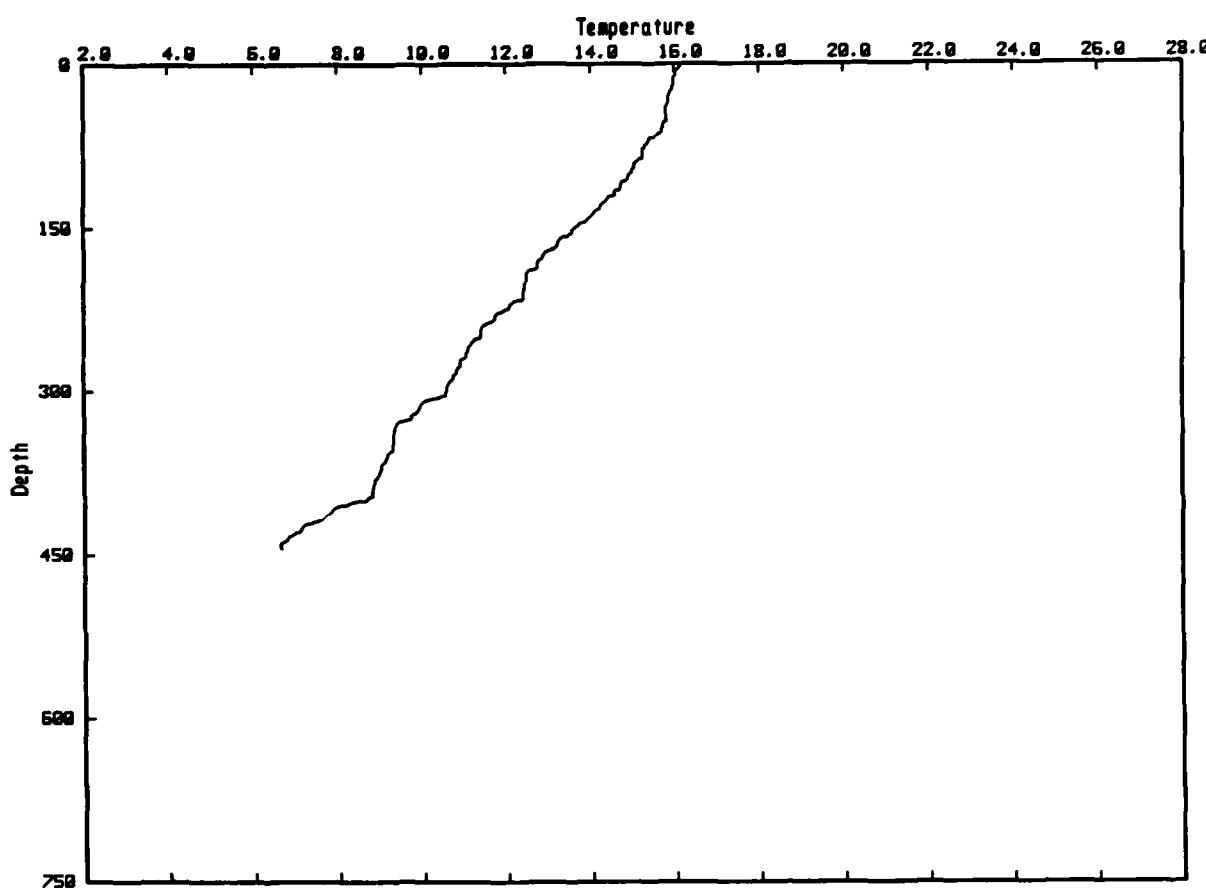
XBT DROP 156 T-7 RADAR: SE 2.8nm 025T GULF COORDS: -23.2 238.9  
JDAY 333 2113Z DEPTH 319m/317m SST 15.84 2M TEMPS: SAIL 16.03 XBT 15.85  
GULF OF CALIFORNIA: SILL LINE, CXP2-9

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 11  | 15.8 | 200 | 11.7 |
| 21  | 15.9 | 210 | 11.5 |
| 30  | 15.8 | 220 | 11.4 |
| 40  | 15.6 | 230 | 11.1 |
| 50  | 15.5 | 240 | 11.0 |
| 60  | 15.3 | 250 | 11.0 |
| 70  | 15.2 | 260 | 10.8 |
| 80  | 14.6 | 270 | 10.8 |
| 90  | 13.7 | 280 | 10.5 |
| 100 | 13.2 | 290 | 10.0 |
| 110 | 12.8 | 300 | 9.8  |
| 120 | 12.5 | 310 | 9.7  |
| 130 | 12.5 |     |      |
| 140 | 12.5 |     |      |
| 150 | 12.4 |     |      |
| 160 | 12.3 |     |      |
| 170 | 12.1 |     |      |
| 180 | 12.1 |     |      |
| 190 | 11.9 |     |      |

XBT DROP 157

28 36.2N 112 36.2W

28 NOV 84 1418 MST



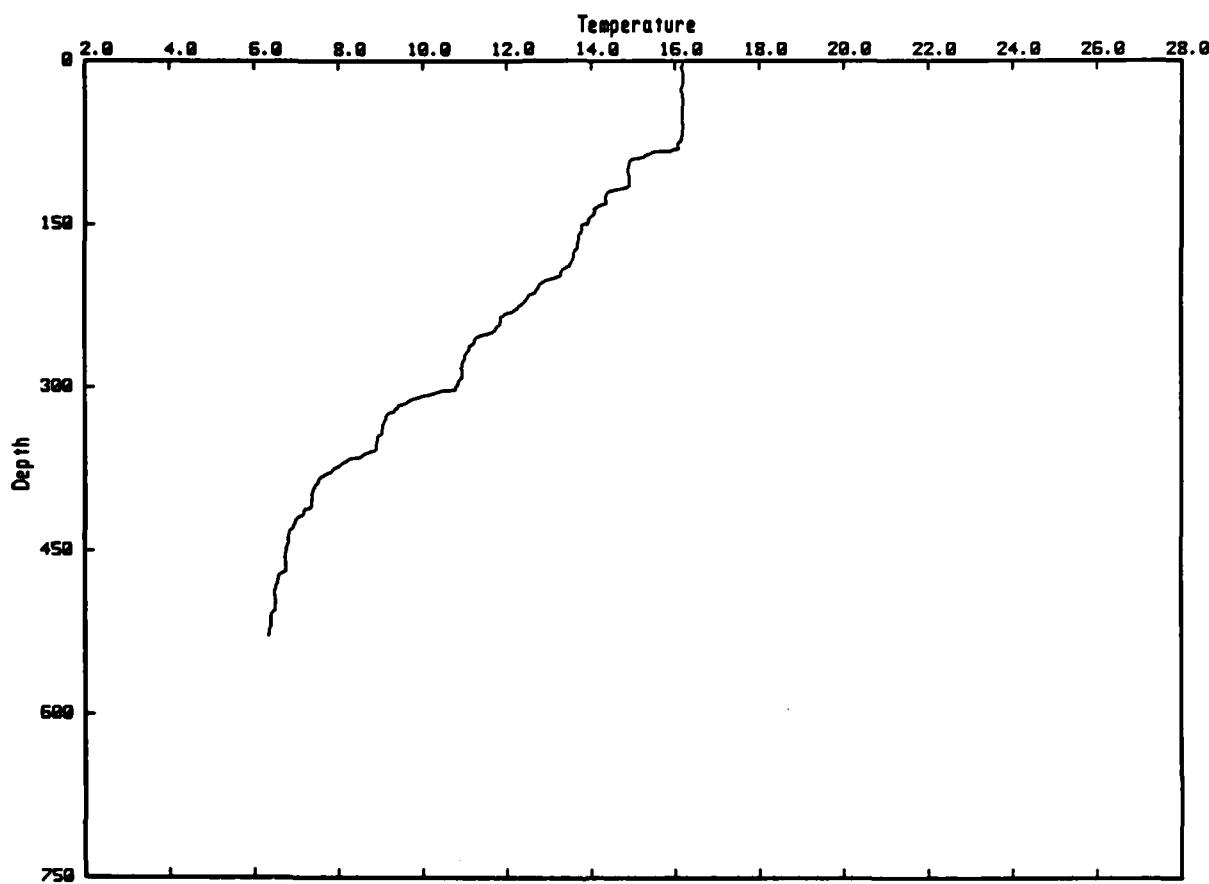
XBT DROP 157 T-7 RADAR: SE 3.3nm 008T GULF COORDS: -22.8 236.8  
JDAY 333 2118Z DEPTH 444m/443m SST 16.03 2M TEMPS: SAIL 16.18 XBT 16.13  
GULF OF CALIFORNIA: SILL LINE, CXP2-10

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.0 | 200 | 12.4 | 389 | 8.8  |
| 20  | 16.0 | 210 | 12.4 | 400 | 8.6  |
| 30  | 15.9 | 220 | 12.1 | 410 | 7.9  |
| 40  | 15.8 | 230 | 11.7 | 420 | 7.4  |
| 50  | 15.8 | 240 | 11.4 | 430 | 7.0  |
| 60  | 15.7 | 250 | 11.4 | 440 | 6.6  |
| 70  | 15.4 | 260 | 11.1 |     |      |
| 80  | 15.2 | 270 | 11.0 |     |      |
| 90  | 15.1 | 280 | 10.8 |     |      |
| 100 | 15.0 | 290 | 10.7 |     |      |
| 110 | 14.7 | 300 | 10.6 |     |      |
| 120 | 14.6 | 310 | 10.0 |     |      |
| 130 | 14.2 | 320 | 9.9  |     |      |
| 140 | 14.0 | 330 | 9.4  |     |      |
| 150 | 13.8 | 340 | 9.3  |     |      |
| 160 | 13.3 | 350 | 9.3  |     |      |
| 170 | 13.1 | 360 | 9.2  |     |      |
| 180 | 12.8 | 370 | 9.0  |     |      |
| 190 | 12.5 | 380 | 8.9  |     |      |

XBT DROP 158

28 35.6N 112 35.6W

28 NOV 84 1423 MST



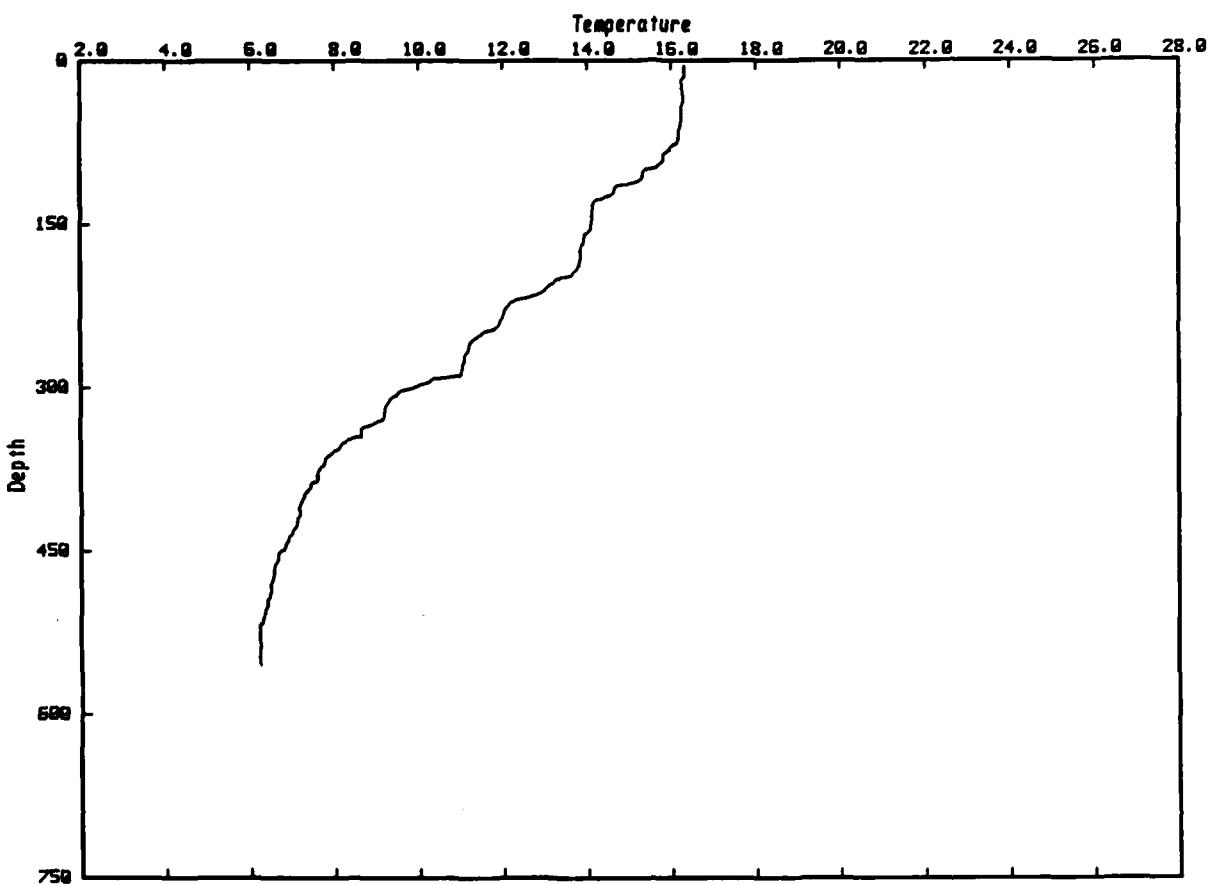
XBT DROP 158 T-7 RADAR: SE 3.9nm 357T GULF COORDS: -22.6 235.3  
JDAY 333 2123Z DEPTH 539m/528m SST 16.24 2M TEMPS: SAIL 16.32 XBT 16.17  
GULF OF CALIFORNIA: SILL LINE, CXP2-11

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.2 | 200 | 13.1 | 390 | 7.5  |
| 19  | 16.2 | 210 | 12.7 | 399 | 7.4  |
| 30  | 16.2 | 220 | 12.4 | 410 | 7.4  |
| 39  | 16.2 | 230 | 12.2 | 421 | 7.0  |
| 50  | 16.2 | 240 | 11.9 | 430 | 6.9  |
| 60  | 16.2 | 250 | 11.7 | 440 | 6.8  |
| 70  | 16.2 | 260 | 11.2 | 451 | 6.8  |
| 80  | 16.1 | 270 | 11.0 | 460 | 6.8  |
| 90  | 15.0 | 279 | 10.9 | 470 | 6.7  |
| 100 | 14.9 | 290 | 10.9 | 480 | 6.6  |
| 109 | 14.9 | 300 | 10.8 | 490 | 6.5  |
| 120 | 14.4 | 310 | 9.9  | 501 | 6.5  |
| 130 | 14.4 | 320 | 9.4  | 510 | 6.4  |
| 140 | 14.1 | 330 | 9.1  | 520 | 6.4  |
| 150 | 13.9 | 340 | 9.1  |     |      |
| 160 | 13.7 | 351 | 8.9  |     |      |
| 171 | 13.7 | 360 | 8.7  |     |      |
| 180 | 13.6 | 370 | 8.1  |     |      |
| 190 | 13.4 | 380 | 7.7  |     |      |

XBT DROP 159

28 35.1N 112 34.9W

28 NOV 84 1428 MST



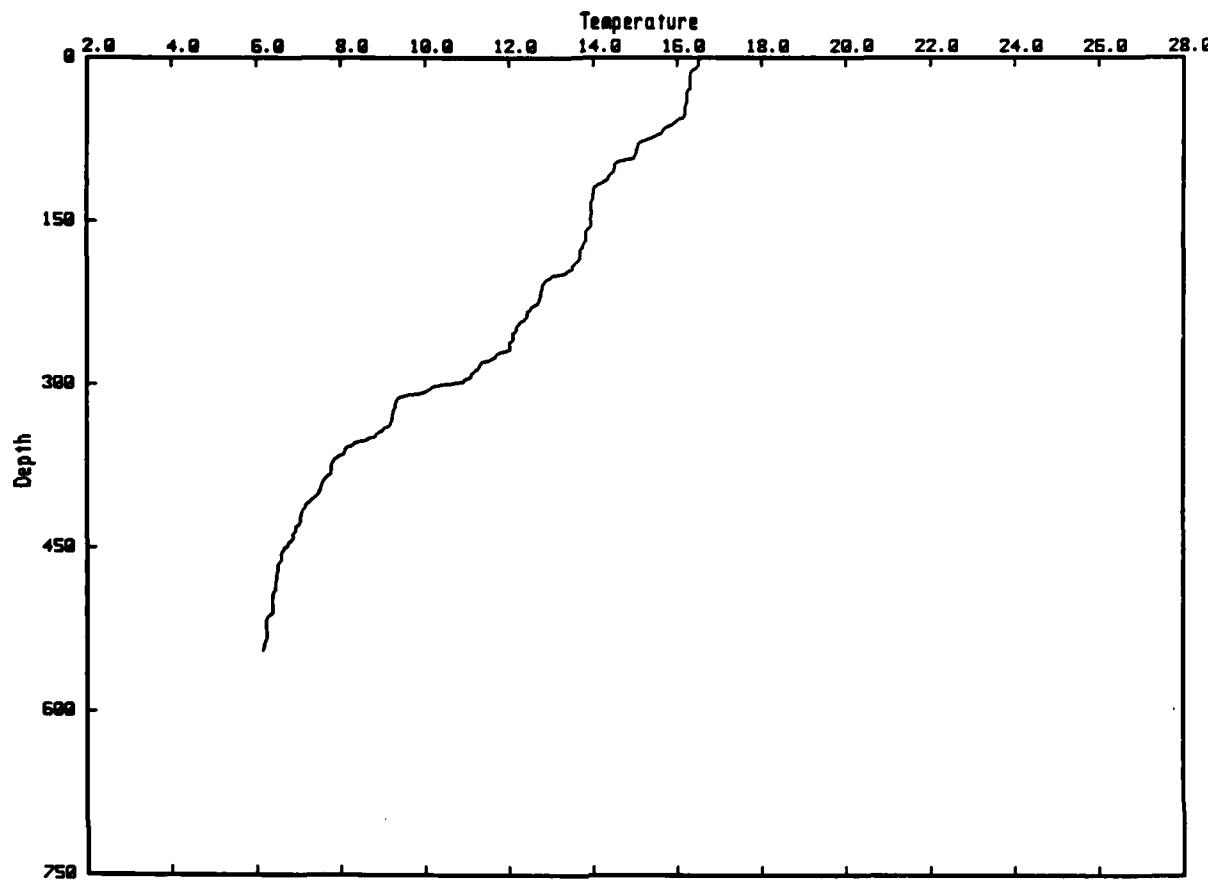
XBT DROP 159 T-7 RADAR: SE 4.6nm 350T GULF COORDS: -22.3 233.9  
JDAY 333 2128Z DEPTH 555m/555m SST 16.34 2M TEMPS: SAIL 16.47 XBT .00  
GULF OF CALIFORNIA: SILL LINE, CXP2-12

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.3 | 200 | 13.4 | 390 | 7.4  |
| 19  | 16.2 | 210 | 13.0 | 401 | 7.3  |
| 30  | 16.3 | 220 | 12.3 | 410 | 7.2  |
| 41  | 16.3 | 230 | 12.0 | 420 | 7.1  |
| 50  | 16.2 | 240 | 12.0 | 430 | 7.0  |
| 60  | 16.2 | 250 | 11.5 | 440 | 6.9  |
| 69  | 16.2 | 260 | 11.2 | 450 | 6.7  |
| 80  | 16.0 | 271 | 11.1 | 461 | 6.6  |
| 89  | 15.8 | 280 | 11.1 | 470 | 6.6  |
| 100 | 15.4 | 290 | 10.8 | 479 | 6.5  |
| 110 | 15.3 | 300 | 9.9  | 490 | 6.5  |
| 120 | 14.7 | 311 | 9.3  | 500 | 6.4  |
| 130 | 14.2 | 320 | 9.2  | 510 | 6.3  |
| 141 | 14.1 | 330 | 9.2  | 521 | 6.2  |
| 150 | 14.1 | 340 | 8.8  | 531 | 6.2  |
| 160 | 13.9 | 350 | 8.3  | 541 | 6.2  |
| 170 | 13.9 | 360 | 7.9  | 550 | 6.2  |
| 180 | 13.8 | 370 | 7.8  |     |      |
| 190 | 13.8 | 380 | 7.6  |     |      |

XBT DROP 160

28 34.4N 112 34.6W

28 NOV 84 1433 MST



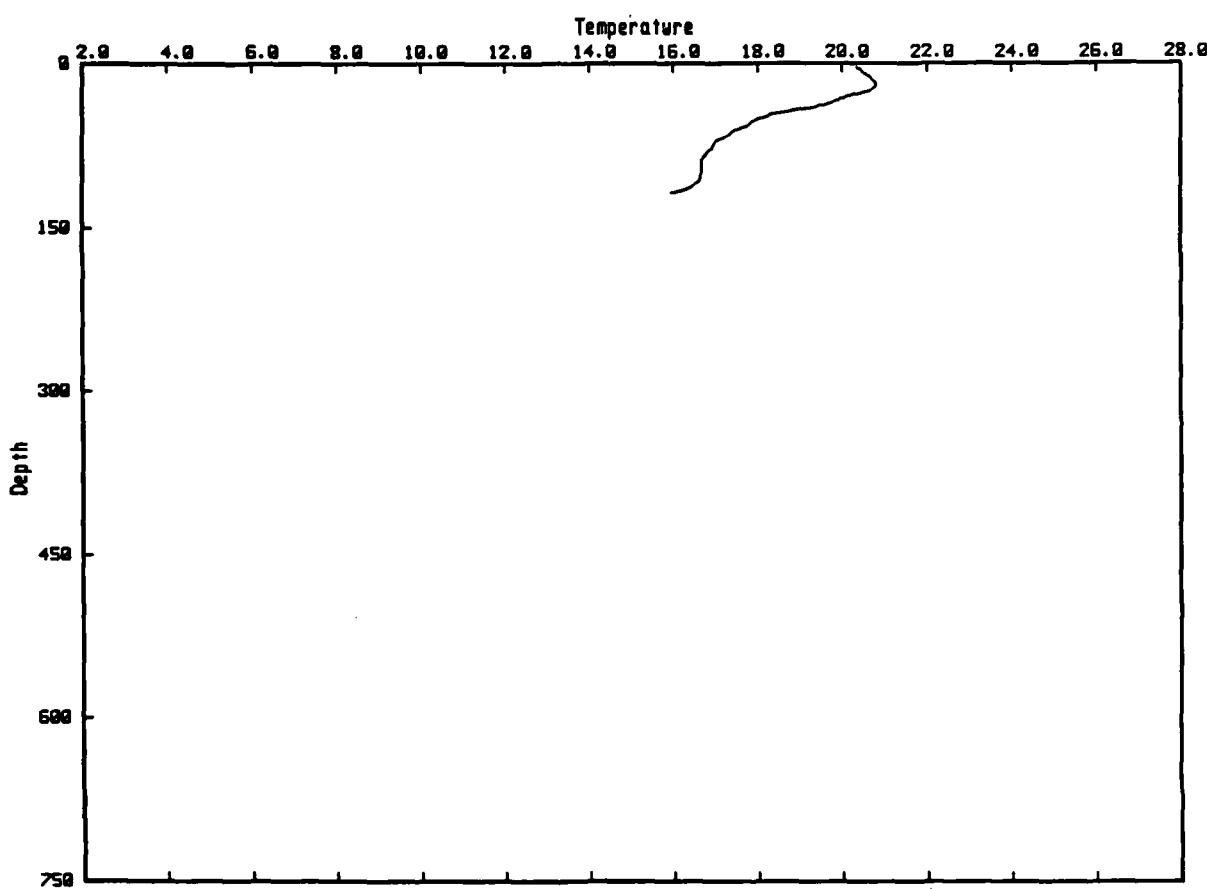
XBT DROP 160 T-7 RADAR: SE 5.4nm 345T GULF COORDS: -22.6 232.5  
JDAY 333 2133Z DEPTH 545m/545m SST 18.54 2M TEMPS: SAIL 16.51 XBT 16.51  
GULF OF CALIFORNIA: END CAP N/S SILL LINE, CXP2-13, NEAP TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 16.4 | 200 | 13.6 | 390 | 7.6  |
| 21  | 16.3 | 210 | 12.8 | 400 | 7.5  |
| 30  | 16.3 | 220 | 12.7 | 410 | 7.2  |
| 41  | 16.2 | 230 | 12.5 | 421 | 7.1  |
| 50  | 16.2 | 240 | 12.4 | 431 | 7.0  |
| 60  | 15.9 | 250 | 12.2 | 440 | 6.9  |
| 70  | 15.6 | 260 | 12.1 | 450 | 6.7  |
| 80  | 15.1 | 270 | 11.8 | 460 | 6.6  |
| 91  | 15.0 | 281 | 11.3 | 471 | 6.5  |
| 100 | 14.5 | 290 | 11.1 | 479 | 6.5  |
| 110 | 14.4 | 300 | 10.4 | 490 | 6.4  |
| 120 | 14.0 | 310 | 9.6  | 500 | 6.4  |
| 130 | 14.0 | 320 | 9.3  | 510 | 6.4  |
| 140 | 14.0 | 331 | 9.2  | 520 | 6.3  |
| 150 | 14.0 | 340 | 9.0  | 531 | 6.3  |
| 160 | 13.9 | 350 | 8.6  | 540 | 6.2  |
| 170 | 13.8 | 360 | 8.1  |     |      |
| 179 | 13.7 | 369 | 7.9  |     |      |
| 190 | 13.5 | 380 | 7.6  |     |      |

XBT DROP 161

28 34.6N 112 43.2W

29 NOV 84 1814 MST



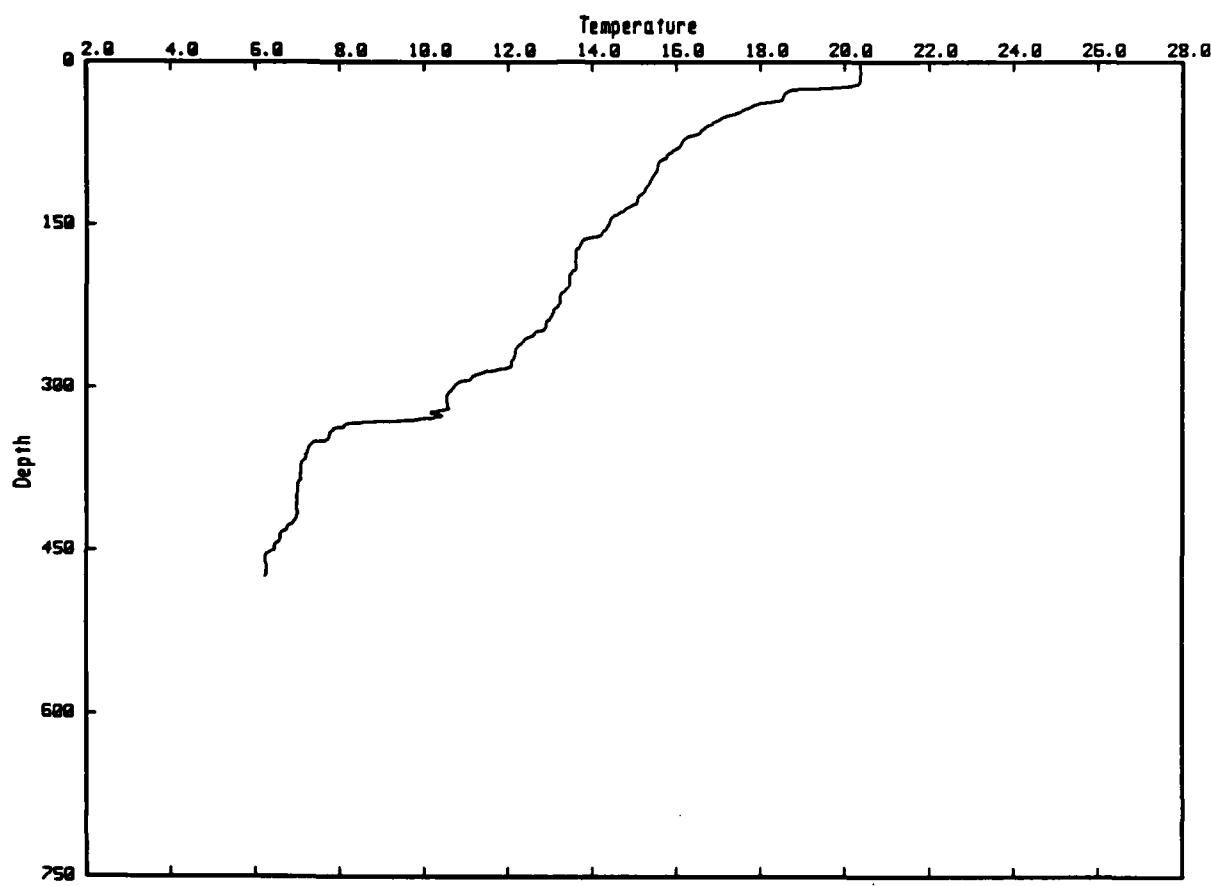
XBT DROP 161 T-4 RADAR: SE 8.0nm 053T GULF COORDS: -33.8 241.1  
JDAY 335 114Z DEPTH 120m/118m SST 19.70 2M TEMPS: SAIL 20.55 XBT 20.35  
GULF OF CALIFORNIA: BEGIN CAP SL/SE SILL LINE; CXP2-14, NEAP TIDE

| Z   | TEMP |
|-----|------|
| 10  | 20.5 |
| 20  | 20.8 |
| 30  | 20.1 |
| 40  | 19.4 |
| 50  | 18.6 |
| 60  | 17.5 |
| 70  | 17.1 |
| 80  | 16.8 |
| 91  | 16.7 |
| 100 | 16.7 |
| 111 | 16.5 |
| 118 | 16.0 |

XBT DROP 162

28 35.0N 112 42.5W

29 NOV 84 1822 MST



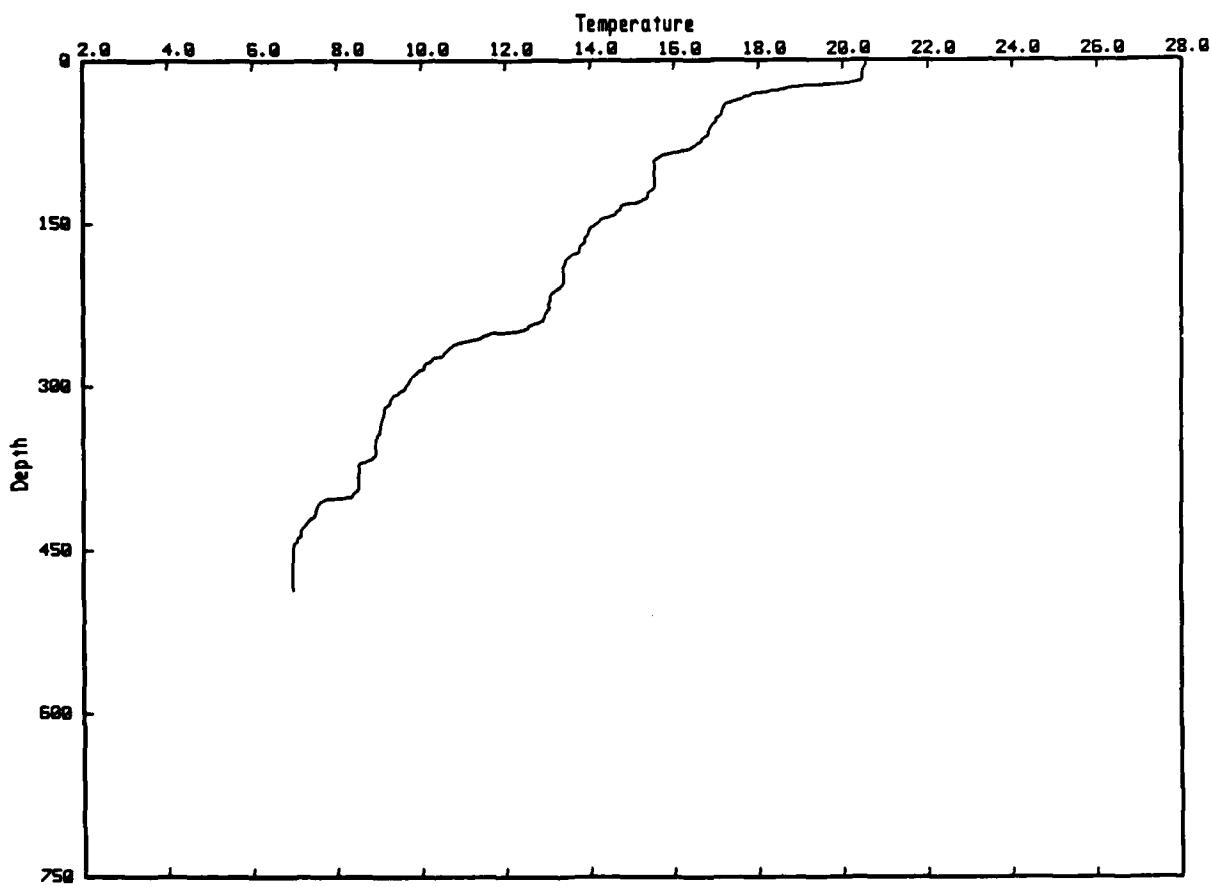
XBT DROP 162 T-7 RADAR: SE 7.4nm 052T GULF COORDS: -32.4 241.0  
JDAY 335 1222 DEPTH 474m/474m SST 20.28 2M TEMPS: SAIL 20.58 XBT 20.37  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE; CXP2-15

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.4 | 200 | 13.5 | 390 | 7.0  |
| 20  | 20.3 | 210 | 13.4 | 401 | 7.0  |
| 30  | 18.6 | 219 | 13.2 | 411 | 7.0  |
| 40  | 17.9 | 230 | 13.1 | 420 | 7.0  |
| 50  | 17.2 | 239 | 12.9 | 430 | 6.8  |
| 60  | 16.7 | 250 | 12.6 | 440 | 6.6  |
| 70  | 16.2 | 260 | 12.3 | 450 | 6.5  |
| 80  | 16.0 | 271 | 12.2 | 460 | 6.3  |
| 90  | 15.7 | 280 | 12.1 | 469 | 6.3  |
| 100 | 15.5 | 290 | 11.2 |     |      |
| 110 | 15.4 | 300 | 10.7 |     |      |
| 120 | 15.2 | 310 | 10.6 |     |      |
| 130 | 15.1 | 320 | 10.6 |     |      |
| 140 | 14.6 | 330 | 9.9  |     |      |
| 150 | 14.4 | 340 | 7.8  |     |      |
| 160 | 14.2 | 350 | 7.6  |     |      |
| 170 | 13.7 | 360 | 7.2  |     |      |
| 180 | 13.6 | 369 | 7.1  |     |      |
| 190 | 13.6 | 380 | 7.1  |     |      |

XBT DROP 163

28 35.5N 112 41.9W

29 NOV 84 1828 MST



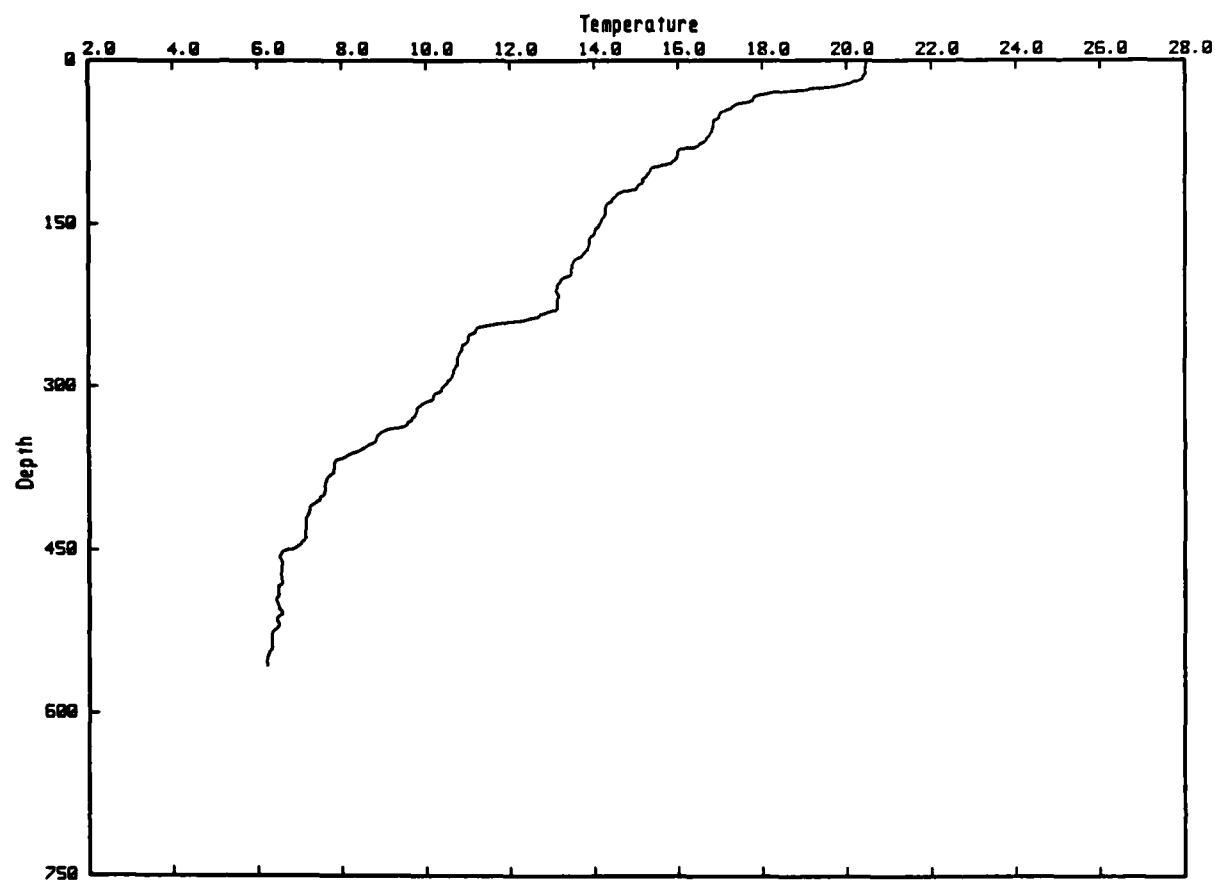
XBT DROP 163 T-7 RADAR: SE 6.6nm 052T GULF COORDS: -31.1 241.2  
JDAY 335 128Z DEPTH 487m/487m SST 20.25 2M TEMPS: SAIL 20.64 XBT 20.55  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE; CXP2-16

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.5 | 201 | 13.4 | 390 | 8.5  |
| 20  | 20.4 | 210 | 13.3 | 400 | 8.4  |
| 30  | 18.0 | 221 | 13.1 | 410 | 7.5  |
| 40  | 17.3 | 230 | 13.0 | 420 | 7.4  |
| 50  | 17.1 | 240 | 12.9 | 430 | 7.2  |
| 60  | 16.9 | 250 | 12.1 | 440 | 7.1  |
| 70  | 16.8 | 260 | 10.9 | 451 | 7.0  |
| 80  | 16.5 | 270 | 10.5 | 460 | 7.0  |
| 90  | 15.6 | 280 | 10.1 | 469 | 6.9  |
| 101 | 15.5 | 290 | 9.8  | 479 | 7.0  |
| 109 | 15.5 | 300 | 9.6  |     |      |
| 120 | 15.4 | 311 | 9.3  |     |      |
| 130 | 15.2 | 320 | 9.1  |     |      |
| 141 | 14.8 | 330 | 9.1  |     |      |
| 150 | 14.2 | 340 | 9.0  |     |      |
| 160 | 14.0 | 349 | 8.9  |     |      |
| 170 | 13.8 | 361 | 8.9  |     |      |
| 180 | 13.6 | 370 | 8.6  |     |      |
| 189 | 13.4 | 381 | 8.5  |     |      |

XBT DROP 164

28 35.7N 112 41.2W

29 NOV 84 1834 MST



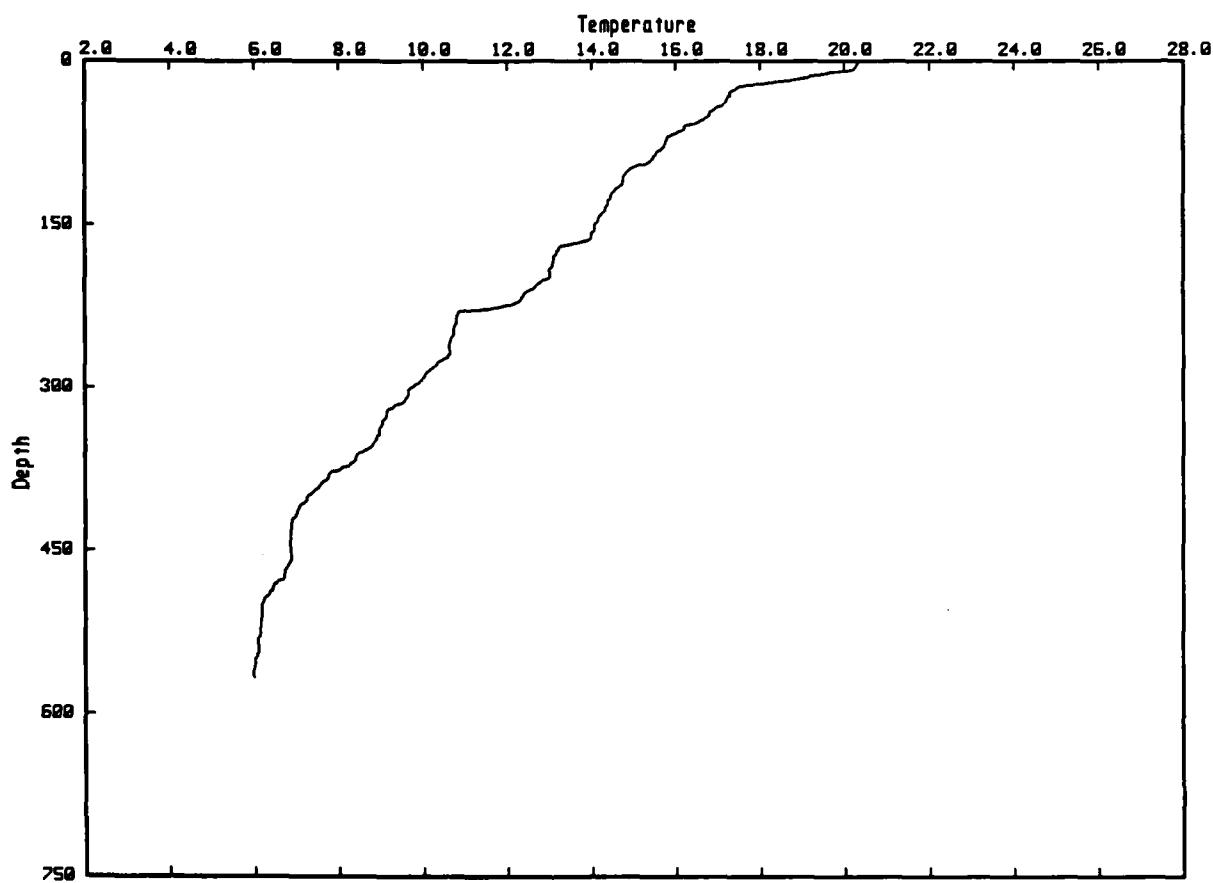
XBT DROP 164 T-7 RADAR: SE 5.9nm 051T GULF COORDS: -30.0 240.8  
JDAY 335 134Z DEPTH 557m/556m SST 20.10 2M TEMPS: SAIL 20.56 XBT 20.46  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE; CXP2-17

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 9   | 20.4 | 200 | 13.2 | 391 | 7.6  |
| 20  | 20.1 | 209 | 13.1 | 400 | 7.6  |
| 30  | 18.3 | 220 | 13.1 | 410 | 7.3  |
| 40  | 17.4 | 230 | 13.0 | 420 | 7.1  |
| 50  | 17.0 | 240 | 12.0 | 430 | 7.1  |
| 61  | 16.8 | 250 | 11.2 | 440 | 7.1  |
| 70  | 16.7 | 260 | 11.0 | 450 | 6.7  |
| 80  | 16.3 | 270 | 10.8 | 460 | 6.6  |
| 90  | 15.9 | 280 | 10.7 | 471 | 6.6  |
| 99  | 15.3 | 290 | 10.6 | 479 | 6.6  |
| 110 | 15.2 | 300 | 10.4 | 490 | 6.5  |
| 120 | 14.7 | 310 | 10.2 | 500 | 6.5  |
| 130 | 14.4 | 320 | 9.8  | 510 | 6.5  |
| 141 | 14.3 | 330 | 9.7  | 520 | 6.5  |
| 150 | 14.1 | 340 | 9.1  | 530 | 6.3  |
| 160 | 14.0 | 350 | 8.8  | 540 | 6.3  |
| 171 | 13.9 | 360 | 8.3  | 550 | 6.2  |
| 180 | 13.7 | 370 | 7.8  |     |      |
| 190 | 13.5 | 380 | 7.8  |     |      |

XBT DROP 165

28 36.3N 112 40.4W

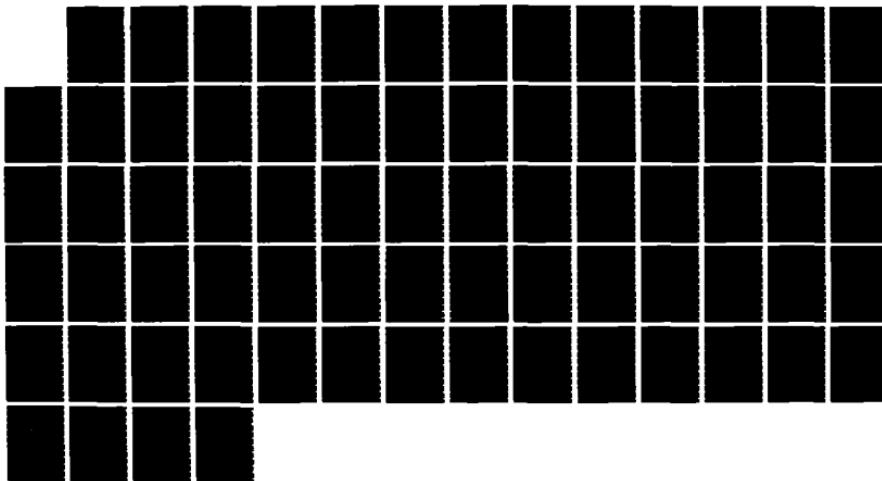
29 NOV 84 1840 MST

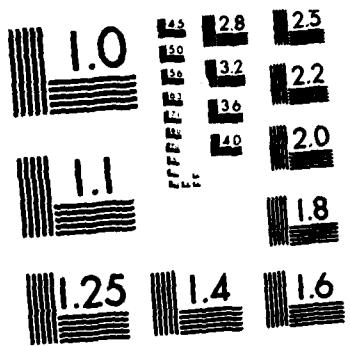


XBT DROP 165 T-7 RADAR: SE 5.2nm 051T GULF COORDS: -28.2 241.0  
JDAY 335 140Z DEPTH 568m/568m SST 20.05 2M TEMPS: SAIL 20.46 XBT 20.30  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE; CXP2-18

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.9 | 200 | 13.0 | 390 | 7.6  |
| 20  | 18.3 | 210 | 12.6 | 400 | 7.3  |
| 30  | 17.3 | 220 | 12.3 | 411 | 7.1  |
| 40  | 17.1 | 230 | 10.9 | 420 | 6.9  |
| 50  | 16.8 | 241 | 10.8 | 429 | 6.9  |
| 60  | 16.2 | 250 | 10.7 | 441 | 6.9  |
| 71  | 15.8 | 260 | 10.6 | 450 | 6.9  |
| 80  | 15.7 | 270 | 10.6 | 460 | 6.9  |
| 90  | 15.4 | 280 | 10.3 | 471 | 6.7  |
| 100 | 14.9 | 290 | 10.0 | 480 | 6.5  |
| 110 | 14.7 | 300 | 9.7  | 490 | 6.4  |
| 120 | 14.5 | 310 | 9.6  | 500 | 6.2  |
| 130 | 14.4 | 320 | 9.2  | 510 | 6.2  |
| 140 | 14.2 | 330 | 9.1  | 521 | 6.1  |
| 150 | 14.1 | 341 | 9.0  | 530 | 6.1  |
| 160 | 14.0 | 350 | 8.9  | 540 | 6.1  |
| 170 | 13.3 | 360 | 8.6  | 549 | 6.0  |
| 180 | 13.1 | 370 | 8.3  | 560 | 6.0  |
| 190 | 13.0 | 381 | 7.8  |     |      |

AD-A171 928      OBSERVATIONS OF TEMPERATURE FINESTRUCTURE IN THE GULF      3/3  
OF CALIFORNIA XBT D. (U) SCRIPPS INSTITUTION OF  
OCEANOGRAPHY LA JOLLA CA C A PADEN ET AL. MAR 85  
UNCLASSIFIED SIO-REF-86-14 N88014-85-C-0104      F/G 8/10      NL



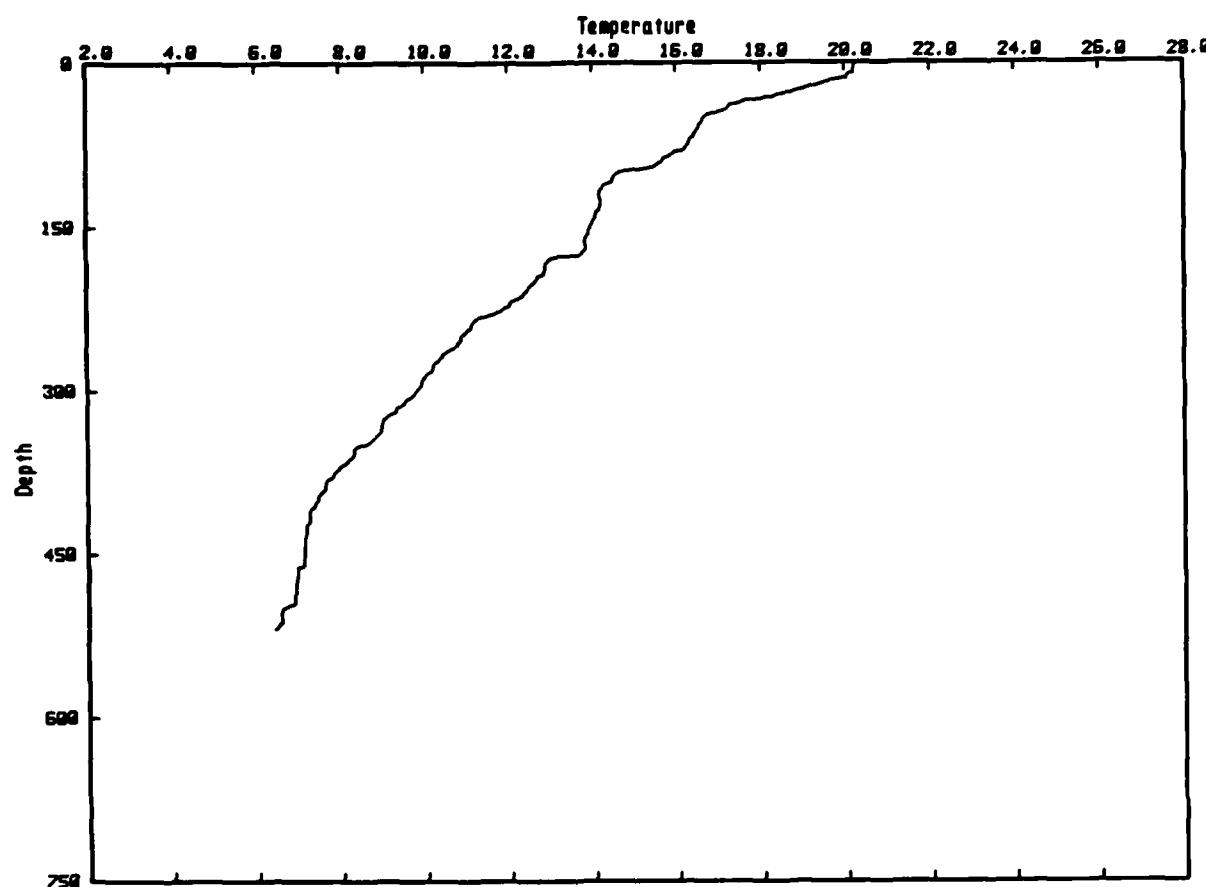


MICROCOPY RESOLUTION TEST CHART

XBT DROP 166

28 37.0N 112 39.8W

29 NOV 84 1846 MST



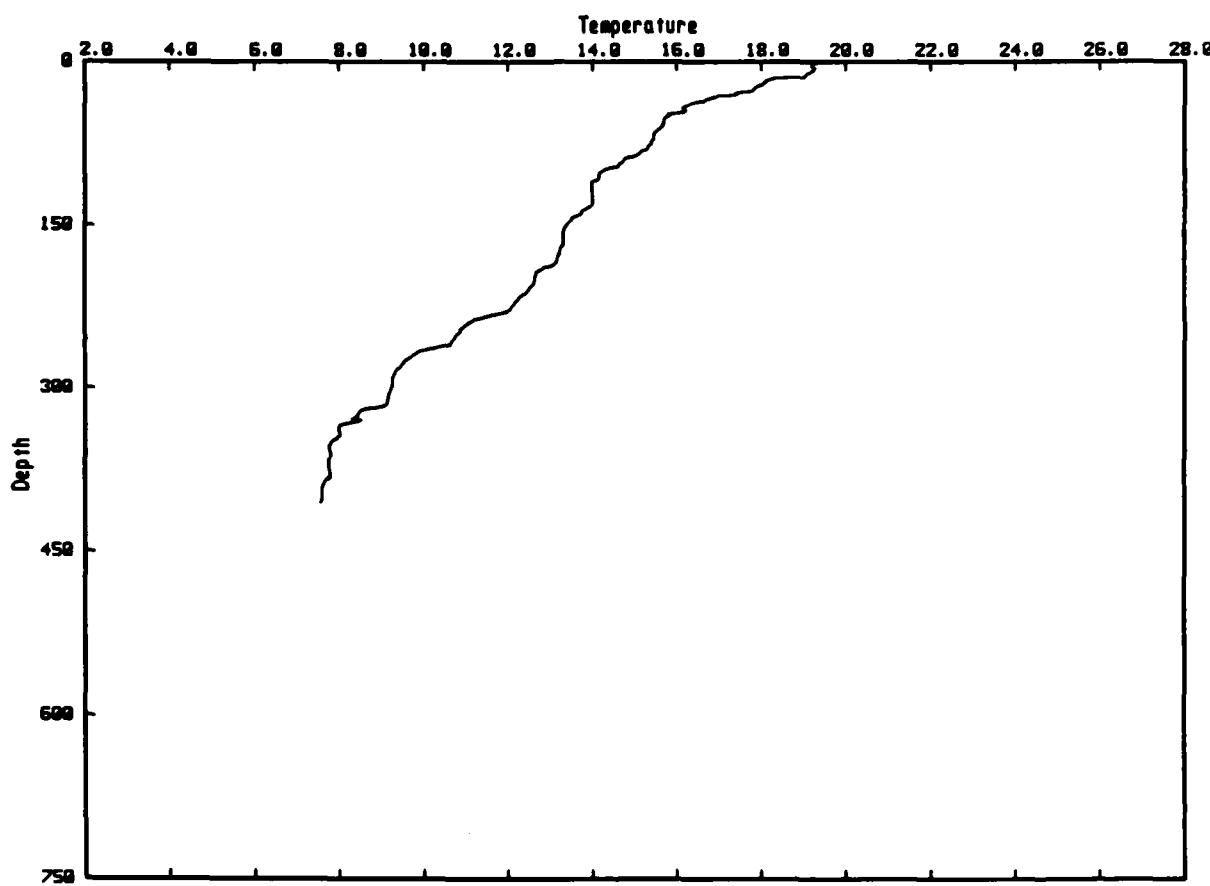
XBT DROP 166 T-7 RADAR: SE 4.4nm 051T GULF COORDS: -26.7 241.4  
JDAY 335 146Z DEPTH 520m/520m SST 19.88 2M TEMPS: SAIL 20.37 XBT 20.23  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP2-19

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 20.2 | 200 | 12.6 | 390 | 7.6  |
| 20  | 19.4 | 210 | 12.4 | 400 | 7.4  |
| 30  | 18.4 | 220 | 12.0 | 411 | 7.3  |
| 40  | 17.2 | 230 | 11.5 | 420 | 7.2  |
| 50  | 16.7 | 240 | 11.1 | 430 | 7.2  |
| 60  | 16.5 | 250 | 10.9 | 440 | 7.1  |
| 70  | 16.3 | 260 | 10.7 | 451 | 7.1  |
| 80  | 16.1 | 270 | 10.4 | 460 | 7.1  |
| 90  | 15.6 | 280 | 10.2 | 470 | 6.9  |
| 100 | 14.6 | 289 | 9.9  | 480 | 6.9  |
| 110 | 14.4 | 300 | 9.8  | 490 | 6.9  |
| 120 | 14.2 | 311 | 9.5  | 500 | 6.6  |
| 129 | 14.2 | 320 | 9.3  | 510 | 6.6  |
| 141 | 14.1 | 331 | 9.0  | 520 | 6.4  |
| 150 | 13.9 | 340 | 8.9  |     |      |
| 161 | 13.8 | 350 | 8.4  |     |      |
| 170 | 13.8 | 360 | 8.3  |     |      |
| 180 | 12.9 | 371 | 8.0  |     |      |
| 190 | 12.8 | 380 | 7.8  |     |      |

XBT DROP 167

28 37.2N 112 39.1W

29 NOV 84 1851 MST



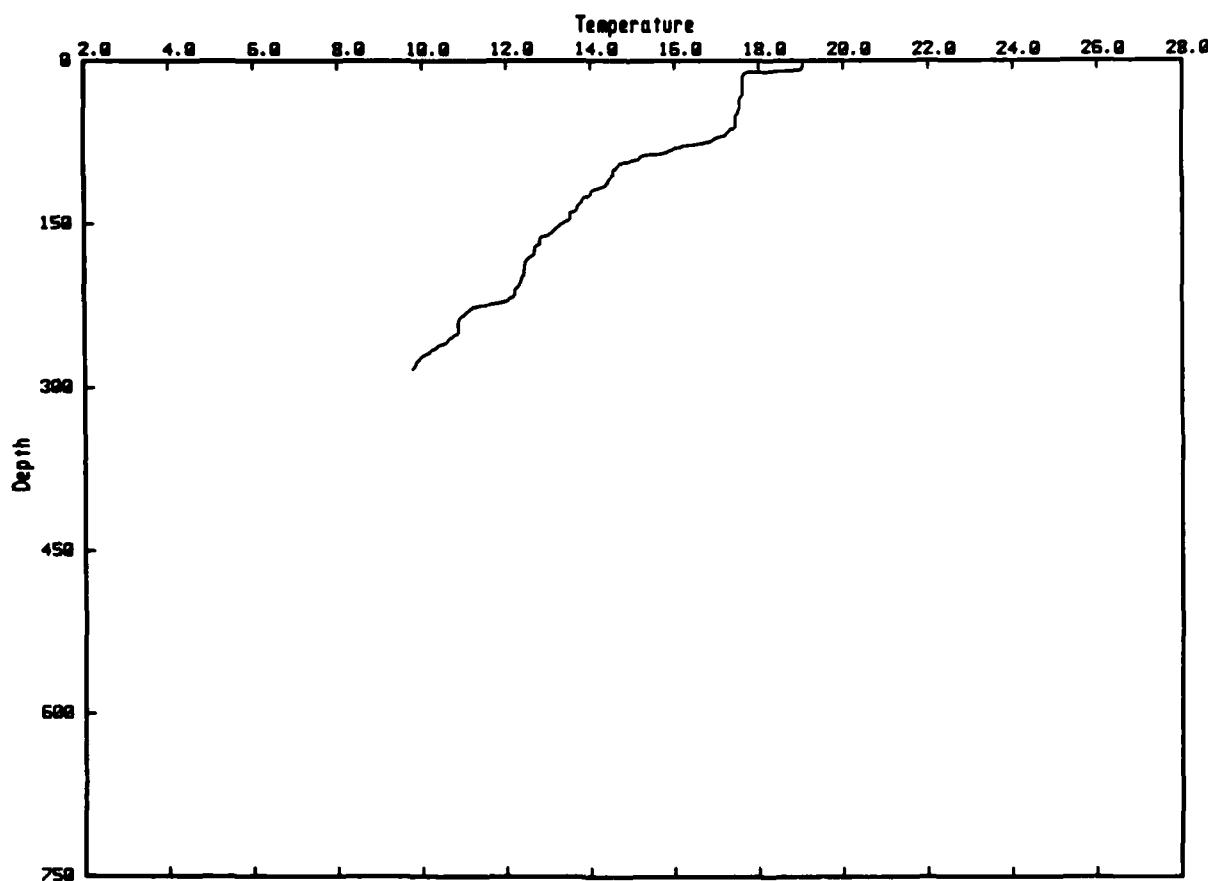
XBT DROP 167 T-7 RADAR: SE 3.8nm 049T GULF COORDS: -25.5 241.1  
JDAY 335 151Z DEPTH 407m/407m SST 19.30 2M TEMPS: SAIL 20.13 XBT 19.19  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE; CXP2-20

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.2 | 200 | 12.6 | 391 | 7.6  |
| 20  | 16.1 | 210 | 12.5 | 399 | 7.6  |
| 30  | 17.4 | 220 | 12.2 |     |      |
| 40  | 16.3 | 230 | 11.9 |     |      |
| 50  | 15.8 | 240 | 11.1 |     |      |
| 60  | 15.6 | 250 | 10.8 |     |      |
| 70  | 15.5 | 260 | 10.6 |     |      |
| 80  | 15.3 | 270 | 9.7  |     |      |
| 90  | 14.7 | 280 | 9.5  |     |      |
| 100 | 14.3 | 290 | 9.3  |     |      |
| 110 | 14.0 | 300 | 9.2  |     |      |
| 120 | 14.0 | 310 | 9.2  |     |      |
| 130 | 14.0 | 320 | 8.6  |     |      |
| 140 | 13.7 | 330 | 8.5  |     |      |
| 150 | 13.4 | 340 | 8.0  |     |      |
| 160 | 13.3 | 350 | 7.8  |     |      |
| 170 | 13.3 | 350 | 7.8  |     |      |
| 179 | 13.2 | 371 | 7.8  |     |      |
| 190 | 12.8 | 380 | 7.8  |     |      |

XBT DROP 168

28 37.4N 112 38.4W

29 NOV 84 1855 MST

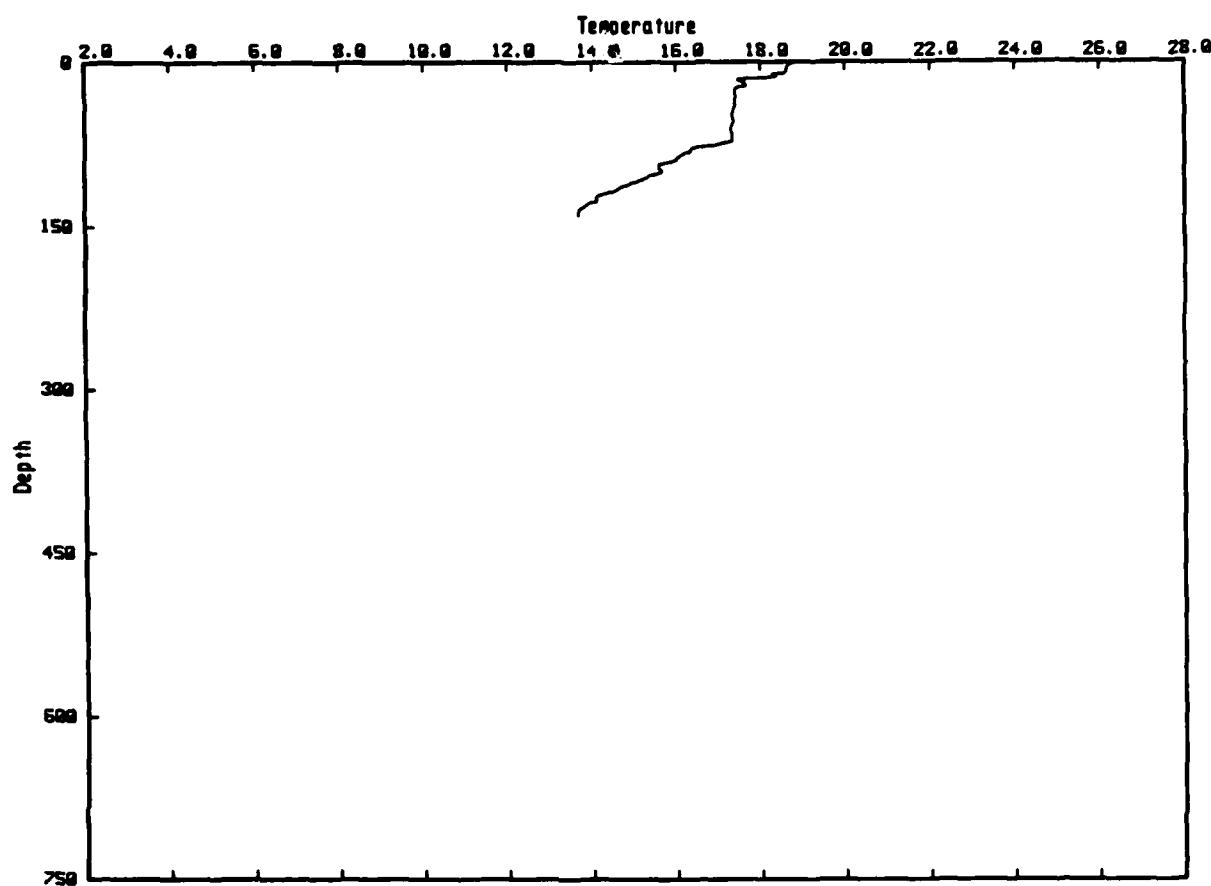


XBT DROP 168 T-7 RADAR: SE 3.3nm 049T GULF COORDS: -24.4 240.7  
JDAY 335 1552 DEPTH 284m/284m SST 18.86 2M TEMPS: SAIL 18.45 XBT 19.05  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP2-21

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 18.3 | 200 | 12.4 |
| 21  | 17.6 | 209 | 12.2 |
| 31  | 17.6 | 220 | 12.1 |
| 40  | 17.5 | 230 | 11.1 |
| 50  | 17.5 | 240 | 10.9 |
| 61  | 17.5 | 250 | 10.8 |
| 70  | 17.1 | 260 | 10.5 |
| 80  | 16.1 | 270 | 10.1 |
| 90  | 15.2 | 280 | 9.8  |
| 100 | 14.6 |     |      |
| 110 | 14.4 |     |      |
| 120 | 14.0 |     |      |
| 130 | 13.8 |     |      |
| 140 | 13.5 |     |      |
| 150 | 13.3 |     |      |
| 160 | 13.0 |     |      |
| 170 | 12.7 |     |      |
| 180 | 12.6 |     |      |
| 190 | 12.4 |     |      |

XBT DROP 169

28 37.8N 112 38.1W 29 NOV 84 1900 MST



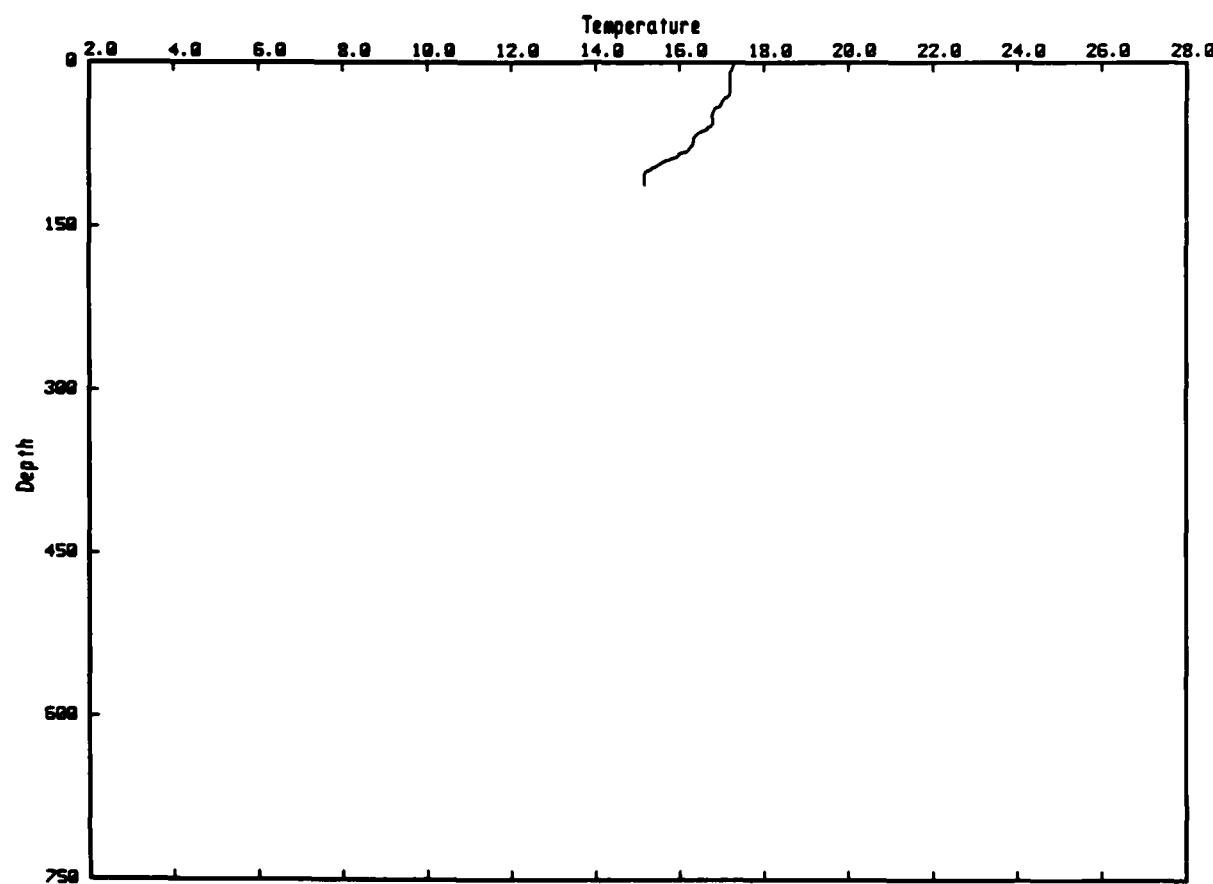
XBT DROP 169 T-7 RADAR: SE 2.7nm 050T GULF COORDS: -23.5 241.0  
JDAY 335 200Z DEPTH 141m/141m SST 18.70 2M TEMPS: SAIL 18.24 XBT 18.65  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP2-22

| Z   | TEMP |
|-----|------|
| 10  | 18.6 |
| 20  | 17.6 |
| 30  | 17.4 |
| 40  | 17.4 |
| 50  | 17.3 |
| 60  | 17.3 |
| 70  | 17.3 |
| 80  | 16.4 |
| 90  | 16.0 |
| 100 | 15.6 |
| 110 | 15.0 |
| 120 | 14.3 |
| 130 | 13.9 |
| 140 | 13.7 |

XBT DROP 170

28 38.3N 112 37.2W

29 NOV 84 1905 MST



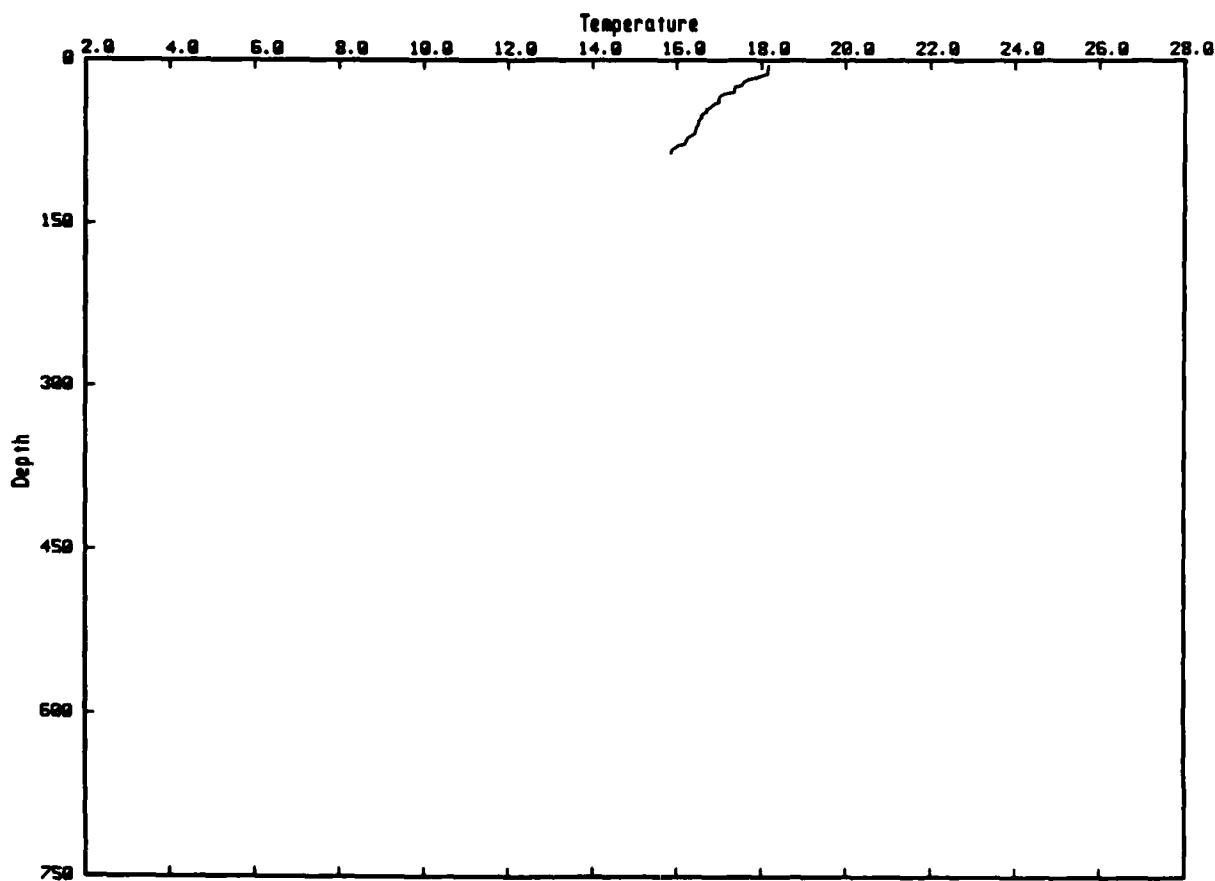
XBT DROP 170 T-7 RADAR: SE 1.9nm 050T GULF COORDS: -21.8 240.9  
JDAY 335 205Z DEPTH 113m/113m SST 17.81 2M TEMPS: SAIL 19.02 XBT 17.27  
GULF OF CALIFORNIA: CAP SL/SE SILL LINE, CXP2-23

| Z   | TEMP |
|-----|------|
| 10  | 17.2 |
| 20  | 17.2 |
| 30  | 17.2 |
| 40  | 17.0 |
| 50  | 16.8 |
| 60  | 16.7 |
| 70  | 16.3 |
| 80  | 16.2 |
| 90  | 15.7 |
| 100 | 15.2 |
| 110 | 15.2 |

XBT DROP 171

28 38.6N 112 36.6W

29 NOV 84 1911 MST



XBT DROP 171 T-7 RADAR: SE 1.4nm 047T GULF COORDS: -20.7 240.7  
JDAY 335 211Z DEPTH 86m/ 85m SST 17.96 2M TEMPS: SAIL 18.94 XBT .00  
GULF OF CALIFORNIA: END CAP SL/SE SILL LINE, CXP2-24, NEAP TIDE

| Z  | TEMP |
|----|------|
| 10 | 18.1 |
| 20 | 17.6 |
| 30 | 17.2 |
| 40 | 16.9 |
| 50 | 16.6 |
| 60 | 16.5 |
| 70 | 16.3 |
| 80 | 15.9 |

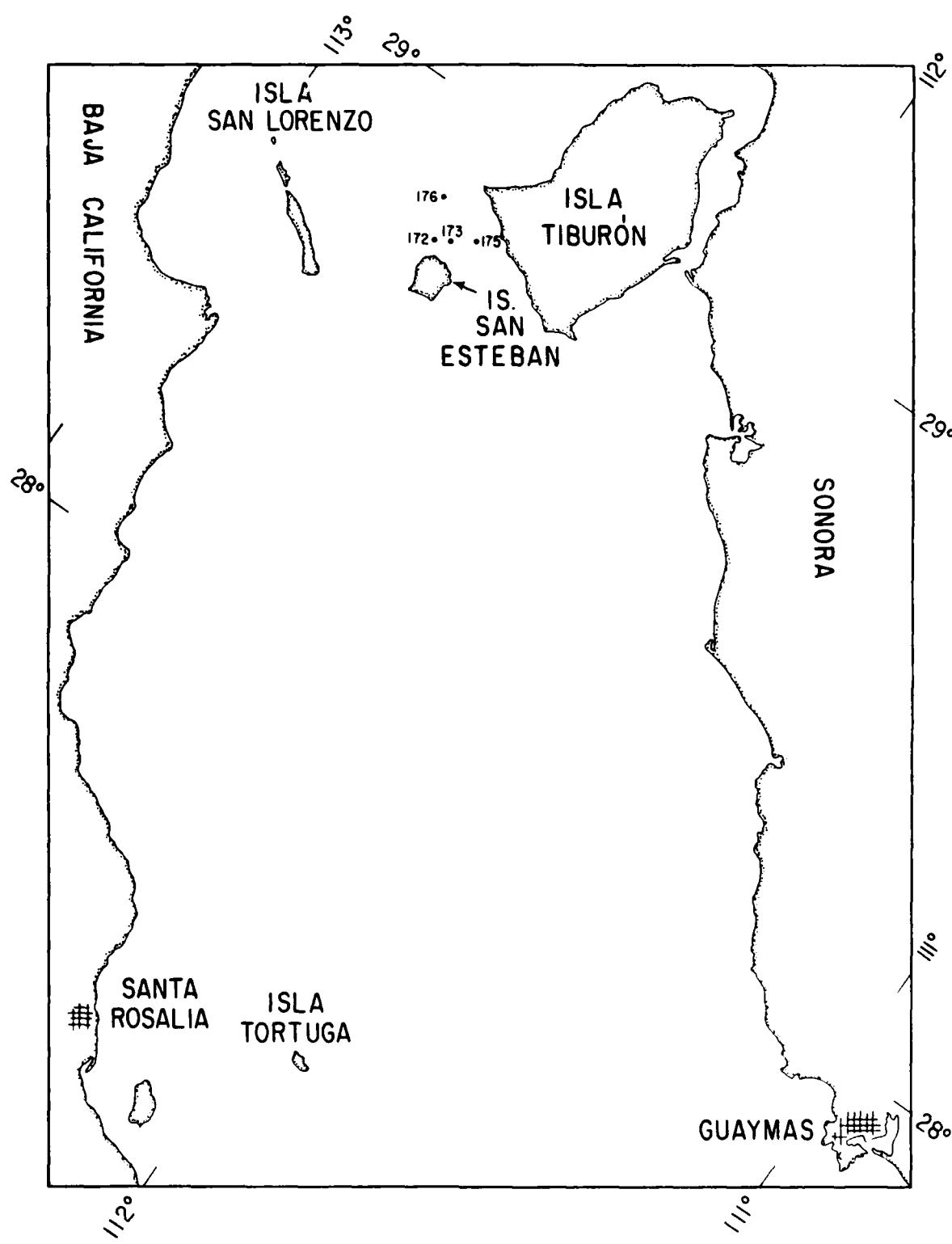


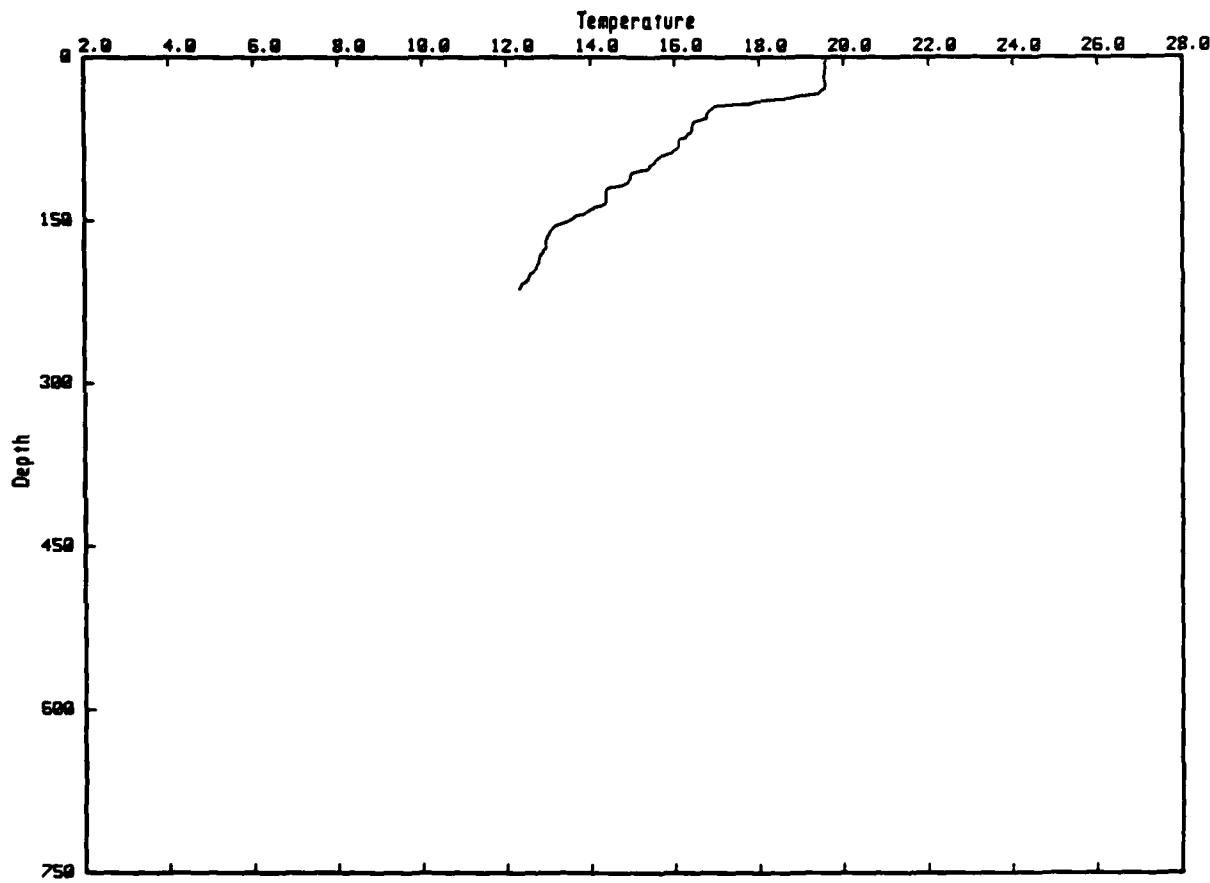
Figure 22. Tiburon Section: XBT Station Locations



XBT DROP 172

28 46.0N 112 36.7W

30 NOV 84 0103 MST



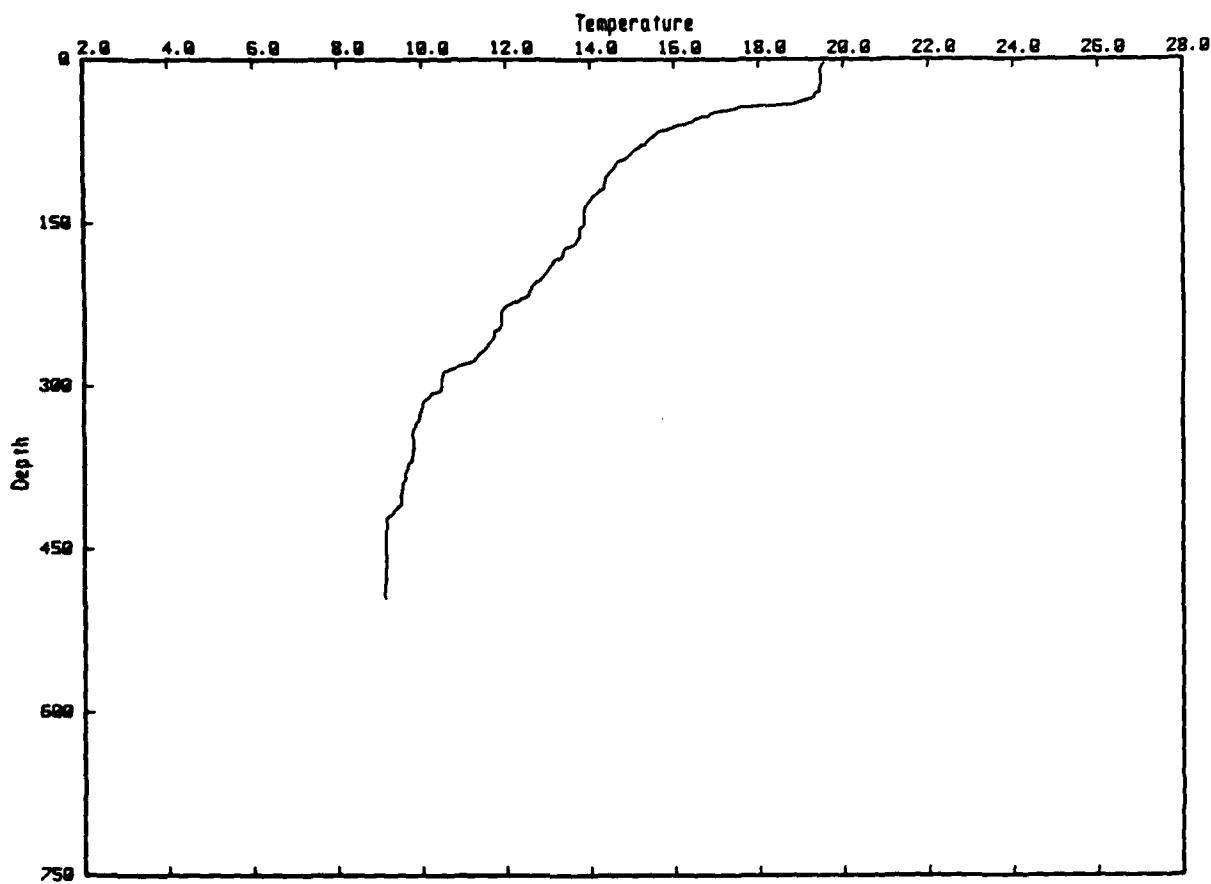
XBT DROP 172 T-7 RADAR: SWL 6.5nm 055T GULF COORDS: -12.7 251.9  
JDAY 335 803Z DEPTH 214m/213m SST .00 2M TEMPS: SAIL 19.67 XBT 19.58  
GULF OF CALIFORNIA: TIBURON CHANNEL

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 19.6 | 200 | 12.5 |
| 20  | 19.5 | 210 | 12.3 |
| 30  | 19.5 |     |      |
| 40  | 18.1 |     |      |
| 50  | 16.8 |     |      |
| 60  | 16.4 |     |      |
| 70  | 16.3 |     |      |
| 80  | 16.1 |     |      |
| 90  | 15.7 |     |      |
| 100 | 15.4 |     |      |
| 110 | 14.9 |     |      |
| 120 | 14.4 |     |      |
| 130 | 14.4 |     |      |
| 140 | 14.0 |     |      |
| 150 | 13.5 |     |      |
| 160 | 13.0 |     |      |
| 170 | 12.9 |     |      |
| 180 | 12.9 |     |      |
| 190 | 12.8 |     |      |

XBT DROP 173

28 47.0N 112 35.0W

30 NOV 84 0114 MST



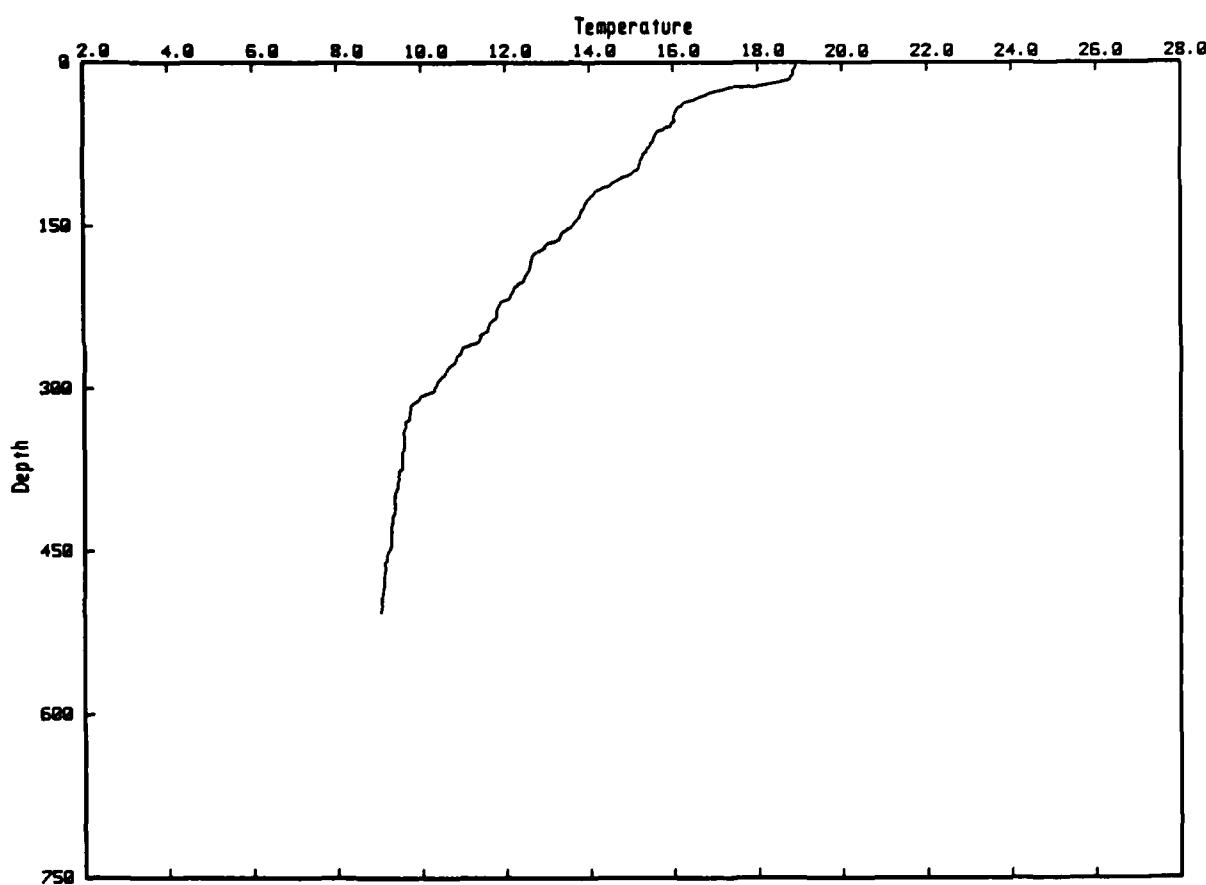
XBT DROP 173 T-7 RADAR: SWL 4.5nm 055T GULF COORDS: -9.3 251.7  
JDAY 335 814Z DEPTH 497m/495m SST .00 2M TEMPS: SAIL 19.60 XBT 19.54  
GULF OF CALIFORNIA: TIBURON CHANNEL

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 19.5 | 200 | 12.9 | 390 | 9.5  |
| 20  | 19.5 | 210 | 12.6 | 400 | 9.5  |
| 30  | 19.4 | 220 | 12.3 | 410 | 9.5  |
| 40  | 18.9 | 230 | 11.9 | 420 | 9.2  |
| 50  | 16.9 | 240 | 11.9 | 430 | 9.1  |
| 60  | 16.2 | 250 | 11.7 | 440 | 9.1  |
| 70  | 15.5 | 260 | 11.6 | 450 | 9.1  |
| 80  | 15.2 | 270 | 11.3 | 460 | 9.1  |
| 90  | 14.9 | 280 | 10.9 | 470 | 9.1  |
| 100 | 14.6 | 290 | 10.5 | 480 | 9.1  |
| 110 | 14.4 | 300 | 10.4 | 490 | 9.1  |
| 120 | 14.2 | 310 | 10.1 |     |      |
| 130 | 14.0 | 320 | 10.0 |     |      |
| 140 | 13.9 | 330 | 9.9  |     |      |
| 150 | 13.8 | 340 | 9.8  |     |      |
| 160 | 13.7 | 350 | 9.8  |     |      |
| 170 | 13.6 | 360 | 9.8  |     |      |
| 180 | 13.3 | 370 | 9.7  |     |      |
| 190 | 13.0 | 380 | 9.6  |     |      |

XBT DROP 175

28 48.6N 112 32.5W

30 NOV 84 0130 MST



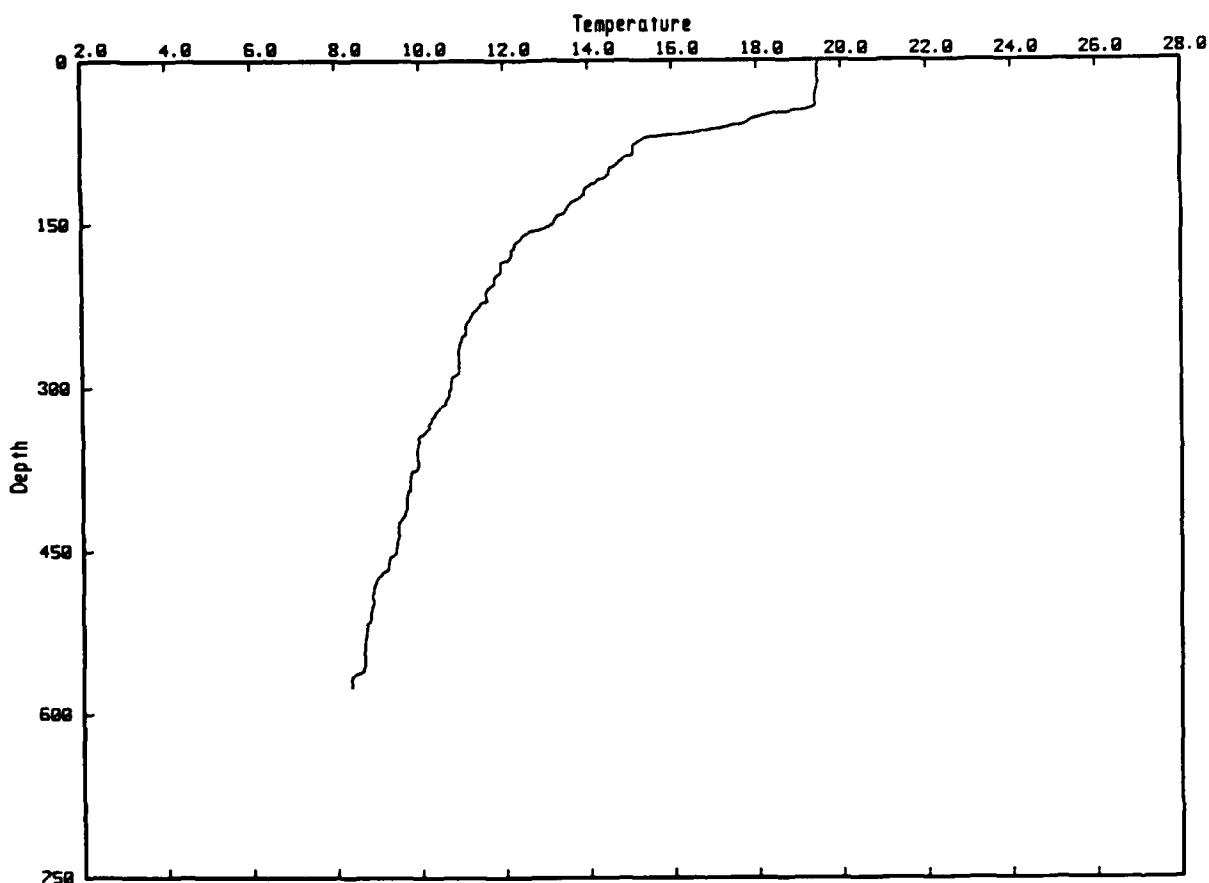
XBT DROP 175 T-7 RADAR: SWL 1.9nm 056T GULF COORDS: -4.3 251.7  
JDAY 335 830Z DEPTH 506m/506m SST 18.61 2M TEMPS: SAIL 19.19 XBT 18.90  
GULF OF CALIFORNIA: TIBURON CHANNEL

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 18.9 | 200 | 12.4 | 390 | 9.4  |
| 20  | 18.3 | 210 | 12.2 | 400 | 9.4  |
| 30  | 16.8 | 220 | 11.9 | 411 | 9.4  |
| 40  | 16.2 | 230 | 11.8 | 420 | 9.3  |
| 49  | 16.0 | 240 | 11.6 | 430 | 9.3  |
| 60  | 15.8 | 250 | 11.4 | 441 | 9.3  |
| 70  | 15.5 | 260 | 11.1 | 450 | 9.2  |
| 80  | 15.4 | 269 | 10.8 | 460 | 9.1  |
| 90  | 15.2 | 281 | 10.6 | 470 | 9.1  |
| 100 | 15.1 | 290 | 10.4 | 480 | 9.1  |
| 110 | 14.6 | 300 | 10.3 | 489 | 9.1  |
| 120 | 14.1 | 310 | 9.9  | 500 | 9.1  |
| 130 | 13.9 | 320 | 9.7  |     |      |
| 141 | 13.8 | 330 | 9.6  |     |      |
| 150 | 13.6 | 340 | 9.6  |     |      |
| 160 | 13.3 | 350 | 9.6  |     |      |
| 170 | 12.9 | 360 | 9.5  |     |      |
| 179 | 12.6 | 371 | 9.5  |     |      |
| 190 | 12.6 | 380 | 9.4  |     |      |

XBT DROP 176

28 50.4N 112 39.0W

30 NOV 84 0210 MST



XBT DROP 176 T-7 RADAR: WL 3.9nm 048T GULF COORDS: -10.9 260.6  
JDAY 335 910Z DEPTH 575m/574m SST .00 2M TEMPS: SAIL 19.61 XBT 19.45  
GULF OF CALIFORNIA: TIBURON CHANNEL

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 9   | 19.4 | 200 | 11.8 | 390 | 9.7  |
| 19  | 19.5 | 210 | 11.6 | 400 | 9.7  |
| 30  | 19.4 | 220 | 11.6 | 410 | 9.6  |
| 40  | 19.4 | 230 | 11.3 | 420 | 9.5  |
| 50  | 18.2 | 240 | 11.1 | 429 | 9.5  |
| 60  | 17.4 | 250 | 11.1 | 440 | 9.4  |
| 70  | 15.5 | 260 | 10.9 | 451 | 9.4  |
| 80  | 15.1 | 269 | 10.9 | 460 | 9.2  |
| 90  | 14.9 | 280 | 10.9 | 470 | 9.1  |
| 100 | 14.5 | 290 | 10.8 | 479 | 8.9  |
| 110 | 14.2 | 300 | 10.7 | 491 | 8.9  |
| 120 | 13.9 | 310 | 10.6 | 500 | 8.9  |
| 130 | 13.6 | 320 | 10.4 | 509 | 8.8  |
| 140 | 13.4 | 330 | 10.2 | 519 | 8.7  |
| 150 | 13.1 | 340 | 10.1 | 530 | 8.7  |
| 160 | 12.4 | 350 | 9.9  | 540 | 8.6  |
| 170 | 12.2 | 361 | 9.9  | 550 | 8.6  |
| 180 | 12.2 | 371 | 9.9  | 560 | 8.6  |
| 190 | 11.9 | 380 | 9.8  | 570 | 8.3  |

Pichicuco VII

March 1985



**San Esteban Sill**



San Esteban

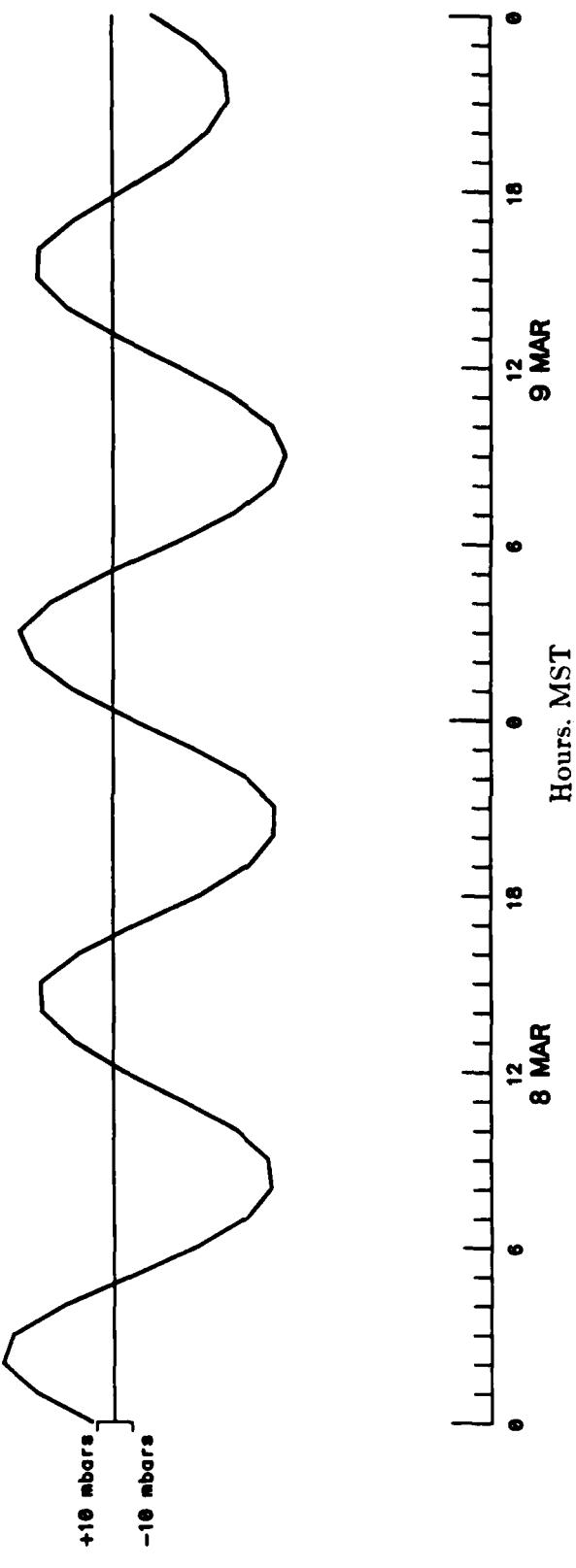


Figure 23. Bottom Pressure at San Esteban Island.  
8-9 March 1985.



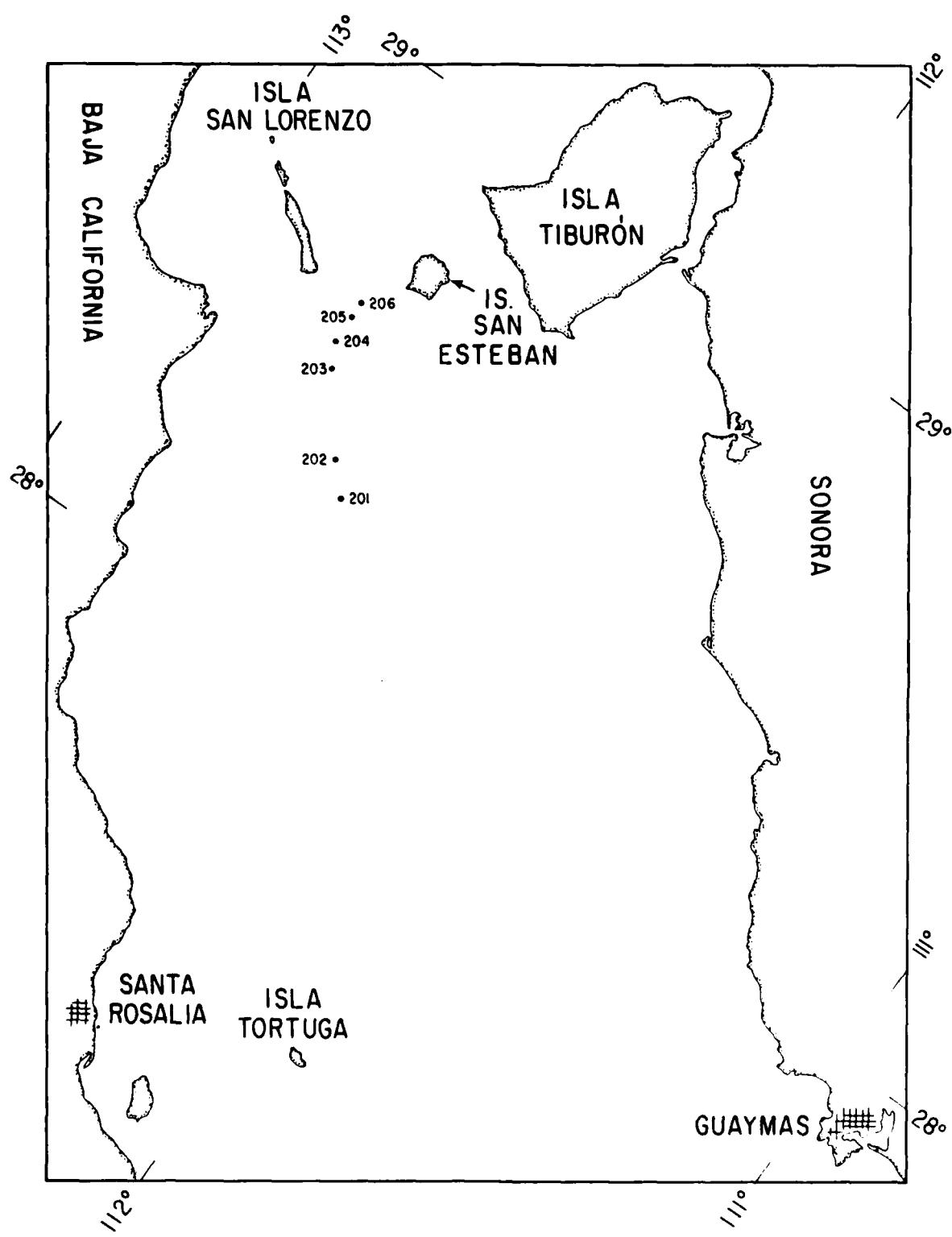


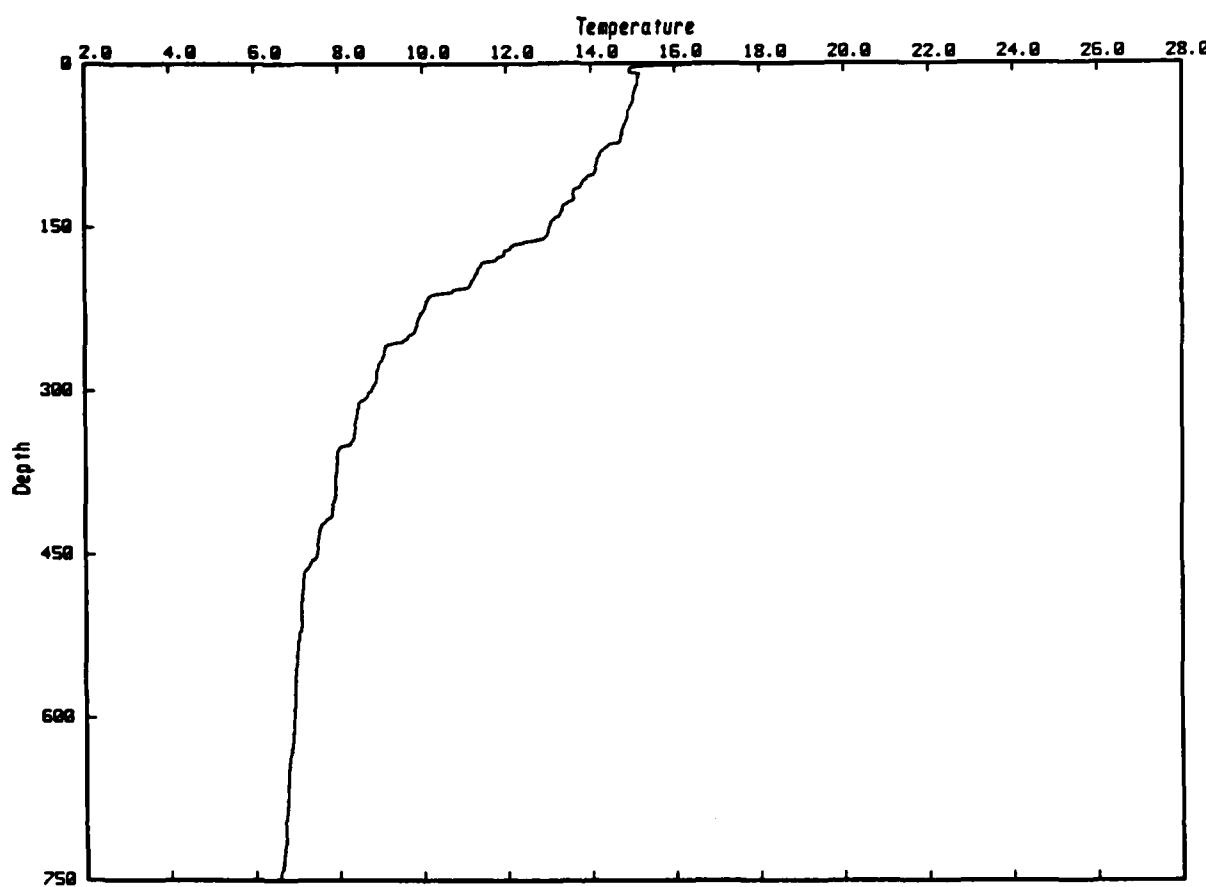
Figure 24. MX3 Section: XBT Station Locations



XBT DROP 201

28 17.5N 112 26.7W

9 MAR 85 0652 MST



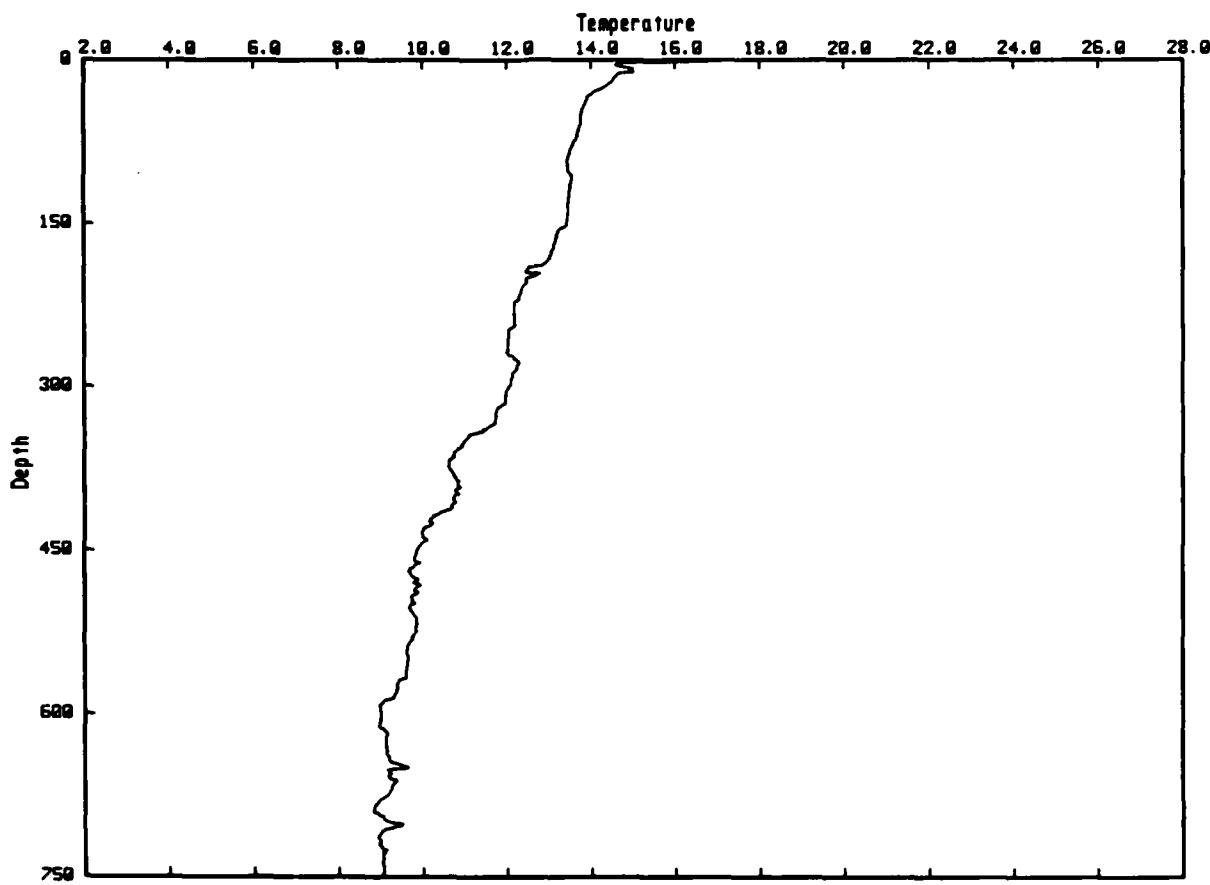
XBT DROP 201 T-7 RADAR: SE 23.4nm 340T GULF COORDS: -30.7 199.7  
 JDAY 68 1352Z DEPTH 961m/760m SST .00 2M TEMPS: SAIL 14.68 XBT 15.62  
 GULF OF CALIFORNIA: BEGIN MX3; MX3-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 15.2 | 200 | 11.2 | 390 | 7.9  | 580 | 7.0  |
| 20  | 15.1 | 210 | 10.7 | 400 | 7.9  | 590 | 6.9  |
| 30  | 15.0 | 220 | 10.1 | 410 | 7.9  | 600 | 6.9  |
| 40  | 15.0 | 230 | 9.9  | 420 | 7.7  | 610 | 6.9  |
| 50  | 14.9 | 240 | 9.9  | 430 | 7.6  | 620 | 6.9  |
| 60  | 14.8 | 250 | 9.7  | 440 | 7.5  | 630 | 6.9  |
| 70  | 14.7 | 260 | 9.1  | 450 | 7.5  | 640 | 6.8  |
| 80  | 14.3 | 270 | 9.1  | 460 | 7.3  | 650 | 6.8  |
| 90  | 14.2 | 280 | 8.9  | 470 | 7.2  | 660 | 6.8  |
| 100 | 14.1 | 290 | 8.9  | 480 | 7.1  | 670 | 6.8  |
| 110 | 13.8 | 300 | 8.8  | 490 | 7.1  | 680 | 6.8  |
| 120 | 13.6 | 310 | 8.5  | 500 | 7.1  | 690 | 6.8  |
| 130 | 13.4 | 320 | 8.4  | 510 | 7.1  | 700 | 6.7  |
| 140 | 13.3 | 330 | 8.4  | 520 | 7.1  | 710 | 6.7  |
| 150 | 13.0 | 340 | 8.4  | 530 | 7.0  | 720 | 6.7  |
| 160 | 12.9 | 350 | 8.2  | 540 | 7.0  | 730 | 6.7  |
| 170 | 12.1 | 360 | 8.0  | 550 | 7.0  | 740 | 6.6  |
| 180 | 11.8 | 370 | 8.0  | 560 | 7.0  | 750 | 6.6  |
| 190 | 11.3 | 380 | 7.9  | 570 | 7.0  | 760 | 6.6  |

XBT DROP 202

28 20.6N 112 30.1W

9 MAR 85 0717 MST



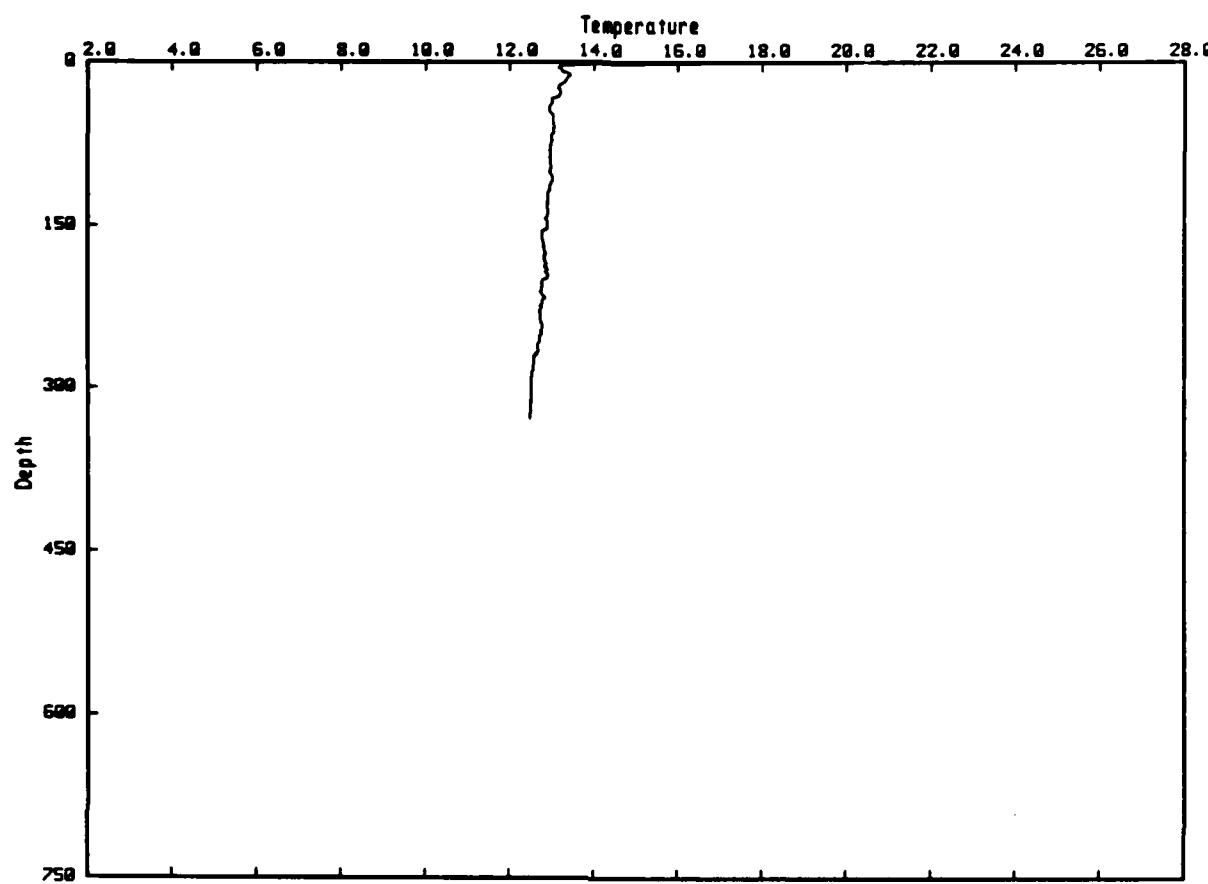
XBT DROP 202 T-7 RADAR: SE 19.2nm 345T GULF COORDS: -31.8 207.6  
 JDAY 68 1417Z DEPTH 760m/760m SST 14.68 2M TEMPS: SAIL .00 XBT 16.35  
 GULF OF CALIFORNIA: MX3-2, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 15.0 | 200 | 12.5 | 390 | 10.8 | 580 | 9.4  |
| 20  | 14.5 | 210 | 12.4 | 400 | 10.8 | 590 | 9.0  |
| 30  | 14.1 | 220 | 12.3 | 410 | 10.7 | 600 | 9.0  |
| 40  | 13.9 | 230 | 12.2 | 420 | 10.2 | 610 | 9.0  |
| 50  | 13.8 | 240 | 12.2 | 430 | 10.0 | 620 | 9.2  |
| 60  | 13.7 | 250 | 12.0 | 440 | 10.1 | 630 | 9.1  |
| 70  | 13.7 | 260 | 12.0 | 450 | 9.9  | 640 | 9.2  |
| 80  | 13.5 | 270 | 12.0 | 460 | 9.8  | 650 | 9.6  |
| 90  | 13.5 | 280 | 12.3 | 470 | 9.7  | 660 | 9.3  |
| 100 | 13.5 | 290 | 12.1 | 480 | 9.8  | 670 | 9.3  |
| 110 | 13.6 | 300 | 12.0 | 490 | 9.8  | 680 | 9.0  |
| 120 | 13.5 | 310 | 12.0 | 500 | 9.7  | 690 | 8.8  |
| 130 | 13.5 | 320 | 11.8 | 510 | 9.8  | 700 | 9.2  |
| 140 | 13.5 | 330 | 11.7 | 520 | 9.8  | 710 | 9.0  |
| 150 | 13.4 | 340 | 11.5 | 530 | 9.8  | 720 | 9.0  |
| 160 | 13.2 | 350 | 11.0 | 540 | 9.6  | 730 | 9.0  |
| 170 | 13.1 | 360 | 10.8 | 550 | 9.7  | 740 | 9.0  |
| 180 | 13.0 | 370 | 10.6 | 560 | 9.6  | 750 | 9.0  |
| 190 | 12.5 | 380 | 10.8 | 570 | 9.4  | 760 | 9.1  |

XBT DROP 203

28 28.3N 112 36.9W

9 MAR 85 0806 MST



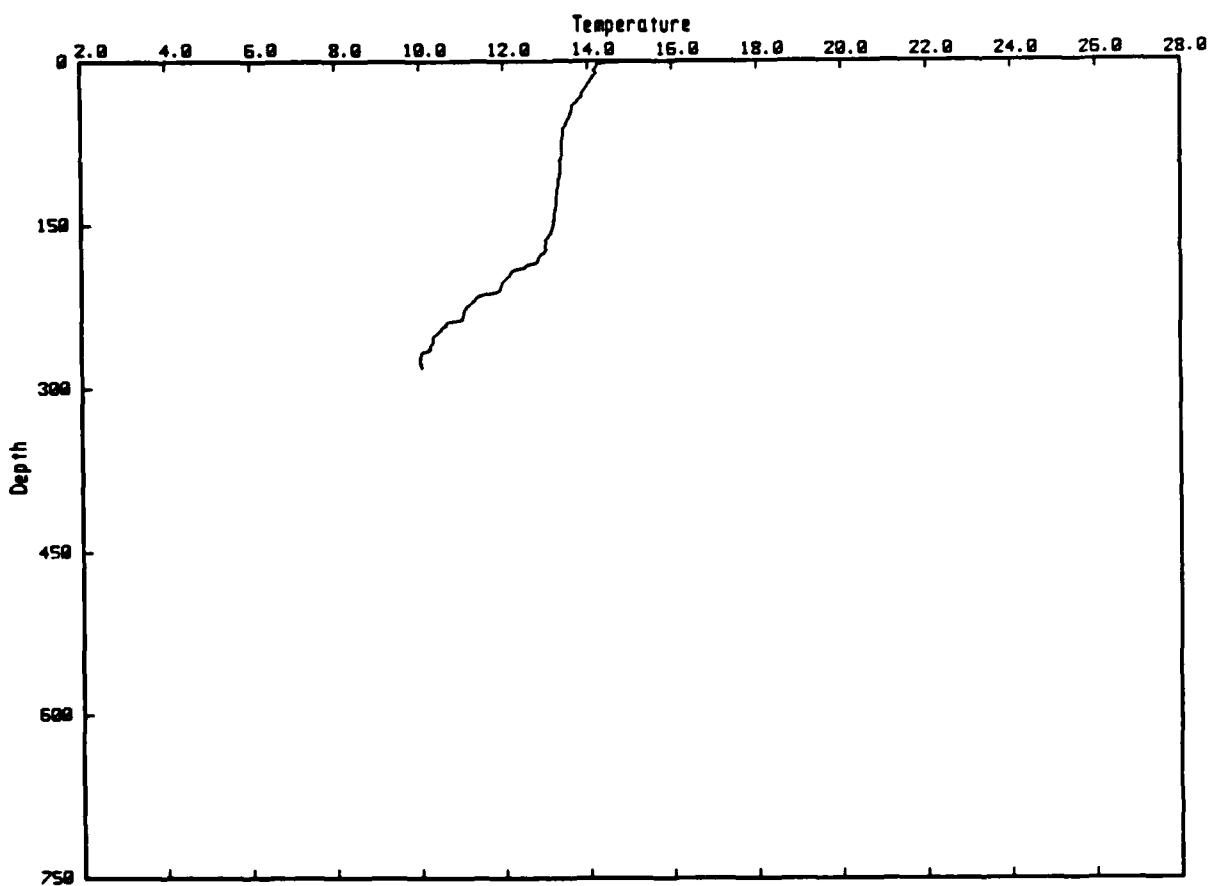
XBT DROP 203 T-7 RADAR: SE 11.2nm 005T GULF COORDS: -32.4 225.7  
JDAY 68 1506Z DEPTH 330m/330m SST 13.44 2M TEMPS: SAIL 13.24 XBT 14.09  
GULF OF CALIFORNIA: MX3-3, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 13.3 | 200 | 12.8 |
| 20  | 13.2 | 210 | 12.7 |
| 30  | 13.2 | 220 | 12.8 |
| 40  | 12.9 | 230 | 12.7 |
| 50  | 13.0 | 240 | 12.7 |
| 60  | 13.0 | 250 | 12.8 |
| 70  | 13.0 | 260 | 12.7 |
| 80  | 13.0 | 270 | 12.6 |
| 90  | 13.0 | 280 | 12.6 |
| 100 | 13.0 | 290 | 12.5 |
| 110 | 13.0 | 300 | 12.5 |
| 120 | 12.9 | 310 | 12.5 |
| 130 | 12.9 | 320 | 12.5 |
| 140 | 12.9 | 330 | 12.5 |
| 150 | 12.9 |     |      |
| 160 | 12.8 |     |      |
| 170 | 12.8 |     |      |
| 180 | 12.8 |     |      |
| 190 | 12.9 |     |      |

XBT DROP 204

28 31.0N 112 38.5W

9 MAR 85 0828 MST



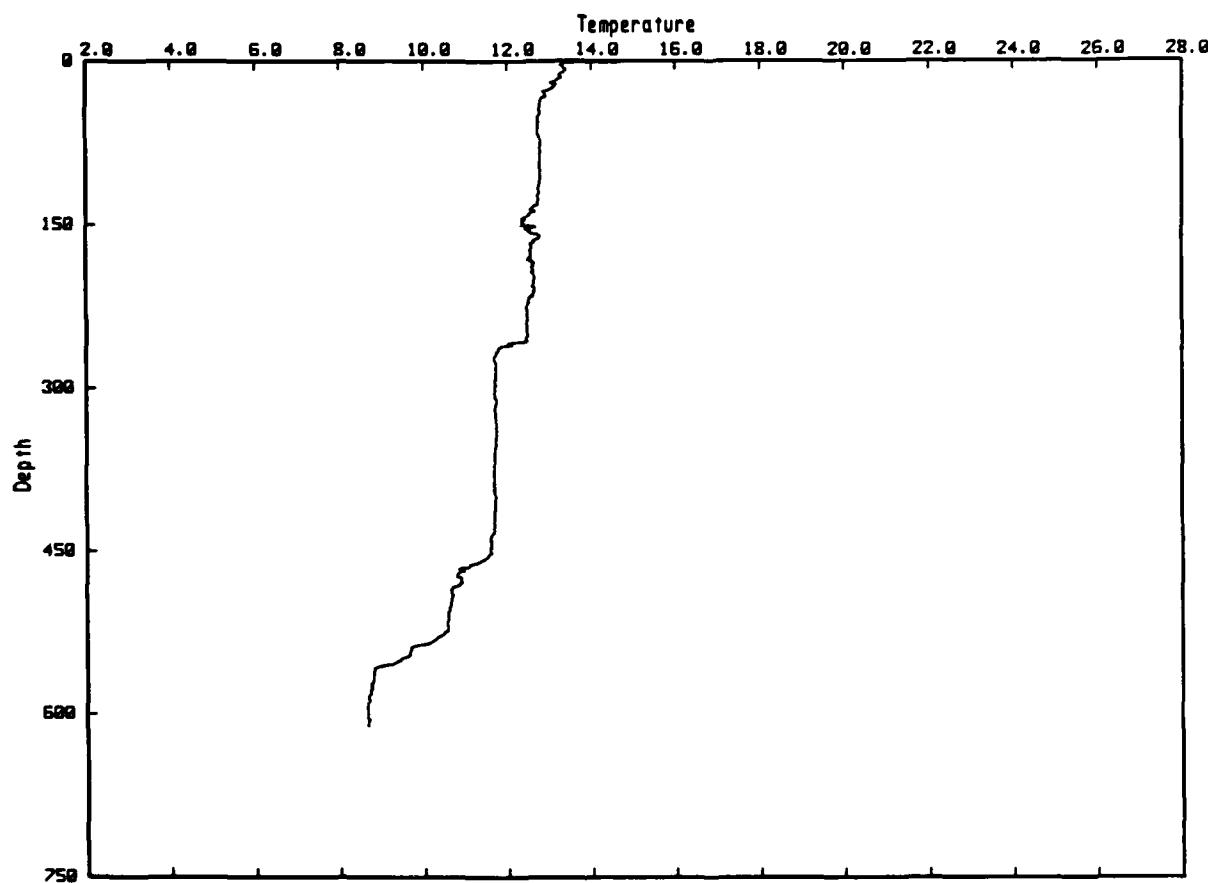
XBT DROP 204 T-7 RADAR: SE 8.8nm 016T GULF COORDS: -31.5 231.2  
JDAY 68 1528Z DEPTH 282m/282m SST 14.35 2M TEMPS: SAIL 14.02 XBT 14.45  
GULF OF CALIFORNIA: MX3-4, SPRING TIDE

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 14.2 | 200 | 12.0 |
| 20  | 14.0 | 210 | 11.9 |
| 30  | 13.9 | 220 | 11.3 |
| 40  | 13.6 | 230 | 11.0 |
| 50  | 13.6 | 240 | 10.8 |
| 60  | 13.5 | 250 | 10.4 |
| 70  | 13.4 | 260 | 10.3 |
| 80  | 13.4 | 270 | 10.0 |
| 90  | 13.4 | 280 | 10.1 |
| 100 | 13.3 |     |      |
| 110 | 13.3 |     |      |
| 120 | 13.3 |     |      |
| 130 | 13.2 |     |      |
| 140 | 13.2 |     |      |
| 150 | 13.2 |     |      |
| 160 | 13.1 |     |      |
| 170 | 13.0 |     |      |
| 180 | 12.8 |     |      |
| 190 | 12.4 |     |      |

XBT DROP 205

28 34.2N 112 38.6W

9 MAR 85 0849 MST



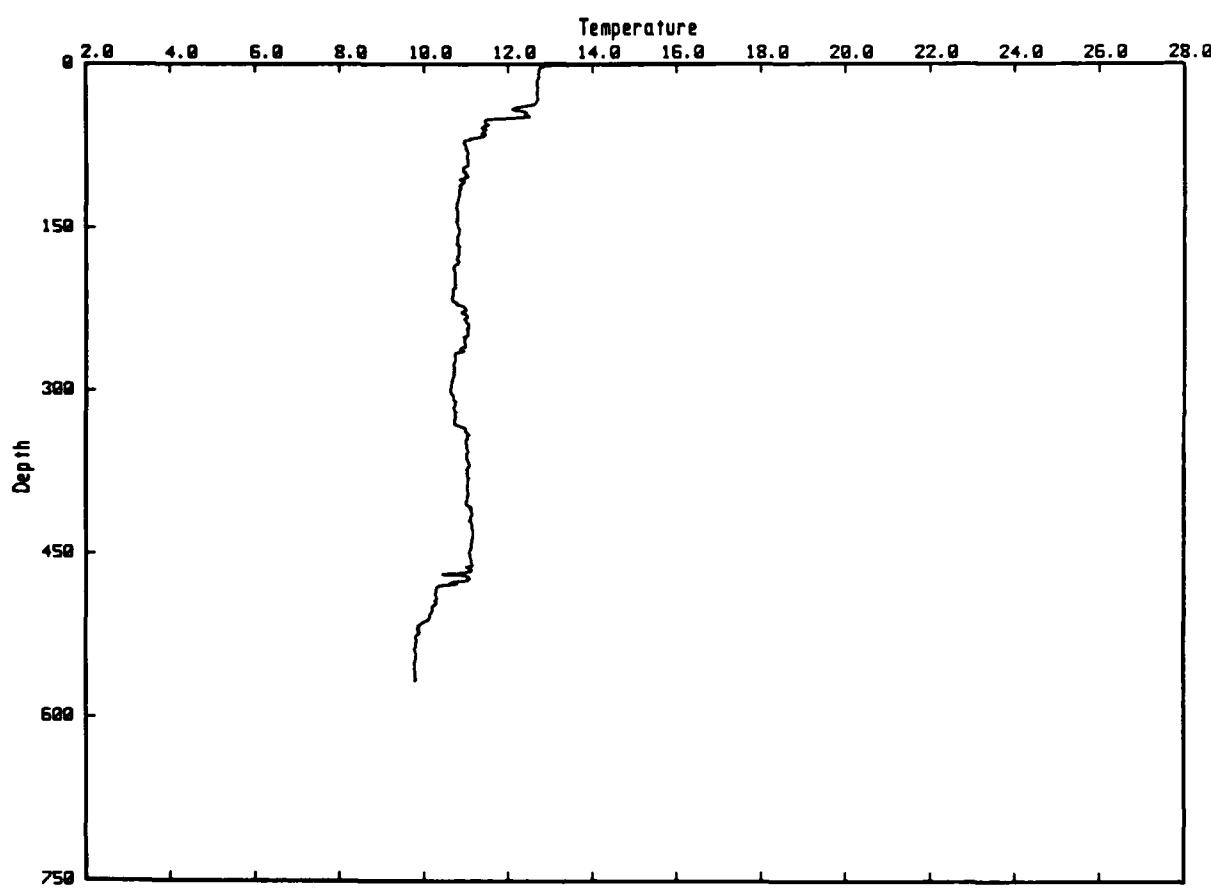
XBT DROP 205 T-7 RADAR: SE 5.7nm 025T GULF COORDS: -28.2 236.1  
JDAY 68 1549Z DEPTH 612m/612m SST 13.20 2M TEMPS: SAIL 13.12 XBT 13.41  
GULF OF CALIFORNIA: MX3-5, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 13.4 | 200 | 12.6 | 390 | 11.7 | 580 | 8.7  |
| 20  | 13.0 | 210 | 12.7 | 400 | 11.7 | 590 | 8.7  |
| 30  | 12.9 | 220 | 12.5 | 410 | 11.7 | 600 | 8.7  |
| 40  | 12.8 | 230 | 12.5 | 420 | 11.7 | 610 | 8.7  |
| 50  | 12.8 | 240 | 12.4 | 430 | 11.7 |     |      |
| 60  | 12.7 | 250 | 12.5 | 440 | 11.6 |     |      |
| 70  | 12.8 | 260 | 12.0 | 450 | 11.6 |     |      |
| 80  | 12.8 | 270 | 11.7 | 460 | 11.3 |     |      |
| 90  | 12.8 | 280 | 11.7 | 470 | 10.8 |     |      |
| 100 | 12.8 | 290 | 11.7 | 480 | 10.8 |     |      |
| 110 | 12.8 | 300 | 11.7 | 490 | 10.7 |     |      |
| 120 | 12.7 | 310 | 11.7 | 500 | 10.6 |     |      |
| 130 | 12.7 | 320 | 11.7 | 510 | 10.6 |     |      |
| 140 | 12.5 | 330 | 11.7 | 520 | 10.6 |     |      |
| 150 | 12.4 | 340 | 11.7 | 530 | 10.3 |     |      |
| 160 | 12.8 | 350 | 11.7 | 540 | 9.7  |     |      |
| 170 | 12.6 | 360 | 11.7 | 550 | 9.5  |     |      |
| 180 | 12.6 | 370 | 11.7 | 560 | 8.8  |     |      |
| 190 | 12.6 | 380 | 11.7 | 570 | 8.8  |     |      |

XBT DROP 206

28 36.0N 112 38.7W

9 MAR 85 0901 MST



XBT DROP 206 T-7 RADAR: SE 4.3nm 037T GULF COORDS: -26.3 238.9  
JDAY 68 1601Z DEPTH 567m/567m SST 12.93 2M TEMPS: SAIL 12.78 XBT 13.11  
GULF OF CALIFORNIA: END MX3; MX3-6, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.7 | 200 | 10.7 | 390 | 11.0 |
| 20  | 12.7 | 210 | 10.7 | 400 | 11.0 |
| 30  | 12.7 | 220 | 10.8 | 410 | 11.1 |
| 40  | 12.2 | 230 | 11.0 | 420 | 11.1 |
| 50  | 12.1 | 240 | 11.1 | 430 | 11.2 |
| 60  | 11.5 | 250 | 11.0 | 440 | 11.1 |
| 70  | 11.0 | 260 | 11.0 | 450 | 11.1 |
| 80  | 11.0 | 270 | 10.7 | 460 | 11.2 |
| 90  | 11.0 | 280 | 10.7 | 470 | 10.8 |
| 100 | 11.0 | 290 | 10.7 | 480 | 10.3 |
| 110 | 10.9 | 300 | 10.6 | 490 | 10.3 |
| 120 | 10.8 | 310 | 10.8 | 500 | 10.2 |
| 130 | 10.8 | 320 | 10.8 | 510 | 10.1 |
| 140 | 10.8 | 330 | 10.7 | 520 | 9.9  |
| 150 | 10.8 | 340 | 11.1 | 530 | 9.8  |
| 160 | 10.8 | 350 | 11.0 | 540 | 9.8  |
| 170 | 10.8 | 360 | 11.0 | 550 | 9.8  |
| 180 | 10.8 | 370 | 11.0 | 560 | 9.8  |
| 190 | 10.7 | 380 | 11.1 |     |      |

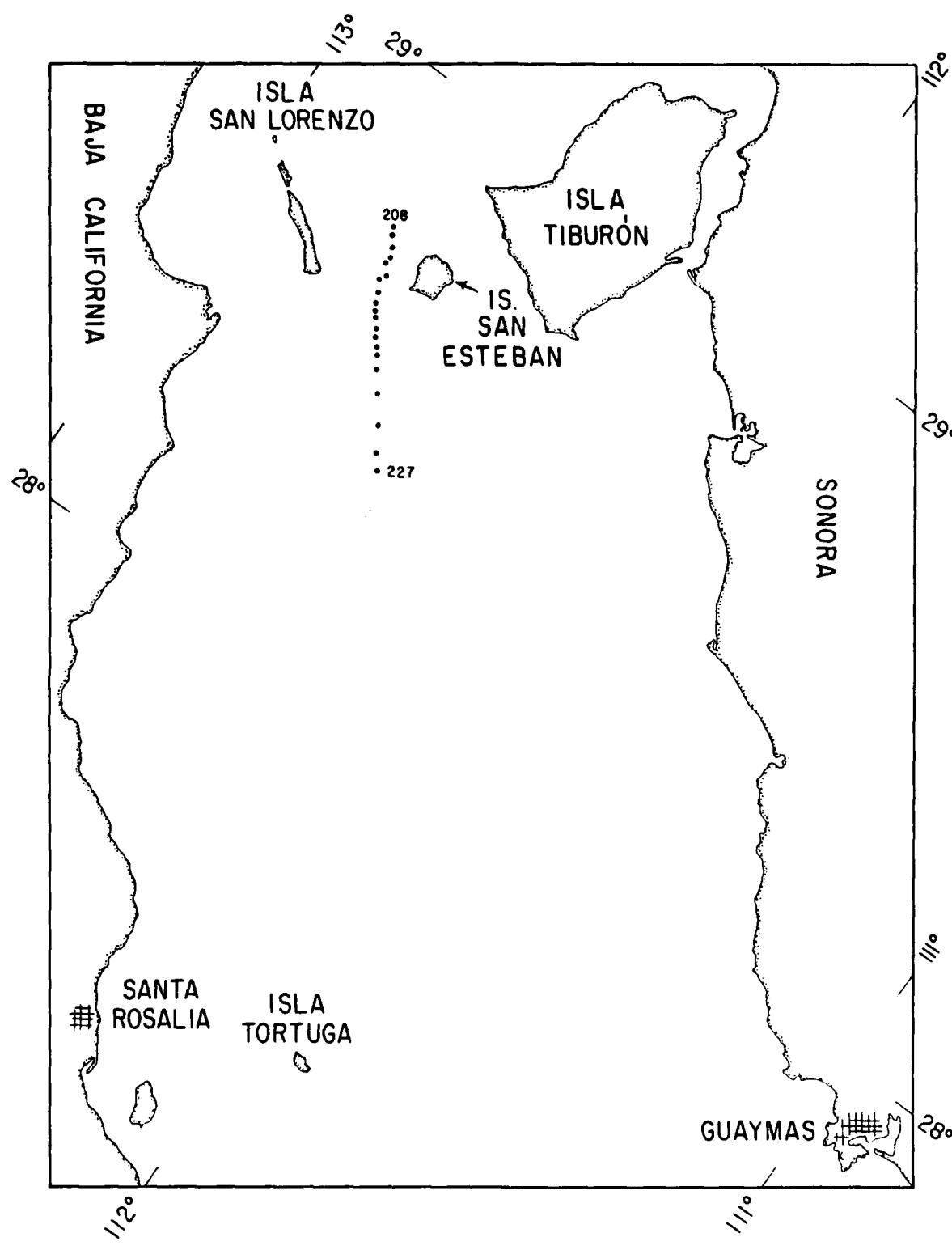


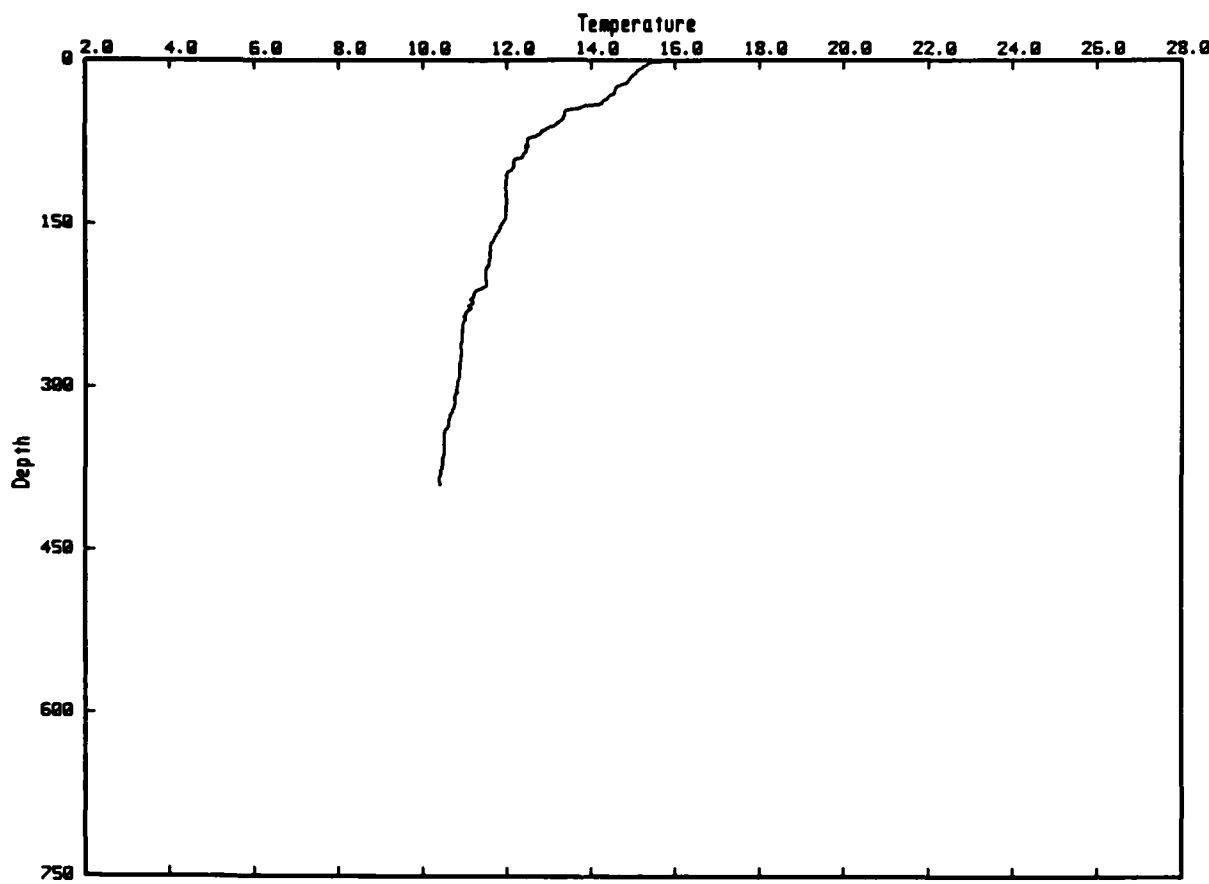
Figure 25. CAP3 Section: XBT Station Locations



XBT DROP 208

28 44.3N 112 42.1W

9 MAR 85 2105 MST



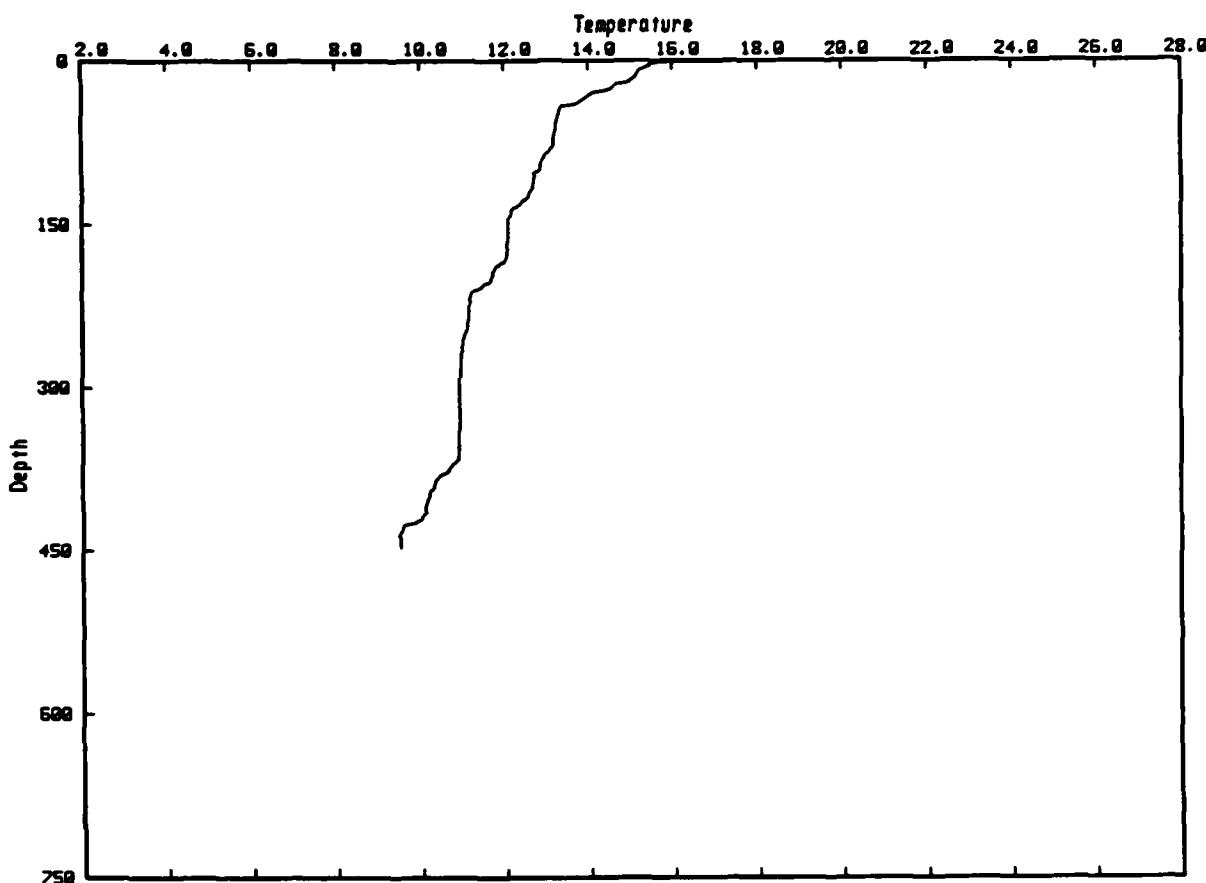
XBT DROP 208 T-7 RADAR: SE 7.2nm 131T GULF COORDS: -21.7 254.5  
JDAY 69 405Z DEPTH 410m/390m SST 15.39 2M TEMPS: SAIL 15.16 XBT 15.48  
GULF OF CALIFORNIA: BEGIN CAP SILL LINE, CX3-1, SPRING TIDE

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 15.1 | 200 | 11.5 | 390 | 10.4 |
| 20  | 14.9 | 210 | 11.3 |     |      |
| 30  | 14.6 | 220 | 11.2 |     |      |
| 40  | 14.2 | 230 | 11.0 |     |      |
| 50  | 13.4 | 240 | 11.0 |     |      |
| 60  | 13.1 | 250 | 10.9 |     |      |
| 70  | 12.7 | 260 | 10.9 |     |      |
| 80  | 12.5 | 270 | 10.9 |     |      |
| 90  | 12.3 | 280 | 10.9 |     |      |
| 100 | 12.1 | 290 | 10.9 |     |      |
| 110 | 12.0 | 300 | 10.8 |     |      |
| 120 | 12.0 | 310 | 10.8 |     |      |
| 130 | 12.0 | 320 | 10.7 |     |      |
| 140 | 12.0 | 330 | 10.6 |     |      |
| 150 | 11.9 | 340 | 10.5 |     |      |
| 160 | 11.7 | 350 | 10.5 |     |      |
| 170 | 11.6 | 360 | 10.5 |     |      |
| 180 | 11.6 | 370 | 10.5 |     |      |
| 190 | 11.5 | 380 | 10.4 |     |      |

XBT DROP 209

28 43.5N 112 41.5W

9 MAR 85 2119 MST



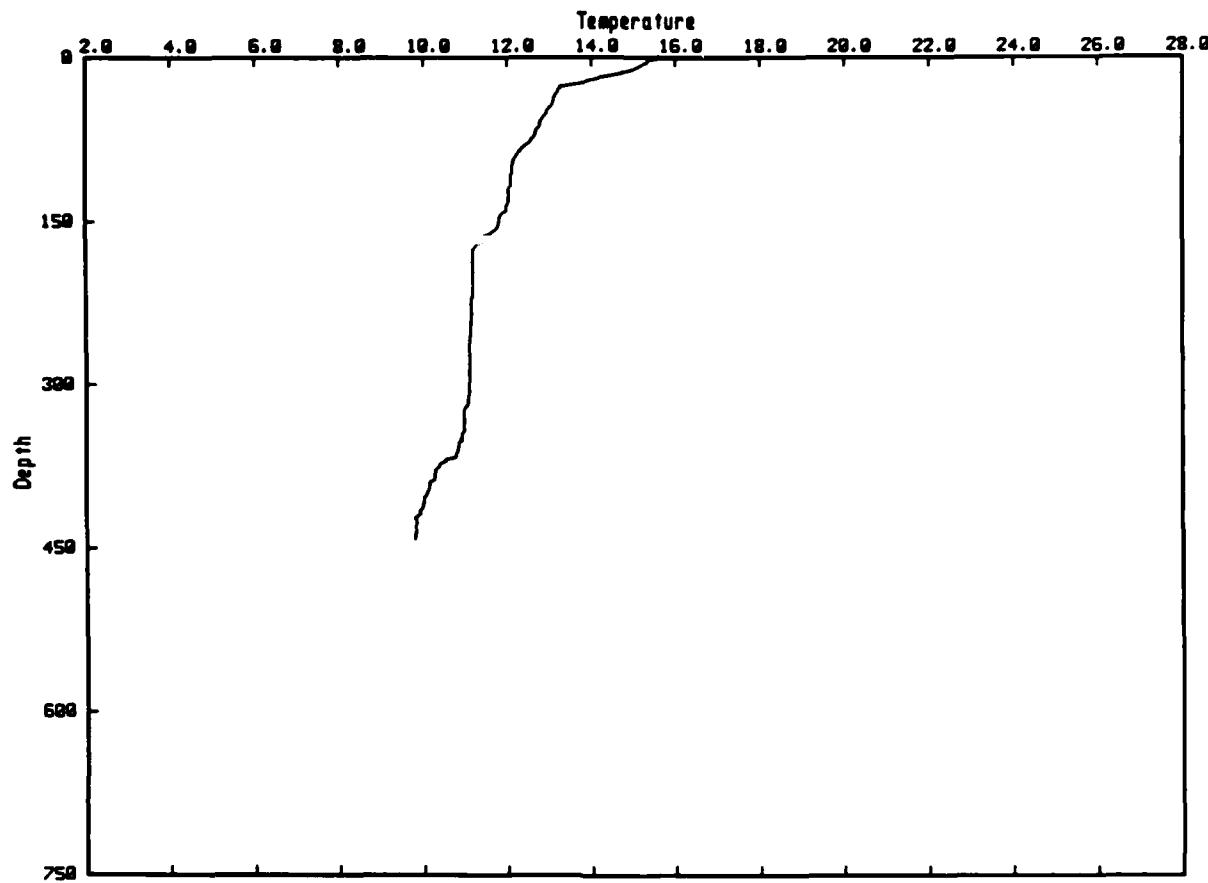
XBT DROP 209 T-7 RADAR: SE 6.2nm 127T GULF COORDS: -21.8 252.8  
JDAY 69 419Z DEPTH 449m/449m SST .00 2M TEMPS: SAIL 15.07 XBT 15.67  
GULF OF CALIFORNIA: SILL LINE, CX3-2

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 15.2 | 200 | 11.7 | 300 | 10.3 |
| 20  | 14.9 | 210 | 11.3 | 400 | 10.2 |
| 30  | 14.1 | 220 | 11.2 | 410 | 10.1 |
| 40  | 13.7 | 230 | 11.1 | 420 | 10.0 |
| 50  | 13.3 | 240 | 11.1 | 430 | 9.6  |
| 60  | 13.2 | 250 | 11.1 | 440 | 9.5  |
| 70  | 13.2 | 260 | 11.0 |     |      |
| 80  | 13.1 | 270 | 11.0 |     |      |
| 90  | 12.9 | 280 | 11.0 |     |      |
| 100 | 12.9 | 290 | 10.9 |     |      |
| 110 | 12.7 | 300 | 10.9 |     |      |
| 120 | 12.6 | 310 | 10.9 |     |      |
| 130 | 12.4 | 320 | 10.9 |     |      |
| 140 | 12.2 | 330 | 10.9 |     |      |
| 150 | 12.1 | 340 | 10.9 |     |      |
| 160 | 12.1 | 350 | 10.9 |     |      |
| 170 | 12.1 | 360 | 10.9 |     |      |
| 180 | 12.0 | 370 | 10.8 |     |      |
| 190 | 11.8 | 380 | 10.5 |     |      |

XBT DROP 210

28 42.4N 112 40.6W

9 MAR 85 2125 MST



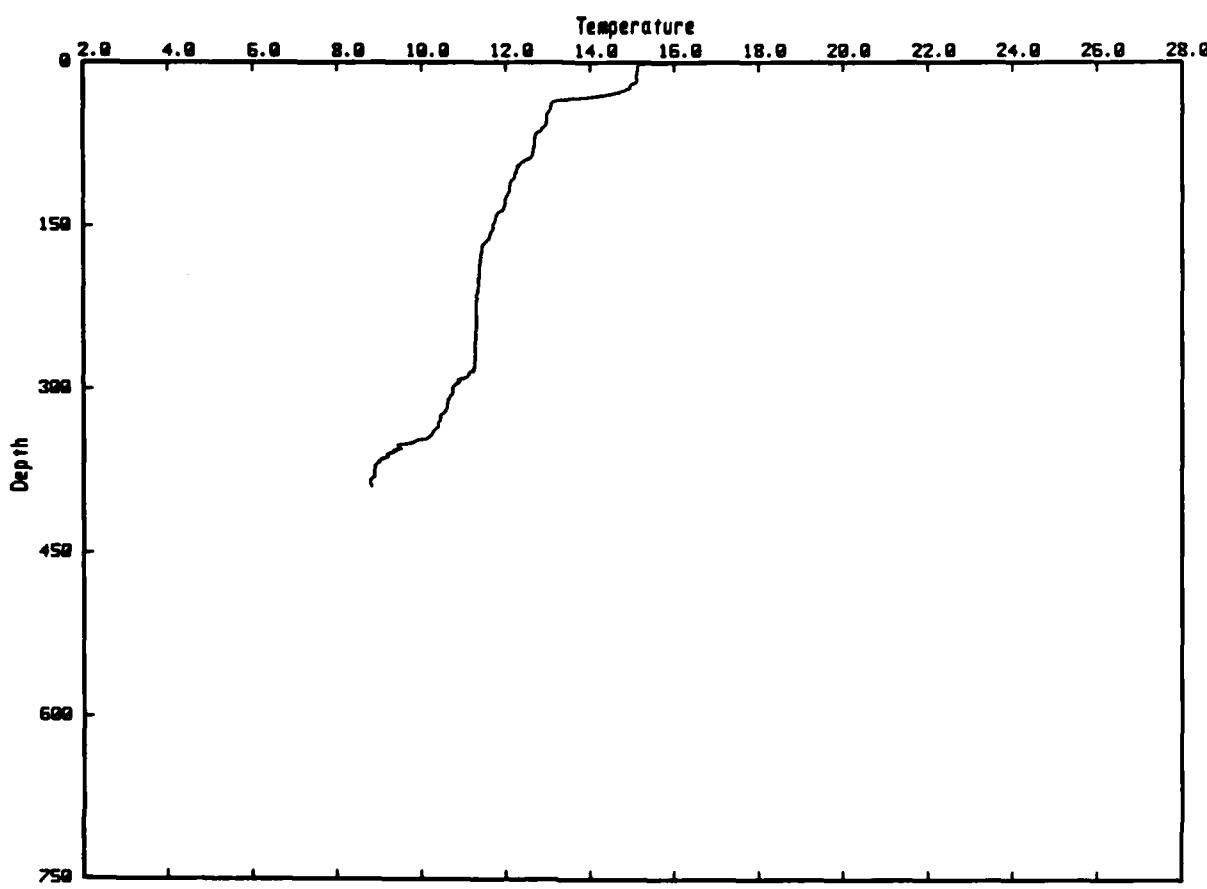
XBT DROP 210 T-7 RADAR: SE 5.2nm 123T GULF COORDS: -21.8 250.2  
JDAY 69 425Z DEPTH 456m/443m SST 15.39 2M TEMPS: SAIL 15.14 XBT 15.49  
GULF OF CALIFORNIA: SILL LINE, CX3-3

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 15.1 | 200 | 11.2 | 390 | 10.1 |
| 20  | 14.1 | 210 | 11.2 | 400 | 10.1 |
| 30  | 13.2 | 220 | 11.1 | 410 | 10.0 |
| 40  | 13.1 | 230 | 11.1 | 420 | 9.9  |
| 50  | 12.9 | 240 | 11.1 | 430 | 9.8  |
| 60  | 12.8 | 250 | 11.1 | 440 | 9.8  |
| 70  | 12.7 | 260 | 11.1 |     |      |
| 80  | 12.4 | 270 | 11.1 |     |      |
| 90  | 12.2 | 280 | 11.1 |     |      |
| 100 | 12.1 | 290 | 11.1 |     |      |
| 110 | 12.1 | 300 | 11.1 |     |      |
| 120 | 12.0 | 310 | 11.1 |     |      |
| 130 | 12.0 | 320 | 11.0 |     |      |
| 140 | 12.0 | 330 | 11.0 |     |      |
| 150 | 11.8 | 340 | 11.0 |     |      |
| 160 | 11.6 | 350 | 10.9 |     |      |
| 170 | 11.4 | 360 | 10.8 |     |      |
| 180 | 11.2 | 370 | 10.5 |     |      |
| 190 | 11.2 | 380 | 10.3 |     |      |

XBT DROP 211

28 41.4N 112 40.0W

9 MAR 85 2132 MST



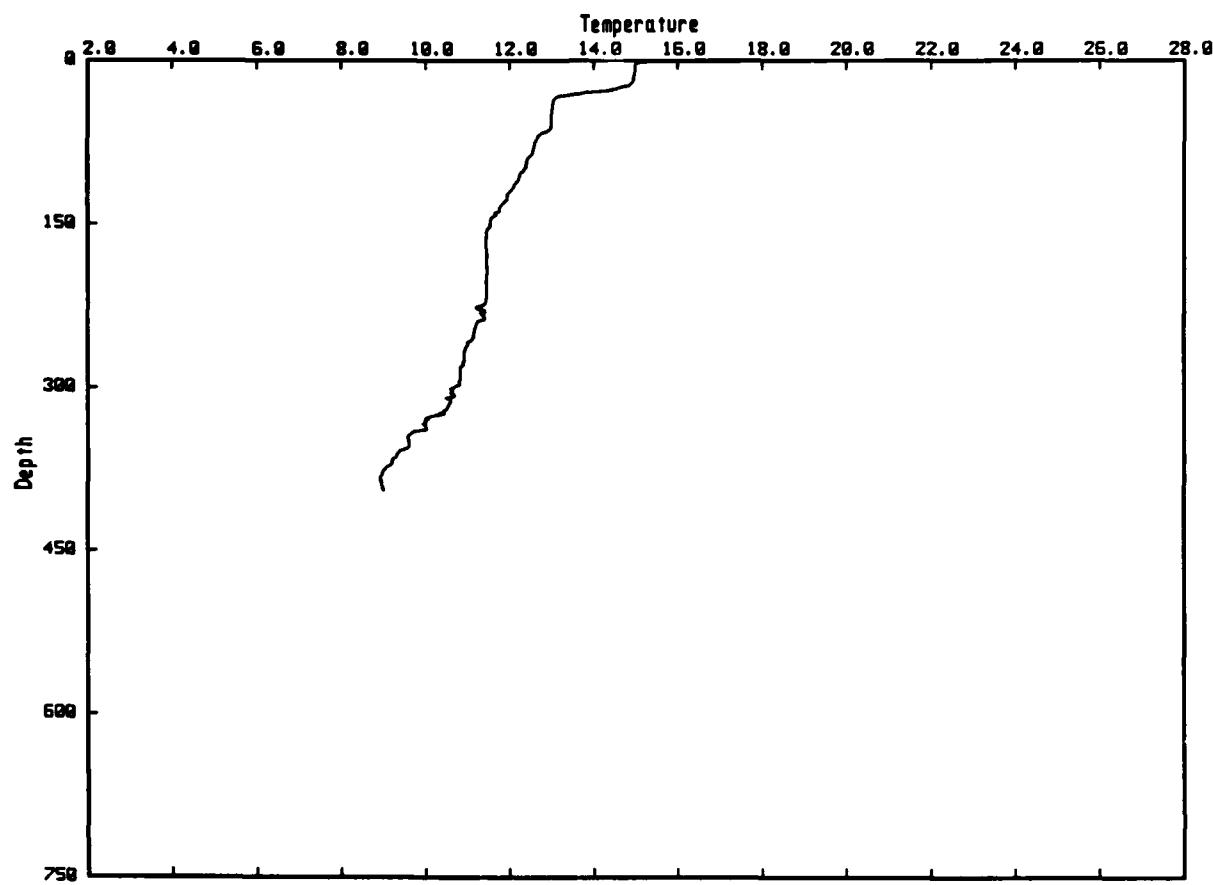
XBT DROP 211 T-7 RADAR: SE 4.0nm 116T GULF COORDS: -22.1 248.2  
JDAY 69 432Z DEPTH 394m/390m SST 15.17 2M TEMPS: SAIL 15.01 XBT 15.18  
GULF OF CALIFORNIA: SILL LINE, CX3-4

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 15.1 | 200 | 11.3 | 390 | 8.8  |
| 20  | 15.0 | 210 | 11.3 |     |      |
| 30  | 14.4 | 220 | 11.3 |     |      |
| 40  | 13.1 | 230 | 11.3 |     |      |
| 50  | 13.0 | 240 | 11.3 |     |      |
| 60  | 12.9 | 250 | 11.3 |     |      |
| 70  | 12.7 | 260 | 11.3 |     |      |
| 80  | 12.7 | 270 | 11.3 |     |      |
| 90  | 12.5 | 280 | 11.2 |     |      |
| 100 | 12.2 | 290 | 11.0 |     |      |
| 110 | 12.1 | 300 | 10.7 |     |      |
| 120 | 12.0 | 310 | 10.6 |     |      |
| 130 | 12.0 | 320 | 10.6 |     |      |
| 140 | 11.8 | 330 | 10.4 |     |      |
| 150 | 11.7 | 340 | 10.3 |     |      |
| 160 | 11.6 | 350 | 9.7  |     |      |
| 170 | 11.4 | 360 | 9.2  |     |      |
| 180 | 11.4 | 370 | 8.9  |     |      |
| 190 | 11.4 | 380 | 8.9  |     |      |

XBT DROP 212

28 40.6N 112 40.0W

9 MAR 85 2138 MST



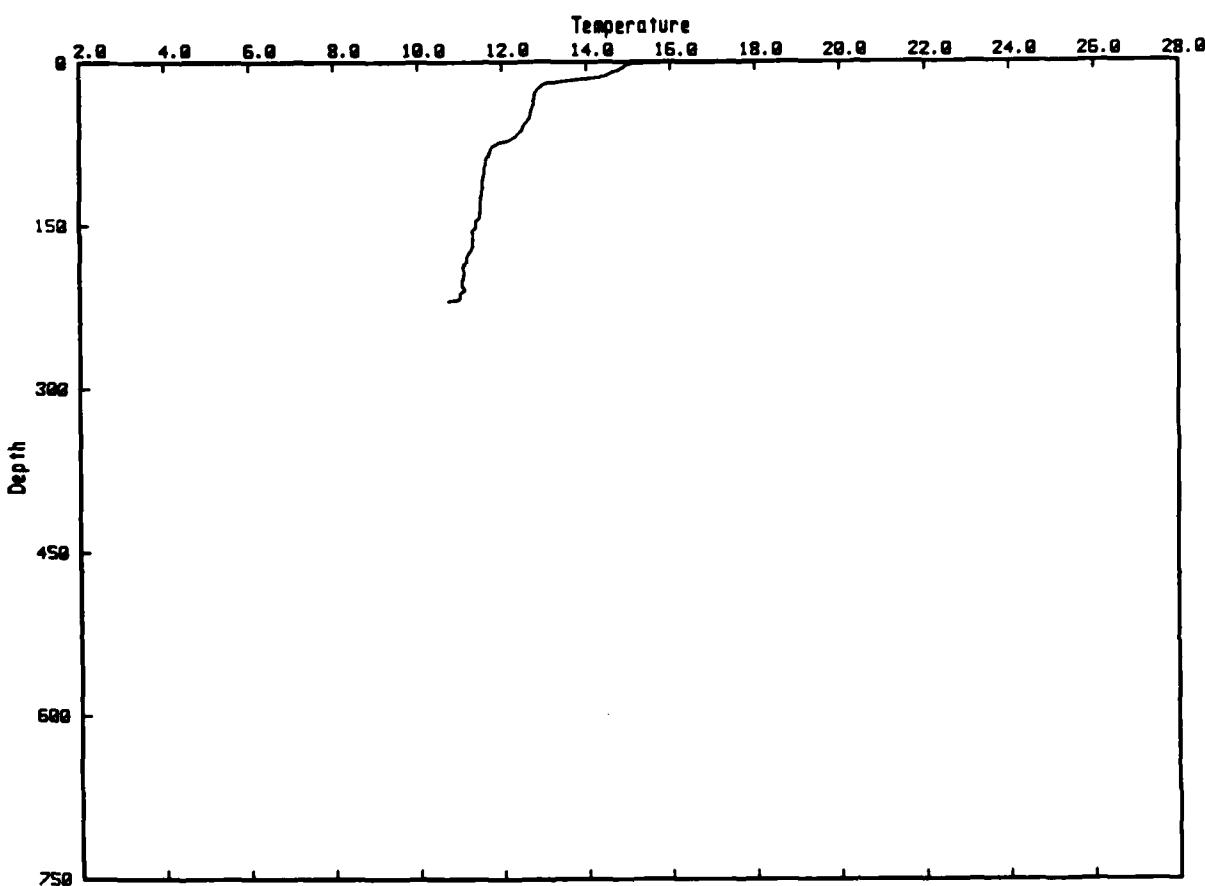
XBT DROP 212 T-7 RADAR: SE 3.7nm 105T GULF COORDS: -23.0 247.0  
JDAY 69 438Z DEPTH 396m/396m SST 15.00 2M TEMPS: SAIL 14.79 XBT 15.10  
GULF OF CALIFORNIA: SILL LINE, CX3-5

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 15.0 | 200 | 11.4 | 390 | 9.0  |
| 20  | 14.9 | 210 | 11.5 |     |      |
| 30  | 13.8 | 220 | 11.4 |     |      |
| 40  | 13.0 | 230 | 11.4 |     |      |
| 50  | 13.0 | 240 | 11.3 |     |      |
| 60  | 13.0 | 250 | 11.2 |     |      |
| 70  | 12.7 | 260 | 11.0 |     |      |
| 80  | 12.6 | 270 | 10.9 |     |      |
| 90  | 12.4 | 280 | 10.9 |     |      |
| 100 | 12.3 | 290 | 10.8 |     |      |
| 110 | 12.2 | 300 | 10.7 |     |      |
| 120 | 12.0 | 310 | 10.6 |     |      |
| 130 | 11.9 | 320 | 10.5 |     |      |
| 140 | 11.7 | 330 | 10.0 |     |      |
| 150 | 11.5 | 340 | 9.7  |     |      |
| 160 | 11.5 | 350 | 9.6  |     |      |
| 170 | 11.5 | 360 | 9.3  |     |      |
| 180 | 11.5 | 370 | 9.2  |     |      |
| 190 | 11.5 | 380 | 9.0  |     |      |

XBT DROP 213

28 39.6N 112 39.0W

9 MAR 85 2145 MST



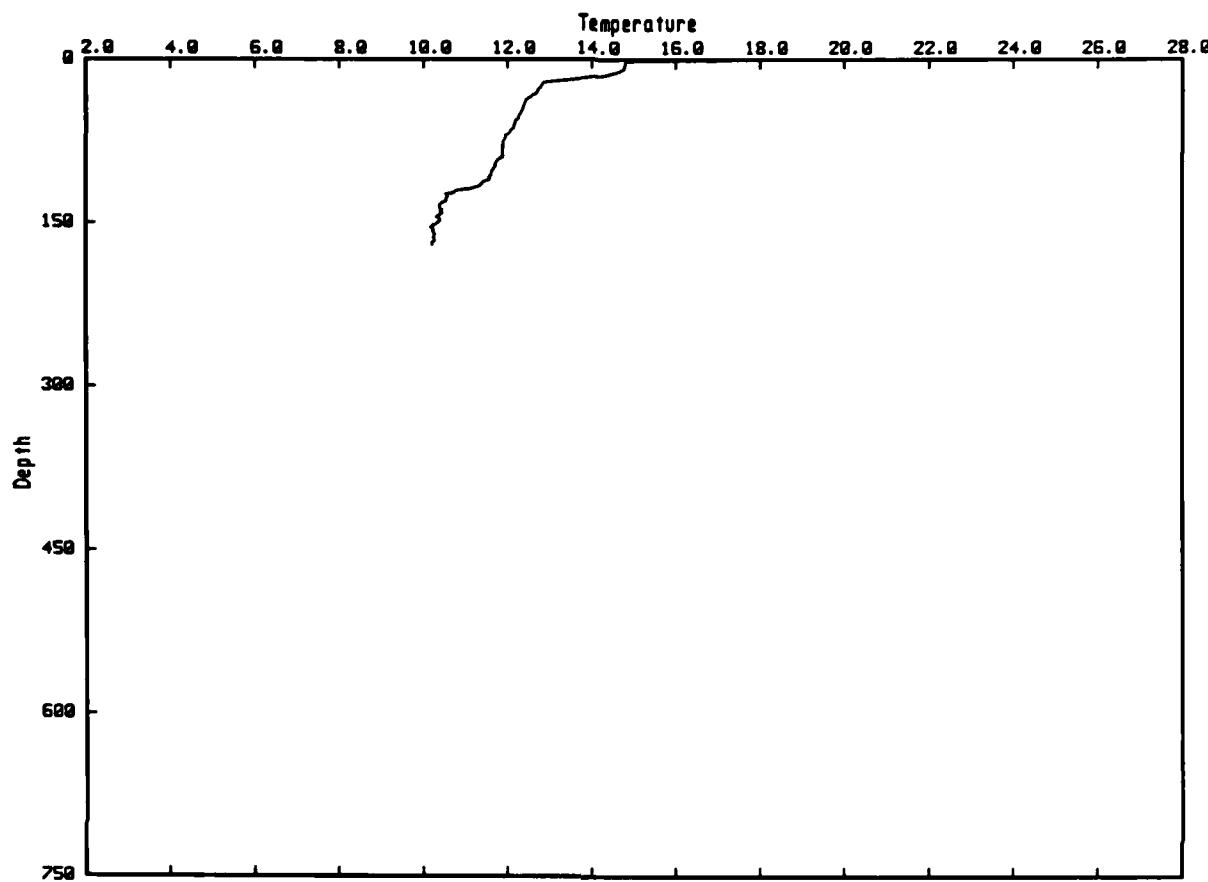
XBT DROP 213 T-7 RADAR: SE 3.7nm 085T GULF COORDS: -22.8 244.5  
JDAY 69 445Z DEPTH 220m/220m SST 14.98 2M TEMPS: SAIL 14.78 XBT 15.14  
GULF OF CALIFORNIA: SILL LINE, CX3-6

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 14.6 | 200 | 11.0 |
| 20  | 13.0 | 210 | 11.1 |
| 30  | 12.8 | 220 | 10.8 |
| 40  | 12.7 |     |      |
| 50  | 12.7 |     |      |
| 60  | 12.5 |     |      |
| 70  | 12.3 |     |      |
| 80  | 11.7 |     |      |
| 90  | 11.6 |     |      |
| 100 | 11.6 |     |      |
| 110 | 11.5 |     |      |
| 120 | 11.5 |     |      |
| 130 | 11.5 |     |      |
| 140 | 11.5 |     |      |
| 150 | 11.4 |     |      |
| 160 | 11.3 |     |      |
| 170 | 11.3 |     |      |
| 180 | 11.2 |     |      |
| 190 | 11.1 |     |      |

XBT DROP 214

28 38.8N 112 39.5W

9 MAR 85 2150 MST



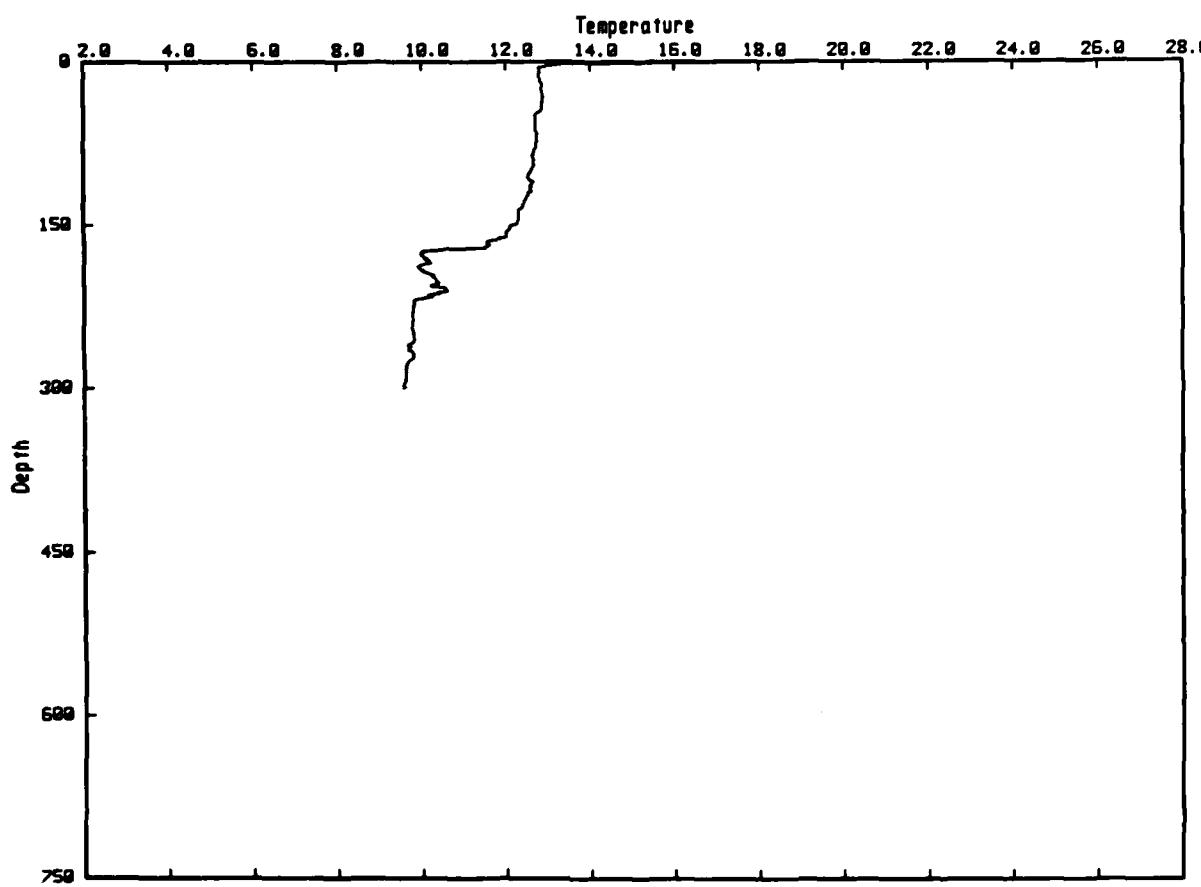
XBT DROP 214 T-7 RADAR: SE 3.2nm 070T GULF COORDS: -24.3 243.8  
JDAY 69 450Z DEPTH 170m/170m SST 14.79 2M TEMPS: SAIL 14.67 XBT 14.85  
GULF OF CALIFORNIA: SILL LINE, CX3-7

| Z   | TEMP |
|-----|------|
| 10  | 14.7 |
| 20  | 13.1 |
| 30  | 12.7 |
| 40  | 12.4 |
| 50  | 12.3 |
| 60  | 12.1 |
| 70  | 12.0 |
| 80  | 11.9 |
| 90  | 11.9 |
| 100 | 11.7 |
| 110 | 11.6 |
| 120 | 10.9 |
| 130 | 10.5 |
| 140 | 10.4 |
| 150 | 10.3 |
| 160 | 10.3 |
| 170 | 10.2 |

XBT DROP 215

28 37.6N 112 38.5W

9 MAR 85 2159 MST



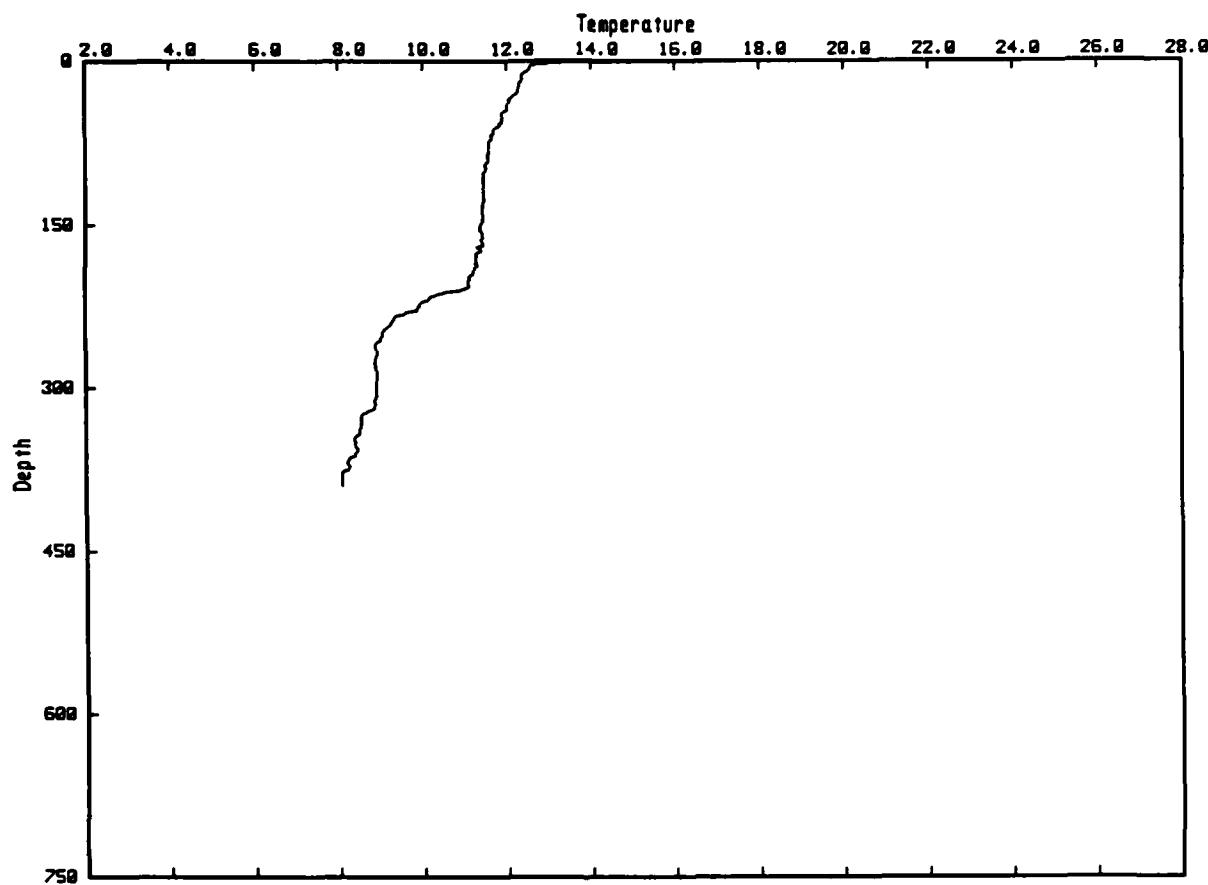
XBT DROP 215 T-7 RADAR: SE 3.0nm 047T GULF COORDS: -24.3 241.1  
JDAY 69 459Z DEPTH 300m/300m SST 13.29 2M TEMPS: SAIL 13.33 XBT 13.71  
GULF OF CALIFORNIA: SILL LINE, CX3-8

| Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|
| 10  | 12.8 | 200 | 10.3 |
| 20  | 12.9 | 210 | 10.5 |
| 30  | 12.9 | 220 | 9.8  |
| 40  | 12.9 | 230 | 9.8  |
| 50  | 12.7 | 240 | 9.8  |
| 60  | 12.7 | 250 | 9.8  |
| 70  | 12.7 | 260 | 9.7  |
| 80  | 12.7 | 270 | 9.8  |
| 90  | 12.7 | 280 | 9.6  |
| 100 | 12.6 | 290 | 9.6  |
| 110 | 12.6 | 300 | 9.6  |
| 120 | 12.6 |     |      |
| 130 | 12.4 |     |      |
| 140 | 12.3 |     |      |
| 150 | 12.2 |     |      |
| 160 | 12.0 |     |      |
| 170 | 11.5 |     |      |
| 180 | 10.0 |     |      |
| 190 | 9.9  |     |      |

XBT DROP 216

28 36.6N 112 38.0W

9 MAR 85 2204 MST



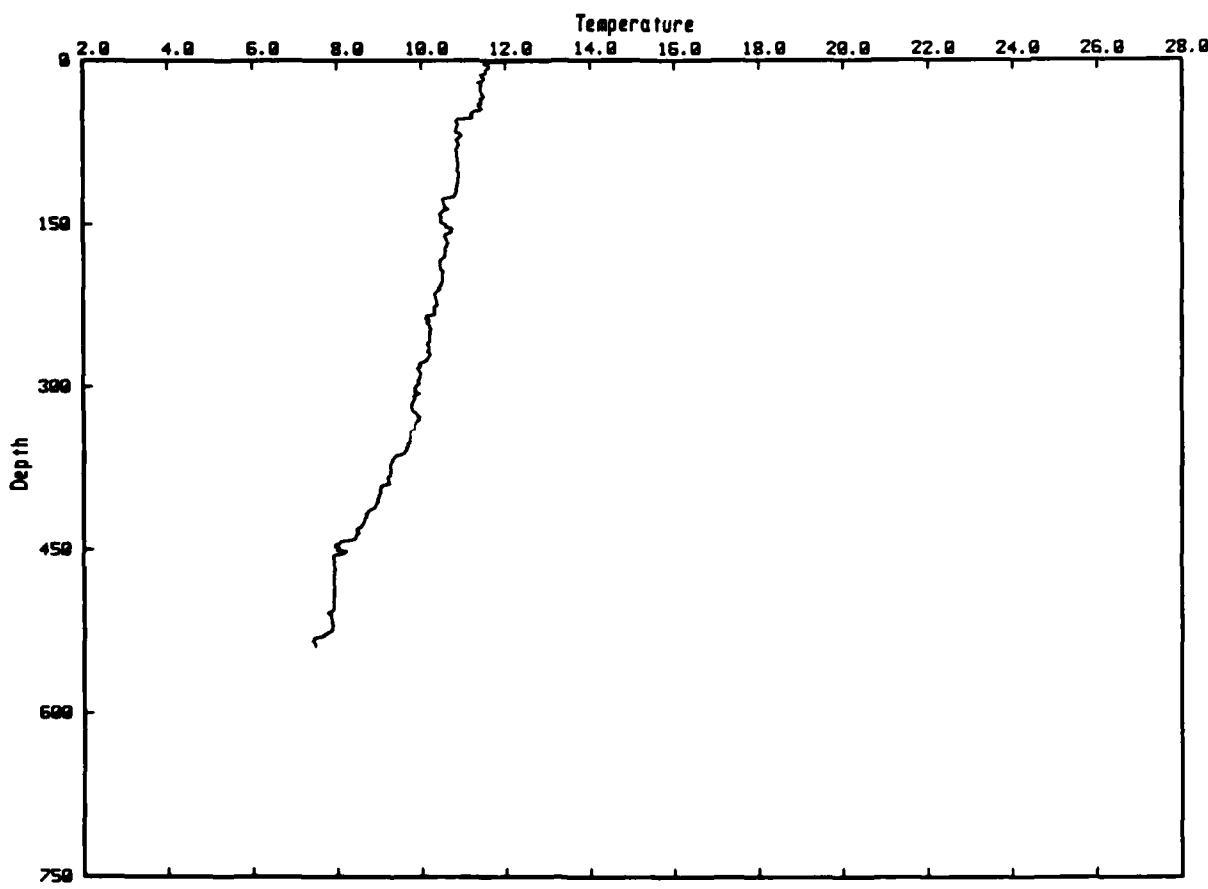
XBT DROP 216 T-7 RADAR: SE 3.4nm 031T GULF COORDS: -24.7 239.1  
JDAY 69 504Z DEPTH 390m/390m SST 12.65 2M TEMPS: SAIL 12.43 XBT 13.48  
GULF OF CALIFORNIA: SILL LINE, CX3-9

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.5 | 200 | 11.1 | 390 | 8.1  |
| 20  | 12.3 | 210 | 10.9 |     |      |
| 30  | 12.2 | 220 | 10.1 |     |      |
| 40  | 12.0 | 230 | 9.7  |     |      |
| 50  | 11.9 | 240 | 9.3  |     |      |
| 60  | 11.8 | 250 | 9.1  |     |      |
| 70  | 11.6 | 260 | 8.9  |     |      |
| 80  | 11.6 | 270 | 8.9  |     |      |
| 90  | 11.5 | 280 | 8.9  |     |      |
| 100 | 11.5 | 290 | 8.9  |     |      |
| 110 | 11.4 | 300 | 8.9  |     |      |
| 120 | 11.4 | 310 | 8.9  |     |      |
| 130 | 11.4 | 320 | 8.8  |     |      |
| 140 | 11.4 | 330 | 8.5  |     |      |
| 150 | 11.4 | 340 | 8.5  |     |      |
| 160 | 11.4 | 350 | 8.4  |     |      |
| 170 | 11.3 | 360 | 8.4  |     |      |
| 180 | 11.3 | 370 | 8.2  |     |      |
| 190 | 11.2 | 380 | 8.1  |     |      |

XBT DROP 217

28 35.9N 112 37.5W

9 MAR 85 2210 MST



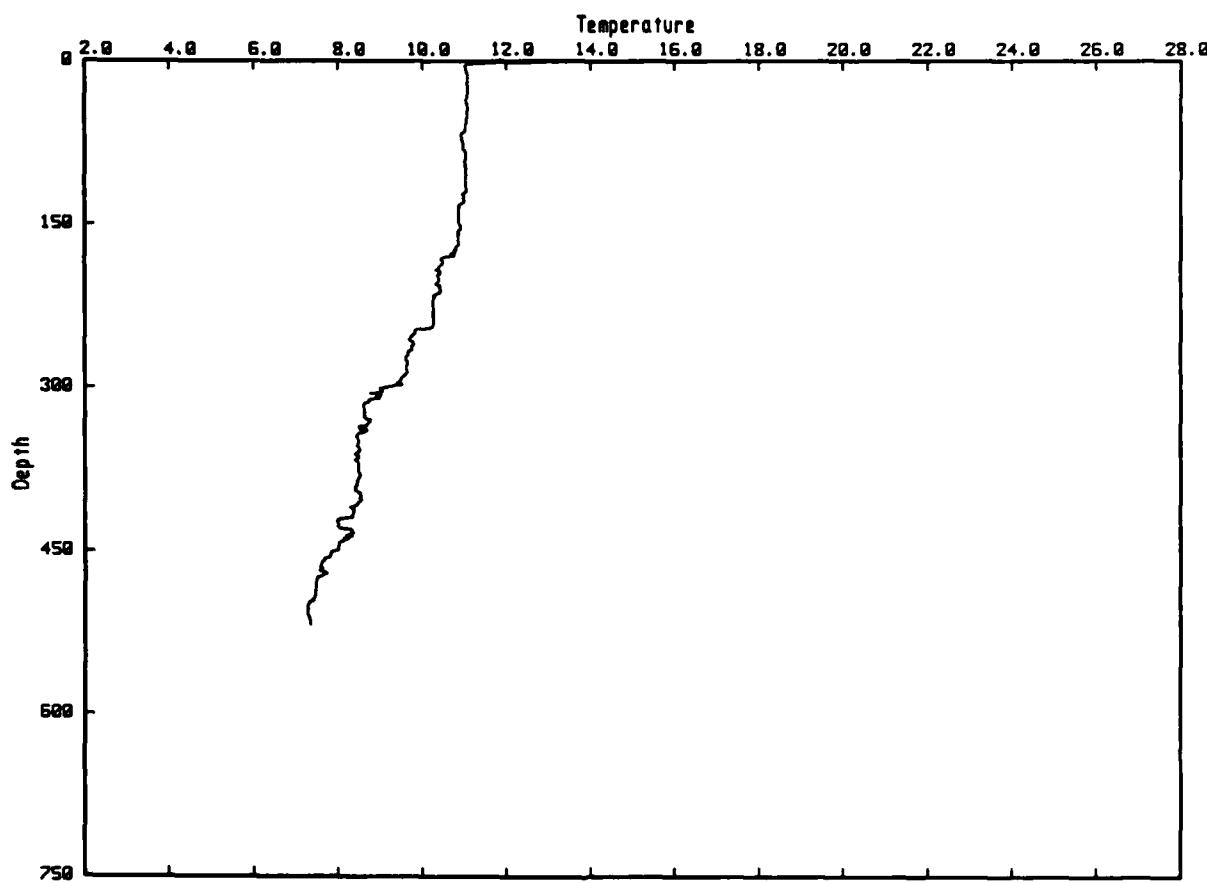
XBT DROP 217 T-7 RADAR: SE 3.7nm 021T GULF COORDS: -24.8 237.6  
JDAY 69 5102 DEPTH 539m/539m SST 11.75 2M TEMPS: SAIL 11.69 XBT 11.69  
GULF OF CALIFORNIA: SILL LINE, CX3-10

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 11.5 | 200 | 10.5 | 390 | 9.1  |
| 20  | 11.4 | 210 | 10.4 | 400 | 9.0  |
| 30  | 11.4 | 220 | 10.4 | 410 | 8.9  |
| 40  | 11.3 | 230 | 10.3 | 420 | 8.7  |
| 50  | 11.2 | 240 | 10.2 | 430 | 8.5  |
| 60  | 10.8 | 250 | 10.2 | 440 | 8.4  |
| 70  | 10.9 | 260 | 10.1 | 450 | 8.0  |
| 80  | 10.8 | 270 | 10.2 | 460 | 7.9  |
| 90  | 10.9 | 280 | 10.0 | 470 | 7.9  |
| 100 | 10.8 | 290 | 10.0 | 480 | 7.9  |
| 110 | 10.9 | 300 | 9.9  | 490 | 7.9  |
| 120 | 10.8 | 310 | 9.8  | 500 | 7.9  |
| 130 | 10.5 | 320 | 9.8  | 510 | 7.8  |
| 140 | 10.5 | 330 | 9.9  | 520 | 7.9  |
| 150 | 10.5 | 340 | 9.7  | 530 | 7.7  |
| 160 | 10.6 | 350 | 9.7  |     |      |
| 170 | 10.6 | 360 | 9.6  |     |      |
| 180 | 10.5 | 370 | 9.3  |     |      |
| 190 | 10.4 | 380 | 9.3  |     |      |

XBT DROP 218

28 35.4N 112 37.0W

9 MAR 85 2216 MST



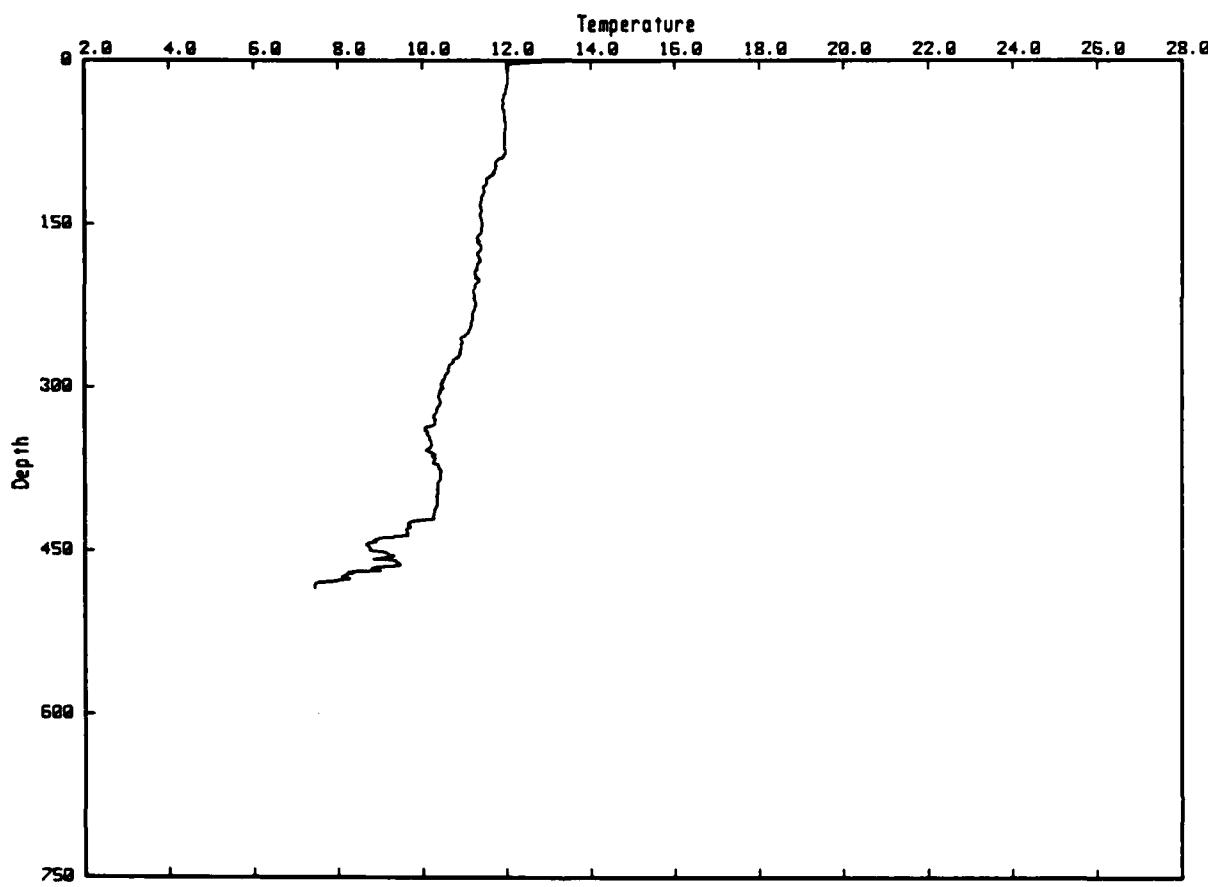
XBT DROP 218 T-7 RADAR: SE 4.2nm 012T GULF COORDS: -24.7 236.3  
JDAY 69 516Z DEPTH 519m/519m SST 11.24 2M TEMPS: SAIL 11.19 XBT 11.60  
GULF OF CALIFORNIA: SILL LINE, CX3-11

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 11.0 | 200 | 10.4 | 390 | 8.4  |
| 20  | 11.1 | 210 | 10.4 | 400 | 8.5  |
| 30  | 11.1 | 220 | 10.3 | 410 | 8.3  |
| 40  | 11.1 | 230 | 10.3 | 420 | 8.2  |
| 50  | 11.1 | 240 | 10.3 | 430 | 8.3  |
| 60  | 11.0 | 250 | 9.8  | 440 | 8.1  |
| 70  | 10.9 | 260 | 9.8  | 450 | 7.9  |
| 80  | 11.0 | 270 | 9.7  | 460 | 7.6  |
| 90  | 11.0 | 280 | 9.6  | 470 | 7.7  |
| 100 | 11.0 | 290 | 9.5  | 480 | 7.5  |
| 110 | 11.0 | 300 | 9.2  | 490 | 7.5  |
| 120 | 11.1 | 310 | 9.0  | 500 | 7.3  |
| 130 | 10.9 | 320 | 8.6  | 510 | 7.3  |
| 140 | 10.9 | 330 | 8.8  |     |      |
| 150 | 10.9 | 340 | 8.6  |     |      |
| 160 | 10.8 | 350 | 8.5  |     |      |
| 170 | 10.8 | 360 | 8.4  |     |      |
| 180 | 10.6 | 370 | 8.5  |     |      |
| 190 | 10.4 | 380 | 8.5  |     |      |

XBT DROP 219

28 34.5N 112 36.0W

9 MAR 85 2222 MST



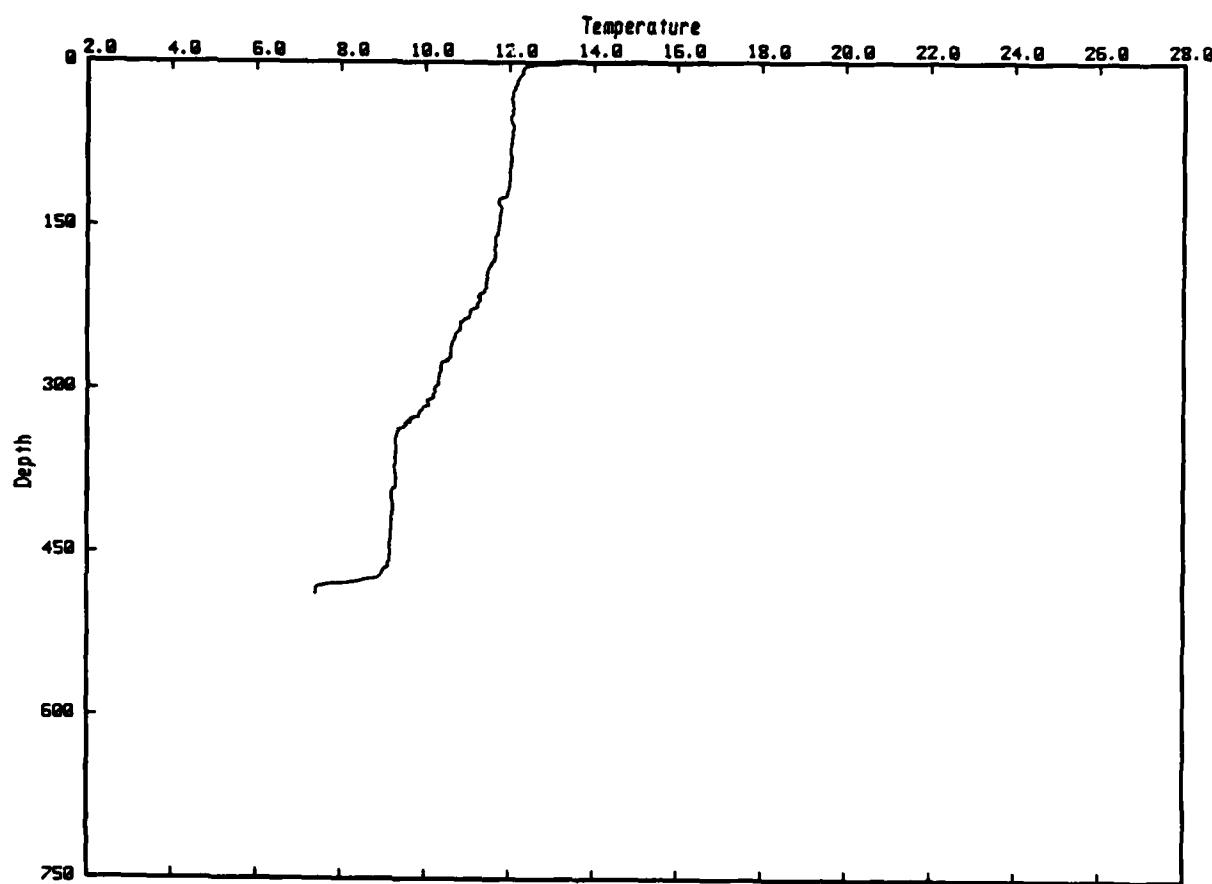
XBT DROP 219 T-7 RADAR: SE 4.9nm 001T GULF COORDS: -24.4 234.0  
JDAY 69 522Z DEPTH 485m/485m SST 12.17 2M TEMPS: SAIL 11.89 XBT 12.69  
GULF OF CALIFORNIA: SILL LINE, CX3-12

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.0 | 200 | 11.3 | 390 | 10.4 |
| 20  | 12.0 | 210 | 11.2 | 400 | 10.3 |
| 30  | 12.0 | 220 | 11.2 | 410 | 10.3 |
| 40  | 11.9 | 230 | 11.2 | 420 | 10.3 |
| 50  | 12.0 | 240 | 11.2 | 430 | 9.6  |
| 60  | 12.0 | 250 | 11.1 | 440 | 8.9  |
| 70  | 12.0 | 260 | 10.9 | 450 | 8.8  |
| 80  | 12.0 | 270 | 10.9 | 460 | 9.4  |
| 90  | 11.9 | 280 | 10.6 | 470 | 8.2  |
| 100 | 11.7 | 290 | 10.5 | 480 | 7.5  |
| 110 | 11.5 | 300 | 10.5 |     |      |
| 120 | 11.5 | 310 | 10.4 |     |      |
| 130 | 11.4 | 320 | 10.3 |     |      |
| 140 | 11.4 | 330 | 10.3 |     |      |
| 150 | 11.4 | 340 | 10.1 |     |      |
| 160 | 11.4 | 350 | 10.2 |     |      |
| 170 | 11.4 | 360 | 10.2 |     |      |
| 180 | 11.3 | 370 | 10.3 |     |      |
| 190 | 11.3 | 380 | 10.4 |     |      |

XBT DROP 220

28 33.7N 112 35.5W

9 MAR 85 2228 MST



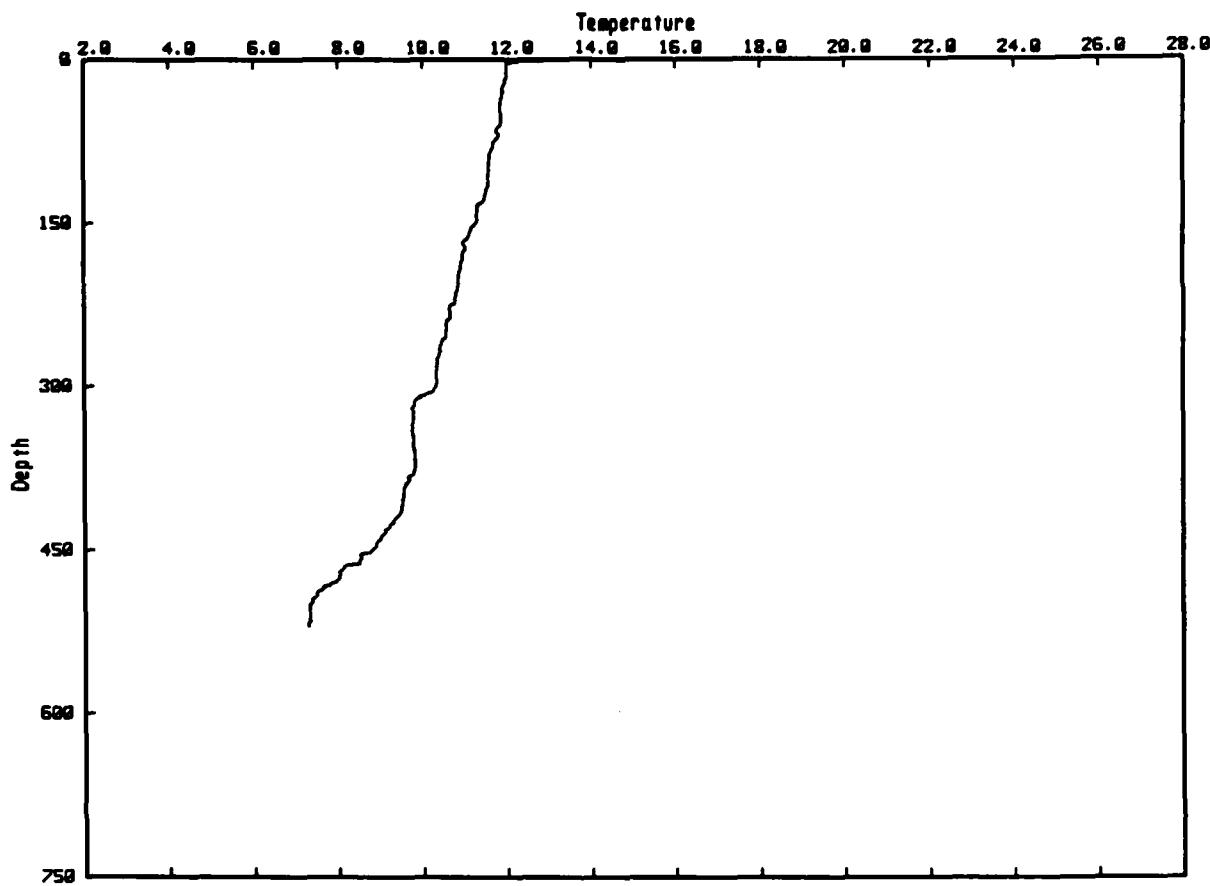
XBT DROP 220 T-7 RADAR: SE 5.6nm 354T GULF COORDS: -24.6 232.4  
JDAY 69 528Z DEPTH 489m/489m SST 12.46 2M TEMPS: SAIL 12.10 XBT 12.88  
GULF OF CALIFORNIA: SILL LINE, CX3-13

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.3 | 200 | 11.5 | 390 | 9.3  |
| 20  | 12.2 | 210 | 11.4 | 400 | 9.2  |
| 30  | 12.1 | 220 | 11.3 | 410 | 9.3  |
| 40  | 12.1 | 230 | 11.1 | 420 | 9.2  |
| 50  | 12.0 | 240 | 10.8 | 430 | 9.2  |
| 60  | 12.1 | 250 | 10.7 | 440 | 9.2  |
| 70  | 12.1 | 260 | 10.6 | 450 | 9.2  |
| 80  | 12.0 | 270 | 10.6 | 460 | 9.1  |
| 90  | 12.1 | 280 | 10.4 | 470 | 9.0  |
| 100 | 12.0 | 290 | 10.3 | 480 | 7.6  |
| 110 | 12.0 | 300 | 10.2 |     |      |
| 120 | 11.9 | 310 | 10.1 |     |      |
| 130 | 11.8 | 320 | 9.9  |     |      |
| 140 | 11.8 | 330 | 9.8  |     |      |
| 150 | 11.7 | 340 | 9.3  |     |      |
| 160 | 11.7 | 350 | 9.3  |     |      |
| 170 | 11.6 | 360 | 9.3  |     |      |
| 180 | 11.6 | 370 | 9.3  |     |      |
| 190 | 11.5 | 380 | 9.3  |     |      |

XBT DROP 221

28 33.0N 112 34.6W

9 MAR 85 2234 MST



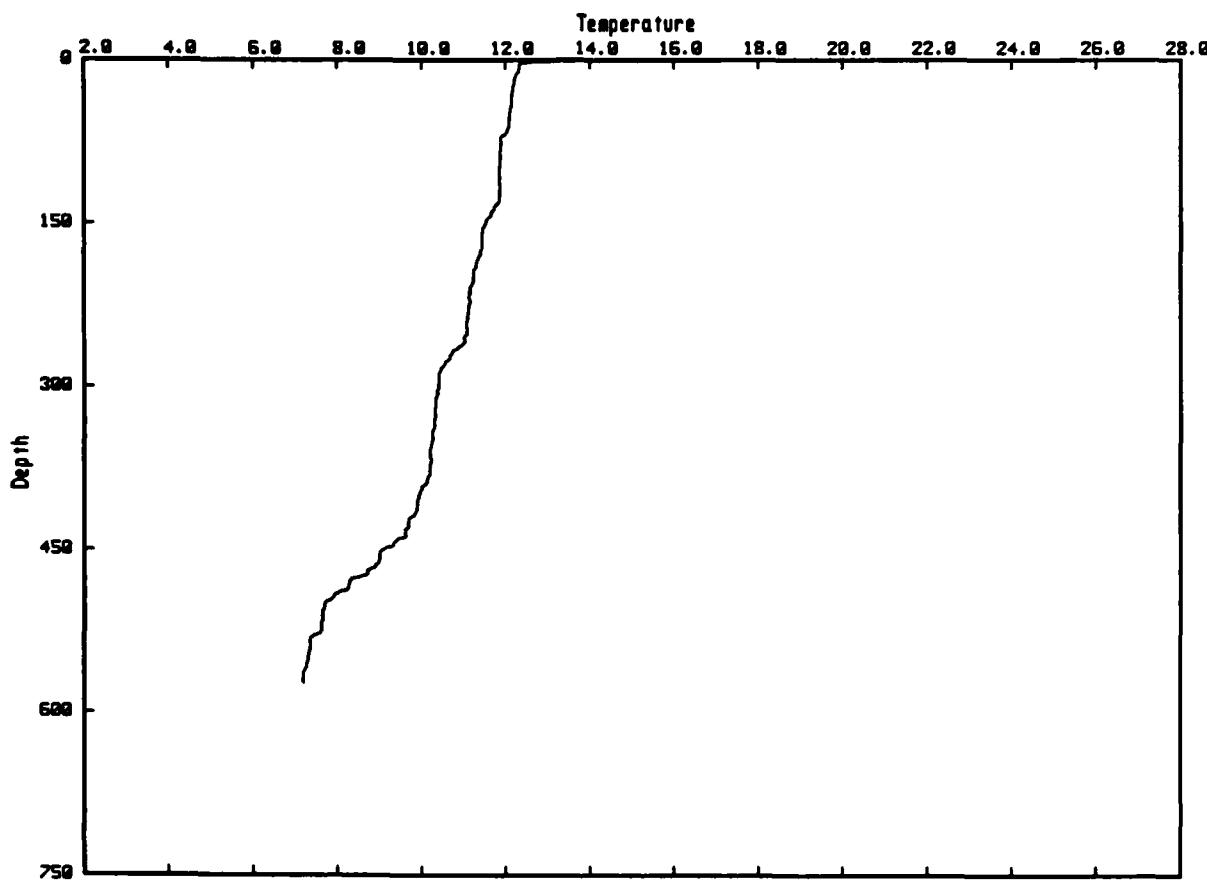
XBT DROP 221 T-7 RADAR: SE 6.6nm 350T GULF COORDS: -24.2 230.5  
JDAY 69 534Z DEPTH 520m/520m SST 12.18 2M TEMPS: SAIL 11.96 XBT 12.37  
GULF OF CALIFORNIA: SILL LINE, CX3-14

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.0 | 200 | 10.9 | 390 | 9.8  |
| 20  | 12.0 | 210 | 10.8 | 400 | 9.8  |
| 30  | 11.9 | 220 | 10.8 | 410 | 9.5  |
| 40  | 11.9 | 230 | 10.6 | 420 | 9.4  |
| 50  | 11.9 | 240 | 10.6 | 430 | 9.2  |
| 60  | 11.9 | 250 | 10.6 | 440 | 9.0  |
| 70  | 11.8 | 260 | 10.4 | 450 | 8.8  |
| 80  | 11.7 | 270 | 10.4 | 460 | 8.5  |
| 90  | 11.6 | 280 | 10.4 | 470 | 8.0  |
| 100 | 11.6 | 290 | 10.3 | 480 | 7.8  |
| 110 | 11.6 | 300 | 10.3 | 490 | 7.5  |
| 120 | 11.5 | 310 | 9.9  | 500 | 7.3  |
| 130 | 11.4 | 320 | 9.8  | 510 | 7.3  |
| 140 | 11.3 | 330 | 9.8  | 520 | 7.3  |
| 150 | 11.3 | 340 | 9.7  |     |      |
| 160 | 11.1 | 350 | 9.8  |     |      |
| 170 | 11.0 | 360 | 9.8  |     |      |
| 180 | 10.9 | 370 | 9.8  |     |      |
| 190 | 10.9 | 380 | 9.8  |     |      |

XBT DROP 222

28 32.3N 112 34.0W

9 MAR 85 2240 MST



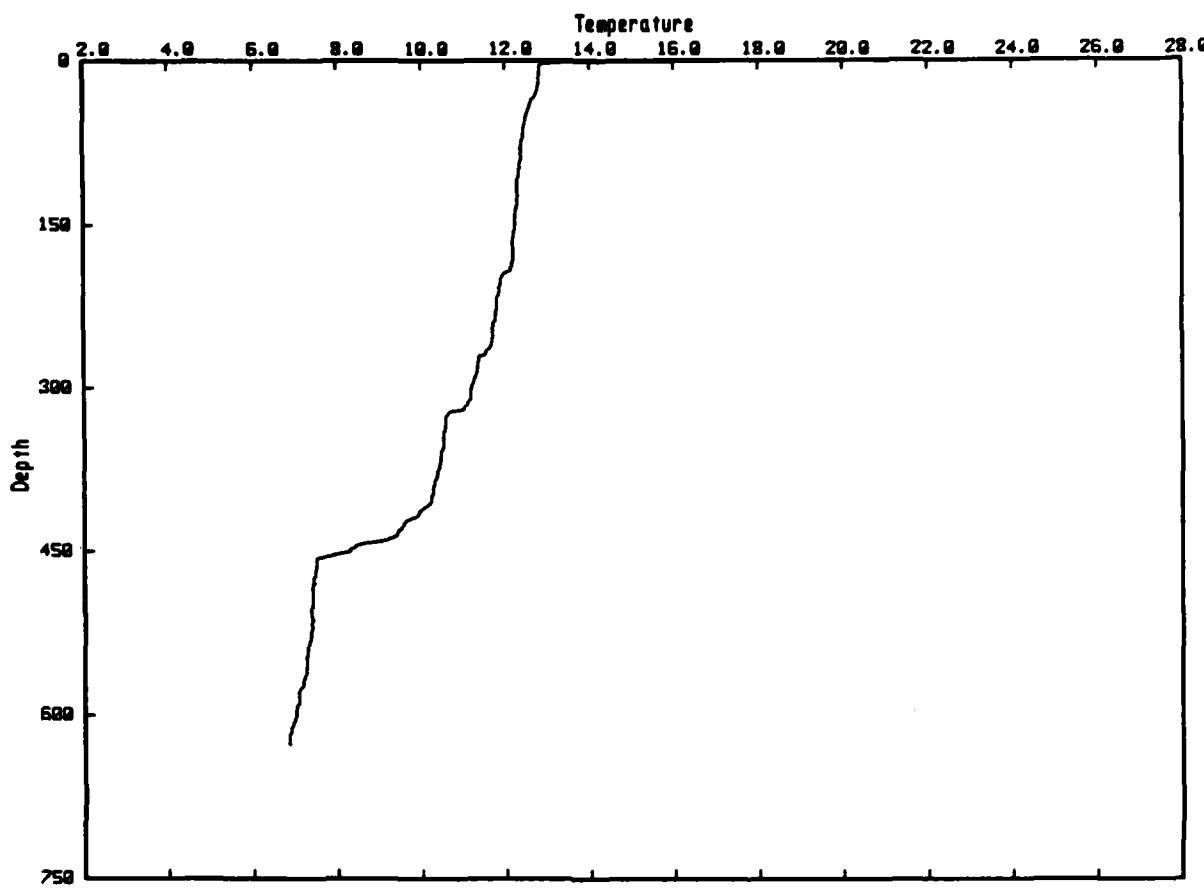
XBT DROP 222 T-7 RADAR: SE 7.5nm 346T GULF COORDS: -24.1 228.8  
JDAY 69 540Z DEPTH 574m/574m SST 12.52 2M TEMPS: SAIL 12.28 XBT 12.66  
GULF OF CALIFORNIA: SILL LINE, CX3-15

| Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|
| 10  | 12.3 | 200 | 11.2 | 390 | 10.1 |
| 20  | 12.2 | 210 | 11.2 | 400 | 9.9  |
| 30  | 12.2 | 220 | 11.1 | 410 | 9.9  |
| 40  | 12.1 | 230 | 11.1 | 420 | 9.8  |
| 50  | 12.1 | 240 | 11.1 | 430 | 9.7  |
| 60  | 12.1 | 250 | 11.1 | 440 | 9.4  |
| 70  | 11.9 | 260 | 11.0 | 450 | 9.1  |
| 80  | 11.9 | 270 | 10.7 | 460 | 9.0  |
| 90  | 11.9 | 280 | 10.5 | 470 | 8.7  |
| 100 | 11.9 | 290 | 10.4 | 480 | 8.3  |
| 110 | 11.9 | 300 | 10.4 | 490 | 8.0  |
| 120 | 11.9 | 310 | 10.3 | 500 | 7.7  |
| 130 | 11.8 | 320 | 10.3 | 510 | 7.6  |
| 140 | 11.7 | 330 | 10.3 | 520 | 7.6  |
| 150 | 11.5 | 340 | 10.3 | 530 | 7.4  |
| 160 | 11.4 | 350 | 10.3 | 540 | 7.4  |
| 170 | 11.4 | 360 | 10.2 | 550 | 7.3  |
| 180 | 11.4 | 370 | 10.2 | 560 | 7.2  |
| 190 | 11.3 | 380 | 10.2 | 570 | 7.2  |

XBT DROP 223

28 31.0N 112 33.0W

9 MAR 85 2248 MST



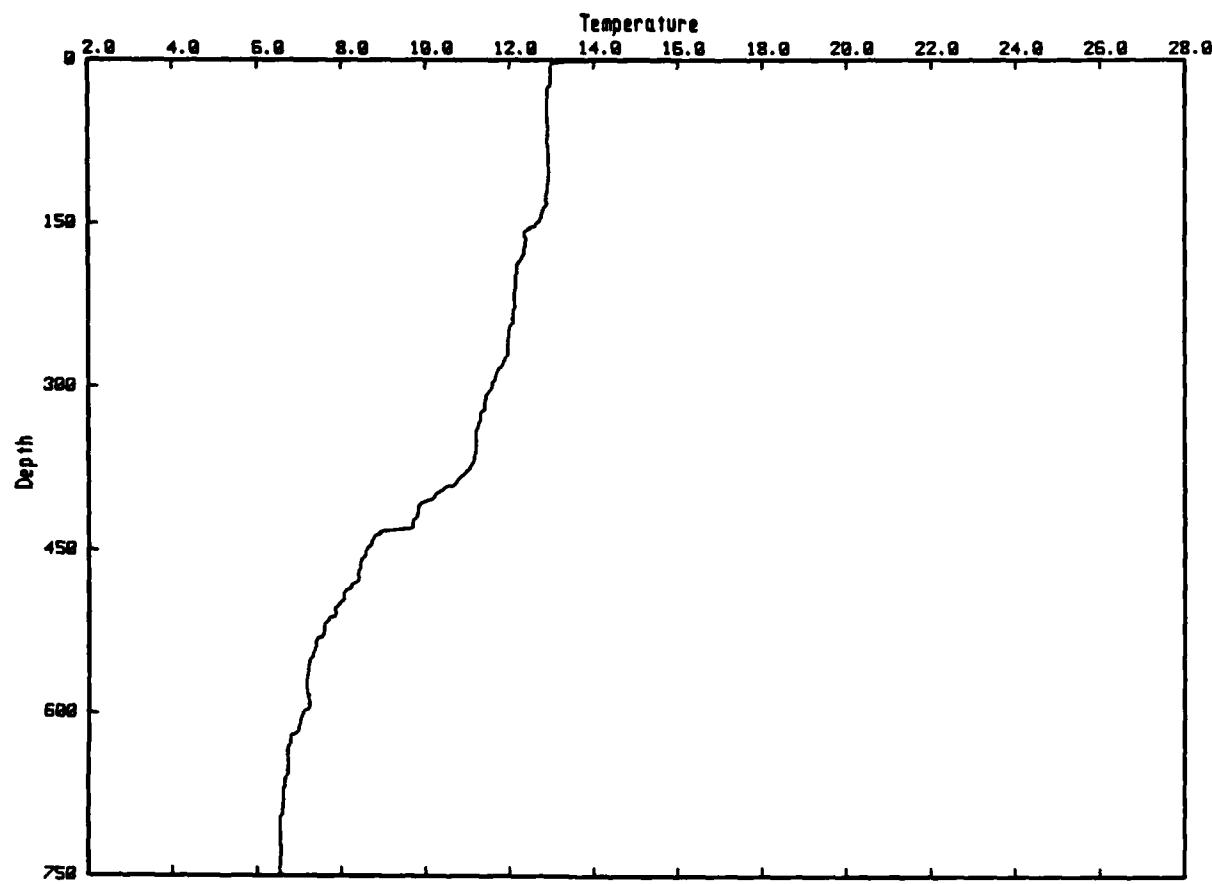
XBT DROP 223 T-7 RADAR: SE 8.8nm 344T GULF COORDS: -24.2 225.9  
JDAY 69 548Z DEPTH 627m/627m SST 12.89 2M TEMPS: SAIL 12.62 XBT 13.43  
GULF OF CALIFORNIA: SILL LINE, CX3-16

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 12.8 | 200 | 11.9 | 390 | 10.3 | 580 | 7.1  |
| 20  | 12.8 | 210 | 11.8 | 400 | 10.2 | 590 | 7.1  |
| 30  | 12.7 | 220 | 11.8 | 410 | 10.1 | 600 | 7.0  |
| 40  | 12.6 | 230 | 11.8 | 420 | 9.8  | 610 | 6.9  |
| 50  | 12.5 | 240 | 11.7 | 430 | 9.5  | 620 | 6.8  |
| 60  | 12.4 | 250 | 11.7 | 440 | 9.1  |     |      |
| 70  | 12.4 | 260 | 11.7 | 450 | 8.3  |     |      |
| 80  | 12.4 | 270 | 11.5 | 460 | 7.5  |     |      |
| 90  | 12.4 | 280 | 11.3 | 470 | 7.5  |     |      |
| 100 | 12.3 | 290 | 11.3 | 480 | 7.4  |     |      |
| 110 | 12.3 | 300 | 11.2 | 490 | 7.4  |     |      |
| 120 | 12.3 | 310 | 11.1 | 500 | 7.4  |     |      |
| 130 | 12.3 | 320 | 10.9 | 510 | 7.4  |     |      |
| 140 | 12.2 | 330 | 10.6 | 520 | 7.4  |     |      |
| 150 | 12.2 | 340 | 10.5 | 530 | 7.3  |     |      |
| 160 | 12.2 | 350 | 10.5 | 540 | 7.3  |     |      |
| 170 | 12.2 | 360 | 10.4 | 550 | 7.3  |     |      |
| 180 | 12.2 | 370 | 10.4 | 560 | 7.3  |     |      |
| 190 | 12.1 | 380 | 10.4 | 570 | 7.2  |     |      |

XBT DROP 224

28 29.0N 112 31.1W

9 MAR 85 2306 MST



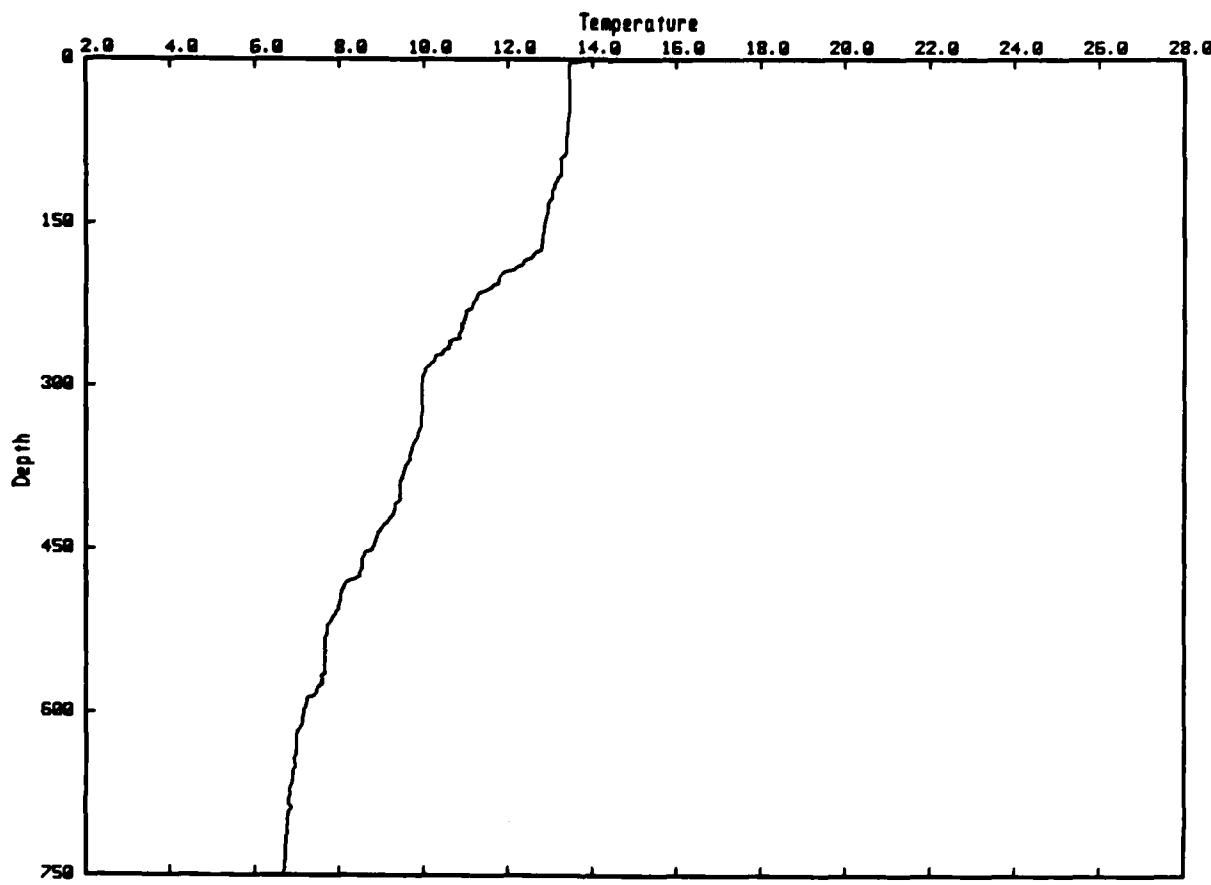
XBT DROP 224 T-7 RADAR: SE 11.4nm 338T GULF COORDS: -23.9 221.1  
JDAY 69 606Z DEPTH 828m/760m SST 13.08 2M TEMPS: SAIL 12.82 XBT 13.36  
GULF OF CALIFORNIA: SILL LINE, CX3-17

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 13.0 | 200 | 12.1 | 390 | 10.7 | 580 | 7.2  |
| 20  | 13.0 | 210 | 12.1 | 400 | 10.2 | 590 | 7.2  |
| 30  | 12.9 | 220 | 12.1 | 410 | 9.8  | 600 | 7.1  |
| 40  | 12.9 | 230 | 12.1 | 420 | 9.8  | 610 | 7.0  |
| 50  | 12.9 | 240 | 12.1 | 430 | 9.6  | 620 | 6.8  |
| 60  | 12.9 | 250 | 12.0 | 440 | 8.7  | 630 | 6.7  |
| 70  | 12.9 | 260 | 12.0 | 450 | 8.6  | 640 | 6.7  |
| 80  | 12.9 | 270 | 12.0 | 460 | 8.5  | 650 | 6.7  |
| 90  | 12.9 | 280 | 11.8 | 470 | 8.4  | 660 | 6.7  |
| 100 | 12.9 | 290 | 11.7 | 480 | 8.3  | 670 | 6.6  |
| 110 | 12.9 | 300 | 11.6 | 490 | 8.0  | 680 | 6.6  |
| 120 | 12.9 | 310 | 11.4 | 500 | 7.9  | 690 | 6.6  |
| 130 | 12.9 | 320 | 11.4 | 510 | 7.8  | 700 | 6.6  |
| 140 | 12.8 | 330 | 11.3 | 520 | 7.6  | 710 | 6.6  |
| 150 | 12.6 | 340 | 11.2 | 530 | 7.5  | 720 | 6.6  |
| 160 | 12.3 | 350 | 11.2 | 540 | 7.4  | 730 | 6.6  |
| 170 | 12.4 | 360 | 11.2 | 550 | 7.3  | 740 | 6.5  |
| 180 | 12.3 | 370 | 11.1 | 560 | 7.2  | 750 | 6.5  |
| 190 | 12.2 | 380 | 10.9 | 570 | 7.2  | 760 | 6.5  |

XBT DROP 225

28 26.4N 112 28.7W

9 MAR 85 2324 MST



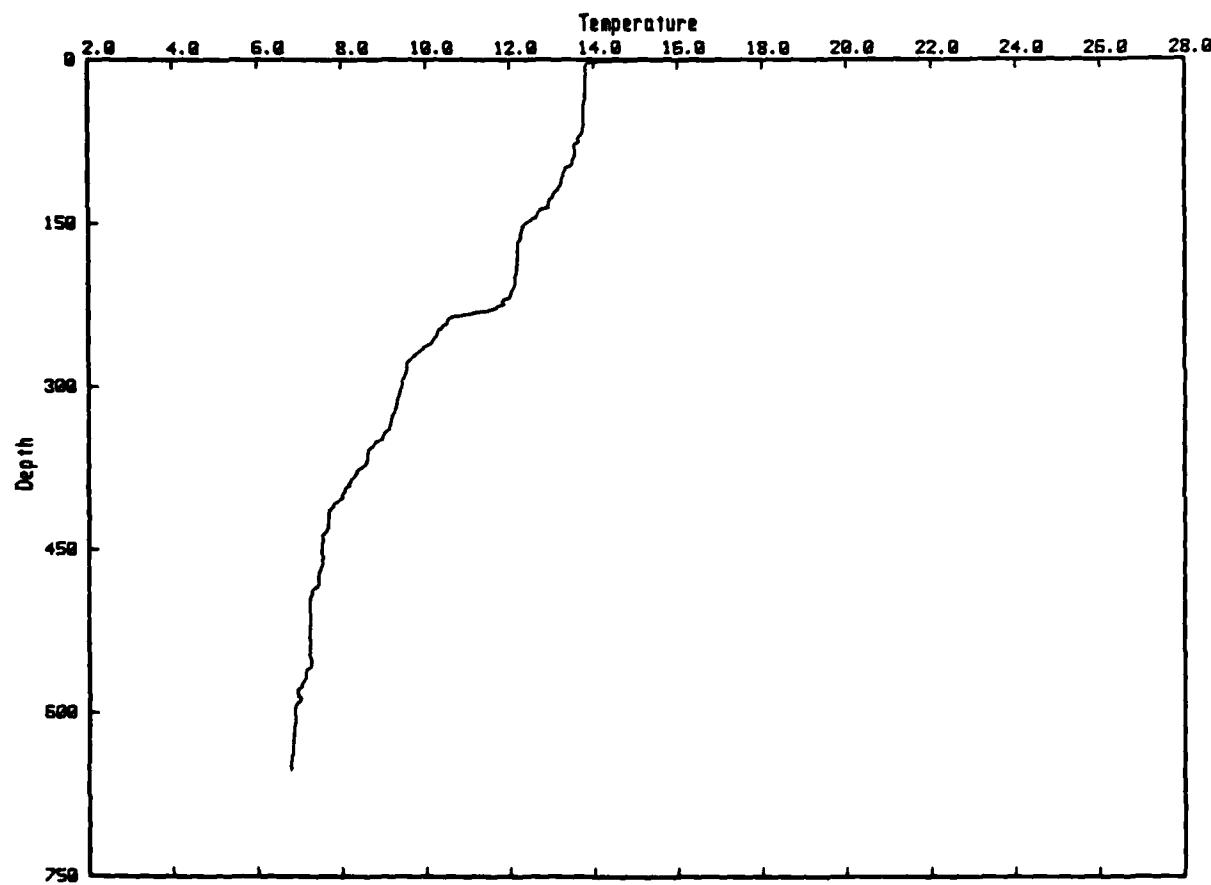
XBT DROP 225 T-7 RADAR: SE 14.6nm 334T GULF COORDS: -23.6 214.9  
 JDAY 69 624Z DEPTH 970m/760m SST 13.50 2M TEMPS: SAIL 13.28 XBT 13.93  
 GULF OF CALIFORNIA: SILL LINE, CX3-18

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 13.5 | 200 | 11.8 | 390 | 9.4  | 580 | 7.5  |
| 20  | 13.5 | 210 | 11.6 | 400 | 9.4  | 590 | 7.2  |
| 30  | 13.5 | 220 | 11.2 | 410 | 9.3  | 600 | 7.1  |
| 40  | 13.5 | 230 | 11.1 | 420 | 9.2  | 610 | 7.1  |
| 50  | 13.4 | 240 | 11.0 | 430 | 9.0  | 620 | 7.0  |
| 60  | 13.4 | 250 | 10.9 | 440 | 8.9  | 630 | 7.0  |
| 70  | 13.4 | 260 | 10.8 | 450 | 8.8  | 640 | 6.9  |
| 80  | 13.4 | 270 | 10.4 | 460 | 8.5  | 650 | 6.9  |
| 90  | 13.3 | 280 | 10.2 | 470 | 8.5  | 660 | 6.9  |
| 100 | 13.3 | 290 | 10.0 | 480 | 8.2  | 670 | 6.8  |
| 110 | 13.2 | 300 | 10.0 | 490 | 8.0  | 680 | 6.8  |
| 120 | 13.0 | 310 | 10.0 | 500 | 8.0  | 690 | 6.8  |
| 130 | 13.0 | 320 | 10.0 | 510 | 7.9  | 700 | 6.8  |
| 140 | 12.9 | 330 | 9.9  | 520 | 7.7  | 710 | 6.8  |
| 150 | 12.9 | 340 | 9.9  | 530 | 7.7  | 720 | 6.7  |
| 160 | 12.8 | 350 | 9.8  | 540 | 7.7  | 730 | 6.7  |
| 170 | 12.8 | 360 | 9.7  | 550 | 7.6  | 740 | 6.7  |
| 180 | 12.6 | 370 | 9.6  | 560 | 7.6  | 750 | 6.7  |
| 190 | 12.3 | 380 | 9.5  | 570 | 7.6  | 760 | 6.7  |

XBT DROP 226

28 24.0N 112 26.8W

9 MAR 85 2339 MST



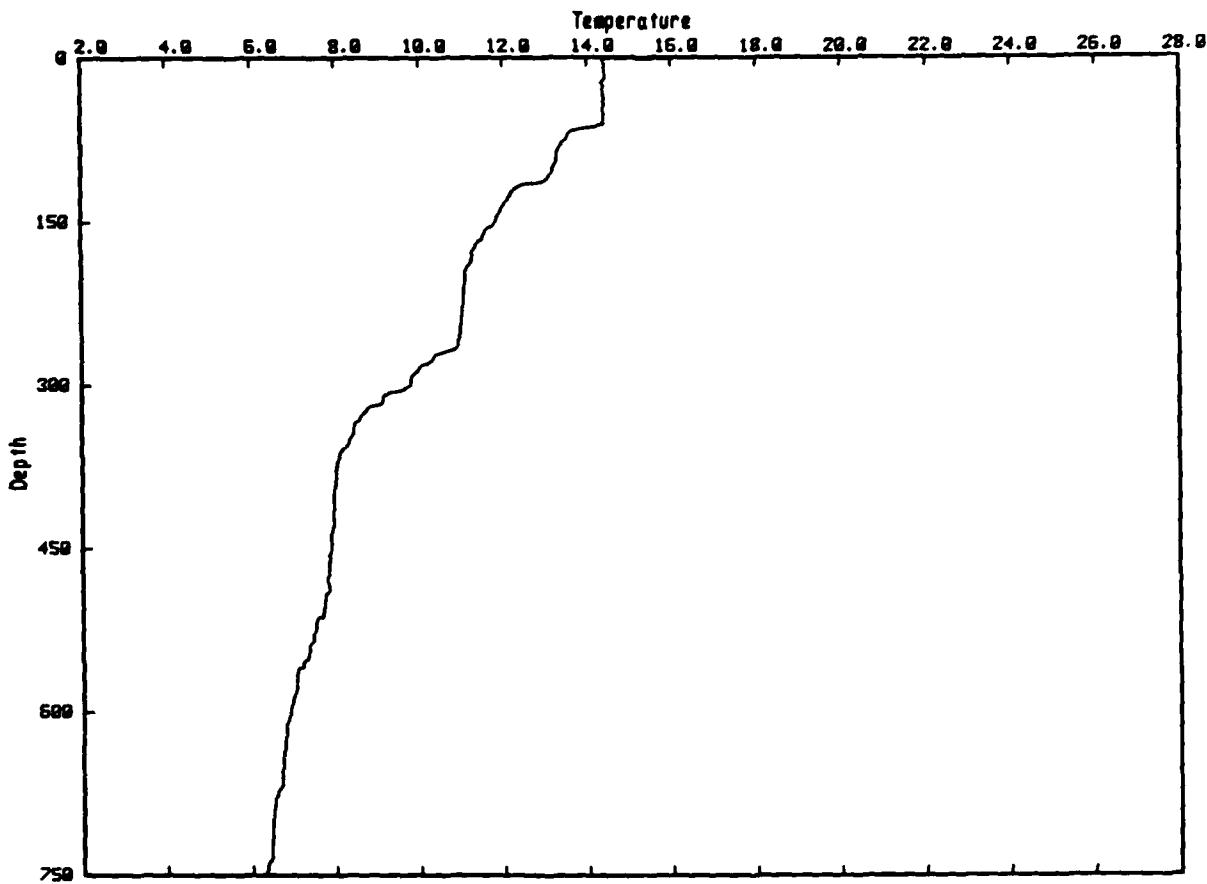
XBT DROP 226 T-7 RADAR: SE 17.5nm 332T GULF COORDS: -23.7 209.5  
 JDAY 69 639Z DEPTH 653m/653m SST 13.86 2M TEMPS: SAIL 13.60 XBT 14.32  
 GULF OF CALIFORNIA: SILL LINE, CX3-19

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 13.8 | 200 | 12.1 | 390 | 8.2  | 580 | 6.9  |
| 20  | 13.8 | 210 | 12.1 | 400 | 8.0  | 590 | 7.0  |
| 30  | 13.8 | 220 | 11.8 | 410 | 7.8  | 600 | 6.9  |
| 40  | 13.8 | 230 | 11.5 | 420 | 7.7  | 610 | 6.9  |
| 50  | 13.8 | 240 | 10.5 | 430 | 7.7  | 620 | 6.9  |
| 60  | 13.7 | 250 | 10.3 | 440 | 7.5  | 630 | 6.8  |
| 70  | 13.7 | 260 | 10.1 | 450 | 7.5  | 640 | 6.8  |
| 80  | 13.5 | 270 | 9.8  | 460 | 7.5  | 650 | 6.8  |
| 90  | 13.5 | 280 | 9.5  | 470 | 7.5  |     |      |
| 100 | 13.3 | 290 | 9.5  | 480 | 7.4  |     |      |
| 110 | 13.2 | 300 | 9.4  | 490 | 7.3  |     |      |
| 120 | 13.1 | 310 | 9.3  | 500 | 7.3  |     |      |
| 130 | 12.9 | 320 | 9.3  | 510 | 7.2  |     |      |
| 140 | 12.7 | 330 | 9.2  | 520 | 7.2  |     |      |
| 150 | 12.4 | 340 | 9.1  | 530 | 7.2  |     |      |
| 160 | 12.2 | 350 | 8.8  | 540 | 7.2  |     |      |
| 170 | 12.2 | 360 | 8.6  | 550 | 7.3  |     |      |
| 180 | 12.2 | 370 | 8.6  | 560 | 7.2  |     |      |
| 190 | 12.2 | 380 | 8.3  | 570 | 7.1  |     |      |

XBT DROP 227

28 22.6N 112 25.4W

9 MAR 85 2354 MST



XBT DROP 227 T-7 RADAR: none GULF COORDS: -23.4 206.1  
JDAY 69 654Z DEPTH 900m/760m SST 14.49 2M TEMPS: SAIL 14.63 XBT 14.40  
GULF OF CALIFORNIA: SILL LINE, CX3-20

| Z   | TEMP | Z   | TEMP | Z   | TEMP | Z   | TEMP |
|-----|------|-----|------|-----|------|-----|------|
| 10  | 14.4 | 200 | 11.1 | 390 | 8.0  | 580 | 7.0  |
| 20  | 14.4 | 210 | 11.1 | 400 | 8.0  | 590 | 6.9  |
| 30  | 14.4 | 220 | 11.0 | 410 | 7.9  | 600 | 6.9  |
| 40  | 14.4 | 230 | 11.0 | 420 | 8.0  | 610 | 6.8  |
| 50  | 14.4 | 240 | 11.0 | 430 | 7.9  | 620 | 6.8  |
| 60  | 14.4 | 250 | 11.0 | 440 | 7.9  | 630 | 6.8  |
| 70  | 13.6 | 260 | 10.9 | 450 | 7.9  | 640 | 6.7  |
| 80  | 13.4 | 270 | 10.6 | 460 | 7.9  | 650 | 6.7  |
| 90  | 13.3 | 280 | 10.2 | 470 | 7.8  | 660 | 6.7  |
| 100 | 13.2 | 290 | 9.9  | 480 | 7.8  | 670 | 6.7  |
| 110 | 13.1 | 300 | 9.5  | 490 | 7.8  | 680 | 6.5  |
| 120 | 12.3 | 310 | 9.1  | 500 | 7.7  | 690 | 6.5  |
| 130 | 12.1 | 320 | 8.8  | 510 | 7.7  | 700 | 6.5  |
| 140 | 11.9 | 330 | 8.6  | 520 | 7.5  | 710 | 6.5  |
| 150 | 11.8 | 340 | 8.4  | 530 | 7.5  | 720 | 6.5  |
| 160 | 11.6 | 350 | 8.3  | 540 | 7.4  | 730 | 6.4  |
| 170 | 11.3 | 360 | 8.2  | 550 | 7.3  | 740 | 6.4  |
| 180 | 11.2 | 370 | 8.0  | 560 | 7.1  | 750 | 6.3  |
| 190 | 11.2 | 380 | 8.0  | 570 | 7.0  | 760 | 6.3  |





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## **APPENDICES**



**Appendix A**  
**Program XBTFS.FTN**



\$BATCH  
PROGRAM XBTFS

THIS PROGRAM MODIFIES DATA OUTPUT OF BATHY SYSTEMS XBT DIGITAL CASSETTE RECORDER. THE PADDED DATA ARE FIRST STRIPPED OF THE MOST SIGNIFICANT BYTE OF THE INTEGER\*2 HEX VARIABLE (STRIPS OFF FIRST TWO CHARACTERS USING 'ICBYTE'). NEXT, THE INDIVIDUAL DATA CHARACTERS ARE RECOVERED BY SHIFTING BITS AROUND. FINALLY, THE DATA ARE RECONSTRUCTED BY SCALING AND WRITTEN TO A FORMATTED FILE.

THIS PROGRAM PROCESSES THE WHOLE DATA CASSETTE AT ONCE. IT OPENS NEW STATION FILES AS THEY ARE ENOUNTERED AND DELETES GAPS IN DATA BY FRAME SYNCHING (SUBROUTINE FSCAN). PROGRAM NOW NUMBERS STATIONS CONSECUTIVELY, SO DOES NOT READ STATION NUMBER AND ASSIGN TO FILE NAME.

C. A. Paden, 6 AUGUST 1985: WRITTEN FOR SIO CCS PERKIN-ELMER COMPUTER

HDR(J,1)-FLAG BIT  
HDR(J,2)-JULIAN DAY  
HDR(J,3)-HOUR  
HDR(J,4)-MIN  
HDR(J,5)-XBT PROBE TYPE  
HDR(J,6)-XBT DROP NUMBER  
HDR(J,7)-ELAPSED TIME IN SECONDS

XVAR(J,I)-CONVERSION OF HEX REPRESENTATION OF VOLTAGE MEASUREMENT TO INTEGER FORMAT

```
INTEGER*2 DATA(2400), SBYT(100,48), JBLK(10)
INTEGER*2 HDR(100,7), XVAR(100,10), M
INTEGER*2 JUNK(800)
INTEGER*4 IBLK(5)
REAL TE(100,10), TI(100,10), Z(100,10), V(100,10)

C EQUIVALENCE (IBLK(1), JBLK(1))

C OPEN(12,FILE-'XBT1.DTA', FORM-'BINARY', IOSTAT=IOST)
C OPEN(13,FILE-'XB6001.DTA', FORM-'FORMATTED', STATUS-'RENEW',
C *RECL=80)
C OPEN(14,FILE-'CHKRUN', FORM-'FORMATTED', STATUS-'RENEW')

C 3 WRITE(0,3)IOST
3 FORMAT(1X,2I5)
CALL SYSIO(IBLK, 88, 12, JUNK(1), 1600, 0)
2 FORMAT(1X,24)

J=0
M=1
N=1

CALL SYSIO(IBLK, 88, 12, DATA(N), 1600, 0)

40 CALL FSCAN(J, N, DATA, SBYT)
CALL HEADER(J, SBYT, HDR)
CALL CONDAT(J, SBYT, XVAR)
CALL DEPTH(J, HDR(J,7), TI, Z)
CALL TEMP(J, XVAR, V, TE)

C IF(HDR(J,1).EQ.1.AND.HDR(J-1,1).EQ.4) THEN
C     CALL OPENF(J, HDR(J,6), M)
ENDIF

C CALL PRINT(J, HDR, TI, V, Z, TE)

C 10 IF(IOST)10,20,30
10 GO TO 50
20 GO TO 40
30 WRITE(0,'*) 'ERROR DETECTED, IOST= ', IOST

C 50 CONTINUE
WRITE(0,'*)'END OF FILE'
```

```

      END
C  $PROG FSCAN
C  *****
C  SUBROUTINE FSCAN(J,N,DATA,SBYT)
C  *****
C
C  INTEGER*2   DATA(800),FSBYT(800),JBLK(10)
C  INTEGER*2   BYT(100,24),SBYT(100,48)
C  INTEGER*4   IBLK(5)
C
C  EQUIVALENCE (IBLK(1),JBLK(1))
C
C  CHECK FOR BEGINNING OF DATA FRAME (FB--)
C
10  FSBYT(N)=DATA(N)
    FSBYT(N)=ISHFT(FSBYT(N),-8)
    CALL ICBYTE(FSBYT(N),0)
    IF(FSBYT(N).EQ.251)THEN
        J=J+1
        IF(J.EQ.101) J=1
        DO 20 I=1,24
            BYT(J,I)=DATA(N)
            CALL ICBYTE(BYT(J,I),0)
            K=2*I-1
            SBYT(J,K)=ISHFT(BYT(J,I),-4)
            SBYT(J,K+1)=IAND(BYT(J,I),X'000F')
            N=N+1
            IF(N.EQ.801)THEN
                N=1
                CALL SYSIO(IBLK,88,12,DATA(N),1600,0)
            ENDIF
20  CONTINUE
    ELSE
        N=N+1
        IF(N.EQ.801)THEN
            N=1
            CALL SYSIO(IBLK,88,12,DATA(N),1600,0)
        ENDIF
        GO TO 10
    ENDIF
END
C  $PROG HEADER
C  *****
C  SUBROUTINE HEADER(J,SBYT,HDR)
C  *****
C
C  RECONSTRUCT STATION HEADER INFORMATION
C  BY SCALING RELATIVE BYTES AND SUMMING
C
C  INTEGER*2   SBYT(100,48),HDR(100,7)
C
C  HDR(J,1)=SBYT(J,3)
C  HDR(J,2)=SBYT(J,4)*100+SBYT(J,5)*10+SBYT(J,6)
C  HDR(J,3)=SBYT(J,7)*10+SBYT(J,8)
C  HDR(J,4)=SBYT(J,9)*10+SBYT(J,10)
C  HDR(J,5)=SBYT(J,11)
C  HDR(J,6)=SBYT(J,12)*100+SBYT(J,13)*10+SBYT(J,14)
C  HDR(J,7)=SBYT(J,15)*1000+SBYT(J,16)*100+SBYT(J,17)*10+
C  *SBYT(J,18)
C  END
C  $PROG CONDAT
C  *****
C  SUBROUTINE CONDAT(J,SBYT,XVAR)
C  *****
C
C  RECONSTRUCT OUTPUT VOLTAGE BY SCALING
C  APPROPRIATE DATA BYTES AND SUMMING
C
C  INTEGER*2   SBYT(100,48),XVAR(100,10)
C
C  K=19
C  DO 10 I=1,10
C  XVAR(J,I)=SBYT(J,K)*256+SBYT(J,K+1)*16+SBYT(J,K+2)
C  K=K+3

```

```

10 CONTINUE
END

$PROG DEPTH
*****  

C   SUBROUTINE DEPTH(J, ISEC, TI, Z)  

*****  

C   CALCULATE DEPTH FROM TIME(SECONDS) GIVEN  

C   IN HEADER INFORMATION, USING SIPPICAN  

C   EQUATION  

C   INTEGER*2    ISEC  

REAL      TI(100,10),Z(100,10)  

DO 10 I=1,10  

TI(J,I)=FLOAT(ISEC-1)+0.1*(I)  

IF(ISEC.EQ.0)THEN  

TI(J,I)=0.  

ENDIF  

10 CONTINUE
END

$PROG TEMP
*****  

C   SUBROUTINE TEMP(J, XVAR, V, TE)  

*****  

C   CALCULATE TEMPERATURE IN DEGREES CELCIUS  

C   FROM OUTPUT VOLTAGE USING SIPPICAN EQUATION  

C   INTEGER*2    XVAR(100,10)  

REAL      TE(100,10),V(100,10)  

DO 10 I=1,10  

V(J,I)=5.0*(FLOAT(XVAR(J,I))/4095)  

TE(J,I)=-1.97539+(8.46492*V(J,I))-((5.76449E-01)*(V(J,I)**2))  

*+8.31771E-02*(V(J,I)**3)-1.18495E-03*(V(J,I)**4)
10 CONTINUE
END

$PROG PRINT
*****  

C   SUBROUTINE PRINT(J, HDR, TI, V, Z, TE)  

*****  

C   WRITE HEADER AND DATA TO OUTPUT FILE  

C   INTEGER*2    HDR(100,7)  

REAL      TE(100,10),TI(100,10),Z(100,10),V(100,10)  

DO 10 I=1,10  

5  WRITE(13,5)(HDR(J,K),K=1,6),TI(J,I),V(J,I),Z(J,I),TE(J,I)
 5  FORMAT(6I5,4F10.3)
10 CONTINUE
END

$PROG OPENF
*****  

C   SUBROUTINE OPENF(J, NDROP, M)  

*****  

C   THIS SUBROUTINE OPENS NEW DATA FILE  

C   WHEN EOF CODE ENCOUNTERED ON DATA CASSETTE  

CHARACTER*3    MM
CHARACTER*10   FNAME
INTEGER*2     NDROP, M
C   CLOSE PREVIOUS FILE
CLOSE(13)
C   CONSTRUCT XBT NUMBER AS A CHARACTER STRING
M=M+1

```

```
IF(M.EQ.46) THEN
  WRITE(0,*)'FIRST 46 FILES WRITTEN TO DISK'
  STOP
ENDIF

2 WRITE(MM,2)
  FORMAT(I3)
  IF(M.LT.10)MM(1:2)='00'
  IF(M.GE.10.AND.M.LT.100)MM(1:1)='0'

C CONSTRUCT FILENAME
  FNAME(1:3)='XB6'
  FNAME(4:6)=MM
  FNAME(7:10)='.DTA'

C OPEN NEXT FILE AND TYPE HEADINGS
  OPEN(13,FILE=FNAME,FORM='FORMATTED',STATUS='RENEW',
*RECL=80)

3 WRITE(14,3)FNAME,NDROP
  FORMAT(A10,2X,I5)
  IF(M.NE.NDROP) THEN
    WRITE(14,4)FNAME
  4 FORMAT(10X,'STATION/DROP# MISMATCH AT ',A10)
  ENDIF

  WRITE(13,5)FNAME,NDROP
  5 FORMAT(A10,': XBT #',I5,', GULF OF CALIFORNIA, NOV 84')

  6 FORMAT(1X,'FLAG',1X,'JDAY',3X,'HR',2X,'MIN',2X,'TYP',
*3X,'NO',5X,'SECS',6X,'VOLTS',6X,'DEPTH',5X,'TEMP')
END
$BEND
```

**Appendix B**  
**Program DIGSCL.F77**



C PROGRAM DIGSCL

THIS PROGRAM SCALES AND CORRECTS HAND-DIGITIZED SIPPICAN T7 & T4 XBT TRACES ACCOUNTING FOR OFFSETS IN XBT CHART PLACEMENT AND VOLTAGE CALIBRATION POINTS AS WELL AS NON-LINEARITIES IN DEPTH AND TEMPERATURE. THE PROGRAM FOR DIGITIZING TRACES ASSIGNS PLOT ORIGIN AS DATA(1), X-LIMIT OF PLOT AS DATA(2), Y-LIMIT OF PLOT AS DATA(3), AND BEGINS SCANNING AT DATA(4). FOR THIS DATA SET, DATA(4) GIVES X-Y OFFSET, AND DATA(5) BEGINS SCANNING MODE.

DISTANCES IN DIGITIZER UNITS (INCHES) ARE CALCULATED RELATIVE TO A PRE-LAUNCH CALIBRATION LINE WHICH CORRESPONDS TO AN AVERAGE VOLTAGE OF 2.476V FOR THE INSTRUMENTS USED. FORTY-FIVE OF THE 205 XBT DROPS WERE ELECTRONICALLY DIGITIZED ON A BATHY SYSTEMS DIGITIZER. SEVERAL OF THESE STATIONS WERE ALSO HAND DIGITIZED TO CALCULATE THE VOLTAGE SCALE FOR THE ANALOG RECORDER. X-POSITIONS FROM THE CHART RECORDER ARE CONVERTED TO VOLTAGES USING A SLOPE OF 0.6995V/IN CALCULATED FROM REGRESSING CORRESPONDING VOLTAGES AGAINST PARTICULAR CHART POSITIONS AND ADDING A CALIBRATION VOLTAGE OF 2.476V WHICH IS EQUIVALENT TO REPOSITIONING TRACE SO THAT CALIBRATION LINE IS AT 3.495 INCHES FROM CHART ORIGIN AS EXPECTED FOR NORMAL CALIBRATION.

C.A. PADEN 5 MAR 1986

PROGRAM WRITTEN TO RUN ON SIO SHORE PROCESSES DATA GENERAL COMPUTER

```
CHARACTER*28 INFIL, OUTFIL, EDTFIL, ERRFIL
CHARACTER*18 HDRFIL
CHARACTER*3 NDROP, PNT, MO
INTEGER B(1500), LATDEG, LNGDEG, ZPDR, ZXBT, TIME, BRG, GMT
REAL X(1500), Y(1500), XP(1500), YP(1500)
REAL V(1500), Z(1500), SECs(1500), TE(1500)
REAL XSCALE, YSCALE, CALIB, YOFF, LATMIN, LNGMIN
```

```
WRITE(*,*)'ENTER 3-DIGIT XBT DROP NUMBER (i.e., 003)'
READ(*,1)N
1 FORMAT(I3)
WRITE(NDROP,1)N
WRITE(*,111)NDROP
111 FORMAT(A3)

IF(N.LT.10)NDROP(1:2)='00'
IF(N.GE.10.AND.N.LT.100)NDROP(1:1)='0'

INFIL(1:18)=':CAPDAT:DIGDAT:XBT'
INFIL(19:21)=NDROP
INFIL(22:28)=
WRITE(*,*)INFIL

EDTFIL(1:18)=':CAPDAT:DIGDAT:XBT'
EDTFIL(19:21)=NDROP
EDTFIL(22:28)='.EDT'
WRITE(*,*)EDTFIL

HDRFIL(1:11)=':HEADERS:XBT'
HDRFIL(12:14)=NDROP
HDRFIL(15:18)='.HDR'
WRITE(*,*)HDRFIL

OUTFIL(1:18)=':CAPDAT:DIGDAT:XBT'
OUTFIL(19:21)=NDROP
OUTFIL(22:28)='.SCL'
WRITE(*,*)OUTFIL

OPEN(13,FILE=HDRFIL, FORM='FORMATTED', STATUS='OLD')
OPEN(15,FILE=INFIL, FORM='FORMATTED', STATUS='OLD', IOSTAT=ISTAT)
OPEN(16,FILE=EDTFIL, STATUS='FRESH', IOSTAT=IOST)
OPEN(17,FILE=OUTFIL, STATUS='FRESH')

C REWRITE DIGITIZED DATA FILE TO ONE-DIMENSIONAL ARRAY FOR
C EDITING

IF(ISTAT.GE.0)THEN
```

```

60      READ(15,2,END=70),(X(I),Y(I),B(I),I=1,5)
2       FORMAT(8(2F7.3,I2))
        DO 10 I=1,5
3       WRITE(16,3) X(I),Y(I),B(I)
        FORMAT(2F7.3,I2)
10      CONTINUE
        GO TO 60
      ENDIF
70      WRITE(*,*)"EDTFIL CREATED"
      CLOSE(15)
      CLOSE(16)

```

C      WRITE HEADER TO OUTPUT FILE

```

OPEN(13,FILE=HDRFIL,FORM='FORMATTED',STATUS='OLD')
READ(13,11)NDROP,ITYPE,IDAY,MO,IYR,TIME,JDAY,GMT
READ(13,12)LATDEG,LATMIN,LNGDEG,LNGMIN,PNT,RNG,BRG
READ(13,13)XR,YR,ZPDR,SST,TSAIL
11   FORMAT(A3,12,I3,A4,I3,3I5)
12   FORMAT(I2,F8.1,I4,F5.1,A4,F5.1,I4)
13   FORMAT(F8.1,F8.1,I5,F8.2,F8.2)

      WRITE(17,7) NDROP,ITYPE,IDAY,MO,IYR,TIME,JDAY,GMT,
      *LATDEG,LATMIN,LNGDEG,LNGMIN,PNT,RNG,BRG,XR,YR,
      *ZPDR,SST,TSAIL
7    FORMAT('DROP',A3,'T',I1,3X,I2,1X,A3,1X,I2,2X,I4,'L',J',
      *I3,2X,I4,'Z',/,'I2,1X,F4.1,'N',2X,I3,1X,F4.1,'W',3X,
      *A3,2X,F4.1,'NM@',I3,'T',/,'2F8.1,2X,I4,'M',2X,'SST',
      *F5.2,2X,2MT,F5.2)

      WRITE(*,*)"WRITTEN HEADER TO OUTPUT FILE"

```

```

CALIB=0
YOFF=0

```

C      CALCULATE SCALING AND ORIENTATION OF GRID

```

OPEN(16,FILE=EDTFIL,FORM='FORMATTED')

DO 15 J=1,4
READ(16,3)X(J),Y(J),B(J)
WRITE(*,3)X(J),Y(J),B(J)
15 CONTINUE
WRITE(*,*)"READ FIRST 4 POINTS"

```

C      ROTATE REFERENCE FRAME OF DIGITIZER GRID INTO THAT FOR XBT  
TRACE

```

THETA=ATAN(Y(2)/X(2))
WRITE(*,*)"CALCULATED THETA-",THETA
DO 20 J=1,4
  XP(J)=X(J)*COS(THETA)+Y(J)*SIN(THETA)
  YP(J)=-X(J)*SIN(THETA)+Y(J)*COS(THETA)
WRITE(*,3)XP(J),YP(J),B(J)
20 CONTINUE

```

C      SET CONSTANTS FOR FOURTH-ORDER POLYNOMIAL EQUATION FOR  
CALCULATING TEMPERATURE FROM VOLTAGE

```

ALPHA=-1.97539
BETA=-8.46492
GAMMA=-5.76449E-01
DELTA=-8.31771E-02
EPSI=-1.18495E-03

```

CCC     SET SLOPE AND OFFSET CALCULATED FROM REGRESSION OF CHART  
POSITION VERSUS CORRESPONDING VOLTAGE REGISTERED ON BATHY  
SYSTEMS DIGITIZER.

```

SLOPE=0.6995
OFFSET=0.032

```

C C C CALCULATE CHART POSITION OF PRE-LAUNCH CALIBRATION LINE  
AND DEPTH OFFSET DUE TO VERTICAL CHART MISALIGNMENT DURING  
ANALOG RECORDING

C C C CALIB-XP(4)  
YOFF-YP(4)

C C C RESET REFERENCE FRAME OF PLOT TO APPROPRIATE POSITION  
AS A FUNCTION OF CHART POSITION

C C C CDIFF=3.495-CALIB  
IF(CDIFF.LT.0.)THEN  
REF=3.495  
ELSE  
REF=CALIB  
ENDIF

C C C WRITE(\*,\*)CDIFF,CALIB,REF  
CALCULATE CALIBRATION POINT TEMPERATURE AS CHECK

C C C TEMP=0  
WRITE(\*,\*)CALIB,REF  
XP(4)=XP(4)-CALIB  
V(4)=SLOPE\*XP(4)+SLOPE\*REF+OFFSET  
TEMP=ALPHA+BETA\*V(4)+GAMMA\*V(4)\*\*2+DELTA\*V(4)\*\*3+EPSI\*V(4)\*\*4

C C C WRITE(\*,\*)'CALIB VOLTAGE- ',V(4),',CALIBRATION TEMP- ',TEMP

24 READ(16,3)X(I),Y(I),B(I)  
IF(B(I).NE.3.)GOTO 24  
I=1  
25 IF(IOST.GE.0)THEN  
READ(16,3 END=30) X(I), Y(I), B(I)  
XP(I)=X(I)\*COS(THETA)+Y(I)\*SIN(THETA)  
YP(I)=X(I)\*SIN(THETA)+Y(I)\*COS(THETA)  
IF(X(I).EQ.X(I-1).AND.Y(I).EQ.Y(I-1)) GOTO 25  
IF(B(I).EQ.3) CALL EDIT(I,XP,YP,B)  
IF(B(I).EQ.4) THEN  
I=I-1  
GO TO 30  
ENDIF

C C C CONVERT X-POSITION IN INCHES GIVEN BY DIGITIZER TO TEMPERATURE  
USING CALIBRATION POINT AS REFERENCE

C C C XP(I)=XP(I)-CALIB  
V(I)=SLOPE\*XP(I)+SLOPE\*REF+OFFSET  
TE(I)=ALPHA+BETA\*V(I)+GAMMA\*V(I)\*\*2+DELTA\*V(I)\*\*3+EPSI\*V(I)\*\*4

C C C CONVERT Y-POSITION IN INCHES GIVEN BY DIGITIZER TO TIME USING  
CHART SPEED OF 1 INCH PER 15 SECONDS. SINCE Y-POSITION IS  
NEGATIVE AS READ BY DIGITIZER, MULTIPLY BY -15 TO GET POSITIVE  
SECONDS.

C C C SECS(I)=(YP(I)-YOFF)\*(-15)

C C C CONVERT TIME TO DEPTH USING SIPPICAN EQUATION FOR T-7'S

C C C Z(I)=6.472\*SECS(I)-0.00216\*(SECS(I)\*\*2)

C C C I=I+1

C C C GO TO 25  
ENDIF

C C C WRITE TO FILE

30 WRITE(17,4)CALIB,YOFF  
4 FORMAT(17,4)CALIB LINE (INCHES): ,F5.3, ' Y-OFFSET: ,F5.3)  
5 FORMAT(17,5)SLOPE,OFFSET  
DO 40 J=1,I  
WRITE(17,6) YP(J),XP(J),V(J),Z(J),TE(J)

```

6   FORMAT (3F8.3,F8.1,F8.2)
40 CONTINUE
      WRITE(*,*)'END OF FILE'
      STOP
      END
C **** SUBROUTINE EDIT(I,XP,YP,B) ****
C
C Subroutine to edit out mistakes made when hand digitizing.
C Takes first point after stop sampling signal (button 3)
C and moves up in data array to position where sampling
C was resumed (button 1), so that the data which follows
C writes over bad data in array.
C
      INTEGER      I,N,B(1500)
      REAL        XP(1500),YP(1500)
      N=I
      WRITE(*,*)'IN EDIT, I= ',N
      DO 10 K=1,N
      IF(YP(I).LT.YP(K),AND.YP(I).GT.YP(K+1))THEN
          YP(K+1)=YP(I)
          XP(K+1)=XP(I)
          B(K+1)=B(I)
          I=K+1
          GO TO 20
      ENDIF
10  CONTINUE
      WRITE(*,*)'EXITING EDIT, I= ',I
20  END

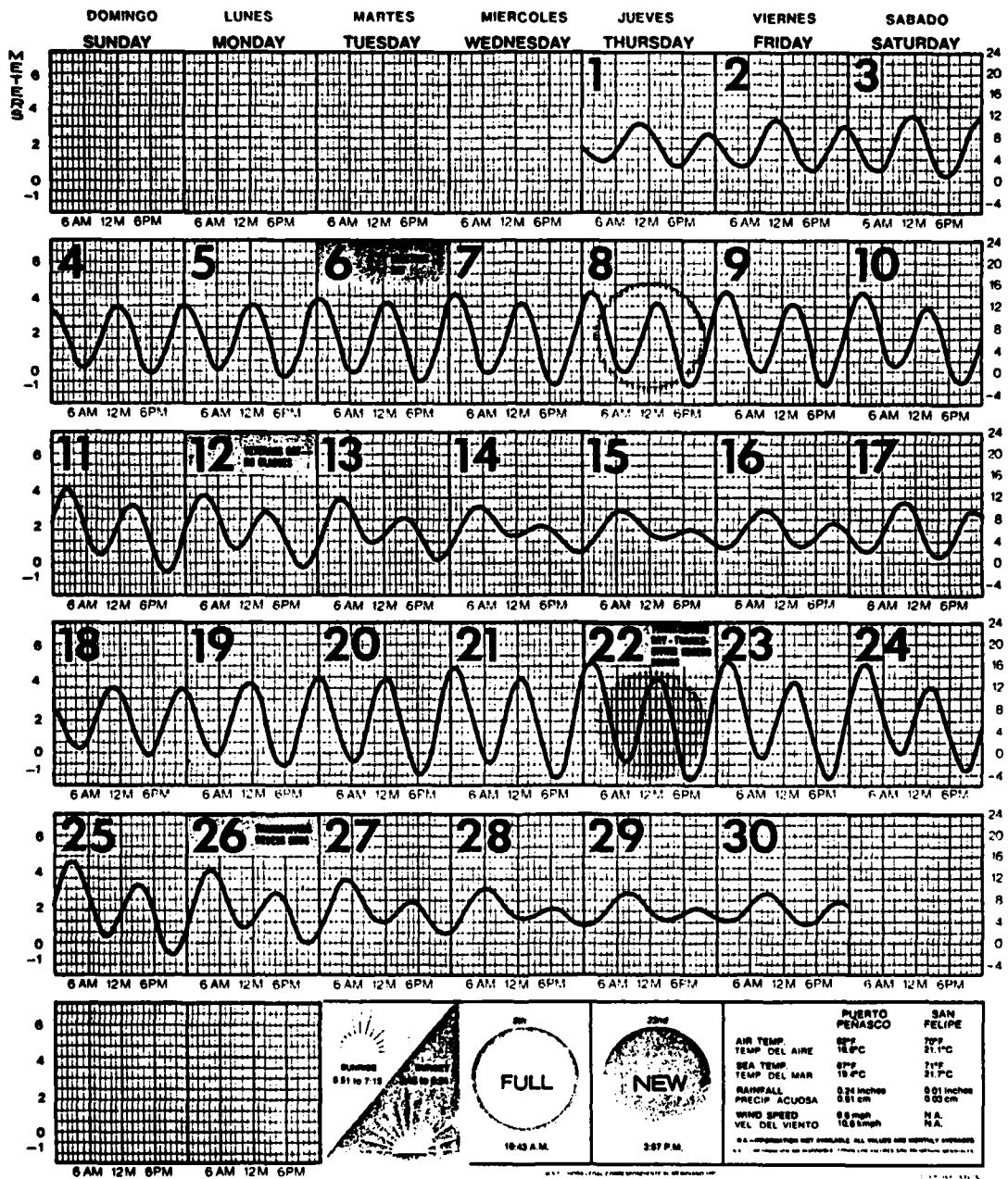
```

**Appendix C**

**Sea Level Elevations**  
**for the Northern Gulf of California**

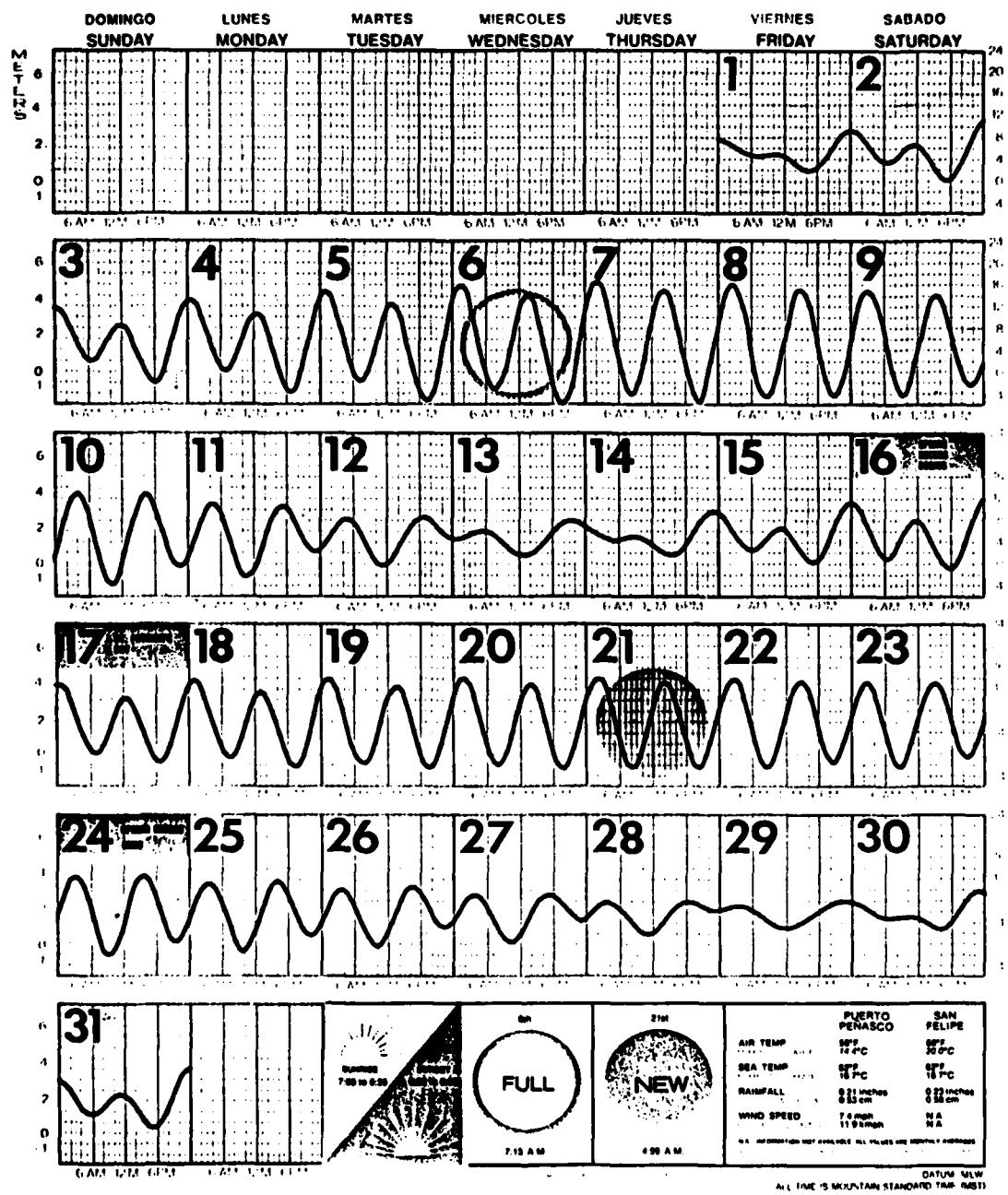


# NOVIEMBRE / NOVEMBER 1984





# MARZO/MARCH 1985



(from: 1985 Tide Calendar for the Northern Gulf of California, University of Arizona)

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