Cod. for ADMIN 7/21

81013

Cruise Report

SHIP NAME LONGHORN

CRUISE NUMBER AND LEG 81-1 (Geochem.)

SUBMERSIBLE NAME

PARENT PROJECT 9840-02005

FUNDING AGENCY U.S. Geological Survey

FUNDING AMOUNT

CONTRACT NUMBER None

CONTRACT START AND END DATE

AREA OF OPERATIONS Southwest Florida shelf (Gulf)

DATES OF START AND END OF CRUISE, WITH PORTS Lv. St. Petersburg 22 May 1981; Arr. Key West 25 May 81.

CHIEF SCIENTIST Frank T. Manheim

LIST OF NAMES AND AFFILIATIONS OF SCIENTIFIC PARTY; NAME OF SHIP'S CAPTAIN

F. T. Manheim, Chief Scientist, U.S.G.S.

Beecher Wooding, Chief Tech., W.H.O.I.

Paul Bowker, P.S.T., U.S.G.S.

Rick Rendigs, Geologist, U.S.G.S.

Ray Hall, Paleontologist, U.S.G.S.

Dave Brewster, G.F.A., U.S.G.S.

Candy Lane, G.F.A., U.S.G.S.

Dave Queeley, MPES, U.S.G.S.

John West, E.T., U.S.G.S.

Don Gibson, Captain, U. Texas

PURPOSE OF CRUISE Test short-barrel piston corer to recover hard substrate and sample for phosphorites on the west Florida shelf.

NAVIGATION TECHNIQUES North Star Loran "C".

LIST OF SCIENTIFIC EQUIPMENT EMPLOYED ORE fish and transceiver for 3.5 kHz acoustic profiling; EPC 4100 recorder; 1700 lb. weight stand with 10', 3" pipe for piston coring; hydraulic core extruder; binocular microscope; chemical equipment for phosphate testing.

TABULATED INFORMATION:

NUMBER OF DAYS AT SEA 3

NUMBER OF KILOMETERS OF EACH TYPE OF CONTINUOUS DATA

3.5 kHz - 307 km

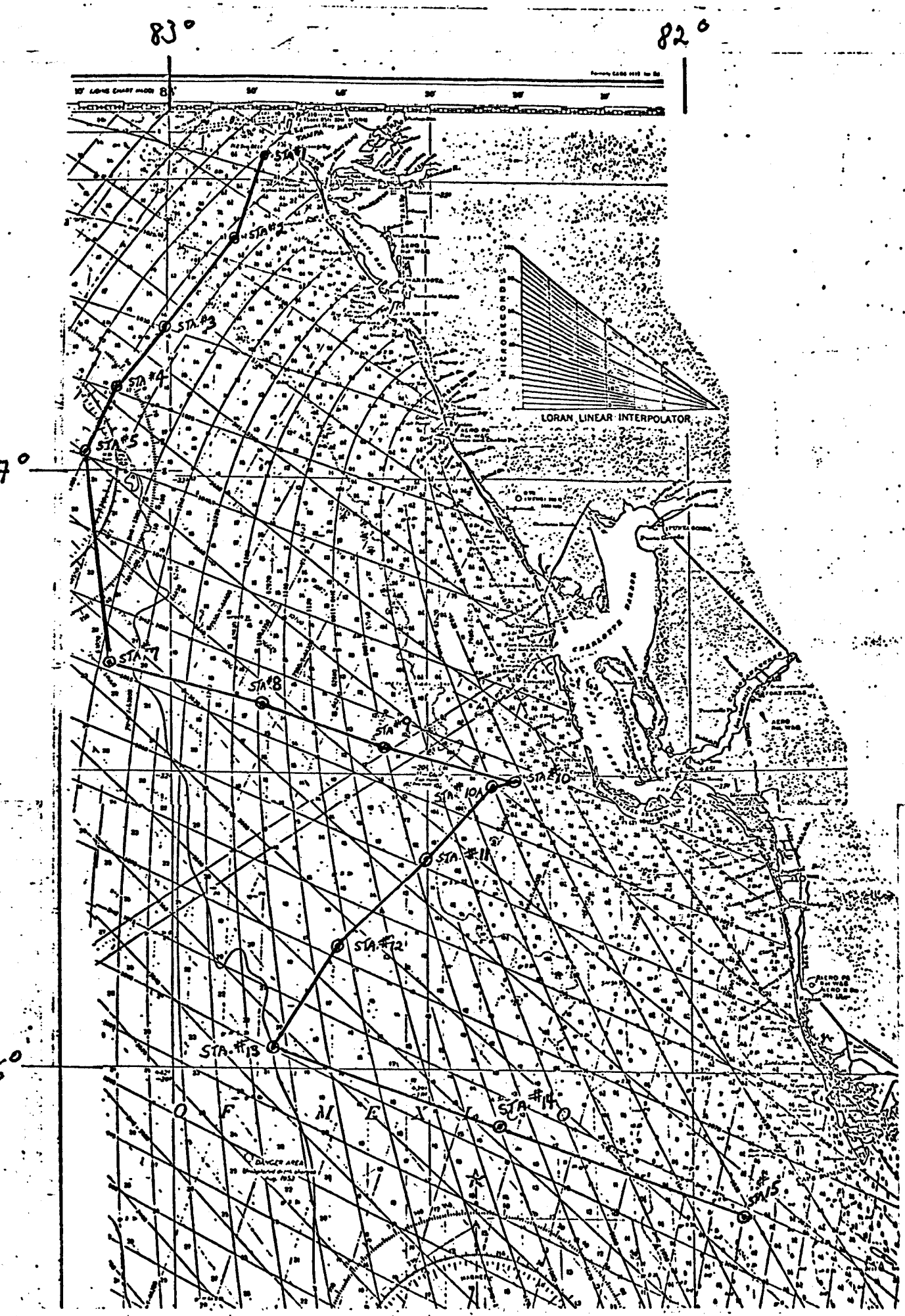
Loran "C" = 359 km

NUMBER OF STATIONS OCCUPIED (STATIONARY STATIONS; SPECIFY IF UNDERWAY STATIONS -- GIVE US 2 NUMBERS IF YOU HAD BOTH) 15

NUMBER OF SUBMERSIBLE DIVES (AND NUMBER DIVES)

TABLE OF STATION INFORMATION

number	date	latitude	longitude	depth	no. and types of samples	devices used	remarks
1	05-22-81	27°32.34N	82°48.84W	9.5M	1 core	piston corer	sand
2	05-22-81	27°23.94N	82°52.13W	23M	1 core	piston corer	sand
3	05-23-81	27°15.03N	83°00.29W	25.5M	1 core	piston corer	sand
4	05-23-81	27°09.22N	83°06.44W	33.5M	1 core	piston corer	rock
5	05-23-81	27°02.00N	83°10.98W	41M	1 core	piston corer	sand/rock
7	05-23-81	26°42.07N	83°07.10W	41.5M	1 core	piston corer	silt/clay
8	05-23-81	26°37.17N	82°49.76W	41M	1 core	piston corer	sand/shell
9	05-23-81	26°33.11N	82°46.11W	22M	1 core	piston corer	rock
10	05-24-81	26°29.16N	82°19.98W	14.5M	1 core	piston corer	rock
10A	05-24-81	26°27.09N	82°22.85W	12.5M	2 cores	piston corer	"sink hole"
11	05-24-81	26°21.27N	82°30.22W	22M	2 cores	piston corer	sand
12	05-24-81	26°12.09N	82°40.26W	32M	1 core	piston corer	sand/shell
13	05-24-81	26°02.22N	82°47.95W	39M	1 core	piston corer	rock
14	05-24-81	25°54.28N	82°22.99W	~ 30M	1 core	piston corer	sand/rock
15	05-24-81	25°45.59N	81°54.31W	~ 15M	1 core	piston corer	sand/rock


83°
82°
STA #1
STA #2
STA #3
STA #4
STA #5
STA #7
STA #8
STA #9
STA #10
STA #10A
STA #11
STA #12
STA #13
STA #14
STA #15
MICROSECONDS
LORAN LINEAR INTERPOLATOR
CHARLOTTE HARBOR
O F M E X I C O