NATIONAL EAGLE LINE

CHIEF SCIENTIST LOG

1c

4

PR1 - FLORIDA QUEEN
680227-0323 #68001
PR2 - ATLANTIC TWIN
690116-26-?? #69001

TRIDENT
680325-30 #68002

THREE SUBJECT NOTEBOOK

120 SHEETS WIDE WITH MARGIN

NAME _____

NO. 37-052

104353

PR - II schedule

	days
U.S. to Mayaguez	5
shake down gear & move to Ponce	1
spark Muertos Shelf	5
dredge & photo S.E. Banks	1
Sample stations - back to Ponce	2
day off (Ponce or La Parguera)	1
sparking in Mona Passage	3
dredge and photo in Mona P.	2
Mayaguez to U.S. incl. spark across Mona	6
	26

Scientific Party

Garrison

Jim Trumbull - survey
John Duncan - temp Princeton
Porter Irwin - survey
Jack Lee - survey
Jaime Braggi - Fomento
Greg Jelick - P.R. Nuclear Center & UPRM

Muertos Shelf Lines

speaking 6 kts
running 10 kts
↓
running time
Terminus

Line No.	Length (n.m.)	Purpose	Day	
1	12	outer part of fault	1	
3	13	bedrock high - strike	1	
4	11	see if high crosses fault	1 (8 hrs)	Ponce
5	14	inner part of fault	2	
6 (begin here at outer end)	11	bedrock high - across strike	2	
8	14	continuity - tie lines	2 (9.5)	Salinas
9	18	ties shelf to Invest. Bnk	3	
12	12	continuity	3	
13	18	cross major features	3 (10 hrs)	Puertos Tobos area
15	16	W. end Anegada trough	4	
16	16	continuity	4	
18	21	along strike, deep platform	4 (11 hrs)	Tobos area

ATTW

Jan 16, 1969

The boat R/V Atlantis Twin arrived Ponce today about 1000. Everything seems in good shape and it is planned that work will begin to-morrow.

In transit through Mona Passage last night, They ran the first sparker line across the Cabo Engano shoal. Using 2 sec rep. rate and sweep and 13 KJ, the equipment heated up badly and began smoking, so They cut back to about 6 KJ (?). The profile looks good, however.

I arrived SJU Sunday night about 1030, along with Porter Irwin. John Duncan met us at El Portal. On Monday we met with Pete Briggs and John Aaron who took John & Porter on a trip through the rocks south & SJU to Barranquitas, Then on Tuesday on through Juana Diaz to Ponce.

On Monday I flew to Mayaguez about 1230 to meet with Carlos Vincenty. We met at the Hilton about 1630 and he asked that I take some samples around Yabucoa en route to St. Thomas, and that I take Jaime Biaggi with me part of the time. At cocktail party, I talked with Max Ceramie-Vivas and with Ernest Gloyna from U.of T. Also Dr. Amaros, Dr. Sandza & Biaggi Scuttlebutt about changes.

Braggi came to Ponce tonight about 2000 to discuss plans. Will meet him at Jobos Monday afternoon (Jan 20). He will debark St. Thomas Friday Jan 24.

Jan 17 —

Left Ponce dock about 0730 and began sparker line 1 (Muertos shelf) at Buoy 6 just outside the harbor. Because the ~~powder supply~~ (trigger banks) box heated up too much when firing 13Kj at a 2 sec. rep rate, and because that rate was most practical for our use, we only used about 7Kj power with 2 sec. sweep. This was not taped since we are still trying to get things working and it is desirable to keep complications to a minimum. Line 1 was displayed on the Raytheon recorder and appeared to be an excellent record throughout, except that a few minutes after the start, some minor difficulty arose to cause a break in the record, so we went back for a restart. At the end of the line, while we were on the cross line, the high voltage wire in the generator vibrated against the volt. reg. box and burnt itself in two - we lost all power. This was resoldered, and we started up again, but this time a clutch

in the Raytheon, which put it out of comission for the rest of the day. It may be fixed now, and will be tried tomorrow. We switched to a Gifft and completed Lines 3, 3A, and 4.

On each crossing of the Muertos Tauet, it showed up very well in the profiles. It appears to be approximately where ~~I~~ plotted it based on last years records. I think the south block is up, but will have to review the work

Navigation was pretty good with the Decca RM 326, especially by using range-range fixes. Optimum speed for profiling was about 5 to 6 knots, with the cages about 20 feet astern and maybe 5' deep and the streamer head back around 200'.

Finished line 4 at 1800 and tied up in Ponce about 1930.

Jan 18, 1969

Left Ponce at 0600, ran two compass correction courses in Ponce Harbor, Then south to begin line 6. On approach line 6A, which was a short SE line to cross Muertos Tauet near the shelf edge, the Raytheon began fouling up and firing other than at top of page. We returned to the start and went to the Gifft, completed that line and line 6. Jack changed

the Raytheon belt, which seemed to be slipping and the new belt worked OK. On cross line 6B we went back to Raytheon for signal and slaved the Gifft (which drifted constantly). Did line 5 on Raytheon with no trouble, and turned East at about 0400 hrs for cross line 5B. On this line, we made a dog leg south to try to trace out an apparent bedrock reflection, lost it below 800 ad ran NW to begin line 8 at deep end. On this NE course (L 8) we were nearly head on in the sea and wind (3'-4' chop) which made boat run very rough. Record appeared OK until about 6-8 miles from end when Raytheon started triggering wildly. Went to Gifft for end 8 line, but it fell apart in about 30 min. so we lost the last 3-4 miles. Secured about 1945 and went to Central Aguirre where tied up about 2100. Crew spooling wire onto winch.

Jan 19

Up to start at 0600, but Dave told me that the Central Aguirre guards had taken him up to the shack at 0100 and the manager told him he was trespassing. I went up to talk to them before breakfast so we

could return here tonite if possible. Guard spoke English and I explained who we were - he said he would have to call his Chief and left. He never came back. Meanwhile, Porter ad I stood around until 0730, finally saw another guard who told us they were trying to get hold of Mr. Cleary(?) Rodriguez, The mgr. We finally left the dock at 0810 without any further word on the matter.

Ran line 9 first. Wind blew all nite and was strong out of the NE and outer end of 9 (crs SW) was very rough. As we were so late, and it was so rough, I dropped the last 4-5 miles on Investigator Shoal in order to get on to line 14 (crs NE) and make up time. All this was run on Sept, 13 Kj, 4 sec. rep. rate, 2 sec sweep - records good, but not notably better than 7 Kj. Finished 14, saw strong faulting along offshore extension of Great Southern Pk. Fault Zone, turned Eastward along shore to north end of 12 ad ran it out. Finished about 1830 ad turned back for Central Aguire. I felt lousy & slept from 1900 - 2000 when we got in here.

Dave was worried about us being here illegally. I went ashore ad went through the bit with the guards again. This time they drove me up to the Country Club, where we found Mr. Rodriguez having a few drinks with friends. When he

learned we were Govt. Survey and Fomento connected, he said it was perfectly OK. So with That straightened out I got back here about 2130 after making the patrol run with the police through the cane field, the town, and the sugar mill.

Dave asked the policeman to buy him some rum and bring it to the boat — he agreed to do this, but never returned. So to bed at last.

Jan. 20, 1969

Left dock at 0630 and began line 13 about 0730. Wind picked up all day and swells were up to 6-8 ft by noon on Grappler Bank Completed lines 13, 15, and 18 by 1930 with no equipment troubles using the Geyst, 13 KJ, 4 sec. R.T. and 2 sec. sweep. Tried out the 3.5 KC pinger near end of last line, but it didn't work. The catamaran mount for it doesn't seem to tow well at high speeds either.

Records were generally good today and it appeared that we were getting up to a second penetration where there were sediments to penetrate. Navigation was no problem.

Jan 21, 1969

Jaime Braggi and Greg Telek came aboard at Central Aguirre last nite when we got in about 2130. The former is from FOMENTO. The latter from the Puerto Rico Nuclear Center (on leave from his job.).

Dave got us underway at 0400 for Grappler Bank. We arrived at west foot of bank about 0630, and began getting into position to dredge. Used a chain-bag dredge (see sparker log for details of its rigging) and put it down in about 150 fathoms near top of the bank. This was because we overshot, not because I wanted to dredge the top. We had out about 2500 feet of wire and towed awhile, then started reeling in. The boat was still moving forward and the reel was being turned too fast when we snagged something - our weak links were too weak, and with a sharp jolt, the dredge was gone.

Went back down hill to about 400 fms and put down a pipe dredge with no safety or weak link. Hung up pretty good a couple of times, but managed to bring up 3 hand specimen sized chunks of volcanic rock, greenish color, coated on all sides with Mn (?) and organisms.

By this time it was 1200. The wire we dredged with was new galvanized 3/8" wire and had been hand-wound on the spool one night

in Central Aguirre. It was not tightly laid and when the first dredge hung, the last turn was buried in the coil. On the second dredge we took the strain of towing off the coil onto a chain stopper — there was no way to ease any sudden strain this way.

Consequently, after the second dredge, we secured the operation to uncoil and recoil the wire under tension. This was done by towing the pipe dredge in deep water while underway toward Bahia Yabucoa. Some bad spots developed in the wire due to twisting while this went on, but it was accomplished. The wire measured something over 9800 ft.

Arrived Yabucoa about 1530 and began taking grab samples for Jimmy Biggi with the Shipek. Took about 12-14, then anchored in north end of bay about 1800, set anchor watch and secured for the day.

Jan 22

Up 0645, quick breakfast, and took first sample in Yabucoa at anchor station. Finished sampling about 0800, ran salinity lines with about 17 stations, then left for St. Thomas about 0900.

Arrived St. Thomas 1500, asked permission to tie to Coast Guard dock - denied. Moved over

to West Indian Co. dock (better anyway) and tied up. Took on water, all hands ashore by 1630. Ops. secured for day.

Jan 23, 1969

Left Charlotte Amalie 0745, began sparker line V1 off Dog Rock, SE of St. Thomas at 0845. Weather perfect, lgt. breeze, clear, low swell. Into line V2, at 1025 off Lameshur Bay, Bob (?) his wife (?), and a dog (Springer ?), came aboard from a whaler which we took in tow. They stayed aboard until 1200, left when we ran back into Lameshur Bay.

Ran two long lines off and on Lameshur to the shelf edge, then secured sparking inside the Bay about 1600. Launched small boat to take pictures of Atl. Twin surveying past the Tektite habitat, etc. A boat came over to check us, talked to Rick Waller of Tektite Project - he said the divers heard our sparker. Also a GE boat came to check.

About 1700 we set up the 1.5 KC pinger on the little catamaran and ran some high resolution profiles in and around Tektite Site. Secured ops at 1800, all hands had a swim although sun was down.

Rick Waller came aboard about 2130

and we all had a long discussion of his project until nearly 2300. Then it was decided that we should see the habitat (after a few rums) so Jim and Jamie rowed Rick ashore to get gas for our outboard and then they went over to the habitat. Afterward they took Rick ashore. He just got in last nite and was pooped after his first day here. Jim took the rest of us through the tanks. Very impressive and very interesting.

Jan 24

Up at 0700 - cloudy, cool, and rainy. Ate breakfast in Lameshur Bay. Then hauled anchor and sailed east to begin the British Virgins reconnaissance lines. Began with 13 Kj, but switched to 5 after a short while. It was apparent that the more power simply set up more reverberations. Ran lines continuously on various courses south and east of Tortola then north and back between St. John & St. Thomas. Stopped at 1845. Had 1.5 KHz going most of the day.

Porter was sick all day from unknown causes. I stumbled over the anchor and have a badly bruised ankle. I had planned to spend tonight in St. Thomas, then go all the way to Mayaguez tomorrow, but this afternoon Dave

subtlely suggested that we could run to San Juan tonite, arrive in the wee hours, leave tomorrow evening and still get to Mayaguez for work Sunday. I first said no, but couldn't really see any grounds to object, so later said OK. It's the first real change in schedule, besides the Yabucoa work, and I feel rather guilty; especially as we essentially get a day off in San Juan. I guess I should have scheduled us to leave ~~the~~ Virgin Is. area about noon, steam straight through and get to Mayaguez at 0600 Sat. I've been too conservative about making a jam-tight schedule and running at night. Next time I must think it out a little better.

Jan 25

Arrived off San Juan at daylight and tied up Pier 6 about 0700. Customs kept us aboard until 1000. J. Biaggi, G. Selek, and J. Duncan left the ship. I went ashore, shopped, ate dinner at El Mesón Vasco on Calle del Christo, saw El Morro in AM, back to ship 2030, crew aboard and underway for work area off Mayaguez by 2100.

Jan 26

Arrived at start of line M2, northwest of Desecheo I. at 0600. Had some generator trouble, but got the line started by 0700 and ran it south until 1245 with no further difficulty. Turned and was in Mayaguez by 1500 - all hands cleaned up the ship and themselves for visitors.

About 12 members and wives of the Geol. Soc. of Puerto Rico arrived for open house at 1730. Afterward, a dinner meeting was held at La Palma, and I talked on some phases of the PR project. Pete Briggs came aboard for rest of cruise. At mtg - Seiglie, Moussa & Suzanne, Dave & Inger MacIntyre, John Weaver & daughter Mary, Watson Munroe, Al Perry (an ex- of P.R here on visit), Jim Trumbull, Porter, and me.

Jan 27

Up at 0545, to catch plane for home. Jim will finish out the trip Thru. Med.
Left Mayaguez at 0800, arrived CRP at 2030.