

The scientific party consists of:

1. J. L. Worzel, Chief Scientist
2. R. Buffler
3. S. Ali
4. D. Pratt
5. G. Putman
6. C. Orlea
7. R. Kerr

IDA GREEN - 16-2

14-I-76

Depart Lab 0835 local 1435Z

Depart Fuel Dock (Grasso's) 1800Z

Flopper stopper over the boom 0330. Flopper stopper over after stay about 0400.

15-I-76

Starting streamer over about 1430Z after pulling in single channel and wrapper. Took one wright off land #2, 3, 4, 5, 6, 7, 8. Added 1 wt land to #22, 23, 24.

Replaced 30 dead section.

Removed #1 stretch and welded shark bites. Replaced and refilled weld broke so fixed with permatex patch.

2 birds outboard one on 8 dead just ahead of 7 dead, one on 16 dead, one on 24 dead, one on 32 dead, one on 40 dead, 2 on #2 stretch \_\_\_\_\_.

Finished about 2300Z

Started back to our line

16-I-76

Starting 12 fold recording 0254 before reaching our line.

Woke up with flue in morning so stayed in bed all day. Slept about 80% of time. Otis gave me antibiotics.

Timer quit operating about 1930Z. George started checking and couldn't find the trouble.

17-I-76

About 0630Z George went to bed without telling me. At 1400Z when george came up I made him tell me all the symptoms and checks. Relay in time could only be the trouble. He claimed it was impossible but insisted it be changed and it started working.

Dave lost a tag line while handling guns last night. He and George rigged to pull the gun from a dead<sup>line</sup> on the main cable but pulled the wrong gun. Pulled the correct gun this morning and got the tag line but when back in water apparently electric lead broken. Started back towards our line but found switch start system on DFS now did not work. Replaced a board and all works fine. Renewed Grid about 2224Z.

18-I-76

Replaced short air hose with one already made up in store room. It leaked so had to pull gun again, make a new hose and put it on. Four guns finally on line about 1800Z today. Also got log working. It had been out since moved time flopper stopper tangled with it the other night. We have noise on the playback, which is not present on direct. George will try to get rid of it without interfering with our work as I don't believe it is too serious. About 2300 discovered #3 trace is \_\_\_\_\_. Trouble not in easily replaced boards. After supper George will trace this \_\_\_\_\_.

Our crossing of Sigsbee Scarp at about 2200 is unsettling W, have about 5 distinct layers we can follow 5 to 10 miles shoreward behind the scarp and there is no room for any <sup>50+</sup> ~~volt~~ tectonics within the first 5 \_\_\_\_\_ section. It looks like the uplift occurred at least as early as mid-testing and included a whole series of beds possibly including the Pleistocene! Otherwise one has to believe the Pleistocene just covered everything like a uniform blanket. This may sound confusing and it is!

Called Bob tonight with our position. Requested refrigeration tape and information on Pt. St. Jose. He said - All is go on Port St. Joe.

1. Van Will meet us there
2. Capt. Dave Maddox is authority at paper Co. and we arrange for water. (904) 229-1581

3. We will \_\_\_\_\_ their pier.
4. Rick and Son - IGA grocery will come to ship and take cook for order and deliver to ship.
5. Fuel is needed. Will have to come by tank truck.

The trouble with trace 3 was cured by trimming off the depth gauges.

19-I-76

There has been noise on the playback that is not present on the direct since the start of this leg. We had a similar problem last leg which was cured by Ken while we fixed the streamer. Today I noticed large noise on the \_\_\_\_\_ trace. Going back through the records it started when we resumed the grid. After fixing the timer relay. George had changed a lot of cards trying to find our trouble. Started having tape driver troubles about 1800Z today. George would fix one thing and then another would go wrong. Gain trace is now very bad.

Tried to fix <sup>gain</sup> gain #2 right after lunch so we would have four <sup>gains</sup> gains on the line again. Short air hose was the problem. Broken near the <sup>gain</sup> gain. Replaced it and put back in water, started leaking <sup>about</sup> about immediately. Pulled it again - broken union. Replaced and put back in water. Leaked. Leaked in hose inside plastic tubing. We have no more plastic tube \_\_\_\_\_ gain. We must have cracked union against hull when putting <sup>gain</sup> gain back in the water. At the same time we must have damaged the tubing. Finally found out how to put ends on plastic hose without damage. I reset drill bit (just under 1/2") into hose so you can <sup>clamp</sup> clamp it in the vise below the outer sheath position of the fitting. Screw on sheath position (eight turns after about 1 1/2 turn start by hand). Then remove drill bit and screw in male insert into sheath and tubing. I started work on it about 1800Z and got it working again about 2300Z. Was I ever pooped. Otis says it is my flue result.

About 0000Z Ali came in with a record showing all traces going wild for a few tenths of a record then all blank for a few tenths for a whole record length. George tinkered with the "drive" mechanism and drive mechanism and corrected but gain trace is very band now. I now wonder if we can use any tapes at all. Called Ken at home about 0100. He said former trouble was caused by a bad bit in \_\_\_\_\_ 116 cord. George asked if trouble could be caused by \_\_\_\_\_ and Ken said yes. Stopped attempting to record on grid at 0200Z while George tries to fix things. Characteristically he is looking on the \_\_\_\_\_ mechanism first, 0300Z #2 gun leaking again.

At 0500Z George got tape transport running and \_\_\_\_\_ have all disappeared! Resuming work. #2 gain out so working with 3 gains. Completed Grid about 1330Z and started 12 fold on course 155. Very noisy at this speed and streamer runs at about 20' at the front end. Drops to about 50' for section 1 to 12. At 1845 \_\_\_\_\_ hard to pull in closest half of the streamer to check for debris which might be messing it to tow shallow and the birds. One bird nearest to ship was O.K. next bird on stretch \_\_\_\_\_ had a bad \_\_\_\_\_ as did the birds ahead of detector 20, 16 and 12. No debris on cable. \_\_\_\_\_ to put it out without birds and check its operation. Resumed 155 course at 2105 and restarted 12 fold. Depth detectors read after stabilizing 6-83', 5-72', 4>100, 3>100, 2>100 and 1>100. Tracers much quieter and better. Checked airgun 2 and found less than 500 ohms to ground on \_\_\_\_\_ flute. Will try tomorrow if \_\_\_\_\_ suitable, to replace the \_\_\_\_\_ plate. Meanwhile will have to work with 3 guns.

21-I-76

Tape drive failed again about 0000Z. When it did work playback was noisy. George got it working about 0200Z. Claims it is due to dirt on "\_\_\_\_\_" tapes. Have decided we will test this out by using only new tapes as long as they last. After going over inventory have decided that they will last to florida. Having had no more trouble by 1800Z called Bob and told him we needed 200 more new tapes or a practical way to clean the old tapes. Brought up about 150 tapes during the morning watch and boxed those already completed. #2 gun... found to have 500 ohms to ground. In afternoon took gain apart and replaced magplate. Lead out has cracked wild undoubtedly the cause of the water and electrical leak. When gain completed and put in the water about 2300Z it leaked badly around the seal. Decided it was because we had used soft wood and got splinters caught in it so that we could not ever cycle the gun hauled it aboard, discouraged and pooped.

22-I-76

New tapes still working like a charm. Took gun apart and indeed it had splinters of wood in it. More important though I had forgotten to transfer the seal plate from the old mag plate. Corrected all this and put gun in the water, leaks just as bad. Cannot get a seal with the mag plate although all checks electrically. O.K. Finally tumbled to the trouble and found a blown fuse in channel 3. Obviously from the previous leaky plate. Replaced fuse and put gun back in the water and at last we are working with four guns at 1940 Z!

23-I-76

Gun #2 leaking this morning. Removed it and checked it out. This time the long cable from the ship to the gun had an open circuit in it.

Records went bad again about 1430Z. Started to \_\_\_\_\_ course

about 1630Z so as not to miss any. George adjusted tape recorder again. Reported it working about 1715 Z. Resumed course again about 1920 and resumed shooting out line.

While this was going on Dave and I removed the cable from the gun and fixed a new one. Put a band-aid to hold the 3/8 wire rope to the hose fitting at the gun and at the towing fitting. It does a much better job. Got four guns on the line again about 1900Z.

After one reel of tape Cindy reported we had the "tape trouble" again. She made another record - it was O.K. I had her make another while George was called and it was O.K. He checked out everything and thought it was O.K. Decided to keep on watching the monitor tapes carefully. I am no longer convinced it was the dirt that caused our trouble, or that it was the tape drive. I have told George the next time we have trouble that I am going to insist on changing the record-playback ~~leads~~ <sup>leads</sup>.

Called lab at 2300Z and told them to bring tape drive parts and if possible more cable for gun leads. Told them we had lost an additional 6 hours in this morning's fiasco. All well at lab and at home.

24-I-76

All went well today. Washed down the tail and accumulator before lunch. Painted them after lunch. Buffler asked if he could help so had him wash down the single channel streamer drum and start painting it. Opened out the section of streamer (dead) which we had taken out of the lines and found some old shark bites leaking. Welded them closed and taped over them for mechanical protection. Worked all the remaining oil in the tail end, so I can replenish the oil and put it on a net.

25-I-76

Started on Florida Grid about 0700Z. Weather blew up to force 5

right on the beam during the night. What with being called a number of times and the bad rolling, didn't get much sleep.

25-I-76

All went well today although it was quite rough. By 2300Z it was starting to calm down some. No big trouble. The outboard port gun persisted in showing 80 \_\_\_\_\_, but try as I could, I could find nothing wrong with it and it appears visually and orally to fire simultaneously with the other port guns. I left it on the line to see if the trouble would eventually reveal itself. Our ETA off Port St. Joe is about daylight.

26-I-76

All went well today. It was quite rough during the night and through the morning. A northern came through about 2100Z and things calmed down but rain squalls were all about. Tried to get through on the radio four times today without success. Raised Miami once but they said our signal was so poor they couldn't handle our call. We are now about 2/3 \_\_\_\_\_ finished the Florida Grid.

27-I-76

Guns 2 and 3 showed open circuits in the early morning. Continued with 2 guns as it was too rough to pull them. About 1100 (1700Z) changed course on a downwind leg and pulled both guns. Couldn't find anything wrong with 3. I inadvertantly fired it off on deck at about 300#. Knocked some of the aluminum plating off. I was about 2 feet away from it when it went off and aside from a ringing in my ears for about an hour suffered no damage other than a great surprise. Put it back in the water and it has functioned O.K. ever since. Gun 2 was pulled apart at the splin. The clinch fittings were too short. Cable had shortened about 1 inch. Added about 1 1/2 inches and used 1/16"

copper tubing for clinch fittings - double clinch. 4 guns operational by 2000Z. Quite rough all day except for about 7 hours while on a downwind course.

28-I-76

All went well today. It was rough most of the day but calmed down about 2100. We resume operations about 2400 and had all gear aboard at 0200 29-I-76. Underway for Port St. Joe at 0226. I used up our time on the multichannel track rather than do single channel on the way in. This leaves only 30 miles to complete back to the grid area. That will give us a number of options for leg 3 when we leave. Its about 8-10 hours to Pt. St. Joe so we should be at the sea busy about daylight.

29-I-76

Docked at St. Joe. Papers to dock at 0800 (1400Z). Trunk was waiting with our supplies. The bottom seismograph broke down so they will not join us. We plan to leave about 2000 (0200Z 30-I-76). Will get groceries, but is is doubtful if we get water. Bob Kerr volunteered to stay with us. Cindy will go back.