

MW8909

WATCH
LOG

ORIGINAL

26 July 1989

MW8909

Leave San Juan

1 0815

Scientific Party:

UTIG Dr. Paul Mann (CoSci) } (PI's)
 UTIG Dr. Eric Rosenkrantz (CoSci)
 U. Nicl (Sophia) Dr. Bernard Mercier de Lepinay
 Peace Corps Antipolo Michael Kozuch
 UTIG David DeBalco
 U. Nicl Eric Calais
 UTIG Stacy Tyburski
 UTIG Cindy Goszewski
 UTA David Groh

WATCHES

8-12 Dr. Paul Mann (Leader)
 Dr. Bernard Lepinay
 Michael Kozuch

12-4 Stacy A. Tyburski (Leader)
 Eric Calais
 David DeBalco

4-8 Eric Rosenkrantz (Leader)
 Cindy Goszewski
 David Groh

Day 1 original heading $18^{\circ}05.5'N$, $80^{\circ}52.05'W$
 Changing to accommodate
 trial swath (SMTI)st

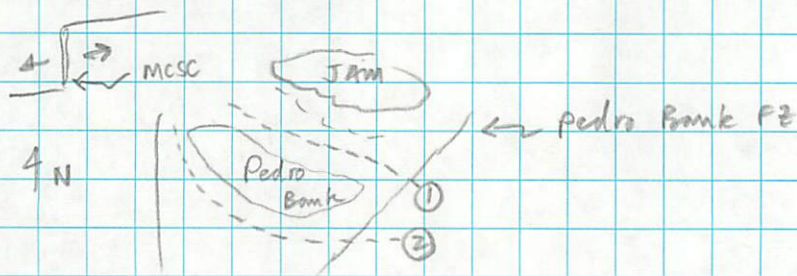
No actual watches

L 01:20 Change of heading, bridge
 notified, to: $76^{\circ}30'W$, $16^{\circ}10'W$
 ETA to deploy point is 1800 Friday July 28
 Avg. speed of 10.8 knots to port

Morning and afternoon of 7/26/89

0002

- Firedrill and abandon ship drill
- Introduced VTIG and SeamARC groups
- Established watches (Mann, Rosenkrantz)
- Tom Reed (SeamARC chief scientist) reported to Sandy Shor at 1416 our departure. Shor passed message to us that grant only covers 28 days of SeamARC processed data.
- We were discussing the possibility of deploying the SM system early as both a training exercise and as a way to collect new data in the Pedro Bank area south of Jamaica. SM swath may allow better control on fault strike which is a problem using only widely spaced SCS data.
- Two possibilities were discussed:



① Route 1 through the Walton Basin

Advantages - would tie area of dense SCS coverage collected by Drexler cruise

Disadvantage - heavy ship traffic; sill depth of 700-800m - near safety cutoff for Seamaror fish; because of narrow width of channel could not maneuver if other ships encountered

② Route 2 Through unnamed basin SW of Pedro Bank

Advantage - wider channel; deeper water

Disadvantage - need to skirt Colombian EEZ

- Decided for route 2

- Potential problem - if we collect data during our scheduled transit we may not have money to process both these data and our data from the study area. Solution - leave data in raw form until the cruise is over.
- Reefined study area box using Case and Holcombe bathymetry. Shaved off area to north along Motagua Fan; took to Handmann 1km contour on south. Will take data from bottom half of MSC,

Morning of 7/26/89

0003

- Eric Rosenkrantz refined planned track lines in the study area. Sharp turn-consuming corners were eliminated and northern margin of box trimmed slightly in Cayman Trough
- Based on an average ship transit data collection speed of 8 knots, would need 24 days to complete the survey as shown by him.
- Mann and Lepinau suggested extending tracks near MSCC to provide site survey coverage for ODD site on active (northern part) of MSCC.
- In order to return in time to Jamaica, we would need to be at the endpoint in Honduras on the 27th day of cruise.
- This assumes we deploy at 1800 on Friday

// Battery 3.5 KHz

1204 LDC

1605 GMT

Data Gap Noted

originating some time

after 1530Z - clock was switched off

Deploy Eel & Magy
1700

- 1710 - SHOWED TO 4 KNOTS TO DEPLOY GEAR.
DEPLOYED - STARBOARD STREAMER.
- STARBOARD MANOMETER TO PORT SIDE.
- ~~SEA~~ PORT GUN - 40 IN³ - 1500 psi - NOMINAL.

1725 - INCREASED SPEED TO 8 KTS - TESTING EQUIPMENT.

1730 REDUCED SPEED TO 6 KTS -

1752 Increasing speed to 6 KTS

1754 Magy pulled in, system NOT operating

1813 Informed that eel and gun pulled in due to malfunctions

Date 27 JUL 89

J Date 209

0004

Time (GMT)

Comments

Initial

ST

1831
2150
2307

"Old" MAGY deployed
Gun deployed portside, local stb. side
Retrieve Gear - (Seismics) - test + complete

Addendum: unsure of time of
deployment of air-gun
(starboard), only ran
a short test sequence.

Uncertain of retrieval of MAGY

85

28 JUL 89

209

0400

Watch change, performed
audio check

No systems deployed/retrieved
operating only 3.5 kHz for
Bathy

0536

CLOCK check - all show same time

1030

ALL PREVIOUS GRAVITY READINGS IN
ERROR SINCE 0715 27 JUL 89

D6

1410

Watch Change to 12-4 shift
3.5 KHz only machine in
operation

Cruising 10-11 Kts for
deployment point ETA 2000
local time

87

Gravity Readings are
now correct but uncertain
as to how far back, up to
1030 DG entry

Date July 28

J

0005

TIME GMT

Comments

initial

1747

Confirmed
1843

Discussed plan for transit with captain and Tom. Tom suggests deploying the SeamARC around 3⁰⁰ PM to allow time for dinner and avoiding working into the night. We need to calculate time before this deploy and time before (ETA) deploying at study area. I gave waypoints of shake down survey to Captain. Tentatively, decided not to put the reel in the water since this can be towed at maximum speed of 8 knots and would slow us down by 20%. of max speed with SeamARC of 10 knots. Need to confirm this with Rosencrantz. We have still had no response from Honduras on status of observers. Because they have only requested observers to be put on, and we did receive permission several weeks ago, we will proceed with schedule unless they explicitly require observers.

PM

PM

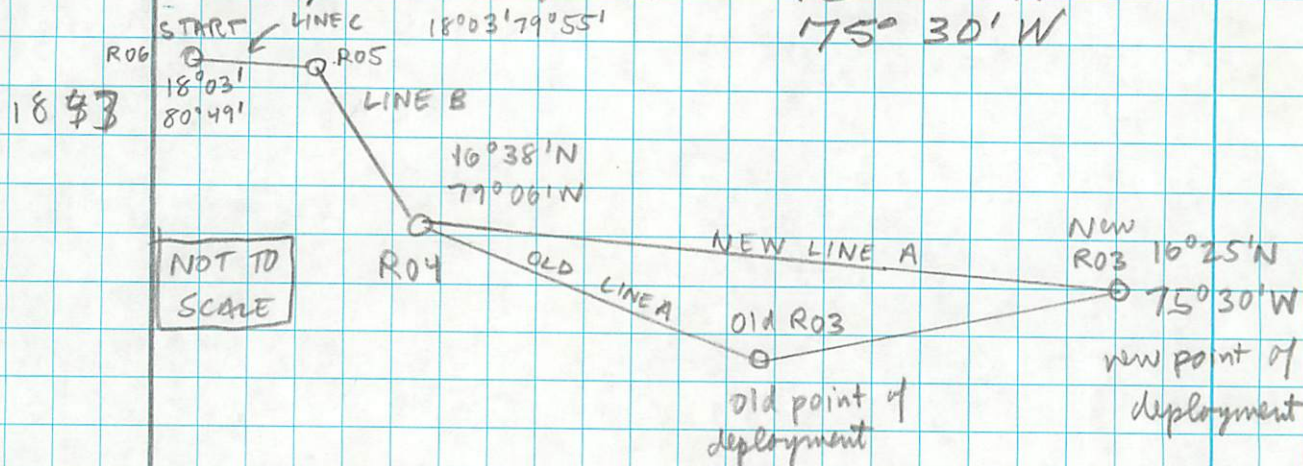
Plotting paper situation: We will need a navigation plot from wherever the ship stops to deploy SeamARC

PM

1831

Estimated time of deployment of SMTI
1500 local time at

Bridge Notified of changed
deployment point 16° 25' N
175° 30' W



PM

Based on Tom Reed's request to deploy early, we have revised route as shown above.

Dec 28/89

J 209

0006

TIME

Comments

1859

Table of Waypoints

R3	Deploy Point	16°25'0N	75°30'W
R4		16°38'0N	79°06'W
R5		18°03'0N	79°55'W
R6		18°03'0N	80°49'W

1904 Called bridge to slow to 8 knots. Heading of 274.
Preparing to launch Seamarc.

1929 Still waiting for Seamarc to deploy at 8-9
knots - Don't know what's going on - most activity seems
to be in electronics lab - testing? Plotting sheets at
1:300,000 are complete from long.

1953 R/S 2 kts to deploy drog

2004 R/S DROGUE DEPLOYED

2013 SEAMARK IN WATER

2031 POWER-UP SEAMARK

2049Z DEPRESSOR ATTACHED IN WATER. -

2051Z DEPRESSOR IN WATER - GOING DOWN -

2100Z SEAMARK OPERATIVE - RUNNING CHECKS -
BRINGING SYSTEMS UP -

2112 Seamarc deployed - some data taken; bottom lost; angel
wimp on record; bottom is shallower than appears on Case
and Holcombe bathymetric map. Measured depth mag 3.5 is ~1300m;
depth on Case + Holcombe is 2200m (in area of dep. pt) st

2119 Our 3.5 bottom was off. Depth was actually 2125m.
Case + Holcombe right!
seconds label on 3.5 control/programmer box changed to
avoid further misreading.

2124 Speed resumed to 8 knots

2239 Speed increased from 8 to 10 knots - captain
pointed out that we were at 8 knots; no problem for
Seamarc quality

DATE 28
JUL 89
J 209

0007

TIME GMT

inst
ids

0355-

All systems up and running as follows —
Seamarc II, Gravity, navigation systems.
Running on GPS - with SAT NAV backup.

EG

29 JUL 89
J 210

0015

Bridge ^{phoned} ~~radioed~~ cross change to 274°

PM

0030

Problem with synchronizing gyro and magnetores -
bridge brought bow around to calibrate magnetores.

PM

0100

Gail said Seamarc group wants to do a "flat-
bottom test" on flat area coming up in ~ 2 hrs.

PM

0200

les informed we are in the center of flat basin floor.

0233

Seamarc computer crashed. les aware immediately

PM

0242

Seamarc computer ~~crashed~~ OK.

PM

0247

Seamarc computer crashed again

PM

0254

Seamarc computer OK

PM

phase program caused crashes

0309

c/c → 279°

PM

29 JUL 89

J 210

0400

Watch change to 4-12 shift
watch informed that SHUTT
running & crashing less frequently
position.

Assignments for watch are:
1 person on all 3 recorders
running + flat recorder and
ACT ACT is marked every
15 min, all others every 1/2 hr

29 JUL 89
210

0008

~~2nd person in charge of monitoring and plotting~~

0403 2nd person in charge of monitoring and plotting navigation

3rd person in charge of SMII rack, uses SMII log

Satellite quiet zone so few fixes will be available

ST

0416 Programmer running on 3.5 kHz
w/ Cycle 4 TTRR this has been the case since the last watch who did not record the advent of this
→ Cycle 4 has been utilized since SMII deployment ~ 2100

ST

0141 Note on SMII log
Heading is read from SMII rack having been derived from a compass (magnetic) within the tow fish.
Gyro is read from the gyro and is the ship's heading

0445 Check on rolls, Date in correctly written possibly dates (i.e. 29 Jul 89) ~~date~~ change at 0000 GMT NOT at 0000 local time as mistakenly assumed by this (12-11) watch! (Bear with us)

ST

Time (GMT)

Comments

Initials

0504

ACT bathy alarm, plotter off

0507

ACT UP again Anchoring properly

0515

Clock check, all synchronized

0518

Noticed programmer on Cyclops
w/ TTT RR, at 2-35 should
be TT RR @ cycle 4, corrected
Note the 1st switch (green)
should always be in T position
and is the first T in every
sequence

0600

Looking for Pedro Bank FZ on
PROC, side scan Rec order (#2)
at Lat/Lon $16^{\circ}30' 406$
 $77^{\circ}16' 974$

@ 9-10 Kt, 2-12 mins to
estimated location of FZ
= 12 NM should reach FZ in 1 hr

0614

Tom R. explained that "Fon"
sonification" causes features
to appear more linear than
they actually are

1. pts are detected
2. and lines are drawn
3. between them (similar
4. to 10 Ks digitizing)

20615

Structures appear ABFZ? we
need some instruction on interpreting
this data

0634

ACT plotter crashed

0637

Image on Rec #2 SMI SB
is it non-reflectivity or
fault scarp? it is very distinct

Date 29 Jul 81
(J) 210

0010

Time (GMT)

Comments

- 0637 (cont) just before 0630 so we reached something before I expected to definitely need some info on interpreting 8
- 0642 ACT is not yet up. Otherwise all systems appear to be functioning correctly 8
- 0645 Structure on SS Rec #2 end,
- 0646 ACT up again
- 0649 ACT Down again
- 0651 ACT up again
- 0709 have gone beyond Fault seen 20645
- 0710 Another scarp appearing on Rec #2
- 0712 Smaller scale (than fault?) appear w/ same NE trend, small faults possibly fold 16 30.008, 17 29.462 ST
- 0723 Scarp appearing @ 0710 quite prominent @ 16.31, 77.31 along with 2 other scarps which began to appear ~ 0718 8
- 0730 16 31.217 77 32.96 Fault sets still present best seen on starboard swath, appears to be deformation (folds) between faults
- 0740 - ACT crashed again SMII was logging bottom frequently so adjustments are being made to the threshold windows in an attempt to correct the situation 8

DATE
J 21st 1981

0011

Time GMT

Comments

Unit
rate

0743

DEPT shallowed v. rapidly
Programmer w/ 1-25 swath
Set @ Cycle = 2 TR
Bathy = 1150m - This is
why the ACT crashed
We are v. close to Pedro Bank
21° 31' - 77° 35'
According to CSH against Lat Lon
we should not be in this station
OF H₂O we are however exactly
at small peak (see CSH Bathy)
We have to be careful about
approaching shallower depths
and changing our threshold
windows so as not to

0745

ACT up again. The small
peak is very visible on
ACT bathy just before crash
we can see it corresponding
to the swaths
Peak was on Port side, so we
are N of our planned line

0758

Bridge notified to P/C

0800

Watch Change

0805

adjust course to due west. Apparently
have discovered new topographic feature - not
plotted on any of charts. New course
pulls us south of Pedro bank by 10
miles new way point at 16° 30' N,
79° 00' West -

DATE 7-29-89

J 210

0012

TIME (GMT)

Comments

In/L
1043

11 18

ADJUST CSE 267° -

(J-210)

12 00

WATCH CHANGE

12 16

C/C $\rightarrow 265^{\circ}$ (Adjust.)

PM

PM

12 20

Between 1200 and 1220 : Strong oblique Pul reflector in general dir $N 240^{\circ} W \rightarrow N 260^{\circ}$ correspond to the directions plotted on Case & Holcombe map.

12 51

Colors in the AET Print, are not so good - Green turns to blue abruptly -

PM

Let say it's difficult to repair.

13 18

Called captain to give new waypoint of $16^{\circ} 38' N$
 $79^{\circ} 06' W$

new
waypoint

shallow area of 944m
shown on bath chart.

Our course change to avoid shallow area has put us on track for a new shallow. Moreover, it is taking us farther out of our way.

PM

13 20

Course adjusted to 278° - Event number.

PM

13 28

We enter the next Wpoint $16^{\circ} 38' N - 79^{\circ} 06' W$ as Point (2) in the Magnavox -

PM

the point $78^{\circ} 03' N - 79^{\circ} 55.4' W$ as (3) (P)

the point $18^{\circ} 03' N - 80^{\circ} 49' W$ as (4) (Begin Survey)

ETA for WP2 = 1700 Z

All directions are $N 240^{\circ}$ (25) since Pedro Escarpment. In Jamaica, all the folds are more or less $N 110/120^{\circ}$. We have ~~have~~ to take care of the boundary ^{between} the area of $N 260^{\circ}$ folding and the area of $N 110/120$ folding.

PM

It's warm! $28^{\circ} C - 83^{\circ} F$.

Date 29 JUL 89

J 210

0013

Time GMT Comments

1423

C/C \rightarrow 281°

It's 83°F in the Science lab!
 Air Conditioning looks in bad condition
 (We call the machine shop.)
 A/C Filters are being changed; lab should cool
 down soon.

1530

No structures - Flat Bottom since 1330Z

1534

Change Tape of SeaMARE II

Start Recording on tape 29447

1605

Audio Check (1-2s) Watch Change

1622

Phoned in WP3 18°03' 79°55'

1655

Course Change (C/C) WP-3 330.6

1657

ON COURSE

1700

Hourly check - OK - 1335 m.

1724

Warning for Battery High on
 Sonar chart to appear ~1800-1830
 408 reported directly west
 of intended course. Colombian
 EEZ is due west of high
 and east of high are shallows
 to ~550m.

1737

Course Change

331.4

1800-

1830

experience small shallowing from
 ~1200 - 1200, past to inside of
 reported 408 ridge with no problem
 back on bearing 331 with no
 expected problems
 Heading is for WP3 WP4 is
 entered in Magnavox

DATE 29 Jul-89
J 210

0014

TIME (GMT)

COMMENTS

initial

1841

Adj. ~~CDU~~ to 337

1930

1400m depth - O.K.

1938

Audio Check 2-3

dd

1959

REC #2 PROCESSED 5/5, no 11
Δ 10st data from 1958 to 2007

00 00

WATCH CHANGE

Change program of 3.5 kHz.
2-3 → 3-4 s

00 07

Back to 2-3 program for 3.5 kHz

We are on a big canyon (see bathymetry)
of about N315°W (~ N135°) -

In the Seamarc sonar data, the eastern side of the canyon has a stronger reflection than the western side.

Barf

00 23

In fact the canyon seems to be very sinuous.
- left swath → v flat with shadow-reflection from the right swath
- right swath → ~~well~~ we are exactly above the eastern slope
→ problems for the SMT,

RM



00 42

Change program of 3.5 kHz → 3-4 s

00 53

Adj/C → 332°

00 53

Major escarpment 1000m / 1/2h
~ 1000m / 9000m 1/9m

~~Change program of 3.5 kHz → 4.5 s~~

01 29

Change program of 3.5 kHz → 4.5 s

01 30

Major Escarpment - Seafloor "lost" ~~again~~ bottom RM

30 JUL 89
211

0015

TIME(Z)

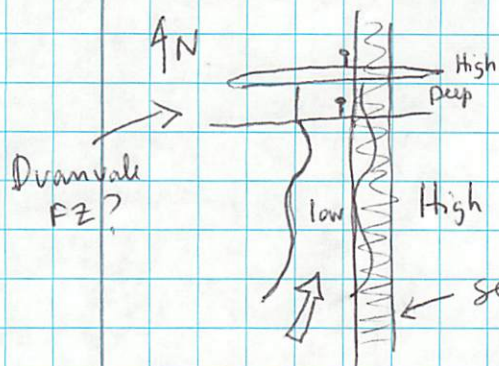
COMMENTS

INITIAL

01:55 The scarp is to big for the Seafloor II — We but lost the bottom.

02:05 Change program → 5-6s 3.5 kHz

02:10 Uneventful evening — we are descending along the faulted southern margin of the Cayman Trough



Canyon is to east. — we are seeing its edge; possibly some side canyons crossing our track at a high angle. EW scarps probably fault controlled; similar to what we saw on CT-1 lines.

Colors on print out are confusing. Problem discussed with Tom who will service it if it goes down. Need to change out ink colors in printer. As we go deeper, colors remain the same. Swath is widening.

pm.

Change program 3.5 kHz → 6.7s

02:33 C/C → ~~270°~~ 270° EO LINE B

We cut the paper of Sea Marc II Recorder #6 and ACT Color Printer

02:40 XNC — 270°

03:22 3 Waypoints entered in the Magnavox

WP 5 : (Start Survey)

WP 6 :

WP 7 :

03:38 Adj/C → 270°

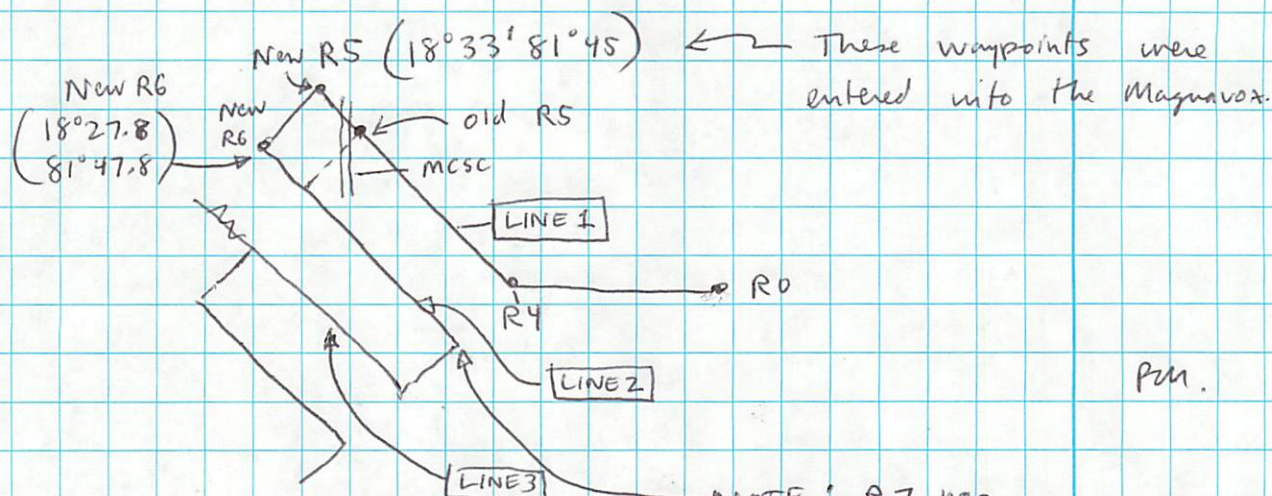
0354 Discussed color printer problem again with Tam Reed and Joel - they will ^(not) overhaul (flush ink, etc.) this unit. When we put the guns in at $\sim 3^{40}_{\text{am}}$, they will swap it with other printer in seaMARC lab. We need good colors to see MCSC topography. Overhaul of unit takes several hours. PM.

0400 Watch Change.

0406 Audio Check 6-7sec

(da)
(dd)

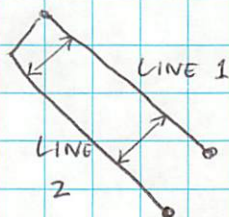
0419 We lengthened the track of Line 1 to include proposed site of MCSC drilling as shown below. This only requires going 3.8 km beyond old R5.



PM.

NOTE: R7 was not entered. On plotting map done by Gail there is a widening between

lines 1 and 2 because the points were not plotted exactly parallel:



These should be redone.

GMT

Comments

initials

0500 Lost sweep# No Audio

dd

0516 Audio 4-5

0525 Adj. Course to 268

0530 Lost sweep# No Audio

dd

0554 Audio check 3-4 sec sweep.

dd

0600 2770m 3.5 kHz -

dd

0632 Adj. course to 266

 0715 ~~Ad~~ checked audio - 56 s sweep
switches @ TTT GGRRR Baydes
0710 R/S 4 kts to prepare to deploy
airguns off of port & starboard

ST

 ACT plotter is down ? ink cartridge
is busy Δ'd(?) or cleared(?)
so that colors will be correct

ST

 Someone from bridge came down
& took R1-4.

SV

 0720 Steve & Wil awakened to assist
with start up of seismic recorders

 0727 I/S 8 kts, Port & starboard
guns deployed.

ST

 0738 Became aware that stylus on
processed ~~sl~~ Rec (#2) was sticking
possible data loss or data
incorrect

ST

 0743 Way pt is Rhumb line called up for
bridge. Now turning bearing
299

ST

0745 On course -

 0746 R/S 4 kts airgun NOT firing
correctly

30 JULY 87
211

0018

GMT

Comments

1414

0753 Gun out of H₂O R/s 8 kts eel still in

0754 Realized that didn't slow dial-a-knot
on SMII rack to 4 kts while pulling
gun

0757 Overall watch OK. Not v. good on
battery collection early on great
battery A's not shown on C₂H made
maintaining bottom contact v. difficult
∴ many angel wings, condor wings,
pyramids - Ryan wings appeared,

Steve didn't have opportunity to
explain SEIS system to 12-4 watch,
will do so for 4-8 watch if
gun is functioning properly. ST

0810

Reducing speed to 4 kts - Pulling gun
back in water -

0818 -
0850

- Problem with port gun - Put starboard gun
in water, pulled port gun. At 0850 - speed
back to 8 kts, starboard gun in water -
40 m³ - 2000 psi - nominal Rep Active.
10 sec R

0902

Start high res seismic acquisition on
Masscomp - Shot 1, FWD #1 Line 1,
Reel # 30228. Starboard air gun, 40 m³.
firing at rate of 10 sec. Preamp TTK #20 -
set @ 20. Band pass filter 10-150 Hz. TTK #6
preamp. set at 20 gain. - Punter up and
running.

121

30 JUL 89

J 211

~~PRAN~~ 31 JUL 89 212

~~PRAT~~!

0019

GMT

Comments

1211

1234 Entered two more points in Maynavox:

R8 $17^{\circ}52.2$ $80^{\circ}52.3$

R9 $18^{\circ}21.8$ $81^{\circ}47.0$

Cannot enter more than 9 pts in Maynavox.

We are going to the following points which can be entered later:

R1 $18^{\circ}27.4'$ $81^{\circ}50.2$ ← Entered

R2 $17^{\circ}45.0'$ $80^{\circ}49.0$

R3 $17^{\circ}40.5'$ $80^{\circ}52.5$

R4 $18^{\circ}13.3'$ $81^{\circ}52.2$

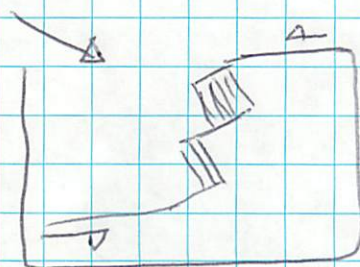
PM

These points were picked from Eric's original plot. Only variation in his plan on overlay was lengthening LINE 1

1256



MCSC ridges & valleys observed to be 5° W of North. Same as seen on Glau



PM

small sediment filled basins observed in valleys.



4 sec.

sed < 0.2 sec thick

PM

GMT

Comments

1329

Adj/C → 316°

PM

1338

Descending eastern escarpment into active MCSC at 4200-4400 m. We expect a flat floor at ridge at depth of 5000 m.

PM

1352

Mix up with captain on waypoint R5. Heo was preparing to turn on our old R5 (not extended across MCSC) instead of our new R5 (extended across MCSC).

These
3 were
entered
given
verbally
to him.

EXTENDED R5 point - 18°33'.0

81°45.0 (END OF LINE 1)

R6 point - 18°27.8

81°47.8

(Beginning of Line 2)

R7 point - 17°56.8

80°49.0

(End of Line 2)

These were entered on the Magnavox. Apparently they don't have access to our Navigator screen.

PM

1413

Talked with captain about navigation. They do not have access to waypoints we punch into the Magnavox. We need to call these in well before the turn. Important to verify course changes with crew on bridge - sometimes they change w/o verifying with us.

PM

1418

Gun tech put ~~bungy~~ ^{bungy} cord on streamer - said "look for a spike! This was a request Eric made on the previous watch

PM

1416

END OF LINE 1 (Change course to 210°)
Coordinates of turning point: 18°32.8
81°44.5

PM

1413

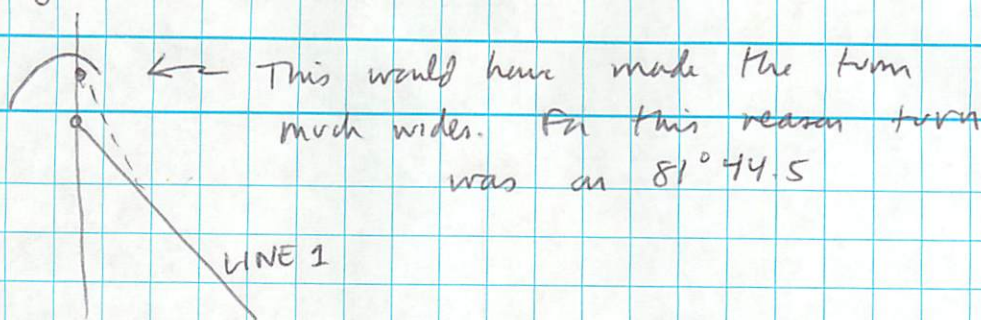
Captain reported that because we were drifting off track to the east we would have encountered 81°45'W long too far to the north

30 JUL 89
(211)

81°45W

0021

1422



Pm

1423

Captain reports event to "steady up" on 210°

1430

Changing the paper of 3-5 kHz Rec BMU
(Begin Record #3.)

End of Rec #2: 1420

Begin of Rec #3: 1430

Pm

1505

Begin of Line #2 (not yet on WP 6) projected

1512

We will cut paper at WP 6 (END OF LINE 1)

Bernard suggests cutting paper in the middle of the turn because this is the area of poorest scan. AM

151159

NAV SAT FIX 18°27.295
81°47.127

Pm

1600

Watch change.

1611

Audio check 6-7 sec.

1612

Change water bottom delay to 5 sec.
from 3 sec. Seismic.

1635

Audio 5-6

1641

Audio 5-6.

1659

A2D module in MASS COMP failed,
lost clock connection - restarted
(killed bad behaving module &
started new). waited 10 sec &
power then "go" 'd. NO log to
tape during restart. Data loss
up at 1705

1659
1705

WD 5-4 At Gun 2467.
A2D up

dd

dd

31 JUL 89
J21

0022

GMT

Comment

IN

1744 Adj Course to 117.0.

(d)

1744 Audio 5-6 sec.

1811 adj/c 121

1822 W. Delay 4 → Gun #3097.

(A)

1837 adj/c 117

2008 adj course 126.0

(Dy)

2133 adj course 122.0

(R)

— FOR PAST HOUR. GPS AND LORAN
TRACKING TOGETHER - MINISCULE DIFFERENCES
IN POSITION.

R

(31 JUL 89 212)

0005 Course change to 215° at 17°56.9, 80°49.4 (END OF LINE 2) PM
We advanced and cut SUMARC row data. Marked seismic
printer as "END OF LINE 2" on "Printonix"

0004 }
to 0020 }

Change of paper of Recorder #4 (Sidgani 43.5) BML

0037 Verbally gave the captain the following waypoint information:

① NEXT Waypoint: 17°52.2 (WP 8)
80°52.3

② TURN RIGHT ON ~~215~~ 300° to begin LINE 3

③ WP 9: 18°21.8
81°47.0 (END LINE 3)

PM

GMT

Comments

0046 Csc change to 297° Start LINE 30116 Ship reports loss of steering, at $17^\circ 53.692$
 $80^\circ 54.973$

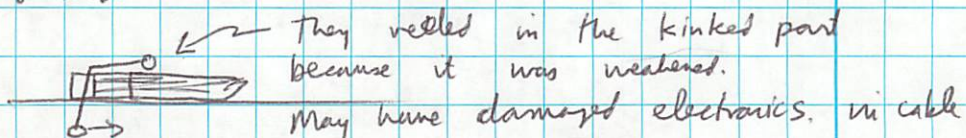
0120 Joel, Tom Reed arrive in lab - SeaMARC plunging. Report that it has to be brought in: captain called and said he could come back

012312 $17^\circ 53.404$
 $80^\circ 55.102$

up to power. I informed Joel on back deck - he said fine. I called captain w/ told him to resume power. We are at 8 knots

012343 $17.53.422$
 $80.55.161$ our position
in case of
SeaMARC
lossAll GPS012433 $17.53.464$
 $80.55.269$ 012849 LORAN ~~FIX~~ POSITION; $17^\circ 53.72$
 $80^\circ 55.78$

0135 Carl reports that the steel cable to SeaMARC was kinked as the ship slowed.

0137 Our position: GPS: $17^\circ 54.4$
 $80^\circ 56.8$ LORAN: $17^\circ 54.33$
 $80^\circ 56.74$

0138 All smiles - everything back to normal. Speed 8 knots.

0238 Adjust csc. to 294° at $17^\circ 58.5$
 $81^\circ 03.6$

0244

DATE
J

0024

GMT

Comments

0325 New waypoints given to captain. We have decided to shorten LINE 3 and decrease coverage of MCSC.

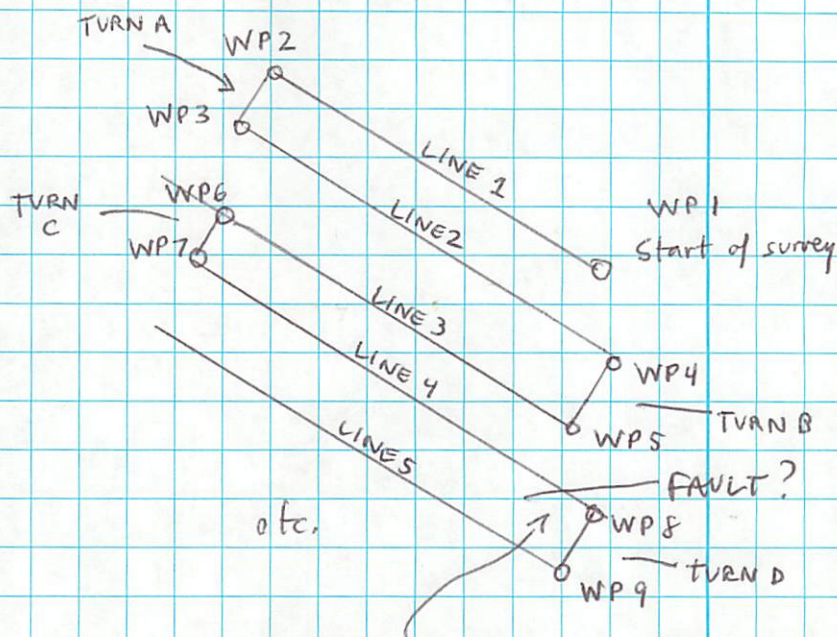
New up of shortened LINE 3 is $18^{\circ}20.7$ (WP 6) ^{OUR} WP 9 IN MAGNAVOX
 $81^{\circ}45.0$ at 299.3

TURN LEFT TO $18^{\circ}16.7$ (WP 7) ^{WP 1 IN} WP 1 IN MAGNAVOX
 $80^{\circ}47.2$ at 206.6

TURN LEFT TO $17^{\circ}45.4$ (WP 8) ^{WP 2 IN} WP 2 IN MAGNAVOX
 $80^{\circ}49.0$ at 122.6

TURN RIGHT TO $17^{\circ}41.5$ (WP 9) WP 3 in Magnavox
 $80^{\circ}51.7$

NOTE
NUMBERING
system shown
on plotting map



LINES 4 AND 5 WILL
ATTEMPT TO PICK UP
LARGE FAULT SEEN ON
TRANSIT (LINE B) IN
THE VICINITY OF "PEDRO
BANK CHANNEL"

PROBLEM: How much motion is occurring on
faults south of the Oriente FZ?

21 JUL
J 212

0025

GMT Comments

0250 SAT FIX GPS - 17.59.2, 81.04.9

0401 Water Δ

0439 Δ 'd disk for Gravimeter PC
to diskette #3

0504 S/S swaths recorder (flashing
closest to Red box) out of paper
∴ not recording paper is
being Δ 'd

0508 Paper Δ 'd Recorder Recording

0525 adj / C 302

0530 Everything seems to be running
all right even SM11 isn't too much
of a hassle

0550 adj / C to 299

0607 adj / C to 296

0624 Δ WID \rightarrow 3

0730 adj / C 307

0745 informed beginning turn

0747 beginning turn

0749 Error sending to process on
MASSCOMP data should still be
logging, but not coming from
Printer

0752 Pintronix running again
system processing.

GMT

comment

0754

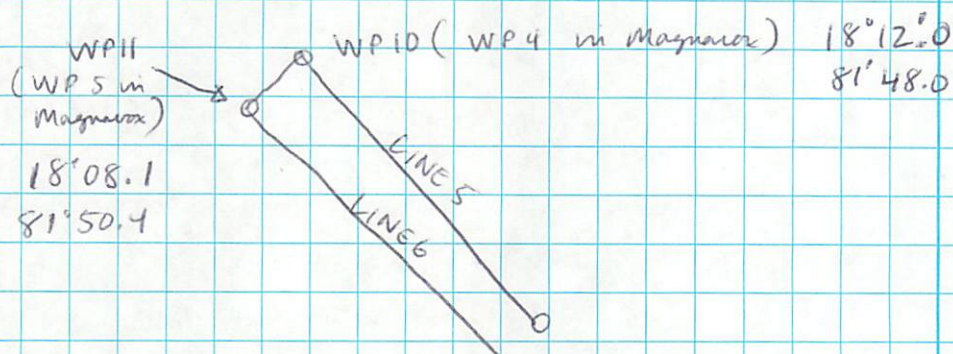
XNC NOW beginning line 4

0800

New watch, last watch ran pretty smoothly, not too many events. SMH necessitated window Δ 's to maintain bottom detect's particularly in area around MCS otherwise all's well

1321

New proposals given to captain -



OBJECTIVES - CUT BACK SLIGHTLY ON MCS mapping on northern end
continue mapping faults along southern C.T edge.

1323

Change Delay to 3s on Recorder #3 and #5

1341

End of Tape #30229

Seismic Record

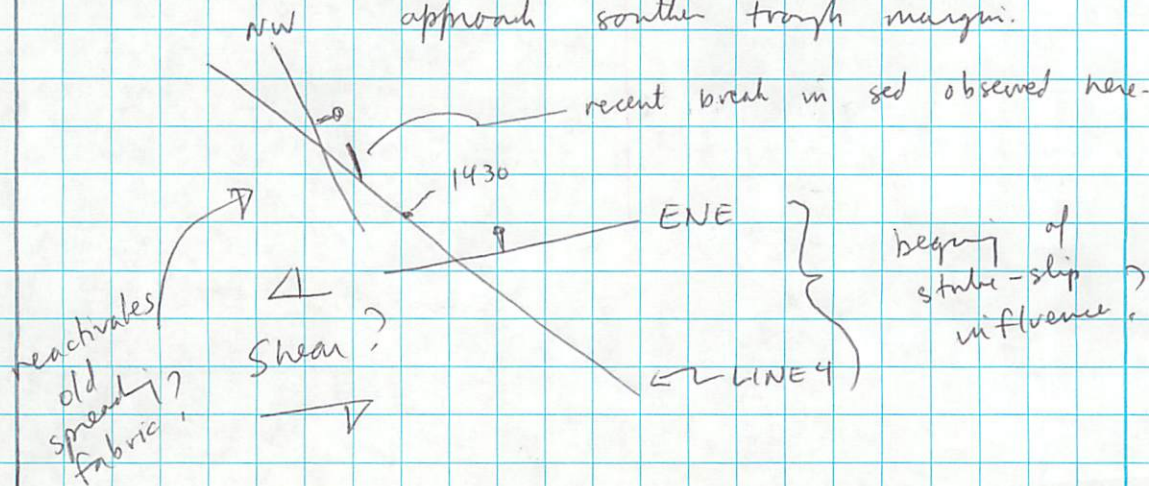
1346

Begin Tape #30230

Seismic Record.

1453

We are begining to see change in fault scarp strikes as we approach southern trough margin.



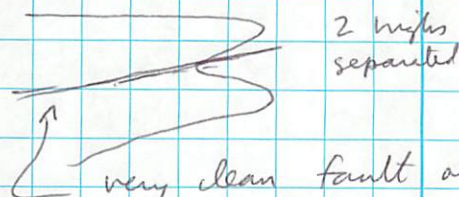
GMT

Comments

1540

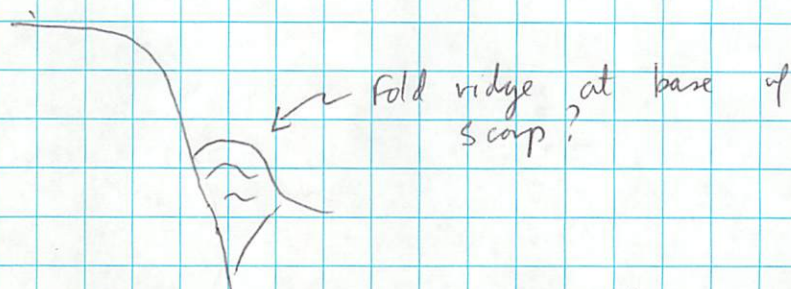
Seabeam

Seamarc 1515



With oblique structures associated (folds?)

In profile



3.5 bathymetry.

1600 watch Δ

1605 adj/c 117

1600 ACT down

1609 ACT UP

1643 Δ 'd WID \rightarrow 1.0,

1656 making turn to \rightarrow @ 17.45.5
on to line 5 80.49 179

1720 adj/c to 300

GMT

Comments

1728 ALDP Needed restart, set of 3.5kHz - Steve reprocess whole process took ~ 2.5 min

1736 Steady on New course

→ Aside

Here are some of the abbreviations we have been using in our annotations:

C/C = course change (= making a turn)

XNC = crossed New course

I/S = increase speed

R/S = reduce speed

S/O = Steady on speed

U/W = Underway

A/C or Adj/C = adjust course (steering back on heading)

W/D = water delay

These will be found on 108 sheets and on records

1945. Stream magnetometer, install fixed instrumentation - giving readings but of unknown quality. Will check readings over next hours to evaluate.

2053. Adjust course to 293° -

GMT

Comments

2220- Approx - Mass Camp - Seismic Acquisition crashed. Total computer stoppage - attempting to reboot.

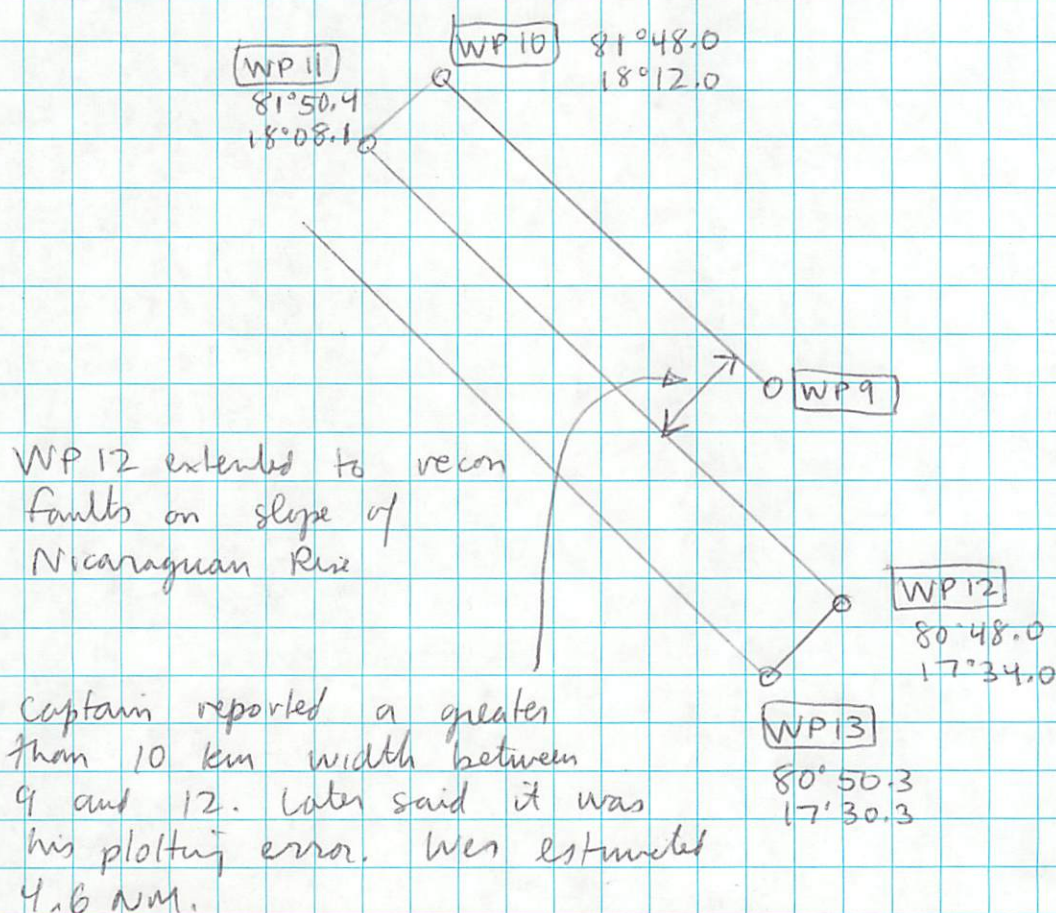
2245 Mass Camp Seismic reported - Systems memory.

2311 Lost incoming seismic signal - all equipment checks ok visually. Mass Camp input ok - signal path to GPS faded out -

0000 Watch Δ Month Δ Day Δ (01 AUG 89 - 23)

0051 End of Line #5.
C/C

0110 Following waypoints given to captain -



0124 Begin of Line #6

BOL

DATE: 01-AUG-89

0030

TIME 213

COMMENTS

INITIAL

0145

Loss of signal on EPC Recorder

0209

FFR 20

→ gain 10 → 20. (seismic)

0216

Change of diskette for gravity END #03

BEG #04

0324

(ON MAGNAVOX - WP 8)

IN MV - WP 9

WP 14

17°56.0
81°47.3

WP 14

18°00.00

81°47.0

81°45.0

Entered the following
waypoints on Magnavox.

WP 16

17°30.8
81°01.1IN MV
WP 1

WP 17

81°03.5
17°26.8IN MV
WP 2Calculated distances & bearings
on Magnavox:

	Length	Bearing
WP 7 to WP 8	61.7 NM	298.7
WP 8 to WP 9	4.0 NM	184.1
WP 9 to WP 1	50.8 NM	119.6

Points were carefully picked, I don't understand why the
Magnavox calculates 4.0 NM between WP 8 to 9 at 184.1
 \angle 81°45' to 81°47'

0550

Notified Tom of streaking of print on
printer # 2. All other prints of
Seamarc data are o.k.

Jld

0615

Printer Ribbon is being fixed - Printer #2

Jld

3 Aug 89

0031

J213

Comments

A Watch

0430 MassComp Process 100t, restarted 0433

0631 Bridge notified that gun lost pressure, Dave is coming to take care of it

0635 R/S 4.0 knots to all in Gen

0650 I/S 8.0 knots Strb gun in/port out

0714 act/c 120

0830 Concerned about lack of position fix for post hour. Toran not tracking, next satellite not due to 911z and that may be too high. Called 'Bridge' and they suggested that position probably better than lab. dr would indicate. Bridge Wagnarox calculated a satellite fix for 0734 using low altitude satellite that placed us on track.

0942 MassComp system - semi crashed. Awakened Steve P. restarted. a2d module stopped. No shots needed from 0942 to - 0950 -
~~shot~~ - 10419 @ 0950 -

1151 Sea mare color plotter taken down for repairs in turn by us. at end of LINE 6

1212 Beginning of Line # 7 B C/C → 303
 Delay → 2

1225 Change of Seismic Tape - Tape 30232 on

1226 Apaximeter ok but Screen off.

Date: 01-AUG-89
213

0032

GMT

COMMENTS

INIT

1230 GRAVIMETER OFF (GRAVI-PC)

1235 Reboot of gravi-Computer -

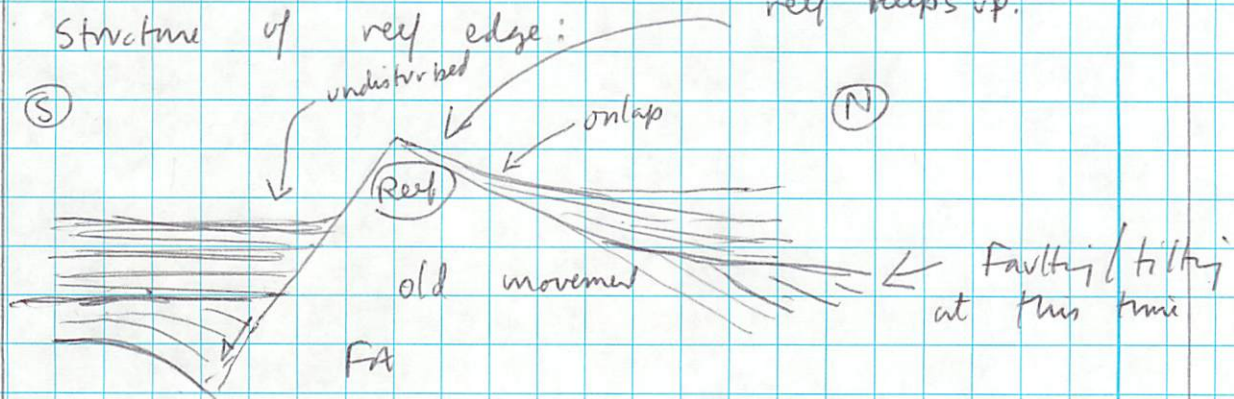
Brut

1311 Called captain to revise WP 14. Saw the problem when we were going south of our intended line. Revised WP 14 is $18^{\circ}00' 81^{\circ}45.0'$. Previous WP 14 of $18^{\circ}00' 81^{\circ}47'$ was pulling us south - my mistake!

1332 No structures in this area - carbonate apron from banks? We can drop line 8 back to the Cayman slope. Possible that active structures are mantled quickly in a highly productive carbonate environment? Compare rates of sedimentation to rates of deformation.

1344 Encountered reef edge? - topographic elevation at 1100 m water depth. Need to keep up with bathymetric charts on this end.

1443 Structure of reef edge: reef keeps up.



Signature of reef on seismic - (Just like raised terraces)



paired - heavy reflectors - squiggly & always parallel.

1303 Sat fix: (NAV) - $17^{\circ}33.0' 80^{\circ}56.2'$.

Date Aug 89

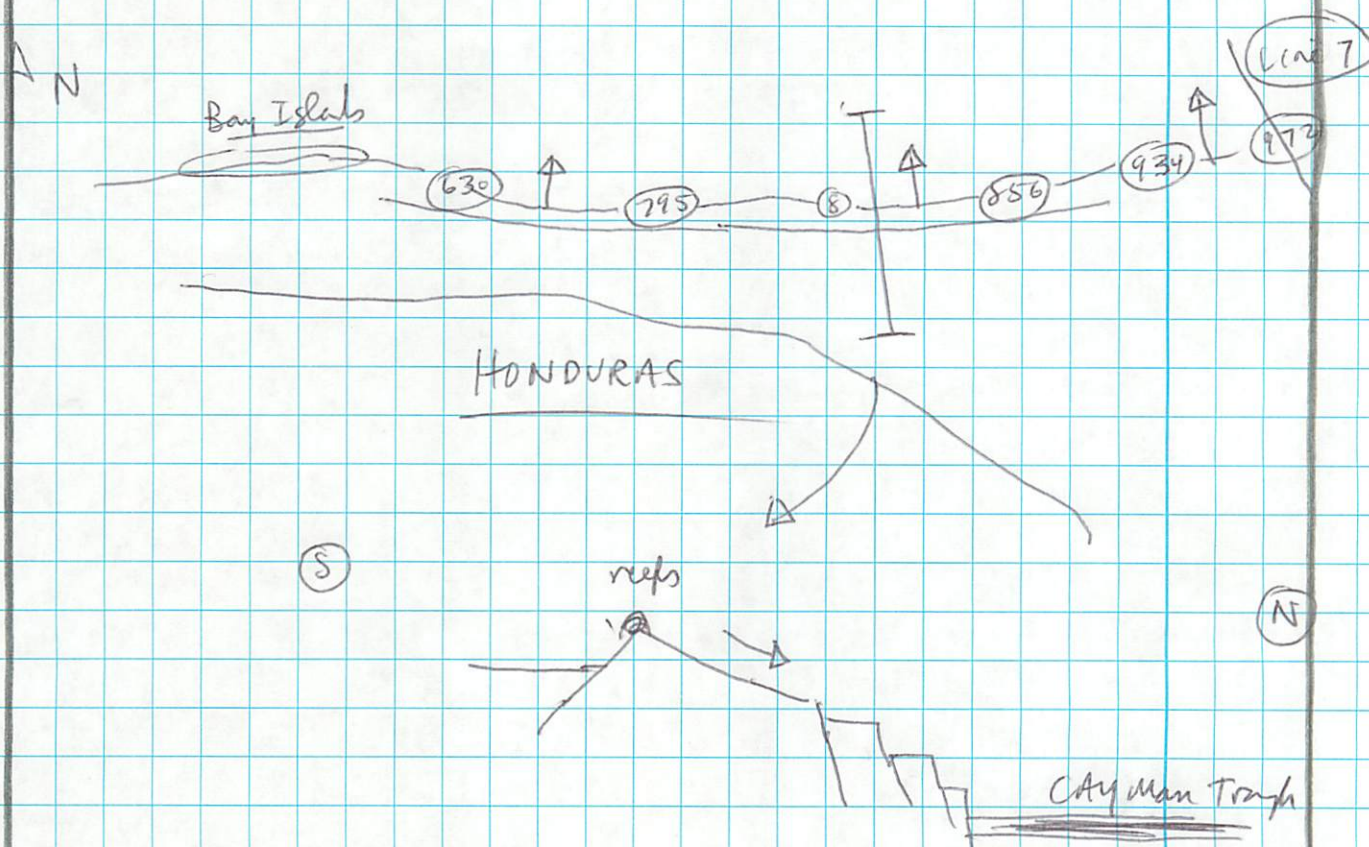
J213

0038

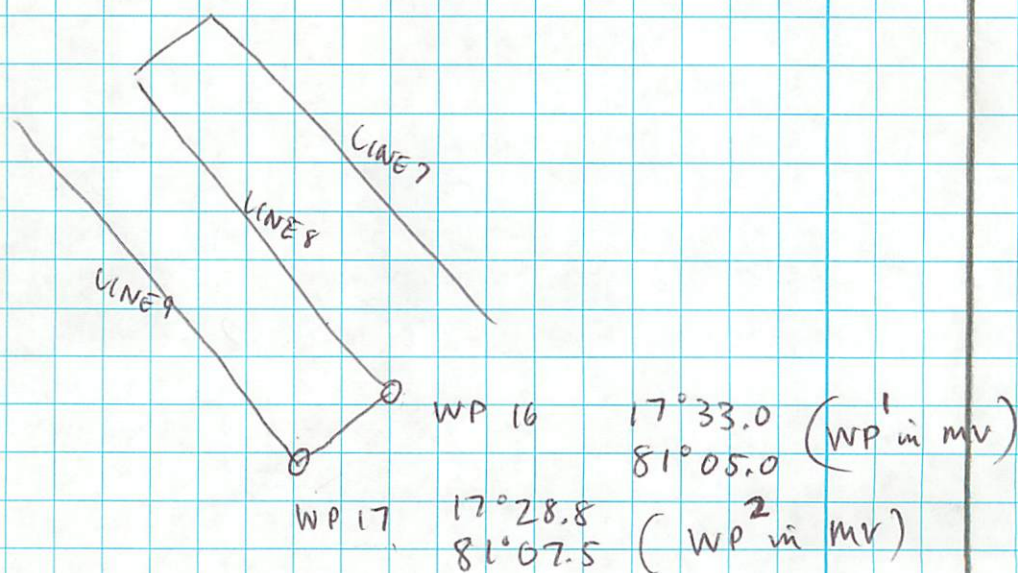
GMT

Comments

I believe the bathymetric highs (reefs) along this trend are telling us where the fault is. All align well to Bay Islands.



15 59 Called in waypoint changes.



06

1600 Watch Change

da

1700 - For some unknown reason, the MAGNAVOX wasn't showing bearing & range. The bridge asked that we put it up and we did. Then the bridge noticed that Set and Drift were disabled, so I asked Steve & he said to punch in enable 31 to give SID in corner. This would allow next SAT FIX to calculate SID. Problem is that next SAT is in 2-3 hrs. So we will be DR and bridge using Loran. We are going to plot more frequently on our sheet so we can try to maintain a course along line.

8

1733

Talked to bridge about Navigating they are doing so of of LORAN while we are relying on the DR points on the MAGNAVOX. The lines that we are plotting are off from the true course lines that the ship is making.

8

1804

Forcing a Satellite Fix update
→ we tried to force the update by calling up last SAT Fix (SS)

DATE
1 AUG 89
J 213

0035

GMT Comments

Con't from previous page
- after calling up FIX we plotted
to our chart & saw that it was
SO-SO. So we tried to "force" it
by calling it "P (53)" then 13 E
which takes us back to the
true screen. This should allow
a forced update. When we
attempted to force the fix however,
another SAT was being tracked
which took precedence over
our forced fix - SO our navigation
is still shaky

1748 GPS came up SO NAV OK.

1850 End of line 7
TURN

1856 BEG line 8

1901 adj / C 195

1904 Called in WP 9 (15 on Chart)
Next WP will be WP 1 (16 on Chart)

1927 Sp ~~124~~ 124

2331 No major problems in last 4 hrs. All systems R
AOL

0030 Delay 3s → 1s (EPC) RmL

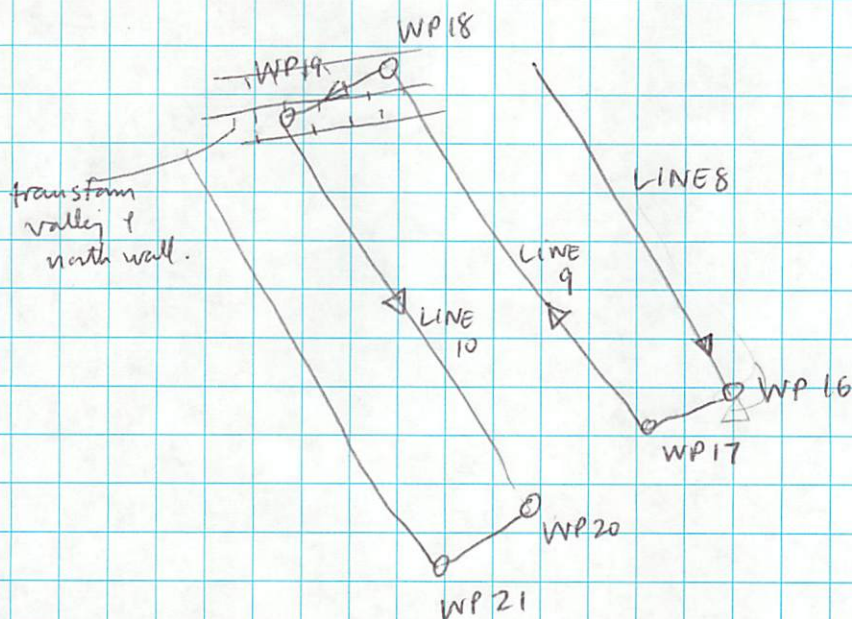
DATE
2 Aug 87
J 214

0036

GMT

Comments

DIS3 0153 Waypoints given to captain.



WP18 (#3 in Magnavox)

WP19 (#4 in Magnavox)

WP20 (#5 in Magnavox)

WP21 (#6)

17°54.2 81°53.6

~~17°53.0 81°51.4~~

17°50.5 81°56.2

~~17°49.0 81°54.0~~

17°27.5 81°15.2

17°23.4 81°17.4

OBJECTIVES -

- ① WP 18 + 19 extended to fully map the transform valley. Part of the north wall is included to make sure we image all of the faults.
- ② WP 20 + 21 will continue mapping the reef trend. We hit it well at the turn coming out of Line 8. This block seems to define the southern limit of deformation. Sediments in the Swan Basin to the northwest should establish the northern limit of active deformation.

DATE
2 Aug '89
J214

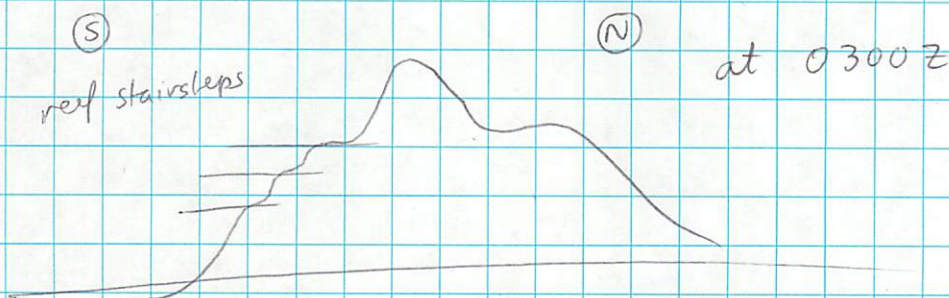
0037

GMT

Comments

0257 I have been entering the position of the beginning of a
0257 hmi as the point where the captain makes the first turn.
~~This is~~ Instead, I will use the "steady on" event. My mistake.

Bernard informs me that on the chart, the position of every
course change is noted in the A log. I have started this.



0400 Watch Δ

0400 Tape Δ for SMII to Drive 4

0532 Mass Comp down / error to process

0539 Mass Comp back up

0622 Quiet night, all seems to be anchoring
properly. I've noticed that the ACT Battery
switches are quite narrow when in shallow
water.

0800 - Steep slopes - very steep slopes make bottom
tracking extremely difficult.

0904 - Start new line # 10 - Can't pull
9A and turns. Extreme difficulty
with maintaining bottom tracking
on SMII - cross slope? —

1051 - Light on deck - Equipment check on deck -
OK - Pressure a bit high - 2000 psi -

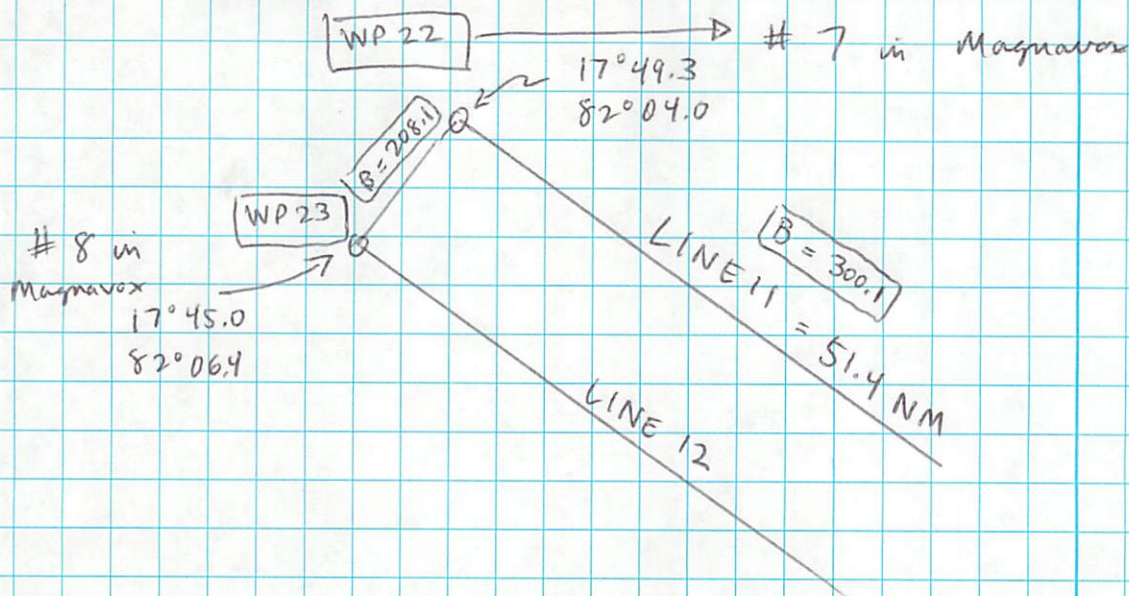
2 Nov
21/2

0038

Comments

Change paper End Roll #2 } SeaMARC II + 3.5
 Begin Roll #3 }

1533 called in Waypoints to captain



Raytheon

1541 Seismic full-sweep got out of sync with data gaps - Steve fixed it by turning it off and then on again.

1559 On Seabeam map I am plotting actual waypoints (point where the ship ~~act~~ is "steady on" the new line. I couldn't find the coordinates for end line 9 or begin of line 10?

1600 Watch Change

1650 Something funky happening with Raytheon w/seis again. Steve came again to make adjustments; switched off & on. Aided set / Seam memory window thumbwheel from 1000 to 2000 and back to try to re sync. Not really working = basically he's not sure why. Record looks as if it is repeating itself → NOT in multiples but gives the same info at top & bottom of paper.

DATE

J 2 Aug 21

0039

GMT

Comments

1706 SM II completing turn onto line 10

1715 Adj/C 200

1720 Notice small data gaps on seismic recorders, saw on oscilloscope that \approx every other shot gave NO signal called Steve who summoned Dave who is now checking on the gun

1725 Adj/C 305

1732 S/D Turn complete

1734 R 15 to 4K to pull air gun

1737 SM II Comp crashed / NOT logging

1742 Nope \uparrow didn't crash - logged & rebooted

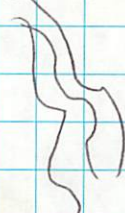
1745 Gun in I/s 8K (Port Gun, Strb Gun pulled in for repair data loss on seismic is ≤ 30 mins)

1800 \sim 1730 to 1800 on proc. S/S. I see what looks like this

Port



Strb



Could these be fringing reefs?

GMT

Comments

In

1853 paper Δ on SMII Rec # 4

1907 Bridge called down to notify of 3 shorts for 3 secs then quiet,

Checked Oscilloscope this was true. ACP was out of sync because SMII was on wrong Rep Rate setting. ID Auto instead of IDL → why? who knows, NO one has A'd that

1912 Rec # 6 (SMII) paper Δ'd but only recording black straight across → Will is here to work on the problem.

- v. simple, knob was hit during paper Δ, 191's switch returned to proper state & now records.

1915 Disk on Gravimeter Δ'd by state.

1923 Adj /c 304

1925 Aside - Paul suggested logging "New info" that is passed along from techs to watch standards as problems arise. If a when a new piece of info is garnered (for ex: Changing SMII gain, according only to Raytheon Rec.) Enter it into the log and put an asterisk just below the GMT ex: 1925 *

Comments

This way we CAN learn from each others mistakes instead of repeating them → also we can make suggestions to Techs as to how to present such info during "orientation"

1943

*

SMII CAN screw up gun shot retrack if dial is on Auto NOT manual

Phase overhaul on Falco 500 CAN indicate that the ACT alarm was NOT reenabled

SPEED Δ's must be entered on SMII panel w/ "dial-a-knot" as well as on Falco 500

If SMII Ash depth decreases as a result of R/S, the depth must also be Δ'd on Falco 500;

Command > Depth = 200.0 <CR>

ST

*

WHEN GPS AVAILABLE MATCH DIAL-A-KNOT AND LOGGER TO SOG.

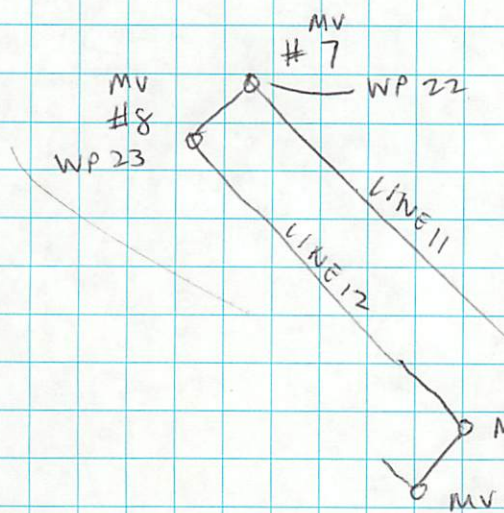
(B)

1300

New way points given to bridge: WP 24 (# 9 in MV)

17° 18.7

81° 19.0



WP 25 (# 1 in MV)

81° 21.5

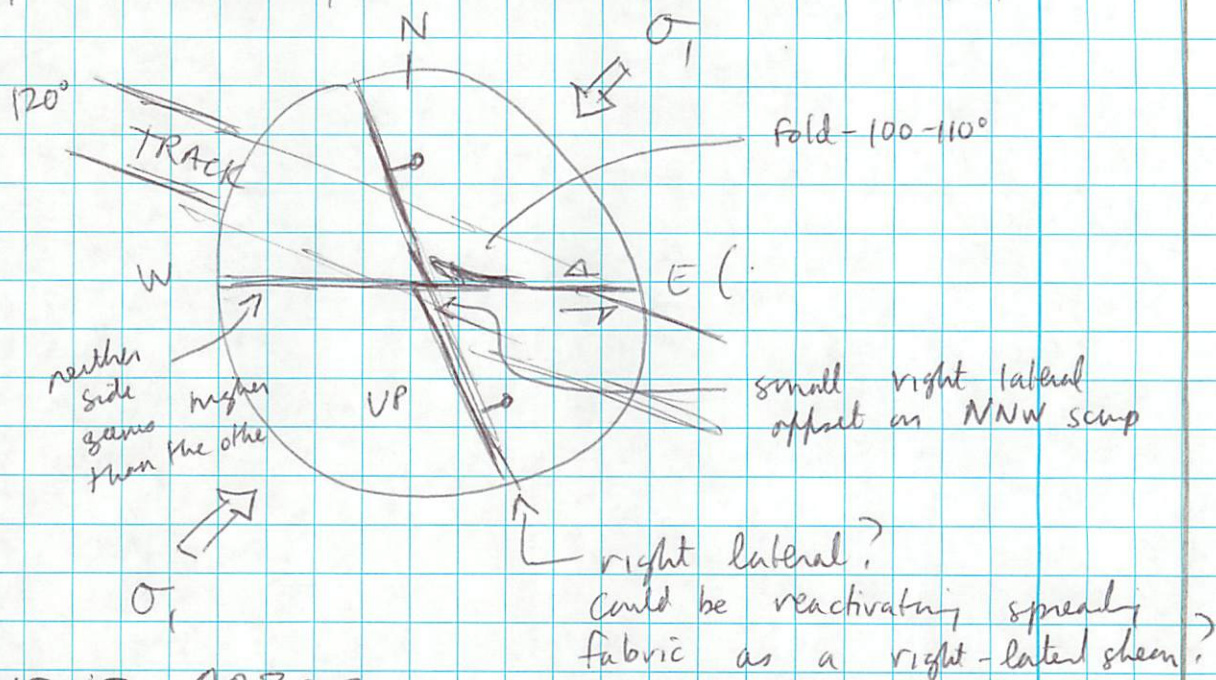
17° 14.4

MV # 9 — WP 24

MV # 1 — WP 25

0151

Very nice fault/fold relationships on sea map

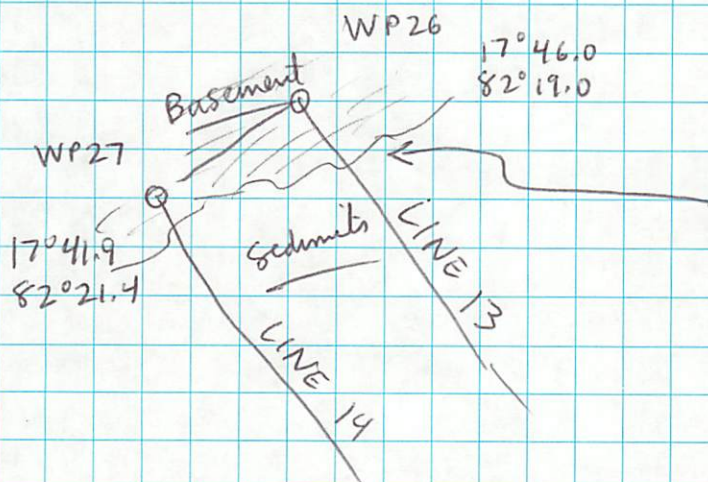


LINE 12 0030 Z

0220

Note to all watches. Steve pointed out that we were not plotting all sat fixes as our navigation. He needs to double check these for preparing the navigation for Sea MARC mosaic.

0306



would like to see if sediments of the Swan Basin are faulted or overlap oceanic crust. If overlapping we can back off along this margin

0326

Called into Captain. to give waypoints.

Aug 3.

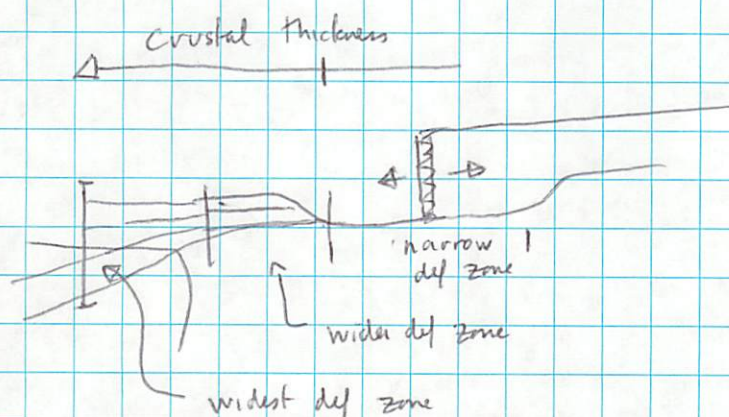
0043

GMT

Comments

0338 Not seeing any structures - hope to see fault block with 250 trend. Although many, these traverses are necessary to document lack of deformation south of the Swam.

Splay model



Tom Reed brought in an "angel wing" that happened on our watch (LINE 1). Indicates a bottom loss of 40 minutes. We do not recall this so are a little confused on how it happened. Possible factor was that we were using the 3.5 + not the Raytheon full sweep

GNT Comments

0355 Tape Δ on MASS COMP

Δ W/D 4.0

0400 Tape Δ 'OL Completion on Mass Comp
Watch Δ

0506 Previously I was told that @ 500-1500
* On SMTH rack Rep Rate could be
* maintained w/ 10L / 10seconds
Now, NOT so ("BIG NO") must be @
10L / 8s \leftarrow REC make sure NOT on
10 Auto \rightarrow that throws AZD out of sync

* A strong overhead lamp where we have
been drafting (drawers over map drawers)
would be useful & help eliminate
shadow lines around notes

0600 Noticed seismic plotter stopped.
#2 + #3

Stopped ~ 0530, Steve was
called down, in meantime we Δ 'd
Sylvia abandon #2 b/c it fell off
but it still isn't operating. Steve is
fiddling with it now and we
may need to call Will about
a drive problem but it is odd
that #3 is also in same state
as #2

0600 Raytheon Seamarc is also experiencing
problems - ~~0600 marker is not
printing at equal intervals.~~

2 Non Event marks plotted.

DATE
3 AUG
J 215

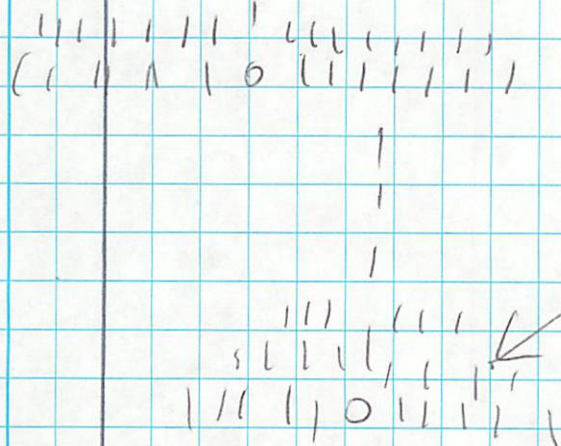
0045

GMT Comments

Time

0634 Rect# 2 off - full hit when see him. Steve says it's not worth waking up.

0644 * When Histogram on Falco looks like this and we have "Flat" bathy we can raise gain by one because we are getting too much recorded @ "0" which can't be processed, so bring it up a little to a more Gaussian distribution.



0646 @ abt 0630 on line 12 Darry leveled off ~ see long point on plotting sheet, can definitely shorten lines to here since not seeing any more deformation.

0652 Errant event markers were recorded on all S/S Rec's w/out any event occurring, notified TOM & JOEL who couldn't figure it out & said to just put N/E "X"'s through these markers.

0705 Raytheon seismic printer stopped - remedied by turning power switch off then on. ~~printing at 0708~~ NOT TRUE - STILL NOT PRINTING

GMT

Comment

0716

Will came in to look at Raytheon seismic printer. He changed the Amp. 6 to 10. ~~Still not~~ Working...
It's working!!

~~Am~~

0722

The data gap on Raytheon (seismics) resulted from a Δ in gain on AMP 6 to 5 this was done by a tech $\bar{5}$ wasn't indicated \rightarrow

Keep eyes on adjustments tech's make it is up to Watch Standers to record time & event in LOGS this

MUST be done b/c if the tech doesn't tell you about the Δ you might not know that it results in a certain event ^{rate} which you might need to readjust what was Δ 'd

0730

Will fixed printer #2.
It is now working.

0739

X

When a course is adj. by $\geq 65^\circ$, a 2nd event marker will be sounded to notify that you are back on course

0743

Amp 7 lowered to 5 to reduce burn on printer #3 seismics

1000

1100

Note reef structures - Kusk? - and slump structures on SM records,

Reviewed gun problems with Dave - Has replaced variety of seals -

3 August - 1989

215

0047

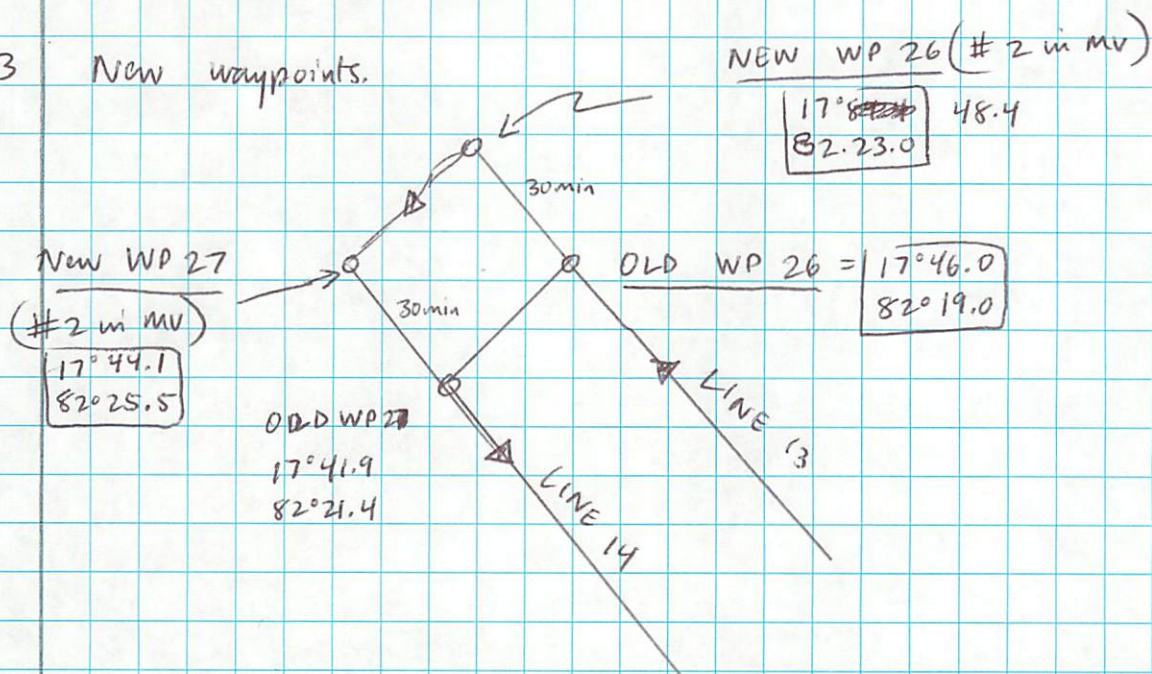
TIME
Z

0914 - Changed out guns - port out, starboard in.
Port blew head seal.

1037 Lost process module on Mars Camp.

1042 process module rebooted -

1313 New waypoints.

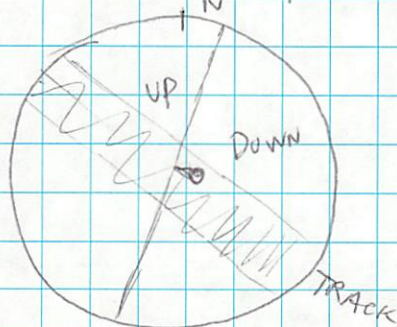


1327 called in waypoints.

1329 Steve notes that we should remove the yellow 'write rings' from the old seismic tapes to avoid them being reinserted and written over. Example posted.

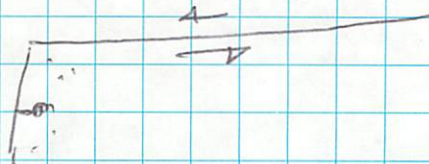
1429 Crossed nice fault scarp at 1315 ~ NS striking - west side up.

Downthrown ~ 400m.



First fault termination structures?

More likely -
small extensional
segment where the
trough widens ~
82°W



3 August, 1989

0048

TIME

1445

les wants to switch the ACT plotters. (The one in his office for the one we have) We will do it on the next turn. We will note times in A-log & Seamount log.
 → Added 1650 → A covered. Seamount during period 1445 → 1600

1520

Nice view of scarp & possible interaction with oceanic fabric

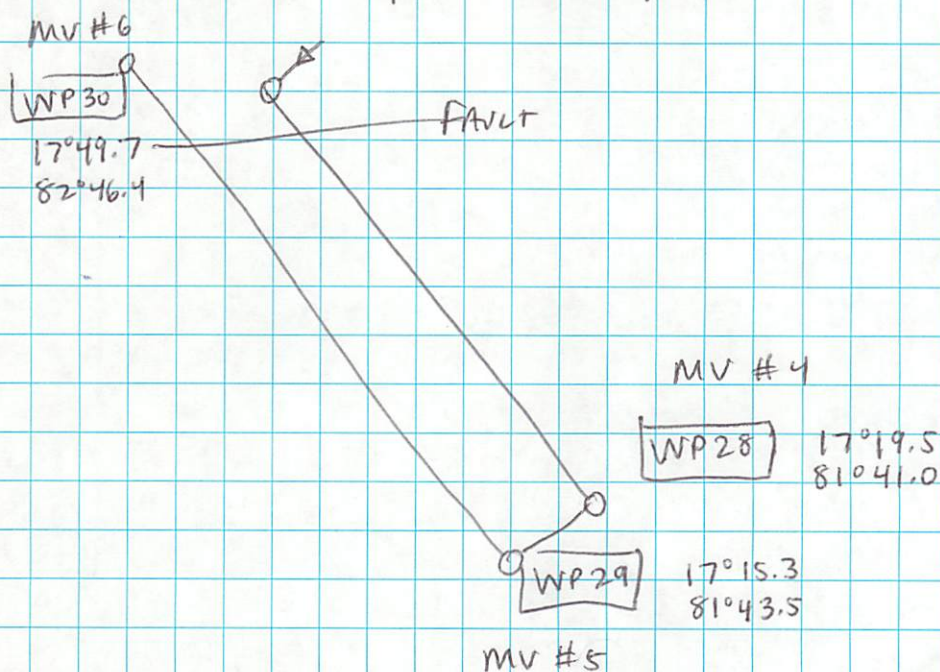
At ~1450



NE strike also reflected in bathymetry on Seamount beam map.

1601.

Called in new waypoints to captain:



1600

Watch A

1708

A' Paper Rec #1 3.5 start

1721

A' Paper complete

1801

A'd tape for Main Comp

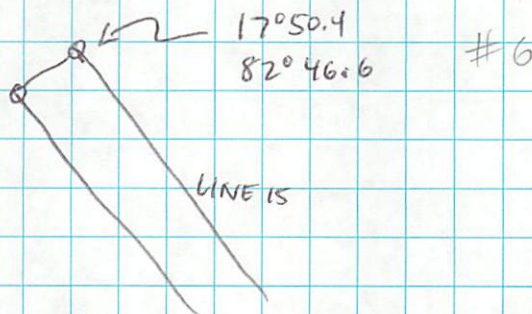
PM August 3, 1989

0049

TIME

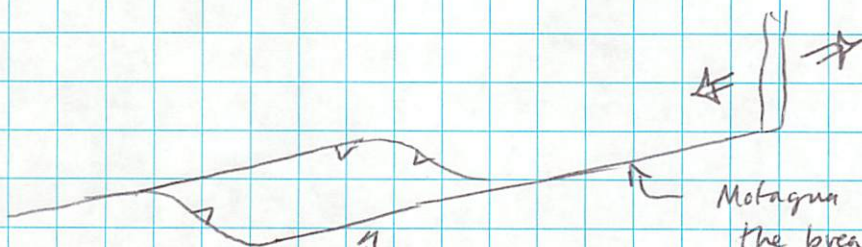
0034

New waypoint 30 called in to bring us on a track bearing of 300.1.



0054

Thoughts on regional tectonics -



does an active splint go south?

All other faults dead?

This type of information is impossible to obtain inland w/o trenching every lineament.

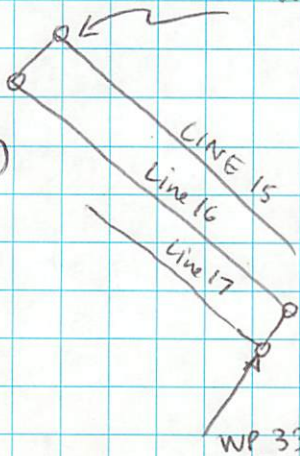
0227

New waypoints -

WP 31:
17°46.2
82°49.2
(#7 in MV)

WP 30: 17°50.4
82°46.6

(#6 in MV)

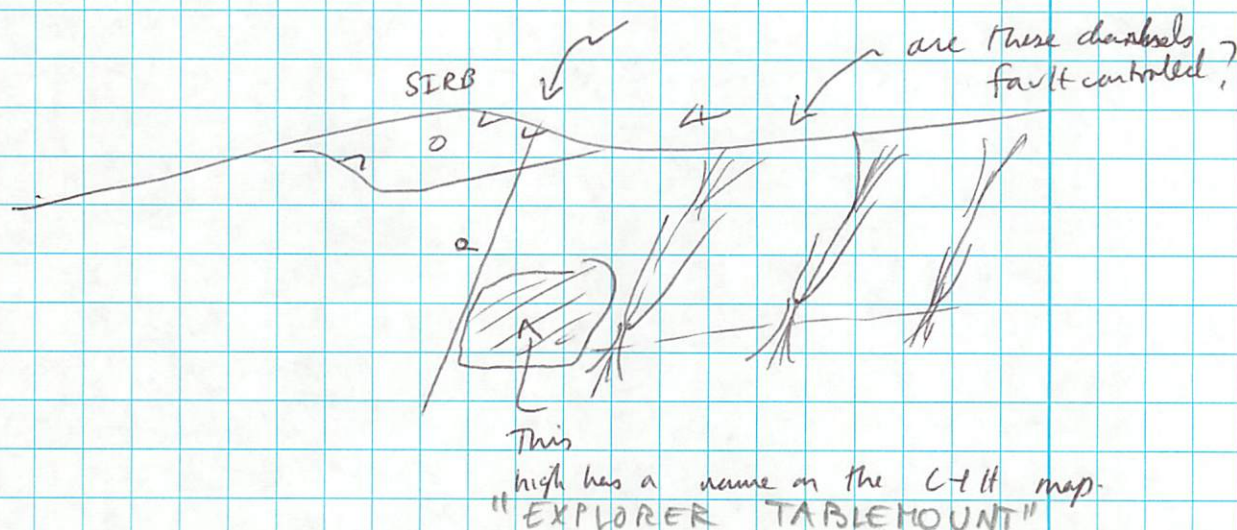
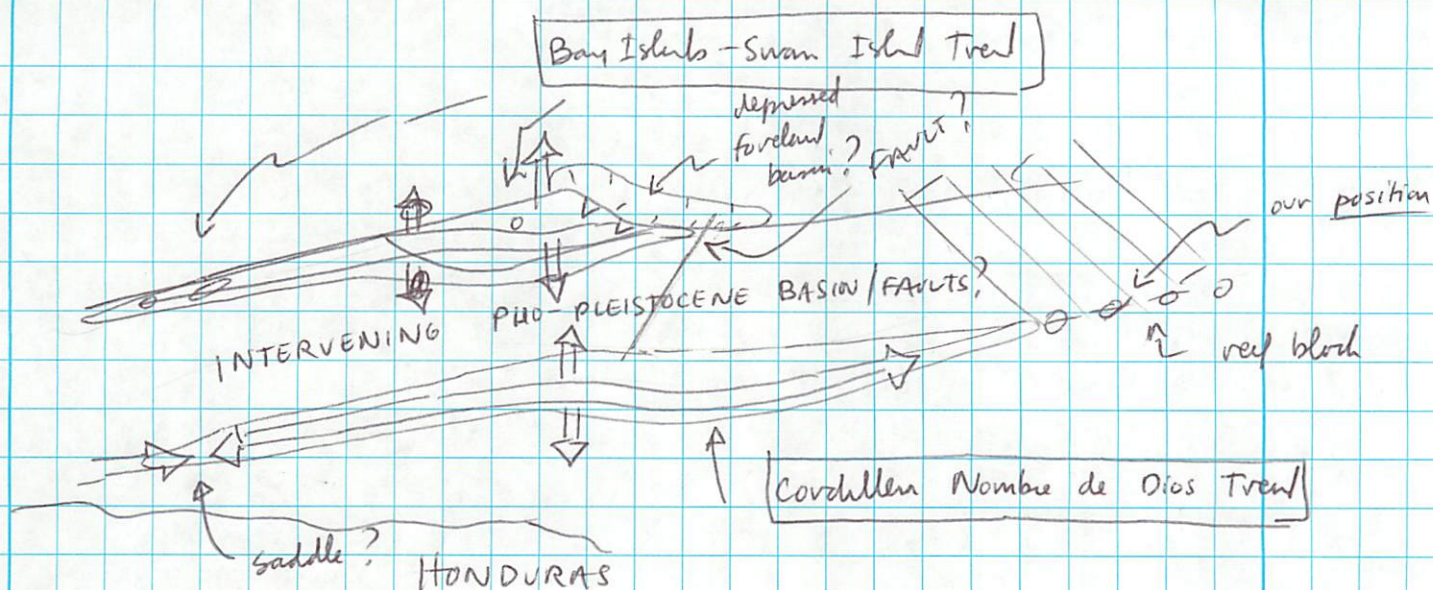


WP 32
17°15.8
81°54.3

#8 in MV

17°11.5
81°56.9

Two basement trends?



0520 Recorder 6 w/ proc S/S NOT functioning properly, — Center lines are diverging |||| E "look weird"

John is Airing Stylos Ribbon to fix A/R 0530, only ~ 3 min data gap. 8/0400 - still adding w/ Recorder 1. Thinks it is due to speed of ship, connected some wire that "looks like it is taking care of the problem" but it is, then this connection has been off since Recorder 6 and Recorder 1 were switched! 8/

DATE 4 AUG 87

J 216

GMT

Comments

0051

TIME

0745.

Assumed correct - STARS: ON LINE 15A -

NAVIGATION - SAT TRANSITS, WORKING.

SEAMARK = OPERATING NORMALLY.

SEISUIT - OPERATING NORMALLY - STARBOARD

SPEEDMETER - SPEEDMETER RUN, 1900 PSI - 12 S
RAT RMB.

MAGNETOMETER - OPERATING

GRAVIMETER - OPERATING

0801

- C/C TO 120 - START LINE #16

0801

COMPLETED TURN - ON LINE #16.

1035

A/C 110° -

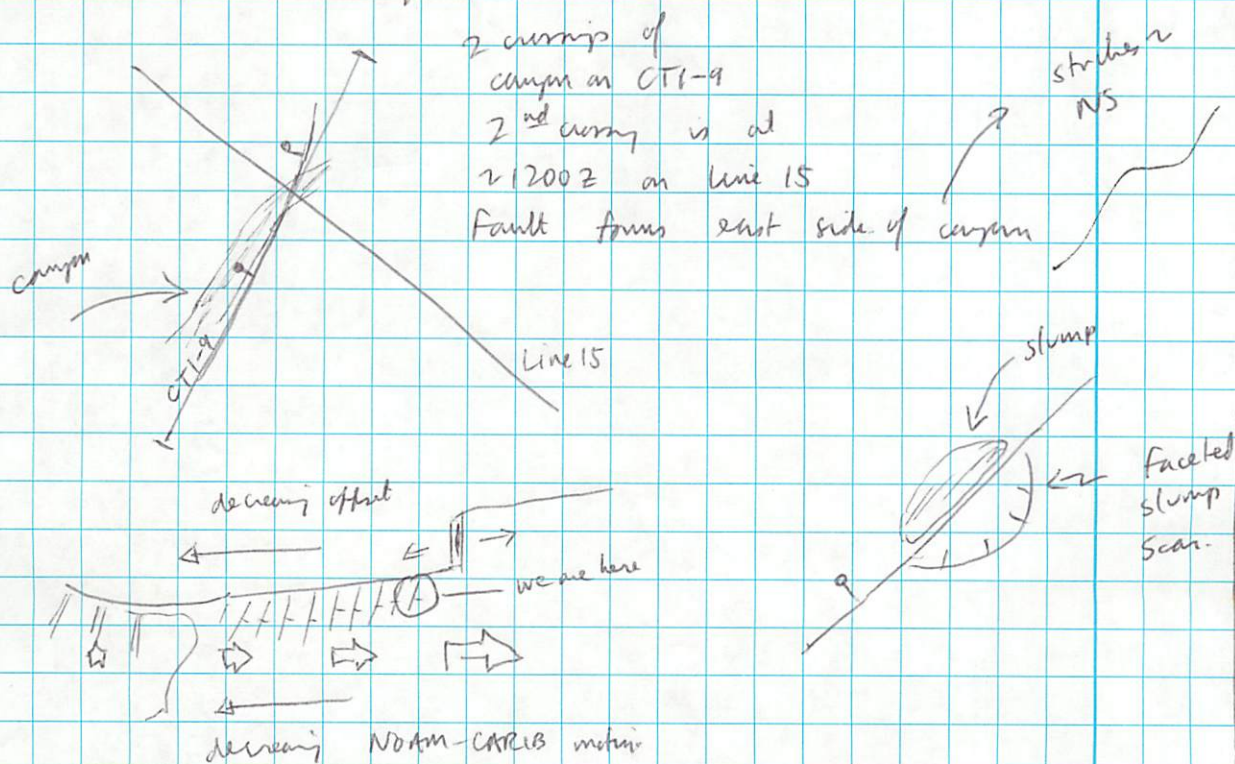
1053

A/C 115°

1.

1339

Fault control on canyon.



04 AUG 89
216

0052

GMT

COMMENTS

WINTL

No. available data on Recorder # 5 (SeaPARADISE)
(Paperjam every 10')

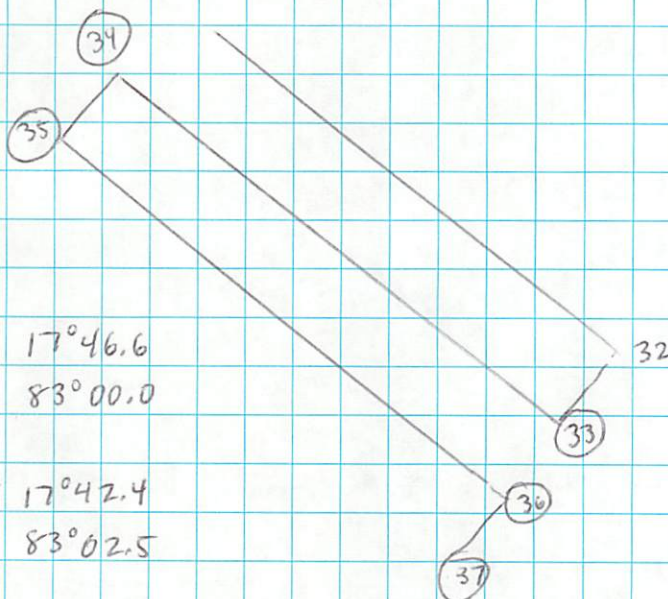
1526 New waypoints given to captain -

WP 34 (#1) MV = $17^{\circ}46.6$
 $83^{\circ}00.0$

WP 35 (#2) MV = $17^{\circ}42.4$
 $83^{\circ}02.5$

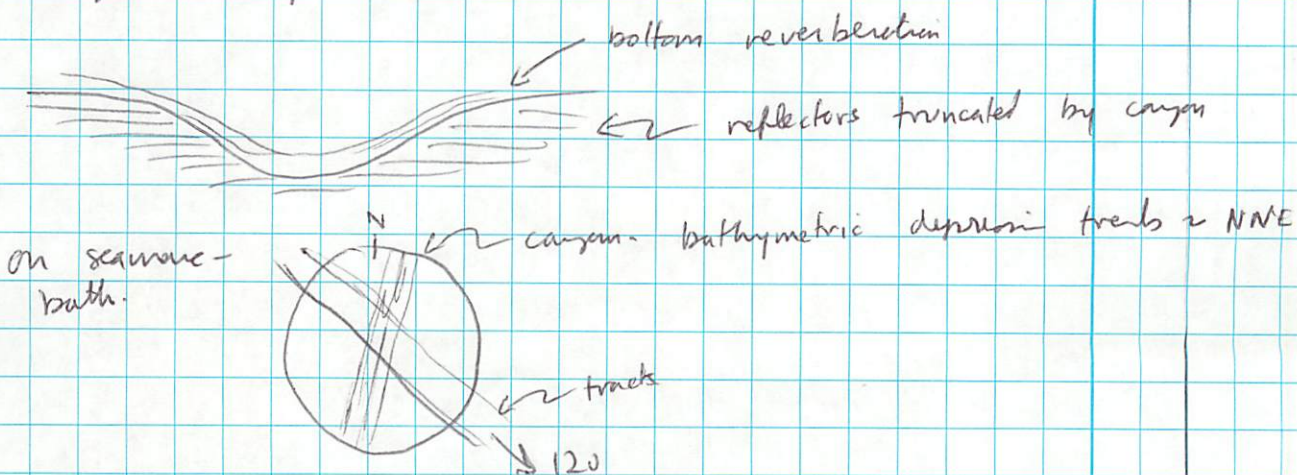
WP 36 (#3) MV = $17^{\circ}14.5$
 $82^{\circ}12.2$

WP 37 (#4) M = $17^{\circ}10.4$
 $82^{\circ}14.7$



→ Called in by Eric on previous watch.

1544 Canyon crossing - on seismic



TIME

COMMENTS

mudstones, sst.

Initial

1551

Penetration with SCS 1.5 sec (1000-1200 m of sed)
 Depends on velocity of sed. (1.8-2.0)
 Hard sed - travels faster - (2.5) 1875 m - (limestone,
 harder sst)

1600

Watch Δ all appears well on line
 16 ~ 1 1/2 hrs until turn ~~on~~ off line
 Striped Clinger in and operating
 SMTI behaving like a Por

CTI-9 / SMTI Survey lines, Intersections

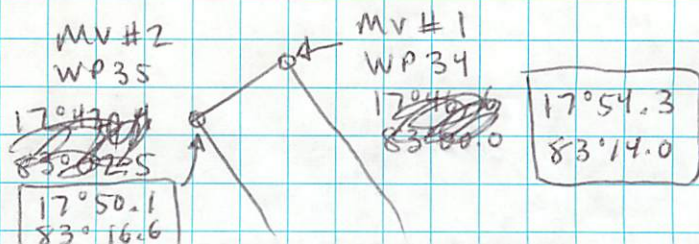
Line	Lat (N)	Lon (W)
13-9	17° 45'.5	82° 17'.2
14-9	17° 41'.0	82° 19'.0
15-9	17° 34'.5	82° 20'.5
16-9	17° 31'.1	82° 21'.5
17-9	17° 26'.8	82° 24'.0

1954

ASSUMED WATCH - STATUS - NAV = GPS -
 LINE #17 - SEAWARD NORMAL - STREAM
 NORMAL - STARBOARD GUN @ 1900 psi - MAGGIE
 NORMAL - GPS, NORMAL,

2111

Called in extension to Line 17.



PM

05 AUG 89
217

0054

(GMT)

COMMENTS

INIT.

0000

Δ Watch

Everything OK
Depth 5720 m

Strong deformation at the toe of the scarp

Bgm

0301

End of line #16 at $17^{\circ}53'787 - 83^{\circ}13'594$

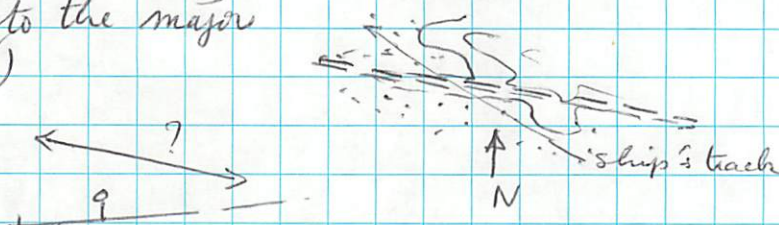
Bgm

On this line: - very beautiful channel
between $19^{\circ}(216)$ and $23^{\circ}(216)$

- in the basin: direction ~~SW~~

WNW-ESE crossing the basin at 0145 (217)
(near // to the major
scarp)

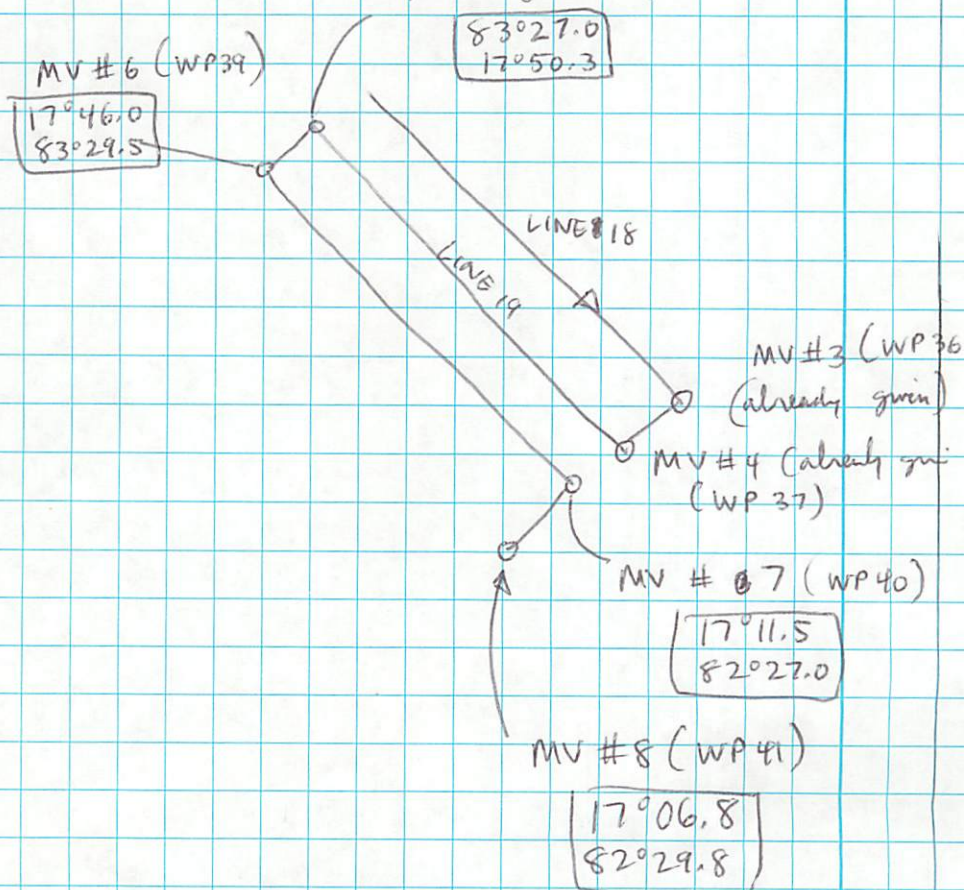
Bgm



Please check on the other line (#18) at ~ 5h00

New waypoints given to bridge.

0414



AVE
5 AUG 89
217

0055

GMT

Comments

0168 Quite an uneventful watch so far, underway on line 18.

0644 Printer #2 is down- ribbon is being changed

0650 Ribbon A'd recorder started again

— Δ Watch

— Δ Watch

1211 On line #18 : Small but very important puncture at 5^h30 (217) = fold into the basin? Paul

1238 Steve notes that it is possible that the AZD error problem on seismic may be related to gun rep rate. Most AZD problems associated with an 8 sec rep rate. By changing to 10 sec rep rate, eliminates the problem? Dm

1416 Captain says he is navigating by Lozan because GPS w/ Transit are way off. Position at 1416 is : 17°12.0
82°15.8

1600 ACT keeps faulting, has failed 6 times from 1600 → 1730

1730 A'd paper in, Recorder #1 (up at ~1755)
1750 Port gun in shrd gun out b/c of leak → loss of pressure in compressor

F7

1848 Ribbon on printer is broken
Steve got replacement Ribbon

2355 started line #20

MK

→ Change dex to Aug 89 218

0104 Wind meter strd-? in pos'n of 325° for 1 hr

6 AUG 84
213

0056

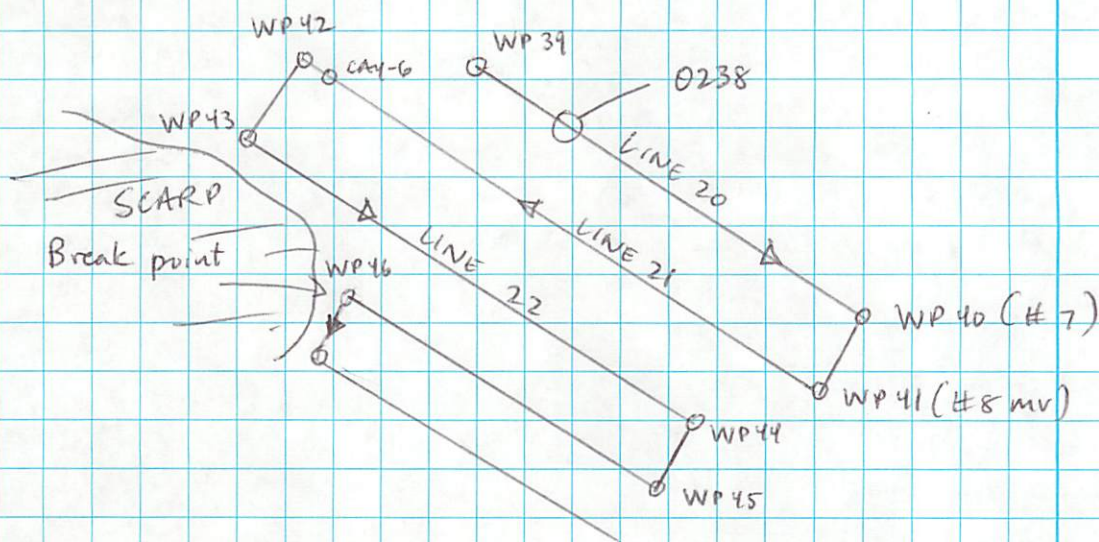
GMT

COMMENTS

INIT.

0238

New waypoints:



Captain has WP's 40, 41.

WP 42 = 17°51.4 83°49.0 (MV #9)

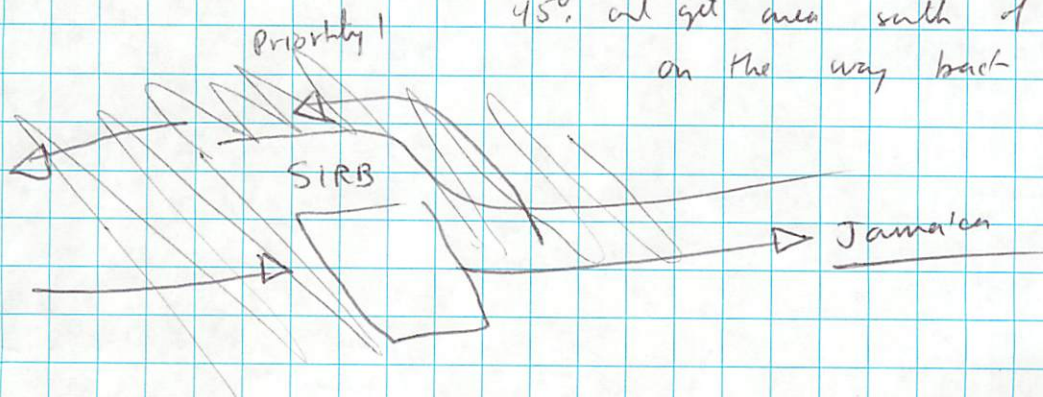
WP 43 = 17°47.3 83°51.4 (MV #1)

WP 44 = 17°09.4 82°42.5 (MV #2)

WP 45 = 17°05.1 82°45.0 (MV #3)

PM

0351 I talked with Tom again about the Swan scarp problem - may be best to miss the accreting area at 45° and get area south of SIRB on the way back



DATE

August 16

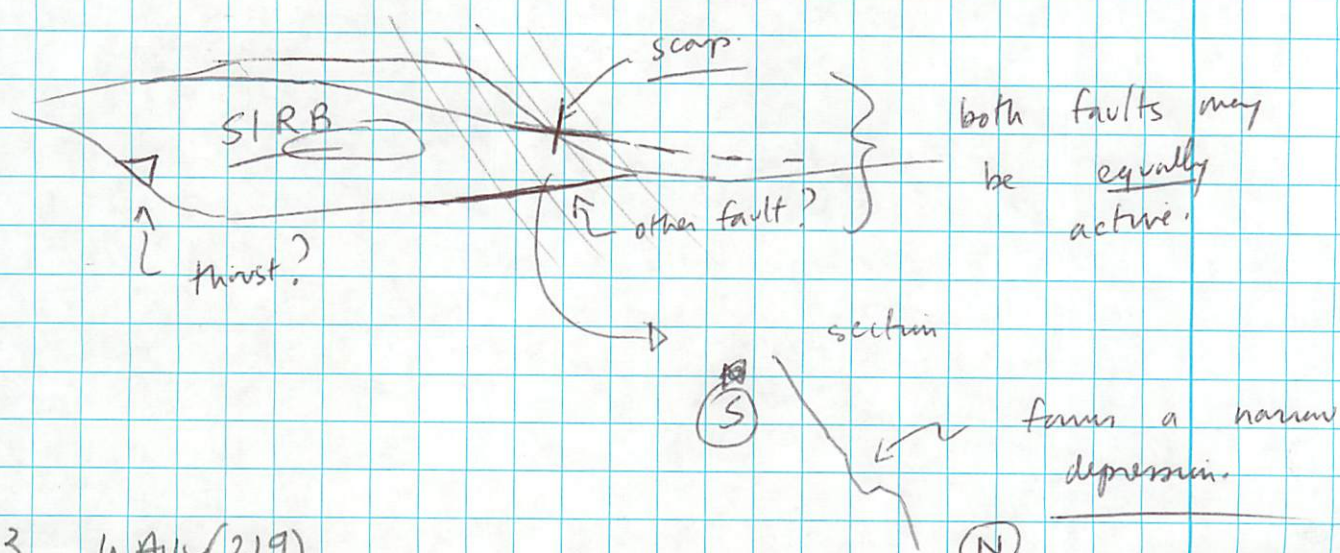
What to do if you plot a position way off the line.

- ① call the bridge and get the position they are plotting. Their small magnetox gives different fixes (more likely to accept what ours rejects) Also they are using different set of drift. Sometimes they are also using LORAN. + dead reckoning. + intuition.
- ② Their point usually plots on our line. Mark "bridge fix" on plotting sheet.

Note new GBB prediction sheet.

Satellite 14 is a factory defect - ignore its fixes.

0311 August 5 - Nice scarp imaged at base of steep slope - at 0145Z. Roughly EW striking. Would like to continue line 23 to map it out better. Difficult tracking the bottom south of here but I believe mapping the scarp would justify data loss on the scarp. ~~the~~ Tom Reed assisted in tracking but still couldn't seem to find the bottom.



0453 6 Aug (219)

- pretty quiet night, A'd Mass Comp Tape
 on 22, turn SOL 23, a couple of paper
 jams on Printtronix.

ST

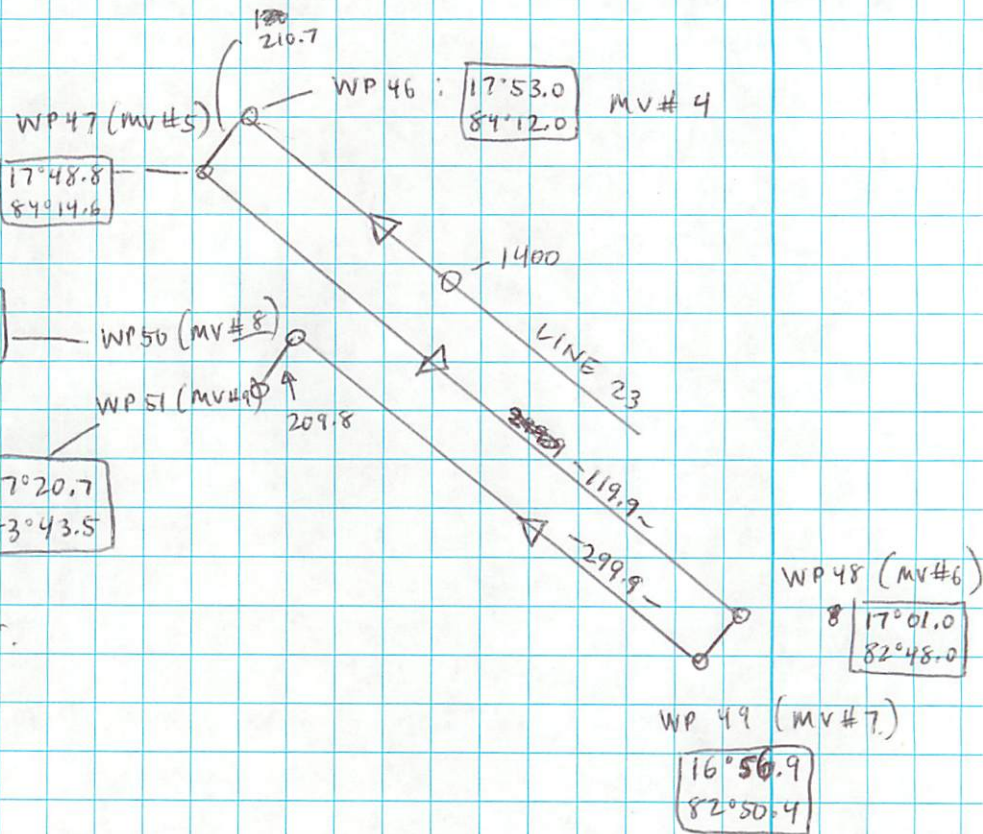
COMMENTS

TIME
WP 47

August 7

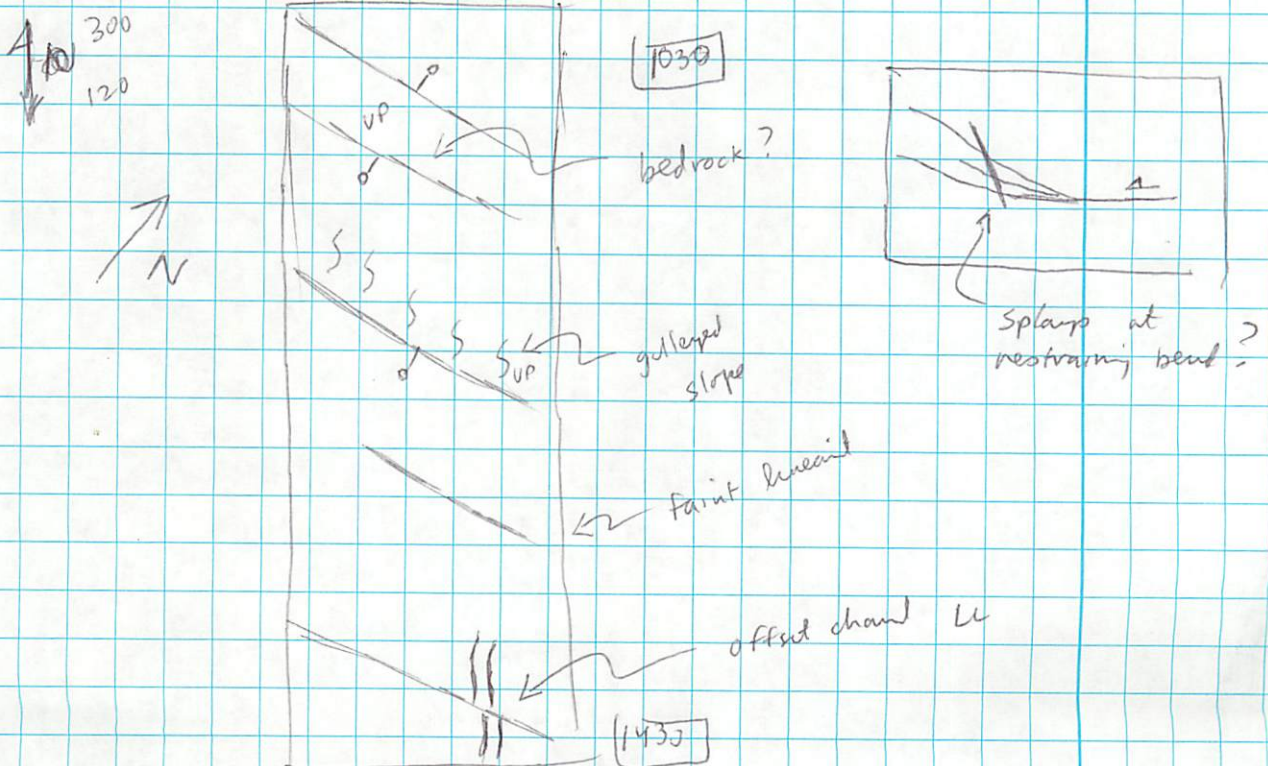
1419

New waypoints



1446 Given to captain.

5 scamps between 1030 and 1430.



TIME

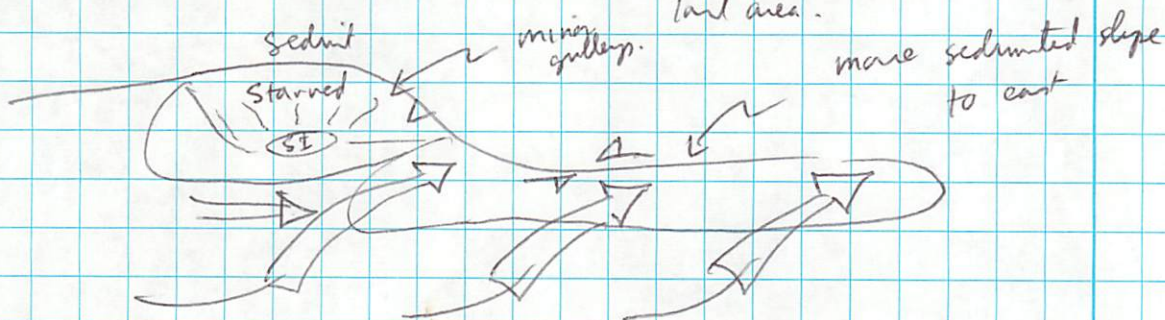
COMMENTS

Structures observed at base of slope - folds between 1400 and

1430; recent fault at 1500. This fault at 1500 strikes NNE - may be reactivated spreading fabric in oceanic crust.

1520 Reduce Speed to 4 knots, to check the Bmg gun - (Low Pressure in compressor.) Gasket ruptured. Gun trailing bubbles. Engineers reported low pressure. Dave says it is not necessary for us to turn off pressure on bow because engineering will turn it off first.

1549 Possible reason we see more scarps on the Swan Island slope - little sediment eroded off Swan Island because of small land area.



1903 Eric 2' skew A'd

1800 - 1900 - At the end of line 23, we stopped the Mass Camp acquisition to change recording parameters, principally to reduce the record length from 4 seconds to 3 seconds. The AZD module crashes. on the system are not only unbalancing, but stop data recording, unlike the process module crashes. We don't know what causes this, but suspect either a timing problem within logic, or a memory problem. By reducing record length to 3s - (6000 samples)

and cleaning up the disk, we hope ^(bludely) to eliminate the problem.

The A2D crashes are not apparently tied to repetition rate, as they have not occurred ~~at~~ while firing on an 8 second cycle, only at 10 and 12 second cycles.

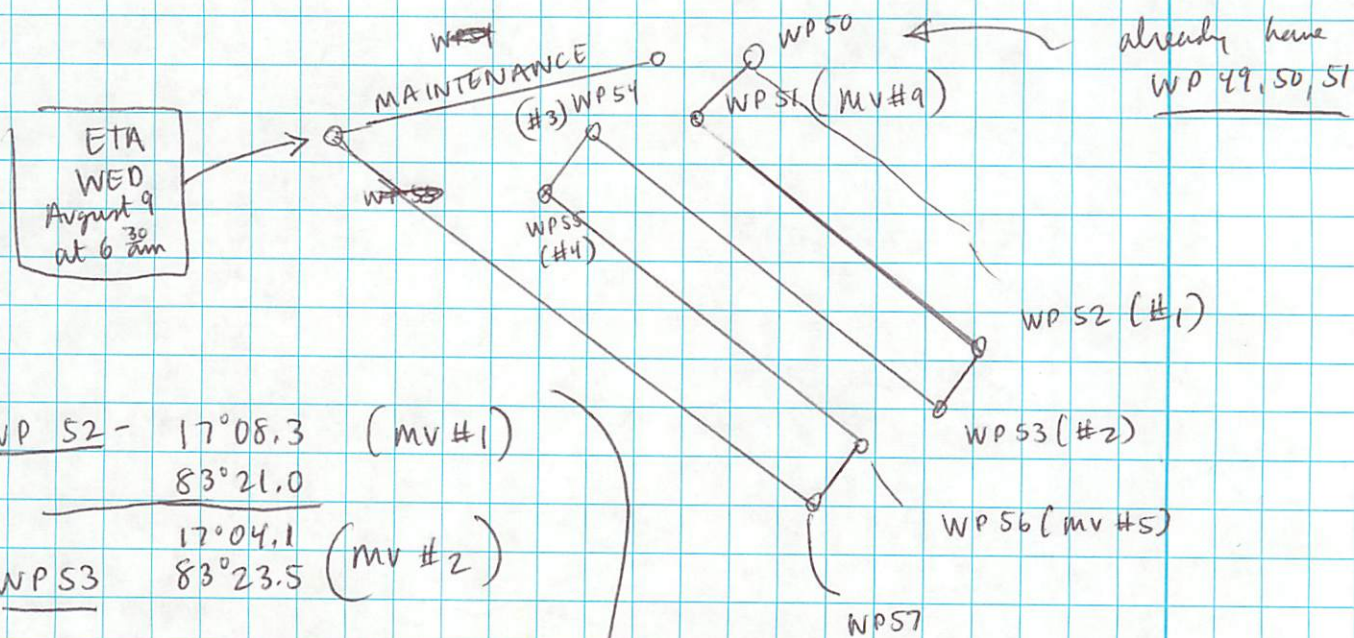
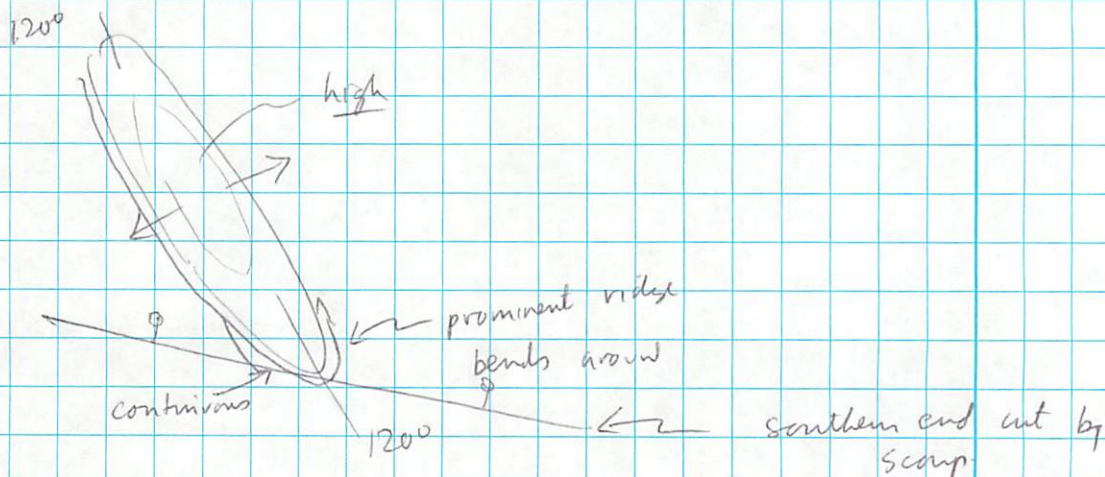
Once we had the new acquisition up and running, we discovered that printer output (pneutronix) was printing only the middle 2 seconds of the 4 second print record, or last 2 seconds of the 3 second record. We stopped tapes to playback the tape, ~~and~~ Play back showed that data was being recorded correctly, but was not printing correctly, or not being processed correctly. A careful check of DEFINE ~~para~~ parameters showed all in order, which suggests a mistake in code. We reset the printer to print 3 seconds of data, which it does correctly. System back up and running, with 3 secs record length, all other parameters unchanged, at 1853. Consequently

August 7 - 1989 - 219 -

Seismic line #24 starts within nauqualin / sea wall line
24.

R

0014 - possible fold at 0000Z - 0000Z



WP 52 - 17°08.3 (mv #1)
83°21.0

WP 53 17°04.1 (mv #2)
83°23.5

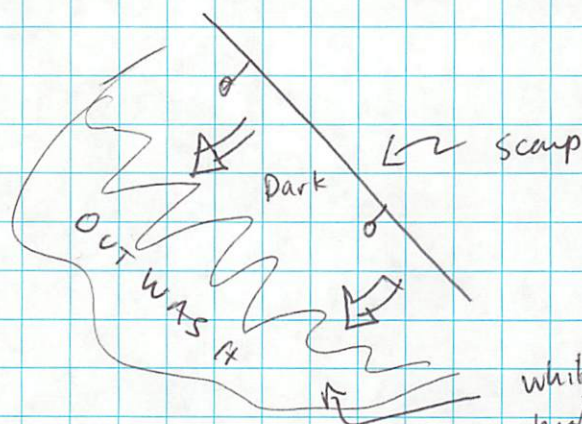
WP 54 17°21.5 (mv #3)
83°55.0

WP 55 17°17.3 (mv #4)
83°57.5

WP 56 17°01.0 (mv #5)
83°28.0

given to bridge
0357

Interpretation at 0230Z from Tom Reed

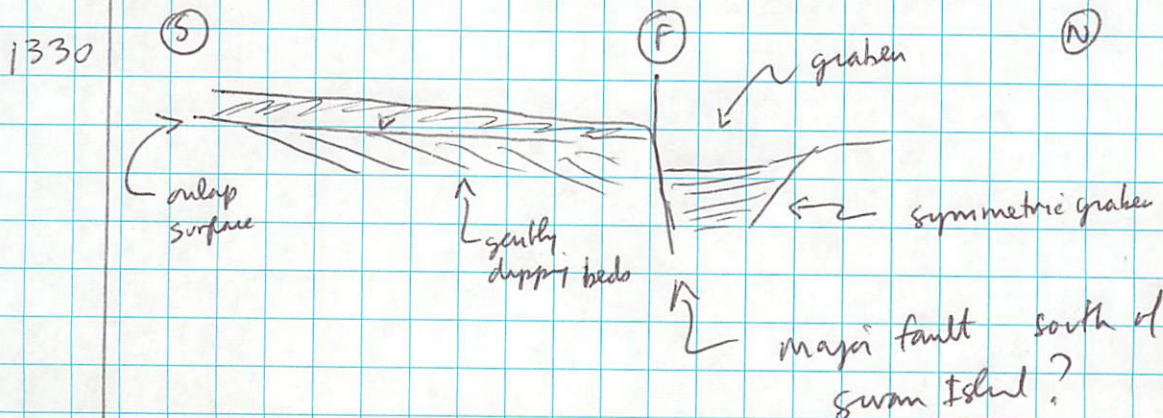


white out - probably
highly reflective talus
note channelling.

pm

August Problems with Magnavox (3 in one screen on left) -
8 1200Z The 3 in-one is not accepting the same Transit fixes
which the 2-in-one (screen on ~~left~~ ^{right}) is accepting.
Also the 3-in-one is ① not displaying a DRT, and
② for "last Sat fix" is displaying a "NFD code" which is
"solution could not converge due to very poor data". Steve
suggested seeing if it will accept the next fix. If not,
turn it off and then on again.

1330 At this time a DRT showed us 1 ^{NM} ~~km~~ north of
the line. We don't have a set of drift factored in to
our Magnavox 3 in 1. Captain's position is much closer
to the line because they have set of drift. Also are
using Loran.



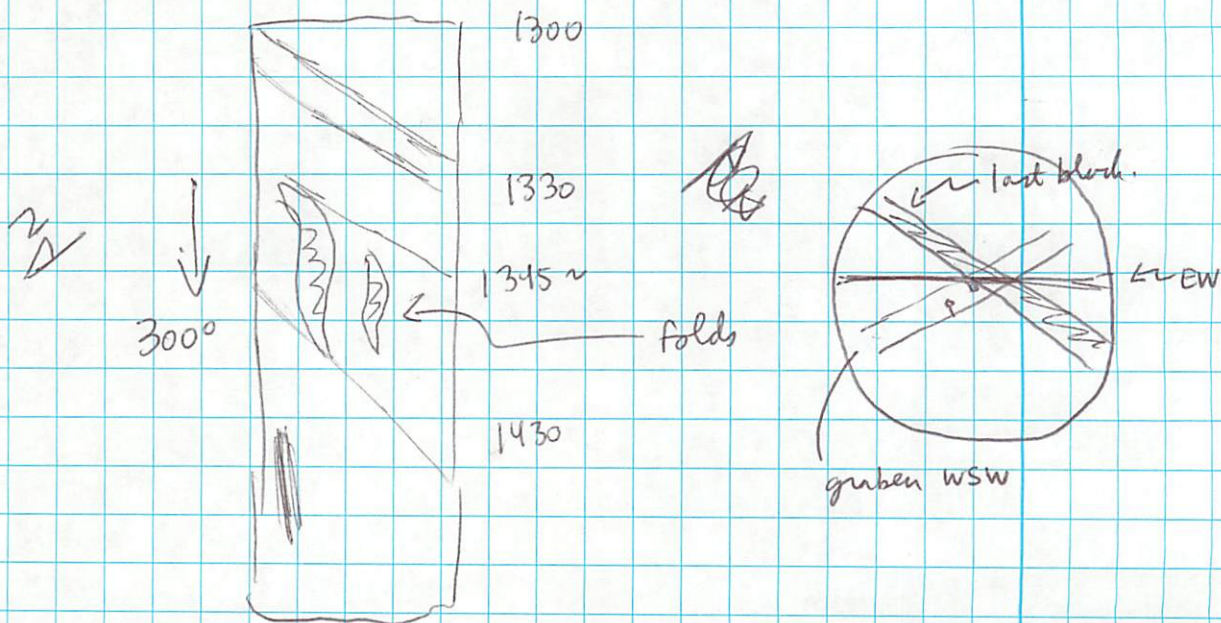
TIME

COMMENTS

1440

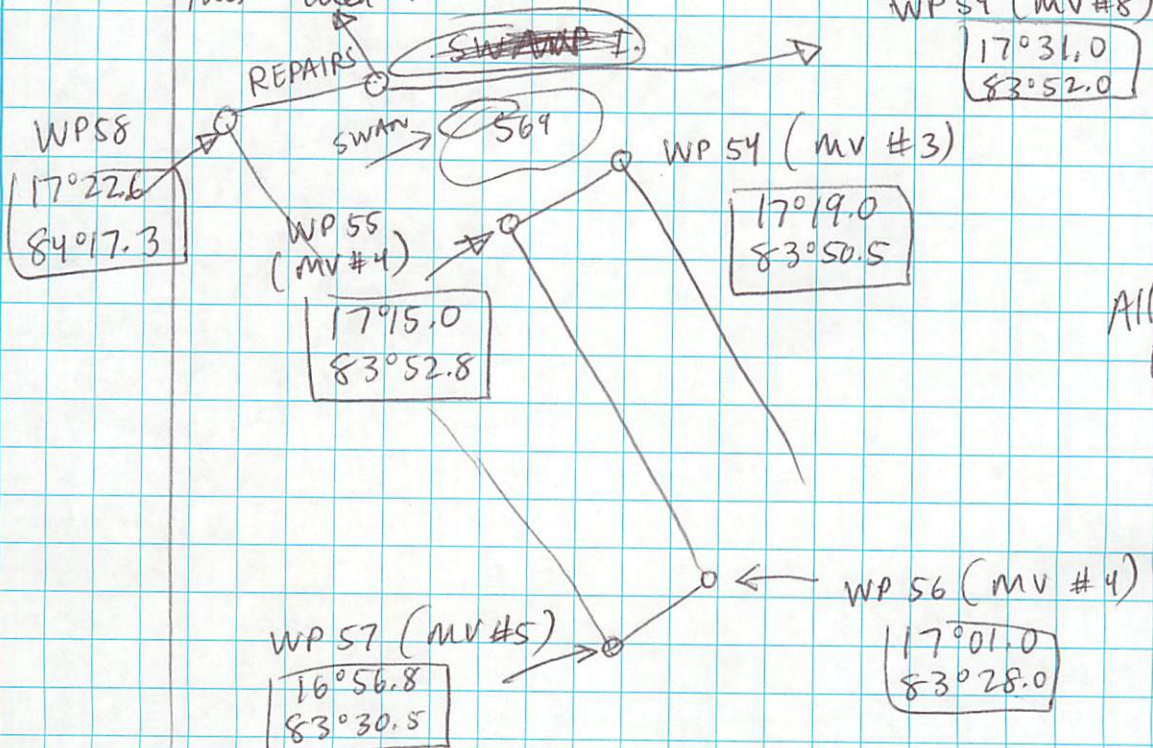
Gave plotting sheet boundaries for rest of survey to Steve. We will need a new sheet for the area north of Swan Island tomorrow (Wed) am.

1442 Faults on this line.



1541

Changed waypoints 54 and 55 from last night's position to avoid a shallow bank shown on the navigation chart (depth of 569 m shown south of Suran Island at $17^{\circ}20.0$, $83^{\circ}49.5$) New waypoints put us well south of this area:



All these points given
to Captain.

along with
instructions for
slowing at
WP 58,

0064

12

Hand-drawn diagram of a trapezoidal channel cross-section. The top width is 1.4m. The bottom width is 1.7m. The height is 1.5m. The side slope is 1:1. The area is calculated as 1.7 x 1.5 = 2.55. The wetted perimeter is 1.7 + 1.5 + 1.5 = 4.7. The hydraulic radius is 2.55 / 4.7 = 0.54. The velocity is 1.7 x 1.5 = 2.55. The discharge is 1.7 x 1.5 = 2.55. The area is 1.7 x 1.5 = 2.55. The wetted perimeter is 1.7 + 1.5 + 1.5 = 4.7. The hydraulic radius is 2.55 / 4.7 = 0.54. The velocity is 1.7 x 1.5 = 2.55. The discharge is 1.7 x 1.5 = 2.55.

Real

(221)

9 Aug 0700

I PROPOSE WE USE THIS LOG
WITHOUT CARBON TO MAKE IT LAST THE PM
WHOLE CRUISE

0138 Waypoints 56 and 57 are changed to 2 NM to NW to avoid discovery, new reefs with towfish. Chart shows an abrupt dropoff from 344 m to 1564 m, new waypoints are closer to 1564 sounding.

WP 56 - $17^{\circ}01.9$ $83^{\circ}29.8$

WP 57	16° 57.7	83 32.3
-------	----------	---------

7 Aug 91
TIME (22)

COMMENTS

0065

Waypoints for survey north of Swan Island.

MV #8 (WP 59) 17°31.0 83°52.0 (bridge already has)

MV #9 (WP 60) 17°46.4 84°20.0

MV #10 (WP 61) 17°42.3 84°22.5

MV #²~~11~~ (WP 62) 17°31.2 84°02.3

MV #³~~12~~ (WP 63) 17°27.0 84°04.8

MV #⁴~~13~~ (WP 64) 17°41.0 84°30.0

MV #5 (WP 65) 17°36.8 ~~84°35.0~~ ✓ 84°32.5

MV #6 (WP 66) 17°26.8 84°14.5

→ MV #7 (WP 67) 84°16.8 17°22.8

MV #8 (WP 68) 17°35.4 84°40.0

MV #9 (WP 69) 17°31.2 84°44.0

8 → 9	30.8	299.8
9 → 1	4.7	210.3
1 → 2	22.2	119.8
2 → 3	4.8	209.7
3 → 4	27.8	300.1
4 → 5	4.8	209.7
5 → 6	19.9	120.1
6 → 7	4.6	208.9

Entered up to here
pm of 8/8.

called in Aug 8
up to here at 1302

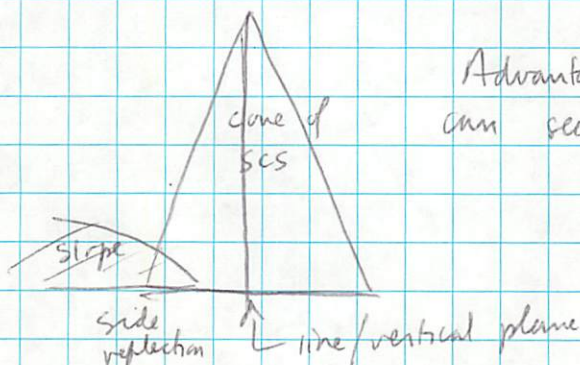
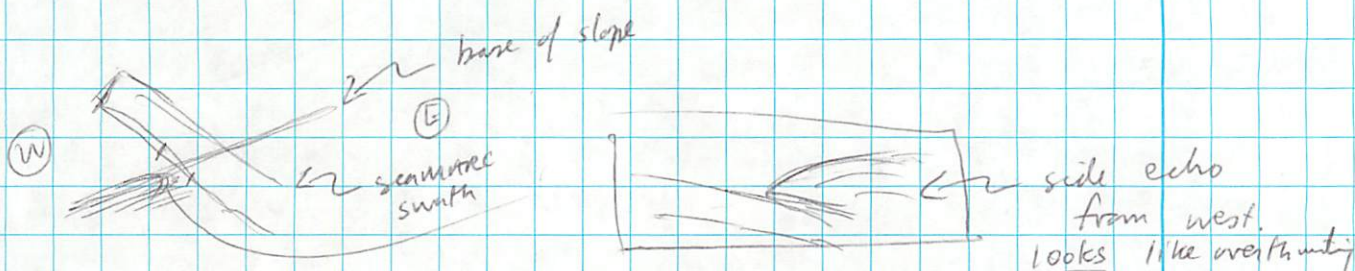
0545 → Strb gun pulled in, cci has been out
of the water since 2 watches ago. Seismic
are not expected back up until ~ 0630 (0800)
Sometime tomorrow after SM/1 maintenance
e. Azh is back in H2O. Also notice
that event markers are "v. wide" on
3.5 kHz Recorder - 3.5/prdc SIS Recorder.
★ fms are ~ 3-6 cm wide with is
working on the prototype. Jim
about to call the way points
up to the bridge

0552 - Called in up to WP 66 MV #6
so have these on bridge. Didn't
enter any more to MV. Also

10 Aug 91
(222)

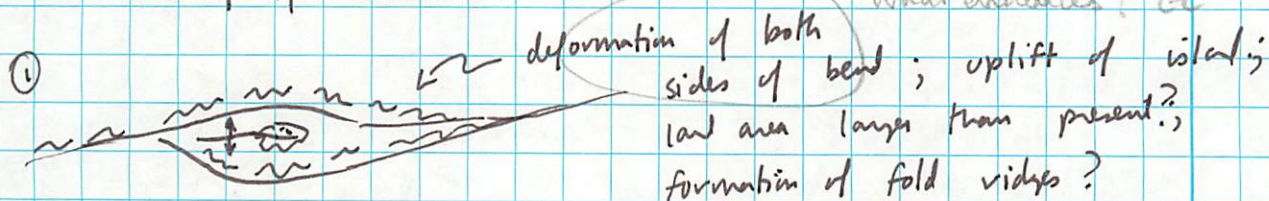
0067

2213 - Problem with trying to see deformation on SCS.

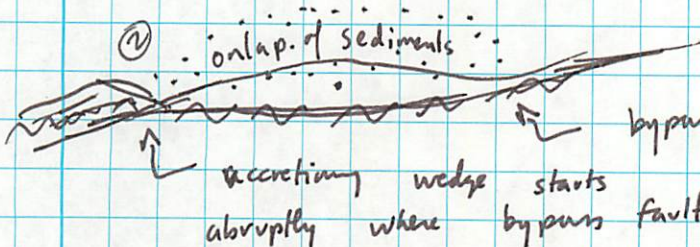


Advantage of having bathymetry also - can see lateral effect-

Possible history of SIRB



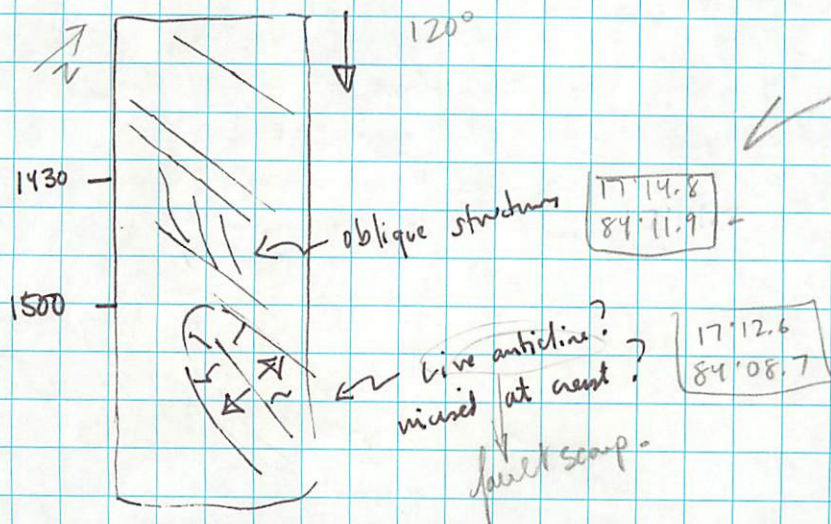
what evidence? etc



accreting wedge starts abruptly where bypass fault enters trough?
Swan island welded to NOAA plate.

the island block sediments tilted north? check papers.

1527



main fault zone folds rotated in parallelism

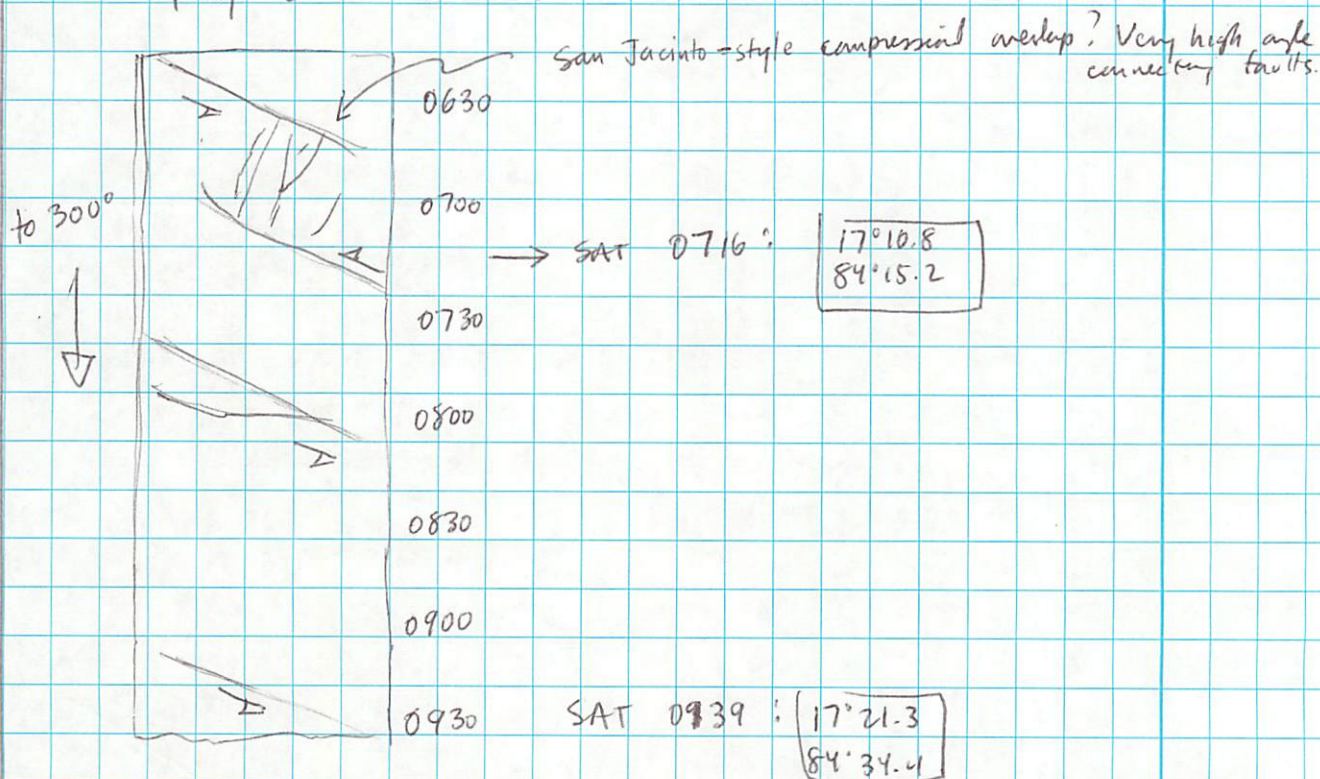
OK

August 11, 1989

1234. Status of navigating systems - The 3-in-1 Magnavox (on left) is not working well because: 1) doesn't accept sat fixes, therefore dead reckons for long periods 2) doesn't dead reckon well (?). IF we are off GPS, use the Magnavox (2-in-1) on ^{right} ~~left~~. IF we are on GPS and straying off track, check with the captain about a possible problem with GPS 3-in-1 tracking.
 Best policy - plot all sat fixes using the 2-in-1 on right.

1240. Steve turned off power on 3-in-1 to "re-initialize". The reason why SAT Fixes are slightly different on both units is that the 3-in-1 takes information from the ADCP whereas the 2-in-1 takes info from the Doppler speed log. Also position calculations on both are slightly different. "Alert GPS invalid" message disappeared when unit reinitialized.

1316. Summary of structure on Line 36 -



1351. Climbing Canyon escarpment - no signs of deformation.

1547. New waypoints: WP 78 (MV #9) 16°52.1 84°12.0
 Given to bridge
 WP 79 (MV #16) 16°47.9 84°14.6
 WP 80 (MV #2) 17°19.0 85°11.0
 WP 81 (MV #3) 17°14.9 85°13.5

Friday August 11, 1989

0011 - How to calculate vertical exaggeration on SCS. (BML) (Raytheon)

Horizontal - 1 hr ~ 15 cm at 8 knots
 so 8 Nm ~ 15 cm

full sweep

$$\Rightarrow 1 \text{ cm} \equiv \frac{8}{15} \text{ Nm}$$

$$\equiv \frac{8}{15} \times 1852 \text{ m}$$

$$\Rightarrow 1 \text{ cm Horizontal} \equiv 987 \text{ m (at 8 knots)}$$

Vertical

$$5 \text{ sec TWT} \equiv 22 \text{ cm}$$

$$\text{Speed of sound in water} = 1500 \text{ m/sec.}$$

$$\frac{5 \times 1500}{2} \text{ m} \equiv 22 \text{ cm}$$

$$\Rightarrow 1 \text{ cm vertical} \equiv \frac{5 \times 1500}{2 \times 22} = 170 \text{ m}$$

$$VE = \frac{1 \text{ cm horizontal}}{1 \text{ cm vertical}} = \frac{987}{170} = \boxed{5.8}$$

\rightarrow only for water column because velocity of 1500 was used

More vertical exaggeration of 4 sec seafloor recorder - EPC-3

$$\text{Horizontal} - 1 \text{ hr} = 11.3 \text{ cm}$$

$$1 \text{ cm horizontal} \Rightarrow \frac{8}{11.3} \times 1852 = 1311.15 \text{ m}$$

$$1 \text{ sec} \Rightarrow 12.1 \text{ cm}$$

$$750 \text{ m} \Rightarrow 12.1 \text{ cm}$$

$$1 \text{ cm vertical} \Rightarrow \frac{750}{12.1} \approx 62 \text{ m}$$

$$VE_{\text{seabottom}} = \boxed{20.8}$$

12 Aug 89
1224

0070

0712 Printronix down → David noticed printout was not v. dark so we opened lid to check ribbon which was fine printer however will not go back on - line" notified Mike Simpson, working on it now

0722 → Talked to Steve about it → What you do is disconnect the Gray SP-64 connector from the back of the printronix, push on-line and reconnect, it is that simple. X
The ribbon problem leading to lightness of the record resulted from a loosening of the paper tabs (that Steve inserted) of which allows the ribbon to run freely."

0734 - Jim called from the bridge to ask for someone to "reset the repeater on the Nagnawox ... it is off about 1 degree to the right..." - Since no one knew I said I would leave a message for Steve (which I did) since it wasn't essential to reset it at the moment. Tomorrow I will ask Steve what it is all about.

August 12, 1989

1240 We crossed the bank margin at 1160 m. (Swam Island trail)



Has the block been tilted so that ribs of the same age & trend deepen to west?

Date
17 Aug 1989
225

0071

Comments

Dr

0718

- Rapid shallowing, now steadily on the turn at a 840 m. Brady called to warn that shallows of a 500m were \approx 3NM off our course, asked us to keep a sharp eye on 'ratty', which we are doing

St

0742

- dropping back down nicely, no more shallowing, just alot of bottom detect errors

1200

Eric R. recommends ^{switching} ~~using~~ the 40 cu in gun ^(for a 120 cu in gun) out either at the end of the line or when it fails - whichever comes first. Advantages: help with noise problem; deeper penetration into thicker sedimented areas of Capman Trough. He has notified Dave. He also recommends shorting the line to the south.

Pm

1351

Dave says we need to let the engine room know when we change to the 120 cu in gun. They need to change plates on compression - takes 15-20 min.

Pm

1415

Called Engine Room (Machine shop) to alert them that we would be changing airguns. He said for Dave to tell him when the gun is out.

Pm

1428

ETA calculation - using long lines to Handman shelf break; and survey of Motayna F2 as far east as possible:

Total distance: 1426.8 NM

Time at 8 kts: 178.35 hrs.

Time at 7.9 kts 180.6 hrs

ETA - Sunday 20 August at 11³⁰ pm

This does not include survey lines in Tela

5 $\frac{1}{2}$ days remaining for Tela + survey near Tannania. (ETA - Montego Bay - 12 noon - Aug 26)

13 Aug 89
228

Comments

0072

GMT 1848 - Problem with aligning adjacent sheets of plotting paper because of UTM coordinate system. Because of curving earth surface, at 1:300,000 scale, grid gradually gets out of alignment. PM

1930 All seems ok on 12-y watch, Rec EPC #1
A'd roll. A'd vacuum bag too! Probably a
first in a long time. Paul did the
new way ports &

0021 Informed Steve & Dave that we were going to make the turn &
pull gun & eel.

0031 Steve reports that when power is off to streamer, there is no
noise. Therefore, they will pull the streamer to replace
preamps in the head of the streamer. This may take longer > 1 hr.

0026 Panned "highres" by typing panne/ret.

0000 Eric R. made visual comparison of records from 40 & 12 ci augurs.
120 offers no advantages because: 1) can see basement with 40 &
2) no water bottom multiple. as with 120.

0030 Deploying Stb 40 ci gun

0040 Changed rep rate on Seamane from 10 to 8 to coordinate with
gun change. (checked with Steve first)

0040 Eel coming on deck.

0049 Told Ken Winow ("Kimo") in engineering about changing rep rate on
Seamane from 10 to 8.

0045 Told bridge to come to ⁶8 kts until kts. turn.

0012 Sped up to 8 kts coming out of turn. Problem seems to have been in
a faulty preamp at the head of the streamer which was amplifying noise -
replaced with rebuilt unit.

0151 New preamp failed after 2 min. Very weak signal coming through
with high gain settings. Will temporarily record in this mode until replace
preamp on streamer.

11 AUG 87
220

0073

Comments

1115 - TURNED GRAVIMETER PRINTER OFF - (Paper jam).

1216 - I talked last night with Gail & Tom about mosaicing problems. Apparently our long stretches w/o GPS and sporadic NAVSAT fixes have made it very difficult for them to mosaic seamount particularly in the flat basin areas where little is visible to match up. They need the bridge LORAN info given to Steve at half-hour intervals when he does his navigation logging.

Talked with Steve about this - the problem is that Seamount and the ship produce 2 slightly different sets of navigation because the Seamount does not always follow directly behind the ship. This situation is worse when the satellites are down. For these periods, we should write down bridge fixes in the A-log. Then Seamount people can use these to help mosaic.

1337 - Talked with Will about streamer. He is looking at the old preamp to try to find out what the problem is.

1351 - Will put in the replacement preamp last night. This was the problem as the signal now appears normal on oscilloscope with gains of 10 and 10. The records still look noisy to me.

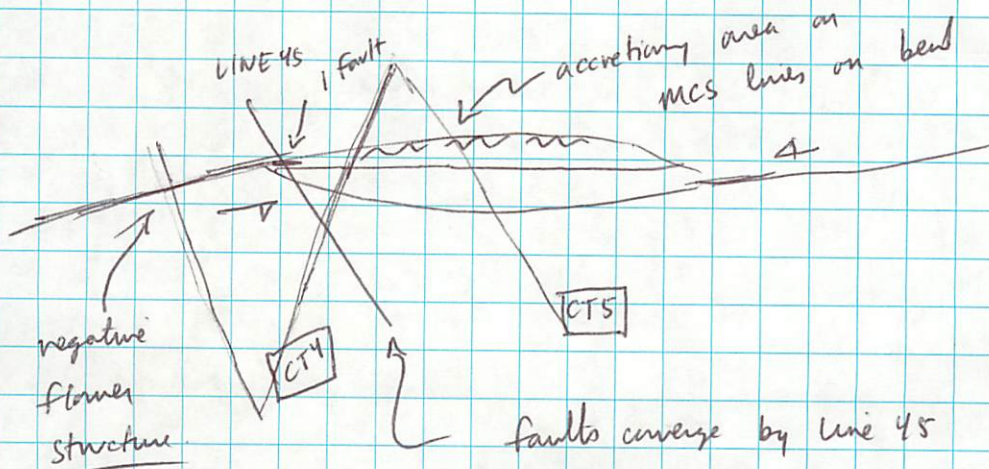
1540 I have extended LINE 45 to the north to make sure we under- all of the faults at the base of the Cayman slope. On lines 43 & 44, faults were seen very close to the end of the lines.

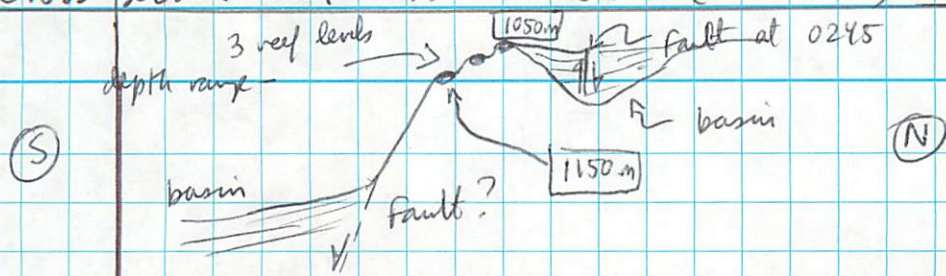
New waypoints -

WP 92 (#5) 17°05.6 85°47.0

WP 93 (#6) 17°01.3 85°49.6

} called into bridge





Is this the same terrace seen to the east at 1400 m BSL that has been uplifted?

0317 Ridge peaked at 970 m BSL

0407 New waypoints - given to bridge -

WP 94 (mv #7)	16°26.0
	84°45.3
WP 95 (mv #8)	16°22.0
	84°47.7
WP 96 (mv #9)	17°03.0
	86°02.0
WP 97 (mv #1)	16°58.9
	86°04.5

0416 Joel shut down SM11 to advise something
 - there was a problem w/ the fish reading (the display of fish reading to be more exact) which showed a heading of about 400

- phase went down on SN 11

0425 Problem seems to be correct

0508 actually prob not solved Tom: Joel trying to figure it out. But, really it's not so bad because "we don't use that in formation anyway."

0744 Jim ~~Paul~~ called down from the bridge early in the watch to notify us that shallow area could be reached ± 0700 local time this morning. His charts show a

15 Aug
1989

0075

(227)

Comment

1338 Close to end of 12-4 watch. V. uneventful
except for sighting of Bay Islands.
Aid Rect# 7 3.5 kHz battery power

16 Aug 89
228 Hechic watch at end w/ slope on SM11
E TURN @ end of watch → i. Not much
time to plot WP's

0745 Falco 5000 10 sec down p/c of
tape drive - Falco down
UP @ 0750 5 min data gap

Streamer signal quality has deteriorated
significantly since midnight.

1518 Amp #6 changed from 20 to 10 by Steve. I
reported the noisy seismics to Wil (~1430) & Steve
(1518). 1445 shows marked deterioration. Preamplifier problem?

1525 Slowed ship speed to 6 kts to check effect on decreasing
streamer. By decreasing speed, we see better returns off of
reflections but also increase in noise. Would expect noise to
drop off.

1530 Increase speed to 8 kts. Steve not clear on reason
will talk to Wil.

1634 Repeated failures of ACT from 1600 on watch
has resulted in 3 of plotters again
also occurring since 1600. Steve & Wil are
attempting to determine problem with
the noise being recorded. We may be
pulling in the old

Date 17
16 Aug 2008

0076

GMT

comment

FMV

0449

C/C 210 → new tape in SCIS
VME

8

Jim came down from bridge to see what our Nex Mar Bound chart looked like. He said captain usually makes decisions about entering waters / how far to avoid etc: so tomorrow 8-12 will probably decide

8

— left note for Steve requesting a new box of tape

1537

New waypoints:
slight revision in 117 (#3)

WP 118 (#4)	16°39.5	87°11.0
WP 119 (#5)	16°21.1	86°37.6
WP 120 (#6)	16°17.0	86°40.0
WP 121 (#7)	16°37.1	87°16.1
WP 122 (#8)	87°18.7 16°32.8	87°18.7
WP 123 (#9)	16°16.5	86°49.2
WP 124 (#1)	16°12.4	86°51.6
WP 125 (#2)	16°30.6	87°24.5
WP 126 (#3)	16°26.5	87°27.0
WP 127 (#4)	16°17.8	87°13.0
WP 128 (#5)	16°14.6	87°15.6
WP 129 (#6)	16°24.2	87°38.0
WP 130 (#7)	16°20.0	87°35.5
	16°13.0	87°23.0

Given to bridge
1537



Aug 89

0077

124
GMT

Comments

1715

A2D module ^{experiencing} ~~giving~~ continual sync problems
~~at~~ Big Crash -

Steve stopping to reboot
putting in a new tape. We are still
~~at first~~ of turning to line 59,
Snowie XNC ~ 1725 or so

1726

XNC @ 1724, Steve ~~is~~ ^{trying} to get
on MASSCOMP - still problems

1755

Returned back up and working still
problems w/ MASSCOMP

1803

MASS COMP → seems to be up now →

1805

Returned EPC #2 back to original state

(A'd see sweep on Time Base A from
8 to 4)

1951

LOW

0246

I asked Tom to check the Seamarc Raytheon because
it seems to continually get lighter. (Does not seem related
to gain because the lightness is uniform) He put in a new
stylus - now its too dark. Adjusts are contrast & gain at top left.
← cleaned the stylus tips.

0318

Talked with Tom Reed about taking Seamarc out at Tele straits.
He wants to take the entire Seamarc out (fish & depressor weight)
and purges 1 hr on each end of the strait (no maintenance)
He also suggests running strike parallel lines in the Tele Basin
(ENE-WSW) ~~less~~ to avoid losing time on frequent turns. (up & back
& crossing?) Because of ~~bat~~ shallowness, won't have much bathymetry.



19 Aug 89
GMT

Comments

0078

231

Plan for Tela Basin - Intensive survey (~24 hrs) running 3

0400

lines parallel to basin - (seamarc + seismics) Some depths of water seem shallow but we will be traveling ~ parallel to margins + can turn off easily. The 9 m bank may be either a very sharp peaked volcanic high or a mistake on the map. We plan to survey around it. It is near the Quat. cone on Utila. The southern line will pick up Texaco line 77-1 to follow out of the eastern end of the Tela Basin. 77-1 is tied to a dense grid which may be tied to wells on the shelf. This line (77-1 & SCS) will link the Tela grids to our data to the east of the Tela Basin. Total time of Tela survey ~ ~~24~~ hrs.

ETA's - from SOL #68 (231 - 330 Z)

SOL #68 to WP 141 (extraction point for Seamarc at mouth of Tela Straits) 10 hrs 40 min (231-16:10Z)
10:10 am Sat.

* Both Tom & Joel given 10 ¹⁰ am ETA for Seamarc extraction.

WP 141 to WP 144 - Seamarc extraction + redeployment -
Estimate 2 hrs total based on Tom Reed (231 - 16:10Z)

WP 144 to 152 B (Tela Basin survey) - 22 hrs (232 - 14:10Z)

WP 152 B to WP 158 - Survey south of explorer Tablemount -
rationals is to have additional data close to the shelf which can be tied to the industry grids. Also to confirm inactivity of La Ceiba + Aguan fault extensions from Honduras coast. (10 hrs) - ETA at 158 233-00:10Z

WP 158 - WP 159 End of Tablemount survey to begin of lines near Jamaica (assuming speed of 10 knots.) At point 159 we would retrieve Seamarc + seismics. Redeploy ~~seismics~~ Seamarc at 159. (32 hrs) (234) 08:10Z

ETA to redeploy Seamarc near Jamaica Tuesday 4 ¹⁰ am
Leaves > 5 days for work near Jamaica.

Seamane retrieval events:

1319 - Slow to 4 kts at 16°16.20 86°58.87

1322 - Seamane coming up

1330 - Turned off cell power

1331 - Paused seismics (shot 50316)

1332 - Power down maggy

1338 - Maggy on board

1344 - Depressor at surface

1346 - Depressor on board

WP141 - 1352 - 16°16.3 86°56.4 (depressor on board / seamane in tow)
 - coming up to 8 kts.
 - SOL 72

1354 - Problem with safety - return to 4 kts.

1400

~~1354~~ - returned to 8 knots - cse adj. to 102.

1403 - Checked with Tom - leave seismics on board until we redploy.

1447 - Because we began to recover Seamane so early, we are now losing data in the area of eastern Roatan. ridge and Motagua Fault. (on this line, NO SCS, no seamane, no maggy) Source of problem:
 1) Tom Reed's estimate of recovery of Seamane being 1 hour. During recovery decided to not bring fish on board, only depressor weight. Recovery time was 33 min.

2) This 1 hour estimate may have led Eric R to propose a revised retrieval point at 16°16.20, 86°58.8. This is far to the west of our original recovery point. May not have taken into account that we travel at 4 kts during recovery and therefore travel a shorter distance per unit time

19 Aug 89

231

0080

GMT

Comments

1934

Seismic records are looking quite all right & nice strips seen, deformation apparent

at start of watch depth low was ~800m and deepened progressively. Now in center of basin we are ~1400m. I don't foresee any problems with the next line (74) though '75 may bring about unexpected highs.

0338

Line extended to include 9m ~~high~~ deep bank in sidescan swath. Is this a volcano with a pinnacle reef on top? New waypoints:

WP 147 16°09.5 86°31.5

WP 148 16°05.1 86°30.2

WP 149 16°21.8 85°30.0

ETAs

- WP 149 - 156 - 20 hrs

Mon 3 ³⁵/_{am} (233) 0735Z

- Pull seammac, seismic.
- Captain gives a 10 kt estimate to Jamaica although he needs to research it further (currents, etc.)
- WP 156 → 157 ~ Tuesday 11 ³⁵/_{am}

0638

→ PUT WP - 150 & 151 in MV as MV 01 and MV 02 respectively called to bridge w/ 150 & 151

20 Aug 78
232

0081

GMT

Comments

Incl

1740

Steve's Jole worked out Rep Rate problem, back to SMII Trans Inv/ No more manual shot rate adjust

1755

paper A on Rec. # 6 proc/s
tey Stylus ribbon A on Rec # 2 sens.
Jole looked @ S/S Ration
said errant mark was something
to do w/ the paper (a kink or so)
it was up to me if we wanted
to A it. I decided NO because

- 1) it appears only on the 1st swath that we aren't matching
- 2) it won't appear on preprints
- 3) Any paper roll will → data 10:55 & some interesting shxrs are now being recorded

1830

I'm called w/ a revised ETA →
= Tues 0200 local time
223

1844

0215

Seamane retrieval - all people notified -

0218

EOL 82 - C/C to 072° (at 16'35.5, 85'02.4) (0218)

- Shut down seismics - exited program.
- Shut down Seamane.
- will not retrieve until out of the turn - informed Tom Reed.
- Shut magy off - 0224:24.
- Airgun/magy secure - retrieving ul at 0233
- Increase speed to 6 kts. 0235
- Start on 6 kts - 0237
- 0243 - Ed secured - start retrieving Seamane
- 0321 - Seamane on board.

21 Aug 89
234
GMT

0082
17

Comments

0725 → lots of problems @ our set. - Audio check for 3.5 kHz sweep was not audible. sweep was incorrect even if watch started so bathy was on normal well, this lead to an incorrect transmit interval being set on SM II (for tests) and mainly bathy was wrong about 1/2 hour until sweep change was corrected. High frequency bathymetry made tracking difficult throughout watch, because v. steep slopes ~~was not apparent~~ 3.5 kHz rec and frequent sweep changes were very difficult to track this occurred through much of the tracking of line 83. ~~and~~ by line 84 all was well & in hand.

→ Also → Joel said after SM II went in that the ground fault light on SM II rack on the right has a lower intensity than shall on the left. if some minor ground fault alarm is not affecting the data collection. It is however worth noting and watching.

1255 See previous page for new WP's given to bridge.

1256 Capt. asked if we can go faster than 10 kts on 300° line - checked with les who wasn't sure - I told capt. to keep it at 10 kts - will check with Joel/Tam later.

1553 If you go faster ^{>10 kts} pulls tautish up. Even at 10 kts, real time bathy Tam is worse than at 8 kts. If you go faster need to let cable out further. This exposes the dented part of the cable.

2 Aug

0083

135

Comments

[7]

0746 Watch was pretty quiet → previous watch dealt with the scarp so we didn't need to foul w/ rock rock

1600 Note that there is a new GPS satellite in the constellation - no. 16. should give slightly increased coverage

"ALERT NAV RNG DIF" - message on magnetox means there is a large difference between Transit & GPS position - happens when Transit fix doesn't come in - results in large dead reckoning time

1631 New waypoints;

(WP178)

changed # ~~18~~ 3 slightly to 17°54.6, 79°00.8 to give a better bearing

WP179 (#4) 17°58.8 78°58.7

WP180 (#5) 18°21.5 79°41.2

WP181 (#6) 18°25.8 79°38.8

WP182 (#7) 17°58.7 78°48.5

WP183 (#8) 18°03.1 78°45.9

Entered in MV
& called in to
bridge.

0418 New waypoints;

WP184 (#9) 18°24.9 79°26.1

Entered in MV &
given to bridge

WP185 (#1) 18°28.7 79°23.8

WP186 (#2) 17°49.9 78°11.8

WP187 (#3) 17°54.1 78°09.3

24 Aug
94
GMT

0084

Comments

END

1810 No signal received from seismics
told that it is now working or problem

1826 Eel being brought in for repairs

1853 → ~ 1845 told T. Reed that eel was
out & currently we were shallowing
~ 800m & if Eel got fixed we'd
slow to 6knts. Towfish is already
running deep so I wanted him to
know what was happening (if eel
wasn't fixed, have to slow to 6knts
anyway bc would need to
pull guns bc air was shut off)
Anyway apprised him of the
situation but now deepening

1942 Revised waypoints -

(#2) WP 186 - $17^{\circ}56.5$
 $78^{\circ}24.0$

(#3) WP 187 - $18^{\circ}00.8$
 $78^{\circ}21.4$

Depth chart shows that
old WP 186 is ~ 626m
and would lead to turning to
576m.

both these are on
the order of 1100m

1950 Problem with the EEL consisted of a short in the
PREAMPLIFIER. Redeployed the EEL, RESTARTED THE GUN -
SEISMICS UP AND RUNNING.

2150 LOS SEISMIC SIGNAL - PROBLEM WITH EQUIPMENT -
DECIDE TO PULL EEL - GUNS - FINISH SEISMICS -

2214

Time

August 25

Comments

0085

New waypoints -

1426 (#1) WP 194 18°20.0 78°27.2

(#2) WP 195 18°24.4 78°24.6

(#3) WP 196 18°34.8 78°44.0

(#4) WP 197 18°39.0 78°41.5

(#5) WP 198 18°27.1 78°19.2

(#6) WP 199 18°31.3 78°16.7

(#7) WP 200 18°38.4 78°30.0

(#8) WP 201 18°42.5 78°27.5

(#9) WP 202 18°30.4 78°04.5

(#1) WP 203 18°34.5 78°02.1

(#2) WP 204 18°43.5 78°19.0

(#3) WP 205 18°47.6 78°16.5

(#4) WP 206 18°34.6 77°52.0 (STOP POINT)

ETA 1203Z (238)
at 9.8 kts.703 am9 NM from MB.cf. modified WP's on
next page

216 AUG 95
238

0086

Comments

0432 Alls well on 12-4

~~REDA~~
signing off

Stacy Ayubur

David DeBalko

Eric CALAIS

Annex

The "anis lollypop" watch —

1207. TURNED OFF LINE 107 - TURN TO 0700 - SLOW TO 6 KTS.
IN PREPARATION FOR. SURFACE RECOVERY - END
SCIENCE LOGGING ON MW8909 .