Delorey/ JEAN A Escollo Arenas
Poppe JENA 90-1+2 Mayaguez
Nov. 2-7, 1990
Nov. 11-18, 1990

NAVIGATION LOGS

NAV
LOG
Jean A
90-1 Vieques
90-2 Mayaguez

7530 - 00 - 286 - 6952
FEDERAL SUPPLY SERVICE

104769

	NAD 83 (NADCON)	NAD 27 (PLANE)	State Plane
Pumphouse (Pier)			
Code 4	18 08 54.236	18 09 01.373	819128.4
	65 30 49.285	65 30 50.710	115923.0
	6.7m = 22ft		
Screw Mt Pirata			
Code 2	18 05 35.622	18 05 42.752	806231.0
	65 33 04.029	65 33 05.454	95825.8
	301.7m = 990ft		
MARINE II Mt Pirata (Helopad)			
Code 1	18 05 37.580	18 05 44.710	806205.7
	65 33 04.282	65 33 05.707	96023.1
	291.3m = 955.7ft		
	+3		
	959 ft		

Shift NAD83 to NAD27 in Virginia

7.13 secs north	1.425 secs west
219.3 meters	41.899 meters
(0.11883 mins)	0.02375 minutes

Ship's Atm 23.9ft

165" water to lip of bridge roof

122" mast top

287" = 7.2m = 23.9ft

GPS surveyed pts (not BM's) (BM NOT Found at any below)

NAD 83	NAD27	(x y) ft NAD27
MAGueyes		
Code 5 17° 58' 10.78	site 5	287625
67 02 38.68		50580
ht 8.4m = 27.6 ft		
Cantate (Amigo Milton)		
Code 3 17 59 26.39	site 4	229920
67 12 36.79		58425
ht = 135 ft (est) guess		
= 40 meters = 131.2 ft		
Buena Vista		
Code 2 18 04 04.91	site 3	256605
67 08 01.43		86409
ht = 850 ft + 10 ft (building) = 860		

D306

fri) 11/2/90 110534 (0706 AM local) Dep Pier

~~[illegible]~~

est 818000
Position 116000

Start prog 1147 looks good
must reenter line #'s all going SAME DIRECTION

1200 - Pwr failure
plugged directly into Ship's Power

1218 Start data on disc & HD.
1230 Correct init Position wrong side of base line
1240 line up to line 3 Diff 2000m

1249 SOL3 Depth in Meters
1301 SOL3

1310 SOL5 getting POOR SNR'S on B station (MT Pinatta)
1336 EOL5
1340 entered Cal's for MINIRANGER STATIONS (my MISTAKE)
1349 SOL7
1406 EOL7

1413 SOL9
1418 maneuvering way off course
1446 EOL9

1451 SOL11
1512 EOL11

1522 SOL13
1551 EOL13

307
OL 16
OL 15

SOL 17
EOL 17

1709 SOL 19
1730 RTI only - checking for better performance
1747 using -30 m for Geoid ht in Trimble (was -38)
1748 EOL 19

1755 SOL 21 minimage very ragged SNR on Piratta still problem
1818 EOL 21

1826 SOL 23
1912 EOL 23

1920 SOL 25 lost station A (Pumphouse) no signal or range
About line 25

2030 (430 Pm) ARR Pier

GPS
2054 18 08.9305
65 30.8996
-34.3
PDOP 5.0
@ Pier

[redacted] 3027

[redacted]TION installed on MT Pirata @ MARINE II dep 0600 – 0730

using Code 4 (Pumphouse) Code 1 (MARINE II) much better SNR

1206
17 GMT +4

Dock 18 08.9270 @ 121151 (0811 local)
65 30.8987
-30.5
PDOP 3.0

1230 (0830) Depart Pier

1319 LINES ENTERED IN MINIRANGE – READY TO SURVEY

		MR file #	
1336	SOL 25	(12)	MINIRANGER LOOKS GOOD
1400	EOL 25		
1406	SOL 27	(13)	Richey on the Helm – "w/feet" best yet!
1436			S/C ↑ 4 KNOTS
1449	EOL 27		
1453	SOL 29	(14)	
1515	EOL 29		
1521	SOL 31	(15)	
1547	EOL 31		
1552	SOL 33	(16)	
1606			S/C ↓ (Shower) 5 KNOTS
1609			??? MANUVERS S turns !!!
1612	EOL 33		
1622	SOL 35		
1640	EOL 35		

11/3/90 DAY 307

1645 SOL 37 C-230 S-5.3
1701 EOL 37

1706 SOL 39
1711 lost STA B (not Printe) (SNR)
1712 BACK ON
1721 EOL 39

1727 SOL 41 (20)
1740 EOL 41

1745 SOL 43 (1)
1757 EOL 43

1801 SOL 45 (2)
1814 EOL 45

1818 SOL 47 (3)
1829 EOL 47

1834 SOL 49 (4) (ck tod depths)
1848 EOL 49

1852 SOL 51 (5)
1900 EOL 51

1904 SOL 53 (6)
1917 EOL 53
entering more points into MR —

1934 SOL 55 (1)
1943 EOL 55

1948 SOL 57 (2)
1954 Both sta's SNR low no ranges
1956 BACK ON
2003 EOL 57

11/3/90 DAY 307

2013 SOL 59 (NS tie line)
2040 Break – check sail boat hailing! 793785/114675
2107 CALL RR MARINA for ASSIST –
BACK TO SURVEYS
2117 SOL 59a Restarting in middle of line 791190/113379
2142 SOL 59a break off – mooring shore – Pay's orders

797510 111893
2245 ARR Pier (6:45 pm)

11/4/90 DAY 308

morning Jean A took on water @ Town dock Isabelle II

1320 Dep Town Docks (0920 AM)

line 58 start 794218x 108079y

1500 SOL 58 NAV Syst good Minirager/GPS
1518 nav ↓↑ SNR's Both stations
1543 EOL 58

1554 SOL 56 (2)
1609 EOL 56 bad nav @ end

1615 SOL 52
1625 EOL 52

1633 SOL 48
1647 EOL 48

1652 SOL 44
1702 EOL 44

1709 SOL 40
1716 some drop outs noticed
1724 EOL 40

1729 SOL 36
1740 EOL 36

1747 SOL 32 (8)
1808 EOL 32 some drop outs near end & jumps

1818 SOL 28
1840 EOL 28

1845 SOL 24
1905 EOL 24

11/4/90 DAY 308

1911 SOL 20
1939 EOL 20

1945 SOL 16
2001 EOL 16

2009 SOL 12 (13)
2033 EOL 12

2052 SOL 8 — 200m to left - too shallow at start
2059 ABORT — Captain say's water to shallow

2149 (0545 pm) ARR Pier
PDOP 2.9 (1 Berth west)
18 08.9357
65 30.9101
-38.0 (5 JAYS)

MOVED 1 Berth east (for tomorrow's Posit)

11/5/90 Jean A DAY 309

11:30 ARR ~~Pier~~ SHIP – (7^30 AM) – load gear etc
change batteries on PumpHouse MR Station B1 & KP

11:58 M. NIRANGER @ Pier 819419 115578 @ Dock
11:59 819424 115582
12:01 819427 115579 } Maybe on wrong side of Baseline

12:05 18 08.9317 18° 08.9324
65 30.8988 65° 30.8975
–35.1 –22.4
PDOP 6.3 PDOP 3.0

STA VC-1 796528 117289 1st Station

1210 (810 AM) Dep Pier

18 08.9324 65 30.8975 NAD 83 Pier
NADCON → + .1188 more north + .0238 more west
18 09.0512 65 30.9213 NAD 27
09" 03.072' 30" 55.278' ~~Xy NAD 27~~ (se

Place →

818687 116092 xy @ Pier

1300 STA VC-1 ANCHOR DEPLOYED (0900 AM)

1340 DIVER'S IN WATER
1435 DIVER'S ON JEANA

target

1519 STA ~~HC~~-2 ANCHORED (796098 116409)
MOVED
1605 STA HC-2 (795792 116513)
1629 ~~[illegible]~~ ~~[illegible]~~ End HC-2
1740 STA HC-1 (795450 114813)
1834 STA SS-32 (796331 113975)
1847 STA SS-33 (794563 112769)
1900 STA SS-34 (794358 112225)
1906 STA SS-39 (793330 111883)

11/~~05~~ 5/90 DAY 309 Jean A

				target xy's
		~~STA SS-38~~		~~793106~~ ~~118390~~
1912	STA	SS-~~39~~ 38		(791190 112930)
1919		SS - 36		(792504 114015)
		~~SS - 35~~		(~~791805~~ ~~114124~~)
1926		SS - 29		(792280 115310)
1931		SS - 28		(791213 114855)
1939		SS - 42		(788699 113531)
1951		SS - 44		(785510 111985)
2010		SS - 22		(787495 116923)
2018		SS - 23		(788467 117097)
2028		SS - 24	??	(790131 116311)
2036		SS - 30		(792571 116895)
2041		SS - 19		(793106 118390)

~~STA~~ STRATCH THE REST TODAY.

2120 Arr Pier ~~16~~ ~~14~~ ~~12~~ 13 (5:20 PM)

MR 818698 116055

~~6~~ ~~4~~ ~~10~~ ~~8~~

GPS 1808.9306 21:2308)

65 30.9000

-38.4

PDOP 2.8

11/6/90 DAY 310 Jean A

1100 (700 AM) ARR SHIP

MR 818692 116059

11:36:45 18 08.9318
65 30.9001
-45.7
PDOP 5.2

18 08.9310 11:48:10
65 30.9011
-41.5
PDOP 3.6

12:04:57 18 08.9307
65 30.9008
-36.9
PDOP 3.0

1240 Dep Pier (0840 AM)

1341	HC4	794110	118760	drop anchor & float 794040 / 118823
1349	HC5	791768	118578	791803 118496
1355	SS-17	(790342	119232)	
1407	SS-16	(788054	118195)	
1408	SS-14	(788118	119153)	
1413	SS-12	(787359	120261)	
1419	SS-13	(787656	120543)	
1452	SS-8	(781534	(118842)	
1504	SS-10	(784719	120899)	
1513	SS-4	(786946	122137)	
1530	SS-6	(787726	123633)	

1434 B station ↓ (SNR) } ON THE WAY to SS-8
1442 B station BACK ON

[redacted] DAY 310 JEAN A

1554 (ON STA) VC 4 787881 119015
1715 ABORT CURRENT TO STRONG

1858 VC6 787803 116307 Chisel some rock
1858 Computer failure Melt down
1930 Switched to laptop —
HC9 792120 111237
1958 HC9 792209 111251 Bouy over side

SS-56 ~~HC8~~ (789131 106472)
2015 SS-56 789029 106279

~~HC~~ (793048 108728)
2031 SS-47 793114 108726

2050 HC-10 DIVER CORE 791721 109904

2130 (5:30 pm) Heading IN

2224 (6:24 PM) @ Pier
MR 818791 116016

GPS 18 08.9250
65 30.8826
-25.2
PDOP 2.8

11/7/90 DAY 311 Jean A

PC is broken - won't boot
using Zenith laptop to log MR & steer lines

~11:00 (7 AM) ON Board Jean A
Retrieved Box from NAVY

MR 818569 115947
11345 Dep Pier (7 AM)

~~HC 3~~ ~~793397~~ 11
1235 HC 6 (791383 120483) ON STA
1250 791510 120952 DIVER'S OVER

1331 HC7 789957 120285 ON STA
1348 789765 120558 DIVER'S OVER

1420 HC3 793397 116679
1436 793125 116697 DIVER'S OVER

1514 1048 - 1100

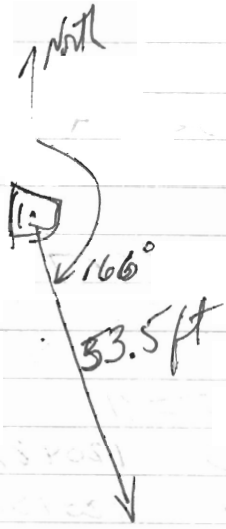
1549 ~~HC7~~ 790099 114790 ON Sta

1900 DIVE ~~DONE~~
1935 SOL 18
1958 EOL 18

2008 SOL 14
2032 EOL 14

2108 Arr Pier (509 AM)
MR 818881 115976 100ft (forward east on pier)
18 08.9186
65 30.8692
-39.7
Pool 3.0

11/13/90 Milton moore Atelay a station 53'6" @ bearing 176°



176	BEARING
−10	VARIATION
166°	TRUE BEARING

$x = (\sin 166) \times 53.5$

$y = (\cos 166) \times 53.5$

$x =$ 12.9

$y =$ −52.3

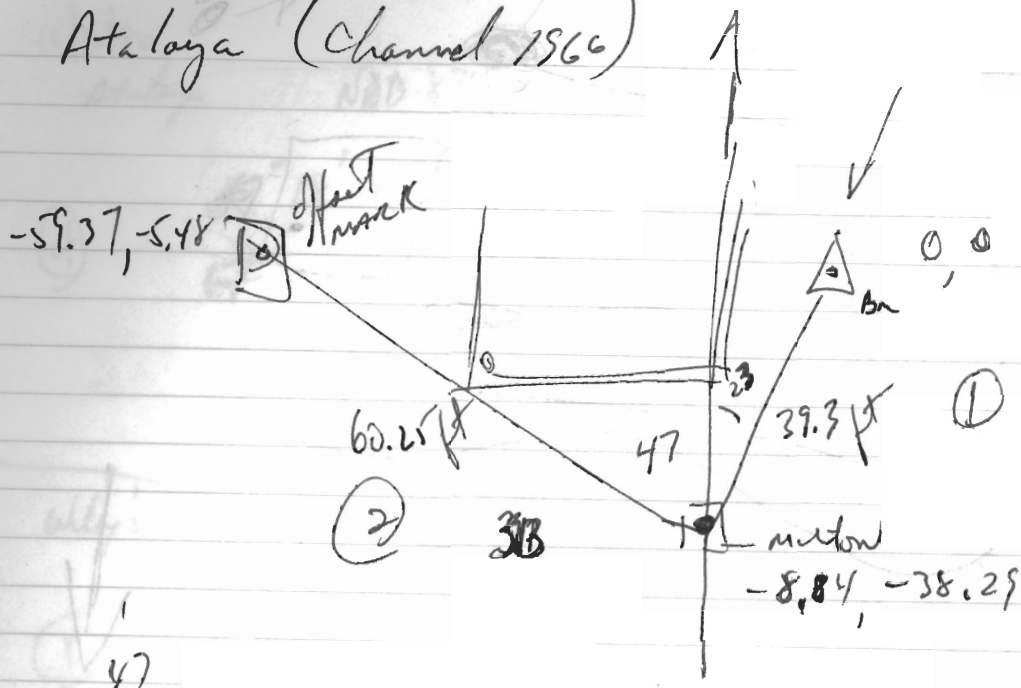
(see 11/11/90) previous offset →

236896.4	175236.7	
~~12.9~~	~~−52.3~~	
~~236922.3~~	~~175189.9~~	new offset
236909.3	175184.4	

11/10/90

Atalaya (Channel 1966)

x = sin
y = cos



47
23
70

23
180
(203)

①

x = 39.3 ~~cos~~ ~~203~~ 193 w/VARIATION
y = 39.3 ~~cos~~ ~~203~~ 193

Compass heading
magnetic VAR →
true bearing

23°
−10
13°
+180
193

47°
+10
57

360
−57
303

−8.84, −38.29

②

x = (60.25 sin 303) + −8.84
y = (60.25 cos 303) + −38.29

Offset 11/13/90

Offset values

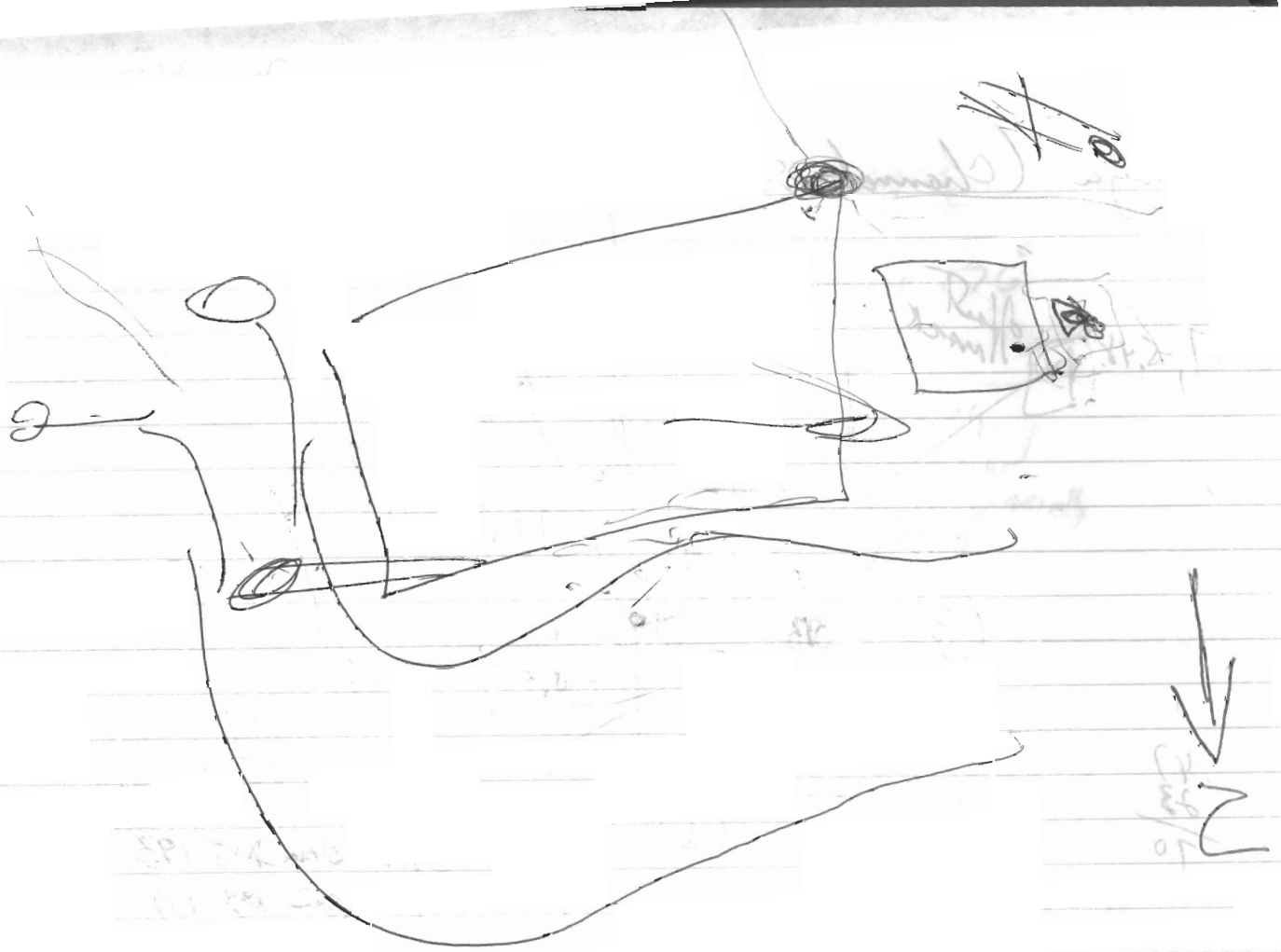
x = −50.53 + −8.84 = −59.37 ft
y = 32.81 + −38.29 = −5.48 ft

NAD83

80

x	y
253195.798	119863.785
− 59.37	− 5.48
253136.428	119858.305

meters



11/11/90

NADCON

Atalaya

	NAD 83	NAD 27
	18° 18' 44.84192"	18° 18' 52.023
(4)	67 11' 28.91730"	67° 11' 30.265
	(lat)	(long)
	−7.181 sec	−1.348 sec
	−220.783 meters	−39.583 meters
	(30.745 m/sec)	(29.364 m/sec)
	.1197 minutes	.0225 minutes

Willy's

	18° 13' 21.92221	18° 13 29.087
(1)	67° 06 18.13267	67 06 19.486
	lat	long
	−7.165	−1.353
	−220.275	−39.760

Plane

Atalaya

NAD27 xy in feet

(4) x 236955.8 ft
y 175242.2 ft

~~−59.37 x 30.745~~ −59.37 ft =
−5.48 ft =

offset

x 236761.0
y 175229.2
ht 357 m = 1171.3 ft

Willy's

(1) x 266777.7 ft
y 142552.6 ft
ht 284 m = 931.8 ft

x = 236896.4

y = 175236.7

11/11/90
Atalaya offset version 2

NAD83

1.7m
~~5.48 ft~~
30.745

18° 18' 44.84192
− .05529
+ 7.181

18.1m
~~59.3 ft~~
29.364

67° 11' 28.91730
+ .61640
+1.348

offset
NAD 83 TO NAD27

18° 18' 51.96763

67° 11' 30.8817

NAD 27 offset
Posit

x = 236896.3 y = 175236.8 ✓✓

18 18 51.96763
18 18.86612717
18.31443545

NAD 27 in feet.

(4) x=236896.4 ft
y=175236.7 ft
1171 ft

Site 1

Willy's

(1) x= 266777.7 ft
y- 142552.6 ft
931.8 ft

Site 2

Ships ANT = 24 ft

initial position 212000, 76000 outside Boqueron Bay

11/11/90 DAY 315 Jean A

0630 meet in lobby of hotel to plan day
0830 waiting for Zodiac pickup @ DNR Docks

Richey's lost
~0900 pickup & to ship John Ken myself

Line ID 116S

18 01.75	67 24.47	18 01.75	67 12.65
18 01 45.0	67 24 28.2	18 01 45.0	67 12 39.0
x 161455		229893	
y 72008		71681	

CPU won't work in rack - much too hot in lab
running w/ top off & fan on electronics
MR noisy - stations too far to north
Logging GPS on LAPTOP - CPU Com 2 not working - will check out later.

1600 (NOON) local heading for far end of line 116,S

1621 Deploy 3.5 ODEM Hustec (12:21 local)
MR NOT working at this range Atalaya not being received
GPS working good

1625 were heading for west end of line
turned east
starting line when NAV MR comes in

1635 KP hit power strip - MR, GPS down
Restart

1637 MR starting to solve xy position
1645 MR FAIR DON = 9315
SOL 1 (ID116S)

Power problems - Hustec not working multiple firing
1653 GPS fuse prob - unplug RS232 restart ok

11/11/90 DAY 315

1753 shore end of line Sta B (Willy's) not being received nearing shore)
DON 17860
(Rng 2995)

1759 MR STA back on xy (one fix)
Rng 1107

1806 EOL 1 NAV Ng can't receive Willy's

1827 steam toward SOL 1D 114S file 2, 3, 4 (leg 1, 2, 3)
5000 meters to the North

1850 squeezing thru the reef

1921 SOL 2 1D 114S MR Good DON = 700m
1953 dog leg 1 (turn)
2042 dog leg 2
2052 ~ MR Atalaya Ng AS DON 661
2103 MR Atalaya Ng AS
2220 EOL 2 w/o MR or GPS (6:30 pm local) (204652 last record on tape
haul in gear.
00:31 (8:32 pm) 1 mi from HARBOUR ENTRANCE
09:00 pm At ANCHOR Boqueron BAY waiting for Juan & Zodiac

11/12/90 DAY 316 JEAN A

1145 0745 –
1200 (0800 Am) ON BOARD - ANCHORS UP

1217 MR RANGES ON 18 01.0 67 12.7 (good est Position ~~[illegible]~~ 229457 67 868)

1255 SOL 3 SHORE LINE (south to north) (6) C-000
1310 dogleg #1 (7) C-010
1400 MR working Good
1412 dogleg #2 (8) C 039
1417 Bridge not changing course to reflect CRT
1420 sharp turn to get back on LINE
1424 C/C ON LINE
1435 moving more off line because of shallow waters near shore
1512 Shallows – not running any lines
1541 RESTART LINE (9) C/C onto last part of N-S line DON = 3776
in close to Mayaguez HARBOUR
last dogleg section
1548 off line C/C fishing pots

1548 SOL 4 (10) SANASCO line (Past sewer outfall) DON – 1
close to shore & shallow/reefs
1552 ON LINE DON = 1788
1627 EOL 4

1633 Transit to seawall end of ID1105 ~ 12 Nmi (11)
lost Atalaya signal – 0

1659 Switch to GPS NAV – can't get Atalaya (possibly Blocked)
CSIN ships Posit to start of line C-260 @ 17.4K

1839 SOL 5 ID1105 GPS Atalaya still not coming in
NAD84 Posit's need correcting to NAD27 .1197 min north .0225 min west

2108 EOL 5

MR BACKON – Atalaya blocked @ ~ 200° 241501 / 140711
HARBOUR MAYAGUEZ 246128 140818

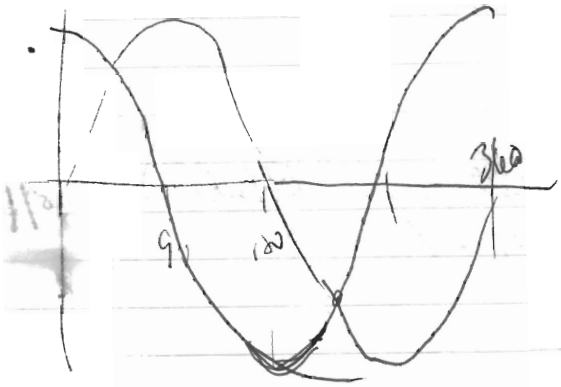
2130 (5:30 Pm) Tie up in MAYAGUEZ

53'6" @ 176° ~~167~~

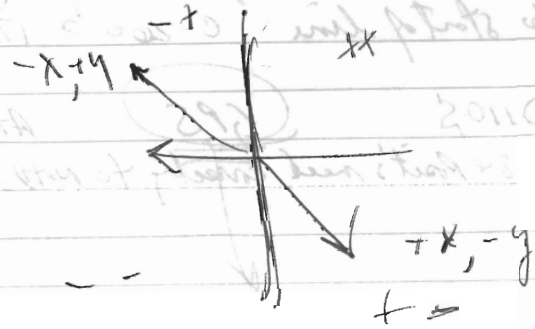
Atalaya now offset

(see calc's on 11/10/90)

facing page marked 11/13/90



	sin		
186	-.60	.987	166
174	.07		
166	.48		



166 sin .24
166 cos -.97

11/13/90 DAY 317 Jean A

1200 @ Boat
1220 Dep Pier in Mayaguez (8:20 AM)

using GPS for line 1D112S MR station Atalaya being moved to increase look angle for off shore lines

recording MR on laptop -
1315 Deploy gear

1319 SOL 6 (1D112S) GPS DON=2154 (to shallow @ sta
1337 SATS 6,18,2,13,12 PDOP 2.9

1350 New xy for Atalaya 236909 ~~175190~~ 175184 Code 4 site 1 (see 11/10/
1400 Started MR program on Laptop & Recording data
Still running GPS on MAIN CPU - Both compare very well except
GPS=NAD83 MR=NAD27 230 meters N/S 39 meter E/W
1403 SATS 6,14,2,13,16 PDOP 3.0

1419 entering new corrected xy for Atalaya (used RAD's on CALC before)
1447 SATS 9,18,2,13,16 PDOP 1.6,

1521 HIGH PDOP - Switch to MR (11:21 AM Local)
1522 MR ON IBM - GPS on Laptop
1547 DON 26187 RNG~600 Atalaya ranges in & out rough ending
1551 EOL 6

1659 SOL 7 (1D105S) MR good - back in range of Atalay

1814 entered site 3 code 2 Buena Vista into MR

2000 Sea's Rough from 150°
2017 EOL 7

2200 (600 PM) @ Anchor in Boqueron Harbor

11/14/90 DAY 318 Jean A Schlee, Irwin, Paulsen

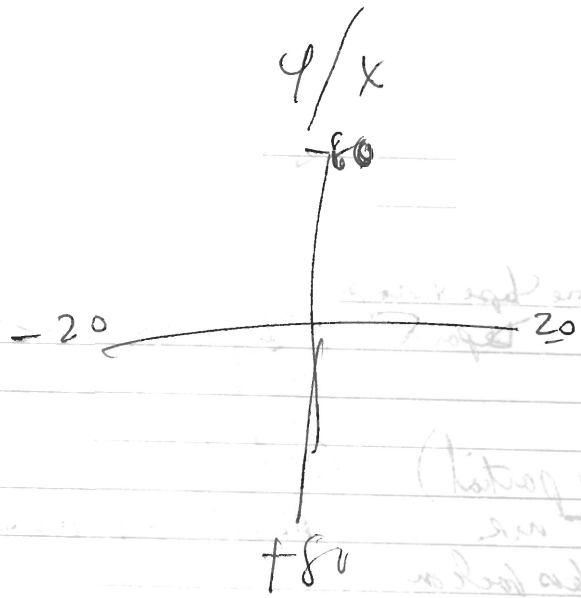
1100 (7AM) ON BOARD
FIX MR ANT - more tape & rope
1145 Weigh ANCHOR Depart Boqueron 229457 67868

1240 SOL 8a (7408) (151 partial) MR (1D15/5A)
1256 lost MR ALSO testing Buena Vista code 243
1307 more less back on
1323 MR NG
1327 MR BACK ON Willy's on/off BV not consistent
1334 (CSIN 8409) Switched to GPS MR Legged on laptop.
1343 EOL 8a/SOL 8b (1185 partial)
1349 ~~EOL 8b/8c~~ Helm missed, swung very wide of mark coming back to line
1425 EOL 8b/SOL 8c (103 partial)
1452 MR STA Combate on - start MR on LAPTOP

1518 GPS ↓ Switch back to MR on MAIN SYSTEM DON = 8896
1530 GPS ON LAPTOP
1705 EOL 8c

~1807 STA 133 Stry's very little sediment 200713 131967
~1930 STA 154 No Luck sample washed out
~2017 STA 66 Small sample
2030 Heading home to Mayaguez

2125 ARR Dock 1813.0868 6709.6120 -45.6 PDOP 2.9 GPS


+80
20
-20
y/x

11/15/90 DAY 319 Team A Schlee Irwin Pawlski, Willy, Milton

1148: Arm Boat in Mayaguez MR 246129 140818

1223 Dep Mayaguez

1353 STA 155 no sample
1451 Switch to GPS MR NG Atalaya not coming in
1503 STA 165 GPS 165826 152087 MR (copied off CRT)
1512 MR BACK ON GPS window gone!
1527 STA 166 MR 157209 146547

1600 STA 162
1640 STA 176
1656 STA 175
1714 STA 174
1730 STA 182
1757 STA 192
1843 STA 190
1918 STA 169
1952 STA 168
2008 STA 170
2024 STA 171
2037 STA 172

heading to Boqueron

2225 (6:25 AM) @ ANCHOR

(Lines for 11/16/90)

line seq.				line file	
116S Western & Tweart	161455 72008	18 01.75 67 22.1	175051 72662	(1)	line 9
105S South to 118S					
18 01.75 67 22.1	175051 72662	17 57.16 67 22.3	173751 44891	(2)	~~line 10~~ dead head
118S to 103S					
17 57.16 67 22.3	173751 44891	17 57.15 67 17.58	201091 44696	(3)	line 10
103S South to end					
17 57.15 (11) 67 17.58	201091 44696	17 52.85 (12) 67 17.65	200563 18675	(4)	line 11
151S North to TP					
17° 52.6 (13) 67° 14.3	219969 (14) 17074	17° 57.1 (14) 67° 13.9	222406 44297	(5)	line 12
Bahia Sucia SW to NE					
17° 52.85 67° 12.45	230696 18541	17° 56.8 67° 9.0	250782 42364	(6)	line 13
141S North to South					
17 57.22 (18) 67 10.5	242103 44540	17 52.7 (19) 67 10.5	241993 17586	(7)	line 14

11/16/90 DAY 320

11:20 on Board Jean A (7^20 AM)
1140 Dep ANCHOR

1246 STA 104
1308 STA 111
1325 STA 105
1339 STA 110
1401 STA 124
1418 STA 199
1436 STA 198
1502 STA 202

1537 SOL9 (116S to 105S) West end of line 101165 (1130 AM)
1605 EOL9

1657 SOL10 (118S to 103S) 118SB
1757 EOL10

1757 SOL11 103S (South to end) 103SC
1816 MR getting bad - SSR ECR nearing baseline
1820 change site selection to Willy, BV, Combat, LAP.
1823 Changing to GPS Remember NAD83 Posits. 103SD
1830 MR recorded on Laptop.
1852 EOL11

1912 Steering ~~[illegible]~~ problem

1956 SOL12 151S (north to TP) GPS (DON 214) 151SB
2051 EOL12
transit Bogueron Bay

2144 @ ANCHOR (5:44 PM)

CR1425

17 54.5 (15)
67 21.5

13a

17 54.5 (16)
67 10.8

17 54.47
66 57.85

17 56.8 (17)
67 9.0

Sucia top

~~Sucia~~

Bottom 14a 17527 241993
67 10.5 17586

transit (14) line file

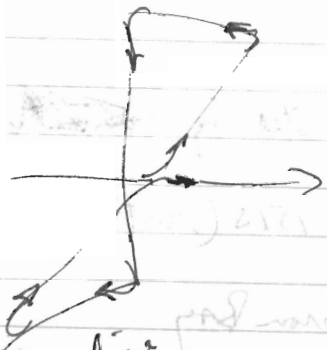
SW Sucia 17 52.85 230696
67 12.65 18541

bottom Sucia ~~14b~~ 14b (15)

TP on 142 17 54.5 240299
67 10.8 28486

leg 2 of 142 13b (16)

end 142 17 54.47 315330
66 57.85 28043



operation Bow Tie

line

La Paguera entrance

17 54.5
67 2.8

17 56.7 turn 1
67 01.75

17 57.5
67 2.4

Bow 17 57.405
67 2.4159
291316

11/17/90 DAY 321 Team A Schlee

0800 @ Dock waiting Zodiac (0400 AM) Boqueron 229457 67868
0910 ON BOARD (0510 AM)
0920 Zodiac Loaded
0930 underweigh 9mi run to start of 142 using (GPS)

GPS primary MR ON LAPTOP

1130 SOL13a CR142S (West to east) linefile 5
1348 EOL13a

1349 SOL14a (top of Sucia)
1350 LOST PWR CPU & NAV DOWN Ck Disc for Recovery DATA
1410 GPS/~~RBM~~ BACK ON START NEW DISCS
1415 SOL14a Restart
1452 EOL14a Sucia A

1504 GPS HIGH PDOP Switch MR (1104 AM)
MR - Very Spotty
Bahia Sucia
1516 SOL15 (CR141S) C/C MR - No solution - must turn south
1519 MR ON DO/6 300m to the west. Rocks & shore
1526 back on line
1546 MR no solution no stations except LaPorquera
1552 MR BV & ~~Lalan~~ Magueyes back on
1615 EOL15
transit to SW Sucia

1640 SOL14b (bottom part of Sucia)
1711 EOL14b Sucia B

1712 SOL13b (CR142S)
1808 CSIN15 to 16 Switch GPS MR 400 lousy! 300m off line
1819 Juan on Radio - on Combate - turning sta more to east
missing doesn't look like it's helping any
1901 EOL13b DON 32824 54.64 672.8861 Rng 8894.9
2011 Tied up in Magueyes (4:11 PM)

NAD 83 New Station Sites (*)

(ELXY PRU: BAS) by NAD 27

(*) Margarita Reef

Code 2 17 55 25.55776 Site 6
67 06 02.05150 (NOAA) POSITION
ht = 0
5 ft

267932
33983

Magueyes Island

Code 5 17 58. 10.78 Site 5
67 02 38.68
ht = 8.4m = 27.6 ft

287625
50580

(SPS measured by Phil G.)

11/18/90 DAY 322

11:30 (7^30) ARR @ Boat in Magueyes
12:24 Milton & Juan off to Margarite Reef to set MR STATION (Zodiac)
12:30 Dep Magueyes. Jean A (8:30^n)
1330 MR xy solution on
GPS NOT ~~[illegible]~~ GATS — Time ~~[illegible]~~ on PC ±3 sec
Only clue - rained hard last night - connector @ Ant may be wet

1404 SOL 16 (MO 2) Doff 221 bridge says AVOIDING Reef
1422 heading seaward - shallows
1426 Slowly heading back on line 460 Doff DON 3030

1439 305819 31074 = plane 17 ~~55~~ 54 ~~05~~ 65 .14 66 59 30.9
- 7.181 -1.3
NAD83 17 54 57.959 66 59 29.59
17 54.96598 66 59.4932

1451 EOL 16 ~~(MO 2)~~

1521 SOL 17 (MO 1) C/C avoiding some fishing floats
Strong current running west -
hard to stay on line

1556 EOL 17

1612 SOL 18 (MO 3) DON 1496 — reef on inside (too) very close
1618 off courses small boat going same way
1624 on course
1645 EOL 18
1700 ~~SOL 18c (CR 1425)~~ LOST MR STA MARGARITE REEF CALLED Boyles to close
Steaming toward STA IN CASE RANGE
TOO FAR??? Batteries may have gone

1726 MR station knocked over - sea birds??? - fixed by Milton & Juan
BACK to surveying - last line Ken says Pelican - squatters rights

1741 SOL 19 (CR 1425) (eastern end)
1841 EOL 19 DON 9247

1940 Tied up Magueyes Done (3^40^n) tidy up & go!