FLORIDA 1995 BALAZS

KANEOHE BAY SAT TAGS

P. 41-

SAT TAG 24179
PUNALUU RELEASED
INTO KANEOHE BAY

SCANNED

FLORIDA 1995+
+ 24179
1996

BALAZS

INdex Layne Bolen - Tequesta (407) 575-5407

Hidden Harbor Motel 800-362-3495

Reduce

Date: Wed, 19 Mar 1997 14:33:57 -1000 (HST)
From: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
To: Alan Bolten <ABB@monarch.zoo.ufl.edu>
Subject: ST10 fisasco

Brenda finally got together with Stan to have him explain who it works. I spoke with her by phone today. She claimed that an instruction sheet came with each of our very first orders of ST10. The sheet purportedly tells what the unit "counts" and how to calulate it. They only send the sheet once, the first time someone places an order. I guess they trying to save paper and trees or something. What I should have asked her is, if the sheet tells it all, why didn't she just read it or fax it to me. Why did she have to seek Stan for an explanation, before she could tell me!! Ahhh, Telonics...

Anyway, the compuations are made by reading from your dat file. Take a string of data from one time to another time. The numbers are substracted from one another. Then x's 1.024= no. of seconds on the surface. Then you subtract the difference beteen the two times that are used. That the total time of the sample. The seconds on the surface subtracted from the total time is the time not on the surface.

Note there is no-compute factor in the units (like the 10 sec you had in your ST6's and the 10 sec I have in my St3/14's). This means that a wave splashing across the two screws would be counted as not on the surface. But, the splash might only be a second or two, so the effect of it might not be all that great in the total times computed. It seems to me that there might very well be some useful data from this mechanism. You should go back and recompute (correctly this time!) some of yours to see what results.

Here's an example:

for my unit 24181 from 3/15/97- "dat" ADS data stream

1997-03-15 13:35:41 1 59892 59892

--lots of data---
then

1997-03-16 01:07:02 1 62733 62733

Subtract 59892 from 62733 = 2841. Times 1.024 = 2,909 sec on the surface between the times of 13:35:41 and 01:07:02 (= 11 hours, 28 min, 39 sec or 41,319 seconds). 2,909 divided by 41,319 = about 7% of the time during the 11.5 hours was spent on the surface.

NOTE- The "counter" in the ST10 only goes to 65,535 and then starts over at zero. Keeps repeating itself that way.

I think that with an accumulation of lots of data there is some value in the above. It's worth having a student or someone work up in order to make an appraisal. For example, comparisons between night and day. Or, known period of very calm seas vs storms and winds. Well, at least that's what I have in mind doing for our data out here.

1

2 hrs on / 4 hrs off

KANeohe
24179 ST-10 (p.41) 1/19/96 KBAY Deploy
BAY TRANSFER on 11/29/95 Punaluu/kau
/ FROM Punaluu transfered TIME TO KRF.
KAU (TO MAY 96)

25691 1995 Bahamas p.27
L.C. I's p.30 & p.33

See p.65, 66
+ p.106

Lew =

G. H. BALAZS

Recieve... Pf

Date: 30 Aug 96 17:37:03 EDT
From: TELONICS E MAIL SYSTEM <75052.1563@CompuServe.COM>
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: fail safe function

TO: INTERNET:gbalazs@honlab.nmfs.hawaii.edu
(George Balazs)
DATE: 1996.08.30
FROM: Brenda Milam
(75052.1563@compuserve.com)

SUBJ: Fail-safe function

Dear George:

Thank you for your email of 21 August 1996. The transmitter goes into the fail-safe mode after the consecutive hours (number of hours you have specified) have elapsed and have not received any interrupts from the saltwater switch (SWS). When an interrupt finally does arrive from the SWS, the fail-safe mode is terminated and the fail-safe time-out counters are reset.

The fail-safe flag is set to 00 for normal transmissions, and 11 for fail-safe transmissions.

I hope this answers your question. If not, or if you have any further questions, please don't hesitate to drop me a line.

Sincerely,

Brenda Milam
Telemetry Systems Manager
TELONICS email: 75052.1563@compuserve.com
932 East Impala Avenue phone: (1-602) 892-4444
Mesa, Arizona 85204 USA fax: (1-602) 892-9139

Date: Fri, 8 Mar 1996 09:08:03 -0500
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: Resin used to attach tran...

George:

Here's what I purchased and what we used to attach the transmitters in 1995:

SILMAR 249 Surfboard Resin - initial coats
GLOSSING RESIN 737 - final coat

Both products manufactured by:

Glue Products of Florida
4015 Georgia Avenue
West Palm Beach, FL
407-833-1863
800-771-1863

FLORIDA

They make the stuff right there and apparently supply a lot of surf shops. I am actually going there today or Monday to purchase fiberglass cloth and fresh resin, unless they tell me what I bought last August (unopened cans) will still be good.

Date: Thu, 21 Sep 1995 09:28:50 -0400
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: WOW

FLORIDA

Dear George and Doc (by fax),

I finally made the time to sit down with all of the September positions (haven't dealt with the August ones yet) and got the reasonably good ones plotted out. Here's the narrative post 1 September (so, they may have moved places before that but my comments are only post 9/1). I've used only the locations that are good or appear good::

25688: Leaves ACNWR 9/3 (most likely), only two positions on the east coast for 9/4, placing her at Vero and then Ft. Pierce. Next postion on 9/9 has her offshore Lower Key Largo, then, later that same day offshore the mid/lower Keys. Next position not till 9/17, but in the same general area (same general area as one from last year too!).

1995 Deployments

See p. 19

Date: Fri, 5 Jan 1996 14:53:22 -0500
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: 25688!!!!!!!

I just found this out myself!!!! I just plotted the lat/longs on my chart and YES she is smack in the same spot she was in on her last position which was transmitted on September 27!!!!!!!!!!!! I can't believe she popped back up on the location data, she's been sending dive data through fairly regularly, but no locations until this one. The first lat/long that was given I suppose COULD be valid - it would put her just off the northeast coast of the Dominican Republic. I'll go with the Keys location!!!!!!

Sorry to report that I still have not received the diskettes or the turtle watchers guide. I can't imagine what happened to it, except that it was lost in the Christmas crunch.

Sounding like you may be able to go back to the office on Monday? I sure hope so!

Oh - HAPPY 1996!

I just got my abstracts off to Jim Spotila today. One on coastal armoring (paper) and one on impacts of watercraft activity (poster). Now I have to figure out when I'm going to write them!

Your turtle pal, Barbara

4 Color = purple

Deploy = Depart South = 04.09.95

FLORIDA

Depart South

25688

1995 Deployment 5 FLORIDA

25688 Date : 04.09.95 00:58:13 LC : A IQ : 00
Lat1 : 27.556N Lon1 : 80.315W
185 102 33354 242
00 00

Plot

25688 Date : 03.09.95 18:58:26 LC : B IQ : 00
Lat1 : 27.866N Lon1 : 80.110W
187 30 74 246
00 00

25688 Date : 03.09.95 12:01:29 LC : A IQ : 00
Lat1 : 27.984N Lon1 : 80.499W
184 26 184 113
00 00

25688 Date : 04.09.95 11:41:48 LC : A IQ : 08
Lat1 : 27.280N Lon1 : 80.203W
185 101 84 254
00 00

25688 Date : 04.09.95 13:17:37 LC : B IQ : 00
Lat1 : 27.255N Lon1 : 80.189W
186 107 348 8446
00 08

Plot

25688 Date : 09.09.95 00:47:37 LC : B IQ : 00
Lat1 : 24.954N Lon1 : 80.605W
187 84 407 53
00 00

25688 Date : 10.09.95 17:41:16 LC : B IQ : 00
Lat1 : 24.776N Lon1 : 80.969W
00 341 204 100
00 42

Plot

25688 Date : 14.09.95 07:16:40 LC : Z IQ : 10
Lat1 : 24.082N Lon1 : 77.983W
185 710 196 102
00 00

way off - too far east

Plot

25688 Date : 17.09.95 01:13:08 LC : B IQ : 00
Lat1 : 24.741N Lon1 : 80.893W
186 736 219 92
00 00

25688 Date : 22.09.95 13:27:28 LC : A IQ : 00
Lat1 : 24.727N Lon1 : 80.926W Lat2 : 29.541N Lon2 : 103.371W
187 05 216 93
00 01

25688 Date : 27.09.95 19:42:16 LC : B IQ : 00
Lat1 : 24.689N Lon1 : 80.690W
189 352 197 101
00 00

6 1995

25688 Date : 05.10.95 06:53:56 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
185 776 201 101
00 00

purple

25688 Date : 05.10.95 12:04:05 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
185 06 201 101
00 01

25688 Date : 08.10.95 19:16:09 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
186 447 65535 65535
03 63

25688 Date : 11.10.95 13:12:38 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
184 434 304 66
00 00

25688 Date : 26.10.95 00:28:51 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
182 624 242 82
00 00

25688 Date : 27.10.95 12:24:17 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
150 17 33100 574
00 00

25688 Date : 31.10.95 07:09:37 LC : Z IQ : 10
Lat1 : 22.723N Lon1 : 87.129W
180 844 247 81
00 00

25688 Date : 14.11.95 19:23:05 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

25688 Date : 21.11.95 13:24:23 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
171 34864 2463 49
00 00

25688 Date : 30.11.95 13:29:38 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
170 05 265 77
00 03

25688 Date : 25.11.95 11:56:13 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
169 122 376 54
00 00

25688 Date : 26.11.95 13:12:00 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
170 78 399 563
00 03

1995 7

25688 Date : 02.12.95 19:29:59 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
170 05 382 54
00 01

25688 Date : 14.12.95 13:22:25 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
171 306 367 55
00 00

25688 Date : 16.12.95 18:32:35 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
171 05 220 318
02 03

25688 Date : 21.12.95 06:22:13 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
169 01 55987 8602
03 13

25688 Date : 31.12.95 12:10:44 LC : A IQ : 60
Lat1 : 22.164N Lon1 : 68.937W Lat2 : 24.730N Lon2 : 80.903W
172 09 674 30
00 02

25688 Date : 02.01.96 13:06:39 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
167 4620 4284 16456
02 02

25688 Date : 03.01.96 07:23:48 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
170 08 1215 4453
00 03

25688 Date : 04.01.96 00:05:51 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
00 1177 16695 66
00 29

25688 Date : 06.01.96 18:09:23 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
166 692 289 71
00 01

25688 Date : 08.01.96 12:36:37 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
163 181 473 43
00 00

25688 Date : 09.01.96 06:20:04 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
00 2353 1073 19
00 03

25688 Date : 11.01.96 00:49:24 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
163 52 310 68
00 00

25688 Date : 13.01.96 07:15:55 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
162 2094 552 37
00 00

1995

25688 Date : 13.01.96 18:29:57 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
34 42 341 61
00 01

25688 Date : 13.01.96 23:41:35 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
164 2409 341 61
00 00

25688 Date : 22.01.96 23:46:22 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
162 05 278 74
00 01

25688 Date : 24.01.96 07:00:15 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
164 552 465 44
00 00

25688 Date : 24.01.96 11:48:22 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
00 1061 465 44
00 05

25688 Date : 20.01.96 13:18:02 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
163 168 355 58
00 00

25688 Date : 21.01.96 12:58:06 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
162 12 433 6291
02 01

25688 Date : 27.01.96 19:26:47 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
166 262 240 85
00 00

25688 Date : 19.01.96 12:00:06 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
164 07 37 36818
02 55

25688 Date : 29.01.96 19:06:24 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
167 653 332 54
00 00

25688 Date : 03.02.96 13:08:04 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
170 643 448 45
00 00

25688 Date : 06.02.96 19:15:25 LC : A IQ : 60
Lat1 : 22.623N Lon1 : 90.301W Lat2 : 24.721N Lon2 : 80.919W
160 137 339 61
00 01

25688 Date : 08.02.96 00:41:05 LC : B IQ : 00
Lat1 : 24.715N Lon1 : 80.899W Lat2 : 21.080N Lon2 : 97.357W
161 06 460 45
00 00

25688 Date : 12.02.96 11:38:29 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
00 463 398 50
00 30

25688 Date : 09.02.96 18:46:54 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
163 221 210 98
00 00

25688 Date : 09.02.96 12:37:57 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
162 41 378 54
00 00

25688 Date : 12.02.96 00:53:53 LC : B IQ : 00
Lat1 : 24.716N Lon1 : 80.908W
161 1856 279 13242
03 56

25688 Date : 14.02.96 23:50:25 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
161 799 323 65
00 00

25688 Date : 15.02.96 12:09:18 LC : B IQ : 00
Lat1 : 24.716N Lon1 : 80.913W
00 2694 592 35
00 21

25688 Date : 19.02.96 07:20:19 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
159 08 467 16678
00 41

25688 Date : 21.02.96 00:56:57 LC : B IQ : 00
Lat1 : 24.675N Lon1 : 80.969W
158 06 292 71
00 00

25688 Date : 21.02.96 11:38:33 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
157 4106 370 121
00 01

25688 Date : 21.02.96 18:14:47 LC : B IQ : 00
Lat1 : 24.697N Lon1 : 80.867W
160 2627 252 84
00 08

25688 Date : 22.02.96 12:57:36 LC : B IQ : 00
Lat1 : 24.693N Lon1 : 80.803W
160 857 243 87
00 00

25688 Date : 27.02.96 18:50:53 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
167 06 354 57
00 01

25688 Date : 29.02.96 12:03:52 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
167 40 175 119
00 00

25688 Date : 04.03.96 12:17:01 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
253 44850 52587 10357
03 39

10 1995

25688 Date : 08.03.96 12:28:21 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
168 57 197 106
00 00

25688 Date : 09.03.96 12:08:26 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
166 236 645 31
00 00

25688 Date : 13.03.96 19:25:54 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
157 399 534 37927
00 00

25688 Date : 19.03.96 07:04:10 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
168 844 501 41
00 00

25688 Date : 19.03.96 18:23:19 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
167 727 505 56
00 33

25688 Date : 20.03.96 18:08:30 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
164 688 458 44
00 00

25688 Date : 04.04.96 23:59:37 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
167 619 489 41
00 00

25688 Date : 11.04.96 19:20:19 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
172 493 253 79
00 00

25688 Date : 16.04.96 07:01:00 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
173 731 510 39
00 00

25688 Date : 22.04.96 00:27:52 LC : A IQ : 60
Lat1 : 22.190N Lon1 : 92.648W
174 635 307 72
00 00

25688 Date : 15.05.96 18:07:59 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
181 386 240 81
00 00

25688 Date : 18.05.96 01:01:02 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
179 8805 277 2118
00 08

25688 Date : 22.05.96 11:55:12 LC : A IQ : 60
Lat1 : 24.728N Lon1 : 80.893W
178 44 837 3131
00 00

Argos data spreadsheet for each of 4800, 4801, 48

1a) "Temperature" = 142.222 X value in column. Enter value into spreadsheet.

1b) Then fit to curve to determine approximate temperature. Enter determined value in spreadsheet

2) Last Dive Time = 2 seconds X value in column ÷60 to determine last dive time in minutes. Compute to 0.1 of minute

3) Average dive time over last 12 hours = value in column X 2 seconds ÷60 to yield minutes (to the nearest 0.1

4) Dive count over last 12 hours. Enter direct into spreadsheet

5) ~~Failsafe flag~~ - IGNORE

6) Dive count since last transmission Enter value direct into spreadsheet.

```
25688 Date : 23.05.96 18:25:23 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ????????
          180 362 163 123
          00 01
25688 Date : 25.05.96 17:57:04 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ????????
          179 218 96 211
          00 01

25688 Date : 25.05.96 23:45:25 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ????????
          182 317 96 222
          00 56
25688 Date : 27.05.96 11:44:06 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ????????
```

12

Color =

Deploy =

their past seven postseason series. They That gave the Marlins a 3-0 lead.

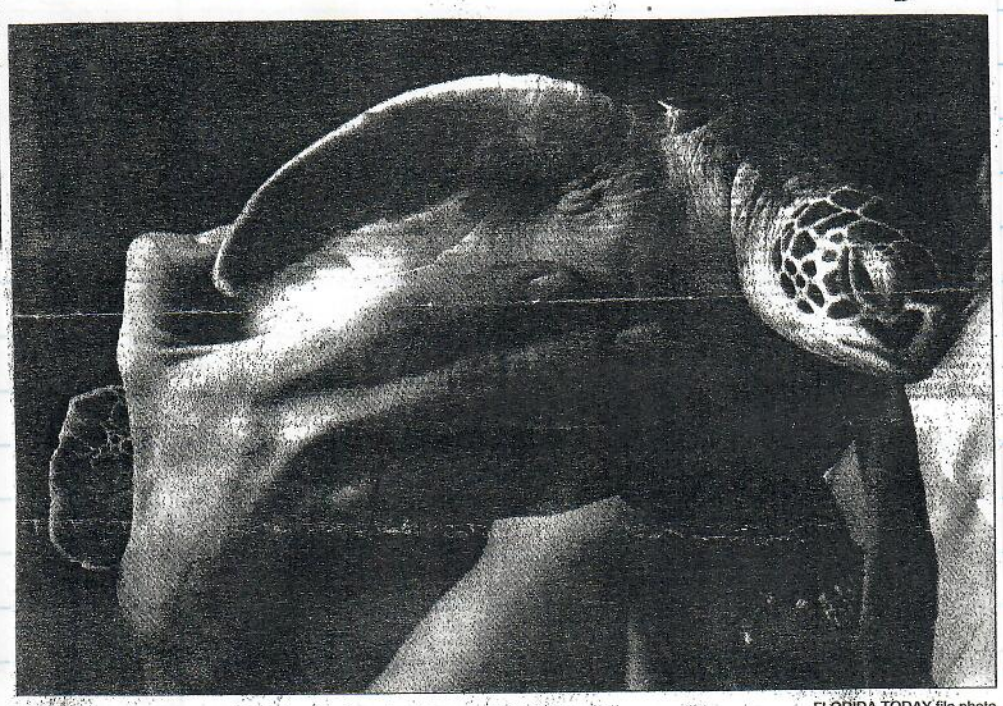
■ More coverage, 1C.

10-8-97

10/97

SOLVING AN ANCIENT MYSTERY

Turtles tracked to the Keys



FLORIDA TODAY file photo

GREEN SEA TURTLES, like the one above, until recently have had scientists in the dark about where they go after laying eggs. With satellite transmitters, though, researchers have been able to trace many of them to the Keys.

John Wickham NOS
Jean NOS

Satellite transmitter helps researchers find reptiles' habitat

By Lou Misselhorn
FLORIDA TODAY

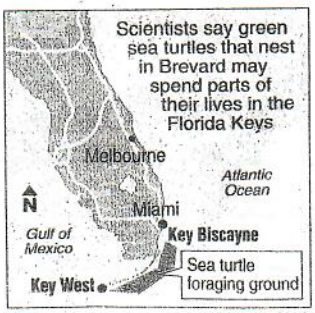
SEBASTIAN — Space-age technology is helping scientists solve an ancient mystery concerning Florida's endangered green sea turtles.

The turtles nest each summer on beaches of Brevard and Indian River counties. But, until recently, researchers had not been able to determine where the adult turtles went after they laid their eggs and slipped back into the ocean.

Now, a satellite tracking system has shown that many green turtles go to the South Florida waters between Key Biscayne and Key West.

The news is important to scientists trying to preserve turtle habitat in the Keys.

Scientists have known for some time that the brackish water of Florida Bay, just south of the Everglades, is a critical feeding ground for juvenile Florida green turtles.



FLORIDA TODAY

But the satellite transmitter project gives experts the first evidence that adult green turtles — more rare than the threatened loggerhead turtles that also nest on our beaches — also are going to the Keys.

"Any foraging habitat is important," said Allen Foley, an assistant research scientist who has worked on the Florida Bay studies for the Florida Department of Environmental Protection. "And if (the habitat) is lost, there will be no place to find food."

In the past four years, 11 of 16 green turtles tagged with monitoring equipment have been tracked to the Keys, according to Llew Ehrhart, a University of Central Florida biologist.

The monitors were attached to the backs of the turtles while they nested here. The five other turtles either were tracked somewhere else, or their equipment fell off shortly after they reentered the ocean.

See TURTLES, Next Page

■ Numbers on upswing, 2A.

25689: Poor 25689, only one position (with a not so good location class) on 9/4. She shows up about 50 nautical miles north of the western tip of Grand Bahama Island, about 10-15 nautical miles north of the NW edge of Little Bahama Bank. Would have questioned this, but, look at 25691 (three days after 25689 was in this position, 25691 is there). I bet it's real.

25689

25689

1995 13
FLORIDA
Deployment

25689 Date : 04.09.95 13:19:00 LC : A IQ : 60
Lat1 : 31.796N Lon1 : 99.008W Lat2 : 27.542N Lon2 : 79.017W

187 29 75 276
00 00

25689 Date : 10.01.96 14:01:33 LC : Z IQ : 00

Lat1 : ??????? Lon1 : ????????
182 19894 19890 18710
01 45 F3 6F
9F 6D 92 64
93 6D

Transmitters help researchers track sea turtles to the Keys

"We're losing them after about three months, and we need to know more if we're going to link them to critical habitat."

— Llew Ehrhart, UCF biologist

TURTLES, From 1A

Local environmentalist Jerry Heyes said he's happy the turtles are going to the Keys, even though the area has certain dangers.

He said federal officials have set up the Florida Keys National Marine Sanctuary, which will help protect the turtles from pollution and such hazards as lobster traps, which are prevalent elsewhere in the Keys.

Heyes, who heads the Indialantic-based Sea Turtle Preservation Society, is encouraged by what the sanctuary offers.

"I think this is one of the safest areas they have," he said.

In many other countries, environmental officials have not given the turtle the same protection. In fact, in some Third World countries, green turtles are caught and eaten.

The satellite tracking program is not without its problems, though, and leaves some questions unanswered.

Antennas attached to the turtles often fall off after a few months, leaving scientists without information on how long the turtles stay in the Keys.

Scientists aren't sure why the transmitters fall off but suspect it has something to do with the growth of the turtles' shells.

Scientists are considering more detailed studies, tagging the turtles with transmitters and then going to the Keys to pinpoint the specific areas where the turtles are going and how long they are staying.

"It seems as though that would be the next step," Ehrhart said. "We're losing them after about three months, and we need to know more if we're going to link them to critical habitat."

Ehrhart said he's been talking with the federal National Marine Fisheries Service about paying for the work.

record 20,224 in 1990 to 17,342 in 1996. It was down again — to 16,181 — in 1997.

Despite those numbers, there is evidence the protection afforded sea turtles over the past 25 years have been beneficial and might be paying off.

Scientists counted 13,332 loggerhead nests in the northern 12 miles of the refuge. That's average for the 1990s, and far above the annual average of 9,400 counted in the 1980s.

"What we're seeing is that the increase we saw beginning in 1990 isn't an aberration," said Llew Ehrhart, a biologist with the University of Central Florida. "After six more years, the

problems south of Sebastian Inlet and an inlet renourishment project suspected of hindering the turtles.

The renourishment effort replaced 200,000 cubic yards of sand that waves washed away, but the work left steep escarpments, making it hard for turtles to find places to nest.

Ehrhart said the beach renourishment problems will be short-lived and is a sacrifice for the long-term health of the beach.

"Any place you do renourishment like that, you're going to have to expect some negative impact for the first year," he said.

14

Department of Environmental Protection

Division of Marine Resources
Florida Marine Research Institute
Tequesta Field Laboratory
19100 SE Federal Highway Tequesta, Florida 33469
Phone: (407) 575-5407 Suncom: 221-5408 / 221-5534

Lawton Chiles
Governor

29 September 1995

George Balazs
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii

Dear George:

Enclosed are copies of my field notes for the deployment of the four satellite transmitters on nesting green turtles at the Archie Carr National Wildlife Refuge in August 1995. I've highlighted the transmitter ID numbers, GPS readings at the deployment site, and release time. The transmitters are set on a 3/3 duty cycle for an initial period of 60 days, after which they switch to a 2/4 for the remainder of transmitter life. Let me know if you need anything else. Thanks for all of your help.

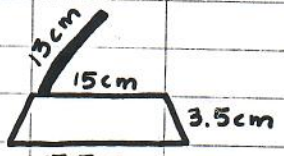
Sincerely,

DIVISION OF MARINE RESOURCES

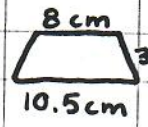
Barbara A. Schroeder
Associate Research Scientist
Florida Marine Research Institute

BAS/bss
Attachments

1995 Satellite Tag Attachments - C. mydas



SIDE PROFILE



FRONT PROFILE

ID #	SERIAL #	WEIGHT	DEPLOY
25688	368693A	819.6 gm	
25689	370056A	828.1 gm	
25690	370058A	805.9 ~~828.1~~ gm	
25691	370059A	810.4 gm	

with magnet, wood splint, & tape

weight of magnet, wood splint, & tape = 72 gm

GMT	(-4 hrs to EST)	
3/3	1730 - 2030	ON
	2030 - 2330	OFF
	2330 - 0230	ON
	0230 - 0530	OFF
	0530 - 0830	ON
	0830 - 1130	OFF
	1130 - 1430	ON
	1430 - 1730	OFF
FL TIME	1330 - 1630	ON
	1630 - ~~19~~ 30	OFF
	~~19~~ 30 - ~~23~~ 30	ON
	2230 - 0030	OFF
	0030 - 0430	ON
	0430 - 0730	OFF
	0730 - 0930	ON
	0930 - 1330	OFF

ID # 25688

TURNED ON @ 0130 7 August 1995

LAT/LONG Doc's - Melbourne Beach
28°00.796'N
80°31.867'W

Turtle ~~nested~~ encountered digging @ 0300 (NESTED)
28°00.177'N 80°31.566'W
start at 0640

N6384 / N6385

GCLSL	104.2	CLOC	110.7
CLSL	103.5	CWOC	103.2
CWSL	82.8		

(RR) has notch out of distal trailing edge

Release at 0902

8 ~~July~~ August 1995

ID # 25689

turned on @ 0130 8 Aug 95

C. mydas discovered coming up at 0319
IR County, Wabasso Beach, @ Windsor Club
nested

N6426 / N6427

GCLSL	102.4
CLSL	101.7
CWSL	78.9
CLOC	109.5
CWOC	100.7
HW	13,5

start attach @ 0624

27°47.306'N } DEPLOY
80°24.573'W } LOCATION

release @ 0849
CARD SMEARED, UNREADABLE no i.d. #

9 AUG 1995

ID # 25690
on @ 0130 9 Aug 95

laying @ 0230

boxed @ 0320

~~25~~ 27°55.657'N
80°29.124'W

start @ 0630 deploy

X2267 - 1991 applied
N6323 N6324

CLSL 104.2
GCLSL 105.6
CWSL 78.5

carapace very scratched abraded as it under water

release at 0845

card w/ id & phone

16 August 1995

TAG # 25691
tag on @ 0130 16 Aug 95

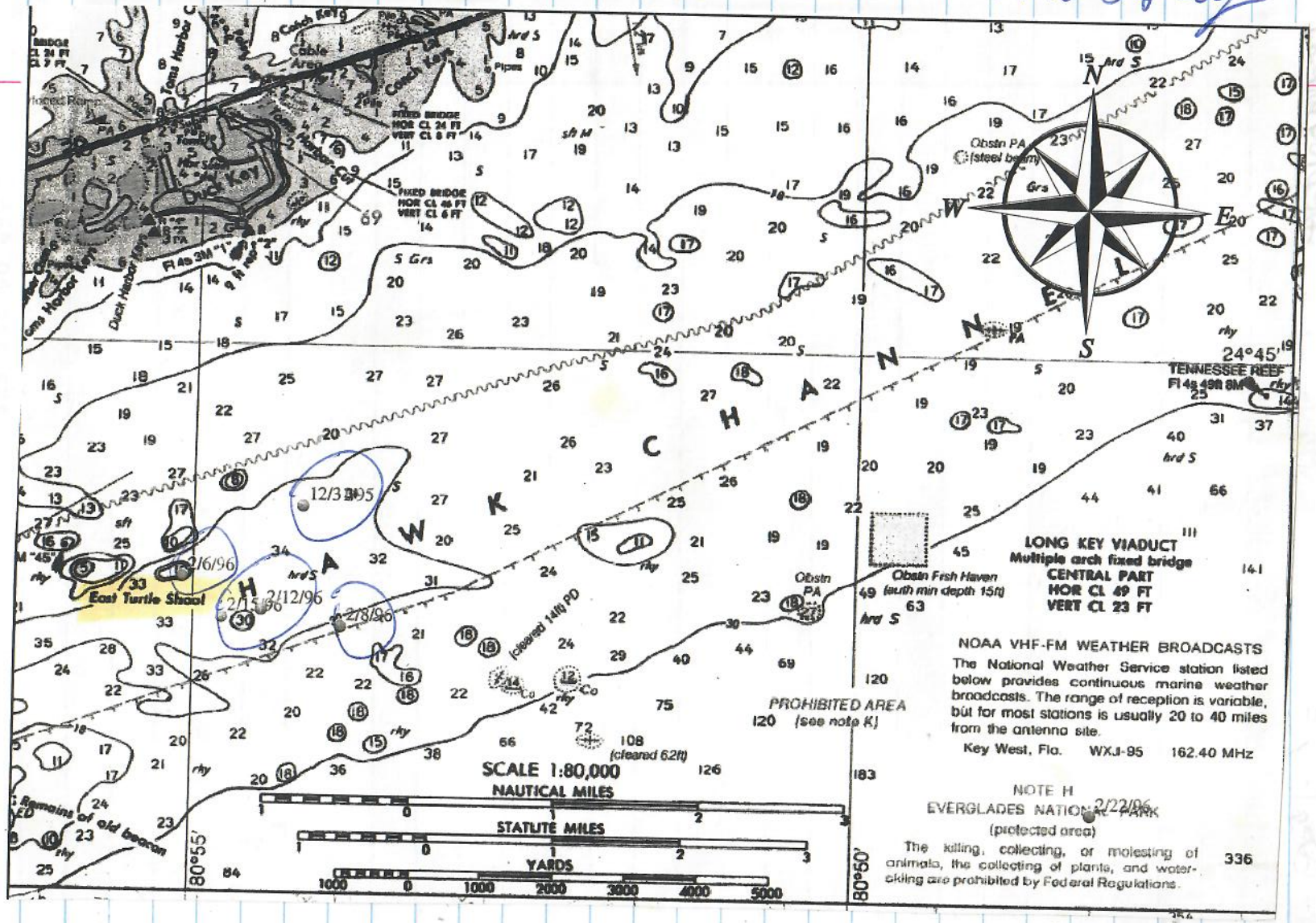
C. mydas discovered @ 0120
body pitting / nested / boxed @ ~~0130~~ 0215
27°58.884'W
80°30.896'W
start attach @ 0625

GCLSL	99.6	X4386
CLSL	98.6	(orig tag)
CWSL	78.2	
CLOC	104.9	N6325
CWOC	99.7	(new tag)
HW	12.5	

card says #91

Released @ 0830

25688 1995 Deploy



20 Color = ORANGE

25690

1995
FLORIDA
Deployment

Deploy =
Depart South = 04.09.95

Date: 1/29/98 1/98
Sender: Barbara Schroeder
To: aem782@aol.com, sandy_macpherson@mail.fws.gov, spinnaker@prodigy.net, George Balazs, dab15782@pegasus.cc.ucf.edu, lehrhart@pegasus.cc.ucf.edu
Priority: Normal
Subject: Update on the Girls

The latest:

Endora still transmitting locations pretty well, she is still in the same location.

Rhonda transmitting locations only intermittently, last transmission of 7 January had her in the same spot still.

Flojo, no transmissions, last location 10/08.

Marjorie no new location data since 12/26, no recent transmissions of any sort.

Jacquesline, no change, not transmitting.

I'll be sending the new data points for Endora and Rhonda to Andrea soon so look for the updated maps soon too. No real change though, they are still where they were last.

Of interest, one of our Florida Bay male loggerheads, tagged on 12 February sent location data twice during January. Tag out for almost one year.

25690: Leaves ACNWR sometime after 9/3, next position on 9/7 she is off Miami Beach, next position not till 9/13 when she is in the exact same

25690 Date : 30.08.95 11:50:03 LC : B IQ :
Lat1 : 27.995N Lon1 : 80.509W
165 455 166 129
00 01

plot

25690 Date : 30.08.95 06:38:32 LC : A IQ : 60
Lat1 : 28.022N Lon1 : 80.524W
165 70 166 129
00 40

25690 Date : 31.08.95 08:10:53 LC : B IQ : 00
Lat1 : 28.016N Lon1 : 80.526W
130 36218 24323 56704
00 62

25690 Date : 01.09.95 06:16:01 LC : B IQ : 00
Lat1 : 27.958N Lon1 : 80.471W
167 93 125 130
00 00

25690

1 sept 1995

1995 21

25690 Date : 01.09.95 14:26:03 LC : B IQ : 00
Lat1 : 27.938N Lon1 : 80.498W
165 1385 125 130
00 01

25690 Date : 03.09.95 18:56:13 LC : B IQ : 00
Lat1 : 27.983N Lon1 : 80.505W
170 495 271 78
00 00

25690 Date : 03.09.95 12:02:28 LC : A IQ : 00
Lat1 : 27.930N Lon1 : 80.483W
166 113 33511 8744
00 00

Depart South

25690 Date : 04.09.95 18:47:24 LC : B IQ : 00
Lat1 : 27.228N Lon1 : 81.073W Lat2 : 27.617N Lon2 : 79.074W
170 328 138 154
00 33

PLOT
25690 Date : 06.09.95 00:17:06 LC : B IQ : 00
Lat1 : 26.690N Lon1 : 79.743W Lat2 : 25.686N Lon2 : 83.605W
168 484 172 124
00 00

PLOT
25690 Date : 07.09.95 12:13:21 LC : B IQ : 00
Lat1 : 25.986N Lon1 : 80.198W
165 3518 425 254
01 02

25690 Date : 07.09.95 18:13:19 LC : B IQ : 00
Lat1 : 25.881N Lon1 : 80.093W
166 501 160 133
00 00

PLOT
25690 Date : 11.09.95 12:25:50 LC : B IQ : 00
Lat1 : 24.969N Lon1 : 80.051W
169 138 145 41883
00 03

25690 Date : 13.09.95 11:46:46 LC : A IQ : 00
Lat1 : 24.686N Lon1 : 80.974W
169 90 166 124
00 00

25690 Date : 19.09.95 12:53:17 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
169 06 169 624
00 01

25690 Date : 12.09.95 13:49:29 LC : B IQ : 00
Lat1 : 24.672N Lon1 : 80.785W
171 43 116 184
00 01

25690 — 1995

25690 Date : 24.09.95 18:31:34 LC : B IQ : 00
Lat1 : 24.558N Lon1 : 81.430W Lat2 : 27.171N Lon2 : 69.626W
171 303 310 65
00 00

Florida 6/98 FL

Date: Fri, 26 Jun 1998 11:25:07 -0400 (EDT)
From: Linh Uong <ltu64696@pegasus.cc.ucf.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: green turtle neting

Hi George,

It's majorly hot, humid + smoky here in Orlando. There've been a lot of fires north of Orlando, up in Volusia County. Hopefully we'll get some heavy rain soon.

Meanwhile, the greens (and loggerheads too) are doing spectacular. It might slow down, but right now numbers are many times over that of other years. As of June 20, green nesting in the Carr Refuge is 188 (in 1996 it was only 20). For all of South Brevard County it is 242 (in 1996 = 26).

Hope all is well in beautiful Hawaii!

Smile, Linh

need 8/98 FL reduce

Date: 8/11/98
Sender: Barbara Schroeder
To: George Balazs
Priority: Normal
Subject: STuff

George, just some fyi stuff that I'll study more when I get back. I've been looking real quick at my ADS stuff, can't print out while in field but here are some things:

1. I am getting location data from more than one of my transmitters that are still in the box and not yet deployed.

2. One of these (the prototype) sent an LC 1 that is at least 1 degree of longitude from it's real location (in my motel room). Hmmm? Is this consistent with the location accuracy?

3. We recapped a green turtle that we sat tagged in 1997 (last year). Do you have any record from FFS (or other knowledge) of greens nesting in consecutive years? There are no FL green records of this.

4. This turtle's transmitter was on, we removed it, looked just like all the rest, antenna sheared off. But guess what - she sent a location while she was on the beach nesting (or in box). An LC1.

5. She also sent sensor data (no location) the night before, she must have false crawled but we missed her.

6. If I had gotten those data and we hadn't seen her, I would have not known what was going on - since she shouldn't have been here this year.

7. Do you know anything about egg yolk peritonitis? Thierry or the vet you work with in Hawaii (name escapes me).

BAS operating on sleep deficit

8/98

Date: 10 Aug 1998 16:37:03 -0400
From: Barbara Schroeder <Barbara.Schroeder@noaa.gov>
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: World's most expensive fiberglass resin?

Reduce FR

Have slept 3 hours in last three days. Deployed standard ST-14 on loggerhead Sunday AM, backwards with speedbump and kevlar protection. Went well.

Last night found 1997 (YES 1997) transmittered green (our only known subsequent year nester), transmitter on tight, no antenna. Removed and re-transmittered with the PROTOTYPE. The design is awesome, let's hope it works. Brenda and Bill Burger present. Had good track on this turtle last year to west of Key west, then residence there.

Am dragging. Me

_____ Reply Separator _____
Subject: World's most expensive fiberglass resin?
Author: gbalazs@honlab.nmfs.hawaii.edu at EXTERNAL
Date: 8/10/1998 01:37 AM

Just saw the receipt, but, hey, it's the "cost of doing business!" Wouldn't have it any other way. Each box is costing $240 to fedex ship. That's the government price. I recall when Jeanne paid for what I sent to Seychelles, non-gov, it was $320.

As I offered, I'm paying the resin shipment. But the transmitters are being charged to the fedex number you gave me and we're indicating the internal billing code you suppplied.

All is well. I hope your deployment are going fine. Don't do two a day-- too much work. g

k

24

Date: 18 Aug 1999 15:28:49 -0400
From: Barbara Schroeder <Barbara.Schroeder@noaa.gov>
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re[4]: HOME RANGE IN C.MYDAS (fwd)

8/99 FL nesting

and last night we got Rhonda, from 1997, first found here in 1985. In 97 she went to the lower Florida Keys and I had her through December. Just finished tagging her again an hour ago. Need sleep. Got another loggerhead done too. Four more to go. We are tagging at night. WOrks fine no problem.

_____ Reply Separator _____

Subject: Re: Re[2]: HOME RANGE IN C.MYDAS (fwd)
Author: gbalazs@honlab.nmfs.hawaii.edu at EXTERNAL
Date: 8/17/1999 11:23 PM

that really IS a fantastic sat. tagging! My Congratulations. G

On 16 Aug 1999, Barbara Schroeder wrote:

> green turtles? if so, that's pretty incredible and not like FL greens.
>
> We re-tagged C.mydas 25691 last night - she of the Bahama Mama turtle from 1995. What a great recap to get and re-tag with sat tag!
>
> Will keep you posted. Me
>
> _____ Reply Separator
> Subject: Re: HOME RANGE IN C.MYDAS (fwd)
> Author: gbalazs@honlab.nmfs.hawaii.edu at EXTERNAL
> Date: 8/13/1999 11:51 AM
>
> FYI to BAS from GHB.
>
> ---------- Forwarded message ----------
> Date: Wed, 11 Aug 1999 17:04:05
> From: Annette & Brendan <MTN@atlantis.co.ac>
> To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
> Subject: Re: HOME RANGE IN C.MYDAS
>
> GOOD POINT BUT YES.
>
> WE GOT NEARLY ONE 1, 2 OR 3 EACH DAY FROM EACH TURTLE FOR MORE THAN 6 MONTHS!
>
> BEST
>
> B
>
> At 16:19 10/08/99 -1000, you wrote:
> >I hope you received a lot of highly accurate LC 1, 2 or 3's in the
> >positions in order to support the limits of the range defined.

Date: Fri, 17 Dec 1999 20:52:18 -0500
From: Llewellyn Ehrhart <lehrhart@pegasus.cc.ucf.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Reprints

Redune FL

12/99

George: Good to hear from you. I am just now catching up on e-mail. I won't tell you how many messages are backed up (too embarrasing). We got hit hard by tropical storms and hurricanes this fall, especially Hurricane Irene. The lagoon water rose higher than it has been in over 40 years (maybe a lot longer than that), inundated the first floor of our building and just caused all kinds of problems. Cleaning up and repairing has beena tremendous time sink for me this semester and I am running far behind on everything. That's why you haven't heard from me. The storms did not hurt the marine turtles all that much (despite what you may have read in the CCC Velador). Most of the nests had already hatched by the time the "big one" (Irene) hit and the last 15% or so of nests don't produce much in any year. This was supposed to be a "low" year for green turtle nesting and it was. We only had 88 nests in the Carr Refuge. Two years ago (the previous "low" year) we had 180, which was about twice as many as we expected. That was followed by a record "high" year (1998), with over 1,600 green nests in the refuge. Hope you and all my other friends will understand the predicament I'm in with regard to those storms and my failure to communicate over the past few months. We (Dean, Tomo, others) are trying to claw our way back to normalcy (?). Tomo passed his oral qualifying exam three days ago, a significant step for him. Many thanks for all your kindnesses to him. You'll hear from me again; I'm comin' back! LME

"George H. Balazs" wrote:

> Aloha Lew, I've just today mailed you reprints of four recent papers--
> all dealing with fibropapillomas. I also sent copies of these to Tomo.
>
> How was the green turtle nesting this past year at Melbourne? Always
> neat to compare what's happening with FL greens compared to HI greens.
> Drop me a short email. Best regards, George
>

Date: Sat, 8 Jan 2000 12:09:11 EST
From: MikeBFL@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: Necropsy photos

1/00 FL pasture

That's a tough question to answer in regards to our site in the lagoon. Historically, from 1886 - 1900 Ft. Pierce was one of the primary turtle fisheries in the IRLS and accounted for over half of all the landings for the entire system. By the early 1900's the turtle fishery had collapsed and there are few records of turtles being sighted in the lagoon (over fished? environmental factors? Who's to say). I'm going to send you a copy of an extraordinary letter sent to Archie Carr from a man who grew up in Ft. Pierce in the late 1800's and describes the turtle fishery in this area. Since we have only been sampling this site for little over a year it's hard to back up any statements about relative abundance. My gut feeling is yes this is a robust, growing population. Temporal distributions do show that during the summer and fall seasons there seem to be fewer turtles at our site, but more data is needed to confirm any trends. As far as Dr. Ehrhart's work in the lagoon there has been a definite increase in numbers of turtle caught at his site since about 1993. At the power plant there has been an unbelievable increase in green turtle and loggerhead captures, almost two-thirds of all the turtles (over 6000 captures total)ever captured at the power plant were caught between 1992 and now. That's a pretty dramatic increase when you consider the programs been in affect for 24 years and the increase was largely due to the increase in green turtle captures.

When we started our project in the lagoon I thought we would mirror the results found at Dr. Ehrharts study site just 50 miles or so north of us. I was pleasantly surprised to find green turtles that were on the whole much larger than there or any other study site in Florida. The straight length mean of turtles in our site is 54.8 cm and the mean for turtles found north of us is about 39.0 cm and the mean found at the power plant is 38.3 cm. I am totally perplexed by this size difference? Any insight?

8/00

Date: Tue, 29 Aug 2000 16:32:54 -0400
From: Barbara Schroeder <Barbara.Schroeder@noaa.gov>
To: Karrie Singel <karrie.singel@fwc.state.fl.us>,
Allen Foley <allen.foley@fwc.state.fl.us>,
Sandy MacPherson <Sandy_MacPherson@fws.gov>,
Dean Bagley <dab15782@pegasus.cc.ucf.edu>
Cc: Barbara Schroeder <Barbara.Schroeder@noaa.gov>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>,
Blair Witherington <spinnaker@prodigy.net>,
Therese Conant <therese.conant@noaa.gov>
Subject: More info on "Star" - Sighted Sat Tag Turtle

Gary Sciba called and told me the following:

He was at Oakland Park in Broward County, the Mercedes Wreck, sunk by Broward County, a 190' German freighter, located at 26 09.370 'N 80 04.513'W, in 97' water, he was right near the bottom when he saw the turtle on the 20th of August

It was swimming, came from the north toward the wreck, he was at the bow, saw the turtle coming toward him, it came about 3-4' away from him and then skirted around him and the wreck, then he turned and swam parallel with the turtle tilll they were about 18" apart while he photographed it and it just continued swimming away to the south, he said it didn't appear afraid of him, just kept on going south. Seven days later she reached Key West.

He is sending me the photographs he took. I told him I'd keep him posted on her movements.

What a great month for satellite tag turtle happenings!

1995

25691

25691: She's a transmitting dynamo! She leaves ACNWR around 9/1, subsequent positions on 9/2,9/3, and 9/4 (a location class 2!) show her progressing south along the coast to Lake Worth. The next position on 9/5, she is 60 nautical miles north in the middle of the Gulf Stream - she swam in, rode it north and then exited out to the east on 9/6 (another location class 2!). Then, she proceeds, with good positions coming in at least every other day, to travel along the northern edge of Little Bahama Bank (LBB), goes to the center of LBB (a location class 3!), then makes a circuit around Grand Bahama Island to the west then back east after coming around the western tip. On 9/18 she appears to rapidly cross Northwest Providence Channel (very deep water) and now she is on the NE extreme of Great Bahama Bank. These waters are very shallow 1-5 fathoms.

HOW EXCITING! Can't wait till today's positions!. Who knows why we're getting such good data from 25691????????? Nothing different in transmitter application except I did the front corners a bit better to make them lay down flatter (can't imagine this matters). She was transmitting well even in deep water and even when along the east FL coast (where we have had high seas/surf for a long time). Sure hope we hear from the others at least periodically.

Between this and getting new carpet at home I can hardly stand the excitement. Gotta go take a nap.

Your turtle pal, Barbara

27

28 COLOR = HOT PINK 25691

1995 FLORIDA Deployment

Deploy =
Depart South = 02.09.95
Depart North = 04.09.95
Depart East = 05.09.95

25691 Date : 29.08.95 12:11:40 LC : B IQ : 00
Lat1 : 27.954N Lon1 : 80.417W
171 111 104 201
00 01

25691 Date : 30.08.95 06:37:42 LC : B IQ : 00
Lat1 : 27.811N Lon1 : 80.389W
173 166 133 160
00 00

25691 Date : 30.08.95 08:18:26 LC : A IQ : 00
Lat1 : 27.862N Lon1 : 80.445W
174 31 133 160
00 00

Depart South PLOT

25691 Date : 30.08.95 11:47:40 LC : 0 IQ : 58
Lat1 : 27.878N Lon1 : 80.410W
172 59 133 160
00 00

25691 Date : 02.09.95 12:22:28 LC : B IQ : 00
Lat1 : 27.369N Lon1 : 80.398W
174 75 183 117
00 00

PLOT

25691 Date : 02.09.95 06:04:37 LC : A IQ : 00
Lat1 : 27.479N Lon1 : 80.288W
174 139 183 117
00 01

25691 Date : 02.09.95 07:44:37 LC : B IQ : 00
Lat1 : 27.423N Lon1 : 80.178W
174 113 183 117
00 32

25691 Date : 02.09.95 01:39:40 LC : B IQ : 00
Lat1 : 27.741N Lon1 : 80.577W
175 270 4319 05
00 01

25691 Date : 02.09.95 00:03:40 LC : B IQ : 00
Lat1 : 26.826N Lon1 : 82.158W Lat2 : 28.442N Lon2 : 75.
175 192 4319 05
00 00

way off - too far West

25691

plot 25691 Date : 03.09.95 12:03:29 LC : 1 IQ : 58
Lat1 : 27.228N Lon1 : 80.180W
174 163 374 56
00 00

25691 Date : 03.09.95 13:43:48 LC : 0 IQ : 58
Lat1 : 27.191N Lon1 : 80.114W
174 97 374 56
00 00

25691 Date : 03.09.95 18:57:37 LC : B IQ : 00
Lat1 : 27.151N Lon1 : 79.838W
178 70 168 125
00 00

plot 25691 Date : 04.09.95 13:21:12 LC : 2 IQ : 56
Lat1 : 26.615N Lon1 : 79.890W
176 26 76 276
00 01

Depart back North
25691 Date : 04.09.95 18:47:26 LC : 0 IQ : 58
Lat1 : 26.715N Lon1 : 79.985W
181 38 64 323
00 00

25691 Date : 05.09.95 00:36:23 LC : B IQ : 00
Lat1 : 26.988N Lon1 : 79.768W
178 22 72 8517
01 01

25691 Date : 05.09.95 18:37:12 LC : B IQ : 00
Lat1 : 27.353N Lon1 : 80.140W
180 32 66 313
00 01

Depart East
25691 Date : 05.09.95 20:13:11 LC : A IQ : 00
Lat1 : 27.655N Lon1 : 79.836W
179 40 66 313
00 00

25691 Date : 06.09.95 00:16:39 LC : Z IQ : 10
Lat1 : 26.535N Lon1 : 84.222W Lat2 : 27.661N Lon2 : 79.401W
177 20 66 313
00 01

plot 25691 Date : 06.09.95 14:15:01 LC : 0 IQ : 50
Lat1 : 27.846N Lon1 : 79.554W
177 10 66 312
00 01

25691 Date : 06.09.95 18:17:40 LC : B IQ : 00
Lat1 : 27.707N Lon1 : 78.905W
179 36 72 287
00 01

30 1995

25691

25691 Date : 06.09.95 23:50:48 LC : 2 IQ : 50
Lat1 : 27.827N Lon1 : 79.346W
175 24 72 287
00 01

Plot

25691 Date : 07.09.95 06:50:45 LC : A IQ : 08
Lat1 : 27.788N Lon1 : 79.346W Lat2 : 24.869N Lon2 : 66.113W
175 40 67 308
00 02

25691 Date : 07.09.95 12:16:10 LC : B IQ : 00
Lat1 : 27.738N Lon1 : 79.198W Lat2 : 25.281N Lon2 : 67.476W
176 19 67 308
00 01

25691 Date : 07.09.95 18:11:01 LC : B IQ : 00
Lat1 : 27.647N Lon1 : 79.032W Lat2 : 30.588N Lon2 : 65.159W
178 23 72 285
00 01

25691 Date : 08.09.95 18:05:04 LC : B IQ : 00
Lat1 : 27.429N Lon1 : 78.664W
177 424 124 169
00 00

25691 Date : 10.09.95 12:52:11 LC : B IQ : 00
Lat1 : 27.254N Lon1 : 78.416W
175 79 127 166
00 00

Plot

25691 Date : 10.09.95 17:41:47 LC : 1 IQ : 50
Lat1 : 27.238N Lon1 : 78.398W
177 134 203 102
00 00

25691 Date : 10.09.95 19:19:48 LC : A IQ : 08
Lat1 : 27.251N Lon1 : 78.417W
49 54 713 102
00 00

25691 Date : 11.09.95 06:10:06 LC : B IQ : 00
Lat1 : 27.255N Lon1 : 78.343W
175 677 118 178
00 01

25691 Date : 11.09.95 12:26:30 LC : B IQ : 00
Lat1 : 27.267N Lon1 : 78.432W
175 260 118 178
00 00

25691 Date : 11.09.95 14:10:09 LC : B IQ : 00
Lat1 : 27.242N Lon1 : 78.257W
175 37 118 178
00 00

25691 Date : 13.09.95 11:44:54 LC : B IQ : 00
Lat1 : 26.966N Lon1 : 78.010W
175 96 84 252
00 00

PLOT
25691 Date : 13.09.95 07:30:09 LC : A IQ : 00
Lat1 : 26.903N Lon1 : 77.951W
174 90 84 252
00 00

25691 Date : 12.09.95 13:44:57 LC : B IQ : 00
Lat1 : 27.101N Lon1 : 78.073W
175 61 225 93
00 01

25691 Date : 12.09.95 19:03:10 LC : A IQ : 00
Lat1 : 26.956N Lon1 : 77.936W
179 34 104 74
00 00

25691 Date : 13.09.95 11:44:54 LC : B IQ : 00
Lat1 : 26.966N Lon1 : 78.010W
175 96 84 252
00 00

25691 Date : 14.09.95 00:39:48 LC : A IQ : 08
Lat1 : 26.731N Lon1 : 78.182W
175 109 82 259
00 00

PLOT
25691 Date : 14.09.95 07:17:25 LC : B IQ : 00
Lat1 : 26.761N Lon1 : 76.446W
172 553 79 267
00 01
way off too far east

25691 Date : 14.09.95 13:05:45 LC : B IQ : 00
Lat1 : 26.802N Lon1 : 78.306W
174 77 13391 1291
00 00

PLOT
25691 Date : 14.09.95 20:18:26 LC : A IQ : 00
Lat1 : 26.824N Lon1 : 78.447W
180 75 78 273
00 00
way off TOO FARcast

25691 Date : 15.09.95 12:38:38 LC : B IQ : 00
Lat1 : 26.441N Lon1 : 77.652W Lat2 : 27.379N Lon2 : 81.308W
176 146 75 284
00 00

PLOT
25691 Date : 15.09.95 18:28:02 LC : A IQ : 08
Lat1 : 26.740N Lon1 : 78.902W Lat2 : 28.363N Lon2 : 71.474W
181 60 73 291
00 00

32 1995

25691 Date : 15.09.95 20:06:38 LC : A IQ : 07
Lat1 : 26.710N Lon1 : 78.935W Lat2 : 17.791N Lon2 : 119.634W
181 78 73 291
00 00

25691 Date : 16.09.95 06:53:01 LC : A IQ : 08
Lat1 : 26.648N Lon1 : 79.132W Lat2 : 24.327N Lon2 : 68.443W
176 61 110 194
00 00

25691 Date : 16.09.95 12:16:54 LC : B IQ : 00
Lat1 : 26.639N Lon1 : 79.468W Lat2 : 24.197N Lon2 : 69.095W
176 131 110 194
00 01

Not
25691 Date : 16.09.95 19:55:21 LC : A IQ : 00
Lat1 : 26.511N Lon1 : 78.789W Lat2 : 18.715N Lon2 : 114.429W
177 80 115 185
00 17

25691 Date : 16.09.95 23:37:24 LC : B IQ : 00
Lat1 : 26.477N Lon1 : 78.695W Lat2 : 29.452N Lon2 : 65.6
00 459 115 185
00 48

25691 Date : 17.09.95 01:09:55 LC : B IQ : 00
Lat1 : 26.493N Lon1 : 78.681W Lat2 : 19.193N Lon2 : 113
176 161 115 185
00 00

25691 Date : 17.09.95 19:45:50 LC : B IQ : 00
Lat1 : 26.638N Lon1 : 78.338W
179 142 128 166
00 00

25691 Date : 18.09.95 06:31:54 LC : 0 IQ : 50
Lat1 : 26.427N Lon1 : 78.210W
176 33 105 200
00 00

25691 Date : 18.09.95 08:15:23 LC : B IQ : 00
Lat1 : 26.390N Lon1 : 78.219W

Not
25691 Date : 18.09.95 11:35:46 LC : A IQ : 00
Lat1 : 26.302N Lon1 : 78.112W
176 28 105 200
00 01

[redacted]

[redacted]

Bahamas

25691 Date : 19.09.95 06:27:31 LC : B IQ : 00
Lat1 : 25.797N Lon1 : 78.151W
176 27 75 275
00 00

25691 Date : 19.09.95 08:04:10 LC : B IQ : 00
Lat1 : 25.776N Lon1 : 78.148W
176 340 75 275
00 00

25691 Date : 20.09.95 07:56:41 LC : B IQ : 00
Lat1 : 25.566N Lon1 : 78.132W
177 323 102 209
00 02

25691 Date : 19.09.95 08:04:10 LC : B IQ : 00
Lat1 : 25.776N Lon1 : 78.148W
176 340 75 275
00 00

Plot

25691 Date : 19.09.95 17:44:21 LC : 1 IQ : 56
Lat1 : 25.635N Lon1 : 77.998W
183 84 94 225
00 00

25691 Date : 19.09.95 19:23:19 LC : B IQ : 00
Lat1 : 25.548N Lon1 : 77.986W
181 86 94 229
00 33

25691 Date : 20.09.95 12:30:39 LC : Z IQ : 10
Lat1 : 24.802N Lon1 : 75.722W
179 75 102 209
00 00

25691 Date : 24.09.95 00:17:47 LC : B IQ : 00
Lat1 : 25.529N Lon1 : 77.505W
177 906 207 614
00 00

25691 Date : 26.09.95 08:28:15 LC : B IQ : 00
Lat1 : 25.413N Lon1 : 77.652W
176 844 296 70
00 00

25691 Date : 26.09.95 11:58:08 LC : B IQ : 00
Lat1 : 25.288N Lon1 : 78.211W
176 290 296 102
00 34

34
1995

25691 Date : 01.10.95 05:54:25 LC : B IQ : 00
Lat1 : 25.503N Lon1 : 77.764W
00 1095 206 102
00 08

25691 Date : 01.10.95 13:33:51 LC : A IQ : 00
Lat1 : 31.706N Lon1 : 107.845W Lat2 : 25.387N Lon2 : 77.809W
176 719 239 88
00 01

25691 Date : 03.10.95 18:34:00 LC : B IQ : 00
Lat1 : 25.464N Lon1 : 77.450W
179 309 272 77
00 01

25691 Date : 05.10.95 06:51:30 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
187 4226 2869 30221
01 26

25691 Date : 06.10.95 06:41:39 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
175 3058 26926 26491
03 45

25691 Date : 08.10.95 19:23:52 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
175 213 209 99
00 00

25691 Date : 16.10.95 17:51:47 LC : B IQ : 00
Lat1 : 25.270N Lon1 : 77.939W
174 338 198 103
00 00

25691 Date : 20.10.95 05:49:38 LC : B IQ : 00
Lat1 : 25.574N Lon1 : 77.972W
174 300 198 105
00 00

25691 Date : 23.10.95 18:18:30 LC : A IQ : 00
Lat1 : 25.410N Lon1 : 77.774W Lat2 : 27.810N Lon2 : 67.0
175 8298 257 80
00 16

25691 Date : 24.10.95 18:11:29 LC : B IQ : 00
Lat1 : 25.392N Lon1 : 77.713W
175 929 206 102
00 00

25691 Date : 01.11.95 18:18:41 LC : B IQ : 00
Lat1 : 25.336N Lon1 : 78.299W
173 154 223 94
00 00

25691 Date : 07.03.97 08:23:02 LC : B IQ : 00
Lat1 : 24.898N Lon1 : 80.819W Lat2 : 28.412N Lon2 : 97.016W FL

175 645 178 115
00 00

Glue Florida

Date: 04 Aug 1997 09:19:09 -0400
From: Barbara Schroeder <Barbara.Schroeder@noaa.gov>
To: Return requested <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Curosity

It was 25691 - the one that went to the Bahamas! I'm desperately hoping that we can locate her again in August and re-tag her and see if she takes same trip!!!!!!! I have not seen the unit yet, will get it when I am there - Dean said antenna same sheared off, she said looks like saltwater switch screws are gone too. She recovered it 7/14/97, said that the scute below peeled off with the unit and it was soft underneath, but she saw the turtle again the next night - it false crawled the night she had it first and the scute was already beginning to harden, she thought. They've marked the nest so we can get info on fertility - do you already have this from FFS? Just to counter those who say it would interfere with mating?

_____ Reply Separator _____
Subject: Curosity
Author: gbalazs@honlab.nmfs.hawaii.edu at EXTERNAL
Date: 7/31/97 11:49 PM

What was the id code and brief history of the other transmitter you recently recovered? Everything look ok?

****

Florida Turtle tracking, 1995
Argos 25688

Day	LC	Date	Time	Hours	Distance nmi	Distance Km	To date nmi	To date Km	Speed knots	Speed Km/hr
1	A	9/03-9/04	1858-0058	30.0	22	40	22	40	0.7	1.3
2-6	B	9/04-9/09	0058-0047	120	157	291	179	331	1.3	2.5
6-14	B	9/09-9/17	0047-0113	193	20	37	199	368	0.1	0.2

Florida Turtle tracking, 1995
Argos 25690

Day	LC	Date	Time	Hours	Distance nmi	Distance Km	To date nmi	To date Km	Speed knots	Speed Km/hr
1-6	B	8/30-9/06	0638-0017	138.5	90	167	90	167	0.65	1.2
7	B	9/06-9/07	0017-1213	36.0	49	91	139	258	1.4	2.5
7-11	B	9/07-9/11	1213-1226	96.0	61	113	200	371	0.6	1.1

Florida Turtle tracking, 1995
Argos 25691

Day	LC	Date	Time	Hours	Distance nmi	Distance Km	To date nmi	To date Km	Speed knots	Speed Km/hr
1-2	A	8/30-9/02	1147-0604	42.5	25	46	25	46	0.6	1.1
3	1	9/02-9/03	0604-1203	30.0	16	29	41	81	0.5	0.9
4	2	9/03-9/04	1203-1321	23.5	40	74	81	150	1.7	3.1
4	0	9/04-9/04	1321-1847	5.5	8	15	89	165	1.4	2.7
5	B	9/04-9/05	1847-0036	30.0	20	37	109	202	0.7	1.2

Day	LC	Date	Time	Hours	Distance nmi	Distance Km	To date nmi	To date Km	Speed knots	Speed Km/hr
5	A	9/05-9/05	0036-2013	19.5	40	74	149	276	2.0	3.8
6	0	9/05-9/06	2013-1415	18.5	19	35	168	311	1.0	1.8
7	A	9/06-9/07	1415-0651	16.5	12	22	180	333	0.7	1.3
7-10	1	9/07-9/10	0651-1742	83.0	60	111	240	444	0.7	1.3
10-13	A	9/10-9/13	1742-0730	61.5	31	57	271	501	0.5	0.9
14	A	9/13-9/14	0730-2018	37.0	27	50	298	551	0.7	1.3
15	A	9/14-9/15	2018-1828	22.0	25	46	323	597	1.1	2.1
16	A	9/15-9/16	1828-1955	24.5	15	28	338	625	0.6	1.1
16-18	A	9/16-9/18	1955-1136	39.5	39	72	377	697	1.0	1.8
19	1	9/18-9/19	1136-1744	30.0	40	74	417	771	1.3	2.5
			TOTAL HOURS =	XXXX					x = X.X	x = X.X
			TOTAL DAYS =	XX						

* - Not in ADS

September 25, 1995

file: FLORDA95.WP5

38

8/00

FL

Date: Tue, 29 Aug 2000 14:56:03 -0400
From: Barbara Schroeder <Barbara.Schroeder@noaa.gov>
To: garysciba@gtjeffers.com
Cc: Karrie Singel <karrie.singel@fwc.state.fl.us>,
Allen Foley <allen.foley@fwc.state.fl.us>,
Sandy MacPherson <Sandy_MacPherson@fws.gov>,
Dean Bagley <dab15782@pegasus.cc.ucf.edu>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Satellite Tagged Sea Turtle

Dear Gary,

I just received the most wonderful news from Karrie Singel, my colleague at the Florida Marine Research Institute in Tequesta, FL. You sighted one of our satellite tagged, post-nesting loggerhead turtles off Palm Beach County! This is great - we tagged this turtle (named "Star") in the very early morning hours of August 12th. As of today, Star is making her way along the Florida Keys, enroute to her home feeding grounds, which at the moment are unknown. Karrie didn't pass along the date you saw her, but, based on the satellite data, I'm guessing you must have been diving with her around August 18th. As of yesterday, she had just passed Key West. She is one of five loggerheads we tagged this summer at the Archie Carr National Wildlife Refuge at Melbourne Beach.

I would be happy to send you a paper map showing her movements to date, or, if you like, I can attach a .jpg file to an e-mail. I have attached a close up picture of her tag, a .jpg file, taken on the beach just prior to releasing her. I am very anxious to see the photographs you took of her and would very much like to make copies, are they slides or prints? Karrie indicated you could scan them and I would love to see the electronic images but might also like to make a copy of the original media. Please let me know.

Can you tell me more about her behavior and by any chance do you have a specific location by way of GPS for her, also the date you saw her? If I could give you a call to discuss - that would be very helpful, please let me know if there might be a good time to contact you. In the meantime, thank you so much for passing along the sighting information, while we now have two recoveries of transmitters (once they are shed harmlessly from the turtle) and we have seen some of our satellite tagged turtles in subsequent years on the nesting beaches, this is the first report of someone sighting one of our turtles in the wild, during her migration. It is such an excellent piece of information to fit into the puzzle of the movements of these wonderful animals.

Thanks again for the report and I look forward to hearing back from you,

Barbara Schroeder

24179 ST-10
KBAY
Deployment

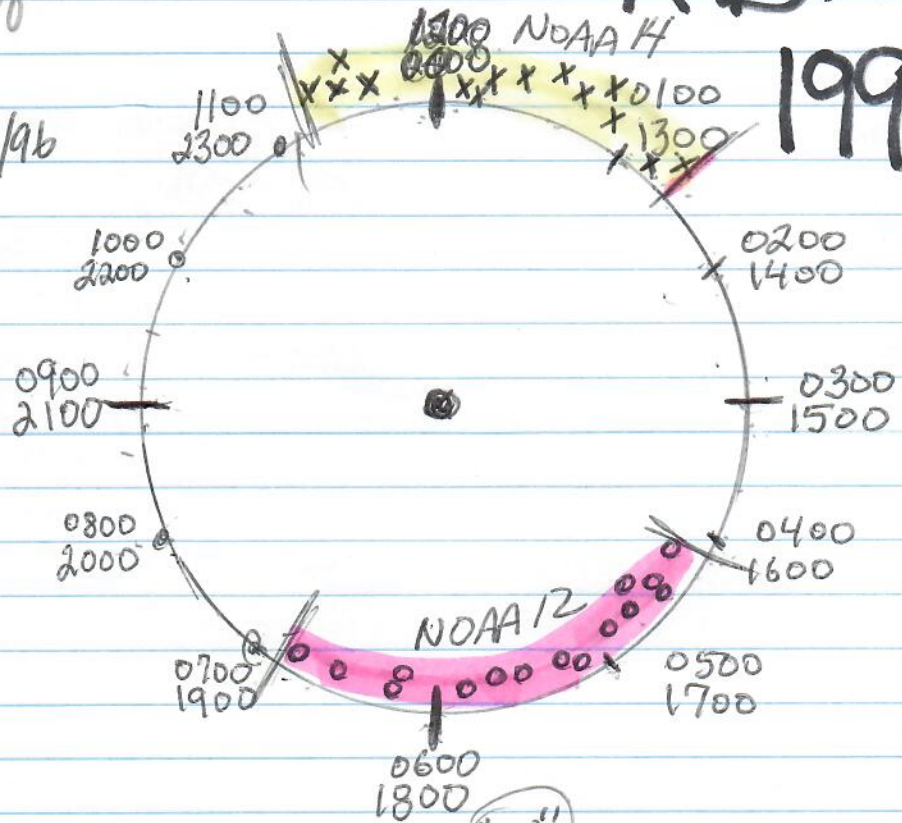
IN GMT < NOAA - 12 = O
NOAA - 14 = X

Hawaii Standard Time = GMT − 10 HOURS

ST-12 2 hours off
2 ON 4 off

KBAY 1996

24179
"on" 7pm 1/17/96
HST
IN BACKYARD
HAWAII KAI



Kaneohe Bay

"ON"
HST=0600

GMT 0400 − 0700) NOAA 12
"ON" 1600 − 1900)
HST=1800

GMT 1100 − 0200) NOAA 14
2300 − 1300)

"ON" HST= 0100 or 1300 TO catch start of each good overpass period

BT TIMES BEST TO TURN ON ST10 with 2/4 cycle
or 1100 GMT = 1 AM HST or 1PM
or 2300 GMT = 1PM

0500 GMT = 7 AM HST or 7PM
or 1700 GMT = 7PM

Oahu

BALAZ 21.5 NORTH / 158.0 WEST

date	object	beacon	rise	tca	set	el
17Jan96	NOAA-14	1707.0000	00:41:16	00:48:38	00:56	32
17Jan96	NOAA-10	1698.0000	02:40:55	02:47:24	02:53	18
17Jan96	NOAA-11	1707.0000	03:24:47	03:31:15	03:37	17
17Jan96	NOAA-12	1698.0000	03:37:12	03:41:52	03:46	7
17Jan96	NOAA-10	1698.0000	04:19:42	04:26:55	04:34	34
17Jan96	NOAA-11	1707.0000	05:03:55	05:11:27	05:18	40
17Jan96	NOAA-12	1698.0000	05:13:35	05:21:10	05:28	83
17Jan96	NOAA-12	1698.0000	06:57:45	07:01:29	07:05	4
17Jan96	NOAA-14	1707.0000	11:33:57	11:41:07	11:48	23
17Jan96	NOAA-14	1707.0000	13:14:21	13:21:41	13:29	29
17Jan96	NOAA-10	1698.0000	15:06:38	15:13:08	15:19	17
17Jan96	NOAA-11	1707.0000	15:56:27	16:03:16	16:10	18
17Jan96	NOAA-12	1698.0000	16:03:38	16:08:23	16:13	6
17Jan96	NOAA-10	1698.0000	16:45:43	16:52:55	17:00	35
17Jan96	NOAA-11	1707.0000	17:36:13	17:43:48	17:51	38
17Jan96	NOAA-12	1698.0000	17:40:54	17:48:37	17:56	82
17Jan96	NOAA-12	1698.0000	19:23:32	19:27:49	19:32	5
17Jan96	NOAA-14	1707.0000	22:51:04	22:57:27	23:03	16
17Jan96	passes =	18				
18Jan96	NOAA-14	1707.0000	00:30:09	00:37:46	00:45	42
18Jan96	NOAA-10	1698.0000	02:18:08	02:23:32	02:28	9
18Jan96	NOAA-11	1707.0000	03:13:07	03:19:01	03:24	12
18Jan96	NOAA-12	1698.0000	03:18:16	03:20:25	03:22	1
18Jan96	NOAA-10	1698.0000	03:55:14	04:02:47	04:10	65
18Jan96	NOAA-11	1707.0000	04:51:27	04:59:05	05:06	56
18Jan96	NOAA-12	1698.0000	04:51:58	04:59:26	05:06	57
18Jan96	NOAA-10	1698.0000	05:40:48	05:43:02	05:45	1
18Jan96	NOAA-12	1698.0000	06:33:59	06:39:33	06:45	10
18Jan96	NOAA-11	1707.0000	06:39:40	06:40:07	06:40	0
18Jan96	NOAA-14	1707.0000	11:23:23	11:30:14	11:37	18
18Jan96	NOAA-14	1707.0000	13:03:17	13:10:54	13:18	38
18Jan96	NOAA-10	1698.0000	14:43:37	14:48:54	14:54	8
18Jan96	NOAA-11	1707.0000	15:44:36	15:50:50	15:57	13
18Jan96	NOAA-12	1698.0000	15:45:21	15:46:26	15:47	0
18Jan96	NOAA-10	1698.0000	16:21:20	16:28:55	16:36	66
18Jan96	NOAA-12	1698.0000	17:19:13	17:26:52	17:34	58
18Jan96	NOAA-11	1707.0000	17:23:44	17:31:30	17:39	52
18Jan96	NOAA-10	1698.0000	18:04:37	18:07:51	18:11	3
18Jan96	NOAA-12	1698.0000	19:00:33	19:06:20	19:12	11
18Jan96	NOAA-11	1707.0000	19:08:54	19:11:00	19:13	1
18Jan96	NOAA-14	1707.0000	22:40:46	22:46:43	22:52	12

BALAZ 21.5 NORTH / 158.0 WEST

date	object	beacon	rise	tca	set	el
19Jan96	NOAA-14	1707.0000	00:19:13	00:26:55	00:34	56
19Jan96	NOAA-10	1698.0000	01:56:27	01:59:45	02:03	3
19Jan96	NOAA-14	1707.0000	02:07:20	02:08:06	02:08	0
19Jan96	NOAA-11	1707.0000	03:01:39	03:06:48	03:11	8
19Jan96	NOAA-10	1698.0000	03:31:10	03:38:42	03:46	68
19Jan96	NOAA-12	1698.0000	04:30:41	04:37:45	04:44	32
19Jan96	NOAA-11	1707.0000	04:39:01	04:46:43	04:54	77
19Jan96	NOAA-10	1698.0000	05:13:36	05:18:44	05:23	8
19Jan96	NOAA-12	1698.0000	06:11:05	06:17:40	06:24	19
19Jan96	NOAA-11	1707.0000	06:24:02	06:27:39	06:31	3
19Jan96	NOAA-14	1707.0000	11:12:59	11:19:20	11:25	13
19Jan96	NOAA-14	1707.0000	12:52:20	13:00:07	13:07	50
19Jan96	NOAA-10	1698.0000	14:22:05	14:24:36	14:27	1
19Jan96	NOAA-14	1707.0000	14:38:01	14:39:44	14:41	1
19Jan96	NOAA-11	1707.0000	15:32:57	15:38:24	15:43	8
19Jan96	NOAA-10	1698.0000	15:57:15	16:04:50	16:12	67
19Jan96	NOAA-12	1698.0000	16:57:44	17:05:04	17:12	33
19Jan96	NOAA-11	1707.0000	17:11:18	17:19:10	17:27	71
19Jan96	NOAA-10	1698.0000	17:38:45	17:44:04	17:49	9
19Jan96	NOAA-12	1698.0000	18:38:03	18:44:46	18:51	20
19Jan96	NOAA-11	1707.0000	18:54:56	18:58:51	19:02	4
19Jan96	NOAA-14	1707.0000	22:30:41	22:36:00	22:41	9
19Jan96	passes =	22				
20Jan96	NOAA-14	1707.0000	00:08:19	00:16:04	00:23	74
20Jan96	NOAA-14	1707.0000	01:53:41	01:57:09	02:00	3
20Jan96	NOAA-11	1707.0000	02:50:27	02:54:37	02:58	5
20Jan96	NOAA-10	1698.0000	03:07:27	03:14:41	03:21	36
20Jan96	NOAA-12	1698.0000	04:09:41	04:16:08	04:22	19
20Jan96	NOAA-11	1707.0000	04:26:41	04:34:22	04:42	79
20Jan96	NOAA-10	1698.0000	04:48:04	04:54:29	05:00	17
20Jan96	NOAA-12	1698.0000	05:48:39	05:55:50	06:03	33
20Jan96	NOAA-11	1707.0000	06:10:16	06:15:11	06:20	7
20Jan96	NOAA-14	1707.0000	11:02:43	11:08:25	11:14	9
20Jan96	NOAA-14	1707.0000	12:41:25	12:49:18	12:57	65
20Jan96	NOAA-14	1707.0000	14:25:30	14:29:05	14:32	3
20Jan96	NOAA-11	1707.0000	15:21:37	15:25:57	15:30	5
20Jan96	NOAA-10	1698.0000	15:33:24	15:40:42	15:48	35
20Jan96	NOAA-12	1698.0000	16:36:30	16:43:14	16:49	19
20Jan96	NOAA-11	1707.0000	16:58:56	17:06:50	17:14	86
20Jan96	NOAA-10	1698.0000	17:13:44	17:20:13	17:26	18
20Jan96	NOAA-12	1698.0000	18:15:51	18:23:09	18:30	34
20Jan96	NOAA-11	1707.0000	18:41:40	18:46:41	18:51	7
20Jan96	NOAA-14	1707.0000	22:20:49	22:25:18	22:29	6

BALAZ 21.5 NORTH / 158.0 WEST

date	object	beacon	rise	tca	set	el
20Jan96	NOAA-14	1707.0000	23:57:28	00:05:15	00:13	85
20Jan96 passes = 21						
21Jan96	NOAA-14	1707.0000	01:41:31	01:46:13	01:50	6
21Jan96	NOAA-11	1707.0000	02:39:49	02:42:27	02:45	2
21Jan96	NOAA-10	1698.0000	02:44:08	02:50:43	02:57	20
21Jan96	NOAA-12	1698.0000	03:49:02	03:54:34	04:00	11
21Jan96	NOAA-11	1707.0000	04:14:26	04:22:02	04:29	58
21Jan96	NOAA-10	1698.0000	04:23:09	04:30:17	04:37	31
21Jan96	NOAA-12	1698.0000	05:26:30	05:34:02	05:41	59
21Jan96	NOAA-11	1707.0000	05:57:00	06:02:44	06:08	11
21Jan96	NOAA-12	1698.0000	07:13:22	07:14:27	07:15	0
21Jan96	NOAA-14	1707.0000	10:52:39	10:57:30	11:02	6
21Jan96	NOAA-14	1707.0000	12:30:33	12:38:29	12:46	85
21Jan96	NOAA-14	1707.0000	14:13:44	14:18:24	14:23	6
21Jan96	NOAA-10	1698.0000	15:09:52	15:16:31	15:23	19
21Jan96	NOAA-11	1707.0000	15:11:03	15:13:29	15:15	1
21Jan96	NOAA-12	1698.0000	16:15:37	16:21:21	16:27	10
21Jan96	NOAA-11	1707.0000	16:46:38	16:54:29	17:02	63
21Jan96	NOAA-10	1698.0000	16:49:07	16:56:16	17:03	32
21Jan96	NOAA-12	1698.0000	17:53:49	18:01:28	18:09	59
21Jan96	NOAA-11	1707.0000	18:28:40	18:34:29	18:40	11
21Jan96	NOAA-12	1698.0000	19:37:44	19:40:29	19:43	2
21Jan96	NOAA-14	1707.0000	22:11:15	22:14:38	22:18	3
21Jan96	NOAA-14	1707.0000	23:46:42	23:54:25	00:02	66
21Jan96 passes = 22						
22Jan96	NOAA-14	1707.0000	01:29:48	01:35:18	01:40	9
22Jan96	NOAA-10	1698.0000	02:21:15	02:26:51	02:32	10
22Jan96	NOAA-12	1698.0000	03:29:09	03:33:04	03:36	4
22Jan96	NOAA-10	1698.0000	03:58:37	04:06:09	04:13	59
22Jan96	NOAA-11	1707.0000	04:02:13	04:09:43	04:17	42
22Jan96	NOAA-12	1698.0000	05:04:42	05:12:16	05:19	80
22Jan96	NOAA-11	1707.0000	05:43:53	05:50:19	05:56	16
22Jan96	NOAA-10	1698.0000	05:45:24	05:46:25	05:47	0
22Jan96	NOAA-12	1698.0000	06:47:52	06:52:30	06:57	6
22Jan96	NOAA-14	1707.0000	10:42:57	10:46:34	10:50	3
22Jan96	NOAA-14	1707.0000	12:19:44	12:27:39	12:35	74
22Jan96	NOAA-14	1707.0000	14:02:15	14:07:43	14:13	9
22Jan96	NOAA-10	1698.0000	14:46:45	14:52:17	14:57	9
22Jan96	NOAA-12	1698.0000	15:55:35	15:59:25	16:03	4
22Jan96	NOAA-10	1698.0000	16:24:42	16:32:16	16:39	60
22Jan96	NOAA-11	1707.0000	16:34:20	16:42:07	16:49	46

BALAZ 21.5 NORTH / 158.0 WEST

date	object	beacon	rise	tca	set	el
22Jan96	NOAA-12	1698.0000	17:32:00	17:39:45	17:47	81
22Jan96	NOAA-10	1698.0000	18:08:25	18:11:09	18:13	2
22Jan96	NOAA-11	1707.0000	18:15:47	18:22:15	18:28	15
22Jan96	NOAA-12	1698.0000	19:14:03	19:19:03	19:24	7
22Jan96	NOAA-14	1707.0000	22:02:35	22:03:58	22:05	1
22Jan96	NOAA-14	1707.0000	23:36:00	23:43:36	23:51	50
22Jan96 passes =	22					
23Jan96	NOAA-14	1707.0000	01:18:15	01:24:23	01:30	13
23Jan96	NOAA-10	1698.0000	01:59:20	02:03:03	02:06	4
23Jan96	NOAA-10	1698.0000	03:34:30	03:42:03	03:49	75
23Jan96	NOAA-11	1707.0000	03:50:09	03:57:26	04:04	31
23Jan96	NOAA-12	1698.0000	04:43:14	04:50:33	04:57	45
23Jan96	NOAA-10	1698.0000	05:17:17	05:22:07	05:26	7
23Jan96	NOAA-11	1707.0000	05:31:00	05:37:54	05:44	22
23Jan96	NOAA-12	1698.0000	06:24:32	06:30:35	06:36	13
23Jan96	NOAA-14	1707.0000	10:34:33	10:35:37	10:36	0
23Jan96	NOAA-14	1707.0000	12:08:57	12:16:48	12:24	56
23Jan96	NOAA-14	1707.0000	13:50:56	13:57:00	14:03	12
23Jan96	NOAA-10	1698.0000	14:24:49	14:28:00	14:31	2
23Jan96	NOAA-10	1698.0000	16:00:35	16:08:12	16:15	74
23Jan96	NOAA-11	1707.0000	16:22:10	16:29:44	16:37	33
23Jan96	NOAA-12	1698.0000	17:10:24	17:17:58	17:25	46
23Jan96	NOAA-10	1698.0000	17:42:17	17:47:23	17:52	8
23Jan96	NOAA-11	1707.0000	18:03:04	18:10:01	18:16	21
23Jan96	NOAA-12	1698.0000	18:51:19	18:57:31	19:03	14
23Jan96	NOAA-14	1707.0000	23:25:22	23:32:48	23:40	38

1/19/96 Attached ST-10 to Punaluu Bay kau
Friday turtle transferred 11/29/95
to KRF. Banking plasma previously
taken. Some tumors removed surgically
by Bob Morris.
11 AM attachment started process. (1) Sand
(2) Gastomer (3) 4 pieces of glass
ridged along each side.
(4) on trimmed out "U"

in front and 1 cross-ways.
(5) My business card under
one more crossways over two
tongues of aft "U". (6) Sanding coat.

```
**************** Telonics PIC Micro Programming Record *************** Page 1
Date:  8/ 1/1995 Time:  6:33 System Number: 179459 *** Firmware I.D: BM950413

  ********************************************************************
  *****  Programming setup for ST-10 surface time monitoring  *******
  ********************************************************************
  ARGOS identification code ------------------------------> 24179
  Interval between ARGOS transmissions in seconds (40-255)--> 45
  Enter number of days in season 1 -----------------------> 255
  Enter number of days in season 2 -----------------------> 0
  Enter number of days in season 3 -----------------------> 0
  Enter number of days in season 4 -----------------------> 0
*********************************************************************
* The ST-10 provides on/off control of the RF transmitter. Each *
* of the four seasons consists of four cycles. Each cycle pro-  *
* vides for one "on" period and one "off" period of 0-255 hours *
* each. The following querry lines are for season 1, cycles 1-4 *
*********************************************************************
  Enter # of hours xmittr is enabled in cycle 1, season 1---> 2
  Enter # of hours xmittr is disabled in cycle 1, season 1--> 4
  Enter # of hours xmittr is enabled in cycle 2, season 1---> 0
  Enter # of hours xmittr is disabled in cycle 2, season 1--> 0
  Enter # of hours xmittr is enabled in cycle 3, season 1---> 0
  Enter # of hours xmittr is disabled in cycle 3, season 1--> 0
  Enter # of hours xmittr is enabled in cycle 4, season 1---> 0
  Enter # of hours xmittr is disabled in cycle 4, season 1--> 0
*********************************************************************
```

ID = 24179 ST-10 Telonics System
20N/40FF #179459B


```
24179 Date : 18.01.96 05:00:16 LC : 1 IQ : 50
 Lat1 : 21.285N Lon1 : 157.677W Lat2 : 23.009N Lon2 : 149.717W
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB
 Pass duration : 180s NOPC : 0
 Calcul freq : 401 650549.6 Hz Altitude : 0 m
 176 176

   01092 24179 7 2 D
    1996-01-18 04:58:46 1 44 44
    1996-01-18 04:59:31 1 88 88
    1996-01-18 05:00:16 1 132 132
    1996-01-18 05:01:02 1 176 176
    1996-01-18 05:01:47 1 220 220
    1996-01-18 05:02:32 1 264 264
   01092 24179 2 2 J
    1996-01-18 11:27:42 1 22832 22832
```

```
24179 Date : 18.01.96 11:27:41 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 22832 22832

24179 Date : 19.01.96 00:24:47 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 2828 2828
```

```
24179 Date : 20.01.96 11:09:22 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 22894 22894

24179 Date : 20.01.96 18:25:46 LC : B IQ : 00
 Lat1 : 21.183N Lon1 : 157.130W Lat2 : 25.509N Lon2 : 177.558W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB
 Pass duration : 293s NOPC : 2
 Calcul freq : 401 650418.6 Hz Altitude : 0 m
 23053 23053
```

18

1/19/96

230 PM relay Kaneohe Beach

"SAT24179"

SCL 63.9 cm

LFL Y194 L3-4 Z257
RFL Y193
LHF B346
RHF N546

24179 Date : 19.01.96 12:55:36 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
46820 46820

24179 Date : 20.01.96 00:15:26 LC : 0 IQ : 40
Lat1 : 21.407N Lon1 : 157.783W Lat2 : 20.394N Lon2 : 162.33[illegible]
Nb mes : 007 Nb mes>-120dB : 000 Best level : -121 dB
Pass duration : 405s NOPC : 2
Calcul freq : 401 650418.6 Hz Altitude : 0 m
21272 21272

24179 Date : 20.01.96 05:55:29 LC : B IQ : 00
Lat1 : 22.703N Lon1 : 158.177W Lat2 : 18.953N Lon2 : 177.43[illegible]
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : 657s NOPC : 2
Calcul freq : 401 650418.6 Hz Altitude : 0 m
22433 22433

24179 Date : 20.01.96 11:09:22 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
22894 22894

24179 Date : 21.01.96 12:42:00 LC : B IQ : 00
Lat1 : 23.150N Lon1 : 162.267W Lat2 : 21.450N Lon2 : 154.314W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : 101s NOPC : 1
Calcul freq : 401 650418.6 Hz Altitude : 0 m
23727 23727

24179 Date : 21.01.96 23:55:57 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
23804 23804

24179 Date : 22.01.96 06:54:40 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????? Lat2 : ??????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
23969 23969

24179 Date : 23.01.96 12:20:55 LC : B IQ : 00
Lat1 : 22.700N Lon1 : 159.507W Lat2 : 19.870N Lon2 : 146.629W
24484 24484

25' 46'

24179 Date : 25.01.96 23:12:14 LC : 1 IQ : 50
Lat1 : 21.412N Lon1 : 157.772W
26329 26329

24179 Date : 24.01.96 12:08:10 LC : B IQ : 00
Lat1 : 21.571N Lon1 : 158.368W
24784 24784

24179 Date : 27.01.96 05:06:37 LC : B IQ : 00
Lat1 : 21.567N Lon1 : 157.670W
26810 26810

24179 Date : 28.01.96 17:08:50 LC : A IQ : 00
Lat1 : 21.430N Lon1 : 157.778W
27471 27471

24179 Date : 29.01.96 05:59:29 LC : B IQ : 00
Lat1 : 21.412N Lon1 : 157.806W
27886 27886

24179 Date : 29.01.96 12:54:16 LC : B IQ : 00
Lat1 : 21.421N Lon1 : 157.791W
28099 28099

24179 Date : 30.01.96 05:41:38 LC : B IQ : 00
Lat1 : 21.376N Lon1 : 157.757W
28572 28572

24179 Date : 01.02.96 17:20:06 LC : A IQ : 00
Lat1 : 21.426N Lon1 : 157.775W
30197 30197

24179 Date : 02.02.96 06:15:55 LC : 0 IQ : 60
Lat1 : 21.450N Lon1 : 157.611W
30713 30713

24179 Date : 02.02.96 12:06:34 LC : B IQ : 00
Lat1 : 21.431N Lon1 : 157.802W
31062 31062

24179 Date : 02.02.96 17:02:03 LC : B IQ : 00
Lat1 : 21.442N Lon1 : 157.728W
31220 31220

24179 Date : 03.02.96 18:18:03 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
31584 31584

24179 Date : 06.02.96 17:09:45 LC : B IQ : 00
Lat1 : 21.429N Lon1 : 157.846W
33566 33566

24179 Date : 05.02.96 05:09:54 LC : B IQ : 00
Lat1 : 21.410N Lon1 : 157.810W
32994 32994

24179 Date : 05.02.96 11:38:09 LC : B IQ : 00
Lat1 : 21.418N Lon1 : 157.711W
33074 33074

24179 Date : 05.02.96 17:31:39 LC : 0 IQ : 50
Lat1 : 21.542N Lon1 : 158.036W
33275 33275

24179 Date : 07.02.96 06:02:10 LC : B IQ : 00
Lat1 : 21.385N Lon1 : 157.798W
33749 33749

24179 Date : 07.02.96 18:29:54 LC : 0 IQ : 50
Lat1 : 21.439N Lon1 : 157.786W
34148 34148

24179 Date : 09.02.96 12:29:16 LC : B IQ : 00
Lat1 : 21.366N Lon1 : 157.547W
35094 35094

24179 Date : 10.02.96 12:16:03 LC : B IQ : 00
Lat1 : 21.889N Lon1 : 157.465W
35358 35358

24179 Date : 11.02.96 06:17:07 LC : B IQ : 00
Lat1 : 21.442N Lon1 : 157.783W
35765 35765

24179 Date : 11.02.96 23:31:02 LC : 0 IQ : 40
Lat1 : 21.384N Lon1 : 157.979W
36323 36323

24179 Date : 12.02.96 05:52:07 LC : B IQ : 00
Lat1 : 21.445N Lon1 : 157.790W
36491 36491

24179 Date : 12.02.96 23:18:15 LC : B IQ : 00
Lat1 : 21.432N Lon1 : 157.775W
37059 37059

24179 Date : 13.02.96 11:50:13 LC : B IQ : 00
Lat1 : 21.393N Lon1 : 157.700W
37525 37525

24179 Date : 15.02.96 00:32:26 LC : B IQ : 00
Lat1 : 21.391N Lon1 : 157.847W
38169 38169

24179 Date : 13.02.96 11:50:13 LC : B IQ : 00
Lat1 : 21.393N Lon1 : 157.700W
37525 37525

24179 Date : 17.02.96 05:51:15 LC : B IQ : 00
Lat1 : 21.546N Lon1 : 157.657W
39629 39629

24179 Date : 18.02.96 05:19:20 LC : B IQ : 00
Lat1 : 21.113N Lon1 : 158.393W
40318 40318

24179 Date : 20.02.96 17:06:10 LC : B IQ : 00
Lat1 : 21.404N Lon1 : 157.714W
41992 41992

24179 Date : 22.02.96 05:33:23 LC : 0 IQ : 50
Lat1 : 21.441N Lon1 : 157.713W
42882 42882

24179 Date : 21.02.96 12:03:21 LC : A IQ : 00
Lat1 : 21.374N Lon1 : 157.756W
42525 42525

24179 Date : 24.02.96 17:25:07 LC : A IQ : 00
Lat1 : 21.563N Lon1 : 157.961W
44256 44256

24179 Date : 01.03.96 23:19:46 LC : B IQ : 00
Lat1 : 21.535N Lon1 : 157.765W
47325 47325

24179 Date : 06.03.96 11:09:35 LC : B IQ : 00
Lat1 : 21.355N Lon1 : 157.628W
49402 49402

24179 Date : 09.03.96 06:24:11 LC : B IQ : 00
Lat1 : 21.195N Lon1 : 158.208W
51184 51184

24179 Date : 09.03.96 12:14:56 LC : B IQ : 00
Lat1 : 22.043N Lon1 : 156.295W
51296 51296

24179 Date : 10.03.96 06:08:55 LC : B IQ : 00
Lat1 : 21.551N Lon1 : 157.791W
51444 51444

24179 Date : 12.03.96 05:25:56 LC : B IQ : 00
Lat1 : 21.498N Lon1 : 157.493W
52467 52467

X 24179 Date : 14.03.96 17:02:58 LC : B IQ : 00
Lat1 : 21.466N Lon1 : 157.555W
53728 6132

X 24179 Date : 14.03.96 18:44:08 LC : B IQ : 00
Lat1 : 21.490N Lon1 : 157.950W
53613 53613

✓ 24179 Date : 15.03.96 11:17:48 LC : B IQ : 00
Lat1 : 21.324N Lon1 : 157.787W
53971 53971

24179 Date : 26.02.96 18:11:58 LC : B IQ : 00
Lat1 : 21.956N Lon1 : 158.245W
45330 45330

24179 Date : 27.02.96 17:52:05 LC : B IQ : 00
Lat1 : 21.671N Lon1 : 158.298W
45531 45531

24179 Date : 16.03.96 12:43:53 LC : B IQ : 00
Lat1 : 21.446N Lon1 : 157.908W
54807 54807

24179 Date : 19.03.96 06:10:06 LC : B IQ : 00
Lat1 : 21.458N Lon1 : 157.821W
56725 56725

24179 Date : 21.03.96 05:27:57 LC : B IQ : 00
Lat1 : 21.448N Lon1 : 157.641W
58809 58809

24179 Date : 21.03.96 11:47:15 LC : B IQ : 00
Lat1 : 21.468N Lon1 : 157.546W
59024 59024

24179 Date : 26.03.96 23:51:41 LC : A IQ : 60
Lat1 : 23.096N Lon1 : 150.092W ? need Lon #2
64233 64233

24179 Date : 29.03.96 18:16:12 LC : B IQ : 00
Lat1 : 21.124N Lon1 : 157.538W
1517 1517

24179 Date : 30.03.96 11:56:55 LC : B IQ : 00
Lat1 : 21.473N Lon1 : 157.759W
2389 2389

24179 Date : 30.03.96 11:56:55 LC : B IQ : 00
Lat1 : 21.473N Lon1 : 157.759W
2389 2389

24179 Date : 30.03.96 18:02:21 LC : B IQ : 00
Lat1 : 21.631N Lon1 : 157.447W
2762 2762

24179 Date : 01.04.96 00:39:26 LC : B IQ : 00
Lat1 : 21.397N Lon1 : 157.827W
4725 4725

24179 Date : 02.04.96 18:30:44 LC : B IQ : 00
Lat1 : 21.464N Lon1 : 157.703W
7250 7250

24179 Date : 03.04.96 00:16:13 LC : B IQ : 00
Lat1 : 21.455N Lon1 : 157.600W
7706 7706

Lat1 : 21.858N Lon1 : 157.472W
24179 Date : 03.04.96 05:37:37 LC : B IQ : 00
7936 7936

24179 Date : 06.04.96 06:15:45 LC : B IQ : 00
Lat1 : 21.372N Lon1 : 157.685W
10432 10432

24179 Date : 06.04.96 18:41:20 LC : B IQ : 00
Lat1 : 20.994N Lon1 : 157.384W
10829 10829

24179 Date : 07.04.96 18:19:03 LC : B IQ : 00
Lat1 : 21.425N Lon1 : 157.641W
12558 12558

24179 Date : 10.04.96 00:47:47 LC : B IQ : 00
Lat1 : 21.859N Lon1 : 158.703W
16800 16800

24179 Date : 13.04.96 12:41:11 LC : B IQ : 00
Lat1 : 21.308N Lon1 : 157.266W
21773 21773

24179 Date : 13.04.96 17:50:25 LC : B IQ : 00
Lat1 : 21.398N Lon1 : 157.562W
22080 22080

24179 Date : 16.04.96 06:03:39 LC : B IQ : 00
Lat1 : 21.509N Lon1 : 158.137W
26594 26594

24179 Date : 18.04.96 11:46:43 LC : B IQ : 00
Lat1 : 21.484N Lon1 : 157.808W
29834 29834

24179 Date : 16.04.96 06:03:39 LC : B IQ : 00
Lat1 : 21.509N Lon1 : 158.137W
26594 26594

24179 Date : 14.04.96 17:34:13 LC : B IQ : 00
Lat1 : 22.168N Lon1 : 158.318W
24023 24023

24179 Date : 17.04.96 05:42:29 LC : B IQ : 00
Lat1 : 21.316N Lon1 : 158.014W
28120 28120

24179 Date : 16.04.96 23:23:59 LC : B IQ : 00
Lat1 : 21.383N Lon1 : 157.999W
27935 27935

24179 Date : 18.04.96 05:16:51 LC : B IQ : 00
Lat1 : 21.340N Lon1 : 158.090W
29255 29255

24179 Date : 18.04.96 11:46:43 LC : B IQ : 00
Lat1 : 21.484N Lon1 : 157.808W
29834 29834

24179 Date : 19.04.96 11:41:55 LC : B IQ : 00
Lat1 : 21.206N Lon1 : 157.405W
31288 31288

24179 Date : 22.04.96 17:54:14 LC : B IQ : 00
Lat1 : 21.288N Lon1 : 157.470W
37421 37421

24179 Date : 23.04.96 23:46:54 LC : B IQ : 00
Lat1 : 21.432N Lon1 : 158.435W
39958 39958

24179 Date : 26.04.96 05:44:02 LC : B IQ : 00
Lat1 : 21.376N Lon1 : 157.851W
43287 43287

54

24179 Date : 27.04.96 17:47:08 LC : A IQ : 00
Lat1 : 21.427N Lon1 : 157.837W
46313 46317

24179 Date : 28.04.96 00:44:30 LC : B IQ : 00
Lat1 : 21.214N Lon1 : 157.872W
47028 47028

24179 Date : 28.04.96 11:36:14 LC : B IQ : 00
Lat1 : 21.405N Lon1 : 157.818W
47729 47729

24179 Date : 30.04.96 12:59:35 LC : B IQ : 00
Lat1 : 21.424N Lon1 : 157.776W
50426 50426

24179 Date : 02.05.96 23:51:40 LC : A IQ : 00
Lat1 : 21.494N Lon1 : 157.688W
018 54018

24179 Date : 07.05.96 17:25:55 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????
59607 59607

Date: Thu, 1 Aug 1996 11:58:50 -0400
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: STOP PRESS

22127 Deployed 1994

Doc called me at 2AM last night and Dean found #22127!!!!!!! Transmitter description was EXACTLY like yours - antenna ground to the case, a little tiny piece of wire sticking out. I did not drive up to see it, I had just gotten back around 11PM from Gainesville (a 5-hr drive) and we are packing for Florida Bay today. They took lots of photos, hacksawed the unit off, and have it for me. Shell looked great under the elastomer. A little bit of fouling (barnacles, algae) on the sides of the housing only - mostly on right and left sides. The salt water switch terminals looked brandy new - bright, shiny, no fouling. Possibly a crack in the housing (could just be through resin) just posterior to the antenna. The resin was slightly abraded through on top of the unit, but apparently not through all layers.

So, how are we going to overcome the antenna problem. Maybe Telonics getting both of the units will prompt them to think think think think think think and solve.

22129

Date: Wed, 14 Aug 1996 14:08:47 -0400
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: ~~DRAFT for Barbara's comments~~.

HI George, I'll print this out tomorrow at the office and give you comments. Just back from getting our first sat tag out (on a nester with history from 1990). AND, as Dean may already have e-mailed you, they encountered 22129 last ~~night from~~ 1994.

Deployed 1994

NO TRANSMITTER!!!!!! I got up there in time to examine her carefully. I ~~want to tell~~ you this over phone too, but, it appears that it was pryed up by someone - gouge type marks almost exclusively confined to the 2nd vertebral the marks radiating out from a central "entry?" point at the midpoint of the transmitter trailing edge. There was no resin or cloth anywhere to be found. NOTHING! I've been pondering this since and will probably continue to for a long time. Either someone found her on the beach and did it, or, she was captured at sea and that would likely be in some type of fishing gear, I think. I'm going to review her data more carefully tomorrow and see if there are any clues there.

Anyway, couldn't wait to tell you this - now I'm going to sleep - only had 2.5 hours last night. I have my very own brand new computer at home - it's fabulous, so, I can collect my e- mails even if I'm not at the office. I'll log on later today when I wake up again so I can see what your thoughts are on this development with 22129!

Date: Wed, 14 Aug 1996 18:26:33 -0400
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: Missing Transmitter

My thoughts exactly. We discussed that very thing. Doc said the cloth/resin was well bonded, but that if he had tried, he could have pryed away at it and perhaps gotten some of it off - I agree, how could they have gotten it all so cleanly?

There were a few (2-3) places on the carapace at the place where the resin edge would terminate where there was a little "ledge" - rising from one scute layer to an older one (the older one being outside the resin ring location. It was not resin, just scute. But, this made me think that perhaps it had come free and then broken at the intersection of the resin circle and scute part w/o resin. But, this "condition" existed only in a very few small places along the edge of the "resin ring".

If someone took the unit off, it's likely they dropped it overboard or smashed it. I don't recalll getting anything to make me think it was our of the water.

I hope the night flash pictures we took turn out. I will send you some as soon as they are developed and I make some copies.

I'm awake now but all discombobulated. In all the excitement I forgot to say WELCOME BACK! Hope your trip was most successful...and await details.

BAS

Date: Thu, 1 Aug 1996 16:34:24 -0400
From: BASFMRI@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Another Stop Press

NE of Marquesas

I just got caught up with where my adult male green is that I tagged on 17 July. He is now just NE of the Marquesas Keys, same general location where one of the females went in 1994. He did this in 13 days, a direct route there! Just like the females.

1996

Pretty good stuff huh?

Leaving for florida Bay tomorrow. My one tag that we cleaned of barnacles is not transmitting location data again. It's coming through but only Z's. Hopefully we'll find him on radio/sonic.

Date: Thu, 15 Aug 1996 13:36:08 -0500
From: Dean Bagley <dab15782@pegasus.cc.ucf.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Transmitter turtle recap #2

Hi George;

Long time no cyberspace, huh? Well, I am on long distance from Melbourne Beach, so this is gonna be real short, but wanted you to be the first to know that we caught another of "our" transmitter turtles from 1994. She was #29, and I promised I'd let BAS fill you in on the details. She was recaptured on 14 August ca. 01:00 almost exactly in the middle of the two kms where we would expect to find her. She has been faithful to two different areas; our km 7.0-8.0, and our 15.75-17.0 km. We found her at 12.3. Sorry I didn't let you know sooner about recap #1, but now you know about #2. Still looking for #28, the last one out there.