

FFS

1979

Book 2

TC 1-57

10-30 JUNE 1979

EXPEDITION 83

BALAZS (808) 395-6409

Exp. 22
5 May - 2259
7 May - 2269

LONGER TERM RECOVERIES - pages 4, 13, 24, 23, 42, 39, 47, 38, 52, 55, 49,

- Exp. 23 - ✓ TC 4 - 2216, 2217 -
- ✓ TC 13 - 2235, 2237 -
- ✓ TC 23 - 2209, 2210 -
- ✓ TC 24 - 2269, 2270 - PRE 842 1974 - 1977
- ✓ TC 39 - 2253, 2254
- ✓ TC 42 - 2240
- ✓ TC 47 - 2268
- ✓ TC 38 - 2259, 2260
- ✓ 6/26 - 2232 BASK, EAST
- ✓ 6/24 - 1268 HMB BASK, EAST
- ✓ 6/27 - 2238 BASK, EAST
- ✓ TC 52 - 5018, 5019
- ✓ TC 55 - 651 HMB
- ✓ TC 49 - 2255

EXPEDITION #18 June/July 1977
Total no. females tagged
(all on East): 38

EAST: $\frac{11 \text{ recoveries}}{\text{of } 62 \text{ encountered}} = 17.7\% \text{ rate}$
for 2-year cycle
 $\frac{13 \text{ recoveries total}}{\text{of } 62 \text{ encountered}} = 20.9\%$
11-2yr out of 13 recoveries = 84.6%

ONLY
6/29 - Renesting (by TC 4 after 12 days)

Narrative, continued Page 81

SUMMARY OF 1979 CARAPACE MEASUREMENTS Page 78

Summary of Growth Measurements for TC Recoveries Page 74



need -
Straight length summary ✓
Carapace patch summary
(note - not seen in previous seasons)

COMPOSITION BOOK

9 3/4 IN. x 7 1/2 IN. (24.8 cm x 19 cm) seal AB on Tern 3/5/80

AVAILABLE AS:

- No. 09-9130 (1130) 60 SHEETS COLLEGE RULED & MARGIN
- No. 09-9132 (1130-P) 60 SHEETS COLLEGE RULED & MARGIN
- No. 09-9134 (1143-X) 100 SHEETS COLLEGE RULED & MARGIN
- No. 09-9132 (1130-P) NUMBERED PAGES

Made in U.S.A.

VERNON McMILLAN, Inc., ELIZABETH, N.J. 07208

CHART OF TERN DRAWN BY CAPT. HOLTZMAN Page 84
 21 Oct 79 Flight to Tern (Pickup LAURA) pages 88-94
 5-6 MARCH 80 - TERN Island, FFS pages 98-107

TAGS- 3142 ~~LFL~~
3143 ~~RFL~~

TC- 1

10 OCT 2002

C/S RATIO - 1.258

S - $38\frac{1}{2} \times 30$
97.8 ~~70.2~~

C - $41\frac{1}{4} \times 37\frac{3}{4}$
104.8 ~~95.9~~

DATE/TIME	Area	Activity	Remarks
6/16/79 2030	7	N	
6/17 0030	7	N digging	
6/18 0230	6	lay	
6/18 0500	6	" Still covering	
6/19 1300	12	O started to haul out the bask -	swimming along shore
6/22/79 1430	NEP	Bask	
6/24 1300-1430	12	B	
6/29 1345h	10	B near weaved sect	photo roll 9

NO. 170 6/79 East, N TC 70

2-TC

TAGS-

S-

C-

<u>DATE/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/16/79 2230	6 6	N-possible lay	

TAGS- 3155

~~TC- 3~~

10 OCT 2002

S-

C-

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/16 2300	5	N	
6/17 2115	17	N	target 3155
6/19 0130	2	N	

NO. 175

~~6/82~~

~~East - N~~

~~TC 98~~

4-TC ✓

RECOVERY

TAGS - 2216 ✓
2217 ✓

10 OCT 2002

6/26/77 EAST ✓
TOLL ✓

C-36 x 34 3/8
91.4 - 87.3 ✓

S-

C-36 1/2 x 34 1/2
92.7 ✓ 87.4 ✓

DATE/Time	Area	Activity	Remarks	Date/T
6/16/79 2300 ✓	5 ✓	Nest ✓		6/16 ✓
6/17 ✓ 0500 ✓	6 ✓	Lay ✓		6/16 ✓
6/19 ✓ 1330 - 1730+ ✓	SEP ✓	Bask offshore ✓		6/17 ✓
6/22 ✓ 1830 ✓	SEP ✓	B ✓		6/17 ✓
6/24 ✓ 1830 ✓	SEP ✓	B ✓		6/18 ✓
6/26 ✓ 1800 ✓	SEP ✓	B ✓		6/19 ✓
6/28 ✓ 1300h ✓	SEP ✓	B ✓		6/19 ✓
6/28 ✓ 1630 ✓	SEP ✓	B ✓		6/22 ✓
6/28 ✓ 2330h ✓	12 ✓	ReNest ✓	returning to ocean	6/24 ✓
6/29 ✓ 0300 ✓	12 ✓	laying on beach -	presumably part of another "in out"	

NO. 17

TAGS - 3139 ^{short} see TC 15 (same turtle)

TC-5

3161

10 OCT 2002

C/S RATIO - 1.339

S - $37\frac{3}{4}$ x 28
95.9 / 71.1

C - $39\frac{1}{2}$ x $37\frac{1}{2}$
100.3 / 95.3

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/16 ?	or missed this consecutive number? no		
6/16 2300	5	N	
6/17 0030	5	N	
6/17 2300h	5	N	
6/18 2330	7	N	
6/19 0130	5	N	
6/19 0330	6	LAY	
6/22 1130	SEP	B	
6/24 1400	SEP	B	

NO. 174

6/82

East-N

TC 93

6-TC ✓

10 OCT 2002

TAGS

3174 (also appears in baskets)

3242 (tagging)

S-

C-

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>	<u>Date/Time</u>
6/16 200h	5-6	N		
6/18 0145	4	N		
6/18 1830	SEP	BASK		
6/18 2330	72	LAY	But did not get tags on	
6/19 0130				
6/19 1845	SEP	BASK	tagged 3174	
6/22 1130	SEP	B		
6/22 1830	SEP	B		
6/24 1400	SEP	B		
6/24 1830	SEP	B		
6/27 1730	SEP	B	Put on second tag - 3242	
6/28 1300	SEP	B		
6/28 1630	SEP	B		
6/29 1200	SEP	B		
6/29 1430	SEP	B		

TAGS-

TC-7

NOT ASSIGNED

S-

C-

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
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8-TC

10 OCT 2002

TAGS-3137 LFL
3138 RFL

S-35 1/8 x 25 1/8
89.2 / 63.8

C-36 3/4
93.3

Date/Time	Area	Activity	Remarks	Date/Time
6/16/79 Booth	5-6	N		6/16/79
6/17 0030	5	N		6/17
6/17 Booth	6	LAY	left flap partly missing	6/17

NO. 169 6/82 East, N

6/22
6/24
6/24
6/25
6/26
6/27

TAGS - 3140 LFL
314 RFL

TC - 9

11 OCT 2002

C/S RATIO - 1.303

S - 36 1/4 x 28
92.1 / 71.1

C - 38 1/4 x 36 1/2
97.2 / 92.7

Date/Time	Area	Activity	Remarks
6/16/79 2300h	5-6	N	
6/17 0030	5	N	
6/17 2300h	5	N	
6/18 0145	4	lay	Broken eggs during covering due to LHL
6/22 1130	NEP	B	1/2 missing
6/24 1400	SEP	B	out, both flaps intact - no knots
6/24 1830	SEP	B	PAINT PRINTED NUMBER.
6/25 1215	SEP	B	passing rain showers, strong wind
6/26 1800	SEP	B	
6/27 1730	SEP	B	

5/
6/81 - East - N no. 138

10-Te ✓

11 OCT 2002

TAGS- 3127 ✓

3128 ✓

ENT. # 282

S-

C- $40\frac{1}{8} \times 38\frac{3}{4}$
101.9 ✓ 90.4 ✓

Date/Time
6/16 ✓ 2300h
6/17 ✓ 0030 ✓

Area
5-6 ✓
6 ✓

Activity
N ✓
2Ay ✓

Remarks

Date/Time
6/16/79 ✓
6/18 ✓
6/24 ✓
6/26 ✓
6/27 ✓
6/28 ✓
6/28 ✓
6/29 ✓

NO. 17

TAGS-3149 RFL
3241

Te-11

11 OCT 2002

S-

C-

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/16/79 1300h	5-6	N	
6/18 0445	5	N	applied tag
6/24 1400	NEP	Bask	LFL Flap has "aknot"
6/26 1800	SEP	B	
6/27 1300	NEP	B	applied second tag 3241 LFL-
6/28 1300h	SEP	B	
6/28 1630	SEP	B	
6/29 1430	SNEP	offshore	

NO. 173

6/8/2

EAST-N

TE 82

12-TC

TAGS-

S-

C-

<u>DATE/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/16/79 2300h	7	N	
6/17 0500	4	N	
6/18 0445	2	N - Possible Log?	

Date/

6/17/79

6/17/79

6/18/79

6/21/79

6/22/79

6/22/79

6/24/79

6/25/79

6/27/79

TAGS- 2235 LFL
2237 RFL

RECOVERY 18
6/28/77 TC39

TC - 13
11 OCT 2002

91.0 3145 Rwebb e/s RATIO - 1.259 90.4 92.7

S - 36 1/8 x 29 / 73.7 C - 38 3/4 x 36 1/2
s - 35 3/4 x 29 c 38 x 36

Date/Time	Area	Activity	Remarks
6/17/79 0030	6	N	crawling along by fallen pole Tag 2237 is large healed hole close to edge - apparently torn flesh
6/17 2300h	11	N	
6/18 0200	7	N	
6/21 1000	SEP	Bark	
6/22 1130	SEP	B	
6/22 1830	SEP	B	
6/24 1400h	SEP	B	
6/25 1215	SEP	B	Passing rain, strong wind
6/27 1730	SEP	B	

14-TC

TAGS-3146
3147

11 OCT 2002

C/S RATIO - 1.295

S - 37 x 28^{3/8}
~~77.0~~ 93.9 / 72.1

C - 39^{1/4} x 36^{3/4}
99.7 / 93.3

DATE/TIME	AREA	Activity	Remarks	DATE/TIME
6/18/79 0230	2	Lay		
6/18 1830	SEP	Bask		6/18
6/20 1730	SEP	Bask		
6/22 1130	SEP	B		
6/24 1400	SEP	B		
6/24 1830	SEP	B		
6/26 1800	SEP	B		
6/27 1300	SEP	B		
6/28 1630	SEP	B		

NO. 172

6/82 East, N TC 79

TAGS- 3139 ✓

-TC- 15

SAME AS
TC 5

S-

C-

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
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6/18 0145

5 ✓

N

Thought this was
TC 4, but TC 4 is a tagrec
Tagged 3139 LFL
→ But was TC 5

16-TC

11 OCT 2002

5368

TAGS-

3156

3157

3178

c/s RATIO - 1.287

S - $40\frac{3}{8}$ x $30\frac{7}{8}$
102.6cm 78.4

C - $42\frac{1}{2}$ x $39\frac{3}{4}$
108.1 101.0

DATE/Time	Area	Activity	Remarks	Date
6/18/ 2330h	6	N		6/18
6/19/ 0130	6	LA NO	Turtle Barn left	6/19
6/19/ 2300	6	N	anterior carapace (4th marginal)	6/19
6/20/ 0130	6	LA	Removed Tag 3156 - not attached.	6/24
6/24/ 1400	NEP	B		6/26
6/24/ 1430	SEP	B	moved from NEP	6/27
6/26/ 1800	SEP	B		6/28
6/27/ 1300	NEP	B		
6/27/ 1730	NEP	B		

6/81 East - N NO. 143

TAGS-31512FL (put on while basking
NEP 6/18/79)
3158RFL

TC-17
11 OCT 2002

S-37³/₈ x 28
94.9 cm x 71.1

C/S RATIO - 1.304

C-39¹/₄ x 36¹/₂
99.7 x 92.7

Date/Time	Area	Activity	Remarks
6/18 2330	11	N	by fallen pole
6/19 0130	11-17	N moved	
6/19 0330	11	LAY	turtle barns
6/24 1400	SEP	B	tapered posterior carapace (like male?)
6/26 1800	SEP	B	observed a "yawn"
6/27 1300	SEP	B	
6/28 1630	SEP	B	

NO. 171

6/82 - EAST, N

TC 77

6/85 TC 101

18-TC ✓

11 OCT 2002

TAGS

3204 ~~RA~~

3205 ~~LA~~

S-

C-

DATE/TIME

Area

Activity

Remarks

6/19/0330 ✓

3 ✓

N ✓

6/19/1845 ✓

Sandpoint ✓

~~Bask~~

6/22/19 0920 ✓

SP ✓

N (possible Lny?) ✓

~~PH₂ off -~~
fairly fresh

DATE/T

6/19/ ✓

6/22/ ✓

6/24/ ✓

6/24/ ✓

6/25/ ✓

6/27/ ✓

6/28/ ✓

6/29/ ✓

Shorter Term
 Recovery
 TAGS-3054 LFL 5 MAY 79 SPBask East

TC-19

3100 RFL

11 OCT 2002

C/S RATIO = 1.248

S-38 x 29 1/4
 96.5 / 74.3

C-40 1/4 x 36 1/2
 102.2 / 92.7

<u>DATE/TIME</u>	<u>AREA</u>	<u>Activity</u>	<u>Remarks</u>
6/19/79 0330	5	CA	
6/22 / 1830	NEP	Bask	
6/24 / 1400	NEP	B	
6/24 / 1800	NEP	B	
6/25 / 1215	NEP	B	
6/27 / 1300	NEP	B	passing rain, strong wind
6/28 / 1300	NEP	B	→ Presently gl lat no ed some deep cuts
6/29 / 1200	NEP	B	in shell - apparently new; shock attack?
1430	NEP	B	→ no old cuts - scratches

20-TC

11 OCT 2002

5 MAY 79 SP BASK
TAGS - shorter than recovery
3055
3163 RFL

C/S RATIO - 1.259

S-37 x 29
94.8 // 73.7 //

C-40 x 36 1/2
101.8 // 92.7 //

DATE/TIME	Area	Activity	Remarks	DATE/TIME
6/19/1845	Sand Point	Lay	healed piece missing from left carapace encompassing ~10-11 marginals; also notch in seam of 10-11 right - RH 1/2 off-healed.	6/20/
6/19/1845	Sand Point	Bask	Painted w. all peddled off on left side	
6/21/1100	SP	Bask		
6/21/NOON	SP	B	observed hauling out, apparently went in water during last phase. I was OFF EAST - so she could have come and gone	
6/21/1900	SP	B		
6/22/1000	SP	B	hauled out (same place) with another turtle sunsetting and light rain, but still hauled out.	
6/23/1945	SP	B	out at 10:15 AM when I woke up.	
6/24/1015	SP	B		
6/24/1815	SP	Bask		
6/25/1230	SP	B		
6/25/1945	SP	B		
6/26/at least 1730-2015	SP	B		
6/27/out ~ 1045	SP	B		
" 1500	SP	B		
" 1710	SP	B		
" 1930-2020	SP	B	stopped looking at 2020 h.	
6/28/1530h - left ~ 1945	SP	B		
6/29/1400 - ~ 1920 depart	SP	B		

check earlier records for turtle that habitually hauled out on SP. observed hauling out still there still there - head to ocean.
→ Probably TC 29 BW photo above my desk - piece of shell missing above left hind flipper
YEAR =

TAGS - 3175 ✓
3176 ✓

Te - 21

11 OCT 2002
ENT. # 222

C/S RATIO - 1.244

S - $35\frac{1}{2}$ x $28\frac{1}{8}$ C - $38\frac{1}{2}$ x 35
90.2cm ✓ 71.4 ✓ 97.8 ✓ 88.9 ✓

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/20/79 0115	13 ✓	LAY ✓	muddy head carapace ground wire present

22-TC

11 OCT 2002

9/5 ratio - 1.288

S - $36\frac{3}{8} \times 26\frac{7}{8}$

92.4 / 68.3

C - $38\frac{1}{2} \times 34\frac{5}{8}$

97.8 / 87.9

TAGS-

3182

3183 (not matched)

Date/Time

Area

Activity

Remarks

6/20/79 0600

2

N

Number may not stick
good-turtle returned
to water

Date/

6/20 1700

Spout

Bask

6/20/

6/20 1300

2

N

6/2

6/21 0100

2

lay

6/21

6/24 1400

SEP

Bask

6/24

6/24

6/26

6/27

6/28

TAGS

RECOVERY

TC-23

3807

2209 LFL
2210 RFL

6/25/77 T62

11 OCT 2002

90.8 / 71.8 c/s RATIO - 1.221 96.5 / 87.6

S - 35³/₄ x 28¹/₄

C - 38 x 34¹/₂

S - 35³/₈ x 27³/₈

C - 38¹/₄ x 34¹/₂

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/20/99 2300 -	1	N	
6/21/0139			
6/21/0500	I	LA	2210 heated hole is large
6/24/1400h	SEP	B	
6/24/1830	SEP	B	
6/26/1800	SEP	B	
6/27/1730	SEP	B	
6/28/1630	SEP	B	

24-TC

11 OCT 2002

Recovery 1 7/2/77 East-west Area 4-5

Previously HMB 842-1974

TAGS - 2269 (off for examination) 2270

95.6

X4.3 C/S RATIO - 1.291

101.6

318 LFL rev

S-37 5/8 x 29 1/4
37 1/4 29 1/4

C-40 x 37 3/4
40 1/4 37 3/4

Date/Time

AREA

Activity

Remarks

Date/

6/20/79 2300

5

N

6/20

6/21

6

Lay

Ground wire present

6/21

6/24 1800

SEP

BASK

6/22

6/26 1800

SEP

B

6/28 1300

SEP

B

no scratches in paint on right side - sleeps on sand bottom? Photo Roll 9

6/28 1630

SEP

B

TAGS 3177 ✓
3179 ✓

✓ Tc - 25

11 OCT 2002

S-

C-

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/20 ✓ 2330 ✓	16 ✓	log ✓	✓ TMRS on ventral flaps and shoulder areas
6/21 ✓ 2345 ✓	15 ✓	N ✓	
6/22 ✓ 0200 ✓	15 ✓	N ✓	

26-TC

TAGS

S-

C-

Date/Time

Area

Activity

Remarks

6/21 0130

Sail point by Tent

N

6/27 1300

NET

B

Date/

6/21 ✓

6/21/7

6/22 ✓

TAGS 3184 LFL
3185 RFL

TC - 27

11 JUL 1983
ENT. #245

q/s RATIO - 1.311

S - $36\frac{5}{8} \times 26\frac{1}{2}$
93.0 / 67.3

C - $38\frac{1}{4} \times 34\frac{3}{4}$
97.2 / 88.3

Date/Time	Area	Activity	Remarks
6/21/79 0430 ^{6/20}	11	LAG	Small tumor on ventral left flap; tapered postlefin carapace.
6/21/79 2345	14	N	Big muddy turtle barnacle
6/22 0200	11	N ^{die} lag	1st LATERAL Right By fallen pole

28-TC ✓

28 OCT 2002

TAGS-

3201 LFL

3202 RFL

C/S RATIO - 1.222

S - $37\frac{1}{8}$ x $29\frac{1}{4}$
94.3 ✓ 74.3 ✓

C - $38\frac{1}{2}$ x $35\frac{3}{4}$
97.8 ✓ 90.8 ✓

Date/Time	Area	Activity	Remarks	DATE/
6/21 2345	5 ✓	1 LAY ✓	v-type notch in seams of last marginal and post central (left); TMR on scaly growth on right shoulder. RHL 1/2 missing.	6/21 ✓
6/22 1130	NEP	back		6/22 ✓
6/24 1400h	NEP	B		6/24 ✓
6/25 1215	NEP	B	losing rain, strong wind	6/27 ✓
6/26 1800	NEP	B		6/28 ✓
6/27 1300	NEP	B		6/28 ✓
6/27 1730	NEP	B		6/29 ✓
6/28 1300h	NEP	B		
6/28 1630	NEP	B		
6/29 1200	NEP	B		
1430	NEP	B		

NO. 179

6/82 EAST, FFS - N TC 26

TAGS 3203 LFL

NO. 290

3152 RLF
(3152 also entered in basket tagging)

28 OCT 2002

S - 35 5/8 x 27 1/2 C - 37 1/4 x 35 1/2
90.5 69.9 C/S RATIO - 1.282 94.6 89.5

DATE/TIME	Area	Activity	Remarks
6/21/79 2345	7	LAY	run the barrack on right marginal
6/22 0230	7	now laying	
6/22 0500	9	departing through area 9	Buried a shearwater
6/24 1830	8	BASK	
6/27 1730	SEP	B	
6/28 1300h	NEP	B	
6/28 1630	NEP	B	
6/29 1430	NEP	B	

Rec. 6/15/85 EAST-N

30-TC

28 OCT 2002

NO. 291

S - 36 1/2 x 25 5/8
92.7 ✓ 65.1 ✓

C/S RATIO - 1:288

TAGS

3154 LFL

3219 RFL

C - 37 1/2 x 33

95.3 ✓ 83.8 ✓

DATE/TIME	Area	Activity	Remarks	LEFT	DATE/TIME
6/21/79 2345	8 ✓	N ✓	cosatlins ✓		6/22 ✓
6/22/2000	8 ✓	N ✓	white patch on RIGHT side of CARAPACE -		6/22 ✓
6/23/0130	8 ✓	lay (?)	TC not yet sprayed		6/22 ✓
6/23/2345	6 ✓	N ✓	*curved healed piece missing from LHL (1/2 gone)		6/24 ✓
6/24/0200	6 ✓	N ✓	Round wire		6/23 ✓
6/24/0530	6 ✓	N ✓	*[many photos of hind flippers EXCAVATING EGG CHAMBER - Roll 6.		6/23 ✓
6/27/1300	SEP ✓	B ✓	LHLimb tag 3219	Flashed piece missing	6/24 ✓
6/27/1730	SEP ✓	B ✓	observed a 'yawn' with liquid		6/24 ✓
6/28/1300h	SEP ✓	B ✓	Bask - photo roll 8 - shows white patch		6/24 ✓
6/28/1630	SEP ✓	B ✓	photos roll 9 w/ 105mm		6/28 ✓
6/29/1200	SEP ✓	B ✓			6/28 ✓
1430	SEP ✓	B ✓			

Recon. 6/17/85

EAST - 15

NO. 18

TAGS 3211 ✓
3212 ✓

TC-31

28 OCT 2002

S- 35³/₄ x 25 ✓
90.8 ✓ 63.5 ✓

C- ✓

LEFT #	DATE/TIME	Area	Activity	Remarks
	6/22 0200	5-6 ✓	N ✓	
	6/22 1430	NEP ✓	Bask ✓	seen from boat while on the way to GWS
(inc)	6/22 2300	4 ✓	N ✓	
	6/23 0100-0900	4 ✓	N ✓	
	0600	4 ✓	Log (N) ✓	
16.	6/23 2345	7 ✓	N ✓	
	6/24 0200	7 ✓	Log ✓	
	6/24 1400	NEP ✓	offshore with several others	
	6/24 2300h	11 ✓	Log ✓	
	6/28 1515h	12 ✓	Bask ✓	
	6/28 1630	NEP ✓	B ✓	

NO.180

6/82 East 6-N TC 84

32-TC 3209

28 OCT 2002

3210

NO. 292

S-36 1/2 x 27 1/2
927 69.9

TAGS

3209

3210

C-

Date/Time	Area	Activity	Remarks	DATE/T
6/22/79 2300	I	N		6/22/79
6/23 0600	I	Lay		6/23
6/25 1215	NEP	B	Passing rain, strong wind	6/23
6/26 1030	NEP	B		6/23
6/27 1300	NEP	B		6/25
6/28 1300	NEP	B		
6/28 1630	SEP	B	probably changed to SEP due to tide rising waves.	
6/29 1200	NEP	B		
11430	NEP	B		11/13

Rec. 6/12/85 EAST-N TCB

TAGS 3207 ✓
3208 ✓

TC - 33

29 OCT 2002

C/S RATIO - 1.262

S - $40\frac{1}{2} \times 30\frac{1}{2}$
1029 ✓ 77.5 ✓

C - $42\frac{3}{4} \times 38\frac{1}{2}$
108.6 ✓ 97.8 ✓

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/22/79 2300	16 ✓	N ✓	
6/23 0200	16	N	hind limbs don't seem to "scoop" properly
0600	16 ✓	lay (?)	
6/23 2030	17 ✓	N	crawled into side of tent
6/25 0230	14	N	

11/13/86 ^{Tag} 3208 reported by Bill Fulboa to have been found by Kili Mawai when he cleared house to move. Reportedly caught off Hotel Motel "before turtles were protected."

34-TC

29 OCT 2002

TAGS-
3232 RFL

S-

C-

Date/Time	Area	Activity	Remarks
6/23 0100	3	N	
6/26 1030	NEP	Bush	put on tag 3232

~~6/81 East-N~~ NO. 141

DATE
6/23
6/23
6/24

FL

TAGS 3217 LFL
3218 RFE

TC-35

29 OCT 2002

ENT. #221

C/S RATIO - 1.245

S-38 x 30 1/8
96.5 76.5

C-39 3/4 x 37 1/2
101.0 95.3

DATE/Time	Area	Activity	Remarks
6/23/0100	5	N	
6/23/2345	6	N	
6/24/0200	6	AY	Big BARNACLES on 2nd left and right marginals, slit hole (close to edge) in left Flap; knot in RIGHT FLAP. FLASH PHOTOS - roll 6 E665 in chamber

36 - TC ✓

20 OCT 2002

TAGS-

3213 ✓✓

3214 ✓✓

S-

C-

DATE/Time	Area	Activity	Remarks
6/23/79 0100 0200 0600-0730	75 5	N bay	Roll 3 movie + Roll 6 shells RHY4 MISSING
6/81	East-N	NO. 140	

DATE/TIME
 6/23 ✓
 6/27 ✓
 6/27 ✓
 6/28 ✓
 6/29 ✓

TAGS -

3008 (shorter term recovery)
3206

2 MAY 79 (TRIG BASKET)

TC - 37

29 OCT 2002

C/S RATIO - 1.251

S - $36\frac{7}{8} \times 28\frac{3}{8}$
93.7 / 72.1

C - $38\frac{1}{2} \times 35\frac{1}{2}$
97.8 / 90.2

DATE / Time	Area	Activity	Remarks
6/23/79 0730	13	Lay	Note above - originally tagged in May as a TRIG basket. photo Roll 9
6/27 1300	NBP	Bask	
6/27 1730	Area 8	Bask	
6/28 1630	SEP	B	
6/29 1430	SEP	B	

38-TC ✓

RECOVERY

TAGS-
2259 ✓
2260 ✓

29 OCT 2002

S-

C-

DATE/Time	Area	Activity	Remarks	Date
6/23 2345	2	N	sprayed on one side only	6/23
6/24 0500	2	LA	Reported leaving cl	6/24
6/24 1830	SEP	Bask	got to her - fooled by spots; ft look good.	6/24
6/26 1800	SEP	B	READ OLD TAG NOS. 2260, 2259	6/24
6/27 1300	SEP	B		6/25
6/27 1730	SEP	B		6/28
6/28 1300	SEP	B		6/29

TAGS-

~~2253 LFL (large heated hole)~~

~~2254 RFL~~

~~3228 LFL new (alongside)~~

RECOVERY

~~1/2 way west East TC-39~~

29 OCT 2002

S-36 1/2 92.7

C-

S-36 1/2

Date/Time	Area	Activity	Remarks
6/23/79 2345	5	N	Ground wire in pit.
6/24 0200	5	N	[Many photos w/FLASH ROLL 6
6/24 1400h	NEP	Bank	
6/24 2300	5	AY	
6/25 0100			
6/28 1300h	NEP	B	
6/29 1200	NEP	B	
1430	SEP	B	

40 - T C //

29 OCT 2002

TAGS-
3222 //
3223 //

S - 38³/₄ x 28
90.4 // 71.1 //

C-

DATE/Time	Area	Activity	Remarks
6/24/79 0200	11-SP	N	R Hind 1/4 miss
6/24 0600	1-SP	N	
6/25 0600	SP	N	
6/25 2345	SP	N	
6/26 0336	SP	N	

DATE/T
6/24
6/24
6/27
6/28

No. 1

TAGS-3220 ✓
322 ✓ LFL ✓

TC-41

29 OCT 2002

S-35³/₄
90.0 ✓

C-

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/24/0200	5	N	MANY photos w/FLASH;
6/24/0530	5	AY	Roll 6
6/27 1300	NEP	Bask	part of left flap
6/28 1630	NEP	B	missing.

No. 181

~~6/82~~

~~EAST-N~~

~~TC 101~~

42-TC //

29 OCT 2002

RECOVERY
6/28/77
NEST END

TAGS

224 OFFL
323 OFFL new

S - $39\frac{3}{4} \times 30\frac{3}{4}$

C -

NT ~~100~~ 101.0 // 70.1 //

DATE/Time	Area	Activity	Remarks	Date
6/29/79 2100	5	N		6/29
6/25/0600		N 115m		6/25
6/28 1300	NEP	Bank		6/25
6/28 1630	NEP	B		6/29
6/29 1200	NEP	B		
1430	SEP	B		

TAGS
3229 LFL
3230 RFL

TC-43

29 OCT 2002

ENT # 248

c/s RATIO - 1.305

S - $37\frac{3}{8} \times 29\frac{1}{2}$
94.9

C - $39\frac{3}{8} \times 38\frac{1}{4}$
100.0 97.2

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/24/79 2300	9	N	
6/25 0230	10	LA	
6/25 1215	NEP	B	passing rain, strong wind
6/29 1430	SEP	B	heated piece missing

44-TC

29 OCT 2002

TAGS-

3226
3227

S - $36\frac{3}{8} \times 29$
92.4
S/S RATIO - 1.259
73.7

C - $38\frac{1}{4} \times 36\frac{1}{2}$
97.2
92.7

DATE/Time	Area	Activity	Remarks	DATE/
6/25/99 0100	6	LA		6/25
NO. 182	6/82	EAST - N	TC 112	6/27 6/28

TAGS - 3263 ✓

TC-45

29 OCT 2002

1/2
7/

S-

C-

<u>DATE/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/25/99 0100	10	N	may have returned to soon for paint to dry.
6/27 1300	SEP	Back	applied to
6/28 1630	SEP	B	

46-TC ✓

29 OCT 2002

TAGS-

3258 ✓

3259 ✓

S-

C-

<u>DATE/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>	<u>DATE/Time</u>
6/25 2048	5	N		6/26
6/26 1800	SEP	Bask	applied two tags	6/27
6/28 1300h	SEP	B		6/28
6/29 1200h	SEP	B		6/28
-1430	SEP	B		

TAGS -

RECOVERY

TC - 47

2268

7/2/77 Nest-East

29 OCT 2002

3257 RFL

S-36 1/8 x 26 3/4 67.9

C-

s-35 3/4 x 27 1/8

<u>DATE/time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/26 0300	2	N	
6/27 0030	1	N	
6/28 0600	4	lay	pure white coralline patches, applied new tag.
6/28 1630	SEP	Back	

48-TC/

29 OCT 2002

ENT. NO. 293

S-

C-

TAGS-

3261/

3262/

DATE/Time	Area	Activity	Remarks	DATE
6/26 0300 ^{6/25}	15	N	Photograph	6/27
6/28 1630	SEP	Bask	applied two tags	6/28
6/29 0300 ^{6/28}	SP	N	Turtle spent at least one hour working on the same egg chamber. Pieces of coral and shell present in SP sand. She finally gave up and moved.	
11 10615	SP	N	Still on SP-	

TAGS-2255 LFL

RECOVERY

TC-49

3266 LF

7/2/77 Nest-EAST

90.5

TAG 2286 missing

29 OCT 2002

S-35⁵/₈ x 27³/₈

69.5

C-

S-35¹/₂ x 27¹/₂

DATE/TIME
6/27/79 0630
6/28 2330

Area
7
5

Activity
N
N

Remarks

Left hind 1/2 missing

Right flap missing;
pieces missing at distal sites on
both front flippers; portion of
RHind missing.

ks
ore
al
ed.

50-TC

29 OCT 2002

TAGS -

ENT. # 224

3239

3240

C/S RATIO - 1.271

S - $35\frac{3}{4}$ x $26\frac{3}{4}$
90.0

1079

C - 37 x 34
94.0

82.4

DATE/Time

AREA

Activity

Remarks

6/27/79 0030

16

N

6/27/79 0230 - 0530

15

lay

DATE/

6/27

6/27

TAGS - 3249 RFL

Fe -51

3250 LFL

29 OCT 2002

ENT. NO. 320

S-

C-

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/27/79 0130	13	N	No old tags
6/27 2315	5P	N	Front healed, missing

52-TC

RECOVERY

TAGS-

29 OCT 2002

C/SRATIO-1.297

5/8/77 ^{90.5}
S 35 5/8 x 26 7/8 ^{68.3}
C 38 7/8 x 35 7/8

5018

5019

S-36 1/2 x

92.7

27 3/4

70.5

C-39 x 36

99.1

91.4

DATE/Time

Area

Activity

REMARKS

DATE/Time

6/27/79 2315

SP

N

6/28 0118

SP

N

AMAZING!
you've come a long way, baby!
5019 number found to read - partly into flesh it was
no signs of scabbing or excoriation

6/27/79

6/28

TAGS- 3152 ~~RFL~~
3153 ~~LFL~~

~~TC~~ - 53

29 OCT 2002

S-

C-

<u>DATE/TIME</u>	<u>Area</u>	<u>Activity</u>	<u>REMARKS</u>
6/27/79 2355	5	N	
6/28	1300h NEP	Bank	

to
weary,
sione

54 - TC ✓

20 OCT 2002

TAGS-
3254 ✓
3255 ✓

S-

C-

DATE/TIME	Area	Activity
6/28 0145 ✓	16 ✓	N

6/28 0600 ✓	15 ✓	Lay
6/28 1630 ✓	SEP ✓	Back

Remarks
 ✓ pre white coralline on
 carapace -
 sample collected.
 * [Flash photos on foll 8.
 RH 1/2 miss - problems digging

DATE/TIME
6/28/79 ✓

6/13/8

6/81 East - N NO. 142

RECOVERY
 TAGS - 65 LFL HMB 6/18/73
 3264 RFL
 3265 LFL
 EAST Area 2
 S - 34^{5/8} x 27^{3/4} 70.5
 34^{1/4} = 87.4, 28 71.1

Ac - 55
 ENTERED #77
 29 OCT 2002

36 x 36
 91.4 91.4

DATE/TIME	AREA	Activity	Remarks
6/28/79 23:00	4	N	located Tag/in flap at clinching site; On only 1/2 way or less up flap; No major corrosion or scab noted.
6/13/84	TRIS	B	Large TMS eye A 657 tag site

8. digging.

56-TC ✓

29 OCT 2002

TAGS -

3243 ✓

3244 ✓

C/S RATIO - 1.275

S - 37 x 28 5/8


93.0 ✓
94.0 ✓

72.7 ✓

C - 38 1/2 x 36 1/2

97.5 ✓

92.7 ✓

Date/Time	Area	Activity	Remarks	Date/Time
6/29/79 0100	2	Lay	"Sea Turtles L.C." several photos on Roll 9 L Hind 1/3 missing	6/29/
6/29 1430	SEP	Bask	photo Basking 	
NO. 178	6/82	East - N	TC 17	

TAGS - ~~3170 RFL (did not clinch)~~
3171 LFL

29 OCT 2002

S -

C -

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/29/79 0300 0600 gone	6	N- Lay	Turtle with reddish spots in carapace - originally tagged 6/19 Basking - tag number also appears in basking tagging table.
		B	Seen basking on numerous occasions.

←
Previous

58-TC

(Inkblotter) TAGS -
941-112

S-

C-

DATE/Time

AREA

Activity

REMARKS

DATE/

60 - To
66 - Te

TAGS -

S -

C -

DATE/TIME

AREA

Activity

REMARKS

STRAIGHT LENGTH CONSIDERED TO BE THE MOST RELIABLE MEASUREMENT

SUMMARY OF GROWTH MEASUREMENTS FOR TC RECOVERIES, 1979

		<u>STRAIGHT</u>	<u>CURVED</u>
TC 4	6/26/77 -		36
	6/17/79 -		36 1/2
			+ 1/2
TC 13	6/28/77 - 35 3/4 90.8cm 29		38
2235 2 year (24 months)	6/18/79 - 36 1/8 91.8 29	+ 3/8 1.0cm 0	38 3/4
			+ 3/4
TC 23	6/25/77 - 35 3/8 89.8 27 3/8		38 1/4
2209 (24 months)	6/21/79 - 35 3/4 90.8 28 1/4	+ 3/8 1.0cm + 7/8	38
			- 1/4
TC 24	5/31/74 - 37 1/2 95.3 29 1/4		40 1/4
37 months 84241MB	7/2/77 - 37 1/4 94.6 29 1/4	- 1/4	40 1/4
(24 months)	6/21/79 - 37 5/8 95.6 29 1/4	+ 3/8 1cm 0	40
			- 1/4
TC 38	6/24/79 - NT		
TC 39	7/2/77 - 36 1/2 92.7		
(24 months)	6/24/79 - 36 1/2 92.7	0 0	
TC 42	6/28/77 - NT		
	6/25/79 - 39 3/4 30 3/4		
TC 47	7/2/77 - 35 3/4 90.8 27 1/8		
2268 (24 months)	6/28/79 - 36 1/8 91.8 26 3/4	+ 3/8 1cm - 3/8	

Straight

CURVED

TC 49 7/2/77 - 35 1/2 90.2 27 1/2

(24 months) 6/28/79 - 35 5/8 90.5 27 3/8
 (+1/8) 0.3 (+1/8)

(KAP) TC 52 5/8/77 - 35 5/8 90.5 26 7/8

(25 months) 6/28/79 - 36 1/2 92.7 27 3/4
 (+7/8) 2.2 (+7/8)

TC 55 6/18/73 34 1/4 87.0 28

651 HMB 6/28/79 - 34 5/8 87.9 27 3/4
 (72 months) +3/8 0.9 -1/4

38 7/8 35 7/8

39 36

+1/8 +1/8

36 36

NT NT

3/8
 4 1/2
 -1/8
 36
 36 1/2
 +1/2
 34 1/2
 34 1/2
 0
 37 1/2
 +1/4
 37 3/4
 7 3/4
 0

Summary of CARAPACE MEASUREMENTS (1979)

<u>TC</u>	<u>S length</u>	<u>S width</u>	<u>C length</u>	<u>C width</u>	<u>TC</u>
1	38 ¹ / ₂	30	41 ¹ / ₄	37 ³ / ₄	42
4	-	-	36 ¹ / ₂	34 ¹ / ₂	43
5	37 ³ / ₄	28	39 ¹ / ₂	37 ¹ / ₂	44
8	35 ¹ / ₈	25 ¹ / ₈	36 ³ / ₄	-	47
9	36 ¹ / ₄	28	38 ¹ / ₄	36 ¹ / ₂	49
10	-	-	40 ¹ / ₈	38 ³ / ₄	50
13	36 ¹ / ₈ .125	29	38 ³ / ₄	36 ¹ / ₂	52
14	37	28 ³ / ₈	39 ¹ / ₄	36 ³ / ₄	53
16	40 ³ / ₈ .375	30 ⁷ / ₈	42 ¹ / ₂	39 ³ / ₄	55
17	37 ³ / ₈	28	39 ¹ / ₄	36 ¹ / ₂	
19	38	29 ¹ / ₄	40 ¹ / ₄	36 ¹ / ₂	
20	37	29	40	36 ¹ / ₂	Ra
21	35 ¹ / ₂	28 ¹ / ₈	38 ¹ / ₂	35	
22	36 ³ / ₈	26 ⁷ / ₈	38 ¹ / ₂	34 ⁵ / ₈	
23	35 ³ / ₄	28 ¹ / ₄	38	34 ¹ / ₂	
24	37 ⁵ / ₈	29 ¹ / ₄	40	37 ³ / ₄	
27	36 ⁵ / ₈	26 ¹ / ₂	38 ¹ / ₄	34 ³ / ₄	
28	37 ¹ / ₈	29 ¹ / ₄	38 ¹ / ₂	35 ³ / ₄	
29	35 ⁵ / ₈ .625	27 ¹ / ₂	37 ¹ / ₄	35 ¹ / ₄	
30	36 ¹ / ₂	25 ⁵ / ₈	37 ¹ / ₂	33	
31	35 ³ / ₄	25	-	-	
32	- 36 ¹ / ₂	27 ¹ / ₂	-	-	
33	40 ¹ / ₂	30 ¹ / ₂	42 ³ / ₄	38 ¹ / ₂	
35	38	30 ¹ / ₈	39 ³ / ₄	37 ¹ / ₂	
37	36 ⁷ / ₈ .875	28 ³ / ₈	38 ¹ / ₂	35 ¹ / ₂	
39	36 ¹ / ₂	-	-	-	
40	38 ³ / ₄	28	-	-	
41	35 ³ / ₄	-	-	-	

<u>TC</u>	<u>S Length</u>	<u>S Width</u>	<u>C Length</u>	<u>C width</u>
42	$39\frac{3}{4}$	$30\frac{3}{4}$	—	—
43	$37\frac{3}{8}$	$29\frac{1}{2}$	$39\frac{3}{8}$	$38\frac{1}{4}$
44	$36\frac{3}{8}$	29	$38\frac{1}{4}$	$36\frac{1}{2}$
47	$36\frac{1}{8}$	$26\frac{3}{4}$	—	—
49	$35\frac{5}{8}$	$27\frac{3}{8}$	—	—
50	$35\frac{3}{4}$	$26\frac{3}{4}$	37	34
52	$36\frac{1}{2}$	$27\frac{3}{4}$	39	36
55	$34\frac{5}{8}$	$27\frac{3}{4}$	—	—
	1255.375	902.125	1053.25	944.375
	N=34	N=32	N=27	N=26
	$\bar{x} = 36.92$	$\bar{x} = 28.19$	$\bar{x} = 39.00$	$\bar{x} = 36.32$
Range =	$34\frac{5}{8} - 40\frac{1}{2}$	$25 - 30\frac{3}{4}$	$36\frac{1}{2} - 42\frac{3}{4}$	$33 - 39\frac{3}{4}$

5 JULY 79 Talked to Ann Heegers via Wabianwa. MARS-
 He indicated that 6 CG personnel would depart
 on a plane today - possibly also the dogs.
 Buoy Tender would be at FFS on 7 July
 Saturday.

Note on Carapace Coloration:

Can adults undergo changes in
 color/pigmentation, and pattern of carapace over
 a certain time period - say between cycles
 2-3 years or longer? See Hirth, 1971
 Synopsis; and Daily Log Book for further
 information.

Deraniyagala (1939) describes 8
 pigmentation phases for Ceylon turtles.
 Also refer to Karoriens and Torgans.
 Hirth noted "... (although it should be
 noted that there may be significant colour
 variations among individuals of the
 same population and certainly between
 different sizes). [add to this "patterns"]

Also note that 1) photo is in files showing
 turtle at sea life park, in which
 "new growth" area of shell is goldish-
 brown, while older areas are blackish.
 2) I have, on occasion, seen males
 at FFS that had a color-pattern that
 had not been seen in females. Hirth
 and Carr (1970) noted some pigmentation differences between

seen in a small sample from Gulf of Aden & Seychelles.
 Also note that diet/environment must have
 some influence, i.e. photos of my captive
 greens "bleached-out" after being held
 by Benedict in Zoology Lab and fed
 squid flesh; and occurrence of
 greater numbers of darker turtles at
 certain pasture - Kawaioa and Kau.

15 JULY 79
 Sunday

NOTE: In thinking about my captive greens,
 I recalled that orange ^{brown} Goldish turtle
 was the only one out of 3 lots
 received from FFS that had this
 coloration from a very young age - see
 photographs. 3 lots received from
 Tern Island, presumably representing
 three different clutches (not necessarily
 from three different females though, see
 collection dates for details).
 This would all indicate genetic
 variation within the same population
 rather than two different populations
 represented - i.e. turtle from distant
 population.

Consider possibility that orange-brown-gold
 juveniles repeatedly captured at
 FFS are the "genetic variants" that
 for some reason stay in the
 vicinity (seems improbable!)

Does c/s width ratio increase with
size among mature females?

Need to calculate c/s ratios for entire size
spectrum of Hawaiian greens -

5-Underground 5000 gal fuel tanks -
fighter aircraft parked on top. cross section

Barrack Barge

N
A

20FT
Deep

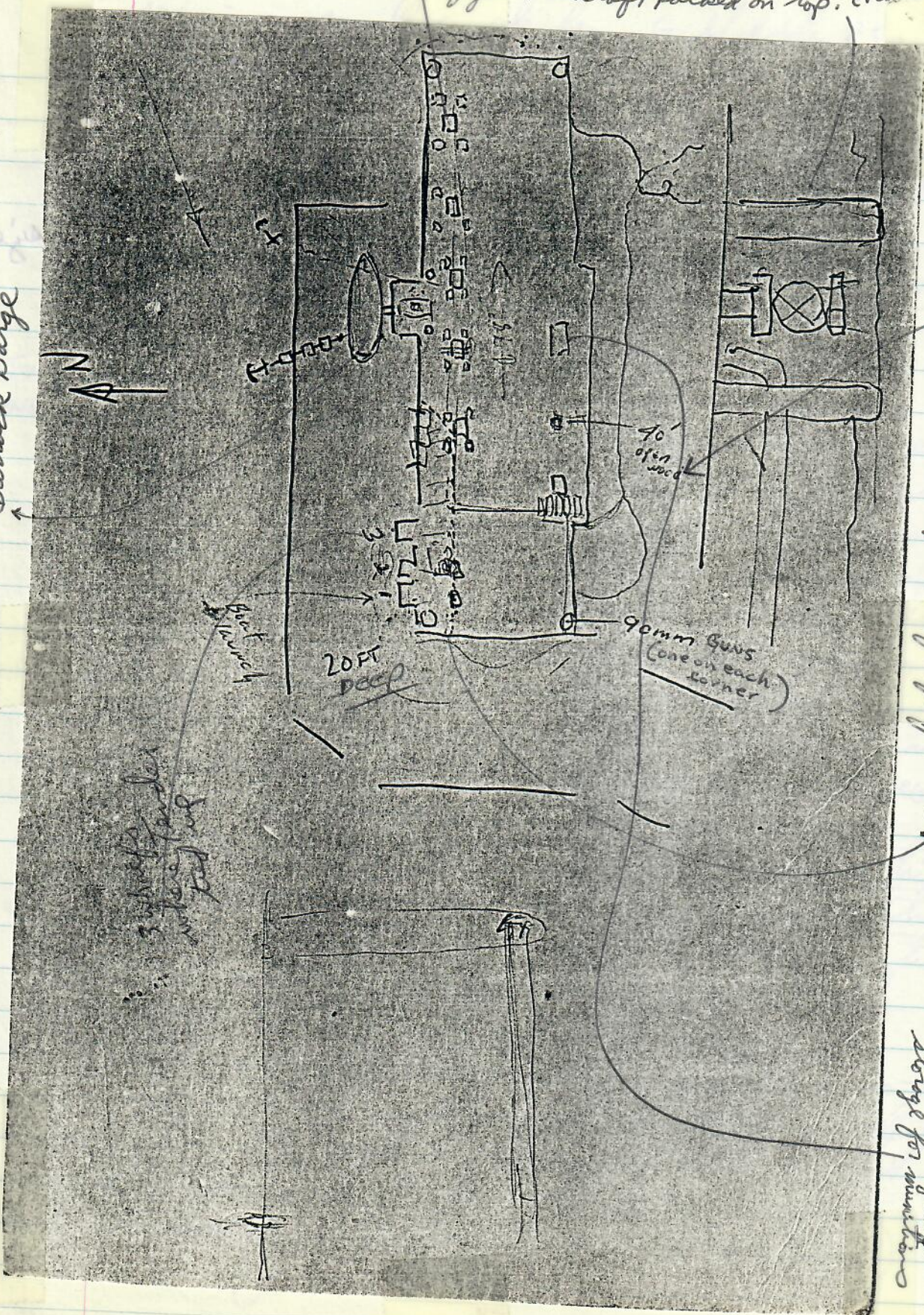
40
open
door

90mm Guns
(one on each
corner)

new
sheet piling
put
in after old section gave way

3 shafts
where tanks
were put in

Part underground
storage for munitions

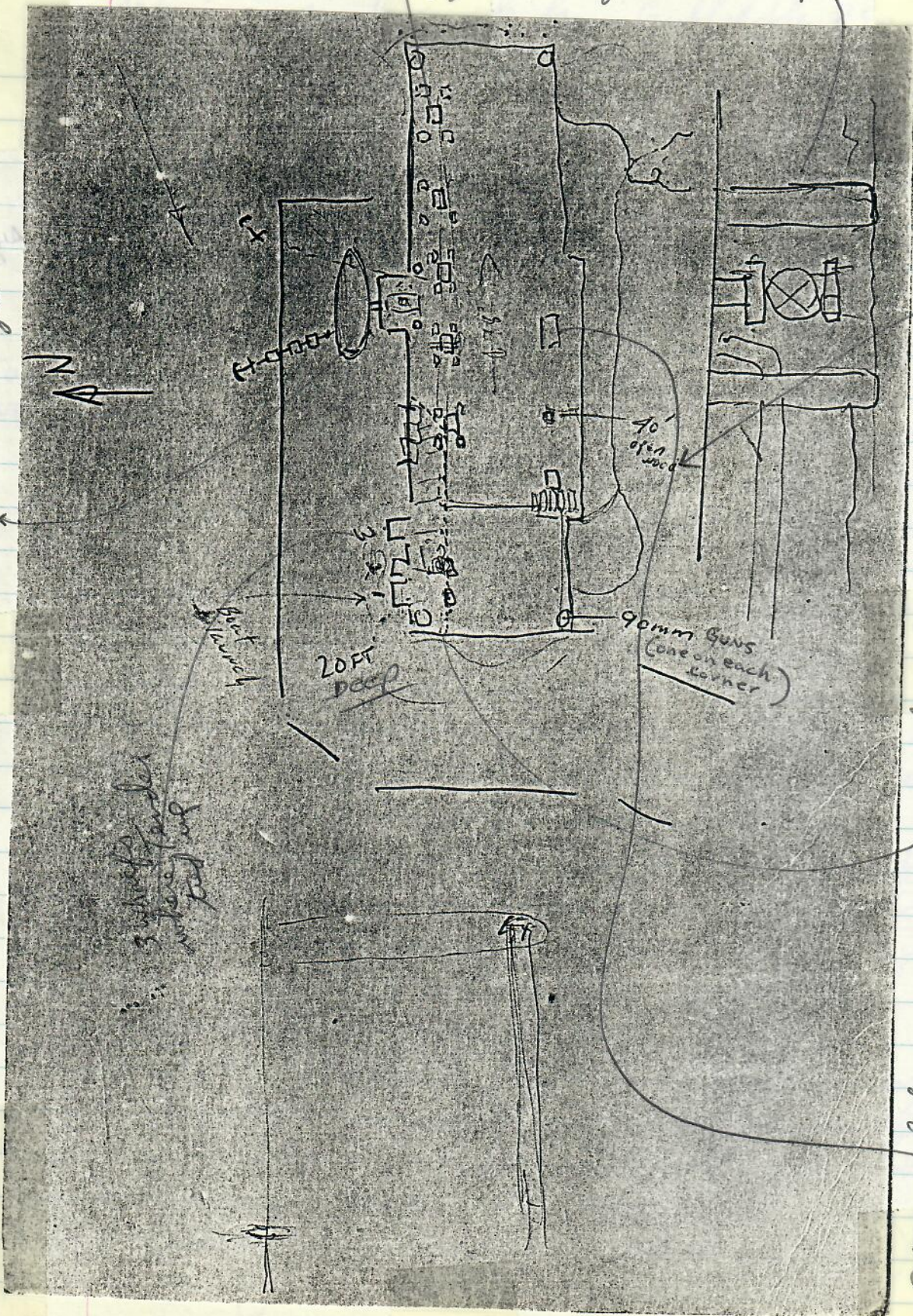


Map on page 84 drawn by Capt. Holtzman
aboard Justman's Beech 18 during trip to
Honolulu from Tern Island - 30 June 1979.

TERN - 1960-61

5-Underground 5000gal fuel tanks -
fighter aircraft parked on top. cross section

Barrack Barge



3 sheets
where found
part of

Part launch

20FT DEEP

90mm Guns
(one on each
corner)

40'
open wood

open
part of
structure
found

new sheet piling put
in after old section gave way

Part underground
storage for munitions

Map on page 84 drawn by Capt. Holtzman
aboard Justman's Beech 18 during trip to
Honolulu from Tern Island - 30 June 1979.

TERN - 1960 - 61

JUSTMAN - 523-1181

18 JULY 79

WEDNESDAY

Justman indicated that he flew to three days after buoy tender left - took FWS⁽³⁾ personnel a radio - they had none. His next flight will be 24 July to take out V. Byrd and wife and child. They will be there for a month until new man comes from Alaska.

Bob reported that tubes and radios(?) were smashed in receiver room. Generators are now turned off - small one brought out is going.

Dishes and mess was left in galley when USCG left - FWS worked for a few days cleaning it all up.

Toward end of July - V. Byrd, wife and baby went to TERN - Barry was with them for awhile;

later information revealed that they stayed ~ 2 months - returned ~ 3rd week of October -

Bob & ~~Barry~~ Sue ? permanent caretakers relieved them at that time.

20 Oct 79 * Easy Rider is on charter with
 SATURDAY Jim Parrish and 5-6 assistants
 at French Frigate Shoals -

Skip called Ruth indicating that Laura
 broke her wrist - pulling in shank
 gear -
 Also that fresh hatchling was found
 in shark stomach.
 I telephoned Vernon Byrd on Kauai,
 who was already in contact with
 Tern Island -

21 Oct 79 11:50 AM

SUNDAY Depart Beechcraft with Bob Justman
 and Chris as copilot for FFS
 to pick up Laura - Cost ~\$1700.

Flew near coastline ^{past Barber's Point} - good sunlight
 penetration - view of bottoms - noted
 "cut" in shelf just before Puu
 seaward of rows of long ~~rows~~ rectangular
 buildings - (chicken coops?) -
 Puu is just before bridge that
 crosses drainage stream.

Gusty Trade winds are blowing.

21 Oct 79
 SUNDAY Landed at Lihue, Kauai for 30 minutes
 to refuel - V. Byrd & Valerie met plane
 and delivered net for black Noddies - and
 food - 6 boxes plus piece of machinery.
 Depart Lihue at ~ 1:05 PM.

Saw Nihoa and Necker (lots of surf
 pounding on Necker) -
 Report from Bob Gustman that 2-3 months
 ago he stayed overnight at Tern and
 Vernon took him to Trig - W-5 - East -
 Saw turtle with depth gauge and missing
 hind flipper peeled.

Landed at Tern Is. about 3:45 PM.
 Skip-haura - Steve Raalston - Bob - Sue
 present - Parrish and 5 others are
 out in zodiac and ^{Laurie Sayless} two B-W's.
 55hp previously new has gone out (broken)
 again, according to Bob. -

Storm in recent week threw a lot of
 material on runway - only recently
 cleaned up.

15kw man was installed.

Only two small lights are on

Tern at night -

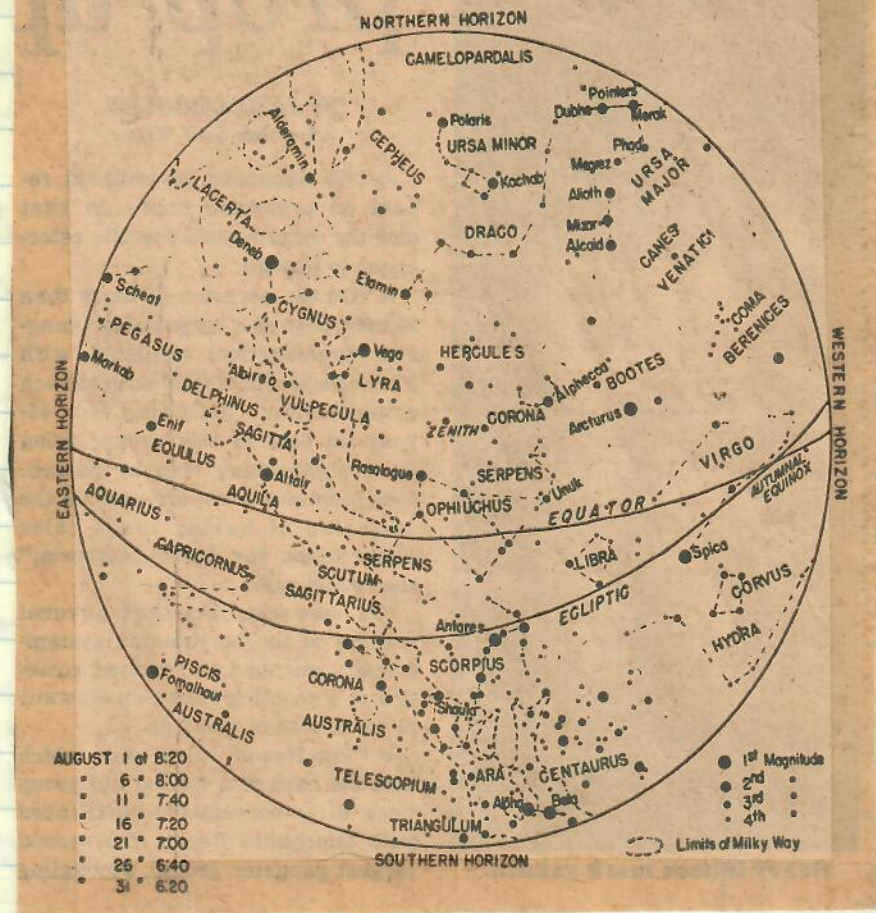
However, Bob found a few dead
 hatchlings on the runway.

One freshly dead preserved specimen

[TO PAGE 94]



hawaii's skies in august



The chart shows the sky from horizon to horizon as seen from the latitude of Hawaii during August in the early evening.

The table of dates and hours indicates when the chart will coincide with the sky. To use the chart, hold it overhead with horizon directions on the diagram corresponding with those of the true horizon.

Chart by E. H. Bryan Jr.; astronomical information by George W. Bunton, Hawaii Science Center, Bishop Museum.

Mercury is visible low in the morning sky from about Aug. 15-25.

Venus is too near the direction of the sun to be seen during the entire month of August, being on the far side of the sun on Aug. 25.

Mars is moving eastward through Taurus and Gemini during August, rising three hours before the sun. Its magnitude is +1.5. It is near the crescent moon on Aug. 18.

Jupiter is too near the direction of the sun to be seen during August, being on the far side of the sun on Aug. 13.

Saturn may be seen low in the west after sunset during the first half of August, but will be lost in the sunset glow after that.

The Perseid Meteor Shower occurs each year, visible for about three nights centered around Aug. 11. Usually one or more meteors may be seen crossing the sky each minute. They are not seen until after midnight. Best viewing time is from 2 to 5 a.m.

An eclipse of the sun occurs on Aug. 22 but it is not visible in Hawaii. It will be seen only in the extreme southern part of South America and Antarctica.

Phases of the Moon:

Full moon — Aug. 7

Last quarter — Aug. 14

New moon — Aug. 22

First quarter — Aug. 30

POST MARKED
21 Aug 79

George?

University of Hawaii Marine Lab.
PO Box 1346
Kaneohe, HI 96744

Aloha:

I recently toured the Northwestern Hawaiian Islands as a State Division of Fish and Game biologist aboard the NOAA ship, Townsend Cromwell. Our duties included surveys of the near-shore waters of the reefs and islands from Midway to Nihoa. On July 15, while working at Pearl and Hermes, I noticed a large log in the water at the shoreline of Southeast Island, which upon closer investigation, revealed 2 metal tags apparently nailed in it by you folks. The tag numbers were 1171 and 1172.

I hope this information will be of help to you. If time allows, could you write or phone and tell me a little about this project (partly personal, partly professional interest!)

Sincerely,

Jim

Jim Koenig, Aquatic Biologist

J. D. Koenig
2673A Liliha St.
Honolulu, HI 96817

Hm. 595-4595
Bus. 548-5898

P. S. The tags are still in the log.

Put on Round log "East Island"
8/2/75 (see p 102 Summaries 1975 Gray Book (TC1-21))
Still present on East 6/31/79

But

Round log still present on East Island June 1980 -

tags 1171, 1172 not found -

∴ placed on another log or moved by someone?

- ONE DAY TRIP TO TERN ISLAND -

21 OCT was brought back with me.

1979
SAT

(Also, Skip gave me hatchling from large Tiger Shark, and skull-jaw of juvenile from another tiger shark. Hatchling appears to have been preyed upon originally by ghost crab.

Bob^(FFS) reports that plan will be to hire a total of 3 people - 1 for support - 2 at Tern Island - then rotate.

Bob is a Wildlife Biologist - Bird Specialist - will be doing bird studies at FFS - with/for Vengron and Craig.

Justin indicated that this summer they will charter airplane for tracking seabirds at FFS.

→ Bob and Sue Schulmeister

FFS caretakers

Synopsis report sent 12-21-79

other material during JAN-Feb 1980

Departed TERN IS. ~ 5 PM -

turned west and overflew Easy Riders; then flew by Tern, Trig and W-S - several photos taken with ASA 64 ELW - roll of film that was pin EZ when I dropped it in the water.

Arrived in Honolulu ~ 8:30 AM

28 Feb - 1 March 1980 Justman has FWS contract, apparently for some time now; flies to FFS once a month. During this flight he took up people to work on generators - reports catching 240 lbs of ulua from Tern Beach. Also, he brought back 18516 frozen seal that caretakers found dead on Whale-Island. Payload is 1000 lbs now due to lack of refuel at Tern - this considers pilot & copilot aboard.

Considers report that Parrish will use net at FFS during May - June.
~~From~~ From Bob & June 3/80 - Parrish works his crew very hard - virtually no time for rest. Worked up some of fish at night. Suggested dynamite collection technique to Coggeshall - but apparently never go into formal proposal.

Letter received 3/26/80 - John Andre and Ruth Ittner arrived at Tern Island several days ago - letter in file.

20 May 1980

Tuesday

Rick Grigg, John Naughton, Steve Dollar flew to Tern Island. FV Kaimiki motored them to clay dump site. No coral or other invertebrate damage reported.

note earlier report of 2 "basking" turtles seen on Disappearing Island by Jim Prescott and John Naughton - Photos seen.

according to Steve Dallas. Small seal seen swimming in murk. No turtles seen on Disappearing Island or while diving. See S-B articles by Alton and Matsuura

entered 3/2/80

Preliminary list of Items for
Radio tracking of Internesting Interval Turtles
French Frigate Shoals - 1980

- Soft iron wire that will rust through (?)
- New tent purchased by NMFS (sooner by Thermos)
- Portable drill motor ^{drills} - router or pointed grindwheel
- Marine epoxy - or other quick-dry
- Portable depth sounder - NMFS
- Several maps - NMFS
- Hand bearing compass
- Binoculars
- Silicon seal
- depth gauges
- Electrical tie wraps
- "Inscribed" tags, Inconel & plastic colors
- Freon containers (use as anesthetic for screws?)
- Self-tapping short screws
- depth gauges
- New Tent
- "Boat" for transmitter
- CB portables for back-up communications
- sleeping bags - air mattresses (2 each)
- ~~food~~ - utensils
- Propane bottles
- Water containers
- NICAD batteries
- Leucite spray paint
- Antiseptic for drill holes
- Extra elements for antenna/or netting.
- Upright stand for antenna

- Batteries
- Maps of FFS for plotting
- Black sack to slip over turtles head

TWO DAY TRIP TO FRENCH FRIGATE SHOALS

5 MARCH 1980

0650h

WEDNESDAY

DEPART FOR TERN IS., FFS,
 aboard Bob Justman's Beechcraft 18
 with Chris copilot.

Passengers Andy Dizon, Gene Nitta,
 Johnsons (2).

Strong trades in Kawai channel.
 Gene mentioned that John Naughton
 photographed a turtle on underwater
 pinnacle off Kahoolawe during recent
 trip.

form sent
 3/7/80

Land for refuel and breakfast
 at Kawai ~ 7:45 AM

Depart at 9 AM. Vernon Byrd
 delivered ~ 300 lbs of food and
 gear. He will leave FWS in
 April - Subsistence farm in

Washington. In order to advance in FWS, he must
 assume more administration.
 - Andy Dizon requests copy of my color booklet.

Note the Jerry Ludwig has been selected
 to fill Asst. Refuge Manager position.
 Need to call M. Taylor in Ecological Services.

Observed Nihoa and Necker from a
 distance.

Arrived at FFS and made ~~an~~ aerial
 survey starting with Disappearing.

At large coral head to the west of
 Gin & Little Gin I noted very shallow

5 MARCH 1980
WEDNESDAYSue
"have to really
survive a long time"

(low tide) surface - Johnsons counted 8 seals -
 (two detached) possible turtles?
 (two Spud Bars) Saw Gin & Little Gin; East (photos) -
 over to ~~the~~ La Perouse
 Pinnacle (photo) - back to Round
 Mullet (no or few seals) - to W-S,
 Trig, and land at Tern
 ~ 12 noon (?). (~ 175 seals total)
 Fuel usage ~ 120 gallons each way.

Walked Tern with Ardy and Gene
 Johnsons counted 17 seals - 10 adults
 among these - some pregnant.

Saw a single juvenile off North Cove.
 Bob & Sue report that ^(at 2 PM) ^(near #1 camp) ^{maximum}
 number of basking turtles on W-S
 has been 14 - recently.
 They have only made one trip to
 East - saw 2 small turtles
 basking.

Assessed rooftop of quarters for
 mounting antennae & setting up
 receiver system.

At ~ 4:30 PM I walked along north wall
 with scoop net - missing one turtle
 that had reasonably clean shell.
 Justwan caught 2 blue with
 pole and line - set shark line at night

5 March 1980
WEDNESDAY

- 18 seal on Tern - may be pregnant
- 914 Seal ^{seen 3/5/80 by Johnsons} Whale ^{State (adult)} _{seen by Bob & Sue - they are taking photos of scarred seals.}

Request to Bob - (1) Date of first nesting on Tern -
and other islets
(2) Number of baskets seen on islets (use forms)
(3) First observations of tiger sharks

Note that "Kapaehu" Boston whaler is at boat house - has small Mercury motor for back up.
Old "Honu" whaler is in signal power building - repainted, but "new" Johnson motor is in Honolulu - needs some repair again.

Sooty Tern colony found primarily on east end of Tern Island.

Justman mentioned missile "silo" at Johnson Isy accident had occurred and radioactivity was present.

- P. Johnson mentioned that Annel Johnson had sent draft of tag report dated February 1979.

Susan Doreen Schulmeister 473-62-8930
~~Box~~ Box 87
Kilauea, Kauai, Hawaii 96754

5 MARCH 1980 (Wednesday)

During late afternoon and just before dark I walked along seawall with net looking for turtles - none seen. Replacement net on hoop seems to do well.

This night I slept in second room to the left off of mess deck.

6 MARCH 1980 (Thursday)

- Request for memo statement of inner harbor at Midway - turtle habitat.

- Mark seal critical habitat public hearings will be held next month in Honolulu.
- Proposal will include -

Walked seawall at ~ 7:30 AM (just after sunrise) - no turtles.

- 8:30 - 9 AM walked around island with Andy Dizon.

Found old whip antenna - sawed off handles for use in net.

→ "Occurrence of Elephant Seals in the Northwestern Hawaiian Islands"

need to
make copies

Note that Bob has copies of FWS trip reports on FFS - provided to him by Vernon Byrd.

Bob had Dave Olsen as one of his instructors during Refuge management school.

Red-footed boobies on eggs on Terns.

Note that Bob saw juvenile turtle near tide gauge.

"Recolonization of Tern Island by Hawaiian monk seals"

"GROWTH RATES OF THE HAWAIIAN MONK SEAL"

6 MARCH 1980 "AGE AT SEXUAL MATURITY OF THE H.M.S."

Depart Tern Island ~ 12:50 PM, -

photo of Trig,

Land in O'ahu, Lihue ~ 3:45 PM

Depart for Honolulu ~ 4:15 PM

Arrive at Honolulu ~ 5:00 PM

Bob was told ~~that~~ by many from Washington during Feb 25-28, that Channel 16 radio had to be remove immediately.

Radio subsequently sent w/^{Bud} Group to Laysan

Need - to know the number of tiger sharks caught by Easy Rider during October trip of 1979 (see page 94).
 Number of stomachs with turtles, seals, empty, etc.

Note that I have
 1) hatchling without head
 2) skull (jaw of juvenile

Copied from Bob Justman's papers:

Max Gross Weight	10,100
Empty Weight	-6,738
	<hr/> 3,362
Fuel - 315 gallon	1,890
Flight crew of 2	-320
	<hr/> 1,152
Pilot only	+160

1312 lbs

MAX RANGE 1100 kts miles

Need ^{seal} A8 recovery data -

Postnote: M/V San Inez hit reef near Disappearing Is. - towed to anchorage

off of Shark Island - see other logbook
 for details - also short by Nelson
 newspaper article columns.

On 16-17 April 1980 - Schulmeister,
 Coggeshall, FWS administrators from
 mainland traveled to FWS aboard Bob
 Justman's airplane. Either during arrival
 or departure, they observed (21) turtles
 on a coral head near Trig - apparently
 all large turtles. Schulmeister
 should fill out forms on this case,
 plus others.

Apparently adult turtle has also
 recently been seen basking on Tern
 beach by other FWS "caretakers".
 Also, Administrators went by
 Boston Whales to whale-skate - flanked
 on beach between two seals
 with pups.

G. H. BALAZS
1979 EXP. 23

METRIC SYSTEM WITH U.S. EQUIVALENTS

METRIC UNIT (1) U.S. EQUIVALENT

WEIGHT

milligram	mg	0.015 grains
centigram	cg	0.154 grains
decigram	dg	1.1543 grains
gram	g	0.035 ounces
decagram	Dg	0.353 ounces
hectogram	hg	3.527 ounces
kilogram	kg	2.2046 pounds
quintal		220.46 pounds
metric ton		1.1 tons

LENGTH

millimeter	mm	0.04 inches
centimeter	cm	0.39 inches
decimeter	dm	3.94 inches
meter	m	39.37 inches
decameter	Dm	32.81 feet
hectometer	hm	109.36 yards
kilometer	km	0.62 miles
myriameter		6.2 miles

VOLUME

cubic centimeter	cm ³	0.061 cubic inches
cubic decimeter	dm ³	0.0353 cubic feet
cubic meter	m ³	1.31 cubic yards
cubic decameter	Dm ³	13.10 cubic yards

METRIC UNIT (1) U.S. EQUIVALENT

AREA

square centimeter	cm ²	0.155 sq. inches
square meter	m ²	1.196 sq. yards
are	a	119.60 sq. yards
hectare	ha	2.47 acres
sq. kilometer	km ²	0.3861 sq. miles

CAPACITY, CUBIC

milliliter	ml	0.06 cubic inches
centiliter	cl	0.6 cubic inches
deciliter	dl	6.1 cubic inches
liter	l	61.02 cubic inches
decaliter	Dl	0.35 cubic feet
hectoliter	hl	3.53 cubic feet
kiloliter		1.31 cubic yards

CAPACITY, DRY

deciliter	dl	0.18 pints
liter	l	0.908 quarts
decaliter	Dl	1.14 pecks
hectoliter	h	2.84 bushels

CAPACITY, LIQUID

milliliter		0.27 fluidrams
centiliter		0.338 fluidounces
deciliter		0.21 pints
liter		1.057 quarts
decaliter		2.64 gallons

08779H9

\$2550