

FRENCH FRIGATE SHOALS  
1981 EXPEDITION 27

25 MAY - 18 JUNE 1981

TC 90-118

BOOK 2

G.H. BALAZS

(808) 395-6409

2 of 2

TAGS - 5261 // 3833<sup>2nd</sup> LFL //  
5386 // 3834 RFL //

TC - 791

18 FEB 2003

S - 88.8 x 70.9

OPIS. Tagged Little GIN 1/11  
C -

DATE/TIME	AREA	ACTIVITY	REMARKS
6/15 / <sup>Monday</sup> 8:11 PM	7	NESTLAY	Big BARN by 3rd Lateral left
6/17 2 PM	SEP	Basking	Flipper - 16 Dem

182-TC

18 FEB 2003

TAGS-

5437

3841

ENT.# 228

S-93.8

x 71.3

C-

DATE/TIME

AREA

ACTIVITY

REMARKS

DATE/TIME

6/16/81 11:00 AM

SP

NEST-LAY

knot in left flap -  
piece missing in RR

6/16/81 11:00 AM

TAGS- 5099 LFC  
3843 RFL  
3844 LFC 2nd

TC-113

18 FEB 2003

ENT. #273

S-92.5 x

C-

ORIG. TAGGED 5/28 NEP

DATE/TIME  
6/16<sup>Tues</sup> 11:30pm

AREA  
5

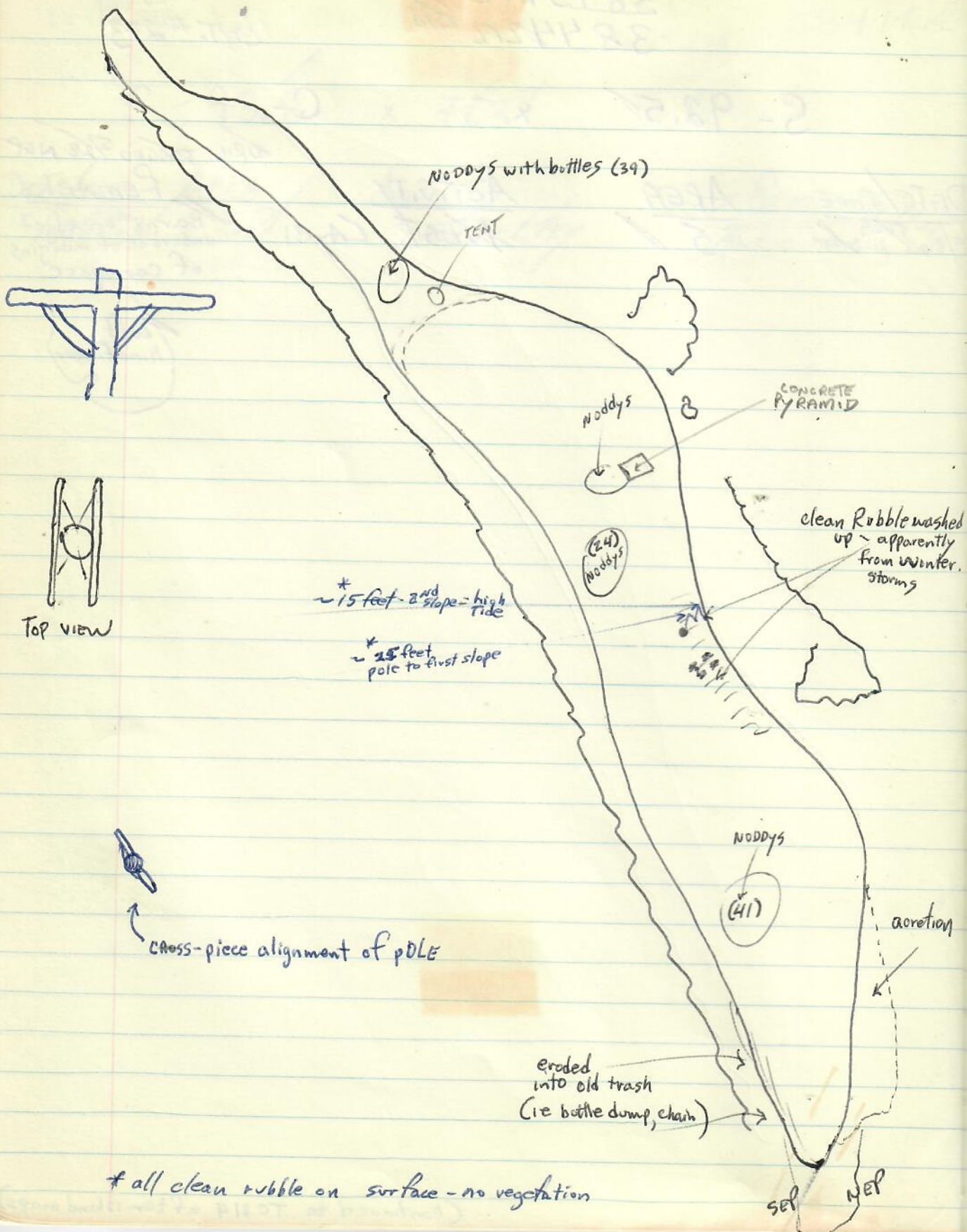
ACTIVITY  
NEST-LAY(?)

REMARKS

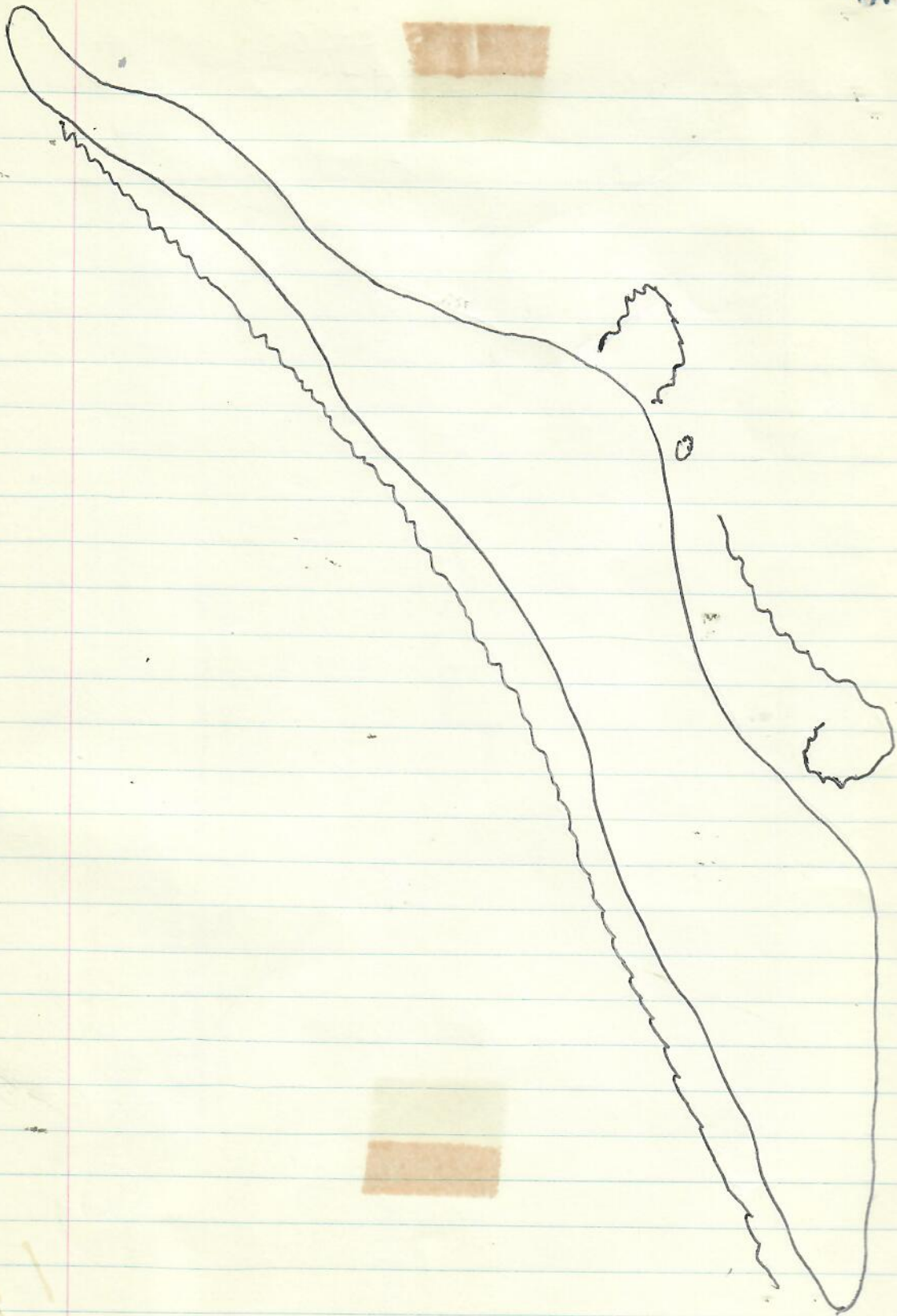
Barns on edge & underside of margins of carapace

left hind flipper

(continued to TC114 after island maps)



\* all clean rubble on surface - no vegetation



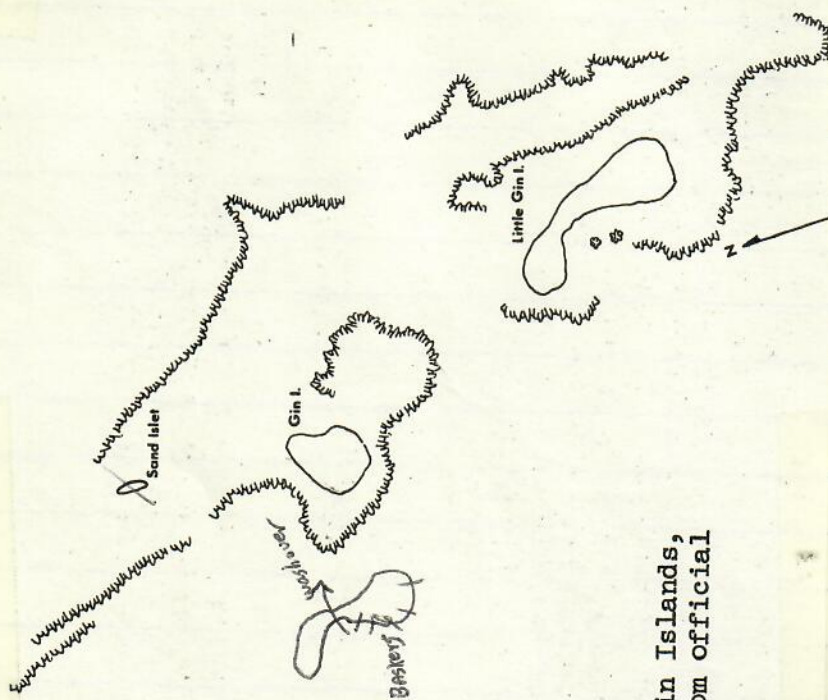
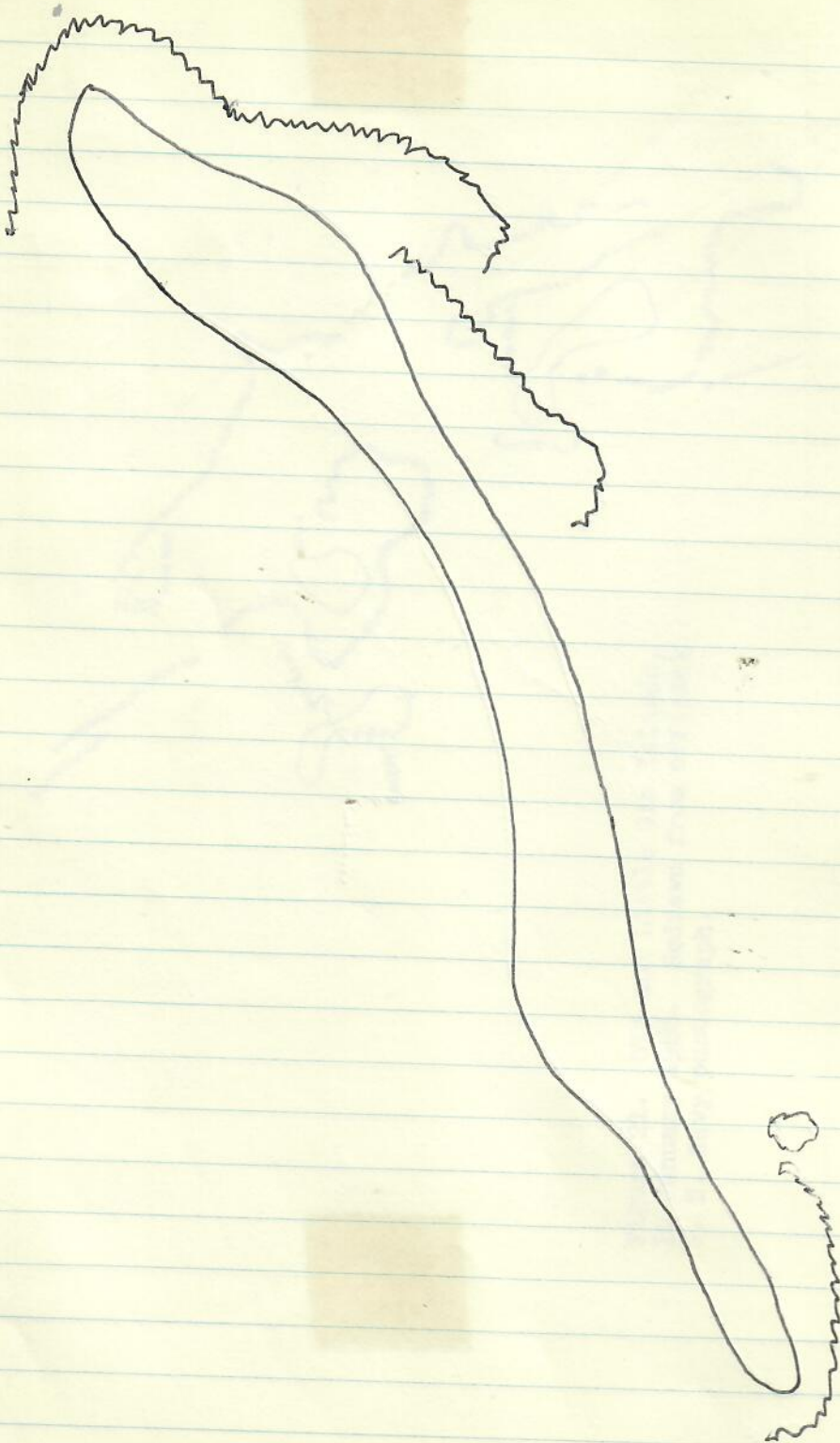
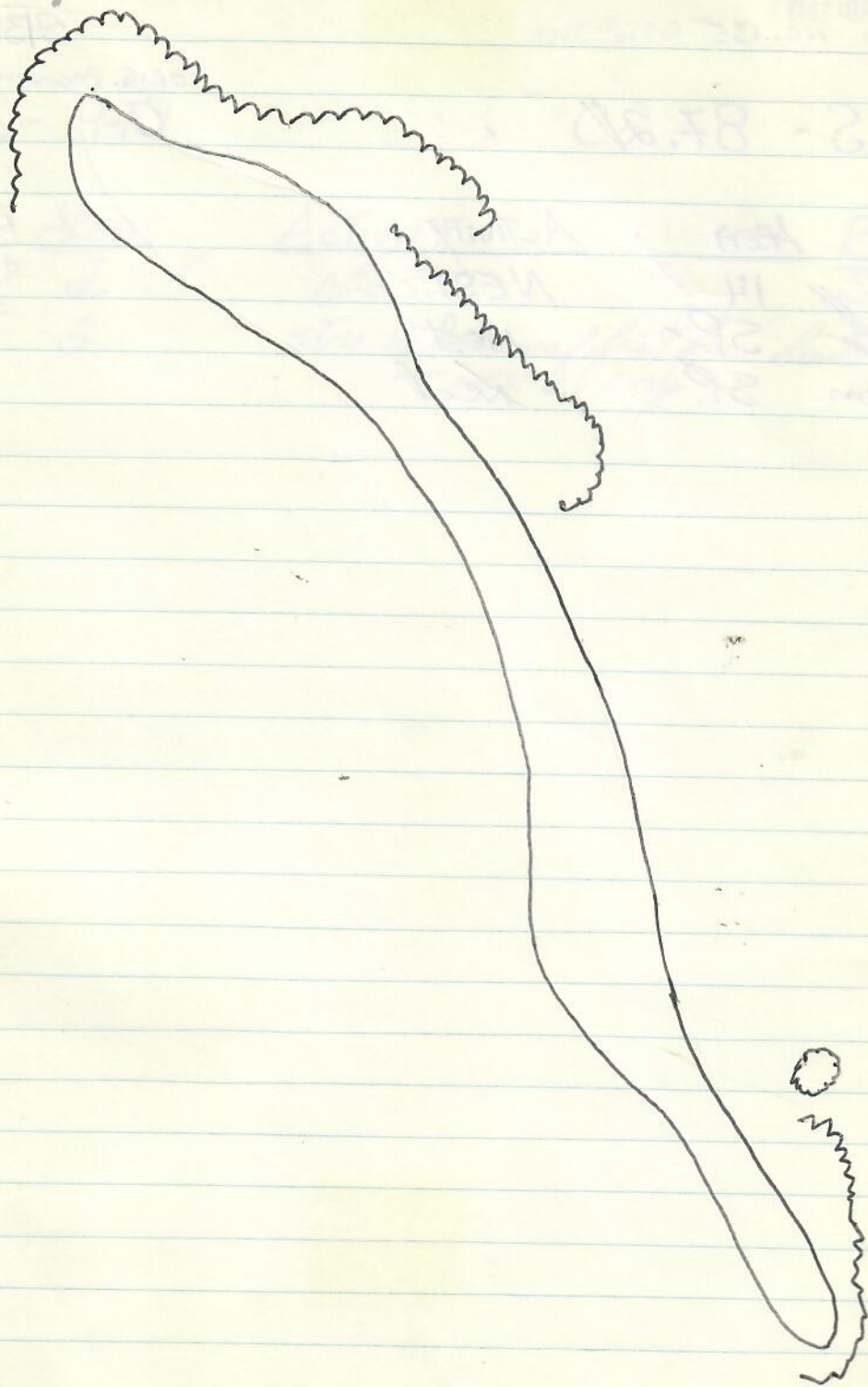


Figure 21. Gin and Little Gin Islands,  
10 January 1966. Redrawn from official  
U. S. Navy photograph.







174-TC

- RECOVERY -

\* TAGS -

2815

2816

5138 RFC

ORIG. Recovered 5/28 BASKIN

C-

18 FEB 2003  
ENTERED NO. 135

S- 87.2

\*

DATE/TIME	AREA	Activity	REMARKS	DATE/TIME
6/16/81 TUES. 11:30 AM	14	NEST	ASSIGNED TC 114, but not sprayed	6/17/81
6/17 wed 11 AM	SP	Nest		6/18
6/18 3 AM	SP	Nest		

TAGS - ~~5439 RFX~~  
~~5440 CFX~~

~~Te-115~~

ENT. #280

18 FEB 2003

S- ~~97.1~~

C-

<u>DATE/TIME</u>	<u>AREA</u>	<u>ACTIVITY</u>	<u>REMARKS</u>
<del>6/17/81 wed. 11 AM</del>	<del>2</del>	<del>NEST</del>	
6/18 10 AM	2	<del>Stranded on reef flat from low tide</del> - NEST & LAY?	

188-TC

18 FEB 2003

-RECOVERY-

\*TAGS-

~~5441RFL~~ ~~2238~~

~~5442LFL~~ ~~2239~~

Previous Recovery No. 68

S - 92.2 x 68.3

36.3 = 36'4"

C-

DATE/TIME  
6/17/81 wed

AREA  
2 //

ACTIVITY  
NEST-LAY

REMARKS

Flipper - 16.2cm  
Coralline alga on  
5th central and PC's

DATE  
6/17/81

EAST 28 JUNE 77-N; EAST 27 JUNE 79-B

TAGS-5447RFL

5448LFL

~~Fe~~-178

18 FEB 2003

S-91.8 x 71.9

C-

DATE/TIME  
6/17/8 Wednesday  
11:30 PM

AREA  
7

ACTIVITY  
~~NEST-LAY~~

REMARKS  
Flipper - 14.8cm  
Knot in LFL

## FRONT FLIPPER WIDTHS

(<sup>cm</sup> NAIL DIGIT SCALE TO 6th SCALE POSTERIOR - STRAIGHT LINE)  
 - left Flipper -

TC NO.	<sup>cm</sup> FLIPPER WIDTH	<sup>cm</sup> STRAIGHT CARAPACE LENGTH	TC NO.	Flipper Width	SC Length
1. 2	15.6	93.0	27. 47	15.8	91.5
2. 72	15.5	89.4	28. 49	15.8	97.2
3. 75	15.5	92.2	29. 50	16.4	93.3
4. 77	15.1	90.6			
5. 80	15.2	90.9			
6. 84	<del>15.5</del> 16.1	92.9			
7. 86	15.7	93.0			
8. 88	14.0	83.0			
9. 91	15.4	89.2			
10. 4	14.5	92.2			
11. 99	15.7	93.6			
12. 102	15.6	92.7			
13. 103	16.5	89.9			
14. 106	15.2	87.6			
15. 10	15.9	94.0			
16. 20	16.5	92.3			
17. 30	14.8	95.2			
18. 110	16.3	94.5			
19. 111	16.0	88.8			
20. 16	14.4	93.5			
21. 108	16.4	97.7			
22. 28	16.4	95.3			
23. 32	15.5	97.5			
24. 41	16.1	97.5			
25. 116	16.2	92.2			
26. 118	14.8	91.8			

$$\bar{X} = 15.65 \quad N = 27$$

RANGE 14.0 - 16.5 cm  
83.0 - 97.7

(portion missing to 6th scale?)

(possibly damaged 6th)

DATE/TIME  
6/17/80

TAGS- ~~5443 RFL~~  
~~5444 RFL~~  
~~5445 RFL~~<sup>2nd</sup>

~~Te-177~~

18 FEB 2003

ENT. NO. 413

S- 86.0 x 71.9

C-

<u>DATE/TIME</u>	<u>AREA</u>	<u>ACTIVITY</u>
<del>6/17/81</del> <sup>wed</sup> 11:00 AM	<del>7</del>	<del>NEST</del>

Remarks  
Digging into  
BANK.  
~~PC's deformed~~  
~~left limb is small~~  
~~and deformed.~~  
~~2 BRNS on 2nd lateral~~  
~~left - Coelocera alga~~  
~~on carapace.~~

~~found dead~~  
~~in tubulin~~  
~~harbor 4/10/94~~

~~5443, 44, 45~~  
~~likely bit in~~  
~~carapace by large prof.~~

## BASKER TAGGINGS

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS	DATE
(3731) 5/26/80 5:45 PM TUESDAY	3731 RFL	Female	RFF square on end BASK S.P. - EAST Also 5/28 6 AM A5; 6/1 nesting A5; 6/16 A6 BASK 6 PM; 6/13 A3 - in nesting; ASSIGNED TC 106/13 Small fresh piece out of the top of the tail.	5/27 WEDN
5/26 5:45 PM	3732 LFL	female	SP - many cap scabs	5/27
5/26 5:45 PM	3733 RFL	female	LFL has small TMR	5/27
5/26 5:45 PM	3734 LFL	female	BASK SP - EAST	5/27
5/26 5:45 PM	3735	female	BASK SP - EAST	5/27
5/26 5:45 PM	3736	female	SP - EAST TOO TIGHT - REMOVED ASSIGNED TC 25a	5/27
5/26 6:15 PM	3737 RFL	Male	NEP small - east	5/27
5/26 6:15 PM	3738 LFL	Male	NEP tail freshly bitten off.	5/27
5/26 6:15 PM	3739 RFL	Male	NEP (DEFORMED TAIL?)	5/28
5/26 6:30 PM	3742 RFL	female	A5 - EAST BASK ASSIGNED TC 60/5	5/28
5/26 11:30 PM	5061 LFL	MALE	NEP BASK east deformed tail not full length	5/28



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DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
5/27/81 5PM WEDNESDAY	<del>5068 RFL</del> <del>5069 LFL</del> 6/5 ASSIGNED TC (65)	Female	A9 basket - EAST ISLAND
5/27	<del>3701</del> <del>5071</del>	Female	TMR Left Shoulder 2nd scale missing. SEP - EAST
5/27	<del>5074</del> <del>5075</del> 6/12 5PM - NEP;	Male	EAST
5/27	<del>5080</del> <del>5081</del> 6/9 NEP BASK 4:5PM; . ASSIGNED TC (103) 6/13 11AM	Female	NEP EAST
5/27	<del>5079</del> <del>371A</del> 6/1 ASSIGNED TC (34)	Female	NEP EAST
5/27	<del>5082</del> ; <del>5280</del> 6/2 2:30pm AREA 12 BASKING - 2 photos & 2 TELE applied to 2nd scale, but ripped out; 6/3 ASSIGNED TC (48)	Female	NEP EAST
5/27	<del>5083 RFL</del> • <del>5406 LFL</del> 6/12 5PM NEP BASK; 6/15 AM BASK; Rec. 6/8/86 EAST-B	Male	mostly yellow-gold TO CARAPACE EAST
5/27	<del>5084 LFL</del> • <del>5085 RFL</del> • <del>5086 LFL</del> 5/31 11:30 AM SP; 6/13 7PM AB;	Male	2nd scale NO. 84 AS EAST
5/27	<del>3700</del> <del>5087 RFL</del> <span style="border: 1px solid black; padding: 2px;">ENT NO. 464</span> 6/5 11:30 AM Assigned TC (716)	FEMALE	SP EAST
5/28 3AM	<del>5096 RFL</del> , <del>5182 LFL</del> still there at 10 AM; 5/30 11PM - BASK NEP. 6/8 2AM AREA 12 BASK; 6/6 NEP AT 7:23 AM ASSIGNED TC (70)	Female	SP - BASK By tent -
5/28 6PM	<del>5097 LFL</del>	Male	EAST ATT-12 yellow-gold - "mustard" extensive in carapace
5/28 6AM	<del>5098 LFL</del> <del>370A</del> 6/3 4AM <u>GIN</u> <del>5275 LFL</del> ; ASSIGNED TC (71)	big FEMALE	NEP - EAST

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DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS	DATE
5/28 6PM	5099	Female	NEP-EAST 5/31 NEP BASK; 6/3 NEP BASK; 6/7 6PM AIZ; 6/10 1PM NEP; 6/14 7AM BASK NEP; 6/16 11AM ASSIGNED TC (113)	5/30 SATUR
5/28 6PM	5100 RFL	MALE	NEP EAST 5/30 SP 6PM 5178 added 6/5/83 EAST-BASK Flipper narrow due to previous years biting.	5/30
5/28 6AM	5126; 5251	Male	NEP-EAST 6/3 1PM SP-	5/30
5/28 6PM	5127; 5255(?)	Male	ENT. # 99 6/3 NEP BASK 1PM; 6/17 11PM SP BASK;	5/30
5/28 6PM	5128	Male	NEP-EAST through scales NEP-several times	5/30
5/28 6PM	5129	Male	NEP-EAST	5/30
5/28 6PM	5131, 5132 LFL	MALE	ENT. # 103 6/11 BASK SEP; 6/13 11:30AM SEP;	5/30
5/28 6PM	5133 RFL, 5134, 5135	3rd scale LFL/MALE	ENT. # 98 Area 5 very BLACK	5/30
5/28 11PM	5136 LFL, 5222 RFL	MALE	NEP-EAST 6/1 7PM BASK SEP (5222) 6/10 6PM SP BASK Bones showing in Right front Flipper	5/30
5/29 6:30 PM 6/2 1PM SEP	5141 RFL 5142 2nd scale LFL 5143 2nd scale RFL - Number up	FEMALE 6/9 ASSIGNED TC (90)	BASK SP Barnacle on head - EAST	5/30
5/29 10:30 AM	5144 RFL	FEMALE	NEP-EAST 6/3 NEP BASK 1PM 5256 (LFL) (yes) 6/10 SP (SW) 6PM BASK 6/11 11:30 AM AS NEB ASSIGNED TC (96) Small TWIR on tail BASK SEP BARNACLES ON HEAD & CARAPACE Very dorsal carapace	5/30
5/30/81	5148 RFL	MALE	W/Hale-STATE NEP shore BASK	5/30
5/30/81 SATURDAY 4:30 PM				5/30

[5151 not in tag strip]  
still in Honolulu?  
NO - used on Ewa beach TME turtle

79  
18 FEB 2003

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
5/30/81 4:30 PM SATURDAY	<del>5149 RFL</del>	Female ENT. #270	<del>W-S NE</del>
5/30 4:30 PM	<del>5150</del>	Female ENT #266	<del>W-S</del>
5/30 4:30 PM	<del>5152 RFL</del> <del>5153 LFL 2nd</del>	Female 6/8 6 PM W-S BASK	<del>W-S</del>
5/30 4:30 PM	<del>5154</del> <del>5155 LFL 2nd</del>	Female ENT. #276	<del>W-S</del> 6/13 6 PM W-S BASK;
5/30 4:30 PM	<del>5158 RFL 2nd</del>	Male	<del>W-S</del> many TMRs shoulder green but tail bitten - mating?
5/30 4:30 PM	<del>5159 RFL</del>	ENTERED NO. 74 Male	<del>W-S</del>
5/30 4:30 PM	<del>5160</del>	Female	<del>W-S</del> 4 Big BARNES on carapace
5/30 4:30 PM	<del>5161 RFL; 5162 LFL</del>	Male	<del>W-S</del>
5/30 4:30 PM	<del>5163 RFL; 5164 LFL 2nd</del>	Female?	<del>W-S</del>
5/30 4:30 PM	<del>5165 RFL</del>	Female	<del>W-S</del>
5/30 4:30 PM	<del>5166 LFL; 5167 RFL</del>	Female #up	<del>W-S</del> 413531602F 2nd-
5/30 4:30 PM	<del>5168 RFL</del>	Female	<del>W-S</del>
5/30 4:30 PM	<del>5169 (on tight)</del>	Female	<del>W-S</del> light colored shell - up high - out to Nest?
5/30 4:30 PM	<del>5170, 5171 LFL</del>	MALE	<del>W-S</del> 6/16 6 AM BASK; Tues. 5/3/83 5171 BASK W-S by SRL

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DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS	DATE/TIME
5/30/81 5/30/4:30 PM	5172 RFL <sup>2nd</sup> 5173 RFL	MALE	Whale-SKATE	6/11/03 MON
5/30 6 PM	5174 RFL <sup>2nd</sup>	MALE	EAST, A 15-16	6/2/03
5/30 6 PM	5175 RFL <sup>2nd</sup>	Female	EAST A 11-12 Returned to water - then approached by male, & another	6/2/03 we
rec 6/2/86 5- EAST 5/31 11:45 NEST SWEP 6/3 ASSIGNED TO 37	3703 RFL	Female	ENTERED NO. 148 7/31 TERN - South Beach - dug 6 pits, but did not lay - SCHULMEISTER	6/3/03 6/11/03
5/30 6 PM	5176; 5177 <sup>2nd</sup>	MALE	ENT. #100 EAST SP	6/3/03
5/30 11 PM SATURDAY	5179, 5180, 5181	FEMALE	EAST SEP BASK	6/3/03
6/18 1:30 AM	AG NEST; ASSIGNED TO 98	6/12		
5/30 11 PM	5183 CFL	Female	EAST-NEP BASK	6/3/03
	ENT. NO. 411			
5/31 6 PM	5198 CFL, 5199 RFL <sup>2nd</sup>	Male	SEP-EAST BASK	6/3/03
6/2 1 PM	BASK SEP			
5/31 11:30 PM	5202 CFL, 5203 RFL	MALE	TMP BASK-EAST L Flipper AS	6/3/03
6/6 6 PM	SEP			
6/16 2 PM	SEP			
6/1 2 AM Monday	5207 RFL, 5208 CFL	Female	knot in RFL Area 13, BASK EAST near male just finished copulation?	6/3/03
6/10	NEST 11:30 PM; ASSIGNED TO 100	6/12		
6/1 3 AM	5211 RFL	Female	Area 10 NEST-EAST many eggs - no eggs	6/3/03
6/13 1 AM	ASSIGNED TO 104	ENT. #223		
6/1 3 AM	5212	Female	BASK SEP-EAST	6/3/03
6/11 3 PM	BASK TERN - S. Beach, east end.			
6/1 4:30 AM Monday	5215 <sup>2nd</sup> RFL	Female	ENT. #234 EAST-NEP SP crawled across	6/3/03
6/14 11:30 PM	BASK SEP; 3829 CFL			

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DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
6/1/81 11PM Monday	<del>5224, 5225</del>	Male	<del>BASK SEP - EAST</del> <del>NEAR TC9</del>
6/2 3:30AM 6/2 11PM SEP	<del>5232 RFC</del> BASKING - added tag <del>5235</del>	Female	<del>SEP-BASK - EAST</del> Just finished copulating?
6/2 11PM 6/3 BASK GIN 4PM	<del>5236, 5237</del>	Male	<del>BASK - EAST</del> <del>SEP</del>
6/3 Wednesday 1PM	<del>5253</del>	Male	ENT.# 104 Several BIRDS on CARAPACE AIO-II EAST
6/3 1PM 6/1/86 REC.	<del>5254(?)</del> <del>5255 + LFL Male ONEAST</del>	Male	AREA 9 EAST
6/3 1PM	<del>5256</del> NO. 5256 13 ♀ w/TAG 5144	Male	scratches in carapace - shark? NEP EAST
6/3 2PM	<del>5257</del> NO. 85	Male	SEP EAST
6/3 2PM	<del>5258</del>	Female	SEP EAST BASK
6/3 3:15AM 6/10 6PM NEP EAST; 6/10 11:30PM NEST 5 SP; 6/15 11PM ASSIGNED TO III	<del>5261 LFC</del> <sup>3833</sup> <del>5386</del>	Female	Little GIN BASK
6/3 3:15PM	<del>5262; 5263</del>	Male	Little GIN
6/3 3:15PM	<del>5264; 5265</del>	Male	RHL MISSING Healed Little GIN
6/3 3:15PM	<del>5266</del>	Male	Little GIN
6/3 3:15PM	<del>5268; 5269</del>	Male	Little GIN
6/3 4PM	<del>5270; 5271</del>	Male	many shark scratches in carapace GIN

# 82 BASKING TURTLE CENSUS

DATES/TIMES	MALE	FEMALE	I	TOTAL	OFFSHORE			LOCATION	DATES/TIMES
					M	F	I		
5/26 6PM TUESDAY	6 <sup>+</sup> 7	1-SP 4 15	2-AS 9-SP ~6	28	~3	~3		EAST	6/3/8 W WE
5/22	Reported by Ruth <sup>ITTNER</sup> & John/Andree			60				W-S	6/3 W
5/81	see Beth Sheehey 2-4 daily 5/27 4PM - 1 BASKER in front of quarters							TERN	6/3 W
5/27/81 5PM WEDNESDAY	10-NEP 24-SEP	5-SP 2-M45	COPULATION CLOSE TO SHORE	41			TC 5, 6, 9	EAST	6/2 W 6/6 SATUR 6
5/28 6PM	NEP- 7♂ 6♀	4-SP 32-SEP TC 15, 9	TC 10-A12 207-A11 3-A9-5	55				EAST	6/7 3- 6/8 MO
5/28 11:30AM Thursday	4	1	Partly from wave-wash partly covered w/sand					END of SEP EAST	6/9/81 TU
5/29 2PM FRIDAY	COPULATION - ON "EAST REEF"							EAST	6/10 W 5
5/29 4PM FRIDAY	5- <del>SWP</del> 8-NEP	27-SEP 3-SSHORE	3-N shore (copulation)	46				EAST	6/11 3 THU
5/29 9:30AM	2	4		6				SEP - EAST	6/11 5
5/30 6PM SATURDAY	5-SP 2-SW	10P-NEP 25 SEP		~42				EAST	6/13 SATUR 6P
5/30 4PM SATURDAY	18 tagged - 12♀ possibly 6♂ 10 others seen			~28				W-S	
5/31 5-6PM	north shore - 6(2♀) NEP - 6♀	SP - 3 SEP - 26		41			copulation off shore photos	EAST	
6/1 7PM MONDAY	SP - 3 A10 - 13 - 2	NEW 3 SEP & 1 - TC 5, 6, 7, 9, 24, 30	<del>SEP - 26</del> A51	30			copulation in EAST SECove - 1PA & 507 cop. pair seen same area 6/1 13:00AM.		
6/2 4:30PM TUESDAY	NEP - 5 SP - 3 SEP - 29	A11 - 15 - 2 TC - 12, 13, 16, 18, 24, 25 37, 39		39				EAST	

DATE/TIME	MALE	FEMALE	I	TOTAL	OFFSHORE			LOCATION	
					M	F	I		
6/3/81 <sup>wed.</sup> 2PM <sub>wed.</sub>	SP:1 NEP:2 AP-11:4 SEP:5 13	AS:1 22 TC 2, 3, 5, 6, 7, 9, 15, 18, 25, 39-SEP TC 19-SP		35	copulation attempts SP:2 AP-11:1 NEP:2 SEP:17			EAST	
6/3 wed 3:15pm	5	1		6				Little GIN	
6/3 wed 4pm	3	5 (TC8)		8	possibly			GIN	
6/2 night	I night bashing male reported by John Andre							TERN	
6/6 Saturday 6:30pm	NEP-TC 2; SEP-TC 5, 33, 42, 44, 52, 57, 49 Transmitter Turtle 450							EAST	
6/7 Sunday 3-6pm	NEP TC 18, 31, 42, 44, 49, 64, 77, 74 TC 5, 6, 32, 33, 39, 52, 61 SEP-72, 73							EAST	
6/8 Monday	7	18		At least 25	Bob Schulmeister esti 60-70 at 12-3pm			W-S	
6/5 Friday 1pm	TC 18, 25, 34, 37, 60, 39 + 2 UNRECORDABLE							32	by Ruth ITNER EAST
6/9/81 TUES. 4-5pm	SP-3 18-SEP other-4 25-NEP TC 6, 25A, 25B, 39, 34, 18, 42, 52, 55, 61, 65, 74, 77, 69, 66, 84, 60							50	EAST
6/10 wed. 5pm	TC 71, 74, 10, 60, 64, 66, 67, 68, 69, 70, 34, 16, 42, 6, 19 (All sites 56, 37 (17 TC's)								EAST
6/11 3:30pm Thursday	I	I Recovery 5212 from SEPEAST		2				South Beach TERN	
6/11 5:30pm	6	5		11				TRIG	
6/13 SATURDAY 6pm	5	15		20	central area only			W-S	

DATE/TIMES	MALE	FEMALE	I	TOTAL	OFFSHORE			LOCATION
					M	F	I	
6/13 <sup>SATURDAY</sup> 7 PM		SEP-21 NEP 13	about	42				EAST
6/14 <sup>Sunday</sup> 6:30 PM	-	-	1	1				Round mullet not there; virtually absent entire time here.
6/14 11:30 PM				6				Low tide. Apparently if high tide comes they leave. EAST
6/15 11:30 AM	3 <sup>1-SEP</sup> 2-SP	6 <sup>5-SEP</sup> 1-SP(SW)		9				EAST
6/17 <sup>wednesday</sup> 2 PM		SEP-18 NEP-12		30				EAST



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BASKER TAGGINGS (CONTINUED  
FROM PAGE 80)

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
6/3/81 4 PM	<del>5272</del> RFL	Female	GIN
6/3 4 PM	<del>5273</del> ; <del>5274</del>	Female	Scum on carapace; <del>GIN</del> Shark Bite deep around center of <del>RF</del> Flipper
6/3 11:30 AM Wednesday	<del>5277</del> , <del>5278</del>	MALE	BASK - EAST <del>SEP</del>
6/5 FRIDAY 11:15 AM	<del>5313</del> LFL	Female	ENT. # 239 BASK - SEP - EAST Recent ARRIVAL?
6/6 SATURDAY 2:30 AM 6/11 2 AM AB-Nest	<del>5318</del> RFL <sup>2nd</sup>	Female	Area 1 West - EAST LFL RF deformed
6/6 6:30 PM	<del>5321</del> LFL	MALE	ENT. # 103 Area 11 - EAST
6/6 11:00 PM WB	<del>5322</del> RFL; <del>5377</del> RFL <sup>2nd</sup>	Female	NEP - EAST BASK from copulation group seen at 6:30?
6/6 11:00 PM	<del>5323</del>	MALE	ENT. # 95 6/11 2 AM NEP - EAST BASK
6/6 11 PM	<del>5325</del> ; <del>5326</del>	MALE	red - very fresh SEP bites on flippers EAST
6/7 SUNDAY 3:30 PM 6/16 2 PM SP	<del>5335</del> ; <del>5432</del>	MALE	AREA 8 EAST
6/8 MONDAY 6 PM	<del>5350</del>	FEMALE	ENT. # 268 Whale-SKATE
6/8 6 PM	<del>5351</del>	MALE	W-S
6/8 6 PM	<del>5352</del>	MALE	W-S
6/8 6 PM	<del>5353</del>	FEMALE	W-S

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
6/8 <del>Monday</del> 6/8 6PM	<del>5354</del>	<del>MALE</del>	<del>RT Flipper completely amputated - FRESH</del> <del>W-S</del>
6/8 6PM	<del>5355</del>	<del>FEMALE</del>	<del>W-S</del>
6/8 6PM	<del>5356</del>	<del>FEMALE</del>	<del>W-S</del>
6/8 6PM	<del>5357</del>	<del>MALE</del>	<del>W-S</del>
6/8 6PM	<del>5358; 5359</del>	<del>FEMALE</del>	<del>W-S</del>
6/8 6PM	<del>5360</del>	<del>FEMALE</del>	<del>W-S</del>
6/8 6PM	<del>5361 LFL</del>	<del>FEMALE</del>	<del>W-S</del>
6/10 11:30 PM	NEST EAST SP; ASSIGNED TC101 BROWNISH		
6/8 6PM	<del>5362</del>	<del>MALE</del>	<del>W-S</del>
6/8 6PM	<del>5363</del>	<del>FEMALE</del>	<del>W-S</del>
	ENTERED NO. 158 RECOVERED 5-18-82 BASKING ON LAYSAN (by A.KAM) AK Applied 5913		
6/8 6PM	<del>5364</del>	<del>MALE</del>	<del>W-S</del>
6/8 6PM	<del>5365</del>	<del>FEMALE</del>	<del>W-S</del>
6/18 Thursday morning - 6/18/81	ENT # 485 TERN - east end - upon island along east seawall		
6/8 11:30 AM	<del>5366 RFL</del>	<del>FEMALE</del>	<del>ENT. NO. 302 EAST SP. BASK</del>
6/10 Wednesday 5:30 PM	<del>5380 LFL</del>	<del>FEMALE</del>	<del>chased by A12 BASK</del>
6/12	ASSIGNED TC 99		<del>∴ new arrival? EAST</del>
6/10 5:30 PM	<del>5382 LFL</del>	<del>MALE</del>	<del>Right side of carapace deformed</del> <del>ENT. NO. BASK</del>

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## BASKER TAGGINGS (CONTINUED)

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS
6/10 <sup>wed.</sup> 6:13 <sup>PM</sup> 81	5388; 5389; 5390 <sup>2nd</sup>	Male	S.P. - BASK near tent - EAST
6/11 <sup>Thurs.</sup> 5:30 <sup>AM</sup>	5395 RFL	MALE	TRIG BASK
6/11 <sup>5:30<sup>AM</sup></sup>	5396	MALE	TRIG
6/11 <sup>5:30<sup>AM</sup></sup>	5397	FEMALE	TRIG RFLipper narrow blood when tag applied to flap.
6/11 <sup>5:30<sup>PM</sup></sup>	5400	MALE	TRIG
6/12 <sup>Friday</sup> 5 <sup>PM</sup>	5407; 5408	MALE	EAST <sup>NEP-</sup> BASK
6/12 <sup>11<sup>PM</sup></sup>	5410 RFL	MALE	Right front Flipper 1/3-1/2 miss-healed EAST <sup>SEP</sup> BASK
6/13 <sup>6<sup>PM</sup></sup> SATURDAY	5413 LFL	Female	BASK ✓ Whole-Shake
6/13 <sup>6<sup>PM</sup></sup>	5414	Female	W-S
6/13 <sup>6<sup>PM</sup></sup>	5416	Female	W-S
6/13 <sup>6<sup>PM</sup></sup>	5417	Female	W-S
6/13 <sup>6<sup>PM</sup></sup>	5418	MALE	W-S
6/13 <sup>6<sup>PM</sup></sup>	5419	FEMALE	W-S
6/13 <sup>6<sup>PM</sup></sup>	5420	Female	W-S
6/13 <sup>6<sup>PM</sup></sup>	5421	Male	W-S

DATE/1  
6/13/

6/14/

6/15/

6/15/

6/16 TU

6/16/

6/16/

6/17 wedne

208  
3/31/8

8/27/8

&gt;8/8

3/21/8

19 FEB 2003

DATE/TIME	TAG NOS.	SEX	Location/REMARKS
6/13 <del>10 SAT</del> 7AM	5422	MALE	<del>SEP-EAST</del> 1/3 tail missing, but healed.
6/14 <del>Sunday</del> 7PM	5428 RFL	FEMALE	ENT. #277 <del>NEP</del> <del>BASK-EAST</del>
6/15 <del>Monday</del> 5PM	3832 RFL	MALE	SP-EAST
6/15 <del>11:30am</del>	3835 LFL	MALE	DEEP SCRATCHES IN CARAPACE - <del>SP EAST</del> BITES & SCRABS ON FLIPPERS
6/16 <del>TUESDAY</del> 6PM	5432 <del>5335</del>	MALE	<del>WHALE-SKATE</del>
6/16 <del>6PM</del>	5433	FEMALE	<del>WHALE-SKATE</del>
6/16 <del>6PM</del>	5435; 5436	FEMALE	ENT. #112 <del>entered class of</del> <del>WHALE-SKATE</del>
6/17 <del>wednesday</del> 11:30PM			Apparently didn't see 3270 from 6/29/79 when I applied 5435, 5436

7 or 8 x/31/81	5221	FEMALE	TERN
	ENT. NO. 356		Tagged by Schulmeister after, thru the day 5 unsuccessful pits at eastern end (This beach area washed away 8/27-8/31/81)
8/27/81	5451; 5218	FEMALE	TERN
7AM			NESTING UNDER FUEL TANKS - Probably laid eggs by SCHULMEISTER
>8/81	5452; 5453		Probably put on by SCHULMEISTER on TERN
3/21/82	5456	Male	TERN
	Rec. 6/7/86 Tern-B		Presumably first tagged at this time by Schulmeister basking by fuel tanks at 11am
	5456 (9699 new)		

NEXT TAGGING DATA - GO TO EXPED. 28-29 Book -

## TURTLE TAG RECOVERIES

DATE	TAG NOS.	SEX	LOCATION/REMARKS
x 5/26/81 Tuesday	2603 LFC; 2604 RFC	Female	Bask-SP EAST - Assigned TC I that evening.
x 5/26 5/27 ASSIGNED	2653 L; 2654 R TC-13	Female	SP BASK EAST
x 5/26	3637 RFC ENTERED NO. 69 EAST/SEP BASK 6/22/80	Male	SP EAST
x 5/26 ENTERED NO. 36	3169 RFC; 3063 (1) LFC 5 May & June 1979 - Basking on East	Male	NEP EAST
x 5/26	2586 RFC (NEW) 3740 LFC (NOT ON GOOD) ENTERED NO. 62	Male	SEP EAST
x 5/26	2807 RFC 6/3 SEP BASK 2PM Assigned TC 52 6/4	Female	SEP EAST
x 5/26 ENTERED NO. 38	3058 RFC (new) 3741 LFC 5/28 11AM END OF SEP-BASK 5/29 9:30PM SEP BASK 5 May & June 1979 10 June 1980 Basking on East	Male	med. sized TM on Right jaw EAST
x 5/26/81 5/27 ASSIGNED	2606 RFC TC II 5000	Female	Basking (3) SEP EAST ~ 11:30 PM
x 5/26/81 ENTERED NO. 76	5016 LFC 8 May 1977 - Kaula Assigned TC 20	Female	TAG on Tight BASK-SEP EAST large Barn on carapace

## RECOVERIES

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19 FEB 2003

DATE	TAG NOS.	SEX	LOCATION/REMARKS
x 5/27/81 WEDNESDAY	2655 RFL <sup>1282</sup> ENTERED NO. 27 5070 LFL (new) 6 JULY 1976 EAST 6/6 6:30 SEP; 6/8 11:30 AM SEP; 6/14 7 AM SEP; 6/19 11 AM SEP;	MALE <sup>BIG</sup> 5/31 NEP 5/47 (new) 11 JUNE 1978 EAST	SEP EAST Thick base to tail 1/4 off - healed Also 5/28 NEP
x 5/27	2666 5/27 11 PM - BASK SEP; 6/2 ASSIGNED TC 73	FEMALE	SEP EAST
x 5/27	2692 5072 (new) <sup>2nd scale</sup> RFL	Female 6/3 ASSIGNED TC 43	SEP EAST
x 5/27	2224 RFL <sup>2223</sup> 6/6 ASSIGNED TC 69	Female	SEP EAST
x 5/27	3141 <sup>3140</sup> ASSIGNED TC 33 5/31	Female	2nd tag present SEP EAST
x 5/27	3062 5073 (new) RFL ENTERED NO. 66 5/29 9:30 AM BASK SEP	Male	SEP EAST 5/28 11 PM SEP
x 5/27	2577 RFL (imbedded, so I EXPANDED) 5076 <sup>2nd</sup> LFL (new) 5077 LFL (new) 6/2 - ASSIGNED TC 46	Female	SEP EAST Turned over PL-73-73.5 w/tape CL-9.5cm Tattered but healed RHL - Some on LHL too.

## TURTLE TAG RECOVERIES (CONTINUED)

20 FEB 2003

DATE	TAG NOS.	SEX	LOCATION/REMARKS
x 5/27/80 Wednesday	ENTERED NO. 40 3153 LFL 3028 RFL 5078 2nd LFL (New) 3 MAY 1979 EAST; 18 JUNE 1979 EAST	Male	EAST SEP also 5/28 NEP 6/4 6:30pm BASK SEP; 6/12 11pm BASK SEP; 6/14 7pm BASK SEP;
x 5/27	ENTERED NO. 72 2253 3226 2 JULY 1977, EAST; 24 JUNE 1979 EAST; 11pm 6/12 ASSIGNED TC 102	FEMALE	2 tags present NEP SEP EAST
x 5/27	2584 entered no. 112 2585 5/29 10:30pm BASK SEP; 5/30 4AM " " "	Female	BASK NEP EAST SEP 5/31 11:30pm NEP; 6/10 5pm NEP;
x 5/28	midnight - 1 AM 2815, 2816 5/29 2 AM AS BASK OR NEST; 6/7 1 AM ASSIGNED TC 114	Female	up to nest Areas 14-15 EAST 5/30 1 AM A13, nest; 6/1 11 AM EAST; 6/1 4 AM A12
x 5/28/81 6 PM	2770 RFL 5130 LFL (new) Through existing hole ASSIGNED TC 55 6/4	FEMALE	NEP - EAST no Right hind
x 5/28	ENTERED NO. 16 6 PM 1230 RFL 13 APRIL 76 TRIG; 10 MAY 76 TRIG; 25 FEB 79 TRIG; 6 MAY 79 TRIG;	MALE	SEP EAST
x 5/28 11 PM	3053 LFL ENTERED NO. 65	Male	SEP EAST
x 5/29	ENTERED NO. 107 1 AM 2207 LFL (new) 5145 3702 5/30 ASSIGNED TC 23	Female	BASK SEP EAST

DATE TAG NOS. SEX LOCATION / REMARKS  
 \*5/29 4PM ENTERED NO. 37 3059; 5334 LFL (new) 2nd Male - All, EAST IS,  
 5140 (new) RFL 6/7 3:30 PM BASK A12;  
 5 May 1979 EAST; 17 June 1979 EAST

5/30/80  
 \*5/30 4:30 AM Saturday 3187 ENTERED NO. 139 [REDACTED] RFL Female Whate-Stack NE shore  
 5156 LFL (new)

\*5/30 2817 RFL, 5157 LFL (new) Female ENTERED NO. 135 W-S  
 Row of 5 large barns on seam of left lateral scute -  
 3 others on carapace.

\*5/30 11 PM 1019 LFL ENT. NO. 144 Female NEST EAST SNEP  
 5184 RFL (new) 6/1 ASSIGNED TC 38

\*5/31 11:30 AM 2223 LFL Female RFL 1/2 off SEPEAST  
 ASSIGNED TC 69 6/6 heated BASK

\*6/1 3 AM 3232 RFL - 5375 RFL 2nd Female BASK SET EAST  
 6/9 - 4 PM NEP BASK; 6/14 ASSIGNED TC 107

\*6/3 2 PM 2810 LFL; 5260 RFL Male ENTERED NO. 64  
 6/10 close to shore Area 5, 1 PM;  
 6/16 A7 2 PM Basking;  
 Hooked 1 ML AS BASK  
 humped carapace  
 Baed cluster is central  
 algal scum on carapace



## TURTLE TAG RECOVERIES (CONTINUED)

20 FEB 2003

DATE TAG NOS. SEX LOCATION/REMARKS

x 6/3 3:55 PM ~~2668 RFL~~ <sup>ENTERED NO. 63</sup> Male Little GIN  
5267 (new)

x 6/3 4 PM ~~2775~~ <sup>ENTERED NO. 125</sup> Female TMR BY TAG GIN

<sup>ENTERED NO. 25</sup>  
x 6/3 11:30 PM ~~2598 RFL~~ <sup>1233</sup> ~~3131 LFL~~ Male SEP-ERST BASK  
Wednesday  
2598 RFL; ALLflex "25" LFL between scales (sleeve looks good - NO TISSUE NECROSIS) Bitten tail indicative of copulation  
5279 RFL <sup>2nd</sup> (new) TRIS 13 April 76; coast June 78; T rig 17 June 79

x <sup>ENTERED NO. 70</sup> 6/4 6:30 PM ~~2237~~ <sup>2235</sup> + 2 other tag - Female one tag between SEP scale on RFL BASK  
Thursday Assigned TC ~~68~~ 6/5

x 6/4 6:30 PM ~~3237~~ <sup>3230</sup> 5295 (new) Male ENTERED NO. 68 SEP BASK  
Thursday 6/11 BASK AG; 6/16 11 PM SP;

x 6/4 8:30 PM ~~2242 RFL~~ ~~5296 LFL~~ (new) Female 6/6 11 PM A14: Assigned TC ~~88~~ 6/8 A13 small SEP BASK

x 6/6/81 12:30 AM ~~2767 LFL~~ <sup>ASSIGNED TO 728</sup> Female nest-A7

20 FEB 2003

DATE	TAG NOS.	SEX	LOCATION/REMARKS
<del>6/8/88</del> <sup>MON</sup> 6PM ENTERED NO. 80	<del>3008 LFC</del>	<del>FEMALE</del>	<del>Whale-Shake</del> TRY 28 JUNE 79 - B; EAST 23 JUNE 79 - N
<del>6/8</del> 6PM ENTERED NO. 47	<del>2756</del>	<del>MALE</del>	<del>Whale-Shake</del> 2756, 3276 W-5 17 JUNE 78; W-8 29 JUNE 79;
<del>6/9</del> TUES. 4-5PM	<del>3225 LFC</del> <del>5374 RFL</del> (new)	<del>MALE</del>	<del>ENTERED NO. 39</del> <del>(2688)</del> <del>NEP-EAST</del>
<del>6/10</del> wed 5:30AM	<del>3029</del> ; <del>5383</del> (new)	<del>FEMALE</del>	<del>ENTERED NO. 137</del> <del>NEP-EAST</del>
<del>6/10</del> wed 5:30AM ENTERED NO. 73	<del>2240</del> ; <del>3231</del> <del>5384</del> RFL (new)	<del>FEMALE</del>	<del>6/13 ASSIGNED TO 105</del> <del>NEP-EAST</del>
<del>6/10</del> 5:30AM	<del>2588</del> RFL (new) <del>5385</del> (new)	<del>FEMALE</del>	<del>ENTERED NO. 113</del> <del>NEP</del>
<del>6/10</del> 5:30AM	<del>2808</del> RFL	<del>FEMALE</del>	<del>ENTERED NO. 133</del> <del>NEP</del> RFL missing - healed few barnacles & white patches of coralline alga.
<del>6/11</del> THURS. 5:30AM ENTERED NO. 48	<del>3277</del> RFL; <del>1205</del> LFC	<del>MALE</del>	<del>TRIG 21 JUNE 76; TRIG 29 JUNE 79</del> <del>Scabs from copulation</del> <del>TRIG</del>

## TURTLE TAG RECOVERIES (CONTINUED)

20 FEB 2003

DATE	TAG NOS.	ENTERED	SEX	LOCATION / Remarks
x 6/11 <del>Thurs.</del> 5:30 AM	<del>3065 RFL</del> <del>5398 RFL</del> <sup>2nd</sup> (new)	NO. 67	<del>Male</del>	<del>TRIG</del>
x 6/11 <del>Thurs.</del> 5:30 AM	<del>945-947</del> <del>5399L</del> (new)	NO. 34	<del>Female</del> (according to previous records)	<del>TRIG</del> DUG in deep in sand above high tide
x 6/13 <del>SAT.</del> 6 PM	<del>3017 RFL</del> <del>5418</del> (new)	NO. 136 10331	<del>Female</del>	<del>Whale-Skate</del>
x 6/13 <del>SAT.</del> 6 PM	<del>3069</del>	NO. 54	<del>Male</del>	<del>W-S</del>
x 6/13 <del>SAT.</del> 6 PM	<del>960</del>	NO. 22	<del>Male</del>	<del>W-S</del>
x 6/15 <del>Tuesday</del> 2:30 AM area 6	<del>3213 LFL</del> <del>5430 RFL</del> (new)		<del>Female</del>	<del>W-S</del> R Front Flapper is short AG- EAST NESTING hole in RFL ASSIGNED TO THIS DATE
x 6/15 <del>Monday</del> 6 PM	<del>2038 LFL</del> (Bik Plastic FEARING)	NO. 70	<del>Male</del>	<del>Area 7 - EAST BASK</del>
x 6/16 <del>TUESDAY</del> 6 PM	<del>2705</del> <del>5434</del> (new)	NO. 122	<del>Female</del>	<del>WHALE-SKATE</del>

3588  
+ metal tags in both FLs. (3588 LFL; 3673 RFL)  
EAST SEX BASK 6/13/80

20 FEB 2003

DATE	TAG NOS.	SEX	ENTERED	LOCATION/REMARKS
X 6 / <del>Wednesday</del> 17 11:30 AM	2280 RFL	MALE	No. 61	NEP - BASK - EAST
7/6/77	5446 (FL (new)) 2249 LFL / 2280 RFL	MALE		Buoy 5, KANEHOHE BAY TANGLED IN BOOY PARACHUTE CORD
7/31/81	1206	Female	ENTERED NO. 149	Nesting on Tern Discovered and up high at East end - Returned by SCHULMISTER Schulmeister
7/31/81	3703		ENTERED NO. 148 (From here, go to EXPED 28-29)	SCHULMISTER TERN

## SUMMARY OF TC RECOVERIES

TC 1	2603, 2604
2	2794 (3803, 5063, 5137)
3	3157, 3176 (5368)
11	2606 (5088, 5408, 5089)
12	1292, 1293 (3748, 5090)
13	2653, 2654
14	2771 (3750, 5094, 5095)
17	830 (5138, 5194)
18	645 (5139, 3701, 3810)
20	5016 (5185, 5186, 5187)
21	2694 (5191, 5424)
23	2207 (5145, 3702)
25	2696 (5146, 5004)
26	3254
33	3140, 3141 (5214, 5230)
38	1019 (5184, 5241, 5242)
42	2607 (5249, 5250)
43	2692 (5243, 5244, 5072)
44	3567, 3568
45	2577 (5077, 5076)
50	2271 (5276, 5303, 5304)

CONTINUED PAGE 101

PRE-1977 Tag recoveries vs Post-1977  
 Total nos. Tagged = Total nos. Tagged =

<u>TC</u>	<u>TAG NOS.</u>
12	1292, 1293
17	830
18	645
38	1019

FEMALES

945, 947, 5399 (TRIG)

MALES

1230

1205, 3277

960 (w-s)

TURTLES RECOVERED OR TAGGED BASKING  
ON EAST ISLAND, BUT NEVER SEEN  
NESTING:

	<u>TAG RECOVERY</u>	<u>NEW TAGGING</u>
1.	2584, 2585	3735
2.	3029, 5383	3742 TC60
3.	2588, 5385	5071
4.	2808 (2807 is TC 52)	3703
5.		5183
6.		5232, 5235
7.		5258
8.		5212 (seen basking at Tern)
9.		5313
10.		5366
11.		5380 TC99
12.		5428

\* EAST FEMALES NESTING THAT WERE NOT ASSIGNED TC

1. 3732, 5223, 5216
2. 3734, 5450
3. 5215, 3829
4. 5318

## PIT COUNTS

DATE	LOCATION		Good	False
5/26	EAST IS.	- SP	2	9
		A-17	3	2
		A-15	0	1
		A 11	2	0
		A8	1	0
		A7	2	1
		A3	2	0
		A14	1 (near former slab)	
		A2	1	1
		A1	1	0
		A 6	4	7
		A5	2	5
		A4	2	2
		TOTAL:	23	28

## TERN IS.

5/28-5/29 Report from Ruth Ittner that 3 pits were dug  
Thursday-Friday on Tern this evening - first digs of the  
season.

6/1 Monday - As of this morning, Ruth has counted 14 pits on Tern.  
6/11 Thursday I walked beach at ~3PM. 20 pits total  
counted along south beach - +2 up against iron  
sea wall on sand bar extending from the  
east end of the island. One pit that  
surely has eggs was recently made in  
the corner of the <sup>buried</sup> seawall and retained  
brick wall of fuel tanks.

TC 116 2238, 2239 (5441, 5442)

## LITTLE GIN

6/3 3:15 PM Wed. - 24 to total - most along the elevated sand rim. Some tracks go right across the depressed center of the island.

## GIN

6/3 4 PM Wed. - 6 digs, possibly 2 look good.

Summary of (TC) RECOVERIES FROM PAGE 97

TC 52	2807 (5283, 5284)
53	2209, 2210 (5319)
55	2770 (5130, <del>5287</del> , 5288)
56	2244 (5299, 3778)
58	3182 (3723, 5281)
61	2766 (5300)
62	2235, 2237 (3145, 5305)
66	2803 (3783, 5316)
69	2223, 2224 (5320)
72	2768, 2767 (5341, 5342)
73	2666 (5372)
78	2729 (5331, 3788)
82	3181, 2270 <sup>off</sup> (3794, 5339)
85	2217, 2216 (5347, 5348)
86	2786 (3798, 5346)
88	2242 (5296, 5378, 3800)
91	2740, 2741 (5379)
102	2254, 2253, 3228 (5409)
105	2240, 3231 (5384, 5411)
107	3232 (3827, 5375)
110	3213 (5430, 3837)
114	2815, 2816 (5438)

TC 116 2238, 2239 (5441, 5442)



NUMBER OF FEMALES PER NIGHT

NIGHT PM  
TO AM

DATE	NO. OBSERVED	% Successful	NEW OBSERVED	→ OF THOSE, NO. Successful	DAY	% Turtles Newly OBSER.	ISLAND
				No. of Long-term TAG Recoveries			
5/26-5/27/81 TUES. WED.	10	80%	10	3 8	(1)	100%	EAS
5/27-5/28 Wed - Thurs.	8	62.5% TC + 2815	6	5 5	(2)		EAS
5/28-5/29 Thurs - Friday	7	28.6% TC 19?	4	2 2	(3)		EAS
5/29-5/30 FRIDAY - SAT	8	12.5% TC 20, 21, 22, 23, 24, 25a, 25b, 2815	7	4 1	(4)		EAST
5/30-5/31 SAT - SUN	12	41.7% TC 26, 28, 29a, 27 TC 1019, 25b, 22, 21, 16, 17, 24, 28	4	2 5	(5)		EAS
5/31-6/1 SUN - MON	20	20% TC 25b, 29, 30, 28, 24, 31, 32, 5175, 33, 5215 10, 26, 19, 27, white spot, 34, 35, 3731, 36, 5211, 37, 38	14	2 4	(6)		EAST
6/1-6/2 MON - TUES	10	36.4% TC 29, 33, 39, 32, 28, 33, 34, 38 2815, 40, curled PCs,	3	0 4	(7)		EAST
6/2-6/3 TUES - WED	12	50% TC 41, 42, 43, 29, 38, 44 (white spot), 45, 46, 47, 37, 48, 49	8	3 6	(8)		EAST
6/3-6/4 WED - THURS	14	57% TC 50, 48, 2209, 41, 52, 46, 37, 51, 54, 55, 56, 57, 58, 59	10	6 8	(9)		EAST
6/4-6/5 THURS - FRIDAY	13	46% TC 40, 60, 50, 56, 53, 61, 45, 58, 62, 63, 45, 64, 65, 37	6	2 6	(10)		EAST

Are these numbers fairly constant for any 10-day period?

may be artificially high due to earlier "misses"

without considering knots and scars 103

DATE	NO. OBSERVED	% Successful	NEW OBSERVED	OF THOSE, NO. Successful	DAY	% Turtles newly OBSER.	Island
6/5 - 6/6/81 <del>FRIDAY</del> SATURDAY	12	50%	8	3	60 (11)		EAST
6/6 - 6/7 <del>FRIDAY</del> SUNDAY	13	38.5%	9	2	5 (12)		EAST
6/7 - 6/8 <del>FRIDAY</del> MONDAY	18	55.6%	8	3	10 (13)		EAST
6/8 - 6/9 MONDAY - TUES.	10	40%	4	1	4 (14)		EAST
6/9 - 6/10 TUES. - WED.	12	41.7%	4	1	5 (15)		EAST
6/10 - 6/11 WED. - THURS.	12	16.7%	4	0	2 (16)		EAST
6/11 - 6/12 THURS. - FRIDAY	13	61.5%	4	0	8 (17)		EAST
6/12 - 6/13 FRIDAY - SAT.	10	60%	3	2	6 (18)		EAST
6/13 - 6/14 SAT. - SUN.	15	60%	2	1	9 (19)		EAST
6/14 - 6/15 SUN. - MONDAY	14	14.3%	2	1	2 (20)		EAST

NO. OF long-term TAG RECOVERIES

TC 5311, 53, 62, 66, 63, 67, 2767, 68, 69, 5318, 70, 71a, 71b, 71c, 71d, 71e, 71f, 71g, 71h, 71i, 71j, 71k, 71l, 71m, 71n, 71o, 71p, 71q, 71r, 71s, 71t, 71u, 71v, 71w, 71x, 71y, 71z, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

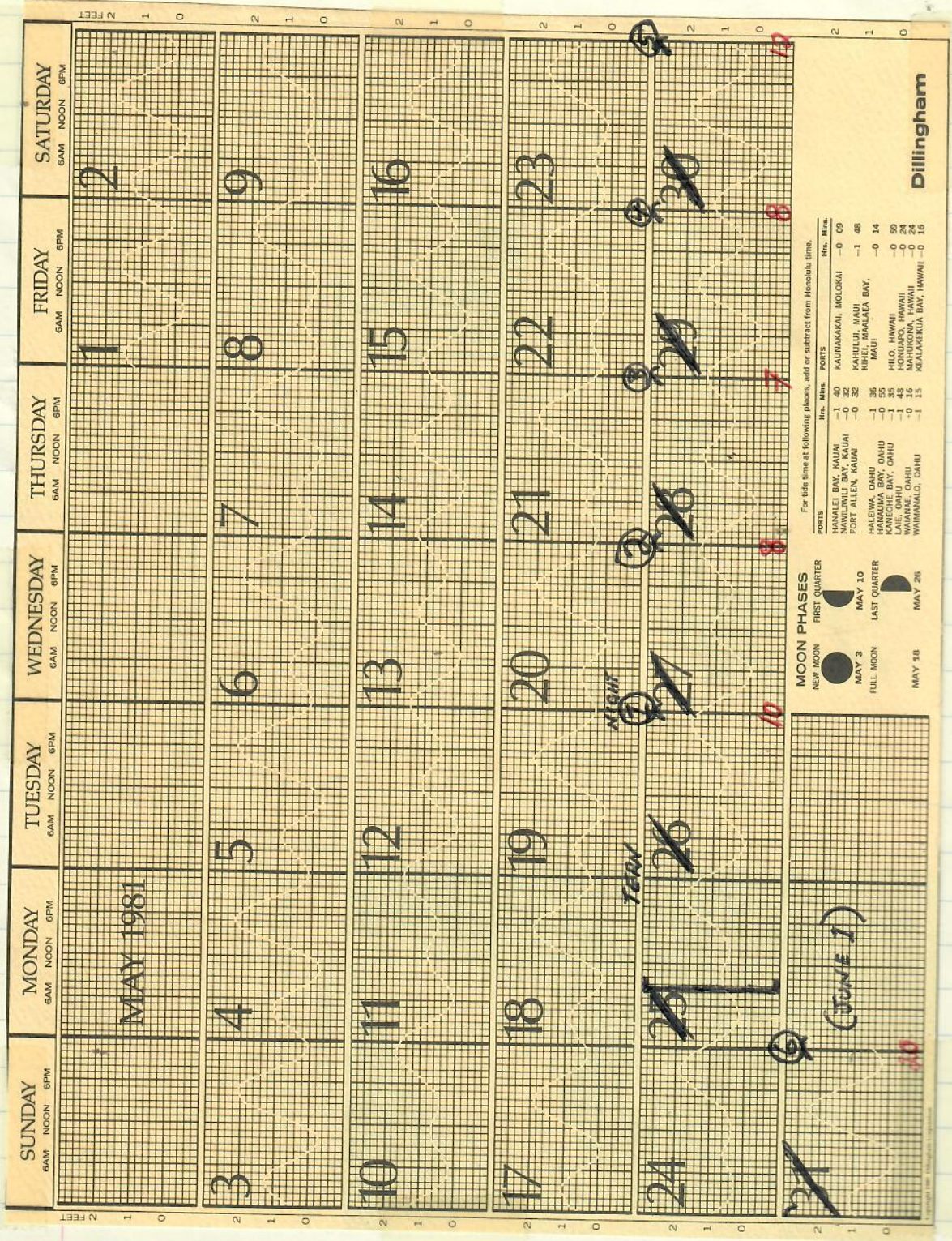
CONTINUED P109

## COURTESY OF THE BISHOP MUSEUM PLANETARIUM

The chart shows the sky from horizon to horizon as seen from the latitude of Hawaii during May 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 chart corresponding with those of the true horizon. Chart by E. H. Bryan, Jr.; astronomical information by Walter R. Steiger, Hawaii Science Center, Bishop Museum. **MERCURY** will be visible in the evening sky, after May 5, soon after sunset in the western sky. Best conditions for observing Mercury occur in the third week of May. **VENUS** is too close to the direction of the Sun to be seen until late in the month when it will become visible in the evening sky low in the west. **MARS** is too close to the direction of the Sun to be seen at any time during the month. **JUPITER** and **SATURN** continue to be close companions in the constellation Virgo. At sunset they will be well up in the eastern sky and set about three hours before sunrise. **JUPITER** is the brighter of the two.

New Moon .....	May 3
First Quarter .....	May 10
Full Moon .....	May 18
Last Quarter .....	May 26

No. = Total number ashore each night



For tide time at following places, add or subtract from Honolulu time.

PLACES	Hrs. Min.	POINTS	Hrs. Min.
KAUNAKAKAI, MOLOKAI	-1 40		-0 09
KAHULUI, MAUI	-0 32		-1 48
KIHEI, MAALAEA BAY, MAUI	-1 35		-0 14
HALEIWA, OAHU	-1 35		-0 59
HANALEIUA BAY, OAHU	-1 35		-0 24
KANEIHE BAY, OAHU	-1 35		-0 24
WAIANAE, OAHU	-1 15		-0 24
WAINANA, OAHU	-1 15		-0 24
KEALAKEKUA BAY, HAWAII	-1 15		-0 16

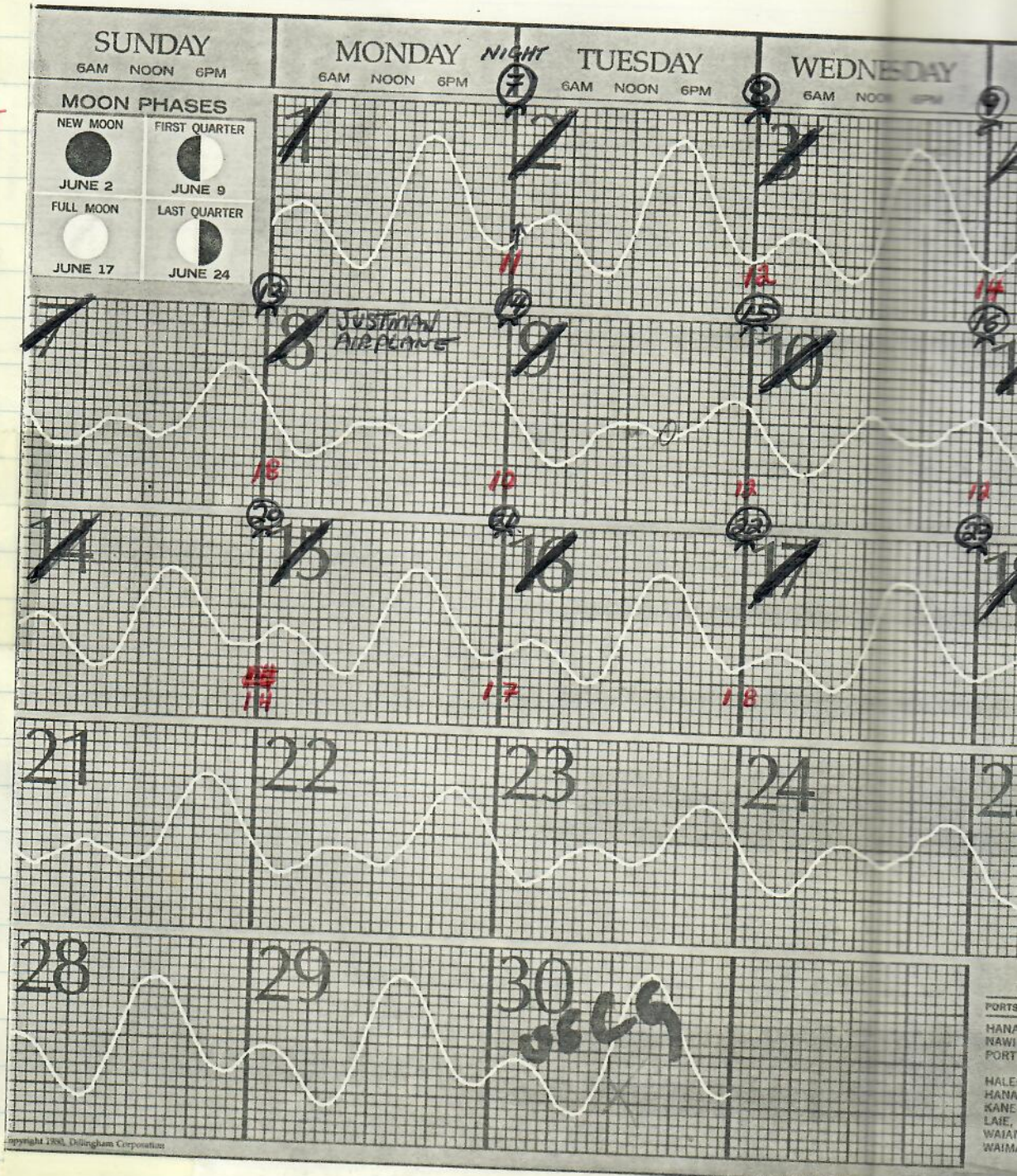
MOON PHASES

NEW MOON	MAY 3
FIRST QUARTER	MAY 10
FULL MOON	MAY 16
LAST QUARTER	MAY 23

Dillingham

# JUNE 1981

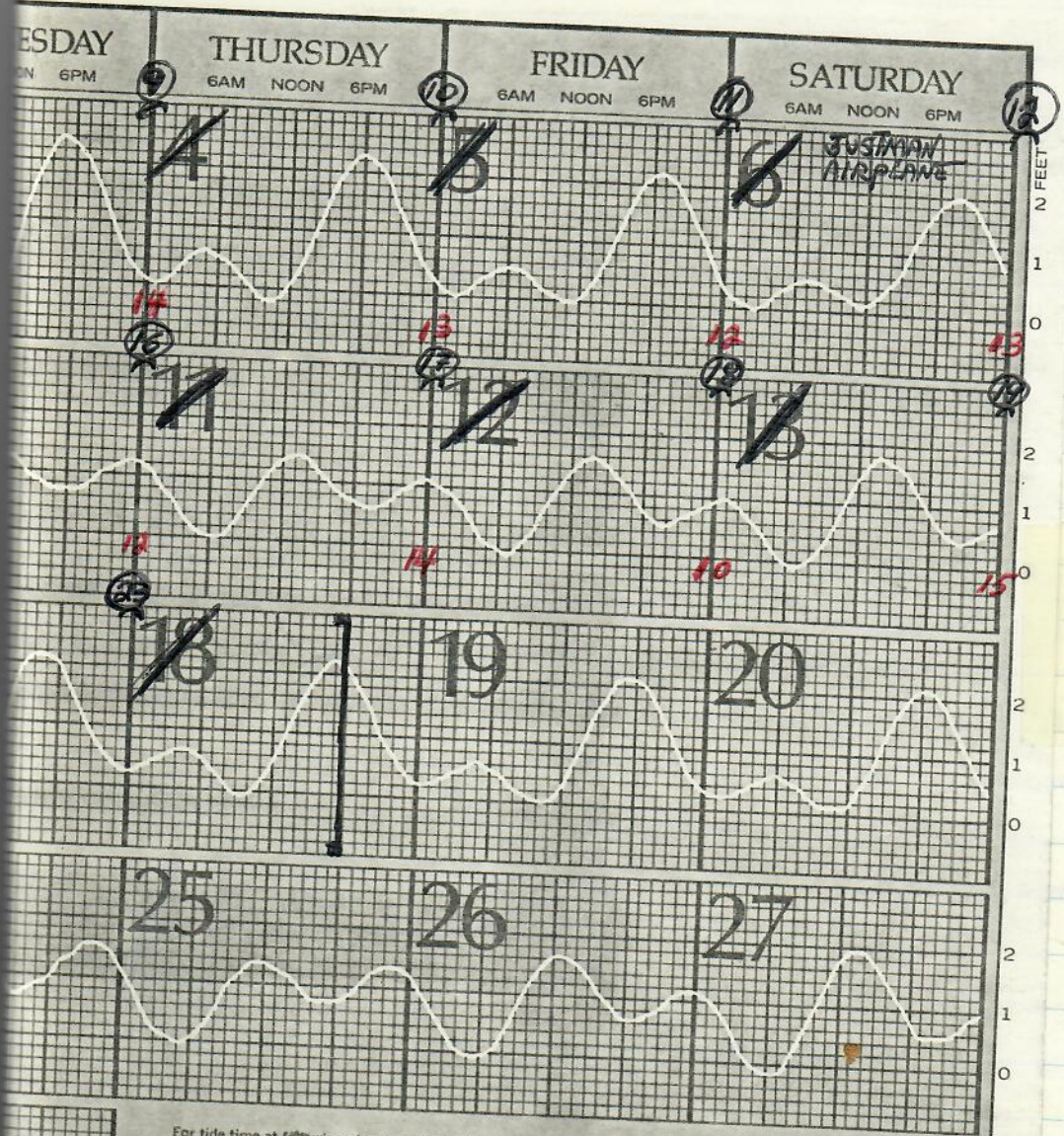
\* No. = Total number  
ashore each night



PORTS  
HANA  
NAWI  
PORT  
HALE  
HANA  
KANE  
LAIE  
WAIAT  
WAIM

**NIHOA**

Sheer cliffs of up to 850 feet occur along the north, east and west shores of this 156-acre island. The south shore has several steep valleys containing prehistoric Hawaiian house sites and agricultural terraces.

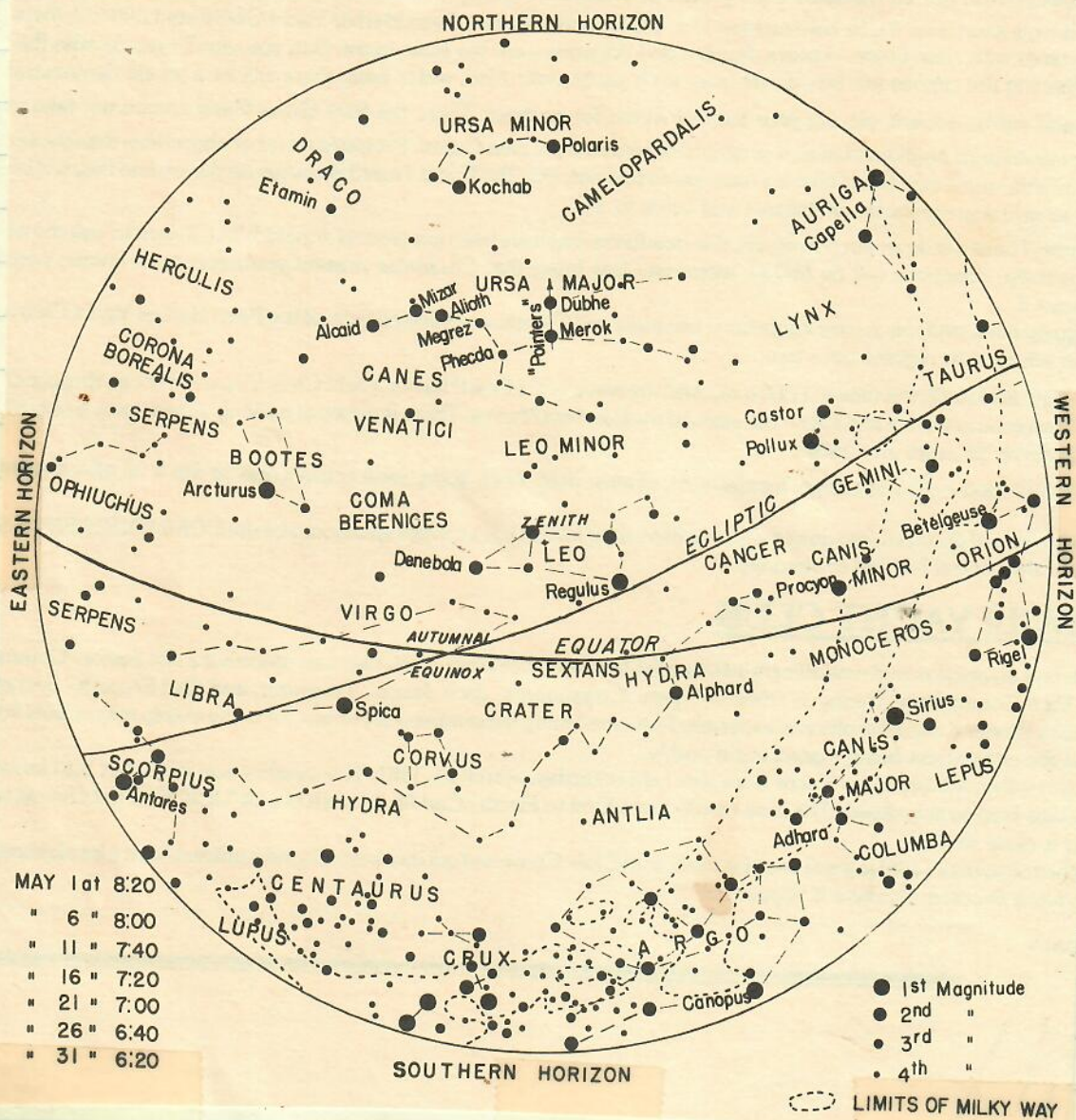


For tide time at following places, add or subtract from Honolulu time.

PORTS	Hrs.	Mins.	PORTS	Hrs.	Mins.
HANAIE BAY, KAUAI	-1	40	KAUNAKAKAI, MOLOKAI	-0	09
NAWILIWILI BAY, KAUAI	-0	32	KAHULUI, MAUI	-1	48
PORT ALLEN, KAUAI	-0	32	KIHEI, MAALAEA BAY, MAUI	-0	14
HALEIWA, OAHU	-1	36	HILO, HAWAII	-0	59
HANAUMA BAY, OAHU	-0	55	HONUAPO, HAWAII	-0	24
KANEIHE BAY, OAHU	-1	35	MAHUKONA, HAWAII	-0	24
LAIE, OAHU	-1	48	KEALAKEKUA BAY, HAWAII	-0	16
WAIANA, OAHU	+0	15			
WAIMANALO, OAHU	-1	15			

Dillingham

# THE SKY FOR MAY 1981



NOTE - "NEW OBSERVED" later in study period may be TC turtles seen at an earlier date that did not get tagged.

DATE  
 6/5 - 6  
 Monday - Tu  
 6/16 - 6  
 Tues - We  
 6/17 - 6  
 Wed - Thu

(Continued from page 103)

O = REESTERS

# NUMBER OF FEMALES PER NIGHT 109

DATE	NO. OBSERVED	% SUCCESSFUL	NEW OBSERVED	OF THOSE, NO. SUCCESSFUL	DAY	% Turtles newly observed ISLAND
6/15 - 6/16/81 Monday - Tues.	17 TC 110, 55, 28, 111, 32, 25B, 60, 24, 16, 36, 108, 41, 65, 38, 44, 43, 50 LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY	52.9%	0	9 No. of Long-term Tag Recoveries	27	EAST
6/16 - 6/17 Tues. - Wed.	18 TC 49, Coralline Turtle, 112, 57, 58, 41, 113, 48, 29, 32, 56, 65, 38, 114, 53, 46, 50, 27 LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY	55.5%	2	10	22	EAST
6/17 - 6/18 Wed. - Thurs.	18 TC 47, 49, 37, 45, 53, 115, 116, 63, 65, 117, 118, 114, 40, 25B, 3734, 50, 59, 3732 LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY, LAY	50.0%	5	9	23	EAST

$\bar{x} = 12.9$   
PER NIGHT

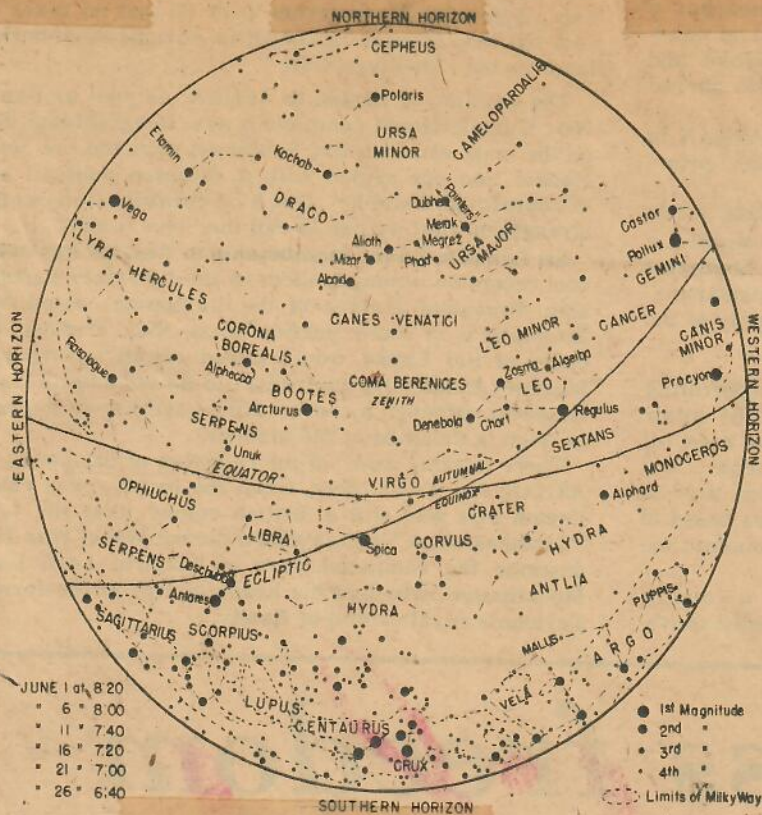
44/80  
Successful

127  
(23 NIGHTS)  
5.5 per NIGHT

44 TAG Recoveries  
Long Term

101  
(14 NIGHTS)  
7.2 per NIGHT





Jupiter, with a magnitude of -1.7, is much brighter than Saturn, whose magnitude is +1.1.

Summer solstice this year occurs at 2 a.m., June 21, Hawaii time. The solstice marks the time of year at which the apparent path of the sun in our sky makes its most northerly sweep. Here in Hawaii, that means that at noon, the sun will actually be 2 or 3 degrees to the north of us, so that we will be able to see our shadows extending to the south! The summer solstice also marks the longest day of the year. In many early cultures a great deal of significance was accorded this special day, marked by ceremonies and celebrations.

The chart shows the sky from horizon to horizon as seen from the latitude of Hawaii during June 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 chart corresponding with those of true horizon. Chart by E. H. Bryan, Jr.; astronomical information by Walter R. Steiger, Hawaii Science Center, Bishop Museum.

Mercury will be visible in the evening, low in the west until about June 14, when it becomes too close to the direction of the sun to be seen.

Venus has been hidden in the sun's brilliance for two months but now reappears in the evening sky, low in the west, as a bright object of -3.3 magnitude, much brighter than Mercury. On June 9, it will pass within 2 degrees of Mercury and is headed for a meeting with Saturn and Jupiter in late August.

Mars, too, has been hidden in the sun's brilliance for several months and in early June makes its reappearance in the eastern sky in the early morning prior to sunrise. It is a reddish object of +1.7 magnitude.

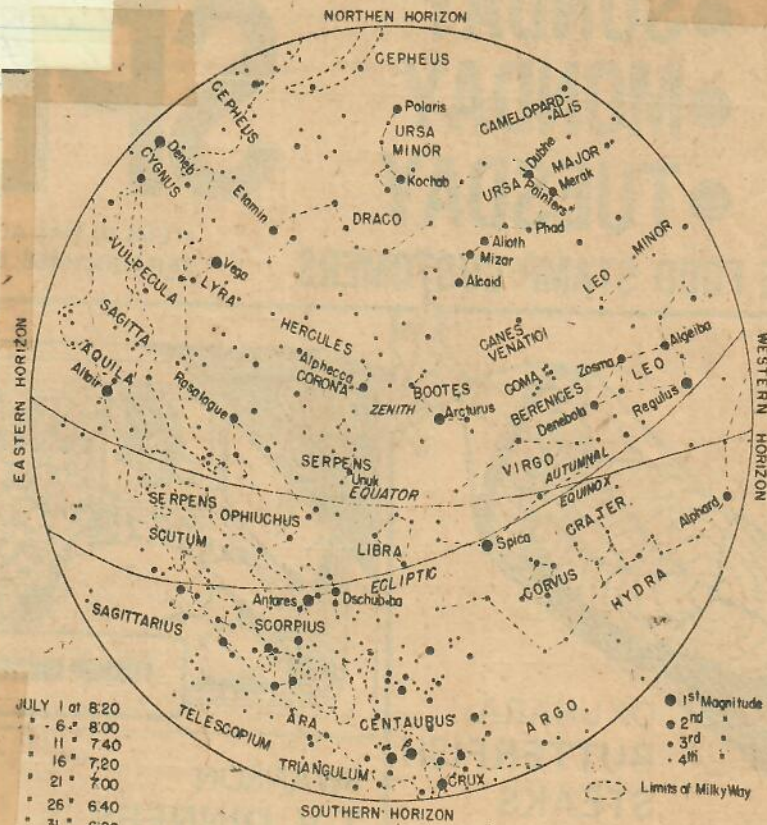
Jupiter and Saturn continue to be the close companions that have been so prominent in the eastern evening skies. Each planet is rising earlier each day so that they appear higher in the evening sky after dark. By late June, they will be almost directly overhead in the early evening.

## CLIMATIC

DATE	SEAWATER C°	OBSERVATIONS
5/25-8 Monday	ARRIVE FFS ~230 PM	starting at Nihoa - calm, about glassy afternoon
5/26 Tuesday	ON EAST ISLAND	Glassy - no wind - N-NW light wind
5/27 Wed		Some NW swell. N-NE wind. Moderate N wind - cool
5/28 Thursday		moderate - light rain 5/28 - 5/29 wind - seas
5/29 Friday	SUN AT ZENITH TODAY ~1230 PM ON KAWAI	AM LIGHT WINDS - clear & sunny OVERCAST IN THE AFTERNOON
5-30 Saturday	26.8°C	AM - LIGHT WINDS, CALM SEAS. Reasonably calm motor to W-S. overcast
5-31 Sunday		
6-1 Monday	27°C	moderate trades
6-2 Tuesday		short rain during AM just before twilight.
6-3 Wed.	29°C	
6-4 Thurs.		
6-5 Friday	27.8°C	trades up moderate in the afternoon
6-6 Saturday	28°C	
6-7 Sunday		Moderate trades - sunny all day
6-8 Monday		light rain shower AM - sunny day, but overcast & blk rain showers late afternoon
6-9 Tues.		Sunny - TRADES up more (MODERATE SLOWLY)
6-10 Wed.		BrisK Trades & Sunny
6-11 Thurs.	28°C	calm seas. light trades
6-12 Friday		short rain in AM dark; Hot, light winds, shifting E-NE to SW
6-13 Saturday	28°C	light winds - SE
6-14 SUN.		Strong trades until ~2 PM - then light - calm seas.
6-15 Monday		Light winds, calm seas, sunny
6-16 Tues.	28°C	Light wind, calm seas, sunny all day.
6-17 Wed.		Light wind, calm seas - sunny
6-18 Thurs.	~27.1°C close to east ~27°C deep water between Base & Round	early AM - short rains, late PM - short rains. Several short, moderate hard rains during AM.

A-26 Honolulu, June 28, 1981 The Sunday Star-Bulletin & Advertiser

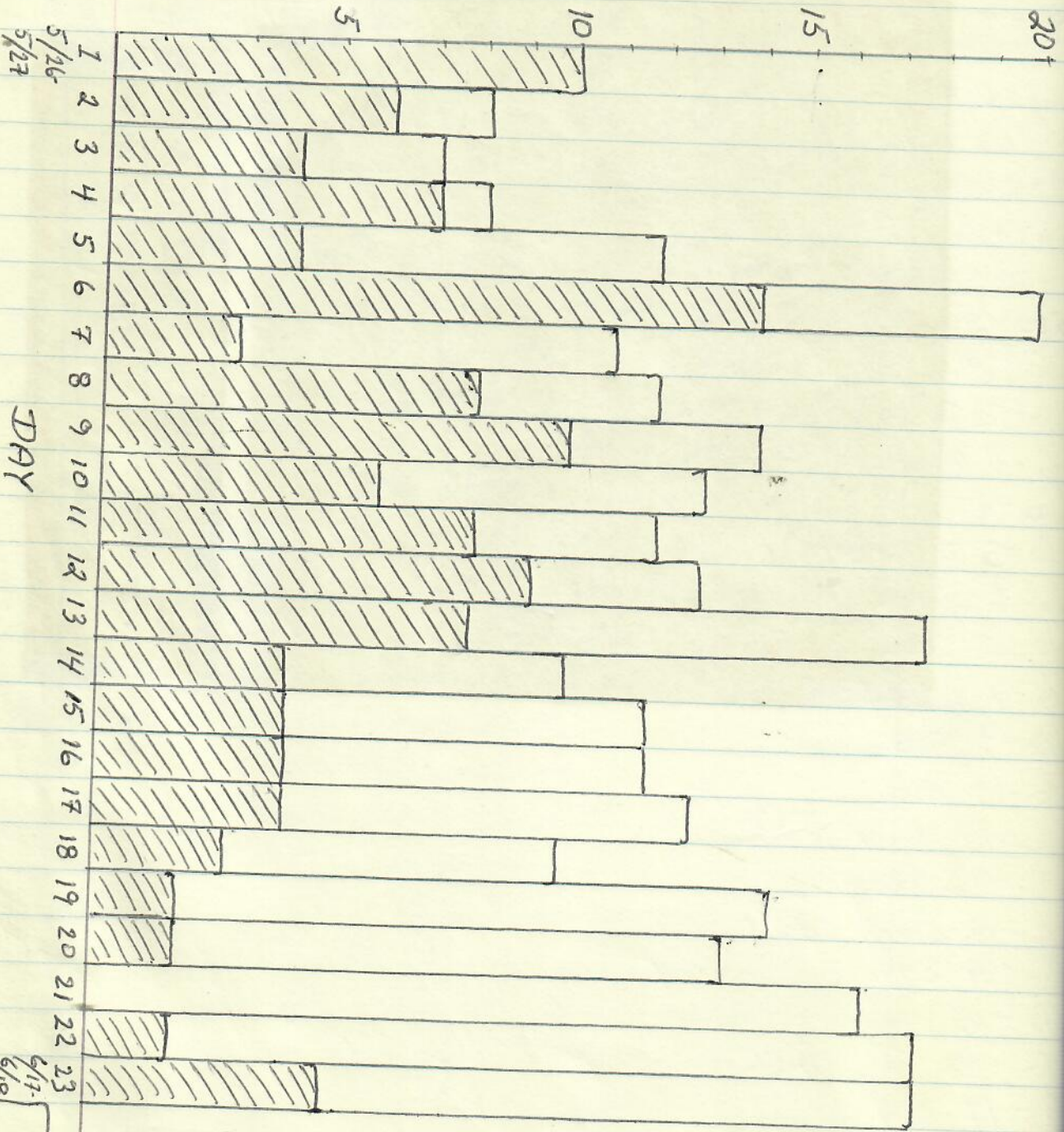
# hawaii's skies in july





JULY	at	8:20
-6	8:00	
11	7:40	
16	7:20	
21	7:00	
26	6:40	
31	6:20	

● 1<sup>st</sup> Magnitude  
● 2<sup>nd</sup>  
● 3<sup>rd</sup>  
● 4<sup>th</sup>  
○ Limits of Milky Way

Number  
of  
NESTERS  
1981



 NEW SEEN  
 TOTAL SEEN  
 5/17  
 5/18

## PHOTO LOG

- ROLL NO. DATES SUBJECTS
- EL  
1 ASA-25 5/25/81 - Barber's Pt - Campbell indust. park harbor; Barking Sands; NIHOA; 5/27 - A2 Tag (3742) basking in front of Seal; ♂ and female w/ ♀'s flipper over ♂'s carapace; 2 photos of basker A16 with 250mm lens; 5/29 4PM - ~ 9 photos of cluster of baskers at SEP; 5/30 SAT. - Seal w/ flipper over basking turtle, 250mm and 55mm; TCB next to NOTC basker 250mm - SAVE LAST PHOTO
- ROLL 2  
ASA 64 5/30 AM - TC 20 (5016); TC 25; TC 22; 5/31 5PM BASKERS at NEP, SEP - Seal & Turtle together; 2 photos of TC 25 basking, laying eggs in Area 17 behind the tent. 6/2 4PM TAG 508 - ♀ 2 photos w/ telephoto BASKING, A12 (type specimen); Albatross young by basker; Rows of baskers, back-to-back; (Adv H seal w/ sand on face. PHOTO #1 on Roll 3)
- EL 3  
ASA 64 6/2 11PM - many flash photos of TC 47 - tag (3715, 5238-39) + covering nest nesting in area 17 behind tent - initial settings of red f4, 5.6 then blue f4-5.6. 6/3 WEDNESDAY BASKING turtle ♂ w/ 2 Boobys; 6/3 1PM copulation attempt - ♀ perched up to resist.
- BLACK & WHITE 6/4 AM TC 58 Area 1 Flash (3182 chin's reef recovery)
- ROLL 1 6/5 Seal pup in tent; 6/5 8PM to nest tag 5311;
- PX-ASA 125 6/6 6:30PM BASKERS at SEP; 6/7 3:30PM 3 views of ♂ and ♀ baskers together at NEP; TC 44 (Trans 450) basking at NEP;
- ROLL 4  
ASA 64 6/7 6PM Basker partly on top another basker; TC 44 tags 450; Seal w/ back pup and wean pup; 6/8 2AM - TC 76 by tent; TC 71; MORNING - copulation ashore on Sand Point - tele & 55mm. 6/9 MONDAY - tele. of basker showing front flipper width; BASKERS, seal & noddys on NEP; Seal nursing very young pup; LYP by basking male.

ROLL NO

ROLL 5  
ASA 64  
ELROLL  
ASA 64

EL

ROLL 8  
ASA 64

EL

ROLL NO.	DATES	SUBJECTS
ROLL 5 ASA 64 EL	6/10 Wednesday	Immature masked Booby standing on Basking Turtles;
	6/12 Friday	Immature booby standing on basking turtles; head-on of basking female, showing tags on scales of both flippers - ALL at SEP.
	6/15 Monday	TC 96 (thick), seals & turtles; Group of BASKER- NOTE - None of these may have turned out good because telephoto not coupled properly - Last 2 should be O.K.
ROLL 6 ASA 64 EL	6/15 Monday	1) AREA view of EAST; Group of baskers through telephoto; BASKER showing width of left front flipper; Fledgling BFA with regurgitated casting;
	6/16 12:30 AM	TC 16 by RUSTING GENERATOR; TC 108 BROWN - before sprayed - 44; TELLO (FLASH)
	6/17 1 AM	TC 58 Area 3; 6/17 Wednesday AREA views of EAST from top of concrete Pyramid; uncovered area of slab; "Mustard" colored male A10; TC 107 (showing white spot in lateral); Sunset at Sand Point.
ROLL 8 ASA 64 EL	6/18 AM	TAG TC-59 5294 on reef flat off Area 2; Aerials of TRIG & W-S.

Photo Needs: 1) <sup>color</sup> BW of albatross w/regurgitation 2) Me by tent  
3) <sup>roll 6</sup> Area views from top of Pyramid 4) <sup>roll 6</sup> Ground where slab was 5) basking turtle on Tern Is. 6) W-S, Trig area views 7) caliper measuring flipper

## METRIC SYSTEM WITH U.S. EQUIVALENTS

### METRIC UNIT (1) U.S. EQUIVALENT

#### 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

#### AREA

square centimeter	(cm <sup>2</sup> )	0.155 sq. inches
square meter	(m <sup>2</sup> )	1.196 sq. yards
are	(a)	119.60 sq. yards
hectare	(ha)	2.47 acres
sq. kilometer	(km <sup>2</sup> )	0.3861 sq. miles

#### 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

### METRIC UNIT (1) U.S. EQUIVALENT

#### VOLUME

cubic centimeter	(cm <sup>3</sup> )	0.061 cubic inches
cubic decimeter	(dm <sup>3</sup> )	0.0353 cubic feet
cubic meter	(m <sup>3</sup> )	1.31 cubic yards
cubic decameter	(Dm <sup>3</sup> )	13.10 cubic yards

#### 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

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