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WBK 30 Mar 71

PRELIMINARY REPORT

SOUTHERN GRID SURVEY NO. 17

15-18 July 1968

Prepared
by

Richard S. Crossin

SOUTHERN GRID
15-18 July 1968

During the period 15-18 July 1968 Smithsonian personnel Richard S. Crossin, Roger B. Clapp, and C. Douglas Hackman made observations in portions of the Southern Grid in conjunction with Howland and Baker Island surveys on SIC 19. Observation hours amounting to 11.1 and covering 120 miles were conducted during the three-day period. The small portion of the grid covered does not permit for an overall comparison by separate areas; hence no breakdown by square degree sections is included. The Grid was entered at 1812 on 15 July at 02°00' S, 175°11' W and departed at 1636 on 18 July at 02°00' N, 176°11' W.

Numerous flocks were encountered along the entire track from ca. 20 miles south of Baker to ca. 20 miles north of Howland. These were primarily Sooty Terns with associated frigates and Blue-faced Boobies. Direction of movement of most traveling flocks taken in conjunction with time of day and flight behavior leave little doubt that Howland was the origin of the vast majority of birds. All three groups are currently nesting on Howland. The present populations of Sooty Terns and Lesser Frigatebirds are among the highest recorded for the island, and they attest to the abundance of food in the vicinity of both Howland and Baker. The area about Baker has previously been the focus of heavy feeding activities, especially during the extended 1966 Sooty Tern breeding cycle. During the present cruise, however, huge mixed flocks of terns, boobies, and frigates were feeding directly offshore Howland. These could be readily seen from the island. No comparable activity has ever been noted on previous trips. Coast Guard personnel aboard the PLANETREE informed me that variable numbers of schooling tuna were in sight almost continuously during the two days the ship was anchored offshore Howland. The entire vegetation on Howland (as well as on Baker) attests to long periods of drought since the last surveys made in early 1967. [Whether or not this factor has any correlation with increased water productivity is unknown.] Recent rainfall has not yet produced noticeable changes in the vegetation.

Species Accounts

Only those species with additional information are discussed below; for total avifauna encountered in the Grid, see Table 2.

Wedge-tailed Shearwater (Puffinus pacificus)

26

All birds were dark phase. Although a small colony of Wedge-tails was found nesting on Howland during the present cruise, it is doubtful whether the colony is large enough to account for the at-sea numbers recorded. What is more likely is that pre- or post-breeding birds from the neighboring Phoenix Islands are being attracted to the rich feeding areas about Howland and Baker. Practically all birds were recorded on

16 July between the two islands. Other than a few scattered sightings of small Pterodroma, Wedge-tails were the only Procellarids recorded in the Grid.

Blue-faced Booby (Sula dactylatra)

44

This species was commonly observed both between Howland and Baker and to the north of Howland. Although commonly associated with feeding flocks, Blue-faced Boobies often feed solitarily or in pairs. During the present cruise, birds on Howland were noted to regurgitate a considerable number of fish species other than the usual flying fish. The increased tuna activity in the area possibly is allowing the boobies to take advantage of small bait fish being driven to the surface.

Frigatebirds	Greater	0
	Lesser	1
	Unidentified	15

The Lesser Frigatebird colony presently breeding on Howland is apparently the largest yet recorded. Despite great numbers of birds in the area, at-sea frigate sightings are surprisingly low. As has been suggested in the at-sea report, the reason for this is the widely scattered, high-altitude mode of feeding, of members of this group.

Sooty Tern (Sterna fuscata)

909

The breeding colony presently situated on Howland is primarily in the fresh-to-advanced incubated egg stage, but new subcolonies are still in the swirling stage. The long extended breeding cycle which occurred through most of 1966 and early 1967 is apparently to be repeated, and large numbers of terns can be expected in the Howland-Baker area for at least the next three to five months. The birds have switched nesting grounds to the end of the island opposite from that occupied during 1966, but streamered birds and band returns from the present colony indicate that only formerly Howland-based birds are currently utilizing the island. During the present cruise band returns on this species represent bandings from previous cruises for practically every month of the year. We are still far short of demonstrating any definite breeding period for this species on Howland, if one exists.

Table 1. Summary of Southern Grid observations, 15-18 July 1968.

<u>Date</u>	<u>No. Hours</u>	<u>No. Miles</u>	<u>No. Birds</u>	<u>Birds/Lin.Mi.</u>
15 July	1.6	16	51	3.2
16	3.2	35	778	22.2
18	<u>6.3</u>	<u>69</u>	<u>186</u>	<u>2.7</u>
TOTAL	11.1	120	1015	8.5

Table 2. Birds recorded in the Southern Grid, 15-18 July 1968.

	<u>15</u>	<u>16</u>	<u>18</u>	<u>Total</u>
Wedge-tailed Shearwater	-	24	2	26
Black-winged Petrel	-	-	1	1
White-winged Petrel	-	-	1	1
<u>Pterodroma</u> sp.	-	-	3	3
shearwater/petrel	-	1	-	1
Red-tailed Tropicbird	-	2	2	4
Blue-faced Booby	2	29	13	44
Brown Booby	-	1	1	2
Red-footed Booby	-	1	2	3
booby species	-	1	-	1
Lesser Frigatebird	-	-	1	1
frigatebird species	7	7	1	15
Sooty Tern	42	711	156	909
Fairy Tern	-	1	2	3
Skua	-	1	-	-
	<u>51</u>	<u>779</u>	<u>185</u>	<u>1015</u>
Cetacean	-	6	-	6

Table 3. Density of species groups in the Southern Grid.

<u>Group</u>	<u>No. Birds</u>	<u>Birds/Sq.Mi.</u>	<u>% Total Birds</u>
Shearwater/Petrel	32	0.11	3.2
Tropicbirds	4	0.02	0.4
Booby	50	0.21	4.9
Frigatebird	16	0.03	1.6
Tern	912	2.53	89.8
Skua	<u>1</u>	0.01	0.1
	1015		

Table 4. Flocks recorded in the Southern Grid, 15-18 July 1968.

Date	Time	No. Birds	Type Flock
15 July	1818	31	traveling
	1830	7	searching
	1842	6	traveling
16 July	0750	6	"
	0752	5	"
	0758	6	"
	0806	8	"
	0820	101	feeding
	0822	125	"
	0825	13	traveling
	1420	52	"
	1422	8	"
	1445	47	"
	1453	67	feeding
	1455	8	traveling
	1456	12	"
	1458	98	feeding
	1502	8	traveling
	1505	9	"
	1510	19	"
	1515	5	"
	1517	5	"
1519	9	"	
1531	16	"	
1534	10	"	
1536	6	"	
1537	20	"	
1541	5	"	
18 July	1023	5	"
	1210	18	"
	1233	10	searching
	1256	102	feeding
	1310	9	traveling
	1334	7	"
Summary:		<u>No. Birds</u>	<u>% of Total</u>
# Traveling Flocks:	27	353	41
# Searching Flocks:	2	17	2
# Feeding Flocks :	<u>5</u>	<u>493</u>	57
TOTAL	34	863	

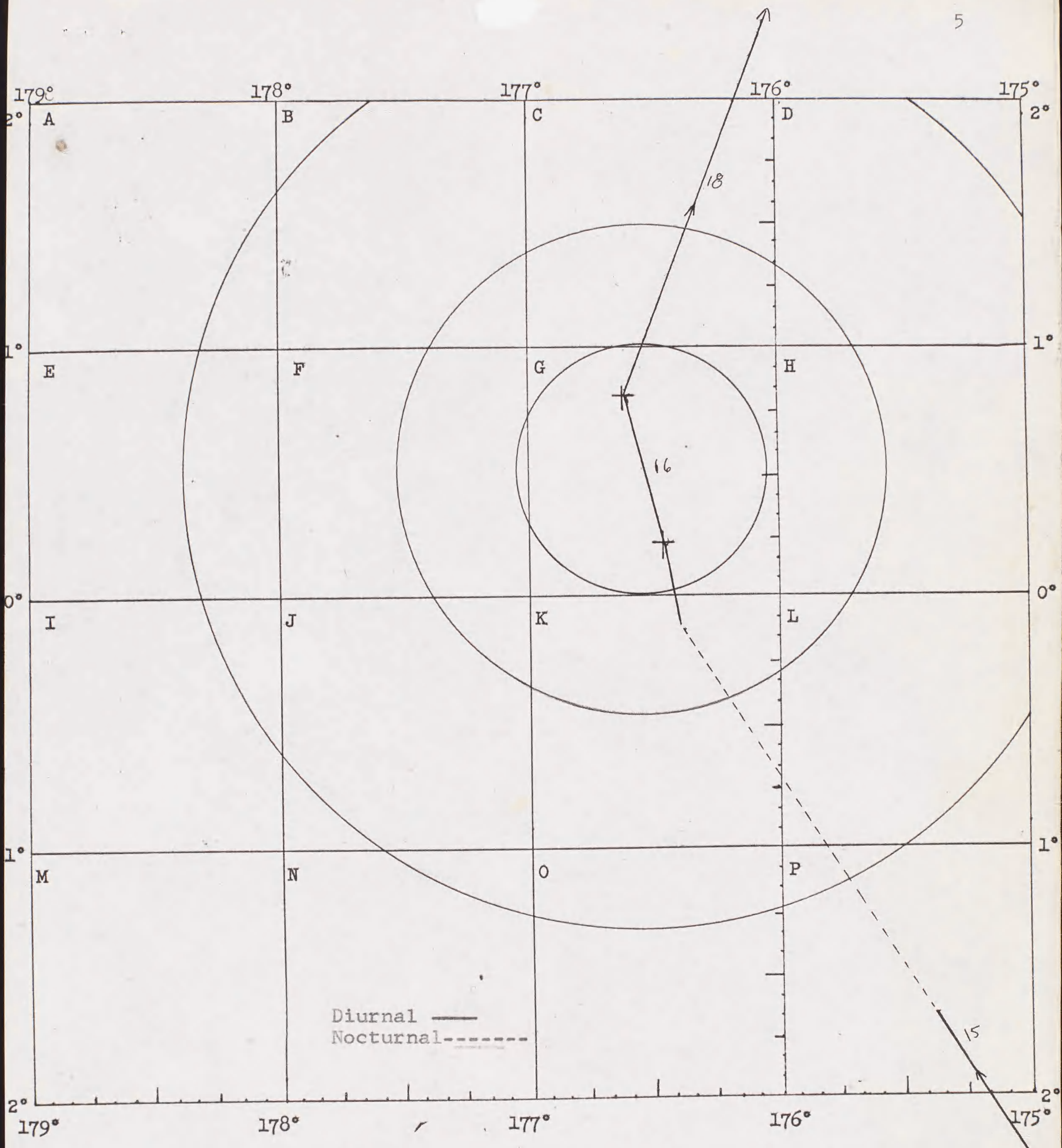


FIG. 1. Southern Grid cruise track, 15-18 July 1968.

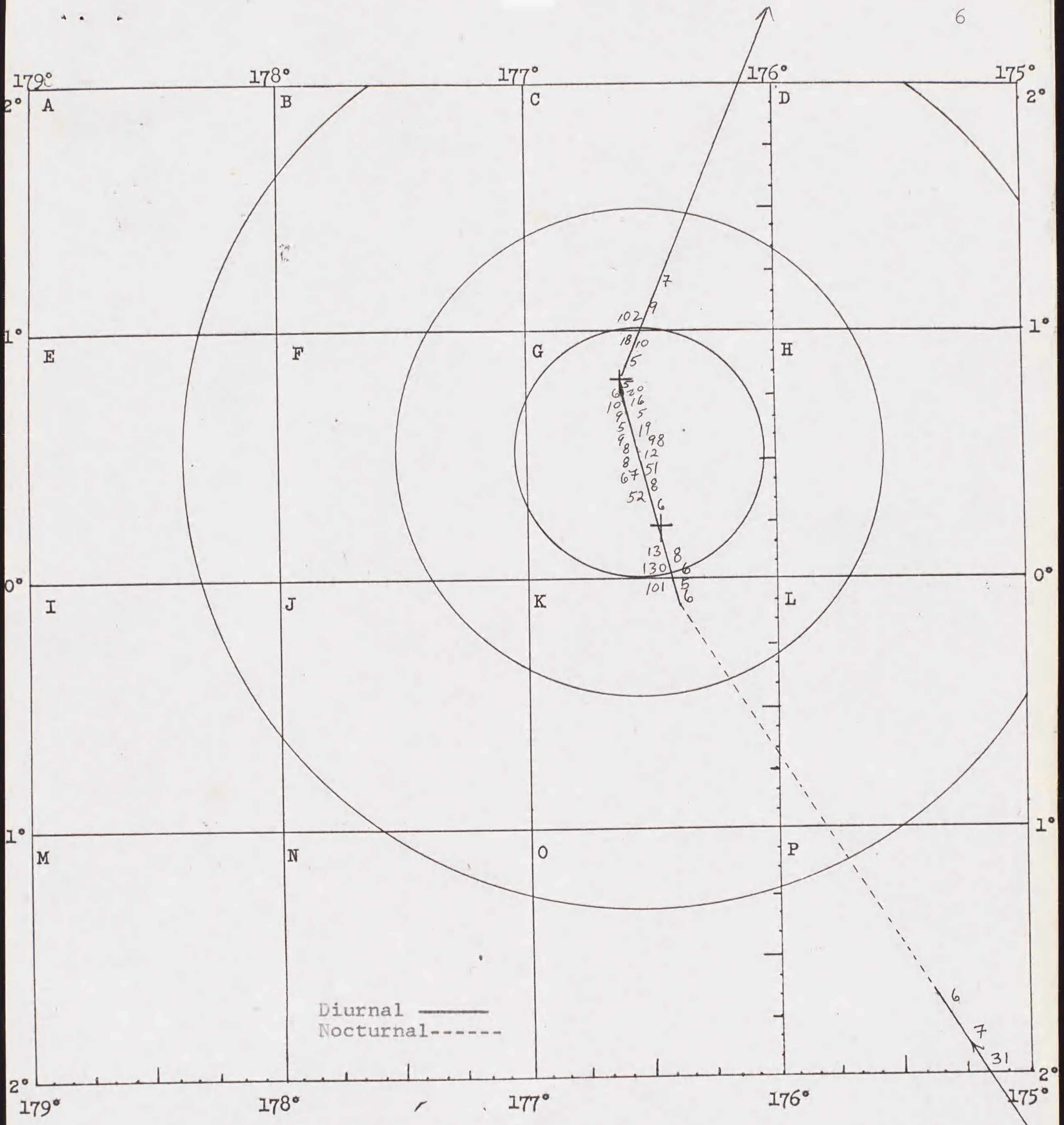


Fig. 2. Distribution of flocks in the Southern Grid, 15-18 July 1968.

RLP

Preliminary Report

Northern Grid Survey No. 38

SIC #19

21 July 1968

Prepared

by

Richard S. Crossin

Preliminary Report

Northern Grid Survey No. 38
21 July 1968

Northern Grid

During 21 July 1968, Smithsonian personnel (R. S. Crossin, R. B. Clapp, and C. D. Hackman) conducted at-sea observations through the Northern Grid on the U.S.C.G.C. PLANETREE.

Observations were somewhat hindered by rough seas and intermittent rain squalls throughout the day: No nocturnal observations were made.

Sightings consisted primarily of single individuals of the shearwater/petrel group, notably Juan Fernandez, White-necked and Black-winged Petrels. Five Wedge-tailed Shearwaters were seen, four of these dark phase. One small feeding flock of 15 Sooty Terns were recorded late in the afternoon; an immature was recorded earlier.

TABLE 1. Summary of Northern Grid Observations, 21 July 1968.

	<u># hours</u>	<u># miles</u>	<u># birds</u>	<u>birds/lin.mile</u>
21 July	12.8	141	53	0.38

TABLE 2. Birds Recorded in the Northern Grid, 21 July 1968.

Wedge-tailed Shearwater	5
Juan Fernandez Petrel	8
White-necked Petrel	3
Juan Fernandez/White-necked	2
Black-winged Petrel	12
Pterodroma sp.	4
White-tailed Tropicbird	1
Sooty Tern	17
Fairy Tern	1
	<u>53</u>

TABLE 3. Composition of birds by species groups in the Northern Grid, 21 July 1968.

	<u># birds</u>	<u>Birds/sq. mile</u>	<u>% of total birds</u>
Shearwater/Petrel	34	0.12	64
Tropicbird	1	0.004	2
Tern	18	0.042	34

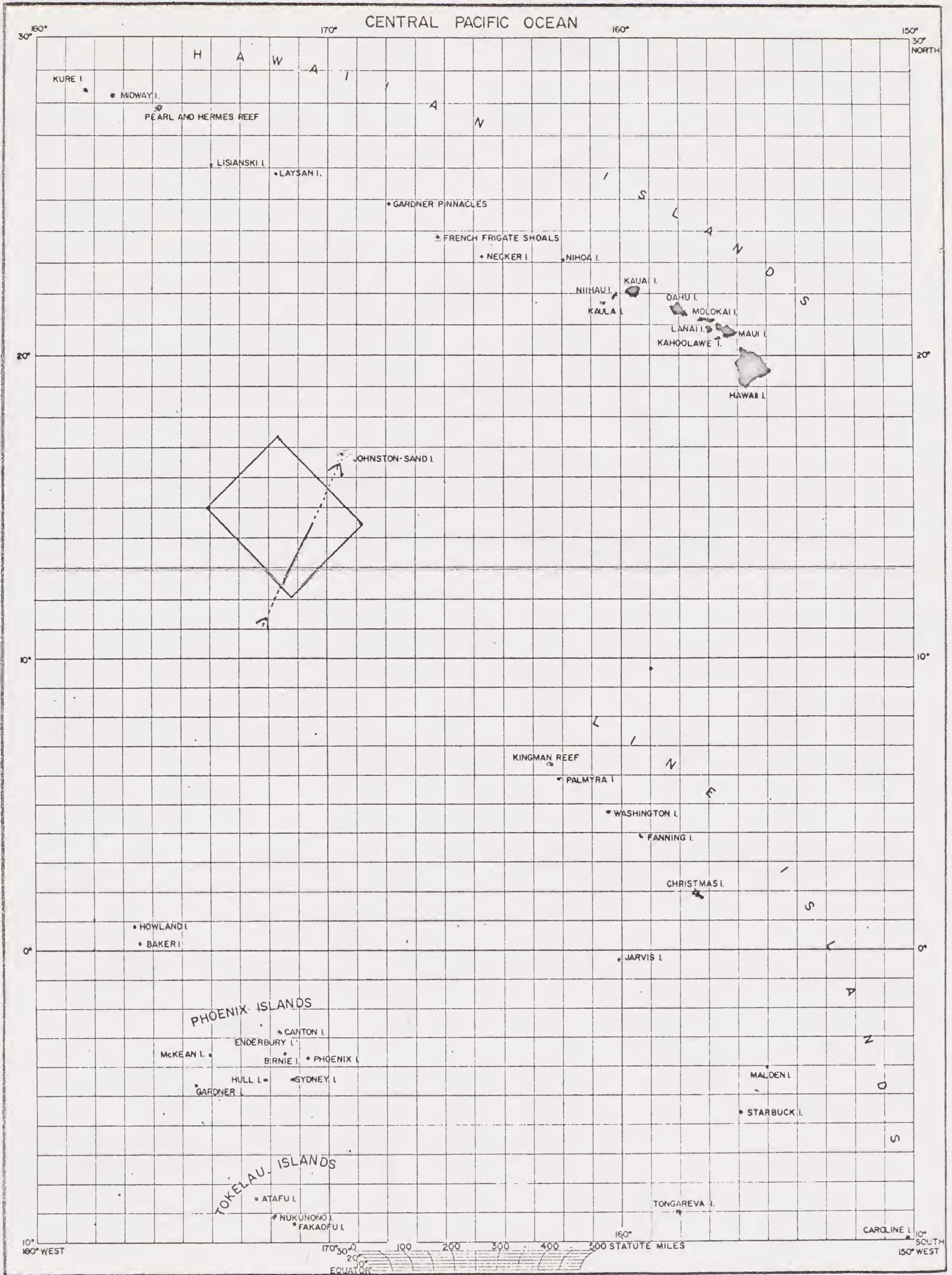


Fig. 1. SIC 19 Cruise Track through Northern Grid, 21 July 1968.
Diurnal —
Nocturnal - - - -

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PRELIMINARY REPORT

PELAGIC OBSERVATIONS

SOUTHERN ISLAND CRUISE NO. 19

8 June-20 July 1968

Prepared

by

Richard S. Crossin

Preliminary Report
Pelagic Observations
SIC 19 At-Sea

During the period 8 June to 20 July 1968, 111.6 hours of diurnal at-sea observations covering 1156 miles were recorded. Observations were conducted from Oahu to Fanning Island by Smithsonian personnel Roger B. Clapp and C. Douglas Hackman. No observations were made from Fanning to Samoa. At Samoa Richard S. Crossin joined the cruise. Observations were continuous from Samoa to Sand-Johnston except when island landings were being made.

The cruise was made aboard the U.S.C.G.C. PLANETREE. Both officers and enlisted men aboard the vessel lent support at island landings and during other phases of the operation. However, the vessel was fully staffed and working quarters were at a premium. Since the Coast Guard personnel had their own services to perform and were on a fairly rigid schedule, I did not attempt any at-sea collecting. At any rate, we had no small skiff aboard and the ship's crew was not equipped to make at-sea pick-ups.

No exceptionally large concentrations of birds were found anywhere. Medium densities (primarily Sooty Terns) were found near the Hawaiian Islands and throughout the Phoenix Islands. Breeding colonies now present on many of the Phoenix group easily account for higher surrounding at-sea densities. Sooty Terns accounted for roughly 60 percent of total birds.

In the following species accounts, only the major forms are discussed; for total avifauna, see Table 2.

SPECIES ACCOUNTS

Wedge-tailed Shearwater (Puffinus pacificus) 166

Light phase individuals were encountered on 8 June, the first day south of Oahu (to 20° N); thereafter practically all were dark phase south to Samoa and north to Johnston Atoll. Wedge-tails were common between Oahu and the Line Islands and between the Northern and Southern Grids.

Newell's Shearwater (Puffinus puffinus newelli) 5

Three were noted near the Hawaiian Islands and singles noted on 11 and 12 June in the Line Islands.

Audubon's Shearwater (Puffinus lherminieri) 15

All 15 birds were encountered in a large mixed feeding flock about 11 miles north of McKean on 15 July. These most likely were birds of that island.

Juan Fernandez Petrel (Pterodroma externa externa) 26
 White-necked Petrel (P. e. cervicalis) 8
 unidentified 2

Practically all sightings of these two races were from ca. 6-7°N and northward. Both subspecies were encountered together over much of the occupied range, but White-necks were only about one third as abundant as Juan Fernandez.

Black-winged Petrel (Pterodroma hypoleuca nigripennis) 59

Distribution of this species roughly paralleled that of the large Pterodroma externa forms, with greatest numbers north of 6°N. The majority of 42 unidentified Pterodroma are most likely referable to this race.

Bulwer's Petrel (Bulweria bulwerii) 22

Seventy-seven percent of the birds seen were recorded just south of Oahu on 8 June.

Storm Petrels 3

One White-throated Storm Petrel (Nesofregatta albigularis) was seen just north of McKean, one of the breeding islands. Two Leach's (Oceanodroma leucorhoa) were recorded between McKean and the Southern Grid. Although the bulk of the population of Leach's would be expected to be on the Alaskan breeding grounds at this time, past summer cruises through the equatorial belt have recorded low densities of non-breeders.

Tropicbirds	Red-tailed	6
	White-tailed	19

Both species in low numbers throughout the cruise. The only high density was the expected White-tail just north of Samoa, one of the major breeding grounds in the south.

Boobies	Blue-faced	9
	Brown	2
	Red-footed	19

Low numbers of all three species throughout. Most of the Red-foots recorded off Fanning Island on 12 June.

Frigatebirds	Greater	1
	Lesser	2
	Unidentified	12

A few singles encountered with mixed feeding flocks, usually near breeding islands. Our at-sea observations never reflect the numbers present, not even near islands with immense breeding populations as on McKean during the present trip. I believe this can be mainly attributed to the frigatebird's mode of foraging in that individuals space themselves over a wide area and usually remain at high altitudes until a ready source of food is apparent on the surface.

Sooty Tern (Sterna fuscata) 984

Sooty Terns comprised 62 percent of total birds recorded. There were no real concentrations; the expected higher densities existed around islands with breeding populations. Medium to large feeding flocks were noted north of the Southern Grid on 18 July; these presumably were from the large population now present on Howland Island. This particular area has usually been quite devoid of terns during past seasons even when large concentrations were breeding on Howland. A few small feeding flocks were encountered at 5° N on 19 July. These presumably marked the area of rich waters along the current boundary where huge concentrations of both Sooty Terns and Wedge-tailed Shearwaters have periodically been noted on previous cruises. On 22 July, offshore Johnston Island, Hackman and I observed several Sooty Terns being savagely pursued by Great Frigatebirds. The terns were noted finally disgorging food which the frigates deftly scooped up. This is the first time that either of us have seen Great Frigates pursuing Sooty Terns, although Lesser Frigates do so commonly in the south.

Common Noddy (<u>Anous stolidus</u>)	15
Hawaiian Noddy (<u>Anous tenuirostris</u>)	7
Blue-gray Noddy (<u>Procelsterna cerulea</u>)	25

Practically all noddies were recorded in a large mixed feeding flock about 11 miles north of McKean. All three species are abundant residents of that island.

Fairy Tern (Gygis alba) 109

Several concentrations were noted: near Fanning Island on 12 June, throughout the Tokelau Islands, and just north of McKean. These appear to represent respective local populations.

Table 1. Summary of at-sea observations (excluding Northern and Southern Grids), 8 June-20 July 1968.

<u>Date</u>	<u>No. Hours</u>	<u>No. Miles</u>	<u>No. Birds</u>	<u>Birds/Lin. Mi.</u>
8 June	5.8	58	132	2.26
9	13.2	132	132	1.00
10	12.8	128	58	0.45
11	12.2	122	214	1.76
12	8.4	84	80	0.95
6 July	11.4	114	19	0.17
7	11.7	117	260	2.22
12	3.1	31	104	3.35
15	4.9	49	227	4.63
18	3.3	36	209	5.81
19	12.3	135	124	0.92
20	12.5	150	32	0.21
TOTALS	111.6	1156	1591	1.33

Table 2. Daily occurrence of species at-sea, 8 June-20 July 1968

	June					July					Total		
	8	9	10	11	12	6	7	12	15	18		19	20
Wedge-tailed Shearwater	22	23	10	29		5	2	1		33	33	8	166
Christmas Shearwater		1							1				2
Newell's Shearwater		3		1	1								5
Audubon's Shearwater									15				15
Juan Fernandez Petrel		2	4	10						1	2	7	26
White-necked Petrel		3	2	1								2	8
<u>Pterodroma externa</u>												2	2
Phoenix/Tahitian Petrel											1		1
Black-winged Petrel		6	12	7	8			3	6	4	4	9	59
<u>Pterodroma species</u>	1	9	20	2	2	1	1			3	2	1	42
Bulwer's Petrel	17	2	1									2	22
shearwater/petrel		9	2	1	1				1		1		15
White-throated Storm Petrel									1				1
Leach's Storm Petrel									2				2
Red-tailed Tropicbird		1	1	2				1	1				6
White-tailed Tropicbird		2			1	10	3		1		2		19
Blue-faced Booby								5	4				9
Brown Booby									2				2
Red-footed Booby	5				12			2					19
Great Frigatebird				1									1
Lesser Frigatebird							1		1				2
frigatebird species	1	3		1					2	5			12
Sooty Tern	78	65	2	158	13	2	207	80	136	163	79	1	984
Gray-backed Tern								5	1				6
Common Noddy	5								10				15
Hawaiian Noddy				1					6				7
Blue-gray Noddy									25				25
Fairy Tern		2		1	35	6	46	7	12				109
Long-tailed Jaeger			1										1
bird species	3	1	3		1								8
Totals	132	132	58	215	74	24	260	104	227	209	124	32	1591

Table 3. Density (Birds/Sq. Mi.) of Species Groups At-Sea,
8 June-20 July 1968

	<u>No. Birds</u>	<u>Birds/Sq. Mi.</u>	<u>% of Total</u>
Shearwater/Petrel	363	0.16	22.8
Storm Petrel	3	0.003	0.1
Tropicbird	25	0.01	1.6
Booby	30	0.01	1.9
Frigatebird	15	0.003	0.9
Tern	1146	0.33	72.0
Jaeger	1	0.001	0.1
Misc.	<u>8</u>	<u>0.003</u>	<u>0.6</u>
TOTAL	1591	0.69	100.0

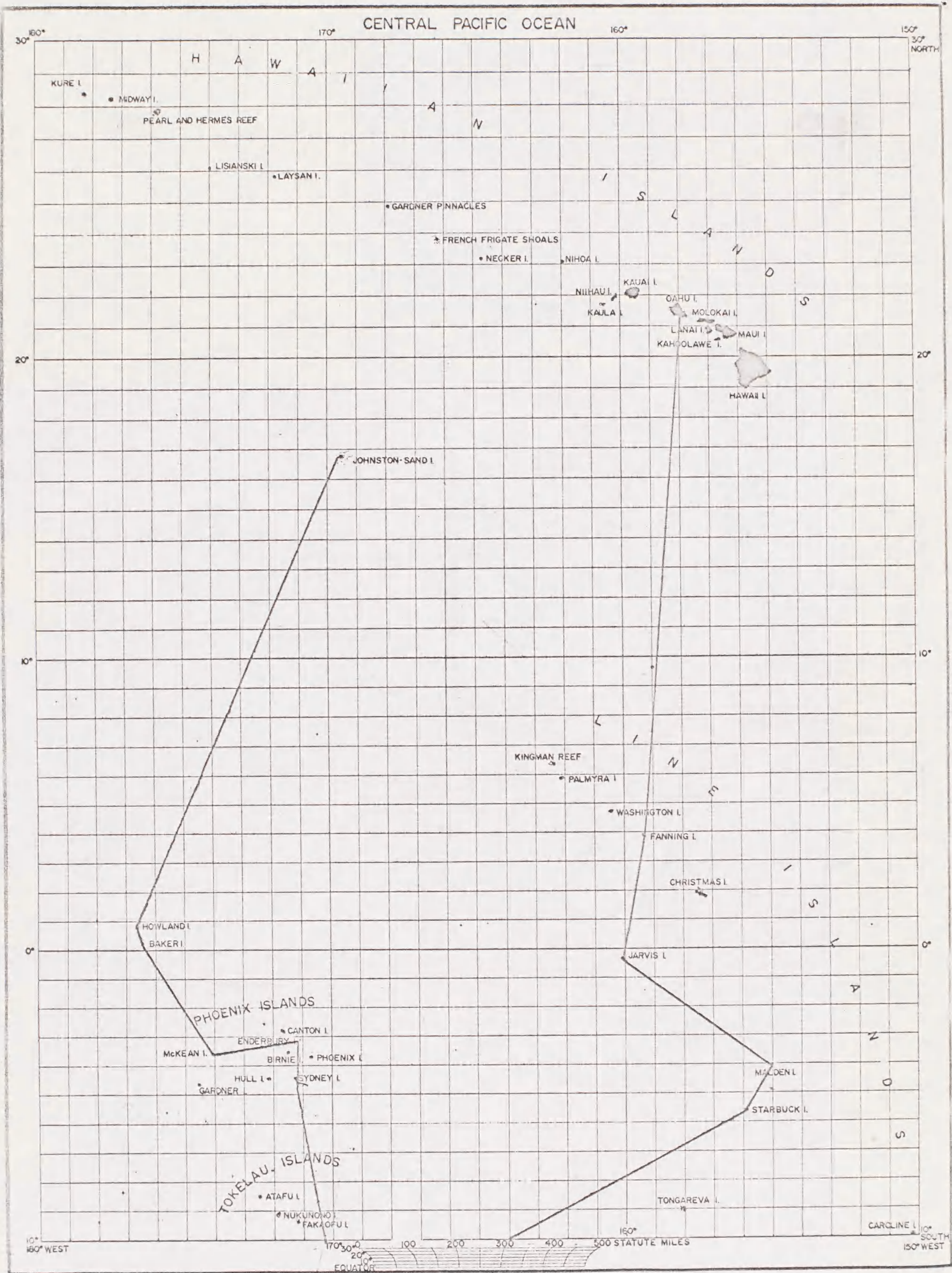


FIG. 1. SIC 19 Cruise Track, 8 June-20 July 1968.

Departed Diamond Head 1137

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Date 8 June 1968

USCGC
Ship Albatross ()

Cruise No. 50019

Organization _____

Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1911 *NL* Position: Lat. 20° 13' N, Long. 158° 05' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
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- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000			050	10		
1100	21° 12' N	157° 51' W	050	10		
1200	21° 08' N	157° 52' W	050	12		
1300	21° 01' N	157° 54' W	066	16		
1400	20° 53' N	157° 56' W	083	9		
1500	20° 45' N	157° 57' W	083	9		
1600	20° 37' N	157° 59' W	085	10		
1700	20° 29' N	158° 01' W	085	10		
1800	20° 22' N	158° 02' W	085	10		
1900	20° 14' N	158° 05' W	090	8		
2000	20° 06' N	158° 06' W	190	13		
2100			190	18		
2200			190	19		
2300			140	13		
2400			146	11		

USCGC

Date 9 June 1968 Ship Planetree () Cruise No. SIC# 14

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Organization _____ Recorder _____

Sunrise: Time 0555 Position: Lat. 18° 13' N, Long. 158° 07' W

Sunset: Time 1904 Position: Lat. 15° 56' N, Long. 158° 27' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100			108	11		
0200	18 54 N	158 00 W	111	10		
0300	18 43 N	158 02 W	115	12		
0400	18 33 N	158 03 W	125	13		
0500	18 23 N	158 05 W	120	12		
0600	18 12 N	158 07 W	115	12		
0700	18 02 N	158 08 W	105	14		
0800	17 51 N	158 10 W	124	12		
0900	17 41 N	158 13 W	125	10		
1000	17 31 N	158 15 W	130	10		
1100	17 20 N	158 18 W	130	10		
1200	17 10 N	158 20 W	050	10		
1300	17 00 N	158 21 W	055	20		
1400	16 50 N	158 22 W	055	20		
1500	16 39 N	158 23 W		20		
1600	16 28 N	158 24 W	055	17		
1700	16 18 N	158 25 W	063	23		
1800	16 07 N	158 26 W	058	14		
1900	15 57 N	158 27 W	055	16		
2000	15 46 N	158 28 W	055	15		
2100			060	15		
2200			060	13		
2300			080	14		
2400			068	17		

Date 10 June 1968 Ship USCGC Planetree () Cruise No. SIC# 19

Organization _____ Recorder _____

Sunrise: Time 0605 Position: Lat. 14° 05' N, Long. 158° 34' W

Sunset: Time 1859 Position: Lat. 12° 16' N, Long. 158° 50' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100			060	18		
0200	14° 42' N	158° 30' W	060	18		
0300	14 33' N	158° 31' W	060	18		
0400	14 24' N	158° 32' W	060	15		
0500	14 15' N	158° 33' W	060	16		
0600	14° 06' N	158° 34' W	060	15		
0700	13 57' N	158° 35' W	060	15		
0800	13° 48' N	158° 36' W	065	14		
0900	13° 38' N	158° 37' W	065	18		
1000	13° 27' N	158° 38' W	067	17		
1100	13° 17' N	158° 39' W	065	19		
1200	13° 06' N	158° 39' W	065	19		
1300	12° 59' N	158° 41' W	065	19		
1400	12° 52' N	158° 42' W	065	19		
1500	12° 45' N	158° 44' W	065	19		
1600	12° 37' N	158° 45' W	065	19		
1700	12° 30' N	158° 47' W	065	19		
1800	12° 23' N	158° 48' W	065	15		
1900	12° 16' N	158° 50' W	065	15		
2000	12° 09' N	158° 51' W	060	15		
2100			060	15		
2200			065	14		
2300			067	16		
2400			067	15		

✓

U.S.C.G.C

Date 11 June 1968

Ship Planetree ()

Cruise No. 619

Organization _____

Recorder _____

Sunrise: Time 0615 Position: Lat. 09° 53' N Long. 159° 00' W

Sunset: Time 1856 Position: Lat. 07° 33' N Long. 159° 12' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200	10° 48' N	159° 00' W				
0300	10 35 N	159 00' W				
0400	10 22 N	159 00' W				
0500	10 09 N	159 00' W				
0600	09 56 N	159 00' W				
0700	09 43 N	159 00' W				
0800	09 30 N	159 00' W				
0900	09 19 N	159 02 W				
1000	09 08 N	159 04 W				
1100	08 57 N	159 06 W				
1200	08 46 N	159 08 W				
1300	08 35 N	159 10 W				
1400	08 24 N	159 12 W				
1500	08 14 N	159 12 W				
1600	08 03 N	159 12 W				
1700	07 53 N	159 12 W				
1800	07 43 N	159 12 W				
1900	07 32 N	159 12 W				
2000	07 23 N	159 12 W				
2100						
2200						
2300						
2400						

✓ Arrive Fanning, c. 1900

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Date 12 June 1968 Ship U.S.C.G.C Planetree () Cruise No. SIC # 19

Organization _____ Recorder _____

Sunrise: Time 0624 Position: Lat. 04° 56' N, Long. 159° 24' W

Sunset: Time 1848 Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200	05 30' N	159° 24' W				
0300	05 20' N	159 24' W				
0400	05 10' N	159 24' W				
0500	05 00' N	159 24' W				
0600	04 50' N	159 24' W				
0700	04 40' N	159 24' W				
0800	04 30' N	159° 24' W				
0900	04 25' N	159° 24' W				
1000	04 20' N	159° 24' W				
1100	04 15' N	159° 24' W				
1200	04 10' N	159° 23' W				
1300	04 05' N	159° 23' W				
1400	Fanning Island					
1500	04.00 N	159° 23' W				
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Cruising all day - Pago to Sydney

00 = 1400
06 = 2000
12 = 0200
18 = 0800

U.S.C.G.C.

Date 6 July 1968

Ship Planetree ()

Cruise No. SIC# 19

Organization _____

Recorder _____

Sunrise: Time 0746 Position: Lat. 13° 11' S, Long. 170° 54' W

Sunset: Time 1913 Position: Lat. 11° 36' S, Long. 170° 23' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100			120	21		
0200	13 24 S	170 54 W	120	21		
0300	13 22 S	170 54 W	120	20		
0400	13 19 S	170 54 W	130	15		
0500	13 17 S	170 54 W	130	15		
0600	13 14 S	170 54 W	130	17		
0700	13 12 S	170 54 W	130	14		
0800	13 09 S	170 54 W	130	14		
0900	13 07 S	170 54 W	135	11		
1000	13 04 S	170 54 W	135	12		
1100	13 02 S	170 54 W	100	21		
1200	12 59 S	170 54 W	100	21		
1300	12 57 S	170 54 W	100	21		
1400	12 54 S	170 54 W	100	20		
1500	12 39 S	170 48 W	100	20		
1600	12 24 S	170 42 W	100	20		
1700	12 09 S	170 36 W	120	16		
1800	11 54 S	170 30 W	120	16		
1900	11 39 S	170 24 W	120	15		
2000	11 24 S	170 18 W	120	11		
2100			125	12		
2200			120	12		
2300			120	13		
2400			120	13		

✓ Cruising all day Pago to Sydney

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Date 7 July 1968 Ship U.S.C.G.C Planetree () Cruise No. SIC # 19

Organization _____ Recorder _____

Sunrise: Time 0736 Position: Lat. 08° 52' S Long. 171° 05' W

Sunset: Time 1921 Position: Lat. 06° 38' S Long. 171° 06' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
4. 2005 Celestial 06° 27' S 170° 54.0' W
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100				115	18		
0200	09 48 S	170 54 W		115	18		
0300	09 38 S	170 56 W		115	20		
0400	09 28 S	170 58 W		115	18		
0500	09 18 S	170 00 W		115	16		
0600	09 08 S	171 02 W		115	16		
0700	08 58 S	171 04 W		115	15		
0800	08 48 S	171 06 W		115	12		
0900	08 38 S	171 06 W		115	12		
1000	08 28 S	171 06 W		115	12		
1100	08 18 S	171 06 W		115	12		
1200	08 08 S	171 06 W		100	15		
1300	07 58 S	171 06 W		105	14		
1400	07 48 S	171 06 W		110	17		
1500	07 35 S	171 06 W		110	15		
1600	07 22 S	171 06 W		110	15		
1700	07 09 S	171 06 W		110	15		
1800	06 56 S	171 06 W		110	15		
1900	06 43 S	171 06 W		043	10		
2000	06 30 S	171 06 W		000	15		
2100				005	15		
2200				005	18		
2300				005	18		
2400				000	4		

✓

1530 - departed Enderbury for Mekeau

Date 12 July 1968 Ship ^{U.S.C.G.C.} Planetree () Cruise No. ^{SIC} # 19

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1930 Position: Lat. 03° 17' S, Long. 171° 50' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4. 2004 Celestial 03° 16' S 171° 44.1' W

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400	<u>03 06 S</u>	<u>171 12 W</u>				
1500	<u>03 06 S</u>	<u>171 12 W</u>				
1600	<u>03 07 S</u>	<u>171 17 W</u>				
1700	<u>03 09 S</u>	<u>171 26 W</u>				
1800	<u>03 13 S</u>	<u>171 35 W</u>				
1900	<u>03 16 S</u>	<u>171 45 W</u>				
2000	<u>03 18 S</u>	<u>171 54 W</u>				
2100						
2200						
2300						
2400						

✓ Departed McKean 0850

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Date 15 July 1968 Ship Planetree () U.S.C.G.C. Cruise No. #19 SIC

Organization _____ Recorder _____

Sunrise: Time 0745 Position: Lat. 03° 36' S, Long. 174° 06' W
Sunset: Time 1954 Position: Lat. 01° 41' S, Long. 175° 23' W

Miles travelled from 0000 hours to sunrise = _____
Miles travelled from sunrise to sunset = _____
Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.	2015	Celestial	10 47' S	175° 23' W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100			060	16		
0200	03 36 S	174 06 W	060	10		
0300			060	10		
0400			050	10		
0500			050	10		
0600			050	10		
0700			060	10		
0800	03 36 S	174 06 W	060	12		
0900	03 36 S	174 06 W	060	12		
1000	03 25 S	174 13 W	060	12		
1100	03 14 S	174 20 W	060	12		
1200	03 04 S	174 28 W	060	12		
1300	02 53 S	174 35 W	055	13		
1400	02 42 S	174 42 W	055	13		
1500	02 32 S	174 49 W	055	12		
1600	02 22 S	174 56 W	085	19		
1700	02 12 S	175 03 W	090	18		
1800	02 02 S	175 10 W	090	17		
1900	01 52 S	175 17 W	085	18		
2000	01 42 S	175 24 W	085	16		
2100			080	14		
2200			075	13		
2300			-	-		
2400			075	13		

Departed Baker 1345
Arrived Baker 0910

Arrive Howland 1715

00 = 1400
06 = 2000
12 = 0200
18 = 0300

Date 16 July 1968 Ship USCGC Flanigan () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0746 Position: Lat. 00 08 S, Long. 176° 29'

Sunset: Time 1957 Position: Lat. 00 48 N, Long. 176 36

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100			090	12		
0200	00 48' S	175 54 W	090	13		
0300	00 41' S	176 00 W	090	13		
0400	00 34' S	176 06 W	090	10		
0500	00 27' S	176 12 W	090	10		
0600	00 20' S	176 18 W	090	10		
0700	00 13' S	176 24 W	090	10		
0800	00 06' S	176 30 W	090	10		
0900	00 10' N	176 22 W	calm	—		
1000	00 11' N	176 21 W	120	08		
1100	Baker		120	10		
1200	00 11' N	176 21 W	120	10		
1300	00 11' N	176 21 W	120	10		
1400	00 14' N	176 22 W	120	10		
1500	00 24' N	176 26 W	120	08		
1600	00 35' N	176 31 W	130	08		
1700	00 46' N	176 35 W	130	10		
1800	Howland		130	08		
1900	00 48' N	176 36	130	06		
2000			130	10		
2100			130			
2200						
2300						
2400			120	12		

$$\begin{array}{r} 14 \\ 6 \overline{) 84} \\ \underline{6} \\ 24 \end{array}$$

$$\begin{array}{r} 18 \\ 12 \\ \underline{60} \end{array}$$

$$\begin{array}{r} 18 \\ 26 \\ \underline{51} \\ 7 \\ 6 \overline{) 54} \\ \underline{54} \end{array}$$

0930 - dept. Howland

✓

U.S.C.G.C

Date 18 July 1968 Ship Planetree () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1958 Position: Lat. 02° 36' N, Long. 175° 54' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200	00 48	176 36				
0300						
0400						
0500						
0600						
0700						
0800	00 48 N	176 36	095	12		
0900	00 48 N	176 36	095	10		
1000	00 53 N	176 35	095	10		
1100	01 04 N	176 32	095	12		
1200	01 14 N	176 29	095	14		
1300	01 25 N	176 27	095	14		
1400	01 36 N	176 24 W	095	14		
1500	01 46 N	176 19 W	095	14		
1600	01 56 N	176 14 W	110	17		
1700	02 06 N	176 09 W	108	16		
1800	02 16 N	176 04 W	115	16		
1900	02 26 N	175 59 W	115	16		
2000	02 36 N	175 54 W	115	16		
2100			115	16		
2200			110	12		
2300			096	14		
2400			095	12		

00 = 1400
 06 = 2000
 12 = 0200
 18 = 0500

Date 20 July 1968 Ship USCGC Flamingo () Cruise No. _____
 Organization _____ Recorder _____

Sunrise: Time 0724 Position: Lat. 08° 36' N, Long. 173° 43' W
 Sunset: Time 1954 Position: Lat. 10° 36' N, Long. 172° 31' W

Miles travelled from 0000 hours to sunrise = _____
 Miles travelled from sunrise to sunset = _____
 Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	07° 33'	173° 58' W				
0200	07° 42' N	173° 51' W				
0300	07° 52' N	173° 52' W				
0400	08° 02' N	173° 50' W				
0500	08° 12' N	173° 48' W				
0600	08° 22' N	173° 46' W				
0700	08° 32' N	173° 44' W				
0800	08° 42' N	173° 42' W				
0900	08° 52' N	173° 36' W				
1000	09° 02' N	173° 30' W				
1100	09° 12' N	173° 24' W				
1200	09° 22' N	173° 18' W				
1300	09° 32' N	173° 12' W				
1400	09° 42' N	173° 06' W				
1500	09° 51' N	173° 00' W				
1600	10° 00' N	172° 54' W				
1700	10° 09' N	172° 48' W				
1800	10° 18' N	172° 42' W				
1900	10° 27' N	172° 36' W				
2000	10° 36' N	172° 30' W				
2100						
2200						
2300						
2400						

Date 21 July 1968 Ship usegc Plumetree () Cruise No. SIC# 19

00 = 1400
06 = 2000
12 = 0200
18 = 0800

Organization _____ Recorder _____

Sunrise: Time 0711 Position: Lat. 12° 29' N, Long. 171° 35' W

Sunset: Time 1954 Position: Lat. 14° 29' N, Long. 170° 30' W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

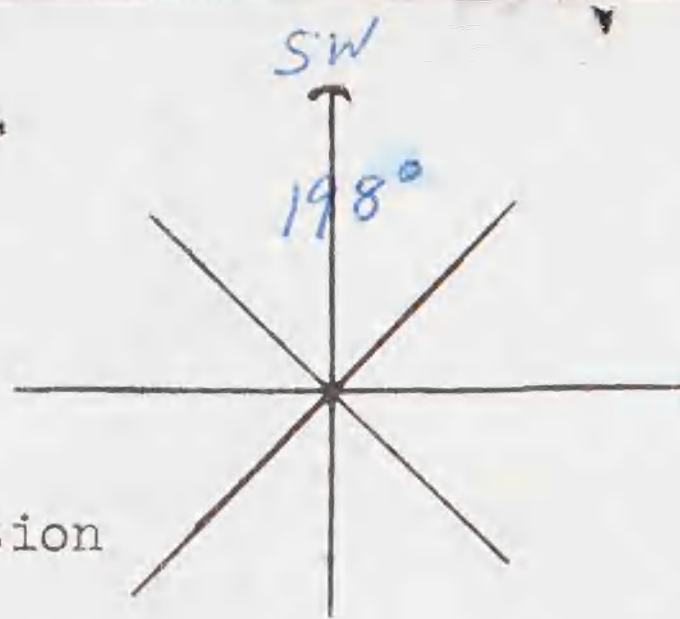
TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200	11° 42' N	172° 06' W				
0300	11° 51' N	172° 00' W				
0400	12° 00' N	171° 54' W				
0500	12° 09' N	171° 48' W				
0600	12° 18' N	171° 42' W				
0700	12° 27' N	171° 36' W				
0800	12° 36' N	171° 30' W				
0900	12° 45' N	171° 25' W				
1000	12° 54' N	171° 20' W				
1100	13° 03' N	171° 15' W				
1200	13° 12' N	171° 10' W				
1300	13° 21' N	171° 05' W				
1400	13° 30' N	171° 00' W				
1500	13° 40' N	170° 56' W				
1600	13° 50' N	170° 52' W				
1700	14° 00' N	170° 48' W				
1800	14° 10' N	170° 44' W				
1900	14° 20' N	170° 40' W				
2000	14° 30' N	170° 36' W				
2100						
2200						
2300						
2400						



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

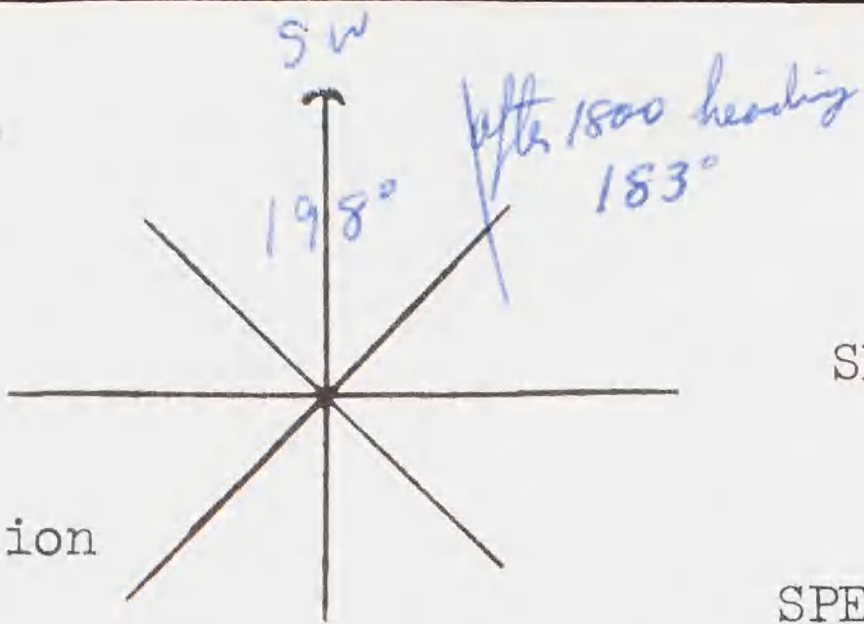
OBSERVERS: R. B. Clapp
C. D. Hochman

Date June 8, 1968
Pg. # 1 of 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1300	Wedge-t.	2	SE		1. ph., low on water
1311	"	1	NE		1. ph., low
1313	Red-f. Booby	1	SE		Imm., settled on water, about 1/2 mile off
1314	Bird sp.	1	SE		Distant
1317	Red-f. Booby	1	NE		Adult, circling behind ship
1324	Red-f. Booby	1	SW		Adult, cross bow
1326	Wedge-t.	1	SE		1. ph., low
1340	Sooty Tern	3	SW		cross bow - flying to join distant feeding flock
1341	Sooty Tern	40	SW		feeding flock - distant
1342	Wedge-t.	3	SW		Circling, SW, 1. phase
1342	Sooty Tern	8	SW		flying toward feeding flock
1345	Bulwer's Petrel	3	SW		sitting on water.
1353	Sooty Tern	2	SW		cross bow, about 30' high
1353	Wedge-tail	1	SW		1. phase
1354	Noddy Tern	1	SW		low
1400	Bulwer's Pet.	2	SE		low, one on each side of ship.
1415					Calm behind cloud bank
1424	Bulwer's Pet	1	NE		On water, flushed by ship
1436	Sooty Tern	1	NW		30 feet high.
1452	Bulwer's Petrel	2	E		both sitting on water.
1458	Wedge-tail	1	NE		1. phase, low
1502	Red-f. Booby	1	W		Subadult, flew in to inspect ship
1504	Sooty Tern	5	E		100 feet, behind ship
1504	Wedge-tail	3	⊙		behind ship, circling
1520	Wedge-tail	1	NE		1. phase, low
1545	Wedge-tail	5	⊙		1. phase, circling, went off 2 NE, 3 E
1546	Noddy Tern	1	E		low on water
	Sooty Tern	1	E		100 feet high



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

R. B. Clapp
C. D. Hachman

Date June 8, 1968
Pg. # 2 of 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1554	Noddy Tern	1	E		low
	Bulwer's Petrel	1	E		low
	Dolphin sp.	5	ESE		Broke twice and sounded, pass. more than 5.
1555	Noddy Tern	1	NE		low
1600	Wedge-tail	1	N		1. phase, low
1601	Sooty Tern	4	SW		flew parallel to ship for about 5 min.
1604	Noddy Tern	1	SW		low
1609	Bird sp.	2	W		distant, on horizon
1613	Sooty Tern	1	SW		50' high
1615	Bulwer's Petrel	1	SW		low
1619	Wedge-tail	1	NE		1. phase, low
	Sooty Tern	1	NE		low
	Bulwer's Pet.	1	SW		low
1621	Bulwer's Pet.	1	SW		low, (last one still in sight)
1630	Sooty Tern	2	NE		low
1631	Bulwer's P.	1	SW		Behind ship
1634	Bulwer's P.	1	SW		Behind ship (joining 1631 bird)
1638	Red-f. Booby	1	NE		Ad., low
Suspend watch for dawn 1645 - Resommence watch 1707					
1723	Sooty Tern	1	NE		low, moving rapidly
1733	Wedge-tail	1	NE		1. phase, low
1745	Petrel sp.	1	SE		low, distant
1755	Bulwer's Pet	1	SE		low
1800	Ship is heading now 183°				
1804	Sooty Tern	1	E		50' high
1805	Sooty Tern	1	E		30' high
1806	Sooty Tern	5	NE		Not a flock, singles, height 10-20'
1809	Bulwer's Pet.	1	SW		low
	Frigate sp.	1	NE		white headed, 200' high
1830	Wedge-tail	1	NE		1. phase, low
1845	Bulwer's Pet.	1	NW		
	Sooty Tern	2	NW		

1905 ~~_____~~ Sunset - Terminate watch

185° - 190°

Ship
DirectionSMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

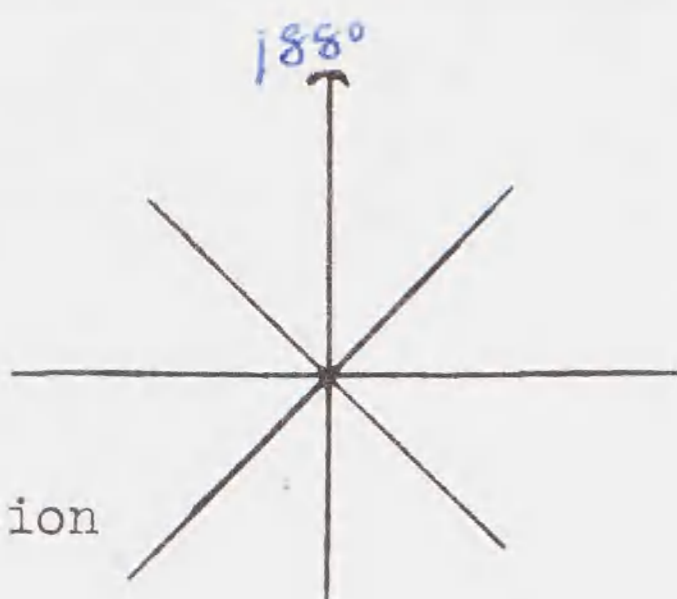
R. B. Clapp

C. D. Mackman

Date June 9, 1968Pg. # 1 of 2SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0535					Daybreak, commence watch
0540	Wedge-tail	1	SSE		1-phase, low
0559	Christmas Shear?	1	SSE		low, not positive ID.
	Sooty Tern	3	NE		soaring over flying bridge, about 150' high.
TF 0612	Sooty Tern	10	E		
0615	Wedge-tail	1	NE		Dark.
	Petrel sp.	1	NE		
0620	Wedge-tail	1	N		Dark
0624	Petrel sp.	1	W		low, fast, small + gray
0628	Newell's Sh.	1	NW		seen well, low
0630	Petrel sp.	1	W		Small
0638	Sooty Tern	1	NW		
0639	Bulwer's P.	1	N		
0642	Wedge-tail	2	WNW		Dark
0713	Wedge-tail	1	S		Dark
0721	Wedge-tail	1	NW		Dark
0722	Black-n. Petrel Black-n. Petrel	2	WNW		Distant, small, night stage.
0732					course still 188°
0740	Wedge-tail	1	S		Dark
0741	Bl-n. Pet Bl-n. Pet	1	SW		No particular markings noted (RBC)
0748	Black-n. Pet.	1	NW		
0750	J.F. Petrel	1	S		
0751	Wedge-tail	1	N		Dark
0806	Wedge-tail	1	N		light phase
	Sooty Tern	1	N		
0812	Wedge-tail	1	S		Dark
FF 0815	Sooty Tern	50+			} distant, on horizon to SW of ship.
	Frigate sp.	3			
	shear/petrel sp.	9			
0821	Wedge-tail	1	S		Dark
0822	Wedge-tail	1	SW		Dark
0827	Wedge-tail	1	S		Dark



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

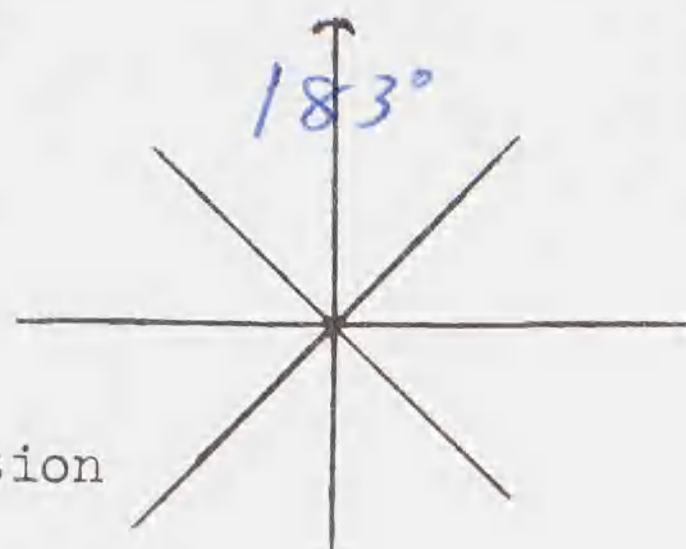
OBSERVERS:
R. B. Clapp
C. D. Mackman

Date June 9, 1968
Pg. # page 2 of 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0850	Fairy Tern	1	SE		25 feet
0910	Wedge-tail	1	N		Dark
0915	Petrel sp.	1	NW		
0945	Wedge-tail	1	S		Dark
0958	White-n. Petrel	1	S		
1015	Petrel sp.	1	E		
1039	Black-w. Petrel	1	SW		
1054	J.F. Petrel	1	SE		
1102	Newell's Sh.	1	NW		Seen well
1137	Wedge-tail	3	SE		Dark
1144	Newell's Sh.	1	SW		
	Wedge-tail	1	SW		Dark
1222	Wedge-tail	1	S		Dark
1252	Petrel sp.	1	W		Small, white belly, brownish back, distant
1303	Wedge-tail	1	S		Dark, landed in water 200 ^{300 feet} ahead, flushed at 100 feet
1322	R-t. Tropicb.	1	N		On water
1324	Fairy Tern	1	NW		low
1338	Petrel sp.	1	S		low, distant
1345	Petrel sp.	1	E		low, distant
1404	Petrel sp.	1	SE		
1404	Wh-n. Petrel	1	SE		On water, flushed by ship
1411	Bl-w. Petrel?	1	SW		
1429	Bulwer's Pet.	1	SE		
1457	Wh-t. Tropicb.	1	S		On water, rose when ship was 200 feet away, flew about 300 yards ahead + resettled. Flushed again, climbed to 75' and left to NE.
1622	Bird sp.	1	S		Distant, short glimpse
1630	Wh-t. Tropicb.	1	N		Circled ship once, left to north
1729	Wh-n. Petrel	1	S		low
	Wedge-tail	1	S		low
1820	Petrel sp.	1	S		distant, low in sun
1908					sunset
1915					Terminate watch



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

R. B. Clapp

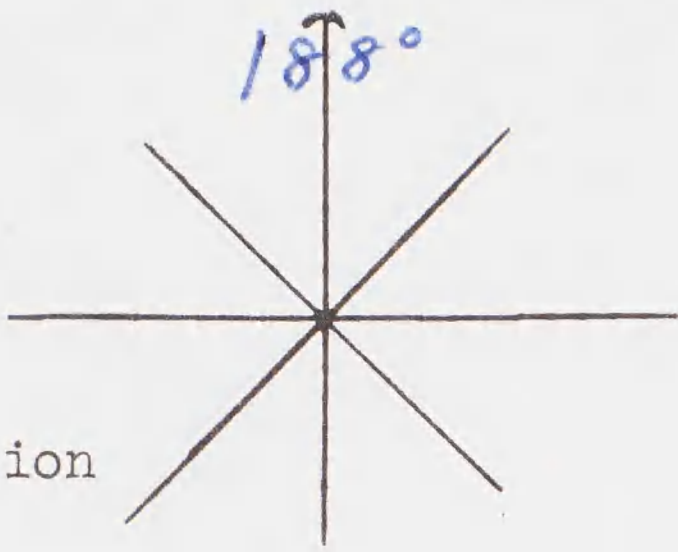
C. D. Hacker

Date June 10, 1968

Pg. # 1 of

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0540					Commence watch - Sunrise approx 0556
0623	Sooty Tern?	2	NW		50 feet
0645	Bulwer's Pet	1	NE		low
0651	Petrel sp	7	@		Distant, on horizon, circling, feeding flock?
0653	Petrel sp.	1	NE		small, low, distant
0655	Petrel sp.	1	S		Ahead of ship, going away
0701	Wedge-tail	1	W		on water, flushed + flew west, Dark
0701	Petrel sp.	1	SE		low, on horizon
0708	Wedge-tail	1	NW		low, dark
0814	Petrel sp	1	SE		low, on horizon
0827	Wh-n. Petrel	1	SE		close to ship
0836	Bl-w. Petrel	1	W		low, close to ship
0840	Petrel sp.	1	N		distant, low
0842	J.F. Petrel?	1	NW		low
0858	Bl-w. Petrel	1	W		low, close in
0900	Petrel sp.	1	N		
0901	J.F. Petrel	1	N		
FF? 0910	Petrel sp.	7	@		Circling, distant, on horizon in SW
0915	Red-t. Tropicb.	1	S		Circled ship, left to S about 100' high
0927	Shear/Petrel	1	SW		
0929	Bird sp.	1	N		Way out, got glimpse + lost
0931	Bl-w. Petrel	2	S		
0940	Wedge-tail	1	NW		Dark
0957	Wedge-tail	1	N		Dark
1003	Shear/Petrel	1	NW		distant
RF 1020	Bl-w. Petrel	4	-		around ship, 2 east and 2 west
	Wedge-tail	1	W		Dark, on water,
RF 1054	J.F. Petrel	1			
	Bl-w. Petrel	3			one on water, one had well worn feathers
	Wedge-tail	3			all on water, one had well worn feathers.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

R. B. Clapp
C. D. Hochman

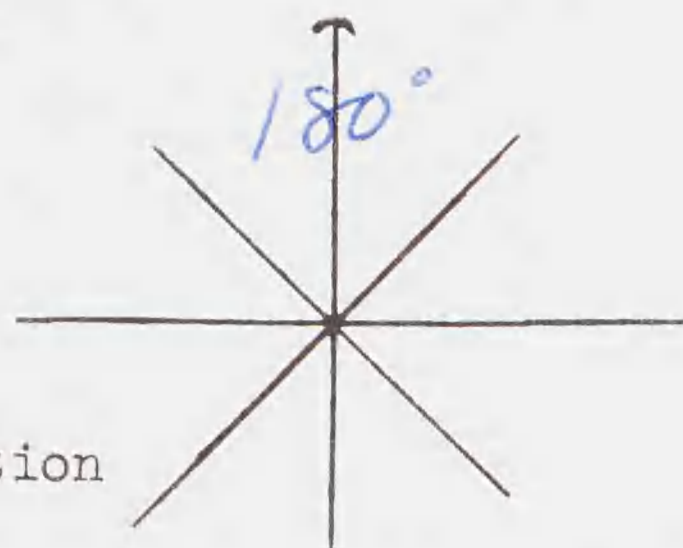
Date June 10, 1968
Pg. # 2 of 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1057	Wedge-tail	1	SE		on water when 1st seen, dark
1107	Petrel sp.	1	NW		
1110	Bl-w. Petrel	1	SW		
1110					
1306	Wh-n. Petrel	1	NE		low, close in
1350	Wedge-tail	1	NE		dark, low
1415	J. F. Petrel	1	N		low, close in
1512	Bird sp.	1	NE		small, distant
1819	Bird sp.	1	NE		small, distant
1837	Long-t. Jaeger	1	NW		Adult, good view, crossed beam about 150 feet out. tail long + well developed. Seen in good light

Watch terminated at 1915



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

R. B. Clapp

C. D. Hawkins

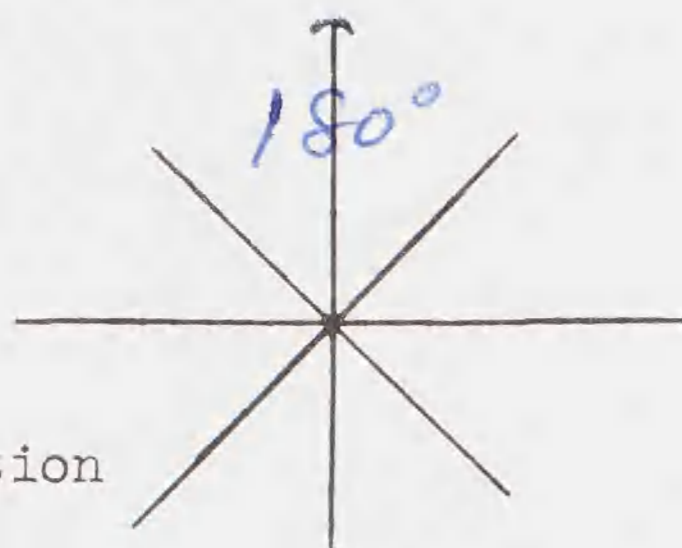
Date June 11, 1968

Pg. # 1 of 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0550					Commence Watch, Sunrise about 0600
0704	Wedge-tail	1	E		dark, low
0754	Shear/Petrel	1	S		
0756	Nauwell's Sh.?	1	S		low
	Wedge-tail	1	S		dark, low
0808	J.F. Petrel	1	NE		low
0813	J.F. Petrel	1	W		low
0817	Petrel sp.	1	SE		low
0823	Wedge-tail	2	E		dark, low
0850	J.F. Petrel	1	S		low
0853		Ship stopped for demonstration of life saving gear until 0900			
0855	Wedge-tail	2	W		circling behind ship. One flew close to ship - had several secondaries missing, rest and primaries heavily worn.
0925	Wedge-tail	1	E		dark, low, crossed bow, some secondaries missing, looked worn
1045	Wh-w. Petrel	1	N		low
1102	Wedge tail	1	NE		distant, dark, low
1105	Bl-w. Petrel	1	SE		low
1118	Bl-w. Petrel	1	SW		low
1124	Wedge tail	1	SW		dark, low
1130	Cetacean sp. 35-50		ESE		in 2 groups, crossed bow, long sleek snout, light brown, appeared 5-6 feet, about 100 yds ahead of ship. No young seen.
1144	Gr. Frigate	1	NW		Adult male, 50' high, circling, not feeding, ignored school of small jumping fish
	Fish school	?	SW		jumping, 100 yds ahead of ship, appeared small.
	Bl-w. Petrel	1	@		circling over fish school. Not feeding
1224	J.F. Petrel	1	SW		low
1234	Fairy Tern	1	SE		distant on horizon, feeding, seen at 1240 moving toward feeding flock - never joined them



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

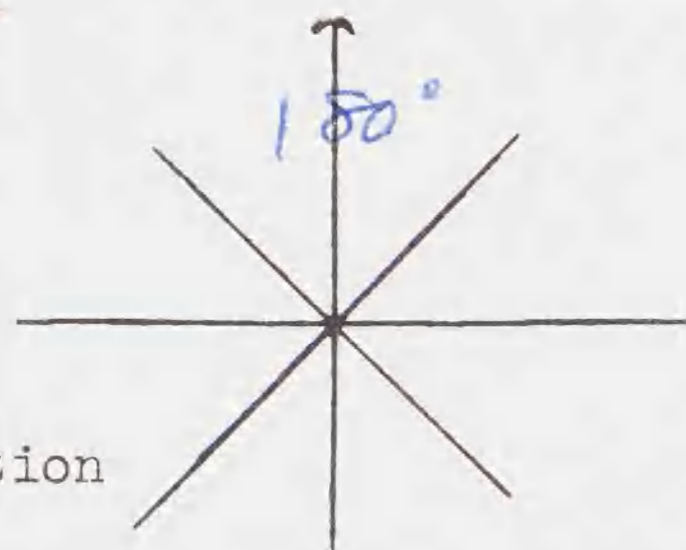
OBSERVERS:

R. B. Clapp.
C. D. Hackman

Date June 11, 1968
Pg. # 2 of 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF 1241	Sooty Tern	36	E		Moved into rain squall, Sooties actually dip feeding. flock disappeared in squall.
	wedge-tail	6	↓		
	J.F. Petrel	1	↓		
1255	Petrel sp.	1	N		In squall, poor vis.
1257	J.F. Petrel	1	N		In squall, close in.
1301	J.F. Petrel	2	NE		low, in close
1300-1315	Life boat Drill				
1357	Wedge-tail	1	?		Dark.
1415	Red-t. Tropicbird	1	?		didn't see which direction because of Sooty Terns. Short tail
1420	Sooty Tern	1	E		immature, flew past ship, close in, at about 75' and then turned east. Bird came in from dire S.
1421	Sooty Tern	2	SE		Adults, flew in low on water directly toward bow, sheered off abruptly toward SE when about 20 feet away.
1502	Red-t. Tropic	1	⊙		Short tail, speckling on back + breast, circled, left to SE
1526	J.F. Petrel	1	N		crossed bow at distance (flying east) passed ship on port side about 300 yds out
FF 1538	Sooty Tern	13	⊙		Actively feeding on small fish(?) - could see fish flashing
	Wedge-tail	1	⊙		Wedge-tail running around with wings extended, speckling from place to place, also short flights, Sooties dip feeding
					First seen about 1/2 mile ahead of ship, passed to starboard about 150 yds away. Still feeding last seen. Area in which birds were feeding appeared darker than surrounding area and was small - about 150 x 50 feet.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

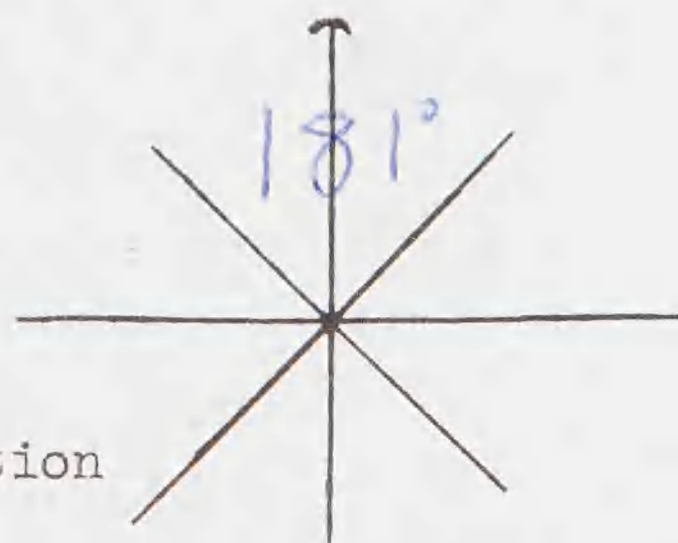
OBSERVERS:
R. B. Clayton
C. D. Hochman

Date June 11, 1968
Pg. # 3 of 3

SPECIMEN
or

Ship
Direction

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1620	Wedge-tail	4	S		On water when 1st seen, flew S with ship, all dark phase
FF	1628	Sooty Tern	28 ⁺	SW		Actively feeding. Flock broke + ran as ship approached and birds flew to SW.
		Wedge-tail	2			
	1629	Sooty Tern	1	SW		immature, calling, following flock as it broke up. This bird came from NW. Flock was 1/4 mile off edge of rain squall.
	1700	Bl-w. Petrel	1	S		On water, flushed by ship, flew north even with ship then turned and flew S
	1705	Bl-w. Petrel	1	S		low
	1710	Bl-w. Petrel	1	S		low
	1754	J.F. Petrel	1	E		low
FF	1800	Sooty Tern	c 70			Feeding - flock fairly distant from ship > 1/2 mile
		Frigatebird	1			female or young
		Wedge-tail	c. 5			those seen well enough were dark phase
	1811	Bl-w. Petrel	1	SE		
	1820	Wedge-tail	1	SE		dk - low
TF	1832	Sooty Tern	7	NE		adults, mostly traveling fairly rapidly but low over water, occasionally circling back to make a swooping pass at water but I saw no contact made.
C	1850	Sunset				off water



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

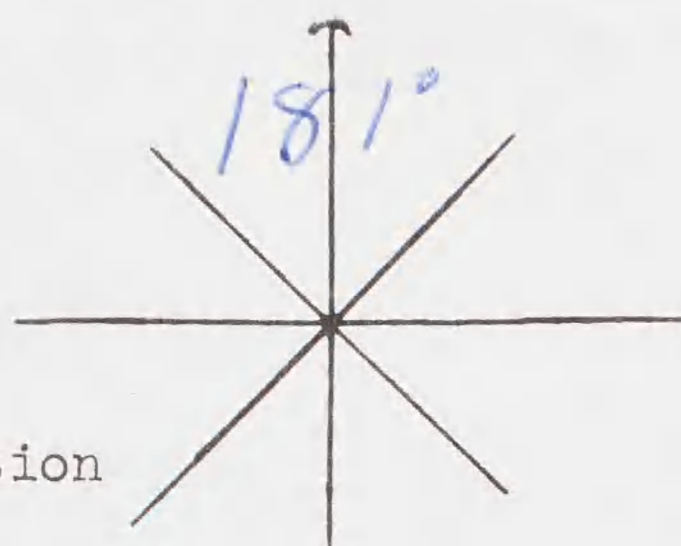
R. B. Clapp
C. D. Hackman

Date June 12, 1968
Pg. # 1 of 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0545					Watch commences, Sunrise around 0600
0635	Fairy Tern	1	N		First seen plunging; flew toward ship, then parallel to the north about 100 yds out
0703	Fairy Tern	1	NE		25'
0705	Wedgetail	1	SE		light phase
0712	Sooty Tern	3	E		ad
0713	Fairy Tern	2	E		
0714	W.T.T.B.	1	E		seen flying, then sat on water, then flushed by ship
0715	R.F. Booby	1	NE		int. phase adult
0716	Sooty Tern	2	E		ad.
0720	Newell's P	1	W		close to ship - would not question identification except so close to Auckland area. Back appeared black with white patch above tail. Occasionally observed
0730	Fairy Tern	1	S		
0731	Fairy Tern	1	W		
0735	Bl-w. Petrel	1	E		low
0736	Sooty Tern	2	N		50'
0739	Fairy Tern	1	E		25'
0740	Fairy Tern	1	E		low, distant
0800	Red-f. Booby	1	E		Ad.
0803	Sooty Tern	1	N		50'
0804	Wedge tail	1	E		low, dark phase
0805	Fairy Tern	1	N		25'
0806	Petrel sp	1	NE		low, in rain squall, poor vis
Large heavy rain squall 0748-0815, vis about $\frac{1}{8}$ - $\frac{1}{4}$ mile					
0809	Fairy Tern	1	W		low, eastern
0811	Fairy Tern	1	E		crossing low, $\frac{1}{4}$ mile
0812	Fairy Tern	3	S		2 running w/ship: 1 eastern, one starboard 100 yds out; other $\frac{1}{4}$ mile off starboard
0814	Fairy T	1	E		$\frac{1}{4}$ mile ahead



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

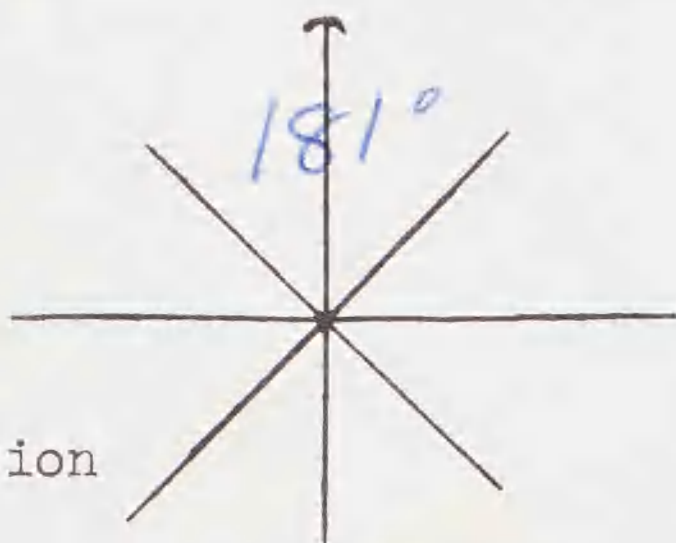
OBSERVERS:

R.B. Clapp
C.D. Hackman

Date June 12, 1968
Pg.# 2 of 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF 0819	Fairy Tern	5	S		Came in from west, flew in front of ship - 100' high, then flew toward E
	Sooty Tern	1	S		
	Black Noddy	1	S		
0822	Wedge-tail	1	N		Dark ph., low
0826	Bl-w. Petrel	1	SW		On water, flushed by ship
0834	Fairy Tern	2	E		Crossing bow, 200 yds out
Sea becoming choppy, wind freshening - 20 knots					
0844	Bl-w. Petrel	1	E		low
0845	Wedge tail	1	E		Crossed bow, flight feathers did not appear worn
0846	Fairy Tern	4	S		These appear to be the same birds seen at 0819. Flying around ship in a great arc. They break up, fall behind, regroup and pull ahead and then disperse again. No more than 5 have been visible at one time. Still w/ship at 0859 still present at 0910 (B arrived ship at 0910)
0849	Red-f. Booby	4	SE		Adults, low
0858	R-f. Booby	1	SE		disturb, looked brown backed
0904	R. P. Booby	1	SE		ad. inter. phase
0910	Sooty Tern	1	N		
0910	Additional notes	Fairy Terns			One Fairy Tern flying over ship at 400 or 500 feet. Birds were either accompanying ship or following ship route to foraging IS 0923 - 5 FT still with ship. Last seen well ahead of ship moving S 0927
0922	Sooty Tern	3	S		ad. - about 100-150 feet above water
0928	Shear-pet	1	S		
0932	Wedge-tail	1	E		Dark, low
0938	Fairy Tern	1	SE		First seen on horizon, flew steadily toward SE
0939	Bl-w Petrel	1	SW		low



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

R.B. Clapp
C.D. Hackman

Date June 12, 1968
Pg.# 3 of 3

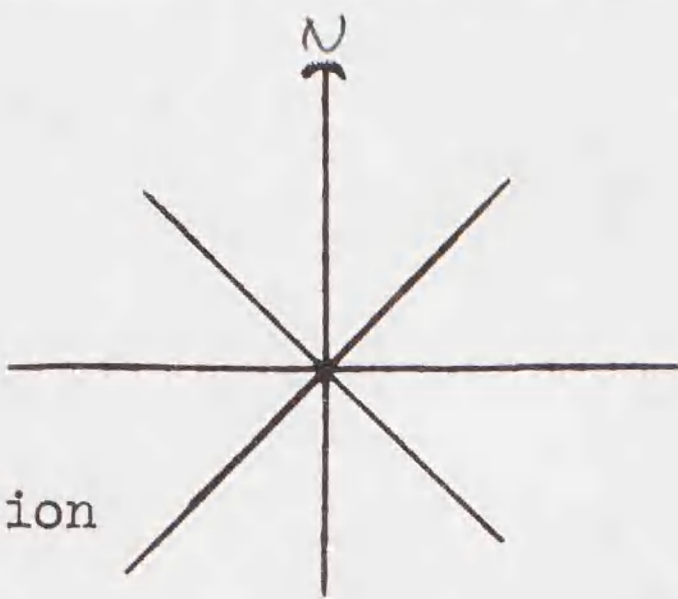
SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1012	Fairy Tern	1	E		
1020	Petrel sp	1	NW		way out
1032	Fairy Tern	3	S		
1033	Bl. W. Petrel	1	N		
1045	R. F. Booby	1	S		imm - came up behind ship - dark bill, light at tip of tail - all brown
1055	R. F. Booby	1	S		imm - previous bird joined by another
1121	Fairy Tern	1	E		
1126	Bl. W. Petrel	1	S		low - very thick border on underwing
1130	Fairy Tern	1	E		c. 30 ft. above water
1158	Fairy Tern	1	S		25'
1235	Bird sp.	1	E		
1238	Fairy Tern	1	S		low, distant
1240	Bl. W. Petrel	1	S		low

Much activity on flying bridge after 1215. Ship estimates island 20 miles off. Crew looking for it. Direction? They know not which! Strange that there are very few birds in the area we are passing through.

1255	Red-f. Booby	2	NE		low, distant
1256	Bl. W. Petrel	1	S		low, close in
1410					sighted Fanning Island
1445					Fanning now plainly visible - no birds in sight



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

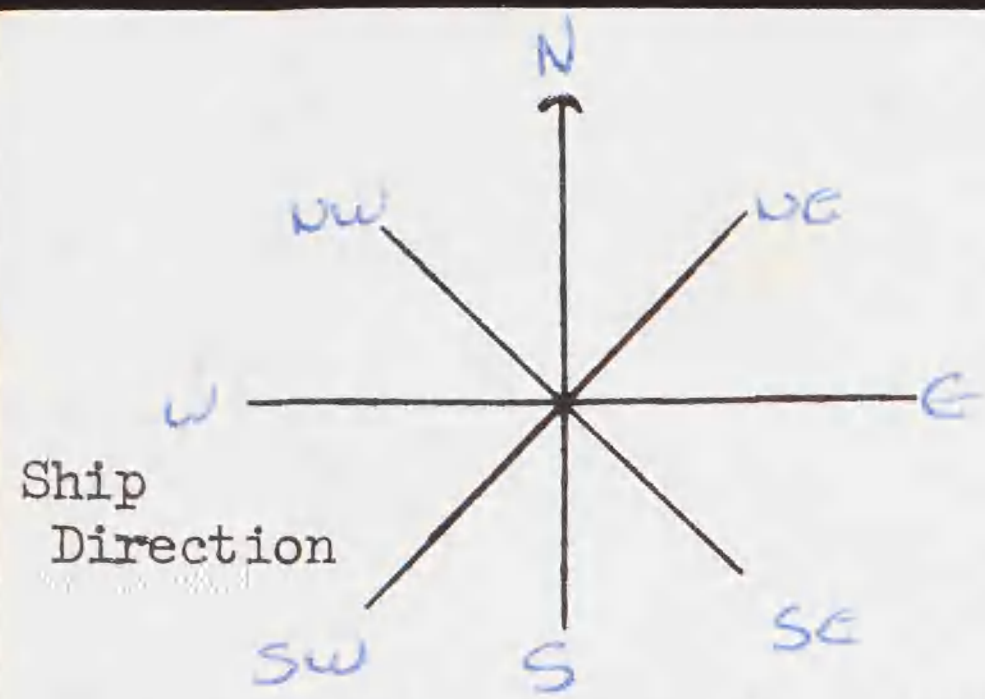
Hackman, Crossin
Clapp

Date 6 July 1968
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0705					sunrise 0605 begin obs.
0743					heavy rain squall front along NE sector.
0746					Sunrise
0813	WTTB	2	S		apparently adults, full length tails
0822	"	1	S		" " " " "
1004	"	1	SE		" " " " "
1012	"	1	S		"
1135	"	1			following ship, tail about 5 inches, yellowbill.
1232	Fairy Tern	4	SE		feeding.
1237	WTTB	1	N		short tail, ca 6"
1244	"	2	E		both w/ short (ca 6-7") tails.
1259	Fairy Tern	2	S		feeding.
1315					sighted Swain's Island - distant, ahead
1330					Change course to 060
1445	Pterodroma sp.	1	SE		Distant glimpse
1725	Sooty Tern	2	NE		Ad - low over water
1905	WTTB	1	NE		far out.
1910					Sunset

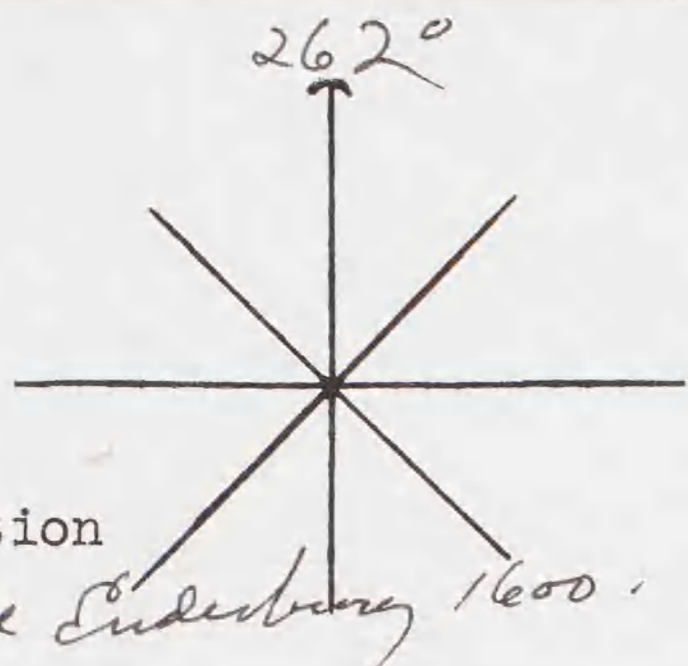


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
 Clapp SR-0900
 Crossin 0900-1100
 Hackman 1100-1300
 Clapp 1300-1500
 Crossin 1500-1700
 Hackman 1700-SS
 Date July 7, 1968
 Pg.# 1

Ship Direction
 SPECIMEN or BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	Sunrise at sea.				0730-75 0740-0745
0900					Reduce speed En BT
0836	Pterodroma sp.	1	S		very far out
0941	WTTB	2	Ca		following ship, full adults; full length tails, bills yellow
1410	W.T. Shear	2	NE		both light phase
1424	WTTB	1	Q		about ten feet above observation platform
TF 1612	Sooty Tern	47 ^{±3}	S		long tail
					all adults, flock strung out, few
FF 1622	Sooty Tern	150 ^{±5}			superficial attempts at concentrating to feed.
	ad ♀	1	Q		
	Fairy Tern	1			much grouping, splitting + re-grouping, frigate harassing terns (at least 3 different birds).
1715	Sooty Tern	2	S		Adult, high - about 50-60'. Birds passed ship then turned North and passed ship again before crossing bow + disappearing to the NE.
1730	Sooty T.	1	N		about 1/2 mile ahead of ship, 40 ft. high
1731	Sooty T.	2	NE		Crossed bow, low on water, adults, calling
FF 1804	Fairy Tern	45 ^{±10}	SE		Feeding on edge of large rain squall, in very poor light. Birds were wheeling + dipping at a rapid rate
	Sooty Tern	5			
1815					Rain squall
1838					rain ended
1918					Sunset - terminate watch



OBSERVERS:
 Crossin

SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

Ship Direction

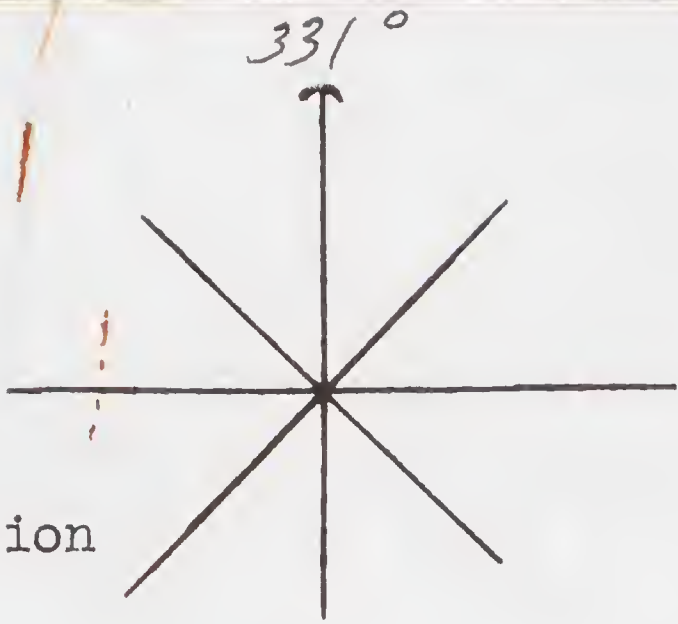
leave Enderbury 1600.

Date 12 July 1968
 Pg.# 1

SPECIMEN
 or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1630					begin obs - Enderbury 6 mi away
1632	BWP	1	S		good view.
1634	BFB	1	SW		ad.
1641	sooty tern	1	SE		ad - direct flight.
1645	" "	3	SE		" " "
1647	" "	1	SE		" " "
TF 1655	sooty tern	5			ad's. } all moving together SE
	Gray back t.	3			
	Fairy tern	1			
1703	Sooty tern	1	E		ad.
1705	BFB	2	SW		ad.
1712	Wedge-tail	1	W		H. phase
1743	Sooty Tern	2	SW		
1747	BF Booby	2	SE		
1813					W porpoise S + W (almost certainly <u>turossops</u> sp.?)
1825	sooty tern	3	E		ad's, slung out.
1827	Gray back tern	2	E		
1833	BWP	1	S		
1838	RFB	2	S		ad's, light phase.
1856	RTTB	1			on H ₂ O, ad.
1906	Sooty tern	1	S		ad.
1910	Fairy tern	1	SE		
1910	sooty tern	2	W		ad's.
FF 1912	Sooty Tern	60 ± 3			all ad's. } alternately diving + moving.
	Fairy Tern	5			
1915	Sooty Tern	1	N		ad - toward feeding flock.
1916	BWP	1			alighted on H ₂ O.
1935					Sunset.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

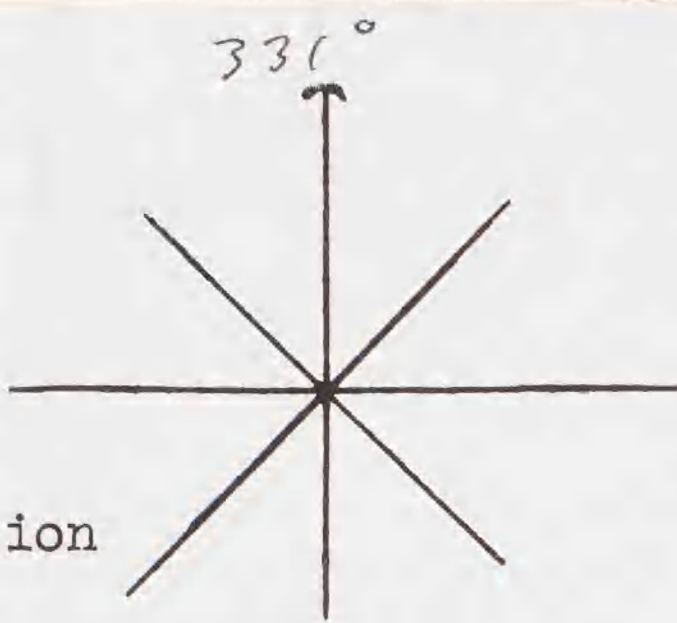
Crossin

Date 15 July 1968
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1000					begin obs. McKean 10 miles atias.
1005	BWP	1	S		
FF 1006	Sooty Tern Frigate sp.	10 1		ad's Imm	} far out, terns diving, frigate pursuing.
FF 1010	Sooty tern com noddy Haw. noddy Blue grey nod. Brown booby and. Shear. Fairy tern	50± 10± 6 25± 2 15± 5		ad's. ad's.	
1025	Sooty tern	1	S		ad.
1044	Sooty Tern	3	E		ad's.
FF 1055	Sooty tern BWP	5 2		ad's	} feeding.
1107	WTTB	1	Q		
1108	Lesser Frigate	1	Q		ad ♂!
1121	WTSP	1	N		normal phase - gliding with wings slightly cupped - bird kicks off waves about every 5' yds. never flapped for about 2 miles, going into wind and seas moderately rough. Individual moving right along w ship at ca. 10 knots. - some sideways motion occasionally to maintain balance. The kicking allows the bird to average maintain his 2-3 feet above water. at each kick he bounces up to about 3' height, then to float back to the bird's surface, then kick and rise again.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

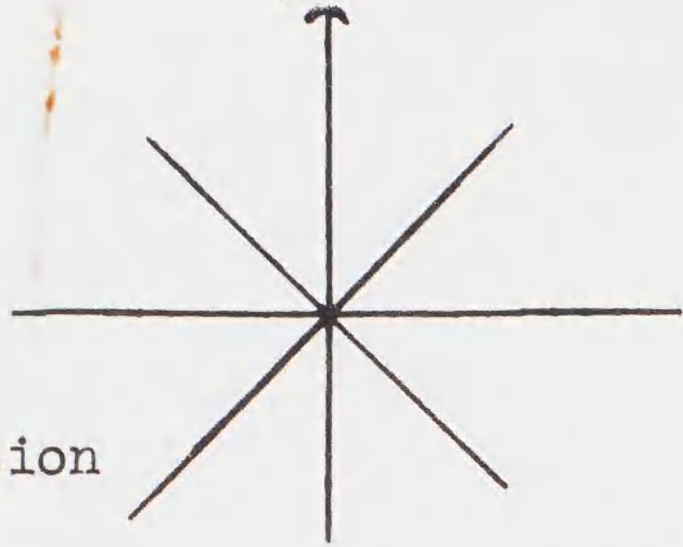
Crossin

Date 15 July 1968
Pg.# 2

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	1225	GB Tern	1	N		ad.
	1230	Fairy Tern	1	Q		Feeding
	1232	Leach's SP	1	cen		
	1240	sooty tern	3	S		ad's.
	1243	" "	2	S		ad's.
	1244	" "	3	S		ad's.
	1308	Leach's SP	1	cen		
	1312	Sooty tern	1	S		ad.
	1316	BFB	1	S		ad.
	1325	BFB	1	S		ad.
	1335	sooty tern	1	S		ad.
	1340	CIS	1	S		
	1340	shear pet	1	N		looked like Bulwer's, but definite white abdomen; not a WTSR.
	1343	BWD	1	S		
RF	1350	sooty tern Fairy Tern Frigate sp.	50 ⁺ 5 1		ad's	all diving + wheeling, apparently one fresh school, but too far out.
TF	1403	sooty tern	5	E		ad's.
	1408	BWP	1 1	W		ad.
	1409	BFB	1	E		
	1415	Fairy Tern	1	S		
	1430					close obs.
	1750					open obs.
	1735	BWP	1	N		
	1759	sooty tern	2	S		ad's
	1800	RTTB	1	N		ad
	1802	BFB	1	S		ad.
	1812	sooty tern	1	S		ad.
TF	1818	sooty tern Frigate sp.	2 F 4		ad's	
				SE		

1812
Enter S Grid

331°



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

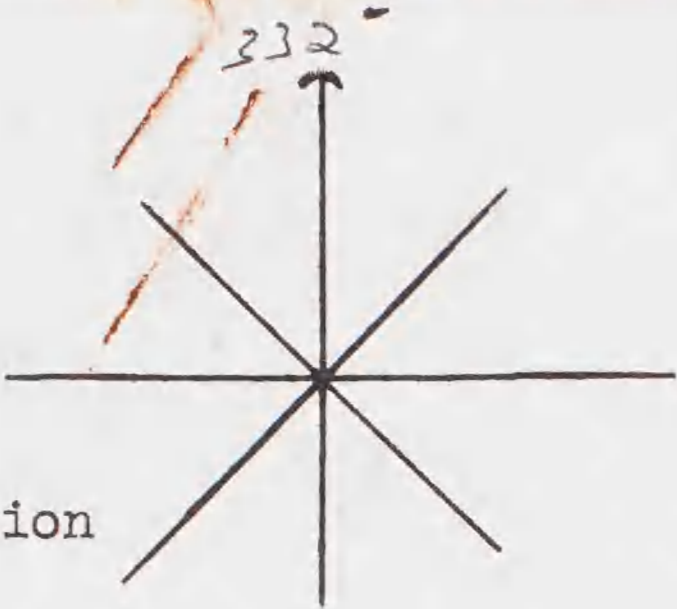
OBSERVERS:

Crossin

Date 15 July 1968
Pg.# 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
SF 1830	sooty tern	4			} circling up high
	Frigate p.	3			
1835	BFB	1	S		ad.
GP 1842	sooty tern	6	SE		ad's.
1905	BWP	1	N		
1925	Sooty Tern	4	S		ad's
1948					Sunset



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Crossin

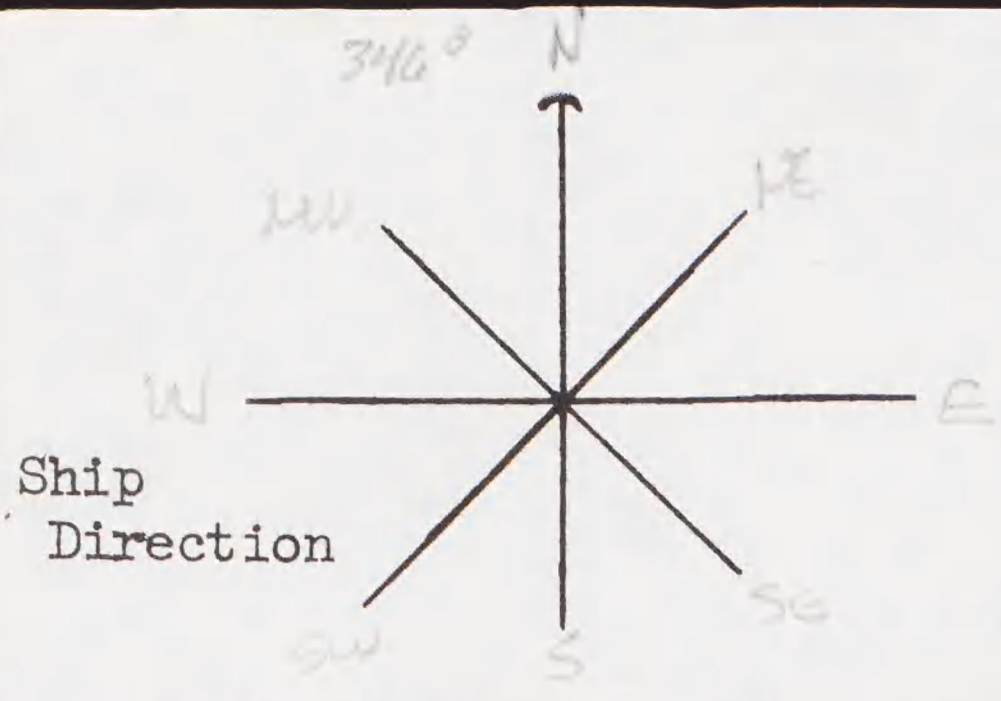
Date 16 July 1968
Pg. # 1

Ship
Direction

SPECIMEN
or
DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
					sunrise.
TF 0746					
	sooty tern	5			ad's.
	wedgetail	1	S		dk-ph.
TF 0752	sooty tern	5	E		ad's.
0756	" "	1	S		ad.
0757	" "	2	W		ad's.
TF 0759	" "	6	S		ad's.
0800	sooty tern	2			ad's.
	wedgetail	2			dk-ph. } SW
0801	sooty tern	4	NE		ad's.
0802					Baker in sight.
0807	sooty tern	2	W		ad's.
TF 0806	" "	8	SW		ad's.
0810	" "	1	N		ad.
0811	wedgetail	1	W		dk-ph.
0814	sooty tern	1	S		ad.
FF 0820	sooty tern	85 [±]			ad's.
	BFB	6			ad's.
	wedgetail	6			dk-ph.
	Frigate sp.	4			
					terns diving, much scattering and re-grouching.
FF 0822	sooty tern	105 [±]			ad's.
	BFB	7			ad's.
	BFB	2			Imm.
	wedgetail	12			dk-ph.
	Frigate sp.	3			
	BB	1			Imm.
					feeding - merging toward 0820 flock.
TF 0825	BFB	3			ads.
	sooty tern	9			ad's.
	wedgetail	1			dk-ph.
					heading toward now large consolidated flock.
0830					Baker now about 2 miles ahead, birds everywhere - close obs.

346°



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

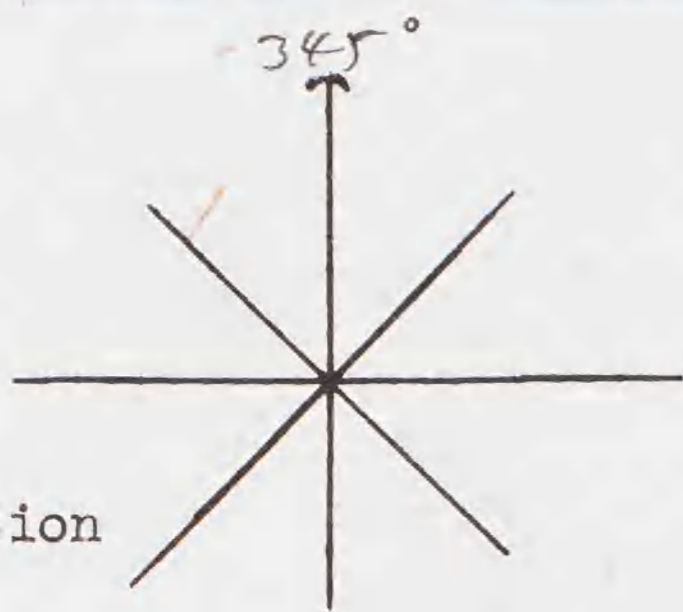
OBSERVERS:
Clapp

Date July 16, 1968
Pg.# 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

	1315	Watch begun offshore Baker Island			
	1320	ST	3	NE	ad
	1322	Coburn sp	2-6		big recovered dorsal fin blackish
	1331	ST	1	SW	ad
	1332	ST	2	SE	ad
	1335	ST	1	NE	ad
	1336	ST	1	S	ad
	1341	ST	2	W	ad
	1342	ST	1	E	ad
	1345	ST	2	S	ad
	1347	ST	3	S	ad
	1348	ST	1	SW	ad
	1348	ST	3	NE	ad
	1349	ST	1	N	ad
	1349	ST	2	S	ad
	1350	ST	2	S	ad
	1355	ST	1	W	ad
	1356	ST	1	W	ad
	1357	ST	1	W	ad
	1357	ST	1	W	ad
TF	1359	ST	11	N	ad about 25-30 feet up, straggling along
	1400	Bathypetrel			
	1406	ST	1	NW	ad
	1416	BFB	1	Q	imm
	1417	ST	1	S	ad
TF	1420	ST	52	NE	20-30 ft. ad - large straggling prominent
	1421	ST	1	NE	
	1422	ST	3	S	ad
	1422	ST	1	SW	ad
	1422	ST	8	N	ad scattered mid water
	1422	Boby sp	1	NE	doubt see it clearly - some imm BFB?
	1424	ST	1	E	ad
	1424	ST	2	S	ad
	1426	ST	2	NE	ad
	1427	ST	1	N	ad
	1430	ST	4	NE	ad
	1431	ST	2	N	ad
	1432	ST	1	N	ad
	1432	RFB	1	Q	subad



Ship
Direction

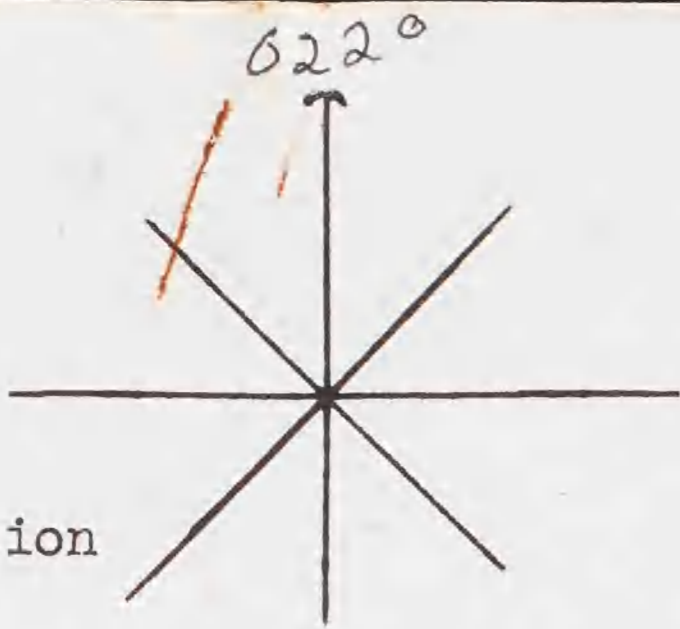
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Crossin

Date 16 July
Pg. # 3

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1445	sooty tern	47	N		all ad's.
	1450	" "	2	N		ad's.
	1451	" "	2	N		"
FF	1453	sooty tern Fairy tern	66 1			ad's feeding
TF	1455	sooty tern	8	N		ad's.
TF	1456	" "	12	N		ad's.
	1456	BFB	2	NW		ad's.
FF	1458	sooty tern	98			ad's, feeding sparsely.
TF	1502	" "	8	N		ad's.
TF	1505	" "	9	N		ad's.
TF	1510	" "	19	N		ad's.
	1512	sooty tern BFB	3 1			ad's N
TF	1515	sooty tern	5			ad's
TF	1517	" "	5	N		ad's.
TF	1519	" "	9	N		ad's.
	1519	BFB	3	N		ad's.
	1519	BFB	2	N		ad's.
	1526	SKUA	1	E		very dark, nice white wing patches. few sooty terns about.
	1530	BFB	2	N		ad's.
	1530	sooty tern	3	N		ad's.
TF	1531	sooty tern	16	N		ad's.
FF	1534	sooty tern	10	N		ad's.
	1535	" "	2	S		ad's.
TF	1536	" "	6	N		ad's.
	1537	Wedgetail	1	E		dark ph.
TF	1537	sooty tern	20	N		ad's.
	1540	RTTB	2			ad's, calling.
TF	1541	sooty tern	5	N		ad's.
	1545					cease obs. Howland view



Ship
Direction

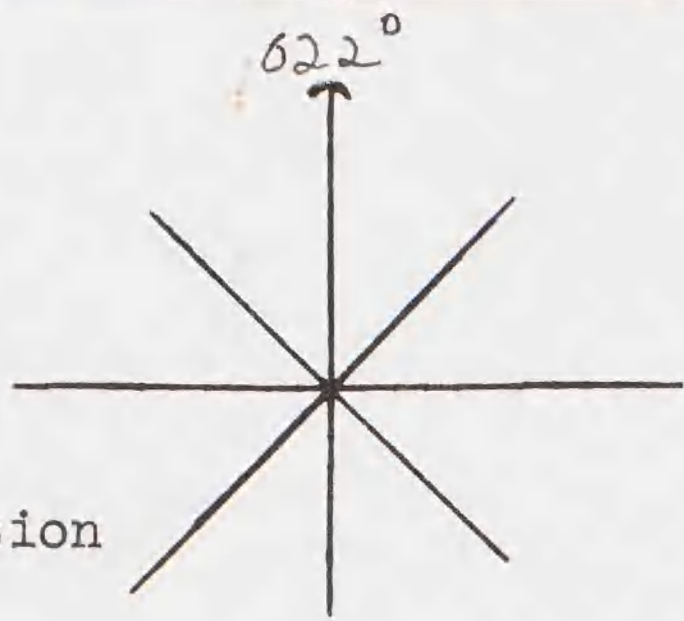
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Crossin

Date 18 July 1968
Pg.# 1

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1020					begin obs. Howland ca. 12 miles behind
TF	1023	sooty tern	5	S		toward island, adults.
	1025	wh-wing Petrel	1	S		good views.
	1028	Fairy Tern	2	E		
	1030	BFB	1	W		ad.
	1032	sooty tern	1	S		ad.
	1038	GB	1	N		ad.
	1041	sooty tern	1	W		ad.
	1042	Pterodroma sp.	1	N		far out
	1045	BFB	1	W		ad.
	1046	BFB	2	N		ad's.
	1109	BFB	1	N		ad.
	1115	sooty tern	1	S		ad.
	1120	BFB	1	S		ad.
	1143	BFB	1	S		ad.
	1144	ST	1	S		ad.
	1146	BFB	1	N		ad.
	1147	BFB	1	N		ad.
	1158	Shear pet	1	NW		way out
TF	1210	sooty tern	18	S		ad's.
SF	1233	" "	9	or		ad's, searching.
		wedge tail	1			dx ph.
	1236	RFB	1	N		Imm.
FF	1256	sooty tern	100±			} far out, terns + frigate diving.
		BFB	1		ad's	
		Frigate sp.	1			
	1259	Lesser Frigate	1	or		ad ♂
TF	1310	sooty tern	9	E		ad's.
	1312	Wedge tail	1	NE		dx ph.
	1325	sooty tern	3	S		ad's.
TF	1334	" "	5 7	NE		ad's.
	1356	" "	1	S		ad.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Crossin

Date 18 July 1968

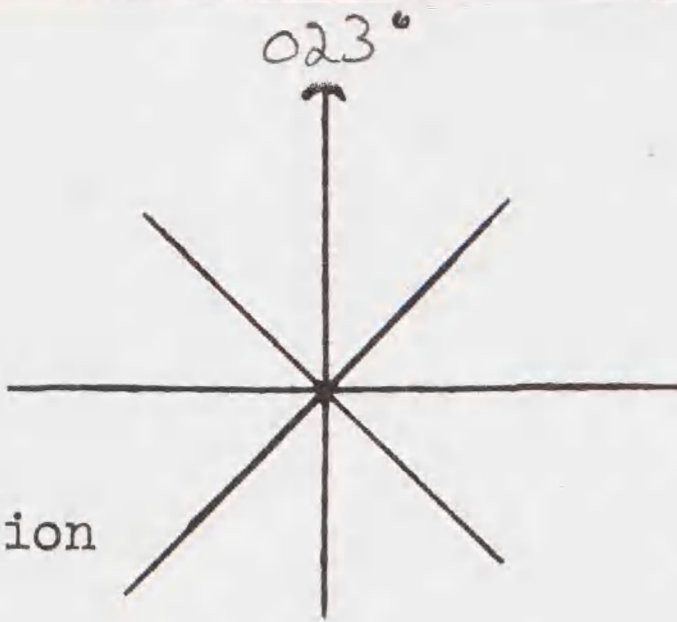
Pg.# 2

Ship Direction

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1404	RTTB	1	N		ad.
1413	"	1	OE		ad, arching ship, joined by one of 1404
1432	BFB	1	SW		ad
1433	RFB	1	SW		int. phase ad.
1525	R. sp	1	N		small Chelidon type, not seen well
1527	BFB	2	S		one adult, one subadult
1540	R. sp Petrel	1	NW		Size of a Kermadec or Laysan. Dark brown above, underwing appeared all dark as did the chest. Belly was whitish or grayish. Very chunky. Alternated a series of rapid wing flaps on horizontal with shallow banks of short duration. Finally set down on water several hundred yards from ship. Observed too briefly for me to make positive ID. First thought was of jaeger but flight wrong. Second was of an unusual petrel. Bird was in sunlight on water during brief observation thus reducing observational accuracy.
1612	BWP	1	NE		small grey-backed, had thick underwing linings
1636	Petrel sp.	1	N		same kind of bird as 1540 - definitely a petrel - probably Phoenix/Tahiti. In sun again so underwing not seen well
1702	Pterodroma sp.	1	N		bad light.
1710	sooty tern	1	SE		dk.
1722	Pterodroma sp.	1	S		
1754	BWP	2	N		
TF 1830	sooty tern wedgetail	7 5			ad's dk ph. } S.
1833	JFP	1	S		
1834	wedgetail	1	N		dk ph.
1837	BWP	1	NW		
1838	Frigate sp	1	W		into sun
1844	wedgetail	1	S		dk ph.
1908	BWP	1	S		
TF 1915	sooty tern wedgetail	5 1			ad's dk ph.
FF 1952	sooty tern wedgetail Frigate sp.	150± 25 4			ad's dk ph } feeding

Sunset 1955
Case obs.



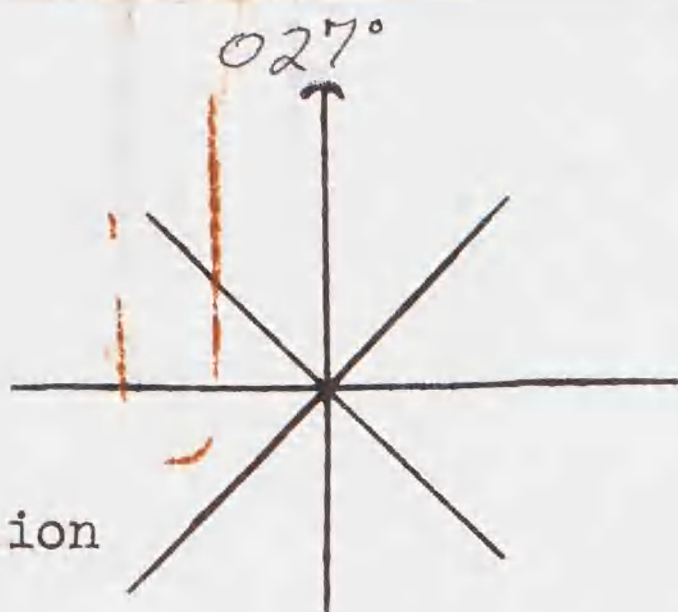
Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Crossin SR-

Date 19 July 1968
Pg. # 1

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	0725					begin obs.
	0735					Sunrise
	0745	Ph. Is. Petrel	1	N		
	0750					violent rain squall
	0817	shear-Pet	1			
	0858	Wh-t. Tropicb.	1	E		
	0957	Bl-w. Petrel	1	S		
FF	1003	Sooty Tern	49	S		Terns up high, only a few feeding, Shearwaters + Petrel actively feeding. All Wedge-t. were dark phase
		Wedge-t. Sh	9			
		J.F. Petrel	1			
	1119	Wedge-tail	1	SW		dk. ph.
F	1142	Sooty Tern	c. 30	NE		Evidently a feeding flock that all dark phase was in the process of dispersing. Sooties were overhead but not seen coming to the surface and seemed from the point of initial observation to be heading out in a straggling manner. At point of initial observation 6-10 of the wedgetails were plumping down in the water and may have actively feeding. Within 30 seconds or so however all were generally moving out NE in a straggling column. May have been ^{been} ^{white} ^{originally} ^{by} ^{Pterodroma} ^{with} ^{Phai} dk. phase - probably remnants of above, not seen closely. Possibly from above?
		Wedge-tail	c. 20			
	1145	Wedge-tail	3	NW		
	1148	J.F./w.N. Pet	1	NW		
	1359	WTTB	1	CE		
	1652	Bl-w. Petrel	1	S		
	1736	Petrel sp.	2	S		Bl-w. Petrel sized but blackish head + back - white on body + under wings
	1743	Black-w. Petrel	1	N		
	1948	BWP	1	NE		seen well
	1959					Sun touched horizon
	2003					Sun below horizon



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

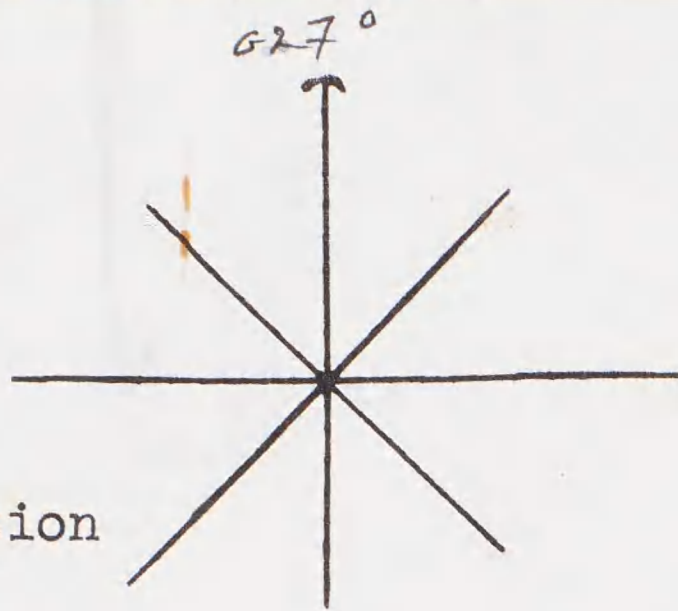
Hackman SR-0900
Clapp 0900-1100
Crossin

Date July 20 1968
Pg.# 1 of

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0724					Sunrise
0759					Violent rain squall w/ 38 knot gusts until 0814
0842	Bl-w. Petrel	1	W		
0844	Bl-w. Petrel	1	W		
0846	Bl-w. Petrel	1	S		
0848	Wh-n. Petrel	1	S		
0912	J.F. Pet	1	NW		
0920	JF/WN Pet	1	NW		
0921	Wedge-tail	1	S		dk ph.
1001	Wedge-tail	1	NW		dk ph.
1020	Pt. sp.	1	NW		way out - probably a JF or WN rather than a Cook's Petrel
1102					light rain squall
1103	Bl-w. Petrel	2	NW		
1125	Wedgetail	1	E		dark ph.
1135	BWP	1	N		over bank, 50 fathoms.
1136	JFP	1	SW		
1152	JFP	1	W		in rain squall
1227	Bulwer's	2	N		
1245	BWP	1	W		
1329	W-t. Sh	1	N		dark phase
1332	W-t. Sh.	1	N		dark phase
1335	JFP	1	N		
1338	W-t. Sh	1	E		dark phase
1408	Wh-n. P.	1	W		running w/ wind from a large rain squall
1421	Sooty Tern	1	N		high, about 150'
1424	Bl-w. Petrel	1	N		
1718	BWP	1	N		
1727	JF/WN Petrel	1	N		
1803	JFP	1	N		through heavy rain squall.
1812	wedgetail	2	N		dark ph.



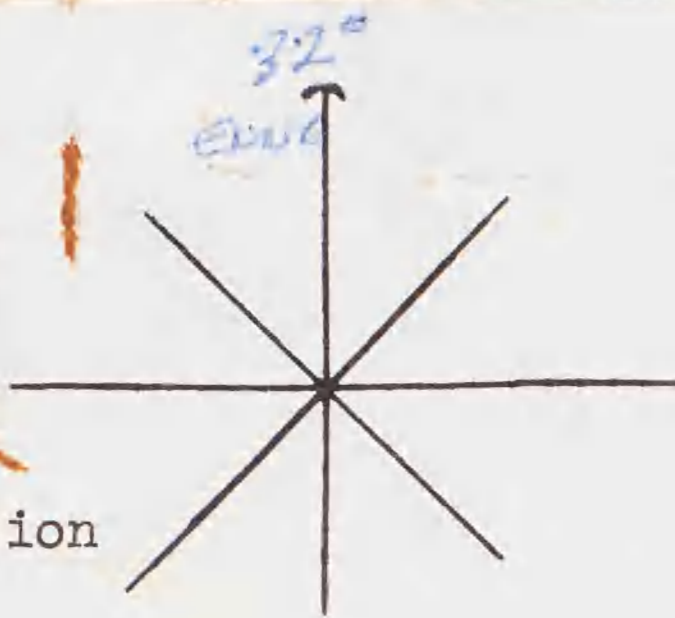
SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

OBSERVERS:

Date 20 July 68
 Pg.# 2

SPECIMEN
 or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1827	JFP	1	N		
1924	JFP	1	E		
1954					Sunset



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

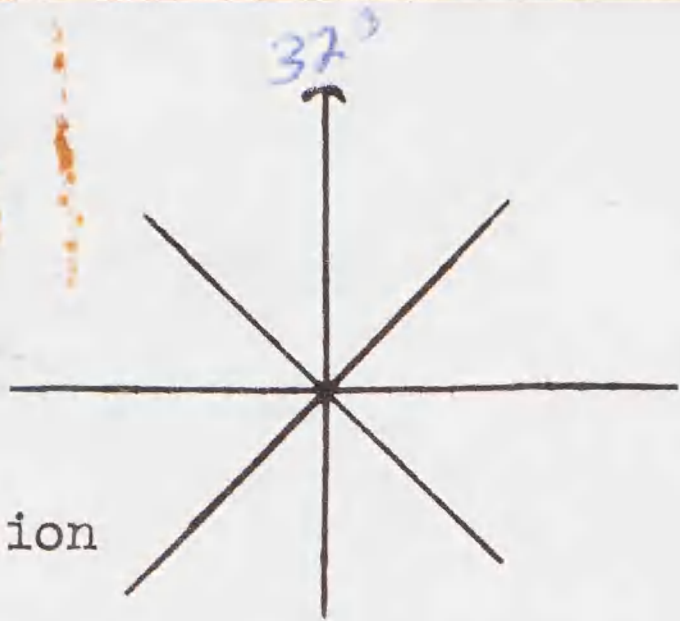
Chapp

Date 21 July 1968
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0705					watch begins
0721					rain squall 120 ft to port
0736					rain squall
0802	JF/WN Pet	2	IN S		
0803	BWP ^{Pterop}	1	S		underwing appeared pure white No thick black border seen
0806	WTTB	1	N		
0825	Pterodroma	1	N		coming up from behind ship at level of crossbar on mast
0828	BWP	1	N		
0845					rain squall
0909	Pt. sp	1	W		small, Cook Island group, far out
0921	WN Pet	1	S		
0930					rain squall
0937	JF Pet	1	NW		
0940	BWP	1	SE		
0947	JF Pet	1	NW		
0947	Pet. sp	1			rather common, probably JF/WN
0959	Fairy Tern	1	S		
1012	wedgetail	1	N		dk ph.
1030	wedgetail	1	N		light ph.
1040	WNP	1	N		
1045	wedgetail	1	N		dk ph.
1107	BWP	1	N		
1117	"	1	NW		
1131	WNP	1	S		
1145	JF/P	1	N		
1259	JFP	1	N		
1309	Bl-W.P	1	S		
1329	Sooty Tern	1	N		Immature
1350	BWP	1	N		
1352	JFP	1	E		
1445					Rain squall
1530	wedge-tail	1	NW		dk ph



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 21 July 1968
Pg.# 206

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1540	BWP	1	W		seen well - oh goodie!
1634	BWP	1	NW		" - ditto!
1634	Sooty Tern	1	S		ad
1716	BWP	1	N		
1730	JFP	1	N		
1825	JFP	1	NW		
1835	BWP	1	N		
FF 1838	Sooty Tern Wedgetail JFP	15 1 1	ad's dx ph.		entire assemblage moving slowly south, Terns diving.
1848	BWP	1	E		
1906	"	1	NW		
1954					Sunset