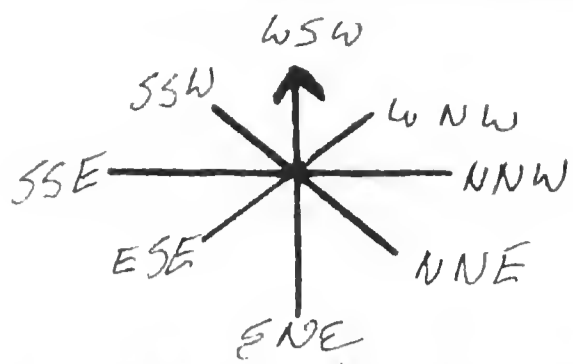


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| time | species | # | dir. | hgt. | remarks | loc. |
|------|-------------------------|---|------|---------------------|---|------|
| 0850 | - | - | - | - | LV Pier 39 | |
| 0900 | - | - | - | - | LV. HONO HARBOR | |
| 1012 | Common Noddy | 2 | WNW | low | | |
| 1015 | " " | 1 | WNW | low | | |
| 1016 | " " | 1 | " | " | | |
| 1043 | Wedge-tailed Shearwater | 1 | NNW | " | | |
| 1045 | Com. Noddy | 1 | - | on H ₂ O | | |
| 1048 | Wedgetail | 1 | NNW | | | |
| 1049 | " | 2 | NNW | | | |
| 1052 | Bulwer's P. | 1 | NNW | | | |
| 1105 | Common Noddy | 1 | SE | low | | |
| 1123 | Bulwers | 1 | W | low | | |
| 1123 | Bulwers | 1 | SE | low | | |
| 1124 | Common Noddy | 1 | SE | low | | |
| 1132 | Bulwers | 1 | SE | low | | |
| 1135 | " | 1 | SE | low | | |
| 1145 | Gr. Frig. Bird | 1 | SE | 150' | | |
| 1155 | Wedgetail | 1 | W | low | | |
| 1230 | Common Noddy | 1 | S | | | |
| 1255 | Wedgetail | 1 | NNE | 10' low | | |
| 1335 | Bulwers Pet. | 1 | WNW | " | | |
| 1337 | Wedgetail | 1 | NNW | | | |
| 1348 | Bulwers Pet. | 1 | SSE | To 30' To 10' | - Gliding flight - very little flapping | |
| 1355 | Wedgetail | 1 | ENE | To 60' | | |
| 1355 | Bulwers | 1 | WSW | Low | | |
| 1402 | WEDGETAIL | 1 | ENE | " | | |
| 1405 | " | 1 | ENE | " | | |
| 1405 | " | 2 | ENE | " | | |
| 1406 | " | 1 | ENE | " | | |
| 1406 | " | 1 | ENE | " | | |
| 1407 | Bulwers | 1 | SSE | " | | |
| 1410 | Bulwer's | 1 | ENE | " | | |
| 1415 | Shearwater | 1 | ENE | low | | |
| 1419 | Wedgetails | 1 | ENE | low | | |
| 1428 | Tropicbird | 1 | - | on H ₂ O | | |
| 1428 | Shear-Petrel | 1 | ENE | low | | |
| 1435 | Wedgetail | 1 | NNW | low | | |
| 1440 | Wedgetail | 1 | SSE | low | | |
| 1446 | Wedgetail | 1 | ENE | low | | |
| 1449 | Bulwer's Pet | 1 | SE | low | | |
| 1500 | wedgetail Sh. | 7 | ENE | Low | Flying in a group - 2 to port 5 starboard | |
| 1520 | Newell's Sh. | 1 | NE | Low | | |
| 1521 | Wedgetail | 1 | SSE | low | | |
| 1521 | Wedgetail | 1 | SSE | low | | |
| 1527 | Wedgetail | 1 | NNW | low | | |

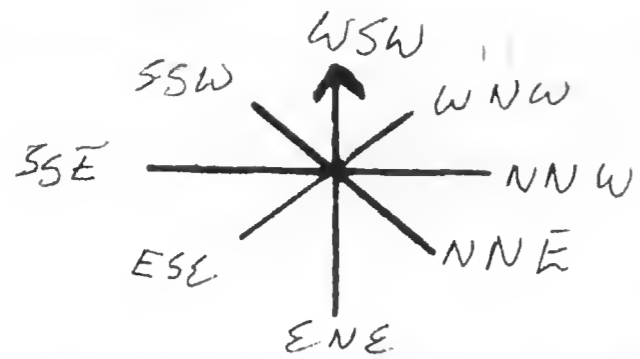
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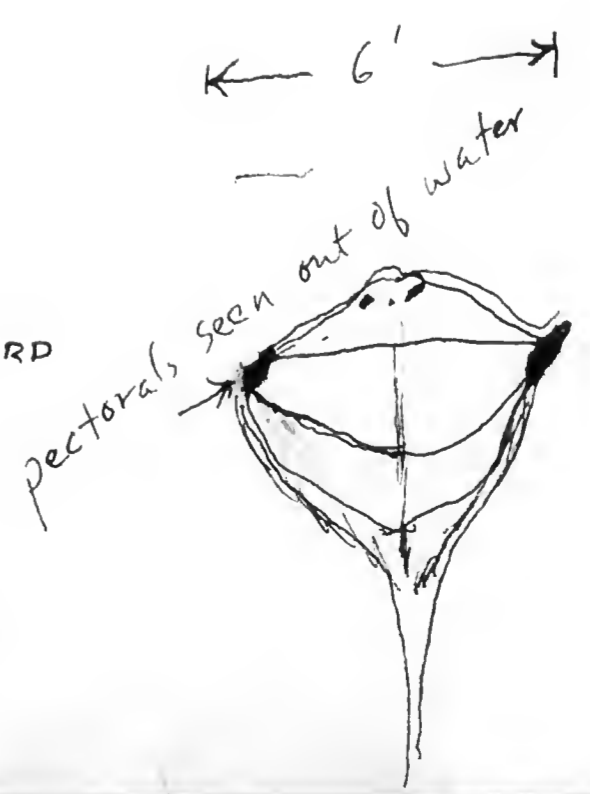
time species # dir. hgt. remarks loc.

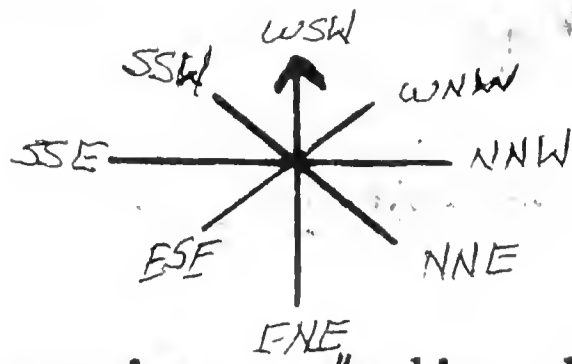
| time | species | # | dir. | hgt. | remarks | loc. |
|------|-------------------|---|------|------------|---|------|
| 1530 | Wedgetails Sh. | 2 | ESE | Low | | |
| 1530 | Newell's Shear. | 1 | SSE | Low | | |
| 1538 | Wedgetail Sh. | 1 | NE | Low | | |
| 1538 | Wedgetails | 1 | NE | Low | | |
| 1543 | Wedgetail Sh. | 1 | NNW | Low | | |
| 1543 | Wedgetails L | 2 | NNW | Low | | |
| 1550 | Red-T. Tropicbird | 1 | → | 250' - Low | down into H ₂ O | |
| 1552 | Pterodroma | 1 | NW | Low | | |
| 1557 | Wedgetail | 1 | SSE | Low | | |
| 1609 | Newells | 1 | NE | low | | |
| 1615 | Wedgetail | 1 | NNW | low | | |
| 1617 | " | 1 | E | low | | |
| 1618 | " | 1 | NE | low | | |
| 1618 | " | 1 | NE | low | | |
| 1618 | " | 1 | NE | low | | |
| 1626 | Newells | 1 | NE | to 20' | | |
| 1630 | Bulwerp | 1 | SSE | low | | |
| 1635 | Wedgetail | 1 | ENE | low | | |
| 1655 | " | 1 | ⊙ | low | pat down on water by a 2 nd wedgetail | |
| 1656 | Shear-Pet | 1 | NE | low | Possibly Newells; too far to see wingbeats | |
| 1705 | Newell's Sh. | 1 | NE | low | | |
| 1710 | Shear-Pet | 1 | W | low | | |
| 1730 | Wedgetail | 1 | ⊙ | " | | |
| 1736 | " | 1 | ENE | " | | |
| 1748 | " | 1 | NE | " | | |
| 1748 | " | 1 | WSW? | " | } much zigzagging | |
| 1748 | " | 1 | SSE? | " | | |
| 1750 | " | 1 | NE | " | | |
| 1752 | " | 1 | ENE | " | | |
| 1755 | " | 1 | NNW | " | | |
| 1759 | Noddy | 1 | NE | 20' | flying high as observed previously only after dark | |
| 1802 | Newells | 1 | E | to 20' | | |
| 1808 | Wedgetail | 1 | NE | low | | |
| 1809 | " | 1 | NE | " | | |
| 1812 | " | 1 | NE | " | | |
| 1813 | " | 1 | NE | " | | |
| 1815 | " | 1 | NE | " | | |
| 1822 | Shear-Pet | 1 | SSE | " | | |
| 1822 | " | 1 | NNW | " | | |
| 1829 | Wedgetail | 1 | NE | " | | |
| 1833 | Newells | 1 | NE | " | | |
| 1835 | wedgetail | 2 | W | " | | |
| 1839 | " | 1 | ⊙ | " | | |
| 1841 | Newell's | 1 | NE | " | | |
| 1843 | Wedgetail | 1 | W | " | | |
| 1852 | " | 2 | ↑ | " | keeping pace with ship | |
| 1912 | White tail Tropic | 1 | NE | 75' | | |
| 1912 | " | 1 | NE | 75' | Sunset ~ 1915 | |
| 2200 | | | | | OCCASIONAL SOOTY TERNS CALLING | |



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|-----------------|----------------------|----------|------|---------|--|------|
| 0505X | | | | | begin observations | |
| ca 0520 | | | | | Sunrise | |
| 0532 | Wedgetail | 1 | ENE | low | | |
| 0544 | Bonin Petrel | 1 | NNW | low | | |
| 0544 | Sooty Tern | 1 | NNW | 20' | | |
| 0547 | Wedgetail | 2 | NNW | to 20' | | |
| 0554 | " | 1 | NNW | low | | |
| 0609 | Pterodroma | 1 | SW | to 20' | | |
| 0610 | Sooty Tern | 2 | SW | low | | |
| 0610 | Wedgetail | 1 | N | low | | |
| 0611 | Sooty Tern | 2 | S | to 30' | Ad. + imm. | |
| 0617 | Wedgetail | 2 | Σ | low | light + intermed. dark phase | |
| 0618 | Pterodroma | 1 | SSE | to 20' | | |
| 0624 | Sooty Tern | 2 | NNW | to 20' | dark phase wedgetail with them - prob. 0617 | |
| 0645 | Wedgetail | 1 | NNW | low | | |
| 0659 | Wedgetail | 2 | E | low | | |
| 0659 | Wedgetail | 2 | E | low | | |
| 0659 | Sooty Tern | 1 | E | 100 ft. | | |
| 0700 | Sooty Tern | 2 | E | low | | |
| 0703 | Sooty Tern | 2 | NNW | low | | |
| 0703 | " | 1 | NNW | low | | |
| 0712 | Wedgetail | 1 | N | low | | |
| 0713 | Wedgetail | 1 | N | low | | |
| Flock 0720 | Wedgetail | | | | | |
| | Sooty Tern | 90 ± 20 | | | Not observed actively feeding; some birds sitting on water. one large school of flying fish running ahead of flock | |
| | Fairy Tern | 2 | | | | |
| | Frigate | 2/ | | | | |
| | Wedgetail | 300 ± 50 | | | 3 Wedgetails collected. | |
| | Newell's | 1 | | | | |
| | Booby | 1 | | | Red foot or Masked | |
| 0810 | | | | | | |
| 0820 | Wedgetail | 1 | NNE | low | | |
| 0828 | Newell's Sh | 1 | WSW | Low | | |
| 0835 | Wedgetail | 1 | NNW | Low | | |
| 0848 | Wedgetail | 1 | NNE | Low | | |
| 0850 | Wedgetail | 2 | SSE | Low | | |
| 0851 | Bonin Islet | 1 | WSW | Low | | |
| 0904 | Wedgetail | 1 | ENE | low | | |
| 0905 | Fairy Tern | 1 | ESE | 40' | | |
| 0916 | Sooty Tern | 1 | WSW | 30' | | |
| 0918 | Sooty Tern | 1 | WSW | 30' | immature | |
| 0918 | Gray-back Tern | 1 | WSW | 30' | | |
| 0923 | R-T Tropicbird | 1 | ENE | 75' | | |
| 0930 | RAY | - | - | - | AT SURFACE OFF STARBOARD | |
| 0931 | Wedgetail | 1 | ENE | low | | |
| 0937 | Wedgetail | 1 | Σ | low | feeding; fish | |
| 0959 | SHEAR-Pet | 1 | NNW | " | | |
| 1002 | Wedgetail Sh. | 2 | NW | low | | |
| 1002 | Wedgetail Sh. | 1 | NW | low | | |

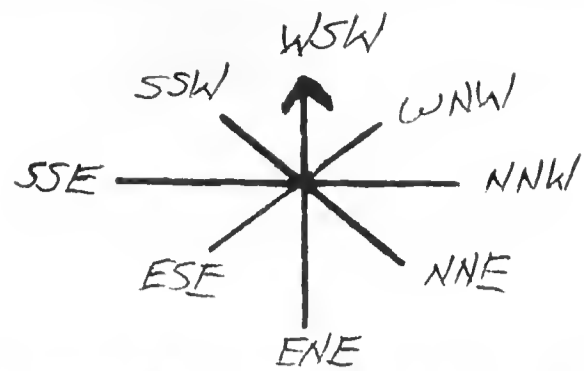




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Pg. # 2

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|------------|------------------------------------|----------|------|--------|---|------------------------------|
| 1025 | Wedgetail Sh. | 1 | ESE | Low | | |
| 1030 | Wedgetail | 1 | NNW | " | | |
| 1039 | " | 1 | " | " | | |
| 1050 | | | | | SHIP STOPPED TO REGAIN AIR PRESSURE | |
| 1106 | SOOTY TERN | 1 | E | " | | |
| 1115 | Wedgetail Sh. | 1 | NE | " | | |
| 1145 | Wedgetail | 3 | SW | 70-90' | | |
| 1148 | " | 1 | NE | low | | |
| 1152 | " | 1 | NE | " | | |
| 1210 | " | 3 | SE | " | | |
| 1225 | | | | | Underway, slowly | |
| 1240 | Wedgetail | 1 | E | low | | |
| 1300 | Sooty Tern | 1 | ENE | 50' | | |
| 1308 | Wedgetail | 1 | ENE | low | | |
| Flock 1320 | Wedgetail Sooty Tern | 35 ± 5 | | | Not feeding; no fish seen | |
| | Fairy Tern | 3 ± 1 | | | | |
| | Shear-Pet | 5 ± 1 | | | | |
| | Frigatebird | 1 | | | | |
| 1333 | Wedgetail | 2 | ENE | to 10' | one dark phase | |
| 1350 | Red Tail Tropic | 1 | ENE | 100' | | |
| 1351 | Wedgetail | 1 | NNW | low | | |
| Flock 1402 | Wedgetail Sooty Tern | 15 ± 1 | ENE | | Not feeding | |
| | Wedgetail | 6 | | | | |
| | Pterodroma | 2 | | | | |
| 1405 | Wedgetail | 1 | SE | to 20' | | |
| 1425 | Bulwer's Pet | 1 | SSE | low | NOT FEEDING | |
| Flock 1440 | Frigate bird | 10 ± 2 | | | Feeding flock; 2 wedgetails collected, one with flying fish in bill. group of Wedgetails sitting on water. | 99 390 16 17 524 |
| | Sooty tern | 100 ± 10 | | | | |
| | Wedgetail | 200 ± 50 | | | | |
| 1525 | Newell's Sh | 1 | NNW | low | | |
| 1532 | Wedgetail | 1 | NNW | low | | |
| 1535 | Wedgetail | 4 | NNW | low | | |
| 1537 | Bonin's Pet | 1 | NNW | low | | |
| 1615 | SHEAR-PET. | 2 | NNE | low | | |
| 1620 | " | 1 | | | | |
| 1620 | | | | | WHALE SPRAYS (fine mist-like spray - To 15') at least 3 (1 seen jumping but no shape seen due to distance) | |
| 1622 | Wedgetail | 2 | SSE | low | | |
| 1630 | Wedgetail | 3 | ESE | " | | |
| 1632 | Wedgetail | 1 | ESE | " | | |
| Flock 1645 | TERNs | 45 ± 10 | | | - OVER school of flying fish but not seen to actively feed. 1W collected. Wedgetails SCATTERED | |
| | FRIGATE | 3 | | | | |
| | BONIN | 1 | | | | |
| | Wedgetail | 40 ± 10 | | | | |
| 1700 | Bulwer's | 1 | | | WHALE | |
| 1702 | BONIN | 1 | WNW | TO 30' | | |

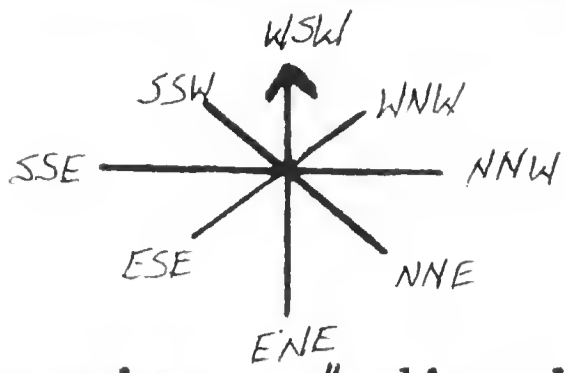


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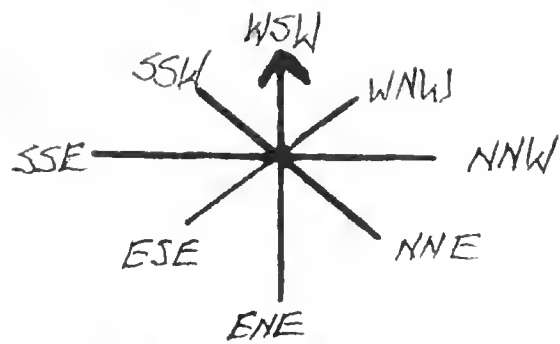
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|------|--------------------|---|-----|--------|---------------------------------------|--|
| 1708 | FRIGATE | 1 | ENE | TO 30' | - Apparently feeding - frequent dives | |
| 1717 | Wedgetail | 1 | ENE | low | | |
| 1717 | " | 1 | " | " | | |
| 1720 | Dark-rumped Petrel | 1 | § | low | | |
| 1721 | Wedgetail | 3 | § | low | - loose group. | |
| 1732 | Wedgetail | 1 | ENE | low | | |
| 1755 | WEDGETAIL | 1 | ESE | " | | |
| 1807 | WEDGETAIL | 1 | ENE | " | | |
| 1811 | WEDGETAIL | 1 | ENE | " | | |
| 1815 | WEDGETAIL | 1 | NW | " | | |
| 1816 | WEDGETAIL | 2 | WSW | " | | |
| 1819 | WEDGETAIL | 1 | ESE | " | | |
| 1822 | WEDGETAIL | 1 | NNE | " | | |
| 1829 | WEDGETAIL | 3 | ⊙ | " | | |
| 1830 | | | | | APPARENT SUNSET! | |

19



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| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|-------------------------------------|----------------|------|----------------------|---|------|
| | 0520 | | | | | Commence OBSERVATIONS | |
| | 0530 | | | | | SUNRISE | |
| | 0531 | NEWELL'S | 1 | SSE | LOW | | |
| | 0552 | Wh. Tropic Wh. Tropic | 1 | ☉ | 70' | - calling - raspy "Geck" | |
| | 0613 | Bonin's Island | 1 | SSE | low | | |
| | 0623 | " | 1 | " | " | | |
| Feeding Flock | 0630 | SOOTY TERN Wedgetail Bulwers | 3 2 1 | SSE | 70-30' | Birds diving over schools of small flying fish. larger fish near surface in large school. | |
| | 0644 | pterodroma | 1 | NNW | low | | |
| | 0644 | Wedgetail | 1 | ENE | " | | |
| | 0651 | " | 1 | ESE | " | | |
| Flock | 0700 | SOOTY TERN Wedgetail BONIN | 14 15 12 | NNW | 70-40' low low | - 1 orange leg RIBBON flock <u>very</u> LOOSE AND NOT FEEDING. MOVING RAPIDLY! | |
| | 0725 | WEDGETAIL | 2 | ENE | low | | |
| | 0747 | PTERODROMA | 2 | NNW | low | | |
| | 0757 | PTERODROMA | 1 | SSE | " | | |
| | 0758 | WEDGETAIL | 1 | SSE | " | | |
| | 0808 | Wedgetail | 1 | NW | " | | |
| | 0812 | Sooty Tern | 1 | ESE | " | | |
| | 0814 | White-tailed Tropic | 1 | WSW | low | came high, left low with tail between his legs | |
| | 0828 | Dark. Petrel | 1 | NNW | low | | |
| | 0842 | Grey-back Tern | 1 | ENE | low | | |
| | 0842 | Wh. Tropic | 1 | | | 8'-10' - whale | |
| | 0855 | Bonin I. Petrel | 1 | NNW | low | | |
| | 0906 | Wedgetail | 1 | S | low | | |
| | 0917 | " | 1 | NNW | low | | |
| | 0909 | Pterodroma | 1 | NNW | low | | |
| | 0909 | Wh. T. Tropic | 1 | NE | 50' | | |
| | 0915 | Wedgetail | 1 | SSE | low | | |
| | 0930 | Sooty Tern | 1 | NNW | 25' | | |
| | | Wedgetail | 1 | NNW | low | | |
| | 0930 | Wh. T. Tropic | 1 | ↻ | 50' | | |
| | 0937 | Wedgetail | 1 | NNW | low | | |
| | 0955 | " | 1 | ENE | low | | |
| | 0958 | Pterodroma | 1 | SSE | low | | |
| | 1026 | Pterodroma (Bonin Is. P?) | 1 | NNW | to 10' | NOT Bonin Is. Petrel. perhaps white below dark above, smaller than wedgetail, Flight - high arching - 500 yds out | |
| | 1050 | Wedgetail | 1 | NNW | to 10' | | |
| | 1132 | Wedgetail | 1 | SSE | low | | |
| Pterodroma | 1138 | Dark-rump? Petrel | 1 | NNW | low | | |
| | 1140 | Wedge Tail | 1 | NNW | low | | |
| | 1157 | Wedge Tail | 1 | WNW | low | feeding - on H ₂ O for few seconds. | |
| | 1200 | Bonin Is Pet | 1 | NNW | low | | |
| | 1201 | Bulwer's Pet | 1 | SSE | low | | |



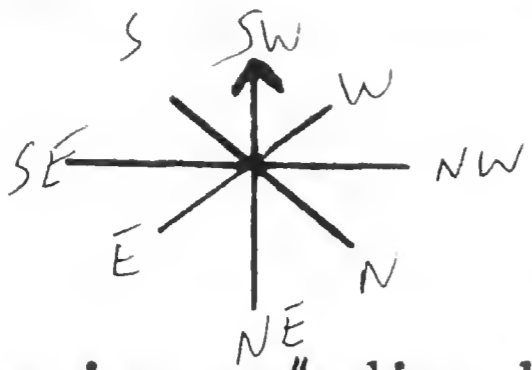
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| | | | | | | |
|------------------|----------------|---|-----|--------|--|--|
| 12 21 | WEDGETAIL | 1 | NNW | Low | | |
| 12 29 | SHEAR-PET. | 1 | SSE | " | | |
| 12 44 | WEDGETAIL | 1 | WSW | " | | |
| 13 16 | SHEAR-PET. | 1 | SSE | " | | |
| 13 20 | Red-t. TROPIC | 1 | ESE | TO 80' | - sitting on H ₂ O. | |
| 13 30 | | | | | | |
| 13 57 | WEDGETAIL | 2 | NNE | Low | - ship slowed to ~1/2 speed. | |
| 13 59 | WEDGETAIL | 1 | SSE | " | | |
| 14 25 | Dark r. Petrel | 1 | E | Low | white neck not seen, back more like wh. neck. | |
| 14 31 | White neck Pet | 1 | SSE | low | not arching - flying more like shearwater | |
| 14 45 | B.F. Booby | 1 | N | low | Subadult | |
| 15 30 | W.T. Tropic | 1 | ⊙ | 80' | circling ship; returned (?) 15 40, circling | |
| 15 32 | R.T. Tropic | 1 | ⊙ | 80' | " " for 5 min; W.T. left | |
| 16 24 | Bonin's Petrel | 1 | SSW | low | | |
| 16 47 | Fairy Tern | 1 | ENE | 70' | | |
| 16 55 | Pterodroma | 1 | NNW | low | Large (Wedgetail size) brownish back whitish head. light brownish underneath with white good Dark-rump except for darkish underneath. Wedgetail flight. possibly immature D-rump. | |
| 18 08 | Wedgetail | 1 | ENE | Low | | |
| 18 13 | Close out | | | | | |
| 18 43 | watch | | | | | |

Pterodroma →



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| time | species | # | dir. | hgt. | remarks | loc. |
|------------|-------------------------|---------|------|------|---|------|
| 0530 | | | | | Begin observations. | |
| 0537 | Shear-Petrel | 1 | ? | low | | |
| 0555 | Bulwer's Petrel | 1 | NW | low | | |
| 0555 | | | | | sun appeared to be up - behind land banks | |
| 0600 | White-necked Petrel | 2 | NW | low | | |
| 0613 | Pterodroma | 1 | SE | low | 1st Bonin Is. | |
| 0613 | Pterodroma | 1 | SE | low | | |
| 0616 | White-neck | 1 | ? | low | | |
| 0645 | Red-Tail Tropic | 1 | SE | low | 1st on H ₂ O flushed by ship. | |
| 0646 | Wedgetail Shear | 1 | NW | low | | |
| 0654 | Sooty tern | 5 | N | low | | |
| 0656 | Sooty tern | 5 | N | low | | |
| 0656 | Sooty tern | 1 | N | low | immature | |
| 0658 | Sooty Tern | 1 | NNW | Low | | |
| 0659 | Sooty Tern | 2 | NE | low | | |
| 0702 | Sooty tern | 4 | N | low | one with orange streamer | |
| 0713 | Shear-Petrel | 1 | NW | low | | |
| 0714 | Wedgetail | 1 | SE | low | dark phase | |
| 0714 | Pterodroma | 1 | SE | low | | |
| 0715 | Sooty Tern | 6 | NE | low | | |
| 0718 | Sooty Tern | 1 | E | low | → 40' | |
| 0720 | Sooty Tern | 4 | E | low | | |
| 0720 | Sooty Tern | 3 | NW | low | | |
| 0721 | Sooty Tern | 7 | NW | 100' | | |
| 0724 | Wedgetail Sh. | 1 | NW | low | | |
| 0731 | Wedgetail Sh. | 1 | NE | low | | |
| 0733 | Sooty tern | 1 | NW | low | | |
| 0735 | Sooty tern | 1 | NW | " | | |
| 0735 | Red-f Booby | 1 | NNE | low | subadult | |
| 0736 | Sooty Tern | 1 | N | low | | |
| 0743 | Sooty tern | 3 | NE | low | → 2 High | |
| 0743 | Wedgetail Sh. | 1 | NE | low | | |
| 0756 | Wedgetail Sh. | 1 | NNE | low | | |
| 0811 | SOOTY TERN | 5 | SE | low | | |
| Flock 0835 | SOOTY TERN WEDGETAIL | 16 4 | ↔ | low | NOT FEEDING | |
| Flock 0845 | SOOTY TERN | 20 | SE | low | NOT FEEDING | |
| Flock 0850 | SOOTY TERN | 150 | NE | | Not feeding - (flock) | |
| 0851 | WEDGETAIL | 4 | SE | | - J.P. IN SIGHT | |
| 0851 | SOOTY TERN | 10 | SE | | | |
| 0854 | WEDGETAIL | 2 | NE | | | |
| 0854 | SOOTY TERN | 2 | NE | | | |
| 0855 | " " | 1 | N | | | |

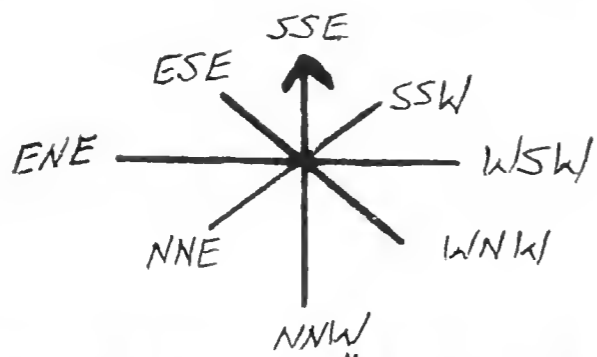
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| | | | | | | | |
|---------|-----------------|-----------------------|--------------|-----|--------|---|------------|
| | 0856 | WEDGETAIL | 1 | SE | LOW | | |
| | 0901 | SOOTY TERN | 1 | NE | 40' | | |
| | 0902 | " " | 1 | " | LOW | | |
| | 0902 | " " | 3 | " | " | | |
| | 0903 | WEDGETAIL | 1 | SE | " | | |
| | 0903 | SOOTY TERN | 2 | N | " | | |
| | 0904 | " " | 1 | SE | " | | |
| | 0905 | WEDGETAIL | 4 | E | " | | |
| | 0905 | " " | 1 | E | " | | |
| | 0913 | SOOTY TERN | 3 | NE | " | | |
| | 0914 | Pterodroma | 1 | N | " | | |
| | 0919 | WEDGETAIL | 1 | NE | " | | |
| | 0922 | FRIGATE | 1 | ⊙ | 90' | | |
| | 0924 | SOOTY TERN | 1 | N | LOW | | |
| | 0924 | " " | 1 | E | 40' | | |
| | 0924 | " " | 1 | N | LOW | | |
| | 0926 | WEDGETAIL | 1 | NE | 40' | | |
| | 0928 | SOOTY TERN | 1 | — | — | - ORANGE LEG RIBBON | |
| | 0929 | " " | 3 | — | — | | |
| | 0929 | FRIGATE | 2 | E | | - FEMALES | |
| | 0930 | SOOTY TERN | 2 | SW | 30' | | |
| | 0930 | " " | 1 | W | " | | |
| | 0931 | " " | 4 | W | LOW | | |
| | 0933 | FRIGATES | 4 | ⊙ | 100' | | |
| | 0933 | SOOTY TERN | 5 | NE | — | | |
| | 0933 | " " | 3 | SE | 30' | - ORANGE LEG RIBBON | |
| | 0935 | SOOTY TERN | 2 | NE | 35' | | |
| | 0936 | " " | 2 | SE | — | | |
| | 0939 | " " | 1 | SE | — | | |
| | 0954 | " " | 4 | SE | 30' | | |
| | 0955 | " " | 1 | " | " | | |
| | 0956 | " " | 4 | " | " | | |
| | 0958 | " " | 1 | " | LOW | | |
| | 1003 | " " | 2 | " | " | | |
| | 1004 | WEDGETAIL | 1 | SSE | " | | |
| | 1006 | " " | 1 | NE | " | | |
| | 1010 | Booby | 1 | NE | " | orange streamer | |
| ca 1015 | 1021 | SOOTY TERN | 5 | S | 30' | Imm. R F? distant, dark above, light below | |
| Apr 19 | 1022 | Wedgetail | 2 | N | LOW | change course to SSE | white card |
| 6-9 | 1030 | " " | 1 | SE | " | | |
| | 1031 | " " | 1 | WNW | " | | |
| | 1108 | " " | 1 | NW | " | | |
| stand | 1117 | DARK RUMP P. (?) | 1 | NNE | to 20' | very pale back with trace of dark W | |
| 2-2 | 1121 | Shear-Pet | 1 | NE | LOW | | |
| 1-1 | 1324 | Red-foot Booby | 1 | SSE | 50' | immature - collected. | |
| 9-9 | 1520 | Pterodroma | 1 | ENE | LOW | dk head. + trail edge under surface, W on back, under body light. upper body brown. Non Arching flight. | |



DATE 6 AUG 64
Pg.# 3

time species # dir. hgt. remarks loc.

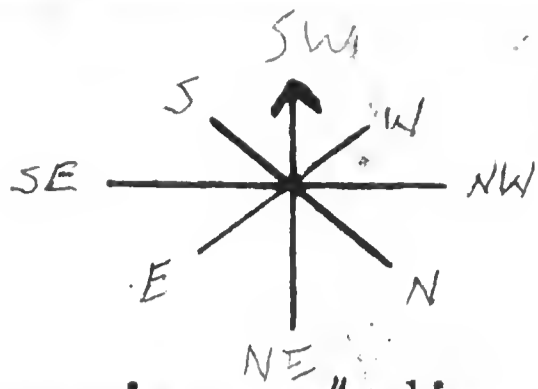
| | | | | | | |
|------|-----------------|---|-----|-----|---|--|
| 1559 | Pterodroma | 1 | SSE | low | whitish rump, gray back; underwing not clearly seen; fast flight; molting Bonin Is? | |
| 1604 | Sooty Tern | 9 | NNW | low | | |
| 1604 | " | 1 | ENE | 20' | | |
| 1648 | Wedgetail | 2 | NW | low | | |
| 1703 | wedgetail | 1 | ENE | low | | |
| 1724 | Pterodroma | 1 | SSE | low | | |
| 1726 | " | 1 | " | " | | |
| 1727 | Sooty tern | 4 | WSW | " | | |
| 1728 | Pterodroma | 1 | WSW | " | | |
| 1747 | Shear-Pet | 1 | SSE | " | | |
| 1752 | Wh. Neck Pet(?) | 1 | SE | low | whitish rump & neck, dark uniform back, slow floppy flight | |
| 1757 | Pterodroma | 1 | S | " | | |
| 1809 | " | 1 | N↔S | " | white neck + possibly white head back & forth | |

1308

SUNSET
GREENISH,

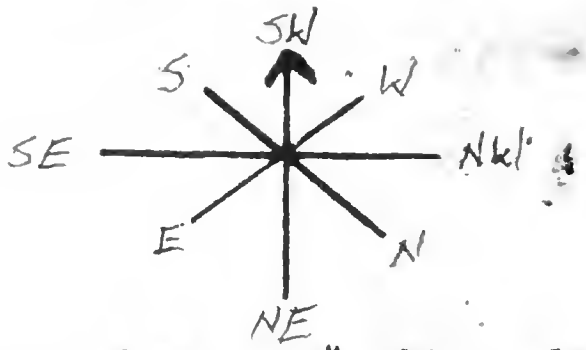
2252

LARGE, FLAMING OBJECT FALLING IN ATMOSPHERE WEST TO WNW OF SHIP'S POSITION. EMITTING BURSTS OF LIGHT SIMILAR TO LIGHTNING. DISTANCE UNDETERMINABLE. DISAPPEARED BELOW HORIZON - VISIBLE FOR APPROXIMATELY 3 SECONDS



DATE 7 August 1964
Pg. # 1

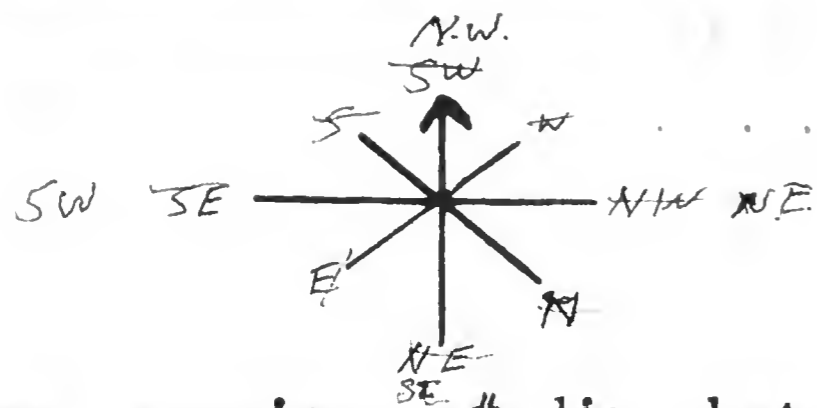
| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|---|---|------|------------------|--|------|
| 0101 | Bird | 1 | NW | 55' | | |
| ca 0100 | | | | | change course to SW. | |
| 0207 | Bird | 1 | E | 50' | | |
| 0545 | Shear-Petrel | 1 | NE | low | | |
| 0605 | Fairy Tern | 1 | NE | 50' | Having trouble making headway into the wind | |
| 0610 | Pterodroma | 1 | NE | to 30' | White undertail coverts, larger than wedgetail | |
| ca 0600 | | | | | sunrise | |
| 0620 | | | | | atop for morning station | |
| shear pet. 0634 | Audubon(?) Shearwater | 1 | SE | low, to 30' | Newell's pattern but not flight; could not see tail or breast band; very fast flapping with no gliding around ship, their long wedgetail-like arcs | |
| 0650 | Pterodroma | 1 | NW | to 20' | | |
| 0725 | | | | | underway | |
| 0725 | W.N. Petrel | 1 | WNW | to 20' | | |
| 0843 | W -T Tropic | 1 | NE | 80' | | |
| 0847 | Pterodroma | 1 | NW | low | | |
| 0855 | Sooty Tern | 1 | WNW | low | Feeding | |
| 0928 | Fairy Tern | 1 | WSE | low | Feeding | |
| 1058 | Bonin Is Pet | 1 | NW | low | | |
| 1117 | Red-Tail Tropicbird | 1 | - | H ₂ O | | |
| 1250 | Tropicbird | 1 | ⊙ | 75' | distant | |
| 1255 | Dark Rump Pet | 1 | SE | to 40' | slow, "floating" flight, mottled pattern above. | |
| 1305 | Pterodroma | 1 | N | low | appeared same as above but distant | |
| 1307 | Dark Rump P. | 1 | NE | to 30' | same | |
| 1308 | " " | 1 | S | to 30' | was sitting on H ₂ O in front of ship; same as preceding - light strip across rump, dark wing tips, pale leading edge, upper back & neck but not with a white collar. | |
| 1323 | Christmas Is | 1 | SE | low | | |
| 1323 | Wedgetail | 1 | SE | low | | |
| 1325 | Dark Rump | 1 | SE | to 20' | | |
| 1325 | " " | 1 | SE | low | | |
| 1325 | " " | 1 | ? | low | | |
| 1330 | Dark Rump P. Dark Rump P. | 1 | E | to 20' | distant, then close | |
| 1342 | " " | 1 | N | low | | |
| 1345 | Sooty Tern | 1 | ENE | 30' | Immature | |
| ca 1405 | Wh-nk Pet Pterodroma | 1 | - | - | collected - wh.-nk? | |
| 1410 | Pterodroma | 1 | - | to 40' | | |
| 1425 | " " | 1 | SE | to 30' | PROBABLY DK.-rump Pet. | |
| 1444 | CHRISTMAS Is. | 3 | SE | 0 to 30' | sitting on H ₂ O | |
| 1447 | Pterodroma | 1 | NW | to 40' | DK.-rump or wh-nk. | |
| 1453 | Wh-nk Petrel | 1 | SE | low | | |
| 1520 | DK-rump Pet. | 2 | NW | 30 to 40' | lighted in H ₂ O | |
| 1524 | Christmas Is. | 1 | SE | | | |
| 1524 | Pterodroma | 1 | WSW | LOW | | |



DATE 7 AUG 64
Pg.# 2

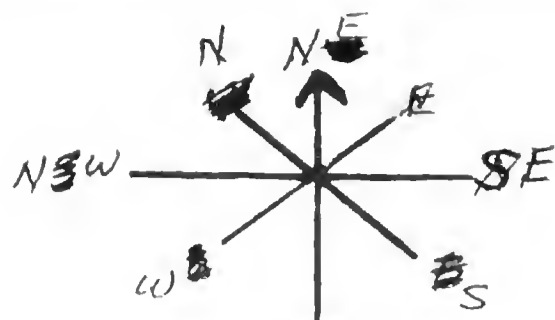
time species # dir. hgt. remarks loc.

| | | | | | | |
|-----------------|-----------------------|---|-----|--------|---|--|
| 1537 | HARLEQUIN S.P. | 1 | S | low | sitting on H ₂ O - FLUSHED BY SHIP. | |
| 1554 | WLT TROPIC | 1 | ENE | 80' | | |
| 1624 | Pterodroma | 1 | SW | low | not Bonin Is | |
| 1630 | Bonin Is Pet | 1 | SE | low | | |
| 1641 | W-n Petrel | 1 | NE | low | | |
| 1703 | Newell's Shear | 1 | SE | low | | |
| 1717 | R.T. TROPIC | 1 | NE | 70' | | |
| 1717 | - - - | - | - | - | BIRD SEEN WHILE WATCHING TROPIC BIRD - IN DISTANCE AND DARK - FLYING SIMILARLY TO SKuas SEEN PREVIOUS MONTHS. TOO DISTANT FOR ACCURATE OBSERVATION! | |
| 1812 | R.T. TROPIC | 1 | NW | 80' | | |
| 1825 | Wedgetail | 1 | N | low | | |
| 1845 | | | | | SUNSET | |
| 1849 | Wedgetail | 1 | 2 | low | | |
| 1935 | Shear-Pet | 1 | | low | | |
| 1948 | | | | | | |
| 2010 | | | | | rain squall | |
| 2000 | Fairy Tern | 2 | | to 30' | | |



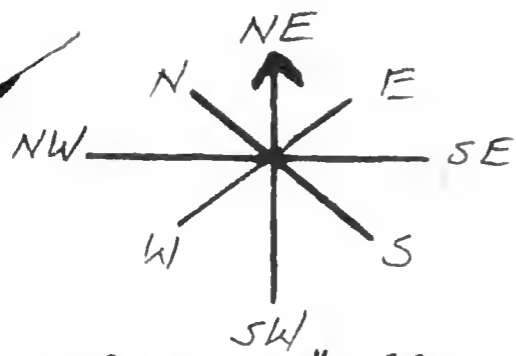
DATE August 7, 1964
Pg. # Last 3

| time | species | # | dir. | hgt. | remarks | loc. |
|----------------------|--|---|------|------------|---|--|
| 2203 2203 | | | | | Course change to heading of N.W. | |
| 2210 | Fairy Tern | 1 | East | 75 to 100' | Flying | |
| 2222 | White-tail Tropicbird Pterodroma | 1 | SE | Low | Running | |
| 2300 | BIRD | 1 | NW | 75' | happen over boat. No idea as to species but in | |
| 2340 | BIRD | 1 | NW | 100' | light colored underneath. Possibly an adult sooty tern by the way it flew. | the light so only showed up as a shadow against the sky. (ghost?) |
| 2350 | BIRD | 1 | SW | 100' | the light bottom shadow | |
| 2358 | White-tail Tropic | 1 | SE | 100' | Directly within light. Bow to stern | |



DATE August 8, 1964
Pg. # 1 (over)

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|--------------------|---|-----------------|--------|--|------|
| 0008 | Bird | 1 | SE | 75' | Large, white possibly tropic bird | |
| 0031 | Tropic Bird | 1 | ? | 75' | Circled ship once at height of crows nest. | |
| 0040 | White Bird | 1 | SE | 75' | Possibly tropic bird | |
| 0130 | Bird | 1 | SE | 20' | Possible in a tern | |
| 0137 | Bird | 1 | SE | 20' | Same as above - straight but not rapid flight, seems | |
| 0208 | Bird | 1 | SE | 50' | to have some white Same as above | |
| 0230 | | | | | change course NE | |
| 0526 | Bird | 1 | NE | low | | |
| 0532 | Shear-Pet | 3 | WE | low | | |
| CA 0615 | | | | | SUNRISE (heavy cloud cover) | |
| 0620 | | | | | STOP FOR PLANKTON SAMPLE | |
| 0642 | R.-T. TROPIC | 1 | SE N | 80' | | |
| 0654 | WHITE-NECK PETREL | 1 | N | low | DEFINITE IDENTIFICATION | |
| 0710 | | | | | UNDERWAY FULL SPEED | |
| 0716 | SHEAR-PET. | 1 | S | " | | |
| 0730 | " " | 1 | SE | " | | |
| 0800 | " " | 5 | " | " | | |
| 0809 | WHITE-NK. PETREL | 1 | NW | low | DEFINITE | |
| 0828 | " " " | 1 | W | to 40' | | |
| 0830 | " " " | 2 | SW | to 30' | | |
| 0848 | Shear-Pet | 1 | NW | low | | |
| 0900 | Dark Rump | 1 | NNW | low | | |
| 0910 | Shear-Pet | 1 | NW | to 20' | | |
| 0916 | White Neck | 1 | W | to 30' | | |
| 0912 | " " | 1 | W | low | | |
| 0916 | " " | 1 | W | to 30' | | |
| 0950 | Wedgetail | 2 | S | low | Dark phase | |
| 1011 | Wh-neck | 1 | SSW | low | | |
| 1024 | Pterodroma | 1 | W | low | not Bonin Is | |
| 1050 | Dark Rumped Petrel | 2 | NW | to 20' | | |
| 1103 | Pterodroma | 2 | SW | to 20' | | |
| 1107 | Shearwater | 1 | SE | low | Possibly Dark phase wedgetail but flapping quite a bit. like typical shear | |
| 1121 | WN Petrel | 1 | E | 20' | | |
| 1127 | wedgetail | 1 | NW | 0- | sitting on water | |
| 1127 | Dark Rumped | 1 | NW | 20' | | |
| 1127 | Shearwater Petrel | 1 | NW | to 20' | | |
| 1134 | Wh Neck | 1 | NE | low | | |
| 1140 | Dark-rumped | 1 | SW | low | | |
| 1143 | Pterodroma | 1 | ? | low | -not Bonin Is | |
| 1148 | Pterodroma | 1 | SW | low | | |
| 1207 | PTERODROMA | 1 | SE | " | | |
| 1213 | Wh-NK Pet. | 1 | SW | " | | |



DATE 8 August 1964
Pg. # 2

time species # dir. hgt. remarks loc.

1255 Shear-Pet 1 NW low

1353 " 2 SE "

1420 Wedgetail 1 ⌀ " all around ship

1425 Pterodrom 1 N "

1630 Sooty Terns 8 W 0-30' Flying very fast in no particular direction
at least one was a subadult

1640 Sooty Tern 6 ~~NE~~ low at least 1 immature with orange streamer

1742 Fairy Tern 1 NE low

1745 Shearwater 1 SE low

1840 Pterodrom 1 SE low could have been dark phase Wedgetail but flying like typical shear.

SUNSET

shear-Pet

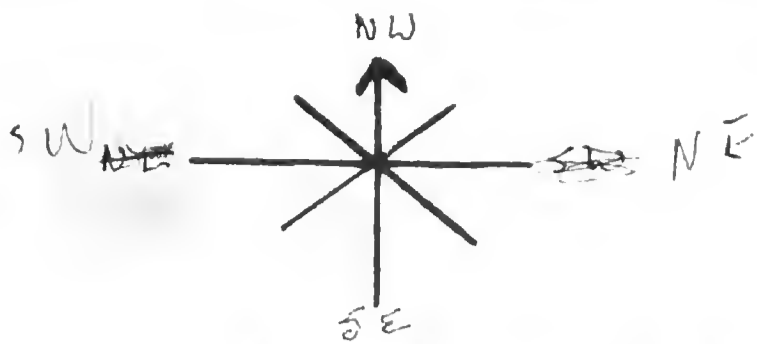
S M T W T F S
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31 1 2 3 4 5
6 7 8 9 10 11 12



DATE 9 August 1964
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|----------------------------------|---|------|--------|---|------|
| 0410 | | | | | Change course from NE to NW | |
| 0410 | | | | | Sunrise | |
| Ca 0600 | | | | | | |
| 0704 | Wedgetail Sh. | 1 | WNW | Low | | |
| 0758 | Pterodroma | 1 | SE | Low | 0630-0735 Morning Station, not Boring | |
| 0807 | Kermadec P. (?) | 1 | S | to 20' | dark back, wings (above + below), + head & throat; white breast & abdomen; white at bases of primaries on upper wing, white patch toward tips on lower. Chunky. Flight halfway between Pterodroma & Wedgetail | |
| 0835 | Shear-Pet | 1 | SE | low | | |
| 1046 | | | | | Change course from NW to SW | |
| 1050 | Shear-Pet | 1 | SE | to 20' | | |
| 1104 | Wedgetail | 1 | SW | | | |
| 1121 | R-T-Tropic | 1 | SE | 50' | Sitting on water - SUB-ADULT | |
| 1203 | Sooty Tern | 1 | NE | 50' | | |
| 1224 | Fairy Tern | 1 | NNE | 30' | | |
| 1235 | Shearwater | 1 | ESE | low | Wedgetail size all brown flew in straight line flapping and gliding. not black enough to be Xmas Is and not flapping fast enough. | |
| 1306 | Sooty Tern | 4 | E | 60' | | |
| 1335 | Dark-rump Petrel | 1 | NE | low | 3 adults 1 immature | |
| 1435 | Sooty Tern | 3 | SE | to 30' | feeding | |
| 1651 | W.N. Petrel | 1 | SE | to 10' | light phase | |
| 1658 | Pink-footed Shear (3) | 1 | NW | low | wedgetail except for low straight-line flight, steady flapping, no banking. | |
| 1700 | Wedgetail | 1 | S | low | | |
| 1744 | R-T. TROPIC | 1 | NE | 80' | | |
| Ca 1845 | | | | | Sunset | |
| 1950 | Bird | 1 | NE | 70' | | |
| 2010 | Bird R-Tropic bird | 1 | NE | 50' | | |
| 2210 | Tropic bird | 1 | ⊙ | 60' | | |
| 2226 | " | 1 | NE | 45' | | |
| 2235 | Fairy tern | 1 | SW | 50' | | |
| 2305 | " | 1 | SE | 45' | | |
| 2310 | " | 1 | SE | 50' | (same bird) | |
| 2350 | Bird | 1 | NE | 40' | | |

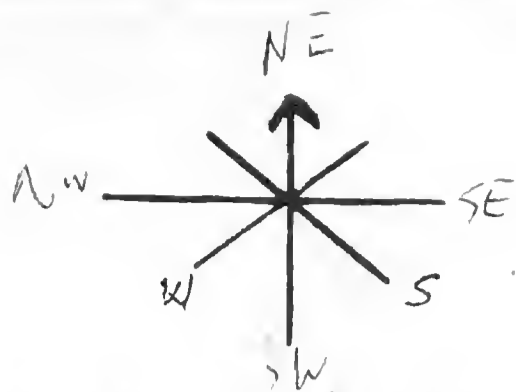
OK



DATE August 10
Pg. # 1

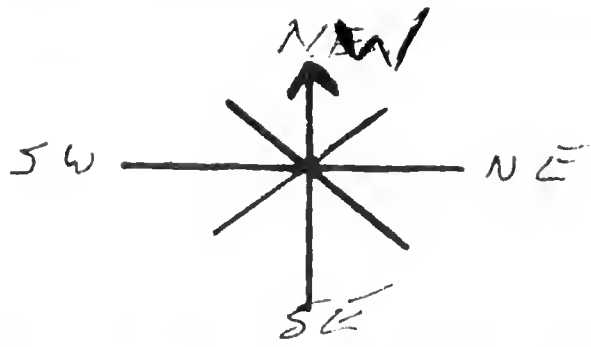
time species # dir. hgt. remarks loc.

| | | | | | | |
|------|-------------------|----|-----------------------------|-----|--|--|
| 0022 | Fairy Tern | 1 | WNW | 80' | Circled about 10-20' above RADAR ANTENNA 2 times | |
| 0027 | Tropic Bird | 1 | NE | 50' | could not distinguish which species | |
| 0130 | BIRD | 1 | ↗S | Low | Went in N. direction on starboard side of ship then turned & followed on port side & then disappeared most probably was a TERN | |
| 0200 | Sooty TERN | 1 | EAST | 50' | Flew just port side of the bridge. Squeaked once over the bridge & once out further | |
| 0604 | TROPICBIRD | 1 | ESE | 80' | | |
| 0617 | -- | -- | -- | -- | STOP FOR MORNING STATION Sunrise? | |
| 0625 | R.T. Tropicbird | 1 | NE | 30' | | |
| 0643 | Pterodroma | 1 | ↖ | low | | |
| 0700 | | | | | Underway, course now NW | |
| 0755 | Pterodroma | 1 | SW | low | | |
| 0802 | Shear-Pet | 1 | SW | low | Distant. Appeared all dark, loose flapping and short glides, in straight line, horizontal | |
| 0805 | White Neck Pet. | 1 | S | low | was sitting on water far out. | |
| 0815 | Wedgetail | 2 | SW | low | 2 dark phase | |
| 0830 | Wedge tail | 1 | S | low | | |
| 0850 | Bonin Is Petrel | 1 | NNE | low | | |
| 0852 | Shear-Petrel | 1 | NE | low | | |
| 0903 | Bonin Is Petrel | 1 | NE | low | | |
| 0907 | Wedgetail | 1 | N | " | | |
| 0915 | " | 1 | NW | " | | |
| 0920 | Shear-Pet | 1 | NE | " | | |
| 0926 | Wedgetail | 2 | ↗ | low | dark phase | |
| 0932 | D. Petrel | 1 | NW | low | | |
| 1030 | Pterodroma | 1 | NE | Low | | |
| 1053 | Wedge tail Sh. | 1 | SW | low | | |
| 1055 | White Necked Pet. | 1 | NE | low | | |
| 1107 | White Necked Pet | 1 | NE | low | | |
| 1140 | | | | | course change - heading NE | |
| 1217 | Wedgetail | 1 | NE | low | dark phase | |
| 1330 | Wedgetail | 2 | NE | low | dark phase | |
| 1330 | Pterodroma | 2 | NE | low | | |
| 1340 | W.N. Petrel | 1 | NE | low | sitting on the water | |
| 1402 | Wedgetail | 2 | NE | low | Dark Phase | |
| 1415 | W.N. Petrel | 1 | sitting on H ₂ O | | | |
| 1457 | " | 1 | NE | low | | |
| 1458 | wedgetail | 1 | NE | low | Dark phase | |



DATE Aug 10
Pg.# 2

| time | species | # | dir. | hgt. | remarks | loc. |
|------------|--|----------------|------|------------|---|------|
| 1505 | Pterodroma | 1 | NE | Low | Wind velocity very low today; all birds must flap occasionally or often. | |
| 1522 | Wedgetail | 1 | ESE | " | | |
| 1609 | SOOTY TERN | 1 | SW | 70' | | |
| 1625 | Wh.-neck Pet. | 1 | NE | Low | | |
| 1635 | SWIFT PET. Wh.-Neck Pet. | 1 | NE | " | - sitting on H ₂ O at 1637 - flushed by SHIP | |
| 1640 | WEDGETAIL | 2 | SW | " | | |
| 1645 | W.N. PETREL | 1 | SE | " | | |
| 1645 | SKUA | 1 | S | 50' | No DOUBTS! flew at 50' for considerable distance | |
| Flock 1650 | SOOTY TERN WEDGETAIL W.N. PETREL | 25±3 8 4 | ↕ | | Then low OVER WATER. 1-Red-ORANGE TAGGED Imm SOOTY TERN (PROBABLY MORE Imm ^s in flock) NOT FEEDING | |
| 1650 | W.-T. TROPIC | 1 | S | | | |
| 1709 | R.-T TROPIC | 1 | SE | | | |
| 1727 | Kermadec Pet | 1 | SSW | 70-90' | | |
| 2135 | Tropic bird | 1 | WNW | Low | | |
| 2230 | Tropicbird | 3 | ⊙ | 70' | | |
| 2340 | RT Tropicbird | 5 | ○ | 70' 60' | circling and following ship - some some of 2230 birds included. | |



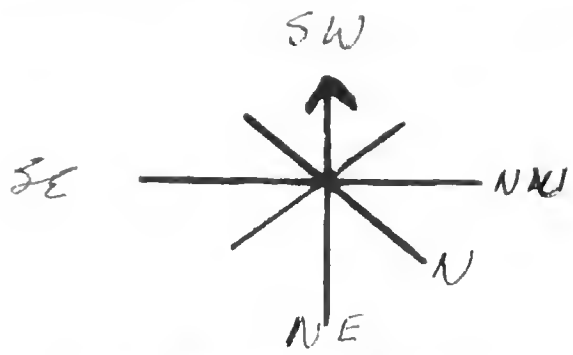
| time | species | # | dir. | hgt. | remarks | loc. |
|------|----------------------|---------|-------|------|---|------|
| 0610 | Wedgetail sk. | 1 | NE | low | | |
| 0620 | | | | | plankton stop | |
| 0653 | | | | | resume course 045 | |
| 0728 | Tropic bird | 1 | S | 80' | | |
| 0824 | Wedgetail | 1 | NE | low | | |
| 0833 | Wedgetail | 1 | NE | low | | |
| 0833 | Kermadec P | 1 | ESE | low | P.M. identification | |
| 0845 | Bonin Is. | 1 | SW | low | With the wind | |
| 0920 | | | | | change course to NW | |
| 1014 | Bonin I Petrel | 2 | SE | low | | |
| 1035 | " " | 1 | NW | low | | |
| 1036 | " " | 1 | SW | low | joined former briefly | |
| 1045 | Wedgetail | 1 | SW | low | | |
| 1050 | Wedgetail | | | | No feeding observed | |
| 1130 | Sooty Tern | 90 ± 10 | | | 5-6 immature; 1 immature with orange tag | |
| | Wedgetail | 25 ± 5 | | | | |
| | Fairy Tern | 6 | | | | |
| | Greyback T | 1 | | | | |
| | Bonin Petrel | 4 ± 1 | | | Flock flying // to ship at same speed most of time | |
| | W.N. Petrel | 1 | | | | |
| | Kermadec | 1 | | | | |
| 1214 | Pterodroma | 1 | NW | low | | |
| 1234 | WEDGETAIL | 1 | NW-DR | low | | |
| 1251 | BONIN Is. | 2 | SW | low | | |
| 1257 | SOOTY TERN | 1 | SE | 70' | | |
| 1320 | SOOTY TERN | 1 | NE | low | | |
| 1320 | WEDGETAIL | 1 | NE | low | | |
| 1331 | R-T. TROPIC | 1 | NE | " | - FLUSHED FROM WATER BY SHIP - 1337 SEEN ON WATER (PROBABLY SAME BIRD) PROBABLY SAME BIRD AGAIN 1346, LOW OVER WATER GOING WEST. | |
| 1350 | SHEARWATER - PETREL? | 1 | SW | low | - All dark bird EXCEPT lower breast + belly which were of a medium gray or dusky-white. Flew like Wedgetail but in straight line. No spots observed in wing-tips, NO arching or typical Pterodroma flight. Thin white-or light stripe in mid-surface of underwing seen by A.P. - HERALD'S Petrel? | |
| 1355 | WEDGETAIL | 1 | NE | low | | |
| 1418 | Wedgetail | 1 | S | low | ca 1430 sighted another ship | |
| 1430 | Bonin Is Petrel | 1 | NE | low | 1435 - change course SW. | |
| 1438 | Sooty Tern | 1 | NE | low | | |
| 1445 | Wh-Tern P. | 1 | N | low | seen well by P.W. + P.M. About size of Purple Martin black back - white rump - faded tail white underneath | |
| 1450 | Bonin Is | 2 | SW | low | little gliding easy flight. seen in good light at 50-100 yds. Definite! The breast wasn't well seen well. Flying close to ship | |
| 1545 | Sooty Tern | 14 | SE | 70' | | |
| 1547 | W-n Petrel | 1 | SE | 10W | | |
| 1548 | Shear Pet | 1 | NW | low | | |

Flocks -

Flock

17
E
23

6 Fairy Terns
4 Bonin Is P.
80+20 Sooty
30 Wedgetails
1 Kermitic
1 Small Grey Petrel
1 Imm. Sooty w/ Tag
1 Grey-Back Tern



DATE 11 AUGUST
Pg.# 2

| time | species | # | dir. | hgt. | remarks | loc. |
|--------------------|-------------------------|--------------|----------------|--------------------|---------|--|
| 1615 | Wedgetail | 1 | N-S | low | | |
| 1640 | Sooty Tern | 1 | NNE | 30' | | |
| 1655 | Shear-Petrel | 1 | SW | v. low | | |
| 1702 | Wedgetail | 2 | SE? | low | | |
| 1730 | Wh-T Tropicbird | 1 | NNE | low 25' | | |
| 1814 | Wedgetail? | 1 | NE | low | | |
| Flock | Sooty Tern | 50± | 10 | | | |
| | WEDGETAIL | 12± | 2 | | | |
| | W.-N. PETREL | 2 | | | | |
| | CHRISTMAS IS. | 10± | 2 | | | 2 Wedgetail collected - 1 WITH WING SLOT OFF |
| 1845 | WEDGETAIL | 1 | NE | low | | |
| ----- SUNSET ----- | | | | | | |
| 1918 | WEDGETAIL | 1 | NE | low | | |
| 1940 | --- | --- | --- | --- | | |
| 2011 | --- | --- | --- | --- | | |
| 2055 | TROPICBIRD | 1 | SE | 60' | | |
| 2043 | " | 1 | SE | 60' | | |
| 2320 | R.T.-TROPIC | 1 | NE | 60' | | |
| | | 1 | SE | 50' | | |
| 0135 | Bird | 1 | NE | low | | |
| 0250 | TROPICBIRD | 1 | SE | 50' | | |
| 0400 | TROPICBIRD | 1 | NE | low | | |
| 0555 | Wh-N. Petrel | 1 | SSE | low | | |
| | | | | | | 12 August 1954 |

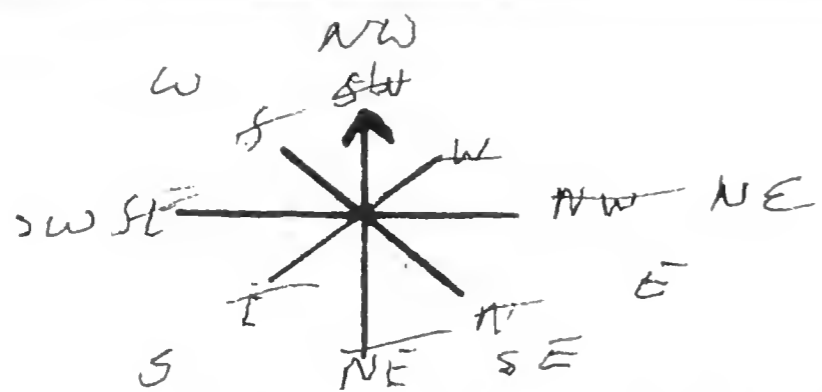
Arg son of ARN

August 12, 1964

Miss Mickey Rae Snow
Walter Mitty

500 Miles of Hell

There were Three Brothers in Merry Scotland In Merry



DATE 12 August 1964
Pg. # 1

time species # dir. hgt. remarks loc.

| time | species | # | dir. | hgt. | remarks | loc. |
|------------|--------------------|---|-------|--------|---|------------------|
| 0135 | Bird | 1 | NE | low | | |
| 0250 | Tropicbird | 1 | SSW | 80' | | |
| 0400 | Tropicbird | 1 | NE | 60' | | |
| 0558 | W-n Petrel | 1 | SSE | low | | |
| 0615 | W-n Petrel | 1 | NW | low | | |
| 0618 | Pterodroma | 1 | SE | low | | |
| 0620 | | | | | | |
| 0644 | Pterodroma | 1 | N | low | sun hls also starts of morning station | |
| 0650 | Shear-Petrel | 1 | N | low | not Bonin Is | |
| 0706 | Pterodroma | 1 | ⊙ | low | | |
| 0713 | Pterodroma | 2 | WNW | low | | |
| 0720 | Shearwater-Petrel | 1 | E | low | | |
| 0720 | Shearwater-Petrel | 1 | W | low | | |
| 0725 | Wedge-tail Sh. | 1 | SSW | low | | |
| 0725 | | | | | End Morning station. | |
| 0745 | Shearwater-Petrel | 1 | NW | low | | |
| 0751 | Pterodroma | 1 | S | low | | |
| 0753 | Wedgetail | 1 | SE | low | | |
| 0810 | W. W. Petrel | 1 | S | 620' | | |
| 0821 | Bonin Is. P. | 2 | S | to 10' | | |
| 0822 | Bonin Is. P. | 2 | NW | low | | |
| 0825 | Bonin Is. P. | 1 | S | low | | |
| 0837 | BONIN IS. | 1 | SE | low | | |
| 0847 | BONIN IS. | 1 | NNW | low | | |
| 0851 | BONIN IS. | 1 | S | low | | |
| 0853 | BONIN IS. | 1 | South | low | | |
| 0906 | BONIN IS. | 1 | NW | " | - SITTING ON H ₂ O, flushed by SAIP. | |
| 0913 | BONIN IS. | 1 | NW | " | " " " " " " | |
| 0923 | PTERODROMA | 1 | NW | " | " " " " " " | |
| 0928 | BONIN IS. | 1 | NW | " | " " " " " " | |
| 0933 | BONIN IS. | 1 | NW | " | " " " " " " | |
| 1033 | Pterodroma Bird | 1 | NW | " | Large, appeared to "have" no black on underwings; KA says W.N. or D.R. R.A. says not even Ptero. Flushed by ship. | |
| 1047 | Bird | 1 | SE-NW | " | Looks nearly like White-neck or Dark Rump but flaps constantly, slowly. Large dark spot around eye. Probably same bird as 1033. Jaeger? Tern-like rather than gull-like flight. Resembles imm. Franklin's gull. | |
| 1055 | | | | | change course to NW | |
| 1123 | Bonin I. Pet | 1 | W | low | | |
| 1145 | Shear-Pet | 1 | NE | low | | |
| Flock 1250 | Sooty Tern | 3 | | 60' | 1 immature - orange tag | |
| | Kermadec Pet | 1 | | | | Not seen feeding |
| | Wedgetail | 1 | ⊙ | low | dark phase | no fish seen. |
| | Bonin Is | 2 | | | | |
| | Pterodroma | 6 | | | | |
| 1304 | Bonin Is Pet | 1 | SE | low | | |

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A B C D E F G H I J K
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DATE 12 August 1964
Pg. # 2

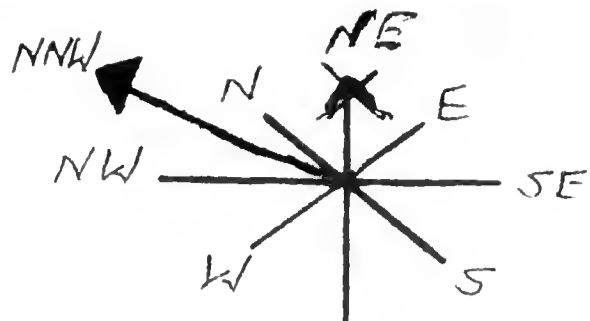
time species # dir. hgt. remarks loc.

| | | | | | | | |
|-----------------|---------------------------------------|---|-------------------|-----|--|--|--|
| 1304 | B | | | | | | |
| 1433 | WEDGETAIL | 1 | WNW ^{NW} | LOW | | | |
| 1452 | SHEARWATER-PET | 3 | — | 0 | | | |
| 1503 | W.N. Petrel | 1 | SE | LOW | | | |
| 1503 | Bonin Is P. | 1 | NW | LOW | | | |
| 1533 | — | — | — | — | | | |
| | | | | | | | |
| 1602 | SHEAR.-PET | 1 | SE | LOW | | | |
| 1608 | W-N Petrel | 2 | E | " | | | |
| 1625 | Pterodroma | 1 | ~ | " | | | |
| 1628 | " | 2 | NE | " | | | |
| 1646 | Shear-Pet | 2 | NE | " | | | |
| 1653 | W-N. Petrel | 1 | E | " | | | |
| 1657 | Christmas Is Pterodroma | 2 | E | " | | | |
| 1720 | Pterodroma | 1 | SE | LOW | | | |
| 1752 | Shear-Pet | 1 | SE | LOW | | | |
| 1754 | Kermadec? | 1 | SE | LOW | | | |
| 1825 | Large Pterodroma | 1 | SW | LOW | | | |
| 2135 | FAIRY T. OR TROPIC | 1 | NE | 20' | | | |
| 2358 | FAIRY TERN | 1 | SW | 35' | | | |

flew up from H₂O for INSTANT + Alighted again - 1/2 mi distant.

COURSE CHANGE TO N.E

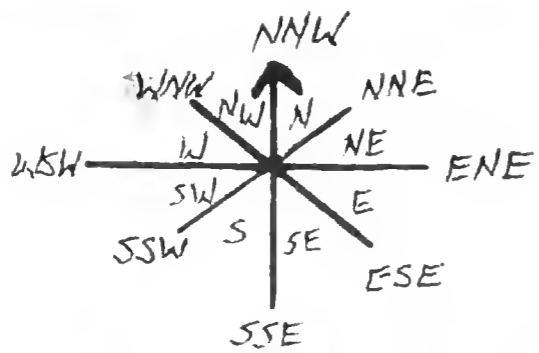
not Bonin Is.



DATE 13 AUG. 64
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|-------------------------|---|---------------|---------|---|------|
| 0138 | Bird | 1 | SW | 70' | | |
| 0616 | Bonin Is. P. | 1 | SW | low | going rather fast | |
| 0620 | | | | | Morning station | |
| 0620 | | | | | Sunrise | |
| 0641 | Pterodroma | 1 | E | low | | |
| 0650 | R.T. Tropicbird | 1 | 0°S | 40' | hovered for 5 min over ship; no gun | |
| 0648 | Jet airplane | 1 | 55° | 25,000' | large swept wing 4 engine craft, leaving vapor trail - JET AIRPLANE | |
| 0720 | | | | | underway | |
| 0730 | Wedgetail | 1 | N | low | flying like Pterodroma | |
| 0735 | Pterodroma | 1 | NW | low | | |
| 0745 | Bird | 1 | S | to 40' | Dark brown above, light below; could not see head, underwing. | |
| 0756 | Pterodroma (4) | 1 | S | low | "drifting" above; below horizon, distant | |
| 0758 | Pterodroma (4) | 1 | S | low | | |
| 0802 | Pterodroma | 1 | S | low | | |
| 0805 | " | 1 | S | low | | |
| 0846 | W-N. PETREL | 1 | SW | low | | |
| 0945 | W-N Petrel | 1 | SW | low | | |
| 1026 | Bonin Is. P. | 1 | SSW | low | | |
| 1036 | Shear-Pet | 1 | NW | low | | |
| 1041 | Bonin Is. P. | 1 | SSE | low | | |
| 1055 | Pterodroma | 1 | S | low | | |
| 1113 | Pterodroma | 1 | S | low | | |
| 1131 | Shear. Pet | 1 | N | " | | |
| 1140 | Wedgetail | 1 | SE | " | | |
| 1215 | Pterodroma | 1 | NW | " | | |
| 1224 | Bulwers Pet | 1 | " | " | | |
| 1301 | Pterodroma | 1 | N | " | | |
| 1315 | Frigate | 1 | N | 100' | Ad. ♂ - drifting south | |
| 1335 | W. N. Petrel | 1 | NW | low | | |
| 1341 | Bulwers | 1 | SE | " | | |
| 1342 | Bonin I. Pet | 1 | SE | " | | |
| 1426 | WEDGETAIL | 1 | SE | " | | |
| 1450 | Sooty TERN | 1 | S | " | | |
| 1523 | - - - | - | - | - | LEAVE GRID! COURSE CHANGE TO NNW | |
| 1528 | PTERODROMA | 1 | NNW | low | | |
| 1531 | BONIN Is. | 1 | SSE | " | | |
| 1600 | RT TROPIC | 1 | NNW | 60' | - collected - so sorry! - got up + flew away! | |
| 1651 | Bonin Is Petrel | 1 | SE | low | Yellow bill. | |
| 1739 | Hammerhead | X | WSW | 120' | Hammerhead shark | |
| 1749 | Bonin I Pet | 1 | SSE | low | | |
| 1758 | Pterodroma | 1 | NNW | low | | |
| 1821 | Pterodroma | 1 | SSE | low | | |
| 1855 | | | | | SUN DOWN | |

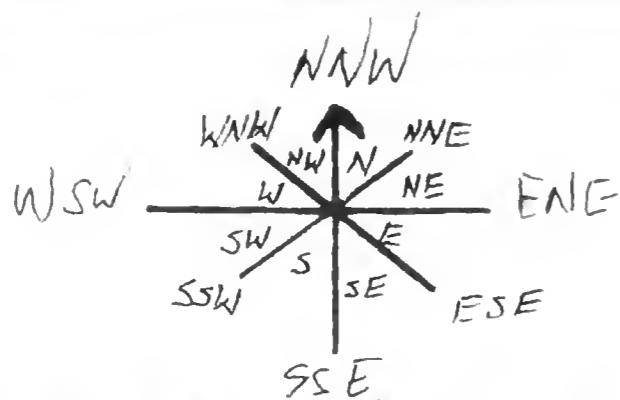
IN GRID



DATE 14 AUGUST 64

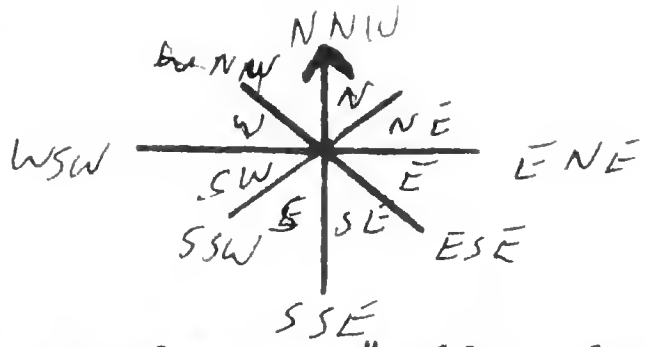
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------------|-------------------------|--------------|----------------|------|---|------|
| 0600 | | | | | BEGIN OBSERVATIONS | |
| 0612 | | | | | SUNRISE | |
| 0639 | SOOTY TERN | 1 | SSE | LOW | | |
| 0645 | WEDGETAIL | 1 | SSE | LOW | | |
| 0648 | WEDGETAIL | 1 | SSE | LOW | | |
| 0702 | SHEAR-PET | 2 | SSE | LOW | - flying very closely TOGETHER + appearing to be chasing one another - alighting on water momentarily + TAKING flight again - Perhaps feeding. Too DISTANT FOR IDENT. | |
| 0709 | Bulwers Pet. | 1 | NNW | LOW | | |
| 0711 | Pterodroma | 1 | SSE | LOW | | |
| 0714 | Bulwers Pet | 1 | SSE | LOW | - POSSIBLY SAME BIRD AS 0709 (?) | |
| 0717 | SHEAR-Pet. | 1 | | LOW | | |
| 0720 | BONIN Is. | 1 | SSE | LOW | | |
| 0728 | BONIN Is. | 1 | S | LOW | | |
| 0729 | SOOTY TERN | 1 | SSW | LOW | | |
| 0731 | BONIN Is. | 1 | SSE | LOW | | |
| 0736 | WEDGETAIL | 1 | NNW | LOW | | |
| 0744 | WEDGETAIL | 1 | SSW | LOW | | |
| 0750 | BONIN Is. | 1 | SSE | LOW | | |
| 0803 | WEDGETAIL | 1 | S | LOW | | |
| 0806 | PTERODROMA | 2 | SSE | LOW | | |
| 0807 | SOOTY TERN | 2 | SE | 40' | | |
| 0808 | BONIN Is. | 1 | NNW | LOW | | |
| 0825 | Wedgetail | 1 | SW | " | | |
| 0840 | Shear-Pet | 1 | SW | " | distant | |
| 0900 | Sooty Tern | 1 | E | 80' | | |
| 0900 | R.F. Tropicbird | 1 | E | 80' | | |
| 0905 | Wedgetail | 1 | SSW | LOW | | |
| 0905 | Sooty Tern | 1 | ENE | 30' | | |
| 0925 | Wedgetail | 1 | NNW | LOW | | |
| 0933 | " | 1 | SSW | " | | |
| 0938 | " | 1 | NNW | " | joined 0933 | |
| 0938 | Sooty Tern | 4 | SSE | 20' | | |
| 1015 | Pterodroma | 1 | SE | LOW | | |
| 1020 | Wedgetail | 1 | S | LOW | | |
| 1035 | Sooty Tern | 1 | SE | 60' | collected - flying aft then followed ship | |
| 1047 | Pterodroma | 1 | SE | LOW | | |
| 1150 | Bonin Is Pet | 1 | NNW | LOW | | |
| 1155 | Wedgetail | 1 | SSW | LOW | | |
| 1225 | Bird | 1 | SE | " | seen by bridge | |
| 1241 | WEDGETAIL | 2 | NNE | LOW | | |
| 1242 | WEDGETAIL | 1 | " | " | | |
| flock 1245 | SOOTY TERN WEDGETAIL | 35±5 12±2 | | | 2 Wedgetails collected. | |



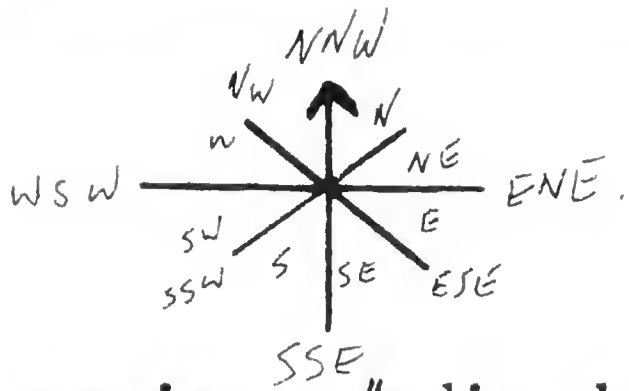
DATE Aug 14 Aug
Pg.# 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|--------------|----------|------------|-------|--|------------|
| 1316 | Bonin Is. | 1 | SE | LOW | | |
| 1342 | BULWERS PET | 1 | ESE TO NNW | LOW | | |
| 1356 | SOOTY TERN | 2 | E | 30' | - 1 collected | |
| 1409 | Bonin Is. | 1 | SSE | LOW | | |
| 1410 | Wedge tail | 1 | SE | " | | |
| 1424 | Sooty Tern | 4 | ENE | 60' | | |
| F 1430 | Flock | | | | | |
| | Sooty Tern | 11 | ⊙ | ----- | 1 immature | No feeding |
| | Wedgetail | 1 | - - - - | ----- | on H ₂ O; collected | |
| F 1456 | Flock | | | | | |
| | Sooty Tern | 6 | ⊙ | | | No feeding |
| | Wedgetail | 6 | ⊙ | | | |
| 1452 | Bulwers Pet | 1 | SSE | LOW | may have come from flock; collected (RM) | |
| 1510 | Sooty Tern | 1 | NNW | " | | |
| 1525 | Bonin Is. | 1 | NNW | " | | |
| F 1525 | Flock | | | | | |
| | Sooty Tern | 10 ± 2 | SSE | | | |
| | Wedgetail | 4 ± 2 | SSE | | | |
| 1530 | Sooty Tern | 1 | SSE | 50' | | |
| 1540 | Bonin Is. | 1 | SSE | LOW | | |
| 1542 | Wedgetail | 1 | WSW | " | on H ₂ O | |
| 1543 | " | 1 | SSE | " | | |
| 1544 | Bulwers | 1 | SSE | " | | |
| F ca 1600 | Flock - | | | | - feeding; small fish seen beneath | |
| | Sooty Tern | 35 ± 5 | - | " | | |
| | Wedgetail | 110 ± 10 | - | " | collected | |
| ca 1645 | Brown Booby | 1 | z | 50' | | |
| 1700 | R-T Tropic | 1 | N | 80' | | |
| 1708 | Bonin Is | 1 | NNW | LOW | | |
| 1711 | Wedgetail | 1 | NW | LOW | | |
| 1747 | Wedgetail | 1 | SSE | LOW | | |
| 1747 | Bonin Is Pet | 1 | z-N | LOW | | |
| 1747 | Wedgetail | 1 | SSE | LOW | | |
| 1834 | Wedgetail | 1 | S | LOW | | |
| 1840 | Bonin Is. P. | 1 | SSE | LOW | | |
| 1841 | Wedgetail | 1 | NNW | LOW | | |
| 1860 | Wedgetail | 1 | NNW | LOW | | |
| 1900 | | | | | | |
| 1905 | | | | | SUN set | |



DATE 15 August 1964
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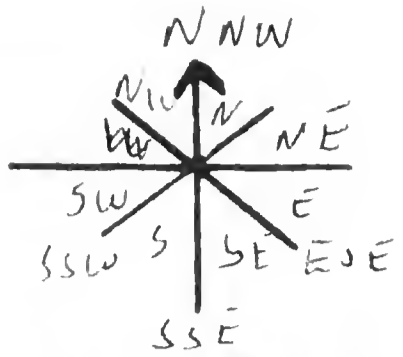
| | time | species | # | dir. | hgt. | remarks | loc. |
|-------|------|---------------|-------|-------|---------|----------------------------------|------|
| | 0600 | Wedgetail | 2 | NNW | low | | |
| | 0612 | Sooty Tern | 1 | SSE | 30' | | |
| | 0615 | | | | | Sun Up | |
| 24-37 | 0621 | Wedgetail Sh. | 5 | NNW | low | | |
| | 0624 | Wedgetail | 10 | NNW | low | | |
| 11-98 | 0625 | Sooty Tern | 1 | NNW | 40' | | |
| | 0628 | Sooty Tern | 1 | SE | 40' | | |
| | 0630 | Sooty Tern | 1 | E | 50' | | |
| | 0631 | Sooty Tern | 3 | N | low | | |
| Flock | 0637 | Sooty Tern | 85+ | ⊙ | low-70' | appeared to be actively feeding. | |
| | 0650 | Wedgetail | 1 | SE | 100' | | |
| | 0656 | Sooty Tern | 1 | SSW | 30' | | |
| | 0659 | Wedgetail | 1 | S | low | | |
| | 0707 | Wedgetail | 1 | SSE | low | | |
| | 0713 | Sooty Tern | 1 | WNW | 40' | | |
| 5-5- | 0719 | Bonin Is Pet | 1 | S | low | | |
| | 0720 | Wedgetail Sh. | 1 | ENE | low | | |
| | 0728 | Sooty Tern | 2 | W | 60' | | |
| | 0746 | Sooty Tern | 1 | NNW | low | | |
| | 0748 | Wedgetail | 3 | SSW | low | | |
| | 0755 | Bonin Is Pet | 1 | NNW | low | | |
| | 0755 | Wedgetail | 1 | SSE | low | | |
| | 0803 | " | 1 | SSE | " | | |
| | 0811 | " | 1 | ENE | " | | |
| | 0816 | " | 1 | NNW | " | | |
| | 0823 | Sooty Tern | 1 | S | 40' | | |
| | 0830 | Wedgetail | 2 | NNW | low | | |
| | 0831 | " | 1 | NNW | " | | |
| | 0837 | Bonin Is. | 1 | SSE | " | | |
| | 0848 | Wedgetail | 1 | N | " | | |
| | 0850 | " | 1 | N | " | | |
| | 0856 | " | 1 | SSE | " | | |
| | 0903 | Sooty Tern | 1 | SW | 15' | | |
| 1-1 | 0904 | Bonin Is Pet | 1 | SSE | low | | |
| | 0906 | Wedgetail | 1 | N | " | | |
| | 0907 | Bonin Is. | 1 | SSE | " | | |
| | 0908 | Wedgetail | 1 | N | " | | |
| | 0909 | " | 1 | N | " | | |
| | 0910 | " | 1 | N | " | | |
| | 0912 | " | 1 | N | " | | |
| 1-1 | 0933 | Herodroma | 1 | SSE | " | | |
| | 0935 | Bonin Is | 1 | NNW | " | | |
| | | | 77 | | | | |
| | | | 142 | | | | |



DATE 15 Aug 1964
Pg. # 2

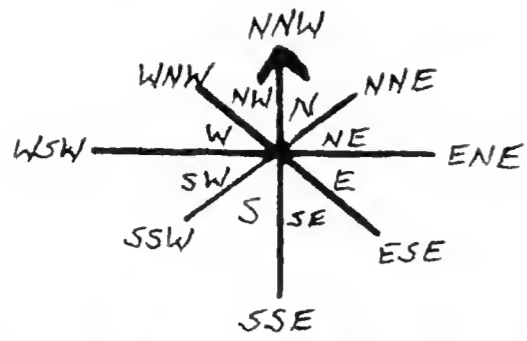
| | time | species | # | dir. | hgt. | remarks | loc. |
|-------------------|------|---------------|-----|---------------|----------|---|------|
| 1-1 | 0945 | Shear-Pet | 1 | NNW | low | distant | |
| 5-5 | 0951 | Bulwer's Pet | 1 | WSW | " | | |
| 21-139 | 0956 | Wedgetail | 2 | S | " | | |
| | 0957 | " | 1 | S | " | | |
| | 0959 | " | 1 | SW | " | shot + collected | |
| | 1002 | " | 1 | N | " | | |
| 12-142 | 1023 | SOOTY TERN | 3 | SSE | 30' | | |
| | 1024 | WEDGETAIL | 2 | NE | low | | |
| | 1025 | SOOTY TERN | 1 | N | " | | |
| | 1029 | SOOTY TERN | 1 | N | " | | |
| 1-1 | 1037 | BONIN Is. | 1 | NE | " | | |
| | 1102 | SOOTY TERN | 1 | SSE | 60' | | |
| | 1103 | WEDGETAIL | 1 | SE | low | | |
| | 1107 | " | 1 | N | " | | |
| | 1120 | SOOTY TERN | 1 | NE | 40' | | |
| | 1120 | WEDGETAIL | 5 | N | 0 to low | - sitting on H ₂ O - flushed by SHIP. | |
| | 1124 | WEDGETAIL | 3 | ENE | low | | |
| | 1124 | SOOTY TERN | 1 | E | 60' | | |
| | 1132 | Bulwers Pet. | 1 | SSW | low | | |
| | 1133 | SOOTY TERN | 1 | SE | 40' | | |
| | 1136 | WEDGETAIL | 1 | SE | low | | |
| | 1142 | WEDGETAIL | 1 | S | " | | |
| | 1143 | SOOTY TERN | 3 | SW | 40' | | |
| | 1147 | Bulwers Pet. | 1 | ENE | low | | |
| | 1148 | WEDGETAIL | 1 | SSE | " | | |
| 1-1 | 1151 | PTERODROMA | 1 | S | " | - DISTANT | |
| | 1159 | Bulwers | 1 | S | " | | |
| Flock | 1200 | SOOTY TERN | 125 | ±25 | | - Flock Feeding BUT NOT VERY ACTIVELY - 1 imm | |
| | 1 | WEDGETAIL | 110 | ±10 | | FRIGATE, 3 SOOTY TERNS collected. 2 (PROBABLY MORE) imm | |
| | 1320 | CHRISTMAS Is. | 1 | | | SOOTY TERNS IN flock. A white-finned SHARK SEEN IN | |
| | | FRIGATE Cr. | 1 | | | VICINITY. (Two WEDGETAILS SHOT BUT NOT collected.) | |
| 2-3 | 1325 | R-T. TROPIC | 1 | NNW | 90' | | |
| | 1332 | Wedgetail | 1 | NNW | low | | |
| | 1335 | Sooty Tern | 1 | SSW | low 30' | | |
| | 1336 | Wedgetail | 1 | NNW | low | | |
| | 1338 | Wedgetail | 1 | SSE | low | | |
| | 1340 | Sooty Tern | 1 | NNW | 50' | collected 2. | |
| | 1343 | R-T Tropicob | 2 | SE | 85' | | |
| | 1354 | Sooty Tern | 3 | ? | low | | |
| | 1354 | Wedgetail | 1 | SSE | low | | |
| | 1356 | Bulwer's P | 1 | NNW | low | | |
| | 1356 | Wedgetail | 1 | SSE | low | | |
| | 1400 | Wedgetail | 1 | SSE | low | | |
| | 1401 | Wedgetail | 2 | SSE | low | | |
| | 1406 | Wedgetail | 1 | SSE | low | | |

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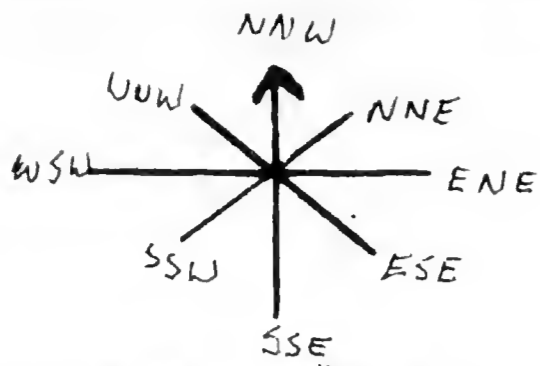
DATE 15 August 1964
Pg. # 3

| time | species | # | dir. | hgt. | remarks | loc. |
|------|---------------|----|------|---------|---|------|
| 1414 | Sooty Tern | 8 | G | low | appear to be feeding. | |
| 1415 | Wedgetail | 3 | | | | |
| 1417 | Sooty tern | 1 | NNW | " | | |
| 1418 | Wedgetail | 1 | SE | " | | |
| 1420 | Wedgetail | 1 | N | low | | |
| 1424 | Wedgetail | 1 | N | low | | |
| 1429 | Shear-Pet | 1 | S | low | | |
| 1433 | Wedgetail | 1 | S | low | | |
| 1436 | Wedgetail | 1 | S | low | | |
| 1439 | Bonin Is. | 1 | S | low | | |
| 1445 | Bonin Is. | 1 | S | low | | |
| 1448 | Bonin Is. | 1 | S | low | | |
| 1450 | Sooty tern | 2 | S | low | | |
| 1452 | Bonin Is. | 1 | N | low | | |
| 1456 | Sooty tern | 2 | S | low | immature | |
| 1458 | Bonin Is. | 1 | SSE | low | | |
| 1459 | Phodroma | 1 | SSE | low | | |
| 1500 | Wedgetail | 1 | N | low | | |
| 1506 | Sooty Tern | 2 | NNW | 30' | | |
| 1512 | Wedgetail | 1 | N | low | | |
| 1516 | Sooty Tern | 3 | NW | 30' | | |
| 1523 | " " | 15 | SSE | 80-100' | | |
| 1527 | " " | 3 | SSE | 75' | | |
| 1527 | Tern | 1 | SSE | " | 1 immature mottled gray above, white below, smaller than Sooty. molting or immature gray-back? stopped to pick at sawdust + skinning remain thrown overboard. Bright pink feet. | |
| 1549 | Wedgetail | 1 | S | low | | |
| 1556 | Sooty tern | 1 | NNW | low | | |
| 1602 | " " | 1 | N | " | | |
| 1602 | " " | 1 | N | " | | |
| 1603 | Christmas Is. | 1 | NNW | " | | |
| 1604 | Bonin Is. | 1 | S | " | | |
| 1608 | Bulwer's Pet | 1 | SSE | " | | |
| 1611 | SOOTY TERN | 1 | NNW | 60' | | |
| 1617 | WEDGETAIL | 1 | N | Low | | |
| 1617 | WEDGETAIL | 1 | NE | Low | | |
| 1628 | BONIN Is. | 1 | SSE | low | | |
| 1630 | BONIN Is. | 1 | SSE | Low | | |
| 1647 | WEDGETAIL | 1 | S | Low | | |
| 1650 | WEDGETAIL | 1 | NW | Low | | |
| 1651 | WEDGETAIL | 1 | NNW | Low | | |
| 1657 | SOOTY TERN | 1 | N | Low | | |
| 1658 | " " | 1 | N | Low | | |



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Pg. # 4

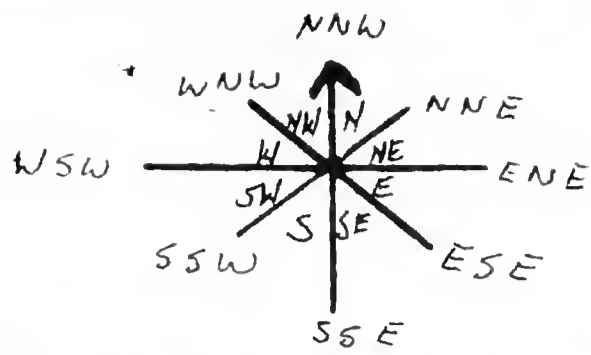
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|------|------|--------------|----|------|-----------|---|------|
| 5-5 | 1705 | WEDGETAIL | 1 | N | low | | |
| 7-15 | 1720 | Sooty tern | 1 | N | 15' | | |
| | 1721 | wedgetail | 1 | N | low | | |
| | 1723 | Sooty tern | 1 | N | low | | |
| | 1724 | sooty tern | 1 | N | low | | |
| | 1732 | Bird | 1 | S | " | | |
| | 1743 | WEDGETAIL | 1 | NNW | Low | | |
| | 1750 | WEDGETAIL | 1 | S | low | - DARK PHASE (?) | |
| 2 | 1805 | PTERODROMA | 2 | NE | Low | | |
| | 1814 | SOOTY TERN | 1 | N | low | | |
| | 1816 | SOOTY TERN | 2 | NNE | low | | |
| 2-3 | 1818 | R.-T. TROPIC | 1 | RUU | 0 to 150' | Feeding - 1 dive from 150' - seemed to go completely UNDERWATER, other dive from 100' - just skimmed SURFACE of water. SHOOK WATER FROM FEATHERS IN flight after dives. | |
| | 1820 | SOOTY TERN | 6 | ⚡ | low | | |
| | 1821 | " " | 3 | NNW | LOW | | |
| | 1832 | BONIN Is. | 1 | W | low | | |
| | 1845 | R.-T. TROPIC | 2 | ⊙ | 150' | 1 - collected | |
| | 1813 | WEDGETAIL | 1 | N | low | | |
| CP | 1815 | | | | | SUNSET | |
| | 1830 | WEDGETAIL | 1 | S | low | | |
| | | 17 | 27 | | | | |



DATE 16 AUGUST 64

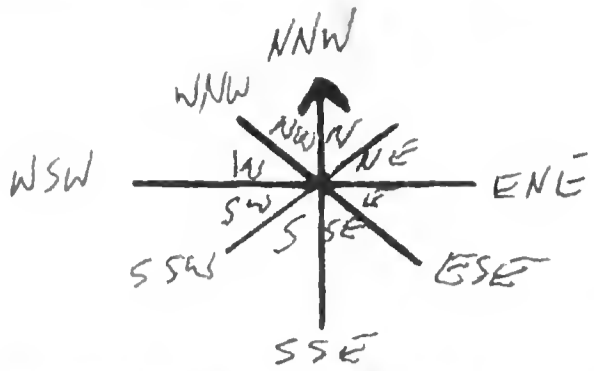
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|-------|------|-----------------|----|-----------|------|--|------|
| | 0615 | | | | | Begin observations | |
| | 0615 | Wedgetail | 4 | NNW | low | following briefly | |
| | 0617 | | | | | Sunrise | |
| 14-18 | 0618 | Sooty Tern | 2 | N | 50' | | |
| 12-99 | 0623 | Wedgetail | 1 | NNE | low | | |
| 17-5 | 0625 | " | 8 | NNW | " | | |
| | 0625 | Sooty Tern | 1 | E | " | | |
| | 0629 | Wedgetail | 1 | NNW | " | | |
| 1-1 | 0630 | Frigate | 1 | ENE SE | 100' | Imm. | |
| | 0630 | Wedgetail | 4 | NNW | low | | |
| | 0634 | Sooty Tern | 1 | SW | 30' | | |
| | 0634 | Wedgetail | 1 | SSE | low | | |
| | 0640 | Sooty Tern | 3 | S | 40' | | |
| | 0645 | " | 1 | SE | low | | |
| 3-3 | 0646 | RED-TAIL TROPIC | 1 | NNE | " | circled over ship, then dove for squid & flew off | |
| | 0650 | Wedgetail | 6 | ENE? | " | behind ship | |
| | 0650 | Sooty Tern | 1 | ENE | 30' | | |
| | 0651 | " | 6 | ENE | 30' | | |
| | 0653 | RED-TAIL TROPIC | 1 | ⊙ | 100' | Joined 0646, also feeding - flying fish seen underneath. | |
| | 0655 | Sooty Tern | 1 | SSE | 30' | | |
| | 0659 | " | 3 | SE | 30' | | |
| | 0659 | " | 1 | NNE | low | | |
| 1-1 | 0700 | Ruddy Turnstone | 1 | ⊙SE | 30' | | |
| | 0715 | Wedgetail | 2 | SSW | low | | |
| 4-4 | 0721 | Bonin I. Pet | 1 | SSW | " | Tropic birds still around | |
| | 0722 | SOOTY TERN | 1 | SSW | 20' | | |
| | 0723 | " | 4 | SSE | 30' | | |
| | 0723 | RED-TAIL TROPIC | 1 | ⊙ | 50' | Joined previous two | |
| F | 0730 | FLOCK | | | | | |
| | | WEDGETAIL | 50 | E10 | | | |
| | | Sooty Tern | 20 | S | | | |
| | 0731 | Wedgetail | 1 | SSW | low | | |
| 1-1 | 0734 | Pterodroma | 1 | NNW | " | | |
| | 0735 | WEDGETAIL | 2 | NNW | " | | |
| | 0737 | " | 1 | S | " | | |
| | 0737 | Bonin I. Pet | 1 | SSE | " | | |
| 1-1 | 0742 | Shear-Pet | 1 | S | " | | |
| | 0745 | BONIN PETREL | 1 | S | " | | |
| | 0755 | SOOTY TERN | 3 | SSE | 20' | | |
| | 0758 | Bonin Petrel | 1 | S | low | | |
| 136 | | 36 | 36 | | | | |



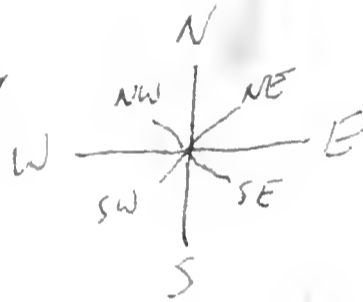
DATE 16 August 1964
Pg. # 2

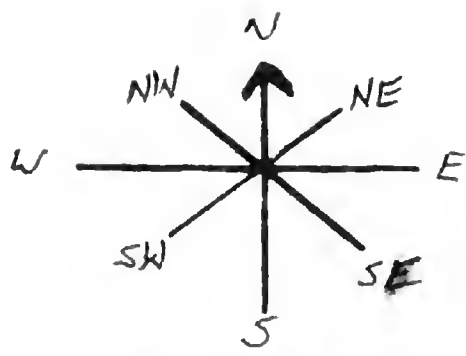
| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|-----------------|----|------|------|---|------|
| 18-21 | 0759 | WEDGETAIL | 1 | S | low | | |
| 17-18 | 0809 | BONIN IS. | 1 | SSE | low | | |
| | 0815 | BONIN IS. | 1 | SSE | | | |
| | 0816 | BONIN IS. | 1 | SSE | low | | |
| 2-2 | 0828 | R.-T. TROPIC | 1 | N | low | - alighted on H ₂ O | |
| | 0832 | BONIN IS. | 1 | N | low | | |
| | 0833 | WEDGETAIL | 2 | NW | low | | |
| | 0836 | BONIN IS. | 1 | NNW | low | | |
| | 0839 | WEDGETAIL | 1 | NE | low | | |
| 5-8 | 0840 | SOOTY TERN | 2 | SE | 30' | | |
| | 0842 | WEDGETAIL | 1 | NW | low | | |
| 1-2 | 0844 | PTERODROMA | 2 | SSE | low | | |
| | 0846 | WEDGETAIL | 1 | SW | low | | |
| | 0851 | BONIN IS. | 1 | SW | low | | |
| | 0852 | BONIN IS. | 2 | W | low | | |
| | 0854 | WEDGETAIL | 1 | NW | low | | |
| | 0856 | SOOTY TERN | 3 | N | low | | |
| | 0858 | WEDGETAIL | 1 | N | low | | |
| | 0859 | BONIN IS. | 1 | ENE | low | | |
| | 0902 | WEDGETAIL | 1 | NE | low | | |
| 2-2 | 0905 | Ruddy TURNSTONE | 1 | ⊙ | 30' | | |
| 45 52 | 0906 | WEDGETAIL | 2 | ~ | low | | |
| | 0911 | SOOTY TERN | 1 | E | 60' | | |
| | 0912 | WEDGETAIL | 2 | NNW | low | | |
| | 0924 | SOOTY TERN | 1 | SSE | 40' | | |
| | 0927 | WEDGETAIL | 1 | NW | low | | |
| | 0929 | BONIN IS. | 1 | S | low | | |
| | 0930 | BONIN IS. | 1 | SSE | low | | |
| | 0939 | Ruddy TURNSTONE | 1 | E | 60' | | |
| | 0949 | WEDGETAIL | 1 | N | low | | |
| | 0955 | WEDGETAIL | 1 | NE | low | | |
| | 0958 | BONIN IS. | 1 | S | low | | |
| | 1004 | BONIN IS. | 1 | N | low | | |
| | 1006 | BONIN IS. | 1 | NNW | low | | |
| | 1006 | BONIN IS. | 1 | SSE | low | | |
| | 1008 | Wedgetail | 1 | S | low | | |
| | 1009 | R-T Tropic | 1 | WNW | 90' | | |
| | 1012 | Sooty tern | 1 | NE | 70' | | |
| | 1013 | Wedgetail | 1 | NNW | low | | |
| | 1016 | Bonin Is. | 1 | NW | low | | |
| | 1019 | Wedgetail | 1 | NW | low | | |
| | 1019 | Bonin Is | 1 | E | low | joined 1116 both flying east | |
| | 1020 | Wedgetail | 1 | S | low | | |
| | 1024 | Wedgetail | 1 | ⊙ | low | joined 1020 circling off tern - 1032 flew NW together | |
| | 1029 | Bonin Is. | 1 | SSW | low | | |
| | | | 53 | | | | |



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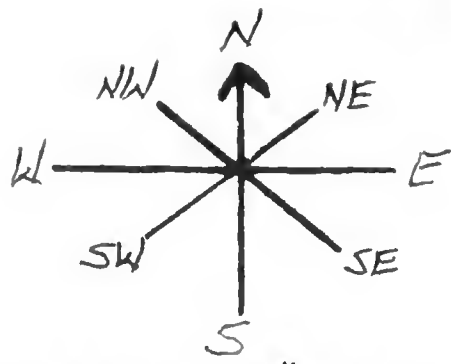
| | time | species | # | dir. | hgt. | remarks | loc. |
|--------|------|--------------------|-----|---------------|---------|---|------|
| 1-1 | 1034 | Tropic bird | 1 | ENE | 100' | | |
| 1-1 | 1036 | H-court's St. Pet. | 1 | NNW | low | good sighting by both observers - site rump clear. | |
| 6-7 | 1037 | Bonin Is. | 2 | NNW | low | | |
| | 1039 | Bonin Is. | 1 | SSE | low | | |
| 2-109 | 1041 | Wedgetail | 1 | SSE | low | | |
| | 1042 | Wedgetail | 3 | SSE | low | | |
| | 1047 | Wedgetail | 1 | NW | low | | |
| 5-160 | 1056 | Sooty tern | 2 | SSE | 30' | ship changed course to 005 - not noticed until 1115, so minor error in direction. | |
| | 1059 | Wedgetail | 1 | S | low | | |
| | 1104 | Wedgetail | 1 | NNW | low | | |
| | 1106 | Wedgetail | 1 | NNW | low | | |
| 4-6 | 1107 | R-T. Tropic | 1 | NE | 60' | circled around ship + returned SW, | |
| | 1108 | Sooty tern | 2 | N | 45' | " " " + headed S, | |
| | 1109 | Wedgetail | 1 | WSW | low | | |
| | 1110 | Wedgetail | 2 | NNW | low | | |
| | 1115 | Bonin Is. | 1 | NE | low | | |
| | 1119 | Wedgetail | 1 | WNW | low | new heading | |
| | 1120 | Wedgetail | 1 | NW | low | | |
| | 1129 | Wedgetail | 2 | S | low | | |
| | 1130 | Bonin Is. | 1 | NE | low | | |
| | 1137 | Bonin Is. P | 1 | N | low | | |
| | 1139 | Wedgetail | 1 | N | low | | |
| | 1140 | Wedgetail | 1 | N | low | | |
| | 1142 | Wedgetail | 2 | SW | low | | |
| | 1153 | Wedgetail | 1 | NNW | low | | |
| FLOCK | 1156 | Sooty tern | 105 | 5 E | → 90' | | |
| | | Wedgetail | 60 | 5 E | low | | |
| | | R-T Tropic | 1 | E | 90' | | |
| | 1205 | Bonin Petrel | 1 | NE | low | | |
| | 1207 | RED-TAIL Tropic | 2 | N | low 40' | got up from water 20' from port bow; 2 at down again | |
| | 1214 | " " " | 2 | - | - | on H ₂ O - not same as above | |
| | 1217 | Wedgetail | 1 | N | low | | |
| | 1222 | " | 7 | N | " | scattered | |
| | 1228 | Sooty Tern | 1 | W | 50' | | |
| | 1230 | Wedgetail | 1 | W | low | | |
| Flock | 1238 | Sooty Tern | 50 | 5 | } N | feeding | |
| | | Wedgetail | 20+ | | | | |
| 1-2 | | Frigate | 2 | | | Note imm or ♀ - chasing each other | |
| 39 256 | | | | | | | |





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| | time | species | # | dir. | hgt. | remarks | loc. | |
|-------|------|--|----|----------------|------|-----------------------|------|--|
| 4-27 | 1247 | Wedgetail | 1 | N | low | | | |
| | 1248 | " | 1 | " | " | | | |
| | 1248 | " | 1 | " | " | | | |
| | 1300 | " | 1 | E | " | | | |
| 2-2 | 1309 | RED-H. TROPIC | 1 | ☉ | 70' | | | |
| | 1311 | WEDGETAIL | 1 | W N | Low | | | |
| | 1315 | WEDGETAIL | 2 | S | Low | | | |
| 17-28 | 1321 | SOOTY TERN | 2 | NNW | 50' | | | |
| 1-1 | 1327 | Ruddy TURNSTONE | 1 | NE | Low | | | |
| | 1327 | WEDGETAIL | 1 | N | Low | | | |
| | 1330 | ----- APPROXIMATELY 3 HOURS SOUTH OF PEARL + HERMES REEF | | | | | | |
| | 1332 | SOOTY TERN | 1 | SE | 40' | | | |
| | 1336 | WEDGETAIL | 1 | S | Low | | | |
| | 1337 | SOOTY TERN | 2 | NW | 60' | | | |
| | 1339 | WEDGETAIL | 1 | S | Low | | | |
| | 1341 | WEDGETAIL | 1 | SW | Low | | | |
| | 1346 | SOOTY TERN | 2 | N | 60' | | | |
| | 1349 | WEDGETAIL | 1 | S | Low | | | |
| clock | 1405 | SOOTY TERN | 1 | S | Low | - 1-imm - NOT FEEDING | | |
| | 1405 | WEDGETAIL | 1 | SW | Low | | | |
| | 1409 | WEDGETAIL | 1 | S | Low | | | |
| 3-3 | 1414 | BONIN Is. | 1 | N | Low | | | |
| | 1417 | SOOTY TERN | 1 | NE | 50' | | | |
| | 1418 | WEDGETAIL | 1 | N | Low | | | |
| | 1421 | SOOTY TERN | 2 | N | 70' | | | |
| | 1424 | WEDGETAIL | 1 | NW | Low | | | |
| | 1428 | WEDGETAIL | 1 | NW | Low | | | |
| | 1428 | BONIN Is. | 1 | S | Low | | | |
| | 1431 | WEDGETAIL | 1 | S | Low | | | |
| | 1431 | WEDGETAIL | 2 | N | Low | | | |
| | 1434 | SOOTY TERN | 1 | N | 60' | | | |
| | 1435 | SOOTY TERN | 3 | N | 50' | | | |
| | 1435 | WEDGETAIL | 1 | N | Low | | | |
| | 1437 | WEDGETAIL | 1 | N | Low | | | |
| 1-1 | 1441 | FAIRY TERN | 1 | NE | 50' | | | |
| 15-2 | 1445 | BONIN Is | 1 | N | Low | | | |
| | 1446 | SOOTY TERN | 2 | N | 60' | | | |
| | 1447 | WEDGETAIL | 2 | SW | Low | | | |
| | 1455 | WEDGETAIL | 1 | SW | Low | | | |
| | 1456 | SOOTY TERN | 11 | N | Low | | | |
| | 1456 | SOOTY TERN | 1 | S | Low | | | |
| | 1456 | WEDGETAIL | 1 | N | Low | | | |
| | 1501 | Red-H. TROPIC | 1 | S | 100' | | | |
| | 1503 | SOOTY TERN | 5 | SW | 30' | | | |
| | 1511 | WEDGETAIL | 1 | SW | Low | | | |
| | 1520 | SOOTY TERN | 1 | S | 50' | | | |

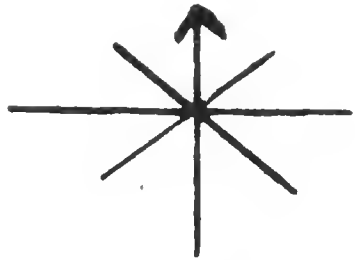


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Pg. # 5

| | time | species | # | dir. | hgt. | remarks | loc. |
|-------|------|---|-------|-------|-------|--|--------|
| | 1522 | SOOTY TERN | 1 | S | 40' | | |
| | 1529 | WEDGETAIL | 1 | SW | LOW | | |
| | 1532 | SOOTY TERN | 2 | N | 60' | | |
| | 1534 | SOOTY TERN | 2 | S | LOW | } circled + joined | |
| | 1535 | SOOTY TERN | 1 | N | 40' | | |
| Flock | 1540 | SOOTY TERN | 25± | S | ⊙ | - Feeding | |
| Flock | 1541 | SOOTY TERN | 25± | S | ⊙ | | To 60' |
| | 1541 | WEDGETAIL | 1 | W | LOW | - Not seen feeding but QUITE DISTANT | |
| | 1542 | SOOTY TERN | 1 | N | 50' | | |
| | 1545 | ----- | ----- | ----- | ----- | PEARL + HERMES IN SIGHT | |
| | 1551 | SOOTY TERN | 1 | S | LOW | | |
| | 1552 | " " | 4 | S | LOW | | |
| | 1553 | " " | 1 | S | 60' | | |
| | 1555 | " " | 3 | S | LOW | | |
| Flock | 1600 | TERNs | 18 | ⊙ | LOW | - Feeding - Noddies or Imm Sooties | |
| | 1600 | SOOTY TERN | 1 | NW | LOW | | To 40' |
| | 1601 | " " | 1 | N | 40' | | |
| | 1602 | " " | 2 | NW | 60' | | |
| | 1604 | " " | 15 | N | LOW | - SCATTERED ABOUT AREA | |
| | 1604 | NODDIES | 5+ | N | LOW | - " " " | |
| | 1606 | FRIGATE | 2 | ⊙ | 150' | | |
| | 1607 | ----- | ----- | ----- | ----- | SOME BIRDS VISIABLE OVER ISLAND NOW | |
| | 1609 | FAIRY TERN | 1 | E | 40' | | |
| | 1610 | FRIGATES | 8 | ⊙ | HIGH | - OVER ISLAND | |
| | 1610 | GRAY-BACK Tern | 1 | SW | | | |
| | 1610 | ----- | ----- | ----- | ----- | LARGE SOOTY Colony VISABLE | |
| | 1615 | ----- | ----- | ----- | ----- | BIRDS ALL ABOUT - CEASE INDIVIDUAL COUNTS - | |
| | 1630 | (MASKED BOOBY) RED-F. BOOBY COMMON Noddy SOOTY TERN FRIGATE BROWN BOOBY TROPIC BIRD LAYSAN ALBATROSS | | | | ARE 1 MI FROM ISLAND SHIP ANCHORED around Pearl + Hermes Reef | |
| | 1745 | ----- | ----- | ----- | ----- | S.I. PARTY + GEAR BOUND FOR Island. | |
| | 1800 | ----- | ----- | ----- | ----- | " " " " ASHORE | |
| | 1815 | ----- | ----- | ----- | ----- | RUBBER BOAT + SAILORS (2) Returning To SHIP. | |
| | 1820 | ----- | ----- | ----- | ----- | 200± FRIGATES IN AIR OVER ISLAND (HIGH) SAILING IN WIND. (COUNT 158) | |
| | 1835 | ----- | ----- | ----- | ----- | ESTIMATE OF 1500±200 BIRDS WITHIN 75' OF ISLAND IN AIR. SAILORS ABOARD! | |
| | 1955 | ----- | ----- | ----- | ----- | RADIO CONTACT MADE - ALL'S WELL! | |

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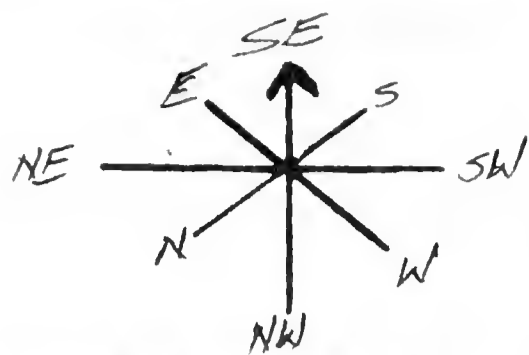
123



0945 - SHIP UNDERWAY BOUND FOR
HERMES IS. OF PEARL + HERMES REEF

DATE 19 AUGUST 64
Pg. # 2

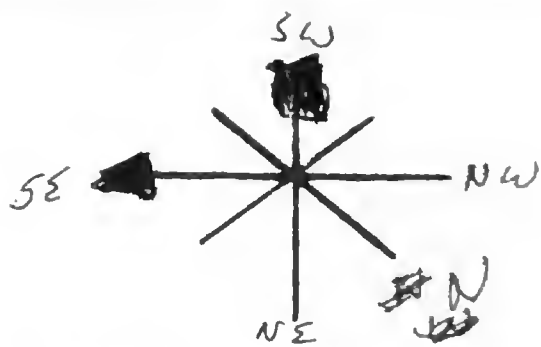
| time | species | # | dir. | hgt. | remarks | loc. |
|------|---|---|------|------|---|------|
| 0945 | Heading ESE | | | | About Pearl are scattered numbers of Wedgetails, Sooties, Red-tl. Tropicbird, Noddies and Frigates. 13 Noddies feeding 5 of ds. wedgetails in omnidirectional flight are scattered from Pearl to SW Horizon but in much smaller numbers than earlier noted. Sooties have increased in area. | |
| 1000 | RADIO CONTACT MADE WITH S.I. PARTY CROSSING PEARL + HERMES LAGOON IN RUBBER RAFT | | | | | |
| 1010 | SEVERAL - 20-30 wedgetails in area about ship 2-2 1/2 mi SE of Pearl. Course ^{ship} NE | | | | | |
| | " 20-30 SOOTIES | | | | " " " " " " " " " " " " | |
| 1015 | Common Noddys IN Flock heading NE + low over water - Feeding occasionally. | | | | | 65±5 |
| 1025 | wedgetails in area flying omnidirectionally but seem to fly into wind greater portion of time. Sooties have reduced momentarily. These seem to be only species present here. Pearl presently 5 mi to the west of ship. Occasional single noddies present. - Flying fish about - first seen around reef. | | | | | |
| 1030 | Tropicbird at great altitude over reef. old ship - wedged on reef. ^{Plainly} visible on Horizon ahead. another tropicbird low over reef. ship is presently 1 1/2 - 2 mi SE of Reef, headed NW occasional wedgetails and sooties about ship. | | | | | |
| 1035 | Five dull aboard ship - sound of horn attracted sooty Terns. (16) now following | | | | | |
| 1040 | Hermes Plainly in sight 5 miles to west of Present position wedgetails + sooties scattered throughout area. | | | | | |
| 1045 | Large flock of Birds (probably Terns) around Wedge of ship on reef - would estimate 500-600 birds more spots. 15-20 (Frigates) or larger birds. Wedge 3/4 ^{3/4} mi distant. small flocks of birds frequent along reef. | | | | | |
| 1050 | Birds now abundant about ship 50-60 wedgetails, 2 ^{3 imm marked} brown Booby, 8 Red-ft. Booby, sooty Terns frigates | | | | | |
| 1120 | at North Island - can see no exit for soft through reef. 4 fairy Terns in area can see seals + albatrosses (Laysan) on Hermes. other birds have diminished in numbers. No radio contact made with S.I. Party but can see them. | | | | | |
| 1125 | FAIRY TERNS Abundant opposite far end of reef. 12 counted in 90° scan - generally low over water. | | | | | |
| 1130 | men on Island - 500±50 Frigates in air - view of men obstructed by clouds of birds. Fairy Terns still abundant (20 in 90° arc) and in flocks along reef - apparently feeding. 3 imm Brown Boobies near ship, wedgetails, sooties and Noddies about. Flocks of Fairy terns vary from 50± to 30± individuals and singles. Flocks of dark terns (probably Noddies) about reef - est. 150-175 birds. Fairy terns can be seen on reef coral. | | | | | |



DATE 20 August 64
Pg. # 1

time species # dir. hgt. remarks loc.

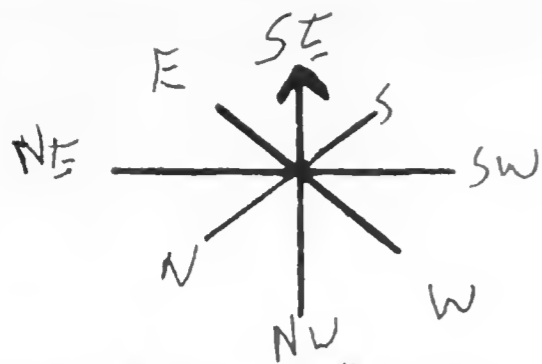
| | | | | | | |
|------|--------------|---|----|--------|---|--|
| 1505 | | | | | UNDERWAY BOOND FOR LISIANSKI - Moving along reef in easterly direction. Very few birds in area - an occasional Sooty Tern and Wedgetail. Fairy Terns not nearly as abundant as yesterday! Tide has not receded from reef entirely as it appeared to be yesterday. | |
| 1530 | | | | | No flocks of birds apparent on reef at present - a few terns, fairy & probably Noddy flying along it. Ship presently 1 mi from reef in calm water. Very few birds over ocean. 10 frigates in air over island, a few Terns and a very few noddies between ship and reef. (obs pairs as singles). | |
| 1545 | | | | | in 360° view of ship (including reef) - 2 ^{used} Boobies, 1 Wedgetail, (3 frigates & scattering of Terns over island). Sooty Terns (?) flying to reef. | |
| 1600 | | | | | REEF 1/2 to 2 mi distant commence individual logging of species. | |
| 1604 | Wedgetail | 1 | SE | low | | |
| 1605 | Wedgetail | 1 | SE | low | | |
| 1606 | Wedgetail | 1 | SE | low | | |
| 1606 | SOOTY TERN | 1 | S | 60' | | |
| 1607 | R-T TROPIC | 1 | NE | OTOLOW | - arose from water | |
| 1612 | " " | 1 | SE | low | | |
| 1614 | Wedgetail | 1 | SE | low | | |
| 1616 | " | 1 | SE | low | | |
| 1617 | " | 1 | SE | low | | |
| 1624 | BONIN Is. | 2 | NE | low | | |
| 1625 | SOOTY TERN | 1 | NW | low | | |
| 1627 | WEDGETAIL | 1 | SE | low | | |
| 1629 | Common Noddy | 1 | SW | low | | |
| 1630 | FAIRY TERN | 1 | SW | 60' | | |
| 1634 | NODDY | 1 | NW | low | | |
| 1635 | WEDGETAIL | 1 | N | low | | |
| 1638 | NODDY | 1 | SE | low | | |
| 1639 | SOOTY TERN | 1 | NE | low | | |
| 1640 | WEDGETAIL | 1 | SE | low | | |
| 1643 | SOOTY TERN | 1 | N | low | | |
| 1645 | BONIN Is. | 1 | N | low | - imm. | |
| 1654 | SOOTY TERN | 4 | N | low | - Circling much. | |
| 1655 | " " | 2 | N | low | | |
| 1656 | " " | 1 | SE | 40' | | |
| 1716 | " " | 1 | W | 60' | | |
| 1725 | Booby ? | 1 | W | 30' | | |
| 1735 | Bonin I. | 2 | W | 100' | Imm. BF ? | |
| 1736 | Sooty Tern | 2 | SE | 30' | | |



DATE 20 Aug. 64
Pg. # 2

time species # dir. hgt. remarks loc.

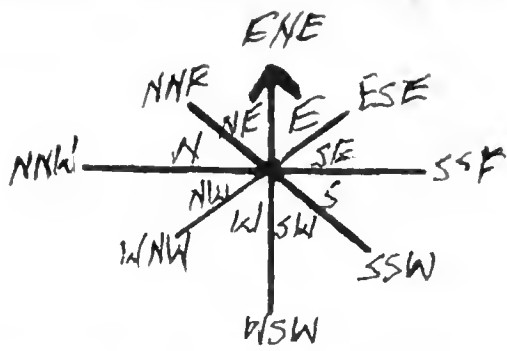
| | | | | | | | |
|---|------|----------------------|------|------|--------|--|--|
| F | 1740 | Sooty Tern | 75+ | } SE | --- | Mainly Blue-faced - Ad. + Imm., + a few RF | |
| | | Wedgetail | 100+ | | | | |
| | | Booby | 15+ | | | | |
| | | Noddy | 50+ | | | | |
| | 1745 | Noddy | 6 | W | low | | |
| | 1746 | Sooty Tern | 1 | ESE | 30' | | |
| | 1747 | Bonin Is. | 1 | NW | low | | |
| | 1747 | Sooty Tern | 1 | S | low | | |
| | 1751 | Bonin Is. | 1 | S | low | | |
| | 1751 | Fairy Tern | 1 | E | 50' | | |
| | 1754 | Sooty Tern | 1 | NW | low | | |
| | 1759 | Brd (Golden Plover?) | 1 | NW | 60' | Shorebird? Appeared all dark, very fast flight | |
| | 1800 | Wedgetable | 4 | S | low | | |
| | 1802 | Masked Boob | 1 | NW | low | | |
| F | 1804 | Sooty Tern | 50± | S | | No feeding observed | |
| | | Wedgetail | 20± | S | | | |
| | 1806 | Sooty Tern | 1 | S | 20' | | |
| | 1809 | Bonin Is. | 1 | S | low | flushed off water | |
| | 1815 | Golden Plover | 1 | N | to 60' | circled ship twice | |
| | 1818 | Wedgetail | 1 | N | low | | |
| | 1818 | " | 1 | N | low | | |
| | 1819 | Sooty Tern | 3 | SW | low | | |
| | 1827 | " | 1 | SE | 30' | | |
| | 1829 | Wedgetail | 1 | SE | low | | |
| | 1830 | " | 1 | N | " | | |
| | 1832 | Sooty Tern | 1 | SE | " | | |
| | 1834 | Brown(?) Boob | 1 | ⊙ | " | -(inclined to think this bird was also Laysan Albatross after seeing flight of 1840 entry - due to wind) | |
| | 1834 | Wedgetail | 1 | ⊙ | " | | |
| | 1835 | " | 1 | ⊙ | " | | |
| | 1836 | Pterodroma | 1 | E | " | | |
| | 1836 | Sooty Tern | 9 | E | " | | |
| | 1840 | LAYSAN Alba. | 1 | N | | | |
| F | 1851 | SOOTY TERN | 7 | ⊙ | Low | - low wind - much flapping | |
| | | WEDGETAIL | 4 | ⊙ | | - NOT FEEDING - Very loose flock. | |
| | 1852 | WEDGETAIL | 2 | ⊙ | Low | | |
| | 1855 | R.T. Tropic | 1 | NE | | Sitting on water | |
| | 1858 | R. Turnstone | 1 | SE | 50' | | |
| | 1858 | Wedgetail | 1 | ⊙ E | Low | | |



DATE 20 Aug. 64
Pg. # 3

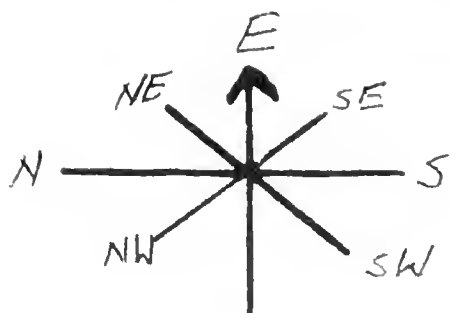
time species # dir. hgt. remarks loc.

| | | | | | | |
|------|--------------|---|----|----------------|--|--|
| 1905 | Sooty Tern | 3 | SE | 50' | | |
| 1910 | R. Turnstone | 1 | NE | 20' | | |
| 1914 | Wedgetail | 1 | NW | low | | |
| 1914 | R. T. Tropic | 1 | NW | 150' | | |
| 1915 | Sunset | 1 | W | 84,000,000 mi. | | |



DATE 28 August 64
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|--|----------|------|------------|---|------|
| 0700 | | | | | RAISE ANCHOR | |
| 0715 | | | | | Commence observations - headed North - Island to Right-E. | |
| | Sooty Terns very numerous, wedgetails not overly numerous and gliding in typical flight - omnidirectionally. A few boobies about flying very low or sitting on water. Frigates occasional. Sooties feeding on flying fish but not in flocks. Island approximately 4 mi distant. to SE. | | | | | |
| 0730 | Ship Course | | ENE | | Commence species observations. <u>single observer!</u> | |
| 0731 | SOOTY TERN | 1 | NNW | 70' | | |
| 0735 | " " | 14 | ENE | 40' | - following Ship | |
| 0734 | " " | 2 | ESE | LOW | | |
| 0734 | B.F. BOOBY | 1 | NNW | LOW | - 1 imm | |
| 0737 | B.F. BOOBY | 2 | NNW | LOW | | |
| 0738 | SOOTY TERN | 1 | E | LOW | | |
| 0738 | Wedgetail | 2 | NW | LOW | | |
| 0738 | B.F. BOOBY | 1 | W | LOW | - dove into high side of wave - went completely under - | |
| 0738 | SWATBIRDS | 3 | SE | LOW | water and emerged from other side with fish. | |
| 0740 | Sooty Tern | 10 | E | 40' | | |
| 0743 | Wedgetail | 1 | SE | LOW | (Island plainly visible to SSE 4 mi, | |
| 0745 | R.F. Booby | 1 | ENE | LOW | - following fishing lure in water behind | |
| 0745 | Wedgetail | 1 | N | LOW | ship. 1 imm. | |
| 0750 | " " | 20+ | | LOW | - scattered throughout area. | |
| 0751 | Fairy Tern | 1 | E | LOW | | |
| 0752 | Red-ft. Booby | 2 | NE | 60' | - following ship. | |
| 0755 | Sooty T. | 50+ | | LOW to 80' | - in area - not flocks. | |
| 0800 | Wedgetail | 30+ | | LOW | - " " " " - appear to be moving generally NNW - | |
| 0803 | sooty T. | 2 | W | LOW | away from ls - out to sea. | |
| 0805 | | | | | - close observations for chow - single observer! | |
| 0825 | BONIN Is. | 2 | SE | LOW | | |
| 0825 | B.F. Booby | 1 | SE | LOW | | |
| 0825 | Sooty Tern | 25+ | SE | LOW | - few imm (3) | |
| 0825 | Wedgetail | 15+ | SE | LOW | > in area not flocks. | |
| 0830 | Bonin Is. | 250 ± 50 | SE | LOW | - in area. estimate 250 ± 50 in area. | |
| 0835 | Brown Booby | 1 | E | 50' | | |
| 0836 | Common Noddy | 1 | NE | LOW | | |
| 0840 | Bonin Is. | 250 ± 5 | | LOW | | |
| 0842 | Wedgetail | 1 | SE | LOW | - in area - too numerous to count accurately. | |
| 0844 | Bonin Is. | 24 | | 0 to low | flushed from H ₂ O by ship. No feeding seen - 10 Mi from ls. | |
| 0845 | SOOTY TERN | 1 | N | 35' | | |
| 0847 | " " | 2 | E | 60' | - chased Bonins. | |
| 0849 | " " | 3 | E | LOW | | |
| 0850 | Wedgetail | 1 | SE | LOW | - dark Phase. | |
| 0851 | Sooty Tern | 6 | LOW | NE | | |
| 0853 | Wedgetail | 3 | SE | LOW | | |
| 0853 | Sooty Tern | 3 | LOW | NE | | |
| 0954 | Bonins | 250 ± 50 | LOW | NE | - in area | |
| 0854 | Wedgetail | 1 | SE | LOW | | |

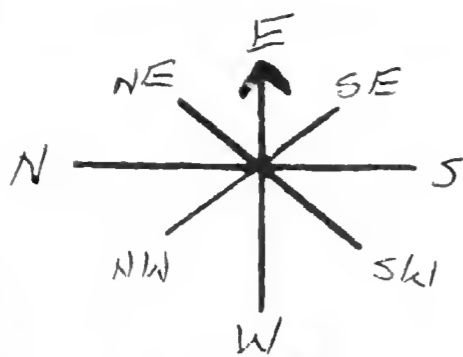


DATE 23 August 64
Pg. # 2

SINGLE OBSERVER

| time | species | # | dir. | hgt. | remarks | loc. |
|------|-----------------|----------|---------------|------------|--|------|
| 0900 | WEDGETAIL | 3 | SE | LOW | | |
| 0901 | BONIN IS. | 300 ± 50 | SE | LOW | | |
| 0903 | SOOTY TERN | 3 | S | 40' | - in area. (estimate conservative - many on H ₂ O) are discernible as Bonins for 1/2-3/4 mi. | |
| 0905 | Wedgetail | 1 | N | LOW | | |
| 0906 | " | 2 | N | LOW | | |
| 0908 | " | 2 | S | LOW | | |
| 0910 | BONIN IS. | 250 ± 50 | SE | LOW | - Generally flying into wind (E.) | |
| 0911 | Frigate | 1 | 70' | E | Imm. | |
| 0913 | SOOTY TERN | 4 | E | 80' | | |
| 0915 | Wedgetail | 2 | SE | LOW | | |
| 0915 | | | | | BONINS Greatly reduced. Probably no more than 25 in area | |
| 0917 | Wedgetail | 3 | SE | LOW | | |
| 0918 | SOOTY TERN | 3 | E | 40' | | |
| 0923 | " " | 4 | SW | 60' | | |
| 0924 | Wedgetail | 2 | SE | LOW | STORM IN NE. | |
| 0925 | BONINS | 25 ± | | LOW | | |
| 0930 | SOOTY TERN | 4 | E | LOW | - IN AREA | |
| 0931 | R-T. TROPIC | 1 | E | 80' | | |
| 0932 | WEDGETAIL | 3 | SE | LOW | | |
| 0933 | BONINS | 25 ± | | | still (16-17 Mi From LISIANSKI) | |
| 0934 | SOOTY TERN | 3 | NW | LOW | APPROX 25 ± in area. | |
| 0936 | WEDGETAIL | 3 | SE | LOW | | |
| 0937 | SOOTY TERN | 1 | E | " | | |
| 0940 | B.F. BOOBY | 1 | SE | LOW | Dove (did dive) | |
| 0941 | SOOTY TERN | 3 | E | LOW | | |
| 0941 | WEDGETAIL | 2 | SE | LOW | STORM NOW TO NW | |
| 0945 | SOOTY TERN | 1 | SE | LOW | | |
| 0947 | WEDGETAIL | 1 | SE | 40' | | |
| 0950 | BONINS | 25 ± | SE | LOW | | |
| 0953 | SOOTY T. | 1 | E | LOW | - in Area. | |
| 0954 | WEDGETAIL | 3 | SE | LOW | | |
| 0957 | Pterodroma | 1 | S | LOW | | |
| 0959 | Frigate | 1 | SW | 100' | - All dark brownish bird, slender body + wings compared to wedgetail. Flight - typical Pterodroma with 3-4 quick flaps followed by swoop + glides. (Imm) size - larger than Bulwer's - smaller than wedgetail. No distinctive markings under or over wing. | |
| 1000 | Bonins | 30 ± 5 | SE | LOW | - in area. | |
| 1001 | Wedgetail | 2 | " | " | | |
| 1002 | Ruddy TURNSTONE | 1 | SE | LOW | | |
| 1005 | WEDGETAIL | 20 ± | SE | LOW | - in area | |
| 1010 | WEDGETAIL | 2 | S | " | | |
| 1011 | " | 2 | SE | " | | |
| 1012 | R-T. TROPIC | 2 | E | 60' + 100' | | |
| 1013 | SOOTY TERN | 1 | E | 35' | | |
| 1015 | WEDGETAIL | 150 ± 50 | SE | LOW | in area. | |
| 1014 | R.F. BOOBY | 1 | | | | |
| 1017 | RT. TROPIC | 1 | E | 40' | | |
| 1018 | SOOTY TERN | 1 | E | LOW | | |

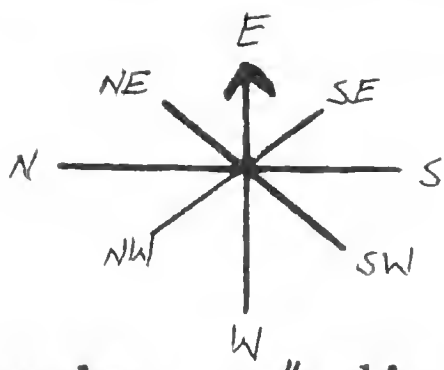
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DATE 23 August 64
Pg. # 3

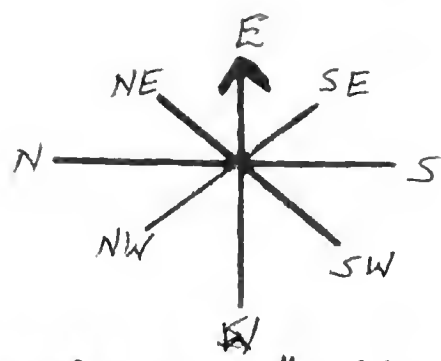
| time | species | # | dir. | hgt. | remarks | loc. |
|------|----------------|-------|---------------|--------|---|------|
| 1022 | SOOTY TERN | 4 | E | 60' | | |
| 1024 | Wedgetail | 2 | SW | Low | | |
| 1025 | " | 3 | " | " | | |
| 1027 | SOOTY TERN | 2 | E | " | | |
| 1030 | PTERODROMA | 1 | N | Low | - ALL dark AS 0957 ENTRY | |
| 1032 | Frigate | 1 | SW | | | |
| 1032 | BONINS | 10+ | SW | Low | | |
| 1036 | BONIN | 15 | " | Low | - Sitting ON H ₂ O in Group | |
| 1042 | SOOTY TERN | 1 | SW | Low | | |
| 1042 | WEDGETAIL | 10+ | SW | Low | - in area. | |
| 1050 | " | 2 | SE | Low | | |
| 1050 | BONIN | 1 | S | Low | | |
| 1053 | SOOTY TERN | 1 | SW | 60' | | |
| 1055 | BONINS | 30+ | SW | Low | in area. | |
| 1055 | Wedgetail | 1 | " | Low | | |
| 1103 | Bonins | 15-20 | SW | Low | | |
| 1105 | Wedgetails | 10+ | " | " | CEASE ESTIMATES ON BONINS + WEDGETAILS | |
| 1124 | Bulwers Pet | 1 | S | Low | | |
| 1124 | BONIN Is. | 6 | SW | " | | |
| 1133 | Wedgetail | 1 | N | " | | |
| 1133 | | | | | - CEASE OBSERVATION - CHOW - SINGLE OBSERVER! | |
| 1220 | | | | | - Commence " | |
| 1220 | SOOTY TERN | 1 | S | Low | | |
| 1220 | " | 9 | SE | " | | |
| 1220 | WEDGETAIL | 1 | S | " | | |
| 1221 | " | 1 | SW | Low | | |
| 1225 | SOOTY TERN | 2 | W | Low | | |
| 1227 | " | 9 | E | To 60' | | |
| 1230 | WEDGETAIL | 1 | SW | Low | | |
| 1237 | " | 1 | " | " | | |
| 1237 | FRIGATE | 1 | - | 200' | | |
| 1240 | SOOTY TERN | 1 | W | 30' | | |
| 1244 | R.-T. TROPIC | 1 | E | 80' | | |
| 1247 | Bulwers Pet. | 1 | NE | Low | | |
| 1255 | BONIN Is. Pet | 1 | SE | " | | |
| 1256 | SOOTY TERN | 1 | SW | 40' | | |
| 1300 | BONIN Is. Pet | 1 | SW | Low | | |
| 1305 | WEDGETAIL | 1 | SW | " | | |
| 1307 | BONIN Is. Pet. | 1 | N | " | | |
| 1311 | BONIN Is. Pet | 1 | NW | " | | |
| 1316 | " " " | 1 | S | 50' | - Flew <u>over</u> SHIP. | |
| 1321 | SOOTY TERN | 2 | SE | Low | | |
| 1326 | WEDGETAIL | 1 | W | " | | |
| 1329 | WEDGETAIL | 2 | SW | " | | |
| 1337 | Bulwers Pet. | 1 | S | Low | | |
| 1345 | BONIN Is. | 1 | S | 20' | | |
| 1346 | SOOTY TERN | 1 | SE | 60' | | |
| 1352 | WEDGETAIL | 2 | SW | Low | | |
| 1401 | BONIN Is. Pet. | 1 | S | Low | | |
| 1404 | WEDGETAIL | 1 | W | Low | | |
| 1407 | BONIN Is. | 1 | SW | " | | |

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DATE 23 August 64
Pg. # 4

| time | species | # | dir. | hgt. | remarks | loc. |
|------|----------------|---|---------------|------|----------|------|
| 1411 | R.T. TROPIC | 1 | — | 0' | ON WATER | |
| 1415 | SOOTY TERN | 3 | NW | 20' | | |
| 1415 | FAIRY TERN | 1 | SE | 50' | | |
| 1420 | Bulwers Pet. | 1 | S | low | | |
| 1422 | BONIN Is. | 1 | W | low | | |
| 1427 | " " | 1 | " | " | | |
| 1431 | " " | 1 | SW | " | | |
| 1440 | " " | 1 | " | " | | |
| 1455 | " " | 1 | S | " | | |
| 1456 | " " | 1 | S | " | | |
| 1458 | WEDGETAIL | 1 | S | " | | |
| 1501 | BONIN Is. | 1 | SW | " | | |
| 1506 | WEDGETAIL | 1 | SW | " | | |
| 1512 | BONIN Is. | 1 | SSW | " | | |
| 1515 | " " | 1 | S | " | | |
| 1516 | " " | 1 | S | " | | |
| 1520 | " " | 1 | SW | " | | |
| 1533 | " " | 1 | W | " | | |
| 1536 | " " | 1 | W | " | | |
| 1541 | " " | 3 | SW | " | | |
| 1541 | WEDGETAIL | 1 | SW | " | | |
| 1545 | BONIN Is. Pet. | 4 | S | " | | |
| 1546 | BONIN Is. " | 1 | S | " | | |
| 1546 | " " " | 1 | NE | " | | |
| 1546 | SOOTY TERN | 1 | S. | " | | |
| 1555 | BONIN Is. PET. | 1 | SW | " | | |
| 1557 | " " " | 2 | " | " | | |
| 1606 | " " " | 1 | N | " | | |
| 1609 | " " " | 1 | SW | " | | |
| 1612 | " " " | 1 | W | " | | |
| 1612 | " " " | 1 | SW | " | | |
| 1617 | " " " | 1 | S | " | | |
| 1620 | " " " | 1 | SW | " | | |
| 1622 | " " " | 1 | S | " | | |
| 1625 | SOOTY TERN | 2 | W | 60' | | |
| 1626 | BONIN Is. | 1 | S | low | | |
| 1628 | SOOTY TERN | 1 | W | low | | |
| 1630 | " " | 2 | SW | 30' | | |
| 1636 | " " | 1 | SW | 30' | | |
| 1636 | BONIN Is. Pet | 1 | NE | low | | |
| 1638 | " " " | 1 | S | " | | |
| 1639 | " " " | 1 | N | " | | |
| 1642 | Golden Plover | 2 | NE | 40' | | |
| 1644 | SOOTY TERN | 1 | NW | low | | |
| 1646 | BONIN Is. Pet | 1 | SW | low | | |
| 1649 | SOOTY TERN | 1 | S | " | | |
| 1651 | BONIN Is. PET | 2 | S | " | | |
| 1651 | " " " | 1 | NE | low | | |



DATE 22 August 64
Pg. # 5

| time | species | # | dir. | hgt. | remarks | loc. |
|------|------------------|---|---------------|------|-----------|------|
| 1853 | WEDGETAIL | 1 | SW | Low | | |
| 1856 | BONIN Is. PET. | 1 | SW | " | | |
| 1716 | Bonin Is. Pet. | 1 | S | Low | | |
| 1717 | Sooty TERN | 1 | S | 60' | | |
| 1720 | Sooty TERN | 2 | SW | 50' | | |
| 1740 | Wedgetail Sh. | 1 | S | Low | | |
| 1740 | Sooty TERN | 1 | N | Low | | |
| 1750 | Bonin Is. Petrel | 1 | N | Low | | |
| 1751 | Wedge tail Sh. | 1 | N | Low | | |
| 1753 | Bonin Is. Petrel | 1 | NW | Low | | |
| 1754 | Pterodroma | 1 | W | Low | | |
| 1757 | Wedgetail Sh. | 1 | S | Low | | |
| 1800 | Wedgetail Sh. | 1 | S | Low | | |
| 1800 | Sooty TERN | 1 | S | Low | | |
| 1802 | " " | 1 | SE | 90' | | |
| 1803 | " " | 1 | NW | Low | | |
| 1803 | FRIGATE | 1 | E | 150 | ♀ | |
| 1805 | B.-F. BOOBY | 3 | S | Low | | |
| 1812 | Bulwers Pet | 1 | SW | Low | | |
| 1815 | Pterodroma | 1 | S | Low | | |
| 1815 | BONIN Pet | 1 | NE | Low | | |
| 1816 | BONIN (?) Pet. | 1 | S | Low | | |
| 1818 | BONIN PET. | 1 | S | Low | | |
| 1824 | SOOTY TERN | 3 | SE | Low | | |
| 1834 | PTERODROMA | 1 | NE | Low | | |
| 1845 | SOOTY TERN | 2 | SE | Low | | |
| 1854 | BONIN Is. Pet | 1 | N | Low | | |
| 1856 | | | | | - SUNSET! | |

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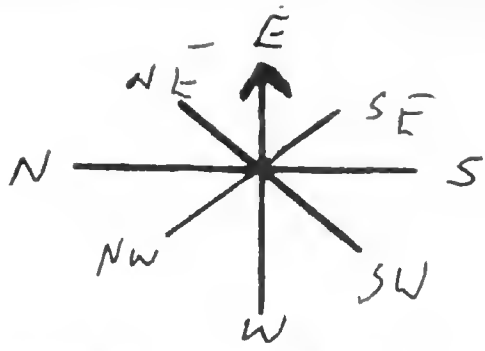
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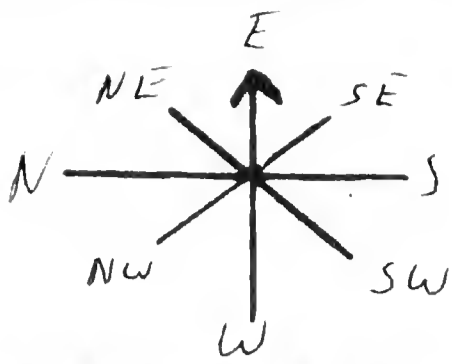
27 32

All foregoing observations made by
 J. D. Whitman (except 1716-1800 hrs by R.M.M.)
 other members of Pacific Project worked
 all previous night on Lisianski Is.



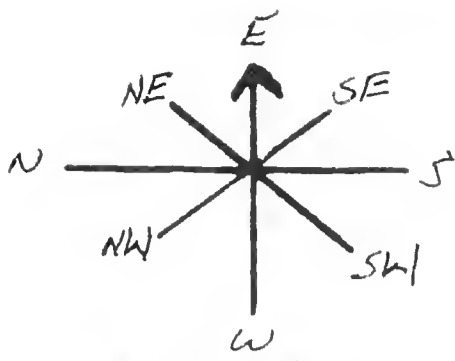
DATE 24 August 1964
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|-----------------|---|------|--------|--|------|
| 0600 | | | | | Begin observations | |
| 0602 | Wedgetail | 1 | NNW | low | | |
| 0606 | " | 1 | NNW | " | | |
| 0610 | " | 1 | NNW | " | | |
| 0610 | Bulwers(?) | 1 | W | " | All dark, Christmas Is. Pige(?) but not flight, no wing bars | |
| 0614 | Sooty Tern | 1 | N | " | | |
| 0619 | Wedgetail | 1 | N | " | | |
| 0629 | " | 2 | NW | " | | |
| 0629 | Sooty Tern | 2 | NW | 20' | | |
| 0634 | Wedgetail | 1 | NNW | low | | |
| 0634 | " | 1 | W | " | | |
| 0652 | Bonin Is. | 1 | S | " | | |
| 0654 | Bulwers | 1 | W | " | | |
| 0654 | Wedgetail | 1 | S | " | | |
| 0702 | " | 2 | W | " | | |
| 0707 | Sooty Tern | 1 | SW | 20' | | |
| 0714 | Wedgetail | 1 | N | low | | |
| 0723 | " | 1 | W | low | | |
| 0729 | R.T. Tropic | 1 | E | 40' | | |
| 0730 | Bulwers | 1 | NNW | low | | |
| 0736 | " | 1 | S | low | drifted by wind | |
| 0738 | " | 1 | NW | " | | |
| 0740 | | | | | | |
| 0750 | | | | | Rain squall | |
| 0752 | Ruddy Turnstone | 1 | NW | to 50' | | |
| 0755 | Wedgetail | 1 | W | low | | |
| 0759 | Sooty Tern | 3 | N | 30' | | |
| 0812 | Bonin Is. | 1 | W | low | | |
| 0827 | Bulwer's Pet | 1 | SSW | low | | |
| 0828 | Wedgetail | 1 | WNW | low | | |
| 0830 | Wedgetail | 1 | W | low | | |
| 0832 | Bulwer's Pet | 1 | WNW | low | | |
| 0840 | Fairy Tern | 1 | NW | 40' | | |
| 0841 | Wedgetail | 1 | NNW | low | | |
| 0844 | Bulwer's Pet | 1 | S | low | | |
| 0847 | Wedgetail | 1 | WNW | low | | |
| 0848 | Bulwer's Pet | 1 | S | low | | |
| 0850 | Wedgetail | 2 | WNW | low | | |
| 0851 | Wedgetail | 1 | SSW | low | | |
| 0855 | Bulwer's | 1 | NNW | low | | |
| 0856 | Bulwer's | 1 | NNW | low | | |
| 0904 | Wedgetail | 2 | S | low | | |
| 0904 | Bulwer's | 2 | E | low | | |
| 0905 | Wedgetail | 2 | S | low | | |
| 0908 | Wedgetail | 1 | S | low | | |



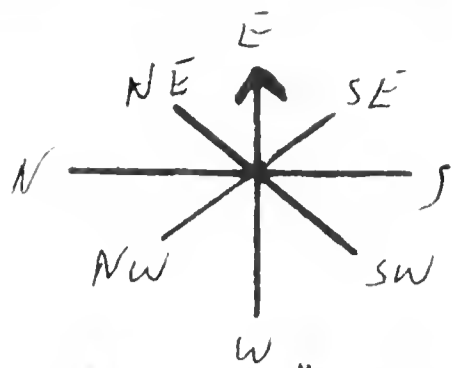
DATE 24 August 1964
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|-------------------|------|-----------------|----------|---------------|------|--|------|
| 25-285 | 0914 | Wedgetail | 1 | SW | low | | |
| | 0920 | Wedgetail | 1 | WNW | low | | |
| 5-5 | 0926 | Bulwer's Pet | 1 | E | low | | |
| | 0938 | Wedgetail | 1 | ESE | low | | |
| | 0939 | Wedgetail | 1 | NE | low | | |
| | 0940 | Wedgetail | 1 | WNW | low | | |
| | 0945 | Bulwer's Pet | 1 | NW | low | | |
| | 0946 | Wedgetail | 1 | NW | low | | |
| 1-1 | 0946 | Ruddy Turnstone | 1 | N | low | | |
| | 1000 | Bulwer's sp | 1 | NW | low | | |
| 2-2 | 1005 | Bonin Is Pet | 1 | W | low | | |
| | 1006 | Bulwer's | 1 | SE | low | | |
| 3-3 | 1009 | HARCOURTS | 3 | E | low | | |
| | 1009 | WEDGETAIL | 1 | SE | low | | |
| | 1015 | WEDGETAIL | 1 | NW | low | | |
| | 1016 | HARCOURTS | 1 | E | low | | |
| | 1021 | WEDGETAIL | 1 | NW | low | | |
| | 1024 | HARCOURTS | 1 | E | low | | |
| 4-4 | 1025 | SOOTY TERN | 3 | SE | 50' | | |
| | 1030 | WEDGETAIL | 1 | SE | low | | |
| | 1036 | BONIN IS. PET | 1 | N | low | | |
| 1-1 | 1041 | B.F. BOOBY | 1 | N | low | | |
| | 1044 | WEDGETAIL | 1 | N | low | | |
| | 1045 | " | 1 | N | " | | |
| | 1056 | Bulwers Pet. | 1 | NW | low | | |
| | 1057 | WEDGETAIL | 1 | SE | low | | |
| | 1059 | WEDGETAIL | 1 | SW | low | | |
| | 1102 | " | 1 | SE | low | | |
| | 1103 | " | 1 | " | low | | |
| F | 1105 | WEDGETAIL | 175 ± 15 | | | - CROSSING NORTHERN LIMIT OF 'RAITA BANK' - NO SOUNDINGS - (MORE THAN 1000 FATHOMS) CAPT. SAYS BANKS CAN OFTEN BE LOCATED BY FLOCKS OF BIRDS AT SEA + HAS SEEN THEM PREVIOUSLY AROUND MEXICO. FLOCK NOT SEEN TO ACTIVELY FEED! | |
| | | SOOTY TERN | 50 ± 10 | | | | |
| | 1123 | WEDGETAIL | 1 | SW | low | | |
| | 1129 | SOOTY TERN | 1 | NW | low | | |
| | 1135 | WEDGETAIL | 1 | SE | low | | |
| | 1140 | WEDGETAIL | 1 | NW | low | | |
| | 1144 | WEDGETAIL | 1 | NW | low | | |
| | 1145 | WEDGETAIL | 1 | NW | low | | |
| F | 1147 | SOOTY TERN | 30 ± 10 | | | - Not seen actively Feeding however flock about 1/2 mi distant and sea high. | |
| | | FAIRY TERN | 2 | | | | |
| | | WEDGETAIL | 25 ± 10 | | | | |
| | 1157 | WEDGETAIL | 1 | SE | low | | |
| | 1205 | WEDGETAIL | 1 | NW | low | | |
| | 1210 | Sooty TERN | 1 | N | low | | |



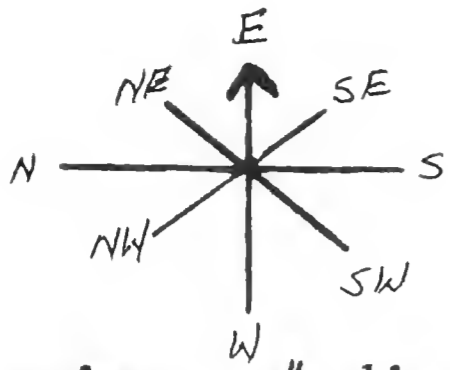
DATE 24 August 1964
Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|------|-----------------|---|------|--------|---|--|
| 1224 | 1224 | Sooty Tern | 1 | W | 70' | | |
| 1226 | 1226 | Wedgetail | 2 | NW | low | | |
| 1234 | 1234 | Frigate | 1 | W | low | Imm. | |
| 1240 | 1240 | Bulwers | 1 | N | " | | |
| | 1242 | " | 1 | SE | " | | |
| | 1244 | Wedgetail | 1 | W | " | | |
| | 1252 | Bulwers | 1 | NW | " | | |
| | 1253 | Wedgetail | 1 | N | " | | |
| Flock | 1307 | Wedgetail | 1 | | | - not feeding | |
| | | Bulwers | 5 | } S | | | |
| | 1312 | Wedgetail | 2 | NW | " | | |
| | 1315 | Wedgetail | 2 | W | to 30' | | |
| | 1322 | Wedgetail | 2 | W | to 30' | | |
| | 1322 | Wedgetail | 1 | NW | low | | |
| | 1325 | Wedgetail | 1 | NW | low | | |
| | 1329 | Wedgetail | 1 | NW | low | | |
| | 1330 | Sooty Tern | 1 | W | 50' | | |
| | 1339 | Great Frigate | 2 | | 300' | ♀ + im circling high above ship under same conditions as the im. sighted at 1234, that is to say, there was a large cloud bank to the port side, raining, no other birds around | |
| | 1342 | Wedgetail | 1 | E | low | flying around stern of ship | |
| | 1357 | Wedgetail | 1 | W | low | | |
| | 1400 | Wedgetail | 2 | W | low | | |
| | 1438 | Bulwer's | 1 | S | " | | |
| | 1440 | | | | | ships slowed, on course. | |
| | 1452 | Bulwer's | 1 | NW | low | | |
| | 1459 | Gr. Frigate | 1 | S | 50' | imm; | |
| | 1500 | " | 4 | W | 1-300' | imm; | } followed near ship for 5 mins. Group of 4 remained higher + apart from first ind. sighted. |
| | 1505 | Wedgetail | 1 | E | low | | |
| | 1506 | | | | | resume speed | |
| | 1511 | Sooty tern | 1 | S | low | | |
| | 1513 | Bulwer's | 2 | | | sitting on water | |
| | 1524 | Wedgetail | 1 | W | low | | |
| | 1525 | Bulwer's | 1 | W | low | | |
| | 1536 | Wedgetail | 1 | SW | low | | |
| | 1547 | Sooty tern | 6 | E | 60' | | |
| | 1605 | Booby | 1 | S | low | | |
| | 1618 | BONIN Is. Pst | 1 | SW | low | | |
| | 1703 | Harcourt's S.P. | 1 | NE | low | | |
| | 1712 | Wedgetail | 1 | S | low | | |
| | 1712 | Wedgetail | 2 | E | low | | |



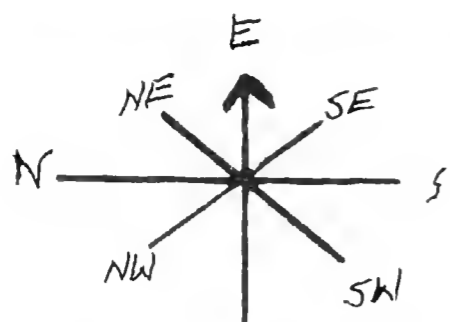
DATE 24 August 1964
Pg. # 4

| time | species | # | dir. | hgt. | remarks | loc. |
|----------------------|------------------|---|---------------|------|---|------|
| 1722 1725 | Bonin Is. Petrel | 1 | E | low | WILL BE PASSING GARDNER PINNACLES AT SUNSET. 30+ MILES N. (1900) | |
| 1753 | BONIN Is. Pet. | 1 | S | low | | |
| 1757 1802 | WEDGETAIL | 1 | SE | low | | |
| 1803 | WEDGETAIL | 1 | W | low | | |
| 1804 1804 | SOOTY TERN | 2 | S | 20' | | |
| 1812 | WEDGETAIL | 2 | S | low | | |
| 1815 | WEDGETAIL | 1 | S | LOW | | |
| 1816 | " | 1 | " | " | | |
| 1818 | " | 1 | W | " | | |
| 1821 1823 | BULWERS Pet | 1 | S | low | | |
| 1834 | SOOTY TERN | 2 | NE | 70' | | |
| 1840 | | | | | APPARENT SUNSET. | |



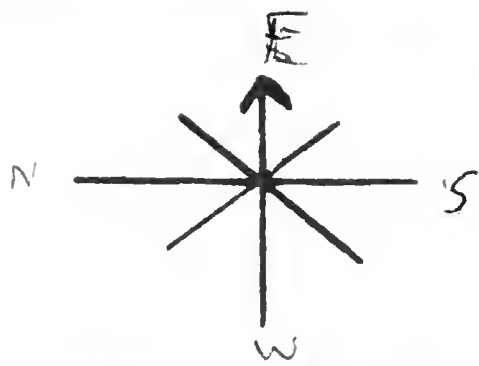
DATE 25 AUGUST 64
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|-------------------------|-------------|-----|---------------|------|--|------|
| 0600 | --- | --- | --- | --- | Commence observations - SUNRISE - 0550 CA. | |
| 0600 0605 | WEDGETAIL | 1 | SW | LOW | | |
| 0605 0606 | FAIRY TERN | 1 | E | LOW | | |
| 0608 | WEDGETAIL | 1 | SW | LOW | | |
| 0610 | WEDGETAIL | 1 | SW | LOW | | |
| 0612 | " | 1 | SW | LOW | | |
| 0619 0619 | Bulwers | 1 | NE | LOW | | |
| 0621 | WEDGETAIL | 2 | S | LOW | | |
| 0641 | WEDGETAIL | 1 | SE | LOW | | |
| 0645 0645 | SHEAR-PET | 1 | W | LOW | | |
| 0646 | Bulwers Pet | 1 | NE | " | | |
| 0653 | WEDGETAIL | 1 | SW | " | | |
| 0658 | WEDGETAIL | 1 | W | " | | |
| 0700 | WEDGETAIL | 1 | SW | " | | |
| 0700 | " | 2 | S | " | | |
| 0700 | " | 1 | W | " | | |
| 0701 | " | 1 | E | " | | |
| 0702 | " | 1 | SW | " | | |
| 0707 | " | 1 | S | " | | |
| 0707 | " | 1 | S | " | | |
| 0707 | " | 1 | S | " | | |
| 0711 | " | 1 | S | " | | |
| 0714 | " | 1 | S | " | | |
| 0714 | " | 1 | S | " | | |
| 0715 | " | 1 | S | " | | |
| 0715 | " | 1 | S | " | | |
| 0715 | " | 1 | S | " | | |
| 0716 | " | 3 | S | " | | |
| 0717 | " | 1 | S | " | | |
| 0718 | " | 1 | N | " | | |
| 0718 | " | 1 | N | " | | |
| 0718 0718 | SOOTY TERN | 2 | SE | 100' | | |
| 0719 | " " | 2 | SW | LOW | | |
| 0719 | WEDGETAIL | 1 | S | " | | |
| 0720 | " | 1 | NW | " | | |
| 0721 | " | 1 | SW | " | | |
| 0721 | " | 1 | SW | " | | |
| 0738 | " | 1 | SW | " | | |
| 0744 | " | 1 | W | " | | |
| 0750 | " | 1 | N | " | | |
| 0751 | " | 1 | N | " | | |
| 0755 | " | 1 | N | " | | |
| 0755 | " | 1 | E | " | | |
| 0800 | " | 1 | N | " | | |
| 0801 | " | 2 | N | " | | |
| 0801 | " | 1 | N | " | | |



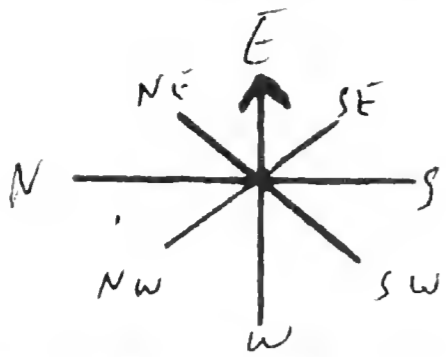
DATE 25 Aug 64
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------------|-----------------|-----|---------------|------|--------------------------------|------|
| 28-29 0803 | Wedgetail | 1 | N | low | | |
| 0805 | " | 1 | NW | " | | |
| 0807 | " | 1 | SE | " | Circle ship | |
| 4-4 0816 | Tropic (R-D) | 1 | Following | | ship at 100' | |
| 7-7 0816 | Sooty Tern | 1 | " | | " 75' | |
| 0850 | Wedgetail | 1 | NW | low | | |
| 0852 | " | 1 | NW | " | | |
| 0853 | " | 1 | NW | " | | |
| 0855 | Sooty Tern | 2 | W | " | | |
| 9-9 0910 | Bulwers' P. | 1 | E | " | | |
| 0915 | Sooty Tern | 1 | N | 50' | | |
| 0919 | Wedge tail | 1 | W | low | | |
| 0919 | " | 1 | Sitting on | | water | |
| 0934 | Bulwer's Petrel | 1 | NW | low | | |
| 0939 | Bulwer's | 1 | E | low | | |
| 0940 | Wedgetail | 1 | NW | low | | |
| 1010 | Wedgetail | 1 | N | " | | |
| 1022 | Wedgetail | 1 | NW | " | | |
| 1024 | Wedgetail | 1 | NW | " | | |
| 1106 | Bulwers | 1 | NNW | " | | |
| 1-1 1128 | Shear-Pet | 1 | N | " | distant | |
| 1144 | Sooty Tern | 2 | NNE | " | | |
| 1204 | Bulwers | 1 | N | " | | |
| 1216 | WEDGETAIL | 2 | SE | " | | |
| 1217 | WEDGETAIL | 1 | " | " | | |
| 1218 | " | 1 | " | " | SHIP SLOWED | |
| 1234 | --- | --- | --- | --- | | |
| 1237 | WEDGETAIL | 1 | W | " | | |
| 1238 | --- | --- | --- | --- | RESUME SPEED ON COURSE | |
| 1243 | R-T. TROPIC | 1 | E | low | - sitting on H ₂ O. | |
| 1245 | WEDGETAIL | 1 | SE | low | | |
| 1250 | " | 1 | W | " | | |
| 1256 | SOOTY TERN | 1 | SE | 60' | | |
| 1259 | BULWERS | 1 | W | LOW | | |
| 1316 | R-T Tropic | 1 | SE | " | sitting on water | |
| 1334 | BULWERS | 1 | E | low | | |
| 1335 | R-T. TROPIC | 1 | E | 70' | | |
| 1336 | WEDGETAIL | 1 | S | low | | |
| 1349 | SOOTY TERN | 8 | S | 40' | | |
| 1350 | " | 2 | N | low | | |
| 1357 | WEDGETAIL | 1 | S | " | | |
| 1359 | Bulwers | 1 | N | " | | |
| 1415 | Bulwer's Pet | 1 | W | " | | |
| 1-1 1445 | Fairy Tern | 1 | E | low | | |



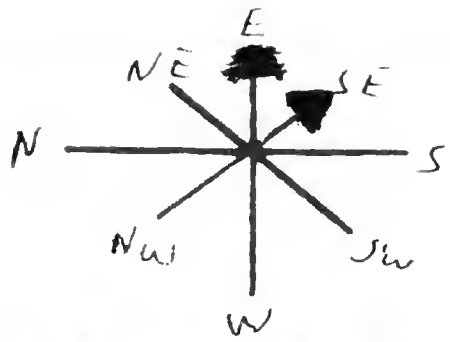
DATE 25 August 1964
Pg. # 3

| time | species | # | dir. | hgt. | remarks | loc. |
|---------------------|------------------|---|------|------|--|------|
| 1446 | Wedgetail | 1 | S | low | | |
| 3-4 1556 | Bulwer's | 2 | E | low | | |
| 1627 | Sooty Tern | 2 | W | low | | |
| 2-2 1702 | Shear Pet | 1 | WSW | low | | |
| 1717 | Bulwer's | 1 | E | low | | |
| 1-1 1720 | Masked boob | 1 | SSE | low | | |
| 2-2 1721 | Sooty Shearwater | 1 | SSE | low | P.W.W. all black, white wing lining high banking. | |
| 1726 | Shear Pet | 1 | E | low | Sooty Shearwater. | |
| 1743 | Bulwer's | 1 | N | low | | |
| 1-1 1755 | Bonin I. | 1 | S | low | | |
| 1805 | Sooty Shear | 1 | ESE | low | | |
| 1820 | | | | | Sunset | |



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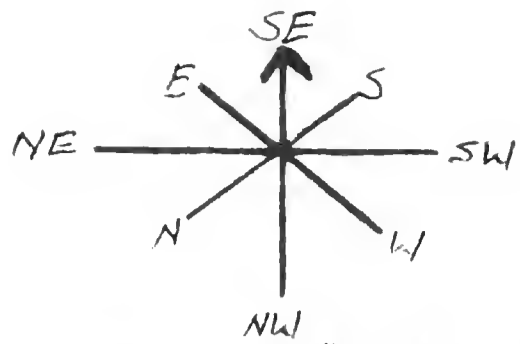
| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|-----------------|----|------|--------------------|--|------|
| | 0553 | | | | | Begin observations Sun up already | |
| 6-6 | 0557 | Bulwer's | 1 | S | low | | |
| 23-62 | 0557 | Wedgetail | 1 | W | low | | |
| | 0600 | Bulwer's | 1 | NW | low | | |
| 3-5 | 0603 | R-T Tropic | 1 | NE | low 60' | | |
| | 0603 | Bulwer's | 1 | E | low | | |
| | 0608 | Wedgetail | 1 | NW | low | | |
| 1-1 | 0608 | Newell's | 1 | E | low | | |
| | 0608 | Wedgetail | 1 | NW | low | | |
| 4-11 | 0615 | R-F Booby | 1 | W | low | adult | |
| | 0618 | Bulwer's | 1 | W | low | | |
| | 0623 | Wedgetail | 1 | W | low | | |
| | 0624 | Wedgetail | 1 | NNW | low | | |
| | 0625 | R-F Booby | 1 | WNW | low | adult | |
| | 0625 | Wedgetail | 1 | WNW | low | | |
| 1-1 | 0633 | Shear-Petrel | 1 | NW | low | | |
| | 0634 | R-F Booby | 2 | NW | low | adult + immature | |
| | 0634 | R-F Booby | 2 | WNW | low | adult + immature | |
| | 0640 | Wedgetail | 20 | WNW | low | loose group spread out but heading in same | |
| | | R-F Booby | 1 | WNW | low | adult | |
| 2-2 | 0641 | R-T Tropic bird | 1 | E | 50' | direction rapidly - straight line probably | |
| | 0644 | Wedgetail | 3 | NW | low | start of flock formation / feeding | |
| | 0645 | Wedgetail | 1 | NW | low | | |
| | 0645 | R-Foot Booby | 1 | NNW | low | adult | |
| | 0653 | Wedgetail | 2 | NW | low | | |
| | 0655 | Wedgetail | 3 | NW | low | | |
| 1-1 | 0655 | Booby | 1 | NW | low | | |
| | 0656 | Wedgetail | 1 | NW | low | | |
| 1-2 | 0659 | Tern | 2 | NW | 50' | | |
| | 0702 | Wedgetail | 2 | E | low | | |
| | 0703 | R-Foot Booby | 1 | NW | low | adult | |
| | 0713 | Wedgetail | 1 | NW | low | | |
| | 0713 | R-Foot Booby | 1 | NW | low | subadult | |
| | 0714 | Wedgetail | 5 | NW | low | loose group | |
| | 0720 | Wedgetail | 3 | NW | low | | |
| 1-1 | 0723 | Sooty Shear | 1 | NW | low | | |
| | 0726 | R-F Booby | 1 | NW | low | adult | |
| | 0726 | Wedgetail | 4 | NW | low | | |
| | 0732 | Wedgetail sh. | 2 | NW | low | | |
| | 0735 | Wedgetail | 1 | NW | low | | |
| | 0735 | Wedgetail | 2 | NW | low | | |
| | 0735 | R-T Tropic B | 1 | E | 60' | | |
| | 0737 | Wedgetail | 2 | NW | low | | |
| | 0739 | Wedgetail | 3 | NW | low | | |
| | 0739 | Bulwer's Pet | 1 | W | low | | |
| | 0745 | Wedgetail | 1 | NW | low | | |
| | 0745 | Bulwer's | 1 | E | low | | |



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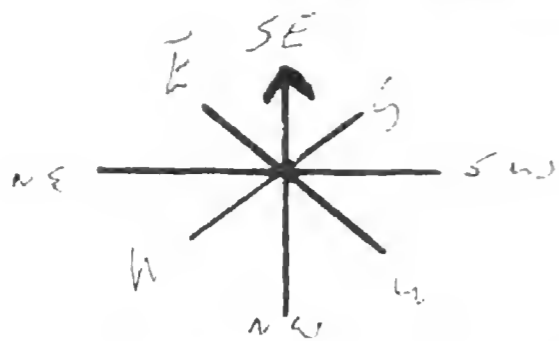
| time | species | # | dir. | hgt. | remarks | loc. |
|-------|-----------------------|----|------|-----------|--------------------------------------|------|
| 15-51 | 0753 Wedgetail | 18 | NW | low | | |
| 1-11 | 0755 R-Foot Booby | 9 | | low | 8 adult 1 subadult | |
| | Gr Frigate | 2 | | 100' | | |
| | Wedgetail | 15 | | low | dead whale nearby causing oil slick. | |
| 17-22 | Bulwer's | 6 | | 1 | not seen to feed actively. | |
| | Hairy Auklet | 1 | | | | |
| 1-2 | 0756 Bonin's Pet | 2 | S | | | |
| 5-6 | 0825 Xmas Is Sh | 1 | NE | low | | |
| 1-2 | 0826 SCOTY TERN | 2 | E | 10' | | |
| | 0826 WEDGETAIL | 7 | | 0' to low | - arose from H ₂ O | |
| | 0826 Bulwers | 1 | | low | | |
| | 0830 WEDGETAIL | 1 | N | low | | |
| | 0831 " | 1 | NW | " | 45 MILES FROM NIHOA | |
| | 0835 Bulwers | 1 | N | " | | |
| | 0838 WEDGETAIL | 1 | | | | |
| | 0840 Bulwers | 1 | | low | | |
| | 0840 X-MAS. IS. SHEAR | 1 | NW | low | | |
| | 0844 Bulwers | 1 | | low | | |
| | 0845 X-MAS IS. SHEAR | 1 | NW | low | | |
| | 0846 WEDGETAIL | 1 | | low | | |
| | 0852 " | 2 | NW | low | | |
| | 0854 " | 1 | NW | " | | |
| | 0854 Bulwers Pet. | 1 | SW | " | | |
| | 0855 WEDGETAIL | 1 | NE | " | | |
| | 0900 Bulwers Pet | 1 | N | " | | |
| | 0901 WEDGETAIL | 4 | N | low | - in string | |
| | 0903 " | 1 | N | " | | |
| | 0905 X-MAS. IS. SHEAR | 1 | N | " | | |
| F | 0909 X-MAS IS. | 2 | | " | No feed! | |
| | WEDGETAIL | 3 | | " | | |
| | Noddy Sp. | 10 | | " | | |
| | 0913 Bulwers Pet. | 1 | N | low | | |
| | 0915 WEDGETAIL | 2 | | " | | |
| | 0918 Bulwers Pet | 1 | SE | " | | |
| 1-1 | 0921 R-T. TROPIC | 1 | SE | " | | |
| | 0922 Bulwers Pet. | 1 | NE | " | | |
| | 0924 " | 1 | SE | " | | |
| | 0927 " | 1 | N | " | | |
| | 0929 " | 1 | N | " | | |
| | 0930 WEDGETAIL | 1 | | " | | |
| | 0931 Bulwers | 1 | SE | " | | |
| | 0936 " | 1 | NW | " | | |
| | 0940 " | 1 | NW | " | | |
| | 0942 " | 1 | NE | " | | |

33
 100' ship approached
 dead whale nearby
 not seen to feed actively.
 45 MILES FROM NIHOA
 dead whale



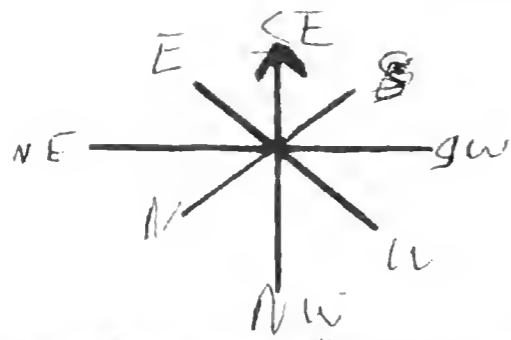
DATE 26 August 64
Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|------|-----------------|---------|------|-------|---|------|
| 1-23 | 0945 | BULWERS PET. | 1 | S | Low | | |
| 9-70 | 0947 | FAIRY TERN | 2 | N | 50' | NHHA VISIBLE ON SW HORIZON | |
| 2-43 | 0955 | WEDGETAIL | 1 | SE | Low | | |
| 1-1 | 0956 | SHEAR-PET | 2 | — | — | | |
| | 0959 | BULWERS PET. | 1 | SW | Low | | |
| | 1000 | WEDGETAIL | 1 | SE | Low | | |
| | 1001 | BULWERS PET. | 1 | N | Low | | |
| | 1002 | " " | 1 | SE | Low | | |
| | 1011 | " " | 1 | NE | " | | |
| | 1014 | Wedgetail | 1 | N | " | | |
| | 1015 | " " | 1 | S | " | | |
| | 1022 | " " | 2 | S | " | | |
| | 1023 | FAIRY TERN | 1 | NE | 20' | | |
| | 1023 | " " | 1 | N | 20' | | |
| | 1025 | WEDGETAIL | 1 | SE | low | | |
| | 1025 | BULWERS | 1 | NE | low | | |
| | 1035 | BULWERS | 1 | SW | " | | |
| 1-4 | 1037 | Booby | 4 | NE | " | R.F. or B.F. | |
| | 1040 | Bulwers | 1 | N | " | | |
| 2-11 | 1040 | Frigate | 2 | NE | 100' | | |
| | 1041 | FAIRY TERN | 2 | NE | 20' | | |
| | 1045 | " " | 1 | E | 20' | | |
| | 1048 | Bulwers | 1 | NE | (low) | | |
| | 1050 | " " | 1 | SE | " | | |
| | 1052 | Fairy Tern | 1 | E | 20' | | |
| | 1056 | Fairy Tern | 1 | E | 10' | | |
| | 1057 | Bulwers | 1 | SE | Low | | |
| | 1058 | Fairy Tern | 1 | E | 20' | | |
| Flock | 1100 | Wedgetail | 550-150 | | | No feeding; many wedgetails sitting on water | |
| | | Bulwers | 10-2 | | | | |
| | | Fairy Tern | 4 | | | | |
| 2-3 | | Blue-Gray Noddy | 2 | | | | |
| 1-70 | | Common Noddy | 90-20 | | | | |
| 1-3 | | Masked Booby | 3 | | | | |
| 1-2 | | Brown Booby | 2 | | | | |
| | | Frigate | 1 | | | | |
| 1-1 | | Sooty Tern | 1 | | | | |
| | 1112 | Bulwers | 2 | SE | low | | |
| 1-1 | 1116 | Bonin(?) Petrel | 1 | W | low | | |
| | 1117 | Wedgetail | 1 | NNW | low | | |
| 1-1 | 1120 | R.F. Booby | 1 | N | low | | |
| | 1120 | Wedgetail | 4 | N | low | | |
| | 1120 | Blue Gray Noddy | 1 | SE | low | feeding? hovering near surface, almost vertical | |



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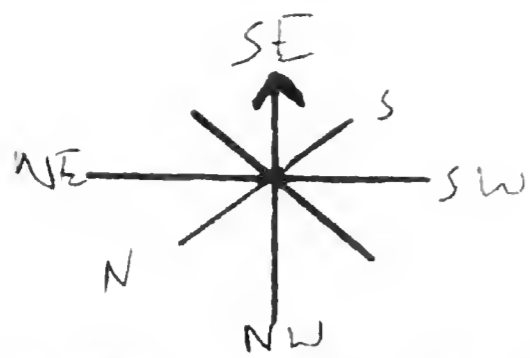
| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|------------|---|------|------|------------|------|
| 11-13 | 1124 | Fairy Tern | 1 | E | 20' | | |
| | 1125 | " " | 1 | SE | 20' | | |
| 18-21 | 1126 | wedgetail | 4 | N | low | Two flocks | |
| 10-13 | 1126 | Bulwers | 1 | E | low | | |
| | 1126 | Wedgetail | 1 | E | low | | |
| | 1130 | Bulwers | 1 | SE | " | | |
| | 1132 | Wedgetail | 2 | N | " | | |
| | 1133 | " | 2 | N-NW | " | | |
| | 1134 | " | 1 | NW | " | Dark phase | |
| | 1135 | " | 1 | SE | " | | |
| | 1135 | " | 1 | SE | " | | |
| | 1136 | Fairy Tern | 1 | NW | " | feeding | |
| | 1137 | Bulwers | 2 | NW | " | | |
| | 1137 | Wedgetail | 1 | SE | " | | |
| | 1137 | Fairy Tern | 1 | E | 20' | | |
| 1-2 | 1140 | Sooty tern | 2 | S | 20' | | |
| | 1141 | Wedgetail | 4 | S | low | | |
| 2-3 | 1142 | Frigate | 1 | E | 150' | | |
| | 1144 | Wedgetail | 1 | S | low | | |
| | 1146 | Bulwers | 1 | NE | " | | |
| | 1149 | Wedgetail | 1 | SW | " | | |
| | 1150 | " | 1 | NW | " | | |
| | 1152 | Fairy tern | 1 | E | 10' | | |
| | 1153 | Bulwers | 1 | SW | low | | |
| | 1154 | " | 1 | " | " | | |
| | 1155 | Fairy tern | 1 | E | 10' | | |
| | 1156 | " " | 1 | E | 20' | | |
| | 1156 | " " | 1 | E | 10' | | |
| | 1200 | Bulwers | 1 | SE | low | | |
| | 1205 | Bulwers | 1 | NW | low | | |
| | 1208 | Fairy Tern | 2 | SE | 30' | | |
| | 1209 | Wedgetail | 1 | SE | low | | |
| | 1209 | Bulwers | 1 | SE | low | | |
| | 1212 | Bulwers | 1 | SE | low | | |
| | 1212 | Wedgetail | 1 | SE | low | | |
| | 1213 | Wedgetail | 1 | WSW | low | | |
| | 1215 | Bulwers | 3 | SE | low | | |
| | 1218 | Fairy Tern | 1 | SE | low | | |
| | 1220 | Wedgetail | 2 | SW | low | dark phase | |
| | 1226 | Wedgetail | 1 | NW | low | | |
| | 1227 | Fairy Tern | 2 | SE | low | | |
| | 1230 | Frigate | 1 | SW | low | 20 - Ad. ♀ | |
| | 1230 | Wedgetail | 1 | SE | low | | |



DATE 26 August 1961

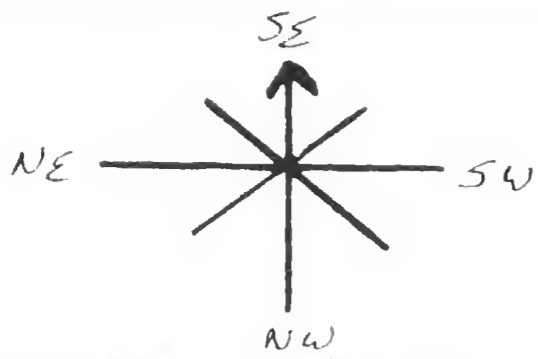
Pg. # 5

| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|-----------------|----------------|------|------|------|---|------|
| 2-3 | 1231 | Newell's Sh | 1 | SEE | low | | |
| 8-74 | 1233 | Wedgetail Sh | 2 | NW | low | | |
| 3-4 | 1235 | Sooty Tern | 1 | E | 60' | | |
| | 1236 | Wedgetail | 1 | NW | low | | |
| 4 | 1236 | Tern | 4 | W | 50' | | |
| | 1236 | Sooty Tern | 1 | SE | low | | |
| | 1240 | Wedg. Tail | 4 | NW | low | | |
| Flood | 1241 | Wedgetail | 60's | | | appeared to be following fish none seen | |
| 2-52 | ↓ | Can Noddy | 50's | | low | however many birds sitting at #20 | |
| | 1250 | Newell's | 2 | | | | |
| 2-8 | | Xmas Is | 1 | | | | |
| 4-18 | | Red-foot Booby | 12 | | | 1 immature | |
| | | Sooty Tern | 2 | | | | |
| 15-17 | 1300 | Bulwer's | 2 | SE | low | | |
| | 1305 | Bulwer's | 1 | SE | low | | |
| | 1306 | Wedgetail | 1 | W | low | | |
| | 1310 | Wedgetail | 1 | NW | low | | |
| | 1312 | Bulwer's | 1 | SW | low | | |
| | 1318 | can. noddy | 2 | NE | low | | |
| 4 | 1325 | Shear. Pet | 1 | SSE | low | | |
| | 1327 | Bulwer's | 1 | NW | low | | |
| | 1329 | 1 | | | | | |
| | 1337 | Bulwer's Pet | 1 | NW | low | | |
| 3-3 | 1338 | Fairy Tern | 1 | ENE | 40' | | |
| | 1341 | Bulwer's | 1 | NW | low | | |
| | 1350 | Bulwer's | 1 | SE | low | | |
| | 1405 | Wedgetail | 2 | NW | low | | |
| | 1407 | Bulwer's | 1 | SW | low | | |
| | 1407 | Red-foot B. | 1 | SW | low | | |
| | 1420 | Christmas I. | 1 | SW | low | | |
| | 1424 | Bulwer's P. | 1 | S | low | | |
| | 1430 | " | 1 | S | low | | |
| 4 | 1430 | Booby | 1 | N | low | | |
| | 1431 | Red-foot | 1 | N | low | | |
| | 1431 | Bulwer's | 2 | S | low | | |
| | 1434 | " | 1 | S | low | | |
| | 1442 | " | 1 | W | " | | |
| | 1443 | " | 1 | SW | " | | |
| | 1446 | Fairy Tern | 1 | NE | 20' | | |
| | 1446 | Red-foot | 1 | N | low | | |
| 4 | 1450 | Bulwer's | 1 | NE | low | | |
| | 1452 | Fairy Tern | 1 | NE | 20ft | | |
| | 1453 | Wedgetail | 3 | SW | low | | |
| | 1455 | Bulwer's P. | 1 | NW | low | | |



DATE 26 Aug 64
Pg. # 6

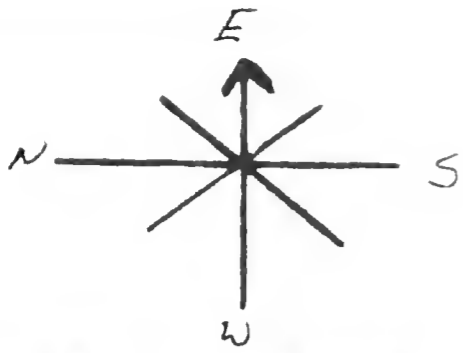
| time | species | # | dir. | hgt. | remarks | loc. |
|---|---------------------|--------|------|------|--|------|
| 3-32 2-18 12-42 4-17 | Red-Forts | 20 | 30±5 | | Flock moving NNE | |
| 1505 | Fairy Terns | 6 | | | | |
| | Wedgetails | 400±50 | | | | |
| | Bulwer's | 3± | | | Dark birds could have been Xmas Is or Bulwer's | |
| 1520 | Wedgetail | 1 | NW | Low | | |
| 1523 | Fairy Tern | 1 | SW | ? | | |
| 1524 | Bonin Is. | 1 | SW | low | | |
| 1525 | Bulwer's | 1 | SE | low | | |
| 1529 | Red-Tail Tropicbird | 1 | | | Following Ship | |
| 1530 | Fairy Tern | 1 | ES | 50' | | |
| 1542 | Wedgetail | 1 | S | Low | Dark phase | |
| 1545 | Bulwer's | 1 | S | Low | | |
| 1548 | Bulwer's | 1 | NW | Low | | |
| 1556 | Bulwer's | 1 | NE | Low | | |
| 1600 | BONIN IS | 1 | SW | Low | | |
| 1600 | Bulwer's | 1 | S | Low | | |
| 1603 | " | 1 | S | Low | | |
| 1604 | R.-F. Booby | 1 | W | " | | |
| 1604 | Fairy TERN | 1 | NE | 20' | | |
| 1604 | R.F. Booby | 1 | NW | low | | |
| 1607 | Fairy Tern | 1 | NE | 20' | | |
| 1607 | Wedgetail | 1 | NW | low | | |
| 1608 | " | 1 | NW | low | | |
| 1608 | Bulwers | 1 | NW | low | | |
| 1612 | " | 1 | SSE | " | | |
| 1614 | Shear. Pet | 2 | SW | " | | |
| 1624 | Bulwers | 1 | NW | " | | |
| 1630 | Wedgetail | 1 | S | " | | |
| 1630 | Fairy Tern | 1 | E | " | | |
| 1630 | Wedgetail | 2-3 | ⊙ | " | } flock | |
| 1634 | Bulwers | 1 | ⊙ | " | | |
| 1634 | " | 1 | SE | " | | |
| 1642 | Wedgetail | 1 | SE | " | | |
| 1644 | Fairy Tern | 1 | NE | " | | |
| 1645 | Bulwers | 1 | NW | " | | |
| 1647 | Bulwer's | 1 | NW | low | | |
| 1653 | Wedgetail Sh | 1 | NW | low | | |
| 1655 | Sooty Tern | 1 | WNW | 60' | | |
| 1700 | Wedgetail | 1 | NW | low | | |
| 1705 | Wedgetail | 1 | NW | low | | |
| 17.3 | Wedgetail | 1 | SE | low | | |
| 17.5 | Bulwer's | 1 | NW | low | | |
| 1715 | | | | | White large black ... heating 430 | |



DATE 26 August

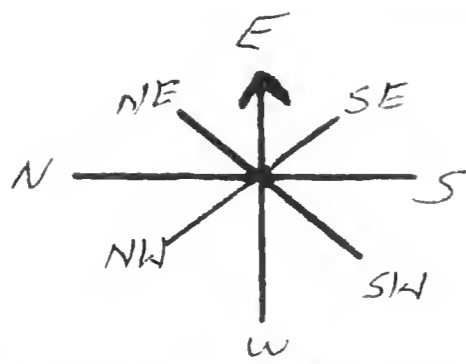
Pg. # 7

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|--------------|---|------|--------|------------------------------|------|
| 1718 | Fairy Tern | 1 | E | 50' | | |
| 1719 | Sooty Tern | 1 | NW | low | | |
| 1721 | Flesh-Petrel | 1 | S | low | | |
| 1722 | Fairy Tern | 1 | E | 20' | | |
| 1724 | Bird | 1 | E | low | | |
| 1724 | Fairy tern | 1 | E | 20' | | |
| 1725 | " " | 1 | NW | 15' | | |
| 1726 | " " | 1 | W | 30' | | |
| 1727 | Wedgetail | 1 | S | low | | |
| 1734 | " | 1 | S | " | | |
| 1736 | Fairy Tern | 1 | NE | " | | |
| 1736 | " " | 1 | NE | 30 | | |
| 1740 | R.F. Booby | 1 | NW | to 30' | | |
| 1745 | Wedgetail | 1 | SE | to 20' | | |
| 1746 | " | 2 | N | low | joined | |
| 1746 | Fairy Tern | 2 | NE | 20' | | |
| 1747 | Wedgetail | 1 | S | low | | |
| 1749 | Fairy Tern | 1 | NE | 20' | | |
| 1750 | Wedgetail | 1 | S | low | | |
| 1750 | " | 1 | N | low | | |
| 1752 | Bulwers(?) | 1 | NE | " | | |
| 1753 | Bulwers | 1 | SW | " | | |
| 1800 | Sooty Tern | 1 | E | 50' | | |
| 1801 | Bulwers | 1 | NE | low | | |
| 1801 | " | 1 | SE | " | | |
| 1805 | | | | | = sunset ; slight green glow | |
| 1806 | Wedgetail | 1 | NW | low | | |
| 1806 | " | 1 | NW | low | | |
| 1806 | Sooty Tern | 1 | N | 100' | | |



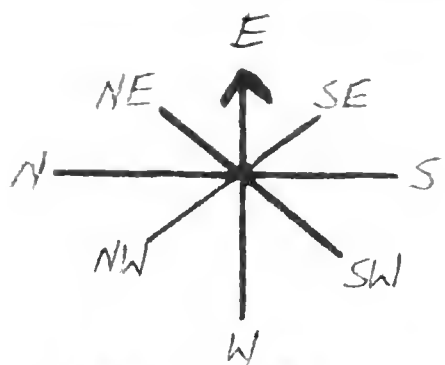
DATE 27 August 1969
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|-------------|---|------|------|---|------------------------------|
| | 0645 | | | | | begin observations - sun up, Oahu visible | |
| 7-32 | 0650 | Shear-Pet | 7 | E | low | Wedgetails or Newells | ahead, Kauai behind (closer) |
| 14-28 | 0650 | Newells | 1 | E | low | | |
| | 0657 | Newells | 5 | E | low | | |
| | 0657 | Shear-Pet | 8 | E | low | | |
| 13-16 | 0659 | Wedgetail | 2 | E | low | " | " |
| | 0700 | Wedgetail | 2 | E | " | " | " |
| | 0700 | Newells | 4 | E | " | " | " |
| | 0700 | Shear-Pet | 6 | E | " | " | " |
| | 0701 | Newells | 4 | ESE | " | " | " |
| 1-1 | 0701 | R.F. Brub | 1 | ESE | " | | |
| | 0701 | Wedgetail | 2 | E | " | | |
| | 0702 | Newells | 2 | ESE | " | | |
| | 0702 | Shear-Pet | 2 | ESE | " | " | " |
| | 0703 | Newells | 1 | E | " | | |
| | 0703 | Wedgetail | 1 | E | " | | |
| | 0706 | Newells | 1 | E | " | | |
| | 0706 | Shear-Pet | 4 | E | " | " | " |
| | 0706 | Wedgetail | 1 | E | " | | |
| 1-1 | 0706 | L.T. Tropic | 1 | N | 50' | | |
| | 0707 | Newells | 1 | E | low | | |
| 1-1 | 0708 | Fulwers | 1 | E | " | | |
| | 0708 | Newells | 2 | E | " | | |
| | 0708 | Shear-Pet | 4 | E | " | " | " |
| | 0708 | Wedgetail | 1 | E | " | | |
| | 0712 | " | 1 | E | " | | |
| | 0712 | " | 2 | E | " | | |
| | 0712 | Newells | 2 | E | " | | |
| | 0712 | " | 1 | E | " | | |
| | 0715 | Wedgetail | 1 | SE | " | | |
| | 0716 | Newells | 2 | ESE | " | | |
| | 0720 | " | 1 | ESE | " | | |
| | 0720 | Shear-Pet | 1 | E | " | " | " |
| | 0723 | Newells | 1 | ESE | " | | |
| | 0723 | Wedgetail | 1 | E | " | | |
| | 0725 | Wedgetail | 1 | E | " | | |
| | 0725 | Wedgetail | 1 | SE | " | | |
| | 0725 | " | 1 | SE | " | | |



DATE 27 August 64
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|---------------|---|------|------|---------------------|------|
| 5-6 | 0726 | Bulwers | 1 | SE | low | | |
| 6-10 | 0728 | Shear-Pet | 1 | E | " | | |
| 13-17 | 0734 | Newells | 1 | SE | " | | |
| | 0735 | " | 2 | SE | " | | |
| 13-17 | 0735 | wedgetail | 1 | SE | " | | |
| | 0735 | Shear-Pet | 2 | SE | " | | |
| | 0736 | Newells | 2 | E | " | | |
| | 0736 | Bulwers | 1 | SE | " | | |
| | 0743 | wedgetail | 1 | SSE | " | | |
| | 0743 | Newells | 1 | SE | " | | |
| | 0743 | Bulwers | 1 | ESE | " | | |
| | 0745 | wedgetail | 1 | SE | " | | |
| | 0745 | Shear-Pet | 2 | SE | " | | |
| 2-2 | 0749 | Bonin Is. | 1 | SE | " | | |
| | 0749 | Bulwers | 2 | E | " | got up off water | |
| | 0752 | " | 1 | NE | " | | |
| | 0753 | Newells | 1 | E | " | | |
| | 0753 | wedgetail | 1 | ESE | " | | |
| | 0758 | " | 1 | E | " | | |
| | 0758 | Shear-Pet | 2 | SE | " | | |
| | 0758 | wedgetail | 1 | E | " | | |
| 1-1 | 0759 | Budy sp. | 1 | SE | " | RF or BF | |
| | 0801 | wedgetail | 1 | SE | " | | |
| | 0802 | Newells | 1 | E | " | | |
| | 0802 | Shear-pet | 2 | SSE | " | | |
| | 0808 | wedgetail | 1 | SE | " | | |
| | 0808 | Shear-Pet | 1 | SE | " | | |
| | 0808 | Newells | 1 | SE | " | | |
| | 0810 | " | 3 | E | " | -1 sitting on water | |
| | 0810 | WEDGETAIL | 3 | E | " | | |
| 1-1 | 0811 | W-T. Tropic | 1 | E | 80' | | |
| | 0815 | NEWELL'S | 1 | SE | low | | |
| | 0817 | BONIN Is. Pet | 1 | S | " | | |
| | 0818 | WEDGETAIL | 1 | NW | " | | |
| | 0823 | NEWELL'S | 1 | SE | " | | |
| | 0825 | WEDGETAIL | 1 | E | " | | |
| | 0826 | NEWELLS | 1 | S | " | | |
| | 0828 | " | 1 | S | " | | |
| | 0830 | " | 1 | S | " | | |
| | 0830 | WEDGETAIL | 2 | E | " | | |
| | 0835 | " | 2 | E | " | | |



DATE 27 Aug 64
Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|------------------|------|----------------|---|------|------|---------|------|
| 4-4 | 0835 | NEWELL'S | 1 | E | LOW | | |
| | 0838 | " | 1 | S | " | | |
| 22-39 | 0838 | WEDGETAIL | 1 | S | " | | |
| | 0840 | NEWELL'S | 1 | S | " | | |
| 2-2 | 0907 | WEDGETAIL | 1 | NW | " | | |
| | 0909 | Tropic | 1 | E | " | | |
| | 0919 | Wedgetail | 1 | E | " | | |
| 3-3 | 0920 | Shear-Pet | 1 | E | " | | |
| | 0925 | " " | 1 | SE | " | | |
| 2-2 | 0929 | Bulwers | 1 | E | " | | |
| | 0930 | WEDGETAIL | 1 | S | " | | |
| | 0936 | SHEAR-PET | 1 | SE | " | | |
| 2-2 | 0939 | BONIN Is. PET. | 1 | E | " | | |
| | 0944 | " " " | 1 | E | " | | |
| | 0945 | WEDGETAIL | 1 | E | " | | |
| | 0952 | NEWELL'S | 1 | S | " | | |
| | 0953 | WEDGETAIL | 1 | E | " | | |
| | 0958 | " | 1 | S | " | | |
| | 0959 | " | 1 | S | " | | |
| 7-7 | 1000 | Noddy sp. | 1 | SE | " | | |
| | 1002 | WEDGETAIL | 2 | N | " | | |
| | 1006 | WEDGETAIL | 1 | E | " | | |
| | 1012 | Wedgetail | 3 | E | low | | |
| | 1012 | Wedgetail | 3 | SE | low | | |
| | 1013 | Wedgetail | 3 | E | low | | |
| | 1016 | Wedgetail | 1 | E | low | | |
| | 1018 | Wedgetail | 1 | E | low | | |
| | 1045 | Wedgetail | 1 | E | low | | |
| | 1055 | Wedgetail | 1 | E | low | | |
| | 1108 | Wedgetail | 1 | E | low | | |
| | 1120 | W-Tail Tropic | 1 | W | 60' | | |
| | 1123 | Wedgetail | 1 | E | low | | |
| | 1130 | Bulwer's Pet | 1 | S | low | | |
| | 1133 | Wedgetail | 5 | E | low | | |
| 5-12 | 1133 | Com Noddy | 3 | E | low | | |
| | 1137 | Wedgetail | 3 | S | low | | |
| | 1137 | Newell's Pet | 1 | S | low | | |
| | 1140 | Wedgetail | 3 | S | low | | |
| | 1140 | Com Noddy | 1 | WNW | low | | |
| | 1145 | Com Noddy | 3 | S | low | | |
| | 1150 | Com Noddy | 3 | S | low | | |
| | 1155 | Com Noddy | 3 | S | low | | |

DATE THUR AUG 27 1964

Time at sunrise = 0619 Position at sunrise = 21-37 N 159-08 W

Time at ^{NOON} sunset = 1200 Position at sunset =

Miles traveled from 0000 hours to sunrise = 57

Miles traveled from sunrise to ^{NOON} sunset = 53 till 1200

Miles traveled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 1200 | Vis | 158-11 W | 21-17 N |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE _____

Time at sunrise = Position at sunrise =

Time at sunset = Position at sunset =

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset =

Miles traveled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE 3, Aug 1964

Time at sunrise = 0605 Position at sunrise = HT Docic
Time at sunset = 1916 Position at sunset = 20-41N 159-33W
Miles traveled from 0000 hours to sunrise = NONE
Miles traveled from ^{DEPT} sunrise to sunset = 101
Miles traveled from sunset to 2400 hours = 54

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 1200 | CELESTIAL | 169-20W | 21-05N |
| 2. | 1630 | LORAN | 159-10W | 20-51N |
| 3. | 2000 | LORAN | 159-43W | 20-37N |
| 4. | 2400 | LORAN | 160-27W | 20-22N |
| 5. | | | | |
| 6. | | | | |

DATE 4, Aug 1964

Time at sunrise = 0553 Position at sunrise = 161-27W 19-58N
Time at sunset = 1826 Position at sunset = 163-07W 19-19N
Miles traveled from 0000 hours to sunrise = 61
Miles traveled from sunrise to sunset = 103
Miles traveled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 0500 | CELESTIAL | 161-16W | 20-03N |
| | | LORAN | 161-44W | 19-49N |
| 2. | 0800 | | | |
| 3. | 1200 | CELESTIAL | 162-10W | 19-42N |
| 4. | 1600 | LORAN | 162-42W | 19-28N |
| 5. | 1900 | CELESTIAL | 163-14W | 19-18N |
| 6. | 2300 | LORAN | 163-42W | 19-02N |

DATE 5, Aug 1964

Time at sunrise = 0540 Position at sunrise = 18-36N 164-48W
Time at sunset = 1841 Position at sunset = 17-42N 166-54W
Miles traveled from 0000 hours to sunrise = 57'
Miles traveled from sunrise to sunset = 131
Miles traveled from sunset to 2400 hours = 58

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|------------|-----------|
| 1. | 0000 | Loran | 164° 01' W | 18° 51' N |
| 2. | 0500 | CELESTIAL | 164 43 W | 18 39 N |
| 3. | 0900 | Sun/Loran | 165° 23' W | 18° 21' N |
| 4. | 1200 | Loran | 165° 52' W | 18° 08' N |
| 5. | 1400 | Sun/Loran | 165° 09' W | 18° N ✓ |
| 6. | 1900 | CELESTIAL | 166-58 W | 17.44 N ✓ |

DATE 6, Aug 1964

Time at sunrise = 0558 Position at sunrise = 16-58N 168-50W
Time at sunset = 1845 Position at sunset = 15-25N 169-07W
Miles traveled from 0000 hours to sunrise = 62
Miles traveled from sunrise to sunset = 118
Miles traveled from sunset to 2400 hours = 49

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|------------|-------------|
| 1. | 0000 | Loran | 167° 51' W | 17° 21' N ✓ |
| 2. | 0530 | CELESTIAL | 168-45 W | 17-01 N ✓ |
| 3. | 0900 | Visual | 169-18 W | 16-44 N ✓ |
| 4. | 1000 | " | 169-28 W | 16-39 N ✓ |
| 5. | 2100 | Loran | 169-03 W | 15-05 N ✓ |
| 6. | 2400 | LORAN | 168-52 W | 14.38 N ✓ |

DATE Friday Aug-7, 1964

Time at sunrise = 0601 Position at sunrise = 13-56 N 169-20 W

Time at sunset = 1846 Position at sunset = 12-31 N 170° 50' W

Miles traveled from 0000 hours to sunrise = 55

Miles traveled from sunrise to sunset = 120

Miles traveled from sunset to 2400 hours = 63

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|------------|-------------|
| 1. | 0400 | LORAN | 169-15 W | 13-56 N ✓ |
| 2. | 0600 | CELESTIAL | 169-20 W | 13-56 N ✓ |
| 3. | 1200 | Celestial | 170° 02' W | 13° 19' N ✓ |
| 4. | 1900 | CELESTIAL | 170-52 W | 12-30 N ✓ |
| 5. | | | | |
| 6. | | | | |

DATE SAT Aug-8, 1964

Time at sunrise = 0613 Position at sunrise = 13-00 N 171.38 W

Time at sunset = 1848 Position at sunset = 14-¹¹16 N 170-²⁸15 W

Miles traveled from 0000 hours to sunrise = 51

Miles traveled from sunrise to sunset = 100

Miles traveled from sunset to 2400 hours = 44

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|----------------------|------------|-------------|
| 1. | 0100 | Loran | 171° 43' W | 12° 27' N ✓ |
| 2. | 0600 | CELESTIAL & LORAN | 171-40 W | 12-59 N ✓ |
| 3. | 1200 | Celestial | 171° 54' W | 13° 22' N ✓ |
| 4. | 1900 | " | 170-25 W | 14-12 N ✓ |
| 5. | | | | |
| 6. | | | | |

DATE Sun Aug 9/1964

Time at sunrise = 0602 Position at sunrise = 15-03 N 169-47 W

Time at sunset = 1849 Position at sunset = 14-32 N 170-58 W

Miles traveled from 0000 hours to sunrise = 46

Miles traveled from sunrise to sunset = 126

Miles traveled from sunset to 2400 hours = 51

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|-----------|
| 1. | 0530 | Stars | 169-43 W | 15-00 N ✓ |
| 2. | 1900 | Stars | 171-00 W | 14-32 N ✓ |
| 3. | 0 | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE Mon Aug 10, 1964

Time at sunrise = 0613 Position at sunrise = 13-19 N 172 32.5 W

Time at sunset = 1855 Position at sunset = 14-39 N 172-17 W

Miles traveled from 0000 hours to sunrise = 64

Miles traveled from sunrise to sunset = 118

Miles traveled from sunset to 2400 hours = 50

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 0600 | STARS | 172-30 W | 13-21 N |
| 2. | 1200 | Sea | 173-55 W | 13-55 N |
| 3. | 1900 | STARS | 172-17 W | 14-39 N |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE TUESDAY AUG 11

Time at sunrise = 0608 Position at sunrise = ~~172-45 W~~ ^{170° 51 W} ~~16-25 N~~ ^{15° 38 N}
 Time at sunset = 1854 Position at sunset = 171° 51 W 16-17 N
 Miles traveled from 0000 hours to sunrise = 62 mi
 Miles traveled from sunrise to sunset = 110
 Miles traveled from sunset to 2400 hours = 215 mi

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | | | | |
| 2. | | | | |
| 3. | 1200 | | 170-58 W | 16-26 N |
| 4. | 1900 | STAR | 171-51 W | 16-17 N |
| 5. | | | | |
| 6. | | | | |

DATE WED AUG 12

Time at sunrise = 0616 Position at sunrise = 173°-10 W 14°-59 N
 Time at sunset = 1901 Position at sunset = 173°-57 W 15°-26 N
 Miles traveled from 0000 hours to sunrise = 63 mi
 Miles traveled from sunrise to sunset = 129 mi
 Miles traveled from sunset to 2400 hours = 49 mi

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | | | | |
| 2. | 0600 | STAR | 173-13 W | 14-56 N |
| 3. | 1200 | | 173-51 W | 14-37 N |
| 4. | 1930 | STAR | 173-54 W | 15-30 N |
| 5. | | | | |
| 6. | | | | |

DATE 13 Aug 1964

Time at sunrise = 0616 Position at sunrise = 16-36N 172-43W

Time at sunset = 1855 Position at sunset = ~~18-02N~~ 17-58N 172-05W

Miles traveled from 0000 hours to sunrise = 55

Miles traveled from sunrise to sunset = ~~109~~ 109 - (76 mi in air) 33 " out "

Miles traveled from sunset to 2400 hours = 46

| TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|-------------|-------------|-----------|-------------|
| 1. 0600 | STAR FIX | 172-45W | 16-35N |
| 2. 1000 | Sun & Loren | 172°23'W | 16°52'N |
| 3. 1200 | Swath scan | 172-12W | 17-05N / 04 |
| 4. 1400 | " " | 172-07W | 17-03N / 05 |
| 5. 1500 | " " | 171-48W | 17-25N |
| 6. 1930 | STAR FIX | 172-07 | 18-03N |

DATE Tuesday Aug 14, 1964

Time at sunrise = 0610 Position at sunrise = 19-36N 172-40W

Time at sunset = 1905 Position at sunset = 21-09N 173-25W

Miles traveled from 0000 hours to sunrise = 57

Miles traveled from sunrise to sunset = 102

Miles traveled from sunset to 2400 hours = 48

| TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|-------------------------|-------------|-----------|----------|
| 1. 0530 | STAR | 172-38W | 19-31N |
| 2. 1120 1200 | Sun & Loren | 173-03W | 20-26N |
| 3. 1400 | " " | 173-13W | 20-41N |
| 4. 1930 | STAR FIX | 173-27W | 21-13N |
| 5. 2200 | Loren | 173-38W | 21-35N |
| 6. | | | |

DATE SAT AUG 15, 1964

Time at sunrise = 0616 Position at sunrise = 22-48N 174-¹⁰40W
Time at sunset = ¹⁹⁰³~~1753~~ Position at sunset = 24-30N 174-~~43~~⁵³W
Miles traveled from 0000 hours to sunrise = 58
Miles traveled from sunrise to sunset = 112
Miles traveled from sunset to 2400 hours = 110

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|--------------------|-------------------|
| 1. | 0530 | STAR FIX | 174-06 | 22-41N |
| 2. | 1200 | Loran/Sun | 174-36W | 23-40N |
| 3. | 1930 | STAR FIX | 174-55W | 24-34N |
| 4. | 0600 | STAR FIX | 175-27W | 26-10N |
| 5. | | | | |
| 6. | | | | |

DATE SUN AUG 16, 1964

Time at sunrise = 0615 Position at sunrise = 26-12N 175-38W
Time at sunset = 1920 Position at sunset = ANCHORED PEARL + HERMES
AT 1630
Miles traveled from 0000 hours to sunrise = 60 27°46'N - 175°49'W
Miles traveled from sunrise to sunset = 98
Miles traveled from sunset to 2400 hours = 0

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 0600 | STAR | 175-27W | 26-10N |
| 2. | 1000 | Sun/Solar | 175-56W | 26-46N |
| 3. | 1200 | Sun/Loran | 175-41W | 27-04N |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE 20 Aug 1964

Time at sunrise 0615 Position at sunrise = Lat 27°-55' N Long 175°-41' W
 Time at sunset = 1916 Position at sunset = 27-29 N 175-19 W
 Miles traveled from 0000 hours to sunrise = 0
 Miles traveled from ~~sunrise~~ [⚓] to sunset = 41
 Miles traveled from sunset to 2400 hours = 56

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------------|---------------------------------------|----------------|
| 1. | <u>0615</u> | <u>⚓ BEARINGS</u> | <u>175-41 175-41 W</u> | <u>27-55-N</u> |
| 2. | | | | |
| 3. | <u>1930</u> | <u>STARS</u> | <u>175-17 W</u> | <u>27-27 N</u> |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE 21 AUG 1964

Time at sunrise = 0612 Position at sunrise = 26-10 N 174-12 W
 Time at sunset = Position at ~~sunset~~ ^{ANCHOR} = 26-03 N 173-59 W
 Miles traveled from 0000 hours to sunrise = 55
 Miles traveled from sunrise to ~~sunset~~ ^{ANCHOR} = 32
 Miles traveled from sunset to 2400 hours = 00

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

DATE 23 August 1964

Time at sunrise = 0612 Position at sunrise = \oplus
Time at sunset = 1856 Position at sunset = 26-24 N 172-02 W
Miles traveled from 0000 hours to sunrise = 0
Miles traveled from sunrise to sunset = 109
Miles traveled from sunset to 2400 hours = 60

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|---------------|-----------|----------|
| 1. | 0800 | Visual Radar | 172-52 W | 25-08 N |
| 2. | 1200 | LHN | 173-12 W | 26-15 N |
| 3. | 1500 | Sun & horizon | 172-41 W | 26-20 N |
| 4. | 1930 | STARS | 171-51 W | 26-22 N |
| 5. | | | | |
| 6. | | | | |

DATE Aug 24, 1964

Time at sunrise = 0537 Position at sunrise = 25-~~57~~⁵⁷ N 170-14 W
Time at sunset = 1841 Position at sunset = 25-31 N 168-15 W
Miles traveled from 0000 hours to sunrise = 51
Miles traveled from sunrise to sunset = 110
Miles traveled from sunset to 2400 hours = 46

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-----------------------|-----------|----------|
| 1. | 0530 | STAR | 170-15 W | 25-58 N |
| 2. | 0913 | Sun & horizon | 169-39 W | 25-49 N |
| 3. | 1200 | Sun & horizon | 169-17 W | 25-44 N |
| 4. | 1900 | { Star Fix horizon | 168-13 W | 25-30 N |
| 5. | | | | |
| 6. | | | | |

DATE TUES. AUG 25, 1964

Time at sunrise = 0543 Position at sunrise = 25-02 N 166-33 W
Time at sunset = 1824 Position at sunset = 24-26 N 164-22 W
Miles traveled from 0000 hours to sunrise = 51
Miles traveled from sunrise to sunset = 101
Miles traveled from sunset to 2400 hours = 57

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|-------------|-----------|----------|
| 1. | 0500 | STAR | 166-40 W | 25-04 N |
| 2. | 1000 | Sun & star | 165-50 W | 24-44 N |
| 3. | 1200 | LAN / Loran | 165-29 W | 24-41 N |
| 4. | 1900 | STAR | 164-16 W | 24-25 N |
| 5. | | | | |
| 6. | | | | |

DATE WED AUG 26, 1964

Time at sunrise = 0528 Position at sunrise = 24-56 N 162-24 W
Time at sunset = 1809 Position at sunset = 22-36 N 160-38 W
Miles traveled from 0000 hours to sunrise = 50.5
Miles traveled from sunrise to sunset = 128
Miles traveled from sunset to 2400 hours = 49

| | TIME OF FIX | TYPE OF FIX | LONGITUDE | LATITUDE |
|----|-------------|----------------|-----------|----------|
| 1. | 0500 | STAR | 162-29 W | 23-57 N |
| 2. | 1100 | Loran & Vis. φ | 161-35 W | 23-26 N |
| 3. | 1200 | Vis φ & range | 161-29 W | 23-19 N |
| 4. | 1830 | STAR FIX | 160-36 W | 22-34 N |
| 5. | | | | |
| 6. | | | | |

DATE: 3 AUGUST 1964

Total Minutes: 791

Total Miles: 101

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 92 | 104 | 1.130 | 1.02 |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|---|----|-----------|----|---|----|----------------|-------|---|-----|------------|------|------|------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 77 | 52 | 1 | 12 | 91 | 64 | 1 | 12 | 1.180 | 1.230 | 1 | 1.0 | .058 | .065 | .030 | .118 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 4 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | .039 | .009 | .019 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 5 | 9 | 1.125 | .089 |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 0 | 0 | 0 | 0 |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 1 | 1 | 1 | .009 |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 |

0 I
1-2-2
1
4

A

DATE: 4 Aug 64 Total Minutes: 813 Total Miles: 103

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|--------------|
| <u>100</u> | <u>989</u> | <u>9.890</u> | <u>9.601</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SNEAR Pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|----------|----------|------------|------------|-----------|----------|----------------|---------------|--------------|----------|--------------|--------------|--------------|---------------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>71</u> | <u>53</u> | <u>9</u> | <u>2</u> | <u>541</u> | <u>617</u> | <u>10</u> | <u>2</u> | <u>7.628</u> | <u>11.691</u> | <u>1.111</u> | <u>1</u> | <u>6.323</u> | <u>5.190</u> | <u>0.097</u> | <u>0.0194</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|--------------|--------------|----------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>2</u> | <u>2</u> | <u>0</u> | <u>2</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0.194</u> | <u>0.194</u> | <u>0</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|------------|
| <u>21</u> | <u>509</u> | <u>14.714</u> | <u>3.0</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|--------------|----------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>1</u> | <u>1</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1</u> | <u>0.009</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|--------------|
| <u>5</u> | <u>36</u> | <u>7.200</u> | <u>0.349</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|------------------|-----------------|--------------------|-------------------|-------------------|
| <u>5</u> | <u>612 = 160</u> | <u>0.47</u> | <u>0</u> | <u>0</u> | <u>0</u> |

A

DATE: 5 AUG 64 Total Minutes: 781 Total Miles: 131

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>58</u> | <u>102</u> | <u>1.758</u> | <u>.779</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------------|-------------|-------------|----------|------------|------------|------------|-------------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>14</u> | <u>22</u> | <u>17</u> | <u>7</u> | <u>73</u> | <u>59</u> | <u>29</u> | <u>2</u> | <u>1.431</u> | <u>1.77</u> | <u>1.70</u> | <u>1</u> | <u>.56</u> | <u>.29</u> | <u>.22</u> | <u>.015</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|-------------|-------------|-------------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>7</u> | <u>2</u> | <u>5</u> | <u>7</u> | <u>2</u> | <u>5</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>.053</u> | <u>.015</u> | <u>.038</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>3</u> | <u>21</u> | <u>7</u> | <u>.15</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|------------|----------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>2</u> | <u>47</u> | <u>.015</u> | <u>1</u> | <u>6</u> | <u>.008</u> |

TOTALS PRE AND POST JOHNSTON IS. - OUT AND IN GRID

P4B

DATE: 6 AUGUST 64 Total Minutes: 763 Total Miles: 118

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>99</u> | <u>391</u> | <u>3.94</u> | <u>3.31</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|------|---|---|------------|-----|-----|------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 12 | 23 | 13 | 1 | 55 | 35 | 13 | 1 | 1.30 | 1.52 | 1 | 1 | .46 | .39 | .11 | .008 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | .008 | .008 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>50</u> | <u>325</u> | <u>6.50</u> | <u>2.69</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|------------------|----|---|-----------|------------------|----|---|----------------|------------------|----|---|------------|------------------|------|---|
| T | BF ^{sp} | RF | B | T | BF ^{sp} | RF | B | T | BF ^{sp} | RF | B | T | BF ^{sp} | RF | B |
| 3 | 1 | 2 | 0 | 3 | 1 | 2 | 0 | 1 | 1 | 1 | 0 | .025 | .008 | .016 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>3</u> | <u>7</u> | <u>2.333</u> | <u>.059</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>3</u> | <u>198</u> | <u>.025</u> | <u>0</u> | <u>0</u> | <u>0</u> |

PRE-JOHNSTON IS. - OUT OF GRID

DATE: 6 AUGUST 64 Total Minutes: 248 Total Miles: 42

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 77 | 551 | 4.57 | 9.35 |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET.

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|---|---|-----------|----|---|---|----------------|------|------|---|------------|------|------|-------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 25 | 17 | 6 | 1 | 35 | 26 | 7 | 1 | 1.40 | 1.52 | 1.16 | 1 | 1.833 | 1.19 | 1.66 | 1.023 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|-------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1.023 | 1.023 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 46 | 306 | 6.65 | 7.28 |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 0 | 0 | 0 | 0 |

VI. Abundance of Boobys: - 1 Booby sp.

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|-------|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 2 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1.047 | 0 | 1.023 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 3 | 7 | 2.33 | 1.66 |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| 3 | 197 | 1.071 | 0 | 0 | 0 |

B

1N GRID - BEGIN

DATE: 7 AUGUST 64 Total Minutes: 765 Total Miles: 120

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 40 | 43 | 1.07 | .353 |

II. Abundance of the Shearwater-Petrel-Albatross Group:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|------|---|------------|------|-----|---|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 31 | 2 | 23 | 0 | 34 | 2 | 24 | 0 | 1.09 | 1 | 1.04 | 0 | .28 | .016 | .20 | 0 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 6 | 3 | 2 | 6 | 3 | 2 | 1 | 1 | 1 | .050 | .025 | .016 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 3 | 3 | 1 | .025 |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 0 | 0 | 0 | 0 |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 0 | 0 | 0 | 0 |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 |

0.3539

$$\begin{array}{r} 777 \\ 4 \\ \hline 310711 \end{array}$$

$$\begin{array}{r} 111 \\ 3 \\ \hline 333 \end{array}$$

$$\begin{array}{r} 777 \\ 3 \\ \hline 2331 \end{array}$$

$$\begin{array}{r} 777 \\ 3 \\ \hline 2331 \end{array}$$

B

DATE: 10 AUGUST 64 Total Minutes: 762 Total Miles: 118

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>41</u> | <u>81</u> | <u>1.98</u> | <u>.686</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SWEEP-Pe+

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|------|------|---|------------|------|------|---|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 35 | 13 | 19 | 0 | 51 | 25 | 20 | 0 | 1.55 | 1.92 | 1.05 | 0 | .432 | .211 | .169 | 0 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 3 | 2 | 1 | 3 | 2 | 1 | 1 | 1 | 1 | .025 | .016 | .008 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>2</u> | <u>26</u> | <u>13</u> | <u>.220</u> |

V. Abundance of Shorebirds:

SKUP

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>1</u> | <u>37</u> | <u>.008</u> | <u>0</u> | <u>0</u> | <u>0</u> |

4

DATE: 11 AUGUST 64 Total Minutes: 766 Total Miles: 110

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>44</u> | <u>253</u> | <u>5.75</u> | <u>2.30</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET =

| + | | | | 13 | | | | 3.25 | | | | .118 | | | |
|---------------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------------|-------------|-------------|----------|-------------|-------------|------------|----------|
| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>32</u> | <u>13</u> | <u>15</u> | <u>0</u> | <u>85</u> | <u>50</u> | <u>22</u> | <u>0</u> | <u>2.65</u> | <u>3.94</u> | <u>1.46</u> | <u>0</u> | <u>.772</u> | <u>.454</u> | <u>.20</u> | <u>0</u> |

III. Abundance of Tropicbirds: *1 - Tropicbird sp.*

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|------------|-------------|-------------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>3</u> | <u>1</u> | <u>1</u> | <u>3</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>1</u> | <u>.02</u> | <u>.009</u> | <u>.009</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>9</u> | <u>145</u> | <u>18.33</u> | <u>1.50</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|------------|----------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>3</u> | <u>216</u> | <u>.02</u> | <u>0</u> | <u>0</u> | <u>0</u> |

B

DATE: 12 AUGUST 64 Total Minutes: ~~335~~ 795 Total Miles: 127

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>42</u> | <u>65</u> | <u>1.35</u> | <u>.51</u> |

2 "Birds" recorded

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET.

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|-----------|----------|-----------|----------|-----------|----------|----------------|----|-------------|----------|------------|-------------|------------|----------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>15</u> | <u>4</u> | <u>31</u> | <u>0</u> | <u>60</u> | <u>4</u> | <u>42</u> | <u>0</u> | <u>1.33</u> | | <u>1.35</u> | <u>0</u> | <u>.47</u> | <u>.031</u> | <u>.33</u> | <u>0</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|------------|----------|----------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>1</u> | <u>3</u> | <u>3</u> | <u>.023</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|------------|----------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>1</u> | <u>13</u> | <u>1007</u> | <u>0</u> | <u>0</u> | <u>0</u> |

B+C

TOTAL FOR DAY - IN AND OUT OF GRID

DATE: 13 AUGUST 64

Total Minutes: 759

Total Miles: 109

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 34 | 34 | 1 | .311 |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-Pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|---|---|------------|------|------|------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 29 | 3 | 22 | 2 | 29 | 3 | 22 | 2 | 1 | 1 | 1 | 1 | .266 | .027 | .201 | .018 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 2 | 2 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | .018 | .018 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 1 | 1 | 1 | .009 |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 0 | 0 | 0 | 0 |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| 1 | 1 | 1 | .009 |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 |

DATE: 14 AUGUST 64 Total Minutes: 785 Total Miles: 102

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>73</u> | <u>304</u> | <u>4.16</u> | <u>2.98</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-Pet.

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|-----------|----------|------------|------------|-----------|----------|----------------|-------------|-------------|----------|-------------|-------------|-------------|--------------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>53</u> | <u>29</u> | <u>17</u> | <u>5</u> | <u>184</u> | <u>157</u> | <u>18</u> | <u>5</u> | <u>3.47</u> | <u>5.60</u> | <u>1.05</u> | <u>1</u> | <u>1.80</u> | <u>1.52</u> | <u>1.76</u> | <u>1.049</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|--------------|--------------|----------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>2</u> | <u>2</u> | <u>0</u> | <u>2</u> | <u>2</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1.019</u> | <u>1.019</u> | <u>0</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>16</u> | <u>116</u> | <u>7.24</u> | <u>1.13</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|--------------|----------|----------|--------------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1.009</u> | <u>0</u> | <u>0</u> | <u>1.009</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>5</u> | <u>230</u> | <u>1.049</u> | <u>1</u> | <u>145</u> | <u>1.009</u> |

C

DATE: 15 AUGUST 64 Total Minutes: 795 Total Miles: 112

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>143</u> | <u>535</u> | <u>3.74</u> | <u>4.77</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-Pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|-----|----|---|----------------|------|------|---|------------|------|------|------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 92 | 61 | 20 | 7 | 229 | 197 | 21 | 7 | 2.48 | 3.22 | 1.05 | 1 | 2.04 | 1.75 | .187 | .062 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 4 | 4 | 0 | 4 | 4 | 0 | 1 | 1 | 0 | .035 | .035 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>45</u> | <u>298</u> | <u>6.62</u> | <u>2.66</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>1</u> | <u>1</u> | <u>1</u> | <u>.009</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>3</u> | <u>333</u> | <u>.026</u> | <u>3</u> | <u>333</u> | <u>.026</u> |

DATE: 16 AUGUST 64

Total Minutes: 615

Total Miles: 98

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>187</u> | <u>679</u> | <u>3.61</u> | <u>6.92</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-Pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|-----|----|---|----------------|------|------|---|------------|------|------|---|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 111 | 75 | 53 | 0 | 273 | 236 | 36 | 0 | 2.45 | 3.14 | 1.09 | 0 | 2.78 | 2.40 | .367 | 0 |

III. Abundance of Tropicbirds: - 1 *Tropicbird sp.*

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|------|----|------------|------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 12 | 11 | 0 | 14 | 13 | 0 | 1.16 | 1.18 | 0 | .142 | .132 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>58</u> | <u>375</u> | <u>6.46</u> | <u>3.82</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|--------------|
| <u>4</u> | <u>4</u> | <u>1</u> | <u>10.40</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|----|----|---|------------|----|----|---|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>4</u> | <u>13</u> | <u>3.25</u> | <u>1.32</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>7</u> | <u>380</u> | <u>.071</u> | <u>3</u> | <u>115</u> | <u>10.32</u> |

D (between Pearl + Hermes and LISIANSKI Is.)

DATE: 20 AUGUST 64 Total Minutes: 195 Total Miles: 41

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>70</u> | <u>407</u> | <u>5.75</u> | <u>9.92</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

Shear-Pet

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|----------|----------|------------|------------|----------|----------|----------------|-------------|-------------|----------|-------------|-------------|-------------|----------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>29</u> | <u>22</u> | <u>7</u> | <u>0</u> | <u>153</u> | <u>144</u> | <u>9</u> | <u>0</u> | <u>5.27</u> | <u>6.54</u> | <u>1.28</u> | <u>0</u> | <u>3.73</u> | <u>3.51</u> | <u>3.14</u> | <u>0</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|------------|----|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>4</u> | <u>4</u> | <u>0</u> | <u>4</u> | <u>4</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | | | |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>28</u> | <u>227</u> | <u>8.12</u> | <u>5.57</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>4</u> | <u>4</u> | <u>1</u> | <u>0.97</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|-------------|----------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>4</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>18</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>4.5</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>0.23</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>3</u> | <u>321</u> | <u>0.74</u> | <u>1</u> | <u>240</u> | <u>0.23</u> |

D

DATE: 23 AUGUST 64Total Minutes: 76.4Total Miles: 109

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-------------|----------------|--------------|
| <u>206</u> | <u>2142</u> | <u>10.39</u> | <u>19.65</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|-----|------|---|----------------|------|------|---|------------|------|-------|-------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| 127 | 51 | 76 | 5 | 1900 | 326 | 1574 | 5 | 14.96 | 6.38 | 20.7 | 1 | 17.43 | 2.99 | 14.44 | 1.045 |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----|----|-----------|----|----|----------------|----|----|------------|------|----|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| 5 | 5 | 0 | 6 | 6 | 0 | 1 | 1 | 0 | .055 | .055 | 0 |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>56</u> | <u>211</u> | <u>3.76</u> | <u>1.93</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|--------------|
| <u>3</u> | <u>6</u> | <u>2</u> | <u>10.55</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----|----|---|-----------|----|----|---|----------------|------|------|---|------------|------|------|------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| 10 | 6 | 3 | 1 | 14 | 9 | 4 | 1 | 1.40 | 1.50 | 1.33 | 1 | .128 | .088 | .058 | .009 |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|--------------|
| <u>5</u> | <u>5</u> | <u>1</u> | <u>10.45</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>2</u> | <u>39</u> | <u>10.18</u> | <u>0</u> | <u>0</u> | <u>0</u> |

D

DATE: 24 AUGUST 64Total Minutes: 794Total Miles: 110

I. Total Abundance of birds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>133</u> | <u>452</u> | <u>3.39</u> | <u>4.10</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|-----------|-----------|------------|------------|-----------|-----------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>107</u> | <u>70</u> | <u>11</u> | <u>26</u> | <u>331</u> | <u>286</u> | <u>13</u> | <u>32</u> | <u>3.09</u> | <u>4.08</u> | <u>1.18</u> | <u>1.23</u> | <u>2.60</u> | <u>.118</u> | <u>.290</u> | |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|--------------|-------------|----------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>1</u> | <u>1</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1.009</u> | <u>.009</u> | <u>0</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>17</u> | <u>108</u> | <u>6.35</u> | <u>.981</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>2</u> | <u>2</u> | <u>1</u> | <u>.018</u> |

VI. Abundance of Boobys: *1 Booby sp.*

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|--------------|-------------|----------|----------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>2</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>2</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>0</u> | <u>1.018</u> | <u>.009</u> | <u>0</u> | <u>0</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>4</u> | <u>8</u> | <u>2</u> | <u>.072</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>3</u> | <u>193</u> | <u>.027</u> | <u>0</u> | <u>0</u> | <u>0</u> |

D

DATE: 26 August 64 Total Minutes: 799 Total Miles: 12.8

I. Total Abundance of birds: 1 Bird sp.

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-------------|----------------|--------------|
| <u>289</u> | <u>1682</u> | <u>5.81</u> | <u>13.14</u> |

II. Abundance of the Shearwater-Petrel-Albatross Group:

SHEAR-PET.

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|-----------|----------|-----------|-------------|-------------|----------|------------|----------------|--------------|-------------|-------------|--------------|-------------|--------------|--------------|
| T | WT | P | B | T | WT | P | B | T | WT | P | B | T | WT | P | B |
| <u>193</u> | <u>92</u> | <u>5</u> | <u>79</u> | <u>1353</u> | <u>1225</u> | <u>6</u> | <u>102</u> | <u>7.01</u> | <u>13.32</u> | <u>1.20</u> | <u>1.29</u> | <u>10.56</u> | <u>9.58</u> | <u>1.046</u> | <u>1.796</u> |

III. Abundance of Tropicbirds:

| No. Sightings | | | No. Birds | | | Birds/Sighting | | | Birds/Mile | | |
|---------------|----------|----------|-----------|----------|----------|----------------|----------|----------|--------------|--------------|----------|
| T | RT | WT | T | RT | WT | T | RT | WT | T | RT | WT |
| <u>6</u> | <u>6</u> | <u>0</u> | <u>6</u> | <u>6</u> | <u>0</u> | <u>1</u> | <u>1</u> | <u>0</u> | <u>1.046</u> | <u>1.046</u> | <u>0</u> |

IV. Abundance of Terns:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|------------|----------------|-------------|
| <u>59</u> | <u>225</u> | <u>3.81</u> | <u>1.75</u> |

V. Abundance of Shorebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|------------|
| <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

VI. Abundance of Boobys:

| No. Sightings | | | | No. Birds | | | | Birds/Sighting | | | | Birds/Mile | | | |
|---------------|----------|-----------|----------|-----------|----------|-----------|----------|----------------|------------|-------------|----------|--------------|--------------|--------------|--------------|
| T | BF | RF | B | T | BF | RF | B | T | BF | RF | B | T | BF | RF | B |
| <u>25</u> | <u>1</u> | <u>20</u> | <u>1</u> | <u>82</u> | <u>3</u> | <u>71</u> | <u>2</u> | <u>3.24</u> | <u>3.0</u> | <u>3.55</u> | <u>2</u> | <u>1.640</u> | <u>1.023</u> | <u>1.554</u> | <u>1.015</u> |

VII. Abundance of Frigatebirds:

| No. Sightings | No. Birds | Birds/Sighting | Birds/Mile |
|---------------|-----------|----------------|-------------|
| <u>5</u> | <u>15</u> | <u>3.00</u> | <u>.053</u> |

VIII. Abundance of Flocks:

| Total No. Flocks | Total No. Birds | Total No. F/Mi. | No. Feeding Flocks | No. Feeding Birds | No. Feeding F/Mi. |
|------------------|-----------------|-----------------|--------------------|-------------------|-------------------|
| <u>6</u> | <u>1310</u> | <u>1.046</u> | <u>0</u> | <u>0</u> | <u>0</u> |

$$\frac{2588}{8525} = 30\% \text{ Terms}$$

$$\frac{5640}{8525} = 66\% \text{ 5-6}$$

INTRODUCTION

This report is based on results and observations made in the thirteenth of a monthly series of investigations of the flora and fauna in a particular study area of the Central Pacific Ocean. Observations cover a period of 23 days -- 3 August to 27 August 1964.

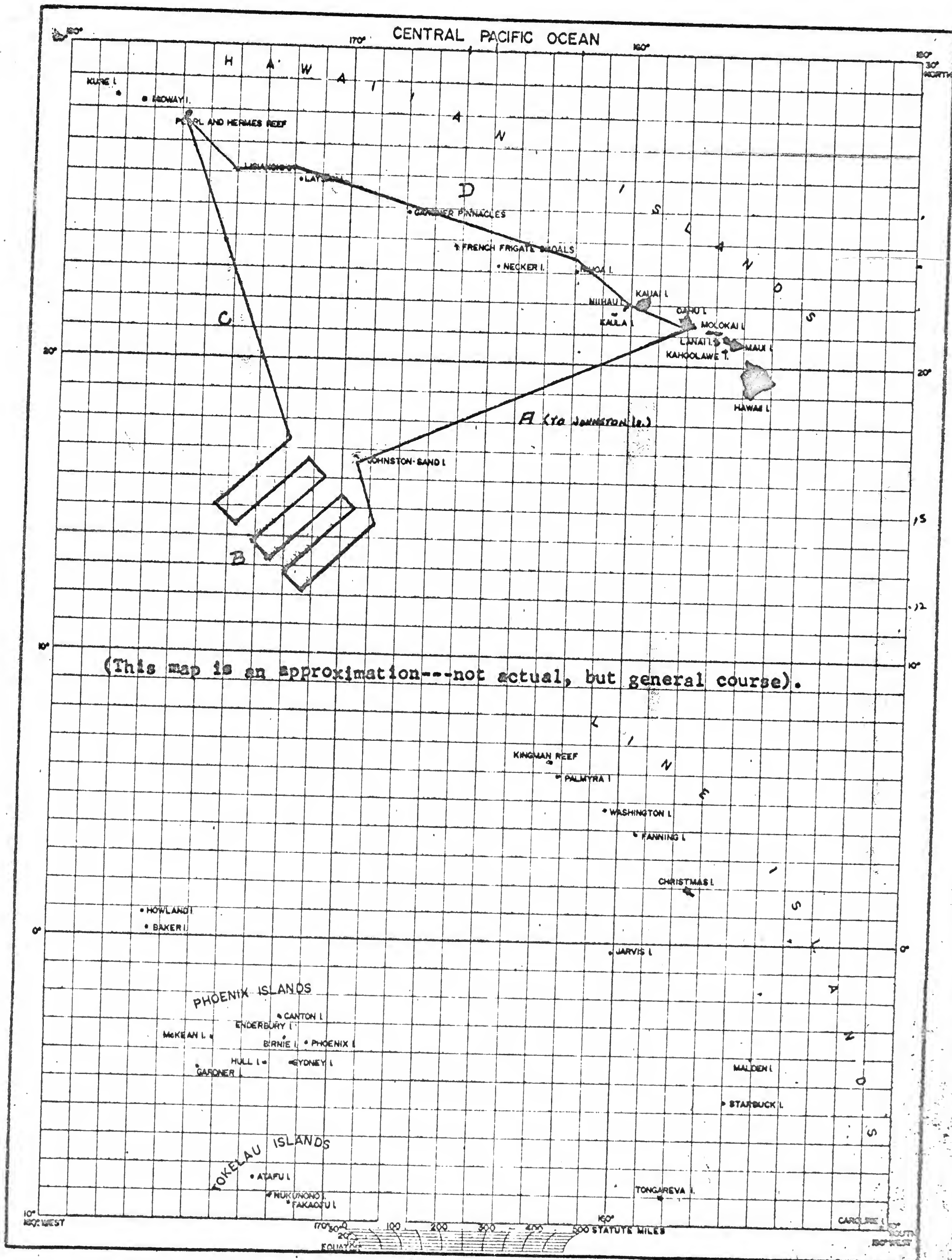
The areas investigated were the same as last month, with the exclusion of extending the first two legs of the grid to ten degrees North, and the inclusion of and extension to Pearl and Hermes Reef -- returning to Oahu along the Northern sides of the Leeward Islands.

The islands of Pearl and Hermes Reef and Lisianski were visited and occupied five of the twenty-three days -- August 17-19 and 21-22. This report covers the times the ship was in motion only.

Diurnal and nocturnal observations were made in the grid and diurnal observations in all other areas.

Six members of the Smithsonian Institution Pacific Project participated in the survey - Ken Amerman (Biologist in Charge), J. Douglas Whitman, Paul W. Woodward, Peter Marshall, Richard W. Merrill and Alan Anderson. William Forester and Alan Young, engaged in oceanographic studies, were representing Dr. M. Doty of the University of Hawaii.

The areas of study investigated will be reported by letter designations thusly:



Area A ---- Oahu to Johnston Island

Area B ---- Johnston Island to and including the Grid

Area C ---- Grid to Pearl and Hermes Reef

Area D ---- Pearl and Hermes Reef to Lisianski
and to Oahu along the northern sides
of the Leeward Islands

(See following Map)

SPECIES ACCOUNTS

Laysan Albatross (Diomedea immutabilis)

One bird of this species was seen between Pearl and Hermes Reef and Lisianski Island.

No specimens collected.

Wedge-tailed Shearwater (Puffinus pacificus)

A-746 B-100 C-590 D- 2119

A greater concentration of this species was seen in all areas and especially near the Leewards. A total of fourteen dark phase individuals were seen, six of which were within the grid.

A total of 100 birds seen within the grid represents a forty percent increase over those present there last month.

One red-tagged bird was observed approximately five miles from Johnston Island on 6 August at 1050 hours.

17 specimens were collected.

Newell's Shearwater (Puffinus puffinus)

A-12 B- 1 C-0 D-53

Fewer individuals were seen in all areas except along the Leeward Chain. This confirms last months indication of a more widespread distribution.

No specimens collected.

Christmas Island Shearwater (Puffinus nativitatus)

A-0 B-17 C-2 D-8

This species is nearly consistent with last months findings in all areas except the grid in which there was a marked increase.

No specimens collected.

Sooty Shearwater (Puffinus griseus)

Three individuals of this species were seen in Area D.

No specimens collected.

Pink-footed Shearwater (Puffinus creatopus)

One questionable bird presumed this species was seen in the grid. Unfamiliarity of it to the observers necessitates doubts, however its presence in this area is not impossible.

No specimens collected.

White-necked Petrel (Pterodroma externa)

A-4 B-41 C-0 D-0

This species remains nearly consistent with last months findings within the grid. Four were seen in Area A as opposed to one last month, however this number is too small to indicate a trend.

One specimen collected.

Bonin Island Petrel (Pterodroma hypoleuca)

A-22 B-39 C-64 D-1590

This species indicates a movement toward the main Islands and is substantiated by the increase of 1582 individuals seen along the Leeward Chain. Eight were seen in the smaller Area D last month.

No specimens collected.

Dark-rumped Petrel (Pterodroma phaeopygia)

A-2 B-17 C-0 D-0

The increase, as indicated last month, continues.

No specimens collected.

Kermadec Petrel (Pterodroma neglecta)

Five individuals were seen in the grid which indicates a greater dispersion at sea. One bird of this species was seen last month.

No specimens collected.

Bulwer's Petrel (Bulweria bulwerii)

A-17 B-2 C-12 D-163

The continued downward trend is evident. The same number was seen in the grid and an increase in area D due to the additional coverage.

One specimen collected.

Harcourt's Storm Petrel (Oceanodroma castro)

A-0 B-1 C-1 D-7

This species was observed in all areas except Oahu to Johnston Island. The greater numbers were seen close to the main islands.

None were seen last month.

No specimens collected.

White-throated Storm Petrel (Nesofregetta albigularis)

One individual was clearly seen and identified as this species.

This is a new record for the grid and the At-sea study.

No specimens collected.

Skua (Catharacta skua)

One Skua was positively identified on 10 August within the grid and another questionably identified due to distance. This species has been recorded in the At-sea study previously but infrequently.

No specimens collected.

Red-tailed Tropicbird (Phaethon rubricauda)

A-6 B-10 C-22 D-21

This species has increased in areas C and D, and decreased in areas A and B.

One specimen collected.

White-tailed Tropicbird (Phaethon lepturus)

A-7 B-4 C-2 D-4

This species represents a decrease in area A, increase in the grid and occurrence consistent with last month in areas C and D.

No specimens collected.

Blue-faced Booby (Sula dactylatra)

A-1 B-1 C-0 D-15

Occurrence of this species remains consistent with last months' findings in all areas except D. The additional area covered and proximity to land accounts for the increase in area D.

No specimens collected.

Red-footed Booby (Sula sula)

A-1 B-1 C-0 D-76

For this species the trend to remain close to land continues.

One specimen collected.

Great Frigatebird (Fregata minor)

A-34 B-1 C-14 D-28

This species has increased in all areas except D.

One specimen collected.

Golden Plover (Pluvialis dominica)

Four birds of this species were seen in area D near the Leeward Chain.

No specimens collected.

Ruddy Turnstone (Arenaria interpres)

A-0 B-0 C-4 D-5

Presence of this species in areas C and D indicates movement from the breeding grounds and is expected this time of year.

No specimens collected.

Sooty Tern (Sterna fuscata)

A-582 B-231 C-762 D-513

The increase in areas A and C, and decrease in B and D indicates a greater dispersion of this species. Immature birds were recorded in all areas.

Gray-backed Tern (Sterna lunata)

A-2 B-0 C-1 D-0

The continuing decrease is evident in all areas except A in which findings are consistent with July.

No specimens collected.

Common Noddy (Anous stolidus)

A-9 B-0 C-5 D-156

Findings for this species are consistent with last months. A substantial increase in area D is due to the proximity to the breeding grounds.

No specimens collected.

Blue-gray Noddy (Procelsterna cerulea)

Four birds of this species were seen in area D near Nihoa Island. They have been recorded in small numbers in this area on previous cruises.

No specimens collected.

Fairy Tern (Gygis alba)

A-7 B-10 C-2 D-60

A marked increase is represented this month in all areas.

The number within the grid has doubled since last month.

No specimens collected.

Note: Area D includes a distance of approximately 640 miles which were not covered last month. The increase of all birds except Sooty Terns (Sterna fuscata) in this area is due to the proximity of the ship to these islands in the Leeward Chain.

TABLE I

Distance and Time Covered by Observations Outside the Grid

| <u>Date</u> | <u>No. Hours</u> | <u>No. Miles</u> |
|-------------|------------------|------------------|
| 03 | 13.1 | 101 |
| 04 | 13.5 | 103 |
| 05 | 13.0 | 131 |
| 06 | 4.1 | 42 |
| 13 | 9.1 | 33 |
| 14 | 13.1 | 102 |
| 15 | 13.2 | 112 |
| 16 | 10.2 | 98 |
| 17 | 0.0 | 0.0 |
| 18 | 0.0 | 0 |
| 19 | 0.0 | 0 |
| 20 | 3.2 | 41 |
| 21 | 0.0 | 0 |
| 22 | 0.0 | 0 |
| 23 | 12.7 | 109 |
| 24 | 13.2 | 110 |
| 25 | 13.3 | 101 |
| 26 | 13.3 | 128 |
| 27 | 6.3 | 53 |
| Total | 151.3 | 1264 |

151.3
745
245.8

TABLE II

Distance and Time Covered by Observations Inside the Grid

| <u>Date</u> | <u>No. Hours</u> | <u>No. Miles</u> |
|-------------|------------------|------------------|
| 06 | 8.6 | 76 |
| 07 | 12.7 | 120 |
| 08 | 12.6 | 100 |
| 09 | 12.8 | 126 |
| 10 | 12.7 | 118 |
| 11 | 12.8 | 110 |
| 12 | 13.2 | 127 |
| 13 | 9.1 | 76 |
| Total | 94.5 | 853 |

1264
953
2117

Check no. species chart for 13 on side grid

TABLE III

Location of Red-tagged Sooty Terns

| <u>Date</u> | <u>Time</u> | <u>Age</u> | <u>Behavior</u> | <u>Latitude</u> | <u>Longitude</u> | <u>Miles from Johnston Island</u> |
|-------------|-------------|------------|-----------------|--------------------|----------------------------------|---------------------------------------|
| 05 | 0700 | Ad. | Not feed. | 18° 30' | 165° 03' | 233 |
| 06 | 0702 | Ad. | Not feed. | 16 54 | 169 00 | 12 |
| 06 | 0928 | Ad. | Not feed. | 16 42 | 168 9 22 | 11 |
| 06 | 0933 | Ad. | Not feed. | 16 43 | 168 9 27 2 | 11 |
| 08 | 1640 | Imm. | Not feed. | 14 01 | 170 46 | 184 |
| 10 | 1650 | Imm. | Not feed. | 14 25 | 172 31 | 230 |
| 11 | 1050 | Imm. | Not feed. | 16 24 0 | 172 0 51 | 297 80 |
| 12 | 1250 | Imm. | Not feed. | 14 42 | 173 57 | 293 |

TABLE IV

Diurnal Abundance of Birds Outside of the Grid

| <u>Date</u> | <u>No. of Birds</u> | <u>No. Feeding Flocks</u> | <u>No. Species Ident.</u> |
|-------------|---------------------|---------------------------|---------------------------|
| 03 | 104 | 0 | 07 |
| 04 | 989 | 0 | 10 |
| 05 | 102 | 1 | 12 |
| 06 | 351 | 0 | 08 |
| 13 | 7 | 0 | 08 |
| 14 | 304 | 1 | 06 |
| 15 | 535 | 3 | 07 |
| 16 | 679 | 3 | 10 |
| 17 | 000 | 0 | 00 |
| 18 | 000 | 0 | 00 |
| 19 | 000 | 0 | 00 |
| 20 | 407 | 1 | 10 |
| 21 | 000 | 0 | 00 |
| 22 | 000 | 0 | 00 |
| 23 | 2142 | 0 | 13 |
| 24 | 452 | 0 | 10 |
| 25 | 108 | 0 | 08 |
| 26 | 1682 | 0 | 16 |
| 27 | 198 | 0 | 08 |
| Total | <u>8060</u> | <u>9</u> | <u>23</u> |
| | 70 | 0 | 03 |

TABLE V

Diurnal Abundance of Birds Inside the Grid

| <u>Date</u> | <u>No. of Birds</u> | <u>No. Feeding Flocks</u> | <u>No. Species Ident.</u> |
|---------------|---------------------|---------------------------|---------------------------|
| 06 | 40 | 0 | 03 |
| 07 | 43 | 0 | 11 |
| 08 | 59 | 0 | 06 |
| 09 | 22 | 0 | 06 |
| 10 | 81 | 0 | 09 |
| 11 | 253 | 0 | 11 |
| 12 | 65 | 0 | 06 |
| 13 | 27 | 0 | 08 |
| Total | <u>590</u> | <u>0</u> | <u>18</u> |
| | 550 | | 16 |

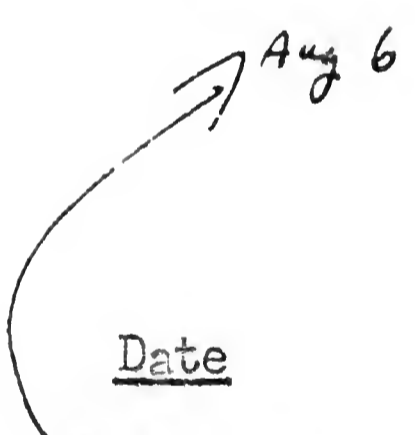
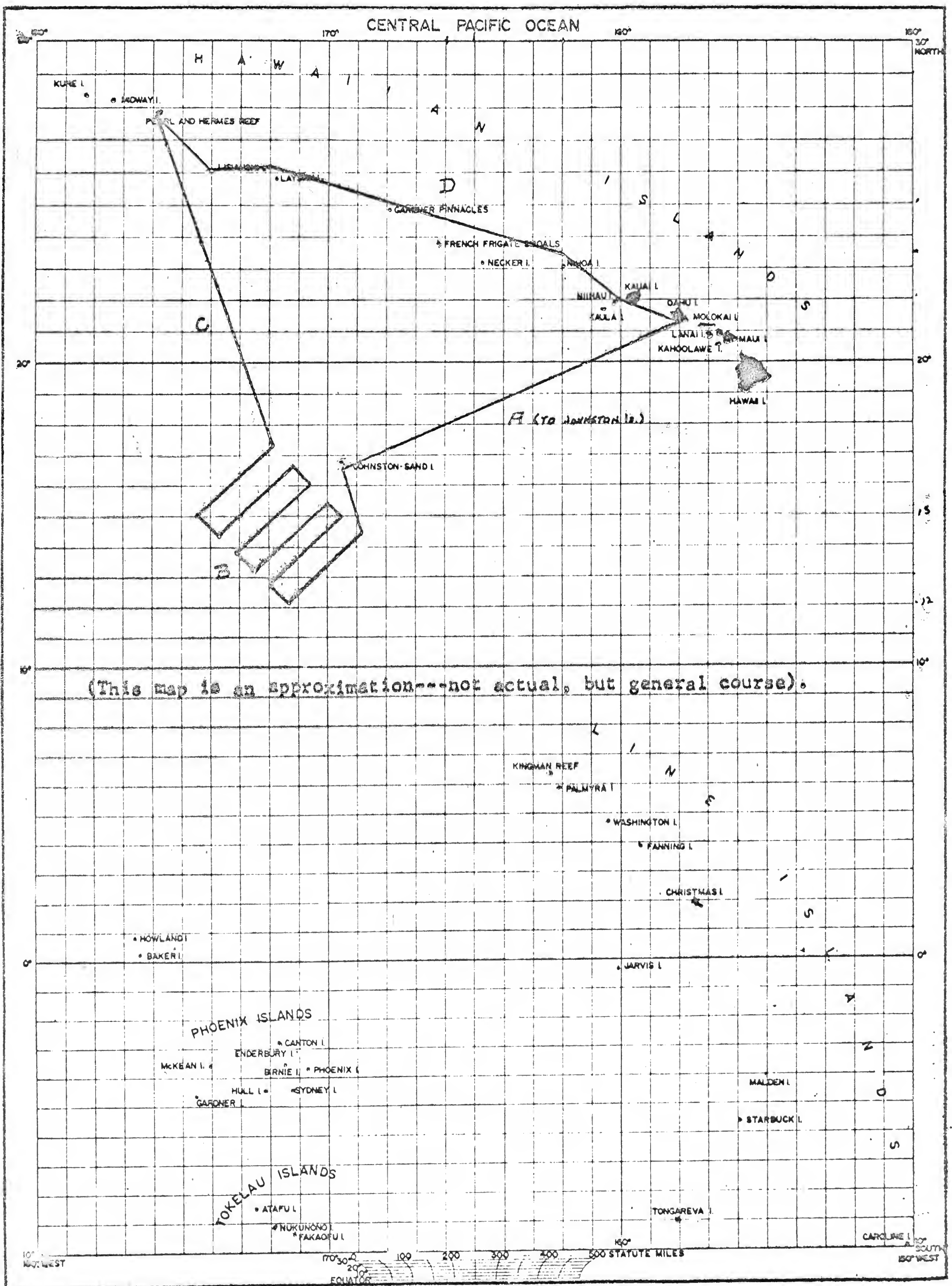
Aug 6


TABLE VI

Diurnal Abundance of Species Groups Inside of the Grid

| <u>Group</u> | <u>Total Birds</u> | <u>Birds/Sq. Mile</u> | <u>Estimated Population</u> |
|---------------|--------------------|------------------------|-----------------------------|
| Shearwaters | 327 307 | 0.191 0.20 | 9,550 9880 |
| Boobies | 1 0 | 0.0005 0.00 | 25 0 |
| Tropicbirds | 16 | 0.0093 | 465 515 |
| Frigatebirds | 1 | 0.0002 | 10 15 |
| Terns | 241 222 | 0.094 0.10 | 4,700 4760 |
| Storm Petrels | 2 | 0.0023 | 115 |
| Shorebirds | 0 | 0.00 | 0 |



DATE 3 Aug 1969 Monday

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-----------|------------|------|-----------|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | | | | | | | | | | | | | | | | |
| 0500 | | | | | | | | | | | | | | | | |
| 0600 | | | | | | | | | | | | | | | | |
| 0700 | | | | | | | | | | | | | | | | |
| 0800 | | | | | | | | | | | | | | | | |
| 0900 | | | | | | | | | | | | | | | | |
| | DOCKED | | | | | | | | | | | | | | | |
| 1000 | 21° 17' N | 157° 54' W | | Partly Cl | 20 | 1013 | 84 | 76 | 76 | 1 | 5 | 100/5 | 80 | 18 | 100 | 247 10.0 |
| 1100 | 21° 11' N | 158° 00' W | | " | " | 1014 | 84 | 76 | 76 | 1 | 5 | 100/5 | 80 | 18 | 100 | 247 10 |
| 1200 | 21° 05' N | 158° 30' W | | " | " | 1014 | 84 | 76 | 76 | 1 | 5 | 100/5 | 80 | 18 | 100 | 247 10 |
| 1300 | 21-02 N | 158-30 W | | " | " | 1015 | 85 | 78 | 69 | 1 | 5 | 100/5 | 80 | 15 | " | 247 10 |
| 1400 | 20-59 N | 158-40 W | | " | " | 1014 | 88 | 80 | 71 | 1 | 4 | " " | 80 | 15 | " | 247 10 |
| 1500 | 20-56 N | 158-50 W | | " | " | 1014 | 82 | 80 | 71 | 1 | 4 | " " | 80 | 13 | " | 247 10 |
| 1600 | 20-54 N | 159-00 W | | " | " | 1019 | 82 | 80 | 71 | 1 | 4 | " " | 80 | 12 | " | 247 10 |
| 1700 | 20-50 N | 159-11 W | | " | " | 1017 | 81 | 79 | 72 | 1 | 3 | " " | 80 | 12 | " | 245 10 |
| 1800 | 20-45 N | 159-22 W | | " | " | 1017 | 81 | 79 | 72 | 1 | 3 | " " | 80 | 12 | " | 245 10 |
| 1900 | 20-42 N | 159-32 W | | " | " | 1018 | 80 | 78 | 91 | 2 | 3 | 100/4 | 80 | 10 | " | 245 10 |
| 2000 | 20-36 N | 159-44 W | | " | " | 1018 | 80 | 78 | 91 | 2 | 2 | " " | 80 | 10 | " | " 10 |
| 2100 | 20-33 N | 159-56 W | | " | " | 1018 | 80 | 78 | 91 | 2 | 2 | " " | 80 | 10 | " | " 10 |
| 2200 | 20-28 N | 160-07 W | | " | " | 1019 | 80 | 78 | 91 | 2 | 2 | " " | 81 | 8 | " | " 10 |
| 2300 | 20-25 N | 160-17 W | | " | " | 1019 | 80 | 78 | 91 | 2 | 2 | " " | 81 | 8 | " | " 10 |
| 2400 | 20-22 N | 160-27 W | | " | " | 1019 | 80 | 78 | 91 | 2 | 2 | " " | 81 | 8 | " | " 10 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
 WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
 12-5-63

DATE 13 Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHEP COURSE/SPD. |
|------|---------|----------|-----------|-----|------|-------|--------|---------|--------|---------|----------|----------|--------|--------|------------------|
| 0100 | 16-04 N | 173-16 W | Partly Cl | 20 | 1018 | 82 | 80 | 91 | 6 | 3 | 090/5 | 81 | 20 | 090 | 048 10.0 |
| 0200 | 16-12 N | 173-08 W | " " | " | 1018 | 82 | 80 | 91 | 6 | 3 | " " | 81 | 20 | 090 | 048 10.0 |
| 0300 | 16-17 N | 173-02 W | " " | " | 1018 | 82 | 80 | 91 | 6 | 3 | " " | 81 | 20 | 090 | 048 10.0 |
| 0400 | 16-25 N | 172-54 W | " " | " | " | " | " | " | " | " | 090/6 | 82 | 20 | 090 | 048 10.0 |
| 0500 | 16-28 N | 172-51 W | " " | " | 1014 | 82 | 77 | 84 | 2 | 0 | 090/5 | 82 | 19 | 100 | 048 9.6 |
| 0600 | 16-35 N | 172-45 W | " " | 20 | 1015 | 82 | 77 | 84 | 2 | 0 | 090/5 | 82 | 18 | 090 | 048 8.7 |
| 0700 | 16-36 N | 172-43 W | " " | 20 | 1016 | 82 | 77 | 84 | 3 | 0 | 080/00/4 | 82 | 017 | 080 | 1408 10 |
| 0800 | 16-41 N | 172-37 W | " " | 20 | 1016 | 83 | 77 | 84 | 3 | 0 | 100/4 | 82 | 19 | 100 | 048 8.7 |
| 0900 | 16-47 N | 172-31 W | " " | 20 | 1016 | 83 | 75 | 80 | 3 | 0 | 090/8 | 82 | 20 | 100 | 048 8.7 |
| 1000 | 16-52 N | 172-23 W | " " | 20 | 1016 | 83 | 75 | 80 | 3 | 0 | 090/10 | 82 | 20 | 100 | 048 8.7 |
| 1100 | 16-59 W | 172-18 W | " " | 20 | 1016 | 83 | 75 | 80 | 3 | 0 | 090/12 | 82 | 20 | 100 | 048 8.7 |
| 1200 | 17-04 N | 172-12 W | " " | 20 | 1016 | 82 | 77 | 84 | 2 | 0 | 100/12 | 82 | 20 | 100 | 048 8.7 |
| 1300 | 17-09 N | 172-08 W | " " | 20 | 1020 | 80 | 77 | 84 | 2 | 0 | 100/12 | 82 | 20 | 100 | 048 8.7 |
| 1400 | 17-15 N | 172-01 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 090/12 | 82 | 18 | 070 | 338 8.6 |
| 1500 | 17-25 N | 171-48 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 080/12 | 82 | 18 | 070 | 338 8.6 |
| 1600 | 17-33 N | 171-50 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 080/12 | 82 | 18 | 070 | 338 8.6 |
| 1700 | 17-41 N | 171-55 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 090/6 | 82 | 18 | 070 | 338 9.6 |
| 1800 | 17-50 N | 172-02 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 090/6 | 82 | 18 | 075 | 338 9.6 |
| 1900 | 17-59 N | 172-05 W | " " | 20 | 1015 | 82 | 78 | 84 | 2 | 0 | 090/6 | 82 | 18 | 080 | 338 9.6 |
| 2000 | 18-08 N | 172-09 W | " " | 20 | 1016 | 82 | 78 | 84 | 2 | 0 | 090/6 | 82 | 18 | 080 | 338 9.6 |
| 2100 | 18-15 N | 172-13 W | " " | 20 | 1016 | 82 | 78 | 80 | 2 | 0 | 090/8 | 82 | 18 | 080 | 340 9.6 |
| 2200 | 18-24 N | 172-17 W | " " | 20 | 1016 | 82 | 78 | 84 | 1 | 0 | 090/8 | 82 | 14 | 095 | 340 9.6 |
| 2300 | 18-32 N | 172-20 W | " " | 20 | 1016 | 82 | 78 | 84 | 3 | 1 | 090/8 | 82 | 13 | 095 | 340 9.6 |
| 2400 | 18-41 N | 172-23 W | " " | 20 | 1016 | 82 | 78 | 84 | 3 | 1 | 090/6 | 82 | 13 | 095 | 340 9.6 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 14, Aug 1964

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TOT SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPEED |
|------|-------------------------------|------------------------------|------|--------------|-----|------|-------|--------|---------|---------|---------|-------|----------|--------|--------|-------------------|
| 0100 | 18-49N | 172-28W | | Partly cly | 20 | 1016 | 82 | 78 | 84 | 2 | 1 | 090/6 | | 13 | 095 | 340 9.0 |
| 0200 | 18-58N | 172-31W | | " " | " | " | " | " | " | " | " | " " | | 15 | 096 | 340 9.0 |
| 0300 | 19-07N | 172-35W | | " " | " | " | " | " | " | " | " | " " | | 15 | 090 | 340 9.0 |
| 0400 | 19-15N | 172-38W | | Partly cly | 20 | 1016 | 82 | 78 | 84 | 2 | 1 | 090/6 | | 15 | 090 | 340 9.0 |
| 0500 | 19-27N | 172-36W | | Partly Cloud | 20 | 1015 | 81 | 74 | 83 | 2 | 0 | 090/6 | 81 | 16 | 080 | 340 9.7 |
| 0600 | 19-35N | 172-40W | | " " | 20 | 1016 | 81 | 74 | 83 | 2 | 0 | 080/6 | 81 | 12 | 080 | 340 9.7 |
| 0700 | 19-44N | 172-44W | | " " | 20 | 1016 | 82 | 77 | 84 | 2 | 0 | 080/5 | 82 | 14 | 080 | 335 9.7 |
| 0800 | 19-53N | 172-49W | | " " | 20 | 1016 | 83 | 78 | 88 | 3 | 0 | 080/5 | 82 | 15 | 090 | 335 9.7 |
| 0900 | 20-00N | 172-52W | | " " | 20 | 1017 | 83 | 75 | 80 | 3 | 0 | 080/5 | 82 | 15 | 090 | 335 9.7 |
| 1000 | 20-08N | 172-58W | | " " | 20 | 1017 | 82 | 77 | 84 | 5 | 4 | 070/5 | 82 | 15 | 080 | 335 9 |
| 1100 | 20-16N | 173-00 | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 3 | 070/6 | 82 | 17 | 070 | 335 9 |
| 1200 | 20-24N | 173-04 | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 4 | 070/6 | 82 | 17 | 070 | 335 9 |
| 1300 | 20-34N | 173-09 | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 4 | 070/6 | 82 | 17 | 080 | 335 9.0 |
| 1400 | 20-41N | 173-13 | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 4 | 070/6 | 82 | 17 | 080 | 335 9.0 |
| 1500 | 20-45N | 173-17 | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 4 | 070/6 | 81 | 17 | 080 | 335 9.0 |
| 1600 | 20-52N Variable | 173-20 Cumulus | | " " | 20 | 1017 | 82 | 77 | 84 | 7 | 4 | 070/6 | 81 | 17 | 080 | 335 9.0 |
| 1700 | 20-52N | 173-20 | | " " | 20 | 1015 | 82 | 77 | 84 | 5 | 2 | 070/6 | 81 | 18 | 090 | 338 8.6 |
| 1800 | 20-58N | 173-27 | | " " | 20 | 1015 | 82 | 77 | 84 | 4 | 2 | 070/6 | 81 | 18 | 100 | 338 8.6 |
| 1900 | 21-07N | 173-26 | | " " | 20 | 1016 | 81 | 74 | 83 | 5 | 3 | 070/6 | 81 | 16 | 090 | 338 8.6 |
| 2000 | 21-17N | 173-29 | | " " | 20 | 1016 | 81 | 74 | 83 | 3 | 0 | 070/6 | 82 | 16 | 070 | 338 8.6 |
| 2100 | 21-26N | 173-33W | | Few clds | 20 | 1017 | 80 | 74 | 83 | 2 | 0 | 070/6 | 82 | 17 | 090 | 338 9 |
| 2200 | 21-35N | 173-38W | | " " | 20 | 1017 | 80 | 74 | 83 | 2 | 0 | 070/8 | 82 | 17 | 090 | 338 9.5 |
| 2300 | 21-44N | 173-41W | | " " | 20 | 1018 | 80 | 74 | 83 | 1 | 0 | 070/8 | 82 | 17 | 090 | 338 9.5 |
| 2400 | 21-53N | 173-45W | | " " | 20 | 1017 | 80 | 74 | 83 | 1 | 0 | 070/8 | 82 | 17 | 090 | 338 9.5 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 15, Aug 1964 Sat.

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------------|---------|----------|------------|-----|------|-------|--------|--------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 22-00 N | 173-50 W | Partly cly | 20 | 1017 | 80 | 76 | 83 | 2 | 0 | 070/8 | | 17 | 090 | 338 9.5 |
| 0200 | 22-13 N | 173-55 W | " " | " | " | " | " | " | " | " | 090/8 | | 17 | " | 338 10.2 |
| 0300 | 22-23 N | 173-59 W | " " | 20 | 1016 | 82 | 76 | 76 | 2 | 0 | 070/8 | | 20 | 105 | 338 10.6 |
| 0400 | 22-32 N | 174-04 W | " " | 20 | 1016 | 82 | 76 | 76 | 2 | 0 | 070/8 | | 20 | 105 | 338 10.6 |
| 0500 | 22-37 N | 174-24 W | " " | 20 | 1016 | 80 | 73 | 79 | 4 | 0 | 080/6 | 81 | 14 | 085 | 338 9.6 |
| 0600 | 22-45 N | 174-08 W | " " | 20 | 1017 | 80 | 74 | 83 | 6 | 4 | 090/6 | 81 | 14 | 085 | 338 9.6 |
| 0700 | 22-53 N | 174-11 W | " " | 20 | 1017 | 80 | 76 | 87 | 6 | 4 | 090/6 | 81 | 16 | 090 | 338 9.6 |
| 0800 | 23-02 N | 174-15 W | " " | 20 | 1018 | 81 | 75 | 91 | 8 | 5 | 090/6 | 81 | 16 | 100 | 338 9.6 |
| 0900 | 23-11 N | 174-20 W | " " | 20 | 1018 | 81 | 76 | 87 | 2 | 0 | 090/8 | 81 | 15 | 080 | 338 9.6 |
| 1000 | 23-20 N | 174-25 W | " " | 20 | 1018 | 81 | 76 | 87 | 7 | 3 | 090/8 | 81 | 20 | 085 | 338 9.6 |
| 1100 | 23-29 N | 174-29 W | " " | 20 | 1018 | 81 | 76 | 87 | 6 | 3 | 090/8 | 81 | 20 | 085 | 338 10 |
| 23-43 1200 | 23-42 N | 174-30 W | " " | 20 | 1018 | 81 | 76 | 87 | 5 | 2 | 090/8 | 81 | 18 | 080 | 338 10 |
| 23-42 1300 | 23-42 N | 174-34 W | " " | 20 | 1017 | 82 | 78 | 77 | 5 | 2 | 090/8 | 81 | 18 | 080 | 338 10 |
| 23-45 1400 | 23-49 N | 174-32 W | " " | 20 | 1017 | 82 | 78 | 77 | 5 | 2 | 090/8 | 81 | 18 | 080 | 340 10 |
| 23-54 1500 | 23-49 N | 174-33 W | " " | 20 | 1017 | 82 | 78 | 77 | 5 | 2 | 090/8 | 81 | 18 | 080 | 340 9.0 |
| 24-03 1600 | 23-56 N | 174-39 W | " " | 20 | 1017 | 82 | 78 | 77 | 5 | 2 | 090/8 | 81 | 18 | 080 | 340 9.6 |
| 1700 | 24-12 N | 174-44 W | " " | 20 | 1017 | 80 | 77 | 91 | 6 | 2 | 090/8 | 81 | 18 | 090 | 340 10 |
| 1800 | 24-21 N | 174-49 W | " " | 20 | 1016 | 80 | 77 | 91 | 8 | 4 | 090/6 | 81 | 16 | 095 | 340 10 |
| 1900 | 24-30 " | 174-53 " | " " | 20 | 1016 | 80 | 77 | 91 | 7 | 4 | 090/6 | 81 | 16 | 080 | 340 10 |
| 2000 | 24-38 " | 174-57 " | " " | 20 | 1018 | 80 | 77 | 91 | 7 | 4 | 090/6 | 81 | 14 | 075 | 340 10 |
| 2100 | 24-48 N | 175-02 W | " " | 20 | 1019 | 79 | 76 | 87 | 7 | 4 | 090/8 | 81 | 18 | 090 | 340 10 |
| 2200 | 24-57 N | 175-06 W | " " | 20 | 1019 | 79 | 76 | 87 | 7 | 5 | 090/8 | 81 | 18 | 090 | 340 10 |
| 2300 | 25-07 N | 175-10 W | " " | 20 | 1019 | 79 | 76 | 87 | 7 | 6 | 090/8 | 81 | 18 | 090 | 340 10 |
| 2400 | 25-17 N | 175-13 W | " " | 20 | 1019 | 79 | 76 | 87 | 5 | 4 | 090/8 | 80 | 18 | 090 | 338 10 |

REMARKS:

* Rain squalls
on horizon
near ship

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 16 Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|----------|------------------------------|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 25-25 N | 175-18 W | Rain | 3 | 1019 | 78 | 76 | 91 | 7 | 4 | 090/8 | 81 | 20 | 090 | 338 10 |
| 0200 | 25-35 N | 175-22 W | " | 5 | 1019 | 78 | 76 | 91 | 7 | 4 | " | 81 | 20 | 11 | 338 10 |
| 0300 | 25-43 N | 175-25 W | " | 5 | 1019 | 78 | 76 | 91 | 7 | 4 | " | 81 | 20 | 11 | 338 10 |
| 0400 | 25-53 N | 175-35 W | " | 5 | 1019 | 78 | 76 | 91 | 7 | 4 | " | 81 | 20 | 11 | 338 10 |
| 0500 | 26-01 N | 175-33 W | Part Cloudy | 10 | 1019 | 78 | 75 | 91 | 5 | 3 | 100/7 | 81 | 16 | 100 | 338 10 |
| 0600 | 26-10 N | 175-27 W | " " | 20 | 1019 | 79 | 75 | 91 | 8 | 4 | 100/7 | 81 | 16 | 090 | 338 10 |
| 0700 | 26-19 N | 175-42 W | " " | 20 | 1019 | 79 | 75 | 91 | 8 | 4 | 100/7 | 80 | 14 | 090 | 338 10 |
| 0800 | 26-28 N | 175-45 W | " " | 20 | 1019 | 80 | 77 | 91 | 8 | 4 | 090/5 | 80 | 14 | 100 | 338 10 |
| 0900 | 26-32 N | 175-51 W | " " | 20 | 1019 | 80 | 76 | 87 | 6 | 1 | 090/5 | 80 | 12 | 100 | 338 10 |
| 1000 | 26-42 N | 175-56 W | " " | 20 | 1019 | 80 | 76 | 87 | 7 | 2 | 090/5 | 80 | 13 | 100 | 338 10 |
| 1100 | 26-57 N | 175-58 W | " " | 20 | 1019 | 80 | 76 | 87 | 6 | 1 | 100/5 | 80 | 13 | 100 | 338 10 |
| 1200 | 27-06 N | 175-53 W | " " | 20 | 1019 | 80 | 76 | 87 | 5 | 1 | 100/5 | 80 | 13 | 100 | 338 10 |
| 1300 | 27-13 N | 175-53 W | " " | 20 | 1018 | 80 | 78 | 91 | 5 | 1 | 100/5 | | 14 | 100 | 338 9.5 |
| 1400 | 27-27 | 175-52 | Anchored Pearl & Hermes Reef | | | | | | | | | | | | |
| 1500 | 27-37 | 175-51 | | | | | | | | | | | | | |
| 1600 | 27-46 | 175-46 | | | | | | | | | | | | | |
| 1700 | | | | | | | | | | | | | | | |
| 1800 | | | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

Did not anchor 7/1630 to 1800

DATE 20, Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUM% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|---------------------------------|-----|------|-------|--------|------------------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | |
| 0400 | | | | | | | | | | | | | | | |
| 0500 | | | | | | | | | | | | | | | |
| 0600 | | | | | | | | | | | | | | | |
| 0700 | | | | | | | | | | | | | | | |
| 0800 | | | ANCHORED AT PEARL & HERMES REEF | | | | | | | | | | | | |
| 0900 | | | | | | | | | | | | | | | |
| 1000 | | | | | | | | | | | | | | | |
| 1100 | | | | | | | | | | | | | | | |
| 1200 | | | | | | | | | | | | | | | |
| 1300 | | | | | | | | | | | | | | | |
| 1400 | | | | | | | | | | | | | | | |
| 1500 | | | | | | | | | | | | | | | |
| 1600 | 27-55N | 175-41W | Partly Cl | 20 | 1018 | 82 | 76 | 76 | 5 | 1 | 0 | | 7 | 130 | 140 10.0 |
| 1700 | 27-47N | 175-34W | " " | 20 | 1019 | 82 | 72 | 83 75 | 4 | 1 | 110/5 | 80 | 06 | 045 | 140 10 |
| 1800 | 27-39N | 175-27W | " " | 20 | 1021 | 80 | 70 | 72 | 3 | 1 | 110/5 | 80 | 05 | 045 | 140 10 |
| 1900 | 27-31N | 175-20W | " " | 20 | 1021 | 80 | 70 | 72 | 3 | 1 | 110/5 | 80 | 5 | 045 | 140 10 |
| 2000 | 27-24N | 175-14W | " " | 20 | 1021 | 80 | 70 | 72 | 3 | 1 | 110/5 | 80 | 2 | 045 | 140 10 |
| 2100 | 27-15N | 175-08W | " " | 20 | 1020 | 79 | 70 | 72 | 1 | 0 | 110/5 | 80 | calm | | 148 10 |
| 2200 | 27-07N | 175-03W | " " | 20 | 1018 | 79 | 70 | 72 | 1 | 0 | 110/4 | 80 | calm | | 148 10 |
| 2300 | 26-58N | 174-57W | " " | 20 | 1018 | 79 | 70 | 72 | 1 | 0 | 110/4 | 80 | calm | | 148 10 |
| 2400 | 26-50N | 174-49W | " " | 20 | 1018 | 79 | 70 | 72 | 1 | 0 | 110/4 | 80 | calm | | 148 10.0 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
 WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
 12-5-63

DATE 25 Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|----------|-----------|--------------------------------|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 26-42N | 174-44W | Partly cl | 20 | 1018 | 79 | 70 | 72 | 1 | 0 | 110/4 | | | | 148 150 10.0 |
| 0200 | 26-33N | 174-39W | " " | " | 1018 | 79 | 70 | | 1 | 0 | 090/4 | | | | 150 10 |
| 0300 | 26-24W | 174-33W | " " | " | 1018 | 79 | 70 | | 1 | 0 | " | | | | 150 10 |
| 0400 | 26-18W | 174-30W | " " | " | 1018 | 80 | 74 | | 1 | 0 | " | | | | 122 10 |
| 0500 | 26-13N | 174-17W | " " | " | 1018 | 78.0 | 69 | 75 | 1 | 0 | 090/3 | | 07 | 025 | 122 10 |
| 0600 | 26-10N | 174-13W | " " | 20 | 1018 | 78 | 69 | 75 | 2 | 0 | 090/3 | | | | 122 5 |
| 0700 | 26-05.5N | 174-05.5W | " " | 20 | 1018 | 78 | 69 | 75 | 2 | 1 | 090/3 | | | | 120 10 |
| 0800 | 26-03N | 173-59W | " " | 20 | 1017 | 83° | 73 | 69 | 0 | 0 | 090/3 | | | | ANCHOR |
| 0900 | | | | | | | | | | | | | | | |
| 1000 | | | ← ANCHORED AT LISIANSKI ISLAND | | | | | | | | | | | | |
| 1100 | | | | | | | | | | | | | | | |
| 1200 | | | | | | | | | | | | | | | |
| 1300 | | | | | | | | | | | | | | | |
| 1400 | | | | | | | | | | | | | | | |
| 1500 | | | | | | | | | | | | | | | |
| 1600 | | | | | | | | | | | | | | | |
| 1700 | | | | | | | | | | | | | | | |
| 1800 | | | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 23 Aug 1964 Sunday

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPEED |
|------|--------|---------|--------------|-----|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|-------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | | | | | | | | | | | | | | | | |
| 0500 | | | | | | | | | | | | | | | | |
| 0600 | 0615 | Anchors | weigh | | | | | | | | | | | | | |
| 0700 | 0730 | Depart | Lisianski Is | | | | | | | | | | | | | |
| 0800 | 26-08N | 173-56W | Phy Chg | 20 | 20 | 1019 | 81 | 73 | 79 | 2 | 1 | 100/2 | 80 | 10 | 100 | 081 10.0 |
| 0900 | 26-10N | 173-45W | " " | " | " | " | 81 | 73 | 79 | " | " | 100/2 | " | 10 | 100 | 081 10.0 |
| 1000 | 26-11N | 173-37W | " " | " | " | " | 82 | 74 | 69 | " | " | 100/2 | " | 10 | 100 | 085 10.0 |
| 1100 | 26-13N | 173-25W | " " | " | " | " | 82 | 74 | 69 | " | " | 100/3 | " | 10 | 100 | 087 10.0 |
| 1200 | 26-15N | 173-12W | " " | " | " | 1020 | 81 | 76 | 66 | " | " | 100/3 | " | 10 | 100 | 087 10.0 |
| 1300 | 26-17N | 173-01W | " " | " | " | 1020 | 84 | 76 | 66 | " | " | 100/3 | 80 | 10 | 100 | 085 10.0 |
| 1400 | 26-18N | 172-50W | " " | " | " | 1020 | 84 | 76 | 66 | " | " | 100/3 | 80 | 15 | 100 | 085 10.0 |
| 1500 | 26-20N | 172-41W | " " | " | " | 1020 | 84 | 76 | 66 | " | " | 100/3 | 80 | 25 | 100 | 085 10.0 |
| 1600 | 26-20N | 172-30W | " " | " | " | 1020 | 84 | 76 | 66 | " | " | 100/3 | 80 | 15 | 100 | 085 10.0 |
| 1700 | 26-22N | 172-19W | " " | " | " | 1020 | 82 | 74 | 76 | 3 | 2 | 100/4 | 80 | 12 | 085 | 085 10.0 |
| 1800 | 26-23N | 172-07W | " " | " | " | 1020 | 82 | 72 | 72 | 4 | 1 | 100/4 | 80 | 12 | 080 | 085 10.0 |
| 1900 | 26-23N | 171-58W | " " | " | " | 1020 | 81 | 72 | 72 | 5 | 3 | 100/4 | 80 | 12 | 070 | 105 10.0 |
| 2000 | 26-21N | 171-46W | " " | " | " | 1019 | 80 | 72 | 75 | 2 | 1 | 100/4 | 80 | 13 | 085 | 105 10.0 |
| 2100 | 26-19N | 171-35W | " " | " | " | 1017 | 80 | 72 | 75 | 2 | 1 | 080/4 | 80 | 12 | 085 | 105 10.0 |
| 2200 | 26-16N | 171-25W | " " | " | " | 1020 | 80 | 72 | 75 | 3 | 1 | 080/4 | 80 | 12 | 080 | 105 10.0 |
| 2300 | 26-14N | 171-15W | " " | " | " | 1020 | 80 | 72 | 75 | 3 | 1 | 070/5 | 80 | 12 | 080 | 105 10 |
| 2400 | 26-11N | 171-04W | " " | " | " | 1018 | 80 | 72 | 75 | 3 | 2 | 070/5 | 80 | 15 | 080 | 105 9.7 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 24, Aug 1964 Monday

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|--------|--------|---------|-----------|-----|------|-------|--------|--------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 26-09N | 170-54W | Partly cl | 10 | 1019 | 80 | 72 | 75 | 5 | 2 | 070/3 | 81 | 15 | 080 | 105 9.7 |
| 0200 | 26-06N | 170-43W | " " | 20 | 1018 | 78 | 74 | 83 | 6 | 3 | 095/3 | 81 | 20 | 095 | 105 9.7 |
| 0300 | 26-04N | 170-33W | " " | 20 | 1018 | 78 | 74 | 83 | 7 | 3 | 095/3 | 81 | 20 | 095 | 105 9.7 |
| 0400 | 26-02N | 170-22W | " " | 20 | 1018 | 78 | 74 | 83 | 7 | 4 | 095/3 | 81 | 20 | 095 | 105 9.7 |
| 0500 | 25-59N | 170-20W | " " | 20 | 1018 | 78 | 71 | 79 | 6 | 5 | 100/4 | 81 | 18 | 095 | 105 9.0 |
| 0600 | 25-57N | 170-11W | " " | 20 | 1018 | 79 | 71 | 79 | 4 | 3 | 100/4 | 80 | 15 | 090 | 105 9.0 |
| * 0700 | 25-54N | 170-01W | " " | 20 | 1018 | 80 | 73 | 79 | 3 | 2 | 100/4 | 80 | 15 | 090 | 105 9.0 |
| 0800 | 25-52N | 169-51W | " " | 20 | 1018 | 80 | 73 | 79 | 6 | 4 | 100/4 | 80 | 15 | 090 | 105 9.0 |
| 0900 | 25-50N | 169-42W | Modly cl | 20 | 1019 | 80 | 72 | 75 | 8 | 6 | 060/6 | 80 | 15 | 080 | 105 9 |
| 1000 | 25-48N | 169-33W | Partly cl | 20 | 1019 | 80 | 72 | 75 | 5 | 2 | 070/6 | 80 | 15 | 080 | 105 9 |
| 1100 | 25-46N | 169-23W | " " | 20 | 1018 | 81 | 72 | 75 | 3 | 1 | 080/6 | 80 | 16 | 090 | 105 8.7 |
| 1200 | 25-44N | 169-14W | " " | 20 | 1018 | 80 | 72 | 75 | 2 | 0 | 080/6 | 80 | 15 | 090 | 105 8.7 |
| 1300 | 25-41N | 169-04W | " " | 20 | 1018 | 80 | 72 | 75 | 2 | 0 | 080/6 | 80 | 15 | 080 | 105 8.2 |
| 1400 | 25-40N | 168-53W | " " | 20 | 1018 | 84 | 74 | 62 | 2 | 0 | 080/4 | 80 | 15 | 080 | 105 8.2 |
| 1500 | 25-39N | 168-46W | " " | 20 | 1018 | 80 | 76 | 63 | 2 | 0 | 080/4 | 80 | 15 | 080 | 105 8.0 |
| 1600 | 25-33N | 168-38W | " " | 20 | 1018 | 82 | 78 | 63 | 2 | 0 | 080/4 | 80 | 15 | 080 | 105 8.5 |
| 1700 | 25-34N | 168-30W | " " | 20 | 1017 | 80 | 72 | 75 | 7 | 5 | 080/4 | 80 | 14 | 100 | 105 8.5 |
| 1800 | 25-32N | 168-21W | " " | 20 | 1017 | 80 | 72 | 75 | 8 | 5 | 080/4 | 80 | 14 | 100 | 105 8.5 |
| 1900 | 25-30N | 168-13W | " " | 20 | 1017 | 80 | 72 | 75 | 8 | 5 | 080/4 | 80 | 15 | 100 | 105 8.7 |
| 2000 | 25-28N | 168-04W | " " | 20 | 1018 | 78 | 72 | 83 | 8 | 5 | 080/4 | 80 | 17 | 095 | 105 8.7 |
| 2100 | 25-26N | 167-55W | " " | 20 | 1018 | 78 | 72 | 83 | 7 | 5 | 080/5 | 80 | 15 | 100 | 105 8.5 |
| 2200 | 25-24N | 167-45W | " " | 10 | 1019 | 78 | 72 | 83 | 8 | 7 | 080/5 | 80 | 15 | 105 | 105 8.5 |
| 2300 | 25-22N | 167-36W | " " | 15 | 1019 | 78 | 72 | 83 | 7 | 5 | 080/5 | 80 | 12 | 120 | 105 8.5 |
| 2400 | 25-19N | 167-27W | " " | 20 | 1018 | 79 | 72 | 83 | 5 | 7 | 100/6 | 80 | 15 | 100 | 105 8.7 |

REMARKS:

* HEAVY RAIN SWALL 0740-0747

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
 WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
 12-5-63

DATE 25 Aug 1964 Tuesday

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|-----------|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 25-18N | 167-18W | Partly Cl | 20 | 1018 | 78 | 74 | 83 | 5 | 2 | 100/6 | 79 | 15 | 100 | 105 8.7 |
| 0200 | 25-18N | 167-09W | " | " | " | " | " | " | " | " | " | 79 | 15 | " | " 8.7 |
| 0300 | 25-13N | 167-00W | " | " | 1017 | 78 | 71 | 83 | 5 | 2 | 100/6 | 79 | 15 | 100 | 105 8.7 |
| 0400 | 25-10N | 166-51W | " | " | " | " | " | " | " | " | " | 79 | " | " | " 8.7 |
| 0500 | 25-04N | 166-40W | " | " | 1017 | 78 | 72 | 83 | 4 | 2 | 100/5 | 79 | 15 | 100 | 105 8.9 |
| 0600 | 25-02N | 166-30W | " | " | 1018 | 79 | 71 | 79 | 3 | 3 | 100/4 | 79 | 14 | 100 | 105 8.9 |
| 0700 | 24-59N | 166-21W | " | " | 1018 | 80 | 74 | 83 | 4 | 2 | 100/4 | 80 | 12 | 100 | 105 9 |
| 0800 | 24-48N | 166-11W | " | " | 1019 | 80 | 76 | 87 | 4 | 2 | 100/4 | 80 | 10 | 100 | 105 9 |
| 0900 | 24-49N | 166-03W | " | 20 | 1019 | 80 | 72 | 75 | 1 | 0 | 100/5 | 79 | 13 | 090 | 105 9 |
| 1000 | 24-47N | 165-50W | " | 20 | 1017 | 80 | 72 | 75 | 1 | 0 | 100/5 | 79 | 13 | 090 | 105 9.5 |
| 1100 | 24-42N | 165-39W | " | 20 | 1019 | 80 | 72 | 75 | 1 | 0 | 100/5 | 75 | 15 | 090 | 105 9.5 |
| 1200 | 24-41N | 165-29W | " | 20 | 1019 | 80 | 72 | 75 | 1 | 0 | 100/5 | 75 | 15 | 090 | 105 8.7 |
| 1300 | 24-37N | 165-20W | " | 20 | 1017 | 80 | 72 | 75 | 1 | 0 | 100/5 | 75 | 15 | 090 | 105 8.7 |
| 1400 | 24-35N | 165-16W | " | 20 | 1018 | 80 | 78 | 70 | 2 | 0 | 100/5 | 80 | 15 | 090 | 105 9.7 |
| 1500 | 24-30N | 164-58W | " | 20 | 1018 | 80 | 78 | 70 | 2 | 0 | 100/5 | 80 | 15 | 090 | 105 9.7 |
| 1600 | 24-31N | 164-45W | " | 20 | 1018 | 80 | 78 | 70 | 2 | 0 | 100/5 | 80 | 15 | 090 | 105 9.7 |
| 1700 | 24-27N | 164-38W | " | 20 | 1018 | 80 | 72 | 75 | 2 | 2 | 080/5 | 80 | 14 | 085 | 105 9.8 |
| 1800 | 24-25N | 164-28W | " | 20 | 1018 | 79 | 69 | 75 | 2 | 2 | 070/5 | 80 | 14 | 090 | 105 9.8 |
| 1900 | 24-25N | 164-16W | " | 20 | 1018 | 79 | 70 | 75 | 2 | 2 | 070/5 | 80 | 14 | 090 | 105 9.8 |
| 2000 | 24-22N | 164-05W | " | 20 | 1019 | 79 | 72 | 79 | 2 | 2 | 070/5 | 80 | 12 | 090 | 105 9.8 |
| 2100 | 24-22N | 163-53W | rain | 20 | 1019 | 78 | 71 | 79 | 1 | 1 | 070/5 | 80 | 12 | 090 | 105 8.8 |
| 2200 | 24-19N | 163-42W | " | 20 | 1018 | 78 | 72 | 83 | 2 | 1 | 070/5 | 80 | 13 | 070 | 105 9.8 |
| 2300 | 24-16N | 163-32W | " | 20 | 1019 | 78 | 71 | 79 | 1 | 0 | 070/5 | 80 | 13 | 070 | 105 9.8 |
| 2400 | 24-15N | 163-21W | " | 20 | 1019 | 78 | 71 | 79 | 1 | 0 | 070/5 | 80 | 13 | 050 | 105 9.8 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 26 Aug 1964 Wed.

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SELP COURSE/SPD. |
|------|---------|----------|------|----------|-----|------|-------|--------|---------|--------|---------|---------|----------|--------|--------|------------------|
| 0100 | 24-09 N | 163-13 W | 1019 | Partly M | 20 | 1019 | 78 | 71 | 79 | 2 | 0 | 060/7/6 | 80 | 13 | 090 | 105 10.0 |
| 0200 | 24-04 N | 163-02 W | 1019 | " " | " | 1019 | 78 | 71 | 79 | 4 | 2 | 060/7/6 | 80 | 13 | 090 | 105 10.0 |
| 0300 | 24-02 N | 162-51 W | 1018 | " " | " | 1018 | 78 | 74 | 72 | 6 | 3 | " " | 80 | 13 | 090 | 105 10.0 |
| 0400 | 24-00 N | 162-40 W | 1018 | " " | " | 1018 | 78 | 74 | 72 | 6 | 3 | " " | 80 | 13 | 090 | 105 10.0 |
| 0500 | 23-57 N | 162-29 W | 1018 | " " | 20 | 1018 | 78 | 71 | 75 | 3 | 3 | 070/6/6 | 80 | 12 | 090 | 105 10 |
| 0600 | 23-55 N | 162-18 W | 1018 | " " | 20 | 1018 | 79 | 69 | 75 | 4 | 3 | 070/5/6 | 80 | 10 | 090 | 105 10 |
| 0700 | 23-52 N | 162-08 W | 1018 | " " | 20 | 1018 | 79 | 69 | 75 | 4 | 3 | 070/4/5 | 80 | 10 | 090 | 105 10 |
| 0800 | 23-50 N | 161-58 W | 1018 | " " | 20 | 1018 | 80 | 72 | 75 | 7 | 4 | 070/4/5 | 80 | 11 | 075 | 105 10 |
| 0900 | 23-45 N | 161-52 W | 1019 | " " | 20 | 1019 | 80 | 68 | 68 | 3 | 1 | 070/4/5 | 80 | 16 | 070 | 135 10 |
| 1000 | 23-34 N | 161-43 W | 1019 | " " | 20 | 1019 | 80 | 72 | 75 | 7 | 3 | 070/4/5 | 80 | 13 | 075 | 130 10 |
| 1100 | 23-26 N | 161-35 W | 1018 | " " | 20 | 1018 | 80 | 70 | 72 | 4 | 1 | 070/4/5 | 80 | 12 | 070 | 130 10 |
| 1200 | 23-19 N | 161-29 W | 1018 | " " | 20 | 1018 | 80 | 70 | 72 | 1 | 0 | 070/4/5 | 80 | 12 | 070 | 130 10 |
| 1300 | 23-13 N | 161-20 W | 1018 | " " | 20 | 1018 | 80 | 70 | 72 | 1 | 0 | 070/6/5 | 80 | 12 | 070 | 130 10.0 |
| 1400 | 23-08 N | 161-13 W | 1018 | " " | " | 1018 | 80 | 70 | 72 | 2 | 0 | 070/7/6 | 80 | 13 | 070 | 130 10.0 |
| 1500 | 23-02 N | 161-05 W | 1018 | " " | " | 1018 | 84 | 74 | 70 | 3 | 0 | 070/7/6 | 80 | 14 | 070 | 130 10.0 |
| 1600 | 22-54 N | 160-57 W | 1016 | " " | 1 | 1016 | 88 | 78 | 74 | 3 | 0 | 070/7/6 | 80 | 15 | 070 | 130 10.0 |
| 1700 | 22-47 N | 160-50 W | 1016 | " " | 20 | 1016 | 79 | 68 | 71 | 2 | 2 | 070/6/6 | 80 | 10 | 080 | 130 10 |
| 1800 | 22-40 N | 160-42 W | 1016 | " " | 20 | 1016 | 79 | 68 | 71 | 3 | 2 | 070/6/6 | 80 | 10 | 080 | 130 10 |
| 1900 | 22-30 N | 160-34 W | 1016 | " " | 20 | 1016 | 79 | 69 | 75 | 2 | 1 | 070/6/6 | 80 | 10 | 090 | 130 10 |
| 2000 | 22-23 N | 160-24 W | 1016 | " " | 20 | 1016 | 79 | 69 | 75 | 2 | 1 | 070/6/6 | 80 | 11 | 095 | 130 10 |
| 2100 | 22-11 N | 160-17 W | 1017 | " " | 20 | 1017 | 78 | 69 | 75 | 1 | 0 | 070/6/4 | 80 | 12 | 070 | 135 10 |
| 2200 | 22-03 N | 160-12 W | 1018 | " " | 20 | 1018 | 78 | 69 | 75 | 1 | 0 | 070/6/4 | 80 | 12 | 070 | 135 9.5 |
| 2300 | 22-05 N | 160-04 W | 1017 | " " | 20 | 1017 | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 80 | 12 | 030 | 135 9.5 |
| 2400 | 22-00 N | 160-00 W | 1017 | " " | 20 | 1017 | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 80 | 12 | 030 | 135 9.5 |

REMARKS:

advance clocks 20 m

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 4 Aug 1964

John

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|----------|-------------|-----|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 20-18 N | 160-37 W | | | | | | | | | | | | | | |
| 0200 | 20-14 N | 160-46 W | | | | | | | | | | | | | | |
| 0300 | 20-10 N | 160-57 W | | | | | | | | | | | | | | |
| 0400 | 20-06 N | 161-06 W | | | | | | | | | | | | | | |
| 0500 | 20-02 N | 161-17 W | | | | | | | | | | | | | | |
| 0600 | 19-57 N | 161-28 W | FEW CLDS | | 30 | 1017 | 82 | 77 | 91 | 2 | 0 | 110/4 | 80 | 15 | 110 | 245 10.4 |
| 0700 | 19-53 N | 161-37 W | FEW CLDS | | 30 | 1017 | 82 | 77 | 91 | 2 | 0 | 110/4 | 80 | 15 | 110 | 245 10.4 |
| 0800 | 19-49 N | 161-47 W | FEW CLDS | | 30 | 1016 | 83 | 79 | 88 | 2 | 0 | 110/4 | 80 | 15 | 110 | 245 10.4 |
| 0900 | 19-47 N | 161-52 W | " " | | 30 | 1017 | 82 | 77 | 91 | 2 | 0 | 100/4 | 80 | 15 | 100 | 245 10.4 |
| 1000 | 19-45 N | 162-01 W | " " | | 30 | 1017 | 82 | 77 | 91 | 2 | 0 | 100/4 | 80 | 18 | 090 | 245 10.4 |
| 1100 | 19-44 N | 162-09 W | " " | | 30 | 1016 | 82 | 77 | 91 | 3 | 0 | 100/5 | 80 | 17 | 080 | drifting |
| 1200 | 19-43 N | 162-19 W | " " | | 30 | 1016 | 82 | 77 | 91 | 3 | 0 | 100/5 | 80 | 17 | 080 | " |
| 1300 | 19-34 N | 162-27 W | " " | | 30 | 1017 | 84 | 78 | 91 | 3 | 0 | 100/5 | 80 | 20 | 075 | drifting 9.3 |
| 1400 | 19-34 N | 162-34 W | " " | | 30 | 1017 | 84 | 78 | 91 | 3 | 0 | 100/5 | 80 | 20 | 075 | 245 8.6 |
| 1500 | 19-35 N | 162-37 W | " " | | 30 | 1017 | 84 | 78 | 92 | 3 | 0 | 100/5 | 81 | 20 | 070 | 260 8.6 |
| 1600 | 19-28 N | 162-42 W | " " | | 30 | 1017 | 82 | 79 | 92 | 3 | 0 | 100/5 | 81 | 15 | 070 | 245 10.3 |
| 1700 | 19-24 N | 162-52 W | " " | | 30 | 1016 | 82 | 79 | 88 | 3 | 0 | 100/5 | 81 | 15 | 070 | 245 10.3 |
| 1800 | 19-21 N | 163-01 W | " " | | 30 | 1016 | 82 | 79 | 88 | 3 | 0 | 100/5 | 81 | 15 | 070 | 245 10.3 |
| 1900 | 19-18 N | 163-14 W | " " | | 30 | 1016 | 81 | 78 | 91 | 3 | 0 | 090/5 | 80 | 10 | 080 | 245 10.3 |
| 2000 | 19-14 N | 163-25 W | " " | | 30 | 1016 | 80 | 78 | 91 | 4 | 0 | 090/4 | 80 | 15 | 070 | 245 10.3 |
| 2100 | 19-10 N | 163-29 W | " " | | 30 | 1017 | 80 | 77 | 91 | 1 | 0 | 090/4 | 80 | 15 | 070 | 245 10.3 |
| 2200 | 19-06 N | 163-38 W | Clear | | 30 | 1018 | 83 | 77 | 91 | 0 | 0 | 080/4 | 80 | 15 | 070 | 245 10.3 |
| 2300 | 19-02 N | 163-47 W | Few Cls | | 30 | 1017 | 82 | 77 | 91 | 1 | 0 | 080/4 | 80 | 15 | 070 | 245 10.3 |
| 2400 | 18-58 N | 163-57 W | Partly Cldy | | 30 | 1017 | 80 | 77 | 91 | 3 | 1 | 080/4 | 80 | 15 | 070 | 245 10.3 |

REMARKS:

ALL TIMES LOCAL (¹⁰²²WISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 5, Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID/O | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-----------|------------|----------|-----|------|-------|------------------|---------|--------|---------|---------|----------|--------|--------|------------------|
| 0100 | 18° 51' N | 164° 01' W | Few Cl | 20 | 1017 | 80 | 77 | 91 | 3 | 1 | 075/3 | 80 | 10 | 075 | 245 10.3 |
| 0200 | 18° 47' N | 164° 10' W | " " | " | " | " | " | 88 | 2 | 1 | " " | " | 9 | " | " 10.3 |
| 0300 | 18° 45' N | 164° 19' W | " " | " | " | " | " | 86 | 2 | 1 | " " | " | 9 | " | " 10.3 |
| 0400 | 18° 42' N | 164° 34' W | " " | " | " | " | " | 85 | 2 | 1 | " " | " | 9 | " | " 10.3 |
| 0500 | 18-39N | 164-43W | " " | 20 | 1016 | 81 | 77 | 84 | 2 | 1 | 075/3 | 80 | 08 | 085 | 245 10.3 |
| 0600 | 18-35N | 164-52W | " " | 20 | 1016 | 82 ✓ | 77 | 84 ✓ | 2 | 0 | 074/3 ✓ | 80 ✓ | 08 ✓ | 085 ✓ | 245 10.3 |
| 0700 | 18-30N | 165-03W | " " | 20 | 1016 | 83 | 79 | 88 | 3 | 0 | 080/3 | 80 | 08 | 085 | 245 10.3 |
| 0800 | 18-26N | 165-13W | " " | 20 | 1016 | 84 | 79 79 | 84 | 3 | 0 | 080/3 | 81 | 10 | 085 | 245 10.3 |
| 0900 | 18-24N | 165-23W | Pl. Cl | 20 | 1017 | 84 | 77 | 80 | 3 | 1 | 080/4 | 81 | 13 | 070 | 245 10.3 |
| 1000 | 18-16N | 165-34W | " " | 20 | 1017 | 86 | 75 | 70 | 3 | 1 | 080/4 | 81 | 13 | 070 | 245 10.3 |
| 1100 | 18-12N | 165-48W | " " | 20 | 1016 | 85 | 76 | 73 | 3 | 0 | 080/4 | 81 | 13 | 070 | 245 10.3 |
| 1200 | 18-08N | 165-52W | " " | " | 1016 | 85 | 76 | 73 | 3 | 0 | 080/4 | 81 | 13 | 080 | 245 10.3 |
| 1300 | 18° 06' N | 165° 51' W | " " | " | 1016 | 86 | 78 | 73 | 3 | 0 | 080/4 | 81 | 13 | 080 | 245 10.3 |
| 1400 | 18° 04' N | 166° 09' W | " " | " | 1016 | 88 | 82 | 77 | 3 | 0 | 080/4 | 81 | 13 | 080 | 245 10.4 |
| 1500 | 18° N | 166° 20' W | " " | " | 1016 | 88 | 85 | 77 | 3 | 0 | 080/4 | 81 | 13 | 080 | 245 10.4 |
| 1600 | 17-53N | 166-29W | " " | 20 | 1014 | 88 | 85 | 92 | 3 | 0 | 080/4 | 82 | 13 | 080 | 245 10.3 |
| 1700 | 17-49N | 166-39W | " " | 20 | 1014 | 84 | 80 | 84 | 3 | 0 | 080/4 | 82 | 12 | 080 | 245 10.3 |
| 1800 | 17-45N | 166-49W | " " | 20 | 1014 | 82 | 74 | 76 | 3 | 0 | 080/4 | 82 | 10 | 080 | 245 10.3 |
| 1900 | 17-44N | 166-58W | Few Cls | 20 | 1015 | 80 | 74 | 83 ✓ | 1 | 0 | 080/4 | 82 | 16 | 090 | 245 10.3 |
| 2000 | 17-40N | 167-09W | " " | " | 1015 | 80 | 74 | 83 | 1 | 0 | 080/4 | 82 | 16 | 090 | 245 10.3 |
| 2100 | 17-35N | 167-18W | " " | 20 | 1015 | 80 | 74 | 83 | 2 | 0 | 080/4 | 82 | 16 | 090 | 245 10.3 |
| 2200 | 17-32N | 167-29W | " " | 20 | 1015 | 80 | 74 | 83 | 1 | 0 | 080/4 | 82 | 15 | 090 | 245 10.3 |
| 2300 | 17-28N | 167-40W | " " | 20 | 1016 | 80 | 74 | 83 | 1 | 0 | 080/4 | 82 | 15 | 090 | 245 10.3 |
| 2400 | 17-24N | 167-50W | " " | 20 | 1016 | 80 | 74 | 83 | 2 | 0 | 080/4 | 82 | 15 | 090 | 245 10.3 |

REMARKS:

Xray

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 6 Aug 1964 Thursday

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-----------|------------|--------------|-----|------|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 17° 18' N | 168° 01' W | Few Clouds | 20 | 1016 | 80 | 77 | 82 | 2 | 060/4 | 060/4 | 81 | 20 | 090 | 245 10.3 |
| 0200 | 17° 14' N | 168° 10' W | " " | " | " | " | " | " | " | " | 060/4 | 81 | " | " | " " |
| 0300 | 17° 09' N | 168° 19' W | " " | " | 1014 | 80 | 78 | 77 | 1 | 1 | 060/4 | 81 | 20 | 090 | 245 10.3 |
| 0400 | 17° 05' N | 168° 29' W | " " | " | 1014 | 80 | 74 | 77 | 1 | 1 | 060/4 | 81 | 20 | 090 | 245 10.3 |
| 0500 | 17° 02' N | 168° 39' W | " " | " | 1013 | 82 | 74 | 76 | 2 | 1 | 060/4 | 80 | 18 | 090 | 245 10.3 |
| 0600 | 16-58 N | 168-58 W | " " | " | 1013 | 82 | 74 | 76 | 3 | 1 | 060/4 | 80 | 18 | 090 | 245 10.4 |
| 0700 | 16-54 N | 169-00 W | Partly Cloud | " | 1013 | 83 | 75 | 76 | | | 060/4 | 80 | 18 | 090 | 245 10.4 |
| 0800 | 16-50 N | 169-10 W | " " | " | 1013 | 84 | 76 | 76 | 7 | 6 | 060/4 | 80 | 18 | 090 | 245 10.4 |
| 0900 | 16-44 N | 169-18 W | " " | 20 | 1015 | 84 | 76 | 76 | 3 | 1 | 060/4 | 80 | 18 | 090 | 245 10.4 |
| 1000 | 16-39 N | 169-28 W | " " | 20 | 1015 | 84 | 76 | 76 | 3 | 0 | 060/4 | 80 | 18 | 090 | 245 10.4 |
| 1100 | 16-31 N | 169-27 W | " " | 20 | 1014 | 82 | 74 | 76 | 2 | 0 | 090/5 | 80 | 18 | 100 | 163 10 km |
| 1200 | 16-21 N | 169-24 W | " " | 20 | 1014 | 82 | 74 | 76 | 2 | 0 | 100/5 | 80 | 18 | 100 | 160 10 km |
| 1300 | 16-16 N | 169 20 W | " " | 20 | 1014 | 82 | 75 | 80 | 4 | 1 | 100/5 | 82 | 18 | 100 | 160 10 km |
| 1400 | 16-07 N | 169 16 W | " " | 20 | 1013 | 82 | 75 | 80 | 3 | 0 | 100/5 | 82 | 18 | 100 | 160 10 km |
| 1500 | 15-56 N | 169 12 W | " " | 20 | 1011 | 82 | 75 | 80 | 2 | 0 | 100/5 | 82 | 15 | 100 | 160 10 km |
| 1600 | 15-45 N | 169 11 W | " " | 20 | 1011 | 82 | 75 | 80 | 3 | 0 | 100/5 | 82 | 18 | 100 | 160 10 km |
| 1700 | 15-41 N | 169-10 W | " " | 20 | 1011 | 82 | 78 | 88 | 4 | 0 | 100/5 | 81 | 18 | 100 | 160 10.9 km |
| 1800 | 15-31 N | 169-08 W | " " | 20 | 1011 | 82 | 78 | 88 | 4 | 0 | 100/5 | 80 | 18 | 100 | 160 10.9 km |
| 1900 | 15-22 N | 169-06 W | " " | 20 | 1012 | 82 | 78 | 88 | 4 | 0 | 100/5 | 80 | 18 | 100 | 160 10.9 km |
| 2000 | 15-13 N | 169-04 W | " " | 20 | 1014 | 81 | 78 | 87 | 4 | 0 | 100/5 | 80 | 18 | 100 | 160 10.9 km |
| 2100 | 15-05 N | 169-03 W | " " | 20 | 1014 | 81 | 78 | 88 | 9 | 9 | 100/5 | 81 | 18 | 090 | 150 9 km |
| 2200 | 14-56 N | 168-59 W | " " | 20 | 1015 | 81 | 78 | 88 | 4 | 3 | 100/5 | 81 | 18 | 090 | 150 9 km |
| 2300 | 14-47 N | 168-55 W | " " | 20 | 1015 | 81 | 78 | 88 | 1 | 0 | 100/5 | 81 | 18 | 090 | 150 9 km |
| 2400 | 14-39 N | 168-52 W | " " | | | | | | | | | | | | |

REMARKS:

Xray

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 10 Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|----------------------|------|------|-------|--------|--------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 13-54N | 171-44W | Rain | 5 | 1012 | 82 | 79 | 92 | 8 | 9 | 090/8 | 82 | 15 | 070 | 228 10.0 |
| 0200 | 13-44N | 171-57W | " | 5 | 1012 | 82 | 79 | 92 | 8 | 9 | 090/8 | 82 | 15 | 070 | 228 10 |
| 0300 | 13-37N | 172-05W | " | 5 | 1012 | 82 | 79 | 92 | 8 | 9 | 070/5 | 82 | 15 | 070 | 228 10 |
| 0400 | 13-30N | 172-13W | Partly Cl | 20 | 1014 | 82 | 79 | 92 | 6 | 0 | 070/3 | 82 | 15 | 070 | 228 10 |
| 0500 | 13-25N | 172-21W | Partly Cloudy | 20 | 1012 | 82 | 78 | 90 | 8 | 0 | 090/7 | 82 | 12 | 070 | 228 10+ |
| 0600 | 13-21N | 172-30W | " " | 20 | 1010 | 80 | 77 | 91 | 6 | 3 | 090/7 | 82 | 8 | 080 | 228 10+ |
| 0700 | 13-18N | 172-33W | " " | 20 | 1010 | | 78 | 90 | 6 | 4 | 090/7 | 82 | 5 | 090 | 315 10+ |
| 0800 | 13-26N | 172-41W | " " | 20 | 1011 | 82 | 79 | 92 | 6 | 4 | 090/7 | 82 | 10 | 100 | 315 10+ |
| 0900 | 13-33N | 172-48W | " " | 20 | 1012 | 82 | 79 | 84 | 8 | 4 | 090/7 | 82 | 7 | 100 | 315 10.8 |
| 1000 | 13-41N | 172-56W | " " | 20 | 1012 | 86 | 81 | 84 | 5 | 2 | 090/7 | 82 | 10 | 100 | 315 10.5 |
| 1100 | 13-48N | 173-03W | " " | 20 | 1012 | 86 | 81 | 84 | 5 | 2 | 090/7 | 82 | 10 | 100 | 315 10.0 |
| 1200 | 13-55N | 173-04W | " " | 20 | 1012 | 84 | 79 | 84 | 7 | 3 | 090/7 | 82 | 10 | 100 | 245 10 |
| 1300 | 14-02N | 172-56W | " " | 20 | 1012 | 84 | 79 | 84 | 7 | 3 | 090/8 | 82 | 10 | 100 | 045 10 |
| 1400 | 14-09N | 172-50W | " " | 20 | 1012 | 84 | 79 | 84 | 7 | 3 | 090/5 | 82 | 10 | 100 | 045 10 |
| 1500 | 14-15N | 172-44W | " " | 20 | 1012 | 84 | 79 | 84 | 7 | 2 | 090/3 | 82 | 10 | 100 | 045 10 |
| 1600 | 14-22N | 172-35W | " " | 20 | 1012 | 84 | 79 | 84 | 7 | 2 | 090/3 | 82 | 10 | 100 | 045 10 |
| 1700 | 14-26N | 172-30W | MOSTLY Cloudy | 5-10 | 1011 | 82 | 79 | 84 | 7 | 2 | 070/5 | " | 10 | 100 | 045 9.1 |
| 1800 | 14-32N | 172-23W | INTERMITTENT SQUALLS | 5-10 | 1011 | 80 | 77 | 91 | 7 | 3 | 070/5 | " | 10 | 110 | 045 9.1 |
| 1900 | 14-39N | 172-17W | " | 5 | 1011 | 80 | 79 | 91 | 7 | 4 | 070/5 | " | 10 | 110 | 045 9.1 |
| 2000 | 14-46N | 172-10W | " | 5 | 1011 | 80 | 79 | 96 | 7 | 4 | 070/5 | " | 10 | 110 | 045 9.1 |
| 2100 | 14-52N | 172-03W | Overcast w/ Squalls | 5 | 1012 | 80 | 77 | 91 | 8 | 6 | 070/5 | " | 7 | 110 | 045 9 |
| 2200 | 14-59N | 171-56W | " | 5 | 1012 | 80 | 77 | 91 | 9 | 8 | 070/5 | 82 | 7 | 110 | 045 9 |
| 2300 | 15-06N | 171-50W | " | 5 | 1012 | 80 | 77 | 91 | 9 | 8 | 070/5 | 82 | 3-5 | 225 | 245 9 |
| 2400 | 15-12N | 171-48W | " | 10 | 1012 | 80 | 77 | 91 | 9 | 7 | 070/5 | 82 | 8 | 170 | 245 9 |

REMARKS:
0530 HEAVY RAIN SQUALL

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE Tuesday 11, Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|----------|---------------|-----|------|-------|--------|--------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 15-18 N | 171-34 W | Rain | 5 | 1012 | 80 | 78 | 91 | 9 | 6 | 110/3 | 81 | 20 | 225 | 045 10.0 |
| 0200 | 15-26 N | 171-28 W | Rain | 1 | 1011 | 80 | 78 | 91 | 9 | 8 | 110/5 | 81 | 20 | 045 | 045 10.0 |
| 0300 | 15-34 N | 171-20 W | Rain | 3 | 1011 | 80 | 78 | 91 | 9 | 8 | 110/5 | 81 | 20 | 045 | 045 10.0 |
| 0400 | 15-42 N | 171-12 W | Rain | 5 | 1011 | 80 | 78 | 91 | 9 | 5 | 100/3 | 81 | 20 | 045 | 045 10.0 |
| 0500 | 15-49 N | 171-04 W | LT " | 5 | 1012 | 78 | 78 | 91 | 10 | 0 | 100/3 | 80 | 18 | 045 | 045 10 |
| 0600 | 15-56 N | 170-58 W | LT " | 5 | 1013 | 77 | 77 | 96 | 10 | 0 | 100/3 | 80 | 14 | 125 | 045 10 |
| 0700 | 15-59 N | 170-54 W | O'cast | 5 | 1013 | 76 | 75 | 95 | 10 | 0 | 100/3 | 80 | 16 | 120 | 045 10 |
| 0800 | 16-06 N | 170-47 W | " Drizzle | 5 | 1014 | 76 | 75 | 95 | 10 | 0 | 100/3 | 80 | 18 | 115 | 045 10 |
| 0900 | 16-13 N | 170-42 W | O'cast | 15 | 1014 | 78 | 75 | 91 | 10 | 5 | 100/5 | 80 | 18 | 110 | 045 10 |
| 1000 | 16-20 N | 170-44 W | " | 20 | 1014 | 78 | 75 | 91 | 10 | 5 | 100/5 | 80 | 18 | 120 | 045 10 |
| 1100 | 16-24 N | 170-52 W | " | 20 | 1013 | 78 | 75 | 91 | 10 | 5 | 100/5 | 80 | 18 | 110 | 313 10 |
| 1200 | 16-26 N | 170-58 W | " | 20 | 1013 | 80 | 77 | 91 | 10 | 5 | 100/5 | 80 | 18 | 110 | 313 10 |
| 1300 | 16-35 N | 171-04 W | " | 15 | 1013 | 80 | 78 | 91 | 10 | 6 | 115/3 | 81 | 18 | 115 | 325 10.0 |
| 1400 | 16-45 N | 171-09 W | " | 15 | 1013 | 80 | 78 | 91 | 8 | 6 | 115/3 | 81 | 18 | 115 | 325 10.0 |
| 1500 | 16-42 N | 171-15 W | " | 15 | 1013 | 80 | 78 | 91 | 8 | 6 | 115/3 | 81 | 15 | 115 | 325 10.0 |
| 1600 | 16-37 N | 171-26 W | " | 20 | 1013 | 82 | 86 | 92 | 8 | 6 | 115/1 | 81 | 19 | 150 | 225 10.0 |
| 1700 | 16-30 N | 171-33 W | Part Cloudy | 20 | 1013 | 82 | 79 | 92 | 7 | 5 | 120/5 | 81 | 15 | 130 | 225 10 |
| 1800 | 16-23 N | 171-40 W | " " | 20 | 1013 | 82 | 79 | 92 | 7 | 5 | 120/5 | 81 | 12 | 140 | 225 10 |
| 1900 | 16-17 N | 171-51 W | " " | 20 | 1013 | 82 | 79 | 92 | 6 | 5 | 120/5 | 81 | 14 | 110 | 225 10 |
| 2000 | 16-10 N | 171-59 W | " " | 20 | 1014 | 81 | 79 | 92 | 5 | 5 | 120/5 | 80 | 17 | 120 | 225 10 |
| 2100 | 16-03 N | 172-02 W | " " | 20 | 1015 | 81 | 76 | 87 | 7 | 5 | 120/5 | 80 | 15 | 110 | 225 10 |
| 2200 | 15-55 N | 172-15 W | O'cast | 20 | 1015 | 81 | 76 | 87 | 9 | 7 | 120/5 | 80 | 12 | 120 | 222 10 |
| 2300 | 15-42 N | 172-22 W | " | 20 | 1015 | 81 | 76 | 87 | 8 | 5 | 120/5 | 80 | 12 | 120 | 222 10 |
| 2400 | 15-39 N | 172-39 W | Partly Cloudy | 20 | 1015 | 81 | 76 | 87 | 6 | 3 | 120/5 | 80 | 12 | 120 | 222 10 |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955

12-5-63

DATE Wed 12, Aug 1964

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|------------|-----|------|-------|--------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 15-31N | 172-36W | Partly Cl | 20 | 1015 | 81 | 76 | 87 | 6 | 3 | 120/5 | 80 | 12 | 100 | 222 10.0 |
| 0200 | 15-24N | 172-43W | " " | 20 | 1014 | 82 | 80 | 91 | 6 | 3 | 120/4 | 81 | 18 | 120 | 225 10.0 |
| 0300 | 15-16N | 172-50W | " " | 20 | 1014 | 82 | 80 | 91 | 6 | 3 | 120/4 | 81 | 18 | 120 | 225 10.0 |
| 0400 | 15-09N | 172-58W | " " | 20 | 1014 | 82 | 80 | 91 | 6 | 3 | 120/4 | 81 | 18 | 100 | 225 10.3 |
| 0500 | 15-03N | 173-05W | " " | 20 | 1014 | 82 | 77 | 91 | 4 | 2 | 120/4 | 81 | 16 | 100 | 225 10.3 |
| 0600 | 14-56N | 173-13W | " " | 20 | 1014 | 81 | 76 | 87 | 4 | 1 | 120/5 | 81 | 16 | 095 | 225 10.3 |
| 0700 | 14-54N | 173-15W | " " | 20 | 1014 | 84 | 74 | 83 | 5 | 1 | 120/5 | 81 | 16 | 090 | 225 10.3 |
| 0800 | 14-50N | 173-18W | " " | 20 | 1014 | 84 | 79 | 84 | 6 | 2 | 120/5 | 81 | 12 | 080 | 223 10 |
| 0900 | 14-42N | 173-24W | " " | 20 | 1015 | 84 | 79 | 84 | 4 | 1 | 120/5 | 81 | 12 | 080 | 223 10 |
| 1000 | 14-33N | 173-33W | " " | 20 | 1016 | 85 | 77 | 80 | 3 | 0 | 120/5 | 81 | 13 | 080 | 223 10 |
| 1100 | 14-26N | 173-42W | " " | 20 | 1016 | 83 | 78 | 88 | 4 | 1 | 120/5 | 81 | 12 | 080 | 315 10 |
| 1200 | 14-35N | 173-50W | " " | 20 | 1015 | 82 | 78 | 88 | 3 | 0 | 120/5 | 81 | 13 | 080 | 315 10 |
| 1300 | 14-43N | 173-58W | " " | 20 | 1015 | 82 | 78 | 88 | 3 | 0 | 120/5 | 81 | 13 | 080 | 315 10 |
| 1400 | 14-51N | 174-05W | " " | 20 | 1015 | 82 | 78 | 88 | 3 | 0 | 120/5 | 81 | 15 | 090 | 315 10 |
| 1500 | 14-59N | 174-14W | " " | 20 | 1015 | 82 | 78 | 88 | 3 | 0 | 120/5 | 81 | 15 | 090 | 315 10 |
| 1600 | 15-07N | 174-17W | " " | 20 | 1015 | 82 | 78 | 88 | 3 | 0 | 120/5 | 81 | 20 | 090 | 045 10 |
| 1700 | 15-15N | 174-06 | " " | 20 | 1015 | 82 | 78 | 88 | 4 | 0 | 100/5 | 81 | 16 | 090 | 045 10 |
| 1800 | 15-21N | 173-58W | " " | 20 | 1015 | 82 | 78 | 88 | 6 | 0 | 090/5 | 81 | 12 | 085 | 045 10 |
| 1900 | 15-29N | 173-56W | " " | 20 | 1014 | 82 | 72 | 83 | 3 | 0 | 090/5 | 81 | 14 | 085 | 045 10 |
| 2000 | 15-34N | 173-56W | " " | 20 | 1014 | 82 | 72 | 83 | 3 | 0 | 090/5 | 81 | 14 | 080 | 045 9 |
| 2100 | 15-41N | 173-44W | " w/ rain | 20 | 1015 | 82 | 78 | 88 | 3 | 1 | 090/5 | 81 | 13 | 080 | 048 9 |
| 2200 | 15-47N | 173-35W | Few Cls | 20 | 1016 | 82 | 77 | 84 | 1 | 0 | 090/5 | 81 | 13 | 080 | 048 9 |
| 2300 | 15-52N | 173-29W | Partly Cls | 20 | 1016 | 82 | 77 | 84 | 4 | 2 | 090/5 | 81 | 15 | 090 | 048 9 |
| 2400 | 15-58N | 173-24W | " " | 20 | 1015 | 82 | 77 | 84 | 5 | 2 | 090/5 | 81 | 15 | 090 | 048 9 |

REMARKS:

ALL TIMES LOCAL (X125); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955

12-5-63

DATE 7, Aug 1964 Friday

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-----------|-----------|------|-----------|-----|------|-------|------------------|---------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | 14°30' N | 169°50' W | 1014 | Partly Cl | 20 | 1015 | 81 | 78 | 88 | 1 | 0 | 100/5 | 81 | 15 | 090 | 130 9kts |
| 0200 | 14°20' N | 169°05' W | " | " | " | " | 82 | 80 | 92 | 1 | 0 | 110/4 | 81 | 16 | 110 | 220 10kts |
| 0300 | 14°14' N | 169°07' W | " | " | " | " | 82 | 80 | 92 | 1 | 0 | 110/4 | 81 | 16 | 110 | 220 10kts |
| 0400 | 14°07' N | 169°16' W | " | " | 20 | 1013 | 82 | 80 | 92 | 1 | 0 | 110/4 | 81 | 16 | 110 | 220 10kts |
| 0500 | 14-04 N | 169-13 W | " | " | 20 | 1013 | 81 | 77 | 85 | 1 | 0 | 110/4 | 81 | 16 | 110 | 220 10kts |
| 0600 | 13-56 N | 169-20 W | " | " | 20 | 1012 | 81 | 77 | 83 | 2 | 0 | 110/4 | 81 | 16 | 110 | 220 10kts |
| 0700 | 13-52 N | 169-24 W | " | " | 20 | 1012 | 82 | 77 | 84 | 2 | 6 | 110/4 | 80 | 17 | 090 | Head HOVE TO |
| 0800 | 13-47 N | 169-28 W | " | " | 20 | 1013 | 84 | 80 | 88 | 3 | 6 | 110/4 | 80 | 18 | 080 | 222 10 |
| 0900 | 13-39 N | 169-38 W | " | " | 20 | 1013 | 84 | 76 | 76 | 2 | 4 | 100/5 | 80 | 18 | 090 | 222 10 |
| 1000 | 13-30 N | 169-46 W | " | " | 20 | 1013 | 84 | 76 | 76 | 8 | 5 | 100/5 | 80 | 18 | 090 | 222 10 |
| 1100 | 13-24 N | 169-54 W | " | " | 20 | 1012 | 84 | 76 | 76 | 3 | 0 | 100/5 | 80 | 18 | 090 | 222 10 |
| 1200 | 13-16 N | 170-02 W | " | " | 20 | 1012 | 84 | 76 | 76 | 3 | 0 | 100/5 | 80 | 18 | 090 | 222 10 |
| 1300 | 130-17 N | 170-03 W | " | " | 20 | 1012 | 84 | 76 | 76 | 3 | 0 | 100/5 | 81 | 18 | 090 | 222 10 |
| 1400 | 13° 02' N | 170-16 W | " | " | 20 | 1011 | 92 | 88 | 85 | 2 | 0 | 100/5 | 81 | 18 | 090 | 222 10 |
| 1500 | 12° 53' N | 170-35 W | " | " | 20 | 1011 | 92 | 88 | 85 | 2 | 0 | 100/5 | 81 | 18 | 090 | 222 10 |
| 1600 | 12° 47' N | 170-31 W | " | " | 20 | 1011 | 92 | 88 | 85 | 2 | 0 | 100/5 | 81 | 18 | 090 | 222 10 |
| 1700 | 12-40 N | 170-39 W | " | " | 20 | 1011 | 84 | 77 | 80 | 6 | 0 | 090/5 | 81 | 18 | 080 | 222 10 |
| 1800 | 12-33 N | 170-46 W | " | " | 20 | 1010 | 83 | 74 | 84 | 8 | 0 | 090/5 | 81 | 18 | 070 | 222 10 |
| 1900 | 12-30 N | 170-52 W | " | " | 20 | 1011 | 81 | 76 76 | 83 | 7 | 0 | 090/5 | 82 | 18 | 070 | 222 10 |
| 2000 | 12-24 N | 171-00 W | " | " | 20 | 1011 | 78 | 77 77 | 96 | 6 | 0 | 090/5 | 82 | 18 | 070 | 222 10 |
| 2100 | 12-14 N | 171-07 W | " | " | 20 | 1012 | 80 | 77 | 91 | 2 | 1 | 090/5 | 81 | 16 | 070 | 222 10 |
| 2200 | 12-08 N | 171-17 W | " | " | 20 | 1012 | 80 | 77 | 91 | 4 | 2 | 070/5 | 81 | 18 | 070 | 312 10 |
| 2300 | 12-15 N | 171-25 W | " | " | 20 | 1012 | 82 | 79 | 92 | 1 | 0 | 070/5 | 82 | 18 | 070 | 312 10 |
| 2400 | 12-22 N | 171-34 W | " | " | 20 | 1012 | 82 | 79 | 92 | 1 | 0 | 070/5 | 82 | 18 | 070 | 312 10 |

Rain squalls on radar

REMARKS:

X-ray

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 8 Aug - 1964 SST

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|----------|------|-------------|------|------|-------|--------|---------|--------|---------|--------|----------|--------|--------|------------------|
| 0100 | 12-27 N | 171-43 W | | Ptly Cldy | 12in | 1012 | 82 | 80 | 92 | 1 | 0 | 070/5 | 81 | 20 | 070 | 312 10 |
| 0200 | 12-36 N | 171-51 W | | " " Squalls | | 1012 | 82 | 80 | 92 | 1 | 0 | 070/3 | 81 | 25 | 070 | 312 10 |
| 0300 | 12-42 N | 171-59 W | | " " " | | 1012 | 82 | 80 | 92 | 1 | 0 | 070/8 | 81 | 30 | 070 | 045 8.5 |
| 0400 | 12-46 N | 171-48 W | | " " " | | 1012 | 82 | 80 | 92 | 1 | 0 | 070/8 | 81 | 20 | 070 | 045 8.5 |
| 0500 | 12-53 N | 171-43 W | | " " " | 20 | 1011 | 82 | 80 | 92 | 4 | 0 | 080/8 | 81 | 18 | 070 | 045 8.5 |
| 0600 | 12-59 N | 171-40 W | | " " " | 20 | 1011 | 82 | 80 | 92 | 7 | 3 | 080/8 | 81 | 15 | 080 | 045 8.5 |
| 0700 | 13-01 N | 171-38 W | | " " " | 15 | 1011 | 82 | 80 | 92 | 6 | 3 | 080/8 | 81 | 16 | 080 | 050 8.5 |
| 0800 | 13-07 N | 171-32 W | | " " " | 15 | 1011 | 82 | 80 | 92 | 6 | 3 | 080/8 | 81 | 16 | 080 | 050 8.5 |
| 0900 | 13-13 N | 171-28 W | | " " 4/12in | 15 | 1012 | 80 | 77 | 91 | 9 | 8 | 080/12 | 81 | 20 | 080 | 050 8.5 |
| 1000 | 13-20 N | 171-22 W | | " " " | 15 | 1012 | 80 | 77 | 91 | 9 | 9 | 080/12 | 81 | 20 | 080 | 050 8.5 |
| 1100 | 13-26 N | 171-16 W | | " " 4/12in | 10 | 1012 | 80 | 77 | 91 | 8 | 8 | 100/12 | 81 | 16 | 110 | 050 8.5 |
| 1200 | 13-34 N | 171-12 W | | " " " | 10 | 1012 | 80 | 77 | 91 | 8 | 8 | 100/12 | 81 | 15 | 090 | 050 8.5 |
| 1300 | 13-39 N | 171-06 W | | Ptly Cldy | 7 | 1012 | 80 | 77 | 91 | 8 | 7 | 100/12 | 81 | 15 | 090 | 050 8.5 |
| 1400 | 13-46 N | 171-00 W | | " " 4/12in | 2 | 1011 | 80 | 77 | 91 | 8 | 6 | 100/12 | 81 | 16 | 090 | 050 8.5 |
| 1500 | 13-53 N | 170-54 W | | " " " | 5 | 1011 | 80 | 77 | 91 | 8 | 6 | 100/12 | 81 | 18 | 090 | 050 8.5 |
| 1600 | 13-58 N | 170-48 W | | " " " | 10 | 1011 | 80 | 77 | 91 | 8 | 8 | 090/12 | 81 | 15 | 090 | 050 8.5 |
| 1700 | 14-03 N | 170-41 W | | " " " | 20 | 1011 | 81 | 77 | 92 | 7 | 7 | 090/12 | 81 | 15 | 080 | 050 8.5 |
| 1800 | 14-07 N | 170-33 W | | " " " | 20 | 1011 | 82 | 78 | 88 | 6 | 5 | 080/12 | 81 | 15 | 080 | 060 8.5 |
| 1900 | 14-12 N | 170-26 W | | " " " | 20 | 1010 | 82 | 78 | 88 | 5 | 3 | 080/10 | 81 | 15 | 080 | 060 8.5 |
| 2000 | 14-18 N | 170-19 W | | " " " | 20 | 1011 | 82 | 78 | 88 | 5 | 3 | 080/10 | 81 | 15 | 080 | 060 8.5 |
| 2100 | 14-23 N | 170-13 W | | " " " | 20 | 1012 | 81 | 76 | 87 | 4 | 3 | 080/10 | 81 | 15 | 080 | 045 8.5 |
| 2200 | 14-28 N | 170-06 W | | " " " | 20 | 1013 | 80 | 74 | 83 | 1 | 0 | 080/10 | 81 | 15 | 080 | 045 8.5 |
| 2300 | 14-34 N | 169-59 W | | Clear | 20 | 1013 | 81 | 76 | 87 | 0 | 0 | 080/10 | 81 | 16 | 080 | 045 8.5 |
| 2400 | 14-39 N | 169-53 W | | Clear | 20 | 1013 | 81 | 76 | 87 | 0 | 0 | 080/10 | 81 | 16 | 080 | 045 8.5 |

REMARKS:

ALL TIMES LOCAL (^{FRAY}WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 9, Aug 1964 Sunday

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SELP COURSE/SPD. |
|------|---------|----------|-----------|-----|------|-------|--------|---------|--------|---------|--------|----------|--------|--------|------------------|
| 0100 | 14-38 N | 169-49 W | Partly Cl | 20 | 1013 | 82 | 76 | 76 | 0 | 0 | 080/20 | 81 | 18 | 080 | 045 9.0 |
| 0200 | 14-42 N | 169-48 W | " " | 20 | 1013 | 81 | 75 | 84 | 0 | 0 | 080/12 | 81 | 20 | 080 | 045 9.0 |
| 0300 | 14-45 N | 169-38 W | " " | 20 | 1013 | 82 | 75 | 84 | 0 | 0 | 080/12 | 81 | 20 | 080 | 045 9.0 |
| 0400 | 14-49 N | 169-33 W | " " | 20 | 1013 | 82 | 75 | 84 | 0 | 0 | 080/12 | 81 | 20 | 080 | 316 9.0 |
| 0500 | 14-56 N | 169-38 W | " " | 20 | 1013 | 82 | 75 | 84 | 1 | 0 | 080/12 | 81 | 18 | 070 | 345 10.0 |
| 0600 | 15-03 N | 169-47 W | " " | 20 | 1013 | 81 | 74 | 83 | 3 | 0 | 080/12 | 81 | 18 | 070 | 345 10.0 |
| 0700 | 15-07 N | 169-51 W | " " | 20 | 1013 | 81 | 74 | 83 | 2 | 0 | 080/12 | 81 | 15 | 070 | 070 10 |
| 0800 | 15-11 N | 169-53 W | " " | 20 | 1013 | 81 | 74 | 83 | 2 | 0 | 080/12 | 81 | 15 | 070 | 345 10.0 |
| 0900 | 15-21 N | 169-56 W | " " | 20 | 1013 | 81 | 74 | 83 | 3 | 1 | 080/12 | 81 | 17 | 070 | 345 10.0 |
| 1000 | 15-30 N | 169-58 W | " " | 20 | 1013 | 81 | 74 | 83 | 2 | 0 | 080/10 | 81 | 17 | 070 | 345 10.0 |
| 1100 | 15-38 N | 170-05 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/10 | 81 | 17 | 070 | 222 10.0 |
| 1200 | 15-25 N | 170-11 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/10 | 81 | 17 | 070 | 222 10 |
| 1300 | 15-20 N | 170-20 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/10 | 81 | 17 | 070 | 222 9.4 |
| 1400 | 15-14 N | 170-29 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/8 | 81 | 17 | 070 | 222 10.0 |
| 1500 | 15-07 N | 170-32 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/8 | 81 | 17 | 070 | 222 10.0 |
| 1600 | 15-04 N | 170-39 W | " " | 20 | 1013 | 83 | 79 | 84 | 3 | 1 | 080/8 | 81 | 17 | 070 | 222 10.0 |
| 1700 | 14-55 N | 170-40 W | " " | 20 | 1012 | 82 | 78 | 84 | 5 | 0 | 080/8 | 81 | 16 | 080 | 222 10 |
| 1800 | 14-37 N | 170-50 W | " " | 20 | 1010 | 82 | 77 | 84 | 6 | 5 | 080/8 | 81 | 14 | 080 | 222 10 |
| 1900 | 14-32 N | 171-00 W | " " | 20 | 1011 | 82 | 77 | 84 | 3 | 3 | 080/8 | 81 | 12 | 080 | 222 10 |
| 2000 | 14-29 N | 171-10 W | " " | 20 | 1011 | 82 | 77 | 84 | 4 | 0 | 080/8 | 81 | 12 | 080 | 222 10 |
| 2100 | 14-16 N | 171-18 W | " " | 20 | 1012 | 82 | 79 | 92 | 2 | 0 | 080/8 | 81 | 12 | 070 | 228 10 |
| 2200 | 14-10 N | 171-25 W | " " | 20 | 1012 | 82 | 79 | 92 | 2 | 9 | 080/8 | 81 | 13 | 070 | 228 10 |
| 2300 | 14-03 N | 171-34 W | " (mist) | 10 | 1012 | 82 | 79 | 92 | 2 | 9 | 080/8 | 81 | 12 | 070 | 227 10 |
| 2400 | 13-56 N | 171-41 W | " " | 10 | 1012 | 82 | 79 | 92 | 2 | 8 | 080/8 | 81 | 12 | 065 | 228 10 |

REMARKS:

sq walls on radar.

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES; WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955
12-5-63

DATE 27, Aug Thursday

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUMID% | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-------------------|--------------------|----------------|---------------|-----------------|---------------|---------------|---------------|--------------|--------------|--------------------|---------------|---------------|----------------|--------------------|
| 0100 | 21-56N | 159-51W | Partly cl | 20 | 1017 | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 79 | 12 | 080 | 120 10.0 |
| 0200 | 21-54N | 159-45W | " " | " | 1017 | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 79 | 12 | 080 | 120 10.0 |
| 0300 | 21-49N | 159-39W | " " | " | " | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 79 | 12 | 080 | 112 10.0 |
| 0400 | 21-47N | 159-29W | " " | " | " | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 79 | 12 | 080 | 112 10.0 |
| 0500 | 21-42N | 159-19W | " " | 20 | 1017 | 78 | 69 | 75 | 1 | 0 | 070/5/4 | 79 | 12 | 080 | 112 9.6 |
| 0600 | 21-38N | 159-10W | " " | 20 | 1016 | 78 | 69 | 75 | 2 | 1 | 090/4/3 | 80 | 08 | 090 | 112 9.6 |
| 0700 | 21-34N | 159-01W | " " | 20 | 1016 | 79 | 68 | 71 | 2 | 1 | 090/4/3 | 80 | 08 | 090 | 112 9.6 |
| 0800 | 21-30N | 158-52W | " " | 20 | 1016 | 79 | 68 | 71 | 4 | 2 | 090/4/3 | 80 | 10 | 080 | 110 9.6 |
| 0900 | 21-24N | 158-43W | " " | 20 | 1017 | 79 | 70 | 72 | 1 | 0 | Calmer | 80 | 13 | 060 | 105 9.5 |
| 1000 | 21-21N | 158-33W | " " | 20 | 1017 | 79 | 70 | 72 | 1 | 0 | " | 80 | 10 | 060 | 105 9.5 |
| 1100 | 21-19N | 158-21W | " " | 20 | 1017 | 79 | 67 | 62 | 1 | 0 | Calmer | " | 10 | 060 | 105 9.5 |
| 1200 | 21-17N | 158-11W | " " | 10 | " | " | " | " | " | " | " | " | 10 | 060 | Var 9.5 |
| 1300 | | | | | | | | | | | | | | | |
| 1400 | | | | | | | | | | | | | | | |
| 1500 | | | 1200 | | 8/27/69 | Secured | | | | | | | | | |
| 1600 | | | | | | | | | | | | | | | |
| 1700 | | | | | | | | | | | | | | | |
| 1800 | | | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | |

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