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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Fisheries Center
Miami Laboratory
75 Virginia Beach Drive
Miami, FL 33149-1099

27 May 1986 F/SEC11:BAS

MEMORANDUM FOR: Files

FROM: F/SEC11 - Barbara A. Schroeder B.A. Schroeder

SUBJECT: Summary of Marquesas Keys Marine Turtle Field Work (12-16 May 1986)

A preliminary assessment of marine turtles of the Marquesas Keys was coordinated by the U.S. Fish and Wildlife Service and conducted from 13-15 May 1986. The field party consisted of: Earl Possardt (USFWS), Lew Ehrhart (UCF), Larry Ogren (NMFS), Barbara Schroeder (NMFS), Ken Dodd (USFWS) and Deborah Holle, Kip Watson and Tom Wilmers (all USFWS/Key Deer NWR).

The Marquesas Keys, under the jurisdiction of the U.S. Fish and Wildlife Service as part of Key West National Wildlife Refuge, are located approximately 19 miles due west of Key West, FL, on the western side of Boca Grande Channel. The Marquesas are made up of a ring of keys which form a central lagoonal area 2-3 miles wide. Netting and sighting activities were conducted around the perimeter of the keys and inside the lagoon. Field work was based out of Key West using boat launching ramps at the U.S. Navy Base Trumbo Annex and Garrison Bight Marina. Two boats (a 17' and 23' Mako) were provided by the refuge. Large mesh tangle nets (16" stretched on the diagonal) were used for three separate sets in waters of varying depths (2' - 10'). Nets were tended continuously.

The nine sightings and one turtle capture on 13 May were evidence that the Marquesas provide suitable habitat for green turtles (C. mydas). Grass beds are extensive around the Marquesas perimeter and especially within the lagoon. Unfavorable weather conditions, which resulted in poor sighting conditions, and strong currents which hampered the nets fishing properly probably contributed to the lack of sightings or captures on 14 and 15 May. I learned from a

fisherman at the marina on 15 May that he had seen 2-3 loggerheads (C. caretta) and 6-7 greens on 14 May inside the lagoon. I suspect this was during the early morning hours before the winds picked up. Additional netting and sighting work will be necessary to determine such things as extent of usage of this area, species and size composition, and seasonal usage patterns.

In addition to the netting and sighting work, the beaches were examined as potential nesting habitat. There appear to be two major sandy beach areas on the west and north sides of the Marquesas. Most of the beach is extremely narrow, the high tide line often at the vegetation edge. The contribution of the Marquesas beaches as nesting grounds are undoubtedly minimal. My field notes are summarized as follows:

13 May 1986

0912: depart Key West
1000: arrive Marquesas

* Set #1: 24·33.2'N 82·10.0'W (see chart), running west from and perpendicular to the shoreline

1012: begin deploying first net
1020: net set, 190 yards out
1134: begin deploying second net, continued running due west (added on to first net)
1147: 260 additional yards out (= 450 yards total)
1515: begin pulling net in
1607: net in, no turtle captures, two rays (Dasyatis sayi) and one permit (Trachinotus falcatus) caught and released, large manta ray in area hit net but did not entangle, water temperature 27.0·C, air temperature 30.5·C (1345 hrs)

(1030-1400): second boat running inside lagoon sighted 2 C. mydas in AM and 7 C. mydas in PM, all estimated to be in the 4.5 kg to 14 kg range, one turtle captured by diving off boat, processed and released (data attached), waters calm and clear in lagoon

1610: depart Marquesas
1705: arrive Key West

14 May 1986

0930: depart Key West
1051: arrive Marquesas

* Set #2: 24·34.2'N 82·07.6'W (see chart), running approximately NE/SW (inside lagoon)
1315: begin deploying net
1330: net set, 260 yards out
1540: begin pulling net in
1603: net in, no turtle captures, no other species captured, water temperature 28.5·C, (1600 hrs)

(1230 - 1500): second boat exploring lagoon area for turtle sightings, no sightings made, water choppy and difficult to see into because of windy conditions.

1645: depart Marquesas
1750: arrive Key West

15 May 1986

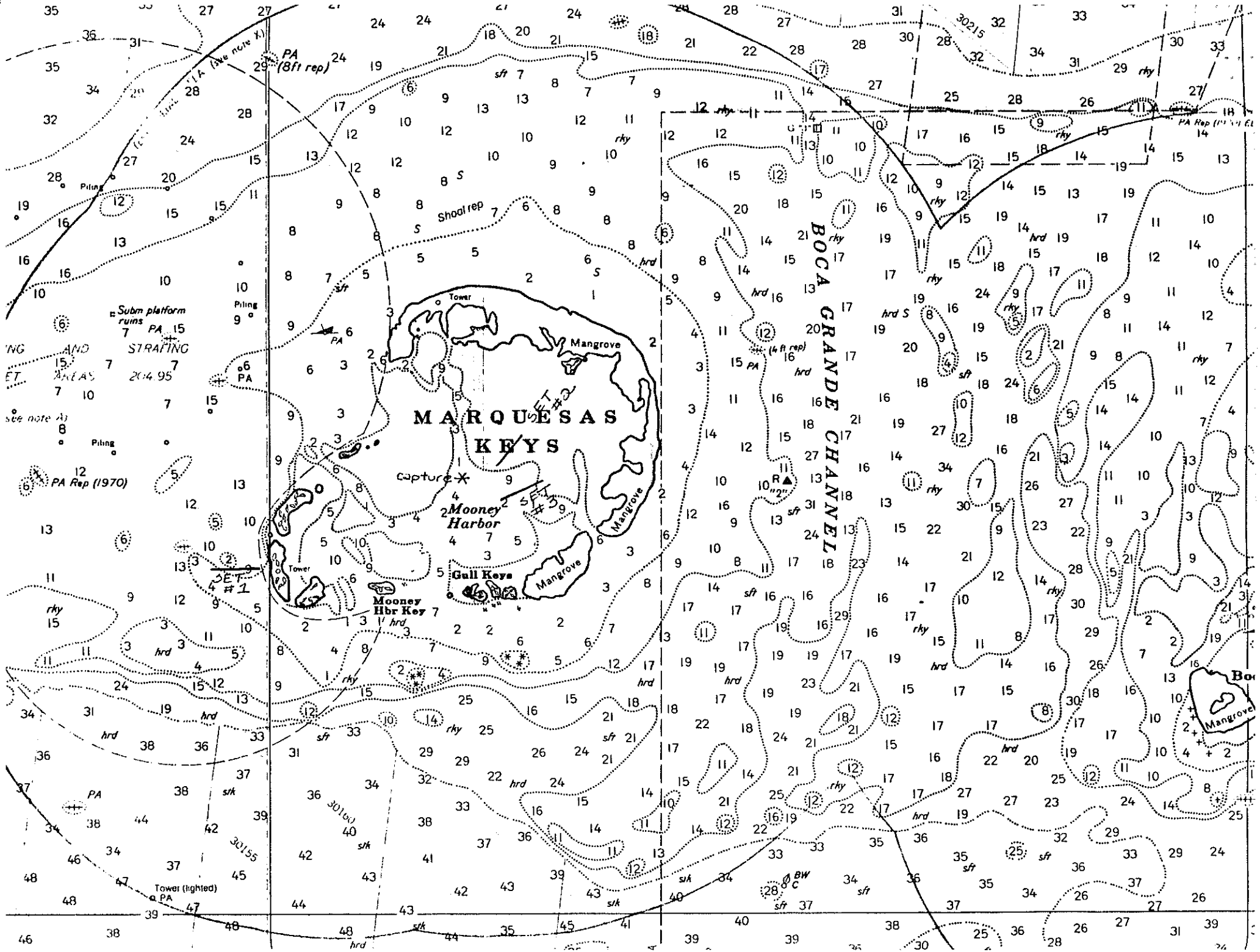
0800: depart Key West
0908: arrive Marquesas

* Set #3: 24·33.9'N 82·07.9'W (see chart), running approximately ENE/WSW (inside lagoon)

0913: begin deploying net
1000: net set, 260 yards out; strong current running east and pulling float line down, added extra floats to keep top line up
1500: begin pulling net in
1525: net in, no turtle captures, one ray (*Dasyatis sayi*) caught and released

(1100 - 1430): explored lagoon and Marquesas SE perimeter for turtle sightings, no sightings made, water very choppy again due to continued windy conditions.

1530: depart Marquesas
1639: arrive Key West


MARQUESAS KEYS
BOCA GRANDE CHANNEL
Mangrove
Mooney Harbor
Gull Keys
Mooney Hbr Key
Tower
Tower (lighted)
Shoal rep
Piling
Subm platform ruins
PA (8ft rep)
PA Rep (1970)
PA Rep
capture
SET #1
SET #2
SET #3
SET #4
(4 ft rep)
30215
30160
30155

NMFS/SEFC
COOPERATIVE MARINE TURTLE TAGGING PROGRAM
TAGGING DATA (HEADSTARTED, REHABILITATED, NETTED, OTHER RELEASE)

Tag Number(s) (list all tag #'s and letter prefix): NNW 724, NNW 725 (inconel tags)

Species: C. mydas

Date Released: 13 May 1986

Describe release location (include lat/long if available and include county):

Florida, Monroe County, Key West National Wildlife Refuge, Marquesas Keys, inside lagoon, 24° 34.0' N 82° 08.0' W

Describe source of eggs and year hatched (headstarts) or original stranding or capture location (include county) AND date (rehabs, netted, etc.)

caught 13 May 1986 same location described above

Describe type of gear in use when turtle was captured (if applicable)

caught by hand, dove off boat (Limpus' rodeo method)

Carapace length straight line	49.5 cm	in	Plastron: 39.6 cm
Carapace width straight line	40.6 cm	in	Head Width: 7.2 cm
Carapace length over curve	cm	in	Body Depth: 17.6 cm
Carapace width over curve	cm	in	Greatest Carapace Length: 49.7 cm
Weight	13.6 kg	lbs	

Additional remarks or data (use back if necessary) papillomas: left side of neck; (LR) trailing edge; left inframarginal seam and marginal area; (LF) at flipper insertion; (RF) at insertion and trailing edge; perianal area / all small, first → two described were the largest, overall condition of turtle looked very good, 11 unusually sharp marginals from rear flippers back

Organization Tagging (please include a phone number)

cooperative effort NMFS/UCF/USFWS