JOB PROGRESS REPORT
DEVELOPMENT PROJECT SEGMENT

STATE: Territory of Guam **PROJECT NO:** F-4-D
SEGMENT: 1

PROJECT TITLE: Marine Fish Habitat Improvement and Aggregating Devices (2323)

PERIOD COVERED: October 1, 1997 to September 30, 1998

SUMMARY

Fish aggregating device (FAD) development activity under Project F-4-D focuses primarily on identification and survey of potential new sites including the initial deployment of FAD systems. The project also involves enhancement projects such as the production of FAD location maps for fishers and the improvement of the current FAD system design to extend the average time on station. Table 1 provides a chronological listing of the major activities recorded under F-4-D-1 and a cost estimate for each activity excluding personnel costs and benefits. Maintenance procedures, modifications, recoveries, redeployments, and material procurement for FY98 were conducted under F-3-D-2: Maintenance and Redeployment of Fish Aggregating Devices and Shallow Water Moorings.

Table 1. DAWR FAD Program Development Activity - FY98

Activity	Date	Cost
Bottom contour surveys: Ledge & Old NOAA (FY97 P.O.)	09/26/97	($1,200.00)
Bottom contour surveys: Agat & Facpi 2 (FY97 P.O.)	10/09/98	($1,200.00)
Establish Old NOAA FAD	10/11/97	$11,000.00
Establish Ledge FAD	11/26/98	$11,500.00
Establish Agat FAD	07/14/98	$13,300.00
Establish Facpi 2 FAD	07/15/98	$13,950.00
	Total:	**$49,750.00***

***** Does not include personnel costs and benefits

The number of operational sites in the Guam DAWR FAD program increased from 12 to 16 in FY98 with the deployment of the "Old NOAA" FAD on November 11, 1997, the "Ledge" FAD on the 26th of the same month, the "Agat" FAD on July 14, 1998 and the "Facpi 2" FAD the following day. Figure 1 approximates the location of each of the operational FADs relative to the island.

The recommendation to use the Indian Ocean "raft" as an economical, low-resistance and easily maintained alternative buoy system was tabled again in FY98 and will remain so until DAWR can obtain an Coast Guard exemption from having to install navigation lights on this particular FAD buoy design. The basis for the exemption is that the string of purse seine floats forming the raft poses little threat should a vessel collide into such a system. As depicted in Figure 2, the Indian Ocean raft system uses a flag to mark the location of the FAD. Present Coast Guard regulations requiring the installation of a navigation light would necessitate further modification of the raft to include another buoy on the terminal end of

the buoy system to support a navigation light with 8 lantern batteries weighing nearly 20 pounds.

OBJECTIVE

To enhance access to Guam's heavily utilized nearshore pelagic fishing grounds through the continued development of a system of fish aggregating devices (FADs).

RECOMMENDATIONS

The F-4-D project to develop and enhance the Guam DAWR FAD program should be continued with the following recommendations for FY98:

1. Continue pursuit of program enhancement activities such as identification and permitting of potential new sites, and production of laminated FAD site maps and route planners for distribution to fishers.

2. Attach ribbons made of plastic strapping material to upper mooring chain of each FAD to further enhance bait and fish-holding characteristics of the FADs.

3. Obtain exemption from Coast Guard of navigation light requirement for Indian Ocean raft buoy and then begin experimental use of this design at several sites.

4. Develop a practical form of cut protection for the upper 1,000 feet of nylon line, or incorporate a more cut-resistant line in the mooring system to replace the type of nylon line presently being used, given that most breaks continue to occur between 101 feet (where the upper mooring chain ends) down to about 750 feet.

PROGRAM COST

The estimated cost for the FAD project is $49,750.

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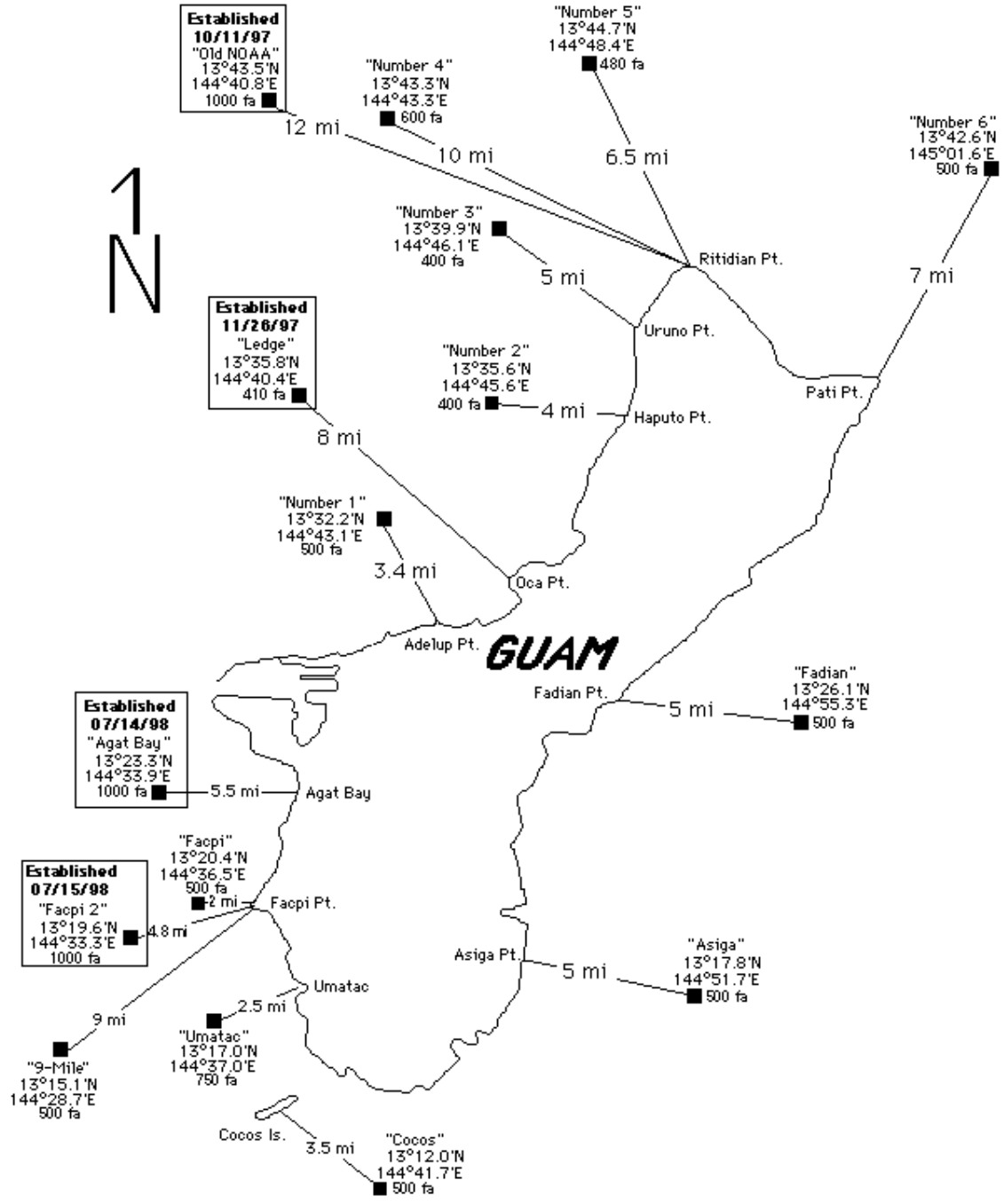

Figure 1. DAWR FAD Sites

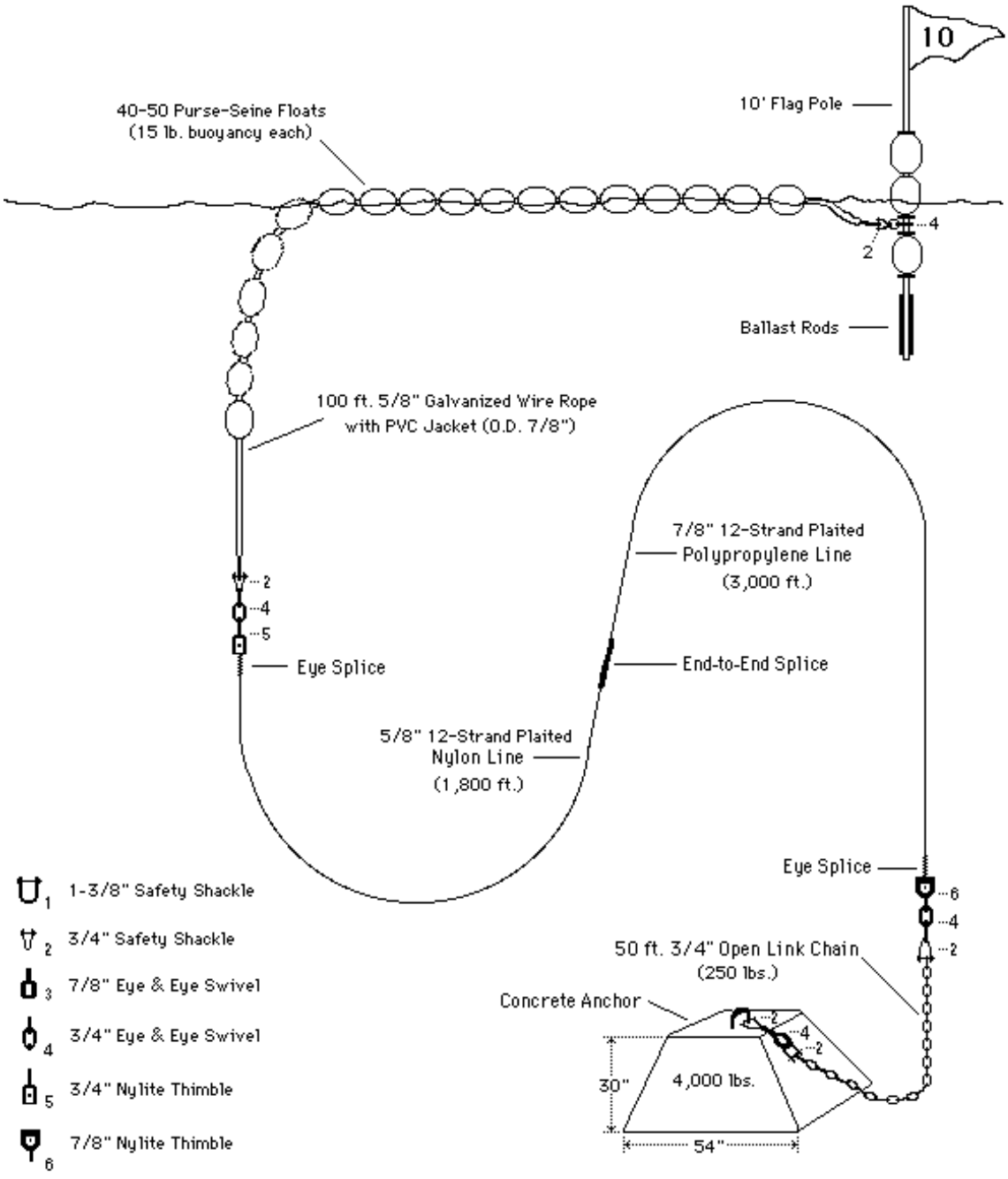

Figure 2. FAD with Indian Ocean Raft Buoy