

WESTERN SAMOA OFFSHORE BOTTOMFISHING PROJECT

F/V TAUTAI MATAPALAPALA TRIP REPORT

TRIP NO. 2. Dec. 6 - 9, 1988. Stations 9 - 17, Savaii I. Apolima-Manono Banks, PuaPua, Falealupo, Fagaloa and Gaitaivai.

Moon Phase: Last Quarter, waning crescent.

Crew: Savali Time, Sr. Counterpart
Ueli OBrien, Counterpart
Iosefa Leaoaniu, Sr. Fisherman
Siitia Amituanai, Fisherman
Totive Aloina, Data Collector
Stanley Weinberg, Capt.

Tautai Matapalapala cleared Apia Harbor at 1025 on Dec. 6th 1988, and headed NW toward Savaii. Weather was a N.W. breeze and a light chop. First station (station 9) was made on the North side of Apolima Straits in 140 - 200 fathoms. Wind and current were not right for this spot. Station 10 off Puapua, Savaii, was relatively sheltered but not productive so on the morning of Dec. 7th we headed for Falealupo, despite the relatively unfavorable N.W. weather. We dropped anchor in 180 fathoms off Falealupo at 1440 and fishing began. Shortly after, wind and current swung the boat into shallow (65 - 80 fm) water. We decided to wait (since we were picking up some fish) and see if the turn of the tide would bring the boat back over better depths. Fishing continued fair while the weather worsened, seas built to 8 - 10 feet during the afternoon and more in the evening. By morning the wind had slackened but the seas were rather larger. The lowering of the wind did allow the boat to swing back over deep water, but the morning bite brought only 6 fish so we picked up and moved along the Savaii South coast looking for more sheltered waters. Two stations were made off Fagaloa and three off Gaitaivai, but none were very productive. Fishing ended at 0710 on Friday and the boat returned to Apia, arriving at the fisheries dock at 1220.

The Tables and charts give the details of the Stations. Some problems were encountered in positioning the anchor so the boat would "hang" where desired. Fishing technique and gear still need some thought. Fishing results were better than on Trip 1, but most of the increase was in

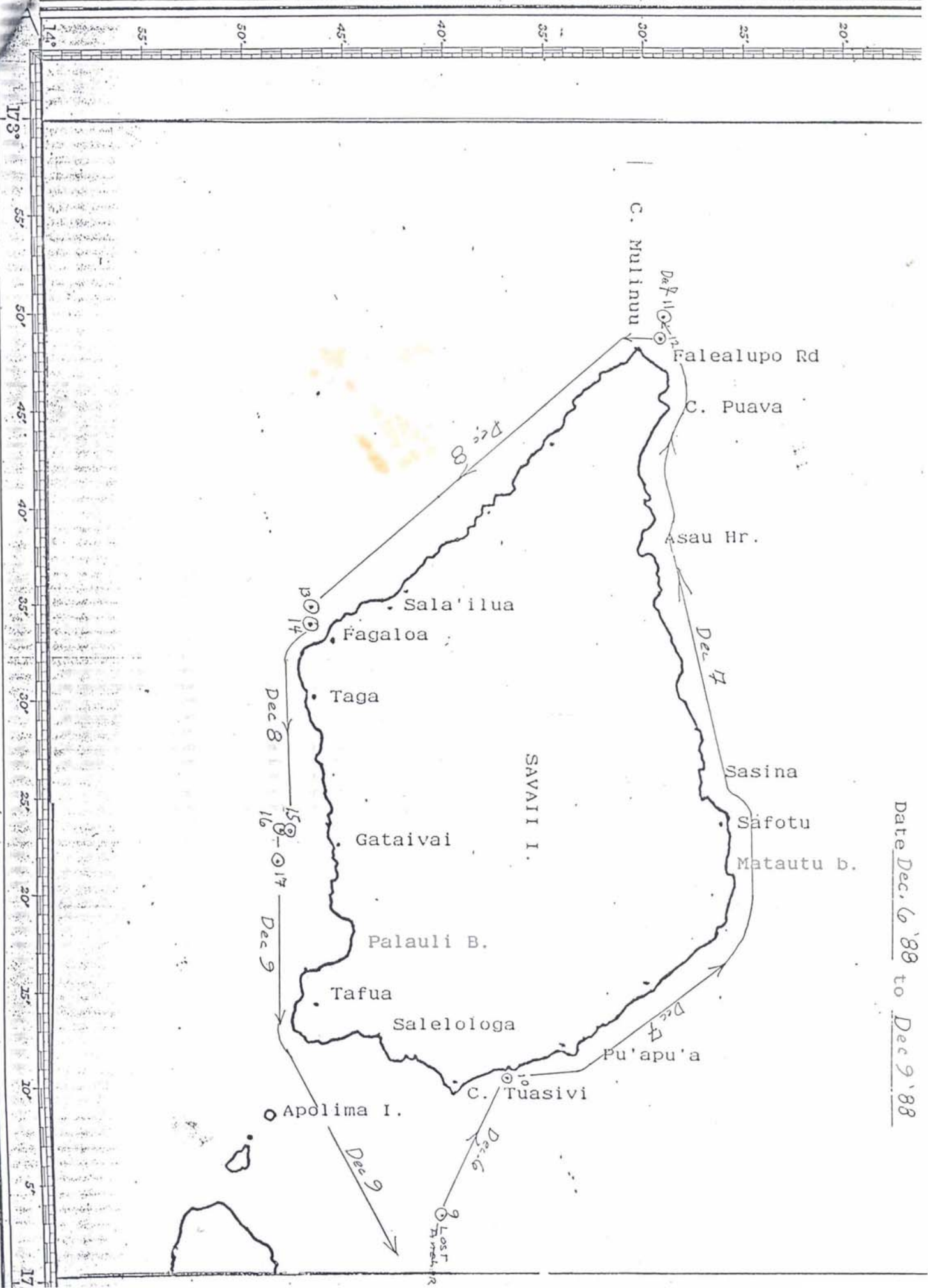
shallow water fish. Terminal gear this trip was made up in the same pattern as before, but made of 150# test monofilament. This is an improvement in that if hung up, the terminal gear will part before the main line. Short (4") wire leaders are still in use, which I think gives the fish too little freedom of movement while chewing the bait. Overly (to my eye) large baits are the norm, some fish would probably have to chew quite a while before getting near the hook. Use of chum bags was more general than before and often seemed to make the difference between fish and no fish. These were sometimes put at the top of the terminal gear and sometimes at the bottom by the sinker, hard to say what difference it makes in the effectiveness.

We tried a couple of drifts (stations 13 & 15) this trip and I would like to work more on this technique, especially when first approaching a new area.

We have been having some difficulty reconciling our Satnav positions with our distance offshore given by radar. Occasional discrepancies of 1 - 1½ miles have been observed, but ½ mile (as at Gaitaivai) is more common. Table 4. gives 20 satnav fixes obtained over Dec.22 - 23, 1988 while the vessel was moored to the Fisheries Dock at Apia. the extreme range of the 20 fixes was 1.9 nautical miles along an axis of about 029°T. The charted position of the dock is about 0.2 nm to the N of the most Northerly fix and about 0.65 N.E. of the mean and average of the fixes. See Chart No.2. Future fishing reports will include position by bearing and range wherever applicable. The shorelines are rather featureless in many areas, however, and the method would of course be useless on the offshore banks.

TABLE 1. TRIP 2. SUMMARY

Depart Apia	1015 hrs. Dec. 6, 1988
Return Apia	1220 hrs. Dec. 9, 1988
Total Trip Hours	74.1 hrs.
No. Stations Fished	9
No. Hours Fished	23.7
No. Line-hours Fished	93.0
No. Fish Caught	84
Kg. Fish Caught	220.15
Kg. Fish Caught	220.15 Kg. (484.3 lbs.)
No. Fish per Line-hr.	0.90
Av. Hrs. per Station	2.6
Blocks Ice Used	35 roughly crushed
Bait Used	12 Skipjack
Fuel Used	160 USGallons
Lube Oil Used	Nil
Engine Hours	35.3
Hours Traveled	24.3
Hours Slept	26.1



Date Dec. 6 '88 to Dec 9 '88

TABLE 2. TRIP 2 STATION DATA

STATION	9	10	10	11
DATE	Dec. 6	Dec. 6	Dec. 7	Dec. 7
S. LAT.	14°41'	13°37.7'	Same	13°29.3'
W. LON.	172°04.1'	172°11.6'	Same	172°50.1'
DEPTH start	113 fm	135 fm	750 fm	65 fm
DEPTH end	200 fm	150 fm	150 fm	103 fm
TIME start	1410	1725	0530	1445
TIME end	1538	2000	0130	2215
NO. FISH				
LINE 1	0	1	not used	13
LINE 2	1	1	0	13
LINE 3	0	0	0	17
LINE 4	1	0	0	18
TOTAL FISH	2	2	0	61
HOURS FISHED	1.47	2.58	1	7.5
LINE/HRS	5.88	10.33	3	3
FISH/LINE-HR	0.34	0.19	0	203
TYPE STATION	Anchored	Anchored	Anchored	Anchored
WEATHER	NW breeze Lt chop	NW breeze low sea Hvy Rain	NW 6-8kt Seas 8-10' Squally	NW 10-12 kt Seas 8-10' Mod. Rough

TABLE 2. (Cont.) TRIP 2. STATION DATA

STATION	12	13	14	15
DATE	Dec. 8	Dec. 8	Dec. 8	Dec. 8
S. LAT.	13°29.1	13°47'	13°47'	13°48.4'
W. LON.	172°49.1	172°35'	172°34'	172°23.4'
DEPTH start	52 fm	116 fm	74 fm	109 fm
DEPTH end	126 fm	120 fm	90 fm	155 fm
TIME start	0500	1040	1140	1430
TIME end	0700	1115	1245	1450
NO. FISH				
LINE 1	1	0	0	not used
LINE 2	1	1	1	not used
LINE 3	1	0	0	1
LINE 4	3	0	0	1
TOTAL FISH	6	1	1	2
HOURS FISHED	2	0.59	1.09	0.33
LINE-HRS	8	2.36	4.36	0.66
FISH/LINE-HR	0.75	0.42	0.23	3
TYPE STATION	Anchored	Drift	Anchored	Drift
WEATHER	Lt. NW	N/A	Fresh NW	N/A
	Seas 9-11'			
	0'cast			
	Lt. Rain			

TABLE 2. (Cont.) TRIP 2. STATION DATA

STATION	16	17
DATE	Dec. 8	Dec. 9
S. LAT.	13°48.5	13°48.6'
W. LON.	172° 23.4'	172°22'
DEPTH start	104 fm	103 fm
DEPTH end	130 fm	147 fm
TIME start	1454	0555
TIME end	2045	0710
NO. FISH		
LINE 1	2	0
LINE 2	2	1
LINE 3	0	0
LINE 4	4	0
TOTAL FISH	8	1
HOURS FISHED	5.85	1.25
LINE-HRS	23.4	5.0
FISH/LINE-HR	0.34	0.20
TYPE STATION	Anchored	Anchored
WEATHER	Nearly Calm	N/A

TABLE 3. DEPTH WHERE FISH CAUGHT. (Depth below vessel)

TYPE OF FISH	DEPTH, Fathom
<i>Aphareus rutilans</i>	75
<i>Caranx lugubris</i>	65
<i>Carangoides orthogrammus</i>	65
<i>Cephalopholis sonnerati</i>	69
<i>Epinephelis</i> sp.	65
<i>Etelis carbunculus</i>	108
<i>Etelis coruscans</i>	124
<i>Gymnocranius rivulatus</i>	80
<i>Lethrinus amboinensis</i>	70
<i>Lethrinus elongatus</i>	80
<i>Lutjanus argentimaculatus</i>	115
<i>Lutjanus bohar</i>	65
<i>Lutjanus sanguineus</i>	87
<i>Paracaesio kusakari</i>	77
<i>Pristipomoides amoenus</i>	140
<i>P. filamentosus</i>	80
<i>P. flavipinnis</i>	88
<i>P. typus</i>	78
<i>P. zonatus</i>	124
<i>Seriola dumerili</i>	82
<i>Sphyraena</i> sp.	52
<i>Taractichthys steindachneri</i>	125

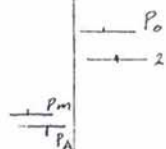
48

47

46

171
45'

44



Charted Position P_0 of Fisheries Dock at APIA
Pos 1+2 extremes of fixes 1-20

$d_{1-2} = 1.9$ miles

P_m mean of 20 fixes

P_A Average of 20 fixes

$P_{m-0} = 0.65$ mi

$P_{A-0} = 0.65$ mi

Charted Position of Fisheries Dock
Lies entirely outside the range of
Satnav fixes. P_0 is ~ 0.65 miles
NE of P_m and P_A . Extreme range
of fixes is 1.9 miles along an
axis of $029^\circ T$

CHART NO. 2. SATNAV FIXES COMPARED TO CHARTED POSITION OF FISHERIES
DOCK AT APIA, DEC. 22 - 23, 1988.