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H. B. Stewart, Jr.

Expedition Diary

Persian Gulf Expedition

August 23, 1948 – June 1949





US Department of Commerce

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Oceanic and Atmospheric Research Atlantic Oceanographic and Meteorological Laboratory Miami, FL H. B. Stewart, Jr.

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Linda Pikula, Editor

OAR/LISD

NOAA Miami Regional Library

Atlantic Oceanographic and Meteorological Laboratory

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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H. B. Stewart, Jr.

Expedition Diary

Persian Gulf Expedition

Linda Pikula and Ashley Jefferson (Editors)

ABSTRACT

Harris B. Stewart, who eventually became the first director of the NOAA Atlantic Oceanographic and Meteorological Laboratory in Miami, FL, joined the Navy Hydrographic Office as a P-1 Hydrographic Engineer in 1948 and was assigned duty aboard the USS Maury for a survey cruise of the Persian Gulf. He wrote down his experiences during that expedition, and the diary (among other diaries and memorabilia) was donated to NOAA by his family upon his passing in 2000. The Persian Gulf Expedition field diary contains descriptions of the day-to-day ship activities.

INTRODUCTION

Harris B. Stewart was the very first director of the NOAA Atlantic Oceanographic and Meteorological Laboratory in Miami, FL. He was a marine geologist by training and graduated from Princeton University. In 1948, he joined the Navy Hydrographic Office as a P-1 Hydrographic Engineer and was assigned to the USS Maury for a survey cruise of the Persian Gulf. He was assigned the job of survey control. "Stewart was involved with the establishment of visual hydrographic signals between the primary stations. These were large tripods covered with signal cloth of various colors for ease of identification by the hydrographic survey crews. When not involved with survey control he joined the hydrographic survey crews running lines offshore" (Hydro International, 2011).

DIARY AND TRANSCRIPTION

The Stewart family donated the papers of Dr. Stewart to NOAA's Atlantic Oceanographic and Meteorological Laboratory upon his passing on April 25, 2000. Among the Stewart materials were 13 field diaries written over several decades, most during the time of great ocean exploration. The diaries will be transcribed and published as a series.

ADDITIONAL EXPLANATORY INFORMATION

Signal, Surveying: "a marker or tower erected at triangulation stations and, sometimes, at traverse stations. Surveying signals are used in mounting geodetic instruments, such as transits, at a height that provides for line of sight to adjacent markers. The distance to the adjacent markers depends on the order of precision of triangulation and ranges from 5–10 km to 30–50 km. Sighting targets are mounted on the surveying signals. Surveying signals may be simple or complex. A simple signal consists of two pyramids that do not touch—an inner one and an outer one. The inner pyramid is usually trihedral and serves as a base or mounting for the geodetic instrument. The outer pyramid is tetrahedral and serves as the base upon which the observer stands and as a mounting for the sighting target. In complex signals the inner pyramid is fastened to the same posts as the observer's base. Simple signals are 6 to 15 m high and combined signals 16 to 55 m high. In forested regions surveying signals are built of wood; in unforested regions fixed or portable metal signals are used. Simple pyramids that carry only the sighting target are used in open areas. In this case, the geodetic instrument is mounted beneath the pyramid on a conventional tripod" (Signal, Surveying, 2010).

A Great Technology--Bilby Towers: "The great classical continent-spanning geodetic networks of the Nineteenth and Twentieth centuries had two major obstacles to overcome - distance and the curvature of the Earth. Distance was overcome by railroads, automobiles and helicopters. The curvature of the Earth, particularly in areas of low relief, required the building of artificial high points in order to make stations many miles apart visible to each other. In urban areas, pre-existing structures could sometimes be used. But in remote areas, the building of towers was required. The Great Trigonometric Survey of India built masonry towers as the survey had numerous labourers, but other survey organisations began developing less costly means to cope with the curvature of the Earth. In 1845, Edmund Blunt of the United States Coast and Geodetic Survey developed the concept of a tower within a tower while working in the flat marshy area of Delaware Bay. The two towers were built with no mechanical attachment between the outer tower used by the observing crew and the undisturbed inner tower that supported a theodolite. This method worked well for 80 years. A number of towers over 150 feet in height were constructed during this period with the tallest being a tower made of native timber in the Philippine Islands that was 239 feet high. By 1925, the cost of timber, labour and time to construct a wooden tower (up to 5 or 6 days) had become prohibitive. The one-time use of the wood associated with such towers was wasteful and there were areas where timber was difficult to procure. Jasper Bilby, a long-time builder and reconnaissance man for the Coast and Geodetic Survey, devised an ingenious solution.

On his travels throughout the United States, he observed many steel windmills built by Aermotor Windmill Company. In 1926, Bilby worked with Aermotor to design and build re-usable steel survey towers. These towers, like their wooden counterparts, were towers within towers. A large steel survey tower would have literally hundreds of interlocking parts; each one had to be placed exactly in the right place during both construction and tear-down operations. These towers were named 'Bilby Towers' in honour of Jasper Bilby. By the early 1930s, experienced survey building crews could erect a 103-foot Bilby tower in less than a day. However, for a hydrographer who had never seen, nor even heard of such towers, the experience could be daunting" (Albert E. Theberge Jr. contributing editor, Hydro International, 2011).

REFERENCES

"Bilby Towers – A Great Technology." Hydro International. December 2011. <u>http://www.hydro-international.com/content/article/bilby-towers</u>

"Signal, Surveying." The Free Dictionary. 2010. <u>http://encyclopedia2.thefreedictionary.com/Signal%2c+Surveying</u>

PHOTOGRAPHS



[USS Maury, 1948]



[*Caption*: Loading Tanker on the Persian Gulf, whence Europe is obtaining an increasingly large part of its oil requirements.]



[USS Maury, 1948]



Dhows tied up at the Kuwait jetty.

[Photo courtesy of U.S. Navy]



The Kuwait dhow boatyard in 1948.

(U.S. Navy Photo)

[Photo courtesy of U.S. Navy]



Sheik Ahmed Ibn Jaber al-Sabah of Kuwait and his British Political Officer visit Captain Wolverton aboard the **U.S.S. Maury**. (U.S. Navy Photo)

[Photo courtesy of U.S. Navy]

Persian Gulf Expedition

August 23, 1948 – June 1949

August 23rd-Brooklyn Navy Yard-

It's been almost 2 weeks since I reported aboard on the 10th & here we sit. It's pretty noisy around here in the evenings now- 3 shifts of Navy Yard men, on her day & night. I just looked in topside & they are almost finished welding the forward gun-tub & a flat-car of 20 & 40 millimeters is sitting out under the crane on the dock. Night welding makes weird neurotic shadows and silhouettes the hunched & helmeted form of the welder-The light suddenly goes out, & in the glow of hot metal he lifts his mask & wipes his arm across his sweating forehead- a word with the man beside him, a drag on a bent cigarette – then down comes the helmet & the neurotic shadows start their jumping again as the blinding light & cracking sparks resume.

The fan in my quarters blows a 3 – second breeze over my neck every 11 seconds – I timed it- & the turning fan groans at the end of every arc.

Still nothing definite as to when we leave or where we are going. Had a good talk with Harvey Hess in Princeton Sunday. Got some good pointers on what to look & look out for in running the fathometer. Saw John Maxwell for a while – they may come up to look over the ship before we sail. Hess seems to think the trip is pretty hot & all the priorities we're getting here in the yard seem to bear him out.

We're still working down in #3 hold trying to get our gear squared away. It seems that anything that anyone wants to get rid of is stenciled "Attn. Oceanographer" & is shoved in there. We've found pipe insulation, asbestos, & cement today. Heaven's knows what will turn up tomorrow-

Rowan & Nancy were married Saturday the 21st of August. It was a good wedding & I was glad to be his usher as were Jay Madera & John Timbril. Nancy's pa felt no pain by 2000 hrs. Mrs. Wms. Had a stroke just before the bride & groom left but we kept them from knowing it & I spent the night till 01:30 trying to keep John Wms from going to Princeton & generally raising Cain on his mother who was too sick to see him. In the course of all this he got pretty well loaded. I had a headache but had a good talk with Anne Sutton: & drove him home. Hope to go to Mystic to see John & Bobbie on Friday. Tony Thompson (Smith, South Orange, and A1 4-2696) may come along too – hope so.

I find it hard to realize that college is over for a while & that I'm to be at sea for 8 mos. What then? I don't know. I've got to think ahead & plan it all out. I want marriage when I find her, but can't do much fruitful looking in the Gulf of Oman.

Aug 25, & 27 Temp over 100 [degrees] F. & the Navy Yard is no place to be.

September 8th Wednesday

Had a week's leave & got to the Zellers, Burns & Home. Maury was in Bayonne, N.J. when I got back Sept 7th. She has added a plane & pilot while I was away. They loaded 100 octane gas & fresh food aboard 'till late evening & we sailed at 1230 for Leonardo, N.J. where we today have been taking 20 mm & 40 mm ammunition aboard all day. All that's here is a mile & - a – half pier where they run their explosives out from shore. The smoking lamp has been out since we docked, & I guess will be 'till we shove off again in the A.M. The crew seems to be in better shape than when we were in Brklyn & I think will taut up O.K. Weather much cooler & very pleasant. Too hazy for any departure photos.

Saturday Sept. 11th - at Sea

We left Leonardo Thursday Sept 9th at 1230 in a calm sea that has become less & less calm ever since. That afternoon we got the specifications for this job. I had thought it was to be the Gulf of Oman, but we'll be doing the Persian Gulf. I had thought it was to be the Gulf of Oman, but we'll be doing the Persian Gulf – NW part from Kuwait harbor South along the eastern coast of Saudi Arabia to Manifax. The job calls for all the way to Barien I, but we'll be lucky to get as far as Manifax. The State Dept. still hasn't cleared us in yet, so we may just turn around & come home. Our first port is Gibraltar & they say we'll get there about the 26th. I'm not sure quite how, as it seems to me we are doing more rolling & pitching than we are going forward.

At noon yesterday the three PC's (or GSC's as they are called now) broke out of trail & we now have one 5 mi off to starboard & two off to port – one at 5 mi & one at 10 mi. This gives us a 15 mile wide spread with 4 fathometer paths at 5 mile intervals. This way we'll get pretty good coverage of the bottom. At midnight last night I started the first 4 hrs. shift of a continuous watch that takes bathythermograph observations every hour on the hour. We have a BT winch & have arranged thusly:

winch 1 stu 1-17 int 31 0

A smoked glass slide is inverted in the B.T., the sliding sleeve slid aft to an lower the slides &

The BT is lowered by releasing the winch brake & handing on to the haul-in line. Once in tail the brake is set & the BT stays just below the surface. A thermometer in a bucketbottomed case with rubber finder is then lowered to get the surface temp.



The bridge is then called to ask permission to lower BT & to get speed in knots, & depth in fathoms plus the barometric pressure every 4th hr.

The BT is then lowered to the desired depth as determined by a graph of speed & wire to let out to get desired depth. Brake at desired depth, turn on winch power, engage clutch & haul her up. Remove slide, dip in lapure after having noted on slide the obs No., hr., date, & BT no & put in slide box – take out a new slide & prepare for next lowering. A running chart is kept on which the 0800, 1200, & 1800 positions are plotted & the positions of the ship driving the intermediate harves are interpolated & the slide number recorded in its proper location. (my damn chair just left the desk, slid over & with me still in it pitched up against the bulkhead- they can have their Navy!)

Had Typhus & Cholera booster shots this afternoon. I'll take all the shots they have to offer. My bout with dengue in the Philippines convinced me on that score.

Still not seasick, but I'm afraid it won't last much longer she's really rolling.

Tuesday – Sept -14-at Sea-

The three AGSC's – Dutton, Blish, & Littlehales came along side to take on fuel & water. The excessive rolling & pitching of a few days ago has abated to a good easy – tomaneuver-under roll; but it proved to be enough to make the re-fueling something to watch. We were doing about 10 knots as the John Blish crept up along our port side about 30 yards off. She eased in to about 20 yards, & the line gun sent a light line arching between the two rolling ships to land on the after port of the Blish's cabin space. Her crew began to haul in the line that was attached to the shot line & that in turn was attached to a large hawser bound to the fuel line. It was a real pull to get it all aboard. The slack in the fuel line was held by the forward crane, and as the ships roiled towards each other the crane would lift the line to keep it clear of the water. The Blish for two days now had had engine trouble that made the whole "convoy" adhere to a paltry 8 knots, so when she was through fueling, a heavy hauser was taken aboard - & on allhands job it was - & she was taken in ignominious tow.

The Littlehales then came along for her short sniftive of a diesel Collins, but first had to send a sick sailor over to us for hospitalization in our sick bay. No breeches lorry was available, so he came over in a canvas bag slung by our crane - & his replacement returned by the same method. It was a tricky job & well done.

The Dutton came up next & darn near rammed us when a swell brought her keeling over to within a few feet of our Port beam. Oaths were loud & lusty, the exec. Turned red & bellowed across to the helmsman, but she cleared us OK. The Blish is still in tow, the other two are 5 mi out on either beam & we have resumed BT observations after an 8 hr. break. The evenings at sea are lovely. One has an unimpaired 360⁰ horizon & last night there were about 20 of us gathered on the fantail watching in silence as the western sky changed from light pink to almost blood red off to the north an occasional flash of lightening behind a cloud bank would throw into sharp silhouette a majestic rank of towering anvil-topped thunderheads. Today it was clear as a bell & continued cool. We are still following the axis of the Gulf Stream & the water is a deep turquoise blue with many small clumps of delicate seaweed floating on the surface.

Had my hair brush-cut this morning by Grotch, our ships barber. It should look somewhat decent by the time we hit Gibraltar. Found out today our ports are Gib, Agusta [*Augusta*] in Sicily, the Paeraus [Paeraeus] in Greece, Port Said [Egypt], Aden [in

Yemen, British Protectorate in 1948] & Bahrain [British Protectorate in 1948]- all new to me, & should be most interesting.

Started to plot polyconic projections today – we are just doing the computations for them now & will make the naked charts when we get closer to the area.

Sunday AM- Sept 19th – my 26th birthday.

Our progress seems intolerably slow. Each morning I awake to see the Dutton still riding off to port half way to the horizon – never advancing, never retreating – always just where her lights showed her to be the night before. The only sensation of motion is the now gentle roll & only a look over the side at the waterline reassures me that we actually are moving. The roll, the hum of the ventilators, the creak of gear at the end of each roll-regular like a giant metronome – all combine to make me ever able to sleep. The food continues plentiful & good & weather 'till today has been clear, the nights cool. I awoke this morning to a gray day with the great flat watery disc that has become the limits of my world lying quietly under a low overcast.

Tuesday 2200 – 21 Sept. '48

There's a beautiful moon tonight- a golden ballerina dancing in & out among great white columns of cumulous clouds. The wake on the water is a great band of silver spatter – printed on black velvet. The prow of the ship the turns back that velvet & shows it to be lined with white foam that falls away from the ship in great symmetrical folds.

Thursday Sept 23rd 0530 (on 0400-0500 watch)

I'm writing on the fantail by the light of a gorgeous sunrise.

About 1000 hrs. yesterday the fathometer began to show a shallowing out that got down as low as 500 f in an area shown to be 2000-2100 f on the charts We are north of Madeira I. & about 50 miles SW of Josephene Banks (80f.). Realizing that this was the sort of thing this expedition is supposed to snoop out Wolverton (Cdr. The Old Man) ordered a reconnaissance of the shoal area & it has been going ever since.



Fathometer log

By making a continuous 222 pattern with the 2 axes at 2000 yards off each beam, we cover 4000 yrds[yds] [yds.]. - about at each crossing. If the depth is over 1000 f we continue north a mile or so, so there is 4000 yds. between the last most northerly curve & the most southerly curve on the next by & continue back. The shoal area showed up first with a depth of 840f at 1023 hrs. Sept 22 & by 1042 was down to 497 f. At 1121 we were back to 1180 f, & down to 530 f at 1228, & back to 1600 f at 1430 hrs. The minimums from then on were 560 f at 1600 & above 1000f from then on. We started out taking continuous BT lowering's over the shoal then knocked it down to every 15 min & now every $\frac{1}{2}$ hour when we are under 1000f, otherwise every hour. This gives us a darn

fine coverage of depth & temp. Curves over the relatively small area of our search

the strength of any one slide can be checked against the whole.

I have spent a good deal of time in the chart room & on the bridge during the night & yesterday & have a pretty good idea of how they plot this thing up & coordinate over movements with those of the USS Dutton & Littlehales (the Blish is still in tow).

They have a glass topped table with a plain sheet over it & the positions track of the Maury is projected upward by a pinpoint of light every 5 min the plotter pencils in this position & takes bearings on the Dutton & Littlehales with the radar an attached arm with a bearing circle & mile



sealed off to 2000 yds. to the inch is used to plot in the bearing & range show crossed out position & the ships as shown in the radar scope. This gives a continuous record (5 minute points joined by dashed lines to get last pts) of the movements of the thru ships. When our true position is plotted from an astro-fix the distance & bearing to Josephine Bank was computed graphically on the main chart & this in turn laid off with the bearing arm on the bearing sheet. This gives the relative position of the bank & we'll be able to tell when we are over her. Hope to get a bottom sample with the snapper sample on the BT winch.



Voice radio with the Dutton & Littlehales keeps us in touch with the depth that their fathometers are recording & also tips them off as to converse & speed changes. The search has been conducted at 6 knots.

1915 hrs.-

We continued on with the three ship coverage; and just after lunch on 2 consecutive passes the depth read as shallow as 96 f & 98 F. The third pass we have too & were dead in the water over a pt. in 95f of water where the chart showed 1900 f. We broke out the BT Bottom Sampler



& sent her down to see what was there. She came up streaming water & even the Old Man came down to see what had been gotten. In it were a 2. Tablespoon load of a white sandy substance that on a closer inspection seemed to be an organic sediment made up mostly of shell parts, teeth, bone.etc. (Later we hove too again & sent down the snapper sampler & brought up a better sample that appeared to be much the same stuff) The first lowering with the B.T. was semi disastrous – she must have hit a rock, for the loading edge had a good dent in it that prevented the trap door from closing tightly – probably in raising. Water streamed through this opening & washed out all but the little bit that was left in it when we got it on board.

I hope to get the Doctor interested in this business of bottom sampling, so I can use his microscope to go over the stuff we brought up today.

Sunday Sept 26th

Pulled into Gibraltar on a nice warm Mediterranean day, had a good 1 ¹/₂ day's liberty in town which I laboriously wrote up in toto in my 7 page letter to Mother 7 Dad. (2 seven-page letters, in fact)

Tuesday Sept 28th

Off again & I have the mid-watch tonight. Had all day Monday in town. Got to Spain in the afternoon after crossing Franco's border guards no little concern by showing them the required photo for identification – one taken by Johnny James of me in barb & cowboy hat in Wyo. Again all described in letter to the ??? of Oct 1^{st} – La linea de la Conception one should be in Augusta Sicily by Sunday Oct 3^{rd} . 1 Pesita = ca.5cents

Friday – Oct 1st

Still clear, calm & cool. We have been skirting the north coast of Africa all day. I looked it over with the classes & it seemed to have a low range of hills close to the coast

that looked inviting, but the sand that the off- shore breeze left in our decks have silent witness as to what was behind those hills. We should pass Panteleria – or what's left of it after the 8^{th} & 15^{th} Air Forces had their pattern bombing on it a few years back – sometime during the night.

[Pantelleria's capture was regarded as crucial to the Allied success in invading Sicily in 1943 because it allowed planes to be based in range of the larger island. Pantelleria was heavily bombarded, from both air and sea, in the days before the scheduled invasion, and the garrison finally surrendered as the landing troops were approaching. The capture of Pantelleria was called <u>Operation Corkscrew</u> and it played a part as a vital base for Allied aircraft during <u>Operation Husky</u>]

The BT has been handed over to the Basin Mate of the watch & I for one am glad to be rid of it. I was losing too much sleep. In the drafting room topside we have been laying out the limits of our boat sheets. From the Coast out to the 12f mark will be 1:40,000, from there to approx. the 20F. mark at 1:60,000 & from there to one center of the Persian Gulf at 1: 110,000 – all charts to overlap adjacent ones & all to have pe as much of the shore as possible so our share stations can be used to establish sound boat positions. We secured at 1500 so Massly & Carnell could get the place ready for the Captains inspection tomorrow. Wrote another 7 pages to the lens tonight –mainly Spainly.

(H 1947 issue of the Military Engineer has an article by Charlie Bots & Dr. Fleming of Oceanography in Hydro in the Maury & her survey duties)

Sunday Oct 3rd

Pulled into Augusta, Sicily, this morning & tied to a buoy in the harbor. The carrier F.D.R., cruisers Little Rock, & two others, plus the supply ship Grand Canyon all were here again. No liberty 'till the supplies had come aboard about 1300.

The four hydrographic engineers were in the first boat ashore & climbed the small hill to the town. One look at the narrow streets & divert; & one smell were enough for Frank & me, & we headed for the mainland.

Had a good tramp back in the Sicilian farm country. 93per cent of Sicily is under cultivation & it's not hard to believe. Grapes & olives grew in neat patchwork farms. Dusty roads, a dog barking in the distance, the sweet taste of granadas (pomegranates), a flock of goats driven by a bent & mustachioed Sicilian, a farmer plowing with a wooden plough, broken walls & bent iron gates as the only reminders that the tide of war swept their way, dust clouds behind a honking speeding English car, two wheeled carts with farmers & four wheeled carriages with sailors, a nice sunset, a good view of Mt. Etna from a distance & of Augusta and the harbor, tired feet & dirty shoes – that was Sicily. – Got three rock samples – 2 tuff & 1 diabre.

We had no dinner, & when we got back to town it was teaming with Sicilians & sailors. We had a few cognacs with some of the men from the Maury & got the 10 o'clock boat back to the ship. Many bumboats swarmed around the Maury & little ships all day selling everything from vino to cheap-looking tapestries.

Due to leave tomorrow morning.

Wednesday Oct 6th

Awoke this morning to see the coast of the Peloponnesus off to Port. About 1000 we passed Salamis & made good our mooring in one of the 4 harbors of the Paeraeus about 1130. Here we used the Mediterranean morning. The book is dropped & played out as the ship backs toward the pier, A stern however is taken ashore & the ship secured thusly:



The harbor was jam-packed everything from American TMS's given to Greece & small fishery boats to Swedish lumber ships & American freighters. 10-15 ships that had been badly damaged during the war were being worked on by a few Greeks – it seemed a hopeless job. Next to the Maury was the Sarah Orne Jewett from N.Y. of the Prudential Line, her decks crammed with olive drab 6 x 6 trucks & hungry cranes kept clipping into her holds & coming out with great loads of white flour bags. Across the small basin Paeraeus lay spread out over two low hills & came right down to the harbor.

We caught the first liberty boat again & were dumped off at the fleet landing. We had to beat off a swarm of peddlers, guides, taxi drivers & wichin, but finally gained the lid off on the other side. We decided to see Paeraeus first & walked for over an hour. Got to the top of one of the hills & there before us to the NW lay Athens (spelled in Greek) dominated by the Acropolis & the higher but smaller hill crowned by the Church of St. George. The whole surrounded by Mts. A lovely sight. We finally latched onto George – a guide who learned English in the British Army - & took a ship (30,000dr) to Athens. The ship gave us 10,000 drachma to the \$1 George 12,000 dr. on the blk. Market. We saw Athens pretty completely all but the Acropolis which we plan to see tomorrow. The Cinque George and The Grand Bretagne are the two big hotels. The bar of the former seems to be the meeting place for Americans in Athens.

For the record, the Flirt Bar must be mentioned! Prostitution is legalized in Greece & the Flirt Bar on Constitution square has about a dozen that use that place as their headquarters. They are a rough bunch of females & two or three of them were not bad looking even by U.S. standards. We met them all – Veronica, short & well built. Peroxide hair & too much make-up, a little vitamins pill with legs. She just couldn't sit still – a rhumba numbah by the tinny band would have her up & dancing along among the tables. I say dancing, actually it was a conglomeration of all the motions enticing & lascivious that have come down through the age's vs the sure formulae for making the blood tingle in men's veins. The English was picked up from all the sailors who came into Athens & contained all the most profanity & obscenity of the seven seas. "Kiss me quick I'm coming, Kiss my ass, I'm going" is the only one it is my misfortune to recall. Then there was Luna with the tragically beautiful face. She was 5 mos. pregnant & had the saddest face I have ever seen. I couldn't keep from staring at her. Poppy with the tight red sweater - & an Italian look about her. Vara who looked as though she might be the girl next door & had a hip motion when she danced that I haven't seen since that "sing-sing" of Port Moresby in New Guinea. They would go from table to table turning on the heat for each man in turn, & many went out with them to return later shame. Food & \$100,000 dr poorer. The place could have been any bar in the U.S. – a bar at one end, a small band on a recessed dais at the other & in between were small tables with metal chairs. White cloths & metal chairs. Occasionally an old toothless dumb Greek man would go from table to table trying to sell the bags of nuts he carried in a basket on his arm. He would stand before you & dumbly hold out a bag of nuts, when you asked "how much" he would just part his toothless gums in an attempt to smile. The girls would tease him a little now & then – tempt him to do things he no longer could. [Dimitri Constantine around it.] Later learned the Germans had broken the man who sold peanuts by 7 yrs in concent. Camp. Was formerly 1 of the most infl. men in Greece.] At first I got a kick out of the place. I'd never seen anything like it before – then it revolted me. I had no pity for the women. They probably are the best fed women in Greece today. They raised no sexual desire in me, for any such desire was more than canceled out by the revulsion of the whole thing. Frank & I left about 11 o'clock, as we climbed the stairs to the street we could still hear the rise & swell of the tinny band punctuated by the high-pitched laughter

of one of the girls. We stepped out into the cool night & the fresh air of Athens smelled good.

Saturday Oct 9th

We left Paeraus about 1000 this morning & it looked clean & white in the brilliant Mediterranean sun a whiteness that belied the dirty streets & foul smelling alleys, the poverty-stricken people, & the bombed out homes of that ancient sea-port. Thursday we picked up George & went to the Acropolis, we climbed the steep hill, entered the grotto below the propylaea & immediately were back in the 4th century before Christ. The magnificent Temple of Athene Nike, the awesome Parthenon, & Erecthium. I took some pictures - some of which I hope come out. Then down to the Theatre of Dionysius & the Temple of Jupiter, the botanical gardens & the tomb of the Unknown Soldier. That evening I kept my distance from the Flirt bar. The others were there, I guess, but I couldn't see it. Friday we slept in the afternoon after work, had dinner aboard & while the others taxied to Athens & that bordello again Frank & I walked to the station & took the train to AMONIA [Omonoia Square] Square in Athens & walked to the Saint George. He bought a lime & I a copy of the Paris addition of the Herald Tribune; & we sat in the wide – windowed lounge over-looking the sidewalk tables under the large blue & white awning of the St. George & sipped cool Greek cognac? Even now as we pass the Herald of Salamis on our way out. I can see the Acropolis & hill of St. George in the distance.

Tuesday – Oct 12th

Just at sunset yesterday the lighthouse at Port Said became visible off our starboard bow. It was dark by the time we reached the coast & we lay hove to in a good ground swell watching the beacon slice the night & the lights of Port Said clustered along the shore. A small tug came out rolling in the swell & deposited gave us an Egyptian pilot. We circled around & about 2200 made the entrance of the canal where we , along with several other ships, lay moored to buoys 'till 0200 today when we were cleared through the one-way stretch to Great Bitter Lake.

Awoke this morning just as we entered Lake Timsah. The canal is quite narrow & in most places the banks are faced with a slanting stone wall. Above the wall nine 15-20 foot banks of sand dredged from the canal& beyond these is desert. The Port Said-Suez R.R. runs inland a mile or so to the west & in many places the intervening land has been somewhat irrigated & patched of corn grow among date palms & palmettos. To the East was desert – hot dry endless desert. There was little wind, but the occasional breeze was little relief for it was heavy & laden with desert heat. In the Great Bitter Lake we hove to

& dropped the hood while the others behind us came out & there going in the other direction passed us & steamed northward. Moored next us was the Cilicia out of Glasgow & a beautiful pleasure ship she was. The decks swarmed with tourists & a la "Mr. Roberts", the current favorite on Broadway, we manned every binocular, range-finder & telescope on the ship. They were mostly tankers going the other way. A Texaco tanker of Panamanian registry, British, French & Greek tankers, all loaded to the gunwales. Then about 1400 we were cleared on through Little Bitter Lake & the last stretch down to Suez. This was even drier than the first stretch. A fairly good wind had come up

By then & the blowing sand obscured the canal ahead. Occasionally along the banks was piled the twisted & rusted wreckage of luckless ships caught in the canal & bombed during the war. We knocked off work in the drafting room aft & all manned binoculars atop the flying bridge. A road now was paralleling the canal on the west bank & an occasional British lorry sped by or an ancient green bus bearing the green crescent & stars design of Egypt. Here & there along the road a hardy farmer tried to eke an existence out of the land waging a never ending fight against the drought & encroaching sand. Some had goats that their women – veiled & in black- tended. All seemed to have a camel or two. That would sit sphinx-like with their knobby forelegs doubled under them & their heads held high. A cry from Avery- radar man 3^{rd} & we all swung our glances to port to watch a drama probably oft-repeated in this country but startling when you see it for the first time. A camel had fallen about ¹/₄ mile east of the canal. He could not have been there long for the drifting sand had not begun to cover him. On his body & around him where he lay were 12 or 16 turkey vultures – great ugly fat birds- that would peck at the still-warm animal & tear away great ribbons of flesh. Even as they ate more vultures were circling above, circling in ever-decreasing circles until they alighted screaming on the deal animal to add more pecking beaks to those already at work in reducing the carcass to bones that in time would whiten in that blistering sun. Past the great split obelisk (N of the sun) commemorating the first world war & the canals part in it, past folam canal stations, past more irrigated land, more wrecks of ships & buildings & finally off to starboard showed the buildings- homes & minarets of Suez – southern terminus of the canal at the head of the Gulf of Suez.

It is now 2030 & we are ploughing southward toward the Red Sea. We are still actually in Egyptian waters, with the Arabian Desert to the west & the Sinai Peninsula to the east. Another beautiful night but quite cool.

Friday Oct 15th

Since Tuesday we have been plowing steadily, boringly, uninterestedly, southward in the Gulf of Suez & the Red Sea. It's not red; but it is indeed a sea. We might as well be midway between New York & Gibraltar for all the land we see-were it not for the heat. It has become quite warm, the drafting room with its defective air-conditioning would be better with none; for the steady um of that big box with the grilled front is a constant reminder that we should be enjoying a coolness that the crescents of sweat at the armpits of our shirts & the stickiness of our hands shows to be quite non-existent. We are due in at Aden probably Monday morning. The theory behind the establishing of geographic positions on the earth's surface using the 60 degree astrolabe & the celestial triangle has had me in mental contortions for two days now. It's still a mad bubbling boiling confusion of Zenith distance, declination, night-ascension hover angles, & star lists. This afternoon in welcome relief from the mental tedium of trying to assimilate the celestial sphere into my own somewhat oblate spherical I fell to willingly in No 2 hold in helping assemble the top section of one of Mr. Bilby's steel towers. It was like an oven down there, & even though stripped down to my shorts, my body soon was streaming with wandering rivulets of salty perspiration. It soon developed that I was chief die stamper & proceeded to stamp the numbers on the various steel parts by smashing the small numbered dies with a ball hammer. My left thumb is quite sore this evening. I seem to be keeping this journal up to date to a much greater extent than I thought possible when I bought it in Auburn last July. I just hope that my ardor does not die, for it will make a good record of events & feelings that might otherwise be forgotten where I to trust all to memory.

Sunday, October 17th

Still steaming southward in this heat. It's a heat that presses in around you, saps your strength & leaves you weak & limp. About 1030 this morning we passed between Jabaal Zuqar & Quoin I at 14 degrees North. Zuqar is a great mass of barren volcanic rock with two peaks rising over 800' above the Red Sea. *[Zuqar Island is an island in the Red Sea that belongs to Yemen. It lies between the coasts of mainland Yemen and Eritrea, near the Bab-el-Mandeb straits which connect the Red Sea to the Gulf of Aden. Quoin Island, Island located near Al Ghanjah which is a town in Shabwah, a region of Yemen]* There is scrub vegetation along the shore but it rapidly gives way to the red-brown volcanic that make up the peaks. The bluff just south of North Point has a well-defined vertical joint system that breaks the cliff fore up into great vertical columns. Between it and the water is a vast scree slope of great cubical boulders broken off the cliffs above. Quain Island is merely a small remnant of rock – again the brown scoraceous [scoriaceous] volcanic type & it & Pile I. next to it both rise to about 60-80 degrees straight out of the sea. Quoin has

a lighthouse on it with waters in the base. I don't envy the poor bloke who has that for his niche. We now are passing Little Hamish I. on our starboards & should be off Great Hamish before long. Maybe I'll try to get some sleep this afternoon. Frank broke a cot out of # 3 hold & is now asleep on it out on the fo'castle. Avery & Ed are back sweating over a hot bridge table with Staerseth & the Major in the wardroom & the ship is fairly quiet. Spent last evening & part of this morning at the point of the bow on the fo'castle. It's nice up there. The air is clean. & if there is any breeze at all that's where it is. They strung an awning up there yesterday from just aft of the anchor chain winch aft to the paint locker & all the way across. It covers both of our forward 40 mm's but they aren't much good anyway I guess.

Tomorrow Aden – (16 to the ruple, $3 \ 2 \ a = \$1 \ U.S. \ C. \ 1 \ R = ca. \ 30 \ cents$) It's now 2200 & I've been at my favorite spot up at the peak of the bow again. A good breeze has come up & many of the crew have brought their bedding topside to take advantage of the breeze. The moon is full & lay directly ahead so that the ship headed directly into the wake – a lovely sight. One wind ripples the shirt on my back & I could feel it in my hair. The ship made steady swish vs it cut through the water each was divided & thrown aside in a fury of white dancing spray. As I leaned over to watch, I could see the gray streaks of two porpoises that lept just ahead of the bow. Occasionally they would break water in an arching jump, moonlight would glisten briefly on a sleek back & they would be gone again in a patch of foam. Looking up the great silver flecked highway ahead I could not make out the horizon- it was lost in a great dazzle of moonlight & mist where the flecks of light were so jammed together. I stood & watched & thought & was awed. The wind caught the halyard on the bow flag pole & began slapping it against the pole in an even rhythm. I turned & saw that more men had come up from below & were sprawled crazily on their blankets spread on the deck. The ship looked different in the moonlight. The anchor winch seemed to merge with the spray shield & the paint locker.

On side of page: Tonight some time we pass through Bab-el-Mandeb, out of the Red Sea & into the Gulf of Aden. Through that strait for years have gone dhows & bagollas for Gizan & Suez & pilgrim vessels for Jeddah, the port for Mecca where all people of Islam try to go once before they go to the Garden of Allah.

The forward 40's huddles under the awning & were almost invisible. The superstructure of the bridge was a gray mass rising above me. The moonlight was reflected as gold from the burnished brass on the bridge – wings & the running lights seemed to have a read & green halo around them. I turned back toward the sea & found that the room had shifted – or perhaps a small change of course had done it; but at any rate the ship was breaking to the left of that silver wake & it seemed wrong. I turned & left, stepping

carefully over sleeping men & made my way aft to our quarters. It seems strange not to have a girl to write to when I feel as * do tonight. In the army overseas when moonlight turned the palm fronds to silver I would feel the same way & then go back to my tent in the jungle & write a long letter to Margery Dodd's. Now she is married & Stevie too, even Bunny Burns. I will probably always regret that I did not know the girl I marry sooner. She'll know nothing of Princeton, of the army, & now of this trip. They will all be things I'll have to tell her. I'll show her my pictures & my letters, & she'll try to understand how I felt, but can never really know. On a night like tonight I would have written about the moonlight & all, but I'd have written it to her, & the experience would have been richer for me because of her. I must find her soon after I get back. Either "her" or something else to which I can refer myself. I'm no Larry Darrel (Razor's Edge) but in a way I am searching for something. I am like a ship drifting & need a pier to tie to or a course to run - a part to aim for. This present trip is actually a cowardly thing for me to do. It is just stalling 'till I can hit on what I really want to do. It's escape from having to face the decision that must be made sooner or later. I could turn into a poor-man's Richard Holiburton [Halliburton] with no trouble at all. I do like to travel & there is still a good deal of the world I want to see; but if I find what I'm looking for – whatever it may be -, I'll be willing to confine my traveling to the tourist folders. I've just got to battle the thing out, find out, be sure then settle & stick to it. First though I must find that 'je ne sais quoi' to which I can refer my experience & by which I can set my course. Maybe religion, maybe the love & loving of a women. I don't know, but I don't think I'll find it behind a transit between Kuwait & Manifah in Saudi Arabia.

Tuesday, October 19th

Aden has come & gone, & we are at sea again- heading eastward out of the Gulf of Aden toward the Arabian Sea. The familiar roll of the ship makes it hard to realize that all that I saw yesterday was not a fantasy fabricated out of moonmist & salt spray.

When I awoke yesterday, a hasty glance out the porthole showed that we were just outside the port. By the time I had showered & eaten, the pilot was aboard & we were just passing the mole protecting the outer harbor. With the help of two panting tugs we were swerving this way & that 'till the pilot- British I think- felt it was ok to heave the lines. A small boat moved by rowed by two dusky be-turbaned boys took the hawsers over to the buoy, & made them fast. Since liberty didn't commence until one o'clock, I had time to look over the town from the harbor.

Aden presents a striking picture as it hangs on as best it can to the low ground around the steep volcanic peeks that make up the peninsula. Along the shore dhows of all sizes were

pulled up out of the water & rested on their sides, their masts pointing in all directions & making the shore look like a giant pile of jack straws. Nearer the town the long L shaped Post Office pier on high pilings had a small tug mooned in the crest of its arm & looked as though it had just made a sweep of the harbor & caught just the one small, dirty, tug. A sea wall runs from there north to the Prince of Wales Pier and keeps the dividing line between water & mountains nice & straight neat looking. A road parallels the wall & hugs the foot of the peaks. Beyond the Prince of Wales Pier the road rounds a shoulder of volcanic rocks & deposits the traveler right in the main part of the town of Aden. A row of two story buildings fronts on a crescent – shaped park that I'm sure hold the only trees on the peninsula. It was just after noon when we got there & in true eastern fashion nothing was open. A few goats loitered about the sidewalk, dirty goats that would rummage in the gutter. Some had their great swinging udders protected a dirty calico sack tied close to their belly. An occasional Arab could be seen sleeping in a doorway or rolled close to a building. A few dark-skinned children were kicking a gray tennis ball around the road & stopped to watch us as we passed. We walked to the end of the crescent & were about to investigate the interesting streets that radiate out from it when one of the chiefs from the ship shouted at us from a cab. We went over & in answer to his request agreed to pay our share of the fare over to Crater. I had read of the town built in the crater of an extinct volcano & wanted to see it. We piled in & were off in a cloud of dust. As in Athens (& N.Y.C.) The cab drivers rely mostly on the horn. This cab -a1935 convertible ford – had a hand operated bull horn that sounded like a duck & he drove with one hand on the wheel & the other on that horn working it constantly. We careened around the other should of rocks that enclosed Aden – I'll never get used to driving on the left side of the road – scattered a herd of goats & seared an old man, passed the dhow shipyards along the flat plain that bordered the shallow Ma'ala Bay & started up the narrow switch-back road that crosses the rim of the old volcano as we labored up the steep grade with much knocking of the engine at every revolution 7 much honking of the horn at nothing, & turned around & saw the whole of the harbor laid out at my feet. Right Below us was a large cemetery, beyond that the dhow yards with many boats in various stages of construction. To the left over a spur of the peak was Aden its cubical white houses bare & bright in the blazing Arabian sun & beyond was the green of the harbor. I could see that the Maury was just putting out a 2 foot boat loaded with oneinch white-clad sailors. A cargo ship was just passing the mole on her way to sea, and several more were still at anchor. A great triangular white sail moved effortlessly in & out among the larger ships, & the 2 -foot liberty launch reached the 12' pier.

By now our cab was approaching the straight-sided narrow defile [defile is a <u>geographic</u> term for a narrow pass or <u>gorge</u> between mountains or hills. It has its origins as a military description of a pass through which troops can march only in a narrow column or with a narrow front.] that carries the road through the mountain. It suddenly grew almost dark as we entered the pass. The steep walls of sheer rock towered above us & seemed almost to meet high above our heads. The sky was a narrow ribbon between two walls of rock. The sun burst upon us as we left the pass & there before us at the foot of another steep grade was crater. From that height it looked much like Aden but for the lack of trees and the precipitous cliffs that surrounded it. It indeed was built in an extent crater. As we entered the town we passed through a large section that had been completely burned out. Roofless buildings with empty staring windows & blackened walls. Great piles of rubble blocked the sidewalks & heat twisted guiders hung from an unsupported wall. It looked much like parts of Tokyo or Manila – like parts of so many of our big cities today. But the war had not gotten down here so I asked the driver. Without turning around he said "Jews" & the way he said it left no doubt in our minds as to what his stand was on the Arab-Jewish questions. Though Aden is actually an Indian protectorate with a British residency the population is predominantly Arab. We later learned that Aden had been the scene of a short & bloody riot. Arabs had joined together & burned, killed & looted until no Jewish owned building or home was left & the Jews themselves were either killed or driven from the peninsula. The feeling still runs high. As we 4 sat later on in a café drinking warm beer we mentioned the word 'Jew' in our conversation & 6 or 8 Arabs turned & stared questioningly at us. They didn't look friendly. We passed through the gutted ghetto & paid off our share of the cab four (4 Rupees) at the edge of the bazzar & started to walk through the market-place-the nerve center of every town in the Middle East. Low two- story buildings all white & all most cubical in shape were packed along both sides of the narrow streets. The flat roofs at different levels made the whole thing look like a fantasy in child's blocks. Light cloth awnings with skirts that brushed your shoulders hung before all the shops.

The bazzar is a living thing, a throbbing pulsating entity, its veins are dirty narrow streets, its blood the jostling multitude dark skinned Arabs their burnooses fluttering about their shoulders brushed past jet-black Somalis from E. Africa, tall stately blacks who wore dirty white wrap around skirts & an undershirt. Women of Islam veiled & in loose black garments that trailed on the ground – an occasional Indian merchant with his shiny black hair, & sharp features, his white robes gathered in front & raised to keep them out of the dirt- old beggars in filthy turbans and only a breechclout [breechcloth] would hold themselves up on a cane & extend a deformed hand crying "baksish" – an old man, his legs gathered under him, sitting against a wall staring blackly off into space with sightless eyes, wearing only a breechcloth & trying to keep from being stepped on – children of indeterminate parentage throwing stones at a camel pulling a water cart & the driver

shouting invectives at them in an unknown tongue- unveiled Somali women in long red calico dresses – a sweating man laboring under a great bale of green hay pushing his way through the surging crowd his body bent low & his eyes on the ground – a hunch backed boy in shorts asking for alms- three veiled women looking over bolts of gaudy print – an Egyptian in western dress & a red fez – more Arabs more Somalis - more beggars- more kids - camels-goats-mules-dogs-this was the surging life blood of the bazaar. The air was heavy with the odors of humans & camels. Like the sounds of angry torrent were the combined voices of man & beast. A goat urinating on the sidewalk was kicked by one of the throng & it disappeared through an open doorway urinating as it went. A fat Indian on a rope pallet drew smoke thru his huka & exhaled a long thin stream of blue- gray smoke. A sweating Arab tin-smith worked a bellows with his feet & sparks flew from the pile of coals on the dirt floor. A carpenter in a shop littered with sawdust & shavings was fitting the wooden share into a plow & I stopped & thought of another carpenter in a shop probably much like this. We walked on, ducking under low awnings, stepping around prostrate beggars, waiting for a cursing driver to get his mule off the sidewalk, stopping to let pass a camel cart loaded with great bales bound in burlap; we walked & looked & marveled & wished we were less conspicuous. Somewhere along the way we picked up "curly" I dubbed him Curley for his head was shaved bare and glistened with drops of perspiration. He was about 12, black as midnight, with a ready smile & a mouthful of gleaming white teeth. Curly wore a red print shirt & a blue skirt. First he tried asking "whiskey" – we said no, "fuckey" we said definitely no, so he gave up & just tagged along. He asked for a cigarette & I always eager to contribute to the delinquency of a juvenile, gave him a Lucky. The bazaar after an hour or so became less exotic as the smells became more penetrating, the dust thicker, & the beggars more pitiful & insistent. We left & even two blocks away could still hear the sound of the torment. Curley was still with us. In an open field- perhaps 'field' is not the word, for "field" to me connotes cool green grass or waving grain & this was hard packed earth & dusty – two teams of boys were playing soccer & we stopped to watch. The low wall around the playing field was lined with grandstand quarterbacks sitting jackknife fashion on their haunches with their quarterbacks tucked underneath their chins. We watched for a while & then I crossed the street to a doorway under a large B.O.A.C. sign to pick up a British Overseas Airways folder just in case. As I came out, the other three were shouting at me to come over quickly. At first it looked as though they were besieged. The three of them were standing on the low wall & were surrounded by a small crowd- must have been 15 or 20 & more were arriving all the time. I pushed my way through & had visions of the three musketeers (OK then, 4 in this case) against the world. The thin red line, the hollow square at Khartoum. & the Black Hole of Colcutta all rolled into one. But then I realized

that they were all kids & all smiling. Ed h ad taken his shoe laces out for cat's cradle but had run out of tricks before a demanding & eager house. This was just my meat. I did two string tricks on my hands, but what really got them was the loop through the neck one & in true thespian style was carried on by my audience & even went as far as to "chew up & swallow" a lighted cigarette. We all ran out of tricks then & tried to leave. After two blocks we still had about a dozen of them with us. It was growing late by then so Curley got us a cab from somewhere, we gave him two rupees, he shook hands very solemnly all around & we left with much mad honking. Around the outside of the bazaar, through the burned-out ghetto, up to & through the pass & down into Aden. Ed & Gerry went back to the ship for chow while Frank & I looked in some of the stores. I picked up a nice set of matched ivory napkin rings & a couple of small sandalwood animals. Had a small steak, French fries, bread & cold cream, & good coffee at the Blue Bay on the crescent. Met a couple of the AGSC officers & Ens. Rasmussen from the Maury & went over to the Excelsior Hotel. Had a beer with them & then left for to stay would have been only to drink & that's a heck of a way to spend a whole evening & fortune, so we traipsed on back to the Maury Marie & the movie.

Thursday October 21st

So far this book sounds as though I spend most of my time on the beach; but for every hour spent ashore there are days spent in that drafting room topside.

After getting up the top sections of a Bilby Tower in #2 hold, we proceeded to draw up plans for the wooden observer's platform, the templates for the laying out the bases of various height towers, & framework in which the cement is to be poured for the pier for the astrolabe. These were



Drawn in pencil, then traced in ink on cloth paper & taken down to the carpentry shop. A radiogram the other day suggested we chart Shah Alam Shoal in the Persian Gulf on our way into Bahrien [Bahrain]. It is on the present chart of the Gulf but believed to be poorly located & poorly sounded. The buoy has been carried away & thru tankers have gone aground on her in the past two years. As near as we can tell from the available charts, Shah Alam lies at approx. 52 degrees 31'E, 26 degrees 25'N. I figured out the limits & polyconic projections distances & Ed & I drew up a master sheet with an 18 degree E.W

& 10 degree N-S spread in the shoal area. We'll prick through the coordinates onto sheets to be used as boat sheets & use this one for our smooth plot.

Cooler tonight with a good breeze from the Southwest. The moon slowly fights its arching course through a layer of stratocumulus. I'm reading Ullman's "The White Tower" - a good book that recalls vivid pictures of the Summers of '46 & '47 in the Wind River Range in Wyoming & makes me want to take the same trails again & marvel at the same views – this time I'd like to do it with Butch – maybe if this jaunt is over by June I can pick him up in Colo & we can do some climbing there. I want him to know the incomparable joy of high freedom.

-Notes-

Zarooh – Dhows-booms-baggalas-sambuks

Lateen rigger. Nakhodka = captain of Dhow

Ramadhan= Moslem fast month

Aghal=black lambs - wool head rope of desert Arabs

Basra dates – twisted wood from Yemen & logs from the Malabar Coast – dhow built with adz & Indian drills. Taiyib=good

Swahili=Lingua Franca of Persian Gulf

Tuesday October 26th

Since we left Aden, we have followed the coast north & east. Past the Hadhramant past the ports of Mukalla, [Makala] Saihut & Salala [Salalah], past the Kuria Muria Is (the British Quarantine station for Mecca pilgrims coming from the east) up the coast of Oman. Today we steamed almost due north up the western side of the Gulf towards the Straits of Ormuz or Hormuz. Late this afternoon we passed close to Ras Al Musandam – the easternmost top of Arabia – through the Straits of Hormuz & into the Persian Gulf at last. The sun was low & made the water between the ship & the shore a deep turquoise a big sea – going dhow sped southward hugging the coast. Here triangular latun sail well-filled by the fresh wind & very white in the low sunlight. High naked cliffs were straight out of the water. I got a glass on them & they were a great thickness of sedimentary beds slightly folded & faulted, and arranged tier on tier up & back to the peaks of Musandam. Their tops were hidden in clouds that spilled downward through the barren volleys. Higher up, great towering cumulo nimbus clouds with their flat anvils streaming southward were starting to turn pink. To the east I could just make out the mountains of

Persia. (Iran)I climbed to the top of the fling bridge & watched the color change from pink to blood-red & then drain from the sky leaving dirty clouds against a light blue background & felt strange as we went through the Straits of Ormuz. Actually it was not much different from Gibraltar or Bab el Mandeb; but where they linked ocean to sea & Sea to Gulf, Ormuz seemed to be a strait between the present & the past. Sounds a bit corny, I know, but we were entering the Persian Gulf where men live much as they did in the days of Christ, they said their booms & bagalas - ships much like those of the Phoenicians in the 3rd century B.C. The Gulf is believed by many to be the place where man first started in this veil of tears. Here (Hormuz) Marco Polo ended his return voyage, here Nearctus [Nearchus of Crete, Alexander the Great's admiral in command on trip back to Mesopotamia] sailed in 325 B.C. here the African slave traders brought their black ivory for the slave marts of Baghdad & Kuwait—and it is still much as it was then. The same boats, the same houses, the same clothes. I'll be most interested to see what lies ahead. Lots of work I know, long hours in the boiling sun of the day, & weary hours over our charts & computations in the heat of evening. It will be work, but I also plan to keep my eyes, ears & mind open & thereby learn a lot. Tomorrow we get to Shah Allum Shoal [Shah – Alam Shoal].

Wednesday, Oct 27th

I in my naivte [naiveté] thought that snafu operations were limited to the army. It is indeed a consoling thought, yes a golden revelation, to know that the navy can- when the right circumstances present themselves – present a fouled up situation that almost reaches the peaks attained by the army units to which it was my dubious honor to be attached during the late international altercation. The AGS's went ahead of the Maury about noon. It was a nice formation. Their fathometers pinged away madly as the swept the bottom looking for the shoaling that would indicate our approach to Shah Allum Shoal [Shah-Alam Shoal]. As we drew nearer to the area where it was reputed to be, we reduced our speed to 4 knots. The sound bouts seemed to be ready. Their crews looked about on their decks & the boom was attached to the shiny on #4 Sound boat – port side first aft of the drafting room. We slowed down even more & looking through the davits above the captain's gig I could see the AGSC's had hove too. Then the order came over the speaker system 'Sound boat crews man your soundboats – on the double." Well, I was impressed. This was nothing like the army. Then the old system went into operation. Men standing ready with lines slacked their grips & looked toward the bridge as though they expected to see a big neon sign up there saying "Hold on, I'll be right there", The man in the hull of #4 ready to kick over the two engines stuck his head out of the hatch & looked toward the loud-speaker in the after mast as though seeing him it would explain

the delay. Osborn – Cox'n of #4 cocked an eye toward the bridge then leaned back & lit a cigarette as though he was to sit there all day – Osborn's been in the navy 7 years. The cooks that had come out of their holes to watch took a last look at the sky & ducked below- again they are all Navy men; even Bongo (the dog) went back to sleep under the lip of #2 hatch cover- Bongo has been in the Navy 3 years. I leaned over the rail along the drafting room & looked forward expecting them to start lowering away any second now - & have been with the Navy two months. We waited---& waited. Bongo was asleep & dreaming of the lamp posts on 57 Avenue, Osborn's cigarette was out long ago & he & the man from the bowels of \$3 had both removed their shirts & were sun-bathing on the sloping deck of the sound boat. The whole operation had bogged down, fizzled out. It was good to be back in a familiar situation. I lit up a week & sauntered aft to the drafting room again & was back at cleaning meter – bars when the others came in. Lt. Shaw soon arrived looking like the cat that ate the canary & herded us all down to the bottom of #3 hold. What for--- To get out the generators that supply the power for the radar equipment on the soundboats. We were going to plot the positions of the soundboats by radar- radar equipment was on the soundboats all polished & ready to go- but the power for these ingenious machines-roped against the bulkhead under 10 boxes of Helmet, sun, tropical at the bottom of #3 hold aboard the Maury. Yes indeedie it is good to get back on ground I know so well. It is now 2200 & everything is as expected. We are still anchored the 3 AGSc's are still around (2 of them anyway, the Dutton has gone to Bahrain for mail – for additional food too I hope if this keeps up) the soundboats are still in their cradles right where they were when we left New York. Everything guit for chow & then guit again (or rather – stayed guitted) while all hands went to the movie & now everyone is in the rack. We'll try again in the morning I guess. That "Soundboats crews man your soundboats on the double" really had me sold on this navy efficiency for awhile – until I learned it was just the army's Hurry up and wait – on the double.

Friday Oct 29th

Between the full day of yesterday, & the arrival of mail & 3 Sat. Eve. Posts today I have kept fairly busy.

Yesterday & today both were fairly warm. The air-conditioning in the drafting room purrs contentedly but doesn't do a damn bit of good. We finally opened all the parts today when the temp. in there got up to 92 degrees but got little relief. I spent yesterday slaving over hot fathometer rolls from the N 5-9 & NNC-2 sets aboard. Checked the soundings from Gibraltar to Augusta to Piraeus to Port Said all but for some NNC-2 missing on the 11^{th} . The work entails interpolating time intervals on the rolls between $\frac{1}{2}$

hr. marks & checking the depths at these derived times against the depth as recorded in the sound books. I have climbed every peak in the Mediterranean Sea using a pair of 11point dividers as a climbing stick. About 1630 the combination of heat, glare from the sun on the water, too many cigarettes, & too much close work gave me a splitting headache & I checked out for my rack. One sound-boat (#1 with Ens. Menke) had been put in order & had made a good pattern over the shoal area &



His boat sheet showed the shoal to be just where & the shape that the charts showed it to be. The boat was beached in the VF radar set on the bridge & the range bearing plotted on a boat sheet up there. During the movie that eve. I made up my hour & a half tracing & plotting in the drafting room. Today they managed somehow to get 3 of the 4 sound boots working & filled in the holes where they had no soundings. I spent the day plotting polyconic projections for the 1:20,000 smooth sheets to be used in Kuwait Harbor.

We weighed anchor about 1880 & are now en route to Bahrien Should be there about 1000 tomorrow.

Picked up some strange green clay on our anchor just south of Shah Allam Shoal – a sample is with my other one- it looks much like blauconite clay such as might be found on the Cretaceous coastal plains of the Atlantic Coast. The waters abound in strange life. Last eve one of the million of fishing lines over the side hooked a shark. He broke water only once – a big 7 or 8 footer & then sounded. They had only a light line on him so just played him till he took a few turns around our starboard anchor chain & they had to cut the line. There were lots of water snakes- yellow & brown – up to 4 feet in length that slither along the side of the ship & looked especially eerie as they were picked up by the battle lanterns being used to light up the battle with the shark An especially strange critter is a light orange fish, that I have seen up to 10' in length. Looks something like this:



They at first seemed to be lurching along by pushing with their tails but a closer look showed that they had flippers of some sort mounted on their bulbous looking heads that they used. Only would paddle once & then glide, then paddle again & so on. I watched one for some time. He would seem to attack the hull of the Maury coming partially out of the water & then fall back with a splash turn & by his flip & glide method of locomotion get over to the sound boot tied alongside & attack her seeming to shoot along the water level at the hull, thrust himself out, fall back & return for another crack at the Maury. A good ball of fluorescence was in the water too. The anchor chains seemed to be coated with an incandescent mist below the surface & occasional blue-green globules of colonial protozoans would be carried by in the current lighting about every 5-10 seconds. They were noticeable only along the hull where evidently a turbulence of some kind causes them to lumonesce. [Luminesce] To quote from Sverdrup p. 834 "The light rays produced by organisms are wholly within the range of human vision and may at time be sufficiently brilliant to make the crests of breaking waves, the wake of a ship, or other mechanically agitated water glow with a general greenish light of sufficient intensity to enable one to see...carried by innumerable microscopic organisms mainly dinoflagellates (dinoflagellates) such a Noctiluca"

Saturday October 30th

Again we worked 8 hrs. overtime on a Saturday. Spent the entire day helping the small boat officers to get their boat sheets squared away & the soundings in their log books checked against the fathometer rolls. It was menial labor & not too interesting to do.

We had the curtains drawn over the ports all day to keep out the glare of the water & about 1100 when & came below for coffee & found we had anchored & that the 3 AGSC's were again tied up side by side along our port beam. We are anchored still – about 2 miles off Bahrein Island. Unlike Gibraltar or Piraeus or Aden which had mountains or at least hills, there is here very little to show were the water stops & the land begins. Our horizon is still very very flat. In the distance off our stern & could make out one lane flat – topped hill & it is hard to realize that the shore isn't way back there. Off our port bow a long low line of flat white buildings that seem to be right on the water is Wanamax. [Dubai] On to the left, again right at water level is a long horizon
of storage tanks and the refining towers of the Bahrien Oil Company. Farther to the left with binoculars you can just make out a cluster of bandy-legged oil well rights at the base of that one lonely hill that somehow got misplaced. The world from here seems to be unidimensional- no up or down, just horizontal distances on a vast plan. There is not a cloud in the sky – a sky only a shade lighter than the wide stretch of blue water between here & the shore. From the ship, the island looks like a white pencil line on a big blue sphere. From somewhere along that pencil line three dhows had put out & now catching a light breeze from the northwest crept along toward the open gulf.

The sun dropped lower down in the sky & approached the horizon without the softening effects of a sunset. Still at noon. Brightness it plunged below the horizon and you seemed to feel that when it rose out of the sea in the morning it would not be preceded by a gentle dawn glow, but would rise suddenly screaming & hard again. It grew dark rapidly and a million lights came on along the island making a sparkling belt of diamonds to girdle the drab night. (Colorful, but would be better for a woman's scream on a quiet night). A dog barked in one of the ships tied alongside & the thin silence shattered & fell in a million tinkling slivers. (I sailor flipped a glowing cigarette butt over the side & it fell in a wide arc and died as it hit the water – as though nature were mimicking him a shooting star fell in a lazy arc and seemed to be snuffed out as it fell below the horizon. On one of the little ships a harmonica was playing Peg 'O My Heart it fouled up the beginning of the second chorus and somebody laughed. Rope bumpers groaned as the Dutton rubbed shoulders with the Maury & somewhere behind me someone bumped into a cable in the dark & cursed. It is much cooler now 7 should be a good night for sleeping.

Sunday, October 31st

The other three went ashore today – don't know why I didn't. The crew were allowed to go only to a British recreation area & they took off in the PL with about 40 cases of beer. I couldn't quite see that ride just for a beer - in a fenced in recreation area. Well, as it turned out, the others picked up a cab & went over to Manamax. They seemed to have had a good time & saw lots of the local color – even bought 3 burnooses (Bernice) I was sorry I hadn't gone, for I could have sent off my last toll of color film. As it was I spent the time while they were ashore reading all the decent articles in my 3 Sat Eve Posts up on the deck above the drafting room. I wore only my Australian shorts & got some good color on my front. Got a really nice letter from Bobbie Imbrie w. notations & corrections by Imbo, one from Mrs. S. & a brief epistle from Charlotte McNulty the lounge lizard of Wells'50 – gives me a pain where pills can't reach. She is a spoiled brat who will soon mature into a full-blown, cultured,

bitch. (fine way to start a new page)

Monday 1st November

It's 2120 and we are tied up to the Tec at the end of the long fueling pier that stretches from Bahrein Island far out into the bay. The Pier is flush against our hull to starboard & across the 100 feet of black oil-stained planking. The American tanker Camas Meadows is moored close alongside. She rises & falls with the swell and is big black monster breathing heavily as she sucks nourishment from the great black hose that rises like a python from the pier & drapes over the gun wholes with its head thrust deep into the ships entrails. Ahead of the Camas Meadows is the U.S. Navy tanker Guadalupe also taking on fuel. The Maury too has all day had a sleek black flexible hose disgorging hundreds of gallons of black diesel oil into her tanks. The action of a pump somewhere beneath the surface of the pier causes the hose to pulsate like a loaded artery. Now it is night and the pier between the walls of hull on either side is lighted by the lamps at the end of curved arms atop the 30' lamp-posts that line the middle of the pier. The light is absorbed by the dark planking but picks out every bit of bright work & white on the ships alongside. The overall effect is one of unreality as though the whole thing were a set for the first act of Eugene O'Neill's the Long Voyage Home. A few Arabs that work as labors for BAPCO (British-American Petroleum Company) tend the cranes that hoist the hoses & turn the valves that control the flow of oil. The bases come from large trap doors in the pier that are now thrown back beside the dark holes filled with control valves & pipes. One dark skinned Arab wears a light red turban and what looks like an army overcoat – for the nights are cool- but he is barefooted. Leaning against one of the lamp posts he seems to be contemplating the small black spot at his feet that is his shadow. In the small booth in the middle of the pier a telephone jangles demandingly & the Arab looks up from his shadow toward the booth & then toward the gangplank leading up to the deck of the Camas Meadows. Down it hurries a white man in khaki shirt & shorts. His arms & bare legs look very white & he has a good sized paunch that sways as he hurries across toward the shed & makes his attempt at running look ludicrous. He disappears inside, the jangling of the telephone stops & silence closes in around the shed. The Maury rises on a swell, hawsers strain in their bits and rope finders groan as they are crushed against the oily pier. The fat man waddles across the pier toward the Maury, his shadow getting shorter & shorter as he nears a lamp post, gets mixed up in his feet as he passes & reaches out in front of him as he comes toward the ship. The Arab goes back to watching his own shadow, the black pythons still pulsate & the loud speaker system aboard tells us again that the smoking lamp is out throughout the ship.

Spent the day in the drafting room trying to unscramble the Sound Books & fathograms from the soundboats over Shah Allam Shoal. The fathometer in Beggs sound boat (#2) was on the fritz & he had used a portable set (N11-6). The hitch is that they had voltage trouble for $\frac{1}{2}$ a day 'til they put in fresh batteries & so positions that should be evenly spaced at three minute intervals along the roll are spread all over. On Menke's rolls from S.B. #1 there are 15-20 minute stretches with no time or position locations – stretches while his fathometer man was hanging over the side sick as a dog. Thus we had to go along 'till we found a place where they had changed from feet to fathoms on the roll. Try to find the break in the book & then figure ahead & back from that break assuming that the roll kept moving at a continuous rote past the stylus arm. It made a lot of finagling, but we came out O.K.

We should pull out of here early in the morning & arrive at Kuwait Wednesday some time. Then our real week begins. I have been assigned as head of triangulation party #1 & hope to set up stations to mb & tip on Jasirut Falakah (that's "Jazirat Faqlakah") the island between Ras Al Ardh & Shatt –al-Arab (The mouths of the Tigris & Euphrates). It is an interesting looking island from the map & her position makes her an island that was probably one of the first known to man. I want to see that tomb & to snap along her shoals.

Got today in the mail my first roll of color film back from Eastman. They are 8 good shots of Athens. They exceeded my wildest hopes. Must get some more color film.

Wednesday. November 3rd

1230 – Well we're here. Anchored about an hour ago between Ras – Al Ardh and Jasirat Faqlakah. Yesterday we left Bahrien about 0800 & I spend the day working over the fathometer rolls from the Maury run off while we were anchored over Shah Allam. Any fluctuations should have been attributable to tide & we hoped to get a tidal correction to apply to the sound books from the soundboats; but the joker on fathometer watch on the bridge had goofed off & fudge in the times in such a way that Nov 29^{th} just isn't in the book at all. I spent the better part of the day trying to figure out what had gone on. That afternoon our assignments were confirmed & I am indeed to go to Falakah tomorrow with M.R. Smith & C.D. Taylor (apprentice seamen) as assistants to reconnoiter the island, try to find good locations for triangulation stations Tom, Nya & Tip (now Tipe), take a solar shot, & determine visibility along the horizon, getting magnetic azimuths to all blind spots & nocturnal features. Today – or at the best far today – Ed Craig & I have laid out & inked thru boat sheets (1.002, 1.003 & 1.005) of the harbor – still have one to go. Last eve after the movie & at the risk of being through "eager" by the others I put

one of the photo stated copies of HO 3654 (Kuwait Harbor) in the Saltzman projector & traced off a large map of the island, laying off & measuring the magnetic azimuths of the lines of sight to the other proposed stations in the net which are supposed to be visible from Faqlakah.

1800 "Welcome Stranger" is the movie tonight, but since we hat it a few weeks ago (minus one reel); I think I'll skip it & get caught up in here & with my letter writing.

Our survey operations will not get underway tomorrow after all, as the captain wasn't able to make all his shore calls today. We were all set though – our stateroom already crowded now looks like a phone booth holding the gear for a marine division before Tarawa. Between the desk where I'm writing & the door, the bulkhead is festooned with map cases & sun helmets. Charts of Kuwait Harbor are on both desks where I'm writing & the door, the bulkhead is festooned with map cases & sun helmets. Charts of Kuwait Harbor are on both desks & binoculars, Whyte fore tops, pods colored pencils, & protractors are all stored & ready to go. Now it's postponed – at least for a day. I was ready but will be glad of the chance to brush up on solar observations with a teas nil. I think we all felt & still feel much relieved that the two-month trip to Kuwait is over & that we are about to start. We already know the area as though we had been here. We could produce most of these charts by memory now. As the ship pulled ever closer to land yesterday we began calling off 'familiar' landmarks as though we were coming into an area we all knew well. We picked up the headland of Ras Al Ardh & identified the land to starboard as Jazirat Faylakah recognized the muddy water as the effluvium from Shott Al Arbe & Kuwait from the sea looked much as we had imagined it. A great expanse of low white flat-topped adobe – looking buildings with one or two minarettes rising haughtily above the irregular levels of the hoses around them. Nearer the waterfront are several larger buildings with two tiers of arched balconies along the frontthey look almost like Italian Renaissance bldgs. from a distance. Along the water front dhows with their sails down look like skeletons as they cluster close against the shoreline. There must be several hundred of them moored & tied – up over there. The entire city is surrounded by a turreted wall that reaches to the harbor at both ends as though to see the people off from the land to the south & keep them at the water from which comes their livelihood. A few though seem to have broken out and several deltas of houses extend out from the wall onto the hot dry plains. From where we are anchored there is not one in site. The shore of the harbor stretches off beyond the town barren & flat to disappear in the distance. It comes back into view on the other side of Kuwait harbor but here it is backed by a low sandy bluff still dry-looking & without vegetation. About 1100 the dhow fleet returned from wherever dhows go during the day & it was lovely to see.

There must have been 50 or 60 of them – all sized- there wasn't much wind. Streaks of wind-nipples on the smooth surface of the harbor looked like greasy finger streaks on a gray-green mirror. By the time supper was over (& our mess bill jumped to \$97 monthly) it had begun to get dark. It's strange the way it gets dark out here. The grayness seems to spread up from the land & out from the shore. The land is invisible while the sky & water still seem to be hanging on to the last traces of the day. A little fingernail man has come up & the wake is very narrow band of gold from the shore straight to the ship. A cool breeze has come up - a welcome relief from the glaring heat of the day – and the ship is getting ready to retire for the night. Though it is 7 in the evening here, it is only 7 AM in Frisco on the day after a presidential election. We still don't know who won, but the last report heard about noon by short wave from England said Truman was way ahead – that would have been just after midnights sometime in the States. We don't seem to have gotten two worked up over the election over here. Our being so out of touch with the states renders us quite immune to the virus of newspaper propaganda, hence we don't know quite what goes on nor are our stands influenced by the current whim of the nations' editors. I cannot help but feel, however, that if Mr. Truman is re-elected & his democratic senators returned to their seats & additional seats go to D's over R's that our country is in for four hard years. He is a weak man. I pray God to give him the strength of character & the awareness of right to keep this country behind the principles we know to be good. It is hopeless to try to form a government stronger than the people who make it up, to aspire to political ideals higher than those ideals of the men assigned to perpetuate them, it is sheer folly to even hope for a Christian settlement of world affairs when the men in whose hands the power of war or peace may lie are Godless, self-centered, money -mad, power-crazy hypocrites, again the ethics of a social in political system can be no better than the personal ethics of the people who make up that society or that government.

Thursday, Nov. 4th 2130

Fathograms most of the day today – had my boys off work painting 1 foot black & white stripes on the 16' 2 x 2 's read on the signals. Lt's Shaw & Cook went ashore to see oil co. men & the old man to see the Sheik. Evidently the word didn't get through & not a soul ashore knew we were coming; so we won't be going ashore at least 'till Monday. – so it goes. His Highness Sir Ahmed Ibn Jaber al-Sabah – his rt. hand man Ali Kalifa whose nephew Fahad was at Beirut

Sheikh Ahmed Sabah his subjects call him

Friday, November 5th

Cooke & Shaw went to the oil co again today & down to Fahil for the tile gauge rewards. We worked topside on fathograms again. All caught up to it hover but for one NJ-9 roll that's missing & the NMC-2 roll still in the machine.

Yesterday & today were both clear & hot – also the flies have discovered us. They are persistent little devils that get into your nose & ears-& hate 'em.

Beautiful sunset tonight. No harsh colors – all pastels pink, & yellow against a baby blue sky & reflected in the light green mirror of the bay. A big boom with both sails rigged for the slightest wisp of moving air sat motionless on its reflected image in the water & was silhouetted just as the orange sun slipped behind the low sand hills west of the harbor. The nights are really quite cool & make for darn nice sleeping.

Tuesday, November 9th

1150- The word finally came through – we're to start tomorrow as previously planned for last Thursday.

Sunday we went ashore to the oil company's area & recreated – baseball beer & blazing hot sun – over & back in Soundboats. It was good to get on terra ferma again but it irked me that we couldn't get into the town. Still hope to see Feugaut. In the drafting room, we have made tidal plot from the Maury's rolls over Shah Allam & have applied the corrections by time to the sound book sound books. Set up 0.201 smooth plot 1:40,000 & are now working

0202

Thursday Evening November 12th,

I'm really tired tonight – left the ship at 0730 this A.M. & got back in the dock at 1920 tonight. Yesterday was another long one too. Holiday routine tomorrow & work Sunday. I had Sunday School last Sunday – we get a miserable attendance – maybe 25 out of 300 men & 3 out of 28 offices 15^{th} Chapter of St. John – I am the vine & you are the branches- Hope to get caught up in here when I wake up tomorrow afternoon. Doc Calin is a wonderful guy has picked up Jaundice & is being flown to Dhahran for shipment back to the States. Tough break for him & us.

Friday eve November 12th

I find it most difficult to write of yesterday when tomorrow loon so big. Daily I am faced with tasks the enormity of which staggers me; but each eve & somehow seem to have muddled my way through. The difficulty stems from my own inadequate knowledge of

this type of work, a knowledge that should be gained from those laying out the jobs for us; but they are of no help & I learn only by trial & error while doing.

Tuesday evening the plan of the day came out with "0700 Mr. Stewart & triangulation party #1 away in LCUP #5 to reconnoiter Jazirat laylbah stations Tomb Type & Tviya" It's funny that no one ever tells us where we go or what we do-its always that impersonal Plan of the Day- a mimeographed sheet tacked up among other papers on the bulletin board in the wardroom. By the time I sacked in that evening I had all our gear- transit, biped, stadia rod, my map cave, hatchet, sheeting, tacks, maps everything – even food & water arranged for – I know where I was going Faylolsoh, and what I was to do – locate sites for stations, take 1 minute cuts to natural objects, check horizon visibility & take three sets of sun shots at each stations. I should have rested well, but as I lay there staring through the darkness at the overhead I was assailed by a thousand doubts, small details that never noted the plan of the day, little problems that couldn't be prepared for & would have to be sized up & dealt with as they were met. How close could we get with the VP? Was the existing chart accurate enough so we could trust the depth? What if we ran aground? Were the Arabs on Falashoh going to resent our landing on their island. I had read of the Arabs castrating British fliers & sewing their testicles in their mouths. They cut off a man's hands for stealing – their regard for life is small here where it is so cheap- only the strong survive & death is no novelty. Would they resent my setting up a transit on top of a tomb? These things I did not know-would not know 'till tomorrow.

It was dark at 0600 when I was awakened. Ed & Jerry & Frank each had slept with his own problems & we were quiet as we washed & dressed. Breakfast was hurried & by 0630 I was below were our gear had been stored the night before. Smith & Taylor had not shown up so I had the word passed for them. By 0650 we had all our gear piled at the head of the gang way & were awaiting the LCUP to come along side. At five of seven she came around the turn of the Maury her broad nose door spanking the waves & the American flag slapping smartly in the dawn breeze. We toted our gear down the gangway, handed it over into the rocking boat & went back for more. The boat was loaded & we hopped aboard & jumped down into the great space forward. The Maury loomed high above us. Lt. Stoerseth was OD & he was standing on the grilled platform at the head of the gangway directly above me. I recall thinking that if a woman were standing there I could see everything. It's strange the thoughts that rush unchecked through one's mind. "Cocks'n shove off – take your orders from Mr. Stewart." Nolan a husky black slipped the bow line, Fade hauled in the stern line & Powers standing at the high wheel turned the spade-handle throttle for power & guard it forward. We were off. I looked up & could see men & officers standing along the rails watching us leave. I saw Frank & Jerry had paused in their own preparations to watch me go. What were they thinking as they watched? I had an urge to wave but checked it. It would have seemed silly I guess. Must appear business-like. We went around to the port side of the Maury where a 10' wherry [a long light rowboat made sharp at both ends and used to transport passengers on rivers and about harbors] dangled in mid-air from a boom cable. Powers eased in alongside, pulled back on the spade handle to reverse our engine & stop us. We nudged the great hull & the boom lowered the wherry twisting largely toward us.

We guided her into the U.P & unhooked the cable. Looking up, I could see the hulk of Bosn' Robertson standing at the rail. He shouted an order to someone I couldn't see & the dangling empty cable rose up toward the deck high above us. I asked Powers if he knew where we were going when he said no, I told him to head the East into the sun & we were off. I gave him my extra chart for he had none, showed him the island & our position & started arranging our gear. The sun was only a few feet above the horizon & had not yet taken the night chill out of the air. We plowed along with a good sea coming from astern & slightly to port. The ungainly LCUP would rise at the stern as a wave overtook us ever crazily as the cox'n cranked the wheel to get her back on course & straighten out again as the stern went down in the trough. Thus our course was a constant zig zag one- the sharp veer to port as a wave swerving our stern and the return to course as the helmsman corrected. This plus the steady pitch & slight roll made our small world hounded by the side of the landing craft, a crazily swaying drunken microcosms. This was the type of craft that took the marines ashore at Tarawa & Iwo only a few short years ago. I looked forward to the slit in the steel door at the bow & thought of the many men that had watched Betio & Suribacki draw closer identical slits in identical LCUP's& wondered what they had thought. The Maury was fast disappearing to stern & Kuwait was sliding port to starboard. The low morning sun made the adobe bldgs. of the town stand out clearly, & together with their shadows that would disappear as the sun rose higher made a black & white pattern of bare rectangular blocks & broke out the glasses & identified the black pyramid shaped lighthouse of Ras Al Ardh. Then that two slipped behind us & we were alone but for a lone seagull that circled screaming above us. We ploughed onward & the sun grew warm & then hot. The two mariners were as leep - Iwould have plenty of time to get to know them. I climbed up to the top of the bow door & scanned the horizon with the binoculars for the first sight of what I had come to call 'my Island". My field of vision rose & fell with the boat & I could see only a few big dhows hull-down on the horizon. It seemed hover that we plowed along, the waves were higher now that we were past the point & out into the Persian Gulf & the man at the wheel was fighting it continually. That wheel is not vertical as you expect boat wheels to

be but rather is horizontal like the steering wheel of a truck or big bus. He now had extended the steering column upwards & stood with one foot on the guns whole & the other on the box that hauled the gyro & controls & he two was peering intensely ahead his white sailor cap low over eyes squinted against the sun. His sleeves were rolled up over powerful forearms tattooed. His left arm had a pretty girl in a bathing suit & a big sunflower hat & I remember wondering why the artist had priced in pink coloring for her flesh when he could have left it plain & had it flesh-colored. His right arm had a shield & eagle with U.S. Navy underneath in black letters.

The light at Ras Al Ardh was still visible on the horizon behind us. I swung the binoculars through 180 degrees & level ahead on the opposite horizon was a small gray rectangle – a different shape from the painted dhow sails that I had been seeing & I knew it was the tomb. Even as I watched, the horizon north of the tomb sprouted trees. Then more rectangular bldgs. & then the low land that was the western end of Faylakah [Failaka Island (Arabic: $\Box \Box \exists jazīrat Faylakah / Fēlaka) is a Kuwaiti$ Island in the Persian Gulf. The island is 20 km off the coast of Kuwait City in the Persian *Gulf* rose beneath them. We altered course to it just north of the tom, between it & the tow & waited as it all drew nearer. The mariners were awake now & I jumped down from the ramp where I had been perched to have a conference with Sgt. Fifield (John F. from Montana near Billings). I pulled out a dirty creased map & painted out where I planned to land. We would take the landing craft in as far as possible & then put out the wherry. I planned to set-up the transit on the tomb if possible & then move down by boat to Tipe on the other end of the island. John & S/SSgt Brenham planned to walk down to meet us there. We were close now & the end of the island seemed completely deserted – I couldn't see a soul. At first & though that was a good sign – no Arabs no trouble, but then I began to remember Villiers's comment about visitors being welcomed with a shot from behind a wall & I wished I could see a few Arabs- had visions of dark eyes peering over ancient rifle barrels from every corner. We slowed down to half speed & felt our way toward the beach. 100 yards then 70 & 50, then a blump under the storm. We all turned & saw right a stern of us a coffee-colored turbulence in our wake & knew we had run aground. Powers quickly reversed the engine & we began to even back & off the bottom. As we backed we bumped again- & again- not hard jolting bumps, but just enough to let us know the bottom was still there. We backed & tweaked & headed out again- the coffee colored wake & occasional scraping continued 'till we were back at least 100 yds. from the shore. The tide must have been ebbing fast, for we had hit none of it going in. Once back in deep water – I say 'deep' here at the delta of Shatt al Arab [Shatt al Arab (shät äl ä 'räb) [key], tidal river, 120 mi (193 km) long, formed by the confluence of the Tigris and Euphrates rivers, flowing SE to the Persian Gulf, ...] 5' is

deep water – we hove to & tossed out the hook. With much pushing & cranking the ramp creaked down & a few brave wavelets came in between the ramp & the bottom of the boat. We pitched our gear in the wherry & headed for shore. I suppose we could have put her out when we were in closer, but all our efforts at the time were concentrated on getting water between hull & bottom again. Even the wherry drawing lens then a foot went aground & we all piled out, our equipment on our backs & waded ashore pulling the wherry with us. It was a 20 yard splash through the foot-deep water to the shiny mud-flat that the water had so recently quitted. There must be a good deal of organic material in that mud for it had an odor of purification & decay. We beached the wherry, waved the marine on their way & turned toward the tomb. The building was only 20 or 30 yds. away now & seemed quite deserted. We crossed the mud flat that sucked at our feet & watched our footprints fill with water, crossed the high water mark – a long thin line of shells – I stopped & picked up 3 or four nice tarpon scales – then into the dry sand. Water slushed in my shoes & the wet bottoms of my trousers clung to my legs. The tomb loomed above us now & we paused to look it over. It had looked



Gray when we first saw it on the horizon, had seemed pure white from the beach, & now as we stood facing it, it was a washed out khaki color & seemed to be made of adobe – sand, straw & mud baked together into block & plastered with more mud & sand. A latticed doorway of palm cacti hung lastly open & four bare openings for windows stared at us like empty eye sockets. The roof was low & flat & seemed to have a low wall around it. A small window-less cubicle at one corner broke the rectangular symmetry of the building. The ground around the entrance was well beaten down & I could make out bare foot print & deeper prints of cloven hoofs that probably were made by a camel. We walked completely around it and saw no one back at the broken doorway I peered in & risked a "hello" that I tried to make sound authoritative but friendly—try it. I was startled by the hollow & dead tone that the building imparted & the sound of my voice. There was no answer & I went in. The door opened onto a corridor that ran the full length of the building to another door at the other end & intersected similar corridors in the middle – thus dividing the building into five separate rooms about 25 feet on a side. These rooms each had a door & a window giving onto one of the corridors, so in effect it was four separate one – roomed houses under the same roof. We peered in each room in turn & all were empty. One had the remains of a small cook fire in the middle of the dirt floor, but aside from this they were all devoid of any evidence of human habitation & might easily have been a house set aside for flies for they were legion. They buzzed continually in the starting ray of sunlight that came in thru one of the doorways & soon we were covered with them. At the corner to which the small annex was attached, a stairway led upward from the main corridor. The steps were so filled with sand that it looked more like an uneven ramp leading upward. There was one turn in the stairs where a small window had been cut & was more hung with a tattered piece of burlap that flapped in the breeze. There were no footprints on the stairs, so I felt sure no one was up there waiting for me to put my head out of the opening that gave onto the roof. I climbed up & came out on the flat roof as a small rat scurried to the other side & disappeared down a hole. The sun & air felt good after the dusk & dirt & flies of the interior. I went over to the low parapet around the roof & peered over & I was about 15' above the ground & had a fine view of the surrounding area. To the west the shore lay just below the low mound in which the tomb was built – if it is a tomb- & I could see that even during the short time since we had left it, the wherry had been left high & dry by the receding tide. Off shore the LCVP bobbed reassuringly in the gentle swell to the north by the town of Az-Zawr huddled close to the shore. Between the tomb & the town were several low sand mounds, probably dunes, & over them ranged a small herd of goats – what they found there to eat I don't know for it looked like bare sand from where I stood. Nothing there was what I assumed to be a woman. It was a person shrouded from head to foot in a black shawl – the first person I had yet seen on the island. Beyond lay the town naked in the glaring Arabian sun-more of the same flat-roofed rectangular buildings with one lone white minaret pointing up into the blue. Behind a wall I could see the tops of a small grove – probably 15 or 20 of date palms. Many dhows of all sizes were drawn up in the stretch of narrow sand beach between the town & the water. The shore –side of the town seemed to be walled and before the wall I could discern several moving dots that were more people. Above & below the town were shaped fish traps painted out into the water & bagalla that had been approaching the town under full sail dropped her latun rig & coasted on toward the shore as the dots converged toward the place where she touched shore. Looking through the binoculars I seemed to be viewing a silent movie. I was

watching people moving & a boat landing but could hear none of the chattering & sing song chanting that I have learned accompanies any group activity by the dhow sailors. It was very quiet – all I could hear was the buzzing of the flier & a nearby curse as Taylor blew a fly out of his mouth. It was quite hot by now & I took off my shirt to absorb some of that warmth. I took my one minute cuts? & my set of three sun-shots & cursed the flies myself. They aren't bad when they crawl on your hands & backs & neck, because you know where they are; but once on your face, they get into your ears & nose, walk into the corner of your eyes and across your lips. They are persistent & seem determined to give you just as much trouble as they can. We finished up on the roof, drove a stake with a strip of bunting on it into the S.W. corner of the adobe rampart, packed up the gear & ducked back down into the tomb & on out onto the sand again. The roof is too unstable to be used as a station for a thendobty? but I was lucky in that the rise of ground is high enough above the water so I can see light without having to set up a tower. Back across the shell line, the mud flat – now dry, is beginning to break up into hexagonal blocks, & down to the wherry now a good 10 yards from the water. The LCVP came in part way to meet us, we loaded the gear aboard, climbed on ourselves & put the wherry in tow.

Nov 14th Sunday eve –

I'm tired of trying to keep up in this stuff – each days task seems bigger than the last – and the interesting details of the mesh Are neglected when my mind is filled with the size of the cloth (that's a weird & confusing metaphor if ever I saw one) Anyway we got back Wednesday eve tired & sun-burned to find that Lts. Shaw & Cook were ashore at a party & that & the next day was to center mark TIPC Tomb & Niya – hell I hadn't even gotten to Tom's & Niya & had never mixed concrete in my life. The other three all had pblms. Too. We sacked in about midnight after 3 hrs. of study trying to puzzle out how to do what was expected of us. We were all pretty P.O.'d. How in hell do they expect to run a survey from their damn parties? I left Thursday morning (yes, Memorial day) before they had shaken off hangovers that I hoped made them feel miserable all day. We ran into a lot of trouble getting the LCUP in at Tipe & I ended up carrying a 100 lb can of cement in through the surf & mud on my shoulder. Taylor is a big help but Dumb & Smith is a persecuted intellectual & no earthly help whatever. I think him a bit effeminate too. Somehow I got the concrete mixed & poured & the upper & lower stations marks in. Then back to the wherry & out to end of Faylakah to Niya where we were to pick up the Lynenes, but kept running aground – so had to go the long way back past Tomb to get them. I ended up running in for each of them because it turned out that I'm the only civilian among 5 sailors, was also the only man that could row a boat. They were willing to try & I let them but bare oars & open oar-locks got the best of them & if we wanted ever to see the Maury Mare again I just had to do it myself. Saturday – yesterday I spent breaking out a 90' Bilby Tower.

[Survey towers were used by U.S. Coast and Geodetic Survey surveyors from the mid-1800s through the 1980s to obtain the clear lines-of-sight needed to conduct the surveys that are the backbone of our nation's spatial reference framework. One of the most enduring and widely used types of towers was the Bilby Tower, designed by Jasper Bilby in 1926.]

from #2 hold & had the boom load all the parts on the USS Littlehales - I was to have left today on her to erect the tower at Tipe. At noon the Little hales was sent to Bahrein for mail (a 2-day trip) so we had to unload all that steel- it is still lying up on the boot deck together with the 2 103' towers I spent today breaking out. The Doc has been flown back to the states with jaundice

& cook might as well go too. I have never seen a less capable officer in a position of equal responsibility. He has been griping for two days now & has accomplished almost nothing. Tonight I hold the briefing while he goes ashore to another party. Says he doesn't want to, but nobody but M.M. Cook accepted for him. Since he & I made out tomorrow's plan of the day. I put myself in Jack's sound boat going down the coast tomorrow I'm darned if I'll stay aboard in this madhouse another day. Everyone is P.O.'d at everyone else & Cook who is supposed to be running the show doesn't know which way to turn. Shaw is ashore with the astroparty as is Craig. Shaw knows his stuff pretty well, but is completely negative personality – a strange duck. Either I'm the only sane or the only crasy one aboard & tonight I think maybe it's the latter.

Monday eve- Nov 15th

The Littlehales came back about noon, & the five bags of mail on her fo'castle looked good. In the morning Nelsen & Tavern Parties 3 & 4 broke out the rest of that 3rd 103' Bibly & loaded all three aboard the USS Littlehales in the afternoon. Mr. Cook went ashore again to try to see the Political Agent about putting the base line through the city wall & erecting a Bilby near the Sheiks palace on that low hill. About 1800 the wind began to rise & by 1900 had lashed the waters of the harbor into a maelstrom of heaving green topped with wind-whipped spume. A heavy fog developed & eddies of mist swirled around the ship & were blown sternward. By Movie call & 1915 the wind was carrying sand that gritted underfoot on the deck. It got into my hair, I could feel the grit in my mouth & smell the dust, collected in my ears & I was constantly trying to alleviate the

pain of grains in my eyes. They moved the Little hales out from the port side & hauled the VP's & soundboats up out of the water. Cook is still on the beach & it doesn't look now as if the tower parties will get away in the morning.

Mail= letter from Sis & Scotty, 2 Later posts & my bppl pm Saidi Arabia from the clan I'm afraid my 3 rolls of pictures were among the mail that was jettisoned somewhere between Tripoli & Dhaharan.

Thursday Nov 25th – Thanksgiving-

Ten days since my last entry, & they were ten hectic ones. Every day from Monday till Friday of that week I expected to move onto the Littlehales with tower parties 3 & 4 and each day the weather was a bit worse. The harbor each morning was a shining green & white fury – no kin to the mivear-like tranquility that I first new as Kuwayt Harbor. Saturday Matchead decided that things had been held up too long & we would go as scheduled – weather be damned. We all loaded our gear into LCVP #5 as she tossed crazily at the foot of the Jacobs ladder of the port side. The lines were cast off & we headed forward along the great hull of the Maury. Once out past the bow in whose lee we had loaded we were lashed by the full strength of the wind & waves. The bow of the landing craft would raise high out of the water, & crash down with a sickening jolt as great sheets of water rose above the gunwhales [gunwales] & were driven back on us. By the time we had covered the few hundred yards to the Little Hales we were all thoroughly soaked. We came alongside& the lines were thrown over. Getting onto the heaving ship from the tossing VP developed into quite an undertaking. We would climb up onto the VP's gunwhales & toss our gear to one of the sailors aboard the Little Hales as her deck came flush with us in the middle of one of her violent rolls. Then the next time her rolling our tossing brought the decks parallel again & jumped, caught the line that serves as a railing on her after deck & was hauled aboard by two young husks before the VP was thrown violently into the ships side – a crash that shook the ship & left a great splintered tear in her port rubbing strake. I had the VP put in tow & we were off. The Capt. Is Lt Jg.Carroll, Ens. Kitchens her Exec. & Ens.Coulter

[Note: years later on Charles C. Kitchen: Died 22 Nov 1951 in crash of PBM off LaJolla I had seen him in San Diego just the week before]



Ens Coulter is the handy man. We anchored about 4 mi south of the Eastern tip of Jazirat Faylakah in 15 feet of muddy water. We had lunch aboard & loaded the parts of a 90 – foot steel tower into the V.P. I could go on for page after page about the trouble we ran into getting that damn tower up. We could get the VP no closer than 3 or 4 hundred yards to the beach & even then we had her aground several times. From her we ferried all the steel ashore in a rubber life-raft & ten carried it all on our backs over 300 yards of mud & canal tidal flats to the high water mark where I had put in the cement station mark the week before. Sat. we got all the holes for the footing dry & one cannon post put in Sunday we poured the rest of the cement & got more parts ashore. Monday we had all the parts – some hundred & twenty-odd pieces of steel- ashore by noon & had the first 2 sections up by the time we left. That night when we got back to the V.P. about 1800 she had let the tide go out from under her & was hung up on a coral head. I got the Littlehales on the Walkie Talkie & they sent out her motor whaleboats for us. It was dark when she arrived & we safely transferred all personnel to her in a life craft that now

looked badly. The crew of the VP stayed with her 7 brought her back when the tide returned about 2300. That night it was really rough. I was hunkered down on the chart table 7 by 0100 the roll was so bad that I had to hang on to keep from being thrown to the deck. A chair, charts & a wastebasket washed around the chartroom & I could hear the gear in the galley below crashing to the deck. I couldn't sleep; it was all I could do to hang on. The books in a rack with a bobble board around it were thrown out, bounced off me & joined the mess on the deck. A door was banging somewhere below & a radio set in the radio shack just off of the chart house broke loose & was thrown across the room & smashed against the opposite bulkhead. I set up front sometime during the course of the night & smashed my nose on the book shelf above me. It has since gotten infected as do all small cuts over here & is pretty sore even now. Had 30000 units of penicillin yesterday & the same today. It's still swollen & red. The next morning the sea had not abated. A man couldn't stand up & movement about the ship was from handhold to handhold. I held off showing off the VP & tower parties 'till 1000. By then the seas had gone down some & the VP came alongside to take us aboard. Again it was jump as the deck heaved by & we were off- & sun drenched again by the walls of water that were continually thrown over us. If the sea was this bad when we got to Tipe I had planned to return, but we were in the lee of the island & the swell wasn't too bad. That day we got the tower up to about 60'. The OP had developed a bad leak from the beating she had taken while loading alongside the AGSc - & I had sent her back & got on the Walkie talkie & contacted Caroll. Another VP- #7 had been sent from the Maury. The Major -Major Pala (USMC) & 4 marines had been ashore since Sunday up near Az Zwar. The VP was to pick them up & then come for us. Well, it was 1915 before we saw their light - we lit a fire as a beam for them. There are no trees at all – only sand- so we chopped up one of our wooden forms for the concrete for firewood. They sent in a sherry for 4 of us & five others went out in the life rat. It was quite dark, the wind had come up again, the raft looked badly – the water sloshed around our feet. It was quite chilly & the sea was fairly rough. We all got back OK, but all our dry clothes had gone in VP #5 so we had to stay wet. I talked to the Maury by radio that night & told then the tower would be done by 1600 the next day. We left the Littlehales by 0730 & I bolted in the last piece on top myself at 1525. We got all our gear ferried out to the VP by 1620 & were back at the Littlehales shortly after 1700. Reached the Maury by 2100 & I was in the rack & asleep after a good hot shower by 2200. I'm no construction engine, but I must admit I'm proud of the job we did. We ferried in over 2 tons of steel on a rubber life-raft – carried it on our backs over 300 yards of mud & coral & got it all up from the blueprint.

Mail had come when we got back & I had one Sotwepost? that the others had opened & no letters. This Navy has p. poor mail service. I haven't heard from home since Oct 22nd

– pretty miserable service. The Maury leaves for Bahrein on Saturday & I guess will stay here & put up more towers. So it goes.

Tuesday December 7th

The Maury did indeed leave for Bahrein on Saturday & was due to return the following Sat. (Dec 4th). I moved over onto the Littlhales again but this time with tower parties 2 & 4, 3 having been sent with Eddy & Primer on the Blish to erect towers on the North Shore. Lt Shaw is SOPA of the powerful units of the U.S. Fleet now holding Kuwait Harbor - 3 136' AGSC's 2 52' soundboats and good old VP#5.

Saturday afternoon (that was Nov 27th) we were lucky. We loaded all the parts for a 103' steel tower in Jocko's (En.s Joccodime from Hoboken) Sound Boat (3#) & moved into the oil jetty. We'd been there but 3 minutes when I ran into Mr.Peiper of Bectol & Scrounge & arranged a truck & rag-head driver who took all of it over to the Sheikhs Gate & out onto the sand outside the wall. It was hard digging but we got the holes in OK & poured some concrete Sunday Mr. Kitchens & Carwell & GMC Beller went over & poured the rest of them. Mon Tue Wed & till 1500 Thurs we worked on the bloody steel. The wind was quite strong Tues & Wed AM's & I had the men knock off for I wanted no one working on that platform in such a gale. We all expected the Maury back Sat the 4th & got a message Fri that she'd be back on the 7th. Then last night another that she'd be back on the 10th. Started another 103' in at West Base but are missing U-284 parts which are the corner posts of the first sections. We planted the footings in concrete Friday & listed all missing parts. I took 30 cuts with a transit from the top of Wait Tower Sat & knocked off on Sunday. That PM. I went into Kuwait with Eddy Primer, Craig & Chief Whitrock to look, shop, & take pictures. Lots of looking – all of which will be written up when I feel up to 't. Bot a nice set of six silver napkin rings for 45 Rupees – (\$11.25) Took some pictures along the waterfront (also to be described) & got four more rolls of film in turn. Don't know how or why they have 828 film over here, but I'm glad they do. The ship is way low on provisions & fuel – the food has slipped pretty badly – weevils in our flour & no mail add up to a rough kick in the morale but the men seem to be holding out O.K. I got a carton of Chesterfields from Ens. Carpenter on the Dutton & poured them out to my tower parties. Today I took the day off – to hell with them. I was tired. Had a swimming party after lunch & we had a fine old time diving from the bridge. Water pretty cold, though & the cool breeze didn't help any. Shot a couple of clips of carbine shells with the skipper from atop the canvas sun shade over the bridge. Nellie (P.G. Nelson BN2) threw some tin cans over & we blazed away at them. All good sport. First time I've had a carbine to my shoulder since my army days.

Message last night from the Maury said "High Winds & loading trouble make New ETA 10 Dec. Report Projects & Conditions" airwall wanted to wire back. No progress No conditions, no fuel, no food, no water, no kidding. We bummed water from the Forreria a Limey water barge down from Basra & the Skipper goes ashore to try & bum some food from IBI in the morning. Our operations has completely bogged down, & I guess will remain so 'till the Maury gets back. Should have a goodly chunk of mail by then.

December 26th Sunday-

Time indeed does fly. The night after this was written in last, the local wind really came up & Thursday A.M> looking for the Littlehales we could see no tower at Wait. We went over the next AM to find a twisted mass of steel. Since then I moved to the AGSc-7 again parties 2 & 4 we built West Base & re-built Wait towers; the Maury returned & Ed Craig & I have been cutting in signals in the harbor 7 south to Fahil. All work was suspended thru eve. Dec 23rd & I was invited aboard the L. for Xmas at Fahahil. The message came by blinker at 2400 & I got out of the rack to blink back an answer, left the next AM & 0600. It was good to get away from that damn ship again & back with the Skipper, Kitch & Coult. That first night the Skipper & I went to a real whing-ding at the I.B.I. (Bechtel) camp at Fahahil. Sat back to the ship about 0200 & sat drinking champagne till 0330. It was quite an evening. Johnny Madder & some other joker (Joe Lany) came out for lunch & that eve Jerry Irby, Chuck Meteo F, & Wally Janes came out for the move & eve finished off 5 more bots. Of champagne. It was the stuff gotten in Athens & good! Tonight Caveall & I go in with our movie projector to give them a double feature. They are a good oufit in there, but all they have to do in off time is drink & really do. They have a nice area in there with air-conditioned barracks, nice rec-hall with Indians to wait on table & do their housekeeping.

Sorry I haven't done better in keeping this up, but I leave the ship at 0700 in the morning & it is usually 6 PM before I get back & go to a movie & then I'm ready for bed. There is no time at all for this or even letters, & I haven't read a book since we started survey operations. The family has sent lots of film & I have been taking pictures like mad. Hope they came out.

International Bechtel Inc. at Fahahil,

Del Jarvis & Margaret Doughtry (Dotree)

Jerry Hunter Ralph Stinson

John Madder Bob Lorenson

Jerry Irby	Mike Gramangin (Schlumberger)
Chuck Metcalf	Joe Lang
Wally Jones	Jim Bolderson
Bob Eckerd	Leo Ash
Bob Howard	

Al Cottier & Jade Rockje

Tuesday- January 18th at Bahrien

Since then much has gone on. From the Maury made several trips to the island (Faylakah) &

I plus delta party #1 & some of the men from Sound Boat #2 (Paine, Mitner, Stanfield, & Castro) put up a tripod at Niya & centerpole Stu at the Torin. Went over with Eddcaiy who occupied Tomb & Type & erected all along the shore. I still like that island. It must have been the same a thousand years ago. The center of activities at Az Zawar – the only town on the 9 – mile island – is the waterfront. Here the fine white sand slopes off as a long beach separating the town from the blue waters of the Persian Gulf. Off the beach long-shore currents have maintained a good depth of water. High tide gives just under a fathom a mere 10 yards from the shore. Not much water where power craft are concerned, but here where the dhow is king that is plenty of water to assure Az Zwar her lively hood. Several large dhows are usually anchored off shore. With their lateen sails down, they seem awkward & naked, hardly the framework of that graceful sight – a dhow under full sail. On shore a line of boats pulled up bow inland, propped up with sand shoveled in along their keels await a mission or repairs. Net-drying racks are draped with handmade nets bleached by sun & salt. Their Floats the bases of palm rachi. Here & there a triangular sail is spread for drying & the owner shoos away an inquisitive goat. An old man & setting against a sun-baked well holds a peg of twine between his toes & sings softly as he twines it into rope. A chant on the water draws your attention to a bagalla anchored offshore where the nakhoda has his men on lines & the top boom lifts the sail into the wind. The anchor is up & the large dhow drifts aimlessly with the current. As the great sail rises & catches the wind it bellies, collapses briefly, then catches the breeze as she is hauled to the top & the boot moves quietly southward along the coasts. These are hardy men, these sea-going Arabs. They are true sailors & good. They are friendly people too & I must admit would make much better friends than many Americans I know. A smile & "Salaam" always brings a big grin & "Salaam Sahib".

Behind the town can be seen the welcome given of small walled-in graves. The womenverbal & black – stay out of sight generally & peer from behind heavy wooden doors or around adobe walls.

Came New Year's & I was invited down to Tahil by H. Carroll but never got back to the ship 'till 8 P.M. New Year's Eve- saw a movie in the ward room & sacked in.

After the first we started delta stations.



And at delta Wait got a fair set. Then some humid weather & the boats stayed aboard or in at the jetty. Then came a week's reprieve & I wrangled – I.E. Carrol wrangled – me back aboard the Littlehales & I cut in the 6 30' tripods, & 7 center poles South of Fahahil plus erecting Colt & moving Fahi & occupying Kubbar. Was all work, but I enjoyed working with that outfit. Back aboard I got the cold freeze from Shaw & Cook again and darn near told them what they could do with this job. After Kubbar, the L remedy vessel with the mighty M & the other two AGSc's & we move off for Bahrein for supplies, repairs, & general stagnations. I've managed to stretch the plotting of those signals out over two days, but its almost done now—Hope to get into Manaman this trip. G.

Got a roll (well 6) color shots back & they're pretty good. Also a set of 22 prints from Miss Hoxis & she did a lousy job- really miserable job- She's through, do you hear me? THROUGH. Guess I'm cracking up,

Coming down from Fahahil we hit quite a gale – no one got any sleep or food. Can't sleep when you have to stay awake to hang on to stay in bed- & your cart to eat when the cooks can't stand up in the galley or keep anything on the range. It was that rough. Lasted from Friday night 'till we got here Sunday noon & I was beaten down to a mere shadow of my former self. Last night I bummed a boat-wide crew to the L. (I'd been invited) & had chow movies & 2 nubbins of good bridge with Carroll (titles, & Court) Then caught the boat back to the Maury about 2400. Made a darn nice evening. Tonight was asked over again. But, well you can over do a good thing, so I thought I'd better let 'er ride this trip. Enough for now

Sunday Eve – January 30th

Friday (Jan 30) Ed, Jerry, Frank & I took the day off & went into Manama on Bahrein Island. – wandered around & looked up local color & smells. Roamed the bazars & the Indian stores – lots of nice things in silver & carved wood, but all pretty expensive – I did get a 25 R carved wooden jar filled it with good cigars. Saturday I came up to Fahihil on the Littlehales again – rain Monday. Set up an extension at Dant on Tuesday, but could get only two triangulations sets due to the miserable visibility. Had a real blow on Wednesday! I was hanging on up on the crazily pitching bridge & watched the 30 – foot tripod a Fahi lift-up, twist, and crash to the ground. Thursday we put her back up & I occupied Laya for six sets, but the visibility was pretty poor. Fri we started sounding, but couldn't see the signals for beans. Went alongside the Maury Friday night & anchored off about 500 yds. & tied up about noon. The Maury plans to go to Bahrien on Monday (tomorrow) till the 7th & I planned to come down here today on the Littlehales, but I got in a big squabble with Cook & Shaw on the way this Shaw is being run & had to miss the L. caught the U.S.S. Dutton when she left about 1800 & & got here (Fahihil) about 2035, brought mail for the L which they seemed glad, indeed to get.

Got back but to find a good letter from Sally Bernwell & a mash note from M McNulty plus some more posts. That McGood doesn't know when to quit. I've already told her I'll be here till the spring of "50 to cool her off. Oh well, my morale can use it.

One hitch to this survey is that they sent out no recon. Party in advance to spot locations for their signals, hence they were put up all over & our triangulation net looks like a doodler's nightmare. We went round & round on it & I finally convinced them that another 30' tripod would have to go up between Dant & Fahi- finally to keep out of going into form with a single triangle & secondly to solve the Dant-Fahi non-interuseability enigma. The net will now go like this south of the Base Line



It is good to be back aboard the Littlehales again – though I have lots of angle- shooting to do. Starting tomorrow I'll put up the new signal tomorrow & occupy it if the visibility is OK.

Sunday- plotted signals in drifting ...4 hrs.

Monday – Jan 31

-10 hrs.- occupied Flit-erected 3d Tpd Flit

Re-erected Cab, redressed But

Tuesday – Feb 1- Redressed farm, Blk/re-center marked Colt-re-erected Bar as 30' center pole with red skirts. Redressed Bum with extra swatch of red. Occupied Evan and Colt for six sets each. Put Flit on Littlehales, SB#3 boat sheets. (121/2 hrs.) 9 ½ beach – 3 hrs. aboard)

Wed. Feb 2 Transport all crapped out. Walked to Fahi for 6 sets & computations (9 hrs.) Drivers worked on Dukw & carry-all both in commish. at 200 hrs.

Thurs-Feb 3^{rd} Occupied platform at Dant for 6 sets – redressed Bus – occupied Evan for 4 and Cott for 4 sets each (0730-1800-10 ½ hrs.)

Friday-Feb 4

Moved instrument tower (15') to Bane from Bant & erected the S.O.B. took seven sets – (0700 left ship – returned 1800- 11 hrs.) Put specie tree on L. Bootsheet

Saturday Feb 5

We were going to anchor off Hubar last night, but orders came through in good old Maury tradition that she would be back a week later than she had planned. The Littlehales was ordered to Bahrein to get supplies for the small ships & the two soundboats that are here at Fahihil. I was ordered to the Dutton but I am now aboard the Blish with Ens Jim Ayers & we plan to go ashore in the morning &check my T-2 which is way off in calibration & bubble Evian's. No work today.

Tuesday – Feb 8

Starting Saturday afternoon & still going great guns is a dilly of a sand storm. Jim & I went in to the beach yesterday morning, & though there was too much dust in the air to do any triangulation – so we set our Theodolites up behind the south signal tower on the beach at Fahihil & beat a 45' collimation error down to 07'-09' – much better so maybe I'll get some better results from here on out. We came back out to the Blish on one of the soundboats & are still aboard. No sense in going ashore to shoot angles when the sand is so thick in the air I couldn't even see the beach. Along about noon on Monday the wind shifted & came out of the northwest – directly off-shore. By 1600 it had increased to about 20 knots & was heavily laden with blowing sand. By dark the wind had risen still more & the lights of the Italian tanker overhead a few hundred yards astern of us could barely be seen through the blowing sand. This morning it was nearing gale speed & there was a layer of dull brown sand over everything. The sand penetrates everything- it's in the food, in my clothes, everywhere. The Littlehales somehow managed to get back about noon today, but the seas were running too high for the other AGSc's to go alongside here to transfer the much-needed food. Jocko's sound boat finally got alongside her & much later on got over to us. The sand completely obscured the other ships about us, & we were alone tossing & pitching in our private maelstrom surrounded by a haze of blowing sand that all but obscured the sun. Tonight, though still pretty rough, the wind has slackened some & the amount of airborne sand has decreased & the lights of the tanker & the other AGSC's are visible though haloed as though seen through a heavy fog.

I doubt very much if it will have abated enough by tomorrow to get any work done, just have to wait & see I guess.

Incidentalia- all crossed out

Though Shaw I'm sure thinks we're insane

There is one fact we all maintain

It has been true & will remain

You still cannot see Dant from Bane

Frank & Ed & Jerry Can't

So how can I see Cant from Dant

Inchentalia -Though Shaw I'm sure thinks here It has You annot Se C Cant Frank & Ed & Eart from Dayt how ca see

[actual page crossed out in diary]

Friday Feb. 11

That was Tuesday – The Maury arrived at Fahihil late Wednesday night & the Blish Dutton went alongside about noon on Thursday. We got underway that night & spent today aboard up in the briefing room getting all my accumulated info. Down in the survey log, abstracts, signal log, etc. & plotting flies species trees on the master charts. A: T Dant were down yesterday when we left but were supposed to be re-created by the Littlehales today. I hope so because I'm scheduled to occupy Cart tomorrow & must be able to see Dant from there. Already I'm fed up with the Maury & am eager to return to my pleasant existence on the AGSC-7.

Tuesday February 15

It's a good thing I didn't have this with me Saturday eve. I was ready to throw it all over & head for Basrah. Sat. A.M. I went south to Cart, but Dant was still down & Evan out of sight. Took seven sets on W. Base, Astra & Bane & finished them just as Norton came screaming up in the jeep to say the Maury was off house tanners immediately. We got to the Shurwaik Jetty as a V.P. came in with some of our gear & the word that we would stay in the beach area. No clothes, no cigarettes, & no way to get in touch with SB32 on which were the 3 other civies. They were just left too. We finally contacted them by radio from the Blish & they came in dead tired & hungry at 2030 The Capt. (Northrop) would 'till his movie was over & then condescended to give them some chow. We were to go- all of u & 4 men left on SB32 – to Fahihil 30 miles South; so left about 1030 & got on the Littlehales just after midnight. Slept Sunday – Monday & went south on the Dutton & occupied Igor for 7 good sets. They had Norman (Ens) & a crew in reerecting Hawl & Craig was in to shoot angles there. The D's whaleboats is out of commish., so we used a wherry with an outboard that made quite a buckin sea branco. I quit shooting at 1700, built a signal fire at 1815 so they could see where I was & never got back to the ship 'till 1900 or Fahihil & the L. till well after 9 P.M. Today we were to have met the jeep at 8 AM at Fahihil according to Cook's dispatch, but in typical fashion he told the jeep driver to take the camera transit man down towards Fahihil occupying stations so he went & to pick us up if he saw us. We waited & held the DU^W till 0845 then said to hell with the jeep & went on. (Jeep never did come down for us) I got to Guest for 12 sets – but the heat waves were pretty bad. I could have gotten some good sets from 4 till 5 P.M., but they wanted us at the jetty at 1630 so we had to leave there at 1430 for the 2 hr. ride to Kuwait. We went by the jetty at Fahihil to get the 4 men from Delta put a triangle here #2 & 3 that the L. said she would have on the beach before 1600 - & we waited for them till 1630 & got to Kuwait at 1715 just as the Maury came around the point from sounding She anchored way out, & we were thoroughly drenched after an hrs. boat ride in rough water. Neither Cook nor Shaw had anything to say to us – no "How'd it go" nor anything about just running off & leaving us on Saturday. They are two pretty sad apples & I have no use for either of them. We stay aboard tomorrow. I'm pretty well fed up with the way this whole show is being run & will be glad to dust this job when we get back to New York. I hate to be part of a sloppy outfit like this or to have to take orders from such incompetent dunderheads as Lt's Cook & Shaw.

Had a fruitcake & the record the clan made when I got back & a valentine from the Funnel's young daughter Sally.

Wednesday Feb 16

She really whipped up a doozy today. Best dust storm we've had yet. Fine brown sand was swirling in eddy's along the decks & everything is covered with a thick layer of brown dust – in short, the ship's a mess. The anemometer crapped out at 40 knots this noon & the wind rose even more before it began to slack off some around 700. Even now (2300) the wind is still pretty strong & there is a layer of fine dust over everything. It's in suspension all through the ship & puts a halo around all the lights. Nothing went ashore today at all. The SB's – at least 1 & 2 went in to the beach to get out of the gale & at least one of them went aground. The Dutton was dragging anchor all over the place out here & the L. at Fahihil had to get under way to keep off the beach & was last reported under way "somewhere in the Persian Gulf" with dust so thick they couldn't see the bow from the bridge. I'm afraid we've lost most of our signals again- oh well, so it goes.

Thursday Feb 17

I've had more trouble with Shaw & Cook. Shaw for the first time today – over 3 mos. Since we got here- mentioned that horizon shots had to be taken at each station with our zeniths plus time of shots. It was news to the 4 of us - so all our zenith shots will have to be done over- just plain stupid. Then later on Cook & I were talking about Dant- where I have been struggling with that platform so we could see out to Dane - & he suggested I put up a 37' or 50' Bilby- that is what I first wanted way last month – what I suggested to him as the only way- & what was flatly turned down. I'm out there every day & I know, he sits in the drafting room trying to find excuses to put in his progress reports & never gets on the beach - & yet never takes our suggestions or even tries them out. It was the same story on the north shore, Eddy & Primue said signals could & should be put up on the bluffs & couldn't be seen on the beach. Cook wouldn't listen so we wasted $2\frac{1}{2}$ weeks getting Mora up vs a 100' Bilby that can't even be seen from Wait except on a clear day – whereas Luna a 30' Tripod on top can be seen from down near anywhere. When he suggested a turner at Dant as I originally wanted – after my wrestling with that damned extension that didn't work for beans (as he wanted) something snapped inside me. I got so mad, so fed up with the utter incompetence, the supreme stupidity of the man, that I left hoping chow would calm me down. Chow (at \$45 a month) was slit weenies, sauergrout, & beans – that did it, so I went over to the Littlehales (she came alongside this AM) to cool down. Didn't go back up to the drafting room at all today -Iknew that if I even saw those guys again today, I would flip my lid - so I just stayed over there. I've cooled down some but I'm still disgusted with the whole set – up. To get even Cook sends Primer out on the L. tomorrow. Someone else might as well have the good duty for awhile. In the storm of yesterday. At least Dant & Flit are down, & I'm

scared to think how many more are over. Soundboats 1 & 2 were both blown aground & raised hab with their shafts.

As I glance back through this journal for the last month or so, it seems to have become less & less of a journal & more of a continuous diatribe against C & S. Oh well, when they start wising up & being civil or even showing some since [sense], I'll stop. Why, the astro shock is still up & they haven't any idea what the location is. That Shaw has been over there several nights wasting time getting star shots when he couldn't get a time tick. They are now thinking of tying everything in to the International position of Ard Light which they know to be very off. I just can't fight it all any more & am damned if I'll bust my neck trying to get things done – I'll do what I'm told to & stop there. To hell with them all.------

Sunday evening – February 20

That storm left a good deal of destruction in her wake. Three 100' steel towers are down - Type, Napo and Mora and the only tripod still up is Bane - which was well reinforced with the 3 x 3's used to hold the observers platform for the 15' extension. It means a heck of a lot more work.

The following paragraph is crossed out.

Good letters from Jimbo & Rawon came Friday. The Wm's almost expect a baby & Nancy had a confirmations appointment a week or so ago. Still don't know how they made out. Strange even though married they seem to be pretty happy – strange indeed.

Wednesday Feb 23

Monday I lit out in the jeep with Shaffer as driver & Smith & Baker (delta Party #1) for the North Shore. Luna was down & we put up a 30' cp then to the twisted mass of steel that was Mara where I put up another 30' cp & referenced the 3 stakes. Mara was a 100" Bilby with a deep base. After Wait – we found that the cement forms for those towers were too narrow – 2'- They gave me a form & said fill it with concrete & set in the corner posts. So I did. By the time we were building W. Base I had learned to forget the 2' forms & try a 6" hole & then bury the legs with only a few inches out of the ground to attach the 1st corner pieces to. Anyway, Mara was in deep – only 6-8 " of U-242s above the ground. & the wind pulled the SE Ley out – cement & all. Then back to Luna – for 6 sets & reference angles. Near Jaha we found the Dile Geary & Eddy & Dukev out of gas. That thing holds 50 gals & burns a gal every 6 miles. Anyway we put her in tow & pulled it some 15 miles to Shuwark Now Shaffer has had to write a letter telling why his clutch has burned out & Captain's Mast has been given a mast for it by the old man. He is one of the very few really capable men on the beach & I think he's getting a bum deal. I'm surprised the jeep has stood up this long as it is. It's just such chicken.....deals as that that are grieving the enlisted men. They are not alone either – Begg's sound boat hit a lonely sand bar one day last year (i.e. '48) & they made him answer by endorsement. Heck we're out here to survey these waters & they hang a man when he finds a bad sand bar. Hence the S.B. officers are scared to get into water under 6 or 8 ' & it makes long rows for the civilians.

Yesterday was George Birthington's washday & we took the day off. I slept 'till noon & caught up on my letter writing. Cook had all day to get out the plan of the day for today, but as usual it didn't come out 'till after the movie. He had us re-erecting Cart & Bane – hell Bane was the only signal we had left up. They dropped me off at Bane for delta angles & Garu at Evam for ditto & Ed (center – pole) put up 30' cps at Cart, Dant, Colt. & Flit & miraculously found Fahi to be up. I have been arguing for weeks with Cook & Shaw trying to get them to let us stay ashore till boat 1730 as the only time we can see at all. The only time when the heat waves die down & mirages dry up is after 1600 – but no, we have to be at the jetty at 1630, so if we're at Laya or High even South we have to leave at 1500- just before we beat light. I finally got him to see it our way- he had to if he wanted to get his angles shot - & a boat was to come in for us at quarter of six. The Maury got her times crewed up & sent the boat at quarter of five, so they waited 'till 1815 when we showed up. They were sore at our being late- pressure was put on Cook & we will be at the jetty at 1700 from now on - so it goes one damn fool stumbling block after another. They want us to run on no gas tomorrow. We took a drum ashore with us today – hit the oil co. crane, left it out for us & put it in the desks – but none for tomorrow. It will probably cut down on what we can do. Jeep is out – they have it aboard now for repairs – as today – the three of us (Frank is still on Tubbar) will all go in the Dukev plus the Cambia transit mon. Next year they will need more vehicles – Dukw's s best if they can keep it in gas-plus more rank for Senior Hydrographer. He just can't get anything done & has to take orders from everyone down to Powell the stupid supply officer. I think they will save a lot of troubles next year if they get rid of men like Hugo, (Exec.) Smith (1st Lt) Decbber(Navy.) & Powell & try to get a few more like Merrissette, Agnes, & Carroll – you can add Northrup, Norman, & Alexandre to the first list too, while you're at it. Of course a Captain is the first essential. He's a pretty sorry excuse for a man & a sadder one for an officer.

Gee, I'm bitching again, na I'm not. It's just that I'm so appalled by the utter incompetence of the men & equipment sent out to do a big job. It all started when no-one

knew it was going to be cold as Greenland most of the time. There was little or no foul weather gear aboard. Comdr. Kennedy in Hydro in Wash told me personally to take clothes for a warm climate & all the men are in the same boat. They freeze – It's almost midnight again, but I wanted to get this all done – so when they want to know why I'm leaving this outfit – I'll be able to show them in blk & white. –

Saturday Feb 26

Oh Ho brother! Saturday night. We were to have gone out today & were up at 0530 - but the sand was blowing pretty badly & the operation was called off- but they are making up for it. At 2200 tonight the plan of the day comes out & we're off again at 0630 - we leave the ship at 0630 SUNDAY morning. The operations officer – Morrissett informed me that the Captain has decreed that all- hands will work seven days a week – holiday routine will be observed only when the weather is so bad that the field parties can't go ashore, nor the soundboats sound. I'm so fed up with this whole set-up. Cook never mentioned a word about it to us – just waited 'till we saw the plan of the day. There's no other job where a guy has to eat crow like this & I'm leaving when we it the States.

Tuesday March 8

That Sunday the sand was still blowing & continued to do so 'till Thursday March 3rd. That morning I got my gear aboard AGSC-7 the AGSC – 7 went ashore & met her down the coast at Fahihil that eve, having delivered a DUKW load of packing – case wood for firewood to the Limey Political Agent at Kuwait – a snotty bastard who couldn't even say "thanks" – picked up 3 nice Arabian knives in an old Antique shop in Kuwait and erected a 30' tower & 15' instrument extension at Cart in hopes of being able to see Evan & Dant (Cart never should have been put up there in the first place – a little reconnaissance work in November would have saved us a lot of work now. Friday we erected center poles at Laya & Giat – Laya a 30' tripod – had been stolen legs, stakes, & bunting all gone. & Giat was down & striped. Saturday we readied the lights for night triangulation on the AGSc-7 (Maury had left for Bahrain to pick up men for Capt. O'Regan-Comm.persiangulf who is aboard). [Com. Persian Gulf who is aboard]. The sand stopped blowing about noon & Ed & I went to Cart where I set up on that jury rig & got six good sets out of 8 on Evan – Dant still can't be seen from Cart. Sunday we again went ashore – left Ed at FLIT (also stolen in toto) for 6 sets & Busch (Dukw-driver)

[*The* **DUKW** (colloquially known as **Duck**) is a six-wheel-drive modification of the 2-ton capacity "deuce" trucks used by the U.S. military in <u>World War II amphibious truck</u>,

designed by a partnership under military auspices of <u>Sparkman & Stephens</u> and <u>General</u> <u>Motors Corporation</u> (GMC) for transporting goods and troops over land and water, and approaching and crossing beaches in <u>amphibious</u> attacks. Designed only to last long enough to meet the demands of combat, DUKWs were later used as tourist craft in marine environments.]

& I dismantled the delta at Cart & re-erected it at Dant (have to get up to see Bane & Cart as I have told the knuckleheads time & time again) Too much wind to shoot though, so we both went to Fahi & got some angles delta before the sand started to blow again. Monday we again went ashore – but the Maury was back so things were fouled up again. They wanted the Dukw at Kuwait at 0700, so Busch left the L at 0530 to meet a 0700 boat from the M that got there at 0815 – Typical! The L had to rendezvous with the Maury off Al Fantas about 0900 so her whaleboat took Ed & me into the beach near Dant * we jumped off in damn cold water over our hips & waded ashore all the kids in town turned out to follow us up the beach, but on the 1 ¹/₂ mile hike inland across the desert to Dant they kind of petered out. And well they did for their fathers & brothers had stolen all the parts that weren't bolted together, & we had a hell of a time getting an already bad rig to hold my weight. Still too windy to shoot from there as the steel, even though turn buckled dam tight, still vibrated a good deal. The DUKW came about 1030 & took us to Colt. Flit had been stolen again!, so I sent Ed & Dukw down there to put up a signal & sit with it 'till I had 6 sets. The sand was really whipping up on that ridge too. I spent $\frac{1}{2}$ the time trying to get sand out of my eyes, so I could see. I finished & dropped the 30' center pole as a signal & the Dukw came back up. We re-erected Colt & went into Fahi where we dropped Ed & Dukw & I went back to set up & guard F lit while he shot it from Fahi. The Maury was to have sent in a boot for us at 1700 but at 1630 she was hulldown & headed East, so the ASPC-7 sent in a boat at 1745 & we had supper out there & were just settled down & enjoying a good movie when the Maury sent over a VP for us. Stayed aboard today & checked abstracts against field books & broke out parts for a 26' windmill tower to go up at Cart so Dant will be visible. Those signals never should have been erected there, & may the men responsible (Cook & Shaw) be damned to eternal perdition. It's one hell of a way to try to run a survey. The Maury & 3 AGSC-s are running sand lines daily now, so that will be something done, anyway. That Dant-Cart business still has to be fixed up. Have shot from Fahi some shots at High & Stch & all shots at Jake & Zane & then we're done with the triangulation. The word now is we leave within 60 days, so there is a lot still to be done. - esp. if they plan to put in another base line & astro shack.

Saturday March 12

Since 2200 last night (it's now 2100) I have logged 18 hours in bed – I was that tired. Today is the first day off I have had in two weeks & the last two days were especially hectic

Thursday A.M. Primer & I went aboard #1 sound boat with food for 3 days & headed 30 miles down the coast to Ras Al Zawar in the neutral territory between Kuwait & Saudi Arabia. The little 42-foot boat pitched & rolled in the swells & a strong southeast wind kept a heavy spray blowing across the top of the cabin were Ras (Ena Rasmussen) & I were hanging on, bundled to the ears, & I giving him a geology lesion. We cut wide to miss the long arcuate [arcuate bowlike band of living coral reefs] reef off Ras al qualiya & cut back in toward shore.

Hawl had been re-erected Wednesday by Primoe while & had occupied High-DUKW had to take Commodore O'Ryan from Kuwait to Fahihil so never came for me 'til 1805 made it 1930 before I got back to the ship & jacob's laddered aboard. Hawl then was a 30' C.P. Craig re erected Igor as a C.P. & I could see that Jake & Zane were both down all were 40' tripods & all were down! We anchored in a heavy sea off Jake – at the base of Ras al Zane & Primer & I & Taylor – a seaman- went in by wherry. By 1400 the wind had risen a good deal & the sand had begun to blow again. Ras had said the tide was ebbing, but when we found our wherry $\frac{1}{2}$ mile down the beach swamped & missing an oarlock we figured he had been pretty wrong. It was quite a stunt for 3 men to get up that 30 cp signal in a high wind & to have to haul that wherry $\frac{1}{2}$ mile up the beach topple it all. I took off my trousers & jacket & waded in. I held the stern to keep her bow out to prevent her broaching & copaiying while the other two took the long bow painter & coolie – fashion pulled along the shore. The surf was really pounding in on that sand beach, the water was cold, the wind more so & the driving sand made seeing almost impossible. We emptied her out again, & rigged a jury oarlock with wire - & we shoved off into the surf in hopes of making the sand boat – enclosed a hundred or so yards off. Frank & I rowed & each wave threatened to dump us all into the sea. We made it after quite a row, but the S.B. was little better. She was really getting tossed around. It was then about 1700 & we shoved off for Zane. Got there by 1800 but the wind & seas were too high & we too wet & tired to try to go ashore. Chow, I must admit, didn't appeal to me. We had a drop table rigged forward between the two bottom bunks in the small cabin, but nothing would stay on it - so badly were we rolling. Had rolled up in my blanket by 2000, but there was no sleep to be had. The air was filled with sand & the boat with a fine dust, the bell was ringing constantly due to the roll, and about 0100 we all had to fight our way out into the bow to hove in our 225 – lb. anchor that was dragging – we were pretty close to the beach. Got under way & fought our way back

toward Jake looking for smoother water that wasn't to be had. I think I fell asleep about 0300, but was awake by 0600 again. The wind had died a good deal & the sand settled – the boat was a dusky brown color & we headed on south to Zane. Frank & I went in in the wherry & I set up the Theodolite over the center mark & shot angles to Jake, Stch, Igor, & Havel. Then rowed back for two seamen

To help put up a 30' cp. Where the tripod had been. We got back to the sound boat about 1330 & upped anchor for Jake again where Frank & I went ashore & shot triangulations. Finished about 1730, tried to straighten up the CP in a good wind again but had to shove off to get back to the SB before dark. We were finished in two days & headed back to the Maury & got alongside it 2130 & up a Jacob's ladder over the port side. I'd gotten no sleep the night before, had eaten sand for two days, & not much else & we had done all the triangulation angles & erected cp's at Jake & Zane & never a word from Cook & Shaw except " why didn't you shoot Anna from Zane?" that we couldn't see for blowing sand. So it goes- it's no fun working for a bastard & he is a bastard. Slept all day today & plan to do likewise tomorrow.

The 3 AGSc's alongside & Carol had arranged over 3 wks ago with the Captain to send shopping parties ashore tomorrow- had IBI or ITOC busses all arranged & everything, but the Old Man has his mind set on Tubbar- so all hands will go ashore on that barren stretch of 2 sandy acres of island & Carrol has to cancel the busses. I should think he would know enough by now not to try & do anything for this damned outfit.

The word now is that we leave about April 30th with stops at Aden, Malta, & Gibraltor Three pretty miserable stops when there are places like Rome, Naples, Florence, Cannes, Marseilles, & Lisbon on the same route.-

Monday March 14th

Sunday rec. parties went ashore for their baseball, beer & fights, & Ed & I went ashore in the first wave & retreated up the 100' Bilby to shoot a few quiet angles – got Hawl, High, Laya, & Evan had a few beers & a hot day – got a bit sunburned, had some good laughes with Rep. –Bosin Chief from the AGSC-7 & came back about 1400 – aboard today Ed & I drew up the figure & made sheet for a 1:110,000 scale polyconic of the net & Ed will plot stations on it – tomorrow while I go to Cart to put up that windmill tower – with my old standby's Tower parties 2 & 4.

I have a new pastime now. I do Notes on the Arab in our weekly ship's paper. One last week on the camel & the one for next week on dhows – with pictures, yet. I rather enjoy it. It's fun visualizing it all, & then trying to put it all down on paper so it makes sense.

Saturday, March 14th

Tuesday I went ashore with tower parties 2 & 4 & erected a 30' steel windmill tower at Cart to get through to Dant. Wed. we dropped Ed off at Astro, met at Cart, & Jerry at Dant. I got 6 sets to Dant, but Cart still not visible fron Dant. Blowing sand & haze every day now. Thurs. all stayed aboard in bad weather & Friday back ashore. Ed to West Base & Gerry & I to Dant, but the haze hazed & sand blew all day & no shots were gotten at Dant, we dressed Cant & put a skirt on top – should be able to see it now. The wheels realize that the time for departure is drawing near & they are working our butts off.! Put in a goodly eight hours in the drafting room today & am scheduled to go ashore again tomorrow- Sunday again. Sat. The 13^{th} was my last day off & before that Sunday Feb 20, Since tomorrow is the 20^{th} – that's one day off a month-brother!

Wednesday March 23 – Fahihil

Monday was the big day. I put a center pole onto of the 30 tower at Cart & Gerry got six good sets on it around 1730. Ed & I finished reshooting Cart & Bane & Frank got some shots at Fahi. Good aerial photos were taken at 10,000'& came out darn well. Our systems of putting out 2 100' strips of bunting on the ground works out pretty well. From 10,000 feet they are about this size, but really show up.



& locate stations we'd never locate otherwise. Tuesday Gerry went to measure eccentricity at West Base & to get the height of Wait. On board I figured out what stations still needed to be referenced, measured, described, etc. Today Frank went ashore to do some referencing & to move the extension at Dant down to High so we can see Igor. Again today I stayed aboard. This time computing the eccentric reduction for the eccentric tower at W. Base. Tedious, exacting & not a little bit confusing. I'm afraid it is an acrid fore smell of what the trip back will be like.

Sunday March 27th

Well, I wanted to get away from the Maury & I really am, we're camped – the base-line & Astro parties – down in the neutral zone between Kuwait & Saudi Arabia. We left the Maury with our gear in two VP's in a heavy sea & pitched & rolled our way into the

small boat harbor where we off loaded the staff onto the a floating pier that IBI had moved next to their breakwater Bob Howard (IBI) was there & got us a big Peter Built that they use for hauling rocks from the quarry near horizon. The crane unloaded our cement & baseline stakes into it & we piled the rest of our gear on top. Knocked off for chow at IBI & a goodly chow it was. Ed & I – Carnell (QM1), Redman, Matthews, & Garman lit out in the peter built & the others were going to get H,O and come on in the DUKW & jeep The driver took a wrong turn on the sand track running south from Fahihil & we got trapped in some loose sand. We pushed & dug & laid stakes but had to wait for the DUKW to pull us out, She helped us out twice more 'till we got to the swampy area between Gist & Goli & there we really bogged down. The DUKW came back to get us & she really bogged down, the surface of the salt-flat was only a thin crust & she went through into the white clay beneath – all the way to the hull – she was really in too. Shaw & the jeep & driver went back to Fahihil for a cat. About 1600 at the Bay with cat on her came up & the cat got us out with no trouble. Only one more did the P6 get stuck & the Dukw got her out O.K. The wide salt flats south of High we expected to be pretty bad but we bounced & ground our way through in a slight drizzle & arrived behind Jake about 1800. Gear unloaded & tents set-up in a good drizzle & chow by 2000.

We have one pyramidal tent & two 8' wall tents set up in a fairly decent spot – as spots go in Arabia. The Persian Gulf is about 300 yards away, we're separated from it by the high drive line, but can hear it rumbling over there as the big combers [*a long curling sea wave*] come crashing in on the long sand beach. Around us rising sharply to about 50' out of the flat desert floor are sharp sandstone ridges of bare rock. They have been badly weathered & great blocks lie in jumbled disorder. There is usually a falcon or two sitting on the topmost rock keeping his eyes open for game.

It has been over cast & breezy ever since we came & had rained on & off, not much but just enough to keep everything pretty damp. The flies have found us too, just to make things complete.

Shaw & the DUKW lit out for the Old Astro shack today to bring down the shack & a cook tent. Ed & I were going to put up the Astro pier, but after we started found that the only pipe-head is at the old shack so had to hold off. We did run around & try to location station check. Found a good spot for it & put in a countermark & short center pole. We are now waiting chow for the others who should be back pretty soon.

It's good to get out in the field again & should be a good week or so. I only hope the Sun comes out to dry things out a lot.

Tuesday, March 29th

Yesterday we awoke to find bright sun & it promised to be pretty hot. We were in the field by 0830 & started at Jake. Shaw, Massey, Redmond, & the Duke crew of Busch & Walker went to work on powering the pier for Astro & getting the shack put up. Ed & I set out driving stakes. Ed was on the inst. & I on the tape marking & generally acting as expeditor to keep the thing moving. Technique: Instrument – preferably T-2 wild Theodolite because it has optical plumbing– is set up over the station-centered-and sight on signal set up at opposite end of proposed base. This signal to be centered over center mark set in concrete. A 16' center pole dressed with black bunting we found to be adequate for a 2-mile base. This is sighted on, lined in, & the horizontal motion clamped. A 50 meter tape is used – Lovar tap standardized by the U.S. Bureau of Stands – with marks at 0. 25m & 50 m



At the 0 end a leather thong is passed through the end loop 7 through the thong is passed a 9' range pole



At 50 m. mark end a tension gauge reading up to 15 kilograms is attached to this a leather thong through which another range pole is passed.



The 0 mark is held over the center mark beneath the instrument & the tape stretched out in the direction of the other signal. The inst. man guides the 50m range pole into line with hand signals. When this in line the pole man shouts "on the mark" the man on the other end puts 0 over the cm & the 50m man takes up 15 k strains. Another man marks the ground under the 50m mark & a stake (3"x3"x36") is driven in. This stake is lined in by hand signals from Inst. Another "on the mark" & 15K strain & stake head is moved forward or backward so that the 50 m mark falls in the stake head. The stake is then braced by two braced made of $\frac{1}{2}$ " lumber while one



Strain is on the tape – a group of 2 men at the 25 m mark drive in a d' stake of 1" lumber on the line &i.e. one edge on the line ---& a nail is driven into the edge to hold the tape – at a height on the line between the tops of the two end stakes



Then a pencil is held on forward edge of 3×3 stake & lined up by inst. again on back edge & then joined by a pencil line – This is the line where it crosses that stake. A 2" strip of aluminum 1" wide is tacked along the line on the stake head, The tape again stretched & the 50 m position marked on the metal strip with a pencil



The tape is then moved forward & the (my pen just gave up the ghost) [all the following written in pencil]: zero mark is placed over the pencil line of where the 50 m mark fell. The next forward stake is positioned with the range pole, dye, centered, braced, lined & marked & the 25'm stake put in & the nail set. The inst. can be left in the same set-up 'till the pencil held for lining is indistinct, hand signals can't be seen, or the line goes over a hill. In this case the inst. is brought forward & centered over the last marked stake. If at this new set-up the distant signal at the other end of the base is not visible, then go back to the last stake at which it can be seen, set up & line signal INS. Then send
man out with a range pole to the intervening hill & line him in on the signal. Then move up raising the range pole instead of the signal. Where dip is too sudden, or a rise between 50 m stakes makes next stake invisible – the 25 m stake can be made of 3 x 3 & the inst moved up on the last base line. They set 10 stakes the first day & about 20 per day from then on. We put in twenty – one stakes on Monday & put in 47 today. Mr. Shaw said a mile a day could be done & we did one stake less than 1 ½ miles today. The sun was pretty hot, & we had the Dukw & jeep to keep us supplied with stakes & water. Carnell was on forward range pole, Glawend on near, Matthews on sledge, German on hammer, Snow on 25 stake, Ed on Inst & H.B. marking, lining in, putting all strips on & generally keeping things moving on the tape. We also number them as we go along. First support stake (with nail) is 00 + 25 & first 3 x 3 is #4; next support is 1 + 25 & so on.

The sun was really hot yesterday & we all got a good doe of it. Knocked off at 1700 & had a good swim in the gulf. Today there were some clouds & it was quite cool when we put in the last stake (#68) at 1650. Back for our C rations – that's all we've had since Saturday - & the others are sitting around a small fire telling dirty jokes while I'm in the tent getting caught up on this by lantern light.

I killed a scorpion last night & the crew didn't get much sleep last night thinking about it. We also have lots of large beetles that are always making Kamikaze attacks – they're big devils too.

Tomorrow we'll run a line of levels along stake tops – double Okayed it probably & run up & back measuring the line.

Thursday - 31 March-

The last two days have been full but fun. Wednesday Ed double rodded a line of levels down the base line & Correl AM1st ran a crew up & back on the line. I measured the Astro pier at Jake & finished the stations description there. Shot Itch Igor & Jake from Chek for triangulation angles & went jeeping up to Igor & shot Jake & Check, described it & measured the top of the skirt – it was a goof off day actually – just doing things that had to be done. Shaw went to Fahihil for water & took German, Massey, & Matthews all of whom were to take exams on the Dutton today. Today we had to remeasure the base line. Carnell & his crew had a difference up & back of 5 Cm - ??? 5 centimeters over a distance of 3400 meters or 1 in 68,000 off. Doesn't sound like much, but it's too much for this sort of a job. Today I was forward marker & recorder with Ed on the rear mark, Redmonds, Walker on range poles, Rizzi & Glascos on the thermometers. We started at Jake at 0750 & covered the 2 miles to Chek by 1100, then

back to stake 45 by 12, back at 1250 & got to Jake just ahead of a dust storm that we raced for an hour & ³/₄ . In the P.M. Rizzi was out with the same bug – upset stomach & bad headache –that floored Snow & Carnell the day before, & I then was marking, recording, measuring set-ups & setbacks, & reading the forward thermometer. We check our own figures & came out .01292 m off in our up & back or one part in 342,500-not bad. We got back here (to our camp) & Shaw had the pyramidal tent down & DUKW loaded & took all the men but Ed & me back to Fahihil. 3 were pretty sick & the rest of the work Ed & Shaw & Massey & I can finish up. OK. After they left Ed rodded & I used the weld level to run a line of levels from Jake down to the water level. Using 5 turning pts. I measured the 50 odd feet down & back with a difference of 0.00 3 feet. Again not bad.

We had a good chow of C-rations beans & frankfurters, cocoa, toast, jam & apricots & sat around going over our field bks. Till 1930 & are now catching up in our respective logs.

There is a nice Bedau [Beduoin] that lives in a tent behind the dunes near Jake, & he has been over several times to say hello & swim in water. He holds great arm waving & bedau conversations with me of which I understand nothing & we have become fast friends. He was over here when we ate this A.M. about 0600 & I had crackers & jam & coffee with him. He's quite a boy – has a really ancient muzzle-loading precision rifle fully as long as he is, & there are two decent fox pelts drying outside his tent to attest to his ability to use it.

Shaw is a different man in the field- really pleasant & very nice – a welcome change from his ship-board silence.

Techniques:

Base Line measurement. It's done the same way as described for laying out the stakes, except that a mark is scratched in on the al strip & it is done twice at each station – i.e. Mark & mark to get the spot, and then ease off the 15 kilos extension, & take up the strain again to check the 1st measurements. Then it's off do it till it falls on the same spot. If the 0 mark falls short of the al. strip the distance forward or back from an arbitrary line on the strip is measured with dividers & scored? Off on a 20 cm bar



& the offset near as is set-up or set back depending on whether the line has to be set forward or back to the line



Also thermometers are attached to the tape calibrated in degrees C. & reading & degrees & tenths. (25.0, 25.5) These are places one at each end of the tape & read at every mach. Sample of Fled notes:

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1+25	2	22.5 23.0	.03752	*	2
2	. 3	23.0 23.0			3
3	4	23.5 23.6		.03332	3
jaz la		. et	2, 11, 11		•

At end of line. Stake #68 fell approx 20 m short of Chek, so we put in 68 + 25 & measured back from it to cm & then subtracted.

-	FIERR	and in the
	1	ing V
'	[]	and i l
0	68	CM, 68/1250 -

To get the distance from 68 + 25 back to the center mark 23 stretched out a metric tape (K & E Whyteface) & measured the distance from 68 + 25 back to the spot directly above the cm as determined by a thread able. The thread able I set up over the cm. turned off 90 degrees from the BL, spotted it with a pencil & then set-up over the pencil sighted back to the cm. This gave me a line of sight 90 degrees to the BL. Then I raised the having hair to the tape, read the tape where the vertical hair crossed it & then put a stable rod behind & read the dist. above the cm.



As for the leveling: the Inst (Wild level) was set-up so I could look through the door of the Astro Shack & I read the stable rod at the level line, then Ed moved down toward the beach & I read it again. Assuming 100' as Jake's elev. That plus my first sight (back) gave me AHI My HI minus the next sight (foresight) gave me the elev of the pt under me rod (turning pt #1) & then

Moved down & shot back (backsight) on the rod in some place & then be moved up & we leaptfrogged down to the water.

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THE A	
Bachsight H.J., Foresight Flow	
Juke 4.084 104.084 - 100.00 (assumed) 193	· -+20
TP, 1.125 101.159 4.050 100.034	1
TP2 1.5418 91,338 11.369 \$9.790	2
783 0.761 80.189 11.910 79.428	-
TP4 0.326 69.463 11.052 69.137	. b.
TP5 50.149 58.712 10.900 58.563	l. bi
at 1634 9.808 48.904	by
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	0

I've had a heck of a lot of fun in the field this past week. The food has been monotonous- e meals a day for five days (so far) of a combination of all the wets from a

case of C rations, bread & jam, coffee, & apricots – same thing every meal except tonight when we got our dinner & some food, but sun, blowing sand, glare, heat waves, mirages, scorpions & kamikaze Beatles, but I enjoy it withal.

Have been writing here in the tent with the breeze flapping thru door of the tent & the Coleman lantern hissing continually, with a cup of coffee on the board in use as a table. It's a board between two instrument boxes – makes a good table but you can't lean on it – Boy do I need a shower!!

Monday April 4th

Thursday night Shaw brought Smitty – an IBI surveyor down from Fahihil & took him up to shoot stars. So Friday Ed & I were going north to work on the High-Gist-Howl Triangle

But the visibility was so bad, we went right on to Fahihil & took Smitty back & had ourselves a good shower & shave & a good meal – all of which were needed. The haze was bad so we jeeped on up to Colt to measure the skirt & to describe it & Evan. Then to Tat where we picked up the 30' cp & re-erected it at Gist. The visibility never did clear & our event on back to camp –getting there about 1800. That eve we all went up to the astro shack & got checked out on the astrolabe. $(10 \frac{1}{2} \text{ hrs.})$.

Saturday a.m. Ed & I lit our in the jeep for Itch where Ed got 6 sets on the Chek. We had a hellova time getting there for the swamp road was in pretty bad shape. The center mark at High had been pretty well beaten up so I went back the PM with Varten & some cement & we re-centermarked it & I shot 6 more sets to all sta by dark. That night Ed & I both were at the Astro shack I 'till 0300 Sunday & Ed all night. (Saturday 14 hrs)

Sunday we were up bright & early to break camp & get to Fahihil by about 1100 – Shaw showed up about 1300 & we had another shower & I slept in the DUKW for awhile though the flies were pretty bad we discovered that the pretty little pink snake that Buach had killed on Wed. was the sand viper or sand asp – deadly poison – the kind that old Cleo put to her maidenly breast when she drop-kicked the bucket lo these many centuries ago. Johnny Madder asked Ed & me to chow, so we had a few welcome martinis in Bob Larensen's room, a gin & it in Johnies, good turkey chow & a few more with Johnny in Jerry Hunter's room – still lined with the pornography of the 6 continents – for a few more. About 2200 the sea had calmed down enough for the Littlhales to send a boat in – but only one trip – so we put all the instruments & our personal gear aboard & headed out – after parking the Dukw & jeep in the IBI maintenance compound. I talked Shaw into

gear. The seas have been pretty rough though, & if Shaw thought it OK to leave it 'till the M. came back, I should worry. (Sunday 12 hrs.) – Monday 8 hrs.)

Today I slept most of the day trying to get caught up from all I lost last week.

We ran into quite a guy down there in the Neutral zone. A Bedouin who lives alone behind the dunes. He was over again Sat. AM & we had a long chat about trapping falcons.

It's good to be aboard the L. again. She's a good ship. Cault. Has some damn good shots of Bilby tower putting up in type & I hope to get some of them from him. Must write the clan. If has been some time.

Mara 26" 11 -10/2 0

Tuesday April 5th – Under way Fahihil-Ras Tanura [*Ras Tanura* (more accurately Ra's Tannūrah, Arabic: $\Box \Box \Box \Box \Box \Box \Box \Box meaning$ "cape oven, cape brazier" presumably due to the unusual heat prevalent at the cape that projects into the sea) is a city in the <u>Eastern</u> <u>Province of Saudi Arabia</u> located on a peninsula extending into the <u>Persian Gulf</u>.]

Slept till noon – connected field data in my skivees atop the canvas bridge cover in the sun & then joined the fishing party on the fantail to catch a nice tuna. They landed several goodly too. Rep got the biggest – a little over 19 lbs. & had the con from 4-8 this eve. They even have me broken in on under-way watches. It's a rough life – sleep 'till noon, sun-bathing, tuna fishing, mavis & bridge. Ho hum!

Wednesday, April 13th

That, alas was on the AGSc 7 & I came aboard the 17 at Ras Tanura the following day. We lay there for a day & then moved in a storm to Bahrein. There we serviced the AGSC's & headed S.E. for the Strait of Hormuz where ever since we have been running sounding lines four abreast, while I spend 8 hrs. a day computing. 1st on geodesic positions & now the baseline. We have been for four days streaming back & forth through the Strait that separates the Gulf of Oman from the Persian Gulf. To the East the high peaks of West Persia coming down to the azure of the Gulf. To the west the steep cliffs & barren peaks of Ras Musandam, the easternmost tip of the Arabian "island". Though completely devoid of any vegetations the change in topography is a welcome relief from the sameness of the northern deserts I have come to know so well. The waters here teem with marine life. Schools of graceful gamboling porpoise; black fish & tuna, have been in sight almost constantly. Water snakes, orange algae of some sort that make the water look as though orange sea dye had been dumped in, and thousands of small fish that ripple the surface, with their violent swimming. We'll be in Bahrein probably Friday & I must get ashore & try to buy some backsheesh for the clan.

April 14 Enroute to Bahrein

Well, the AGSC's shoved off this Noon & we are headed again for Bahrein, having headed back south in a storm & anchored in the lee of the Persian Peaks off Jazurat & just N of Hormuz to give the little ships time to come alongside for provisions etc.

I have thoroughly enjoyed this Arabian jaunt; & though it will be good to get back & see the family again, I feel that I have barely scratched the surface of one very small corner of the Levant. It is a fascinating place and leaving now is like putting aside what promises to be a good book having read only the publishers squib on the back of the dust jacket. I have met some of the characters - & like them – I have a general knowledge of the setting – that too I have found to my liking – but I haven't even begun to read the book. This is really a fascinating place – it has its flies, its heat & its sand, but it also has it's splendor and happiness, a contentment at once intangible & indescribable – as though the Arab, unlike the American, had met Time & Fate face to face in the arena of the ages and through the centuries came to an understanding as to just where he stands in relation to his cosmos & his Allah, his god. It is an envious position and one that makes the urgent immediacy of our souped-up American living seem indeed futile. As Descartes said, I want to avoid the shallowness of the merely disillusioned skeptic. Though I sound a bit cynical, it is the cynicism of close scientific investigations coupled with a tacit refusal to accept per se the status quo (if I may mix my international idioms), and to fall without even taking or questioning into a set pattern so many of my generation are doing. Where I am looking, even searching, before I leap. They don't even have the personal integrity to leap but are pushed along into the foreordained ??? patterns laid out for them by someone else or lead as lambs to the slaughter by the Judas goat of their own selfish smallness –etc. Etc. Hell its 1200 & I must have diarrhea of the brain. All I want is to be

given the power to decide what I want to do with my life & the tenacity & will to do it – easy enough, isn't it?

Sunday May 1st. Straits of Hurmuz

We headed back to Fahihil & spent two days on the beach & fortunately got our required closures on the triangle, picked up the vehicles & towers & took off for Ras Al Mishab where we met the Annistan City [S.S. Anniston City cargo ship] & procured from her a mere dribble of supplies. Then to Bahrien where we sat for a week awaiting the seaplane tender Duxbury Bay [*USS* Duxbury Bay (*AVP-38*) was a United States Navy Barnegatclass small seaplane tender in commission from 1944 to 1966.] to whom we were to transfer Capt. O'Regan & his Com Persian Gulf staff – also Dr. Ford – a good Doc. She came in yesterday & we left for the States yesterday afternoon about 1500. Back in the drafting room topside, we have been busying ourselves with computing Geodetic Positions & adjustment of goods, getting ready for the smooth plotting that will occupy our time most of the way back.

It was only this afternoon, though that I first felt that we were really headed home. For it was about 1550 that we rounded the tip of R'as Musandam, passed by at little Quain Island [al-Quwain] & entered the Gulf of Oman. I've always liked the Straits of Hormus ever since last Oct when we went through going the other way. I don't know if it is the welcome change of scenery – high steep sided islands & towering cliff scarps – or just the idea of their being the doorway to the Persian Gulf, kind of a Golden Gate Bridge or a Statue of Liberty for the Gulf. Whatever it may be, it was only as those now-familiar landmarks slipped astern that I felt we indeed were headed home. Gib[Gibraltar] around the 15^{th} then Norfolk for a few days & N.Y.C.

Thursday, May 19th Two days West of Gibraltar-

It has been an uneventful trip. Hot as Hades through the Arabian & Red Seas. While waiting for the South-bound traffic to get into Great-Bitter Lake in the Suez Canal we knocked off for a good swim. It turned pretty cool once we left Port Said & headed west through the Red. Two days out of Gib we ran into some rough seas that slowed us down some, & got into Gibraltar on Monday the 16th – most of the 6th fleet was in at the time. The Carrier Coral Sea, cruisers Columbus & Fargo & the anti-aircraft (5' guns?) cruiser Juneau plus a convoy of cans, a sub, the supply ship Yellowstone, & the HOG that refueled us. The three AGSC's made it O.K. & the crew of the Littlehales had some wild tails to tell of Algiers & her fleshpots. What a time they had! I had dinner on the AGSC-7 & Carrol & I ended up at the Embassy Club in Gibraltar with two of its Spanish

hostesses and between the 4 of us & what Maury officers that wandered in went through some \$30 worth of poor champagne. At 2400 the girls had to catch their bus to get over the border into Spain & we sang our way down to Jumper's Bastien where I slept it off on the Littlehales & was aboard her when she came alongside the Maury the next A.M. We left Gibraltar that evening & have been rolling home (& I do mean rolling) ever since.

It's a nice lazy pitch & roll of a quartering sea- long swells a Little wind, but still quite cool.

We have been scaling fathograms ever since the 3rd of May 'till I'm ready to scream like a raped ape. We will probably stay aboard in N.Y.C. 'till all the smooth plotting is done - & it will be a damn long job!

Well, I've learned a lot on this trip, but where from here? I don't want to go back to Arabia on the Maury Maru, but will ship over for some other job is there is one in the offing. Still like to travel.

There has been an awful lot of water over the damn since then.

I started teaching at Hotchkiss that fall ('49) & stayed there 'till five of '51 when I came to La Jolla & the Scripps Institution of Oceanography. That Summer I went to Alaska & back on the Horizon, & the Fall of 52 (Nov) saw me headed for the South Pacific on Expedition Capricorn. Honolulu, It Wolgalins Ocean I. Rotumah, Viti Levu (Fiji), Tongatubu & (Tonga Is), Pango Pango (Samoa), Tahiti(wow!) & Nuka Hiva (Marquesas).

July 13, 1953

Just back from a one-week trip to San Nicolas Island with Bill Menard, Ed Hamilton, Bob Hill, George Shumway, & Dave Moore on the E.W. Scripps (Newgien, Frank Vaughn, Jonsey, Joe Keeney, John & Buddy Itrang & Max Silverman.

The job was for NOTS [Naval Ordnance Test Stations] Inyokern of the Navy, [California] & we were to plot stiles & drps & retrieve samples from 2 mile-diameter circles off the North side of San Nicolas. Bill, Hamilton, Moore & Ting did the diving, Max & I the shore control & Menard & I acted as boat recorders & angle shooters. It worked like this.

Upon arrival Max & I went ashore to set up the net shown on next page. We had Transit & tripod signals with the wire & bunting to assemble them



It was originally hoped that we could occupy Triangulation Coney – a USGS benchmark, & put a range-pole target on Triangulation Coney but not occupy it. Then locate new stations Bord & New by angles to Coney & Canyon. Then out on the buoys from Coney, Bed & New. As it turned out, Coney & Bed were not irresistible so I had to occupy Canyon too, & Bed was kept in as a 2nd signal for locations from Seaward, & buoys were out in from Coney, Bed, New, & canyon.

The Coney, New, Bed, Triange closed 180 degrees 2' & the Coney-Canyon & New Triangle closed 180 degrees 1'. Not bad after four years. While we were doing this, four big dan buoys with flags for visibility counterweights for verticality were set at the outer of the one mile circle, with the Scripps near the center.



(Our buoy locations came out damn well too!). Then diving stations were plotted across the area (12 of them) – with 4 of the 12 at the Dans & one at The Scripps. 2 divers went out in a skiff with an outboard & a recorder (main-type). We would set a magnetic course (Branton) from the E.W. Scripps, & continue out in that until a pre-determined horizontal sextant angle came up. Then a light, red, float with line & anchor was put over a depth made with lead line, & the divers sent over with water-tight compass, dip meter



crow bar & hammer, and burlap sack for samples. After dip & strike measurements had been made, sample & loose gear was put in sack & sack secured to line attached to float anchor for retrieving. While divers were down recorder took horizontal sextant angles for 3-point fixes – at least 2 sets on different points, to obviate swinger troubles, we had 3 buoys, & three shore signals, other prominent objects on beach if not cut in an original survey can be located by horizontal 1' cuts from the three buoys. Also recorded were stroke dip, & diver's descriptions at bottom plus time down & up. Kelp was used as anchor for the boat. Recorder too must keep an eye on the divers, & they should observe the standard divers rules & regulations on lung procedures.

Back aboard the ship. Samples are logged & tagged, angles plotted & oppositions of stations noted on the chart with strike & dip. Underwater cameras also used.

Equipment:

Aqualungs, complete

Compressors w storage tanks & valves & gauges

Wrench

Swim fins

Face plate

Rubber suits & hats if cold

Weights and belts

Crowbars

Heary hammers

Many gunny sacks

Drp meters

Water tight compasses

Depth gauges

Knife

Skiffs with outboard gas & oil & oars

(Barrel to Flush outboards)

U/2 cameras & fil

Small – 18" – plastic floats

Lots of light line for buoys

Cement buoy anchors



Dan Buoys with poles, flags, counterweights, & line Charts with blowups **Cigs Stations descriptions** Transit & tripod complete Centerpole or tripod signals Field notebooks for shore & skiffs Studio Tables & H.O. #143 Three –arm protractors, (Metal & plastic) Masking tape - always need-Wire for signals & bunting Wire-cutters Protracter for plotting strike Pencils Electricians tape Jackknives Lead lines w/weights (can be made) Sextants (in adjustment) Lots of dry socks & tennis shoes Marlin rolls for trapping bags, etc.

We found that asking the diving buoys was a big help for two reasons

1) They located spots where dives had been made & best if buoys are numbered - & to avoid too close spacing of dives or missed positions, and 2) If buoys are plated first, it means less time for divers to get cold between dives – an important thing when air & water are as cold as they were then. Too, if a swinger is made an area can be re-cut, water varied from 25 to 80 feet in depth Dives averages 10-15 minutes, & divers made 3 dives in the morning & 3 in the afternoon, so 12 stations per day was the way it ran. We

left Monday at 4:00 & got to San Nicolas Tuesday A.M. early. I had found Coney & Canyon & set up Bed & New by 10:30 & all dive angles were shot

by 1500. We finished Wed. A.M. & waited till Thursday to find out that they wanted a second area done. There we merely set up signals on prominent shore features & were able to locate them pretty well in the charts occupying them only with a Brampton to get inter-bearings No dans were used here,

[A small buoy, sometimes made of <u>cork</u> with a small <u>flag</u>, used to <u>temporarily</u> mark a <u>position</u> at <u>sea</u>, normally to mark a <u>fishing</u> <u>ground</u>, a <u>minesweeping</u> area, or a man <u>overboard</u>.]

as it was a rush job, & we found that we had poor station positions where we didn't use diver buoys to locate done stations or the dans for general locations too the Brampton is hard to use "en bateau". [in boat]

Divers should give strike & dip immediately on surfacing or it is soon forgotten. Accurate checks of the time on each tank should be kept. & no extra full tanks in each boat help in case dives are too long.

[See scanned diary pages on following pages]

August 23rd - Brooklyn Navy Jorel-He been almost 2 weeks since + reported aboard on the 10th & here we sit. It's pretty nainy around here in the evenings now - 3 shifts of Many Jard men, on her day I night I just looked in topside I they are almost finished welding the forward gun-tub & a flat-car of 20 9 40 millimeters is setting out under the crane on the dock. Night welding mokes wierd newrotic shadows and sillouettes the funched of helmeted form of the welder -The light suddenly the goe aut, I in the glow of that metol be lifto his molak of wipe fis arm across his meeting for forched - a word with the won beside him, a drag a on a bent ceparette - then down comes the felmet of

the neurotic shadows start their jumping again as the blinding light & alching sparks resume a 3-sdeard breeze duer my nich weny 11 seconds - & timed it -& the turning for groons of the end of every are, are. Still nothing Sufinite as to when we leave or where we are going. Had a good tolk with Having Keas is Princeton Sunday. Ist some good painters on what to look & look out for on running the follometer, Saw John Mapwell fer a while - my may come up to look our the ship before we sail, Hers seems to think the trips is pretty hot I all the priori the yourd seem to bear him We're still wonking lawn in #3 " hold trying to get aur year

spuared away. At sumas that anything that anyone wants to. get ned of is stinceled "Attin Oceanographes" & is should in There. We've fained pipe insulation, asbestos & ciment today. Hearn's lanamo what will two up towarrow -Roward Noney were married Soturday the 21st duquet / Pl way a good wilding + H- was glod to be his ushbe as wore for Madaera & for Timbrie. Manyis pa felt/ no pain by 2000 hus, This was, had a stooke just before the bride & quoom left but we best them from braining it, I A spert the night tell 01:30 trying to beep John Www. from gaing to princeton of generally. raiging cain fer his I mother who way too sech to see tim. In the course of

all this he got pritty well loaded & hod a headache hat had a good talk with anne Home to go to Mystic to see John & Bobbie on Friday. lovery thompson (Smith, South Orange, and Al 4-2696 may some along two tope so. I find it have to realize that follege is over for a while of that din to be at sea for 8 mas. what this ? of don't know die got to this ahead & plan it all aut. I want mariage when I find her, but could do much fruitful looking in the sulf augis, 26 + 27 limp our 100°F. + the Naug Javal is no place to be.

September 8 Wednesday Had a weeks have & got to the Zellers, Burrs, & Theme. Many was in Bayonne, N.J. when & got back hipt 7? She has added a plane & pilot white of was away. They loaded 100 octaine gas & fresh feed stoard till lote evening & we sailed at 1230 for Leonardo, N.J. where we today have been toking 20 mm & 40mm anomuniting obvard all days all thols here is a mile- 9-a holf pier where they run this explosives and from share. The smoking lamp has been ait since we does + + quers will be 'till we showe off again in the A.M. The crew hums to be in better shope g. when we were in Blager + + thick will taut up on Weather much cooker & vory plesart. Too hogy for any diparture photos,

Saturday Sept. 11- of few-We left Leonardo Thursday Sept 9th at 1230 in a colm sea That has become less of less calm ever sence. That afternoon we got the specifications for this job. I had thought but was to be the gust of mon but well be doing the persion July - NW part from trumait harbor South along the castern coast of Saudi atabia to Manifat. The job collo for oll the tway to Barius I, but will be lucky to get as face as Manifax. The Stole Pupe. Istil hasn't cleared us in yet so we may just two alound I come home. Our first port is sibratter & they day well get there about the 26th fin not sure quite how, as it seems to ne live are dainy more rolling & pitching than we are going formate

at noon yesterday the three PC's for ESc's as they are colled now broke out of stail I we now have one 5 mi off to starbard & two off to poul - one of 5 mi & one of 10 mi This gives us a 15 mile wide spread with 4 fothometer pothes of 5 mile intervol. This way will get prietty good coverage of the bottom at midnight lost night & started the first 4 his of a continious watch chot tobes bathytheromgraph observations every have on the have . We have a BT winch I stay boom averanged musty: Boom star Boom stup Brom stup winch Of the stup Boom stup Brow S a smoked gloss stide is insection the B.T., the sliding sleeve slid att to on lawer the styles to the slide T

the BT is lowered by releasing the winch beake a thorizing on to the haul-in live once in troil The broke is set a the BT stopp just below the surface. a normometer in a bucket - bottomed cose with nubber finder is this lower to get the surface timp. The bridge is then called trash permission to lawer BT & to get Speed in knots, I dept in fothems plus The baromotric prierouve every 41thr. BT Log Sheet No Pate Hr BT # Spred Pepth Surface Emp Bub Bub Bub Bub Bub Weather Poop cloused nime The BJ is then Lowered to the desired depth as determined by a graph of speed & wire to let not to get desired depth. Brake of desired depth, twin on winch power, enjoye chetch & have her up. Remove stick, dip in laque after having noted any slide trechs No. hr, date, + Bt no & put in slike box - tobe out a new

slide & prepare for next lowering. a running chart is syst on which the 2800, 1900, + 1800 positions are plotted & the positions of the ship during the intermediate hours are interpoloted & the sticke number recorded in its proper location. (my damm chair just left the desh, slad over I with me still in it fetched up against the bullshood - They can back their Nour!) Nod & Typhus & Cholera booster shots this afternoon. All toke all the shots they have to offer. My bout with dengue in the Philippines convinced the on that scare. Still not reasech, but fin oficial it won't lost much longer obis really rolling.

"luesday - Lept 14 - of Lea -The three agscis - Dutton, Blish, + Kittleholes same along side to take on fuel & water. The excessive rolling & pitching of a few days ago has about The a good cary to manueverbe enough to mobe the refueling something to wotch. We were dainy about 10 horoto as the John Blish crept up along aur part side about 30 yards loff. She eased in to about 20 grids, I the line gun sent a light line arching between the two rolling thips to land on the after part of the Blish's calim space. Her exero beyon. to have in the live that was attached to the ship. line That in two was ottached to a large however bound to the fire time A was an a real pull to get it all

aboard. The place in the fire line was held by the forward crome, and as the Iships rolled towards each other the crome would bet the line to loup it clear of the water. The Blish for the days now has that engine trouble that made the whole "convoy" reduce to a poltry sknob so when she was through fueling, a heavy hawave was token obvard - I on all honds job it was - I she was token in ignomineous tow. We fullow this care along for here short snifter of a Ideisel collins, but first had to sind a sech sailor over to us for baspetalization in our sich bay. No breeches bany was avoilable, so be come over in a & convos bay sling by our crane-9 this

replacement returned by the some withow. At was a tricky job 9 well dore. The putter foles come up nept & darn near rammed us when a swell brought here heeling over to within a few fiel of our part bean. Ooths were land & luste the epec. turned ned & bellowed across to the helmsmon but she cleand us or. The Blick is stil in taw, the other two are 5 mi and on either beam we have resumed BT observations after an 8-hr break. The evenings of sea are lavely. One has an unimpart 360° havingon I lost night there were about 20 of us guthered on the fontail watching in silence as the eventury they changed from light pith to almost blood nel. off to the narth on.

accasional flash of lighting behind a claud banks would throw into sharp met selauette a majeotre rond of tawering anvil topped thundertheads. Today it was clear as a bel & continued cool. We are still following the age of the gul streams the water is a deep two blue with many small clamps of sease delicate seaweed ploating on the surface. Had my hair brush- cot This maring by Grotch, our thips barber. A thould look tomewhat decend by the time we hit Sibratte, Tours and today our parts are gif. agusta in Sicily, the Paeraus Bahrin - all neve to me, I should be not intrusting Startel to plot polyconic projections today - we are

14 just dainy the computations for this now I will wolke the nobed chevets when we get elever to the area. Sunday AN- Segot 19th my 26th birthday Dur progress seems intolerably slaw. Each maining & awake to see the Deetton still riching off to part half way to the havingon - never advancing never vetecating - always just hohere her lights sharved her to be the night before. The only servation of motion is the new gentle noll & only a look over the side of the waterline reasoures we that we actually are moving. The roll, the them of the Ventila -taris, the creak of year at the end of each roll-that the regular like a gior metronone - all combine to more me ever able to sleep. The food

continues plentiful & good & the weather 'till today has been evol clear, the nights cool. I anobe this marring to a gray day with the great flat watery disc that has become lying quietly under a low avereast. Tuesday 2200 - 21 Sept. 48 There's a beautiful moon tonight. a golden ballerina dancing in & aut amony great white columns of eunidous clouds. There wake on the water is a great band of selver spotter - printed m black veloct. The provo of the ship the turns back that velvet & shaws it to be lined with white foam that follo away in great symmetrical folds,

Thursday dept 23th 0530 (on of 00-000 woted) In writing on the fontail by the light of a gargeous survive I about 1000 hes yesterday the fothometer begon to show a shollaring out that got dawn as law as got in an area sharen to be 2000 - 2100t on the charta we are north of Maderra I. & about 50 miles SW of fosephene bonks (805.). Realizing that this was the sant of thing this expediction is supposed to knoop out. Walcerton (Cdr. The Old Man) ardered a veconnaissome of the short area & it has been going ever since. 270° uss Dutton p------Uss Maury D 90° Pattern it Investigation = - Trooters Sept 222

17 economy and the first the Fathometer boy By moking a continuans W patters with the 2 a 95c's I 2000 yourdo off each beam, we cover 4000 yeds = about it each crussing. If the depth is over 1000t we continue north a mile or so, so there is \$000 yds between the last most northerly course & the mast southerly course on the nept leg a centimue back. The shool area shawed up fourt with a depth of 840 f at 1023 hrs Sept 22 7 hy 1042 was down to 497f. At 1121 we were back it 1180 + down to 5307 # 1228, & boch to 1600f of 1430 hrs. The minimums from they an were stor at 1600, I above 1000 from they on We started and toking continues BT lawerings over the thook they brocked it down to way 13 min &

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now every 12 heur when we are under 1000f, otherwise every have This gives us a darm five coverage of depth & temp. serves over the relatively small area faur search 5 + The strungth of any one slide con be checked against the whole. I have spent a good deal of time in the chart from I on the bridge during the night & yestuday There a pretty good idea of how they plot this thing up & coordinate our merements with those of the USS Dutton & Littleholis (The Blish is still in taw). They have a glass topped table with a plaine sheet over it & the partions track of the Kawy is projected upward by a pinpoint of light Every 5 min the plotter periels in this position & tokes bearings on the Putton & Littleholes with the roder an attached arm with a bearing circle a nule a Sa we sealed off to 2000 yels to the inch

bearing & range is used to plot in the position of these ships as sharing in the nadar scope. This gives a continuous recard (5 minute paints joined by dashed lines to last ofs) of the movements of the three Ships. When awe true position is platted from an astro-fix the distance & bearing to Josephene Bark was computed graphically on the main chart & this in turn land of with the bearing arm on the bearing sheet. This gives the will be able to tell when we are aver her. Hope to get a bottom somple with the Anopper sampler on the BT winch. A kend Spring to close jaws Den Hellow jaws Vaice vadio with the Rutton - State LiTtleholo beeps us in touch with the depth that

their fothomators are necording & doo tips them off as to course & speed changes. The search has been conducted 1915 hrs -

We continued on with the threeship caverage; and just ofter lunch on 2 consecutive passes the dipth read as shallow as 96 f 7 98f. The third pase we have too I were deal in the water over a plin 95f of water where the chart showed 14005. Twe broke and the BT Bottom Sample & sent her down to see what was There. She came up streaming water & even the old Non came down to see what had been gotton in it was a 2. toblespoon look afa white sandy substance that on a claser inspection seemed to be an acyanic rediment make up mostly of shell parts, teeth, bone. etc. (total we have too again I sent down the snapper samplie & brought up a

better sample that appeared to be much the same stiff the first lawing with the B.T. was formin depasterious - she must have hit a roch, for the leading edge had a good dert in it clasing tightly - probably in raising, water streamed through this opening I woohed and all but the title bit that was left in it when we got iten board. I lope to get the Doctor interested in this business of bottom sampling, so I can use his microscope to go over the stuff we brought up today. Sunday Syst 26th pulled into Gibraltie in a nice warm Matterion day. bud a good 1/2 days blocky in town which I loboriously wrote up in toto in my I puge letter

1 = = 4.07 22 to mother + Jod. (2 seven - page letters, infort) Tuesday hert 28 off again + I have the mid- wotch tonight. Had all day Merday in tarten. got to kjørten in the oftennom ofter causing Franco's border grands no little cencern by showing them the reprived shots. for identification - one tolam by Johnny John of we in back & described in letter to the clon of Oct 1st - La Linea de la Conception We should be in Augusta Sicily by Sunday Oct 3th 1 Poste = ca. 54 briday - Oct 1st I still clear, colm, of cool. we have been shirting the narth coast of africa all day. I looked it out with the classes & it seemed to have a law range of hills eleve to the coast that looked inviting, but the soul that the off there wreeze left on

awe decho bore silvet witness as to what was behind those hills. We should poss Panteleria - or whot's left of it often the 87 9 157 die Forces had their pottern bowling on it a few years back - semetime during the night. The BT has been handed aver & the Boan mote of the watch & I for one an glod to be rid of it. I was logsing too much slope. In the drafting room topside we have her leying out the limits of our boot sheet, From the coool and to be 12f wach will be 1:40,000, from more to approx the 20 f. mark A 1:60,000 & from there to The electric of the Persion Suf It 1: 110,000 - all shouts to averlop adjourt ones & all to have no as much of the shore as possible so and share stoling

sound bout an be used to establish this positions We secured of 1500 so Massly ~ Cornel could get the place heady for the Coptains inspection tomorrow write another 7 payer to the clen tonight - mainly spainly. (H 1947 issue of the Hilitary Enginee hus on article by Charlie Botist Dr. thing of a ceandyrophy in bydro on The Namey & how survey duties) Sunday Oct 3rd Rulled into degusto, Sicily, this marning & tied to a barryin the Ranbor The carrier F.D.R., cruisers Little Rock & two others, plus the supply ship Grand Conyon all were here again. No liberty 'til the supplies had come aboard about 1300 The four hydrographic engineers were fin the first boot again ashare & climbed the proof bill to the town. One look of the naroun streets, & divit, I are smell ever

25 enough for Frank & me & we beaded for the mainland Hurber Augusta Had a good treemp back in the dicilians farm eacountry. 93% of Secily is ander culturations ? its not hard to believe. Trops & olives grew in neat patchwork farms. Dusty words, a day backing in the distance, the sweet total of granodus (pomegranates), a flock mulstachioed Sicilion, a farmer plawing with a wooden placegh, broken walls q bert iron gots as the only rimmers that the tide of war swept this way, dust clouds behind a horsking speeding english owe, two wheeled earth well farmers & faux wheeled carriages

with parlons, a nice sunset, a good view of 128. Etra from a distance, I of elegester & the barbor, tired full & durity shows - that was Seeily. - got three roch. somplo - 2 Tuff & 1 deabore (?). We lad no denne & when we got boch to town it was terming with Sicilians & sailors. We had a few congoe with some of the men from the lawy & got the 10 o'clock boat boreh to the ship. Mary bumboats swarmed around the Many & little ships all day selling everything from vino to cheap - looking topisticis. Pue to leave tomorrow morring. Wednesday Diet 6 Shooke This marning to see the coast of the Velopheous off to part. about 1000 we possed Holamis & mode good aw maoning in one of the y harbors of the Paeroeus about 1130, Here

we used the Nedeterronian mooning The book is drooped & played and as the stip backs toward the per pier. I stern houser is toben ashare & the thip secured thusly: The harbor was jam - pochel-everything from american THS's given to greece & small fishing boots to Sweedish lumber ships 4 american freighters. 10-15 ships that had been bedly damaged dwing the ware were theing worked in by a few greeks to seemed -a hopebas job. Next to the Carving was the Saxah Orne forvett from N.Y. of the Predention Live, her deels crammed with dive drof 6x6 truchs & hungery crones beat dipping. toto her holds I coming but with great loads of Justite flaring bags. arous the small basin facroeus by spread a inf over two law hills I

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come night dawn to the harbor. We caught the first liberty boot ayoun I were damped of the fleet landing. We had to beat off a I within that firoly gained the pidvot on the other side. We dreided to see Paeraeus first & wolked for over on hour. got to the top of one of the hills & there before in the NW lery athens (AONDAI) dominated by the actupolis & the higher bot mollor hill around by the church of St- George. The whole swindendal by tits. a lovely sight. We finally latched onto george - a gull who learned English in the British any - & took a ale (30,000 dr) to athins. The ship your us 10,000 drachma to the the Givinge 12,000 dr. on the blk. marchet, We saw athms pretty completely all but the derepois which we plan I see Tamarraio. The Tinge George + The Grand Britagne are the two big hotels. The bar of the

former serve to be the meeting place for americans in athins. For the necord the Flirt Bar must be mentioned! Prostitution is legolized in greet & the thirt Box on constitution square has about a dogen that use that place as Their headquarters. They are a rough bench of findes & two or thre of this were not bad looking eun by U.S. stordards. We mit this oll - Veronica, shout & well built, peropiele hair I too much moke-up, a little vitamins pill with legs. She just couldn't sit still - a number number by the tinny band would have bee up & donting alove among the tobles. I say daring - actually it was a conglomeration of all the motions enticing & lascibious that have come down through the ages is the seve formulae for woking the bloud tingle in whis beins fler english was picked up from all the

who come into others soilors , & contained of all the worst profonety & obscinity of the Seven sees. "Tiss me quick for ching ties my ass, I'm going is the cry one it is my misfortune to recoll. Then there was Juna with the trajecolly beautiful force. She was 5 mos preynant & had the saddert fore of have ever seen, & couldn't bup from staring of here. Poppy with the tight nell sweater of an Italian look about her. Vara who looked as Though the might be the god myst deer a had a big notion when she danced that I havn't pun since that "ainy - sing" of Part Varity in Here Guine. They recueld go from toble to table twining on the heat for each man in twom, I many Sevent and with them to return later shome ford a \$ 100,000 dr pourer The former could have been any bar in the U.S. - a bar I we end a small bond on a recepted' deas of the other of between moll

Dimitrie constantive ayourd it Latre learned we gummens had broken the many when the work premuts by 7753 in concrit. Camp. was former, 1 of morth inth. min in greek tobles with mile chairs. white cloths 9 weld chairs. Occasionaly an old toothhas dumb Greek would go from table to table buying to sell the bags of nots be carried in a basked on his arm. He would store dur before your I dambly hold and a boy of nuts, when you asked "but much" be would just good his toothis ging girls would tease him a little never them - tempt him to do things he no longer could at first of got a bick out of the place. He never seen mything like it before - this it revolted me. I had no pity for the women They probably are the best fed wohn in grace today. They mised no seperal desire in we, for any such desire was more than concelled and by the revulsion of the whole thing. I left obout 11 ocloch, do we

dimber the stairs manual to the stuet we could still bear the rise I swell of the triny band punctuated by the high getched laughter of one of the girls. We stepped and into the cool night & the fresh air of athing smelled good. Saturday Oct 9th We left Paeraus about 1000 this marning + it wolad clean & white in the brielliert Medituranian ton dury a whiteness that belied the dusty streets of foul - swelling alleys the powerty- striching people, I the bowled aut homes of that anxient see-part. Thursday we picked up George & went to the deropolis, we child The stup hill, entired the gots below the propylea & immiliotely were boch in the 4th century before christ, The Kaynifician timple of Athene Wike, The devenime Parthanon, & Creathum of took some pictures - some of - which &

hope come and. Then down to the theatre of Dienyseus & the temple of Jupitic, the botonicol gardens of the tomb of the unknown boldier. not evening & best my distance from the flirt bax. The others were there, I guess, but I couldn't see it. triday we shot in the afternoun ofthe work, had dinner oboard & while the others toyical to athing & that bondello againg trenk + + wolked to the flotion I took the train to ANONIA sprace in athing I wolked to the Ting grange. He bourght a time & I a copy of the Paris addition of the Hearlel bubine; I we soft in the wide - windewed lawye overlooking the sidewolk tobles when the large blue & white awing of the This George & sipped cool Frick Congre Cum new as we poss the Herd of tolomis an our way and, I can see the doupolis & hill of SP George in the distince.

Marsday - Oct 12th ful at sunset yestuday the lighthouse I Part faid became Disible of aux starboard baw. At was darky by the time we reached the coast & we lay have to in a good ground swell watching the beacon slice the night a the lights of fait Said. clustured along the Ishore. a swall tuy came but rolling in the swell & deposited gove us an Egyption pilot. We circled around bebaut 2200 made the entrance of the canal where we along with several other ships, lay proved to buoys 'till 0 900 today when we were cleared through the oneway stretch to great Bitter fake. devoke This maring just as we entired take Timoah . The corol is quite navious q in most places flow the barbs are found with a starting store woll. above the wall nine 15-20 foot

banks of sand dredged from the cand & beyond these is desert. The Port Said - Surg R.R. runs inland a mile or so to the west I in mony places the intervening lobel has been somewhilly irrighted a patches of com great among lote polms a palmettoes. To the East was desert - bot dry endlass desort. There was little wind, but the accessional breeze was little relief for it was heavy I loan with deaved heat. In the great Better Lobe we have to I dropped the hook while ne others behind us come out I those going in the other direction partsed us I steamed northward. Noored next us was the Cilicia out of glasgow of a beautiful pleasure ship she way. The deeps swarmed with taurists & à la île Robert, Me current fovorite on Brooking we

manned every hinocular, rangefinder - I telescope on the ship. May were mostly tankers going the other way. a typoro torber of Panamanian registry British French a Gruch terboys, all loaded to the gunwholes. Then about 1400 we were cleared on. Through Lettle Better Labe & the last stretch down to sues This was even drive than the first stretch. a fairly good wind bud come up by this & the blowing sand abscurd the conol alead. Occasionally along the banks was piled the twistil orusted wurkage of luchless thips caught in the coval & bombed during the war we knocked off work in the drofting room off of oll manned binocalass atop the flying bridge. I road now was parolleling the corol on the west bank & an accosimul British larry sped by or an

ancient green buy bearing the grun crisent & stars disign of Egypt. Here & there dong the road a hardy farmer tried to else on existance and of the lord working a never ending fight against the drought I exclosely sand, here had goots that their women - will in block - tondel all seemed to have a camelor two, that would sit with sphing. The with their knoby forelegs doubted under them & Where heads held high. a cry from avery - podio rodarmon 3rd we all swiny our glones to port to watch a drama publishing off repeated in this country but startling when you see it for the first time a comel hod follen about by mile east of the canol life could not have bun there long for the dufting sand had not begun to cover him.

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On his body & around him where he lay were 12 or 16 turkey vultures - great ugly for bods that would pech of the stillwarm contras animal & tear awaygreat nibbands of flith. Even as They ate more bultures were citching above, cirching in everdereacing an circles intil the alighted sectaminy on the animal to add more pecking beaks to those already of working reducing the carears to bones that in time would whiten in that stiffing blasting sun. Part the gribt split oblight " war & the canalo part in't, port folorn cond totions, port more tivilyated lond, more wucho of ships & building & finally off to sturboard showed the buildings - bones & nivarelles of Suez - Southern terminus of the carol of the head of the

39 sulf of kuy. At is now 2030 of we are ploughing southward toward the Ged fea. We are still actually in Egyption waters, with the drahim cleart to the west of the finai Reminaula to the east. Another beautiful night but quite cool. triday Oct 15th Since luciday we have been plowing steadily bareingly, ingulf of fires I the Ged Sea. He not well; but it is indeed a sea. We night as well be midway between New Jack & Sibralter for all the land we see-word it not for the heat. A bes become quite warm, the drafting room with its defective dir - conditing would be better with none. for the steerly hum of that big boy with the grilled front is a constanty re-

-minder that we should be enjoying a coolness that the exiscents of sweet of the armpits of awa shirts & the stickings of aux hands shows to beguiteron existent we are due in of delen probably Manday marining. The theory behind the tocation establishing of peoplephic gasetions on the earth' surface using the 60° distrolabe & the celestial triangle has bed we in mental contactions for two days now. Its still a mad hubbling boiling confusion of Zenith distance, declaration, nightascension, have anoles & stake lists. This afternoons in welcome return from the mentol tedium of tolying to assimilate the celested sphere into my any somewhol ablate spherestel, + fell to evillight in No 2 hold in beloing attemble the top section of one of Ur Bellop's

steel towers. It was like an abun dawn there, & win though stripped dawn to my shorts, my body seen was struming with arendering nevelets of solty persperation. A soon dwellped that I was chief die stamper & proceeded to stomp the numbers on the various stel parts wether met by smasting the small steel mumbered dies with a boll-peen hommer the left themb is quite some this evening. I been to be beeping this forward up to date in month to a much greater. eptint than I thought possible when I bought it in doburn last foly. I just hope that my andor does not die, for the will make a good rectil of events & feelings that might othouse be forgothen were A to tout de to memory.

Lunday, October 1712 Still steaning southward in this heat. It's a head that presses in around yor, sops your stringth, 1030 This morning we poored between Jabal Zugar & Quoin I of 14° North, Zugar is a quot with two peops vising over with two peops vising over is scrub vegitation along the share but it rapedly give svay to the red breach volconits that mole up the picks. The bluff just south of North faint has a well defined vertical joint system that buoks the count fore Between it and the wotor in a vast scree slope of great certical boulders broken of the cliffs above. Quain Hond is merely a small unnant of roch i again the brown

scoracious volcanic type + it + file A. nept to it both nise to obout 60-80' straight and of the sea. Quoin hos a lighthouse on it with living quarters in the base. I don't enery the poor bloke who has that for his niche. We now are passing Little Hanish &- on and starboard I should be off Great Hanish Sefere long, Maybe fill try to get some slip this flower. Frank broke a cot out of #13 hold & is now ashes on it out on the fo'castle goings ed are back sweating over a hot bridge table with Storisethy me Kajon in the wardroom & the thip is fairly quiet. Sphil last winning & gart of this morning I the point of the baw on the focostle His nice up there. The air is clean, + if there is any breeze It all that's where it to. They String on awoning up there
45 & That lain just alead of the baco. yesterday from just aft of the 2 & Oceasionally they would break woter in an arching jump, anchor chain winch off to the 4 Tes paint locker & all the way 355 moonlight would glestin briefly across. A covers both of ant forward yomm's bot they and I have again in a patch of form. much good anyway & gluss. Tomorrow Aden - (16 annus to the ruple, 3R 2a = #1(u.s.c) 1 R= cu. 30 k) to now 2200 - die been it my favorite spot up it the peak of the The stood of watched & thought & bow ayain. & good breeze has come brought their bedding topside to take advantage of the breeze. The moon is full + Easy diructly abread so that the ship headed directly into the 13 1 2 3 3 twend & saw that note men 313 2 5 pole in an even thythy. + woke - a lowly sight. The wind vippeled the shirt on my back & f could feel it in my hair. The And come up from below T were spruvled crabily on thirty blankets spread In the deck. to ship looked afforent in the mountight. The anchor winds. ship made a steady swish is the cut through the water & each wave was divided a thrown aside in a fiving of white domainy spray. do I leaved over to wotch I shall see Files 3 seemed to merge with the The gray streves of two perposes

spray shield & the paintloches. The ferward 40's huddled inder the here awing twee olmost injustelle The superstructure of the bridge was a gray wass fixing obvic ne. The mountight was neglicited as gold from the burnished brook on Lebe bridge - wings & the your running light served to have a Kel & V gelen holo wand mm. I twind back toward the sea a found that the woon had allifted - or parhops a smolt change of course had done it: but at long rote the ship was beating to the lift of that silver wobe & it suched herrong. I turned & left. stapping carefully over sleeping men & mock my way of to ave grarters. At seems strange not to have a girl to write to when I feel as I do tanight. In the army avoides when woonlight turnel the polim frombs to selver I would feel the same

wey I then go bock to my test in the jungle & write a long letter to Margery Podds. Now she is married + Hevie too, even Barry Bouns of will probably always regret that I ded not bedow the gelf marry sooner. Shell know & nothing of brinceton of the army & now of this trip. They will all be. things fil have to tell fex. fl show her my pictures & my litters & felt, but con never really know On a night the tonight of woold have withen obout the moonlight + all, but tel have written it to her, & the epperience woold have been richer for me because of her. I must that her soon after I get boch. Eithe "her" or something else to which I com refer myself. In no farry Parril (Royan's telye) but the in a way I am searching for something. of and on like te ship drifting &

need a give to tie to or a corre course to nun- a part to aimpor. This pream thip is actually a contardly Thing for me to do. At is just stalling till I can but on what I really want to do. It's escape from having to fore the decision that must be made sooner or later. I could term into a pour mais Richard Holtburton with no trouble I all. I do like to trovel ? there is still a good deal of the world I won't the see; but if I kind what I'm looking for - whettweer I may be -, fel be willing to confire my treveling to the towning folders the just got to bottle the thing aut, Stick to it. First though I must find that "je we sais prive" to which & I can set my cause. Mught religion, maybe the lave & laving of a woman I don't brow, but I don't think Il find it behind a transit between Tuwait + Clanifoh in Sauch arobia.

luesday, October 19th aden has come & yone, I we are of sea again heading casteered out of the Julf of aden toward the theobean Sea. Whe familiar roll of the ship mokes it hard to realize that all that I save yesterday was not a fantasy fablicated and of moon mist & solt spray. When I awoke yesterday, a hosty glonce and the parthole showed that we were just autside the part of alter. By the time I had should & eatin, the filst was aboard of we were just passing the mole protecting the auter harbor. With the help of two granting tuys we were swing this way I that till the gild - British & think fell it was on to heave the lines. a small boat rawed by two dusky be turbaned boys took the housers over to the bouyog wale them ford. Since liberty didn't commence until one deloch

I had time to look over the taun from the harber. addent preants a striking picture as it honger on as best it can to the low ground around steep volcanic peaks that make up the peninsula. Many the share dharves I all sizes were pulled up out of the water & restrict on their sides, their mosts motion pointing in all directions giart jele of Jock straws. Mearer the town the long a Part flire pier an high gibings had a shall tug wooned in the crook of its arm & looked as thereigh it had just made a surp of the kerbor & caught just the one small dirty tily I sea wall runs from these north to the Prince of Woles five and bups the dividing live between woth I mountains nice & straighty real looking. a vood follows parolles the woll & follows levery the for the hugs the food of the peaks, Byond the Prince of Woles pur the rood

rounds a shoulding volcanic rochy & deposite the travelie night in the main part of the town of aden. a row of two story buildings fronto on a creacent - shiped park that in sure holds the only trees on the germinaula. It was just after noon when we got there & in true caston fashion nothing was open. a few goats loctured about the sidewolk dirty goats that would their great swinging udders protected by a there sain sain and tied close to their belly. an occasional Arob could be seen sleeping in a doorway or rolled close to a building. a ferotito darb- shinned childrent were becking a gray timis boll around in The road & stopped that watch us as we possed. We wolked to the end of the erecent & were about to investigate the intresting streets that radiate and from it when one

of the chiefs from the ship shouted of us from a top cob. We went over I in onliver to this request agreed to pay our shore of the fore over to crater. I had need of the taun in the crotic of an estimate volcano built & wanted to bee it. we pile in a were of in a cloud of durt. do in Athins (& N.V.C.) The cab dribens vely mustly on the horn. This up cab - a 1935 convertable ford - bod a hand operated bulb for the sounded like a duck I be drove with one hand on the whiel a the other on that for working it constartly. We accured around the other should of rocks that encloses adan - fel never get used to driving on the lift side I the nord - scottied a herd of goots I seared an old man, passed the dhow shipyards along the flot plain that booding the shollow lime Ma'ala Bay have I started up the naviou swetch-bock load that crosses the nim of the old volcanor as we

lobored up the steep grade with much knocking of the engine of every nevolution I much howking of the born of nothing I tarried draind & saw the whole of the harbor laid and of my fiel Right Belaw us was a large century, beyond that the dhaw yords with many boats in various stays of construction. To the left over a speve of the peak was Aden its white cubicol white houses they bare & bright in the floging drobion son & beyond was the grun of the harbor. I could see that The Howy was just putting out a 2: Foot boot tool of white dod loaded with one - inch white - clod sailons. a cargo ship was just passing the mole on here way to sea, and sword more were still of anchor. A great triangular white sail would efforthesing in I out among the larger thips, I the 2- food berty launch reached the 12 peer.

By now are cal was approaching the straight-side naviaro defile that carries the road through the mountain. It suddenly greeve almost dark as we entired the pass. The step souls of shere were towered above us & seemed to meet bigh obeve the road. The sky was a navious nibbon between two wolls of rock. The sun burst upon us as we left the ports & three before us I the foot of another steep grade was brother From that hight it looked much ble aden bor for the lock of trees and the precipitous cliffs that swereunder it. A indeed was built in an extinet crotic to we entired the town we possed through a large section that fod been completely bevered out. Rogless buildings with empty staring I windows & blackened wolls great piles of rubble flocked the reduvolor + heat twisted quirders have from an unsupported wall. A loosed much

lake parts of Tokyo or Monila - like parts of so many of aur big eities today, but the war had not gotten dawn have so I asked the diver. Without twining around the tail "fews" of the way he said it lift no doubt in our minds as to what his stond was on the drob-fervich question. Though aden is actually on Indian protectorate with a British to residency the population is predamitantly drot. We later learned that day had been the seene of a short & bloody niot. drabs had joined together & burned billed & looted until not furish - and building on have was left of the flids themselves either billed or brives still runs high as we 4 sold later on in a cafe drinking warm beer we huntiend the word few in and conversation

562 + 6 or 8 acobs turnel & stared 3 quiesturingly of us. They didn't look 33137 gutter ghetto & paid off our shore 1973 & the cob fore (4 Ruples) at the 1973 A the cob fore (4 Ruples) at the 1973 A the fore (4 Ruples) at the 1973 A the baggary started to 1973 Market - place - the new out market - place - the nouse center of every tawn in the middle cart. The bagare is a living thing a stigg its veins are marrier its blood the dirty naview streets, its blood the street of Jostling multitude to dark skinned arobs their burnoones fluttering about their shoulders 15 32 brushed post jet - black Somolies 333 from & africa, toll stately blacks who I so wrop-around that a on industriate E E women of solom weiled & in block 13 the loose black garments that 332 32 trailed on the ground - an accosing 333 Inlian merchant with his the

57 features, his white notes gothered in front & naised to keep and of the dirt - ald beggers in felthy turkens and any a breechebut would hold thisselves up on a cove & extend a deformed hand crying babsish " an the old man their legs gothered only thim, my blandy alting against a woll staring blandy off who space with the sightless leges, wearing only a breechcloth of thying to bup from being stepped on - children of lim - determinate parentage thrawing stones of a camel pulling a wothe cart the driver showting invections of thim in an urbnaum tonque unvieled somole women in long red A dresses - a sweating man toboning under a great bole of green boy pushing his way through the Swiging crowd his body bent of his eyes on the grand - a hunchfind backed boy in shorts asking for almo - three while women looking over bolto of gaudy

print - in Fegyption in western dress & a red fiz - more Acrabs more Somolies - more beggers more sido - comeb - goots -mules dags - this was the swiging the blood of the bazar. The air was heavy with the odors of humans i comels. Contract Like the sounds of an anguy torrent was were the combined waters of mon I beart I good wienating on the sidwolk was lacebed by one of the throng & the it disappeared through any open deenway winating as it wint. It for Indian ma rope pollet drew shoke the a long this streom of the blue gray smoke a sweating arob tim-Smith worked a bellows with his feet a sparks fleve from the pile of eools on the dist floor lettered with sawdust & thavings was filting the wooden share into a plaw if stopped a chaught of

another corporative in a shop probably much like this. We wolked on, ducking under low aronings, stepping around prostrate beyoars, waiting for a cursing driver to get his much of the sidewalk, stopping to let pass a camel cart loaded with great bales bound in burlop; we wolked & looked & marveled & weshed we were less conspicuous. Somewhore along the way we gicked up "cevely I dubbed with curley for his head was shaved bare and glistind with drups of perspectation. He was about 12, black as midnight, with a ready smile 9 a nowthful of gleoning white treth, Carly wore a red print skirt & a blue skirt. First he tried asking "whisky?" - we said no, "Fuckey?" we said definitely no, to be give up & just tagged along. It asbed for a cigarette & b always eagur to contribute to the delinquary of a jervink, gove him ce Leleberg. The boyar after an hour

or so became less water as the togon to smells become more genetrating, the dust thicker, I the beggans more petyfol & insistant We lift the boyon I eum and two blocks away could still hear the bable sound of the torner. Cevely was still with us. In an open field - perhaps field is not the word, for "field" to me connotes cool green grass or waving grain & this was burd pocked earth & dusty - two teams of boys were playing societ ? we stopped to wotch. The wolf around the playing-field was lined with grandstand matterbacks sitting jacknife forstein an thir baunches with their trances buched underwoth there chins, we wotched for a while + this I eroused the street to a door way under a large B. O. A.C. slyp to fich up a British Oversus averages folder just in case. as I came not the other three evere showthing I we to come over quickly. A first et

looked as though they were besieged. The three of this were standing on the law woll & were surtainded by a simple crows have been 150r 20 I the I more were arriving all the time. I pushed my way through I had visions of the three mushoteers (ot then, 4 in this case) against the would, the this ned live, the hollow square at Thartaum, the Block Hole of Colcutta oll rollik into me. Bot this & neolized that they were all bids & all smiling Ed had token his share loves and for coto cradho but he had run out of tricks before a demanding george bourse. This was just my meat. I did two string trucks on my -hands, but what really got this was the loop through the nech one I in true thispion style was carried in by my abilitice & even went as fare as to chere up & swollow" a lighted cegarette We all van and of tricks thin I

tried to leave. after two blocks we still had about a dozen of them with us. At was graning lote by then so curly got is a cot from somewhole, we gave him two rupes, be thoos lands herry solemly all around a me left with much mad hanking. abraund the autorile of the boyar, through the burned-and ghetto, up to of through the pass & dawn into aden. Ed & Gerony want buch to the ship for chaw while trank I + looked I'm some of the stores. + pecked up a nice pet of motched ivony naphin rings & a cauple of swall sandlewood animals. Had I small steak, frinch fires, break + cold cream, & good coffee of the Blue Bay on the Cresant. Mit a cauple of the AGSC afficers & Ens. Rasmussion from the thanky I unt our to the Exclain Notel Had a bure with thing & thing left for to stay would have

been only to drive & thot' a heek of a way to spind a whole euring to fortune, so we traipsel on buck to the Karvy Marie & the mavie Thursday October 21st to far this book sounds as though I spend most of the beach; but for every house sport bashore there are clarge sport in that drefting room topside. for Billy lower in #2 hold we proceeded to drew up plans for the wooden observers platform the templates for the laying and the bases of various height tomers & V drew up plans for a worden for the astrolate. There were 1 Alexand drawn in periel & then traced

in ink on cloth poper & tolam down to the corporty shop. a radiogram the other day suggested we chant Shah Ham Shoal in the persian Suff in aux way into Bohrien. A is on the preamo charl of the Gulf had believed to be poorly locoted & poorly soundle. The barry has been carried away & three V tarbers have gone agrand on here in the port two years as near as we con till from the available chouts, Shoh alam ties at yook 52° 31' E, 26° 25' N. & figuried and the limits & polyconic projection distinces & ed & of aburo up a moster sheet with an 18° E.W & 10° N-S spread in the shool area. Well prich through the coordinates onto theits to be used as more the boot boat shiels & use this one for awe smooth plat! Cooler tonight with a good

breeze from the Sautheast. The man slavely fights its archimy cause. through a layer of strotocumulus. tin reading allemonistre white Yawer"a good book that neally vivid pictures of the summers of '46 9 47 in the Wind Ature gange in Wyaming molace we want to take the some trails again & marchel I the same views - this time of the to do it with Butch - mughe If this jawn't is over by fune I con gick him up in Color we con do some climing the of word him to know the -Notes - incomparable joy of high freedom zaroch - Dhows - booms - baggalas - sambutes Lateen rigged, Nakhadah = Captain of Dhaw Ramadhan - Modern fast mouls Aghal = blach lambs-weel head rope of desert Arabs, Basra dates - Twisted wood from temena logs from Malabar Coart - dhaws kult with adz + Indian drills. Taiyib = good Swahili = Lingua Franca of Persion Suf.

luesday October 26th fince we left Aden we have followed the coast north a east. Part the Hadhramant. port the parts of Milfalla, Saihuta Salala- part the Twice Muria Is the British Quarantine station for necce pilepins coming from the east) up the wort of 10mon around Ras al Hadd and into the Luf of Gman. Today we stronged alufort due north up the weaturn side of the Los towards the Atraits of Ormuz ()or Hormuz). Lote this afternoon we poosed close to blas al Musandum - the easternmost top of (Zran) arabia - through the straits of (Zran) Horning & when the Persion Bul of last. The sen was law of made the water between the ship & the shore a deep turpusing a by sea- going dhow sold southward hugging the coart- for triangular lotur sail well-filled by the fresh wind & very

white in the low surlight. High nobed coffs rive straight out of the who the. I got a glass in this I they were a great thickness of sedimentary blds slightly folded ther up I boch to the peaks of Musandom. Their tops were ! hidden in claude that spilled dawnward through the barren volleys. Higher up, great towering cumilo nimbus clouds with their flot anvits streaming southbard were starting the two pints. To the east of could just more and the mountains of persia. I climbed to the top of the flying bridge & wolches the color change from pink to blood - ned & this drain frin the sky leaving dirty gray Ochunds against a tight blue beckground I fell strange as we wint through the stroits of ormy, actually it was not

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much different from Gibroltic or Bat el Mandeb. but where they linked ocean to fear hear to Gulf, Ommy seemed to be a struit between the present of the port. founds a bit carry & know, but me were enturing the Decion Loff where men live much as they did in the days of Christ they sail their booms & bayolles boyyolas - ships much the deard of from these of the Phoenecians the for the third. The guff is believed by mony to be the place where show first started elying and this ins this vale of teats. Here (Horming) Narro Polo ended this network voyage, here Nearches soiled in 325 B.C. here the african slove traders branger this block was for the slove maits of Boyhda + Tuwait - - and it is still much as it way this. The same

the boats, the somehouses, the some clothes. All be most interestel to see what his ahod. Lots of work & know, long haves in the bailing seen of the day I weary hours aver and charits of computation in the beat of evening It will be work, but I also plan to beep my eyes ears I wind epon I thereby learn a lot tonymout vednesdag, Oct 2712_ Vednesdag, Oct 2712_ Den my nåivte thought that snofic aperations were timited to the army A is indeed a consoling thought year a golden revelation to when the right circonstones present themselves - prismt at fould up & setuction that almost reaches the peaks nearly attained by the army whits to which it was my dubians bonor to

be attached during the lote international altercation The ags is went ahead of the Kawy about vern, At way a will formation. Their fothometers singer away mally as my swift the bottom booking fort the shoaling that would the allow thool do we drew nearer to the area where it was reputed to lie, we reduced aur speed to 4 knots the sound barets seemed to be ready. This crews lolled abaut on their dechs & the boom was attached to the sliving on Hy Sound boat - part side first At of the drepting room, we slowed dauch even more & looking through "The dovits above the ags is here have too. This the arder come over the speaber system "fort Sound

boot orens man your sound boats - on The dauble." Well A was impressed. This was nothing like the army. Think old systim we into operation come there in the wind. Men standing reachy with lives slobed their grips I looked toward the bridge as though they uppected to see a beg near sign up there saying night there" We man in the bull of #4 mody to bich aver the two enjoy stuck his head aut of the hotely the looked toutand the lood. speaker in the after mart Osborn - torm the delay. cochid an eye toward the bridge min leand back of lit a eigerette as through be way to fit there del

day - thomas been in the noting 7 years the cooks that had come and of their holes to wotch took a lost blook off the sky & ducked beland even Bongot the dag) went back to slip under the typ of #2 hotch cover - Bongo has been in the navy 3 years. I leaned over the rail planty the drofting noon the looked fordward expecting them to start lowering have been with the very two months. We waited - - & whether -a waited. Benzo was aslup & dreaming I the forthe on 57 dunne age I be & the mon the from removed this shirts & were sun- bothing on the sloping dech of the sound boat the whole aperation had bayyed dawn figgled out. It was good to be back in a fimiliar setuction of

lit up a weed & soundired off to the drofting noom again I was back at cleaning meterbors when the others come in. like the cost that she the covery + herded us all down to the Lottom of #3 hold. What for? ----To get dut the generators that supply the power for The radar equipment on the sound boats. We were gaining to plot the positions of the sound boots by roclar fadar equipment was . In the soundboats all golished & really to go - but the gawer for these ingenious machines? - poped against the bulkhead under 10 hopes of Helmets, sun, project I the bottom of #3 -hold aboard the Narry. yes indeedie it is good to Sgit bock on growel I know to well. At is now 2200 I everything is as expected. We are still oncored, the 3

ags is are arened (2 though the putter has gove to Bohrien for mail -- for food too I have if this beeps up the sound boots are still in this preventer upt where they were when we loff New York Everything gut for change this quit again (or nother- stayed quitted) while all hands with to the marie & raw everyone is in the rack. Well try again in the marning + quies. That the "Sound boat beeves mon your sound boats on the double" really had me for awhile - with I learned it was just the the army's # Hurry ile & wait - on the double. Frielay Oct Igt's Between the full day of yesterday, & the arriver of proil & 3 Sol. Eve. Norte Hoday I have best fairly lury. Juterelay & telday both were

furty warm. The air - conclustioning in the drefting room pures continutely los decant do a damm but of good. We firstly opened all the parts today tehm the temp in there got up to 97° hot got bill relief. I spirt yesterday slaving out hot forthameter wolls from the NJ-97 MMC-2 reto obvard. Chicked the soundings from Sibraltie to dugusta to Peracus to part faid all but for some NIC-2 missing on the 11? The work entuils interpolating time introols on the rolls between muched 1/2 hr marks & cheeping the depths of these derived times ayount the depth as recorded in the sound books. I the have Autoriantin fear using a pur f 11-point dividers as a climbing stick. about 1630 the combination of heat, glave from the sun on the water, two many cigorettes &

too much close work gove we a splitting headache of the chicked and for my rack. One sound boot (#) with ens. Kenke) had been put in order & hoel mock a good pottern over the shool area of Lifflichules Maury Blish his boot shiel showed the shool to be just where a the shope that the charits showed it to be the boat was beached on the VF, rodan pet on the bridge & the name " I all plotted on a boat sheet in there. Pleving The marine that ever I made up my have I a half training I plotting in the dealting room boday they managed somehow to get 3 of the 4 sound boots wallary had no soundings. I sport the

day the 1: 2000 smooth sheets the be used in Turoit Harbor. We weight anchor obout 1800 I are now in route to Bahrien. Should be there about 1000 tomme Picked up some strong guen clay on our anchor just south is with my other ove - it looks much like a glaveonitic day such as might be found on the pretaceous coustof plains of the atlantic costof the wothis abaund in stronge the. forth ever one of the millions of feshing lines own the side Rooks & shark. He broke water only once - a big Tor & footer - & then sounded. They had anly a light hime on him son just plaged him till he took a fero thomas around our starboard onchor chain a they had to cel the live. There we lots of woth

snotaes - yellow & brown - up to 4 feet in lingth that slither day the side of the ship & looked especially evice as they were picked up by the battle lonterny weed being leved to light up the buttle with the Shorth an especially strange critter is in a light aronge fish that I have seen by to 10 in lingth. open? K 6"-10" # Light crange in color They it first seemed to be hunching along by pushing with their tools they bad flippors of some sait mounted and their bulbours lubing heads that they used. They would podelle are & this glick this one for some time. He i would seen

coming particity and of the water of this foll pack with a spleshturn & by his flip & stide method of locomotion get dur to the Soundboot tied denyjick & other her seeming to Short donthe notic buck of the boll I thrust timself and, foll book & return for another crock of the Many. a good dol of flauresance was in the I water two, the anchor chains seemed to be costel with an incondiscut mist below the surface + occasional flue-guery globules (?) of coloniol protogoans would be cauried by in the count lighting saber way 5-10 seconds. They were noticable only along the holl whose evidently a twebalance of some bind tauses them to lunonesce. to quote from Sverx drup P 834 to ottack the hull of the Many -isms are wholly within the range of human

vision and may of times be sufficiently buillient to mole the crusts of breaking wours, the woke of a ship, or The weekenecolly agitated water glow with a general quenish light of sufficient intensity to enable and to read ... Il carroed by unnumerable microreopie organiamy mainly denoglogittet (dinoflagellates) such as Noctilute Saturday, October 30th Vayain we warked & ho. our-Time on a Solivelay. Sport the entire day helping the small boat fires to get their boat shiels sphared away & the toundings in their loy books exched against the fothometer rolls. It was menial lobor I not too interesting to do. We had the existains drawn aver the ports all day to keep out the glare of the water & about 1100 when All come below for coffee I found we had antehoned & that the 3 als is were again

tied up side by side along ave part beam. We are anthous still-about 2 miles of Bohries Solund. Unlike Sibralte of Piracus or aden which had mountains or I least hills, there is king ity very little to show where the water stops & the land begins. Our havingon is still very very flot. In the distance of aux stors I could mobe dot one lone flort - tepped hill & it is hard to feolize that the tond chaint that share isn't every back there. off our part bolo a long law line of flot white buildings that seen to be night a the on the water is Marramax. On to the left, again night at wothe level is a long havingon of storage temps and the the Dahrien Oil Company. Warthie to the left with binosulars your

can just woke and a chustic of bandy - bygged ail well rigge till that somehow got misplaced. The world from here beens to be unidimensional - no up or down just horizontal distances on a vent plain From the ship, the island looks like a white pencil live on a a big blue sphere have is not a claud in (the sty - a stry only a shude lightic then the me wiele strutch of flue notic between here & the shire From somewhere along that peril a light brug from the northwest (color tue! ditating lite of wouthing have the suprised had they tool toward the open guff. The sun bropped lower down in the ship approached the Rangon without the softwing effects of a senset. Still at not brightiers it plunged

83 beleur the togon havingon and you seemed to feel that when the norming bit would the glue but would preceded by a padaun screening & bard again. for the sea It grund level repidly and a million lights came an along the island molsing a sparsting A the ebelt monde tot to give the blogton night die I dag barked in one of the for a moman' screan on a quiet night) ships til alongsick of the min selence shottered & fell in a million tinbling stickers. a sailon flipped a glaring eigarette both lover the side of it fell in a wide are tothe & and died as it hit the water As though me noture were mimickay him Showing tax fell in a lary are a seemed to be sniffed dot as it

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fell below the havingon. One one of the little ships a harmonica was playing Pey o my Heart mint Rope bumpers greaned as the putton rubbed shoulders with the Nawy, I somewhore behind me someone the himped into a cable in the dark + cursed. It is much cooler now # I should be a good night for - sleeping. Lunday, O-ctober 31st. ashare today - doit know why I didn't. The error were allowed to go only to a pratich recreation area & they toos of in the Ph with about you care of beer I couldn't quite see that vede jert for at beer in a level- in ferreation area. well, as it turned and the others picked up a cut & went our

to Manamark. They seemed to have had a good time & color- even baught 3 burroases (bernice?). I was servery of hadrit gume, for I could have sent off my three last roll of color film. as it was I spent the thine while they were ashare needing all the decent articles in my 3 Sot Eve forts up on the dech above the drafting room. I wore only my dutralian shorts I got sorte good color on my front. got a really nice lette from Bobbie Ambrie w. notations & earrections by Imbo, one from Nos S. 7 a Shiref epistle from Charlotte MC Nulty the lownylizand and Wells'50 - the gives we a pain where pills can't reach. The is a spoiled brad who will soon motive into a full - blown, cultured

86 (fine way to start a new page) Monday, dos 1st Novembre Horday, dos 1st Novembre fl's 2120 and we are ticl up to the two Tec I the end of the long fueling pice that stretches and finte the box from Bohin tolend and into the bay. The Per is thich against awe hall to Istarboard of across the 100 feet of black ail - stained planking I the give the american terhas Camas Meadows is atto mooned close along side. the rises + follo with the swell the and is a state he such sing of the free prover and is a state the such and a provide the such and the such a primon black have that rises from the piertes dropes aver the gunwholes with its bead thrust deep into the ships entrails. about of the Camas Madaws is the clis Navy

87 tarker Quadalupe also taking on fuel. The Hawing two has all day had a sleep black flexible have discorging hundreds of gollons of black desiel ail the best temps The action of a sump somewhere hereoth the surface of the pier the eauses the have to pulsate like a loaded artery. Now it is night and the pier between the wolls of hull on either side is lighted by the lawpo of the end of curved arms atop the 130' no long- goots that line middle of the pier. The light is absorbed by the duck of the pile the but sichs dot avery bet of brightwork I white on the ships donpice. The averallifiert is one of

unreality as therugh the whole thing week a set for the first ait of Eugenene O' Veille the Long Vayage Home a few arabs that work as laborano for BAPCO (British -american the Company) time the cranes that have the hopes of the values that control the Yurn flow of ail. The bases come from large trop doons thrown back beside the dark holes filled with control volois & giptes. One darb shinned and wears type red turbos and what looks like on army avercoot - for the nights are -cool - but be is barfooted this shodow is a for in Leaning against one of the lamp but the seems to be centemploting the small block spot at this fiel that is his shadow. In the small booth

in the middle of the pier a telephone jongles demandingly? the drabt dools up from his shedow toward the booth of this toward the genypleny deading up to the thes of the camas teadows, Down it huving a white mon in Shake shorts starts This armos bare legs loop very white I be has a good signed paunch that sways as he huvins across terbord. the shed I mokes his otting at running look ludicris (sp?). le dissopeans inside & the jangling of the telephine stops & the closes in again around the shed. The Marchy rives on a swell, the hawever strain in their bits and rupe finders grown as they are atushed ayound the aily pier. The fat word would actus the give taward the Many his shadew getting sharter +

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sharther as he newes the a lamps port, by gets minul up in his fiel as be passes I reaches and in front of him as he comes terward the Hanking The drob gais back to watch his ann shodew, the to block pythons stil pulsate & the land speaker system aboard tells us again that the smoling lymp is and throughout the ship. Spirit the day in the drafting room trying to enverantile the found Books & fortheyeums from the second bats dur Stoh alling there. The fottometic in Beyys sound boot (# 2°) was on the fritz a be had used a partable set CNIT-6). The hitch is that they had wollage troubles for 1/2 a day till they god in frish bottoskis & so pasitions that should be every spoul of three minute interes

along the roll are spread al over. on Menke's rolls from S.B#1 they there are 15-20 minute stretches with no time ar position locations _ stretches while his follometer wan was having ower the side sick as a day. Thus we had to go along til we found a place where they had changed from fiel to fothers on the roll, try to find the breek in the book I then figure ahead I back from that breek assiming that the roll best maving It a continuous role poot the styles arm It mode a lot of finagelong but we come dut G.K. we should pull and fore early in the marining I avine it Aminit wednesday some time This area wel where begins I have been assigned as had of triungerlation party #1 8

(That's "Jaziral Faylahah) hope to set up stations Tomb & Tip on Jasirut Falakah the island between Ras Al Arch of Shatt - al- trab (The matthe of The Tiquis & Euphrots) It is an interesting looking colore from the map 9 here position motors her an island that you publish one of the first brown to why. I want tot see that tamb & to snow along her shares. got today I'm the mail my two well of color film back from Eastmon. my lare & your Ishot of athing I They exceeded my wildest hopes. Nort git some more color film. Wednesday, November 3rd -1230 - Well were here cluchard about an have ago between Gers- al. arch & fasient tolobah. Justiceley we left Bolien about 5800 + of sport the day working over the fothometer collo from the

Mawy & while we were anchored over Shoh allum, any ductuation should have been attributable to tide & we have to get a tidal correction of to apply to the sound backs from the sound boots, but the joker on fothometic watch on the bridge had goofed off I fudged in the Now 29th just ian't in the book It all I spend the better part of the day buying to Repure and what that yore on that the noen owe addignments where confirmed & I am indeed to go to Falabah tomorrow with M.R. Smith & C.P. Laylor (apprentice seamen) as assestants to recon. good tocations for Tomb, Nya, 4 Tip (now T.pc), there a -solar shot I determine visibility along the havingon getting magnitic azimuths

features. Today - or at bent so have , today ~ El Craig & of have haid and in in her the boot sheets (1.002, 1.003, + 1.005) of the herebor - still have one tolgo. Lost we after the movie for the rish of being thought eager" by the others I but one of the photostatel copies of HO 3654 (Huwait Hurbor) in the Soltymin projector 4 traced off a large mop of the The maynetic agrimuth of the times of sight to the other proposed stations in the net which are supposed to be visable from taglaboly. 1900 - Welcome Stronger' is the movie tonight, but since we had it ge few weeks ago (minus one in) a think fil ship it & get caught up in here & with my letter writing. get underway to morrow oflexal, as

the suptain waart able to g make all his shore calls today. We were all set though - and Stoteroom already alose oraward for now token on the approxima of a looks like a phone booth holding the gear for a marine division before Tarawa. Between the deals where din writing & the door the bullshead is the festooned with map cases & seen belmets. Charts and of Turin harbor are on both deals a benoulare, whetefore topes, pads, coloned pencils protedetens are all. stand a nearly to go. Mow it's pertand - of least for a day. I was ready but will be glad of the observations with a transit. I think we all felt & still feel much the relieved that the two-worth trip to survert is over & that we are about to start. We abready longer the area as though we had been here. We

96 could reproduce most of these charts by memory roud, as the ship pulled wer clover to land yesterday we began colling off "familiar" londmarks as though we were cominy into an area we all bonco well the acched up the headland of Rasal Chill & identified the long to starboard as forgiral taplabak. recognized the muddly water as The Alluvium from Shott of arak + Furvailt from the sea looked much as we had imagined it a great expanse of law white Aut-Tupped adobe- looking buildings with one or two minarelts rising baughtily above the inequilier levels of formale woll anto the hot day plains. From The wotherfront are several larger buildings with two tiers of arched the boltonies blong The front - the looks almost like Stalion Renatosavie blelyo from a distance along the water-

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97 mile harris front dhaws to the alter with their sails down look like obeliting the as they chutter close against the sharetime There must be several bundred of them mound & tiel-up over there. The entire city is woll that a that neaches to the harbor I both ends as though to scal the the sources people and from the lond to the sourth of force them to the of the wolthe from which comes their twelthood a few of though seen to have broken and and a several where we are anchound there is not one true in sight The shore of the harbor streaches off beyond the taun favour & flot to dissopeare in the distance. A comes bock into view on the other side

98 I traviet haveher but the here Vit is backed by a low sandy bloff stidge still dry - leolary & within vegitation. about 1800 the dhaw flit returned from whether dhaws to during the day I it was lavely tot see must have been 50 or 60 of them - oll sizedwind night on the smooth surface of the farbor looked the greasy finger structures on a gray-gruen mirror. By the time suppor was away (I awa news bill junged totter menthly) it had began toget dark. It's strange the muy if Seems to opriad up from the land a ait from the shore the lond is invisible while the skyt write and still stan seen to be barying on to the lost troves of the day. a little fingermail men has come up & the wolse is a very narraw band of

gold from the share steary to the ship. a cool breeze bes come up - a welcome retay from the glaring feat of the I day - and the ship is getting ready to retire for the night. Though it is if in the evening live, it is only 7417 we still don't lenaw who won, but the last report beard about noon by short wave from Orgland Haid berman waswapered - That would have then just flix mednight sometime in the flotis. We welly don't seem to have gotten too wonked up over the election over here Our being so and of twely with the states renders us quet inmune to the virus of fullic neupopu propayanda, hence we don't know quite what goes on nor are aux

1'00

stands influenced by the current when of the nation's editors. A that if Mr trumon is re-elected , his democratic senators returned to their seats & additional seats going to D's our R's that aux country is in for four hard years, the is a weak man. I pray god to to give him the stringth of character & the awareness of night to keep this equating behind the principles we brow to be good. It is hupcless to they to form a government stronger than the people who make it up, to the aspire to political ideals higher than these ideals of the men assigned to perpetiate thim, it is shere folly to even hope for a christion settlement of world offairs when the men in whose Monds the power of wax or peace may tie are Godless, self-centered, moneymad, power-crazy hypocriles, dyain the ethics of a social or political

system can be no shetter than the personal ethics of the people who wake up that society or that government. Chursday, Mar 4th 2130 Fathayians most of the day today - had my bays of watch painting I full black I white stripes on the 16' 2×2's used on the signal. Ho share & Cook went ashare to see ail co. men & the old man to see the Shiels Evidently the word didn't get through a not a seul ashare know we were coming; so we won't be going dohave of least 'till plandly. I so it goes. His Highness Site ahmed ibn Jaber altobah - his it. hand man chli Italifa whose riphin Fahad was of Beint Sheilh ahmed Jabah his subjects call him

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biday, Mavember 5th Cooke & Show wind to the Oil Co again today & dawn to Equil for the till grage records. We walked topside on fotboyums agains. all caught up to IT. hereber but for one NJ-9 roll Thot' mining & the NMC-2 roll itel in the working. yesterday & today were both elear & hot - also the flies have discovered us. They are persistent little durits that get not your nose a cars - + lote 'en. Beautful sunsit tonight. No hard coloro - I all pastels pinh quelens against a baby blue shy & reflected in the tight your mirrior of the bay. a big boom with both sails nigged for the slightest winp of moving and sot motionless on its Leflicted image in the water & was stllavetted just as the arange sem stypic behind the law sond hills nest of the barbor. The nights are really quite

cool & mobe for dam nice sluping. Ruesday, Movember 9th 1150- Vire word finally come through - were to folent tomorrow as previously planned for last thirsday. Lunday we wind aspone to the ail company's area & recreated - baseball beer & blaging hat sun - over I boch in found Book. It was again had it is here me that we cauldn't get into the terun. Still here & se Tewayt. In the drafting room we have mode tillat plat from the Kanning's rolls over that allum I those applied The connections by time to the sound books sound books Set up 0.201 Amouth plot 1:40,000 & are now warking

0.202 Thursday Evenny Navember 220 12 tind really tired tonight - left the ship it 10730 This a.M. & got back in the dark at 1920 tonight yesterday was another long one too. Holeday rautine tomorrow & york Sunday. I hed Senday School last Sunday - we get a miserable attendence - moyle 25 aut of 300 men & 3 and of 25 offices 15th Chipter of Al-John - It an the vin ? ye are the branches - Hope to get Saught up in here when I worked e evendeful ging has perhad up Jaundia & is being flaun to Dahran for shipment back to The flots. Tough break for him? us. tridey eve November 12th I find it mast difficult to ewrite of yesterday when tomorrow looms so hig. Daily of am faced with tasks the enormity of which staggers me; but each eve.

+ somehow seem to have and muddled my way through. The difficulty stims from my aron inadepilote knowledge of this @ type of work, a knowledge that should be gained from those laying and the jobs for us; but they are of no help + + learn only by triol ? - "lever while daing". - "leverday evening the plan of the day come out with "0700 Mr Studet & triangulation party #1 away in LCUP #15 to reconside Jozoral topo taylaboh stations Tomb Type & Wiga" Ho funny hol no one ever tells us lufere we go or what we do - its always that impersonal plan of the kay - a mineagrophed sheet tothed up amachy other popers on the pulletin board in the wordroom. By the time of socked in that evening I had all aur year - transit, triped, Flodia red, mp

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map case, botchet, sheeting, techo, maps everything - even ferd & water arianged for - I know where & was going - Faylokoh, and what I was to do - locate sites for stolions of toke I minute cuts to notural objects, check havingen visibilit I toke three sets of dem shots of each station. I should have rested well, but as I lay there staring It through the darbarers the of the averhead of was assailed by a thousand doubte, small details that never noted the plan of the day, ittle programs that couldn't be pripared for a would have to be sized up & dealt with as They were mit. Here clase could we get with the UP? Was The episting chart accurate enough so we could -buist the digth? what if we ran aground? Were the devoids on Falabook gaining to colond. I had read of the books

eastrating British fliers & serving their testeles in their mouths. The cut off a men's bends for stealing - their regard for life is small here labore tit is so cheep - only the strong durivie & death is no novelty. Would they reant my setting up a trong on typ of a Stamp? These things I did not lanew would not laneno 'till tomorrow. I was devel at 0600 when I was awakened. Edd lover + Frank each had slight with his an problems I we were quiet as we washed & bussel Breakfart was havid & by 0630 H was below where ane gear had hun strand the night before Smith & Taylor hod not -ohum up so of the the word passed for this. By 06 50 me had all aux year pilled at the head of the yeary way I were awaiting the

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LCVP to some along side. at five of sum she come around the Atern of the Newry how bood nose door spanking the works & the american flay slopping small in the dawn lively. we toted our gear dawn the gampway, hunded it beich for more. The boot was looked I we hopped aboard & jumpel dawn into the great space forward ve. Il Stoerseth was of & be was standing on the guilled gangevay directly obove me. I recoll Uthillion that if a woman were standing there the could see everything. It's strange the though that rush unchecked through only mind. "Cochs'n showe off - tobe your arders from Mr Stewart? Wolan a bushy black slipped the bar line, Fode hauld in the stern live & Pawers twend the spoke-Stording of the high wheel

handle throttle for power I evand it forward we were of. of looked hup & could see min I officers standing along the reits watching us leave. I saw Frends & ferry had paused in their aun preparation to watch me go what were they thinking as they wathad? I V had an wye to wave but chebed it. It would have seemed silly & guess. Must appear husiness - like. I we went around to the part side of the Many where a 10' wherey wherry dangled the in mid-air front a boom coble. Pouros eased in alonyside, pulled boch on the to spade handle to reverse and engine & the us. we nucleared the great hull & the board livered the wheny tuisting logely toward us. We quill here into the U.P. I purhoused the coble. Looking

stonding of the roul. He up, I could see the hulk of Boin Robertson should an brder to someone I couldn't see I the dangeling impty cable rane up and of toward the dech high above us. I asked Parvers of he bour where we were garty, he said no of told him to feed the cast into the sun o we were off. I gave him and my liptra chart for be had none, shawed him the island & and portition a started arranging aur gear. The sun was coly a five fiet above the havingon I had not yet token the night chill and of the air. We pland along with a good sea coming from astern & slightly to part. The ingainly LOOP would rise of the sturn as a wave overtuch us ver crazily as the copin crambed the wheel to get her bres in cause & straighten and again as the stam wint claim

111 in the trough. This aur cause was a constant sig 204 one - the sharp veer to port as a wave sweening our story and the neturn to course as the helmsmon covertel mis plus the steady petch & slight roll made and microsoft and small would beunded by the the side of the leveling worth a crajely swaging drumben microcalmas, this was the type of cruft that took the matthes abohare of larawa I divo only a few short years and the steel door of the bar I thought of the many men that had Iwatched Detio + Swiebochi dear closer through timilar Eduction states in identical LCUP's & wondered what they had thought. The Nanny Your first dissopening to stars y tuvait was sliding part to

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starboard. The law maring am mode the the adobe blelys of the taun stand and clearly of together with their shoulaws that would disapear as The sun rose higher mode a & block & white pottom of the + broke wit the gloses & iden-- shoped lighthouse of Ras of arch. Then that two stipped behind us & me mere done lat for a love seaguel that circled onward I the sen grew warm of then hot. The two marines were asless - I had evened have plints of time to get to lonus them. I climbed up to the top I the bew door + seanned the havingon a fer the first sight of what I had come to call my folund." My field of vision rose a fell with the boot a

I could see only a few big alhours hull- derin on the honizon. At seemed hours not me plound along, the water waves were higher now that we were pool the paint & and into the guilt & the mon of the wheel was fighting it continuoly. That while to not vertical as your eppet hout hangental like the steering wheel of a truck or big hus. He now Thad extended the steering column upwards & stood with one fort on the gunwhole & the other on the box that have the gyro & controls & be two was peering what ohead his is white sailon Verp at lew over seyes spinted against the sun. This sleeves where rolled up awy perverful ferearms totoord. His left abun I had a petty give in a bothing suit & a

big -simplance hol & of remember wondering why the artist had pricebel tin pints coloning for her flesh when he carded have lift to plain & hed it flighcoloned. This night arin had a shield & eagle with us Navy indureath in block letters. The light of has al arch was still visible on the havingen behind us. I swiny the bineculars through 180 depuis a dead ahead on the opperate havingen was a small gray rectangle - a different obure the from the pointed dhere sails that I had been seeing-+ I knew it was the tomb. Even as V watched, the the that a kariyon north of the tomb sprauted trus, this ware rectangular blelys & then the law lond that way the weathing and of Faylobat none benedty

them. We altered course to hit just north of the tomb, between it & the town I waited as it all drew nearer. The marines were awake now Y I fimped down from the ramp where I had been perchid to have a confirme with by. Fifield (John F, from Montana near Billings). I pulled aut a dirty created map & pointed wit where I planned to lond. We would to be the lending cruft in as for as possible & thin por and the uberday. V planned to set-up the transit on the tomb if persible I thing move down by boot to Tipe on the other end of the colond. John & S/Set Brenken plannel to wolk down to week us There. We were close now I the end of the extend second completely duvited - I couldn't se a soul. at first & though that was a
good sign - no arabs no trauble, bird this & began to remember Villier's comment about visitors being welcomed with a shot from behind a counter woll It wished & could see a few arobo - had visions of dark eyes pearing aver areand high barrels from every corner. We slowed Idawn to book speed & felt and may ternand the beach. 100 yards then 75, 7 50, Elun a blimp te under the storn, we all turnely sow and wohe way a coffee - coloned to night astern at betinds was a coffee - colonic turbwhence in and wolae & lander we had run agraund. Vawers puiceby number the engine I we begun to ease backs off the bottom. to we becade we lumped again - I again - not hand the folting hungers, but just enough to let us know the bottom was still there.

we backed a twined & keached and agains - the coffie coloned wohe & accessional securing continued till we were book of lever 100 yds from the shore. The tide must have been ebling fort, for we had hit none of it geing in. Once back here of the delte of short of arob 5' is deep wother - we have to a tassed and the back. With much pushing & cranking the ramp cached down & a few brave wavelets come in between the ramp & the bottom of the boat. we piled awe gear in the whereny & headed for share. I suppose we could have pot her aut when we were in closer, but all awe efforts of the time were concentrated on getting. wother between hall & bottom again. Eurs the wherey drewing less then a food wind aquaind & we all peled and, and equipment

on awe backs I would ashave pulling the wheny with us. It was a 20 yourd Isplach through the fool-deep water to the shindy mud- flot that the water had so recently quitted. There must be a good deal of anyonic motivial in that much for it had an odor of putrifaction & dray. we beached the wherey, waved the marines on these sway & twend toward the tomb. The building quite descrited. We crossed the mud flot that suched of aur feet a watched the our foolprints fill with wother, crossed the high wother merels - a long this live of shelle - I stopped is picked up 3 co fun nice tarpen deales - This into I the dry sand wolve should in my shares & the bottoms of my transers clemy to my legs The tomb ledned above as new & we paused too luch

119 it aver. It had first levolad Pingel quey when we first saw it on the havingen had blemed pure white from the beach, & now as we stood foreing it, it was a woohly with thatse color & seemed to be mode of adobe - sound & struw x mud boked tayethere into blocks & plasting with more mide sond. A downway in the middle was a latticed deenway of polm to eachi king loadly open & four at a starte and some openings for minduns stand like empty eye sockets. The roof was law? flot a sumed to berry a law woll around it. a smaller windowless cubicle to jotteland at me

corner broke the rectangular symmetry of the building. The ground abound the interne was well beatin down & I could molie and have for prints + The deeper prints of a claum hoops that probably were mode by a comel. We welled ardina it and saw no one, Buch of the broken deonway & peared in & tried & make sound withortotive but friendly - try it. Ane wis The A was starthel by the same bolleno a I dead tone that the building imparted to the sound of my varce. Neve was no disuce a + new in. The down appared anter a carvidor that non the full length of the building to another deer I the other end & intersected a covoder in the modelle thus dividing the fly building who ferre separate

rowns obout 25 fut on a side. These norms each had a door of a unreleve and giving orto one of the courdens so m effect it lives forme separate ale-roomed harlos under the some need we geved in each room in turn of all were imply. One had the remains of a small couls fire in the hiddle of the diet floor, but aside from this they have all dward of any evidence of human hobitation. I might easily have hun a houre set aside for flies for they were blyin. They begged antin wolly in the standing very of the deenways & soon we were covered with them. at the corner that a to which the small amig was stacked, a starway led & upward from the main covorden The steps were so filled with send that it looked more like

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uneven

an postoten ramp leading upwind. There was one there trong in the storing where a small window had been col & was none. hing the a totlerel piece of lively that flagged in the brieg. Here were no footprints on the stairs so I filt sure no one was up there waiting for me to part peting that give anter the roof. I climbel up & come and on the flot roof as a small rot scurriced the other side & disseptend down a hole. The sun & air felt good ofthe the doubres dush & dust & flies of the intrior. I went away to the live parapet and around the nord & peoul anno- I was about 15' above the gound & had a five fiew of the surranding atrea. If the work the share by just below the Low wound on which the

temp was build - I it is a towb - 9 of cauld see that the even during the should time since we had lift it, the whory had been loft high & duy by the recedity tride - beyour the off - showle athe LCVP bottled reconcurringly in the gentle swell. to the which lay the turn of az-zawr huddled close to the shore sont Between the tamby the town were several leve sound mounds, probably dunes, & goots - what they found there to ear & don't takato for it looked the bare sand from the where I stood. Wothing thing was what I assumed to be a woman. A was a person should from head to foot in ablack Showl - the first person I had get seen on the island, Beyerd by the town for nobed in the glaring drobion sun-more

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of the some flot - roufed rectangular buildings with one love white minarette lawer painting up into the blue. Behind a woll I could see the teps of a small grove - probably isor 26 - of date polms. Ho Mony dhuws of all sizes were drawn up in the stretch of themanow send black between the tain o the wother. The shore-side of the taun seemed & be walled and before the woll & could discens several maciny dots that were more people. above & below the thim averes shoped first traps paintif and who the water + a debur bagalla that had han appreaching the to tain under full soil for dropped her loten nig the coastel on toward the share as the dots conveyed toward the ploie where she was

Youched shore 1 beached. Looking through the binoculars & sured to be viring a selut mavie. I was watching people maining & a boot landing but could have none of the chatterry singsong chenting that 4 have group activity by the Show Sailons. It was very quiet-ol I could hear was the bugging of the flies & the a nearly curse ab taylor blue a fly and of his mouth. A why quite hot by now & + took of my shirt to obsard some of that warmith A took my one minute cut I my set of three sun-shot y current the flies myrelf. They crawl amit bod when they crawht on your honds & boes & nich, because your know where they are; but once on your force they get into your eary

of your eyes and across june lips. They are poisistent & slam determined to give your just of much trouble as they con. We finished up on the rough, drive a Stoke with a strip of buntayon it when the Sw cannel of the adobe rampart, & pocked up the year a ducked back dawn into the tamp & on and onto the and a sond ayouns. The rest is too instable to be used as a station for a theodolity live I was lucky in that the nine ground is high maryt above the water So I con see light without hering & set up a tower. Bock across the shell line, the mud flot - new day & beginning to threads up into the payonal blocks I down to the wheny new a good 10 yourds from the worthe the LCUP come in part way to well us, we looked the grave obviewed, chimbed on

avraeloes & put the whory in tow. Nov 14 Lunday eve - In time of buying to beep up in this stoff - each day's task sums biggere than the last - and the intrustry details of the mesh are neglected when due my mind is filled with the size of the cloth (That's a weird a confidering metaphore of ever V deno one) anyway we got back beliednesday we timed a twenth sun-burned to find that the Sharo I cook were ashave at a party I that I the nept day was to centumarch Tipe Tomb alliga well of hadn't win gottin to toms & Nija & had never miguel concrete in my life. The other three all had polms. two. We saehed in about michight after 3-krs of study trying to peggle and of us. We were all pretty P. V. ed. Howinkell do they expect

to run a survey from this damm parties. I left thursday marining (yes, Nematial day) before They had shoken off hanyours that I hoped mode them fiel minurable all day. We rem into a lot of trouble getting there ip ceruizing a 100 lb can of cement in through the dweld much on my obuilder. Taylor is a buy help but dumb I finith is a persecuted intellectuol of no earthly belp who to an A think him a but efficiente too. Somehow & got the concrete migel & partice & the upper & lawer station marchs in. Then fords to the whereny & and to the U.P. Third to go around the Earl of Foylabole to Nixa where we were to peck up the Egrenes, but bipt running agreend-so hed to got the long very bock perf lomb

to get thim. I ended up naving in for each of this because only divition among 5 sailons, was also the only man that could now a boot. They were withing to try & & list this locks got the best of thim & she the Many Marie ayain I just had to do it mugher. Saturday - yesturday & spirit from #2 hold & bod the boom Hoad the all the parts on the use little-bolis - I juins to have left today on here to ever the tower Not Tipe. of near the bittleholes was sont to Bothicing for muil (a 2-daytrip) so we had to inload all that steel - it is still lying up in the boot des togethire with the 2 103' Journes of

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sport today breaking and the poc has good hun flown boes to the states with jourdie & have never allen a less copoble officer in a position of equal hesponsibility. He has bury gripny for two days new a has becomplished almost nothing Vonight & hold the briefing while he goes ashive to crothingouty. Says he doesn't won't to had no body body list MM Cool accepted for him, Since the I made and tomorrow's plan of the day, I put gainy dawn the coast timenrows In damed if fel stay aboard in this makkense another days Corryone is P.O. a everyone else I cool who is supposed to be running the shaw doesn't know which way to turn. Show is ashone with the clothe party as is deaig. Show brownes his

stuff priety well, but is a complitely negative poisonolitya strange duck. Ether din the only some on the only crogy and oberand & tonight of thick maybe its the lotter. Monday we - Now 15th The fittleholes came back obort wen, & the five bays of mail on her fo'centle looked good by the offer I marining Nelson & Tower Parties 3+4 broke out the vest of that 3rd 103' Billy & loaded oll three abound the USS filtlehols in the ofternoon. We look wont ashore ayours to try to see the Political down bout potting the base execting a Billy near the Sheeths palace on that law hill. about 1900 the wind beyon to vinge & by 1900 had looked the waters of the barbor into a molestrem of hearing green topped with when wind everyped spume

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a heavy fog developed & eddys of mist I supplied around the ship I were blown stormward By Marine call of 1975 the wind was carrying sand that gritted underfor on the decke. It a got into my have accre. If a got who when the have functional ful the the grit in just worth, smill the collected in the country trying to allurole the gain of grains in my eyes. They moved the filthous and from the part side & havled the VP's & saundboots up out of the water. Cool is still on the beach a it doesn't look now as if the terver parties will get away in the marning. Mail = lettre from Sis & Scotto of Sotereports I my book on Laveli arabia from the clon in fraid my 3 rolls of pictures gettisoned sorber between

133 Thursday Mar 25th - Thanksgiving entry, I they were ten heetie ones. Severy day from Menday. til Loturder Fliday of too week & expected to mue into the fittlehobs with tower Parties 374 and each day the weather was a bit worse. The harbor each marining was a chwining green & white fury - no this to the movion - the tranquility that first new as theway Harbor. Soturday matchead decided that things had been held up too long & we would go as schedualed - weather be dam We all loaded our gear into LCVP # 5 as she torseef erazely of the foot of the side. The lives livere cart off & eve headed forward of

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along the great hall of the Maury. lee we had looded we were lashed by the full stringth of the wind wales. The bar of the landing ouff would raise high and of the water, roch down with a sickening jolt as great shiets of water lase blowe the sunwholes I were driven boch on the as. By the time we had covered the few hundred yourds to the Kittleholes we were all tharoughly sooked. We came. alongside of the times were thrown avel. Getting onto the heaving ship from the tosseny up developed linto quite an undertaking. We would climb up onto the UP's gemobals, & toos aux gear to one of the sailons aboard the fettelobs as her deek come flush with us in the middle of one of her violet rolls. Hum the

nept time her rolling our turning brought the decks parallel ayour & jumped, caught the line that servis as a railing on her after deck 9 was hauled aboard by two young hists before the UP way thran violenty into the ships side - a work that shook the ship & left a grift splintic sear in her part beading stroke. I had the UP and in term I we were off. The Cept. is It jg. Carroll, Died 27 Nov Ens. Tetchins her Epile, Y Ens. Coulter 1951 10 is the hendy men the archemed Grash of about 4 mil south of the Easting PBM off tip of fazient Eaglobbh in 15 feet La Jolla. of muldy watter we had linch had seen Iboard a loaded the parts n San Diego of a 90 - foot steel termer just he to the V.P. I could go on wich botos for paye other page about the that damm towe up, the

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could get the UP no clear they 3004 hundred yourds if the buch 9 eun then we that her agreend several times. From her are ferring all the steel ashere in a nubber the roft of then cavied it all on any boils for 300 yords of mud & corol tidol flots to the high water mark where & had got in the to cement stolion needs the creek leftere Sot we got all the hold for the footing day & one comment part put in Sunday we pour the next of the cement & got more parts ashere. Kindep we had all the parts - send hundred I turnty-odel pices of stal-ashere by noon I had the forst 2' sections up by the time we left that night ihm we get boch to the v.p. obout 1800 she had lit the tide go and from inder her was

137 hung up on a corol head, & Wolfie Tollsie & they sent out her motor wholebood for es. At was devik whin she avoing & we settly trunsferred all personnel I to her in a liferaft that new leolard budly the own of the up stoyed with here & brought her back when the tick returned about # 2300. That night it was neally rought rough. I & was Sumburd down on the the chart toble & by 0100 the roll was so boll that I had to hong on to bey fring being thousand to the block a chaire charly of Jeck a wastebashed erwohid around in the chartroom & & could hear the quer in the golly belaw the dir a creshing to the dech. I eauldrif Slep, it was all

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I could do to hory on the books in a ruch with a boffle board around it were thearn and, baunced off me * joined the meas on the deck. a door was banging somewhere beleno & a Naction set in the roction shock just off of the chart hause bruse boose & was thrown across the Noom & smoshed against the appointe hulberd. I sol up fort sometime during the course of the night a smached my nove on the book ohef ohere me A has since gotten Infected as do all small cuts and here & is pretty sore win new, Hod 30,000 some today. It's still a swolling net. The next warning the sea mas had not abated, a min couldn't stand up & maninet about the ship was from hendhold to hard--hold. I held off showing off the

VP & tomor parties til 1000. By this the seas had gone dawn some I the VP come olongsick to toke us abound. again it was Jump as the deck heaved by 9 we were of - I soon dringhed again by the walls of water that were continuoly them over us, of the sea was they bod why we got to live I hed plonned to return, lost we were in the lee of the colord of the swell wasn't two bod. That. day we got the tawer yo about 60. The OP herd dwelfed a bod leaks from the beating she had token of while looking olenpide the AGSc - 78 & herd sont here buch. I got on the wolfie tolfie & contactul Coroll. another UP - # 7 had been Sevil from the Many. The Major - Mayor Pala (USMC) N y making bud hun wohre since findly up near az Zmar. The UP with to

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pick thim up & this come for us. well, it was 1915 lifere we saw Thise type - we tot a fire as a bear for them. There are no trees of all - only send - so we chopped up one of awar woods forms for the concrete for forwood. my bent in a wherey for 4 of is T to five others went and in the life roft, At was quite dark the wind had come up again, the roft leoked body - the water slooped around are feet, it was pute chilly & the sea way fairly rangh we all got book OF, but all aur day clothes had gene in UP # is so we had to story well. I so tolled to the Many by rate that night tol the tower would be done by 1600 the mpt day, we bft the Dillehols by 0730 to I botted in the lost piece on top myself of 1525. We got all away give ferriel and to the UP by 1620 & proce

buch I the littleholy shorty ofthe 1700. Reached the Namy by 2100 I I was in the rach Hooling for a good hat shewere by 2200. fin no construction engue, but I must admit fin groud of the job we did. We ferried in laver 2 tons of teel in on a nobber lofe - rold - coveried it on aux beeks aver 300 yours f mud & corol & got it all up from the blueprint. Mail had come when we got book , I had are Soleveport that the others polopind & no betters. This name has p. poor mail service I have beard from home since 0. 22 - pretty miswable service The Nawing leaves for Bakking on fotwidey & I puis will stay here I got by more terrets. So it goes.

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Unday December 7 The Many he indeed leave for barring on Soturday & was due to return the following Lot. (Dec 4th) I moved aber onto the kitclehales again but this time with tarve parties 244, 3 having been sent with Eddy & Reiner on The Blish to great terwars on the North Share. At than is SOPA of The permerful units of the cl.S. Hed now holding Terwart Haveber -3 136' 9 \$SC'S, 2, 57' Sound boote and good old UP#5. Saturday ofternen (Mit was Nov 27th) we were lucky. We loaded all the parts fer a 103 steel terwer in facka's (the foccodine from Hobokin) Sound Boot (#3) o moved into the ail jetty. well been there but 3 minut when t ran into Mr Peiper of Bectol scrounged a truch & ray-head driver who took all of it aus to the Sheilohs Lote 9 dut orto

the sond autrick the woll. It was hard digging but we got the holes in 05 9 poured some converte. Sindy Mr. Titchens & Carvall & & A GAC Beller wint any & pouved the next of them. Non The weel & till 1500 thurs we worked on the bloody stal. The wind was quite string turs & mad AN's and had the min knock of for I wanted no one working on that platform in such a gole we all expected the Nawy back on tot the yto got a message Frie that the be back on the T. They last night mother that shid he bock on the 10? Started mother 103 on I West Base but are missing 284 parts which are the corner parts of the first section. We planted the footings in concrete triday Nester Ill missing parts. & took 30 cuts with a transit from the top of Wait tawer for I brocked off in Lunday. That PM. I went with Trewat with Eddy Brinner Orain - Chief Whit-

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roch to look, shup, & tobe pictures Lots of looking - all of which will ewitten up when I beel up to't. Dof an nice set of six selver nuplin vings for 145 Rupus - (11.25) Took some pletteres along the waterfront (also to be deadribed) 9 get four more velle of firkm in turn. Port brown here or why They have \$28 film and here but tim glod they door. The ship is way has slipped pricty body - weever in ave flawe I no shail add up to a rough bich in the morole buy the men seem to be holding aut c.t. I got a carton of cheeter-fields from Ens. Corputer on the Dutton & pour thin and to my towere parties loday & took the day off - to hell with them. I way tired. And a surming party after lemeh 9 we had a fine old time diving from the bridge. Water grette cold, though a the cool bruge

didn't kelp ony. Shot a cauple of clips of earline shells with the shipper from stop the convas sun shade aver the bridge, Nellie (P.G. Nelson BN 2) threw some tim cans away we blazed away of thim. all good spared. Tire time fire had a caretime to my shoulder since my any days. Mersage lost night from the Karry daid - "High Winds & looding tunde moke New ETA 10 Dec. Report Broyness & Condition" derevel wanted to wive back. No Progress No conditions, no fuel, no food, no water, no bidding we burned water from the Formeria a limy water bange dawn from Baara & the Shippine quis abhone to try & burn some food from FBI in the morning. Our aperation has completely boyged dawn, + I guess will remain so till the Many gets boch Shewed have a goodly chunk of wait by

then December 26th Sunday -Time indeed does fly. The night ofthe this word with in last, the local wind really come up & Churchay A.M. looking from the Littlehols we could see no tower of Wait. we wind own the next Air to find a twisted more of steel. Since then I moved to the abso-7 againg w parties 2+4 we will west Base & rebuilt wait towas; the Marry returned 9 Ed Crain & & have been certhing in Signob in the herbor & south to Fahil all work was suspended thurs we Dec 23th of were invite abound the R. for Xmas at Fahahil. The metage came by blinke of 2400 & A got out of the rack to me blink Oborch an onswer, left the

night am I 0600. It was good to get away from that down thip ayain & bock with the Shippur, Thitch & Cault Most first night the shipper I & when I in to a neal whing - ding of the I.B.I. (Bedel) camp of Fahahil. Sol boch to the ship about 0200 t sol drinkning champaigne till 0330. Al I some other jolace and (De Lang) come and for lunch I That eve forry dray, church & Wolly fonce come and for the movie a dre finished off 5 more bols of champaigne. It woo the stuff gottin in althems & good! Tanight Caroll in althems & good! Tanight Caroll of go in with and movie projector to give them a double feature. They are a good withit in there, but all they have to do in off time is abing I They wolly do. They have a nice area in there with airconditional barraches, nice nec- half

with Indians to wait on toble I do thick househeiping. Saving & having done better in buying this up, but I leave the ship of 0700 in the morning of it is usually 6 P.N. before of get bouch. I go to a market they tim nearly for bed. There is no time at all for this or enny letters, I of howart read a book since we started service operations The family has sent loth of film + + have been toking pictures the mod. Nope they came aut. International Bedel Inc. of Fahahil, Pel Jarvis & Hargaret Doughtry C Potree) Jerry Hunter Balph Stinson -Johnny Madder Bob Lovenborn -Mile Gromangin (Schlumberger) -Jerry Irby Joe Lang Chuch Metcalf Wally Jones Jim Bolderten Leo ash-Bob Eckerd Bob Howard -Al Cotter & Jock Rock P.

Tuesdy- January 18th & Bakrien Since then much has gone on, From the Many made several trips to the island (Faylaboh) + + plus A party # + some of the men from Saund Boot # 2 (Paine, Mitner, Stanfield (castro) got up a tripol I Niya & centupole stu I the town. Went over with chlory who accipied lamb Type + erected old olong The shore + still like that Island. It must have been the same a thousand years ago. The center of activities I and Zwar - the only town on the f-nice iste to the the waterfront. Here the fine white sand slopes of as a the long from the blue waters of the Hersian Suff. Off the beach longa good depth of water - high tide gives, just under a fothom a mere 10 yourds from the obove. Wit much water hohere power croft

150 are concerned, but here where the share wells is biny the and wike no todol mud floto ins. the accepted shore line that is plinty of water to assure an Ewar here Kively Lood. Sevaral large dhows are usually anchand of shore. With this set & lotion sails dawn, they seem autoward & nohed, hardly the framework of this grouful sight - a dhaw under fall Soil On shore a line of boots pulled up bur inland, propped up with sond should in along their beels await a mittion or repairs. Met- drying racks are droped with hand with mode, sung solt bleaded nets bleached by sun & salt this floots the bases of polm rachi. Here + there a triangular sail is prid for draining & the awarder shows away be goo an imprisitive goot. An old won & setting against a sun-bokel woll holds a peg of twine. between his toos & sings & softling as be twinks it into rope, il chant on

the water draws your attention to a bagalla anchard offshire where the nakkoda has his men on the lines & exclangly the top boom lifts the sail into the wind. The to anchor is up & the large dhaw drifts aimbroky with the current. do the great sail riges & cotches The wind steit bellies, collepsis briefty, then cotches the briege as she vis hauld to the top & the boot noves quietly southware. along the coast. These are hardy ment there sea-going drobs. My are true sailors & good. They are priendly people too & I must admit would make much better friends then many americans I know. a smile & "Salaans" always brings a big grin & "Solaam Sohib" Behil the taun can be own the welcome gellen of the small wolked in dote graves. The women - ville 9 in block stay and of sight generally a pier from behind beauny wooden

152 doons an around adobe walls. Came Alew years & I was invited dawn to tohill by A Carvel but never got boch the the ship 'till 8 P.M. New Year's Eve - Saw a waine in the word room & sached in (A= friangulation after the first we started Dulotion -friangulation) & at a wait got a fair self. Then some hum weather & the boats staged abourd or in it the jetty. This care a much's reprine If wranged - ie Carvel wrangled - we boch aboard the hittleholds & I cal in the 6 30' tipods, +7 certupols Saith of Fahahil plus erecting Colt & moving Fohit occupying trubbar. A was all work, but I enjoying warking with Mat autfit. Back aboard & got the cold freeze from Shaw & Cook what they could do with this fit office It-obbare, the L. rendyvousal with the mighty M & the other two ags is + ever were off for Bohring for supplies

1=

managed , 153 nepairs, I general thegenation. Lie managed to stretch the plotting of those signols and over two doys, but its' almost dere now - Hope to get into Manaman this trup. G. Lot a roll (well 6) color shots boch, I thugie pritty good also a set of 22 prints from Mins Hopis I she did a lausey job - really nisvable job - Stis through, do your hear we? T.HROUGH. Guess his ceaching up. Cominy dawn from Fokohil we but quite a gole - no one got any sleep or food - cost sleep when your have to tatay anothe to bory on to Hory in bed - I your cart eat when the cools , can't store up in the golly or bup anything on the range. At was that rough Looked from Friday night 'bill we get bere Sinday noon & I was beaten down to a more shadow of my formerself. Lost night I burned a bood rick aur to the & (til ben muiled) &

Kod charo mavies & 2 noblins of good bridge with Carrol, Titch, 9 Eard. - then caught the boot back to the Nanny obard 2400. Mode a darn nice evening. Tonight of was asked aver again, bot, well you can avoide a good they, so I thought til better lit er nide This trip. Cnaugh for now 1 Senday Eve- fanuary 30th Stridey and de, four, Fronk & took the day of & went into Manama on Bothich to. - wandered around o Soobed up local color & smells. Goamed the baggars & the Indian stores - lots of nice things in silver I carbord wood, but a 25 R caryed woodin jaro filled it with good ciywe to fotwiding & come up to Fahihit on the fittleholes again - rain monday. Set up on extension I Dant on tuesday, but card

get only two triongalotion sets due to the miserable visibility. Had a real bland on Wednesday I was hanging on up on the creatly peter wide & wotched lift-up, twist and work to the graund. Thursday we put here back up & & becupied Laya for six sets, but the vtsibility was pretty poor trie we slatted samding but couldn't see the degrob for beans. Went along side the Navy triday night & anchored off obout 500 geb & tied up about noon. The Nawy planns to go to Bolin In Norder (terrorrow) till the 7th plantel to come down here today on the fittlehole, but I got in a big sprobble with coole & Show on the way this show is being nem I thed to miss the R. Canyof the U.S.S. Dutton

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when the left about 1800 + got here (Fahihil) about 2035, brough moil for the L which they sured glod, indeed to get. Got borch to find a good letter from Solly Dervel & a mask note from 14 Nulty. plus some more posts. That 12 Loves deepert know when to quit, die abready told here fil be here till the spring of 50 to cool bee off. In well, my morale can three it. SKIT S That they sent out no record. party in advance to spot locations for their signols, hence they were put up all awy of and triangulation net books the a doddlin's nightmare. We event round & round on if I I finally convinced thim that another 30' Tripoel would have to go up between Port & Tokifirstly to theep and of gainy into

form with a single briangle & secondly & solve the Dant - Fashe non-interverebility enigmanthe net will now go Whit this south of the Book Line WyDase A Farm to be an unoccupied station of gist Bure Bane occupied polygon Cart The High to Dant Fahi line desit Evan 2 go through cott a Fahi Farm A Lage K Gist D) Nawl High A coust line

Its good to be back aboard the fittlebobs again - Though & Kerve lots of anyle-showting to do. Starting tomomous fil put up the new signal tomorrow & decupy it if the visibility is a.r. Monday - for 31 st erected - 10 how - occupied Flit - everlad 30' Tpd Hit, re exceled Eab, redressed But. Twesday - Feb 1st - Redressed farm, /re-centermarke Colt - re-eraded Bar as 30' centerpole with Red shirts. Redressed Bum with extra Swatch of red. Occupied Evan and Colt for Six sets each. Put Flitte spice free) on Littlehales, SB#3 boat sheets. (12/2 hrs) (91/m beach - 3 hus aboard) wed - - reb- 2nd Tronsport all crapped ant. Wolked to Fahi for 6 Sets & computation (Thus). Privers workled on Dukw & carry-all both in commish at 2000 hrs. Thurs- Feb 310 Occupied platform at Dant ter 6 sets- redressed Bus - occupred Evan for 4 and cott for 4 sets each (0730-1800 - 101/2 hrs)

159 Friday - Feb 4th Moved instrument & tower (15) to Bane from Dant 9 erected The SO.B. Took Seven acts - (0700 left ship - returned 1800 = 11hrs) Put Spicie trie on L. bootstal Saturday Feb 5 We were going to anchor off thebar last night but orders came through in good old Maring tradition that she would be back a sweek loter than she had planned. The Littlehales was ordered to Bolium & get supplies for the small ships & the two sound boots that are kerer of Fokikil. & was ordered to the Dutton hot an new aboard the Blish with Eno fin dyres & we plan to go ashore in the morning & check mp T-2 which is way off in calibrations bubble entrons. no work today.

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Tuesday - Feb 8th Starting Soturday ofternoon & still going great guens is a dilly of a sont storm fins I went my to the beach yesterday marining & though there was too much dust in the air to do. any triangulation; so we set and theodolites up behind the south signal tower on the beach of Fahihil 9 beat a 45" colimation error down to 07"- 09"- much better, so maybe til get some better results from here on out. We came boch aut to the Blish on one of the sound boats & are still about No sende in going ashore to shoot angles when the sond is so thick in the air I couldn't even see the beach. Clong about noon on Monday the wind klifted to some aut of the northwest directly of shore. By 1600 it had increased to about 20 knots of was beauty loden with blanning

161 sond. By dark the wind had risin still more I the light of the Italian tarbace archand a few hundred yourds asting of us second the could Vbarely be seen through the blausing sand. This matining it was hearing gole speed & there was a layer of chill braun sand aver wouthry. That sand penetrates everythingit's in the food, in my clothes, everywhere. The fettlehold somehow managed to get back about noon today, but the seas were numming two high for the other absc's to bo olongside her to transfer the muchneeded food. Jocko's sound boot findly got alongsick for I mutch lotte on bot over to us. The sond completely the flocked obscured the other ships about us, I we were alone tassing & petching

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in our private maelstrom sworounded on oll sides for by a have of blaning sand that all but I obseared the sun. Tonight, though still pretty rough, the wind has slackened some of the amount of airborn sand has decreased & I the light of the tanker & the other Agsics are visible though holded as though deen through a heavy I doubt very much if it will have aboted enough by tomorrow to get any work done just have Inchentalia-Though Shaw I'm sure thinky we're insame There is one fact we all maintain It has been true & will remain You still cannot set Davi from Bane Frank & Ed & Ferry Cant So how can I see East from Davi

Friday Feb-11 The There have the Maury arrived of Fahihil fote Wednesday night & the Blish Retton went Dongside about noon on churchery I we got underway that night I spent today aboard up in the ackeencelated info. low in the servicey by abotracts signal log. etc + plotting Flith Specie the on the master charts. Fito Dant were laven yesterday when we lift bot were supposed to be re-exected by the Littleholes today. I hope so because fin scheduoled to accept Cart tomorrow of must be able to see Dunt from there. already fin fed up with the Hawky & am eager to return to my pleasant epistance on the age-7.

tuesday February 15th Thing I didn't have this with me Sotweday eve. I was ready to throw it all aver I head for Basrah. Lot a.M. I went south to card, but Dan't was still dawn & bean and of sight. Took seven sets on WiBline, astro of Bone a finished them just as Norton came screeming up in the jeep to say the Maury was off for Mas Tannie immediately. We got & the Shuwaik jetty as a J.P. come in with some of aur year I the word that five would stay in the beach area No clothis, no cigaretto, & no way to get in touch with SB# 2 on which were the 3 other cievies. They were just left too. We finally contacted them by radio from the Blish & they came The Capt. (Northrop) watch tell his marie was over & this

condiscended to give them some above. We were to go - oll of us T 4 men lift on SB# 2 to Folihil 30 miles south so lift oberet 1030 9 get on the littleheales just after midnight Shot Lunday - monday & whit south on the Datton & accupied door for 7 good sets My hot Norman (Ens.) & a cruo in re- erecting harve & Ceary was in to short angle there The D's wholebood is and of commits on authorid that made quite a buchin sea bronco. Houit shooting of 1700, built a signal fire It 1815 so they could See where I was I never got beck to the ship 'till 1900 or Fohihil & the & till well ofthe 9 P.M. Today we were to have met the flep of SAIL of tahihil according to cooks dispotch, but

in typical ferobion he told the jup driver to tobe the comera transit mon dawn towards Folichil accuping stations as he wind I to piels up of he taw us. We waited I held the DUNW 'til 0845 - then said & hell with the jup I wint on (feep neur diel come dawn for us) & got to girt for 12 sets - but the heat walks where putty bod. + cauld have gotten some good sets from y tell 5 PM. but They wanted us of the jetty of 1630 so we bed to have there of 1430 for the 2 hr. nide to Tervail, we wind by the fetty of Fohihil to get the 4 men from D# 273 that the f. said the would have on the beach before 1600 - + eve of waited for them till 1630 & got to Territ of 1715 just as the Many came around the paint from sounding. She onchord

way and, I we were thoroughly dunched of the an hus, boot riels in rough wother Meilthe Cools nor Show had anything to say to us - no Hand it go" for anything shout just Soturday. They are two pretty sod applies I & have no use for either of them. We stay aboard tomorrow. In putty well fed up with the way this tokole shaw is being och I would be glod to dust this Job when we got bock to new york. I hate to be part of a sloppy autit like this or to have to tobe arders from such incompetive dunderhoods as ft's coop & Shaw. Fruitcake -> Hod a > fruitwhe of the recard the clan made when I got back + a volentie from the Bunch 5 Juny daugter Solly Bunnell's

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Wednesday Feb 1612 She neally whipped up a loogy today. Best dust storm we've had yet. Fine braun sond was switching in eddys along the deels & everything is covered with a thick layer of brown clust - in short, the ship's a mess. The annemometer crapped aut of 40 knots this noon I the wind rose even more before it began to slock of some faround 1700. Even now (2300) The wind is still pretto strong of there is a longer of fine don't over everything. It's it suspinsions all through the ship & pots a holo around all the lights. Mothing wint around oll the type. Mothing wint ashore today at all not the SB's - I least 142 went in to the beach to get and of the gole & it levot one of them I want appound. The Putton was dragging on chor all over the place dud here to the f. I Folichiel had to get under way to beep off the beach I was lost reported

under way "somewhere in the Persion Sulf" with dust so thick they couldn't see the baw from the bridge. In glovid we've lost well, to it gok. Thursday Feb 17th none brauble with thank & Cook. Show for the forst time today - outr 3 mos. Isince we got here - mentioned mut havizon shots had to be token I each station with owe seniths plus time of thoto. How was news to the 4 of us - so oll aur senith shots will have to the done over - just plain stupid. Then later on Good & I were lattering about Dant = where I have bun struggling with That plotform so we could see out to borne - & he suggester + put up a 37 or 50' Bielly - That is what I first wanted way

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lost month - what I suggested to him as the only way - + what was flotly turned dam. tin and there every day I to snow he sits in the bufting room trying to find excelses to put in this progues reports I never gets on the beach-I yet never tobes are suggesting as even tites thing and . was the same story on the north share Eddy & Primer soid signals cauld & should be put up on the Sliffs & couldn't be seen on the beach . Cools wouldn't botom so we woold 2/2 weeks getting Mora up of a 100' Billy that cont win be Seen from Wait everyt on a clear day - whereas Luna a 30'- Trepad on top con be seen from darn near any. where When he suggested a turer of don't as & oneginally

warted - give my with with that damined leptingin that diehrt work for beans (as he wonth) something sroppel traicle me. I get so mad, so fed up with the utter incompetine the supreme stupidity of the mon, that I left hoping charo would cool me dawn chaw (of #45 a month) was slit weenies, Sourgrout & beans - That did it so I went our to the Littleholy (she come alongick this AM) to cool dawn. Ptelit go buch up to the drafting room if I even sow those guys algain today I would flip my the - so I just staget aut In still disgusted with the whole set up. to get even Goob sinds frame auf on the L. tomorrow. Someone else might as well have the good duty for

a while, for the storm of yes-tearding. At Least Part of Flit are I dawn, I din scared to think have many more are aur. Sound boats 1+2 were both blaun aground & raised fob with their shofts. As I glonce bock through this journal for the lost month or sol, It fums to have become less & less of a journof I more of a continuous diatube against Crs. Oh well, when they start wising up & being civil or even showing sense dence the step. Why, the astro shock is still up I they bewint ony idea what the location is. That Show has been aver there several night worting time getting store shots when the conception he couldn't get a time tick they are new thinking of tying everything in to the followithmed position of and fight which

173 they know to be very of t just can't fight it all ony more I am dammed if fel bust my nick trying to get things done - fil do what fin told to & step there to hell with this oll ----Sunday evening - Tebruary 20th that starm left a good deal of destruction in here wake. Muce 100' steel tawers are dawn - Type, Nupa, & Hora and the only conterpole bipod still up is Bone - which was well reinforced with the 3x3's und to Rold the observers plotform for the 15' eptension. It means a beck of a lot more work. Soal letters from Into & Havon came triday. The Wms' almost expect a boby - Mancy had a confirmation appaintment a sureb of so ago. Still don't know haw they made and Stronge even though married they seem to be pretty huppy - strong indeed.

Wednesday Feb 23ml Monday & lit and in the jup with shoffer as driver & Smith + Baber (& Party #1) for the North Shore. Luna was derm & we put up a 30' cp this to the timble mass of stiel that was Mora where I put up another 30'cp. a referenced the 3 stabes. Vena was a 100' Bilby with a deep base. after wait - we found that the cement forms for those tervers were too narrado - 2'- They gave me a torn a said fill it with anereter set in the converports. So I dich By The time we were building W. Bore I had learned to use forget the 2' forms I day a 6' tok & then being The lys with only a few inchis and of the ground to attach the 1st comor prices to. anyway. Nona was in deep - only 6-8" of U-2423 above the ground, of the wind pulled the SE Ley out - cement all. Then bock to Lema - for

6 sets & refinince onyber. Mear Jahren we found the pulie + Graig & Eddy 9 the Puber and of gos. Mot thing hold 50 gob & hums a gol every 6 miles. Anyway we pot her in two & pulled it some 15 miles to Shewark. Now Shaffer Captain's they his clutch has been and and a has had to write a little telling The old man. He is one of the very five really capaple men on The beach of this his getting a bern deal. In duprized the jup has stood up this long as it is. Ho just such chicky --- deals as that that are queering the enlisted men. They ark not alone either Beyys's saind boot hit a lonely sand bare one day lost year (et. 48) & they made thing answere by indersement. Heck were and here to survey these waters I they have a man when the finds a pound bar, Hire the S.B.

176 officers are seared to & get into wobe under 6 or 8' 9 it mokes long rows for the civilion. yestuday was George Birthmyting woohday & we took the day of. + shipt till noon & carry It up on my letter writing. Good had all day to get out the plan of the day for today, had as would it didn't come out 'till ofthe the movie. He had us re- erecting cart & Bone - hell, Bone was the only signal we had lift up. They drupped we off of Bone for D'angles + canter-pole Going of Even for ditte of El. signa put up 30' cps of Carl, Dort, Collet Flit & miraculausly found take to be up. I have thun arywing for weeks with Cool & Show for ynying & git thim to let us story ashere till of boot 1730 as the only time we can see at all the only time when the heat waves die dawn & morages dry up

is after 1600 - but no, we have to be it the jetty at 1630, so of while it Loya or High en south - such we have to live of 1500 - just before awe bear light & finally got him to see it are way -be had to if he worted to get his anyte shot - & a boot was to the in for us of quarter of six. The making got bet times sourced up & and the boot of quarter of five, so they waited They were serie at awe being late - pressure was put on woh + we will be of the jetty of 1700 from now on - so it goes one damm fool stimblay block oftwo cnother They want is to nen on no gus tomorrow. we took a drum ashere with us today - hat the ail co crove, till it and for us a por it in The dubin - but none for tonorrow, It will probably cut dawn on

what we an de fup is ant - they have it aboard now for repairs so - as today - the there of us (Frank is still on Jubbar) will all go in the Duber plus the cambra transit won. Myst year they will need more behichs - DUITW is but of they con beep it in gas - plus were rough for Serion Hydroguphy Ik jurt cont get onighting dire + has to tobe orders from everyone dum to Pawell the stypil supply office. I thick they will save a lot of trolebos nept year of they get niel of men (?) the Hago, (Eque) Smith (1stit) Deckber (Nooy.) ? Powell & Mennissettlager Carboll - your an add Worthrup, Wormen, Valyonde to the first birt two, while your the first lessential. His a putty Servey exercise for a mong of

a sodder ene for an officer. Gee, fin bitching ayour, no fin not. It's just that I'm so appold by the atter incompetince of the min I equipment suit and to ab a hig for. It all started when no-one lone it was going to be all as fremhal wood of the time. There was little or no faul weather year obeard. Condr. Tennedy in Hydrio in Wooh said told we porsirolly to take clathes for a warm Etimole & all the min are in the some book. They fruge th' almost midnight ayon, but of months to get min all dam - so when they wont to know why fing learning min aufit - fl be able to show thing in Aller while -Saturday Feb 26. Oh bo brother I Soturday night. We were to have gone aut today & were up at 6530- but the sond was blaning pretty bally I the operation was colled

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of - but they are moking up for it. at 2200 tunight the plan of the day comes and I were off ayain I 0630 - we have the ship of 0630 SCINDAY marining. The operations officer -Marisselte informed we that the Captain has decreed that allhands will work seven days a week - holiday routine will be abserved only when the weather is so bad that the fiel parties con't go ashore, nor the second boats sound in so fel up with this whole set-up. Cook never mentional a word about it to us - just waited 'till we saw the plan of the day. There's no other job where a guy has to eat brow like this In fing leaving when we had the flots.

lucoday March 8th that sunday the sond was still blaring & continued to to so 'til Thursday March 3th That marning I got my gear aboard the dige - of well ashore ? AGSE-7 wet bee down the coast of Fahihil that eve, having delivered purker - a "declaw- load of pocking - case wood for firewood to the Limey Political dent at Theward - a snally bustard who couldn't even say "thewho" - Picked up 3 nice drabian knives in an old antique shop in Truvait and instrument excited a 30' tower + 15' inot. extension of Cart in hipes of being able to see Even & Dart (Cart niver should have been put up there in the first place - a little reconnaissance work in Maumhir would have squed us a lot of work now, Friday we excited centupoles of days of Gist - Laya- a 30' tripod- hod

been stolen lego, stokes, & burtingall gone 9 gest was dawn I stripper. Solative readed the lights for night triangulation on the a GS c-7 (Maury had lott for Bohim & pick up men for Copt. O'Reyon - Compension gulf who is aboard). The sond stopped blaning about noon I cal I of work to cart where I set up on that jury ring & god six good sets and can't be seen from Cart. Sunday we again must ashore - left Ed, of Flit (also stolen in toto) for 6 sets Not tripod a Busch (dubu-driver) + H disit at Don't (have to get up to see Bone & Cavit as I have told the Unucleologicals time of time again) too much wind to short though, so we both unit to Fahi & got angles 7 some J'sbefine the sond started & blave again. Kendag we again went ashore - but the Marvos

buch so things mere fould up ayon. They wartel the loture I Turrant It 0700 so Broch left the Lo of 0530 to weat a 0700 bood from the it that got those I 0815 - Typical! The I had to rendezvous with the Nawy off al Fantas about 0 900 so her wholeboot took ear me into the beach near Don't 9 we junyord off in damn cold wolve own aux hips I waded where all the bids in turned set to follow us up the beach, but on the 1/2 mile the trand agross the descrit to part they and of petered and and well they did for their fothers & brothers hod, Stolen all the parts that werent bolted together, I we had a kill I a time getting on already bod ring to hold my weight. Still too windy to short from there as the steel win though turnbucketer dawn tight, still

DUKW vibrotel a good deal. The duber come about 1030 9 took is to colt. Flot had hun stolen ayoin!, so I and Ed & dulaw down there to pot up a signed of set with it till I had 6 sets, the sand was really whipping up on that ridge two I spirit to the time trying to get sond out of my eyes, so I could see. I finished & drupped the 30' centupole as a signal & the duke come book up. We re-everted Golt I word in to Tohis where we drypped El & debur I went back to set up & guard F & while he shat if from Johi. The Many wis to have sert in a boot for us of 1700 but St 0 1630 she was hull - laun a headed with, so the apc-7 suit in a buit at 1745 & we had supper and there & were just settled dain a enjoying a good movie when the Many sut our a UP. for us. Stayed obvard today ~

185. books chicked obstracts against field bhs. I froke and parts for a 26' windmill tower to go up I cart so bort will be visible. Those signals new should have been creeted more, & may the men responsible (cook I ship be damned to eternal perdition. It's one kell of a way to try to run a severy, The Hawy of 3 dysers are remling sound tind derily now, so that will be Semethry dore, onyway. That Pant-Cart husiness still this to be fixed up, Hawl shot from Tohis, some shot of High & Ateb & all shots of forme + Zone of then were dire with the triangulation. The word now is we leave within 60 days, so there is a lot still to be done. - esp. if they plan to put in mother base time & astro shack Sherel Acturday March 12th - Since 2200 last night (its now 2100) I have logged 18

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haves in bed - I was that time today is the first day off I have had in two weeks 9" the last two days were especially hectic Wednesday we all staged aboard -Thursday a.M. Primer & I went. aboard #1 Sound Boot with food for 3 days & headed 30 miles down the coast to thas of Zwar in the neutrol territory between Tenorit 9 Sandi Ocobia. The little 42. foot boot pitched & rolled in the swells of a training southeast wind bust a heavy I pray blanning across the top of the cabin were Ros (En Pasmuses of I were hanging on, burdhed to the ears, 7 I giving him a geology hours we cot wide to miss the long arcuate neaf of has al Qualiza & cut bedets I in toward shore. Hawl had been ve exected Wednesday by prince while I had accupied High - Duber had to tobe Connoclore o' began from Towart to Fotichil so never come for we til 1800-

wode it 1930 before & got back to the ship & jocob's loddered oboard. Hey Hawl This was a 30' C.P. Crain recented for as a C.P. Y I could see that foke & Zore were both dawn - all were 30' tripodo & all were down! we archand in a heavy sea of take - I the base of Ros of Zore + Primer & + + Tayler - a seamon wort in by whory. By 1400 the wind had visin a good deal & the sond had begin to blow agains. Ros had said the tide was ebbing, bot when we found our whening 1/2 mile down the beach swampet & missing an oarlock. we figured he had been pretty wrong. At was quite a start for 30 men to get up that 130 cp signal in a high wind biving stinging sand, but this to have to have that whory 12 mile up the beach topped it all. I took of my transers ~
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jocket a wooded in. I held the stern to keep her bour and to gashie while the the the the the while the other two took the -> long bar pointer & coolie forhim putted along the shore. The swif sand beach, the water was cold the wind more so & the driving send mode seeing almost insposaible We emptied here out again, I wire - where - 9 we should off into the surf in hypes of moking the sand boot - enclosed a hindred of a each wave threating to dump us all into the sea. We mode it ofthe quite a now, but the S.B. bos bittle better. She was neally getting torsel around. At was then about 1700 & we showed off for Zove, got three wind > by 1000 lut the wind seas were too high & we too

wet a tired to try to go ashere chow, I must achiet dicht appeal to me. We had a dreptable nigger forward between the two bottom hinks in the small colins, had nothing would stay on it - so badly were we rolling. Hod rollid up in my blanked by 2000, but there was no slup to be had. The air was filled with sond & the boat with a fine dust, the bell was simping constantly due to the vol, and about 0100 we all had to fight ave very and into the baro to have in our 225 - lb oncher that was dragging - we were priety way & faught aur way back toward Jake looking for smoother water that waart to be hod. I think & fell aslup obout 0300 line was awake by 0600 again. The

190 wind had died a good deal & a duskey brann color- & we headed in south to zore. Fronk & I went in in the where & " I set in the theodolite aver the "antimark & shot onghe to Joke, thek toor, I Howel, yrm round bock for two seamen to help put up a 30' cp. where the tripor had been. We got bock to the sound boot about 1330 9 upped orchor for Joke again where trenh & t with ashere I shot DA's Finished but 1730, tried to straighting up the CP in a good wind agains but had to shave off to get back to the SB byfore dark. We were finished in two days & headed back to the Many - got alongside it 2130 2 up a focobs lodder ver the part side. Id gotton no skeep the night before, had eaten soul for two days, I not much else I we had dove all the tri-

angulation angles a eructel cps I folse I zore I never a word from cook & Show except why dielvit jue short anna frim zore !" chit we caulelist she for blaning sond. So it goes - It's no fin working for a bastard & he is a bastard. Slipt all day today & plan to do blewise tomorrow. The 3 dbSc's are dompide & Cavel had averaged ain 3 whs ago with the contain to send shopping parties home low orhere tomorrow - had IBI or HOC husses all avanged & everything but the old then has his nind set on Trubbar - so all herds will go where on that barrown stretell of 2 sondy acres of . Island & carriel has to correl the husses. I should this be would braw enough by now not to try & do onythig for this domined authit. The word now is that

192we have about april 30th with stups of ada, molta & Librolter three pritty miserable stops when three are places like home, Wopels, Romey Flenence, Cannes, Marssilles, & Lishon on the some route. -Monday - March - 1412 Sunday rec. parties went ashare for this baseball, bur, I fight, I Ed & t retreated went ashone in the first wave a -> netreated up the 100' Bilby to shoot a few quiet ongles got Hawl, High, Lagi, + Evan. had a few beens a a hot day-got a but sunhurned, had some good lugghs with Rep. - Bosis chief from the Age-7-& came bock about 1400 - aboard today Edg & drew up the figures for a 1:110,000 scole polyconic of the net & cd will plot stations on "it toworrand while I go to Cart to put up that windmill tawer - with my old stord- byp Tower parties 214. V I have a new part time now A do Woles on the Arob in awe weekly ship's poper. One last week on the

convel a the one for next week on dhaws - with pictures, get. & rother enjoy it. It' fim visuolizing it all of this trying to pot it all darm on popue so it mokes serve. Saturday, March 19th N-cusday & wint ashore with term parties 2+4 + creeted a 30' steel evendmill lawer of card to get though to Dart. wed. we dropped Ed of of datur, me of cart & geving of Dort. I got 6 sets to port, but Cart still not werible from Dond. Blaining sond a hoge every day now. There all staged aboard in bod weather West Base & Friday back ashore - Ed to W.B. gerne It to Dart, but the have haged I sond bleve all day I no shots were gotten I Dant, we drested cart & pot a skut on top - should be able to see it now. The whiles realize that the time for departure

194 is drawing nearer & They are warking are butto off. Put in a goodly eight have in the drofting today & am schedusted to go ashore again tomorrow - Sendary again. Sol. the 13th was my last day off a before that Surday Feb 20, Since Konorrow is the 20th - Thole one day off a month - brother! Wednesday March 23 - Fahihil Monday was the big day. I put a centerpole on top of the 30' town of Cart 9 Geory got in good . seks on it around 1730. Edg of finished reshooting Carl & Bone & Fronk for some shots of Fahi. Good areal photos were token Alouo' a carre out darn vell Our system of gutting and 2 100'strips of builting on the ground works built pritty well. From 10,000 field they are the about this to + size, but really I show up, 9 locote stations well never locate otherwise Tuesday Goory went to

measure excentricity It wert Bose is to get the height of Wait. on board & figured and what stations still needed to be reformerd, measured, described, etc. Today Front went ashore to do some referencing & to move the extension of Dan't dawn to High so we can see Igon again loday & staged aboard. This time competing the eccentric reduction for the examplic tower of W. Bore. Tedeous &, esacting, I not a little bit confusing. Fin cfraid it is an atrid foresmall of what the trip back will be the Sunday March 27 -Well, of wonted to get away from the Hawy & I really am webe comped - the base - time & astro parties - dawn in the new but 2000 between Trevoit & Sandi archie. We lift the Hawry with our gear in two VP's in a heavy sea &

pitched & rolled are way into the smol boat harbor where we of loaded the stiff anto the p a floating pier that IBI - IBY had mored next to their breakwith Bof Howard (ABD) was there & got us a bay Feler built that they use for harding rock from the quarry real buryon. The exame unloaded our cenent & bd status into it I we piled the vert of awe gear on top. Knocked off for cherto

surfore of the toll-flot was only a this crust a ske went though into the white clay beneath - all the way to the hell- she was really in two. Show i the feep & down wit boch to tohihil for a cat. about 1600 the a low bay with car on here cane up & the eat got us and with no trauble. Only once more diel the Pb get stich & the dubin got her out O.K. The wide dolt flots south of Itigh we expected to be pretty bod but we barned & ground due way through in a stight driggle of avvived behind folse about 1800. gear unloaded & texts set - up in a good driggle 9 chow by 2000. we have one pyramidel tot I two & woll tob set up in a fairly dear spot - as spots go in Wiobia. The Gersian July is about 300 yourds away, were separated be from it by the high dive time, bot can hear it runbling over there as The

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I AB at a goodly change it was, Edg I - Cornel (att 1), Redmon, Motthews, 7 Garmon let wit on the peter built & the others were going to get the & come DUKW > tools a surrowy turn on the sond track running south from Tokchil & we got tropped in servic book soul, We pershed a duy of lard stokes but had to would fer the deeper to pull as out, She helped us out twice more tel we got to the seven a crea between First & gole a those we really boyyed dury. The dutero come book to get

us a she neally bagyed dawn, the

by combers come crashing in on The long sound beach. drawed us rearry shoupby and of the flat desert floor are sharp sondatione ridges of bare rock. They have been lie in jumble dissorder. There is usually a foleon or two sitting on the po topwart rock buping his eyes open for gome. It has been ownercast & breezy ever since we come I had rained on a off, not much but just enough to beep everything pritty damp. The thes the have found as the just to nothe things complete. Show a the dubur lit out for the old above shock today to being down the shock & a cooptint. Ed & I were going to got up the dobro pier, but after we started found that the only gue-lead is of the old shoreh so had to had off. We did ren around a try to locote Skeek. Fand a good spot for it a put

in a certumark & should go, we are now waiting chew for the others who should be bolk pritty sern. H's govel to get and in the field again I should be a good web or so. I only hope the sen comes out to day things and a lot. Tuesday, March 29th Jestuday we awake to find bright sen & it promised to be pretty hot. We were in the field by 09309 started I Joke. Show, Massey, Redmond, & the Rechen crew of Busch & Wolker went to wach on powing the pier for the astro & getting the shock put up. Ed al Alt and driving take. Ed was on the inst. + + on the tope marking & generally acting as expeditor to beep the thing maning. Technique: Instrument-prefirebly T-2 Wild Theodolite because it that optical plumbing - is set up over me station - centured - and a sight on signal set esp at apposite and

centerpoler

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of proposed base. This signal to be centured over centermach set is concrete. a 16' centupole dressed with black busting we found to be adaquate for a 2-mile base. This is sighted on, lined in, I the havingontal motion clamped. a 50 meter tope is used - Lovar tupe standardized by the U.S. Bureau of Standards - with marks of 0, 25m + 50m (5.1.0) - of the O end a leather thong is passed Through the end loop + the the Through the thony is possed a 9' vange pick for tension guage the 50 m. mark a in tension guage reading up to 15 bilogeous is ottached & to this a leather thing Through which another range pole is posed. . take astand the o much is held over the 41 centomach benest The instrument of the tope stretched and in the direction of the other signal. The enot mon quido the 50 m vonge pole into time with hand signals. When she's in live

(write for new bodd) 201° the pole mon shouts in the mach the mon on the other end pots O over the cm, of the 50 m man tokes up 154 strain, andhe men marks the ground under the 50 m mark & a stoke (3"x3" x36") is driven in. This stoke is lived in by

hand signals from inot another in the

march" + 15 4 strain & the stoke

head is moved forward or backward

so that the 50 m much follo on

The sloke head. The stoke in this

brack by two braces made of

"2" lember II. while the strain is in the tope - a group of 2 men of the 25 m mark drive in a B' 3' stoke of 1" Comber on the line & -ice. one edge on the line - ra nail is driven when the edge to hold The tope - of a height and on the line between the types of the

Then a periet is held on forward and of 3x3 stole & bired up by enst. cliquin on book edge. I then Joined ky a pencil line - This is the line entere it crosses that stoke. al's stop of aluminum I"wide is tocked along the live on the stable field, he toppe again stretcher I the 50 m populin marked on the metod strip with a pencel aleminus strip torward much percil line on state Top of Slake The tape is then moved forward & The owner is the man (my pon is placed over the pencil line of where The 50 more fell. The next forward stake is positived with the varye pole, dup, antrely

203 braced lined marched & the 25 m stake put in I the nail set. The inst. can be left in the same sat-up itil the pencil held for binning is indistrict, hand signal con't be seen or the time goes over a hill. In this case the inste is brought forward & centrul over me last marked stake. If at This year set up the distant signal of the other and of the base is not visible, this go buch to the last stoke of which it can be seen, set up & line signaling. Then sand man and with a range pole to the intervening hill & line him in on the signal. Then more up using the rouge pole instead of the signal where dip is too sulder, or a refe leticiens 50m stokes mokes not Stoke invisible - the 2.5 m stake cape be made of 3x3 & the inot moved up. On the fort base bie

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my set 10 stokes the first dong & about 20 per day from There on the put in tuberty one stokes on monday & put in 47 today. Nor. Shaho soid a mile a day cauch be dore, I we did me stoke less from /12 mily Today. Me sen was pritty but Sup us supplied with stoks of water, Carnell was on forward sorry gool, glavers on preve, Matcheys on sledge, Terman on Mannee, Snow on 25m stoke Ed in Frit & N.D. marking lining in, putting al sleps on & generally treeping things moving on the tope. We also number they as we go along, First support stoke (wi mail) is 00 + 25 9 first 3x3 is #1 next support his 1495 950 one The sun was really hot yesterday I we all got a good days of it. trocked off at 1700. + had a good swind in the

guf. Today there were some clauds + it was quite cool when me but in the last stoke (#68) of 1650. Bach for owe C rotions - that's all years that since Soturlay - 7 the others are setting around a Small fine telling duity jokes while on this by Contern light I will a scorpion lost night a the crew didn't get much sleep lost night thinking don't it we also have lits of large bitts that and always mobing Kamilaze attacks. Trujos dig devil the former will to run a line of levels along stoke tops - double ful it produbly & new up & back mensioning the big Thursday - 31 March -"The last two days have been full boy fun Wednesday Ed double roldeled another of levels dawn the base line & Correll GM. 12 ran a crew lip 4

back on the time, I measured the astro piece of toke 14 finished the station description mere, shop steh type & etche & forbe from Chel for trisnyalation onlyle & went Juping up to itet for + shot the top of the short - it was a goof off day actually just dairy things that had to be love. Show went to Fokikil for water took german, Massey, + Nottlews all of whent were to take expands on the putter today. John we had to remeasure the base line, camelly to orev tool a difference up & book of 5 cm - moli 5 certimetro aver a distance of 3\$00 meturs on 1 in 340000 66,000 off. Dalar't sound like much, but it's too much for this sort of a job. today I was forward marker a recorder with Ed on the reac mark, Redmonds Walker on ronge polio, Rizzi & glawers on the thermondus, we started of Joke of

0750 g cavered the 2 webs to cheb by 100, then back to stoke 45 by 12, buch of 1250 + got to fore just ahead of a dust storm not we receil for an hause of 3/4 the In he R.H. Riggi was out with The same hig - upset stomach of bad headaches the floored Snow + Cornell the day before & f then was marking, receiveding, measuring set-ups a set backs, & reading the forward the momente, we checked our enve figures & came ant 01292m off in awe up & beck or me part in 342,500 - not bod. We got back here (to awe camp) & Show had the pyramidol tirt dawn & Duten loads & took all the men but the me boch to Foliti. 3 were pritty sich & he rest of the work Edg Steno + Happey + I can finis be at. after my left ed rolla a de used the weld leve to now a line of levels from to be dawn to the water herel, claing 5 turning ats. I measured the 50odd

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feet down & boeb with a difference of 0.003 feet. again not We held good chow of C- rotins beens a frendsfruture, decoal toast jons, 4 aprilably got around going aver ance field blos. till 1930 & are now colony up in an respective lop. now is a vice before that tives in a test beford the dames near tobe, & be too been aver several times to say fellow & burn wrother the holds great arminating I before conversations with me of which of understood nothing of are have become foil friends. He with and here loting we at This All about 0600 g of Rod cracher & forma coffic with him, Her quite Va boys has an really aveinty megale boding precusion any rifle fully is long as he is a there are two deall for pells drying autoide her leve to attest to the ability to use it.

209 Show is a different mon in the field - really pluroont & very rice - a welcome chinge from repunques! Dage Time measurements the done the some way as described for leying out the stokes event that a march is scrutched on the al. strip & it is done trive of each station - i.e. Mars & much to get the sport, then ever of the 15 hiles Junsin, & take up the strain again to check the 150 measurent. of it's off do it yel your foll on the some spot. A the o much follo should of Me al, strip the distince forward or byos from an arbitrary hig on the Atip is weasured with dividers & seal off on a 20cm bore -> the flat newyle as a set up or set book dyrendring on wheathers the lope thes the be set ferriourd or bures to

you hime Direction of mensureing 210alor themameters are attached to The type colloroted in degrees C. 9 reading to degrees of truths. (25.0, 25.5) These are places one of each and of The type & read at every march, Somple of Fld. notes: V To Find Rear set up set Back supports From 00+25-1+25 22.5 22.5 3 +25 2 22.5 23.0 .03752 2 . 3 23.0 23.0 3 3 . 4 23.5 23.6 .03332 3 of end of line, Slehe #68 fell oppray 20m start of cheb, so we pet in 68+25 + measured boch from it to cm + nen subtracted. It stars boch to the centromany we stillched all a meter tepe (ME whytefore) & measured the distance from 681 25, boch to the a spot directly abave the cm as determined by a prodotte the meddet I set up awy the cm, Turned off 900 from the BL, spolled it witha

211 pincel & this set up own the pincily sighted back to the com this gave we a time of sight goo to the Ble. Then it reised the horiz have to the tops yeard the line where the voilie have creased it & then put a stadia rod behind & read the dist cheve the con 1 1 E 2.90 Ft up on real do for the leveling the prot (wild level) was set up so & could look through the door of The astro shack of a read the strain rol at the level line then El moved dawn taward the beach + I read it again, assuming 100 is love's eled. not plus my first sight (forgett) gave me a HI My HI manual the neift sight (Gracift) gove me the elever of the pt induc . He go red (turning pt th) + hen

212 moved down & shot bach (Boebought) on the red in serve glove & then the moved up y we leaptfrogged dam to the inotic, CM THE AS THE Backsight H.J. Foresight Elev Jake 4.084 104.084 ----100.00 (assumed) 101.159 4.050 TP, 1.125 100.034 TP2 1.548 91,338 11,369 59.790 TP3 0.761 80.189 11.910 79.428 TPy 0.326 69.463 11.052 69.137 TP5 0.149 58.712 10.900 58,563 water line at 1634 9.808 48.904 wolve 9,708 58,612 - 48.904 de + 7p5 4.290 104.32.8 0.901 100.038 TPG 4,325 100.003 Jahr fire had a head of a lit of fin in the field his good web. He food has been monotonous - 3 meab a day for fine days (So for) of a combination of all

213 the will from a cose of C rotions, bread & fam, coffee, + aprirate - some thing every meal evert tinight when we got aur alin - Some food, but son, bloring send, glare, heat waves, morages, services Samilage beettes, but I enjoy at withol. Have been writing here in the 1-120 level with the liter flopping the door of the tend of the Colemon lontern spalle hearing contantilly with a cup of coffic on the board we was a table. Als a board between levo instrument boyes - mobes a good loble bot que ceri lin on it - Boy do Fried a Sherry Monday dariel 4th Friday Churchey night Show frang It Smith - an Its surveyor dum from Folikil & took him up to shoot stars. So tridey Eds I were going north to work on the High firt - New tringle

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but the visebility was so bad we want night on to Fahihil ? took Smith back & had auselus a good shawer & share & a good med - all of which were needed. The hoge was bod so we jeeped on up to Colt to measure the shirt & to desire it & Evor. Then to tat while we pecked up the 30' cp & ne-erected at at Gert. The visibility never tid clear & ever event about 1800. That eve we all wind checked and on the astrolole (10 1/2 hrs.) Saturday a.m. Ed & I btail in the jeep for theh where Est get & sets on Cheb. We had a hellowa time getting there for the , swamp road was in gratty - bed shope. The "cm. it Nigh had been pretty well beatin up so I wint back that Pry

215 with Herton & some comment 9. we re-centumarke it ? f shit 6 more sets to all Ste by devek. not night Edy & both were If the aptro sheep I till 0300 Semder & Ed all night. (Friday 14 hrs) Aundary we were up bright & Early to bread camp & got to Fahil by about 1100 - Show showed up that 13009 we had another shawer + + shot in the & where for a while though the flies were pretty bod we downed that the pretty little piph snoke that Buch had billed on wes. was the sand viper or sand asp - deadly pairon - The land that old cleo pot to her maidanly breast when the drop- triebed the bucket to these many centuries ago. Johnny Noelder asked Ela me to show, so we had a few

July -

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welcome martinis in Bof Kenvunsin's room, a gin & it a few more with foling in fory Hunter's room - still third with the pornography of the 6 centinents - for a fevol more. about 2200 the sea herd colmed down enough for the fetterils only one trip - so we got all the instruments a aux personal gear aboard & headed and - after parking the duker jeep in the filst maintainaves compand. I tolke There into letting we go during on the R. in hypes I could note a trip where to pick up the next of that year. He seas have been pretty rough mungh, I if Shew thought it off to levere it til the M. come back, I should warry (Sunday 12 hes) - (Unday 8 his) Today of slipt most of the

day trying to get caught up from all I lead last week. We van into gewte a guy down there in the New Or 2000. a hedaiin who lives alone behind The dines. He was aver again Sol. am. I we had a long chot about buying follows I the good to be abourd the f. ayain Shis a good falcons -> ship. Cault. has some dama good shot of Billy terwer putting up in type I I hope to get some of them from him. Must ewrite the con. A has been some time. Sal Mar 26th - 10 wet 30 9 Sal Mar 26th - 10 wet 30 9 San 37 - 8 Thur 31 11 The 25-10 Fri 1 - 101/2 Ture 29 - 10 Sat 2 - 14 Sun 3 - 12 The 5 - 5

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Tuesday april 57 - under way Fuhihil-Ras Tanura. Slept till reen - connected field blas in my shives atop the convers builded cover in the sun & then joined the feating party on the fonwill to cotch a nice line. They lembed several gooders too. Rep got the biggest - a little over 19 lbs. & hed the con from 4-8 this we. They were have me broken in on ender way watches. It's a rough life - slip til noon sonbothing, tura fishing, maries & aridge Wednesday, dpint 13th mod, alas, was on the algs. 7. + I came abound the 14, of Ras Tannua the following day. we lay there for a day & this moved in a stand to Bobing. There we survival the absc's I headed SE for the strait of Harmy where ever since live theme her iming

sounding lines func obreast, while I spind to his a docf computing. 1st on geodedic positions & now the baseline. We have been for fare days stroning back & forth through the Strait that separates the gulf of & mon from the Decision gulf. to the Celest the high peaks of West Persia coming dum to the agure of the gulf. To the west the sleep cliffs a barren peaks of Ros Husandum, the easternment trip of the dealiers" islow?" Mungh, complituly devoied of ony vege-totions the change in terphyrically is a f the narthum deserts & have come the know so well. The waters here ten with maine life. Fund, School find a time, hue been in sight almost Constantly. Water snohs, aronge algare of time part that woke the water look is though arongo sea dye had her dunped in, and thursends of small fish that nipple the surface with Their wedent summy I well be in

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Bohien probably triding & I must get ashare I try to by some backsheesh for the clon april 1417 Encaute to Bohnin

well, the absc's should off this May of we are headed again for Bobins, having headed back south in a starm & onchand in the les of the Revision Reals off foguest Tand just N of Hormon to give the bittle ships time to come alongside for provisions etc. I have thanaughly enjoyed this acobiens journed; & though it will be good to got back of see the family again, I feel that I have barely scrolched the surface of one very small corner of the Levant. It is a fareinating place and having now is the putting oside what promises to be a good book having read only the publishers spirib on the of the charactery - I take them - I have a general knowledge of the setting - that too the win begun to nead the book. This is welly a forcinating place - it has its flis, its his ~ it's sound, but it also has anich spector.

of want a hoppiness, a contintment of once interjeble & indescribable - as though the drob, unthe the american, had met Time + Fote in the arma of fore to fore in the arena of the sectories a chrough ne centuries come to an understanding as to just where he stands in velotion to his cosmos & his alloh, his god. It is an essuious position and are that mokes the wyent immediacy of our sauped-up american living set indeed futile. as Ves Carto said, I want to avaid the shellamy of the merely chosocilershimed shiptic. Through I sound a lit cynicol, it is the cynicism of clase evans scimblic investigations and caughed with a tout refused to accept per se the status que (if I may mine my international idians), and to foll without dues tooking or questioning into a set pottern as so many of my generation are doing. where I am lacking, even searching, before & bap, by to leap but are pershed along into the forcondained potternes laid and for hem

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by some else or lead as lambs to the slaugher by the fudes good of their and selfish smollness - etc. hell it's 1200 9 I must have diached of the brain. all of wart is to be given the power to decide what I want to do with my life & the tenouty & will to do it _ easy enough, int il? funday May 1st - Straits of Horning We headed back to Folichil & sport two days on the beach I fortunately got awe required clowes on the treangles, picked up the vehicles a tawers & took of for Rais al itishab where we met the clunistan city & & procured from her a more dubble of Bupplies. Then to Bohrien whele we pat for a week awaiting the Seaplane Tende Duybury Bdy to whom we were to trother Cupt. O'Reyon & his Compertion Suf stiff - also Dr. Ford - a good Doc. the come in yesterday of we

223 left for the flots yesterday oftenan about 1500. Bach in the dreathing room toppide, we have been busying auroclass with computing Geodedic Positions I adjustment of subds, getting ready for the smooth plotting "that well accept our time most of the way back At was only this ofternoon, though that I forot felt that we were really headed hame. For it was obent 1530 that we rounded the tip of R'as Musandam, poord big & title Quain Holoreb ? entired the sul of man. fie always like the Structs of Harmus ever type last oct when we wint through going the other way. I clout and if it is the welcome change of scenery - high sleep side idends I tawering cliff-sears - or just the idea of their being the Soonway to the Version Suf, time of a goldin gote or

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bridge or a flotul of Liberty for the Suff. wholered it may the, it was any as those nowfamiliax londmarks slipped asturn tchot & felt we indee were headed home. Sib around the 15th This Warfolk for a few days of M.Y.C.

Thirsday, Mary 19th Tievo days West of Librolting. Hol as hedges through the droken & Red Sens. While waiting for the South - bound troffic to get into Gred Better for a good swim. We proched of for a good swim. If twened pully cool once we left Part Soil beached west through the red. Two days and I get we ran into some Fough seas that slawed as down some, I got who Gebrolter on Monday the TGD- Most of the 62 fleet was in at the time. The covier Corol Sea, crusion

225 Columbus & Fargo & the antiavieraft (5" good orniser formeau a but the supply ship fellows the of the AOG that refuelled us. The three descis mode it of y the cruw of the Hitleholis hard some weld tails to tel of algiers I her flippots, whit a time they had I had dinner, on the de god-79 Carowlord ended up of the Embody Club in gibrolter with two of its Apanioh Kastions & between the 4 of us I whil Many officery that wandered in wert through some \$ 30 worth of poor champarter. of 7400 the girls bod to cold There has to get over the borde into spain & we say aur way down to pumpers Bestin where I slept it of on the Lettlehols & was oblehand here when the came alongoide the Many the not A.M. Me

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left Gibrolte that evening & Kine been rolling home (+ do mean rolling) ever since. It's the nice lagy pitch & roll of a quartering sear - long cively tettle wind, but Abl quite cool. We have been scoling following ever sence the 3res of they till the ape. We will probably stay aboard in N.Y.C. till foll the Smooth plothing is done - 9 it will be a damm long for. well, fire learned a lot on this trup, but where from here? I don't want to go boch to drobe on the claury ilam, but will ship over for some there Job of there is one in the offing. Still like to trovel.

There has been on awful lat of water aver the damm since I started teaching of Hitchkiss that foll (44) ? stayed there till five of 51 when I come to the follor & the Seripps Institution of Oceanoprophy. That summire I went to clasha & back on the Horizon, 9 the Soll of 52 (Nov) sour me headed for the south Polific on of Expedition Caporcom. - Honolulu, IT wojalin, O-econt. Rotumah, Vit, Levu (Fiji), Tongatubu 4 (tonga Is), PangoPango (Somea), Tahiti (wow!) 9 Muhua Hire (Marguesos)

July 13, 1953 -

Just back from a one- week trip to San Nicolus Isad with Bill Menard, Ed Humilton, Bob Bill, Her Shumwey & Dave Hoeve on the E.W. Scrapps (Newbigen, Toonh loughn Jonsey. Joe, Meener, John, 9 Buddyo Mary). & Max Selumin. the job was for NOTS Inyohern of the Navy, q we were to plot Spikes & dips ? retrieve somply from 2 mile-diameter cerelis off the North Sedan Sen Hicolas. Dill, Hamilton, Moore, & Time did the diving, Max & I The shore control a Keneral of actual as boot recorders & ongle shooters. It everbed the This apen accised they ad wind ashere to set up the nel sherm on night peye, We had honned & tripod, range pob taupel 3- small tring segnal, with

8'2-110002229 assemble thim i weapped up bunting. to Burgs to Burgs. New TuBuo, s canyon It was originally hoped that we could occup & coney - a USCES bench mart, ? put a range pole target on Acone, but not occupy it. Then locate new stations Bod & New by anyles to Conrey a Canyon, This cat in the buogs from Coney, Bed, 9 New. As it turned out, Conega Bad were not intervisible, so I had to occupy Campon too, 9 Bed was high in as a 22 any signal for locations from seaward, I bougs were and in from Cong Bad, New, I Campone

The Coney, New, Bod, theoryne alosed 180° 2', 9 the Concy-Congue New Internate closed 1800 1! Not bad after four years. While we were doing this, there hig dan buogs with Plays for visibility o more set at the outer A BE in the one mile circle () a the the sector. (Our busy locations come out damn well too). Then diving stations were plotted across the accel (12 of them)- with 4 of the 12 of the Dors Dore of The Secippo. 2 divers wert out in a shift with an outleast I a recorder (mon-type) he would set a magnetic course (Branton) from the E.W. Scripps, 9 continue out on that until a pre-determined bonizontal sextant angle anne up. This a light, red, floot with line & andor was put over

, a depth made with lead line, 7 The divers sent over with, waterfight compass dip meter crow bar 9 hammer, and burles sack for simples After dipa strike maisimmet had been made, sample a louse gever wes put in sack & sack secured to lime attached to float ancher for retrieving. While divers were down receively took herisintal sextant angles for 3-point tixes - at least 2 sets on different points to obviote swinger troubles, we had 3 Sucres, & mare shore signals other prominent objects on beach if not and in an original survey can be located by honizontal flours from the three burys, Also recorded viere stutes dep, a divers descriptions I bottom pius time down & up. Telp wers used as anchor for The boat Recorder too must been on eye on the divers & they should observe the standard divers rules + rejulations on lung procedures.

Buck aboard the ship. Samples are bugged a tagged, anyles pletted ? positions of stations noted an the abort with strike a dip disc Undermotion comercias also used. Equipment: Aqualungs, complete Compressor w/ stronge ton hs, I volce 9 gagues wrench Swin fing Fuce Plate Rubber suits a huts it cold Weight betts Crev bors Henry hanners Mony gunney sacks Drp meters Woter- Graft comprises Peptr gagues Trife Shiffs with outbourd gas toil tours, (Bornell to Hush outboards) W/w comeros + film Smoll - 18" - plastic floots Lots at light live for bueyo

Centry budy enclors 2, Pan Bueys with polos, Slags, counterweights & line Charly with blowups CISS station descriptions Transit a triped complete Centurpole or tripod signals Field note books for shore & shifts Adia tables 9 \$1.0, # 143 There-am protocolors, (metopopulie) Maching tope - alweys needel -Wine for signals & Sunttiny Wine-cuttors Protoacter for plothing struke Pencils. Chectritimo tope Jackiknives Lead Imes of weights (con be made) Sextants (in adjustment) Lois of dry sochs & temis stores, Marlin noll for typing bays, etc.

we found that using the diving bowys

was a big help too two nectors 1) They located spots where drugs had been made + best if bacys one numbered - & avoid too close spacing it dives or missed positions, and 2) IS buoys are planted first, it means less time Ser divers to get cold between dives - an important thing when ave a worker are as cold as They were this. Too, it a swinger is made, avec con be re-cut. Wohn varied from 25 to 50 feet in depth Dives average 16-15 minuts, 9 devers mode 3 dies in the marining? 3 in The oflimmen, so 12 stations goe day mos the many it son. We left menday of 4:00 2 god to Sen Kicholis Thes. AM carely & had time Concy & Conyon 9 set up bed 9 New ly 10:30 v all aire angles more shot by 1500. We finished Wed. it. a worthed hill thursdy

a second area done. There we mouly set up signals on prominent share features 9 more oble & leverte thim purity well in the charits occupying him only with a winter to get inter bearing No dans more used here, as it was a rush jot, a we fund that we had prove station peritions where we didn't use diver banys to locate done stations on the dons for genuid location to the burton is hard to use "en bateau" Divers should give strike & dip immediately on surfacing it is seen forgetten. Accurate abouts of the time on each tunk should be hept, I two extra full tanks in each bout help in case dives are boo long.

Dany Southyote 3710 S.E. Hurry A. Parthant. Oreyon (I'r + I'rs #.H.) Holly & annie Bet Smith RP#2 Phoenisville, Pa. Cohe-167 Pine St 5 Pickman ST Lochport, Mith Salem, Mussi Scotty - 4. R B. Child, RO#'S FThack, N.Y Terry Thompson 17 E 22 M NIFE The Bellor - Linwood, Mich to Ell go Mrs Fred B July • 13 1 CULL

arch & Herre Nrr Krs J. P. Madeira 39 James Stari Marrietum, N.J. Mr. Mrs. John Imbrie Ho CHI, Boyto Montuck, LI, N. F. 9 Fileh H. New Novem. Mr & Mrs Rowan A Williams 1253 North 52nd St Philadelphia, Pa. Mr Y Mrs. George R. Luckie 3585 14th St. Mission auto Aiverside Rice, alton Colifornia Met Mus John C. Gersland 417-A Devereny H. Botek - Hayuman Hauk, Colo Col,

The following were loose leaf items included in the pages of the diary

45 Santa Cruz Ave., Beach, witnessed the

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Names Listed Of Men Dead In Navy Plane

Names of the 11 airmen killed in the crash of a Navy PBM off the coast of San Diego yesterday were released by Pacific Fleet Air Force headquarters today. They were:

Lt. Comdr. Harold S. Wilson, S. a pilot, of 618 I Ave., Coronado. Lt. Ralph C. Janes, a pilot, who lived at the bachelor offite

cers' quarters, Naval Air Station. I Lt. (jg) Charles C. Kitchen, tu

of 4463 Euclid Ave.

Warren V. South, airman, of Gainesville, Tex.

Julian R. Morris, airman ap-pl= prentice, of Cheraw, S.C. 4(

Roy W. Sheppard Jr., airman, st of Manchester, Ia.

Larry C. Jones, airman apprentice, of Calhoun, Ga.

Eugene H. Radtke, airman, of w San Antonio, Tex.

Harold E. Huffman, aviation machinists mate 1/c, husband of P Mrs. Elsie C. Huffman, of 512 Highland St., El Cajon.

John A. Johnson, aviation electronics man 2/c, of Hubbard, Tex.

Bruce H. Thompson, aviation ordnance man 3/c, of Detroit.

Three of the recovered bodies bo were identified as those of Janes, S Kitchen and Johnson. The fourth was not identified.

SIGNAL CO. CHART 15AA 0 13 -10 -15 -20 23 40 -45 LCKOP lying in 30 feel tathogram_ showing of water. The U.S.S. Littlehales (AGSE-7) passed Star its recovery. LCVP was swamped and sunk star its recovery. LCVP was swamped and sunk solutions a storm on the nights of December 10th, 1948. Sthe approximate position of so the submerced of P was known, but it was this tatiogram sthat accurately locked the ploce. -65 100 Requeit, Arabia FEET OR CATHOMS 12 December 1448



LOADING TANKER on the Persian Gulf, whence Europe is obtaining an increasingly large part of its oil requirements.

HORE CONTROL FOR OFFSHORE GEOLOGICAL SURVEYS USING THE AQUALUNG

Since the data obtained by diving are of limited use unless the location of the diving stations relative to each other and to the land are known, some control is necessary in order that the surveyed area can be represented on a chart in its correct position. Because aqualung geological surveys are limited to areas of relativly ahallow water and will be most usefull in extending seaward geological surveys of coastal areas, diving stations will almost always be within sight of land. Thus the problem of position determination becomes essentially the problem of locating positions offshore in reference to known positions on land. Adams (1942)* covers the subject of nearshore survey techniques in great detail, but a brief summary here of the more pertinent aspects will serve to show the application of the methods to this type of offshore work, with special reference to the control used for the San Nicolas survey.

Obviously, the desired accuracy of the location of the diving stations determins the degree of accuracy necessary for the control net. The most practical method of location from offshore is by the use of horizontal sextant angles between predetermined and well located positions on land. Thus it is on the location of these land points that the accuracy of the survey depends.

A knowledge of the existing control in the area is necessary before planning the new control for any specific survey. The coasts of the United States have been thoroughly covered by various federal and state agencies, and information on the location of previously established stations will greatly facilitate the survey. A reconnaissance of the area prior to the survey is necessary to the planning of the control, and the control net should be worked out in as much detail as possible before starting the actual survey. Where possible, triangulation stations such as those of the U.S.Coast and Geodetic Survey that are or can be located on the chart being used should be recovered. If three or more recoverable triangulation stations with known and charted positions are available along the coast and the area of the survey, then these should be marked with signals, occupied with a transit and used to cut in the additional shore signals or prominent topographic and cultural features to be used as signals for location from offshore. If two such stations are recovered in the area and are located on the chart, the need for establishing a base line is obviated. However, a third station should be established by triangulation from the two others and used in conjunction with them to locate the secondary signals with lines of position from

* Adams, K.T. (1942) Hydrographic Manual, Special Pub. No 143, U.S.Dept.of Commerce, Coast and Geodetic Survey.

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each of the three stations. If only one such station is available, some sort of base line establishment will be necessary; and if none is available, control will have to be carried into the area from the nearest known positions. Other methods of control may be possible and practicable in specific areas or in areas where less accuracy is demanded. It is well to bear in mind during the reconnaissance and planning that the shore signals and features will be used only from seaward and that the control net is not an end in itself but is useful only insofar as it makes possible the determination of positions from boats operating offshore.

Once the positions of the secondary signals are plotted on the chart to be used, position location from seaward consists of obtaining the position of the boat tending the divers in relation to these signals of known location. This can be done by using azimuths, or directions, to or from the known stations or by using horizontal sextant angles measured at the boat between the known stations or by a combination of these two methods. Adams (op.cit.) suggests many such combinations, and a familiarity with all the possibilities will greatly facilitate this phase of the operation.

For the San Nicolas survey, the station descriptions of triangulation stations within the area together with charts showing their locations were obtained from the U.S.Coast and Geodetic Survey. A brief reconnaissance prior to the survey located one of the two triangulation stations with no difficulty, and ixxxxxxxxxxxxxxxx though time did not permit an attempt to locate the second one, it was believed that it could be recovered with equal ease. It was felt at the time of the reconnaissance that visibility conditions might preclude the use at all times of secondary signals on shore, so it was planned that four flagged dan buoys be planted offshore and located by the same method and at the same time as the shore signals.

CANYON and CONEY (see Fig.....) were the two U.S.C.& G.S. triangulation stations recoverable in the area. At these stations the shore party set up signals and occupied the stations with a transit to locate station New and to take one-minute cuts on the four dan buoys (Able, Baker, Charlie, and Dog), secondary station Bed, and prominent cultural features Garage and Pier, both of which had been marked with white paint by the reconnaissance party. Station New was occupied to give the third line of position to the buoys and to check its location by closing triangle CONEY#CANYON#New. Stations Bed and CANYON were not intervisible, so Bed had to be occupied to check its position by closing triangle New-CONEY-Bed and to give the third position line to Pier and Garage, neither of which was visible from CANYON.

Tripod signals of light lumber wired together and bearing flags were erected at CONEY, Bed and New for use from seaward. These three signals plus the painted marks at Pier and Garage and the four dan buoys were all plotted on the charts as soon as the shore party returned to the ship with their observed angles. Using a three arm protractor, the locations of dives already made were then plotted from the sextant angles observed from the small boats tending the divers. With the position of the dives known and the divers' information plotted, plans for the next days diving could be formulated and finder angles determined to facilitate finding the proper locations for future dives.

In the second xxxxx area surveyed, there were no pre-existing

triangulation stations, and time precluded extending control into the area from the nearest ones. However, an accurate chart of the area was available, and three secondary signals were erected on prominent headlands and located merely by magnetic bearings and by judging their location by reference to the topography. Later fixes from seaward using these signals and prominent topographic features that were shown on the chart indicated that the positions of these three tripod signals were accurate within the requirements of the survey.

Able CONE N Canyon CANYON & CONFY are recovered useros & stutions. Able, Baker, Charlin, Dog or flagged dan bucys. New, Pier, Bed, Garage, & Coney are thipods. Piera Garage are marked w/ white paint.