USCG Group Monterey 1972-1976
Electronics Tech Duties and Life

Outline

1 ET Duty

A 3 ETs assigned to the Group

B 1st class ET as leader and one second class ET and one 3rd class ET

C 24 hr on call two ETs one night on and one night off.

D 1st Class has 24 hr support role as needed

E ET on a trouble call departed immediately to effect repairs.

1 ET would drive alone if there were CG personnel at the remote site.

2 ET would have an assistant/safety man if no CG personnel at remote site.

3 At night a Duty Seaman would accompany as assistant/safety if needed

2. Responsibilities

A Keep everything electronic 100% operational

B Any failures of any equipment triggered an immed dispatch of the duty ET to repair.

C Report of the equipment failure (CASREPT) was immediately sent to 12th District HQ by Teletype with estimated time of repair.

D Support radio communications (RMs) as needed.

1 Possible temporary radio watch assignments.

E Work with Group Electricians and Damage Controlmen to maintain the properties.

F. Be ready to assist in the event of any emergency manpower need.

3. Equipment

A Five major Lighthouses

1 Pigeon Point (watchstander, later automated and xferred to SF)

a Fog Detector, LF Radio Beacon, Shortwave Receiver

2 Pt Pinos (watchstander, later automated)

a Fog Detector (atmospheric moisture light refraction measurement)

3 Pt Sur (watchstander, later automated, remote controlled from monterey)

a Fog Detector, LF Radio Beacon,Shortwave Receiver

4 Point San Luis (watchstander, later automated)

a Fog Detector, LF Radio Beacon, Shortwave Receiver

5 Point Piedras Blancas (watchstander, later automated)

a Fog Detector

B Two 95 ft Patrol Boats

1 Cape Wash in Monterey

a HF, VHF, ADF, Radar, Loran, Depth Sounder

2 Cape Hedge in Morro Bay

a HF, VHF, ADF, Radar, Loran, Depth Sounder

C Three 100 Watt 12 channel HF Radio Transceivers AN/URC-51

1 Monterey (in radio room) Fiberglass Marine Whip

2 Pt Sur (remote controlled over telco lines) 40’ tower

3 Cambria AF Station (remote controlled over telco lines) Fiberglass Marine Whip

D Two Small Boats

1 40' Utility boat 40576

a VHF radio, Depth Sounder

2 44' MLB surf boat 44346

a VHF radio, Depth Sounder, Radar, DF

E Morro Bay Breakwater LF Beacon

F Santa Cruz Breakwater Fog Detector

G CO's Vehicle VHF Radio AN/VRC-58

H Radio room equipment and support

1 24/7 radio watch on 2182 Khz and 156.8 (ch 16) VHF

4. Troubleshooting and Spares

A The ET Shop had a good set of discrete repair parts and technical manuals.

B Some minimal spare equipment was available for immediate swap-out.

C Most of the radio equipment was tube with some hybrid tube/transistor.

D An RCA "Tube Caddy" stocked with every possible tube was always with the ETs.

E Portable test equipment was updated, current and adequate.

5. Transportation

A One designated GSA Vehicle 9 passenger Dodge van

1 No seats except driver and passenger

2 VHF Radio: walkie talkie and VHF Whip Antenna. Callsign: "Golf-381"

3 No AM/FM Radio or A/C

4 Biggest decision was what route to take to fix trouble in S. half of the Group

a Highway 1 (3+ hours down the winding coast road in summer)

b Highway 101 (2 hours but 100 degree F temps and no AC or radio)

6. Command Structure

A Group Monterey CO: Lieutenant

B Group Monterey XO: Warrant W-4

1. About 25 enlisted, both station and group responsibilities

D CG Station Monterey OIC: Chief Bosun E-9

1. About 30 enlisted

C 95 Ft Patrol Boat CO: LTJG

7. Life at Station Monterey 72-76

A Being an ET on call most of the time limited what you could do or how far you could go

B Lots of fun things to do on the central calif coast with friends

1 Explore the area, most everyone had a motorcycle or car

2 Parties nightly at certain off-base apts or houses

3 Trips to popular sunny places such as Arroyo Seco

4 Trips to Point Sur (40 min) to BBQ/picnic and explore the mile-long beach

5 Inner Tubing down the Carmel River

6 Visits to San Francisco (1.5 hour drive)

7 Exploring sights along the central coast Jade Cove

8 Visit Hearst Castle. All CG monterey personnel could get in free.

a. Hearst had an agreement with CG due to land agreements

C The Army's "EM Club" just up the hill from the CG station on weekends

1 US Army had a defense-language institute at the Monterey Presidio

2 Hundreds of military men and *women* learned a variety of foreign languages.

3 The EM club hosted live bands and there were usually lots of people

8. Biggest Challenges to ETs at Monterey 1976

A Worn out WWII vintage radio equipment had been in operation since the 1940s.

B Damp, cold, drafty lighthouse buildings caused additional failures of equipment.

C ETs suffered fatigue from constant driving and overwork.

1. "Port and Starboard" duty schedule.

2. Some ETs carried a pager at own expense for additional freedom.

D Power line spikes on remote coastal highway power lines caused additional failures.

E Fog Detectors

1 This was the last step in eliminating the human element: watchstanders

2 Someone invented a device using "atmospheric moisture light refraction"

3 Device had a flashtube focused through a 4" lens to a point 50-100' away.

4 A phototransistor read the amount of back reflected light.

5 Microprocessor calculated the "visibility" in miles and triggered fog signal.

6 The design was flawed, the first models in service did not work well.

7 The units would go into "fault mode" and run the fog signal continuously.

8 ET would be dispatched to push the reset button and hope for luck.

9 At Santa Cruz Breakwater someone began shooting at the fog signal

F LF Radio Beacon Timing Clocks

1 Lightstations on the central Calif coast all shared one frequency.

2 Each station transmitted its own morse letter during its one minute out of five.

3 Timing was controlled by selecting one of three US Govt "Grandfather" clocks.

4 These clocks were of high quality but didn't achieve the accuracy needed.

5 Many frustrating hours were spent trying to synchronize the clocks to WWV.

6 The USCG began updating the clocks in 1975.

G The worst problem was the LF Radio Beacon on the breakwater at Morro Bay

1 Located in a two story 5' diameter vertical metal tube on the breakwater end.

a Had a watertight door leading to a ladder inside.

b It was monitored 24/7 by the duty watchstander on the Cap Hedge.

2 Accessible only by jumping from a small boat onto large, uneven and slippery breakwater rocks while holding onto a toolbox.

3 ET had to 'time his jump' to coincide with pacific ocean swells.

4 It was exceedingly dangerous but downplayed with humor.

5 Dampness and moisture caused several failures/month.

6 It was a tube transmitter using 300 Volts B+, transmitted a morse code letter.

a Some years later it was moved to the base of Morro Rock.