

LORAN MONITOR STATION EGLIN

Remote Destin Monitor Site Correspondence 1977 - 1980

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DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
U.S. COAST GUARD-G-WAN-2/73
WASHINGTON, D.C. 20590
PHONE 202-472-5857
16562.2/11

18 AUG 1977

From: Commandant, U.S. Coast Guard
To: Program Director, Systems Program Office for Tactical Loran
(ESD/DCL, STOP 43)

Subj: USCG Loran-C Monitor Station Eglin, Eglin AFB, FL.

1. The purpose of this letter is to inform you of our plans that will affect the Coast Guard's Loran-C monitor station at Eglin AFB, Florida.
2. At the present time, LORMONSTA Eglin is the System Area Monitor (SAM) for LORSTA Dana, Indiana, the Zulu secondary for the existing U.S. East Coast Loran-C Chain. LORMONSTA Eglin provides vital real time Loran-C control information for Air Force operations in the Eglin, AFB area. The present configuration of this Loran-C chain will be terminated approximately 1 July 1979. The stations that comprise the existing U.S. East Coast Loran-C Chain will be reconfigured and will become part of the new Southeast and Northeast Loran-C chains that will complete Coastal Confluence Zone (CCZ) Loran-C coverage for this portion of the U.S.
3. LORMONSTA Eglin as it now exists is required as long as LORSTA Dana is part of the existing U.S. East Coast Loran-C Chain. On approximately 1 July 1979 LORSTA Dana will be shut down to be refurbished for service as part of the new CCZ Loran-C System and the SAM function at Eglin will no longer be required. The new Loran-C control concept utilizes remote unmanned monitor facilities that relay the observed data, via dedicated data links, back to a control station. In this case the control station will be collocated with the new Master transmitting station for the Southeast U.S. Loran-C chain currently under construction at Malone, Florida. It is our intention to utilize the existing facilities at Eglin as the site for one of the remote unmanned monitors for the new Southeast U.S. Loran-C chain. We will continue to provide the Air Force with the same Loran-C control information we currently provide. The main difference being that the information will be provided via the new Loran-C station at Malone, Florida. The facility at Eglin is of Air Force design (48'x37'), approximately 1800 square feet consisting of an operation room, day room, shop space, two offices, generator spaces, and a utility room. The facility is air conditioned. The new remote monitor equipment that will be installed at Eglin will require a space of approximately 10'x10'x8'. The remaining space will be excess to our needs.
4. It is our understanding that your existing Loran-D monitor site must be vacated by next summer (1978). It appears that it may be beneficial to our respective programs to investigate the feasibility of collocating

Subj: USCG Loran-C Monitor Station Eglin, Eglin AFB, FL.

your Loran-D monitor facility with our existing Loran-C monitor facility at Eglin, keeping in mind our planned de-manning of the facility approximately 1 July 1979. We would also like to investigate the feasibility of executing an Interservice Support Agreement for the maintenance of our new Loran-C monitor system that will replace the existing equipment. This new equipment is solid state and utilizes the module "black box" replacement concept of maintenance. Specific details can be discussed later.

5. We desire to establish communications with you in order to discuss this matter further. Your point of contact at Coast Guard Headquarters, Washington, D.C. is CDR. WILLIAM G. WALKER, Chief, Loran-C Implementation Branch, FTS 472-5857. Our liaison at ESD Hanscom, CDR. R. A. McCLELLAN, has been informed of this matter and is available to assist you.



A. F. FUCARO
Chief, Office of Marine
Environment and Systems

Copy to:

ADTC/TETE Eglin AFB, FL.
AFSC/SDEC Andrews AFB, MD.
HQUSAF/XOODF Pentagon, WASH., D.C.
AFCS/XPQE Richards Gebaur AFB, MO.
COMLANTAREA (PTml), GOV ISLAND, NEW YORK
CCGDEIGHT(o), New Orleans, LA.
CG LORMONSTA Eglin, Eglin AFB, FL.
CG STAFF OFFICER, Hanscom AFB, MA.

RCVD DEC 14 1977 WAM 391

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

G-EEE-4/63
3920/1.3

DATE: 13 DEC 1977

SUBJECT: LORMONSTA Eglin

FROM : Chief, Electronics Engineering Division

TO : Chief, Aids to Navigation Division

1. Attached as enclosure (1)^{is} a plan to upgrade the equipment and to eventually determine if LORMONSTA Eglin can be secured after the existing East Coast Loran-C Chain is terminated in 1979. The schedule provided is keyed to the tentative operational dates for the Southeast U.S. Loran-C Chain and termination of the existing East Coast Chain.
2. We will assume your approval and proceed with our evaluation. In the interim, I recommend you inform the U.S. Air Force of our intentions and determine what constraints, if any, they will impose on our deliberations. If relocation of the monitor from Eglin Air Force Base is not acceptable to them, we should strive to make it an unmanned facility with USAF technician support.


J. F. CULBERTSON

Encl: (1) Eglin Monitor/Control Plan

G-WAN-2		
Routing	Action	Initial
CDR Walker		
LCDR Carter		
Mr. Schellhase		
Mr. Pitt		
Mr. Bero		
Mr. Gushki	A	
Mr. Walth		
Other		
A-Action I-Info K-Coordinate		
F-File		

WJW 12/9

Eglin Monitor/Control Plan

1. At present LORMONSTA Eglin is the primary monitor and control station for the Zulu (Dana) baseline of the East Coast Loran-C chain (ECLC). The control equipments being utilized are AN/SPN-30 monitor receivers and strip chart recorders. This equipment is antiquated, presents maintenance problems to the repair depot, and is scheduled for replacement. This plan outlines those steps that we intend to take to alleviate these problems and to provide additional capabilities for control of the ECLC.
2. When the new South East United States (SEUS) Loran-C chain is implemented, an Austron 5000 monitor receiver system will have been installed at LORMONSTA Eglin as a monitor for that chain. The Austron system will run unattended, with pertinent data being remoted to the control site, LORSTA MALONE, via dedicated teletype lines.
3. Since the Austron 5000 receiver has the capability to track more than one Loran-C chain, we plan to utilize the Austron 5000 monitor at Eglin to track the Whisky (Jupiter) and Zulu legs of the ECLC as well as the Grangeville, Raymondville and Jupiter legs of the SEUS chain. This configuration will be evaluated at Eglin for approximately 1-2 months after the installation and turn-on of the SEUS chain. If the evaluation is satisfactory, the AN/SPN-30 Receivers at Eglin will be removed. LORMONSTA Eglin is the control, as well as the monitor, station for the ECLC; therefore the data pertinent to that chain will be recorded at Eglin on strip charts. The additional equipment required at Eglin includes an Austron 6019 D/A converter and 5 strip chart recorders.
4. LORMONSTA Mayport, to be implemented as a SEUS monitor site, will also provide ECLC control data. SEUS control data from Mayport will be remoted to Malone, and ECLC data to Eglin. This will require no additional equipment at Mayport. Another Austron 6019 and strip chart recorders will be required at Eglin to record the Mayport provided data. Thus Eglin will play a dual role: as a manned monitor & control station for the ECLC chain using information from its local receiver and from Mayport, and as an "unmanned" SEUS monitor, with SEUS information from the Eglin receiver going directly to LorSta Malone.
5. In Summer 1979, after the present ECLC is secured, the Mayport and Eglin Austron 5000 systems will be required to track only the SEUS Loran-C chain. At this time it may be possible to close the Loran-C monitor station at Eglin if both the Mayport and New Orleans monitors can adequately track the entire chain and if closure of the Eglin facility is acceptable to the U.S. Air Force, who originally funded LorSta Dana to serve the Eglin Test Range. Testing to determine the technical feasibility will be conducted during the fall and winter of 1978.

ENCLOSURE()

6. Schedule Summary

<u>DATE</u>	<u>Event</u>
January 1978	Austron 5000 installation at Eglin; includes two 6019's and 12 strip chart recorders.
March 1978	Austron 5000 installation at Mayport.
August 1978	Deinstallation of AN/SPN-30's at Eglin. (Contingent on evaluation results)
August 1979	Shut down of ECLC; Shut down of LORMONSTA Eglin and removal of all equipment. (Contingent on evaluation results and USAF agreement)

(202) 472-5857

16562.2/11

APR 9 11 1977

From: Commandant, U.S. Coast Guard
To: Tactical Loran Programs Office, (ESD/OCND, STOP 34)
Subj: USCG Loran-C Monitor Station Eglin, Eglin AFB, FL
Ref: (a) Commandant, U.S. Coast Guard ltr 16562.2/11 of 18 AUG 77
(b) USAF ESD/DCL ltr of 27 SEP 77

1. The purpose of this letter is to inform you of our current plans that will affect the Coast Guard's Loran-C monitor station at Eglin AFB, Florida.

2. At the present time, LORMONSTA Eglin is the primary monitor and control station for LORSTA Dana, Indiana, the Zulu secondary for the existing U.S. East Coast Loran-C Chain, rate 9930. LORMONSTA Eglin provides vital real-time control information for Air Force operations in the Eglin, AFB area. The existing U.S. East Coast Loran-C chain will be terminated on 30 September 1979. The stations that comprise the East Coast chain will be reconfigured and will become part of the new Southeast and Northeast Loran-C chains to complete Coastal Confluence Zone (CCZ) Loran-C coverage along the East Coast and Gulf of Mexico areas.

3. LORMONSTA Eglin as it now exists is required as long as LORSTA Dana remains part of the existing East Coast Loran-C chain. On 30 September 1979, LORSTA Dana will cease operating as part of the East Coast Loran-C Chain. Upon cessation of LORSTA Dana service in September 1979 as part of the East Coast Chain, the control function at LORMONSTA Eglin will no longer be required. Discontinuation of the East Coast chain will require you to use the Southeast chain for operations in your area. The new Loran-C control concept utilizes remote, unmanned monitor facilities that relay the observed data, via dedicated control links, back to a control station. In this case the control station is collocated with the Master transmitting station for the Southeast Loran-C Chain, at Malone, FL, using remote monitor sites at New Orleans and Jacksonville. Eglin has been used as a back-up to these installations. Reference (a) outlined our intentions to utilize the existing facilities at Eglin as the site for one of the remote unmanned monitor sites for the Southeast U.S. Loran-C chain. We have reevaluated the monitor requirement for this chain and see little need to retain Eglin as a monitor site. We are planning to install additional monitor equipment at our New Orleans monitor site to provide redundant monitor

APR 20 1979

Subj: USCG Loran-C Monitor Station Eglin, Eglin AFB, FL

capability for the Southeast chain. We anticipate no degradation of Loran-C stability for your test ranges.

4. Should your staff desire additional information or wish to discuss this matter further, your point of contact at Coast Guard Headquarters, Washington, DC is LCDR John F. Weseman, Loran-C Implementation Branch, FTS 472-5857. Our liaison at ESD Hanscom, CDR R. A. McClellan, has been informed of this matter and is available to assist you.

Copy to:

ADTC/TETE Eglin AFB, FL
AFSC/SECD Andrews AFB, MD
HQUSAF/XOODF Pentagon, Washington, DC
AFCS/XPQE Richards Gebaur AFB, MO
COMLANTAREA (Ptml)
CCGDEIGHT (o)
CG LORMONSTA Eglin, Eglin AFB, FL
CG STAFF OFFICER, Hanscom AFB, MA

PREVIOUS EDITIONS MAY BE USED

WESEMAN/lah

472-5857

17APR79

PROGRAMLTR #3

OFFICE OR DIVISION	GWAN2	GWAN	GEEB								
INITIALS OF RESPONSIBLE OFFICERS	<i>[Signature]</i>		<i>[Signature]</i>								
INTRA-OFFICE OR DIVISION INITIALS	<i>[Signature]</i>		<i>[Signature]</i>		2						
DATE OUT			C4/18								



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

ADDRESS REPLY TO
COMMANDER (oan)
EIGHTH COAST GUARD DISTRICT
HALE BOGGS FEDERAL BLDG
500 CAMP ST.
NEW ORLEANS LA 70130
(FIS) 682-6234

16564/Eglin
Ser 38

5 OCT 1979

From: Commander, Eighth Coast Guard District
To: Commandant (GWAN)

Subj: SEUS LORAN-C Monitor Sites; relocation of LORMONSTA Eglin

Ref: (a) COMDT COGARD MSG 091519Z AUG 79

1. As requested by reference (a), the following information is provided on the relocation of Eglin LORAN Monitor Station.

a. The Destin, Florida site is most suitable of the replacement sites considered. CWO BOWLBY has contacted the Air Force concerning use of the land, and does not foresee any difficulties in obtaining approval for the Monitor Station at this site. The Air Force has conducted a site evaluation test with positive results. Eglin LORMONSTA also plans to install a temporary 35 ft. tower at the site to see if any interference occurs with the VORTAC transmission now at the site. An emergency generator and direct phone hook up are available at the site. The present "ISSA" for Eglin extends through August, 1980, and amendment of this agreement to cover the Destin Site is the easiest and most convenient way to obtain use of the land. A formal letter should be submitted to the Air Force for the land upon completion of site evaluation.

b. Approval for site evaluation by the monitor van will present no problems. The van should be brought down as soon as possible for testing so relocation may begin.

c. CWO BOWLBY has suggested several other possible sites for the monitor station provided the original Destin Site does not satisfy all stated requirements. These backup sites are located in the vicinity of Destin. Location of the Monitor Site at New Orleans would not provide maximum coverage of the LORAN area. It would also place two monitor stations in the New Orleans area allowing for the possible damage to both antennas during storms or other circumstances. The location of the Monitor Station near Malone would place the station on the LORAN-C base line, causing the Monitor Station to receive the most inaccurate signal. The tower would also be affected by interaction with the non-radiating signal field from Station Malone.

2. Transfer of personnel from Eglin does not present any difficulties at present, the Monitor Station has seven ETs and no seaman. All ETs have received transfers, except two who will remain at Eglin throughout the relocation of the Monitor Station. It is expected that one or both of the above mentioned ETs will be assigned to Station Destin upon the medical discharge of the station's ET.

16564/Eglin

Ser 388

5 OCT 1979

Subj: SEUS LORAN-C Monitor Sites; relocation of LORMONSTA Eglin

2. (Con'd) A District shortage of non-rated personnel will present problems in District assigning two seaman to the station for security purposes during the maneuvers from mid-October through mid-November 1979. Two extra non-rated personnel for this purpose are required to insure their availability during this operation. At this time District (p) does not show two non-rated persons scheduled for assignment to this duty.

3. Review of Destin Station ET billet structure should be made to ensure proper rated and trained personnel are available to service the Monitor Site once established. To insure proper servicing the billet structure should be increased by 1-ET2 with Austron 5000 experience. This would provide two ETs to meet LORAN-C and Group Mobile electronic maintenance responsibilities.

4. CWO BOWLBY is to retire 1 February 1980. Efforts should be made to complete majority of relocation prior to retirement for contingency purposes.

5. In regards to the relocation of the LORAN Monitor Station at AIRSTA New Orleans, the following comments are offered. If a complete closure of RADSTA New Orleans occurs, relocation of the Monitor Station to Grand Isle is favored once Base New Orleans is moved. This would provide the same LORAN-C grid crossing angles which now exist, and would allow for quicker response time on repairs to the Monitor Station. This is assuming Base New Orleans and Group complex is relocated to nearby Michoud, and several ET billets are assigned to Grand Isle once the group is absorbed into Group NOLA and only a SAR Station remains at Grand Isle. If RADSTA were shut down and the Base Group were moved to Michoud, response time to the Monitor Station if left in New Orleans, would be at least one hour due to distance and traffic conditions. If the RADSTA is not closed down, but only reduced in size, relocation of the Monitor Station from AIRSTA NOLA to RADSTA NOLA is desired. If the RADSTA continues to operate in New Orleans, seven ETs are billeted to RADSTA to remain; an ample number to keep the Monitor Station in operating condition. Other alternative sites for relocation would include Galveston, Sabine, and other areas of Texas. These recommendations should be considered, and if possible, site evaluation should be conducted while the EECEN Monitor/Survey Van is in the District for survey of the Destin Site.

W. A. WULF

By direction

Copy to:
COMLANT Area
LORMONSTA Eglin
COCO (w/copy Ref (a))
LORSTA Malone
CCGD8 (p)
CCGD8 (e)

MINNOCZCS1A953

RTTUZYUW RUEDEEA5507 3391929-UUUU--RUEBJCA.

ZNR UUUUUU

R 041900Z DEC 79

FM COGARD FECEN WILDWOOD NJ

TO RUEBJCA/COMDT COGARD WASHINGTON DC

INFO ZEN/COMLANTAREA COGARD NEW YORK NY

RUELEWA/COEIGHT NEW ORLEANS LA

RUELEWA/COGARD STA DESTIN FL

GG GRNC

BT

UNCLAS // NI 6565 //

DESTIN LORMONSITE EVALUATION

ACTION G-ECV
INFO G-E
G-EEE
G-FCP-2
G-WAN
G-W
G-WP
G-OTM
G-ON
G-OSR-2
G-CBU
G-OFP /RB

5 DEC 79 08 38 Z

RECEIVED

1. EVALUATED PROSPECTIVE LORMONSITE IN AREA OF DESTIN, FLORIDA DURING THE PERIOD 27-29 NOV 1979. SOFTWARE VERSION C.1 WAS USED FOR ALL TESTS.

2. SITE MEETS ALL COMDT CRITERIA FOR LOPAN-C SYSTEM AREA MONITOR WITH THE EXCEPTION OF GROUND RESISTIVITY. RESISTIVITY MEASURED WITH THE FOUR TERMINAL METHOD MEASURED APPROX 50000 OHM-CM. THREE TERMINAL METHOD WITH ROD UNDER TEST DOWN SIX FEET GAVE RESISTANCE OF 172 OHMS. AREA IS APPROX SIX FEET ABOVE WATER LEVEL AND

PAGE 02 RUEDEEA5507 UNCLAS

COMPOSED OF FINE WHITE SAND. SYSTEM GROUND REQUIREMENTS CAN BE MET BY INSURING GROUND RODS EXTEND BELOW WATER TABLE.

3. ANTICIPATE NO PROBLEMS IN OCCUPYING LAND OR IN MEETING ALL POWER, COMMS, AND ENVIRONMENTAL REQUIREMENTS. SITE PRESENTLY HAS AN AIR FORCE VORTAC INSTALLATION APPROX 400 FT FROM PROPOSED ANTENNA SITE. BUILDING IS PRESENT WITH POWER, (INCLUDING EMERGENCY POWER GENERATOR), ENVIRONMENTAL SYSTEMS, AND COMMS LINES. BUILDING HAS REGULAR SECURITY POUNDS MADE BY THE AIR FORCE.

4. FIELD STRENGTHS OF SIGNALS IN DB/UM/M MEASURED WITH THE AUSTRON 5000 WITH LOOP ANTENNA: MASTER 89, WHISKEY 77, XPAY 56, YANKEE 64, ZULU 63.

5. ACQUISITION TEST RESULTS: (TIME IN SEC)

	AVG TIME	SIGMA TIME	WORST TIME	NO. FAILURES	INCORRECT CYCLE
MASTER	90	2	84	0	0
WHISKEY	90	15	129	2	0

XPAY	166	25	243	0	0
YANKEE	124	30	204	1	0
ZULU	129	25	223	1	0

RESULTS ARE FOR 43 TRIALS COVERING FOUR 1 HOUR PERIODS (RECEIVER PROBLEMS INVALIDATED DATA FOR THE 2 HOUR SUNRISE PERIOD).

6. CUMULATIVE TRACKING TEST RESULTS:

	MASTER	WHISKEY	XPAY
A/G TD	--	13698.975 USEC	30908.624 USEC
SIGMA TD	--	24.5 NSEC	22.1 NSEC
PK-PK TD	--	100. NSEC	90. NSEC
A/G ENV NO.	2.70	2.77	2.97
SIGMA ENV NO.	0.010	0.123	0.125
PK-PK ENV NO.	0.06	0.07	0.08
A/G FOD	2.4 USEC	2.6 USEC	1.5 USEC
A/G GAIN NO.	48.	60.	81.
A/G NOISE NO.	1.	10.	334.
SIGMA NOISE NO.	2.	3.	137.
MAX NOISE NO.	6.	20.	704.

PAGE 04 REFID: A5507 UNCLAS

	YANKEE	ZULU
A/G TD	47146.320 USEC	64097.125 USEC
SIGMA TD	31.7 NSEC	60.7 NSEC
PK-PK TD	130. NSEC	100. NSEC
A/G ENV NO.	2.88	2.70
SIGMA ENV NO.	0.012	0.013
PK-PK ENV NO.	0.08	0.08
A/G FOD	1.4 USEC	2.5 USEC
A/G GAIN NO.	73.	75.
A/G NOISE NO.	121.	205.
SIGMA NOISE NO.	52.	60.
MAX NOISE NO.	204.	410.

RESULTS ARE FOR 3 FOUR HOUR PERIODS DESIGNATED BY COMDT. LARGE SIGMA TD AND PK-PK TD READINGS ARE DUE TO LONG-TERM DRIFT OF SIGNALS. AVG PK-PK ON ALL LEGS WAS LESS THAN 60 NSEC DURING ANY FOUR HOUR PERIOD WHEN LPA OFFSETS WERE SUBTRACTED. AVG SIGMA TD FOR THE FOUR HOUR MONITOR PERIODS WAS WHISKEY 14 NSEC, XPAY 14 NSEC, YANKEE 11 NSEC, ZULU 19 NSEC. FOUR COMMANDS AS PER

PAGE 06 RUEDEEA5507 UNCLAS
COMDT DIRECTION

7. AVG BACKGROUND NOISE MEASURED USING THE HP-310 AND AUSTROM 5000 IN FIXED GAIN MODE, 1 KHZ BW: 35 DB/IN/M ASSUMING 1 METER EFF HT OF WHIP. WORST CASE BACKGROUND NOISE 40 DB/IN/M. NOISE SEEMED TO BE PREDOMINATLY LOPAN NOISE.

8. THE FOLLOWING CWI FREQUENCIES WITH ESTIMATED FIELD STRENGTH IN DB/IN/M BEFORE NOTCHING WERE NOTED (FIELD STRENGTHS ARE WORST CASE MEASUREMENTS): 60.2 (71), 74.5 (61), 86 (43), 88.5 (62), 120.2 (47), 126.2 (42).

9. ESTIMATED PULSE PEAK FIELD STRENGTH IN DB/IN/M OF CROSS-RATE INTERFERENCE (WORST CASE MEASUREMENT):

	0970	0960	0940
MASTER	80	74	52 (ONLY SEEN AT NIGHT)
WHISKEY	101	57	50
XRAY	75	74	42 (ONLY SEEN AT NIGHT)
YANKEE		75	52 (ONLY SEEN AT NIGHT)

PAGE 06 RUEDEEA5507 UNCLAS
ZULU

79

RESULTS ARE FROM 0400 LOCAL TIME TEST. LARGE VARIATIONS OCCUR DUE TO SKYWAVE.

10. VAN WAS UNABLE TO MONITOR ON RECOMMENDED ANTENNA SITE. APPROX POSITION OF SITE 10-23-38N 86-32-15W. RECOMMEND THAT AIR FORCE BE CONTACTED TO DETERMINE IF MONITOR EQUIPMENT MAY BE HOUSED IN EXISTING BUILDING. IF THIS IS NOT POSSIBLE, GRASSIS HT WILL NEED TO BE ELEVATED. AREA HAS NOT EXPERIENCED ANY FLOODING DURING THE LAST HURRICANES BUT LOW ELEVATION MAKES THIS A POSSIBILITY.

BT
#5507

NNNN

DEC 6 1979

Chief, Electronics Engineering Division

2. Unfortunately, no funds to perform the relocation were ever identified. NIP AC&I funding is considered appropriate and should be used for this project. Should you have problems in identifying appropriate AC&I funds, please contact CDR B. C. Mills (G-WAN-2).

W. G. WALKER
Editor

EGLINMEMO #4

[illegible]



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS (G-EEE-4/TP64
U.S. COAST GUARD
WASHINGTON, D.C. 20590
PHONE: (202) 426-1201

16565
Ser: 3663A

From: Commandant
To: Commander, Eighth Coast Guard District (e)
Via: Commander, Atlantic Area (At)

Subj: Replacement Loran-C Monitor Site

Ref: (a) Commandant ltr 16555.01/DB dtd 9 Oct 1979
(b) COGARD EECEN 041928Z Dec 79

1. Reference (a) authorized the disestablishment of USCG Loran-C Monitor Station Eglin, FL. It specified that the monitor equipment remain at Eglin and be operated in the unmanned mode until a suitable replacement monitor site could be established. A monitor site evaluation team from USCG EECEN investigated a proposed site at Destin, FL. during the period 27-29 Nov 1979. Their findings were reported in reference (b). Based on these test results, the site at Destin is acceptable provided extra effort is devoted to attain the required 25 ohm ground resistance.

2. You are hereby authorized to install a Loran-C monitor at the site investigated by the EECEN monitor site evaluation team. Due to equipment shortages it will be necessary to use the Eglin equipment at Destin. Therefore, the Eglin monitor functions will be discontinued upon deinstallation of the equipment at Eglin and will not be resumed until Destin is operational. Your specific responsibilities for this installation are detailed in the following paragraph. Commander, Atlantic Area (Atl) will be responsible for the installation of data lines between Destin and LORSTA Malone and Destin and LORSTA Seneca and for certification of the site. EECEN will procure the Grasis enclosure and provide one person to supervise the installation of the equipment. The installation date is dependent upon the delivery date of the Grasis shelter. Historically, the delivery time has been 12-14 weeks. You will be advised of the delivery date when it is available.

3. Your specific responsibilities for establishing a monitor site in the vicinity of Destin, FL. are listed below. Funds are available upon request to Commandant (G-CBU).

a) Install an antenna at the site recommended by the EECEN monsite survey team. The antenna pedestal shall be constructed in accordance with the drawing of enclosure (1). Use the spare Model 222, 35' whip antenna and W0877 antenna coupler from Eglin for this installation. Install the antenna coupler in accordance with the

55

Subj: Replacement Loran-C Monitor Site

3.a)(con'td)drawings of enclosure (1). Note that the drill template should not be copied because dimension errors may be introduced.

b) Install an antenna ground plane in accordance with the drawings of enclosure (1). The ground rods must extend below the water table minimum height to insure acceptable ground resistance and constancy.

c) Install two twinax antenna cables between the equipment shelter and antenna. RG-111A/U MOD antenna cable is available from CG SUPCEN, Brooklyn, NY at no charge. Submit APA requisition to SUPCEN specifying the amount of cable required and its purpose. NSN 6145-01-030-3392 applies. Procure and install type UG-421-B/U twinax on the cables. Instructions for assembling the connectors and obtaining proper phasing are contained in enclosure (1).

d) Install the Grasis equipment shelter (to be procured by EECEN). The enclosure must be between 20 and 100 meters from the antenna. Elevate the enclosure to prevent flood damage. Details on the equipment shelter concrete foundation are contained in a drawing in enclosure (1). Footings or pilings may be required to support the foundation because of the soil conditions at Destin.

e) Install the shelter ground system in accordance with the drawing in enclosure (1). The ground rods must extend below the water table minimum height.

f) Provide power and local phone service to the shelter prior to installation of the equipment. Both services are to be provided by buried cable.

g) Remove monitor equipment from Eglin and install it at the new monsite. One person from EECEN will be provided to supervise the move. You are to provide the remaining personnel and the moving equipment.

h) Return Eglin's second Style 222, 35' whip antenna to SUPCEN Brooklyn. M/F Project 59C.

i) Return Eglin's second W0877 antenna coupler, monitor rack and Austron 6019D Information Switch to EECEN, M/F Project WX024.



Enclosure 1: Loran-C Monsite Construction Information

Copy to: Commandant (G-WAN-2)(less enclosure 1)
Commander, Eighth Coast Guard District (e)
Commanding Officer, USCG EECEN (less enclosure 1)

www.loran-history.info



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
Commanding Officer
USCG LORMONSTA
PO Box 459
Mary Esther, FL 32569
16562
19 December 1979

From: Commanding Officer, USCG Loran Monitor Station, Eglin AFB, FL
To: Commander (eee), Eighth Coast Guard District

Subj: Destin Loran-C Monitor Site; information concerning

1. Talks concerning the location of the Austron 5000 Loran-C system inside the USAF VORTAC building (#8209) were held with personnel of the 1972nd Communication Squadron on 11 December 1979. Consensus of opinion was that installation of the system would not cause mutual interference between the TACAN/VOR and the Austron 5000. Examination of the building interior indicates that although there is room for the installation, the available space would be quite congested and best installation practices could not be observed. In July 1980, it is scheduled to relocate the TACAN from the building to Eglin Main, leaving only the VOR system. After TACAN removal more than ample space would be available for an installation.
2. AC power, including emergency generator power and telephone lines are available at the VORTAC building.
3. If a Grassis hut is to be utilized, it is suggested that the hut be located on the north side of the existing building at the edge of the existing hardtop to allow easy vehicle access to the hut. Location out in the sand would make access difficult. East/west hut orientation is suggested to reduce heating effects of the sun.
4. It was mentioned that during hurricane Eloise, that the bay rose such that one to two inches of water entered the building. Installation of the hut approximately three to four feet above existing grade should insure safety of the building.
5. It is further suggested that antenna be located approximately 1000 feet east of the existing VORTAC building, and pedestal be elevated sufficiently to eliminate storm water problems.
6. Correspondence concerning use of site should be addressed to ADTC/TEPP, Eglin AFB.


R.E. BOMBY

ENCL: Drawing proposed location

DI



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

RECEIVED
JAN 9 1980


ADDRESS REPLY TO
COMMANDER (oan)
EIGHTH COAST GUARD DISTRICT
HALE BOGGS FEDERAL BLDG
500 CAMP ST
NEW ORLEANS, LA 70130
(FTS) 682-6234

16562/Destin
Ser 12
4 JAN 1980

From: Commander, Eighth Coast Guard District
To: Commandant (G-WAN)

Subj: Destin Loran-C Monitor Site

1. Commanding Officer, USCG Loran Monitor Station, Eglin AFB's letter 16562 dated 19 December 1979 is attached as enclosure (1) for your information.
2. Installation of the Austron 5000 Loran-C Monitor System utilizing a Grassis hut and antenna located as proposed in paragraph 3 through 5 of enclosure (1) is recommended and submitted for approval. Preliminary work on the proposed installation has progressed to the point that we now await approval before proceeding further.
3. Conceptual approval of an ISSA amendment for the monitor site use has been obtained from Eglin AFB. An amendment to an existing ISSA covering the location of a receiver at Destin will be initiated to cover monitor siting once final plans for the Destin monitor site are received.


W. A. WULFF
By direction

Encl: (1) CO, USCG Loran Monitor Station, Eglin AFB's ltr 16562 dtd
19 Dec 1979 w/encl

Copy to:
COMDT (G-EEE-4) w/encl
CCGD8 (eee) wo/encl



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
U.S. COAST GUARD (G-EEE-4/TP64)
WASHINGTON, D.C. 20590
PHONE: (202) 426-1201

16565

Ser: 3665A

JAN 10 1980

From: Commandant
To: Commander, Atlantic Area (Atl)

Subj: Replacement for Eglin Loran-C Monitor

1. The proposed monitor site in the vicinity of Destin, FL. is considered acceptable as a replacement for LORMONSTA Eglin. Commander, Eighth Coast District (e) will be tasked with the responsibility for the preparation of the Destin monsite. USCG EECEN will provide the Grasis equipment enclosure and one person to supervise the installation. You will be responsible for certifying the new installation, for providing 110 baud, full duplex, 60mA, neutral 110 VDC dedicated teleprinter links between the new monsite and both LORSTA MALONE and LORSTA SENECA and for terminating the links in Eglin. We anticipate that the links will be required in April/May 1980. Funds you require to accomplish your portion of the relocation are available upon request to Commandant (G-CBU).

BC Mills

B. C. Mills
By Direction

Copy to: Commandant (G-OTM)
Commander, Eighth Coast Guard District (e)
Commanding Officer, USCG EECEN



It's a law we
can live with.

14 JAN 1980

G-WAN
G-W
G-EEE

142050

1. THE PROPOSED MONITOR SITE AT DESTIN, FL IS ACCEPTABLE AS REPLACEMENT FOR LORMONSTA EGLIN. REF B OUTLINES BASIC RESPONSIBILITIES FOR ESTABLISHING THE DESTIN SITE. CCGDB WILL BE RESPONSIBLE FOR SITE PREPARATION, COMLANTAREA FOR CERTIFICATION OF INSTALLATION AND PROVISION OF LANDLINES, AND EECEN WILDWOOD FOR GRASSIS ENCL PROCUREMENT AND SUPERVISION OF INSTALLATION. CCGDB IS ALSO RESPONSIBLE FOR INCLUSION OF LORMON SITE DESTIN UNDER ISSA WITH THE USAF AT EGLIN.

2. DETAILED SITE PREPARATION INSTRUCTIONS ARE BEING FORWARDED.

CC

DESTIN

[illegible]