From: Commandant
To: Commander, 14th Coast Guard District (a)
Subj: French Frigate Shoals LORSTA rehabilitation; information concerning
Ref: (a) CCDB14 (c) ltr 11010 serial 32304 of 3 Aug 1966
(b) CCDB14 (c) ltr 11010 serial 32391 of 19 Sept 1966

1. In reply to reference (a) and (b) it is concurred that an operational requirement for subject station will continue for a minimum of fifteen years. To provide for this requirement a Unit Development Plan should be provided.

2. Since this will be an expensive project you are requested to include the following items in your plans.

   a. Cost estimates for several runway lengths between the existing length and 4000 ft. In this connection enlarging of the island solely to meet FAA obstruction clearance requirements is not considered essential. Sufficient lateral clearance should, however, be provided so that C-130's could be operated from the field with the same or better clearances than are now available to the HU-16E's.

   b. The practicability and potential savings which would result if Coast Guard transportation of workmen and materials to the site was provided.

   c. A phased funding schedule.

F. V. HELMER
Chief, Office of Operations
From: Commandant
To: Commander, Fourteenth Coast Guard District

Subj: French Frigate Shoals Loran Station rehabilitation

Ref: (a) CCGB14(o) ltr 32304 of 3 Aug 1966

1. The operational requirement for subject station will continue for a minimum of fifteen years. Planning for necessary rehabilitation of this station should be undertaken in accordance with accepted procedures.

2. Concerning the extension of the existing runway to accommodate support aircraft, dimensions should be 4000 feet by 150 feet.

F. V. HELMER
Chief, Office of Operations
From: Commandant
To: Commander, Fourteenth Coast Guard District (o)

Subj: French Frigate Shoals LORSTA rehabilitation; information concerning

Ref: (a) CCCD14 (o) ltr 11010 Serial 32304 of 3 Aug 1966
(b) CCCD14 (o) ltr 11010 Serial 32391 of 19 Sept 1966

1. In reply to references (a) and (b), it is concurred that an operational requirement for the subject station will continue for a minimum of fifteen years.

2. There is no question that considerable improvements are needed; notwithstanding this fact, however, the complete rehabilitation of all facilities on the Island except the Signal-Power Building, but including the extension of the runway into the open ocean for a distance of 700 feet into and up to 20 feet depth of water is estimated to cost in the neighborhood of 10 million dollars.

3. This extremely expensive cost estimate for the over-all project dictates that all alternate means for maintaining an operating station on French Frigate Shoals at a reasonable cost be exhausted. In this reality, a Unit Development Plan should be furnished the Commandant recommending a phased funding schedule over a period of several years and including cost estimates of each item proposed.

F. V. HELMER
Chief, Office of Operations

Keep Freedom in Your Future With U.S. Savings Bonds
TO: Chief, Office of Operations  
FROM: Chief, Aviation Units Division  
DATE: 12 October 1966

SUBJECT: French Frigate Shoals Rehabilitation, comments concerning

1. Subject correspondence is forwarded without initialling.

2. This division felt that the ten million ($10 M) price tag needed clarification and asked EGV for an informal breakdown on the cost. Enclosure (1) is their reply. Enclosure (2) enclosed with CCGD14 letter of 5 May 1966, gives that district's estimate of the cost for runway improvements. Although the two estimates for runway construction may not be directly comparable the fact is that they differ by more than 100% (Headquarters being the higher).

3. The proposed reply to CCGD14 would, based on price estimates alone, seem to kill this project for the foreseeable future. This is clearly not the intent of Operations.

4. Enclosure (3) is submitted with the suggestion that it (or the thought contained therein) be sent to CCGD14 in lieu of the proposed reply.

C. A. RICHMOND, JR.

Encl: (1) EGV cost breakdown  
(2) CCGD14 cost estimate for runway cost  
(3) Suggested reply to CCGD14
Items reqd. to completely rehabilitate French Frigate Shoals Aaron Station

1. Extend runway by 700 ft. to cost: $488,000
   a. 17,500 lin. ft. of coated steel sheet piling installed with tieback system @ $250  = $437,500
   b. 100,000 cubic yards of drilled concrete fill deposited inside piling @ $35 = $1,800,000
   c. 19,500 sq. yds. of 2-1/2" bituminous paving @ $3 = $58,500
   Cost in average stateside labor $96,000
   Constn. Indep. factor for labor = 3.0
   Cost at F.F.S. = $488,000

2. Completely enclose existing island with replacement steel sheet piling bulkhead: $5,250,000
   a. 7,000 lin. ft. of steel sheet piling bulkhead driven just outside existing deteriorated bulkhead @ $250  = $1,750,000
   Constn. Cost Factor at site = 3.0
   Cost at F.F.S. = $5,250,000
3. Pave existing 3000 ft. x 250 ft. runway: $424,000
   a. 83,000 sq. yds. 2½" bituminous
      paving (with seal coat) @ 2.50 = $208,000
      Constn. Inlet Factor 3.0
      $624,000

4. Replace Signal-Power Bldg.: $300,000
   a. New 40' x 100' bldg. @ $25
      = $100,000
      Constn. Inlet Factor 3.0
      $300,000

5. Replace Recreation Bldg.: $192,000
   a. New 40' x 80' bldg. @ $20
      = $64,000
      Constn. Inlet Factor 3.0
      $192,000

6. Rehabilitate Galley-Mess-Barracks
   Bldg. to comply with current
   standards prescribed by Confl. Distn. 1101.2B: $300,000
   (Replacement may be more satisfactory desirable)

7. Rehab. Utility Systems including Fresh
   Water Storage, Fuel Oil Storage, Underground
   Electrical Distribution Systems, etc.: $200,000
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<td>8. Provide more adequate aircraft fuel storage system</td>
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<td>9. Provide Runway Maintenance Equipment</td>
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<td>10. Demolition of Misc. Structures</td>
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<td><strong>PROJECT TOTAL</strong></td>
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**Note:** Considerable savings may be possible by combining as many items as possible into several large projects thereby reducing contractor mobilization expenses. Furnishing of AG, transportation of workers and materials would also be a further means of reducing the overall costs.

10/15/65
TO: Chief, Office of Operations
FROM: Chief, Office of Engineering

DATE: 23 SEP 1966
Ser 2612

SUBJECT: French Frigate Shoals Loran Station; rehabilitation

1. It is believed that the approval contained in the enclosure may be premature in that it would commit the Commandant to finance any and all costs for a complete rehabilitation of French Frigate Island without knowing what total cost is involved. Complete rehabilitation of all facilities on the Island except the Signal-Power Building, but including the extension of the runway into the open ocean for a distance of 700 feet into up to a 20 ft. depth of water is estimated to cost in the neighborhood of 10 million dollars.

2. It is recommended that the operational requirement be judged in comparison with a factual breakdown of total costs involved for the proposed rehabilitation before full acceptance. In line with such recommendation, reply should admit the operational requirement for the station but solicit a complete plan with costs of each item proposed to be budgeted over several years as may be practical and necessary. While some attempt has been made to investigate alternate means of keeping an operating station at French Frigate at a reasonable cost, it is believed that further study is in order along this line.

3. There is no question that considerable improvements are needed at French Frigate but a more cautious approach is recommended wherein a realistic appraisal of estimated costs is examined before fully committing the Commandant to an extremely expensive over-all project.

JOHN B. OREN

Encl: (1) Proposed reply drafted 9-9-66 to COXFOURTEEN ltr 11010 of 3 August 1966, Ser. 32304 (with background correspondence)
From: Commander, Fourteenth Coast Guard District  
To: Commandant (O)  
Subj: French Frigate Shoals rehabilitation  
Ref: (a) CCGD14 ltr 11010 ser 32304 of 3 Aug 1966  

1. The Commandant's concurrence concerning the future of French Frigate Shoals as stated in reference (a) is again requested.

E. P. CHESTER, JR.  
Chief of Staff  

U.S. COAST GUARD  
SEP 28 1966  
OPERATIONS SHORE UNITS
Memorandum

TO : Chief, Shore Units Division

FROM : Chief, Aids to Navigation Division

SUBJECT: French Frigate Shoals Rehabilitation

REF : (a) CGD14 1tr 11010 dated 3 Aug 1966 serial 32304
     (b) Comdt (OAUS) 1tr 5450 dated 24 Feb 1965
     (c) Comdt (OAN) 1tr 3262 dated 29 Dec 1965
     (d) CGD14 1tr 11010 dated 16 Nov 1965 serial 32597

1. The following comments on reference (a) are forwarded for your consideration:

   a. Current DOD requirements, plus the commercial requirements, indicates a need for a Loran-A station at French Frigate for many years to come.

   b. This division concurs in the need to rehabilitate French Frigate.

   W. R. FEARN
   Acting
TO: Chief, Aids to Navigation Division

FROM: Chief, Aviation Units Division

SUBJECT: French Frigate Shoals Rehabilitation

Ref: (a) CCCD 14 ltr Ser 32304 of 3 August 1966

1. The following comments on reference (a) are forwarded for consideration:
   a. This division concurs in the need to improve the French Frigate Shoals runway.
   
   b. This division will examine runway extension requirements more fully and advise you so that firm planning can be undertaken.

   C. A. RICHMOND, JR.

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From: Commander, Fourteenth Coast Guard District
To: Commandant (O)<MAIL

Subj: French Frigate Shoals rehabilitation

Ref: (a) COMDT(OAN) ltr 3262 of 29 Dec 1965
(b) COMDT(OAU) ltr 5450 of 24 Feb 1966

1. Reference (a) withheld Commandant's concurrence in the proposed major rehabilitation of French Frigate Shoals Loran Station pending updating of JCS loran requirements. Reference (b) pointed out that aircraft to be provided in the future might not be suitable for support of that station. The 3,300 foot runway at the station is not suitable for operation of the programmed aircraft (HC-130B). Extension of the runway to 4,000 feet will cost an estimated two million dollars.

2. Living conditions at French Frigate Shoals are among the worst of any station in this District. The CO and CPO's have relocated into trailers abandoned by the AEC several years ago and they have the only decent quarters on Tern Island. Maintenance of the station is rapidly increasing in cost and difficulty. The lead time required to fund a project of this scope requires that we start now.

3. It is again stated that there exists a firm requirement for the continued use of French Frigate Shoals Loran Station, not only within the Department of Defense, but also in the non-defense community. The disestablishment of Molokai Loran Station has resulted in a configuration completely dependent on French Frigate Shoals for any Loran-A fix coverage in the Hawaiian Islands. Commercial aircraft and maritime commerce in the area is of sufficient magnitude to guarantee a firm requirement for Loran-A coverage for many years to come.

4. Commandant's concurrence is requested in the complete rehabilitation of the loran station including replacement of all buildings except the concrete signal/power building and extension of the runway to 4,000 feet minimum.

E. P. CHESTER, JR.
Chief of Staff
Memorandum

TO: Chief, Operations Division
FROM: Chief, Engineering Division

SUBJECT: French Frigate Shoals Logistic Support

REF: (a) COMDT (OAU) ltr 5450 dtd 24 Feb 66

1. As requested verbally, the following rough cost estimates are furnished for lengthening and surfacing the airstrip at FFS for logistic support. All figures are based on total width of 300 feet and do not include any costs necessary for enlarging the island to relocate present facilities (buildings, antennas, etc.) which would be required to meet FAA obstruction clearance requirements.

   a. Extend airstrip to 4000 feet (Est: $2,000,000)
      (1) Fill 15' X 300' X 900' X 1' = 135,000 cy @ $10 = $1,350,000
      (2) Sheet steel piling 2100 L.F. @ $75 = 157,500
      (3) 3' A.C. Paving 4000' X 150' @ $.50 = 300,000
         Subtotal $1,807,500
         Contingency 180,000
         Total $1,987,500

   b. Extend airstrip to 6000 feet (Est: $6,500,000)
      (1) Fill 15' X 300' X 2900' X 1' = 483,000 cy 27 @ $10 = $4,830,000
      (2) Sheet steel piling 6100 L.F. @ $75 = 457,000
      (3) 3' A.C. Paving 6000' X 200' @ $.50 = 600,000
         Subtotal $5,887,000
         Contingency 589,000
         Total $6,476,000

2. The above figures on fill are very rough estimates based on the average depth of water shown on our copies of charts. They are conservative, however, and if the unit costs noted remain stable, the job should be able to be done within our cost estimates.

C. F. Scharfenstein, Jr.

Copy to: CCGD14(fs)
From: Commandant  
To: Commander, Fourteenth Coast Guard District  
Subj: Logistic Support of French Frigate Shoals  
Ref: (a) Commandant Notice 5010 dated 26 October 1965  

1. Reference (a) envisions an allowance of 1 LRS and 3 MRR aircraft at Coast Guard Air Station Barbers Point. This may create a problem in logistics support of French Frigate Shoals by aircraft because of runway facilities there.

2. Some possible ways to meet these logistics requirements are:
   a. Use planned allowance of C-130 aircraft and existing runway.
   b. Use planned allowance of C-130 aircraft into improved airstrip.
   c. Add one HH-16E or C-123B to the planned aircraft allowance for use on existing runway.
   d. Contract for air logistics.
   e. Use surface vessels for logistics support and C-130's for emergencies only.

3. Your recommendations are requested after analysing the problem on a cost vs requirement basis. The following cost figures may be of value:
   a. Annual OE per HH-16E .... $235,028
   b. Annual OE per C-123B .... 197,480
   c. Estimated direct cost per flight hour for logistics support by an assigned HC-130E...... 154

B. F. Engel  
Acting Chief, Office of Operations
From: Commandant  
To: Commander, Fourteenth Coast Guard District  

Subj: French Frigate Shoals Loran Station Rehabilitation  
Ref: (a) CCGD14 ltr 11010 serial 32597 dtd 16 Nov 1965  

1. Reference (a) requests Commandant's concurrence for rehabilitation work on French Frigate.  

2. The JCS LORAN requirements are currently being updated and are due for release in the near future. It is believed that the DOD LORAN-A requirements will be outlined in considerable detail.  

3. While military requirements for LORAN-A coverage of the Hawaiian Islands area may not be the sole reason why such coverage should continue to be provided in the future, it is considered necessary to withhold concurrence in rehabilitation of French Frigate temporarily until the JCS review has been completed.  

B. K. RYAN  
By direction  

EGwalters:way 17 Dec 1965
From: Commander, Fourteenth Coast Guard District
To: Commandant (GAN)

Subj: French Frigate Shoals Loran Station

Ref: (a) GAN/CDT (GAN) 1st of April 1963

1. Reference (a) reported that the JCS requirement for French Frigate Shoals Loran Station would run through 1963. Accordingly, rehabilitation work on that station has been limited to that absolutely necessary for current and near future requirements.

2. The disestablishment of Molokai Loran Station makes it imperative that French Frigate Shoals remain active as long as the requirement for Loran-A continues to exist in the Hawaiian Islands. Under the circumstances, and unless otherwise directed, the planning for French Frigate Shoals shall be revised to put this station on a par with the others within the District and in accord with Commandant’s standards for barracks and living spaces. It is anticipated that complete rebuilding of the station, less the loran signal power building will be required. The project will be included in the district engineering backlog for accomplishment in Fiscal 1967.

3. Commandant’s concurrence is requested.

T. F. EPLEY
Chief of Staff