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COPY NO. 13

J/AN 40/21/1 (Revised)
(Agenda Item No. 27)

9 April 1957

NOTE BY THE SECRETARY¹

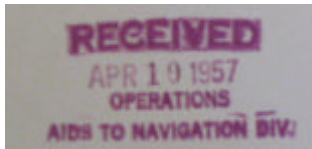
to the

JOINTS AIDS TO NAVIGATION PANEL

on

ANNUAL REVIEW OF THE LORAN INSTALLATION PLAN (U)

Reference: J/AN40/21/D



The enclosed, revised report, reflecting changes to the original paper as submitted by the US Coast Guard and US Navy at time of sign-off, was forwarded to the Joint Coordinating Panel on 3 April 1957, and is being circulated to the Panel for information and file.

KIRK MILLER, Jr.
Lt. USN

Secretary, Joints Aids to
Navigation Panel

¹ Transcribed from original documents located in Washington DC NARA

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COPY NO. 13

J/AN 40/21/1
(Agenda Item No. 27)

19 March 1957

NOTE BY THE SECRETARY²

to the

JOINTS AIDS TO NAVIGATION PANEL

on

ANNUAL REVIEW OF THE LORAN INSTALLATION PLAN (U)

Reference: J/AN40/21/D

1. The enclosed report, prepared by the Working Group, is forwarded to the Joint Aids to Navigation Panel for consideration.
2. A Suspend Date of 1 April 1957 has been attached to this item and early telephonic concurrence and/or comment is requested.

KIRK MILLER, Jr.
Lt. USN

Secretary, Joint Aids to
Navigation Panel

² Transcribed from original documents located in Washington DC NARA This is a draft copy...Enclosure "D" missing.

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Joint Communications-
Electronics Committee

_____1957
(J/AN 141/21/1)

MEMORANDUM FOR: Joint Coordinating Panel
Subject: Annual Review of the LORAN Installation Plan (U)
(Agenda Item No. 27)
Enclosure: Report by the J/AN Panel on the above subject
Reference: J/AN 40/21/D

1. The attached report, approved by the Joints Aids to Navigation Panel is forwarded for consideration.
2. Coordination with the CAN-UK-US JCECS is not considered necessary.

FOR THE JOINTS AIDS TO NAVIGATION PANEL

KIRK MILLER, Jr.
Lt. USN
Secretary, Joints Aids to
Navigation Panel

Working Group

Cdr. E.D.Ring, USN, S/M, X-78736
Lt.Col.D.J.Freund, USAF, X-74764
Dr.Wm.Young, USA, X-73853

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COPY NO. 13

REPORT BY THE JOINT COMMUNICATIONS-ELECTRONICS COMMITTEE

to the

JOINT CHIEFS OF STAFF

on

ANNUAL REVIEW OF THE LORAN INSTALLATION PLAN (U)

References: a: J.C.S. 141/70
b: J.C.S. 141/79
c: J.C.S. 141/80

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ANNUAL REVIEW OF THE LORAN INSTALLATION PLAN (U)

THE PROBLEM

1. To conduct the annual review of the Revised LORAN Installation Plan 1955*, to bring the plan up-to-date, to reappraise Service requirements, and to evaluate installation progress (including NATO progress) and new developments.

FACTS BEARING ON THE PROBLEM

2. The Revised LORAN Installation Plan, 1955* was approved by the Joints Chiefs of Staff on 1 November 1955. This plan superseded the LORAN Installation Plan, 1951.

3. For additional Facts Bearing on the Problem see Enclosure "E".

DISCUSSION

4. For Discussion, see Enclosure "F"

CONCLUSIONS

5. Changes are required in the LORAN Installation Plan, 1955* to set forth the current requirements of the Joint Services. Enclosure "D" consolidates these requirements and reflects the required changes.

6. The U. S. Coast Guard should be given legal authority to sell, loan, or give to the Japanese (through the State Department) the necessary modern high powered LORAN equipment For the propose of establishing a Japanese LORAN chain to meet the requirement for priority 14, Area ALFA, utilizing funds providing for LORAN expansion.

7. NATO progress has not been satisfactory. Pressure should be exerted through the U.S. Representative to the Standing

* J.C.S. 141/70 dtd. 1 Nov. 1955, On File in Joint Secretariat

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Group to expedite completion of the NATO stations and to provide NATO funds for NATO stations in the Mediterranean Chain.

8. The U. S. must establish LORAN stations in the following NON-NATO countries: Spain, Tunisia and Libya.
9. U. S. LORAN Installation progress is unsatisfactory due to the site acquisition problems with foreign countries. Expeditions action by the State Department is mandatory.
10. A new target date for completion of the effective LORAN plan should be established as end of calendar year 1961.
11. No experimental navigation system has progressed sufficiently in development and implementation to affect the present LORAN Installation Program.

RECOMMENDATIONS

12. It is recommended that the Joint Chiefs of Staff:
 - a. Forward the Memorandum in Enclosure "A" together with Enclosure "D" to the Secretary of Defense.
 - b. Approve Enclosure "D" as the LORAN Installation Plan, 1957".
 - c. Forward the Memorandum in Enclosure "B" together with Enclosure "D" to the Joint Services.
 - d. Forward the Memorandum in Enclosure "C", reflecting the Conclusions in Paragraph 10 above, to the U. S. Representative to the Standing Group.
13. No recommendation is made as to the distribution of this paper to commanders of unified or specified command.

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ENCLOSURE "A"

DRAFT

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Annual Review of the Revised LORAN Installation Plan

1. Enclosure "A" is the recently approved Revised LORAN Installation Plan, 1957.
2. The Joints Chief of Staff consider that the implementation of the LORAN Installation Plan has not proceeded satisfactorily due to foreign site acquisition difficulties.
3. It is recommended that a copy of Enclosure "A" be forwarded to the Secretary of Treasury, under cover of a letter similar to Enclosure "B" which reflects the following information:
 - a. Some changes have been made to the LORAN plan that will require additional effort on the part of the U. S. Coast Guard in implementing the plan. These changes are:
 - (1) The U.S. is to provide LORAN stations in the NON-NATO areas where planned LORAN chains cross NATO and NON-NATO boundaries.
 - (2) LORAN fix coverage, day and night, must be provided between Midway Island and Adak Island.

Continued action by the Treasury Department to request funds and provide for installation, operation, and maintenance of the stations in accordance with the provisions of 14 USC 81' is desired. All of the stations not designated as the responsibility of some other agency or organization such as NATO, are a responsibility of the United States (Coast Guard). Specifically the stations in Spain, Tunisia and Libya become the Coast Guard responsibilities. Construction of these station should be timed to coincide with construction of the NATO Chain of which they will be become part of.

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ENCLOSURE "A"

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b. U. S. LORAN installation progress is unsatisfactory due to foreign site acquisition problems.

c. The continue action of the Treasury Department, through the Coast Guard, in initiating annual reviews of the plan, is also desired.

d. It should be noted that current difficulties encountered by the Coast Guard in implementing the U. S. portion of the Plan may be largely solved through aggressive and timely action by the State Department to acquire the necessary sites in foreign countries. In the interest of achieving such action, a letter outlining proposals in regard to authority and responsibility for the installation, operation, and maintenance of LORAN station in foreign countries, and urging expeditions action in acquiring necessary sites, is appended for forwarding to the State Department. Those proposals are:

(1) U. S. Coast Guard to man and operate the chain of LORAN stations.

(2) U.S. Coast Guard to operate the chain of LORAN stations manned by a U. S. civilian contractor.

*(3) U. S. Coast Guard and other countries involved to man and operate jointly the chain with maximum number of stations manned and operated exclusively by the U. S. Coast Guard.

*(4) Man and operate a LORAN chain exclusively by only the foreign countries involved.

*(5) Man and operate a LORAN chain by several different foreign countries, with national management of single stations in the Chain.

*NOTE: After proposals (1) and (2) have been fully explored and found unacceptable and prior to the time that the remaining proposals are used, guidance should be sought from the Department of Defense. It should be realize that the U. S. Coast Guard cannot be held

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Enclosure "A"

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responsible for the operation and maintenance of stations or chains established in foreign countries under proposals (3), (4), and (5)

above. In these cases, however, the Coast Guard should be authorized under law, to sell, loan or give equipment and should lend such technical assistance as indicated to expeditiously provide the required service.

e. It is further noted that implementation of the NATO portion of the plan has lagged behind schedule. Stations to be provided by the U. S. as part of the chains crossing NATO and NON-NATO areas should be constructed concurrently with the NATO portions of the chain. In order to expedite timely implementation of the NATO portion of the plan, the Joint Chiefs of Staff have communicated with the U. S. Representative to the Standing Group urging early completion of the NATO portion of the plan and iterating that since the requirement for the Mediterranean Chain is a part of the NATO LORAN plan and also fulfills a U. S. requirement based largely on support of the planned NATO operations, the stations located in NATO countries should be funded in the Infrastructure Program and implemented expeditiously.

f. Funds provided for LORAN construction may be utilized to procure LORAN equipment and to sell, loan or give to the Japanese (through the State Department) the necessary modern high powered LORAN equipment for the purpose of establishing a Japanese LORAN Chain to meet the requirement for priority 14, Area ALFA.

g. It is realized that the Coast Guard will be unable meet the completion date of end of Fiscal Year 1960 because of the factors discussed above. A new target

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date for completion of the program is established as the end of calendar year 1961. This is not realistic goal unless site acquisition difficulties are solved immediately.

4. It is recommended that a letter similar in substance to that contained in Enclosure "C" and referred to in paragraph 3d above, be forwarded to the Secretary of State.

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APPENDIX "A" TO ENCLOSURE "A"

D R A F T

LETTER TO THE SECRETARY OF THE TREASURY

The Secretary of the Treasury's letter of 21 September 1956 forwarded an annual review of accomplishment under the "Revised LORAN Installation Plan". This review has been considered along with other pertinent information in again revising the "LORAN Installation Plan". The current revised plan is forwarded in Enclosure "A".

Some changes have been made to the LORAN plan that will require additional effort on the part of the U. S. Coast Guard in implementing the plan. These changes are:

a. The U. S. is to provide LORAN stations in the NON-NATO areas where planned LORAN Chains cross NATO and NON-NATO boundaries.

b. LORAN fix coverage, day and night, must be provided between Midway Island and Adak Island.

Continue action by the Treasury Department to request funds and provide for installation, operation, and maintenance of the stations in accordance with the provisions of 14 USC 81* is desired. All of the stations not designated as the responsibility of some other agency or organization such as NATO, are the responsibility of the United States (Coast Guard). Specifically the stations in Spain, Tunisia and Libya become Coast Guard responsibilities. Construction of these stations should be timed to coincide with construction of the NATO chain of which they will become a part.

c. U. S. LORAN installation progress is unsatisfactory due to foreign site acquisition problems.

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Appendix "A" to
Enclosure "A"

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d. The continue action of the Treasury Department, through the Coast Guard, in initiating annual reviews of the plan, is also desired.

e. It should be noted that current difficulties encountered by the Coast Guard in implementing the U. S. portion of the Plan may be largely solved through aggressive and timely action by the State Department to acquire the necessary sites in foreign countries. In the interest of achieving such action, a letter outlining proposals in regard to authority and responsibility for the installation, operation, and maintenance of LORAN station in foreign countries, and urging expeditions action in acquiring necessary sites, is appended for forwarding to the State Department. Those proposals are:

(1) U. S. (Coast Guard) to man and operate the chain of LORAN stations.

(2) U.S. (Coast Guard) to operate the chain of LORAN stations manned by a U. S. civilian contractor.

* (3) U. S. (Coast Guard) and other countries involved to man and operate jointly the chain with maximum number of stations manned and operated exclusively by the U. S. Coast Guard.

* (4) Man and operate a LORAN chain exclusively by only the foreign countries involved.

* (5) Man and operate a LORAN chain by several different foreign countries, with national management of single stations in the Chain.

*NOTE: After proposals (1) and (2) have been fully explored and found unacceptable and prior to the time that the remaining proposals are used, guidance should be sought from the Department of Defense. It should be realize that the U. S. Coast Guard cannot be held responsible for the operation and maintenance of stations

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Appendix "A" to
Enclosure "A"

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or chains established in foreign countries under proposals 3, 4 and 5 above. In these cases, however, the Coast Guard is authorized under the authority of the Department of Defense to sell, loan or give equipment and should lend such technical assistance as indicated to expeditiously provide the require service.

f. It is further noted that implementation of the NATO portion of the plan has lagged behind schedule. Stations to be provided by the U.S. as part of the chains crossing NATO and NON-NATO areas should be constructed concurrently with the NATO portions of the chain. In order to expedite timely implementation of the NATO portion of the plan, the Joint Chiefs of Staff have communicated with the U. S. Representative to the Standing Group urging early completion of the NATO portion of the plan and iterating that sine the requirement for the Mediterranean Chain is part of the NATO LORAN plan and also fulfills a U. S. requirement based largely on support of planned NATO operations, the stations located in NATO countries should be funded in the Infrastructure Program and implemented expeditiously.

g. Funds provided for LORAN construction may be utilized to procure LORAN equipment and to sell, loan or give to the Japanese (through the State Department) the necessary modern high powered LORAN equipment for the purpose of establishing a Japanese LORAN Chain to the requirement for priority 14, Area ALFA.

h. It is realized that the Coast Guard will be unable to meet the completion date of end of FY 1960 because of the factors discussed above. A

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new target date for completion of the program is established as the end of calendar year 1961. This is not a realistic goal unless site acquisition difficulties are solved immediately.

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Appendix "A" to
Enclosure "A"

APPENDIX "B" TO ENCLOSURE "A"

D R A F T

LETTER TO THE SECRETARY OF STATE

On 22 December 1955 the Revised LORAN Installation Plan, 1955, was forwarded to the Treasury Department for execution. The Treasury Department has requested the State Department's assistance to acquire foreign sites as necessary. The prompt completion of this plan is considered essential to the defense of this country.

A recent annual review of this plan revealed that the implementation progress is unsatisfactory in that foreign sites have not been acquired. It is requested that action be taken to acquire the necessary sites at the earliest possible date.

There is enclosed a list of proposals, in order of desirability, for the manning and operating of LORAN chains in foreign countries.

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Appendix "B" to
Enclosure "A"

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ANNEX TO APPENDIX "B"
OF ENCLOSURE "A"

D R A F T

LIST OF PROPOSALS FOR OPERATING AND MANNING LORAN CHAINS
IN FOREIGN COUNTRIES

1. These proposals are listed in order of desirability:
 - a. U.S. (Coast Guard) to man and operate the chain of LORAN stations.
 - b. U.S. (Coast Guard) to operate the chain of LORAN stations manned by a U.S. civilian contractor.
 - *c. U.S. (Coast Guard) and other countries involved to man and operate jointly the chain with a maximum number of stations manned and operated exclusively by the U.S. (Coast Guard).
 - *d. Man and operate a LORAN chain exclusively be only one of the foreign countries involved.
 - *e. Man and operate a LORAN chain by several different foreign countries, with national management of single stations in the chain.
- *NOTE: After proposals a and b have been fully explored and found unacceptable and prior to the time that the remaining proposals are used, guidance should be sought from the Department of Defense.

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Appendix "B" to
Enclosure "A"

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ENCLOSURE "B"

D R A F T

MEMORANDUM FOR: Chief of Staff, U. S. Army
Chief of Naval Operations
Chief of Staff, U.S. Air Force

Subject: Annual Review of LORAN Installation Plan

1. Enclosed is a copy of the LORAN Installation Plan, 1957, resulting from the annual review.
2. The review indicates the U. S. LORAN Installation Progress during the past year has been unsatisfactory due to site acquisition problems with foreign countries. To overcome these problems expeditions action taken by the State Department is necessary. A letter has been sent out to the State Department requesting action on this problem.
3. NATO progress has not been satisfactory. Pressure will be exerted through the U.S. Representative of the Standing Group to expedite completion of the NATO stations.
4. The plan itself has been changed in the following requests:
 - a. Fix coverage for the area between Adak Island, Aleutian Islands and Midway Island, Hawaiian Islands, has been added with priority No. 5 assigned.
 - b. The number of stations in the Azores and the Western approaches to the Mediterranean Sea area has been changed from 6 stations to a total of 4 stations.
 - c. A list of proposed stations necessary to provide the required LORAN coverage is included in the current plan. Those proposed locations are only temporary, subject to change without reference, when USCG site are surveys are complete.
 - d. The Greenland Sea (Area"Item", priority No.4) has been changed to show that it should be operational following construction.

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5. During the review, a study of the progress in the development and implementation of new long range navigation systems was conducted. It was concluded that no new system has progressed sufficiently in development or implementation to affect the present LORAN installation program.

6. Because of the new stations required, a revised target date for completion of the Plan has been established as the end of calendar year 1961.

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ENCLOSURE "C"

D R A F T

MEMORANDUM FOR: U. S. Representative to the Standing Group, North Atlantic Military Committee

Subject: NATO LORAN Plan, North Atlantic and Mediterranean

References: a. DUSM-171-56 of 28 November 1956
b. DUSM-319-55 of 14 December 1955
c. SGM-261-55 of 2 May 1955

1. The U. S. Representative to the Standing Group forwarded by references a and b, annual summaries on the progress toward implementation of the NATO LORAN Plan, reference c. Continue submission of the annual summary of progress is desired.

2. Reference b listed the LORAN stations planned for construction and operation through NATO Infrastructure Funds. This list did not include funds for the LORAN stations planned for the Mediterranean Sea area nor for those stations planned for NON-NATO Countries as an integral part of the Chains serving NATO.

3. Reference a stated that no additional station were contained in in the 1956 Common Infrastructure Program and that Supreme Commanders had no plans for their inclusion in future programs.

4. It is recognized that NATO policy prevents NATO Common Infrastructure funding for stations in NON-NATO countries. The U. S. plans unilateral action to provide such stations.

5. It is requested that these stations planned for the Mediterranean Sea area be re-programmed for early completion by NATO Common Infrastructure Funding. While it is understood that these stations were deleted from SACEUR's Fourth Slice NATO Infrastructure based on insufficient operational justification, the United States does not concur in this decision in view of the currently approved interim LORAN Plan, North Atlantic and Mediterranean; the policy for the use of LORAN by NATO Naval forces and Maritime Air Forces promulgated

in 1956. It is considered unacceptable to deprive major NATO Naval Forces in time of war the use of the LORAN Navigation System in the Mediterranean Sea area.

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6. Reference a also stated that no progress had been reported on construction of LORAN stations. It is requested that the urgency of the program be emphasized in the Standing Group and that cognizant members exert themselves to expedite the construction effort.

ENCLOSURE "E"

ADDITIONAL FACTS BEARING ON THE PROBLEM

1. Background

a. Implementation of the LORAN Installation Plan, 1951, was unsatisfactory due to the budgetary problems which arose in early FY 1953. These problems have now been resolved.

b. To provide the LORAN coverage required by the Revised LORAN Installation Plan, 1955, exclusive of combined NATO – US requirements, the Coast Guard must construct approximately forty-four LORAN stations.

c. These forty-four stations are schedule to be built over a five-year period with seven stations provided for in FY 1956, six station in FY 1957, ten station in FY 1958, nine stations in FY 1959, and twelve stations in FY 1960.

d. The Treasury Department, through the Coast Guard, made available an annual review* of accomplishment as required by the "Revised LORAN Installation Plan, 1955**".

2. Funding

a. Funds have been provided by Congress for LORAN Construction in the amount of \$20,458,000. Included in the requests are funds to purchase long lead-time electronic equipment for FY 1959 and 1960 as well as installation costs for the ten stations scheduled in FY 1958.

3. Site Acquisition

a. The Coast Guard has conducted site surveys of the following locations:

* J.C.S. 141/79 , 5 December 1956, On File in Joint Secretariat

** J.C.S. 141/70, 19 October 1955, On File in Joint Secretariat

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- (1) San Salvador, Bahama Islands
- (2) Cape Frances Viejo, Dominican Republic
- (3) Cape San Juan, Puerto Rico
- (4) St. Kitts, Leeward Islands, BWI
- (5) Tobago Island, Windward Islands, BWI
- (6) Cape Rojo, Dominican Republic
- (7) Pera Beach, Jamaica (alternate)
- (8) Pera Point, Jamaica (alternate)
- (9) Portland Point Jamaica (alternate)
- (10) Puerto Cabezas, Nicaragua
- (11) Johnson Island, T.H.
- (12) Cape Mala, Panama
- (13) Palmas Island, Columbia
- (14) Esmeralders, Ecuador
- (15) Tiquisate, Gatemala
- (16) Punta Guiones, Costa Rica
- (17) Punta Burica, Costa Rica

b. Surveys were previously conducted at the following pertinent locations:

- (1) Nikalup Aru Island, Ant Atholl, Carolina Islands
- (2) Kapingarmarangi, Carolina Islands
- (3) New Ireland, Bismark Archipelago

c. The Department of State has been requested to make arrangements with foreign governments, where applicable, for the construction, operation and maintenance of LORAN stations by the U. S. Coast Guard. Difficulty was encountered with the British Government concerning agreement in principle to the establishment by the United States of LORAN stations in British possessions in the Caribbean. This includes the West Indies (Priority No. 1) and Panama East (Priority No. 2) LORAN chains. The Department of State refused to approach the Government of Mexico relative to obtaining rights of entry for survey in that country. As a result a

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proposal on this matter was made to the Joint Mexican-United States Defense Commissions. No reply has been received to this proposal.

d. The Department of State has acquired only one of the 10 foreign sites required for the FY 1956 and 1957 programs. An agreement for a site in the Dominican Republic was obtained on 19 March 1957.

e. Three station sites under the jurisdiction of the United States have been acquired. These sites are located as follows:

(1) Cape San Juan, Puerto Rico

(2) Cape Mala, Republic of Panama (site of existing C.G. light and radio beacon station)

(3) Johnston Island, T.H.

f. The Treasury Department (Coast Guard) has made representation to the State Department to acquire the necessary rights of entry for the F 1959 and 1960 programs, exclusive of the three stations planned for Japan.

4. LORAN Stations in Japan

a. The Acting Deputy U.S. Representative to the Standing Group, North Atlantic Military Committee forwarded a second annual summary of progress toward implementation of the Interim LORAN Plan for the North Atlantic and Mediterranean*.

b. Site surveys have been completed for the following NATO (also U.S.) stations.

* J.C.S. 141/70, 7 December 1956, On File in Joint Secretariat

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- (1) Greenland Sea – three sites
- (2) Iceland – one site
- (3) North Sea – three sites
- (4) SW approaches to UK – one site
- (5) Western approaches to Mediterranean Sea – six sites

c. NATO has approved a plan for a four station chain with stations located in the Azores (2), Madeira Is. (1), and Portugal (1) which will be capable of providing comparable LORAN coverage previously planned{sic} utilizing two three station chains in the same general area. This planned change constitutes an over-all reduction of two stations to provide the necessary coverage.

5. Requirements

a. SACEUR, in the SHAPE Radio Navigation Plan of 10 September 1956, stated that there was no SACEUR requirement for LORAN coverage in the Mediterranean Sea.

5. Requirements (*Rewrite*)

a. This plan indicates by types and quantities the radio navigational aids that will be required in Europe by NATO Air Forces during the period January 1957/December 1960. The Joints Chiefs of Staff were informed in 1953* by the North Atlantic Military Committee that the LORAN System of Long Range Navigation Aids has been accepted as the interim system pending the introduction of other long range aids. In 1955**, the North Atlantic Military Committee promulgated the interim LORAN Plan, North Atlantic and Mediterranean. In 1956***, the North Atlantic Military Committee, Standing Group promulgated the policy for the use of LORAN By NATO Naval and Maritime Air Forces. This policy states that all NATO naval ships down to and including ocean escorts, oceangoing submarines and maritime/patrol aircraft should be equipped to use the LORAN SYSTEM. U. S. Forces in the Mediterranean Sea area in support of NATO forces will require the LORAN coverage indicted in the interim LORAN Plan-North Atlantic, and Mediterranean in time of war. SHAPE's Radio Navigation Plan does not invalidate the LORAN coverage planned for the Mediterranean Sea since it does not predicate the requirements of LORAN

coverage for Naval Operations in SACEUR's area of responsibility. Inasmuch as the Infrastructure

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6. Research and Development

a. The U. S. Military Services, commercial enterprises, and foreign governments are developing long distances aids to navigation, including self-contained aids. Some of these developments may ultimately affect the LORAN program and should be considered in any further expansion of the LORAN Plan.

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ENCLOSURE "F"

DISCUSSION

1. The budgetary problems which delayed the implementation of the LORAN Installation Plan, 1951, were resolved by the Department of Defense in 1955 when the Department of Defense agreed to budget for the construction costs for LORAN stations required to implement the Revised LORAN Installation Plan, 1955. Because of this, Congress provided funds for the construction of thirteen LORAN stations, seven in FY 56 and six in FY 57. Funds have been requested for ten stations and long-lead items in FY 1958 budget in the amount of \$20,458,000. For FY 1959 a request for approximately \$19,000,000 is anticipated to provide for construction of nine stations.

2. Even though funds were provided for thirteen stations during FY 56 and FY 57 in accordance with the 1955 plan, no stations have been constructed. ~~Therefore no changes should be made to the existing coverage shown in the plan.~~ *Standard Loran cannot provide this navigational fix coverage.* (Hand written)

3. The Plan should be changed to indicate the requirement for additional LORAN fix coverage between Adak, Aleutian Island and Midway Island, T.H. No other changes are necessary at this time for future coverage requirements of the plan. Standard LORAN cannot provide this fix coverage.

4. The Japanese have indicated that they intend to construct and operate LORAN stations to meet the ICAO requirements. However, because of fund limitations they plan to use surplus U.S. medium power LORAN equipment. High powered LORAN equipment is needed to meet the Navy and Air Force requirements. Since this is the case, it is important that the United States provide the Japanese with the necessary high powered equipment. Japanese establishment, operational and maintenance of a LORAN chain in this area meeting U.S. military requirements will reduce U.S. costs.

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5. The U.S. Coast Guard operates five LORAN stations in Japanese territory. The Army, Navy and Air Force are gradually withdrawing from the Japanese Islands. U. S. LORAN stations in Japan depend upon existing Army, Air Force and Navy installations for logistic support. Many of these installations are being inactivated or turned over for Japanese operation making logistic support difficult. The Treasury Department (Coast Guard) has requested the Department of Defense to reconsider their previous position relating to Japanese operation of LORAN stations located in Japan*. Transfer of the Japanese LORAN stations to Japan will deprive the United States of effective control of LORAN in Okinawa, Iwo Jima, Japan, Korea areas. After training, the Japanese are considered to be capable of operating the stations. If the Japanese are permitted to assume responsibility for these stations, it is highly desirable to relocate the present LORAN station located in Pusan, Korea to a Japanese Island.

6. Delay in implementation of the Revised LORAN Installation Plan, 1955, despite the urgency of the program, has occurred because the Department of State has not concluded acquisition agreements with foreign governments controlling the required sites.

7. A firm notification of the urgency of this program addressed to the Department of State should expedite land acquisition. The Departments of State and Treasury should be advised concerning the alternative proposals which are available to these agencies in their negotiations with foreign governments.

8. Since the primary objective of the Revised LORAN Installation Plan is to have LORAN service available at the outbreak of war, it is important during peacetime to have the LORAN service operational. NATO has approved the Greenland Sea Area, Area "Item" as operational after construction.** Although it is very desirable

* Sec. Treas. Ltr., 31 October 1956 (Not on File in Joint Secretariat)

** SGM-365-56, 23 May 1956, (On File in Joint Secretariat) (JCEC)

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that the Coast Guard construct, operate and maintain all LORAN stations, it is necessary in certain areas to permit foreign government to accomplish these functions, or to contract with civil companies for these services. The Coast Guard should monitor the operation whenever possible. The following proposals, listed in order of desirability, would provide guidance and permit maximum flexibility in negotiations for acquisition of LORAN sites in other than NATO countries:

- a. U. S. Coast Guard to man and operate the chain of LORAN stations.
- b. U. S. (Coast Guard) to operate the chain of LORAN stations manned by a U.S. civilian contractor.
- *c. U.S. (Coast Guard) and other countries involved to man and operate jointly the chain with maximum number of stations manned and operated exclusively by the U. S. Coast Guard.
- *d. Man and operate a LORAN exclusively by only one of the foreign countries involved.
- *e. Man and operate a LORAN chain by several different foreign countries, with national management of single stations in the chain.

*NOTE: After proposals a and b have been fully explored and found unacceptable and prior to the time that the remaining proposals are used, guidance should be sought from the Department of Defense. It should be realized that the U. S. Coast Guard can not be held responsible for the operation and maintenance of these stations or chains established in foreign countries under proposals c, d, and e, above. In these cases, however, the Coast Guard should be authorized, under law, to sell, loan or give equipment and should lend such technical assistance as indicated to expeditiously provide the required service.

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9. The U. S. has a requirement for LORAN stations in Spain, Tunisia, and Libya. NATO cannot, under its present policies, have a requirement for LORAN facilities in NON-NATO countries. These stations previously planned for Spain, Tunisia and Libya should be retained in the plan but should not be shown as NATO responsibilities, thus they become U.S. responsibilities. The Coast Guard should be advised that the stations in these countries should be constructed concurrently with NATO chains of which they will be part. The plan should be corrected accordingly.

10. The Acting Deputy U.S. Representative to the Standing Group, Military Committee, North Atlantic Treaty Organization* stated that no additional stations were contained in the 1956 NATO Common Infrastructure program, and that the Supreme Commanders had no plans at present for their inclusion in future programs. The supreme Allied Commander Europe stated in his Navigation Plan** that there is no longer a requirement for LORAN coverage in the SACEUR area. A U. S. unilateral requirement for LORAN coverage in this area still exists. Since the U.S. requirement stems largely from operations planned to support NATO, the requirement should still be considered a valid NATO requirement. This requirement has not been eliminated from the NATO LORAN Plan***. The LORAN Chain planned for the Mediterranean Sea will apparently not be implemented by NATO unless so urged by the U.S. Representative to the Standing Group. The U.S. Representative to the Standing Group should urge reconsideration and funding of the Mediterranean Chain as a NATO responsibility except for the stations in southeastern Spain, Tunisia, and Libya, which should not be included as NATO requirements. These NON-NATO stations should be shown as unilateral U.S. requirement to be implemented by the U.S. Coast Guard in conjunction with NATO progress on the other station in the Chain.

* J.C.S. 141/80, dtd. 7 Dec. 1956, On File in Joint Secretariat.

** SACEUR Nav Plan, 10 September 1956, On File “ “ (JCEC)

*** SGM-261-55, 2 May 1955, On File Joint Secretariat (JCEC)

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11. The Navy has an urgent requirement for improved LORAN service between Adak and Midway Islands in the Pacific to support barrier patrol operations.

12. The U. S. Coast Guard will be unable to meet the scheduled completion date at the end of FY 1960 because of the factors discussed in paragraphs 5 through 11, above. A new target date for completion of the program should be established as the end of calendar year 1961. This is not realistic goal unless site acquisition difficulties are resolved immediately.

13. Progress in the development and implementation of new long range navigation systems have been studied. It is concluded that none of these systems is sufficiently advanced to require an alternation of the current LORAN Plan.

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ENCLOSURE "G"

Briefing Sheet for the Chairman, Joint Chiefs of Staff, Joint Chiefs of Staff
Meeting at _____ Agenda Item No. _____
J.C.S. _____

Subject: Annual Review of the LORAN
Installation Plan (U)

Background – Subject plan requires an annual review to bring the plan up-to-date, to appraise service requirements, and to evaluate installation progress (including NATO progress) and new developments.

Current Paper – The current paper constitutes the require annual review, incorporates and consolidates changes to the plan, extends the target date for completion of the plan, and recommends action to expedite implementation. In addition, it provides a means which insures that the contemplated Japanese LORAN Chain in Northeast Japan will be provided with modern high powered LORAN equipment.

Service Comments – None anticipated

Comments and Recommendations – I recommend you approve the paper.

Opinion as to Recommendations:

Director, Joint Staff(Concurs) (Non-Concurs)

Briefing Sheet Prepared By: Rear Admiral J. N. Wenger, USN
Extension 71998
Chairman, Joint Communication-
Electronics Committee

