



From : Chief, Office of Operations

Subject : AUTO Loran Chain; Proposed plans for¹

1. The AUTO Loran Chain as originally conceived, was to provide Loran coverage for the eastern Caribbean Sea and the waters to the east and north of the Greater and Lesser Antilles. In order to provide this coverage, a loran chain consisting of five (5) station was planned. This chain would be from the South Point, Long Island to Cape Viejo Frances, Dominican Republic, to an island in the Virgin group (several were suggested, St. Thomas (US), Savanna Island (US), Virgin Gorda (GrBr) and Anegada (GrBr)) thence south to the western point of Dominica Island and terminating in Trinidad. This plan would give excellent coverage to the north of Cuba and Puerto Rico; fair coverage south of Puerto Rico; good coverage in the immediate vicinity of the Leeward and Windward Islands, but rather poor coverage to the east of those islands.

2. In the fall of 1954, the Navy requested temporary loran coverage to the northeast of the Bahamas Islands. This requirement was fulfilled by constructing a loran chain from San Salvador, B.I., to Grand Turk, Turk Islands, to Ramey AFB, P.R. (the N.W. cape of P.R.). These stations were established at or near existing U. S. military establishments with an air strip nearby.

3. On the site survey trip for the establishment of this temporary loran chain (WALDO) the U.S. Virgin Island were observed. The islands of St. Thomas and Savanna were eliminated due to poor terrain and difficult construction. When this was brought to the attention of responsible persons in Headquarters, other sites were mentioned. In particular, Cape San Juan, P.R. (northeast cape of P.R.) was added as a possible site. This site received a preliminary survey in April and was established as a definite possibility. However, establishment of a station here would screen the signal to the south, giving reduce coverage in that area. In order to give coverage in that area, it appeared the two, three station chains, would give the optimum coverage. Such an arrangement would also appear to have great advantages over using a station on a isolated island which would allow a five station chain. The proposed two, three station chains would run from San Salvador to Grand Turk or Cape Viejo Frances, to Cape San Juan, and from Cape Tuna or Rojo to an island of the Antigua Group to Tobago. With the two central stations on Puerto Rico, the initial construction costs would be reduced because of the non-isolated nature of the area, stations could be located on or near existing Coast Guard property, and commercial power could be used. Operating costs would be less and morale would be a less of a problem. At Cape San Juan, for instance, a light station exists with two excellent family quarters which could be utilized. If the stations are located on Puerto Rico, it would be possible to plan them as semi-automatic stations to be operated by a complement of four (4) persons.

¹ This document transcribed from original located in NARA Washington, DC

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4. A conference call between OAN, EEE, ECV, and CDR J. P. Martin, senior member of the site survey party, was held to discuss his Speedletter of 11 July 1955. After studying his recommendation, it was concluded that primary consideration should be given to these sites: San Salvador, Grand Turk, Cape Viejo Frances, Cape San Juan, the best information on the southern coast of Puerto Rico, the best island in the Antigua Group, and Tobago. Cape Viejo Frances is included as an alternate to Grand Turk. In view of the small size of Grand Turk and the numerous electronic installations, there is a definite possibility that loran will not be tolerated on the island when the Navy requirement ceases. Site surveys for a suitable location on the southern coast of Puerto Rico are desired in case a six station chain is considered a necessity, and to provide for contemplated future western expansion in the Caribbean.

5. In view of the above, it is recommended that only a five station chain be established from San Salvador, B.I., to Grand Turk, T.I., or Cape Viejo Frances, D.R., to Cape San Juan to an island in the Antigua Group to Tobago. However if, after the surveys are completed, it appears that six stations can be constructed within the funds provided, it is recommended that this plan be followed to provide the optimum coverage discussed previously herein.

6. Approval of these plans and the sites recommended for survey at this time is requested.