

LORAN SITE SURVEY REPORT

AUTO 3 - CAPE SAN JUAN, PUERTO RICO

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PART I - GENERAL INFORMATION

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A. Preliminary Discussion.

1. Cape San Juan (AUTO 3) was selected and surveyed as a possible site for location of a permanent LORSTA. By locating the station at Cape San Juan the functions of the LORSTA and Light Station can be combined. The Power and Loran building and antennas can be located on the ridge bearing about 345°T from the light. Quarters for the commanding officer and a garage should be provided in the vicinity of the Light Station. The present Light Station dwelling can readily be converted for use as quarters for the crew. The roof of the Light Station dwelling should be replaced. Logistic support for the Light is provided from San Juan. Electric power is available at the station and can be utilized for operation of the LORSTA. Fresh water can be provided by catchment from the roofs into cisterns having sufficient capacity to provide water during dry spells.

B. Land for site.

1. Ownership and control.

a. Mr. Rafael A. Veve, Administrator of Fajardo Sugar Corp., Fajardo, Puerto Rico. Discussion with the mayor of Fajardo revealed that the Fomento Company, a development agency of the Government of Puerto Rico, is buying land to the south of the Light Station for development of a Summer resort.

2. Jurisdiction.

a. U. S. Agency. Department of Interior, Insular Government of Puerto Rico, San Juan, Puerto Rico.

b. Foreign Government. None

c. Privately owned. Mr. Rafael A. Veve.

d. Availability of site. The Mayor of Fajardo indicates that the site can be made available.

3. Description of site.

a. Geographic limits (general location). The base of Cape San Juan Light is 218 feet above sea level. Land falls away in a northerly direction into 3 peninsulas. The middle peninsula bearing about 345°T from the Light has a high ridge of about 120 feet where the antennas can be located. The power and Loran building can be located in a saddle at an elevation of about 80 feet, located between the Light and the antennas. The power building would be about 1300 feet northwest of the light. See Civil Engineering Report and drawings.

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- b. Type of terrain. Volcanic rock with fair covering of soil.
- c. Accessibility. Paved roads to within 2 miles of the site.
- d. Other details of interest concerning description. None.

C. Local Officials.

- 1. Involved with construction. Commander Greater Antilles Section.
- 2. Persons that should be contacted in the area.
 - a. Mr. Rafael A. Veve, Administrator Fajardo Sugar Company, Fajardo, Puerto Rico.
 - b. Mr. Diego Jimenez, Mayor of Fajardo, Puerto Rico.
 - c. CAPT Henry Mullins, Jr., USN, Commanding Officer, Roosevelt Roads, P. R.
- 3. Local population.
 - a. General discussion of local inhabitants. Mulatto, primarily mixture of Spanish, Negro and Indian.
 - b. Possible conflicts, ameliorating conditions, local officials. None foreseen. Contact local police in neighboring towns.
 - c. Special restrictions set up by local governments. None.

D. Security.

- 1. Protection.
 - a. Nearest military installation U. S. Naval Station, Roosevelt Roads, P. R., about 20 miles south of Cape San Juan. No need for special security precautions foreseen at this time.
 - b. Fencing. None required.
 - c. Station complement adequate for security. Yes.
 - d. Small arms allowance. Two .30 cal. carbines, two .45 cal. pistols.

E. Personnel.

- 1. Transportation.
 - a. United States to general locality. Via commercial or service aircraft or vessel to San Juan.
 - b. General locality to site. By bus or railroad to Fajardo. By station vehicle from Fajardo to the station.

One 2 1/2 ton truck, one power wagon or weapons carrier and one jeep.

Spares available. Spare parts available in San Juan and some parts may be available locally but a supply of emergent spares should be provided for the unit.

b. Operation period.

Type and number. One power wagon or weapons carrier and one jeep.

Spares required. Spare parts available in San Juan and some parts may be available locally but a supply of emergent spares should be provided for the unit.

7. Environment.

a. Settlements nearby.

Fajardo - 15,000 people - 5 miles.

San Juan - 225,000 people - 45 miles.

b. Population types. Mollato, primarily mixture of Spanish, Negro and Indian.

c. Language. Mostly Spanish, some English.

8. Local restrictions. None

9. Recreation.

a. On station. Recommend movies, pool table, ping-pong table, hobby crafts be provided.

b. Off station. Limited swimming and fishing. Nearest swimming beach is about 3 miles to the south of the station.

c. Limitations. None.

d. Precautions required. None.

e. Uniform. Whites.

10. Health conditions.

a. Endemic diseases. None. Health conditions generally good throughout the island. High venereal rate.

b. Precautions. While the Government of Puerto Rico is attempting to prescribe sanitation standards, general sanitation in the rural areas and small towns is still poor.

11. Local Fauna and Flora.

- a. General. The site is over-grown with low shrubs and cactus.
- b. Special problems for station personnel. None.

12. Morale. If Puerto Rican personnel can be assigned to the station morale should be excellent. Personnel from the states may be dissatisfied particularly if separated from their families. Morale and recreation conditions better than San Salvador or Grand Turk.

13. Berthing and messing. The Light Station dwelling is considered adequate for station personnel after replacement of roof and minor modification of internal arrangement.

F. Logistics.

1. Transportation (supplies).

- a. United States to general locality. Via aircraft or vessel to San Juan.
- b. General locality to site. Via bus or railroad to Fajardo and by service vehicle from Fajardo to LORSTA.
- c. Emergency. Via service vehicle from San Juan, or by plane to Roosevelt Roads and vehicle to station.

2. Communications.

See electronics Report for detailed discussion.

- a. Radio - Provide TDE or similar for integration into existing network.
- b. Telegraph, teletype or cable - available from town of Fajardo.
- c. Telephone - Line extends to within about 5 miles of the station. Considered not practicable at this time.
- d. Messenger - By vehicle to nearest town.
- e. Crypto - Recommend minimum allowance be provided at station, not practicable to depend on Roosevelt Roads, 20 miles away.
- f. Emergency - None except as listed above.

3. Food.

- a. Locally available. All food available at Roosevelt Roads. Food (except meat) available in numerous stores in the neighboring towns.

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b. Special restrictions (unsat. cond., poor quality). Meat is generally of poor quality and in view of inadequate refrigeration should not be purchased on the local market. Meat may be procured from Roosevelt Roads.

4. Labor.

a. Civilian labor. Plentiful and fairly efficient.

b. Military labor. None except for M & R Detachment, Base, San Juan.

c. Repair facilities:

(1) Base, San Juan, P. R.

(2) M & R Detachment, Base, San Juan, P. R.

(3) Various machine and auto repair shops in the neighboring towns.

G. Meteorological.

1. Climate.

a. General. Semi-tropical, mild because of easterly breeze, occasional dry periods which will necessitate large storage area to provide sufficient water during dry periods.

b. Wind. Easterly 10 to 20 knots during day and light off shore breeze at night.

c. Temperature. January average - 75°F.; July average - 80°F.; maximum 94°F.; minimum 62°F.

d. Precipitation. Annual reported in San Juan, P. R., is 65 inches with maximum of about 7 inches and minimum 2.5 inches. The rainfall of Cape San Juan will be slightly less than this amount.

e. Visibility. Excellent.

f. Sky coverage. 10-50%, mostly cumulus.

2. Forecasts. Available from San Juan, Puerto Rico and Miami, Florida. Should be provided over Coast Guard radio.

3. Special considerations.

a. Local land conditions. Volcanic rock covered with soil.

b. Harbor facilities affected by the weather. Not significant.

c. Severe conditions. Puerto Rico is in the hurricane area.

d. Unusual conditions prevailing. No comment.

H. Oceanography.

1. Tide. 1 - 3 feet.
2. Current. Not significant.
3. Seasonal changes. Not significant.
4. Shore conditions. From the lighthouse the Cape slopes northwestward for about 3000 feet terminating in bluffs about 100 feet high. The northern side of the Cape is steep too, but eastward of the lighthouse a 5 fathom curve is about one quarter mile from shore.
5. Offshore conditions. Cordillera reefs form a chain of islettes and reefs extending 13 miles in an east-southeasterly direction from about 1 mile northward of Cape San Juan.
6. Local harbors. Roosevelt Roads, and San Juan, Puerto Rico.

I. Hydrography.

1. General information from charts, sailing directions other sources. No comment.
2. Anchorages.
 - a. Fajardo which provides 15 to 24 feet of water and 8 feet at the pier.
3. Approaches. No comment.
4. Charts available.
 - a. CS-0904
 - b. CS-0917
 - c. CS-0921
5. Boat landings. At Fajardo and small sandy beach immediately to the south of the lighthouse.
6. Photographs. See Civil Engineering Report.

J. General comments and recommendations. Cape San Juan designated as AUTO 3, offers suitable possibilities as a permanent site. The Loran power building can be located on the peninsula immediately to the northwest of the light which slopes down, forming bluffs about 120 feet high. The antennas would be located toward the point beyond the Loran power building. The existing family quarters can be readily converted to quarters for LORSTA personnel providing a new roof is installed. Logistic support of the site, should be from San Juan, while food may be obtained from Roosevelt Roads or may be

purchased locally. Electrical power is available at the site. It is recommended that the functions of the LORSTA and the Light Station be combined and that the present quarters be utilized for LORSTA personnel.

Recommended Personnel Requirements.

	<u>First Year</u>	<u>After First Year</u>
LTJG	1	1
ETC	1	1
EP1	1	1
ET2	1	-
ET3	3	3
EN1	1 (Power available,	1 (Power available,
EN3	- emergency generator	- emergency generator
FN	- only).	- only).
DC2	1	1
CS1	1	1
SN	*6	*3 (Loran Watch, Mess
RME	- (Voice Radio)	- (Voice Radio)
HQ1	- (Local Doctors)	- (Local Doctors)
Total	1	1
Officers	15	11
Enlisted		

* Native galley helper may be authorized in lieu of 1 SN.

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