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COMMUNICATION FACILITIES IN THE DARWIN AREA

112 (51)

BACKGROUND

1. The Naval Communication Station at Darwin presently comprises the Receiving Station and Communication Centre at Coonawarra West and the Transmitting Station at Coonawarra East. All the administrative and domestic accommodation is concentrated at Coonawarra West. The Station was built in 1939 to supplement and extend the communication services provided by the Naval Communication Station in Canberra.
2. The functions of the Station are to provide:
 - a. Fleet Broadcasts capable of CW, RATT and Multi-channel;
 - b. Ship/shore;
 - c. Fixed services to Canberra and mobile terminations;
 - d. Coastal harbour and Patrol Boat communications;
 - e. Provision for Contingency, Coast Watching and Special Purpose communications;
 - f. Defence Signals Division facilities which account for about of the commitment in the Receiving Station.
3. The Station is being progressively degraded by the civil development of Darwin and it is not possible to improve significantly the existing arrangements.
4. At Coonawarra West reception is seriously affected by overhead HV transmission lines, encroachment of industry and housing and increasing vehicular and aircraft activity in the vicinity. The Communication Centre does not fully comply with criteria covering the protection of circuits used for classified information.
5. At Coonawarra East the existing transmitter building has been condemned as being a fire risk and it is uneconomical to maintain. There is insufficient space for the installation of additional transmitters required to meet the operational requirement. In any case the operation of higher powered transmitters could cause unacceptable interference to reception. Because of the nearness of Darwin Airport there are limitations on mast heights.

SELECTION OF A NEW STATION

6. The investigation of new communication facilities in Darwin recognised that the new Receiving Station should be within reasonable commuting distance of Coonawarra West and that the Communication Centre could remain there. The Transmitting Station had to be within microwave distance from both the Receiving Station and Comcentre and if possible be located 15 miles from the nearest Receiving Station.

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7. A number of Transmitter and Receiver Station sites were investigated and rejected for various reasons.

8. Shoal Bay Peninsula provides a site free from electrical noise and the possibility of harmful radio interference is minimal. The site is adjacent to a disused salt pan which provides a unique aerial site for the reception of low angle arrival radio signals. It is 11 miles by road from Coonawarra West. It is proposed to acquire sufficient land to provide a 3 mile radius electrical-interference-free buffer zone around the aerial system.

9. Because of the possibility that Shoal Bay could be required for civil development, the Minister for the Interior requested whether an alternative satisfactory site could be found. The only possible alternative site was across Shoal Bay on the Gun Point Peninsula. A comparison of the cost of developing each site taking into consideration longer lines of communication including commuting time by large numbers of personnel indicated that even if the Shoal Bay site were amortised after 20 years it would still be a better proposition. With this proviso the Minister for the Interior agreed to Shoal Bay.

10. The proposed new Transmitter Station site at Humpty Doo is on Crown land about 29 miles east of the present station at Coonawarra East. The site is on flat ground, lightly timbered and is adjacent to an all-weather road and the Darwin electrical power supply. Because of the small numbers of personnel involved it can be supported from Coonawarra West.

COST

11. The total estimated cost of the whole project is \$M7.133 comprising:

\$3,333	Transmitting Station
\$3,800	Receiving Station (including \$M0.200 for Comcentre)

PRESENT SITUATION

12. a. Receiving Station
1. Layout of buildings is being finalised and a final study is being made of aerial requirements.
 2. Survey of access road and site investigation is being completed.
 3. The Department of Interior has been requested to proceed with the Acquisition of Land.
- b. Transmitting Station
1. The project was considered by the Steering Committee on 3rd June.

ESTIMATED COMPLETION DATE

13. December, 1973.

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