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1626/201/111

NAVAL BOARD PROJECT DIRECTIVE NO 38
NAVAL COMMUNICATION STATION DARWIN
NEW RECEIVING FACILITIES

- References:
- A. Naval Staff Requirement No 1/65
 - B. Project Planning Paper No 1/65 (Third Version)
 - C.
 - 1. Navy Office File Nos 1431/201/43 (Part 1) and 1431/201/59 (Part 2) - 'Naval Communications Station, Darwin, Shoal Bay Site, Investigations for a Radio Station'
 - 2. Navy Office File Nos 1626/201/45 (Part 1) and 1626/201/111 (Part 2) - 'Naval Communication Station, Darwin, Draft Staff Requirement NSR 1/65'
 - 3. Navy Office File No 400/1/753 - '1970/71 Major Equipment Proposals; Naval Communication Station, Darwin, New Receiving Facilities'

- Appendices:
- A. Implementation Schedule
 - B. Spread of Authorisation and Expenditure

INFORMATION

1. The radio receiving capability of the present combined Receiving Station and Communication Centre at Coonawarra West has been progressively degraded by nearby industrial development of Darwin, increased vehicular and air traffic in the vicinity and the proximity of overhead power transmission lines. The receiving capability will be reduced to a completely unacceptable level by further forecast development of Darwin industry towards the station.

2. A new location which will provide a receiving site free from electrical noise and where the possibility of harmful radio interference is minimal, has been found on the Shoal Bay Peninsula, about eleven miles by road from Coonawarra West.

INTENTION

3. To provide a new Receiving Station at a site on the Shoal Bay Peninsula to house all the equipment necessary to perform the receiving function of Naval Communication Station, Darwin, to meet the requirements of the Defence Signals Organisation, and to modernise the technical arrangements in the Communication Centre at

/ Coonawarra West

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Coonawarra West to bring it into line with current practice.

EXECUTION

Responsibilities

4. The authorities named in Appendix A are responsible for completion of the activities allocated to them by the scheduled dates.

Personnel

5. Based on the current approved HMAS MELVILLE Scheme of Peace Complement, it has been assessed that the following additional personnel, directly attributable to the project, will be required:

- a. 1 LCDR WE or LEUT WE
- b. 1 CEC
- c. 1 LEMC
- d. 5 EMCs
- e. 1 PO
- f. 5 LSs
- g. 3 WRMTDs
- h. 2 WRCKs
- i. 2 WRSTDs
- j. 1 Civil Senior Technical Officer Grade 1
- k. 3 Civil Technical Officers Grade 2
- l. 1 Civil Tractor Driver
- m. 3 Civil Gardners/Labourers

6. Complement changes will be required as follows:

- | | | |
|-------------------|-----|--|
| a. December, 1971 | add | 1 PO
4 LSs |
| b. January, 1972 | add | 1 LS |
| c. May, 1972 | add | 1 LCDR WE or LEUT WE
1 Civil Technical
Officer Grade 2 |

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d. June, 1972	add	1 Civil Tractor Driver 3 Civil Labourers
e. November, 1972	add	1 CEC 1 LEMC 5 EMCs 1 Civil Senior Technical Officer Grade 1 2 Civil Technical Officers Grade 2
f. December, 1972	add	3 WRMTDs 2 WRCKs 2 WRSTDs

Note: As Technical Officers of the type required would probably only be obtained from ex-RAN sailors, it is by no means certain that they could be recruited for Darwin and the commitment may have to be met by the RAN. For the purpose of domestic accommodation, four civil salaried staff have been regarded as being of CPO status. The wages staff will probably be indigenous persons and allowance has been made for thier accommodation.

Training

7. Operating teams will be transferred directly from Coonawarra West to the new Receiving Station and there will be no initial training requirement.
8. No overseas training will be required and apart from initial training at CERBERUS, HARMAN and DSD no specialised training programme will be required.
9. No additional training equipment or training aids are required. Handbooks will be supplied with, and included in the cost of new equipments required.

Equipment and Installation

10. Much of the existing equipment at, or on order for, the Receiving Station at Coonawarra West will be transferred to the new Receiving Station at Shoal Bay; the rest will remain at the Comcentre at Coonawarra West. Additional equipment required will be:

- a. remote controlled receivers, complete with remote control equipment, for ship/shore (both CW and RATT), mobile fixed services and local communications;

/ b. aerals

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- b. aerals and aerial distribution systems;
- c. remote aerial control equipment;
- d. radio bearer system between Shoal Bay and Coonawarra West;
- e. power systems for special supplies required.

11. The specification for supply and installation of all equipment and aerals at Shoal Bay and Coonawarra West is to be prepared by the Project Director in conjunction with DWED and DSD.

Maintenance

12. The Receiving Station and Comcentre are to be included in the Planned Maintenance System and schedules will be prepared by Navy Office as early as possible after sufficient experience of the operation and maintenance of the equipment and systems have been gained.

13. Fixed plant, including emergency generators and air conditioning machinery, will be maintained by the Department of Works in the normal manner.

Works Requirements

14. A site on the Shoal Bay Peninsula which meets the Staff Requirement for the Receiving Station has been selected. This involves:

- a. Crown Land Sections 117, 120, 406, 414, 415, 416, 417, 418;
- b. Freehold Sections 116, 121, 407, 408, 409 and Portions 1375(21), 1376(22), 1377(23) and Part Pastoral Lease 547, 2300 acres, Koolpinyah.

15. The Department of Interior has commenced negotiations for the acquisition of this land.

16. The Main Building at the Receiving Station is to be constructed using the proposed layout shown in Drawing DWE 80071 as a basis. The Station as a whole is to include:

- a. A Main Building and associated buildings;
- b. bases and guy anchors for aerial towers;
- c. water reticulation;
- d. electrical reticulation;
- e. access

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- e. access roads;
- f. security lighting;
- g. hardstanding for vehicular parking;
- h. security fencing and boundary fencing;
- i. incinerator;
- j. site works and erosion prevention;
- k. internal communication system;
- l. Fire Protection
- m. emergency diesel generator;
- n. no-break power generator plant;

17. The Security Fence is to be erected after site clearance and excavation and is to be completed before commencement of other works items within the secure area. This fence is to be at least 200 feet from all buildings in the secure area.

18. The existing building at Coonawarra West is to be modified using the proposed layout shown in Drawing DWE 80074 as a basis. The work involved will include:

- a. re-organisation of the internal walls;
- b. installation of two screened rooms;
- c. some re-wiring of the building to accommodate new and re-arranged equipment.

19. The Project Director will provide detailed briefs to the Department of Works to enable them to prepare design drawings and go to tender for the buildings and associated services.

20. Completion dates for construction are shown in Appendix A.

21. The following accommodation is required in Coonawarra West:

Male Accommodation for:

- 1 Officer
- 6 CPO/PO (includes 4 civil salaried staff)
- 11 Junior sailors
- 4 Civil wages staff

Note: Female accommodation for 7 junior WRANS is already available.
/ 22. Using

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22. Using Living In/Living Out percentages provided in HMAS MELVILLE's Statement of Requirements, the following accommodation is required:

a. Houses for:

1 Officer,

5 CPO/PO (including 4 civil salaried staff),

4 Junior sailors.

b. Barracks accommodation for:

1 CPO/PO,

7 Junior sailors,

4 Civil wages staff.

23. The accommodation will be required by the following dates:

December 1971:	3 Houses
	3 Barracks accommodation
May 1972 :	2 Houses
June 1972 :	4 Barracks accommodation
November 1972:	5 Houses
	5 Barracks accommodation

Financial Aspects

24. The Spread of Authorisation and Expenditure is at Appendix A.

25. The following is a summary of costs estimated for items involved in this project:

a. <u>Capital</u>	<u>\$M</u>
Prime Equipment	.785
Initial Spares Provisioning	.075
General Contingency	.086
Plant Machinery	.040
Capital Works	2.421
Land Acquisition	.126
Housing Requirements	.270
 TOTAL CAPITAL	 <u>\$M 3.803</u>

/ b. Operation

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b. Operation and Maintenance (for five years)

	<u>\$M</u>
Manpower	.232
Expendable Supplies	.023
Other Operating Expenses	.011
 TOTAL OPERATION AND MAINTENANCE	 \$M .266

c. Ultimate Additional Annual Recurring Maintenance

Manpower	.099
Expendable Supplies	.034
Other Operating Expenses	.067
 TOTAL ADDITIONAL ANNUAL RECURRING MAINTENANCE	 \$M .200

26. Nothing in this Directive should be construed as an authority for expenditure. The actions required are to be processed through the normal channels.

Security

27. Security arrangements are to be in accordance with ACB 0337, Chapter 11, Articles 1103 - 1113. Alterations and extensions are to be in accordance with ACB 0337, Chapter 9. Contracts for works and installation are to be appropriately classified and security arrangements are to be made in accordance with ACB 0337, Chapter 17. A temporary security office is to be placed on the site and inside the secure area until the new station is fully operational. The Shoal Bay area required by the RAN is to be gazetted by the Department of the Interior as a Prohibited Area under the Defence Act and the Crimes Act.

Related Projects

28. Project Planning Paper 44/67 - 'Naval Communication Station Darwin - New Transmitting Station', is a related but independent project.

29. Project Planning Paper 14/68 - 'Multichannel Fleet Broadcast from Darwin', is a related but independent project.

Project Management

30. The Director of Communications is the Project Director and all concerned with the implementation of this project are to inform him, DPCO and the Board Member concerned, as soon as any difficulties, delays or additional requirements which might affect the timely and economical completion of the project, become apparent.

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APPENDIX A Page 1

NAVAL BOARD PROJECT DIRECTIVE NO 38
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NEW RECEIVING FACILITIES

IMPLEMENTATION SCHEDULES

ITEM NO	ITEM	DIRECTORS RESPONSIBLE		DATE
		CO-ORDINATING	OTHERS	
1	Building layouts, furniture and fittings finalised	DNW	D of C DWED DNI	Mar 70
2	<u>Equipment and installation specification completed</u>	DWED		Apr 70
3	Procurement action initiated	DNS		May 70
4	One 4-wheel drive vehicle ordered	DMS		Jul 70
5	<u>Tender Schedule for equipment issued by Department of Supply</u>	DNS		<u>Jul 70</u>
6	Comworks documentation of Shoal Bay completed	DNW		Aug 70
7	<u>Tenders for equipment close with Department of Supply</u>	DNS		<u>Sep 70</u>
8	Tenders called for construction	DNW		Oct 70
9	<u>Evaluation of equipment tenders completed</u>	D of C	DNS	Nov 70
10	CAPO issued	DNS	DWED	Jan 71
11	Tenders for construction close	DNW		Jan 71
12	One 4-wheel drive vehicle	DMS		Jan 71
13	Construction contract let; work commence	DNW		Mar 71
14	One tractor and accessories ordered	DMS		Mar 71
15	One mini-van (modified for fire fighting) ordered	DMS		Mar 71
16	<u>Tenders called for installation of technical equipment, including re-installation of equipment from Coonawarra West</u>	DNS	DWED	<u>Mar 71</u>
17	Tenders for technical installation close	DNS	DWED	Jun 71

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ITEM NO	ITEM	DIRECTORS RESPONSIBLE		DATE
		CO-ORDINATING	OTHERS	
18	Shoal Bay security fence completed	DNW		Jun 71
19	Amendment to complement issued	DGM	DAPO	Jun 71
20	1 PO, 5LS posted	DGM		Jun 71
21	Technical installation contract let. Security checks initiated	DNS	DWED DNI	Sep 71
22	Two 41 seater buses ordered	DMS		Oct 71
23	One mini-van delivered in Darwin	DMS		Nov 71
24	One LCDR or LEUT WE posted for Shoal Bay	DAPO		Nov 71
25	1 PO, 4 LS commence security duties at Shoal Bay	DGM		Dec 71
26	One tractor and accessories delivered in Darwin	DMS	-	Dec 71
27	Position for one Technical Officer Grade 2 advertised	AS(CE)	O&M	Dec 71
28	One LS commences tractor driving duties at Shoal Bay	DGM		Jan 72
29	Shoal Bay Peninsula gazetted as a Defence Area	D of C		Jan 72
30	Four wages staff recruited in Darwin as gardeners or gardeners/labourers for Shoal Bay	AS(CE)	O&M	Mar 72
31	Construction of Operations Building completed	DNW		Apr 72
32	Technical Officer Grade 2 commences duties at Shoal Bay. Living accommodation to be available at Coonawarra	AS(CE)		May 72
				/ 33 One LCDR

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ITEM NO	ITEM	DIRECTORS RESPONSIBLE		DATE
		CO-ORDINATING	OTHERS	
33	One LCDR or LEUT WE joins	DAPD		May 72
34	Positions for two Technical Officers Grade 2 and one Senior Technical Officer Grade 1 advertised	AS(CE)	O&M	May 72
35	Technical equipment available in Darwin	DNS		Jun 72
36	Work commenced on technical installation	DWED	D of C	Jun 72
37	Four wages staff commence work at Shoal Bay	AS(CE)		Jun 72
38	Additional furniture ordered	D of V		Jun 72
39	1 CEC, 1 LEMC, 5 EMC posted	DGM		Jul 72
40	3 WRMTD, 3 WRCK, 2 WRSTD posted	DGM		Sep 72
41	Two 41 seater buses delivered in Darwin	DMS		Oct 72
42	1 CEC, 1 LEMC, 5 EMCs join	DGM		Nov 72
43	1 Senior Technical Officer Grade 1 and 2 Technical Officers Grade 2 commence duties. Living accommodation to be available at Coonawarra	AS(CE)		Nov 72
44	All construction work completed	DNW		Nov 72
45	Technical installation completed	DWED	D of C	Nov 72
46	Additional furniture supplied to Shoal Bay	D of V		Dec 72
47	Buildings, works, furniture and fittings accepted by Navy	DNW		Dec 72
48	Security Inspection (physical and electronic) completed	DNI	DWED	Dec 72
49	Operational acceptance tests on Shoal Bay completed	DWED	Capt Trials	Dec 72
				/ 50 3 WRMTD

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ITEM NO	ITEM	DIRECTORS RESPONSIBLE		DATE
		CO-ORDINATING	OTHERS	
50	3 WRMTD, 3 WRCK and 2 WRSTD join	DGM		Dec 72
51	Shoal Bay Operational	D of C	DWED	Jan 73
52	Commence temporary transfer of naval communication facilities to No 2 RB	DWED	D of C	Jan 73
53	Complete temporary transfer of naval communication facilities to No 2 RB	DWED	D of C	Feb 73
54	Commence modifications to Comcentre	DNW		Feb 73
55	Complete modifications to Comcentre	DNW		May 73
56	Commence installation of equipment in Comcentre	DWED	D of C	Jun 73
57	Complete installation of equipment in Comcentre	DWED	D of C	Jun 73
58	Security Inspection of Comcentre (physical and electronic) completed	DNI	DWED	Aug 73
59	Operational acceptance tests completed	DWED	Capt Trials	Aug 73
60	Comcentre operational	D of C	DWED	Sep 73

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NAVAL BOARD PROJECT DIRECTIVE NO 38
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NEW RECEIVING FACILITIES
SPREAD OF AUTHORISATION AND EXPENDITURE

CATEGORY OF EXPENDITURE	TOTAL PROJECT COSTS (EXCLUDING RECURRING MAINTENANCE)	AUTHORISATION						EXPENDITURE						1974 AND RECU RING \$M
		1969/70	1970/71	1971/72	1972/73	1973/74	1974/75 AND RECURRING	1969/70	1970/71	1971/72	1972/73	1973/74		
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M		
I. CAPITAL														
a. Prime Equipment	.785	.785								.510	.232	.043		
b. Stores Provisioning	.075	.075									.040	.035		
c. Plant and Machinery	.040	.003	.005	.032					.003	.037				
d. General Contingency	.086		.086								.043	.043		
e. Capital Work\$	2.421	.196	2.225							.750	1.640	.031		
f. Land Acquisition	.126	.013	.113					.013	.113					
g. Housing Requirements	.270		.270							.145	.125			
TOTAL CAPITAL	3.803	1.072	2.699	.032				.013	.116	1.442	2.080	.152		
II. MAINTENANCE														
a. Man power	.232		.007	.041	.085	.099	.099		.007	.041	.085	.099	.095	
b. Expendable Supplies	.023		.001	.005	.008	.009	.034		.001	.005	.008	.009	.034	
c. Other Operating Expenses	.011			.007	.002	.002	.067			.007	.002	.002	.067	
TOTAL MAINTENANCE	.266		.008	.053	.095	.110	.200	.013	.008	.053	.095	.110	.200	
TOTAL PROJECT	4.069	1.072	2.707	.085	.095	.110	.200	.013	.124	1.495	2.175	.262	.200	