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Parliamentary Standing Committee on Public Works

REPORT

relating to the proposed

REHABILITATION OF RADIO AUSTRALIA FACILITIES

COX PENINSULA, NORTHERN TERRITORY

(THIRD REPORT OF 1980)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA 1980

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

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REHABILITATION OF

RADIO AUSTRALIA FACILITIES

Cox Peninsula,
Northern Territory

(Third Report of 1980)

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS
(Twenty-fifth Committee)

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EXTRACT FROM
THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES
NO. 134 DATED 25 OCTOBER 1979

22 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - REHABILITATION OF RADIO AUSTRALIA FACILITIES, COX PENINSULA, N.T.: Mr. J.E. McLeay (Acting Minister for Housing and Construction), pursuant to notice, moved - That, in accordance with the provisions of the Public Works Committee Act 1969, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Rehabilitation of Radio Australia facilities, Cox Peninsula, N.T.

Mr. J.E. McLeay presented drawings in connection with the proposed work.

Question - put and passed.

WITNESSES

Barnett, P., Esq., Controller, Radio Australia, Australian Broadcasting Commission, 570 Bourke Street, Melbourne, Victoria

Beard, W., Esq., First Assistant Secretary, Broadcasting Engineering Division, Postal & Telecommunications Department, 570 Bourke Street, Melbourne, Victoria

Boord, L., Esq., Director, NT/SA Region, Department of Housing & Construction, P.O.Box 2052, G.P.O., Adelaide, South Australia

Bowden, I.G., Esq., First Assistant Secretary, Public Affairs & Cultural Relations Division, Department of Foreign Affairs, Administration Building, Parkes,Australian Capital Territory

Boyle, R.J., Esq., 4 Risorta Avenue, St. Ives, New South Wales

Brosnan, W.A., Esq., Chief Electrical Engineer, Department of Housing & Construction, Yarra Street, Hawthorn, Victoria

Brown, B., Esq., President, Cox Peninsula Progress Association Incorporated, P.O. Box 824, Darwin, Northern Territory

Eva, F.N., Esq., Chief Engineer, Resources & Planning, N.T. Electricity Commission, P.O. Box 425, Darwin, Northern Territory

Forster, M.F., Esq., Education Adviser, Educational Resources, Department of Education, 69 Smith Street, Darwin, Northern Territory

Hodge, R.E., Esq., Head, News & Public Affairs (Radio Australia), Australian Broadcasting Commission, 529 Lonsdale Street, Melbourne, Victoria

Hutchison, J.W., Esq., Assistant General Manager (Engineering), N.T. Electricity Commission, P.O. Box 425, Darwin, Northern Territory

Jacob, M.B., Esq., Port Engineer, N.T. Port Authority, Harry Chan Avenue, Darwin, Northern Territory

Lansdown, R.B., Esq., C.B.E., Secretary,
Postal & Telecommunications Department,
Construction House, 217 Northbourne Avenue,
Turner, Australian Capital Territory

Lynagh, N., Esq., Co-ordinator General, Chief
Minister's Department, P.O. Box 4396,
Darwin, Northern Territory

Martin, R.G., Esq., Acting General Manager,
Engineering, Telecom Australia,
518 Little Collins Street, Melbourne,
Victoria

McManus, T.F., Esq., Senior Engineer,
Broadcasting Branch, Telecom Australia,
199 William Street, Melbourne, Victoria

Millar, Wing Commander D.G.R., Joint Communications
Staff Officer (Engineering), Joint
Communications Branch, Department of Defence,
Russell Offices, Canberra, Australian
Capital Territory

Phillips, B.J., Esq., Executive Officer, Transport
Division, Department of Transport & Works,
Block 6, Mitchell Street, Darwin, Northern
Territory

Richards, Dr. A.D., Chief Architect (Communications),
Department of Housing & Construction,
Yarra Street, Hawthorn, Victoria

Rowell, Air Commodore R.C., Director-General,
Joint Communications, Department of Defence,
Russell Offices, Canberra, Australian
Capital Territory

Sebire, L.D., Esq., Superintending Engineer,
Broadcasting Branch, Telecom Australia,
570 Bourke Street, Melbourne, Victoria

Sharp, F.W., Esq., Acting Assistant Director,
Station Engineering Branch, Postal &
Telecommunications Department, 570 Bourke
Street, Melbourne, Victoria

Shepherd, F., Esq., Assistant Controller
(Engineering), Australian Broadcasting
Commission, G.P.O. Box 487, Sydney,
New South Wales

Smith, C., Esq., Project Manager, SA/NT Region, Department of Housing & Construction,, P.O. Box 2052, G.P.O., Adelaide, South Australia

Stevens, W.E., Esq., Manager, Brown Boveri (Australia) Pty Ltd, P.O. Box 88, Eastwood, South Australia

Trost, P.A., Esq., Director, Joint Communications (Engineering), Department of Defence, Russell Offices, Canberra, Australian Capital Territory

Wilkinson, E.J., Esq., First Assistant Secretary, Radio Frequency Management Division, Postal and Telecommunications Department, 570 Bourke Street, Melbourne, Victoria

Wilkinson, F.L., Esq., Acting Chief Engineer (Maritime Works), Department of Housing & Construction, Yarra Street, Hawthorn, Victoria

Willmett, C.A., Esq., Department of Lands & Housing, P.O. Box 1680, Darwin, Northern Territory

Yates, W., Esq., M.H.R., Member for Holt, Parliament House, Canberra, Australian Capital Territory

C O N T E N T S

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REHABILITATION OF RADIO AUSTRALIA FACILITIES, COX PENINSULA, N.T.

R E P O R T

By resolution on 25 October 1979, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament, the proposal for the rehabilitation of the Radio Australia facilities at Cox Peninsula, Northern Territory.

The Committee has the honour to report as follows:

THE REFERENCE

1. The proposal is for the rehabilitation of the Radio Australia facilities at Cox Peninsula, N.T. which were either destroyed or damaged by the tropical Cyclone Tracy in December 1974, with a view to allowing resumption of full transmission service by the end of 1982.

2. The proposal comprises:

- repairs to access jetty and new wharf head;
- repairs and upgrading of buildings including services and provision of limited cyclone-proof accommodation;
- repairs to overhead transmission lines, substation and switch yards;

- repair and replacement of submarine power cables;
- miscellaneous repairs to roads, fencing and engineering services.

3. The estimated cost of the proposal when referred to the Committee was $10 million at September 1979 prices.

THE COMMITTEE'S INVESTIGATION

4. The Committee received written submissions and drawings from the Postal and Telecommunications Department, the Australian Broadcasting Commission, the Department of Foreign Affairs, the Department of Housing and Construction and the Australian Telecommunications Commission, and took evidence from their representatives at public hearings in Darwin on 12-13 February and in Canberra on 17 March 1980. The Committee also received written submissions and took evidence from representatives of the Northern Territory Government, Mr. W. Yates, MHR, and the Cox Peninsula Progress Association Incorporated. A written submission was received from the Australian Telecommunications Employees' Association. Evidence was also taken at the public hearing in Canberra on 17 March 1980 from Mr. R.J. Boyle, a retired Radio Australia engineer, representatives from the Department of Defence and Mr. W.E. Stevens, Brown Bovari (Australia) Pty Ltd.

5. Prior to the public hearing in Darwin, the Committee had inspected the existing facilities of Radio Australia on Cox Peninsula and noted the areas proposed for repair.

6. The Committee's proceedings will be printed as Minutes of Evidence.

BACKGROUND

7. Role of Radio Australia Radio Australia, the international short-wave broadcasting service of the Australian Broadcasting Commission began as "Australia Calling" on 20 December 1939, three months after the outbreak of the Second World War. The service opened with the voice of the then Prime Minister, Mr. R.G. Menzies, outlining the reasons Australia had gone to war. In this speech he stated "The time has come to speak for ourselves". The station's call sign, VLQ2,

symbolised the objectives of the service: Victory, Liberty, Quality. Since then Radio Australia has continued to play its role of presenting Australia to the world, particularly in the Asia-Pacific region, as a country of distinctive outlook and culture. It heightens the consciousness in other countries of Australian policies, interests and ways of life. In this, it complements the activities of the Australian Government in the field of overseas information and in cultural relations programs. Radio Australia's services thus help Australia's efforts to expand and deepen its range of contacts with other countries and to encourage and maintain an international environment sympathetic to Australia.

8. Inter-relationship of Departments and Authorities Responsible for Radio Australia The Postal and Telecommunications Department was established on 22 December 1975. It replaced the Postmaster-General's Department assuming those responsibilities that remained after postal and internal telecommunications operations were transferred to an independent Commission on 1 July 1975. In addition, the Postal and Telecommunications Department took over radio and television broadcasting policy from the former Department of the Media. On 1 January 1977, the Postal and Telecommunications Department was given the responsibility for technical and planning matters associated with broadcasting and television previously administered by the Australian Broadcasting Control Board, although this did not bring with it any further responsibility for the Radio Australia service.

9. Prior to July 1975, the Postmaster-General's Department had total responsibility for the technical policy, construction and operation of the transmitting stations of Radio Australia. Following the establishment of the independent Commission (Telecom) the policy and technical planning responsibilities were transferred to the new Postmaster-General's Department and later to the Postal and Telecommunications Department. The installation and operation of the transmitting stations became the responsibility of Telecom operating as an agent for the Postal and Telecommunications Department.

10. Since 1939, the responsibility for the content of the programs and for the technical facilities required for the program production studios of Radio Australia has remained with the Australian Broadcasting Commission. Priority of target areas and content of programs are developed in co-operation with the Department of Foreign Affairs.

11. Consultation has been necessary between all the above bodies in the course of producing short and long term plans for the Radio Australia service.

12. The Committee's 1964 Investigation The Radio Australia facilities at Cox Peninsula were referred to the Public Works Committee on 22 April 1964. It was put to the Committee by the then Postmaster-General's Department that Radio Australia programs to South-East Asia originating in Melbourne and being transmitted from Shepparton, Victoria, were becoming more susceptible to interference. Other countries were increasing the power of their transmissions and the short wave bands were becoming more and more congested. To overcome this problem, it would have been necessary to increase the signal strength from Shepparton by increasing the power of the transmitters fourfold. The operating and capital costs of that solution, however, were exceedingly high.

13. Extensive examinations were made of alternative sites for a "booster" station for Radio Australia in the vicinity of Darwin, being 2000 miles closer to Radio Australia audiences in South-East Asia. The aim was to provide a more reliable service to that area than could be provided from its Shepparton high frequency (HF) transmitting installation.

14. The design as a booster station required provision of a receiving station to pick up transmissions from Shepparton for rebroadcasting via the transmitting station. This placed tight constraints on site selection as a complementary pair of sites was required within reasonable proximity to each other but sufficiently separated to ensure freedom from interference by the transmitting station to reception from Shepparton.

15. The initial proposed transmitting site at Howard Springs was rejected following objections from the Department of Defence and the then Department of Civil Aviation that the proposed high power transmitting station would interfere with their receiving facilities in the area.

16. An exhaustive study was made of alternative sites from which it was concluded that within the contraints which applied, and notwithstanding some recognised disadvantages, the only suitable sites were on Cox Peninsula, the transmitting station being on the western extremity and the receiving station 16 km to the east. In its Report tabled on 17 September 1964, the Committee endorsed the Postmaster-General's Department's proposal for the establishment of the booster station on Cox Peninsula and the area chosen for its development as being most suitable.

EXISTING FACILITIES

17. On Christmas Day 1974, Cyclone Tracy almost completely destroyed the five transmitting antennas. Damage to buildings was not extensive but water damaged the transmitters. The jetty at Cox Peninsula, used for the daily transport of personnel, was extensively damaged.

18. Power for the station was supplied from the Northern Territory Electricity Commission's generating station in Darwin via two cables laid across Darwin Harbour. These did not fail immediately but one cable did so a year after the cyclone and the second one a further year later. It is believed both were damaged by ships dragging their anchors during the cyclone.

19. Following the cyclone, a temporary transmitting station was established at Carnarvon in Western Australia, on the site of a disused NASA station. It commenced broadcasting in December 1975 with one 250 kW transmitter and one 100 kW transmitter in July 1976. This station provides limited service to the target areas pending restoration of the Cox Peninsula station.

THE WALLER INQUIRY

20. The Independent Inquiry into Radio Australia established by the Australian Government in May 1975 and chaired by

Sir Keith Waller, found that Radio Australia has a role to play which is complementary to the activities of the Australian Information Service and the Department of Foreign Affairs. The Waller Committee reported that Radio Australia could not be effectively substituted by other information modes because it can communicate across national boundaries regardless of the attitude of national governments, carry Australia's voice in periods of international tension and in any circumstances carry a picture of Australia to remote communities.

21. The Waller Committee recommended inter alia that "aerials should be provided to restore the Darwin station to service as quickly as possible". An Interdepartmental Committee was established in February 1976 to consider the recommendations of the Waller Report and recommended full restoration of the Darwin Station to its pre-cyclone status.

22. The Government considered the Interdepartmental Committee Report and endorsed the continuing need for an independent Australian external broadcasting service but not all the recommendations of the Report were adopted.

THE NEED

23. Since December 1974, the signal strength of Radio Australia has progressively declined in relation to the signals of other short-wave broadcasters. While the number of Radio Australia's operative 250 kW transmitters has declined since 1974 from three to one, many other countries have been progressively increasing the strength of their short-wave signals.

24. Radio Australia is increasingly being hampered by interference caused by other international broadcasters using high-powered transmitters. Countries now operating transmitters at power greater than 250 kW are Britain, Bulgaria, the People's Republic of China, Czechoslovakia, Equador, France, East Germany, Iraq, Israel, Libya, Luxemburg, the Netherlands, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Tunisia, the U.S.A. and the U.S.S.R. The Soviet Union has 40 transmitters of 500 kW operating on 27 sites, and it has been recently reported that it

has ordered 400 transmitters of 500 kW for its world service and for replacement in satellite and allied countries.

25. There is an exceedingly strong Soviet signal into the Asian and Pacific regions. Surveys conducted by Telecom reveal that interference presents a serious problem in the very countries in which, from the point of view of the national interest, Radio Australia's signal should be most clearly audible, namely, China, Japan, India, Pakistan, the Philippines, Thailand, Indonesia and the Pacific. Nor is it possible for Radio Australia to broadcast its three most important services in South-East Asia (English, Chinese and Indonesian programs) simultaneously during peak listening periods.

26. Of particular importance at the present time are plans to develop China as a major target area for Radio Australia following a recent updating of Australia's overseas information priorities and needs. The latest Telecom monitoring reports indicate that 14% of the Chinese language service is wasted because of interference. For an additional 25% of the time, interference makes intelligibility poor, whilst the Radio Australia signal to China is regarded as being too weak for adequate service for 100% of the time. At present, a barely adequate signal seems to be audible only in regions of southern and eastern China. Currently, Radio Australia signals to China receive considerable interference from Radio Moscow, Radio Pyongyang, NHK Japan and the Voice of America. Evidence showed that the politically significant northern part of China is not effectively within range of Carnarvon for much of the time.

27. A cultural relations project sponsored by the Department of Foreign Affairs is being prepared by the Department of Education and Radio Australia to commence an English language teaching program for Chinese listeners in late 1982. This program has been welcomed by the Chinese Government which has, however, pointed out that Radio Australia would have to improve its signal strength before the proposal could be implemented.

28. Committee's Conclusion The Committee accepts the need for Radio Australia to be provided with additional effective high-powered transmitters.

THE PROPOSAL

29. The proposed rehabilitation work comprises the following major components:

- repairs to access jetty and new wharf head;
- repair and upgrading of buildings including services and provision of limited cyclone-proof accommodation;
- repairs to overhead transmission lines, substations and switch yards;
- repair and replacement of submarine power cables;
- miscellaneous repairs to roads, fencing and engineering services.

30. Replacement of previous log periodic transmitting aerials with curtain-type antennas, associated transmission lines and switching facilities will be undertaken by the Australian Telecommunications Commission (Telecom) as agents for the Postal and Telecommunications Department and are not included in this proposal to the Committee.

31. Program lines to Darwin are now available from Melbourne via the Telecom microwave network. The installation at the receiver site which formed part of the original Radio Australia complex on Cox Peninsula is no longer required and will not be rehabilitated.

32. Site In evidence to the Committee the Postal and Telecommunications Department stated that the Darwin area is well situated to provide a service to the major population centres of Asia. The value to Radio Australia of a Darwin station can be seen from an examination of the signal strength to be expected in, say, Djakarta compared with signals from Shepparton. A Shepparton transmitter of approximately 800 kW would be required to provide the same signal strength as a Darwin transmitter of 250 kW.

33. In areas where the service from the Darwin station is not ideal, an improved coverage from the Carnarvon station is generally available. Areas of less than optimum coverage vary with the time of day and ionispheric conditions. It is for this reason that the Darwin and Carnarvon stations are complementary. Station operations will be planned to make maximum use of this factor.

34. Provision of transmitters in the Darwin area would make Radio Australia's signal into China and other major target areas stronger, more intelligible and less vulnerable to interference. The Darwin transmitters would provide alternative frequencies to Carnarvon and because of their suitable geographic location would send a better signal into China.

35. Following consideration of the Waller Report and endorsement of the continuing need for an independent Australian external broadcasting service, the Government directed that an examination be made as to whether the restored facilities should be located at Cox Peninsula or at an alternative site in the region.

36. Studies were made of two alternative sites at Humpty Doo and Batchelor, 65 and 100 km from Darwin respectively. These sites offer reduced risk of cyclone damage, easier access and improved power supply reliability. However, it was considered that establishment of new facilities at these sites would have delayed restoration by up to four years, and cost an additional $2 million. The Government concluded that, subject to precautions to minimise future cyclone damage, the Cox Peninsula installation should be restored and Cabinet endorsed this proposal in May 1979.

37. Operational problems experienced by Telecom, of a logistical and industrial nature, led to a re-examination of an alternative site at Humpty Doo. During the public hearing in Darwin, Mr. R.G. Martin, General Manager Engineering, Telecom, amplified the difficulties being experienced by Telecom staff in maintaining the transmitters at Cox Peninsula. These included the long periods of time, up to 11½ hours, when staff were required to be away from home on shift work, the uncomfortable and sometimes hazardous conditions associated with travel by launch across Darwin harbour and the remoteness of the locality.

38. A re-examination of the Humpty Doo site by Telecom and the Department of Housing and Construction indicated that capital and annual costs could be reduced from the earlier estimates and that estimated annual cost savings of $0.8 million were achievable with this alternative.

In addition, the delay in attaining full transmissions could be reduced to about eighteen months, assuming that no additional administrative delays were incurred.

39. Following the provision of more detailed information as to the advantages of the site in the Humpty Doo area, namely, savings in operation and maintenance costs, the Committee believes the location of Radio Australia transmitters in that area to be preferable to their present location at Cox Peninsula. It would also eliminate many of the staff problems associated with Cox Peninsula and lead to a reduction in staff from the proposed 41 at Cox Peninsula to 24 at Humpty Doo.

40. During the hearing in Darwin, Telecom indicated that the Humpty Doo alternative was dependent on the resolution of a difference of views that existed between them and the Department of Defence over interference to Defence installations at McMinns Siding which might be caused from a Radio Australia installation at Humpty Doo. Evidence indicated that the Department of Defence had not been approached by the Postal and Telecommunications Department concerning the siting of Radio Australia transmitters until September 1979. The Committee is critical of this delay.

41. Although provided with a letter from the Department of Defence at the Darwin hearing expressing their views on the matter, the Committee reconvened in Canberra where witnesses from the Department of Defence submitted evidence giving reasons for their objections.

42. During departmental meetings of Defence and Telecom officials in Melbourne between the Darwin and Canberra hearings, the Department of Defence reaffirmed the view in their letter to the Committee that the establishment of such high-powered Radio Australia transmitters at Humpty Doo would generate interference to their installations at McMinns Siding and would, therefore, be unacceptable. Telecom then put forward another site 4 km north-east of its first alternative site at Humpty Doo but the site was also opposed by the Department of Defence.

43. Despite the rejection of its second alternative site, Telecom believes that with the co-operation of all the parties concerned, further field measurements would lead to the resolution of a satisfactory site. Whilst recognising Telecom's difficulties with operating at Cox Peninsula and the extra costs involved in remaining at Cox Peninsula, the Committee believes that there are too many imponderables relating to an alternative site in the Darwin area, namely the field engineering tests, possible need to resume land, environmental studies and indicative estimates of cost. For these reasons, the selction of an alternative site for the Darwin area could well lead to significant delays before a new station was functioning.

44. Committee's Conclusion The construction of new Radio Australia facilities on a site in the Humpty Doo area would be the most cost effective solution. Further, it would provide the best working conditions for Telecom personnel. However, the Committee accepts the objections of the Department of Defence that the provision of high-powered transmitting facilities at Humpty Doo may interfere with Defence receiving installations.

45. The Committee is critical of the fact that the Department of Defence had not been consulted when the alternative site at Humpty Doo was first considered, particularly in view of the Defence requirement which led to the selection of the Cox Peninsula site in 1964.

46. Because it would not want to further delay the upgrading of Radio Australia facilities, the Committee believes that that consideration overides the possible benefits of a complete technical reappraisal of sites in the Humpty Doo area at this late stage. The Committee therefore agrees that the rehabilitation of Cox Peninsula transmitters should proceed.

CONSTRUCTION

47. Jetty and Wharf Head As Cox Peninsula is more conveniently reached by sea, it is proposed to reconstruct and extend the existing access jetty with the provision of a new wharf head with a main flight of landings facing west so that vessels may be able to approach from the lee side when conditions are rough.

The vertical interval between landings will be about 1.2 metres but if required for low water use by the general public, a vertical separation of o.6 metres in lieu of 1.2 metres would be preferred at some extra cost along the same lines as the design of boat steps at Stokes Hill wharf.

48. Remedial work to bring the access jetty to a safe and durable working condition will include:-

- repair, strengthening and rebuilding of some sections of the structural steel;
- protection of steel from corrosion;
- provision of new deck 3 metres wide;
- provision of new kerbs and reconstruction of existing handrails;
- reinstatement of cathodic protection on steelwork.

49. The rehabilitated facility will provide access for Telecom passenger vehicles to the wharf head with a turning area to facilitate staff embarkation and disembarkation in inclement weather. No provision will be made for cargo handling other than by hand.

50. The facility will be illuminated at night and a small passenger shelter will be provided on the wharf head deck for use in inclement weather. Navigation lights will be provided.

51. The Northern Territory Government has indicated that it is prepared to contribute to the cost of the jetty being adapted for public use which would include an additional set of steps and landings. This proposal had the support of the Cox Peninsula Progress Association. The wharf can be readily adapted to meet this requirement. The Committee

recommends that the Northern Territory Government be consulted during the design of the wharf to ensure their needs are accommodated.

52. Jetty Garage and Store The timber-framed annex of this building which collapsed during the cyclone will be rebuilt. The roofing and wall cladding will be refixed and the roof framing strengthened with additional fixings.

53. Transmitter Site The site suffered the full effect of Cyclone Tracy. Buildings withstood the wind forces but sustained minor structural and superficial damage. Although essential repairs to glazing, roofing and doors were carried out immediately after the cyclone, they were of a temporary nature and now require further upgrading and consolidation.

54. Buildings and services are now over ten years old and for five years have been subject to only an essential repair program without regular maintenance or housekeeping.

55. Internal finishes have suffered natural deterioration and externally corrosion of metal is evident. Mechanisms of adjustable sun control louvres are generally unserviceable. Air conditioning plant and equipment require major overhaul and some electrical services are not functioning.

56. Structural Design As the buildings have no post disaster function, the structural upgrading will be in accordance with the requirements of the Department of Housing and Construction for "normal buildings". Part of the existing administrative/amenities building is required to serve as a cyclone shelter and will be upgraded in accordance with the Darwin area building manual.

57. Buildings Remedial work to bring all buildings to a safe and durable working condition will include:

- strengthening of brick walls and wall panels and tying down of beams to meet current cyclone code requirements;
- overhauling of mechanical, electrical and hydraulic services;
- internal and external general repairs and maintenance.

58. Roads Roads have not been subject to cyclone damage, but regular maintenance has not been carried out since December 1974. Work required will include filling to cracks, hollows, broken surfaces and some areas of resealing.

59. Fences The existing fences were damaged by the cyclone. Some new parts are quired and others must be replaced to true line. Netting is in fair condition and will be re-used where possible.

60. Water Supply The existing bores are able to supply the anticipated demand but overhaul of the electrically-driven pumps is necessary. Water will be stored in elevated and ground level tanks, all of which were damaged during the cyclone and require repairs and cleaning. Fire fighting booster pumps also require overhaul.

61. Waste Water Collection and Disposal The waste water collection is by means of sewers to septic tanks and soakages. No remedial works are required for the sewers but septic tanks require cleaning.

62. Power Supply Following a detailed study, it was determined that the most suitable method of providing electric

power to Radio Australia on Cox Peninsula would involve jointing of the healthy sections of the two existing 66 kV oil-filled cables to form a single restored cable, and installation of a second 66 kV cable. The second cables could be either oil-filled or cross-linked polyethylene (XLPE), whichever is shown by tender to be the most economical solution. The possibility of power generation at Cox Peninsula instead of a submarine cable had been rejected on cost grounds.

63. Protection of Submarine Cable The feasibility of burying or otherwise physically protecting the submarine cables has been examined. Studies indicated that it would not be practicable to bury the existing cables because of the possibility of damaging them during this operation.

64. The new cable could be buried but the cost would be high. Faults would have to occur more than once every six years to justify the cost involved. In addition, there is no certainty that the seabed in Darwin harbour is sufficiently sandy to permit burying over the whole length of the cable, or that it is sufficiently stable to ensure that the cable would remain buried at an adequate depth.

65. The placing of protective chains on each side of the cable route would be the only other alternative available. The degree of protection, however, would be considerably less than that achieved by cable burial but the cost would be similar.

66. Standby Power Supply The limited existing diesel generating plant will continue to supply power to the transmitter station until power is available from the Darwin Power Station via a restored submarine cable and will be retained on a standby basis to cater for short term power disruptions.

67. Environmental Impact The transmitter site is cleared of trees and this condition will remain unchanged. To provide an assessment of the effects on the environment, a Notice of Intent was prepared. The Department of Science and the Environment advised that there is no requirement for the preparation of a full Environmental Impact Statement.

68. Liaison Liaison has been maintained with the Northern Territory Government, the Northern Territory Electricity Commission, the Northern Territory Port Authority and the Northern Territory Department of Transport and Works. The proposal complies with all relevant building codes and regulations of the Northern Territory.

69. Committee's Recommendation The Committee recommends the construction of the work in this reference.

ESTIMATE OF COST

70. The estimated cost of the work when referred to the Committee was $3.3 million at September 1979 prices made up as follows:

	$
Repairs to access jetty and new wharf head	700 000
Repairs to buildings	630 000
Repairs to overhead transmission lines, substation and switchyards	150 000
Repair and replacement of submarine cables	1 720 000
External works and services	100 000
	3 300 000

PROGRAM

71. The estimated documentation and completion times will enable limited scheduled transmission progressing to full transmitting capability by late 1982 in accordance with the following operational targets established by the Postal and Telecommunications Department.

Single transmission by April-June 1981

Two transmissions by July-September 1982

Full transmission by October-December 1982.

POSSIBLE INCREASE IN NUMBER OF TRANSMITTERS

72. Evidence to the Committee indicated that a further 250 kW transmitter could be provided at Carnarvon, Western Australia

without additional infrastructure cost. An additional 250 kW transmitter at Carnarvon would complement the Cox Peninsula transmitters recommended for rehabilitation by the Committee. The matter is drawn to the Government's attention as a cost effective means of further increasing the number of transmitters available to Radio Australia.

73. Committee's Recommendation The Committee recommends that the Government give early consideration to the installation of a further 250 kW transmitter at Carnarvon.

INLAND RADIO SERVICE

74. Preparations for the establishment of two high frequency transmitters and aerials at Cox Peninsula were underway when Cyclone Tracy put the station out of service. During the public hearing in Darwin the Committee was informed that current planning is to establish the facilities some time during 1982/83 with the aim of servicing an area in and around Darwin extending out some 200 to 300 kilometres. The Department of Defence informed the Committee during the public hearing in Canberra that there would be problems from interference to Defence installations in the Darwin area by transmissions from the inland service but these could be overcome in view of the number of frequencies and the powers involved. The Telecom representatives agreed that the ideal location for the inland service would be with the Radio Australia installation.

75. Committee's Conclusion The establishment of the inland radio service should proceed without delay and the transmitters be incorporated into the Radio Australia facilities on Cox Peninsula during the rehabilitation.

RECOMMENDATIONS AND CONCLUSIONS

76. The recommendations and conclusions of the Committee are set out below. Alongside each is shown the paragraph in the report to which it refers.

		Paragraph
1.	THE COMMITTEE ACCEPTS THE NEED FOR RADIO AUSTRALIA TO BE PROVIDED WITH ADDITIONAL EFFECTIVE HIGH-POWERED TRANSMITTERS.	28

		Paragraph
2.	THE CONSTRUCTION OF NEW RADIO AUSTRALIA FACILITIES ON A SITE IN THE HUMPTY DOO AREA WOULD BE THE MOST COST EFFECTIVE SOLUTION. IT WOULD PROVIDE THE BEST WORKING CONDITIONS FOR TELECOM PERSONNEL.	44
3.	THE COMMITTEE ACCEPTS THE OBJECTIONS OF THE DEPARTMENT OF DEFENCE THAT THE PROVISION OF HIGH-POWERED TRANSMITTING FACILITIES AT HUMPTY DOO MAY INTERFERE WITH DEFENCE RECEIVING INSTALLATIONS.	44
4.	THE COMMITTEE IS CRITICAL OF THE FACT THAT THE DEPARTMENT OF DEFENCE HAD NOT BEEN CONSULTED WHEN THE ALTERNATIVE SITE AT HUMPTY DOO WAS FIRST CONSIDERED, PARTICULARLY IN VIEW OF THE DEFENCE REQUIREMENT WHICH LED TO THE SELECTION OF THE COX PENINSULA SITE IN 1964.	45
5.	BECAUSE IT WOULD NOT WANT TO FURTHER DELAY THE UPGRADING OF RADIO AUSTRALIA FACILITIES, THE COMMITTEE BELIEVES THAT THAT CONSIDERATION OVERIDES THE POSSIBLE BENEFITS OF A COMPLETE TECHNICAL REAPPRAISAL OF SITES IN THE HUMPTY DOO AREA AT THIS LATE STAGE. THE COMMITTEE THEREFORE AGREES THAT THE REHABILITATION OF COX PENINSULA TRANSMITTERS SHOULD PROCEED.	46
6.	THE COMMITTEE RECOMMENDS THE CONSTRUCTION OF THE WORK IN THIS REFERENCE.	69
7.	THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE COMMITTEE WAS $10 MILLION AT SEPTEMBER 1979 PRICES, BEING $6.7 MILLION CAPITAL COSTS AND $3.3 MILLION COST OF REPAIR WORK INCLUDING REPLACEMENT OF SUBMARINE CABLES.	70
8.	THE COMMITTEE RECOMMENDS THAT THE GOVERNMENT GIVE EARLY CONSIDERATION TO INSTALLATION OF A FURTHER 250 kW TRANSMITTER AT CARNARVON.	73

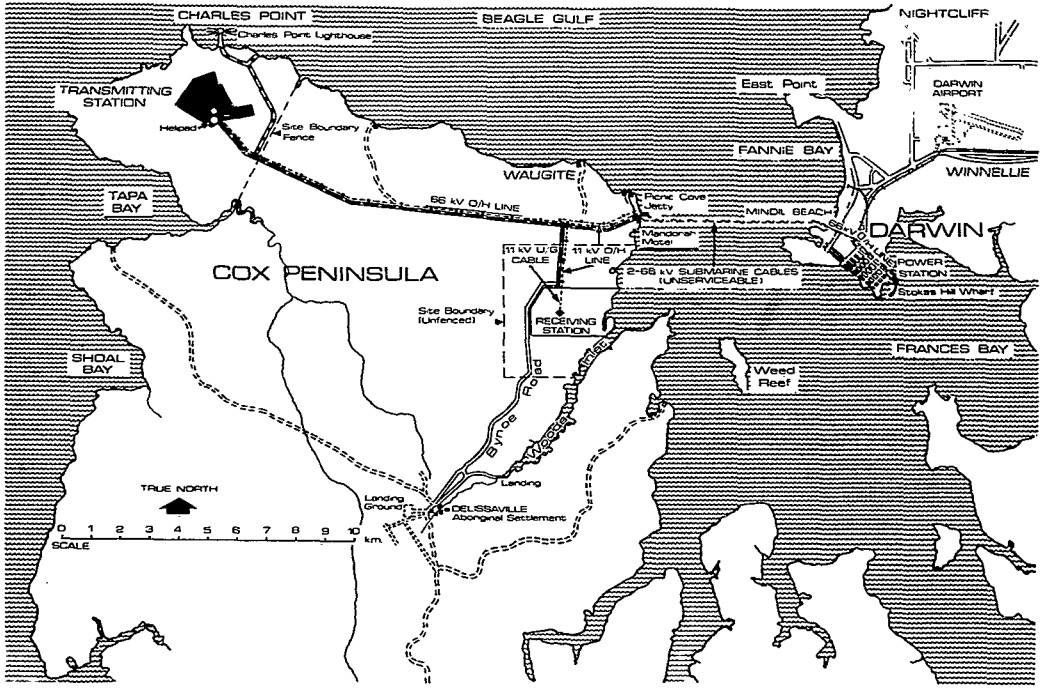
Paragraph

9. *THE ESTABLISHMENT OF THE INLAND RADIO SERVICE SHOULD PROCEED WITHOUT DELAY AND THE TRANSMITTERS BE INCORPORATED INTO THE RADIO AUSTRALIA FACILITIES ON COX PENINSULA DURING THE REHABILITATION.* 75

(M.H. BUNGEY)
Chairman

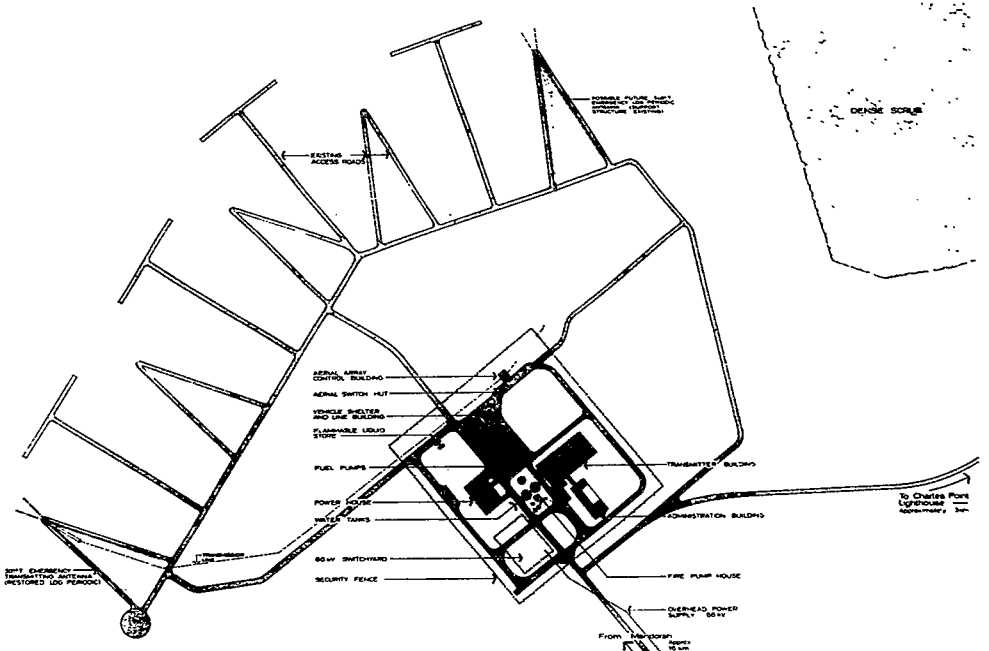
Parliamentary Standing Committee on Public Works,
Parliament House,
CANBERRA.

17 April 1980.

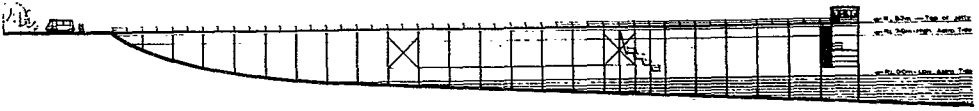


LOCALITY PLAN

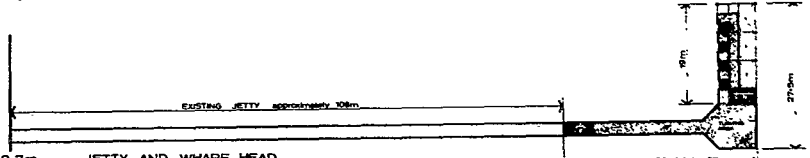
B.



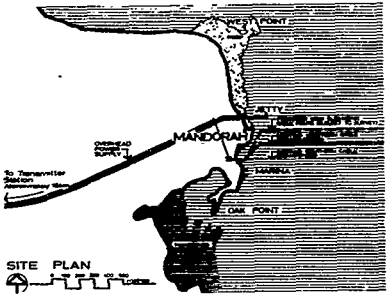
COX PENINSULA - N.T.
REHABILITATION OF RADIO AUSTRALIA



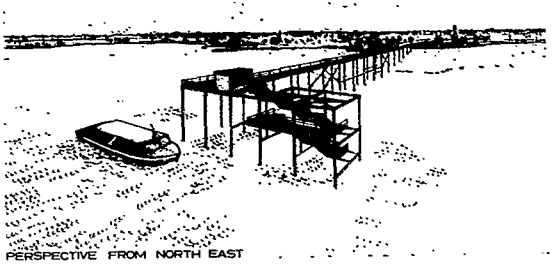
SOUTH ELEVATION



PLAN AT R.L.9·7m — JETTY AND WHARF HEAD



SITE PLAN



PERSPECTIVE FROM NORTH EAST

COX PENINSULA - N.T.
REHABILITATION OF RADIO AUSTRALIA

ACCESS JETTY AND WHARF HEAD

SENATE STANDING COMMITTEE

ON

SOCIAL WELFARE

REPORT

ON

ANNUAL REPORTS REFERRED TO THE COMMITTEE

March 1980