

REVISED SHOAL BAY PLANNING

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FAS SIP  
Chairman NIC

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The attached paper (DPP-29) has been prepared to provide guidelines for those concerned with the further development of planning for the Sigint station at Shoal Bay, Darwin in the light of the effects of Cyclone TRACY.

2. The paper reviews and reaffirms the requirement to achieve the previously approved level of Sigint collection capability at Shoal Bay as soon as practicable in all the circumstances. It is recognized that the development of the station will now have to extend over a longer period than originally planned, and guidance is provided on the implications of this for equipment, staff and communications planning, taking account of national intelligence priorities.

3. The paper involves no change of policy and, unless you have any comment, it will be issued to the services and others concerned for their guidance.

[REDACTED]  
[REDACTED]  
for Director

Defence Signals Division  
28 January 1975.

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REVISED SHOAL BAY PLANNING

INTRODUCTION

1. The aim of this paper is to review and revise existing Sigint planning for Shoal Bay in the light of the effects of Cyclone TRACY.

BACKGROUND

2. Plans were developed in the late 1960's to build a new Sigint station at Shoal Bay, Darwin primarily because of the deteriorating electrical environment at the existing site, HMAS Coonawarra. The project was approved in 1970. The new station was to be substantially re-equipped and a technically advanced CDAA (PUSHER) aerial and aerial distribution system was to be provided.
3. An impetus was given to the Shoal Bay project by the decision in early 1973 to close the Sigint station in Singapore and the consequent need to strengthen the collection capability in Australia. Planning was amended to provide for the installation of additional technical facilities at the new station. Subsequently further plans were approved for the installation of in 1976/77.
4. The station at Coonawarra was provided by Navy and the same arrangements will apply at Shoal Bay. The closure of Singapore necessitated the provision of additional staff in Darwin both on an interim basis at Coonawarra and subsequently at Shoal Bay. These have been and will be provided on an integrated basis by Army as follows:
  - (a) A detachment of 25 has been operating at Coonawarra since January 1974.
  - (b) It was planned that would be transferred to Darwin during 1975, bringing the total contribution to 95.
5. By December 1974 the Shoal Bay project was reasonably up to time apart from the new receiving consoles being constructed by Racal (Aust). It was expected that limited operation would commence early in 1975, building up to the full planned capability in mid year.

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EFFECTS OF CYCLONE TRACY

6. At Coonawarra severe damage was caused to buildings and aerals. The majority of the equipment was wet but salvageable.
7. At Shoal Bay damage to the operations building was relatively light. The outer ring of the new CDAA was destroyed but the inner ring and some other aerals were still standing. Emergency power was available.
8. Sigint operations were accordingly transferred from Coonawarra to Shoal Bay where they commenced on a limited scale on 3 January. A technical capability approximately equivalent to that provided at Coonawarra is now available.
9. As a result of these developments Coonawarra will no longer be a Sigint site and all activity is now concentrated at Shoal Bay.

OPERATIONAL REQUIREMENTS

10. There has been no change in the Sigint operational requirement for a station in northern Australia
11. To meet these needs it is assessed that there is a firm requirement for the development of manning and facilities up to their full previously planned level (including the Army build up to a total of 95 (see para 4(b)) as soon as practicable in all the circumstances. At the minimum there will be a need for:
  - (a) the restoration as early as possible of a collection capability equivalent to that at Coonawarra pre-TRACY.
  - (b) further small increases in Army manning in late 1975 and late 1976 to cope with new tasks
12. The limited capability represented by these minimum requirements would permit Sigint collection as outlined below (subject of course to possible changes in priority). The deficiencies listed would be remedied as additional resources become available.

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3.

(a)

(b)

(c)

(d)

(e)

(f)

13. Consideration has been given to the possibility of reactivating

But it has been concluded that this could not be justified by expected collection priorities taking into account the costs and administrative difficulties involved.

FUTURE LOCATION OF SIGINT COLLECTION SITE

14. The validity of proceeding with pre-TRACY plans for Shoal Bay has been reviewed from a long term viewpoint taking into account the broad considerations adumbrated in DJS Minute No.2/1975 (Darwin-Planning for Reconstruction).

15. A large investment has already been made at Shoal Bay. It remains an excellent site, cyclone damage is relatively small, and the station is already being used effectively for operations. Assuming that Darwin will be reconstructed in its present general area, and irrespective of whether other Defence Force installations may be relocated, it seems clear that Sigint planning for the area should continue to be based on the development of existing facilities at Shoal Bay.

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4.

16. Account will need to be taken of this in Darwin reconstruction planning, in particular to ensure the retention of the present buffer zone protecting the Shoal Bay site and to establish the need for future industrial development, power lines, and other sources of electrical interference to be kept as far from the station as is practicable.

DEVELOPMENT OF SHOAL BAY

17. The basic aim at Shoal Bay will be to achieve full planned capability as soon as practicable in all the circumstances. Although it would be operationally desirable for the initial development of the station to be completed in 1975 as originally planned, this is now unlikely to be possible and it may be necessary to accept implementation extending over a larger period. Minimum requirements will be:

- (a) The early restoration and maintenance of full pre-TRACY capability in staff and equipment. With some limitation in aerials, it is expected that this will be achieved by March 1975, though full operational effectiveness will be dependent on the availability
- (b) Further small increases in staff and equipment to permit the assumption of planned additional commitments in late 1975 and late 1976

18. The main guidelines for equipment, communications and staff in the development of Shoal Bay are discussed in the following paragraphs.

Equipment

19. The provision of adequate aerials should have high priority. In particular, it is important that the full capability of the CDAA should be available as soon as practicable.

20. Additional and replacement interception equipment planned for the new station should be installed as soon as circumstances permit even if it is not initially fully manned. Navy should continue to press for early completion of the Racal contract, though the timing of the installation and acceptance phase may need to be relaxed in the light of the total situation at Shoal Bay.

21. The installation of in 1976/77 should proceed as planned.

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Communications

22. High priority should be given to the restoration and maintenance of pre-TRACY Sigint communications,

23. Planning provision should also be made for the additional high quality communications needed. This matter is under discussion DSD/DJSC/Navy.

24. A possible requirement for further capacity in the future should also be noted.

Staff

25. Pre-TRACY manning should be restored as soon as possible and maintained. This comprises:

Navy - 148  
Army - 26

26. An increase over the pre-TRACY strength of approximately 10 operators will be needed in late 1975 and a further 10 in late 1976, together with such supporting staff as may be necessary, to allow the station to meet important new requirements (see para 11(b)). This additional staff should be provided by Army. Transfer of (para 4(b)) should be completed as soon as the situation permits.

27. The provision of sufficient domestic accommodation to permit the above staff levels to be achieved and maintained in Darwin should be stated as a firm Defence requirement in the context of Darwin reconstruction planning. It will be particularly important to have the earliest practicable provision of married accommodation (even of a temporary nature such as mobile homes) to permit accompanied postings, since Navy and Army would face grave personnel problems in attempting to maintain this commitment on an unaccompanied basis.

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CONCLUSIONS

28. It is concluded that:

- (a) The previously established operational requirement remains for the provision, as soon as practicable, of a Sigint station in northern Australia, with the capability already planned for Shoal Bay.
- (b) The station should continue to be located at Shoal Bay, in accordance with previous planning.
- (c) Account should be taken of this in Darwin reconstruction planning, with retention of the present buffer area and avoidance as far as possible of any nearby location of industry, power lines and other sources of electrical interference.
- (d) The development of Shoal Bay should proceed, with the aim of achieving as soon as practicable the previously planned level of facilities and manning, including  
to bring total Army strength to 95.
- (e) Minimum requirements in the continuing development of the station are for:
  - . the restoration and maintenance of the full pre-TRACY capability in staff and equipment
  - . an increase of 10 Army operators in late 1975  
and a further 10 in late 1976 together with  
necessary support staff.
- (f) The re-equipment of Shoal Bay should proceed as circumstances permit including repair of the CDAA and completion of the Racal contract for receiving consoles.
- (g) High priority should be given to the restoration and maintenance of pre-TRACY Sigint communications. Communications planning should also take account of and other possible new tasks at Shoal Bay.
- (h) The provision of accommodation for the full planned strength of Naval and Army personnel at Shoal Bay should be stated as a firm Defence requirement in Darwin reconstruction planning. It will be particularly important for married accommodation to be available at an early date to permit accompanied postings.

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