

**AWM78**

**Reports of Proceedings, HMA Ships and  
Establishments**

AWM78 Class 446 - [RAN Trials and Assessing Unit]  
RANTAU, Edgecliff

**File number:** AWM78/446/1

**Title:** AWM78 446/1 - January 1970 -  
December 1973



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[446/1]

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RAN TRIPS AND ASSESSING UNIT.

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FILE 18/6/4-721

DEPARTMENT OF DEFENCE  
(NAVY OFFICE)

~~SECRET~~ RANTAU

Report of ACTIVITIES Proceedings HALF YEAR ENDED 31 DEC 173

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- NOTES:
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  - B. The report will be given again to Board Members with Director's comments if there is any matter of special interest in those comments.
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\* CONFERRED WITH A/DGFE (CDR FOSTER)  
AND HE SUGGESTED WE TREAT AS R.O.P.



1 FEB 1974

NAVY MESSAGE

NAVY—CANBERRA

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ROYAL AUSTRALIAN NAVY

TELEPHONE: 321 331

IN REPLY QUOTE 1-16-2

RAN Trials and Assessing Unit  
The Edgecliff Centre  
203-233 New South Head Road  
EDGECLIFF N.S.W. 2027

30 JAN 1974

The Secretary  
DEPARTMENT OF DEFENCE (NAVY OFFICE)

D 3P1.3

For Information:

The Flag Officer Commanding, EAST AUSTRALIA AREA

RAN TAU - REPORT OF ACTIVITIES  
FOR THE HALF YEAR ENDING 31ST DECEMBER 1973

Reference: ANO 497/70 para. 5.

The six monthly report of functional activities is forwarded in accordance with the reference.

2. Administrative matters have been reported separately to the Flag Officer Commanding, East Australia Area.

*W. G. Loosli*

(R.G. LOOSLI)  
CAPTAIN RAN  
OFFICER-IN-CHARGE  
RAN TAU

ATTACH:

- A. Weapons Assessing Unit Report
- B. Surface Weapons Trials Report
- C. TAS Trials Report
- D. Power Trials Report
- E. Radio Radar Trials Report
- F. Marine Engineering and Miscellaneous Trials Report

1-16-2 DATED 30 JAN 1974

WEAPONS ASSESSING UNIT REPORT  
FOR THE SIX MONTHS ENDING 31ST DECEMBER 1973

1. The major items, including problem areas, covering the Weapons Assessing Unit of RANTAU, are reported below:

Degaussing Ranges, Sydney

2. In the period reviewed a considerable amount of repair and installation has been undertaken as follows:

- a. Deep D.C. Range (Capital Ships) has been taken out of service because of underwater equipment faults. GNGID are in the process of re-designing the underwater fittings.
- b. Shallow North-South D.C. Range is fully serviceable.
- c. M.C.M. Underway Ranges are in the process of repair. This has been delayed by the receipt of faulty cable. Follow-up action on redelivery of serviceable cable is being progressed by GNGID. Probably earliest date of completion of repair is March 1974.
- d. Roll and Stray Field Ranges have been surveyed and underwater fittings brought up for maintenance. Seamanship trials were carried out and the problems arising from these are being remedied. Probable date of completion of these ranges is mid 1974.
- e. Compressor for Roll and Stray Field Ranges will be situated in the current emergency generator building in the main shore complex. This has been included in the 1973/74 Works programme as a Supplementary Item. As an interim measure it will be mounted on a flat top lighter, trials will be conducted early 1974.
- f. Main Building Alterations have been completed. These alterations were necessary to overcome security problems.
- g. Fire Alarm System has been installed throughout the range complex buildings and is now operational.
- h. Beautification of Harbour Foreshore. COMWORKS have in hand the requirements of the State to restore the area to 'natural' state and planting is to commence this spring.
- i. Installation of East-West, and Modifications to North-South Shallow Ranges are underway and are anticipated to be completed in 1974.
- j. Removal of Southern Most Dolphin Rose Bay will be undertaken as part of the contract for modification of the North-South range.
- k. NSR 19/71 The engineering specification for the updated 3 axis degaussing ranges for NSR 19/71 has been completed and forwarded to Navy Office.

3.

Sound Range Jarvis Bay

- a. Laser Replacement for lead marks. Initial trials of a navigational laser system were conducted in April 1973. It was found that the system trialled had some shortcomings which could be overcome by redesign. Another trial is programmed for February 1974, using the redesigned system.
- b. Overall inspection of Seaward Equipment and Cable. The sound range seaward equipments are overdue for routine periodical inspection, this is planned for early 1974. Maintenance has been carried out on the spare hydrophone cage and anchor block.
- c. Draft NSR for Sound Range replacement and Systems Alignment facilities Jarvis Bay.  
Two final draft NSR's have been completed for these facilities.

4.

Computer

Ordering action for the RAMTAU computer is now complete and delivery is expected in several stages, the first of which will comprise the central provision and controlling teletype. However the Department of Housing and Construction are seriously behind with their programme of preparing the computer room. It appears inevitable that a minimum delay of several months will occur between initial delivery of equipment and availability of the computer room.

5.

Annual Summary of Weapon Practices

This report which covers the period 1st July 1972 to 30th June 1973 consists of five volumes, four of which have been issued. The remaining volume on the Ikara Weapon System has been appreciably delayed owing to staff shortages and additional commitments on this staff.

6.

Telemetry Station Jarvis Bay Missile Range.

- a. Electrical Power Supplies. A revised proposal for major alterations to the existing power supply system at JEMR has been received from the Department of Housing and Construction. This proposal which involves nominal modification to the RAM telemetry station is currently being appraised.
- b. Fire and Security Alarm Systems. The RAMTAU proposals, outlined in the last six monthly report, have not been completed though it is understood initial investigation of total requirements has commenced.
- c. August Activation  
MAU staff operated the RAM telemetry station during the August JEMR activation, and received and recorded telemetry data from Surface to Air Tartar Firings and Air to Air Sidewinder Firings to enable flight analysis.
- d. UHF Conversion  
Subsequent to the visit to Australia of a USN telemetry team in 1972 an initial proposal, for the conversion of the RAM telemetry station from VHF to UHF capability, has been received from the USN. RAMTAU has recommended certain deletions to the proposed system to meet RAM requirements and is at present engaged in resolving site queries outlined in the USN document.

7. RIMPAC 73 Exercises

MAU staff were responsible for instrumentation and records during the Weapons Practice phase at RIMPAC 73. Since the completion of this task the group has been involved in the assessment of this exercise and anticipate issue of the main exercise report early in 1974.

dated 30 JAN 1974

SURFACE WEAPONS TRIALS ACTIVITIES

1. During the period from 1st July, 1973 to the 31st December, 1973 the Surface Weapons Trials Team carried out the following:

a. PATROL BOATS

16 July 1973 HMAS IBIS - Gun Functioning Trial  
 23 July 1973 HMAS IBIS - C.F.T. repeat  
 30 July 1973 HMAS IBIS - C.F.T. repeat  
 16 July - 19 July 1973 HMAS BAYONET - Harbour Acceptance Trials  
 20 July 1973 HMAS BAYONET - Sea Acceptance and Gun Functioning Trials  
 6 Aug 1973 HMAS IBIS - Gun Functioning Trials  
 17 Aug 1973 HMAS MADANG - Harbour Acceptance Trials  
 21 Aug 1973 HMAS MADANG - Sea Acceptance Trials  
 22 Aug 1973 HMAS MADANG - Sea Acceptance Trials  
 13 Sept 1973 HMAS BUCCANEER - Harbour Acceptance Trials  
 14 Sept 1973 HMAS BUCCANEER - Sea Acceptance Trials  
 17 Sept 1973 HMAS AITAPE - Harbour Acceptance Trials  
 21 Sept 1973 HMAS AITAPE - Sea Acceptance Trials  
 19 Nov 1973 HMAS ATTACK - Harbour Acceptance Trials  
 21 Nov 1973 HMAS RANDOLPH/RI SIBIRAU - Sea Acceptance Trials  
 20 Nov 1973 HMAS ATTACK - Sea Acceptance Trials

b. Landing Craft (Heavy)

30 July 1973 HMAS LABUAN - Harbour and Sea Acceptance Trials.

c. HMAS NEWBOUTIQUE

9-13 July 1973 - 40/60 Mounting Harbour Acceptance Trials  
 19-20 July 1973 - 40/60 Mounting Sea Acceptance and Gun Functioning Trials

d. HMAS SWAN

17 Sept-14 Oct 1973 - M22 and M44 Harbour Acceptance Trial  
 12 Oct 1973 - Gun Functioning Trial  
 24-29 Oct 1973 - Sea Acceptance Trials  
 16 Oct 1973 - Seacat Hoist HAFs  
 25 Oct 1973 - Seacat Hoist HAFs  
 30 Oct 1973 - Seacat Hoist HAFs

e. JNR

13-15 Aug HMAS PERTH - Tartar Firing S.W.T. in attendance.  
 23 Aug 1973 - S.W.T. attended a programme meeting at JNR.

f. MEETINGS

S.W.T. attended or held the following meetings:

5 July - TURANA Development Meeting held in Canberra  
 30-31 July 1973 - TURANA meeting held in Canberra  
 27-28 August - TURANA meeting held in Canberra  
 26 Sept 1973 - Meeting RANTAU - Results of C.C.T.V. Trials on VAMPIRE  
 2 Nov 1973 - M22 Tilt and Alignment meeting held at RANTAU  
 12 Dec 1973 - Seacat Hoist Meeting held in Canberra

e. CCTV

23-24 July 1973 - S.W.T.T. conducted a feasibility trial at West Head.

8-12 Sept 1973 - S.W.T.T. conducted a Shipboard CCTV feasibility trial in VAMPIRE

h. HMGs HATs and SATs

25-26 July 1973 - Proving of HATs and SATs schedules.

j. .5 BROWNING MACHINE GUN COURSE

SWT personnel attended the course at West Head.

k. RCST OPEVAL

20-21 August 1973

26 Sept - 12 Nov 1973

Conducted by S.W.T. at Jervis Bay.

l. Experimental Graticule for Bore Telescopes

27-30 Aug 1973 - S.W.T. conducted evaluation of experimental Bore telescope on board HMAS TORRENS.

m. HMAS VENDETTA Offset Bombardment and Vibration Trials

1 Nov 1973 - S.W.T. conducted trials.

n. 3-4 Dec 1973 - Sleeve Target Trials at West Head.o. 10 Dec 1973 - Semi Automatic Fuse Paralyser.p. DAC Courses. Were conducted by S.W.T.T.

19-23 Nov 1973 for HMAS VAMPIRE

17-21 Sep 1973 for HMAS VENDETTA

10-14 Dec 1973 for HMAS SWAN

2. Reports

The following reports and schedules were produced by the Surface Weapons Trials Team:-

- a. Reports on all the inspections and trials listed.
- b. Feasibility Study on C.C.T.V.
- c. Visit report of RANTAU reps for West Head on C.C.T.V.
- d. HMAS HOBART Tartar and Gun Sgt schedules.
- e. Proposed amendments to ABR.1043.
- f. TT 337 - GPCS 68 HATs and SATs.
- g. HATs schedule proposal for 5/54 NK 42 MOD 10.
- h. Analysis of HGS and Weapon practices.
- i. W22 alignment test and installation of benchmarks.
- j. HGS Operational Analysis.
- k. RAN Weapon Practice Philosophy.
- l. Proposed schedule for Semi-Automatic Fuse Paralyser.



TAS TRIALS ACTIVITIES

1. During the period 31st June to 31st December 1973 the following activities were carried out by the TAS Trials Team.

a. HMAS SEMAN

- (1) Harbour Acceptance Trials
  - MCS 10 AN System
  - Sonar Type 170B
  - Sonar Type 177M
  - Sonar Type 182
  - Sonar Type 185
  - Sonar Type 162
  - Expendable Bathythermograph
  - Sonar Type 176
  - Sonar Type 1071
  - Hull Outfit 16
  - Hull Outfit 5
  - Hull Outfit 20
- (2) Beam Pattern checks were conducted on Sonars Type 177M and 170B.
- (3) Sea Acceptance Trials were carried out on Sonars 177M, 170B, 185 and 182.
- (4) Mortar MK 10 AN calibration conducted at Rose Bay.
- (5) Ikara SQT (phases 1 and 2) carried out with Vendrep support.

b. HMAS VINDYTTA

- (1) Harbour Acceptance Trial Mortar MK 10 AN.
- (2) Mortar MK 10 AN Calibration at Rose Bay.
- (3) Sea Check Firing Mortar MK 10 AN at Jervis Bay.

c. HMAS WATSON

- (1) Harbour Acceptance Trial Mortar MK 10.
- (2) Calibration Mortar MK 10 Watsons Bay.

d. HMAS TORRENS

- (1) Harbour Acceptance Trial Sonar 182.
- (2) Sea Acceptance Trial Sonar 182.
- (3) Sea Check Firing MCS MK 10 AN carried out at Jervis Bay.

e. HMAS DUNGEN

- (1) Sea Check Firing MCS MK 10 carried out at Jervis Bay.
- (2) Ikara Range and Bearing alignment.

f. HMAS PARRAMATTA

- (1) Sea Check Firing MCS MK 10 carried out at Jervis Bay.

g. HMAS STUART

- (1) Ikara Range and Bearing alignment.
- (2) Pre-Rimpac modified Ikara SQT.
- (3) Ikara SAT 2.

b. HMAS BRISBANE

- (1) Pre Rinspac modified Ikara SQT.
- (2) Ikara Range and Bearing alignment.
- (3) Ikara SAT 2.

1. HMAS ROBERT

- (1) Ikara SQT. (Phase 1 only)
- j. During this period TAS Trials co-ordinated and participated in the following:
- (1) MK 44 Torpedo Air Drop Trials in Jarvis Bay.
  - (2) MK 44 Torpedo Steeraway Trials.
  - (3) MK 46/21 B12 C Trials (2).
- k. In addition personnel from TAS Trials provided technical assistance to:
- a. HMAS SWAN Mortar MK 10 AN.
  - b. HMAS VINDICATA Mortar MK 10 AN.
1. TAS Trials personnel underwent the following courses during this period:
- (1) Lt A. Veaseck - Ikara Systems Course WRE
  - (2) CPOSTS W. McNamee - Ikara Systems Course WRE
  - (3) POSTS K. Hudson - Ikara Attack Console Course WRE
  - (4) POSTS P. Van Bladel - 21B12C Aquant Course RANSE

WEAPONS ELECTRICAL POWER TRIALS ACTIVITIES

1. During the period 1 July to 31 December 1973 the Electrical Power Trials Team carried out the following activities :-

- a. HMAS MORESBY. An Installation Inspection of Internal Communications was carried out in June.
- b. A Harbour Acceptance Trial of the Anna Brown Compass was carried out in D.T. PORPOISE in June, followed by representation during Magnetic Compass Swing.
- c. An Inspection of the Marine Demonstration Building (Engineering) in HMAS Cerberus was carried out in July.
- d. Further power trials of the Muloke Sonar Set were carried out in HMAS DERWENT in July.
- e. A Darken Ship Trial was conducted in D.T. PORPOISE in June.
- f. A Harbour Acceptance Trial of the Echo Sounder in D.T. PORPOISE was carried out in August.
- g. The Power Trials Officer represented RANPAU at RADNAZ Trials conducted at HMAS Albatross in August.
- h. Generator Trials were conducted in:  
HMAS SWAN in August  
HMAS KIMELA in September  
HMAS MORESBY in December
- i. One Power Trial Sailor was on loan to Weapons Assessing Unit for Sound Ranging at Jervis Bay during August/September.
- j. A Harbour Acceptance Trial of the NK 19 and NK 23 Compasses was conducted in HMAS SWAN in September followed by a Sea Acceptance Trial.
- k. A Harbour Acceptance Trial and Sea Acceptance Trial were conducted in HMAS SWAN on Type 771 Echo Sounder during September.
- l. Generator Paralleling Trials were conducted in HMAS FLINDERS in November.
- m. A Pre-refit Trial was carried out on HMAS SUPPLY's Generators in November.

DATED 30 JAN 1914

RADIO/RADAR TRIALS ACTIVITIES

The following Trials were carried out between the 1st July and 31st December 1973:

- (1) Installation Inspections and/or Acceptance Trials were carried out on radio and radar equipment fitted in the following ships and establishments:

HMAS CERBERUS  
HMAS LONSDALE  
HMAS ALBATROSS  
HMAS HMCCHSTER  
HMAS KUPTABUL  
HMAS WATSON

HMAS FLINDERS  
HMAS SALAMAU  
HMAS BUNA  
HMAS BREAGO  
HMAS BARDOLIER (RI SIRANAU)  
HMAS SWAN  
HMAS PARRAMATTA  
HMAS SUPPLY  
HMAS VINDICATA  
HMAS MELBOURNE

- (2) An evaluation trial was carried out on SARBE 5 Beacon.
- (3) Commem. Security Inspections were carried out in the following ships and establishments.

HMAS MELBOURNE  
HMAS SWAN  
HMAS SALAMAU  
HMAS BUNA  
VICTORIA BARRACKS NSO (MELB.)  
WILLIAMSTOWN NAVAL DOCKYARD NSO.  
HMAS MORETON

HMAS WATSON  
HMAS HUGH  
HMAS LONSDALE  
HMAS CERBERUS

DATED

30 JAN 1974

MARINE ENGINEERING AND MISCELLANEOUS REPORT OF  
ACTIVITIES FOR THE PERIOD 1 JULY - 31 DECEMBER 1973

1. On the 16th November 1973 the Marine Engineering Trials Officer LCDR Glen L. Campsey took up his posting as Base Engineer Officer, HMAS WATERHEN. His relief CMR SDEN S.C. Fuller joined RANTAU on 10th December 1973.
2. Activities undertaken during the period were:
  - a. Landing Craft Heavy  
Contractors Sea Trials were carried out on HMAS SALAMAU in July 1973, HMAS BUNA in August 1973 and HMAS BETANO in November 1973.
  - b. HMAS MORSEY  
Pre-refit trials were carried out on the Power Generation systems during July/August. Post refit trials were progressing at the end of the period.
  - c. HMAS BICHSEL  
Advance Installation Trials and Inspections were carried out during October and November on Accommodation Compartments, Air Conditioning Systems and Compartments, Storerooms, Dining Halls, Galleys, Sick Bay and Annexes and JTO's classroom.
  - d. HMAS FLINDERS  
Sea Trials were carried out in November 1973.
  - e. 33ft Fleet Utility Boat  
The Seanship Trials Officer carried out user acceptance trials of the 33ft FUB (first production model) at St. Kilda, Victoria on 10th August 1973.
  - f. 26ft Harbour Personnel Boat  
The Seanship Trials Officer carried out user acceptance trials of the 26 ft H.P.B. (first production model) at Fremantle W.A. on 16th/17th August 1973.
3. Ad hoc activities undertaken by the Seanship Trials Officer were:
  - a. Survival Ration Trials  
RANTAU co-ordinated and provided the OIC for Survival Ration Trials which were conducted in Darwin Harbour in September 1973, under the auspices of the Department of Defence.
  - b. Prototype 25 man I.L.R. Trials  
Trials of prototype 25 man Inflatable Liferafts were conducted in Jarvis Bay during the period 26th to 29th November 1973.

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18/6/3956.

DEPARTMENT OF THE NAVY

MEMO R.A.N.T.A.U.

Report of Proceedings 1/4 R Ended 31/12/72

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DENS 14/2

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DOFO 14/2

AS(NS) (1355) 27/2/73

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14/2/73

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9 FEB 1973

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RAN Trials and Assessing Unit  
The Edgecliff Centre  
203-233 New South Head Road  
EDGECLIFF NSW 2027

7 FEB 1973

The Secretary  
DEPARTMENT OF THE NAVY

NAVY—CANBERRA

18

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3956

For Information:

The Flag Officer Commanding, East Australia Area

RANZAU - REPORT OF ACTIVITIES  
FOR THE HALF YEAR ENDED 31 DECEMBER 1972

Reference: AND 497/70 para. 5.

The six monthly report of functional activities is forwarded in accordance with the reference.

2. Administrative matters have been reported separately to the Flag Officer Commanding, East Australia Area.

*J.D. Goels*  
(J.D. GOELS)  
CAPTAIN RAN  
OFFICER-IN-CHARGE  
RANZAU

- ANNEXES: A. Weapons Assessing Unit Report  
B. Weapons Electrical Trials Report  
C. Gunnery Trials Report  
D. T.A.S. Trials Report  
E. Marine Engineering Trials Report.

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7 FEB 1973

**RESTRICTED**WEAPONS ASSESSING UNIT REPORT

1. The six monthly review of activities of the Weapons Assessment Unit of RANTAU is as follows:

Annual Summary of Weapons Practices

2. This report which covers the period from 1st January 1971 to 30th June 1972 was issued on 8th November. The report was issued as four separate volumes on this occasion to overcome the difficulties of size and different security classifications.

Surface Weapon Analysis Section

3. a. Jervia Bay Missile Range: WAU staff operated the Tartar Telemetry Station during an activation (July), and received and recorded telemetry data from four surface to air Tartar firings to enable flight analysis.
- b. Tartar Analysis: The RAN Tartar Analyst undertook a short term visit to the USN Fleet Missile Systems Analysis and Evaluation Group in California, between 2nd October and 3rd November. This visit enabled a review of Tartar firing performance, an update in evaluation techniques and an introduction to the analysis of Standard Missile (MR).
- c. Seacat Analysis: Only nine Seacat exercise missiles were expended in the period 1 July to 31 December. These firings have been evaluated and the respective analysis reports despatched.
- d. Gunnery Analysis: Since moving to new accommodation the Gunnery Analysis Group has experienced some difficulty with logistics, resulting in delays in processing records.

Underwater Weapon Analysis Section.

4. a. IKARA Group: This group was responsible for instrumentation and records during the Weapons practice phase at RIMPAC 72. Since the completion of this task the group has been involved in the assessment of this exercise and anticipate issue of a report early in 1973.
- b. Radiated Noise Group: The Sound Range at Jervia Bay is out of commission due to a defective underwater cable and a faulty high frequency hydrophone system. A minor update to remove inherent limitations of the hydrophone system will form part of the repair programme and will result in increased reliability and accuracy.

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- c. Degaussing Group: The Shallow North-South degaussing range is now operational, however all other ranges are not. The deep range is in the process of final testing prior to acceptance, the minesweeper ranges are undated due to leaky underwater units, and the Roll and Stray field range is finally approaching initial acceptance and commissioning stage.
- d. Jervis Bay facilities: A report on the future requirements for NGS, degaussing, sound ranging and alignment facilities in Jervis Bay has been completed in this period.

#### Acquisition of Major Equipment

5. The provision of an in house computer facility for RANFAU still remains outstanding.

A proposal to duplicate the RANFAU film reading system was forwarded in August of this period. This item is urgently required to meet the rapidly increasing demand in gunnery analysis, and the marked increase in film records from other weapon evaluations.

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**RESTRICTED**WEAPONS ELECTRICAL TRIALS REPORTPower Trials

1. Generator trials were conducted in the following ships at the times indicated:

VAMPIRE	JUNE
MORSEBY	AUGUST
ANZAC	OCTOBER - DECEMBER
BRUNEI	NOVEMBER
VENDETTA	DECEMBER

2. Inspections and trials of Navigational Aids were conducted in HMA Ships YARRA, FLINDERS, VENDETTA, ANZAC and T.D. SEAL.
3. Inspections of Internal Communications Equipment were carried out in HMA Ships VENDETTA and FLINDERS.
4. In HMAS VENDETTA, the installation of galley equipment, laundry equipment and of hull and fire pumps was inspected.
5. The installation of converted supplies in the WEAPONS ELECTRICAL ENGINEERING DEMONSTRATION BUILDING was inspected at HMAS CERBERUS.
6. Among the small craft to undergo inspections and trials were a Small Harbour Tug, a Motor Crane Stores Lighter and a Radio Controlled Surface Target.
7. Trials were conducted in HMAS STUART to observe the generator loading effects and interference with ship systems expected from the re-engineered Sonar 177N (MULLOKA)

Radio and Radar Trials.

8. Concentre Security Inspections were conducted in HMA Ships ANZAC, COONAMARRA, PALUMA, OXLEY, SYDNEY, MELVILLE, STUART, VAMPIRE, FLINDERS, SWAN, VENDETTA, YARRA, MELBOURNE, TORRENS, KIMELA, DERWENT and SNIPE and at HMA Fleet Headquarters and Williamstown Naval Dockyard.
9. Radio inspections and trials were conducted in HMA Ships FLINDERS, VENDETTA, YARRA, MORETON, BALIKPAPAN and BRUNEI, in SHF504 and RADIO CONTROLLED TARGET C2 and at NAVY OFFICE, MELBOURNE.
10. Radar inspections and trials were conducted in HMA Ships ANZAC, VENDETTA, YARRA, SWAN and CERBERUS (WEAPONS ELECTRICAL ENGINEERING DEMONSTRATION BUILDING).

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ANNEX C TO RANTAU LETTER  
1-16-2 DATED

GUNNERY TRIALS TEAM

1. During the period from 1st July, 1972 to the 31st December, 1972, the Gunnery Trials Team carried out the following:

a. PATROL BOATS

7 AUG 72	HMAS LAE	Harbour Acceptance Trials
9 AUG 72	HMAS BARBETTE	Harbour Acceptance Trials
9 AUG 72	HMAS LAE	Sea Acceptance Trials
15 AUG 72	HMAS BARBETTE	Sea Acceptance Trials
5 SEP 72	HMAS ASSAIL	Harbour Acceptance Trials
6 SEP 72	HMAS ASSAIL	Harbour Acceptance Trials
19 SEP 72	HMAS ASSAIL	Harbour Acceptance Trials
20 SEP 72	HMAS ASSAIL	Harbour Acceptance Trials
24 OCT 72	HMAS LADAWA	Sea Acceptance Trials
28 NOV 72	HMAS ADROIT	Harbour Acceptance Trials
21 DEC 72	HMAS RANDOLIER	Sea Acceptance Trials

b. HMAS PERTH

Assisted Ship's Staff to set to work and operate the Tartar Telemetric Data Receiving, Recording and Scoring Set-AN/SEK-1 during Annual Training Tartar firings.

c. HMAS SWAN

During July and August, in conjunction with Turana Sea Trials, assisted ship's staff with the installation, maintenance and operation of the Muzzle Velocity Indicator Mk.2.

d. HMAS SYDNEY

Carried out Harbour Acceptance Trials on the 40/60 Mk 7 Bofors guns on the 2nd and 3rd October, 1972.

e. HMAS TORRENS

Carried out trials and inspections in conjunction with Williamstown Naval Dockyard on the Seacat Endless Chain Hoist during period 16-18th August 1972.

f. HMAS VAMPIRE

Carried out Blast Trials in Bass Strait, 18th July, 1972.

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g. HMAS VENDETTA

At Williamstown Naval Dockyard, carried out the following trials and inspections:

- 17-21 JUL 72 - Advanced Installation Inspection, Item 8.
- 14 NOV 72 - Inspection of Gunnery Compartments and Centralised Recording, A, B and X Gun Houses and Gun Bays.
- 15 NOV 72 - Inspection of B turret safety firing arcs.
- 16 NOV 72 - Inspection of A and X turret G1 and G2 safety firing arcs.
- 17 NOV 72 - Inspection of M3 and M4 Safety firing arcs.

h. HMAS YARRA

Carried out Harbour Acceptance Trials during the period 3rd to the 24th of October 1972. On the 24-25th October, 1972 conducted trials of the Gun Recovery Throwoff Simulator, and finally carried out Sea Acceptance Trials during the period 21st - 23rd November, 1972.

j. HMAS ANZAC

Carried out Harbour Acceptance Trials on two 40/50 Mk 7 Bofors guns on the 1st December 1972.

k. REDEYE

In conjunction with Army Headquarters and the School of Artillery (ARMY) carried out the first Annual firings of the REDEYE surface-to-air missile at Beecroft NGS Range using PTA and Delmar targets. The Gunnery Trials Team were represented at all of the following:

- 22 SEP 72 REDEYE Trials Planning Conference
- 10 OCT 72 REDEYE/DELMAR Target Competibility Trial.
- 20 NOV 72 REDEYE Trials Briefing Presentation - NAS NOWRA
- 21-23 NOV 72 REDEYE Simulator Training and live Firings.

l. 3" ROCKET LAUNCHING SYSTEM MK AN1Y

Carried out installation and firing acceptance trials on this system at West Head Gunnery Range on the 1st and 16th November 1972

m. SPECIAL PRACTICE BOMBARDMENT ROUND

Attended trials sponsored by the Defence Standards Laboratories at Beecroft NGS Range on the following dates:

- 17 AUG 72
- 7 SEP 72
- 8 SEP 72
- 18-20 SEP 72

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**RESTRICTED**n. DELMAR HIT RECORDER

Represented by LCDR QUINN on the 20th July, 1972 at Jervis Bay Missile Range during the first phase of the trial. Carried out final acceptance of system during live firings on the 2nd of November.

o. RADIO CONTROLLED SURFACE TARGETS

Carried out sea trials on the Firefish R.C.S.T. on the 25-26th September, 1972 at Jervis Bay.

p. PROTOTYPE REPLACEMENT (R.C.S.T.) MSR 20/66

Attended meetings and trials at Brisbane as follows:

17th NOV 72	Dept. of Supply meeting.	
27-28th NOV 72	Trials Planning Meeting, Dept. of Supply, Brisbane	
18th DEC 72	Harbour Acceptance Trials	} Both carried out in Moreton Bay.
19-20th DEC 72	Sea Acceptance Trials	

2. TURANA. RADIO CONTROLLED TARGET DRONE NSW 38/66

The Gunnery Trial Team were represented in all the following events:

18-19th JUL 72	Planning Meetings at Navy Office and GAF.
2-23rd AUG 72	Turana Sea Trials at Jervis Bay Missile Range and in HMAS SWAN.
9th OCT 72	Progress meeting at Navy Office
25-26th OCT 72	Turana Light weight launcher trials at GAF AVALON.
1-2 nd NOV 72	Progress meetings at Navy Office
5-6 th DEC 72	Planning meeting for Turana Low level Trials in HMAS BRISBANE.

3. REPORTS

The following reports and schedules have been produced by the Gunnery Trials Team:

- Reports on all the above trials and inspections.
- Turana OPORDER 3/72 and OFEVAL Report.
- AM/SKQ1 - Tartar Telemetry Operator/Maintainers Course.
- AM/SKQ1 - Tartar Telemetric Data Receiving, Recording and Scoring Set AM/SKQ-1, Pre Firing Calibration and Alignment Procedure.
- MRS 3. Sea Acceptance Trials Schedule.

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4. GUNNERY ANALYSIS**RESTRICTED**

As from the 1st July 1972 the Gunnery Trials Team assumed the responsibility for the conduct of Surface and Naval Gunfire Support Analyses of firings carried out by RAN Ships and the production of the final reports. These have been summarised below.

SUMMARY OF ANALYSES CONDUCTED BY THE G.T.T.

Total Ships	Total Firings Reported		Submitted For Analysis		Awaiting Receipt of Records		Analysis In Hand		Analysis Report Forwarded Completed	
	NGS	S.U.	NGS	S.U.	NGS	S.U.	NGS	S.U.	NGS	S.U.
FIRING										
8	17	18	10	7	2	2	2	1	8	5

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ANNEX D TO RANFAU LETTER 1-16-2  
DATEDTAS TRIALS REPORT

1. During the period 1st July 1972 to 31st December 1972 the following activities were carried out by the TAS Trials Team.

a. HMAS YARRA

- (1) Harbour Acceptance Trials
  - M.C.S. 10 System
  - Sonar Type 170B
  - Sonar Type 177M
  - Sonar Type 185
  - Sonar Type 162
  - Expendable Bathy thermograph
  - Sonar type 1070
  - Sonar type 1072
- (2) Beam Pattern checks were conducted on sonar types 177M and 170B.
- (3) Sea Acceptance Trials were conducted on 170B and 177M.
- (4) Mortar MK 10 calibration conducted at Rose Bay.
- (5) IKARA SQT (Phase 1) carried out with Vendrep support.
- (6) IKARA Range and Bearing alignment.
- (7) IKARA SAT 2 and 3. SAT 2 was repeated due to defective aerial in Macchi aircraft.

b. HMAS DERWENT

- (1) Mortar MK 10 Sea Check Firing which proved unsuccessful due to fault in Solid State equipment of the Modified Mortar.

c. HMAS SWAN

- (1) IKARA Range and Bearing alignment.

d. HMAS TORRENS

- (1) IKARA Range and Bearing alignment
- (2) Assisted Power Trials section to conduct EEE trials on defective IKARA Missile Firing Transformer.
- (3) Attempted Mortar MK 10 Sea Check Firing aborted due to loss of Triplane target.

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e. HMAS VENDETTA

- (1) Advance Installation Inspection of diving store
- (2) Advance Installation Inspection of Sonar Compartments
- (3) Installation Inspection of Modified Mortar MK 10.

f. HMAS VAMPTRE

- (1) Two attempts at a Mortar MK 10 Sea Check Firing, the second being successful.

g. HMAS FLINDEES

- (1) Advance Installation Inspection 'SIMRAD' Sonar and associated Fittings.

h. HMAS OXLEY

- (1) In conjunction with HMAS PLATYPUS and the Vernon Trials Team, co-ordinated Post refit trials.
- (2) Prepared a Trials schedule for the conduct of a Sonar Interference Trial to be conducted during 1973
- (3) Attended Post Refit Progress meetings.

i. Sonar Simulator 21B12C/MK 46 Compatibility Trial

- (1) Conducted at Jervis Bay using a static MK 46 Torpedo suspended from a TRV. A pretrial trial of trailing a float from the 21B12 to assist in visual positioning of the target was also conducted.

j. MK 44 Shallow Water Trials

- (1) Phases one and two of this trial were conducted by RANTAU, with phase two being repeated due to incorrect torpedo settings.

k. Modified Mortar MK 10

- (1) Factory trials were conducted at Salisbury with vander assistance.

1. HMAS OXLEY

- (1) Post refit trials in conjunction with HMS VERNON and COMAUSSUBRONOME trials team. (Trials continuing).
- (2) Prepared Trials schedule for conduct of post refit Sonar Interference Trial.

2. During this period TAS Trials co-ordinated and participated in the following:

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a. Diving Trials

b. MK 44 Torpedo Shallow Water Trial Phase I and II with a repeat of Phase II due to incorrect torpedo settings

c. Modified Mortar MK 10 Factory tests at WRE Salisbury

d. Sonar Simulator 21B12C/MK46 torpedo Compatibility Trials.

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ANNEX E TO RANTAU LETTER  
1-16-2 DATED

MARINE ENGINEERING TRIALS REPORT

STAFF: LCDR (GLEN) L. CUMSTREY  
LCDR (GLEX) J.E. BUCHANAN  
MECH 1 W.D. BRUCH (until 1.12.72)  
MECH 1 A.C. WHITTEN (from 27.11.72)  
MS2 E.J. STEVENS

Part-time for MECH: LCDR (GLEX) J.G. BIRD } - HMAS PENGUIN  
CME P. THOMPSON

The department was involved in the following activities:

HMAS VENDETTA

- 4. 7.72 A.I.I. of Workshops, Laundry and Galleys
- 7. 7.72 A.I.I. of Accommodation and Sickbay
- 8. 9.72 I.I. of Hull and Fire Pumps
- 15. 9.72 P.I.I. of Storerooms (outside Trials Officer)
- 21. 9.72 A.I.I. Weatherdecks and Unrep. Arrangements.
- 13.10.72 A.I.I. Air Conditioning and Ventilation Compartments
- 26.10.72 A.I.I. MECH and PP Arrangements.

HMAS CERBERUS MARINE ENGINEERING DEMONSTRATION BUILDING

- 11. 7.72 Initial Acquaintance Visit
- 28. 9.72 Acceptance Trial of Diesel Air Compressor.

HMAS FLINDERS

- 10. 7.72 P.I.I. of Bosun's Store.
- 8. 8.72 A.I.I. of Storerooms (Outside Trials officer)
- 15. 8.72 A.I.I. of Crews Accommodation and machinery spaces
- 16. 8.72 A.I.I. of Galleys, Pantries and Laundry
- A.I.I. of Workshops and Laboratory
- 29. 8.72 A.I.I. of Bathrooms and Heads
- 14. 9.72 I.I. of Seaman's Arrangements and Compass
- 26. 9.72 A.I.I. of Galleys, Pantries and Laundry (P.E.2)
- 27.9.72 A.I.I. of Officers Accommodation
- 5.10.72 A.I.I. of PP Arrangements (Outside Trials Officer)
- 6.10.72 A.I.I. of Machinery Compartments including Engine and Propeller controls.

SMALL HARBOUR TUG 504

7 and 8.8.72 H&Ts and S&Ts.

WATERJEL

A demonstration was arranged at HMAS NIRINHA on 10th October for a combined Service audience. The firefighting ability of WATERJEL was adequately demonstrated.

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DINGHY TRIALS**RESTRICTED**

Brief trials were conducted on the St. Georges River to evaluate a replacement dinghy for the Landing Craft (Heavy). The dinghy provided by the Army was considered too small.

CONCRETE AMMUNITION LIGHTER

Combined with an investigation into load-induced hull flexing, acceptance trials were carried out on 22nd November.

SEACLEAN 32

Seaclean 32 is a new GAMLEN product which the makers claim will help solve the problem of the disposal of oil sillage. In conjunction with the Dockyard Laboratory, trials were conducted in TCV COLAC early in September to establish the purity of the effluent into the harbour and the quality of the reclaimed oil.

RADIO CONTROLLED SURFACE TARGET

19 and 20.12.72 Acceptance/Evaluation trials.

HMAS BRUNET

11 to 13.12.72 CST's

HMAS SUPPLY

27.6.72 Probe Refuelling Trials  
28.6.72 SECOMAK Siren Trial..

45 FOOT PATROL CRAFT

11.10.72 A familiarisation visit to Hawker De Savillands in respect of the craft being build for Malaysia.

25 MAN INFLATABLE LIFECRAFT

19.10.72 Preliminary discussion with regard to future trials

33 FOOT GRP SEABOAT

25.10.72 User Acceptance Trials.

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**CONFIDENTIAL**HNAS RANTAU

Report of Proceedings

See Remarks  
ended  
2/10/53, 1010

AS(NS)

D of

DCTB

1NB

2NB

3NB

4NB

SECRETARY

C or S

DEF

AS(NS) (7855)

- NOTES: A. This copy is circulated so that Board Members may see these reports soon after they reach Navy Office.
- B. The report will be given again to Board Members with Director's comments if there is any matter of special interest in those comments.
- C. Circulation lists numbers 2 and 3 are referred to Directors and Heads of Branches.
- D. If any matter requires comprehensive treatment on reference to another Branch a new file should be raised, a suitable note being made above.

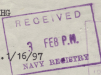
**CONFIDENTIAL**



TELEPHONE:  
35.0444

IN REPLY QUOTE

MHE



NS. 1/16/97

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ROYAL AUSTRALIAN NA

NAVY—CANBERRA

18 6 2612

OFFICE OF THE Commanding,  
FLAG OFFICER IN CHARGE  
EAST AUSTRALIA AREA,  
GARDEN ISLAND, N.S.W. 2000

DSAW  
24 JAN 1971

The Secretary,  
DEPARTMENT OF THE NAVY.

2 FEB 1971

RANTAU - REPORT OF PROCEEDINGS FOR SIX MONTHS  
ENDED 31ST DECEMBER, 1970

References: A. ANO 497/70 paragraph 5,

B. Navy Office letter 1436/201/89 (ASNS) of 13th  
January, 1971.

1. The enclosure is forwarded in accordance with the reference.
2. With the increasing requirement for the wide variety of targets required for the various system evaluations, consideration is being given to the formation of a Target Services Unit to be attached to this Command. Navy Office letter at reference B is relevant.

OIC Registry

*Handwritten:* NAVY REGISTRY - per register *Prohl*  
on new file -  
"RANTAU - ROP" REAR-ADMIRAL

RT Enclosure: RANTAU letter 1.16.2 of 7th January, 1971 with  
2/15/71 attachments.

For Information:

Flag Officer Commanding,  
H.M. AUSTRALIAN FLEET. (with enclosure)

Officer-in-Charge,  
RAN TRIALS & ASSESSING UNIT.

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*Handwritten list:*  
ASNS  
DSAW  
DUM  
DGFE  
DAP  
DWED  
DMED  
DAE

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ROYAL AUSTRALIAN NAVY



TELEPHONE:

IN REPLY QUOTE 1.16.2

RAF Trials and Assessing Unit  
New Beach Road  
EDGECLIFF NSW 2027

7 JAN 1971

The Flag Officer Commanding,  
EAST AUSTRALIA AREA

RANAU - REPORT OF PROCEEDINGS FOR SIX MONTHS ENDED  
31ST DECEMBER 1970

Reference : ANO 497/70 paragraph 5.

1. It is pleasing to note that the Marine Engineering Community is making more use of the Marine Engineering Trials Team.
2. Apart from accommodation and the number of postings in the TAS Trials team, RANAU has few worries.
3. One of our worries which must be not exclusive to RANAU is the lack of adequate targets for all systems evaluations. A preliminary study of targets is in hand.

  
(D.A.E. CLARKE)  
CAPTAIN, R.A.N.  
OFFICER IN CHARGE  
RANAU

- Annexes : *(Recent Annexes Added)*
- A. Administrative Division activities
  - B. Weapons Assessing Unit activities
  - C. IKARA Opeval Team Activities
  - D. Marine Engineering Trials Unit activities
  - E. Weapons Electrical Trials Unit activities

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DATED 7 JAN 1971

ADMINISTRATIVE SECTION

1. The period 30th June to 31st December has continued very busy administratively. The work has mainly been in the Sydney area and resulting in less air travel, but with VAMPIRE and DERWENT refits coming to an end, constant air passages for trials teams to and from Melbourne will be back in vogue.

a. Accommodation

It is hoped that approval for RANTAU to occupy the new building above Edgecliff Station will be forthcoming from Navy Office in the near future. A full office plan has already been prepared and forwarded through the Area Executive Officer. Additional requirements such as telephones, fittings, etc., will be forwarded when approval is received. Until RANTAU receives more office space additional approved administrative complement (largely civilian) cannot be recruited with the result that the administrative wing is working under high pressure and not providing all that they could. In particular this applies to the library which at the moment is an indexed conglomerate of books held in type B containers. The "walk-in walk-out" library proposed for the new building will provide the facility to set up an efficient library system which is very much needed for the Unit.

b. Transport and Boat

The 10 seat vehicle allocated to RANTAU in 1970/71 has now been received and has proved invaluable in transporting trials personnel. A Machinery and Plant proposal for a Land Rover Station Wagon to be used primarily for trials in the Jervis Bay area has been forwarded. The Wankel engine Bertin is expected to be received at RANTAU in early 1971 for trials. MB 168 will be retained until satisfactorily completing the Wankel boat trials.

c. Repair and Maintenance

The boat shed and garage areas will be painted early in the New Year. This will complete all painting in the Naval Establishment HUSHCUTTER with the exception of Sayocara Slipway. The establishment has now been completely repainted in the last 2 years and is in generally a good state of repair.

d. Admin. Block

During recent very heavy rains in Sydney a large number of leaks in the ceiling became evident. It is suspected that the roof itself is in a very poor state of repair. NFO has been asked to have the problem investigated for Form B action.

e. D.G. Range

The quote for Major Works proposed at the D.G. Range building is awaited by Department of Works. When this proposed work is completed the facilities at the D.G. Range should suffice for the next few years.

f. Office Facilities

Supplied two  
weeks ago

7/19/13

- (i) Despite constant reminders ACNE has not yet approved the issue of an electric Romeo Vicker Duplicator for RANFAU to replace the archaic inefficient hand operated presently held.
- (ii) A proposal to provide an updated Bark Xerox machine for RANFAU has been recently forwarded. A favourable reply is anticipated shortly from O & M.

g. General

It is hoped that the next 6 months will see RANFAU re-located in suitable offices and the recruiting of additional Administrative complement. The proposed new facilities and more staff will do much to providing an efficient "services back-up" for the Unit.

It is considered that all travel arrangements for uniformed and civil staff should be done by the Administrative Staff of RANFAU. The personnel section at Garden Island have proved themselves unsatisfactory in organising travel for RANFAU personnel. A separate submission in this regard will be made when the new Admin. Staff is recruited.



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ANNEX B TO RANPAU LETTER 1.16.2

DATED

7 JAN 1971

WEAPONS ASSESSING UNITSTAFFA. Present State

1. The state of staffing over the period is shown in the table below :

DATE	TYPE OF OFFICER	APPROVED*	HELD	SELECTED (NOT YET HELD)	ADVERTISEMENTS/ INTERVIEWS PENDING	NO ACTION YET TAKEN
1.7.70	Professional	10	6	Nil	Nil	4
	Sub- Professional	34	16	2	Nil	16
31.12.70	Professional	10	6	1	3	Nil
	Sub- Professional	34	22	6	5	1 <sup>ø</sup>
31.12.70		44	28	7	8	1

\*1. Does not include sailor/WRAN billets of 5 and 7 respectively.

2. New positions approved 8.6.70 and advised at end of June, 1970 so no advertising action was in hand at 1.7.70.

ø Position recently became available due to internal promotion. Action will be taken in January, 1971 to advertise.

2. The most disconcerting factor of the above table is that professional and experienced sub-professional officers have been difficult to obtain. Several advertisements have resulted in nil applicants. Hence the ratio of professional/sub-professional is unbalanced and hence investigation and ad hoc tasks requiring better expertise are being deferred or delayed. The existing senior staff are involved therefore in an inordinate amount of supervision and routine.

3. The work and co-operation of the Civil Personnel Branch has been gratifying.

B. Overseas Visits

4. Mr. G.W. Thomson, Engineer Class 2, returned from the United States after Tartar analysis training in October and his overseas visit report is in preparation. Many recommendations are included and will be forwarded with covering comments in January, 1971.

5. Mr. D.J. Stewart, Officer in Charge, Weapons Assessment Unit proceeded to Hawaii during the visit of YARRA and also visited New Zealand authorities in Auckland. His overseas visit report is in preparation and should be issued late January, 1971.

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Accommodation

6. Severe overcrowding has now resulted for the Weapons Assessing Unit and is having a marked effect on efficiency.

Facilities

7. Considerable work has been undertaken during the period under review on both data acquisition (recording) and data reduction.

8. It has now been firmly established that the Weapons Assessing Unit has a definite need of an in house computing facility to reduce the effort being expended on data reduction and also to considerably reduce the turn around time of analyses whilst covering a larger amount of valid data. Firm and detailed consideration of this problem has been made and a detailed proposal should leave RANPAR by March, 1971. Security considerations preclude a large amount of work being placed on outside contractors. Some work (only a small quantity) has been done on Defence computers in Melbourne but the time delay and convenience of such a usage render these unsatisfactory. This computing facility is seen as the greatest need at present and the cost of about \$70,000 is considered small in the long term. The short term advantages are large.

9. An automatic film reader has been installed and has assisted in the initial stages of film evaluation. This will be one input for the computer facility.

Activities

10. Additional staff has allowed of devotion of some officers' time to look at methods, techniques and facilities and some work along these lines is progressing. During the second half of 1970 the following investigations of this sort have been reported :

- a. An appreciation of the Delmar Gunnery A/A Target with recommendations to make the target operate as desired.
- b. An appreciation of the desirable parameters to be measured in A/A practices together with a treatise on the difficulties involved.
- c. An appreciation of the parameters to be recorded in the S.C.D.S. project.
- d. An appreciation of the parameters to be recorded in the NCDS project.
- e. Considerable work associated with recording instrumentation in submarines and surface ships as well as target instrumentation.

Annual Summary

11. The Annual Summary of weapons practices is in preparation and should be issued by 1st March, 1971.

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B-3

Discussions with RAAF

12. A/LT. R. Crocker (RAAF Kingswood) has visited and discussed assessment methods of RAAF Mk. 46 torpedoes. Considerable mutual benefit could accrue and further discussion is planned for January/February, 1971.

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ANNEX C TO RANTAU LETTER 1.16.2  
DATED 7 JAN 1971

IKARA OPEVAL TEAM

1. During July the RAM Requirements Document 1/70 was completed and forwarded to DUV for dispatch to the USN and RAM authorities.
2. On 13th July Commander Blackman relieved Lieutenant Commander Owens as Ikara Opeval Officer and the latter assumed the duties of Ikara SGT Officer at the same time performing part-time duties with the Opeval Team.
3. CAME 31/70 was published during the period. This re-defines the Team's Terms of Reference. Currently the team is up to complement but the November BARSTUR range operations and subsequent analysis tasks indicate that more expertise will be required for the 1971 exercise. This matter is being taken up separately.
4. The Team was without the services of a Technical Director for some 2 months during the year which delayed the production of the Op Order for the November 70 exercises. Mr. Marsh, the original Technical Director resigned from ANU in July. By August Department of Supply had nominated Mr. R.H. Whitten. Unfortunately this Officer was not completely familiar with Range Procedures and the requirements for the 1970 experiments. In the time left before the exercise it was therefore decided to contract Mr. Marsh to the Opeval Officer to assist in formulating the Run plans and Geometries. This was the subject of a letter to ACNE.
5. During August and September the Logistic problems arose which took up a considerable amount of time of the team in monitoring and arranging items for the exercise. Some items such as Kennedy cassettes and BR 144 recording tapes had to be shipped into the country. The Team required 60 of these items. Viscoorder paper was not available and the Timing Station had to be fitted in the ship. Similarly the telemetry station. In all about 1000 lbs. of instrumentation and recording software were fitted in YARRA prior to her departure from Australia in September.
6. By the end of September the Op Order was produced and dispatched. As stated the delay in this area was the finalisation of the run plans.
7. The Opeval Team consisting of some 9 members departed in groups for the Hawaii area between 21st October and 2nd November. Pre BARSTUR discussions were held with USN authorities and the exercise was successfully conducted on the BARSTUR between 02 and 06 November. Part of the Team remained in the area until Friday 13 November collecting data from the BARSTUR and arranging the return of the equipment to Australia. In all some 500 lbs. weight of records were brought back and about 2000 lbs. of torpedoes and instrumentation were returned by US MAC services.
8. Since the Team's return to Australia the Data Analysis Tasking was defined and an Initial Report is being prepared. Some difficulty is being experienced in the data reduction task due to computer problems at ANU.
9. Initial planning for the 1971 multi ship exercise is being defined and will be commenced as early as possible. This is essential in order to have the requirements defined by June to appraise COMASWOPAC of the RAM requirements for November, 1971.

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10. Apart from the Opeval the Team's other activities of importance have been the Ikara Tactical Working Party meeting held at RANSTAU in September. This group has provided inputs to the Free play run parameters for the Opeval. Advice on the tactical aspects of Fleet Ikara firings has been provided to WAU. The OR Group of AML has been visited in connection with the overdue report on the Single Unit Tactical Casing Model. This initial report has recently been received but as yet has not been studied.

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DATED 7 JAN 1971

NAVINE ENGINEERING TRIALS UNIT

1. Boat

MB 166 has continued to give good service, with one or two exceptions. A separate submission for a newer and faster boat was forwarded in October which eventuated in PB 25101, a Bertram 25 ft. boat with twin Markel petrol engines and outboard drive fitted, being allocated to RANTAU. This boat has already experienced teething troubles and is still with Garden Island Dockyard, however the boat is expected to be available early in January when evaluation trials on the suitability of the Markel engine and ZF inboard/outboard drive will start. RANTAU is sceptical at this stage, that the engine and drive arrangement, even with the larger propellers yet to be fitted, will be a success in the 25 ft. Bertram hull. However, if the arrangement is a success, a rubber strake at gun whale level will require fitting to prevent hull damage when going alongside ships at Sydney Heads or in Watson's Bay.

2. Commander S.C. Fuller was relieved by Commander D.J. Dalton on 17th September, 1970.

3. Since July the METU has been kept busy with the following inspections and trials :

- a. TORRENS including Final sea trials.
- b. SHIPS - Minehunter conversion - Installation Inspections.
- c. DERWENT - post refit trials and inspections.
- d. ZEV 254 - Inspections and trials before commissioning.

4. The following "ad hoc" trials have also been carried out :

- Ramjet underwater tool
- Underwater hull scrubber

5. HMAS DERWENT is the first ship to ask for assistance from the METU for post-refit trials which is a good sign. However, if all ships in commission ask for assistance from this unit for pre- and post-refit trials the present complement would be unable to cope with this load, new construction, "ad hoc" trials and associated report writing. Submissions will be forwarded for increasing the ME complement if and when considered necessary.

6. The M.E. Trials Officer has now assumed responsibility for all Inspections and Trials of ship magazine flooding and spraying arrangements which will be carried out in close liaison with the Gunnery and TAS Trials Officers. HMAS TORRENS is due to complete early in January as is another trial on HMAS PANDAMATTA's IKARA Spray System.

7.

The known inspection and trial commitments for the next 6 months are :

- a. New Construction - TRV 255
  - Two Harbour tugs
  - 33 ft. fleet boats
- b. Modernisation - HMAS VAMPIRE
- c. Conversion - HMAS SNIPE
- d. New equipment
  - HMAS MELBOURNE - bridge air conditioning.
  - HMAS SUPPLY - Avcat System modifications.
    - 500 lb. bomb room
    - enclosed bridge
- e. Post refit trials
  - HMAS DERWENT
  - HMAS MELBOURNE - catapult
  - HMAS SUPPLY

#### Trials Schedules

8. Some progress has been made on ME Schedules and the current position is that all schedules for equipments in HMA Ships SWAN and TORRENS up to and including Basic trials have been completed, as have post refit schedules for other Type 12 Escorts and the Daring Class.

9. A firefighting equipment trials schedule for new construction has been forwarded for ACNB approval and a draft Closing Down trial schedule has been written, but from experience requires amendment before approval.

10. Other schedules in hand are post refit schedules for DDG's and HMA Ships ANZAC and QUEENBOROUGH.

DATED 7 JAN 1971

WEAPONS ELECTRICAL TRIALS UNIT

1. The period under review has been marked by a sustained programme of inspections and trials without the intensity of the previous six months.
2. The heavy demand caused by SWAN's trials has been transferred to TORRENS with all but a few of SWAN's acceptance trials having been completed.
3. The manning situation has been generally stable with the notable exception of the TAS Trials Team where almost a 100% turnover of staff has taken place in the last six months. This busy team will be without the services of a WEED for the first quarter of 1971.
4. During the period IKARA System Qualification Trials (SQT), modelled on the TARTAR SQT process, were introduced in modified form with BRISBANE's system being accepted using the new technique.
5. Little headway has been made in reducing the back-log of inspections and trials schedules requiring updating. To facilitate this important task a request has been forwarded for the HMS schedule guidelines to be provided. It is hoped to concentrate on the schedule task on completion of TORRENS' Sea Acceptance Trials have been completed.
6. Details of individual trials teams' activities are contained in the appendices.

- Appendices :
1. Gunnery Trials Team activities.
  2. Radio Trials Team activities.
  3. TAS Trials Team activities.
  4. Electrical Power Trials Team activities.



7 JAN 1971

GUNBERRY TRIALS TEAM

1. With a reduction in the tempo of trials early in the period it was possible to update the MRS 3 trials schedules and produce draft Daily System Operability Test Schedules for the M22 and M44 weapons systems.
2. During October and December, Installation and Final Installation Inspections were completed in TORRENS and Harbour Acceptance Trials were progressed but not finished by the end of the year.
3. In VAMPIRE advanced Installation Inspections of the Operations Room and M22 Radar Room were completed.
4. Due to commitments in TORRENS of a high priority the only assistance that could be provided to the Commanding Officer, HMAS DUCHESSE, was the services of one CPO who progressed trials on the MRS3 system. Other members of the GTT completed other sections of the Harbour Trials schedule on an opportunity basis.

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APPENDIX 2 TO ANNEX E TO RANTAU LETTER

1.16.2 DATED

7 JAN 1971

RADIO TRIALS TEAM

1. After the hectic activity of the first half of 1970, a slight lull at the commencement of the second half gave an opportunity for all members of the team to take leave. This helped prepare them for another active six months.

2. Inspections and trials were conducted as follows :

- a. **TORRENS** - Installation inspections of all radio, radar and electronic warfare equipments. Harbour acceptance trials of all radio, radar and radar display equipments - some HATs are still outstanding.
- b. **SWAN** - Harbour and Sea Acceptance Trials of Electronic warfare equipment.  
DF calibrations  
Radar Vertical Coverage diagrams.  
Radmax and mutual interference trials.
- c. **SYDNEY** - Installation inspections, harbour and sea acceptance trials of multi-channel fleet broadcast equipment and radar 975. DF calibrations, polar diagrams.
- d. **KIMELA** - Pre-refit trials of radio and radar equipments.  
Post refit trials of radio and radar equipments.
- e. **TRV 254** - Installation inspection, harbour and sea acceptance trials of radio equipment.
- f. **BRISBANE** - Post-refit trials on HF/MF radio equipment.
- g. **YARRA** - IKARA Harbour Acceptance Trials.
- h. **DIAMANTINA** - Post-refit MF/DF calibrations.
- i. **FLATTY-PUS** - Installation inspection and harbour acceptance trials of concentre.
- j. **QUEENBOROUGH** - Pre-refit trials on all radio, radar and D.F. equipment.
- k. **BANKS/ESCOM-TER** - Post-refit radio and radar trials.
- l. **HAWK** - Radio and radar acceptance trials.
- m. **ONELOW** - Acceptance trials of HF and On-Line Radio equipment.
- n. **CERBERUS** - Installation inspection and acceptance trials of multi-channel fleet broadcast equipment.
- o. **DUCHESS** - Advance installation inspection and installation inspection of multi-channel fleet broadcast equipment.

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2B-2

- p. DERWENT - Advance installation inspection of multi-channel fleet broadcast equipment.
- q. SNIPE - Installation inspection of radio and radar equipment.
- r. VAMPIRE - Advance installation inspection of radio and radar compartments.
- s. KUTTANIL - Installation inspection and acceptance trials of multi-channel fleet broadcast equipment.
- t. ANZAC - Pre-refit trials of radio and radar equipment.
- u. GULL - Pre-decommissioning trials of radio and radar equipment.
- v. WILLIAMS- - Part-acceptance trials of HF transmitting equipment  
TOWN awaiting installation at HMAS HUON.  
NAVAL  
DOCKYARD

3. POBC KRAMME undertook a month-long course in transistor theory and application and digital techniques during the August-September period. SAC GOLDING and POBC KRAMME did a one-day course on the operation of Rank-Xerox duplicating equipment.

4. Industrial unrest and other factors have contributed to many postponements and delays of inspections and trials. These now look like crowding together early in 1971 making for a period of intense activity.

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TAS TRIALS TEAM

1. This period has been more demanding than the previous six months, owing to the near completion of HMAS TORRENS. Trials and Inspections were carried out on the following ships :

- a. SWAN - Endak HATs, Alignments and Opsequence on Ikara. Attempts at Ikara acceptance firings in September and Ikara firings finally successfully carried out in December.
- b. DERWENT - Advanced Installation Inspections and Installation Inspections on Modernised MCS 10. Underwater Fittings Inspection.
- c. SNIPE - 193 Sonar Installation Inspections and Underwater Fittings Inspection.
- d. VAMPIRE - Advanced Installation Inspections of SCR and Operations Room.
- e. QUEENBOROUGH - Pre Refit Trials.
- f. TORRENS - MCS 10 Installation Inspections and HATs, Ikara Installation Inspections and HATs, Sonar HATs, Underwater Fittings Inspection and Hull Outfit Sea Trials.
- g. DUCHESS - Sonar HATs and Squid HATs.
- h. BRISBANE - Ikara SATs and one Acceptance firing were held in August and a second Acceptance firing in September.

2. Trials were also carried out on Hull Outfits installed in HMAS WATSON and Macchi IKARA fin Ground Trials at NAS NOWRA in December.

3. TAS Trials have also been co-ordinating diving trials.

ELECTRICAL POWER TRIALS TEAM

1. Inspections and trials were conducted in HMA Ships as follows :

a. MORRIS

Steering gear FETs; rudder indicator FETs; FII (Laundry Equipment); II (Battery Charging Room); II (Degaussing); Adequate lighting trials; FII (Engineering Workshops); FII (PM office and inflammable Store); FII (Galley); Fuel filling circuits FETs; Gyro Compass FETs; Miscellaneous Machinery Space FETs; Motors FETs; FII (Navigation equipment and AIO); FII (Navigation lights); FII (Darken ship arrangements); FII (Bridge Lighting); Broadcast and Intercom Systems FETs and Final Sea Trials.

b. YARRA

Generator Trials.

c. SWAN

SEACAT Hoist FETs; Stabiliser investigation; SEACAT EKH Trial and Cathodic Protection FETs.

d. SEAL

Generator Trials.

e. KIMELA

Generator Trials.

f. ARDENT

Post-refit installation inspection of gyro and Echo Sounder.

g. BRISBANE

IMARA EKH trial.

b. SWIPE

FII and trial (Broadcast systems); Generator trials.

i. VAMPIRE

ATI (Galley, Laundry and Wheelhouse)

j. DERWENT

ATI (MCS 10 Handling Equipment) and Generator Trials.

k. DUCHESSE

Generator Trials.

2. During the period SAP 2 Ayre completed a course in Adelaide on the modified MCS 10 system.

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COMMONWEALTH OF AUSTRALIA

18/6/2200

## MINUTE PAPER

RANTAU - REPORT OF PROCEEDINGS SIX MONTHS

ENDED 30th JUNE, 1970

~~BCRP~~

*It is a requirement for New Construction  
projects hereafterward to be planned by  
network. 18/2/11*

~~DGSM~~

*Noted 26/11/70*

Reference: RANTAU letter 1/16/2 dated 7 July 1970.

1. Comment is requested on para 8 of the reference.

20 November 1970

*SC 7/11/70*  
f DUR

~~DUR~~ Noted SC 30/11

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RECEIVED

6 AUG 1970

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NAVY LANDERRA

ROYAL AUSTRALIAN NAVY

18 6 2200

TELEPHONE:  
35.0444

IN REPLY QUOTE

RHC. NAVY REGISTRY

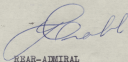
OFFICE OF THE Commanding,  
FLAG OFFICER IN CHARGE  
EAST AUSTRALIA AREA,  
GARDEN ISLAND, N.S.W., 2000

-5 AUG 1970

NS.1/16/97

The Secretary,  
DEPARTMENT OF THE NAVY.RANTAU - REPORT OF PROCEEDINGS SIX MONTHS  
ENDED 30th JUNE, 1970Reference: ANO 92/70.

1. The enclosure is forwarded in accordance with the reference.
2. The state of the various Trials Schedules gives rise for some concern as the validity of the Trials themselves is dependent upon the accuracy of these documents. It is hoped that the breathing space, which should be available upon completion of HMAS TORRENS, may permit time to be allotted for up-dating and modernisation of these schedules.



REAR-ADMIRAL

Enclosure: RANTAU letter 1.16.2 of 7th July, 1970.

DWR 22/8.

DWR Annex D - Changes.

FOCEN IS FORWARDING LETTER ON LOGGING DIFFICULTIES  
WHICH APPEAL TO BE OBTAINING EQUIPMENT

DOED - not action  
will take necessary  
on receipt of FOCEA letter  
Bridg

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7/14/8



TELEPHONE:

DAHG/IDS

IN REPLY QUOTE 1.16.2

The Flag Officer Commanding  
EAST AUSTRALIA AREA

**CONFIDENTIAL****ROYAL AUSTRALIAN NAVY**

RAN Trials and Assessing Unit  
New Beach Road  
EDGECLIFF NSW 2027  
JUL 7 1970

NS 1-16-97

TRIALS 1/6.

RANTAU - REPORT OF PROCEEDINGS  
SIX MONTHS ENDED 30TH JUNE 1970

Reference: Navy Office Letter 465/201/320 (000455)  
dated 20th February 1970.

1. The following report dealing with the activities of the RAN Trials and Assessing Unit over the past 6 months is submitted.
2. The Annexes attached give detailed report of Trials teams and Weapons Assessment Unit.
3. This has been a very busy period which has resulted in two main problems:
  - a. Schedules: In most cases the schedules are out of date and need much time to be spent on them before they are forwarded for approval.
  - b. Write up time: This has been minimal and has unfortunately allowed many small errors to creep in.
4. HMAS SWAN has been the main task for the period and really "blooded" the trials teams. This was the first new construction ship which RANTAU, in its present form, has dealt with. Many lessons have been learnt, and on completion of HMAS TORRENS Trials RANTAU should have a period where appraisal of the past efforts can be made and constructive proposals forwarded.
5. The Mechanical Engineering team is at last being sought out for Trials and if the last half of the period is any indication this team will soon be fully employed on Trials work.
6. Accommodation will be our main problem in the next six months.
7. There may be a slight slackening in the work required; but it is thought 1971 will be the earliest time that these out of date schedules can be tackled.
8. As mentioned in team reports Net working of refits and new construction would greatly help RANTAU in their planning.

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-2-

*D. A. H. Clarke*

(D.A.H. CLARKE)  
CAPTAIN RAN  
OFFICER IN CHARGE  
RANTAU

- Annexes:
- A. Administrative Section.
  - B. Marine Engineering Trials Unit.
  - C. Weapons & Electrical Trials Units.
  - D. Weapons Assessment Unit.

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Annex A to OIC RANTAU Letter 1.16.2

dated JUL 7 1970

ADMINISTRATIVE SECTION

The first six months for 1970 have been very busy administratively. The main bulk of work has been occasioned by travel arrangements for HMAS SWAN and other ships refitting in Williamstown. The following notes are pertinent:

a. Accommodation

The Administrative building at RUSHCUTTER is at this date overcrowded and an extra 30 - 40 complement are expected to be recruited within the next 6 - 12 months. Additional space to house RANTAU will be required.

b. Transport

Two new Holden Sedans ZNB 010 and ZNB 012 were received in April to replace Station Sedan ZNA 436 and ZNA 472. ZNA 261 on permanent loan from POCEA was returned for disposal and Land Rover ZSM 578 was acquired on permanent hire from Department of Supply pending supply of a 10 seater Kombi which has been approved for 1970/71 estimates.

Experience has shown that there is a real need for a 10 seat vehicle and that a Land Rover or older vehicle is required for trips to and from JEMR. Separate proposals will be forthcoming to alter RANTAU transport pool to become:

- 1 Holden Sedan
- 1 Land Rover
- 1 International Utility (for D.G. Range)
- 1 10 Seat "Kombi"
- 1 Boat

c. Boat

The boat has been in constant use.

d. Works

The establishment is generally in a good state of repair. With work to be carried out in the coming financial year all buildings will have been repainted both internally and externally since January 1969.

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e. Administrative Complement

A study of the Administrative section has recently been undertaken by Navy Office and a decision is expected shortly.

f. Administrative Officer

It has become very evident in the last 6 months that the Administrative Officer can adequately cope with seamanship and habitability trials in addition to his administrative duties. The present incumbent has been carrying out communication trials as well with the result that he has not been able to adequately cope with his other duties in view of the fact that he has been spending a large amount of his time away from the establishment. Ideally, the Administrative Officer should be a "Seamen" Commander or LCDR as specified in the complement and then obviously is not available for trials apart from seamanship and habitability.

g. Library

The library is, and has been since its inception, a very inadequate utility. A committee has recently been set up to give a "way ahead" plan and it is hoped that some of the recommendations can be implemented in the next few months so that a useful service can be provided.

h. Reproduction

Reproduction of reports is still not up to standard but investigations are progressing to see what help can be given by the area printery before further recommendations for extra equipment are considered.

i. Cleaning of Buildings

There is a continuing rapid turnover of cleaning staff. It is hoped that approval for "contract cleaning" will be forthcoming shortly.

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Annex B to OIC RANTAU Letter 1.16.2

dated JUL 7 1970

MARINE ENGINEERING TRIALS TEAM

1. Activities during the period have centred mainly in the Final Acceptance Trials and Inspections of both SWAN and TRV 253 together with Basen, Keeling and Contractors Sea Trials of TORRENS.
2. Minor tasks undertaken in this period included evaluation trials of underwater Hull cleaning equipment, Gas Detector Units and Pacific Fire pumps and Advance Installation Inspections in TRV 254.
3. M.E.T.U.'s only involvement with Fleet Units was assistance given during DIAMANTINA's Post Refit Trials and the Acceptance trials of her newly installed Air Conditioning Plant.
4. For the period 2nd February to 4th May the Marine Engineering Trials Officer was posted to TORRENS(Temporary) as the ships E.O. However, during this period he was loaned to RANTAU for Trial purposes as required.

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Annex C to OIC RANTAU Letter 1.16.2

dated JUL 7 1970

### WEAPONS AND ELECTRICAL TRIALS UNITS

1. Details of individual trials teams' activities and problems are contained in the Appendices. The following general items are relevant.

#### System Qualification Trials (SQT)

2. TARTAR SQTs provided an introduction for the RAN to this technique. Discussions have been held with Navy Office and Fleet personnel with a view to continuing TARTAR SQTs and introducing IKARA SQTs and possibly other SQTs with RANTAU playing a prominent part.

#### Classification of Items arising from Inspections

3. A review of the "Will be done - (WBD)" category is necessary in view of recent experiences in SWAN. In carrying out Weapon Installation Inspections many items were classified WBD and it was thought by RANTAU that all items so classified would be completed before Final Installation Inspections. It was noted at FII that many of the previously categorised WBDs were not in fact done. A submission will be prepared to highlight the need for a revised system which will allow priorities to be established and indicate where necessary any time limitations involved.

#### Inspections and Trials Schedules

4. As can be seen from individual trials reports we have experienced a period of abnormal activity with the common complaint that inadequate time is available for writing reports, attending to routine correspondence, researching matters of concern to RANTAU as covered by the terms of reference and compiling and amending acceptance schedules which are required.

5. The situation should ease with the hoped for imminent final acceptance of SWAN. With resumption of a normal work load it will be possible to review whether RANTAU's resources, particularly of manpower, is able to undertake all the tasks required.

#### Inspection and Trials Programmes

6. To allow better utilization of RANTAU's resources it has become apparent that better forecasting and programming of inspections and trials dates is necessary. To this end it has been represented at Williamstown and Cockatoo Dockyards that adoption of network planning would be appreciated so that trials teams can monitor the networks to determine, with some confidence, when their services will be required. There has been some acceptance of network planning at both yards and it is hoped that more use of the technique will be seen.

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C-2

Appendices:

1. Communications and Radar Trials Team.
2. Electrical Trials Team (Power).
3. Gunnery Trials Team.
4. TAS Trials Team.

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Appendix 1 to Annex C to  
OIC RANPAU Letter 1.16.2

dated JUL 7 1970

COMMUNICATIONS AND RADAR TRIALS TEAM

1. The present WETO(C) joined on 16th February, after the job had no full time occupant for some 6 months.

2. Following inspections and trials have been carried out by the team in the last 6 months:

HOBART I.I. & HATs (SPA-83)  
MWL I.I. (Radio)  
TRV 253 HATs (Radio)  
PARRAMATTA - HATs (Radio, Concentre Masts & Aerials)  
PERTH F.I.I. (SPA 83)  
QUEENBOROUGH - UHF Polar Diagrams  
MF/DF, HF/DF and UA3 Calibration  
ARCHER - I.I. (URC-58)  
HOBART - TACAN Calibration assistance to ARDU  
MELBOURNE - TACAN Calibration assistance to ARCU  
GERBERUS - I.I. & HATs - Tactical Trainee  
HOBART - Multi-Channel Equipment - HATs  
ANZAC - Pre-refit Trials  
PARRAMATTA - UHF and On-line SATs  
MELBOURNE - Multi-Channel Equipment - HATs  
SWAN - I.I. (Comcentre)  
PERTH - UHF On-line SATs  
TORRENS - A.I.I. (Radio)  
STUART - Multi-Channel HATs  
SWAN - I.I. Transmitter Room, RMR, Ops Room Annexes, LWO-2  
Masts and Aerials  
PARRAMATTA - AN/URT-23V investigation & Multi-Channel HATs  
PERTH - SATs (Radio - HF)  
OVENS - HATs - HF and On-line  
NAS Nowra - I.I. (Tacan)  
J.B. Missile Range - I.I. (Selenia Radar) HATs & SATs  
(Selenia Radar)  
OVENS - SATs (Radio) (limited assistance only)  
SWAN - F.I.I. (Radio PT I)  
SWAN - HATs (Radio PT I)  
TORRENS - H. (Echo Sounder) - twice due to re-programming

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SWAN - I.I. F.I.I. & HAts (Radio PS II except EW)  
ENCOUNTER & BASS - Pre-refit Trials  
ARCHER - I.I. (Radio, following conversion)  
SAR - SATs (Radio)  
DIAMANTINA - Post-refit Trials  
NAS Nowra - TACAN HAts and liaison with ARCU for calibration  
SWAN - Mutual Interference Investigation SATs (Radio & Radar)  
YARRA - Assistance to TAS Trials team W. Ikera.

3. Following commitments were not met, due to lack of capacity:

PERTH - UHF polar diagrams and URT-4 & Radar SATs  
PERTH - TACAN calibration - no assistance to ARCU  
PERTH - SAT(Radar, AN/SPS-52)  
TORRENS - C.S.T. - only limited attendance could be provided  
VAMPIRE - Pre-refit trials (Radio)  
SWAN - EW Sea tuning off West Head (limited attendance only provided)

4. Following were the major commitments:

SWAN  
TORRENS  
J.B. Missile Range.

5. Throughout the half year the team resources have been taxed to the full, which reduced the amount of time available for report writing and preparation for trials.

6. Of the 702 man-days available (counting all weekends and public holidays) 284 were spent away from Sydney area, including 45 'weekend' man-days. A particularly hard period was the months April-May-June. It had become necessary on occasions to borrow personnel from outside the team in order to meet the commitments (these were included in the above calculation).

7. A considerable amount of test schedules are now somewhat out of date and need revision. This task has not yet started.

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Appendix 2 to Annex C to  
OIC RANTAU Letter 1.16.2

dated JUL 7 1970

ELECTRICAL TRIALS TEAM (POWER)

1. The bulk of the teams efforts have concentrated on SWAN and TORRENS. This has resulted in a large proportion of time spent in Williamstown Dockyard completing F.E.T.s in SWAN.
2. At times when visiting SWAN for a particular inspection or trial it was found that the item was not ready. This could have resulted in time wasted but fortunately the team was able to redirect their efforts to other F.E.T.s currently progressing.
3. In this respect the team obtained a lot of co-operation from the Dockyard who were willing to switch their efforts to co-incide with ours.
4. With the experience gained in SWAN using the new format F.E.T.s, which were compiled by Navy Office Annexe, it is anticipated that much time will be saved in applying these to TORRENS and an earlier start has been made in that ship.
5. Trials assistance has been given to other ships as follows:
  - MELBOURNE - Moonlighting
  - DIAMANTINA - Generator trials  
Nav aid trials  
Galley trials  
Air conditioning trials
  - AN2AC - Generator trials
  - NWL 256 - Generator trials  
Winch trials
  - CERBERUS - Fleetwork trainer installation  
acceptance and trials

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Appendix 3 to Annex C to  
OIC RANTAU Letter 1.16.2

dated JUL 7 1970

GUNNERY TRIALS TEAM

1. The period has been one of intense activity and the members of the Gunnery Trials Team have spent an average of 60 nights away from Sydney on duty. During March full Harbour and Sea Acceptance trials were completed in HMAS PARRAMATTA and during June the M22 and M44 Fire Control Systems fitted in HMAS SWAN, were conditionally accepted into RAN service for the first time. Trials of a more limited nature were completed in HMA Ships MELBOURNE, SYDNEY, BRISBANE, HOBART, YARRA, DERWENT, QUEENBOROUGH, ANZAC, DIAMANTINA, CURLEW, ADVANCE, ARCHER and BAYONETTE. Trials assistance could not be given to HMA Ships PERTH, ARROW and ARCHER due to other commitments. This was most unsatisfactory, especially as in these types of ships users and maintainers often are unfamiliar with their equipment.
2. The inspections of the new construction ships TORRENS and SWAN were time consuming and several repeat visits were required to SWAN before the Final Installation Inspection was completed. It is for consideration that some original thought be given to the improvement of magazine design instead of following the patterns of the past.
3. The Gunnery Trials Team is charged with the responsibility for advising on amendments to Acceptance Trials Schedules. It must be reported that this duty has not properly been undertaken during the period due to other commitments. A major effort will be required during the coming half year if the M22 and M44 systems, Harbour Acceptance Schedules, which are at this moment far from comprehensive, are to be improved.
4. LCDR E. Frizell RAN joined RANTAU during February to assist in the preparation of instructions for the M22/M44 System Op eval. He also undertook the writing of handbooks for the recording arrangements provided with these systems.
5. LCDR SDEN J.T. Tredres was posted to PERTH on 16th June 1970. His relief as Gunnery Trials Weapons Electrical Officer, LCDR GLEN WEL D.G. Tennant is in a non seagoing medical category and in view of the nature of his duties his position at the moment is being clarified.

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Appendix 4 to Annex C to  
OIC RANTAU Letter 1.16.2

dated JUL 7 1970

## TAS TRIALS TEAM

1. The period has been a particularly busy one. The team has fortunately been up to complement throughout and most commitments have been met. These were:

a. Williamstown

- (1) SWAN - I.I.s F.I.I.s HATs (TAS & IKARA)
- (2) PARRAMATTA - HATs (IKARA, MCS 10 & SONARS)
- (3) VAMPIRE - Pre-refit trials (MCS 10)
- (4) DIAMANTINA - HATs (Sonar)
- (5) YARRA - HATs (Ikara) modified - supervisory with VENDREP assistance.

b. Sydney

- (1) PERTH - I.I. & HATs (SQS-23 TRAM)
- (2) BRISBANE - I.I.s and HATs (Ikara) (still in progress)
- (3) TORRENS - I.I.s and contractors sea trials
- (4) QUEENBOROUGH - HAT(Sonars & MCS 10)

c. SATs (Ikara)

PARRAMATTA & PERTH (in 3 days - a record)

d. Mortar Calibrations

- (1) QUEENBOROUGH
- (2) PARRAMATTA
- (3) SWAN

e. Sea Check Firings

PARRAMATTA

HATs on PERTH's Ikara could not be undertaken and were carried out adequately by ships staff. They also wrote their own SAT report. PARRAMATTA undertook to write their own IKARA SAT report as well.

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Diving Trials

2. CDT2 have had problems in coping with the trial commitments, largely due to the lack of a second diving boat with an ocean going capability. This has been raised separately as an "Operation Requirement". Nonetheless trials have eased off somewhat compared to the previous 6 monthly period.

Problem Areas

3. a. Staff

The technical team has spent most of the period in the field. Very little time has been spent in the office and as a result reports have been unwritten or rushed through, schedules have not been written or updated and day to day paperwork has received little attention. Even more important, the team has not had adequate "think" time, thus resulting in a minimum of original thought and review of procedures etc.

b. SWAN

Pressure and circumstances constrained the team to adjudge the Installation Inspections (IAS & IKARA) as satisfactory when they were carried out in March. This endeavour to bend over backwards and help has had alarming and, in general, unforeseen repercussions resulting in the ship leaving the shipbuilders hands in an unfinished state, unable to comply with magazine safety regulations or be classed as being able to operate without restriction.

c. The need for network planning

This is a must.

d. Sea check firings

The triplane target, which is used for sea check firings, has not lived up to expectations and a great deal of time has been wasted in obtaining firm contact. This matter will be raised separately. The answer would appear to be the British 170 transponder buoy.

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Annex D to OIC RANTAU Letter 1.16.2

dated JUL 7 1970

## WEAPONS ASSESSMENT UNIT

### Annual Summary of Weapons Practices

The summary for 1969 was issued in May 1970 and covers the routine work of the Weapons Assessment Unit for 1969.

### Staff

On the 1st January 1970 the staff of the Weapons Assessment Unit numbered 17 and at the end of the period under review 22 and this left one vacancy, however, a selection has been made for this vacancy and it is probable he will join in August.

A new Naval Defence Act organisation was approved by Navy Office to date 8th June 1970 and in effect increases the Weapons Assessment Unit staff from 31 to 56. Action is now in hand to recruit to this level and it is hoped that at least 50% of the increase will be achieved by the end of the year.

Mr. G.W. Thomson, Engineer Class 2, proceeded to the United States on the 4th May for a period of 5 months for courses of instructions and familiarisation with Tartar analysis.

During the period under review there have been two visits by the staff of the U.S.N. Fleet Missile Systems Assessment and Evaluation Group; the first in January 1970 when 3 officers visited to assist in the setting to work and commissioning of the Jervis Bay Telemetry Station. Due to the fact that a suitable trained Tartar analyst is not available locally FMSAEG provided a Tartar analyst from 11th May for one month to meet the May Tartar Firings of PERTH.

### Accommodation

The new organisation proposals will result in overcrowding of existing accommodation for the Weapons Assessment Unit and will preclude the permanent siting of some items of data reduction equipment. This matter has been covered elsewhere in this report.

### Finance

Due to changes in procedures there is some doubt in RANTAU of the mechanisms to be employed to ensure financial allocation for the acquisition of services, in particular computing services, to meet the improved techniques that are proposed or have been developed. This matter has been forwarded by Minute for the action of the Area Secretary and the Chief Staff Officer Administration.

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D-2

Stores

New stores procedures in respect of acquisition and accounting have now been defined and are being implemented. These will probably present little problems, however, some local specialist assistance may be required in the implementation stages.

D.G. Ranges

The Sydney Deep and the Roll and Stray Field Ranges are still out of commission and some further planning has yet to be achieved to ensure timely completion of these projects. A meeting has been called by FOCEA in July. The earliest completion date for the Deep Range is seen as being June 1971 on the basis that Department of Works will not be able to complete their component until March 1971. The completion date of the Roll and Stray Field Range is obscure because:

- a. Due to ministerial direction a re-siting and re-design is required in respect of compressor arrangements and,
- b. some Naval Board decisions have yet to be received.

Telemetry Station Jervis Bay

This facility has now been accepted into Naval service with some outstanding matters to be resolved. A report has been issued covering these outstanding matters.

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 SP 107  
 (10-57)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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