

## History of Naval Ships Wireless Systems VI

### Post WWII Antarctic Support

#### HMNZS Endeavour (I) Z284 - ZMSH

Endeavour (I) had been purchased to support the Commonwealth Trans-Antarctic Expedition to McMurdo Sound. She commissioned into the RNZN 15th August 1956 after having undergone a refit in Southampton. She was built mainly of wood but was strengthened for ice with her stem being solid steel. The wooden structure was to prove detrimental, not only to the hull but also to the W/T equipment onboard. Interference to the receivers came from electrical machinery throughout the ship and from her own transmitters, largely due to a lack of a decent earth.



The W/T Office was approximately midships on 1 Deck - the Receive wire can be seen feeding into the Office, starboard side, forrard. The two transmitting wires feeding into the Office, either side of the funnel.

#### Radio equipment:

1 x Type 618 H/L/CAS

2 x B40B/C receivers

1 x TCS12 Transmitter/Receiver - this was the emergency set and was unable to be run off the ship's DC mains supply - batteries only.

1 x Marconi Type 1075A - SRE Receiver (110V DC) - totally unsuitable for the task - unable to pick up shortwave stations and was only able to feed a maximum of 6 speakers.

1 x 89Q transmitter - the tuning coil had to be cleaned regularly.

#### Radar:

1 x Type 974 - no gyro heading. The radar also caused interference with the W/T equipment.

Endeavour (I) was a CW operator ship and radio contact was primarily through Navcommsta Waiouru (ZLO) using Morse Broadcast WV and CW ship/shore or Awarua (ZLB). During Aurora Australis phenomena, it was sometimes difficult to maintain communications with NZ but the USN at McMurdo (NGD) had a simplex CW circuit for use by the ice-breakers and supply ships. Messages passed to/from NGD would be relayed to/from McMurdo to Deepfreeze HQ in Christchurch and then on to NCC Wellington. Hand Message Organisation was available whilst berthed alongside at McMurdo.

The 1959-60 season saw sheathing and caulking causing serious problems from severe ice conditions and it was decided to make the 1960-61 season, her last. Endeavour (I) decommissioned in the latter part of 1961.

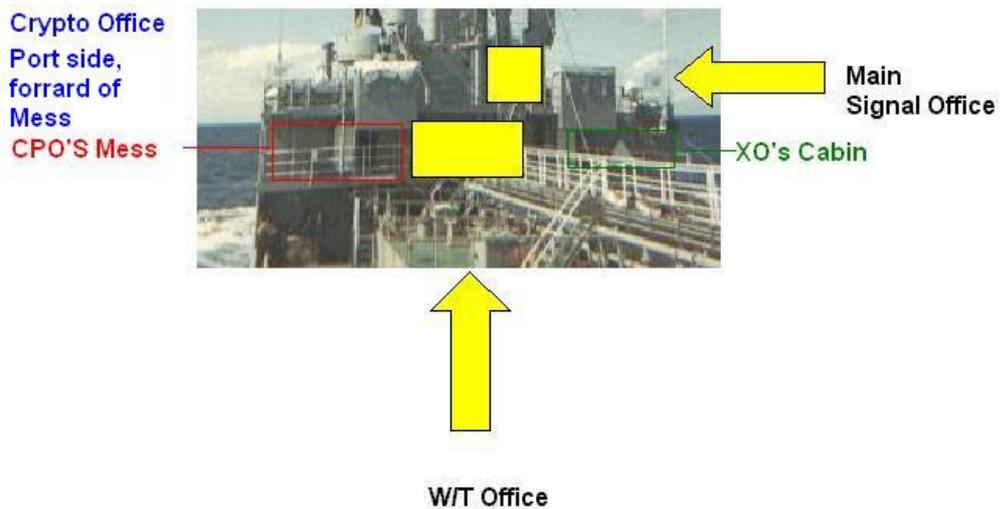
#### **HMNZS Endeavour (II) A184 - ZMSE**

Endeavour (II) was lent to the RNZN from the USN for duties in support of **Operation Deepfreeze**. She commissioned into the RNZN 5 October 1962.

Endeavour (II) had Radioteletype and CW facilities. Her main method of communication was off-line RATT copying Broadcast WVA (75 Bauds - 100wpm) from ZLO. Whilst in Antarctic waters, NGD also provided an off-line RATT Broadcast (AR). This ran at 50 bauds (66wpm). HMO also available whilst alongside as it used to take 5 to 7 days to offload fuel and stores and RADHAZ procedures were in force.



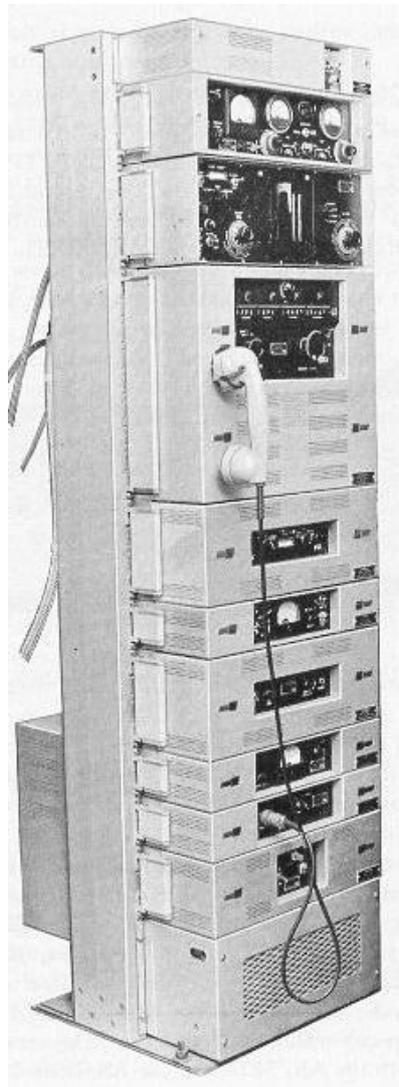
Endeavour - A184



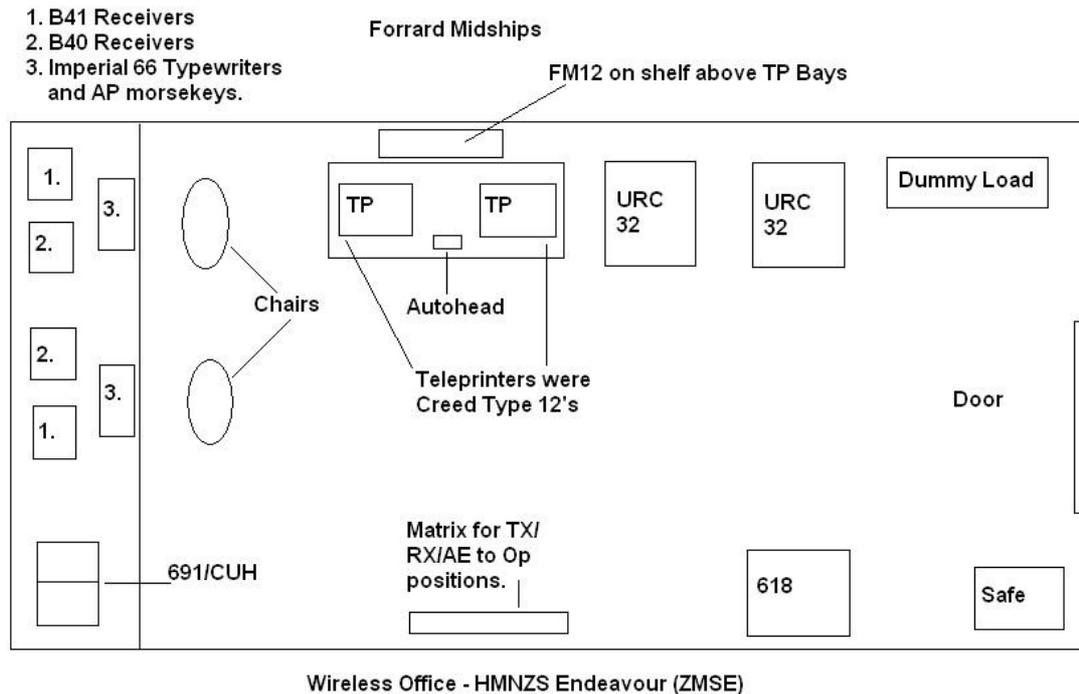
## Radio Equipment:

### W/T Office

- 2 x AN/URC32 SSB transceivers 500W with 1kW RF Amplifiers
- 2 x B40D HF receivers
- 2 x B41 LF/MF receivers
- 1 x 618L/H/CAS
- 1 x 691/CUH UHF channelled to Normal Complan
- 1 x FM12 MF DF receiver
- 2 x Creed Type 12 teleprinters with reperforators
- 1 x 6S6 Autohead
- 2 x AN/URA17 FSK converters
- 1 x GK185A keyer
- 1 x AN/SGC-1A two-tone converter for A2 RATT (UHF)
- 2 x Imperial 66 Typewriters
- 2 x AP morse keys



AN/URC 32



The associated RATT equipment sat on another shelf below the FM12. Bid580 for on-line RATT reception fitted sometime in 1969/70.

#### MSO

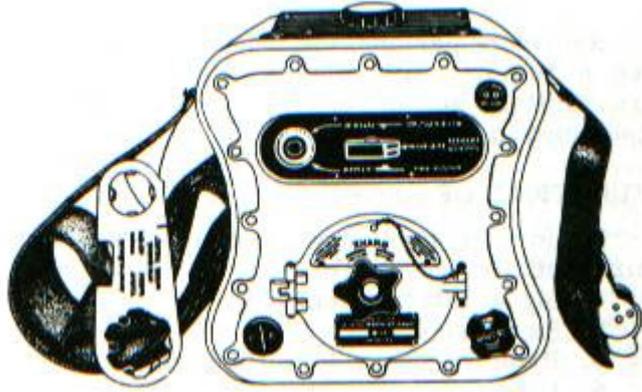
- 1 x Imperial 66 Typewriter
- 1 x Ormig duplicating machine

#### Crypto Office

- 2 x KL7 Adonis off-line cypher equipment

#### Emergency Equipment

- 2 x AN/CRT-3 (Gibson Girl) liferaft sets - 500kHz/8364kHz - the aerials for these were:
  - 1 x lightweight whip which went up through the centre of the liferaft.
  - 1 x long wire aerial which could be carried aloft by either Helium filled balloons or a box-kite.
- 1 x Type 622 - HF portable transmitter/receiver



AN/CRT-3

Gibson Girl - painted bright yellow and could float. Strapped between the knees of an assistant, who also did the cranking, whilst the operator manually transmitted. This set could be set to Automatic and used by non-trained personnel. Nicknamed the Gibson Girl because of its hour glass figure.

Maintenance Shack - sited at rear of upper bridge.

1 x B62-B MF/HF SRE Receiver

The whip for the 618 was fitted to the port side of this structure

Radar

Type 974

Endeavour (II) left the RNZN in June 1971 and returned briefly to USN ownership before being handed over to the Taiwanese Navy.