

NAVIGATION AND COMMUNICATION

1. **ADF MODERNISED HIGH FREQUENCY COMMUNICATIONS SYSTEM (MHFCS)**

- 1.1 The ADF MHFCS is a high frequency (3-30MHz) radio network providing communication services for the operational control and support of ADF and allied aircraft, marine craft and land units. Visiting military aircraft may use either the ADF or RNZAF system when contact with Australian/New Zealand based military authorities is required. Neither system provides a civil or military Air Traffic Control Service.
- 1.2 The ADF MHFCS is centrally controlled by the Defence Communications Station Canberra (DCSC) at the Network Management Facility (NMF) located in Canberra, ACT, Australia.
- 1.3 The MHFCS system consists of four Transmit and Receive Nodes located at:

EXMOUTH, Western Australia	TOWNSVILLE, Queensland
DARWIN, Northern Territory	RIVERINA, New South Wales

These nodes are remotely controlled from the NMF.

- 1.4 DCSC provides 5 continuously monitored Voice Contact Net (VCN) frequencies from each of the four nodes as follows:

VCN	Assigned	Dial/Suppressed carrier	Hours of Operation
VCN 1	22869.5kHz	22868kHz	Continuous
VCN 2	5879.5kHz	5878kHz	Continuous
VCN 3	9048.5kHz	9047.0Hz	Continuous
VCN 4	15963.5kHz	15962kHz	Continuous
VCN 5	12173.5kHz	12172kHz	Continuous

- 1.4.1 Emission: 3K00J3E (Offset - subtract 1.5kHz from assigned)
- 1.4.2 Discrete frequencies are available as required and allocated after initial contact on the VCN.
- 1.4.3 Telephone patch facilities between aircraft and ground appointments are available as required, after initial contact on VCN.
- 1.4.4 Continuous monitoring of military distress frequency 5696kHz.
- 1.4.5 SELCAL. Available to suitably equipped aircraft/vessels.
- 1.5 **Hours of Operation**
DCSC - H24.
- 1.6 **Mode Of Operation**
DCSC is capable of operating independent side band (ISB) or AM modes however, the normal mode of operation is Upper Side Band (USB) or suppressed carrier.
- 1.7 **Callsign**
DCSC uses the following self evident callsign: "Canberra Control".
- 1.8 Telephone/fax contact numbers:

Location	Telephone	Fax
DCSC	+61 2 6263 8126	+61 2 6263 8143

2. **RNZAF AIR OPERATIONS COMMUNICATIONS CENTRE AUCKLAND (AOCCAK)**

- 2.1 AOCCAK is a high frequency (3-30MHz) station providing HF communications services to RNZAF, RAAF and other allied aircraft. Visiting military aircraft may use either the ADF or RNZAF system when contact with Australian/New Zealand based military authorities is required. Neither system provides a civil or military Air Traffic Control Service.
- 2.2 AOCC Auckland is located at RNZAF Whenuapai, Auckland, New Zealand.
- 2.3 AOCCAK provides 4 General Purpose Net (GPN) frequencies, which consist of the following (note station hours of operation are currently not 24/7):

Assigned	Dial/Suppressed Carrier	Normal Hours of Operation	When 24HR Operations
3033.4kHz	3032kHz	0900-1000Z 1900-2100Z	0900-2100Z
5688.4kHz	5687kHz	1900-1000Z	CONTINUOUS
8975.4kHz	8974kHz	1900-1000Z	CONTINUOUS
11236.4kHz	11235kHz	1900-1000Z	CONTINUOUS
13207.4kHz	13206kHz	2100-0900	2100-0900

- 2.3.1 Emission 2K80J9W (Offset - Subtract 1.4kHz from assigned).
 2.3.2 Discrete frequencies are available as required and allocated after initial contact on the GPN.

2.3.3 Telephone patch facilities between aircraft and ground appointments are available in emergencies or at supervisor's discretion.

2.3.4 SELCAL. Available to suitably equipped aircraft/vessels.

2.4 Hours of Operation

AOCCAK - 1900Z - 1000Z daily

2.5 Mode of Operation

AOCCAK is capable of operating Independent Side Band (ISB), the normal mode of operation is Upper Side Band (USB) or suppressed carrier.

2.6 Callsign

AOCCAK uses the following self evident callsign: "Air Force Auckland".

2.7 Telephone contact number.

AOCCAK -: +64 9 417 7831.

3. MILITARY HF COMMUNICATIONS

- 3.1 In addition to that which DCSC supplies, the following HF nets are available:
- RAAF Butterworth. Aircraft transiting to/from Butterworth may relay message traffic via DCSC. Aircraft requiring HF contact with Butterworth are to make prior arrangement through DCSC.
 - PNGDF General Purpose Network

Location	C/S	Frequencies	HR of OPS
Port Moresby	P2A2	5746(P) LGG 7496(S) LGH 3175 (S) LGF	H24
Lae	P2A3	5746 (P) LGG 7496 (S) LGH 3175 (S) LGF	2200-0700 JO

4. AIR-TO-AIR COMMUNICATIONS - CIVIL

- 4.1 Interpilot air-to-air communications in Australian FIRs may be conducted on frequency 123.45MHz. Aircraft engaged in flights over remote and oceanic areas, out of range of VHF ground stations, and not in the vicinity of a charted non-controlled aerodrome, should use this channel to exchange operational information. Communications between aircraft on this frequency are restricted to the exchange of information relating to aircraft operations. Communications are to be established by either a directed call to a specific aircraft or a general call, taking into account conditions pertaining to the use of the particular channel. As target aircraft may be guarding more than one frequency, the initial call should include the distinctive channel identification "INTERPILOT" or identification of the air-to-air frequency.
- 4.2 The following examples illustrate the application of the calling procedures.
- Qantas 2, SPEEDBIRD 15, INTERPILOT, DO YOU READ?;
 - ANY AIRCRAFT VICINITY 10S 135E, QANTAS 5, 123.45, OVER.

5. AIR TRAFFIC SERVICES DATALINK SERVICES**5.1 HF SELCAL Check**

- 5.1.1 For aircraft departing Australian airspace, a SELCAL check is not mandatory. However, flight crews wishing to satisfy themselves with HF performance should perform a SELCAL check after departure, but prior to being transferred to CPDLC. The primary HF frequency will be advised with the transfer instruction. The HF operator will confirm the primary and secondary HF frequencies on first contact.
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