

ENR 1.6 RADAR SERVICES AND PROCEDURES

1 Primary Radar

1.1 Nil

2 Monopulse Secondary Surveillance Radar

2.1 Description of Monopulse Secondary Surveillance Radar

The radar unit is equipped with monopulse secondary surveillance radar (MSSR) equipment providing a plan position picture of aircraft within the service area. The radar coverage range from MLE VOR/DME is 180 nautical miles when flying at FL 250 to FL 330 and increases to 240 nautical miles when flying at above FL 330.

3 Radar Coverage

Monopulse Secondary Surveillance Radar (MSSR), with a maximum range of 240 NM, is operated at the Male' International Airport.

4 Radar Services in Male' FIR

4.1 Secondary Surveillance radar (MSSR) hours of service 0200 to 1900 UTC daily. Operational Frequency is 123.9 MHz.

4.2 Subject to equipment limitation and the controller workload the following services will be provided to aircraft entering the VRMF FIR:

- a) Radar separation
- b) Radar vectors
- c) Radar monitoring
- d) Radar flight information service
- e) Emergency radar assistance

Note:

5 Radar Separation Minima

5.1 The following radar separation minima shall be applied:

- a) 5NM radar separation 50NM from the radar head below FL245
- b) 10NM radar separation beyond 50NM from the radar head above F245
- c) 20NM radar spacing between two arriving aircraft when established on final for the runway in-use

Note: The 20NM spacing is to compensate for the time required for aircraft to backtrack and clear the runway, due to the geometry of the runway and the adjoining maneuvering areas at the Male' International Airport.

6 Procedures for operation of SSR transponder codes

6.1 All aircraft flying in controlled airspace in the VRMF FIR are required to operate SSR transponders selecting Mode 3/A and Mode C simultaneously.

6.2 Aircraft departing from an aerodrome within VRMF FIR shall operate transponders in accordance with instructions given by ATC.

6.3 Aircraft entering VRMF FIR shall maintain the SSR code last assigned to them by the adjacent FIR, or if no code has been previously assigned, set code 2000 unit a specific transponder code has been specified by an ATS unit.

6.4 SSR Code Assignment

6.4.1 Before providing radar services, aircraft operating in the VRMF FIR will be assigned the following codes except for those aircraft already assigned codes by adjacent FIRs:

International	Domestic
7201-7277	0101-0277

6.4.2 Permanent domestic codes are allocated for use by some domestic aircraft.

6.4.3 If a permanent code is not allocated, controller will assign a domestic code for use for local flight.

6.4.4 Specific codes for certain series are reserved for special purpose as follows:

SSR Codes	Purpose
2000	Reserved for use on the initiative of pilots to provide recognition of aircraft which have not received ATC instructions regarding code to squawk
7500	Reserved for use in the event of unlawful interference
7600	Reserved for use in the event of radiotelephony communication failure
7700	Reserved for use in the event of emergencies

6.5 Verification of accuracy of Mode C derived level information

6.5.1 All aircraft must report the level /altitude maintaining/ passing on the first contact with a radar unit to facilitate verification of Mode C altitude information.

6.5.2 Verification of accuracy of SSR derived altitude information displayed to the controller shall be effected at least once by each suitably equipped ATC unit on initial contact with the aircraft concerned or, if this is not feasible, as soon as possible thereafter. This verification shall be effected by the simultaneous comparison with the altimeter derived level information received from the specific aircraft by radio telephony. The pilot of the aircraft whose Mode C derived information is within the approved tolerance value will not be advised of such verification.

6.5.3 If, following confirmation of level and correct pressure setting, the discrepancy continues to exist the controller may request the pilot to stop his mode C transmission. the phraseology used will be "Stop SQUAWK CHALIE. WRONG INDICATION."

7 Radar Failure

7.1 In the event of radar failure or loss of radar contact, instruction will be issued by the radar controller to restore standard longitudinal, lateral or vertical separation between those aircraft operating with radar separation.

8 Use of Radar in Control Tower

- 8.1 The information derived from the radar monitor in the control tower may be used for:
- a) radar monitoring of aerodrome traffic
 - b) providing traffic information
 - c) providing navigation assistance to VFR flights
 - d) strategical decision regarding sequencing of departing aircraft to achieve smooth traffic flow.
- 8.2 While a condition of use of radar in non-radar procedures is that aircraft are suitably identified by tower controllers, the phrase "identified" will not be used except in relation to the radar identification process that occurs as a result of the instruction "SQUAWK IDENT".
- 8.3 All pilots should be aware that aircraft are not continuously monitored on radar by the aerodrome controller; pilots will not be advised when radar identity is lost.
- 8.4 To protect IFR flights and to assist pilots of VFR flights to comply with an ATC clearance, VFR pilots may be given a suggested direction to fly. This is not radar control service and the pilot is still responsible for remaining VFR and navigating the aircraft.

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