

## ENR 1.6 RADAR SERVICES AND PROCEDURES

## 1. Primary and secondary radar

1.1. *Supplementary services*

1.1.1 A radar unit operates as an integral part of the ATC units within the Israeli FIR and provides radar service to aircraft, to the maximum extent practicable, to meet the operational requirement. Many factors, such as radar coverage, controller workload and equipment capabilities, may affect these services. The radar controller shall determine the practicability of providing or continuing to provide radar services in any specific case.

1.1.2 For the provision of radar in air traffic services within the Tel-Aviv FIR, joint civil/military Area Control Centre (ACC) units have been established in order to meet operational requirements. The airspace of the State of Israel is defined as Tel-Aviv FIR being under constant radar control.

1.2. *The application of radar control service*

1.2.1 Radar control service may include:

- a) Radar separation of arriving; departing and en-route traffic;
- b) Radar monitoring of arriving; departing and en-route traffic to provide information on any significant deviation from normal flight path;
- c) Radar vectoring whenever required;
- d) Assistance to aircraft in emergency;
- e) Warnings and position information on other aircraft considered to constitute a hazard;
- f) Information on observed weather

1.2.2 *Phraseology*

The phraseology to be used shall conform to the phraseology prescribed in ICAO DOC 4444, ATM/501.

1.2.3 The minimum horizontal radar separation is

- a) 5 NM for flights controlled by TEL-AVIV CONTROL, SOUTH CONTROL, PLUTO CONTROL and HAGAV CONTROL;
- b) 3 NM for flights controlled by TEL-AVIV/BEN-GURION – APPROACH CONTROL and TMA CONTROL.

1.3. *Radar failure procedures*

In the event of radar equipment failure, the controller will immediately take action to establish standard Non-Radar separation between aircraft under his control.

1.4. *Graphic portrayal of PAR and SSR radar coverage*

TBD.

## 2. Emergency procedures

2.1. *Aircraft in emergency*

Pilot of an aircraft encountering a state of emergency and who has previously been instructed by ATC to set the transponder on a specific code, this code setting shall be maintained until otherwise advised.

Notwithstanding the procedure above, a pilot may select Code 7700 whenever the nature of the emergency is such that this appears to be the most suitable course of action.

Note. – Mode A, Code 7700 is permanently monitored in the Tel-Aviv FIR.

2.2. *Radio communication failure*2.2.1 *Aircraft radio failure*

The pilot shall select Code 7600.

Note. – Mode A, Code 7600 is permanently monitored in the Tel-Aviv FIR.

2.2.1.1 *DEPARTURES*

- a. If following a Standard Instrument Procedure (SID): Follow the Radio Failure Procedure published on the chart.
- b. If not on SID: maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:
  - 1) The time the last assigned level or minimum flight altitude is reached; or
  - 2) The time the transponder is set to Code 7600; or
  - 3) The aircraft's failure to report its position over a compulsory reporting point; whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.
- c. Destination Cairo FIR, Cross "NALSO" at flight-level 290.
- d. International flights from Eilat or Ovda: after "NURIT" climb altitude 26,000 feet (to reach by "SIVAK") via "J10", "GOBRI", "P52" to "ABIMI". After "ABIMI" climb altitude 28,000 feet (to reach by "BGN VOR"). Only after crossing TEL-AVIV FIR boundary, climb to flight plan altitude.

2.2.1.2 *ARRIVALS*

- a. From the west (TEL-AVIV CONTROL):
  - 1) Proceed to SOLIN at the last flight level acknowledged. If above flight level 270 descend to flight level 270 and hold as published.

2) Over SOLIN:

- a) Destination Ben-Gurion: Descend to FL210 (or maintain last acknowledged FL) for 20 minutes. After 20 minutes descend to altitude 12,000 feet and follow STAR "DIVLA 2C", for the ILS "X" approach to runway 26.
- b) Destination Jordan FIR or "LLNV": Descend to altitude 17,000 feet then proceed to "GODED", continue descend altitude 11,000 feet, to be leveled by "GODED", and thence via flight plan route.
- c) Destination Eilat/Ovda: Proceed Via "P51", Maintain last acknowledged altitude, but not higher than 29,000 feet to "MESIL", after "MESIL" descend to 27,000 feet to ADLOD and via J10 to SIVAK.

b. Flying **south-bound** along ATS Route J10 (SOUTH CONTROL)

- 1) Maintain last assigned altitude to "ZFR VOR" and hold over "ZFR VOR", as published.
- 2) Descent over "ZFR VOR" Holding pattern:
  - a. Destination LLOV: altitude 7,000 feet.  
At 7,000 feet proceed to "SHANI".
  - b. Destination LLET: altitude 9,000 feet.  
At 9,000 feet proceed to "LOT VOR".
- 3) Proceed according to airport radio failure procedure.

c. Flying **north-bound** along ATS Route J10 (SOUTH CONTROL),

- 1) a. If above 24,000 feet: after "ZFR VOR" descend 24,000 feet to "MZD VOR",
  - b. If at or below 24,000 feet maintain altitude to "MZD VOR",
- 2) Make 1 full Holding (left turns), and then descend in the Holding pattern to altitude 10,000 feet. At 10,000 feet proceed to "SIVAK".
- 3) If below 10,000 feet: make 1 Holding over "MZD VOR" (left turns), and proceed to "SIVAK".
- 4) Proceed according to destination airport radio failure procedure.

2.2.1.3 RADAR VECTORS

When being vectored or having been directed by ATC to proceed offset using RNAV without a specified limit, proceed in the most direct manner possible to rejoin the current flight plan route, no later than the next significant point, taking into consideration the applicable minimum flight altitude.

2.2.2 Ground communication failure

In the event of failure of ATC ground communications, pilot should immediately try to establish radio contact with the appropriate ATS Unit either on a secondary frequency or on the 121.5 MHZ.

2.3. **Unlawful interference procedure**

Pilots of aircraft subject to unlawful interference shall endeavor to set the transponder to Code 7500 to make the situation known.

Note. – Mode A, Code 7500 is permanently monitored in the Tel-Aviv FIR.

2.4. **System of SSR code assignment**

The following functional codes are to be used by aircraft entering or exiting the Tel-Aviv FIR:

PURPOSE	CODE ALLOCATION
Arriving flights from the South, unable to establish contact with South Control	42 (4200)
Domestic Flights along the ATS routes	50 (5001-5077) 52 (5201-5217) & (5254-5267)
Domestic Flights along the CVFR routes	51 (5101-5177)
fire-fighting aircraft	52 (5220-5237)
police aircraft	52 (5240-5250)
Flights within Eilat CTR/CTA	52 (5251-5253)
International flights Southbound to CAIRO FIR	64 (6401-6407)
International flights Eastbound to AMMAN FIR	64 (6410-6477)
Departing International flights – TMA & Tel-Aviv Control	72 (7230-7277)

2.5 **use of mode S**

Aircraft equipped with transponder mode "S", shall transmit mode S associated with aircraft call sign.

Aircraft entering from the south should transmit mode S after passing "Sharm-El-Sheikh".