

GEN 3.3 AIR TRAFFIC SERVICES

3.3.1 RESPONSIBLE SERVICE

3.3.1.1 The Director of the Air Traffic Services Division of the Civil Aviation Authority of Singapore (CAAS) acting under the authority of the Director-General of Civil Aviation is the authority responsible for the overall administration of air traffic services within the Singapore FIR.

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3.3.1.2 The services are provided in accordance with the provisions contained in the following ICAO documents:

Annex 2 – Rules of the Air

Annex 11 – Air Traffic Services

Doc 4444 – Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM)

Doc 8168 – Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS)

Doc 7030 – Regional Supplementary Procedures

3.3.1.3 Differences to these provisions are detailed in subsection GEN 1.7.

3.3.2 AREA OF RESPONSIBILITY

3.3.2.1 Air traffic services are provided for the entire territory of Singapore, including its territorial waters as well as the airspace over the high seas within the Singapore FIR.

3.3.2.2 In some cases, in accordance with the regional air navigation agreement, air traffic services are provided, under the delegated authority, in the airspace within another bordering FIR. Details of such services are provided in section ENR 2.

3.3.3 TYPES OF SERVICES

3.3.3.1 The following types of services are provided:

- Flight Information Service (FIS) and Alerting Service (ALRS);
- Area Control (ACC); and
- Radar

3.3.3.2 With the exception of services provided at military air bases, the following types of services are provided at aerodromes:

- Aerodrome Control (TWR);
- Aerodrome Flight Information Service (AFIS); and
- Automatic Terminal Information Service (ATIS) at certain aerodromes

3.3.3.3 Air Traffic Control is exercised:

- a) on airways covering the main ATS routes;
- b) within the Singapore/Johor Airspace Complex and in control zones at controlled aerodromes equipped with approach and/or landing aids.

3.3.3.4 Flight information service and alerting service within the Singapore FIR and air traffic control services in control areas are provided by one centre (ACC Singapore). There is no distinction between upper and lower controlled airspace. The axis of each airway is constituted by a line connecting reference points identified normally by radio navigational facilities.

3.3.3.5 Air traffic control, flight information and alerting services are provided by:

- a) ACC Singapore along the airways including those parts of the airways traversing the Singapore/Johor Airspace Complex;
- b) the relevant aerodrome control tower in coordination with ACC Singapore as necessary, for arriving and departing aircraft.

3.3.3.6 Radar service is an integral part of the ATS system. A description of radar services and procedures is provided in subsection ENR 1.6. Additional procedures applicable within the Singapore/Johor Airspace Complex are contained in subsection ENR 1.1.

3.3.3.7 The description of the airspace designated for air traffic services purpose is found in several tables, all forming part of sub-section ENR 2.1.

3.3.3.8 In general, the air traffic rules and procedures in force and the organisation of air traffic services are in conformity with ICAO Standards, Recommended Practices and Procedures. The regional supplementary procedures and altimeter setting procedures are set out in full. Differences between the national and international rules and procedures are given in sub-section GEN 1.7.

3.3.3.9 A few prohibited areas, restricted areas and danger areas are established within the Singapore/Johor Airspace Complex. These areas are shown in sub-section ENR 5.1. Activation of areas subject to intermittent activity is notified well in advance by NOTAM, giving reference to the area only by its identification.

3.3.3.10 4D/15 service is provided to the following category of aircraft:

- a) Aircraft operating within areas of Singapore FIR where radar services is provided by ATC;
- b) ADS-B equipped aircraft operating in ADS-B airspace; and
- c) ADS-C equipped aircraft logged on to WSJC on routes providing ADS/CPDLC service.

3.3.4 COORDINATION BETWEEN THE OPERATOR AND ATS

3.3.4.1 Coordination between the operator and air traffic services is effected in accordance with Chapter 2, paragraph 2.17 of ICAO Annex 11 - Air Traffic Services and Chapter 11, paragraphs 11.2.1.1.2, 11.2.1.1.4 and 11.2.1.1.5 ICAO Doc 4444 - Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM).

3.3.5 MINIMUM FLIGHT ALTITUDE

3.3.5.1 The minimum flight altitudes on the ATS routes listed in section ENR 3, have been determined to ensure at least 1,000ft (300m) vertical clearance above the highest known obstacle within the lateral limits of the route within Singapore FIR and the adjacent areas of adjoining FIRs.

3.3.6 ATS UNITS ADDRESS LIST

<i>Unit Name</i>	<i>Postal Address</i>	<i>Telephone Nr</i>	<i>Telefax Nr</i>	<i>Telex Nr</i>	<i>AFS Address</i>
1	2	3	4	5	6
SINGAPORE ACC / APP	Singapore Air Traffic Control Centre (SATCC) 60, Biggin Hill Road Singapore 509950	(65) 65412668 (ACC) (65) 65227002 (APP)	(65) 65457526 (ACC) (65) 65461790 (APP)	-	WSJCZQZX
SINGAPORE TOWER	Singapore Changi Control Tower Civil Aviation Authority of Singapore 60 Airport Boulevard, #04-01, Changi Airport Terminal 2 Singapore 819643	(65) 65956057 (65) 64227633	(65) 65459568 (65) 65456224	-	Nil
SELETAR TOWER	Seletar Control Tower Civil Aviation Authority of Singapore 60 Seletar Aerospace View Singapore 797561	(65) 64812893	(65) 64813510	-	WSSLZTZX