

**Contact**

Post:

AERONAUTICAL  
INFORMATION SERVICES  
Civil Aviation Authority of  
Singapore,  
Singapore Changi Airport,  
P. O. Box 1  
Singapore 918141

Tel: (65) 64227036

Fax: (65) 64410221

Email: [caas\\_singaporeais@caas.gov.sg](mailto:caas_singaporeais@caas.gov.sg)

**AMDT**  
**01/2020**  
**Effective date**  
**30 JAN 2020**  
**Publication date**  
**30 JAN 2020**

## wp-AMDT-2020-01

### 1. Significant information and changes

#### 1.1 Singapore FIR

- a. Permanent deactivation of Restricted Areas WSR2 and WSR31.
- b. Updates to the operations mode of Singapore ATFM Unit.

#### 1.2 Seletar Airport

- a. Incorporation of schedules facilitation at Seletar Airport and requirements to submit details of all flight operations.

### 2. This amendment incorporates information contained in the listed NOTAMs which are hereby superseded:

#### NOTAM

A4925/19 dated 30/11/2019

A0005/20 dated 02/01/2020

A0006/20 dated 02/01/2020

## Amended Pages

GEN 0.2-1/2:	: <i>replace.</i>
GEN 0.3-1/2:	: <i>replace.</i>
GEN 0.3-3/4:	: <i>replace.</i>
GEN 0.3-5:	: <i>replace.</i>
GEN 0.4-1/2:	: <i>replace.</i>
GEN 0.4-3:	: <i>replace.</i>
GEN 0.5-1:	: <i>replace.</i>
GEN 0.6-1/2:	: <i>replace.</i>
GEN 0.6-3:	: <i>replace.</i>
GEN 1.2-1/2:	: <i>replace.</i>
GEN 1.2-3/4:	: <i>replace.</i>
GEN 1.2-5/6:	: <i>replace.</i>
GEN 1.2-7:	: <i>insert.</i>
GEN 3.2-3/4:	: <i>replace.</i>
ENR 0.6-3/4:	: <i>replace.</i>
ENR 0.6-5/6:	: <i>replace.</i>
ENR 1.9-1/2:	: <i>replace.</i>
ENR 1.9-3/4:	: <i>replace.</i>
ENR 1.9-5/6:	: <i>replace.</i>
ENR-3.5-3:	: <i>replace.</i>
ENR-3.6-5:	: <i>replace.</i>
ENR-3.6-7:	: <i>replace.</i>
ENR-3.6-9:	: <i>replace.</i>

ENR 5.1-1/2: : *replace.*  
ENR-5.1-7: : *replace.*  
ENR-5.1-9: : *replace.*  
WAC-2860-Singapore-Island: : *replace.*  
AD-2-WSSS-ADC-2: : *replace.*  
AD-2-WSSS-IAC-7: : *replace.*  
AD-2-WSSL-VDC-1: : *replace.*  
AD-2-WSSL-VDC-2: : *replace.*  
AD-2-WSAP-IAC-2: : *replace.*  
AD-2-WSAP-IAC-4: : *replace.*

**GEN 0.2 RECORD OF AIP AMENDMENTS****AIP AMENDMENT**

<b>NR/Year</b>	<b>Publication date</b>	<b>Date inserted</b>	<b>Inserted by</b>
5/2014	18 SEP 2014	18 SEP 2014	
6/2014	13 NOV 2014	13 NOV 2014	
1/2015	08 JAN 2015	08 JAN 2015	
2/2015	05 MAR 2015	05 MAR 2015	
3/2015	30 APR 2015	30 APR 2015	
4/2015	25 JUN 2015	25 JUN 2015	
5/2015	20 AUG 2015	20 AUG 2015	
6/2015	15 OCT 2015	15 OCT 2015	
07/2015	10 DEC 2015	10 DEC 2015	
01/2016	04 FEB 2016	04 FEB 2016	
02/2016	31 MAR 2016	31 MAR 2016	
03/2016	26 MAY 2016	26 MAY 2016	
04/2016	21 JUL 2016	21 JUL 2016	
05/2016	15 SEP 2016	15 SEP 2016	
06/2016	10 NOV 2016	10 NOV 2016	
01/2017	05 JAN 2017	05 JAN 2017	
02/2017	02 MAR 2017	02 MAR 2017	
03/2017	27 APR 2017	27 APR 2017	
04/2017	22 JUN 2017	22 JUN 2017	
05/2017	17 AUG 2017	17 AUG 2017	
06/2017	12 OCT 2017	12 OCT 2017	
07/2017	07 DEC 2017	07 DEC 2017	
01/2018	01 FEB 2018	01 FEB 2018	
02/2018	29 MAR 2018	29 MAR 2018	
03/2018	24 MAY 2018	24 MAY 2018	
04/2018	19 JUL 2018	19 JUL 2018	
05/2018	13 SEP 2018	13 SEP 2018	

**AIP AMENDMENT**

<b>NR/Year</b>	<b>Publication date</b>	<b>Date inserted</b>	<b>Inserted by</b>
06/2018	08 NOV 2018	08 NOV 2018	
01/2019	03 JAN 2019	03 JAN 2019	
02/2019	28 FEB 2019	28 FEB 2019	
03/2019	25 APR 2019	25 APR 2019	
04/2019	20 JUN 2019	20 JUN 2019	
05/2019	15 AUG 2019	15 AUG 2019	
06/2019	10 OCT 2019	10 OCT 2019	
07/2019	05 DEC 2019	05 DEC 2019	
01/2020	30 JAN 2020	30 JAN 2020	

**GEN 0.3 RECORD OF CURRENT AIP SUPPLEMENTS**

<b>NR/Year</b>	<b>Subject</b>	<b>AIP section(s) affected</b>	<b>Period of validity (from/to)</b>	<b>Cancellation record</b>
058/2017	Paya Lebar Airport - Topless Cranes	AD	13 APR 2017 / 26 OCT 2020	
067/2017	Sembawang Aerodrome - Topless Crane	AD	27 APR 2017 / 01 FEB 2020	
068/2017	Paya Lebar Airport - Obstacles	AD	27 APR 2017 / 26 OCT 2020	
085/2017	Paya Lebar Airport - Topless Cranes	AD	11 JUL 2017 / 01 JUN 2020	
108/2017	Paya Lebar Airport - Topless Crane and Luffer Cranes	AD	30 SEP 2017 / 06 JUL 2020	
121/2017	Paya Lebar Airport - Topless Cranes and Luffer Cranes	AD	10 DEC 2017 / 30 SEP 2020	
122/2017	Paya Lebar Airport - Luffer Cranes	AD	10 DEC 2017 / 31 DEC 2020	
123/2017	Paya Lebar Airport - Luffer Cranes	AD	10 DEC 2017 / 31 DEC 2020	
124/2017	Paya Lebar Airport - Luffer Crane	AD	10 DEC 2017 / 31 DEC 2020	
005/2018	Paya Lebar Airport - Topless Cranes	AD	22 JAN 2018 / 29 FEB 2020	
006/2018	Paya Lebar Airport - Topless Crane and Luffer Crane	AD	22 JAN 2018 / 28 FEB 2021	
017/2018	Paya Lebar Airport - Luffer Crane	AD	06 APR 2018 / 15 MAR 2020	
018/2018	Paya Lebar Airport - Topless Cranes and Luffer Crane	AD	25 APR 2018 / 27 OCT 2020	
019/2018	Paya Lebar Airport - Luffer Crane	AD	06 APR 2018 / 31 DEC 2020	
020/2018	Paya Lebar Airport - Mobile Crane	AD	06 APR 2018 / 03 FEB 2021	
021/2018	Paya Lebar Airport - Luffer Crane and Saddle Cranes	AD	06 APR 2018 / 31 DEC 2022	
026/2018	Paya Lebar Airport - Crawler Cranes	AD	20 JUN 2018 / 30 APR 2020	
027/2018	Paya Lebar Airport - Mobile Crane	AD	20 JUN 2018 / 10 MAY 2020	
028/2018	Paya Lebar Airport - Saddle Cranes	AD	20 JUN 2018 / 31 DEC 2022	
029/2018	Paya Lebar Airport - Luffer Cranes	AD	20 JUN 2018 / 31 DEC 2021	
030/2018	Paya Lebar Airport - Luffer Crane and Topless Cranes	AD	20 JUN 2018 / 31 DEC 2021	
053/2018	Sembawang Aerodrome - Saddle Cranes	AD	25 SEP 2018 / 31 DEC 2021	
057/2018	Paya Lebar Airport - Luffer Cranes	AD	25 SEP 2018 / 30 MAR 2020	
058/2018	Paya Lebar Airport - Luffer Crane	AD	25 SEP 2018 / 14 AUG 2020	
059/2018	Paya Lebar Airport - Topless Cranes	AD	25 SEP 2018 / 31 AUG 2020	
060/2018	Paya Lebar Airport - Topless Cranes	AD	25 SEP 2018 / 01 SEP 2020	
061/2018	Paya Lebar Airport - Luffer Cranes	AD	25 SEP 2018 / 10 SEP 2020	
062/2018	Paya Lebar Airport - Topless Cranes and Luffer Cranes	AD	25 SEP 2018 / 31 DEC 2020	

<b>NR/Year</b>	<b>Subject</b>	<b>AIP section(s) affected</b>	<b>Period of validity (from/to)</b>	<b>Cancellation record</b>
069/2018	Paya Lebar Airport - Mobile Crane	AD	13 NOV 2018 / 10 MAY 2020	
070/2018	Paya Lebar Airport - Luffer Cranes and Flat Top Cranes	AD	13 NOV 2018 / 31 DEC 2020	
071/2018	Paya Lebar Airport - Saddle Cranes	AD	13 NOV 2018 / 31 DEC 2023	
075/2018	Paya Lebar Airport - Luffer Crane	AD	28 NOV 2018 / 31 MAR 2020	
076/2018	Paya Lebar Airport - Topless Cranes	AD	29 NOV 2018 / 30 NOV 2020	
077/2018	Paya Lebar Airport - Luffer Crane	AD	28 NOV 2018 / 18 NOV 2021	
078/2018	Paya Lebar Airport - Luffer Cranes	AD	28 NOV 2018 / 30 DEC 2022	
085/2018	Paya Lebar Airport - Mobile Crane	AD	20 DEC 2018 / 31 JAN 2020	
005/2019	Paya Lebar Airport - Topless Cranes	AD	14 FEB 2019 / 30 JUN 2020	
006/2019	Paya Lebar Airport - Topless Cranes and Luffer Crane	AD	30 JAN 2019 / 09 JAN 2021	
007/2019	Tengah Aerodrome - Topless Cranes and Luffer Crane	AD	30 JAN 2019 / 31 JAN 2021	
008/2019	Paya Lebar Airport - Mobile Crane	AD	31 JAN 2019 / 31 JAN 2021	
009/2019	Paya Lebar Airport - Luffer Cranes	AD	01 JUN 2019 / 31 MAY 2021	
011/2019	Paya Lebar Airport - Mobile Crane	AD	01 FEB 2019 / 22 DEC 2020	
014/2019	Paya Lebar Airport - Topless Cranes	AD	01 FEB 2019 / 31 JAN 2021	
016/2019	Singapore Changi Airport - Updated information and data for Runway 02R/20L	AD	15 FEB 2019 PERM	
026/2019	Paya Lebar Airport - Luffer Crane	AD	27 MAR 2019 / 31 JAN 2020	
027/2019	Paya Lebar Airport - Luffer Crane	AD	27 MAR 2019 / 30 JUN 2020	
028/2019	Paya Lebar Airport - Topless Cranes	AD	27 MAR 2019 / 20 MAR 2021	
029/2019	Paya Lebar Airport - Topless Cranes	AD	27 MAR 2019 / 20 MAR 2021	
030/2019	Paya Lebar Airport - Luffer Crane and Topless Cranes	AD	27 MAR 2019 / 30 JUL 2021	
031/2019	Paya Lebar Airport - Luffer Cranes	AD	27 MAR 2019 / 28 JAN 2022	
032/2019	Paya Lebar Airport - Topless Cranes	AD	27 MAR 2019 / 09 MAR 2022	
033/2019	Paya Lebar Airport - Luffer Crane	AD	27 MAR 2019 / 31 DEC 2022	
034/2019	Paya Lebar Airport - Saddle Cranes	AD	27 MAR 2019 / 31 DEC 2022	
035/2019	Paya Lebar Airport - Luffer Crane	AD	27 MAR 2019 / 31 DEC 2022	
041/2019	Paya Lebar Airport - Crawler Crane	AD	04 APR 2019 / 29 FEB 2020	
042/2019	Paya Lebar Airport - Luffer Cranes	AD	04 APR 2019 / 31 DEC 2020	
043/2019	Paya Lebar Airport - Saddle Cranes	AD	04 APR 2019 / 31 DEC 2020	
044/2019	Paya Lebar Airport - Luffer Crane	AD	04 APR 2019 / 13 MAR 2021	

<b>NR/Year</b>	<b>Subject</b>	<b>AIP section(s) affected</b>	<b>Period of validity (from/to)</b>	<b>Cancellation record</b>
048/2019	Paya Lebar Airport - Topless Cranes	AD	07 MAY 2019 / 29 APR 2020	
049/2019	Paya Lebar Airport - Topless Cranes	AD	07 MAY 2019 / 30 DEC 2020	
050/2019	Paya Lebar Airport - Crawler Crane	AD	07 MAY 2019 / 30 NOV 2020	
051/2019	Paya Lebar Airport - Luffer Crane	AD	07 MAY 2019 / 22 APR 2021	
052/2019	Paya Lebar Airport - Cranes and Piling Rig	AD	07 MAY 2019 / 31 AUG 2020	
053/2019	Paya Lebar Airport - Saddle Cranes and Luffer Crane	AD	07 MAY 2019 / 31 DEC 2023	
054/2019	Paya Lebar Airport - Topless Cranes	AD	07 MAY 2019 / 30 SEP 2020	
055/2019	Paya Lebar Airport - Topless Cranes	AD	07 MAY 2019 / 25 APR 2021	
056/2019	Paya Lebar Airport - Luffing Crane	AD	07 MAY 2019 / 30 JUN 2020	
060/2019	Paya Lebar Airport - Topless Crane	AD	06 JUN 2019 / 14 NOV 2021	
061/2019	Paya Lebar Airport - Crawler Cranes	AD	06 JUN 2019 / 30 JUN 2020	
064/2019	Paya Lebar Airport - Luffing Crane	AD	04 JUL 2019 / 30 AUG 2020	
065/2019	Paya Lebar Airport - Mobile Cranes	AD	04 JUL 2019 / 30 JUN 2020	
066/2019	Paya Lebar Airport - Luffing Crane	AD	04 JUL 2019 / 16 JUN 2021	
067/2019	Paya Lebar Airport - Topless Cranes	AD	04 JUL 2019 / 30 JUN 2021	
068/2019	Paya Lebar Airport - Luffing Crane	AD	04 JUL 2019 / 30 DEC 2021	
069/2019	Paya Lebar Airport - Luffing Crane	AD	04 JUL 2019 / 30 DEC 2020	
072/2019	Paya Lebar Airport - Luffing Cranes	AD	19 AUG 2019 / 01 AUG 2020	
073/2019	Paya Lebar Airport - Luffer Cranes	AD	19 AUG 2019 / 31 DEC 2021	
075/2019	Paya Lebar Airport - Luffing Crane	AD	19 AUG 2019 / 31 DEC 2021	
076/2019	Paya Lebar Airport - Luffer Cranes	AD	19 AUG 2019 / 17 JUL 2020	
077/2019	Paya Lebar Airport - Mobile Crane	AD	19 AUG 2019 / 28 MAY 2020	
080/2019	Sembawang Aerodrome - Mobile Crane	AD	19 AUG 2019 / 13 JUL 2020	
084/2019	Paya Lebar Airport - Topless Cranes	AD	10 SEP 2019 / 02 SEP 2020	
085/2019	Paya Lebar Airport - Luffer Cranes	AD	10 SEP 2019 / 30 SEP 2020	
086/2019	Paya Lebar Airport - Luffing Crane	AD	10 SEP 2019 / 01 OCT 2020	
087/2019	Paya Lebar Airport - Mobile Crane	AD	10 SEP 2019 / 31 MAR 2020	
088/2019	Paya Lebar Airport - Mobile Crane	AD	10 SEP 2019 / 31 MAR 2020	
089/2019	Paya Lebar Airport - Mobile Crane	AD	10 SEP 2019 / 31 MAR 2020	
090/2019	Paya Lebar Airport - Mobile Crane	AD	10 SEP 2019 / 31 MAR 2020	

<b>NR/Year</b>	<b>Subject</b>	<b>AIP section(s) affected</b>	<b>Period of validity (from/to)</b>	<b>Cancellation record</b>
091/2019	Paya Lebar Airport - Cranes	AD	10 SEP 2019 / 30 DEC 2021	
092/2019	Paya Lebar Airport - Mobile Crane	AD	10 SEP 2019 / 31 MAR 2020	
093/2019	Paya Lebar Airport - Obstacles	AD	10 SEP 2019 / 16 FEB 2020	
094/2019	Paya Lebar Airport - Cranes	AD	10 SEP 2019 / 28 AUG 2020	
095/2019	Paya Lebar Airport - Mobile Cranes	AD	10 SEP 2019 / 30 DEC 2020	
096/2019	Paya Lebar Airport - Flat Top Cranes	AD	10 SEP 2019 / 31 DEC 2020	
097/2019	Paya Lebar Airport - Cranes	AD	10 SEP 2019 / 31 DEC 2020	
099/2019	Paya Lebar Airport - Luffer Cranes	AD	10 SEP 2019 / 05 AUG 2020	
100/2019	Paya Lebar Airport - Cranes	AD	10 SEP 2019 / 31 DEC 2020	
102/2019	Paya Lebar Airport - Luffer Crane	AD	10 SEP 2019 / 17 JUL 2020	
105/2019	Paya Lebar Airport - Cranes	AD	10 OCT 2019 / 31 DEC 2020	
106/2019	Paya Lebar Airport - Obstacles	AD	10 OCT 2019 / 30 SEP 2020	
107/2019	Paya Lebar Airport - Cranes	AD	10 OCT 2019 / 01 OCT 2020	
108/2019	Paya Lebar Airport - Cranes	AD	10 OCT 2019 / 30 DEC 2020	
109/2019	Paya Lebar Airport - Mobile Cranes	AD	10 OCT 2019 / 20 JUN 2020	
110/2019	Paya Lebar Airport - Topless Cranes	AD	10 OCT 2019 / 01 OCT 2020	
111/2019	Paya Lebar Airport - Luffer Cranes	AD	10 OCT 2019 / 20 JUN 2020	
112/2019	Sembawang Aerodrome - Crawler Cranes	AD	10 OCT 2019 / 22 SEP 2020	
113/2019	Singapore Changi Airport - Works schedule and movement area restrictions pertaining to Changi East development works	AD	14 OCT 2019 / 28 MAR 2020	
114/2019	Paya Lebar Airport - Luffer Cranes	AD	12 NOV 2019 / 02 NOV 2020	
116/2019	Paya Lebar Airport - Luffer Cranes	AD	12 NOV 2019 / 30 NOV 2020	
117/2019	Paya Lebar Airport - Luffing Crane	AD	12 NOV 2019 / 31 MAR 2021	
118/2019	Paya Lebar Airport - Flat Top Cranes	AD	12 NOV 2019 / 31 DEC 2020	
119/2019	Paya Lebar Airport - Topless Cranes	AD	12 NOV 2019 / 24 OCT 2020	
120/2019	Paya Lebar Airport - Topless Cranes	AD	12 NOV 2019 / 31 DEC 2020	
121/2019	Paya Lebar Airport - Obstacles	AD	12 NOV 2019 / 30 AUG 2020	
122/2019	Paya Lebar Airport - Luffer Cranes	AD	12 NOV 2019 / 31 OCT 2020	
123/2019	Paya Lebar Airport - Mobile Crane	AD	12 NOV 2019 / 31 DEC 2020	
124/2019	Paya Lebar Airport - Cranes	AD	12 NOV 2019 / 31 DEC 2020	



<b>NR/Year</b>	<b>Subject</b>	<b>AIP section(s) affected</b>	<b>Period of validity (from/to)</b>	<b>Cancellation record</b>
125/2019	Paya Lebar Airport - Luffer Cranes	AD	12 NOV 2019 / 31 DEC 2020	
126/2019	Paya Lebar Airport - Luffer Cranes	AD	12 NOV 2019 / 31 DEC 2022	
127/2019	Flying displays in conjunction with the Singapore Airshow 2020 Exhibition from Thursday 6 February to Sunday 16 February 2020	AD/ENR	06 FEB 2020 / 16 FEB 2020	
128/2019	Paya Lebar Airport - Obstacles	AD	05 DEC 2019 / 21 NOV 2020	
129/2019	Paya Lebar Airport - Cranes	AD	05 DEC 2019 / 20 NOV 2020	
130/2019	Paya Lebar Airport - Tower Crane	AD	14 DEC 2019 / 30 APR 2020	
131/2019	Paya Lebar Airport - Cranes	AD	31 DEC 2019 / 31 DEC 2020	
132/2019	Paya Lebar Airport - Tower Cranes	AD	14 DEC 2019 / 30 APR 2020	
133/2019	Paya Lebar Airport - Mobile Cranes	AD	05 DEC 2019 / 08 MAR 2020	
134/2019	Paya Lebar Airport - Obstacles	AD	05 DEC 2019 / 31 JAN 2020	
136/2019	Paya Lebar Airport - Cranes	AD	05 DEC 2019 / 31 DEC 2020	
137/2019	Paya Lebar Airport - Mobile Cranes	AD	05 DEC 2019 / 20 JUN 2020	
138/2019	Singapore Changi Airport - Re-designation of taxiways and taxilanes (Phase 2)	AD	12 MAR 2020 PERM	
001/2020	Paya Lebar Airport - Crawler Crane	AD	15 JAN 2020 / 30 JUN 2020	
002/2020	Paya Lebar Airport - Luffing Crane	AD	14 JAN 2020 / 31 DEC 2020	
003/2020	Paya Lebar Airport - Topless Cranes	AD	08 JAN 2020 / 05 JAN 2021	
004/2020	Paya Lebar Airport - Mobile Cranes	AD	08 JAN 2020 / 20 JUN 2021	
005/2020	Paya Lebar Airport - Luffer Cranes	AD	08 JAN 2020 / 15 DEC 2020	
006/2020	Paya Lebar Airport - Topless Cranes	AD	08 JAN 2020 / 31 DEC 2020	
007/2020	Paya Lebar Airport - Mobile Cranes	AD	08 JAN 2020 / 29 MAR 2020	

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## GEN 0.4 CHECKLIST OF AIP PAGES

Part 1 – General (GEN)							
<b>GEN 0</b>		GEN 3.1-4	10 OCT 2019	ENR 1.6-5	15 AUG 2019		
		GEN 3.2-1	10 OCT 2019	ENR 1.6-6	29 MAR 2018		
		GEN 3.2-2	31 MAR 2016	ENR 1.6-7	29 MAR 2018		
		GEN 3.2-3	31 MAR 2016	ENR 1.6-8	29 MAR 2018		
		<b>GEN 3.2-4</b>	<b>30 JAN 2020</b>	ENR-1.6-9	21 JUL 2016		
GEN 0.1-1	10 OCT 2019	GEN 3.2-5	25 APR 2019	ENR-1.6-11	21 JUL 2016		
GEN 0.1-2	10 OCT 2019	GEN 3.2-6	31 MAR 2016	ENR 1.7-1	15 AUG 2019		
GEN-0.1-3	08 NOV 2018	GEN 3.3-1	12 NOV 2015	ENR 1.7-2	15 AUG 2019		
GEN 0.2-1	13 SEP 2018	GEN 3.3-2	21 JUL 2016	ENR 1.7-3	15 AUG 2019		
<b>GEN 0.2-2</b>	<b>30 JAN 2020</b>	GEN 3.4-1	12 NOV 2015	ENR 1.7-4	15 AUG 2019		
GEN 0.3-1	30 JAN 2020	GEN 3.4-2	02 MAR 2017	ENR 1.7-5	15 AUG 2019		
GEN 0.3-2	30 JAN 2020	GEN 3.4-3	02 MAR 2017	ENR 1.7-6	15 AUG 2019		
GEN 0.3-3	30 JAN 2020	GEN 3.4-4	02 MAR 2017	ENR 1.7-7	15 AUG 2019		
GEN 0.3-4	30 JAN 2020	GEN 3.4-5	12 NOV 2015	ENR 1.8-1	10 OCT 2019		
GEN 0.3-5	30 JAN 2020	GEN-3.4-7	21 JUL 2016	ENR 1.8-2	15 AUG 2019		
GEN 0.4-1	30 JAN 2020	GEN 3.4-9	21 JUL 2016	ENR 1.8-3	15 AUG 2019		
GEN 0.4-2	30 JAN 2020	GEN 3.5-1	25 APR 2019	ENR 1.8-4	15 AUG 2019		
GEN 0.4-3	30 JAN 2020	GEN 3.5-2	05 DEC 2019	ENR 1.8-5	15 AUG 2019		
GEN 0.5-1	30 JAN 2020	GEN 3.5-3	25 APR 2019	ENR 1.8-6	15 AUG 2019		
GEN 0.6-1	30 JAN 2020	GEN 3.5-4	08 NOV 2018	ENR 1.8-7	29 MAR 2018		
GEN 0.6-2	30 JAN 2020	GEN 3.5-5	10 OCT 2019	ENR 1.8-8	29 MAR 2018		
GEN 0.6-3	30 JAN 2020	GEN 3.5-6	12 NOV 2015	ENR 1.8-9	29 MAR 2018		
<b>GEN 1</b>		GEN 3.5-7	25 APR 2019	ENR 1.8-10	29 MAR 2018		
GEN 1.1-1	05 DEC 2019	GEN 3.5-8	25 APR 2019	ENR 1.8-11	29 MAR 2018		
GEN 1.1-2	25 APR 2019	GEN 3.5-9	08 NOV 2018	ENR 1.8-12	15 AUG 2019		
GEN 1.2-1	15 SEP 2016	GEN 3.6-1	12 NOV 2015	ENR 1.8-13	15 AUG 2019		
<b>GEN 1.2-2</b>	<b>30 JAN 2020</b>	GEN 3.6-2	12 NOV 2015	ENR 1.8-14	15 AUG 2019		
GEN 1.2-3	30 JAN 2020	GEN 3.6-3	12 NOV 2015	ENR 1.8-15	15 AUG 2019		
GEN 1.2-4	30 JAN 2020	GEN 3.6-4	12 NOV 2015	ENR 1.8-16	15 AUG 2019		
GEN 1.2-5	30 JAN 2020	GEN-3.6-5	21 JUL 2016	ENR 1.8-17	15 AUG 2019		
GEN 1.2-6	30 JAN 2020	<b>GEN 4</b>		ENR 1.8-18	15 AUG 2019		
GEN 1.2-7	30 JAN 2020	GEN 4.1-1	15 SEP 2016	ENR 1.8-19	15 AUG 2019		
GEN 1.3-1	25 APR 2019	GEN 4.2-1	24 MAY 2018	ENR 1.8-20	15 AUG 2019		
GEN 1.3-2	25 APR 2019	GEN 4.2-2	12 NOV 2015	ENR 1.8-21	15 AUG 2019		
GEN 1.3-3	25 APR 2019	GEN 4.2-3	12 NOV 2015	ENR 1.8-22	15 AUG 2019		
GEN 1.3-4	25 APR 2019	GEN 4.2-4	12 NOV 2015	ENR 1.8-23	15 AUG 2019		
GEN 1.3-5	25 APR 2019	GEN 4.2-5	12 NOV 2015	ENR 1.8-24	15 AUG 2019		
GEN-1.3/ARR PAX FLOW	25 APR 2019	GEN 4.2-6	12 NOV 2015	ENR 1.8-25	05 DEC 2019		
GEN-1.3/DEP PAX FLOW 1	25 APR 2019	<b>Part 2 – EN-ROUTE (ENR)</b>		ENR 1.8-26	15 AUG 2019		
GEN-1.3/DEP PAX FLOW 2	25 APR 2019	<b>ENR 0</b>		ENR 1.8-27	15 AUG 2019		
GEN 1.4-1	20 JUN 2019	ENR 0.6-1	08 NOV 2018	ENR 1.8-28	15 AUG 2019		
GEN 1.4-2	15 AUG 2019	ENR 0.6-2	15 AUG 2019	ENR 1.8-29	15 AUG 2019		
GEN 1.4-3	15 AUG 2019	ENR 0.6-3	15 AUG 2019	<b>ENR 1.9-1</b>	<b>30 JAN 2020</b>		
GEN 1.5-1	12 NOV 2015	ENR 0.6-4	<b>30 JAN 2020</b>	ENR 1.9-2	30 JAN 2020		
GEN 1.6-1	03 JAN 2019	ENR 0.6-5	30 JAN 2020	ENR 1.9-3	30 JAN 2020		
GEN 1.6-2	03 JAN 2019	ENR 0.6-6	30 JAN 2020	ENR 1.9-4	30 JAN 2020		
GEN 1.6-3	03 JAN 2019	<b>ENR 1</b>		ENR 1.9-5	30 JAN 2020		
GEN 1.6-4	03 JAN 2019	ENR 1.1-1	25 APR 2019	ENR 1.9-6	30 JAN 2020		
GEN 1.6-5	03 JAN 2019	ENR 1.1-2	12 NOV 2015	ENR 1.10-1	10 OCT 2019		
GEN 1.6-6	03 JAN 2019	ENR 1.1-3	12 NOV 2015	ENR 1.10-2	10 OCT 2019		
GEN 1.7-1	03 JAN 2019	ENR 1.1-4	12 NOV 2015	ENR 1.10-3	29 MAR 2018		
GEN 1.7-2	03 JAN 2019	ENR 1.1-5	12 NOV 2015	ENR 1.11-1	12 NOV 2015		
GEN 1.7-3	03 JAN 2019	ENR 1.1-6	12 NOV 2015	ENR 1.12-1	12 NOV 2015		
GEN 1.7-4	03 JAN 2019	ENR 1.1-7	12 NOV 2015	ENR 1.12-2	12 NOV 2015		
GEN 1.7-5	03 JAN 2019	ENR 1.1-8	12 NOV 2015	ENR 1.12-3	12 NOV 2015		
<b>GEN 2</b>		ENR 1.1-9	12 NOV 2015	ENR 1.12-4	12 NOV 2015		
GEN 2.1-1	12 NOV 2015	ENR 1.1-10	08 NOV 2018	ENR 1.13-1	12 NOV 2015		
GEN 2.1-2	10 OCT 2019	ENR 1.1-11	08 NOV 2018	ENR 1.14-1	10 DEC 2015		
GEN 2.2-1	02 MAR 2017	ENR 1.1-12	08 NOV 2018	ENR 1.14-2	15 SEP 2016		
GEN 2.2-2	02 MAR 2017	ENR 1.1-13	08 NOV 2018	ENR-1.14-3 to ENR-1.14-4	15 SEP 2016		
GEN 2.2-3	02 MAR 2017	ENR 1.1-14	08 NOV 2018	ENR-1.14-5 to ENR-1.14-6	15 SEP 2016		
GEN 2.2-4	05 JAN 2017	ENR 1.1-15	08 NOV 2018	ENR-1.14-7 to ENR-1.14-8	15 AUG 2019		
GEN 2.2-5	10 NOV 2016	ENR 1.2-1	21 JUL 2016	<b>ENR 2</b>			
GEN 2.3-1	12 NOV 2015	ENR 1.3-1	12 NOV 2015	ENR 2.1-1	03 JAN 2019		
GEN 2.3-2	12 NOV 2015	ENR 1.4-1	12 NOV 2015	ENR 2.1-2	03 JAN 2019		
GEN 2.3-3	12 NOV 2015	ENR 1.5-1	12 NOV 2015	ENR 2.1-3	03 JAN 2019		
GEN 2.4-1	25 APR 2019	ENR 1.5-2	17 AUG 2017	ENR 2.1-4	25 APR 2019		
GEN 2.5-1	28 FEB 2019	ENR 1.5-3	10 OCT 2019	ENR-2.1-7	21 JUL 2016		
GEN-2.5-3	21 JUL 2016	ENR 1.5-4	10 OCT 2019	ENR-2.1-9	29 MAR 2018		
GEN 2.6-1	12 NOV 2015	ENR 1.6-1	12 NOV 2015	ENR-2.1-11A	21 JUL 2016		
GEN 2.6-2	12 NOV 2015	ENR 1.6-2	12 NOV 2015	ENR-2.1-11B	21 JUL 2016		
GEN 2.7-1	05 DEC 2019	ENR 1.6-3	12 NOV 2015	ENR-2.1-13	21 JUL 2016		
<b>GEN 3</b>		ENR 1.6-4	17 AUG 2017	ENR-2.1-15	28 FEB 2019		
GEN 3.1-1	10 OCT 2019	<b>ENR 3</b>					
GEN 3.1-2	10 OCT 2019	ENR 3.1-1	02 MAR 2017				
GEN 3.1-3	10 OCT 2019						

ENR 3.1-2	02 MAR 2017	ENR 4.1-1	02 MAR 2017	AD 2.WSSS-25	15 AUG 2019	
ENR 3.1-3	28 FEB 2019	ENR 4.1-2	02 MAR 2017	AD 2.WSSS-26	15 AUG 2019	
ENR 3.1-4	10 NOV 2016	ENR 4.3-1	12 NOV 2015	AD 2.WSSS-27	15 AUG 2019	
ENR 3.1-5	12 NOV 2015	ENR 4.4-1	19 JUL 2018	AD 2.WSSS-28	15 AUG 2019	
ENR 3.1-6	02 MAR 2017	ENR 4.4-2	19 JUL 2018	AD 2.WSSS-29	15 AUG 2019	
ENR 3.1-7	05 DEC 2019	ENR 4.4-3	19 JUL 2018	AD 2.WSSS-30	15 AUG 2019	
ENR 3.1-8	10 NOV 2016	ENR 4.4-4	07 DEC 2017	AD 2.WSSS-31	15 AUG 2019	
ENR 3.1-9	12 NOV 2015	ENR 4.4-5	17 AUG 2017	AD 2.WSSS-32	15 AUG 2019	
ENR 3.1-10	02 MAR 2017	ENR 4.4-6	17 AUG 2017	AD 2.WSSS-33	15 AUG 2019	
ENR 3.1-11	02 MAR 2017	ENR 4.5-1	25 APR 2019	AD 2.WSSS-34	15 AUG 2019	
ENR 3.1-12	10 NOV 2016	<b>ENR 5</b>			AD 2.WSSS-35	15 AUG 2019
ENR 3.1-13	19 JUL 2018				AD 2.WSSS-36	15 AUG 2019
ENR 3.1-14	02 MAR 2017	ENR 5.1-1	30 JAN 2020	AD 2.WSSS-37	15 AUG 2019	
ENR 3.1-15	12 NOV 2015	ENR 5.1-2	30 JAN 2020	AD 2.WSSS-38	15 AUG 2019	
ENR 3.1-16	02 MAR 2017	ENR 5.1-3	10 OCT 2019	AD-2-WSSS-ADC-1	15 SEP 2016	
ENR 3.1-17	12 NOV 2015	ENR 5.1-4	10 OCT 2019	AD-2-WSSS-ADC-2	30 JAN 2020	
ENR 3.1-18	02 MAR 2017	ENR 5.1-5	10 OCT 2019	AD-2-WSSS-ADC-3	15 AUG 2019	
ENR 3.1-19	02 MAR 2017	ENR 5.1-7	30 JAN 2020	AD-2-WSSS-AOC-1	07 DEC 2017	
ENR 3.1-20	12 NOV 2015	ENR 5.1-9	30 JAN 2020	AD-2-WSSS-AOC-2	29 MAR 2018	
ENR-3.1/ATS Chart	15 AUG 2019	ENR 5.2-1	03 JAN 2019	AD-2-WSSS-AOC-3	13 SEP 2018	
ENR 3.3-1	07 DEC 2017	ENR 5.2-2	03 JAN 2019	AD-2-WSSS-PATC-1	10 OCT 2019	
ENR 3.3-2	02 MAR 2017	ENR 5.2-3	03 JAN 2019	AD-2-WSSS-PATC-2	01 FEB 2018	
ENR 3.3-3	19 JUL 2018	ENR 5.3-1	13 SEP 2018	AD-2-WSSS-SID-1 to 1.1	10 OCT 2019	
ENR 3.3-4	12 NOV 2015	ENR 5.4-1	12 NOV 2015	AD-2-WSSS-SID-2 to 2.1	10 OCT 2019	
ENR 3.3-5	12 NOV 2015	ENR 5.5-1	03 JAN 2019	AD-2-WSSS-SID-3 to 3.1	10 OCT 2019	
ENR 3.3-6	22 JUN 2017	ENR 5.6-1	24 MAY 2018	AD-2-WSSS-SID-4 to 4.1	10 OCT 2019	
ENR 3.3-7	10 OCT 2019	ENR 5.6-2	12 NOV 2015	AD-2-WSSS-SID-5 to 5.1	10 OCT 2019	
ENR 3.3-8	02 MAR 2017	<b>ENR 6</b>			AD-2-WSSS-SID-6 to 6.1	05 DEC 2019
ENR 3.3-9	07 DEC 2017				AD-2-WSSS-SID-7 to 7.1	10 OCT 2019
ENR 3.3-10	07 DEC 2017	ENR 6-1	15 SEP 2016	AD-2-WSSS-SID-8 to 8.1	10 OCT 2019	
ENR 3.3-11	29 MAR 2018	ERC-6-1 En-Route Chart	15 AUG 2019	AD-2-WSSS-SID-9 to 9.1	10 OCT 2019	
ENR 3.3-12	19 JUL 2018	WAC-2860-Singapore-Island	30 JAN 2020	AD-2-WSSS-SID-10 to 10.1	10 OCT 2019	
ENR 3.3-13	07 DEC 2017	<b>Part 3 – AERODROMES (AD)</b>			AD-2-WSSS-SID-11 to 11.1	10 OCT 2019
ENR 3.3-14	07 DEC 2017	<b>AD 0</b>			AD-2-WSSS-SID-12 to 12.1	10 OCT 2019
ENR 3.3-15	07 DEC 2017				AD-2-WSSS-SID-13 to 13.1	10 OCT 2019
ENR 3.3-16	07 DEC 2017				AD-2-WSSS-SID-14 to 14.1	10 OCT 2019
ENR 3.3-17	07 DEC 2017	AD 0.6-1	15 AUG 2019	AD-2-WSSS-SID-15 to 15.1	10 OCT 2019	
ENR 3.3-18	07 DEC 2017	AD 0.6-2	15 AUG 2019	AD-2-WSSS-SID-16 to 16.1	10 OCT 2019	
ENR 3.3-19	19 JUL 2018	AD 0.6-3	15 AUG 2019	AD-2-WSSS-SID-17 to 17.1	10 OCT 2019	
ENR 3.3-20	07 DEC 2017	AD 0.6-4	25 APR 2019	AD-2-WSSS-SID-18 to 18.1	10 OCT 2019	
ENR 3.3-21	19 JUL 2018	AD 0.6-5	25 APR 2019	AD-2-WSSS-STAR-1 to 1.1	12 OCT 2017	
ENR 3.3-22	19 JUL 2018	AD 0.6-6	19 JUL 2018	AD-2-WSSS-STAR-2 to 2.1	12 OCT 2017	
ENR 3.3-23	07 DEC 2017	AD 0.6-7	19 JUL 2018	AD-2-WSSS-STAR-3 to 3.1	28 FEB 2019	
ENR 3.3-24	07 DEC 2017	<b>AD 1</b>			AD-2-WSSS-STAR-4 to 4.1	12 OCT 2017
ENR 3.3-25	07 DEC 2017				AD-2-WSSS-STAR-5 to 5.1	12 OCT 2017
ENR 3.3-26	07 DEC 2017	AD 1.1-1	12 NOV 2015	AD-2-WSSS-STAR-6 to 6.1	12 OCT 2017	
ENR 3.3-27	07 DEC 2017	AD 1.1-2	12 NOV 2015	AD-2-WSSS-STAR-7 to 7.1	12 OCT 2017	
ENR 3.3-28	07 DEC 2017	AD 1.1-3	15 AUG 2019	AD-2-WSSS-STAR-8 to 8.1	12 OCT 2017	
ENR 3.3-29	19 JUL 2018	AD 1.1-4	15 AUG 2019	AD-2-WSSS-STAR-9 to 9.1	28 FEB 2019	
ENR 3.3-30	07 DEC 2017	AD 1.2-1	12 NOV 2015	AD-2-WSSS-STAR-11 to 11.1		
ENR 3.3-31	07 DEC 2017	AD 1.3-1	12 NOV 2015		12 OCT 2017	
ENR 3.3-32	07 DEC 2017	AD-1.3-3	21 JUL 2016	AD-2-WSSS-STAR-13 to 13.1		
ENR 3.3-33	07 DEC 2017	AD 1.4-1	12 NOV 2015		12 OCT 2017	
ENR 3.3-34	07 DEC 2017	AD 1.5-1	05 DEC 2019	AD-2-WSSS-STAR-14 to 14.1		
ENR 3.3-35	07 DEC 2017	<b>AD 2</b>				12 OCT 2017
ENR 3.3-36	07 DEC 2017				AD-2-WSSS-STAR-15 to 15.1	
ENR 3.3-37	07 DEC 2017	AD 2.WSSS-1	13 SEP 2018		12 OCT 2017	
ENR 3.3-38	07 DEC 2017	AD 2.WSSS-2	17 AUG 2017	AD-2-WSSS-STAR-16 to 16.1		
ENR 3.3-39	07 DEC 2017	AD 2.WSSS-3	15 AUG 2019		12 OCT 2017	
ENR 3.3-40	07 DEC 2017	AD 2.WSSS-4	15 AUG 2019	AD-2-WSSS-STAR-17 to 17.1		
ENR 3.3-41	07 DEC 2017	AD 2.WSSS-5	15 AUG 2019		12 OCT 2017	
ENR 3.3-42	07 DEC 2017	AD 2.WSSS-6	15 AUG 2019	AD-2-WSSS-STAR-18 to 18.1		
ENR 3.3-43	07 DEC 2017	AD 2.WSSS-7	15 AUG 2019		12 OCT 2017	
ENR 3.4-1	12 NOV 2015	AD 2.WSSS-8	15 AUG 2019	AD-2-WSSS-STAR-19 to 19.1		
ENR 3.4-2	12 OCT 2017	AD 2.WSSS-9	15 AUG 2019		12 OCT 2017	
ENR 3.4-3	28 FEB 2019	AD 2.WSSS-10	10 OCT 2019	AD-2-WSSS-STAR-20 to 20.1		
ENR 3.4-4	12 NOV 2015	AD 2.WSSS-11	15 AUG 2019		12 OCT 2017	
ENR-3.4-5	08 NOV 2018	AD 2.WSSS-12	15 AUG 2019	AD-2-WSSS-STAR-21 to 21.1		
ENR-3.4-7	21 JUL 2016	AD 2.WSSS-13	15 AUG 2019		12 OCT 2017	
ENR 3.5-1	02 MAR 2017	AD 2.WSSS-14	15 AUG 2019	AD-2-WSSS-IAC-1	10 OCT 2019	
ENR 3.5-2	02 MAR 2017	AD 2.WSSS-15	15 AUG 2019	AD-2-WSSS-IAC-2	10 OCT 2019	
ENR-3.5-3	30 JAN 2020	AD 2.WSSS-16	15 AUG 2019	AD-2-WSSS-IAC-5	10 OCT 2019	
ENR 3.6-1	27 APR 2017	AD 2.WSSS-17	15 AUG 2019	AD-2-WSSS-IAC-6	10 OCT 2019	
ENR 3.6-2	27 APR 2017	AD 2.WSSS-18	15 AUG 2019	AD-2-WSSS-IAC-7	30 JAN 2020	
ENR-3.6-3	05 JAN 2017	AD 2.WSSS-19	15 AUG 2019	AD-2-WSSS-IAC-9	10 OCT 2019	
ENR-3.6-5	30 JAN 2020	AD 2.WSSS-20	15 AUG 2019	AD-2-WSSS-IAC-10	10 OCT 2019	
ENR-3.6-7	30 JAN 2020	AD 2.WSSS-21	15 AUG 2019	AD-2-WSSS-IAC-11	10 OCT 2019	
ENR-3.6-9	30 JAN 2020	AD 2.WSSS-22	15 AUG 2019	AD-2-WSSS-IAC-12	10 OCT 2019	
<b>ENR 4</b>		AD 2.WSSS-23	15 AUG 2019	AD-2-WSSS-VAC-1	10 OCT 2019	
		AD 2.WSSS-24	15 AUG 2019	AD 2.WSSL-1	28 FEB 2019	

AD 2.WSSL-2	28 FEB 2019	AD-2-WIDD-STAR-4	12 NOV 2015
AD 2.WSSL-3	15 AUG 2019	AD 2.WIDN-1	03 JAN 2019
AD 2.WSSL-4	05 DEC 2019	AD 2.WIDN-2	03 JAN 2019
AD 2.WSSL-5	05 DEC 2019	AD-2-WIDN-SID-1	12 NOV 2015
AD 2.WSSL-6	15 AUG 2019	AD-2-WIDN-SID-2	12 NOV 2015
AD 2.WSSL-7	15 AUG 2019	AD-2-WIDN-SID-3	12 NOV 2015
AD 2.WSSL-8	15 AUG 2019	AD-2-WIDN-SID-4	12 NOV 2015
AD 2.WSSL-9	15 AUG 2019	AD-2-WIDN-STAR-1	12 NOV 2015
AD 2.WSSL-10	15 AUG 2019	AD-2-WIDN-STAR-2	12 NOV 2015
AD 2.WSSL-11	15 AUG 2019	AD-2-WIDN-STAR-3	21 JUL 2016
AD 2.WSSL-12	15 AUG 2019	AD-2-WIDN-STAR-4	12 NOV 2015
AD 2.WSSL-13	05 DEC 2019		
AD 2.WSSL-14	15 AUG 2019		
AD 2.WSSL-15	15 AUG 2019		
AD 2.WSSL-16	10 OCT 2019		
AD 2.WSSL-17	15 AUG 2019		
AD 2.WSSL-18	15 AUG 2019		
AD 2.WSSL-19	15 AUG 2019		
AD 2.WSSL-20	10 OCT 2019		
AD 2.WSSL-21	15 AUG 2019		
AD 2.WSSL-22	10 OCT 2019		
AD 2.WSSL-23	10 OCT 2019		
AD 2.WSSL-24	15 AUG 2019		
AD 2.WSSL-25	10 OCT 2019		
AD-2-WSSL-ADC-1	05 DEC 2019		
AD-2-WSSL-ADC-2	05 DEC 2019		
AD-2-WSSL-ADC-3	08 NOV 2018		
AD-2-WSSL-AOC-1	17 AUG 2017		
AD-2-WSSL-AOC-2	08 NOV 2018		
AD-2-WSSL-VAC-1	05 DEC 2019		
AD-2-WSSL-VAC-2	05 DEC 2019		
AD-2-WSSL-VAC-3	05 DEC 2019		
AD-2-WSSL-VAC-4	05 DEC 2019		
AD-2-WSSL-VDC-1	30 JAN 2020		
AD-2-WSSL-VDC-2	30 JAN 2020		
AD-2-WSSL-VFR-1	15 AUG 2019		
AD-2-WSSL-IFR-1	10 OCT 2019		
AD-2-WSSL-IFR-2	10 OCT 2019		
AD 2.WSAP-1	19 JUL 2018		
AD 2.WSAP-2	19 JUL 2018		
AD 2.WSAP-3	10 OCT 2019		
AD 2.WSAP-4	19 JUL 2018		
AD 2.WSAP-5	10 OCT 2019		
AD 2.WSAP-6	12 OCT 2017		
AD 2.WSAP-7	19 JUL 2018		
AD 2.WSAP-8	25 APR 2019		
AD 2.WSAP-9	25 APR 2019		
AD 2.WSAP-10	25 APR 2019		
AD 2.WSAP-11	25 APR 2019		
AD-2-WSAP-ADC-1	12 NOV 2015		
AD-2-WSAP-ADC-2	12 OCT 2017		
AD-2-WSAP-AOC-1	10 NOV 2016		
AD-2-WSAP-IAC-1	10 OCT 2019		
AD-2-WSAP-IAC-2	30 JAN 2020		
AD-2-WSAP-IAC-3	10 OCT 2019		
AD-2-WSAP-IAC-4	30 JAN 2020		
AD-2-WSAP-IAC-5	10 OCT 2019		
AD-2-WSAP-IAC-6	10 OCT 2019		
AD 2.WSAT-1	25 APR 2019		
AD 2.WSAT-2	25 APR 2019		
AD 2.WSAT-3	25 APR 2019		
AD 2.WSAT-4	25 APR 2019		
AD 2.WSAT-5	25 APR 2019		
AD 2.WSAT-6	25 APR 2019		
AD 2.WSAT-7	12 NOV 2015		
AD 2.WSAT-8	12 NOV 2015		
AD-2-WSAT-ADC-1	12 NOV 2015		
AD 2.WSAG-1	12 NOV 2015		
AD 2.WSAG-2	08 NOV 2018		
AD 2.WSAG-3	07 DEC 2017		
AD 2.WMKJ-1	12 NOV 2015		
AD 2.WIDD-1	12 NOV 2015		
AD 2.WIDD-2	12 NOV 2015		
AD-2-WIDD-SID-1	12 NOV 2015		
AD-2-WIDD-SID-2	12 NOV 2015		
AD-2-WIDD-SID-3	12 NOV 2015		
AD-2-WIDD-SID-4	12 NOV 2015		
AD-2-WIDD-STAR-1	12 NOV 2015		
AD-2-WIDD-STAR-2	12 NOV 2015		
AD-2-WIDD-STAR-3	12 NOV 2015		

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**GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP**

<i>AIP page(s) affected</i>	<i>Amendment text</i>	<i>Introduced by AIP Amendment NR</i>
NIL	NIL	NIL

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**GEN 0.6 TABLE OF CONTENTS TO PART 1**

<a href="#">GEN 0.1</a>	PREFACE	GEN 0.1-1
<a href="#">1</a>	Name of the publishing authority	GEN 0.1-1
<a href="#">2</a>	Applicable ICAO documents	GEN 0.1-1
<a href="#">3</a>	Publication Media	GEN 0.1-1
<a href="#">4</a>	The AIP structure and established regular amendment interval	GEN 0.1-1
<a href="#">5</a>	Service to contact in case of detected AIP errors or omissions	GEN 0.1-2
<a href="#">GEN 0.2</a>	RECORD OF AIP AMENDMENTS	GEN 0.2-1
<a href="#">GEN 0.3</a>	RECORD OF CURRENT AIP SUPPLEMENTS	GEN 0.3-1
<a href="#">GEN 0.4</a>	CHECKLIST OF AIP PAGES	GEN 0.4-1
<a href="#">GEN 0.5</a>	LIST OF HAND AMENDMENTS TO THE AIP	GEN 0.5-1
<a href="#">GEN 0.6</a>	TABLE OF CONTENTS TO PART 1	GEN 0.6-1
<b><a href="#">GEN 1</a></b>	<b>NATIONAL REGULATIONS AND REQUIREMENTS</b>	
<a href="#">GEN 1.1</a>	DESIGNATED AUTHORITIES	GEN 1.1-1
<a href="#">1</a>	CIVIL AVIATION	GEN 1.1-1
<a href="#">2</a>	METEOROLOGY	GEN 1.1-1
<a href="#">3</a>	CUSTOMS	GEN 1.1-1
<a href="#">4</a>	IMMIGRATION	GEN 1.1-1
<a href="#">5</a>	HEALTH	GEN 1.1-1
<a href="#">6</a>	ENROUTE AND AERODROME CHARGES	GEN 1.1-2
<a href="#">7</a>	AGRICULTURE QUARANTINE	GEN 1.1-2
<a href="#">8</a>	TRANSPORT SAFETY INVESTIGATION BUREAU	GEN 1.1-2
<a href="#">GEN 1.2</a>	ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT	GEN 1.2-1
<a href="#">1</a>	INTRODUCTION	GEN 1.2-1
<a href="#">2</a>	APPLICATION FOR SLOTS AT SINGAPORE CHANGI AIRPORT	GEN 1.2-1
<a href="#">3</a>	SUBMISSION OF FLIGHT DETAILS AND APPLICATION FOR SLOTS AT SELETAR AIRPORT	GEN 1.2-2
<a href="#">4</a>	CIVIL SCHEDULED FLIGHTS	GEN 1.2-3
<a href="#">5</a>	CIVIL NON-SCHEDULED FLIGHTS	GEN 1.2-3
<a href="#">6</a>	APPLICATION FOR TEST FLIGHTS	GEN 1.2-6
<a href="#">7</a>	AIRCRAFT BANNED FROM OPERATIONS AT SINGAPORE AERODROMES	GEN 1.2-7
<a href="#">GEN 1.3</a>	ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW	GEN 1.3-1
<a href="#">1</a>	CUSTOMS REQUIREMENTS	GEN 1.3-1
<a href="#">2</a>	IMMIGRATION REQUIREMENTS	GEN 1.3-2
<a href="#">3</a>	PUBLIC HEALTH REQUIREMENTS	GEN 1.3-4
<a href="#">4</a>	FLYING LICENCES AND RATINGS	GEN 1.3-5
<a href="#">GEN 1.4</a>	ENTRY, TRANSIT AND DEPARTURE OF CARGO	GEN 1.4-1
<a href="#">1</a>	CUSTOMS REQUIREMENTS CONCERNING CARGO AND OTHER ARTICLES	GEN 1.4-1
<a href="#">2</a>	VETERINARY, ANIMALS, BIRDS, MEAT, FISH AND PLANT QUARANTINE REQUIREMENTS	GEN 1.4-1
<a href="#">3</a>	REQUIREMENTS RELATING TO ARMS AND EXPLOSIVES	GEN 1.4-2
<a href="#">4</a>	REQUIREMENTS FOR THE CARRIAGE OF DANGEROUS GOODS AND MUNITIONS OF WAR (INCLUDING ARMS AND EXPLOSIVES) IN AIRCRAFT	GEN 1.4-2
<a href="#">5</a>	REPORTING OF DANGEROUS GOODS ACCIDENT/INCIDENT	GEN 1.4-2
<a href="#">GEN 1.5</a>	AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS	GEN 1.5-1
<a href="#">1</a>	MANDATORY CARRIAGE AND OPERATION OF AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS II)	GEN 1.5-1

←  
←

<a href="#">GEN 1.6</a>	SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS/CONVENTIONS	GEN 1.6-1
<a href="#">1</a>	LIST OF CIVIL AVIATION LEGISLATION, AIR NAVIGATION REGULATIONS AND ORDERS	GEN 1.6-1
<a href="#">2</a>	TAXATION IN THE FIELD OF INTERNATIONAL AIR TRANSPORT	GEN 1.6-5
<a href="#">GEN 1.7</a>	DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES	GEN 1.7-1
<b><a href="#">GEN 2</a></b>	<b>TABLES AND CODES</b>	
<a href="#">GEN 2.1</a>	MEASURING SYSTEM, AIRCRAFT MARKING, HOLIDAYS	GEN 2.1-1
<a href="#">1</a>	UNITS OF MEASUREMENT	GEN 2.1-1
<a href="#">2</a>	TIME SYSTEM	GEN 2.1-1
<a href="#">3</a>	GEODETTIC REFERENCE DATUM	GEN 2.1-1
<a href="#">4</a>	AIRCRAFT NATIONALITY AND REGISTRATION MARKS	GEN 2.1-1
<a href="#">5</a>	PUBLIC HOLIDAYS IN SINGAPORE	GEN 2.1-2
<a href="#">GEN 2.2</a>	ABBREVIATIONS USED IN AIS PUBLICATIONS	GEN 2.2-1
<a href="#">GEN 2.3</a>	CHART SYMBOLS	GEN 2.3-1
<a href="#">1</a>	AERODROMES	GEN 2.3-1
<a href="#">2</a>	AERODROME INSTALLATIONS AND LIGHTS	GEN 2.3-2
<a href="#">3</a>	MISCELLANEOUS	GEN 2.3-3
<a href="#">GEN 2.4</a>	LOCATION INDICATORS	GEN 2.4-1
<a href="#">GEN 2.5</a>	LIST OF RADIO NAVIGATION AIDS	GEN 2.5-1
<a href="#">GEN 2.6</a>	CONVERSIONS TABLES	GEN 2.6-1
<a href="#">GEN 2.7</a>	SUNRISE/SUNSET TABLES	GEN 2.7-1
<b><a href="#">GEN 3</a></b>	<b>SERVICES</b>	
<a href="#">GEN 3.1</a>	AERONAUTICAL INFORMATION SERVICES	GEN 3.1-1
<a href="#">1</a>	RESPONSIBLE SERVICE	GEN 3.1-1
<a href="#">2</a>	AREA OF RESPONSIBILITY	GEN 3.1-1
<a href="#">3</a>	AERONAUTICAL PUBLICATIONS	GEN 3.1-1
<a href="#">4</a>	AIRAC SYSTEM	GEN 3.1-3
<a href="#">5</a>	PRE-FLIGHT INFORMATION SERVICE AT AERODROMES	GEN 3.1-4
<a href="#">GEN 3.2</a>	AERONAUTICAL CHARTS	GEN 3.2-1
<a href="#">1</a>	RESPONSIBLE SERVICES	GEN 3.2-1
<a href="#">2</a>	MAINTENANCE OF CHARTS	GEN 3.2-1
<a href="#">3</a>	AVAILABILITY OF CHARTS	GEN 3.2-1
<a href="#">4</a>	AERONAUTICAL CHART SERIES AVAILABLE	GEN 3.2-1
<a href="#">5</a>	LIST OF AERONAUTICAL CHARTS AVAILABLE	GEN 3.2-4
<a href="#">6</a>	INDEX TO THE WORLD AERONAUTICAL CHART (WAC) - ICAO 1:1 000 000	GEN 3.2-5
<a href="#">7</a>	CORRECTIONS TO CHARTS NOT CONTAINED IN THE AIP	GEN 3.2-6
<a href="#">GEN 3.3</a>	AIR TRAFFIC SERVICES	GEN 3.3-1
<a href="#">1</a>	RESPONSIBLE SERVICE	GEN 3.3-1
<a href="#">2</a>	AREA OF RESPONSIBILITY	GEN 3.3-1
<a href="#">3</a>	TYPES OF SERVICES	GEN 3.3-1
<a href="#">4</a>	CO-ORDINATION BETWEEN THE OPERATOR AND ATS	GEN 3.3-2
<a href="#">5</a>	MINIMUM FLIGHT ALTITUDE	GEN 3.3-2
<a href="#">6</a>	ATS UNITS ADDRESS LIST	GEN 3.3-2
<a href="#">GEN 3.4</a>	COMMUNICATION SERVICES	GEN 3.4-1
<a href="#">1</a>	RESPONSIBLE SERVICE	GEN 3.4-1
<a href="#">2</a>	AREA OF RESPONSIBILITY	GEN 3.4-1

<a href="#">3</a>	TYPES OF SERVICE	GEN 3.4-1
<a href="#">4</a>	REQUIREMENTS AND CONDITIONS	GEN 3.4-4
<a href="#">GEN 3.5</a>	METEOROLOGICAL SERVICES	GEN 3.5-1
<a href="#">1</a>	RESPONSIBLE SERVICE	GEN 3.5-1
<a href="#">2</a>	AREA OF RESPONSIBILITY	GEN 3.5-1
<a href="#">3</a>	METEOROLOGICAL OBSERVATIONS AND REPORTS	GEN 3.5-2
<a href="#">4</a>	TYPES OF SERVICES	GEN 3.5-3
<a href="#">5</a>	NOTIFICATION REQUIRED FROM OPERATORS	GEN 3.5-5
<a href="#">6</a>	AIRCRAFT REPORTS REQUIRED FROM OPERATORS	GEN 3.5-5
<a href="#">7</a>	VOLMET SERVICE	GEN 3.5-6
<a href="#">8</a>	SIGMET SERVICE	GEN 3.5-7
<a href="#">9</a>	OTHER AUTOMATED METEOROLOGICAL SERVICES	GEN 3.5-9
<a href="#">GEN 3.6</a>	SEARCH AND RESCUE	GEN 3.6-1
<a href="#">1</a>	RESPONSIBLE SERVICE (S)	GEN 3.6-1
<a href="#">2</a>	AREA OF RESPONSIBILITY	GEN 3.6-1
<a href="#">3</a>	TYPES OF SERVICES	GEN 3.6-1
<a href="#">4</a>	SAR AGREEMENTS	GEN 3.6-1
<a href="#">5</a>	CONDITIONS OF AVAILABILITY	GEN 3.6-2
<a href="#">6</a>	PROCEDURES AND SIGNALS USED	GEN 3.6-2
<a href="#">GEN 4</a>	<b>CHARGES FOR AERODROMES/HELIPORT AND AIR NAVIGATION SERVICES</b>	
<a href="#">GEN 4.1</a>	AERODROME CHARGES	GEN 4.1-1
<a href="#">1</a>	AIRPORT FEES AND CHARGES APPLICABLE AT SINGAPORE CHANGI AIRPORT	GEN 4.1-1
<a href="#">2</a>	AIRPORT FEES AND CHARGES APPLICABLE AT SELETAR AIRPORT	GEN 4.1-1
<a href="#">3</a>	HANGAR FEES	GEN 4.1-1
<a href="#">4</a>	NOISE RELATED ITEMS	GEN 4.1-1
<a href="#">5</a>	GROUND HANDLING SERVICE CHARGES	GEN 4.1-1
<a href="#">GEN 4.2</a>	AIR NAVIGATION SERVICES CHARGES	GEN 4.2-1
<a href="#">1</a>	GENERAL	GEN 4.2-1
<a href="#">2</a>	RANS CHARGES	GEN 4.2-1
<a href="#">3</a>	EXEMPTION FROM RANS CHARGES	GEN 4.2-1
<a href="#">4</a>	COLLECTION OF RANS CHARGES	GEN 4.2-1
<a href="#">5</a>	PERSON LIABLE TO PAY RANS CHARGES	GEN 4.2-2
<a href="#">6</a>	QUERIES ON LEVYING/BILLING OF RANS CHARGES	GEN 4.2-2

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## GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

### 1 INTRODUCTION

- 1.1 International flights into, from or over Singapore territory shall be subject to the current Singapore regulations relating to civil aviation. These regulations correspond in all essentials to the Standards and Recommended Practices contained in Annex 9 to the Convention on International Civil Aviation.
- 1.2 Aircraft flying into or departing from Singapore territory shall make their first landing at, or final departure from an international aerodrome (see AIP Singapore page AD 1.3-1 and section AD 2).
- 1.3 Notwithstanding the regulations relating to civil aviation over Singapore territory, aircraft operators should consult the respective AIPs for other documentary and / or permit requirements for flights intending to enter, depart, and / or overfly the sovereign airspaces of States along the planned flight routes.

### 2 APPLICATION FOR SLOTS AT SINGAPORE CHANGI AIRPORT

- 2.1 Singapore Changi Airport is a slot coordinated airport, with Changi Airport Group (CAG) as the Slot Coordinator. To ensure efficiency of aircraft operations and optimisation of airport resources, all operators of scheduled and non-scheduled (commercial and non-commercial) flights must obtain slots from the Changi Slot Coordinator prior to the operation of such flights.
- 2.2 To apply for slots for access to Singapore Changi Airport, all operators or agents of non-scheduled, commercial and non-commercial flights shall submit applications for slots via either a Slot Clearance Request (SCR) to the Changi Slot Coordinator, or for operators without a 2-letter IATA airline code, a General (Aviation) Clearance Request (GCR) through the Online Coordination System (OCS) (at [www.online-coordination.com](http://www.online-coordination.com)).  
Changi Slot Coordinator  
c/o Changi Airport Group (Singapore) Pte Ltd  
Singapore Changi Airport  
P.O. Box 168  
Singapore 918146  
[Email: csc@changiairport.com](mailto:csc@changiairport.com)  
Tel: +65 6541 2378 or +65 6541 3064
- 2.3 Operators or agents of non-scheduled, commercial and non-commercial flights shall submit their slot requests to the Changi Slot Coordinator no earlier than 7 calendar days and but no later than 24 hours prior to the operation of the flight, for which the slot will be utilized.
- 2.4 To facilitate the optimisation of aircraft parking resources at Singapore Changi Airport, operators or agents of non-scheduled, commercial and non-commercial flights are strongly advised to limit their ground time to no more than 48 hours from the arrival slot timing.
- 2.5 For urgent non-scheduled, commercial and non-commercial flight operations that are less than 24 hours from the proposed date of operation, in addition to submitting the SCR/GCR, operators/agents must also inform the Airside Operations Section of CAG (Airside Management Centre) at +65 6603 4906 / +65 6541 2275 / +65 6541 2273.
- 2.6 **EXEMPT FLIGHTS**
- 2.6.1 Notwithstanding paragraph 2.1, the following types of flights may operate to / from Singapore Changi Airport without obtaining slots from the Changi Slot Coordinator:
- Emergency landings. e.g. diversions or quick returns after takeoff, oil spill response operations
  - Flights operating under diplomatic cover
  - Flights operated by the military, including those carrying supplies but excluding those chartered on a commercial basis by the military
  - Humanitarian flights including those responding to medical emergencies where the safety of human life is concerned or involved in search and rescue operations
  - Technical flights including radar and NAVAID calibration / check flights
- 2.7 **RESTRICTIONS ON OPERATION OF PROPELLER AIRCRAFT AT SINGAPORE CHANGI AIRPORT**
- 2.7.1 Both scheduled and non-scheduled (commercial and non-commercial) propeller aircraft operations will not be allocated new slots at Singapore Changi Airport.

### **3 SUBMISSION OF FLIGHT DETAILS AND APPLICATION FOR SLOTS AT SELETAR AIRPORT**

3.1 Seletar Airport is a schedules facilitated airport, with Changi Airport Group (CAG) as the Seletar Schedules Facilitator. To ensure efficiency of aircraft operations and optimisation of airport resources, all operators of non-scheduled (commercial and non-commercial) flights must submit details of their planned operations to the Seletar Schedules Facilitator prior to these operations. Operators shall also be prepared to make adjustments to their schedules when necessary as advised by the Seletar Schedules Facilitator to ensure that airport capacity parameters are not exceeded. In addition, all operators of scheduled flights must obtain slots from the Seletar Schedules Facilitator prior to the operation of such flights. No operation will be permitted without the approval of the Seletar Schedules Facilitator.

3.2 For non-scheduled (commercial and non-commercial) flight operations, operators or agents shall submit details of their planned operations to [seletar.airside@changiairport.com](mailto:seletar.airside@changiairport.com) during the flights submission window, defined as no earlier than 7 calendar days but no later than 1400 UTC / 2200 LT on the day prior to the planned operations.

3.3 For urgent non-scheduled (commercial and non-commercial) flight operations of which details were not submitted during the flights submission window, operators or agents must submit the details to [seletar.airside@changiairport.com](mailto:seletar.airside@changiairport.com) and call to inform the Airside Operations Section of Seletar Airport at +65 6481 5077.

3.4 Operators or agents shall include the following details of the flight operations in their submission:

- Name of operator and appointed ground handling agent;
- Date and time of arrival and departure (in local time);
- Aircraft type and seat capacity;
- Origin and destination;
- Aircraft registration number; and
- Purpose of flight (e.g. business aviation; general aviation; cargo; maintenance, repair and operations (MRO); etc.).

3.5 For scheduled flight operations, operators shall submit applications for slots via a Slot Clearance Request (SCR) to [csc@changiairport.com](mailto:csc@changiairport.com).

3.6 All operators shall adhere to the IATA Worldwide Slot Guidelines (WSG). A copy of this document can be obtained from [www.iata.org/wsg](http://www.iata.org/wsg)

#### **3.7 EXEMPT FLIGHTS**

3.7.1 Notwithstanding paragraph 3.1, the following types of flights may operate to / from Seletar Airport without submitting details of their flight operations to the Seletar Schedules Facilitator during the flights submission window as stipulated in paragraph 3.2:

- Emergency landings, e.g. diversions or quick returns after takeoff, oil spill response operations;
- Flights operating under diplomatic cover;
- Flights operated by the military, including those carrying supplies but excluding those chartered on a commercial basis by the military;
- Humanitarian flights including those responding to medical emergencies where the safety of human life is concerned or involved in search & rescue operations; and
- Technical flights including radar and NAVAID calibration /check flights.

3.7.2 However, operators or agents of exempt flights shall call to inform the Airside Operations Section of Seletar Airport at +65 6481 5077 of their flight operations in advance.

#### **3.8 DESIGNATED HOURS FOR TRAINING FLIGHTS**

3.8.1 To optimise the use of capacity, training and non-training flights will be segregated through designated hours for training flights. Non-training flights will not be permitted at Seletar Airport during the following periods from Tuesdays to Sundays:

- 0130 to 0230 UTC / 0930 to 1030 LT;
- 0400 to 0500 UTC / 1200 to 1300 LT;
- 0700 to 0800 UTC / 1500 to 1600 LT; and
- 0900 to 1000 UTC / 1700 to 1800 LT.

3.8.2 All operators or agents and pilots are to plan their flight schedules with sufficient buffers to avoid the designated hours for training flights.

3.8.3 Notwithstanding paragraph 3.8.1, the following types of flights may be permitted during the designated hours for training flights:

- Emergency landings, e.g. diversions or quick returns after takeoff, oil spill response operations;
- Flights operating under diplomatic cover; and
- Humanitarian flights including those responding to medical emergencies where the safety of human life is concerned or involved in search & rescue operations.

## 4 CIVIL SCHEDULED FLIGHTS

### 4.1 GENERAL

4.1.1 Before a scheduled service is permitted to operate into the Republic of Singapore, it must be appropriately covered by either an air services agreement, a licence issued in accordance with the Air Navigation (Licensing of Air Services) Regulations or other aeronautical arrangements. All scheduled flights are subject to prior approval.

### 4.2 APPLICATION FOR TRAFFIC LANDINGS AND UPLIFTS (SCHEDULED FLIGHTS)

4.2.1 Only the airline operator may apply for permission to operate scheduled flights.

4.2.2 All airline operators are to submit their applications for scheduled flights for each IATA schedule season one month before the start of the season for approval by CAAS.

4.2.3 In addition, airline operators are also required to apply for CAAS' approval for any revisions to their schedule filings for the season, ad-hoc changes to flight schedules and flight cancellations. Such applications should be filed through the CAAS Air Transport Licensing and Administration System (ATLAS) at <https://appserver1.caas.gov.sg/ATLAS> 5 working days before flight changes take place.

4.2.4 If insufficient notice as specified in paragraphs 3.2.2 and 3.2.3 is given, the application may not be considered.

4.2.5 Airline operators are to ensure that a copy of the following documents, which are to remain valid during the period of operations, are lodged with CAAS:

- a. Certificate(s) of Registration(s) for aircraft used;
- b. Certificate(s) of Airworthiness for aircraft used; and
- c. Air Operator's Certificate

4.2.6 All applications and required documents listed in paragraph 3.2.5 should be submitted via ATLAS.

### 4.3 DOCUMENTARY REQUIREMENTS FOR CLEARANCE OF AIRCRAFT

4.3.1 It is necessary that the undermentioned aircraft documents be submitted by airline operators for clearance on entry and departure of their aircraft to and from Singapore. All documents listed below must follow the ICAO standard format as set forth in the relevant appendices to ICAO Annex 9. They are acceptable in English only and must be completed in legible handwriting. No visas are required in connection with such documents.

4.3.2 *Aircraft Documents Requirements (arrival/departure)*

Required by	<u>General Declaration</u>	<u>Passenger Manifest</u>	<u>Cargo Manifest</u>
Immigration	2	2	-
Customs	1	1	1
Health	1	1	-

- a. *One copy of the General Declaration is endorsed and returned by Customs, signifying clearance.*
- b. *If no passengers are embarking (disembarking) and no articles are laden (unladen), no aircraft documents except copies of the General Declaration need be submitted to the above authorities.*

## 5 CIVIL NON-SCHEDULED FLIGHTS

### 5.1 PROCEDURES

#### 5.1.1 Overflights

5.1.1.1 Prior notification is necessary. Subject to the observance of the terms of the Convention on International Civil Aviation, Singapore facilitates overflights by civil aircraft registered in any ICAO Contracting States with which Singapore has diplomatic relations provided adequate advance notification shall have been given.

5.1.1.2 Notification by flight plan addressed to the Singapore Air Traffic Control Centre (WSJCZQZX) if received at least 2 hours in advance of the aircraft's arrival into the Singapore Flight Information Region will normally be accepted as advance notification in this respect.

5.1.1.3 In all other cases, prior permission must be sought and obtained through diplomatic means from the Ministry of Foreign Affairs, Republic of Singapore.

## 5.1.2 **Non-Traffic or Technical Landings**

5.1.2.1 Prior notification is necessary. Subject to the observance of the terms of the Convention on International Civil Aviation, Singapore facilitates such non-traffic or technical landings by civil aircraft registered in any ICAO Contracting States with which Singapore has diplomatic relations provided adequate advance notification shall have been given.

5.1.2.2 Notification by flight plan addressed to the Singapore Air Traffic Control Centre (WSJCZQZX) if received at least 2 hours in advance of the aircraft's arrival at Singapore Changi Airport or Seletar Aerodrome or 2 hours prior to entering the Singapore Flight Information Region whichever is the earlier will normally be accepted as advance notification in this respect.

5.1.2.3 All business aviation aircraft shall park in a nose-in position and be pushed back with the aid of an aircraft tow-bar and tow-tractor. Reverse thrust or variable pitch propellers shall not be used. The aircraft must carry its own tow-bar. The aircraft operator may make arrangements with the ground handling agent to provide the tow-bar. The aircraft shall be required to be towed to another aircraft stand should the need arise.

5.1.2.4 All passengers of the business aviation flight will have to clear CIQ via the Commercially-Important- Persons facility located at Terminal 2.

5.1.2.5 All business aviation flights must engage a ground handling agent at Singapore Changi Airport.

5.1.2.6 In all other cases, prior permission must be sought and obtained through diplomatic means from the Ministry of Foreign Affairs, Republic of Singapore.

5.1.2.7 All non-traffic aircraft are to submit a copy of the Certificate of Airworthiness to CAAS, after each landing, by facsimile at 6545 6519 or by email to [CAAS\\_AFO\\_FOS@caas.gov.sg](mailto:CAAS_AFO_FOS@caas.gov.sg)

## 5.1.3 **Application for Traffic Landings and Uplifts (Non-Scheduled Flights)**

5.1.3.1 All non-scheduled flights are subject to prior approval.

5.1.3.2 Only the operator may apply for permission to operate a non-scheduled flight. The following information should be submitted together with the application:

- a. Name, address and nationality of operator;
- b. Name, address and business of charterer;
- c. Type, registration mark and carrying capacity of aircraft;
- d. Aircraft documents listed in para 3.2.5;
- e. Nature of flight including details of whether the flight is to carry passengers or cargo or both;
  - i. for passenger flights: points of origin and destination of passengers, purpose of flight e.g. special event charter, inclusive tours and own-use charter; and the names of passengers.
  - ii. for cargo flights: the origin, destination, description, quantities and dimensions of cargo; outbound/inbound or transshipment, as well as whether any item is perishable or classified as dangerous, explosive or munitions of war. (Please see regulations concerning importation, transshipment and exportation of cargo in subsection GEN 1.4).
- f. Details of route, points of landing and final destination;
- g. Date and time of arrival at, and departure from Singapore (Please see para 4.1.3.4 below);
- h. Name, address and telephone number of operator's local agent and ground handling agent;
- i. Name and address of consignees and consignor, where applicable;
- j. Any other information that may be relevant to the proposed operations.

5.1.3.3 All applications must be submitted via <https://appserver1.caas.gov.sg/ATLAS>

The complete application and its supporting documents must reach the Civil Aviation Authority of Singapore Air Transport Division via the weblink provided at least **3 working days** prior to the aircraft's arrival or departure into/from Singapore to be considered for a "normal permit". Operators who wish to obtain a permit under 3 working days may submit their applications. Such applications must reach the Air Transport Division at least 24 hours before the proposed flight to be considered for an "express permit". Applicants for express permits should alert the Air Transport Duty Officer at +65 98331775. Applications will not be considered if insufficient notice is given (not applicable for emergency flights e.g. flights on humanitarian grounds).

5.1.3.4 Operators, other than operators of business aviation aircraft as stated in para 4.1.3.5, should schedule their arrivals and departures at Singapore Changi Airport outside the hours 0001 to 0200 UTC (0801-1000 LT) and 0900 to 1559 UTC (1700-2359 LT). Subject to approval (depending on aircraft stand availability), aircraft may be permitted to remain on the ground during the above times on condition that the aircraft vacates the aircraft stand if the need arises. (Please see GEN 4.1 para 1.5 b) regarding off-peak discount of 40% on landing charges).



- 5.1.3.5 All business aviation aircraft operating as executive jet charter may be permitted to remain on the ground or layover at Singapore Changi Airport.
- 5.1.3.6 All business aviation aircraft shall park in a nose-in position and be pushed back with the aid of an aircraft tow-bar and tow-tractor. Reverse thrust or variable pitch propellers shall not be used when parking or pushing back aircraft. The aircraft operator must ensure that an appropriate tow-bar for the aircraft type is available to facilitate push back operations from the aircraft stand. The aircraft operators may use their own tow-bar or approach ground handling agents in either Seletar or Singapore Changi Airport to secure the appropriate tow-bar.
- 5.1.3.7 All passengers of the business aviation flight will have to clear CIQ via the Commercially-Important-Persons facility located beside Terminal 2.
- 5.1.3.8 Requests to handle executive jet charter or charter flights via the main terminals are to be sent via email to [csc@changiairport.com](mailto:csc@changiairport.com) for exceptional consideration at all times.
- 5.1.3.9 All business aviation flights must engage a ground handling agent at Singapore Changi Airport.
- 5.1.3.10 The appropriate legislation dealing with non-scheduled flights for hire or reward is contained in PART III - \*Permits For Journeys Other Than Scheduled Journeys\* of the Air Navigation (Licensing of Air Services) Regulations. Any person who uses any aircraft in contravention of the provisions of Regulation 15 of the legislation shall be guilty of an offence and shall be liable on conviction to a fine not exceeding S\$2,500 or to imprisonment for a term not exceeding 3 months or to both and in the case of a second or subsequent offence, to a fine not exceeding S\$20,000 or to imprisonment for a term not exceeding 2 years or to both.

#### 5.1.3.11 **Permit Fees**

##### (a) Normal Permits

The following fees shall be paid to the Authority [in accordance with Regulation 18 of the Air Navigation (Licensing of Air Services) Regulations] to obtain a permit which must be applied at least 3 whole working days before the first flight:

- i. S\$84 for a single one-way or return flight;
- ii. S\$162 for 2 or more one-way or return flights but not more than 5 such flights;
- iii. S\$326 for 5 one-way or return flights but not more than 10 such flights; or
- iv. S\$810 for more than 10 one-way or return flights.

##### (b) Express Permits

Operators who wish to obtain a permit under 3 working days, but at least 24 hours before the flight, should contact the Duty Officer at +65 98331775 and submit a complete application via this weblink: <https://appserver1.caas.gov.sg/ATLAS>. The following fee shall be paid:

- i. S\$252 for a single one-way or return flight.

*Note 1: "Working Day" means:*

- i. a period that begins at 8.30am and ends at 6pm on any Monday to Thursday that CAAS is open for business; and
- ii. a period that begins at 8.30am and ends at 5.30pm on any Friday that CAAS is open for business.

*Note 2: Any application that is made after the close of business shall be deemed to have been made on the next working day.*

##### Definitions:

*Non-scheduled flight* - a flight for the carriage of passengers, mail or cargo by air for hire and reward on journeys other than scheduled.

*Business aviation flight* - a flight that is owned and operated privately by a business corporation or chartered privately by business or corporate executives for non-revenue purposes.

*Charterer* - a person, company or corporate body who charters the aircraft and whose name and address appear in the Aircraft Charter Agreement.

*Operator* - in relation to an aircraft, the person for the time being having the business management of that aircraft.

## **5.2 DOCUMENTARY REQUIREMENTS FOR CLEARANCE OF AIRCRAFT**

- 5.2.1 Same requirements as for SCHEDULED FLIGHTS.

### **5.3 PERMIT CONDITIONS**

5.3.1 The Director-General of Civil Aviation may attach such conditions to a permit as he considers necessary.

### **5.4 APPLICATION FOR DIPLOMATIC CLEARANCE FOR FOREIGN STATE AIRCRAFT**

#### **5.4.1 Procedures for Applying Diplomatic Clearance for Landing and Overflight for Foreign State Aircraft in Singapore**

5.4.1.1 Except where otherwise agreed, all Foreign State aircraft intending to land at or overfly Singapore are to obtain diplomatic clearance for such landing or overflight from the Ministry of Foreign Affairs, giving information as in para 4.4.2.

5.4.1.2 The application is to be made giving at least 14 days' notice.

#### **5.4.2 Information to be provided when applying for Diplomatic Clearance**

5.4.2.1 All applications for diplomatic clearance should contain the following information:

- a. Name of Mission/Organisation;
- b. Liaison Officer;
- c. Telephone Number;
- d. Number and Type of Aircraft;
- e. Callsign;
- f. Aircraft Registration;
- g. Full flight itinerary;
- h. Route after entering and before leaving Singapore FIR;
- i. Date of Arrival;
- j. Time of Arrival;
- k. Date of Departure;
- l. Time of Departure;
- m. Arrival from;
- n. Departing to;
- o. Airfield requested;
- p. Name of Pilot;
- q. Number of Crew;
- r. Number of Passengers;
- s. If VIP flight, Name of VIP and number of other officials;
- t. Purpose;
- u. Photograph and sensory equipment if any;
- v. Nature of freight or cargoes carried if any;
- w. Dangerous cargoes, if any (e.g. arms, ammunition, explosives, toxic chemicals);
- x. Types of services required (e.g. type of fuel, APU/GPU, ground handling etc.);
- y. Additional/Special request

*Note: Aircraft used in military, customs or police services are deemed to be State aircraft.*

### **6 APPLICATION FOR TEST FLIGHTS**

6.1 All applications for test flights are subject to prior approval.

6.2 All applications are to be made at least 2 working days but not more than 2 weeks in advance. If notice is not complied with, the application may not be considered.

6.3 Applicants should provide details as listed in items a. to e. below and ensure that the documents as listed in items f. to h. of the aircraft undergoing test flights remain valid during the period of operation:

- a. Aircraft Registration;
- b. Aircraft Callsign;
- c. Aircraft Type;
- d. Date / Time / Duration of flight;
- e. Point of Departure and Arrival;
- f. Certificate of Registration;
- g. Certificate of Airworthiness;
- h. A Permit to Fly, issued by CAAS, in the absence of a valid Certificate of Airworthiness.

6.4 All applications should be submitted to:

Post:

Duty Manager, Singapore Air Traffic Control Centre  
Civil Aviation Authority of Singapore  
60 Biggin Hill Road, Singapore 509950

Email: [caas\\_atsops@caas.gov.sg](mailto:caas_atsops@caas.gov.sg)

Fax: 65457526

6.5 Details on flight planning for test flights are listed at ENR 1.10 FLIGHT PLANNING.

## 7 AIRCRAFT BANNED FROM OPERATIONS AT SINGAPORE AERODROMES

7.1 The Antonov-12 aircraft is banned from all operations to/from Singapore aerodromes due to concerns over its continuing airworthiness.

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**k. Visual Approach Chart - ICAO**

This chart is produced for aerodromes used by civil aviation where:

- \* only limited navigation facilities are available; or
- \* radio communication facilities are not available; or
- \* no adequate aeronautical charts of the aerodrome and its surroundings at 1:500 000 or greater scale are available; or
- \* visual approach procedures have been established

The aeronautical data shown include information on aerodromes obstacles, designated airspace, visual approach information, radio navigation aids and communication facilities, as appropriate.

**5 LIST OF AERONAUTICAL CHARTS AVAILABLE**

GEN 3.2.5 LIST OF AERONAUTICAL CHARTS AVAILABLE						
<i>Title of Chart Series</i>	<i>Scale</i>	<i>Name and/or number</i>		<i>Price (\$)</i>	<i>Date</i>	
← <b>World Aeronautical Chart</b> ICAO (WAC)	1:1 000 000	WAC 2860		In AIP	30 JAN 20	
<b>Enroute Chart</b> ICAO (ENRC)		ERC 6-1		In AIP	15 AUG 19	
← <b>Instrument Approach Chart</b> ICAO (IAC)	1:400 000	<b>Singapore Changi</b>				
		RWY 02L - ICW ILS/DME	AD-2-WSSS-IAC-1	In AIP	10 OCT 19	
		RWY 02C - ICE ILS/DME	AD-2-WSSS-IAC-2	In AIP	10 OCT 19	
		RWY 20R - ICH ILS/DME	AD-2-WSSS-IAC-5	In AIP	10 OCT 19	
		RWY 20C - ICC ILS/DME	AD-2-WSSS-IAC-6	In AIP	10 OCT 19	
		RWY 20C - VTK DVOR/DME	AD-2-WSSS-IAC-7	In AIP	30 JAN 20	
		RWY 02L - RNAV(GNSS)	AD-2-WSSS-IAC-9	In AIP	10 OCT 19	
		RWY 02C - RNAV(GNSS)	AD-2-WSSS-IAC-10	In AIP	10 OCT 19	
		RWY 20R - RNAV(GNSS)	AD-2-WSSS-IAC-11	In AIP	10 OCT 19	
		RWY 20C - RNAV(GNSS)	AD-2-WSSS-IAC-12	In AIP	10 OCT 19	
		<b>Paya Lebar</b>				
		RWY 20 - PU DVOR/DME	AD-2-WSAP IAC-1	In AIP	10 OCT 19	
		RWY 02 - PU DVOR/DME	AD-2-WSAP IAC-2	In AIP	30 JAN 20	
		RWY 20 - IPS ILS/DME	AD-2-WSAP IAC-3	In AIP	10 OCT 19	
		RWY 02 - IPN ILS/DME	AD-2-WSAP IAC-4	In AIP	30 JAN 20	
		RWY 02 - RNAV(GNSS)	AD-2-WSAP-IAC-5	In AIP	10 OCT 19	
RWY 20 - RNAV(GNSS)	AD-2-WSAP-IAC-6	In AIP	10 OCT 19			
<b>Visual Approach Chart</b> ICAO (VAC)	1:400 000	<b>Singapore Changi</b>		AD-2-WSSS-VAC-1	In AIP	10 OCT 19
		<b>Seletar</b>				
		RWY 03	AD-2-WSSL-VAC-1	In AIP	05 DEC 19	
		RWY 21	AD-2-WSSL-VAC-2	In AIP	05 DEC 19	
		RWY 03	AD-2-WSSL-VAC-3	In AIP	05 DEC 19	
RWY 21	AD-2-WSSL-VAC-4	In AIP	05 DEC 19			
<b>Visual Departure Chart</b>	1:100 000	<b>Seletar</b>				
		RWY 03	AD-2-WSSL-VDC-1	In AIP	30 JAN 20	
		RWY 21	AD-2-WSSL-VDC-2	In AIP	30 JAN 20	
← <b>Aerodrome Chart</b> ICAO (AC)		<b>Singapore Changi</b>		AD-2-WSSS-ADC-2	In AIP	30 JAN 20
		<b>Seletar</b>		AD-2-WSSL-ADC-1	In AIP	05 DEC 19
		<b>Paya Lebar</b>		AD-2-WSAP-ADC-1	In AIP	12 NOV 15
<b>Aerodrome Obstacle Chart</b> ICAO TYPE A (AOC)	1:10 000	<b>Singapore Changi</b>				
		RWY 20R/02L	AD-2-WSSS-AOC-1	In AIP	07 DEC 17	
	RWY 20C/02C	AD-2-WSSS-AOC-2	In AIP	29 MAR 18		
	<b>Seletar</b>					
	RWY 03/21	AD-2-WSSL-AOC-1	In AIP	17 AUG 17		
	<b>Paya Lebar</b>					
	RWY 20/02	AD-2-WSAP-AOC-1	In AIP	10 NOV 16		
<b>Aerodrome Obstacle Chart</b> ICAO TYPE B (AOC)	1:20 000	<b>Singapore Changi</b>		AD-2-WSSS-AOC-3	In AIP	13 SEP 18
		<b>Seletar</b>				
		RWY 03/21	AD-2-WSSL-AOC-2	In AIP	08 NOV 18	
<b>Precision Approach Terrain Chart</b> ICAO (PATC)	1:2 500	<b>Singapore Changi</b>				
		RWY 02L	AD-2-WSSS-PATC-1	In AIP	10 OCT 19	
		RWY 20C	AD-2-WSSS-PATC-2	In AIP	01 FEB 18	

<a href="#">4.8</a>	POSITION REPORTS	ENR 1.7-5
<a href="#">4.9</a>	HOLDING	ENR 1.7-6
<a href="#">4.10</a>	FLIGHT IN CONTROLLED AIRSPACES	ENR 1.7-6
<a href="#">4.11</a>	TRANSFER OF COMMUNICATIONS	ENR 1.7-7
<a href="#">4.12</a>	ALERTING SERVICE	ENR 1.7-7
<a href="#">ENR 1.8</a>	REGIONAL SUPPLEMENTARY PROCEDURES	ENR 1.8-1
<a href="#">1</a>	RVSM PROCEDURES IN THE SINGAPORE FIR	ENR 1.8-1
<a href="#">1.1</a>	IMPLEMENTATION OF REVISED FLOS (FLIGHT LEVEL ORIENTATION SCHEME) AND FLAS (FLIGHT LEVEL ALLOCATION SCHEME) IN THE WESTERN PACIFIC/SOUTH CHINA SEA AREA	ENR 1.8-1
<a href="#">1.2</a>	RVSM OPERATIONAL APPROVAL AND MONITORING	ENR 1.8-1
<a href="#">1.3</a>	ACAS II AND TRANSPONDER EQUIPAGE	ENR 1.8-2
<a href="#">1.4</a>	IN-FLIGHT PROCEDURES WITHIN RVSM AIRSPACE	ENR 1.8-2
<a href="#">1.5</a>	SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE IN THE SINGAPORE FIR	ENR 1.8-2
<a href="#">1.6</a>	IN-FLIGHT CONTINGENCY PROCEDURES FOR SUBSONIC AIRCRAFT REQUIRING RAPID DESCENT, TURN-BACK OR DIVERSION IN OCEANIC AIRSPACE IN THE SINGAPORE FIR	ENR 1.8-3
<a href="#">1.7</a>	WEATHER DEVIATION PROCEDURES IN THE SINGAPORE FIR	ENR 1.8-3
<a href="#">1.8</a>	PROCEDURES TO MITIGATE WAKE TURBULENCE ENCOUNTERS AND DISTRACTING AIRCRAFT SYSTEM ALERTS IN THE OCEANIC AIRSPACE OF SINGAPORE FIR	ENR 1.8-4
<a href="#">1.9</a>	FLIGHT PLANNING REQUIREMENTS	ENR 1.8-5
<a href="#">1.10</a>	PROCEDURES FOR OPERATION OF NON-RVSM COMPLIANT AIRCRAFT IN RVSM AIRSPACE	ENR 1.8-5
<a href="#">1.11</a>	DELIVERY FLIGHTS FOR AIRCRAFT THAT ARE RVSM COMPLIANT ON DELIVERY	ENR 1.8-6
<a href="#">1.12</a>	PROCEDURES FOR SUSPENSION OF RVSM	ENR 1.8-6
<a href="#">1.13</a>	GUIDANCE FOR PILOTS AND CONTROLLERS FOR ACTIONS IN THE EVENT OF AIRCRAFT SYSTEM MALFUNCTION OR TURBULENCE GREATER THAN MODERATE	ENR 1.8-6
<a href="#">1.14</a>	PROCEDURES FOR AIR-GROUND COMMUNICATION FAILURE	ENR 1.8-6
<a href="#">2</a>	MACH NUMBER TECHNIQUE (MNT) AND AREA NAVIGATION (RNAV)	ENR 1.8-12
<a href="#">2.1</a>	INTRODUCTION	ENR 1.8-12
<a href="#">2.2</a>	MACH NUMBER IN A FLIGHT PLAN	ENR 1.8-12
<a href="#">2.3</a>	ATC CLEARANCE	ENR 1.8-12
<a href="#">2.4</a>	MAINTENANCE/CHANGE OF MACH NUMBER	ENR 1.8-12
<a href="#">2.5</a>	LONGITUDINAL SEPARATION ON ATS ROUTES M758 AND M761	ENR 1.8-13
<a href="#">2.6</a>	LONGITUDINAL SEPARATION ON ATS ROUTES A464, A576, B470, G579, L625, L642, L644, L649, L762, M646, M751, M753, M767, M768, M771, M772, N875, N884, N891 AND N892	ENR 1.8-13
<a href="#">3</a>	RNP 10 NAVIGATION REQUIREMENTS	ENR 1.8-15
<a href="#">3.1</a>	INTRODUCTION	ENR 1.8-15
<a href="#">3.2</a>	OPERATIONS BY AIRCRAFT NOT MEETING RNP 10 REQUIREMENTS	ENR 1.8-15
<a href="#">3.3</a>	SAFETY ASSESSMENT CRITERIA	ENR 1.8-15
<a href="#">3.4</a>	MONITORING OF AIRCRAFT NAVIGATION PERFORMANCE	ENR 1.8-16
<a href="#">3.5</a>	SEPARATION MINIMA	ENR 1.8-16
<a href="#">3.6</a>	OPERATORS' PROCEDURES	ENR 1.8-16
<a href="#">3.7</a>	CONTINGENCY PROCEDURES (including WEATHER DEVIATION)	ENR 1.8-16
<a href="#">4</a>	NO-PRE-DEPARTURE CO-ORDINATION (NO PDC) PROCEDURES	ENR 1.8-16
<a href="#">4.1</a>	INTRODUCTION	ENR 1.8-16
<a href="#">4.2</a>	NO PDC FLIGHT LEVEL ALLOCATION	ENR 1.8-17

<a href="#">5</a>	STRATEGIC LATERAL OFFSET PROCEDURES	ENR 1.8-18
<a href="#">5.1</a>	INTRODUCTION	ENR 1.8-18
<a href="#">5.2</a>	STRATEGIC LATERAL OFFSETS IN EN-ROUTE AIRSPACE	ENR 1.8-18
<a href="#">6</a>	CHANGI FLOW MANAGEMENT PROCEDURES	ENR 1.8-18
<a href="#">6.1</a>	INTRODUCTION	ENR 1.8-18
<a href="#">6.2</a>	ENTRY AND EXIT GATES	ENR 1.8-19
<a href="#">6.3</a>	ARRIVING AIRCRAFT TO SINGAPORE CHANGI AIRPORT	ENR 1.8-19
<a href="#">6.4</a>	APPROACH AIRSPACE HOLDING PROCEDURES	ENR 1.8-19
<a href="#">6.5</a>	EXPECTED TIME TO LEAVE HOLDING AREA	ENR 1.8-20
<a href="#">6.6</a>	DEPARTING AIRCRAFT FROM SINGAPORE CHANGI AIRPORT	ENR 1.8-20
<a href="#">7</a>	AUTOMATIC DEPENDENT SURVEILLANCE BROADCAST (ADS-B) OUT EXCLUSIVE AIRSPACE WITHIN PARTS OF THE SINGAPORE FIR	ENR 1.8-20
<a href="#">7.1</a>	ADS-B BASED SURVEILLANCE AIRSPACE AND AIRCRAFT OPERATOR APPROVAL	ENR 1.8-20
<a href="#">7.2</a>	FLIGHT PLANNING REQUIREMENTS	ENR 1.8-20
<a href="#">7.3</a>	STATE AIRCRAFT	ENR 1.8-21
<a href="#">7.4</a>	INFLIGHT CONTINGENCIES	ENR 1.8-21
<a href="#">7.5</a>	ATC-PILOT PHRASEOLOGIES	ENR 1.8-21
<a href="#">8</a>	AIR TRAFFIC MANAGEMENT CONTINGENCY PLAN	ENR 1.8-21
<a href="#">8.1</a>	INTRODUCTION	ENR 1.8-21
<a href="#">8.2</a>	REDUCED ATS AND PROVISION OF FLIGHT INFORMATION SERVICES (FIS)	ENR 1.8-22
<a href="#">8.3</a>	AIRCRAFT SEPARATION AND SPACING	ENR 1.8-22
<a href="#">8.4</a>	PRIORITY FOR FLIGHT LEVELS	ENR 1.8-22
<a href="#">8.5</a>	AIRSPACE CLASSIFICATIONS	ENR 1.8-22
<a href="#">8.6</a>	AIRCRAFT POSITION REPORTING	ENR 1.8-23
<a href="#">8.7</a>	EXCLUSIONS	ENR 1.8-23
<a href="#">8.8</a>	PILOT AND OPERATOR PROCEDURES	ENR 1.8-23
<a href="#">8.8.1</a>	<b>Filing of flight plans</b>	ENR 1.8-23
<a href="#">8.8.2</a>	<b>Overflight approval</b>	ENR 1.8-23
<a href="#">8.8.3</a>	<b>Pilot operating procedures</b>	ENR 1.8-23
<a href="#">8.8.4</a>	<b>Interception of civil aircraft</b>	ENR 1.8-24
<a href="#">8.9</a>	COMMUNICATION PROCEDURES	ENR 1.8-24
<a href="#">8.9.1</a>	<b>Degradation of Communication - Pilot Radio Procedures</b>	ENR 1.8-24
<a href="#">8.9.2</a>	<b>Communication frequencies</b>	ENR 1.8-24
<a href="#">8.10</a>	CONTINGENCY ROUTES	ENR 1.8-25
<a href="#">8.10.1</a>	<b>Between Singapore and Manila FIR</b>	ENR 1.8-25
<a href="#">8.10.2</a>	<b>Between Singapore and Ho Chi Minh FIR</b>	ENR 1.8-26
<a href="#">8.10.3</a>	<b>Between Singapore and Kota Kinabalu FIR</b>	ENR 1.8-27
<a href="#">8.10.4</a>	<b>Between Singapore and Kuala Lumpur FIR</b>	ENR 1.8-27
<a href="#">8.11</a>	TRAFFIC INFORMATION BROADCASTS BY AIRCRAFT (TIBA)	ENR 1.8-27
<a href="#">8.11.1</a>	<b>Introduction and applicability of broadcasts</b>	ENR 1.8-27
<a href="#">8.11.2</a>	<b>Details of broadcasts</b>	ENR 1.8-28
<a href="#">ENR 1.9</a>	AIR TRAFFIC FLOW MANAGEMENT (ATFM)	ENR 1.9-1
<a href="#">1</a>	AIR TRAFFIC FLOW MANAGEMENT (ATFM)	ENR 1.9-1
<a href="#">2</a>	ATFM OPERATIONS FOR FLIGHTS ARRIVING AT SINGAPORE CHANGI AIRPORT	ENR 1.9-1
<a href="#">3</a>	ATFM OPERATIONS FOR FLIGHTS PLANNING TO OPERATE WITHIN THE SINGAPORE FIR	ENR 1.9-1
<a href="#">4</a>	SINGAPORE ATFMU CONTACT INFORMATION AND WEB CONFERENCE	ENR 1.9-2



	<a href="#">5</a>	BAY OF BENGAL COOPERATIVE ATFM (BOBCAT)	ENR 1.9-2
	<a href="#">5.1</a>	INTRODUCTION	ENR 1.9-2
	<a href="#">5.2</a>	PROVISION OF ATFM SERVICES	ENR 1.9-2
	<a href="#">5.3</a>	ATFM AFFECTED ATS ROUTES, FLIGHT LEVELS AND APPLICABLE HOURS	ENR 1.9-3
	<a href="#">5.4</a>	MANDATORY CTOT AND KABUL FIR SLOT ALLOCATION	ENR 1.9-3
	<a href="#">5.5</a>	BOBCAT OPERATING PROCEDURES	ENR 1.9-3
	<a href="#">5.6</a>	SLOT ALLOCATION PROCESS	ENR 1.9-3
	<a href="#">5.7</a>	SUBMISSION OF ATS FLIGHT PLAN	ENR 1.9-4
	<a href="#">5.8</a>	AIRCRAFT OPERATOR / PILOT-IN-COMMAND AND ANSP RESPONSIBILITIES	ENR 1.9-4
	<a href="#">5.9</a>	COORDINATION BETWEEN AIRCRAFT OPERATOR/PILOT-IN-COMMAND, ANSPs AND BANGKOK ATFMU	ENR 1.9-4
	<a href="#">5.10</a>	BASIC COMPUTER REQUIREMENT	ENR 1.9-5
	<a href="#">5.11</a>	ATFM USERS HANDBOOK	ENR 1.9-5
	<a href="#">5.12</a>	CONTINGENCY PROCEDURES	ENR 1.9-5
	<a href="#">5.13</a>	ATFM SYSTEM FAULT REPORTING	ENR 1.9-6
	<a href="#">5.14</a>	ADDRESS OF AIR TRAFFIC FLOW MANAGEMENT UNIT (ATFMU)	ENR 1.9-6
←	<a href="#">ENR 1.10</a>	FLIGHT PLANNING	ENR 1.10-1
	<a href="#">1</a>	PROCEDURES FOR SUBMISSION OF A FLIGHT PLAN	ENR 1.10-1
	<a href="#">1.1</a>	Requirement for submission of a Flight Plan	ENR 1.10-1
	<a href="#">1.2</a>	Requirement for submission of a Flight Plan for Test Flights	ENR 1.10-1
	<a href="#">1.3</a>	Lead time for filing flight plans and flight plan associated messages	ENR 1.10-1
	<a href="#">1.4</a>	Persons on board (POB)	ENR 1.10-2
	<a href="#">1.5</a>	DATA LINK Communication and Surveillance	ENR 1.10-2
	<a href="#">1.6</a>	RNAV Approved Aircraft	ENR 1.10-2
	<a href="#">1.7</a>	RVSM and NON-RVSM Approved Aircraft	ENR 1.10-3
	<a href="#">1.8</a>	Other Documentary and / or Permit Requirements	ENR 1.10-3
	<a href="#">ENR 1.11</a>	ADDRESSING OF FLIGHT PLAN MESSAGES	ENR 1.11-1
	<a href="#">ENR 1.12</a>	INTERCEPTION OF CIVIL AIRCRAFT	ENR 1.12-1
	<a href="#">1.1</a>	ACTION BY INTERCEPTED AIRCRAFT	ENR 1.12-1
	<a href="#">1.2</a>	RADIO COMMUNICATION DURING INTERCEPTION	ENR 1.12-1
	<a href="#">ENR 1.13</a>	UNLAWFUL INTERFERENCE	ENR 1.13-1
	<a href="#">ENR 1.14</a>	AIR TRAFFIC INCIDENTS	ENR 1.14-1
	<a href="#">1</a>	DEFINITION OF AIR TRAFFIC INCIDENTS	ENR 1.14-1
	<a href="#">2</a>	USE OF AIR TRAFFIC INCIDENT REPORTING FORMS	ENR 1.14-1
	<a href="#">3</a>	AIR TRAFFIC INCIDENT REPORTING PROCEDURES	ENR 1.14-1
	<a href="#">4</a>	INVESTIGATION	ENR 1.14-2
	<a href="#">5</a>	CO-ORDINATION/INVESTIGATION AUTHORITY	ENR 1.14-2
	<a href="#">6</a>	OTHER REPORTS UNDER ICAO INITIATIVE FOR DATA COLLECTION AND ANALYSIS PURPOSES	ENR 1.14-2
	<a href="#">7</a>	INDEX OF REPORTING FORMS APPENDED TO THIS SECTION	ENR 1.14-2
	<a href="#">ENR 2</a>	<b>AIR TRAFFIC SERVICES AIRSPACE</b>	
	<a href="#">ENR 2.1</a>	FIR, UIR, TMA	ENR 2.1-1
	<a href="#">ENR 2.2</a>	[NIL] OTHER REGULATED AIRSPACE	ENR 2.2-1
	<a href="#">ENR 3</a>	<b>ATS ROUTES</b>	
	<a href="#">ENR 3.1</a>	ATS ROUTES	ENR 3.1-1
	<a href="#">ENR 3.2</a>	[NIL] UPPER ATS ROUTES	ENR 3.2-1
	<a href="#">ENR 3.3</a>	AREA NAVIGATION (RNAV) ROUTES	ENR 3.3-1

<a href="#">ENR 3.4</a>	HELICOPTER ROUTES	ENR 3.4-1
<a href="#">1</a>	HELICOPTER OPERATIONS OVER SINGAPORE ISLAND	ENR 3.4-1
<a href="#">2</a>	PROCEDURES FOR THE CONTROL OF HELICOPTER OPERATIONS AT SINGAPORE CHANGI AIRPORT	ENR 3.4-4
<a href="#">ENR 3.5</a>	OTHER ROUTES	ENR 3.5-1
<a href="#">1</a>	SINJON CROSSING BY MILITARY AIRCRAFT	ENR 3.5-1
<a href="#">2</a>	TRANSIT CHANNEL	ENR 3.5-2
<a href="#">3</a>	HORSBURGH LIGHTHOUSE	ENR 3.5-2
<a href="#">ENR 3.6</a>	ENROUTE HOLDING	ENR 3.6-1
<a href="#">ENR 4</a>	<b>RADIO NAVIGATION AIDS/SYSTEMS</b>	
<a href="#">ENR 4.1</a>	RADIO NAVIGATION AIDS - ENROUTE	ENR 4.1-1
<a href="#">ENR 4.2</a>	[NIL] SPECIAL NAVIGATION SYSTEM	ENR 4.2-1
<a href="#">ENR 4.3</a>	GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)	ENR 4.3-1
<a href="#">ENR 4.4</a>	NAME-CODE DESIGNATIONS FOR SIGNIFICANT POINTS	ENR 4.4-1
<a href="#">ENR 4.5</a>	AERONAUTICAL GROUND LIGHTS - ENROUTE	ENR 4.5-1
<a href="#">ENR 5</a>	<b>NAVIGATION WARNINGS</b>	
<a href="#">ENR 5.1</a>	PROHIBITED, RESTRICTED AND DANGER AREAS	ENR 5.1-1
<a href="#">1</a>	INTRODUCTION	ENR 5.1-1
<a href="#">2</a>	DANGER AREA	ENR 5.1-1
<a href="#">3</a>	PROHIBITED AREA	ENR 5.1-1
<a href="#">4</a>	RESTRICTED AREA	ENR 5.1-1
<a href="#">5</a>	DESIGNATION OF AREA	ENR 5.1-1
<a href="#">ENR 5.2</a>	MILITARY EXERCISE AND TRAINING AREAS	ENR 5.2-1
<a href="#">ENR 5.3</a>	OTHER ACTIVITIES OF A DANGEROUS NATURE	ENR 5.3-1
<a href="#">1</a>	WEATHER BALLOONS	ENR 5.3-1
<a href="#">ENR 5.4</a>	AIR NAVIGATION OBSTACLES - AREA 1	ENR 5.4-1
<a href="#">ENR 5.5</a>	AERIAL SPORTING AND RECREATIONAL ACTIVITIES	ENR 5.5-1
<a href="#">1</a>	AERO MODELLING AND KITE FLYING	ENR 5.5-1
<a href="#">2</a>	AIRCRAFT OPERATIONS PROHIBITED OVER THE TERRITORY OF SINGAPORE	ENR 5.5-1
<a href="#">3</a>	SEARCHLIGHT DISPLAY / LASER SHOWS - PAYA LEBAR CTR	ENR 5.5-1
<a href="#">4</a>	UNMANNED AIRCRAFT OPERATIONS - PAYA LEBAR CTR	ENR 5.5-1
<a href="#">ENR 5.6</a>	BIRD MIGRATION	ENR 5.6-1
<a href="#">1</a>	BIRD MIGRATION	ENR 5.6-1
<a href="#">2</a>	REPORTING OF WILDLIFE STRIKE	ENR 5.6-1
<a href="#">ENR 6</a>	<b>EN-ROUTE CHARTS</b>	<b>ENR 6-1</b>

*Note: The following sections in this chapter are intentionally left blank:  
ENR 0.1, ENR 0.2, ENR 0.3, ENR 0.4, ENR 0.5.*

## ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

### 1 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

← 1.1 ATFM is a service to complement the safe, orderly and efficient delivery of Air Traffic Services (ATS) by regulating air traffic flow to match the prevailing capacity at a given airport or airspace. Through ATFM, airspace users (AUs) and ATS units (ATSUs) can be made aware of predicted delays so that timely adjustment to operations and flight schedules could be made accordingly. ATFM measure such as Ground Delay Programme (GDP), Minimum Departure Interval (MDI) and Miles- in-Trail (MIT) are some of the methods to achieve the objectives of ATFM as defined in ICAO's Manual on Collaborative ATFM (Doc 9971).

← 1.2 For Singapore FIR, ATFM services are provided by Civil Aviation Authority of Singapore (CAAS) from the Singapore ATFM Unit (ATFMU) operating on a 24-hour basis. The services comprise the planning and implementation of ATFM measures to balance demand and capacity. The review of the effectiveness of ATFM measures are carried out through the conduct of post operation analysis. The implementation of ATFM measures will be coordinated with AUs and ATSUs through Collaborative Decision Making (CDM) processes and agreed operating procedures.

### ← 2 ATFM OPERATIONS FOR FLIGHTS ARRIVING AT SINGAPORE CHANGI AIRPORT

← 2.1 Where necessary, ATFM measures will be applied for flights scheduled to arrive at Singapore Changi Airport (WSSS).

2.2 Flights departing from the following airports may be subjected to ATFM measures:

ANSP	Airport
Cambodia	VDPP, VDSR
China	ZGGG, ZGSZ, ZJHK, ZJSY
Hong Kong	VHHH, VMMC
Indonesia	WIII, WADD, WARR
Malaysia	WBGG, WBGR, WBKK, WMKC, WMKI, WMKJ, WMKK, WMKP, WMSA
Myanmar	VYMD, VYNT, VYYY
Philippines	RPLL
Thailand	VTBS, VTSP, VTBD, VTCC, VTCT, VTSB, VTSG, VTSM, VTSP, VTSS, VTUD
Vietnam	VVTS, VVNB

← 2.3 When ATFM measures are applied, the Singapore ATFMU will assign Calculated Take-Off Times (CTOTs) to flights departing from the airports listed in paragraph 2.2 planning to arrive into Singapore Changi Airport.

← 2.4 AUs and ATSUs are advised to refer to the Air Traffic Flow Management (ATFM) Portal to access CTOTs and/or other pertinent ATFM information via the Civil Aviation Authority Singapore (CAAS) Webpage, link provided: <http://www.caas.gov.sg/e-services/air-traffic-flow-management>

← 2.5 Compliance to CTOT during the ATFM operation is important, it contributes to the realisation of the ATFM plan. It would assist in the reduction of the need for tactical airborne delay, promoting a safer and more efficient operating environment for AOs and AUs.

← 2.6 All AUs planning to arrive into WSSS shall:

- i. file and submit FPLs at least 3 hours before the Estimated Off Block Time (EOBT);
- ii. transmit the appropriate ATS messages (CHG / DLA) when the EOBT changes by more than 15 minutes; and
- iii. transmit CNL message if the flight is cancelled after the submission of FPL.

2.7 FPLs and ATS messages shall be addressed to WSJCZQZX.

### ← 3 ATFM OPERATIONS FOR FLIGHTS PLANNING TO OPERATE WITHIN THE SINGAPORE FIR

3.1 The Singapore ATFMU may implement ATFM measures to facilitate ATC of flow restrictions originated by downstream ATSUs, with the aim to provide a higher level of predictability for AUs and affected upstream ATSUs when operating in the Singapore FIR. For example, flow restriction on a given ATS route in a form of Minutes-in-trail MINIT at downstream segments would be converted into CTOT, and/or Calculated Time Over (CTO) at a given waypoint within the Singapore FIR.

3.2 Procedures for flight plan submission for such ATFM facilitation would be coordinated tactically by the Singapore ATFMU with AUs and affected upstream ATSUs. The transmit of the appropriate ATS messages would take reference from para 2.6 in the above.

Note: In general, Singapore ATFMU would request for FPL to be filed and submitted within 1 hour from the notification of the activation of ATFM measure.

3.3 FPLs and ATS messages should be addressed to WSJCZQZX.

## **4 SINGAPORE ATFMU CONTACT INFORMATION AND WEB CONFERENCE**

4.1 When ATFM measure are implemented, Singapore ATFMU will open a CDM channel for AUs and affected ATSUs through an active web conferencing facilities and ATFM helpdesk thereafter to facilitate operational queries from AUs relating to the ATFM measure.

4.2 The contact details of the Singapore ATFMU are as follows:

Email: [CAAS\\_ATFMU@caas.gov.sg](mailto:CAAS_ATFMU@caas.gov.sg)

Phone: (+65) 62414143, (+65) 62414142

Fax: (+65) 62414034

Web Conference link: <https://caas.adobeconnect.com/caasatfm>

## **5 BAY OF BENGAL COOPERATIVE ATFM (BOBCAT)**

### **5.1 INTRODUCTION**

5.1.1 The States of the ICAO Asia/Pacific Region within the Bay of Bengal, South Asia and Pakistan airspace have implemented an automated Air Traffic Flow Management (ATFM) service under the auspices of the ICAO Bay of Bengal ATS Coordination Group - ATFM Task Force.

### **5.2 PROVISION OF ATFM SERVICES**

5.2.1 ATFM services are provided by Aeronautical Radio of Thailand LTD (AEROTHAI) from the Bangkok Air Traffic Flow Management Unit (ATFMU) at Bangkok ACC. ATFM services will be limited to calculation, promulgation and management of mandatory Calculated Take-Off Time (CTOT) and Kabul FIR flight level, ATS route and entry fix time, Calculated Time-Over (CTO) for each affected flight.

5.2.2 Singapore ATC retains responsibility for the tactical management of flights that are subject to ATFM. In discharging tactical responsibilities, Singapore ATC will manage non-ATFM compliant flights using delayed pushback and start clearances, non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

5.2.3 The ATFMU utilises the automated web based Bay of Bengal Cooperative ATFM System (BOBCAT) system in meeting its ATFM responsibilities. These responsibilities will be managed in coordination with aircraft operators and Singapore ATC in the Singapore FIR.

5.2.4 The ATFMU operates on a 24-hour basis and is responsible for westbound flights entering the Kabul FIR at specified times, flight levels and ATS routes in accordance with paragraph 2.3. The objectives of these ATFM services are to:

- a. reduce ground and en-route delays;
- b. maximise capacity and optimize the flow of air traffic through Kabul FIR;
- c. provide an informed choice of routing and flight level selection;
- d. alleviate unplanned in-flight re-routing and technical stops; and
- e. assist regional Air Navigation Service Providers (ANSPs) in planning for and managing future workload in the light of forecast increased traffic flows through Kabul FIR.

**5.3 ATFM AFFECTED ATS ROUTES, FLIGHT LEVELS AND APPLICABLE HOURS**

5.3.1 All westbound flights intending to enter Kabul FIR between 2000UTC and 2359UTC daily on ATS routes and flight levels specified in the Table below shall comply with the BOBCAT ATFM procedure. This includes a mandatory requirement to obtain ATFM slot allocation - CTOT, CTO at Kabul FIR entry waypoint, allocated flight level and allocated ATS route from Bangkok ATFMU for entry into Kabul FIR.

Routing through the Kabul FIR	Metering Waypoint	Flight Level
L509 - M875	LAJAK	FL300, FL320, FL340, FL360, FL380, FL400
M875	SITAX	FL280
N644	PAVLO	FL280, FL300, FL320, FL340, FL360, FL380, FL400
L750	ROSIE	FL280, FL300, FL320, FL340, FL360, FL380, FL400
P628	ASLUM	FL320, FL340, FL360, FL380, FL400
N636 - P628	SERKA	FL280, FL300

5.3.2 Flights that plan to enter Kabul FIR without an ATFM slot allocation will be accommodated only after flights with slots have been processed. Such flights should expect delayed pushback and start clearances, non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

5.3.3 In order to ensure availability of slots for westbound departures from designated airports in northern India and Pakistan, departures from these airports are given priority for FL280 in the slot allocation. This does not preclude these flights from requesting higher flight levels with initial slot request.

5.3.4 The following flights are exempted from the ATFM procedures:

- a. Flights experiencing an emergency, including aircraft subjected to unlawful interference;
- b. Flights on search and rescue or firefighting missions;
- c. Urgent medical evacuation flights or humanitarian flights specifically declared by State medical authorities that flight delays would put the life of patients aboard at risk; and
- d. Flights with "Head of State" status.

Note: After medical flights have completed their mission, they should be subjected to ATFM measures. Scheduled passenger transfer flights are, by their nature, non-urgent and should not be given priority under normal operational situation.

5.3.5 Flights exempted from ATFM procedures shall indicate the exemption in their flight plan as follows: (Field 18 - ATFM EXMP).

5.3.6 Singapore AIS shall forward the flight plan information to Bangkok ATFMU at AFTN address VTBBZDZX.

**5.4 MANDATORY CTOT AND KABUL FIR SLOT ALLOCATION**

5.4.1 Affected flights shall obtain the mandatory Kabul FIR slot allocation - CTOT, CTO at Kabul FIR entry waypoint, allocated flight level and allocated ATS route from the BOBCAT system. The CTOT and Kabul slot allocation will enable ANSPs to tactically control westbound flights transiting the Kabul FIR at specified times by assigning minimum spacing requirements at established gateway fix points in the vicinity of the eastern boundary of the Kabul FIR.

5.4.2 The application, calculation and distribution of CTOT and Kabul FIR entry waypoint slot allocations will be managed via internet access to the BOBCAT system in accordance with the ATFM operating procedures in paragraph 2.5.

**5.5 BOBCAT OPERATING PROCEDURES**

5.5.1 All affected flights are required to submit their slot requests to the BOBCAT system by logging onto <https://www.bobcat.aero> between 0100UTC and 1159UTC on the day of flight and completing the electronic templates provided.

5.5.2 Affected aircraft operators who do not have dedicated BOBCAT username / password access should complete the application form provided and fax it to the ATFMU as soon as possible.

**5.6 SLOT ALLOCATION PROCESS**

5.6.1 The slot allocation process is divided into 3 phases, namely the slot request submission, initial slot allocation and finally the slot distribution to aircraft operators and ANSPs.

Slot Request Submission

- 5.6.2 Slot requests including preferred ATS route, flight level and Maximum Acceptable Delay (MAD) should be lodged between 0001UTC and 1159UTC on the day of flight. Slot requests may subsequently be amended prior 1200UTC, which is the cut-off time. Aircraft operators are encouraged to submit additional slot request options in case their first choice is not available. This may include variations to ATS route, flight level and MAD.
- 5.6.3 Slot requests shall be for flight parameters that are able to be met by the flight. For example, flights requesting a slot at FL390 must be able to transit Kabul FIR at FL390. Flights subsequently unable to meet the slot parameters (flight level, ATS route or CTO at entry waypoint) should expect non-preferred routes and / or flight levels, enroute holding and / or diversion around Kabul FIR.
- 5.6.4 As BOBCAT will allocate FL280 on a priority basis to facilitate departures from northern India and Pakistan underneath overflying traffic, flights departing these points are encouraged to include FL280 as at least one slot request preference.
- 5.6.5 Flights that were not allocated a slot in the initial slot allocation, are not satisfied with the allocated slot or did not submit a slot request should select slots from the listing of remaining unallocated slots available immediately after slot distribution has been completed.

#### Slot Allocation and Distribution

- 5.6.6 Slot allocation will commence at the cut-off time at 1200UTC. BOBCAT will process and generate the slot allocation based on the information submitted in the slot requests. Notification of slot allocation will be made not later than 1230UTC via the ATFMU website. Alternative arrangements for notification of slot distribution (e.g. e-mail, fax, telephone) should be coordinated with the ATFMU.
- 5.6.7 After the slot allocation has been published at <https://www.bobcat.aero>, aircraft operators can:
- use the slot allocation result for ATS flight planning purposes;
  - cancel the allocated slot; and / or
  - change slot allocation to another available slot in the published list of unallocated slots.
- 5.6.8 Singapore ATC and AIS can also view the slot allocation results at <https://www.bobcat.aero>.

### **5.7 SUBMISSION OF ATS FLIGHT PLAN**

- 5.7.1 Once aircraft operators are in receipt of the slot allocation, they shall submit the ATS flight plan using the time, ATS route and flight level parameters of the BOBCAT allocated slot.
- 5.7.2 In addition to the normal addressees, Singapore AIS will also address the flight plan (FPL) and related ATS messages (e.g. DLA, CNL, CHG) to the ATFMU via AFTN address VTBBZDZX for all flights that have submitted a slot request.

### **5.8 AIRCRAFT OPERATOR / PILOT-IN-COMMAND AND ANSP RESPONSIBILITIES**

#### Aircraft Operator / Pilot-in-Command

- 5.8.1 In accordance with ICAO PANS-ATM provisions, it is the responsibility of the Pilot-in-Command (PIC) and the aircraft operator to ensure that the aircraft is ready to taxi in time to meet any required departure time. PIC shall be kept informed by their aircraft operators of the CTOT, CTO at Kabul FIR entry waypoint and flight parameters (route / level) allocated by BOBCAT.
- 5.8.2 The PIC, in collaboration with ATC, shall arrange take-off as close as possible to the CTOT in order to meet the allocated CTO at Kabul FIR entry waypoint.

#### ANSPs

- 5.8.3 In accordance with ICAO PANS-ATM provisions, flights with an ATFM slot allocation should be given priority for take-off to facilitate compliance with the CTOT.
- 5.8.4 CTOT shall be included as part of the initial ATC clearance. In collaboration with PIC, Singapore ATC shall ensure that every opportunity and assistance is granted to a flight to meet the CTOT and allocated CTO at Kabul FIR entry waypoint.

### **5.9 COORDINATION BETWEEN AIRCRAFT OPERATOR / PILOT-IN-COMMAND, ANSPs AND BANGKOK ATFMU**

- 5.9.1 The PIC shall include the CTOT in the initial ATC clearance request.

- 5.9.2 PIC shall adjust cruise flight to comply with slot parameters at the Kabul FIR entry waypoint, requesting appropriate ATC clearances including speed variations in accordance with the published AIP requirements.
- 5.9.3 Prior to departure, in circumstances where it becomes obvious that the allocated Kabul FIR entry waypoint slot parameters will not be met, a new slot allocation should be obtained as soon as possible and via the most expeditious means (e.g. via coordination between flight dispatcher, PIC, Singapore ATC and Bangkok ATFMU). Early advice that the Kabul FIR slot parameters will be missed also enables the slots so vacated to be efficiently reassigned to other flights.
- 5.9.4 Prior to departure and after the aircraft has left the gate, in the event that the aircraft is unable to meet the Kabul FIR entry waypoint slot parameters, when requested by the PIC, Singapore ATC shall assist the PIC to coordinate with the ATFMU for a revised slot allocation.
- 5.9.5 The ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for NOTAMs regarding any planned activities that may affect slot availability (e.g. reservation of airspace / closure of airspace, non-availability of routes, etc.).
- 5.9.6 The ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for ATS messages (e.g. FPL, DEP, DLA, CHG, CNL) relating to flights subject to ATFM procedures.
- 5.9.7 A missed slot results in dramatically increased coordination workload for ATC and PIC and should be avoided. To minimise coordination workload in obtaining a revised slot allocation, the following procedures are recommended:
- a. If the flight is still at the gate, coordination should take place via aircraft operators / flight dispatchers to ATFMU;
  - b. If the flight has left the gate, coordination to ATFMU may also take place via the ATS unit presently communicating with the flight.

## **5.10 BASIC COMPUTER REQUIREMENT**

- 5.10.1 Aircraft operators and Singapore ATC are required to have computer equipment capable of connecting to the BOBCAT website <https://www.bobcat.aero> via the internet and satisfying the following minimum technical requirements:
- a. A personal computer of any operating system with the following characteristics:
    - i. Processor: minimum CPU clock speed of 150MHz;
    - ii. Operating System: any that operates one of the following web browsers (i.e. Windows 2000 / XP, Linux, Unix, or Mac OS);
    - iii. Web Browser: Internet Explorer 5.5 or newer, Mozilla 1.0 or newer, Mozilla Firefox 1.0 or newer, Netscape 7 or newer;
    - iv. RAM: 64MB or larger (depending on operating system);
    - v. Hard Disk Space: minimum of 500MB or larger (depending on operating system);
    - vi. Monitor Display Resolution: minimum of 800 x 600 pixels; and
    - vii. Internet Connection: 56Kbps modem or faster.

## **5.11 ATFM USERS HANDBOOK**

- 5.11.1 Supporting documentation, including detailed information in respect of the ATFM operations described above and other pertinent information has been included in the Bay of Bengal and South Asia ATFM Handbook (the "ATFM Users Handbook"), available at <https://www.bobcat.aero>
- 5.11.2 ANSPs and aircraft operators shall ensure that they are conversant with and able to apply the relevant procedures described in the ATFM Users Handbook.

## **5.12 CONTINGENCY PROCEDURES**

- 5.12.1 In the event that an aircraft operator or Singapore ATC is unable to access the ATFMU website, the ATFMU shall be contacted via the alternative means (telephone, fax, AFTN) described in paragraph 2.13.
- 5.12.2 Contingency procedures for submission of slot request, including activation of Contingency Slot Request Templates (CSRT), are included in the ATFM Users Handbook.

5.12.3 In the event of system failure of BOBCAT, ATFMU shall notify all parties concerned and advise that ATFM slot allocation procedures are suspended. In this event, all parties concerned will revert to the existing ATM procedures as applicable outside the daily period of ATFM metering.

**5.13 ATFM SYSTEM FAULT REPORTING**

5.13.1 An ATFM system fault is defined as a significant occurrence affecting an ATS unit, an aircraft operator or ATFMU resulting from the application of ATFM procedures.

5.13.2 Aircraft operators and Singapore ATC experiencing an ATFM system fault should complete an ATFM System Fault Report Form from the ATFM Users Handbook and forward it to the ATFMU at the address indicated on the form. The ATFMU will analyse all reports, make recommendations / suggestions as appropriate and provide feedback to the parties concerned to enable remedial action.

**5.14 ADDRESS OF AIR TRAFFIC FLOW MANAGEMENT UNIT (ATFMU)**

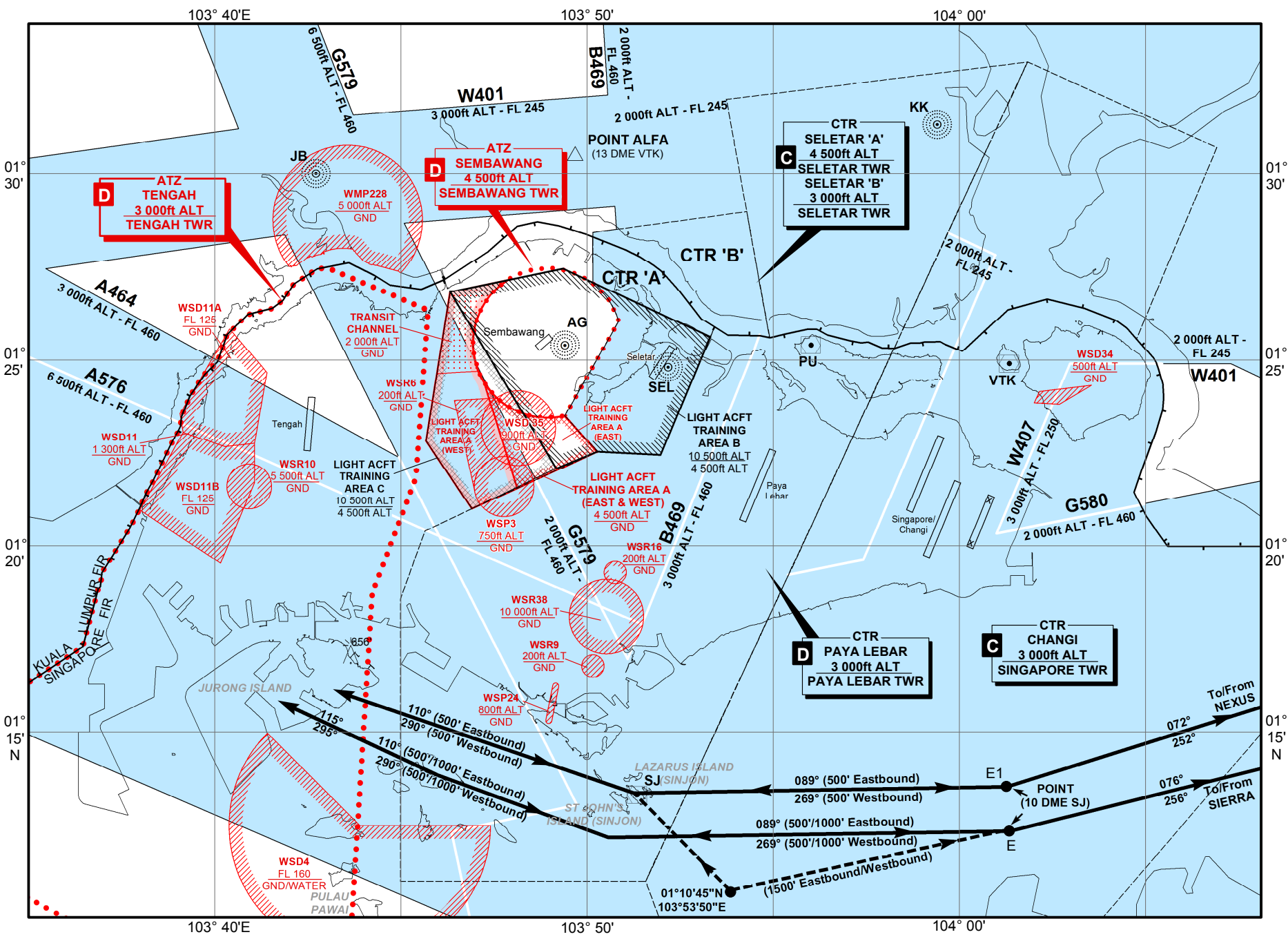
5.14.1 The ATFMU may be contacted as follows:

Unit Name : Bangkok ATFMU  
Telephone : +66-2-287-8024, +66-2-287-8025  
Fax : +66-2-287-8027  
Tel/Fax : +66-2-287-8026  
E-mail : atfmu@bobcat.aero  
AFTN : VTBBZDZX  
Website : <https://www.bobcat.aero>

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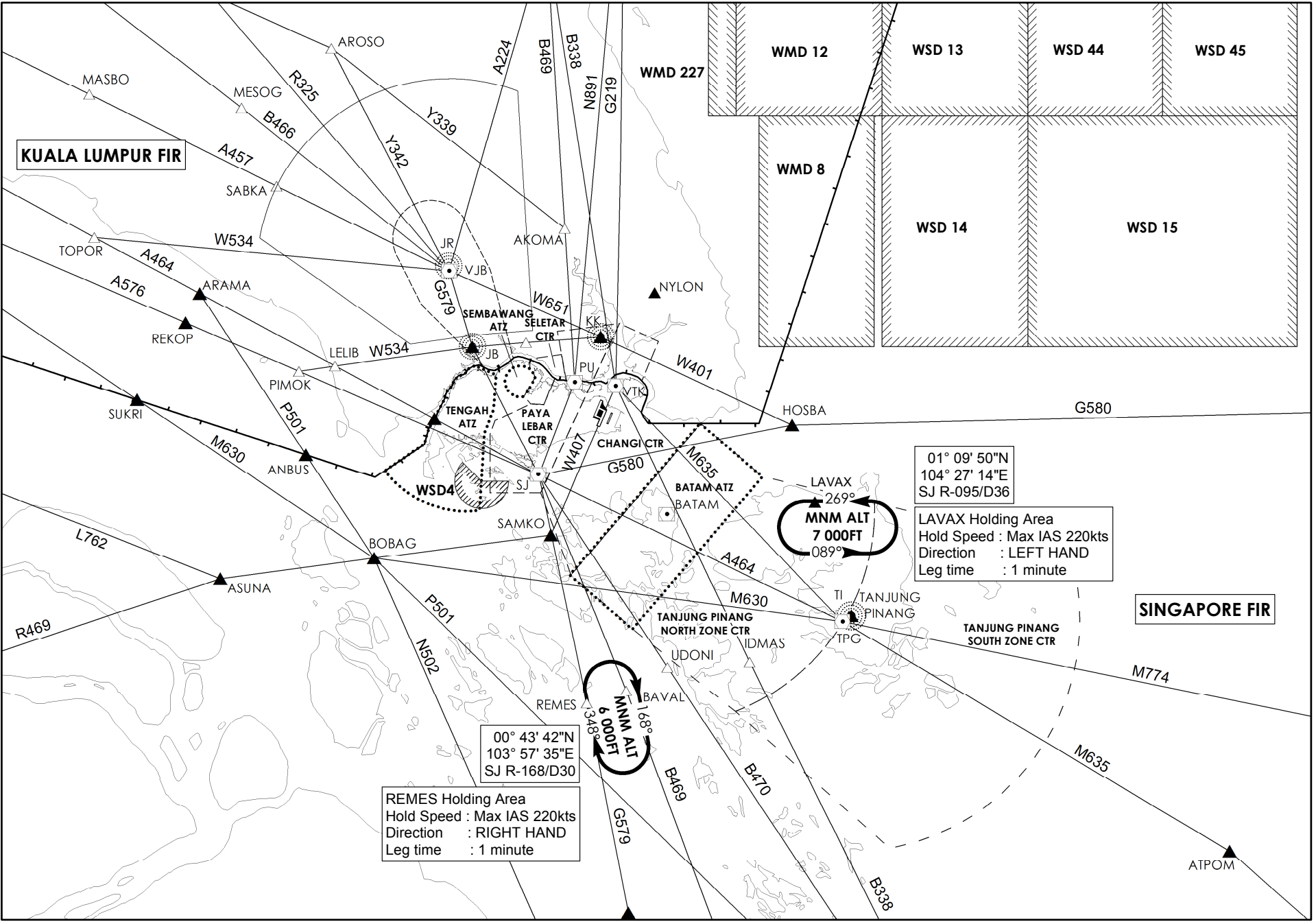


# VMC CROSSING BY MILITARY AIRCRAFT



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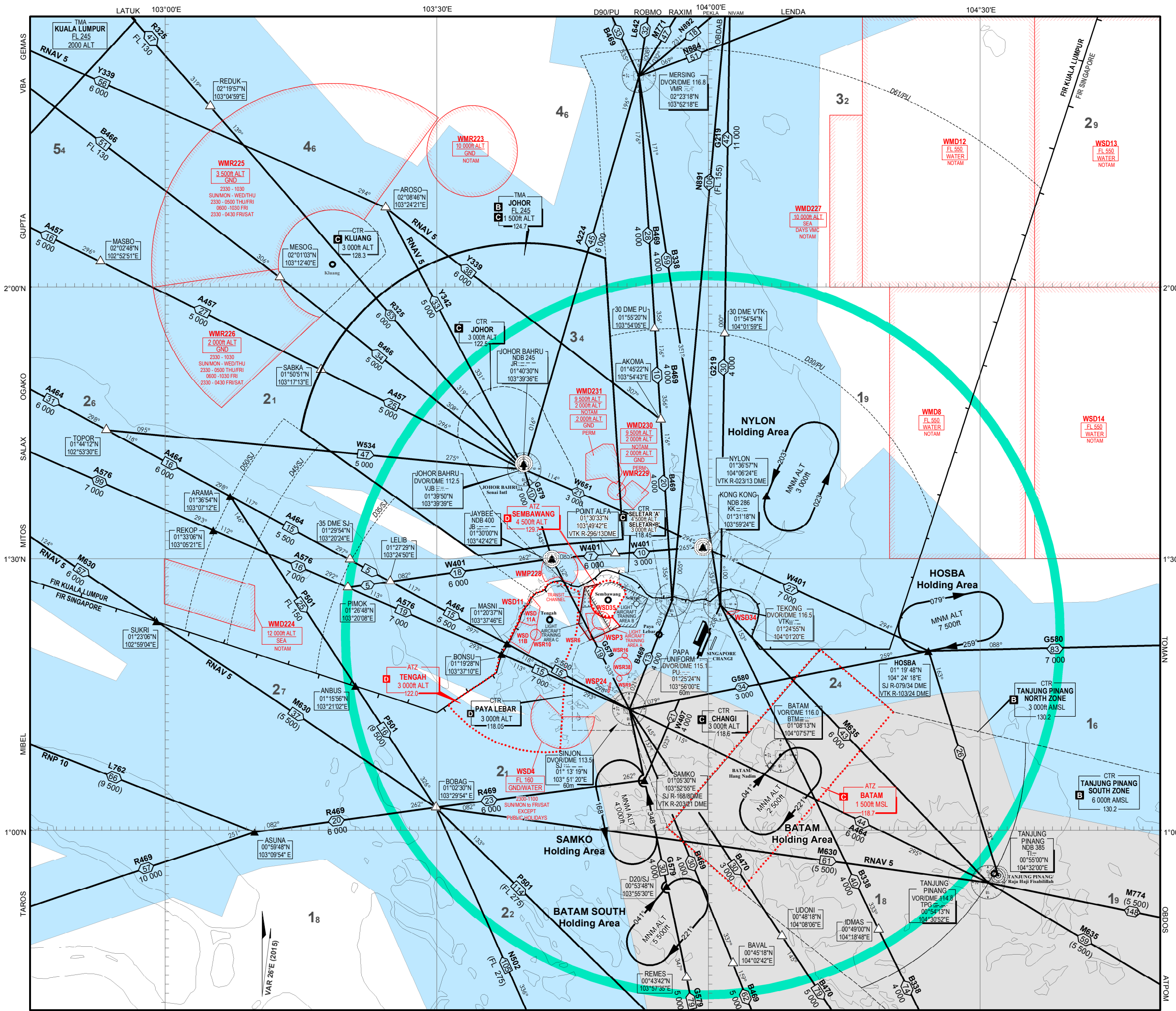
# REMES AND LAVAX LOW LEVEL HOLDING AREAS



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# AREA CHART - ICAO

SINGAPORE/JOHOR AIRSPACE COMPLEX  
LOW LEVEL HOLDING AREAS



LEGEND											
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On request	△										
DME distance from SJ Navaid	D35/SJ										
Radio Navigation Aid	<table border="1"> <tr><td>Name</td><td>SINJON DVOR/DME 113.5</td></tr> <tr><td>Identification and frequency</td><td>SJ 113.5</td></tr> <tr><td>Geographical Coordinates</td><td>01° 19' 21" N 103° 51' 19" E</td></tr> <tr><td>Elevation of DME site</td><td>60m</td></tr> </table>	Name	SINJON DVOR/DME 113.5	Identification and frequency	SJ 113.5	Geographical Coordinates	01° 19' 21" N 103° 51' 19" E	Elevation of DME site	60m		
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Restricted Airspace (P - Prohibited, R - Restricted, D - Danger)	<table border="1"> <tr><td>Identification of area</td><td>WSD13</td></tr> <tr><td>Nationality letter</td><td>FL 400</td></tr> <tr><td>Vertical limits</td><td>WATER</td></tr> <tr><td>Activation by NOTAM</td><td>NOTAM</td></tr> </table>	Identification of area	WSD13	Nationality letter	FL 400	Vertical limits	WATER	Activation by NOTAM	NOTAM		
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**Area Minimum Altitude (AMA)**

Each quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meteorological conditions (IMC). The AMA provides a minimum clearance of 1 000 feet (300m) above all terrain and obstacles in the quadrilateral. It is represented in thousands and hundreds of feet above mean sea level.

Example : 3 400 feet **34**

NOTE :- In computing the area minimum altitude, a margin of 200 feet (60m) for vegetation has been added for spot elevations.

**Speed Control Procedures**

Speed control procedures are in force unless notified otherwise by ATC or ATIS.

All arriving turbo-propeller and turbo-jet aircraft are to fly at not faster than indicated air speed 250 knots when within 40nm from Singapore Changi Airport or when at or below 10,000ft except all arriving aircraft into Singapore Changi Airport shall comply with the speed restrictions depicted on the transitions and RNAV STARS. Further speed reductions will be regulated by ATC as necessary.

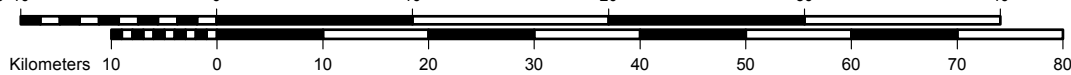
Pilots who may not be able to comply with the speed limits specified above for reasons of flight safety and/or weather should inform ATC and state the speed(s) acceptable.

AIRSPACE CLASSIFICATION IN THE SINGAPORE FIR		
Airspace	Levels	Classification
Controlled airspace	FL150 to FL460	A
	Surface to FL150	B
Controlled airspace more than 100 nm seaward from the shoreline	Lower limit to FL460	A
Control Zone (CTRs)	Changi CTR	C
	Paya Lebar CTR	D
	Seletar CTR	C
ATZs	Surface to upper limit	D
Uncontrolled airspace		G*

\* Aircraft operating in the Light Aircraft Training Areas A, B and C (please refer to page ENR 5.2-1) are required to have continuous two-way communications with the appropriate ATS authority.

SINGAPORE	D-ATIS	128.6
	APP	120.3
	TWR	119.3
		118.6
		118.25

**Note :**  
FOR DEPARTURE AND ARRIVAL ROUTES  
REFER TO AD-2-WSSS-SID-1 TO AD-2-WSSS-SID-18 AND  
AD-2-WSSS-STAR-1 TO AD-2-WSSS-STAR-9,  
AD-2-WSSS-STAR-11, AD-2-WSSS-STAR-13 TO AD-2-WSSS-STAR-21



**PROHIBITED, RESTRICTED AND DANGER AREAS**

	ACTIVITY	UPPER LIMIT LOWER LIMIT	REMARKS
WSP3	-	750ft ALT GND	Permanently Active as in ENR 5
WSD4	A/G and G/G Firing Range	FL 160 GND/WATER	Permanently Active as in ENR 5
WMD8	Naval Air/Air Firing Range	FL 550 WATER	Activation by NOTAM
WSD11	Small Arm Firing	1 300ft ALT GND	Permanently Active as in ENR 5
WSD11A	Artillery Firing	FL 125 GND	Activation by NOTAM
WSD11B	Artillery Firing	FL 125 GND	Activation by NOTAM
WMD12	Naval Anti-aircraft Firing	FL 550 WATER	Activation by NOTAM
WSD13	Naval Anti-aircraft Firing	FL 550 WATER	Activation by NOTAM
WSD14	Naval Anti-aircraft Firing & Live Air/Air Firing	FL 550 WATER	Activation by NOTAM
WSP24	-	800ft ALT GND/WATER	Permanently Active as in ENR 5
WSR6	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSR9	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSR16	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSD34	Rifle Range	500ft ALT GND	Permanently Active as in ENR 5
WSD35	Rifle Range	900ft ALT GND	Permanently Active as in ENR 5
WSR10	-	5 500ft ALT GND	Permanently Active as in ENR 5
WSR38	-	10 000ft ALT GND	Permanently Active as in ENR 5
	Transit Channel	2 000ft ALT GND	Activated only for Military acft crossing
*	Light Aircraft Training Area A	4 500ft ALT GND/*2 000ft	Training & Local Flts in VMC only
*	Light Aircraft Training Area B	10 500ft ALT 4 500ft ALT	High Flying Training Ops in VMC only
*	Light Aircraft Training Area C	10 500ft ALT 4 500ft ALT	High Flying Training Ops in VMC only
WMR223	Parachute Dropping	10 000ft ALT GND	Permanently Active as in ENR 5
WMD224	Firing Range	12 000ft ALT SEA	Activation by NOTAM
WMR225	RMAF Helicopter Training Area	3 500ft ALT GND	Permanently Active as in ENR 5
WMR226	RMAF Helicopter Training Area	2 000ft ALT GND	Permanently Active as in ENR 5
WMD227	Radar Bombing Range	10 000ft ALT SEA	Activation by NOTAM
WMP228	Sultan's Palace	5 000ft ALT GND	Permanently Active as in ENR 5
WMR229	Helicopter Operations	1 500ft ALT GND	Permanently Active as in ENR 5
WMD230	Artillery Firing Range	2 000ft ALT GND	Permanently Active as in ENR 5
WMD231	Artillery Firing Range	2 000ft ALT GND	Permanently Active as in ENR 5

\* In Transit Channel

**SPECIAL NOTE :-**

**1. WEATHER BALLOONS**

BALLOONS WILL BE RELEASED FOR MET OBSERVATION AT THE CENTRE FOR CLIMATE RESEARCH SINGAPORE, UPPER AIR OBSERVATORY (012025N 1035317E), BEARING 244° MAG AND DISTANCE 1.5NM FROM SOUTHERN END OF PAYA LEBAR RWY 02.

(I) BALLOONS WILL BE RELEASED DAILY AT 2330UTC AND 1040UTC. CUT-OFF TIMINGS FOR THE RELEASE ARE AT 0030UTC AND 1230UTC RESPECTIVELY. RATE OF ASCENT IS 320M PER MIN. MAX HGT OF BALLOON 115 000FT (35 000M). THE BALLOON, UNCOLOURED AND 162CM IN DIAMETER, IS ATTACHED WITH RADIOSONDE EQUIPMENT. IT WILL BURST 1.5 TO 2HRS AFTER RELEASE AND RADIOSONDE EQUIPMENT WILL DECSEND WITHIN 60NM RADIUS.

(II) A BALLOON WILL BE RELEASED BETWEEN 2330UTC AND 0030UTC ON EITHER THE 3rd OR 4th WEEK OF THE MONTH. RATE OF ASCENT IS 320M PER MIN. MAX HGT OF BALLOONS IS 115 000FT (35 000M). THE BALLOON, UNCOLOURED AND 191CM IN DIAMETER, IS ATTACHED WITH OZONESONDE/RADIOSONDE EQUIPMENT AND PARACHUTE. IT WILL BURST 1.5 TO 2HR AFTER RELEASE.

**2. AEROMODELLING AND KITE FLYING**

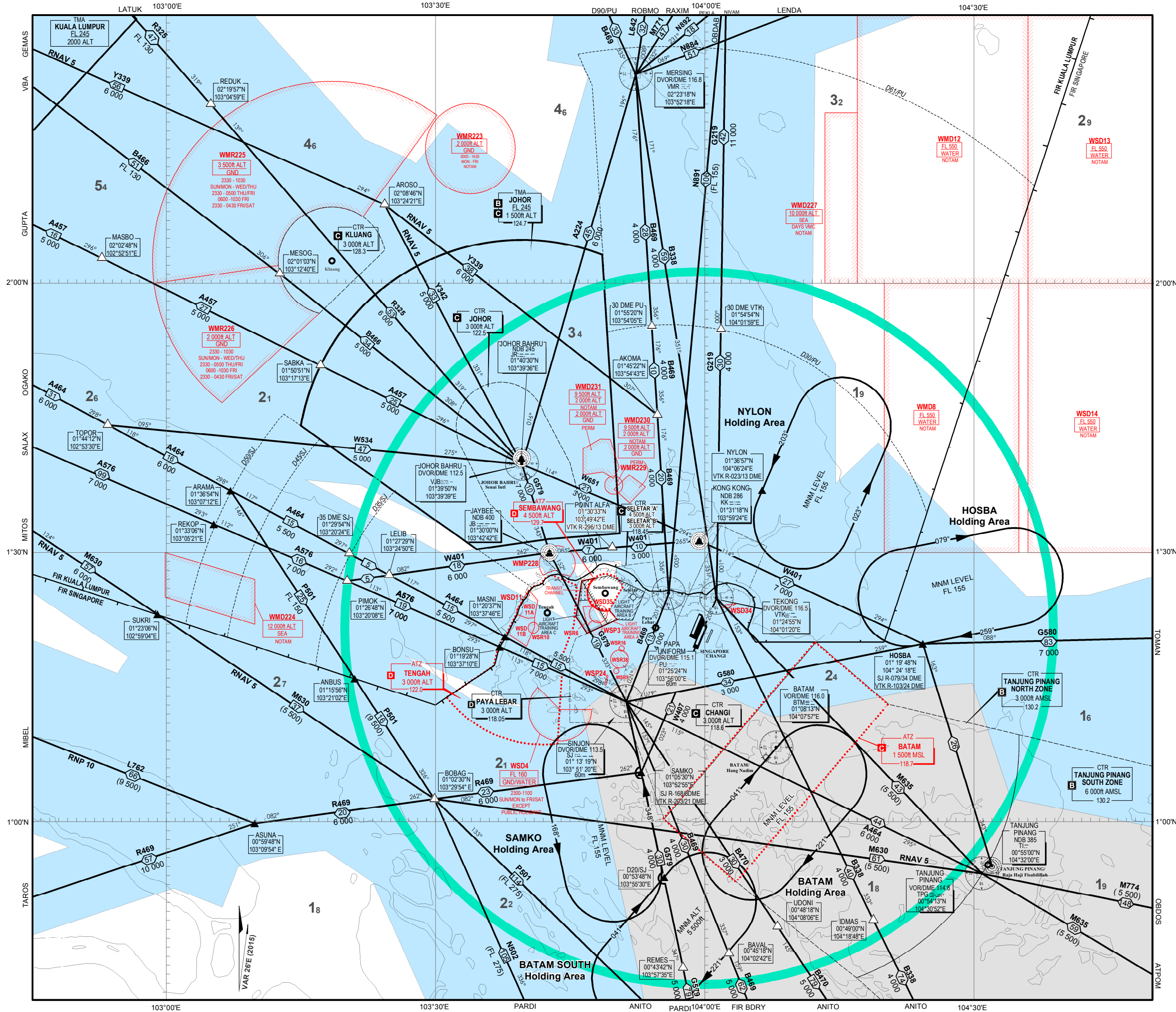
**(A) GENERAL WARNING**

- i) PILOTS FLYING AT LOW ALTITUDES SHOULD WATCH OUT FOR POSSIBLE HAZARDS SUCH AS MODEL AIRCRAFT AND KITES, ESPECIALLY WHEN FLYING NEAR PARKS AND OPEN GROUND.
- ii) THE LOCATION OF SOME OF THE PARKS IN SINGAPORE WHERE KITE AND AERO MODEL FLYING MAY OCCUR ARE SHOWN ON ENR 3.4-5. PILOTS SHOULD NOTE THAT THE CHART AT ENR 3.4-5 DOES NOT SHOW ALL THE PARKS IN SINGAPORE AND THAT HAZARDS SUCH AS KITE FLYING AND AERO MODEL FLYING MAY TAKE PLACE AT PARKS AND OPEN GROUND NOT INDICATED IN ENR 3.4-5.
- iii) ACCORDING TO THE SINGAPORE AIR NAVIGATION ORDER, 1985, KITE FLYING AND AERO MODEL FLYING ARE NOT PERMITTED ABOVE 200ft OR WITHIN 5km OF AN AERODROME. HOWEVER, PILOTS ARE ADVISED TO LOOK OUT FOR SUCH HAZARDS AT ALL TIMES AS MEMBERS OF THE PUBLIC MAY INADVERTENTLY FLY KITES OR AERO MODELS ABOVE THE HGT OF 200ft OR WITHIN 5km OF AN AERODROME.

\* AEROBATICS IS PROHIBITED IN LIGHT AIRCRAFT TRAINING AREAS A, B and C.

# AREA CHART - ICAO

SINGAPORE/JOHOR AIRSPACE COMPLEX  
HIGH LEVEL HOLDING AREAS



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Upper Limit	122.0										
Radio frequency(ies)											
ATS Routes	<table border="1"> <tr><td>Route designator</td><td>B469</td></tr> <tr><td>Distance in nautical miles</td><td>20</td></tr> <tr><td>Minimum flight altitude (ft)/flight level</td><td>4 000/FL 160</td></tr> <tr><td>Lower limit (ft)/flight level</td><td>(4 000)/FL 160</td></tr> </table>	Route designator	B469	Distance in nautical miles	20	Minimum flight altitude (ft)/flight level	4 000/FL 160	Lower limit (ft)/flight level	(4 000)/FL 160		
Route designator	B469										
Distance in nautical miles	20										
Minimum flight altitude (ft)/flight level	4 000/FL 160										
Lower limit (ft)/flight level	(4 000)/FL 160										
Oceanic Control Area (OCA)											
Reporting Point	<table border="1"> <tr><td>Compulsory</td><td>▲</td></tr> <tr><td>On request</td><td>△</td></tr> </table>	Compulsory	▲	On request	△						
Compulsory	▲										
On request	△										
DME distance from SJ Navaid	D35/SJ										
Radio Navigation Aid	<table border="1"> <tr><td>Name</td><td>SINJON DVOR/DME 113.5</td></tr> <tr><td>Identification and frequency</td><td>SJ 113.5</td></tr> <tr><td>Geographical Coordinates</td><td>01° 19' 21" N 103° 51' 19" E</td></tr> <tr><td>Elevation of DME site</td><td>60m</td></tr> </table>	Name	SINJON DVOR/DME 113.5	Identification and frequency	SJ 113.5	Geographical Coordinates	01° 19' 21" N 103° 51' 19" E	Elevation of DME site	60m		
Name	SINJON DVOR/DME 113.5										
Identification and frequency	SJ 113.5										
Geographical Coordinates	01° 19' 21" N 103° 51' 19" E										
Elevation of DME site	60m										
Collocated VOR and DME Radio Navigation Aids	<table border="1"> <tr><td>Compass rose orientated on the chart to Magnetic North</td><td></td></tr> </table>	Compass rose orientated on the chart to Magnetic North									
Compass rose orientated on the chart to Magnetic North											
Restricted Airspace (P - Prohibited, R - Restricted, D - Danger)	<table border="1"> <tr><td>Identification of area</td><td>WSD13</td></tr> <tr><td>Nationality letter</td><td>FL 100</td></tr> <tr><td>Vertical limits</td><td>FL 100</td></tr> <tr><td>Activation by NOTAM</td><td>WATER</td></tr> </table>	Identification of area	WSD13	Nationality letter	FL 100	Vertical limits	FL 100	Activation by NOTAM	WATER		
Identification of area	WSD13										
Nationality letter	FL 100										
Vertical limits	FL 100										
Activation by NOTAM	WATER										

NOTE :- See flip side for details of designated areas

**Area Minimum Altitude (AMA)**

Each quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meteorological conditions (IMC). The AMA provides a minimum clearance of 1 000 feet (300m) above all terrain and obstacles in the quadrilateral. It is represented in thousands and hundreds of feet above mean sea level.

Example : 3 400 feet **34**

NOTE :- In computing the area minimum altitude, a margin of 200 feet (60m) for vegetation has been added for spot elevations.

**Speed Control Procedures**

Speed control procedures are in force unless notified otherwise by ATC or ATIS.

All arriving turbo-propeller and turbo-jet aircraft are to fly at not faster than indicated air speed 250 knots when within 40nm from Singapore Changi Airport or when at or below 10,000ft except all arriving aircraft into Singapore Changi Airport shall comply with the speed restrictions depicted on the transitions and RNAV STARs. Further speed reductions will be regulated by ATC as necessary.

Pilots who may not be able to comply with the speed limits specified above for reasons of flight safety and/or weather should inform ATC and state the speed(s) acceptable.

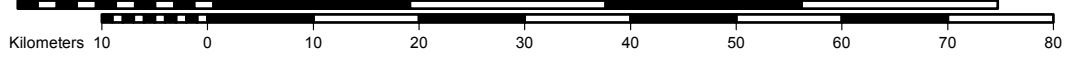
**AIRSPACE CLASSIFICATION IN THE SINGAPORE FIR**

Airspace	Levels	Classification
Controlled airspace	FL150 to FL460	A
	Surface to FL150	B
Controlled airspace more than 100 nm seaward from the shoreline	Lower limit to FL460	A
Control Zone (CTRs)	Changi CTR	C
	Paya Lebar CTR	D
	Seletar CTR	C
ATZs	Surface to upper limit	D
Uncontrolled airspace		G*

\* Aircraft operating in the Light Aircraft Training Areas A, B and C (please refer to page ENR 5.2-1) are required to have continuous two-way communications with the appropriate ATIS authority.

SINGAPORE	D-ATIS	128.6
	APP	120.3
		119.3
	TWR	118.6
		118.25

**Note :**  
FOR DEPARTURE AND ARRIVAL ROUTES  
REFER TO AD-2-WSSSID-1 TO AD-2-WSSSID-18 AND  
AD-2-WSSSID-STAR-1 TO AD-2-WSSSID-STAR-9,  
AD-2-WSSSID-STAR-11, AD-2-WSSSID-STAR-13 TO AD-2-WSSSID-STAR-21



**PROHIBITED, RESTRICTED AND DANGER AREAS**

	ACTIVITY	UPPER LIMIT LOWER LIMIT	REMARKS
WSP3	-	750ft ALT GND	Permanently Active as in ENR 5
WSD4	A/G and G/G Firing Range	FL 160 GND/WATER	Permanently Active as in ENR 5
WMD8	Naval Air/Air Firing Range	FL 550 WATER	Activation by NOTAM
WSD11	Small Arm Firing	1 300ft ALT GND	Permanently Active as in ENR 5
WSD11A	Artillery Firing	FL 125 GND	Activation by NOTAM
WSD11B	Artillery Firing	FL 125 GND	Activation by NOTAM
WMD12	Naval Anti-aircraft Firing	FL 550 WATER	Activation by NOTAM
WSD13	Naval Anti-aircraft Firing	FL 550 WATER	Activation by NOTAM
WSD14	Naval Anti-aircraft Firing & Live Air/Air Firing	FL 550 WATER	Activation by NOTAM
WSP24	-	800ft ALT GND/WATER	Permanently Active as in ENR 5
WSR6	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSR9	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSR16	Helicopter Operations	200ft ALT GND	Permanently Active as in ENR 5
WSD34	Rifle Range	500ft ALT GND	Permanently Active as in ENR 5
WSD35	Rifle Range	900ft ALT GND	Permanently Active as in ENR 5
WSR10	-	5 500ft ALT GND	Permanently Active as in ENR 5
WSR38	-	10 000ft ALT GND	Permanently Active as in ENR 5
	Transit Channel	2 000ft ALT GND	Activated only for Military acft crossing
*	Light Aircraft Training Area A	4 500ft ALT GND/*2 000ft	Training & Local Flts in VMC only
*	Light Aircraft Training Area B	10 500ft ALT 4 500ft ALT	High Flying Training Ops in VMC only
*	Light Aircraft Training Area C	10 500ft ALT 4 500ft ALT	High Flying Training Ops in VMC only
WMR223	Parachute Dropping	10 000ft ALT GND	Permanently Active as in ENR 5
WMD224	Firing Range	12 000ft ALT SEA	Activation by NOTAM
WMR225	RMAF Helicopter Training Area	3 500ft ALT GND	Permanently Active as in ENR 5
WMR226	RMAF Helicopter Training Area	2 000ft ALT GND	Permanently Active as in ENR 5
WMD227	Radar Bombing Range	10 000ft ALT SEA	Activation by NOTAM
WMP228	Sultan's Palace	5 000ft ALT GND	Permanently Active as in ENR 5
WMR229	Helicopter Operations	1 500ft ALT GND	Permanently Active as in ENR 5
WMD230	Artillery Firing Range	2 000ft ALT GND	Permanently Active as in ENR 5
WMD231	Artillery Firing Range	2 000ft ALT GND	Permanently Active as in ENR 5

\* In Transit Channel

**SPECIAL NOTE :-**

**1. WEATHER BALLOONS**

BALLOONS WILL BE RELEASED FOR MET OBSERVATION AT THE CENTRE FOR CLIMATE RESEARCH SINGAPORE, UPPER AIR OBSERVATORY (012025N 1035317E), BEARING 244° MAG AND DISTANCE 1.5NM FROM SOUTHERN END OF PAYA LEBAR RWY 02.

(I) BALLOONS WILL BE RELEASED DAILY AT 2330UTC AND 1040UTC. CUT-OFF TIMINGS FOR THE RELEASE ARE AT 0030UTC AND 1230UTC RESPECTIVELY. RATE OF ASCENT IS 320M PER MIN. MAX HGT OF BALLOON 115 000FT (35 000M). THE BALLOON, UNCOLOURED AND 162CM IN DIAMETER, IS ATTACHED WITH RADIOSONDE EQUIPMENT. IT WILL BURST 1.5 TO 2HRS AFTER RELEASE AND RADIOSONDE EQUIPMENT WILL DECSEND WITHIN 60NM RADIUS.

(II) A BALLOON WILL BE RELEASED BETWEEN 2330UTC AND 0030UTC ON EITHER THE 3rd OR 4th WEEK OF THE MONTH. RATE OF ASCENT IS 320M PER MIN. MAX HGT OF BALLOONS IS 115 000FT (35 000M). THE BALLOON, UNCOLOURED AND 191CM IN DIAMETER, IS ATTACHED WITH OZONESONDE/RADIOSONDE EQUIPMENT AND PARACHUTE. IT WILL BURST 1.5 TO 2HR AFTER RELEASE.

**2. AEROMODELLING AND KITE FLYING**

**(A) GENERAL WARNING**

- i) PILOTS FLYING AT LOW ALTITUDES SHOULD WATCH OUT FOR POSSIBLE HAZARDS SUCH AS MODEL AIRCRAFT AND KITES, ESPECIALLY WHEN FLYING NEAR PARKS AND OPEN GROUND.
- ii) THE LOCATION OF SOME OF THE PARKS IN SINGAPORE WHERE KITE AND AERO MODEL FLYING MAY OCCUR ARE SHOWN ON ENR 3.4-5. PILOTS SHOULD NOTE THAT THE CHART AT ENR 3.4-5 DOES NOT SHOW ALL THE PARKS IN SINGAPORE AND THAT HAZARDS SUCH AS KITE FLYING AND AERO MODEL FLYING MAY TAKE PLACE AT PARKS AND OPEN GROUND NOT INDICATED IN ENR 3.4-5.
- iii) ACCORDING TO THE SINGAPORE AIR NAVIGATION ORDER, 1985, KITE FLYING AND AERO MODEL FLYING ARE NOT PERMITTED ABOVE 200ft OR WITHIN 5km OF AN AERODROME. HOWEVER, PILOTS ARE ADVISED TO LOOK OUT FOR SUCH HAZARDS AT ALL TIMES AS MEMBERS OF THE PUBLIC MAY INADVERTENTLY FLY KITES OR AERO MODELS ABOVE THE HGT OF 200ft OR WITHIN 5km OF AN AERODROME.

\* AEROBATICS IS PROHIBITED IN LIGHT AIRCRAFT TRAINING AREAS A, B and C.



# ENR 5 NAVIGATION WARNINGS

## ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS

### 1 INTRODUCTION

1.1 All airspace in which a potential hazard to aircraft operations may exist and all areas over which the operation of civil aircraft may, for one reason or another be restricted either temporarily or permanently, are classified according to three types of areas as defined by ICAO.

← 1.2 Each area is described in the tabulation found in pages ENR 5.1-2 to 5.1-5 which indicates its lateral and vertical limits, the type of restriction or hazard involved, the times at which it applies and other pertinent information.

### 2 DANGER AREA

2.1 An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times. This term is used only when the potential danger to aircraft has not led to the designation of the airspace as restricted or prohibited. The effect of the creation of the danger area is to caution operators or pilots of aircraft that it is necessary for them to assess the dangers in relation to their responsibility for the safety of their aircraft.

### 3 PROHIBITED AREA

3.1 An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. This term is used only when the flight of civil aircraft within the designated airspace is not permitted at any time under any circumstances.

### 4 RESTRICTED AREA

4.1 An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions. This term is used whenever the flight of civil aircraft within the designated airspace is not absolutely prohibited but may be made only if specified conditions are complied with. Thus, prohibition of flight except at certain meteorological conditions. Similarly, prohibition of flight unless special permission had been obtained, leads to the designation of restricted area. However, conditions of flight imposed as a result of application of rules of the air or air traffic service practice or procedures (for example, compliance with minimum safe heights or with rules stemming from the establishment of controlled airspace) do not constitute conditions calling for designation as a restricted area.

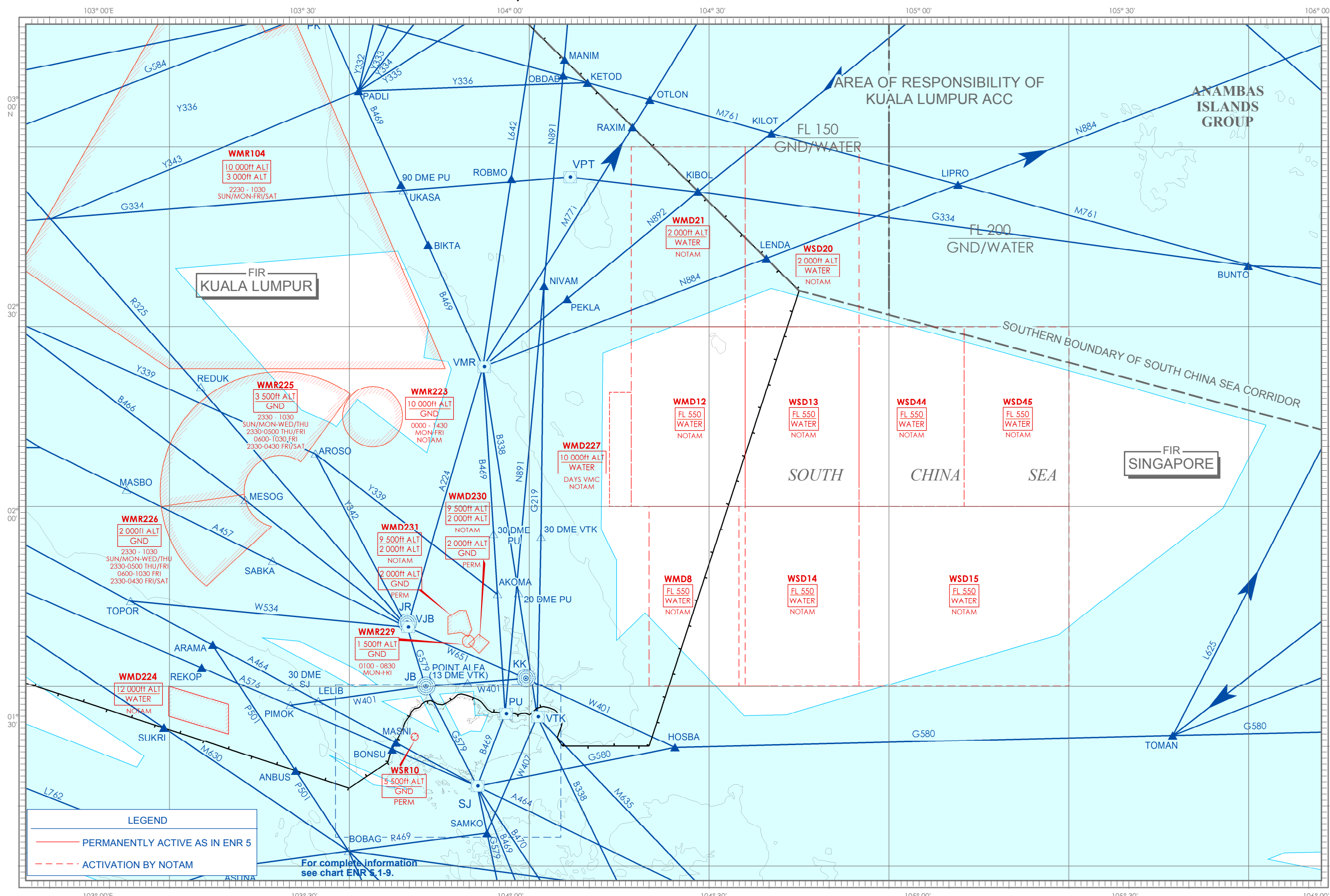
### 5 DESIGNATION OF AREA

5.1 Each area is numbered and single series of numbers is used for all areas, regardless of type, to ensure that a number is never duplicated.

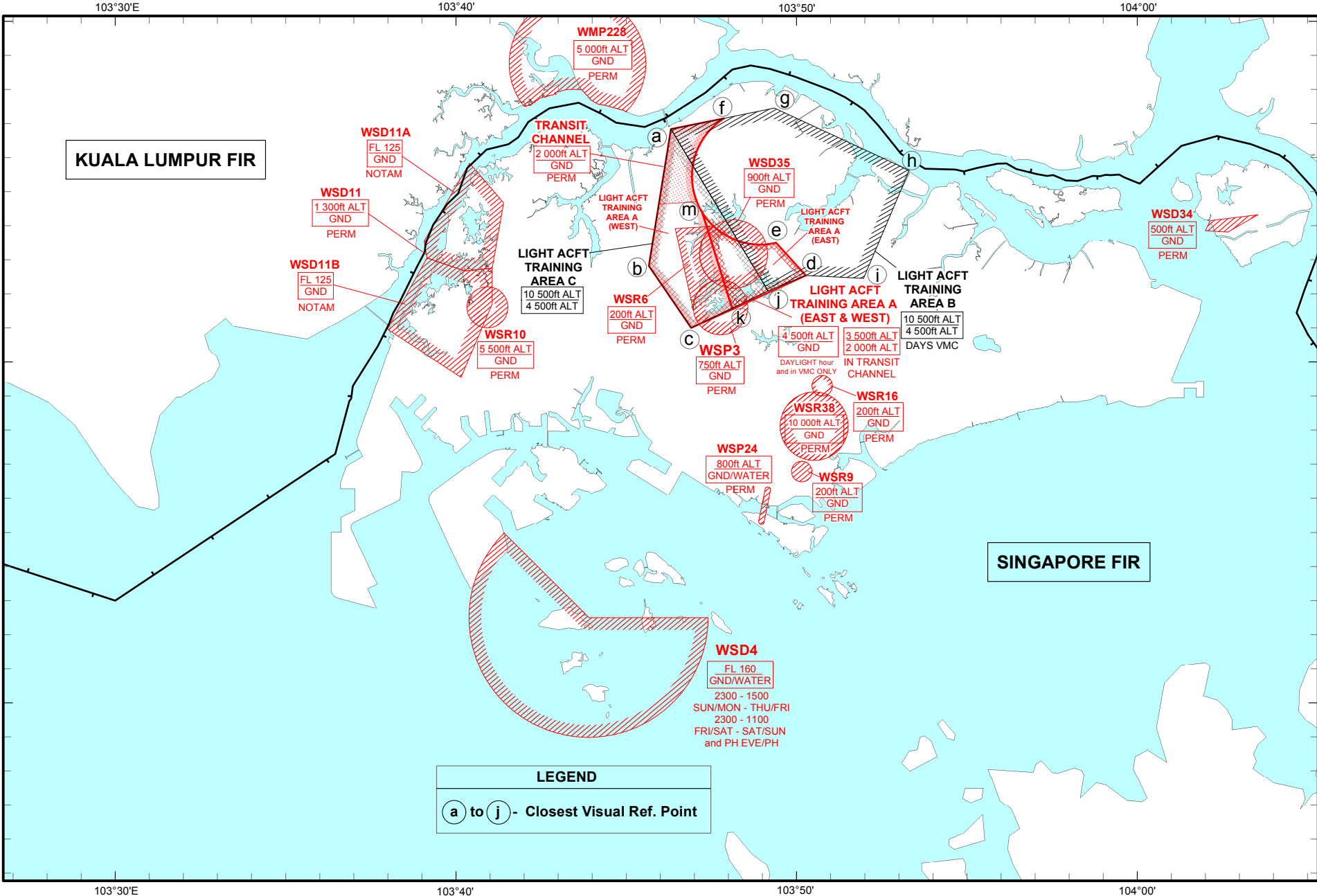
← 5.2 The type of area involved is indicated by the letter "P" for Prohibited, "R" for Restricted and "D" for Danger, preceded by the Nationality letters "WS". For example, areas are assigned numbers and letters in the following manner - WSP3, WSR6 and WSD4.

Identification, Name and Lateral Limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
<b>PROHIBITED AREAS</b>		
<b>WSP3</b> A circle, 0.8NM radius centred at 012136N 1034746E	750 FT GND	Active: Permanent. Under no circumstances shall a forced landing be permitted within the area. Rotary wing aircraft shall avoid overflying the area.
<b>WSP24</b> Area within two circles, 150m radius, centred at Mt. Faber (011615N 1034909E) and Sentosa Island (011519N 1034858E) and the tangential lines joining these circles.	800 FT ALT GND/WATER	Active: Permanent.
<b>WMP228 BUKIT SERENE</b> Area within 2NM centred at 012845N 1034334E with the southern border of the Prohibited Area coinciding with the coastline of South Johor.	5000 FT ALT GND	Sultan's Palace. Active: Permanent. (refer to AIP Malaysia)
<b>RESTRICTED AREAS</b>		
← <b>WSR6</b> Area bounded by 012355N 1034626E to 012359.0N 1034734.1E then along the boundaries of WSD35 and WSP3 to 012130.00N 1034658.37E.	200 FT ALT GND	Helicopter Operations. Active: Permanent.
<b>WSR9</b> A circle, 0.3NM radius centred at 011647N 1035009E.	200 FT ALT GND	Helicopter Operations. Active: Permanent.
<b>WSR10</b> A circle, 0.6NM radius, centred at 012136.2197N 1034055.3795E.	5500 FT ALT GND	Active: Permanent.
<b>WSR16</b> A circle, 0.3NM radius centred at 011918N 1035045E.	200 FT ALT GND	Helicopter Operations. Active: Permanent.
← <b>WSR38</b> A circle, 1NM radius centred at 011807N 1035031E	10000 FT ALT GND	Istana. Active: Permanent. All FLT BTN SJ/JP on AWY G579 are to avoid at all times the area which overlaps the eastern edge of G579 .
<b>WMR104</b> 032859N 1030254E 023959N 1023454E 022300N 1025954E 022300N 1034554E 032059N 1032054E 031859N 1031554E 032559N 1031254E 032859N 1030254E.	10000 FT ALT 3000 FT ALT	Training. Active: 2230-1030 SUN-MON to FRI-SAT (refer to AIP Malaysia)

### PROHIBITED, RESTRICTED AND DANGER AREAS - CHART 1

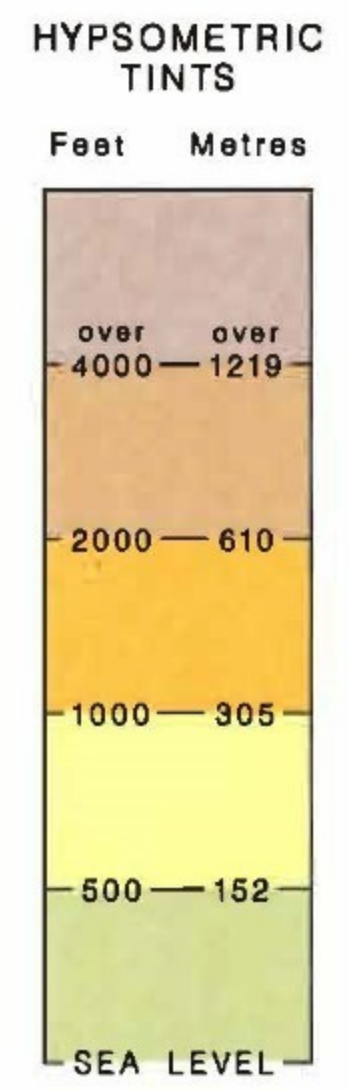
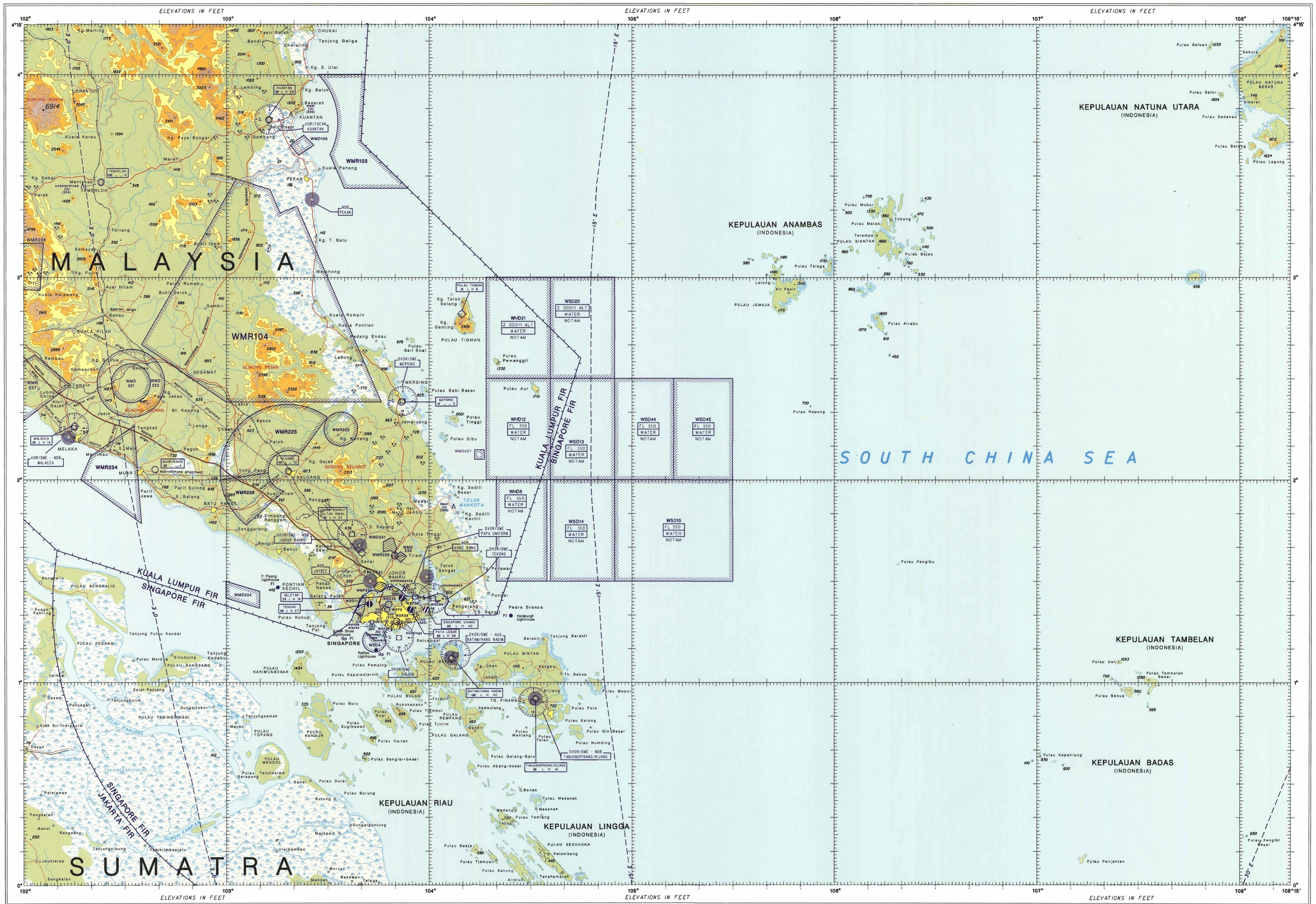


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**PROHIBITED, RESTRICTED AND DANGER AREAS - CHART 2**

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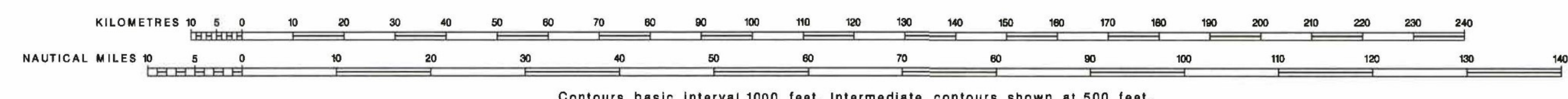


**CONVERSION TABLE**

Feet	Metres
20,000	6,096
18,000	5,486
16,000	4,877
14,000	4,267
12,000	3,658
10,000	3,048
8,000	2,438
6,000	1,829
4,000	1,219
2,000	610
500	152
Feet	Metres
45.7	14
45	14
140	43
130	40
120	37
110	34
100	31
90	28
80	25
70	22
60	19
50	16
40	13
30	10
20	7
10	3

**PROJECTION**  
Lambert Conformal Conic Projection  
Standard Parallels 0° and 3°20'  
Spheroid - World Geodetic System 1984 (WGS84)

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**NOTE**  
Due to congestion in the Singapore area, only selected Navigation Aids and Restricted Airspace are shown.

**CAUTION**  
Consult respective NOTAMS and AIPs of State concerning the latest aeronautical information.  
AND  
the Civil Aviation Authority of Singapore does not accept responsibility for any errors or omissions in the information shown outside of Singapore Territory.

**MAGNETIC INFORMATION FOR THE YEAR 2020**  
Aeronautical Information: Jan 1999 (with Parallel updates in Jan 2020)  
**CHANGES:** Restricted Areas WSR2 and WSR31 removed  
Incorporation of band amendments ref AP AAMD 01/2017, GENGL.

- Primary road
- Secondary road
- Expressway
- Single railway
- Spot elevation accurate, approximate
- Highest known elevation: 6914
- Contour

- City or large town
- Town, village
- Small river, large river
- Lake, dam
- Pipeline
- Swamp
- Coral Reef, Mine
- Sand, rock awash

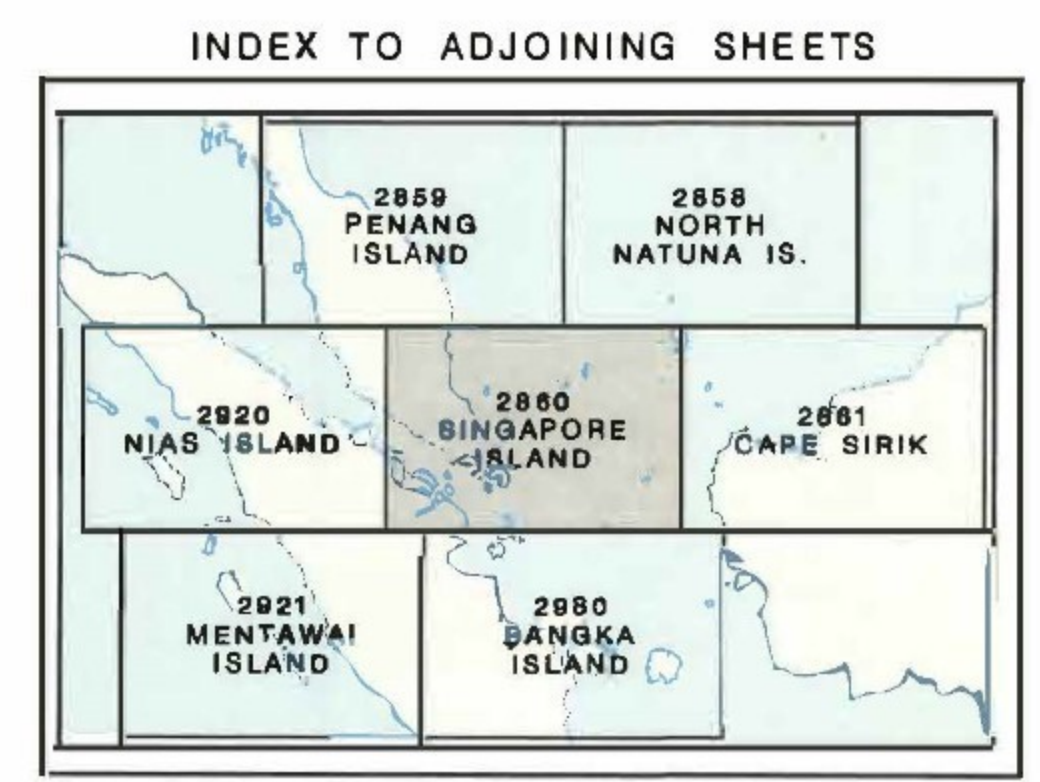
- AERODROMES**
- Major
  - Civil Land
  - Military Land
  - Aerodrome with no facilities
  - Major aerodromes portrayed have a hard surface runway length of 3000 feet or more.

- VERTICAL OBSTRUCTIONS**
- Obstacle
  - Lighted group obstacles
  - 913 Elevation of top above mean sea level (AMSL)
  - (780) Height of top above ground level (AGL)
  - All reported vertical obstructions cannot be portrayed due to chart scale. Obstructions shown are at least 205 feet AGL. 16 and around most populated places the pattern is further reduced to enhance clarity.

- RADIO NAVIGATION AIDS**
- NDB
  - VOR/DME
  - VORTAC
  - VISUAL AIDS
  - Marine light
  - Flashing/Group Flashing
  - Marine lights are white unless colours are stated.

- MISCELLANEOUS**
- Transmission line
  - Isogonic line
  - Prohibited, Restricted or Danger area

- GLOSSARY**
- Gunung, Gunung
  - Kampung, Kg
  - Kepulauan
  - Kelipatan
  - Selat
  - Sungai, S
  - Tanjung, Tanjung, Tg
  - Teluk, Tk
  - mountain
  - village
  - island group
  - island
  - strait
  - river, stream
  - point, cape
  - islet
  - bay
- Compiled by Civil Aviation Authority of Singapore and SAF Mapping Unit from the following sources:  
(a) Digital Chart of the World, Edition 1, July 1992  
(b) 1:50,000 Topographic Map of Singapore (1998)  
(c) Magnetic Information for the year 2020, as supplied by the Geodetic Branch, Military Survey, UK  
(d) Aeronautical Information as supplied by the Civil Aviation Authority of Singapore  
(e) OAC L-10, Edition 7GSGS



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AERODROME CHART - ICAO

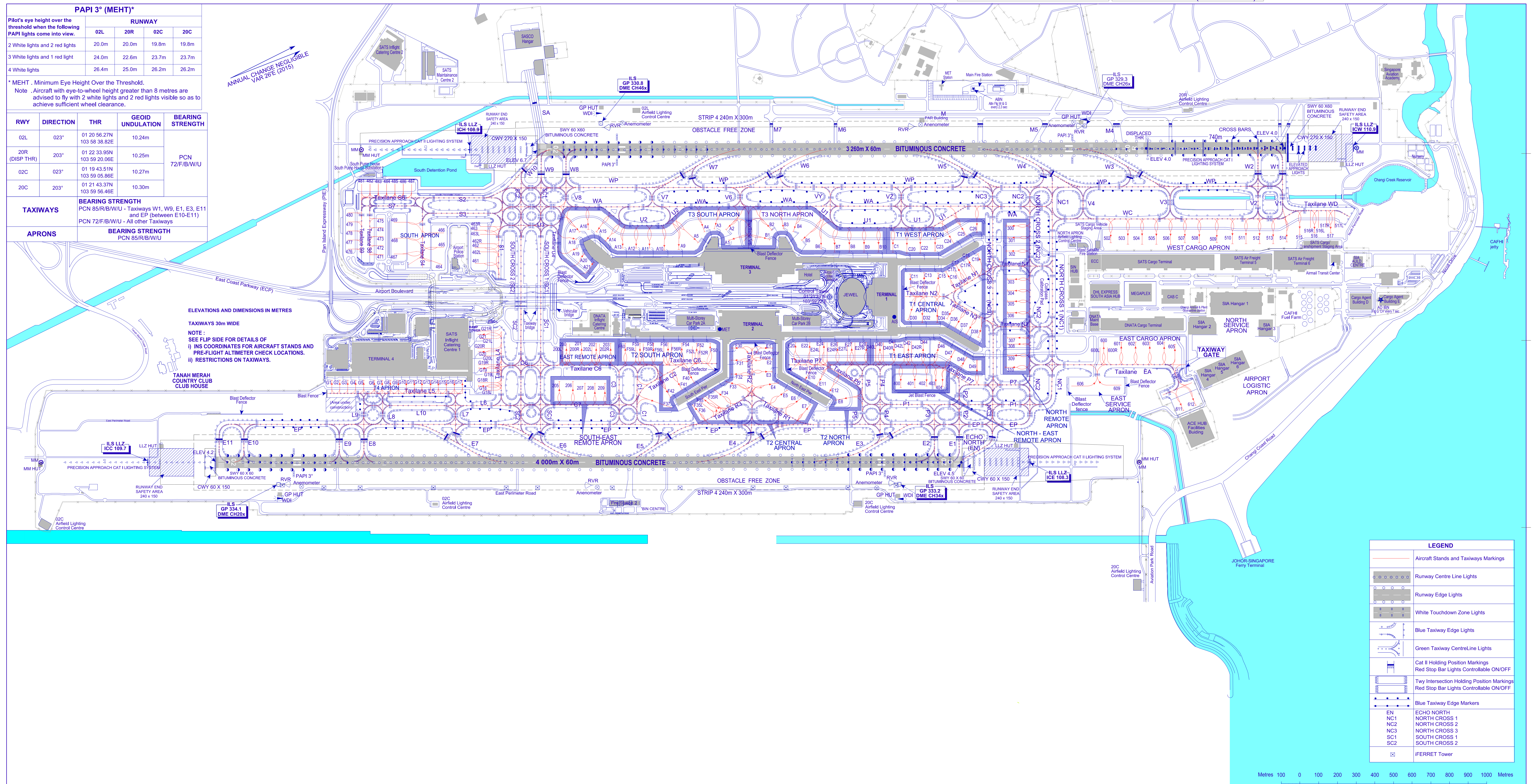
01° 21' 33"N  
103° 59' 22"E

AERODROME ELEVATION 6.66m

TWR 118.6 / 118.25  
GND 124.3 / 121.85 / 121.725  
DELIVERY 121.65

RAMP TWR 122.55 (GMC 4 EAST)  
GND 125.65 (GMC 4 WEST)

SINGAPORE/SINGAPORE CHANGI



PAPI 3° (MEHT)*				
Pilot's eye height over the threshold when the following PAPI lights come into view.		RUNWAY		
02L	20R	02C	20C	
2 White lights and 2 red lights	20.0m	20.0m	19.8m	19.8m
3 White lights and 1 red light	24.0m	22.6m	23.7m	23.7m
4 White lights	26.4m	25.0m	26.2m	26.2m

\* MEHT - Minimum Eye Height Over the Threshold.  
Note - Aircraft with eye-to-wheel height greater than 8 metres are advised to fly with 2 white lights and 2 red lights visible so as to achieve sufficient wheel clearance.

RWY	DIRECTION	THR	GEOID UNDULATION	BEARING STRENGTH
02L	023°	01 20 56.27N 103 58 38.82E	10.24m	PCN 72/F/B/W/U
20R (DISP THR)	203°	01 22 33.95N 103 59 20.06E	10.25m	
02C	023°	01 19 43.51N 103 59 05.86E	10.27m	
20C	203°	01 21 43.37N 103 59 46.48E	10.30m	

**TAXIWAYS**  
BEARING STRENGTH  
PCN 85/R/B/W/U - Taxiways W1, W9, E1, E3, E11 and EP (between E10-E11)  
PCN 72/F/B/W/U - All other Taxiways

**APRONS**  
BEARING STRENGTH  
PCN 85/R/B/W/U

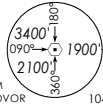
**ELEVATIONS AND DIMENSIONS IN METRES**  
TAXIWAYS 30m WIDE  
NOTE:  
SEE FLIP SIDE FOR DETAILS OF  
I) INS COORDINATES FOR AIRCRAFT STANDS AND PRE-FLIGHT ALTIMETER CHECK LOCATIONS.  
II) RESTRICTIONS ON TAXIWAYS.

LEGEND	
	Aircraft Stands and Taxiways Markings
	Runway Centre Line Lights
	Runway Edge Lights
	White Touchdown Zone Lights
	Blue Taxiway Edge Lights
	Green Taxiway Centre Line Lights
	Cat II Holding Position Markings Red Stop Bar Lights Controllable ON/OFF
	Twy Intersection Holding Position Markings Red Stop Bar Lights Controllable ON/OFF
	Blue Taxiway Edge Markers
EN	ECHO NORTH
NC1	NORTH CROSS 1
NC2	NORTH CROSS 2
NC3	NORTH CROSS 3
SC1	SOUTH CROSS 1
SC2	SOUTH CROSS 2
	IFRRET Tower



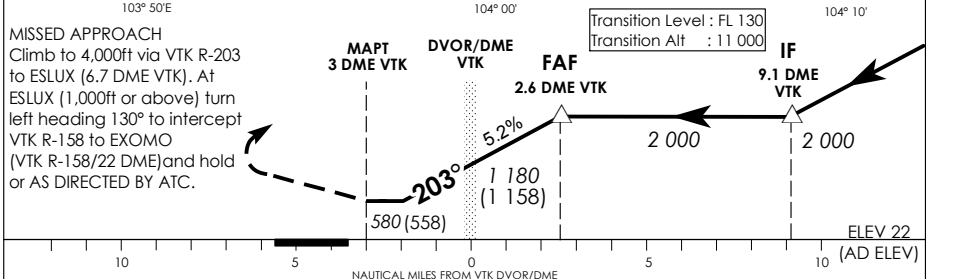
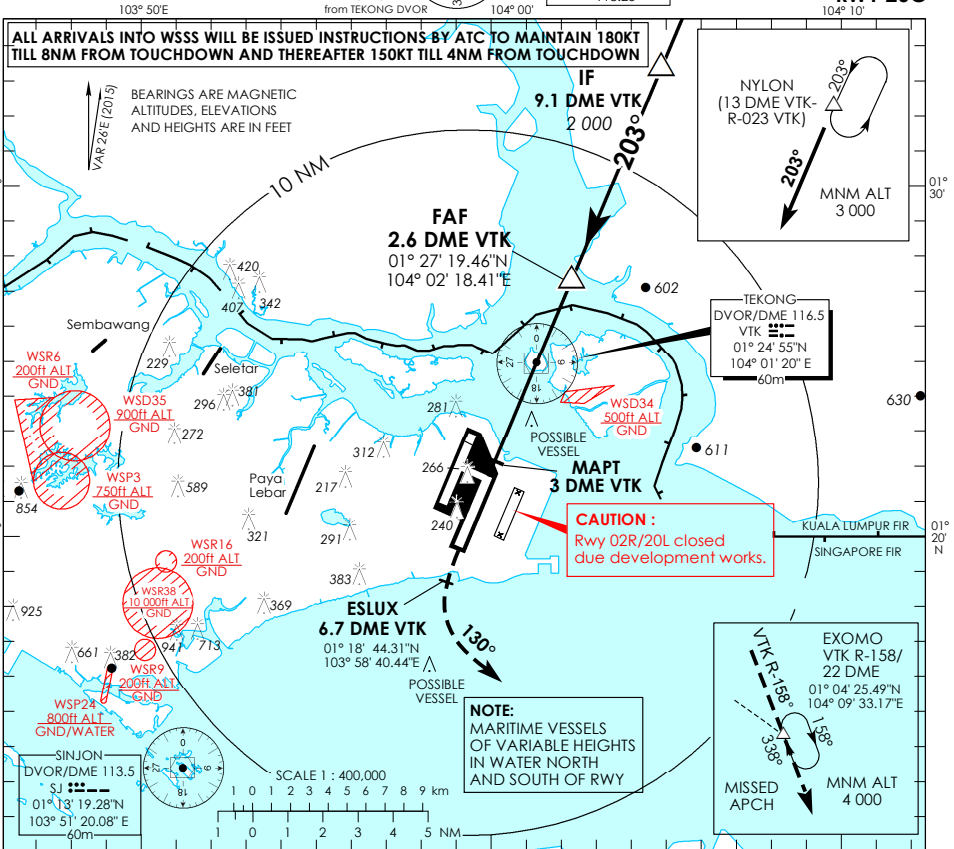
**INSTRUMENT  
APPROACH  
CHART - ICAO**

AERODROME ELEV **22ft**  
HEIGHT RELATED TO  
AD ELEV



D-TAS	AP ID	WSS
APP	128.6	
	120.3	
	119.3	
TWR	118.6	
	118.25	

**SINGAPORE/  
SINGAPORE CHANGI  
VTK DVOR/DME  
RWY 20C**



MISSED APPROACH  
Climb to 4,000ft via VTK R-203 to ESLUX (6.7 DME VTK). At ESLUX (1,000ft or above) turn left heading 130° to intercept VTK R-158 to EXOMO (VTK R-158/22 DME) and hold or AS DIRECTED BY ATC.

OCA (OCH)				
Category of Aircraft	A	B	C	D
Straight-in			580 (558)	
Distance	2 DME	1 DME	VTK	1 DME
Altitude (Height)	1820 (1798)	1500 (1478)	1180 (1158)	860 (838)
Speed		70	120	150
			150	185
FAF - MAPT 5.6nm	min : s	4 : 48	2 : 48	2 : 15
Rate of descent/GS	ft/min	370	635	795
			795	980

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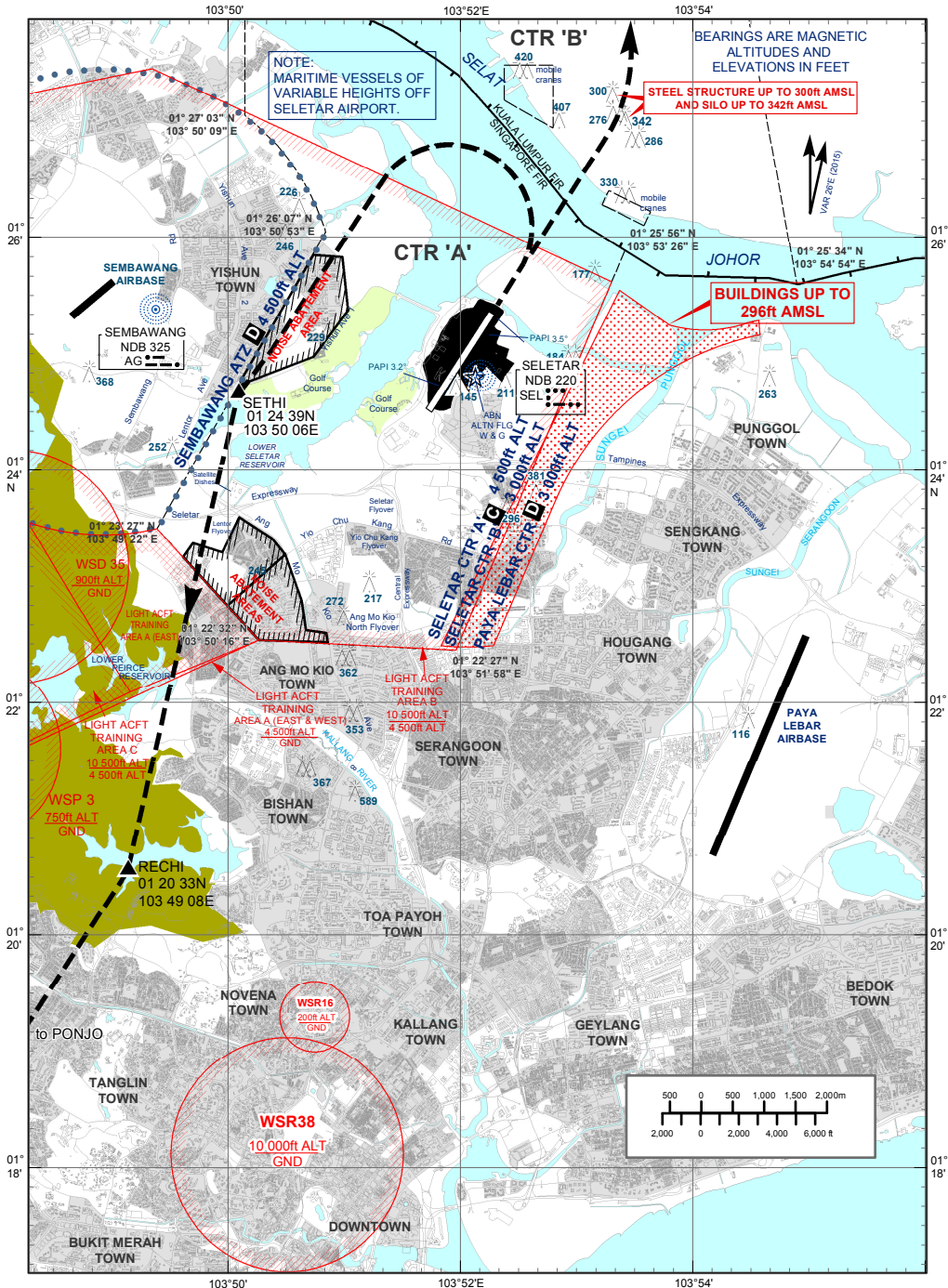
# VISUAL DEPARTURE CHART

AD ELEV 46 ft

APP	120.3
TWR	126.025
	118.45
	270.4

## SINGAPORE/SELETAR


RWY 03



### ADVISORY DEPARTURE PROCEDURES FOR RUNWAY 03

On departure, pilots of both fixed-wing and rotary-wing aircraft should climb ahead to an altitude cleared by ATC. Pilots can expect a radar heading to leave Seletar CTR. Where a radar heading is not given, pilots shall navigate to SETHI-RECHI-PONJO-SJ, or navigate to KK in accordance with their ATC clearance.

#### CAUTION

- a) Pilots are required to keep clear of Sembawang ATZ. Turns should therefore be kept within Seletar CTR.
- b) Pilots should not fly to the east of the runway. This is to keep clear of tall buildings up to 296ft AMSL there. Pilots should have all relevant obstructions in sight, including the steel structure 300ft AMSL and the Silo 342ft AMSL 2nm north of the airfield.
- c) When cleared via SETHI-RECHI-PONJO-SJ, pilots shall not deviate from the clearance unless approved by ATC. This is due to the proximity of WSR38 which is Permanently active from Ground to 10,000ft.
- d) Pilots shall maintain a speed of not more than 185KTS until passing PONJO to mitigate risk of encroaching into WSD4.
- e)  Minimum altitudes apply over noise abatement areas (WSSL AD 2.21)  
Aircraft types which are unable to safely manoeuvre clear of the noise abatement areas are not allowed to operate at Seletar Airport.

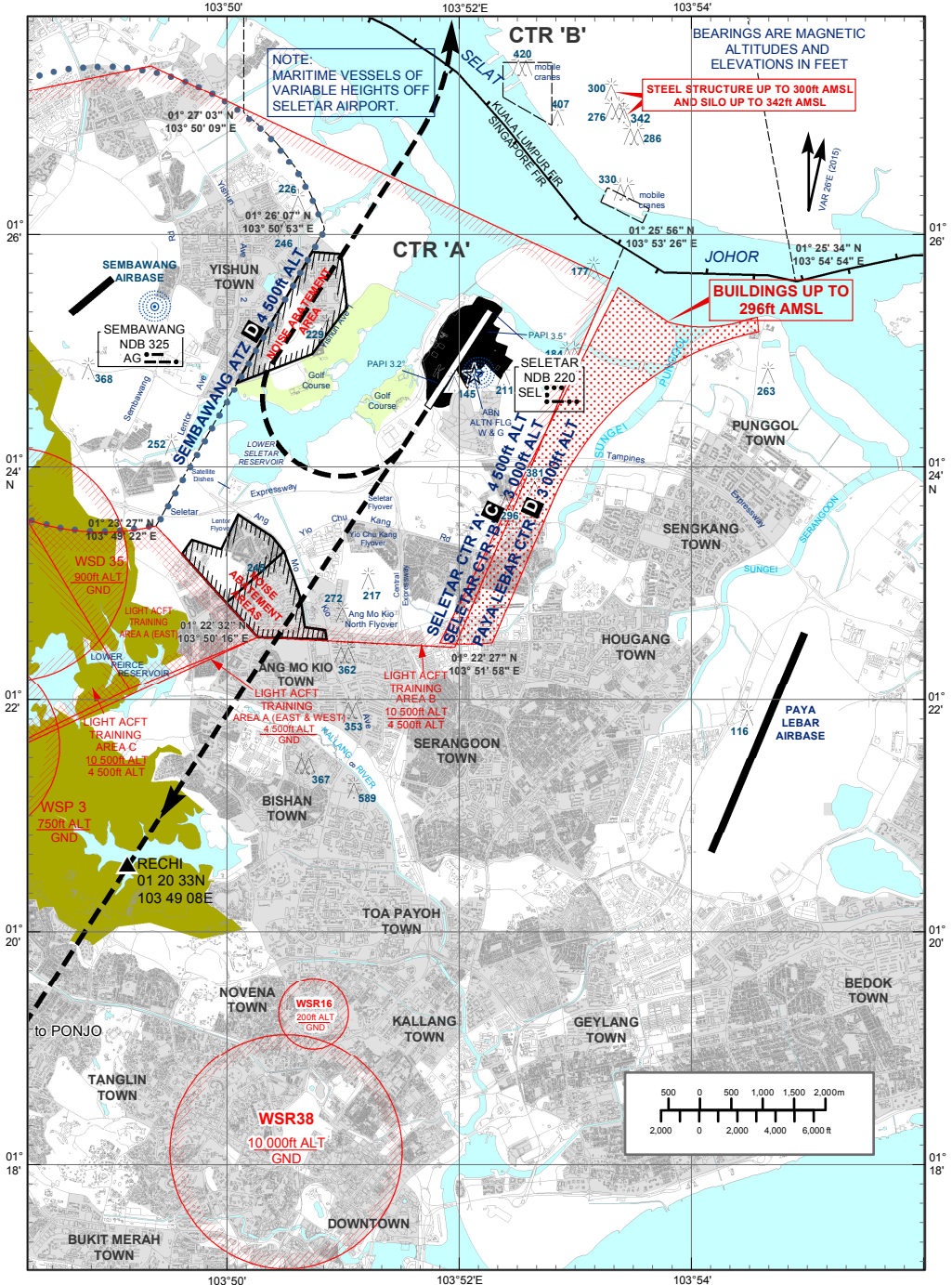
# VISUAL DEPARTURE CHART

AD ELEV 46 ft

APP	120.3
TWR	126.025
	118.45
	270.4

## SINGAPORE/SELETAR

RWY 21




### ADVISORY DEPARTURE PROCEDURES FOR RUNWAY 21

On departure, pilots can expect climb to an initial altitude cleared by ATC. Pilots of fixed-wing aircraft navigating to KK can expect to turn right to join the circuit till end of downwind and then expect a radar heading to leave Seletar CTR. Where a radar heading is not given, pilots shall navigate to RECHI-PONJO-SJ, or navigate to KK in accordance with their ATC clearance.

Pilots of rotary-wing aircraft can expect to turn left after departure to join the helicopter circuit pattern till end of downwind. Thereafter, they can expect further en-route clearance.

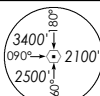
#### CAUTION

- a) Pilots are required to keep clear of Sembawang ATZ. Turns should therefore be kept within Seletar CTR.
- b) Pilots should not fly to the east of the runway. This is to keep clear of tall buildings up to 296ft AMSL there. Pilots should have all relevant obstructions in sight, including the steel structure 300ft AMSL and the Silo 342ft AMSL 2nm north of the airfield.
- c) When cleared via RECHI-PONJO-SJ, pilots shall not deviate from the clearance unless approved by ATC. This is due to the proximity of WSR38 which is Permanently active from Ground to 10,000ft.
- d) Pilots shall maintain a speed of not more than 185KTS until passing PONJO to mitigate risk of encroaching into WSD4.
- e)  Minimum altitudes apply over noise abatement areas (WSSL AD 2.21)  
Aircraft types which are unable to safely manoeuvre clear of the noise abatement areas are not allowed to operate at Seletar Airport.



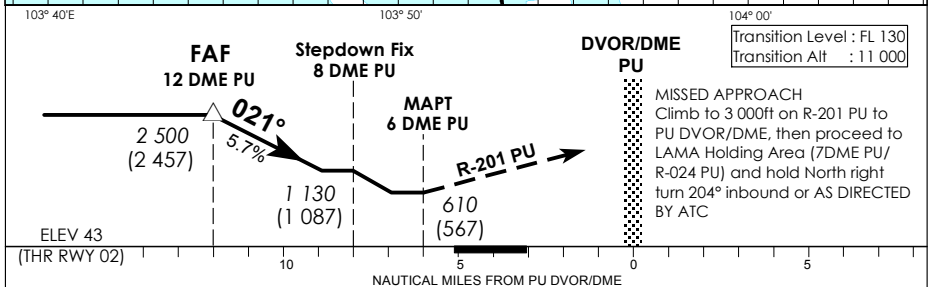
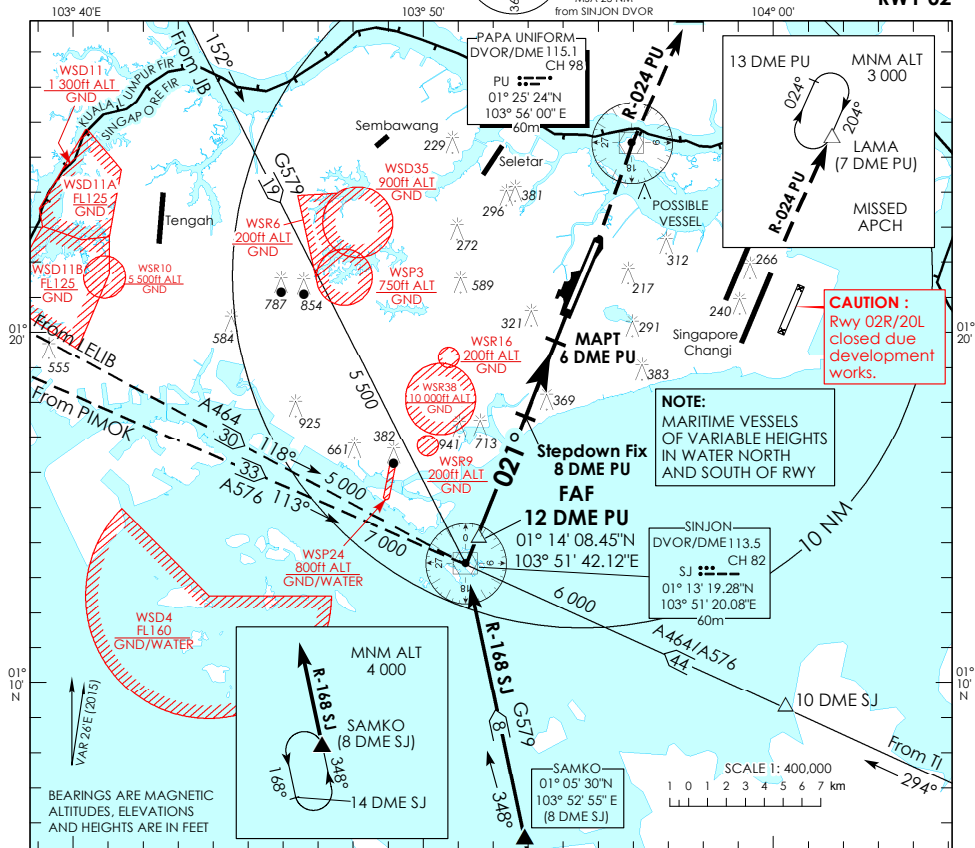
**INSTRUMENT  
APPROACH  
CHART - ICAO**

AERODROME ELEV **65ft**  
HEIGHT RELATED TO  
THR RWY 02 - ELEV **43ft**



APP	120.3
	119.9
	126.025
TWR	118.05

**SINGAPORE/  
PAYA LEBAR  
PU DVOR/DME  
RWY 02**



Category of Aircraft	OCA (OCH)				
	A	B	C	D	
Straight-in (with stepdown fix)	610 (567)				
Straight-in (without stepdown fix)	1 130 (1 087)				
Distance	11 DME	10 DME	9 DME	8 DME	7 DME
Altitude (Height)	2170 (2127)	1820 (1777)	1470 (1427)	1130 (1087)	780 (737)
Speed	knots				
		70	120	150	185
FAF - MAPT 6nm	min : s				
		5 : 09	3 : 00	2 : 24	1 : 57
Rate of descent/GS	ft/min				
		370	635	795	980

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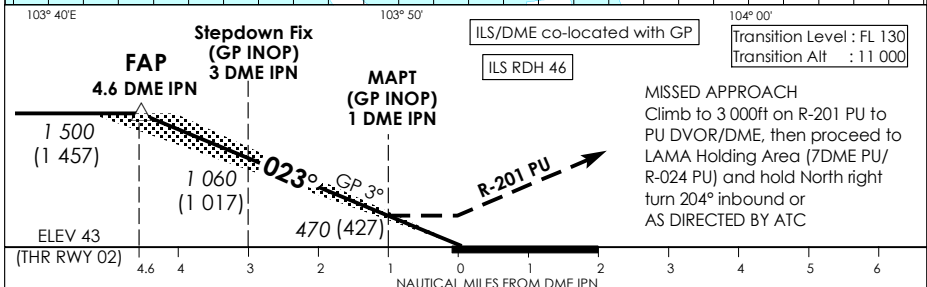
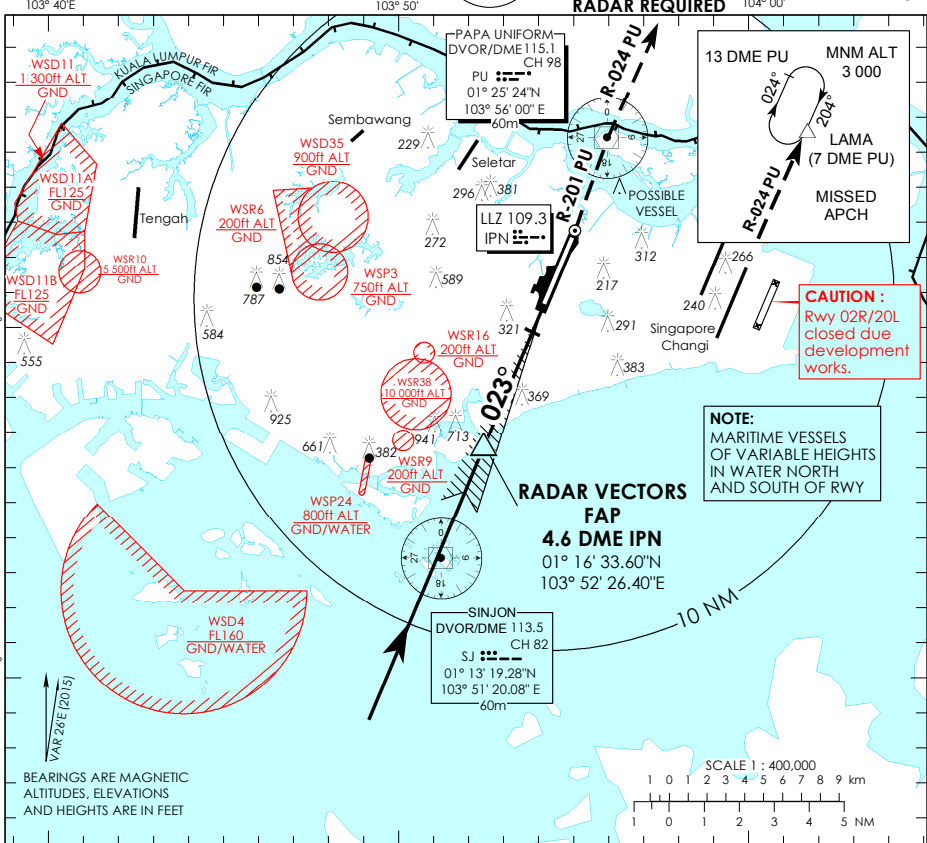
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 65ft**  
HEIGHT RELATED TO  
**THR RWY 02 - ELEV 43ft**  
MSA 25 NM  
from PAPA UNIFORM DVOR



ATIS Paya Lebar	148.9
Singapore APP	120.3
Paya Lebar APP	119.9
Seletar APP	126.025
Paya Lebar TWR	118.05
Ground Control	130.8
	298.0
	263.1
	296.0

**SINGAPORE/PAYA LEBAR**  
**IPN ILS/DME**  
**RWY 02**



OCA (OCH)				
Category of Aircraft	A	B	C	D
Straight-in	CAT I ILS	178 (135)	188 (145)	198 (155)
	GP INOP	470 (427)		
Distance	4 DME	3 DME	2 DME	
Altitude (Height)	1300 (1257)	1060 (1017)	740 (697)	
Speed	knots	70	120	150
FAF - MAPT 3.6nm	min : s	3 : 06	1 : 48	1 : 27
Rate of descent/GS	ft/min	370	635	795

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