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REPUBLIC OF SINGAPORE

AERONAUTICAL INFORMATION SERVICES
CIVIL AVIATION AUTHORITY OF SINGAPORE
SINGAPORE CHANGI AIRPORT
P.O. BOX 1, SINGAPORE 918141

AIP

AMENDMENT NR 3/15
30 APRIL 2015

1. SIGNIFICANT INFORMATION AND CHANGES

1.1 Singapore FIR

- a) Establishment of Restricted Area WSR10

ENR 5.1-3
ENR 5.1-9 / Chart

1.2 Singapore Changi Airport (WSSS)

- a) Update on aircraft stands that can park aircraft types A359, B772LR, B789
- b) Revision to the timings for scheduled closures of RWY 02L/20R and RWY 02C/20C for preventive maintenance work and inspection
- c) Implementation of LEBAR STAR procedures

WSSS AD 2-6.2 / 2-6.4 /
2-6.5 / 2-6.6 / 2-6.7

WSSS AD 2-12

WSSS AD 2-95 / 2-96
WSSS AD 2-95-1 / 2-96-1

2. INSERT THE ATTACHED REPLACEMENT PAGES WHICH ARE MARKED WITH ASTERISKS IN THE CHECKLIST OF PAGES - GEN 0.4-1 TO GEN 0.4-4.

3. NEW OR REVISED INFORMATION IS INDICATED EITHER BY A HORIZONTAL ARROW OR A VERTICAL LINE.

4. RECORD ENTRY OF AMENDMENT ON PAGE GEN 0.2-1.

5. THIS AMENDMENT INCORPORATES INFORMATION CONTAINED IN THE FOLLOWING WHICH ARE HEREBY SUPERSEDED:

AIP SUPPLEMENTS:
385/14 dated 18/12/14
45/15 dated 19/2/15

NOTAMs:
A1291/14 dated 4/7/14
A0609/15 dated 1/4/15
A0644/15 dated 8/4/15
A0677/15 dated 10/4/15
A0678/15 dated 10/4/15
A0702/15 dated 17/4/15
A0709/15 dated 17/4/15
A0715/15 dated 20/4/15
A0730/15 dated 22/4/15
A0842/15 dated 4/5/15
A0847/15 dated 5/5/15

GEN 0.3 RECORD OF CURRENT AIP SUPPLEMENTS				
NR/ Year	Subject	AIP section affected	Period of validity (from / to)	Cancellation record
1/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 16	
2/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 16	
3/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 16	
4/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	
5/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	
11/14	Paya Lebar AP - Hammerhead Crane	AD	WIE / 1 DEC 15	
12/14	Paya Lebar AP - Luffer Crane	AD	WIE / 15 DEC 15	
13/14	Paya Lebar AP - Luffer Crane	AD	WIE / 27 DEC 15	
14/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
15/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
16/14	Paya Lebar AP - Tower Cranes	AD	WIE / 25 JUN 15	
17/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 30 JUN 15	
18/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 30 JUN 15	
19/14	Paya Lebar AP - Cranes	AD	WIE / 30 JUN 15	
20/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 JUN 15	
51/14	Paya Lebar AP - Cranes	AD	WIE / 31 DEC 15	
52/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
53/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
54/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
55/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
61/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
62/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
63/14	Paya Lebar AP - Cranes	AD	WIE / 31 DEC 15	
64/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
65/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
66/14	Paya Lebar AP - Saddle Cranes	AD	WIE / 30 DEC 15	
67/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
68/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
69/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
70/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 31 DEC 15	
134/14	Paya Lebar AP - Mobile Crane	AD	WIE / 11 MAY 15	
135/14	Paya Lebar AP - Tower and Topless Cranes	AD	WIE / 14 MAY 15	
136/14	Paya Lebar AP - Luffer Crane	AD	WIE / 20 MAY 15	
137/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 MAY 15	
138/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 MAY 15	
213/14	Paya Lebar AP - Cranes	AD	WIE / 1 MAR 16	
214/14	Paya Lebar AP - Cranes	AD	WIE / 1 MAR 16	
215/14	Paya Lebar AP - Cranes	AD	WIE / 30 MAR 16	
216/14	Paya Lebar AP - Hammerhead and Luffer Cranes	AD	WIE / 31 MAR 16	
217/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 MAR 16	
218/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 DEC 17	
219/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 17	
220/14	Paya Lebar AP - Hammerhead and Luffer Cranes	AD	WIE / 31 DEC 17	
221/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 17	
222/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 17	
223/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 1 JUN 16	
224/14	Paya Lebar AP - Mobile Crane	AD	WIE / 1 JUN 16	
225/14	Paya Lebar AP - Crane	AD	WIE / 14 JUN 16	
226/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 JUN 16	
227/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 JUN 16	
238/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 1 DEC 16	
239/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	

GEN 0.3 RECORD OF CURRENT AIP SUPPLEMENTS				
NR/ Year	Subject	AIP section affected	Period of validity (from / to)	Cancellation record
240/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	
241/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 16	
242/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	
243/14	Paya Lebar AP - Tower Cranes	AD	WIE / 3 JUL 15	
244/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 4 JUL 15	
245/14	Paya Lebar AP - Cranes	AD	WIE / 9 JUL 15	
246/14	Paya Lebar AP - Luffer Cranes and Tower Crane	AD	WIE / 28 JUL 15	
247/14	Paya Lebar AP - Saddle and Luffer Cranes	AD	WIE / 31 JUL 15	
275/14	Paya Lebar AP - Topless Cranes	AD	WIE / 1 JUN 17	
296/14	Paya Lebar AP - Luffer Crane	AD	WIE / 30 SEP 15	
297/14	Paya Lebar AP - Luffer Crane	AD	WIE / 30 SEP 15	
298/14	Paya Lebar AP - Topless Cranes	AD	WIE / 30 SEP 15	
299/14	Paya Lebar AP - Topless Cranes	AD	WIE / 30 SEP 15	
300/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 SEP 15	
319/14	Sembawang AD - Luffer Cranes	AD	WIE / 1 MAY 15	
320/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 MAY 15	
330/14	Paya Lebar AP - Crane	AD	WIE / 30 NOV 16	
333/14	Singapore Changi AP - Work activities due to construction of new aircraft stands and new taxiways at West Cargo Area	AD	WIE / 31 AUG 16	
341/14	Paya Lebar AP - Luffer Crane	AD	WIE / 30 SEP 15	
360/14	Paya Lebar AP - Topless Cranes and Luffer Cranes	AD	WIE / 1 DEC 15	
361/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 20 DEC 15	
362/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
363/14	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
364/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
365/14	Paya Lebar AP - Hammerhead and Luffer Cranes	AD	WIE / 30 JUN 17	
370/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 1 JAN 16	
371/14	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 1 JAN 16	
372/14	Paya Lebar AP - Tower Cranes	AD	WIE / 25 JAN 16	
373/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 JAN 16	
374/14	Paya Lebar AP - Luffer Crane	AD	WIE / 31 JAN 16	
380/14	Paya Lebar AP - Hammerhead and Topless Cranes	AD	WIE / 31 DEC 16	
381/14	Paya Lebar AP - Topless Cranes / A Frames	AD	WIE / 31 DEC 16	
382/14	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 16	
383/14	Paya Lebar AP - Luffer and Hammerhead Canes	AD	WIE / 31 DEC 16	
384/14	Paya Lebar AP - Topless and Hammerhead Cranes	AD	WIE / 31 DEC 16	
385/14	Singapore Changi AP - New Standard Terminal Arrival Route (STAR)	AD	WEF 5 MAR 15 / PERM	
1/15	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 1 JUN 15	
2/15	Paya Lebar AP - Mobile Crane	AD	WIE / 6 JUN 15	
3/15	Paya Lebar AP - Topless Cranes and Luffer Crane	AD	WIE / 30 JUN 15	
4/15	Paya Lebar AP - Crawler Crane	AD	WIE / 30 JUN 15	
5/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 JUN 15	
11/15	Paya Lebar AP - Tower Cranes	AD	WIE / 30 DEC 15	
12/15	Paya Lebar AP - Luffer Crane	AD	WIE / 30 DEC 15	
13/15	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 15	
14/15	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 15	
15/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 31 DEC 15	
16/15	Paya Lebar AP - Luffer Crane and Saddle Crane	AD	WIE / 31 DEC 15	

GEN 0.3 RECORD OF CURRENT AIP SUPPLEMENTS				
NR/ Year	Subject	AIP section affected	Period of validity (from / to)	Cancellation record
17/15	Paya Lebar AP - Tower Crane	AD	WIE / 31 DEC 15	
18/15	Paya Lebar AP - Hammerhead and Luffer Cranes	AD	WIE / 31 DEC 15	
19/15	Paya Lebar AP - Topless Cranes and Luffer Cranes	AD	WIE / 31 DEC 15	
20/15	Paya Lebar AP - Crawler Crane and Mobile Crane	AD	WIE / 31 JAN 16	
21/15	Paya Lebar AP - Saddle Crane	AD	WIE / 4 DEC 17	
22/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 9 DEC 17	
23/15	Paya Lebar AP - Topless Cranes	AD	WIE / 31 DEC 17	
24/15	Paya Lebar AP - Luffer Crane	AD	WIE / 31 DEC 17	
25/15	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 31 DEC 17	
26/15	Singapore Changi AP - Works schedule and movement area restrictions pertaining to the diversion of airside services and soil improvement works	AD	WIE / 24 OCT 15	
27/15	Singapore Changi AP - Work activities due to construction of new aircraft stands and modification of engine run-up bays at East Cargo Area	AD	WIE / 31 MAR 17	
28/15	Singapore FIR - RSAF aerial flypast prior to and on Singapore's National Day, 9th August 2015	ENR	27 MAY15 / 16 AUG 15	
29/15	Paya Lebar AP - Mobile Cranes	AD	WIE / 1 JAN 17	
30/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 2 JAN 17	
31/15	Paya Lebar AP - Topless Cranes	AD	WIE / 3 JAN 17	
32/15	Paya Lebar AP - Luffer Crane	AD	WIE / 31 JAN 17	
33/15	Paya Lebar AP - Luffer Crane and Topless Cranes	AD	WIE / 31 JAN 17	
34/15	Paya Lebar AP - Tower Cranes	AD	WIE / 31 JUL 15	
35/15	Paya Lebar AP - Saddle Cranes	AD	WIE / 1 AUG 15	
36/15	Paya Lebar AP - Saddle Cranes	AD	WIE / 1 AUG 15	
37/15	Paya Lebar AP - Cranes	AD	WIE / 31 AUG 15	
38/15	Paya Lebar AP - Crawler Cranes	AD	WIE / 31 AUG 15	
39/15	Paya Lebar AP - Luffer Crane	AD	WIE / 22 JUN 16	
40/15	Paya Lebar AP - Mobile Crane	AD	WIE / 29 JUN 16	
41/15	Paya Lebar AP - Luffer Crane	AD	WIE / 30 JUN 16	
42/15	Paya Lebar AP - Tower Crane	AD	WIE / 30 JUN 16	
43/15	Paya Lebar AP - Luffer Crane	AD	WIE / 1 JUL 16	
46/15	RSAF aerial display in conjunction with SG50 Celebrations prior to and during the Jubilee Weekend on 7, 8 and 9 August 2015	ENR	3 AUG 15 / 9 AUG 15	
47/15	Permanent realignment of taxiway centreline at Taxiway WC behind aircraft stands 506 to 509 in Singapore Changi Airport	AD	6 May 15 / PERM	
48/15	Paya Lebar AP - Luffer Crane	AD	WIE / 30 NOV 15	
49/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 30 NOV 15	
50/15	Paya Lebar AP - Topless Cranes and Luffer Crane	AD	WIE / 30 NOV 15	
51/15	Paya Lebar AP - Crawler Crane	AD	WIE / 31 DEC 15	
52/15	Paya Lebar AP - Crawler Tower Crane	AD	WIE / 31 DEC 15	
53/15	Paya Lebar AP - Luffer Crane	AD	WIE / 1 FEB 16	
54/15	Sembawang AD - Luffer Cranes	AD	WIE / 28 FEB 16	
55/15	Paya Lebar AD - Crawler Cranes	AD	WIE / 23 MAR 16	
56/15	Paya Lebar AP - Topless Cranes	AD	WIE / 31 MAR 16	
57/15	Paya Lebar AP - Hammerhead Cranes	AD	WIE / 1 APR 16	
58/15	Paya Lebar AP - Luffer Crane	AD	WIE / 30 MAY 16	
59/15	Paya Lebar AP - Luffer Cranes	AD	WIE / 10 SEP 16	
60/15	Paya Lebar AP - Luffer Crane	AD	WIE / 30 SEP 16	
61/15	Paya Lebar AP - Topless Cranes	AD	WIE / 30 SEP 16	

AIP AMDT 3/15 CIVIL AVIATION AUTHORITY
SINGAPORE

GEN 0.4 CHECKLIST OF AIP PAGES					
PAGE	DATE	PAGE	DATE	PAGE	DATE
<u>PART 1 - GENERAL (GEN)</u>				<u>PART 2 - EN-ROUTE (ENR)</u>	
GEN 0		2.2-6	13 NOV 14	ENR 0	
0.1-1	13 NOV 14	2.2-7	13 NOV 14	0.6-1	10 MAR 11
0.1-2	13 NOV 14	2.2-8	13 NOV 14	0.6-2	10 MAR 11
0.1-3	13 NOV 14	2.3-1	18 JAN 07	0.6-3	13 NOV 14
0.2-1	18 SEP 14	2.3-2	18 JAN 07	0.6-4	13 NOV 14
* 0.3-1	30 APR 15	2.4-1	3 JUN 10		
* 0.3-2	30 APR 15	2.5-1	13 NOV 14	ENR 1	
* 0.3-3	30 APR 15	2.5-3/chart	15 MAR 07	1.1-1	1 SEP 05
* 0.3-4	30 APR 15	2.6-1	28 SEP 06	1.1-2	1 SEP 05
		2.6-2	28 SEP 06	1.1-3	29 MAY 14
* 0.4-1	30 APR 15	2.7-1	18 NOV 10	1.1-4	29 MAY 14
* 0.4-2	30 APR 15			1.1-5	8 JUN 06
* 0.4-3	30 APR 15	GEN 3		1.1-6	8 JUN 06
* 0.4-4	30 APR 15	3.1-1	13 NOV 14	1.1-7	28 SEP 06
0.5-1	18 SEP 14	3.1-2	13 NOV 14	1.1-8	28 SEP 06
0.6-1	5 MAY 11	3.1-3	8 JAN 15	1.1-9	28 SEP 06
0.6-2	5 MAY 11	3.1-4	8 JAN 15	1.1-10	28 SEP 06
0.6-3	20 SEP 12	3.1-5	13 NOV 14	1.1-11	27 AUG 09
GEN 1		3.2-1	13 NOV 14	1.1-12	27 AUG 09
1.1-1	15 NOV 12	3.2-2	13 NOV 14	1.1-13	15 NOV 12
1.1-2	15 NOV 12	3.2-3	10 MAY 07	1.1-14	15 NOV 12
1.2-1	8 JAN 15	* 3.2-5	30 APR 15	1.1-15	15 NOV 12
1.2-2	8 JAN 15	* 3.2-6	30 APR 15	1.1-16	15 NOV 12
1.2-3	8 JAN 15	3.2-7	13 NOV 14		
1.2-4	8 JAN 15	3.3-1	13 NOV 14	1.2-1	10 MAY 07
1.2-5	8 JAN 15	3.3-2	13 NOV 14	1.3-1	29 JUL 10
1.2-6	8 JAN 15	3.4-1	10 MAR 11	1.4-1	5 MAR 15
1.3-1	3 JUN 10	3.4-2	10 MAR 11	1.5-1	20 NOV 08
1.3-2	3 JUN 10	3.4-3	18 JAN 07	1.5-2	20 NOV 08
1.3-3	22 AUG 13	3.4-4	18 JAN 07	1.5-3	23 NOV 06
1.3-4	22 AUG 13	3.4-5	28 SEP 06	1.5-4	23 NOV 06
1.3-5/chart	18 APR 02	3.4-6	28 SEP 06	1.5-5	23 NOV 06
1.3-7/chart	18 APR 02	3.4-7/diagram	18 NOV 10	1.6-1	10 MAR 11
1.4-1	5 MAY 11	3.4-9/diagram	28 SEP 06	1.6-2	10 MAR 11
1.4-2	5 MAY 11	3.5-1	6 FEB 14	1.6-3	17 OCT 13
1.4-3	5 MAY 11	3.5-2	6 FEB 14	1.6-4	17 OCT 13
1.5-1	22 OCT 09	3.5-3	8 JAN 15	1.6-5	6 FEB 14
1.6-1	29 MAY 14	3.5-4	8 JAN 15	1.6-6	6 FEB 14
1.6-2	29 MAY 14	* 3.5-5	30 APR 15	1.6-7	10 MAR 11
1.6-3	3 APR 14	* 3.5-6	30 APR 15	1.6-8	10 MAR 11
1.6-4	3 APR 14	3.5-7	5 MAR 15	1.6-9/chart	18 APR 02
1.7-1	5 MAR 15	3.5-8	5 MAR 15	1.6-11/chart	18 APR 02
1.7-2	5 MAR 15	3.5-9	29 MAY 14		
1.7-3	5 MAR 15	3.5-10	29 MAY 14	1.7-1	15 MAR 07
1.7-4	5 MAR 15	3.6-1	3 APR 14	1.7-2	15 MAR 07
1.7-5	5 MAR 15	3.6-2	3 APR 14	1.7-3	15 MAR 07
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2.1-1	13 NOV 14	3.6-5/chart	18 JAN 07	1.7-6	29 JUL 10
2.1-2	13 NOV 14	GEN 4		1.7-7	11 FEB 10
2.2-1	13 NOV 14	4.1-1	20 SEP 12	1.7-8	11 FEB 10
2.2-2	13 NOV 14	4.2-1	17 OCT 13	1.7-9	11 FEB 10
2.2-3	13 NOV 14	4.2-2	17 OCT 13	1.8-1	31 JUL 08
2.2-4	13 NOV 14	4.2-3	20 OCT 11	1.8-2	31 JUL 08
2.2-5	13 NOV 14	4.2-4	20 OCT 11	1.8-3	31 JUL 08
				1.8-4	31 JUL 08

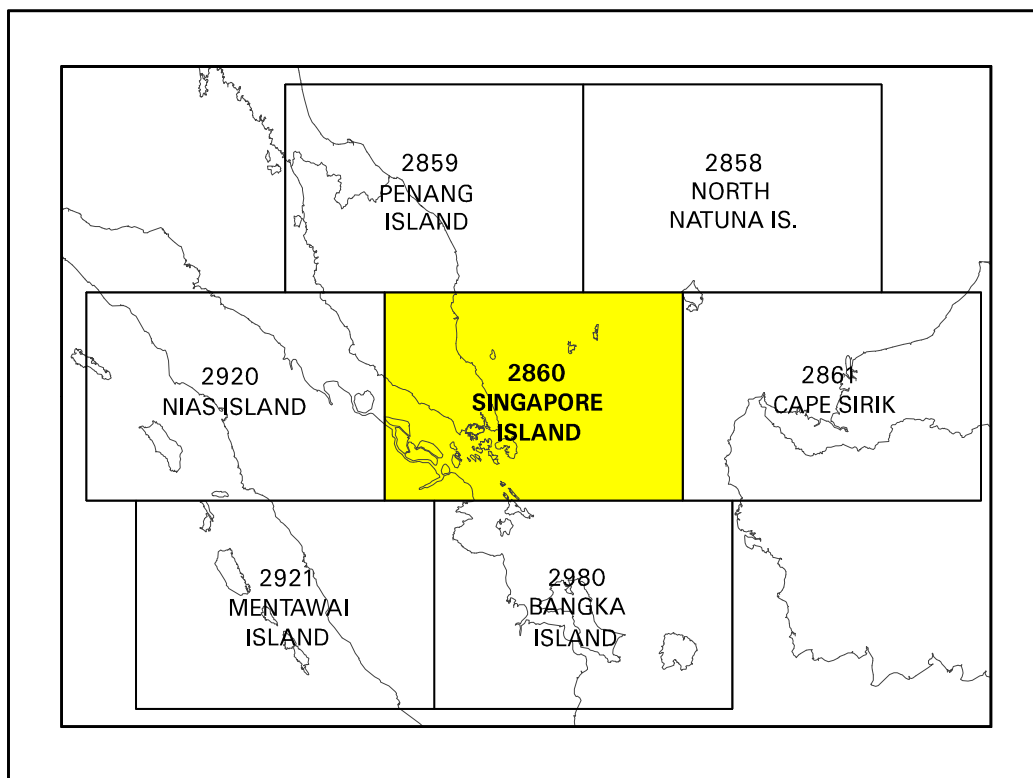
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1.8-6	31 JUL 08	3.1-5	22 AUG 13	* 6-1/chart	30 APR 15
1.8-7	31 JUL 08	3.1-6	22 AUG 13	WAC 2860	15 JUL 99
1.8-8	31 JUL 08	3.1-7	20 SEP 12		
1.8-9	1 SEP 05	3.1-8	20 SEP 12		
1.8-10	1 SEP 05	* 3.1-17/chart	30 APR 15	<u>PART 3 - AERODROME (AD)</u>	
1.8-11	3 JUN 10	3.3-1	29 MAY 14	AD 0	
1.8-12	3 JUN 10	3.3-2	29 MAY 14	0.6-1	5 MAR 15
1.8-13	5 MAR 15	3.3-3	6 FEB 14	0.6-2	5 MAR 15
1.8-14	5 MAR 15	3.3-4	6 FEB 14	0.6-3	17 OCT 13
1.8-15	27 JUN 13	3.3-5	20 SEP 12	0.6-4	17 OCT 13
1.8-16	27 JUN 13	3.3-6	20 SEP 12		
1.8-17	13 NOV 14	3.3-7	29 MAY 14	AD 1	
1.8-18	13 NOV 14	3.3-8	29 MAY 14	1.1-1	27 AUG 09
1.8-19	26 JUL 12	3.3-9	6 FEB 14	1.1-2	27 AUG 09
1.8-20	26 JUL 12	3.3-10	6 FEB 14	1.1-3	8 JAN 15
1.8-21	8 JAN 15	3.3-11	29 MAY 14	1.1-4	8 JAN 15
1.8-22	8 JAN 15	3.3-12	29 MAY 14	1.2-1	18 JAN 07
1.8-23	5 MAR 15	3.3-13	20 SEP 12	1.3-1	10 MAY 07
1.8-24	5 MAR 15	3.3-14	20 SEP 12	1.3-3/chart	15 MAR 07
1.8-25	24 JUL 14	3.4-1	3 APR 14	1.4-1	18 JAN 07
1.9-1	15 JAN 09	3.4-2	3 APR 14	1.5-1	18 SEP 14
1.9-2	15 JAN 09	3.4-3	5 MAR 15		
1.9-3	5 JUL 07	3.4-4	5 MAR 15	AD 2	
1.9-4	5 JUL 07	3.4-5/chart	3 APR 14	* WSSS AD 2-1	30 APR 15
1.9-5	5 JUL 07	3.4-7/chart	18 JAN 07	* WSSS AD 2-2	30 APR 15
1.10-1	5 MAR 15	3.5-1	27 JUN 13	* WSSS AD 2-3	30 APR 15
1.10-2	5 MAR 15	3.5-2	27 JUN 13	* WSSS AD 2-4	30 APR 15
1.10-3	8 JAN 15	3.5-3/chart	13 JAN 11		
1.11-1	10 MAR 11	3.6-1	20 OCT 11	WSSS AD 2-5.1	6 FEB 14
1.12-1	8 APR 10	3.6-2	20 OCT 11	WSSS AD 2-5.2	6 FEB 14
1.12-2	8 APR 10	3.6-3/chart	20 SEP 12	WSSS AD 2-5.3	6 FEB 14
1.12-3	18 JAN 07	3.6-5/chart	29 MAY 14		
1.12-4	18 JAN 07	3.6-7/chart	5 MAR 15	* WSSS AD 2-6.1	30 APR 15
1.13-1	18 JAN 07	3.6-9/chart	5 MAR 15	* WSSS AD 2-6.2	30 APR 15
1.14-1	10 MAR 11	ENR 4		* WSSS AD 2-6.3	30 APR 15
1.14-2	10 MAR 11	4.1-1	20 SEP 12	* WSSS AD 2-6.4	30 APR 15
1.14-3	3 JUN 10	4.1-2	20 SEP 12	* WSSS AD 2-6.5	30 APR 15
1.14-4	3 JUN 10	4.2-1	10 MAR 11	* WSSS AD 2-6.6	30 APR 15
1.14-5	3 JUN 10	4.3-1	10 MAR 11	* WSSS AD 2-6.7	30 APR 15
1.14-6	3 JUN 10	* 4.4-1	30 APR 15	* WSSS AD 2-6.8	30 APR 15
1.15-1	10 JAN 13	* 4.4-2	30 APR 15	WSSS AD 2-7.1	7 MAY 09
1.15-3	2 MAY 13	* 4.4-3	30 APR 15	WSSS AD 2-7.2	7 MAY 09
1.15-4	2 MAY 13	* 4.4-4	30 APR 15	WSSS AD 2-7.3	7 MAY 09
ENR 2		* 4.4-5	30 APR 15	WSSS AD 2-7.4	7 MAY 09
2.1-1	18 NOV 10	4.5-1	10 MAR 11	WSSS AD 2-7.5	6 FEB 14
2.1-2	18 NOV 10	ENR 5		WSSS AD 2-7.6	6 FEB 14
2.1-3	18 NOV 10	5.1-1	8 APR 10	WSSS AD 2-7.7	2 MAY 13
2.1-4	18 NOV 10	* 5.1-3	30 APR 15	WSSS AD 2-7.8	2 MAY 13
2.1-7/chart	5 MAR 15	* 5.1-4	30 APR 15	WSSS AD 2-7.9	18 SEP 14
2.1-9/chart	29 MAY 14	5.1-5	10 MAR 11	WSSS AD 2-7.10	18 SEP 14
2.1-11A/diagram	8 APR 10	5.1-6	10 MAR 11	WSSS AD 2-7.11	5 MAR 15
2.1-11B/diagram	8 APR 10	5.1-7/chart	29 MAY 14	WSSS AD 2-7.12	5 MAR 15
2.1-13/diagram	8 OCT 98	* 5.1-9/chart	30 APR 15	WSSS AD 2-7.13	8 JAN 15
* 2.1-15/chart	30 APR 15	5.2-1	18 NOV 10		
2.2-1	18 JAN 07	5.2-2	18 NOV 10	WSSS AD 2-7.15	2 MAY 13
ENR 3		5.3-1	11 FEB 10	WSSS AD 2-7.16	2 MAY 13
3.1-1	29 MAY 14	5.4-1	10 MAR 11	WSSS AD 2-8.1	8 APR 10
3.1-2	29 MAY 14	5.5-1	15 DEC 11	WSSS AD 2-8.2	8 APR 10
3.1-3	20 SEP 12	5.6-1	10 JAN 13		
		5.6-3	10 JAN 13		

GEN 0.4 CHECKLIST OF AIP PAGES					
PAGE	DATE	PAGE	DATE	PAGE	DATE
* WSSS AD 2-9	30 APR 15	WSSS AD 2-71-1/chart	5 MAR 15	WSSS AD 2-111/chart	5 MAR 15
* WSSS AD 2-10	30 APR 15	WSSS AD 2-72-1	5 MAR 15	WSSS AD 2-113/chart	5 MAR 15
* WSSS AD 2-11	30 APR 15	WSSS AD 2-73/chart	5 MAR 15	WSSS AD 2-115/chart	5 MAR 15
* WSSS AD 2-12	30 APR 15	WSSS AD 2-74	5 MAR 15	WSSS AD 2-117/chart	5 MAR 15
* WSSS AD 2-13	30 APR 15	WSSS AD 2-73-1/chart	5 MAR 15	WSSS AD 2-118/chart	5 MAR 15
* WSSS AD 2-14	30 APR 15	WSSS AD 2-74-1	5 MAR 15	WSSS AD 2-119/chart	5 MAR 15
WSSS AD 2-15	5 MAR 15	WSSS AD 2-75/chart	5 MAR 15	WSSS AD 2-120/chart	5 MAR 15
WSSS AD 2-16	5 MAR 15	WSSS AD 2-76	5 MAR 15	WSSS AD 2-121/chart	5 MAR 15
WSSS AD 2-17	5 MAR 15	WSSS AD 2-77/chart	5 MAR 15		
WSSS AD 2-18	5 MAR 15	WSSS AD 2-78	5 MAR 15	* WSSL AD 2-1	30 APR 15
WSSS AD 2-19	24 JUL 14			* WSSL AD 2-2	30 APR 15
WSSS AD 2-20	24 JUL 14	WSSS AD 2-81/chart	5 MAR 15	* WSSL AD 2-3-1	30 APR 15
WSSS AD 2-21	29 MAY 14	WSSS AD 2-82	5 MAR 15	* WSSL AD 2-3-2	30 APR 15
WSSS AD 2-22	29 MAY 14	WSSS AD 2-81-1/chart	5 MAR 15	WSSL AD 2-4-1	13 NOV 14
WSSS AD 2-23	13 NOV 14	WSSS AD 2-82-1	5 MAR 15	WSSL AD 2-4-2	13 NOV 14
WSSS AD 2-24	13 NOV 14	WSSS AD 2-83/chart	5 MAR 15	WSSL AD 2-4-3	5 MAR 15
WSSS AD 2-25	8 JAN 15	WSSS AD 2-84	5 MAR 15	WSSL AD 2-4-4	5 MAR 15
WSSS AD 2-26	8 JAN 15	WSSS AD 2-83-1/chart	5 MAR 15	* WSSL AD 2-5	30 APR 15
* WSSS AD 2-27	30 APR 15	WSSS AD 2-84-1	5 MAR 15	* WSSL AD 2-6	30 APR 15
* WSSS AD 2-28	30 APR 15	WSSS AD 2-85/chart	5 MAR 15	WSSL AD 2-7	5 MAR 15
WSSS AD 2-29	1 SEP 05	WSSS AD 2-86	5 MAR 15	WSSL AD 2-8	5 MAR 15
		WSSS AD 2-85-1/chart	5 MAR 15	WSSL AD 2-9	13 NOV 14
* WSSS AD 2-31/chart	30 APR 15	WSSS AD 2-86-1	5 MAR 15	WSSL AD 2-10	13 NOV 14
WSSS AD 2-33/chart	15 JAN 09	WSSS AD 2-86-2	5 MAR 15	WSSL AD 2-11	20 OCT 11
WSSS AD 2-37/chart	5 MAR 15	WSSS AD 2-87/chart	5 MAR 15	WSSL AD 2-12	20 OCT 11
WSSS AD 2-39/chart	5 MAR 15	WSSS AD 2-88	5 MAR 15	WSSL AD 2-12-1	12 DEC 13
WSSS AD 2-41/chart	5 MAR 15	WSSS AD 2-87-1/chart	5 MAR 15	WSSL AD 2-12-2	12 DEC 13
WSSS AD 2-43/chart	25 APR 96	WSSS AD 2-88-1	5 MAR 15	* WSSL AD 2-13/chart	30 APR 15
WSSS AD 2-45/chart	25 APR 96	WSSS AD 2-88-2	5 MAR 15	* WSSL AD 2-15/chart	30 APR 15
WSSS AD 2-47	5 MAR 15	WSSS AD 2-89/chart	5 MAR 15	WSSL AD 2-17/chart	5 MAR 15
WSSS AD 2-48	5 MAR 15	WSSS AD 2-90	5 MAR 15	* WSSL AD 2-19/chart	30 APR 15
WSSS AD 2-49	20 SEP 12	WSSS AD 2-91/chart	5 MAR 15	WSSL AD 2-21/chart	5 MAR 15
WSSS AD 2-50	20 SEP 12	WSSS AD 2-92	5 MAR 15	WSSL AD 2-23/chart	5 MAR 15
WSSS AD 2-50-1	5 MAR 15	WSSS AD 2-91-1/chart	5 MAR 15	WSSL AD 2-25/chart	5 MAR 15
WSSS AD 2-50-2	5 MAR 15	WSSS AD 2-92-1	5 MAR 15	WSSL AD 2-27/chart	5 MAR 15
WSSS AD 2-50-3	5 APR 12	WSSS AD 2-92-2	5 MAR 15	WSSL AD 2-29/chart	5 MAR 15
WSSS AD 2-50-4	5 APR 12	WSSS AD 2-93/chart	5 MAR 15	WSSL AD 2-31/chart	5 MAR 15
		WSSS AD 2-94	5 MAR 15	WSSL AD 2-33/chart	5 MAR 15
WSSS AD 2-51/chart	5 MAR 15	WSSS AD 2-93-1/chart	5 MAR 15	WSSL AD 2-35/chart	5 MAR 15
WSSS AD 2-52	5 MAR 15	WSSS AD 2-94-1	5 MAR 15	WSSL AD 2-37/chart	5 MAR 15
WSSS AD 2-53/chart	5 MAR 15	WSSS AD 2-94-2	5 MAR 15		
WSSS AD 2-54	5 MAR 15	* WSSS AD 2-95/chart	30 APR 15	* WSAP AD 2-1	30 APR 15
WSSS AD 2-55/chart	5 MAR 15	* WSSS AD 2-96	30 APR 15	* WSAP AD 2-2	30 APR 15
WSSS AD 2-56	5 MAR 15	* WSSS AD 2-95-1/chart	30 APR 15	WSAP AD 2-3	18 NOV 10
WSSS AD 2-57/chart	5 MAR 15	* WSSS AD 2-96-1	30 APR 15	WSAP AD 2-4	18 NOV 10
WSSS AD 2-58	5 MAR 15	WSSS AD 2-97/chart	5 MAR 15	WSAP AD 2-5	13 NOV 14
		WSSS AD 2-98	5 MAR 15	WSAP AD 2-6	13 NOV 14
WSSS AD 2-63/chart	5 MAR 15	WSSS AD 2-97-1/chart	5 MAR 15	WSAP AD 2-7	20 OCT 11
WSSS AD 2-64	5 MAR 15	WSSS AD 2-98-1	5 MAR 15	WSAP AD 2-8	20 OCT 11
WSSS AD 2-65/chart	5 MAR 15	WSSS AD 2-99/chart	5 MAR 15	WSAP AD 2-9	18 NOV 10
WSSS AD 2-66	5 MAR 15	WSSS AD 2-100	5 MAR 15	WSAP AD 2-10	18 NOV 10
WSSS AD 2-67/chart	5 MAR 15	WSSS AD 2-99-1/chart	5 MAR 15	WSAP AD 2-11/chart	5 MAR 15
WSSS AD 2-68	5 MAR 15	WSSS AD 2-100-1	5 MAR 15	WSAP AD 2-13/chart	5 MAR 15
WSSS AD 2-69/chart	5 MAR 15			WSAP AD 2-15/chart	5 MAR 15
WSSS AD 2-70	5 MAR 15	WSSS AD 2-101/chart	5 MAR 15	WSAP AD 2-17/chart	5 MAR 15
WSSS AD 2-71/chart	5 MAR 15	WSSS AD 2-103/chart	5 MAR 15	WSAP AD 2-19/chart	5 MAR 15
WSSS AD 2-72	5 MAR 15	WSSS AD 2-105/chart	5 MAR 15	WSAP AD 2-21/chart	5 MAR 15
		WSSS AD 2-107/chart	5 MAR 15	WSAP AD 2-23/chart	5 MAR 15
		WSSS AD 2-109/chart	5 MAR 15		

GEN 0.4 CHECKLIST OF AIP PAGES					
PAGE	DATE	PAGE	DATE	PAGE	DATE
* WSAT AD 2-1	30 APR 15				
* WSAT AD 2-2	30 APR 15				
WSAT AD 2-3	24 JUL 14				
WSAT AD 2-4	24 JUL 14				
* WSAT AD 2-5	30 APR 15				
* WSAT AD 2-6	30 APR 15				
WSAT AD 2-7	29 MAY 14				
WSAT AD 2-8	29 MAY 14				
WSAT AD 2-9	29 MAY 14				
WSAT AD 2-11/chart	5 MAR 15				
* WSAG AD 2-1	30 APR 15				
* WSAG AD 2-2	30 APR 15				
* WSAG AD 2-3	30 APR 15				
WMKJ AD 2-1	7 MAR 13				
WIDD AD 2-1	20 SEP 12				
WIDD AD 2-3	12 MAY 05				
WIDD AD 2-5/chart	12 MAY 05				
WIDD AD 2-6/chart	12 MAY 05				
WIDD AD 2-7/chart	12 MAY 05				
WIDD AD 2-8/chart	12 MAY 05				
WIDD AD 2-9/chart	12 MAY 05				
WIDD AD 2-10/chart	12 MAY 05				
WIDD AD 2-11/chart	12 MAY 05				
WIDD AD 2-12/chart	12 MAY 05				
WIDN AD 2-1	5 MAR 15				
WIDN AD 2-3	15 DEC 11				
WIDN AD 2-5/chart	15 DEC 11				
WIDN AD 2-6/chart	15 DEC 11				
WIDN AD 2-7/chart	15 DEC 11				
WIDN AD 2-8/chart	15 DEC 11				
WIDN AD 2-9/chart	15 DEC 11				
WIDN AD 2-10/chart	15 DEC 11				
WIDN AD 2-11/chart	15 DEC 11				
WIDN AD 2-12/chart	15 DEC 11				

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>
World Aeronautical Chart ICAO (WAC)	1:1 000 000	WAC 2860		In AIP	15 JUL 99
Enroute Chart ICAO (ENRC)		ENR 6-1		In AIP	30 APR 15
Instrument Approach Chart ICAO (IAC)	1:400 000	Singapore Changi RWY 02L - ICW ILS/DME	WSSS AD 2-101	In AIP	5 MAR 15
	1:400 000	RWY 02C - ICE ILS/DME	WSSS AD 2-103	In AIP	5 MAR 15
	1:400 000	RWY 02C - VTK DVOR/DME	WSSS AD 2-105	In AIP	5 MAR 15
	1:400 000	RWY 02R - ICX ILS/DME	WSSS AD 2-107	In AIP	5 MAR 15
	1:400 000	RWY 20R - ICH ILS/DME	WSSS AD 2-109	In AIP	5 MAR 15
	1:400 000	RWY 20C - ICC ILS/DME	WSSS AD 2-111	In AIP	5 MAR 15
	1:400 000	RWY 20C - VTK DVOR/DME	WSSS AD 2-113	In AIP	5 MAR 15
	1:400 000	RWY 20L - ICZ ILS/DME	WSSS AD 2-115	In AIP	5 MAR 15
	1:400 000	RWY 02L - RNAV(GNSS)	WSSS AD 2-117	In AIP	5 MAR 15
	1:400 000	RWY 20R - RNAV(GNSS)	WSSS AD 2-119	In AIP	5 MAR 15
	1:400 000	RWY 20C - RNAV(GNSS)	WSSS AD 2-120	In AIP	5 MAR 15
	1:400 000	Paya Lebar RWY 20 - PU DVOR/DME	WSAP AD 2-17	In AIP	5 MAR 15
	1:400 000	RWY 02 - PU DVOR/DME	WSAP AD 2-19	In AIP	5 MAR 15
	1:400 000	RWY 20 - IPS ILS/DME	WSAP AD 2-21	In AIP	5 MAR 15
	1:400 000	RWY 02 - IPN ILS/DME	WSAP AD 2-23	In AIP	5 MAR 15
Visual Approach Chart ICAO (VAC)	1:400 000	Singapore Changi	WSSS AD 2-121	In AIP	5 MAR 15
	1:100 000	Seletar RWY 03	WSSL AD 2-21	In AIP	5 MAR 15
	1:100 000	RWY 21	WSSL AD 2-23	In AIP	5 MAR 15
	1:100 000	RWY 03	WSSL AD 2-25	In AIP	5 MAR 15
	1:100 000	RWY 21	WSSL AD 2-27	In AIP	5 MAR 15
Visual Departure Chart	1:100 000	Seletar RWY 03	WSSL AD 2-29	In AIP	5 MAR 15
	1:100 000	RWY 21	WSSL AD 2-31	In AIP	5 MAR 15
Aerodrome Chart ICAO (AC)		Singapore Changi	WSSS AD 2-31	In AIP	30 APR 15
		Seletar	WSSL AD 2-13	In AIP	30 APR 15
		Paya Lebar	WSAP AD 2-11	In AIP	5 MAR 15
Aerodrome Obstacle Chart ICAO TYPE A (AOC)	1:10 000	Singapore Changi RWY 20R/02L	WSSS AD 2-37	In AIP	5 MAR 15
	1:10 000	RWY 20C/02C	WSSS AD 2-39	In AIP	5 MAR 15
	1:10 000	Seletar RWY 03/21	WSSL AD 2-17	In AIP	5 MAR 15
	1:20 000	Paya Lebar RWY 20/02	WSAP AD 2-15	In AIP	5 MAR 15
Aerodrome Obstacle Chart ICAO TYPE B (AOC)	1:25 000	Singapore Changi RWY 02L/20R and 02C/20C	WSSS AD 2-41	In AIP	5 MAR 15
	1:12 500	Seletar RWY 03/21	WSSL AD 2-19	In AIP	30 APR 15
Precision Approach Terrain Chart - ICAO (PATC)	1:2 500	Singapore Changi RWY 02L	WSSS AD 2-43	In AIP	25 APR 96
	1:2 500	RWY 02C	WSSS AD 2-45	In AIP	25 APR 96

GEN 3.2.6 INDEX TO THE WORLD AERONAUTICAL CHART (WAC) - ICAO 1:1 000 000



- 4.8.1.3.4 The phraseology used by ATC to warn pilots of the presence of wind shear of intensity greater than 30 knots is:

“.....(callsign) WIND SHEAR WARNING
SEVERE LOW LEVEL WIND SHEAR OBSERVED IN THE VICINITY OF
CHANGI AIRPORT AT(time)”

- 4.8.1.3.5 The presence of wind shear will also be broadcast in the ATIS for the next half an hour.

4.8.2 SELETAR AERODROME

- 4.8.2.1 Surface wind is measured by cup anemometers and wind vanes at ends of runway. Surface wind report in METAR and SPECI is taken from measurements of cup anemometer and wind vane at RWY 03.

- 4.8.2.2 Wind Shear Observations (Seletar Aerodrome)

- 4.8.2.2.1 ATC will pass to all aircraft taking off or landing for the next $\frac{1}{2}$ hour from the time of report whenever microburst or wind shear of intensity 15 knots or greater is observed/reported.

- 4.8.2.2.2 The phraseology used by ATC to warn pilots of the presence of wind shear of intensity between 15 and 30 knots is:

“.....(callsign) WIND SHEAR WARNING
STRONG LOW LEVEL WIND SHEAR OBSERVED IN THE VICINITY OF
SELETAR AIRPORT AT(time)”

- 4.8.2.2.3 The phraseology used by ATC to warn pilots of the presence of wind shear of intensity greater than 30 knots is:

“.....(callsign) WIND SHEAR WARNING
SEVERE LOW LEVEL WIND SHEAR OBSERVED IN THE VICINITY OF
SELETAR AIRPORT AT(time)”

5. NOTIFICATION REQUIRED FROM OPERATORS

- 5.1 It is the responsibility of the operator or the pilot-in-command to notify the meteorological office of any flight for which meteorological documentation is required (ref. ICAO Annex 3, paragraph 2.3). As much prior notice as possible should be given, and at least one hour notice at Singapore Changi Airport and two hours at Seletar Aerodrome would be required for non-scheduled flights.

6. AIRCRAFT REPORTS REQUIRED FROM OPERATORS

6.1 AIREP

- 6.1.1 Routine aircraft meteorological observations shall be made and the reports transmitted at ATS/MET reporting points listed on page GEN 3.5-6 and as indicated in subsection ENR 3.1 - ATS ROUTES.

- 6.1.2 Special aircraft observations and aircraft observations during climb-out and approach shall be made and the reports transmitted as necessary.

- 6.1.3 Special aircraft observations of pre-eruption volcanic activity, volcanic eruption or volcanic ash cloud shall be recorded on the special Air-Report of Volcanic Activity form which can be downloaded from URL <https://fpl-1.caasaim.gov.sg/>. A copy of the completed Volcanic Activity Report shall be delivered by the operator or a flight crew member, without delay, either personally or by telephone facsimile (TEL: 65425026 or 65429978) to the Meteorological Office, Singapore Changi Airport.

6.2 REPORTING OF LOW LEVEL WIND SHEAR

6.2.1 Pilots encountering wind shear shall report to ATC as soon as possible.

6.2.2 When reporting wind shear on radiotelephony, the information should be transmitted in this order:

- a) Aircraft callsign;
- b) WIND SHEAR report;
- c) Time (of wind shear occurrence);
- d) Position (of wind shear);
- e) Intensity (moderate, strong or severe);
- f) Average height of wind shear layer.

6.2.3 On receipt of a wind shear report from a pilot, ATC will pass it to other aircraft in the vicinity. The following phraseology will be used:

“WIND SHEAR WARNING
ARRIVING (or DEPARTING) (type of aircraft)
REPORTED (moderate, strong, severe)
WIND SHEAR IN APPROACH (or DEPARTURE)
RUNWAY (number) AT (time)
HEIGHT OF WIND SHEAR LAYER (feet)”

6.2.4 The presence of wind shear as reported by a pilot will also be broadcast in the ATIS for the next half an hour unless subsequent reports indicate that wind shear no longer exists.

6.3 AIRCRAFT ATS/MET REPORTING POINTS IN THE SINGAPORE FIR

6.3.1. Aircraft Meteorological Observations shall be made in relation to and transmitted in flight by all aircraft at the following selected Air Traffic Services position reporting points within the Singapore FIR except when:

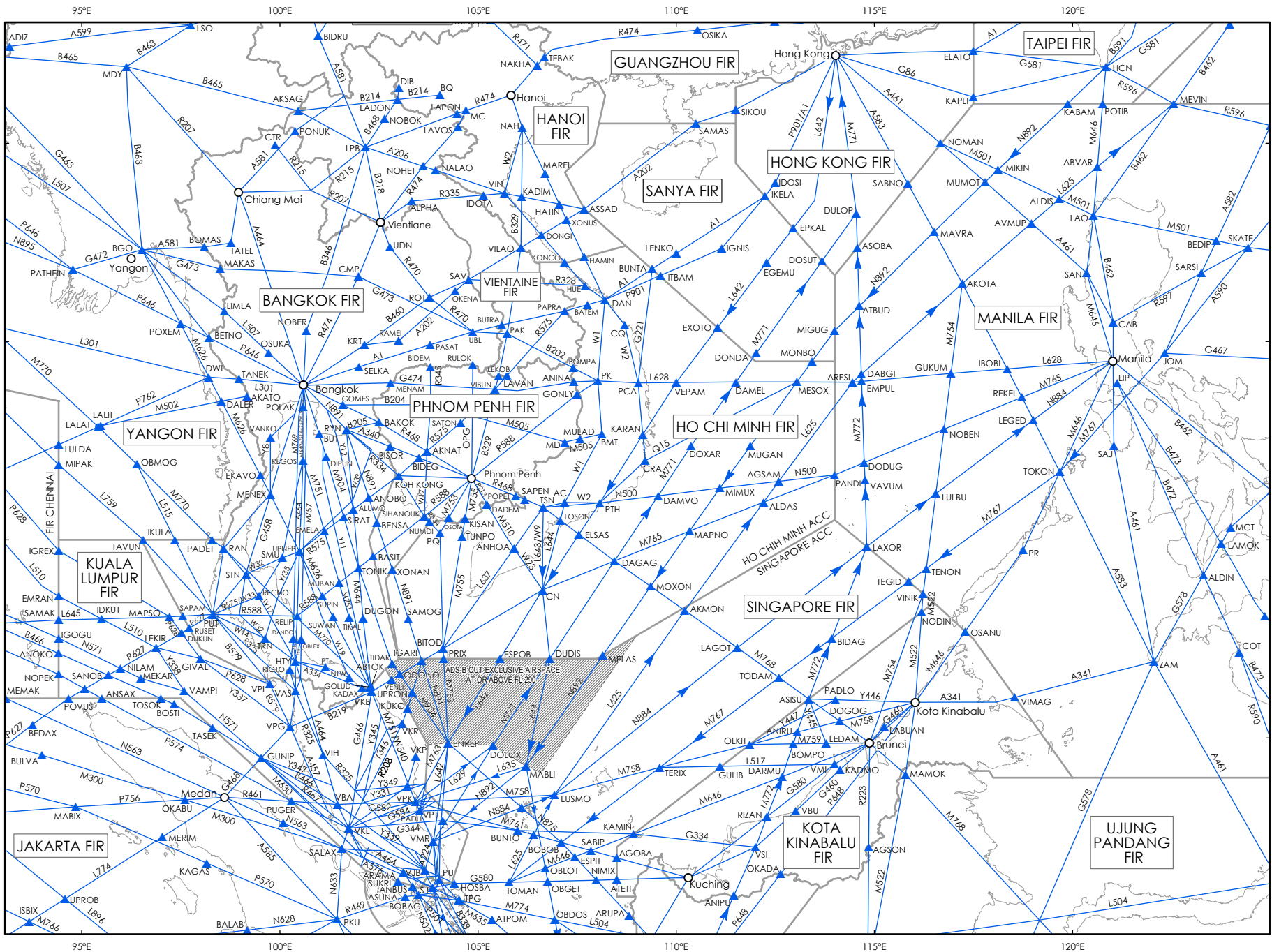
- a) The flight duration is less than 2 hours, or
- b) The altitude of the flight path is less than 5 000ft, or
- c) The aircraft is less than 1 hour's flying time from the next intended point of landing.

6.3.2. The aircraft ATS/MET reporting points listed below are indicated in chart page ENR 3.1-17.

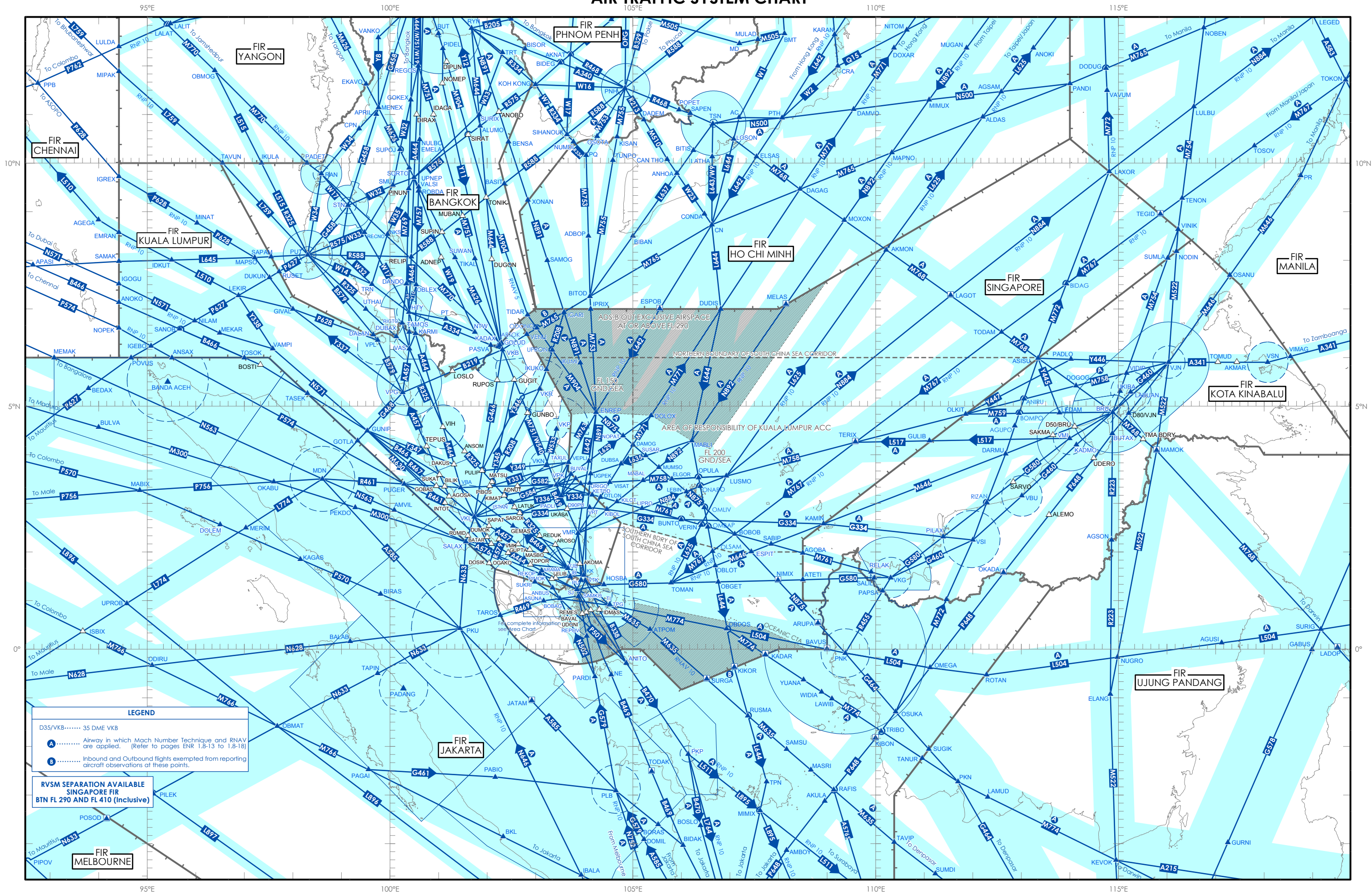
6.3.3. The position of the mean wind or spot wind, to the nearest whole degree latitude and longitude, shall be recorded and transmitted in flight.

ATS ROUTE	AIRCRAFT ATS/MET REPORTING POINTS IN THE SINGAPORE FIR
G580	NIMIX
L642	ESPOB
L644	KIKOR
M635	SURGA
M758/M767	TERIX
M767	TEGID
M768/N884	LAGOT
M774	KADAR
M774/L504	BAVUS
N875	ARUPA
N892	MELAS

ATS ROUTE STRUCTURE WITHIN SINGAPORE & ADJACENT FIRS



AIR TRAFFIC SYSTEM CHART



ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

<i>Name-code Designator</i>	<i>Coordinates</i>	<i>ATS route or Other route</i>
1	2	3
ABVON	012028.18N 1035827.03E	IAC-WSSS
ADNIK	011651.19N 1035655.43E	IAC-WSSS
AGOB	015840N 1083000E	M761
AKIPO	011356.27N 1035541.59E	IAC-WSSS
AKMON	081256N 1101308E	L625, M768
AKOMA	014522N 1035443E	B469, SID-WSSS, IAC-WSSS
ANBUS	011556N 1032102E	P501, STAR-WSSS
ANITO	001700S 1045200E	B338, B470, P501, SID-WSSS
ANUMA	011053.11N 1035424.35E	IAC-WSSS
APIPA	010618.43N 1035228.35E	IAC-WSSS
ARAMA	013654N 1030712E	A464, P501, STAR-WSSS
AROSO	020846N 1032421E	Y339, Y342, SID-WSSS
ARUPA	003140N 1084846E	N875
ASISU	055906N 1132046E	M768, M772
ASUNA	005948N 1030954E	R469, STAR-WSSS
ATETI	012540N 1083000E	G580
ATKAX	000512N 1065946E	SID-WSSS
ATPOM	002425N 1052114E	M635
BATOT	011930.30N 1040003.55E	IAC-WSSS
BAVAL	004518N 1040242E	B469
BAVUS	000000S 1090000E	L504
BEKTA	011551.58N 1035831.21E	IAC-WSSS
BELAT	011256.77N 1035717.42E	IAC-WSSS
BETBA	013302N 1035331E	STAR-WSSS
BIDAG	073101N 1135544E	M772
BIDUS	013554.05N 1035754.86E	IAC-WSSS, STAR-WSSS
BIGMO	011129.09N 1035640.41E	IAC-WSSS
BIKTA	024337N 1034308E	STAR-WSSS
BIPAL	013308N 1040353E	STAR-WSSS
BIPOP	013122N 1041018E	IAC-WSSS, STAR-WSSS
BITEP	010519.01N 1035404.21E	IAC-WSSS
BOBAG	010230N 1032954E	M630, N502, P501, R469, HLDG ID, SID-WSSS, STAR-WSSS
BOBOB	022206N 1070558E	N875, M761, M767
BOKIP	010421N 1034353E	SID-WSSS, STAR-WSSS
BONSU	011928N 1033710E	A576
BUNTO	024008N 1055953E	G334, G584
BUVAL	033622N 1034341E	L629, Y333
DAMOG	041225N 1050014E	M771, N875
DOBLU	010347N 1041315E	SID-WSSS
DOKTA	012606N 1041040E	SID-WSSS
DOLOX	044841N 1052247E	L629, M771
DOSNO	004757N 1041409E	SID-WSSS
DOVAN	011938N 1041249E	STAR-WSSS
DOVOL	033047N 1034923E	L635, Y334

ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS		
<i>Name-code Designator</i>	<i>Coordinates</i>	<i>ATS route or Other route</i>
1	2	3
DUBSA	034901N 1044540E	L635, M771
DUDIS	070000N 1064834E	L644, M771
DUNAL	010138N 1035808E	SID-WSSS
EGOLO	031934N 1040047E	L642
EGORA	013621.37N 1040607.23E	IAC-WSSS
ELALU	013439.87N 1040524.21E	IAC-WSSS
ELBEB	012844.66N 1040254.38E	IAC-WSSS
ELBEX	013148.96N 1040314.18E	IAC-WSSS
ELGAP	012820.28N 1040146.15E	IAC-WSSS
ELGOR	033014N 1054818E	M758, N875
ELMIN	012549.68N 1040140.51E	IAC-WSSS
EMTAP	011655.88N 1035657.47E	IAC-WSSS
ENLES	010931.51N 1035349.83E	IAC-WSSS
ENREP	045223N 1041442E	L642, M753, M763, N875, N891
ENSUN	012602.56N 1040048.10E	IAC-WSSS
ERVOT	011120.09N 1035435.85E	IAC-WSSS
ESBIT	012212.07N 1040008.64E	IAC-WSSS
ESLUX	011844.31N 1035840.44E	IAC-WSSS
ESPIT	020011N 1072624E	M646, N875
ESPOB	070000N 1053317E	L642
EXOMO	010425.49N 1040933.17E	IAC-WSSS
HOSBA	011948N 1042418E	G580, W401, HLDG ID
IBULA	005036N 1043600E	STAR-WSSS
IDMAS	004900N 1041848E	B338
IDSEL	032432N 1035544E	M758, Y335
IDUNA	012305.80N 1035933.58E	IAC-WSSS
IDURO	012639.84N 1040103.94E	IAC-WSSS
IDVAS	012934.66N 1040217.75E	IAC-WSSS
IGARI	065610N 1033506E	M765, N891, R208
IGNON	010847N 1041257E	STAR-WSSS
IGULA	013232.27N 1040332.66E	IAC-WSSS
IKAGO	003816N 1052931E	STAR-WSSS
IKIMA	004314N 1045500E	HLDG ID, STAR-WSSS
IKUKO	054512N 1031324E	R208
IKUMI	055338N 1035509E	N891
IPNAK	013711.93N 1040530.83E	IAC-WSSS
IPRIX	070000N 1040755E	M753
KADAR	000647S 1074342E	M774
KAUSA	011702.58N 1035757.92E	IAC-WSSS
KAMIN	023442N 1085536E	G334, M646
KARTO	011124N 1053343E	HLDG ID, SID-WSSS, STAR-WSSS
KASPO	011507.15N 1035709.20E	IAC-WSSS
KETOD	031044N 1040943E	M761, Y336
KEXAS	011019N 1044818E	SID-WSSS, STAR-WSSS
KIBOL	025229N 1042805E	G334, N892
KIKOR	002244S 1070524E	L644
KILOT	030217N 1044023E	M761, N892, STAR-WSSS

ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

<i>Name-code Designator</i>	<i>Coordinates</i>	<i>ATS route or Other route</i>
1	2	3
KIMER	011105.74N 1035527.30E	IAC-WSSS
LAGOT	071632N 1113243E	M768, N884
LAGUS	011915.29N 1035854.00E	IAC-WSSS
LAPOL	012622N 1034435E	G579
LASIN	011538.25N 1035722.39E	IAC-WSSS
LAVAX	010950N 1042714E	HLDG ID, SID-WSSS, STAR-WSSS
LAXOR	094937N 1144829E	M772, N884
LEBIN	031438N 1060604E	N875, N884
LEGOL	012053N 1034723E	G579
LELIB	012729N 1032450E	A464, W401, SID-WSSS, STAR-WSSS
LELON	011243.51N 1035608.62E	IAC-WSSS
LEND A	024124N 1043932E	N884
LEPNA	010648.29N 1035338.82E	IAC-WSSS
LIDVA	010505.67N 1035255.38E	IAC-WSSS
LIPRO	025342N 1051128E	M761, N884
LUSMO	033341N 1065534E	L625, M758, N884
LUXOL	011802.73N 1035823.38E	IAC-WSSS
MABAL	032826N 1051236E	M758, N892, HLDG ID, STAR-WSSS
MABLI	041717N 1061247E	L635, L644, N892
MAKUM	012148.20N 1040101.76E	IAC-WSSS
MANIM	031431N 1040553E	N891
MASBO	020248N 1025251E	A457, SID-WSSS
MASNI	012037N 1033746E	A464
MELAS	070520N 1080911E	N892
MEMUS	012526.97N 1040234.12E	IAC-WSSS
MESOG	020103N 1031240E	B466
MILIN	012821.75N 1040347.92E	IAC-WSSS
MOLRO	012949.16N 1040424.82E	IAC-WSSS
MOSTU	013559.47N 1040701.19E	IAC-WSSS
MUMSO	034420N 1053213E	N875, N892
NIMIX	012452N 1075926E	G580, N875
NITAD	013257N 1040154E	SID-WSSS
NIVAM	023650N 1040228E	G219
NODIN	081100N 1161142E	M522
NOPAT	042313N 1044756E	L629, N875
NYLON	013656.9N 1040623.8E	HLDG ID, IAC-WSSS, SID-WSSS, STAR-WSSS
OBDA B	031153N 1040538E	N891
OBDO S	002503N 1065551E	L504, M774
OBGET	012307N 1064531E	G580, L644
OBLOT	014256N 1064147E	L644, M646
ODONO	063613.82N 1030129.41E	M904
OLKIT	045010N 1115118E	M758, M759
OLSAM	020059N 1063824E	L644
OMBAP	023116N 1063242E	L644
OMLIV	025512N 1062812E	L644
ONAPO	032116N 1062318E	L644

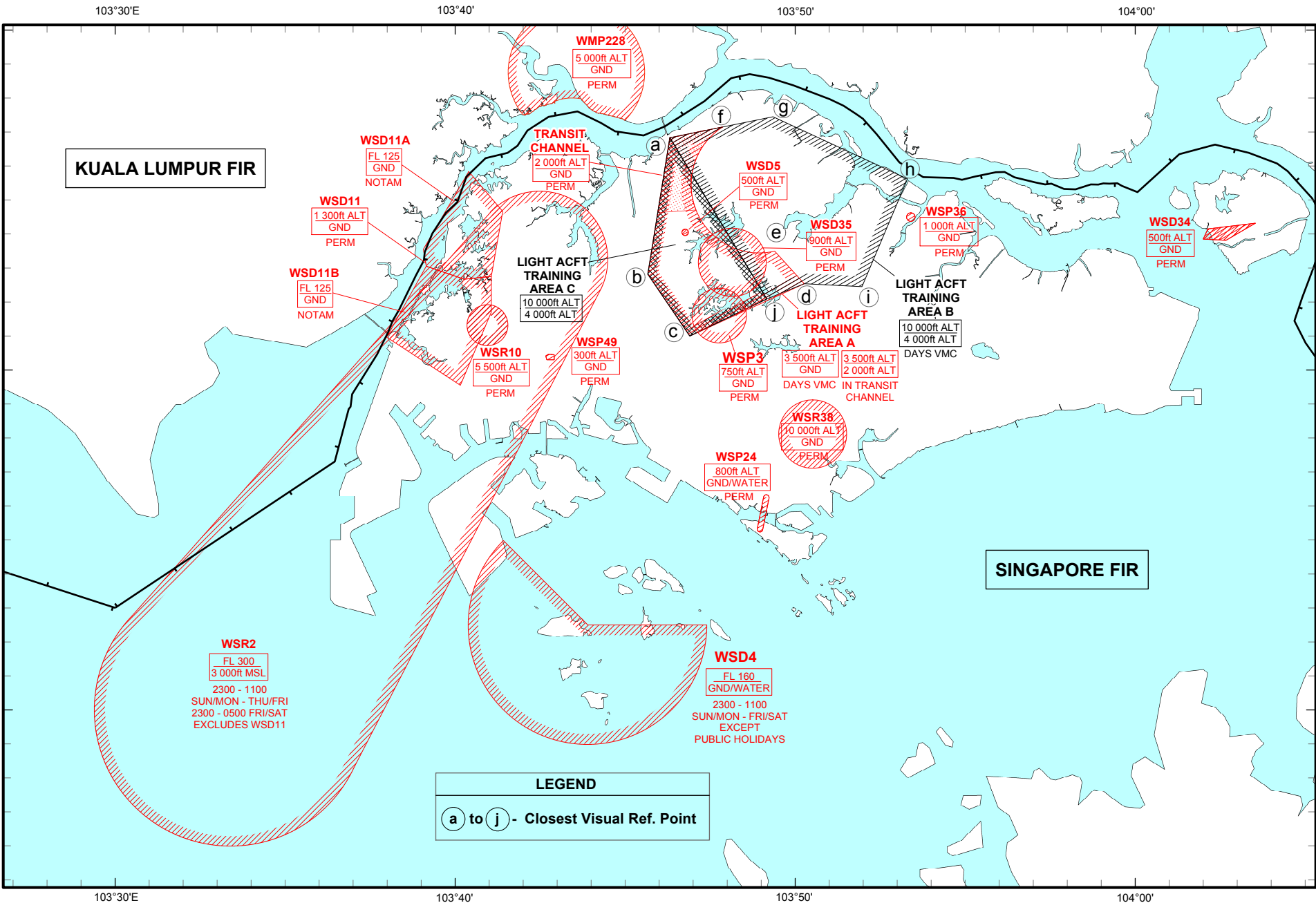
ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS		
Name-code Designator	Coordinates	ATS route or Other route
1	2	3
OPULA	033155N 1062118E	L644
OTLON	030752N 1042006E	M761, M771
PADLI	030918N 1033133E	B469, Y332, Y333, Y334, Y335, Y336
PALGA	011059N 1034759E	STAR-WSSS
PAMSI	010459N 1034845E	STAR-WSSS
PARDI	003400S 1041300E	G579, N502
PASPU	015915N 1040618E	SID-WSSS, STAR-WSSS
PEKLA	023437N 1040618E	N892
PIBAP	023023N 1040618E	SID-WSSS, STAR-WSSS
PIMOK	012648N 1032008E	A576, W401, SID-WSSS, STAR-WSSS
POSUB	012725N 1040748E	SID-WSSS, STAR-WSSS
RAXIM	030318N 1041713E	M771
REDUK	021957N 1030459E	R325
REKOP	013306N 1030521E	A576, STAR-WSSS
REMES	004342N 1035735E	G579, HLDG ID, STAR-WSSS
REPOV	001623N 1040300E	HLDG ID, STAR-WSSS
ROBMO	025440N 1035700E	L642
RUTOT	011453N 1041948E	SID-WSSS, STAR-WSSS
SABIP	020940N 1075044E	M646, M761
SABUG	011554N 1040312E	SID-WSSS
SADET	011006N 1035409E	STAR-WSSS
SAMKO	010529.5N 1035254.9E	R469, W407, HLDG ID, SID-WSSS, STAR-WSSS
SANAT	010749N 1035930E	SID-WSSS, STAR-WSSS
SUDPO	011731N 1035808E	SID-WSSS
SUKRI	012306N 1025904E	M630
SUMLA	080242N 1160054E	M754
SUNVA	011756N 1035722E	SID-WSSS
SURGA	003657S 1063119E	M635
SUSAR	035848N 1051547E	L635, N875
SUSIN	011229N 1035808E	SID-WSSS
TAROS	004200N 1021607E	R469
TAXUL	035035N 1034037E	M763, Y332
TEGID	085656N 1155143E	M767
TERIX	041521N 1093456E	M758, M767
TIDAR	065230.15N 1024959.82E	M904
TODAM	063138N 1123536E	M767, M768
TOKIM	012933N 1040315E	SID-WSSS
TOMAN	012147N 1054717E	G580, L625, M646, M767, SID-WSSS, STAR-WSSS
TOPOM	012955N 1040227E	SID-WSSS
TOPOR	014412N 1025330E	W534
UDONI	004818N 1040806E	B470
UGPEK	033647N 1040752E	L635, N891
UKASA	025245N 1033901E	G334/B469
UPRON	060903N 1032040E	M904
URIGO	032505N 1040647E	M758, N891
VABRI	013114.96N 1040357.78E	IAC-WSSS

[illegible]

ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS		
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
PROHIBITED AREAS		
WSP3 A circle, 0.8NM radius centred at 012136N 1034746E.	<u>750ft</u> GND	Active: Permanent. Under no circumstances shall a forced landing be permitted within the area. Rotary wing aircraft shall avoid overflying the area.
WSP24 Area within two circles, 150m radius, centred at Mt. Faber (011615N 1034909E) and Sentosa Island (011519N 1034858E) and the tangential lines joining these circles.	<u>800ft ALT</u> GND/WATER	Active: Permanent.
WSP36 A circle, 231.5m radius, centred at 012430N 1035324E.	<u>1 000ft ALT</u> GND	Active: Permanent.
WSP49 012025N 1034236E 012028N 1034239E 012027N 1034249E 012018N 1034249E 012018N 1034236E.	<u>300ft ALT</u> GND	Active: Permanent.
WMP228 Bukit Serene Area within 2NM centred at 012845N 1034334E with the southern border of the Prohibited Area coinciding with the coastline of South Johor.	<u>5 000ft ALT</u> GND	Sultan's Palace. Active: Permanent. (refer to AIP Malaysia)
RESTRICTED AREAS		
WSR2 Tengah Corridor Area within two circles, 2NM radius, centred at Tengah and 4NM radius, centred at 011000N 1033324E and the tangents joining these circles but excluding WSD11 (Pasir Laba Range) when notified as active.	<u>FL 300</u> 3 000ft MSL	Jet Let-Down Sector. Active: BTN 2300-1100 SUN-MON to THU-FRI and BTN 2300-0500 FRI-SAT. Controlling Authority : Tengah APP on 130.0 or 263.4 MHz DRG AD OPR HR and SATCC (RSAF element) on 123.4 MHz and 288.2MHz after AD OPR HR.
WSR10 A circle, 0.6nm radius, centred at 012119N 1034057E.	<u>5 500ft ALT</u> GND	Active: Permanent.
WSR31 012000N 1041400E 012000N 1042000E 013000N 1042300E 013000N 1044000E 011800N 1044000E 011500N 1042000E.	<u>10 000ft ALT</u> 3 500ft MSL	Training Area. Active daily during daylight hours in VMC only when radar unit in operations.
WSR38 A circle, 1NM radius centred at 011807N 1035031E.	<u>10 000ft ALT</u> 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.
WMR104 032859N 1030254E 023959N 1023454E 022300N 1025954E 022300N 1034554E 032059N 1032054E 031859N 1031554E 032559N 1031254E 032859N 1030254E.	<u>10 000ft ALT</u> 3 000ft ALT	Training. Active: 2230-1030 SUN-MON to FRI-SAT (refer to AIP Malaysia)

ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS		
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
RESTRICTED AREAS		
WMR223 Kangar Kahang A circle, 5NM radius, centred at 021500N 1033354E.	<u>10 000ft ALT</u> GND	Parachute Dropping. Active: by NOTAM. Controlling Authority: Kluang Tower 128.3MHz / 122.4MHz. (refer to AIP Malaysia)
WMR225 North-Kluang An arc of a circle, radius 20NM, centred at 020230N 1031824E (Kluang Control Tower) from 020000N 1025839E to 021830N 1032954E; then an arc of a circle, radius 6NM, centred at 020230N 1031824E (Kluang Control Tower) from 020200N 1031224E to 020730N 1032154E; then straight lines joining 020000N 1025839E to 020200N 1031224E and 021830N 1032954E to 020730N 1032224E.	<u>3 500ft ALT</u> GND	Army Airwing Helicopter Training Area. Active: 2330-1030 SUN-MON TO WED-THU; 2330-0500 THU-FRI; 0600-1030 FRI; and 2330-0430 FRI-SAT; SUN and PH closed. Controlling Authority: Kluang Tower 128.3MHz and 122.4MHz.
WMR226 West-Kluang An arc of a circle, radius 20NM, centred at 020230N 1031824E (Kluang Control Tower) from 020000N 1025839E to 014630N 1030554E; then an arc of a circle, radius 6NM, centred at 020230N 1031824E (Kluang Control Tower) from 020200N 1031224E to 015650N 1031709E.	<u>2 000ft ALT</u> GND	PPR for all non-Malaysian Army aircraft. During hours of operations, request through Kluang Army Airwing Operations (48 hours prior notice). No refuelling for civil aircraft. (refer to AIP Malaysia)
WMR229 A circle, 1NM radius, centred at 013730N 1034952E.	<u>1 500ft ALT</u> GND	Helicopter Operations. Active: 0100-0830 MON-FRI. Visiting military aircraft are required to give advance notice of movements to Jungle Warfare School. (refer to AIP Malaysia)
DANGER AREAS		
WSD4 Southern Islands Live Firing Range An arc, 3.5NM radius, centred at 011230N 1034354E with eastern extremity at 011230N 1034724E and western extremity at 011459N 1034125E.	<u>FL 160</u> GND/WATER	Air to GND and GND to GND Firing Range. Active: 2300-1100 SUN-MON to FRI-SAT except PH. Activity outside these hours will be notified by NOTAM.
WSD5 Mandai Camp A circle, radius 175M, centred at 012403N 1034646E.	<u>500ft ALT</u> GND	Rifle Range. Active: Permanent.

PROHIBITED, RESTRICTED AND DANGER AREAS - CHART 2



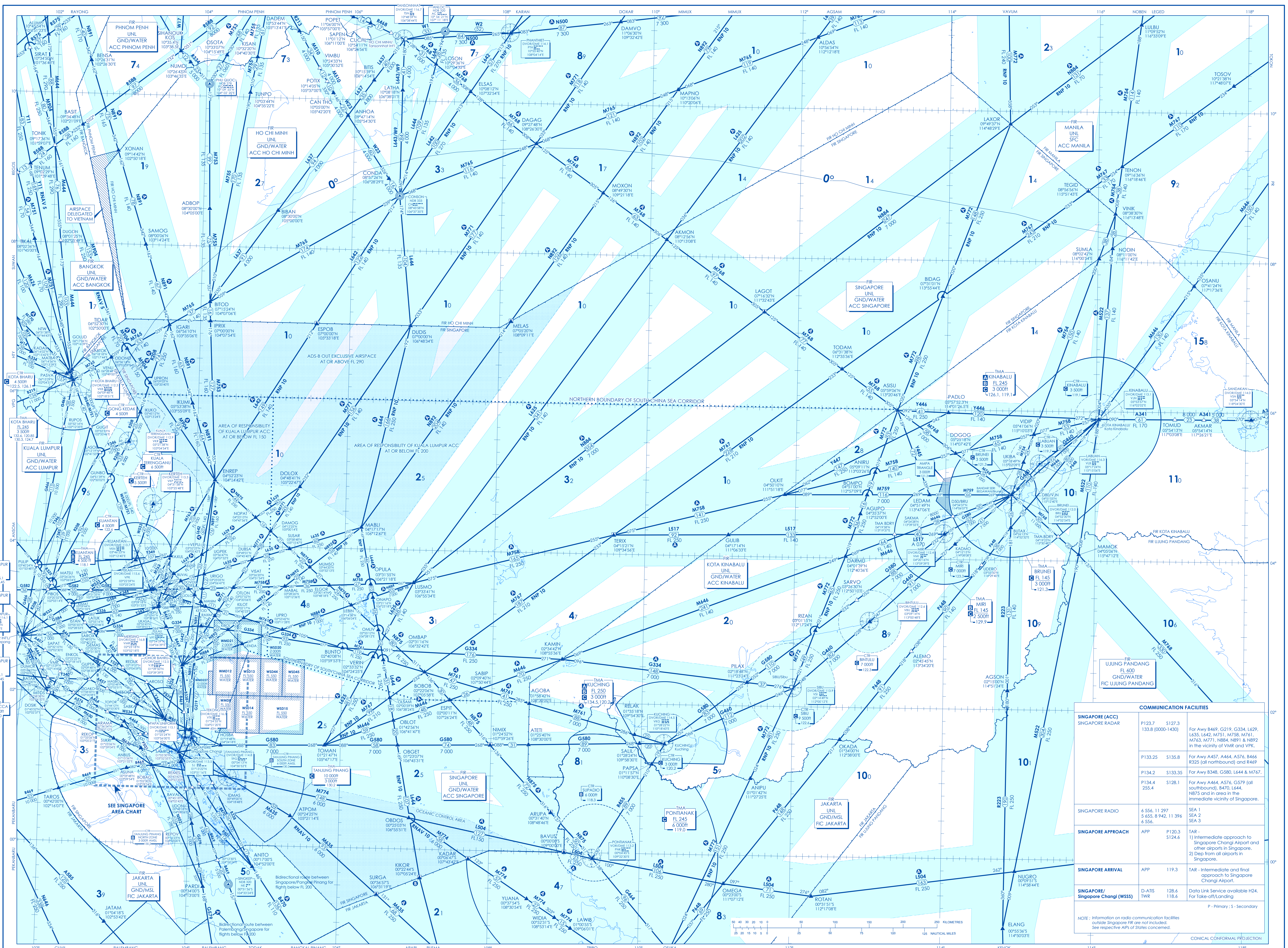
Aerodrome	
Flight Information Region (FIR)	SINGAPORE UNL Upper limit Lower limit Unit providing service
Terminal Control Area (TMA)	TMA KUCHING FL 250 FL 200 FL 150 FL 100 FL 50 FL 0 FL -50 FL -100 FL -150 FL -200 FL -250 FL -300 FL -350 FL -400 FL -450 FL -500 FL -550 FL -600 FL -650 FL -700 FL -750 FL -800 FL -850 FL -900 FL -950 FL -1000 FL -1050 FL -1100 FL -1150 FL -1200 FL -1250 FL -1300 FL -1350 FL -1400 FL -1450 FL -1500 FL -1550 FL -1600 FL -1650 FL -1700 FL -1750 FL -1800 FL -1850 FL -1900 FL -1950 FL -2000 FL -2050 FL -2100 FL -2150 FL -2200 FL -2250 FL -2300 FL -2350 FL -2400 FL -2450 FL -2500 FL -2550 FL -2600 FL -2650 FL -2700 FL -2750 FL -2800 FL -2850 FL -2900 FL -2950 FL -3000 FL -3050 FL -3100 FL -3150 FL -3200 FL -3250 FL -3300 FL -3350 FL -3400 FL -3450 FL -3500 FL -3550 FL -3600 FL -3650 FL -3700 FL -3750 FL -3800 FL -3850 FL -3900 FL -3950 FL -4000 FL -4050 FL -4100 FL -4150 FL -4200 FL -4250 FL -4300 FL -4350 FL -4400 FL -4450 FL -4500 FL -4550 FL -4600 FL -4650 FL -4700 FL -4750 FL -4800 FL -4850 FL -4900 FL -4950 FL -5000 FL -5050 FL -5100 FL -5150 FL -5200 FL -5250 FL -5300 FL -5350 FL -5400 FL -5450 FL -5500 FL -5550 FL -5600 FL -5650 FL -5700 FL -5750 FL -5800 FL -5850 FL -5900 FL -5950 FL -6000 FL -6050 FL -6100 FL -6150 FL -6200 FL -6250 FL -6300 FL -6350 FL -6400 FL -6450 FL -6500 FL -6550 FL -6600 FL -6650 FL -6700 FL -6750 FL -6800 FL -6850 FL -6900 FL -6950 FL -7000 FL -7050 FL -7100 FL -7150 FL -7200 FL -7250 FL -7300 FL -7350 FL -7400 FL -7450 FL -7500 FL -7550 FL -7600 FL -7650 FL -7700 FL -7750 FL -7800 FL -7850 FL -7900 FL -7950 FL -8000 FL -8050 FL -8100 FL -8150 FL -8200 FL -8250 FL -8300 FL -8350 FL -8400 FL -8450 FL -8500 FL -8550 FL -8600 FL -8650 FL -8700 FL -8750 FL -8800 FL -8850 FL -8900 FL -8950 FL -9000 FL -9050 FL -9100 FL -9150 FL -9200 FL -9250 FL -9300 FL -9350 FL -9400 FL -9450 FL -9500 FL -9550 FL -9600 FL -9650 FL -9700 FL -9750 FL -9800 FL -9850 FL -9900 FL -9950 FL -10000 FL -10050 FL -10100 FL -10150 FL -10200 FL -10250 FL -10300 FL -10350 FL -10400 FL -10450 FL -10500 FL -10550 FL -10600 FL -10650 FL -10700 FL -10750 FL -10800 FL -10850 FL -10900 FL -10950 FL -11000 FL -11050 FL -11100 FL -11150 FL -11200 FL -11250 FL -11300 FL -11350 FL -11400 FL -11450 FL -11500 FL -11550 FL -11600 FL -11650 FL -11700 FL -11750 FL -11800 FL -11850 FL -11900 FL -11950 FL -12000 FL -12050 FL -12100 FL -12150 FL -12200 FL -12250 FL -12300 FL -12350 FL -12400 FL -12450 FL -12500 FL -12550 FL -12600 FL -12650 FL -12700 FL -12750 FL -12800 FL -12850 FL -12900 FL -12950 FL -13000 FL -13050 FL -13100 FL -13150 FL -13200 FL -13250 FL -13300 FL -13350 FL -13400 FL -13450 FL -13500 FL -13550 FL -13600 FL -13650 FL -13700 FL -13750 FL -13800 FL -13850 FL -13900 FL -13950 FL -14000 FL -14050 FL -14100 FL -14150 FL -14200 FL -14250 FL -14300 FL -14350 FL -14400 FL -14450 FL -14500 FL -14550 FL -14600 FL -14650 FL -14700 FL -14750 FL -14800 FL -14850 FL -14900 FL -14950 FL -15000 FL -15050 FL -15100 FL -15150 FL -15200 FL -15250 FL -15300 FL -15350 FL -15400 FL -15450 FL -15500 FL -15550 FL -15600 FL -15650 FL -15700 FL -15750 FL -15800 FL -15850 FL -15900 FL -15950 FL -16000 FL -16050 FL -16100 FL -16150 FL -16200 FL -16250 FL -16300 FL -16350 FL -16400 FL -16450 FL -16500 FL -16550 FL -16600 FL -16650 FL -16700 FL -16750 FL -16800 FL -16850 FL -16900 FL -16950 FL -17000 FL -17050 FL -17100 FL -17150 FL -17200 FL -17250 FL -17300 FL -17350 FL -17400 FL -17450 FL -17500 FL -17550 FL -17600 FL -17650 FL -17700 FL -17750 FL -17800 FL -17850 FL -17900 FL -17950 FL -18000 FL -18050 FL -18100 FL -18150 FL -18200 FL -18250 FL -18300 FL -18350 FL -18400 FL -18450 FL -18500 FL -18550 FL -18600 FL -18650 FL -18700 FL -18750 FL -18800 FL -18850 FL -18900 FL -18950 FL -19000 FL -19050 FL -19100 FL -19150 FL -19200 FL -19250 FL -19300 FL -19350 FL -19400 FL -19450 FL -19500 FL -19550 FL -19600 FL -19650 FL -19700 FL -19750 FL -19800 FL -19850 FL -19900 FL -19950 FL -20000 FL -20050 FL -20100 FL -20150 FL -20200 FL -20250 FL -20300 FL -20350 FL -20400 FL -20450 FL -20500 FL -20550 FL -20600 FL -20650 FL -20700 FL -20750 FL -20800 FL -20850 FL -20900 FL -20950 FL -21000 FL -21050 FL -21100 FL -21150 FL -21200 FL -21250 FL -21300 FL -21350 FL -21400 FL -21450 FL -21500 FL -21550 FL -21600 FL -21650 FL -21700 FL -21750 FL -21800 FL -21850 FL -21900 FL -21950 FL -22000 FL -22050 FL -22100 FL -22150 FL -22200 FL -22250 FL -22300 FL -22350 FL -22400 FL -22450 FL -22500 FL -22550 FL -22600 FL -22650 FL -22700 FL -22750 FL -

**RVSM SEPARATION AVAILABLE
SINGAPORE FIR
BTN FL 290 AND FL 410 (Inclusive)**

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

CAUTION
Consult respective NOTAMS and AIPs of States concerned for the latest information and the Civil Aviation Authority of Singapore does not accept responsibility for any errors or omissions in the information shown outside of Singapore FIR

MAGNETIC INFORMATION FOR THE YEAR 2015



CHANGES : ATS routes W14 and W19 added

AD 2 AERODROMES**WSSS AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

WSSS - SINGAPORE/Singapore Changi International

WSSS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	012133.16N 1035921.57E (Control Tower)
2	Direction and distance from (city)	061°, 17.2km from City Centre (The Fullerton, Singapore)
3	Elevation/Reference temperature	6.66m (21.85ft) / 32.6°C
4	Geoid Undulation (AD elevation position)	10.29m
5	MAG VAR /Annual change	26°E (2015) / negligible
6	AD Administration, address, telephone, telefax, AFS	
	<u>RWY 02L/20R and RWY 02C/20C</u> Changi Airport Group (Singapore) Pte Ltd Singapore Changi Airport P.O.Box 168, Singapore 918146 Tel: (65)65956868 or (65)65423223 AFS: WSSSYAYX	<u>RWY 02R/20L</u> Republic of Singapore Air Force Headquarters, Changi Air Base 508A, Cranwell Road Singapore 509863 Tel: (65) 65864033 (Base Operations)
7	Types of traffic permitted	IFR
8	Remarks	
	a) Scheduled closure periods for RWY 02L/20R and RWY 02C/20C: see AIP page WSSS AD 2-12. b) Not avbl to all non-scheduled civil acft types of 40-seater or below except in special circumstances. Acft larger than the above category shall not plan their arrival between 0900-1559UTC. c) Aircraft shall leave nose-in position (90 degrees) with the aid of aircraft tow tractors. Reverse thrust or variable pitch propellers shall not be used. Aircraft operators shall make suitable arrangements. d) PPR for aircraft not equipped with RTF. e) A subsonic jet aircraft, unless otherwise exempted, is not permitted to operate in Singapore unless it possesses a noise certificate stating that it meets the noise standards of ICAO Annex 16, Volume 1, Chapter 3, or equivalent. The noise certificate may also take the form of a suitable statement contained in another document approved by the State of Registry of the aircraft. f) Direct transit area: Overnight transit in Singapore City, TEL: (65)65956868 or (65)65423223 g) RWY 02R/20L is solely for use by Republic of Singapore Air Force (RSAF) aircraft. h) RVR minima for CAT II ILS operations is limited to 350m due to runway and taxiway light spacing requirements on the airfield. i) Frangible poles are installed for the purpose of identifying 90m away from the centreline of RWY 02L/20R and RWY 02C/20C.	

WSSS AD 2.3 OPERATIONAL HOURS

1	<i>Aerodrome Administration:</i>						
	RWY 02L/20R and RWY 02C/20C		H24				
	RWY 02R/20L		2300-1100 SUN/MON to THU/FRI. Prior permission required from RSAF Headquarters via Changi Operations outside these hours and on public holidays.				
2	<i>Customs and Immigration</i>		H24		5	<i>ATS Reporting Office</i>	H24
3	<i>Health and Sanitation</i>		H24		6	<i>MET Briefing Office</i>	H24
4	<i>AIS Briefing Office</i>		H24		7	<i>Air Traffic Services</i>	H24

WSSS AD 2.4 HANDLING SERVICES AND FACILITIES

1	<i>Cargo Handling Facilities</i>	Cargo terminals equipped with advanced storage stacker, material and pallet container handling systems, computerised cargo information, data and documentation systems. Forklift (10 tonnes), Aircraft Main Deck Loaders (27 tonnes), trailers (e.g. 20-40 containers) on hire from hauliers.
2	<i>Fuel / Oil Types</i>	JET A1 (for jet aircraft), Engine Oil - 2380, MJ02, 750, ET025. Lubricating Oil - Aeroshell 390, 750. Hydraulic Oil - Skydrol LD4, 500B4, 500B, Hyjet IV
3	<i>Fuelling Facilities / Capacity</i>	No limitation. H24 service.
4	<i>Hangar space for visiting aircraft</i>	By arrangement with SIA Engineering Company (SIAEC) or ST Aerospace Services Co. Maintenance hangars with multiple aircraft stands to accommodate up to A380 size aircraft.
5	<i>Repair facilities for visiting aircraft</i>	Major and minor maintenance and repairs for commercial aircraft up to and including A380, subject to availability of specialised equipment/spares/toolings.
6	<i>Remarks</i>	a) Marshalling Service: No pilot shall taxi an aircraft on its own into a gate/stand without the aid of a docking system or a marshaller. b) Oxygen And Related Servicing: Oxygen for all cabin and aircraft system. No CO2 recharging facilities.

WSSS AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	Rooms available inside transit area, adjacent to airport terminal and in the city but advisable advance booking.
2	<i>Restaurants</i>	Available in both transit and public areas.
3	<i>Transportation</i>	Buses, taxis and MRT train. Car rental service is available from 0700-2300 hrs daily
4	<i>Medical Facilities</i>	Available H24 at Airport Clinic. Ambulance. General Hospitals located at Simei (12km) and City (23km).
5	<i>Banks and Post Offices</i>	Available at airport
6	<i>Tourist Office</i>	Available at airport
7	<i>Remarks</i>	Internet address: http://www.changiairport.com.sg for airport and flight information, shops and restaurants, facilities and services, flight connections and tourist information.

WSSS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES		
1	<i>AD category for fire fighting</i>	CAT 10 (No facilities for foaming of runways) CAT 7 (for RWY 02R/20L)
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO.
3	<i>Capability for removal of disabled aircraft</i>	Four 25-ton (Type G) and two 40-ton (Type F) pneumatic elevators, two 80-ton hydraulic recovery jacks, one set of tethering equipment and other accessory equipment. Capable of handling all wide-bodied aircraft. Provided by SIA at Tel:(65)65416329 or (65)65427116.
4	<i>Remarks</i>	All Airport Emergency Service personnel are trained in rescue and fire-fighting as well as medical first-aid.

WSSS AD 2.7 SEASONAL AVAILABILITY - CLEARING
There is no requirement for clearing. The aerodrome is available throughout the year.

WSSS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA				
1	<i>Apron surface and strength</i>	RWY 02L/20R RWY 02C/20C	<i>Surface:</i>	Concrete
			<i>Strength:</i>	PCN 85/R/B/W/U
		RWY 02R/20L	<i>Surface:</i>	358m x 132m (1175ft x 433ft) of which 280m x 60m (919ft x 197ft) is concrete (parking lots) and the rest is asphalt.
			<i>Strength:</i>	PCN 45/F/B/W/T
2	<i>Taxiway width, surface and strength</i>	RWY 02L/20R RWY 02C/20C	<i>Width:</i>	35m (115ft) Taxiways NC3, EP and WP 25m (82ft) Taxiway EP (from Taxilanes B1 and B3) 23m (75ft) Taxiway SA
			<i>Surface:</i>	30m (100ft) All other Taxiways Cement Concrete - Taxiways W1, W9, E1, E3, E11 and EP (between E10 and E11) Bituminous Concrete - All other Taxiways
			<i>Strength:</i>	PCN 85/R/B/W/U - Taxiways W1, W9, E1, E3, E11 and EP (between E10 and E11) PCN 72/F/B/W/U - All other Taxiways
		RWY 02R/20L	<i>Width:</i>	23m (75.5ft) 50m (164ft) E1 and E6 23m (75.5ft) E2 to E5
			<i>Surface:</i>	Asphalt
			<i>Strength:</i>	PCN 45/F/B/W/T
3	<i>ACL location and elevation</i>	See WSSS AD 2-31/Chart (flip side) for coordinates and elevations of aircraft stands.		
4	<i>INS checkpoints</i>			
5	<i>Remarks</i>	NIL		

WSSS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS	
1	<i>Use of aircraft stand ID signs, TWY guidelines and visual docking/parking guidance system of aircraft stands.</i> Taxiing guidance signs at all intersections with TWY and RWY at all holding positions. Guidelines at apron. Nose-in guidance at aircraft stands. For information on Safegate Aircraft Docking Guidance System, Aircraft Parking Restrictions, Procedures for Start-up and Pushback of Aircraft, Pushback Procedures for Aircraft (Diagrams), Taxiing Guidance System at Singapore Changi Airport, refer to pages WSSS AD 2-5 to WSSS AD 2-9. Fixed yellow lights (aircraft stand manoeuvring guidance lights: ASMGL) are provided along aircraft stands 4 to 9 lead-in markings with one fixed red light near the aircraft nose gear stopping position at the Budget Terminal apron.
2	<i>RWY and TWY markings and LGT</i> <u>RWY 02L/02C and RWY 20C</u> RWY LGT: refer to pages WSSS AD 2-14 and WSSS AD 2-15. TWY LGT: Blue LGT on TWY curved edges, selected straight TWY edge sections and apron TWY edges only. Blue TWY edge markers along selected straight TWY edge sections. Red stop bar at TWY INT controllable on/off. Red stop bar LGT at TWY HLDG PSN entrances to RWY are controllable on/off and are supplemented with elevated RWY guard LGT at the sides. Internally/externally lighted mandatory or information TWY signboards. Yellow TWY centre line markings, supplemented by green centre line LGT with selective control along rapid exit TWY, taxi-routes to and from main RWY and aprons. MARKING AIDS: THR, touchdown zone, centre line, side stripe, RWY designations, aiming point markings, TWY centre line, taxi holding positions - all taxiways, apron guide lines. For positions of aircraft nosewheel in relation to stopbar and description of the Safegate Aircraft Docking Guidance System - see pages WSSS AD 2-5.1 and WSSS AD 2-5.2. <u>RWY 20R</u> RWY LGT: refer to pages WSSS AD 2-14 and WSSS AD 2-15. TWY LGT: same as for RWY 02L/02C and RWY 20C. MARKING AIDS: Pre-threshold centre-line, transverse stripe for displaced THR, RWY designations, THR, touchdown zone, aiming point marking, RWY centre-line and stripe marking aids. <u>RWY 02R/20L</u> RWY LGT: refer to page WSSS AD 2-14. TWY LGT: Elevated and inset blue LGT on TWY edge. STOP BAR LGT: Controllable red stop-bar LGT at TWY accesses leading to RWY 02R/20L and are supplemented with elevated RWY guard LGT at the sides. MARKING AIDS: Pre-threshold, RWY designations, THR, touchdown zone, RWY centreline, side stripe, TWY centreline, taxi holding positions and apron lead-in lines. The yellow hookwire markings on the RWY are painted in accordance with STANAG requirements.
3	<i>Stop Bars: Stop bars where appropriate.</i>
4	<i>Remarks: Nil</i>

WSSS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS**AIRCRAFT PARKING RESTRICTIONS**

1. TERMINAL 1 AIRCRAFT STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	C1	C11	C13	C15	C16	C17	C18	C19	C20	C22	C23	C24	C25	C26
A300	→		→	→	→	→	→					→	→	→
A310	→		→	→	→	→	→		→	→	→	→	→	→
A319	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A320	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A321	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A332	→		→	→		→	→		→	→	→	→	→	→
A333	→		→	→		→	→		→	→	→	→	→	→
A342	→		→	→		→	→		→	→	→	→	→	→
A343	→		→	→		→	→		→	→	→	→	→	→
A345	→		→	→					→	→	→	→	→	→
A346			→									→		→
A380											→		→	→
B707	→		→	→										
B717	→		→	→	→	→	→	→						
B727	→		→						→	→				
B737	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B747	→		→	→					→	→	→	→	→	→
B74S	→		→	→									→	→
B757	→		→	→	→	→	→		→	→	→	→	→	→
B762	→		→	→	→	→	→		→	→	→	→	→	→
B763	→		→	→	→	→	→		→	→	→	→	→	→
B772	→		→	→		→	→		→	→	→	→	→	→
B773	→		→	→					→	→	→	→	→	→
B773ER	→		→	→					→	→	→	→	→	→
B788	→			→		→			→	→	→		→	→
B789									→					
BA146			→											
DC10	→			→		→	→						→	→
DC9			→	→										
F100	→		→	→	→	→	→	→						
IL62	→		→	→	→	→	→						→	→
IL86	→		→	→	→	→	→						→	→
IL96	→		→	→	→	→	→						→	→
L101	→			→		→	→						→	→
MD11	→			→		→	→		→	→	→	→	→	→
MD80	→		→	→	→	→	→	→					→	→
MD82	→		→	→	→	→	→	→					→	→
MD88	→		→	→	→	→	→	→					→	→

2. TERMINAL 1 AIRCRAFT STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	D30	D32	D34	D35	D36	D37	D38	D40	D41	D42	D44	D46	D47	D48	D49
A300		→	→	→	→	→		→	→	→	→	→	→	→	→
A310		→	→	→	→	→		→	→	→	→	→	→	→	→
A319	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A320	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A321	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A332		→	→		→	→		→	→	→	→	→	→	→	→
A333		→	→		→	→		→	→	→	→	→	→	→	→
A342		→	→		→	→		→	→	→	→	→	→	→	→
A343		→	→		→	→		→	→	→	→	→	→	→	→
A345		→	→					→	→	→	→	→	→	→	→
A346		→	→									→			→
A380												→			→
B707		→	→					→	→	→	→				
B717		→	→	→	→	→	→	→	→	→	→	→	→	→	
B727		→	→					→	→	→	→				
B737	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B747		→	→					→	→	→	→	→	→	→	→
B74S		→	→					→	→	→	→	→	→	→	→
B757		→	→	→	→	→		→	→	→	→	→	→	→	→
B762		→	→	→	→	→		→	→	→	→	→	→	→	→
B763		→	→	→	→	→		→	→	→	→	→	→	→	→
B772		→	→		→	→		→	→	→	→	→	→	→	→
B773		→	→						→	→	→				→
B773ER		→	→						→	→	→				→
B788								→	→	→	→	→			→
B789								→	→						
BA146		→	→												
DC10			→		→	→		→	→	→	→	→	→	→	→
DC9		→	→												
F100		→	→	→	→	→	→	→	→	→	→		→	→	
IL62		→	→	→	→	→		→	→	→	→	→	→	→	→
IL86		→	→	→	→	→		→	→	→	→	→	→	→	→
IL96		→	→	→	→	→		→	→	→	→	→	→	→	→
L101			→		→	→		→	→	→	→	→	→	→	→
MD11			→		→	→		→	→	→	→	→	→	→	→
MD80		→	→	→	→	→	→	→	→	→	→	→	→	→	→
MD82		→	→	→	→	→	→	→	→	→	→	→	→	→	→
MD88		→	→	→	→	→	→	→	→	→	→	→	→	→	→
YK42										→					



3. TERMINAL 2 AIRCRAFT STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	E1	E2	E3	E4	E5	E6	E7	E8	E10	E11	E12	E20	E22	E24	E26	E27	E28
A300		→	→	→	→	→		→		→	→	→	→	→	→	→	→
A310	→	→	→	→	→	→	→	→		→	→	→	→	→	→	→	→
A319	→	→	→	→	→	→	→	→	→	→	→	→	→		→	→	→
A320	→	→	→	→	→	→	→	→		→	→	→	→		→	→	→
A321			→		→								→		→	→	→
A332			→	→	→			→		→	→	→	→	→	→	→	→
A333			→	→	→			→		→	→	→	→	→	→	→	→
A342			→	→	→			→		→	→		→	→	→	→	→
A343			→	→	→			→		→	→		→	→	→	→	→
A345			→	→	→			→		→	→		→	→	→	→	→
A346				→	→			→									
A380					→			→		→							
B707															→	→	→
B727	→	→	→	→	→	→		→		→	→	→	→	→	→	→	→
B737	→	→	→	→	→	→	→	→		→	→	→	→		→	→	→
B747			→	→	→			→		→	→	→	→	→	→	→	→
B74S			→	→	→			→		→	→		→	→	→	→	→
B757	→	→	→	→	→	→		→		→	→	→	→	→	→	→	→
B762	→	→	→	→	→	→		→		→	→	→	→	→	→	→	→
B763	→	→	→	→	→	→		→		→	→	→	→	→	→	→	→
B772			→	→	→			→		→	→	→	→	→	→	→	→
B773				→	→	→		→		→	→		→	→	→	→	→
B773ER				→	→			→		→	→		→	→	→	→	→
B788												→	→		→	→	→
B789												→	→		→	→	→
DC10				→	→	→		→		→	→				→	→	→
DC9												→					
F70	→	→	→	→	→	→	→	→	→	→	→	→	→	→			
F100															→	→	→
IL62															→	→	→
IL86															→	→	→
IL96															→	→	→
L101				→	→	→		→		→	→				→	→	→
MD11				→	→	→		→		→	→				→	→	→
MD80															→	→	→
MD82															→	→	→
MD87												→					
MD88															→	→	→

Stands	E24L	E24R
A319, A320, A321, B737	→	→

4. TERMINAL 2 AIRCRAFT STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	F30	F31	F32	F33	F34	F35	F36	F37	F40	F41	F42	F50	F52	F54	F56	F58	F59	F60
A300		→	→		→	→			→	→	→	→	→	→	→	→	→	→
A310		→	→	→	→	→	→		→	→	→	→	→	→	→	→	→	→
A319	→	→	→	→	→	→	→	→	→	→	→	→		→		→		→
A320	→	→	→	→	→	→	→	→	→	→	→	→		→		→		→
A321																		
A332		→			→				→	→	→	→	→	→	→	→	→	→
A333		→			→				→	→	→	→	→	→	→	→	→	→
A342		→			→				→	→	→		→	→	→	→	→	→
A343		→			→				→	→	→		→	→	→	→	→	→
A345		→			→				→	→	→		→	→	→	→	→	→
A346											→							→
A380		→									→							→
B707												→		→			→	→
B727	→	→	→	→	→	→		→	→	→	→	→		→	→	→	→	→
B737	→	→	→	→	→	→	→	→	→	→	→	→		→		→		→
B747		→			→	→			→	→	→	→	→	→	→	→	→	→
B74S		→			→				→	→	→			→	→	→	→	→
B757		→	→	→	→	→			→	→	→	→	→	→	→	→	→	→
B762		→	→		→	→			→	→	→	→	→	→	→	→	→	→
B763		→	→		→	→			→	→	→	→	→	→	→	→	→	→
B772		→		→	→				→	→	→	→	→	→	→	→	→	→
B773										→	→			→	→	→	→	→
B773ER										→	→			→	→	→	→	→
B788		→										→	→	→	→	→	→	→
B789		→										→	→	→	→	→	→	→
DC10					→	→				→	→			→	→	→	→	→
DC8																		
DC9												→		→	→	→		
F70	→	→	→	→	→	→	→	→	→	→	→	→		→	→	→	→	→
L101					→	→				→	→			→	→	→	→	→
MD11					→	→				→	→			→	→	→	→	→
MD87												→		→				

Stands	F52L	F52R	F56L	F56R	F59L	F59R
A319	→	→	→	→	→	→
A320	→	→	→	→	→	→
A321	→	→	→	→	→	→
B737(100-500)	→	→	→	→	→	→
B737(600-900)	→	→	→	→		→

5. TERMINAL 3 AIRCRAFT STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	A1	A2	A3	A4	A5	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21
A300		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
A310		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
A319		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
A320		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
A321		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
A332	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		→
A333	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A343	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A345	→	→	→	→	→		→	→	→	→	→	→	→	→				
A346		→		→	→		→	→	→	→	→							
→ A359		→	→	→	→		→				→	→		→				
A380		→		→	→		→											
B737			→					→	→	→	→		→	→	→	→		
B744	→	→	→	→	→		→	→	→	→	→	→	→	→				
B788		→		→			→									→	→	→
B757		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
B767		→	→	→	→	→	→	→	→	→	→	→	→	→	→	→		
B772	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B773		→		→	→		→	→	→	→	→							
B773ER		→		→	→		→	→	→	→	→							

Stands	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
A300		→	→	→	→	→	→	→	→	→
A310		→	→	→	→	→	→	→	→	→
A319		→	→	→	→	→	→	→	→	→
A320		→	→	→	→	→	→	→	→	→
A321		→	→	→	→	→	→	→	→	→
A332	→	→	→	→	→	→	→	→	→	→
A333	→	→	→	→	→	→	→	→	→	→
A343	→	→	→	→	→	→	→	→	→	→
A345	→	→	→	→	→	→	→	→	→	→
→ A359	→	→	→	→	→	→	→	→	→	→
A346		→		→	→		→			
A380		→		→	→		→			
B707									→	→
B737			→			→				
B744	→	→	→	→	→	→	→	→	→	→
B788								→	→	→
B757		→	→	→	→	→	→	→	→	→
B767		→	→	→	→	→	→	→	→	→
B772	→	→	→	→	→	→	→	→	→	→
B773		→		→	→	→	→	→	→	→
B773ER		→		→	→	→	→	→	→	→

6. REMOTE STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	103	104	200	200L	200R	201	202	202L	202R	203	205	206	207	208	209
A300, A310	→	→	→			→	→			→	→	→	→	→	→
A319, A320	→	→		→	→	→		→	→	→	→	→	→	→	→
A321				→	→			→	→						
A330, A342	→	→	→			→	→			→	→	→			
A343, A345	→	→	→			→	→			→	→	→			
A359			→			→	→			→	→	→			
A380	→	→													
AT72			→			→	→			→	→	→	→	→	→
B707, B727	→	→	→			→	→			→	→	→	→	→	→
B737	→	→		→	→	→		→	→	→	→	→	→	→	→
B747, B74S, B788	→	→	→			→	→			→	→	→			
B748	→	→													
B757	→	→	→			→	→			→	→	→	→	→	→
B767, B772, B773	→	→	→			→	→			→	→	→			
B773ER	→	→	→			→	→			→	→	→			
B789	→	→	→			→	→			→	→	→			
DC8	→	→													
DC10	→	→	→			→	→			→	→	→			
DHC7													→	→	→
F70	→	→	→			→	→			→	→	→	→	→	→
IL62			→			→	→			→	→	→			
L101	→	→	→			→	→			→	→	→			
MD11	→	→	→			→	→			→	→	→			

Stands	300	301	302	303	304	305	306	307	308	309	310	400	401	402	403	404
A300, A310	→	→	→	→	→	→	→			→	→	→	→	→		
A319, A320	→	→	→	→	→	→	→			→	→	→	→	→	→	
A330, A342	→		→								→	→	→			
A343, A345	→		→								→	→	→			
A359	→		→								→					
AT72				→	→	→	→									
B707	→	→	→	→	→	→	→			→	→	→	→	→		
B727	→	→	→	→	→	→	→			→	→	→	→	→	→	
B737 (100-500)	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B737 (600-900)	→	→	→	→	→	→	→			→	→	→	→	→	→	
B747	→		→								→	→	→			
B74S, B788	→		→								→	→	→			
B757, B767	→	→	→	→	→	→	→			→	→	→	→	→		
B772, B773	→		→								→	→	→			
B773ER	→		→								→	→	→			
B789	→		→								→	→	→			
DC10	→		→				→				→	→	→			
DC8	→	→	→	→	→	→	→			→	→					
F70	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	
L101	→		→				→				→	→	→			
MD11	→		→				→				→	→	→			

7. CARGO STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	502	503	504	505	506	507	508	509	601	602	603	604	611	612
A300	→	→	→	→	→	→	→	→	→	→	→	→		
A306													→	→
A310	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A330									→	→	→	→	→	→
A332	→	→	→	→	→	→	→	→	→	→	→	→		
A333	→	→	→	→	→	→	→	→	→	→	→	→		
A342	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A343	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A345	→							→						
A346	→							→						
A380	→							→						
B707	→	→	→	→	→	→	→	→	→	→	→	→		
B727	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B737	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B744	→	→	→	→	→	→	→	→	→	→				
B747	→	→	→	→	→	→	→	→	→	→	→	→		
B748						→	→	→			→	→		
B74S	→	→	→	→	→	→	→	→	→	→	→	→		
B752													→	→
B753													→	→
B757	→	→	→	→	→	→	→	→	→	→	→	→		
B762	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B763	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B764	→	→	→					→			→	→		
B772	→	→	→	→	→	→	→	→	→	→	→	→	→	→
→ B772LR	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B773	→	→	→	→	→	→	→	→	→	→	→	→		
B773ER	→	→	→	→	→	→	→	→	→	→	→	→		
B777F													→	→
DC8	→	→	→	→	→	→	→	→	→	→	→	→	→	→
DC10	→	→	→	→	→	→	→	→	→	→	→	→	→	→
IL62	→	→	→	→	→	→	→	→	→	→	→	→	→	→
IL86	→	→	→	→	→	→	→	→	→	→	→	→	→	→
L101	→	→	→	→	→	→	→	→	→	→	→	→	→	→
MD11	→	→	→	→	→	→	→	→	→	→	→	→	→	→

8. REMOTE STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	1	2	3	4	5	6	7	8	9	10	11	12	13	14
AT72	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A319	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A320	→	→	→	→	→	→	→	→	→	→	→	→	→	→
A321											→	→	→	→
B737	→	→	→	→	→	→	→	→	→	→	→	→	→	→
DHC7	→	→	→	→	→	→	→	→	→	→	→	→	→	→

8. REMOTE STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	15	16	17	701	702
A318	→	→	→	→	→
A319	→	→	→	→	→
A320	→	→	→	→	→
A321	→	→	→	→	→
ATR72-500	→	→	→	→	→
B733	→	→	→	→	→
B734	→	→	→	→	→
B735	→	→	→	→	→
B736	→	→	→	→	→
B737	→	→	→	→	→
B738	→	→	→	→	→
B739	→	→	→	→	→
DHC7	→	→	→	→	→

9. MARS STANDS - Aircraft types that can be parked at stands (→) are as follows:

Stands	101	101L	101R	102	102L	102R
A300	→			→		
A310	→			→		
A319		→	→		→	→
A320		→	→		→	→
A321		→	→		→	→
A332	→			→		
A333	→			→		
A342	→			→		
A343	→			→		
A345	→			→		
A380	→			→		
B737		→	→		→	→
B747	→			→		
B748	→			→		
B757	→			→		
B762	→			→		
B763	→			→		
B772	→			→		
B773	→			→		
B773ER	→			→		
B787-8	→			→		

WSSS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

TAXIING GUIDANCE SYSTEM AT SINGAPORE CHANGI AIRPORT

1. INTRODUCTION

- 1.1 The taxiing guidance system at Singapore Changi Airport consists of stop bars and selectable segments of green taxiway centreline lights. The system is designed to provide pilots with visual guidance while taxiing during night operations and during periods of low visibility. It is controlled by the Ground Movement Controller (GMC) at Changi Control Tower using the Airfield Ground Lighting Control and Monitoring System (AGLCMS).

2. ROUTE SELECTION AND PRIORITY

- 2.1 When a taxiing route is selected on the AGLCMS, corresponding segments of taxiway centreline lights on the manoeuvring area are switched on automatically. When two or more routes are selected, the system will give priority to the first route and activate red stopbar lights across conflicting routes, as necessary. A segment of the centreline lights of the conflicting routes that cut across the first route will also be suppressed. The GMC has the option of over-riding the taxiing route priority by selecting or deselecting the appropriate stopbar lights.
- 2.2 All taxiing guidance lights on taxiways leading to the runways terminate at the runway holding positions where, by default, red stopbar lights remain on unless deselected by the runway controller. When deselected, these stopbar lights will re-activate automatically after 50 seconds.

3. INFORMATION AND MANDATORY SIGNS/MARKINGS

- 3.1 When following the directional guidance provided by the green taxiway centreline lights and red stop bar lights, pilots are advised to also navigate their taxi route with reference to information and mandatory signs/markings provided at the airport so as to maintain situational awareness of their whereabouts at all times.

4. TAXI INSTRUCTIONS USING THE GREEN TAXIWAY CENTRELINE LIGHTS

- 4.1 ATC will use the phraseology "Taxi on the greens" when issuing a clearance to pilots to taxi along the directional guidance provided by the green taxiway centreline lights.

WSSS AD 2.10 AERODROME OBSTACLES					
IN APPROACH / TKOF AREAS			IN CIRCLING AREA AND AT AD		
RWY/Area affected		OBST type, ELEV, Markings/LGT	Coordinates	OBST type, ELEV, Markings/LGT	
1		2	3	1	
a)	RWY 20R APCH RWY 02L TKOF	Mast HGT ranging fm 98ft AMSL and above.	Shipping channel aprx1290m from THR RWY 20R.	a)	Surface wind direction sleeves
b)	RWY 20C APCH RWY 02C TKOF	Mast HGT ranging fm 98ft AMSL and above.	Shipping channel aprx 2630m from THR RWY 20C.	b)	PAR hut
c)	RWY 02L/20R APCH RWY 02L/20R TKOF RWY 02C/20C APCH RWY 02C/20C TKOF	ILS LLZ co-located with LLZ antennas.	Within the RWY strip.	c)	Frangible PAR reflectors
d)	RWY 20R APCH	Two antennae, HGT 72ft AMSL, marked and LGTD	012311N 1035928E	d)	GP huts co-located with GP antennas
e)	RWY 20R APCH	Antenna, HGT 88ft AMSL, marked and LGTD	012315N 1035931E	e)	Antenna, HGT 82ft AMSL, marked and LGTD
f)	RWY 02L APCH	Antenna, HGT 82ft AMSL, marked and LGTD	012051N 1035827E	f)	Antenna, HGT 85ft AMSL, marked and LGTD
g)	RWY 02L APCH	Pole, HGT 128ft AMSL, marked and LGTD	011859N 1035748E	g)	Antenna, HGT 78ft AMSL, marked and LGTD
h)	RWY 02L APCH	Pole, HGT 160ft AMSL, marked and LGTD	012058N 1035814E	h)	Antenna, HGT 82ft AMSL, marked and LGTD
i)	RWY 02L APCH	Pole, HGT 131ft AMSL, marked and LGTD	012038N 1035848E	i)	Antenna, HGT 78ft AMSL, marked and LGTD
j)	RWY 20L APCH	Shipping channel	Aprx1600m from THR RWY 20L.	j)	ILS glide slope antenna hut
				k)	Surface wind measurement wind sleeves
				l)	Frangible poles, HGT 9ft AMSL
Obstacles in the APCH/TKOF areas, circling area and at the aerodrome are shown on the AOC, IAC and VAC.					

WSSS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED		
1	<i>Associated MET Office</i>	Singapore Changi (WSSS)
2	<i>Hours of service</i>	H24
3	<i>Office responsible for TAF preparation Periods of validity</i>	Singapore Changi (WSSS) 12, 30
4	<i>Type of landing forecast, Interval of issuance</i>	TREND
5	<i>Briefing/consultation provided</i>	P
6	<i>Flight documentation, Language used</i>	Charts or Tabular forms, English
7	<i>Charts and other information available for briefing or consultation</i>	S, U, P
8	<i>Supplementary equipment available for providing information</i>	HRPT: High Resolution Picture Transmission APT: Automatic Picture Transmission MDWR: MET Doppler Weather Radar MAINT: Second WED of every month BTN 0200-0900 ALTN period: THU following the second WED.
9	<i>ATS units provided with information</i>	Singapore ACC, Singapore RCC
10	<i>Additional information</i>	TEL: 65422837 (MET Office)

WSSS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS					
<i>Designations RWY NR</i>	<i>TRUE BRG</i>	<i>Dimensions of RWY (m)</i>	<i>Strength (PCN) and surface of RWY and SWY</i>	<i>THR coordinates (THR Geoid Undulation)</i>	<i>THR elevation and highest elevation of TDZ of precision approach RWY</i>
1	2	3	4	5	6
02L	023.02°	4 000 x 60	72/F/B/W/U Bituminous concrete	012056.26N 1035838.83E (10.29m)	6.66m 6.23m
20R (Threshold displaced by 740m southwards)	203.02°	4 000 x 60	72/F/B/W/U Bituminous concrete	012233.95N 1035920.06E (10.29m)	4.01m 4.31m
02C	023.03°	4 000 x 60	72/F/B/W/U Bituminous concrete	011943.51N 1035905.86E (10.28m)	4.32m 4.52m
20C	203.03°	4 000 x 60	72/F/B/W/U Bituminous concrete	012143.37N 1035956.46E (10.28m)	4.58m 4.56m
02R	023°	2 750 x 60	72/F/B/W/T Asphalt	011958.05N 1040015.26E	-
20L	203°	2 750 x 60	72/F/B/W/T Asphalt	012120.45N 1040050.05E	-
Note: RWY 02R/20L is used solely by the Republic of Singapore Air Force (RSAF) aircraft.					

WSSS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS (continued)					
<i>Slope of RWY-SWY Transverse / Longitudinal</i>	<i>SWY Dimensions (m)</i>	<i>CWY Dimensions (m)</i>	<i>STRIP Dimensions (m)</i>	<i>OFZ</i>	<i>Remarks</i>
7	8	9	10	11	12
RWY 02L 0.76 / 0.24%	60 X 60	270 X 150	4 240 X 300	Yes	Scheduled closure of runways (see below)
RWY 20R 1.45 / 0.25%	60 X 60	270 X 150	4 240 X 300		
RWY 02C 1.50 / 0.03%	60 X 60	270 X 150	4 240 X 300		
RWY 20C 1.38 / 0.07%	60 X 60	270 X 150	4 240 X 300		
RWY 02R	150 X 60	-	3 050 X 336	-	Hookwire cable installed 450m (1476ft) from the southern THR and 457m (1500ft) from the northern THR.
RWY 20L	150 X 60	-	3 050 X 336	-	

Remarks (continued from above)	
Scheduled Closure of RWY 02L/20R	
1a)	BTN 1630-2200 on first FRI, third MON and third WED of every month (<i>preventive maintenance work</i>). In the event of an emergency, RWY will be re-opened within 30 minutes.
1b)	BTN 0225-0240 0630-0635 1000-1005 2300-2305 daily (<i>inspection</i>). In the event of an emergency, RWY will be re-opened within 5 minutes.
Scheduled Closure of RWY 02C/20C	
2a)	BTN 1630-2200 on second FRI, fourth MON and fourth WED of every month (<i>preventive maintenance work</i>). In the event of an emergency, RWY will be re-opened within 30 minutes.
2b)	BTN 0300-0315 0650-0655 1020-1025 2320-2325 daily (<i>inspection</i>). In the event of emergency, RWY will be re-opened within 5 minutes.

WSSS AD 2.13 DECLARED DISTANCES						
<i>RWY Designator</i>	<i>Intersection Departures</i>	<i>TORA (m)</i>	<i>TODA (m)</i>	<i>ASDA (m)</i>	<i>LDA (m)</i>	<i>Remarks</i>
1	2	3	4	5	6	7
20R	Not applicable	4000	4270	4060	3260	Thr displaced by 740m southwards
	W2	3850	4120	3910	Not applicable	
	W3	3050	3320	3110	Not applicable	
	W4	2600	2870	2660	Not applicable	
	W5	2150	2420	2210	Not applicable	
02L	Not applicable	4000	4270	4060	4000	Nil
	W8	3850	4120	3910	Not applicable	
	W7	3050	3320	3110	Not applicable	
	W6	2600	2870	2660	Not applicable	
20C	Not applicable	4000	4270	4060	4000	Nil
	E2	3850	4120	3910	Not applicable	
	E3	3425	3695	3485	Not applicable	
	E4	2750	3020	2810	Not applicable	
	E5	2250	2520	2310	Not applicable	
02C	Not applicable	4000	4270	4060	4000	Nil
	E10	3850	4120	3910	Not applicable	
	E9	3345	3615	3405	Not applicable	
	E8	3205	3475	3265	Not applicable	
	E7	2555	2825	2615	Not applicable	
	E6	2105	2375	2165	Not applicable	
02R	Not applicable	2750	3050	2900	2750	Nil
20L	Not applicable	2750	3050	2900	2750	

Note: Intersection departures are allowed subject to the following:

- initiated by pilot and approved by ATC, traffic permitting.
- ATC is able to keep aircraft visual at all times

WSSS AD 2.14 APPROACH AND RUNWAY LIGHTING

<i>RWY</i>	<i>Apch Lgt Type, Len Intensity</i>	<i>THR Lgt colour WBAR</i>	<i>PAPI (MEHT)</i>	<i>TDZ Lgt Len</i>	<i>RWY Centreline Lgt Len, spacing, colour, INTST</i>	<i>RWY Edge Lgt, Len, spacing, colour, INTST</i>	<i>RWY End Lgt colour</i>	<i>SWY Lgt colour</i>
1	2	3	4	5	6	7	8	9
02L	CAT II High Intensity consisting of extended centreline and red row barrettes, 2 crossbars, 2 approach beacons and sequenced flashing lights.	Green supple- mented by green wing- bar and 2 THR ident lights.	PAPI 3° loc either side of RWY, 422m behind RWY THR, 2 white LGT and 2 red LGT (20.6m), 3 white LGT and 1 red LGT (23.1m), 4 white LGT (25.6m). Aircraft with eye-to- wheel hgt greater than 8m are adz to fly with 2 white and 2 red LGT visible so as to achieve sufficient wheel clearance.	White	Inset High Intensity centreline lights as flw: From THR to 900m fm RWY end: White, 300m to 900m fm RWY end: Altn red/ white, 300m to RWY end: Red.	Bi-direc- tional raised White/Amber edge lights.	Red	Elevated Red
20R	CAT I High Intensity distance- coded centreline lgts showing variable white and crossbars at 150m, 300m, 450m, 600m and 750m.	Green supple- mented by green wing- bar and 2 THR ident lights.	PAPI 3° located either side of RWY, 410m fm THR. 2 white LGT and 2 red LGT (20.0m), 3 white LGT and 1 red LGT (22.6m), 4 white LGT (25.0m). Aircraft with eye-to- wheel hgt greater than 8m are adz to fly with 2 white and 2 red LGT visible so as to achieve sufficient wheel clearance.	Nil	Inset High Intensity centreline lights as flw: From THR to 900m fm RWY end: white, 300m to 900m fm RWY end: Altn red/ white, 300m to RWY end: Red.	Red RWY edge lgts in the direction of RWY 20R before the displaced thr. Bi-direc- tional raised White/Amber edge lights after the displaced THR.	Red	Elevated Red
02C	CAT I High Intensity consisting of centreline barrettes showing variable white, 1 crossbar, 2 approach beacons and sequenced flashing lights.	Green supple- mented by green wing- bar and 2 THR ident lights.	PAPI 3° located either side of RWY, 418m fm THR. 2 white LGT and 2 red LGT (20.4m), 3 white LGT and 1 red LGT (23.1m), 4 white LGT (25.5m). Aircraft with eye-to- wheel hgt greater than 8m are adz to fly with 2 white and 2 red LGT visible so as to achieve sufficient wheel clearance.	Nil	Inset High Intensity centreline lights as flw: From THR to 900m fm RWY end: White, 300m to 900m fm RWY end: Altn red/ white, 300m to RWY end: Red.	Bi-direc- tional raised White/Amber edge lights.	Red	Elevated Red

- 12.4 Pilots are reminded to always use minimum power when starting engines, when manoeuvring within the apron area or when manoeuvring from apron taxiways to other parts of the aerodrome. It is especially critical when commencing to taxi that break-away thrusts are kept to an absolute minimum and then be reduced to idle thrusts as soon as possible.

13. TAKE-OFF AND LANDING

- 13.1 Departing aircraft will normally be directed by ATC to use the full length of the runway for take-off. On obtaining an ATC clearance the aircraft shall enter the runway via designated taxiways:

RWY 02C - TWY E10 or E11
RWY 02L - TWY W8, W9 or W10
RWY 20C - TWY E1, E2
RWY 20R - TWY W1, W2

- 13.2 The pilot-in-command shall not take-off or land without a clearance from Aerodrome Control.
- 13.3 The pilot-in-command shall not run-up on the runway in use unless authorised by Aerodrome Control. Engine run-ups in the holding pan or taxiway holding point clear of the runway in use may be carried out subject to approval by Aerodrome Control.
- 13.4 After landing, the pilot-in-command shall vacate the runway by the shortest suitable route and to contact Ground Control who will issue specific taxi route instructions to its assigned aircraft stand.
- 13.5 Aircraft with radio communication failure shall vacate the runway and stop on the taxiway and watch for light signals from Aerodrome Control.

14. ARRIVING AIRCRAFT

- 14.1 The pilot-in-command of an arriving aircraft shall contact the appropriate Approach Control Unit 10 minutes before entering the CTR or ATZ.

15. LIGHT AIRCRAFT OPERATIONS

- 15.1 Light aircraft operations into and out of Singapore Changi Airport may be approved subject to the following conditions:
- a) Prior permission has been granted;
 - b) Aircraft is suitably equipped;
 - c) Pilot is appropriately rated;
 - d) Subject to ATC.
- 15.2 Flight notification shall be given by filing a flight plan.
- 15.3 All such operations will be regulated in accordance with IFR procedures.

WSSS AD 2.23 ADDITIONAL INFORMATION

1. BIRD CONCENTRATION IN THE VICINITY OF THE AIRPORT

- 1.1 A number of varieties of birds are found in Singapore throughout the year. The larger birds commonly found in Singapore Changi Airport include the following:
- cattle egrets (weighing approximately 300g each)
 - grey herons (weighing approximately 500g each)
 - brahmny kites (weighing approximately 600g each)
- 1.2 There could be an increase in bird activities during the migratory months of September to April. During this period, migratory birds may use the airport as their feeding ground.

WSSS AD 2.24 CHARTS RELATED TO SINGAPORE CHANGI AIRPORT	
Location of RWY 02R/20L in relation to RWY 02L/20R and RWY 02C/20C Aerodrome Chart - ICAO Aerodrome Advisory Chart	WSSS AD 2-29 WSSS AD 2-31 WSSS AD 2-33
Aerodrome Obstacle Chart - ICAO - TYPE A - RWY 02L/20R Aerodrome Obstacle Chart - ICAO - TYPE A - RWY 02C/20C Aerodrome Obstacle Chart - ICAO - TYPE B	WSSS AD 2-37 WSSS AD 2-39 WSSS AD 2-41
Precision Approach Terrain Chart - ICAO - RWY 02L Precision Approach Terrain Chart - ICAO - RWY 20C	WSSS AD 2-43 WSSS AD 2-45
RNAV _(GNSS) SIDs and STARs - Introduction Continuous Descent Operation (CDO) for Arrivals into Singapore Changi Airport	WSSS AD 2-47 to 2-50 WSSS AD 2-50-1/4
RNAV _(GNSS) SID - RWY 02L/20R - ANITO 5E / ANITO 4F RNAV _(GNSS) SID - RWY 02C/20C - ANITO 5A / ANITO 4B RNAV _(GNSS) SID - RWY 02L/20R - BOBAG 1E / BOBAG 1F RNAV _(GNSS) SID - RWY 02C/20C - BOBAG 1A / BOBAG 1B RNAV _(GNSS) SID - RWY 02L/20R - TOMAN 1E / TOMAN 1F RNAV _(GNSS) SID - RWY 02C/20C - TOMAN 1A / TOMAN 1B RNAV _(GNSS) SID - RWY 02L/20R - VENPA 1E / VENPA 1F RNAV _(GNSS) SID - RWY 02C/20C - VENPA 1A / VENPA 1B RNAV _(GNSS) SID - RWY 02L/20R - AROSO 1E / AROSO 1F RNAV _(GNSS) SID - RWY 02L/20R - MASBO 1E / MABSO 1F RNAV _(GNSS) SID - RWY 02C/20C - AROSO 1A / AROSO 1B RNAV _(GNSS) SID - RWY 02C/20C - MASBO 1A / MABSO 1B RNAV _(GNSS) SID - RWY 02L/20R - MERSING 4E / MERSING 5F RNAV _(GNSS) SID - RWY 02C/20C - MERSING 4A / MERSING 5B	WSSS AD 2-51 to 2-52 WSSS AD 2-53 to 2-54 WSSS AD 2-55 to 2-56 WSSS AD 2-57 to 2-58 WSSS AD 2-63 to 2-64 WSSS AD 2-65 to 2-66 WSSS AD 2-67 to 2-68 WSSS AD 2-69 to 2-70 WSSS AD 2-71 to 2-72 WSSS AD 2-71-1 to 2-72-1 WSSS AD 2-73 to 2-74 WSSS AD 2-73-1 to 2-74-1 WSSS AD 2-75 to 2-76 WSSS AD 2-77 to 2-78
RNAV _(GNSS) STAR - RWY 02L/02C - BOBAG 1A RNAV _(GNSS) CDO - RWY 02L - BOBAG 1K RNAV _(GNSS) STAR - RWY 20R/20C - BOBAG 1B RNAV _(GNSS) CDO - RWY 20R - BOBAG 1L RNAV _(GNSS) STAR - RWY 02L/02C - LAVAX 1A RNAV _(GNSS) CDO - RWY 02L - LAVAX 1K RNAV _(GNSS) STAR - RWY 20R/20C - LAVAX 1B RNAV _(GNSS) CDO - RWY 20R - LAVAX 1L RNAV _(GNSS) STAR - RWY 20R/20C - LELIB 2B RNAV _(GNSS) STAR - RWY 02L/02C - PASPU 1A RNAV _(GNSS) CDO - RWY 02L - PASPU 1K RNAV _(GNSS) STAR - RWY 20R/20C - PASPU 1B RNAV _(GNSS) CDO - RWY 20R - PASPU 1L RNAV _(GNSS) STAR - RWY 02L - LEBAR 1A RNAV _(GNSS) STAR - RWY 20R - LEBAR 1B RNAV _(GNSS) STAR - RWY 02L/02C - REMES 5A RNAV _(GNSS) CDO - RWY 02L - REMES 1K RNAV _(GNSS) STAR - RWY 20R/20C - REMES 6B RNAV _(GNSS) CDO - RWY 20R - REMES 1L	WSSS AD 2-81 to 2-82 WSSS AD 2-81-1 to 2-82-1 WSSS AD 2-83 to 2-84 WSSS AD 2-83-1 to 2-84-1 WSSS AD 2-85 to 2-86 WSSS AD 2-85-1 to 2-86-1/2 WSSS AD 2-87 to 2-88 WSSS AD 2-87-1 to 2-88-1/2 WSSS AD 2-89 to 2-90 WSSS AD 2-91 to 2-92 WSSS AD 2-91-1 to 2-92-1/2 WSSS AD 2-93 to 2-94 WSSS AD 2-93-1 to 2-94-1/2 WSSS AD 2-95 to 2-96 WSSS AD 2-95-1 to 2-96-1 WSSS AD 2-97 to 2-98 WSSS AD 2-97-1 to 2-98-1 WSSS AD 2-99 to 2-100 WSSS AD 2-99-1 to 2-100-1
Instrument Approach Chart - ICAO - RWY 02L - ICW ILS/DME Instrument Approach Chart - ICAO - RWY 02C - ICE ILS/DME Instrument Approach Chart - ICAO - RWY 02C - VTK DVOR/DME Instrument Approach Chart - ICAO - RWY 02R - ICX ILS/DME Instrument Approach Chart - ICAO - RWY 20R - ICH ILS/DME Instrument Approach Chart - ICAO - RWY 20C - ICC ILS/DME Instrument Approach Chart - ICAO - RWY 20C - VTK DVOR/DME Instrument Approach Chart - ICAO - RWY 20L - ICZ ILS/DME Instrument Approach Chart - ICAO - RWY 02L - RNAV _(GNSS) Instrument Approach Chart - ICAO - RWY 02C - RNAV _(GNSS) Instrument Approach Chart - ICAO - RWY 20R - RNAV _(GNSS) Instrument Approach Chart - ICAO - RWY 20C - RNAV _(GNSS)	WSSS AD 2-101 WSSS AD 2-103 WSSS AD 2-105 WSSS AD 2-107 WSSS AD 2-109 WSSS AD 2-111 WSSS AD 2-113 WSSS AD 2-115 WSSS AD 2-117 WSSS AD 2-118 WSSS AD 2-119 WSSS AD 2-120
Visual Approach Chart - ICAO	WSSS AD 2-121

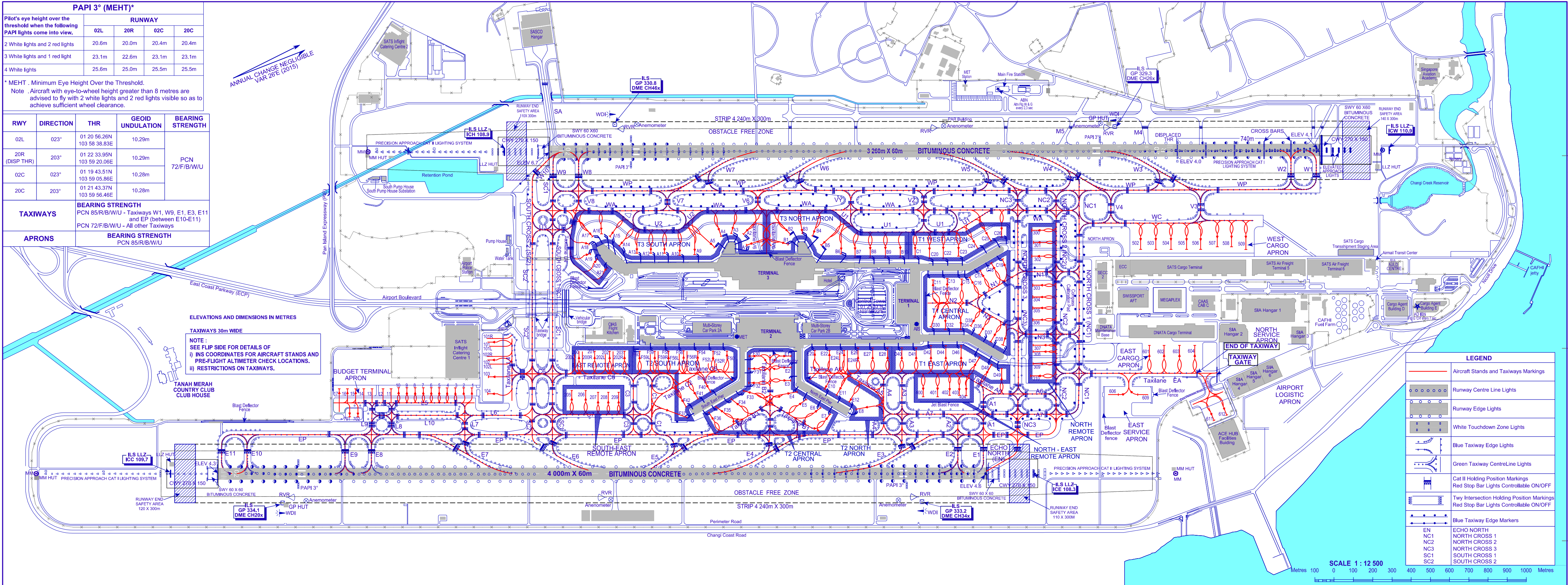
AERODROME CHART - ICAO

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

SINGAPORE/SINGAPORE CHANGI



INS COORDINATES FOR AIRCRAFT STANDS AND PRE-FLIGHT ALTIMETER CHECK LOCATIONS

LOCATION	STAND NR	NORTH LAT	EAST LONG	ELEVATION
T3 SOUTH APRON	A1	01 21 21.52	103 59 06.25	4.75m (15.58ft)
	A2	01 21 21.75	103 59 04.00	4.65m (15.26ft)
	A3	01 21 19.86	103 59 02.79	4.66m (15.29ft)
	A4	01 21 17.61	103 59 02.54	4.79m (15.72ft)
	A5	01 21 15.50	103 59 03.62	4.86m (15.94ft)
	A9	01 21 12.56	103 59 03.65	5.02m (16.47ft)
	A10	01 21 10.34	103 59 02.40	5.04m (16.54ft)
	A11	01 21 07.93	103 59 01.41	5.25m (17.22ft)
	A12	01 21 05.76	103 59 00.49	5.38m (17.65ft)
	A13	01 21 03.59	103 58 59.58	5.48m (17.98ft)
	A14	01 21 01.66	103 58 57.59	5.57m (18.27ft)
	A15	01 21 00.77	103 58 55.41	5.46m (17.91ft)
	A16	01 20 59.27	103 58 54.20	5.51m (18.08ft)
	A17	01 20 57.25	103 58 54.06	5.23m (17.16ft)
	A18	01 20 55.87	103 58 55.25	5.37m (17.62ft)
	A19	01 20 55.26	103 58 57.13	5.40m (17.72ft)
	A20	01 20 56.09	103 58 58.83	5.45m (17.88ft)
	A21	01 20 57.10	103 59 00.80	5.49m (18.01ft)
T3 NORTH APRON	B1	01 21 26.86	103 59 08.37	4.82m (15.81ft)
	B2	01 21 28.18	103 59 06.82	4.68m (15.35ft)
	B3	01 21 30.33	103 59 07.30	4.65m (15.26ft)
	B4	01 21 32.03	103 59 08.80	4.75m (15.58ft)
	B5	01 21 32.99	103 59 10.89	4.80m (15.75ft)
	B6	01 21 35.15	103 59 13.16	4.96m (16.27ft)
	B7	01 21 37.65	103 59 13.93	4.97m (16.31ft)
	B8	01 21 39.94	103 59 15.20	5.09m (16.70ft)
	B9	01 21 42.19	103 59 16.16	5.13m (16.83ft)
	B10	01 21 44.47	103 59 17.12	5.10m (16.73ft)
T1 WEST APRON	C1	01 21 46.75	103 59 18.08	5.09m (16.70ft)
	C20	01 21 48.83	103 59 19.23	5.08m (16.67ft)
	C22	01 21 51.00	103 59 20.13	5.15m (16.90ft)
	C23	01 21 53.56	103 59 20.77	5.08m (16.67ft)
	C24	01 21 56.54	103 59 20.97	4.89m (16.04ft)
	C25	01 21 59.12	103 59 20.59	4.99m (16.37ft)
	C26	01 22 01.48	103 59 20.76	5.01m (16.44ft)
T1 CENTRAL APRON	C11	01 21 47.42	103 59 23.82	5.07m (16.63ft)
	C13	01 21 49.64	103 59 24.75	5.05m (16.57ft)
	C15	01 21 51.90	103 59 25.71	5.05m (16.57ft)
	C16	01 21 53.63	103 59 26.42	4.91m (16.11ft)
	C17	01 21 55.63	103 59 26.07	5.03m (16.50ft)
	C18	01 21 57.86	103 59 25.75	4.99m (16.37ft)
	C19	01 21 59.79	103 59 25.63	4.95m (16.24ft)
	D30	01 21 44.54	103 59 30.14	5.09m (16.70ft)
	D32	01 21 46.73	103 59 31.07	5.08m (16.67ft)
	D34	01 21 49.03	103 59 32.04	5.07m (16.63ft)
T1 EAST APRON	D35	01 21 50.87	103 59 32.82	5.02m (16.47ft)
	D36	01 21 51.98	103 59 34.52	5.06m (16.60ft)
	D37	01 21 53.37	103 59 36.28	4.97m (16.31ft)
	D38	01 21 54.58	103 59 37.77	4.99m (16.37ft)
	D40	01 21 38.02	103 59 32.85	5.07m (16.63ft)
	D41	01 21 40.30	103 59 33.81	5.07m (16.63ft)
	D42	01 21 42.70	103 59 34.48	5.11m (16.77ft)
	D44	01 21 44.97	103 59 35.44	5.14m (16.86ft)
	D46	01 21 47.40	103 59 36.72	5.08m (16.67ft)
	D47	01 21 49.19	103 59 38.89	4.93m (16.17ft)
T2 NORTH APRON	D48	01 21 50.60	103 59 40.77	4.97m (16.31ft)
	D49	01 21 52.23	103 59 42.35	4.98m (16.34ft)
	E8	01 21 27.99	103 59 38.45	4.68m (15.35ft)
	E10	01 21 24.15	103 59 32.67	4.71m (15.45ft)
	E11	01 21 25.57	103 59 34.37	4.78m (15.68ft)
	E12	01 21 27.20	103 59 36.42	4.75m (15.58ft)
	E20	01 21 24.36	103 59 27.08	5.04m (16.54ft)
	E22	01 21 26.64	103 59 28.04	5.07m (16.63ft)
	E24	01 21 29.01	103 59 29.06	5.09m (16.70ft)
	E24L	01 21 28.32	103 59 28.77	5.10m (16.73ft)
T2 CENTRAL APRON	E24R	01 21 29.53	103 59 29.28	5.08m (16.67ft)
	E26	01 21 31.19	103 59 29.96	5.08m (16.67ft)
	E27	01 21 33.46	103 59 30.93	5.03m (16.50ft)
	E28	01 21 35.74	103 59 31.89	5.08m (16.67ft)
	E1	01 21 20.02	103 59 25.58	4.91m (16.11ft)
	E2	01 21 19.28	103 59 27.30	4.90m (16.08ft)
	E3	01 21 18.44	103 59 29.27	4.82m (15.81ft)
	E4	01 21 18.10	103 59 31.70	4.80m (15.75ft)
	E5	01 21 19.56	103 59 33.72	4.90m (16.08ft)
	E6	01 21 21.22	103 59 35.93	4.84m (15.88ft)

INS COORDINATES FOR AIRCRAFT STANDS AND PRE-FLIGHT ALTIMETER CHECK LOCATIONS

LOCATION	STAND NR	NORTH LAT	EAST LONG	ELEVATION
T2 SOUTH APRON	F37	01 20 59.83	103 59 27.87	4.75m (15.58ft)
	F40	01 21 05.62	103 59 25.34	4.85m (15.91ft)
	F41	01 21 03.19	103 59 25.58	4.82m (15.81ft)
	F42	01 21 00.61	103 59 25.96	4.72m (15.49ft)
	F50	01 21 10.69	103 59 21.32	5.03m (16.50ft)
	F52	01 21 08.51	103 59 20.40	5.11m (16.77ft)
	F52L	01 21 07.82	103 59 20.11	5.16m (16.93ft)
	F52R	01 21 09.04	103 59 20.62	5.08m (16.67ft)
	F54	01 21 06.14	103 59 19.40	5.22m (17.13ft)
	F56	01 21 03.96	103 59 18.48	5.30m (17.39ft)
	F56L	01 21 03.27	103 59 18.18	5.42m (17.78ft)
	F56R	01 21 04.49	103 59 18.70	5.34m (17.52ft)
	F58	01 21 01.58	103 59 17.47	5.49m (18.01ft)
	F59	01 20 59.41	103 59 16.55	5.64m (18.50ft)
	F59L	01 20 58.72	103 59 16.26	5.67m (18.60ft)
EAST REMOTE APRON	F59R	01 20 59.93	103 59 16.78	5.60m (18.37ft)
	F60	01 20 56.91	103 59 15.50	5.77m (18.93ft)
	200	01 20 47.83	103 59 11.67	6.23m (20.44ft)
	200L	01 20 46.91	103 59 11.92	6.29m (20.64ft)
	200R	01 20 48.35	103 59 11.89	6.18m (20.28ft)
	201	01 20 49.99	103 59 12.62	5.96m (19.55ft)
	202	01 20 52.34	103 59 13.57	5.94m (19.49ft)
	202L	01 20 51.65	103 59 13.28	5.76m (18.90ft)
	202R	01 20 52.87	103 59 13.79	5.73m (18.80ft)
	203	01 20 54.52	103 59 14.47	5.92m (19.42ft)
SOUTH-EAST REMOTE APRON	101	01 20 34.88	103 59 04.05	4.49m (14.73ft)
	101L	01 20 34.60	103 59 04.70	4.60m (15.09ft)
	101R	01 20 35.11	103 59 03.50	4.53m (14.86ft)
	102	01 20 33.76	103 59 06.65	4.49m (14.73ft)
	102L	01 20 33.53	103 59 07.33	4.62m (15.16ft)
	102R	01 20 34.00	103 59 06.10	4.60m (15.09ft)
	103	01 20 32.88	103 59 09.35	4.67m (15.32ft)
	104	01 20 31.77	103 59 11.96	4.39m (14.40ft)
	205	01 20 43.91	103 59 17.06	4.77m (15.65ft)
	206	01 20 46.08	103 59 17.98	4.76m (15.62ft)
	207	01 20 47.91	103 59 18.88	4.74m (15.55ft)
	208	01 20 49.48	103 59 19.54	4.74m (15.55ft)
	209	01 20 51.06	103 59 20.21	4.75m (15.58ft)
	300	01 22 06.95	103 59 22.67	4.53m (14.86ft)
	301	01 22 06.41	103 59 24.69	4.93m (16.17ft)
NORTH REMOTE APRON	302	01 22 05.21	103 59 26.75	4.97m (16.31ft)
	303	01 22 03.55	103 59 31.40	5.32m (17.45ft)
	304	01 22 02.84	103 59 33.06	5.35m (17.55ft)
	305	01 22 02.14	103 59 34.71	5.30m (17.39ft)
	306	01 22 01.41	103 59 36.42	5.16m (16.93ft)
	307	01 21 59.39	103 59 40.36	5.16m (16.93ft)
	308	01 21 58.96	103 59 41.35	5.10m (16.73ft)
	309	01 21 58.52	103 59 43.17	5.06m (16.60ft)
	310	01 21 57.42	103 59 44.96	4.74m (15.55ft)
	400	01 21 38.71	103 59 40.14	4.31m (14.14ft)
NORTH-EAST REMOTE APRON	401	01 21 40.98	103 59 41.10	4.31m (14.14ft)
	402	01 21 42.85	103 59 41.89	4.30m (14.11ft)
	403	01 21 44.37	103 59 42.53	4.29m (14.07ft)
	404	01 21 45.45	103 59 42.98	4.20m (13.78ft)
	502	01 22 22.23	103 59 31.62	4.35m (14.27ft)
WEST CARGO APRON	503	01 22 24.98	103 59 32.76	4.29m (14.07ft)
	504	01 22 27.26	103 59 33.74	4.29m (14.07ft)
	505	01 22 29.54	103 59 34.70	4.32m (14.17ft)
	506	01 22 31.81	103 59 35.66	4.38m (14.37ft)
	507	01 22 34.11	103 59 36.64	4.36m (14.30ft)
	508	01 22 36.41	103 59 37.61	4.29m (14.07ft)
	509	01 22 39.12	103 59 38.76	4.09m (13.42ft)
	601	01 22 16.52	103 59 49.27	4.27m (14.01ft)
	602	01 22 18.80	103 59 50.23	4.30m (14.11ft)
	603	01 22 21.15	103 59 51.02	4.29m (14.07ft)
EAST CARGO APRON	604	01 22 23.46	103 59 51.99	4.31m (14.14ft)
	606	01 22 09.09	103 59 53.22	2.70m (8.86ft)
	609	01 22 12.19	103 59 54.57	3.01m (9.88ft)
	611	01 22 22.14	104 00 02.87	4.01m (13.16ft)
	612	01 22 24.50	104 00 02.87	3.91m (12.83ft)
EAST SERVICE APRON	1	01 20 28.69	103 59 10.05	3.97m (13.02ft)
	2	01 20 27.39	103 59 09.51	4.04m (13.25ft)
	3	01 20 26.09	103 59 08.96	3.90m (12.80ft)
	4	01 20 24.80	103 59 08.41	3.86m (12.66ft)
	5	01 20 23.50	103 59 07.86	3.85m (12.63ft)
ACEHUB	6	01 20 22.20	103 59 07.32	3.86m (12.66ft)
	7	01 20 20.90	103 59 06.77	3.83m (12.57ft)
	8	01 20 19.80	103 59 06.22	3.84m (12.60ft)
	9	01 20 18.31	103 59 05.67	3.83m (12.57ft)
	10	01 20 17.03	103 59 05.07	3.85m (12.63ft)
	11	01 20 15.77	103 59 04.43	3.90m (12.80ft)
	12	01 20 14.50	103 59 03.89	3.94m (12.93ft)
	13	01 20 12.78	103 59 03.16	3.99m (13.09ft)
	14	01 20 11.48	103 59 02.62	4.01m (13.16ft)
	15	01 20 10.33	103 59 01.72	4.60m (15.09ft)
BUDGET TERMINAL APRON	16	01 20 09.03	103 59 01.17	4.60m (15.09ft)
	17	01 20 07.74	103 59 00.62	4.60m (15.09ft)
	701	01 20 08.81	103 59 06.24	5.03m (16.50ft)
	702	01 20 07.51	103 59 05.69	5.03m (16.50ft)

RESTRICTIONS ON TAXIWAYS

- 1) Pilots are advised to apply minimum thrust when
i) turning into TWY A1, A3, A4 and Taxilane A5 while taxiing either northwards or southwards on Taxilane A6, and
ii) thereafter when taxiing along TWY A1 up to and including the TWY A7/A1 junction.
This is in view of apron activities at aircraft stands D40, D41, D47, D48, D49, E22, E24, E27 and E28.
- 2) TWY SA can only be used by aircraft with maximum wingspan 65m. TWY SA is a one-way live TWY for aircraft taxiing into SASCO hangar via RWY 02L. Only tow-out operation is allowed from SASCO hangar into TWY SA and RWY 02L.
- 3) Pilots operating aircraft with wheelbase longer than B747 or 26m shall take note that judgemental oversteering may be required when manoeuvring round taxiway turns.
- 4) TWY NC3 (between TWY WA and TWY A6) is a TWY with reduced minimum separation distances between the TWY centreline and object. Due to the reduced minimum separation distances, pilots are advised to adhere strictly to the TWY centreline and to slow down the taxi speed accordingly. TWY NC3 (between TWY WA and TWY A6) can only be used by aircraft with maximum wingspan 65m.
- 5) Taxiway centreline along TWY EP between TWY B1 and B3 offset eastward by 2.5m away from aircraft stands E7 and F36.
- 6) Pilots are advised to apply minimum thrust when turning into taxiway WA from taxilane V6.
- 7) Taxilane U4 (behind aircraft stands A18 to A21) can only be used by aircraft with maximum wingspan 61m.
- 8) TWY N1 (behind aircraft stands C16 to C19 and between TWY NC2 and TWY NC3), TWY N2

STANDARD ARRIVAL CHART - INSTRUMENT (STAR)

ACC 133.25
APP 124.05 / 120.3
ARR 119.3
TWR 118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.6

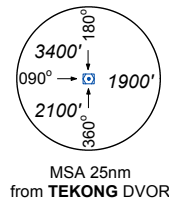
SINGAPORE/Singapore Changi
RWY 02L
LEBAR ONE ALPHA ARRIVAL
LEBAR 1A
RNAV_(GNSS)

ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 26°E (2015)

DISTANCES IN NM

NOTE: RADAR REQUIRED

NOTE: REFER TO BACK PAGE FOR
A) FORMAL AND TEXTUAL DESCRIPTIONS
B) RADIO COM FAILURE
PROCEDURES



NOT TO SCALE

PAPA UNIFORM
DVOR/DME 115.1
PU:---
01° 25' 24" N
103° 56' 00" E
60M
Cross 7,000ft or abv

DEVIATION IS NOT PERMITTED
BETWEEN SJ AND PU

WSR38
10,000ft ALT
GND

SINJON
DVOR/DME 113.5
SJ:---
01° 13' 21" N
103° 51' 15" E
60M
Cross 7,000ft or abv

PALGA
01° 10' 59" N
103° 47' 59" E
IAS 220kts

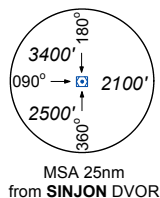
PAMSI
01° 04' 59" N
103° 48' 45" E

SAMKO
01° 05' 30" N
103° 52' 55" E
Cross 4,000ft or abv
IAS 190kts

ADNIK
01° 16' 51" N
103° 56' 56" E

SADET
01° 10' 06" N
103° 54' 09" E

PASPU
01° 59' 15" N
104° 06' 18" E
IAS 220kts



(A) LEBAR 1A (RWY 02L) RNAV STAR – DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Expected Path Terminator	Flyover required
From PASPU, at 220kt, turn right.	PASPU [K220]-	IF	N
To PU at or above 7000ft.	PU [A070+]-	TF	N
To SJ at or above 7000ft, turn right.	SJ [A070+]-	TF	N
To PALGA, at 220kt, turn left.	PALGA [K220]-	TF	N
To PAMSI, turn left.	PAMSI -	TF	N
To SAMKO at or above 4000ft, at 190kt, turn left.	SAMKO [A040+, K190]-	TF	N
To SADET, turn right.	SADET -	TF	N
To ADNIK.	ADNIK -	TF	N

Tabular Description

SN	Path Descriptor	Waypoint Identifier	Flyover	Course °M (°T)	Magnetic Variation (°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH (ft)	Navigation Specification
1	IF	PASPU	-		-0.5	-	-	-	220	-	RNAV1
2	TF	PU	-	197	-0.5	35.2	R	A070+	-	-	RNAV1
3	TF	SJ	-	202	-0.5	12.9	-	A070+	-	-	RNAV1
4	TF	PALGA	-	234	-0.5	4	R	-	220	-	RNAV1
5	TF	PAMSI	-	173	-0.5	6	L	-	-	-	RNAV1
6	TF	SAMKO	-	083	-0.5	4.2	L	A040+	190	-	RNAV1
7	TF	SADET	-	015	-0.5	4.8	L	-	-	-	RNAV1
8	TF	ADNIK	-	022	-0.5	7.3	R	-	-	-	RNAV1

(B) RADIO COMMUNICATIONS FAILURE PROCEDURE

1	SET TRANSPONDER TO MODE A/C CODE 7600.
2	When cleared via LEBAR 1A by Singapore ATC (a) Maintain last assigned flight level or altitude and proceed on LEBAR 1A to ADNIK (b) From ADNIK commence descent and carry out appropriate landing procedures for RWY 02L as close as possible to EAT or ETA (c) If unable to effect a landing, refer to Singapore AIP for missed approach procedure.
3	No Clearance or instruction received from Singapore ATC - Refer to Singapore AIP for radio communications failure procedure

STANDARD ARRIVAL CHART - INSTRUMENT (STAR)

ACC 133.25
APP 124.05 / 120.3
ARR 119.3
TWR 118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.6

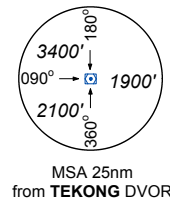
SINGAPORE/Singapore Changi
RWY 20R
LEBAR ONE BRAVO ARRIVAL
LEBAR 1B
RNAV_(GNSS)

ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 26°E (2015)

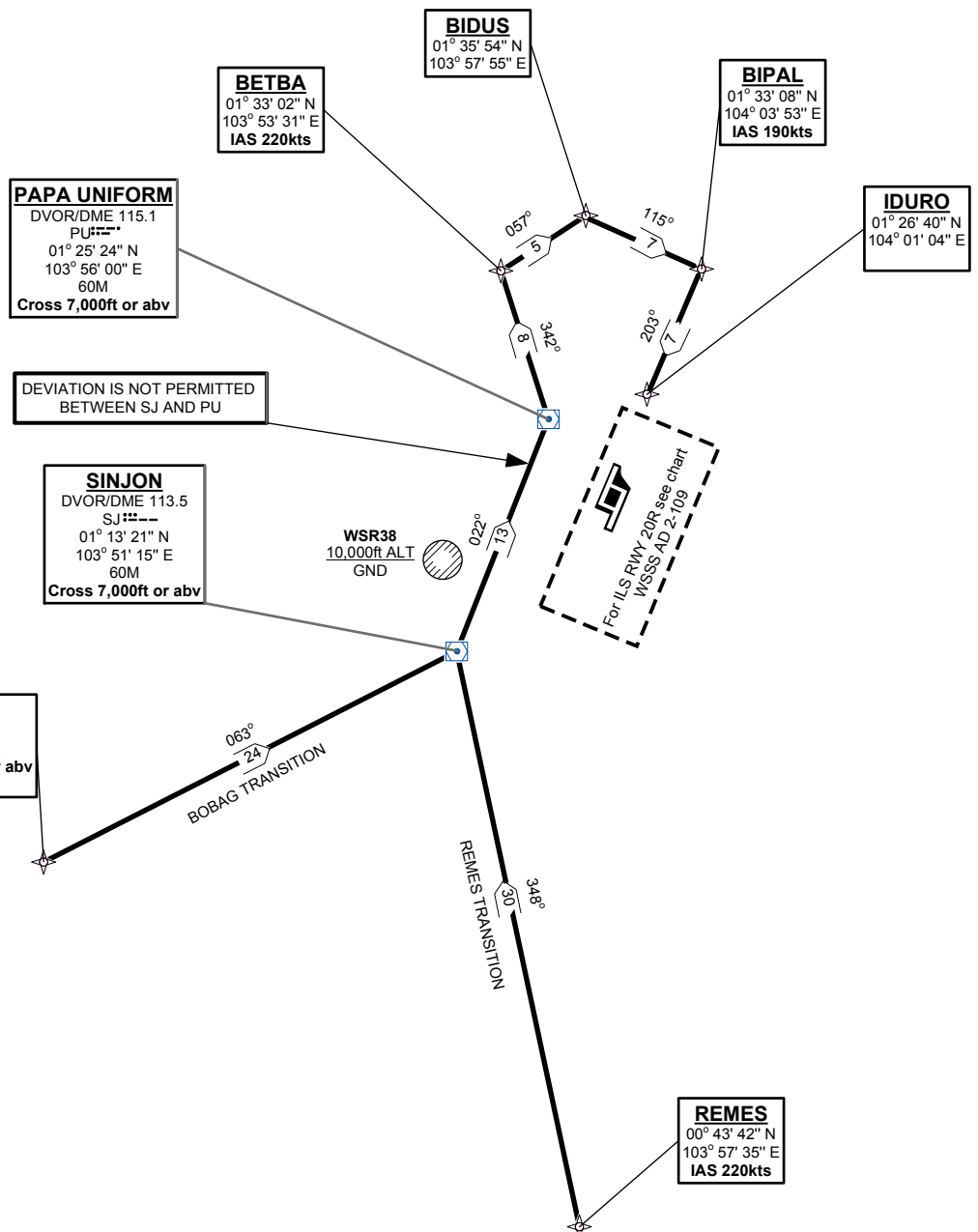
DISTANCES IN NM

NOTE: RADAR REQUIRED

NOTE: REFER TO BACK PAGE FOR
A) FORMAL AND TEXTUAL DESCRIPTIONS
B) RADIO COM FAILURE
PROCEDURES



NOT TO SCALE



(A) LEBAR 1B (RWY 20R) RNAV STAR – DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description (transition BOBAG)	Abbreviated Description	Expected Path Terminator	Flyover required
From BOBAG at or above 10,000ft, at 220kt. To SJ at or above 7000ft.	BOBAG [A100+, K220]- SJ [A070+]-	IF TF	N N
Formal Description (transition REMES)			
From REMES, at 220kt. To SJ at or above 7000ft.	REMES [K220]- SJ [A070+] -	IF TF	N N
Formal Description (LEBAR 1B)			
From SJ at or above 7000ft. To PU at or above 7000ft, turn left. To BETBA, at 220kt, turn right. To BIDUS, turn right. To BIPAL at 190kt, turn right. To IDURO.	SJ [A070+], PU [A070+]- BETBA [K220]- BIDUS - BIPAL [K190]- IDURO -	TF TF TF TF TF TF	N N N N N N

Tabular Description (transition BOBAG)

SN	Path Descriptor	Waypoint Identifier	Flyover	Course °M (°T)	Magnetic Variation (°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH (ft)	Navigation Specification
1	IF	BOBAG	-		-0.5	-	-	A100+	220	-	RNAV1
2	TF	SJ	-	063	-0.5	24	-	A070+	-	-	RNAV1

Tabular Description (transition REMES)

SN	Path Descriptor	Waypoint Identifier	Flyover	Course °M (°T)	Magnetic Variation (°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH (ft)	Navigation Specification
1	IF	REMES	-		-0.5	-	-	-	220	-	RNAV1
2	TF	SJ	-	348	-0.5	30		A070+	-	-	RNAV1

Tabular Description (transition LEBAR 1B)

SN	Path Descriptor	Waypoint Identifier	Flyover	Course °M (°T)	Magnetic Variation (°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH (ft)	Navigation Specification
1	TF	SJ	-		-0.5	-	-	A070+	-	-	RNAV1
2	TF	PU	-	022	-0.5	12.9	-	A070+	-	-	RNAV1
3	TF	BETBA	-	342	-0.5	8	L	-	220	-	RNAV1
4	TF	BIDUS	-	057	-0.5	5.2	R	-	-	-	RNAV1
5	TF	BIPAL	-	115	-0.5	6.6	R	-	190	-	RNAV1
6	TF	IDURO	-	203	-0.5	7	R	-	-	-	RNAV1

(B) RADIO COMMUNICATIONS FAILURE PROCEDURE

1	SET TRANSPONDER TO MODE A/C CODE 7600.
2	When cleared via LEBAR 1B by Singapore ATC (a) Maintain last assigned flight level or altitude and proceed on LEBAR 1B to IDURO (b) From IDURO commence descent and carry out appropriate landing procedures for RWY 20R as close as possible to EAT or ETA (c) If unable to effect a landing, refer to Singapore AIP for missed approach procedure.
3	No Clearance or instruction received from Singapore ATC - Refer to Singapore AIP for radio communications failure procedure

AD 2 - AERODROMES**WSSL AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

WSSL - SINGAPORE / Seletar

WSSL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP Coordinates and Site at AD	012501.04N 1035203.52E
2	Direction and Distance from (city)	006°, 14.6km from city centre (The Fullerton, Singapore)
3	Elevation/Reference Temperature	14m (46ft) / 33.5°C
4	Geoid Undulation	9.78m
5	MAG VAR	26'E (2015)
6	AD Administration, Address, Telephone, Telefax, AFS	Address: Changi Airport Group (S) Pte Ltd Seletar Airport Building 556, West Camp Singapore 797794 TEL: (65)64810017, FAX: (65)64811190 (Airport Manager) TEL: (65)64812909, FAX: (65)64833044 (AIS) TEL: (65)64812893, FAX: (65)64831656 (Control Tower) TEL: (65)64815077, 97533361 FAX: (65)64831754 (Airside Operations Unit) AFS: WSSLYDYX
7	Types of Traffic Permitted	IFR and VFR
8	Remarks	a) Scheduled Closure Periods for RWY 03/21: see AIP page WSSL AD 2-5. b) PPR for aircraft not equipped with RTF. c) A subsonic jet aircraft, unless otherwise exempted, is not permitted to operate in Singapore unless it possesses a noise certificate stating that it meets the noise standards of ICAO Annex 16, Volume 1, Chapter 3, or equivalent. The noise certificate may also take the form of a suitable statement contained in another document approved by the State of Registry of the aircraft. d) Direct transit area. Overnight transit in Singapore city. e) All arriving and departing aircraft are required to appoint a licensed Ground Handling Agent (GHA). List of Seletar GHAs can be downloaded from URL - http://www.seletarairport.com/ground-handling-agents-at-seletar-airport.html

WSSL AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24	5	ATS Reporting Office	H24
2	Customs and Immigration	H24	6	MET Briefing Office	H24
3	Health and Sanitation	H24	7	Air Traffic Services	H24
4	AIS Self-Briefing Office	H24	8	Apron Control Office	H24

WSSL AD 2.4 HANDLING SERVICES AND FACILITIES

1	<i>Cargo Handling Facilities</i>	Provided by handling agent
2	<i>Fuel / Oil Types</i>	AVGAS 100LL and JET A1
3	<i>Fuelling Facilities / Capacity</i>	MON to FRI BTN 0030-1030; SAT, SUN and Public holidays BTN 0030-0930 Contact during operating hours: TEL: (65)64811522 or (65)64846681 FAX: (65)64812159 Contact after operating hours: HP: (65)91294161 or (65)91284143
4	<i>Hangar space for visiting aircraft</i>	By arrangement with handling agent.
5	<i>Repair facilities for visiting aircraft</i>	By arrangement with handling agent.
6	<i>Remarks</i>	Nil

WSSL AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	Nil
2	<i>Restaurants</i>	Nil
3	<i>Transportation</i>	Handling agent provides its own transport service for passengers and crew between airport and city. Public buses and private hired taxis are available at airport terminal.
4	<i>Medical Facilities</i>	Nil
5	<i>Banks and Post Offices</i>	Nil
6	<i>Tourist Office</i>	Nil
7	<i>Remarks</i>	Nil

WSSL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	CAT 7 (No facilities for foaming of runway).
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO.
3	<i>Capability for removal of disabled aircraft</i>	Up to B757-200. Contact Seletar Airside Operations at: +65 64815077 or +65 97533361
4	<i>Remarks</i>	All Airport Emergency Service personnel are trained in rescue and fire-fighting as well as medical first-aid.

WSSL AD 2.7 SEASONAL AVAILABILITY - CLEARING

The aerodrome is available throughout the year	
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WSSL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA		
1	<i>Apron surface and strength</i>	Surface: Bituminous concrete (aircraft stand C7) Strength: PCN44/F/C/X/T Surface: Concrete (all other aircraft stands) Strength: PCN41/R/C/W/T
2	<i>Taxiway width, surface and strength</i>	Width: 23m (75.5ft), 18m (59.1ft) TWY EC4 8m (26.2ft) TWY WS1 and WS2 Surface: Bituminous concrete Strength: PCN44/F/C/X/T
3	<i>Remarks</i>	

WSSL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS		
1	<i>Use of aircraft stand ID signs, TWY guidelines and visual docking/parking guidance system of aircraft stands</i>	Taxiing guidance signs at all intersections with TWY and RWY at all holding positions. Guidelines at apron. Nose-in guidance at aircraft stands.
2	<i>RWY and TWY markings and LGT</i>	
<u>RWY LGT:</u> refer to page WSSL AD 2-5 for details. RWY Turn Pad LGT / Markings: Only AVBL at THR RWY 03. Yellow turnpad centreline. <u>TWY LGT:</u> TWY Edge LGT: Blue LGT, inset, elevated and omni-directional. TWY markings: Yellow TWY centreline. <u>MARKING AIDS:</u> Threshold, touchdown zone, centre line stripes and RWY designation. RWY width outline from bituminous concrete surface by white lines. <u>AIMING POINT MARKINGS:</u> RWY 03: coincident with PAPI origin located 311.6m from THR respectively. RWY 21: coincident with PAPI origin located 232.8m from THR respectively.		
3	<i>Stop Bars: Red LGT across taxiways W1, W2, W3, E2, E3 and E4, flushed with TWY surface. Crash Alarm Stop Bars: Red LGT across junctions of EP, EC4 and EH2 TWY, flushed with TWY surface. (Note to pilots and tow-crew: Slow down when taxiing / towing on TWY EP between TWY EC4 and abeam the Control Tower. Keep a lookout for emergency vehicles that may cross the taxiway to respond to emergency on the RWY.)</i>	

WSSL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

4	Remarks
	a) Aircraft operators/ground handlers shall be responsible for the safe and smooth operations of aircraft at the aircraft stands. b) To enhance airside safety, all aircraft larger than Code A (i.e. up to but not including 15m wingspan) shall be marshalled into the aircraft stands. c) Arriving aircraft will be assigned an aircraft stand. A ground handler shall marshal the aircraft into the aircraft stand. d) A ground handler shall be at the aircraft stand when the aircraft is ready to depart. When the pilot signals that he is ready to taxi, the ground handler shall ensure that the area around the aircraft is clear before marshalling the aircraft out of the aircraft stand. e) Only Code A aircraft, Code B aircraft, aircraft type Global Express, Global 5000, Global Express XRS, Fokker 50, Fokker 100, Gulfstream 500, Gulfstream 550, ATR 72-500, DASH 7 and Falcon 7X are allowed to self-power out from aircraft stands C1, C2, C3, C4, C5 and C6. f) Aircraft at stand C1 shall self-power out towards the north only. g) Aircraft at stand C6 shall self-power towards the south only. h) Aircraft at stands C2, C3, C4 and C5 are allowed to self-power out towards the south or the north. i) Aircraft can self-power in from the north as well as the south via TWY WA. j) All personnel, tow tugs and equipment shall be cleared from the aircraft stand and red chevron markings on the adjacent aircraft stands before self-power out can commence. k) Aircraft with wingspan larger than 28.35m are not allowed to park at aircraft stand C7. Refuelling will not be allowed at aircraft stand C7.

WSSL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS							
Designations RWY NR	TRUE BRG	Dimensions of RWY (m)	Strength (PCN) and Surface of RWY and SWY	THR coordinates (THR GEOID Undulation)	THR Elevation	RWY End Elevation	Highest Elevation of Touchdown Zone
1	2	3	4	5	6	7	8
03	033.33°	1836 x 46	44/F/C/X/T Bituminous concrete	012430.846N 1035143.791E (9.78m)	14m	5m	13m
21	213.33°	1836 x 46	44/F/C/X/T Bituminous concrete	012520.791N 1035216.425E (9.78m)	5m	14m	10m
CWY Dimensions		STRIP Dimensions (m)		OFZ	Remarks (continued below)		
9		10		11	12		
60m X 150m		1956m X 150m		Not applicable	RESA RWY 03 - 90m X 92m RESA RWY 21 - 240m X 92m		

12	Remarks:
Scheduled closure periods for RWY 03/21 a) BTN 1600-2300 first FRI of EV month or second FRI if the first FRI is a public holiday. RWY CLSD to all TFC except medivac and EMERG flights. Advance notice of 30 minutes is required for EMERG opening of RWY. b) BTN 0500-0515, 1030-1045, 1600-1615 and 2300-2315 daily for RWY inspection. Aircraft to expect delay. c) BTN 1600-1800 EV TUE and FRI of EV month. RWY CLSD to all TFC except medivac and EMERG flights. Advance notice of 30 minutes is required for EMERG opening of RWY.	
Runway turn pad a) A lighted turn pad with centreline marking is provided at the threshold of RWY 03 which is able to serve aircraft up to B757-200.	

WSSL AD 2.13 DECLARED DISTANCES					
RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
03	1 836	1 896	1 836	1 836	
21	1 836	1 896	1 836	1 836	

WSSL AD 2.14 APPROACH AND RUNWAY LIGHTING								
RWY Designator	APCH LGT Type LEN INTST	THR LGT Colour WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY CL LGT, LEN spacing, Colour, INTST	RWY Edge LGT LEN, spacing Colour, INTST	RWY End LGT Colour WBAR	SWY LGT LEN Colour
1	2	3	4	5	6	7	8	9
03	Simple APCH LGT: 4 rows of barettes of 3 LGT each and 1 crossbar of 13 LGT. White, elevated, uni-directional APCH LGT and white, omni-directional CGL on top of elevated APCH LGT. Simple TDZ LGT: 2 pairs white, inset, uni-directional LGT.	Green with THR IDENT LGT	PAPI 3°(both sides of RWY) 2 white 2 red LGT (17.720m) 3 white 1 red LGT (20.323m) 4 white LGT (22.927m). ACFT with eye-to-wheel HGT greater than 6.3m are ADZ to fly with 2 white 2 red LGT visible so as to achieve sufficient wheel CLR.	Nil	Nil	White with yellow on last 600m of either end. Elevated, omni-directional and brilliancy controlled.	Red	Nil
21	APCH LGT: 1 row of inset APCH LGT of 4 LGT and 4 rows of barettes of 4 LGT each. White inset uni-directional APCH LGT and white omni-directional CGL on top of white, elevated uni-directional APCH LGT. Simple TDZ LGT: 2 pairs white, inset, uni-directional LGT.	Green with THR IDENT LGT	PAPI 3.5°(both sides of RWY) 2 white 2 red LGT (17.720m) 3 white 1 red LGT (19.286m) 4 white LGT (20.871m). ACFT with eye-to-wheel HGT greater than 6.3m are ADZ to fly with 2 white 2 red LGT visible so as to achieve sufficient wheel CLR.	Nil	Nil	White with yellow on last 600m of either end. Elevated, omni-directional and brilliancy controlled.	Red	Nil
RWY 21 THR and RWY END LGT symmetrically disposed in 2 groups with a gap between the groups. RWY 21 THR and RWY END LGT reinstated to inset fitting.								

WSSL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: 012448.000N 1035207.956E (on top of Control Tower) ALTN FLG W G EV 2.5 SEC. HN and IMC IBN: 012509.939N 1035152.143E (on top of West Substation) Flashing G 'SL' repeatedly. HN and IMC
2	LD and LGTI location Anemometer location and LGT	Cup anemometers and wind vanes and windsocks at ends of RWY.
3	TWY edge and centre line marking	TWY Edge LGT: Blue, elevated and omni-directional TWY Centreline Marking: Yellow
4	Secondary power supply/switch-over time	Automatic standby generator power supply available for airfield lighting.
5	Remarks	Vehicles painted yellow or displaying checkered red/white or orange/white flag at highest point of vehicle. WDI lighted.

WSSL AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of THR of FATO Geoid undulation	H03 012437.963N 1035152.072E	H21 012446.046N 1035157.344E												
2	FATO elevation M/FT	H03- 10.45m/34.3ft; H21 - 9.36m/30.7ft													
3	FATO area dimensions, surface, strength, marking	Rectangle 297m x 21.5m, compacted turf, helicopter landing area designations, outline by concrete kerbs painted white.													
4	True BRG of FATO	033.33/213.33° Direction of TKOF zones: 034°GEO / 214°GEO													
5	Declared distance available	<table> <tr> <td></td><td>TODAH</td><td>RTODAH</td><td>LDAH</td></tr> <tr> <td>H03</td><td>297m</td><td>297m</td><td>297m</td></tr> <tr> <td>H21</td><td>297m</td><td>297m</td><td>297m</td></tr> </table>			TODAH	RTODAH	LDAH	H03	297m	297m	297m	H21	297m	297m	297m
	TODAH	RTODAH	LDAH												
H03	297m	297m	297m												
H21	297m	297m	297m												
6	Approach and FATO lighting	Nil													
7	Remarks	Slope of helicopter landing area (transverse/longitudinal) H03 - 1.19%/0.44% ; H21 - 0.96%/0.44%													

WSSL AD 2.17 ATS AIRSPACE

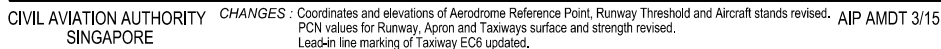
1	Designation and Lateral Limits	SELETAR CTR 012703N 1035009E 012825N 1035009E 012900N 1035425E 012534N 1035454E thence along international boundary to 012556N 1035326E 012227N 1035158E 012232N 1035016E 012327N 1034922E 012607N 1035053E and thence an arc of 2NM radius (centred at position 012527N 1034856E) joining 012607N 1035053E and 012703N 1035009E. SELETAR CONTROL ZONE 'A' Portion of Seletar CTR within Singapore FIR is known as Seletar CTR 'A'. SELETAR CONTROL ZONE 'B' The part in the Kuala Lumpur FIR is known as Seletar CTR 'B' and is bounded by 012825N 1035009E, 012900N 1035425E, 012534N 1035454E thence along the Peninsular Malaysia/ Singapore international boundary to 012808N 1035010E to 012825N 1035009E from GND/ sea level to 3,000ft. It will be activated only with prior approval of Johor Bahru ATC. (see chart WSSL AD 2-33).
2	Vertical Limits	SFC to 3,000ft ALT
3	Airspace Classification	C
4	ATS Unit Call sign Language(s)	Seletar Tower English
5	Transition Altitude	11,000ft (3,350m)
6	Remarks	Nil

01° 25' 01.04"N
103° 52' 03.52"E

ELEV 14m

TWR	118.45
	121.6

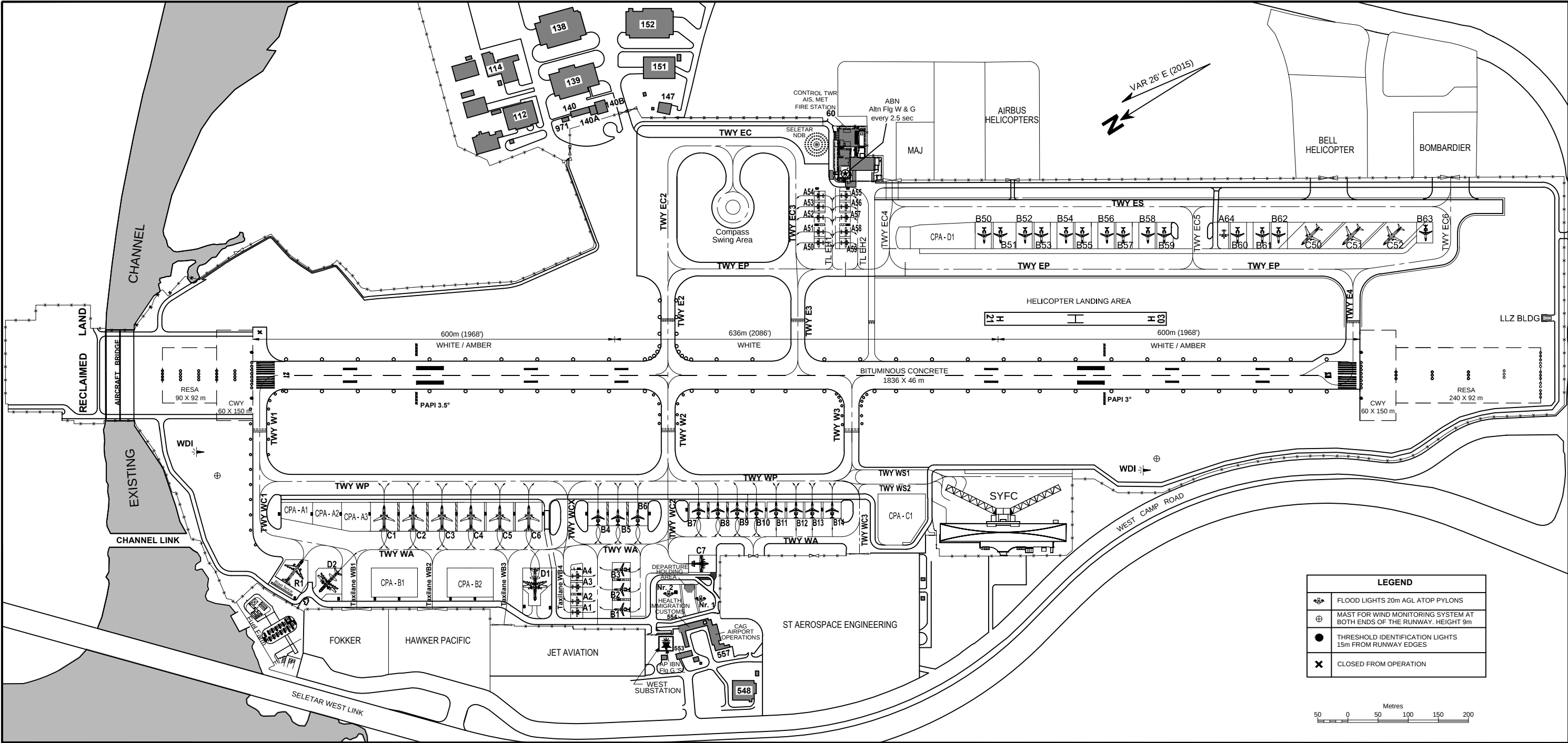
SINGAPORE/SELETAR



INS COORDINATES FOR AIRCRAFT STANDS

STAND NR	NORTH LATITUDE	EAST LONGITUDE	ELEVATION
A1	01 25 13.102	103 51 56.167	6.181m (20.280ft)
A2	01 25 12.779	103 51 56.653	6.338m (20.795ft)
A3	01 25 12.350	103 51 57.301	6.586m (21.609ft)
A4	01 25 12.029	103 51 57.787	6.761m (22.183ft)
A50	01 24 51.431	103 52 05.765	7.807m (25.615ft)
A51	01 24 51.110	103 52 06.251	7.948m (26.077ft)
A52	01 24 50.681	103 52 06.900	8.105m (26.593ft)
A53	01 24 50.358	103 52 07.387	8.211m (26.940ft)
A54	01 24 50.036	103 52 07.874	8.337m (27.354ft)
A55	01 24 48.591	103 52 06.930	8.750m (28.709ft)
A56	01 24 48.913	103 52 06.443	8.587m (28.174ft)
A57	01 24 49.236	103 52 05.957	8.402m (27.567ft)
A58	01 24 49.665	103 52 05.309	8.179m (26.835ft)
A59	01 24 49.987	103 52 04.822	8.014m (26.294ft)
B1	01 25 11.401	103 51 55.231	6.301m (20.674ft)
B2	01 25 10.817	103 51 56.116	6.639m (21.783ft)
B3	01 25 10.221	103 51 57.014	6.967m (22.859ft)
B4	01 25 09.180	103 52 00.361	7.703m (25.274ft)
B5	01 25 08.258	103 51 59.758	7.933m (26.028ft)
B6	01 25 07.348	103 51 59.163	8.163m (26.783ft)
B7	01 25 04.505	103 51 57.519	8.442m (27.698ft)
B8	01 25 03.635	103 51 56.951	8.406m (27.580ft)
B9	01 25 02.765	103 51 56.382	8.396m (27.547ft)
B10	01 25 01.893	103 51 55.814	8.383m (27.505ft)
B11	01 25 01.006	103 51 55.237	8.330m (27.331ft)
B12	01 25 00.109	103 51 54.650	8.449m (27.721ft)
B13	01 24 59.374	103 51 54.170	8.571m (28.121ft)
B14	01 24 58.477	103 51 53.582	8.578m (28.144ft)
B50	01 24 43.887	103 52 00.875	8.753m (28.719ft)
B51	01 24 43.153	103 52 00.394	8.847m (29.027ft)
B52	01 24 42.063	103 51 59.681	8.988m (29.490ft)
B53	01 24 41.328	103 51 59.202	9.183m (30.129ft)
B54	01 24 40.154	103 51 58.435	9.358m (30.704ft)
B55	01 24 39.420	103 51 57.954	9.434m (30.953ft)
B56	01 24 38.347	103 51 57.253	9.592m (31.471ft)
B57	01 24 37.614	103 51 56.774	9.679m (31.757ft)
B58	01 24 36.462	103 51 56.021	9.806m (32.172ft)
B59	01 24 35.728	103 51 55.541	9.930m (32.580ft)
B60	01 24 32.416	103 51 53.376	10.094m (33.117ft)
B61	01 24 31.265	103 51 52.624	10.177m (33.389ft)
B62	01 24 30.529	103 51 52.144	10.246m (33.617ft)
B63	01 24 23.858	103 51 47.937	10.639m (34.907ft)
C1	01 25 18.803	103 52 06.627	5.105m (16.750ft)
C2	01 25 17.498	103 52 05.773	5.423m (17.793ft)
C3	01 25 16.192	103 52 04.921	5.759m (18.895ft)
C4	01 25 14.887	103 52 04.067	6.256m (20.526ft)
C5	01 25 13.581	103 52 03.214	6.824m (22.390ft)
C6	01 25 12.275	103 52 02.360	7.304m (23.964ft)
C7	01 25 05.738	103 51 54.466	7.192m (23.596ft)
C50	01 24 29.476	103 51 51.396	10.381m (34.060ft)
C51	01 24 27.626	103 51 50.188	10.589m (34.743ft)
C52	01 24 25.781	103 51 48.979	10.770m (35.335ft)
D1	01 25 14.663	103 51 58.151	6.408m (21.025ft)
D2	01 25 24.033	103 52 04.804	3.471m (11.388ft)

SELETAR AERODROME
LAYOUT OF SIGNIFICANT AERODROME BUILDINGS AND APRON FACILITIES



SINGAPORE / Seletar



WSAP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

WSAP - Paya Lebar Airport

WSAP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	012120.6N 1035410.0E (Paya Lebar IBN)
2	Direction and distance from (city)	-
3	Elevation/Reference temperature	20m (65ft) / 31.5°C
4	MAG VAR	26°E (2015)
5	AD Administration, address, telephone, telefax, telex, AFS	Paya Lebar Airport Singapore 539906 Tel: 63813222 (Base Operations Centre) AFS: WSAPYWYX
6	Types of traffic permitted	IFR
7	Remarks	Operator: Republic of Singapore Air Force. Alternate/Emergency Diversionary Aerodrome for Singapore Changi Airport (see page WSAP AD 2-9)

WSAP AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	BTN 2300-1100 SUN/MON to THU/FRI, 2300-0500 FRI/SAT; Public holidays and outside operating hours prior permission required from RSAF Headquarters via Paya Lebar Operations.
2	Customs and Immigration	by prior arrangement only
3	Health and Sanitation	by prior arrangement only
4	AIS Briefing Office	-
5	ATS Reporting Office	-
6	MET Briefing Office	H24
7	Air Traffic Services	H24
8	Remarks	AD may be closed periodically for Foreign Object Damage (FOD) walk. Actual emergency or diversion will be accepted at 30 min notification. Such closure will be published via NOTAM.

WSAP AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo Handling Facilities	-
2	Fuel / Oil Types	JET A1, Oil
3	Fuelling Facilities / Capacity	BTN 2300-1100 SUN/MON to THU/FRI; 2300-0500 FRI/SAT; Public holidays and outside operating hours prior permission required from RSAF Headquarters via Paya Lebar Operations.
4	Hangar space for visiting aircraft	-
5	Repair facilities for visiting aircraft	-
6	Remarks	Nil

WSAP AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	Nil
2	<i>Restaurants</i>	Nil
3	<i>Transportation</i>	Nil
4	<i>Medical Facilities</i>	Nil
5	<i>Banks and Post Offices</i>	Nil
6	<i>Tourist Office</i>	Nil
7	<i>Remarks</i>	Nil

WSAP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	CAT 9
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	Sufficient salvage equipment provided by Airfield Ground Services section at military bases.
4	<i>Remarks</i>	All Airport Emergency Services personnel are trained in rescue and fire-fighting as well as medical first-aid.

WSAP AD 2.7 SEASONAL AVAILABILITY - CLEARING

The aerodrome is available throughout the year.	
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WSAP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1.	<i>Apron surface and strength</i>	Strength: LCN80 - Flexible (Apron A) Strength: LCN100 - PCN71/R/B/W/U (Apron B) Strength: LCN100 - PCN72/F/B/W/U (Apron C) Strength: LCN80 - Flexible (Jet Apron/Jet Apron Extension)
2.	<i>Taxiway width, surface and strength</i>	Strength: PCN72/F/B/W/U
3.	<i>Remarks</i>	TWY between TWY W1 and TWY W2 closed to all code C and above aircraft. Pilots to exercise caution.

AD 2 - AERODROMES**WSAT AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

WSAT - TENGAH AIRPORT

WSAT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	012315.40N 1034229.80E
2	Direction and distance from (city)	-
3	Elevation/Reference temperature	15.24m (50ft) / 31.5°C
4	MAG VAR	26'E (2015)
5	AD Administration, address, telephone, telefax, telex, AFS	RSAF Tengah Airbase Choa Chu Kang Road Singapore 669638 TEL: (65) 67612222 AFS: WSATYWYX
6	Types of traffic permitted	IFR
7	Remarks	Emergency Diversion Aerodrome for Singapore Changi Airport (see page WSAT AD 2-7)

WSAT AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	2300-1100 SUN/MON to THU/FRI. Public holidays and outside the above stipulated operating hours, prior permission required from RSAF Headquarters via Tengah Operations. For EMERG diversions AD AVBL at 2 hours notice. Only Aerodrome Control Service provided. No radar service AVBL outside OPR hours during AD non-operating times.
2	Customs and Immigration	by prior arrangement
3	Health and Sanitation	by prior arrangement
4	AIS Briefing Office	-
5	ATS Reporting Office	-
6	MET Briefing Office	-
7	Air Traffic Services	-
8	Remarks	-

WSAT AD 2.4 HANDLING SERVICES AND FACILITIES		
1	<i>Cargo Handling Facilities</i>	-
2	<i>Fuel / Oil Types</i>	JET A1, F3
3	<i>Fuelling Facilities / Capacity</i>	2300-1100 SUN/MON to THU/FRI; Public holidays & outside OPR HR PPR from RSAF HQ via Tengah Operations.
4	<i>Hangar space for visiting aircraft</i>	-
5	<i>Repair facilities for visiting aircraft</i>	-
6	<i>Remarks</i>	Nil

WSAT AD 2.5 PASSENGER FACILITIES		
1	<i>Hotels</i>	-
2	<i>Restaurants</i>	-
3	<i>Transportation</i>	-
4	<i>Medical Facilities</i>	-
5	<i>Banks and Post Offices</i>	-
6	<i>Tourist Office</i>	-
7	<i>Remarks</i>	Nil

WSAT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES		
1	<i>AD category for fire fighting</i>	CAT 7
2	<i>Rescue equipment</i>	Adequately provided as recommended by ICAO
3	<i>Capability for removal of disabled aircraft</i>	Sufficient salvage equipment provided by Airfield Ground Services section at Military bases.
4	<i>Remarks</i>	All Airport Emergency Services personnel are trained in rescue and fire-fighting as well as medical first-aid.

WSAT AD 2.7 SEASONAL AVAILABILITY - CLEARING	
The aerodrome is available throughout the year.	

WSAT AD 2.18 ATS COMMUNICATION FACILITIES				
Service Designation	Call sign	Frequency P - Primary S - Secondary	Hours of operation	Remarks
APP	Tengah Approach	P130.0 MHz P263.4 MHz S122.0 MHz	BTN 2300-1100 SUN/MON to THU/FRI; and On SUN, Public holidays and outside the above times, PPR from RSAF HQ via Tengah Ops.	
TWR	Tengah Tower	P122.0 MHz P282.5 MHz S263.4 MHz		
	Tengah Ground	122.0 MHz 337.8MHz		
	Tengah Talkdown	130.0 MHz 290.8 MHz 328.5 MHz		
ACC	Singapore Radar	P123.7 MHz S127.3 MHz	H24	for AWY B469, G219, G334, R208, L625, L629, L635, L642, M751, M753, M758, M761, M763, M771, N884, N891 and N892.
		133.8 MHz	0000-1430	
		P133.25 MHz S135.8 MHz	H24	for AWY A457, A464, A576, B466, R325 (all northbound) and R469.
		P134.4 MHz S128.1 MHz 255.4 MHz		for AWY A464, G579, A576 (all southbound), B470, G220, N875 and in area in the immediate vicinity of Singapore
		Radar Maint Period: Monthly - EV third SAT 1601-2359		
	Singapore Radio	6 556 KHz 11 297 KHz	H24	SEA 1, SATCOM SER AVBL SSB suppressed carrier
		5 655 KHz 8 942 KHz 11 396 KHz		SEA 2, SATCOM SER AVBL SSB suppressed carrier
		6 556 KHz		SEA 3, SATCOM SER AVBL SSB suppressed carrier
	APP	Singapore Approach		P120.3 MHz S124.6 MHz

WSAT AD 2.19 RADIO NAVIGATION AND LANDING AIDS					
Type of Aid	IDENT	FREQ	OPR Hour	Coordinates	Remarks
TACAN	TNG	CH86X	2300-1100 from SUN/MON to THU/FRI SUN, Public holidays and outside the above timings, prior permission required from RSAF HQ via Tengah Operations.	012336.00N 1034242.00E	043° MAG 0.55km from ARP Maint Period: 0001-0900 second SAT of EV month
SINJON DVOR/DME	SJ	113.5MHz CH82X	H24	011321.54N 1035115.74E	201° MAG 14.5km from THR RWY 02 (Paya Lebar) Antenna HGT: 194ft AMSL. Coverage 200NM Maint Period: 0200-0600 third THU of EV month
ILS LLZ RWY 36	ITN	108.1MHz	H24	012408.43N 1034234.34E	Located 260m from THR RWY 18 along centreline of RWY. Course width 3°
ILS GP RWY 36	-	334.7MHz	H24	012240.84N 1034231.01E	GP antenna 3°
ILS DME RWY 36	ITN	CH18X	H24	012241.02N 1034226.67E	DME co-located with GP
ILS LLZ RWY 18	ITS	111.3MHz	H24	012221.63N 1034224.98E	Located 290m from THR RWY 36 along centreline of RWY. Course width 3°
ILS GP RWY 18	-	323.4MHz	H24	012351.64N 1034237.33E	GP antenna 3°
ILS ME RWY 18	ITS	CH50X	H24	012350.04N 1034236.38E	DME co-located with GP

AD 2 - AERODROMES**WSAG AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

WSAG - Sembawang Aerodrome

WSAG AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	012536N 1034858E
2	Elevation/Reference temperature	25.82m (86ft) / 31.5°C
3	MAG VAR	26'E (2015)
4	Ad Administration, address, telephone, telefax, telex, AFS	RSAF Sembawang Airbase, Sembawang Road, Singapore TEL: (65)67508036 (Base Operations Centre) AFS: WSAGYWYX
5	Types of traffic permitted	VFR only
6	Remarks	Operator: Republic of Singapore Air Force. AD for helicopter use only.

WSAG AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	2300-1100 SUN/MON to THU/FRI, 2300-0500 FRI/SAT. Prior permission required on SUN and Public holidays.
2	MET Briefing Office	H24
3	Air Traffic Services	H24
4	Remarks	Nil

WSAG AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 4
2	Rescue equipment	Adequately provided as recommended by ICAO
3	Capability for removal of disabled aircraft	Sufficient salvage equipment provided by Airfield Ground Services section at Military Bases.
4	Remarks	All Airport Emergency Services personnel are trained in rescue and fire fighting as well as medical first-aid.

WSAG AD 2.8 APRON, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Strength: PCN 26
2	Taxiway width, surface and strength	Strength: PCN 26
3	Remarks	Nil

WSAG AD 2.10 AERODROME OBSTACLES	
<i>In Approach / TKOF Areas</i>	<i>In Circling Area and at Aerodrome</i>
6 tower cranes, HGT 128m, located at 012800N 1035000E (Sembawang Shipyard). Marked/Lighted.	Nil

WSAG AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS					
<i>RWY Designator</i>	<i>True and Magnetic Bearing</i>	<i>RWY Dimensions (m)</i>	<i>Strength and surface of RWY/ SWY</i>	<i>THR Coordinates</i>	<i>THR ELEV and highest ELEV of TDZ of Precision APCH RWY</i>
1	2	3	4	5	6
05	046°	914 x 30	LCN 26 Bitumen	Nil	86ft
23	226°	914 x 30	LCN 26 Bitumen	Nil	54ft

WSAG AD 2.13 DECLARED DISTANCES					
<i>RWY Designator</i>	<i>TORA (m)</i>	<i>TODA (m)</i>	<i>ASDA (m)</i>	<i>LDA (m)</i>	<i>Remarks</i>
1	2	3	4	5	6
05	914	975	975	914	Nil
23	914	975	975	914	Nil

WSAG AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY		
1	<i>IBN</i>	012500N 1034854E, FLG R 'AG', EV 20 SEC, OPR HR: HN and IMC
2	<i>WDI/Taxiway/Stopway</i>	Lighted

WSAG AD 2.17 ATS AIRSPACE		
1	<i>Designation and Lateral Limits</i>	SEMBAWANG ATZ An arc of 2NM radius centred on Sembawang AD (012527N 1034856E) commencing from 168° radial clockwise to 072° radial and thence a straight line joining these two points.
2	<i>Vertical Limits</i>	SFC to 3,000ft ALT
3	<i>Airspace Classification</i>	Nil
4	<i>ATS unit Callsign Language(s)</i>	Sembawang Tower English
5	<i>Transition Altitude</i>	11,000 ft (3,350m)
6	<i>Remarks</i>	Controlling Authority: RSAF, Sembawang Air Base. Prior permission required for non-scheduled aircraft. Traffic Circuit: RWY 05 - left hand circuit Traffic Circuit: RWY 23 - right hand circuit Transit Channel: refer to chart on page ENR 3.5-3.

WSAG AD 2.18 COMMUNICATION FACILITIES				
Service Designation	Callsign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Paya Lebar Approach	127.7 MHz 255.8 MHz	BTN 2300-1100 SUN / MON to THU / FRI and 2300-0500 FRI / SAT. Prior permission required on SUN and Public holidays	Nil
TWR	Sembawang Tower	129.7 MHz 239.0 MHz		Nil
GND	Sembawang Ground	277.1 MHz 118.8 MHz		Nil
ACC	Singapore Radar	123.7 MHz 127.3 MHz	H24	for AWY B469, G219, G334, R208, L625, L629, L635, L642, L644, M751, M753, M758, M761, M763, M771, N884, N891, N892.
		133.25 MHz 135.8 MHz		for AWY A457, A464, A576, B466, R325 (all northbound) and R469.
		134.4 MHz 128.1 MHz 255.4 MHz		for AWY A464, A576, G579 (all southbound), B470, L644, N875 and in the area in the immediate vicinity of Singapore.
		124.05MHz	0000-1530	Flow control service provided for ARR / DEP ACFT.
		MAINT Period: Monthly - EV 3rd SAT 1601-2359		
ACC	Singapore Radio	6556 KHz 11297 KHz	H24	SEA 1. Emission A3AJ. SSB suppressed carrier. SATCOM SER AVBL.
		5655 KHz 8942 KHz 11396 KHz		SEA 2. Emission A3AJ. SSB suppressed carrier. SATCOM SER AVBL.
		6556 KHz		SEA 3. Emission A3AJ. SSB suppressed carrier. SATCOM SER AVBL.
APP	Singapore Approach	P120.3 MHz S124.6 MHz	H24	TAR - Intermediate approach to Singapore Changi AP and other airports in Singapore. DEP from all airports in Singapore.
	Singapore Arrival	119.3 MHz		TAR - Intermediate and final approach to Singapore Changi Airport.
ASR I MAINT Period: Monthly - EV 1st SAT 1601-2359 ASR II MAINT Period: Monthly - EV 4th SAT 1601-2359				

WSAG AD 2.19 RADIO NAVIGATION AND LANDING AIDS					
Type of Aid	IDENT	Frequency	OPR HR	Coordinates	Remarks
1	2	3	4	5	6
SEMBAWANG NDB	AG	325 KHz	H24	012524.00N 1034924.00E	198° MAG 0.54km from ARP Coverage 30NM. MAINT Period: Monthly - EV 2nd FRI 0200-0400. For training approaches in VMC only.

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