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eAIP

AMDT
01/2023
Effective date
23 FEB 2023
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23 FEB 2023

wp-AMDT-2023-01

1. Significant information and changes

1.1 Singapore FIR

a. Updated Approach Airspace Holding Procedures in WSSS AD 2.22, paragraph 23.4.4 and ENR 3.6 Enroute Holding tables.

1.2 Singapore Changi Airport

a. Taxiways U3 and U4 re-designated to Taxiway U.

2. This amendment incorporates information contained in the listed AIP Supplement which is hereby superseded:

AIP Supplement
161/2022 dated 15/12/2022

Amended Pages

GEN 0.2-1/2: *: replace.*
GEN 0.3-1/2: *: replace.*
GEN 0.3-3/4: *: replace.*
GEN 0.3-5: *: replace.*
GEN 0.4-1/2: *: replace.*
GEN 0.4-3: *: replace.*
GEN 1.7-1/2: *: replace.*
GEN 1.7-3/4: *: replace.*
GEN 3.2-3/4: *: replace.*
ENR 3.6-1/2: *: replace.*
ENR 5.5-1: *: replace.*
AD 2.WSSS-43/44: *: replace.*
AD-2-WSSS-ADC-2: *: replace.*
AD-2-WSSS-STAR-1 to 1.1: *: replace.*
AD-2-WSSS-STAR-2 to 2.1: *: replace.*
AD-2-WSSS-STAR-3 to 3.1: *: replace.*
AD-2-WSSS-STAR-4 to 4.1: *: replace.*

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GEN 0.2 RECORD OF AIP AMENDMENTS

AIP AMENDMENT

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

AIP AMENDMENT

NR/Year	*Publication date*	*Date inserted*	*Inserted by*
06/2018	08 NOV 2018	08 NOV 2018	
01/2019	03 JAN 2019	03 JAN 2019	
02/2019	28 FEB 2019	28 FEB 2019	
03/2019	25 APR 2019	25 APR 2019	
04/2019	20 JUN 2019	20 JUN 2019	
05/2019	15 AUG 2019	15 AUG 2019	
06/2019	10 OCT 2019	10 OCT 2019	
07/2019	05 DEC 2019	05 DEC 2019	
01/2020	30 JAN 2020	30 JAN 2020	
02/2020	26 MAR 2020	26 MAR 2020	
03/2020	21 MAY 2020	21 MAY 2020	
04/2020	16 JUL 2020	16 JUL 2020	
05/2020	10 SEP 2020	10 SEP 2020	
06/2020	05 NOV 2020	05 NOV 2020	
07/2020	31 DEC 2020	31 DEC 2020	
01/2021	25 FEB 2021	25 FEB 2021	
02/2021	22 APR 2021	22 APR 2021	
03/2021	17 JUN 2021	17 JUN 2021	
04/2021	12 AUG 2021	12 AUG 2021	
05/2021	07 OCT 2021	07 OCT 2021	
06/2021	02 DEC 2021	02 DEC 2021	
01/2022	27 JAN 2022	27 JAN 2022	
02/2022	24 MAR 2022	24 MAR 2022	
03/2022	19 MAY 2022	19 MAY 2022	
04/2022	14 JUL 2022	14 JUL 2022	
05/2022	08 SEP 2022	08 SEP 2022	
06/2022	03 NOV 2022	03 NOV 2022	
07/2022	29 DEC 2022	29 DEC 2022	
01/2023	23 FEB 2023	23 FEB 2023	

GEN 0.3 RECORD OF CURRENT AIP SUPPLEMENTS

NR/Year	*Subject*	*AIP section(s) affected*	*Period of validity (from/to)*	*Cancellation record*
071/2018	Paya Lebar Airport - Saddle Cranes	AD	*13 NOV 2018 / 31 DEC 2023*	
053/2019	Paya Lebar Airport - Saddle Cranes and Luffer Crane	AD	*07 MAY 2019 / 31 DEC 2023*	
021/2020	Singapore Changi Airport - Long term closure of aircraft stand E5 at Terminal 2, Singapore Changi Airport	AD	*30 MAR 2020 / 30 DEC 2024*	
059/2020	Singapore Changi Airport - Long term closure of aircraft stand E20 at Terminal 2, Singapore Changi Airport	AD	*25 AUG 2020 / 30 DEC 2026*	
161/2021	Singapore Changi Airport - Steel Frame	AD	*17 JAN 2022 / 17 DEC 2024*	
028/2022	Paya Lebar Airport - Flat-Top Cranes	AD	*12 JAN 2022 / 31 DEC 2023*	
032/2022	Paya Lebar Airport - Cranes	AD	*10 FEB 2022 / 31 DEC 2023*	
035/2022	Paya Lebar Airport - Suspended Scaffold	AD	*10 FEB 2022 / 31 DEC 2023*	
036/2022	Paya Lebar Airport - Mobile Crane	AD	*10 FEB 2022 / 31 DEC 2023*	
037/2022	Paya Lebar Airport - Crawler Cranes	AD	*10 FEB 2022 / 31 DEC 2023*	
042/2022	Paya Lebar Airport - Mobile Crane	AD	*10 FEB 2022 / 31 DEC 2023*	
045/2022	Singapore Changi Airport - Frangible Frames	AD	*01 APR 2022 / 31 JAN 2024*	
048/2022	Paya Lebar Airport - Cranes	AD	*10 MAR 2022 / 31 DEC 2023*	
051/2022	Paya Lebar Airport - Tower Cranes	AD	*10 MAR 2022 / 31 DEC 2023*	
057/2022	Paya Lebar Airport - Luffing Cranes	AD	*12 APR 2022 / 31 MAR 2023*	
058/2022	Paya Lebar Airport - Mobile Cranes	AD	*12 APR 2022 / 30 SEP 2023*	
059/2022	Paya Lebar Airport - Topless Cranes	AD	*12 APR 2022 / 30 SEP 2023*	
060/2022	Paya Lebar Airport - Cranes	AD	*12 APR 2022 / 31 MAR 2023*	
062/2022	Paya Lebar Airport - Cranes	AD	*12 APR 2022 / 31 MAR 2023*	
063/2022	Paya Lebar Airport - Topless Cranes	AD	*12 APR 2022 / 01 APR 2023*	
066/2022	Paya Lebar Airport - Topless Cranes	AD	*12 APR 2022 / 19 MAR 2023*	
067/2022	Paya Lebar Airport - Obstacles	AD	*12 APR 2022 / 30 DEC 2023*	
068/2022	Paya Lebar Airport - Topless Cranes	AD	*12 APR 2022 / 09 MAR 2023*	
069/2022	Paya Lebar Airport - Luffing Crane	AD	*12 APR 2022 / 01 MAR 2023*	
072/2022	Paya Lebar Airport - Tower Crane	AD	*05 MAY 2022 / 11 APR 2023*	
073/2022	Paya Lebar Airport - Cranes	AD	*05 MAY 2022 / 30 APR 2023*	
074/2022	Paya Lebar Airport - Cranes	AD	*05 MAY 2022 / 06 APR 2023*	

NR/Year	*Subject*	*AIP section(s) affected*	*Period of validity (from/to)*	*Cancellation record*
079/2022	Paya Lebar Airport - Luffing Cranes	AD	*02 JUN 2022 / 30 MAY 2023*	
080/2022	Sembawang Aerodrome - Excavator Cranes	AD	*02 JUN 2022 / 05 APR 2023*	
083/2022	Paya Lebar Airport - Topless Tower Cranes	AD	*07 JUL 2022 / 10 JUN 2023*	
085/2022	Paya Lebar Airport - Tower Crane	AD	*07 JUL 2022 / 17 JUN 2023*	
086/2022	Paya Lebar Airport - Mobile Cranes	AD	*07 JUL 2022 / 21 JUN 2023*	
087/2022	Paya Lebar Airport - Luffing Crane	AD	*07 JUL 2022 / 25 JUN 2023*	
088/2022	Paya Lebar Airport - Crawler Crane	AD	*07 JUL 2022 / 31 DEC 2023*	
089/2022	Paya Lebar Airport - Luffer Crane	AD	*07 JUL 2022 / 21 JUN 2023*	
091/2022	Paya Lebar Airport - Cranes	AD	*07 JUL 2022 / 31 DEC 2023*	
092/2022	Paya Lebar Airport - Cranes	AD	*07 JUL 2022 / 08 APR 2023*	
093/2022	Paya Lebar Airport - Mobile Crane	AD	*07 JUL 2022 / 31 DEC 2023*	
095/2022	Paya Lebar Airport - Luffer Cranes	AD	*07 JUL 2022 / 31 DEC 2023*	
096/2022	Paya Lebar Airport - Mobile Cranes	AD	*07 JUL 2022 / 21 JUN 2023*	
097/2022	Paya Lebar Airport - Luffing Crane	AD	*07 JUL 2022 / 31 DEC 2023*	
100/2022	Sembawang Aerodrome - Mobile Cranes	AD	*07 JUL 2022 / 03 JUN 2023*	
102/2022	Implementation of Direct Routing Operations (DRO) for Arrivals into Singapore Changi Airport on ATS Routes L642 and N892	ENR	*08 SEP 2022* PERM	
103/2022	Paya Lebar Airport - Mobile Cranes	AD	*04 AUG 2022 / 04 AUG 2023*	
104/2022	Paya Lebar Airport - Topless Cranes	AD	*04 AUG 2022 / 31 AUG 2023*	
105/2022	Paya Lebar Airport - Cranes	AD	*04 AUG 2022 / 30 JUL 2023*	
106/2022	Paya Lebar Airport - Luffer Crane	AD	*04 AUG 2022 / 31 JUL 2023*	
107/2022	Paya Lebar Airport - Mobile Crane	AD	*04 AUG 2022 / 31 DEC 2023*	
108/2022	Paya Lebar Airport - Mobile Crane	AD	*04 AUG 2022 / 31 JUL 2023*	
109/2022	Paya Lebar Airport - Tower Cranes	AD	*04 AUG 2022 / 01 AUG 2023*	
111/2022	Paya Lebar Airport - Tower Crane	AD	*04 AUG 2022 / 05 AUG 2023*	
112/2022	Paya Lebar Airport - Mobile Crane	AD	*04 AUG 2022 / 31 DEC 2023*	
113/2022	Paya Lebar Airport - Mobile Crane	AD	*04 AUG 2022 / 31 DEC 2023*	
114/2022	Paya Lebar Airport - Cranes	AD	*04 AUG 2022 / 30 DEC 2023*	
115/2022	Paya Lebar Airport - Cranes	AD	*04 AUG 2022 / 09 JUL 2023*	
116/2022	Paya Lebar Airport - Tower Crane	AD	*04 AUG 2022 / 09 JUL 2023*	

NR/Year	Subject	AIP section(s) affected	Period of validity (from/to)	Cancellation record
117/2022	Paya Lebar Airport - Topless Cranes	AD	*04 AUG 2022 / 01 DEC 2023*	
118/2022	Paya Lebar Airport - Luffing Cranes	AD	*04 AUG 2022 / 01 DEC 2023*	
119/2022	Singapore Changi Airport - Closure of Runway 02C/20C and Taxiways due to Changi East Development Works	AD	*06 OCT 2022 / 22 MAR 2023*	
122/2022	Paya Lebar Airport - Cranes	AD	*06 SEP 2022 / 31 DEC 2023*	
123/2022	Paya Lebar Airport - Luffing Cranes	AD	*06 SEP 2022 / 31 DEC 2023*	
124/2022	Paya Lebar Airport - Mobile Cranes	AD	*06 SEP 2022 / 28 DEC 2023*	
125/2022	Paya Lebar Airport - Luffer Cranes	AD	*06 SEP 2022 / 31 DEC 2023*	
126/2022	Paya Lebar Airport - Mobile Crane	AD	*06 SEP 2022 / 02 SEP 2023*	
127/2022	Paya Lebar Airport - Luffer Crane	AD	*06 SEP 2022 / 05 AUG 2023*	
128/2022	Paya Lebar Airport - Cranes	AD	*06 SEP 2022 / 05 AUG 2023*	
129/2022	Singapore Changi Airport - Release of weather balloon with dual radiosondes	ENR	*22 SEP 2022 / 21 JUN 2023*	
130/2022	Seletar Airport - Closure of Helicopter Landing Area	AD	*28 SEP 2022 / 30 SEP 2023*	
131/2022	Paya Lebar Airport - Flat-Top Cranes	AD	*30 NOV 2022 / 31 DEC 2023*	
132/2022	Paya Lebar Airport - Cranes	AD	*06 OCT 2022 / 07 OCT 2023*	
133/2022	Paya Lebar Airport - Derrick Cranes	AD	*06 OCT 2022 / 31 DEC 2023*	
134/2022	Paya Lebar Airport - Mobile Crane	AD	*06 OCT 2022 / 06 JUN 2023*	
135/2022	Paya Lebar Airport - Crawler Cranes	AD	*06 OCT 2022 / 20 SEP 2023*	
136/2022	Paya Lebar Airport - Luffing Cranes	AD	*06 OCT 2022 / 01 OCT 2023*	
137/2022	Paya Lebar Airport - Mobile Cranes	AD	*06 OCT 2022 / 20 MAR 2023*	
138/2022	Paya Lebar Airport - Luffing Cranes	AD	*06 OCT 2022 / 01 MAY 2023*	
139/2022	Paya Lebar Airport - Tower Cranes	AD	*06 OCT 2022 / 23 SEP 2023*	
140/2022	Paya Lebar Airport - Topless Cranes	AD	*06 OCT 2022 / 01 SEP 2023*	
141/2022	Paya Lebar Airport - Luffer Crane	AD	*06 OCT 2022 / 10 DEC 2023*	
143/2022	Singapore Changi Airport - Frangible Frames	AD	*31 OCT 2022 / 31 JAN 2024*	
144/2022	Temporary withdrawal and replacement of Mersing DVOR/DME (VMR)	AD/ENR	*01 DEC 2022 / 03 JUN 2023*	
145/2022	Paya Lebar Airport - Cranes	AD	*10 NOV 2022 / 31 DEC 2023*	
146/2022	Paya Lebar Airport - Topless Cranes	AD	*10 NOV 2022 / 28 OCT 2023*	
147/2022	Paya Lebar Airport - Mobile Crane	AD	*10 NOV 2022 / 28 FEB 2023*	
148/2022	Paya Lebar Airport - Cranes	AD	*10 NOV 2022 / 01 NOV 2023*	

NR/Year	*Subject*	*AIP section(s) affected*	*Period of validity (from/to)*	*Cancellation record*
149/2022	Paya Lebar Airport - Cranes	AD	*10 NOV 2022 / 01 NOV 2023*	
150/2022	Paya Lebar Airport - Mobile Cranes	AD	*10 NOV 2022 / 20 APR 2023*	
151/2022	Paya Lebar Airport - Topless Cranes	AD	*10 NOV 2022 / 10 SEP 2023*	
152/2022	Paya Lebar Airport - Mobile Cranes	AD	*10 NOV 2022 / 29 NOV 2023*	
153/2022	Singapore Changi Airport - Closure of aircraft stand E3 at Terminal 2	AD	*06 DEC 2022 / 31 MAR 2023*	
154/2022	Paya Lebar Airport - Mobile Cranes	AD	*15 DEC 2022 / 01 AUG 2023*	
155/2022	Paya Lebar Airport - Tower Cranes	AD	*15 DEC 2022 / 01 DEC 2023*	
156/2022	Paya Lebar Airport - Mobile Crane	AD	*15 DEC 2022 / 10 APR 2023*	
157/2022	Paya Lebar Airport - Cranes	AD	*15 DEC 2022 / 15 NOV 2023*	
158/2022	Paya Lebar Airport - Mobile Crane	AD	*15 DEC 2022 / 31 DEC 2023*	
159/2022	Paya Lebar Airport -Topless Cranes	AD	*15 DEC 2022 / 01 NOV 2023*	
160/2022	Paya Lebar Airport - Topless Cranes	AD	*15 DEC 2022 / 31 DEC 2023*	
162/2022	Singapore Changi Airport - Partial closure of Taxilanes R1, R2, R3, and closure of aircraft stands E4 and F34 for construction work activities at Terminal 2	AD	*31 JAN 2023 / 30 JAN 2024*	
163/2022	Singapore Changi Airport - Closure of Taxiways P4, P5, Taxilane P6, and aircraft stand E12 for construction work activities at Terminal 2	AD	*02 FEB 2023 / 30 AUG 2023*	
001/2023	Paya Lebar Airport - Mobile Crane	AD	*12 JAN 2023 / 31 DEC 2023*	
002/2023	Paya Lebar Airport - Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
003/2023	Paya Lebar Airport - Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
004/2023	Paya Lebar Airport - Tower Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
005/2023	Paya Lebar Airport - Luffer Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
006/2023	Paya Lebar Airport - Tower Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
007/2023	Paya Lebar Airport - Crawler Tower Cranes	AD	*12 JAN 2023 / 01 DEC 2023*	
008/2023	Paya Lebar Airport - Luffing Cranes	AD	*31 JAN 2023 / 31 DEC 2023*	
009/2023	Paya Lebar Airport - Topless Tower Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
010/2023	Paya Lebar Airport - Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
011/2023	Paya Lebar Airport - Tower Cranes	AD	*12 JAN 2023 / 30 JUN 2023*	
012/2023	Paya Lebar Airport - Flat-Top Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
013/2023	Paya Lebar Airport - Flat-Top Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
014/2023	Paya Lebar Airport - Luffing Crane	AD	*12 JAN 2023 / 30 JUN 2023*	

NR/Year	Subject	AIP section(s) affected	Period of validity (from/to)	Cancellation record
015/2023	Paya Lebar Airport - Luffing Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
016/2023	Paya Lebar Airport - Flat-Top Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
017/2023	Paya Lebar Airport - Saddle Cranes	AD	*12 JAN 2023 / 30 JUN 2023*	
018/2023	Paya Lebar Airport - Topless Tower Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
019/2023	Paya Lebar Airport - Tower Cranes	AD	*12 JAN 2023 / 19 DEC 2023*	
020/2023	Paya Lebar Airport - Mobile Crane	AD	*12 JAN 2023 / 28 OCT 2023*	
021/2023	Paya Lebar Airport - Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
022/2023	Paya Lebar Airport - Mobile Cranes	AD	*12 JAN 2023 / 31 DEC 2023*	
023/2023	Paya Lebar Airport - Mobile Crane	AD	*12 JAN 2023 / 20 OCT 2023*	
024/2023	Singapore Changi Airport - Closure of aircraft stand F50 and taxilane R7 behind aircraft stand at Terminal 2	AD	*26 JAN 2023 / 15 MAY 2023*	
025/2023	Paya Lebar Airport - Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
026/2023	Paya Lebar Airport - Luffer Jib Cranes	AD	*30 APR 2023 / 31 DEC 2023*	
027/2023	Paya Lebar Airport - Flat-Top Cranes	AD	*28 FEB 2023 / 31 DEC 2023*	
028/2023	Paya Lebar Airport - Topless Cranes	AD	*14 FEB 2023 / 31 DEC 2023*	
029/2023	Paya Lebar Airport - Topless Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
030/2023	Paya Lebar Airport - Mobile Crane	AD	*09 FEB 2023 / 26 JUN 2023*	
031/2023	Paya Lebar Airport - Crawler Crane	AD	*09 FEB 2023 / 30 JUL 2023*	
032/2023	Paya Lebar Airport - Luffer Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
033/2023	Paya Lebar Airport - Topless Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
034/2023	Paya Lebar Airport - Mobile Cranes	AD	*09 FEB 2023 / 12 DEC 2023*	
035/2023	Paya Lebar Airport - Mobile Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
036/2023	Paya Lebar Airport - Mobile Crane	AD	*09 FEB 2023 / 31 DEC 2023*	
037/2023	Paya Lebar Airport - Tower Cranes	AD	*09 FEB 2023 / 31 DEC 2023*	
038/2023	Paya Lebar Airport - Mobile Crane	AD	*09 FEB 2023 / 31 DEC 2023*	
039/2023	Paya Lebar Airport - Cranes	AD	*09 FEB 2023 / 10 JUL 2023*	
040/2023	Singapore Changi Airport - Closure of Runway 02C/20C and Taxiways due to Changi East Development Works	AD	*23 MAR 2023 / 06 SEP 2023*	

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GEN 0.4 CHECKLIST OF AIP PAGES

Part 1 – General (GEN)

GEN 0

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GEN 0.1-2	03 NOV 2022
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GEN 0.2-1	13 SEP 2018
GEN 0.2-2	23 FEB 2023
GEN 0.2-3	14 JUL 2022
GEN 0.3-1	23 FEB 2023
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GEN 0.3-4	23 FEB 2023
GEN 0.3-5	23 FEB 2023
GEN 0.4-1	23 FEB 2023
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GEN 0.5-1	30 JAN 2020
GEN 0.6-1	05 NOV 2020
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GEN 1.1-2	22 APR 2021
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GEN 1.4-1	22 APR 2021
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GEN 2

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GEN 2.7-1	05 DEC 2019

GEN 3

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GEN 3.1-3	02 DEC 2021
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GEN 3.4-5	12 NOV 2015
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GEN 3.5-1	19 MAY 2022
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GEN 4.2-6	12 NOV 2015

Part 2 – EN-ROUTE (ENR)

ENR 0

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ENR 1

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ENR 1.4-1	12 NOV 2015
ENR 1.5-1	03 NOV 2022
ENR 1.5-2	14 JUL 2022
ENR 1.5-3	03 NOV 2022
ENR 1.5-4	03 NOV 2022
ENR 1.6-1	03 NOV 2022
ENR 1.6-2	03 NOV 2022
ENR 1.6-3	03 NOV 2022
ENR 1.6-4	03 NOV 2022
ENR 1.6-5	03 NOV 2022
ENR 1.6-6	03 NOV 2022
ENR 1.6-7	14 JUL 2022
ENR 1.6-8	03 NOV 2022
ENR 1.6-9	03 NOV 2022
ENR 1.6-10	03 NOV 2022
ENR 1.6-11	03 NOV 2022
ENR 1.7-1	14 JUL 2022
ENR 1.7-2	14 JUL 2022
ENR 1.7-3	15 AUG 2019
ENR 1.7-4	15 AUG 2019
ENR 1.7-5	15 AUG 2019
ENR 1.7-6	03 NOV 2022
ENR 1.7-7	03 NOV 2022
ENR 1.8-1	03 NOV 2022
ENR 1.8-2	03 NOV 2022
ENR 1.8-3	02 DEC 2021
ENR 1.8-4	03 NOV 2022
ENR 1.8-5	03 NOV 2022
ENR 1.8-6	03 NOV 2022
ENR 1.8-7	03 NOV 2022
ENR 1.8-8	03 NOV 2022
ENR 1.8-9	03 NOV 2022
ENR 1.8-10	03 NOV 2022
ENR 1.8-11	03 NOV 2022
ENR 1.8-12	03 NOV 2022
ENR 1.8-13	03 NOV 2022
ENR 1.8-14	03 NOV 2022
ENR 1.8-15	03 NOV 2022
ENR 1.8-16	03 NOV 2022
ENR 1.8-17	03 NOV 2022
ENR 1.8-18	03 NOV 2022
ENR 1.8-19	03 NOV 2022
ENR 1.8-20	03 NOV 2022
ENR 1.8-21	03 NOV 2022
ENR 1.8-22	03 NOV 2022
ENR 1.8-23	03 NOV 2022
ENR 1.8-24	03 NOV 2022
ENR 1.8-25	03 NOV 2022
ENR 1.8-26	03 NOV 2022
ENR 1.8-27	03 NOV 2022
ENR 1.8-28	03 NOV 2022
ENR 1.9-1	12 AUG 2021
ENR 1.9-2	07 OCT 2021
ENR 1.9-3	07 OCT 2021
ENR 1.9-4	07 OCT 2021
ENR 1.9-5	07 OCT 2021
ENR 1.10-1	08 SEP 2022
ENR 1.10-2	14 JUL 2022
ENR 1.10-3	14 JUL 2022
ENR 1.11-1	03 NOV 2022
ENR 1.12-1	12 NOV 2015
ENR 1.12-2	12 NOV 2015
ENR 1.12-3	12 NOV 2015
ENR 1.12-4	12 NOV 2015
ENR 1.13-1	12 NOV 2015
ENR 1.14-1	10 DEC 2015
ENR 1.14-2	15 SEP 2016
ENR-1.14-3 to ENR-1.14-4	15 SEP 2016
ENR-1.14-5 to ENR-1.14-6	15 SEP 2016
ENR-1.14-7 to ENR-1.14-8	15 AUG 2019

ENR 2

ENR 2.1-1	12 AUG 2021
ENR 2.1-2	08 SEP 2022
ENR 2.1-3	03 JAN 2019
ENR 2.1-4	25 APR 2019
ENR-2.1-7	21 JUL 2016
ENR-2.1-9	08 SEP 2022
ENR-2.1-11A	21 JUL 2016
ENR-2.1-11B	08 SEP 2022
ENR-2.1-13	21 JUL 2016

ENR 3

ENR 3.1-1	02 MAR 2017
ENR 3.1-2	02 MAR 2017
ENR 3.1-3	07 OCT 2021
ENR 3.1-4	07 OCT 2021
ENR 3.1-5	12 NOV 2015

AD-2-WSSS-IAC-12 to 12.1	14 JUL 2022
AD-2-WSSS-IAC-13 to 13.1	08 SEP 2022
AD-2-WSSS-IAC-14 to 14.1	14 JUL 2022
AD-2-WSSS-VAC-1 to 1.1	08 SEP 2022
AD 2.WSSL-1	10 SEP 2020
AD 2.WSSL-2	28 FEB 2019
AD 2.WSSL-3	15 AUG 2019
AD 2.WSSL-4	05 DEC 2019
AD 2.WSSL-5	12 AUG 2021
AD 2.WSSL-6	08 SEP 2022
AD 2.WSSL-7	08 SEP 2022
AD 2.WSSL-8	08 SEP 2022
AD 2.WSSL-9	08 SEP 2022
AD 2.WSSL-10	08 SEP 2022
AD 2.WSSL-11	03 NOV 2022
AD 2.WSSL-12	03 NOV 2022
AD 2.WSSL-13	08 SEP 2022
AD 2.WSSL-14	08 SEP 2022
AD 2.WSSL-15	08 SEP 2022
AD 2.WSSL-16	08 SEP 2022
AD 2.WSSL-17	08 SEP 2022
AD 2.WSSL-18	03 NOV 2022
AD 2.WSSL-19	03 NOV 2022
AD 2.WSSL-20	03 NOV 2022
AD 2.WSSL-21	03 NOV 2022
AD-2-WSSL-ADC-1	08 SEP 2022
AD-2-WSSL-ADC-2	03 NOV 2022
AD-2-WSSL-ADC-3	03 NOV 2022
AD-2-WSSL-AOC-1	16 JUL 2020
AD-2-WSSL-AOC-2	16 JUL 2020
AD-2-WSSL-VAC-1	08 SEP 2022
AD-2-WSSL-VAC-2	08 SEP 2022
AD-2-WSSL-VAC-3	08 SEP 2022
AD-2-WSSL-VAC-4	08 SEP 2022
AD-2-WSSL-VDC-1 to 1.1	08 SEP 2022
AD-2-WSSL-VDC-2 to 2.1	08 SEP 2022
AD-2-WSSL-VFR-1	08 SEP 2022
AD-2-WSSL-IFR-1	08 SEP 2022
AD-2-WSSL-IFR-2	08 SEP 2022
AD 2.WSAP-1	16 JUL 2020
AD 2.WSAP-2	19 JUL 2018
AD 2.WSAP-3	10 OCT 2019
AD 2.WSAP-4	19 JUL 2018
AD 2.WSAP-5	10 OCT 2019
AD 2.WSAP-6	12 OCT 2017
AD 2.WSAP-7	19 JUL 2018
AD 2.WSAP-8	14 JUL 2022
AD 2.WSAP-9	07 OCT 2021
AD 2.WSAP-10	16 JUL 2020
AD 2.WSAP-11	14 JUL 2022
AD-2-WSAP-ADC-1	16 JUL 2020
AD-2-WSAP-ADC-2	16 JUL 2020
AD-2-WSAP-AOC-1	24 MAR 2022
AD-2-WSAP-IAC-1	08 SEP 2022
AD-2-WSAP-IAC-2	08 SEP 2022
AD-2-WSAP-IAC-3	14 JUL 2022
AD-2-WSAP-IAC-4	14 JUL 2022
AD-2-WSAP-IAC-5	14 JUL 2022
AD-2-WSAP-IAC-6	14 JUL 2022
AD 2.WSAT-1	16 JUL 2020
AD 2.WSAT-2	26 MAR 2020
AD 2.WSAT-3	25 FEB 2021
AD 2.WSAT-4	25 FEB 2021
AD 2.WSAT-5	12 AUG 2021
AD 2.WSAT-6	07 OCT 2021
AD 2.WSAT-7	12 NOV 2015
AD 2.WSAT-8	25 FEB 2021
AD-2-WSAT-ADC-1	17 JUN 2021
AD 2.WSAG-1	16 JUL 2020
AD 2.WSAG-2	08 NOV 2018
AD 2.WSAG-3	12 AUG 2021
AD 2.WSAG-4	03 NOV 2022
AD 2.WMKJ-1	12 NOV 2015
AD 2.WIDD-1	12 NOV 2015
AD 2.WIDD-2	12 NOV 2015
AD-2-WIDD-SID-1	12 NOV 2015
AD-2-WIDD-SID-2	12 NOV 2015
AD-2-WIDD-SID-3	12 NOV 2015
AD-2-WIDD-SID-4	12 NOV 2015
AD-2-WIDD-STAR-1	12 NOV 2015
AD-2-WIDD-STAR-2	12 NOV 2015
AD-2-WIDD-STAR-3	12 NOV 2015
AD-2-WIDD-STAR-4	12 NOV 2015
AD 2.WIDN-1	03 JAN 2019
AD 2.WIDN-2	03 JAN 2019
AD-2-WIDN-SID-1	12 NOV 2015
AD-2-WIDN-SID-2	12 NOV 2015
AD-2-WIDN-SID-3	12 NOV 2015
AD-2-WIDN-SID-4	12 NOV 2015
AD-2-WIDN-STAR-1	12 NOV 2015
AD-2-WIDN-STAR-2	12 NOV 2015
AD-2-WIDN-STAR-3	21 JUL 2016
AD-2-WIDN-STAR-4	12 NOV 2015

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GEN 1.7 DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

ANNEX 1 Personnel Licensing, 13th Edition

Chapter 2

2.3.3.1.2	Due to local geographical constraints and boundary, it is not possible to complete one cross-country flight totalling not less than 270km (150NM) in the course of which full- stop landings at two different aerodromes are made. In such cases, a Private Pilot Licence with restriction to fly within Singapore only will be issued.
2.8.2.1	Singapore issues two types of ratings for flying instructors: Flying Instructor Rating and Assistant Flying Instructor Rating. Both ratings meet the ICAO standards for flying instructors. Newly qualified instructors are issued with an Assistant Flying Instructor Rating, and may qualify for a Flying Instructor Rating after acquiring additional flying and instructional experience. An Assistant Flying Instructor Rating does not entitle the holder to: a. give flying instructions unless under the supervision of a person holding a Flying Instructor Rating; or b. give directions in respect of the student pilot's first solo day/night flight and first solo cross-country day/night flight.
2.9.1.1	The applicant for a Commercial Pilot Licence (Gliders) shall not be less than 18 years of age.
2.10.1.1	The applicant for a Private Pilot Licence (Balloons and Airships) shall not be less than 17 years of age. The applicant for a Commercial Pilot Licence (Balloons and Airships) shall not be less than 18 years of age.

ANNEX 2 Rules of the Air, 10th Edition

Appendix 3

VFR or IFR flights when operating in uncontrolled airspace within certain parts of the Singapore FIR at or above 3,000ft and below FL250 are required to use the cruising levels specified in the quadrantal table of cruising levels (quadrantal rule) as shown in section ENR 1.7 para 4.4.

DOC 4444 Procedures for Air Navigation Services - Air Traffic Management,15th Edition (PANS-ATM)

- NIL Difference

DOC 7030 Regional Supplementary Procedures, 5th Edition

MID/ASIA REGIONAL SUPPLEMENTARY PROCEDURES

1.2.1	Flights shall be conducted in accordance with the Instrument Flight Rules (even when not operating in instrument meteorological conditions) when operated: a. Above FL200.

ANNEX 3 Meteorological Service for International Air Navigation, 20th Edition

- NIL Difference

ANNEX 4 Aeronautical Charts, 11th Edition

- NIL Difference

ANNEX 5 Units of Measurement to be used in Air and Ground Operations, 5th Edition

- NIL Difference

ANNEX 6 Operation of Aircraft

Part I	(International Commercial Air Transport - Aeroplanes) - 11th Edition
Chapter 12	
12.4(b)	Singapore regulations do not require all cabin crew to be trained on the use of automated external defibrillator (AED). However, the regulations require that at least one senior cabin crew on board every aircraft carrying AED to be trained on the use of AED.
Part II	(International General Aviation - Aeroplanes) - 10th Edition

- NIL Difference

Part III	(International Operations - Helicopters) - 10th Edition

- NIL Difference

ANNEX 7 Aircraft Nationality and Registration Marks, 6th Edition

- NIL Difference.

ANNEX 8 Airworthiness of Aircraft, 12th Edition

- NIL Difference

ANNEX 9 Facilitation, 16th Edition

Chapter 3

3.26	Singapore adopts an electronic visa system (e-Visa) to retrieve information to verify the identity of the visa holder.
3.27	Singapore requires all non-citizens and non-residents to complete an electronic SG Arrival Card (SGAC) before/upon arrival in Singapore.
3.46	Special Pass may be issued to an inadmissible passenger to enter Singapore to enable him to apply for travel documents from the relevant Diplomatic Mission. In such cases, the airlines shall continue to be responsible for the custody and care of the passenger and eventual repatriation.
3.66	With effect from 27 Aug 2007, air crew who arrive in Singapore on crew duty and seeking temporary entry into Singapore are required to produce their passports for immigration clearance. However, their passports will not be endorsed. Crew who are nationals of countries that require visa to enter Singapore will continue to be exempted from the visa requirements if they arrive in Singapore as part of their crew duty or to join their assigned flights for the purpose of performing their crew duty.

Chapter 5

5.9.1	Under Singapore's regulations, the cost of custody and care of inadmissible persons pending their removal shall be borne by the aircraft operator.
5.18	The obligations, responsibilities, and costs associated with the removal of deportees are a shared responsibility. Singapore works closely with foreign diplomatic missions to facilitate the removal of deportees.
5.23	A valid travel document is required before any special consideration can be given to the admission of such persons. For Permanent Residents, entry permit and valid Travelling documents are required before entry is granted.
5.27	An application for a travel document has to be duly signed by the applicant before a travel document can be issued.
5.29	The required travel document to facilitate the return of the national will be issued upon confirmation of the person's Singapore Citizenship status.

ANNEX 10 Aeronautical Telecommunications

Volume I	(Radio Navigation Aids) - 7th Edition
Volume II	(Communication Procedures including those with PANS status) - 7th Edition
Volume III	(Communication Systems) - 2nd Edition
	Part I - Digital Data Communication Systems
	Part II - Voice Communication Systems
Volume IV	(Surveillance and Collision Avoidance Systems) - 5th Edition
Volume V	(Aeronautical Radio Frequency Spectrum Utilization) - 3rd Edition

- NIL Difference

ANNEX 11 Air Traffic Services,15th Edition

- NIL Difference

ANNEX 12 Search and Rescue, 8th Edition

- NIL Difference

ANNEX 13 Aircraft Accident and Incident Investigation, 12th Edition

Chapter 5

5.1.2	ICAO requires States to investigate serious incident involving aircraft of a maximum certificated take-off (MCT) mass of over 2250kg. With effect from 2 August 2010, Singapore requires all serious incidents to be investigated, regardless of the aircraft's MCT mass.

ANNEX 14 Aerodromes

Volume I	(Aerodrome Design and Operations) - 8th Edition

Chapter 3

3.4.3	The words "wherever practicable" in Annex 14 paragraph 3.4.3 have been removed in our national regulations. Without exception, the width of the runway strip shall be 140m where the code number is 3 or 4; and 70m where the code number is 1 or 2.

Chapter 4

4.2.14	For a precision approach runway category I, the inner approach surface; inner transitional surfaces; and balked landing surface shall be established, in addition to the conical surface; inner horizontal surface; approach surface and transitional surfaces.

Chapter 6

6.1.1.6	Annex 14 paragraph 6.1.1.6(c) which states that the marking may be omitted when the obstacle is lighted by high-intensity obstacle lights by day has been removed from our national regulations.

Chapter 7

7.4.1	Relating to the display of unserviceability markers, our national regulations require additionally that “unserviceability markers shall also be displayed at the entrances to a permanently or temporarily closed runway or taxiway, or part thereof”.

Chapter 9

9.2.3	Relating to the level of rescue and fire fighting protection to be provided, the remission factor has been removed from our national regulations.

Volume II (Heliports) - 5th Edition

- Not applicable

ANNEX 15 Aeronautical Information Services, 16th Edition

- NIL Difference

ANNEX 16 Environmental Protection

Volume I (Aircraft Noise) - 8th Edition

Volume II (Aircraft Engine Emissions) - 4th Edition

Volume III (Aeroplane CO_2 Emissions) - 1st Edition

- NIL Difference

ANNEX 17 Security - Safeguarding International Civil Aviation Against Acts of Unlawful Interference, 12th Edition

- NIL Difference

ANNEX 18 The Safe Transport of Dangerous Goods by Air, 4th Edition

- NIL Difference

ANNEX 19 Safety Management, 2nd Edition

- NIL Difference

k. **Visual Approach Chart - ICAO**

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

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

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

3.2.5 LIST OF AERONAUTICAL CHARTS AVAILABLE

GEN 3.2.5 LIST OF AERONAUTICAL CHARTS AVAILABLE					
Title of Chart Series	*Scale*	*Name and/or number*		*Price ($)*	*Date*
World Aeronautical Chart ICAO (WAC)	1:1 000 000		WAC 2860	In AIP	08 SEP 22
Enroute Chart ICAO (ENRC)			ERC 6-1	In AIP	08 SEP 22
Instrument Approach Chart ICAO (IAC)		***Singapore Changi***			
	1:400 000	RWY 02L - ICW ILS/DME	AD-2-WSSS-IAC-1	In AIP	14 JUL 22
	1:400 000	RWY 02C - ICE ILS/DME	AD-2-WSSS-IAC-2	In AIP	14 JUL 22
	1:400 000	RWY 20R - ICH ILS/DME	AD-2-WSSS-IAC-5	In AIP	14 JUL 22
	1:400 000	RWY 20C - ICC ILS/DME	AD-2-WSSS-IAC-6	In AIP	14 JUL 22
	1:400 000	RWY 20C - VTK DVOR/DME	AD-2-WSSS-IAC-7	In AIP	14 JUL 22
	1:400 000	RWY 02L - RNP	AD-2-WSSS-IAC-9	In AIP	08 SEP 22
	1:400 000	RWY 02C - RNP	AD-2-WSSS-IAC-10	In AIP	08 SEP 22
	1:400 000	RWY 20R - RNP	AD-2-WSSS-IAC-11	In AIP	14 JUL 22
	1:400 000	RWY 20C - RNP	AD-2-WSSS-IAC-12	In AIP	14 JUL 22
	1:400 000	RWY 02R - RNP	AD-2-WSSS-IAC-13	In AIP	08 SEP 22
	1:400 000	RWY 20L - RNP	AD-2-WSSS-IAC-14	In AIP	14 JUL 22
		Paya Lebar			
	1:400 000	RWY 20 - PU DVOR/DME	AD-2-WSAP IAC-1	In AIP	08 SEP 22
	1:400 000	RWY 02 - PU DVOR/DME	AD-2-WSAP IAC-2	In AIP	08 SEP 22
	1:400 000	RWY 20 - IPS ILS/DME	AD-2-WSAP IAC-3	In AIP	14 JUL 22
	1:400 000	RWY 02 - IPN ILS/DME	AD-2-WSAP IAC-4	In AIP	14 JUL 22
	1:400 000	RWY 02 - RNP	AD-2-WSAP-IAC-5	In AIP	14 JUL 22
	1:400 000	RWY 20 - RNP	AD-2-WSAP-IAC-6	In AIP	14 JUL 22
Visual Approach Chart ICAO (VAC)	1:400 000	***Singapore Changi***	AD-2-WSSS-VAC-1	In AIP	08 SEP 22
		Seletar			
	1:100 000	RWY 03	AD-2-WSSL-VAC-1	In AIP	08 SEP 22
	1:100 000	RWY 21	AD-2-WSSL-VAC-2	In AIP	08 SEP 22
	1:100 000	RWY 03	AD-2-WSSL-VAC-3	In AIP	08 SEP 22
	1:100 000	RWY 21	AD-2-WSSL-VAC-4	In AIP	08 SEP 22
Visual Departure Chart		***Seletar***			
	1:100 000	RWY 03	AD-2-WSSL-VDC-1	In AIP	08 SEP 22
	1:100 000	RWY 21	AD-2-WSSL-VDC-2	In AIP	08 SEP 22
← **Aerodrome Chart** ICAO (AC)		***Singapore Changi***	AD-2-WSSS-ADC-2	In AIP	23 FEB 23
		Seletar	AD-2-WSSL-ADC-1	In AIP	08 SEP 22
		Paya Lebar	AD-2-WSAP-ADC-1	In AIP	16 JUL 20
Aerodrome Obstacle Chart ICAO TYPE A (AOC)		***Singapore Changi***			
	1:10 000	RWY 20R/02L	AD-2-WSSS-AOC-1	In AIP	08 SEP 22
	1:10 000	RWY 20C/02C	AD-2-WSSS-AOC-2	In AIP	31 DEC 20
	1:10 000	RWY 02R/20L	AD-2-WSSS-AOC-4	In AIP	08 SEP 22
		Seletar			
	1:10 000	RWY 03/21	AD-2-WSSL-AOC-1	In AIP	16 JUL 20
		Paya Lebar			
	1:20 000	RWY 20/02	AD-2-WSAP-AOC-1	In AIP	24 MAR 22

ENR 3.6 ENROUTE HOLDING

HLDG ID/FIX/WPT Coordinates	*INBD TR (°Mag)*	*Direction of Procedure Turn*	*MAX IAS*	*MNM-MAX HLDG Level*	*Time (min)*	*Controlling Unit and Frequency*
1	2	3	4	5	6	7
BOBAG 38.6 DME VTK R-234.7 24.0 DME SJ R-243.2 010230N 1032954E	082	Right	250kt*	FL 140 6000 FT ALT	1	Singapore ACC 124.6 MHz (PRI) 132.15 MHz (SRY)
BOBAG 38.6 DME VTK R-234.7 24.0 DME SJ R-243.2 010230N 1032954E	082	Right	250kt*	FL 180 FL 150	1	Singapore ACC 133.25 MHz (PRI) 135.8 MHz (SRY)
ELALO 041240N 1043329E	174	Left	300kt	FL 350 FL 280	1.5	Singapore ACC 123.7 MHz (PRI) 127.3 MHz (SRY)
HOSBA (HHA) - Low Level 34 DME SJ R-079 24 DME VTK R-103 011947.8N 1042417.5E	259	Right	230kt*	FL 140 7000 FT ALT	1	Singapore ACC 120.3 MHz (PRI) 132.15 MHz (SRY)
HOSBA (HHA) - High Level 34 DME SJ R-079 24 DME VTK R-103 011947.8N 1042417.5E	259	Right	265kt*	FL 250 FL 150	1.5	Singapore ACC 134.4 MHz (PRI) 128.1 MHz (SRY) 255.4 MHz
IKIMA - High Level 67.9 DME VTK R-127.6 70.5 DME SJ R-115.1 004314N 1045500E	291	Right	250kt*	FL 250 FL 150	1.5	Singapore ACC 134.4 MHz (PRI) 128.1 MHz (SRY)
KARTO - High Level 93.5 DME VTK R-098.3 102.6 DME SJ R-091.1 011124N 1053343E	269	Left	280kt*	FL 310 FL 260	1.5	Singapore ACC 134.2 MHz (PRI) 133.35 MHz (SRY)
KILOT 030217N 1044023E	227	Left	250kt	FL 270 FL 220	1.5	Singapore ACC 134.7 MHz (PRI) 134.15 MHz (SRY)
LAMA - Low Level 7 DME PU R-024 013149.5N 1035850.3E	204	Right	230kt*	FL 140 2500 FT ALT	1	Singapore ACC 126.025 MHz (PRI) 132.15 MHz (SRY)
LAVAX - Low Level 36 DME SJ R-095.5 010950N 1042714E	269	Left	220kt	FL 140 7000 FT ALT	1	Singapore ACC 124.05 MHz (PRI) 132.15 MHz (SRY)
MABAL - High Level 142.1 DME VTK R-030.1 157.2 DME SJ R-031.2 032826N 1051236E	231	Left	300kt*	FL 350 FL 280	1.5	Singapore ACC 123.7 MHz (PRI) 127.3 MHz (SRY)
NYLON (NHA) - Low Level 13 DME VTK R-023 013656.9N 1040623.8E	203	Left	220kt*	FL 140 3000 FT ALT	1	Singapore ACC 124.05 MHz (PRI) 132.15 MHz (SRY)
NYLON (NHA) - High Level 13 DME VTK R-023 013656.9N 1040623.8E	203	Left	265kt*	FL 250 FL 150	1.5	Singapore ACC 124.6 MHz (PRI) 132.15 MHz (SRY)
REMES- Low Level 30 DME SJ R-168 004342N 1035735E	348	Right	220kt	FL 140 6000 FT ALT	1	Singapore ACC 124.6 MHz (PRI) 132.15 MHz (SRY)
REPOV- High Level 68.2 DME VTK R-178.6 57.9 DME SJ R-168.3 001623N 1040300E	348	Left	250kt*	FL 250 FL 150	1.5	Singapore ACC 124.6 MHz (PRI) 132.15 MHz (SRY)

HLDG ID/FIX/WPT Coordinates	*INBD TR (˚Mag)*	*Direction of Procedure Turn*	*MAX IAS*	*MNM-MAX HLDG Level*	*Time (min)*	*Controlling Unit and Frequency*
1	2	3	4	5	6	7
SAMKO (SHA)- Low Level 8 DME SJ R-168 21 DME VTKR-203.5 010529.5N 1035254.9E	348	Left	220kt*	FL 140 4000 FT ALT	1	Singapore ACC 120.3 MHz (PRI) 124.6 MHz (SRY)
SAMKO (SHA)- High Level 8 DME SJ R-168 21 DME VTK R-203.5 010529.5N 1035254.9E	348	Left	265kt*	FL 250 FL 150	1.5	Singapore ACC 120.3 MHz (PRI) 124.6 MHz (SRY)
SINJON - Low Level SJ DVOR/DME 011321.34N 1035115.22E	348	Right	230kt*	FL 140 4500 FT ALT	1	Singapore ACC 120.3 MHz (PRI) 124.6 MHz (SRY)

* Maximum speed of 280kt in conditions of turbulence subject to ATC clearance.

ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

1 UNMANNED AIRCRAFT OPERATIONS AND KITE FLYING

1.1 General Warning

1.1.1 Pilots flying at low altitudes should watch out for possible hazards such as unmanned aircraft and kites, especially when flying near parks and open ground.

1.1.2 The location of some of the parks in Singapore where kite and unmanned aircraft operations may occur are shown in chart ENR 3.4-5. Pilots should note that chart ENR 3.4-5 does not show all the parks in Singapore and that hazards such as kite flying and unmanned aircraft operations may take place at parks and open ground not indicated in chart ENR 3.4-5.

1.1.3 According to the Singapore Air Navigation Order, kite flying and unmanned aircraft operations are not permitted above 200ft or within 5km of an aerodrome. However, pilots are advised to look out for such hazards at all times as members of the public may inadvertently conduct these activities above the height of 200ft or within 5km of an aerodrome.

2 AIRCRAFT OPERATIONS PROHIBITED OVER THE TERRITORY OF SINGAPORE

2.1 Owing to the high concentration of built-up areas, severe airspace limitations and intense low flying aircraft operations, flights by the following aircraft types are prohibited over the territory of Singapore: Aircraft principally designed for the purpose of sports or recreation, commonly referred to as home-built, ultralight, microlight, hang-glider and such others,even though they may have a valid Certificate of Registration or a Certificate of Airworthiness.

3 SEARCHLIGHT DISPLAY / LASER SHOWS - PAYA LEBAR CTR

3.1 BTN 1200-1215 and 1330-1345 daily searchlight display and laser shows will take place at 011658N 1035138E (within Paya Lebar CTR). Additional show time will be BTN 1500-1515 on FRI and SAT. Danger Height UNL.

4 UNMANNED AIRCRAFT OPERATIONS - PAYA LEBAR CTR

4.1 Unmanned aircraft operations may take place up to 200ft AMSL at Paya Lebar CTR and within the following coordinates: 011828.092N 1034706.884E, 011831.855N 1034726.944E, 011734.453N 1034758.093E, 011720.214N 1034727.096E, 011754.341N 1034657.173E.

← 4.2 An Unmanned Aircraft Flying Area (UAFA) has been established over Pandan Reservoir within the following coordinates: 011905.216N 1034414.155E, 011905.171N 1034426.538E, 011853.913N 1034426.325E, 011853.920N 1034414.071E, up to 200ft. Pilots to exercise caution.

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21.6 Phraseologies for variations to the lateral profile of the SID / STAR are:

i. PROCEED DIRECT (waypoint), or
ii. VECTORING

21.7 These phraseologies mean that speed and level restrictions associated with the bypassed waypoints are cancelled.

21.8 Phraseology to clear aircraft to return to SID / STAR is: REJOIN SID / STAR

21.9 This phraseology means that speed and level restrictions associated with the waypoint where the rejoin occurs, as well as those associated with all subsequent waypoints must be complied with.

21.10 The term 'VIA' will no longer be used when issuing lateral routing clearances.

22 LIGHT AIRCRAFT OPERATIONS

22.1 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.

22.2 Flight notification shall be given by filing a flight plan.

22.3 All such operations will be regulated in accordance with IFR procedures.

23 CHANGI FLOW MANAGEMENT PROCEDURES

23.1 INTRODUCTION

23.1.1 The objectives of the procedures are to improve the efficiency of Singapore's air traffic service by minimising radar vectoring as well as improving airspace capacity.

23.1.2 The procedures require the holding of Changi arrivals over established holding areas.

23.2 ENTRY AND EXIT GATES

23.2.1 'Entry gates' and 'Exit gates' are established to ensure segregation between arriving and departing aircraft operating at Singapore Changi Airport. These gates (waypoints) are incorporated in the RNAV SIDs/STARs which have been implemented to support the flow management procedures. The 'entry' and 'exit' gates are shown below:

Entry Gate	Coordinates
BOBAG	010230N 1032954E
PASPU	015915N 1040618E
REMES	004342N 1035735E
LAVAX	010950N 1042714E

23.3 ARRIVING AIRCRAFT TO SINGAPORE CHANGI AIRPORT

23.3.1 STANDARD INSTRUMENT ARRIVAL (STAR)
IFR flight should expect a Standard Instrument Arrival (STAR). Changi arrivals via ATS route A464 shall flight plan ARAMA STAR route. LELIB STAR would be issued to pilots when traffic permits. ATC may also clear arrivals to join the LEBAR STAR when air traffic permits to facilitate arrivals joining downwind to the west of Singapore Changi Airport.

23.3.2 ENTRY GATE TIME
To regulate the flow of traffic into the Approach airspace, ATC will issue, when necessary, a time restriction at an entry gate associated with the inbound route of the flight into Singapore Changi Airport.

23.3.3 DESCENT PROFILE
Pilots shall plan their descent profile in accordance with the published STAR procedures.

23.3.4 SPEED CONTROL
Speed control restrictions are incorporated into the STARs to enhance predictability and planning of air traffic in the Approach airspace. Pilots shall adhere to the speed control restrictions published in the STAR procedures unless otherwise advised. ATC may issue further speed adjustment during the different phases of the flight if traffic situation warrants.

23.4 APPROACH AIRSPACE HOLDING PROCEDURES

23.4.1 ENTRY PROCEDURE
The entry into the holding patterns shall be in accordance with the three-sector entry procedure as prescribed in ICAO Doc 8168 - OPS/611 Edition 1993.

23.4.2 RATE OF TURN
All turns are to be made at a bank angle of 25° or at a rate of 3° per second, whichever requires the lesser bank.

23.4.3 DESCENT PROCEDURE
When instructed to join a holding pattern, pilots shall reach their assigned altitudes prior to arriving at the holding point. This will allow appropriate traffic sequencing and the reduction of step-descents in the holding pattern.

23.4.4 DETAILS OF APPROACH AIRSPACE HOLDING AREAS

Holding Fix / ID / Co-ordinates	Inbound Track °M	Direction of Turn	MAX HLDG Speed (IAS)	Time (MIN)	MNM-MAX HLDG Level	Controlling Unit and Frequency
1	2	3	4	5	6	7
NYLON 013657N 1040624E	203°	Left	220 knots	1	FL140 3,000ft	Singapore Approach 124.05MHz (PRI) 132.15MHz (SRY)
LAVAX 010950N 1042714E	269°	Left	220 knots	1	FL140 7,000ft	Singapore Approach 124.05MHz (PRI) 132.15MHz (SRY)
REMES 004342N 1035735E	348°	Right	220 knots	1	FL140 6,000ft	Singapore Approach 124.6MHz (PRI) 132.15MHz (SRY)
BOBAG 010230N 1032954E	082°	Right	220 knots	1	FL140 6,000ft	Singapore Approach 124.6MHz (PRI) 132.15MHz (SRY)

23.4.5 ALTERNATE HOLDING AREAS
In the event of inclement weather or capacity constraints rendering a specific holding area unusable, arrivals may be cleared to an alternate holding area for re-sequencing. To ensure smooth transition to alternate holding area, all arrivals bound for Singapore Changi Airport shall have their FMS programmed with all the four promulgated holding areas (paragraph 23.4.4).

23.5 EXPECTED TIME TO LEAVE HOLDING AREA

23.5.1 If arrival delay is processed by means of holding, pilots will be informed of the expected time to leave the respective holding area.

23.5.2 The expected time to leave is issued to serve as an early notification of the probable holding duration as well as for unforeseen circumstance such as radio failure (see ENR 1.6). Subsequently, a specified time to leave the holding area will be issued to pilots to resume the flight according to the assigned RNAV STARs.

23.6 DEPARTING AIRCRAFT FROM SINGAPORE CHANGI AIRPORT

23.6.1 DEPARTURE SPEED CONTROL
Departing aircraft shall not exceed IAS 230 knots below 4,000 feet AMSL or at the waypoints specified in the SID and not exceed IAS 250 knots below 10,000 feet AMSL. Pilots shall also comply with speed control restrictions according to published SIDs.

AERODROME CHART - ICAO

01˚ 21' 33"N
103˚59' 22"E

AERODROME ELEVATION 6.66m

TWR	118.6 / 118.25 / 131.4
GND	124.3 / 121.85 / 121.725 / 127.275
DELIVERY	121.65 / 119.6

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

SINGAPORE/SINGAPORE CHANGI

PAPI 3° (MEHT)*						
Pilot's eye height over the threshold when the following PAPI lights come into view.	**RUNWAY**					
	02L	**20R**	**02C**	**20C**	**02R**	**20L**
2 White lights and 2 red lights	20.0m	20.0m	19.8m	19.8m	19.7m	19.7m
3 White lights and 1 red light	24.0m	22.6m	23.7m	23.7m	23.6m	23.6m
4 White lights	26.4m	25.0m	26.2m	26.2m	26.0m	26.0m

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

RWY	DIRECTION	THR	GEOID UNDULATION	BEARING STRENGTH
02L	023°	01 20 56.27N 103 58 38.82E	10.24m	PCN 72/F/B/W/U
20R (DISP THR)	203°	01 22 33.95N 103 59 20.06E	10.25m	
02C	023°	01 19 43.51N 103 59 05.86E	10.27m	
20C	203°	01 21 43.37N 103 59 56.46E	10.30m	
02R	023°	01 19 20.59N 103 59 59.45E	10.32m	PCN 82/F/B/X/T
20L	203°	01 21 20.45N 104 00 50.05E	10.36m	

TAXIWAYS
BEARING STRENGTH
PCN 85/R/B/W/U - Taxiways W1, W9, T2, T4, T12 and T (between T11-T12).
PCN 80 F/B/X/T - TWY T (between TWY P and TWY J), Taxiways J and K (between Taxiways K2 and J12)
PCN 90 R/B/W/T - Taxiways A (between A1 and A2, and between A11 and A12), A1, A2, A11, A12, B (between B1 and B2, and between B13 and B14), B1, B2, B13, B14.
PCN 82 F/B/X/T - Taxiway P1 (between N and N5) and all other A, B, J, K Taxiways.
PCN 72/F/B/W/U - All other Taxiways

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

ELEVATIONS AND DIMENSIONS IN METRES

TAXIWAYS MINIMUM 23m WIDE

NOTE :
SEE FLIP SIDE FOR DETAILS OF
i) INS COORDINATES FOR AIRCRAFT STANDS AND PRE-FLIGHT ALTIMETER CHECK LOCATIONS.
ii) RESTRICTIONS ON TAXIWAYS.

4 000m X 60m GROOVED BITUMINOUS CONCRETE

STRIP 4 240m x 280m

4 000m X 60m BITUMINOUS CONCRETE

AREA CLOSED FOR CHANGI EAST CONSTRUCTION WORKS
(INCLUDING RUNWAY 02C/20C)

All FOD Detection Masts east of Runway 02R/20L is under construction.

ANNUAL CHANGE NEGLIGIBLE
VAR 0° 23'E (2020)

LEGEND

- Aircraft Stands and Taxiways Markings
- Runway Centre Line Lights
- Runway Edge Lights
- White Touchdown Zone Lights
- Blue Taxiway Edge Lights
- Green Taxiway CentreLine Lights
- Cat II Holding Position Markings
  Red Stop Bar Lights Controllable ON/OFF
- Twy Intersection Holding Position Markings
  Red Stop Bar Lights Controllable ON/OFF
- Blue Taxiway Edge Markers
- FOD Detection Masts
- Cat I/II Holding Position Markings
  Red Stop Bar Lights Controllable ON/OFF
- Road Holding Position Line with cat-eyes installed
  Road Holding Position Lights (Red) - Flashing

Metres 100 0 100 200 300 400 500 600 700 800 900 1000 Metres

Change : Re-designation of TWY U3 and U4 to TWY U.

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 08.60	4.75m (15.58ft)
	B5	01 21 32.98	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	5.13m (16.83ft)
	B9	01 21 42.19	103 59 16.16	5.13m (16.83ft)
	B10	01 21 44.47	103 59 17.12	5.15m (16.90ft)
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	5.09m (16.70ft)
	C13	01 21 49.63	103 59 24.75	5.03m (16.50ft)
	C15	01 21 51.89	103 59 25.70	5.06m (16.60ft)
	C16	01 21 53.47	103 59 26.62	4.86m (15.94ft)
	C17	01 21 55.50	103 59 26.20	5.01m (16.44ft)
	C17L	01 21 54.75	103 59 26.22	4.96m (16.27ft)
	C17R	01 21 56.01	103 59 25.68	5.12m (16.80ft)
	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	5.08m (16.67ft)
	D32	01 21 46.75	103 59 31.08	5.08m (16.67ft)
	D34	01 21 49.03	103 59 32.04	5.07m (16.63ft)
	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)
T1 EAST APRON	D40	01 21 38.13	103 59 32.89	5.11m (16.77ft)
	D40L	01 21 37.38	103 59 32.83	5.09m (16.70ft)
	D40R	01 21 38.77	103 59 32.84	5.13m (16.83ft)
	D41	01 21 40.30	103 59 33.81	5.07m (16.63ft)
	D42	01 21 42.77	103 59 34.58	5.15m (16.89ft)
	D42L	01 21 42.00	103 59 34.47	5.12m (16.79ft)
	D42R	01 21 43.45	103 59 34.44	5.21m (17.09ft)
	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)
	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)
T2 NORTH APRON	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)
	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 33.56	103 59 30.96	5.07m (16.62ft)
	E27L	01 21 32.79	103 59 30.86	5.03m (16.48ft)
	E27R	01 21 34.20	103 59 30.91	5.12m (16.80ft)
	E28	01 21 35.74	103 59 31.89	5.08m (16.67ft)

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

LOCATION	STAND NR	NORTH LAT	EAST LONG	ELEVATION
T2 CENTRAL APRON	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)
	E7	01 21 22.48	103 59 37.46	4.73m (15.52ft)
	F30	01 21 14.71	103 59 23.33	4.92m (16.14ft)
	F31	01 21 13.87	103 59 25.30	4.91m(16.11ft)
	F32	01 21 13.03	103 59 27.26	4.85m (15.91ft)
	F33	01 21 11.30	103 59 28.54	4.91m (16.11ft)
	F34	01 21 08.98	103 59 28.96	4.92m (16.14ft)
	F35	01 21 06.60	103 59 29.55	4.91m (16.11ft)
	F35L	01 21 06.06	103 59 30.13	4.74m (15.55ft)
	F35R	01 21 06.96	103 59 29.05	5.04m (16.54ft)
	F36	01 21 04.34	103 59 29.67	4.82m (15.81ft)
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)
	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)
EAST REMOTE APRON	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	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)
NORTH REMOTE APRON	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)
	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 33.05	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)
NORTH-EAST REMOTE APRON	400	01 21 38.71	103 59 40.14	4.31m (14.14ft)
	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)
WEST CARGO APRON	502	01 22 22.23	103 59 31.62	4.35m (14.27ft)
	503	01 22 24.98	103 59 32.78	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)
	510	01 22 41.37	103 59 40.18	4.19m (13.75ft)
	511	01 22 43.54	103 59 41.09	4.22m (13.85ft)
	512	01 22 45.71	103 59 42.01	4.24m (13.91ft)
	513	01 22 47.89	103 59 42.92	4.26m (13.98ft)
	514	01 22 50.19	103 59 43.54	4.36m (14.30ft)
	515	01 22 52.90	103 59 43.20	4.09m (13.43ft)
	516	01 22 55.39	103 59 43.97	4.04m (13.26ft)
	516L	01 22 56.24	103 59 43.80	3.96m (12.98ft)
	516R	01 22 54.93	103 59 43.25	3.95m (12.97ft)
	517	01 22 58.02	103 59 45.08	4.05m (13.27ft)
	517L	01 22 58.83	103 59 44.99	3.98m (13.05ft)
	517R	01 22 57.55	103 59 44.35	3.96m (12.98ft)

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

LOCATION	STAND NR	NORTH LAT	EAST LONG	ELEVATION
EAST CARGO APRON	600	01 22 14.12	103 59 48.10	4.25m (13.94ft)
	600L	01 22 13.28	103 59 48.27	4.22m (13.83ft)
	600R	01 22 14.58	103 59 48.81	4.15m (13.60ft)
	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)
	604	01 22 23.46	103 59 51.99	4.31m (14.14ft)
	605	01 22 25.19	103 59 52.75	4.27m (14.01ft)
EAST SERVICE APRON	606	01 22 10.00	103 59 52.53	2.43m (7.97ft)
	609	01 22 12.95	103 59 55.04	2.91m (9.55ft)
ACEHUB	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)
SOUTH APRON	461	01 20 39.67	103 58 52.75	5.28m (17.32ft)
	462	01 20 40.89	103 58 50.37	5.75m (18.86ft)
	462L	01 20 40.41	103 58 51.02	5.48m (17.98ft)
	462R	01 20 40.97	103 58 49.71	5.71m (18.73ft)
	463	01 20 41.80	103 58 47.76	5.97m (19.59ft)
	463L	01 20 41.52	103 58 48.42	5.82m (19.10ft)
	463R	01 20 42.06	103 58 47.17	5.82m (19.10ft)
	464	01 20 42.33	103 58 49.39	4.98m (16.34ft)
	465	01 20 33.61	103 58 47.20	5.01m (16.44ft)
	466	01 20 34.53	103 58 45.05	5.01m (16.44ft)
	467	01 20 27.32	103 58 45.73	5.01m (16.44ft)
	468	01 20 28.34	103 58 43.34	5.00m (16.41ft)
	469	01 20 29.36	103 58 40.96	5.02m (16.47ft)
	471	01 20 23.76	103 58 44.49	5.16m (16.93ft)
	472	01 20 24.55	103 58 43.24	5.16m (16.93ft)
	473	01 20 25.12	103 58 41.90	5.16m (16.93ft)
	474	01 20 25.70	103 58 40.56	5.16m (16.93ft)
	475	01 20 26.27	103 58 39.22	5.16m (16.93ft)
	476	01 20 19.16	103 58 41.47	5.16m (16.93ft)
	477	01 20 19.74	103 58 40.13	5.16m (16.93ft)
	478	01 20 20.31	103 58 38.79	5.16m (16.93ft)
	479	01 20 20.88	103 58 37.45	5.16m (16.93ft)
	480	01 20 21.45	103 58 36.11	5.16m (16.93ft)
	481	01 20 25.27	103 58 32.56	5.22m (17.13ft)
	482	01 20 26.62	103 58 33.13	5.22m (17.13ft)
	483	01 20 27.96	103 58 33.70	5.22m (17.13ft)
	484	01 20 29.31	103 58 34.27	5.22m (17.13ft)
	485	01 20 30.66	103 58 34.84	5.22m (17.13ft)
	486	01 20 32.01	103 58 35.41	5.22m (17.13ft)
	487	01 20 33.36	103 58 35.98	5.22m (17.13ft)
T4 APRON	G1	01 20 07.58	103 59 00.97	3.95m (12.96ft)
	G2	01 20 08.88	103 59 01.52	3.95m (12.96ft)
	G3	01 20 10.18	103 59 02.07	3.95m (12.96ft)
	G4	01 20 11.48	103 59 02.07	3.94m (12.93ft)
	G5	01 20 12.77	103 59 03.17	3.94m (12.93ft)
	G6	01 20 14.49	103 59 03.89	3.93m (12.89ft)
	G7	01 20 15.70	103 59 04.57	3.89m (12.76ft)
	G8	01 20 17.01	103 59 05.12	3.85m (12.63ft)
	G9	01 20 18.31	103 59 05.67	3.85m (12.63ft)
	G10	01 20 19.60	103 59 06.22	3.86m (12.66ft)
	G11	01 20 20.90	103 59 06.77	3.84m (12.60ft)
	G12	01 20 22.20	103 59 07.31	3.83m (12.57ft)
	G13	01 20 23.50	103 59 07.86	3.82m (12.53ft)
	G14	01 20 24.79	103 59 08.41	3.83m (12.57ft)
	G15	01 20 26.09	103 59 08.96	3.88m (12.73ft)
	G16	01 20 27.39	103 59 09.50	4.05m (13.29ft)
	G17	01 20 28.69	103 59 10.05	4.00m (13.12ft)
	G18	01 20 31.53	103 59 11.86	4.36m (14.30ft)
	G18L	01 20 32.05	103 59 12.85	4.34m (14.24ft)
	G18R	01 20 31.65	103 59 11.26	4.43m (14.53ft)
	G19	01 20 32.64	103 59 09.25	4.56m (14.96ft)
	G19L	01 20 33.17	103 59 11.26	4.47m (14.67ft)
	G19R	01 20 32.77	103 59 08.66	4.56m (14.96ft)
	G20	01 20 33.75	103 59 06.65	4.52m (14.83ft)
	G20L	01 20 34.13	103 59 07.58	4.44m (14.57ft)
	G20R	01 20 33.99	103 59 06.10	4.52m (14.83ft)
	G21	01 20 34.87	103 59 04.04	4.51m (14.80ft)
	G21L	01 20 35.24	103 59 04.98	4.52m (14.83ft)
	G21R	01 20 35.10	103 59 03.49	4.55m (14.93ft)

RESTRICTIONS ON TAXIWAYS

1) Pilots are advised to apply minimum thrust when
   i) turning into TWY P2, P4, P5 and Taxilane P6 while taxiing either northwards or southwards on Taxilane P7, and
   ii) thereafter when taxiing along TWY P2 up to and including the TWY P1/P2 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) Taxiway Q (between TWY V and TWY P7) can only be used by aircraft with maximum wingspan 65m.

4) Taxiway centreline along TWY T between TWY R1 and R3 offset eastward by 2.5m away from aircraft stands E7 and F36

5) Pilots are advised to apply minimum thrust when turning into Taxiway V from Taxilane V7.

6) Taxilane V11 (behind aircraft stands A18 to A21) can only be used by aircraft with maximum wingspan 61m.

7) Taxilane Q1 (behind aircraft stands C16 to C19 and between TWY P and TWY Q), Taxilane Q2 and Taxilane Q3 (behind aircraft stands D35 to D38 and between TWY P and TWY Q) can only be used by aircraft with maximum wingspan 65m.

8) Taxilane P7 (behind aircraft stands E20 to E22) and Taxilane R7 (behind aircraft stands F50 to F54) can only be used by aircraft with maximum wingspan 65m (towing and pushback exempted).

9) Taxilane U2 can only be used by aircraft with maximum wingspan 36m.

10) Taxiway U8 (in between Taxilane U2 and Taxiway U) and Taxiway U9 (in between Taxilane U2 and Taxiway U) can only be used by aircraft with maximum wingspan 36m.

11) Pilots are advised to exercise caution when taxiing near Taxilane U2, U8, U9 and U.

12) Pilots are advised to apply speed limit of 20 knots when taxiing along TWY R and TWY S.

13) Pilots turning aircraft into aircraft stand A2 or aircraft stand B2 are advised to wait for any aircraft holding at Taxilane V7, at the inner cul-de-sac portion of the terminal building to vacate this portion before turning into aircraft stand A2 or aircraft stand B2.

14) TWY M, M4, M5, M6 and M7, located western side of RWY 02L/20R, are solely for use by Republic of Singapore Air Force (RSAF) aircraft.

15) TWY MY, MY1, MY2, MY3, MY4, MY5, MY6, MY7, MY8, MY9 and MY10, located eastern side of RWY 02R/20L, are solely for use by Republic of Singapore Air Force (RSAF) aircraft.

16) Taxiway S2, S3 and Taxilane S4 can only be used by aircraft with maximum wingspan 65m.

17) Taxilane S6, S8, S9 and Taxiway S7 can only be used by aircraft with maximum wingspan 36m.

RADIO ALTIMETER OPERATIONS AREA

A radio altimeter operating area is established in the pre-threshold area of Runway 02L/20R, Runway 02C/20C and Runway 02R/20L. The size of the radio altimeter operating area is 300m length and 120m width.

AIRCRAFT STANDS WITH SAFEGATE AIRCRAFT DOCKING GUIDANCE SYSTEM.

TOTAL AIRCRAFT PARKING POSITIONS : 230

STANDARD ARRIVAL CHART RNAV (GNSS) - INSTRUMENT (STAR)

ACC 133.25
APP 124.05
119.3
TWR 118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
ARR 128.025

SINGAPORE/Singapore Changi
RWY 02L/C/R

ARAMA ONE ALPHA ARRIVAL
ARAMA 1A

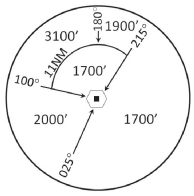
ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 0°23'E (2020)

DISTANCES IN NM

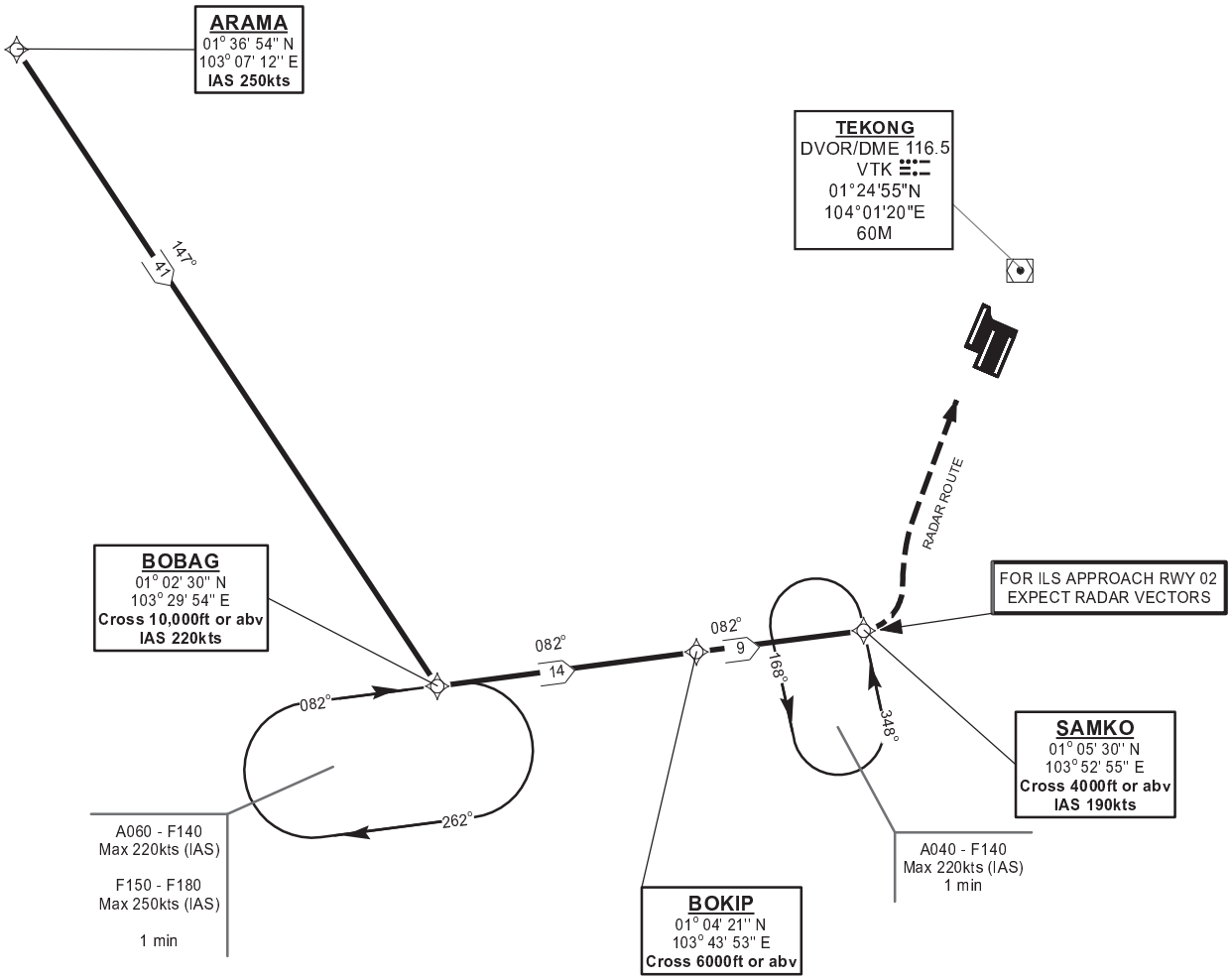
NOTE: RADAR REQUIRED

NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED

NOTE: REFER TO BACK PAGE FOR
- FORMAL AND TABULAR DESCRIPTIONS
- RADIO COM FAILURE PROCEDURES



MSA 25 NM
from TEKONG DVOR



NOT TO SCALE

CHANGES : BOBAG Holding (maximum speed)

ARAMA 1A (STAR) RNAV GNSS RWY 02L/02C/02R - DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
From ARAMA, speed 250kts. To BOBAG at or above 10000ft, speed 220kts, turn left. To BOKIP at or above 6000ft. To SAMKO at or above 4000ft, speed 190kts.	ARAMA [K250] - BOBAG [A100+; K220; L] - BOKIP [A060+] - SAMKO [A040+; K190]	IF TF TF TF	N N N N

Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Magnetic Variation	Turn Direction	Altitude	Speed Limit	Navigation Spec
IF	ARAMA	-	-	-	-	-	K250	RNAV1
TF	BOBAG	-	147(147.4)	-0.4	L	A100+	K220	RNAV1
TF	BOKIP	-	082(082.4)	-0.4	-	A060+	-	RNAV1
TF	SAMKO	-	082(082.4)	-0.4	-	A040+	K190	RNAV1

RADIO COMMUNICATIONS FAILURE PROCEDURE

1	**SET TRANSPONDER TO MODE A/C CODE 7600**
2	**When cleared via ARAMA 1A by Singapore ATC** **(a)** Maintain last assigned flight level or altitude and proceed on ARAMA 1A to SAMKO **(b)** From SAMKO commence descent and carry out appropriate landing procedure for RWY 02 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 RNAV (GNSS) - INSTRUMENT (STAR)

ACC	133.25
APP	124.05
	119.3
TWR	118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.025

SINGAPORE/Singapore Changi
RWY 02L/C/R
ASUNA ONE ALPHA ARRIVAL
ASUNA 1A

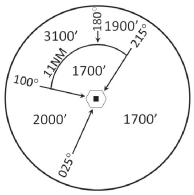
ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 0°23'E (2020)

DISTANCES IN NM

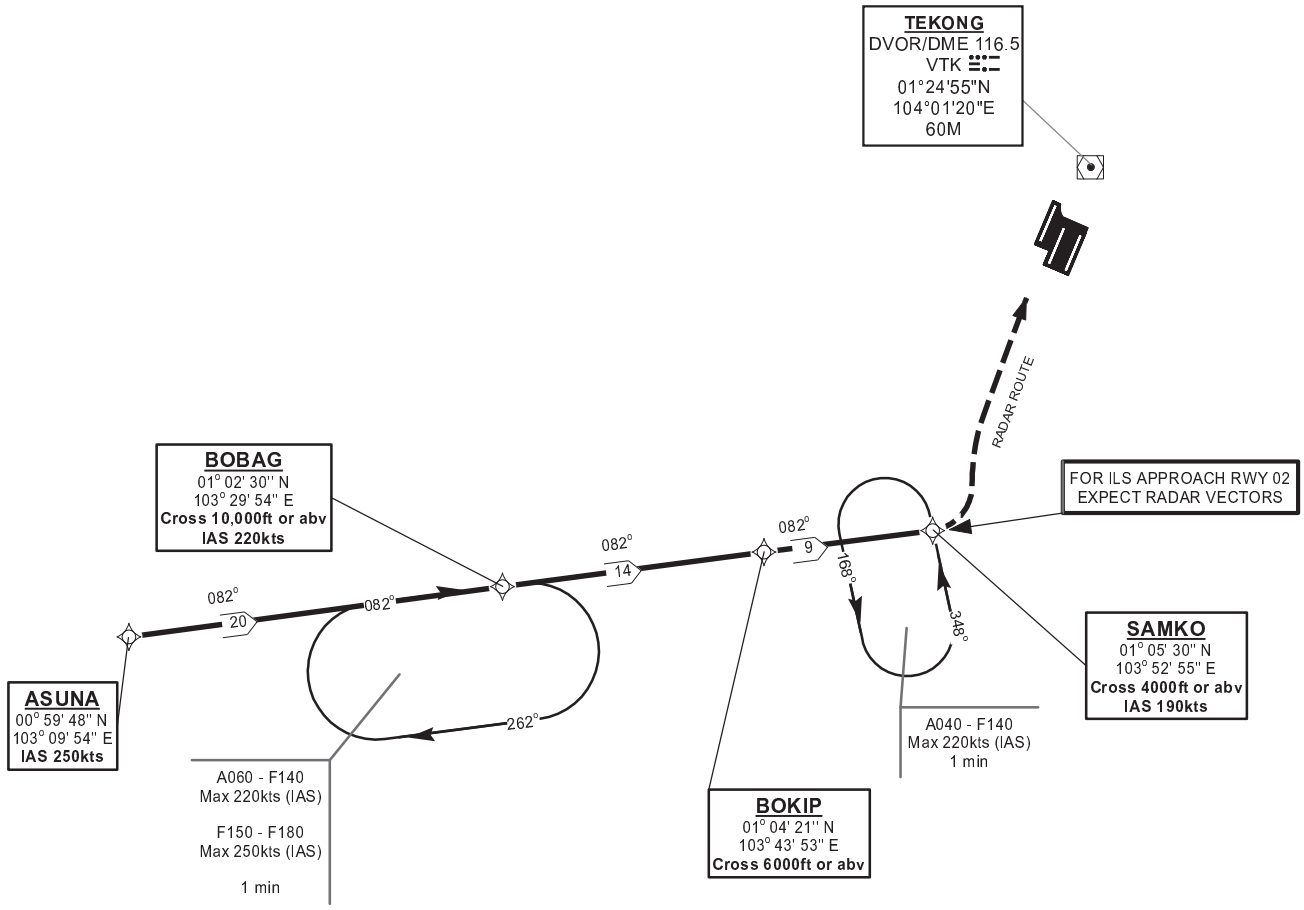
NOTE: RADAR REQUIRED

NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED

NOTE: REFER TO BACK PAGE FOR
- FORMAL AND TABULAR DESCRIPTIONS
- RADIO COM FAILURE PROCEDURES



MSA 25 NM
from TEKONG DVOR



NOT TO SCALE

CHANGES : BOBAG Holding (maximum speed)

ASUNA 1A (STAR) RNAV GNSS RWY 02L/02C/02R - DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
From ASUNA, speed 250kts. To BOBAG at or above 10000ft, speed 220kts. To BOKIP at or above 6000ft. To SAMKO at or above 4000ft, speed 190kts.	ASUNA [K250] - BOBAG [A100+; K220] - BOKIP [A060+] - SAMKO [A040+; K190]	IF TF TF TF	N N N N

Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Magnetic Variation	Turn Direction	Altitude	Speed Limit	Navigation Spec
IF	ASUNA	-	-	-	-	-	K250	RNAV1
TF	BOBAG	-	082(082.4)	-0.4	-	A100+	K220	RNAV1
TF	BOKIP	-	082(082.4)	-0.4	-	A060+	-	RNAV1
TF	SAMKO	-	082(082.4)	-0.4	-	A040+	K190	RNAV1

RADIO COMMUNICATIONS FAILURE PROCEDURE

1	**SET TRANSPONDER TO MODE A/C CODE 7600**
2	**When cleared via ASUNA 1A by Singapore ATC** **(a)** Maintain last assigned flight level or altitude and proceed on ASUNA 1A to SAMKO **(b)** From SAMKO commence descent and carry out appropriate landing procedure for RWY 02 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 RNAV (GNSS) - INSTRUMENT (STAR)

ACC 133.25
APP 124.05
119.3
TWR 118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.025

SINGAPORE/Singapore Changi
RWY 20R/C/L
ARAMA ONE BRAVO ARRIVAL
ARAMA 1B

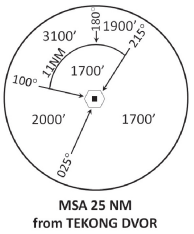
ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 0°23'E (2020)

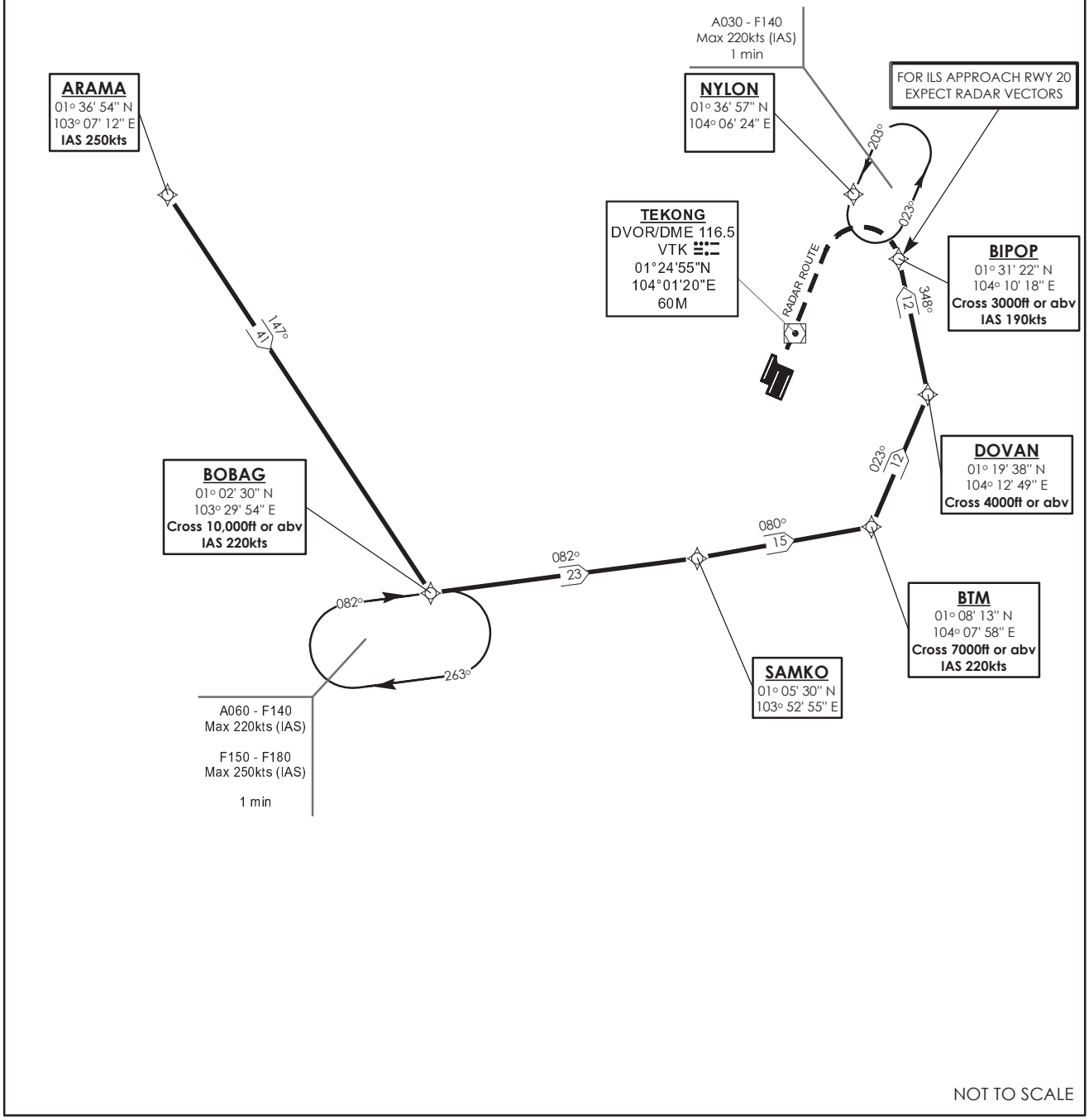
DISTANCES IN NM

NOTE: RADAR REQUIRED

NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED

NOTE: REFER TO BACK PAGE FOR
- FORMAL AND TABULAR DESCRIPTIONS
- RADIO COM FAILURE PROCEDURES





NOT TO SCALE

ARAMA 1B (STAR) RNAV GNSS RWY 20R/20C/20L - DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
From ARAMA, speed 250kts. To BOBAG at or above 10000ft, speed 220kts, turn left. To SAMKO, turn left. To BTM at or above 7000ft, speed 220kts, turn left. To DOVAN at or above 4000ft, turn left. To BIPOP at or above 3000ft, speed 190kts.	ARAMA [K250] - BOBAG [A100+; K220; L] - SAMKO [L] - BTM [A070+; K220; L] - DOVAN [A040+; L] - BIPOP [A030+; K190]	IF TF TF TF TF TF	N N N N N N

Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Magnetic Variation	Turn Direction	Altitude	Speed Limit	Navigation Spec
IF	ARAMA	-	-	-	-	-	K250	RNAV1
TF	BOBAG	-	147(147.4)	-0.4	L	A100+	K220	RNAV1
TF	SAMKO	-	082(082.4)	-0.4	L	-	-	RNAV1
TF	BTM	-	080(080.4)	-0.4	L	A070+	K220	RNAV1
TF	DOVAN	-	023(023.4)	-0.4	L	A040+	-	RNAV1
TF	BIPOP	-	348(348.4)	-0.4	-	A030+	K190	RNAV1

RADIO COMMUNICATIONS FAILURE PROCEDURE

1	**SET TRANSPONDER TO MODE A/C CODE 7600**
2	**When cleared via ARAMA 1B by Singapore ATC** **(a)** Maintain last assigned flight level or altitude and proceed on ARAMA 1B to BIPOP, then direct to NYLON **(b)** From NYLON commence descent and carry out appropriate landing procedure for RWY 20 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 RNAV (GNSS) - INSTRUMENT (STAR)

ACC 133.25
APP 124.05
119.3
TWR 118.6 / 118.25

TRANSITION ALTITUDE
11 000ft

D-ATIS AP ID-WSSS
128.025

SINGAPORE/Singapore Changi
RWY 20R/C/L
ASUNA ONE BRAVO ARRIVAL
ASUNA 1B

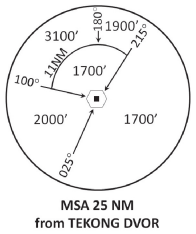
ELEV, ALT IN FEET
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
VAR 0°23'E (2020)

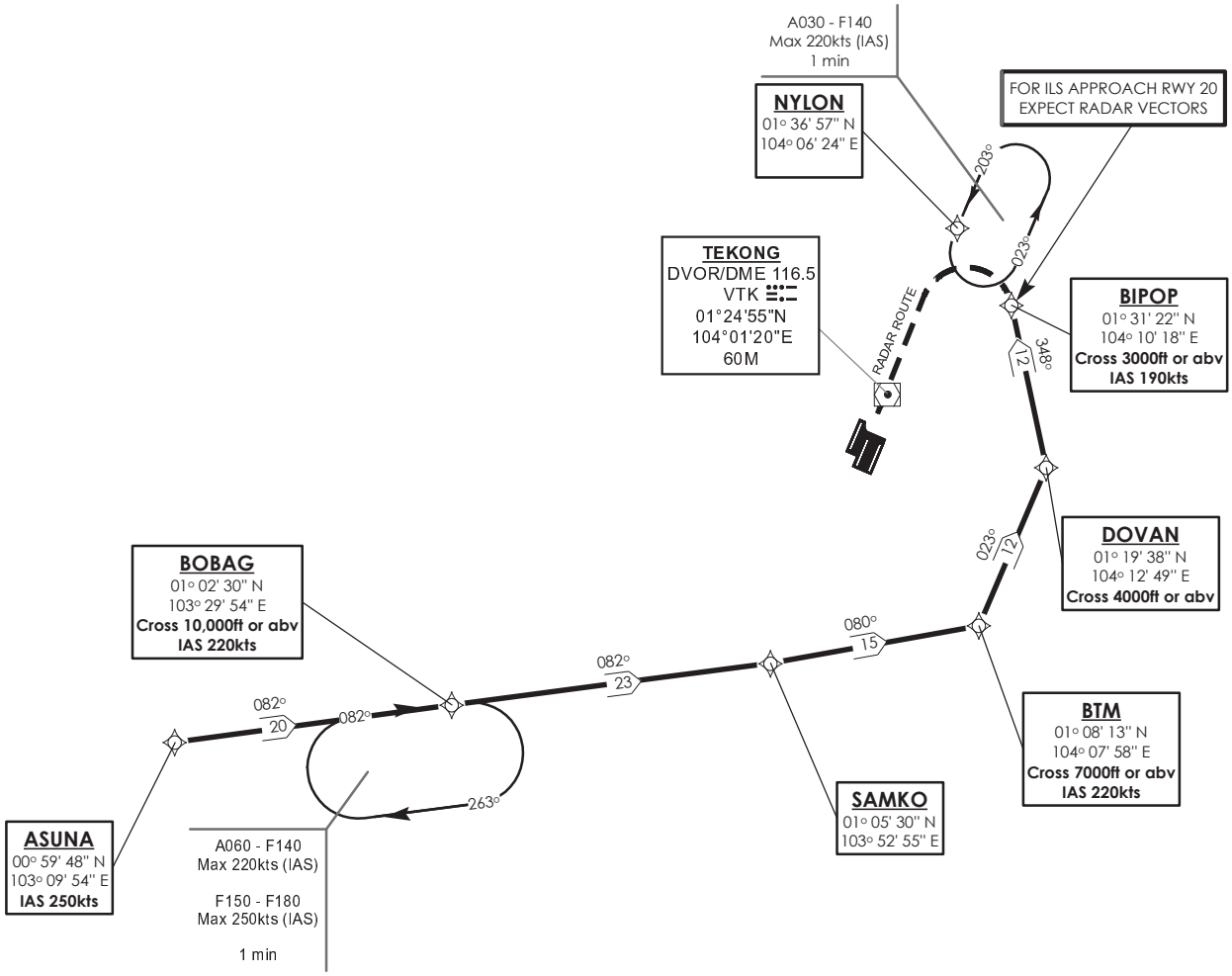
DISTANCES IN NM

NOTE: RADAR REQUIRED

NOTE: RNAV-1 NAVIGATION SPECIFICATION GNSS REQUIRED

NOTE: REFER TO BACK PAGE FOR
- FORMAL AND TABULAR DESCRIPTIONS
- RADIO COM FAILURE PROCEDURES





NOT TO SCALE

CHANGES : BOBAG Holding (inbound track and maximum speed)

ASUNA 1B (STAR) RNAV GNSS RWY 20R/20C/20L - DESCRIPTIONS

Formal & Abbreviated Descriptions

Formal Description	Abbreviated Description	Path Terminator	Fly-Over required
From ASUNA, speed 250kts. To BOBAG at or above 10000ft, speed 220kts. To SAMKO, turn left. To BTM at or above 7000ft, speed 220kts, turn left. To DOVAN at or above 4000ft, turn left. To BIPOP at or above 3000ft, speed 190kts.	ASUNA [K250] - BOBAG [A100+; K220] - SAMKO [L] - BTM [A070+; K220; L] - DOVAN [A040+; L] - BIPOP [A030+; K190]	IF TF TF TF TF TF	N N N N N N

Tabular Descriptions

Path Term	Waypoint Name	Fly-Over	Course °M(°T)	Magnetic Variation	Turn Direction	Altitude	Speed Limit	Navigation Spec
IF	ASUNA	-	-	-	-	-	K250	RNAV1
TF	BOBAG	-	082(082.4)	-0.4	-	A100+	K220	RNAV1
TF	SAMKO	-	082(082.4)	-0.4	L	-	-	RNAV1
TF	BTM	-	080(080.4)	-0.4	L	A070+	K220	RNAV1
TF	DOVAN	-	023(023.4)	-0.4	L	A040+	-	RNAV1
TF	BIPOP	-	348(348.4)	-0.4	-	A030+	K190	RNAV1

RADIO COMMUNICATIONS FAILURE PROCEDURE

1	**SET TRANSPONDER TO MODE A/C CODE 7600**
2	**When cleared via ASUNA 1B by Singapore ATC** **(a)** Maintain last assigned flight level or altitude and proceed on ASUNA 1B to BIPOP, then direct to NYLON **(b)** From NYLON commence descent and carry out appropriate landing procedure for RWY 20 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