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Email: caas_singaporeais@caas.gov.sgURL: www.caas.gov.sgURL: <https://aim-sg.caas.gov.sg>**AIP Supplement for
Singapore****AIRAC AIP SUP
040/2020****Effective from 13 AUG 2020****PERM****Published on 04 JUN 2020****CHANGES TO INSTRUMENT FLIGHT PROCEDURE (IFP) APPROACH CHART
IDENTIFICATION FROM RNAV (GNSS) TO RNP****1 INTRODUCTION**

1.1 This AIP Supplement is to inform aircraft operators and pilots on the change to the identification of Performance Based Navigation (PBN) Instrument Flight Procedure (IFP) approach charts, from Area Navigation (RNAV) Global Navigation Satellite System (GNSS) to Required Navigation Performance (RNP).

1.2 Changes to the IFP approach chart identification is in accordance with Amendment 6 to the ICAO Procedures for Air Navigation Services — Aircraft Operations (Doc 8168, PANS-OPS) Volume II, effective from **13 August 2020 0000UTC**.

2 DETAILS OF CHANGE TO CHART IDENTIFICATION

2.1 PBN approaches mentioned in the table below, will be identified as RNP:

Airport	Navigation Specification	Chart Identification		Reference Charts
		Existing	New	
Singapore Changi	RNP APCH	RNAV (GNSS) RWY 02L	RNP RWY 02L	Annex A-1 AD-2-WSSS-IAC-9
Singapore Changi	RNP APCH	RNAV (GNSS) RWY 02C	RNP RWY 02C	Annex A-2 AD-2-WSSS-IAC-10
Singapore Changi	RNP APCH	RNAV (GNSS) RWY 20R	RNP RWY 20R	Annex A-3 AD-2-WSSS-IAC-11
Singapore Changi	RNP APCH	RNAV (GNSS) RWY 20C	RNP RWY 20C	Annex A-4 AD-2-WSSS-IAC-12
Paya Lebar	RNP APCH	RNAV (GNSS) RWY 02	RNP RWY 02	Annex A-5 AD-2-WSAP-IAC-5
Paya Lebar	RNP APCH	RNAV (GNSS) RWY 20	RNP RWY 20	Annex A-6 AD-2-WSAP-IAC-6

2.2 ATC will use the following phraseology when providing clearances for RNP approach:

CLEARED FOR R-N-P APPROACH RUNWAY (number)

e.g. Cleared for R-N-P Approach Runway 02C

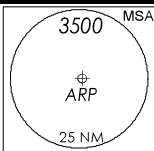
3 CANCELLATION

3.1 This AIP Supplement will remain current until the information is incorporated into AIP Singapore.

Singapore Changi RNP RWY 02L	Annex A-1
Singapore Changi RNP RWY 02C	Annex A-2
Singapore Changi RNP RWY 20R	Annex A-3
Singapore Changi RNP RWY 20C	Annex A-4
Paya Lebar RNP RWY 02	Annex A-5
Paya Lebar RNP RWY 20	Annex A-6

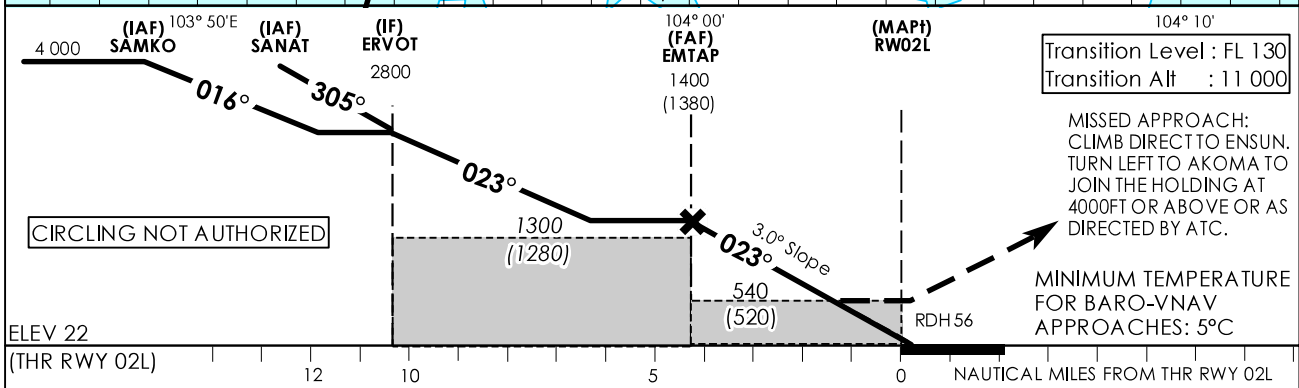
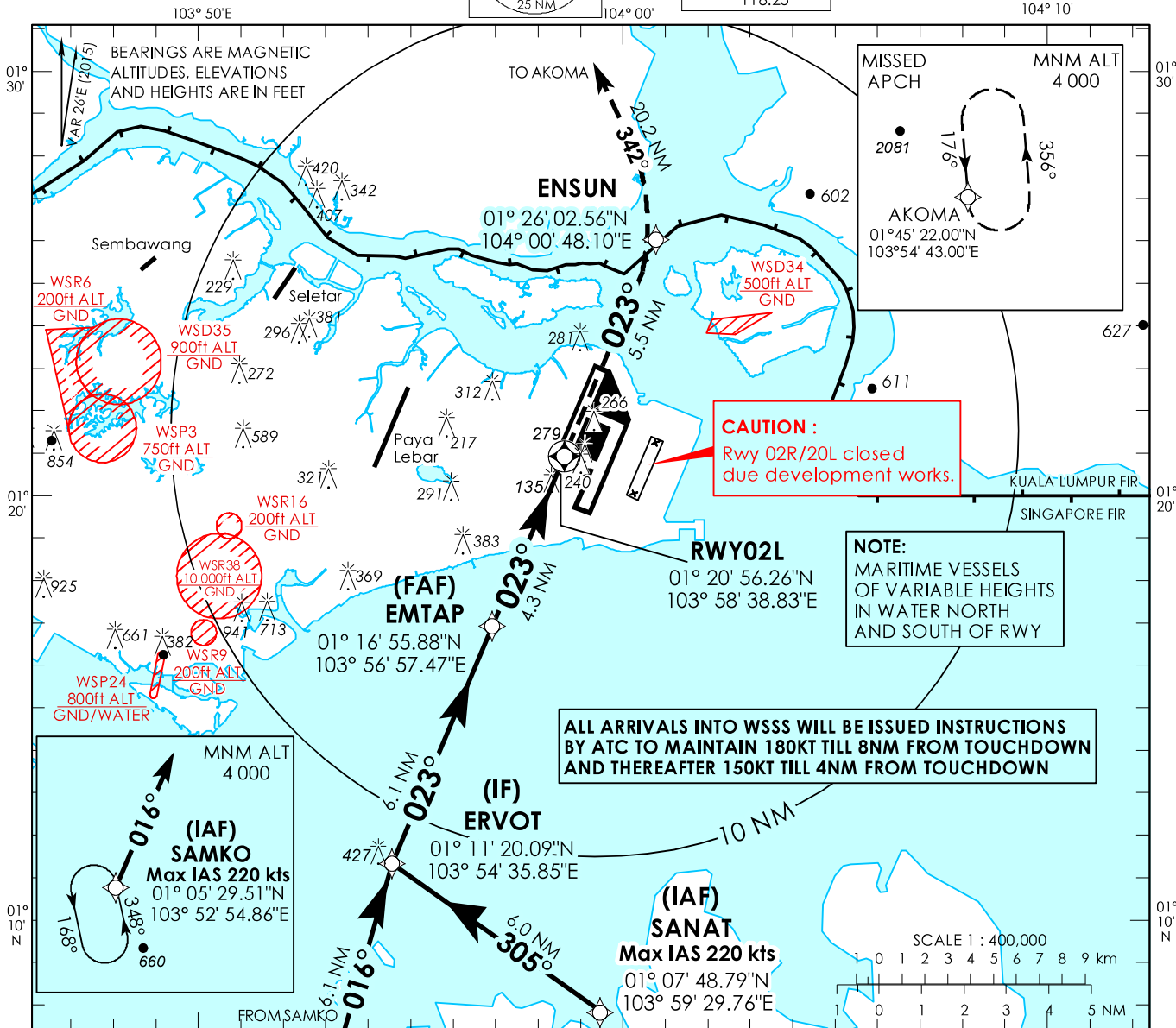
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 22ft
HEIGHT RELATED TO THR RWY 02L - ELEV 22ft



D-ATIS	AP ID	WSSS
	128.6	
APP	120.3	
TWR	118.6	
	118.25	

SINGAPORE/ SINGAPORE CHANGI RNP RWY 02L

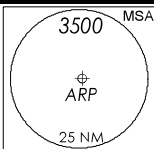


		OCA (OCH)						
Category of Aircraft		A	B	C	D			
LNAV/VNAV	2.5%	450 (430)						
LNAV	2.5%	540 (520)						
Fix		SAMKO	SANAT	ERVOT	EMTAP	RW02L	ENSUN	AKOMA
Altitude (Height)		4000 (3978)	4000 (3978)	2800 (2778)	1400 (1378)	540 (518)	880 (858)	4000 (3978)
Speed	knots	80	100	120	140	160	180	
FAF - MAPt 4.3nm	min : s	3 : 14	2 : 35	2 : 09	1 : 51	1 : 37	1 : 26	
Rate of descent/GS	ft/min	424	530	637	743	849	955	

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INSTRUMENT APPROACH CHART - ICAO

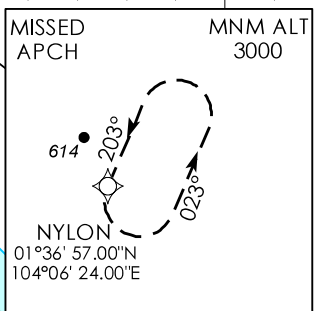
AERODROME ELEV 22ft
HEIGHT RELATED TO THR RWY 02C - ELEV 14ft



D-ATIS	AP ID	WSSS
APP	120.3	
TWR	118.6	
	118.25	

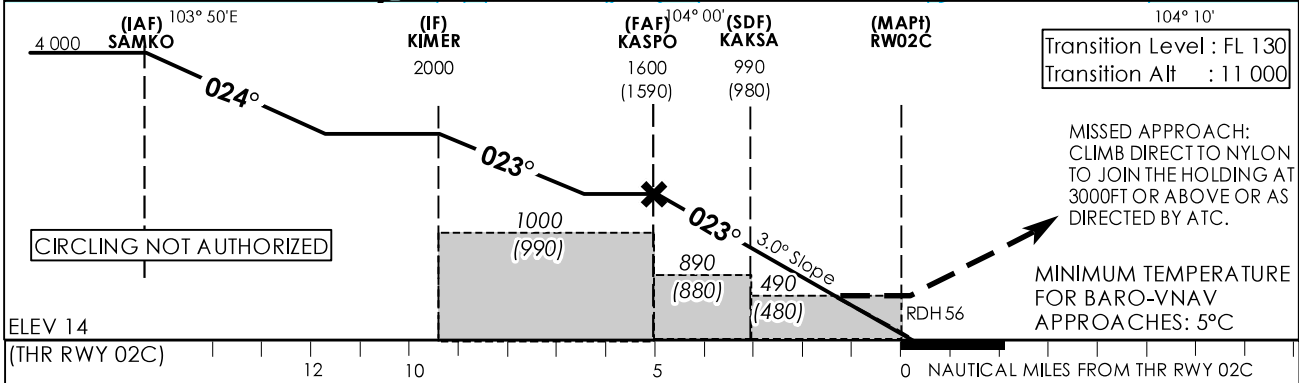
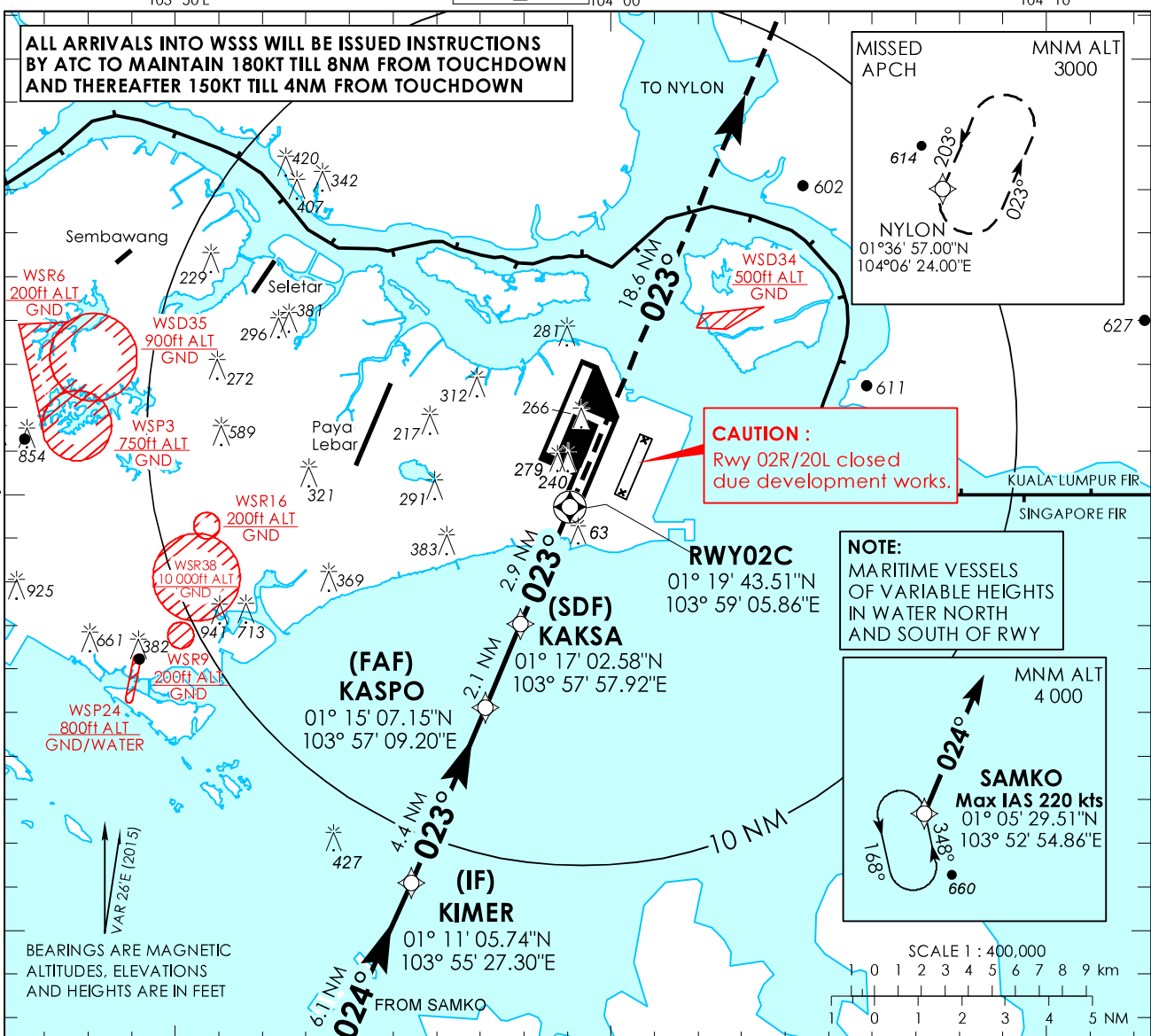
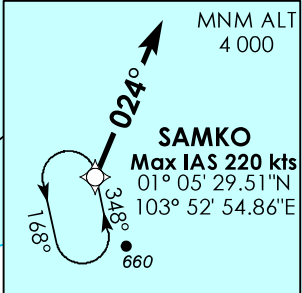
SINGAPORE/ SINGAPORE CHANGI RNP RWY 02C

ALL ARRIVALS INTO WSSS WILL BE ISSUED INSTRUCTIONS BY ATC TO MAINTAIN 180KT TILL 8NM FROM TOUCHDOWN AND THEREAFTER 150KT TILL 4NM FROM TOUCHDOWN



CAUTION :
Rwy 02R/20L closed due development works.

NOTE:
MARITIME VESSELS OF VARIABLE HEIGHTS IN WATER NORTH AND SOUTH OF RWY

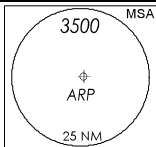


		OCA (OCH)					
Category of Aircraft		A	B	C	D		
LNAV	2.5%		490 (480)				
LNAV without SDF	2.5%		890 (880)				
LNAV/VNAV	2.5%		360 (350)				
Fix		SAMKO	KIMER	KASPO	KAкса	RW02C	NYLON
Altitude (Height)		4000 (3986)	2000 (1986)	1600 (1586)	990 (976)	490 (476)	3000 (2986)
Speed	knots	80	100	120	140	160	180
FAF - MAPt 5nm	min : s	3 : 45	3 : 00	2 : 30	2 : 09	1 : 53	1 : 40
Rate of descent/GS	ft/min	425	531	637	743	849	955

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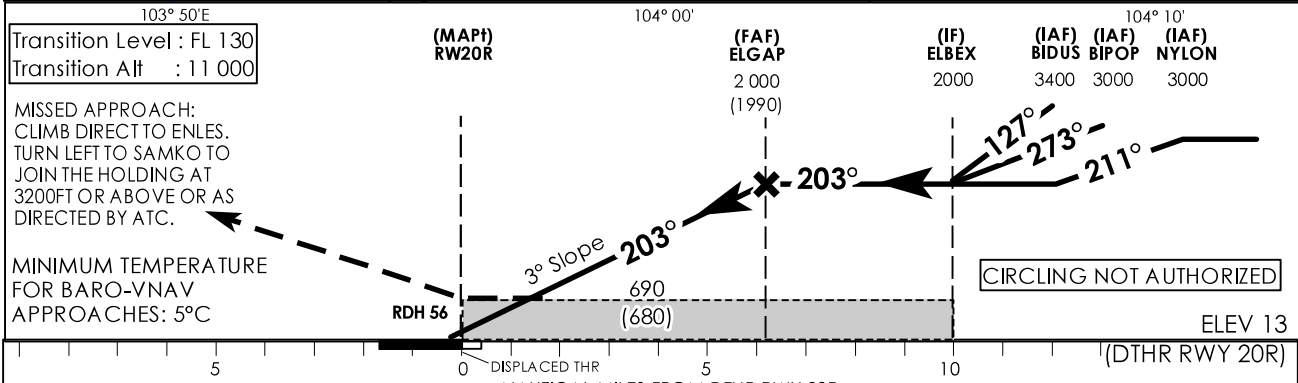
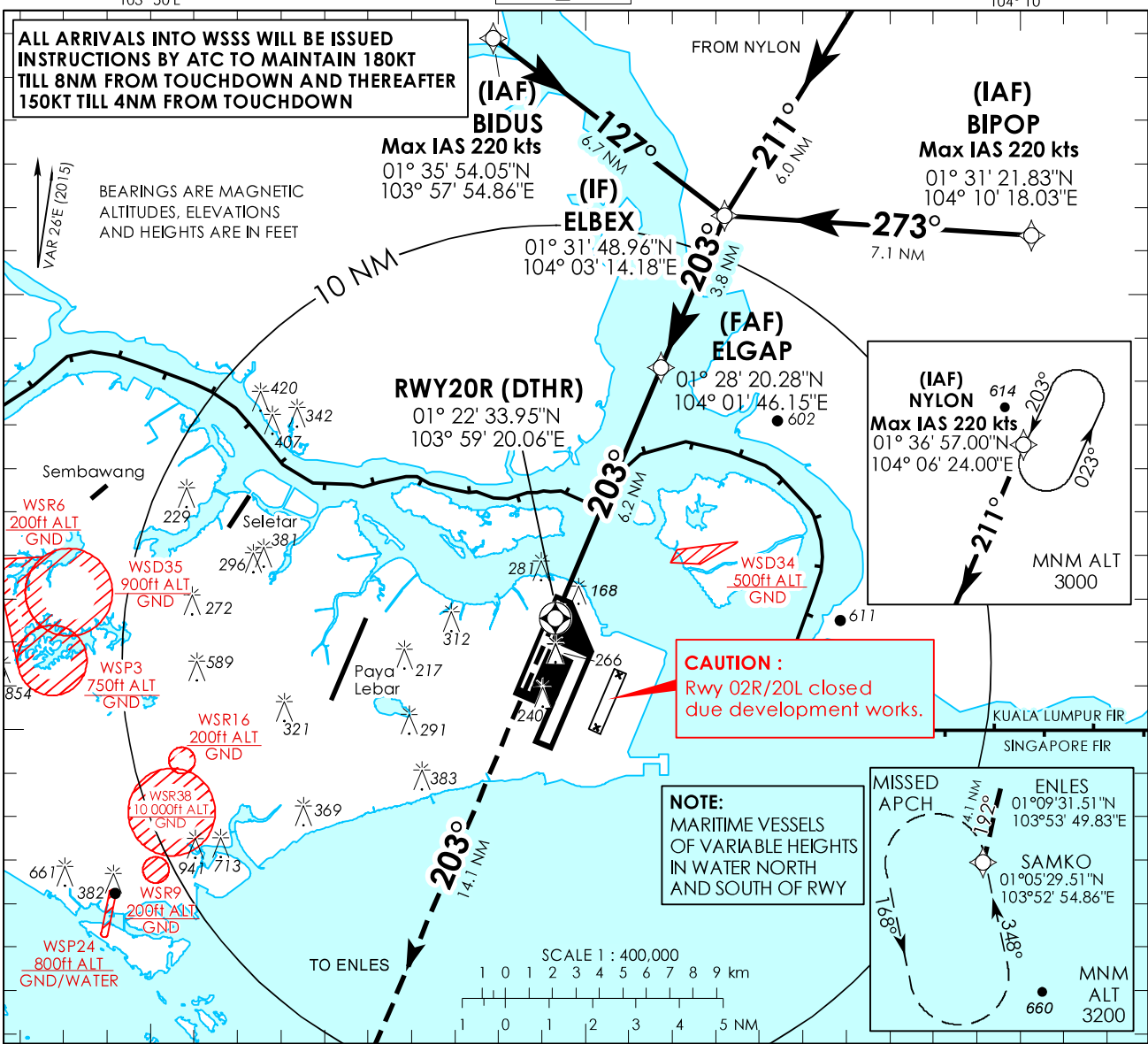
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 22ft
 HEIGHT RELATED TO
 DTHR RWY 20R - ELEV 13ft



D-ATIS AP ID WSSS	128.6
APP	120.3
TWR	119.3
	118.6
	118.25

SINGAPORE/
 SINGAPORE CHANGI
RNP RWY 20R

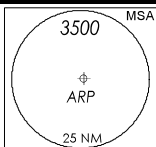


		OCA (OCH)							
Category of Aircraft		A	B	C	D				
LNAV/VNAV	2.5%	690 (680)							
LNAV	2.5%	690 (680)							
Fix		BIDUS	NYLON	BIPOP	ELBEX	ELGAP	RW20R	ENLES	SAMKO
Altitude (Height)		3400 (3387)	3000 (2987)	3000 (2987)	2000 (1987)	2000 (1987)	690 (680)	2180 (2167)	3200 (3187)
Speed	knots	80	100	120	140	160	180		
FAF - MAPt 6.2 nm	min : s	4 : 39	3 : 44	3 : 06	2 : 40	2 : 20	2 : 04		
Rate of descent/GS	ft/min	425	531	637	743	849	955		

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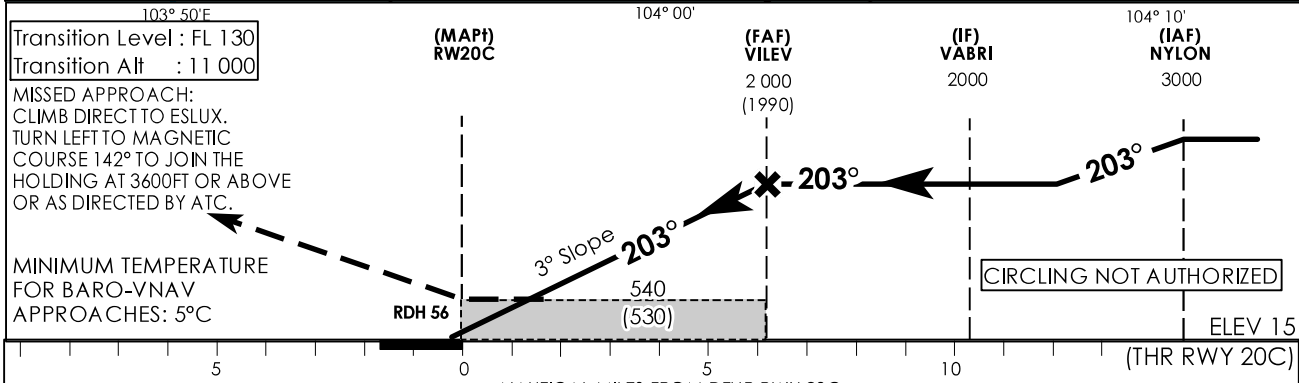
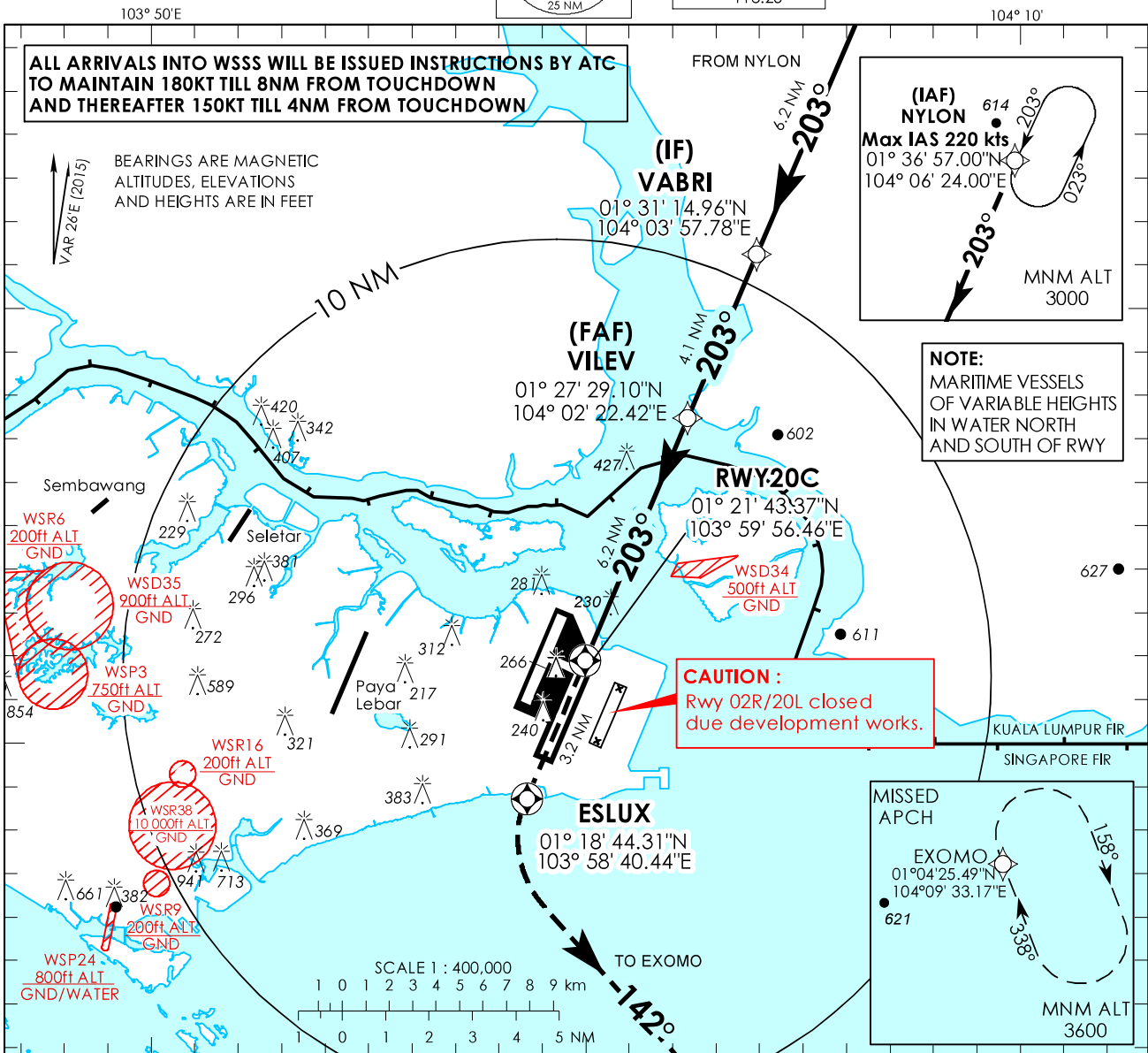
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV **22ft**
 HEIGHT RELATED TO
 THR RWY 20C - ELEV **15ft**



D-ATIS AP ID WSSS	128.6
APP	120.3
TWR	118.6
	118.25

SINGAPORE/ SINGAPORE CHANGI RNP RWY 20C



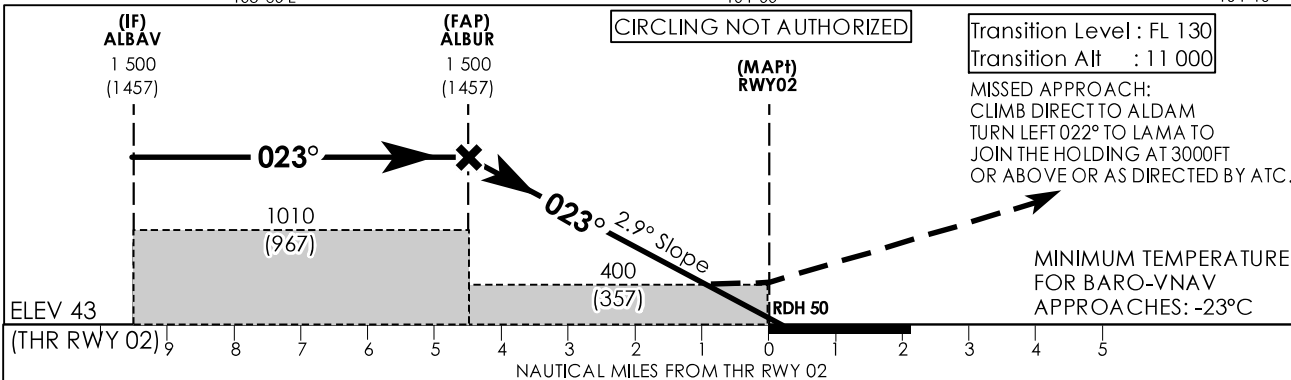
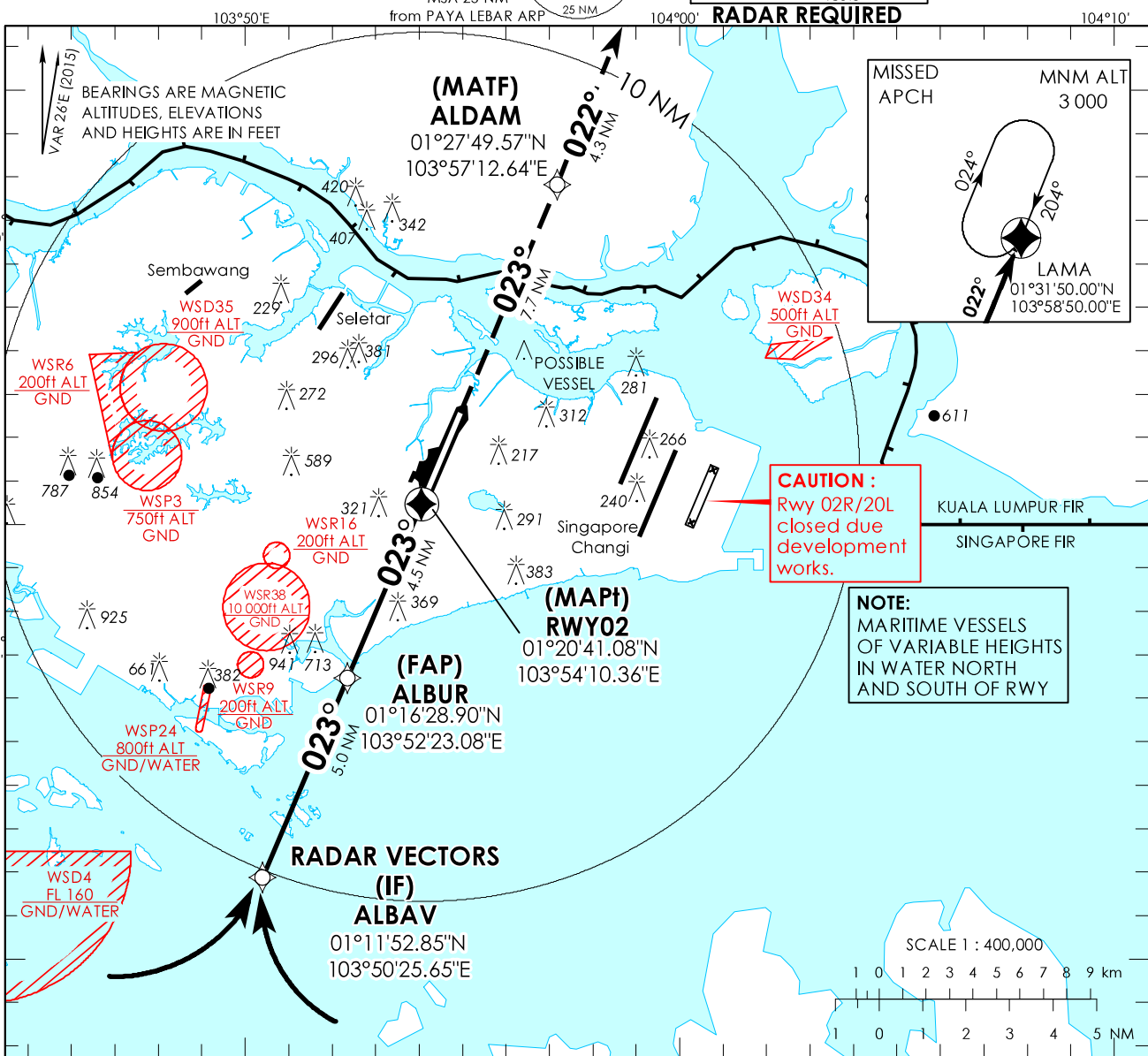
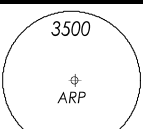
		OCA (OCH)					
Category of Aircraft		A	B	C	D		
LNAV/VNAV	2.5%	490 (480)					
LNAV	2.5%	540 (530)					
Fix		NYLON	VABRI	VILEV	RW20C	ESLUX	EXOMO
Altitude (Height)		3000 (2985)	2000 (1985)	2000 (1985)	540 (525)	540 (525)	3600 (3585)
Speed	knots	80	100	120	140	160	180
FAF - MAPt 6.2 nm	min : s	4 : 39	3 : 44	3 : 06	2 : 40	2 : 20	2 : 04
Rate of descent/GS	ft/min	425	531	637	743	849	955

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**INSTRUMENT
APPROACH
CHART - ICAO**

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

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

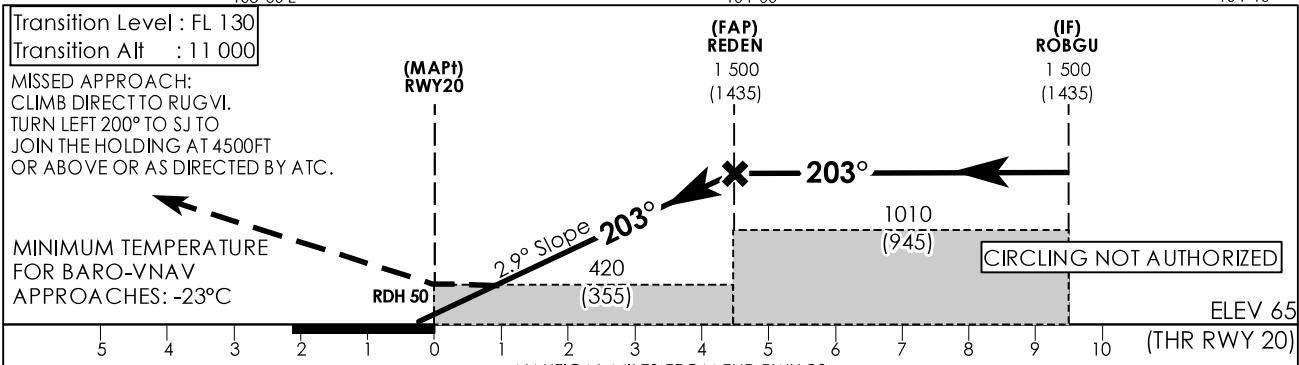
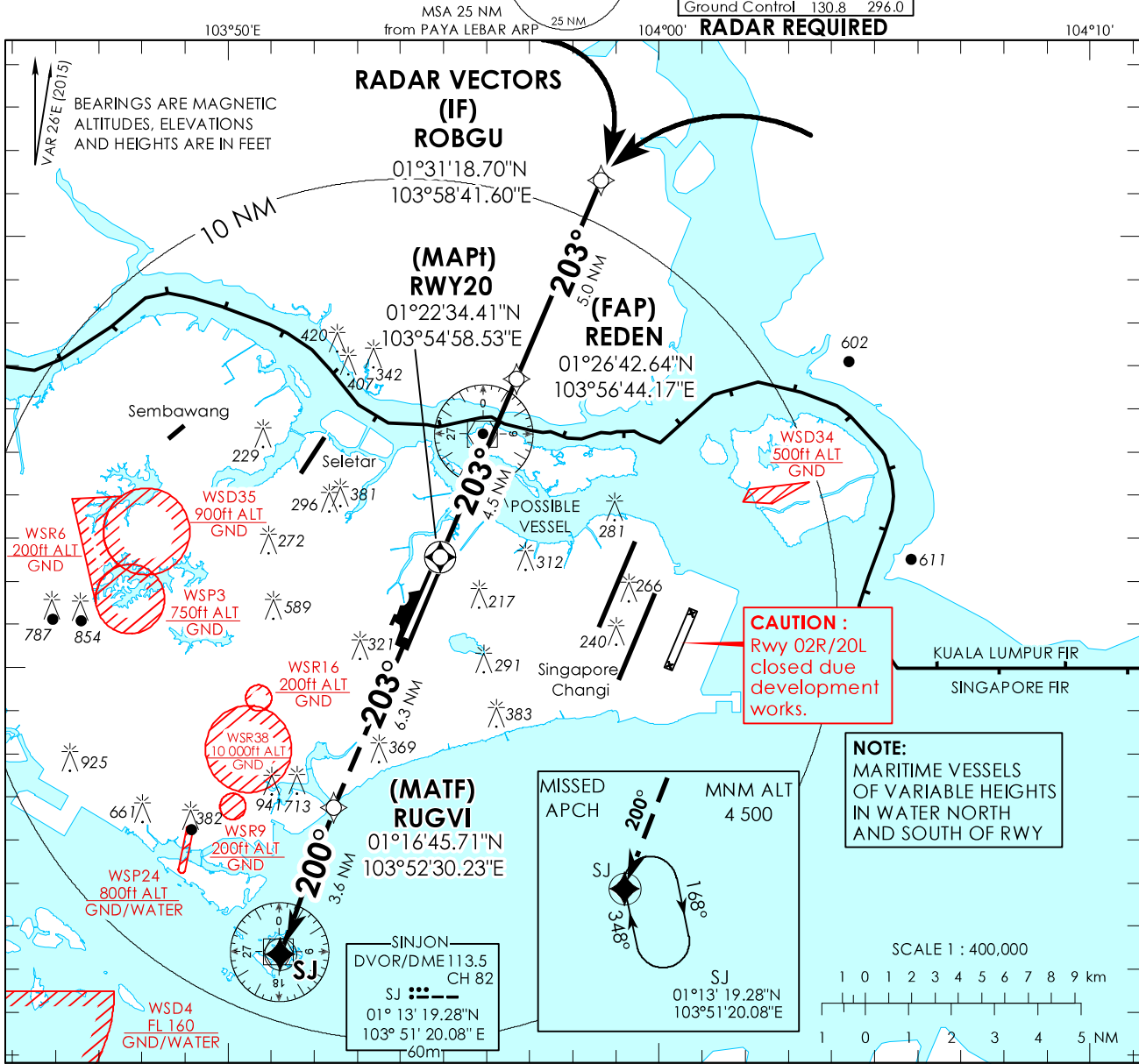


		OCA (OCH)					
Category of Aircraft		A	B	C	D		
LNAV/VNAV	2.5%		400 (357)				
LNAV	2.5%		400 (357)				
Fix		ALBAV	ALBUR	RWY02	ALDAM	LAMA	
Altitude (Height)		1500 (1457)	1500 (1457)	400 (357)	1250 (1207)	1910 (1867)	
Speed	knots	80	100	120	140	160	180
FAP - MAPt 4.5 nm	min : s	3 : 23	2 : 42	2 : 15	1 : 56	1 : 41	1 : 30
Rate of descent/GS	ft/min	410	513	615	718	821	923

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INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 65ft
HEIGHT RELATED TO THR RWY 20 - 65ft

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



		OCA (OCH)			
Category of Aircraft		A	B	C	D
LNAV/VNAV	2.5%		420 (355)		
LNAV	2.5%		420 (355)		

Fix	ROBGU	REDEN	RWY20	RUGVI	SINJON	
Altitude (Height)	1500 (1435)	1500 (1435)	420 (355)	1030 (965)	1580 (1515)	
Speed	knots	80	100	140	160	180
FAP - MAPt 4.5 nm	min : s	3 : 23	2 : 42	2 : 15	1 : 56	1 : 30
Rate of descent/GS	ft/min	410	513	615	718	821

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