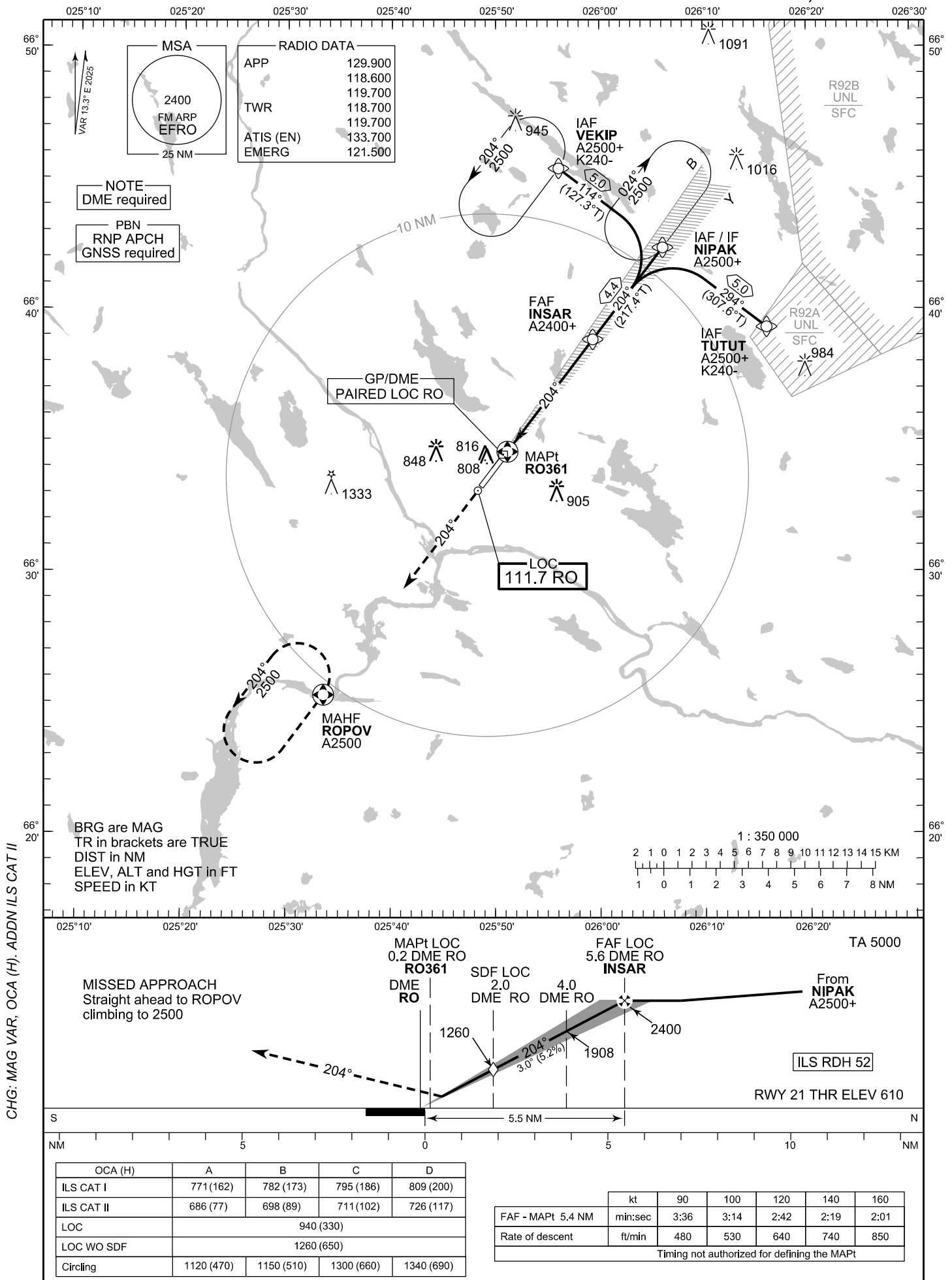


**INSTRUMENT  
APPROACH CHART - ICAO**

ELEV 643 FT  
HEIGHTS RELATED TO  
THR RWY 21 ELEV 610 FT

**ILS Z CAT II or LOC Z RWY 21  
ROVANIEMI AERODROME  
ROVANIEMI, FINLAND**



**MSA**  
2400  
FM ARP  
EFRO  
25 NM

**RADIO DATA**

APP	129.900
	118.600
TWR	119.700
	118.700
ATIS (EN)	133.700
EMERG	121.500

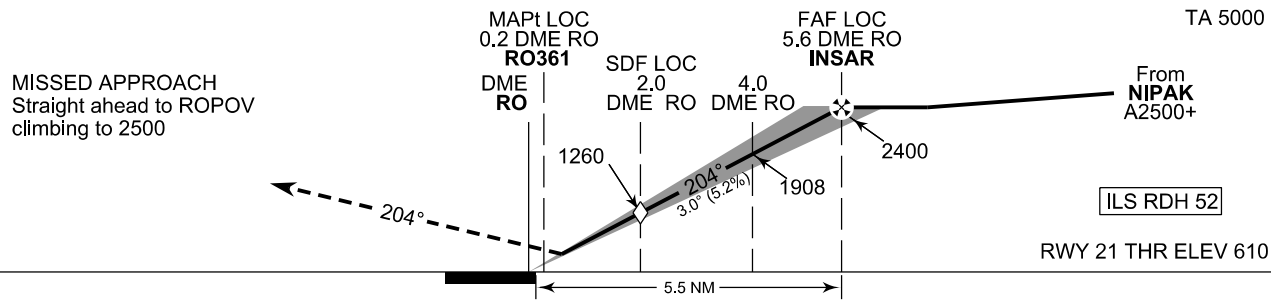
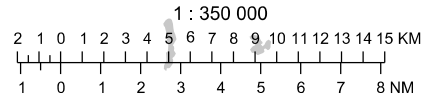
**NOTE**  
DME required

**PBN**  
RNP APCH  
GNSS required

**GP/DME  
PAIRED LOC RO**

**LOC  
111.7 RO**

BRG are MAG  
TR in brackets are TRUE  
DIST in NM  
ELEV, ALT and HGT in FT  
SPEED in KT



OCA (H)	A	B	C	D
ILS CAT I	771 (162)	782 (173)	795 (186)	809 (200)
ILS CAT II	686 (77)	698 (89)	711 (102)	726 (117)
LOC	940 (330)			
LOC WO SDF	1260 (650)			
Circling	1120 (470)	1150 (510)	1300 (660)	1340 (690)

	kt	90	100	120	140	160
FAF - MAPt 5.4 NM	min:sec	3:36	3:14	2:42	2:19	2:01
Rate of descent	ft/min	480	530	640	740	850

Timing not authorized for defining the MAPt

EFRO ILS Z CAT II or LOC Z RWY 21										
PROC ID NAV SPEC	SEQ NR	P/T	WPT			MAG	GEO TR	DIST NM	Constraints	
			ID	Type	Flyover				LVL	Speed
I21 TUTUT RNP APCH	005	IF	TUTUT	IAF	-	294°	307.6°T	5.0	A2500+	K240-
	010	TF	NIPAK	IF	-				204°	217.4°T
	020	TF	INSAR	FAF LOC	-					
	030	TF	RO361	MAPt LOC	Y	204°	217.3°T	-	A1100+	
	040	CA	-	-	-					
	050	DF	ROPOV	MAHF	Y				A2500	

EFRO ILS Z CAT II or LOC Z RWY 21										
PROC ID NAV SPEC	SEQ NR	P/T	WPT			MAG	GEO TR	DIST NM	Constraints	
			ID	Type	Flyover				LVL	Speed
I21 NIPAK RNP APCH	010	IF	NIPAK	IAF/IF	-	204°	217.4°T	4.4	A2500+	
	020	TF	INSAR	FAF LOC	-					
	030	TF	RO361	MAPt LOC	Y	204°	217.3°T	-	A1100+	
	040	CA	-	-	-					
	050	DF	ROPOV	MAHF	Y				A2500	

EFRO ILS Z CAT II or LOC Z RWY 21										
PROC ID NAV SPEC	SEQ NR	P/T	WPT			MAG	GEO TR	DIST NM	Constraints	
			ID	Type	Flyover				LVL	Speed
I21 VEKIP RNP APCH	005	IF	VEKIP	IAF	-	114°	127.3°T	5.0	A2500+	K240-
	010	TF	NIPAK	IF	-				204°	217.4°T
	020	TF	INSAR	FAF LOC	-					
	030	TF	RO361	MAPt LOC	Y	204°	217.3°T	-	A1100+	
	040	CA	-	-	-					
	050	DF	ROPOV	MAHF	Y				A2500	

RNAV Holdings							
ID	INBD TR	INBD MAG	Turn Direction	Speed	MNM HLDG LVL	TIME	DIST NM
NIPAK	217.2°T	204°	Right	K230-	A2500	1 MIN	-
VEKIP	037.1°T	024°	Left	K230-	A2500	1 MIN	-
ROPOV	037.2°T	024°	Left	K230-	A2500	1 MIN	-

WPT COORD
SEE PAGE EFRO AD 2.15 - 1

FINAL APPROACH PARAMETERS			
LOC Gradient	ILS		RDH
	CAT	GPA	
5.24 % (3.00°)	II	3.00°	52 FT