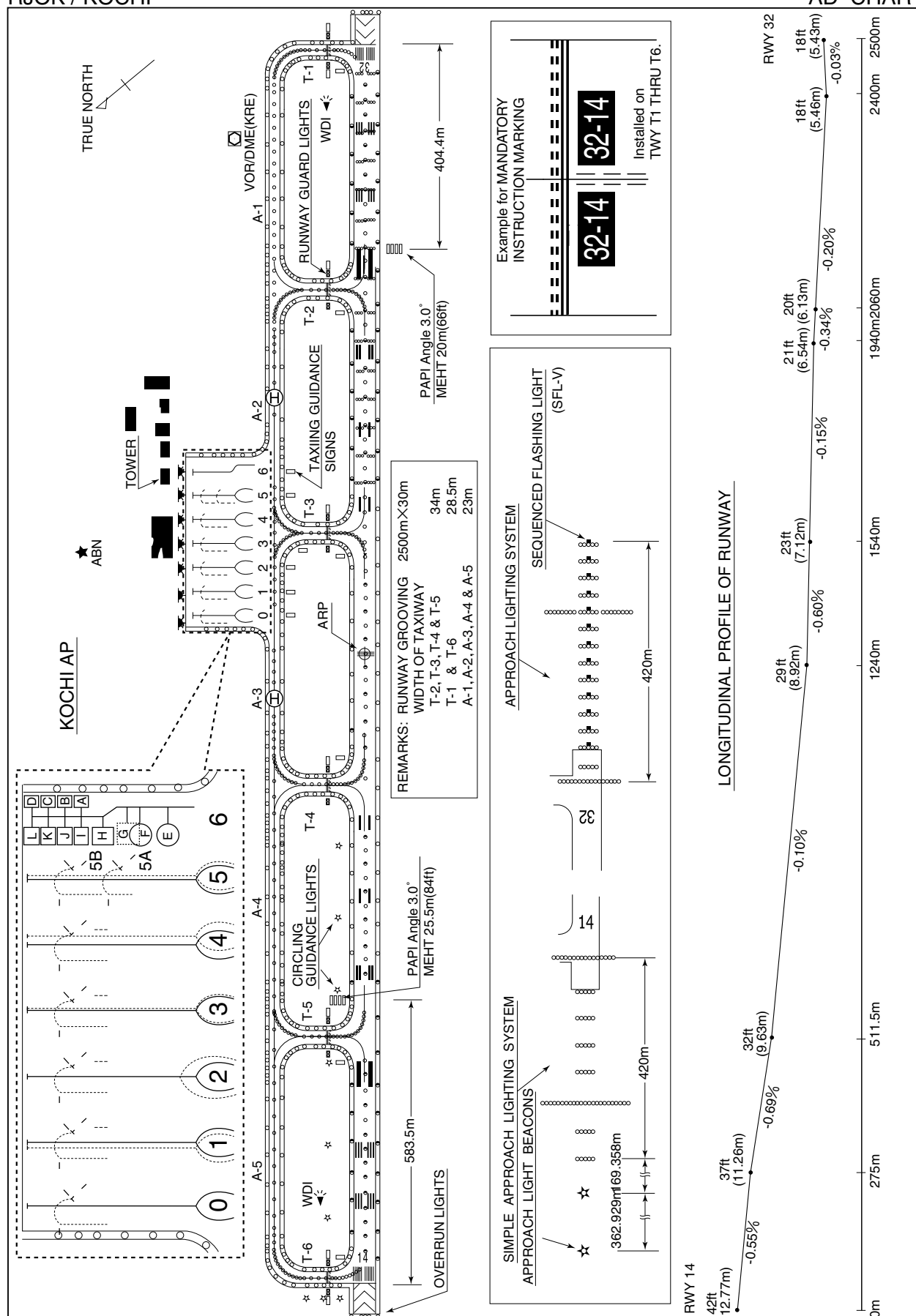


RJOK / KOCHI

AD CHART



STANDARD DEPARTURE CHART - INSTRUMENT

RJOK / KOCHI

SID

SHIMIZU SIX DEPARTURE

RWY 14 : Climb RWY HDG to 500FT, turn right HDG 268°...

RWY 32 : Climb RWY HDG to 800FT, turn right...

...to intercept and proceed via KRE R223/SUC R043 to SUC VORTAC.

Note RWY32 : 6.0% climb gradient required up to 2500FT.

OBST ALT 2165FT located at 6.6NM 358° FM end of RWY32.



STANDARD DEPARTURE CHART - INSTRUMENT

RJOK / KOCHI

SID

KOCHI REVERSAL FIVE DEPARTURE

RWY 14 : Climb RWY HDG to 500FT, turn right...

RWY 32 : Climb RWY HDG to 800FT, turn right HDG 205°...

...to intercept and proceed via KRE R160 to KRE 10.0DME, then turn left
proceed to KRE VOR/DME.

Cross KRE VOR/DME at or above 6000FT.

Note RWY32 : 6.0% climb gradient required up to 2500FT.

OBST ALT 2165FT located at 6.6NM 358° FM end of RWY32.

KOCHI REVERSAL FIVE DEPARTURE

STANDARD DEPARTURE CHART - INSTRUMENT

RJOK / KOCHI

SID

URADO REVERSAL THREE DEPARTURE

RWY 14 : Climb RWY HDG to 500FT, turn right HDG 255°...

RWY 32 : Climb RWY HDG to 800FT, turn right...

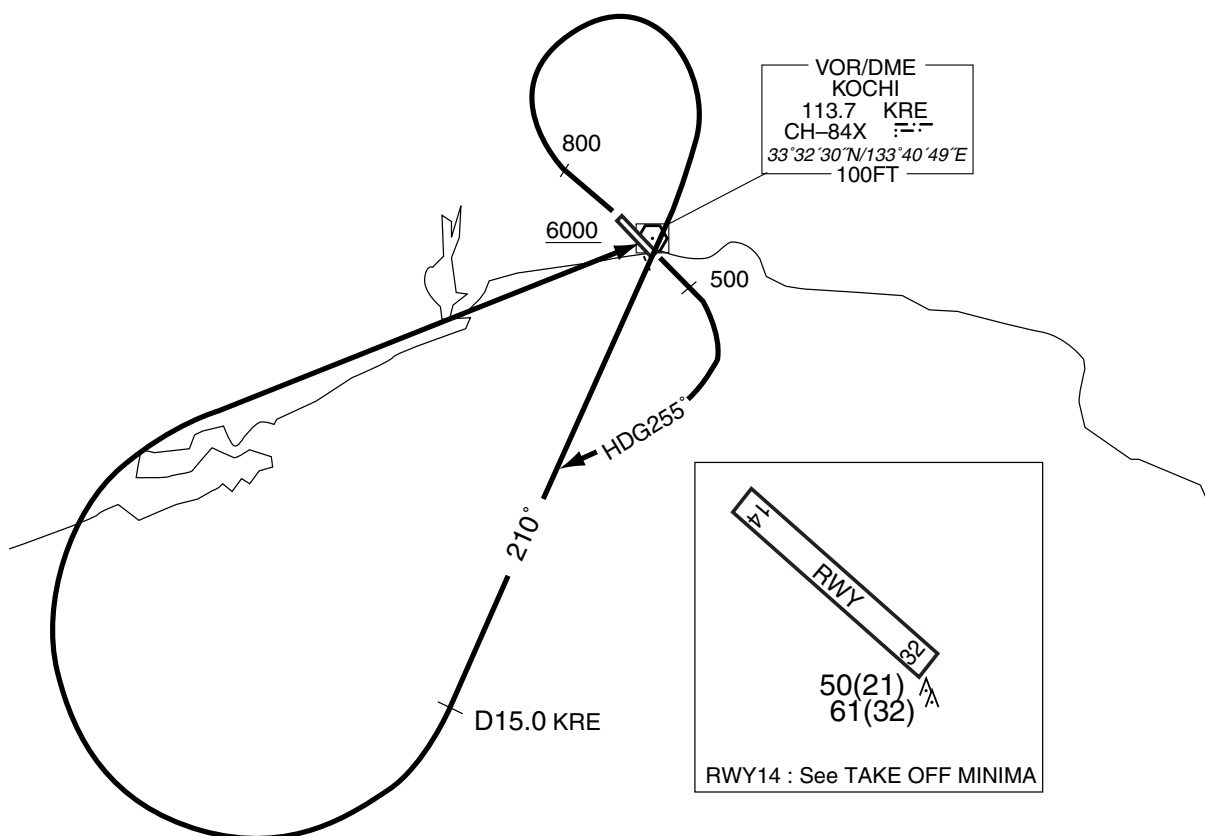
...to intercept and proceed via KRE R210 to KRE 15.0DME, then turn right
proceed to KRE VOR/DME.

Cross KRE VOR/DME at or above 6000FT.

Note RWY32 : 6.0% climb gradient required up to 2500FT.

OBST ALT 2165FT located at 6.6NM 358° FM end of RWY32.

URADO REVERSAL THREE DEPARTURE



STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

KARIN ONE RNAV DEPARTURE

RNAV 1

Note 1) DME/DME/IRU or GNSS required.

※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.

2) RADAR service required.

Critical DME

RWY14 : KRE 3.0NM fm DER - 7NM to KARIN
SUC 3.0NM fm DER - 10NM to KARIN
RWY32 : KRE 9NM to OK32C - 10NM to KARIN
SUC 9NM to OK32C - 4NM to OK32C

DME GAP

RWY14 : DER - 3.0NM fm DER
RWY32 : DER - 9NM fm OK32C

Inappropriate NavAids

See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7° W(2009)



RWY14 : Climb on HDG137° at or above 500FT, turn right direct to OK14A, to OK14B, to KARIN at or above 8000FT.

RWY32 : Climb on HDG317° at or above 600FT, turn right direct to OK32A, to OK32C, to KARIN at or above 8000FT.

Note RWY32: 6.0% climb gradient required up to 2300FT.

OBST ALT 1970FT located at 6.13NM 004° FM end of RWY32.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

KARIN ONE RNAV DEPARTURE

RWY14

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	137° (130.6°)	—	+500	—	—	RNAV1
DF	OK14A	—	—	—	R	—	—	—	RNAV1
TF	OK14B	—	6.0	104° (097.5°)	—	—	—	—	RNAV1
TF	KARIN	—	23.7	053° (046.3°)	—	+8000	—	—	RNAV1

RWY32

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	317° (310.6°)	—	+600	—	—	RNAV1
DF	OK32A	—	—	—	R	—	—	—	RNAV1
TF	OK32C	—	12.6	138° (130.7°)	—	—	—	—	RNAV1
TF	KARIN	—	17.9	053° (046.3°)	—	+8000	—	—	RNAV1

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

KAIFU ONE RNAV DEPARTURE

RNAV 1

Note 1) DME/DME/IRU or GNSS required.

※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.

2) RADAR service required.

Critical DME

RWY14 : KRE 3.0NM fm DER - 23NM to KAIFU
SUC 3.0NM fm DER - 32NM to KAIFU
RWY32 : KRE 9NM to OK32C - 28NM to KAIFU
SUC 9NM to OK32C - 4NM to OK32C

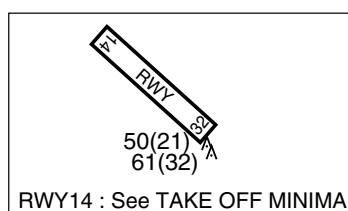
DME GAP

RWY14 : DER - 3.0NM fm DER
RWY32 : DER - 9NM to OK32C

Inappropriate NavAids

See AD1.1.6.10.3. Inappropriate NAVAIDS for RNAV1

VAR 7° W(2009)



DESIGNATION	COORDINATES
OK14A	33 24 50.3N 133 43 34.2E
OK14B	33 24 02.9N 133 50 40.3E
OK32A	33 36 15.7N 133 44 17.5E
OK32C	33 28 04.1N 133 55 42.6E
KAIFU	33 36 10.0N 134 32 31.2E

Note RWY32: 6.0% climb gradient required up to 2300FT.

RWY14 : Climb on HDG137° at or above 500FT, turn right direct to OK14A, to OK14B, to KAIFU.

RWY32 : Climb on HDG317° at or above 600FT, turn right direct to OK32A, to OK32C, to KAIFU.

Note RWY32: 6.0% climb gradient required up to 2300FT.

OBST ALT 1970FT located at 6.13NM 004° FM end of RWY32.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

KAIFU ONE RNAV DEPARTURE

RWY14

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	137° (130.6°)	—	+500	—	—	RNAV1
DF	OK14A	—	—	—	R	—	—	—	RNAV1
TF	OK14B	—	6.0	104° (097.5°)	—	—	—	—	RNAV1
TF	KAIFU	—	37.0	077° (070.7°)	—	—	—	—	RNAV1

RWY32

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	317° (310.6°)	—	+600	—	—	RNAV1
DF	OK32A	—	—	—	R	—	—	—	RNAV1
TF	OK32C	—	12.6	138° (130.7°)	—	—	—	—	RNAV1
TF	KAIFU	—	31.8	082° (075.0°)	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID and TRANSITION

MUROT ONE RNAV DEPARTURE

RNAV 1

Note 1) DME/DME/IRU or GNSS required.

※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.

2) RADAR service required.

Critical DME

-

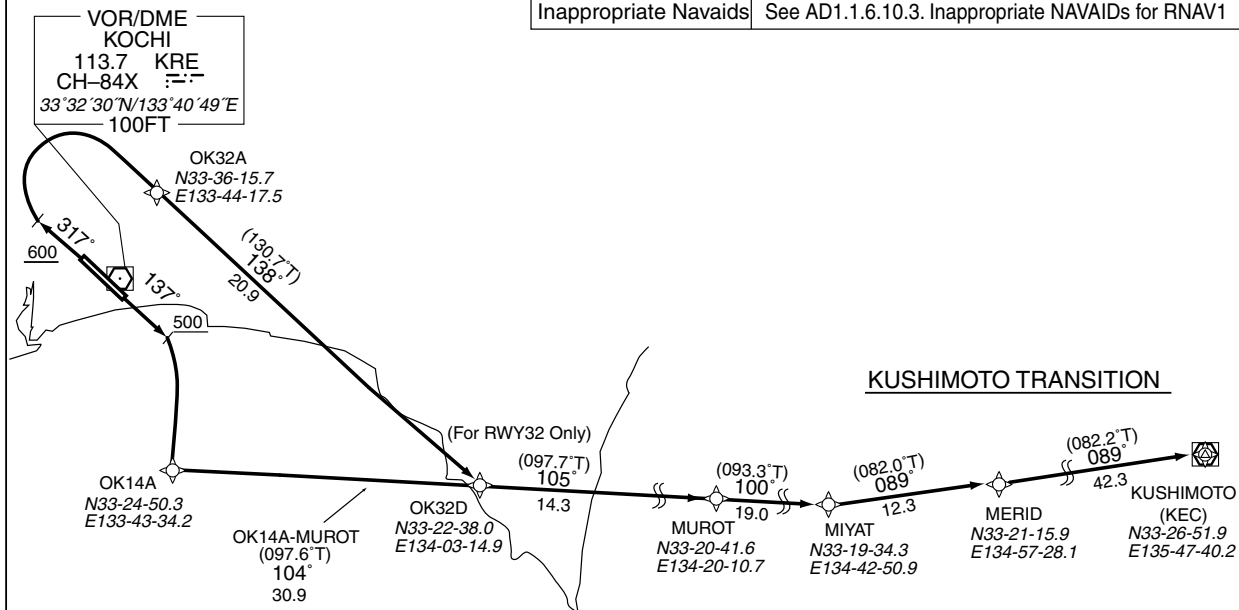
DME GAP

RWY14 : DER - 3.0NM fm DER
RWY32 : DER - 18.0NM to OK32D

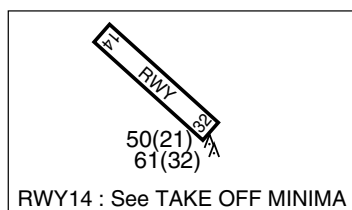
Inappropriate NavAids

See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7° W(2009)



MUROT ONE RNAV DEPARTURE



DESIGNATION	COORDINATES
OK14A	33 24 50.3N 133 43 34.2E
OK32A	33 36 15.7N 133 44 17.5E
OK32D	33 22 38.0N 134 03 14.9E
MUROT	33 20 41.6N 134 20 10.7E
MIYAT	33 19 34.3N 134 42 50.9E
MERID	33 21 15.9N 134 57 28.1E
KUSHIMOTO(KEC)	33 26 51.9N 135 47 40.2E

Note RWY32: 6.0% climb gradient required up to 2300FT.

MUROT ONE RNAV DEPARTURE

RWY14 : Climb on HDG137° at or above 500FT, turn right direct to OK14A, to MUROT.

RWY32 : Climb on HDG317° at or above 600FT, turn right direct to OK32A, to OK32D, to MUROT.

KUSHIMOTO TRANSITION

From MUROT to MIYAT, to MERID, to KUSHIMOTO(KEC).

Note RWY32: 6.0% climb gradient required up to 2300FT.

OBST ALT 1970FT located at 6.13NM 004° FM end of RWY32.

STANDARD DEPARTURE CHART -INSTRUMENT

AIP JAPAN

RJOK / KOCHI

RNAV SID and TRANSITION

MUROT ONE RNAV DEPARTURE

RWY14

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	137° (130.6°)	—	+500	—	—	RNAV1
DF	OK14A	—	—	—	R	—	—	—	RNAV1
TF	MUROT	—	30.9	104° (097.6°)	—	—	—	—	RNAV1

RWY32

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	317° (310.6°)	—	+600	—	—	RNAV1
DF	OK32A	—	—	—	R	—	—	—	RNAV1
TF	OK32D	—	20.9	138° (130.7°)	—	—	—	—	RNAV1
TF	MUROT	—	14.3	105° (097.7°)	—	—	—	—	RNAV1

KUSHIMOTO TRANSITION

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	MUROT	—	—	—	—	—	—	—	RNAV1
TF	MIYAT	—	19.0	100° (093.3°)	—	—	—	—	RNAV1
TF	MERID	—	12.3	089° (082.0°)	—	—	—	—	RNAV1
TF	KUSHIMOTO (KEC)	—	42.3	089° (082.2°)	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

OMOGO TWO RNAV DEPARTURE

RNAV 1

Note 1) DME/DME/IRU or GNSS required.

※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.

2) RADAR service required.

Critical DME

RWY14 : KRE 16NM to YUZNO - 7NM to YUZNO
SUC 16NM to YUZNO - 7NM to YUZNO
RWY32 : KRE 4NM to OK32B - 25NM to YUZNO
SUC 4NM to OK32B - 25NM to YUZNO

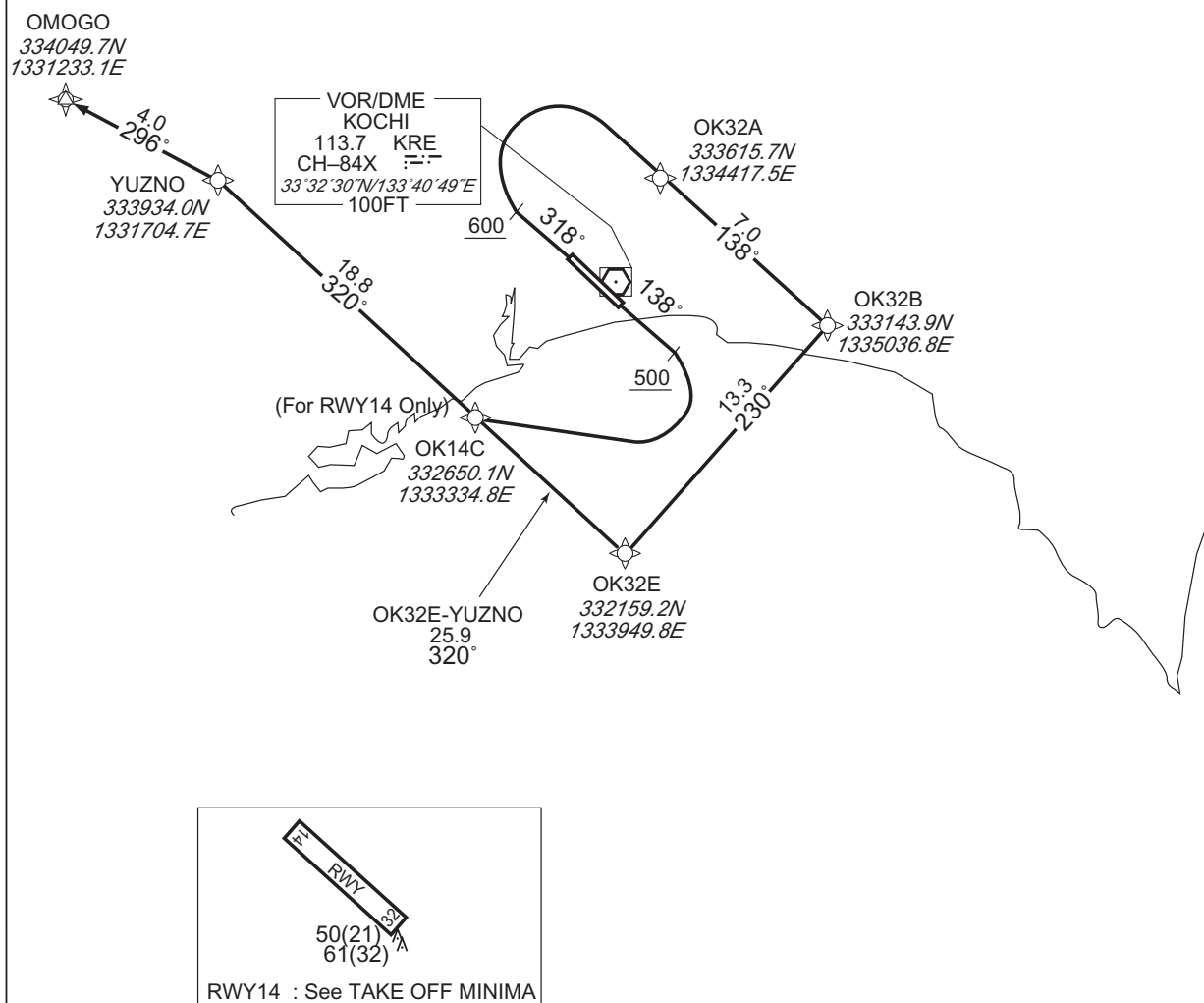
DME GAP

RWY14 : DER - 16NM to YUZNO
RWY32 : DER - 4NM to OK32B
25NM to YUZNO - 18NM to YUZNO

Inappropriate NavAids

See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7° W(2017)



RWY14 : Climb on HDG138° at or above 500FT, turn right direct to OK14C, to YUZNO, to OMOGO.

RWY32 : Climb on HDG318° at or above 600FT, turn right direct to OK32A, to OK32B, to OK32E,
to YUZNO, to OMOGO.

Note RWY32: 6.0% climb gradient required up to 2300FT.

OBST ALT 1970FT located at 6.1NM 004° FM end of RWY32.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOK / KOCHI

RNAV SID

OMOGO TWO RNAV DEPARTURE

RWY14

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	138 (130.6)	-7.4	—	—	+500	—	—	RNAV1
002	DF	OK14C	—	—	-7.4	—	R	—	—	—	RNAV1
003	TF	YUZNO	—	320 (312.9)	-7.4	18.8	—	—	—	—	RNAV1
004	TF	OMOGO	—	296 (288.5)	-7.4	4.0	—	—	—	—	RNAV1

RWY32

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	318 (310.6)	-7.4	—	—	+600	—	—	RNAV1
002	DF	OK32A	—	—	-7.4	—	R	—	—	—	RNAV1
003	TF	OK32B	—	138 (130.7)	-7.4	7.0	—	—	—	—	RNAV1
004	TF	OK32E	—	230 (222.8)	-7.4	13.3	—	—	—	—	RNAV1
005	TF	YUZNO	—	320 (312.9)	-7.4	25.9	—	—	—	—	RNAV1
006	TF	OMOGO	—	296 (288.5)	-7.4	4.0	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART -INSTRUMENT

RJOK / KOCHI

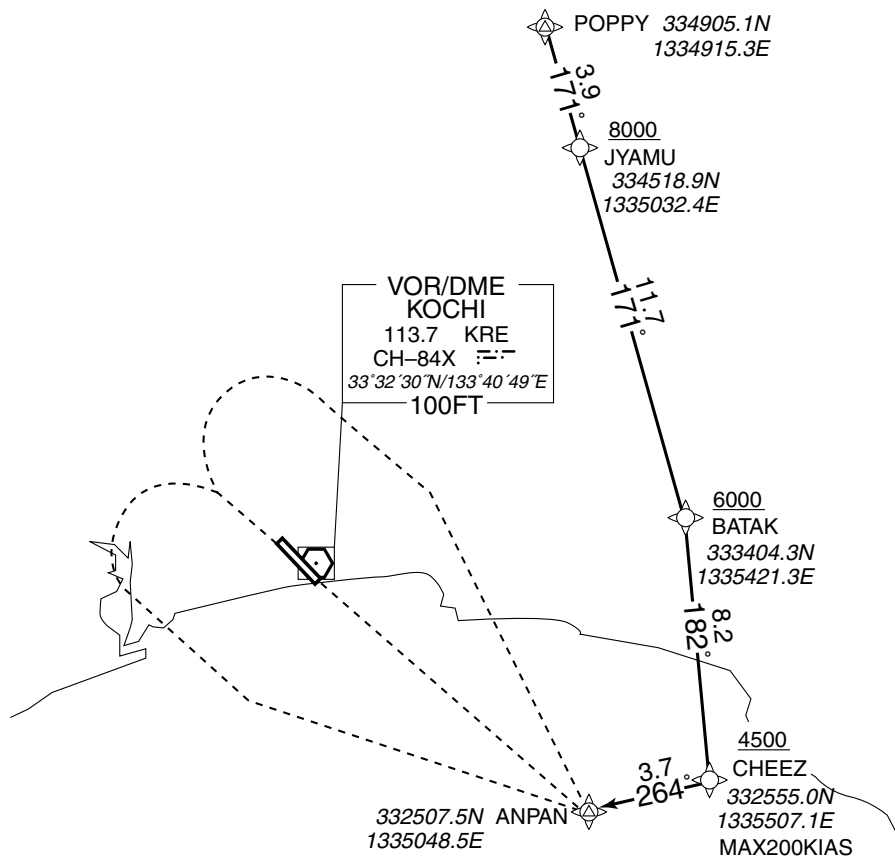
RNAV STAR

YOSAKOI NORTH ARRIVAL

RNAV 1

Note 1) DME/DME/IRU or GNSS required.
2) RADAR service required.

VAR 7° W(2012)



From POPPY, to JYAMU at or above 8000FT, to BATAK at or above 6000FT, to CHEEZ at or above 4500FT, to ANPAN.

Critical DME	GBD	POPPY - 2NM to BATAK
	SUC	7NM to BATAK - ANPAN
	KRE	1NM to BATAK - ANPAN
DME GAP	-	
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course [°M(°T)]	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	POPPY	—	—	-6.9	—	—	—	—	—	RNAV1
002	TF	JYAMU	—	171 (164.2)	-6.9	3.9	—	+8000	—	—	RNAV1
003	TF	BATAK	—	171 (164.2)	-6.9	11.7	—	+6000	—	—	RNAV1
004	TF	CHEEZ	—	182 (175.5)	-6.9	8.2	—	+4500	-200	—	RNAV1
005	TF	ANPAN	—	264 (257.6)	-6.9	3.7	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART -INSTRUMENT

RJOK / KOCHI

RNAV STAR

YOSAKOI EAST ARRIVAL

RNAV 1

Note 1) DME/DME/IRU or GNSS required.
2) RADAR service required.

VAR 7° W(2012)

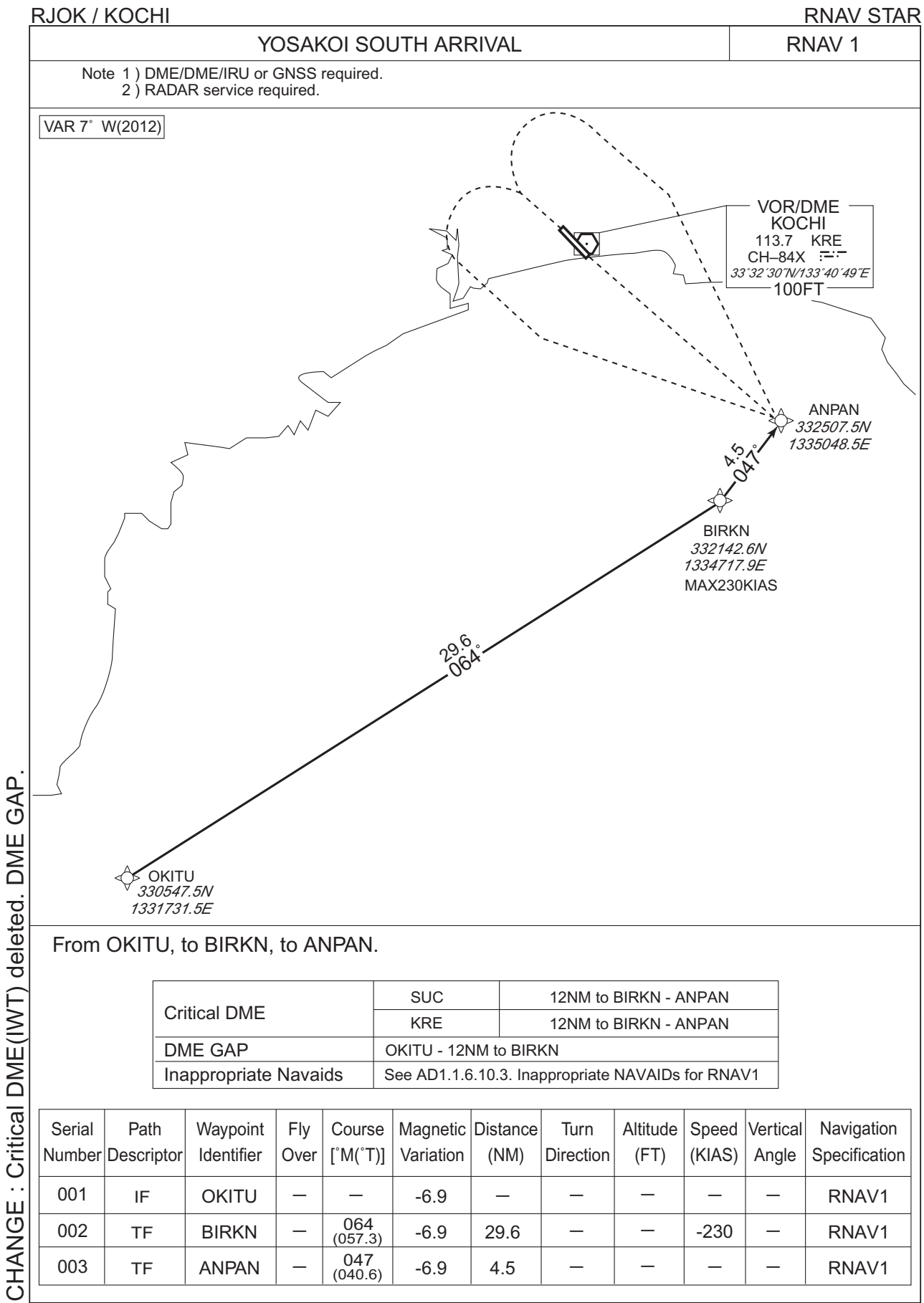


From PANCH, to ANPAN.

Critical DME	KRE	PANCH - ANPAN
	SUC	8NM to ANPAN - ANPAN
DME GAP	-	
Inappropriate NavAids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course [°M(°T)]	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	PANCH	—	—	-6.9	—	—	—	—	—	RNAV1
002	TF	ANPAN	—	326 (318.7)	-6.9	18.3	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART -INSTRUMENT



CHANGE : Critical DME(IWT) deleted. DME GAP.

STANDARD ARRIVAL CHART -INSTRUMENT

RJOK / KOCHI

RNAV STAR

YOSAKOI WEST ARRIVAL

RNAV 1

Note 1) DME/DME/IRU or GNSS required.
2) RADAR service required.

VAR 7° W(2012)



From KABIL, to DOKIN at or above 5000FT, to BIRKN, to ANPAN.

Critical DME	KRE	1NM to DOKIN - 16NM to BIRKN 7NM to BIRKN - ANPAN
	SUC	1NM to DOKIN - 16NM to BIRKN 7NM to BIRKN - ANPAN
DME GAP	16NM to BIRKN - 7NM to BIRKN	
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course [°M(°T)]	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KABIL	—	—	-6.9	—	—	—	—	—	RNAV1
002	TF	DOKIN	—	113 (105.9)	-6.9	5.8	—	+5000	—	—	RNAV1
003	TF	BIRKN	—	113 (105.9)	-6.9	20.3	—	—	-230	—	RNAV1
004	TF	ANPAN	—	047 (040.6)	-6.9	4.5	—	—	—	—	RNAV1

INSTRUMENT APPROACH CHART

RJOK / KOCHI

ILS Z or LOC Z RWY32



INSTRUMENT APPROACH CHART

RJOK / KOCHI

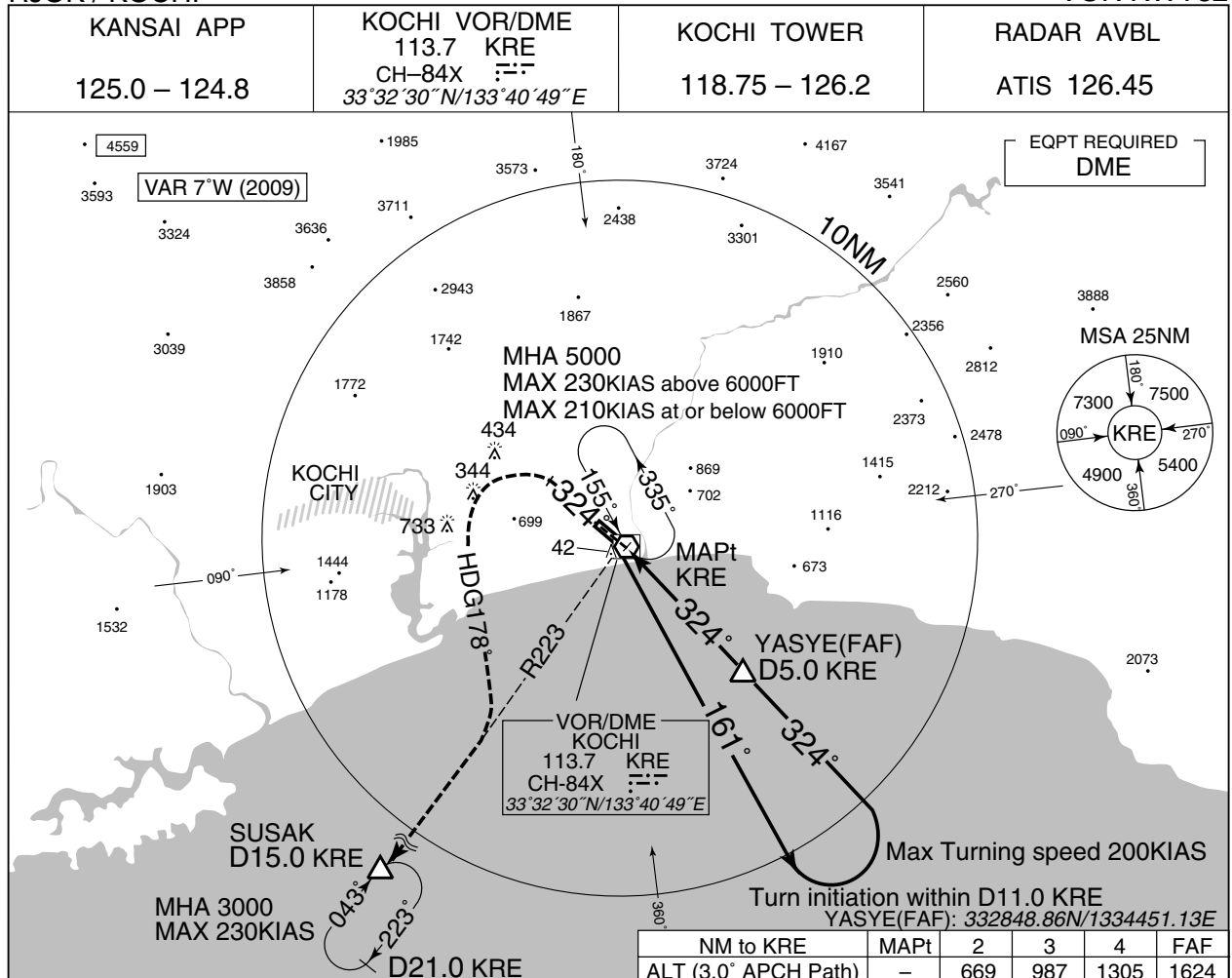
ILS Y or LOC Y RWY32



INSTRUMENT APPROACH CHART

RJOK / KOCHI

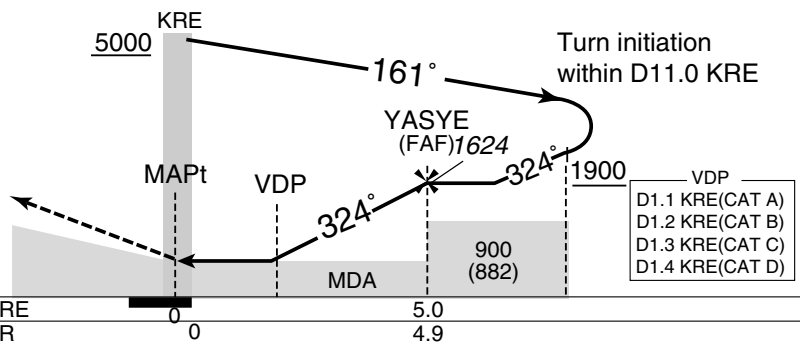
VOR RWY32



MISSED APPROACH

Climb via KRE R324 to 500FT,
turn left HDG178° to intercept
and proceed via KRE R223 to
SUSAK and hold at 3000FT.
Contact KANSAI APP.

Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 4.5%

MINIMA THR elev. 18 AD elev. 29

CAT	MINIMA		CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	360 (342)	1200	690 (661)	1600
B	400 (382)	1300		
C	430 (412)	1400	760 (731)	2400
D	450 (432)	1600	830 (801)	3200

Circling to EAST side of RWY only.

MINIMA with Missed APCH climb gradient of 2.5% are not established.

INSTRUMENT APPROACH CHART

RJOK / KOCHI

RNP Z RWY14(AR)



CHANGE : PROC renamed. Requirement for RNP.

INSTRUMENT APPROACH CHART

RJOK / KOCHI

RNP Z RWY14(AR)

Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	ANPAN	-	-	-6.9	-	-	+4000	-	-	-
002	TF	NOITI	-	343 (335.9)	-6.9	9.7	-	+4000	-	-	1.0
003	TF	IGENO	-	318 (310.7)	-6.9	4.2	-	3500	-	-	1.0
004	TF	OK451	-	318 (310.7)	-6.9	1.8	-	2922	-165	-3.00	0.14 0.30
005	RF Center: OKRF1 r=2.07NM	OK477	-	-	-6.9	6.5	L	856	-	-3.00	0.14 0.30
006	TF	RW14	Y	138 (130.6)	-6.9	2.4	-	92	-	-3.00/50	0.14 0.30
007	TF	ANPAN	-	138 (130.6)	-6.9	12.4	-	4000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
ANPAN	332507.54N / 1335048.52E	OKRF1	333620.13N / 1333858.11E
NOITI	333400.03N / 1334602.07E		
IGENO	333643.39N / 1334213.86E		
OK451	333754.48N / 1334034.43E		
OK477	333445.76N / 1333721.85E		
RW14	333312.04N / 1333932.98E		

CHANGE : PROC renamed.

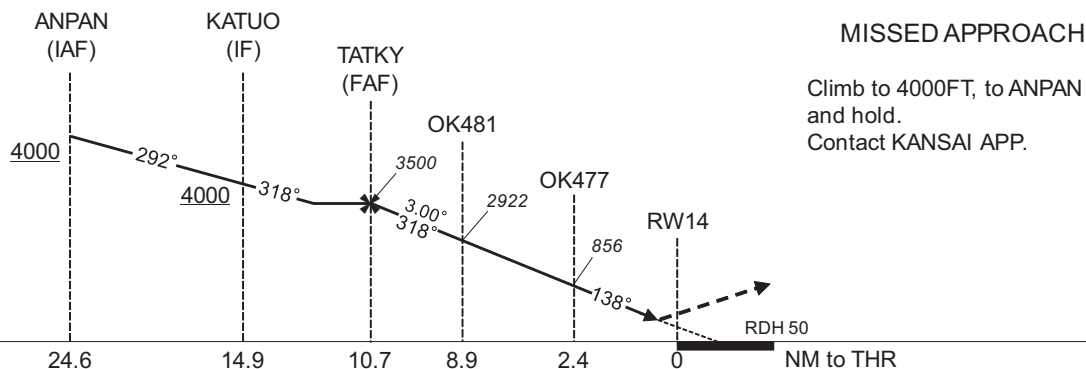
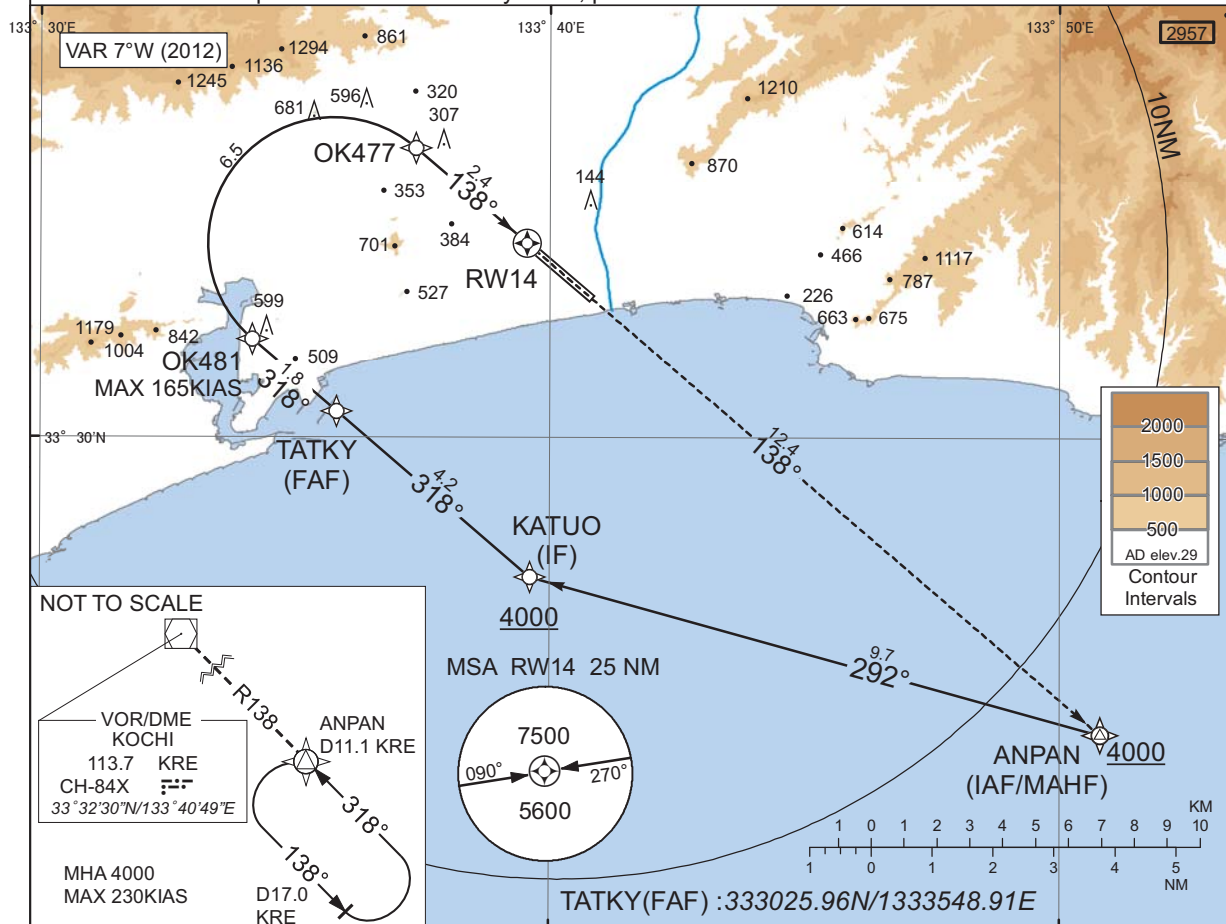
INSTRUMENT APPROACH CHART

RJOK / KOCHI

RNP Y RWY14(AR)

KANSAI APP
125.0 - 124.8RNP AR
RF required.KOCHI TOWER
118.75 - 126.2RADAR AVBL
ATIS 126.45

For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 45°C



CAT	THR elev. 42		AD elev. 29	
	RNP 0.14		RNP 0.30	
	DA(H)	CMV	DA(H)	CMV
A	-	-	-	-
B	-	-	-	-
C	342(300)	1400	611(569)	1600
D		1600		1800

Authorization Required

CHANGE : PROC renamed. Requirement for RNP.

INSTRUMENT APPROACH CHART

RJOK / KOCHI

RNP Y RWY14(AR)

Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	ANPAN	-	-	-6.9	-	-	+4000	-	-	-
002	TF	KATUO	-	292 (285.5)	-6.9	9.7	-	+4000	-	-	1.0
003	TF	TATKY	-	318 (310.6)	-6.9	4.2	-	3500	-	-	1.0
004	TF	OK481	-	318 (310.6)	-6.9	1.8	-	2922	-165	-3.00	0.14 0.30
005	RF Center: OKRF2 r=2.07NM	OK477	-	-	-6.9	6.5	R	856	-	-3.00	0.14 0.30
006	TF	RW14	Y	138 (130.6)	-6.9	2.4	-	92	-	-3.00/50	0.14 0.30
007	TF	ANPAN	-	138 (130.6)	-6.9	12.4	-	4000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
ANPAN	332507.54N / 1335048.52E	OKRF2	333311.37N / 1333545.65E
KATUO	332742.79N / 1333937.02E		
TATKY	333025.96N / 1333548.91E		
OK481	333136.96N / 1333409.51E		
OK477	333445.76N / 1333721.85E		
RW14	333312.04N / 1333932.98E		

CHANGE : PROC renamed.

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Visual REP



※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE : Map updated. BRG/DIST from ARP. Call sign(Kochi city → Kochi Station). Remarks(Geisei, Yokonami).

Call sign	BRG / DIST from ARP	Remarks
植野 Ueno	349°T / 5.0NM	ゴルフ場 Golf Course
工科大 Kokadai	029°T / 5.2NM	高知工科大学 Kochi University of Technology
高知駅 Kochi Station	281°T / 6.4NM	JR高知駅 Station
芸西 Geisei	104°T / 6.0NM	ホテル Hotel
桂浜 Katsurahama	242°T / 5.8NM	浦戸大橋 Bridge
安芸 Aki	104°T / 12.5NM	安芸川河口 River mouth
横浪 Yokonami	236°T / 13.0NM	ホテル Hotel



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Minimum Vectoring Altitude CHART

VAR 7°W (2009)



- ① 2000
- ② 2300
- ③ 2500
- ④ 3000
- ⑤ 3500
- ⑥ 4000
- ⑦ 4500



CENTER : 333245N/1334039E (RADAR SITE)