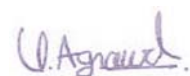


TEL: 91-11-24632950 Extn: 2219/2233 AFS: VIDDYXAX FAX: 91-11-24615508 E_mail:- gmais@aai.aero	INDIA AERONAUTICAL INFORMATION SERVICES AIRPORTS AUTHORITY OF INDIA RAJIV GANDHI BHAVAN SAFDARJUNG AIRPORT NEW DELHI – 110003	13/ 2010
		23 April 2010

File No. AAI/ATM/AIS/ 09-09/ 2010

This Supplement is issued for information, guidance and necessary action.



V P AGRAWAL
CHAIRMAN

AIRPORTS AUTHORITY OF INDIA

[EFFECTIVE DATE: 1 July 2010]

IGI AIRPORT, DELHI

STANDARD INSTRUMENT DEPARTURES (SID) (NON-RNAV)

RW27/28/29 AND RW09/10/11

1. GENERALI.

- 1.1. The Standard Instrument Departures (SIDs) are developed as per the provision of DOC8168, Vol. II.
- 1.2. Track guidance has been specified until the interception of nominal track of the flight plan route. Following have been used for the purpose appropriately.

S No	Name of VOR-DME facility	IDENT	Frequency(MHz)
1	DELHI	DPN	116.1
2	DELHI	DIG	114.6
3	CHHILERKI	CHI	116.8
4	SIKANDARABAD	SSB	112.4
5	ALIGARH	ALI	117.9
6	SAKARAS	SKA	117.2
7	SAMPLA	SAM	117.0

- 1.3. All radials and distances have been specified with reference to VOR-DME referred in 1.2 above.
- 1.4. The geographical coordinates of the SID designator and transition fixes have been provided in WGS-84 system to facilitate the aircraft equipped with RNAV capability.

2. SID VALIDITY AND ROUTE INDICATOR

- 2.1. The combination of validity indicator and route identifier shall be applicable as given below:

1	RW 27	4A
2	RW 28	4B
3	RW 29	4C
4	RW 09	4D
5	RW 10	4E
6	RW 11	4F

3. SIGNIFICANT POINTS

- 3.1. Following significant points have been established as SID designators.

S. No	Name of the fix	Radial/DME Distance from reference VOR-DME	WGS-84 Coordinates	ATS Route
1	PUMOT	R-085/57D (112.4 SSB)	N28° 28' 00.3" E078° 46' 54.6"	W37
2	ALIGARH	VOR-DME (117.9 ALI)	N27° 49' 45.5" E078° 10' 42.0"	R460
3	GURTI	R-143/62.4D (116.1 DPN)	N27° 43' 45.5" E077° 47' 40.2"	L760, W10S, W33S
4	AKELA	R-193/71D (116.1 DPN)	N27° 25' 00.5" E076° 47' 55.7"	W20S
5	IKABA	R-213/75D (116.1 DPN)	N27° 31' 23.4" E076° 18' 50.4"	A474, R462, W13S, W65S
6	MABOR	VOR-DME (117.6 LUN)	N23° 33' 09.1" E073° 47' 17.1"	G333
7	BUTOP	R-297/100D (116.1 DPN)	N29° 19' 44.8" E075° 23' 56.3"	A589, W30W, W31W
8	SARSAWA	NDB (289 SP)	N30° 00' 00.0" E077° 25' 55.2"	W35, W39

3.2. Following additional significant points in the terminal area have been established as transition fixes for designing the SIDs.

S. No	Name of the fix	Radial/DME Distance from reference VOR-DME	WGS-84 Coordinates	Associated SIDs
1	PEKIX	R-280/65D (116.1 DPN)	N28° 45' 00.1" E075° 52' 56.1"	BUTOP 4A/4B/4C/4D/4E/4F MABOR 4A/4B/4C/4D/4E/4F
2	AVGON	R-280/25D (116.1 DPN)	N28° 38' 34.7" E076° 37' 45.9"	BUTOP 4A/4B/4C/4D/4E/4F MABOR 4A/4B/4C/4D/4E/4F
3	IDUDU	R-161/14.1D (117.0 SAM)	N28° 35' 47.4" E076° 54' 07.2"	BUTOP 4D/4E/4F MABOR 4D/4E/4F
4	REBON	R-213/55D (116.1 DPN)	N27° 48' 00.7" E076° 31' 20.6"	IKABA 4A/4B/4C/4D/4E/4F
5	ITBAN	R-143/55D (116.1 DPN)	N27° 49' 43.4" E077° 42' 47.5"	GURTI 4A/4B/4C/4D/4E/4F
6	DP601	R-083/17.3D (116.8 CHI)	N28° 22' 44.2" E076° 59' 23.6"	BUTOP 4A/4B/4C/4D/4E/4F MABOR 4A/4B/4C/4D/4E/4F SARSAWA 4A/4B/4D/4E/4F
7	DP602	R-083/15.2D (116.8 CHI)	N28° 22' 30.6" E076° 57' 02.4"	IKABA 4A/4B/4C/4D/4E/4F
8	DP603	R-083/20D (116.8 CHI)	N28° 23' 02.9" E077° 02' 41.1"	AKELA 4D/4E/4F
9	DP604	R-352/23.9D (117.2 SKA)	N28° 14' 40.0" E076° 57' 02.4"	PUMOT 4A/4B
10	DP605	R-352/14.2D (117.2 SKA)	N28° 05' 01.5" E076° 58' 26.6"	ALIGARH 4A/4B AKELA 4A/4B/4C GURTI 4A/4B
11	DP606	R-283/31.5D (117.9 ALI)	N27° 57' 08.5" E077° 36' 09.9"	GURTI 4A/4B/4C
12	DP607	R-352/30.5D (117.2 SKA)	N28° 21' 13.8" E076° 56' 04.8"	IKABA 4A/4B/4C

13	DP608	R-001/13.5D (117.2 SKA)	N28° 04' 26.24" E077° 00' 56.21"	ALIGARH 4C
14	DP609	R-001/32.0D (117.2 SKA)	N28° 22' 58.70" E077° 01' 32.93"	IKABA 4C
15	DP610	R-001/27.0D (117.2 SKA)	N28° 17' 58.04" E077° 01' 22.99"	PUMOT 4C, AKELA 4C

4. CONDITIONS COMMON TO ALL SIDs

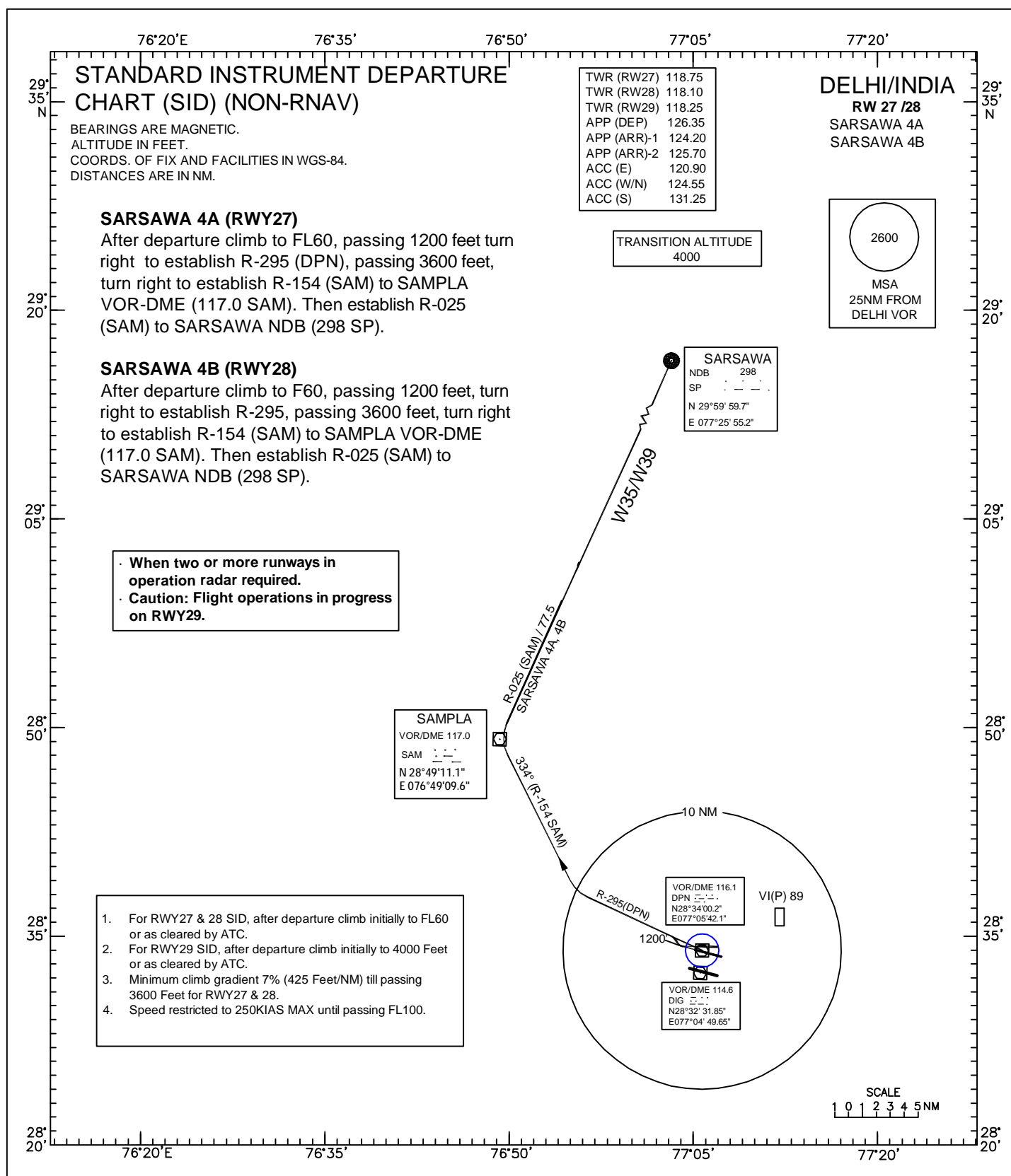
- 4.1. Minimum climb gradient of 7% (425 feet/nm) is specified for departures upto 4000 feet for RWY09/10, upto 3600 feet for RWY27/28, upto 1700 feet for RWY11/29.
- 4.2. Departure from RWY27/28 to commence turn at 1200 feet, this meets the criteria of turn which requires a minimum height of 120M (392 feet) above Departure End of Runway (DER).
- 4.3. Speed restricted upto 250KIAS upto passing FL100.
- 4.4. Vertical restriction for have has been specified for each SID.
 - i. For departures from RWY09, 10, 27 & 28 aircraft will maintain FL60 as specified in the SIDs, thereafter, further climb shall be authorized by ATC. However, ATC at its discretion may further modify the vertical restriction in order to expedite the climb or descent for traffic.
 - ii. For departures from RWY29 aircraft will maintain 4000 feet as specified in the SIDs, thereafter, further climb shall be authorized by ATC. However, ATC at its discretion may further modify the vertical restriction in order to expedite the climb or descent for traffic.
 - iii. For departures from RWY11 aircraft will maintain 3000 feet as specified in the SIDs, thereafter, further climb shall be authorized by ATC. However, ATC at its discretion may further modify the vertical restriction in order to expedite the climb or descent for traffic.
- 4.5. After departure, aircraft following the SID may be instructed by Radar Controller to cancel SID and proceed on a specified heading to resolve traffic conflict or to expedite the climb.
- 4.6. For RNAV equipped aircraft, all the transition fixes are Fly-By.

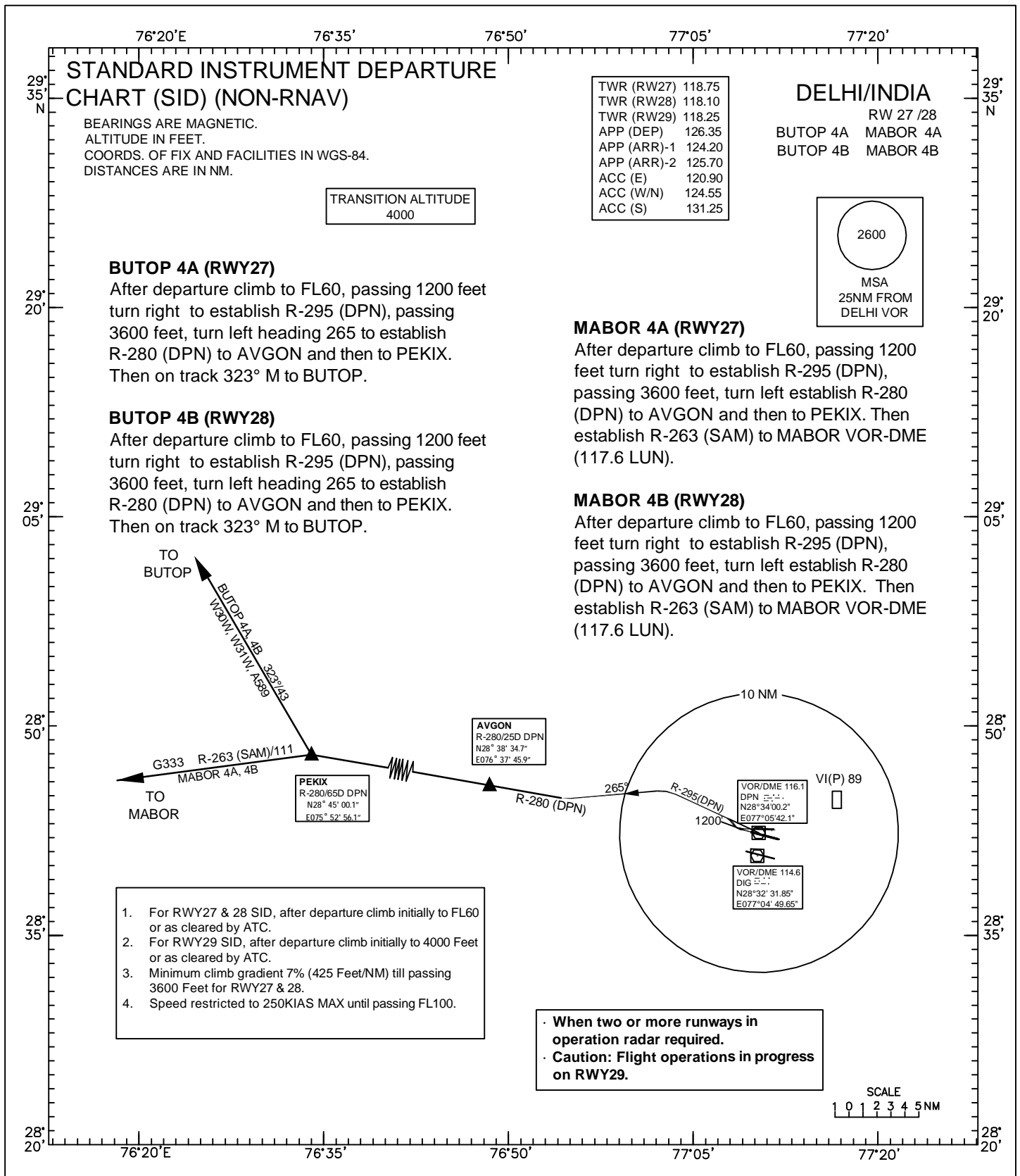
5. RADIO COMMUNICATION FAILURE (RCF) PROCEDURE

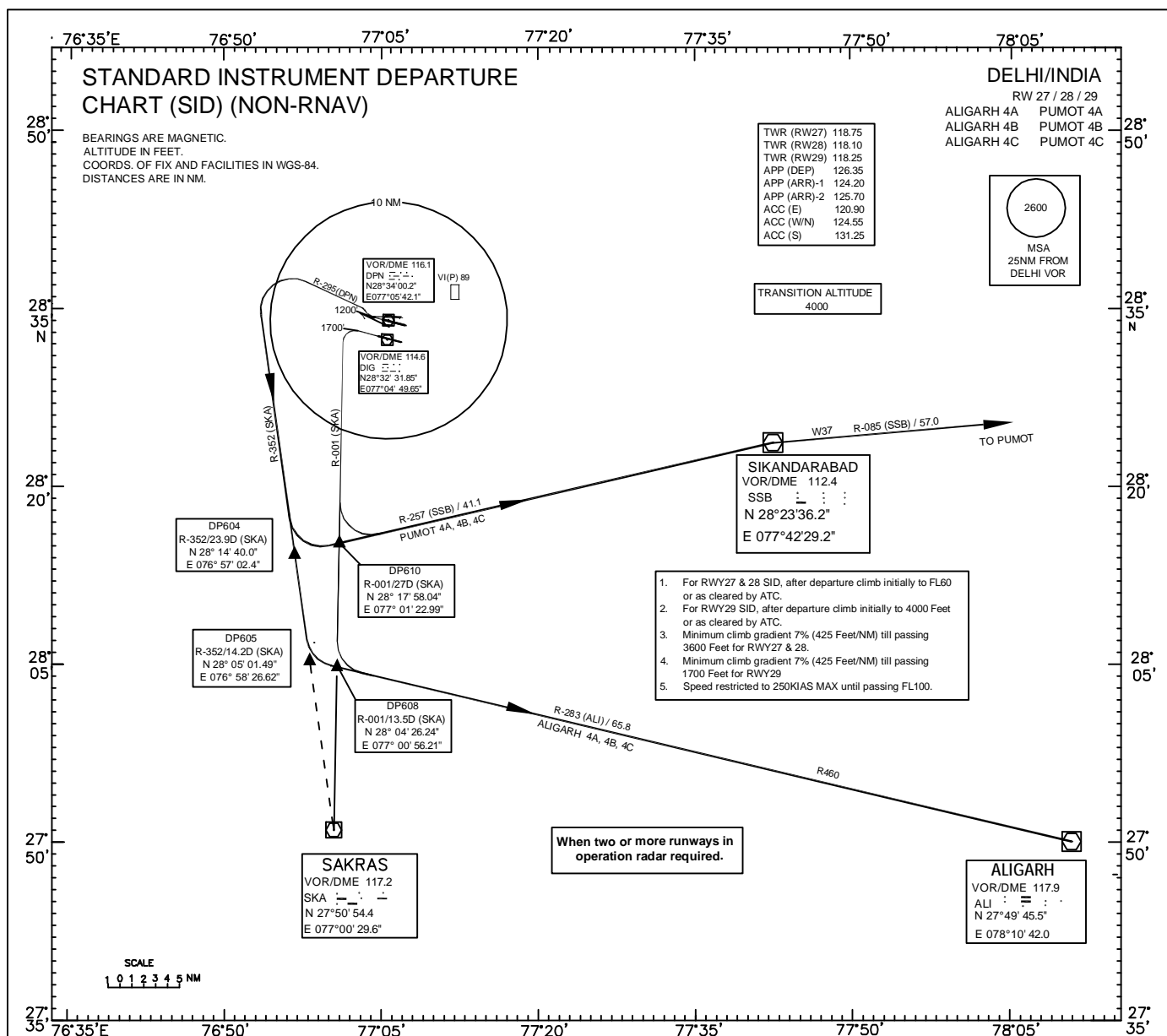
- 5.1. Transponder equipped aircraft shall squak code 7600.
- 5.2. Pilot navigation SIDs
 - 5.2.1. On the recognition of communication failure, maintain FL60 or the level assigned by ATC, whichever is higher until 25D (DPN). Thereafter, climb to flight plan level and continue to follow the SID until termination point.
 - 5.2.2. If the communication failure takes place after 25D (DPN), then continue to follow the SID, maintain the last assigned level by ATC, if any, or climb to FL70 whichever is higher for 2 minutes and then climb to flight plan level.
- 5.3. When under Radar Vector
 - 5.3.1. On recognition of radio communication failure; proceed as follows:
 - 5.3.1.1. Inside 15D (DPN) – maintain last assigned heading until 20D (DPN), climb to FL60 or the level assigned by ATC whichever is higher. After 20D (DPN) climb to FL70 or the last level assigned by ATC; whichever is higher and then proceed directly to intercept the flight plan route.

- 5.3.1.2. At or beyond 15D (DPN) – maintain last assigned heading for 2 minutes, climbing to FL70 or the last level assigned by ATC; whichever is higher and then proceed directly to intercept the flight plan route.
- 5.3.1.3. Five minutes after recognition of radio communication failure, commence climb to flight plan level.

CANCEL AIP SUPPLEMENT NO. 07/2009







PUMOT 4A (RWY27)

After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP604. Then turn left to establish R-257 (SSB) to SIKANDARABAD VOR-DME (112.4 SSB). Then to establish R-085 (SSB) to PUMOT.

PUMOT 4B (RWY28)

After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP604. Then turn left to establish R-257 (SSB) to SIKANDARABAD VOR-DME (112.4 SSB). Then to establish R-085 (SSB) to PUMOT.

PUMOT 4C (RWY29)

After departure climb to 4000 feet, passing 1700 feet turn left to establish R-001 (SKA) to DP610. Then turn left to establish R-257 (SSB) to SIKANDARABAD VOR-DME (112.4 SSB). Then to establish R-085 (SSB) to PUMOT.

ALIGARH 4A (RWY27)

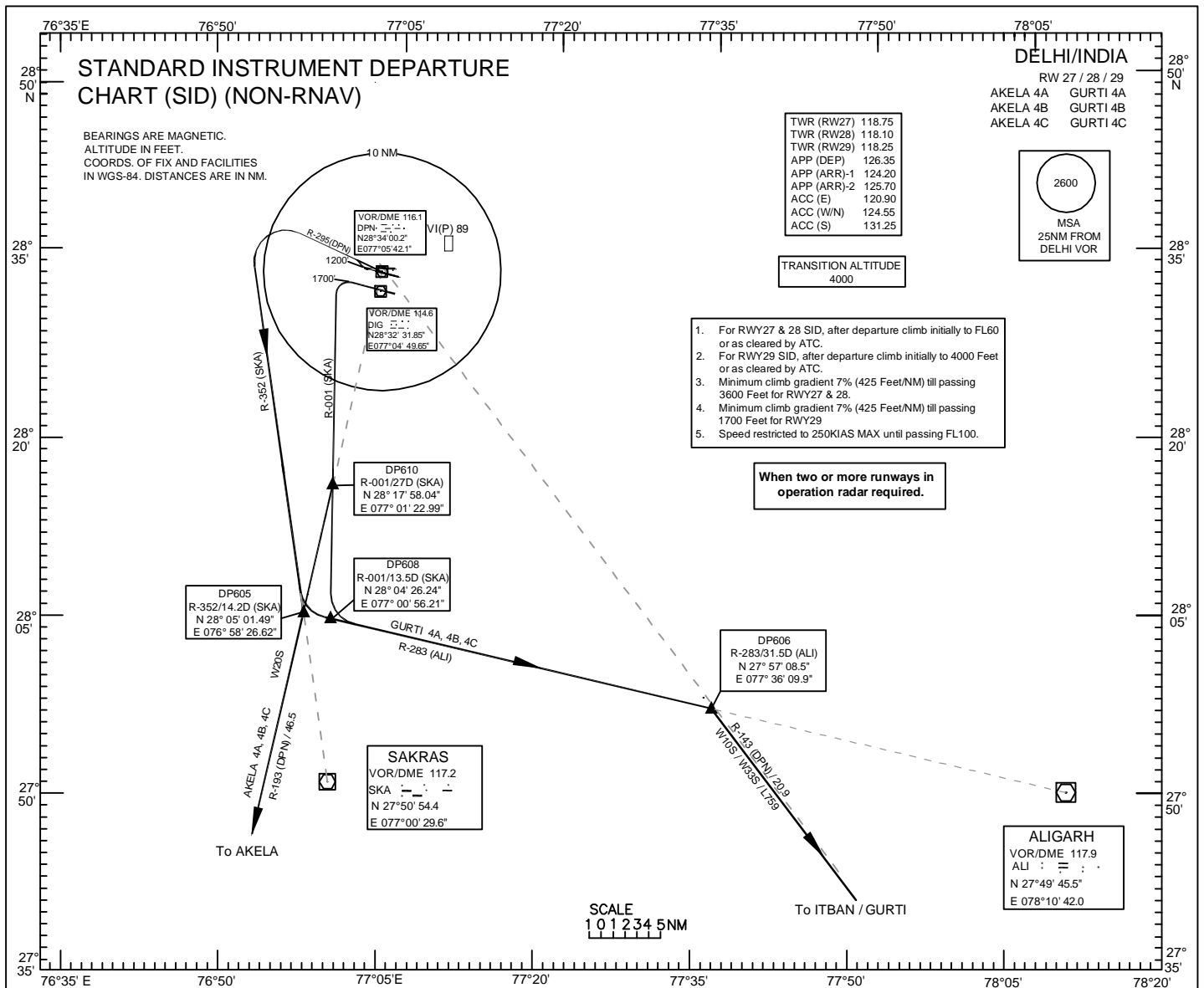
After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn left to establish R-283 (ALI) to ALIGARH VOR-DME (117.9 ALI).

ALIGARH 4B (RWY28)

After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn left to establish R-283 (ALI) to ALIGARH VOR-DME (117.9 ALI).

ALIGARH 4C (RWY29)

After departure climb to 4000 feet, passing 1700 feet, turn left to establish R-001 (SKA) to DP608, then turn left to establish R-283 (ALI) to ALIGARH VOR-DME (117.9 ALI).



AKELA 4A (RWY27)

After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn right to establish R-193 (DPN) to AKELA.

AKELA 4B (RWY28)

After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn right to establish R-193 (DPN) to AKELA.

AKELA 4C (RWY29)

After departure climb to 4000 feet, passing 1700 feet, turn left to establish R-001 (SKA) to DP610. Then turn right to establish R-193 (DPN) to AKELA.

GURTI 4A (RWY27)

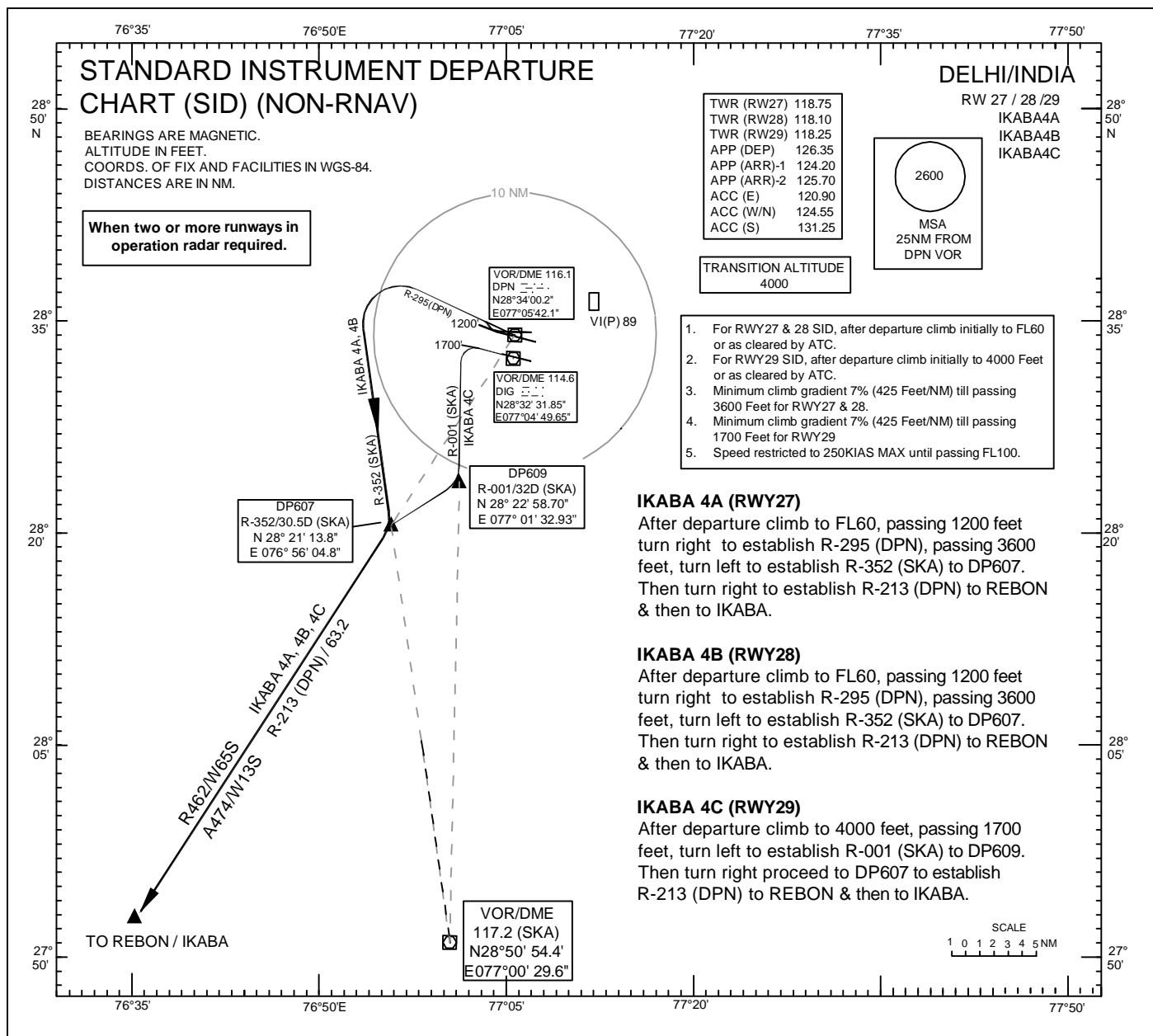
After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn left to establish R-283 (ALI) to DP606. Then turn right to establish R-143 (DPN) to ITBAN and then GURTI.

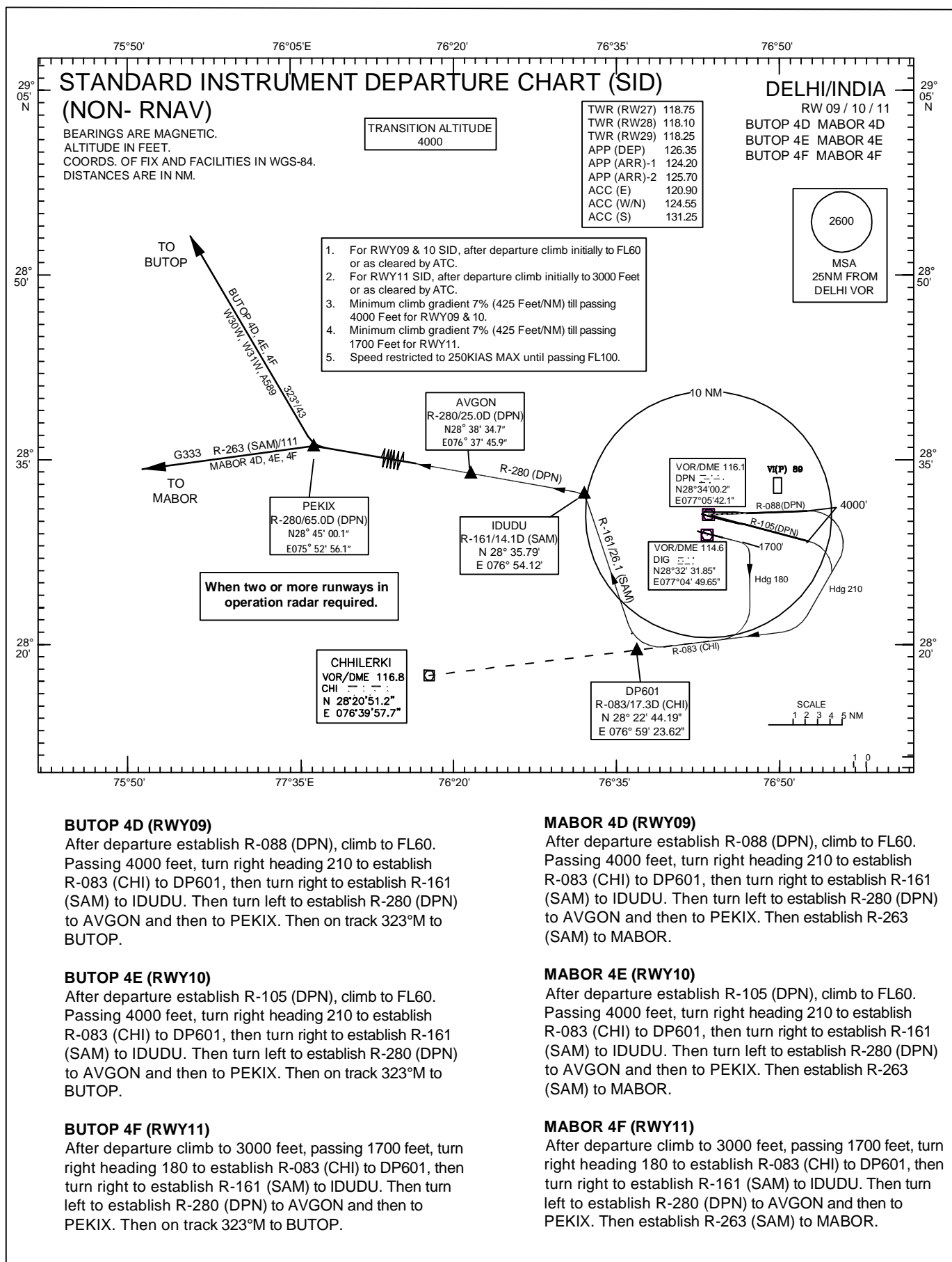
GURTI 4B (RWY28)

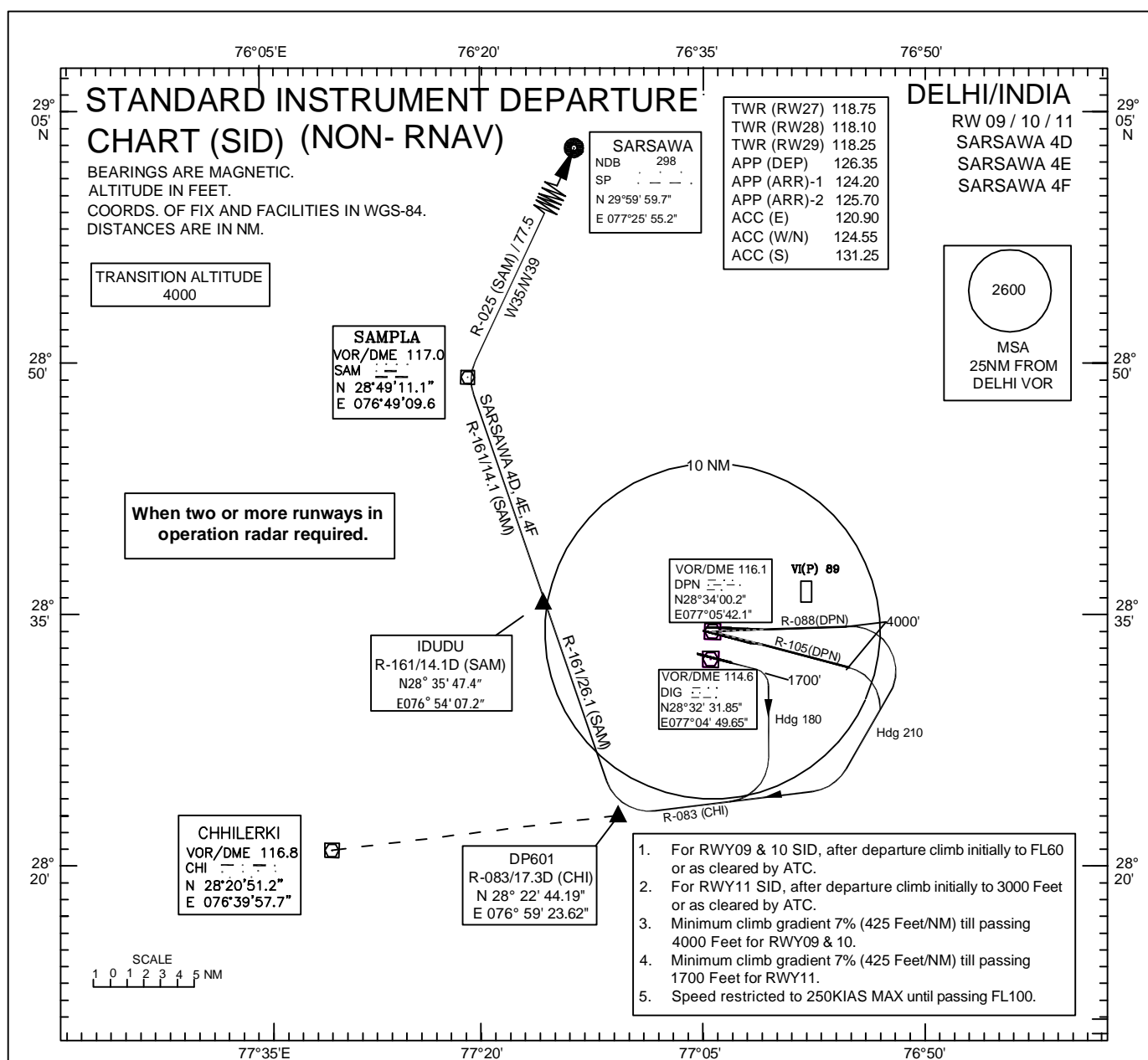
After departure climb to FL60, passing 1200 feet turn right to establish R-295 (DPN), passing 3600 feet, turn left to establish R-352 (SKA) to DP605. Then turn left to establish R-283 (ALI) to DP606. Then turn right to establish R-143 (DPN) to ITBAN and then GURTI.

GURTI 4C (RWY29)

After departure climb to 4000 feet, passing 1700 feet, turn left to establish R-001 (SKA) to DP608, then turn left to establish R-283 (ALI) to DP606. Then turn right to establish R-143 (DPN) to ITBAN and then GURTI.







SARSAWA 4D (RWY09)

After departure establish R-088 (DPN), climb to FL60. Passing 4000 feet, turn right heading 210 to establish R-083 (CHI) to DP601, then turn right to establish R-161 (SAM) to SAMPLA VOR-DME (117.0 SAM). Then establish R-025 (SAM) to SARSAWA NDB (298 SP).

SARSAWA 4E (RWY10)

After departure establish R-105 (DPN), climb to FL60. Passing 4000 feet, turn right heading 210 to establish R-083 (CHI) to DP601, then turn right to establish R-161 (SAM) to SAMPLA VOR-DME (117.0 SAM). Then establish R-025 (SAM) to SARSAWA NDB (298 SP).

SARSAWA 4F (RWY11)

After departure climb to 3000 feet, passing 1700 feet, turn right heading 180 to establish R-083 (CHI) to DP601, then turn right to establish R-161 (SAM) to SAMPLA VOR-DME (117.0 SAM). Then establish R-025 (SAM) to SARSAWA NDB (298 SP).

