

## General Info

Kolkata, IND

N 22° 39.2' E 88° 26.8' Mag Var: 0.0°W

Elevation: 23'

Public, Control Tower, IFR, Landing Fee, Rotating Beacon, Customs

Fuel: 100LL, Jet A-1

Repairs: Major Airframe, Major Engine

Time Zone Info: Calcutta, New Delhi Time GMT+5:30 no DST

## Runway Info

Runway 01L-19R 7870' x 150' bitu

Runway 01R-19L 11900' x 150' bitu

Runway 01L (7.0°M) TDZE 19'

Lights: Edge, ALS

Stopway Distance 499'

Runway 01R (7.0°M) TDZE 20'

Lights: Edge, ALS, Centerline

Stopway Distance 499'

Runway 19L (187.0°M) TDZE 19'

Lights: Edge, ALS, Centerline, TDZ

Displaced Threshold Distance 1401'

Stopway Distance 200'

Runway 19R (187.0°M) TDZE 19'

Lights: Edge, ALS

Stopway Distance 499'

## Communications Info

ATIS **126.4**

Kolkata Tower **118.1**

Kolkata Ground Control **121.9**

Kolkata Approach Control **127.9**

Kolkata Radar **127.9**

## Notebook Info

VECC/CCU

JEPPESEN

KOLKATA, INDIA

NETAJI SUBHASH CHANDRA BOSE INTL

16 MAY 08

10-1P

AIRPORT BRIEFING

**1. GENERAL****1.1. ATIS**

ATIS 126.4

**1.2. LOW VISIBILITY PROCEDURES (LVP)****1.2.1. GENERAL**

LVP shall be implemented when either TDZ or MID RVR is less than 800m or ceiling is less than 200'.

Though LVP is implemented when the above mentioned conditions are applicable, CAT I operations will continue until TDZ RVR is less than 550m.

ATC ensure that "Low Visibility Procedures in operation" is included in ATIS broadcast.

Pilots shall report "Runway vacated" when ACFT is clear of the ILS sensitive area. RWY vacaton boards have been provided at a distance of 525'/160m from RWY centerline on TWYs A, C and D.

**1.2.2. TAXI ROUTES****1.2.2.1. ARRIVAL ROUTING**

After landing on RWY 19L vacate via TWY C or D, then

- to stands 22 thru 37 via TWYs A, G and F1
- to stands 41 thru 53 via TWYs A, G and F

In case of TWY A, North of TWY F is not available, vacate via TWY D, then as above.

**1.2.2.2. DEPARTURE ROUTING**

Taxi to CAT II holding position RWY 19L

- from stands 22 thru 37 via TWYs F1, F and A
- from stands 41 thru 46 and 50 thru 53 via TWYs F and A
- from stands 47 thru 49 via TWY A

In case of TWY A, North of TWY F is not available, taxi

- from stands 22 thru 37 via TWYs F1, G and C
- from stands 41 thru 46 and 50 thru 53 via TWYs F, G and C
- from stands 47 thru 49 via TWYs A and C

ACFT have to exercise CAUTION for arriving ACFT taxiing via TWYs D and A to the designated parking stands.

**1.3. TAXI PROCEDURES**

TWYB between RWY01L/19R and TWYA and TWY Hangar 18 MAX wingspan 117'/35.8m.

TWYB between RWYs 01L/19R and 01R/19L MAX wingspan 93'/28.3m.

TWY G available for domestic ACFT proceeding to domestic apron.

**1.4. PARKING INFORMATION**

On stands 22 thru 46, 50, 51 and C3 push-back required.

Stands 22 thru 24, 42 and 43 equipped with Visual Docking Guidance System.

Stands 30 thru 33 for DAY operation only.

**1.5. OTHER INFORMATION**

Birds in vicinity of APT.

All ARR/DEP traffic have to report ACFT registration on first contact with KOLKATA Ground.

VECC/CCU

JEPPESEN

KOLKATA, INDIA

NETAJI SUBHASH CHANDRA BOSE INTL

16 MAY 08

10-1P1

AIRPORT BRIEFING

**2. ARRIVAL****2.1. CAT II OPERATIONS**

RWY 19L approved for CAT II operations, special aircrew and ACFT certification required.

**3. DEPARTURE****3.1. SPEED RESTRICTIONS**

MAX 250 KT below FL100.

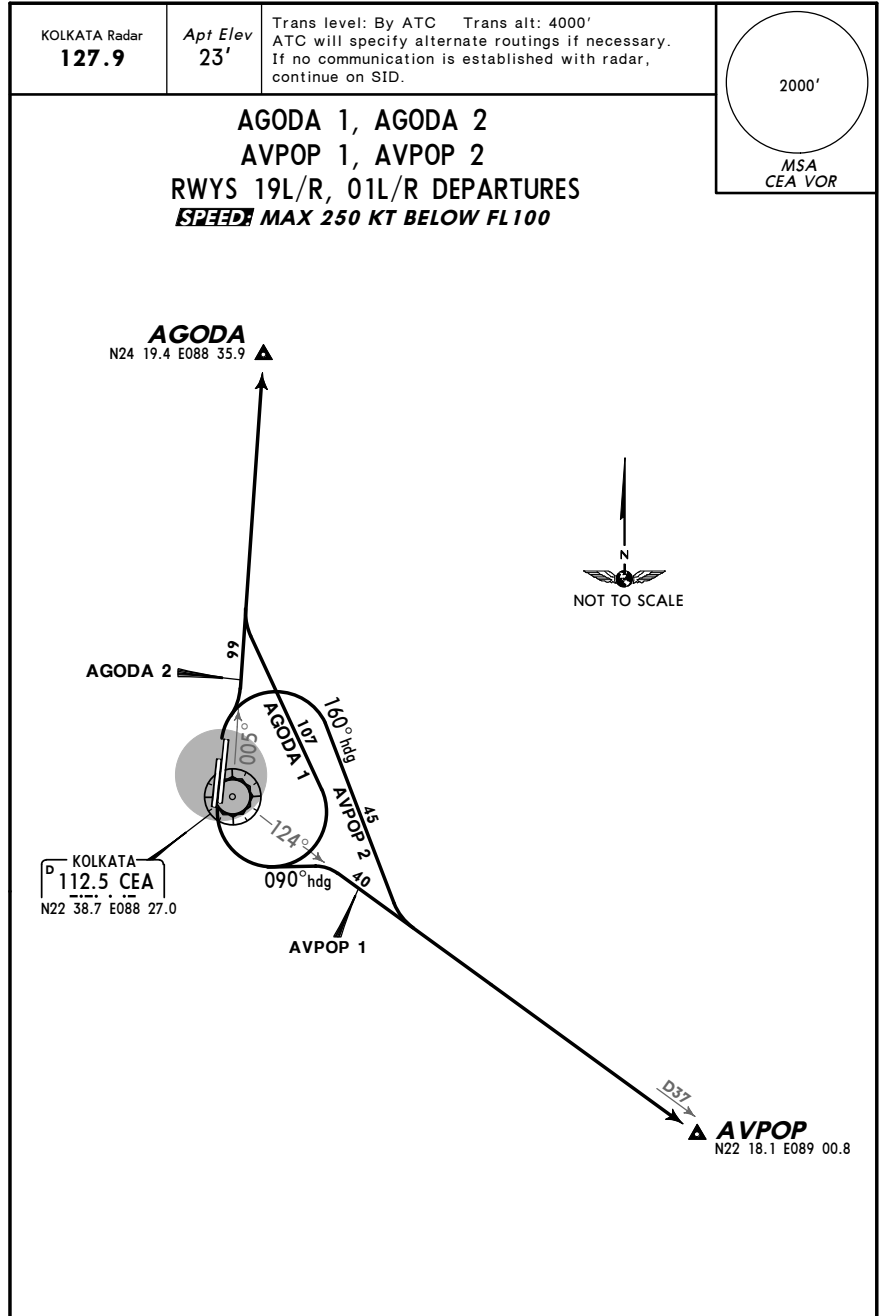
**3.1. OTHER INFORMATION**

Pilots have to use turning pad RWY 19L while lining up for take-off in order to avoid RWY surface damage.



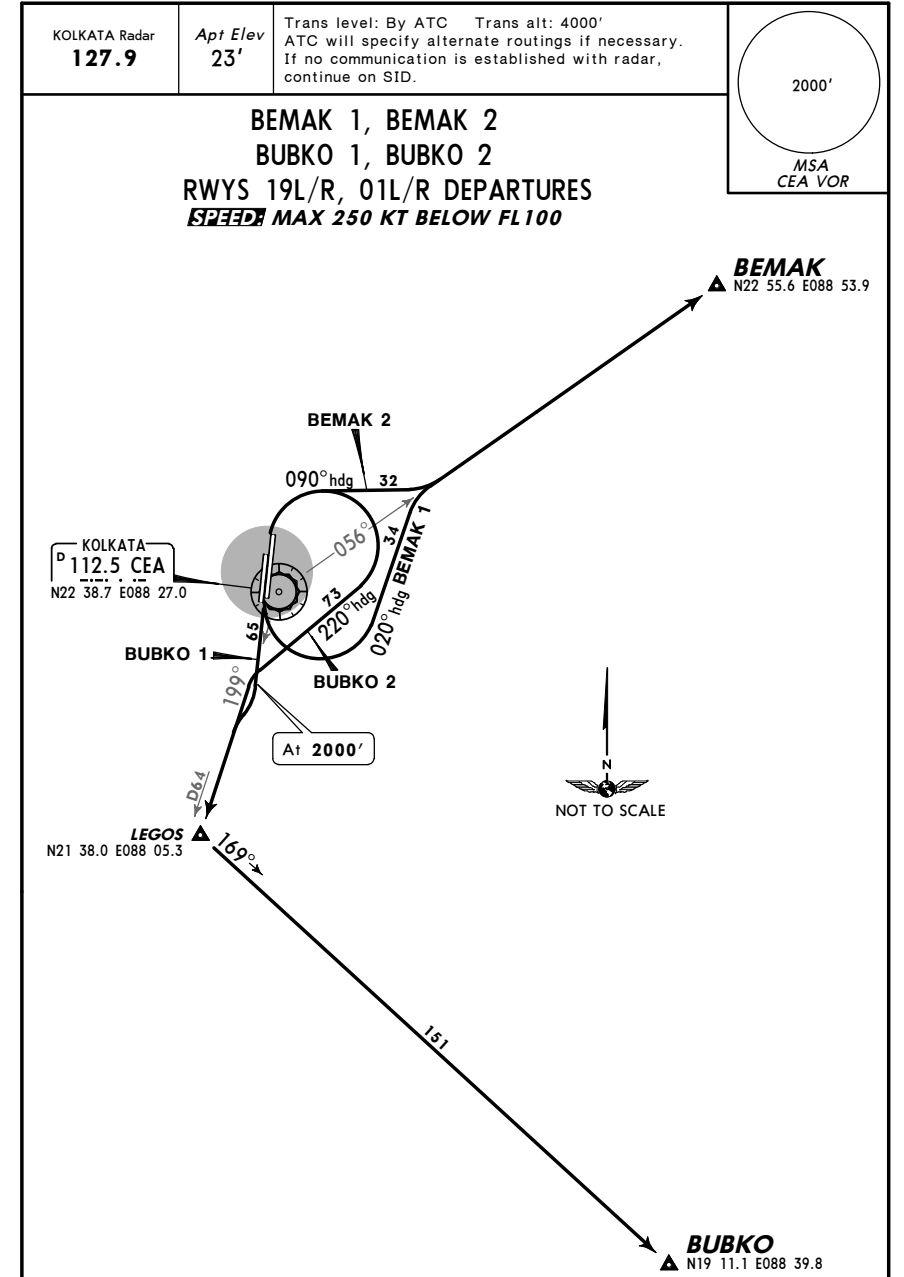


**VECC/CCU** **JEPPESEN KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 13 FEB 04 (10-3) **SID**



SID	RWY	ROUTING
AGODA 1	19L/R	Turn LEFT, intercept CEA R-005 to AGODA.
AGODA 2	01L/R	Turn RIGHT, intercept CEA R-005 to AGODA.
AVPOP 1	19L/R	Turn LEFT, 090° heading, intercept CEA R-124 to AVPOP.
AVPOP 2	01L/R	Turn RIGHT, 160° heading, intercept CEA R-124 to AVPOP.

**VECC/CCU** **JEPPESEN KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 13 FEB 04 (10-3A) **SID**

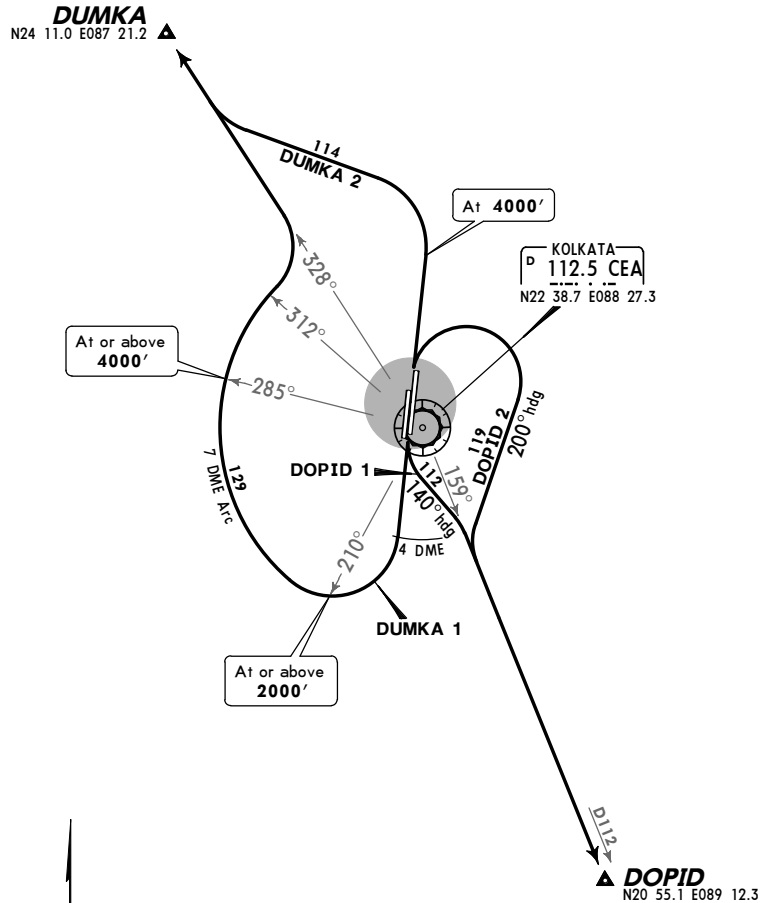


SID	RWY	ROUTING
BEMAK 1	19L/R	Turn LEFT, 020° heading, intercept CEA R-056 to BEMAK.
BEMAK 2	01L/R	Turn RIGHT, 090° heading, intercept CEA R-056 to BEMAK.
BUBKO 1	19L/R	At 2000' turn RIGHT, intercept CEA R-199 to LEGOS, 169° track to BUBKO.
BUBKO 2	01L/R	Turn RIGHT, 220° heading, intercept CEA R-199 to LEGOS, 169° track to BUBKO.

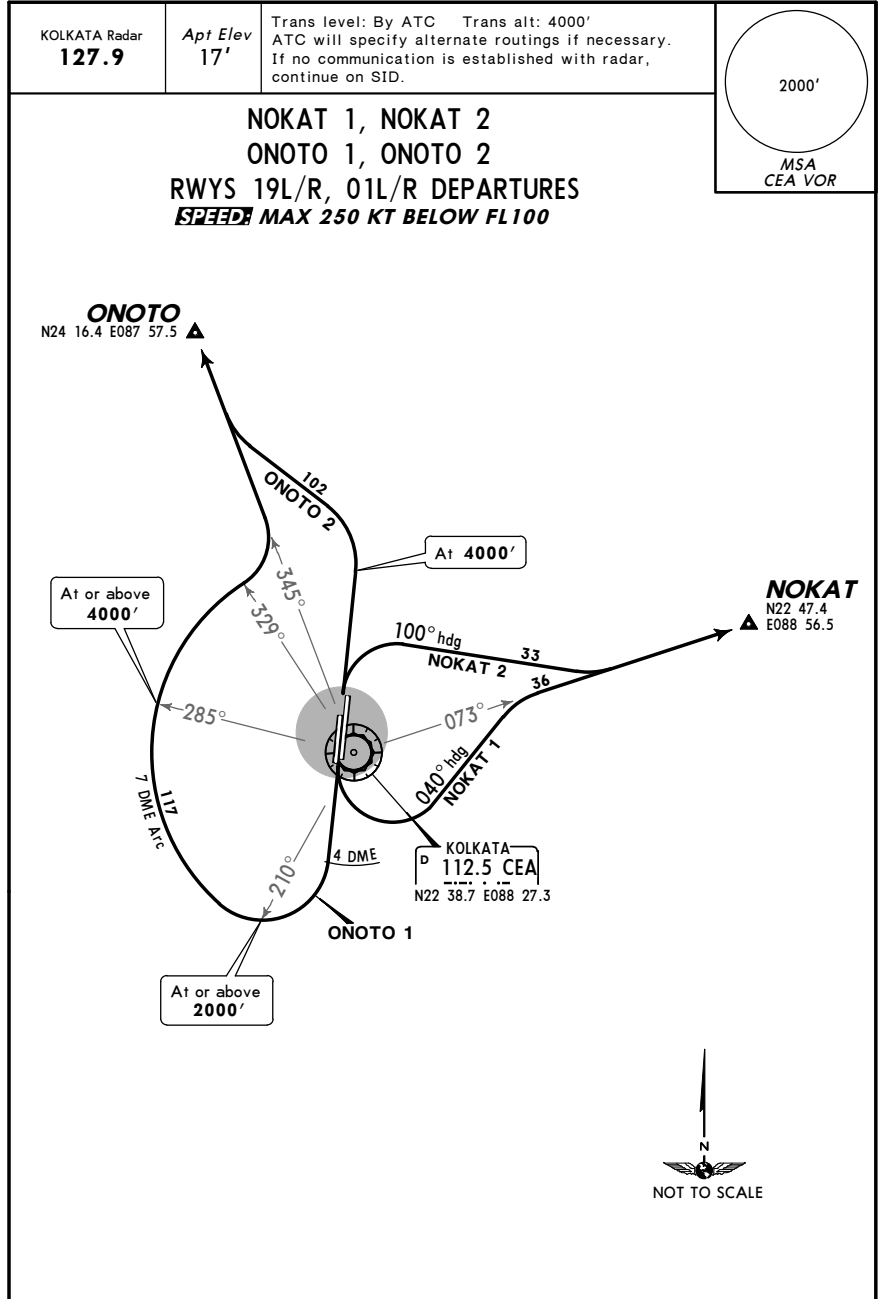
**VECC/CCU** **JEPPESEN KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 6 DEC 02 (10-3B) **SID**

KOLKATA Radar <b>127.9</b>	Apt Elev <b>17'</b>	Trans level: By ATC Trans alt: 4000' ATC will specify alternate routings if necessary. If no communication is established with radar, continue on SID.	2000' MSA CEA VOR
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**DOPID 1, DOPID 2**  
**DUMKA 1, DUMKA 2**  
**RWYS 19L/R, 01L/R DEPARTURES**  
**~~SPEED~~ MAX 250 KT BELOW FL100**



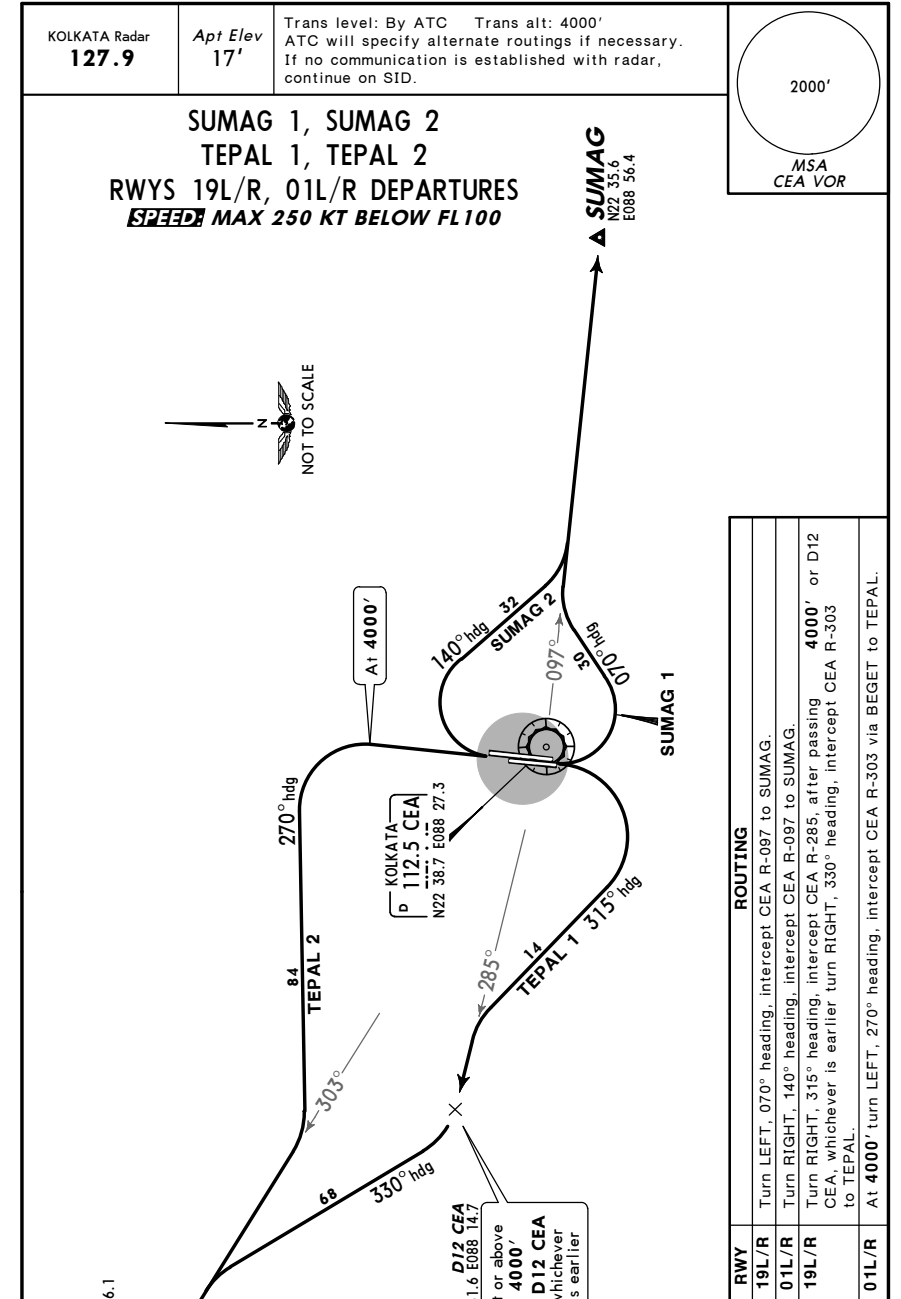
**VECC/CCU** **JEPPESEN KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 6 DEC 02 (10-3D) **SID**



SID	RWY	ROUTING
NOKAT 1	19L/R	Turn LEFT, 040° heading, intercept CEA R-073 to NOKAT.
NOKAT 2	01L/R	Turn RIGHT, 100° heading, intercept CEA R-073 to NOKAT.
ONOTO 1	19L/R	To CEA 4 DME, turn RIGHT, along CEA 7 DME arc, after crossing CEA R-329 turn LEFT, intercept CEA R-345 to ONOTO.
ONOTO 2	01L/R	At 4000' turn LEFT, intercept CEA R-345 to ONOTO.

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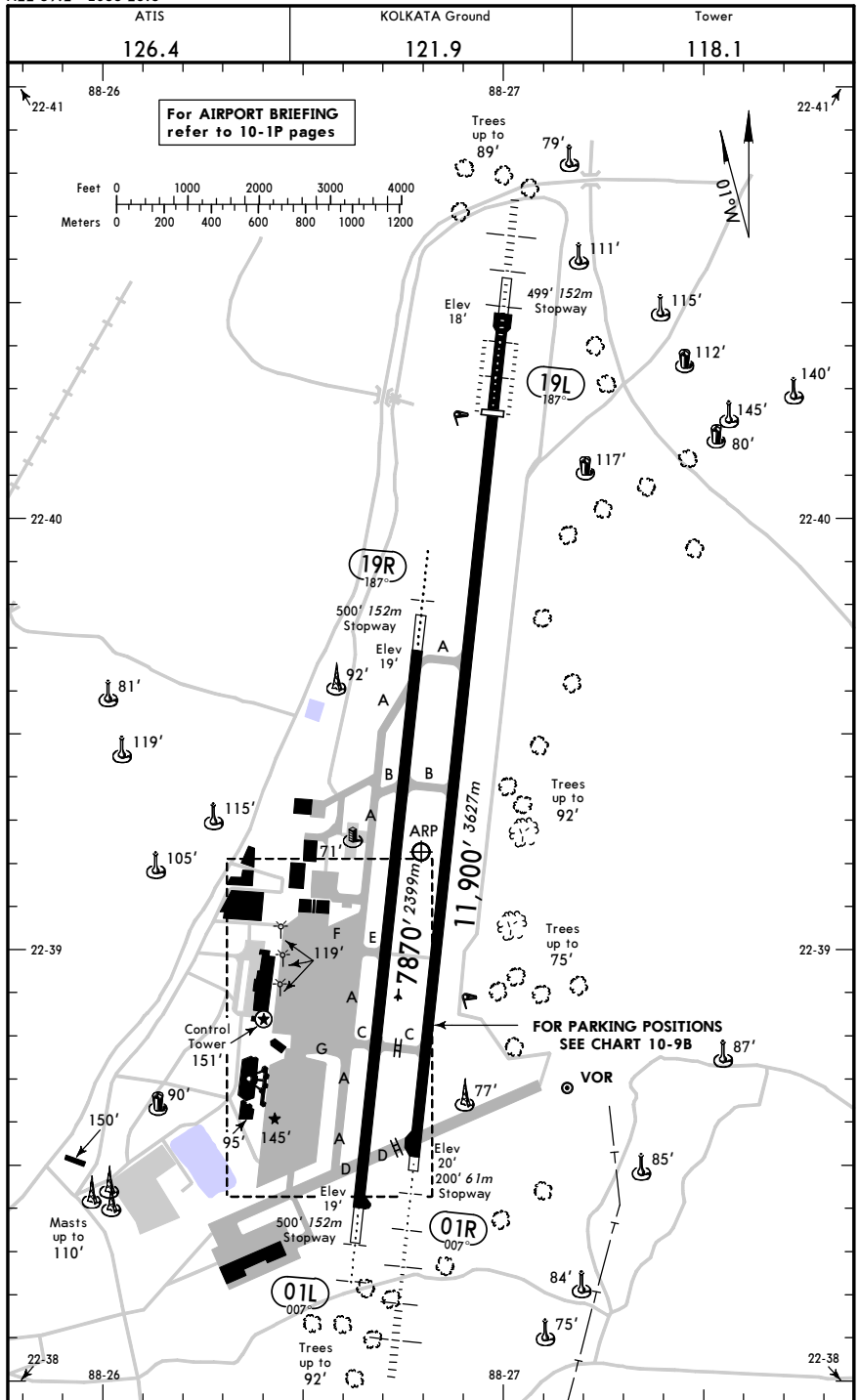
**VECC/CCU** **JEPPESEN KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 6 DEC 02 (10-3E) **SID**



SID	RWY	ROUTING
SUMAG 1	19L/R	Turn LEFT, 070° heading, intercept CEA R-097 to SUMAG.
SUMAG 2	01L/R	Turn RIGHT, 140° heading, intercept CEA R-097 to SUMAG.
TEPAL 1	19L/R	Turn RIGHT, 315° heading, intercept CEA R-285, after passing CEA, whichever is earlier turn RIGHT, 330° heading, intercept CEA R-303 to TEPAL.
TEPAL 2	01L/R	At 4000' turn LEFT, 270° heading, intercept CEA R-303 via BEGET to TEPAL.

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VECC/CCU **JEPPesen** KOLKATA, INDIA  
 Apt Elev 23' 26 OCT 07 (10-9) NETAJI SUBHASH CHANDRA BOSE INTL



CHANGES: Notes transferred to 10-1P pages. Apron. © JEPPESEN SANDERSON, INC., 2001, 2007. ALL RIGHTS RESERVED.

VECC/CCU **JEPPesen** KOLKATA, INDIA  
 26 OCT 07 (10-9A) NETAJI SUBHASH CHANDRA BOSE INTL

RWY	ADDITIONAL RUNWAY INFORMATION			
	LANDING BEYOND		USABLE LENGTHS	WIDTH
	Threshold	Glide Slope	TAKE-OFF	
01L				150'
19R	HIRL (60m) HIALS PAPI-L (3.0°)			46m
01R	HIRL (60m) CL (15m) HIALS PAPI-L (3.0°)	RVR	10,950' 3338m	150'
19L	HIRL (60m) CL (15m) HIALS-II TDZ PAPI-L (3.0°)	RVR	10,499' 3200m 9418' 2871m	46m

INS COORDINATES			
STAND No.	COORDINATES	STAND No.	COORDINATES
17, 18	N22 39.1 E088 26.6	47 thru 49	N22 38.9 E088 26.7
22 thru 24	N22 38.7 E088 26.4	50, 51	N22 38.8 E088 26.7
30	N22 38.7 E088 26.6	52, 53	N22 38.7 E088 26.6
31 thru 33	N22 38.7 E088 26.5	C1	N22 39.2 E088 26.5
34, 35	N22 38.6 E088 26.5	C2	N22 39.2 E088 26.6
36, 37	N22 38.5 E088 26.5		
41	N22 38.7 E088 26.7		
42	N22 38.8 E088 26.6		
43 thru 45	N22 38.9 E088 26.6		
46	N22 39.0 E088 26.6		

TAKE-OFF	
All Rwys	

A	TAKE-OFF RVR/VIS SHALL NOT BE LESS THAN 30% OF THE LANDING RVR/VIS, BUT NEVER BE LESS THAN RVR 500m VIS 800m
B	
C	
D	

CHANGES: Lights and usable length Rwy 19L. Coordinates added. © JEPPESEN SANDERSON, INC., 2001, 2007. ALL RIGHTS RESERVED.



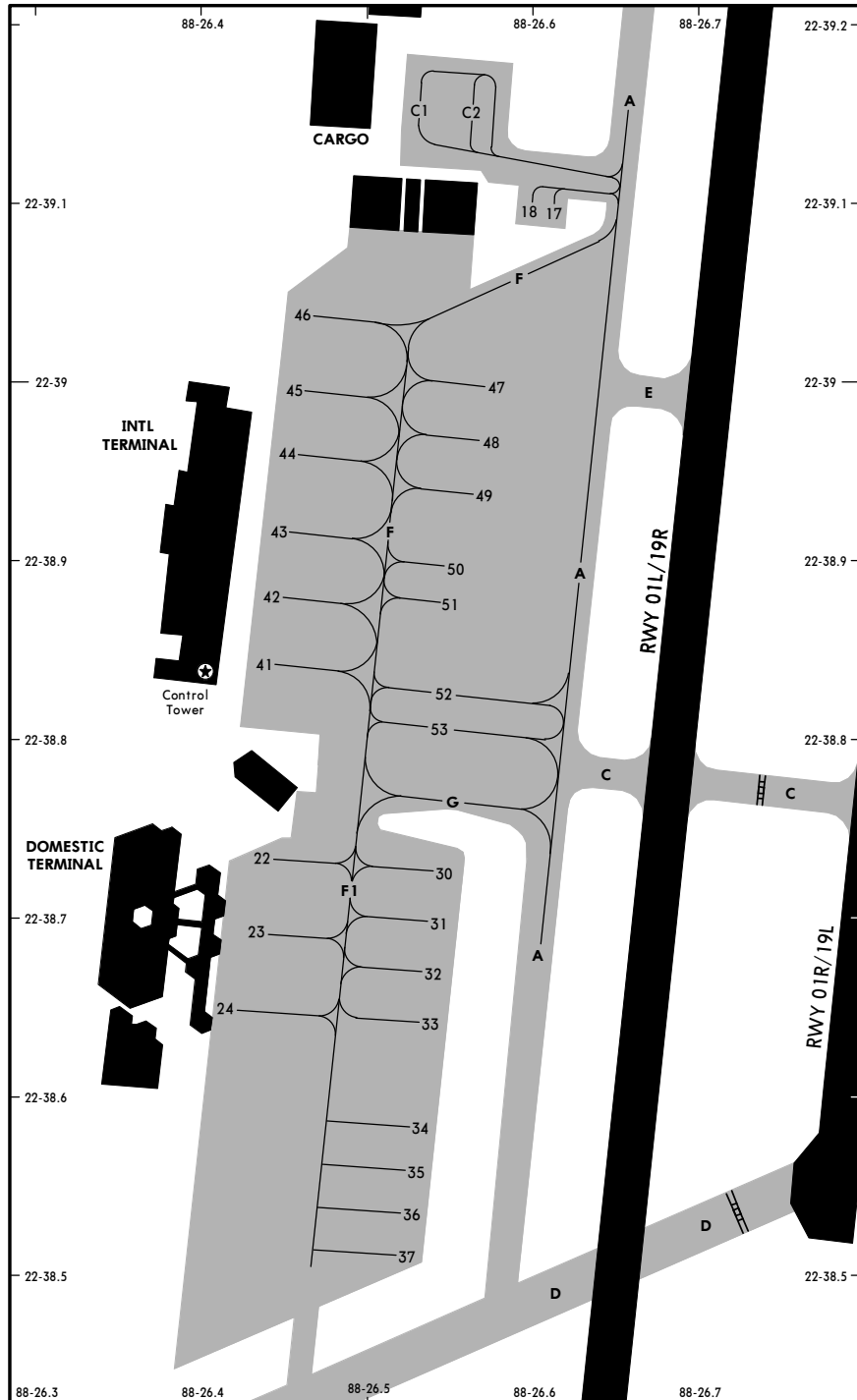
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**JEPPesen**

**KOLKATA, INDIA**

26 OCT 07 (10-9B)

NETAJI SUBHASH CHANDRA BOSE INTL



VECC/CCU

**JEPPesen**

**JAA MINIMUMS**

**KOLKATA, INDIA**

26 OCT 07 (10-9X)

NETAJI SUBHASH CHANDRA BOSE INTL

STRAIGHT-IN RWY		A	B	C	D
01L	VOR DME	420' (401')	420' (401')	450' (431')	470' (451')
		V2400m	V2400m	V2800m	V3200m
	VOR	420' (401')	420' (401')	450' (431')	470' (451')
	with Stepdownfix	V2400m	V2400m	V2800m	V3200m
	w/o Stepdownfix	V2400m	V2800m	V4400m	V4800m
01R	ILS	400' (380')	400' (380')	400' (380')	400' (380')
		1300m	1300m	1300m	1300m
	ALS out	V2100m	V2100m	V2100m	V2100m
	LOC	420' (400')	420' (400')	420' (400')	420' (400')
		1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR DME	420' (400')	420' (400')	450' (430')	470' (450')
		1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR	420' (401')	420' (401')	450' (431')	470' (451')
	with Stepdownfix	1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR	760' (741')	760' (741')	760' (741')	760' (741')
	w/o Stepdownfix	1600m	2000m	V3600m	V4400m
	ALS out	V2400m	V2800m	V4400m	V4800m
Lctr	420' (397')	420' (397')	420' (397')	420' (397')	
	V3600m	V3600m	V3600m	V3600m	
SRA	670' (647')	670' (647')	670' (647')	670' (647')	
	1600m	1600m	V2800m	V3200m	
ALS out	V2400m	V2400m	V3600m	V4000m	
19L	CAT 2 ILS	119' (100')	119' (100')	119' (100')	119' (100')
		RA 100' 350m	RA 100' 350m	RA 100' 350m	RA 100' 350m
	ILS	247' (228')	247' (228')	247' (228')	247' (228')
		800m	800m	800m	800m
	ALS out	1200m	1200m	1200m	1200m
	LOC	420' (401')	420' (401')	420' (401')	420' (401')
		1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR DME	420' (401')	420' (401')	430' (411')	450' (431')
		1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR	420' (401')	420' (401')	430' (411')	450' (431')
	with Stepdownfix	1600m	1600m	2000m	V2400m
	ALS out	V2400m	V2400m	V2800m	V3200m
	VOR	670' (651')	670' (651')	670' (651')	670' (651')
w/o Stepdownfix	1600m	1600m	V2800m	V3200m	
ALS out	V2400m	V2400m	V3600m	V4000m	
Lctr	420' (397')	420' (397')	420' (397')	420' (397')	
	V3600m	V3600m	V3600m	V3600m	
SRA	660' (637')	660' (637')	660' (637')	660' (637')	
	1600m	1600m	V2800m	V3200m	
ALS out	V2400m	V2400m	V3600m	V4000m	

① MM out: NOT AUTHORIZED.

VECC/CCU

26 OCT 07 **JEPPESSEN**  
 (10-9X1)

**JAA MINIMUMS**

**KOLKATA, INDIA**

NETAJI SUBHASH CHANDRA BOSE INTL

STRAIGHT-IN RWY		A	B	C	D
19R	Lctr	420' (401') V3600m	420' (401') V3600m	420' (401') V3600m	420' (401') V3600m

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
	720' (697') ①	720' (697') ①	820' (797')	820' (797')
	V3600m	V3600m	V4400m	V4800m

① After VOR 01L/R w/o Stepdownfix: MDA(H) 760' (737').

**TAKE-OFF RWY 01L/R, 19L/R**

A	TAKE-OFF RVR/VIS SHALL NOT BE LESS THAN 30% OF THE LANDING RVR/VIS, BUT NEVER BE LESS THAN R500m/V800m
B	
C	
D	

VECC/CCU

16 FEB 07 **JEPPESSEN**  
 (10-9Z)

**Restricted AOM**

**KOLKATA, INDIA**

NETAJI SUBHASH CHANDRA BOSE INTL

STRAIGHT-IN RWY		A	B	C	D
01L	VOR DME	520' (501') 2800m	520' (501') 2800m	550' (531') 3200m	570' (551') 3600m
	VOR	520' (501') 2800m	520' (501') 2800m	550' (531') 3200m	570' (551') 3600m
	with Stepdownfix	2800m	2800m	3200m	3600m
	VOR	860' (841') 2800m	860' (841') 2800m	860' (841') 4800m	860' (841') 5000m
	w/o Stepdownfix	2800m	2800m	4800m	5000m
01R	ILS	500' (480') 1600m 2400m	500' (480') 1600m 2400m	450' (430') 1600m 2400m	450' (430') 1600m 2400m
	ALS out	2400m	2400m	2400m	2400m
	LOC	520' (500') 2000m 2800m	520' (500') 2000m 2800m	520' (500') 2400m 3200m	520' (500') 2800m 3600m
	ALS out	2800m	2800m	3200m	3600m
	VOR DME	520' (500') 2000m 2800m	520' (500') 2000m 2800m	550' (530') 2400m 3200m	570' (550') 2800m 3600m
	ALS out	2800m	2800m	3200m	3600m
	VOR	520' (501') 2000m	520' (501') 2000m	550' (531') 2400m	570' (551') 2800m
	with Stepdownfix	2000m	2000m	2400m	2800m
	ALS out	2800m	2800m	3200m	3600m
	VOR	860' (841') 2000m	860' (841') 2000m	860' (841') 4000m	860' (841') 4400m
	w/o Stepdownfix	2000m	2000m	4000m	4400m
	ALS out	2800m	2800m	4800m	5000m
	Lctr	520' (497') 3600m	520' (497') 3600m	520' (497') 3600m	520' (497') 3600m
	SRA	770' (747') 2000m 2800m	770' (747') 2000m 2800m	770' (747') 3600m 4400m	770' (747') 4000m 4800m
	ALS out	2800m	2800m	4400m	4800m
19L	ILS	347' (328') 1000m 1700m	347' (328') 1000m 1700m	297' (278') R650m V900m 1300m	297' (278') R650m V900m 1300m
	ALS out	1700m	1700m	1300m	1300m
	LOC ①	520' (501') 2000m 2800m	520' (501') 2000m 2800m	520' (501') 2400m 3200m	520' (501') 2800m 3600m
	ALS out	2800m	2800m	3200m	3600m
	VOR DME	520' (501') 2000m 2800m	520' (501') 2000m 2800m	530' (511') 2400m 3200m	550' (531') 2800m 3600m
	ALS out	2800m	2800m	3200m	3600m
	VOR	520' (501') 2000m	520' (501') 2000m	530' (511') 2400m	550' (531') 2800m
	with Stepdownfix	2000m	2000m	2400m	2800m
	ALS out	2800m	2800m	3200m	3600m
	VOR	770' (751') 2000m	770' (751') 2000m	770' (751') 3600m	770' (751') 4000m
	w/o Stepdownfix	2000m	2000m	3600m	4000m
	ALS out	2800m	2800m	4400m	4800m
	Lctr	520' (497') 3600m	520' (497') 3600m	520' (497') 3600m	520' (497') 3600m
	SRA	760' (737') 2000m 2800m	760' (737') 2000m 2800m	760' (737') 3200m 4000m	760' (737') 3600m 4400m
	ALS out	2800m	2800m	4000m	4400m
19R	Lctr	520' (501') 3600m	520' (501') 3600m	520' (501') 3600m	520' (501') 3600m

① MM out: NOT AUTHORIZED.

VECC/CCU

16 FEB 07 **JEPPESSEN**  
 (10-9Z1)

**Restricted AOM**

**KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
	820' (797') ①	820' (797') ①	920' (897')	920' (897')
	3600m	3600m	5000m	5000m

① After VOR 01L/R w/o Stepdownfix: MDA(H) 860' (841').

**TAKE-OFF RWY 01L/R, 19L/R**

A	TAKE-OFF MINIMUMS SHALL NOT BE LESS THAN LANDING MINIMA
B	
C	
D	

VECC/CCU

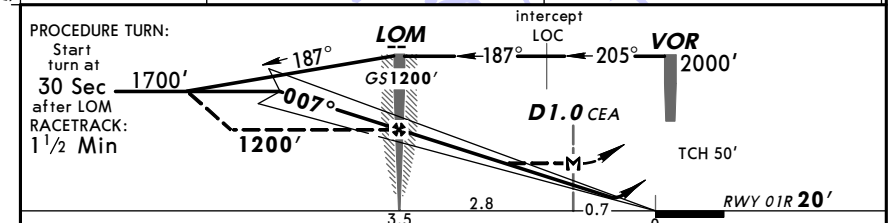
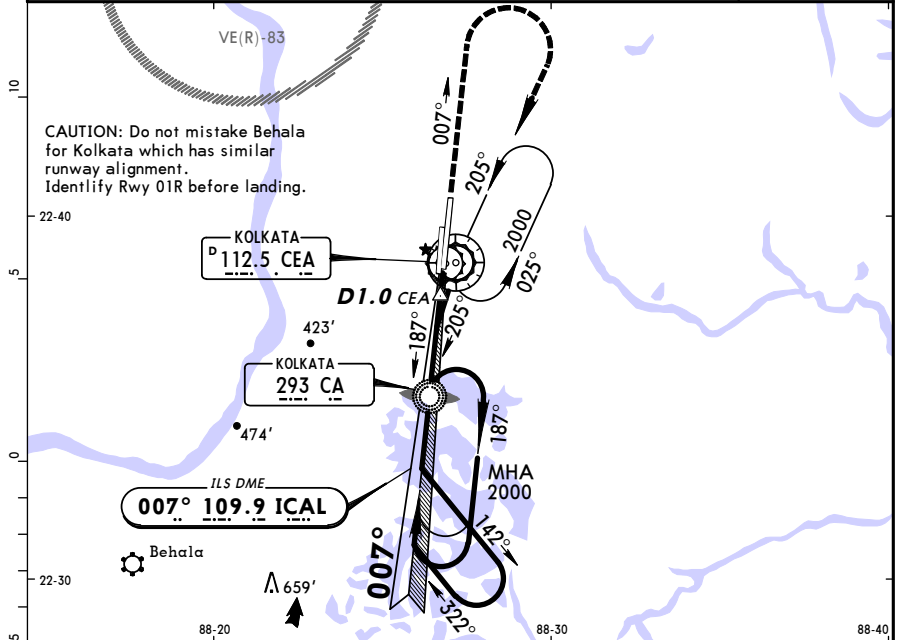
26 OCT 07 **JEPPESSEN**  
 (11-1)

**KOLKATA, INDIA**  
 ILS Rwy 01R

ATIS		KOLKATA Approach (R)		KOLKATA Tower		Ground	
126.4		127.9		118.1		121.9	
LOC ICAL	Final Apch Crs	GS LOM	ILS DA(H)	Apt Elev 23'		2000'	
109.9	007°	1200' (1180')	400' (380')	RWY 20'			

**MISSED APCH:** Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join VOR holding, or as directed.

Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 4000' MSA CEA VOR



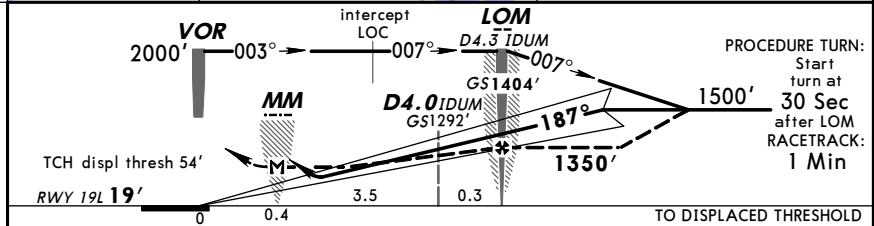
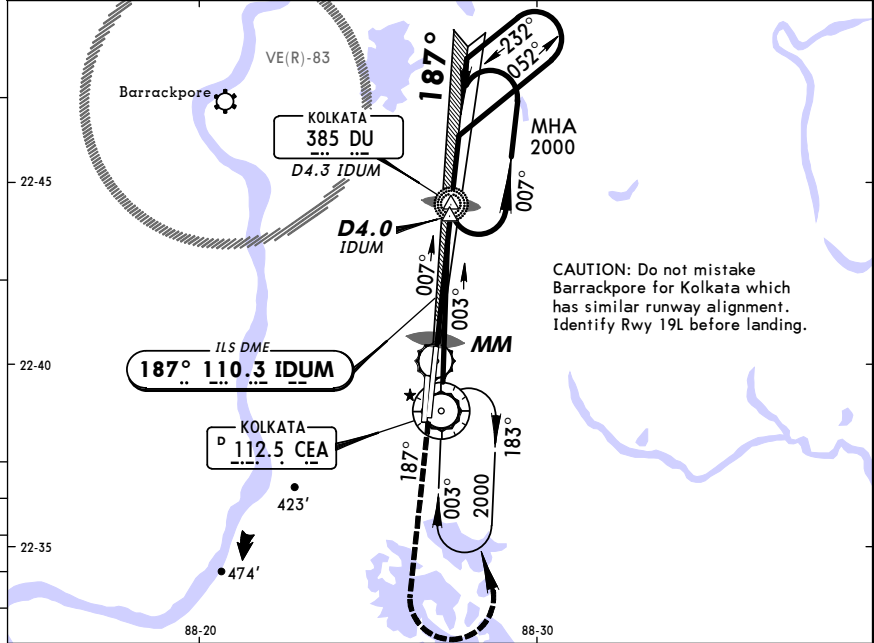
Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
ILS GS 3.00° or LOC Descent Gradient 5.3%	377	485	539	647	755	862	
MAP at D1.0 CEA							
STRAIGHT-IN LANDING RWY 01R							

	ILS		LOC (GS out)		CIRCLE-TO-LAND	
	DA(H) 400' (380')	ALS out	MDA(H) 420' (400')	ALS out	Max Kts	MDA(H)
A					100	
B			1600m	2400m	135	720' (697') 3600m
C	1300m	2100m	2000m	2800m	180	820' (797') 4400m
D			2400m	3200m	205	820' (797') 4800m

PANS OPS 4 Based on DRG No. 4 - IALC/2001.

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL 26 OCT 07 (11-2)  
**KOLKATA, INDIA**  
ILS Rwy 19L

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
LOC IDUM 110.3	Final Apch Crs 187°	GS LOM 1404' (1385')	ILS DA(H) 247' (228')	Apt Elev 23'	2000'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join VOR holding, or as directed.							2000'
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC		Trans alt: 4000'		



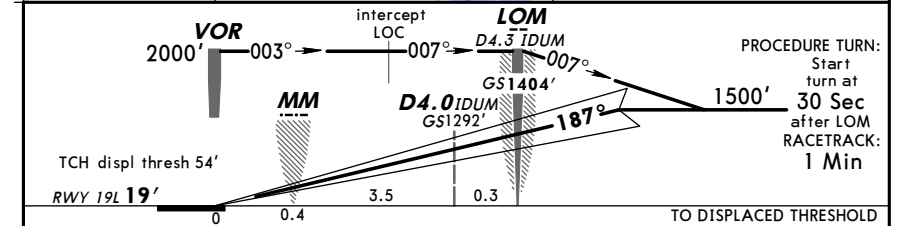
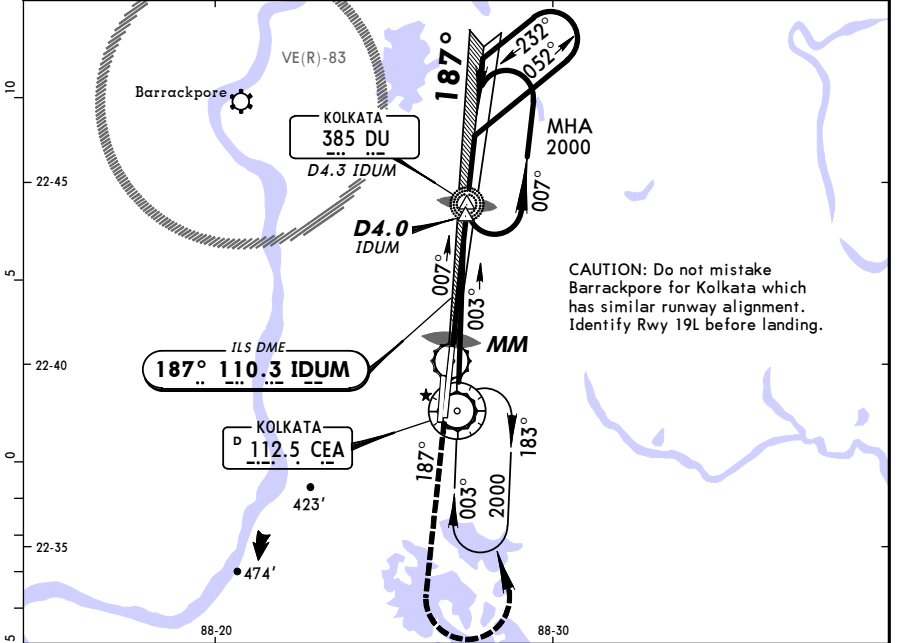
Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI 2000'	
ILS GS	3.00°	377	485	539	647	755		862
LOC Desc Grad	5.0%	355	456	507	608	709		811
MAP at MM								

STRAIGHT-IN LANDING RWY 19L					CIRCLE-TO-LAND	
ILS DA(H) 247' (228')		LOC (GS out) MDA(H) 420' (401')			Max Kts	MDA(H)
FULL	ALS out	MM out	ALS out			
A		1600m	2400m	100	720' (697')	3600m
B	RVR 720m VIS 800m	1200m	2000m	135	820' (797')	4400m
C			2400m	180	820' (797')	4800m
D				205		

PANS OPS 4 Based on DRG No. 9 - IALC/2005

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL 26 OCT 07 (11-2A)  
**KOLKATA, INDIA**  
CAT II ILS Rwy 19L

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
LOC IDUM 110.3	Final Apch Crs 187°	GS LOM 1404' (1385')	CAT II ILS DA(H) RA 100' 119' (100')	Apt Elev 23'	2000'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join VOR holding, or as directed.							2000'
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC		Trans alt: 4000'		



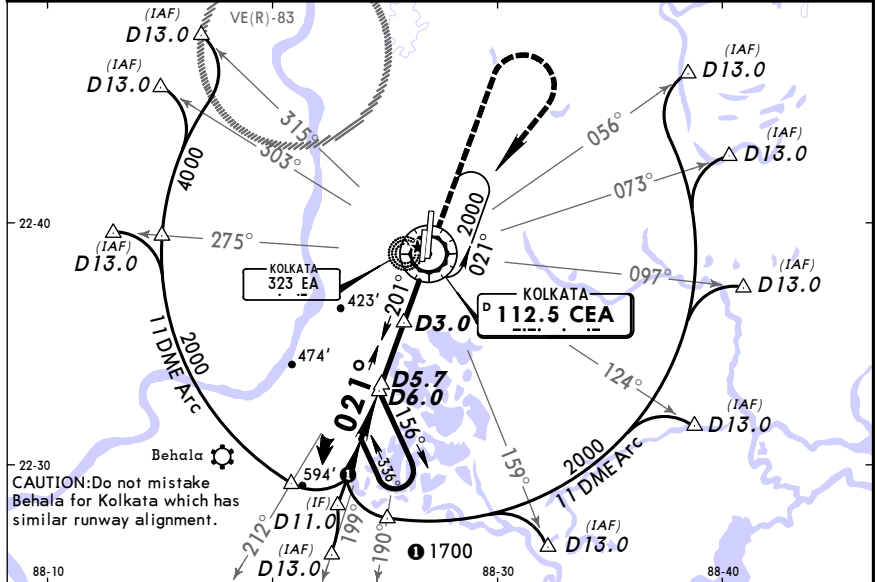
Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI 2000'	
GS	3.00°	377	485	539	647	755		862

STRAIGHT-IN LANDING RWY 19L				
CAT II ILS ABCD RA 100' DA(H) 119' (100')				
350m				

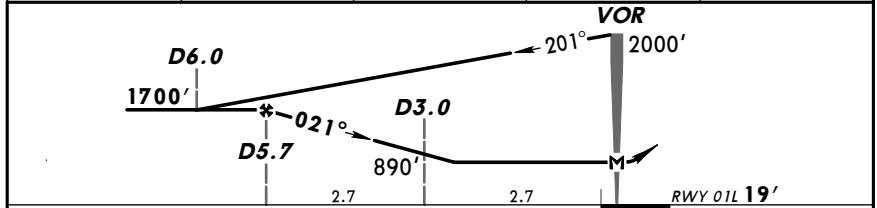
PANS OPS 4 Based on CL I VECC G 0076/2007.

**VECC/CCU** **JEPPESEN** **KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 26 NOV 04 (13-1) **VOR DME Rwy 01L**

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
VOR CEA 112.5	Final Apch Crs 021°	Minimum Alt D5.7 1700'(1681')	MDA(H) Refer to Minimums	Apt Elev 23'	Rwy 19'	2000'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join VOR holding, or as directed.							
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 4000'						MSA CEA VOR	



CEA DME	5.0	4.0	3.0	2.0
ALTITUDE	1490'	1190'	890'	580'

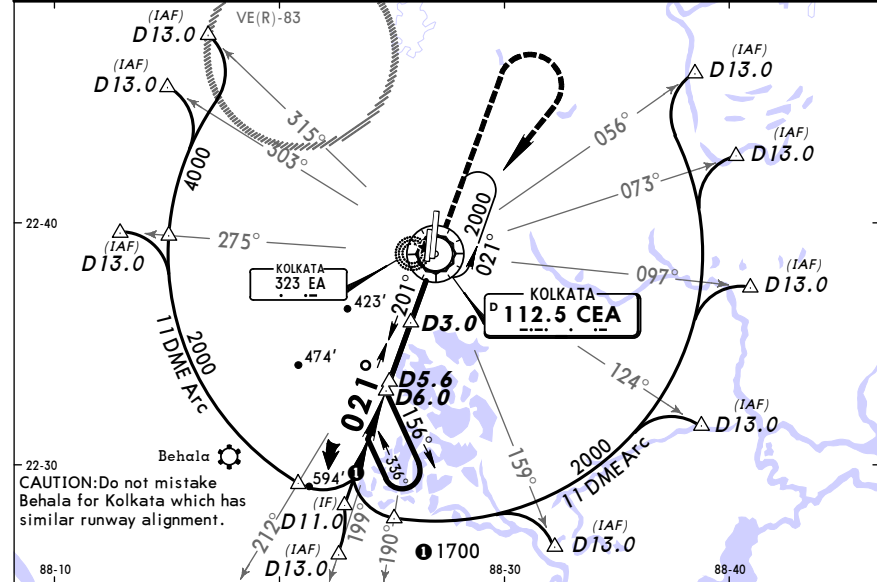


Gnd Speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
Descent Gradient 5.0%	354	456	506	608	709	810	
MAP at VOR							

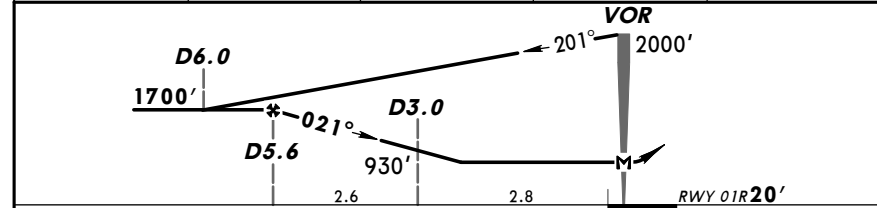
STRAIGHT-IN LANDING RWY 01L			CIRCLE-TO-LAND		
MDA(H) AB: 420'(401') C: 450'(431') D: 470'(451')			MDA(H)		
	ALS out	Max Kts			
A		100			
B	2400m	135	720'(697')	3600m	
C	2800m	180	820'(797')	4400m	
D	3200m	205	820'(797')	4800m	

**VECC/CCU** **JEPPESEN** **KOLKATA, INDIA**  
 NETAJI SUBHASH CHANDRA BOSE INTL 26 NOV 04 (13-2) **VOR DME Rwy 01R**

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
VOR CEA 112.5	Final Apch Crs 021°	Minimum Alt D5.6 1700'(1680')	MDA(H) Refer to Minimums	Apt Elev 23'	Rwy 20'	2000'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join VOR holding, or as directed.							
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 4000'						MSA CEA VOR	



CEA DME	5.0	4.0	3.0	2.0
ALTITUDE	1530'	1230'	930'	620'



Gnd Speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
Descent Gradient 5.0%	354	456	506	608	709	810	
MAP at VOR							

STRAIGHT-IN LANDING RWY 01R			CIRCLE-TO-LAND		
MDA(H) AB: 420'(400') C: 450'(430') D: 470'(450')			MDA(H)		
	ALS out	Max Kts			
A		100			
B	1600m	135	720'(697')	3600m	
C	2000m	180	820'(797')	4400m	
D	2400m	205	820'(797')	4800m	

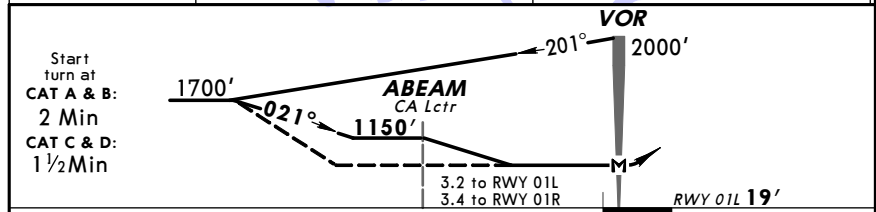
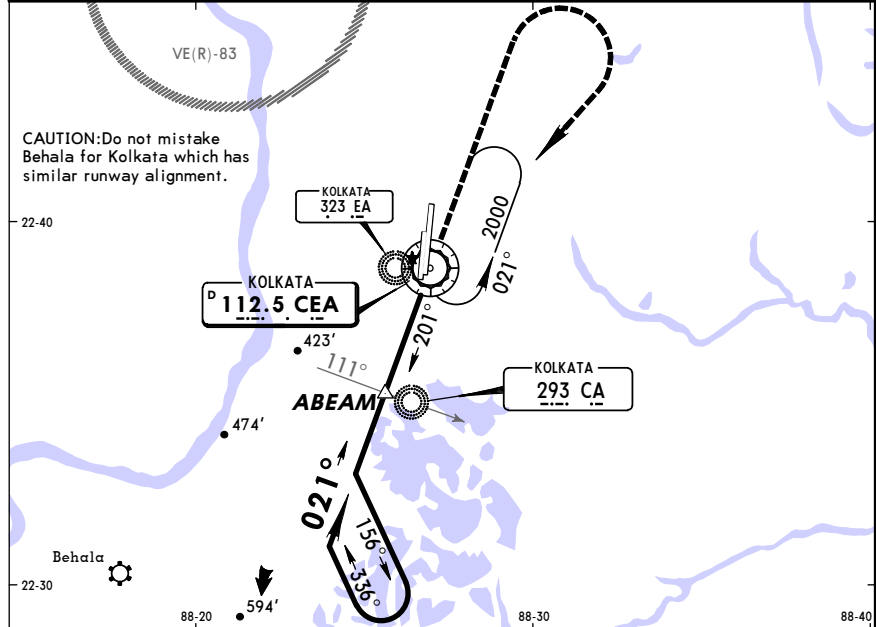
PANS OPS 4 Based on NOTAM Class One G 78/04.

PANS OPS 4 Based on NOTAM Class One G 81/04.

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL  
KOLKATA, INDIA  
VOR Rwy 01L/R

JEPPesen  
20 AUG 04  
Eff 2 Sep 13-3

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9
VOR CEA 112.5	Final Apch Crs 021°	Minimum Alt ABEAM Lctr 1150' (1131')	MDA(H) Refer to Minimums	Apt Elev 23'	RWY 01L 19'	2000'
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join VOR holding, or as directed.						
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 4000'
CAUTION: Identify Rwy 01L/R before landing.						MSA CEA VOR



MAP at VOR	RWY 01L PAPI	RWY 01R PAPI	2000'
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	RWY 01L		RWY 01R		Max Kts	MDA(H)
	With Stepdownfix	W/o Stepdownfix	With Stepdownfix	W/o Stepdownfix		
A	2400m	2400m	1600m	2400m	100	760'(737')/3600m
B	2400m	2800m	1600m	2800m	135	760'(737')/3600m
C	2800m	4400m	2000m	2800m	180	820'(797')/4400m
D	3200m	4800m	2400m	3200m	205	820'(797')/4800m

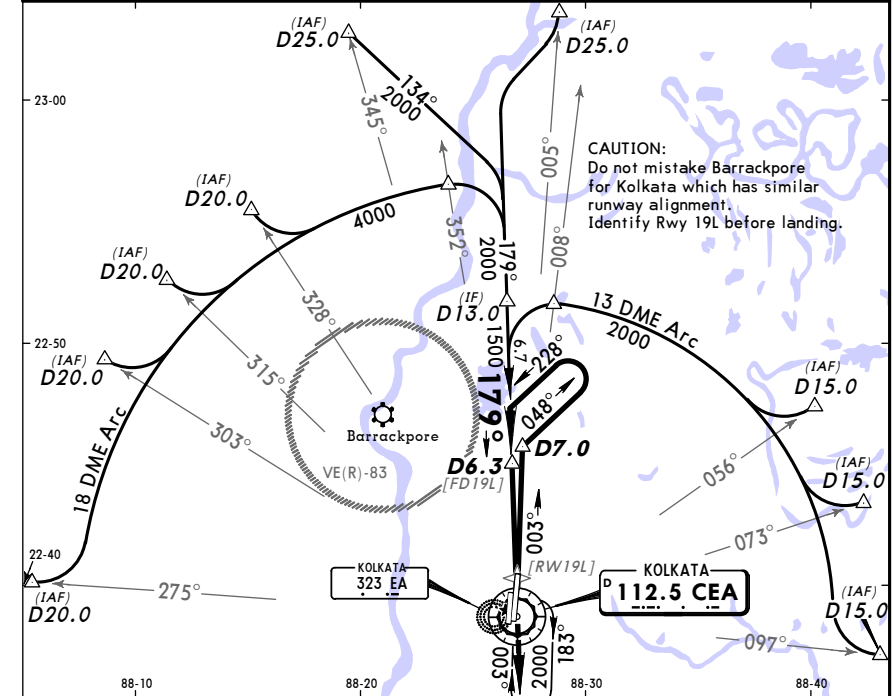
■ CAT AB: MDA(H) 420'(401') C: 450'(431').

PANS OPS 4 Based on NOTAM Class One G 74/04.

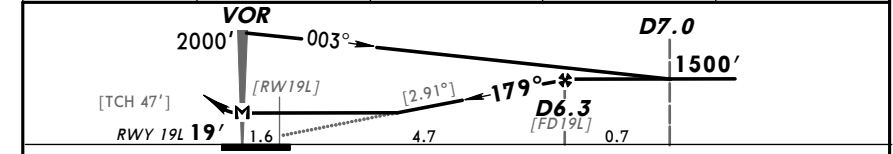
**VECC/CCU**  
NETAJI SUBHASH  
CHANDRA BOSE INTL  
KOLKATA, INDIA  
VOR DME Rwy 19L

JEPPesen  
20 AUG 04  
Eff 2 Sep 13-4

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9
VOR CEA 112.5	Final Apch Crs 179°	Minimum Alt D6.3 1500' (1481')	MDA(H) Refer to Minimums	Apt Elev 23'	RWY 19'	2000'
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join VOR holding, or as directed.						
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 4000'
CAUTION: Identify Rwy 19L before landing.						MSA CEA VOR



CEA DME	3.0	4.0	5.0	6.0
ALTITUDE	520'	820'	1130'	1430'



MAP at VOR	RWY 19L PAPI	2000'
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	STRAIGHT-IN LANDING RWY 19L		Max Kts	MDA(H)
	With Stepdownfix	W/o Stepdownfix		
A	1600m	2400m	100	720'(697')/3600m
B	1600m	2800m	135	720'(697')/3600m
C	2000m	2800m	180	820'(797')/4400m
D	2400m	3200m	205	820'(797')/4800m

■ CAT AB: MDA(H) 420'(401') C: 430'(411') D: 450'(431')

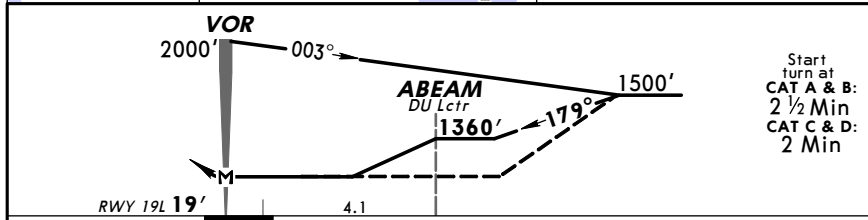
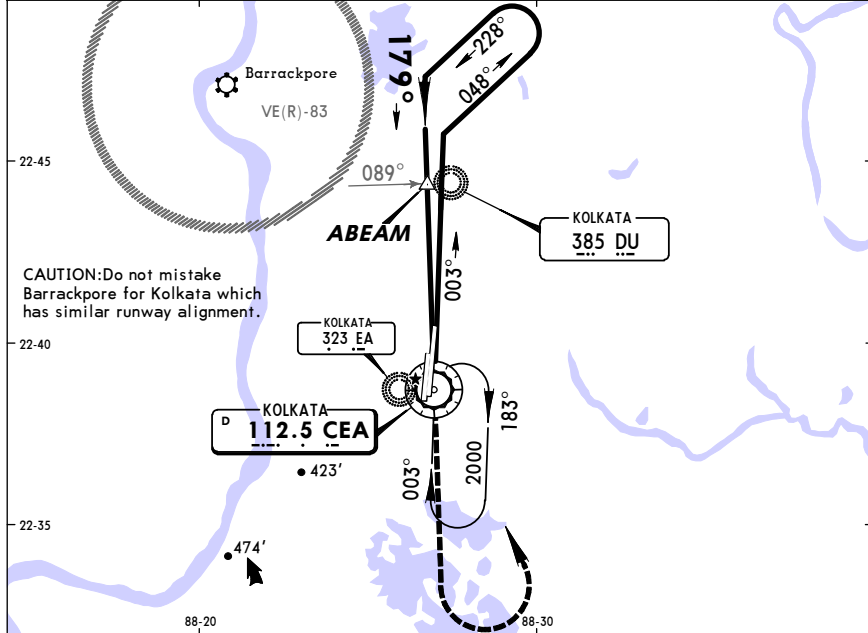
PANS OPS 4 Based on NOTAM Class One G 79/04.

**VECC/CCU**  
NETAJI SUBHASH  
CHANDRA BOSE INTL

JEPPESEN  
20 AUG 04 (13-5) Eff 2 Sep

**KOLKATA, INDIA**  
VOR Rwy 19L

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
VOR CEA 112.5	Final Aptch Crs 179°	Minimum Alt (CONDITIONAL) ABEAM Lctr 1360' (1341')	MDA(H) Refer to Minimums	Apt Elev 23'	RWY 19'		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join VOR holding, or as directed.							2000'
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 4000'							
CAUTION: Identify Rwy 19L before landing.							MSA CEA VOR



MAP at VOR				HIALS PAPI	2000'
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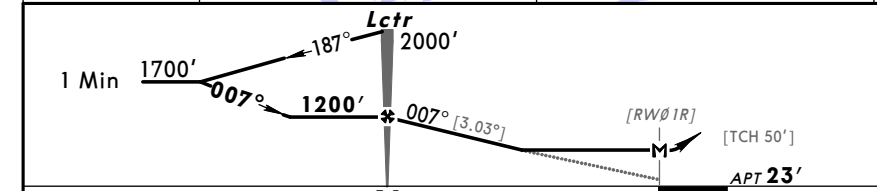
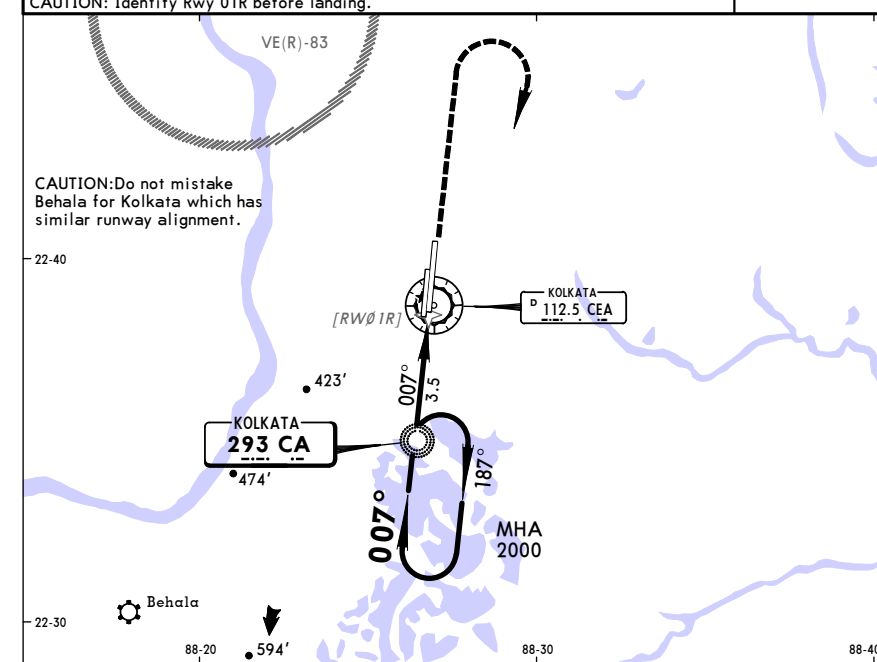
STRAIGHT-IN LANDING RWY 19L				CIRCLE-TO-LAND	
With Stepdownfix		W/o Stepdownfix		Max Kts	
MDA(H) AB: 420' (401')	C: 430' (411')	MDA(H) 670' (651')	ALS out	MDA(H)	
A	1600m	2400m	1600m	720' (697')	3600m
B					
C	2000m	2800m	2800m	820' (797')	4400m
D	2400m	3200m	3200m	820' (797')	4800m

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL

JEPPESEN  
20 AUG 04 (16-1) Eff 2 Sep

**KOLKATA, INDIA**  
Lctr Rwy 01R

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
Lctr CA 293	Final Aptch Crs 007°	Minimum Alt Lctr 1200' (1177')	MDA(H) 420' (397')	Apt Elev 23'	RWY 01R		
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join Lctr, or as directed.							2000'
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 4000'							
CAUTION: Identify Rwy 01R before landing.							MSA CA Lctr



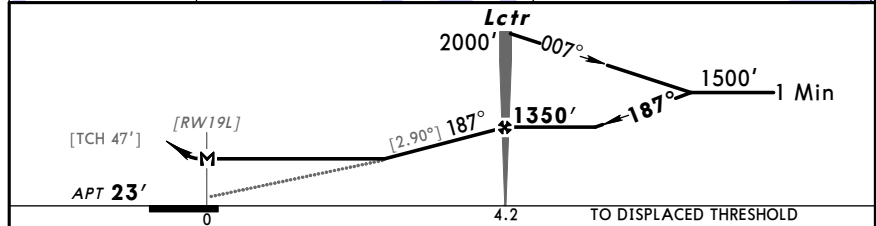
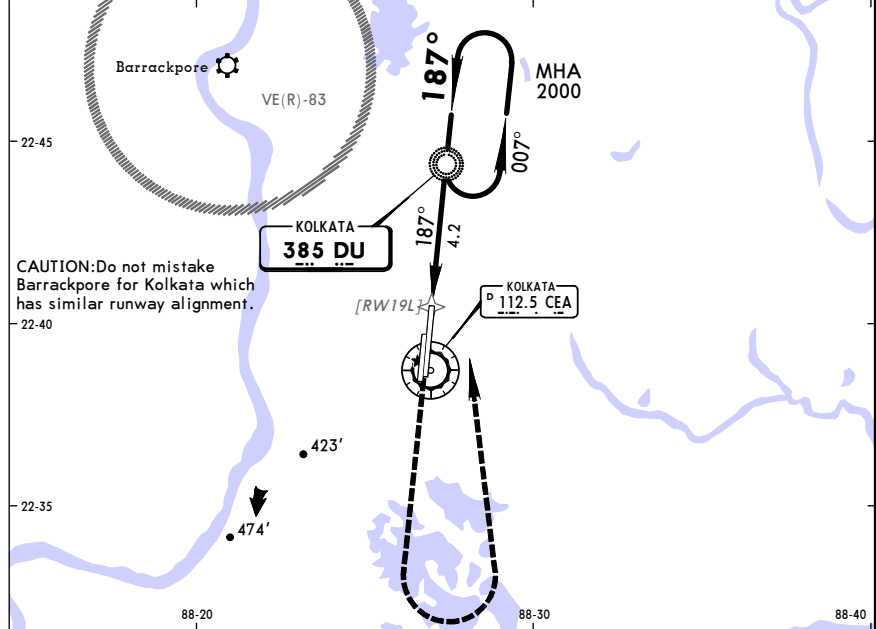
MAP at VOR				HIALS PAPI	2000'
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STRAIGHT-IN LANDING RWY 01R				CIRCLE-TO-LAND	
MDA(H) 420' (397')		ALS out		Max Kts	
A				720' (697')	3600m
B					
C	3600m			820' (797')	4400m
D				820' (797')	4800m

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL  
KOLKATA, INDIA  
Lctr Rwy 19L

JEPPESEN  
20 AUG 04  
Eff 2 Sep 16-2

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
Lctr DU <b>385</b>	Final Apch Crs <b>187°</b>	Minimum Alt Lctr <b>1350'</b> (1327')	MDA(H) <b>420'</b> (397')	Apt Elev <b>23'</b>		2000'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join Lctr holding, or as directed.							
Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 4000'						MSA DU Lctr	



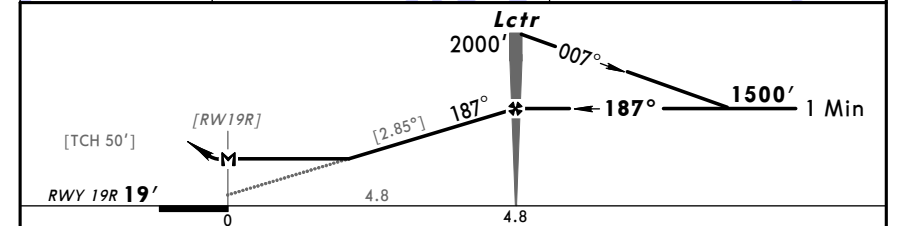
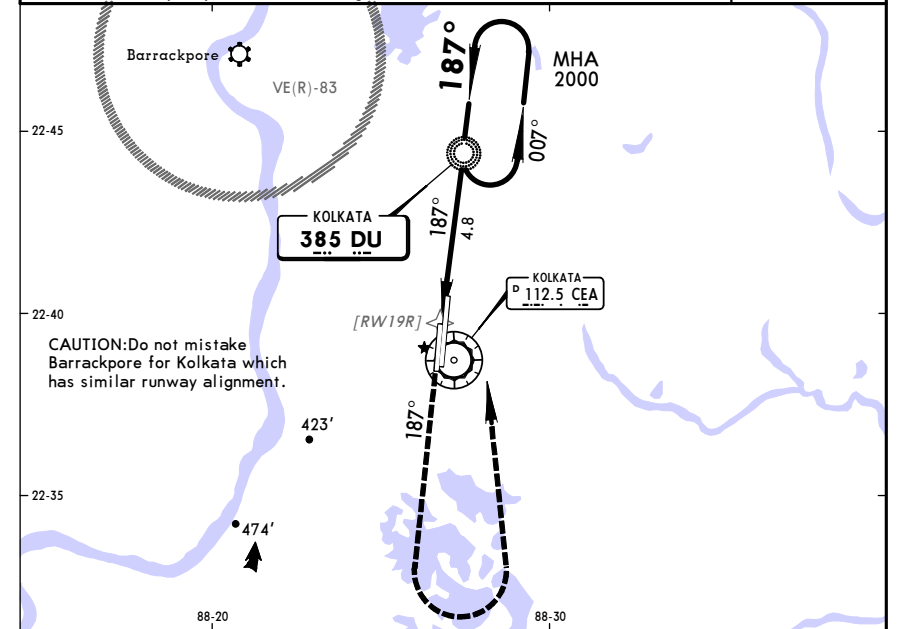
Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
Descent Gradient	5.06% or [2.90°]						
Descent angle	359	462	513	616	718	821	

STRAIGHT-IN LANDING RWY 19L			CIRCLE-TO-LAND		
MDA(H) <b>420'</b> (397')			MDA(H)		
ALS out			ALS out		
A			Max Kts		
B			100	<b>720'</b> (697')	3600m
C	3600m		135		
D			180	<b>820'</b> (797')	4400m
			205	<b>820'</b> (797')	4800m

**VECC/CCU**  
NETAJI SUBHASH CHANDRA BOSE INTL  
KOLKATA, INDIA  
Lctr Rwy 19R

JEPPESEN  
16 FEB 07 16-3

ATIS 126.4		KOLKATA Approach (R) 127.9		KOLKATA Tower 118.1		Ground 121.9	
Lctr DU <b>385</b>	Final Apch Crs <b>187°</b>	Minimum Alt Lctr <b>1500'</b> (1481')	MDA(H) <b>420'</b> (401')	Apt Elev <b>23'</b> RWY <b>19'</b>		2000'	
MISSED APCH: Climb STRAIGHT AHEAD to 2000', then turn LEFT to join Lctr holding, or as directed.							
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 4000'						MSA DU Lctr	



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI 2000'
Descent Gradient	4.98% or [2.85°]						
Descent angle	353	454	504	605	706	807	

STRAIGHT-IN LANDING RWY 19R			CIRCLE-TO-LAND		
MDA(H) <b>420'</b> (401')			MDA(H)		
ALS out			ALS out		
A			Max Kts		
B			100	<b>720'</b> (697')	3600m
C	3600m		135		
D			180	<b>820'</b> (797')	4400m
			205	<b>820'</b> (797')	4800m

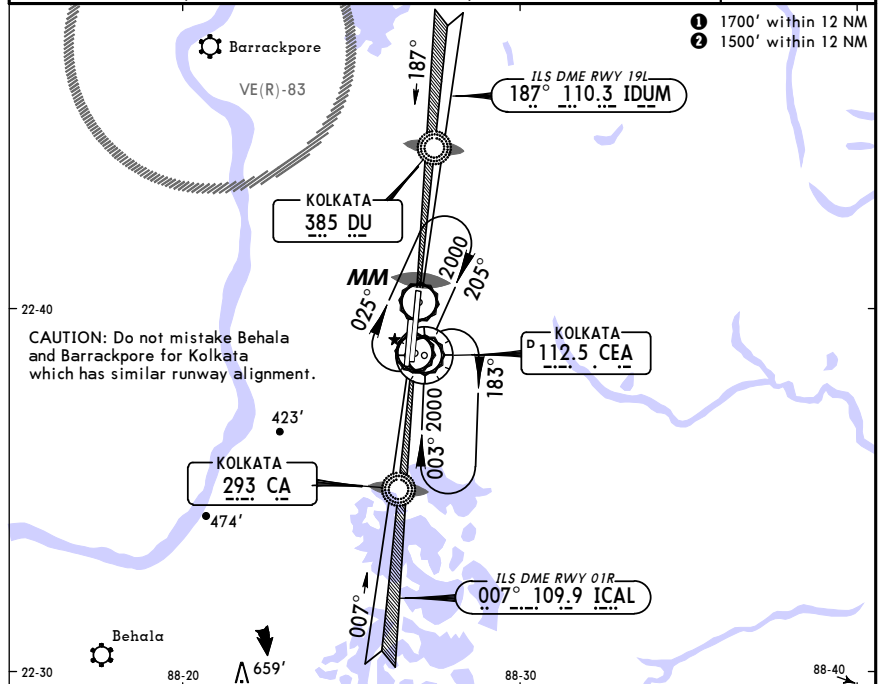
PANS OPS 4 Based on NOTAM Class Chg. G. 75/04.

PANS OPS 4 Based on DRG No. 4 - IALC 2005.



**VECC/CCU**  
**NETAJI SUBHASH CHANDRA BOSE INTL** 16 FEB 07 **(18-1) SRA Rwy 01R, 19L**

ATIS 126.4	KOLKATA Approach (R) 127.9	KOLKATA Radar (SRA) 127.9	KOLKATA Tower 118.1	Ground 121.9
RADAR	Final Apch Crs By ATC	Minimum Alt 6.2 NM <b>2000'</b> (1977')	MDA(H) Refer to Minimums	Apt Elev <b>23'</b>
Missed Approach - See below				
Alt Set: hPa	Apt Elev: 1 hPa	Trans level: By ATC	Trans alt: 4000'	MSA CEA VOR



<b>Minimum Alt/NM</b>	6.2 FAF	6.0	5.0	4.0	3.0	2.0
<b>SRA 01R</b>	2000'	1940'	1620'	1300'	980'	670'
<b>SRA 19L</b>	2000'	1940'	1620'	1300'	980'	660'

**MISSED APCH:**  
**Rwy 01R:** Climb STRAIGHT AHEAD to 2000', then turn RIGHT to join VOR holding (205° inbound), or as directed.  
**Rwy 19L:** Climb STRAIGHT AHEAD to 2000', then turn LEFT to join VOR holding (003° inbound), or as directed.

<b>Gnd speed-Kts</b>	70	90	100	120	140	160	Lighting - Refer to Airport Chart	<b>2000'</b> ↑	
<b>Descent Gradient</b>	5.3%	376	483	537	644	751			859
<b>MAP 2 NM from touchdown</b>									

STRAIGHT-IN LANDING				CIRCLE-TO-LAND		
SRA 01R		SRA 19L		Max Kts	MDA(H)	
MDA(H) <b>670'</b> (647')		MDA(H) <b>660'</b> (637')				
	ALS out		ALS out			
A	1600m	2400m	1600m	100	720'(697')	3600m
B				135		
C	2800m	3600m	2800m	180	820'(797')	4400m
D	3200m	4000m	3200m	205	820'(797')	4800m

PANS OPS 4 Based on AD3 - VECC 21/22.