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Airport Information For SBGL

Terminal Charts For SBGL

Revision Letter For Cycle 01-2015

Change Notices

Notebook

General Information

Location: Rio De Janeiro Bra
IATA Code: GIG
Lat/Long: S22° 48.6' W043° 15.0'
Elevation: 30 ft

Airport Use: Public
Magnetic Variation: 22.5°W

Fuel Types: Jet A
Repair Types: Major Airframe, Major Engine
Customs: Yes
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: Yes

Sunrise: 0815 Z
Sunset: 2143 Z,

Runway Information

Runway: 10
Length x Width: 13123 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 16 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 197 ft

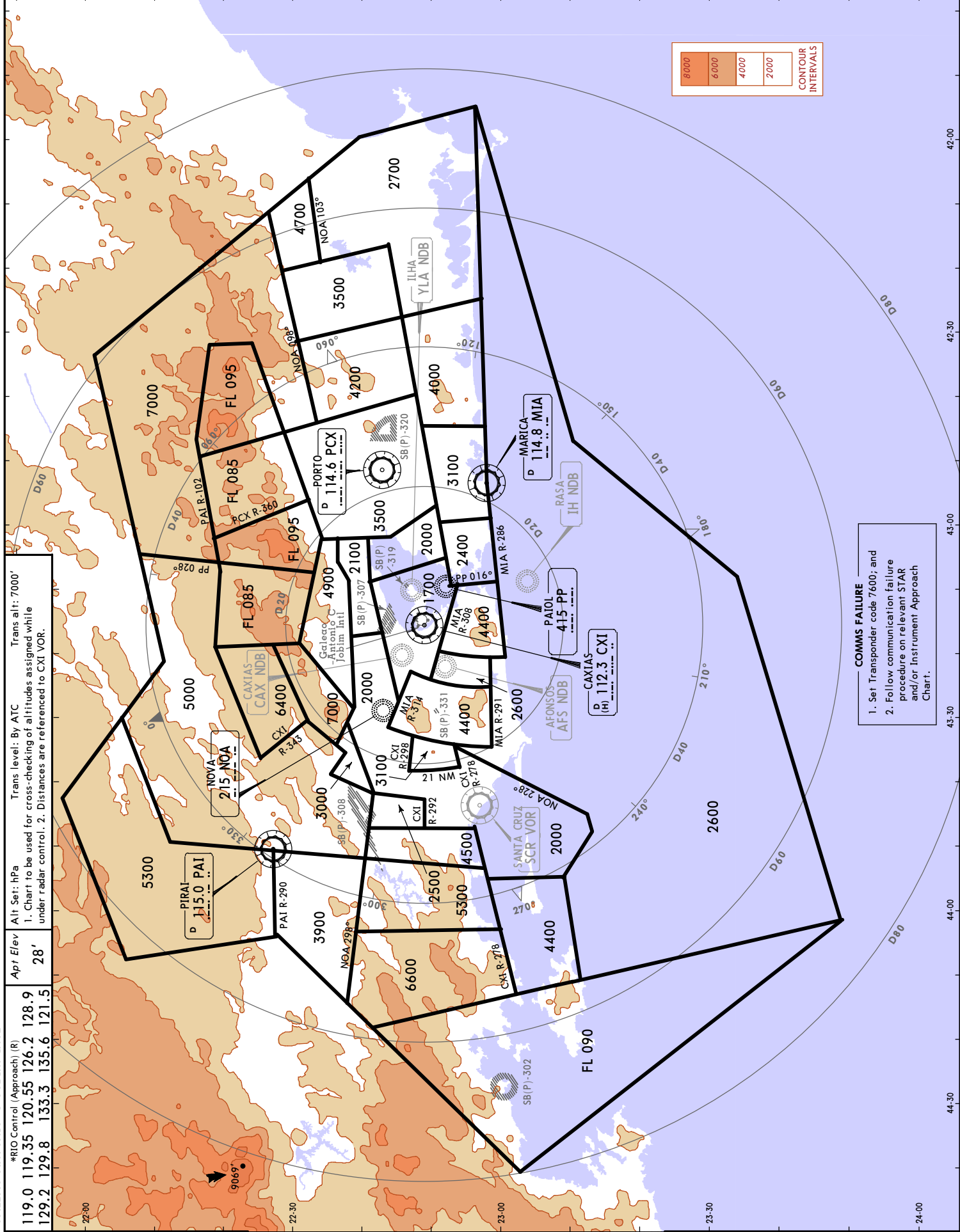
Runway: 15
Length x Width: 10433 ft x 154 ft
Surface Type: asphalt
TDZ-Elev: 16 ft
Lighting: Edge, ALS

Runway: 28
Length x Width: 13123 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 28 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 197 ft

Runway: 33
Length x Width: 10433 ft x 154 ft
Surface Type: asphalt
TDZ-Elev: 11 ft
Lighting: Edge

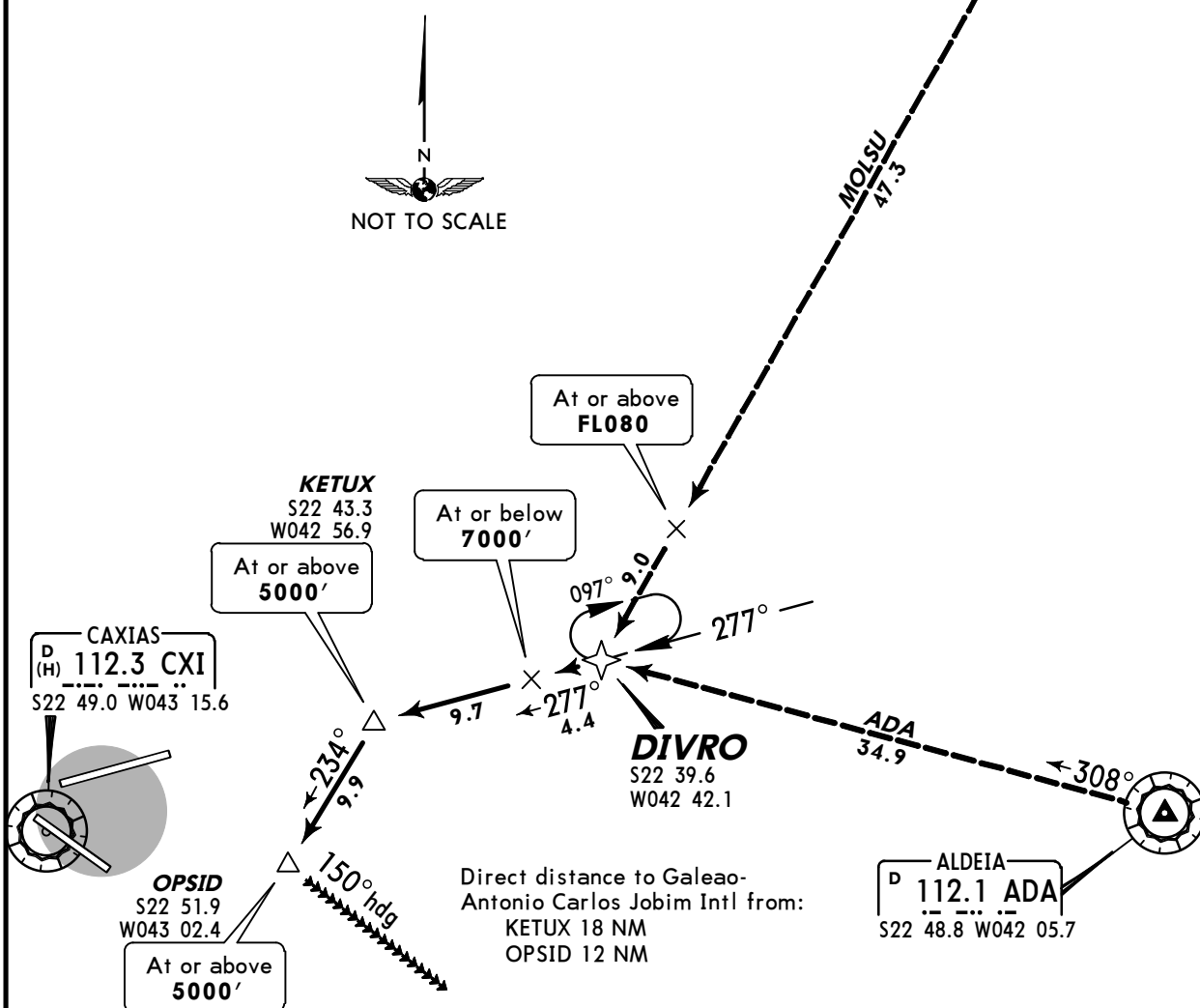
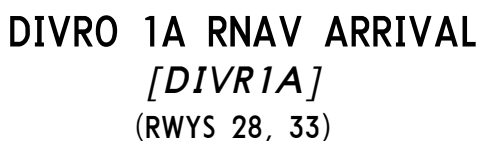
Communication Information

ATIS 127.6
Galeao Tower 118.2
Galeao Tower 118.0
Galeao Ground Control 121.65
Galeao Clearance Delivery 121.0
Rio Approach Control 134.95
Rio Approach Control 134.4
Rio Approach Control 133.3
Rio Approach Control 129.2 TCA
Rio Approach Control 128.9 TCA
Rio Approach Control 126.2
Rio Approach Control 125.95
Rio Approach Control 124.95
Rio Approach Control 121.25
Rio Approach Control 120.75
Rio Approach Control 120.55 TCA
Rio Approach Control 119.35 TCA
Rio Approach Control 119.0 TCA
Galeao Operations 122.5 Military
Galeao Operations 121.0



Alt Set: hPa Trans level: By ATC Trans alt: 7000'

1. **RNAV 1 or RNP 1.**
2. **RNAV 1: ATS surveillance system required.**
3. For aircraft not equipped with GNSS, the following DME must be operative: ADA, CXI, and PCX.



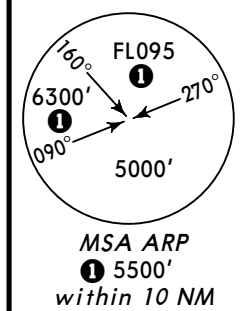
Rwy 28:
 Complete arrival until KETUX and execute procedure authorized by ATC.
 Rwy 33:
 Complete arrival until OPSID and execute procedure authorized by ATC.
 Or, if under vectors on heading 150°, MAINTAIN heading, minimum altitude
 5000' until CXI 25 DME. Then, turn RIGHT to intercept final approach.

ADA	MAINTAIN course 308° to DIVRO.
MOLSU	MAINTAIN course 232° to DIVRO.
RWY	ROUTING
28	At DIVRO, MAINTAIN course 277° to KETUX. Then, complete procedure authorized by ATC.
33	At DIVRO, MAINTAIN course 277° to KETUX. Turn LEFT, course 234° to OPSID. Then, complete procedure authorized by ATC or, on heading 150°, EXPECT vectors to final approach.

ATIS
127.6

Apt Elev
28'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
2. RNAV 1: ATS surveillance system required.
3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, MIA, and SCR.

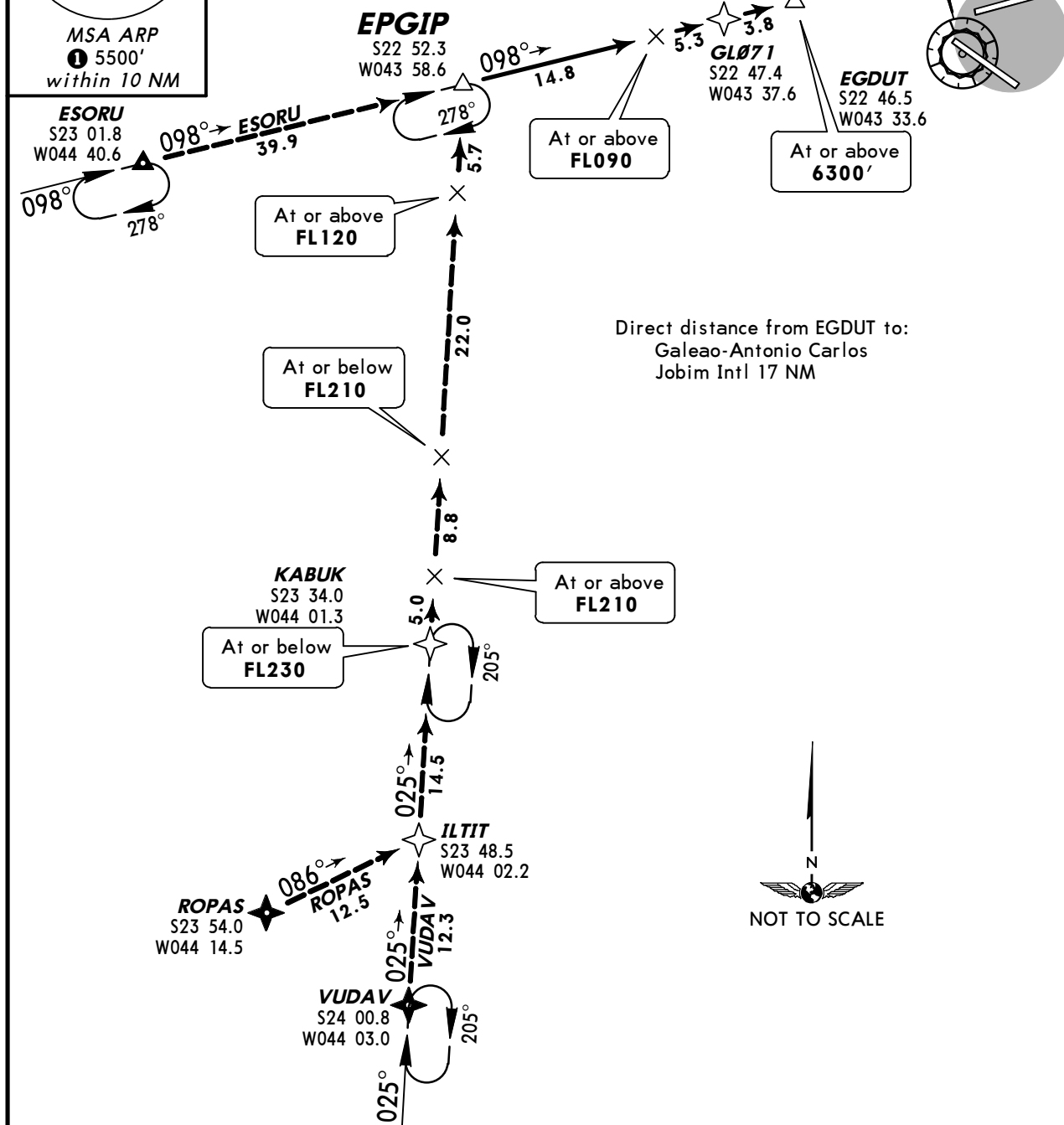


EPGIP 1A RNAV ARRIVAL

[EPG11A]

(RWY 15)

CAXIAS
D (H) 112.3 CXI
S22 49.0 W043 15.6



Complete arrival until EGDUT and execute procedure authorized by ATC.
Or, if under vectors on heading 330°, MAINTAIN heading, minimum altitude 6300' until CXI 29 DME. Then, turn RIGHT to intercept final approach.

TRANSITIONS

ESORU	MAINTAIN course 098° to EPGIP.
ROPAS	MAINTAIN course 086° to ILTIT. Turn LEFT, course 025° to EPGIP.
VUDAV	MAINTAIN course 025° to EPGIP.

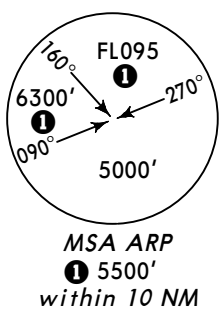
ROUTING

At EPGIP, MAINTAIN course 098° to EGDUT. Then, complete procedure authorized by ATC or, on heading 330°, EXPECT vectors to final approach.

ATIS
127.6

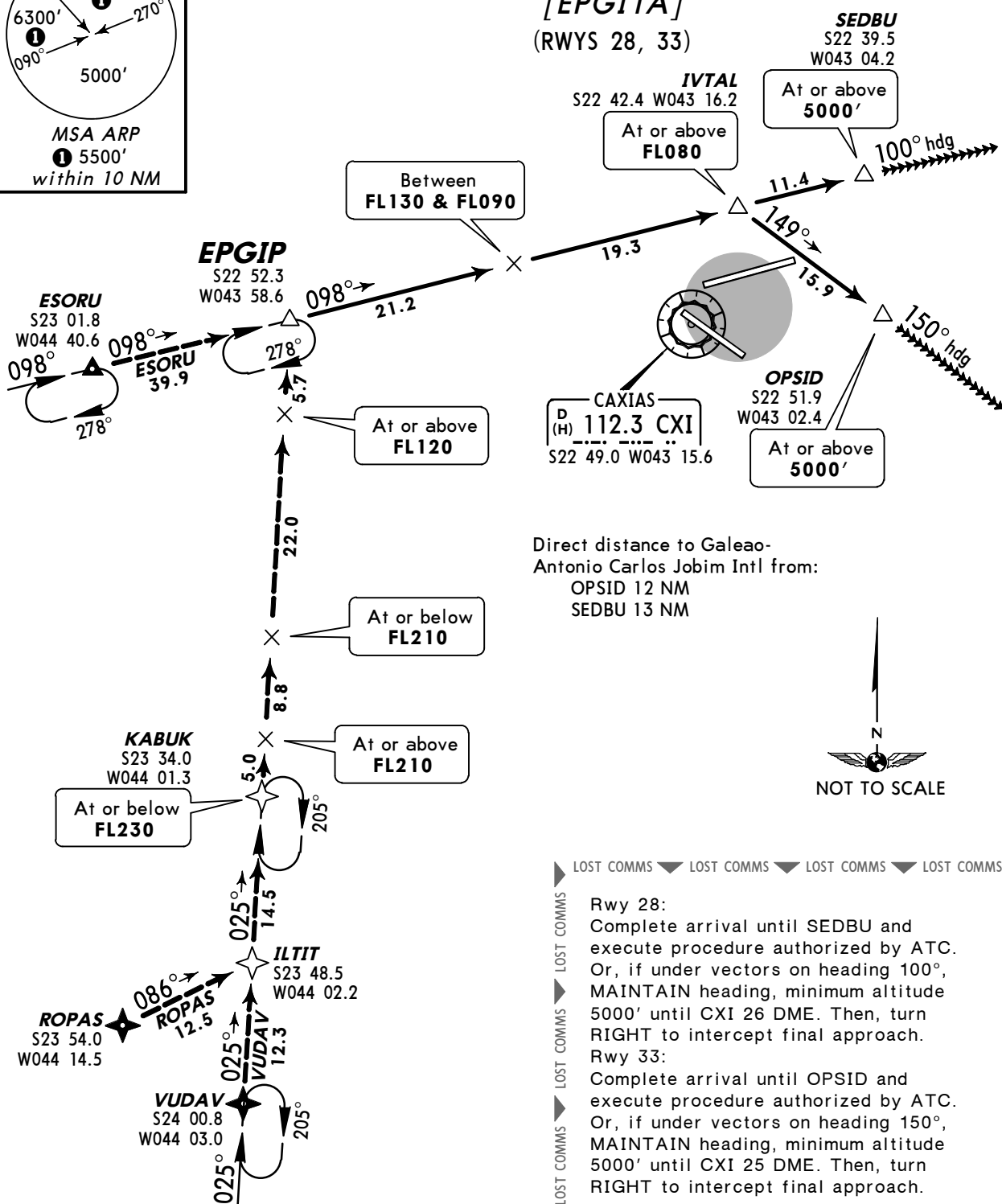
Apt Elev
28'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
2. RNAV 1: ATS surveillance system required.
3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, MIA, and SCR.



EPGIP 1A RNAV ARRIVAL

[EPG11A]
(RWYS 28, 33)



TRANSITIONS

ESORU	MAINTAIN course 098° to EPGIP.
ROPAS	MAINTAIN course 086° to ILTIT. Turn LEFT, course 025° to EPGIP.
VUDAV	MAINTAIN course 025° to EPGIP.

ROUTING

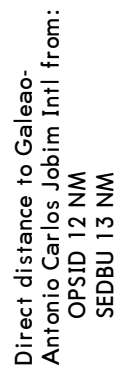
28	At EPGIP, MAINTAIN course 098° to SEDBU. Then, complete procedure authorized by ATC or, on heading 100°, EXPECT vectors to final approach.
33	At EPGIP, MAINTAIN course 098° to IVTAL. Turn RIGHT, course 149° to OPSID. Then, complete procedure authorized by ATC or, on heading 150°, EXPECT vectors to final approach.

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Alt Set: hPa Trans level: By ATC Trans alt: 7000'



(RWYS 28, 33)



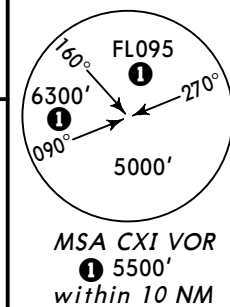
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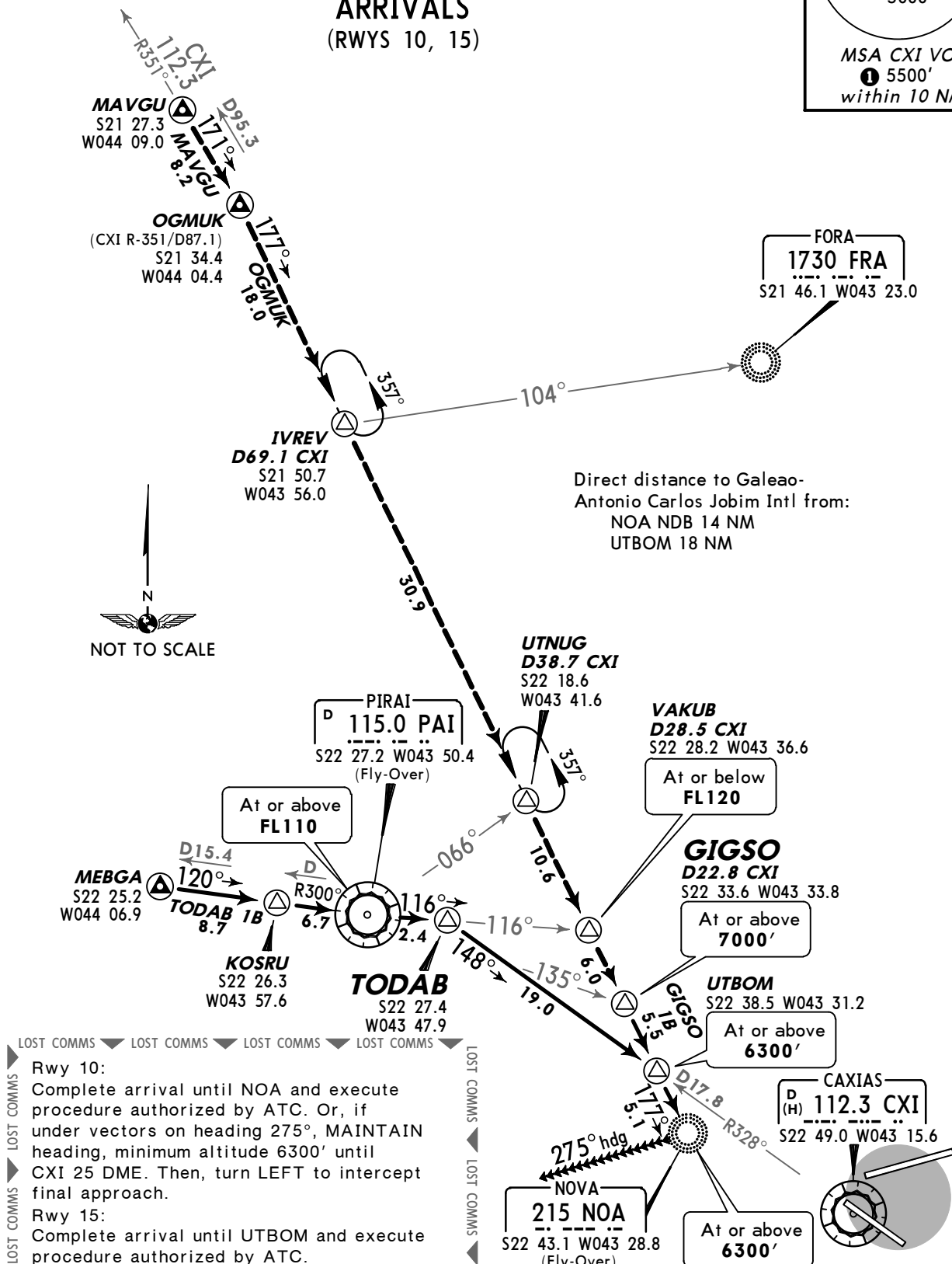
ATIS
127.6

Apt Elev
28'

Alt Set: hPa
Trans level: By ATC Trans alt: 7000'



GIGSO 1B [GIGS1B], TODAB 1B [TODA1B] ARRIVALS (RWYS 10, 15)



LOST COMMS
Rwy 10:
Complete arrival until NOA and execute procedure authorized by ATC. Or, if under vectors on heading 275°, MAINTAIN heading, minimum altitude 6300' until CXI 25 DME. Then, turn LEFT to intercept final approach.
Rwy 15:
Complete arrival until UTBOM and execute procedure authorized by ATC.

STAR	ROUTING
GIGSO 1B	MAINTAIN CXI R-351 to OGMUK. Turn RIGHT, NOA 177° bearing to UTBOM.
TODAB 1B	MAINTAIN PAI R-300 to PAI. Turn LEFT, PAI R-116 to TODAB. Then, turn RIGHT, CXI R-328 to UTBOM.
RWY	LANDING
10	At UTBOM, MAINTAIN NOA 177° bearing to NOA. Then, complete procedure authorized by ATC or, on heading 275°, EXPECT vectors to final approach.
15	At UTBOM, complete procedure authorized by ATC.

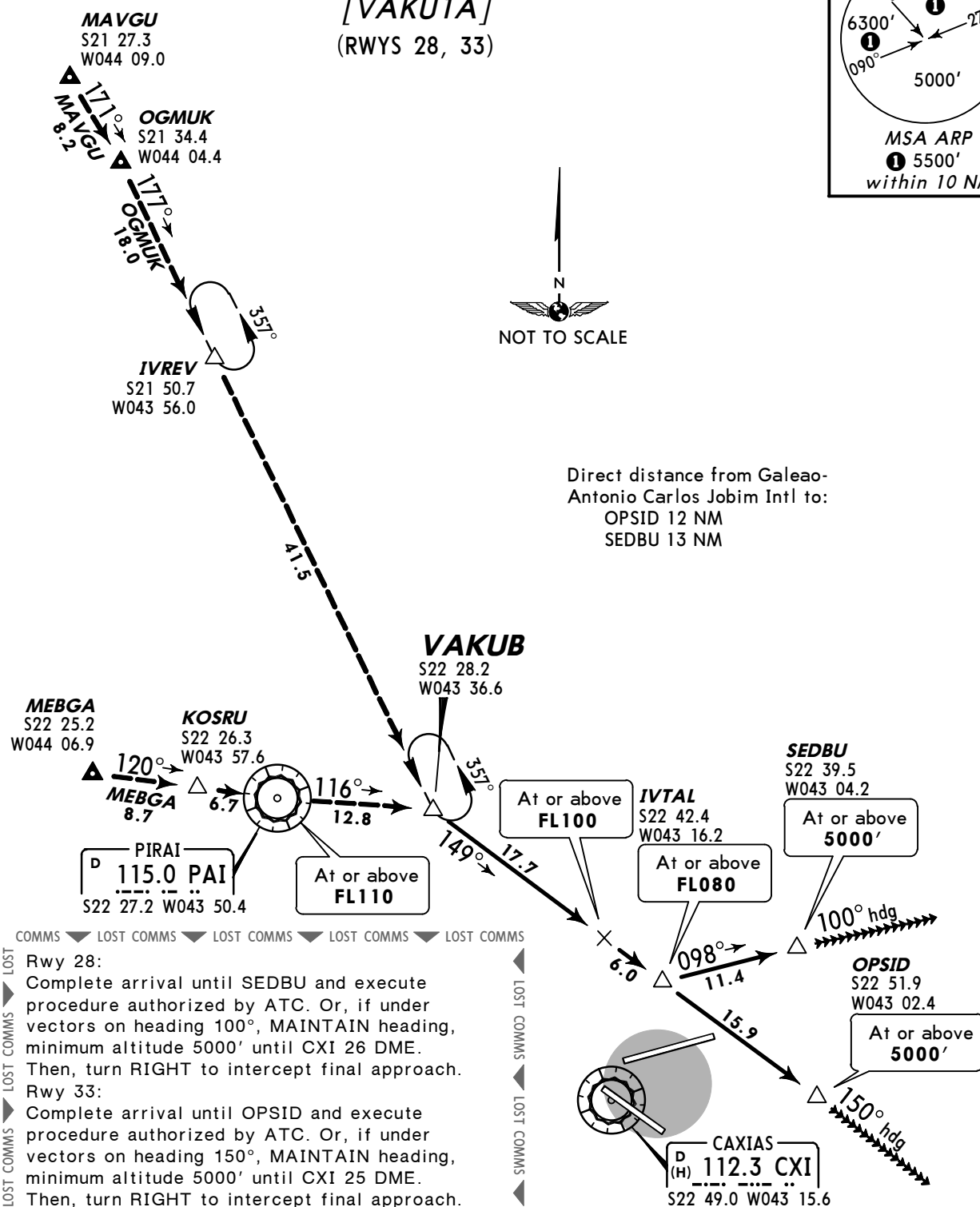
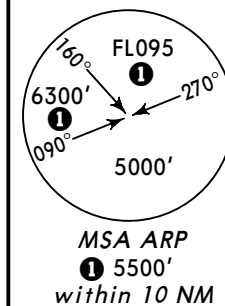
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Apt Elev
28'

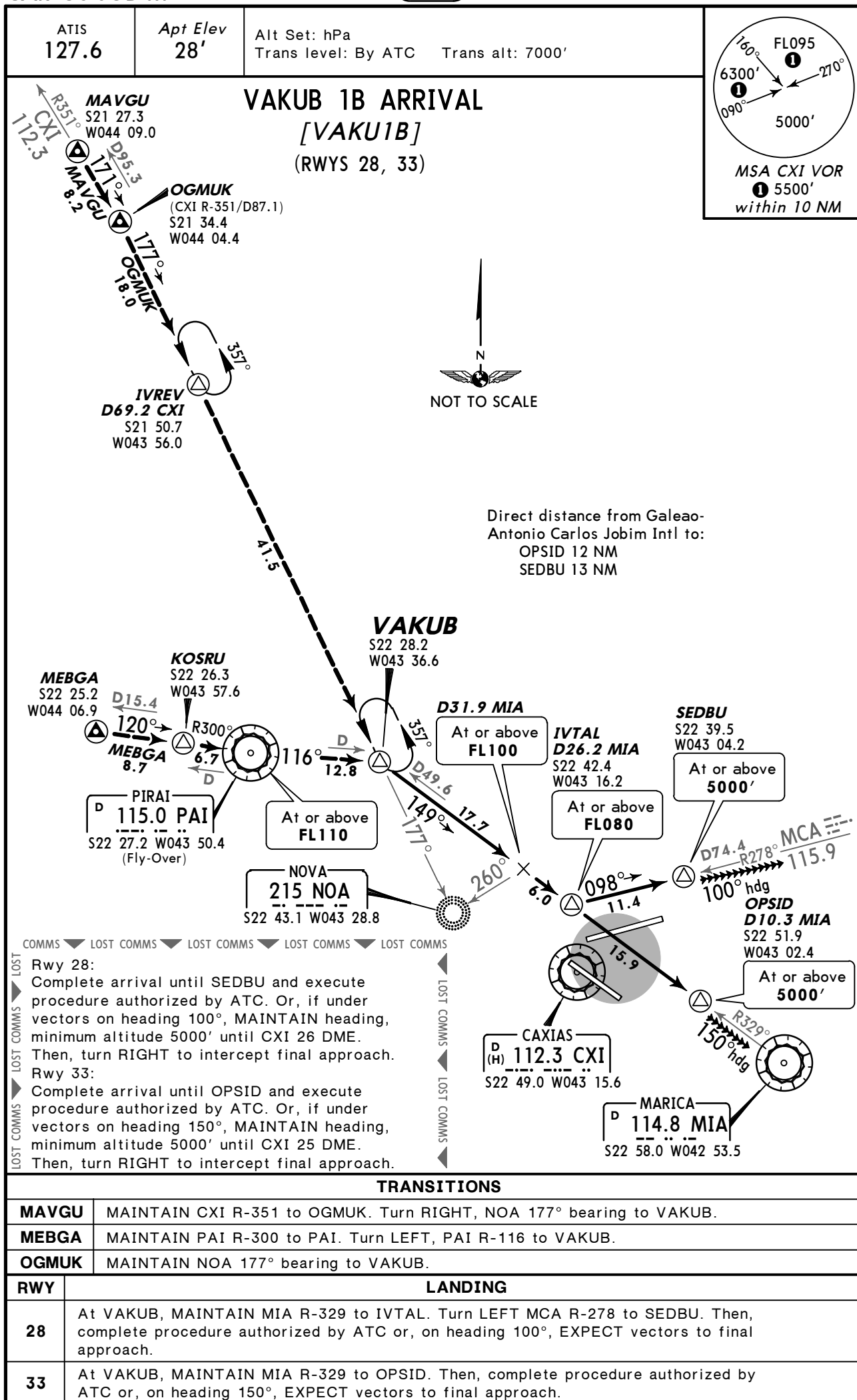
3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, PAI, and SCR.

[VAKU1A]

(RWYS 28, 33)



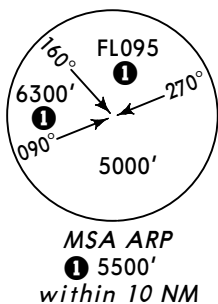
MAVGU	MAINTAIN course 171° to OGMUK. Turn RIGHT, course 177° to VAKUB.
MEBGA	MAINTAIN course 120° to PAI. Turn LEFT, course 116° to VAKUB.
OGMUK	MAINTAIN course 177° to VAKUB.
RWY	LANDING
28	At VAKUB, MAINTAIN course 149° to IVTAL. Turn LEFT, course 098° to SEDBU. Then, complete procedure authorized by ATC or, on heading 100°, EXPECT vectors to final approach.
33	At VAKUB, MAINTAIN course 149° to OPSID. Then, complete procedure authorized by ATC or, on heading 150°, EXPECT vectors to final approach.



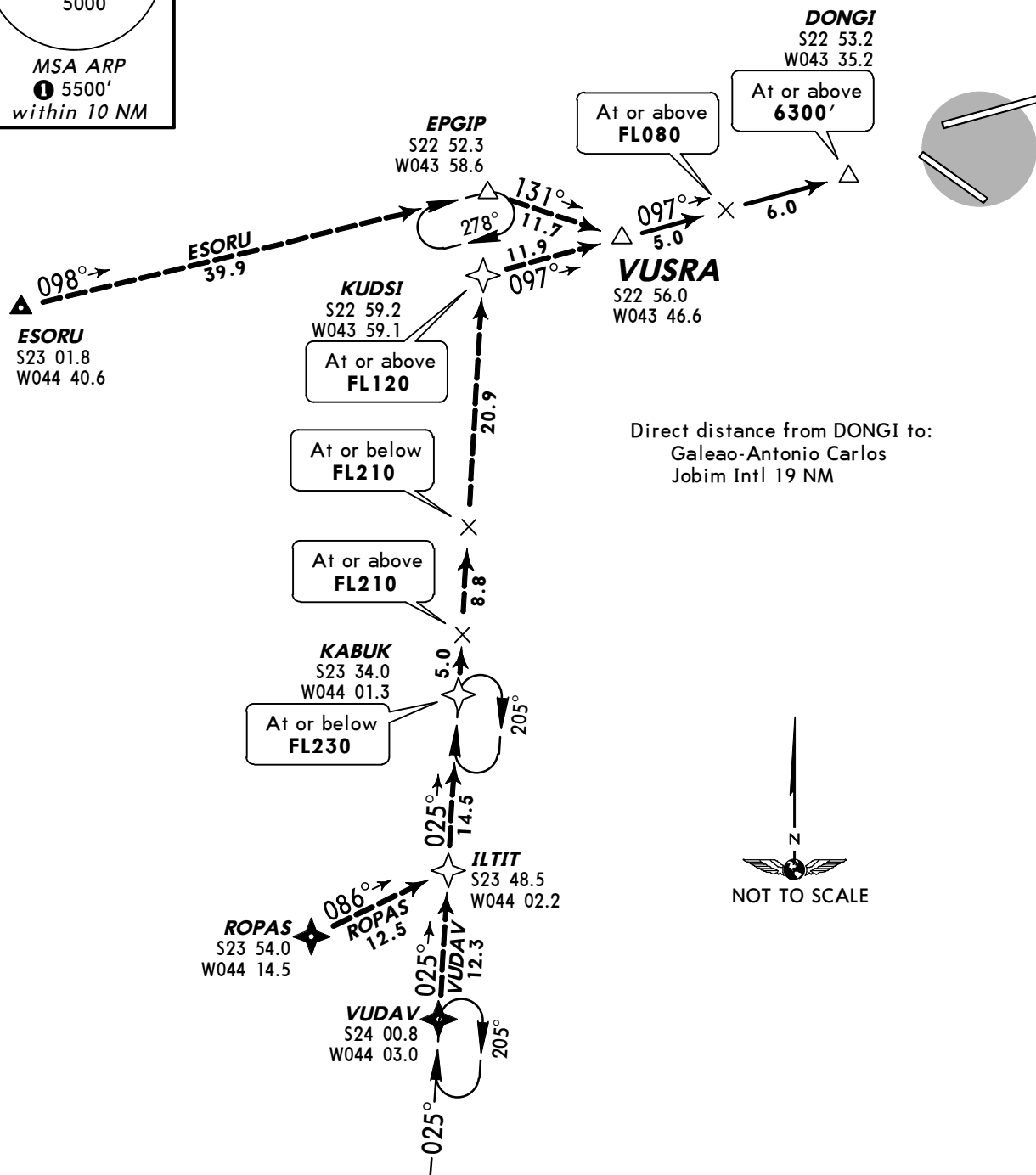
ATIS
127.6

Apt Elev
28'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
2. RNAV 1: ATS surveillance system required.
3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, PAI, and SCR.



VUSRA 1A RNAV ARRIVAL [VUSR1A] (RWY 10)



COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST
Complete arrival until DONGI and execute procedure authorized by ATC.

TRANSITIONS

ESORU	MAINTAIN course 098° to EPGIP. Turn RIGHT, course 131° to VUSRA.
ROPAS	MAINTAIN course 086° to ILTIT. Turn LEFT, course 025° to KUDSI. Turn RIGHT, course 097° to VUSRA.
VUDAV	MAINTAIN course 025° to KUDSI. Turn RIGHT, course 097° to VUSRA.

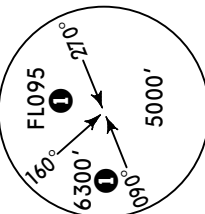
ROUTING

At VUSRA, MAINTAIN course 097° to DONGI. Then, complete procedure authorized by ATC.

ATIS
127.6

Apt Elev
28'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'

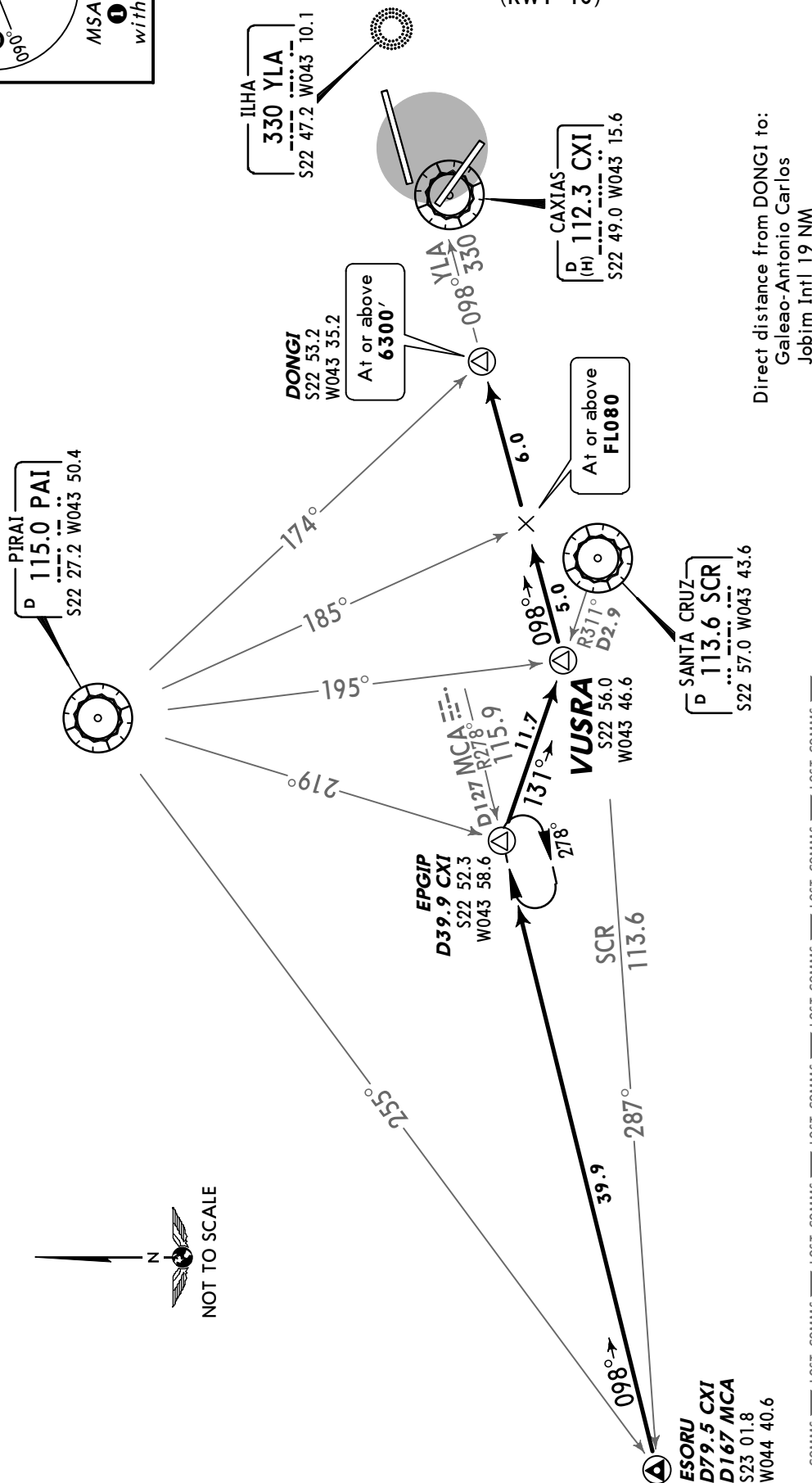


MSA CXI VOR
① 5500'
within 10 NM

VUSRA 1B ARRIVAL

[VUSR1B]

(RWY 10)



ROUTING

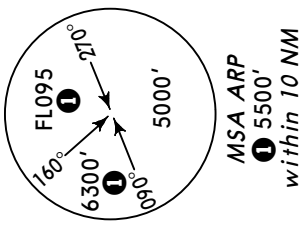
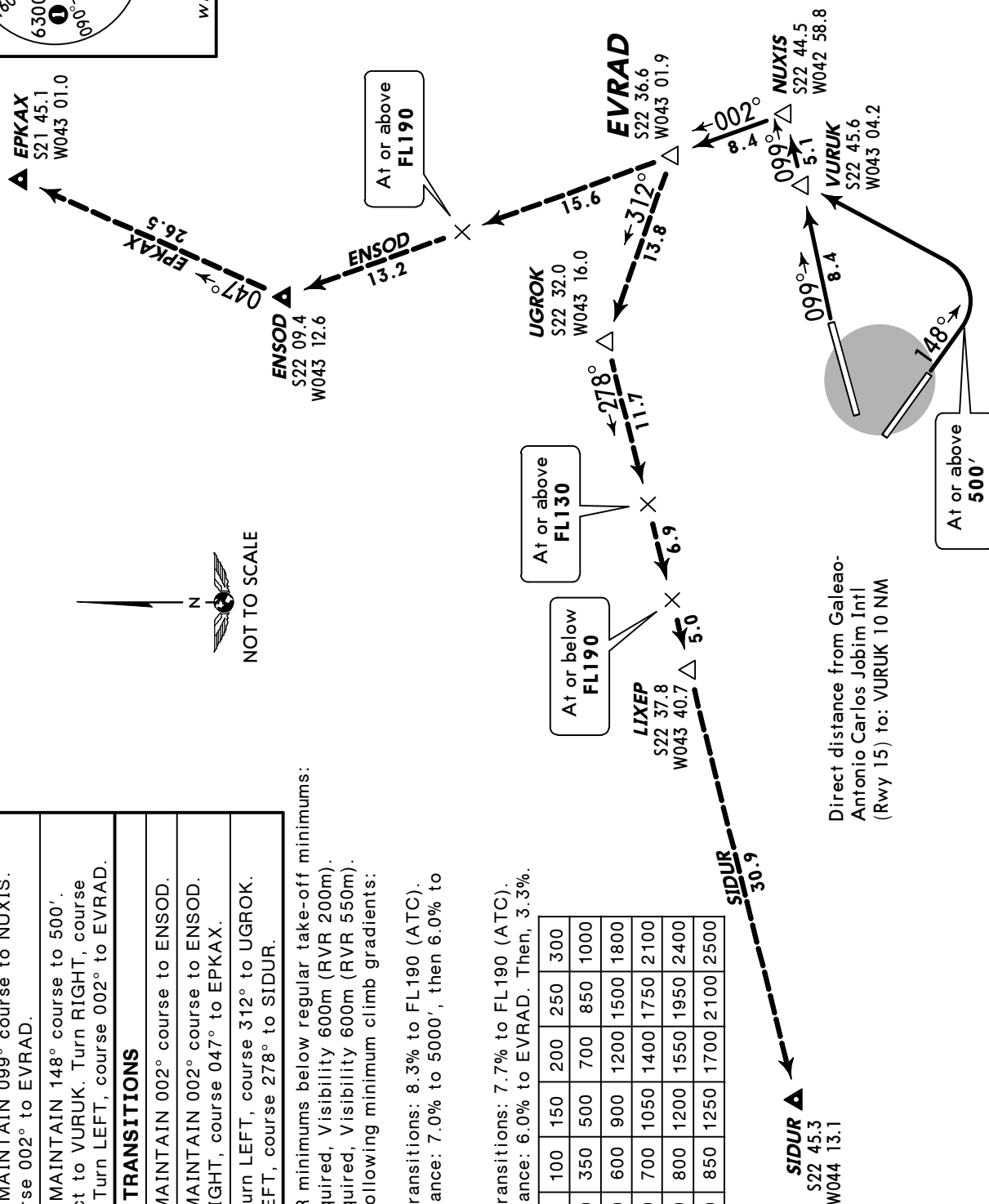
MAINTAIN MCA R-278 to EPGIP. Turn RIGHT, SCR R-311 to VUSRA. Turn LEFT, YLA 098° bearing to DONGI. Then, complete procedure authorized by ATC.

Apt Elev
28'

Trans level: By ATC Trans alt: 7000'

1. RNAV 1 or RNP 1.

2. RNAV 1: ATS surveillance system required.

3. For aircraft not equipped with GNSS, the following DME must be operative:
CXI, PCX, and SCR.EVRAD 1A RNAV DEPARTURE
[EVRA 1A]

INITIAL CLIMB

After take-off, MAINTAIN 099° course to NUXIS.
Turn LEFT, course 002° to EVRAD.After take-off, MAINTAIN 148° course to 500'.
Turn LEFT direct to VURUK. Turn RIGHT, course
099° to NUXIS. Turn LEFT, course 002° to EVRAD.

TRANSITIONS

ENSOD At EVRAD, MAINTAIN 002° course to ENSOD.

EPKAX At EVRAD, MAINTAIN 002° course to ENSOD.
Then, turn RIGHT, course 047° to EPKAX.SIDUR At EVRAD, turn LEFT, course 312° to UGROK.
Then, turn LEFT, course 278° to SIDUR.

This SID allows for IFR minimums below regular take-off minimums:

Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

Rwy 10:

ENSOD and EPKAX Transitions: 8.3% to FL190 (ATC).

Subject to ATC clearance: 7.0% to 5000', then 6.0% to
EVRAD. Then 3.3%.

Rwy 15:

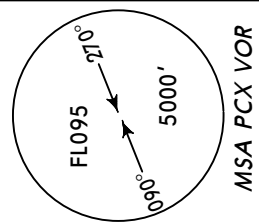
ENSOD and EPKAX Transitions: 7.7% to FL190 (ATC).

Subject to ATC clearance: 6.0% to EVRAD. Then, 3.3%.

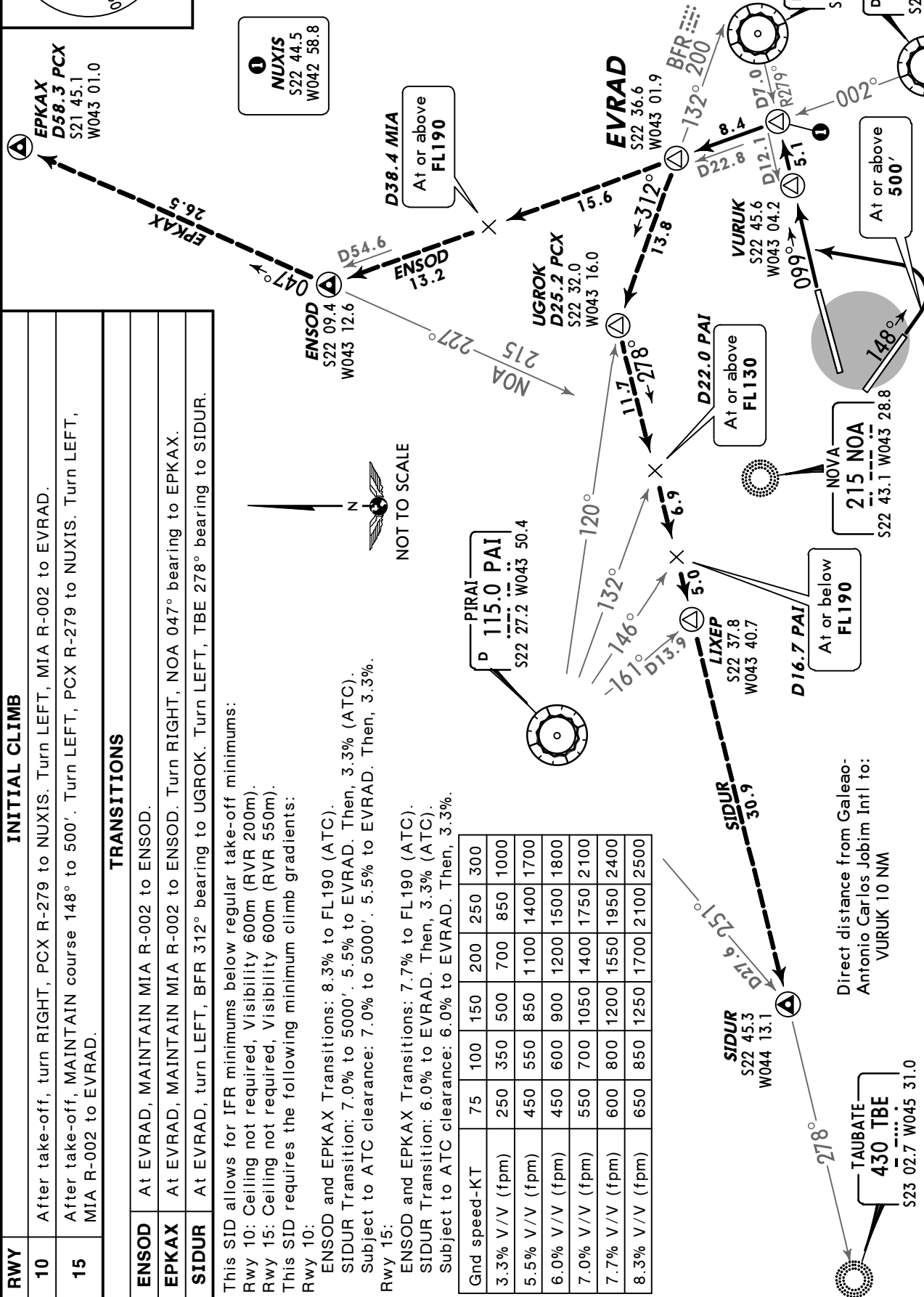
Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
6.0% V/V (fpm)	450	600	900	1200	1500	1800
7.0% V/V (fpm)	550	700	1050	1400	1750	2100
7.7% V/V (fpm)	600	800	1200	1550	1950	2400
8.3% V/V (fpm)	650	850	1250	1700	2100	2500

Direct distance from Galeao-
Antonio Carlos Jobim Intl
(Rwy 15) to: VURUK 10 NM

Trans level: By ATC Trans alt: 7000'

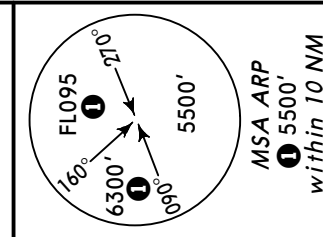


EVRA1B DEPARTURE
[EVRA1B]



3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, PCX, and SCR.

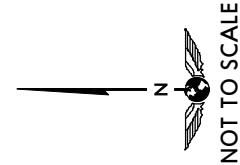
(RWYS 10, 15)



Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
6.0% V/V (fpm)	450	600	900	1200	1500	1800

MSA PCX VOR

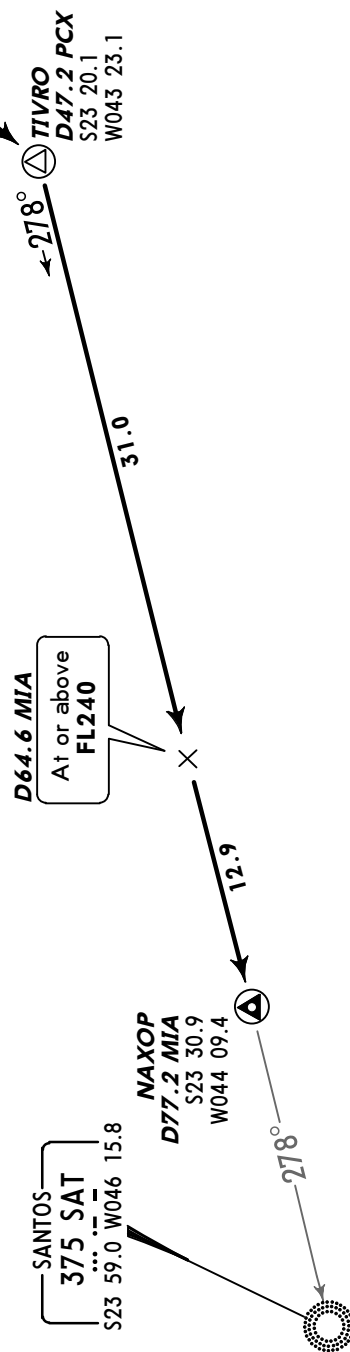
(RWYS 10, 15)



NOT TO SCALE

Grain speed (ft/min)	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
6.0% V/V (fpm)	450	600	900	1200	1500	1800

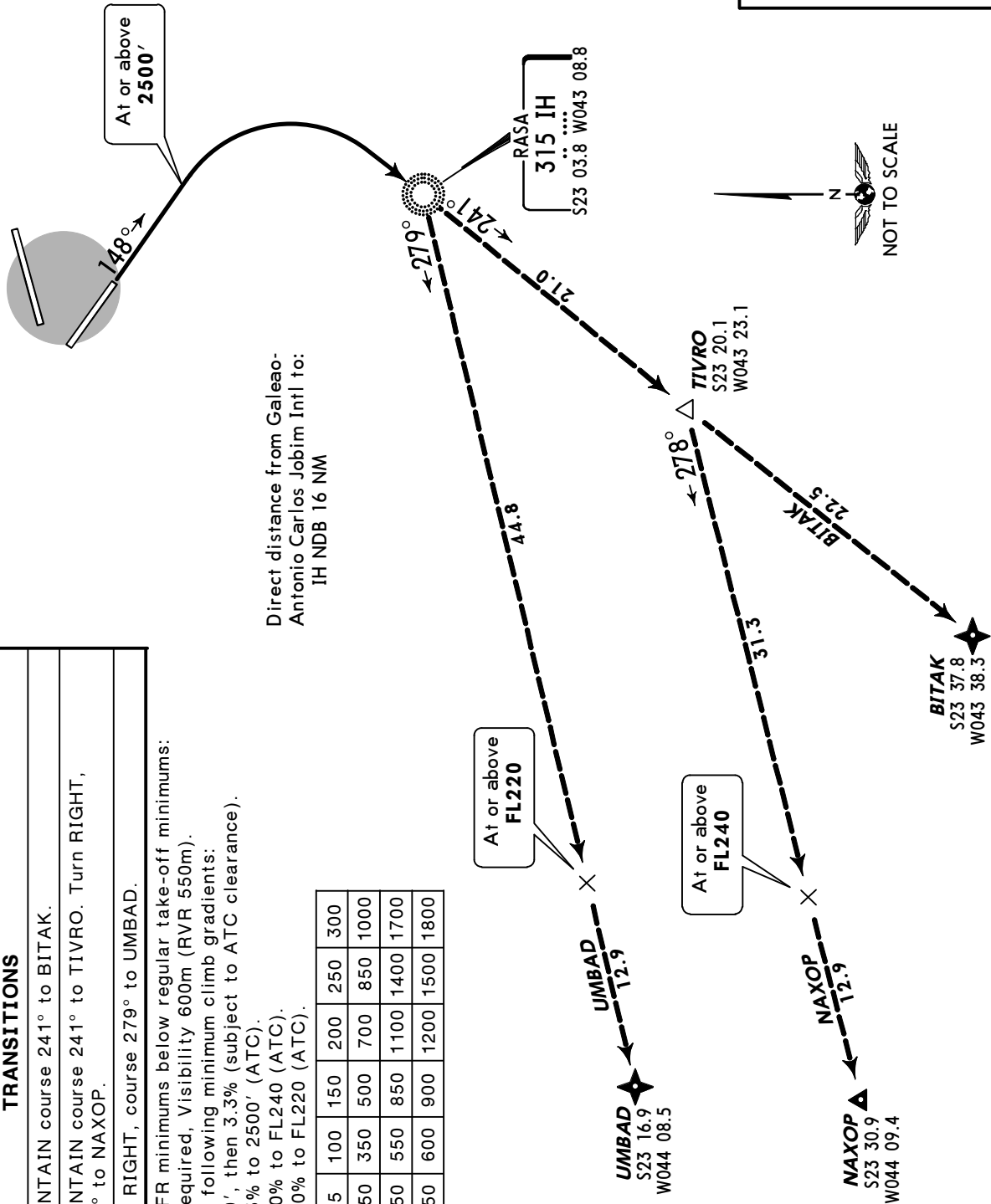
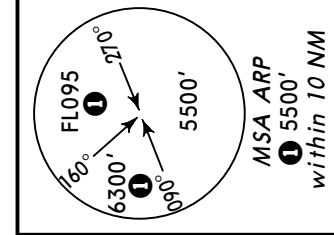
Direct distance from Galeao-
Antonio Carlos Jobim Intl to:
UTMIP 13 NM



Apt Elev
28'

- Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
 2. RNAV 1: ATS surveillance system required.
 3. For aircraft not equipped with GNSS, the following DME must be operating:
CXI, PCX, and SCR.

IH 2A RNAV DEPARTURE
[IH2A]
(RWY 15)



Direct distance from Galeao-
Antonio Carlos Jobim Intl to:
IH NDB 16 NM

INITIAL CLIMB

After take-off, passing 2500', turn RIGHT, direct to IH NDB.

TRANSITIONS

BITAK At IH, MAINTAIN course 241° to BITAK.

NAXOP At IH, MAINTAIN course 241° to TIVRO. Turn RIGHT, course 278° to NAXOP.

UMBAD At IH, turn RIGHT, course 279° to UMBAD.

This SID allows for IFR minimums below regular take-off minimums:
Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

Rwy 15: 5.5% to 2500', then 3.3% (subject to ATC clearance).

BITAK Transition: 5.5% to 2500' (ATC).

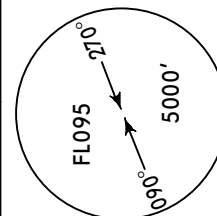
NAXOP Transition: 6.0% to FL240 (ATC).

UMBAD Transition: 6.0% to FL220 (ATC).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
6.0% V/V (fpm)	450	600	900	1200	1500	1800

Apt Elev
28'

Trans level: By ATC Trans alt: 7000'
Turns are not permitted prior to the DER.



MSA PCX VOR

IH 2B DEPARTURE [IH2B] (RWY 15)

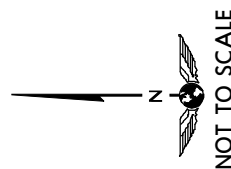
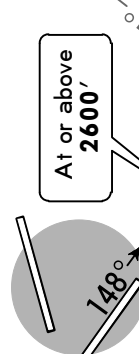
PORTO
D 114.6 PCX
S22 42.9 W042 51.4



MARICA
D 114.8 MIA
S22 58.0 W042 53.5



At or above
2600'



INITIAL CLIMB

After take-off, MAINTAIN 148° course to 2600'. Turn RIGHT, PCX R-241 to TIVRO.

TRANSITIONS

BITAK At TIVRO, MAINTAIN PCX R-241 to BITAK.

NAXOP At TIVRO, turn RIGHT, SAT 278° bearing to NAXOP.

This SID allows for IFR minimums below regular take-off minimums:

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires minimum climb gradients:

5.5% to 2600', then 3.3% (subject to ATC clearance).

NAXOP Transition: 6.0% to FL240 (ATC).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
6.0% V/V (fpm)	450	600	900	1200	1500	1800

Direct distance from Galeao-
Antonio Carlos Jobim Intl to:
TIVRO 32 NM

D64.6 MIA

At or above
FL240

D47.2

278°

TIVRO
S23 20.1
W043 23.1

22.5

BITAK

D69.7

278°

BITAK

S23 37.8
W043 38.3

SANTOS

375 SAT
S23 59.0 W046 15.8

NAXOP

D77.2 MIA
S23 30.9
W044 09.4

12.9

NAXOP

278°

BITAK

S23 37.8
W043 38.3

Apt Elev
28'

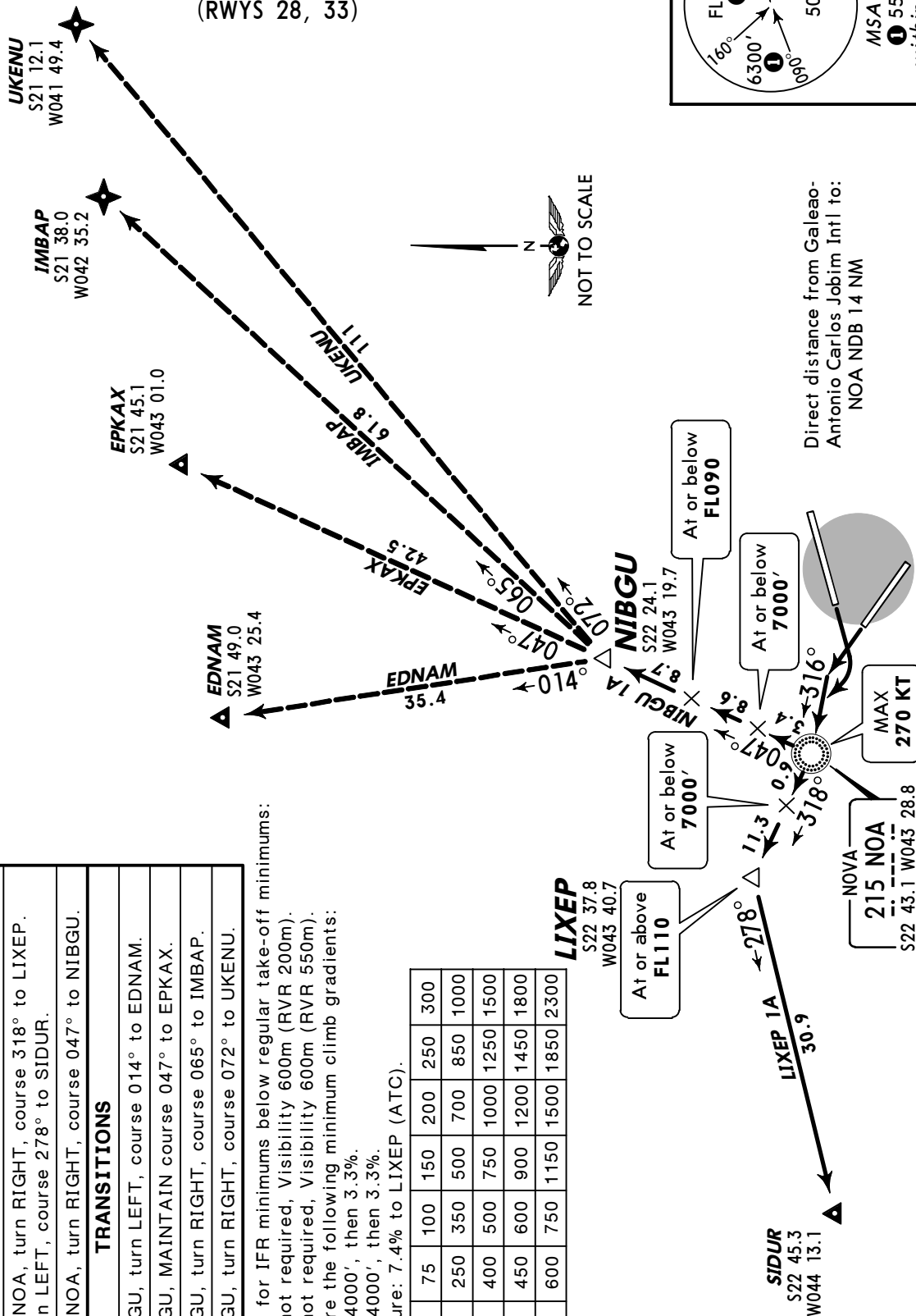
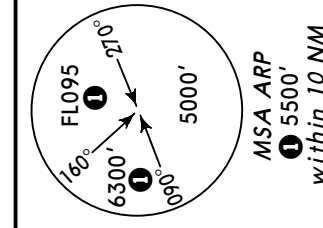
Trans level: By ATC Trans alt: 7000'

1. RNAV 1 or RNP 1.

2. RNAV 1: ATS surveillance system required.

3. For aircraft not equipped with GNSS, the following DME must be operative:
MCA, PAI, and PCX.

LIXEP 1A [LIXE1A], NIBGU 1A [NIBG1A] RNAV DEPARTURES (RWYS 28, 33)



These SIDs allow for IFR minimums below regular take-off minimums:

Rwy 28: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 33: Ceiling not required, Visibility 600m (RVR 550m).

These SIDs require the following minimum climb gradients:

Rwy 28: 5.0% to 4000', then 3.3%.

Rwy 33: 5.8% to 4000', then 3.3%.

LIXEP 1A Departure: 7.4% to LIXEP (ATC).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.0% V/V (fpm)	400	500	750	1000	1250	1500
5.8% V/V (fpm)	450	600	900	1200	1450	1800
7.4% V/V (fpm)	600	750	1150	1500	1850	2300

INITIAL CLIMB

28 After take-off, turn RIGHT, course 316° to NOA.

33 After take-off, turn LEFT, course 316° to NOA.

ROUTING

LIXEP 1A At NOA, turn RIGHT, course 318° to LIXEP.
Turn LEFT, course 278° to SIDUR.

NIBGU 1A At NOA, turn RIGHT, course 047° to NIBGU.

TRANSITIONS

EDNAM At NIBGU, turn LEFT, course 014° to EDNAM.

EPKAX At NIBGU, MAINTAIN course 047° to EPKAX.

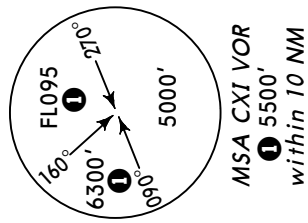
IMBAP At NIBGU, turn RIGHT, course 065° to IMBAP.

UKENU At NIBGU, turn RIGHT, course 072° to UKENU.

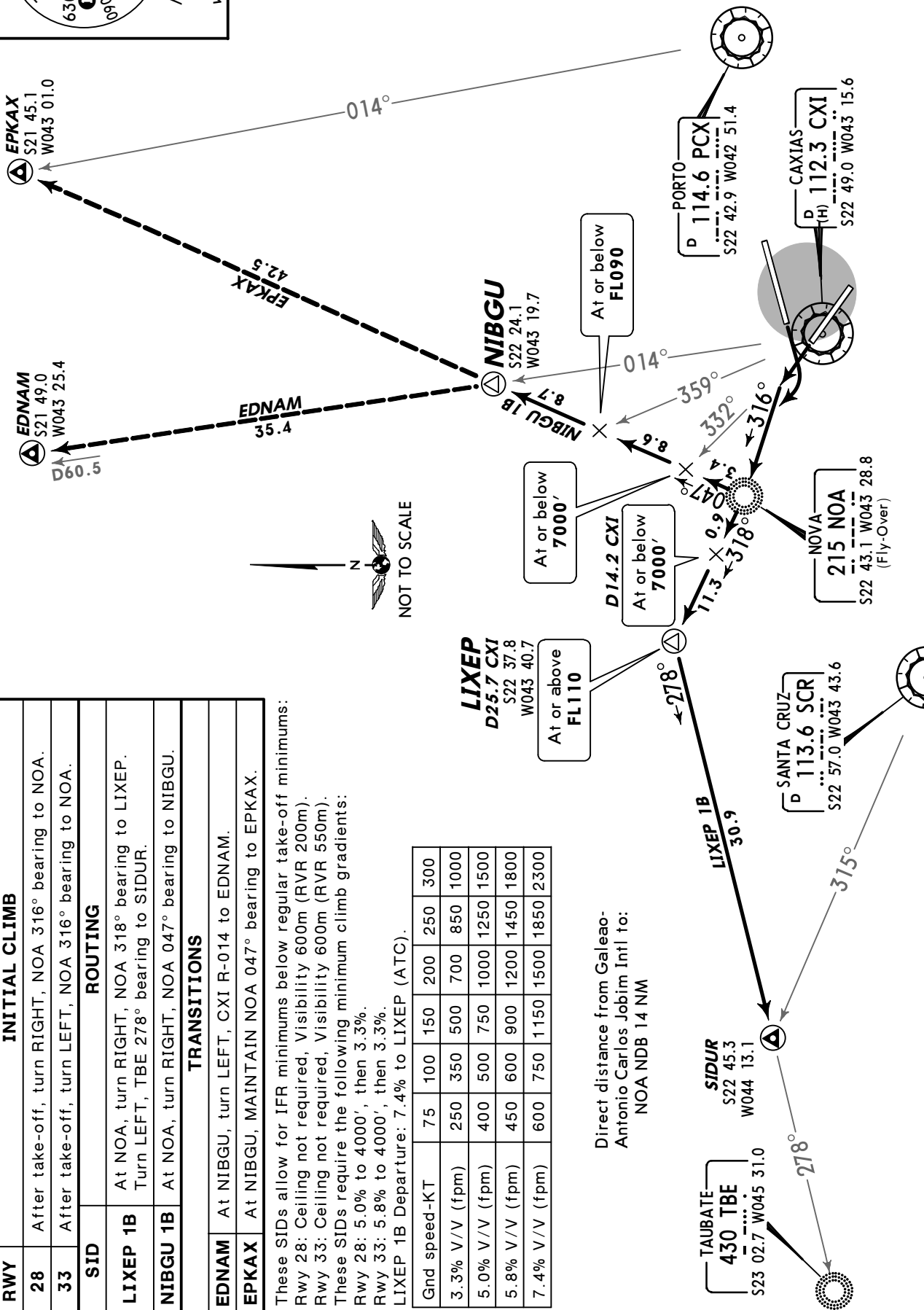


Apt Elev
28'

Trans level: By ATC Trans alt: 7000'



LIXEP 1B [LIXE1B], NIBGU 1B [NIBG1B] DEPARTURES (RWYS 28, 33)



RWY	INITIAL CLIMB
28	After take-off, turn RIGHT, NOA 316° bearing to NOA.
33	After take-off, turn LEFT, NOA 316° bearing to NOA.
SID	ROUTING
LIXEP 1B	At NOA, turn RIGHT, NOA 318° bearing to LIXEP. Turn LEFT, TBE 278° bearing to SIDUR.
NIBGU 1B	At NOA, turn RIGHT, NOA 047° bearing to NIBGU.
TRANSITIONS	
EDNAM	At NIBGU, turn LEFT, CXI R-014 to EDNAM.
EPKAX	At NIBGU, MAINTAIN NOA 047° bearing to EPKAX.

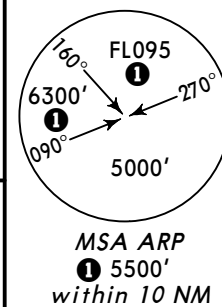
These SIDs allow for IFR minimums below regular take-off minimums:
Rwy 28: Ceiling not required, Visibility 600m (RVR 200m).
Rwy 33: Ceiling not required, Visibility 600m (RVR 550m).
These SIDs require the following minimum climb gradients:
Rwy 28: 5.0% to 4000', then 3.3%.
Rwy 33: 5.8% to 4000', then 3.3%.
LIXEP 1B Departure: 7.4% to LIXEP (ATC).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.0% V/V (fpm)	400	500	750	1000	1250	1500
5.8% V/V (fpm)	450	600	900	1200	1450	1800
7.4% V/V (fpm)	600	750	1150	1500	1850	2300

Direct distance from Galeao-Antonio Carlos Jobim Intl to:
NOA NDB 14 NM

Apt Elev
28'

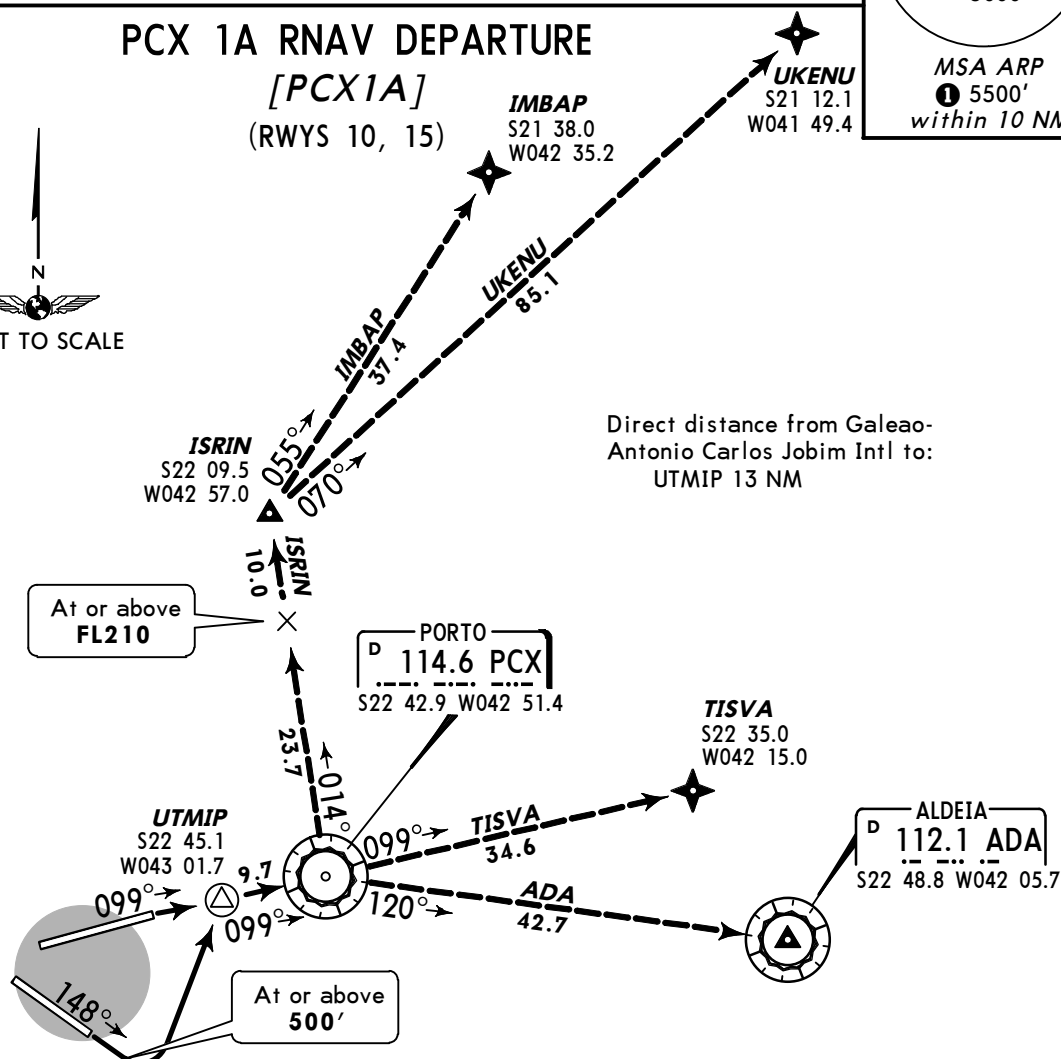
- Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
 2. RNAV 1: ATS surveillance system required.
 3. For aircraft not equipped with GNSS, the following DME must be operative: ADA, MCA, MIA, and PCX.
 4. Rwy 15: Turns are not permitted prior to the DER.



PCX 1A RNAV DEPARTURE

[PCX1A]

(RWYS 10, 15)



This SID allows for IFR minimums below regular take-off minimums:

Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

IMBAP, ISRIN, and UKENU Transitions: 7.3% to FL210 (ATC).

Rwy 10:

ADA and TISVA Transitions: 3.3%.

IMBAP, ISRIN, and UKENU Transitions: 3.3% (subject to ATC clearance).

Rwy 15:

ADA and TISVA Transitions: 5.5% to 500', then 3.3%.

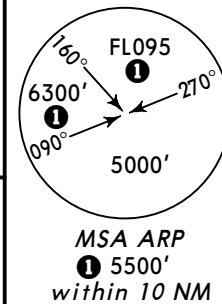
IMBAP, ISRIN, and UKENU Transitions: 5.5% to 500'. Then, 3.3% (subject to ATC clearance).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
7.3% V/V (fpm)	550	750	1100	1500	1850	2200

RWY	INITIAL CLIMB
10	After take-off, turn RIGHT, course 099° to PCX.
15	After take-off, MAINTAIN course 148° to 500'. Turn LEFT, direct to UTMIP. Turn RIGHT, course 099° to PCX.
TRANSITIONS	
ADA	At PCX, turn RIGHT, course 120° to ADA.
IMBAP	At PCX, turn LEFT, course 014° to ISRIN. Then, turn RIGHT, course 055° to IMBAP.
ISRIN	At PCX, turn LEFT, course 014° to ISRIN.
TISVA	At PCX, MAINTAIN course 099° to TISVA.
UKENU	At PCX, turn LEFT, course 014° to ISRIN. Then, turn RIGHT, course 070° to UKENU.

Apt Elev
28'

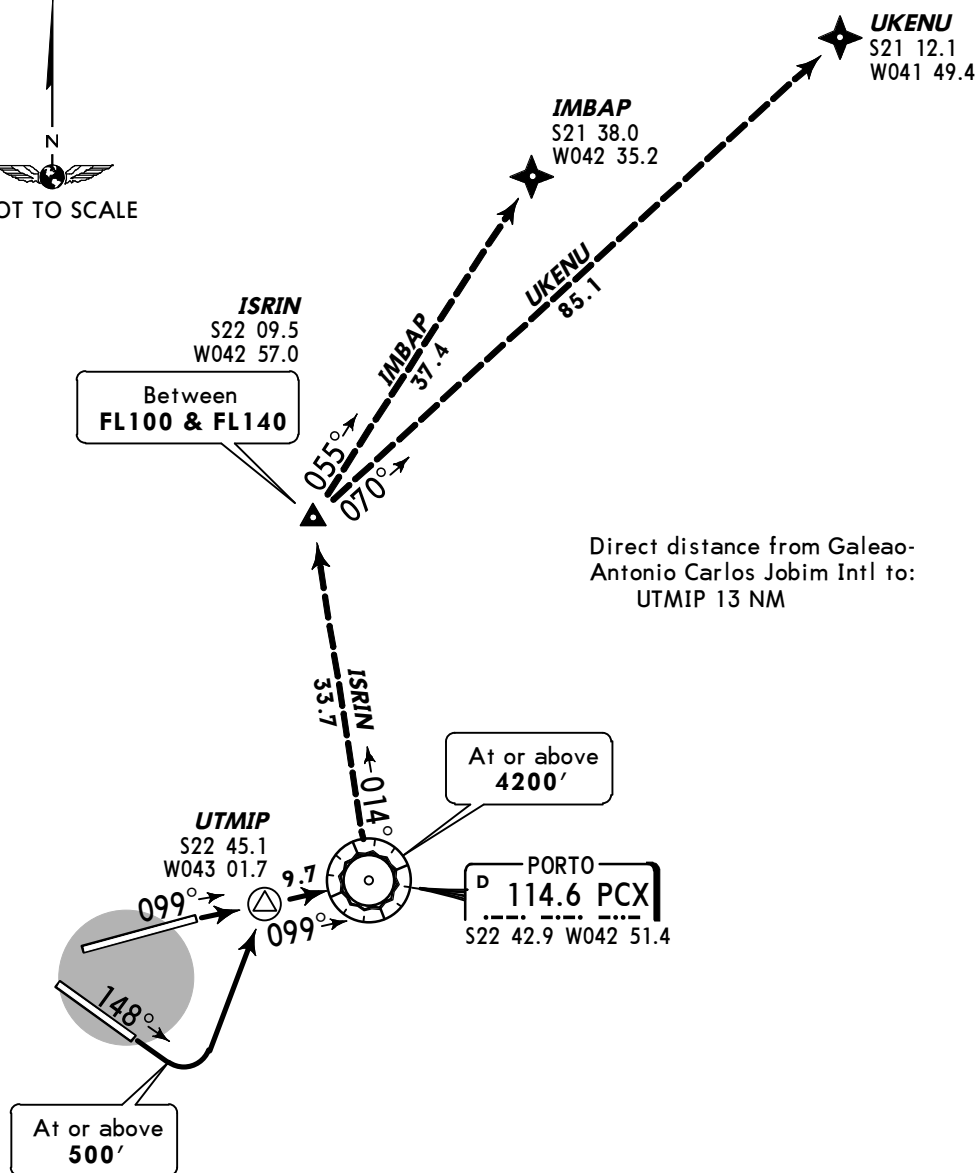
- Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
 2. RNAV 1: ATS surveillance system required.
 3. For aircraft not equipped with GNSS, the following DME must be operative: MCA, MIA, and PCX.
 4. Rwy 15: Turns are not permitted prior to the DER.



PCX 2A RNAV DEPARTURE

[PCX2A]

(RWYS 10, 15)



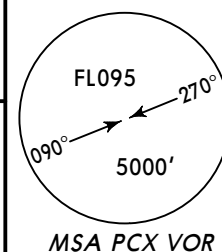
This SID allows for IFR minimums below regular take-off minimums:
Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).
Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).
This SID requires a minimum climb gradient of 3.3%.

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000

RWY	INITIAL CLIMB
10	After take-off, turn RIGHT, course 099° to PCX.
15	After take-off, MAINTAIN course 148° to 500'. Turn LEFT, direct to UTMIP. Turn RIGHT, course 099° to PCX.
TRANSITIONS	
IMBAP	At PCX, turn LEFT, course 014° to ISRIN. Then, turn RIGHT, course 055° to IMBAP.
ISRIN	At PCX, turn LEFT, course 014° to ISRIN.
UKENU	At PCX, turn LEFT, course 014° to ISRIN. Then, turn RIGHT, course 070° to UKENU.

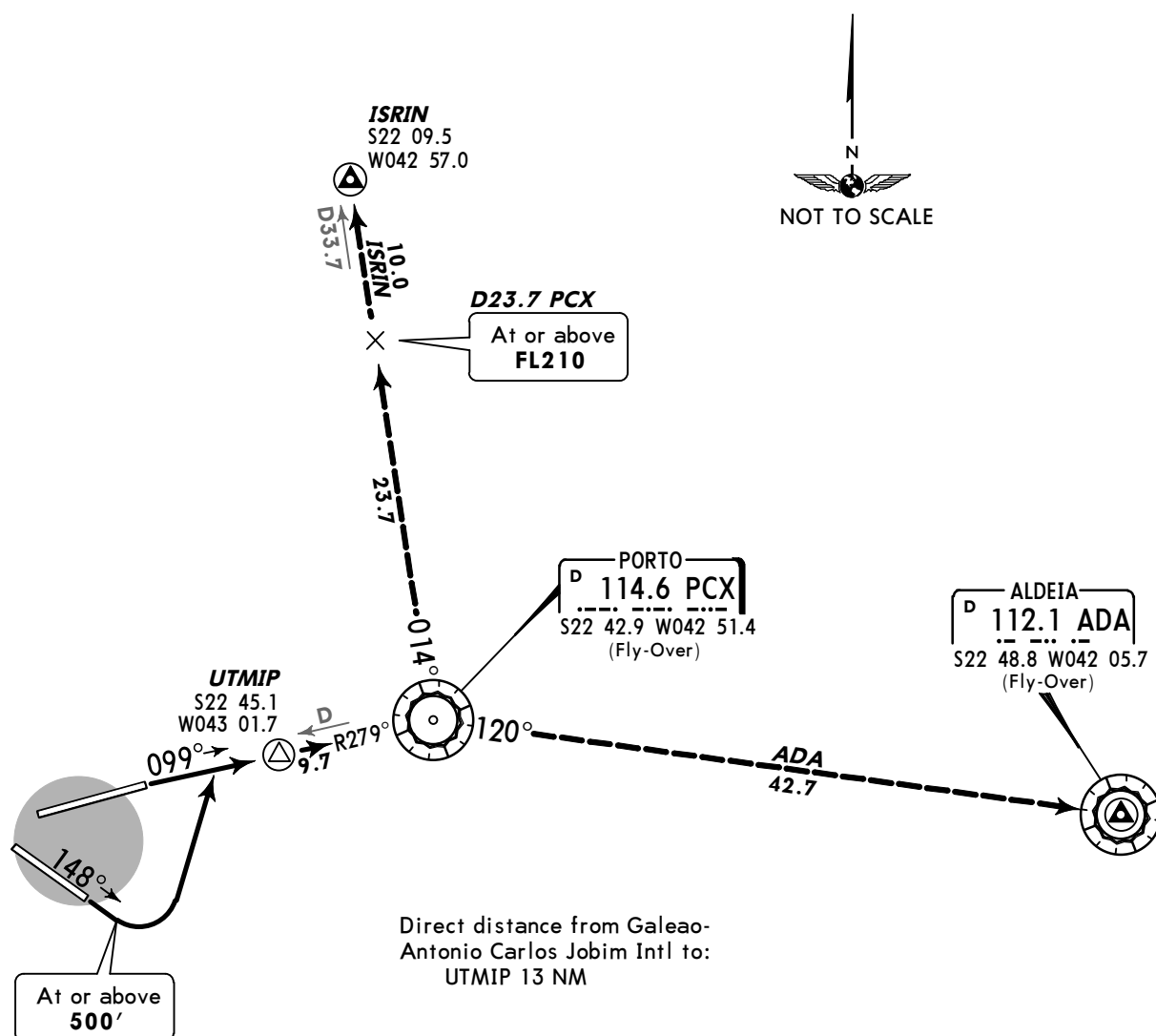
Apt Elev
28'

Trans level: By ATC Trans alt: 7000'
Rwy 15: Turns are not permitted prior to the DER.



PCX 1B DEPARTURE

[PCX1B]
(RWYS 10, 15)



This SID allows for IFR minimums below regular take-off minimums:

Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

Rwy 15: 5.5% to 500'. Then, 3.3% (subject to ATC clearance).

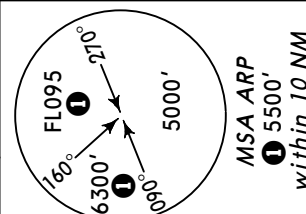
ISRIN Transition: 7.3% to FL210 (ATC).

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.5% V/V (fpm)	450	550	850	1100	1400	1700
7.3% V/V (fpm)	550	750	1100	1500	1850	2200

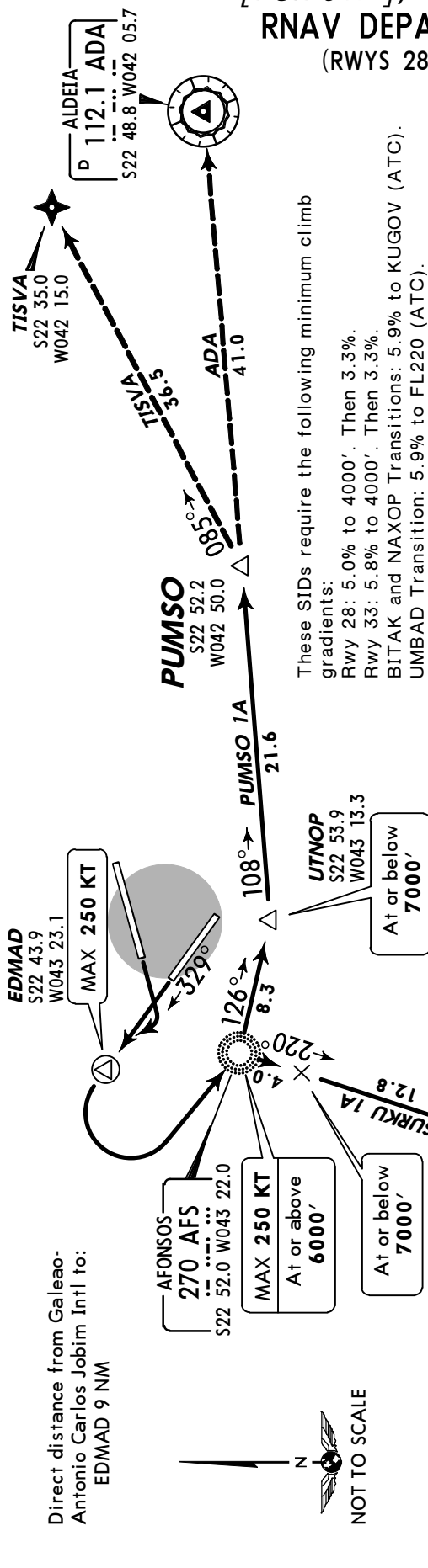
RWY	INITIAL CLIMB
10	After take-off, turn RIGHT, PCX R-279 to PCX.
15	After take-off, MAINTAIN course 148° to 500'. Turn LEFT, PCX R-279 to PCX.
TRANSITIONS	
ADA	At PCX, turn RIGHT, PCX R-120 to ADA.
ISRIN	At PCX, turn LEFT, PCX R-014 to ISRIN.

Apt Elev
28'

Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
2. RNAV 1: ATS surveillance system required.
3. For aircraft not equipped with GNSS, the following DME must be operative: CXI, MCA, PAI, and PCX.



PUMSO 1A [PUMS1A], SURKU 1A [SURK1A] RNAV DEPARTURES (RWYS 28, 33)



Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.0% V/V (fpm)	400	500	750	1000	1250	1500
5.8% V/V (fpm)	450	600	900	1200	1450	1800
5.9% V/V (fpm)	450	600	900	1200	1500	1800

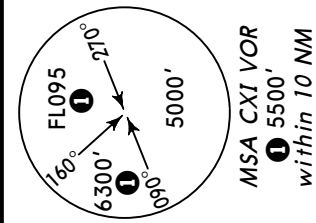
These SIDs allow for IFR minimums below regular take-off minimums:
Rwy 28: Ceiling not required, Visibility 600m (RVR 200m).
Rwy 33: Ceiling not required, Visibility 600m (RVR 550m).

INITIAL CLIMB	
RWY	
28	After take-off, turn RIGHT, course 329° to EDMAD. Turn LEFT, direct to AFS.
33	After take-off, course 329° to EDMAD. Turn LEFT, direct to AFS.
ROUTING	
SID	
PUMSO 1A	At AFS, turn LEFT, course 126° to UTNOP. Turn LEFT, course 108° to PUMSO.
SURKU 1A	At AFS, turn RIGHT, course 220° to SURKU.
TRANSITIONS	
ADA	At PUMSO, MAINTAIN course 108° to ADA.
BITAK	At SURKU, MAINTAIN course 220° to BITAK.
NAXOP	At SURKU, MAINTAIN course 220° to KUGOV. Turn RIGHT, course 278° to NAXOP.
TISVA	At PUMSO, turn LEFT, course 085° to TISVA.
UMBAD	At SURKU, turn RIGHT, course 279° to UMBAD.

Apt Elev
28'

Trans level: By ATC Trans alt: 7000'

PUMSO 1B [PUMS1B], SURKU 1B [SURK1B] DEPARTURES (RWYS 28, 33)



ALDEIA
D 112.1 ADA
S22 48.8 W042 05.7
(Fly-Over)

PUMSO 1B
41.0
R288°

CAXIAS
D 112.3 CXI
S22 49.0 W043 15.6

PUMSO
S22 52.2
W042 50.0

UTNOP
S22 53.9 W043 13.3

RASA
315 IH
S23 03.8 W043 08.8

AFONSOS
270 AFS
S22 52.0 W043 22.0
(Fly-Over)

SANTA CRUZ
D 113.6 SCR
S22 57.0 W043 43.6

SURKU
S23 08.0
W043 27.7

KUGOV
S23 22.4
W043 32.8

NAXOP
S23 30.9
W044 09.4

SANTOS
375 SAT
S23 59.0 W046 15.8

At or below
7000'

At or below
7000'

At or below
7000'

At or above
6000'

At or above
FL240

At or above
FL240

At or above
FL240

At or above
FL240

At or above
FL240

At or above
FL240

At or above
FL240

These SIDs require the following minimum climb gradients:
Rwy 28: 5.0% to 4000'. Then, 3.3%.
Rwy 33: 5.8% to 4000'. Then, 3.3%.

SURKU 1B Departure: 5.9% to KUGOV (ATC).
Gradients subject to ATC clearance:
SURKU 1B Departure:
Rwy 28: 5.0% to 4000'. Then, 3.3%.
Rwy 33: 5.8% to 4000'. Then, 3.3%.

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
5.0% V/V (fpm)	400	500	750	1000	1250	1500
5.8% V/V (fpm)	450	600	900	1200	1450	1800
5.9% V/V (fpm)	450	600	900	1200	1500	1800

These SIDs allow for IFR minimums below regular take-off minimums:
Rwy 28: Ceiling not required, Visibility 600m (RVR 200m).
Rwy 33: Ceiling not required, Visibility 600m (RVR 550m).

INITIAL CLIMB

RWY 28 After take-off, turn RIGHT, CXI R-329 to EDMAD. Then, turn LEFT, direct to AFS.
RWY 33 After take-off, MAINTAIN CXI R-329 to EDMAD. Then, turn LEFT, direct to AFS.

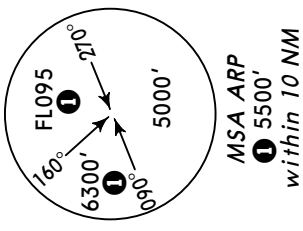
ROUTING

SID	ROUTING
PUMSO 1B	At AFS, turn LEFT, AFS 126° bearing to UTNOP. Turn LEFT, ADA R-288 to ADA.
SURKU 1B	At AFS, turn RIGHT, AFS 220° bearing to KUGOV. Turn RIGHT, SAT 278° bearing to NAXOP.

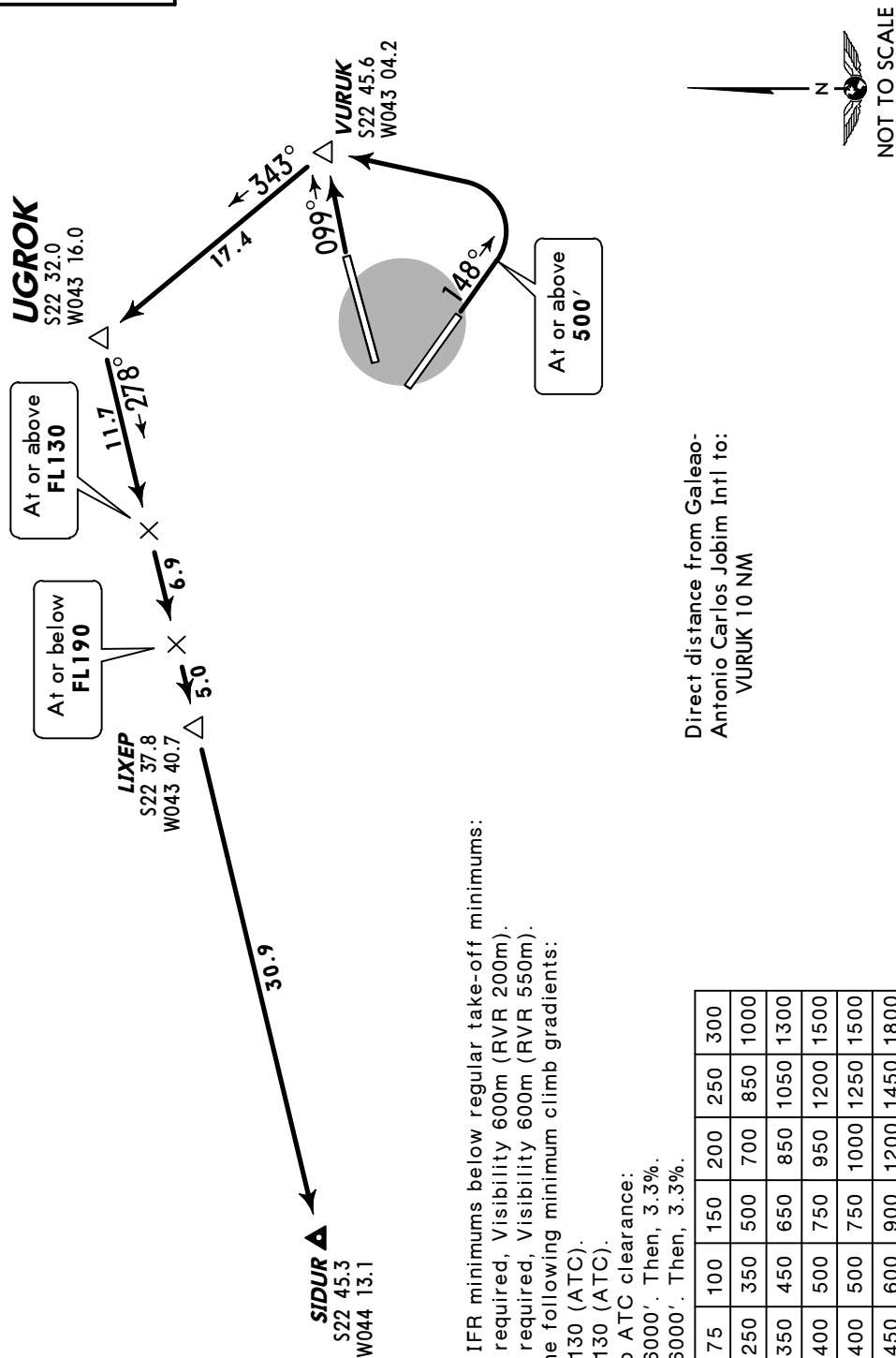
NOT TO SCALE

Apt Elev
28'

Trans level: By ATC Trans alt: 7000'
1. RNAV 1 or RNP 1.
2. RNAV 1: ATS surveillance system required.
3. For aircraft not equipped with GNSS, the following DME must be operative:
CXI, PCX, and SCR.



UGROK 1A RNAV DEPARTURE [UGRO1A] (RWYS 10, 15)



Direct distance from Galeao-
Antonio Carlos Jobim Intl to:
VURUK 10 NM

This SID allows for IFR minimums below regular take-off minimums:

Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

Rwy 10: 5.8% to FL130 (ATC).

Rwy 15: 5.0% to FL130 (ATC).

Gradients subject to ATC clearance:

Rwy 10: 4.7% to 6000'. Then, 3.3%.

Rwy 15: 4.1% to 6000'. Then, 3.3%.

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
4.1% V/V (fpm)	350	450	650	850	1050	1300
4.7% V/V (fpm)	400	500	750	950	1200	1500
5.0% V/V (fpm)	400	500	750	1000	1250	1500
5.8% V/V (fpm)	450	600	900	1200	1450	1800

INITIAL CLIMB

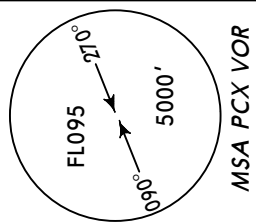
RWY

10 After take-off, turn RIGHT, course 099° to VURUK. Turn LEFT, course 343° to UGROK. Turn LEFT, course 278° to SIDUR.

15 After take-off, MAINTAIN 148° course to 500'. Turn LEFT direct to VURUK. Turn LEFT, course 343° to UGROK. Turn LEFT, course 278° to SIDUR.

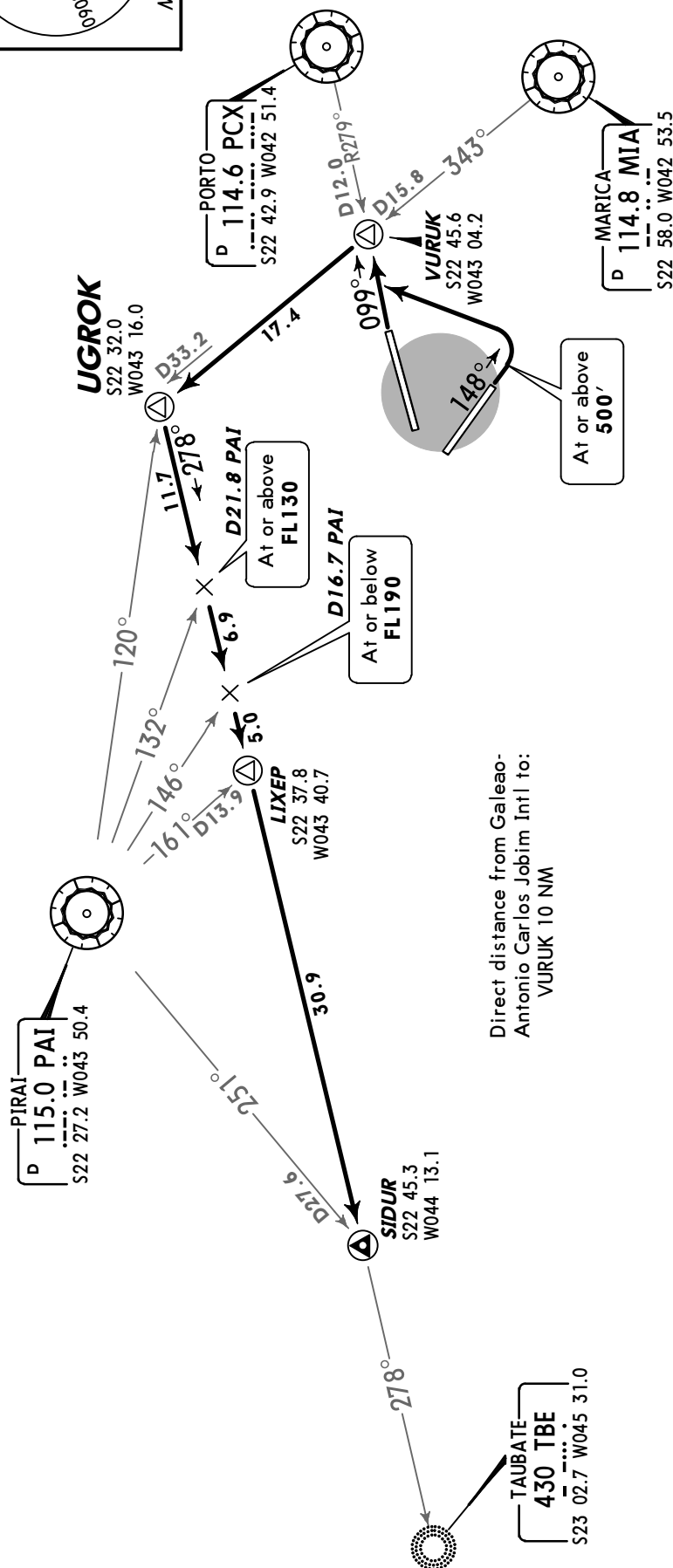
Apt Elev
28'

Trans level: By ATC Trans alt: 7000'



UGROK 1B DEPARTURE

[UGRO1B]
(RWYS 10, 15)



This SID allows for IFR minimums below regular take-off minimums:

Rwy 10: Ceiling not required, Visibility 600m (RVR 200m).

Rwy 15: Ceiling not required, Visibility 600m (RVR 550m).

This SID requires the following minimum climb gradients:

Rwy 10: 6.0% to FL080. 5.3% to FL130 (ATC).

Rwy 15: 5.7% to FL080. 4.6% to FL130 (ATC).

Gradients subject to ATC clearance:

Rwy 10: 6.0% to FL080. Then, 3.3%.

Rwy 15: 5.5% to FL080. Then, 3.3%.

Gnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	250	350	500	700	850	1000
4.6% V/V (fpm)	350	500	700	950	1150	1400
5.3% V/V (fpm)	400	550	800	1100	1350	1600
5.5% V/V (fpm)	450	600	850	1100	1400	1700
5.7% V/V (fpm)	450	600	900	1150	1450	1800
6.0% V/V (fpm)	450	600	900	1200	1500	1800

INITIAL CLIMB

10 After take-off, turn RIGHT, PCX R-279 to VURUK. Turn LEFT, MIA R-343 to UGROK. Turn LEFT, TBE 278° bearing to SIDUR.

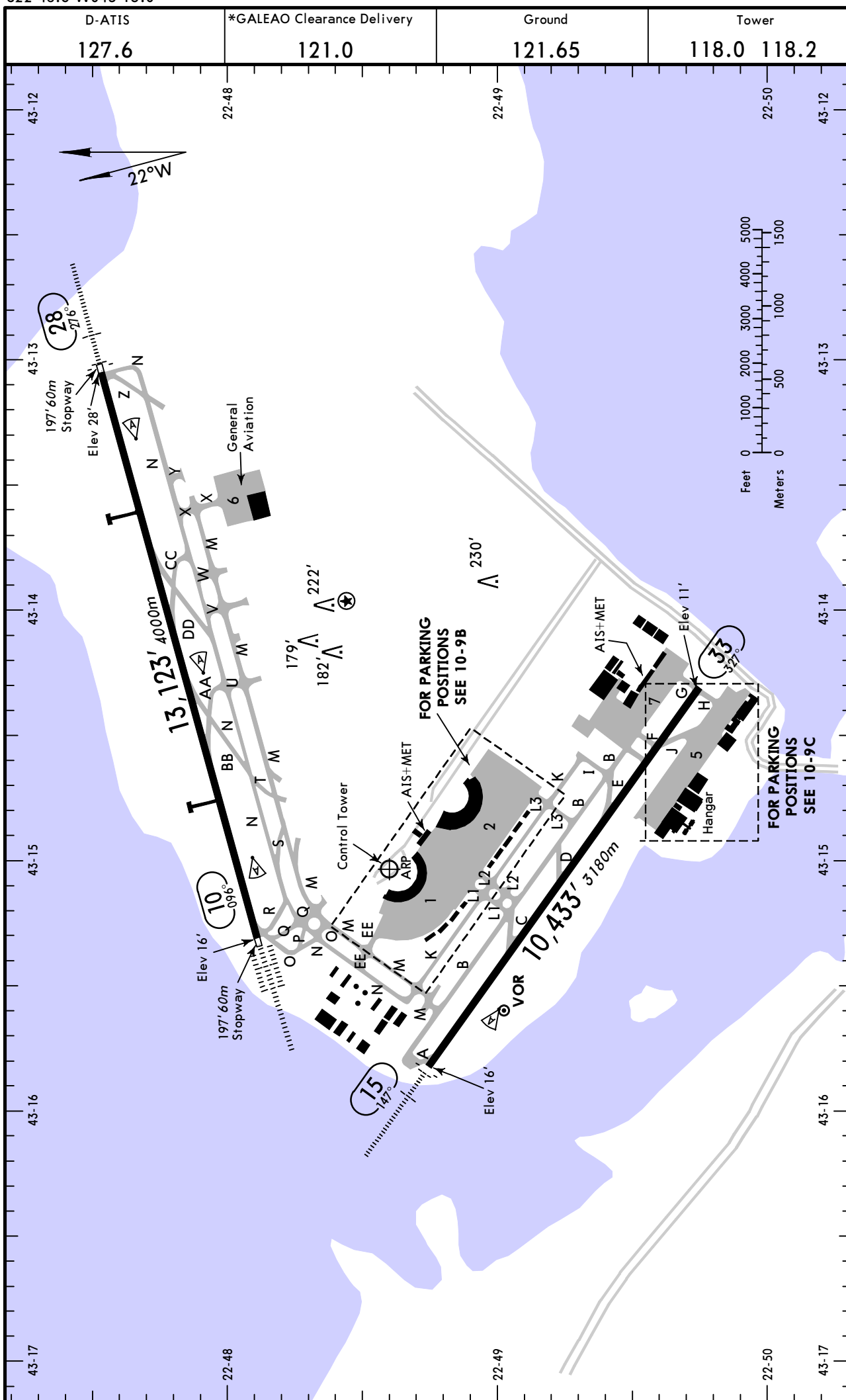
15 After take-off, MAINTAIN course 148° to 500. Turn LEFT, PCX R-279 to VURUK. Turn LEFT, MIA R-343 to UGROK. Turn LEFT, TBE 278° bearing to SIDUR.

NOT TO SCALE

SBGL/GIG
Apt Elev 28'
S22 48.6 W043 15.0

JEPPesen
24 OCT 14 (10-9)

RIO DE JANEIRO, BRAZIL
GALEAO-ANTONIO CARLOS JOBIM INTL



CHANGES: VOR added.

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Do not mistake Duque de Caxias refinery lights for Rwy 15 lights.
Flight over refinery below 1000' is prohibited. Two-way radio required.
Birds in vicinity of airport.

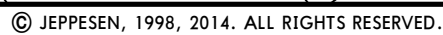
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
10	HIRL CL ALSF-II TDZ PAPI-L (angle 3.0°) RVR				148'
28	HIRL CL ALSF-I TDZ PAPI-L (angle 2.95°) RVR		12,001' 3658m		45m

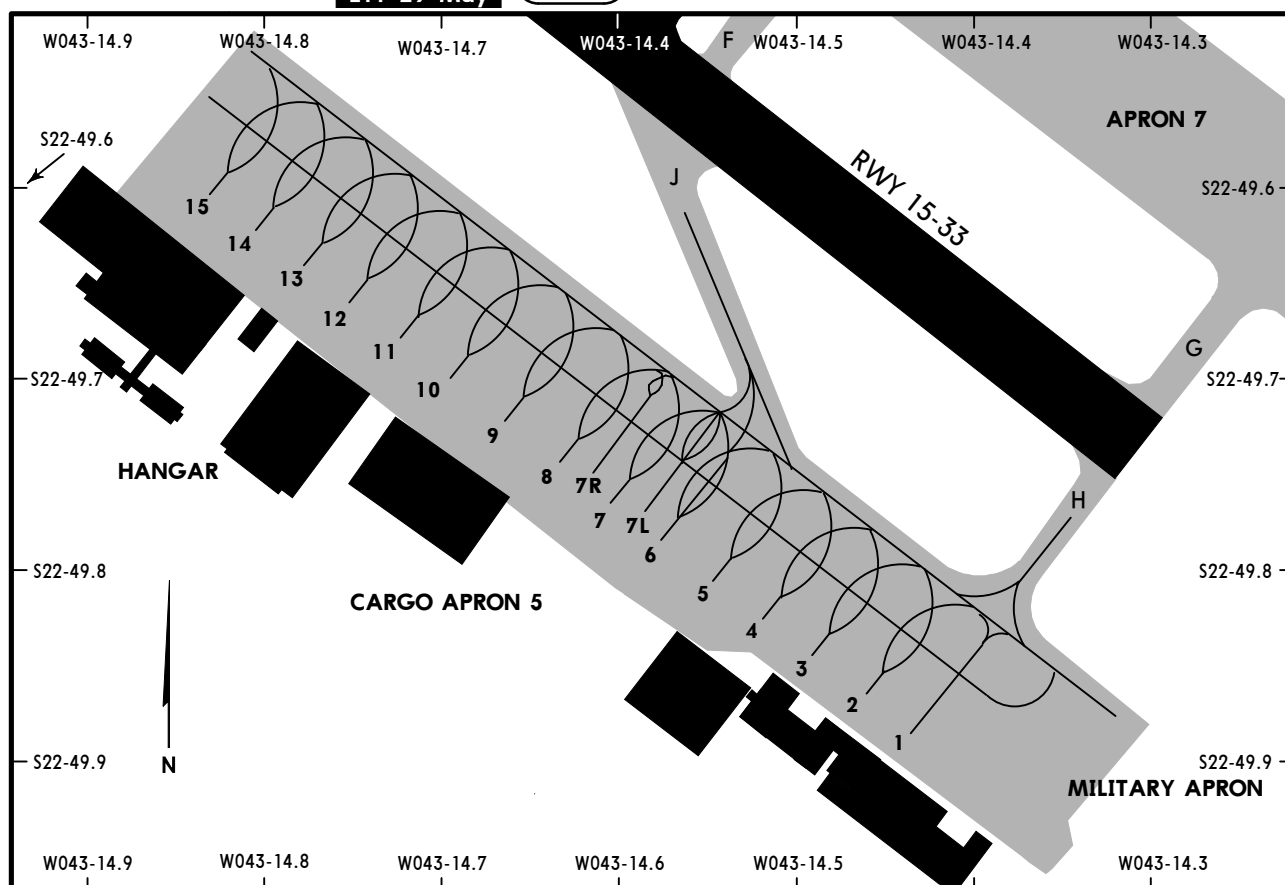
15	HIRL ALSF-I PAPI-L (angle 3.0°)	RVR	9184' 2799m	154'
33	HIRL PAPI-L (angle 3.0°)			47m

	Rwys 10, 28				
	Take-Off Alternate Apt. Filed			Regular	
	3 RVRs & CL & RCLM	2 RVRs & CL & RCLM	CL or RCLM & RL		
2, 3 & 4 Eng Jet or Turbo Prop	TDZ RVR <i>200m</i> Mid RVR <i>200m</i> Rollout RVR <i>200m</i>	TDZ RVR <i>400m</i> Rollout RVR <i>400m</i>	RVR <i>500m</i> VIS <i>600m</i>	All Actt	Cat A Aircraft Landing Minimums

	Rwys 15, 33			
	Take-Off Alternate Apt. Filed			Regular
	RCLM & RL			
2, 3 & 4 Eng Jet or Turbo Prop	RVR <i>500m</i> VIS <i>600m</i>			All Acft Cat A Aircraft Landing Minimums

IFR departures must comply with published SIDs.





PARKING SPOT COORDINATES

SPOT No.	COORDINATES	SPOT No.	COORDINATES
Apron 1			
1 thru 3	S22 48.7 W043 15.0	49, 50	S22 48.9 W043 14.8
4L, 4	S22 48.8 W043 15.0	51R, 51, 51L	S22 48.9 W043 14.9
5	S22 48.8 W043 15.1	52	S22 48.9 W043 14.9
6 thru 8	S22 48.7 W043 15.1	53 thru 54L	S22 48.8 W043 14.9
9, 10	S22 48.7 W043 15.2	Apron 5	
11, 12	S22 48.6 W043 15.2	1, 2	S22 49.9 W043 14.4
13, 14, 14L	S22 48.6 W043 15.3	3 thru 6	S22 49.8 W043 14.5
15 thru 17	S22 48.7 W043 15.3	6L	NIL
18, 18L, 19	S22 48.8 W043 15.3	7R, 7, 7L	S22 49.8 W043 14.6
20R thru 22	S22 48.8 W043 15.2	8	S22 49.7 W043 14.6
23	S22 48.9 W043 15.2	9 thru 12	S22 49.7 W043 14.7
24	S22 48.9 W043 15.1	13 thru 15	S22 49.6 W043 14.8
INS 8	S22 48.9 W043 15.1	16	NIL
Apron 2		Military Apron	
25 thru 28	S22 49.0 W043 15.0	1M thru 4M	NIL
29 thru 31L	S22 49.0 W043 14.9		
32	S22 49.1 W043 14.9		
33 thru 36	S22 49.1 W043 14.8		
37 thru 40	S22 49.1 W043 14.7		
41	S22 49.1 W043 14.6		
42, 43	S22 49.0 W043 14.6		
44, 45	S22 48.9 W043 14.7		
46, 46L, 47	S22 49.0 W043 14.7		
47L, 48, 48L	S22 49.0 W043 14.8		

SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

6 DEC 13

Eff 12 Dec

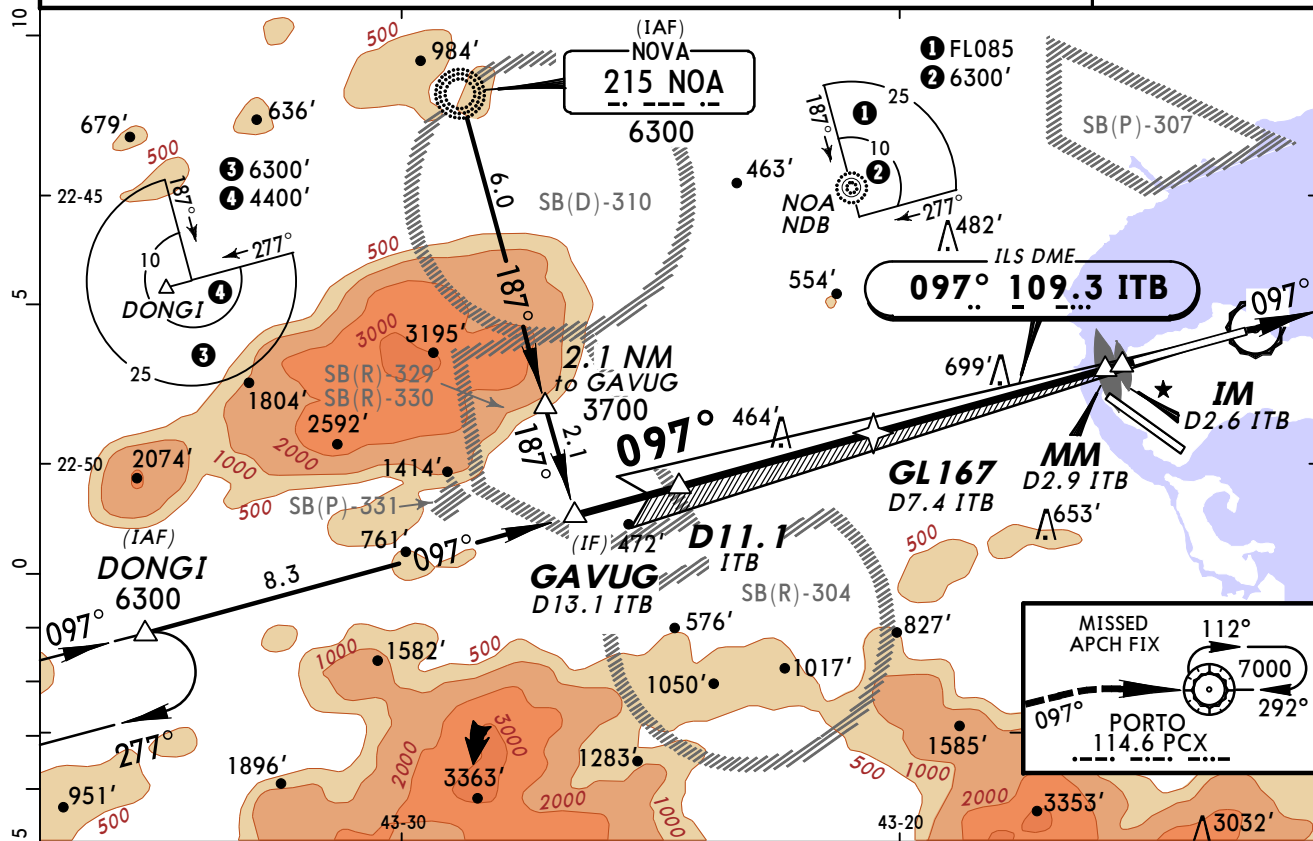
(11-1)

RIO DE JANEIRO, BRAZIL

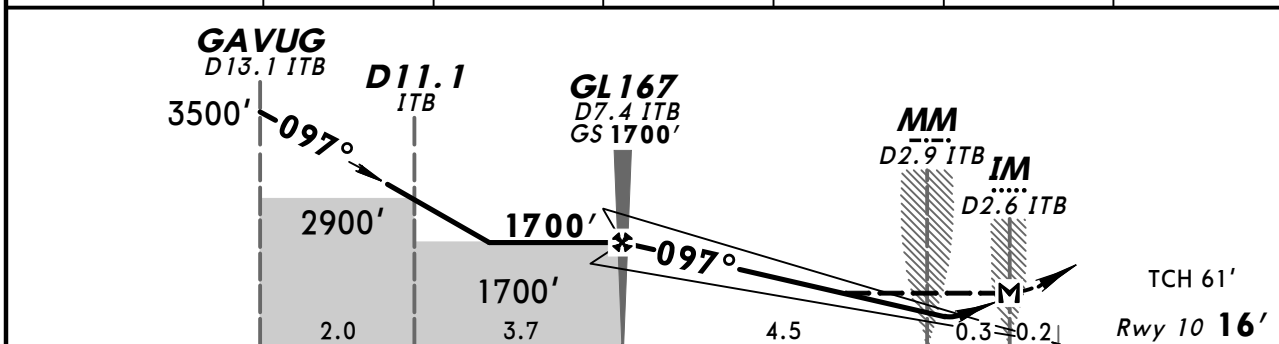
ILS X or LOC X Rwy 10

MISSED APCH CLIMB GRADIENT MIM 5%

BRIEFING STRIP TM	D-ATIS	RIO Control (Approach) (R)							GALEAO Tower		Ground
	127.6	119.0 124.95 126.2 128.9 129.2 129.8 134.4							118.0	118.2	121.65
	LOC ITB 109.3	Final Apch Crs 097°	GS GL167 1700' (1684')	ILS DA(H) 216' (200')	Apt Elev 28' Rwy 10 16'		TAA 25 NM IAF				
	MISSED APCH: Climb to 7000'. Maintain course 097° until 2000'. Then turn RIGHT for holding at PCX VOR.										
	Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC						Trans alt: 7000'
1. RNAV 1 or RNP 1. 2. MAX IAS at NOA NDB 190 Kts.											



DIST to THR	GL167	4.0	3.0	2.0	1.0	0.4
ALTITUDE	1700'	1365'	1040'	717'	396'	216'



Gnd speed-Kts	90	110	130	150	170	190	ALS-II	2000'	097°
GS	3.00°	478	584	690	796	902	1008		
Rate of descent on final (feet/min)	500	600	700	800	900	1000			
MAP at IM or FAF to MAP	4.8	3:12	2:37	2:12	1:55	1:41	1:30		

STRAIGHT-IN LANDING RWY 10				CEILING REQUIRED		CIRCLE-TO-LAND	
MISSED APCH CLIMB GRADIENT MIM 5%							
ILS		LOC (GS out)					
DA(H) 216' (200')		MDA(H) 470' (454')					
FULL		ALS out		ALS out			
A			CEILING-VISIBILITY		A		
B			500' 800m		B		
C	200' RVR 550m VIS 800m		500' 1400m		C	NA	
D	200' 1200m		500' 2100m		D		

CHANGES: New procedure.

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SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

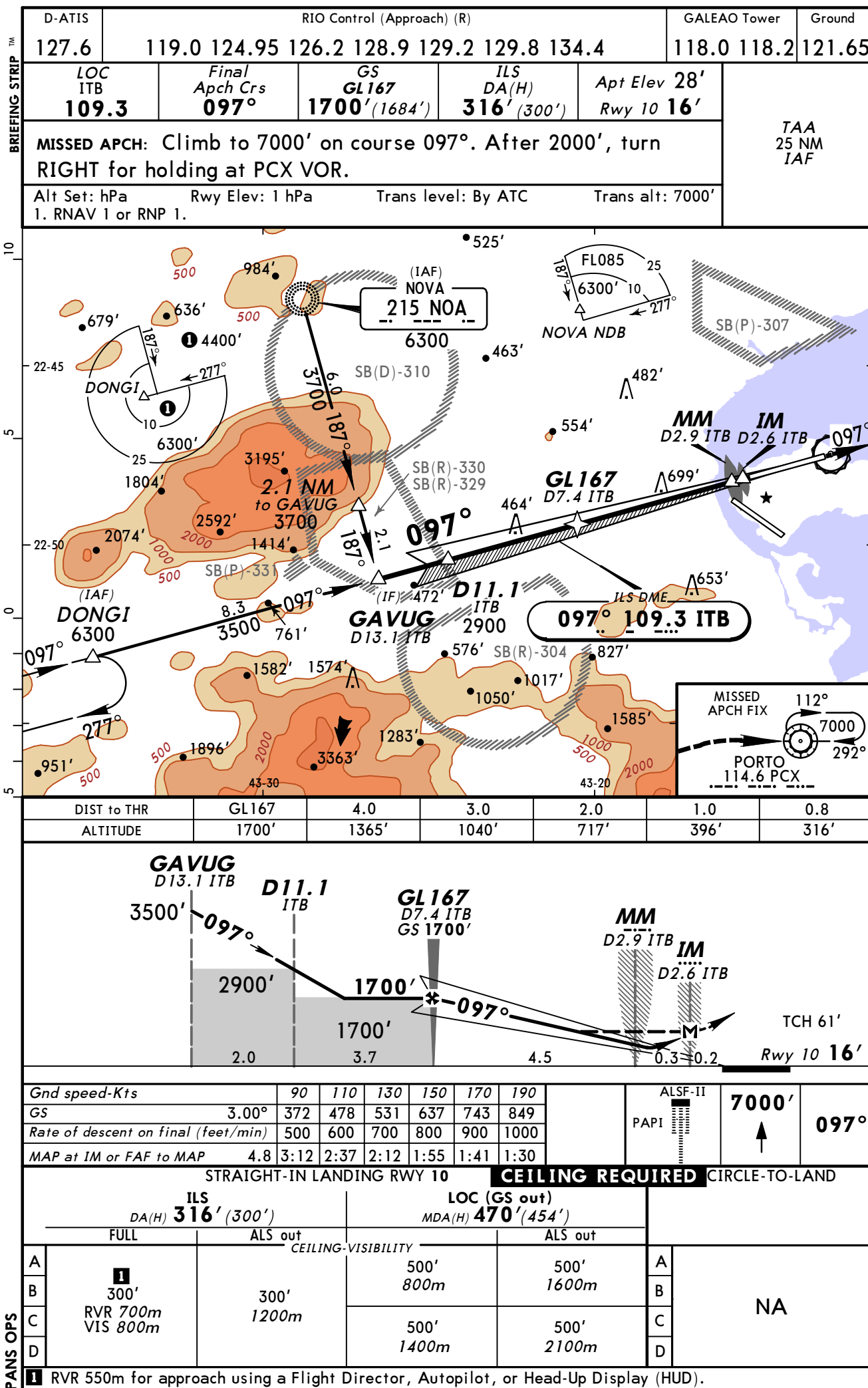
23 MAY 14

Eff 29 May

(11-2)

RIO DE JANEIRO, BRAZIL

ILS V or LOC V Rwy 10



SBGL/GIG

GALEAO-ANTONIO
CARLOS JOBIM INTL23 MAY 14
Eff 29 May

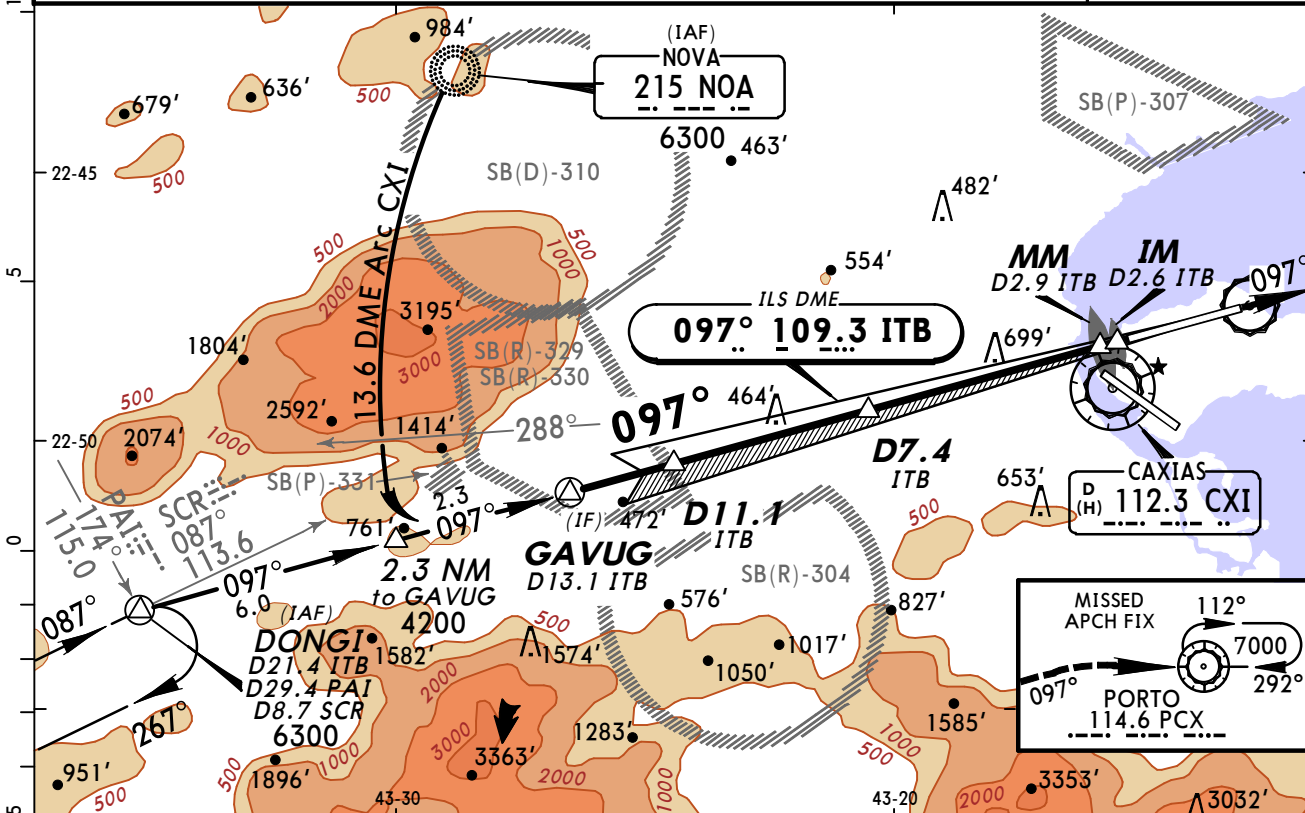
11-2A

RIO DE JANEIRO, BRAZIL

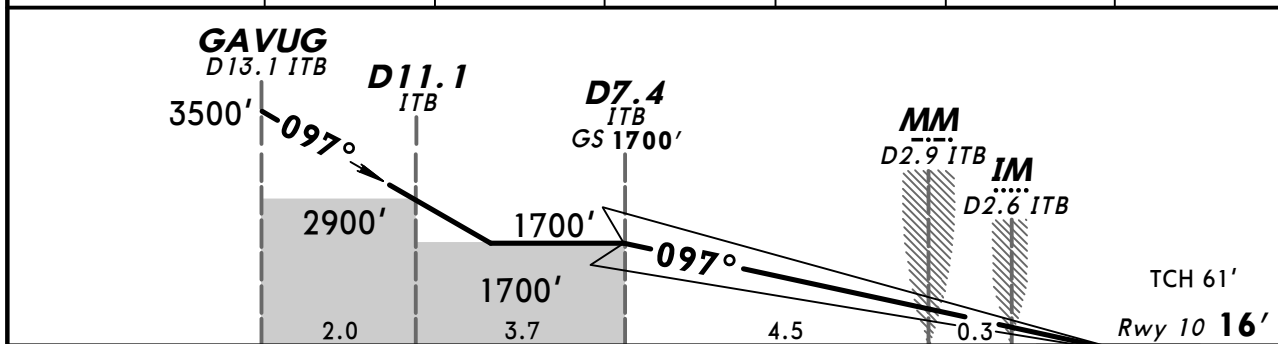
ILS U CAT II Rwy 10

MISSED APCH CLIMB GRADIENT MIM 5%

BRIEFING STRIP	D-ATIS	RIO Control (Approach) (R)						GALEAO Tower	Ground
	127.6	119.0	124.95	126.2	128.9	129.2	129.8	134.4	118.0 118.2 121.65
	LOC ITB 109.3	Final Apch Crs 097°	GS D7.4 ITB 1700' (1684')	CAT II ILS RA 111' DA(H)116' (100')		Apt Elev 28' Rwy 10 16'			
MISSED APCH: Climb to 7000'. Maintain course 097° until 2000'. Then turn RIGHT for holding at PCX VOR.									
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC		Trans alt: 7000'		MSA CXI VOR 		
1. MAX IAS at NOA NDB 200 Kts.									



DIST to THR	D7.4 ITB	4.0	3.0	2.0	1.0	0.1
ALTITUDE	1700'	1365'	1040'	717'	396'	116'



Gnd speed-Kts	90	110	130	150	170	190	ALSF-II <
---------------	----	-----	-----	-----	-----	-----	--

STRAIGHT-IN LANDING RWY 10

CEILING REQUIRED

MISSED APCH CLIMB GRADIENT MIM 5%

CAT II ILS

RA 111'

DA(H) 116' (100')
CEILING-VISIBILITY

100'-RVR 400m

CHANGES: None.

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SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

23 MAY 14

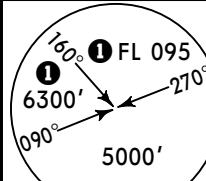
Eff 29 May

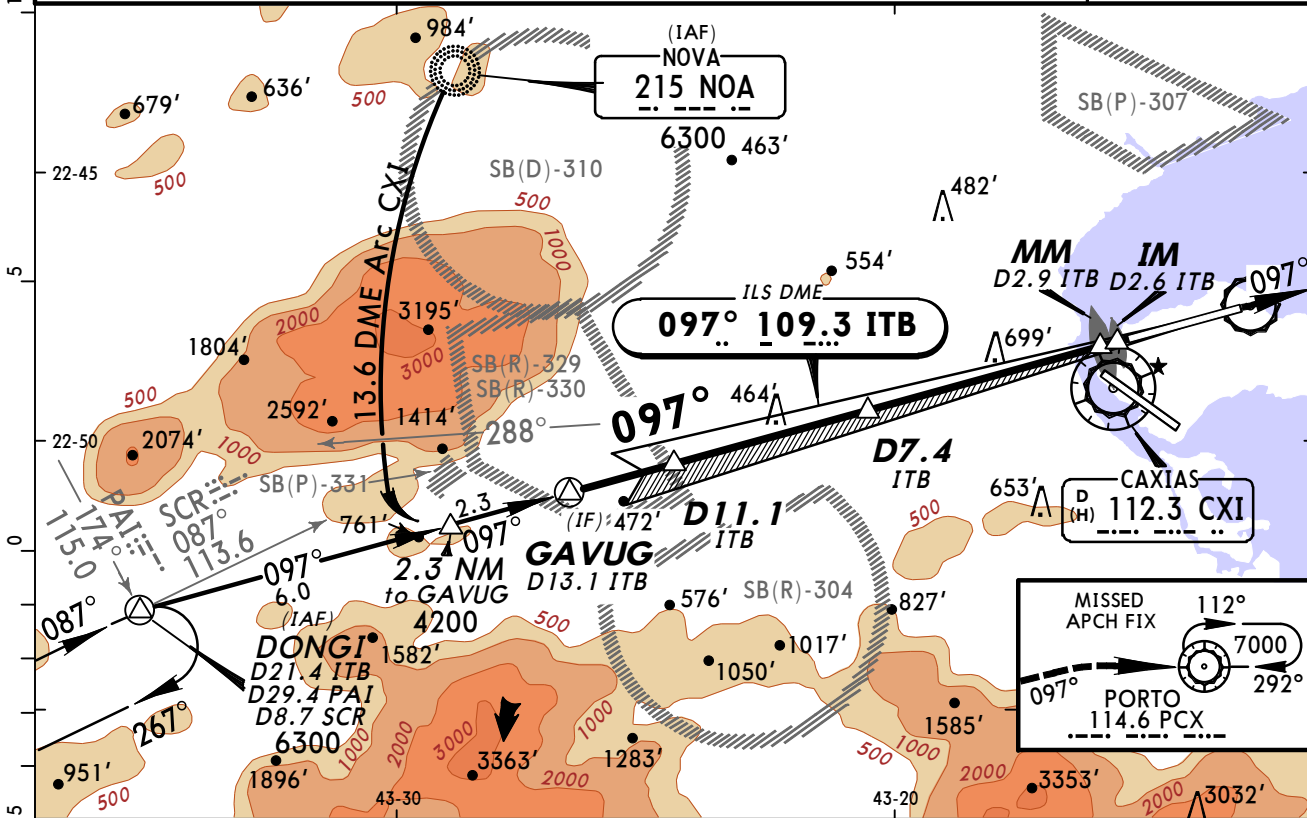
(11-3)

RIO DE JANEIRO, BRAZIL

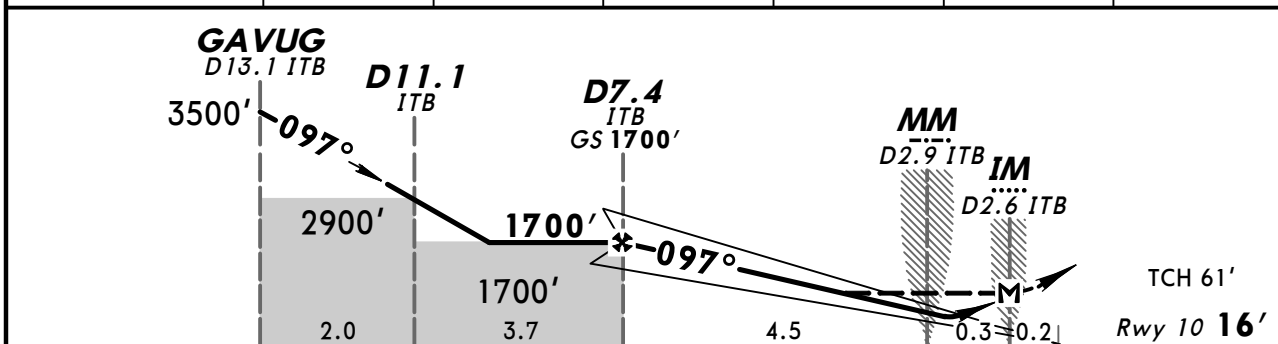
ILS T or LOC T Rwy 10

MISSED APCH CLIMB GRADIENT MIM 5%

BRIEFING STRIP™	D-ATIS	RIO Control (Approach) (R)							GALEAO Tower	Ground	
	127.6	119.0	124.95	126.2	128.9	129.2	129.8	134.4	118.0	118.2	121.65
	LOC ITB 109.3	Final Apch Crs 097°		GS D7.4 ITB 1700' (1684')		ILS DA(H) 216' (200')		Apt Elev 28' Rwy 10 16'			
	MISSED APCH: Climb to 7000'. Maintain course 097° until 2000'. Then turn RIGHT for holding at PCX VOR.										
	Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'		MSA CXI VOR 15500' within 10 NM		
1. MAX IAS at NOA NDB 200 Kts.											



DIST to THR	D7.4 ITB	4.0	3.0	2.0	1.0	0.4
ALTITUDE	1700'	1365'	1040'	717'	396'	216'



Gnd speed-Kts	90	110	130	150	170	190	ALS-F-II		2000'	097°
GS	3.00°	478	584	690	796	902	PAPI			
Rate of descent on final (feet/min)	500	600	700	800	900	1000				
MAP at IM or FAF to MAP	4.8	3:12	2:37	2:12	1:55	1:41				

STRAIGHT-IN LANDING RWY 10				CEILING REQUIRED		CIRCLE-TO-LAND	
ILS		LOC (GS out)					
DA(H) 216' (200')		MDA(H) 470' (454')					
FULL	ALS out	ALS out	ALS out				
A		500'	500'	A		NA	
B		800m	1600m	B			
C	200'	500'	500'	C			
D	RVR 550m VIS 800m	1400m	2100m	D			

CHANGES: New procedure.

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SBGL/GIG

GALEAO-ANTONIO
CARLOS JOBIM INTL

23 MAY 14

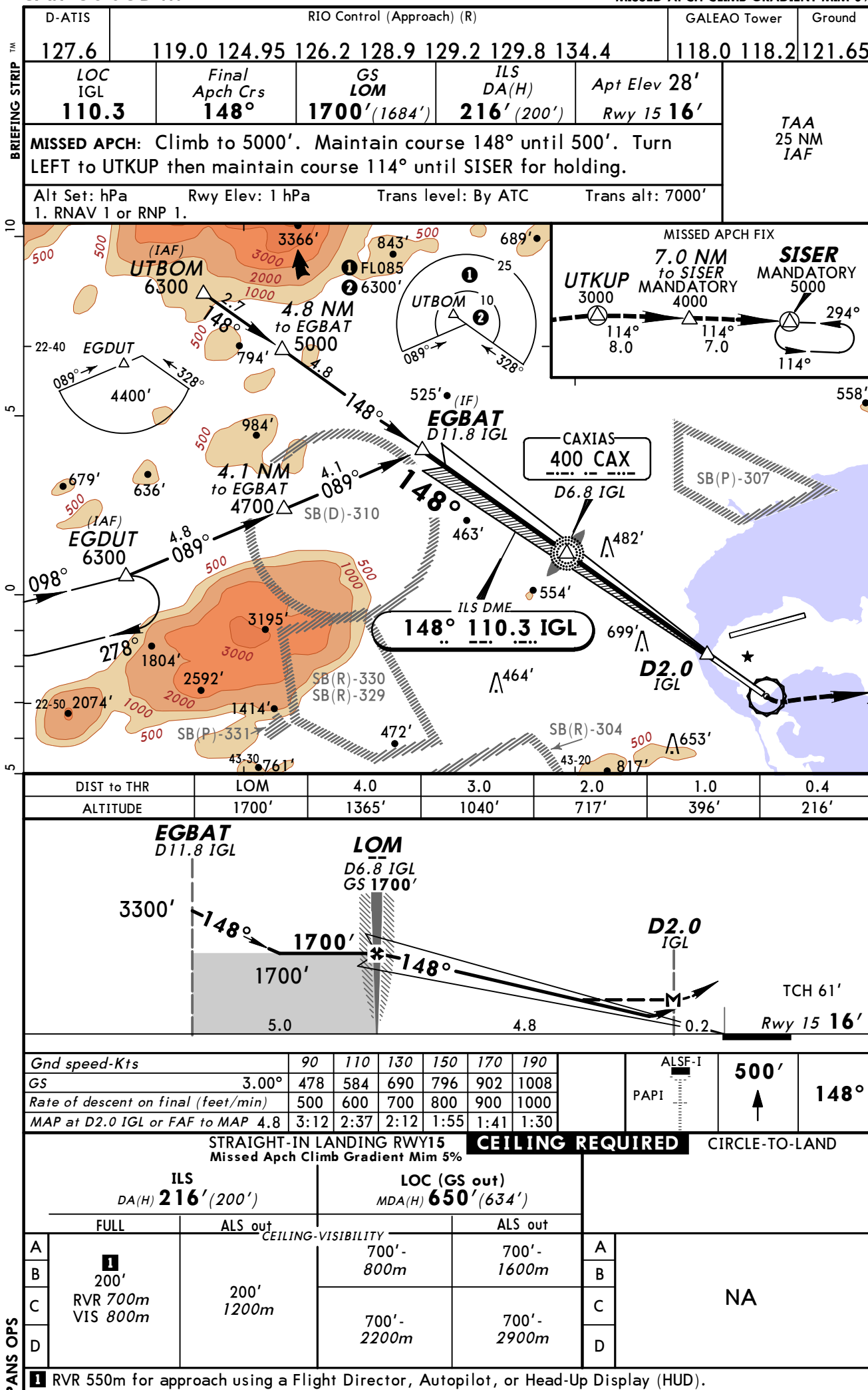
Eff 29 May

(11-4)

RIO DE JANEIRO, BRAZIL

ILS X or LOC X Rwy 15

MISSED APCH CLIMB GRADIENT MIM 5%



SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

23 MAY 14

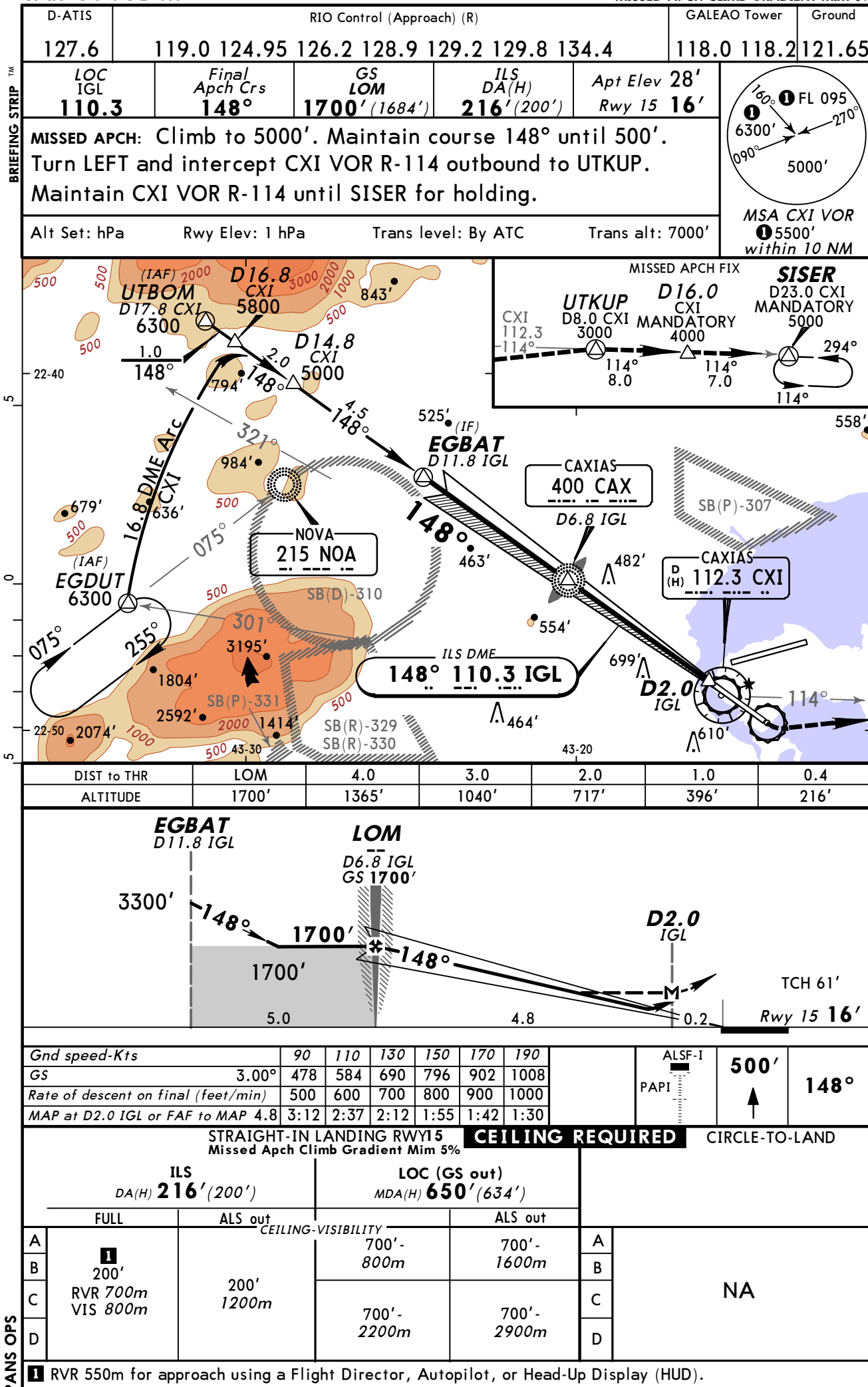
Eff 29 May

(11-5)

RIO DE JANEIRO, BRAZIL

ILS W or LOC W Rwy 15

MISSED APCH CLIMB GRADIENT MIM 5%



SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

23 MAY 14

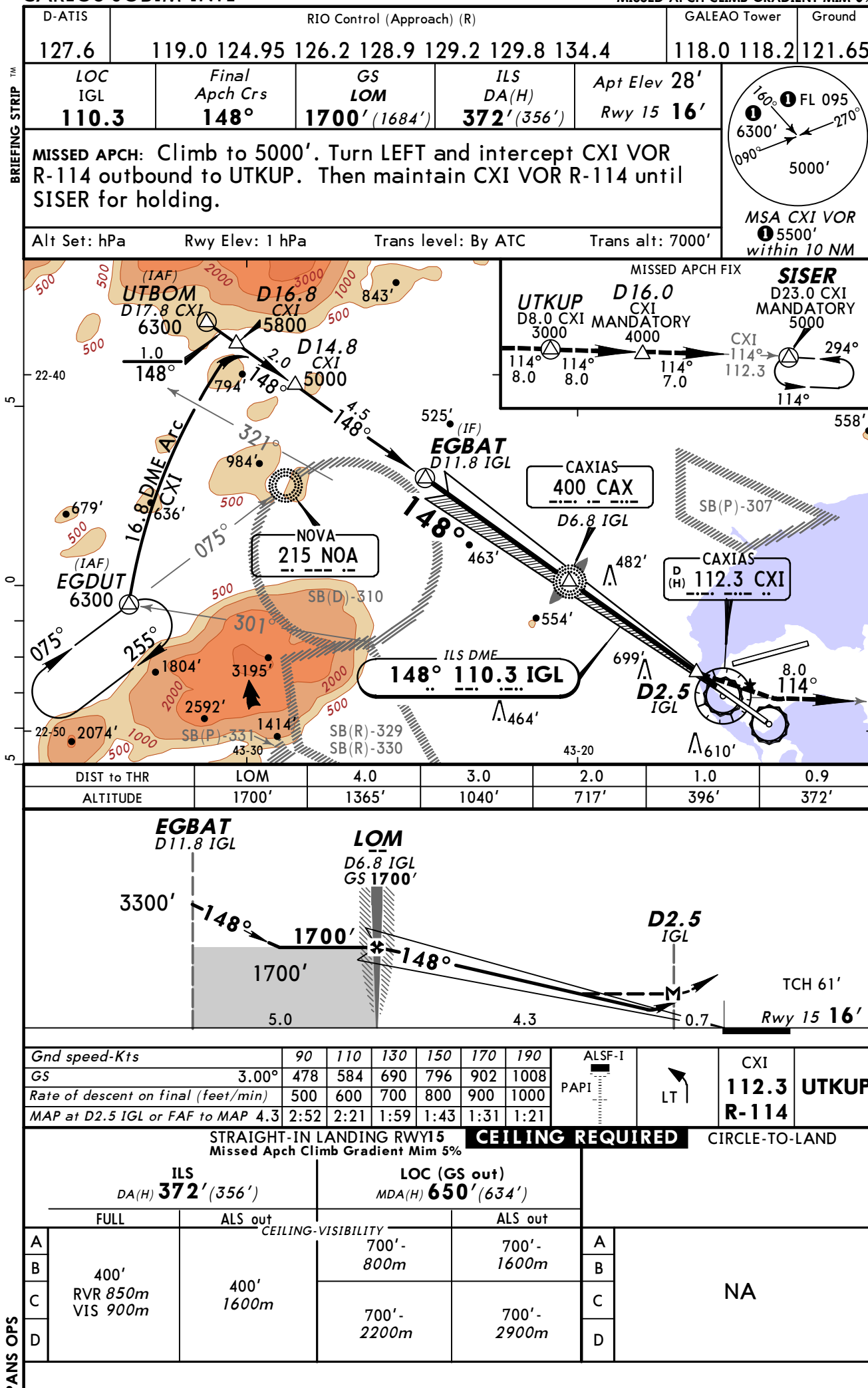
Eff 29 May

(11-6)

RIO DE JANEIRO, BRAZIL

ILS V or LOC V Rwy 15

MISSED APCH CLIMB GRADIENT MIM 5%



SBGL/GIG

GALEAO-ANTONIO

CARLOS JOBIM INTL

23 MAY 14

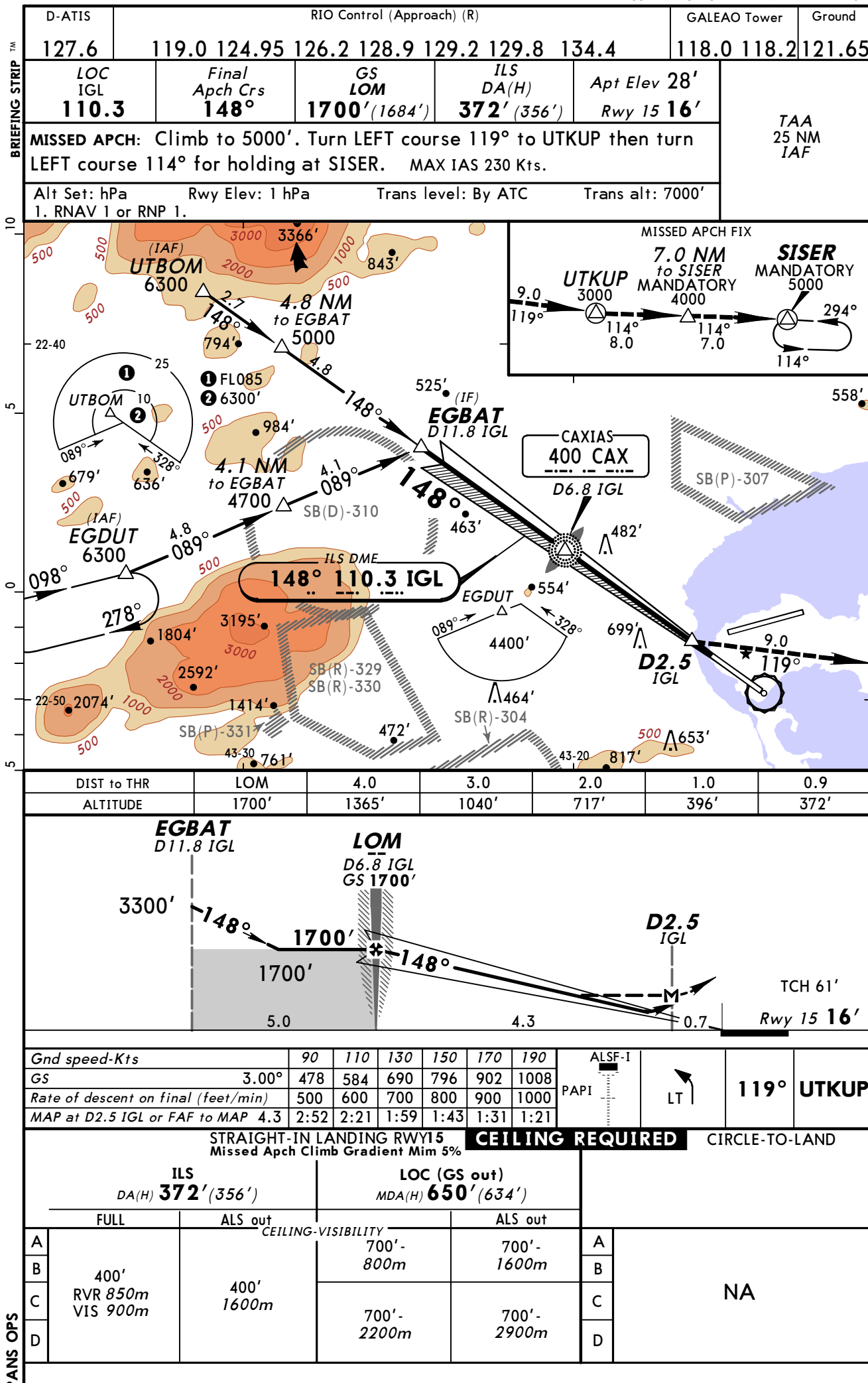
Eff 29 May

(11-7)

RIO DE JANEIRO, BRAZIL

ILS T or LOC T Rwy 15

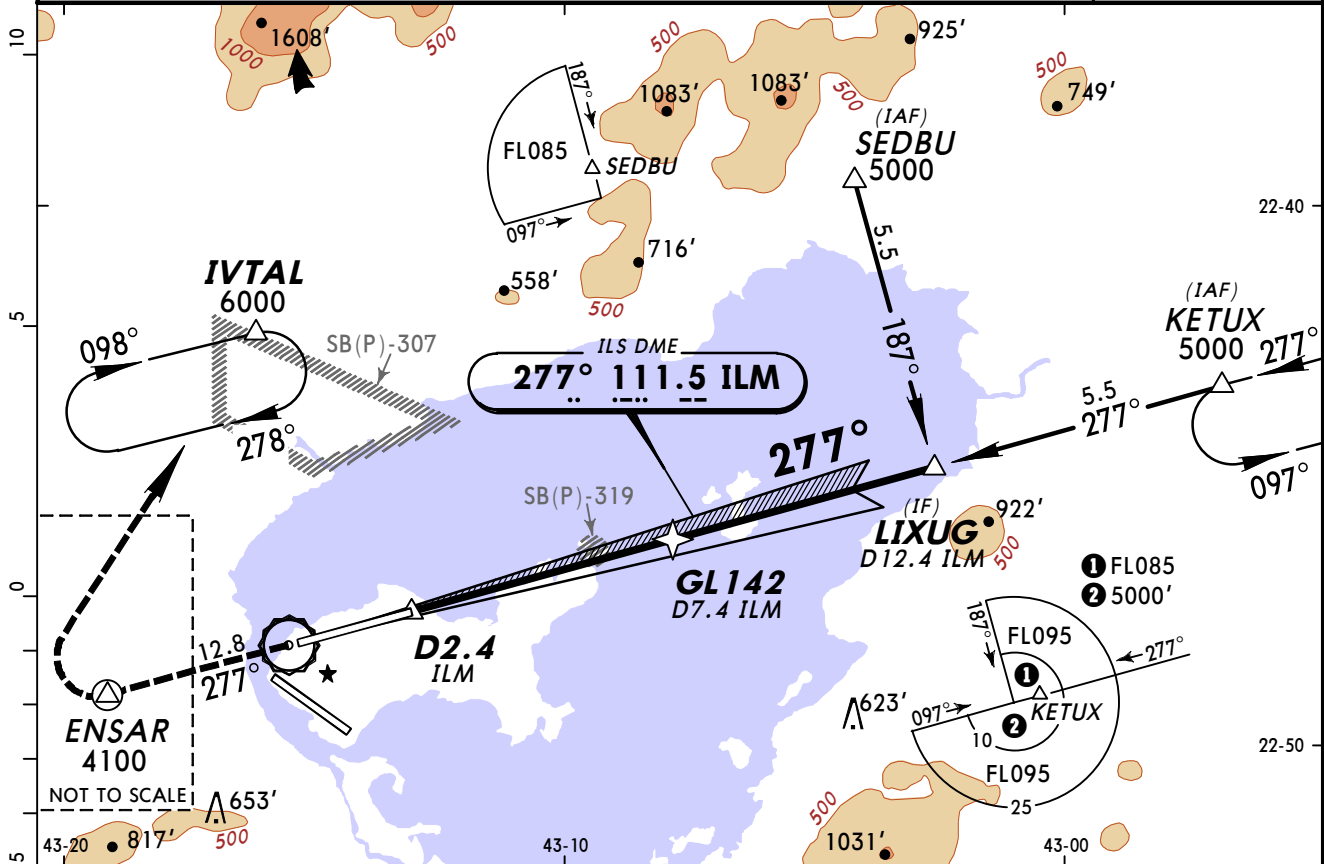
MISSED APCH CLIMB GRADIENT MIM 5%



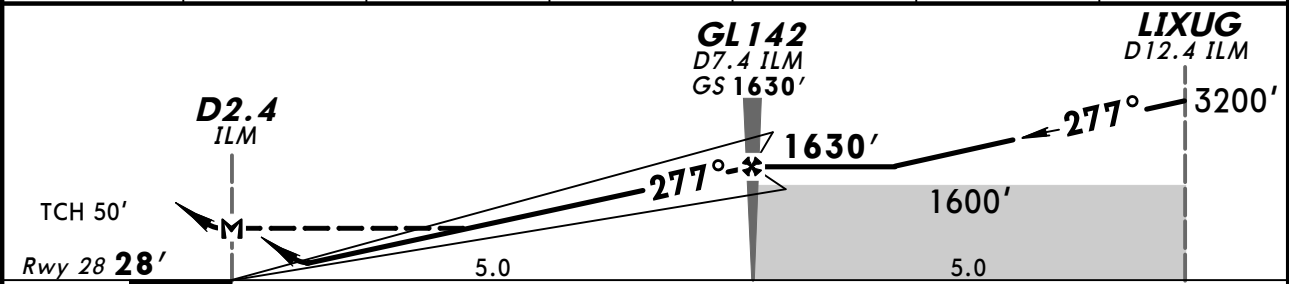
CHANGES: Reindex.

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BRIEFING STRIP™	D-ATIS	RIO Control (Approach) (R)							GALEAO Tower		Ground
	127.6	119.0 124.95 126.2 128.9 129.2 129.8 134.4							118.0	118.2	121.65
	LOC ILM 111.5	Final Apch Crs 277°	GS GL142 1630' (1602')	ILS DA(H) 245' (217')	Apt Elev 28' Rwy 28 28'		TAA 25 NM IAF				
	MISSED APCH: Climb to 6000'. Maintain course 277° until ENSAR. Then turn RIGHT for holding at IVTAL. MAX IAS 220 Kts.										
	Alt Set: hPa 1. RNAV 1 or RNP 1.		Rwy Elev: 1 hPa		Trans level: By ATC						Trans alt: 7000'



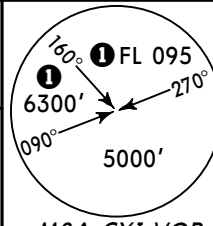
DIST to THR	0.5	1.0	2.0	3.0	4.0	GL142
ALTITUDE	245'	381'	694'	1006'	1318'	1630'

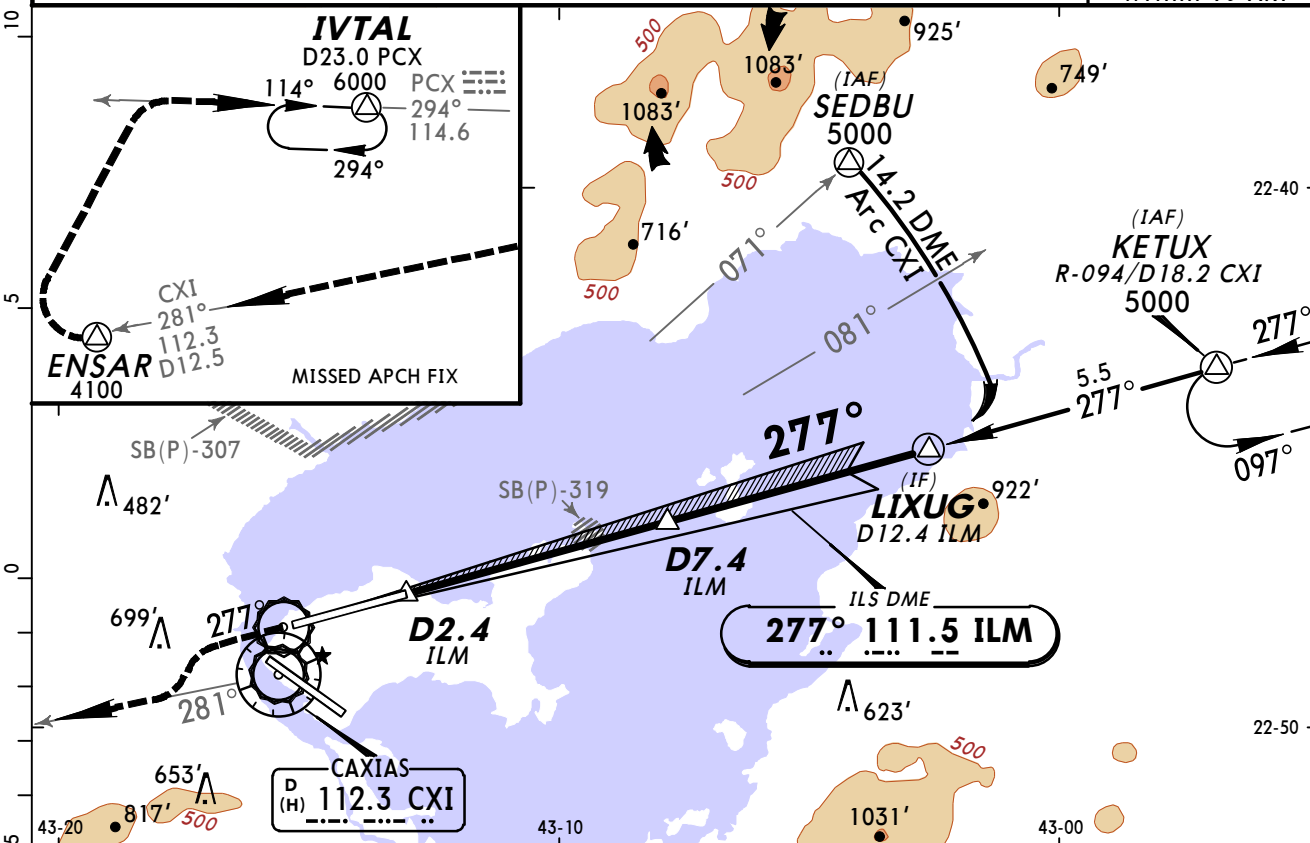


Gnd speed-Kts	90	110	130	150	170	190	ALS-F-1	6000'	277°	ENSAR
GS	2.90°	462	564	667	770	872	975	PAPI		
Rate of descent on final (feet/min)		500	600	700	800	900	1000			
MAP at D2.4 ILM or FAF to MAP	5.0	3:20	2:43	2:18	2:00	1:45	1:34			

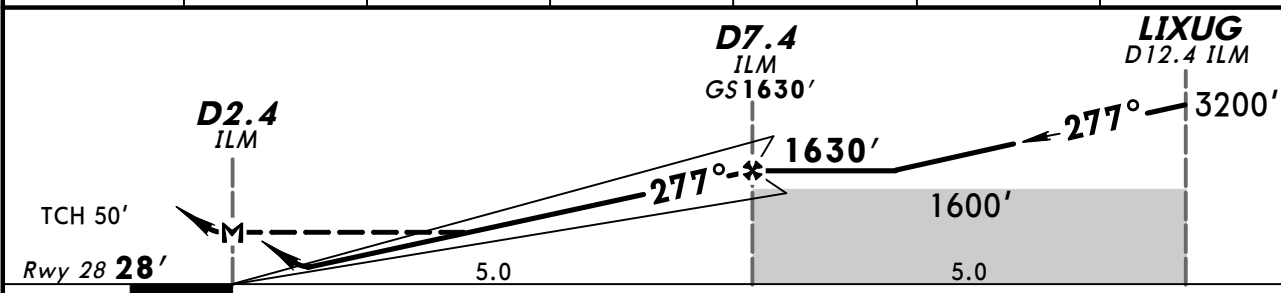
STRAIGHT-IN LANDING RWY28				CEILING REQUIRED		CIRCLE-TO-LAND	
Missed Apch Climb Gradient Mim 5%							
ILS DA(H) 245' (217')		LOC (GS out) MDA(H) 530' (502')					
FULL		ALS out					
		CEILING-VISIBILITY					
A	1 300' RVR 700m VIS 800m	300' 1200m	600'- 800m	600'- 1600m	A	NA	
B					B		
C					C		
D					D		

1 RVR 550m for approach using a Flight Director, Autopilot, or Head-Up Display (HUD).

BRIEFING STRIP™	D-ATIS	RIO Control (Approach) (R)							GALEAO Tower	Ground
	127.6	119.0 124.95 126.2 128.9 129.2 129.8 134.4							118.0 118.2	121.65
	LOC ILM 111.5	Final Apch Crs 277°	GS D7.4 ILM 1630' (1602')	ILS DA(H) 245' (217')	Apt Elev 28' Rwy 28 28'					
	MISSED APCH: Climb to 6000'. Maintain course 277° until 1200'. Then turn LEFT and intercept outbound CXI VOR R-281 until ENSAR. Then turn RIGHT and intercept PCX VOR R-294 inbound for holding at IVTAL.									
	MAX IAS 220 Kts.									
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'				



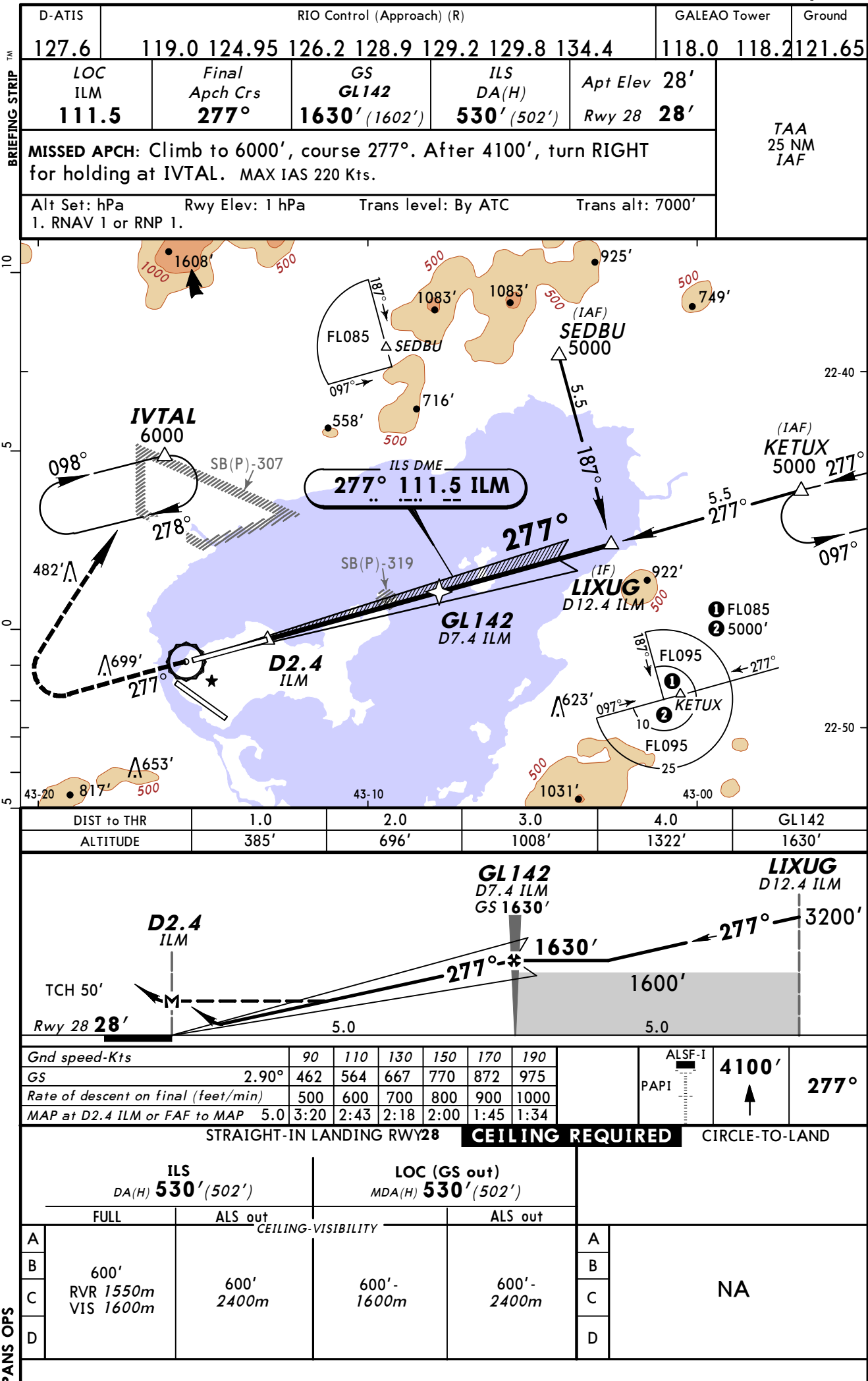
DIST to THR	0.5	1.0	2.0	3.0	4.0	D7.4 ILM
ALTITUDE	245'	381'	694'	1006'	1318'	1630'



Gnd speed-Kts	90	110	130	150	170	190		1200'	277°
GS	2.90°	462	564	667	770	872			
Rate of descent on final (feet/min)		500	600	700	800	900			
MAP at D2.4 ILM or FAF to MAP	5.0	3:20	2:43	2:18	2:00	1:45			

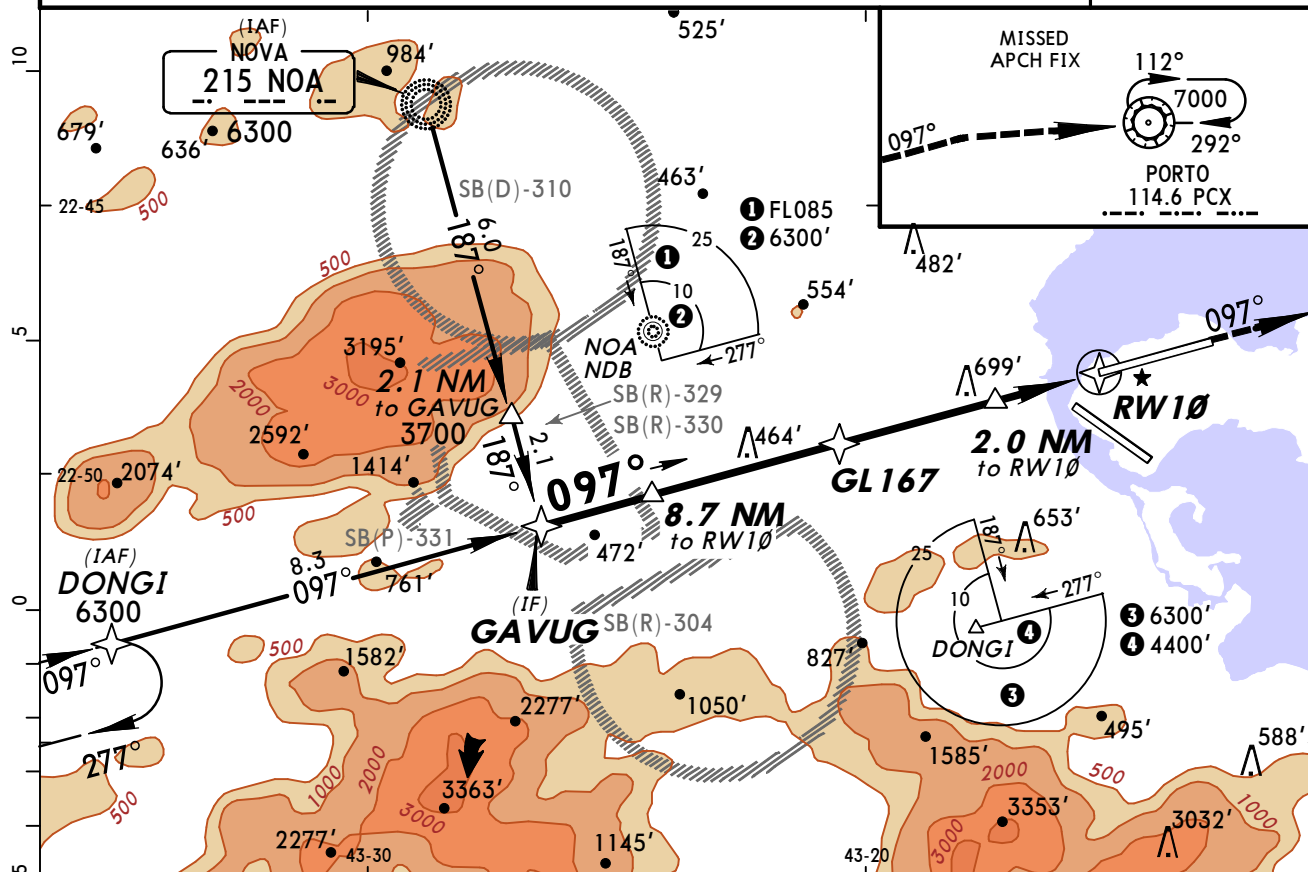
STRAIGHT-IN LANDING RWY28				CEILING REQUIRED		CIRCLE-TO-LAND	
Missed Apch Climb Gradient Mim 5%							
ILS			LOC (GS out)				
DA(H) 245'(217')			MDA(H) 530'(502')				
FULL		ALS out		CEILING-VISIBILITY		ALS out	
A	1 300' RVR 700m VIS 800m	300' 1200m	600'- 800m		600'- 1600m		A
B							B
C			600'- 1600m		600'- 2400m		C
D							D
							NA

1 RVR 550m for approach using a Flight Director, Autopilot, or Head-Up Display (HUD).

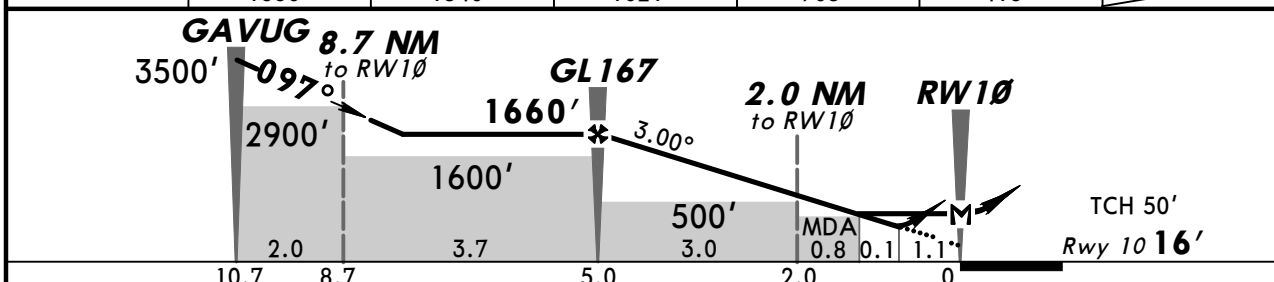


BRIEFING STRIP™

D-ATIS	RIO Control (Approach) (R)						GALEAO Tower		Ground
127.6	134.4 119.0 124.95 129.8 126.2 128.9 129.2						118.0 118.2		121.65
RNAV		Final Apch Crs 097°	Minimum Alt GL167 1660' (1644')	LNAV/VNAV DA(H) 416' (400')		Apt Elev 28' Rwy 10 16'		TAA 25 NM IAF	
MISSED APCH: Climb to 7000'. Maintain course 097° until 2000'. Then, turn RIGHT for holding at PCX VOR.									
Alt Set: hPa Rwy Elev: 1 hPa Trans level: By ATC Trans alt: 7000' 1. Baro-VNAV procedure not authorized below 0°C (32°F). 2. MAX IAS at NOA NDB 190 Kts.									



NM to NEXT WPT	GL167	4.0	3.0	2.0	1.1	RW10
ALTITUDE	1660'	1340'	1021'	703'	416'	



Gnd speed-Kts	90	110	130	150	170	190	ALSIF-II PAPI 2000' on 097°
Rate of descent on final (feet/min)	500	600	700	800	900	1000	
MAP at RW10							

STRAIGHT-IN LANDING RWY 10				CEILING REQUIRED	CIRCLE-TO-LAND	
MISSED APCH CLIMB GRADIENT MIM 5.0%						
LNAV/VNAV				LNAV		
DA(H) 416' (400')				MDA(H) 450' (434')		
ALS out				ALS out		
CEILING-VISIBILITY						
A				500' - 800m	500' - 1600m	NA
B						
C	400' - 1100m	400' - 1800m		500' - 1100m	500' - 1800m	
D						

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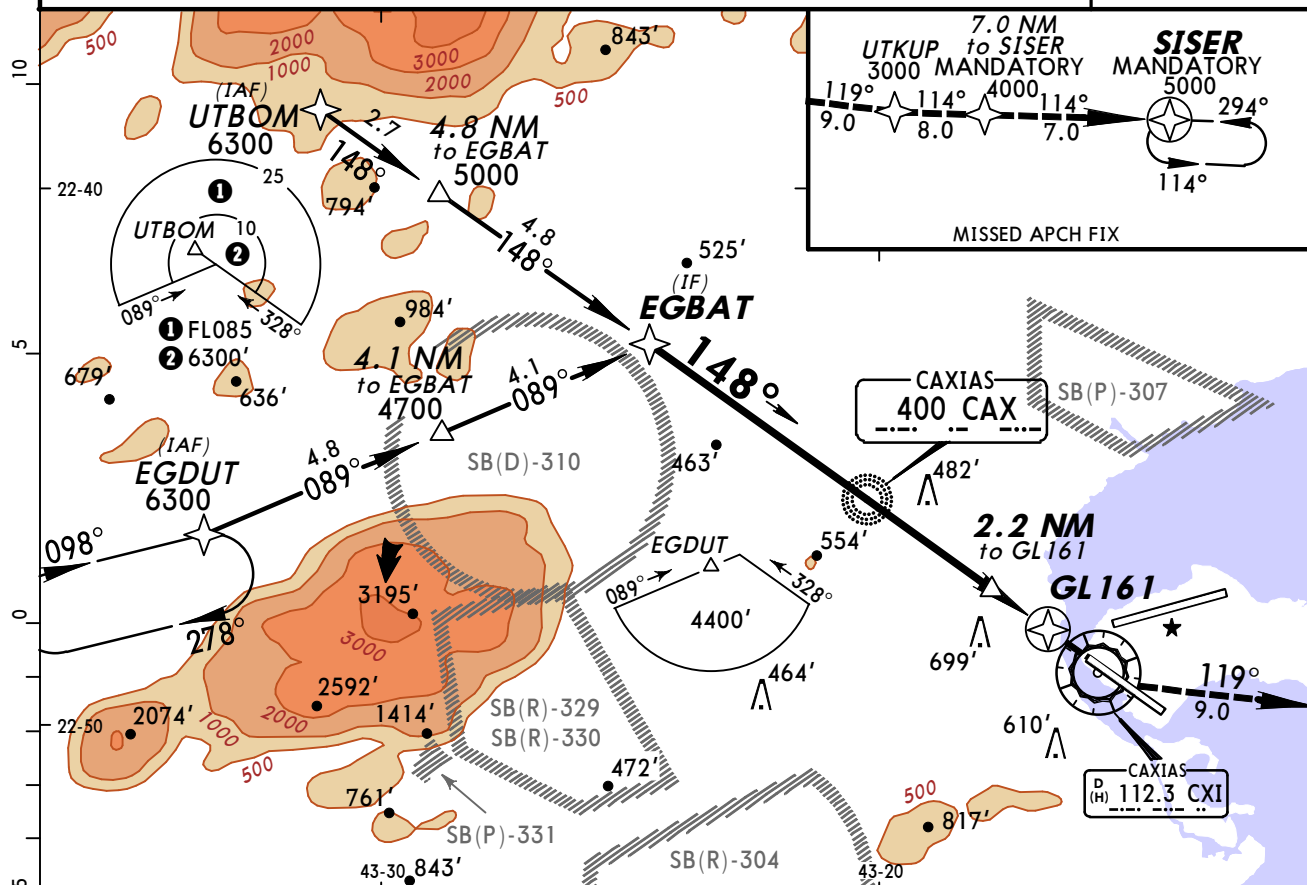
6 DEC 13
Eff 12 Dec (12-2)

RIO DE JANEIRO, BRAZIL
RNAV (GNSS) Y Rwy 15

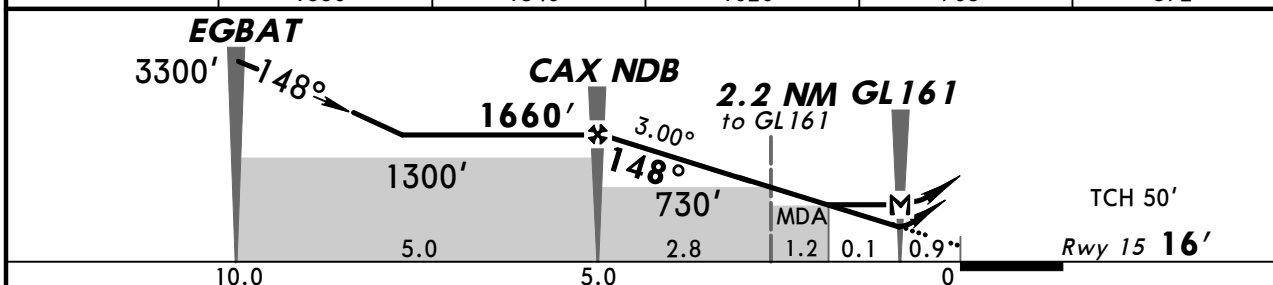
MISSED APCH CLIMB GRADIENT MIM 5.0%

BRIEFING STRIP

D-ATIS	RIO Control (Approach) (R)						GALEAO Tower		Ground
127.6	134.4 119.0 124.95 129.8 126.2 128.9 129.2						118.0 118.2	121.65	
RNAV	Final Apch Crs 148°	Minimum Alt CAX NDB 1660' (1644')	LNAV/VNAV DA(H) 372' (356')	Apt Elev 28' Rwy 15 16'		TAA 25 NM IAF			
MISSED APCH: Climb to 5000'. Turn LEFT, course 119° to UTKUP. After, turn LEFT, course 114° for holding at SISER. MAX IAS 230 Kts.									
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: By ATC		Trans alt: 7000'				
1. Baro-VNAV procedure not authorized below 0°C (32°F).									



NM to NEXT WPT	CAX	4.0	3.0	2.0	1.0
ALTITUDE	1660'	1340'	1020'	703'	372'



Gnd speed-Kts	90	110	130	150	170	190	ALS-I PAPI 5000' LT on 119°
Rate of descent on final (feet/min)	500	600	700	800	900	1000	
MAP at GL161							

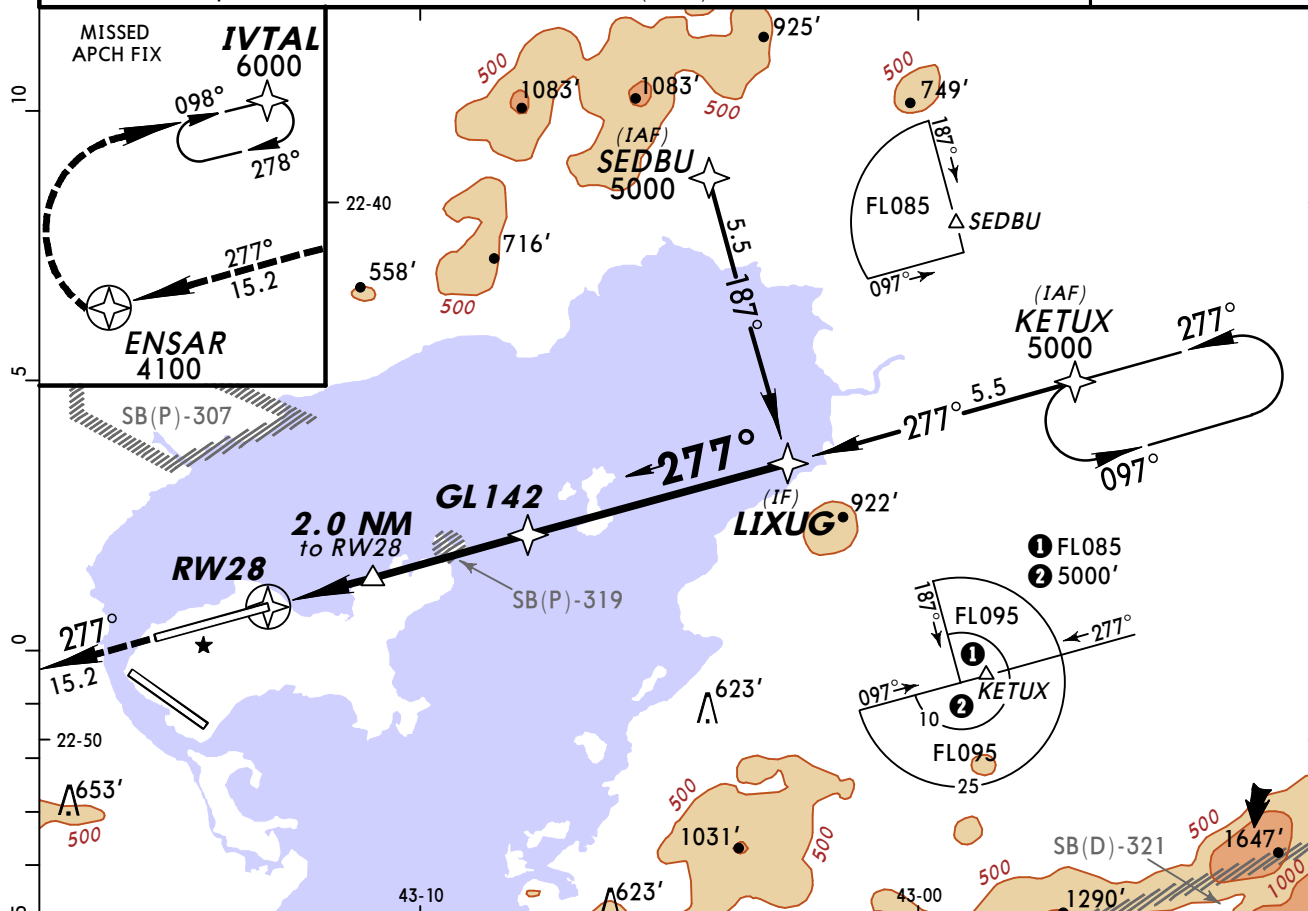
STRAIGHT-IN LANDING RWY 15				CEILING REQUIRED		CIRCLE-TO-LAND	
MISSED APCH CLIMB GRADIENT MIM 5.0%							
LNAV/VNAV		LNAV					
DA(H) 372'(356')		MDA(H) 380'(364')					
		ALS out					
		CEILING-VISIBILITY					
A	400'-900m	400'-1600m	400'-800m	400'-1600m	A	NA	
B					B		
C			400'-1000m	400'-1700m	C		
D					D		

CHANGES: New procedure.

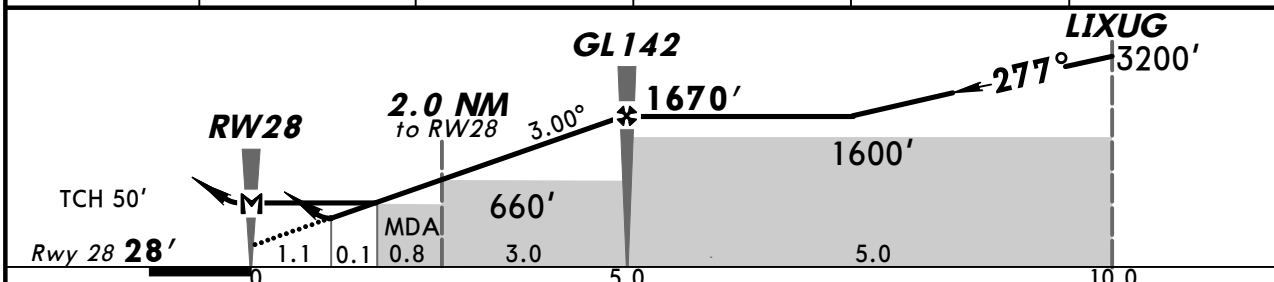
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BRIEFING STRIP

D-ATIS	RIO Control (Approach) (R)							GALEAO Tower		Ground
127.6	134.4	119.0	124.95	129.8	126.2	128.9	129.2	118.0	118.2	121.65
RNAV		Final Apch Crs 277°		Minimum Alt GL142 1670' (1642')		LNAV/VNAV DA(H) 417' (389')		Apt Elev 28' Rwy 28 28'		TAA 25 NM IAF
MISSED APCH: Climb to 6000'. Maintain course 277° until ENSAR. Then, turn RIGHT for holding at IVTAL. MAX IAS 220 Kts.										
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'				
1. Baro-VNAV procedure not authorized below 0°C (32°F).										



NM to RW28	1.1	2.0	3.0	4.0	GL 142
ALTITUDE	417'	715'	1033'	1352'	1670'



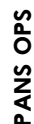
Gnd speed-Kts	90	110	130	150	170	190	ALS F-1 PAPI	6000'	on 277°	ENSAR
Rate of descent on final (feet/min)	500	600	700	800	900	1000				
MAP at RW28										

STRAIGHT-IN LANDING RWY 28 MISSED APCH CLIMB GRADIENT MIM 5.0%				CEILING REQUIRED		CIRCLE-TO-LAND	
LNAV/VNAV DA(H) 417'(389')		LNAV MDA(H) 470'(442')					
ALS out		CEILING-VISIBILITY		ALS out			
A	400' - 1100m	400' - 1800m	500' - 800m	500' - 1600m	A	NA	
B					B		
C			500' - 1200m	500' - 1900m	C		
D					D		

BRIEFING STRIP™



PANS OPS



PANS OPS

PANS OPS

MISSED APCH CLIMB GRADIENT MIN 5.0%

BRIEFING STRIP TM

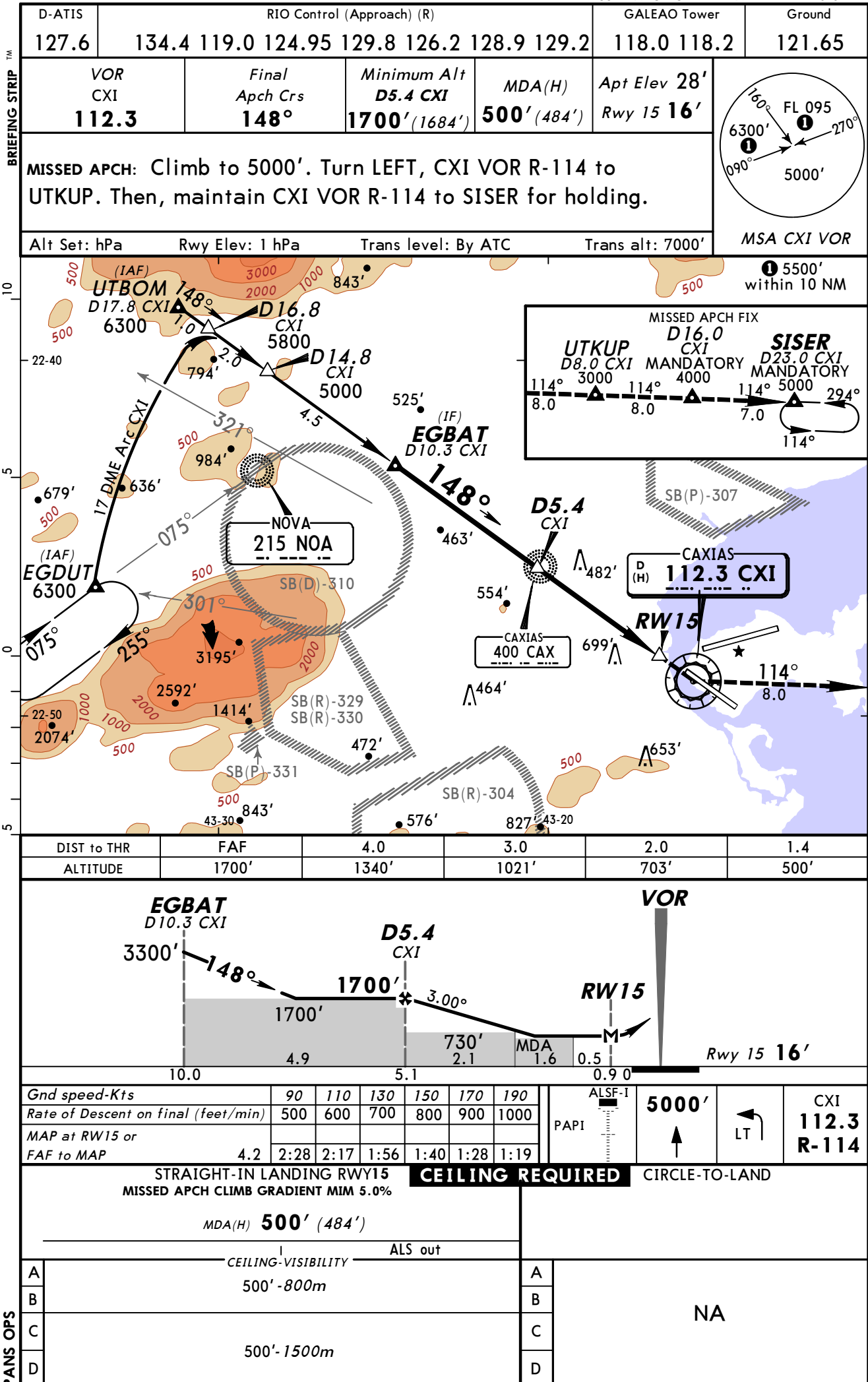


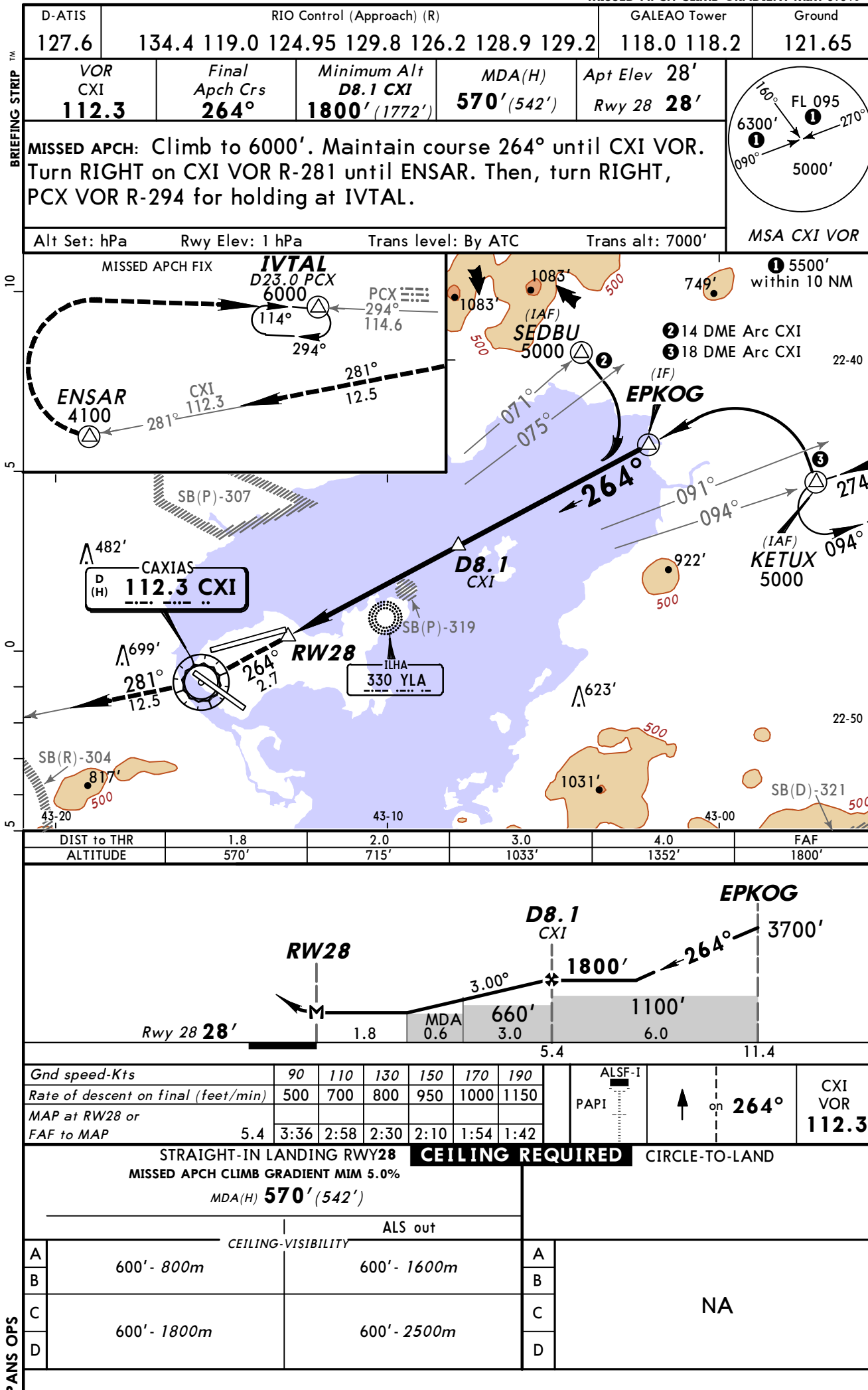
—

 $DA(H) \mathbf{372'}(356')$

D

400' - 1600m



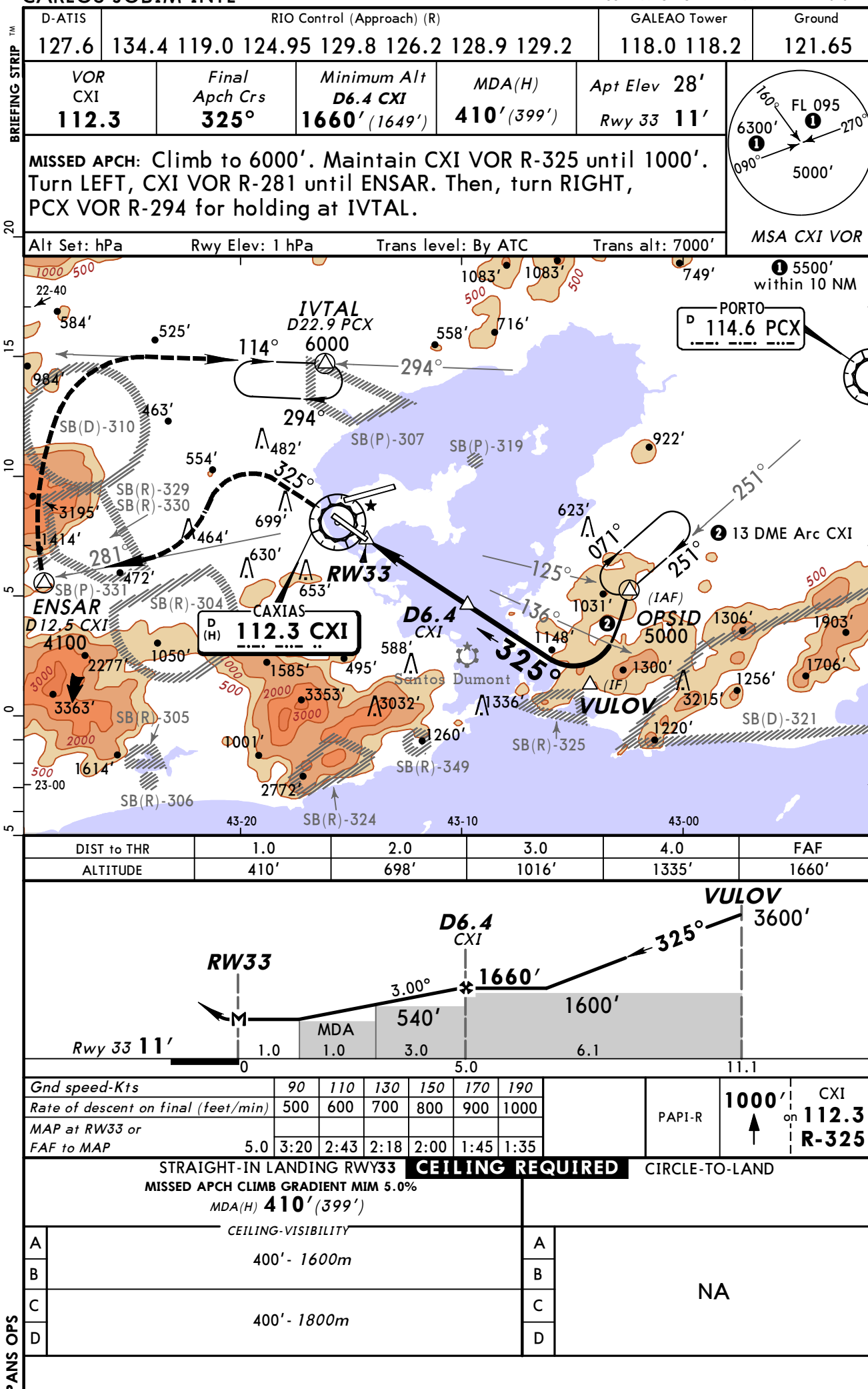


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7 NOV 14 (13-3)

RIO DE JANEIRO, BRAZIL
VOR Rwy 33

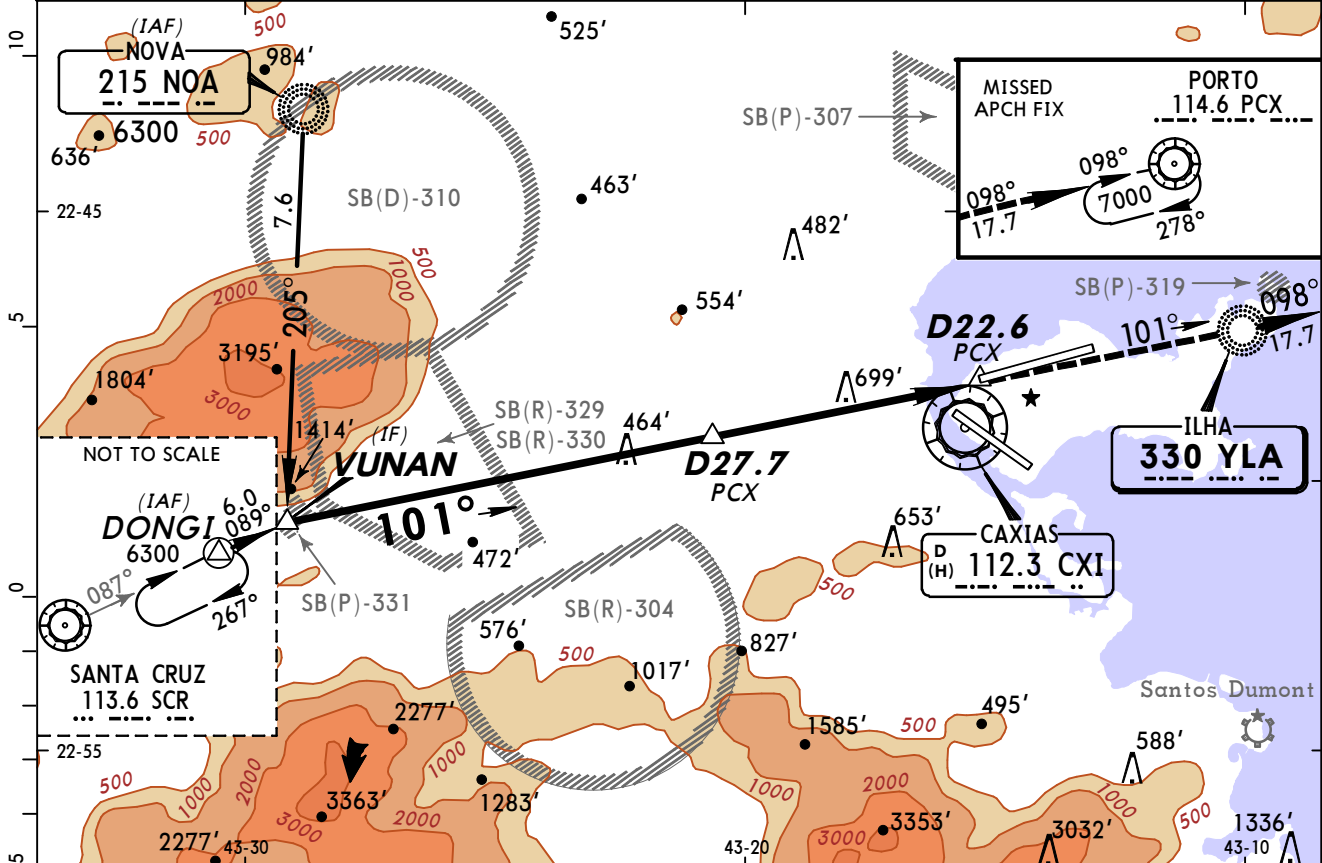
MISSED APCH CLIMB GRADIENT MIM 5.0%



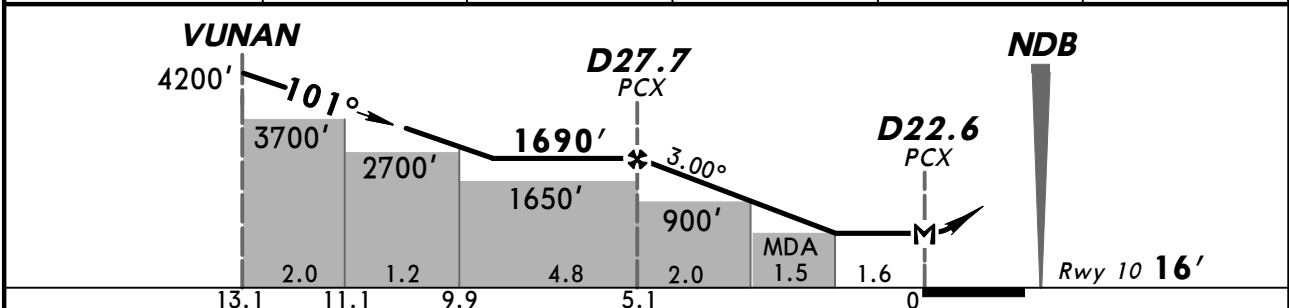
BRIEFING STRIP

TM

D-ATIS	RIO Control (Approach) (R)							GALEAO Tower		Ground
127.6	134.4	119.0	124.95	129.8	126.2	128.9	129.2	118.0	118.2	121.65
NDB YLA 330		Final Apch Crs 101°		Minimum Alt D27.7 PCX 1690' (1674')		MDA(H) 580' (564')		Apt Elev 28' Rwy 10 16'		MSA CXI VOR 1 5500' within 10 NM
MISSED APCH: Climb to 7000'. Maintain 101° bearing YLA NDB. After YLA NDB, PCX VOR R-278 for holding at PCX VOR.										
Alt Set: hPa		Rwy Elev: 1 hPa		Trans level: By ATC		Trans alt: 7000'				



DIST to THR	FAF	4.0	3.0	2.0	1.6
ALTITUDE	1690'	1340'	1021'	702'	580'



Gnd speed-Kts	90	110	130	150	170	190		7000'	YLA 330 101°
Rate of Descent on final (feet/min)	500	600	700	800	900	1000			
MAP at D22.6 PCX or									
FAF to MAP 5.1	3:24	2:47	2:21	2:02	1:48	1:36			

STRAIGHT-IN LANDING RWY10 MISSED APCH CLIMB GRADIENT MIM 5.0%					CEILING REQUIRED					CIRCLE-TO-LAND				
MDA(H) 580' (564')														
CEILING-VISIBILITY					ALS out									

PANS OPS	A	600'-1200m		600'-1600m		A	NA	
	B					B		
	C	600'-1900m		600'-2400m		C		
	D					D		

Chart changes since cycle 26-2014

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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RIO DE JANEIRO, (GALEAO-ANTONIO C JOBIM INTL - SBGL)

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport SBGL

Type: Terminal

Effectivity: Temporary

Begin Date: 20111020

End Date: Until Further Notice

(11-1) ILS W RWY 10 and (13-1) VOR/NDB RWY 15 procedures NA.

Type: Terminal

Effectivity: Temporary

Begin Date: Immediately

End Date: Until Further Notice

RIO Control (Approach) frequencies 119.0 and 129.8 deleted.