

List of pages in this Trip Kit

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- Terminal Charts For ETSI
- Revision Letter For Cycle 16-2023
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General Information

Location: INGOLSTADT DEU
ICAO/IATA: ETSI / IGS
Lat/Long: N48° 42.94', E011° 32.02'
Elevation: 1203 ft

Airport Use: Joint-Use
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 4.0° E

Fuel Types: 100 Octane (LL), Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: Yes

Sunrise: 0440 Z
Sunset: 1744 Z

Runway Information

Runway: 06L
Length x Width: 8001 ft x 98 ft
Surface Type: concrete
TDZ-Elev: 1196 ft
Lighting: Edge, ALS

Runway: 06R
Length x Width: 9646 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1201 ft
Lighting: Edge, ALS, Centerline
Stopway: 798 ft

Runway: 24L
Length x Width: 9646 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1197 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 1021 ft

Runway: 24R
Length x Width: 8001 ft x 98 ft
Surface Type: concrete

TDZ-Elev: 1192 ft
Lighting: Edge, ALS

Communication Information

ATIS: 118.865
Ingo Tower: 25.780 Military
Ingo Tower: 25.957 Military
Ingo Tower: 37.680 Military
Ingo Tower: 38.960 Military
Ingo Tower: 139.400
Ingo Tower: 125.255
Ingo Tower: 122.100
Ingo Radar: 139.400
Ingo Radar: 122.100
Ingo Radar: 120.605
Ingo Radar: 123.300
Ingo Radar: 125.580
Ingo Radar: 28.200 Military
Ingo Radar: 31.345 Military
Ingo Radar: 37.847 Military
Ingo Radar: 38.885 Military

ETSI/IGS
MANCHING

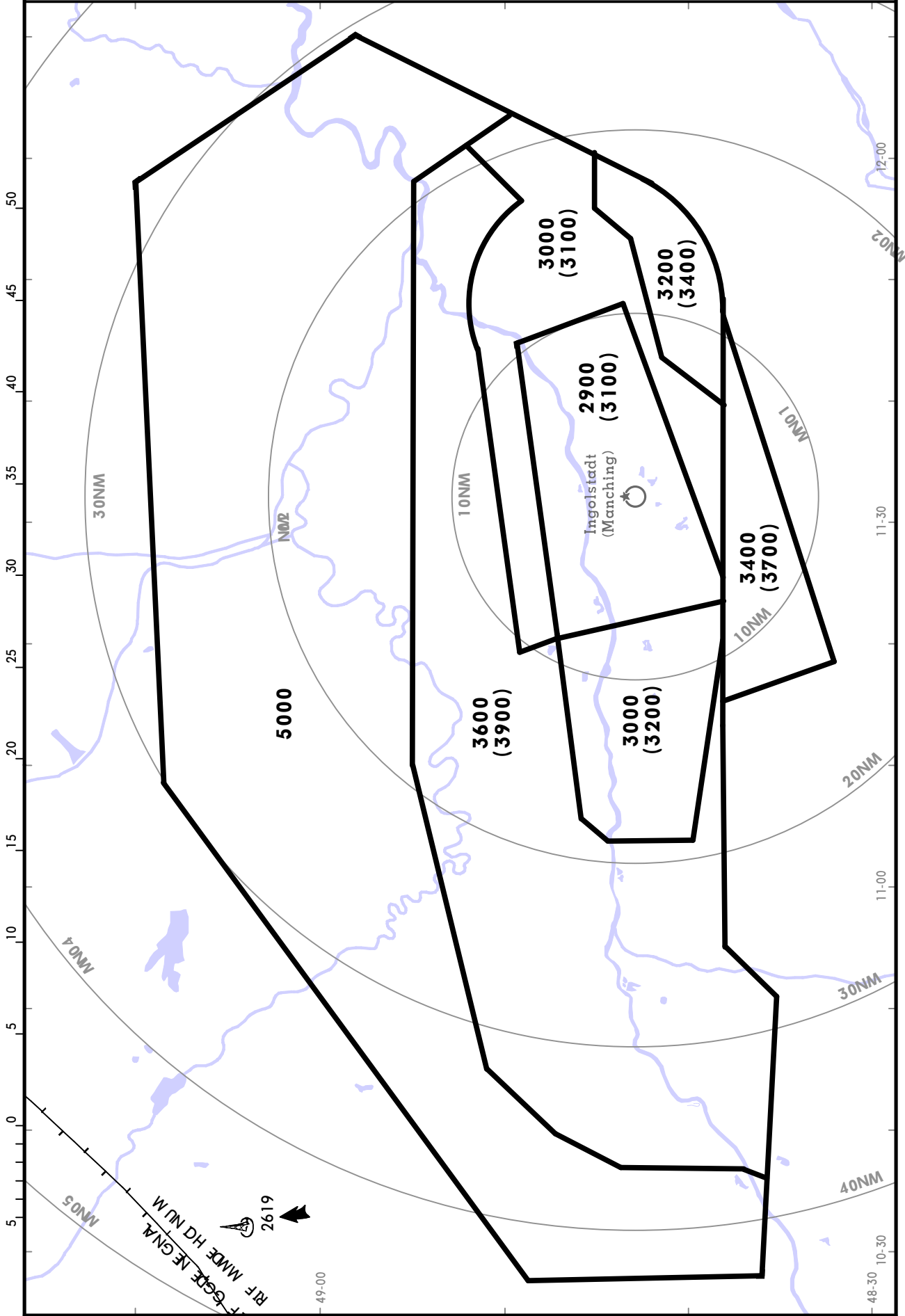
JEPPesen
22 MAY 20 **(10-1R)**

INGOLSTADT, GERMANY
RADAR MINIMUM ALTITUDES

*INGO Radar				Apt Elev	Alt Set: hPa (IN on request)
120.605	122.1X	123.3X	125.580	1203	Trans level: By ATC Trans alt: 5000

For UHF see MIL-101 listing

Values in brackets consider additional height margins in order to meet required obstacle clearance at cold temperatures.



CHANGES: Communications.

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ETSI/IGS
MANCHING

JEPPESEN
10 JUN 22 10-3 Eff 16 Jun

INGOLSTADT, GERMANY

SID

Apt Elev
1203'

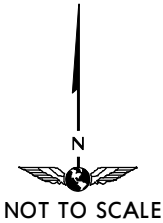
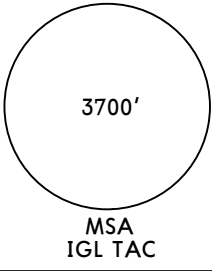
Trans level: By ATC Trans alt: 5000'
Emergency safe altitude within 100 NM of Manching 13500'.

For UHF see MIL-101 listing

SI 106, SI 124
DEPARTURES
(RWYS 06R, 24L)

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

IFR profiles within airspace
class E. Watch out for VFR
traffic unknown to ATC.

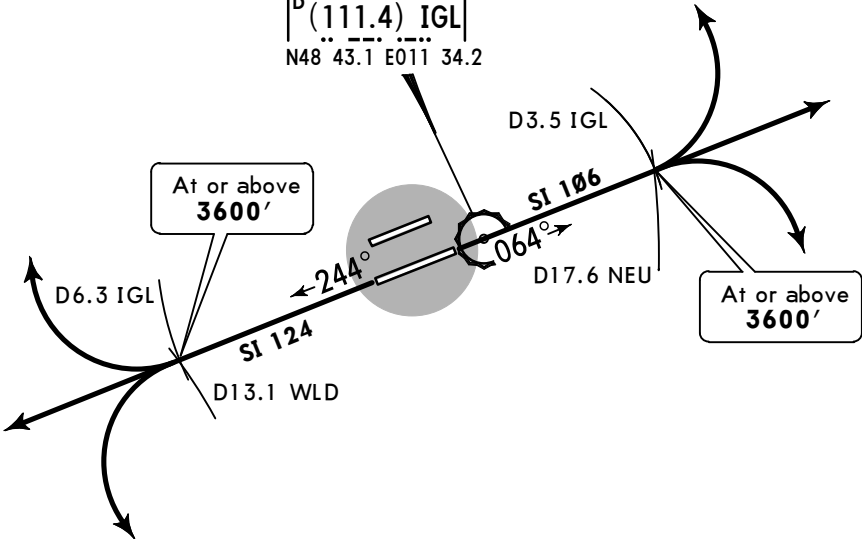


TAC-26X
NEUBURG
D (108.9) NEU
N48 42.8 E011 12.7



TAC-51X
INGOLSTADT
D (111.4) IGL
N48 43.1 E011 34.2

At or above
3600'



At or above
3600'

WALDA
D 112.8 WLD
N48 34.8 E011 07.8



MINIMUM CLIMB RATE TABLE
FOR ATC PURPOSES
up to 3600'

Gnd speed-KT	75	100	150	200	250	300
V/V (fpm)	760	1013	1520	2026	2533	3040

Close-in obstacle - SI 124:
Building 327 m 221° beyond DER, 1243'.

SID	RWY	ROUTING
SI 106	06R	Climb on 064° track to D3.5 IGL or D17.6 NEU, continue as cleared by ATC.
SI 124	24L	Climb on 244° track to D6.3 IGL or D13.1 WLD, continue as cleared by ATC.

ETSI/IGS
MANCHING

JEPPESEN
10 JUN 22 (10-3A) Eff 16 Jun

INGOLSTADT, GERMANY

SID

Apt Elev
1203'

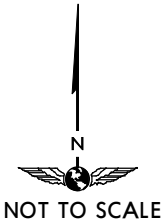
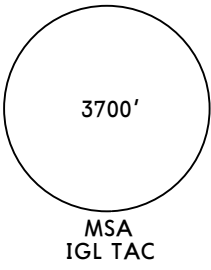
Trans level: By ATC Trans alt: 5000'
Emergency safe altitude within 100 NM of Manching 13500'.

For UHF see MIL-101 listing

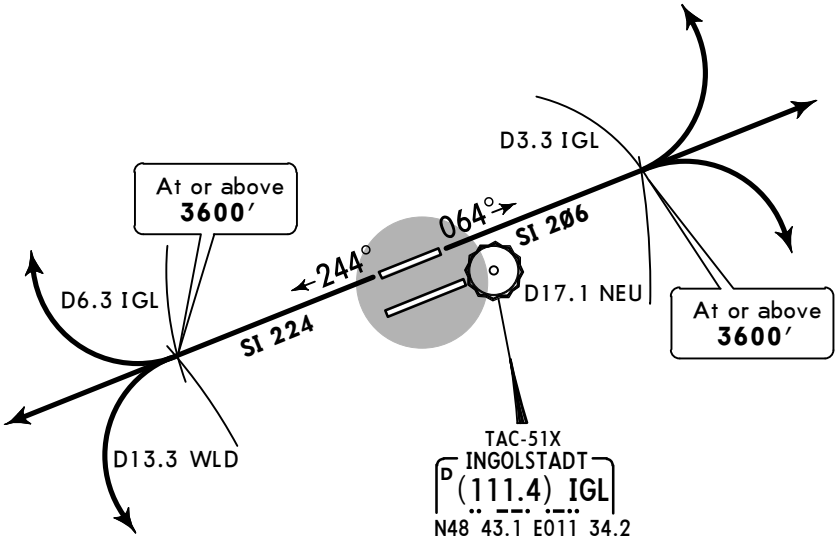
SI 206, SI 224
DEPARTURES
(RWYS 06L, 24R)

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

IFR profiles within airspace
class E. Watch out for VFR
traffic unknown to ATC.



TAC-26X
NEUBURG
D (108.9) NEU
N48 42.8 E011 12.7



WALDA
D 112.8 WLD
N48 34.8 E011 07.8

Close-in obstacle:

SI 206: Building 295 m 103° beyond DER, 1230'
and several trees LEFT side of track, MAX 1247'.
SI 224: Building 843 m 271° beyond DER, 1273'.

MINIMUM CLIMB RATE TABLE
FOR ATC PURPOSES
up to 3600'

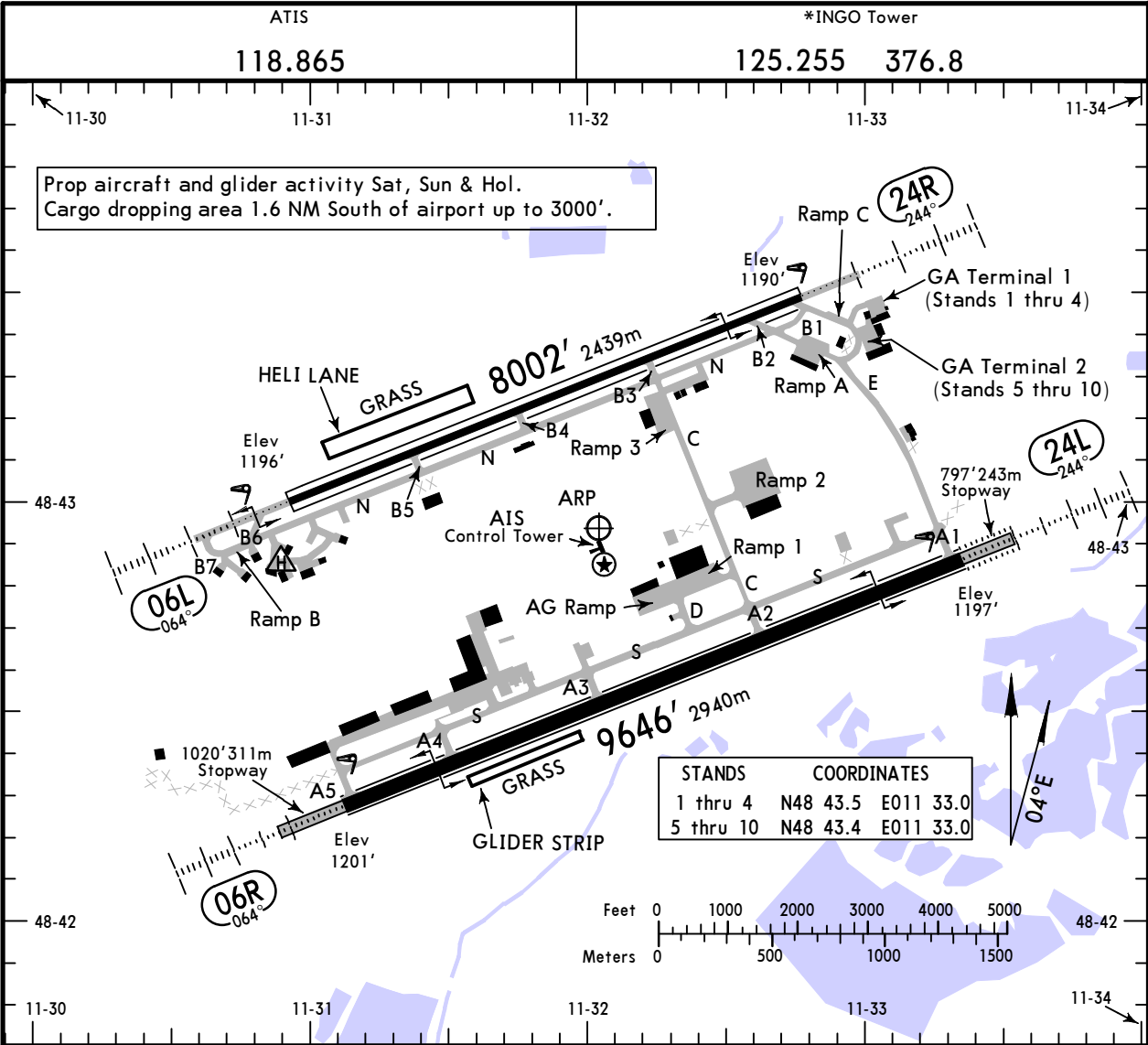
Gnd speed-KT	75	100	150	200	250	300
V/V (fpm)	760	1013	1520	2026	2533	3040

SID	RWY	ROUTING
SI 206	06L	Climb on 064° track to D3.3 IGL or D17.1 NEU, continue as cleared by ATC.
SI 224	24R	Climb on 244° track to D6.3 IGL or D13.3 WLD, continue as cleared by ATC.

ETSI/IGS
Apt Elev **1203'**
N48 42.9 E011 32.0

JEPPESSEN
9 DEC 22 **(10-9)**

INGOLSTADT, GERMANY
MANCHING

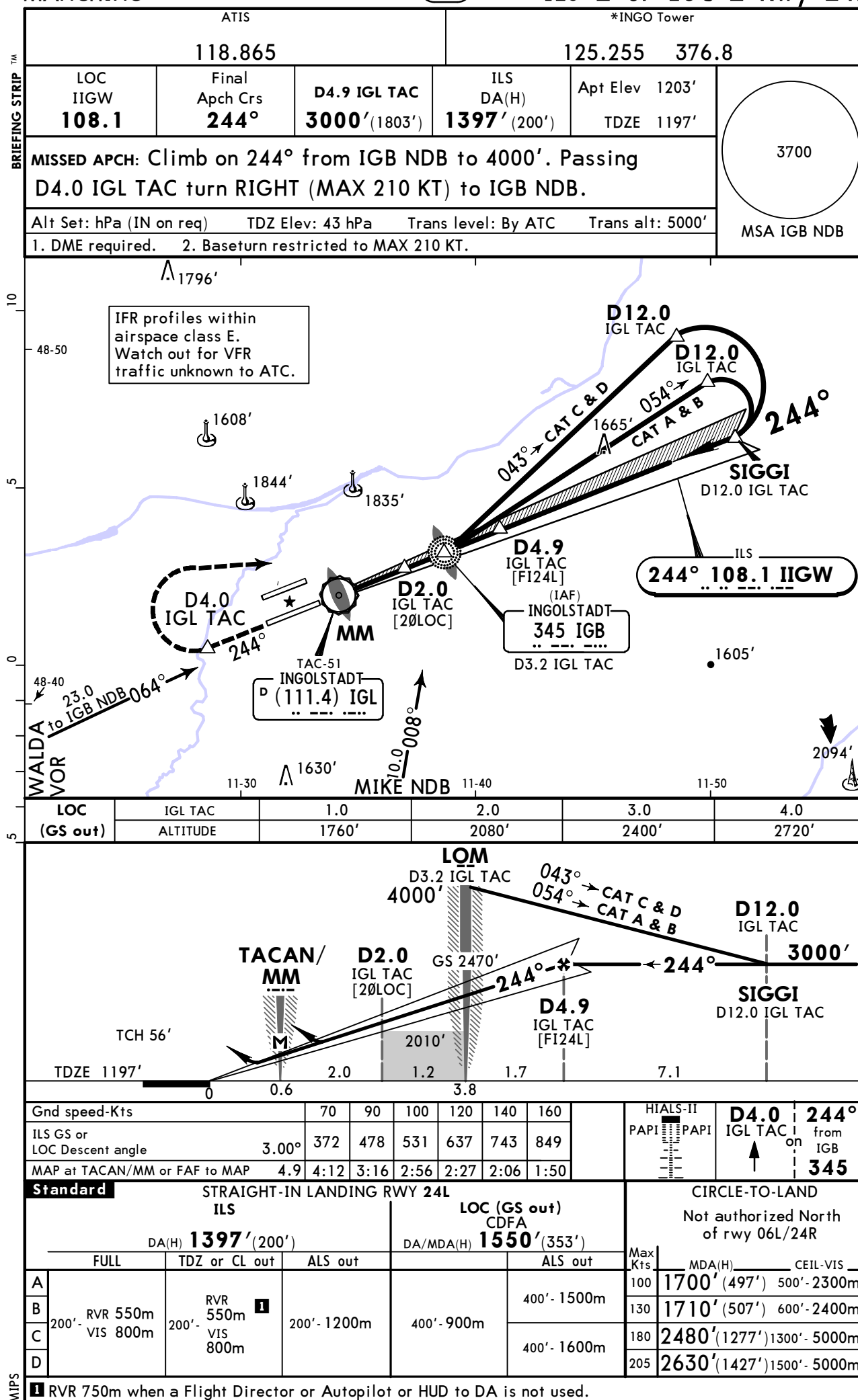


ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS			
		LANDING BEYOND		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
06L ① 24R	HIRL ② HIALS PAPI (angle 3.0°)				98' 30m
06R 24L	HIRL ② CL ③ HIALS SFL PAPI (angle 3.0°)				197' 60m
	HIRL ② CL ③ HIALS-II SFL TDZ PAPI (angle 3.0°)		8553' 2607m		

- ① Rwy with anti-skid layer.
- ② spacing 60m.
- ③ spacing 15m.

Standard TAKE-OFF						
Low Visibility Take-off						
	HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
A						
B	TDZ, MID, RO	TDZ, MID, RO				
C	RVR 125m	RVR 150m	RVR 200m	RVR 300m	400m	500m
D						

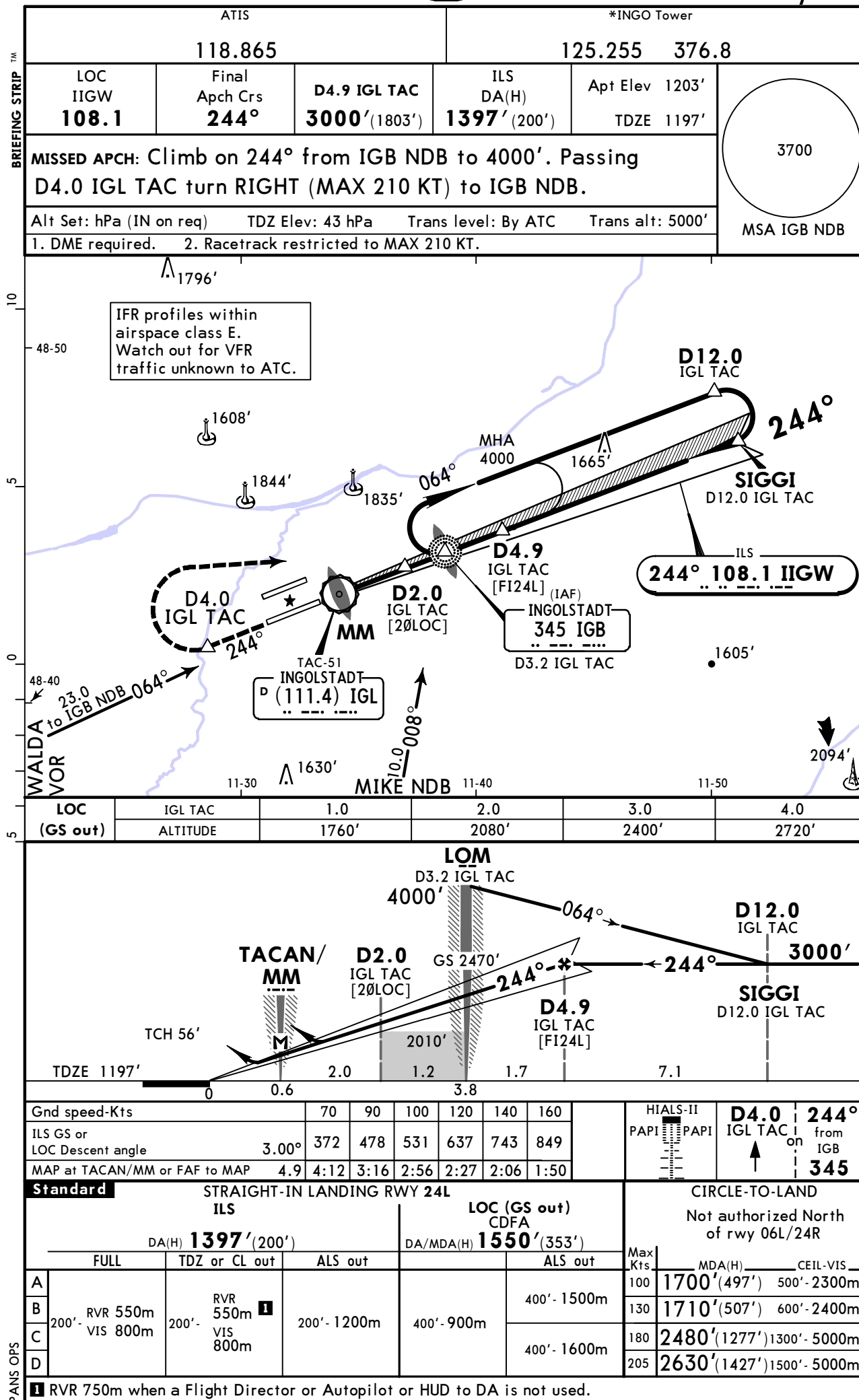
INGOLSTADT, GERMANY
ILS Z or LOC Z Rwy 24L



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MANCHING

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9 DEC 22 (11-2)

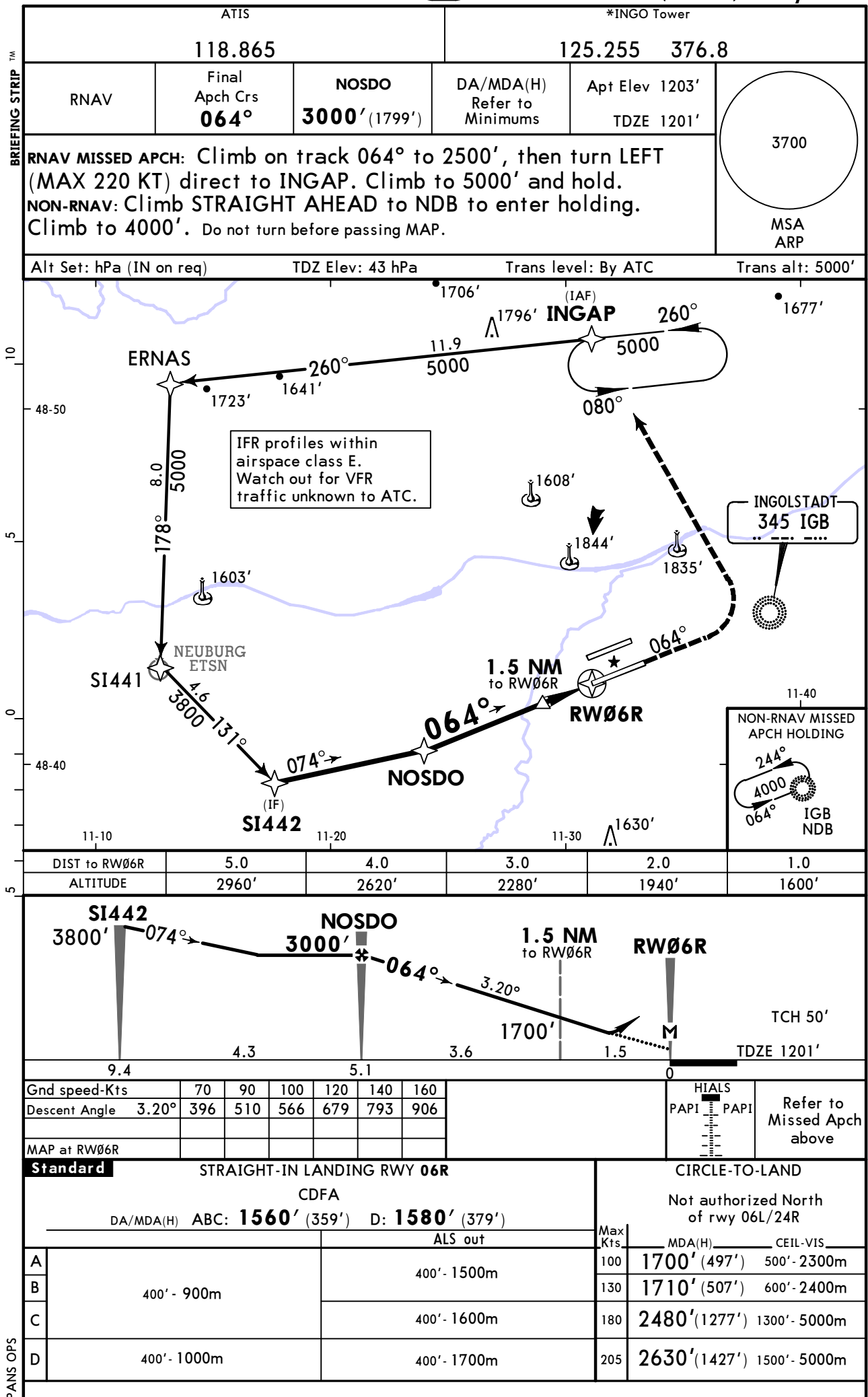
INGOLSTADT, GERMANY
ILS Y or LOC Y Rwy 24L



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MANCHING

JEPPESEN
9 DEC 22 (12-2)

INGOLSTADT, GERMANY
RNAV (GNSS) Rwy 06R

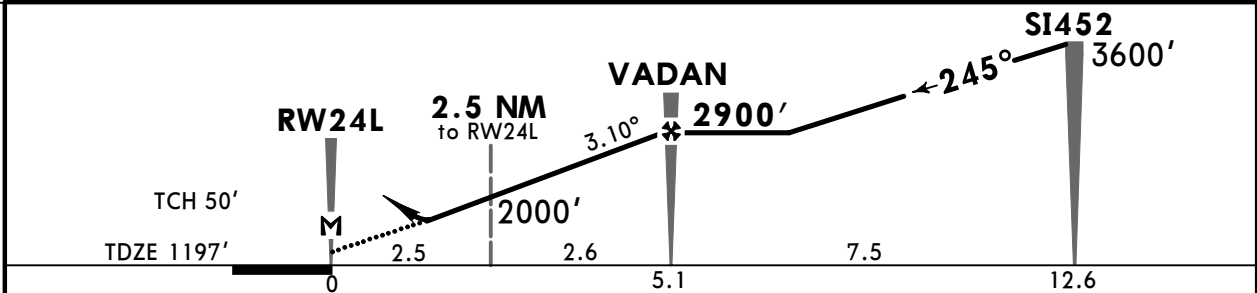
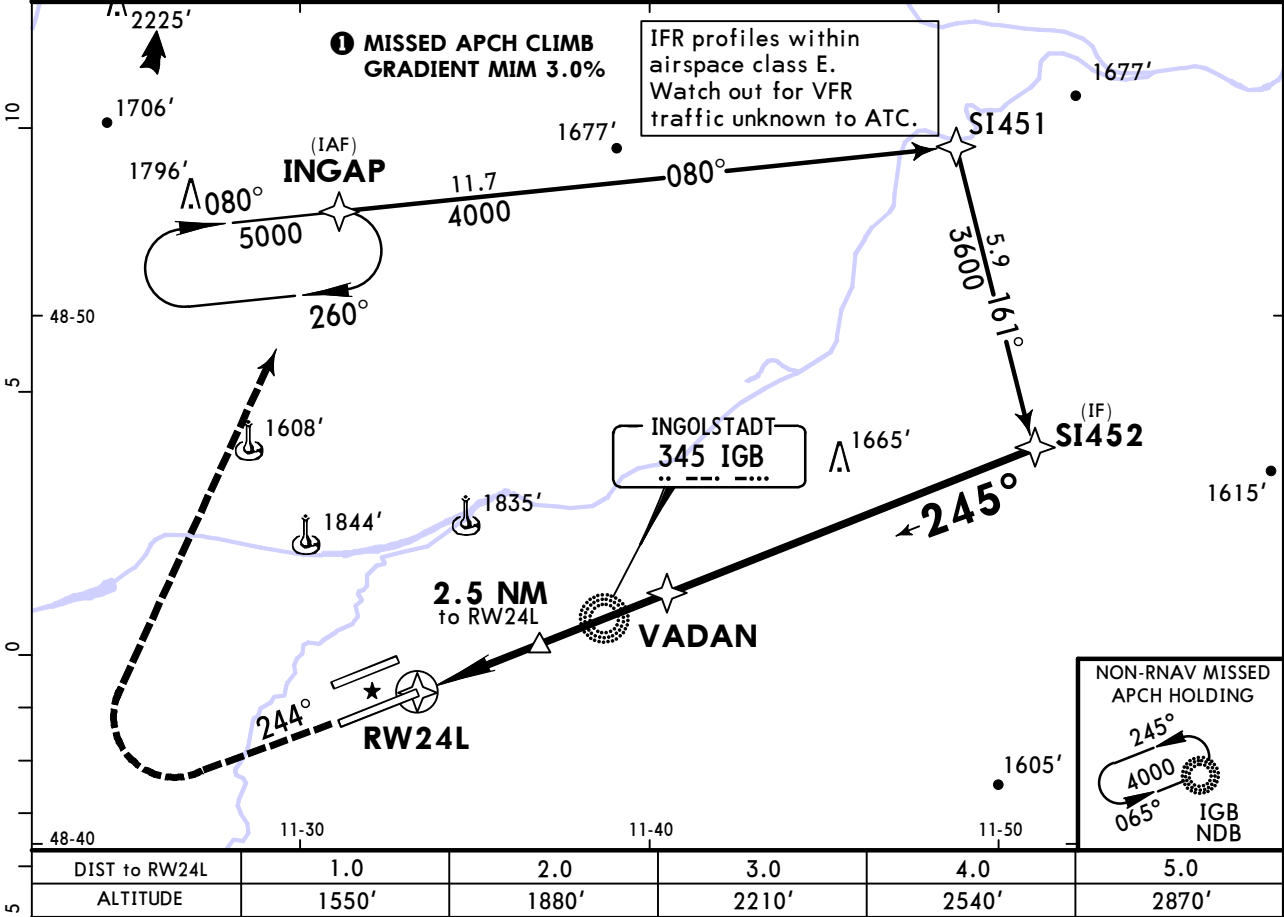


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MANCHING

JEPPESEN
9 DEC 22 (12-3)

INGOLSTADT, GERMANY
• RNAV (GNSS) Rwy 24L

ATIS			*INGO Tower		
118.865			125.255 376.8		
RNAV	Final Apch Crs 245°	VADAN 2900' (1703')	DA/MDA(H) 1570' (373')	Apt Elev 1203' TDZE 1197'	3700 MSA ARP
RNAV MISSED APCH: Climb on track 244° to 2500', then turn RIGHT (MAX 250 KT) direct to INGAP. Climb to 5000' and hold. NON-RNAV: Climb on track 244° to 2500', then turn RIGHT (MAX 250 KT) to NDB and enter holding at 4000'. Do not turn before passing MAP.					
Alt Set: hPa (IN on req)		TDZ Elev: 43 hPa	Trans level: By ATC		



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI PAPI	2500' on 244°
Descent Angle 3.10°	384	494	548	658	768	878		
MAP at RW24L								

Standard			STRAIGHT-IN LANDING RWY 24L Missed apch climb gradient min 3.0% CDFA DA/MDA(H) 1570' (373')			CIRCLE-TO-LAND Not authorized North of rwy 06L/24R		
			ALS out			Max Kts	MDA(H)	CEIL-VIS
A			400' - 1500m			100	1700' (497')	500' - 2300m
B						130	1710' (507')	600' - 2400m
C	400' - 1000m					180	2480' (1277')	1300' - 5000m
D			400' - 1700m			205	2630' (1427')	1500' - 5000m

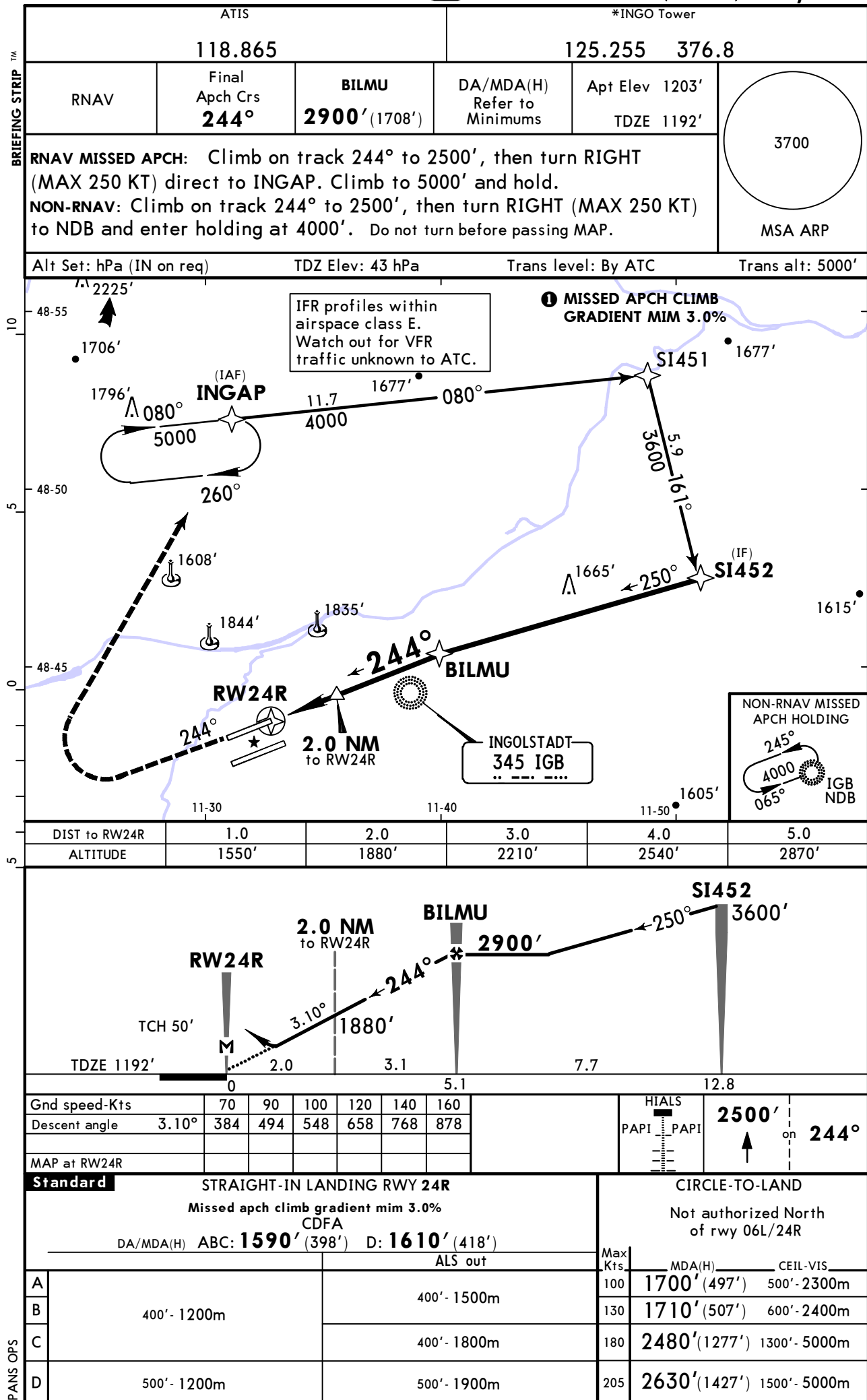
CHANGES: ATIS added.

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ETSI/IGS
MANCHING

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9 DEC 22 (12-4)

INGOLSTADT, GERMANY
• RNAV (GNSS) Rwy 24R



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INGOLSTADT, GERMANY

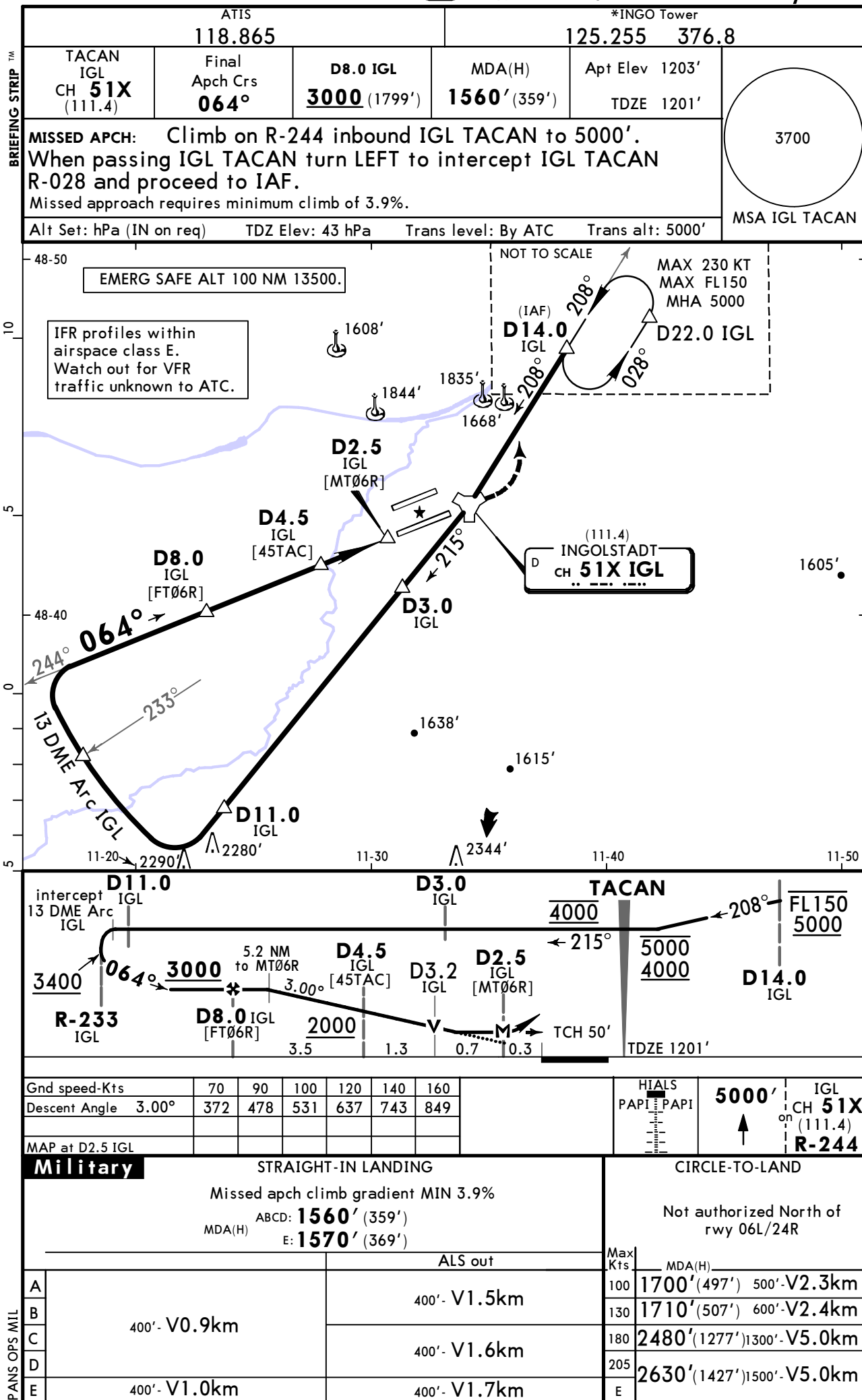
9 DEC 22

14-1

MISSED APCH CLIMB

GRADIENT MIN 3.9%

TACAN Rwy 06R



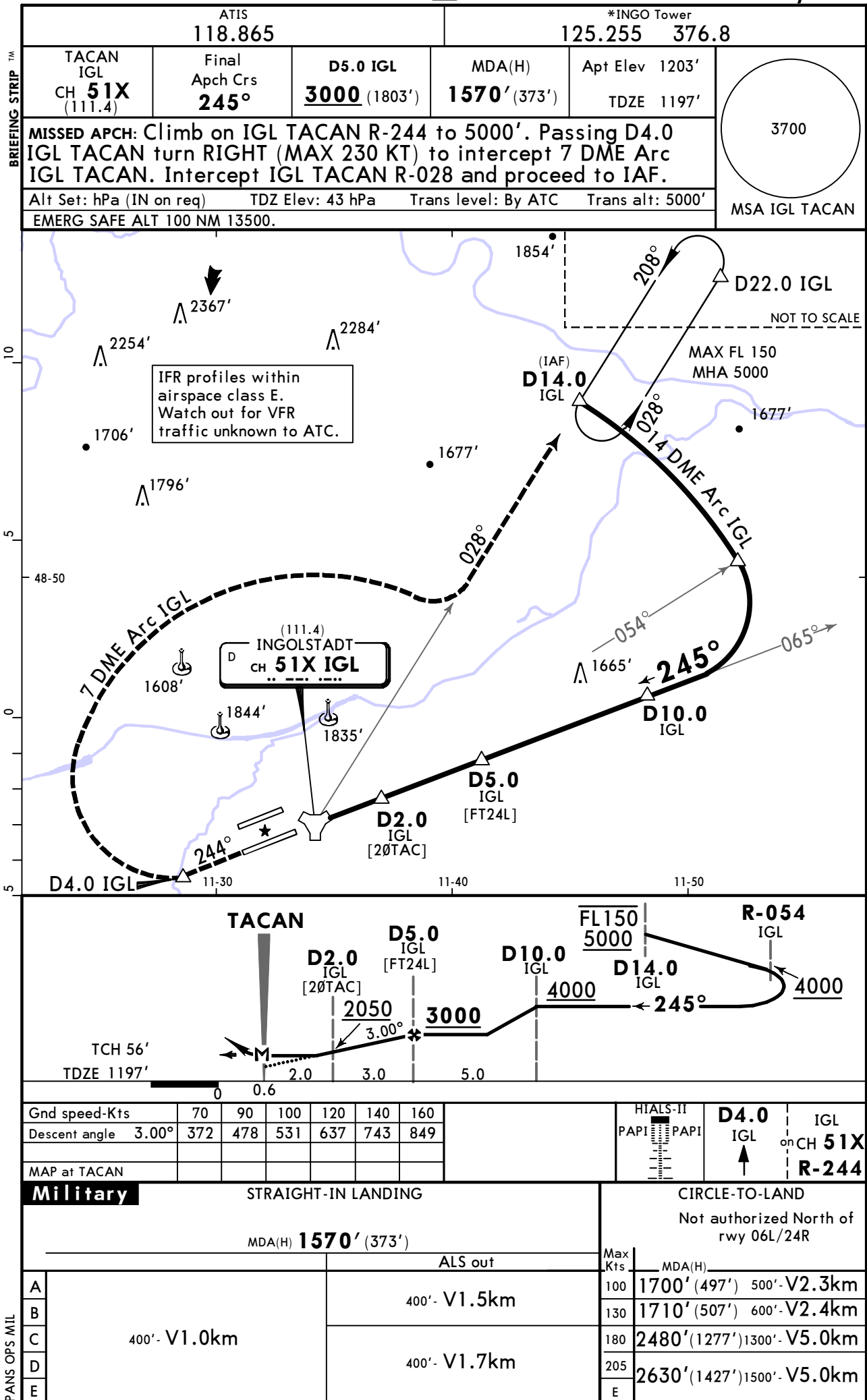
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9 DEC 22 (14-2)

INGOLSTADT, GERMANY
TACAN Rwy 24L



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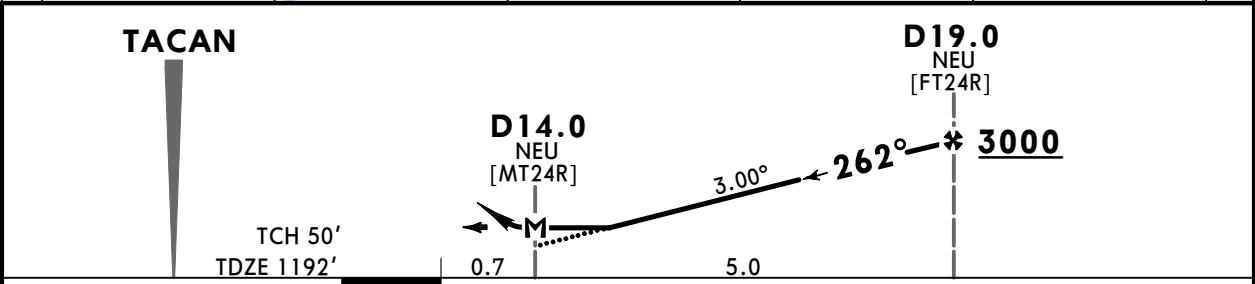
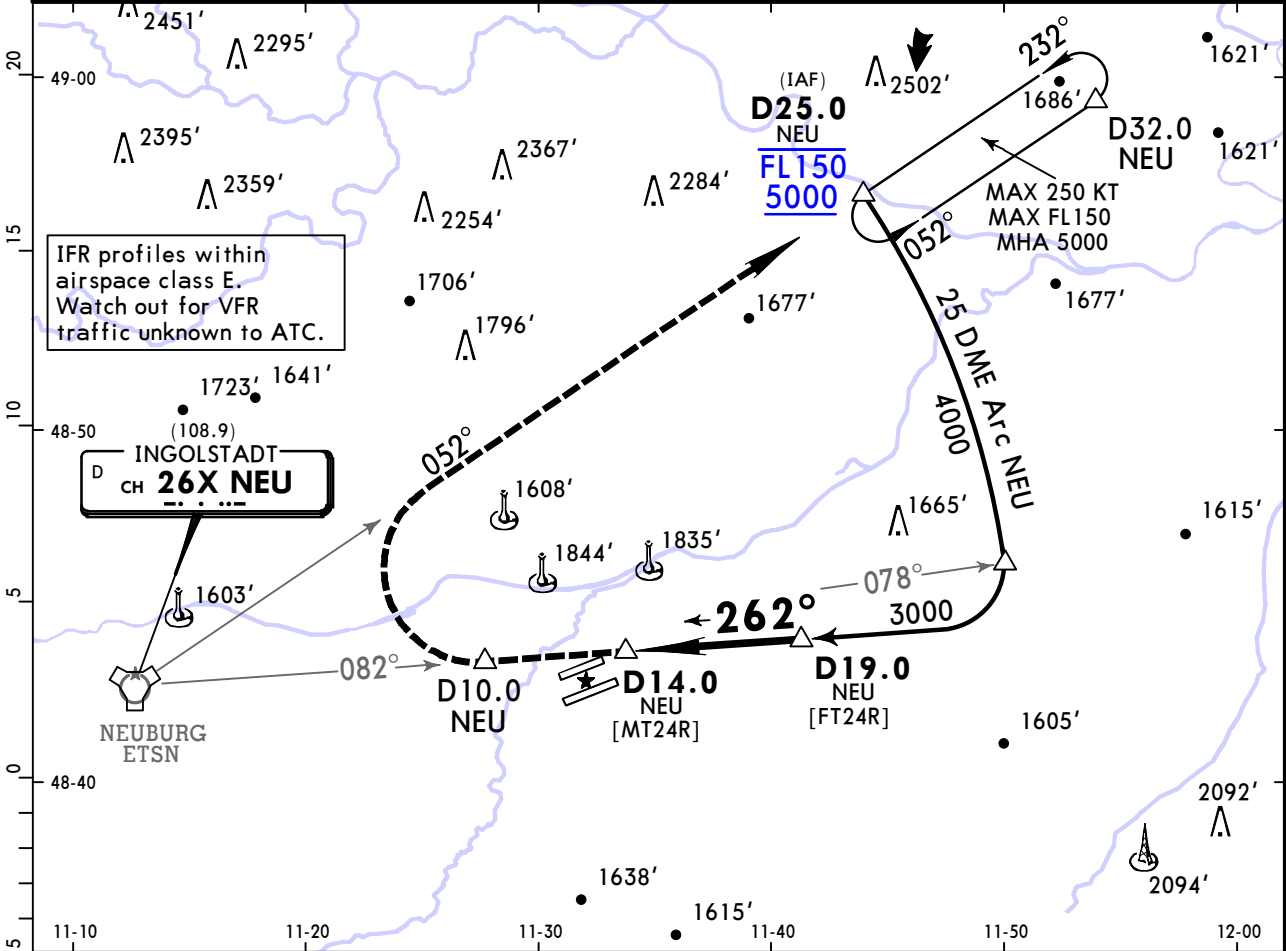
ETSI/IGS
MANCHING

JEPPESEN
9 DEC 22 14-3

INGOLSTADT, GERMANY
TACAN Rwy 24R

BRIEFING STRIP™

ATIS 118.865				*INGO Tower 125.255 376.8	
TACAN NEU CH 26X (108.9)	Final Apch Crs 262°	D19.0 NEU 3000 (1808')	MDA(H) 1960' (768')	Apt Elev 1203' TDZE 1192'	3700 MSA NEU TACAN
MISSED APCH: Climb on NEU TACAN R-082 inbound to D10.0 NEU TACAN, then turn RIGHT (MAX 230 KT) to intercept NEU TACAN R-052 outbound and proceed to IAF. Climb to 5000'.					
Alt Set: hPa (IN on req) TDZ Elev: 43 hPa Trans level: By ATC Trans alt: 5000'					
EMERG SAFE ALT 100 NM 13500.					



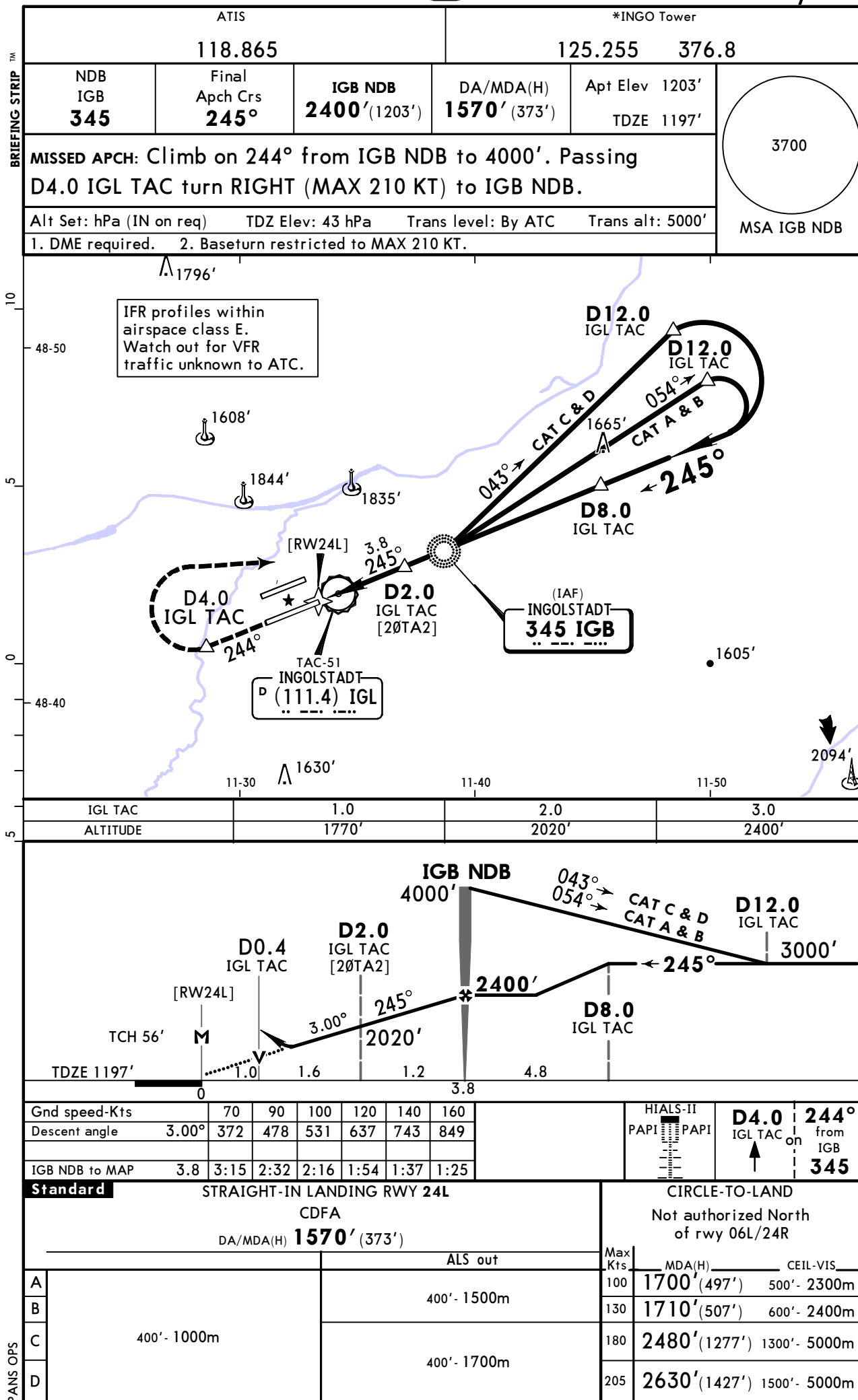
Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI PAPI	D10.0 NEU CH 26X (108.9) R-082
Descent Angle	3.00°	372	478	531	637	849		
MAP at D14.0 NEU								

Military			STRAIGHT-IN LANDING			CIRCLE-TO-LAND		
			MDA(H) 1960' (768')			Not authorized North of Rwy 06L/24R		
			ALS out			Max Kts		
A						100	1960' (757') 800' - V3.6km	
B						130		
C	800' - V2.9km					180	2480' (1277') 1300' - V5.0km	
D			800' - V3.6km			205		
E						E	2630' (1427') 1500' - V5.0km	

ETSI/IGS
MANCHING

JEPPESEN
9 DEC 22 (16-1)

INGOLSTADT, GERMANY
NDB Z Rwy 24L



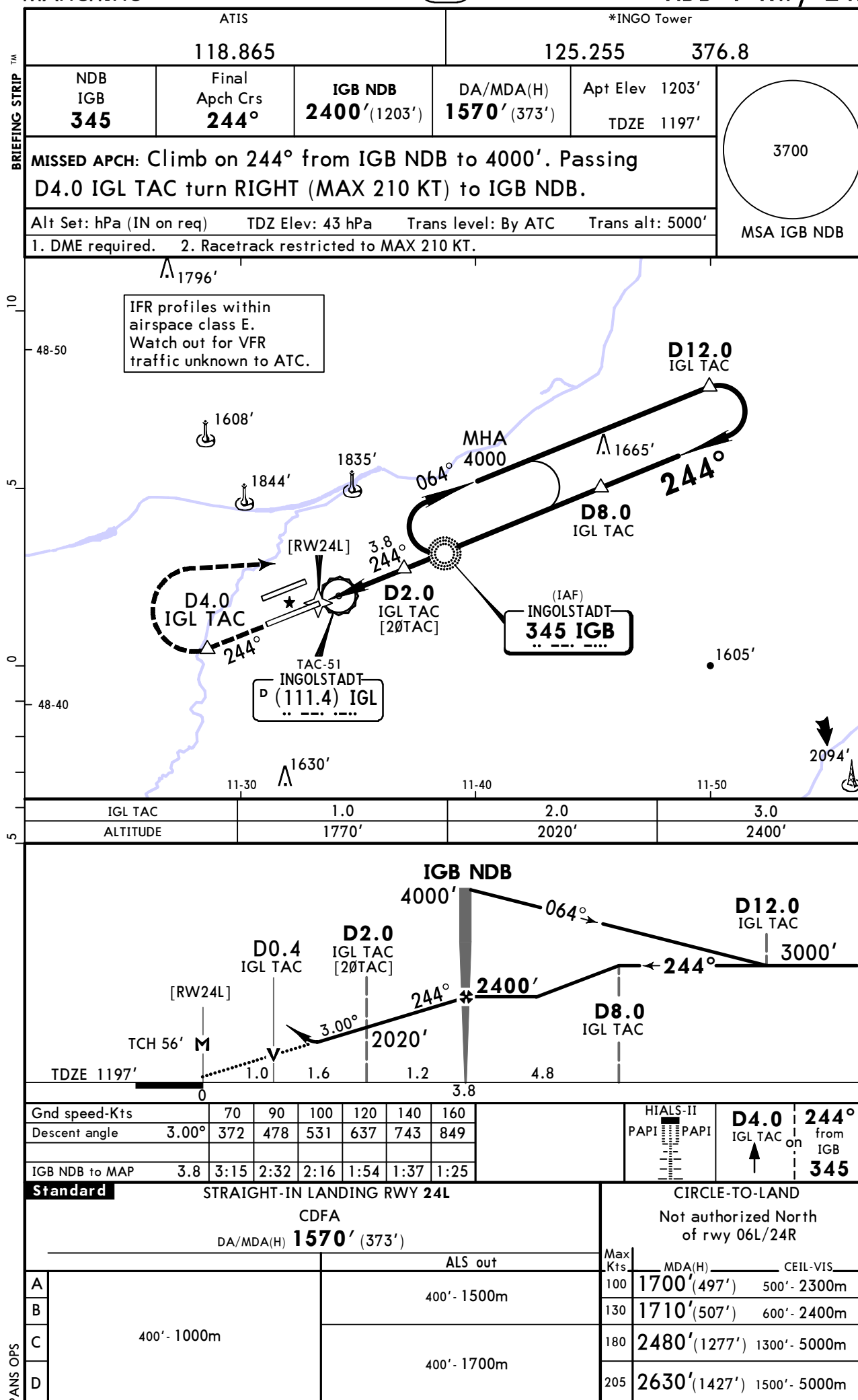
CHANGES: ATIS added.

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ETSI/IGS
MANCHING

JEPPESEN
9 DEC 22 (16-2)

INGOLSTADT, GERMANY
NDB Y Rwy 24L



CHANGES: ATIS added.

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Chart changes since cycle 15-2023

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
INGOLSTADT, (MANCHING - ETSI)				

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport ETSI

Chart Change Notices for Country DEU

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

Location/airport name changed from Monchengladbach to Moenchengladbach.

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: 20210326
End Date: No end date

Use of SID RNAV OVERLAY: Pilots of GPS/FMS-RNAV-equipped aircraft should, if possible, use the defined supplementary GPS/FMS/RNAV procedures which are published as "OVERLAY" to a conventional procedure. Please refer also to ATC Germany pages for additional information.

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

Location/airport name changed from Buchel to Buechel, Buckeburg to Bueckeburg, Norvenich to Noervenich.

Type: Gen Tmnl
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

Jeppesen charted take-off minimums are determined according to the available RWY lights. In Germany, Low Visibility Procedures (LVP) are only available for the following airports: EDDB, EDDC, EDDE, EDDF, EDDG, EDDH, EDDK, EDDL, EDDM, EDDN, EDDP, EDDR, EDDS, EDDV, EDDW, EDFH, EDHI, EDHL, EDJA, EDLN, EDLP, EDLV, EDLW, EDMA, EDNY, EDQM, EDSB, EDTL, EDTY, EDVE, EDVK. All other German airports are not approved for Low Visibility Take-off Operations (LVTO) with an RVR below 400m because of missing LVP.