

General Info

Tianjin, CHN

N 39°07.5' E 117°20.8' Mag Var: 5.8°

Elevation: 10'

Public, Control Tower, IFR, Landing Fee, Customs

Fuel: Jet A-1

Repairs: Minor Airframe, Minor Engine

Time Zone Info: GMT+8:00 no DST

Runway Info

Runway 16-34 10499' x 164' asphalt

Runway 16 (160.0') TDZE 7'

Lights: Edge, ALS, Centerline

Stopway Distance 197'

Runway 34 (340.0') TDZE 7'

Lights: Edge, ALS, Centerline

Right Traffic

Stopway Distance 197'

Communications Info

ATIS **126.4**

Tianjin Tower **130.0** Secondary

Tianjin Tower **127.9**

Tianjin Tower **118.2** MF

Tianjin Ramp/Taxi Control **121.75**

Tianjin Approach Control **127.9** At or below 11800' MF

Tianjin Approach Control **120.9** At or below 11800' Secondary

Tianjin Approach Control **118.2**

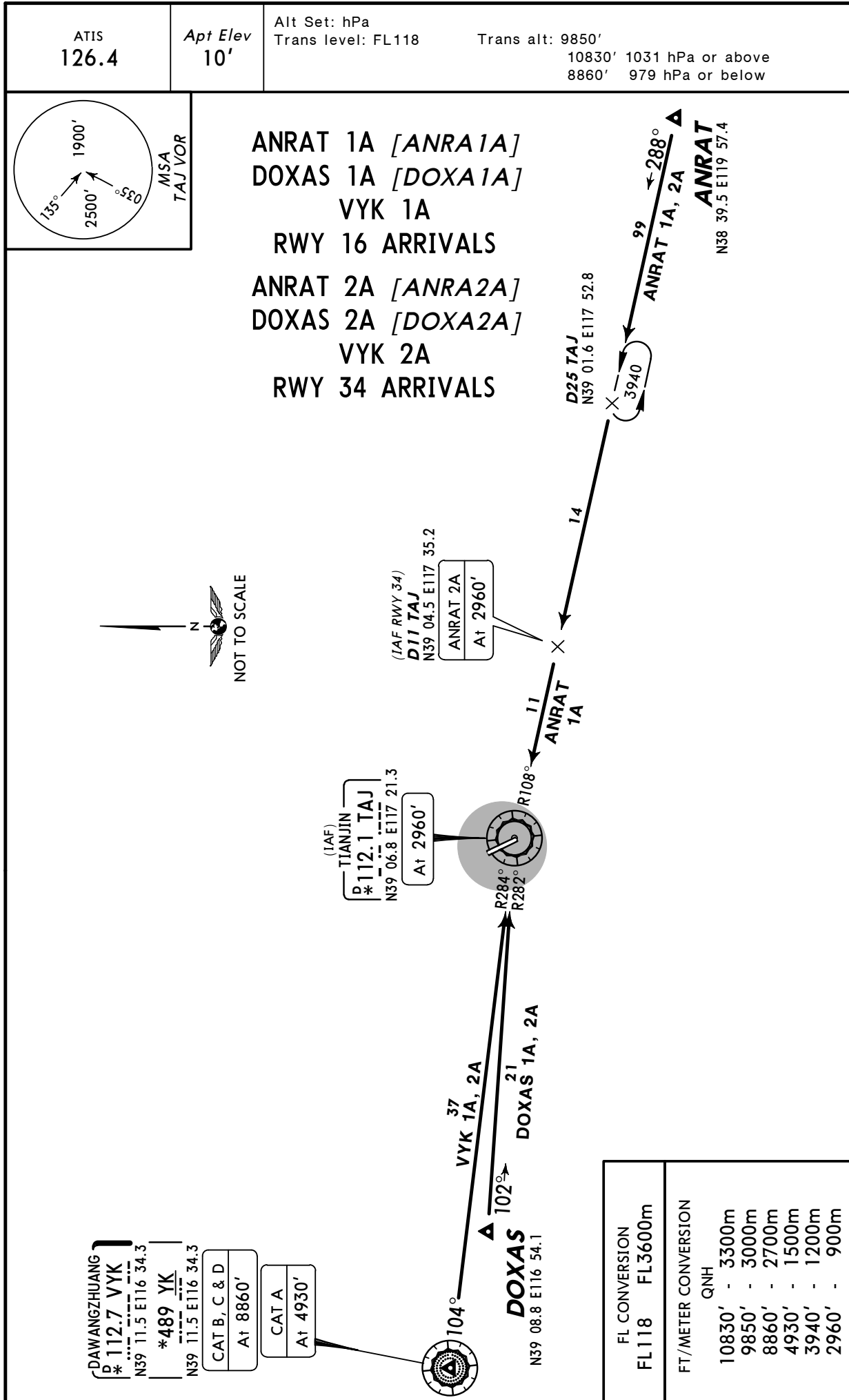
Notebook Info

ZBTJ/TSN
BINHAI

JEPPESSEN 21 SEP 07 **10-2** Eff 27 Sep

TIANJIN, PR OF CHINA

STAR



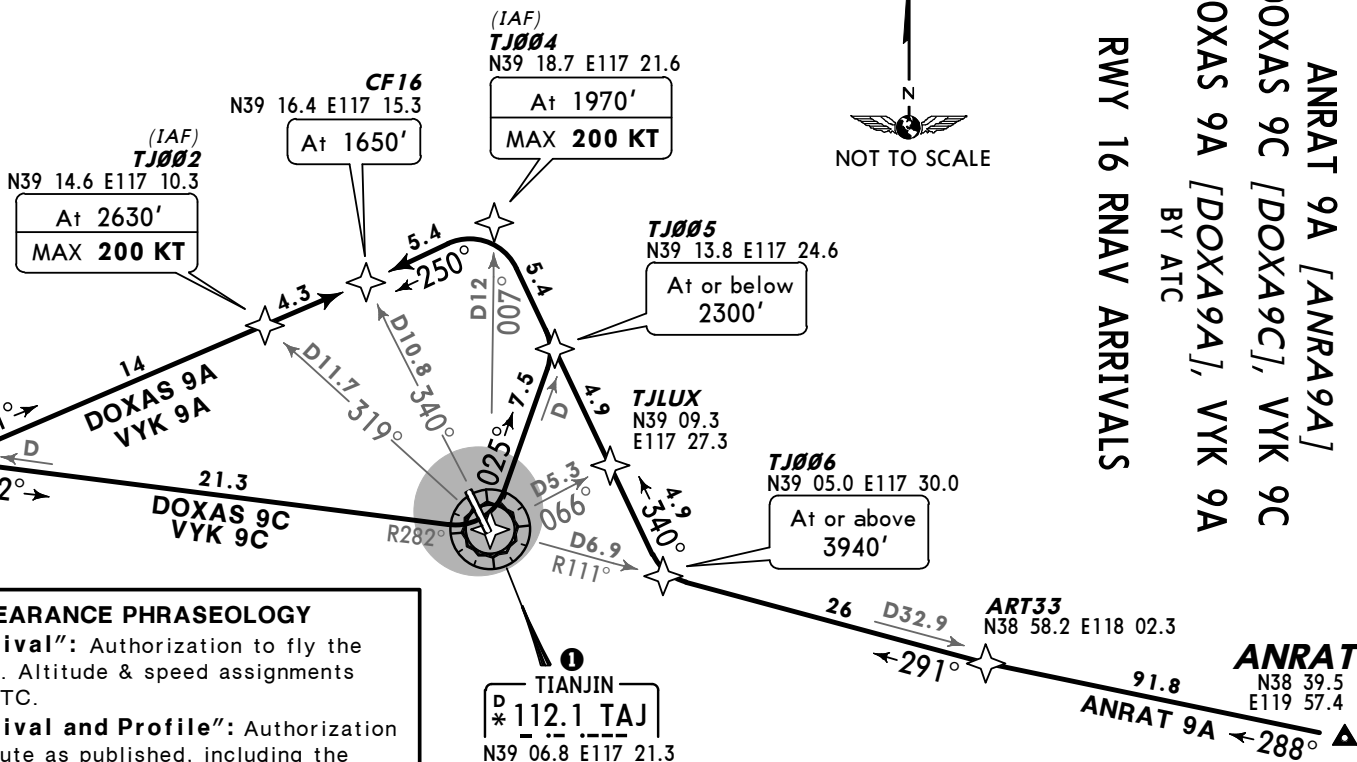
ZBTJ/TSN
BINHAI

21 SEP 07 10-2A Eff 27 Sep
JEPPesen TIANJIN, PR OF CHINA
RNAV STAR

ATIS 126.4
Apt Elev 10'
Alt Set: hPa
Trans level: FL118
Trans alt: 9850'
10830' 1031 hPa or above
8860' 979 hPa or below

ANRAT 9A [ANRA9A]
DOXAS 9C [DOXA9C], VYK 9C
DOXAS 9A [DOXA9A], VYK 9A
BY ATC

RWY 16 RNAV ARRIVALS



RNAV CLEARANCE PHRASEOLOGY

1. "Cleared xxx Arrival": Authorization to fly the lateral RNAV-route. Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Arrival and Profile": Authorization to fly the RNAV-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct to xxx": Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

FL CONVERSION
FL118 FL3600m

FT/METER CONVERSION

QNH	
10830'	- 3300m
9850'	- 3000m
8860'	- 2700m
4930'	- 1500m
3940'	- 1200m
2630'	- 800m
2300'	- 700m
1970'	- 600m
1650'	- 500m



DAWANGZHUANG
D * 112.7 VYK
N39 11.5 E116 34.3

CAT B, C & D
At 8860'

CAT A
At 4930'

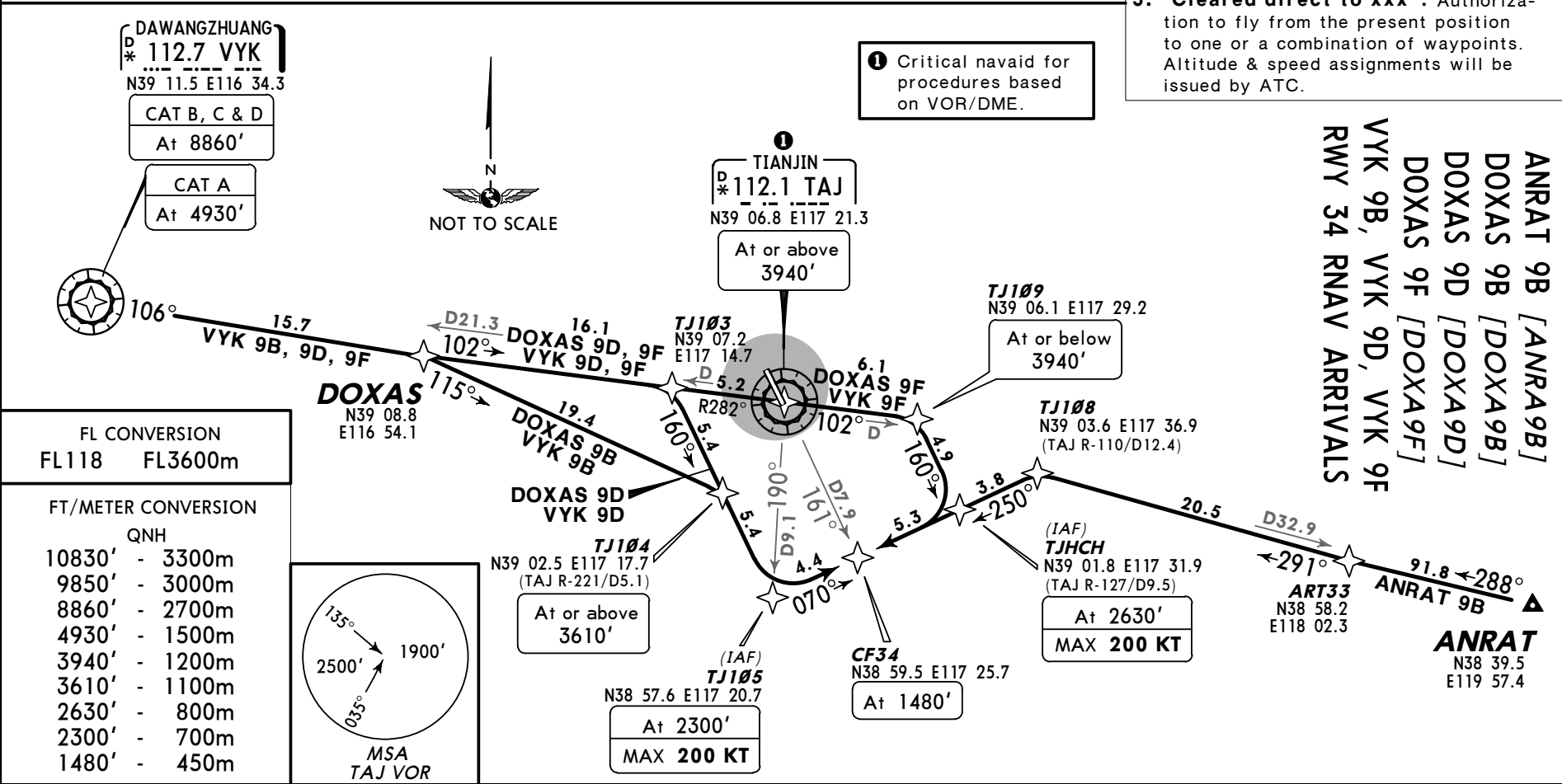
STAR	ROUTING
ANRAT 9A	ANRAT - ART33 - TJ006 (3940'+) - TJLUX - TJ005 (2300'-) - TJ004 (1970'; K200-) - CF16 (1650').
DOXAS 9A By ATC	DOXAS - TJ002 (2630'; K200-) - CF16 (1650').
DOXAS 9C	DOXAS - TAJ (3940'+) - TJ005 (2300'-) - TJ004 (1970'; K200-) - CF16 (1650').
VYK 9A By ATC	VYK - DOXAS - TJ002 (2630'; K200-) - CF16 (1650').
VYK 9C	VYK - DOXAS - TAJ (3940'+) - TJ005 (2300'-) - TJ004 (1970'; K200-) - CF16 (1650').

JEPPesen TIANJIN, PR OF CHINA
 10-2B Eff 27 Sep
 RNAV STAR

RNAV CLEARANCE PHRASEOLOGY

1. **"Cleared xxx Arrival":** Authorization to fly the lateral RNAV-route. Altitude & speed assignments will be issued by ATC.
2. **"Cleared xxx Arrival and Profile":** Authorization to fly the RNAV-route as published, including the vertical constraints depicted on the procedure.
3. **"Cleared direct to xxx":** Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

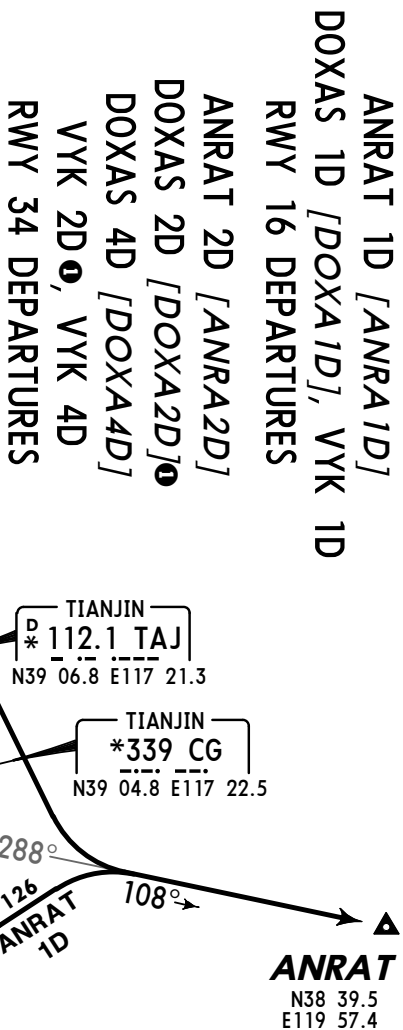
STAR	ROUTING
ANRAT 9B	ANRAT - ART33 - TJ108 - TJHCH (2630'; K200-) - CF34 (1480').
DOXAS 9B	DOXAS - TJ104 (3610'+) - TJ105 (2300'; K200-) - CF34 (1480').
DOXAS 9D	DOXAS - TJ103 - TJ104 (3610'+) - TJ105 (2300'; K200-) - CF34 (1480').
DOXAS 9F	DOXAS - TJ103 - TAJ (3940'+) - TJ109 (3940'-) -TJHCH (2630'; K200-) - CF34 (1480').
VYK 9B	VYK - DOXAS - TJ104 (3610'+) - TJ105 (2300'; K200-) - CF34 (1480').
VYK 9D	VYK - DOXAS - TJ103 - TJ104 (3610'+) - TJ105 (2300'; K200-) - CF34 (1480').
VYK 9F	VYK - DOXAS - TJ103 - TAJ (3940'+) - TJ109 (3940'-) - TJHCH (2630'; K200-) - CF34 (1480').



ZBTJ/TSN
BINHAI

21 SEP 07
10-3
JEPPESSEN
TIANJIN, PR OF CHINA
Eff 27 Sep
SID

Apt Elev 10'
Trans level: FL118
Trans alt: 9850'
10830' 1031 hPa or above
8860' 979 hPa or below



DOXAS
N39 08.8 E116 54.1

To POU
Above 9850'
keep climb gradient
of 5.3% up to
enroute alt

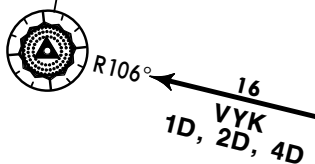


DAWANGZHUANG
D *112.7 VYK
N39 11.5 E116 34.3

*489 YK
N39 11.5 E116 34.3

CAT B, C & D
At 9850'

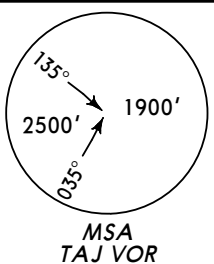
CAT A
At 3940'



FT/METER CONVERSION

QNH	
990'	- 300m
3940'	- 1200m
8860'	- 2700m
9850'	- 3000m
10830'	- 3300m

FL CONVERSION
FL118 FL3600m



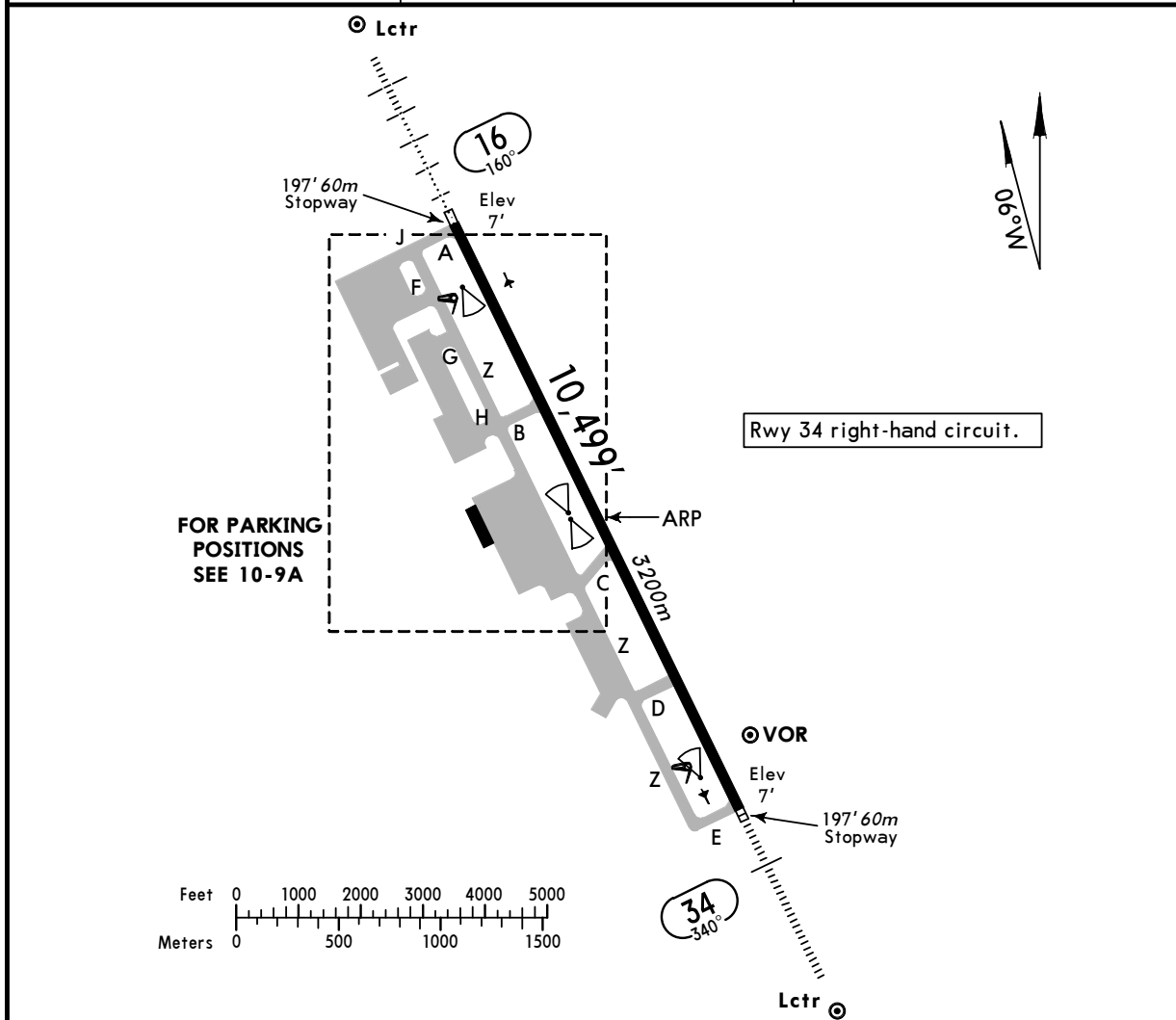
Gnd speed-KT	75	100	150	200	250	300
3.4% 207' per NM	258	344	516	689	861	1033
5.3% 322' per NM	403	537	805	1073	1342	1610

ZBTJ/TSN
Apt Elev **10'**
N39 07.5 E117 20.8

JEPPESEN
15 APR 05 **(10-9)**

TIANJIN, PR OF CHINA
BINHAI

*ATIS	*TIANJIN Ramp Control	Tower
126.4	121.75	118.2



ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond Glide Slope		
16	HIRL (50m) CL (30m) HIALS PAPI-L (3.0°) HST-C RVR		9400' 2865m		164' 50m
34	HIRL (50m) CL (30m) HIALS SFL PAPI-L (3.0°) RVR				

TAKE-OFF	
All Rwys	
RL	NIL (DAY only)
2 TURB Eng or 3 & 4 Eng	RVR 500m
Other	VIS 1600m

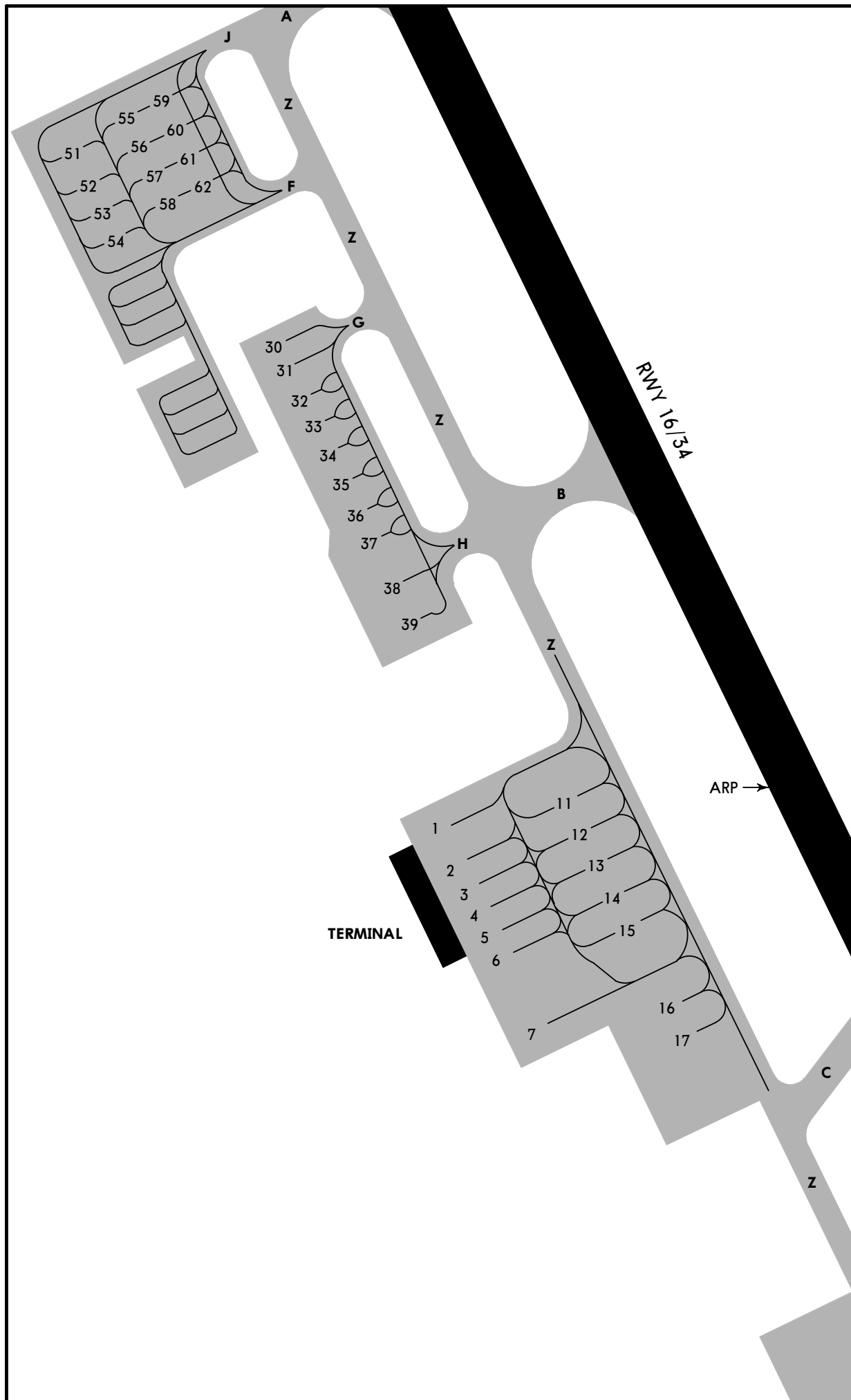
ZBTJ/TSN

JEPPESEN

TIANJIN, PR OF CHINA

15 APR 05 **(10-9A)**

BINHAI



ZBTJ/TSN

JEPPESEN

JAA MINIMUMS

21 SEP 07

Eff 27 Sep

10-9X

TIANJIN, PR OF CHINA
BINHAI

STRAIGHT-IN RWY		A	B	C	D
16	ILS DME	207' (200')	207' (200')	207' (200')	207' (200')
		R550m	R550m	R550m	R550m
	<i>ALS out</i>	R1000m	R1000m	R1000m	R1000m
	LOC	300' (293')	300' (293')	300' (293')	300' (293')
		R800m	R800m	R800m	R1200m
	<i>ALS out</i>	R1500m	R1500m	R1600m	R1800m
	VOR DME	410' (403')	410' (403')	410' (403')	410' (403')
		R900m	R1000m	R1000m	R1400m
	<i>ALS out</i>	R1500m	R1500m	R1800m	R2000m
	NDB	300' (293')	300' (293')	300' (293')	300' (293')
		R800m	R800m	R800m	R1200m
	<i>ALS out</i>	R1500m	R1500m	R1600m	R1800m
34	ILS DME	207' (200')	207' (200')	207' (200')	207' (200')
		R550m	R550m	R550m	R550m
	<i>ALS out</i>	R1000m	R1000m	R1000m	R1000m
	LOC	320' (313')	320' (313')	320' (313')	320' (313')
		R900m	R1000m	R1000m	R1400m
	<i>ALS out</i>	R1500m	R1500m	R1800m	R2000m
	VOR DME	320' (313')	320' (313')	320' (313')	320' (313')
		R900m	R1000m	R1000m	R1400m
	<i>ALS out</i>	R1500m	R1500m	R1800m	R2000m
	NDB	310' (303')	310' (303')	310' (303')	310' (303')
		R900m	R1000m	R1000m	R1400m
	<i>ALS out</i>	R1500m	R1500m	R1800m	R2000m

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
	460' (450')	510' (500')	1070' (1060')	1070' (1060')
	V1500m	V1600m	V2400m	V3600m

TAKE-OFF RWY 16, 34

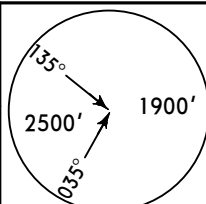
	RL	NIL (DAY only)
2 TURB Eng or 3 & 4 Eng	RVR 500m	
Other	VIS 1600m	

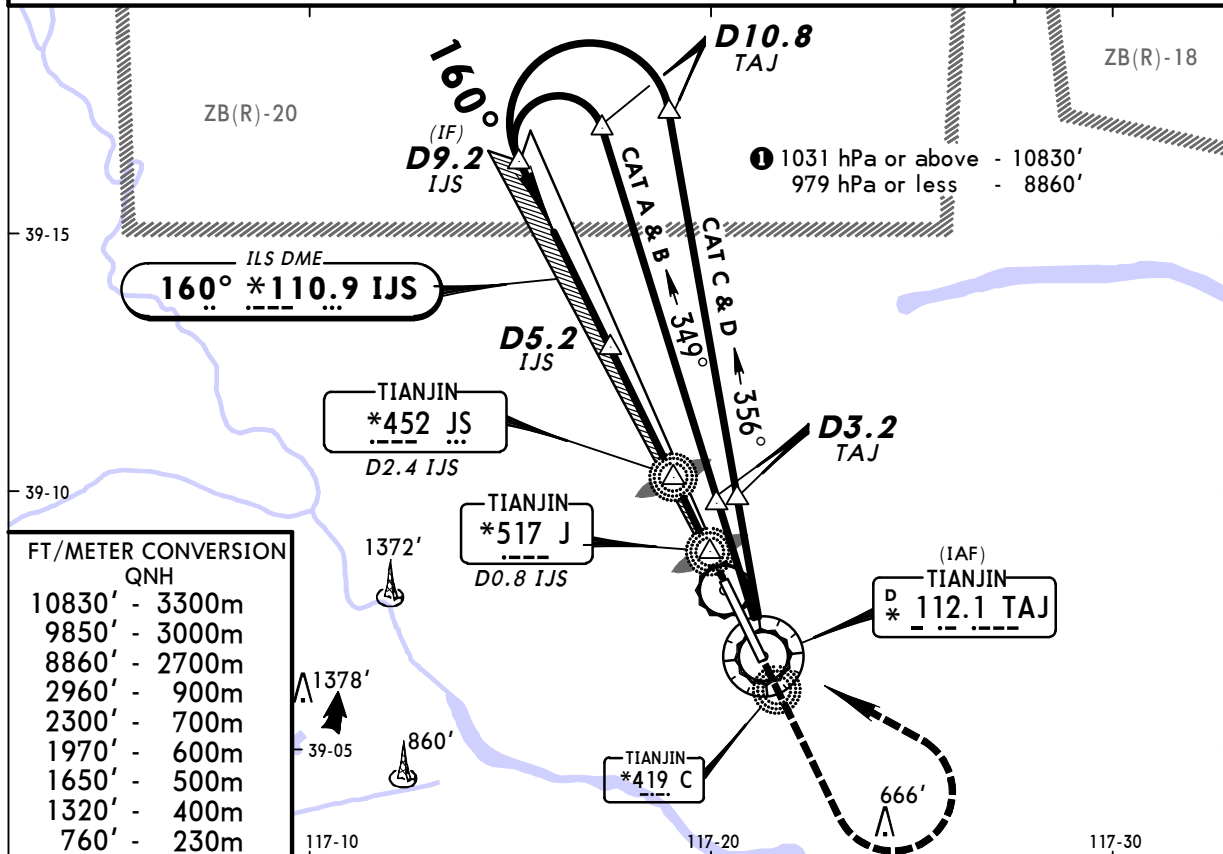
ZBTJ/TSN
BINHAI

JEPPesen
21 SEP 07 **(11-1)** **Eff 27 Sep**

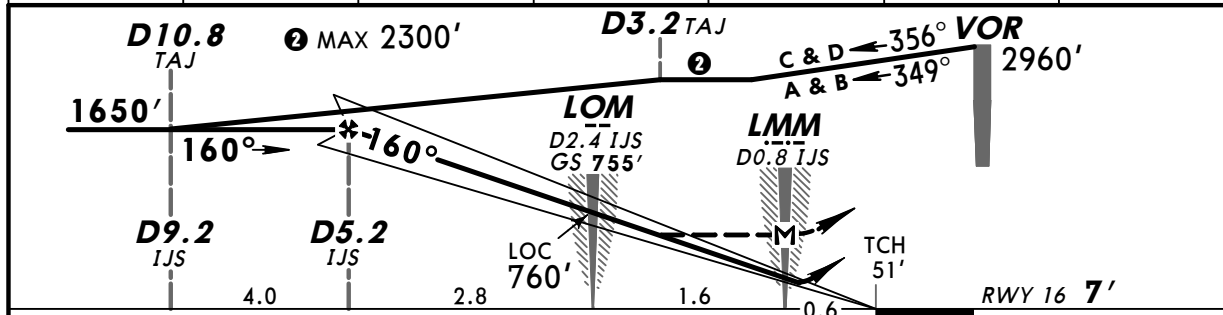
TIANJIN, PR OF CHINA
ILS DME Rwy 16

BRIEFING STRIP

ATIS 126.4		TIANJIN Approach (R) 127.9		TIANJIN Tower 118.2		*Ramp Control 121.75	
LOC IJS *110.9	Final Apch Crs 160°	GS LOM 755' (748')	ILS DA(H) 207' (200')	Apt Elev RWY 10' 7'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn LEFT to reach VOR at 1970' and contact ATC.							
Alt Set: hPa		Rwy Elev: 0 hPa		Trans level: FL 118		Trans alt: 9850' ①	
1. Procedure MAX 205 KT. 2. LOC unusable outside 26° RIGHT of centerline.							
MSA TAJ VOR							



LOC (GS out)	IJS DME ALTITUDE	5.0	4.0	3.0	2.0	1.0
		1600'	1280'	960'	640'	330'



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1320'	1970'	TAJ
ILS GS 3.00° or	377	484	538	646	753	861	PAPI	↑	←	112.1
LOC Descent Gradient 5.2%										
MAP at LMM/D0.8 IJS										

STRAIGHT-IN LANDING RWY 16				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Max Kts	MDA(H)
DA(H) 207' (200')		MDA(H) 300' (293')			
FULL	ALS out	FULL	ALS out		
RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	460' (450') 1600m
				135	510' (500') 1600m
				180	1070' (1060') 4800m
				205	

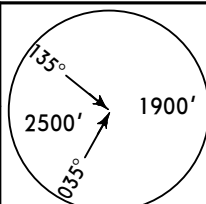
PANS OPS 4

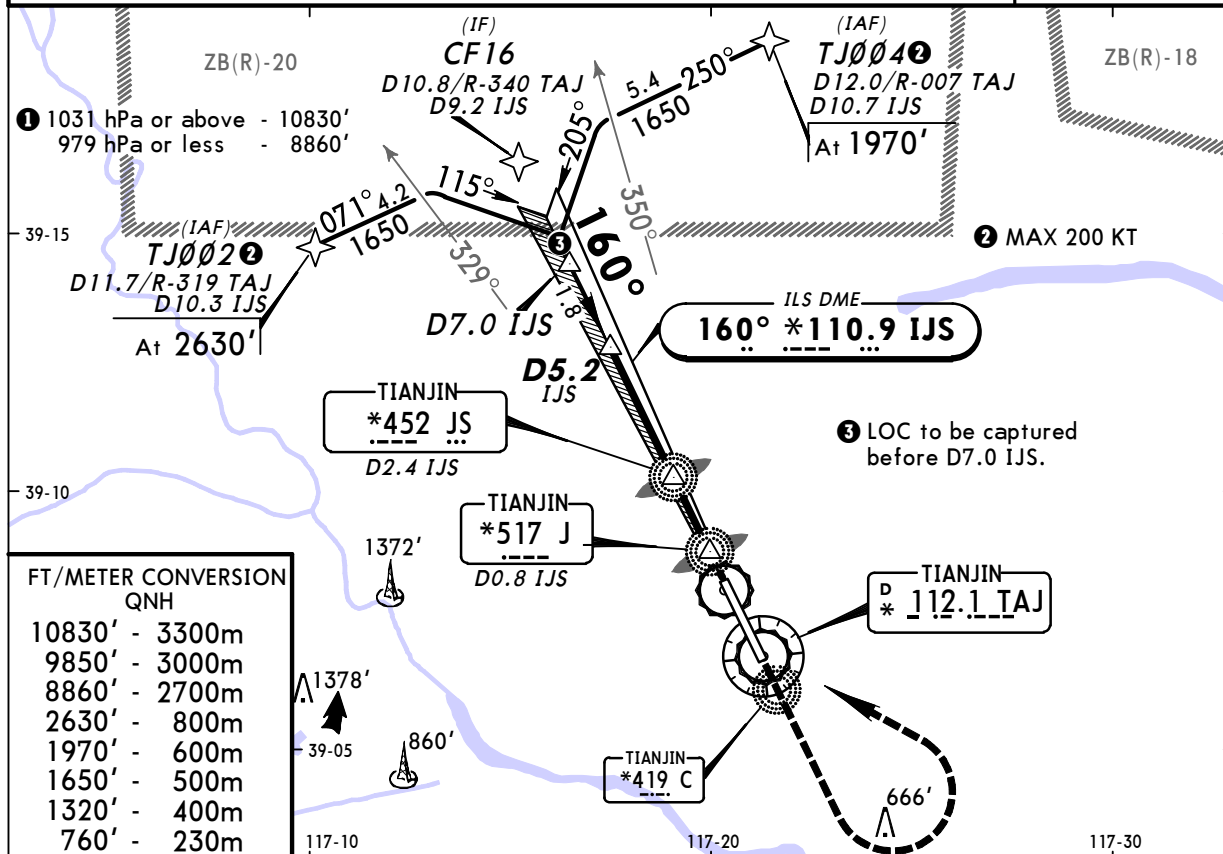
ZBTJ/TSN
BINHAI

JEPPESSEN
21 SEP 07 **(11-2)** **Eff 27 Sep**

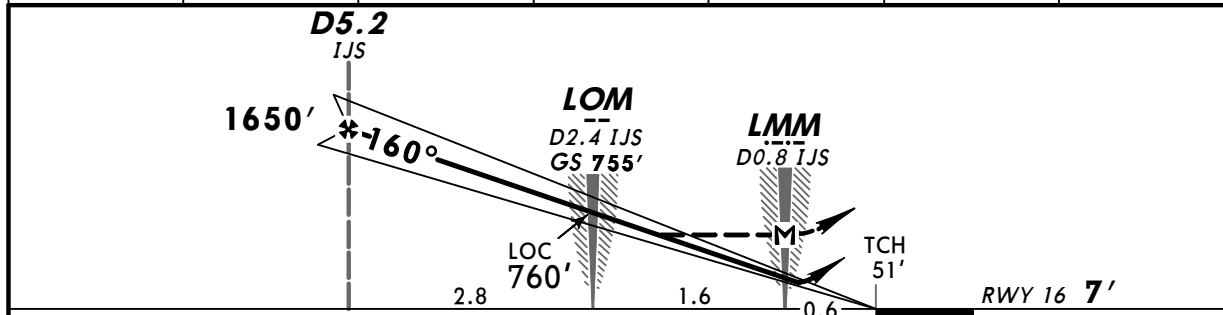
TIANJIN, PR OF CHINA
RNAV ILS Rwy 16

BRIEFING STRIP

ATIS		TIANJIN Approach (R)		TIANJIN Tower		*Ramp Control	
126.4		127.9		118.2		121.75	
LOC IJS *110.9	Final Apch Crs 160°	GS LOM 755' (748')	ILS DA(H) 207' (200')	Apt Elev 10'	RWY 7'		
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn LEFT to reach VOR at 1970' and contact ATC.							
Alt Set: hPa		Rwy Elev: 0 hPa		Trans level: FL 118			
LOC unusable outside 26° RIGHT of centerline.						MSA TAJ VOR	



LOC (GS out)	IJS DME ALTITUDE	5.0	4.0	3.0	2.0	1.0
		1600'	1280'	960'	640'	330'



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1320'	1970'	TAJ
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861	PAPI	↑	←	112.1
MAP at LMM/D0.8 IJS										

STRAIGHT-IN LANDING RWY 16				CIRCLE-TO-LAND	
ILS		LOC (GS out)			
DA(H) 207' (200')		MDA(H) 300' (293')			
FULL	ALS out		ALS out	Max Kts	MDA(H)
RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	460' (450') 1600m
				135	510' (500') 1600m
				180	1070' (1060') 4800m
				205	

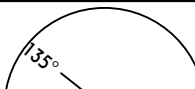
PANS OPS 4

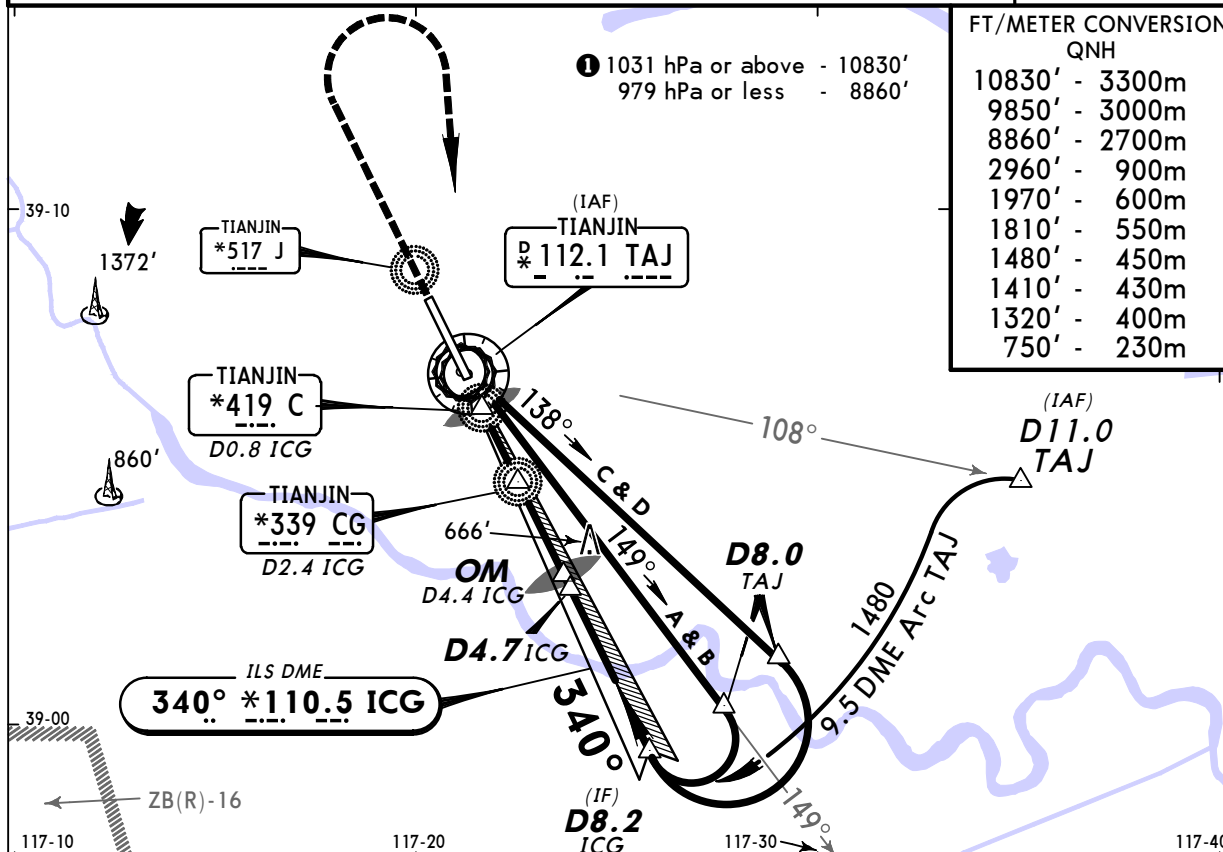
ZBTJ/TSN
BINHAI

JEPPESSEN
21 SEP 07 **(11-3)** **Eff 27 Sep**

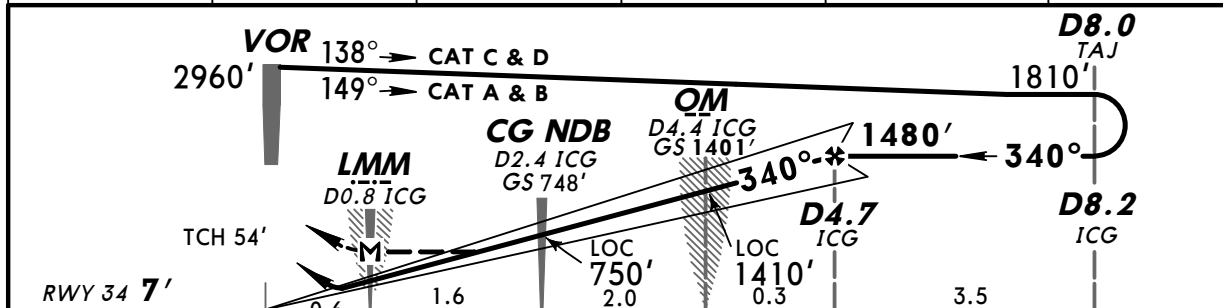
TIANJIN, PR OF CHINA
ILS DME Rwy 34

BRIEFING STRIP

ATIS 126.4		TIANJIN Approach (R) 127.9		TIANJIN Tower 118.2		*Ramp Control 121.75	
LOC ICG *110.5	Final Apch Crs 340°	GS OM 1401' (1394')	ILS DA(H) 207' (200')	Apt Elev 10'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn RIGHT to reach VOR at 1970'.							
Alt Set: hPa		Rwy Elev: 0 hPa	Trans level: FL 118				
Procedure MAX 205 KT.						MSA TAJ VOR	



LOC (GS out)	ICG DME ALTITUDE	1.0	2.0	3.0	4.0
		330'	650'	970'	1280'



Gnd speed-Kts	70	90	100	120	140	160	HIALS		1320'	1970'	TAJ
ILS GS 3.00° or	377	484	538	646	753	861	PAPI		↑	↻	112.1
LOC Descent Gradient 5.2%											
MAP at LMM/D0.8 ICG											

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND	
ILS		LOC (GS out)			
DA(H) 207' (200')		MDA(H) 320' (313')			
FULL	ALS out		ALS out	Max Kts	MDA(H)
RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	460' (450') 1600m
				135	510' (500') 1600m
				180	1070' (1060') 4800m
				205	

PANS OPS 4

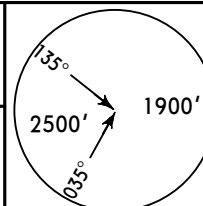
ZBTJ/TSN
BINHAI

JEPPesen
21 SEP 07 **(11-4)** **Eff 27 Sep**

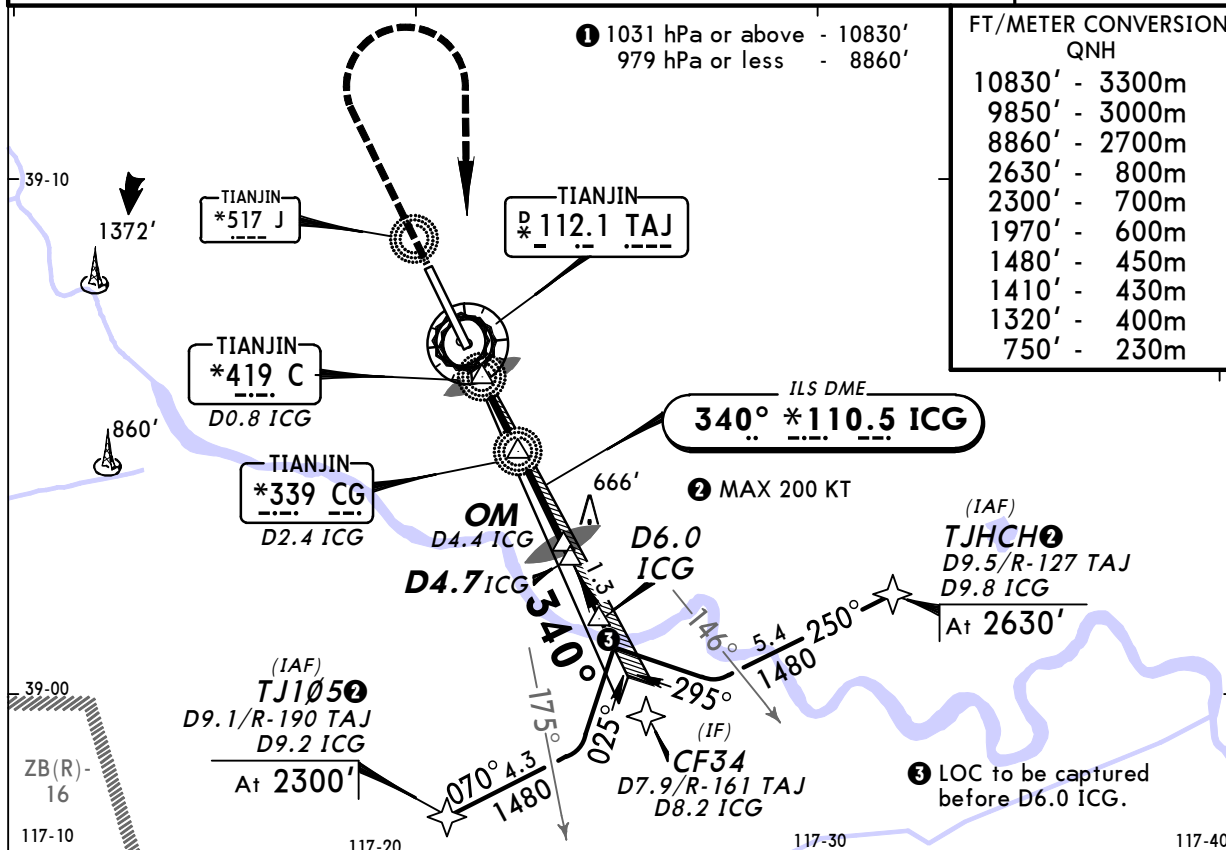
TIANJIN, PR OF CHINA
RNAV ILS Rwy 34

BRIEFING STRIP

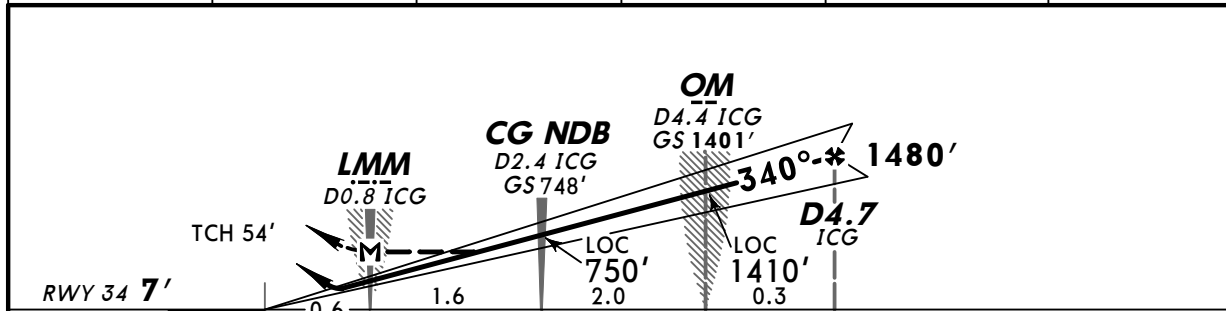
ATIS	TIANJIN Approach (R)	TIANJIN Tower	*Ramp Control
126.4	127.9	118.2	121.75
LOC ICG *110.5	Final Apch Crs 340°	GS OM 1401' (1394')	ILS DA(H) 207' (200')
		Apt Elev 10'	RWY 7'
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn RIGHT to reach VOR at 1970'.			
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL 118	Trans alt: 9850' ①
			MSA TAJ VOR



FT/METER CONVERSION QNH	
10830'	3300m
9850'	3000m
8860'	2700m
2630'	800m
2300'	700m
1970'	600m
1480'	450m
1410'	430m
1320'	400m
750'	230m



LOC (GS out)	ICG DME	1.0	2.0	3.0	4.0
	ALTITUDE	330'	650'	970'	1280'



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1320'	1970'	TAJ
ILS GS 3.00° or	377	484	538	646	753	861	PAPI	↑	RT	112.1
LOC Descent Gradient 5.2%										
MAP at LMM/D0.8 ICG										

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND	
ILS		LOC (GS out)			
DA(H) 207' (200')		MDA(H) 320' (313')			
FULL	ALS out		ALS out	Max Kts	MDA(H)
RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	460' (450') 1600m
				135	510' (500') 1600m
				180	1070' (1060') 4800m
				205	

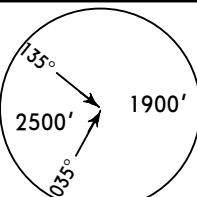
PANS OPS 4

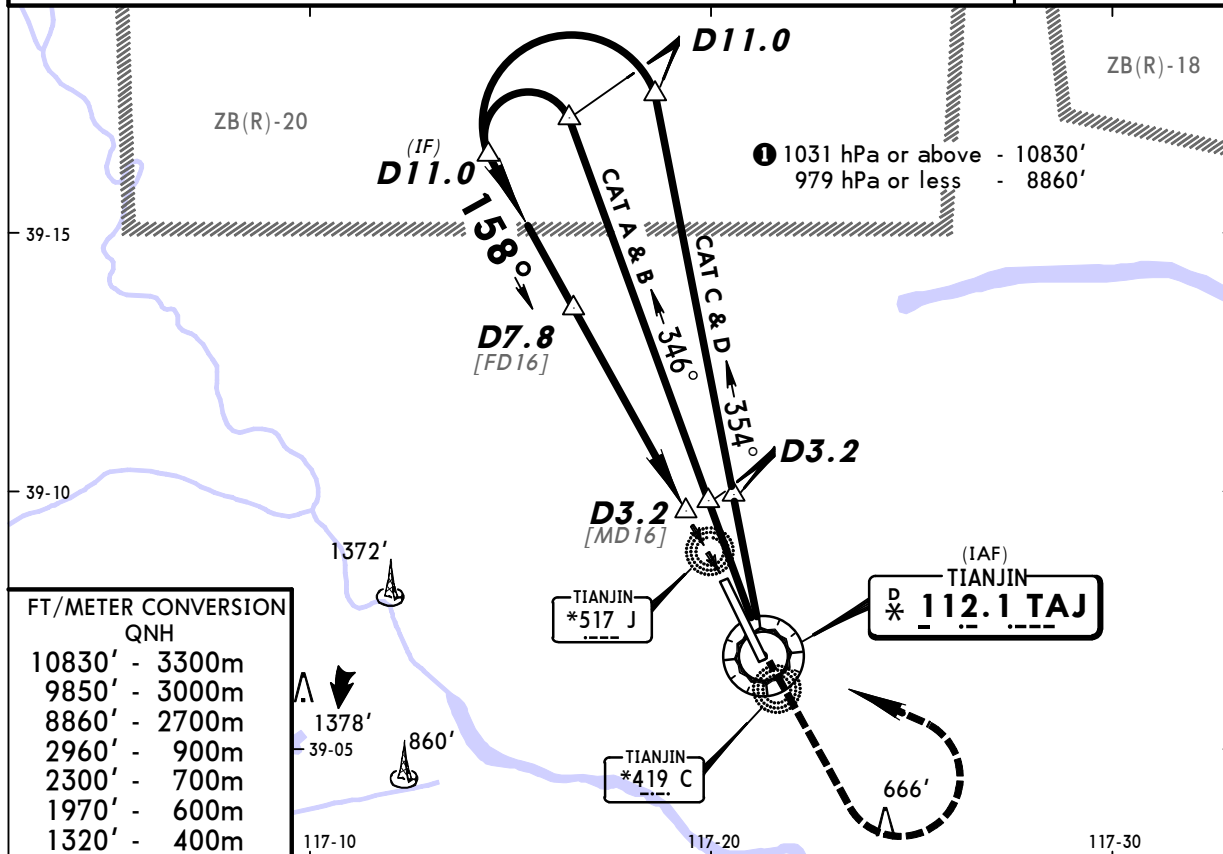
ZBTJ/TSN
BINHAI

JEPPESSEN
21 SEP 07 **(13-1)** **Eff 27 Sep**

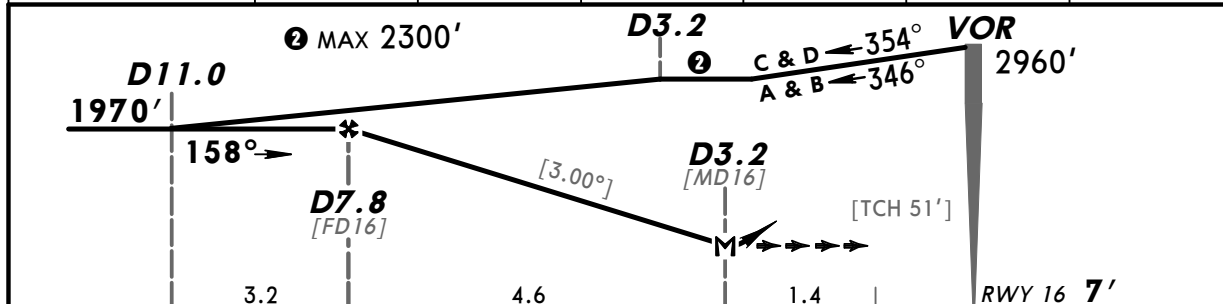
TIANJIN, PR OF CHINA
VOR DME Rwy 16

BRIEFING STRIP

*ATIS		TIANJIN Approach (R)		TIANJIN Tower		*Ramp Control	
126.4		127.9		118.2		121.75	
VOR TAJ *112.1	Final Apch Crs 158°	Minimum Alt D7.8 1970' (1963')	MDA(H) 410' (403')	Apt Elev 10' RWY 7'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn LEFT to reach VOR at 1970'.							
Alt Set: hPa		Rwy Elev: 0 hPa	Trans level: FL 118				
Procedure MAX 205 KT.					MSA TAJ VOR		



TAJ DME	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	1710'	1390'	1080'	760'	440'	130'



Gnd speed-Kts	70	90	100	120	140	160	HIALS		1320'	1970'	TAJ 112.1
Descent Gradient 5.24% or Descent angle [3.00°]	372	478	531	637	743	849	PAPI		↑	↩	LT
MAP at D3.2											

STRAIGHT-IN LANDING RWY 16				CIRCLE-TO-LAND			
MDA(H) 410' (403')							
		ALS out		Max Kts	MDA(H)		
A	1800m		2600m		100	460' (450')	2600m
B					135	510' (500')	2600m
C					180	1070' (1060') 4800m	
D					205		

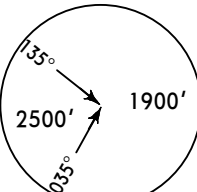
PANS OPS 4

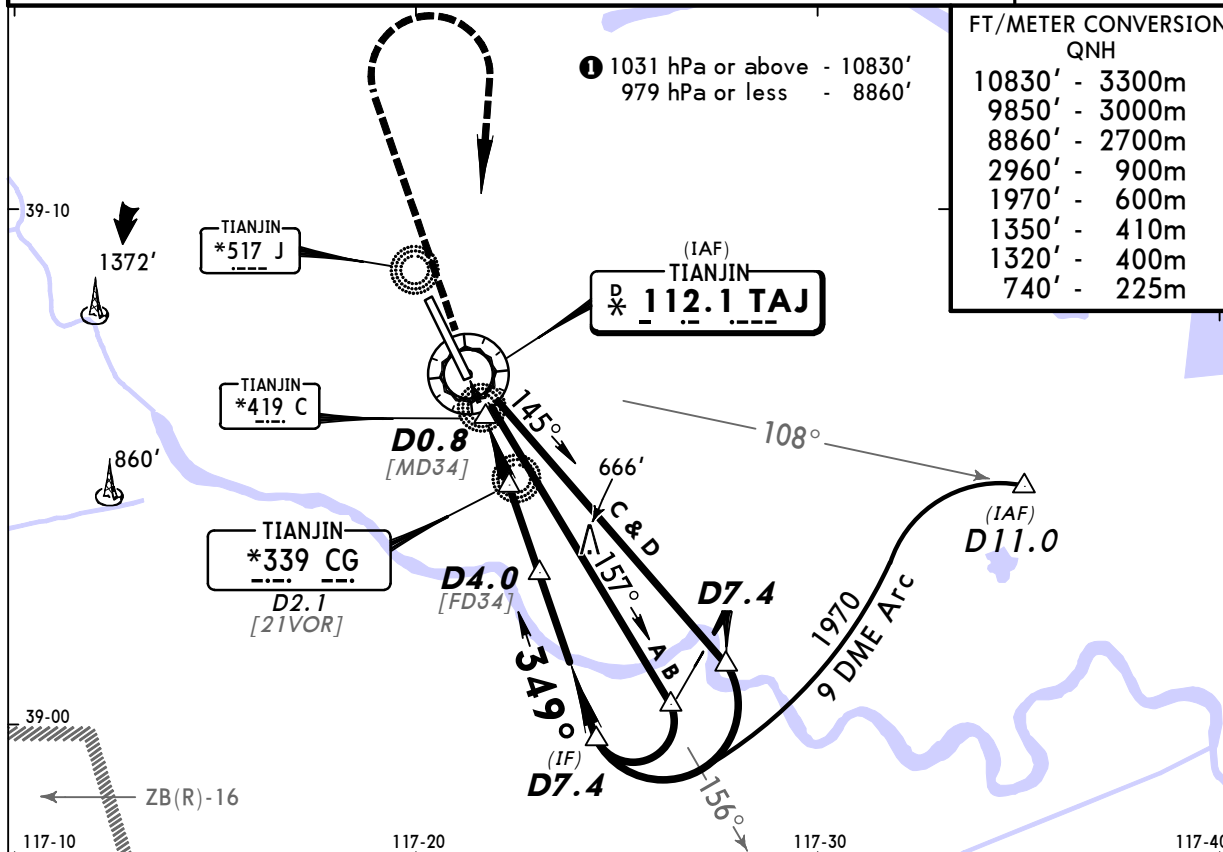
ZBTJ/TSN
BINHAI

JEPPESSEN
21 SEP 07 **(13-2)** **Eff 27 Sep**

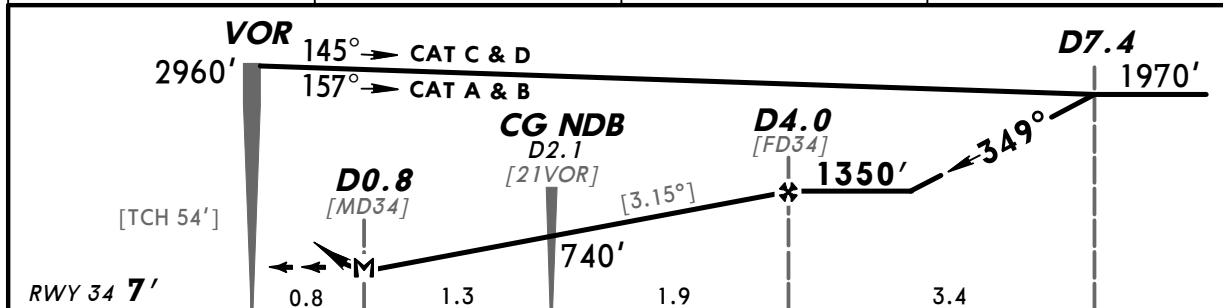
TIANJIN, PR OF CHINA
VOR DME Rwy 34

BRIEFING STRIP

ATIS		TIANJIN Approach (R)		TIANJIN Tower		*Ramp Control	
126.4		127.9		118.2		121.75	
VOR TAJ *112.1	Final Apch Crs 349°	Minimum Alt D4.0 1350' (1343')	MDA(H) 320' (313')	Apt Elev 10' RWY 7'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn RIGHT to reach VOR at 1970'.							
Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 118 Trans alt: 9850' ①							
Procedure MAX 205 KT.					MSA TAJ VOR		



TAJ DME	1.0	2.0	3.0
ALTITUDE	390'	710'	1020'



Gnd speed-Kts	70	90	100	120	140	160		1320'	1970'	TAJ 112.1
Descent Gradient 5.50% or Descent angle [3.15°]	390	502	557	669	780	892		↑	↻ RT	
MAP at D0.8										

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND			
MDA(H) 320' (313')							
			ALS out	Max Kts	MDA(H)		
A	RVR 720m VIS 800m		RVR 1500m VIS 1600m	100	460' (450')	1600m	
B				135	510' (500')	1600m	
C				180	1070' (1060') 4800m		
D	RVR 1500m VIS 1600m		205				

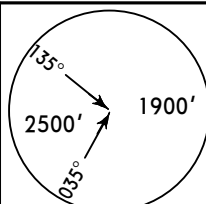
PANS OPS 4

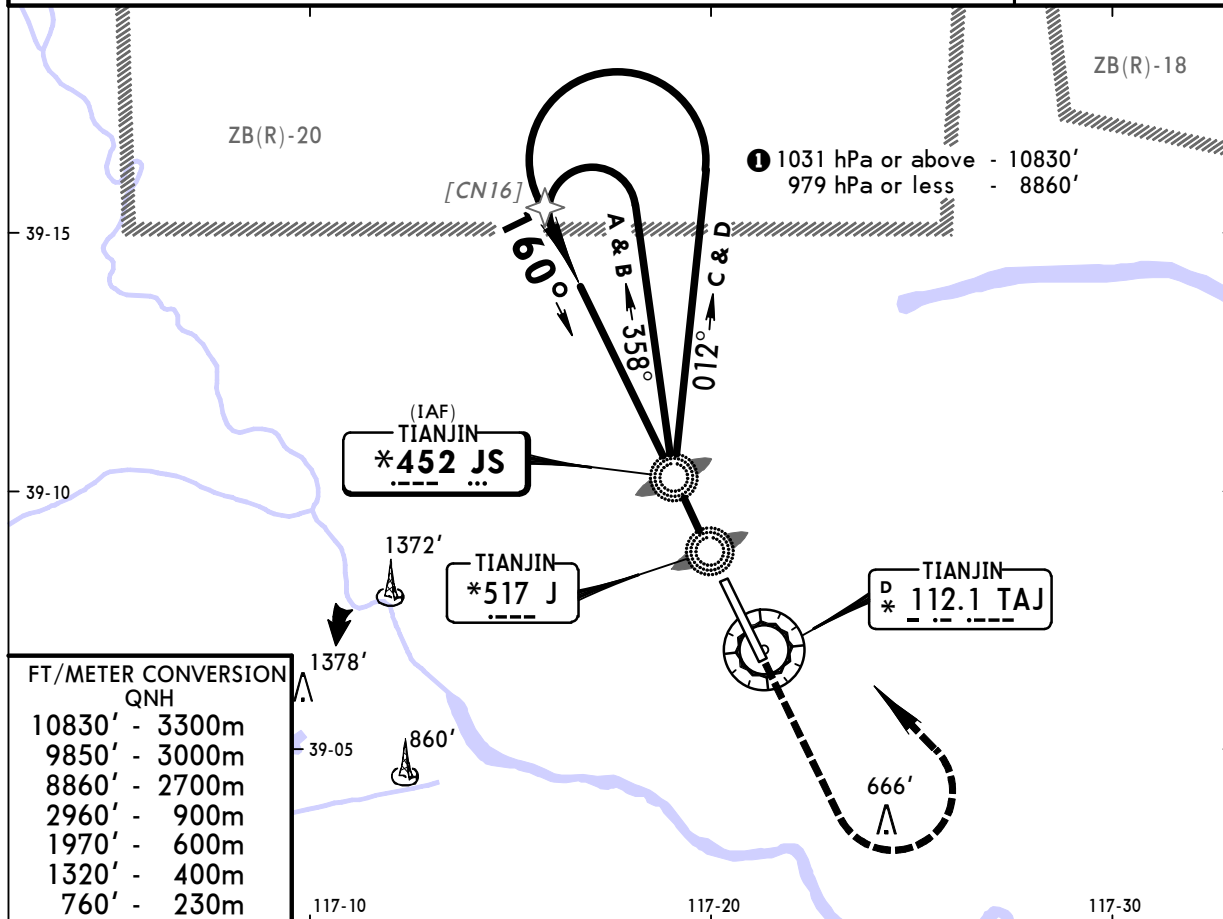
ZBTJ/TSN
BINHAI

JEPPESSEN
15 APR 05 **(16-1)**

TIANJIN, PR OF CHINA
NDB Rwy 16

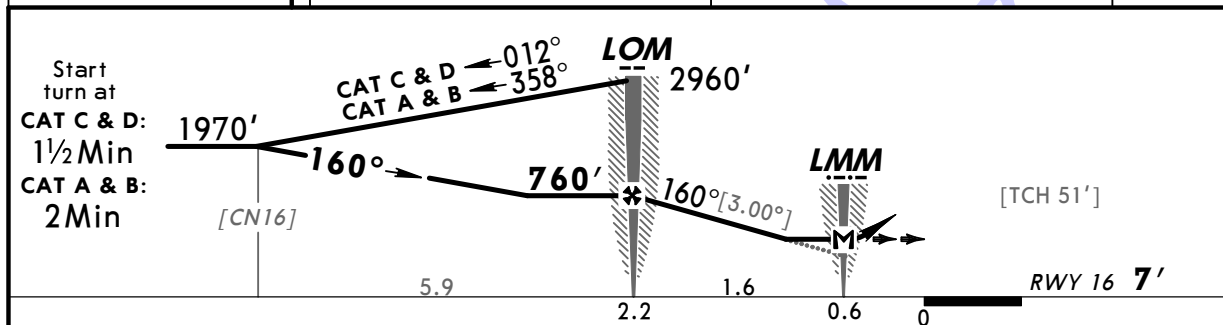
BRIEFING STRIP

*ATIS		TIANJIN Approach (R)		TIANJIN Tower		*Ramp Control	
126.4		127.9		118.2		121.75	
NDB JS *452	Final Apch Crs 160°	Minimum Alt LOM 760' (753')	MDA(H) 300' (293')	Apt Elev 10' RWY 7'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn LEFT to reach JS NDB at 1970'.							
Alt Set: hPa		Rwy Elev: 0 hPa		Trans level: FL 118			
Procedure restricted to MAX IAS 205 KT.				Trans alt: 9850' ①		MSA TAJ VOR	



FT/METER CONVERSION
QNH

10830'	-	3300m
9850'	-	3000m
8860'	-	2700m
2960'	-	900m
1970'	-	600m
1320'	-	400m
760'	-	230m



Gnd speed-Kts	70	90	100	120	140	160	HIALS		
Descent Gradient 5.24% or Descent angle [3.00°]	372	478	531	637	743	849			
MAP at LMM									

STRAIGHT-IN LANDING RWY 16				CIRCLE-TO-LAND			
MDA(H) 300' (293')							
			ALS out	Max Kts	MDA(H)		
A	1200m		RVR 1500m VIS 1600m	100	460' (450')		1600m
B				135	510' (500')		1600m
C				180	1060' (1050') 4800m		
D	RVR 1500m VIS 1600m		205				

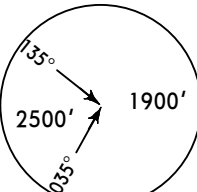
PANS OPS 4

ZBTJ/TSN
BINHAI

JEPPesen
15 APR 05 (16-2)

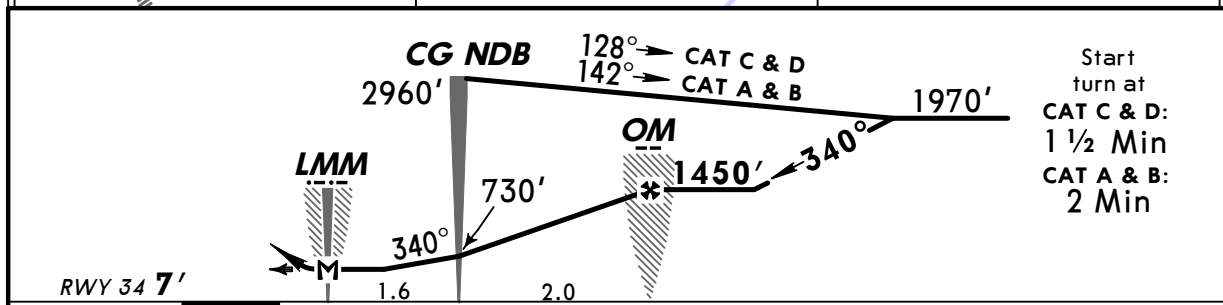
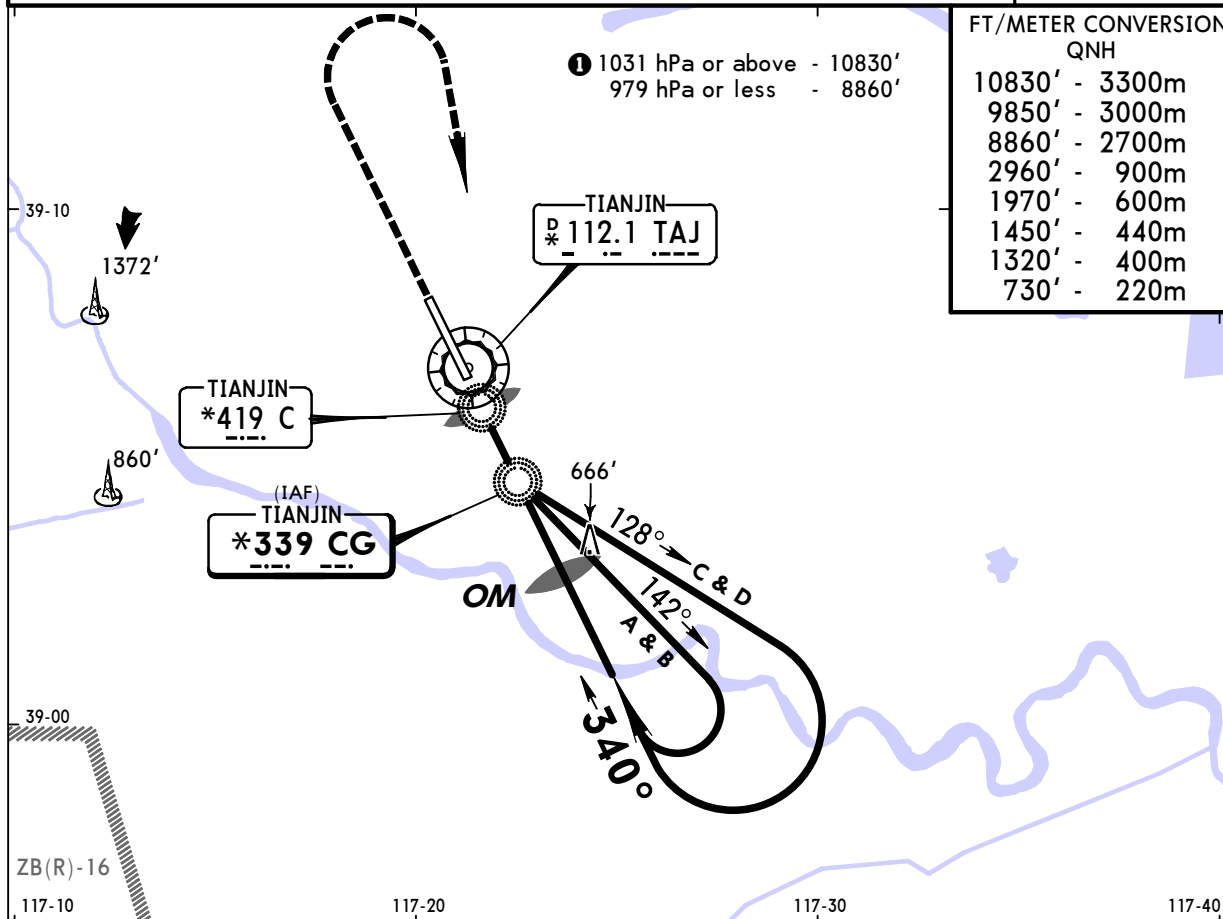
TIANJIN, PR OF CHINA
MISSED APCH CLIMB
GRAD MIM 3.3%
NDB Rwy 34

BRIEFING STRIP

*ATIS		TIANJIN Approach (R)		TIANJIN Tower		*Ramp Control	
126.4		127.9		118.2		121.75	
NDB CG *339	Final Apch Crs 340°	Minimum Alt OM 1450' (1443')	MDA(H) 310' (303')	Apt Elev 10' RWY 7'			
MISSED APCH: Climb STRAIGHT AHEAD to 1320', then turn RIGHT to reach CG NDB at 1970'.							
Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 118 Trans alt: 9850' ① Procedure restricted to MAX IAS 205 KT.							
						MSA TAJ VOR	

FT/METER CONVERSION
QNH

10830'	-	3300m
9850'	-	3000m
8860'	-	2700m
2960'	-	900m
1970'	-	600m
1450'	-	440m
1320'	-	400m
730'	-	220m



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1320'	1970'	CG
Desc Grad FAF - CG NDB 5.8%	411	529	587	705	822	940	PAPI	↑	RT	339
Desc Grad after CG NDB 5.0%	354	456	506	608	709	810				
MAP at LMM										

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND			
Missed apch climb gradient mim 3.3%							
MDA(H) 310' (303')							
		ALS out		Max Kts			
A	1200m	RVR 1500m VIS 1600m		100	460' (450')	1600m	
B				135	510' (500')	1600m	
C				180	1060' (1050')	4800m	
D	RVR 1500m VIS 1600m			205			

PANS OPS 4