

**GENERAL****Operational Hours****ATS Hours / AD OPS Hours / AD ADMIN Hours:** HS or O/R**Airport Information****RFF:** CAT 8**Fuel:** Nr.3 Jet fuel**PCN:** RWY 10/28: 68/F/B/W/T**Operation****Taxi:** MAX speed for taxiing is 16KT.**Warnings****FC NDB** unusable:

On bearing 107° beyond 7NM.

On bearing 190° between 3-5NM.

On bearing 260° between 1-3NM.

On bearings 139°, 163°, 251°.

Birds in vicinity of AD.

**ARRIVAL****Speed**

MAX IAS 280KT (520km/h) from FL100 / 3000m up to FL197 / 6000m.

MAX IAS 250KT (460km/h) below FL100 / 3000m.

**Arrival Procedure****VFR Traffic Pattern**

Traffic circuits shall be made on both sides of RWY; ALT 600m / 1969ft CAT A, ALT 900m / 2953ft CAT B/C/D.

**Non-standard GP intercept position on****RWY 10**GP intercepts RWY 10 at *312m / 1023ft* after landing threshold.Remaining DIST beyond GP is *2788m / 9148ft*.**RWY 28**GP intercepts RWY 28 at *326m / 1069ft* after landing threshold.Remaining DIST beyond GP is *2874m / 9430ft*.

**DEPARTURE****Take-off Minima**

RWY		10	
Multi ENG	ft - m/km	0 - 500R	REDL, RCLL, HJ only
		0 - 600R	REDL or RCLL, HJ only
		0 - 800R	REDL or RCLL, HN
2 ENG		0 - 1.6V	wo LGT, HJ only
3+4 ENG		0 - 800V	

RWY		28	
Multi ENG	ft - m/km	0 - 500R	REDL, RCLL, HJ only
		0 - 600R	REDL or RCLL, HJ only
		0 - 800R	REDL or RCLL, HN
2 ENG		0 - 1.6V	wo LGT, HJ only
3+4 ENG		0 - 800V	
All ACFT		c920 - 5.0V	SID: If climb gradient less than 5.5%

**Speed**

MAX IAS 280KT (520km/h) from FL100 / 3000m up to FL197 / 6000m.

MAX IAS 250KT (460km/h) below FL100 / 3000m.

**De-icing**

AVBL HS or O/R.

06-SEP-2018

## DLC-ZYTL

China **Dalian** Zhoushuizi



**AFC**

# AFC

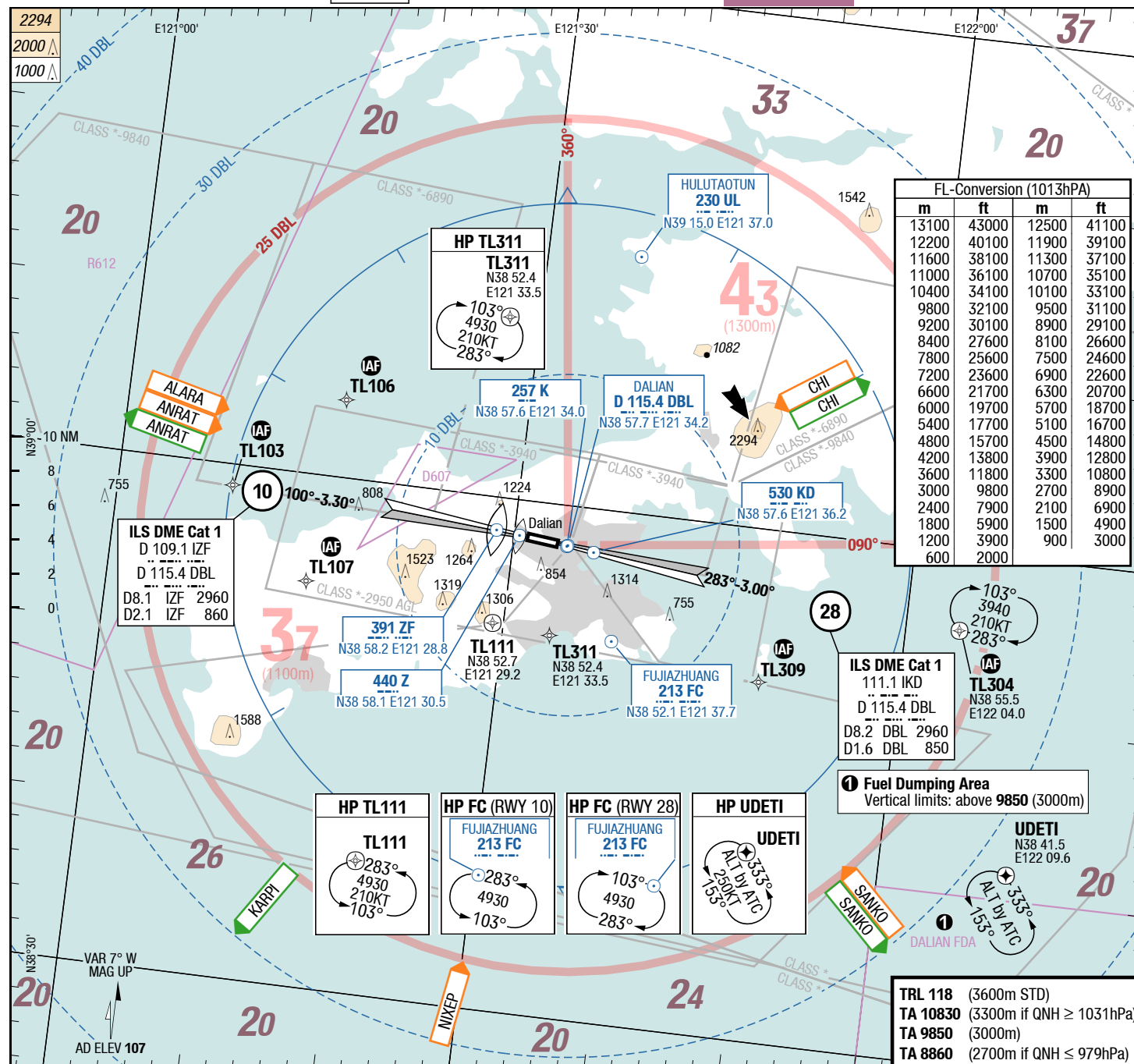
# AFC

Zhoushuizi **Dalian** China



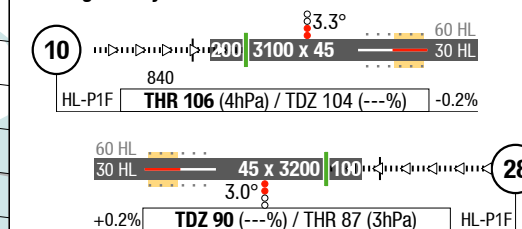
**AFC**

2-10



D-ATIS	126.650		
APP	123.850	AP01	127.950 AP01
	119.600	AP02 0100-1200	127.950 AP02 0100-1200
TWR	118.250		118.850
GND	121.650		
DLV	121.850	H0	
DCL			

**Landing RWY system:**



**① Fuel Dumping Area**  
Vertical limits: above **9850** (3000m)

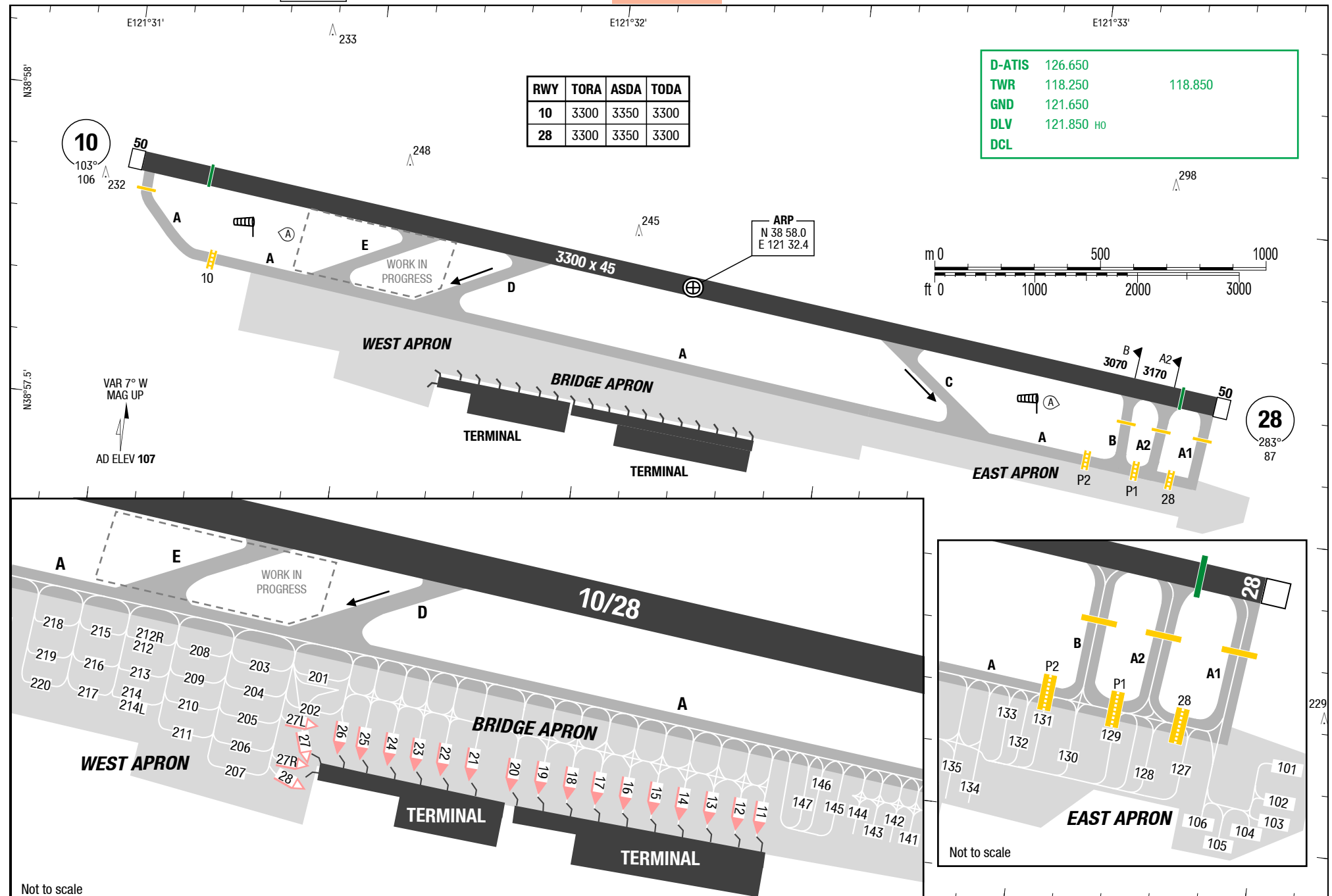
**UDET**  
N38 41.5  
E122 09.6

**TRL 118** (3600m STD)  
**TA 10830** (3300m if QNH  $\geq$  1031hPa)  
**TA 9850** (3000m)  
**TA 8860** (2700m if QNH  $\leq$  979hPa)

3-20

RWY	TORA	ASDA	TODA
10	3300	3350	3300
28	3300	3350	3300

D-ATIS	126.650	
TWR	118.250	118.850
GND	121.650	
DLV	121.850	HO
DCL		



**DLC-ZYTL**

## RNAV SIDs RWY 28

## RNAV SIDs RWY 10

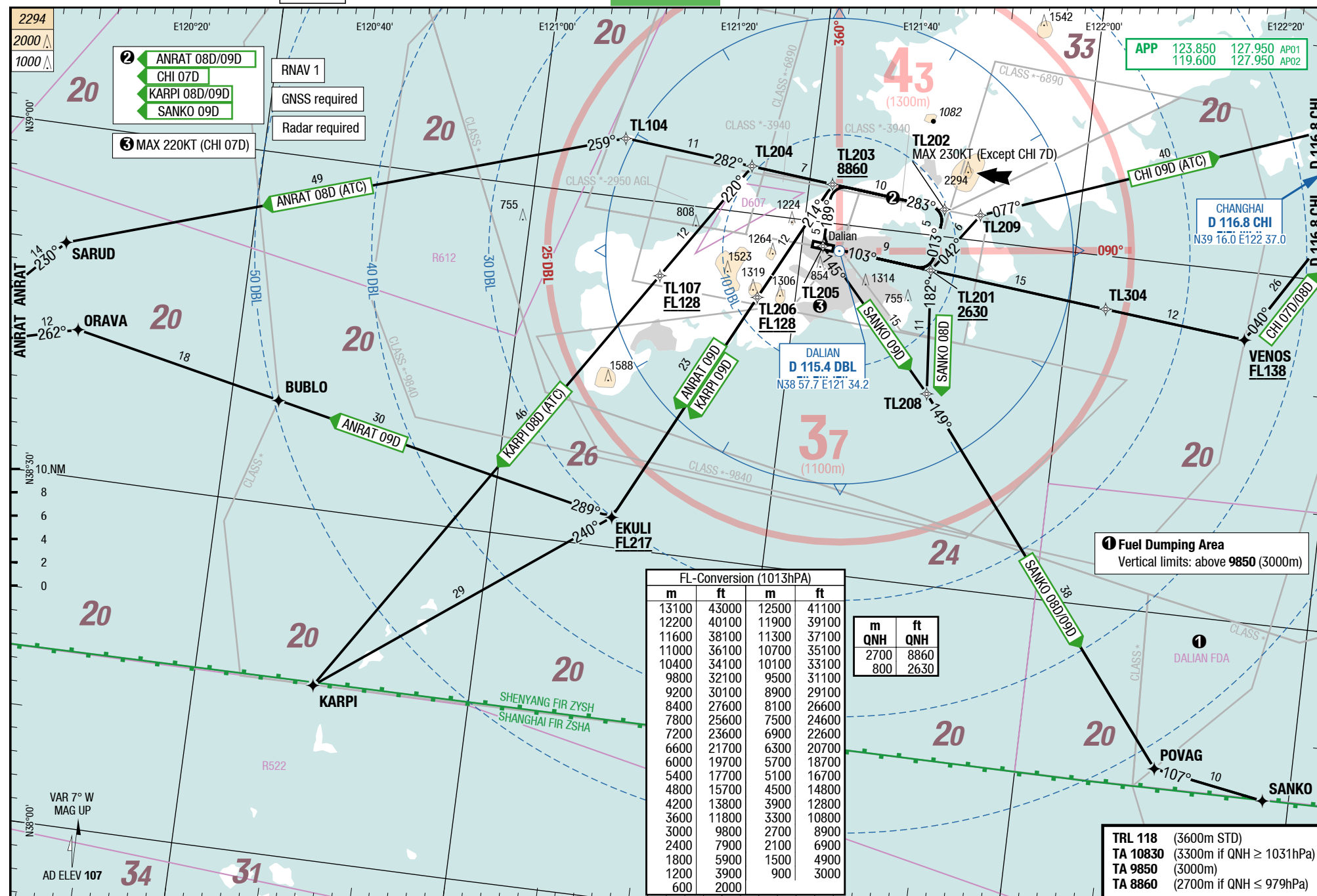
SID

SID

## RNAV SIDs RWY 28

## RNAV SIDs RWY 10

4-10



Changes: ASP, MGA, OBST, Note

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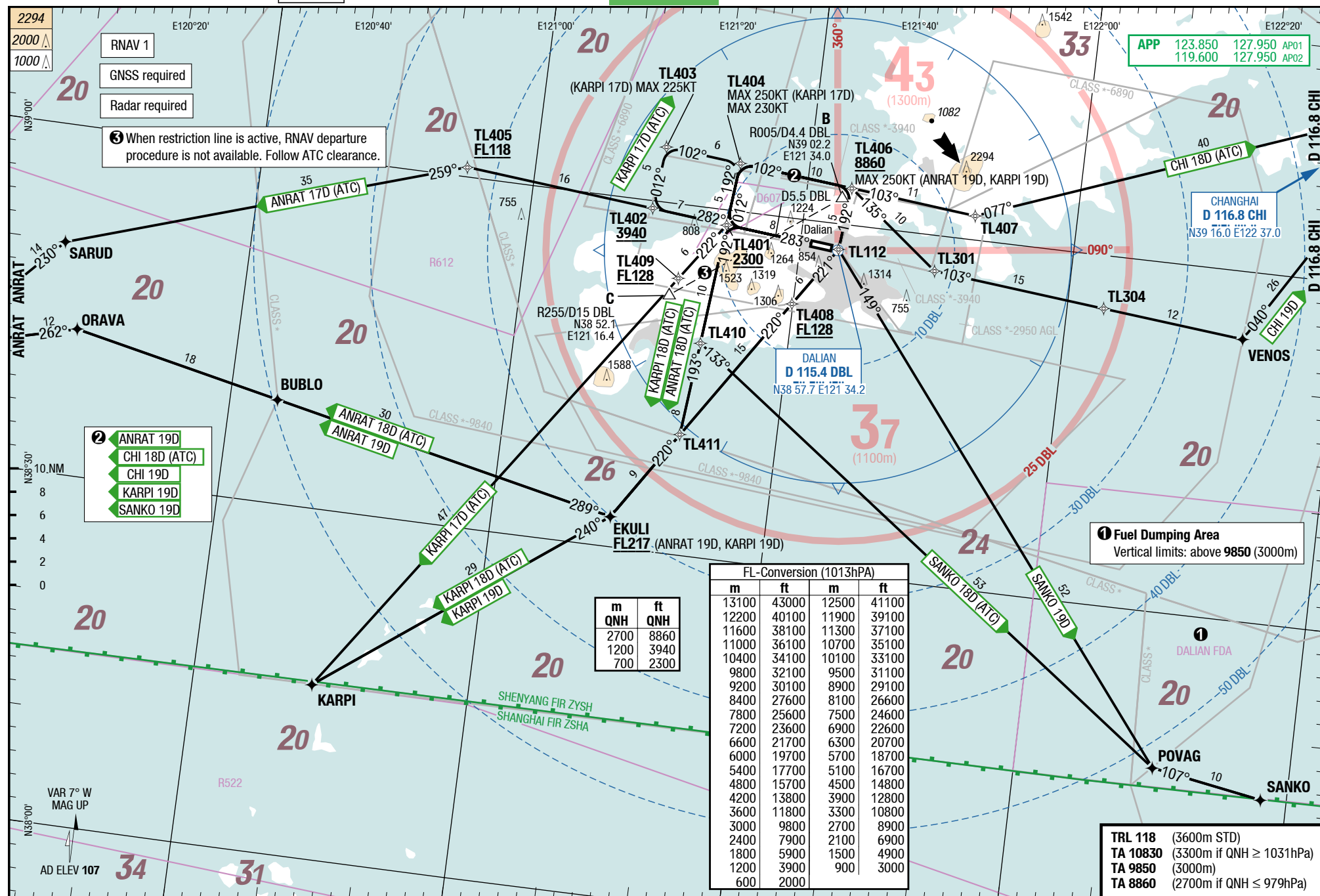
4-20

RNAV SIDs RWY 28

SID

SID

RNAV SIDs RWY 28



Changes: ASP, Note, OBST



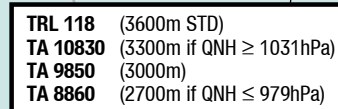
## DLC-ZYTL

## SIDs RWY 10

SID

## SIDs RWY 10

4-30



06-SEP-2018  
DLC-ZYTL

China Dalian Zhoushuizi

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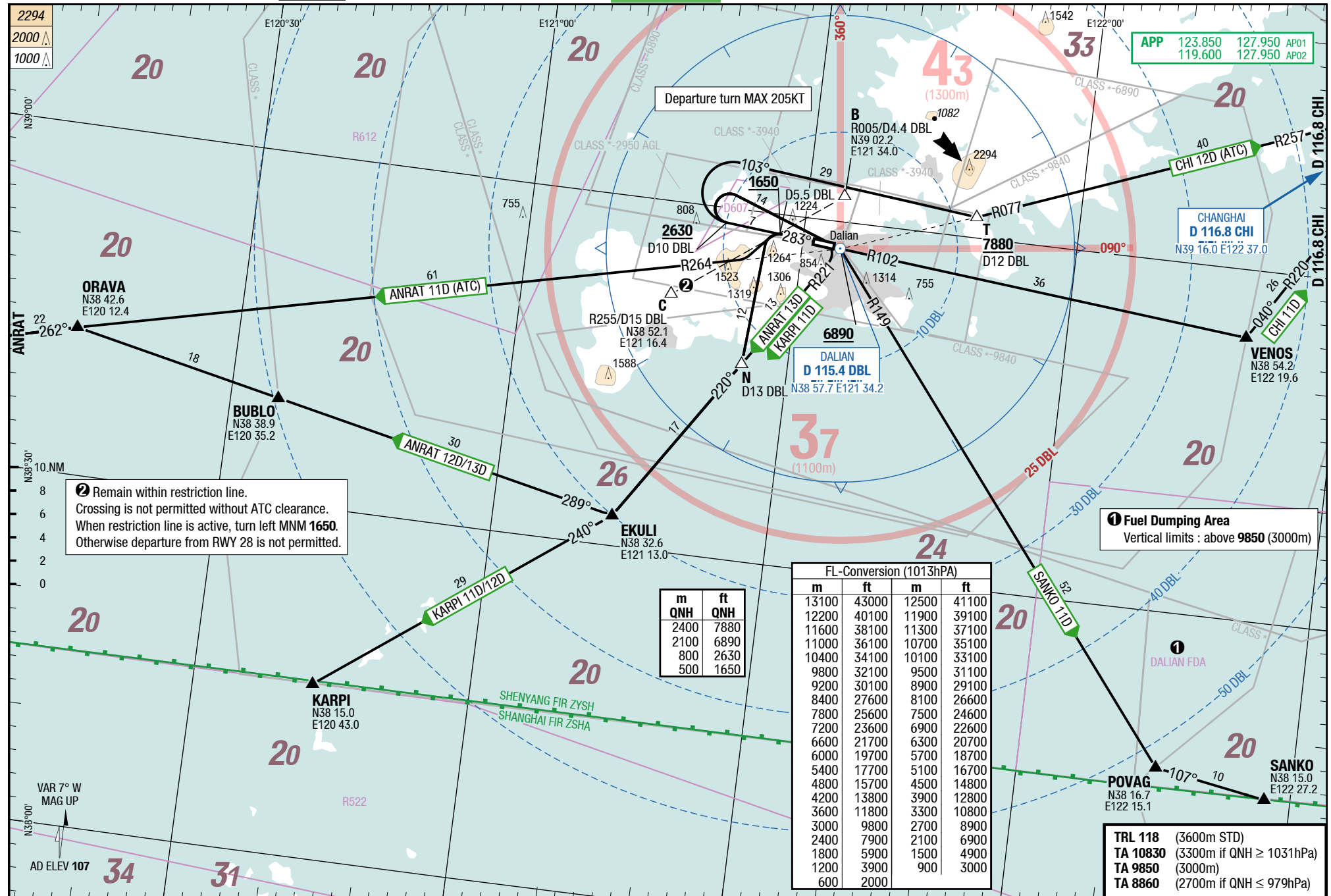
4-40

SIDs RWY 28

SID

SID

SIDs RWY 28



Changes: ASP, MGA, ALT, OBST



06-SEP-2018

**DLC-ZYTL**

**5-10**

**RNAV SIDs RWY 10**

**ANRAT 08D / ANRAT 09D / CHANGHAI 07D / CHANGHAI 08D / CHANGHAI 09D / KARPI 08D / KARPI 09D / SANKO 08D**

RWY 10 (103°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 10</b>	
<b>ANRAT 08D</b> (ATC) 5.0% ①	103° TL201 - TL202 [K230-] - TL204 - TL104 - SARUD - ANRAT	TL201 MNM <b>2630</b>
<b>ANRAT 09D</b> 5.0% ①	103° TL201 - TL202 [K230-] - TL203 - TL206 - EKULI - BUBLO - ORAVA - ANRAT	TL201 MNM <b>2630</b> TL203 MNM <b>8860</b> TL206 MNM <b>FL128</b> EKULI MNM <b>FL217</b>
<b>CHANGHAI 07D</b> <b>CHI 07D</b> 5.0% ①	103° TL201 - TL202 - TL203 - TL205 [K220-] - TL201 - TL304 - VENOS - CHI	TL201 MNM <b>2630</b> TL203 MNM <b>8860</b> VENOS MNM <b>FL138</b>
<b>CHANGHAI 08D</b> <b>CHI 08D</b> 5.0% ①	103° TL201 - TL304 - VENOS - CHI	TL201 MNM <b>2630</b> VENOS MNM <b>FL138</b>
<b>CHANGHAI 09D</b> <b>CHI 09D</b> (ATC) 5.0% ①	103° TL201 - TL209 - CHI	TL201 MNM <b>2630</b>
<b>KARPI 08D</b> (ATC) 5.0% ①	103° TL201 - TL202 [K230-] - TL203 - TL204 - TL107 - KARPI	TL201 MNM <b>2630</b> TL203 MNM <b>8860</b> TL107 MNM <b>FL128</b>
<b>KARPI 09D</b> 5.0% ①	103° TL201 - TL202 [K230-] - TL203 - TL206 - EKULI - KARPI	TL201 MNM <b>2630</b> TL203 MNM <b>8860</b> TL206 MNM <b>FL128</b> EKULI MNM <b>FL217</b>
<b>SANKO 08D</b> 5.0% ①	103° TL201 - TL208 - POVAG - SANKO	TL201 MNM <b>2630</b>

① Close-in obstacle: 1.1NM on 098° of ARP, altitude 153ft

Changes: New

**SANKO 09D**

RWY 10 (103°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	Runway 10	
<b>SANKO 09D</b> 5.0% ①	103° TL201 - TL202 [K230-] - TL203 - TL205 - TL208 - POVAG - SANKO	TL201 MNM <b>2630</b> TL203 MNM <b>8860</b>

① Close-in obstacle: 1.1NM on 098° of ARP, altitude 153ft

**ANRAT 17D / ANRAT 18D / ANRAT 19D / CHANGHAI 18D / CHANGHAI 19D / KARPI 17D / KARPI 18D / KARPI 19D**

**RWY 28 (283°)**

	GS	120	150	180	210	240	270
5.5%	ft/MIN	700	900	1100	1200	1400	1600

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 28</b>	
<b>ANRAT 17D</b> (ATC) 5.5% ①②	283° TL401 - TL402 - TL405 - SARUD - ANRAT	TL401 MNM <b>2300</b> TL402 MNM <b>3940</b> TL405 MNM <b>FL118</b>
<b>ANRAT 18D</b> (ATC) 5.5% ①②	283° TL401 - TL410 - TL411 - EKULI - BUBLO - ORAVA - ANRAT	TL401 MNM <b>2300</b>
<b>ANRAT 19D</b> 5.5% ①②	283° TL401 - TL404 [K230-] - TL406 [K250-] - TL112 - TL408 - TL411 - EKULI - BUBLO - ORAVA - ANRAT	TL401 MNM <b>2300</b> TL406 MNM <b>8860</b> TL408 MNM <b>FL128</b> EKULI MNM <b>FL217</b>
<b>CHANGHAI 18D</b> <b>CHI 18D</b> (ATC) 5.5% ①②	283° TL401 - TL404 [K230-] - TL406 - TL407 - CHI	TL401 MNM <b>2300</b> TL406 MNM <b>8860</b>
<b>CHANGHAI 19D</b> <b>CHI 19D</b> 5.5% ①②	283° TL401 - TL404 [K230-] - TL406 - TL301 - TL304 - VENOS - CHI	TL401 MNM <b>2300</b> TL406 MNM <b>8860</b>
<b>KARPI 17D</b> (ATC) 5.5% ①②	283° TL401 - TL402 - TL403 [K225-] - TL404 [K250-] - TL401 - TL409 - KARPI	TL401 MNM <b>2300</b> TL402 MNM <b>3940</b> TL409 MNM <b>FL128</b>
<b>KARPI 18D</b> (ATC) 5.5% ①②	283° TL401 - TL410 - TL411 - EKULI - KARPI	TL401 MNM <b>2300</b>
<b>KARPI 19D</b> 5.5% ①②	283° TL401 - TL404 [K230-] - TL406 [K250-] - TL112 - TL408 - TL411 - EKULI - KARPI	TL401 MNM <b>2300</b> TL406 MNM <b>8860</b> TL408 MNM <b>FL128</b> EKULI MNM <b>FL217</b>

① Departure climb gradient not applicable when VIS above 5000m and ceiling above 919ft.

② Obstacle: 4600m/2.48NM from RWY 10 THR, 395m/1296ft north of RCL, altitude 822ft.

**SANKO 18D / SANKO 19D**

RWY 28 (283°)

	GS	120	150	180	210	240	270
5.5%	ft/MIN	700	900	1100	1200	1400	1600

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 28</b>	
<b>SANKO 18D</b> (ATC) 5.5% ①②	283° TL401 - TL410 - POVAG - SANKO	TL401 MNM <b>2300</b>
<b>SANKO 19D</b> 5.5% ①②	283° TL401 - TL404 [K230-] - TL406 - TL112 - POVAG - SANKO	TL401 MNM <b>2300</b> TL406 MNM <b>8860</b>

① Departure climb gradient not applicable when VIS above 5000m and ceiling above 919ft.

② Obstacle: 4600m/2.48NM from RWY 10 THR, 395m/1296ft north of RCL, altitude 822ft.

06-SEP-2018

DLC-ZYTL

5-50

SIDs RWY 10

ANRAT 01D / ANRAT 02D / ANRAT 03D / CHANGHAI 01D / CHANGHAI 02D / KARPI 01D / KARPI 02D / SANKO 01D / SANKO 02D  
RWY 10 (103°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	Runway 10	
ANRAT 01D (ATC) 5.0% ①②	No procedure text published	D8 DBL MNM 2630 DBL MNM 6890
ANRAT 02D 5.0% ①②	No procedure text published	D8 DBL MNM 2630 DBL MNM 6890
ANRAT 03D 5.0% ②	No procedure text published	D8 DBL MNM 2630
CHANGHAI 01D CHI 01D 5.0% ②	No procedure text published	D8 DBL MNM 2630
CHANGHAI 02D CHI 02D (ATC) 5.0% ②	No procedure text published	D8 DBL MNM 2630
KARPI 01D 5.0% ①②	No procedure text published	D8 DBL MNM 2630 DBL MNM 6890
KARPI 02D 5.0% ②	No procedure text published	D8 DBL MNM 2630
SANKO 01D 5.0% ①②	No procedure text published	D8 DBL MNM 2630 DBL MNM 6890
SANKO 02D 5.0% ②	No procedure text published	D8 DBL MNM 2630

① If ACFT climb performance is limited, contact ATC and circle to the north of RWY, climb MNM 6890 over DBL and join the departure route.  
② Close-in obstacle: 1.1NM on 098° of ARP, altitude 153ft.



06-SEP-2018

**DLC-ZYTL**

**5-60**

**SIDs RWY 28**

**ANRAT 11D / ANRAT 12D / ANRAT 13D / CHANGHAI 11D / CHANGHAI 12D / KARPI 11D / KARPI 12D / SANKO 11D**  
**RWY 28 (283°)**

	GS	120	150	180	210	240	270
5.5%	ft/MIN	700	900	1100	1200	1400	1600

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 28</b>	
<b>ANRAT 11D</b> (ATC) 5.5% ②③	No procedure text published	D5.5 <b>DBL MNM 1650</b>
<b>ANRAT 12D</b> 5.5% ②③	No procedure text published	D5.5 <b>DBL MNM 1650</b>
<b>ANRAT 13D</b> 5.5% ①②③	No procedure text published	D10 <b>DBL MNM 2630</b> <b>DBL MNM 6890</b>
<b>CHANGHAI 11D</b> <b>CHI 11D</b> 5.5% ①②③	No procedure text published	D10 <b>DBL MNM 2630</b> <b>DBL MNM 6890</b>
<b>CHANGHAI 12D</b> <b>CHI 12D</b> (ATC) 5.5% ②③	No procedure text published	D10 <b>DBL MNM 2630</b> R077/D12 <b>DBL MNM 7880</b>
<b>KARPI 11D</b> 5.5% ①②③	No procedure text published	D10 <b>DBL MNM 2630</b> <b>DBL MNM 6890</b>
<b>KARPI 12D</b> 5.5% ②③	No procedure text published	D5.5 <b>DBL MNM 1650</b>
<b>SANKO 11D</b> 5.5% ①②③	No procedure text published	D10 <b>DBL MNM 2630</b> <b>DBL MNM 6890</b>

- ① If ACFT is not able to reach 6890 over DBL after departure turn, follow the ATC instructions.
- ② Departure climb gradient not applicable when VIS above 5000m and ceiling above 919ft.
- ③ Obstacle: 4600m/2.48NM from RWY 10 THR, 395m/1296ft north of RCL, altitude 822ft.

Changes: New

06-SEP-2018

## DLC-ZYTL

China **Dalian** Zhoushuizi

## RNAV STARs RWY 28

## RNAV STARs RWY 10

# STAR

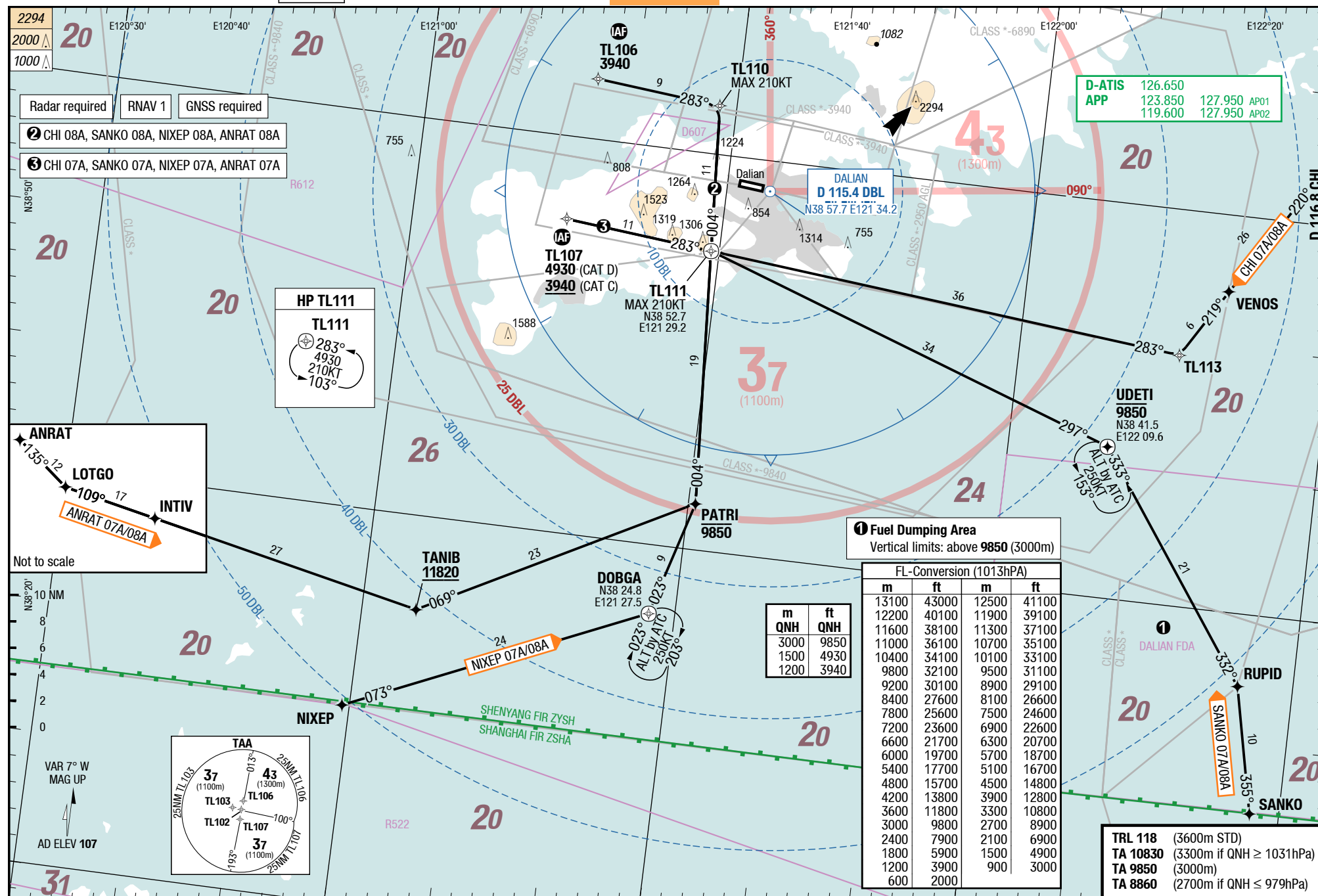
# STAR

Zhoushuizi **Dalian** China

RNAV STARs RWY 28

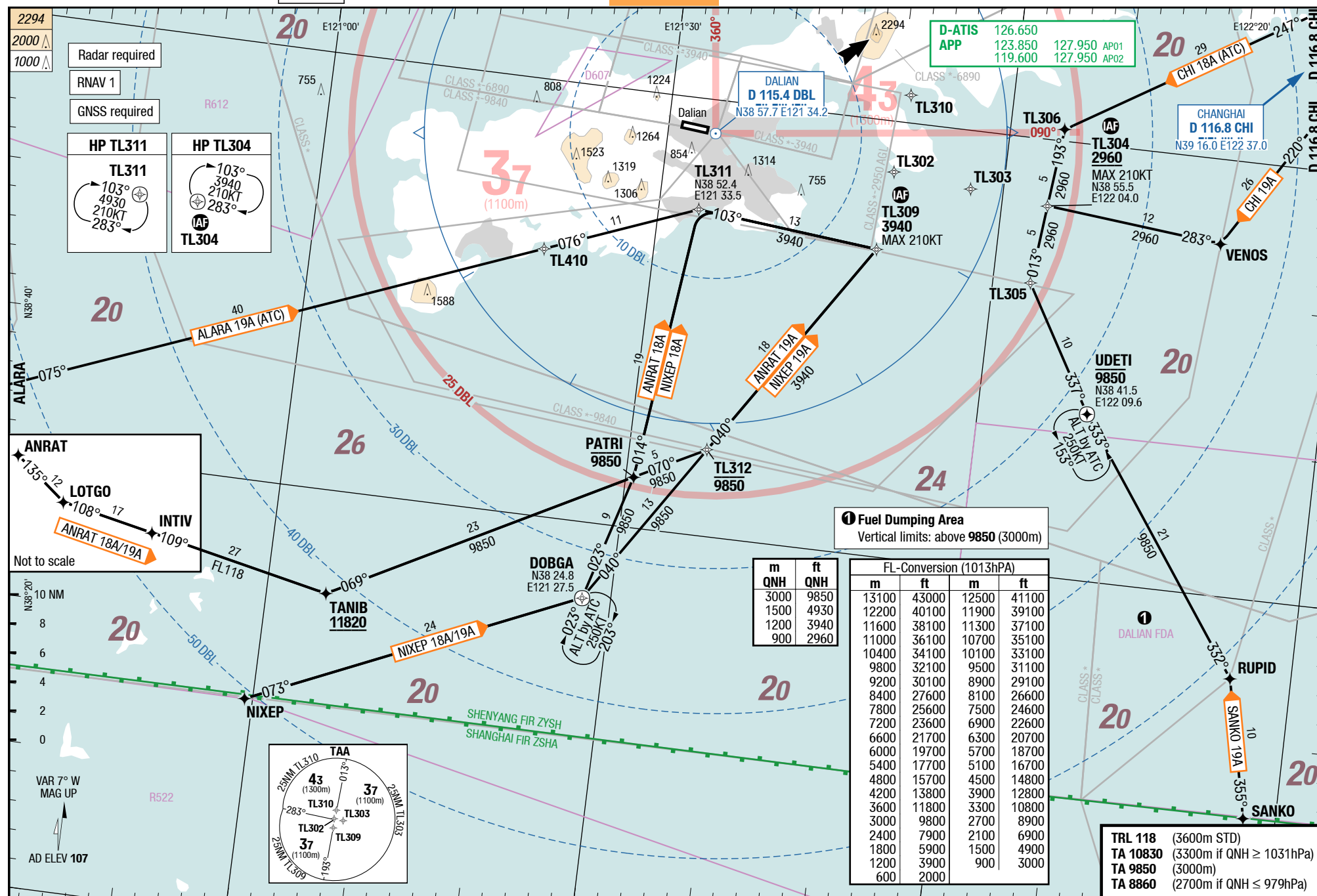
## RNAV STARs RWY 10

6-10



Changes: PROC, MGA, OBST, Note, Editorial

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## DLC-ZYTL

STARs RWY 28

## STARs RWY 10

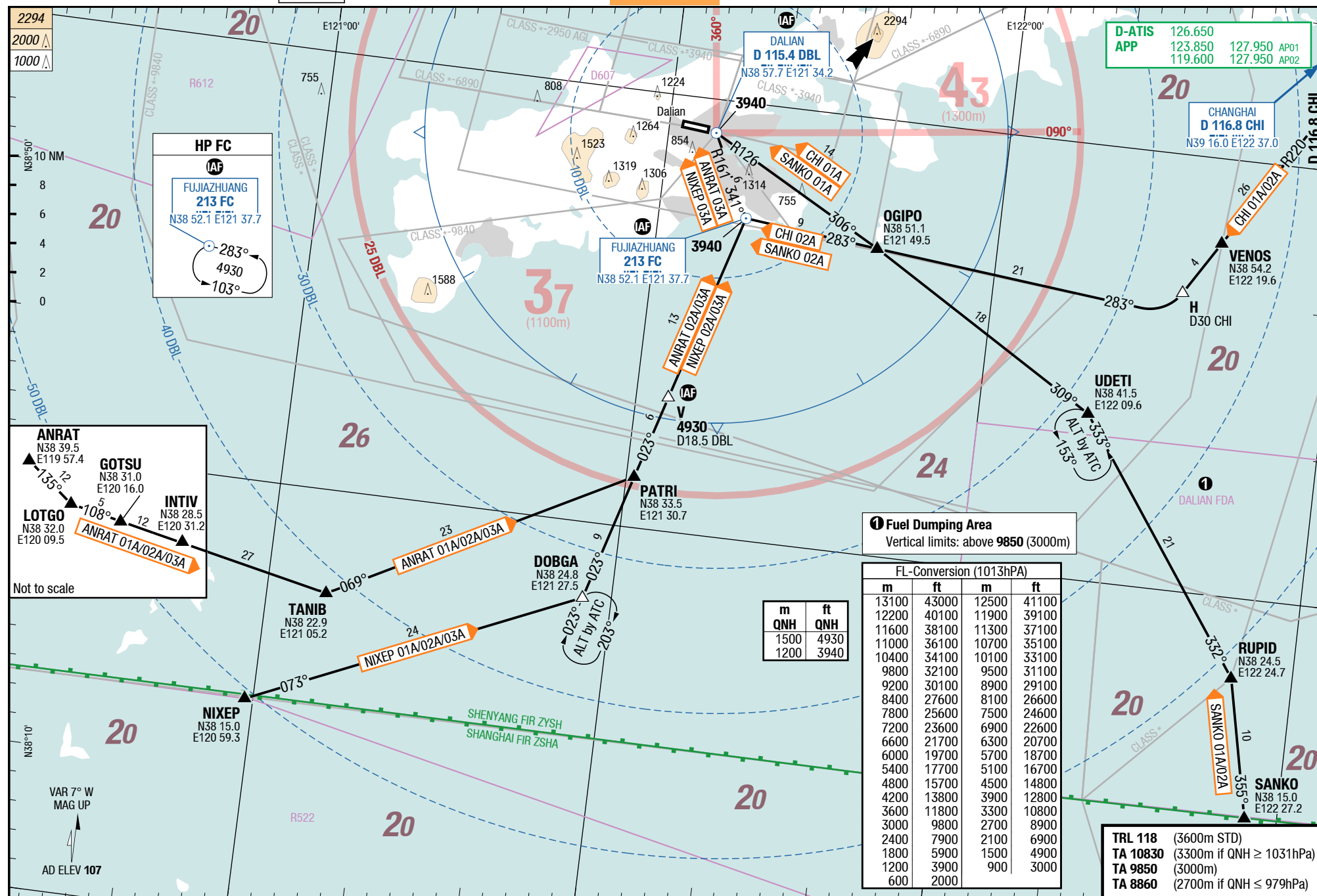
# STAR

# STAR

STARs RWY 28

## STARs RWY 10

6-30



Changes: MGA, OBST, Editorial

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Effective 13-SEP-2018

06-SEP-2018

DLC-ZYTL

6-40

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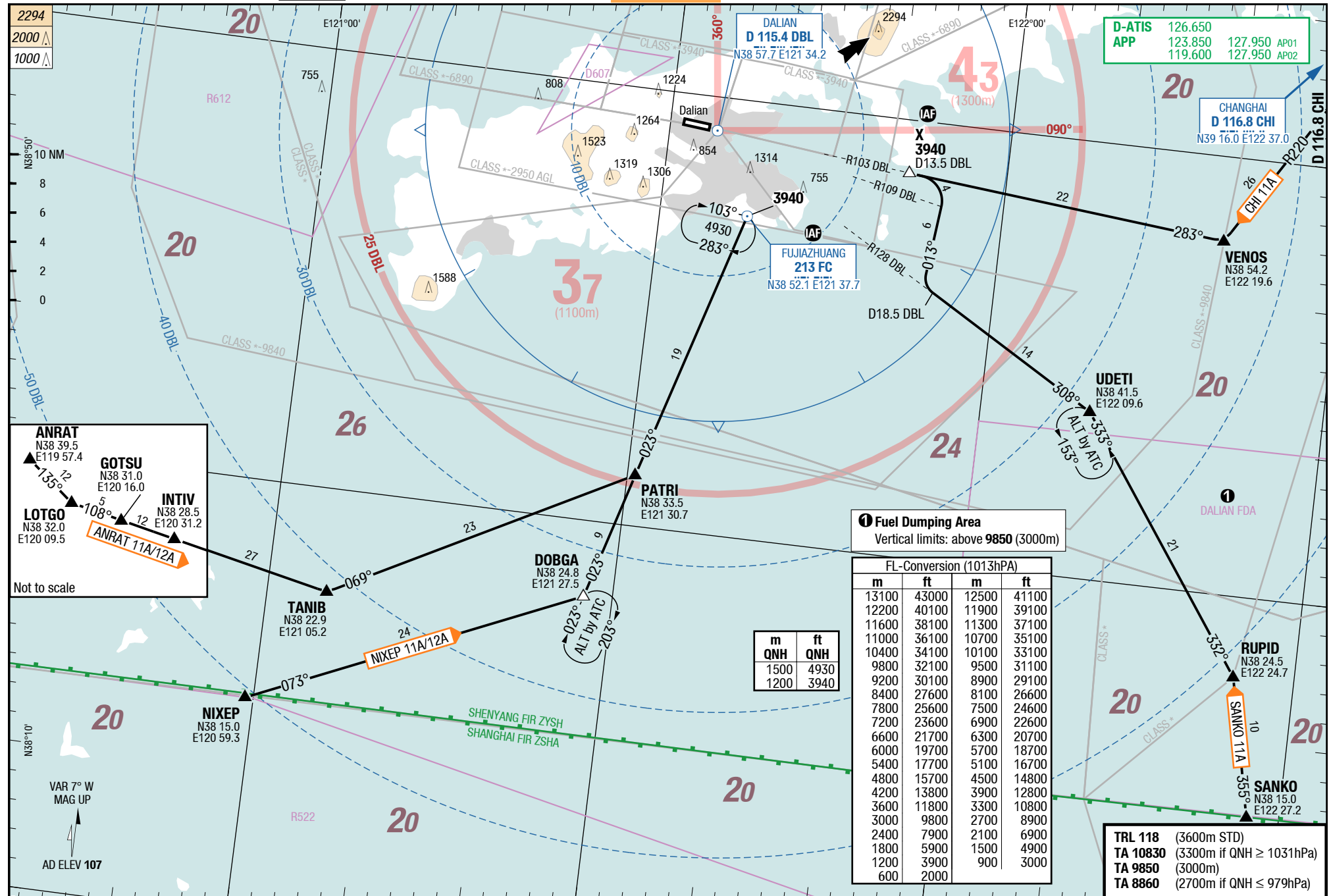
STARs RWY 28

STAR

STAR

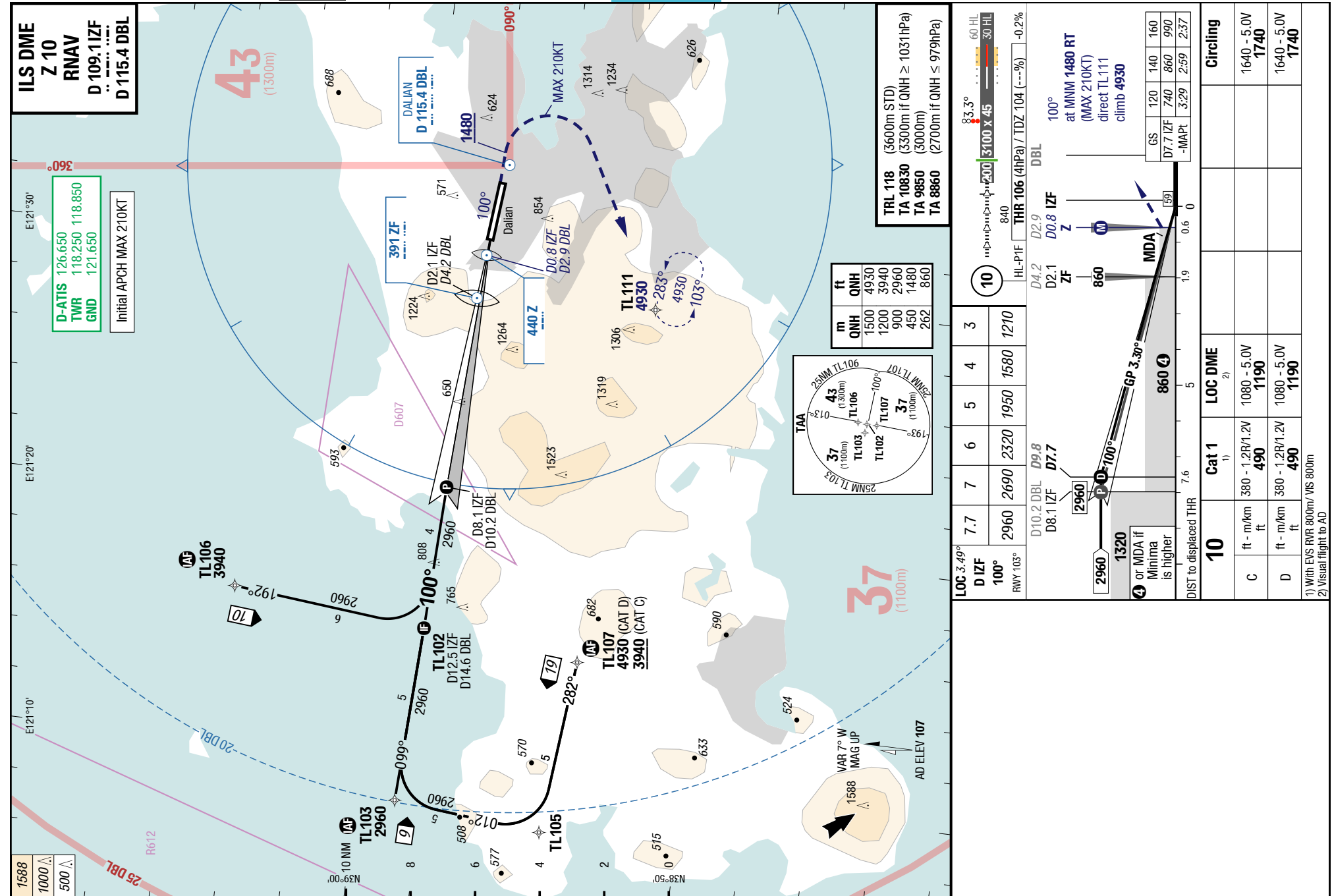
Zhoushuizi Dalian China

STARs RWY 28



Changes: MGA, OBST





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Zhoushuizi **Dalian** China

AC

AC

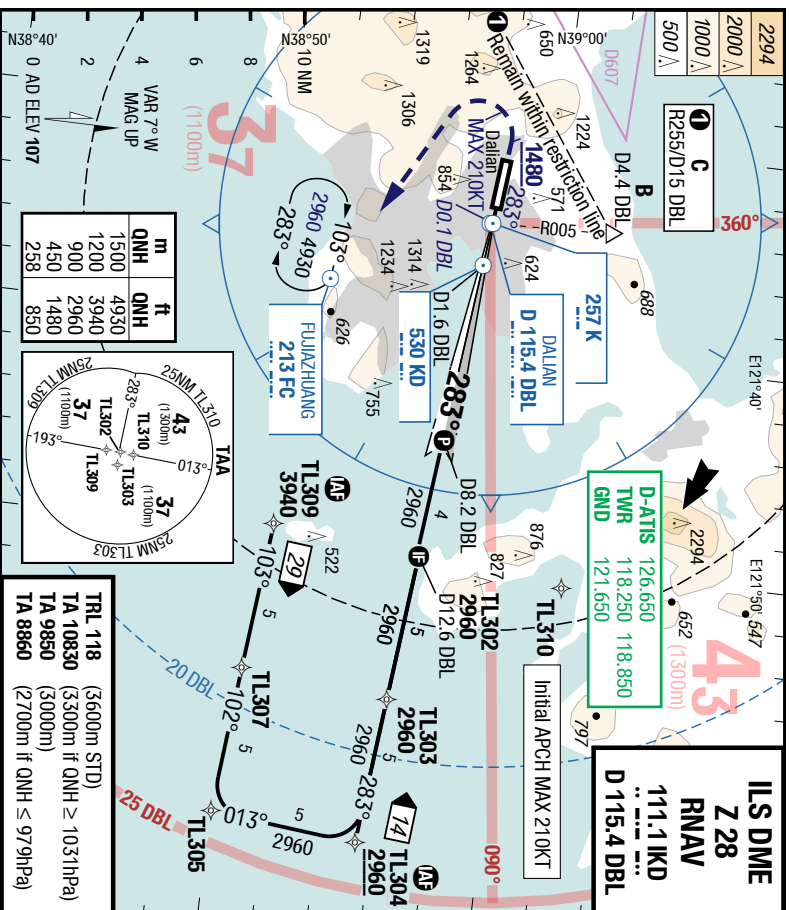
7-20

# ILS DME Z 28 RNAV

IAC

IAC

# ILS DME Z 28 RNAV



60 HL  
30 HL  
45 x 3200  
100  
850  
2960  
850  
1150  
2960

28°  
at MNMN 1480 LT (MAX 21 OKT)  
direct FC  
climb 2960

0 0.6 2.2 5 8.8 13.10

MDA  
GP 3.00°  
28.3°  
2960  
2960

2	3	4	5	6	8.2
990	1310	1630	1950	2270	2960

DST to displaced THR

	Cat 1 DME DBL GA 5.0%	Cat 1 DME DBL GA 2.5% 1)	LOC DME DBL			Circling
<b>28</b>						
C	ft - m/km 280 - 800R/800V <b>370</b> 2)	380 - 1.3R/1.3V <b>470</b>	780 - 3.7V <b>870</b>			1640 - 5.0V <b>1740</b>
D	ft - m/km 300 - 900R/900V <b>390</b> 3)	380 - 1.3R/1.3V <b>470</b>	780 - 3.7V <b>870</b>			1640 - 5.0V <b>1740</b>

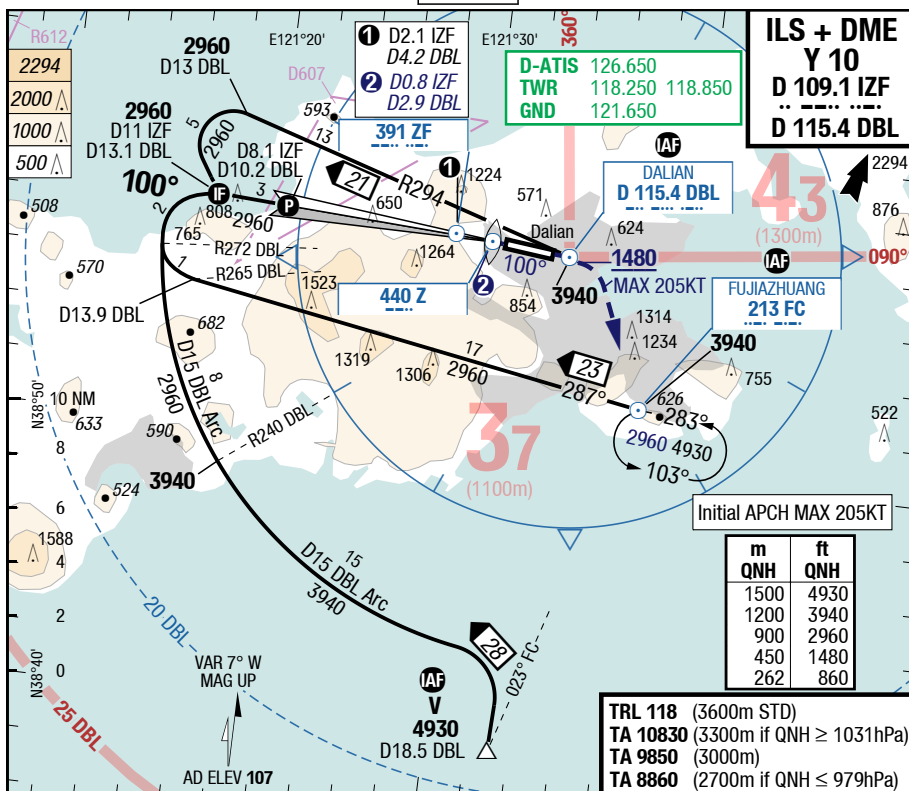
- 1) With EVS RVR 900m/ VIS 900m
- 2) With EVS RVR 550m/ VIS 800m

Changes: ALT, TDZE, OBST, MISAP text

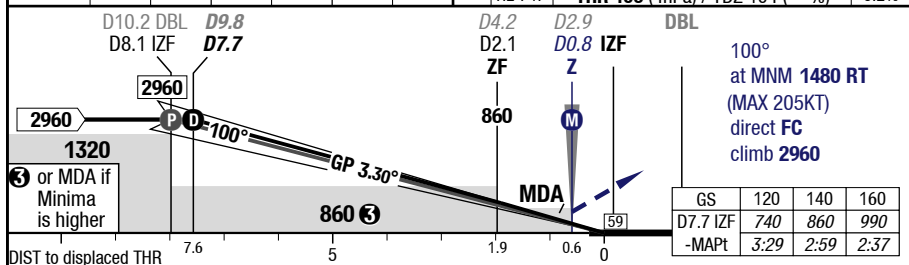
## DLC-ZYTL

7-30

## ILS + DME Y 10



LOC 3.49° D IZF 100° RWY 103°	7.7	7	6	5	4	3	<div> <div> <div>10</div> <div> <div> <div>840</div> <div>THR 106 (4hPa) / TDZ 104 (---%)</div> </div> <div> <div>83.3°</div> <div>60 HL</div> </div> <div> <div>200</div> <div>3100 x 45</div> </div> <div> <div>30 HL</div> <div>-0.2%</div> </div> </div> </div> </div>
	2960	2690	2320	1950	1580	1210	



<b>10</b>		<b>Cat 1</b> 1)	<b>LOC DME</b>				<b>Circling</b>
<b>C</b>	ft - m/km ft	380 - 1.2R/1.2V <b>490</b>	1080 - 5.0V <b>1190</b>				1640 - 5.0V <b>1740</b>
<b>D</b>	ft - m/km ft	380 - 1.2R/1.2V <b>490</b>	1080 - 5.0V <b>1190</b>				1640 - 5.0V <b>1740</b>

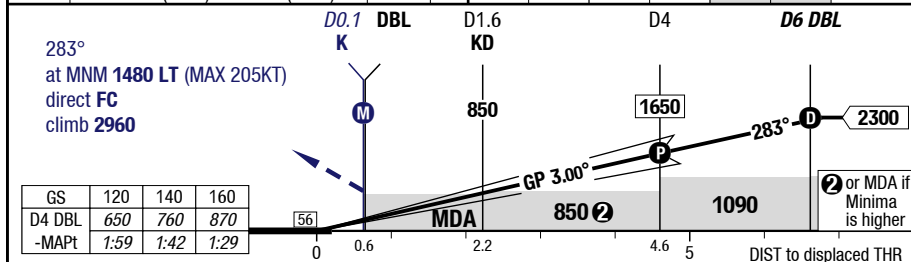
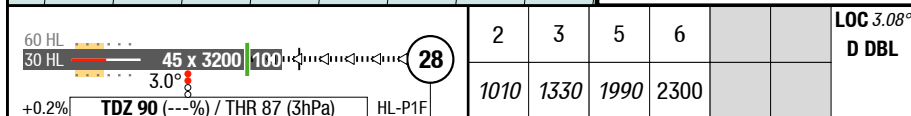
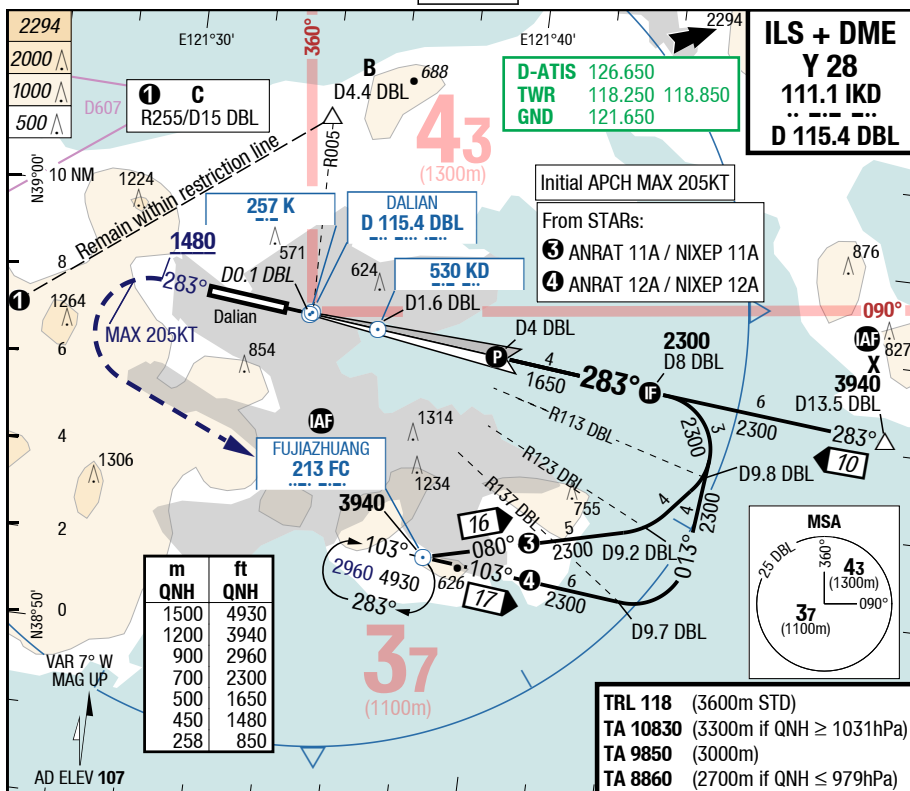
1) With EVS RVR 800m/ VIS 800m

Changes: ALT, TDZE, OBST, MISAP text

DLC-ZYTL

7-40

ILS + DME Y 28



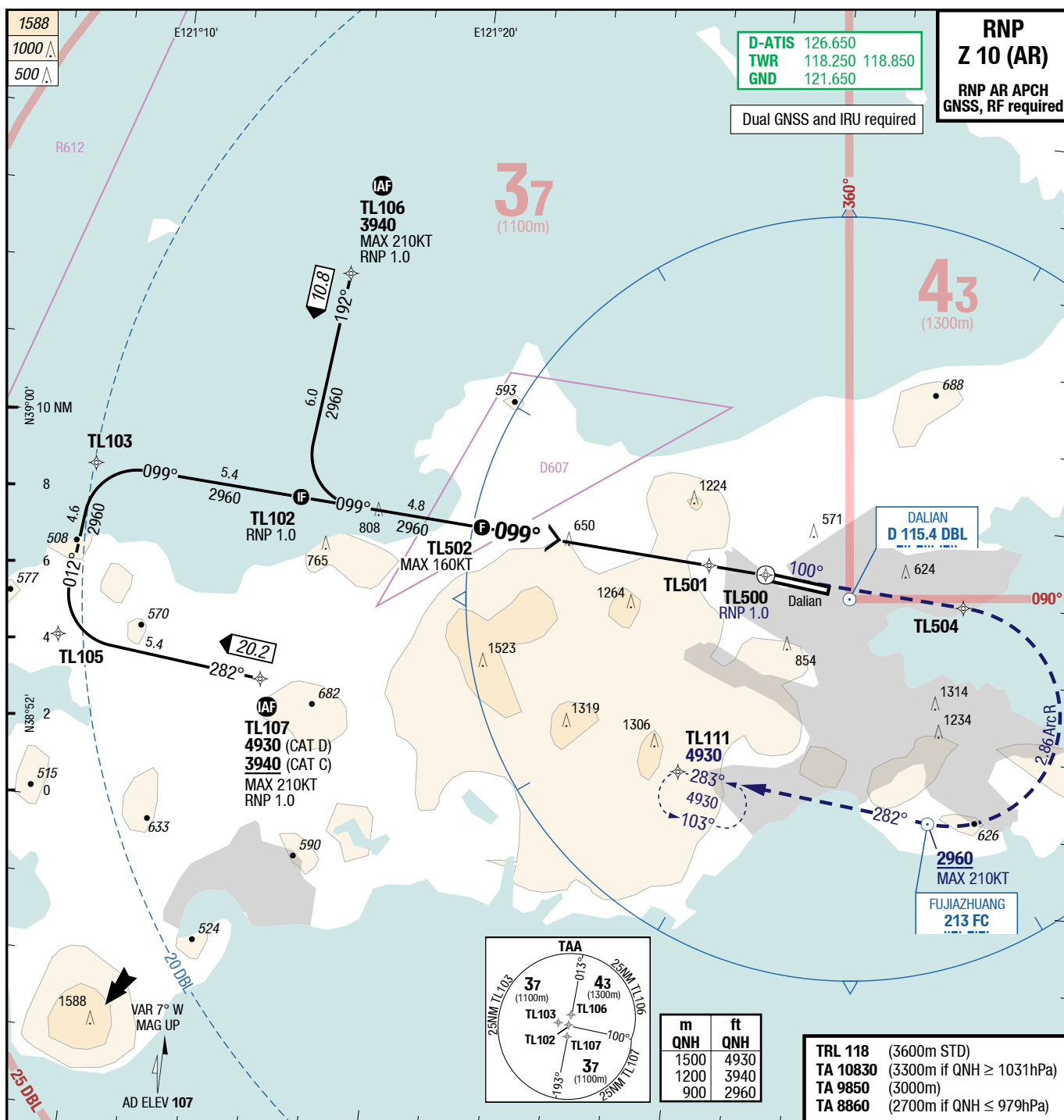
28	Cat 1 DME DBL GA 5.0%	Cat 1 DME DBL GA 2.5% 1)	LOC DME DBL		Circling
C	ft - m/km ft 280 - 800R/800V 370 2)	380 - 1.3R/1.3V 470	780 - 3.7V 870		1640 - 5.0V 1740
D	ft - m/km ft 300 - 900R/900V 390 3)	380 - 1.3R/1.3V 470	780 - 3.7V 870		1640 - 5.0V 1740

1) With EVS RVR 900m/ VIS 900m

3) With EVS RVR 600m/ VIS 800m

2) With EVS RVR 550m/ VIS 800m

Changes: ALT, TDZE, OBST, MISAP text



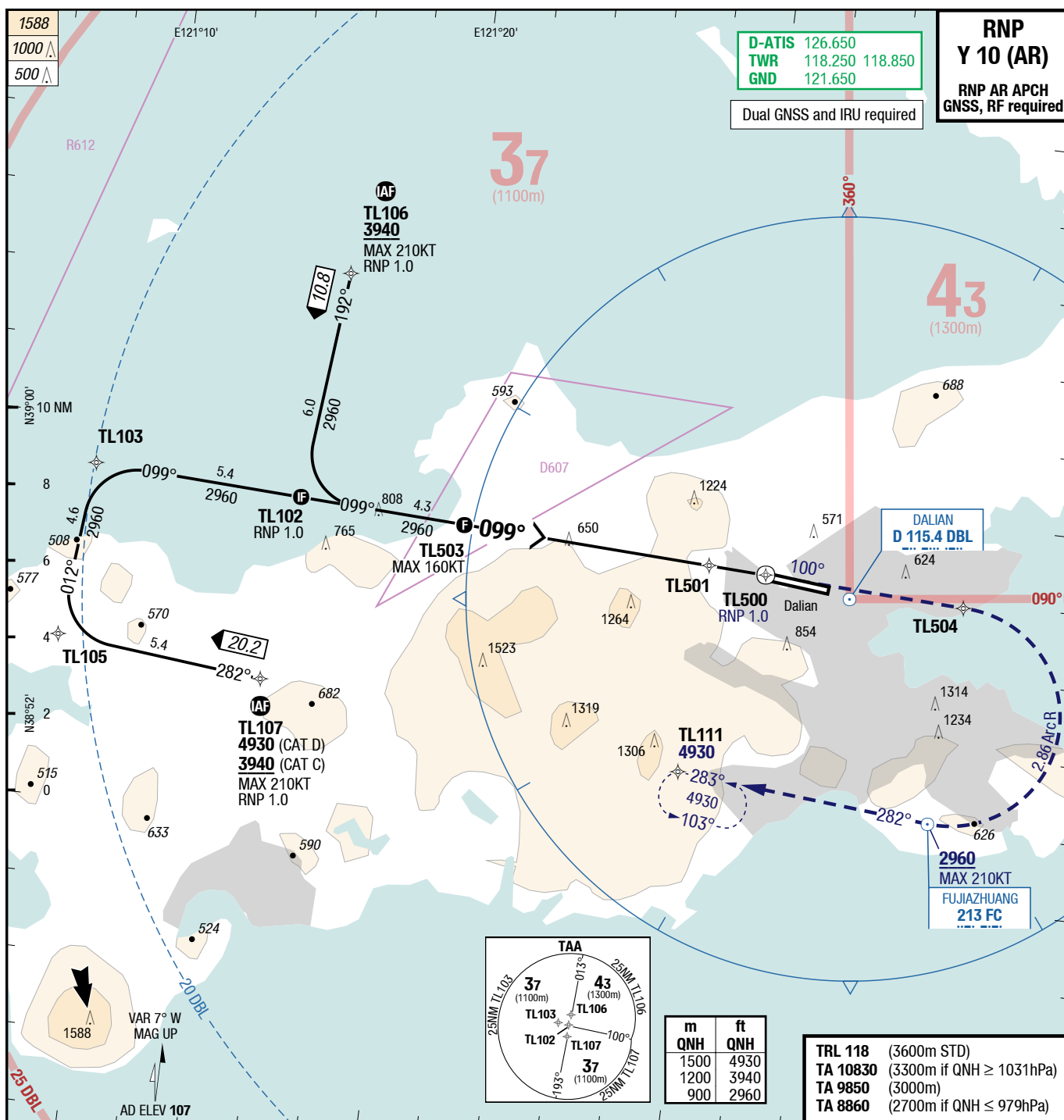
3.49° <b>TL500</b> <b>099°</b> RWY 103°	7.5	6	5	4	3	2	<div><div>10</div><div><div>840</div><div><div>THR 106 (4hPa) / TDZ 104 (---%)</div><div>0.2%</div></div></div></div>											
	2960	2390	2020	1650	1270	900	<div><div>12.3 TL500</div><div>7.5</div><div>1.5</div><div><div>TL102</div><div>TL502</div><div>TL501 TL500</div></div></div>											
	<div><div>2960</div><div>IF</div><div>2960</div><div>IF</div><div>099°</div></div>						<div><div>100° to TL504</div><div>RT to FC (MNM 2960)</div><div>282° to TL111</div><div>climb 4930</div></div>											
TL500 N38 58.1 E121 31.3	1480		DA		49		<table><tr><td>GS</td><td>120</td><td>140</td><td>160</td></tr><tr><td></td><td>740</td><td>860</td><td>990</td></tr></table>				GS	120	140	160		740	860	990
GS	120	140	160															
	740	860	990															
DIST to displaced THR							10	7.5	5	1.5	0							

<b>10</b>		<b>RNP</b> RNP 0.30 VNAV GA 3.0% <sup>1)</sup>	<b>RNP</b> RNP 0.30 VNAV GA 2.5% <sup>1)</sup>				<b>Circling</b>
C	ft - m/km ft	530 - 2.0V <b>640</b> <sup>2)</sup>	550 - 2.1V <b>650</b> <sup>3)</sup>				Not published
D	ft - m/km ft	Not published	Not published				Not published

1) Uncompensated BARO VNAV NA below 5°C (41°F) or above 30°C (86°F) 2) With EVS VIS 1.3km 3) With EVS VIS 1.4km

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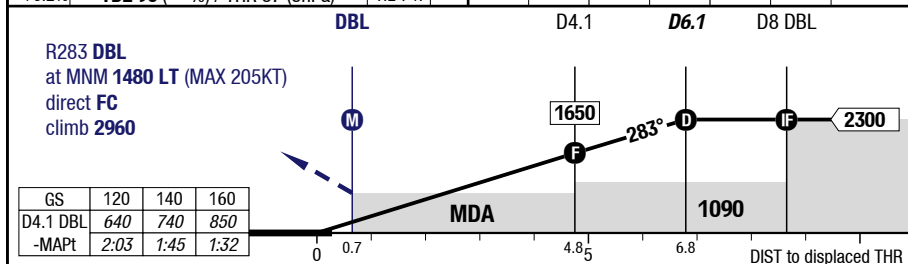
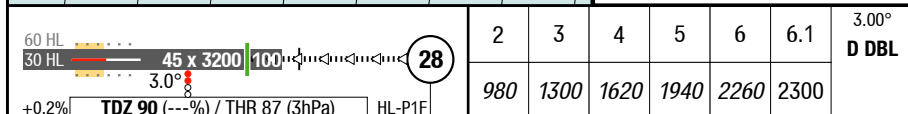
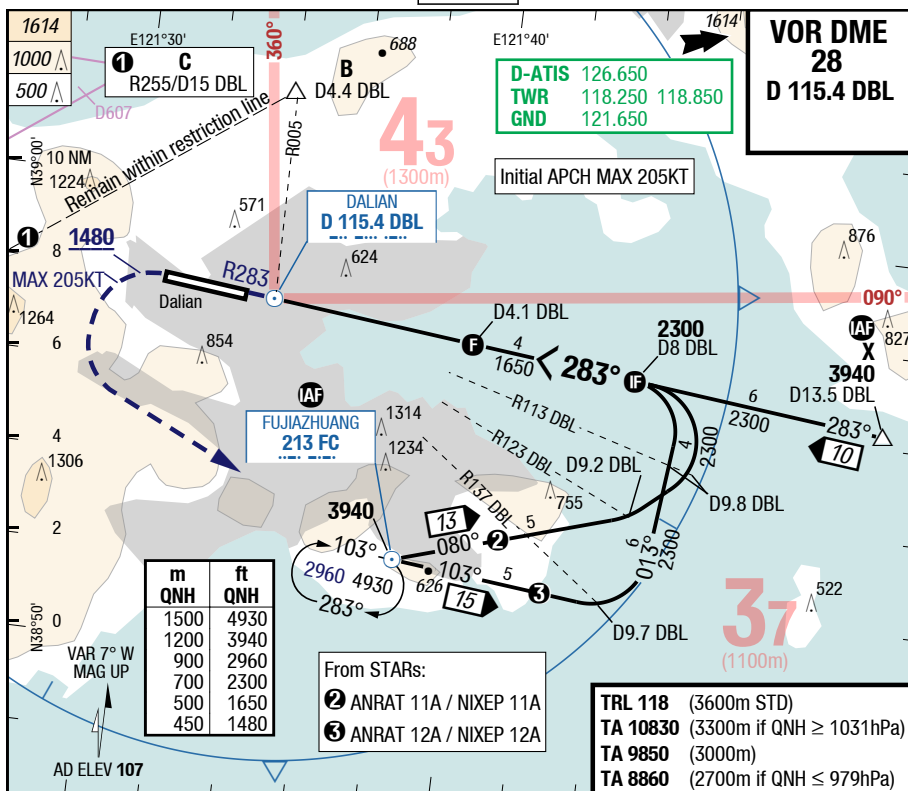


3.30° <b>TL500</b> <b>099°</b> RWY 103°	8	6	5	4	3	2	<div><div>10</div><div><div>83.3°</div><div>200 3100 x 45</div><div>60 HL</div><div>30 HL</div></div></div>																
	2960	2260	1910	1560	1210	860	<div><div>HL-P1F</div><div>840</div><div><b>THR 106</b> (4hPa) / TDZ 104 (---%)</div><div>-0.2%</div></div>																
12.3 TL500 <b>TL102</b>							8 <b>TL503</b>		1.5 <b>RW10</b> <b>TL501 TL500</b>		100° to TL504 <b>RT to FC (MNM 2960)</b> 282° to TL111 climb <b>4930</b>												
<div><div>2960</div><div>IF</div><div>2960</div><div>F</div><div>099°</div><div>1480</div><div>DA</div><div>49</div></div>									<table><tr><td>GS</td><td>120</td><td>140</td><td>160</td></tr><tr><td></td><td>700</td><td>820</td><td>930</td></tr><tr><td></td><td></td><td></td><td></td></tr></table>			GS	120	140	160		700	820	930				
GS	120	140	160																				
	700	820	930																				
DIST to displaced THR							10 8 5 1.5 0																
TL500 N38 58.1 E121 31.3																							
<b>10</b> RNP RNP 0.30 VNAV 1)							Circling																
C	ft - m/km ft	520 - 1.9V <b>620</b> 2)					Not published																
D	ft - m/km ft	Not published					Not published																

1) Uncompensated BARO VNAV NA below 20°C (68°F) or above 40°C (104°F)  
2) With EVS VIS 1.3km

7-70

## VOR DME 28

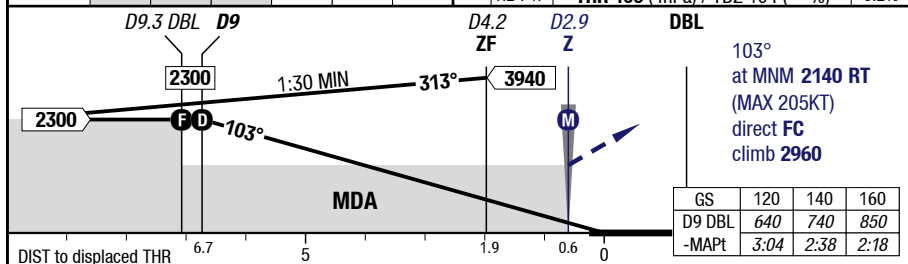
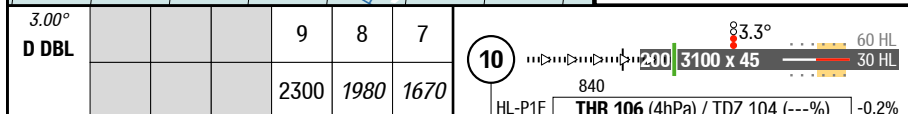
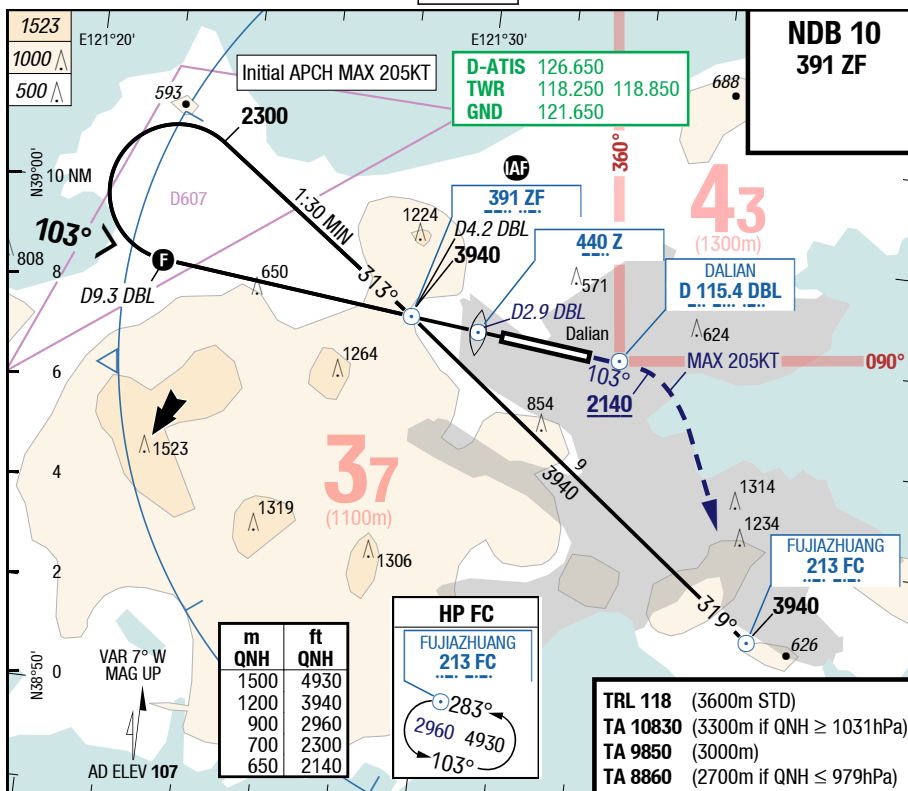


<b>28</b>		<b>VOR DME</b>					<b>Circling</b>
C	ft - m/km ft	780 - 3.7V <b>870</b>					1640 - 5.0V <b>1740</b>
D	ft - m/km ft	780 - 3.7V <b>870</b>					1640 - 5.0V <b>1740</b>

DLC-ZYTL

7-80

NDB 10

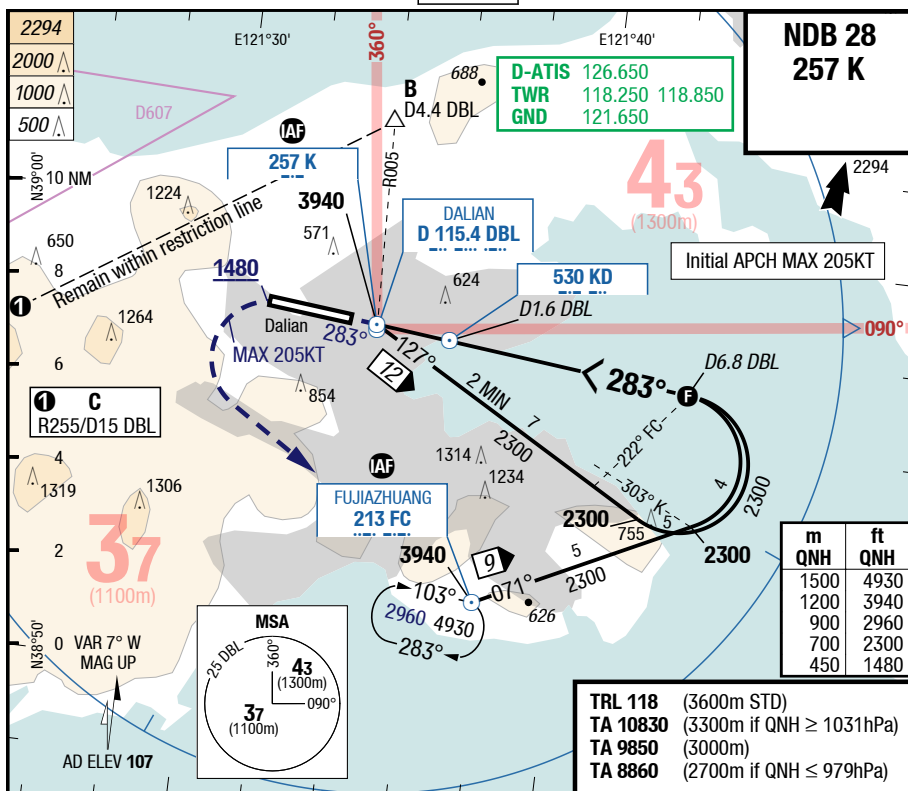


10		NDB		Circling	
C	ft - m/km ft	1310 - 5.0V 1420		1640 - 5.0V 1740	
D	ft - m/km ft	1310 - 5.0V 1420		1640 - 5.0V 1740	

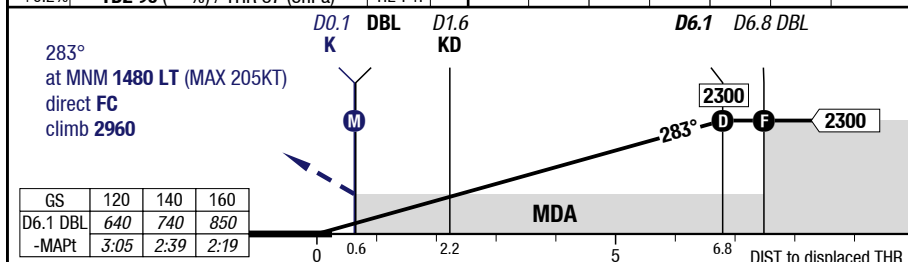
DLC-ZYTL

7-90

NDB 28



60 HL	30 HL	45 x 3200	100	28	2	3	4	5	6	6.1	3.00°
+0.2%	TDZ 90 (---%)	/ THR 87 (3hPa)	HL-P1F		980	1300	1620	1940	2260	2300	D DBL



28		NDB NDB					Circling
		FC+K					
C	ft - m/km ft	780 - 3.7V 870					1640 - 5.0V 1740
D	ft - m/km ft	780 - 3.7V 870					1640 - 5.0V 1740