

**ZSPD AD 2.1 机场地名代码和名称 Aerodrome location indicator and name**

ZSPD-上海/浦东 SHANGHAI/Pudong

**ZSPD AD 2.2 机场地理位置和管理资料 Aerodrome geographical and administrative data**

1	机场基准点坐标及其在机场的位置 ARP coordinates and site at AD	N31°08.7' E121°47.6' Center of RWY17L/35R
2	方向、距离 Direction and distance from city	108 °GEO, 32.3km from city center
3	标高/参考气温 Elevation / Reference temperature	3.8m/30.4 °C(JUL)
4	机场标高位置/大地水准面波幅 AD ELEV PSN / geoid undulation	Center of RWY16L/34R/-
5	磁差/年变率 MAG VAR/ Annual change	5°47'W(2017)/-0°42'(1970)
6	机场管理部门、地址、电话、传真、AFS、电子邮箱、网址 AD administration, address, telephone,telefax, AFS, E - mail, website	Shanghai Airport (Group) CO. LTD. Nr. 900 Qi Hang street, Shanghai, China. Post code:201207 TEL:86-21-68347136 FAX:86-21-68342735 AFS:ZSPDYDYX Website:www.shanghaiairport.com
7	允许飞行种类 Types of traffic permitted(IFR / VFR)	IFR/VFR
8	机场性质/飞行区指标 Military or civil airport &Reference code	CIVIL/RWY 17L/35R: 4E; RWY 16L/34R,16R/34L,17R/35L:4F
9	备注 Remarks	Nil

**ZSPD AD 2.3 工作时间 Operational hours**

1	机场当局(机场开放时间) AD Administration (AD operational hours)	H24
2	海关和移民 Customs and immigration	HS or O/R
3	卫生健康部门 Health and sanitation	HS or O/R

4	航行情报服务讲解室 AIS Briefing Office	H24
5	空中交通服务报告室 ATS Reporting Office (ARO)	H24
6	气象讲解室 MET Briefing Office	H24
7	空中交通服务 ATS	H24
8	加油 Fuelling	HS or O/R
9	地勤服务 Handling	HS or O/R
10	保安 Security	HS or O/R
11	除冰 De-icing	H24
12	备注 Remarks	Nil

#### ZSPD AD 2.4 地勤服务和设施 Handling services and facilities

1	货物装卸设施 Cargo-handling facilities	Lift(7t, 14t, 30t), platform trailer, container trailer, tow-tractor, cargo trailer, container baggage trailer, conveyor truck
2	燃油/滑油牌号 Fuel/oil types	Jet A-1 /various types of oil
3	加油设施/能力 Fuelling facilities/capacity	Refueling truck (65000 liters:63 liters/ sec & 20000 liters:33 liters/ sec); hydrant dispenser:63 liters/ sec; refueling well: 1000 liters/ sec
4	除冰设施 De-icing facilities	10 de-icers
5	过站航空器机库 Hangar space for visiting aircraft	Available
6	过站航空器的维修设施 Repair facilities for visiting aircraft	Airline repair: B737, B747, B767, B777, B787, A300, A320, A330, A340, A350, A380
7	备注	Air preconditioning unit, oxygen filling vehicle, plane traction rod(for

	Remarks	B737-A380), potable water vehicle, sewage disposal vehicle, garbage truck, ferry vehicle, the disabled lift car, no power source car, forklift
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**ZSPD AD 2.5 旅客设施 Passenger facilities**

1	宾馆 Hotels	At AD and in the city
2	餐馆 Restaurants	At AD
3	交通工具 Transportation	Passenger's coaches,taxis, magnetic aero train
4	医疗设施 Medical facilities	First-aid, 6 ambulances and medical center at AD
5	银行和邮局 Bank and Post Office	At AD
6	旅行社 Tourist Office	At AD TEL: 86-21-68346452
7	备注 Remarks	Nil

**ZSPD AD 2.6 援救与消防服务 Rescue and fire fighting services**

1	机场消防等级 AD category for fire fighting	CAT 10
2	援救设备 Rescue equipment	Fire fighting facilities: rapid intervention vehicle, foam tender, dry-chemical tender, disassembly rescue truck, lift rescue truck, illumination truck, command car, logistics car. Rescue equipment: uplift air cushion, mobile surface operation devices, damaged aircraft, fork, air compressor, tethered hoisting equipment.
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTWA up to A380
4	备注 Remarks	Nil

**ZSPD AD 2.7 可用季节- 扫雪 Seasonal availability-clearing**

1	可用季节及扫雪设备类型 Types of clearing equipment	All seasons Snow blowers, snow fluid truck
2	扫雪顺序	RWY→TWY→apron

	Clearance priorities	
3	备注 Remarks	Nil

### ZSPD AD 2.8 停机坪、滑行道及校正位置数据 Aprons, taxiways and check locations data

1	停机坪道面和强度 Apron surface and strength	Surface:	CONC
		Strength:	PCN 121/R/B/W/T: Stands Nr.6-24(13 absent), 201-211 PCN 115/R/B/W/T: Stands Nr.625, 626 PCN 109/R/B/W/T: Stands Nr.611-624 PCN 107/R/B/W/T: Stands Nr.301-308 PCN 106/R/B/W/T: Stands Nr.57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 806-816 PCN 104/R/B/W/T: Stands Nr.101, 102, 112-177, 189, 190, 310-341, 346, 347, 501-509, 551-560, Z11-Z16, Z21-Z26, Z31-Z38 PCN 89/R/B/W/T: Stands Nr.1-5 PCN 85/R/B/W/T: Stands Nr.50-56, 58, 60, 62, 64, 80, 82, 84, 86, 88, 90, 92-98, 801-805 PCN 82/R/B/W/T: Stands Nr.581-586, 589, 590 PCN 80/R/B/W/T: Stands Nr.510-512 PCN 75/R/B/W/T: Stands Nr.401A/B, 402A/B, 403A/B, 404A/B, 405-407, 408A/B, 409A/B, 410A/B, 411-418 PCN 74/R/B/W/T: Stands Nr.103-111, 178-188, 561-572 PCN 68/R/B/W/T: Stands Nr.458, 459 PCN 60/R/B/W/T: Stands Nr.451-453 PCN 59/R/B/W/T: Stands Nr.25-32
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	Width:	All TWYs: 23m or wider
		Surface:	ASPH: P2-P6(BTN TWY A & RWY17L/35R); P2-P6(BTN TWY D & RWY17L/35R); R2-R5(BTN TWY G & RWY 16R/34L); R3-R4(BTN TWY F & RWY16R/34L); G(N of rapid exit TWY G6, S of rapid exit TWY G1); TWY S2(S of TWY T5); CONC: others
		Strength:	PCN 126/F/C/W/T: TWYs P1-P6(BTN TWY D&RWY17L/35R) PCN 121/R/B/W/T: TWYs A, B, B1-B8, P1-P6(east of 17L/35R) PCN 117/R/B/W/T:

			<p>TWYs E5-E7(west of TWY E), W6-W7(north of TWY T4), R5-R6(west of TWY E)</p> <p>PCN 112/F/C/W/T:</p> <p>TWYs R1-R6(BTN TWY G&amp;RWY 16R/34L), R3-R4(BTN TWY F&amp;RWY 16R/34L), G(north of rapid exit TWY G6, south of rapid exit TWY G1)</p> <p>PCN 109/R/B/W/T:</p> <p>TWYs E, E0, E5-E7(east of TWY E), F(BTN TWY R1&amp;TWY E7), R1-R2(west of RWY 16R/34L), R5-R6(BTN TWY E&amp;RWY 16R/34L), T3, T4, W1(north of TWY T3), W5-W7(BTN TWY T3&amp;TWY T4)</p> <p>PCN 104/R/B/W/T:</p> <p>TWYs C, D, G(BTN TWY G1&amp;TWY G6), H, J1, J2, Q1-Q6, S1-S2(BTN TWY T5&amp;TWY T6), T1, T2(BTN TWY B&amp;TWY E), T5, T6, V1-V6, W1(BTN TWY T3&amp;TWY L22), W2, W3, W4(BTN TWY T4&amp;TWY L22)</p> <p>TWYs west of TWY D:P1, P2, P4, P6</p> <p>TWYs east of TWY G:R1, R2, R5, R6</p> <p>PCN 100/R/B/W/T:</p> <p>E8, F(north of TWY E7), T2(BTN TWY E&amp;TWY F)</p> <p>PCN 85/R/B/W/T:</p> <p>TWYs W4-W5(north of TWY T4)</p> <p>PCN 84/R/B/W/T:</p> <p>TWYs C1, C2, C5, C6, D1, D2, D5, D6</p> <p>PCN 82/R/B/W/T:</p> <p>TWYs E1, E2, E3(west of TWY E), R3-R4(west of TWY E), V7, V8, W5-W7(BTN TWY T3&amp;TWY L22)</p> <p>PCN 79/R/B/W/T:</p> <p>TWYs R3-R4(BTN TWY E&amp;TWY F), E3(east of TWY E), E4, F1-F4</p> <p>PCN 75/R/B/W/T:</p> <p>Rapid exit TWYs A1-A6</p> <p>PCN 74/R/B/W/T:</p> <p>Rapid exit TWYs G1-G6, H1-H6</p> <p>PCN 66/R/B/W/T:</p> <p>TWYs C3, C4, D3, D4</p> <p>PCN 58/F/C/W/U</p>
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			TWYs S2(south of TWY T5)
3	高度表校正点的位置及其标高 ACL location and elevation	Nil	
4	VOR/INS 校正点 VOR/INS checkpoints	Nil	
5	备注 Remarks	Nil	

**ZSPD AD 2.9 地面活动引导和管制系统与标识**  
**Surface movement guidance and control system and markings**

1	航空器机位号码标记牌、滑行道引导线、航空器目视停靠引导系统的使用 Use of aircraft stand ID signs, TWY guide lines and visual docking / parking guidance system of aircraft stands	Taxiing guidance signs at all intersections of TWY and RWY and at all holding positions. Taxing centerlines or guide lines at all TWYs and aprons. Nose-in guidance for aircraft stands. Visual docking Guidance System for all aircraft stands at aprons Nr.1, Nr.7 and satellite apron(except stands Nr.111,124,130,157,160,178), others available for marshaller guidance.	
2	跑道和滑行道标志及灯光 RWY and TWY marking and LGT	RWY markings	THR, RWY designation, TDZ, center line, edge line, aiming point
		RWY lights	Center line, edge line, THR, RWY end, TDZ(RWY16L/34R&RWY17R/35L exclusive), wing bar
		TWY markings	Center line, RWY holding positions, edge line, intermediate holding position, TWY shoulder, no entering marking, information sign, mandatory instruction sign
		TWY lights	Center line, edge line, intermediate holding position, road-holding position, RWY guard lights(tape A: vertical&tape B: built-in), rapid exit TWY indicator.
3	停止排灯 Stop bars	RWY17L/35R: E of RWY: P1-P2, B1, P4, P6, B7, B8, rapid exit TWY A1-A6; W of RWY: P1-P6; RWY16L/34R: R2-R5 at cross RWY16R/34L,G1-G6, H1-H6; RWY16R/34L: E (between E0 and R1), R2-R6, E0, E5, R5-R6, rapid exit TWY F1-F4; RWY17R/35L: rapid exit TWY C1-C6, D1-D6.	
4	备注 Remarks	Nil	

## ZSPD AD 2.10 机场障碍物 Aerodrome obstacles

Obstacles within a circle with a radius of 15km centered on ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
1	*BLDG	009	2375	54.0		
2	Pole	010	2180	40.5		
3	*BLDG	012	2121	51.6		
4	GP Antenna	062	2485	18.4		
5	*GP Antenna	063	2661	17.1		
6	*Control TWR	099	931	106.3	CAT A/B/C Circling	
7	*Control TWR	099	3734	67.9		
8	*Antenna	107	681	48.9		
9	*GP Antenna	122	3584	17.5		
10	*GP Antenna	123	3440	18.5		
11	TWR	144	5211	36.8	RWY16R take-off path	
12	TWR	145	5514	33.1	RWY16R take-off path	
13	Lightning Rod	147	5857	40.1	RWY16R take-off path	
14	Lightning Rod	147	6109	28.9		
15	BLDG	150	13625	116.8		
16	BLDG	150	14044	117.3		
17	BLDG	150	14483	117.3		
18	BLDG	151	13231	117		
19	BLDG	151	13815	116.5		
20	TWR	153	13209	33.4		
21	BLDG	153	13399	117.3		
22	BLDG	153	14009	117.5		
23	Lightning Rod	154	12953	28.9		
24	*TWR	158	8357	50.2		

Obstacles within a circle with a radius of 15km centered on ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
25	*TWR	158	8566	43.7		
26	*TWR	165	13275	47		
27	Lightning Rod	167	13269	39.3		
28	*TWR	167	14883	60.7	RWY35R GP INOP final approach	
29	TWR	171	11848	49		
30	*GP Antenna	172	1691	18.1		
31	TWR	172	4624	36.6	RWY17L/R take-off path	
32	*TWR	172	5136	48	RWY17L/R take-off path	
33	*GP Antenna	179	1713	18.6		
34	Lightning Rod	179	11216	35.3		
35	*TWR	182	5734	48.7		
36	*BLDG	204	10161	149.9	RWY34L/R 35L/R initial approach RWY17L/R departure CAT D Circling sector	
37	*TWR	208	10851	108.2		
38	Lightning Rod	220	7001	58.5		
39	Chimney	230	5637	65.6		
40	*TWR	241	4467	52.7		
41	*TWR	242	4695	47.8		
42	*Antenna	279	4475	23.7		
43	TWR	289	4814	47.9		
44	*Antenna	295	3883	46.5		



Obstacles within a circle with a radius of 15km centered on ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
45	*Antenna	307	10918	98.8		
46	*GP Antenna	331	1154	18.6		
47	*TWR	332	9212	43.7		
48	Antenna	332	12732	59		
49	*TWR	337	5628	29.7		
50	Antenna	338	10042	32.8		
51	*TWR	339	11172	50.3	RWY17L GP INOP final approach	
52	BLDG	341	8818	54.2		
53	Lightning Rod	343	12894	34.8		
54	GP Antenna	344	1691	18		
55	*TWR	345	4724	41.4	RWY35R take-off path	
56	TWR	346	7947	39.3		
57	*TWR	348	5002	46.8	RWY35R take-off path	
58	*TWR	349	5267	46.7	RWY35R take-off path	
59	*TWR	350	4313	33.8	RWY35R take-off path	
60	*Antenna	356	3766	47.9	RWY35L/R departure	
Others:						

Obstacles between two circles with the radius of 15km and 50km centered on ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
1	Chimney	154	16233	51		

Obstacles between two circles with the radius of 15km and 50km centered on ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
2	TWR	155	16966	93	RWY34L/R 35L/R intermediate approach RWY16L/R departure	
3	*Chimney	259	32421	215		
4	*Lightning Rod	272	31600	222		
5	*Lightning Rod	290	28475	156		
6	*BLDG	292	34055	284		
7	*BLDG	296	29419	494		
8	BLDG	296	29564	635	Sector	
9	*Lightning Rod	296	29603	423		
10	*Antenna	297	30332	466		
11	*Lightning Rod	303	27289	230		
12	*Chimney	327	30036	245	RWY16L/R 17L/R initial approach	
13	*Wind indicator	357	32273	216		
Others:						
Other obstacles refer to AD OBST chart.						

## ZSPD AD 2.11 提供的气象信息、机场观测与报告

## Meteorological information provided &amp; aerodrome observations and reports

1	相关气象台的名称 Associated MET Office	MET Center of Shanghai Pudong Aerodrome MET Office
2	气象服务时间；服务时间以外的责任气象台 Hours of service, MET Office outside hours	H24
3	负责编发 TAF 的气象台；有效时段；发布间隔 Office responsible for TAF	MET Center of East ATMB MET Center ; 9HR(important guarantee), 24HR; 3HR(important guarantee), 6HR

	preparation, Periods of validity; Interval of issuance	
4	趋势预报发布间隔 Issuance interval of trend forecast	Trend 30 MIN
5	所提供的讲解/咨询服务 Briefing/consultation provided	P, T
6	飞行文件及其使用语言 Flight documentation, Languages used	Chart, International MET Codes, Abbreviated Plain Language Text Ch, En
7	讲解/咨询服务时可利用的图表和其它信息 Charts and other information available for briefing or consultation	Synoptic charts, real-time data, forecast, satellite and radar material, data forecast product
8	提供信息的辅助设备 Supplementary equipment available for providing information	FAX, MET Service Terminal
9	提供气象情报的空中交通服务单位 ATS units provided with information	Pudong Tower, Shanghai Approach, Shanghai ACC
10	观测类型与频率/自动观测设备 Type & frequency of observation/Automatic observation equipment	Half hourly plus special observation/Yes
11	气象报告类型及所包含的补充资料 Type of MET Report & supplementary information included	METAR, SPECI, TEND
12	观测系统及位置 Observation System & Site(s)	RVR EQPT A: 100m W of RWY16L/34R RCL, 323m inward THR16L B: 100m W of RWY16L/34R RCL, 1660m inward THR34R C: 100m W of RWY16L/34R RCL, 323m inward THR34R D: 113m E of RWY16R/34L RCL, 367m inward THR16R E: 120m E of RWY16R/34L RCL, 1900m inward THR34L F: 113m E of RWY 16R/34L RCL, 317m inward THR34L G: 120m W of RWY17L/35R RCL, 330m inward THR17L H: 120m W of RWY17L/35R RCL, 2000m inward THR17L J: 120m W of RWY17L/35R RCL, 330m inward THR35R K: 100m E of RWY17R/35L RCL, 340m inward THR17R L: 100m E of RWY17R/35L RCL, 1660m inward THR35L M: 100m E of RWY17R/35L RCL, 310m inward THR35L

		<p>SFC wind sensors</p> <p>RWY16R: 120m E of RCL,336m inward THR</p> <p>RWY34L: 120m E of RCL,336m inward THR</p> <p>RWY16L: 110m W of RCL,343m inward THR</p> <p>RWY34R: 110m W of RCL,343m inward THR</p> <p>RWY16L/34R center: 110m W of RCL,1650m inward THR34R</p> <p>RWY17L: 120m W of RCL,330m inward THR</p> <p>RWY35R: 120m W of RCL,330m inward THR</p> <p>RWY17L/35R center: 125m W of RCL,2000m inward THR35R</p> <p>RWY17R: 107m E of RCL,325m inward THR</p> <p>RWY35L: 107m E of RCL,325m inward THR</p> <p>RWY17R/35L center: 107m E of RCL, 1650m inward THR35L</p> <p>Ceilometer</p> <p>RWY16R: 1040m N of RCL extension line</p> <p>RWY34L: 1040m S of RCL extension line</p> <p>RWY17L: North end MM</p> <p>RWY35R: South end MM</p> <p>RWY17R: 70m W of RCL,279m outward THR</p> <p>RWY35L: 70m W of RCL,279m outward THR</p> <p>RWY16L: 8m E of RCL,905m outward THR</p> <p>RWY34R: 8m E of RCL,905m outward THR</p>
13	<p>气象观测系统的工作时间</p> <p>Hours of operation for meteorological observation system</p>	H24
14	<p>气候资料</p> <p>Climatological information</p>	Climatological tables AVBL
15	<p>其他信息</p> <p>Additional information</p>	Nil

### ZSPD AD 2.12 跑道物理特征 Runway physical characteristics

跑道号码 Designations RWY NR	真方位和磁方位 TRUE & MAG BRG	跑道长宽 Dimensions of RWY(m)	跑道强度(PCN), 跑道道面/ 停止 道道面 RWY strength (PCN), RWY surface /	着陆入口坐标及 高程异常 THR coordinates and geoid undulation	跑道入口标高,精密进近 跑道接地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
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			SWYsurface		
1	2	3	4	5	6
16L	162 °GEO 168 °MAG	3800×60	104/R/B/W/T (end) CONC 83/R/B/W/T (middle) CONC/-		THR3.6m
34R	342 °GEO 348 °MAG	3800×60	104/R/B/W/T (end) CONC 83/R/B/W/T (middle) CONC/-		THR3.6m
16R	162 °GEO 168 °MAG	3800×60	109/R/B/W/T (end) CONC 88/R/B/W/T (middle) CONC/-		THR3.4m
34L	342 °GEO 348 °MAG	3800×60	109/R/B/W/T (end) CONC 88/R/B/W/T (middle) CONC/-		THR3.4m
17L	162 °GEO 168 °MAG	4000×60	121/R/B/W/T CONC/-		THR3.0m
35R	342 °GEO 348 °MAG	4000×60	121/R/B/W/T CONC/-		THR3.1m
17R	162 °GEO 168 °MAG	3400×60	104/R/B/W/T (end) CONC 84/R/B/W/T		THR3.6m

			(middle) CONC/-		
35L	342 °GEO 348 °MAG	3400×60	104/R/B/W/T (end) CONC 84/R/B/W/T (middle) CONC/-		THR3.6m
跑道-停止道坡度 Slope of RWY-SWY	停止道长宽 SWY dimensions(m)	净空道长宽 CWY dimensions(m)	升降带长宽 Strip dimensions(m)	无障碍物区 OFZ	跑道端安全区长宽 RWY end safety area dimensions(m)
7	8	9	10	11	12
See Remark	Nil	Nil	3920×300	Nil	240×150
See Remark	Nil	Nil	3920×300	Nil	240×150
See AOC	Nil	Nil	3920×300	Nil	235×150
See AOC	Nil	Nil	3920×300	Nil	235×150
See AOC	Nil	Nil	4120×300	Nil	235×150
See AOC	Nil	Nil	4120×300	Nil	235×150
0	Nil	Nil	3520×300	Nil	230×150
0	Nil	Nil	3520×300	Nil	230×150
Remark: 1. Distance between RCL of RWY16R/34L and RCL of RWY17L/35R is 2260m; RWY16R THR is 1000m south of RWY17L THR; RWY34L THR is 800m south of RWY35R THR; Distance between RCL of RWY17R/35L and RCL of RWY17L/35R is 460m; RWY17R THR is 600m south of RWY17L THR. Distance between RCL of RWY16L/34R and RCL of RWY16R/34L is 440m; 2. RWYs grooved at full length, width 60m; 3. Slope of RWY16L is 0.01%(0-1900m), -0.01%(1900-3800m); Slope of RWY34R is 0.01%(0-1900m), -0.01%(1900-3800m) .					

### ZSPD AD 2.13 公布距离 Declared distances

跑道号码 RWY Designator	可用起飞滑跑距离 TORA(m)	可用起飞距离 TODA(m)	可用加速停止距离 ASDA(m)	可用着陆距离 LDA(m)	备注 Remarks
1	2	3	4	5	6
16L	3800	3800	3800	3800	Nil
16L	3700	3700	3700	3800	FM J2

跑道号码 RWY Designator	可用起飞滑跑距离 TORA(m)	可用起飞距离 TODA(m)	可用加速停止距离 ASDA(m)	可用着陆距离 LDA(m)	备注 Remarks
16L	3263	3263	3263	3800	FM R5
34R	3800	3800	3800	3800	Nil
34R	3700	3700	3700	3800	FM J1
34R	3176	3176	3176	3800	FM R2
16R	3800	3800	3800	3800	Nil
16R	3700	3700	3700	3800	FM E5
16R	3320	3320	3320	3800	FM R5
34L	3800	3800	3800	3800	Nil
34L	3700	3700	3700	3800	FM E0
34L	3230	3230	3230	3800	FM R2
17L	4000	4000	4000	4000	Nil
17L	3780	3780	3780	4000	FM B7
17L	3386	3386	3386	4000	FM P6
35R	4000	4000	4000	4000	Nil
35R	3780	3780	3780	4000	FM B1
35R	3200	3200	3200	4000	FM P2
17R	3400	3400	3400	3400	Nil
17R	3200	3200	3200	3400	FM Q6
35L	3400	3400	3400	3400	Nil
35L	3200	3200	3200	3400	FM Q1

### ZSPD AD 2.14 进近和跑道灯光 Approach and runway lighting

跑道 代号 RWY Designator	进近灯 类型、 长度、 强度 APCH LGT type LEN INTST	入口灯 颜色、 翼排灯 THR LGT colour WBAR	目视进近坡 度指示系统( 跑道入口最 低眼高), 精 密进近航道 指示器 VASIS (MEHT) PAPI	接地地带 灯长度 TDZ LGT LEN	跑道中心线灯 长度、间隔、 颜色、强度 RWY Center line LGT LEN, spacing, colour, INTST	跑道边灯长 度、间隔、颜 色、强度 RWY edge LGT LEN, spacing, colour, INTST	跑道末端 灯颜色 RWY end LGT colour	停止道灯 长度、颜 色 SWY LGT LEN, colour
1	2	3	4	5	6	7	8	9
16L	PALS CAT I* 900m VRB LIH	GREEN Yes	PAPI LEFT 454m inward THR16L 3 °	Nil	3800m** spacing 15m	3800m***** spacing 60m	RED	Nil
34R	PALS CAT I* 900m VRB LIH	GREEN Yes	PAPI LEFT 455m inward THR34R 3 °	Nil	3800m** spacing 15m	3800m***** spacing 60m	RED	Nil
16R	PALS CAT II/III* 900m VRB LIH	GREEN Yes	PAPI LEFT 452m inward THR16R 3 °	900m	3800m** spacing 15m	3800m***** spacing 60m	RED	Nil
34L	PALS CAT II/III* 900m VRB LIH	GREEN Yes	PAPI LEFT 452m inward THR34L 3 °	900m	3800m** spacing 15m	3800m***** spacing 60m	RED	Nil
17L	PALS CAT II/III* 900m	GREEN Yes	PAPI LEFT 464m inward THR17L	900m	4000m*** spacing 15m	4000m***** spacing 60m	RED	Nil



跑道 代号 RWY Designator	进近灯 类型、 长度、 强度 APCH LGT type LEN INTST	入口灯 颜色、 翼排灯 THR LGT colour WBAR	目视进近坡 度指示系统( 跑道入口最 低眼高), 精 密进近航道 指示器 VASIS (MEHT) PAPI	接地地带 灯长度 TDZ LGT LEN	跑道中心线灯 长度、间隔、 颜色、强度 RWY Center line LGT LEN, spacing, colour, INTST	跑道边灯长 度、间隔、颜 色、强度 RWY edge LGT LEN, spacing, colour, INTST	跑道末端 灯颜色 RWY end LGT colour	停止道灯 长度、颜 色 SWY LGT LEN, colour
	VRB LIH		3 °					
35R	PALS CAT II/III* 900m VRB LIH	GREEN Yes	PAPI LEFT 464m inward THR35R 3 °	900m	4000m*** spacing 15m	4000m***** spacing 60m	RED	Nil
17R	PALS CAT I* 900m VRB LIH	GREEN Yes	PAPI LEFT 452m inward THR17R 3 °	Nil	3400m**** spacing 30m	3400m***** spacing 60m	RED	Nil
35L	PALS CAT I* 900m VRB LIH	GREEN Yes	PAPI LEFT 452m inward THR35L 3 °	Nil	3400m**** spacing 30m	3400m***** spacing 60m	RED	Nil
Remarks: *SFL **up to 2900m WHITE VRB LIH, 2900-3500m RED/WHITE VRB LIH, 3500-3800m RED VRB LIH ***up to 3100m WHITE VRB LIH, 3100-3700m RED/WHITE VRB LIH, 3700-4000m RED VRB LIH ****up to 2500m WHITE VRB LIH, 2500-3100m RED/WHITE VRB LIH, 3100-3400m RED VRB LIH *****up to 3200m WHITE VRB LIH, 3200-3800m YELLOW VRB LIH *****up to 3400m WHITE VRB LIH, 3400-4000m YELLOW VRB LIH *****up to 2800m WHITE VRB LIH, 2800-3400m YELLOW VRB LIH								

**ZSPD AD 2.15 其他灯光,备份电源 Other lighting, secondary power supply**

1	机场灯标/识别灯标位置、特性和工作时间 ABN/IBN location, characteristics and hours of operation	Nil
2	着陆方向标/风向标位置和灯光 LDI/WDI location and LGT	WDI with light
3	滑行道边灯和中线灯 TWY edge and center line lighting	TWY center line lights available for all TWYs; Blue TWY edge line lights available for all TWYS; TWY edge reflector sticks available for straight TWY of 16R-34L, T3, T4.
4	备份电源/转换时间 Secondary power supply/switch-over time	Standby power supply available; 1 sec for RWY light, approach light and stop bars light of RWY17L/35R and 16R/34L; 15 sec for other lights of RWY17L/35R and 16R/34L; 15 sec for all lights of RWY17R/35L and 16L/34R.
5	备注 Remarks	Red OBST LGT for buildings.

**ZSPD AD 2.16 直升机着陆区域 Helicopter landing area**

1	TLOF 坐标或 FATO 入口坐标及大地水准面波幅 Coordinates TLOF or THR of FATO Geoid undulation	Nil
2	TLOF 和/或 FATO 标高 (m/ft) TLOF and/or FATO elevation (m/ft)	Nil
3	TLOF 和 FATO 区域范围、道面、强度和标志 TLOF and FATO area dimensions,surface, strength, marking	Nil
4	FATO 的真方位和磁方位 True and MAG BRG of FATO	Nil
5	公布距离 Declared distance available	Nil
6	进近灯光和 FATO 灯光 APP and FATO lighting	Nil
7	备注	Nil

	Remarks	
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**ZSPD AD 2.17 空中交通服务空域 ATS airspace**

名称 Designation	水平范围 Lateral limits	垂直范围 Vertical limits	备注 Remarks
Shanghai/Pudong tower control area	10km range beside landing path after RWY aligned		
Fuel Dumping Area	N3113.0E12300.0- N3130.0E12400.0- N3100.0E12400.0- N3100.0E12300.0- N3113.0E12300.0	3000m and above	See Fuel Dumping Area Chart
Altimeter setting region and TL/TA	SASAN-PIKAS - Nantong VOR-BUNVA-UDOXI- IBEGI - N314611 E1224630 - EMSAN - DUMET - N311241 E1224630 - BONGI - PONAB - RUXIL - N301500 E1221200 - Andong VOR - Nanxun VOR-SASAN	TL 3600m TA 3000m 3300m(QNH≥1031hPa) 2700m(QNH≤979hPa)	

**ZSPD AD 2.18 空中交通服务通信设施 ATS communication facilities**

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
1	2	3	4	5
ATIS		127.85	H24	D-ATIS available
APP	Shanghai Approach	APP01:120.3(119.75)	H24	
APP	Shanghai Approach	APP02:125.4(124.05)	H24	
APP	Shanghai Approach	APP03:125.85(119.2)	by ATC	
APP	Shanghai Approach	APP04:123.8(119.2)	by ATC	
APP	Shanghai Approach	APP05:126.65(128.05)	by ATC	
APP	Shanghai Approach	APP06:126.3(120.65)	by ATC	
APP	Shanghai Approach	APP07:121.10(119.75)	by ATC	
APP	Shanghai Approach	APP08:127.75(124.05)	by ATC	

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
APP	Shanghai Approach	APP09:121.375(128.05)	by ATC	
APP	Shanghai Approach	APP10:125.625(120.65)	by ATC	
APP	Shanghai Approach	APP11:119.075(128.05)	by ATC	
TWR	Pudong Tower	TWR01:118.8(118.325)	H24	For RWY17L/35R,17R/35L
TWR	Pudong Tower	TWR02:118.4(118.725)	H24	For RWY16L/34R,16R/34L
TWR	Pudong Tower	TWR03:124.35(118.325)	0030-1300(UTC)	For RWY17L/35R
TWR	Pudong Tower	TWR04:118.575(118.725)	0030-1300(UTC)	For RWY16R/34L
GND	Pudong Ground	GND01:121.7	H24	
GND	Pudong Ground	GND02:121.8	H24	
GND	Pudong Ground	GND03:121.875	0030-1300(UTC)	Contact GND01 when U/S.
GND	Pudong Ground	GND04:121.625	0030-1300(UTC)	Contact GND02 when U/S.
GND	Pudong Delivriery	121.95(121.625)	H24	DCL available
APN	Pudong Apron	APN01:121.65(122.125)	H24	
APN	Pudong Apron	APN02:121.975(122.125)	H24	
APN	Pudong Apron	APN03:122.7(122.125)	H24	
APN	Pudong Apron	APN04:122.6(122.125)	H24	
EMG		121.50	H24	

### ZSPD AD 2.19 无线电导航和着陆设施 Radio navigation and landing aids

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标高 Elevation of DME transmitting antenna	备注 Remarks
1	2	3	4	5	6
Liuzao VOR/DME	PDL	109.4MHz CH31X	N31°07.8' E121°40.3'	4m	
Andong	AND	114.8MHz	N30°15.4'	5m	For VOR:

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标 高 Elevation of DME transmitting antenna	备注 Remarks
VOR/DME		CH95X	E121°13.3'		R294 °R306 ° clockwise U/S. For VOR: BTN 11.5-15.5NM on R185 °U/S.
Shuyuan VOR/DME	XSX	112.7MHz CH74X	N30°55.9' E121°52.4' 168 °MAG/ 22636m FM THR 35R	27m	
Pudong VOR/DME	PUD	116.9MHz CH116X	N31°10.3' E121°47.0' 348 °MAG/ 1090m FM THR 17L	15m	
Hengsha VOR/DME	HSH	114.4MHz CH91X	N31°22.1' E121°50.8' 017 °MAG/ 25420m FM ARP	24m	
LOC 16L ILS CAT I	IHL	111.5MHz	168 °MAG/315m FM end RWY 16L		
GP 16L		332.9MHz	120m W of RCL 313m FM THR 16L		Angle 3 ° RDH15m
DME 16L	IHL	CH52X (111.5MHz)		6m	Co-located with GP 16L
MM 16R		75MHz	348 °MAG/1050m FM THR 16R		
IM 16R		75MHz	348 °MAG/350m FM THR 16R		
LOC 16R ILS CAT I	IZZ	108.7MHz	168 °MAG/288m FM end RWY 16R		
GP 16R		330.5MHz	120m E of RCL		Angle 3 °

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标 高 Elevation of DME transmitting antenna	备注 Remarks
			312m FM THR 16R		RDH15m
DME 16R	IZZ	CH24X (108.7MHz)		4m	Co-located with GP 16R
MM 17L		75MHz	348 °MAG/1070m FM THR 17L		
IM 17L		75MHz	348 °MAG/313m FM THR 17L		
LOC 17L ILS CAT II	IPD	110.7MHz	168 °MAG/295m FM end RWY 17L		In operation CAT II
GP 17L		330.2MHz	120m W of RCL 307m inward THR 17L		In operation CAT II Angle 3 ° RDH15m
DME 17L	IPD	CH44X (110.7MHz)		8m	Co-located with GP 17L
LOC 17R ILS CAT I	IKM	111.1MHz	168 °MAG/285m FM end RWY 17R		Beyond 32 °rightside of front course U/S.
GP 17R		331.7MHz	120m E of RCL 310m inward THR 17R		Angle 3 ° RDH15m
DME 17R	IKM	CH48X (111.1MHz)		11m	Co-located with GP 17R
MM 34L		75MHz	168 °MAG/1050m FM THR 34L		
IM 34L		75MHz	168 °MAG/350m FM THR 34L		
LOC 34L ILS CAT III	IDD	108.3MHz	348 °MAG/288m FM end RWY 34L		In operation CAT II/III
GP 34L		334.1MHz	120m E of RCL 310m inward THR 34L		In operation CAT II/III Angle 3 °

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标 高 Elevation of DME transmitting antenna	备注 Remarks
					RDH15m
DME 34L	IDD	CH20X (108.3MHz)		4m	Co-located with GP 34L
LOC 34R ILS CAT I	IPR	108.9MHz	348 °MAG/315m FM end RWY 34R		
GP 34R		329.3MHz	120m W of RCL 313m inward THR 34R		Angle 3 ° RDH15m
DME 34R	IPR	CH26X (108.9MHz)		7m	Co-located with GP 34R
LOC 35L ILS CAT I	IBD	108.1MHz	348 °MAG/285m FM end RWY 35L		
GP 35L		334.7MHz	120m E of RCL 310m inward THR 35L		Angle 3 ° RDH15m
DME 35L	IBD	CH18X (108.1MHz)		11m	Co-located with GP 35L
OM 35R		75MHz	168 °MAG/ 8982m FM THR 35R		
MM 35R		75MHz	168 °MAG/1030m FM THR 35R		
IM 35R		75MHz	168 °MAG/313m FM THR 35R		
LOC 35R ILS CAT II	INN	111.9MHz	348 °MAG/295m FM end RWY 35R		In operation CAT II
GP 35R		331.1MHz	130m W of RCL 314m inward THR 35R		In operation CAT II Angle 3 ° RDH15m

## ZSPD AD 2.20 本场飞行规定

## ZSPD AD 2.20 Local traffic regulations

**1. 机场使用规定**

1.1 禁止未安装二次雷达应答机的航空器起降；

1.2 所有技术试飞需事先申请，并在得到空中交通管制部门批准后方可进行；

1.3 可使用最大机型：A380 及同类机型。

**1. Airport operations regulations**

1.1 Take off/landing of aircraft without SSR transponder are forbidden;

1.2 Each and every technical test flight shall be filed in advance and shall be made only after clearance has been obtained from ATC;

1.3 Maximum aircraft to be available: A380 and equivalent.

**2. 跑道和滑行道的使用**

2.1 可以通过地面管制申请引导车和拖车服务；

2.2 禁止航空器在滑行道上做 180 度转弯；

2.3 专机滑行路线以管制员指令为准；

2.4 滑行道的滑行限制/Taxiing limits:

**2. Use of runways and taxiways**

2.1 Follow-me vehicle service and towing service are available via Ground Control;

2.2 180° turnaround on TWY is strictly forbidden for all aircraft;

2.3 Taxiing routes of special flight will be instructed by ATC;

滑行线/Taxi lane	航空器翼展限制/ Wing span limits for aircraft
L02, L04(BTN B3&B4), L09, L15, L18, L23	<80m
L04(BTN B4&P6), L08, L16, L17, L17A, L19, L20, L20A, L21, L21A, L22, L24, L25, L25A, L26, L26A	<68.5m
L05, L06, L06A, L10-L12, L12A	<52m



L03,L03A,L07	<36m
L15B, L15C	<31m
L15D	<24m
滑行道/TWYs	航空器翼展限制/ Wing span limits for aircraft
A, A1-A6, B, B1, B3-B6(W of TWY B), B7, B8, C, C1, C2, C5, C6, D, D1, D2, D5, D6, E, E0-E8, F, F1-F4, G, G1-G6, H, H1-H6, J1, J2, P1, P2-P6(W of TWY B), Q1-Q6, R1-R6, S1, S2(BTN T5&T6), T2-T4, W1, W7, V1, V2, V8	<80m
B2, B3-B6(E of TWY B), P4-P6(E of TWY B), W2, W3, W4-W5(S of TWY T4), W6, T1, T5, T6, V3-V7	<68.5m
C3, C4, D3, D4, W4-W5(N of TWY T4)	<52m
S2(S of TWY T5)	<36m

## 2.5 平行滑行道使用原则/General rules for the use of parallel Taxiways:

RWY in use	TML /停靠廊桥	Mainly via TWY /主用滑行道
RWY 34L/34R/35L/35R	TML Nr.1	TWY A
RWY 16L/16R/17L/17R	TML Nr.1	TWY B
All RWYs	TML Nr.2	TWY F
DEP FM RWY 17L/35R		TWY A
DEP FM RWY 34L		TWY E
DEP FM RWY 16R		TWY F

## 2.6 跑道运行规则

## 2.6 General rules for using runways

## 2.6.1 16L/34R 跑道与 17L/35R 跑道或者 16L/34R 跑 2.6.1 RWY 16L/34R RWY17L/35R or RWY 16L/34R

道与 17R/35L 或者 16R/34L 跑道与 17L/35R 跑道或者 16R/34L 跑道与 17R/35L 跑道可实施相关或独立平行进近以及独立平行离场;

RWY17R/35L or RWY 16R/34L RWY17L/35R or RWY 16R/34L RWY17R/35L can be used for independent or dependent parallel approaches and independent parallel departures;

2.6.2 17L/35R 号跑道主要用于离港;17R/35L 号跑道主要用于进港; 16R/34L 号跑道主要用于离港; 16L/34R 号跑道主要用于进港;

2.6.2 RWY17L/35R are mainly used for departure;RWY17R/35L are mainly used for arrival; RWY16R/34L are mainly used for departure; RWY16L/34R are mainly used for arrival;

2.6.3 通常情况下,落地航空器接地后占用跑道的时间内应控制在 50s 以内,使用第一或第二快速脱离道脱离跑道。如不能执行上述要求时,需要使用最后一条快速脱离道及远道口脱离跑道时,航空器驾驶员应在与塔台管制员建立首次联系时进行通报说明,管制员将根据空中和地面交通情况视情指挥航空器继续进近、落地、中止进近或复飞(湿跑道或污染跑道除外);

2.6.3 Normally, all landing aircraft shall fully vacate RWY via the first or second rapid exit TWY within 50s after touchdown. If can not fulfill the above requirement and need to vacate RWY via further TWY or the last rapid exit TWY, the pilot shall inform TWR on the first contact. TWR will control aircraft to continue approaching, landing, stopping approach or missed approach according to air and ground traffic conditions(except for wet or contaminated RWY);

2.6.4 起飞航空器从等待位置到对正跑道的时间应控制在 60s 以内,如不能满足要求应在进跑道前报告塔台管制员(湿跑道或污染跑道除外);

2.6.4 Departure aircraft shall finish RWY alignment within 60s from holding position. If flight crew considers that they can not fulfill the process within the required time, pilot shall inform TWR ATC before entering the RWY(except for wet or contaminated RWY);

2.6.5 更换跑道运行方向过程中,当跑道顺风分量超过 3m/s 但不大于 5m/s 时,管制员可以短时指挥航空器顺风起飞或着陆,当航空器驾驶员根据机型性能或

2.6.5 During changing the direction of RWY in use, if downwind speed is more than 3m/s and not exceeding 5m/s, ATC may instruct aircraft downwind take-off or

者运行手册不能执行顺风跑道起飞或者着陆时,应明确告知管制员;

downwind landing for short time. Pilot shall inform controller if decide not to take-off or landing on downwind RWY allocated according to aircraft performance or operation handbook;

2.6.6 着陆航空器落地许可的最晚发布时机可以在着陆航空器飞越跑道入口前。

2.6.6 The latest time to issue landing clearance before aircrafts flying over RWY THR is available.

2.6.7 为调整离港航班放飞次序,管制员可以指挥航空器使用 B1、B7、E0、E5、Q1、Q6、J1、J2 联络道进入相对应跑道起飞,若航空器驾驶员不能接受,须在进入上述联络道前主动报告管制员。

2.6.7 ATC may instruct aircraft to enter RWY via B1, B7, E0, E5, Q1, Q6, J1, J2 for take-off. If not available, pilots shall inform ATC before entering the TWYL.

2.6.8 一组近距跑道的仪表着陆系统同时开放,为防止航空器落错跑道,航空器驾驶员应通过本场自动情报通播系统掌握落地所使用的跑道,在进近过程中,仔细检查管制指令中的落地跑道号,建议将顺序闪光灯作为重要的目视参考。

2.6.8 A set of ILS for close RWYs are simultaneously open, in order to prevent aircraft landing on the wrong RWY, pilot shall master the used landing RWY by ATIS. During approach, pilot shall carefully check the landing RWY number by ATC order. It is suggested that use SFL as an important visual references.

2.7 当停靠在 3 号货机坪 310-341,346,347 机位的重型航空器需使用跑道 17R/35L 起飞时,机组应在申请放行许可时向 ATC 申请。

2.7 If the heavy-aircraft parking at cargo apron Nr.3(stands Nr.310-341,346,347) intends to depart from RWY17R/35L, an application shall be made and the permission shall be obtained from Delivery Control.

## 2.8 穿越跑道规定/RWY crossing rules:

穿越跑道时使用的滑行道 TWYs used for crossing	FM stands Nr.310-341,346,347,Z11-Z16, Z21-Z26,Z31-Z38 to RWY 16R/34L(for departure):	When northward operation, mainly use TWY P2 for crossing RWY17R/35L, then join TWY D and hold out of TWY P1, and then
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		<p>use TWY P1 for crossing RWY17L/35R then join TWY T2.</p> <p>When southward operation, mainly use TWY P4 for crossing RWY17R/35L, then join TWY D and hold out of TWY P6, and then use TWY P6 for crossing RWY17L/35R then join TWY B.</p>
	<p>FM stands</p> <p>Nr.310-341,346,347,Z11-Z16, Z21-Z26,Z31-Z38 to RWY 17L/35R(for departure):</p>	<p>When northward operation, mainly use TWY P2 for crossing RWY17R/35L, then join TWY D and hold out of TWY P1.</p> <p>When southward operation, mainly use TWY P4 for crossing RWY17R/35L, then join TWY D and hold out of TWY P6. Aircraft that can not accept TWY P6 for departure, should use TWY P6 for crossing RWY17L/35R, then join TWY A and hold out of TWY B8.</p>
	Landing on RWY17R/35L and crossing RWY17L/35R	Mainly use TWYs P1, P6 for crossing RWY17L/35R, and then join TWY A or B.
	Landing on RWY16L/34R(for arrival) to stands Nr.310-341,346,347,Z11-Z16, Z21-Z26,Z31-Z38:	Mainly use TWYs P2 or P4 for crossing RWY17L/35R and RWY17R/35L,and then join TWY C.
	Landing on RWY16L/34R and	Mainly use TWYs R1, R6 for

	crossing RWY16R/34L	crossing RWY16R/34L, and then join TWY F or E
<p>穿越程序</p> <p>Procedures for crossing</p>	<p>机组在穿越跑道前需向塔台提出穿越申请,收到塔台管制员穿越许可后,需尽快实施穿越并加入相应滑行道;机组应注意完整复诵管制员有关穿越跑道指令。穿越结束后,机组需向塔台报告“已脱离跑道”。</p> <p>Flight crew shall contact TWR ATC for crossing clearance; repeat all the ATC instructions for clarity, then put in practice as soon as possible; finally, report to TWR ATC ‘RWY vacated’.</p> <p>穿越跑道时,机组必须注意监听塔台频率中其他有关跑道的指令或信息通报,并注意观察跑道及附近的活动。</p> <p>Flight crew must monitor the TWR FREQ and watch the activities on the RWY and around;</p> <p>当机组观察到跑道上还有其他航空器活动时,需再次向管制员证实是否穿越当前跑道</p> <p>When watching other aircraft moving on the runway, Aircrew should contact TWR ATC to make sure whether to cross.</p> <p>紧跟在起飞航空器后穿越跑道时,机组自行负责其与起飞航空器之间的距离以免受起飞航空器喷流的影响。</p> <p>While crossing RWY after the take-off aircraft, flight crew shall be responsible for the safety distance with the aircraft to avoid the effect of wake turbulence.</p>	
<p>穿越限制</p> <p>Limits for crossing</p>	<p>使用 17L/35R 号跑道落地的航空器,不得使用 P2, P3, P4, P5 滑行道向西脱离跑道。</p> <p>Aircraft landing on RWY17L/35R are forbidden to vacate to the west via TWY P2, P3, P4 or P5.</p> <p>当 17L/35R,17R/35L 号跑道有落地航空器使用时,不得使用滑行道 P1 或 P6 穿越跑道。</p> <p>Aircraft are forbidden to use TWY P1 or P6 for crossing RWY17L/35R or</p>	

	RWY17R/35L where exists landing aircraft.
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2.9 机场冲突多发地带运行要求	2.9 Hot spot procedure
2.9.1 机动区冲突多发地带位置见 ZSPD AD2.24-1A,2;	2.9.1 Refer to ZSPD AD2.24-1A,2;
2.9.2 为减少运行差错,降低地面冲突和跑道入侵事件的发生概率,在机场活动区内运行的航空器需严格按照下述的要求运行:	2.9.2 For the purpose of reducing errors that lead to ground conflicts and runway incursions, aircraft operating within the maneuvering area must follow the requirements below:
HS1: 滑行道 E、F 与 T3、T4 的交叉区域 该区域为进、离港航空器的交汇处,通常情况下, T2 候机楼离港航空器使用 E 滑,在 T4 前等待,确认没有冲突后继续滑行。如因疏忽滑错道口,必须立即停止滑行并向管制员报告。	HS1: Intersections of TWYs E, F and T3, T4 HS1 is the conjunction area of arrival and departure aircrafts. Normally, the departing aircraft leaving Terminal 2 shall use TWY E, and hold short out of T4 to ensure no conflict before go on. If taxiing into this area by mistake, stop immediately and inform ATC controllers.
HS2: A、B 及 T3、T4 滑行道交叉区域 通常情况下,经 T3 滑至跑道 17L/35R、T1 候机楼时,需在 B 滑前等待,确认没有冲突后继续滑行。由于 T3 与 A2 快速脱离道相连,在上 A 滑时特别注意观察道口、标志牌,避免连续滑行而误入运行跑道。	HS2: Intersections of TWYs A, B and T3, T4 Proceed with extreme caution when operating near this area. Normally, when taxiing via T3 to RWY17L/35R and Terminal 1, aircraft shall hold short out of TWY B to ensure no conflict before go on. Because T3 and A2 are connected, when taxiing into TWY A, pay attention to traffic situation and TWY guidance sighs to avoid RWY incursion.

## HS3&amp;HS4: 频繁穿越跑道区域

P2 与 P4 是穿越跑道的主用垂直联络道, 航空器穿越跑道时需特别注意管制指令, 如没有收到明确穿越跑道的指令, 严禁擅自穿越跑道。

## HS3&amp;HS4: RWY crossing busy area

TWYs P2 and P4 are the main vertical TWYs for RWY crossing. When crossing RWYs, aircraft should strictly follow the ATC clearance. Without clear instructions, any kind of RWY crossing operation is forbidden.

## HS5: P6 滑行道与 A、B 滑行道交叉区域, 频繁穿越跑道区域

P6 是塔台与机坪之间的重要移交点, 出港航空器从 P6 滑行道上 A 滑行道时, 在此区域应注意观察标志, 避免由于连续滑行误入跑道。P6 是穿越跑道的主用联络道, 航空器穿越跑道时需特别注意管制指令, 如没有收到明确穿越跑道的指令, 严禁擅自穿越跑道, P6 穿越航空器穿越跑道后应及时联系下一个管制席位。

## HS5: Intersections of TWYs A, B and P6, RWY crossing busy area

TWY P6 is important handover point of TWR and APN. Aircraft for departure should take caution with guidance signs to avoid RWY incursion when taxiing via TWYP6 into TWYA. TWY P6 is the main TWY for RWY crossing. When crossing RWYs, aircraft should strictly follow the ATC instructions. Without clear instructions, any kind of RWY crossing operation is forbidden. Aircraft shall contact the next control unit immediately after crossing RWY via TWY P6.

## HS6: 频繁穿越跑道区域

R6 是穿越跑道的主用联络道, 航空器穿越跑道时需特别注意管制指令, 如没有收到明确穿越跑道的指令, 严禁擅自穿越跑道。使用 F 滑行的航空器在 E5 前等待, 确认没有冲突后继续滑行。向南运行时, 此区域为放飞排序的繁忙区域, 管制员可以根据运行实际情况灵活使用 E、F 进行航空器的调配, 加速流量。

## HS6: RWY crossing busy area

TWY R6 is the main TWY for RWY crossing. When crossing RWYs, aircraft should strictly follow the ATC instructions. Without clear instructions, any kind of RWY crossing operation is forbidden. When using TWY F, aircraft shall hold short of TWY E5 to ensure no conflict before go on. HS6 is the aircraft sequencing busy area for take-off, ATC can use TWY E, F to expedite the flow of traffic, when in southward operation.

## HS7: 频繁穿越跑道区域

R1 是穿越跑道的主用垂直联络道, 航空器穿越跑道时需特别注意管制指令, 没有收到明确穿越跑道的指令, 严禁擅自穿越跑道。

## HS7: RWY crossing busy area

TWY R1 is the main vertical TWY for RWY crossing. When crossing RWYs, aircraft should strictly follow the ATC instructions. Without clear instructions, any kind of RWY crossing operation is forbidden.

## HS8: 滑行道 E、F 与联络道 E7 交叉区域

该区域为进、离港航空器的交汇处, 同时也是塔台与机坪之间重要移交点, 进港航空器使用 E 滑行至 E6 前等待, 确认没有冲突后继续滑行。出港航空器使用 F 滑行至 E7 前等待, 确认没有冲突后继续滑行。

## HS8: Intersections of TWYs E, F and E7

HS8 is the conjunction area of arrival and departure aircrafts, and also the handover point between TWR and APN. The arriving aircraft shall use TWY E, and hold short of TWY E6 to ensure no conflict before go on. The departing aircraft shall use TWY F, and hold short of TWY E7 to ensure no conflict before go on.

## HS9: 滑行道 E、F 与 T1、T2、L19 的交叉区域

该区域为进、离港航空器的交汇处, 通常情况下, 使用 T2 滑行的航空器在 E 滑前等待, 确认没有冲突后继续滑行。使用 E 加入 T1 滑行的航空器在 L19 前等待, 确认没有冲突后继续滑行。为了避免地面滑行冲突, 管制员可以灵活使用 L19。

## HS9: Intersections of TWYs E, F and T1, T2, L19

HS9 is the conjunction area of arrival and departure aircrafts. Normally, when using TWY T2, aircraft shall hold short of TWY E to ensure no conflict before go on. When using TWY E to join TWY T1, aircraft shall hold short of L19 to ensure no conflict before go on. ATC can use TWY L19 to avoid taxi conflict.

## HS10: P1 滑行道与滑行道 A、B、T1、T2 交叉区域, 频繁穿越跑道区域

该区域为进、离港航空器的交汇处, 通常情况下, 使用 T1 滑行的航空器在 B 滑前等待, 确认没有冲突后继续滑行。P1 是穿越跑道的主用垂直联络道, 航空器穿越跑道时需特别注意管制指令, 如没有收到明确穿越跑道的指令, 严禁擅自穿越跑道, 如 P1 有

## HS10: Intersections of TWYs A, B, T1, T2 and P1, RWY crossing busy area

HS10 is the conjunction area of arrival and departure aircrafts. Normally, aircraft shall hold short of TWY B to ensure no conflict before go on when using TWY T1. TWY P1 is the main vertical TWY for RWY crossing. When crossing RWYs, aircraft should strictly follow



等待穿越的航空器，塔台应该及时空出 P1 道口，保证航空器及时穿越，穿越后的航空器在 B 滑前等待，确认没有冲突后继续滑行。为了避免地面滑行冲突，管制员可以灵活使用 L19。

the ATC instructions. Without clear instructions, any kind of RWY crossing operation is forbidden. TWR shall ensure TWY P1 available and instruct the aircraft holding short of TWY P1 cross the RWY immediately, aircraft shall hold short of TWY B to ensure no conflict before go on, after RWY crossing. ATC can use TWY L19 to avoid taxi conflict.

## 2.10 A380 本场运行规则

## 2.10 Operation rules for A380

2.10.1 A380 运行跑道：16L/34R、16R/34L、17R/35L 跑道。

2.10.1 RWY for A380 aircraft: 16L/34R, 16R/34L, 17R/35L.

2.10.2 A380 在 A、B 滑之间调头转弯时须采用偏置滑行方式，若配置机上滑行监视系统须开启。

2.10.2 A380 shall offset taxi when turnaround 180° between TWY A and TWY B. A380 Taxing Camera System shall turn on.

## 2.11 B747-8 本场运行规则

## 2.11 Operation rules for B747-8

2.11.1 使用 17L/35R 跑道进近时，I 类运行须配置并使用航迹保持导航系统直至落地。

2.11.1 For CAT I operation, track control system(TCS) shall be installed on aircraft and be used in the approaches to RWY17L/35R untill landing.

2.11.2 L16、L17、L17A 仅限空载时的 B747-8 运行。

2.11.2 L16, L17, L17A only used for unladen weight B747-8.

## 2.12 An124 本场运行规则

## 2.12 Operation rules for AN124

使用 17L/35R 跑道进近时，I 类运行须配置并使用航迹保持导航系统直至落地。

For CAT I operation, track control system(TCS) shall be installed on aircraft and be used in the approaches to RWY17L/35R untill landing.

**2.13 ILS 开启模式****2.13 ILS operations mode****2.13.1 CAT-I/HUD-I 运行时:****2.13.1 CAT-I/HUD-I operations:**

17L、35R、17R、35L、16R、34L、16L 和 34R 全部开启。

RWY17L, 35R, 17R, 35L, 16R, 34L, 16L and 34R opened.

**2.13.2 CAT-II/III 运行时:****2.13.2 CAT-II/III operations:**

2.13.2.1 向南运行:17L、17R、35L、16R、34L、16L 和 34R 开启,35R 关闭。

2.13.2.1 Landing to south: RWY17L, 17R, 35L, 16R, 34L, 16L and 34R opened, 35R closed.

2.13.2.2 向北运行:35R、17R、35L、34L、16L 和 34R 开启,17L 和 16R 关闭。

2.13.2.2 Landing to north: RWY35R, 17R, 35L, 34L, 16L and 34R opened, 17L and 16R closed.

**3. 机坪和机位的使用****3. Use of aprons and parking stands**

3.1 停靠 1、7 号、卫星厅机坪廊桥机位的航空器须由目视停靠引导系统 (AGS) 引导滑进停机位 (96 号、111 号、124 号、130 号、157 号、160 号、178 号廊桥无 AGS, 由人工指挥滑进停机位), 并由牵引车推出; 停靠 2 号机坪、3 号货机坪、4 号维修机坪、5 号机坪、6 号机坪、8 号机坪各机位的航空器须由人工指挥滑进机位, 并由牵引车推出机位;

3.1 Aircraft parking on apron Nr.1, 7 and Satellite shall be guided by Visual Docking Guidance Systems(AGS) for entry(stands Nr.96,111,124,130,157,160,178 should be marshalling assistance without AGS)and pushed back by tow tractor; aircraft parking on apron Nr.2, 3(cargo), 6, 8 shall be guided by marshalling assistance for entry and pushed back by tow tractor;

3.2 未经地面管制员同意, 严禁航空器利用自身动力倒滑;

3.2 Push-back of aircraft on its own power is strictly forbidden without Ground Controller's clearance;

**3.3 航空器进出机位的特殊要求:****3.3 Requirements for aircraft into and out of stands:**

3.3.1 相邻机位禁止两架飞机同时运行,包括同时进

3.3.1 On adjacent parking stands, two ACFT forbidden

入、同时推出或滑出(自滑机位)、同时一进一出。

to move (including taxi into/out by own power, pushed back) simultaneously.

3.3.2 进港航空器和引导车应在机位滑行通道(或滑行道)上转入机位引入线之前停止,观察确认无安全运行风险的情况下,减速慢行入位。

3.3.2 Arrival ACFT and follow-me vehicle shall stop on TWYs before turning into stands lead-in lines, then observe and keep slow speed to stands.

3.4 发动机试车,需向机场运行指挥中心 AOC 提出申请,由其给出试车机位,再报机坪管制同意后,在指定地点进行。发动机慢车测试和冷转测试经机场运行指挥中心 AOC 和机坪管制批准后,可在 2、3、6、8 号机坪指定机位进行;严禁在廊桥附近和客机坪上试大车;4 号机坪的 418 号机位为航空器试大车机位:使用时,一般为机头朝北放置;当吹南风,且风速 $\geq 5\text{m/s}$ 时,可向运行指挥中心 AOC 提出申请并得到批准后,可以机头向东放置,同时 417 机位不能停有航空器。

3.4 Engine run-ups are subject to AOC clearance, test stands given by AOC and approval by apron controllers, and may only be carried out at a designated location: After approval by AOC and apron controllers, engine idle test and cool running test may be carried out at designated stands at apron NR.2. 3. 6 or 8. Fast engine run-ups near boarding bridges or on apron are strictly forbidden; stands Nr. 418 on apron Nr.4 can be used to conduct fast engine run-ups: aircraft shall face to north in normal situation; when the south wind speed more than 5m/sec, aircraft shall face to west after getting a permission of AOC, while stand Nr.417 shall not be used.

3.5 目视停靠引导系统的使用规定:

详见 ZSPD AD 2.24;

3.5 Operating Provisions for Visual Docking Guidance Systems:

Reference ZSPD AD 2.24 for details;

3.6 浦东机场目前的机坪具体分为/Existing aprons at ZSPD:

机坪/Apron	机位/Stands
Apron Nr.1(T1)	Nr. 1-12. 14-32
Apron Nr.2	Nr. 201-211

Cargo apron Nr.3	Nr. 301-308. 310-341. 346. 347. Z11-Z16. Z21-Z26. Z31-Z38
Apron Nr.4 (MANT)	Nr. 401A/B. 402A/B. 403A/B. 404A/B. 405-407. 408A/B. 409A/B. 410A/B. 411-418. 451-453. 458. 459
Apron Nr.5	Nr. 501-512. 551-572. 581-586. 589. 590
Cargo apron Nr.6	Nr. 611-626
Apron Nr.7(T2)	Nr. 50-65. 67. 69. 71. 73. 75. 77. 79-98
Apron Nr.8	Nr. 801-816
Satellite apron	Nr. 101-190

## 3.7 机位使用限制/Limits for aircraft parking on the following stands:

停机位/Stands	航空器翼展限制/ Wing span limits for aircraft
Nr. 24. 71. 75. 119. 121. 168. 170. 173. 310. 314. 315. 320. 325. 328. 333. 338. 347. 504. 507. 612-614. 616-618	<80m
Nr. 17. 19. 21. 101. 102. 131-140. 148-156. 174. 175. 177. 189. 190. 205. 208. 303. 305. 307.510.511.806. 809. 810. 816	<68.5m
Nr. 6-12. 14-16. 18. 20. 22. 23. 57. 59. 61. 63. 65. 67. 69. 73. 77. 79. 81. 83. 85. 87. 89. 91. 112-118. 120. 122. 125. 130. 166. 167. 169. 204. 206. 209. 210. 301. 302. 304. 306. 311-313. 316-319. 321-324. 326. 327. 329-332. 334-337. 339-341. 346. 406. 407. 411-418. 451. 452. 458. 459. 505. 508. 553. 554. 557. 558. 581-585. 590. 615. 619. 620. 807. 811. 813. 814	<65m
Nr. 1-5. 50. 55. 56. 58. 60. 62. 82. 84. 86. 88. 90. 93.	<52m

207. 211. 308. 401A/B. 611. 801. 802. 804. 805	
Nr.25-32. 51-54. 64. 80. 92. 94-98. 103-111. 123. 124. 126-129. 141-147. 157-165. 171. 172. 176. 178-188. 201-203. 402A/B. 403A/B. 404A/B. 405. 408A/B. 409A/B. 410A/B. 453. 501-503. 506. 509. 512. 551. 552. 555. 556. 559-572. 586. 589. 621-626. 803. 808. 812. 815	<36m
Remarks: When aircraft A380 parking on stand Nr.24, the wing span limit for stand Nr.23 is less than 52m.	

## 3.8 3 号货机坪公务机位使用限制/Limits for business stands on apron Nr.3(cargo):

停机位/Stands	机身长度限制 /Fuselage limits	航空器翼展限制 /Wing span limits for aircraft
Z11-Z16, Z21-Z26	<31m	<31m
Z31-Z38	<28m	<24m

## 3.9 滑入及滑出停机坪的规定/Rules for entering/exiting apron:

停机坪/Apron	机位/Stands	滑入/Entry by	滑出/Exit by
Apron Nr.7&Nr.8	Nr. 50-54, 56, 58, 60, 62, 64	E7	E6
	Nr. 55, 57, 59, 61, 63, 65, 806-809	R6	E5
	Nr. 67, 69, 71, 73, 75	R5	E5
	Nr. 77, 79, 81, 83, 85, 87, 89, 91, 93, 810-816	R5	R4
	Nr. 95-98	W7	W6
	Nr. 80, 82, 84, 86, 88, 90, 92, 94	W5	W4
Satellite apron&eastern	Nr.174-177. 581-584	E3	L24 heading north

Nr.5 apron	Nr.171-173	E3	E2
	Nr.168-170	E1	E2
	Nr.166.167.585.586	E1	L24 heading south
	Nr.161-165. 589. 590	R3	L24 heading south
Satellite apron&western Nr.5 apron	Nr.112. 113. 501-503	P3	L02 heading north
	Nr.114-118. 504-506	P2	L02 heading north
	Nr.119-122. 507-509	P2	L02 heading south
	Nr.123-126	B2	L02 heading south
	Nr.510-512	B2	B
Satellite apron&southern Nr.5 apron	Nr.127-130.157-160	L19	L19
	Nr.131-135.137.139.567-572	L21A	L20A
	Nr.141.143	L21A-L20	L20A
	Nr.145	L21-L20	L20
	Nr.147.149.151-156.556-560	L21	L20
Satellite apron&northern Nr.5 apron	Nr.109-111.178-180	L22	L22
	Nr.101-108.136.138.140.561-566	L26A	L25A
	Nr.142.144	L26A-L25	L25A
	Nr.146	L26-L25	L25
	Nr.148.150.181-190.551-555	L26	L25
Apron Nr.1&Nr.2 Cargo apron Nr.3	Nr.1-10. 201-204	P6	follow Apron controllers instructions
	Nr.11. 12. 14-17. 205-207	P5	
	Nr.18-22. 208-211	P4	
	Nr.23-32	B3	
	Nr.301-308	P6 or B8	B7
Apron Nr.6	Nr.611-626	L18 heading north	E8
Remarks:			
1. Pilot shall keep observing traffics outside during the whole period of taxiing;			

2. Aircraft is forbidden to enter apron by TWY R5 while aircraft A380 is parking on or being pushed back from stand Nr.75;
3. If aircraft are taxiing on the extension taxi line of TWY R5 (east of taxi lane L08), aircraft A380 is forbidden to be pushed back from stand Nr.75 or taxi into stand Nr.75 by taxi lane L09;
4. Aircraft A380 parking on stand Nr.75 shall be pushed back to the taxi lane L09 and start up after the aircraft tail has passed the nose-in lane of stand Nr.75, then exit apron by TWY L09 and E5.
5. Aircraft A380 shall enter/exit stand Nr.24 via TWY W1; when pushback, face-to-south needed.
6. Aircraft parking on stand Nr.64 shall be pushed back along with 'push-back line' to the 'push-back holding point'. Aircraft taxiing into stand Nr.64 from other stands shall be towed face-to-south along with 'stand alignment line' to the stand.
7. Aircraft parking on stand Nr.80 shall be pushed back along with 'push-back line' to the 'push-back holding point'. Aircraft taxiing into stand Nr.80 from other stands shall be towed face-to-north along with 'stand alignment line' to the stand.
8. When TWY A (B8 is not inclusive) closed, aircraft parking on stand Nr.301 shall be pushed back and start-up face-to-south, pilot shall apply for clearance in advance.
9. Temporary stand: 810. Ground support activities such as passengers embarking and disembarking, refueling, cargo loading; and unloading is forbidden at stand Nr. 810.
10. Aircraft shall follow follow-me vehicle when taxiing in/out east/south/north of Satellite Apron and Nr.5 Apron.

3.10 Nr.7,8 号机坪设有 9 个机坪等待点 AH01-AH09, 5 个滑出等待点 HP01-HP05。在卫星厅机坪及 5 号机坪东侧设有 2 个机坪等待点(AH10-AH11), 2 个滑出等待点(HP06-HP07)。参见 AD2.24-2。/Concerning apron Nr.7 and Nr.8, there are 9 holding points AH01-AH09 used for entering apron and 5 holding points HP01-HP05 used for exiting apron. Two apron holding points(AH10-AH11) and two taxi holding points(HP06-HP07) established on Satellite apron & east of Nr.5 apron. Refer AD 2.24-2.

等待位置 Holding point	滑行方向 Taxiing direction	机坪等待位置 Apron holding point	滑行方向 Taxiing direction	机坪等待位置 Apron holding point	滑行方向 Taxiing direction
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HP01	W to E	AH01	E to W	AH08	S to N
HP02	W to E	AH02	E to W	AH09	S to N
HP03	W to E	AH03	E to W	AH10	E to W
HP04	N to S	AH04	S to N	AH11	E to W
HP05	N to S	AH05	E to W		
HP06	S to N	AH06	S to N		
HP07	W to E	AH07	S to N		

3.11 进港航空器机组发现地面引导车后关闭滑行灯，跟随地面滑行引导车滑行。离港航空器由机坪管制发布推出和开车指令，机组收到滑出指令后，必须和地面机务确认航空器后方无其他安全隐患后，方可打开滑行灯。

3.11 Arriving aircraft turn off taxiing lights when follow-me vehicle in sight and follow follow-me vehicle. Apron controllers release push-back and start-up, then departure aircraft turn on taxiing lights after receiving taxiing instruction and confirming with ground crew that no potential security menace in the rear of the aircraft.

3.12 航空器滑入、滑出 3 号货运公务机坪时，需跟随地面引导车滑行，推出时均推到 L15 滑行线上开车。

3.12 Aircraft taxiing in and out apron Nr.3 (cargo) shall be guided by follow-me vehicle and pushed back on TWY L15 to start-up.

3.13 航空器滑入、滑出卫星厅东机坪时，需跟随地面引导车滑行，推出时均需推到 L24 滑行线上开车。

3.13 Aircraft taxiing in and out Satellite east apron shall be guided by follow-me vehicle and pushed back on TWY L24 to start-up.

3.14 航空器滑入、滑出 7、8 号机坪时，需跟随地面引导车滑行。

3.14 Aircraft taxiing in and taxiing back on apron Nr.7 and Nr. 8 shall be guided by follow-me vehicle.

3.15 在 3 号货运公务机停机区东侧 L15 滑行线上有航空器活动时，禁止滑入、滑出 Z11、Z12、Z21、

3.15 When aircraft move on TWY L15, other aircraft are forbidden to taxi in/ taxi back on stands Nr.Z11,



Z22、Z31、Z32 号机位。

Z12, Z21, Z22, Z31, Z32.

3.16 卫星厅北港湾使用 L26/L26A 进入机坪, 使用 L25/L25A 滑出机坪; 卫星厅机坪南港湾使用 L21/L21A 进入机坪, 使用 L20/L20A 滑出机坪; 停靠卫星厅机坪南北港湾的航空器进出机坪根据管制员指令跟随引导车滑行。

3.16 Aircraft use L26/L26A entering and L25/L25A exiting Satellite north apron; aircraft use L21/L21A entering and L20/L20A exiting Satellite south apron; aircraft parking on Satellite north/south apron shall be guided by follow-me vehicle.

3.17 本场共设立 12 个滑行强制等待点, 航空器滑行至该点前必须等待, 并通报地面管制员。参见航图 AD2.24-2 compulsory holding points are established for taxiing aircraft, flight crew shall hold before these points and contact GND control. Refer Chart AD2.24-2.

强制等待位置 Compulsory holding point	滑行方向 Taxiing direction	强制等待位置 Compulsory holding point	滑行方向 Taxiing direction
A-T3	A to north, holding before T3	T3-W3	T3 to west, holding before W3
B-T3	B to north, holding before T3	T4-E	T4 to east, holding before E
B-T4	B to south, holding before T4	E-T4	E to south, holding before T4
T3-B	T3 to west, holding before B	E-T3	E to north, holding before T3
W1-T4	W1 to south, holding before T4	F-T4	F to south, holding before T4
T4-W3	T4 to east, holding before W3	F-T3	F to north, holding before T3

3.18 航空器滑入、滑出 4 号机坪时, 采用顺向原则,

3.18 When aircraft taxiing into or out Nr.4 Apron, same

使用 L16、L17A 滑入相应机位，使用 V2 滑出；滑入 406、407、411-418、451-453、458、459 机位时，需跟随地面引导车滑行。

orientation principle applied, taxi-in via L16 and L17A and taxi-out via V2. When aircraft taxiing into stands Nr.406, 407, 411-418, 451-453, 458, 459, aircraft shall follow follow-me vehicle.

3.19 卫星厅机坪及 5 号机坪东侧 A380 滑入 168 号机位使用 E1 道口进入机坪；A380 滑入 170 号机位使用 E1、L23 机坪滑行线进入机坪。

3.19 A380 locating at eastern Satellite Apron and Nr.5 Apron shall taxi into parking stand Nr.168 via E1 and taxi into stand Nr.170 via E1 and L23.

3.20 卫星厅机坪及 5 号机坪东侧 A380 推出开车须在 L23 上进行，均使用 E2 滑出；其中停靠 173 号廊桥的 A380 航空器推出开车时机头朝北，停靠 168 号廊桥的 A380 航空器推出开车时机头朝南，停靠 170 号廊桥的航空器推出开车朝向根据管制员指令执行。在停靠 168、170、173 号廊桥的 A380 航空器推出时，禁止任何航空器使用 E2 滑出。

3.20 A380 locating at east of Satellite Apron and Nr.5 Apron shall start engine on L23 and taxi out via E2. For A380 parking at boarding bridge stand Nr.173, its nose shall be heading north when pushed back and starting engine; For A380 parking at boarding bridge stand Nr.168, its nose shall be heading south when pushed back and starting engine; For aircraft parking at boarding bridge stand Nr.170, push-back direction shall be instructed by ATC. Any aircraft taxi out via E2 is forbidden when A380 parking at stands Nr.168, 170, 173 is pushing back.

3.21 所有停靠廊桥机位的航空器必须使用桥载设备，关闭 APU；如需使用 APU，航空公司必须向机电信信息保障部客桥调度电话申请（第一航站楼：86-21-68345277；第二航站楼：86-21-68340194/68340197），经批准后方可使用。以下特殊情况可使用 APU（无需申请）：  
a.桥载设备发生故障，不能提供服务；  
b.航空器因启动发动机而需开启 APU；

3.21 All aircraft parking on boarding bridge stands shall turn off APU, and use bridge equipment. If aircraft require to use APU, airlines shall contact department of Airport Equipment and Information (for TML Nr.1: 86-21-68345277, for TML Nr.2: 86-21-68340194/68340197) to get apply, and use with permission. In following situations, aircraft can use APU without getting permission:

c.航空器进行 APU 的维修检测;

d.天气预报环境温度超过 35°C;

e.航班过站时间不足 45min。

a.Bridge equipment is unavailable;

b.Aircraft need APU to start up engine;

c.APU is under maintenance;

d.Forecast temperature is more than 35 degree centigrade;

e.Flight transition time is less than 45 minutes.

3.22 当停放在近机位的航空器 APU 发生故障推出时,在廊桥处于回位状态下,航空器可以在近机位启动发动机,地面保障人员必须严格按照规定程序操作,禁止地面保障人员和各类保障车辆在预推出航空器后侧穿行。

3.22 If aircraft APU is unavailable, aircrew may start the engine when boarding bridge is retracted. Ground staff shall operate according to specific procedures. Ground staff and security vehicles are forbidden to go through the rear of the aircraft.

3.23 24 号廊桥机位的桥载设备仅满足翼展小于 65m 航空器的使用需求。

3.23 Bridge equipment for Nr.24 boarding bridge stand is only available for aircraft with wingspan less than 65m.

3.24 机场地面管制向塔台管制移交航空器时,管制员将使用“守听”或“联系”两种管制指令。

3.24 Control instructions "MONITOR" or "CONTACT" will be used when aircraft transferred from Ground controllers to Tower controllers.

3.25 本场实施机坪运行管制。机坪管制职责:负责该区域航空器的推出、开车、滑行和其他涉及航空器运行的指挥工作。

3.25 Apron operation control implemented. Apron control duties: Responsible for aircraft push back, engine on, taxi and other operations in the area.

3.26 机场机坪管制责任区域范围:详见 ZSPD-1A/1B, ZSPD-2, 具体管制移交点及移交方式听从管制员指令执行。

3.26 Apron control area: See ZSPD-1A/1B, ZSPD-2. Specific control handover points and methods follow controller's instructions.

**4. 进、离场管制规定****4. Air traffic control regulations**

4.1 离场航空器应在预计开车前 10min 内联系放行管制，取得放行许可；

4.1 Departing aircraft shall contact Delivery Control for delivery clearance within 10 minutes prior to the start-up;

4.2 离场航空器应在推出开车前联系地面管制，取得开车许可并在 5min 内执行，否则，重新申请此许可；

4.2 Before push-back and start-up, departing aircraft shall contact GND Control for push-back and start-up clearance and conduct within 5 minutes, otherwise, apply the clearance once more;

4.3 地面管制将在适当时通知航空器联系塔台管制，获取后续管制指令；

4.3 GND control will notify the aircraft at appropriate time to contact TWR control for further ATC instructions;

4.4 为减少波道占用时间，航空器起飞离地后自动与塔台管制席位脱波（不需要通话脱波），脱波后，航空器应该联系塔台管制指定的频率；

4.4 In order to avoid frequency congestion, pilot shall leave TWR frequency without radiotelephony instruction from controller as soon as airborne and contact the frequency assigned by TWR Control immediately;

4.5 着陆航空器脱离跑道前须在塔台频率保持长守。在脱离跑道首次与地面管制联系时，尤其在低能见度情况下，必须向地面管制报告脱离的跑道和所使用的滑行道。

4.5 Flight crew shall monitor TWR frequency until vacating RWY. After vacating RWY, flight crew shall report the RWY vacated and the TWY in use to GND Control at the first contact, especially under low visibility operation.

**5. 机场的 II/III 类运行****5. CAT II/III operations at AD**

## 5.1 低能见度运行 (II/III A 类)

## 5.1 Low Visibility Operation Procedures(CAT II/IIIA)

## 5.1.1 低能见度运行程序的准备、实施和结束

## 5.1.1 Preparation, implement and closure of Low Visibility Operation Procedures

5.1.1.1 当跑道视程 RVR 数值降至 1000m 且气象预报能见度呈下降趋势, 或者云高降至 80m 且气象预报云高呈下降趋势时, 浦东塔台宣布启动低能见度运行准备程序;

5.1.1.1 When RVR is forecast to descend to 1000m and forecast show a decrease trend, or ceiling is forecast to descend to 80m and forecast show a decrease trend, Low Visibility Operation Procedures will be implemented.

5.1.1.2 当跑道视程 RVR 小于 550m, 或云高小于 60m 时, 经确认机场和空管具备低能见度运行条件, 浦东塔台通过 D-ATIS 宣布正式实施低能见度运行 (II/IIIA 类);

5.1.1.2 When  $RVR < 550m$  or ceiling  $< 60m$ , aerodrome and ATC satisfy the requirement of Low Visibility Operation, CAT II/IIIA operation will be implemented.

5.1.1.3 当跑道视程 RVR 大于等于 550m 且气象预报呈好转趋势, 或云高大于等于 60m 且气象预报呈好转趋势时, 或机场或空管不具备低能见度运行条件, 浦东塔台结束低能见度运行。

5.1.1.3 When  $RVR \geq 550m$  and forecast show a improvement trend, or ceiling  $\geq 60m$  and forecast show a improvement trend, or aerodrome or ATC cannot satisfy the requirement of Low Visibility Operation, Low Visibility Operation Procedures closed.

## 5.1.2 跑道的使用

## 5.1.2 General rules for using runways

## 5.1.2.1 跑道的运行等级/The operation grade of RWY:

operation standard	RWY
CAT II ILS	17L/35R, 34L
CAT III A ILS	34L
Low Visibility Departure	17L/35R, 34L

5.1.2.2 跑道的运行模式/The operation mode of RWY:

operation direction	RWY
Northward	34L mainly used for arrival, 35R mainly used for departure
Southward	17L for departure and arrival

5.1.2.3 浦东机场实施低能见度运行时，A380 航空器应听从 ATC 指令使用 34L 跑道。

5.1.2.3 When Low Visibility Operation Procedures implemented, RWY34L is available for A380, instructions by ATC.

5.1.3 低能见度运行区域

5.1.3 Low Visibility Operation area

II类/IIIA 类运行区域：16R/34L 号跑道（含）与 17L /35R 号跑道（含）之间区域；17L/35R 号跑道以西的 P2 滑行道、P4 滑行道、L15 滑行道。

CAT II/IIIA operation area: The area between RWY16R/34L(include RWY16R/34L) and RWY17L/35R(include RWY17L/35R); TWY P2, P4, L15( West of RWY17L/35R).

5.2 低能见度程序和护卫

5.2 Low Visibility Operation Procedures and protection

5.2.1 进场航空器/Arrival aircraft:

RWY	Taxiing route
17L	rapid exit TWY A1 or A2 or A3 or TWY B1 or P1→TWY B
34L	rapid exit TWY F3 or F4 or TWY R5 or E5 or R6→TWY F
Remarks:1.Follow ATC instructions for practical taxiing route; 2. Aircraft taxiing on rapid exit TWY shall report the ATC "aircraft already vacate RWY" after into the parallel TWYs.	

## 5.2.2 离场航空器/Departure aircraft:

RWY	Taxiing route
17L	TWY A→TWY B7 or B8→RWY17L
35R	TWY B→TWY P1 or B1→RWY35R
Remarks: When CAT II/IIIA operating, Departure aircraft shall follow ATC instructions.	

5.2.3 低能见度地面滑行路线:详见 ZSPD-2C, 2D, 2E, 2F, 2G, 2H, 2J

5.2.3 Low Visibility Operation Taxiing route: see ZSPD-2C, 2D, 2E, 2F, 2G, 2H, 2J

5.3 飞行员应该获得如下信息:

5.3 Aircrew shall acquire information as follow;

5.3.1 气象预报

5.3.1 Weather prediction

5.3.2 低能见度程序正在实施

5.3.2 Low Visibility Operation Procedures are implementing

5.4 准备实施II/IIIA 类进近的机组应在与进近管制的首次联系中提出申请。

5.4 Aircrew prepared for CAT II/IIIA approach shall apply to approach control at the first contact.

## 6. 除冰规则

## 6. Rules for deicing

6.1 需除冰的航空器应及早向公司代理申请除冰车在本机位或于指定除冰机位除防冰, 除冰开始前需向机坪管制申请; 浦东机场实行全天候定点除防冰, 除霜同于除冰。其中, 除冰机位分别为 510-512、585/586、589/590 机位。

6.1 Contact the agent of airline as early as possible for deicing within the stand or designated stand, contact apron controllers before starting the progress; Pudong Airport implements all-day fixed-point deicing, defrost course equals deicing. Stands Nr.510-512, 585/586,

589/590 are deicing stands.

6.2 机组应严格遵守机坪管制和机务代表的指令实施各项操作，保持与除冰航空器的安全距离。

6.2 Flight crew shall strictly follow apron controllers and aircraft maintenance instructions to carry out various operations and keep a certain distance from the deicing aircraft for safety.

7. 平行跑道同时仪表运行

7. Simultaneous operations on parallel runways

无 Nil

8. 警告

8. Warning

所有飞行切勿误入浦东机场西北方向的 ZS(R) 559（上海市区）限制区。

All aircraft shall by no means fly into the Restricted Area ZS(R) 559 (urban area of Shanghai) by mistake, which is to the northwest of Pudong Airport.

9. 直升机飞行限制，直升机停靠区

9. Helicopter operation restrictions and helicopter parking / docking area

无 Nil

ZSPD AD 2.21 噪音限制规定及减噪程序

ZSPD AD 2.21 Noise restrictions and Noise abatement procedures

1. 噪音限制规定

1. Noise restrictions

1.1 航空器起飞减噪操作程序，用于起飞爬升阶段，目的是在确保飞行安全的前提下，尽量减少噪音对地面的影响。

1.1 Aircraft take-off noise abatement operation procedure is used for take-off and climbing phase. The purpose is to minimize the impact of noise on ground in the permise of ensuring flight safety.

1.2 浦东机场采用国际民航组织制定的消噪音离场

1.2 Pudong airport adopts the ICAO Noise Abatement



程序 1 (NADP1), 旨在降低起飞跑道末端附近区域的噪音。	Departure Procedure 1(NADP1) to reduce noise in the area near DER.
2. 减噪程序	2. Noise abatement procedures
2.1 在保证安全超障和飞行程序最低爬升梯度的条件下, 执行如下起飞减噪程序。	2.1 In condition of complying with the requirements of obstacle clearance and climb gradient required by flight procedure, the following noise abatement climb procedures shall be implemented.
2.1.1 在航空器起飞性能运行允许的情况下, 尽可能使用减推力起飞;	2.1.1 The derated take-off is strongly recommended if the take-off performance of aircraft permit;
2.1.2 在高度 450m(1500ft)时, 调整并保持发动机爬升功率/推力, 保持爬升速度 $V_2+20\text{km/h}(10\text{kt})$ , 保持起飞襟翼和缝翼继续爬升;	2.1.2 At altitude 450m(1500ft), adjust engine power/thrust to climb power/thrust and maintain it, maintain climbing speed at $V_2+20\text{km/h}(10\text{kt})$ with flaps and slats in the take-off configuration;
2.1.3 高度 910m(3000ft)以上时, 转为正常航路爬升速度并按规定收襟翼/缝翼。	2.1.3 Above altitude 910m(3000ft), maintain a positive rate of climb, accelerate to normal en-route climb speed and retract flaps/slats on schedule.
2.2 由于非管制原因不执行减噪飞行操作程序, 飞行员须在起飞前告知 ATC 并说明理由 (校验飞行等特殊飞行除外)。	2.2 If the procedures can not be implemented due to any reason except ATC, pilot shall inform ATC with a reasonable explanation(except for special flight such as calibration flight).

## ZSPD AD 2.22 飞行程序

## ZSPD AD 2.22 Flight procedures

### 1. 总则

### 1. General

1.1 除经上海进近或浦东塔台特殊许可外,在上海进近管制区和浦东塔台管制区内的飞行,必须按照仪表飞行规则进行。

1.2 本场 RNAV 飞行程序为主用程序,无特殊原因机组应该执行这些程序。

## 2. 起落航线

17R/35L 号跑道起落航线在跑道西侧进行。16L/34R 号跑道起落航线在跑道东侧进行。C、D 类航空器高度 450m, A、B 类航空器高度 300m。

## 3. 仪表飞行程序

当指令高度与进离场程序中各类限制高度有冲突时以 ATC 部门的指定高度为准。

## 4. 雷达程序和/或 ADS-B 程序

4.1 上海进近管制区域内实施雷达管制。航空器最小水平间隔为 6km;

4.2 距进近跑道末端 18.5km(10NM)范围内,向同一跑道做最后进近的航空器之间无尾流间隔要求且接地后能在 50s 内脱离跑道时,航空器之间的最小雷达间隔缩短为 5km(湿跑道或污染跑道除外);

1.1 Flights within Shanghai Approach Control Area and Pudong Tower Control Area shall operate under IFR unless special clearance has been obtained from Shanghai Approach Control or Pudong Tower Control.

1.2 RNAV flight procedures are primary procedures, pilot shall execute these procedures without special reasons.

## 2. Traffic circuits

Traffic circuits shall be made to the west of RWY17R/35L and to the east of RWY16L/34R, at the altitude of 450m for aircraft CAT C/D, and 300m for aircraft CAT A/B.

## 3. IFR flight procedures

Follow ATC instructions when the instructions have a conflict with the height limits in the charts.

## 4. Radar procedures and/or ADS-B procedures

4.1 Radar control within Shanghai APP has been implemented. The minimum horizontal radar separation is 6km;

4.2 Within 18.5km(10nm) from approaching RWY end, if there is no wake turbulence between two aircrafts approaching to the same RWY in final approach, and the preceding aircraft is able to vacate RWY within 50s

after touchdown, the minimum radar separation can be reduced to 5km (except for wet or contaminated runway);

4.3 通常情况下航空器接地后占用跑道的时间应控制在 50s 以内。如不能执行上述要求,驾驶员应在不晚于接地前 5min 通报管制员,管制员将根据空中和地面交通情况视情指挥航空器中止进近或复飞(湿跑道或污染跑道除外);

4.3 The RWY occupation time for aircraft after touchdow should be within 50s. If can not meet such standards, pilot should inform ATC no later than 5 minutes before touchdown. Controller will direct the aircraft to abort

approach or go around according to actual traffic situation(except for wet or contaminated runway);

4.4 通常,航空器从庵东 VOR(AND)、SASAN、横沙 VOR(HSH)等导航台得到雷达引导和排序,直至最后进近航迹(ILS、PAR、VOR/DME),以加速空中交通流量。考虑到航空器的性能,按需要发出雷达引导和飞行高度层/高度指令,使航空器之间有一定的距离,以保持正确的着陆间隔。

4.4 Normally, aircraft will be vectored and sequenced from Andong VOR (AND), SASAN and Hengsha VOR (HSH) to the appropriate final approach track (ILS, PAR, VOR/DME),so as to ensure an expeditious flow of traffic. Instructions about radar vectors and flight levels/altitudes will be issued,as required, for spacing and separating the aircraft so that correct landing intervals are maintained, taking into account aircraft characteristics.

速度调控: 实施 RNAV ILS/DME 进近时, 机组应当严格遵守速度限制。机组应尽可能准确地执行所有的速度限制。如果航空器不能执行上述速度限制, 机组应及时通知 ATC 可用的速度。

Speed control: When operate RNAV ILS/DME approach, aircrew should execute at all speed limit. If can not, they shall inform ATC of available speed immediately.

#### 4.5 最低监视引导高度图

参见上海/虹桥机场 ZSSS AD 2.22

飞行程序中第 4.5 节以及 ZSPD AD 2.24-6B。

#### 4.5 Surveillance Minimum Altitude Sectors

Refer to SHANGHAI/Hongqiao ZSSS AD2.22 item

4.5,

and ZSPD AD2.24-6B.

## 5. 无线电通信失效程序

## 5. Radio communication failure procedures

### 5.1 航空器单向通信失效

### 5.1 Aircraft communication partly failure

5.1.1 如果航空器只具有信号接收能力, 根据接收到的管制指令继续飞行, 同时管制员将向沿途有关管制单位发送有关通信失效的情报;

5.1.1 If the radio receiver available, aircraft shall follow the instruction to fly, ATC should inform the concerned ATC unit at the same time.

5.1.2 如果航空器只具有信号发送能力, 航空器驾驶员应立即将飞行意图告知管制员, 并及时报告位置和高度信息, 管制员根据航空器驾驶员报告的意图迅速调配其他飞机避让, 如有可能, 管制员将通知航空器运营人使用其内部通信方式与该航空器联系。

5.1.2 If the radio transmitter available, aircraft pilot shall notify her/his flight intention to ATC and report aircraft position. ATC will conduct the traffic accordingly. If possible, ATC shall contact the operator to establish inner communication with the aircraft.

### 5.2 航空器双向通信失效

### 5.2 Aircraft communication totally failure

航空器双向通信失效时, 如有可能, 管制员将通知航空器运营人使用其内部通信方式(如卫星电话)与该航空器联系。

ATC shall contact the operator to establish inner communication with aircraft(eg: satellite phone), when bilateral communication failure.

#### 5.2.1 航空器进场

#### 5.2.1 Arrival

航空器应按照下列特定的进近程序继续进近并尽快落地; 如果本场不具备落地条件, 航空器驾驶员可自行决定返航或备降。

Aircraft shall continue to approach according to the following specific procedures as soon as possible; If condition of airport is not available for landing, the aircraft can decide to return or alternate by themselves.

##### a. 向北着陆

##### a. Landing to north

航空器按照最后接收到的管制员指令高度(如果低于 1500m 则上升至 1500m)飞向 PDL, 如果过 PDL 高度高于起始进近高度 2400m, 则进入等待程序, 下降至起始进近高度 2400m, 然后按照 35L 跑道仪表进近程序着陆; 如果过 PDL 高度低于起始进近高度 2400m, 则直接按 35L 跑道仪表进近图着陆。

#### b. 向南着陆

航空器按照最后接收到的管制员指令高度(如果低于 1500m 则上升至 1500m)飞向 HSH, 进入等待程序, 下降至起始进近高度 600m, 然后按 16L 跑道仪表进近程序着陆;

#### 5.2.2 航空器离场

航空器应按照最后接收到的管制指令(程序)继续离场, 管制员将迅速组织其它飞机进行避让; 如果航空器驾驶员判断无法继续实施离场飞行, 可自行决定返航进近着陆或至放油区放油, 并根据当时的运行方向选择进近着陆方法, 管制员将迅速组织其它飞机进行避让。

#### 5.3 本场通信失效

Aircraft fly to PDL according to the last command ALT (climb to 1500m if not reached), if the altitude over PDL is higher than the initial approach altitude 2400m, then join the holding procedure, descend to the initial approach altitude 2400m, and then approach and land according to RWY 35L instrument approach procedure; if the altitude over PDL is below the initial approach altitude 2400m, approach and land according to RWY35L instrument approach procedure;

#### b. landing to south

Aircraft fly to HSH according to the last command ALT (climb to 1500m if not reached), join the holding procedure, descend to the initial approach altitude 600m, and then approach and land according to RWY16L instrument approach procedure;

#### 5.2.2 Departure

Aircraft shall continue to depart with the last instruction(procedure), others should immediately give way to this aircraft by ATC; if departure is unsustainable the flight crew can decide to return landing or dump fuel in the fuel dumping area and choose the proper way to landing, others should immediately give way to this aircraft by ATC.

#### 5.3 Aerodrome communication failure

本场无线电收发功能失效，航空器无法与管制单位建立有效的通讯联系时，航空器应联系上一管制单位，并按照接收管制单位的管制指令继续飞行；

If aircraft cannot establish communication with the aerodrome control unit, aircraft shall contact the previous control unit, and follow the instruction to continue;

#### 5.4 无线电通信恢复

#### 5.4 Radio communication return to normal

失去通信联络的航空器已经着陆，或者已经恢复联络的，可恢复正常的管制运行，并立即通知相关管制单位。

It is available to resume activities when the aircraft that lose touch via Communication Channel has landed or get in touch again. Inform the ATC office immediately.

### 6. 目视飞程序

### 6. Procedures for VFR flights

6.1 航空器得到仪表进近的指令后,应根据机载设备或目视监控周边航空器的运行状态,并尽最大可能建立目视间隔;同时在管制员通报其它航空器的相对位置时,向管制员报告已建立目视间隔。若飞行员不能目视相关航空器,管制员将视情况指挥该航空器中止进近或复飞。

6.1 Upon receipt of approaching clearance, the pilot shall monitor the operating situations of other aircraft in the vicinity using airborne equipment or visual and establish the visual separation as practicable, then report 'visual separation established' when the controller notifies the relative positions of other aircraft. If pilot can not visual the relative aircraft ,controller will direct the aircraft to abort approach or go around according to actual traffic situation.

6.2 机场实施多跑道目视进近，实施目视进近的航空器应控制表速，预计飞行航迹距接地点 13km 时速度 330kmH,如机组不能按照上述速度执行时，应及时通知管制员。航空器应遵守目视间隔飞行规定。

6.2 Parallel runways visual approach implemented in airport. Aircraft shall control IAS, and IAS shall be 330kmH when the distance of projected flight path to touchdown is 13km. If speed requirement cannot implemented, aircraft shall inform ATC. Aircraft shall obey flight rules of visual separation.

- 6.3 当浦东机场能见度不小于 5km，云高不低于 300m 时，将实施目视进近和目视间隔。
- 6.3 If visibility is no less than 5km and ceiling is no less than 300m, visual approach and visual separation will be available.
- 6.4 浦东机场实施目视进近和目视间隔前，航空器驾驶员需向管制员报告是否看到机场、跑道或者前续落地的航空器。
- 6.4 Before implementation of visual approach and visual separation, pilot shall report to ATC whether visual the airport, the runway or the preceding aircraft.
- 6.5 当实施目视进近的航空器驾驶员明确表示能够目视另一架航空器并接受目视间隔时，航空器驾驶员应当负以下职责：
- 6.5 When the pilot implementing the visual approach indicates that another aircraft is in sight and accepts the visual separation, the pilot shall take the following responsibilities:
- 6.5.1 始终保持对相关航空器的目视监控，并保持与相关航空器间的安全间隔；
- 6.5.1 Maintain visual surveillance and safe separation continuously with relevant aircrafts.
- 6.5.2 为保持与相关航空器的安全间隔作必要的调速、机动飞行及避开尾流影响区域；
- 6.5.2 Necessary speed adjustment, maneuvering and avoiding the wake turbulence affected area.
- 6.5.3 当无法目视相关航空器或为保持与相关航空器间的安全间隔所采取的各种措施必须及时通报管制员，以便重新为其配备其他的安全间隔。
- 6.5.3 Notify the controller immediately of not able to visual relevant aircrafts or take measures to maintain the safety separation with relevant aircrafts then wait for new separation assignment.
- 6.6 在仪表进近程序的最后进近阶段使用目视间隔时，航空器驾驶员应按照仪表程序进近，并保持目视判断与其他相关航空器间的安全间隔。
- 6.6 When visual separation is applied during the final approach of instrument approach procedure, the pilot should follow the procedure and maintain visual judgement about the safety separation with other relevant aircrafts.

6.6.1 当航空器进近至决断高度时，会遇到在同一跑道上前面着陆的航空器正在着陆滑跑，或者正在起飞的航空器即将离地的情况。当航空器驾驶员认为必要时，随时可以复飞并立即通报管制员。

6.6.1 When the aircraft descends to DA, some situations may be observed, such as the preceding aircraft is rolling out the same RWY, or the departure aircraft is lifting off. Under such situation, pilot can make a missed approach at any moment if it is considered to be necessary and notify the controller immediately.

6.6.2 近距跑道运行时，当航空器进近至决断高度时，会遇到相邻近距跑道上的航空器正在起飞滑跑，航空器驾驶员需加强目视观察。当航空器驾驶员认为必要时，随时可以复飞并立即通报管制员。

6.6.2 When the aircraft descends to DA, some situations may be observed, such as the preceding aircraft is vacating the adjacent RWY, or the departure aircraft from the adjacent RWY is lifting off. Under such situation, pilot shall be careful and can make a missed approach at any moment if it is considered to be necessary and notify the controller immediately.

## 7. 目视飞行航线

## 7. VFR route

无

Nil

## 8. 目视参考点

## 8. Visual reference point

无

Nil

## 9. 其它规定

## 9. Other regulations

9.1 机组收到进入跑道指令后，必须在确保安全的前提下，在前机滑跑后，立即按照标准运行程序从等待位置滑行至跑道内正确位置。

9.1 Upon receiving the instruction of entering runway and observing the preceding aircraft start to roll, pilot shall make sure the safety distance with the preceding aircraft and taxi from the holding position to the right place of the runway following the standard operating



procedure immediately.

9.2 如果接到立即起飞指令，飞行员必须向 ATC 确认是否可以执行立即起飞。

9.2 Upon receiving the instruction of take-off immediately, pilot must confirm whether immediate take-off can be implemented.

9.3 航空器驾驶员得到仪表进近的指令后，尽可能根据机载设备监控周边航空器的运行状态，并尽最大可能建立目视间隔；同时在管制员通报其它航空器的相对位置时，向管制员报告已建立目视间隔。

9.3 Upon receipt of approaching clearance, the pilot shall monitor the operating situations of other aircraft in the vicinity using airborne equipment and establish the visual separation as practicable, then report 'visual separation established' when the controller notifies the relative positions of other aircraft.

## 10. 区域导航飞程序相关数据

## 10. Data for RNAV flight procedures

### Waypoint Coordinates

ID	COORDINATES	ID	COORDINATES
PD013	N312125E1214243	PD508	N312700E1220026
PD023	N305436E1215250	PD510	N310817E1220351
PD024	N304753E1215521	PD511	N310440E1215050
PD033	N311953E1214448	PD512	N305936E1213247
PD043	N305714E1215320	SS200	N3117.1E12119.9
PD044	N305033E1215551	SS202	N312700E1204725
PD053	N312102E1214233	SS220	N312627E1211201
PD063	N305431E1215234	SS303	N310413E1210733
PD064	N305006E1215414	SS304	N310924E1210716
PD073	N311957E1214503	SS305	N311646E1210651
PD083	N305719E1215336	SS320	N315700E1205100
PD084	N305037E1215607	SS420	N312401E1205701

PD201	N312401E1213416	SS504	N311254E1210704
PD202	N311510E1213738	SS521	N310824E1211133
PD203	N311332E1213138	PF1	N312519E1214114
PD204	N312447E1212720	PF2	N304538E1215612
PD207	N310143E1214634	PF3	N312535E1214238
PD208	N303414E1214630	PF4	N304601E1215733
PD211	N312700E1221140	PF5	N312516E1214056
PD212	N312113E1221035	PF6	N304533E1215556
PD213	N311606E1220730	PF7	N312538E1214254
PD214	N311203E1220245	PF8	N304605E1215749
PD215	N310928E1215647	MP1	N312700E1215010
PD220	N311619E1215413	MP2	N304802E1220449
PD228	N313252E1224112	PH1	N311310E1224133
PD230	N310510E1221134	PH2	N305258E1222923
PD231	N310450E1215831	PH3	N315544E1223905
PD232	N310910E1220739	PH4	N314631E1220755
PD233	N311410E1221251	SH1	N313227E1204809
PD234	N312014E1221610	SH2	N312213E1204356
PD235	N312700E1221721		
PD301	N305944E1215036	XSY	N3055.9E12152.4
PD302	N305741E1214309	BK	N2953.7E12120.0
PD303	N310024E1212825	AND	N3015.4E12113.3
PD304	N305157E1220957	HSH	N3122.1E12150.8
PD311	N310045E1215424	HSN	N2955.9E12221.8
PD312	N305545E1215942	NXD	N3053.8E12025.8
PD313	N305759E1220742	JTN	N3107.3E12120.5
PD314	N310214E1220607	NTG	N3205.8E12058.7

PD315	N312323E1215813	PDL	N3107.9E12140.4
PD316	N313011E1220707		
PD401	N304345E1214930	AKARA	N3130.0E12330.0
PD402	N304818E1214748	ALDAP	N3137.5E12222.2
PD403	N305243E1214608	BAVIK	N3022.0E12137.9
PD404	N305708E1214428	BOLEX	N3100.0E12300.0
PD405	N305528E1213829	DUMET	N3121.7E12246.5
PD406	N305103E1214010	EKIMU	N3121.1E12106.6
PD407	N304637E1214150	EKVUT	N3145.4E12218.6
PD408	N310220E1214230	EMSAN	N3140.7E12246.5
PD411	N305613E1221855	IBEGI	N3149.4E12216.6
PD412	N310032E1221341	LAMEN	N3136.6E12400.0
PD413	N310234E1220700	LASAN	N3100.0E12225.5
PD414	N310159E1215936	MATNU	N3139.6E12238.0
PD431	N310637E1215752	MIGOL	N3045.8E12341.7
PD432	N310732E1220332	NINAS	N3100.0E12215.0
PD433	N310710E1220918	ODULO	N3315.2E12137.2
PD434	N310535E1221446	PIKAS	N3210.0E12044.0
PD435	N310230E1222002	PINOT	N3127.0E12227.0
PD436	N305818E1222405	POMOK	N3127.0E12107.0
PD437	N305317E1222637	PONAB	N3035.3E12224.1
PD438	N304752E1222726	SAMKI	N3015.2E12133.5
PD501	N312051E1214237	SASAN	N3135.4E12019.2
PD502	N312700E1214016	SURAK	N3146.4E12329.5
PD503	N313258E1213800	TONIX	N3119.9E12332.6
PD504	N311950E1213626	UDOXI	N3152.6E12147.1
PD505	N311843E1212939	VEBNI	N3127.0E12145.0

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (kt)	VPA/TCH	Navigation Specification
RWY16L Departure Transition								
VA			168		150			RNAV1
CF	PD311		153	L				RNAV1
RWY16R Departure Transition								
VA			168		150			RNAV1
CF	PD311		151	L				RNAV1
RWY16L/R Departure SUR-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	NINAS				↑2700 or by ATC			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY16L/R Departure LAM-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	NINAS				↑2700 or by ATC			RNAV1
TF	LASAN							RNAV1

TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY16L/R Departure LAM-84D(CCO Operation)								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	NINAS				↑2700			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY16L/R Departure MIG-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	NINAS				↑2700 or by ATC			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY16L/R Departure HSN-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	NINAS				↑2700 or by ATC			RNAV1
TF	PONAB							RNAV1

TF	HSN				↑7800			RNAV1
RWY16L/R Departure SAS-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	HSH							RNAV1
TF	SS200							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY16L/R Departure SAS-84D								
IF	PD311							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1
TF	SS304							RNAV1
TF	SS305							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY16L/R Departure NXD-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1

TF	PD315				↑3900			RNAV1
TF	HSH							RNAV1
TF	SS200							RNAV1
TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY16L/R Departure NXD-84D								
IF	PD311							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY16L/R Departure PIK-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	HSH							RNAV1
TF	SS200							RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY16L/R Departure PIK-84D(by ATC)								
IF	PD311							RNAV1
TF	PD312				↓1500	MAX250		RNAV1

					↑1200			
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	HSH							RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY16L/R Departure PIK-86D								
IF	PD311							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1
TF	SS304							RNAV1
TF	SS305				↑5100			RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY16L/R Departure ODU-82D								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	PD316							RNAV1



TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY16L/R Departure ODU-84D(by ATC)								
IF	PD311							RNAV1
TF	PD312				↓1500 ↑1200	MAX250		RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY17L Departure Transition								
CF	PD301		169					RNAV1
RWY17R Departure Transition								
CF	PD301		168					RNAV1
RWY17L/R Departure SUR-81D								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1

RWY17L/R Departure LAM-81D								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY17L/R Departure MIG-81D								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY17L/R Departure HSN-81D								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	PONAB							RNAV1
TF	HSN				↑7800			RNAV1
RWY17L/R Departure AND-81D								

IF	PD301							RNAV1
TF	XSX				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD208							RNAV1
TF	AND							RNAV1
RWY17L/R Departure SAS-81D								
IF	PD301							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1
TF	SS304							RNAV1
TF	SS305							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY17L/R Departure NXD-81D								
IF	PD301							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY17L/R Departure PIK-81D								
IF	PD301							RNAV1
TF	PD302				↓1800 ↑1200	MAX250		RNAV1
TF	PD303				↑2700			RNAV1
TF	SS303							RNAV1

TF	SS304							RNAV1
TF	SS305				↑5100			RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY17L/R Departure PIK-83D(by ATC)								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	HSH							RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY17L/R Departure ODU-81D								
IF	PD301							RNAV1
TF	XSY				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1

TF	PD316							RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY17L/R Departure ODU-83D(by ATC)								
IF	PD301							RNAV1
TF	XSX				↑900			RNAV1
TF	PD024					MAX250		RNAV1
TF	PD304				↓4200 ↑2700			RNAV1
TF	PD313							RNAV1
TF	PD314				↑2700			RNAV1
TF	PD315				↑3900			RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY34L/R Departure Transition								
VA			348		150			RNAV1
DF	HSX			R		MAX250		RNAV1
RWY34L/R Departure LAM-92D								
IF	HSX					MAX250		RNAV1
TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1

RWY34L/R Departure LAM-94D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY34L/R Departure LAM-96D(CCO Operation)								
IF	HSH					MAX250		RNAV1
TF	PD508				↑2500			RNAV1
TF	ALDAP							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY34L/R Departure SUR-92D								
IF	HSH					MAX250		RNAV1
TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY34L/R Departure SUR-94D								
IF	HSH					MAX250		RNAV1

TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY34L/R Departure MIG-92D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY34L/R Departure HSN-92D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑7800			RNAV1
RWY34L/R Departure SAS-92D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1

TF	PD511				↑3600			RNAV1
TF	PD512				↑4800			RNAV1
TF	SS303							RNAV1
TF	SS504							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY34L/R Departure SAS-94D								
IF	HSH					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY34L/R Departure NXD-92D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	PD511				↑3600			RNAV1
TF	PD512				↑4800			RNAV1
TF	SS303							RNAV1
TF	NXD							RNAV1
RWY34L/R Departure NXD-94D								
IF	HSH					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1
TF	SS521				@3600			RNAV1



TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY34L/R Departure PIK-92D								
IF	HSH					MAX250		RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	PD511				↑3600			RNAV1
TF	PD512				↑4800			RNAV1
TF	SS303							RNAV1
TF	SS504							RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY34L/R Departure PIK-94D(by ATC)								
IF	HSH					MAX250		RNAV1
TF	VEBNI							RNAV1
TF	PD502				↑1200			RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY34L/R Departure PIK-96D(by ATC)								
IF	HSH					MAX250		RNAV1
TF	PD503				↑1500			RNAV1
TF	NTG							RNAV1

TF	PIKAS							RNAV1
RWY34L/R Departure PIK-98D								
IF	HSH					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY34L/R Departure ODU-92D								
IF	HSH					MAX250		RNAV1
TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY34L/R Departure ODU-94D(by ATC)								
IF	HSH					MAX250		RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY35L Departure Transition								
CF	PD501		348			MAX250		RNAV1
RWY35R Departure Transition								
CF	PD501		346			MAX250		RNAV1
RWY35L/R Departure LAM-91D								
IF	PD501					MAX250		RNAV1
TF	HSH							RNAV1

TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY35L/R Departure LAM-93D								
IF	PD501					MAX250		RNAV1
TF	HSH							RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY35L/R Departure LAM-95D(by ATC)								
IF	PD501					MAX250		RNAV1
TF	PD503				↑1500			RNAV1
TF	EKVUT							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY35L/R Departure SUR-91D								
IF	PD501					MAX250		RNAV1

TF	HSH							RNAV1
TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY35L/R Departure SUR-93D								
IF	PD501					MAX250		RNAV1
TF	HSH							RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY35L/R Departure SUR-95D(by ATC)								
IF	PD501					MAX250		RNAV1
TF	PD503				↑1500			RNAV1
TF	EKVUT							RNAV1
TF	MATNU				↓4800			RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY35L/R Departure MIG-91D								
IF	PD501					MAX250		RNAV1

TF	HSH							RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY35L/R Departure AND-91D								
IF	PD501					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	PD505							RNAV1
TF	PD208							RNAV1
TF	AND							RNAV1
RWY35L/R Departure HSN-91D								
IF	PD501					MAX250		RNAV1
TF	HSH							RNAV1
TF	PD315							RNAV1
TF	PD510				↑3000			RNAV1
TF	NINAS							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑7800			RNAV1
RWY35L/R Departure SAS-91D								
IF	PD501					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1

TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY35L/R Departure NXD-91D								
IF	PD501					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1
TF	SS521				@3600			RNAV1
TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY35L/R Departure PIK-91D								
IF	PD501					MAX250		RNAV1
TF	PD504				↑1800 or by ATC			RNAV1
TF	SS200				↑3000			RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY35L/R Departure PIK-93D(by ATC)								
IF	PD501					MAX250		RNAV1
TF	PD502				↑1200			RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY35L/R Departure PIK-95D(by ATC)								
IF	PD501					MAX250		RNAV1

TF	PD502				↑1200			RNAV1
TF	PD503				↑1500			RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY35L/R Departure ODU-91D								
IF	PD501					MAX250		RNAV1
TF	HSH							RNAV1
TF	PD508				↑2500 or by ATC			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY35L/R Departure ODU-93D(by ATC)								
IF	PD501					MAX250		RNAV1
TF	PD503				↑1500			RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY16L/R, RWY17L/R Arrival SAS-81A								
IF	SASAN				↑6000			RNAV1
TF	SS202							RNAV1
TF	SS420				↓4800			RNAV1
TF	EKIMU							RNAV1
TF	SS200							RNAV1
TF	PD203					MAX230		RNAV1
TF	PD202				↑1500			RNAV1
TF	PD201				↑600 or ↑900	MAX210		RNAV1

RWY16L/R, RWY17L/R Arrival SAS-82A(by ATC)								
IF	SASAN				↑6000			RNAV1
TF	SS202							RNAV1
TF	SS420				↓4800			RNAV1
TF	POMOK							RNAV1
TF	SS220				↑3900			RNAV1
TF	PD204							RNAV1
TF	PD203					MAX230		RNAV1
TF	PD202				↑1500			RNAV1
TF	PD201				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival MAT-81A								
IF	MATNU				↑5100			RNAV1
TF	PD228							RNAV1
TF	PINOT							RNAV1
TF	PD211				↑2400	@230		RNAV1
TF	PD212							RNAV1
TF	PD213							RNAV1
TF	PD214							RNAV1
TF	PD215				@2400			RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
WY16L/R, RWY17L/R Arrival MAT-82A								
IF	MATNU				↑5100			RNAV1
TF	PD228							RNAV1
TF	PINOT							RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1



RWY16L/R, RWY17L/R Arrival DUM-81A								
IF	DUMET				↑4800			RNAV1
TF	PD230				↓2100	@230		RNAV1
TF	PD232				↓2100			RNAV1
TF	PD233							RNAV1
TF	PD234							RNAV1
TF	PD235				↓2100			RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival DUM-82A								
IF	DUMET				↑4800			RNAV1
TF	PD230				↓2100	@230		RNAV1
TF	PD231				↓2100 ↑1800	@230		RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
RWY16L/R Arrival DUM-83A(CDO Operation)								
IF	DUMET				↑4800			RNAV1
TF	PD215							RNAV1
TF	MP1				↑600	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival BK-81A								
IF	BK							RNAV1
TF	SAMKI				↓5700			RNAV1
TF	BAVIK							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	XSY							RNAV1
TF	PD207				↑2100			RNAV1

TF	PDL							RNAV1
TF	PD202				↑1500			RNAV1
TF	PD201				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival BK-82A								
IF	BK							RNAV1
TF	SAMKI				↓5700			RNAV1
TF	BAVIK							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	XSY							RNAV1
TF	PD231				↓2100 ↑1800	@230		RNAV1
TF	PD232				↓2100			RNAV1
TF	PD233							RNAV1
TF	PD234							RNAV1
TF	PD235				↓2100			RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival BK-83A								
IF	BK							RNAV1
TF	SAMKI				↓5700			RNAV1
TF	BAVIK							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	XSY							RNAV1
TF	PD231				↓2100 ↑1800	@230		RNAV1

TF	MP1				↑600 or↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival AND-81A								
IF	AND							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	XSY							RNAV1
TF	PD207				↑2100			RNAV1
TF	PDL							RNAV1
TF	PD202				↑1500			RNAV1
TF	PD201				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival AND-82A								
IF	AND							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	XSY							RNAV1
TF	PD231				↓2100 ↑1800	@230		RNAV1
TF	PD232				↓2100			RNAV1
TF	PD233							RNAV1
TF	PD234							RNAV1
TF	PD235				↓2100			RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
RWY16L/R, RWY17L/R Arrival AND-83A								
IF	AND							RNAV1
TF	PD208				↓3000 or			RNAV1

					by ATC			
TF	XSY							RNAV1
TF	PD231				↓2100 ↑1800	@230		RNAV1
TF	MP1				↑600 or ↑900	MAX210		RNAV1
RWY16L Approach transition via PD201								
IF	PD201				↑600	MAX210		RNAV1
TF	PF7					@180		RNAV1
TF	PD073				@600	@180		RNAV1
RWY16L Approach transition via MP1								
IF	MP1				↑600	MAX210		RNAV1
TF	PF7					@180		RNAV1
TF	PD073				@600	@180		RNAV1
RWY16R Approach transition via PD201								
IF	PD201				↑600	MAX210		RNAV1
TF	PF3					@180		RNAV1
TF	PD033				@600	@180		RNAV1
RWY16R Approach transition via MP1								
IF	MP1				↑600	MAX210		RNAV1
TF	PF3					@180		RNAV1
TF	PD033				@600	@180		RNAV1
RWY17L Approach transition via PD201								
IF	PD201				↑900	MAX210		RNAV1
TF	PF1					@180		RNAV1
TF	PD013				@900	@180		RNAV1
RWY17L Approach transition via MP1								

IF	MP1				↑900	MAX210		RNAV1
TF	PF1					@180		RNAV1
TF	PD013				@900	@180		RNAV1
RWY17R Approach transition via PD201								
IF	PD201				↑900	MAX210		RNAV1
TF	PF5					@180		RNAV1
TF	PD053				@900	@180		RNAV1
RWY17R Approach transition via MP1								
IF	MP1				↑900	MAX210		RNAV1
TF	PF5					@180		RNAV1
TF	PD053				@900	@180		RNAV1
RWY16L/R Missed approach Holding: outbound time 1min								
HM	PD220	Y	348	R	ALT by ATC	MAX230		RNP1
RWY 17L/R Missed approach Holding: outbound time 1min								
HM	PDL	Y	348	L	ALT by ATC	MAX230		RNP1
RWY16L/R, RWY 17L/R Holding: outbound time 1min								
HM	PD208	Y	062	L	ALT by ATC	MAX230		RNAV1
HM	PH1	Y	246	L	2400	MAX230		RNAV1
HM	PH2	Y	275	L	ALT by ATC	MAX230		RNAV1
HM	PINOT	Y	276	L	2400	MAX230		RNAV1
RWY16L/R, RWY 17L/R Holding: outbound time 1.5min								
HM	SH1	Y	115	L	ALT by ATC	MAX250		RNAV1
HM	SH2	Y	115	R	ALT by	MAX250		RNAV1

					ATC			
HM	PH3	Y	164	L	ALT by ATC	MAX250		RNAV1
HM	PH4	Y	164	R	ALT by ATC	MAX250		RNAV1
RWY34L/R, RWY35L/R Arrival SAS-91A								
IF	SASAN				↑6000			RNAV1
TF	SS202							RNAV1
TF	SS420				↓4800			RNAV1
TF	JTN				↑3900			RNAV1
TF	PD408				↓3000			RNAV1
TF	PD404							RNAV1
TF	PD403							RNAV1
TF	PD402							RNAV1
TF	PD401				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival SAS-92A								
IF	SASAN				↑6000			RNAV1
TF	SS202							RNAV1
TF	SS420				↓4800			RNAV1
TF	JTN				↑3900			RNAV1
TF	PD408				↓3000			RNAV1
TF	PD431				↓1800	@230		RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival SAS-93A								
IF	SASAN				↑6000			RNAV1
TF	SS202							RNAV1

TF	SS420				↓4800			RNAV1
TF	JTN				↑3900			RNAV1
TF	PD408				↓3000			RNAV1
TF	PD431				↓1800	@230		RNAV1
TF	PD432							RNAV1
TF	PD433							RNAV1
TF	PD434							RNAV1
TF	PD435							RNAV1
TF	PD436							RNAV1
TF	PD437							RNAV1
TF	PD438				↓1800			RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
TFRWY34L/R, RWY35L/R Arrival AND-91A								
IF	AND							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	PD407							RNAV1
TF	PD406							RNAV1
TF	PD405					MAX230		RNAV1
TF	PD404							RNAV1
TF	PD403							RNAV1
TF	PD402							RNAV1
TF	PD401				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival BK-91A								
IF	BK							RNAV1
TF	SAMKI				↓5700			RNAV1

TF	BAVIK							RNAV1
TF	PD208				↓3000 or by ATC			RNAV1
TF	PD407							RNAV1
TF	PD406							RNAV1
TF	PD405					MAX230		RNAV1
TF	PD404							RNAV1
TF	PD403							RNAV1
TF	PD402							RNAV1
TF	PD401				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival DUM-91A								
IF	DUMET				↑4800			RNAV1
TF	LASAN							RNAV1
TF	PD411				↑2100	@230		RNAV1
TF	PD412							RNAV1
TF	PD413							RNAV1
TF	PD414				@2100			RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival DUM-92A								
IF	DUMET				↑4800			RNAV1
TF	LASAN							RNAV1
TF	PD411				↑2100	@230		RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
RWY34L/R Arrival DUM-93A(CDO Operation)								
IF	DUMET				↑4800			RNAV1



TF	LASAN							RNAV1
TF	MP2				↑600	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival MAT-91A								
IF	MATNU				↑5100			RNAV1
TF	PD228							RNAV1
TF	PINOT							RNAV1
TF	PD434				↓1800	@230		RNAV1
TF	PD435							RNAV1
TF	PD436							RNAV1
TF	PD437							RNAV1
TF	PD438				↓1800			RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
RWY34L/R, RWY35L/R Arrival MAT-92A								
IF	MATNU				↑5100			RNAV1
TF	PD228							RNAV1
TF	PINOT							RNAV1
TF	PD434				↓1800	@230		RNAV1
TF	MP2				↑600 or ↑900	MAX220		RNAV1
RWY34L Approach transition via PD401								
IF	PD401				↑600	MAX220		RNAV1
TF	PF4					@200		RNAV1
TF	PD044					@180		RNAV1
TF	PD043				@600	@180		RNAV1
RWY34L Approach transition via MP2								
IF	MP2				↑600	MAX220		RNAV1

TF	PF4					@200		RNAV1
TF	PD044					@180		RNAV1
TF	PD043				@600	@180		RNAV1
RWY34R Approach transition via PD401								
IF	PD401				↑600	MAX220		RNAV1
TF	PF8					@200		RNAV1
TF	PD084					@180		RNAV1
TF	PD083				@600	@180		RNAV1
RWY34R Approach transition via MP2								
IF	MP2				↑600	MAX220		RNAV1
TF	PF8					@200		RNAV1
TF	PD084					@180		RNAV1
TF	PD083				@600	@180		RNAV1
RWY35L Approach transition via PD401								
IF	PD401				↑900	MAX220		RNAV1
TF	PF6					@200		RNAV1
TF	PD064					@180		RNAV1
TF	PD063				@900	@180		RNAV1
RWY35L Approach transition via MP2								
IF	MP2				↑900	MAX220		RNAV1
TF	PF6					@200		RNAV1
TF	PD064					@180		RNAV1
TF	PD063				@900	@180		RNAV1
RWY35R Approach transition via PD401								
IF	PD401				↑900	MAX220		RNAV1
TF	PF2					@200		RNAV1
TF	PD024							RNAV1

TF	PD023				@900	@180		RNAV1
RWY35R Approach transition via MP2								
IF	MP2				↑900	MAX220		RNAV1
TF	PF2					@200		RNAV1
TF	PD024							RNAV1
TF	PD023				@900	@180		RNAV1
RWY 34L/R Missed approach Holding: outbound time 1min								
HM	PD231	Y	168	L	ALT by ATC	MAX230		RNP1
RWY 35L/R Missed approach Holding: outbound time 1min								
HM	PDL	Y	168	R	ALT by ATC	MAX230		RNP1
RWY34L/R, RWY 35L/R Holding: outbound time 1min								
HM	PD208	Y	062	L	ALT by ATC	MAX230		RNAV1
HM	PH1	Y	246	L	3000	MAX230		RNAV1
HM	PINOT	Y	212	L	ALT by ATC	MAX230		RNAV1
RWY34L/R, RWY 35L/R Holding: outbound time 1.5min								
HM	SH1	Y	115	L	ALT by ATC	MAX250		RNAV1
HM	SH2	Y	115	R	ALT by ATC	MAX250		RNAV1
HM	PH3	Y	164	L	ALT by ATC	MAX250		RNAV1
HM	PH4	Y	164	R	ALT by ATC	MAX250		RNAV1

ZSPD AD 2.23 其它资料

ZSPD AD 2.23 Other information

全年有鸟类活动，机场当局采取了驱赶措施，以减少鸟群活动。

Activities of bird flocks are found all the year round, Aerodrome Authority resorts to dispersal methods to reduce bird activities.

Type of bird	Activity	Flight altitude(m)
pigeon	The whole year	2-20
ringdove	The whole year	5-7
aigret	The whole year	50-80
aigret	March-October	30-50
hawk	January, August-October	30-50
mynah	The whole year	1-20
swallow	March-October	5-30
pheasant	December-February	50-80