

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/ 31.7° C (JUL)
4	机场标高位置 / 高程异常 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"W (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/(RWY17L/35R: 4E; RWY16R/34L,RWY16L/34R,RWY17R/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)	HS or O/R
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, 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 --
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	Periodic detection available for various types of aircraft on request. Engine and other aircraft component changement available for part of aircraft.
7	备注 Remarks	Air preconditioning unit, oxygen filling vehicle, plane traction rod(for B737-A380), potable water vehicle, sewage disposal vehicle, garbage truck, ferry vehicle, the disabled lift car, no power source car, forklift

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	扫雪设备类型 Types of clearing equipment	All seasons Snow blowers, snow fluid truck, snow pusher
2	扫雪顺序 Clearance priorities	RWY17L/35R, rapid exit (RWY17L/35R), TWY (FM deicing stands to RWY17L/35R), other RWYs, TWY, apron
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:	Cement concrete
		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, 190,301-341,346,347,501-509,551-560,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.581-586,589,590,593-600 PCN 80/R/B/W/T: Stands Nr.513L/R,514L/R,515 PCN 75/R/B/W/T: Stands Nr.401A/B,402A/B,403-407, 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:	Asphalt concrete: P2-P6(BTN TWY A & RWY17L/35R); P2-P6(BTN TWY D & RWY17L/35R); R2,R5(BTN TWY G & RWY16R/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); Cement concrete: 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: TWYs E5-E7(west of TWY E), W6-W7(north of TWY T4), R5-R6(west of TWY E) PCN 112/F/C/W/T: TWYs R1-R6(BTN TWY G&RWY 16R/34L), R3-R4(BTN TWY F&RWY16R/34L),G(north of rapid exit TWY G6, south of rapid exit TWY G1) PCN 109/R/B/W/T: TWYs E, E0, E5-E7(east of TWY E), F,R1-R2(west of RWY16R/34L), R5-R6(BTN TWY E&RWY 16R/34L), T3, T4, W1(north of TWY T3), W5-W7(BTN TWY T3&TWY T4) PCN 104/R/B/W/T: TWYs C, D, G(BTN TWY G1&TWY G6), H, J1, J2, Q1-Q6, S1-S2(BTN TWY T5&TWY T6), T1, T2, T5, T6, V1-V6, W1(BTN TWY T3&TWY L22), W2, W3, W4(BTN TWY T4&TWY L22) TWYs west of TWY D:P1, P2, P4, P6 TWYs east of TWY G:R1, R2, R5, R6 PCN 85/R/B/W/T: TWYs W4-W5(north of TWY T4) PCN 84/R/B/W/T: TWYs C1, C2, C5, C6, D1, D2, D5, D6 PCN 82/R/B/W/T: TWYs E1, E2, E3(west of TWY E), R3-R4(west of TWY E), V7, V8, W5-W7(BTN TWY T3&TWY L22) PCN 79/R/B/W/T: TWYs R3-R4(BTN TWY E&TWY F), E3(east of TWY E), E4, F1-F4 PCN 75/R/B/W/T: Rapid exit TWYs A1-A6 PCN 74/R/B/W/T: Rapid exit TWYs G1-G6,H1-H6 PCN 66/R/B/W/T: TWYs C3, C4, D3, D4 PCN 58/F/C/W/U 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 / 停放位置引导系统的使用 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 RWY 17L/35R center					
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
1	*BLDG	009	2375	54.0	
2	Pole	010	2180	40.5	
3	*BLDG	012	2121	51.6	
4	*Antenna	062	2485	18.4	
5	*Antenna	063	2661	17.1	
6	*Control TWR	099	931	106.3	CAT A/B/C Circling
7	*Antenna	107	681	48.9	
8	*Antenna	122	3584	17.5	
9	*Antenna	123	3440	18.5	
10	TWR	144	5211	36.8	RWY16R take-off path
11	TWR	145	5514	33.1	RWY16R take-off path
12	*Lighting Rod	147	5857	40.1	RWY16R take-off path

Obstacles within a circle with a radius of 15km centered on RWY 17L/35R center					
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
13	Lighting Rod	147	6109	28.9	
14	BLDG	150	13625	116.8	
15	BLDG	150	14044	117.3	
16	BLDG	150	14483	117.3	
17	BLDG	151	13231	117	
18	BLDG	151	13815	116.5	
19	BLDG	153	13399	117.3	
20	TWR	153	13209	33.4	
21	BLDG	153	14009	117.5	
22	Lighting Rod	154	12953	28.9	
23	*TWR	158	8357	50.2	
24	*TWR	158	8566	43.7	
25	*TWR	165	13275	47	
26	*TWR	167	13269	39.3	
27	Lighting Rod	167	14883	60.7	RWY35R/ GP INOP final approach
28	TWR	171	11848	49	
29	*Antenna	172	1691	18.1	
30	TWR	172	4624	36.6	RWY17L/17R take-off path
31	*TWR	172	5136	48	RWY17L/17R take-off path
32	*Antenna	179	1713	18.6	
33	Lighting Rod	179	11216	35.3	
34	*TWR	182	5734	48.7	
35	*BLDG	204	10161	149.9	RWY34L/R/ Initial approach RWY35L/R/ Initial approach RWY17L/R/ Departure CAT D Circling Sector
36	*TV TWR	208	10851	108.2	
37	Lighting Rod	220	7001	58.5	
38	Chimney	230	5637	65.6	
39	*TWR	241	4467	52.7	
40	*TWR	242	4695	47.8	
41	*Antenna	279	4475	23.7	
42	TWR	289	4814	47.9	
43	*Antenna	295	3883	46.5	
44	*Antenna	307	10918	98.8	
45	*Antenna	331	1154	18.6	

Obstacles within a circle with a radius of 15km centered on RWY 17L/35R center					
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
46	*TWR	332	9212	43.7	
47	Antenna	332	12732	59	
48	*TWR	337	5628	29.7	
49	Antenna	338	10042	32.8	
50	*TWR	339	11172	50.3	RWY17L/ GP INOP final approach
51	BLDG	341	8818	54.2	
52	Lighting Rod	343	12894	34.8	
53	Antenna	344	1690.6	18	
54	*TWR	345	4724	41.4	RWY35R take-off path
55	TWR	346	7947	39.3	
56	*TWR	348	5002	46.8	RWY35R take-off path
57	*TWR	349	5267	46.7	RWY35R take-off path
58	*TWR	350	4313	33.8	RWY35R take-off path
59	*Antenna	356	3766	47.9	RWY35L/R/ Departure
Remarks:					

Obstacles between two circles with the radius of 15km and 50km centered on the RWY17L/35R center					
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
1	Chimney	154	16233	51	
2	TWR	155	16966	93	RWY34L/R/ Intermediate approach RWY35L/R/ Intermediate approach RWY16L/R/ Departure
3	*Chimney	259	32421	215	
4	*Lighting Rod	272	31600	222	
5	*Lighting Rod	290	28475	156	
6	*BLDG	292	34055	284	
7	*BLDG	296	29419	494	
8	BLDG	296	29564	635	Sector
9	*Lighting Rod	296	29603	423	
10	*Pole	297	30332	466	
11	*Lighting Rod	303	27289	230	
12	*Chimney	327	30036	245	RWY16L/R/ Initial approach RWY17L/R/ Initial approach
13	*Wind indicator	357	32273	216	

Obstacles between two circles with the radius of 15km and 50km centered on the RWY17L/35R center					
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
Remark: 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 & aerodrome observations and reports

1	相关气象室的名称 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 气象室 Hours of service, MET Office outside hours	H24 --
3	负责编发 TAF 的办公室; 有效期 Office responsible for TAF preparation, Periods of validity	MET Center of Shanghai Pudong Aerodrome MET Office 9HR, 24HR; 3HR, 6HR
4	着陆预报类型、发布间隔 Type of landing forecast, Interval of issuance	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	接收气象信息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)	<p>SFC wind sensors: RWY16R: 120m E of RCL, 336m inward THR; RWY34L: 120m E of RCL, 336m inward THR; RWY16L: 110m W of RCL, 343m inward THR; RWY34R: 110m W of RCL, 343m inward THR; center: RWY34R: 110m W of RCL, 1650m inward THR; RWY17L: 120m W of RCL, 330m inward THR; RWY35R: 120m W of RCL, 330m inward THR; RWY17R: 107m E of RCL, 325m inward THR; RWY35L: 107m E of RCL, 325m inward THR. 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 RWY16R/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 THR 35L; M: 100m E of RWY17R/35L RCL, 310m inward THR35L; Ceilometer: Near MM for RWY16R/34L, 17L/35R; RWY17R: 70m W of RCL, 279m outward THR; RWY35L: 70m W of RCL, 279m outward THR; RWY16L: 8m E of RCL, 905m outward THR; RWY34R: 8m E of RCL, 905m outward THR.</p>
13	气象观测系统的工作时间 Hours of operation for meteorological observation system	H24
14	气候资料 Climatological information	Climatological tables AVBL
15	其他信息 Additional information	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/SWY surface	着陆入口坐标及高程异常 THR coordinates and geoid undulation	跑道着陆入口标高, 精密进近跑道接地地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
17R	162° GEO 168° MAG	3400 × 60	104/R/B/W/T (end) 84/R/B/W/T (middle) Cement concrete	Nil	THR 3.6m --
35L	342° GEO 348° MAG	3400 × 60	104/R/B/W/T (end) 84/R/B/W/T (middle) Cement concrete	Nil	THR 3.6m --
17L	162° GEO 168° MAG	4000 × 60	121/R/B/W/T Cement concrete	Nil	THR 3.0m --
35R	342° GEO 348° MAG	4000 × 60	121/R/B/W/T Cement concrete	Nil	THR 3.1m --
16R	162° GEO 168° MAG	3800 × 60	109/R/B/W/T (end) 88/R/B/W/T (middle) Cement concrete	Nil	THR 3.4m --

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/SWY surface	着陆入口坐标及高程异常 THR coordinates and geoid undulation	跑道着陆入口标高, 精密进近跑道接地地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
34L	342° GEO 348° MAG	3800 × 60	109/R/B/W/T (end) 88/R/B/W/T (middle) Cement concrete	Nil	THR 3.4m --
16L	162° GEO 168° MAG	3800 × 60	104/R/B/W/T (end) 83/R/B/W/T (middle) Cement concrete	Nil	THR 3.6m --
34R	342° GEO 348° MAG	3800 × 60	104/R/B/W/T (end) 83/R/B/W/T (middle) Cement concrete	Nil	THR 3.6m --
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)	无障碍物地带 OFZ	跑道端安全区长宽 RWY end safety area dimensions (m)
7	8	9	10	11	12
0.0%	Nil	Nil	3520 × 300	Nil	230 × 150m
0.0%	Nil	Nil	3520 × 300	Nil	230 × 150m
See AOC	Nil	Nil	4120 × 300	Nil	235 × 150m
See AOC	Nil	Nil	4120 × 300	Nil	235 × 150m
See AOC	Nil	Nil	3920 × 300	Nil	235 × 150m
See AOC	Nil	Nil	3920 × 300	Nil	235 × 150m
See AOC	Nil	Nil	3920 × 300	Nil	240 × 150m
See AOC	Nil	Nil	3920 × 300	Nil	240 × 150m
Remarks:					
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.					

ZSPD AD 2.13 公布距离 Declared distances

跑道代号 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
17R	3400	3400	3400	3400	Nil
17R	3200	3200	3200	3400	FM Q6

跑道代号 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
35L	3400	3400	3400	3400	Nil
35L	3200	3200	3200	3400	FM Q1
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
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
16L	3800	3800	3800	3800	Nil
16L	3700	3700	3700	3800	FM J2
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
Remarks:					

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

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
17R/ 35L	CAT I 900m* VRB LIH	Green Yes	PAPI Left/3°	Nil	3400m***** spacing 30m	3400m***** * spacing 60m	Red	Nil
17L/ 35R	CAT II/ III 900m* VRB LIH	Green Yes	PAPI Left/3°	900m	4000m** spacing 15m	4000m*** spacing 60m	Red	Nil
16R/ 34L	CAT II/ III 900m* VRB LIH	Green Yes	PAPI Left/3°	900m	3800m**** spacing 15m	3800m***** spacing 60m	Red	Nil
16L/ 34R	CAT I 900m* VRB LIH	Green Yes	PAPI Left/3°	NIL	3800m**** spacing 15m	3800m***** spacing 60m	Red	Nil
Remarks: *SFL ** up to 3100m White VRB LIH; 3100-3700m Red/White VRB LIH; 3700-4000 Red VRB LIH *** up to 3400m White VRB LIH; 3400-4000m Yellow VRB LIH **** up to 2900m White VRB LIH; 2900-3500m Red/White VRB LIH; 3500-3800 Red VRB LIH ***** up to 3200m White VRB LIH; 3200-3800m Yellow VRB LIH *****up to 2500m White VRB LIH; 2500-3100m Red/White VRB LIH; 3100-3400m Red VRB LIH *****up to 2800m White VRB LIH; 2800-3400m Yellow VRB LIH								

ZSPD AD 2.15 其它灯光, 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	着陆方向指示器位置和灯光; 风速表位置和灯光 LDI location and LGT, Anemometer location and LGT	WDI with light

3	滑行道边灯和中心线灯光 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 入口坐标及高程异常 Coordinates TLOF or THR of FATO Geoid undulation	Nil
2	TLOF 和 / 或 FATO 标高 (m) TLOF and/or FATO elevation (m)	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 Remarks	Nil

ZSPD AD 2.17 空中交通服务空域 ATS airspace

名称 Designation	横向界限 Lateral limits	垂直界限 Vertical limits	备注 Remarks
Shanghai/Pudong tower control area	By ATC	SFC-600m MSL	
Fuel Dumping Area	N3113.0E12300.0- N3130.0E12400.0- N3110.0E12400.0- N3100.0E12300.0- N3113.0E12300.0	3000m and above	See Fuel Dumping Area Chart

名称 Designation	横向界限 Lateral limits	垂直界限 Vertical limits	备注 Remarks
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 \geq 1031hPa) 2700m(QNH \leq 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	120.3 (119.75) AP01	H24	Nil
APP	Shanghai Approach	125.4 (124.05) AP02	H24	Nil
APP	Shanghai Approach	125.85 (119.2) AP03	BY ATC	Nil
APP	Shanghai Approach	123.8 (119.2) AP04	BY ATC	Nil
APP	Shanghai Approach	126.65 (128.05) AP05	BY ATC	Nil
APP	Shanghai Approach	126.3 (120.65) AP06	BY ATC	Nil
APP	Shanghai Approach	121.1 (119.75) AP07	BY ATC	Nil
APP	Shanghai Approach	121.375 (128.05) AP09	BY ATC	Nil
APP	Shanghai Approach	125.625 (120.65) AP10	BY ATC	Nil
APP	Shanghai Approach	119.075 (128.05) AP11	BY ATC	Nil
TWR	Pudong Tower	118.8(118.325) TWR01	H24	For RWY17L/ 35R,17R/35L
TWR	Pudong Tower	118.4(118.725) TWR02	H24	For RWY16L/ 34R,16R/34L
TWR	Pudong Tower	124.35(118.325) TWR03	0030-1300(UTC)	For RWY17L/ 35R
TWR	Pudong Tower	118.575(118.725) TWR04	0030-1300(UTC)	For RWY16R/ 34L
GND	Pudong Ground	GND01: 121.7	H24	Nil
GND	Pudong Ground	GND02: 121.8	H24	Nil
GND	Pudong Ground	GND03:121.875	0030-1300(UTC)	Contact GND01 when GND03 U/S.
GND	Pudong Ground	GND04:121.625	0030-1300(UTC)	Contact GND02 when GND04 U/S.
GND	Pudong Delivery	121.95(121.625)	H24	DCL available

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
EMG		121.50	H24	Nil
APN	Pudong Apron	121.65(W) West Apron	H24	
APN	Pudong Apron	121.975(E) East Apron	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
Hengsha VOR/DME	HSB	114.4MHz CH 91X	N31° 22.1' E121° 50.8'		
Pudong VOR/DME	PUD	116.9MHz CH 116X	N31° 10.3' E121° 47.0' 348° MAG/ 1090m FM THR RWY 17L		
Shuyuan VOR/DME	XSU	112.7MHz CH 74X	N30° 55.9' E121° 52.4' 168° MAG/ 22636m FM THR RWY 35R	27m	
Andong VOR/DME	AND	114.8MHz CH 95X	N30° 15.4' E121° 13.3'	5m	For VOR/DME: R294° - R306° clockwise U/S. For VOR: BTN 11.5- 15.5NM on R185° U/S.
Liuzao VOR/DME	PDL	109.4MHz CH 31X	N31° 07.8' E121° 40.3'	4m	
MM16R		75MHz	348° MAG/1050m FM THR RWY 16R		
IM 16R		75MHz	348° MAG/ 350m FM THR RWY 16R		
LOC 16R ILS CAT I	IZZ	108.7MHz	168° MAG/ 288m FM end RWY 16R		
GP 16R		330.5MHz	120m E of RCL 312m FM THR 16R		Angle 3° , RDH 15m
DME 16R	IZZ	CH 24X (108.7MHz)		4m	Co-located with GP
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		

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
DME 16L	IHL	CH 52X (111.5MHz)		6m	Co-located with GP
MM 17L		75MHz	348° MAG/ 1070m FM THR RWY 17L		
IM 17L		75MHz	348° MAG/ 313m FM THR RWY 17L		
LOC 17L ILS CAT II	IPD	110.7MHz	168° MAG/ 295m FM end RWY 17L		
GP 17L		330.2MHz	120m W of RCL 307m inward THR 17L		Angle 3° , RDH 15m
DME 17L	IPD	CH 44X (110.7MHz)		8m	Co-located with GP
LOC 17R ILS CAT I	IKM	111.1MHz	168° MAG/ 285m FM end RWY 17R		
GP 17R		331.7MHz	120m E of RCL 310m inward THR 17R		Angle 3° , RDH 15m
DME 17R	IKM	CH 48X (111.1MHz)		11m	Co-located with GP
MM 34L		75MHz	168° MAG/ 1050m FM THR RWY 34L		
IM 34L		75MHz	168° MAG/ 350m FM THR RWY 34L		
LOC 34L ILS CAT III	IDD	108.3MHz	348° MAG/ 288m FM end RWY 34L		
GP 34L		334.1MHz	120m E of RCL 310m inward THR 34L		Angle 3° , RDH 15m
DME 34L	IDD	CH 20X (108.3MHz)		4m	Co-located with GP
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		
DME 34R	IPR	CH 26X (108.9MHz)		7m	Co-located with GP

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
OM 35R		75MHz	168° MAG/ 8982m FM THR RWY 35R		
MM 35R		75MHz	168° MAG/ 1030m FM THR RWY 35R		
IM 35R		75MHz	168° MAG/ 313m FM THR RWY 35R		
LOC 35R ILS CAT II	INN	111.9MHz	348° MAG/ 295m FM end RWY 35R		
GP 35R		331.1MHz	130m W of RCL 314m inward THR 35R		Angle 3° , RDH 15m
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° , RDH 15m
DME 35L	IBD	CH 18X (108.1MHz)		11m	Co-located with GP
Remark: Nil					

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. Airport operations regulations**

- 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。

- 1.1 Takeoff/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. Use of runways and taxiways**

- 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;

- 2.1 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 专机滑行路线以管制员指令为准;

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

2.4 滑行道的滑行限制/Taxiing limits:

2.4.1 一般限制 /General limits:

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	<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-E7, 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), T1-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, T5-T6(S of TWY T4), V3-V7(S of TWY T4)	<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;

2.6.1 RWY 16L/34R & RWY17L/35R or RWY 16L/34R & 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;

2.6.3 落地航空器从接地到脱离跑道的的时间应控制在 50 秒以内,如不能满足要求应及时报告管制员(湿跑道或污染跑道除外);

2.6.4 起飞航空器从等待位置到对正跑道的的时间应控制在 60 秒以内,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);

2.6.5 更换跑道运行方向过程中,当跑道顺风分量超过 3 米/秒但不大于 5 米/秒时,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;

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。

2.6.7 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。

2.7 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。

2.6.2 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 All landing aircraft shall fully vacate RWY within 50s after touchdown if flight crew can not fulfill the process within the required time, pilot shall inform ATC immediately(except for wet or contaminated RWY);

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

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 RWY.

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):	Mainly use TWY P2 or P4 for crossing RWY17L/35R and RWY17R/35L, and then join TWY A or TWY B.
	FM stands Nr.310-341,346,347,Z11-Z16, Z21-Z26,Z31-Z38 to RWY 35R(for departure):	Mainly use TWYs P2 for crossing RWY17R/35L and RWY17L/35R, and then join TWY A to TWY P1, holding.
	FM stands Nr.310-341,346,347,Z11-Z16, Z21-Z26,Z31-Z38 to RWY 17L(for departure):	Mainly use TWYs P4 for crossing RWY17R/35L and RWY17L/35R, and then join TWY A to TWY B8, holding.
	Landing on RWY17R/35L and crossing RWY17L/35R	Mainly use TWY P2, P3, P4, P5 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 crossing RWY16R/34L	Mainly use TWY R2, R3, R4, R5 for crossing RWY16R/34L, and then join TWY F or E
穿越程序 Procedures for crossing	<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 Control for crossing clearance; repeat all the ATC instructions for clarity, then put in practice as soon as possible; finally, report to TWR Control ‘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>	
穿越限制 Limits for crossing	<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 RWY17R/35L where exists landing aircraft.</p>	

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:

HS1: Intersections of TWYs E, F, T3 and T4

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。

Proceed with extreme caution when operating near this area. Strictly follow ATC instructions. In normal situation, the departing aircraft leaving Terminal 2 shall use TWY E, and hold short out of T4 to avoid conflict. 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

HS2: Intersections of TWYs A, B, T3 and T4

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。

Proceed with extreme caution when operating near this area. In normal situation, when taxiing via T3 to RWY17L/35R and Terminal 1, aircraft shall hold short out of TWY B to avoid conflict traffic. Because T3 and A2 are connected, when taxiing into TWY A, pay attention to traffic situation and TWY guidance signs to avoid RWY incursion.

HS3&HS4: 频繁穿越跑道区域

HS3&HS4: RWY crossing area

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。

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

HS5: P6滑行道与A滑行道交叉区域

HS5: Intersections of TWYs P6 and A

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。

Proceed with extreme caution when taxiing via P6 into A. Follow ATC instructions and TWY guidance signs to avoid RWY incursion.

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 TWYA 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 B747-8 I类运行时进近使用17L/35R跑道,须配置并使用航迹保持导航系统。

2.11.1 RWY for B747-8 CAT I : 17L/35R (Digital autopilot or flight director with track hold guidance needed).

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 no-load B747-8.

2.12 An124本场运行规则

2.12 Operation rules for AN124

2.12.1 An124 I 类运行时进近使用 17L/35R 跑道，须配置并使用航迹保持导航系统。

2.12.1 RWY for An124 CAT I : 17L/35R (Digital autopilot or flight director with track hold guidance needed).

3. 机坪和机位的使用

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;

3.2 未经地面管制员同意, 严禁航空器利用自身动力倒滑;

3.3 航空器进出机位的特殊要求:

3.3.1 相邻机位禁止两架飞机同时运行, 包括同时进入、同时推出或滑出 (自滑机位)、同时一进一出。

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。

3.4 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 ≥ 5 米/秒时, 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。

3.5 目视停靠引导系统的使用规定: 详见 ZSPD AD 2.24;

3. Use of aprons and parking stands

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

3.3 Requirements for aircraft into and out of stands:

3.3.1 On adjacent parking stands, two ACFT forbidden to move (including taxi into/out by own power, pushed back) simultaneously.

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 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 Operating Provisions for Visual Docking Guidance Systems: Reference ZSPD AD 2.24 for details;

3.6 机坪分为 9 个部分 /The apron is divided into nine parts:

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. 501-509. 513L/R. 514L/R. 515. 551-572. 581-586. 589. 590. 593-600
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. 806. 809. 816. 810	<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. 207. 211. 308. 401A/B. 611. 801. 802. 804. 805	<52m
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. 513L/R. 514L/R. 515. 551. 552. 555. 556. 559-572. 586. 589. 593-600. 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
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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 east apron	Nr.173-177. 581-584	E3	W6
	Nr.166-172. 585. 586. 593-600	E3	R3
	Nr.161-165. 589. 590	L19	R3
Satellite west apron	Nr.112. 113. 501-503	P3	W1
	Nr.114-118. 504-506	P2	W1
	Nr.119-122. 507-509	P2	V2
	Nr.123-126	B2	V2
	Nr.513L/R. 514L/R. 515	B2	B
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
<p>Remarks:</p> <ol style="list-style-type: none"> Pilot shall keep observing traffics outside during the whole period of taxiing; Aircraft is forbidden to enter apron by TWY R5 while aircraft A380 is parking on or being pushed back from stand Nr.75; 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; 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. Aircraft A380 shall enter/exit stand Nr.24 via TWY W1; when pushback, face-to-south needed. 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. 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. 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. Temporary stand: 810. Ground support activities such as passengers embarking and disembarking, refueling, cargo loading and unloading is forbidden at stand Nr. 810. 			

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。在卫星厅东机坪设有 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 east 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
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。

3.12 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。

3.13 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。

3.14 航空器滑入、滑出 7、8 号机坪时, 需跟随地面引导车滑行。

3.15 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、Z22、Z31、Z32 号机位。

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。

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

3.15 When aircraft move on TWY L15, other aircraft are forbidden to taxi in/ taxi back on stands Nr.Z11, Z12, Z21, Z22, Z31, Z32.

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403-407、411-418、451-453、458、459机位时，需由地面引导车引导。

3.19 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；
- c. 航空器进行APU的维修检测；
- d. 天气预报环境温度超过35摄氏度；
- e. 航班过站时间不足45分钟。

3.20 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。

3.21 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。

3.22 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。

3.23 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。

3.24 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。

3.17 Aircraft enter stands Nr.403-407,411-418,451-453,458-459 shall be guided by follow-me vehicle.

3.18 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:

- 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.

3.19 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.

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

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

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

3.23 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 10 分钟内联系放行管制，取得放行许可；

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 5 分钟内执行，否则，重新申请此许可；

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；

4.4 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；

4.5 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。

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

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

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 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

5.1 低能见度运行（II/III A 类）

5.1.1 低能见度运行程序的准备、实施和结束

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；

5.1.1.2 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/III A 类）；

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。

5.1.2 跑道的使用

5.1.2.1 跑道的运行等级

5. CAT II/III operations at AD

5.1 Low Visibility Operation Procedures(CAT II/IIIA)

5.1.1 Preparation, implement and closure of Low Visibility Operation Procedures

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 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 When RVR ≥ 550m and forecast show a improvement trend, or ceiling ≥ 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 General rules for using runways

5.1.2.1 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

5.1.2.2 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/III A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滑行线。

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

5.2.1 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

5.2.2 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 / III A 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

6.1 需除冰的航空器应及早向公司代理申请除冰车在本机位除冰，除冰开始前需要向机坪管制申请；浦东机场实行全天候定点除冰，除霜同于除冰。

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. Rules for deicing

6.1 Contact the agent of airline as early as possible for deicing within the stand, contact apron controllers before starting the progress; Pudong Airport implements all-day fixed-point deicing, defrost course equals deicing.

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

无

7. Simultaneous operations on parallel runways

Nil

8. 警告

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。

8. Warning

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

无

9. Helicopter operation restrictions and helicopter parking/docking area

Nil

ZSPD AD 2.21 噪音限制规定及减噪程序

无

ZSPD AD 2.21 Noise restrictions and Noise abatement procedures

Nil

ZSPD AD 2.22 飞行程序**1. 总则**

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。

ZSPD AD 2.22 Flight procedures**1. General**

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.

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 450 米，A、B 类航空器高度 300 米。

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 6 千米；

4.2 距进近跑道末端 18.5 千米(10 海里)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 50 秒内脱离跑道时,航空器之间的最小雷达间隔缩短为 5 千米(湿跑道或污染跑道除外)；

4.3 通常情况下航空器接地后占用跑道的时间应控制在 50 秒以内。如不能执行上述要求,驾驶员应在不晚于接地前 5 分钟通报管制员,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)；

4.4 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。
速度调控: 机组应当严格遵守以下公布的调速准则:

RWY16/17 RNAV 进场过 PD324、PD030、PD026、PDL 点

IAS230kt, 过 IAF 点 IAS MAX 210kt, 距入口 7nm 处 IAS180kt。

RWY34/35 RNAV 进场过 PD006、PD014、PD331 点 IAS230kt,

过 IAF 点 IAS MAX210kt, 距入口 7nm 处 IAS180kt。

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 The RWY occupation time for aircraft after touchdown 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 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.

Speed control: Speed control regulations published as follow:

RWY16/17 RNAV arrival: IAS 230kt at PD324、PD030、PD026、PDL, IAS MAX 210kt at IAF, IAS 180kt at the distance of 7nm FM THR.

RWY34/35 RNAV arrival: IAS 230kt at PD006、PD014、PD331, IAS MAX 210kt at IAF, IAS 180kt at the distance 7nm FM THR.

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 ZSSS AD 2.24-6B。

4.5 Surveillance Minimum Altitude Sectors

Refer to SHANGHAI/Hongqiao ZSSS AD2.22 item 4.5, and ZSSS 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;

5.1.1 If the radio receiver available, aircraft shall follow the instruction to fly.

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。

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.

5.2 航空器双向通信失效

5.1.2 Aircraft communication totally failure

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, 飞行员可自行决定返航或者备降;

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 1500 米则上升至 1500 米) 飞向 PDL, 如果过 PDL 高度高于起始进近高度 2400 米, 则进入等待程序, 下降至起始进近高度 2400 米, 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 2400 米, 则直接按 35L 跑道仪表进近图着陆。

Aircraft fly to PDL according to the last command ALT (climb to 1500 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. 向南着陆

b. landing to south

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

Aircraft fly to HSH according to the last command ALT (climb to 1500 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;

5.3 本场通信失效

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. 目视飞行程序

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。

6.2 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。

6.3 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。

6.4 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。

6.5 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:

6.5.1 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;

6.5.2 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;

6.5.3 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。

6.6 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。

6.6.1 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。

6.6.2 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. Procedures for VFR flights

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 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 If visibility is no less than 5km and ceiling is no less than 300m, visual approach and visual separation will be available.

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 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 Maintain visual surveillance and safe separation continuously with relevant aircrafts.

6.5.2 Necessary speed adjustment, maneuvering and avoiding the wake turbulence affected area.

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 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 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 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

无

7. VFR route

Nil

8. 目视参考点

无

8. Visual reference point

Nil

9. 其它规定

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。

9.2 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。

9.3 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。

9.4 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. Other regulations

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

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

9.4 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. 区域导航飞行程序相关数据**10. Data for RNAV flight procedures**

Waypoint Coordinates

ID	COORDINATES(WGS-84)	ID	COORDINATES(WGS-84)
PD001	N305400E1215433	PD303	N305748E1215308
PD002	N304851E1215629	PD304	N305846E1215304
PD003	N304306E1215648	PD322	N311541E1213726
PD004	N305033E1220236	PD324	N311400 E1213127
PD005	N305542E1220041	PD331	N303315 E1214445
PD006	N310229E1215808	PD350	N302455 E1213004
PD011	N311522E1221316		
PD012	N304636E1214826	SS011	N312401E1205701
PD013	N305145E1214630	SS028	N310413E1210733
PD014	N305902E1214345	SS032	N312550E1205103

PD021	N311141E1215441	SS068	N311033E1205955
PD022	N305332E1215256	SS071	N310924E1210716
PD023	N304824E1215452	SS073	N315700E1205100
PD024	N312507E1214248		
PD025	N312650E1214857	BK	N2953.8 E12120.0
PD026	N312441E1220928	PK	N3117.1 E12119.9
PD027	N311600E1215303		
PD030	N310847E1215546		
PD031	N311243E1221144	AND	N3015.3 E12113.2
PD032	N311554E1222444	HSH	N3122.2 E12150.7
PD033	N312502E1214102	HSN	N2956.0 E12221.9
PD035	N312439E1213401	JTN	N3107.3 E12120.4
PD036	N312453E1212627	NTG	N3205.9 E12058.8
PD047	N310049E1215429	NXD	N3053.9 E12025.7
PD048	N305655E1215740	PDL	N3107.9 E12140.4
PD049	N305944E1215036	XSJ	N3056.0 E12152.3
PD051	N305827E1220615		
PD052	N311355E1220027	AKARA	N3130.0 E12330.0
PD053	N312646E1220003	ALDAP	N3137.5 E12222.2
PD057	N305756E1214410	BAVIK	N3022.0 E12137.9
PD060	N312312E1215811	BOLEX	N3100.0 E12300.0
PD062	N312051E1214237	DUMET	N3121.7E12246.5
PD063	N311323E1220024	EKIMU	N3121.1E12106.6
PD064	N313258E1213800	EMSAN	N3140.7E12246.5
PD065	N311947E1213610	IBEGI	N3149.4E12216.6
PD069	N313246E1224058	LAMEN	N3136.6E12400.0
PD073	N311710E1222237	LASAN	N3100.0E12225.5
PD076	N305508E1215206	MATNU	N3139.6 E12238.0
PD077	N314525E1221837	MIGOL	N3045.8E12341.7
PD078	N304803E1215426	NINAS	N3100.0E12215.0
PD079	N305040E1220909	ODULO	N3315.2E12137.2
PD080	N305213E1221752	PIKAS	N3210.0E12044.0
PD100	N305404E1215449	PINOT	N3127.0E12227.0
PD102	N312512E1214304	POMOK	N3127.0E12107.0
PD107	N304855E1215645	PONAB	N3035.3E12224.1
PD201	N312017E1214250	SAMKI	N3015.2E12133.5
PD202	N312026E1214305	SASAN	N3135.4E12019.2
PD203	N311847E1214513	SURAK	N3146.4E12329.5

PD204	N311807E1214545	TONIX	N3119.9E12332.6
PD301	N305528E1215213	UDOXI	N3152.6E12147.1
PD302	N305558E1215220		

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	PD047		153	L				RNAV1
RWY16R Departure Transition								
VA			168		150			RNAV1
CF	PD047		151	L				RNAV1
RWY16L/R Departure SUR-21X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							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-21X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1
TF	NINAS				↑ 2700 or by ATC			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY16L/R Departure MIG-21X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1

TF	NINAS				↑ 2700 or by ATC			RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY16L/R Departure HSN-23X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1
TF	NINAS				↑ 2700 or by ATC			RNAV1
TF	PD080							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑ 7800			RNAV1
RWY16L/R Departure SAS-21X								
IF	PD047							RNAV1
TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY16L/R Departure NXD-23X								
IF	PD047							RNAV1
TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	NXD				↑ 3900			RNAV1
RWY16L/R Departure PIK-21X								
IF	PD047							RNAV1
TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	SS071							RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS073				↑ 6000 or 4800			RNAV1
TF	PIKAS							RNAV1
RWY16L/R(by ATC) Departure PIK-23X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1

TF	PD052							RNAV1
TF	HSH							RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY16L/R Departure ODU-23X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1
TF	PD052							RNAV1
TF	PD053				↑ 2500			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY16L/R(by ATC) Departure ODU-25X								
IF	PD047							RNAV1
TF	PD048				↑ 900	MAX250		RNAV1
TF	PD051							RNAV1
TF	PD052							RNAV1
TF	HSH							RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY17L Departure Transition								
VA			168		150			RNAV1
CF	PD049		170					RNAV1
RWY17R Departure Transition								
VA			168		150			RNAV1
CF	PD049		168					RNAV1
RWY17L/R Departure SUR-11X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD080							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1

RWY17L/R Departure LAM-11X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD080							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY17L/R Departure MIG-11X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD080							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY17L/R Departure HSN-13X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD080							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑ 7800			RNAV1
RWY17L/R Departure AND-11X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD350							RNAV1
TF	AND							RNAV1
RWY17L/R Departure SAS-11X								
IF	PD049							RNAV1
TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY17L/R Departure NXD-13X								
IF	PD049							RNAV1

TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	NXD				↑ 3900			RNAV1
RWY17L/R Departure PIK-11X								
IF	PD049							RNAV1
TF	PD057				↑ 900	MAX250		RNAV1
TF	SS028							RNAV1
TF	SS071							RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS073				↑ 6000 or 4800			RNAV1
TF	PIKAS							RNAV1
RWY17L/R(by ATC) Departure PIK-13X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD051							RNAV1
TF	PD052							RNAV1
TF	HSH							RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY17L/R Departure ODU-13X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1
TF	PD079							RNAV1
TF	PD051							RNAV1
TF	PD052							RNAV1
TF	PD053				↑ 2500			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY17L/R(by ATC) Departure ODU-15X								
IF	PD049							RNAV1
TF	PD076				↑ 900	MAX250		RNAV1
TF	PD078							RNAV1

TF	PD079							RNAV1
TF	PD051							RNAV1
TF	PD052							RNAV1
TF	HSH							RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY34L Departure Transition								
VA			348		150			RNAV1
DF	HSH			R	↑ 600	MAX250		RNAV1
RWY34R Departure Transition								
VA			348		150			RNAV1
DF	HSH			R	↑ 600	MAX250		RNAV1
RWY34L/R Departure LAM-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY34L/R Departure LAM-24X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY34L/R Departure SUR-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY34L/R Departure SUR-24X								

IF	HSH				↑ 600	MAX250		RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY34L/R Departure MIG-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY34L/R Departure HSN-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑ 7800			RNAV1
RWY34L/R Departure SAS-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY34L/R Departure NXD-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	SS028							RNAV1
TF	NXD				↑ 3900			RNAV1
RWY34L/R Departure PIK-22X								
IF	HSH				↑ 600	MAX250		RNAV1

TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	POMOK							RNAV1
TF	SS073				↑ 6000 or 4800			RNAV1
TF	PIKAS							RNAV1
RWY34L/R(by ATC) Departure PIK-24X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD064				↑ 1500			RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY34L/R Departure ODU-22X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY34L/R(by ATC) Departure ODU-24X								
IF	HSH				↑ 600	MAX250		RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY35L Departure Transition								
VA			348		150			RNAV1
CF	PD062		348			MAX250		RNAV1
RWY35R Departure Transition								
VA			348		150			RNAV1
CF	PD062		347			MAX250		RNAV1
RWY35L/R Departure LAM-12X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY35L/R Departure LAM-14X								

IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY35L/R(by ATC) Departure LAM-16X								
IF	PD062					MAX250		RNAV1
TF	PD064				↑ 1500			RNAV1
TF	PD077							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY35L/R Departure SUR-12X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY35L/R Departure SUR-14X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY35L/R(by ATC) Departure SUR-16X								

IF	PD062					MAX250		RNAV1
TF	PD064				↑ 1500			RNAV1
TF	PD077							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY35L/R Departure MIG-12X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	LASAN							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY35L/R Departure AND-12X								
IF	PD062					MAX250		RNAV1
TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	JTN							RNAV1
TF	PD350							RNAV1
TF	AND							RNAV1
RWY35L/R Departure HSN-12X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD060							RNAV1
TF	PD063				↑ 2100			RNAV1
TF	NINAS							RNAV1
TF	PONAB							RNAV1
TF	HSN				↑ 7800			RNAV1
RWY35L/R Departure SAS-12X								
IF	PD062					MAX250		RNAV1
TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY35L/R Departure NXD-12X								
IF	PD062					MAX250		RNAV1

TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	SS028							RNAV1
TF	NXD				↑ 3900			RNAV1
RWY35L/R Departure PIK-12X								
IF	PD062					MAX250		RNAV1
TF	PD065				↑ 1800			RNAV1
TF	PK				↑ 3000			RNAV1
TF	POMOK							RNAV1
TF	SS073				↑ 6000 or 4800			RNAV1
TF	PIKAS							RNAV1
RWY35L/R(by ATC) Departure PIK-14X								
IF	PD062					MAX250		RNAV1
TF	PD064				↑ 1500			RNAV1
TF	NTG							RNAV1
TF	PIKAS							RNAV1
RWY35L/R Departure ODU-12X								
IF	PD062					MAX250		RNAV1
TF	HSH				↑ 600			RNAV1
TF	PD053				↑ 2500 or BY ATC			RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
TF	ODULO							RNAV1
RWY35L/R(by ATC) Departure ODU-14X								
IF	PD062					MAX250		RNAV1
TF	PD064				↑ 1500			RNAV1
TF	UDOXI							RNAV1
TF	ODULO							RNAV1
RWY16L/R、RWY17L/R Arrival SAS-12Y								
IF	SASAN							RNAV1
TF	SS032							RNAV1
TF	SS011				↓ 5100			RNAV1
TF	EKIMU							RNAV1
TF	PK							RNAV1
TF	PD324					@230		RNAV1
TF	PD322				↑ 1500			RNAV1

TF	PD035				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、 RWY17L/R(by ATC) Arrival SAS-16Y								
IF	SASAN							RNAV1
TF	SS032							RNAV1
TF	PD036				↑ 1200			RNAV1
TF	PD035				↑ 600 or ↑ 900	MAX210		RNAV1
WY16L/R、 RWY17L/R Arrival MAT-22Y								
IF	MATNU							RNAV1
TF	PD069							RNAV1
TF	PINOT							RNAV1
TF	PD026					@230		RNAV1
TF	HSH							RNAV1
TF	PD025				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、 RWY17L/R Arrival DUM-22Y								
IF	DUMET							RNAV1
TF	PD032							RNAV1
TF	PD031							RNAV1
TF	PD030					@230		RNAV1
TF	HSH							RNAV1
TF	PD025				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、 RWY17L/R Arrival BK-12Y								
IF	BK							RNAV1
TF	SAMKI							RNAV1
TF	BAVIK							RNAV1
TF	PD331							RNAV1
TF	XSY							RNAV1
TF	PDL					@230		RNAV1
TF	PD322				↑ 1500			RNAV1
TF	PD035				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、 RWY17L/R Arrival BK-22Y								
IF	BK							RNAV1
TF	SAMKI							RNAV1
TF	BAVIK							RNAV1
TF	PD331							RNAV1
TF	XSY							RNAV1

TF	PD030					@230		RNAV1
TF	HSH							RNAV1
TF	PD025				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、RWY17L/R Arrival AND-12Y								
IF	AND							RNAV1
TF	PD331							RNAV1
TF	XSX							RNAV1
TF	PDL					@230		RNAV1
TF	PD322				↑ 1500			RNAV1
TF	PD035				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L/R、RWY17L/R Arrival AND-22Y								
IF	AND							RNAV1
TF	PD331							RNAV1
TF	XSX							RNAV1
TF	PD030					@230		RNAV1
TF	HSH							RNAV1
TF	PD025				↑ 600 or ↑ 900	MAX210		RNAV1
RWY16L Approach transition via PD035								
IF	PD035				↑ 600	MAX210		RNAV1
TF	PD102							RNAV1
TF	PD204				@600			RNAV1
RWY16L Approach transition via PD025								
IF	PD025				↑ 600	MAX210		RNAV1
TF	PD102							RNAV1
TF	PD204				@600			RNAV1
RWY16R Approach transition via PD035								
IF	PD035				↑ 600	MAX210		RNAV1
TF	PD024							RNAV1
TF	PD203				@600			RNAV1
RWY16R Approach transition via PD025								
IF	PD025				↑ 600	MAX210		RNAV1
TF	PD024							RNAV1
TF	PD203				@600			RNAV1
RWY17L Approach transition via PD035								
IF	PD035				↑ 900	MAX210		RNAV1
TF	PD033							RNAV1

TF	PD202				@900			RNAV1
RWY17L Approach transition via PD025								
IF	PD025				↑ 900	MAX210		RNAV1
TF	PD033							RNAV1
TF	PD202				@900			RNAV1
RWY17R Approach transition via PD035								
IF	PD035				↑ 900	MAX210		RNAV1
TF	PD033							RNAV1
TF	PD201				@900			RNAV1
RWY17R Approach transition via PD025								
IF	PD025				900	MAX210		RNAV1
TF	PD033							RNAV1
TF	PD201				@900			RNAV1
RWY16L/R/17L/R Holding: outbound time 1min								
HM	PDL	Y	348	L	↓ 2700 ↑ 2100	MAX230		RNAV1
HM	PD331	Y	063	L	Alt ATC by	MAX230		RNAV1
HM	XSY	Y	022	R	Alt ATC by	MAX230		RNAV1
HM	HSH	Y	348	R	900	MAX230		RNAV1
HM	PINOT	Y	266	L	Alt ATC by	MAX230		RNAV1
RWY16L/R/17L/R Holding: outbound time 1.5min								
HM	SS032	Y	115	R	↓ 6000 ↑ 3000	MAX230		RNAV1
HM	PD032	Y	260	R	↓ 5100 ↑ 2400	MAX230		RNAV1
RWY34L/R、RWY35L/R Arrival SAS-11Y								
IF	SASAN							RNAV1
TF	SS032							RNAV1
TF	EKIMU							RNAV1
TF	JTN							RNAV1
TF	PD014				↑ 1500	@230		RNAV1
TF	PD013							RNAV1
TF	PD012				↑ 600 or ↑ 900	MAX210		RNAV1
RWY34L/R、RWY35L/R Arrival AND-11Y								
IF	AND							RNAV1
TF	PD331				↓ 2700	@230		RNAV1

TF	PD003				↑ 600 or ↑ 900	MAX210		RNAV1
RWY34L/R、RWY35L/R Arrival BK-11Y								
IF	BK							RNAV1
TF	SAMKI							RNAV1
TF	BAVIK							RNAV1
TF	PD331				↓ 2700	@230		RNAV1
TF	PD003				↑ 600 or ↑ 900	MAX210		RNAV1
RWY34L/R、RWY35L/R Arrival MAT-11Y								
IF	MATNU							RNAV1
TF	PD069							RNAV1
TF	PINOT							RNAV1
TF	PD011							RNAV1
TF	PD006					@230		RNAV1
TF	PD005							RNAV1
TF	PD004				↑ 600 or ↑ 900	MAX210		RNAV1
RWY34L/R、RWY35L/R Arrival DUM-11Y								
IF	DUMET							RNAV1
TF	PD073							RNAV1
TF	PD011							RNAV1
TF	PD006					@230		RNAV1
TF	PD005							RNAV1
TF	PD004				↑ 600 or ↑ 900	MAX210		RNAV1
RWY34L Approach transition via PD012								
IF	PD012				↑ 600	MAX210		RNAV1
TF	PD002							RNAV1
TF	PD001							RNAV1
TF	PD303				@600			RNAV1
RWY34L Approach transition via PD003								
IF	PD003				↑ 600	MAX210		RNAV1
TF	PD002							RNAV1
TF	PD001							RNAV1
TF	PD303				@600			RNAV1
RWY34L Approach transition via PD004								
IF	PD004				↑ 600	MAX210		RNAV1
TF	PD002							RNAV1

TF	PD001							RNAV1
TF	PD303				@600			RNAV1
RWY34R Approach transition via PD012								
IF	PD012				↑ 600	MAX210		RNAV1
TF	PD107							RNAV1
TF	PD100							RNAV1
TF	PD304				@600			RNAV1
RWY34R Approach transition via PD003								
IF	PD003				↑ 600	MAX210		RNAV1
TF	PD107							RNAV1
TF	PD100							RNAV1
TF	PD304				@600			RNAV1
RWY34R Approach transition via PD004								
IF	PD004				↑ 600	MAX210		RNAV1
TF	PD107							RNAV1
TF	PD100							RNAV1
TF	PD304				@600			RNAV1
RWY35L Approach transition via PD012								
IF	PD012				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD301				@900			RNAV1
RWY35L Approach transition via PD003								
IF	PD003				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD301				@900			RNAV1
RWY35L Approach transition via PD004								
IF	PD004				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD301				@900			RNAV1
RWY35R Approach transition via PD012								
IF	PD012				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD302				@900			RNAV1
RWY35R Approach transition via PD003								

IF	PD003				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD302				@900			RNAV1
RWY35R Approach transition via PD004								
IF	PD004				↑ 900	MAX210		RNAV1
TF	PD023							RNAV1
TF	PD022							RNAV1
TF	PD302				@900			RNAV1
RWY34L/R/35L/R Holding: outbound time 1min								
HM	JTN	Y	118	L	Alt by ATC	MAX230		RNAV1
HM	PD331	Y	063	L	Alt by ATC	MAX230		RNAV1
HM	PINOT	Y	231	L	Alt by ATC	MAX230		RNAV1
RWY34L/R/35L/R Holding: outbound time 1.5min								
HM	SS032	Y	115	R	↓ 6000 ↑ 3000	MAX230		RNAV1
HM	PD073	Y	262	L	↓ 5100 ↑ 2400	MAX230		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