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

ZSSS-上海/虹桥 SHANGHAI/Hongqiao

ZSSS 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 °11.8' E121 °20.1' Center of RWY 18L/36R
2	方向、距离 Direction and distance from city	253 °GEO, 13.3km from Renmin square
3	标高/参考气温 Elevation / Reference temperature	3.0m/32.0 ℃(JUL,（黄海）)
4	机场标高位置/大地水准面波幅 AD ELEV PSN / geoid undulation	RWY 18R/36L center/-
5	磁差/年变率 MAG VAR/ Annual change	5°46′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	Hongqiao International Airport Corporation of SAA (Shanghai Aerodrome Authority). Nr.300 of Konggang 1st Road, Shanghai, China. Post code: 200335. Post code:200335 TEL:86-21-22342063，021-22369728 AFS:ZSSSYDYX Email:hqzhzxywk@shairport.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/4E
9	备注 Remarks	Nil

ZSSS 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	HS or O/R

	Health and sanitation	
4	航行情报服务讲解室 AIS Briefing Office	HS or O/R
5	空中交通服务报告室 ATS Reporting Office (ARO)	HS or O/R
6	气象讲解室 MET Briefing Office	HS or O/R
7	空中交通服务 ATS	HS or O/R
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	HS or O/R
12	备注 Remarks	Nil

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

1	货物装卸设施 Cargo-handling facilities	Platform lift, fork-lift, Baggage transporter
2	燃油/滑油牌号 Fuel/oil types	Jet A-1/Nr.3 jet fuel
3	加油设施/能力 Fuelling facilities/capacity	Tank vehicles: 65000 liters and 47000 liters; hydrant dispensers: 63.3 liters/s and 58.3 liters/s; apron refueling well
4	除冰设施 De-icing facilities	De-icers, de-icing fluid
5	过站航空器机库 Hangar space for visiting aircraft	Small hangar: one A300 below; Big hangar: two B747-400 and two narrow body aircraft; China Eastern airlines hangar: two B747-400 and one narrow body aircraft; Business aircraft hangar Nr.1: one B737-300 and one Gulf V;

		Business aircraft hangar Nr.2: one B737-300 and one Gulf V.
6	过站航空器的维修设施 Repair facilities for visiting aircraft	Line maintenance for: A300-600, A319/320/321, A330-200/300, A340-300/600, ATR-72, B737-300/500/700/800, B757-200, B767-200/300, B777-200, MD-11F, MD-82, MD-90, B747-400F.
7	备注 Remarks	Oxygen and related service(oxygen-charging equipment, nondestructive testing capabilities)

ZSSS AD 2.5 旅客设施 Passenger facilities

1	宾馆 Hotels	At AD
2	餐馆 Restaurants	At AD
3	交通工具 Transportation	Passenger’s coaches, taxis
4	医疗设施 Medical facilities	First-aid equipment, 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

ZSSS 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 9
2	援救设备 Rescue equipment	Fire fighting facilities: rapid intervention vehicle, foam tender, water tank truck, illumination truck, command car, rescue car, patrol car Rescue equipments: uplift air cushion
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTWA up to B747
4	备注 Remarks	Nil

ZSSS 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, ice spreading car, ramp snow vehicles
2	扫雪顺序 Clearance priorities	RWY , TWY, Apron be opened synchronously
3	备注 Remarks	Nil

ZSSS 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 104/R/B/W/T(Apron Nr.4, 6) PCN 96/R/B/W/T(Other Stands of Apron Nr.2) PCN 80/R/B/W/T(Stands Nr.112-115, 120, 121, 126, 127) PCN 78/R/B/W/T(Stands Nr.101, 102, 109-111) PCN 72/R/B/W/T(Stands Nr.501, 502, 504, 506) PCN 71/R/B/W/T(Stands Nr.523-525) PCN 70/R/B/W/T(Stands Nr.218-225, 231-236, 261-266, 272-279 of Nr.2 Apron) PCN 67/R/B/W/T(Stands Nr. 508, 510-514, 517-522) PCN 63/R/B/W/T(Stands Nr.313-342) PCN 58/R/B/W/T(Stands Nr.301-312)
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	Width:	45m: K1; 40m: H7（east of TWY A）; 35m: K2, K4; 34m: K6, K7; 32m: K5; 28.5m: A1-A4; 25m: K0; 23m: A, H1（east of RWY36R）, H4（east of RWY36R）, H7（BTN RWY36R & TWY A）, other TWY, T1, T6;
		Surface:	CONC
		Strength:	PCN 104/R/B/W/T (other TWYs) PCN 80/R/B/W/T(A, H1（BTN RWY36R & TWY A）, H4（east of TWY A）, H7（BTN RWY36R & TWY A）, K1, K2, K4（east of TWY A）, T1, T6) PCN 72/R/B/W/T(H7（east of TWY A）, K6, K7)

			PCN 63/R/B/W/T(K5) PCN 58/R/B/W/T(H4（BTN RWY36R & TWY A）, K0) PCN 50/R/B/W/T(A1-A4)
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	All stands	
5	备注 Remarks	Aircraft ACN≤63/R/B/W/T, when stands Nr.313-315 for CAT E.	

ZSSS 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. Guide lines at all aprons and TWYs. Aircraft stand identification sign boards at all stands (except stands Nr.323-337,339,512-514,517-519,604B,605,606). Visual docking Guidance System for aircraft stands at Nr.221-237,238A,239-275, instructions refer AD1.1. Visual docking Guidance System for aircraft stands at Nr.112, instructions refer AD2.24-2B, 2C, 2D, 2E,2F. Visual docking Guidance System for aircraft stands at Nr.101, 102, 109, 110, 111, 113-115,120,121,126,127,instructions refer AD2.24-2G, 2H, 2J, 2K, 2L. Marshaller guidance shall be used to parking stands Nr.301-342,401-413,501,502,504,506,508,510,511-514,517-525, 601-603,604A,604B,605-608,212-220,276-290.	
2	跑道和滑行道标志及灯光 RWY and TWY marking and LGT	RWY markings	Displaced THR, RWY designation, TDZ, centerline, center circle, edge line, aiming point
		RWY lights	Center line, edge line, THR, RWY end, THR wing bar(18L/36R, 18R/36L)
		TWY markings	Center line, enhanced TWY center line, edge line, intermediate holding position, RWY holding positions, TWY shoulder, NO ENTRY marking
		TWY lights	Edge line, center line(not available for H4(BTN TWY A&RWY36R/18L)), intermediate holding position, RWY guard lights, rapid exit taxiway indicator, No-entry lights
3	停止排灯 Stop bars	Nil	

4	备注 Remarks	RWY holding positions(Pattern B) established at both end of TWY A.

ZSSS AD 2.10 机场障碍物 Aerodrome obstacles

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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	Antenna	002	2960	26.3	RWY36L/R Take-off path	
2	Light Pole	003	3047	22.4	RWY 36R Take-off path	
3	TWR	003	5383	48.7	RWY36L/R Take-off path	
4	*Light Pole	004	2937	22.1	RWY36R Take-off path	
5	TWR	005	2671	15.6	RWY36R Take-off path	
6	*BLDG	006	5846	46		
7	BLDG	007	3064	24.3	RWY36R Take-off path	
8	BLDG	007	7156	68.2	RWY36L Take-off path	
9	Antenna	008	1301	17	RWY 18L precision approach final	
10	Light pole	008	3025	23.3		
11	BLDG	010	6881	65	RWY18L/R GP INOP	
12	*BLDG	015	5808	55		
13	*TWR	022	2700	46	RWY 18L VOR/DME final approach RWY 18L LNAV/VNAV approach RWY 18L LNAV approach	

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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
14	BLDG	025	5422	76	RWY18L VOR/DME Final approach	
15	BLDG	031	4856	63		
16	BLDG	032	4331	57		
17	BLDG	035	5538	63		
18	BLDG	042	6459	112	MVA SECTOR	
19	*BLDG	048	5583	103		
20	*BLDG	071	5539	114		
21	*BLDG	076	5689	122		
22	*BLDG	077	7684	265	MSA	
23	*BLDG	078	11358	284	MVA SECTOR	
24	BLDG	078	13546	335		
25	BLDG	080	4258	99		
26	*BLDG	084	5810	145		
27	BLDG	087	5940	152		
28	BLDG	090	5640	148		
29	*Control TWR	111	520	47	RWY 18L ILS/DME, missed approach	
30	*BLDG	120	5085	97		
31	*BLDG	122	892	52		
32	*BLDG	128	5792	125		
33	BLDG	129	14218	222		
34	*BLDG	140	3232	64		
35	*BLDG	140	5599	84		
36	TWR	145	1022	48	RWY36L LNAV/VNAV approach	

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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
37	BLDG	148	2056	52		
38	BLDG	151	1435	51		
39	*BLDG	161	1566	49	RWY36L LNAV approach	
40	BLDG	170	3319	52	RWY 36L VOR/DME final approach RWY 36R LNAV/VNAV approach RWY 36R LNAV approach	
41	BLDG	173	4860	44		
42	BLDG	176	4511	45		
43	Antenna	177	1301	17.7	RWY 36R ILS/DME final approach	
44	BLDG	177	6530	64	RWY36L GP INOP; RWY18L Take-off path	
45	BLDG	179	3840	45	RWY18L Take-off path RWY36R LNAV approach	
46	BLDG	179	4741	42	RWY 18L Take-off path	
47	BLDG	181	2551	20.6	RWY18L Take-off path	
48	BLDG	181	3522	34	RWY18L Take-off path	
49	BLDG	183	4438	47	RWY18R Take-off path	
50	BLDG	183	4982	43	RWY18L/R Take-off path	
51	Light pole	185	3011	18.8		

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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
52	BLDG	185	3688	35.3	RWY18L/R Take-off path	
53	BLDG	185	4107	41.5	RWY18L/R Take-off path	
54	BLDG	185	6647	62.5	RWY18L/R Take-off path	
55	Pole	186	2969	18.9		
56	Light pole	186	2975	17.5		
57	Light Pole	186	3048	21.1	RWY 18L Take-off path	
58	Light pole	188	3003	20.2		
59	Light Pole	188	3086	23.8	RWY18L/R Take-off path	
60	Light pole	188	3088	22.2		
61	Light pole	189	2958	22.4		
62	Light Pole	189	3060	23.8	RWY18R Take-off path	
63	*BLDG	189	3972	41	RWY18R Take-off path	
64	Light pole	190	2881	20.6		
65	Light pole	190	2952	20.1		
66	Pole	191	2842	22.1	RWY18R Take-off path	
67	BLDG	192	2752	23.5	RWY18R Take-off path	
68	Light pole	192	2773	18.7		
69	Light Pole	192	2789	21.1	RWY18R Take-off path	
70	BLDG	193	6707	62	RWY36L GP INOP	
71	Light Pole	194	2683	19.4	RWY18R Take-off path	
72	Light Pole	195	2639	18.9	RWY18R Take-off path	

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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
73	Antenna	196	1019	17.8	RWY 36L ILS/DME final approach	
74	Light pole	196	2581	17.5		
75	Light pole	198	2497	15.5		
76	*BLDG	203	4809	51		
77	BLDG	205	5246	64		
78	*BLDG	207	5743	63		
79	*BLDG	211	5851	89	Circling CAT B/C/D; RWY36L VOR/DME Final approach	
80	BLDG	213	5419	61		
81	BLDG	215	5722	63		
82	*BLDG	240	3966	50		
83	*TWR	280	2476	44	Circling CAT A	
84	*TWR	323	2159	44		
85	Antenna	349	1019	17.8	RWY 18R ILS/DME final approach RWY 18R LNAV approach	
86	*BLDG	350	5647	49		
87	Light pole	352	3063	20.9		
88	BLDG	352	3482	42	RWY 18L VOR/DME final approach RWY 36L Take-off flight path RWY18R LNAV/VNAV approach	
89	BLDG	353	2834	22	RWY36L Take-off	

Obstacles within a circle with a radius of 15km centered on the center of RWY 18L/36R						
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
					path	
90	BLDG	353	5167	46.2	RWY36L Take-off path	
91	BLDG	355	5117	46.2	RWY36L Take-off path	
92	BLDG	356	4854	45		
93	Light Pole	357	3056	23.2	RWY36L/R Take-off path	
94	BLDG	358	4821	46	RWY36L/R Take-off path	
95	BLDG	360	3835	36.4	RWY36R Take-off path	
Others:						

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 18L/36R						
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	019	30231	244		
2	BLDG	061	30315	245	MVA SECTOR	
3	*BLDG	077	20476	231		
4	*Antenna	078	15909	466		
5	BLDG	079	12212	252		
6	*BLDG	080	16325	424		
7	BLDG	081	16182	635	MSA; MVA SECTOR	

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 18L/36R						
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
8	*BLDG	081	16486	495		
9	BLDG	082	10857	262		
10	BLDG	147	19609	215		
11	*TV TWR	163	33334	173		
12	BLDG	177	23378	183	RWY36L ILS/DME Initial approach	
13	*TV TWR	263	20434	171		
14	MT	281	87910	343	MVA SECTOR	
15	*TV TWR	341	21886	154	RWY18L/R ILS/DME Initial approach; MVA SECTOR	
16	Chimney	358	43264	244		
Others:						

ZSSS 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	相关气象台的名称 Associated MET Office	MET Center of Shanghai Hongqiao 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 preparation,Periods of validity; Interval of issuance	MET Center of Shanghai Hongqiao Aerodrome MET Office 9 HR, 24 HR
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	P, T

	Briefing/consultation provided	
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	MET Service Terminal
9	提供气象情报的空中交通服务单位 ATS units provided with information	Hongqiao 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: 120m W of RCL,460m inward THR18L B: 120m W of RCL,1750m inward THR18L C: 120m W of RCL,440m inward THR18L D: 100m E of RCL,651m inward THR18R E: 100m E of RCL,1730m inward THR18R F: 100m E of RCL,621m inward THR18R SFC wind sensors 18L: 115m W of RCL,405m inward THR 36R: 125m E of RCL,430m inward THR 18R: 115m E of RCL,641m inward THR 18R/36L: 115m E of RCL,1730m inward THR 36L: 115m E of RCL,651m inward THR Ceilometer 18L/36R: near RVR 18R: 115m E of RCL extension line,631m inward THR 36L: 115m E of RCL extension line,631m inward THR
13	气象观测系统的工作时间	H24

	Hours of operation for meteorological observation system	
14	气候资料 Climatological information	Climatological tables AVBL
15	其他信息 Additional information	Nil

ZSSS 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 / SWYsurface	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
1	2	3	4	5	6
18L	177.30°GEO 183°MAG	3400×45	130/F/C/W/T ASPH/-	Nil	THR1.9m DTHR1.9m TDZ2.3m
36R	357.30°GEO 003°MAG	3400×45	130/F/C/W/T ASPH/-	Nil	THR2.6m DTHR2.6m TDZ2.8m
18R	177.30°GEO 183°MAG	3300×60	104/R/B/W/T CONC/-	Nil	THR2.6m DTHR2.6m
36L	357.30°GEO 003°MAG	3300×60	104/R/B/W/T CONC/-	Nil	THR2.6m DTHR2.6m
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 AOC	Nil	Nil	3520×300	Nil	140×120
See AOC	Nil	Nil	3520×300	Nil	130×120
See AOC	Nil	Nil	3420×300	Nil	240×150
See AOC	Nil	Nil	3420×300	Nil	240×150

Remark:

1. Distance between RCL of RWY18L/36R and RCL of RWY18R/36L is 365m; RWY36L THR is 100m north of RWY36R THR;
2. THR and END of RWY 18L/36R displaced 100m inwards, surface of displaced parts is concrete; anti-blast pad dimension 60×60m;
3. THR of RWY 18R/36L displaced 300m inwards, surface of displaced part is concrete; anti-blast pad dimension 120×75m;
4. RWY36L/18R grooved at full length, width 60m; rapid exit TWYs B7-B8, C1-C4 grooved at full length, width 23m.
5. RWY18L/36R and 18R/36L shoulder: 7.5m on each side.

ZSSS 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
18R	3300	3300	3300	3000	THR displaced 300m inwards
18R	3138	3138	3138	NOT AVBL	FM H2
36L	3300	3300	3300	3000	THR displaced 300m inwards
36L	3138	3138	3138	NOT AVBL	FM H6
18L	3300	3300	3300	3200	THR & END displaced 100m inwards
18L	3188	3188	3188	NOT AVBL	FM T1
36R	3300	3300	3300	3200	THR & END displaced 100m inwards
36R	3188	3188	3188	NOT AVBL	FM H7
Remarks:					

ZSSS 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
18R	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT/3°	Nil	3000m** spacing 30m	3300m**** spacing 60m	RED	Nil
36L	PALS CAT I* 900m LIH	GREEN Yes	PAPI RIGHT/3°	Nil	3000m** spacing 30m	3300m**** spacing 60m	RED	Nil
18L	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT/3°	Nil	3200m*** spacing 30m	3400m**** spacing 60m	RED	Nil
36R	PALS CAT I* 900m LIH	GREEN Yes	PAPI RIGHT/3°	Nil	3200m*** spacing 30m	3400m**** spacing 60m	RED	Nil

** 0-300m APCH LGT, 300-2400m White LIH, 2400-3000m Red/White LIH, 3000-3300m Red LIH.

*** 0-100m APCH LGT, 100-2400m White LIH, 2400-3000m Red/White LIH, 3000-3300m Red LIH, 3300m-3400m APCH LGT.

**** 18R/36L: 0-300m Red LIH, 300-2700m White LIH, 2700-3300m Yellow LIH.

18L/36R: 0-100m Red LIH, 100-2700m White LIH, 2700-3300m Yellow LIH, 3300-3400m Red LIH.

ZSSS 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: 18L:90m E of RCL, 450m inward THR18L; with light 36R:90m E of RCL, 450m inward THR36R; with light 18R:120m E of RCL, 380m inward THR18R; with light 36L:120m E of RCL, 380m inward THR36L; with light
3	滑行道边灯和中线灯 TWY edge and center line lighting	Blue TWY edge line lights and Green/Green, Green/Yellow, unidirectional Green or Yellow rapid exit TWY lights.
4	备份电源/转换时间 Secondary power supply/switch-over time	Dual feed, diesel engine driven generator/15sec
5	备注 Remarks	Nil

ZSSS 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 Remarks	Nil

ZSSS 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

名称 Designation	水平范围 Lateral limits	垂直范围 Vertical limits	备注 Remarks
Shanghai/Hongqiao tower control area	By ATC	SFC-600m MSL	
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, Maximum Fuel Dumping Speed 500km/h
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)	1.Above 900m:use Pudong QNH; 2.900m or below: use QNH of departure or landing aerodrome.

ZSSS 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		132.25	H24	D-ATIS available
APP	Shanghai Approach	120.3(119.75)APP01	H24	
APP	Shanghai Approach	125.4(124.05)APP02	H24	
APP	Shanghai Approach	125.85(119.2)APP03	by ATC	
APP	Shanghai Approach	123.8(119.2)APP04	by ATC	
APP	Shanghai Approach	126.65(128.05)APP05	by ATC	
APP	Shanghai Approach	126.3(120.65)APP06	by ATC	
APP	Shanghai Approach	121.10(119.75)APP07	by ATC	
APP	Shanghai Approach	127.75(124.05)APP08	by ATC	
APP	Shanghai Approach	121.375(128.05)APP09	by ATC	
APP	Shanghai Approach	125.625(120.65)APP10	by ATC	
APP	Shanghai Approach	119.075(128.05)APP11	by ATC	
TWR	Hongqiao Tower	118.10(124.30)		EAST

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
TWR	Hongqiao Tower	118.65(118.25)		WEST
GND	Hongqiao Ground	121.60(121.55)		EAST
GND	Hongqiao Ground	121.90(121.55)		WEST
APN	Hongqiao Apron	121.675(121.55)	H24	EAST
APN	Hongqiao Apron	121.95(121.55)	H24	WEST
Delivery	Hongqiao Delivery	121.75(121.55)		
EMG		121.50	H24	

ZSSS 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
Chonggu VOR/DME	CGT	112.5MHz CH72X	N31 °12.6' E121 °11.6'	24m	280 °MAG/ 13.4km FM ARP
Liuzao VOR/DME	PDL	109.4MHz CH31X	N31 °07.8' E121 °40.3'	4m	
Jiuting VOR/DME	JTN	109.6MHz CH33X	N31 °07.4' E121 °20.5' 183 °MAG/ 8400m FM ARP		
Nanxiang NDB	PK	208kHz	N31°17.0′ E121°19.8′ 003 °MAG/ 9630m FM ARP		Beyond 4NM on BRG 002 °U/S; beyond 7NM on BRG 243 ° U/S; BTN 7-12NM on BRG 264 °U/S; BTN 14-19NM on BRG 292 °U/S; beyond 3.5NM on BRG 350 °U/S.
LOC 18L	IPK	111.3MHz	183 °MAG/300m FM end RWY 18L		Beyond 27 °rightside of front course U/S

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
ILS CAT I					
GP 18L		332.3MHz	125m E of RCL18L, 305m FM displaced DTHR18L		Angle 3 °, RDH 15m
DME 18L	IPK	CH50X (111.3MHz)		10m	Co-located with GP 18L
LOC 18R ILS CAT I	IHQ	110.9MHz	183 °MAG/287m FM end RWY 18R		
GP 18R		330.8MHz	120m E of RCL 18R,311m FM displaced DTHR18R		Angle 3 °, RDH 15m
DME 18R	IHQ	CH46X (110.9MHz)		10m	Co-located with GP 18R
LOC 36L ILS CAT I	ISH	111.7MHz	003 °MAG/290m FM end RWY36L		
GP 36L		333.5MHz	120m E of RCL36L, 311m FM displaced DTHR36L		Angle 3 °, RDH 15m
DME 36L	ISH	CH54X (111.7MHz)		10m	Co-located with GP 36L
LOC 36R ILS CAT I	IWB	110.3MHz	003 °MAG/251m FM end RWY 36R		
GP 36R		335.0MHz	115m E of RCL 36R,305m FM displace DTHR36R		Angle 3 °, RDH 15m
DME 36R	IWB	CH40X (110.3MHz)		10m	Co-located with GP 36R

ZSSS AD 2.20 本场飞行规定 ZSSS 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；

1.1 Takeoff/landing of aircraft without SSR transponder are forbidden;

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；

1.2 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 可使用最大机型：B747-8 及同类机型。

1.3 Maximum aircraft to be available: B747-8 and equivalent.

1.4 因空域使用限制，使用 36L/36R 跑道实施仪表离场时，要求飞机在高度 200m 转弯，除非经管制员特别许可，应严格执行。

1.4 Due to airspace restriction, unless ATC special permission, aircraft should strictly turn at 200m when operate ILS departure on RWY36L/36R.

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；

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

2.2 禁止任何航空器在跑道和滑行道上做大于 90°的转弯；

2.2 Turn around exceeding 90°on RWY or TWY is forbidden;

2.3 B747-8 航空器本场运行规则

2.3 Operation rules for B747-8

2.3.4 运行跑道：18R/36L(离场主用)；18L/36R(进场主用)；

2.3.4 RWY: 18R/36L(Mainly used for departure);18L/36R(Mainly used for arrival);

2.3.2 B747-8 可在除 A1, A2, A3, A4, K0, K5, K6, K7, H4(RWY 18L/36R 至 A 滑之间), H7(A 滑至 L01 滑行道之间)之外的滑行道滑行，具体滑行路

2.3.2 Following TWYs not available for B747-8: A1,A2,A3,A4,K0,K5,K6,K7,H4(BTN A and RWY 18L/36R),H7(BTN A and L01), and pilot shall

线须听从塔台管制员指挥；

follow controller instructions for taxi routes;

2.3.3 B747-8 航空器正常使用 248 号停机位，或限制条件下使用 250 和 411 停机位。

2.3.3 B747-8 can normally use stand Nr.248 or use stand Nr.250,411 with restrictions.

2.3.4 不能与停靠 B747-8 航空器的机位同时使用的机位/ Stands forbidden to use simultaneously with Stands parking B747-8:

B747-8 使用机位/The stand in use for B747-8	不能同时使用的机位/The stands forbidden to be used
411	410, service vehicle lane BTN stands Nr.411 and Nr.412
250	256(aircraft with wingspan less than 61m)

2.3.5 为保证航空器主起落架外轮胎边缘与承重道面边线间保持至少 4m 的净距且航空器外侧发动机的中心轴落在道肩边线之内，B747-8 航空器在如下滑行转弯口进行任一方向转弯滑行时将不能沿滑行道中线滑行，而须飞行员自行判断采用偏置转弯:A1 与 A, A2 与 A, A3 与 A, A4 与 A, H1 与 A, H7 与 A, T1 与 A, T6 与 A, K6 与 A, K7 与 A, H1 与 RWY 18L/36R, T1 与 RWY 18L/36R,H7 与 RWY 18L/36R, T6 与 RWY 18L/36R, L01 与 K6, L01 与 K7, B2 与 B,B3 与 B,B4 与 B,B5 与 B,B7 与 B,B8 与 B,C1 与 C,C2 与 C,C3 与 C,C4 与 C,B 与 H1,B 与 H2,B 与 H3,B 与 H5,B 与 H6,B 与 H7,H1 与 C,H2 与 C,H7 与 C,H1 与 D,D9 与 D,D13 与 D。所有 C 滑行道与 D 滑行道间的 180°连续转弯须飞行员自行判断采用偏置转弯。

2.3.5 At the corner section of following TWYs, when nose gear of B747-8 follows those taxiway centerline, a clearance between the wheel of wing gear and the edge of TWY is less than 4m, so pilots of B747-8 are requested to use offset-centerline steering at the following TWYs.TWY required to use offset-centerline steering: A1 and A, A2 and A, A3 and A, A4 and A, H1 and A, H7 and A, T1 and A, T6 and A, K6 and A, K7 and A, H1 and RWY 18L/36R, T1 and RWY 18L/36R, H7 and RWY 18L/36R, T6 and RWY 18L/36R, L01 and K6, L01 and K7,B2 and B,B3 and B,B4 and B,B5 and B,B7 and B,B8 and B,C1 and C,C2 and C,C3 and C,C4 and C,B and H1,B and H2,B and H3,B and H5,B and H6,B and H7,H1 and C,H2 and C,H7 and C,H1 and D,D9 and D,D13 and D. Pilots of B747-8 are requested to use

180 °offset-centerline steering BTN TWY C and D.

2.3.6 B747-8 航空器须由 Follow-me 引导入位。

2.3.6 B747-8 shall be guided by Follow-me vehicle into stands.

2.4 跑道运行规则

2.4 General rules for the use of runways

2.4.1 跑道运行规则

2.4.1 General rules for the use of runways

RWY 18R /36L	Mainly used for departure
RWY 18L /36R	Mainly used for arrival, and could be used for departure by ATC clearance

2.4.2 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；

2.4.2 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;

2.4.3 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。

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

2.4.4 穿越跑道规定/RWY crossing rules:

2.4.4

穿越跑道时使用的滑行道 TWYs used for crossing	RWY 18R /36L:	TWYs H1-H7
	RWY 18L /36R:	TWYs H1, H4, H7
穿越程序	按照管制员指挥滑行至跑道等待点外等待;	

Procedures for crossing	Taxi following the instructions of controller to the holding position and hold short of RWY; 收到穿越指令后,需尽快实施穿越; Cross the runway immediately upon receiving the crossing clearance; 机组应完整复诵管制员有关穿越跑道和跑道外等待的指令,如有疑问,请在穿越前证实; Repeat all the ATC instructions concerning “hold short of RWY or cross the RWY”; Any questions shall be clarified before crossing RWY; 穿越跑道时,机组应注意监听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; Pilots shall monitor the ATC instructions or information about RWY and watch the activities on and around RWY; 穿越结束后,机组需报告“已脱离跑道”。 Finally, report to controller ‘RWY vacated’. 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; While crossing RWY after the take-off aircraft, pilots shall be responsible for the safety distance with the aircraft to avoid the effect of wake turbulence;
穿越限制 Limits for crossing	每天 2200-1600 之间禁止拖拽航空器穿越跑道; Towing aircraft to cross RWYs is strictly forbidden during 2200-1600(UTC)

2.4.5 为调整飞行次序，管制员可以指挥航空器从H2 进入 18R 跑道起飞或从 H6 进入 36L 跑道起飞，如航空器驾驶员不能执行，须在进跑道之前报告管制员。

2.4.5 ATC may instruct aircraft to enter RWY18R via H2, or enter RWY36L via H6 for take-off . If not available, pilots shall inform ATC before entering the RWY.

2.5 虹桥机场 HOT SPOT

2.5 ZSSS AD HOT SPOT

2.5.1 HS01-HS04 的范围/ Area of HS01-HS04:

2.5.1

HS1	TWY H4 connected area of TWY L01 and RWY 18L/36R
HS2	TWY H4 connected area of RWY 18L/36R and 18R/36L
HS3	Connected area of TWY H3 and TWY D
HS4	Connected area of TWY H5 and TWY D

2.5.2 HS1：航空器穿越 18L/36R 跑道主用区域。穿越跑道期间，飞行员应加强对穿越跑道目视观察，扫视穿越跑道的相关飞行动态。当对穿越指令有疑义时，应及时询问管制人员。该区域也是穿越跑道滑行道与主滑行道的交叉区域，航空器滑行频繁。

2.5.2 HS1: RWY l8L/36R crossing area. Pilot must be careful when crossing the RWY. Follow ATC instructions strictly when crossing the RWY.Taxiing busy area.

2.5.3 HS2：起飞航空器自东向西穿越 18L/36R 跑道后，飞行员应注意守听指令，避免滑错。

2.5.3 HS2: Follow ATC instructions strictly when vacated RWY18L/36R.

2.5.4 HS3、HS4:落地航空器自东向西穿越 18R/36L 跑道后，航空器滑行频繁，飞行员应注意守听指令，加强目视观察。

2.5.4 HS3. HS4: Taxiing busy area. Follow ATC instructions strictly when vacated RWY18L/36L.

2.5.5 HS05-HS7 的内容参见 3.14

2.5.5 HS05-HS07 refer to 3.14

2.5.6 HS08-HS11 的范围/ Area of HS08-HS11:

2.5.6

HS8	Taxiway H2 connected area of B and 18R/36L

HS9	Taxiway H3 connected area of B and 18R/36L
HS10	Taxiway H5 connected area of B and 18R/36L
HS11	Taxiway H6 connected area of B and 18R/36L

2.5.7 HS8-HS11: 航空器穿越 18R/36L 跑道频繁区域。穿越跑道期间，飞行员应加强对穿越跑道目视观察，扫视穿越跑道的相关飞行动态。当对穿越指令有疑义时，应及时询问管制人员。

2.5.7 HS8-HS11: RWY 18R/36L crossing area. Follow ATC instructions strictly when crossing the RWY.

2.6 仪表着陆系统敏感区保护程序

2.6 Protection Procedures for ILS Sensitive Area

2.6.1 当启用仪表着陆系统敏感区保护程序时，航空器驾驶员必须严格按照管制员的指令在 B 型等待位置等待；

2.6.1 When the Protection Procedures are implemented, the pilot shall follow the ATC instructions and hold at the holding position pattern B;

2.6.2 当天气条件符合运行标准时，为加速飞行流量，将不启用仪表着陆系统敏感区保护程序。起飞航空器在跑道外等待，着陆航空器进近方式改变为仪表着陆系统下滑台不工作，即航向道进近方式或目视进近，但不表示设备故障。参见 ZSSS AD2.24-1A；

2.6.2 In order to accelerate the traffic flows, the Protection Procedures will not be implemented upon the weather condition meets the operational standard. Under this condition, the departure aircraft shall hold short of RWY and the landing aircraft shall adopt ILS approach procedures with GP INOP (which does not mean the GP is failure) or visual approach. Refer to ZSSS AD2.24-1A;

2.7 着陆航空器快速脱离跑道程序

2.7 Procedure for Rapidly vacating RWY

2.7.1 落地航空器应就近选择快速出口滑行道，并及时报告塔台管制员；

2.7.1 Landing aircraft shall vacate runway rapidly using the appropriate rapid exit TWY and report to

the TWR Control immediately after vacating RWY;

2.7.2 落地航空器从接地到脱离跑道的时间应控制在 50 秒以内（湿跑道或污染跑道除外）;

2.7.2 All landing aircraft shall fully vacate RWY within 50s after touchdown(except for wet or contaminated RWY);

2.7.3 如航空器不能使用快速出口滑行道脱离跑道，应提前报告管制员;

2.7.3 If the aircraft can not use the rapid exit TWY, pilot shall inform the controller in advance;

2.8 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）。

2.8 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.

2.9 18R/36L 跑道每日 1600-2300（UTC）不接收航空器降落（紧急备降除外）。

2.9 Aircraft were forbidden to land on RWY18R/36L from 1600 to 2300(UTC) daily (except emergency alternate).

3. 机坪和机位的使用

3. Use of aprons and parking stands

3.1 地面管制要求

3.1 Ground Control Requirements

3.1.1 进港航空器停机位分配由虹桥机场运行指挥中心（AOC）统一安排。虹桥机场运行指挥中心(AOC)联系频率：130.75MHz，呼号：浦江。

3.1.1 Stands distribution for arrival aircraft is arranged by AOC. The Aerodrome OperationCenter (AOC): contact frequency is 130.75MHz, call sign for AOC is PUJIANG.

3.1.2 航空器在机坪上活动必须经机坪管制部门同意后，方可按指定的滑行路线滑行、牵移。

3.1.2 Aircraft shall taxi or be towed along the designated taxiing route with permission of APN Control.

3.1.3 地面管制向塔台管制移交航空器或东西塔台之间移交航空器时，塔台管制将使用“守听”或“联系”两种管制指令。

3.1.3 Two ATC instructions will be used when aircraft is transferred from GND to TWR or between the East TWR and West TWR, they are “Monitor” and “Contact”.

3.2 未经 AOC 同意，严禁航空器利用自身动力倒滑；

3.2 Aircraft is strictly forbidden to taxi backward on its own power without AOC permission;

3.3 在远机位、专机位、货机位、维修机位停靠的航空器由地面人员指挥其进、出机位；

3.3 Aircraft parking/docking on stand-off stand, VIP flight parking stand, cargo aircraft parking stand or maintenance parking stand will be guided by amarshaller for entry/exit;

3.4 航空器试车规定

3.4 Engine run-ups.

3.4.1 通则

3.4.1 General rules for engine run-ups.

3.4.1.1 航空器试车必须向虹桥机场运行指挥中心 AOC 申请。

3.4.1.1 Engine run-ups are subject to AOC permission and TWR clearance.

3.4.1.2 航空器营运人或代理人必须派专人负责试车作业的安全监控，设置“试车危险区”警示标志和隔离设施。试车期间，发动机危险区域内(进气口和排气区域等)禁止人员或车辆通过，禁止放置其他设备。

3.4.1.2 During engine run-ups, people and vehicles are forbidden to pass through engine danger area. Engine run-ups must be monitored by specialized officer. Engine run-ups area must have clear markings to keep irrelative people and vehicles away from this area.

3.4.1.3 试车开始前，航空器营运人或代理人试车现场负责人必须向虹桥机场 AOC 和机坪管制通报（如在跑道上试车，同时须向塔台通报），并按照

3.4.1.3 Before engine run-ups, aircraft operator or agent shall report to AOC or APN Control(if on the RWY, aircraft operator or agent shall also report to

指令执行；

TWR), and follow the instructions strictly.

3.4.1.4 安全监控中发现任何问题，应立即终止试车，并向机坪管制和虹桥机场 AOC 通报（如在跑道上试车，同时须向塔台通报）；

3.4.1.4 Engine run-ups must stop immediately if there comes out any safety hazard. Specialized officer shall contact AOC and TWR and ask for another AOC permission and TWR clearance before going(if on the RWY, aircraft operator or agent shall also report to TWR).

3.4.2 试车位置及要求

3.4.2 Location and operation.

3.4.2.1 冷转测试所有机位可进行冷转测试。

3.4.2.1 Cool running test.All parking stands are available for cool running test.

3.4.2.2 慢车测试

3.4.2.2 Engine idle test.

3.4.2.2.1 401-413、286-290、601-603、604A、604B、605-608、501、502、504、506、508、510、511、517-525、313-327、338-342 机位可供航空器慢车测试，测试期间：相邻机位上禁止航空器进出；禁止其它物体（航空器、车辆、人员等）沿机坪滑行道从试车机位尾部通过。

3.4.2.2.1 Parking stands
Nr.401-413, 286-290, 601-603, 604A, 604B, 605-608, 501, 502, 504, 506, 508, 510, 511, 517-525, 313-327, 338-342 are available for engine idle test. During the period of engine idle test, near-by stands are forbidden for aircraft to taxi in or out. The TWY behind engine run-ups operating aircraft not allowed to (ACFT, vehicle, people) pass through.

3.4.2.2.2 101、102、109-115、120、121、126、127、212-237、238A、239-285、301-312、328-332、512-514 机位上的航空器必须推出至对应的推出等待点上进行慢车测试。333-337 机位上的航空器必须推出至 L20 机坪滑行道上进行慢车测试。

3.4.2.2.2 Aircraft parking on stands
Nr.101, 102, 109-115, 120, 121, 126, 127, 212-237, 238A, 239-285, 301-312, 328-332 , 512-514 shall be pushed back to the corresponding holding point for engine idle test. Aircraft parking on stands

Nr.333-337 shall be pushed back to TWY L20 for engine idle test.

3.4.2.2.3 发动机位于尾部的航空器必须推出至对应的推出等待点上进行慢车测试。

3.4.2.2.3 Aircraft with engine on the tail part shall be pushed back to the corresponding holding point for engine idle test.

3.4.2.3 大功率测试原则上于 4 号机坪试车位进行，该试车位位于 D 滑行道中心线以西 83 米、402 与 405 机位之间，使用限制如下：

3.4.2.3 Fast engine run-ups.Engine run-ups stand installed on apron Nr.4, 83m west of TWY D center line, between parking stands Nr.402 and Nr.405.

3.4.2.3.1 401-407 机位之间的 L11 机坪滑行道禁止使用期间，方可启用 4 号机坪试车位；

3.4.2.3.1 Engine run-ups stand on apron Nr.4 can be used only while TWY L11 between stands Nr.401 &407 is not in use.

3.4.2.3.2 仅供一架 B747-8 或翼展小于 65 米的航空器大功率测试，机头朝南；

3.4.2.3.2 Only a B747-8 or an aircraft with wing span less than 65m on engine run-ups stand can carry out, aircraft nose to south.

3.4.2.3.3 B747-8 使用 4 号机坪试车位前，还必须清空 401-406 机位的航空器。

3.4.2.3.3 Stands Nr.401-406 must be vacated before B747-8 operates engine run-ups on apron Nr.4.

3.4.2.4 当因天气或机位安排等因素时，可安排至跑道上进行（当日航班结束之后至次日航班开始前一小时之间）。

3.4.2.4 If weather or stands not permit, fast engine run-ups could be operated on RWY.Fast engine run-ups on RWY must be implemented between finishing the last flight and 1 hour before the first flight (next day).

3.5 机场桥载设备代替 APU 管理规定

3.5 Bridge equipment replace APU

3.5.1 为降低碳排放及噪音，所有停靠廊桥机位的

3.5.1 All aircrafts parking on boarding bridge stands

航空器必须关闭 APU，使用 400Hz 桥载电源及飞机专用空调设备。以下特殊情况除外：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要开启 APU。c.航空器进行 APU 的维修检测活动。d.遇到影响航班安全、正常运行的特殊情形，例如极端天气、专机保障、航班过站时间不足等有关情况。

shall turn off APU and use bridge equipment (400Hz) and special air conditioning. Except for the following circumstances:a. Bridge equipment is unavailable;b. Aircraft needs APU to start up engine;c. APU is under maintenance;d. In case of exceptional circumstances influencing the operation safety, such as extreme weather, special plane support, insufficient flight transition time.

3.5.2 如航空器公司希望使用 APU，必须致电上海虹桥国际机场公司机电信息保障部现场管理中心（电话：021-22381500）进行申请，申请被批准后方可使用 APU。

3.5.2 If aircraft requires to use APU, airlines shall contact Airport Equipment and Information (TEL: 86-21-22381500).

3.6 相邻机位禁止两架航空器同时运行，包括同时进入，同时推出或滑出，同时一进一出。

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

3.7 进港航空器和引导车应在机位滑行道上转入机位引入线之前停止，观察确认安全的情况下减速慢行入位。

3.7 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.

3.8 滑行限制/Taxiing limits:

3.8

滑行线/Taxi lane	航空器翼展限制/ Wing span limits for aircraft	相关机位限制/Relative stands limits
TWY Y1-Y3, M1-M6,L16，D	≤ 68.4m	
TWY L01, L10, L18, L19	< 65m	
TWY L11	< 52m	1. Stands Nr.401-413: push back to holding point on L11, then start up

		and taxi to TWY D. 2. Stands Nr.406 and 411: aircraft with wing span no less than 52m shall be pushed back to TWY D directly; 3. Engine run-up stands on apron Nr.4 can only be used while TWY L11 between stands Nr.406 and 407 is not in use. 4. ACFT exit parking Stands Nr.412 and Nr.413 shall with nose to south and be pushed back to TWY L11 holding point. If ACFT need change direction after be pushed back shall get ATC clearance and be pushed to TWY D by ATC instructions.
TWY L15,L17, L20	< 36m	
TWY L12	< 36m	1. Stands Nr.232-235: push back to holding points on L12, then start up and taxi to TWY D. 2. In order to prevent aircraft wake turbulence: If aircraft nose to south parking on L12, stand 232 is forbidden to enter or exit. If aircraft nose to north parking on L12, stand 235 is forbidden to enter or exit.

TWY L13	< 36m	1. Stands Nr.262-265: push back to holding points on L13, then start up and taxi to TWY D. 2. If aircraft nose to south parking on L13, stand 262 is forbidden to enter or exit. If aircraft nose to north parking on L13, stand 265 is forbidden to enter or exit.
TWY L14	< 36m	1. Stands Nr.286-290: push back to holding point on L14, then start up and taxi to TWY D. 2.Stands Nr.601-603,604A,605-608:aircraft shall be pushed back to holding points on L14, then start up and taxi to TWY D. 3. Stands Nr.602, 603, 605, 606: aircraft with wing span no less than 36m shall be pushed back to TWY D directly. 4. Stands Nr.604B: aircraft shall be pushed back to the holding points for TWYD.
TWY L08	< 24m	1. Stands Nr.301-312: push back to holding point on L08. 2. Stand Nr.301:taxi in from TWY L08 via TWY K1.

3.9 组合机位的使用模式/Use of combined stands: 3.9

组合机位群/ combined stands	组合模式/ combined mode	停机位/ stands	翼展限制/ Wing span limits	进出方式/ entry/exit
238A,239, 240,240A	238A(CAT C),239,240	238A	<36m	taxi in and push back
		239	≤35.79m	taxi in and push back
		240	≤35.79m	taxi in and push back
	238A(CAT E),240A	238A	≤60.96m	taxi in and push back
		240A	≤60.96m	taxi in and push back
257,258,259, 259A	257(CAT E),259A	257	≤60.96m	taxi in and push back
		259A	≤64.92m	taxi in and push back
	257(CAT C),258,259	257	≤35.79m	taxi in and push back
		258	≤35.79m	taxi in and push back
		259	≤35.79m	taxi in and push back

3.10 机位限制/ Limits for aircraft parking on the 3.10

following stands:

停机位/Stands	航空器翼展限制/ Wing span limits	进出方式/ entry/exit by
248	≤68.4m	taxi in and push back
102,111,112,126,127,250,313-315,406,411,501,502,603,606	<65m	taxi in and push back
246,256	≤64.92m	taxi in and push back
212	≤64.8m	taxi in and push back
511	≤64.75m	taxi in and push back
504,506,508,510	<64.5m	taxi in and push back
109	≤64m	taxi in and push back
110,113,121	≤61m	taxi in and push back
213,214,229,230,237,260,267,268,283,284	≤60.96m	taxi in and push back
120	≤60.4m	taxi in and push back
231,266,285,402,403,407-409,602,605	<52m	taxi in and push back
101,115	≤47.6m	taxi in and push back
114	≤45m	taxi in and push back
226-228,232-236,261-265,272,273,286-290, 401,404,405,410,412,413,601,604A,604B, 607,608,316-342,518-525	<36m	taxi in and push back
215-217,222,223,277-279	≤35.80m	taxi in and push back
218-221,224-225,269-271,274-276,280-282	≤35.79m	taxi in and push back
517	≤28.5m	taxi in and push back
301-312,512-514	<24m	taxi in and push back
Note: 1. When towing aircraft taxi in/out hanger of China Eastern Airlines on apron NR.6, aircraft parking on stand Nr.604A are forbidden to push back nose to north, aircraft parking on stands Nr.604B,605-608 are forbidden to push back.		

2. Stands Nr.604B,605 and 606 not available for parking except emergency flight and shall be guided by follow-me vehicle. 3. ACFT shall be guided by follow-me vehicle to taxi into stands on apron Nr.2 except stands Nr.232-235, 262-265 and 286-290. 4. Business jet on Stands Nr.301-312,512-514 shall park on corresponding stop lines firstly, on similar stop lines secondly. Parking on other stands shall satisfy the requirements of apron safety lines. 5. B747-8 instruction refer AD2.20 2.3.5.

3.11 301-342 机位航空器出港推出后机头朝向要求如下表。特殊情况下，301-314 机位需要改变航空器推出后机头朝向时，应听从机坪管制指令。

3.11 Nose direction of Aircraft parking on stands Nr.301-342 as follow.If nose direction need to be changed, aircraft parking on stands Nr.301-314 shall by APN Control instructions.

Stands Nr.	Nose direction of Aircraft
301,306,307,313,314	North
302-305, 308-312	Sorth
315,339	North or South
316-320, 323-337	East or West
321, 322, 338	East or North
340-342	South

3.12 公务机位使用限制/Limits for business stands: 3.12

停机位/Stands	机身长度限制 /Fuselage limits	航空器翼展限制 /Wing span limits for aircraft
Nr.301-312	<32.5m	< 24m
Nr.512-514	< 28m	< 24m

3.13 2 号机坪新增航空器进港等待位置AH01-AH03和航空器推出等待点EOP01-EOP06，详见ZSSS AD2.24-2。

3.13 Arrival holding positions AH01-AH03 and end of push points EOP01-EOP06 established on Apron Nr.2, details refer ZSSS AD2.24-2.

3.14 2号机坪设HOT SPOT(HS05-HS07)

3.14 HS (HS05-HS07)established on apron Nr.2

3.14.1 HS05-HS07的范围/ Area of HS05-HS07:

3.14.1

HS05	The area of stands Nr.216-228
HS06	The area of stands Nr.238A-259
HS07	The area of stands Nr.269-281
Remark: Arrival ACFT and follow-me vehicle shall stop at AH01-AH03 before taxiing into HS05-HS07, then observe and keep slow speed to taxi into parking stand.	

3.14.2 以下HS或HS与其相邻机位,同一时段只允许一架航空器运行:

3.14.2 Two or more ACFT forbidden to operate simultaneously in follow HS, or in the HS and adjacent parking stands:

HS05	Two or more ACFT forbidden to operate simultaneously
HS05、215	
HS05、229	
HS06	Two or more ACFT forbidden to operate simultaneously
HS06、237	
HS06、260	
HS07	Two or more ACFT forbidden to operate simultaneously
HS07、268	

HS07、282	

3.15 HS8-HS11:航空器穿越跑道频繁区域。航空器穿越跑道期间，需特别注意管制指令。

3.15 HS8-HS11: RWY crossing area.When crossing RWYs, strictly follows ATC clearance.

3.16 停机位推出鼻轮等待点/ End of push points to be used for parking stands

3.16

Stands	End of push points
212-216	Tangency point BTN push-back lines and TWY M1
217-221	EOP01
222-227	EOP02
228-231	Tangency point BTN push-back lines and TWY M2
236,238A	Tangency point BTN push-back lines and TWY M3
239-248	EOP03
250-257	EOP04
258-261	Tangency point BTN push-back lines and TWY M4
266-270	Tangency point BTN push-back lines and TWY M5
271-275	EOP05
276-280	EOP06
281-285	Tangency point BTN push-back lines and TWY M6

3.17 TP01-TP08 为临时机位，其中 TP01-TP05 最大翼展限制<36m，TP06-TP08 最大翼展限制<65m，停放时 TP01，TP02 机头朝北；TP03-TP08 机头朝南。航空器使用临时机位时须严格遵从机坪管制和机务指令。

3.17 TP01-TP08 are temporary stands, TP01-TP05 wing span limits <36m, TP06-TP08 wing span limits <65m, The aircraft's head orientation: TP01,TP02: North; TP03-TP08: South. Aircraft shall follow the instruction of Apron Control or crew when using

temporay stands.

3.18 除冰规则 3.18 De-icing rules

除冰位置/ De-icing position	滑入/ Entry	滑出/ Exit	备注/ Remarks
①	TWY D (nose to South)	TWY D — H7	De-icing position①②④⑤⑥can be used independently;? Aircraft de-icing on③can only taxi out until①without any aircraft; Aircraft de-icing on③④:Stands Nr.601-603,604A,604B, 605-608 are forbidden to use; aircraft entering or exiting from China Eastern Airlines hangar are forbidden; L14(south of stand Nr.601) is forbidden to use.
②		TWY D — H6	
③	TWY D — de-icing guide line(blue) (nose to South)	De-icing guide line—H7	
④		De-icing guide line—H6 or H7	
⑤	TWY D (nose to North)	TWY D — H1	
⑥		TWY D — H2 or H1	
⑦	L01 (nose to South)	L01—H7	
⑧	L01 (nose to North)	L01—K1	
Remark: Refer to ZSSS AD2.24-2 for the specific location of①-⑧.			

3.19 本场机坪运行管理规定 3.19 Aprons operation rules

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

3.19.1 Apron operation control is implemented in Hongqiao Airport. Apron Control is responsible for aircraft push-back, taxiing, runs-up, and other control issues related to aircraft operation.

3.19.2 机场机坪管制负责区范围:详见ZSSS-2A/2B,具体管制移交点及移交方式听从管制员指令执行。

3.19.2 Apron operation control area is depicted in ZSSS-2A/2B. The specific transfer of control points and transfer modes refer to ATC intruductions.

3.19.3 机坪运行管理范围内的离港航空器推出开车滑行流程:

a)离港航空器在推出开车前先联系虹桥放行,并申请空中交通管制放行许可,空中交通管制放行许可的申请不早于发动机开车前 10min 进行;

b)取得放行许可后,向机坪管制申请推出开车;

c)离港航空器首次联系机坪管制时,应向机坪管制通报停机位;

d)机坪管制发布“推出开车”指令后航空器驾驶员必须在 5min 内执行,如超时管制指令自行取消,航空器驾驶员需重新申请“推出开车”;

e)航空器开车后,向机坪管制申请滑行许可,并按其指令执行;

f)需引导车引导的区域,航空器需跟随引导车滑行至规定位置等待,根据机坪管制的指令联系虹桥地面。

3.19.3 The procedure of departure aircraft push -back and taxiing in Apron Control areas:

a) Departure aircrafts shall contact Hongqiao delivery and get clearance before push-back. Aircraft shall not apply for ATC delivery clearance 10min earlier than engine runs-up;

b) Aircrafts shall apply to Apron Control for pushing-back after getting delivery clearance;

c) Departure aircrafts shall report parking stands to Apron Control at the first contact;

d) Aircrafts shall begin to push-back and runs-up within 5min after getting clearance. If overtime, the clearance cancelled automatically, aircrafts should apply for clearance again;

e) Aircrafts shall apply to Apron Control for taxiing clearance after runs-up, and execute according to instructions;

f) Aircrafts shall follow the follow-me to taxi-in the designated stands according to Apron Control in the

areas requiring follow-me guidance.

3.19.4 机坪运行管理范围内航空器进港:

a)航空器进入机坪前,联系机坪管制申请进一步滑行许可;

b)需引导车引导的区域,航空器根据机坪管制指令跟随引导车滑行至指定停机位。

3.19.4 Arrial aircrafts in Apron Control Areas:

a) Aircrafts shall contact with Apron Control for further taxiing clearance before entering apron.

b) Aircrafts shall follow the follow-me to taxi-in the designated stands according to Apron Control in the areas requiring follow-me guidance.

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;

4.1 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络地面管制，取得开车许可并在 5 分钟内执行，否则，重新申请此许可;

4.2 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络塔台管制，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 ATC 放行许可中指定的的离场管制频率。

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 in the Delivery clearance immediately.

5. 机场的 II/III 类运行

5. CAT II/III operations at AD

无

Nil

6. 除冰规则

6. Rules for deicing

无

Nil

7. 平行跑道同时仪表运行

7. Simultaneous operations on parallel runways

无

Nil

8. 警告

8. Warning

所有飞行切勿误入虹桥机场东面的 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) by mistake, which is to the east of HongqiaoAirport.

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

ZSSS AD 2.21 噪音限制规定及减噪程序

ZSSS AD 2.21 Noise restrictions and Noise abatement procedures

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。由于非管制原因不执行减噪程序，飞行员必须在起飞前告知管制员并说明原因。

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. If the procedures can not be implemented due to any reason except ATC, pilot shall inform the controller with a reasonable explanation.

a.在飞机起飞性能运行允许的情况下，尽可能使用减推力起飞；

a. The derated take-off is strongly recommended if the take-off performance of aircraft permit;

b.在高度 450m(1500ft)时，调整和保持发动机爬升功率/推力，保持爬升速度 V2+20km/h（10 海里/小时），保持起飞襟翼和缝翼继续爬升；

b. At altitude 450m (1500ft), adjust engine power/thrust to climb power/thrust and maintain it, maintain climbing speed at V2+20km/h(10kt) with flaps and slats in the take-off configuration;

c. 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。

c. At altitude 910m (3000ft), maintain a positive rate of climb, accelerate tonormal en-route climb speed and retractflaps/slats on schedule.

ZSSS AD 2.22 飞行程序

ZSSS AD 2.22 Flight procedures

1. 总则

除经上海进近或虹桥塔台特殊许可外，在上海进近管制区和虹桥塔台管制区内的飞行，必须按照仪表飞行规则进行。

1. General

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

2. 起落航线

2. Traffic circuits

3. 仪表飞行程序

3.1 严格按照航图中公布的进、离场程序和 ENR2.2.3 中公布的有关规定飞行。如果需要，航空器可在空中交通管制部门指定的航路、导航台或定位点上空等待或做机动飞行。

3. IFR flight procedures

3.1 Strict adherence is required to the relevant arrival/departure procedurespublished in theaeronautical charts and the relevant regulations published in subsection ENR2.2.3. Aircraft may, if necessary, hold or maneuver on an airway, over a navigation facility or a fix designated by ATC.

3.2 等待程序见标准仪表进、离场图

3.2 Holding procedures refer to SID/STAR.

3.3 进、离场程序：详见标准仪表进、离场图。

3.3 Departure/arrival procedures refer to SID/STAR.

4. 雷达程序和/或 ADS-B 程序

4. Radar procedures and/or ADS-B procedures

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。

4.1 Radar control within Shanghai APP has been implemented. The minimum horizontal radar separation is 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）。

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 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 雷达引导与排序：通常，航空器从俺东 VOR（AND）、SASAN、横沙 VOR（HSH）等导航台

4.4 Radar vectoring and sequencing:Normally, aircraft will be vectored and sequenced from Andong VOR (AND), SASAN and Hengsha VOR (HSH) to

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。

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 进近和 RNP APCH 进近时，机组应当严格遵守以下公布的调速准则：

1.切五边 IAS180 kt；

2.距入口 5NM 处 IAS160 kt。

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 APCH and RNP APCH, speed control regulations published as follow :

1.IAS 180kt when join final.

2.IAS 160kt at the distance 5NM FM THR.

Aircrafts should execute at all speed limit. If can't, they shall inform ATC of available speed immediately.

4.5 最低监视引导高度图

4.5 Surveillance Minimum Altitude Sectors

Sector 1	ALT limit:450m or above
N312900E1205141-N313021E1211316-N312344E1212327-N311730E1212357-N311535E1205250-N312900E1205141	
Sector 2	ALT limit:500m or above
A circle with a radius of 7km centered on N312236E1211422	
Sector 3	ALT limit:600m or above
N311717E1212021-N311730E1212357-N310821E1212441-N310808E1212106-N311717E1212021	
Sector 4	ALT limit:950m or above
N311730E1212357-N311937E1213324-N311527E1213731-N310907E1213215-N310821E1212441-N311730E1212357	

Sector 5	ALT limit:550m or above
N313021E1211316-N313558E1214759-N313309E1221316-N310603E1222313-N304247E1220917-N304219E1205541-N311535E1205250-N311730E1212357-N312344E1212327- N313021E1211316	
Sector 6	ALT limit:900 or above
N321000E1204400-N315236E1214712-N314611E1224630-N311241E1224630-N301500E1221200-N301518E1211311-N305310E1202500-N313521E1201944-N321000E1204400, except N312900E1205141-N313021E1211316-N313558E1214759-N313309E1221316-N310603E1222313-N304247E1220917-N304219E1205541-N312900E1205141	

5. 无线电通信失效程序

5.1 航空器单向通信失效

5.1.1 如果航空器只具备信号接收能力，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。

5.1.2 航空器如果只具备信号发送能力，航空器驾驶员应当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的飞机避让;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（如卫星电话）与该航空器联系。

5.2 航空器双向通信失效

5. Radio communication failure procedures

5.1 Aircraft communication partly failure

5.1.1 If the radio receiver available, aircraft shall follow the instruction to fly. At the same time, ATC shall send information to the relevant control unit about communication failure.

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 inform aircraft operator to contact with aircraft by internal communication(such as GNSS).

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。

When aircraft communication totally failure, If possible, ATC shall inform aircraft operator to contact with aircraft by internal communication (such as GNSS).

5.2.1 航空器进场

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

5.2.1.1 向北着陆

5.2.1.1 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)飞向重固台（CGT），如果过 CGT 高度高于 1500m，则进入等待程序，下降至起始进近高度 1500m，然后按 36R 跑道 ILS/DME y 仪表进近图着陆。

Aircraft fly to CGT according to the last commanding ALT by ATC (climb to 1500m if lower). If the altitude over CGT is higher than 1500m, join the holding procedure, and descend to the initial approach altitude 1500m, then approach according to ILS/DME y RWY36R instrument approach procedure.

5.2.1.2 向南着陆

5.2.1.2 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 1500m 则上升至 1500m)飞向重固台（CGT），如果过 CGT 高度高于 1500m，则进入等待程序，下降至起始进近高度 1500m，然后按 18L 跑道 ILS/DMEy 仪表进近图着陆。

Aircraft fly to CGT according to the last command ALT by ATC(climb to 1500m if lower). If the altitude over CGT is higher than 1500m, join the holding procedure, and descend to the initial approach altitude 1500m, then approach according to ILS/DME y RWY18L instrument approach

procedure.

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。

5.2.2 Aircraft departure

Aircraft continue departure according to the last commanding (procedure) by ATC. ATC will conduct the traffic accordingly. If can't continue departure, aircraft can decide to return or dump fuel over fuel dumping area by itself,landing according to operation direction. ATC will conduct the traffic accordingly.

5.3 本场通信失效

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；

5.3 Aerodrome communication failure

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

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。

5.4 Radio communication return to normal

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 等待：目视飞行在跑道西侧，按起落航线进行等待。

6. Procedures for VFR flights

6.1 Holding: Visual flight on the west side of RWY,wait according to the traffic circuits.

6.2 目视飞行规定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的安全间隔，当航空器进近至决断高度或最低下降高度时，可能会遇到在同一条跑道上前面落地的航空器正在脱离，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，并立即通知管制员。

6.2 Visual flight rulesWhen using VFR separation on the final approach phase of instrument approach procedures, pilot shall follow the instrument approach procedures and keep watching to ensure a safety separation with other aircraft. When the aircraft descends to DA or MDA, some situations may be observed, such as the preceding aircraft is vacating 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.

6.3 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。若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。

6.3 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. If pilot can not visual the relative aircraft ,controller will direct the aircraft to abort approach or go around according to actual traffic situation.

6.4 机场实施目视进近，航空器应遵守目视间隔飞行规定

6.4 Visual approach implemented in airport, aircraft shall obey flight rules of visual separation.

7. 目视飞行航线

7. VFR route

无

Nil

8. 目视参考点

无

8. Visual reference point

Nil

9. 其它规定

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. Other regulations

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

10. 区域导航飞行程序相关数据

10. Data for RNAV flight procedures

Waypoint list

ID	COORDINATES(WGS-84)	ID	COORDINATES(WGS-84)
PD024	N304753E1215521	SS204	N312256E1211303
PD304	N305157E1220957	SS205	N311213E1211338
PD409	N305117E1214005	SS206	N305549E1211850
PD503	N313258E1213800	SS207	N304240E1211659
PD507	N314525E1221837	SS208	N305048E1211307
		SS210	N302659E1210239
SF1	N312700E1211921	SS211	N305519E1212142
SF2	N305809E1212055	SS213	N302208E1212509
SH1	N313227E1204809	SS301	N310152E1212029
SH2	N312213E1204356	SS302	N310301E1211408
SH3	N303456E1205926	SS303	N310413E1210733
SS013	N312258E1211935	SS304	N310924E1210716
SS023	N310057E1212046	SS305	N311646E1210651
SS033	N312256E1211921	SS306	N313056E1210455
SS043	N310057E1212032	SS320	N315700E1205100
SS201	N312700E1211248	SS401	N305824E1212712

SS402	N310112E1212703	AKARA	N3130.0E12330.0
SS403	N311128E1212630	ALDAP	N3137.5E12222.2
SS405	N310041E1211416	BOLEX	N3100.0E12300.0
SS406	N311902E1211315	BONGI	N3100.0E12238.9
SS407	N305100E1211809	DADAT	N3027.0E12114.8
SS409	N305110E1212208	EKIMU	N3121.1E12106.6
SS420	N312401E1205701	EMSAN	N3140.7E12246.5
SS501	N311705E1211939	IBEGI	N3149.4E12216.6
SS502	N312405E1211044	LAMEN	N3136.6E12400.0
SS503	N311650E1211322	LASAN	N3100.0E12225.5
SS504	N311254E1210704	MATNU	N3139.6E12238.0
SS505	N311009E1210229	MIGOL	N3045.8E12341.7
		PIKAS	N3210.0E12044.0
AND	N3015.4E12113.3	PINOT	N3127.0E12227.0
JTN	N3107.4E12120.5	POMOK	N3127.0E12107.0
NXD	N3053.8E12025.8	PONAB	N3035.3E12224.1
PUD	N3110.3E12147.0	SASAN	N3135.4E12019.2
		SUPAR	N3001.4E12051.5
		SURAK	N3146.4E12329.5
		TONIX	N3119.9E12332.6

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (kt)	VPA/ TCH	Navigation Specification
RWY18L DEPARTURE								
CF	SS301		184					RNAV1
RWY18R DEPARTURE								

CF	SS301		183					RNAV1
RWY18L/18R SID IBE-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	PD024				↓1800			RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	PINOT							RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
RWY18L/18R SID SUR-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	PD024				↓1800			RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY18L/18R SID LAM-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	PD024				↓1800			RNAV1

TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY18L/18R SID MIG-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	PD024				↓1800			RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY18L/18R SID PON-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	PD024				↓1800			RNAV1
TF	PD304							RNAV1
TF	PONAB							RNAV1
RWY18L/18R SID AND-61D								
IF	SS301							RNAV1
TF	SS211				↑900	MAX 250		RNAV1
TF	SS213							RNAV1

TF	AND							RNAV1
RWY18L/18R SID NXD-61D								
IF	SS301							RNAV1
TF	SS302				↓1500 ↑900	MAX 250		RNAV1
TF	SS303							RNAV1
TF	NXD				↑3900			RNAV1
RWY18L/18R SID SAS-61D								
IF	SS301							RNAV1
TF	SS302				↓1500 ↑900	MAX 250		RNAV1
TF	SS303							RNAV1
TF	SS304							RNAV1
TF	SS305				↑2700			RNAV1
TF	EKIMU							RNAV1
TF	SASAN							RNAV1
RWY18L/18R SID PIK-61D								
IF	SS301							RNAV1
TF	SS302				↓1500 ↑900	MAX 250		RNAV1
TF	SS303							RNAV1
TF	SS304							RNAV1
TF	SS305				↑2700			RNAV1
TF	EKIMU							RNAV1
TF	POMOK							RNAV1
TF	SS306				↓3600			RNAV1
TF	SS320				↑6000 or by ATC			RNAV1

TF	PIKAS							RNAV1
RWY36R/36L SID IBE-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1
TF	PD409				↓4500 ↑3600			RNAV1
TF	PD024							RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	PINOT							RNAV1
TF	ALDAP							RNAV1
TF	IBEGI							RNAV1
RWY36R/36L SID SUR-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1
TF	PD409				↓4500 ↑3600			RNAV1
TF	PD024							RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1

TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	AKARA							RNAV1
TF	SURAK							RNAV1
RWY36R/36L SID LAM-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1
TF	PD409				↓4500 ↑3600			RNAV1
TF	PD024							RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	TONIX							RNAV1
TF	LAMEN							RNAV1
RWY36R/36L SID MIG-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1

TF	PD409				↓4500 ↑3600			RNAV1
TF	PD024							RNAV1
TF	PD304							RNAV1
TF	LASAN							RNAV1
TF	BONGI							RNAV1
TF	BOLEX							RNAV1
TF	MIGOL							RNAV1
RWY36R/36L SID PON-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1
TF	PD409				↓4500 ↑3600			RNAV1
TF	PD024							RNAV1
TF	PD304							RNAV1
TF	PONAB							RNAV1
RWY36R/36L SID AND-71D								
VA			003		200			RNAV1
DF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	SS211				↓3000			RNAV1
TF	SS213							RNAV1

TF	AND							RNAV1
RWY36R/36L SID NXD-71D								
VA			003		200			RNAV1
TF	SS503				↓1500 ↑600	MAX 220		RNAV1
TF	SS504							RNAV1
TF	SS303				↑2100			RNAV1
TF	NXD				↑3900			RNAV1
RWY36R/36L SID SAS-71D								
VA			003		200			RNAV1
DF	EKIMU				↓1500 ↑900	MAX 220		RNAV1
TF	SS420				↑1500			RNAV1
TF	SASAN							RNAV1
RWY36R/36L SID PIK-71D								
VA			003		200			RNAV1
DF	SS502				↓1500 ↑900	MAX 250		RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY36L DEPARTURE TRANSMISSION VIA SS501								
CF	SS501		003					RNAV1
RWY36R DEPARTURE TRANSMISSION VIA SS501								
CF	SS501		360					RNAV1
RWY36R/36L SID SAS-72D								
IF	SS501							RNAV1

TF	EKIMU				↓1500 ↑900	MAX 220		RNAV1
TF	SS420				↑1500			RNAV1
TF	SASAN							RNAV1
RWY36R/36L SID PIK-72D								
IF	SS501							RNAV1
TF	SS502				↓1500 ↑900	MAX 250		RNAV1
TF	POMOK							RNAV1
TF	SS320				↑6000 or by ATC			RNAV1
TF	PIKAS							RNAV1
RWY36L DEPARTURE TRANSMISSION VIA SF1								
CF	SF1		004		↑1200	MAX 250		RNAV1
RWY36R DEPARTURE TRANSMISSION VIA SF1								
CF	SF1		003		↑1200	MAX 250		RNAV1
RWY36R/36L SID IBE-73D (BY ATC)								
IF	SF1				↑1200	MAX 250		RNAV1
TF	PD503							RNAV1
TF	PD507							RNAV1
TF	IBEGI							RNAV1
RWY36R/36L SID SUR-73D (BY ATC)								
IF	SF1				↑1200	MAX 250		RNAV1
TF	PD503							RNAV1

TF	PD507							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
RWY36R/36L SID LAM-73D (BY ATC)								
IF	SF1				↑1200	MAX 250		RNAV1
TF	PD503							RNAV1
TF	PD507							RNAV1
TF	MATNU							RNAV1
TF	EMSAN							RNAV1
TF	SURAK							RNAV1
TF	LAMEN							RNAV1
RWY18R/18L STAR PUD-61A								
IF	PUD							RNAV1
TF	JTN				↑1800			RNAV1
TF	SS205				↑1500			RNAV1
TF	SS204				↑600	MAX 210		RNAV1
RWY18R/18L STAR AND-61A								
IF	AND							RNAV1
TF	DADAT							RNAV1
TF	SS207							RNAV1
TF	SS206				↓2400			RNAV1
TF	JTN				↑1800			RNAV1
TF	SS205				↑1500			RNAV1
TF	SS204				↑600	MAX 210		RNAV1

RWY18R/18L STAR AND-62A (BY ATC)								
IF	AND							RNAV1
TF	SS213							RNAV1
TF	SS211				↓2400			RNAV1
TF	JTN				↑1800			RNAV1
TF	SS205				↑1500			RNAV1
TF	SS204				↑600	MAX 210		RNAV1
RWY18R/18L STAR SUP-61A (BY ATC)								
IF	SUPAR							RNAV1
TF	SS210							RNAV1
TF	SS208							RNAV1
TF	SS206				↓2400			RNAV1
TF	JTN				↑1800			RNAV1
TF	SS205				↑1500			RNAV1
TF	SS204				↑600	MAX 210		RNAV1
RWY18R/18L STAR SAS-61A								
IF	SASAN				↓5000			RNAV1
TF	SS420				↓2400 or by ATC			RNAV1
TF	SS204				↑600	MAX 210		RNAV1
RWY18R/18L STAR SAS-62A (BY ATC)								
IF	SASAN				↓5000			RNAV1
TF	SS420				↓2400 or by ATC			RNAV1
TF	POMOK							RNAV1

TF	SS201				↑600	MAX 210		RNAV1
RWY18L APPROACH TRANSMISSION VIA SS201								
IF	SS201				↑600	MAX 210		RNAV1
TF	SF1							RNAV1
TF	SS013				↑550			RNAV1
RWY18L APPROACH TRANSMISSION VIA SS204								
IF	SS204				↑600	MAX 210		RNAV1
TF	SS013				↑550			RNAV1
RWY18R APPROACH TRANSMISSION VIA SS201								
IF	SS201				↑600	MAX 210		RNAV1
TF	SF1							RNAV1
TF	SS033				↑550			RNAV1
RWY18R APPROACH TRANSMISSION VIA SS204								
IF	SS204				↑600	MAX 210		RNAV1
TF	SS033				↑550			RNAV1
RWY36R/36L STAR PUD-71A								
IF	PUD							RNAV1
TF	SS205				↑1800			RNAV1
TF	SS405				↑600	MAX 210		RNAV1
RWY36R/36L STAR PUD-72A								
IF	PUD							RNAV1
TF	SS403				↑1800			RNAV1

TF	SS402							RNAV1
TF	SS401							RNAV1
TF	SF2				↑600	MAX 210		RNAV1
RWY36R/36L STAR AND-71A								
IF	AND							RNAV1
TF	DADAT							RNAV1
TF	SS207				↓2700			RNAV1
TF	SS407				↓1500 or by ATC			RNAV1
TF	SF2				↑600	MAX 210		RNAV1
RWY36R/36L STAR AND-72A (BY ATC)								
IF	AND							RNAV1
TF	SS213							RNAV1
TF	SS409				↓1500 or by ATC			RNAV1
TF	SF2				↑600	MAX 210		RNAV1
RWY36R/36L STAR SUP-71A (BY ATC)								
IF	SUPAR							RNAV1
TF	SS210							RNAV1
TF	SS208				↓1500 or by ATC			RNAV1
TF	SF2				↑600	MAX 210		RNAV1
RWY36R/36L STAR SAS-71A								
IF	SASAN				↓5000			RNAV1

TF	SS420				↓2700			RNAV1
TF	EKIMU							RNAV1
TF	SS406							RNAV1
TF	SS205				↑1800			RNAV1
TF	SS405				↑600	MAX 210		RNAV1
RWY36L APPROACH TRANSMISSION VIA SS405								
IF	SS405				↑600	MAX 210		RNAV1
TF	SS043				↑600			RNAV1
RWY36L APPROACH TRANSMISSION VIA SF2								
IF	SF2				↑600	MAX 210		RNAV1
TF	SS043				↑600			RNAV1
RWY36R APPROACH TRANSMISSION VIA SS405								
IF	SS405				↑600	MAX 210		RNAV1
TF	SS023				↑600			RNAV1
RWY36R APPROACH TRANSMISSION VIA SF2								
IF	SF2				↑600	MAX 210		RNAV1
TF	SS023				↑600			RNAV1
RWY18R/18L HOLDING（OUTBOUND TIME: 1MIN）								
HM	SS205	Y	003	R	by ATC	MAX 230		RNAV1
HM	SH1	Y	115	L	by ATC	MAX 230		RNAV1
HM	SH2	Y	115	R	by ATC	MAX		RNAV1

						230		
HM	SH3	Y	026	L	by ATC	MAX 230		RNAV1
RWY18R/18L HOLDING（OUTBOUND TIME: 1.5MIN）								
HM	SS207	Y	012	R	↓5100 ↑3000	MAX 230		RNAV1
RWY36R/36L HOLDING（OUTBOUND TIME: 1MIN）								
HM	SS205	Y	183	L	by ATC	MAX 230		RNAV1
HM	SH1	Y	115	L	by ATC	MAX 230		RNAV1
HM	SH2	Y	115	R	by ATC	MAX 230		RNAV1
HM	SH3	Y	026	L	by ATC	MAX 230		RNAV1
RWY36L/36R HOLDING（OUTBOUND TIME: 1.5MIN）								
HM	SS207	Y	012	R	↓5100 ↑3000	MAX 230		RNAV1

ZSSS AD 2.23 其它资料

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。

ZSSS AD 2.23 Other information

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

night heron	May-December	50-80
cattle egret	April-October	30-50
hawk	January, August-December	30-50
barn swallow	March-September	2-10