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

ZSHC-杭州/萧山 HANGZHOU/Xiaoshan

ZSHC 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	N30°13.7' E120°26.0' Center of RWY07/25
2	方向、距离 Direction and distance from city	27km from city center
3	标高/参考气温 Elevation / Reference temperature	6.7m/32.2℃(JUL)
4	机场标高位置/大地水准面波幅 AD ELEV PSN / geoid undulation	ARP/-
5	磁差/年变率 MAG VAR/ Annual change	4°W/
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	Hangzhou Xiaoshan International Airport CO. LTD. Hangzhou Xiaoshan International Airport, Hangzhou，Zhejiang province, China Post code:311207 TEL:86-571-86662999 AFS:ZSHCYDYX Website:www.hzairport.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/4F（RWY06/24）& 4E（RWY07/25）
9	备注 Remarks	Nil

ZSHC 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	H24
3	卫生健康部门 Health and sanitation	H24

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	H24
9	地勤服务 Handling	H24
10	保安 Security	H24
11	除冰 De-icing	H24
12	备注 Remarks	Nil

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

1	货物装卸设施 Cargo-handling facilities	Tow-tractor, conveyor truck, dolly, fork, container tractor, collection paneling trailer
2	燃油/滑油牌号 Fuel/oil types	Nr.3 jet fuel --
3	加油设施/能力 Fuelling facilities/capacity	Refueling truck (65000 litres, 20000 litres); hydrant dispenser: 20 liters/sec; a pipe system of apron aircraft-refueling well, aviation kerosene storage tank(60000 CBM), gasoline pump unit, apron common pipe network(MAX 300L/S)
4	除冰设施 De-icing facilities	De-icer, de-icing fluid:KHF-1, Cleanwing-II
5	过站航空器机库 Hangar space for visiting aircraft	The nose-hangar is for one A320 and below
6	过站航空器的维修设施	Line maintenance available for various types of aircraft on request,

	Repair facilities for visiting aircraft	including B737, B757, B777, B787, A319, A320, A321, A330
7	备注 Remarks	Static variable power, ground power unit, ground air supply unit, ground air preconditioning unit, ladder truck

ZSHC 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 and in the city
3	交通工具 Transportation	Passenger’s coaches, taxis
4	医疗设施 Medical facilities	First-aid and ambulances at AD
5	银行和邮局 Bank and Post Office	Bank at AD
6	旅行社 Tourist Office	Nil
7	备注 Remarks	Nil

ZSHC 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: rescue command car, illumination truck, rapid intervention vehicle, primary foam tender, demolition rescue truck, heavy-duty foam tender, heavy-duty water tank truck, dry-chemical tender, medicament reinforcement car, command car, logistics car, recovery type ambulance, transport type ambulance; Rescue equipment: ambulance, rescue command car, fire axe, medical material transport vehicle,cutter, expansion pliers, steel plate, jack, etc.
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTOW up to B747 removal equipment: trail, lifting air bag, active road surface, traction rack, ties, rope
4	备注 Remarks	Nil

ZSHC 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 blower, snow pusher, snow ploughs de-icing fluid spreader
2	扫雪顺序 Clearance priorities	RWY, TWY, apron
3	备注 Remarks	Nil

ZSHC 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 92/R/B/W/T: Apron Nr.1, Nr.2; PCN 90/R/B/W/T: Apron Nr.6(stands Nr.600-613), Nr.7(N of 714-726(stands included)), Nr.9(stands Nr.901-916, 929-946); PCN 82/R/B/W/T: Apron Nr.3, Nr.7(BTN D5 & D7); PCN 80/R/B/W/T: Apron Nr.7(S of 714-726(stands not included)), Nr.9(stands Nr.917-928); PCN 72/R/B/W/T: Apron Nr.6(stands Nr.616-626) PCN 67/R/B/W/T: Apron Nr.5
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	Width:	56m: D2-D8, J2-J6 53m: D1 44m: B3 38m: C2, C7 34m: A2, A7, B1, B10, B4-B7 31.5m: C1, C8 28.5m: A1, A8 27m: A3-A6 25m: C, C3, C6, D(E of D4), K, L 23m: A, B, C4, C5, D(W of D4）, J 18m: K1
		Surface:	CONC
		Strength:	PCN 95/R/B/W/T: A, A1 , A2, A7, A8, B(BTN A1 & B6, BTN K & B10), B6(S of B), B7(S of B), B10 PCN 92/R/B/W/T: B (BTN B7 & K), B1, B3-B5, C, C1, C2 , C7(N of D) , C8(N of D), D(BTN D5 & L), D5, D6, D7(N of J6), D8, J, J2, J3(E of J), J4(E of J), J5(E of J), J6, K PCN 90/R/B/W/T: B(BTN B6 & B7), D(E of L, W of D5), D1(N of D), D2, D3(N of D), D4, L

			PCN 82/R/B/W/T: D7(S of J6), K1 PCN 73/R/B/W/T: C3-C6 PCN 67/R/B/W/T: A3-A6
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	

ZSHC 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 apron and TWYs. All stands have identification sign boards (except stands Nr.206-210, 381-386, 600, 618-626, 901-946 which use identification markings on ground) Stands Nr. 211-218, 301-343 refer AD1.1 for Visual Docking Guidance System, marshallers' instructions are provided for other stands.	
2	跑道和滑行道标志及灯光 RWY and TWY marking and LGT	RWY markings	THR, RWY designations, TDZ, center line, edge line, aiming point
		RWY lights	Center line, edge line, THR, RWY end, TDZ(RWY06)
		TWY markings	Center line, RWY holding position, edge line, intermediate holding position, 'No-entry' sign boards
		TWY lights	Center line, edge line, rapid exit TWY indicator lights, intermediate holding position
3	停止排灯 Stop bars	RWY06, C1, C2. Red.	
4	备注 Remarks	RWY07/25: RWY guard lights for TWY A1-A8. NO-ENTRY makers and NO-ENTRY bar for 4 rapid exit TWY. Red lights and yellow signs for closed TWY east of TWY B5 and southeast corner of Air China's apron. RWY06/24: RWY guard lights for TWY C1-C8. NO-ENTRY maker and NO-ENTRY bar for 4 rapid exit TWY. The center line lights spacing of TWY A, A1-A8, B, C(C1-C6), C1, C2, C6, C7（north of D）, C8（north of D）, D1(C-D), D2, K(C-D) is 15m, other spacing is 30m.	

		No TWY center line lights for K1.

ZSHC 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 07/25

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	MT	0	7010	142.0		
2	BLDG	026	3342	20.6	RWY06 Take-off path	
3	BLDG	028	3487	23.6	RWY06 Take-off path	
4	BLDG	029	3405	22.9	RWY06 Take-off path	
5	BLDG	029	3630	24.1	RWY06 Take-off path	
6	Light Pole	030	3173	20.8	RWY06 Take-off path	
7	Lightning Rod	030	3649	24.0		
8	BLDG	030	3704	24.7	RWY06 Take-off path	
9	Antenna	031	3784	26.2	RWY06 Take-off path	
10	Board	033	3395	21.4		
11	BLDG	033	3894	31.2	RWY06 Take-off path	
12	BLDG	034	3437	24.3	RWY06 Take-off path	
13	BLDG	034	3913	31.7	RWY06 Take-off path	
14	BLDG	035	3421	25.4	RWY06 Take-off path	
15	BLDG	035	4232	31.3		
16	BLDG	038	4540	36.8		
17	BLDG	038	4619	37.4		
18	BLDG	041	3959	36.5	RWY06 Take-off path	
19	BLDG	042	3998	37.2	RWY06 Take-off path	
20	BLDG	042	4194	38.0	RWY06 Take-off path	
21	BLDG	043	4455	44.5	RWY06 Take-off path	
22	BLDG	043	4487	40.6		
23	BLDG	053	5630	51.5	RWY24 GP INOP	

Obstacles within a circle with a radius of 15km centered on the center of RWY 07/25						
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
					approach	
24	BLDG	062	3729	33.1		
25	BLDG	063	3218	25.4		
26	BLDG	063	3667	33.3		
27	BLDG	064	2932	23.9	RWY07 Take-off path	
28	BLDG	066	4009	33.5		
29	BLDG	067	2811	21.0	RWY07 Take-off path	
30	BLDG	067	4111	39.5	RWY07 Take-off path; RWY25 GP INOP approach	
31	BLDG	068	3497	27.4		
32	BLDG	069	3524	30.0		
33	BLDG	070	2772	19.6	RWY07 Take-off path	
34	BLDG	070	2796	20.6	RWY07 Take-off path	
35	BLDG	070	3500	28.5		
36	BLDG	071	2971	25.7	RWY07 Take-off path	
37	BLDG	071	3509	29.0		
38	BLDG	071	3579	32.9	RWY07 Take-off path	
39	BLDG	071	3622	37.3	RWY 07 Take-off path	
40	Lightning Rod	072	3480	31.1	RWY07 Take-off path	
41	*BLDG	072	3492	28.8		
42	BLDG	072	3559	29.2		
43	Chimney	078	5966	65.5	RWY07 Take-off path; RWY25 VOR/DME approach	
44	Power plant	176	4756	94.4		

Obstacles within a circle with a radius of 15km centered on the center of RWY 07/25						
序号 Serial Nr.	障碍物类型(*代表有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞航径区 Flight procedure / take - off flight path area affected	备注 Remarks
45	*Chimney	176	4773	92.1		
46	Chimney	177	4617	129.0		
47	*BLDG	180	4153	51.6		
48	*TWR	188	5515	337.9	Circling for CAT B/C/D; 180°-300°MSA sector	
49	Iron TWR	218	11405	254.6		
50	BLDG	242	3474	34.7	RWY25 Take-off path	
51	BLDG	244	2680	18.8	RWY25 Take-off path	
52	Water TWR	245	2729	20.9	RWY25 Take-off path	
53	BLDG	245	2898	21.8		
54	BLDG	245	3705	33.6		
55	BLDG	245	3763	31.3		
56	BLDG	246	2929	23.0		
57	TWR	248	3728	31.8		
58	BLDG	249	3332	25.9	RWY25 Take-off path	
59	BLDG	250	2841	24.1	RWY25 Take-off path	
60	BLDG	250	2854	24.0		
61	Lightning Rod	250	3587	37.6	RWY07 GP INOP approach; RWY25 Take-off path	
62	BLDG	252	3265	25.6	RWY25 Take-off path	
63	TWR	253	13102	163.1		
64	Chimney	270	5002	45.0		
65	TWR	271	4782	43.4	RWY24 Take-off path	
66	BLDG	271	4845	44.4	RWY24 Take-off path	

Obstacles within a circle with a radius of 15km centered on the center of RWY 07/25						
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
67	Lightning Rod	271	4845	45.6	RWY24 Take-off path	
68	Lightning Rod	272	4973	49.3	RWY24 Take-off path	
69	Chimney	273	5426	51.5	RWY24 Take-off path	
70	Chimney	273	5484	51.3		
71	BLDG	273	5488	51.5	RWY06 GP INOP approach	
72	BLDG	277	3593	26.2	RWY24 Take-off path	
73	BLDG	277	3752	27.4		
74	BLDG	277	3821	30.0		
75	Chimney	277	3843	29.3		
76	BLDG	278	3768	24.8		
77	BLDG	279	3538	24.9	RWY24 Take-off path	
78	BLDG	279	3773	27.1		
79	BLDG	279	4053	27.9		
80	BLDG	280	3644	25.9	RWY24 Take-off path	
81	Antenna	280	3650	25.4	RWY24 Take-off path	
82	BLDG	280	3781	27.3	RWY24 Take-off path	
83	BLDG	281	3474	22.6	RWY24 Take-off path	
84	BLDG	281	3535	21.9		
85	Board	281	3967	25.5		
86	Lightning Rod	281	4067	31.7		
87	BLDG	282	3803	26.9	RWY24 Take-off path	
88	BLDG	282	3854	26.4		
89	Antenna	282	3994	34.2	RWY24 Take-off path	
90	*BLDG	283	14130	224.6		

Obstacles within a circle with a radius of 15km centered on the center of RWY 07/25						
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
91	BLDG	288	3018	13.4	RWY06 ILS/DME approach; RWY24 Take-off path	
92	TWR	301	1051	88.0		
93	Antenna	310	4025	142.5	Circling CAT A.	
94	*TWR	324	2222	16.2		
95	*TWR	345	2186	16.2		
Others:						

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 07/25						
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	022	46486	178		
2	TV TWR	044	40478	187		
3	MT	071	34343	187		
4	MT	072	41371	251	MVA	
5	Chimney	095	27326	215	RWY24/25 initial approach	
6	MT	110	45130	167		
7	TV TWR	139	21756	168		
8	MT	144	46879	572	MVA	
9	MT	146	35566	218		
10	BLDG	151	29512	294		
11	MT	155	48994	672		

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 07/25						
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
12	MT	162	48692	572		
13	MT	167	164230	1382	MVA	
14	MT	174	44827	703		
15	MT	182	49309	373		
16	MT	192	29147	499		
17	MT	196	21768	348		
18	MT	199	47698	253		
19	TV TWR	207	37166	227		
20	MT	210	42077	583		
21	MT	216	17400	372		
22	MT	217	23494	462		
23	MT	219	40840	509		
24	TWR	226	17366	224		
25	MT	228	39862	597		
26	MT	232	60868	1068	MVA	
27	MT	235	42469	790	300°-090°MSA sector; RWY06/07 initial approach	
28	MT	235	68230	835	MVA	
29	TWR	237	25008	257		
30	MT	240	35636	528	RWY06/07 traditional approach; RWY07 PBN initial approach	
31	MT	242	273369	1816	MVA	
32	MT	250	25530	218	RWY06/07 RNAV, ILS/DME intermediate approach; RWY06 PBN	

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 07/25						
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
					intermediate approach	
33	TWR	252	19118	222	RWY06/07 tranditional intermediate approach, GP INOP approach, LNAV approach; RWY07 PBN intermediate approach, VOR/DME approach	
34	BLDG	256	17236	219		
35	MT	258	43862	537	RWY06/07 traditional initial approach	
36	MT	258	48415	570		
37	BLDG	269	23248	180		
38	MT	273	33493	412		
39	*BLDG	276	19744	174		
40	*BLDG	277	17924	286		
41	BLDG	277	22136	164		
42	BLDG	277	22370	187		
43	BLDG	277	22409	187		
44	BLDG	277	22559	239		
45	MT	277	33425	355		
46	BLDG	278	18791	164		
47	BLDG	278	18795	164		
48	BLDG	278	19189	158		
49	BLDG	278	22085	267		
50	BLDG	278	22334	211		
51	BLDG	278	22569	159		

Obstacles between two circles with the radius of 15km and 50km centered on the center of RWY 07/25						
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	278	22661	159		
53	BLDG	282	21775	230		
54	BLDG	282	21874	168		
55	BLDG	283	20880	165		
56	BLDG	283	22565	157		
57	BLDG	286	27149	207		
58	MT	289	74299	1096	MVA	
59	MT	294	43859	171		
60	Chimney	302	31435	184		
61	MT	304	48843	467	090°-180°MSA sector	
62	MT	308	28201	256		
63	MT	314	27499	361		
64	MT	320	31710	258		
65	MT	328	25712	217		
66	BLDG	330	25654	205		
Others: Other obstacles refer to AD OBST chart						

ZSHC 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	Hangzhou Xiaoshan 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	Hangzhou Xiaoshan Aerodrome MET Office 9 HR, 24 HR

	Office responsible for TAF preparation,Periods of validity; Interval of issuance	3HR, 6HR
4	趋势预报发布间隔 Issuance interval of trend forecast	Trend 30 MIN
5	所提供的讲解/咨询服务 Briefing/consultation provided	P, T
6	飞行文件及其使用语言 Flight documentation, Languages used	Chart, International MET Codes, Abbreviated Plain Language Text Ch, En
7	讲解/咨询服务时可利用的图表和其它信息 Charts and other information available for briefing or consultation	Synoptic charts, significant weather charts, upper W/T charts, satellite material, AWOS real-time data, radar,temperature forecasting chart
8	提供信息的辅助设备 Supplementary equipment available for providing information	FAX，MET Service Terminal
9	提供气象情报的空中交通服务单位 ATS units provided with information	Hangzhou Tower, Hangzhou Approach, Reporting office
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, TREND
12	观测系统及位置 Observation System & Site(s)	RVR EQPT A: RWY07/25 100m S of RCL, 314m inward THR07 B: RWY07/25 100m S of RCL, 1785m inward THR07 C: RWY07/25 100m S of RCL,344m inward THR25 D: RWY06/24 100m N of RCL, 313m inward THR06 E: RWY06/24 100m N of RCL,1690m inward THR06 F: RWY06/24 100m N of RCL, 343m inward THR24 SFC wind sensors 06: 110m N of RCL,323m inward THR 06/24 Center: 110m N of RCL,1700m inward THR06 24: 110m N of RCL,323m inward THR 07: 110m S of RCL,344m inward THR

		07/25 Center: 110m S of RCL,1795m inward THR07 25: 110m S of RCL,334m inward THR Ceilometer 06: 10m N of RCL,960m outward THR 24: 5m S of RCL,905m outward THR 07: 969m outward THR 25: 1020m outward THR
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

ZSHC 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
06	062.95°GEO 067°MAG	3400×60	92/R/B/W/T CONC/-		THR6.7m TDZ6.7m
24	242.95°GEO 247°MAG	3400×60	92/R/B/W/T CONC/-		THR6.7m TDZ6.7m
07	062.95°GEO 067°MAG	3600×45	95/R/B/W/T CONC/-		THR6.7m TDZ6.7m
25	242.95°GEO 247°MAG	3600×45	95/R/B/W/T CONC/-		THR6.7m TDZ6.7m
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	240×150
See AOC	Nil	Nil	3520×300	Nil	240×150
See AOC	Nil	Nil	3720×300	Nil	230×120
See AOC	Nil	Nil	3720×300	Nil	230×120
Remark: All RWYs shoulder are 7.5m. RWY07/25 grooved at full length, width 45m. RWY06/24 grooved at full length, width 60m.RWY 07/25 Anti-blast pad is 60×60m, RWY 06/24 Anti-blast pad is 120×75m, Distance between RCL of RWY06/24 and RWY07/25 is 2000m, THR24 is 200m west of THR25.					

ZSHC 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
06	3400	3400	3400	3400	Nil
06	3187	3187	3187	3400	FM C2
24	3400	3400	3400	3400	Nil
24	3187	3187	3187	3400	FM C7
07	3600	3600	3600	3600	Nil
07	3388	3388	3388	3600	FM A2
25	3600	3600	3600	3600	Nil
25	3388	3388	3388	3600	FM A7

ZSHC 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

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
06	PALS CAT II* 900m LIH	GREEN Yes	PAPI LEFT 444m inward THR06 3°	900m	3400m** spacing 15m	3400m**** spacing 60m	RED	Nil
24	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT 445m inward THR24 3°	Nil	3400m** spacing 15m	3400m**** spacing 60m	RED	Nil
07	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT 390m inward THR07 3°	Nil	3600m*** spacing 15m	3600m***** spacing 60m	RED	Nil
25	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT 390m inward THR25 3°	Nil	3600m*** spacing 15m	3600m***** spacing 60m	RED	Nil

Remarks: *SFL

** 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

**** up to 2700m White VRB LIH, 2700-3300m Red/White VRB LIH, 3300-3600m Red VRB LIH

*****up to 3000m White VRB LIH, 3000-3600m Yellow VRB LIH

ZSHC 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: RWY06:100m N of RWY06/24, 450m inward RWY06 RWY24:100m S of RWY06/24, 450m inward RWY24 RWY07:105m N of RWY07/25, 350m inward RWY07 RWY25:105m N of RWY07/25, 350m inward RWY25
3	滑行道边灯和中线灯 TWY edge and center line lighting	All TWYs
4	备份电源/转换时间 Secondary power supply/switch-over time	RWY07/25/24: Secondary power supply available / 15 sec RWY06/07: Secondary power supply available / 1 sec RWY24/25: Secondary power supply available / 1 sec
5	备注 Remarks	Nil

ZSHC AD 2.16 直升机着陆区域 Helicopter landing area

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

	Remarks	

ZSHC 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
Hangzhou TWR Control	An area encompassed by arcs with radius 13km centered at RWY ends and two parallel lines 13km from both RCLs together with tangent lines of arcs.	SFC-600m	
Fuel Dumping Area	N3113.0E12300.0 - N3130.0E12400.0 - N3110.0E12400.0 - N3100.0E12300.0 - N3113.0E12300.0	3000m and above	Fuel dumping area is same as Shanghai/Pudong airport.
Altimeter setting region and TL/TA	DADAT - NANXUN VOR(NXD)-UDOLA - N300024E1195800-SHENGZHOU VOR(SHZ) - N293000E1220000 - N295500E1220000 - N301500E1221200-BAVIK-IDNIK-DADAT	TL 3600m TA 3000m 3300m(QNH≥1031hPa) 2700m(QNH≤979hPa)	1.use Pudong QNH in general; 2.When QNH difference BTN Hangzhou and Shanghai terminal is more than 4hPa, contact ATC.

ZSHC 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		127.25	H24	D-ATIS available
APP	Hangzhou Approach	APP01:120.05(124.65)	0030-1500	Contact ZSHCAP04 when ZSHCAP01 U/S.
APP	Hangzhou Approach	APP02:125.55(119.15)	by ATC	Contact ZSHCAP04 when ZSHCAP02 U/S.
APP	Hangzhou Approach	APP03:126.05(125.275)	H24	
APP	Hangzhou Approach	APP04:120.4(119.15)	2300-1600(next day)	Contact ZSHCAP03 when ZSHCAP04 U/S.
APP	Hangzhou Approach	APP05:119.425(125.275)	0030-1100	Contact ZSHCAP03 when ZSHCAP05 U/S.
TWR	Hangzhou Tower	(N)123.65(118.75)	HO	RWY06/24
TWR	Hangzhou Tower	(S)118.3(118.75)	HO	RWY07/25

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
GND	Hangzhou Ground	121.65	HO	
Delivery	Hangzhou Delivery	121.95	22:30-15:00	DCL 24h available
EMG	Hangzhou Tower/ Hangzhou Approach	121.50	H24	
Ramp	Hangzhou Ramp	Ramp(N):121.725(121.55)	H24	
Ramp	Hangzhou Ramp	Ramp(S):121.85(121.55)	HO	

ZSHC 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
Hangzhou VOR/DME	HGH	113.0MHz CH77X	N30°14.4' E120°27.7' 067°MAG/1010m FM THR 25	13m	
Dangshan VOR/DME	DSH	117.3MHz CH120X	N30°08.9' E120°30.1'	13m	
Jianqiao NDB	CJ	324kHz	N30°18.3′ E120°10.0′		
Wenyan NDB	WY	572kHz	N30°07.3' E120°12.1' 247°MAG/23482m FM THR RWY 07		On BRG 237°-239°(clockwise) U/S; SID: BTN 3-6NM, 10-11NM and 14-20NM on BRG 280°U/S, BTN 0-12NM on BRG 247° U/S; STAR and SID: BTN 3-5NM and beyond 16NM on BRG 157° U/S; BTN 3-4NM, 17-25NM on BRG

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
					065°, 064°U/S; Holding and Initial APP : BTN 3-4NM on BRG 064°U/S; BTN 0-5NM on BRG 088° U/S; on BRG 092°, 208°, 337°U/S.
MM 06		75MHz	247°MAG / 960m FM THR 06		
IM 06		75MHz	247°MAG / 335m FM THR 06		
LOC 06 ILS CAT II	IXS	110.5MHz	067°MAG / 310m FM THR 06		
GP 06		329.6MHz	120m N of RCL, 307m inwards THR 06		Angle 3°, RDH 15m
DME 06	IXS	CH42X (110.5MHz)		13m	Co-located with GP 06
LOC 07 ILS CAT I	IXX	110.35MHz	067°MAG / 255m FM THR 25		
GP 07		334.85MHz	120m S of RCL, 309m inwards THR 07		Angle 3°, RDH 15m
DME 07	IXX	CH40Y (110.35MHz)		11m	Co-located with GP 07
LOC 24 ILS CAT I	IHZ	111.5MHz	247°MAG/ 310m FM end RWY 24		
GP 24		332.9MHz	120m N of RCL, 307m inwards THR 24		Angle 3°, RDH 15m
DME 24	IHZ	CH52X (111.5MHz)		13m	Co-located with GP 24
LOC 25	IDD	108.5MHz	247°MAG / 255m		

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			FM THR 07		
GP 25		329.9MHz	120m S of RCL, 309m inwards THR 25		Angle 3 °, RDH 15m
DME 25	IDD	CH22X (108.5MHz)		11m	Co-located with GP 25

ZSHC AD 2.20 本场飞行规定

ZSHC AD 2.20 Local traffic regulations

1. 机场使用规定

1.1 未安装二次雷达应答机的航空器起降需事先申请，并在得到空中交通管制部门批准后方可进行；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 06/24,07/25 跑道可使用最大机型：A380 及其同类机型。以上最大机型全年任意连续三个月不得超过 700 次。07/25 号跑道只适用于 A380 执行训练、维修、调机等任务。

2. 跑道和滑行道的使用

1.Airport operations regulations

1.1 Takeoff/landing of aircraft without SSR transponder are subject to ATC prior clearance before the execution of flight operation; Takeoff/landing of aircraft without SSR transponder are forbidden;

1.2 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 for RWY06/24 and RWY07/25: A380 and equivalent. Maximum aircraft can not land more than 700 times in three consecutive months. RWY07/25 only to be available for A380 execute training, maintaince, ferry flight and other tasks.

2. Use of runways and taxiways

2.1 禁止航空器在滑行道上做 180°转弯，航空器在跑道上做 180°转弯必须获得管制员许可;

2.1 180°turnaround on TWY is forbidden for all aircraft, 180°turnaround on RWY is forbidden for all aircraft without ATC clearance;

2.2 滑行道的滑行限制/Taxiing limits:

滑行道/TWY	航空器翼展限制/ Wing span limits for aircraft
C7, C8, D(E of TWYD5), K	<80m
B3, B6, B7, D3,D(W of TWY D4), J, J3-J6, Z1, Z10, Z11(BTN B & stand Nr.214), Z13(BTN B & Z1), Z14	<65m
Z13(BTN Z1 & stand Nr.217)	<48m
B(BTN K & B10), B10,K1, D0,D7(BTN stands Nr.339&343),Z6, Z7, Z8, Z11(BTN stand Nr.206&210), Z13(BTN stand Nr.217&218), Z17, Z19, Z20	<36m

2.3 跑道等待位置及使用规定

2.3 Runway-holding position and requirements

2.3.1 航空器在进入跑道前必须在指定的跑道等待位置处等待机场管制塔台的指令;

2.3.1 Aircraft shall stop and wait for the instruction of TWR Control at the relative runway-holding positions;

2.3.2 航空器在跑道等待位置等待时，机头应尽量靠近跑道等待位置标志，但不能超过此标识;

2.3.2 The nose of aircraft shall get close to the runway holding position marking without exceeding it when aircraft is waiting at the RWY holding position;

2.3.3 航空器未获管制员许可，机头越过跑道等待位置时，立即向管制员报告;

2.3.3 Aircraft shall report to TWR Control when the nose of aircraft exceeding holding position without instruction;

2.3.4 当滑行道 A2, A7, C2, C7 上有航空器滑行时，平滑 A, C 滑行道上相应道口不得有航空器通行。

2.3.4 No aircraft are permitted to pass through the intersection area of TWY A and A2, A7 or TWY C and C2, C7 when there is aircraft on TWY A2, A7 or C2, C7.

2.4 A380 航空器运行规则

2.4 Operational rules for A380

2.4.1 A380 无限制运行区

2.4.1 Operational areas without limits

跑道 06/24、07/25，其中 07/25 跑道仅供 A380 执行调机、维修、训练等使用；滑行道 A、A1-A8、B1、B3-B5、C、C1-C6、C7（D 滑以北）、C8、D、D1（D 以北）、D2、D3（D 以北）、D4-D6、D7（D 以北）、D8、J（J6 以北、B 以南）、K、Z11（Z1 以南）；停机位 214、331、607、609。

RWY 06/24, RWY 07/25(only for A380 execute ferry, maintenance, training and other task.)TWYs: A, A1-A8, B1, B3-B5, C, C1-C6, C7（north of TWY D), C8, D, D1（north of TWY D）, D2, D3（north of TWY D）, D4-D6, D7（north of TWY D）, D8, J（north of TWY J6, south of TWY B）, K, Z11（south of TWY Z1); Stands Nr. 214, 331, 607, 609.

2.4.2 A380 限制运行区

2.4.2 Operational areas with limits

滑行道：B（K 滑以西）、J6（331 机位以东）、C7（D 滑以南）

TWYs: B(west of K), J6(east of stand Nr.331), C7(south of TWY D)

2.4.3 A380 航空器运行规则

2.4.3 Operational rules for A380

2.4.3.1 在塔台地面管制区，按塔台管制员指令滑行，在杭州机坪管制区，按杭州机坪指令滑行。

当 07/25 号跑道同时用做起飞和降落跑道时，为避免 A380 等待起飞时，须在进入 A1 或 A8 前的 A 滑行道上等待。在 J6（331 机位以东）、C7（D 滑以南）运行时需关闭相关服务车道。A 滑行道、B 滑行道（K 滑以西）不能同时运行 A380；当 A380 在 B 滑行道

2.4.3.1 Aircraft shall taxi following Hangzhou Tower instruction in Tower Ground Control Area and Hangzhou Ramp instruction in Ramp Control Area.

When RWY 07/25 used for departure and landing at the same time, A380 shall wait at TWY A before entry TWY A1 or A8. When operation on TWY J6(east of stand Nr.331) and TWY C7(south of TWY D), related

（K 滑以西）滑行时，Z1 滑行道禁止 E 类及以上航空器运行。

service road shall be closed. TWY A and TWY B(west of K)can not be available for A380 at the same time. When A380 taxi on TWY B(west of K), TWY Z1 is forbidden for aircraft CAT E and above.

2.4.3.2 A380 在杭州机坪管制区进出港由引导车引导。

2.4.3.2 A380 use follow-me vehicle in Ramp Control Area.

2.4.4 A380 现不能提供除冰雪服务。

2.4.4 Snow cleaning and de-icing service is not available for A380.

2.5 塔台根据跑道实际运行情况，将安排航空器使用非全跑道起飞，如航空器驾驶员不能接受非全跑道起飞，请立即告知管制员。

2.5 ATC shall arrange non full-length taking-off procedures for aircraft in accordance with the RWY actual operation situation. If aircraft can not accept non full-length taking-off procedures, inform ATC immediately.

2.6 B747-8 航空器运行规则

2.6 Operational rules for B747-8

2.6.1 B747-8 无限制运行区

2.6.1 Operational areas without limits

跑道：06/24、07/25 号；
滑行道：A、A1-A8、B（K 滑以西）、B1、B3-B6、B7（Z1 以南）、C、C1-C8、D、D1（D 以北）、D2、D3（D 以北）、D4-D6、D7（J6 以北）、D8、J、J2、J3、J4（J 以东）、J5（J 以东）、J6、K、L、Z1、Z11（Z1 以南）、Z13（Z1 以南）、Z14；停机位 106A、108A、214、331、338、607、609。

RWY: 06/24, 07/25;
TWYs: A, A1-A8, B(west of K), B1, B3-B6, B7(south of TWY Z1), C, C1-C8, D, D1(north of TWY D), D2, D3(north of TWY D), D4-D6, D7(north of TWY J6), D8, J, J2, J3, J4(east of TWY J), J5(east of TWY J), J6, K, L, Z1, Z11(south of TWY Z1), Z13(south of TWY Z1), Z14; Stands: Nr.106A, 108A, 214, 331, 338, 607, 609.

2.6.2 B747-8 运行规则

2.6.2 Operational rules for B747-8

2.6.2.1 在塔台地面管制区，按塔台管制员指令滑行，在杭州机坪管制区，按杭州机坪指令滑行。

2.6.2.1 Aircraft shall follow TWR when taxiing at Hangzhou Tower Ground Control Area; aircraft shall follow Ramp when taxiing at Hangzhou Ramp Control Area.

2.6.2.2 B747-8 在杭州机坪管制区域进出港由引导车引领滑行。

2.6.2.2 B747-8 use follow-me vehicle in Ramp Control Area.

2.6.2.3 B747-8 停靠 106A、108A 机位时，尾部服务车道应关闭。

2.6.2.3 B747-8 park on Stands Nr.106A, 108A ground service road near tail should be closed.

2.6.2.4 本场仅满足同时接收不超过 8 架 B747-8 停场的需要，一小时内接收不超过两架。

2.6.2.4 Aerodome can accomodate 8 sorties of B747-8 at most, and no more than 2 sorties an hour

2.7 机场冲突多发地带运行要求

2.7 Hot spot procedure

2.7.1 机动区冲突多发地带位置见 ZSHC AD2.24-1A,2;

2.7.1 Refer to ZSHC AD2.24-1A, 2;

2.7.2 HS1:航空器从 J/K/B10 进入 A 滑行道前，应在 J/K/B10 上等待，未经管制员许可不得进入 A 滑行道；航空器从 B10 向西滑行转入 A 滑行道时，注意避免误入 A6。

2.7.2 HS1: Aircraft shall hold out of TWYs J/K/B10 before enter TWY A; Aircraft are forbidden to enter TWY A without ATC clearance; Aircraft taxiing from TWY B10 to TWY A shall avoid entering TWY A6 by mistake.

2.7.3 HS2:航空器从 B6/B7 进入 A 滑行道前，应在 B6/B7 上等待，未经管制员许可不得进入 A 滑行道；航空器从 B6 向东或西滑行及 B7 向西滑行转入 A 滑行道时，注意避免误入 A5。

2.7.3 HS2: Aircraft shall hold out of TWYs B6/B7 before enter TWY A; Aircraft are forbidden to enter TWY A without ATC clearance; Aircraft taxiing from TWYs B6/B7 to TWY A shall avoid entering TWY A5 by mistake.

2.7.4 HS3:航空器从 B3 进入 A 滑行道前，应在 B3 上等待，未经管制员许可不得进入 A 滑行道；航空器从 B3 向东或西滑行转入 A 滑行道时，注意避免误入 A4。

2.7.4 HS3: Aircraft shall hold out of TWY B3 before enter TWY A; Aircraft are forbidden to enter TWY A without ATC clearance; Aircraft taxiing from TWY B3 to TWY A shall avoid entering TWY A4 by mistake.

2.7.5 HS4:航空器从 D5 进入 C 滑行道前，应在 D5 上等待，未经管制员许可不得进入 C 滑行道；航空器从 D5 向东或西滑行转入 C 滑行道时，注意避免误入 C4。

2.7.5 HS4: Aircraft shall hold out of TWY D5 before enter TWY C; Aircraft are forbidden to enter TWY C without ATC clearance; Aircraft taxiing from TWY D5 to TWY C shall avoid entering TWY C4 by mistake.

2.7.6 HS5:航空器从 D8/D7 进入 C 滑行道前，应在 D8/D7 上等待，未经管制员许可不得进入 C 滑行道；航空器从 D7 向东滑行及 D8 向西滑行转入 C 滑行道时，注意避免误入 C5。

2.7.6 HS5: Aircraft shall hold out of TWYs D8/D7 before enter TWY C; Aircraft are forbidden to enter TWY C without ATC clearance; Aircraft taxiing from TWYs D7/D8 to TWY C shall avoid entering TWY C5 by mistake.

2.7.7 HS6:航空器从 J/K/L 进入 C 滑行道前，应在 J/K/L 上等待，未经管制员许可不得进入 C 滑行道；航空器从 J 向东或西滑行及 K 向西滑行转入 C 滑行道时，注意避免误入 C6。

2.7.7 HS6: Aircraft shall hold out of TWYs J/K/L before enter TWY C; Aircraft are forbidden to enter TWY C without ATC clearance; Aircraft taxiing from TWYs J/K to TWY C shall avoid entering TWY C6 by mistake.

2.8 跑道运行规则

2.8 General rules for using runways

2.8.1 起飞航空器从接到管制员进跑道指令到对正跑道时间应控制在 60s 以内。如机组认为无法在上述要求的时间内完成，须在到达跑道外等待点之前向塔台管制员说明(湿跑道或污染跑道除外);

2.8.1 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);

2.8.2 落地航空器应尽快退出跑道，从接地到滑出跑道时间应控制在 50s 以内。如机组认为无法在上述要求的时间内完成，须在建立航向道前通知进近管制员(湿跑道或污染跑道除外);

2.8.2 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);

2.8.3 落地航空器脱离跑道后应及时向塔台管制员报告已脱离跑道和脱离所使用的滑行道。

2.8.3 Landing aircraft shall report to TWR Control ‘RWY vacated' and taxiway using for vacating.

2.8.4 在转换跑道方向过程中,短时使用跑道顺风风量大于 3m/s 但不大于 5m/s 时,管制员将该信息通知相关航空器的驾驶员。航空器驾驶员应该根据机型性能或者运行手册，决定是否使用管制员安排的顺风跑道起飞或者着陆，并将决定通知管制员。

2.8.4 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.

3. 机坪和机位的使用

3. Use of aprons and parking stands

3.1 未经杭州机坪同意，严禁航空器利用自身动力滑行或使用拖车拖行;

3.1 Push-back of aircraft on its own power or by tow car is strictly forbidden without Ramp Control clearance;

3.2 本场实施机坪运行管理，由杭州塔台负责塔台地面管制区域：机动区（除 D，J，K 及 A2 以东的 B 滑行道）；由杭州机坪负责机坪管制区域：非机动区和 D，J，K 及 A2 以东的 B 滑行道；机坪管制实施双扇区指挥工作模式，319 机位（含）以北区域为北机坪，319 机位（不含）以南区域为南机坪，具体分

3.2 Tower Ground Control Area: Manoeuvring area except TWY D, J, K and TWY B (east of TWY A2); Ramp Control Area: Non manoeuvring area and TWY D, J, K and TWY B (east of TWY A2); Ramp control implement double sector control mode. North ramp is located at north of Stand Nr.319 (including Stand

区界限参见航图手册 ZSHC-1A 和 ZSHC-2。

Nr.319),and south ramp is located at south of Stand Nr.319(not including Stand Nr.319), specific partition boundaries reference to ZSHC-1A and ZSHC-2.

3.2.1 杭州机坪向杭州塔台以道口移交的方式移交出港航空器，驾驶员必须严格遵守机坪管理规定或听从管制员指令滑行。

3.2.1 Ramp Control transfer the departure aircraft to Tower Control at the intersections of TWYs. Aircrew shall taxi following ATC instructions.

3.2.2 07 号跑道离港航空器: 默认移交点为 B3 和 B1。102-108 机位出港航空器移交点为 B1，其余机位出港航空器移交点为 B3。

3.2.2 Departure Aircraft on RWY07: B3 and B1 are transfer points. B1 is the point for Stands Nr.102-108; B3 is the point for others.

3.2.3 25 号跑道离港航空器：默认移交点为 B10 和 JA。501-517 机位出港航空器移交点为 B10，其余机位出港航空器移交点为 JA。

3.2.3 Departure Aircraft on RWY25: B10 and JA are transfer points. B10 is the point for Stands Nr.501-517; JA is the point for others.

3.2.4 06 号跑道离港航空器: 默认移交点为 D3 和 D5。714-726、901-928 机位出港航空器移交点为 D3,其余机位出港航空器移交点为 D5。

3.2.4 Departure Aircraft on RWY06: D3 and D5 are transfer points. D3 is the point for Stands Nr.714-726, 901-928; D5 is the point for others.

3.2.5 24 号跑道离港航空器: 默认移交点为 JC 和 C7。600-626 机位出港航空器移交点为 C7，其余机位出港航空器移交点为 JC。

3.2.5 Departure Aircraft on RWY24: JC and C7 are transfer points. C7 is the point for Stands Nr.600-626, JC is the point for others.

3.3 杭州现场指挥中心频率：130.65MHZ，航空器可通过现场指挥中心申请拖车服务;

3.3 Hangzhou Operation control: 130.65MHZ, contact them to get towing service;

3.4 本场提供地面滑行引导车服务，可以通过杭州机坪(121.725MHz)申请引导车服务;

3.4 Follow-me vehicle service is available via Hangzhou Ramp(121.725MHz);

3.5 发动机试车，需由杭州现场指定地点，并经杭州

3.5 Engine run-ups are subject to the clearance of

机坪许可后进行。试慢车在 102-108，201-203, 381-386、6 号机坪、7 号机坪、9 号机坪进行，试大车在 720 机位北侧的 D 滑行道、B4 和 B 交叉口东侧的 B 滑行道、913-914 机位之间的 Z17 滑行道。严禁在其他位置试大车;

Hangzhou Ramp and may only be carried out at a designated location. Engine idle test can be carried on stands Nr.102-108, 201-203, 381-386, apron Nr.6, apron Nr.7, apron Nr.9. Fast engine run-ups can be carried on TWY D(north of stands Nr.720), TWY B(east of intersection of TWY B4 and B), TWY Z17(between stands Nr.913 and Nr.914). Fast engine run-ups on other locations are strictly forbidden;

3.6 在 206-210，381-386，501-506，618-626, 905-928 号停机位停靠的航空器可自行滑出，在其它停机坪停靠的航空器须由牵引车推出;

3.6 Aircraft at stands Nr.206-210, 381-386, 501-506, 618-626, 905-928 can taxi out by itself; others shall be pushed back;

3.7 本场航空器采用机位除冰和集中除冰两种方式。航空器集中除冰作业指定的地点为 381-386 机位(优先使用 385、386 机位)、618-626 机位、D 滑与 Z14 之间的 C8 滑行道。离港航空器除冰时，机组应事先向现场指挥中心提出申请;

3.7 Two ways applied for deicing service: deicing at local stands or deicing at stands Nr.381-386(priority for stands Nr.385, 386), 618-626 and TWY C8 between TWY D and Z14 for severe icing conditions. Departure aircraft shall apply to Hangzhou Operation control in advance for deicing in line;

3.8 航空器不能同时使用的机位/Pair of stands forbidden to use simultaneously:

The stand in use	Nr. 105or106	Nr. 106A	Nr. 107	Nr. 108	Nr. 108A
The stands forbidden to be used	Nr. 106A	Nr. 105, 106, 107	Nr. 106A, 108A	Nr. 108A	Nr. 107, 108
Note: When stand Nr.106A and Nr.107 are uesd simutaneously, Nr.106A should only be parked for B757-200 and below.					

3.9 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	机身长度限制/ Fuselage limits
Nr.331(for CAT F)	≤80	≤76.3
Nr.607, 609	≤80	≤76
Nr.214	≤79.8	≤76.3
Nr.338	≤68.4	≤76.3
Nr.106A, 108A	≤68.4	≤70.7
Nr.319, 323, 324, 328, 331(for CAT E)	≤65	≤78
Nr.385, 386, 608, 901-904	≤65	≤76
Nr.201, 203	≤65	≤75.4
Nr.102	≤65	≤71.5
Nr.303	≤65	≤70.7
Nr.726	＜65	＜76
Nr.216	≤64.9	≤70.7
Nr.309, 311	≤60.9	≤73.9
Nr.215, 305	≤60.9	≤63.7
Nr.316, 332, 602-606	≤52	≤62
Nr. 610-612, 616, 617	≤48	≤55
Nr.217	≤48	≤48.5
Nr.202, 304, 306, 307	≤47.6	≤54.9
Nr.620, 621, 624, 625	＜38.5	＜47.5
Nr.313-315, 317, 318, 320-322, 325-327,329-330, 333-337, 339-343, 510-514, 601, 618, 619, 622, 623, 626	≤36	≤47
Nr.302, 308, 310, 312	≤36	≤46.5
Nr. 600, 613, 714-725, 905-946	≤36	≤45

Nr.103, 104, 206-213, 218, 301, 381-384, 501, 503-506, 509, 515-517,	≤36	≤44.51
Nr.106-108	≤34.4	≤44.51
Nr.105	≤32	≤44.51
Nr.502	≤24	≤32.5

3.10 本场在 102-105、106A、107、108A，215、304-315、317、318、329、330、332-337、602-611、714-725、901-904、930-937、940-946 号停机位上设置了航空器红色/蓝色推出程序,用于杭州机坪指挥地面工作人员按照指定方向推出航空器。有关工作要求如下:

3.10 Aircraft Red/Blue push back procedure are established at stands Nr.102-105，106A，107, 108A，215, 304-315, 317, 318, 329, 330, 332-337, 602-611, 714-725, 901-904, 930-937, 940-946 used by Hangzhou Ramp to command ground worker to push back aircraft in the designated direction. The operation rules are published as follows:

3.10.1 杭州机坪在发布指令给机组后，机组应复诵并转告地面人员。

3.10.1 After receiving Hangzhou Ramp clearance for push-back,pilot shall repeat and tell ground worker.

3.10.2 地面人员在接到机组转达的推出指令后，应复诵确认。航空器推出前，地面人员应再次确认推出方向。

3.10.2 After receiving push-back instruction from pilot, ground worker shall repeat and recognize. Before aircraft is pushed back out of the stand, ground worker shall ensure the push-back direction again.

3.10.3 杭州机坪或地面人员在推出过程中发现异常时，应及时联系。

3.10.3 If Hangzhou Ramp and ground worker find unnormal condition, shall contact in time.

3.11 因 313、322、325 机位安全线与相邻机位安全线有重叠，重叠部分用红色斜线区域表示；航空器进出机位过程中，应确认无任何人员、车辆和设备

3.11 Stands Nr.313, 322, 325 safety lines are overlap the adjacent stands safety lines, the overlapping lines are shown in red stripe area; Aircrew shall ensure that

进入该红色斜线区域。

no vehicles and people in this area when aircraft in/out of the stands.

3.12 为降低碳排放及噪音，所有停靠廊桥机位的航空器必须关闭 APU，使用 400Hz 桥载电源及航空器专用空调设备。以下特殊情况除外:

3.12 Aircraft parking at boarding bridge stands shall turn off APU, use bridge power supply equipment(400Hz) and special air conditioner.Aircraft can use APU as the following situation:

3.12.1 服务方不能够提供有效的桥载设备服务;

3.12.1 Bridge equipment is unserviceable.

3.12.2 航空器因启动发动机而需开启 APU;

3.12.2 Aircraft needs APU to start up engine.

3.12.3 航空器进行 APU 的维修检测活动;

3.12.3 APU is under maintained.

3.12.4 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。

3.12.4 In case of exceptional circumstance influencing the regularity and safty of operation, such as extreme weather, special plane support, and insufficient flight transtion time, aircraft can use APU.

4. 进、离场管制规定

4. Air traffic control regulations

4.1 进场管制规定

4.1 Air traffic control regulations for arrival aircraft

4.1.1 着陆航空器脱离跑道后及时向塔台管制员报告已脱离跑道和脱离所使用的滑行道;

4.1.1 Landing aircraft must report ' Have vacated RWY 'and the taxiway used to TWR ATC after vacating RWY;

4.1.2 着陆航空器使用 07 号跑道落地时应尽快由 A5 快速脱离道脱离，如需选择其他道口脱离跑道时应在首次联系塔台时报告管制员;

4.1.2 Landing aircraft shall vacate RWY07 via A5. Aircraft shall inform the TWR control at the initial contact if need to vacate RWY via other taxiway;

4.1.3 着陆航空器使用 25 号跑道落地时应尽快由 A4

4.1.3 Landing aircraft shall vacate RWY25 via A4.

快速脱离道脱离，如需选择其他道口脱离跑道时应在首次联系塔台时报告管制员。

Aircraft shall inform the TWR control at the initial contact if need to vacate RWY via other taxiway.

4.2 离场管制规定

4.2 Air traffic control regulations for departure aircraft

4.2.1 航空器应取得杭州机坪(121.725MHZ)许可后方可推出开车并在 5 分钟之内执行,否则机组需重新申请;

4.2.1 Aircraft shall contact Hangzhou Ramp (121.725MHZ) for push-back and start-up clearance and conduct within 5mins, otherwise, apply the clearance once more again;

4.2.2 航空器可以通过 PDC 和管制指令两种方式取得放行许可.PDC 在 23:00-14:00(UTC)时段开放使用.机组在收到 PDC 数字放行许可后,在报告准备好开车前 5 分钟向管制员复诵公司呼号,航班号,跑道号,离场程序,起飞高度和二次应答机编码;

4.2.2 Obtain delivery clearance through PDC and ATC clearance, PDC is available in 23:00-14:00(UTC). Repeat 'airline call sign, flight number, RWY designation,SID, initial altitude and SSR transponder code' to ATC 5 minutes earlier than reporting 'ready to push back and start-up';

4.2.3 航空器起飞后首次联系进近时,机组应向管制员通报起飞跑道号。

4.2.3 Departure aircraft shall report the take-off RWY designator upon initial contact with APP.

5. 机场的 II/III 类运行

5. CAT II/III operations at AD

5.1 低能见度运行

5.1 Low Visibility Operation

5.1.1 低能见度运行程序的准备、启动和结束

5.1.1 Preparatory, implement and termination of Low Visibility Operation Procedures

5.1.1.1 下列情形下将进入低能见度运行程序准备阶段:

5.1.1.1 Preparatory phase for low visibility operation:

（1）当跑道视程（RVR）为 800 m，并且预计能见

(1) When RVR is 800m and forecast to descend or

度继续下降，或云高为 90 m，并且预计继续下降;
（2）气象预报 RVR 将上升至 150 m（含）以上;
（3）在机场天气趋势变差较快的情况下，浙江空管分局塔台管制室将启动低能见度运行的准备工作。

ceiling is 90m and forecast to descend;
(2) When Meteorological forecast RVR rise to 150m or above;
(3) Preparation for Low Visibility Operation Procedures shall start-up under deterioration of weather conditions.

5.1.1.2 下列情形下，由浙江空管分局塔台控制室通过 D-ATIS、ATIS、VHF 发布信息，宣布低能见度运行程序启动

5.1.1.2 Under the following circumstances, Tower declared start-up of Low Visibility Operation Procedures via D-ATIS, ATIS and VHF

（1）当跑道视程（RVR）测报值大于等于 150 m，小于 600 m;（2）云高测报值大于等于 30 m，小于 60 m;（3）经确认，杭州萧山机场和浙江空管分局具备低能见度程序运行保障能力。

(1) When 150m≤RVR < 600m;(2)When 30m≤ceiling < 60m;(3)When airport and ATC confirmed to have operation capability.

5.1.1.3 下列情形下，由浙江分局塔台管制室通过 D-ATIS、ATIS、VHF 发布信息，宣布低能见度运行程序结束

5.1.1.3 Under the following circumstances, Tower declared termination of Low Visibility Operation Procedures via D-ATIS, ATIS and VHF.

（1）跑道视程（RVR）测报值上升至 600 m，且云高抬升至 90 m，并预计有好转趋势或稳定 20 分钟后;（2）跑道视程（RVR）测报值小于 150 m，或云高小于 30 m 时,并且预计未来一小时以上无法转好;
（3）经确认，杭州萧山机场和浙江空管分局不具备低能见度运行保障能力。

(1) When RVR rise to 600m, ceiling rise to 90m and forecast to clear-up or keep the status for 20 minutes;(2) When RVR < 150m or ceiling < 30m and weather condition is not expected to improve in the next hour.;(3) When airport and ATC not confirmed to have operation capability.

5.2 低能见度运行时地面滑行路线详见《低能见度运行滑行线路图》

5.2 Taxiing routes under low visibility operation see Low Visibility Procedure taxi route map

5.3 在杭州萧山机场实施低能见度运行的航空运营

5.3 Aircraft should be authorized to operate low

人应当获得所在国民航有关部门运行批准。

5.4 飞行员应该获得如下信息

5.4.1 气象预报

5.4.2 低能见度程序正在实施

6. 除冰规则

无

7. 平行跑道同时仪表运行

无

8. 警告

无

9. 直升机飞行限制，直升机停靠区

无

visibility operation procedures.

5.4 The following information should be obtained by aircraft

5.4.1 Meteorological forecast

5.4.2 Low visibility procedure is implementing

6. Rules for deicing

Nil

7. Simultaneous operations on parallel runways

Nil

8. Warning

Nil

9. Helicopter operation restrictions and helicopter parking / docking area

Nil

ZSHC AD 2.21 噪音限制规定及减噪程序

1. 在起飞性能允许的情况下，尽可能使用减推力飞行。

2. 采用减推力飞行时，航空器起飞爬升到450m(QNH)，调整和保持发动机爬升功率/推力，保

ZSHC AD 2.21 Noise restrictions and Noise abatement procedures

1. With take-off performance permission,pilot shall reduced-thrust flight as far as possible.

2. In the condition of reduced-thust flight,aircraft shall climb to 450m(QNH), adjust and keep engine climbing

持爬升速度 V2+20km/h，保持襟翼和缝翼在起飞状态。

power and thrust,keep climbing speed V2+20km/h,and keep flaps and slats in the take-off configuration.

3. 采用减推力飞行时，航空器起飞爬升到900m(QNH)以上，转为正常航路爬升速度，并按照程序收襟翼和缝翼。

3. In the condition of reduced-thust flight, aircraft shall climb to 900m(QNH) and above, adjust normal enroute climb speed, then retract flaps and slats with following normal procedure.

4. 由于非管制原因不执行减噪飞行操作程序，飞行员须在起飞前告知 ATC 并说明理由。

4. If noise abatement procedure is not implemented by non-ATC control reasons, pilot shall report the reason to ATC before take-off.

ZSHC AD 2.22 飞行程序

ZSHC AD 2.22 Flight procedures

1. 总则

1. General

1.1 除经杭州进近或塔台特殊许可外，在杭州进近管制区和塔台管制区内的飞行，必须按照仪表飞行规则进行。

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

1.2 在较高的天气条件,实施II类或使用HUD实施特殊批准 II 类进近程序的机组不必通知管制员。

1.2 In higher weather conditions, crews implementing category II or using HUD do not have to notify ATC.

1.3 本场 RNAV 飞行程序为主用程序，传统程序为备用程序。

1.3 RNAV flight procedures are primary and conventional procedures are secondary procedures.

1.4 凡不符合 RNAV 程序运行要求的航空器，需在首次联系时告知管制员。

1.4 If the aircraft can not fullfill the requirements of the RNAV procedures operation, pilot shall inform the controller at the first contact.

1.5 由于天气等特殊原因，无法实施 RNAV 运行时，管制部门将通过 ATIS 告知。

1.5 If the RNAV procedures can not be implemented due to special reasons, ATC shall inform aircraft via ATIS.

2. 起落航线

起落航线在 07/25 号跑道南侧进行，A、B 类航空器高度 550m，C、D 类航空器高度 600m；经空中交通管制部门许可，起落航线也可在 06/24 号跑道北侧进行，A、B 类航空器高度 450m，C、D 类航空器高度 500m。

2. Traffic circuits

Traffic circuits shall be made to the south of RWY07/25, at the altitude of 550m for CAT A/B, and 600m for CAT C/D. Traffic circuits to the north of RWY06/24 are subject to ATC clearance, at the altitude of 450m for CAT A/B, and 500m for CAT C/D.

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 procedures published in the aeronautical 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 在塔台管制区内，航空器的上升或下降严格按照管制员的指令并在指定范围内进行。

3.2 Ascent/descent of aircraft within Tower Control Area shall be conducted in strict compliance with controller's instructions and within designated area.

实施 RNAV 运行时，由 IGRAT 方向至 07 号跑道落地的航空器，使用 IGR-91A 进场飞行至 HC208 后，由管制员雷达引导建立 07 号 ILS/DME 进近。

When operate in RNAV, landing aircraft establish ILS/DME approach on RWY07 via ATC radar vectoring after flying to HC208 via IGR-91A arrival.

4. 雷达程序和/或 ADS-B 程序

4. Radar procedures and/or ADS-B procedures

4.1 杭州进近管制区实施雷达管制，航空器最小水平间隔为 6km，最小垂直间隔为 300m。

4.1 Radar control within Hangzhou APP has been implemented. The minimum horizontal radar separation is 6km; the minimum vertical radar separation is 300m.

4.2 最低监视引导高度扇区

4.2 Surveillance Minimum Altitude Sectors

Sector 1	ALT limit: 600m or above
N304503 E1203526-N302908 E1205541-N300717 E1205309-N300733 E1203359-N301512 E1202918-N301841 E1201843-N304503 E1203526	
Sector 2	ALT limit: 900m or above
N305625 E1201654-N305310 E1202500-N304503 E1203526-N301841 E1201843-N301512 E1202918-N300733 E1203359-N300717 E1205309-N300242 E1205206-N295732 E1205428-N295659 E1203059-N300450 E1200656-N300321 E1200019-N301542 E1195304-N305625 E1201654	
Sector 3	ALT limit: 1200m or above
N301635 E1194331-N301542 E1195304-N300321 E1200019-N300450 E1200656-N295659 E1203059-N295310 E1201217-N295953 E1195747-N295502 E1194950-N300611 E1193857-N301635 E1194331	
Sector 4	ALT limit: 1800m or above
N311312 E1192618-N311200 E1193730-N305625 E1201654-N301542 E1195304-N301635 E1194331-N303127 E1194639-N305706 E1184512-N311312 E1192618	
Sector 5	ALT limit: 1500m or above
N295953 E1195747-N295310 E1201217-N295659 E1203059-N295732 E1205428-N294524 E1205925-N293907 E1200505-N295502 E1194950-N295953 E1195747	
Sector 6	ALT limit: 2100m or above
N300611 E1193857-N295502 E1194950-N293907 E1200505-N294524 E1205925-N283730 E1212648-N285200 E1204300-N285400 E1200130-N285704 E1190000-N294159 E1190306-N300611 E1193857	
Sector 7	ALT limit: 2600m or above
N305706 E1184512-N303127 E1194639-N301635 E1194331-N300611 E1193857-N294159 E1190306-N285704 E1190000-N285400 E1200130-N282216 E1193434-N280500 E1183000-N280310 E1182252-N281700	

E1180800-N282642 E1175748-N294412 E1181512-N305706 E1184512

5. 无线电通信失效程序

5.1 航空器与管制单位在使用中的无线电频率、备用频率及 121.5MHz 通信不畅时，应在确认通信失效后尽快将应答机编码设置为 7600。

5.2 航空器仅具备单向信号接收能力，则继续执行管制指令。沿途管制单位将收到此通信失效的情报。

5.3 航空器仅具备单向信号发射能力，则应向管制单位告知明确意图，并及时报告更新位置、航向和高度信息，管制单位将调配相关航空器进行避让。

5.4 航空器双向通信失效:

5.4.1 航空器离场阶段，航空器应按照最后接收到的管制指令（程序）继续离场，管制单位将调配相关航空器进行避让。若航空器意图等待、耗油，可飞向导航台 TOL、HGH 盘旋。若航空器意图着陆，则执行 5.4.2 之后的步骤。

5.4.2 航空器进场阶段若已获得并能执行进场程序、进近程序、落地跑道，则按标准程序自主领航着陆。

5. Radio communication failure procedures

5.1 When the radio frequency, secondary frequency and 121.5MHz are malfunctioning, aircraft should set the transponder code at 7600 as soon as possible after confirming the communication failure.

5.2 Aircraft only capable of one-way signal reception should continue to follow the ATC instruction. The other ATC on the way will receive the communication failure information.

5.3 Aircraft only capable of one-way signal reception should inform ATC unit the specific intention and report the up-to-date position, direction and altitude in time. ATC unit will order the relevant aircrafts to avoid.

5.4 Bilateral communication failure:

5.4.1 In departure phase, aircraft shall continue departuring by the last received instruction. ATC unit will order the relevant aircrafts to avoid. If the aircraft intends to hold and consume oil, it can circle over TOL or HGH. If the aircraft intends to land, it can carry out the steps after the chapter 5.4.2.

5.4.2 Aircraft can land in standard procedure by own navigation in case it has obtained and can execute arrival procedure, approch procedure and landing RWY

in use.

5.4.3 其他情况，航空器上升或下降到修正海压高度2400m 并高于安全高度向杭州台(HGH)归航，加入HGH 盘旋等待程序（至少一圈），继续执行5.4.4 着陆或5.4.5 备降。

5.4.3 In other situations, aircraft shall climb or descend to QNH2400m over safety altitude to HGH, then join the HGH holding pattern to circle at least one time, then continue to carry out the chapter 5.4.4 to land or the chapter 5.4.5 to alternate.

5.4.4 根据航行通告、通播、风向风速等信息自行确定着陆跑道，加入 HGH 等待程序下降到修正海压1500m，之后加入经过 HGH 相应的 ILS/DME 仪表进近图。

5.4.4 According to NOTAM, ATIS, wind direction and speed,aircraft decides landing RWY by itself and join HGH holding pattern to descend to QNH1500m, then follow ILS/DME IAC via HGH.

5.4.5 若本场因天气等原因不具备落地条件，机组可自行决定备降，备降场建议选择 FPL 报中对应的机场。

5.4.5 If the aerodrome can't fulfill the landing condition due to weather or other reasons, the aircraft can decide to alternate by itself. The ALTN related in FPL is recommended.

5.5 管制单位通信失效: 管制单位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信联系时，航空器应联系前一管制单位，并按照前一管制单位的指令继续飞行。

5.5 ATC unit communication failure: When ATC unit can't receive or transmit information, the valid communication can not be established between aircraft and ATC unit. The aircraft should contact with the prior ATC unit and follow the prior ATC instruction to continue flying.

5.6 航空器双向失效时，如有可能，管制单位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。

5.6 In bilateral communication failure, if possible, the ATC unit will inform A/C operator to contact with the aircraft by internal communication method such as satellite phone.

5.7 任何情况下，机组应通过机载设备和目视加强对空中交通态势的监控。若对管制指令有疑议或不能执行后续程序时，可通过变换 7600 应答机编码 7600 后两位再恢复 7600（举例：7600-7611-7600）的方式进行宣告。

5.7 Aircrew should enhance the monitor of air traffic condition via airborne equipments and visual check. If aircrew are doubtful about ATC instruction or can't implement the following procedure, they can announce by changing transponder code of the last two digits of 7600, then resuming 7600. (for example: 7600-7611-7600.)

5.8 无线电通信恢复后，失去通信联系的航空器若已经着陆，或者恢复通信联系的，可恢复正常的管制运行，并立即通知相关单位。

5.8 After resuming radio communication, the aircraft in communication failure has landed or resumed radio communication. Normal ATC operation can be carried out and informed to relevant unit immediately.

6. 目视飞行程序

6. Procedures for VFR flights

无

Nil

7. 目视飞行航线

7. VFR route

无

Nil

8. 目视参考点

8. Visual reference point

无

Nil

9. 其它规定

9. Other regulations

9.1 对机组的要求

9.1 Requirements for pilots:

9.1.1 听清并重复地面管制员的滑行，尤其是界限性指令，发现疑问及时证实。

9.1.1 Repeat the taxiing instructions issued by GND Control, especially those contain boundary limitation. Make it clear when there is a doubt.

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

1. Waypoint list

HC102	N301914.9 E1203541.9	HC407	N295616 E1195748
HC103	N302145.1 E1204122.4	HC408	N295401 E1195246
HC104	N302536 E1203907	HC410	N300943 E1202753
HC106	N301938 E1201330	HC411	N300514.3 E1200654.5
HC107	N303955 E1195940	HC412	N300340 E1200400
HC110	N304005 E1200701	HC413	N295904 E1195529
HC203	N300741.2 E1200939.6	HC414	N295553 E1194908
HC204	N300612.1 E1200620.3	HC501	N302007.4 E1203740.8
HC207	N300733 E1195829	HC502	N301126 E1204246
HC208	N301003.1 E1200403.6	HC503	N301343 E1203425
HC209	N301217 E1200903	HC504	N300859 E1203713
HC210	N301523 E1201601	HC505	N300251 E1202324
HC211	N302052 E1202823	HC601	N300829 E1201127
HC212	N302622 E1200009	HC602	N301322 E1200822
HC213	N303829 E1195228	HC603	N300904 E1201939
HC214	N300207 E1194625	HC604	N300426 E1201345
HC303	N302047.2 E1204156.3	HC605	N300117 E1195955
HC304	N301655.5 E1204411.8	HC606	N300523 E1204011
HC305	N301303 E1204627	TOL	N2945.8 E11939.6
HC306	N300733 E1203359	ABVIL	N2938.5 E11918.9
HC307	N295946 E1201630	DUBGO	N2951.3 E11939.9
HC308	N295706 E1201051	ELNEX	N2937.9 E11929.4
HC309	N295353 E1200404	IGRAT	N3043.0 E11948.4

HC310	N300747 E1204932	KAKIS	N3029.0 E12008.8
HC403	N300643.4 E1201013.8	MOLGU	N2951.0 E11958.0
HC404	N300252.3 E1201230.3	NIVIK	N3045.7 E11954.7
HC405	N300123.3 E1200911.0	OKTUG	N3005.3 E12057.6
HC406	N295850 E1200330	OREXA	N2939.3 E11909.5
SUPAR	N3001.4 E12051.5	UGAGO	N2937.7 E11939.0

2. Database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (kt)	VPA/ TCH	Navigation Specification
RWY06 SID NIV-91D								
CF	HC102	Y	067		↑900			RNAV1
CF	HC211		247	L	↑1800	MAX 205		RNAV1
TF	HC210				↓2400 ↑2100	MAX 230		RNAV1
TF	HC106							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
RWY06 SID ABV-91D								
CF	HC102	Y	067		↑900			RNAV1
CF	HC211		247	L	↑1800	MAX 205		RNAV1
TF	HC210				↓2400 ↑2100	MAX 230		RNAV1
TF	HC209				↓3000			RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	ABVIL							RNAV1

RWY06 SID ELN-91D								
CF	HC102	Y	067		↑900			RNAV1
CF	HC211		247	L	↑1800	MAX 205		RNAV1
TF	HC210				↓2400 ↑2100	MAX 230		RNAV1
TF	HC209				↓3000			RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	DUBGO							RNAV1
TF	ELNEX							RNAV1
RWY06 SID UGA-91D								
CF	HC102	Y	067		↑900			RNAV1
CF	HC211		247	L	↑1800	MAX 205		RNAV1
TF	HC210				↓2400 ↑2100	MAX 230		RNAV1
TF	HC209				↓3000			RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	DUBGO							RNAV1
TF	TOL							RNAV1
TF	UGAGO							RNAV1
RWY06 SID NIV-93D(CCO)								
CF	HC102	Y	067		↑900			RNAV1
CF	HC211		247	L	↑1800	MAX 205		RNAV1
TF	HC210				↑2100	MAX 230		RNAV1
TF	HC106							RNAV1
TF	KAKIS							RNAV1
TF	NIVIK				↑3000			RNAV1

RWY06 SID transition VIA HC502								
CF	HC501		067		↑1200			RNAV1
TF	HC502							RNAV1
RWY07 SID transition VIA HC502								
CA			067		150			RNAV1
DF	HC503			R	↑500			RNAV1
TF	HC502							RNAV1
RWY06/07 SID OKT-91D								
IF	HC502							RNAV1
TF	HC310				↑1500	MAX 250		RNAV1
TF	OKTUG				↓3000 ↑2100			RNAV1
RWY06/07 SID SUP-91D								
IF	HC502							RNAV1
TF	HC310				↑1500	MAX 250		RNAV1
TF	SUPAR				↓3000 ↑2100			RNAV1
RWY06 SID transition VIA HC504								
CF	HC501		067		↑1200			RNAV1
TF	HC502							RNAV1
TF	HC504							RNAV1
RWY07 SID transition VIA HC504								
CA			067		150			RNAV1
DF	HC503			R	↑500			RNAV1
TF	HC504							RNAV1
RWY06/07 SID NIV-92D								
IF	HC504							RNAV1

TF	HC505				↑1800	MAX 250		RNAV1
TF	HC210				↓2400 ↑2100			RNAV1
TF	HC106							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
RWY06/07 SID ABV-92D								
IF	HC504							RNAV1
TF	HC505				↑1800	MAX 250		RNAV1
TF	HC307				↓3000			RNAV1
TF	HC308				↑2400			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
TF	ELNEX							RNAV1
TF	ABVIL							RNAV1
RWY06/07 SID ELN-92D								
IF	HC504							RNAV1
TF	HC505				↑1800	MAX 250		RNAV1
TF	HC307				↓3000			RNAV1
TF	HC308				↑2400			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
TF	ELNEX							RNAV1
RWY06/07 SID UGA-92D								
IF	HC504							RNAV1
TF	HC505				↑1800	MAX 250		RNAV1
TF	HC307				↓3000			RNAV1

TF	HC308				↑2400			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
RWY24 SID transition VIA HC601								
CF	HC601		247					RNAV1
RWY25 SID transition VIA HC601								
CA			247		150			RNAV1
CF	HC604		232		↑1200			RNAV1
TF	HC601							RNAV1
RWY24/25 SID NIV-81D								
IF	HC601							RNAV1
TF	HC602				@2100 or by ATC	MAX 250		RNAV1
TF	HC212				↓2400 ↑2100			RNAV1
TF	HC213							RNAV1
TF	NIVIK				↑3000			RNAV1
RWY24 SID NIV-82D(CCO)								
IF	HC601							RNAV1
TF	HC602					MAX 250		RNAV1
TF	HC212							RNAV1
TF	HC213							RNAV1
TF	NIVIK				↑3000			RNAV1
RWY24 SID transition VIA HC605								
CF	HC601		247					RNAV1
TF	HC605				↑2400	MAX 250		RNAV1
RWY25 SID transition VIA HC605								

CA			247		150			RNAV1
CF	HC604		232		↑1200			RNAV1
TF	HC605				↑2400	MAX 250		RNAV1
RWY24/25 SID ABV-81D								
IF	HC605				↑2400	MAX 250		RNAV1
TF	DUBGO				↓4500			RNAV1
TF	ABVIL							RNAV1
RWY24/25 SID ELN-81D								
IF	HC605				↑2400	MAX 250		RNAV1
TF	DUBGO				↓4500			RNAV1
TF	ELNEX							RNAV1
RWY24/25 SID UGA-81D								
IF	HC605				↑2400	MAX 250		RNAV1
TF	DUBGO				↓4500			RNAV1
TF	TOL							RNAV1
TF	UGAGO							RNAV1
RWY24 SID transition VIA HC307								
CF	HC601		247					RNAV1
TF	HC307					MAX 250		RNAV1
RWY25 SID transition VIA HC307								
CA			247		150			RNAV1
CF	HC604		232		↑1200			RNAV1
TF	HC307					MAX 220		RNAV1
RWY24/25 SID SUP-81D								
IF	HC307							RNAV1
TF	HC306							RNAV1
TF	HC606				↑1800			RNAV1

TF	SUPAR				↓3000 ↑2100			RNAV1
RWY06 STAR IGR-91A								
IF	IGRAT				↑3000			
TF	HC213							
TF	HC212				↓2400 ↑2100			
TF	HC209				↑2100			
TF	HC208				↑1800	MAX 210		
RWY06 STAR IGR-92A(CDO)								
IF	IGRAT				↑3000			RNAV1
TF	HC213							RNAV1
TF	HC212							RNAV1
TF	HC209				↑2100			RNAV1
TF	HC208				↑1800	MAX 210		RNAV1
RWY06 STAR ORE-91A								
IF	OREXA							RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	HC207				↑1800			RNAV1
TF	HC208				↑1800	MAX 210		RNAV1
RWY06 STAR ELN-91A								
IF	ELNEX							RNAV1
TF	DUBGO				↓4500 ↑2700			RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	HC207				↑1800			RNAV1

TF	HC208				↑1800	MAX 210		RNAV1
RWY06 STAR UGA-91A								
IF	UGAGO							RNAV1
TF	TOL							RNAV1
TF	DUBGO				↓4500 ↑2700			RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	HC207				↑1800			RNAV1
TF	HC208				↑1800	MAX 210		RNAV1
RWY06 STAR OKT-91A								
IF	OKTUG							RNAV1
TF	SUPAR				↓3000 ↑2100			RNAV1
TF	HC410				↑2100			RNAV1
TF	HC210							RNAV1
TF	HC209				↑2100			RNAV1
TF	HC208				↑1800	MAX 210		RNAV1
RWY06 STAR SUP-91A								
IF	SUPAR				↓3000 ↑2100			RNAV1
TF	HC410				↑2100			RNAV1
TF	HC210							RNAV1
TF	HC209				↑2100			RNAV1
TF	HC208				↑1800	MAX 210		RNAV1
RWY07 STAR ORE-92A								
IF	OREXA							RNAV1
TF	ABVIL							RNAV1

TF	ELNEX							RNAV1
TF	DUBGO				↓4500 ↑2700			RNAV1
TF	HC414				↑2400			RNAV1
TF	HC413				↑2100			RNAV1
TF	HC412				@1200	MAX 230		RNAV1
RWY07 STAR ELN-92A								
IF	ELNEX							RNAV1
TF	DUBGO				↓4500 ↑2700			RNAV1
TF	HC414				↑2400			RNAV1
TF	HC413				↑2100			RNAV1
TF	HC412				@1200	MAX 230		RNAV1
RWY07 STAR UGA-92A								
IF	UGAGO							RNAV1
TF	TOL							RNAV1
TF	DUBGO				↓4500 ↑2700			RNAV1
TF	HC414				↑2400			RNAV1
TF	HC413				↑2100			RNAV1
TF	HC412				@1200	MAX 230		RNAV1
RWY07 STAR UGA-93A(BY ATC)								
IF	UGAGO							RNAV1
TF	TOL							RNAV1
TF	HC408				↑2400			RNAV1
TF	HC407				↑2100			RNAV1
TF	HC406							RNAV1
TF	HC405				↑1200			RNAV1

TF	HC404				@900	MAX 210		RNAV1
RWY07 STAR OKT-92A								
IF	OKTUG							RNAV1
TF	SUPAR				↓3000 ↑2100			RNAV1
TF	HC410				↑2100			RNAV1
TF	HC404				@900	MAX 210		RNAV1
RWY07 STAR SUP-92A								
IF	SUPAR				↓3000 ↑2100			RNAV1
TF	HC410				↑2100			RNAV1
TF	HC404				@900	MAX 210		RNAV1
RWY06 Approach transition VIA HC208								
IF	HC208				↑1800	MAX 210		RNAV1
TF	HC204				↑1500			RNAV1
TF	HC203				@1200			RNAV1
RWY06 Missed approach Holding: outbound time 1min								
HM	HC211	Y	247	L	2100	MAX 230		RNP1
RWY07 Approach transition VIA HC412								
IF	HC412				@1200	MAX 230		RNAV1
TF	HC411				@900			RNAV1
TF	HC403				@900			RNAV1
RWY07 Approach transition VIA HC404								
IF	HC404				@900	MAX 210		RNAV1
TF	HC403				@900			RNAV1
RWY07 Missed approach Holding: outbound time 1min								
HM	HC410	Y	247	L	by ATC	MAX 230		RNP1

RWY06/07 HOLDING: outbound time 1min								
HM	HC213	Y	146	L	by ATC	MAX 230		RNAV1
HM	DUBGO	Y	039	R	by ATC	MAX 230		RNAV1
HM	HC410	Y	247	L	2400	MAX 230		RNAV1
RWY06/07 HOLDING: outbound time 1.5min								
HM	HC110	Y	148	L	3600 or by ATC	MAX 230		RNAV1
RWY24 STAR IGR-81A								
IF	IGRAT				↑3000			RNAV1
TF	HC107							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	HC106							RNAV1
TF	HC210				↑2100			RNAV1
TF	HC211				↑1800			RNAV1
TF	HC104				↑1500	MAX 210		RNAV1
RWY24 STAR IGR-83A(CDO)								
IF	IGRAT				↑3000			RNAV1
TF	HC107							RNAV1
TF	KAKIS							RNAV1
TF	HC106							RNAV1
TF	HC210				↑2100			RNAV1
TF	HC211				↑1800			RNAV1
TF	HC104				↑1500	MAX 210		RNAV1
RWY25 STAR IGR-82A								
IF	IGRAT				↑3000			RNAV1
TF	HC107							RNAV1
TF	KAKIS				↓2400			RNAV1

TF	HC106							RNAV1
TF	HC210				↑2100			RNAV1
TF	HC306				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				@600	MAX 230		RNAV1
RWY24/25 STAR ORE-81A								
IF	OREXA							RNAV1
TF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC309				↑2400			RNAV1
TF	HC307				↓3000			RNAV1
TF	HC306				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX230		RNAV1
RWY24 STAR ORE-82A								
IF	OREXA							RNAV1
TF	HC214				↓4200 ↑2400			RNAV1
TF	HC209							RNAV1
TF	HC210				↑2400			RNAV1
TF	HC211				↑1800			RNAV1
TF	HC104				↑1500	MAX 210		RNAV1
RWY24/25 STAR ABV-81A								
IF	ABVIL							RNAV1

TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC309				↑2400			RNAV1
TF	HC307				↓3000			RNAV1
TF	HC306				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX230		RNAV1
RWY24/25 STAR ELN-81A								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC309				↑2400			RNAV1
TF	HC307				↓3000			RNAV1
TF	HC306				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX 230		RNAV1
RWY24/25 STAR UGA-81A								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC309				↑2400			RNAV1
TF	HC307				↓3000			RNAV1
TF	HC306				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX 230		RNAV1

RWY24/25 STAR SUP-81A								
IF	SUPAR				↓3000 ↑2100			RNAV1
TF	HC310				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX 230		RNAV1
RWY24/25 STAR OKT-81A								
IF	OKTUG				↓3000 ↑2100			RNAV1
TF	HC310				↑1500			RNAV1
TF	HC305							RNAV1
TF	HC304				↑1200 or@600	MAX 230		RNAV1
RWY24 Approach transition VIA HC104								
IF	HC104				↑1500	MAX 210		RNAV1
TF	HC103				↑1200			RNAV1
RWY24 Approach transition VIA HC304								
IF	HC304				↑1200	MAX 230		RNAV1
TF	HC103				↑1200			RNAV1
RWY24 Missed approach Holding: outbound time 1min								
HM	HC209	Y	067	R	by ATC	MAX 230		RNP1
RWY25 Approach transition VIA HC304								
IF	HC304				@600	MAX 230		RNAV1
TF	HC303				@600			RNAV1
RWY25 Missed approach Holding: outbound time 1min								
HM	HC306	Y	067	L	1800	MAX 230		RNP1
RWY24/25 HOLDING: outbound time 1min								

HM	HC107	Y	148	R	by ATC	MAX 230		RNAV1
HM	UGAGO	Y	096	R	by ATC	MAX 230		RNAV1
HM	HC209	Y	067	R	2700	MAX 230		RNAV1
HM	HC306	Y	067	L	1800	MAX 230		RNAV1
RWY24/25 HOLDING: outbound time 1.5min								
HM	HC110	Y	148	L	3600 or by ATC	MAX 230		RNAV1

ZSHC 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。

ZSHC 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	Time of activity	Flight altitude(m)
Ardeidae	The whole year	0-100m
phasianus colchicus	The whole year	0-50m
Hawk	Sep.to Apr.(next year)	0-200m
Hirundinidae	Apr.to Sep.	0-60m
Lapwing	Nov.to Mar.(next year)	0-80m
Anatidae	Nov.to Mar.(next year)	0-100m