

**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 °C(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 711-726(stands included)), Nr.9(stands Nr.901-916); PCN 82/R/B/W/T: Apron Nr.3, Nr.7(stands Nr.701-710); PCN 80/R/B/W/T: Apron Nr.7(S of 711-726(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
		Surface:	CONC
		Strength:	PCN 95/R/B/W/T(A, A1, A2, A7, A8, B ( BTN A1 & B6 ) , B10, B6, B7) PCN 92/R/B/W/T(B( BTN B7 & K ) , B1, B3-B5, C, C1, C2, C7, C8, D ( BTN D5 & L ) , D5-D8, J, J2-J6, K) PCN 90/R/B/W/T(B( BTN B6 & B7 ) , D( E of L, W of D5 ) , D1-D4, L, Z16-Z18) PCN 80/R/B/W/T(D0, Z19, Z20)

			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, 711, 901-928 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 Remark: The center line lights space of TWY C(C1-C6), C1, C2, C6, C7( north of D ), C8( north of D ), D1(C-D), D2, K(C-D) is 15m, other is 30m.
3	停止排灯 Stop bars	RWY06, C1, C2.	
4	备注 Remarks	Nil.	

### 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	RWY06 departure	
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	RWY06 departure; RWY24 GP INOP Final approach; RWY25 VOR/DME Final approach	

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
24	BLDG	063	3218	25.4		
25	BLDG	063	3667	33.3		
26	BLDG	064	2932	23.9	RWY07 Take-off path	
27	BLDG	066	4009	33.5		
28	BLDG	067	2811	21.0	RWY07 Take-off path	
29	BLDG	067	4111	39.5	RWY07 Take-off path	
30	BLDG	068	3497	27.4		
31	BLDG	069	3524	30.0		
32	BLDG	070	2772	19.6	RWY07 Take-off path	
33	BLDG	070	2796	20.6	RWY07 Take-off path	
34	BLDG	070	3500	28.5		
35	BLDG	071	2971	25.7	RWY07 Take-off path	
36	BLDG	071	3509	29.0		
37	BLDG	071	3579	32.9	RWY07 Take-off path	
38	BLDG	071	3622	37.3	RWY 07 Take-off path	
39	Lightning Rod	072	3480	31.1	RWY07 Take-off path	
40	BLDG	072	3559	29.2		
41	Chimney	078	5966	65.5	RWY25 VOR/DME Final approach; RWY07 Take-off path	
42	*Chimney	176	4756	94.4		
43	*Chimney	176	4773	92.1		
44	Chimney	177	4617	129.0		
45	*BLDG	180	4153	51.6		
46	*TWR	188	5515	337.9	RWY06/PBN departure RWY06/ LNAV/VNAV	

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
					missed approach turn RWY25/traditional departure MSA sector	
47	BLDG	242	3474	34.7	RWY25 Take-off path	
48	BLDG	244	2680	18.8	RWY25 Take-off path	
49	Water TWR	245	2729	20.9	RWY25 Take-off path	
50	BLDG	245	2898	21.8	RWY25 Take-off path	
51	BLDG	245	3705	33.6		
52	BLDG	245	3763	31.3		
53	BLDG	246	2929	23.0		
54	TWR	248	3728	31.8		
55	BLDG	249	3332	25.9	RWY25 Take-off path	
56	BLDG	250	2841	24.1	RWY25 Take-off path	
57	BLDG	250	2854	24.0		
58	Lightning Rod	250	3587	37.6	RWY25 Take-off path RWY25 PBN departure RWY25 LNAV missed approach straight	
59	BLDG	252	3265	25.6	RWY25 Take-off path	
60	TWR	253	13102	163.1	RWY07 LNAV Final approach, GP INOP Final approach	
61	Chimney	270	5002	45.0		
62	TWR	271	4782	43.4	RWY24 Take-off path	
63	BLDG	271	4845	44.4	RWY24 Take-off path	
64	Lightning Rod	271	4845	45.6	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
65	Lightning Rod	272	4973	49.3	RWY24 Take-off path	
66	Chimney	273	5426	51.3	RWY24 Take-off path	
67	Chimney	273	5484	51.3		
68	BLDG	273	5488	51.5	RWY06 GP INOP Final approach; RWY24 Take-off path	
69	BLDG	277	3593	26.2	RWY24 Take-off path	
70	BLDG	277	3752	27.4		
71	BLDG	277	3821	30.0		
72	Chimney	277	3843	29.3		
73	BLDG	278	3768	24.8		
74	BLDG	279	3538	24.9	RWY24 Take-off path	
75	BLDG	279	3773	27.1		
76	BLDG	279	4053	27.9		
77	BLDG	280	3644	25.9	RWY24 Take-off path	
78	Antenna	280	3650	25.4	RWY24 Take-off path	
79	BLDG	280	3781	27.3	RWY24 Take-off path	
80	BLDG	281	3474	22.6	RWY24 Take-off path	
81	BLDG	281	3535	21.9		
82	Board	281	3967	25.5		
83	Lightning Rod	281	4067	31.7		
84	BLDG	282	3803	26.9	RWY24 Take-off path	
85	BLDG	282	3854	26.4	RWY24 Take-off path	
86	Antenna	282	3994	34.2	RWY24 Take-off path	
87	BLDG	288	3018	13.4	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
88	BLDG	299	3821	51.1	RWY06 GP INOP Final approach	
89	TWR	301	1051	88.0	RWY07/25 LNAV/VNAV Final approach; RWY24 LNAV Final approach	
90	Antenna	310	4025	142.5	RWY06/24 LNAV/VNAV Final approach; RWY24 LNAV missed approach	
91	*TWR	324	2222	16.2		
92	*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		
5	Chimney	095	27326	215	RWY24/25 Tranditional departure RWY06/07/24/25 Initial approach	
6	MT	110	45130	167		

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
7	TV TWR	139	21756	168		
8	MT	144	46879	572		
9	MT	146	35566	218		
10	BLDG	151	29512	294		
11	MT	155	48994	672		
12	MT	162	48692	572		
13	MT	174	44827	703		
14	MT	182	49309	373		
15	MT	192	29147	499		
16	MT	196	21768	348		
17	MT	199	47698	253		
18	TV TWR	207	37166	227		
19	MT	210	42077	583		
20	MT	216	17400	372		
21	MT	217	23494	462	RWY06/07 initial approach	
22	TWR	218	11405	255	RWY25/LNAV/VNAV missed approach turn	
23	MT	219	40840	509		
24	TWR	226	17366	224		
25	MT	228	39862	597		
26	MT	235	42469	790	MSA sector	
27	TWR	237	25008	257	RWY06/07 PBN intermediate approach	
28	MT	240	35636	528	RWY06/07 initial approach	

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
29	MT	250	25530	218	RWY07 RNP Intermediate approach	
30	TWR	252	19118	222	RWY06/07 traditional ILS/DME intermediate approach RWY06/07 GP INOP final approach RWY07 VOR/DME intermediate approach RWY07 VOR/DME final approach RWY06 RNP intermediate approach, final approach	
31	BLDG	256	17236	219		
32	MT	258	43862	537		
33	MT	258	48415	570	RWY06/07 initial approach	
34	BLDG	269	23248	180		
35	MT	273	33493	412		
36	BLDG	277	17924	286		
37	BLDG	277	22136	164		
38	BLDG	277	22370	187		
39	BLDG	277	22409	187		
40	BLDG	277	22559	239		
41	MT	277	33425	355		
42	BLDG	278	19189	158		
43	BLDG	278	22085	267		
44	BLDG	278	22334	211		

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
45	BLDG	278	22569	159		
46	BLDG	278	22661	159		
47	BLDG	282	21775	230		
48	BLDG	282	21874	168		
49	BLDG	283	14130	225		
50	BLDG	283	20880	165		
51	BLDG	283	22565	157		
52	BLDG	286	27149	207		
53	MT	294	43859	171		
54	Chimney	302	31435	184		
55	MT	304	48843	467	MSA sector	
56	MT	308	28201	256		
57	MT	314	27499	361		
58	MT	320	31710	258		
59	MT	328	25712	217		
60	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 &amp; 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	Hangzhou Xiaoshan Aerodrome MET Office

	间隔 Office responsible for TAF preparation, Periods of validity; Interval of issuance	9 HR, 24 HR 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, TEND
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 / SWY surface	着陆入口坐标及 高程异常 THR coordinates and geoid undulation	跑道入口标高,精密进近 跑道接地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
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	停止道长宽 SWY	净空道长宽 CWY	升降带长宽 Strip	无障碍物区 OFZ	跑道端安全区长宽 RWY end safety area

RWY-SWY	dimensions(m)	dimensions(m)	dimensions(m)		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
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
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

### 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
1	2	3	4	5	6	7	8	9
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
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
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	
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**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 $\geq$ 1031hPa) 2700m(QNH $\leq$ 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	125.55(119.15)APP01	0000-1400	
APP	Hangzhou Approach	126.05(119.15)APP02	H24	
APP	Hangzhou Approach	120.05(124.65)APP03	0100-1200	
APP	Hangzhou Approach	119.425(125.275)APP04	by ATC	Contact ZSHC AP02 when ZSHC AP04 U/S.
APP	Hangzhou Approach	120.4(125.275)APP05	by ATC	Contact ZSHCAP02 when ZSHCAP05 U/S.
TWR	Hangzhou Tower	(S)118.3(118.75)	HO	RWY07/25
TWR	Hangzhou Tower	(N)123.65(118.75)	HO	RWY06/24
GND	Hangzhou Ground	121.65	HO	
Delivery	Hangzhou Delivery	121.95	22:30-15:00	DCL 24h available

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
EMG	Hangzhou Tower/ Hangzhou Approach	121.50	H24	
Ramp	Hangzhou Ramp	121.725(121.55)Ramp(N)	H24	
Ramp	Hangzhou Ramp	121.85(121.55)Ramp(S)	H24	

### 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 065°; 064° U/S; Holding and Initial APP: BTN 3-4NM on

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
					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
LMM 07	X	400kHz	247 °MAG / 976m FM THR 07		On bearing 141 ° beyond 3NM U/S for departure procedure ; On bearing 128 °, 308 ° U/S for departure procedure.
OM 07		75MHz	247 °MAG / 8083m FM THR 07		
IM 07		75MHz	247 °MAG / 293m FM THR 07		
LOC 07 ILS CAT I	IXX	109.9MHz	067 °MAG / 255m FM THR 25		
GP 07		333.8MHz	120m S of RCL, 309m inwards THR 07		Angle 3 °, RDH 15m
LOC 24 ILS CAT I	IHZ	111.5MHz	247 °MAG/ 310m FM end RWY 24		
GP 24		332.9MHz	120m N of RCL,		Angle 3 °, RDH 15m

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
			307m inwards THR 24		
DME 24	IHZ	CH52X (111.5MHz)		13m	Co-located with GP 24
LMM 25	D	507kHz	067 °MAG / 1180m FM THR 25		
OM 25		75MHz	067 °MAG / 8330m FM THR 25		
LOC 25 ILS CAT I	IDD	108.5MHz	247 °MAG / 255m FM THR 07		
GP 25		329.9MHz	120m S of RCL, 309m inwards THR 25		Angle 3 °, RDH 15m

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.Airport operations regulations

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；

1.1 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 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 Technical test flight shall be filed in advance and shall be made only after clearance has been obtained from ATC;

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

1.3 Maximum aircraft to be available for RWY06/24 and RWY07/25: A380 and equivalent. Maximum

得超过 700 次。07/25 号跑道只适用于 A380 飞机  
执行训练、维修、调机等任务。

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. 跑道和滑行道的使用

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 TWYD5),J,J3-J6, Z1,Z10,Z11(BTN B & stand Nr.214), Z13(BTN B & Z1),Z14,Z16,Z18,	<65m
Z13(BTN Z1 & stand Nr.217)	<48m
B10,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、J6 (331 机位以东)、C7 (D 滑以南)

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



## 2.4.3 A380 航空器运行规则

2.4.3.1 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 滑行道以南）运行时需关闭相关服务车道。A 滑行道、B 滑行道不能同时运行 A380；当 A380 飞机在 B 滑行道滑行时，Z1 滑行道禁止 E 类及以上飞机运行。

2.4.3.2 A380 在杭州机坪管制区进出港由引导车引导。

2.4.4 A380 现不能提供除冰雪服务。

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。

## 2.6 B747-8 航空器运行规则

## 2.6.1 B747-8 无限制运行区

跑道：06/24、07/25 号；

## 2.4.3 Operational rules for A380

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

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

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

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 Operational rules for B747-8

## 2.6.1 Operational areas without limits

RWY: 06/24, 07/25;

滑行道: A、A1-A8、B、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、385、386、607、609、712。

TWYs: A, A1-A8, B, 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, 385, 386, 607, 609, 712.

## 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 飞机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、385、386 机位时, 尾部服务车道应关闭。

2.6.2.3 B747-8 park on Stands Nr.106A, 108A, 385, 386, ground service road near tail should be closed.

## 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,

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

注意避免误入 A6。

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

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

行道时, 注意避免误入 C6。

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

3.1 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;

3.2 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, 具体分区界限参见航图手册 ZSHC-1A 和 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。

3.2.2 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。

3.2.3 25 号跑道离港航空器: 默认移交点为 B10 和 JA。501-518 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. Use of aprons and parking stands

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

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

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 Departure Aircraft on RWY25: B10 and JA are transfer points. B10 is the point for Stands Nr.501-518; 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。712-726、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.712-726, 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 507-508，711 号机位进行。严禁在其他位置试大车；

3.5 Engine run-ups are subject to the clearance of 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 stands Nr.507-508, 711. Fast engine run-ups on other locations are strictly forbidden;

3.6 在 206-210,381-386,501-508,618-626,901-928 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, 501-508, 618-626, 901-928 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、901-904 机位、D 滑与 Z14 之间的 C8 滑行道。离

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, 901-904 and TWY C8 between TWY D and Z14 for severe icing

港航空器除冰时，机组应事先向现场指挥中心提出申请；

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(106A used by aircraft with wingspan $\leq 38\text{m}$ )	Nr. 106A (wingspan $\leq 38\text{m}$ ), 108A	Nr. 108A	Nr. 107, 108
The stand in use	Nr.201	Nr.203	Nr. 201L or 201R	Nr. 203L or 203R	Nr. 202 (wingspan BTN 36m and 52m)
The stands forbidden to be used	Nr. 201L, 201R	Nr. 203L, 203R	Nr. 201	Nr. 203	Nr. 201L, 203R

### 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)	$\leq 80$	$\leq 76.3$
Nr.607,609	$\leq 80$	$\leq 76$
Nr.214	$\leq 79.8$	$\leq 76.3$
Nr.712	$\leq 68.5$	$\leq 76.5$
Nr.338	$\leq 68.4$	$\leq 76.3$

Nr.106A,108A	≤68.4	≤70.7
Nr.319,323,324,328,331(for CAT E),701-704	≤65	≤78
Nr.385,386,608,901-904	≤65	≤76
Nr.201, 203	≤65	≤75.4
Nr.711	≤65	≤73
Nr.102	≤65	≤71.5
Nr.303	≤65	≤70.7
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. 610-612,616,617,726	≤48	≤55
Nr.217	≤48	≤48.5
Nr.202,304,306,307	≤47.6	≤54.9
Nr.518	≤36	≤54.9
Nr.313-315,317-318,320-322,325-327, 329-330,333-337,339-343,510-514,601,618-626,705-710	≤36	≤47
Nr.201L, 201R, 203L, 203R,302, 308,310,312,	≤36	≤46.5
Nr. 600,613, 713-725,905-928	≤36	≤45
Nr.103,104,206-213,218,301,381-384, 501,503-509,515-517,	≤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， 3.10 Aircraft Red/Blue push back procedure are  
215,304-315,317,318,329,330,332-337,602-611,701 established at stands Nr.102-105, 106A, 107,108A,



-725 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:

215,304-315,317,318,329,330,332-337,602-611,701-725, 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、车辆和设备进入该红色斜线区域。

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 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 桥载电源及飞机专用空调设备。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 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。

4.1.3 Landing aircraft shall vacate RWY25 via A4. 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;

4.2.2 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;

4.2.3 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。

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

## 5. 机场的 II/III 类运行

### 5.1 低能见度运行

#### 5.1.1 低能见度运行程序的准备、启动和结束

5.1.1.1 下列情形下将进入低能见度运行程序准备阶段:

(1) 当跑道视程(RVR)为 800 m, 并且预计能见度继续下降, 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;

## 5. CAT II/III operations at AD

### 5.1 Low Visibility Operation

#### 5.1.1 Preparatory, implement and termination of Low Visibility Operation Procedures

5.1.1.1 Preparatory phase for low visibility operation:

(1) When RVR is 800m and forecast to descend or ceiling is 90m and forecast to descend;

(2) When Meteorological forecast RVR rise to 150m or above;

(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。

(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  $150\text{m} \leq \text{RVR} < 600\text{m}$ ; (2) When  $30\text{m} \leq \text{ceiling} < 60\text{m}$ ; (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  $\text{RVR} < 150\text{m}$  or ceiling  $< 30\text{m}$  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人应当获得所在民航有关部门运行批准。

5.3 Aircraft should be authorized to operate low visibility operation procedures.

5.4 飞行员应该获得如下信息

5.4 The following information should be obtained by

aircraft

## 5.4.1 气象预报

## 5.4.1 Meteorological forecast

## 5.4.2 低能见度程序正在实施

## 5.4.2 Low visibility procedure is implementing

**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**

无

Nil

**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

**ZSHC AD 2.21 噪音限制规定及减噪程序****ZSHC AD 2.21 Noise restrictions and Noise abatement procedures**

1. 在起飞性能允许的情况下，尽可能使用减推力飞行。

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

2. 采用减推力飞行时，航空器起飞爬升到450m(QNH)，调整并保持发动机爬升功率/推力，保持爬升速度  $V_2+20\text{kmH}$ ，保持襟翼和缝翼在起

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

飞状态。

speed  $V_2+20\text{kmH}$ , 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-thrust 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 fulfill 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

## 2. Traffic circuits

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。

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. IFR flight procedures

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;

3.1 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.

## 4. 雷达程序和/或 ADS-B 程序

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

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。

Radar control within Hangzhou APP has been implemented. The minimum horizontal radar

separation is 6km; the minimum vertical radar separation is 300m.

5. 无线电通信失效程序

5. Radio communication failure procedures

无

Nil

6. 目视飞程序

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

ID	COORDINATES(WGS-84)	ID	COORDINATES(WGS-84)
HC001	N300727E1201152	HC055	N300943E1202753
HC002	N300422E1201344	HC056	N300337E1201410
HC003	N300515E1200655	HC057	N295820E1200721



HC004	N300131E1195943	HC058	N301042E1204102
HC005	N300825E1201118	HC059	N301500E1201916
HC006	N300611E1200618	HC060	N301529E1202020
HC007	N300940E1200414	HC061	N302145E1203429
HC008	N301154E1200912	HC080	N302754 E1204115
HC009	N301412E1200748	HC081	N302306 E1204407
HC010	N302623E1200011	HC082	N302208 E1204441
HC011	N303829E1195228	HC083	N301818 E1204658
HC012	N301706E1200604	HC084	N301427 E1204915
HC015	N300344E1204456	HC085	N301739 E1201828
HC016	N301823E1203630	HC086	N300117 E1200918
HC017	N301432E1203845	HC088	N300638 E1202104
HC018	N300754E1204900	HC089	N300959 E1203917
HC019	N300700E1205159		
HC025	N301921E1203556	ABVIL	N2938.5E11918.9
HC026	N302620E1203144	ADBAS	N3020.6E12016.0
HC028	N301930E1201300	DUBGO	N2951.3E11939.9
HC029	N303955E1195940	ELNEX	N2937.9E11929.4
HC030	N301836E1203408	IGRAT	N3043.0E11948.4
HC033	N301223E1202254	KAKIS	N3029.0E12008.8
HC035	N301536E1201836	MOLGU	N2951.0E11958.0
HC036	N300400E1194036	NIVIK	N3045.7E11954.7
HC037	N301609E1201949	OKTUG	N3005.3E12057.6
HC039	N300523E1204001	OSTIN	N3009.1E12045.0
HC042	N300710E1195851	SUPAR	N3001.4E12051.5
HC043	N300342E1200045	UGAGO	N2937.7E11939.0
HC044	N300414E1202631	CJ	N3018.3E12010.0

HC048	N301551E1203546	DSH	N3008.9E12030.1
HC049	N300955E1203918	HGH	N3014.4E12027.7
HC050	N300521E1202859	TOL	N2945.8E11939.6
HC051	N300333E1202454		
HC052	N295945E1201625		
HC053	N295706E1201051		
HC054	N302540E1202955		

RWY06 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
OKT-61K								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	OSTIN				↑1800			RNAV1
TF	HC018				↑2100			RNAV1
TF	HC019							RNAV1
TF	OKTUG				2100 or 2700			RNAV1
SUP-61K								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	OSTIN				↑1800			RNAV1
TF	HC018				↑2100			RNAV1
TF	HC019							RNAV1
TF	SUPAR				2100 or 2700			RNAV1
UGA-61K								

CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
ELN-61K								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
TF	ELNEX							RNAV1
ABV-61K								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1

TF	ELNEX							RNAV1
TF	ABVIL							RNAV1
TOL-61K(by ATC)								
CF	HC030		067		↑450			RNAV1
TF	HC054					MAX380		RNAV1
TF	ADBAS				↓1500			RNAV1
TF	HC028							RNAV1
TF	CJ							RNAV1
TF	HC036							RNAV1
TF	DUBGO							RNAV1
TF	TOL							RNAV1
NIV-61K								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC033				↑1500			RNAV1
TF	HC035				↑2100			RNAV1
TF	HC028							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
NIV-63K(by ATC)								
CF	HC030		067		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC033				↑1500			RNAV1
TF	HC037				↑2100			
TF	ADBAS							RNAV1

TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
NIV-65K(by ATC)								
CF	HC030		067		↑450			RNAV1
TF	HC054					MAX380		RNAV1
TF	ADBAS				↓1500			RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1

RWY07 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
OKT-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	OSTIN				↑1800			RNAV1
TF	HC018				↑2100			RNAV1
TF	HC019							RNAV1
TF	OKTUG				2100 or 2700			RNAV1
SUP-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	OSTIN				↑1800			RNAV1
TF	HC018				↑2100			RNAV1
TF	HC019							RNAV1
TF	SUPAR				2100 or 2700			RNAV1

UGA-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
ELN-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1
TF	UGAGO							RNAV1
TF	ELNEX							RNAV1
ABV-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC051				↓2400			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC053				↓3600			RNAV1
TF	MOLGU				↓4200			RNAV1

TF	UGAGO							RNAV1
TF	ELNEX							RNAV1
TF	ABVIL							RNAV1
TOL-71K(by ATC)								
CF	HC048		082		↑450			RNAV1
TF	HC054					MAX380		RNAV1
TF	ADBAS				↓1500			RNAV1
TF	HC028							RNAV1
TF	CJ							RNAV1
TF	HC036							RNAV1
TF	DUBGO							RNAV1
TF	TOL							RNAV1
NIV-71K								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC033				↑1500			RNAV1
TF	HC035				↑2100			RNAV1
TF	HC028							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
NIV-73K(by ATC)								
CF	HC048		082		↑450			RNAV1
TF	HC049				↑900	MAX380		RNAV1
TF	HC050							RNAV1
TF	HC033				↑1500			RNAV1
TF	HC037				↑2100			RNAV1

TF	ADBAS							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1
NIV-75K(by ATC)								
CF	HC048		082		↑450			RNAV1
TF	HC054					MAX380		RNAV1
TF	ADBAS				↓1500			RNAV1
TF	KAKIS				↓2400			RNAV1
TF	NIVIK				↑3000			RNAV1

RWY24 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-42K								
CF	HC005		247		↑800			RNAV1
TF	HC052				↑1200	MAX380		RNAV1
TF	HC044				↑1500			RNAV1
TF	HC039				↓2400 ↑1800			RNAV1
TF	SUPAR				2100 or 2700			RNAV1
TOL-42K								
CF	HC005		247		↑800			RNAV1
TF	HC006							RNAV1
TF	HC004				↓3600 ↑2400			RNAV1
TF	DUBGO							RNAV1
TF	TOL							RNAV1



NIV-42K								
CF	HC005		247		↑800			RNAV1
TF	HC008				↑2100	MAX380		RNAV1
TF	HC009							RNAV1
TF	HC010				↓2400 ↑2100			RNAV1
TF	HC011							RNAV1
TF	NIVIK				↑3000			RNAV1

RWY25 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-52K								
CF	HC001		247		↑800			RNAV1
TF	HC002				↑800	MAX380		RNAV1
TF	HC052				↑1200			RNAV1
TF	HC044				↑1500			RNAV1
TF	HC039				↓2400 ↑1800			RNAV1
TF	SUPAR				2100 or 2700			RNAV1
SUP-54K								
CF	HC002		232		↑800			RNAV1
TF	HC052				↑1200	MAX380		RNAV1
TF	HC044				↑1500			RNAV1
TF	HC039				↓2400 ↑1800			RNAV1
TF	SUPAR				2100			RNAV1

					or 2700			
TOL-52K								
CF	HC001		247		↑800			RNAV1
TF	HC003							RNAV1
TF	HC004				↓3600 ↑2400			RNAV1
TF	DUBGO							RNAV1
TF	TOL							RNAV1
NIV-52K								
CF	HC001		247		↑800			RNAV1
TF	HC008				↑2100	MAX380		RNAV1
TF	HC009							RNAV1
TF	HC010				↓2400 ↑2100			RNAV1
TF	HC011							RNAV1
TF	NIVIK				↑3000			RNAV1

RWY06/07 departure holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
Holding(outbound time 1 minute)								
HM	HC049	Y	157	R	by ATC	MAX380		RNAV1

RWY24/25 departure holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
Holding(outbound time 1 minute)								
HM	HC005	Y	247	R	by ATC	MAX380		RNAV1

RWY06 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-61J								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC015				↓2400			RNAV1
TF	HC055				1500	MAX380		RNAV1
TOL-61J								
IF	TOL							RNAV1
TF	DUBGO				↓4500			RNAV1
TF	HC004				↓3600 ↑2400	MAX380		RNAV1
IGR-61J								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010				↓2400 ↑2100			RNAV1
TF	HC009				↑2100	MAX380		RNAV1
IGR-63J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010							RNAV1
TF	HC009				1500	MAX380		RNAV1
IGR-65J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1

TF	HC010				↓2400 ↑2100			RNAV1
TF	HC009				↑2100	MAX380		RNAV1
TOL-81J(by ATC)								
IF	TOL							RNAV1
TF	DUBGO				↓4500			RNAV1
TF	HC004				1500	MAX380		RNAV1
IGR-81J(by ATC)、 IGR-83J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010							RNAV1
TF	HC012							RNAV1
TF	HC008				↑1200	MAX380		RNAV1
SUP-81J(by ATC)								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC015				↓2400			RNAV1
TF	HC055							RNAV1
TF	HC088				1200	MAX380		RNAV1

## RWY07 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-71J								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC015				↓2400			RNAV1
TF	HC055				1500	MAX380		RNAV1

TOL-71J								
IF	TOL							RNAV1
TF	DUBGO				↓4500			RNAV1
TF	HC004				↓3600 ↑2400	MAX380		RNAV1
IGR-71J								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010				↓2400 ↑2100			RNAV1
TF	HC009				↑2100	MAX380		RNAV1
IGR-73J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010							RNAV1
TF	HC009				1500	MAX380		RNAV1
IGR-75J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC011							RNAV1
TF	HC010				↓2400 ↑2100			RNAV1
TF	HC009				↑2100	MAX380		RNAV1
TOL-91J(by ATC)								
IF	TOL							RNAV1
TF	DUBGO				↓4500			RNAV1
TF	HC004				1500	MAX380		RNAV1
IGR-91J(by ATC)、IGR-93J(by ATC)								
IF	IGRAT				↑3000			RNAV1

TF	HC011							RNAV1
TF	HC010							RNAV1
TF	HC012							RNAV1
TF	HC008				↑1200	MAX380		RNAV1
SUP-91J(by ATC)								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC015				↓2400			RNAV1
TF	HC055							RNAV1
TF	HC088				1200	MAX380		RNAV1

## RWY24 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
OKT-42J								
IF	OKTUG				2400 or 3000			RNAV1
TF	HC019							RNAV1
TF	HC018				↑1900			RNAV1
TF	OSTIN				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
SUP-42J								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC019							RNAV1
TF	HC018				↑1900			RNAV1
TF	OSTIN				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1

UGA-42J								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
UGA-44J								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
ELN-42J								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
ELN-44J								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1

TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
ABV-42J								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
ABV-44J								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-42J								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	HC028							RNAV1
TF	HC059				↑2100			RNAV1



TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-44J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS							RNAV1
TF	HC060							RNAV1
TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-46J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS				1200	MAX380		RNAV1
ABV-82J(by ATC)								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ABV-84J(by ATC)								

IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
OKT-82J(by ATC)								
IF	OKTUG				2400 or 3000			RNAV1
TF	HC019				↑1900			RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ELN-82J(by ATC)								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ELN-84J(by ATC)								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1

TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-82J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS				1200			RNAV1
TF	HC085				1200	MAX380		RNAV1
IGR-84J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS							RNAV1
TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1
UGA-82J(by ATC)								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1
UGA-84J(by ATC)								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1

TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
SUP-82J(by ATC)								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC019				↑1900			RNAV1
TF	HC084				↑1200	MAX380		RNAV1

## RWY25 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
OKT-52J								
IF	OKTUG				2400 or 3000			RNAV1
TF	HC019							RNAV1
TF	HC018				↑1900			RNAV1
TF	OSTIN				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
SUP-52J								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC019							RNAV1
TF	HC018				↑1900			RNAV1
TF	OSTIN				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
UGA-52J								
IF	UGAGO							RNAV1

TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
UGA-54J								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
ELN-52J								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
ELN-54J								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1

TF	HC055				1200	MAX380		RNAV1
ABV-52J								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC058				↑1200	MAX380		RNAV1
ABV-54J								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-52J								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	HC028							RNAV1
TF	HC059				↑2100			RNAV1
TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1

IGR-54J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS							RNAV1
TF	HC060							RNAV1
TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-56J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS				1200	MAX380		RNAV1
IGR-58J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS				1200	MAX350		RNAV1
ABV-92J(by ATC)								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1

TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ABV-94J(by ATC)								
IF	ABVIL							RNAV1
TF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
OKT-92J(by ATC)								
IF	OKTUG				2400 or 3000			RNAV1
TF	HC019				↑1900			RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ELN-92J(by ATC)								
IF	ELNEX							RNAV1
TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1
ELN-94J(by ATC)								
IF	ELNEX							RNAV1



TF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
IGR-92J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS				1200			RNAV1
TF	HC085				1200	MAX380		RNAV1
IGR-94J(by ATC)								
IF	IGRAT				↑3000			RNAV1
TF	HC029							RNAV1
TF	KAKIS				↓2400			RNAV1
TF	ADBAS							RNAV1
TF	HC033							RNAV1
TF	HC055				1200	MAX380		RNAV1
UGA-92J(by ATC)								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC053				↓3600			RNAV1
TF	HC052				↓3000			RNAV1
TF	HC051				↓2400			RNAV1
TF	HC050				↑1500			RNAV1
TF	HC089							RNAV1
TF	HC084				↑1200	MAX380		RNAV1

UGA-94J(by ATC)								
IF	UGAGO							RNAV1
TF	MOLGU				↓4200			RNAV1
TF	HC057				↓3600			RNAV1
TF	HC056				↓3000			RNAV1
TF	HC055				1200	MAX380		RNAV1
SUP-92J(by ATC)								
IF	SUPAR				2400 or 3000			RNAV1
TF	HC019				↑1900			RNAV1
TF	HC084				↑1200	MAX380		RNAV1

RWY06 Transition Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-61J								
IF	HC055				1500	MAX380		RNAV1
TF	HC056				1200			RNAV1
TF	HC005				900			RNAV1
TOL-61J								
IF	HC004				↓ 3600 ↑2400	MAX380		RNAV1
TF	HC003				↑1200			RNAV1
TF	HC005				900			RNAV1
IGR-61J								
IF	HC009				↑2100	MAX380		RNAV1
TF	HC008				↑1800			RNAV1
TF	HC007				↑1800			RNAV1

TF	HC006				↑1200			RNAV1
TF	HC005				900			RNAV1
IGR-63J(by ATC)								
IF	HC009				1500	MAX380		RNAV1
TF	HC008				1200			RNAV1
TF	HC005				900			RNAV1
IGR-65J(by ATC)								
IF	HC009				↑2100	MAX380		RNAV1
TF	HC008				↑1800			RNAV1
TF	HC007				↑1800			RNAV1
TF	HC042							RNAV1
TF	HC043							RNAV1
TF	HC006				↑1200			RNAV1
TF	HC005				900			RNAV1
TOL-81J(by ATC)								
IF	HC004				1500	MAX380		RNAV1
TF	HC006				900			RNAV1
IGR-81J(by ATC)								
IF	HC008				↑1200	MAX380		RNAV1
TF	HC007				900			RNAV1
TF	HC006				900			RNAV1
IGR-83J(by ATC)								
IF	HC008				↑1200	MAX380		RNAV1
TF	HC007				900			RNAV1
TF	HC042				900			RNAV1
TF	HC043				900			RNAV1
TF	HC006				900			RNAV1

SUP-81J(by ATC)								
IF	HC088				1200	MAX380		RNAV1
TF	HC086							RNAV1
TF	HC006				900			RNAV1

RWY07 Transition Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
SUP-71J								
IF	HC055				1500	MAX380		RNAV1
TF	HC056				1200			RNAV1
TF	HC001				900			RNAV1
TOL-71J								
IF	HC004				↓3600 ↑2400	MAX380		RNAV1
TF	HC003				↑1200			RNAV1
TF	HC001				900			RNAV1
IGR-71J								
IF	HC009				↑2100	MAX380		RNAV1
TF	HC008				↑1800			RNAV1
TF	HC007				↑1800			RNAV1
TF	HC003				↑1200			RNAV1
TF	HC001				900			RNAV1
IGR-73J(by ATC)								
IF	HC009				1500	MAX380		RNAV1
TF	HC008				1200			RNAV1
TF	HC001				900			RNAV1

IGR-75J(by ATC)								
IF	HC009				↑2100	MAX380		RNAV1
TF	HC008				↑1800			RNAV1
TF	HC007				↑1800			RNAV1
TF	HC042							RNAV1
TF	HC043							RNAV1
TF	HC003				↑1200			RNAV1
TF	HC001				900			RNAV1
TOL-91J(by ATC)								
IF	HC004				1500	MAX380		RNAV1
TF	HC003				1200			RNAV1
IGR-91J(by ATC)								
IF	HC008				↑1200	MAX380		RNAV1
TF	HC007							RNAV1
TF	HC003				1200			RNAV1
IGR-93J(by ATC)								
IF	HC008				↑1200	MAX380		RNAV1
TF	HC007							RNAV1
TF	HC042							RNAV1
TF	HC043							RNAV1
TF	HC003				1200			RNAV1
SUP-91J(by ATC)								
TF	HC088				1200	MAX380		RNAV1
TF	HC086							RNAV1
TF	HC003				1200			RNAV1

RWY24 Transition Navigation database coding table

Path	Waypoint	Fly	Magnetic	Turn	Altitude	IAS	VPA/	Navigation
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Terminator	ID	over	Course (°)	Direction	(m)	(km/h)	TCH	Specification
OKT-42J,SUP-42J,UGA-42J,ELN-42J,ABV-42J								
IF	HC058				↑1200	MAX380		RNAV1
TF	HC017				900			RNAV1
TF	HC025				460			RNAV1
UGA-44J,ELN-44J,ABV-44J,IGR-42J,IGR-44J(by ATC)								
IF	HC055				1200	MAX380		RNAV1
TF	HC017				900			RNAV1
TF	HC025				460			RNAV1
IGR-46J(by ATC)								
IF	ADBAS				1200	MAX380		RNAV1
TF	HC026				900			RNAV1
TF	HC025				460			RNAV1
OKT-82J,SUP-82J,UGA-82J,ELN-82J,ABV-82J(by ATC)								
IF	HC084				↑1200	MAX380		RNAV1
TF	HC083				900			RNAV1
TF	HC081				600			RNAV1
UGA-84J, ELN-84J, ABV-84J, IGR-84J(by ATC)								
IF	HC055				1200	MAX380		RNAV1
TF	HC083				900			RNAV1
TF	HC081				600			RNAV1
IGR-82J(by ATC)								
IF	HC085				1200	MAX380		RNAV1
TF	HC080				600			RNAV1
TF	HC081				600			RNAV1

RWY25 Transition Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
OKT-52J,SUP-52J,UGA-52J,ELN-52J,ABV-52J								
IF	HC058				↑1200	MAX380		RNAV1
TF	HC017				900			RNAV1
TF	HC016				460			RNAV1
UGA-54J,ELN-54J,ABV-54J,IGR-52J,IGR-54J(by ATC)								
IF	HC055				1200	MAX380		RNAV1
TF	HC017				900			RNAV1
TF	HC016				460			RNAV1
IGR-56J(by ATC)								
IF	ADBAS				1200	MAX380		RNAV1
TF	HC026				900			RNAV1
TF	HC016				460			RNAV1
IGR-58J(by ATC)								
IF	ADBAS				1200	MAX350		RNAV1
TF	HC060							RNAV1
TF	HC061							RNAV1
TF	HC016				460			RNAV1
OKT-92J,SUP-92J,UGA-92J,ELN-92J,ABV-92J(by ATC)								
IF	HC084				↑1200	MAX380		RNAV1
TF	HC083				900			RNAV1
TF	HC082				900			RNAV1
UGA-94J, ELN-94J, ABV-94J, IGR-94J(by ATC)								
IF	HC055				1200	MAX380		RNAV1
TF	HC083				900			RNAV1

TF	HC082				900			RNAV1
IGR-92J(by ATC)								
IF	HC085				1200	MAX380		RNAV1
TF	HC080				900			RNAV1
TF	HC082				900			RNAV1

RWY06/07 arrival holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
Holding(outbound time 1 minute)								
HM	HC003	Y	067	R	1200	MAX400		RNAV1
HM	HC011	Y	146	L	by ATC	MAX400		RNAV1
HM	HC055	Y	247	L	1800	MAX400		RNAV1
HM	HC088	Y	247	L	1500	MAX400		RNAV1

RWY24/25 arrival holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
Holding(outbound time 1 minute)								
HM	HC055	Y	067	R	1500	MAX400		RNAV1
HM	HC058	Y	300	L	1500	MAX400		RNAV1
HM	HC029	Y	148	R	by ATC	MAX400		RNAV1
HM	HC056	Y	067	R	1500	MAX400		RNAV1
HM	HC084	Y	337	L	1500	MAX400		RNAV1

## ZSHC AD 2.23 其它资料

## ZSHC AD 2.23 Other information



全年有鸟类活动，机场当局采取了驱赶措施，以减少鸟群活动。

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

Type of bird	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