ZGHA AD 2.1 机场地名代码和名称 Aerodrome location indicator(ICAO / IATA) and name

ZGHA/CSX-长沙/黄花 CHANGSHA/Huanghua

ZGHA 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	N28°11.4′ E113°13.1′ 181°MAG, 300m from RWY18R/36L center
2	机场基准点与城市的位置关系 Direction and distance from city	92°GEO, 24.4km from May Day Square of Changsha city
3	机场标高、基准温度、低温均值 ELEV/Reference temperature/Mean low temperature	66.9 m/35.0℃(AUG)/3.7℃(JAN)
4	机场标高位置的大地水准面波幅 Geoid undulation at AD ELEV PSN	
5	磁差（测量年份）及年变率 VAR(Year)/Annual change	4°W(2022)/-4′42″
6	机场管理部门、地址、电话、传真、AFS 地址、电子邮箱、网址 AD administration/Address/Telephone/Telefax/ AFS/ E-mail/Website	Hunan Airport CO.LTD Changsha Huanghua International Airport Branch Company Changsha Huanghua Airport, Hunan province, China Post code:410141 TEL:86-731-84797022 FAX:86-731-84799343 AFS:ZGHAYDYX E-mail:csjcjm@hncaac.com
7	允许飞行种类 Types of traffic permitted(IFR/VFR)	IFR-VFR
8	机场性质/飞行区指标 Military or civil airport/Reference code	CIVIL/4E
9	备注 Remarks	Nil

ZGHA AD 2.3 工作时间 Operational hours

1	机场开放时间 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	航空情报服务讲解室 AIS Briefing Office	H24
5	空中交通服务报告室 ATS Reporting Office	H24

6	气象服务讲解室 MET Briefing Office	H24
7	空中交通服务 Air Traffic Service	H24
8	加油服务 Fuelling	H24
9	地勤服务 Handling	H24
10	安保服务 Security	H24
11	除冰服务 De-icing	H24
12	备注 Remarks	Nil

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

1	货物装卸设施 Cargo-handling facilities	Platform lift（35t, 20t, 14t, 7t）, conveyor belt truck, luggage towing vehicle, unit load device tractor（1.6t, 7t, 27t）, electric pallet dolly, electric tractor, fork
2	燃油牌号 Fuel types	Jet Fuel No.3
3	滑油牌号 Oil types	Nil
4	加油设施/能力 Fuelling facilities & Capacity	Tank vehicle; hydrant dispenser: 14-20 litres/ sec; apron refueling well
5	除冰设施 De-icing facilities	14 de-icers De-icing fluid: Cleanwing I、Cleanwing II
6	过站航空器机库 Hangar space for visiting aircraft	Nil
7	过站航空器的维修设施 Repair facilities for visiting aircraft	Line maintenance available for: B737-300/400/500/600/700/800/900、B757-200、B767-300、A300-600、A310-200、A319、A320-200、A321、A330-200/300、MD-90、CRJ-200、EMB-145, etc.
8	备注 Remarks	Ground power unit, ground air supply unit, ground air preconditioning :applicable to all stands and its available types. Ground electrical power (400HZ frequency solid power supply) and ground air conditioning applicable to the following stands: 01-10, 211-216, 221-228, 231-238, 131, 133-136, 151, 153, 251-256, 261-266

ZGHA AD 2.5 旅客设施 Passenger facilities

1	宾馆 Hotels	At AD
2	餐饮 Restaurants	At AD
3	交通工具 Transportation	Passenger’s coaches, taxis
4	医疗设施 Medical facilities	First aid at AD, hospital in the city
5	银行和邮局 Bank and Post Office	At AD
6	旅行社 Tourist Office	At AD
7	备注 Remarks	Nil

ZGHA 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: primary foam tender，dry-chemical tender，heavy-duty foam tender， command car, disassembly rescue truck, illumination truck, rapid intervention vehicle, aircraft Rapid Respond FF Vehicle, aerial platform ladder. Rescue equipment: exhaust fan, toothless cutting saw, life-saving air-cushion, hydraulic expander, portable motor pump, forcible entry toolkit, insulating pliers, temperature tester, combustible gas detector.
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTOW up to B747-400
4	备注 Remarks	Security service for B747 and below

ZGHA AD 2.7 可用季节- 扫雪 Seasonal availability-clearing

1	可用季节及扫雪设备类型 Seasonal availability/Types of clearing equipment	All seasons snow blower, multi-purpose snow remover, snow blade, deicing liquid spreader
2	扫雪顺序 Clearance priorities	RWY18R/36L, TWY B, Apron(TWY A inclusive), RWY18L/36R, TWY C
3	备注 Remarks	Nil

ZGHA 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	道面 Surface	CONC
		强度 Strength	PCR 1010/R/A/W/T : Apron Nr.5(stands Nr. 131-136) PCR 990/R/B/W/T : General apron(stands Nr. 150-153, 155-159) PCR 910/R/A/W/T : Apron Nr.3(stands Nr. 241-243, 241L/R-243L/R) PCR 910/R/B/W/T : Apron Nr.2(stands Nr. 201-207, 211-216, 221-228, 231-238) PCR 900/R/A/W/T : Apron Nr.3(stands Nr. 251-257, 257R) PCR 860/R/B/W/T : Apron Nr.1(stands Nr. 1-10, 12, 14), Apron Nr.2(stands Nr. 210), Apron Nr.5(stands Nr. 16-20, 122-128) PCR 830/R/A/W/T : Apron Nr.4(stands Nr. 261-266, 261L/R-266L/R) PCR 770/R/A/W/T : General apron (II)(stands Nr. 161-166, 161L/R-166L/R)
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	宽度 Width	58.5m : S9(BTN S5 & S14) 44m : C2-C5, C14-C17, D1, D2, D7, D8, N 40.8m : A(BTN A1 & A2) 39m : B2 34.5m : B7, C1, C19, D9 31m : A1-A4, B9 27m : A5-A7 26.5m : B1 25m : C, C6, C7, C12, C13, D(BTN D2& M), D(BTN D7& D9), M 23m : A(BTN A2 & A7), B, B3-B6, C8-C11, S12 18m : S3, S6-S8, S9(BTN S5 & S8), S13
		道面 Surface	ASPH : B, B1-B7, B9 CONC : A, A1-A7, C, C1-C17, C19, D(BTN D7& D9), D(BTN D2& M), D1, D2, D7-D9, M, N, S1-S14
		强度 Strength	PCR 1060/R/B/W/T : C6, C7, C12, C13 PCR 1020/R/A/W/T : C1-C5, C14-C17, C19 PCR 1020/R/B/W/T : A(BTN A1 & A5), C8-C11 PCR 1010/R/A/W/T : S5(BTN S4 & S7), S6-S8 PCR 1000/R/A/W/T : D1, D2, D7-D9, M, N PCR 990/R/B/W/T : S5(BTN S7 & S9) PCR 940/R/B/W/T : A1-A4 PCR 910/R/A/W/T : B1-B7, B9 PCR 900/R/A/W/T : D(BTN D2& M), D(BTN D7& D9), S10, S11 PCR 880/R/A/W/T : C PCR 880/R/B/W/T : A5-A7 PCR 860/R/A/W/T : S12 PCR 860/R/B/W/T : S1-S4, S13 PCR 800/R/A/W/T : B PCR 770/R/A/W/T : S14

			PCR 740/R/A/W/T : A(BTN A5 & A7) PCR 620/R/B/W/T : S9
3	高度表校正点的位置及其标高 ACL location and elevation	Nil	
4	VOR 校正点 VOR checkpoints	Nil	
5	INS 校正点 INS checkpoints	Nil	
6	备注 Remarks	Nil	

ZGHA 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. Taxiing guidance signs at all holding positions. Guide lines at all TWYs. Guide lines at all aprons. Visual docking guidance system at aircraft stands Nr. 1-10, 211-216, 221-228, 231-238, Marshalling assistance for other aircraft stands.	
2	跑道和滑行道标志及灯光 RWY and TWY marking and LGT	跑道标志 RWY markings	THR, RWY designation, edge line, RWY center line, TDZ, aiming point
		跑道灯光 RWY lights	RTHL, WBAR, REDL, RCLL, RTZL(36L, 36R), RENL
		滑行道标志 TWY markings	Edge line, center line, TWY shoulder marking, No-entry(B3-B6, C6-C13), RWY holding position, intermediate holding position
		滑行道灯光 TWY lights	Edge line lights, center line lights, No-entry bar(C6-C13) , RETILs(C7, C9, B3, B4, C6, C8, B5, B6, C10, C12, C11, C13), intermediate holding position lights
3	停止排灯和跑道警戒灯 Stop bars and runway guard lights	Stop bar lights: B1, B2, B7, B9, C（BTN C3 & C5）, C（BTN C15 & C17）, C1, C3, C5, C15, C17, C19, D1, D2, D7-D9, M, N Runway guard lights: B1, B2, B7, B9, C1-C5, C14-C17, C19, D1, D2, D7-D9, N	
4	其它跑道保护措施 Other runway protection measures	Nil	
5	备注 Remarks	Aircraft stand identification sign board at boarding bridge stands; Road-holding position sign(RWY18L/36R) BLUE apron edge line lights	

ZGHA AD 2.10 机场障碍物 Aerodrome obstacles

半径 15 千米内主要障碍物 (相对机场 ARP) Obstacles within a circle with a radius of 15km (centered on the ARP)					
障碍物名称 或编号 Obstacle ID/ Designation	障碍物类 型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或 (高) Elevation /(Height) (m)	障碍物标志，灯光 类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及 起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
1	2	3	4	5	6
TRANSMISSION _LINE 001	TRANSM ISSION_L INE	002/5703	106.5		RWY36R take-off path
Antenna 002	Antenna	005/1579	80.6		RWY18R ILS/DME approach
Antenna 003	Antenna	005/10226	141.4		RWY18L/R GP INOP final approach
Antenna 004	Antenna	107/8215	169.3		Circling CAT C
Iron TWR 005	Iron TWR	117/5206	145.4		Circling CAT B
Antenna 006	Antenna	168/9036	137.1		RWY18L/R traditional departure
Pole 007	Pole	174/1016	77.6		RWY36L/R ILS/DME approach
Antenna 008	Antenna	178/6882	112.2		RWY18L PBN departure
Antenna 009	Antenna	186/8362	125.4		RWY18R PBN departure; RWY36R GP INOP final approach
Antenna 010	Antenna	188/10368	130.6		RWY36L GP INOP final approach
STACK 011	STACK	211/2080	106		
BLDG 012	BLDG	293/10080	277.6		Circling CAT D; RWY18L/R arrival(from RUKLI)
Control TWR 013	Control TWR	311/825	126.5	LGT	Circling CAT A
Control TWR 014	Control TWR	328/918	104.7	LGT	

半径 15 千米内主要障碍物 (相对机场 ARP)
Obstacles within a circle with a radius of 15km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志，灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
STACK 015	STACK	354/4253	106.2		RWY36L departure
Antenna 016	Antenna	359/5568	114.5		RWY36L take-off path; RWY36R departure
Antenna 017	Antenna	360/7173	131.8	LGT	RWY36L/R take-off path; RWY18R GP INOP final approach

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
Iron TWR 018	Iron TWR	001/17517	157		
TRANSMISSION_LINE 019	TRANSMISSION_LINE	001/23231	257		RWY18L/R PBN intermediate approach
MT 020	MT	014/122364	400		Surveillance Vectoring Sector Nr.1, 2
Antenna 021	Antenna	024/24610	300		RWY36L/R departure (to OLTUS) Surveillance Vectoring Sector Nr.3
MT 022	MT	026/23166	195		
MT 023	MT	026/24789	228		
MT 024	MT	029/28000	302		RWY18L/R initial approach
MT 025	MT	031/27685	288		RWY18L/R PBN initial approach

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 026	MT	031/29229	305		RWY18L/R PBN arrival (from GUSIV)
MT 027	MT	033/27358	244		RWY36L/R traditional departure (to GUDRO)
MT 028	MT	033/28408	291		
MT 029	MT	033/33070	486		RWY18L/R traditional arrival(from GUSIV)
MT 030	MT	034/21000	200		
TRANSMISSION _LINE 031	TRANSM ISSION_L INE	035/24616	265		RWY18L/R traditional arrival
MT 032	MT	035/32106	368		
MT 033	MT	036/24657	215		
MT 034	MT	037/47720	654		RWY36L/R PBN departure(to GUDRO)
MT 035	MT	038/106718	1615		RWY18L/R traditional arrival (from GUSIV); RWY36L/R traditional arrival (from GUSIV); RWY18L/R PBN holding; RWY36L/R PBN holding; Surveillance Vectoring Sector Nr.24
MT 036	MT	057/123141	1161		Surveillance Vectoring Sector Nr.4
MT 037	MT	062/46099	701		
Antenna 038	Antenna	062/46646	764		RWY18L/R PBN arrival

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 039	MT	062/72731	1600		
Antenna 040	Antenna	062/72807	1640		RWY18L/R holding; RWY36L/R holding; Surveillance Vectoring Sector Nr.25
MT 041	MT	064/57465	1421		Surveillance Vectoring Sector Nr.5
MT 042	MT	064/63015	1571		RWY18L/R PBN arrival(from GUSIV); RWY36L/R PBN arrival(from GUSIV), traditional holding
MT 043	MT	064/63270	1572		Surveillance Vectoring Sector Nr.6
MT 044	MT	065/43286	664		
MT 045	MT	066/50300	1360		Sector; RWY18L/R PBN holding, traditional arrival(from GUSIV)
MT 046	MT	069/48161	1006		Surveillance Vectoring Sector Nr.7
MT 047	MT	071/41409	825		Surveillance Vectoring Sector Nr.8
MT 048	MT	072/45800	991		
MT 049	MT	077/96731	1608		RWY18L/R traditional arrival (from DALEP), PBN holding; RWY36L/R traditional arrival (from DALEP), PBN holding; Surveillance Vectoring Sector Nr.9, 10
MT 050	MT	081/39900	831		RWY18L/R arrival(from DALEP)

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 051	MT	086/108776	1182		RWY18L/R PBN arrival (from DALEP); RWY36L/R PBN arrival (from DALEP)
Antenna 052	Antenna	091/34458	833		RWY18L/R PBN arrival (from MEXON)
MT 053	MT	092/34505	786		
MT 054	MT	096/21483	549		
MT 055	MT	097/64680	879		RWY18L/R traditional holding
MT 056	MT	098/18662	471		
MT 057	MT	104/26000	794		RWY36L/R PBN departure
MT 058	MT	108/21629	751		RWY36L/R traditional departure
Antenna 059	Antenna	109/25767	834		RWY18L/R PBN departure(to GUDRO), holding
MT 060	MT	109/25789	786		
MT 061	MT	124/18754	381		
MT 062	MT	125/17600	388		RWY18L/R ILS/DME, GP INOP missed approach; RWY18L/R departure; RWY36L/R arrival (from RUKLI)
Antenna 063	Antenna	125/73755	992		Surveillance Vectoring Sector Nr.11
MT 064	MT	133/41664	809		RWY36L/R traditional arrival

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 065	MT	133/48000	817		
MT 066	MT	135/36469	529		RWY36L/R PBN arrival
MT 067	MT	135/124106	1919		Surveillance Vectoring Sector Nr.12
MT 068	MT	136/47398	817		Sector; RWY18L/R PBN holding; RWY36L/R PBN holding
MT 069	MT	138/40050	811		RWY18L/R departure(to UBMOG)
MT 070	MT	147/37718	598		
MT 071	MT	153/43823	491		Surveillance Vectoring Sector Nr.13
Antenna 072	Antenna	154/47924	749		RWY18L/R traditional arrival (from MEXON), traditional holding; RWY36L/R traditional arrival (from MEXON), holding
MT 073	MT	155/47940	708		RWY36L/R PBN arrival(from MEXON)
MT 074	MT	157/40625	363		
Antenna 075	Antenna	177/28053	259		RWY36L/R initial approach
MT 076	MT	177/28066	227		
MT 077	MT	178/18943	206		
MT 078	MT	178/36426	319		RWY36L/R initial approach(from MEXON)

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 079	MT	178/88504	860		RWY18L/R PBN holding; RWY36L/R PBN holding
MT 080	MT	185/16800	234		
MT 081	MT	185/16910	237		RWY18L/R departure; RWY36L/R intermediate approach
MT 082	MT	197/16610	235		RWY18L/R traditional departure (to OLTUS)
MT 083	MT	205/19265	235		RWY36L/R PBN arrival(from RUKLI)
MT 084	MT	206/31838	284		RWY18L/R PBN departure(to OLTUS)
Antenna 085	Antenna	208/31890	345		Surveillance Vectoring Sector Nr.14
MT 086	MT	212/111797	1290		Surveillance Vectoring Sector Nr.15
MT 087	MT	218/24700	274		RWY36L/R traditional arrival (from RUKLI)
MT 088	MT	254/91762	523		RWY18L/R holding; RWY36L/R holding; Surveillance Vectoring Sector Nr.16
MT 089	MT	260/48852	312		RWY18L/R PBN holding; RWY36L/R PBN holding
MT 090	MT	261/124642	876		Surveillance Vectoring Sector Nr.17
MT 091	MT	265/131912	1071		Surveillance Vectoring Sector Nr.18
BLDG 092	BLDG	277/24220	498		RWY18L/R PBN holding; RWY36L/R traditional departure(to OLTUS)
MT 093	MT	327/33238	369		Surveillance Vectoring Sector Nr.19

半径 15 千米-50 千米内主要障碍物 (相对机场 ARP)
Obstacles between two circles with the radius of 15km and 50km (centered on the ARP)

障碍物名称或编号 Obstacle ID/ Designation	障碍物类型 Obstacle type	障碍物位置 磁方位(°)/距离(m) Obstacle position MAG BRG(degree)/DIST(m)	标高或(高) Elevation /(Height) (m)	障碍物标志、灯光类型及颜色 Obstacle marking /Lighting Type & Colour	影响的飞行程序及起飞航径区/备注 Flight procedure/take-off path area affected & Remarks
MT 094	MT	340/148819	157		Surveillance Vectoring Sector Nr.20
MT 095	MT	342/29300	319		Surveillance Vectoring Sector Nr.21
Antenna 096	Antenna	345/43498	825		Sector; Surveillance Vectoring Sector Nr.22
MT 097	MT	345/43600	777		
TRANSMISSION _LINE 098	TRANSMISSION_LINE	350/20543	257		RWY36L/R departure (to OLTUS)
TRANSMISSION _LINE 099	TRANSMISSION_LINE	353/21412	248		RWY18L/R traditional intermediate approach
Antenna 100	Antenna	359/38363	525		Surveillance Vectoring Sector Nr.23

Remarks:

ZGHA AD 2.11 提供的气象情报、气象观测和报告
Meteorological information provided & meteorological observations and reports

提供的气象情报
Meteorological information provided

1	相关气象台的名称 Associated MET Office	Hunan ATMB MET Office of CAAC
2	气象服务时间、服务时间以外的责任气象台 Hours of service/MET Office outside hours	H24
3	负责编发 TAF 的气象台、有效时段、发布间隔 Office responsible for TAF preparation/Periods of validity/Interval of issuance	Hunan ATMB MET Office of CAAC;9h, 24h;3h, 6h
4	趋势预报及发布间隔 Trend forecast/Interval of issuance	trend 1h
5	所提供的讲解或咨询服务	Briefing provided: P, T

	Briefing/Consultation provided	
6	飞行文件及其使用语言 Flight documentation/Language(s) used	Chart, International MET Codes, Abbreviated Plain Language Text;Ch,En
7	讲解或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 and radar material, AWOS real-time data
8	提供气象情报的辅助设备 Supplementary equipment available for providing information	FAX, MET radar display, satellite cloud display, AWOS data display
9	提供气象情报的空中交通服务单位 ATS units provided with information	Changsha ACC, Changsha APP, TWR
10	其他信息 Additional information	TEL: 86-731-84798822
气象观测和报告 Meteorological observations and reports		
1	机场观测类型与频率、自动观测设备 Type & frequency of observation /Automatic observation equipment	Hourly plus special observation/Yes
2	气象报告类型及所包含的补充资料 Type of MET Report/Supplementary information included	METAR, SPECI
3	观测系统及安装位置 Observation system/Site(s)	RVR EQPT A: 120m E of RCL,380m inward THR18R B: 120m E of RCL,1600m inward THR36L C: 120m E of RCL,435m inward THR36L D: 110m E of RCL,500m inward THR18L E: 110m E of RCL,1580m inward THR36R F: 110m E of RCL,458m inward THR36R SFC wind sensors 18L: 110m E of RCL,462m inward THR18L 18L/36R Center: 110m E of RCL,1620m inward THR36R 36R: 110m E of RCL,450m inward THR36R 18R: 120m E of RCL,340m inward THR18R 18R/36L Center: 120m E of RCL,1590m inward THR36L 36L: 120m E of RCL, 425m inward THR36L Ceilometer 18L: 100m E of RCL,457m inward THR18L 36R: 100m E of RCL,445m inward THR36R 18R: 110m E of RCL,335m inward THR18R 36L: 110m E of RCL,420m inward THR36L
4	观测系统的工作时间	H24

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

ZGHA AD 2.12 跑道物理特征 Runway physical characteristics

跑道号码 RWY Designator	真方位和磁方位 TRUE & MAG BRG	跑道长宽 Dimensions of RWY(m)	跑道强度、跑道和停止道道面 RWY strength/ Surface of RWY /SWY	跑道入口坐标、跑道末端坐标、跑道入口大地水准面波幅 THR coordinates & RWY end coordinates & THR geoid undulation	跑道入口标高和精密进近跑道接地带最高标高 THR elevation & highest elevation of TDZ of precision APP RWY	跑道和停止道坡度 Slope of RWY/SWY
1	2	3	4	5	6	7
18L	176.87° GEO 181° MAG	3800×60	PCR 870/R/A/W/T CONC/-	Nil	THR 64.5m	0.1%(282.5m)/-0.2%(1217.5m)/-0.12%(1460.5m)/-0.4%(839.5m)
36R	356.87° GEO 001° MAG	3800×60	PCR 870/R/A/W/T CONC/-	Nil	THR 57.2m	0.4%(839.5m)/0.12%(1460.5m)/0.2%(1217.5m)/-0.1%(282.5m)
18R	176.87° GEO 181° MAG	3200×45	(0-600m) PCR 1330/F/B/W/T (600-3200m) PCR 770/R/A/W/T ASPH/-	Nil	THR 66.9m	-0.2%(1410m)/-0.1%(1020m)/-0.2%(110m)/-0.3%(105m)/-0.4%(555m)
36L	356.87° GEO 001° MAG	3200×45	(0-2600m) PCR 770/R/A/W/T (2600-3200m) PCR 1330/F/B/W/T ASPH/-	Nil	THR 60.4m	0.4%(555m)/0.3%(105m)/0.2%(110m)/0.1%(1020m)/0.2%(1410m)

跑道号码 RWY Designator	停止道长宽 SWY dimensions (m)	净空道长宽 CWY dimensions (m)	升降带长宽 Strip dimensions (m)	跑道端安全区长宽 RESA dimensions (m)	拦阻系统的位置及描述 Location& Description of arresting system	无障碍物区 OFZ
1	8	9	10	11	12	13
18L	Nil	Nil	3920×300	240×150	Nil	Nil
36R	Nil	Nil	3920×300	240×150	Nil	Nil
18R	Nil	Nil	3320×300	130×120	Nil	Nil
36L	Nil	Nil	3320×300	190×150	Nil	Nil

Remarks: 1. RWY18L/36R shoulder: 7.5m on each side, RWY18R/36L shoulder: 7.5m on each side;

2. RWY18L/36R grooved: 6mm×6mm×32mm;

3. RWY18L/36R parallels to RWY18R/36L;

4. Distance between RCL of RWY18L/36R and RCL of RWY18R/36L is 380m; THR36R is 300m south of THR36L; THR18L is 300m north of THR18R.

ZGHA 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
18L	3800	3800	3800	3800	Nil
18L	3400	3400	3400	3800	FM C17,FM D8
18L	3000	3000	3000	3800	FM C15,FM D7
36R	3800	3800	3800	3800	Nil
36R	3400	3400	3400	3800	FM C3,FM D1
36R	3000	3000	3000	3800	FM C5,FM D2
18R	3200	3200	3200	3200	Nil
18R	2600	2600	2600	3200	FM B7,FM C14
36L	3200	3200	3200	3200	Nil
36L	2800	2800	2800	3200	FM B2,FM C4

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

跑道号码 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类型、位置、仰角、跑道入口最低眼高 Type of VASIS/Position /Angle/MEHT	接地带灯长度 TDZ LGT LEN	跑道中线灯长度、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
18L	PALS CAT I SFL 900 m LIH	GREEN Yes	PAPI LEFT 436m inward THR18L 3° 22.8m	Nil	3800 m spacing 15m 0-2900m, WHITE 2900-3500m, RED/WHITE 3500-3800m, RED VRB LIH	3800 m spacing 60m 0-3200m, WHITE 3200-3800m, YELLOW VRB LIH	RED	Nil
36R	PALS CAT III SFL 900 m LIH	GREEN Yes	PAPI LEFT 410m inward THR36R 3° 22.8m	900 m	3800 m spacing 15m 0-2900m, WHITE 2900-3500m, RED/WHITE 3500-3800m, RED VRB LIH	3800 m spacing 60m 0-3200m, WHITE 3200-3800m, YELLOW VRB LIH	RED	Nil
18R	PALS CAT I SFL 900 m LIH	GREEN Yes	PAPI LEFT 474m inward THR18R 3° 18.4m	Nil	3200 m spacing 15m 0-2300m, WHITE 2300-2900m, RED/WHITE 2900-3200m, RED VRB LIH	3200 m spacing 60m 0-2600m, WHITE 2600-3200m, YELLOW VRB LIH	RED	Nil
36L	PALS CAT II SFL 900 m LIH	GREEN Yes	PAPI RIGHT 414m inward THR36L 3° 17m	900 m	3200 m spacing 15m 0-2300m, WHITE 2300-2900m, RED/WHITE 2900-3200m, RED VRB LIH	3200 m spacing 60m 0-2600m, WHITE 2600-3200m, YELLOW VRB LIH	RED	Nil
Remarks:								

ZGHA AD 2.15 其它灯光,备份电源 Other lighting, secondary power supply

1	机场灯标或识别灯标位置、特性和工作时间 ABN/IBN location, characteristics and hours of operation	Nil
2	着陆方向标和风向标位置和灯光 LDI/ WDI location and LGT	WDI: 18L:100m E of RCL, 454.1m inward THR18L 36L:115m E of RCL, 530m inward THR36L 18R:115m E of RCL, 450m inward THR18R 36R:100m W of RCL, 435.6m inward THR36R
3	滑行道边灯和滑行道中线灯 TWY edge and center line lighting	All TWYs: green center line lights, blue edge line lights
4	备份电源及转换时间 Secondary power supply/Switch-over time	Dual feed, diesel engine driven generator/15s, UPS/1s
5	备注 Remarks	The taxiway centerline lights in the marking area from runway to runway vacated are yellow and green alternating， and the others are green centerline lights; the taxiway turning area is equipped with blue edge lights, and the straight section area is equipped with blue reflective sticks.

ZGHA 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 TLOF and/or FATO elevation	Nil
3	TLOF 和 FATO 区域范围、道面、强度和标志 TLOF and FATO area dimensions,surface, strength, marking	Nil
4	FATO 的真方位和磁方位 True and MAG BRG of FATO	Nil
5	公布距离 Declared distance available	Nil
6	进近灯光和 FATO 灯光 APP and FATO lighting	Nil
7	备注 Remarks	Nil

ZGHA AD 2.17 空中交通服务空域 ATS airspace

空域名称和水平范围 Designation and lateral limits		垂直范围 Vertical limits	空域分类 Airspace class	空中交通服务单位呼号和使用语言 ATS unit callsign Language	工作时间 Hours of applicability	备注 Remarks
1	2	3	4	5	6	7
Huanghua tower control area	A circuit, 4 arcs with radius 13km centered at centers of RWY18R/36L THRs and 4 lines tangential to the adjacent 2 arcs.	750m(QNH) and below				AD Control Zone is same as TWR Control area
Fuel dumping area	N29 15.0E113 49.0 − N29 02.0E114 34.0 − N28 32.0E114 22.0 − N28 57.0E113 59.0 − N29 15.0E113 49.0	Above 4000m				
Altimeter setting region and TL/TA	Same as Changsha APP Control Area	TL 3600 TA 3000 3300(QNH≥1031hPa) 2700(QNH≤979hPa)				

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

服务名称 Service designation	呼号 Callsign	频率 Frequency (MHz)	卫星话音通信号码 SATVOICE number	登录地址 Logon address	工作时间 Hours of operation	备注 Remarks
1	2	3	4	5	6	7
ATIS		127.075 (departure)			H24	D-ATIS available
		127.6 (arrival)			H24	D-ATIS available
APP	Changsha Approach	APP01:119.65 (120.6)			H24	
		APP02:125.65 (125.05)			by ATC	
		APP03:124.6 (125.05)			by ATC	
		APP04:124.025 (120.6)			by ATC	
TWR	Huanghua Tower	124.325/118.55 (118.175)			H24	

服务名称 Service designation	呼号 Callsign	频率 Frequency (MHz)	卫星话音通信号码 SATVOICE number	登录地址 Logon address	工作时间 Hours of operation	备注 Remarks
1	2	3	4	5	6	7
GND	Huanghua Ground	121.75			0100-1530	contact Huanghua TWR when Huanghua Ground U/S
	Huanghua Delivery	121.95			By ATC	contact Huanghua Ground when Huanghua Delivery U/S
APN	Changsha Apron	121.85			HO or By ATC	Contact Huanghua Ground when Changsha Apron U/S
EMG		121.5			H24	

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

设施名称及类型、磁差、支持运行类别、VOR/ILS 磁偏角 Name and type of aid, VAR,Type of supported OPS, Declination of VOR/ILS	识别 ID	频率、波道 Frequency/ Channel number	工作时间 Hours of operation	发射天线坐标及相对位置 Coordinates of transmitting antenna/ Position	DME 发射天线标高 Elevation of DME transmitting antenna	备注 Remarks
1	2	3	4	5	6	7
Liling VOR/DME	LIG	112.4 MHz CH 71X	H24	N27°38.9′ E113°31.0′	85 m	
Liuyang VOR/DME	LYH	113.55 MHz CH 82Y	H24	N28°23.6′ E113°20.6′ 032°MAG/25221m FM the Center of RWY18R	215 m	
Tiaoma VOR/DME	DTM	114.05 MHz CH 87Y	H24	N27°59.0′ E113°07.5′ 206°MAG/24719m FM the Center of RWY18R	186 m	
Gutang NDB	W	388 kHz	H24	N28°13.1′ E113°13.0′ 001°MAG/1518m FM THR18R		BTN 5-15NM on BRG 083°,beyond 20NM on BRG 297° U/S.

设施名称及类型、磁差、支持运行类别、VOR/ILS 磁偏角 Name and type of aid, VAR,Type of supported OPS, Declination of VOR/ILS	识别 ID	频率、波道 Frequency/ Channel number	工作时间 Hours of operation	发射天线坐标及相对位置 Coordinates of transmitting antenna/ Position	DME 发射天线标高 Elevation of DME transmitting antenna	备注 Remarks
LOC 18L ILS CAT I	ISL	109.3 MHz		181°MAG/265m FM RWY18L end		
GP 18L		332.0 MHz		120m E of RCL, 306m inside THR18L		Angle 3° , RDH 15 m
DME 18L	ISL	CH 30X (109.3 MHz)		124m E of RCL, 306m inside THR18L	64m	Co-located with GP 18L
IM 36R		75 MHz		181°MAG/286m FM THR36R		
LOC 36R ILS CAT III	ICR	111.1 MHz		001°MAG/295m FM RWY36R end		CAT I operation
GP 36R		331.7 MHz		120m E of RCL, 288m inside THR36R		Angle 3° , RDH 15 m
DME 36R	ICR	CH 48X (111.1 MHz)		124m E of RCL, 288m inside THR36R	57m	Co-located with GP 36R
Luchong NDB	SV	345 kHz	H24	N28°13.0′ E113°20.9′ 081°MAG/12862m FM the Center of RWY18R		U/S.
OM 18R		75 MHz		001°MAG/6822m FM THR18R		
LOC 18R ILS CAT I	IWW	110.3 MHz		181°MAG/190m FM RWY18R end		Beyond 18NM of front course U/S
GP 18R		335.0 MHz		120m E of RCL, 326m inside THR18R		Angle 3° , RDH 16.6 m
DME 18R	IWW	CH 40X (110.3 MHz)		006°MAG/1275m FM the Center of RWY	72m	Co-located with GP 18R
LMM 36L	Q	265 kHz	H24	N28°09.9′ E113°13.2′ 181°MAG/1203m FM THR36L		
OM 36L		75 MHz		181°MAG/8455m FM THR36L		

设施名称及类型、磁差、支持运行类别、VOR/ILS 磁偏角 Name and type of aid, VAR,Type of supported OPS, Declination of VOR/ILS	识别 ID	频率、波道 Frequency/ Channel number	工作时间 Hours of operation	发射天线坐标及相对位置 Coordinates of transmitting antenna/ Position	DME 发射天线标高 Elevation of DME transmitting antenna	备注 Remarks
LOC 36L ILS CAT I	ISV	109.9 MHz		001°MAG/250m FM RWY36L end		
GP 36L		333.8 MHz		130m E of RCL, 292m inside THR36L		Angle 3° , RDH 15 m
DME 36L	ISV	CH 36X (109.9 MHz)		135m E of RCL, 292m inside THR36L	65m	Co-located with GP 36L

ZGHA AD 2.20 本场规定

1. 机场使用规定

1.1 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 禁止未安装二次雷达应答机的航空器起降,在特殊情况下,可允许无二次雷达应答机的航空器起降。

2. 跑道和滑行道的使用

2.1 禁止航空器在跑道上作 180°的大转弯。

2.2 当转换使用跑道方向的过程中,短时使用跑道顺风分量超过 3.5m/s 但不大于 5m/s 时,管制员应通知机组,飞行员应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,并通知管制员;

ZGHA AD 2.20 Local aerodrome regulations

1.Airport operations regulations

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

1.2 Take off/landing of aircraft without SSR transponder are forbidden unless under exceptional circumstances.

2. Use of runways and taxiways

2.1 180° turn around on RWY is forbidden for all aircraft;

2.2 when aircraft change direction of runway in use, if downwind speed is more than 3.5m/s and not exceeding 5m/s for short time, ATC controller shall inform flight crew. According to aircraft performance or operation handbook, pilot shall decide whether aircraft will take off or land on downwind runway allocated, then inform ATC controller;

2.3 a.航空器驾驶员提出申请,管制员可根据实际情况批准实施非全跑道起飞。

2.3 a. Upon request by the aircraft pilot, the controller may approve an intersection departure based on the actual conditions.

b.因管制调配等原因需要，管制员在征得航空器驾驶员同意后可实施非全跑道起飞。

b. For reasons such as air traffic control allocation, the controller may implement an intersection departure after obtaining the pilot's consent.

2.4 跑道运行规则

2.4 General rules for the use of runways

18R/36L 号跑道主要用于离场;

18R/36L is mainly used for departure;

18L/36R 号跑道主要用于进场,经管制员许可,可用于出港;

18L/36R is mainly used for arrival, and departure with ATC permission;

2.5 穿越跑道规定

2.5 RWY crossing rules

航空器穿越跑道时使用的滑行道 TWYs used for A/C crossing RWY	RWY36R(for arrival)RWY36L(for departure)	Landing A/C: C14→RWY36L→B7 or C16→RWY36L→B9
	RWY18L(for arrival)RWY18R(for departure)	Landing A/C: C2→RWY18R→B1 or C4→RWY18R→B2
	RWY36R(for departure/arrival)	Departure A/C: B1→RWY36L→C2Landing A/C: C14→RWY36L→B7 or C16→RWY36L→B9
	RWY18L(for departure/arrival)	Departure A/C: B9→RWY18R→C16Landing A/C: C2→RWY18R→B1 or C4→RWY18R→B2
穿越程序 Procedures for RWY crossing	按照管制员指挥滑行至跑道等待点外等待; Taxi following the instructions of controller to the holding position and hold short of RWY;	

	收到穿越指令后,需尽快实施穿越,如有疑问,请在穿越前证实; Cross the runway immediately upon receiving the crossing clearance.Any questions shall be clarified before crossing RWY; 机组应完整复诵管制员有关穿越跑道和跑道外等待的指令,穿越结束后,机组需向塔台报告“已脱离跑道”; Repeat all the ATC instructions concerning 'hold short of RWY or cross the RWY',finally, report to TWR Control 'RWY vacated'; 穿越跑道时,机组应注意监听其他有关跑道的指令或信息通报,并注意观察跑道及附近的活动; Pilots shall monitor the ATC instructions or information about RWY and watch the activities on and around RWY; 紧跟在起飞航空器后穿越跑道时,机组自行负责其与起飞航空器之间的距离以免受起飞航空器喷流的影响; While crossing RWY after the take-off aircraft, pilots shall be responsible for the safety distance with the aircraft to avoid the effect of wake turbulence;

2.6 跑道等待位置	2.6 Runway holding position
2.6.1 航空器在进入跑道前应在指定的跑道等待位置处等待塔台管制员指令，参见 AD2.24-1A/2;	2.6.1 Aircraft shall stop and wait for TWR ATC instruction at the runway holding positions. Refer to AD2.24-1A/2;
2.6.2 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;	2.6.2 A/C shall report to ATC when the nose of A/C exceeding holding position without instruction;
2.7 禁止航空器在滑行道上作 180°的大转弯。	2.7 180° turn around on TWY is forbidden for all aircraft;
2.8 滑行道翼展限制	2.8 Wing span limits for aircraft

滑行道/TWYs	航空器翼展限制（m）/Wing span limits for aircraft(m)

A, S1, S10, S12	< 65
A1, A3-A5, A7	≤61
A2, A6, B4, B5	< 52
S2-S9, S11, S13, S14	< 36

2.9 当航空器在跑道等待点外等待时，禁止其它航空器从其后方通过;

2.9 It is forbidden that taxiing behind the A/C which is holding at short of the runway holding position;

2.10 长沙机场A330、B777和B787系列航空器在A1、A5、A7滑行道与B滑交叉道口转弯时，须执行偏置转弯，建议在外侧发动机关闭或慢车推力下滑行，放慢滑行速度，同时使用滑行摄像系统(如有)辅助引导。

2.10 When the A330, B777 and B787 series of aircraft at Changsha Airport turn at the intersection of taxiways A1, A5, A7 with taxiway B, offset turns must be executed. It is recommended to taxi with the outer engine shutdown or at idle thrust, reducing the taxiing speed, and use the taxiing camera system (if available) for auxiliary guidance at the same time.

2.11 应听清并重复塔台管制员的滑行指令，尤其是界限性指令。发现疑问时及时证实。

2.11 Repeat the whole taxiing instructions issued by TWR , especially the boundary instructions, and make it clear when there is a doubt.

2.12 离港航空器应按照塔台管制员指定的滑行路线滑行,得到允许后方可由滑行道进入跑道;

2.12 Departure aircraft shall taxi on the route designated byTower controllers. And shall receive clearance before entering RWY.

2.13 离场航空器由134-136、150-159号机位滑行至S5与S7交叉区域时应加强观察，严格按照机坪管制员的指令执行，避免错滑。

2.13 Departure aircraft shall observe cautiously when taxiing from stands Nr.134-136 and Nr.150-159 to intersection of TWYs S5 and S7,strictly follow apron controllers instructions.

2.14 滑行道S11（A1与241之间）在应急情况下划设使用；当滑行道B（A1与B2之间）不可用时，由长沙机场飞行区管理部提出申请，临时划设，解除应

2.14 TWY S11 (between A1 and 241) shall be established in emergency situation; when TWY B (between A1 and B2) is unavailable, it shall be applied

急状态后该线再清除，以提高应急保障能力；滑行道S11（A1与241之间）使用期间，禁止使用206、207、241-243机位。

for by the Flight Area Management Department of Changsha Airport, established temporarily, and removed after the emergency situation is lifted to improve emergency support capabilities; during the use of TWY S11 (between A1 and 241), 206, 207, 241-243 stands are prohibited from use.

2.15 机场冲突多发地带运行要求，机动区冲突多发地带位置见AD2.24-1A，2;

2.15 Hot spot procedure，refer to AD2.24-1A,2;

HS1：滑行道A7、B7、B及交叉区域。航空器在HS1区域运行时需加强观察，严格照管制员的指令运行，避免冲突。若观察到B7有航空器脱离，应主动避让;

HS1: Intersections of TWYs A7, B7, B. A/C in HS1 shall observe cautiously, then operate according to ATC clearance, and avoid conflict. A/C shall hold short in front of TWY B7, when other A/C is vacating TWY B7;

HS2:滑行道C16穿越36L跑道等待区域。航空器由此区域穿越跑道之前，必须得到塔台管制员的许可。

HS2: Cross RWY36L at TWY C16 holding area. A/C shall get clearance from TWR controller before crossing RWY36L.

HS3：滑行道C14穿越36L跑道等待区域。航空器由此区域穿越跑道之前，必须得到塔台管制员的许可。

HS3: Cross RWY36L at TWY C14 holding area. A/C shall get clearance from TWR controller before crossing RWY36L.

HS4:滑行道C4穿越18R跑道等待区域。航空器由此区域穿越跑道之前，必须得到塔台管制员的许可。

HS4: Cross RWY18R at TWY C4 holding area. A/C shall get clearance from TWR controller before crossing RWY18R.

HS5：滑行道C2穿越18R跑道等待区域。航空器由此区域穿越跑道之前，必须得到塔台管制员的许可。

HS5: Cross RWY18R at TWY C2 holding area. A/C shall get clearance from TWR controller before crossing RWY18R.

HS6：滑行道S5与S4、S13交叉处。离港航空器执行“S5-S4-B前等待”的滑出指令，滑行至冲突点之前应加强观察S4滑行道位置标识，严格按照机坪管制员的指令执行。

HS6: Intersections of TWYs S5, S4, S13. Departure aircraft shall taxiing along instruction route 'S5-S4-B(Holding before B)', observe TWY S4 marking cautiously before taxiing to HS6, strictly follow apron

controllers instructions.

2.16 进、离场管制规定

2.16 Air traffic control regulations

2.16.1 进港航空器管制规定

2.16.1 Control regulations for arrival A/C

2.16.1.1 为规范跑道占用时间,提高跑道容量,做出以下规定（湿跑道或污染跑道除外）: 落地航空器应尽快退出跑道,从接地到脱离跑道时间应控制在 50s 以内; 如机组认为无法在上述要求的时间内完成,须在着陆前通知管制员;

2.16.1.1 Except for wet RWY or contaminated RWY, requirement as follows to increase RWY operation capacity:Aircraft shall fully vacate runway within 50s after touching down;If flight crew consider that they can not fulfill the process within the required time, pilot shall inform ATC controller before landing;

2.16.1.2 进场航空器脱离跑道后，由黄花塔台指挥其脱波联系黄花地面。航空器与黄花地面联系时，必须向黄花地面报告脱离的跑道和所使用的滑行道等具体位置;

2.16.1.2 Arrival A/C shall follow Huanghua Tower instructions to change to contact Huanghua Ground after vacating RWY. Then report the specific position of vacated RWY and TWY in use to Huanghua Ground;

2.16.1.3 进港航空器滑行至相应机坪联络道口（B 滑行道与停机坪的交汇处）并目视引导车后，由黄花地面指挥其联系长沙机坪。航空器按照长沙机坪的指令跟随引导车进入停机位，并在到达机位后报告。

2.16.1.3 Arrival A/C shall follow Huanghua Ground instructions to change to contact Changsha Apron when taxi into the intersection between TWY B and apron. With Changsha Apron instructions, A/C shall be guided by follow-me vehicle to enter into stand and report to Changsha Apron after parking.

2.16.2 离港航空器管制规定

2.16.2 Control regulations for departure A/C

2.16.2.1 数字化放行系统（DCL）服务

2.16.2.1 DCL Services

2.16.2.1.1 预计撤轮档时间（EOBT）前 30min 至 10min，航空器驾驶员应当优先使用数字化放行系统（DCL）向空中交通管制部门（ATC）申请放行许可。

2.16.2.1.1 From 30 minutes to 10 minutes before EOBT, pilots should prioritize using the DCL to request departure clearance from ATC.

2.16.2.1.2 首次联系 ATC 时，完成 DCL 服务的机组必须向 ATC 复诵使用跑道代号和起始爬升高度，并按管制员要求复诵其他内容。

2.16.2.1.2 Pilots received departure clearance shall read back runway in use and initial altitude or any other information as controller required on initial contact.

2.16.2.1.3 DCL 报文中“NEXT FREQ”标示放行频率，

2.16.2.1.3 "NEXT FREQ" stands for delivery frequency

机组可通过此频率向 ATC 复诵相关内容；DCL 报文中“DEP FREQ”标示进近离场频率，是航空器离地后的首个联系频率。

in clearance, pilots can read back clearance in this frequency. "DEP FREQ" stands for approach frequency which is the first contact frequency after the aircraft is airborne.

2.16.2.1.4 当 DCL 无法完成放行许可的申请或发布时，将转成话音方式申请或发布放行许可。

2.16.2.1.4 When DCL unserviceable, Pilots shall request departure clearance in voice.

2.16.2.2 地面引导服务

2.16.2.2 Ground Guidance Services

离场航空器在取得放行许可后，由黄花放行指示联系长沙机坪。离港航空器准备完毕后向长沙机坪申请推出和开车，长沙机坪负责发布推出、开车许可和滑行路线等指令。在得到长沙机坪的明确指令前，航空器不得擅自推出、开车或滑行。在进入黄花地面管制责任区前，由长沙机坪指示联系黄花地面。黄花地面继续指挥航空器滑行，并在进入跑道等待位置之前联络黄花塔台。其中停放在 241-243 的出港航空器准备完毕后联系黄花地面申请推出、开车及滑行许可。

After obtaining departure clearance, pilots should contact Changsha Apron as instructed by Huanghua delivery. Once the aircraft is ready, pilots should request pushback and startup from Changsha Apron. Changsha Apron is responsible for issuing pushback,startup,taxi and other instructions. Aircraft must not pushback, startup, or taxi without explicit instructions from Changsha Apron.Before entering the Huanghua Ground control area, Changsha Apron will instruct the pilots to contact Huanghua Ground. Huanghua Ground will continue to direct the aircraft’s taxiing and ensure they contact Huanghua Tower before reaching the holding point of runway. For departing aircraft parked at stand 241-243, they should contact Huanghua Ground for pushback, startup, and taxi clearance when ready.

2.16.2.3 为减少波道占用时间,航空器起飞离地后自动与黄花塔台脱波(不需要通话脱波),塔台将在 ATC 许可中明确脱波后应该联系的离场管制频率；

2.16.2.3 In order to avoid frequency congestion, pilot shall leave Huanghua Tower frequency without radiotelephony instruction from controller after taking off and contact APP immediately on the frequency assigned by ATC clearance;

2.16.2.4 为规范跑道占用时间,提高跑道容量,做出以

2.16.2.4 Except for wet RWY or contaminated RWY,

下规定（湿跑道或污染跑道除外）：起飞的航空器从接到管制员进跑道指令至对正跑道时间应控制在 60 秒以内；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；

requirement as follows to increase RWY operation capacity:Departure aircraft shall finish runway alignment within 60 seconds after receiving ATC instructions of entering runway;If flight crew consider that they can not fulfill the process within the required time, pilot shall inform TWR ATC controller before reaching the runway holding point;

2.17 管制范围规定如下：

空管塔台管制区：B 滑行道（含）以东的机动区；长沙机坪管制区：B 滑行道（不含）以西的联络道及机坪；机坪管制区范围见 ZGGG AD2.24-1A，2；具体管制移交点及移交方式听从管制员指令执行。

2.17 Rules of ATC scope as follows:

TWR ATC: maneuvering area (east of TWY B(inclusive)); APN ATC: TWYs (west of TWY B(exclusive)), apron ; APN ATC refers to ZGGG AD2.24-1A, 2; The specific hand-over point and mode shall be instructed by ATC.

3. 机坪和机位的使用

3.1 航空器滑入机坪须由引导车引导。

3. Use of aprons and parking stands

3.1 A/C taxiing into apron shall guided by follow-me vehicle.

3.2 机位使用限制

3.2 Limits for aircraft parking on the following stands:

停机位/Stands	航空器翼展限制/Wing span limits for A/C(m)	机身长度限制/Fuselage limits for A/C(m)	滑入、滑出方式/Enter or Exit
161L/R-166L/R	24	44.51	Taxi in and push back
Nr.155-159	32.5	28	Taxi in and push back
Nr.16-20	36	37.6	Taxi in and taxi out
Nr.122-128		49	
Nr.131-136,150-153,251-257,241L/R-243L/R		44.51	
Nr.261L/R,262L/R,263L/		45	Taxi in and push back

R,264L/R,265L/R,266L/R			
Nr.215,216		51	
Nr.9		51.7	
Nr.3		53.7	
Nr.2		54.1	
Nr.227,228		59	
Nr.221,222,224,225		60	
Nr.231		62.5	
Nr.232		64	
Nr.238		65.7	
Nr.201-207		70	
Nr.7		83	
Nr.161-166		44.51	
Nr.12		83.6	Taxi in and taxi out
Nr.4		93.8	Taxi in and push back
Nr.8	38	63.5	Taxi in and push back
Nr.236,237	52	65.7	
Nr.213		73.4	
Nr.223		75	
Nr.211		75.7	
Nr.234		76.3	
Nr.226		91	
Nr.5		113.2	
Nr.6		113.9	
Nr.1	60.3	81.8	

Nr.233	61	83	
Nr.14		83.6	Taxi in and taxi out
Nr.214		94	Taxi in and push back
Nr.10		94.5	
Nr.241		94.7	
Nr.257R	65	84.5	Push in and taxi out
Nr.261-266(stands Nr.261L/R-266L/R are not in use)		76	Taxi in and push back
Nr.242,243		94.7	
Nr.212		99.1	
Nr.210		103.1	
Nr.235		113	
Remarks: 1. Stand Nr.8 is only available for A/C type B757-200 and below; 2.Stands Nr.16-20, 122-128 are only available for A/C parking with nose to west; 3.A/C shall taxi out apron by its own power after exiting stands by the way mentioned on the table above. 4.A/C wingspan BTN 36m-65m shall taxi to stand Nr.257R via TWY S10 and be pushed into the stand with nose to north.			

3.3 机位同时使用限制

3.3 Limits for aircraft using simultaneously:

使用机位/The stands in use	不能同时滑行或推出的机位/The stands forbidden to taxi in or pushed back
210 or 211	212 or 1
212 or 1	210 or 211
10	12 or 14

12 or 14	10
Remarks: All the adjacent stands on apron cannot operate simultaneously.	

3.4 航空器在进入 16-20 号机位时，不得在已开车航空器的后方通过;

3.4 A/C entering into stands Nr. 16-20 cannot taxi behind started-up A/C at these stands;

3.5 航空器不能同时使用的机位

3.5 Pair of stands forbidden to use simultaneously:

使用机位/The stands in use	禁用机位/The stands forbidden to be used	使用机位/The stands in use	禁用机位/ The stands forbidden to be used
161	161L and 161R	161L or 161R	161
162	162L and 162R	162L or 162R	162
163	163L and 163R	163L or 163R	163
164	164L and 164R	164L or 164R	164
165	165L and 165R	165L or 165R	165
166	166L and 166R	166L or 166R	166
210	211	211	210
241	241L and 241R	241L or 241R	241
242	242L and 242R	242L or 242R	242
243	243L and 243R	243L or 243R	243
257	257R	257R	257
261	261L and 261R	261L or 261R	261
262	262L and 262R	262L or 262R	262
263	263L and 263R	263L or 263R	263
264	264L and 264R	264L or 264R	264
265	265L and 265R	265L or 265R	265
266	266L and 266R	266L or 266R	266

3.6 进场航空器需要申请地面服务时，可联系机场运行控制室(131.15MHz)；

3.6 Arrival A/C shall contact Areodrome Operation Control Office on 131.15MHz to apply handling services;

3.7 需要试车的航空器，需经长沙机坪和机务维修部门许可，并在指定地点进行。严禁在廊桥附近、滑行道上试大车；

3.7 Engine run-ups are subject to Changsha Apron and maintenace department clearance, and may only be carried out at a designated location. Fast engine run-ups in the vicinity of boarding bridges and TWYs are strictly forbidden;

3.8 冬季除冰，经机场运行控制室许可，可在停机坪上或指定除冰位置为航空器除冰。除冰结束后，向长沙机坪申请回到原机位或就地进入滑行起飞程序。

3.8 De-icing for aircraft shall be carried out at apron or designated location with clearance of Aerodrome Operation Control Office,A/C shall contact Changsha Apron to apply the procedure for taxiing back to the stands or directly taxiing and taking-off when de-icing finished.

4. 低能见度运行

4. Low visibility operation

4.1 低能见度标准可使用跑道及天气条件

4.1 LVP conditions and available RWYs

Type of Operation Standards	Operation Conditions			Available RWYs
	Weather conditions for implementation	LVP Requirement	Weather conditions for termination	
HUD ILS Special CAT I	550m>RVR≥450m or 60m>Ceiling≥45m	NO	RVR≥550m and Ceiling≥60m(getting better)	RWY18L RWY18R/36L
			RVR<450m or Ceiling<45m(getting worse)	

HUD ILS Special CAT II	450m>RVR≥350m or 45m>Ceiling≥30m	YES	RVR≥450m and Ceiling≥45m(getting better) RVR<350m or Ceiling<30m(getting worse)	RWY18L
Low visibility take-off	400m>RVR≥150m	YES	RVR≥400m(getting better) RVR<150m(getting worse)	RWY18L/36R RWY18R/36L
HUD Low visibility take-off	400m>RVR≥150m	YES	RVR≥400m(getting better) RVR<150m(getting worse)	RWY18L/36R RWY18R/36L

4.2 信息发布及申请

4.2.1 根据天气条件及地面保障情况，由机场运行控制室按照规定启动或结束低能见度运行程序，由民航湖南空管分局塔台管制室通过 D-ATIS、ATIS、VHF（根据运行情况选择方式）向机组发布信息。

4.2.2 只有获得民航相关部门的运行批准，具备使用 HUD 实施特殊 I/II 类运行及 HUD RVR150m 起飞资格的航空器运营人，才能运行长沙黄花国际机场特殊 I/II 类及 HUD RVR150m 起飞标准。

4.2.3 航空公司飞行机组如需执行 HUD 特殊批准 I/II

4.2 Information issuance and application

4.2.1 Depending on weather and ground service conditions, LVP commencement and termination will be issued by Areodrome Operation Control Office, ATC will inform flightcrew via D-ATIS, ATIS, VHF(depending on operational situations).

4.2.2 The operator who is capable of HUD special CAT I/II and HUD RVR150m take-off shall get the authorization from relevant civil aviation departments to conduct HUD special CAT I/II and HUD RVR150m take-off in Changsha/Huanghua airport.

4.2.3 Flightcrew shall conduct HUD special CAT I/II,

类、HUD 低能见度起飞、低能见度起飞运行标准，应主动向管制员报告，经批准后方可实施。

HUD Low visibility take-off or standard Low visibility take-off after reporting to ATC and getting permission.

4.3 低能见度运行程序的准备、实施和结束

4.3 Preparation, implementation and termination of the low-visibility operation(LVP)

4.3.1 准备阶段

4.3.1 Preparation phase

当能见度降至 1000m 或云高降至 90m 且呈下降趋势。

When VIS is down to 1000m or Ceiling is down to 90m and the trend is declining.

4.3.2 实施阶段

4.3.2 Implementation phase

能见度降至 800m 或跑道视程（RVR）降至 550m，或者云高降至 60m。

When VIS is down to 800m or RVR is down to 550m or Ceiling is down to 60m.

4.3.3 结束阶段

4.3.3 Termination phase

跑道视程（RVR）达到 550m，且云高上升至 60m，并呈上升趋势。

When RVR is up to 550m and Ceiling is up to 60m, and the trend is rising.

4.4 低能见度地面运行规定

4.4 LVP ground operational regulation

4.4.1 实施低能见度运行时，机组严格按照管制指令给出的地面路线滑行。

4.4.1 Flightcrew shall strictly follow ATC instructions when conducting LVP.

4.4.2 实施 18L 跑道 HUD 特II类运行的进港航空器在建立航向道至着陆期间，离港航空器不得进入或者穿越 18R 跑道。

4.4.2 Under RWY18L HUD Special CAT II operation, departure aircraft shall not enter or cross RWY18R during arrival aircraft establish localizer to touchdown.

4.4.3 实施低能见度运行时，通常情况下，B 或 C 滑行道上同时运行的航空器不超过两架。

4.4.3 Generally, when conducting LPV, not more than 2 aircraft are allowed to taxi simultaneously on TWY B or TWY C.

4.4.4 在实施低能见度运行时，所有进离港航空器的地面滑行根据机组需求提供引导车引导。

4.4.4 All arrival and departure aircraft will be guided byfollow-me vehicle depending on flightcrew demands when conducting LPV.

4.5 其他特殊要求

4.5 Special requirements

4.5.1 机场低能见度程序从准备至启动一般需要

4.5.1 It usually takes about 20-30min from preparation

20-30min，准备实施低能见度运行的航空公司应提前向机场运行控制室（联系电话：0731-84797280/281）或空管塔台 VHF 提出申请。

to implement LPV, flightcrew shall file an application in advance to Areodrome Operation Control Office(Contact Number:0731-84797280/281) or ATC VHF.

5. 直升机飞行限制，直升机停靠区

5.1 直升机的停靠由机场运行控制室指定位置，按照长沙机坪的指令执行，并注意不得妨碍其它航空器的运行;

5.2 直升机进出停机位必须由引导车引导。

5. Helicopter operation restrictions and helicopter parking/docking area

5.1 Helicopter shall park at the designated stand by Aerodrome Operation Control Office and conduct with Changsha Apron instructions. Helicopter shall avoid affecting other A/C operation.

5.2 Helicopter taxiing enter into or exit stands shall be guided by follow-me vehicle.

6. 警告

无

6. Warning

Nil

ZGHA AD 2.21 减噪程序

1 噪音限制规定

在保证安全超障和飞行程序最低爬升梯度的条件下，执行如下起飞减噪程序。由于非管制原因不执行减噪程序，飞行员必须在起飞前告知管制员并说明原因(校验飞行等特殊飞行除外)。

2 减噪程序

2.1 在航空器起飞性能允许的情况下，尽可能使用减推力起飞。

2.2 在高度 450 米时，起始爬升速度 V2+20km/h（10 海里/小时），减小功率和俯仰角,保持可靠上升率和襟翼继续爬升;

2.3 高度 900 米以上时，转为正常航路爬升速度并按规定收襟翼/缝翼。

ZGHA AD 2.21 Noise abatement procedures

1 Noise restrictions

In condition of complying with the requirements of obstacle clearance and climb gradient required by flight procedure, the following noise abatement climb procedures shall be implemented. If the procedures can not be implemented due to any reason except ATC, pilot shall inform the controller with a reasonable explanation(except for flight check and other special flight).

2 Noise abatement procedures

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

2.2 At altitude 450m, with a climb speed of V2 plus 20km/h(10kt), reduce engine power/thrust and angle of pitch, maintain a speed with flaps and slats in the take-off configuration;

2.3 At altitude 900m or above, maintain a positive rate of climb, accelerate to normal en-route climb speed and retract flaps/slats on schedule.

ZGHA AD 2.22 飞行程序

1. 总则

除经长沙进近或塔台特殊许可外，在长沙进近管制区和机场管制地带内的飞行，必须按照仪表飞行规则进行。

ZGHA AD 2.22 Flight procedures

1. General

Flights within Changsha APP Control Area and Aerodrome Control Zone shall operate under IFR unless special clearance has been obtained from APP and TWR Control.

2. 起落航线

2.1 起落航线范围

起落航线在跑道 18L/36R 东侧进行。

2.2 起落航线高度

A、B 类航空器高度 400m，C、D 类航空器高度 600m。

2.3 目视盘旋范围

无

3. 仪表飞行程序

3.1 严格按照航图中公布的进、离场程序飞行。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;

3.2 本场 24 小时实行 RNAV 1 进离场程序,不能执行 RNAV 1 程序的航空器驾驶员应在首次联系黄花塔台或长沙进近时报告;

3.3 进场航空器速度限制

3.3.1 进场航空器速度限制见标准仪表进场图。

3.3.2 航空器表速超过上述规定时，飞行员应及时通报管制员。

3.4 等待程序见标准仪表进场图。

2. Traffic circuits

2.1 Landing circuit scope

The landing circuit is conducted on the east side of runway 18L/36R.

2.2 Landing circuit altitude

Altitude for Class A and Class B aircraft is 400m, and 600m for Class C and Class D aircraft.

2.3 Visual circling range

Nil

3. IFR flight procedures

3.1 Strict adherence is required to the relevant arrival/departure procedures published in the aeronautical charts. Aircraft may, if necessary, hold or maneuver on an airway, over a navigation facility or a fix designated by ATC;

3.2 RNAV 1 procedures are implemented in the Changsha/Huanghua airport for the whole day. If A/C can not fulfill the requirements of the RNAV 1 procedures operation, pilot shall inform the TWR or APP ATC at the first contact;

3.3 Speed restrictions for arriving aircraft

3.3.1 Speed restrictions for arriving aircraft are as per the STAR chart.

3.3.2 If an aircraft's indicated speed exceeds the restrictions above, the pilot must promptly report to the controller.

3.4 Holding procedures refer to STAR.

4. 雷达程序和/或 ADS-B 程序

4.1 长沙进近管制区域内实施雷达管制，航空器最小水平间隔为 5.6km，最小垂直间隔为 300m。

4.2 通常，航空器从管制移交点得到进近雷达引导和排序，直至相应的最后进近航迹或目视跑道;

4.3 若离场航空器在起飞前收到塔台管制员给出的起飞限制条件，则起飞后由雷达管制员引导加入标准离场航线;

4.4 当航空器得到目视进近许可或进近管制已指示航空器与黄花塔台建立通讯联络时，雷达管制终止。

4.5 雷达管制规定

4.5.1 有 SSR 应答机的航空器

4.5.1.1 按照管制员要求开放 A 模式;

4.5.1.2 开放应答机时应同时开放编码和高度，除非管制员另有要求;

4.5.1.3 进入长沙管制区的航班应保留管制单位制定的最后一个应答机编码，如整个飞行过程中没有管制单位指定 SSR 编码的应开“2000”;

4.5.1.4 如机组已知应答机故障(包括无显示或显示错误)，在进入长沙管制区时应主动向管制员报告;

4. Radar procedures and/or ADS-B procedures

4.1 Radar control within Changsha APP has been implemented. The minimum horizontal radar separation is 5.6km, the minimum vertical radar separation is 300m;

4.2 Normally, aircraft will be vectored and sequenced from transfer of control point to the appropriate final approach segment or to the time when RWY is in sight;

4.3 If aircraft receive the departure clearance includingdeparture limitation from controller, the aircraft will be vectored to join in the standard departure routes by radar controller;

4.4 Radar control terminates when the aircraft receives visual approach clearance or when instructed by the approach control to establish radio communication with Huanghua Tower.

4.5 Radar control rules

4.5.1 For A/C with SSR transponder

4.5.1.1 Set to model A as required;

4.5.1.2 Code and altitude should both set to open, except required by ATC;

4.5.1.3 A/C entering into Changsha APP shall retain the last code. Set the SSR transponder code '2000' if A/C not be designated any code during flight.

4.5.1.4 For A/C with transponder malfunction (including non-display or display error), pilot shall report to ATC controller before entering Changsha APP;

4.5.2 无 SSR 应答机的航空器进入长沙管制区时，应主动向管制员报告机上未装应答机。

4.5.2 A/C without SSR transponder shall report to ATC before entering into Changsha APP.

4.6.1 通讯设备故障

4.6.1 Radio communication equipment malfunction

4.6.1.1 确认航空器具有收信能力时，可继续提供雷达管制服务。

4.6.1.1 If the aircraft is confirmed to have receiving capability, radar control services can continue.

4.6.1.2 确认航空器不具有收信能力时，可继续按驾驶员意图提供雷达管制服务。

4.6.1.2 If the aircraft is confirmed to have lost receiving capability, radar control services can continue based on the pilot's intentions.

4.6.2 雷达设备故障

4.6.2 Radar equipment failure

4.6.2.1 雷达和 ADS-B 融合运行的情况下，雷达设备失效时，若 ADS-B 信号正常，实施 ADS-B 管制。若 ADS-B 信号源不可用，通知空中航空器雷达管制服务终止，实施程序管制，指挥航空器建立非雷达管制间隔，航空器恢复自主领航。

4.6.2.1 In the event of radar and ADS-B integrated operation, if radar equipment fails but ADS-B signals are normal, ADS-B control is implemented. If ADS-B signal sources are unavailable, notify air traffic of the termination of radar control services, implement procedural control, and instruct the aircraft to establish non-radar separation and resume own navigation.

4.6.2.2 作为应急手段，可暂时采用半数高度层调配航空器。

4.6.2.2 As an emergency measure, use of fight levels spaced by half the applicable vertical separation minimum may be resorted to temporarily.

4.6.2.3 尽快配备规定的高度层，必要时，实施流量控制。

4.6.2.3 Provide regulated safe separation as soon as possible, implement flow control if necessary.

4.6.3 机载应答机故障

4.6.3 Transponder failure

航空器如有一次雷达显示，可继续提供雷达管制服务；否则，实施程序管制。

If the aircraft have primary radar indication, radar control services may continue; otherwise, implement procedural control.

4.7 最低监视引导高度扇区

4.7 Surveillance Minimum Altitude Sectors

Sector Nr.1	ALT limit: 1500m or above
N291954 E1132225-N284631 E1124343-N284634 E1130010-N285238 E1130959-N290712 E1131636-N291954 E1132225	
Sector Nr.2	ALT limit: 3000m or above
N284631 E1124343-N284625 E1122313-N285219 E1121634-N292024 E1123349-N291729 E1124603-N292715 E1125207-N291954 E1132225-N284631 E1124343	
Sector Nr.3	ALT limit: 600m or above
N282338 E1131556-N282010 E1131900-N281150 E1131931-N280856 E1131756-N280500 E1131810-N280306 E1132002-N275600 E1131111-N280137 E1130401-N281039 E1130326-N281608 E1130306-N282321 E1131009-N282338 E1131556	
Sector Nr.4	ALT limit: 3300m or above
N290200 E1143400-N285057 E1141717-N283632 E1141418-N283417 E1142632-N290200 E1143400	
Sector Nr.5	ALT limit: 1900m or above
N281926 E1135918-N282052 E1133353-N282850 E1133502-N282332 E1134157-N282238 E1135742-N281926 E1135918	
Sector Nr.6	ALT limit: 2050m or above
N290712 E1131636-N291954 E1132225-N290200 E1143400-N285057 E1141717-N284203 E1140355-N282705 E1140014-N281926 E1135918-N282238 E1135742-N282332 E1134157-N282850 E1133502-N283104 E1134003-N284429 E1134328-N284532 E1133429-N285110 E1133218-N290316 E1133255-N290712 E1131636	
Sector Nr.7	ALT limit: 1750m or above
N280817 E1135702-N275337 E1135404-N280303 E1134016-N281238 E1134210-N281308 E1133247-N282052 E1133353-N281926 E1135918-N280817 E1135702	
Sector Nr.8	ALT limit: 1150m or above
N284429 E1134328-N283104 E1134003-N282850 E1133502-N282052 E1133353-N281308 E1133247-N281238 E1134210-N280303 E1134016-N274336 E1134203-N273345 E1134256-N273416 E1133131-N273449 E1131846-N273639 E1131917-N275121 E1132324-N275635 E1132305-N280150 E1132750-N280430 E1132236-N280758 E1132135-N280958 E1132127-N281401 E1132324-N281658 E1132842-N282336	

E1133003-N282711 E1132326-N284339 E1132226-N284430 E1131505-N285238 E1131443-N285238 E1130959-N290712 E1131636-N290316 E1133255-N285110 E1133218-N284532 E1133429-N284429 E1134328	
Sector Nr.9	ALT limit: 2250m or above
N282250 E1142328-N282705 E1140014-N281926 E1135918-N280817 E1135702-N280422 E1141833-N282250 E1142328	
Sector Nr.10	ALT limit: 2600m or above
N285057 E1141717-N284203 E1140355-N282705 E1140014-N282250 E1142328-N283417 E1142632-N283632 E1141418-N285057 E1141717	
Sector Nr.11	ALT limit: 1450m or above
N275337 E1135404-N274309 E1135157-N274336 E1134203-N280303 E1134016-N275337 E1135404	
Sector Nr.12	ALT limit: 2600m or above
N280422 E1141833-N273019 E1140937-N271355 E1134228-N271500 E1133025-N273416 E1133131-N273345 E1134256-N274336 E1134203-N274309 E1135157-N275337 E1135404-N280817 E1135702-N280422 E1141833	
Sector Nr.13	ALT limit: 850m or above
N275635 E1132305-N275121 E1132324-N273639 E1131917-N273653 E1131429-N275627 E1132026-N275635 E1132305	
Sector Nr.14	ALT limit: 650m or above
N280306 E1132002-N280027 E1132335-N275635 E1132305-N275627 E1132026-N273653 E1131429-N273806 E1124855-N280524 E1124950-N280736 E1125131-N280738 E1125914-N281039 E1130326-N280137 E1130401-N275600 E1131111-N280306 E1132002	
Sector Nr.15	ALT limit: 1950m or above
N272911 E1123911-N271932 E1123155-N271720 E1123430-N271640 E1125137-N272008 E1125415-N272911 E1123911	
Sector Nr.16	ALT limit: 850m or above
N280400 E1121234-N275257 E1122300-N274331 E1122245-N273806 E1124855-N280524 E1124950-N280736 E1125131-N280738 E1125914-N281039 E1130326-N281608 E1130306-N282223 E1130242-N282416 E1130235-N282350 E1130035-N282945 E1124155-N284020 E1123004-N282933 E1121746-N281900	

E1122937-N280400 E1121234	
Sector Nr.17	ALT limit: 1500m or above
N280400 E1121234-N275257 E1122300-N274331 E1122245-N273806 E1124855-N273653 E1131429-N273639 E1131917-N273449 E1131846-N273416 E1133131-N271500 E1133025-N271640 E1125137-N272008 E1125415-N272911 E1123911-N271932 E1123155-N274916 E1115649-N280400 E1121234	
Sector Nr.18	ALT limit: 1700m or above
N274916 E1115649-N282239 E1115833-N285219 E1121634-N284625 E1122313-N284020 E1123004-N282933 E1121746-N281900 E1122937-N280400 E1121234-N274916 E1115649	
Sector Nr.19	ALT limit: 700m or above
N282500 E1130600-N282223 E1130242-N282416 E1130235-N282500 E1130600	
Sector Nr.20	ALT limit: 3300m or above
N293011 E1123951-N292024 E1123349-N291729 E1124603-N292715 E1125207-N293011 E1123951	
Sector Nr.21	ALT limit: 650m or above
N282223 E1130242-N282500 E1130600-N282642 E1131044-N282847 E1131631-N282352 E1131847-N282010 E1131900-N282338 E1131556-N282321 E1131009-N281608 E1130306-N282223 E1130242	
Sector Nr.22	ALT limit: 1150m or above
N282350 E1130035-N282416 E1130235-N282500 E1130600-N282642 E1131044-N285238 E1130959-N284634 E1130010-N284631 E1124343-N284625 E1122313-N284020 E1123004-N282945 E1124155-N282350 E1130035	
Sector Nr.23	ALT limit: 850m or above
N275635 E1132305-N280150 E1132750-N280430 E1132236-N280758 E1132135-N280958 E1132127-N281401 E1132324-N281658 E1132842-N282336 E1133003-N282711 E1132326-N284339 E1132226-N284430 E1131505-N285238 E1131443-N285238 E1130959-N282642 E1131044-N282847 E1131631-N282352 E1131847-N282010 E1131900-N281150 E1131931-N280856 E1131756-N280500 E1131810-N280306 E1132002-N280027 E1132335-N275635 E1132305	
Sector Nr.24	ALT limit: 2100m or above
A circle with radius of 11KM centered at N285924 E1134931.	

Sector Nr.25	ALT limit: 2100m or above
A circle with radius of 11KM centered at N283207 E1135103.	

5. 无线电通信失效程序

5.1 航空器通信失效

5.1.1 航空器单向通信失效

无

5.1.2 航空器双向通信失效

参见 AIP GEN3.4.5 中的仪表飞行规则航空器地空双向无线电通信失效通用程序。

5.2 本场通信失效

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

5.3 无线电通信恢复

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

6. 目视飞行程序

6.1 目视飞行实施条件

6.1.1 目视间隔实施条件

6.1.1.1 在黄花机场塔台管制区内，塔台管制员能持续目视能见两架相关航空器；

5. Radio communication failure procedures

5.1 Air-ground communication failure

5.1.1 One-way communication failure

Nil

5.1.2 Two-way communication failure

Refer to AIP GEN3.4.5 general procedures for aircraft under instrument flight rule with air-ground two-way radio communication failure.

5.2 Ground communication failure

When the ground radio transmit/receive capability fails, preventing the aircraft from establishing effective communication with the control unit, the aircraft should contact the previous control unit and continue flying according to the control instructions of the control unit.

5.3 Restoration of radio communication

If the aircraft that lost communication has landed or has restored communication, normal control operations can resume, and the relevant control units must be notified immediately.

6. Procedures for VFR flights

6.1 Conditions for implementing visual flight

6.1.1 Conditions for implementing visual separation

6.1.1.1 Within the Huanghua Airport tower control zone, the tower controller have continuously visual contact

with the two related aircraft;

6.1.1.2 在黄花机场塔台或长沙进近管制区内，航空器驾驶员看到其他相关航空器并得到管制员保持目视间隔的指令后，通过必要的机动飞行来保持安全间隔，以避免飞行冲突。目视间隔可以通过航空器驾驶员目视跟进或者保持与相关航空器持续能见的方式来建立。

6.1.1.2 In the control zone of Huanghua Airport tower or Changsha approach control zone, after the aircraft pilot has visual contact with another related aircraft and receives instructions from the controller to maintain visual separation, necessary maneuvering flight is conducted to maintain safe separation and avoid flight conflicts. Visual separation can be established through visual follow-up by the aircraft pilot or maintaining continuous visibility with the related aircraft.

6.1.2 目视进近实施条件

6.1.2 Conditions for visual approach

目视进近仅限于昼间进行，可由管制员或航空器驾驶员发起且征得对方同意，同时满足以下条件：

Visual approaches are only conducted during daytime, initiated by the controller or aircraft pilot with mutual consent, under the following conditions:

6.1.2.1 黄花机场具备以下气象条件时，航空器可以实施目视进近：

6.1.2.1 When Huanghua Airport meets the following meteorological conditions, aircraft can conduct a visual approach:

a.报告的云底高大于或者等于 900m，能见度大于或者等于 5km；

a. Reported cloud base is higher than or equal to 900 meters, visibility is greater than or equal to 5 kilometers;

b.当黄花机场没有天气情报服务，但是航空器驾驶员报告能够保持目视下降以及飞向黄花机场。

b.When Huanghua Airport lacks meteorological information services, but the aircraft pilots report that they can maintain visual descent and fly towards Huanghua Airport.

6.1.2.2 雷达引导目视进近气象条件

6.1.2.2 Weather conditions for radar-guided visual approaches

当黄花机场报告的气象条件满足下列标准时，管制员可以通过雷达引导航空器进行目视进近：

When the meteorological conditions at Huanghua Airport meet the following standards, controllers can guide aircraft for a visual approach using radar:

a.机场的云底高大于最低监视引导高度 150m 以上；（注：长沙进近实施雷达引导目视进近云底高大于或者等于 900m）。

a. The cloud base at the airport is more than 150 meters above the minimum surveillance altitude for radar guidance;(Note: The cloud base for radar-guided visual approaches at Changsha approach must be equal to or greater than 900 meters).

b.机场能见度大于 5km。

b. The visibility at the airport is greater than 5 kilometers.

6.2 实施目视飞行相关方职责

6.2 Responsibilities related to implementing visual flight

6.2.1 实施目视间隔时：

6.2.1 When implementing visual separation:

航空器驾驶员能见另外一架相关航空器并接受目视间隔时，航空器驾驶员应当担负以下责任：

When an aircraft pilot can see another related aircraft and accepts visual separation, the pilot is responsible for:

a.航空器驾驶员应当始终保持目视其他相关航空器，保持安全的目视间隔，并事先向管制员通报为飞行安全所采取的机动操作。

a. Always maintaining visual contact with other related aircraft, keeping a safe visual separation, and reporting any maneuvering for flight safety to the controller in advance.

b.航空器驾驶员应当操纵航空器避开前机尾流影响。

b. Pilots must maneuver the aircraft to avoid the wake turbulence of the leading aircraft.

c.当航空器驾驶员不能看到另外一架相关航空器或者不愿使用目视间隔时，应当及时通报管制员，以便重新配备其它允许的间隔。

c. If the pilot cannot see another related aircraft or does not wish to use visual separation, they must promptly inform the controller to arrange an alternative allowed separation.

6.2.2 实施目视进近时：

6.2.2 When implementing a visual approach:

a.当航空器驾驶员接受了目视进近许可后，航空器驾驶员应当保持与地面障碍物之间的安全间隔飞向着陆机场或者跟随前机实施进近。

a. After accepting a visual approach clearance, the pilot must maintain a safe separation from ground obstacles and fly towards the landing airport or follow the leading aircraft on approach.

b.航空器驾驶员目视着陆跑道或前机后应尽早报告管

b. After visually identifying the landing runway or the

制员。

leading aircraft, the pilot should report to the controller as soon as possible.

c.跟随前机落地的航空器驾驶员报告目视看到前机时，管制员可以指示航空器驾驶员尾随前机目视进近，航空器驾驶员应当与前机保持目视间隔。

c. When the following aircraft pilot reports visual contact with the preceding aircraft, the controller may instruct the following aircraft to conduct visual approach following the preceding aircraft. The pilot should maintain visual separation with the preceding aircraft.

d.如果航空器驾驶员只看到机场而没有看到前机时，应报告给管制员以便于管制员为前后航空器之间配备规定的间隔。

d. If the pilot only have visual contact with the airport and but not the preceding aircraft, they should report to the controller to arrange the prescribed separation between the preceding and following aircraft.

e.当航空器驾驶员不能完成目视进近时，应当及时转为仪表进近或者复飞,并及时报告管制员。

e. If the pilot cannot complete the visual approach, they should switch to an instrument approach or go around and report to the controller promptly.

7. 目视飞行航线

无

7. VFR route

Nil

8. 其它规定

无

8. Other regulations

Nil

ZGHA AD 2.23 其它资料

ZGHA AD 2.23 Other information

鸟情资料

机场附近有鸟类活动，主要在昼间活动，各类鸟的数量较多，主要在 200m 以下的高空活动，有明显的季节变化，有候鸟活动。本场有多种驱鸟设施。

Bird’s information

Birds activity are found around aerodrome in all seasons all the year round, and their activities mainly take place in daytime. There are a fairly great number of birds of various species, and their activities mainly take place below 200m, the number changes obviously with the change of season. Activities of migratory birds are also found. The aerodrome is equipped with many kinds of

bird dispersal facilities.

Bird name	Activity season	Activity time	Flight height
Alauda gulgula	All seasons	22:30-10:30	0-100m
Pycnonotus sinensis	All seasons	22:30-10:30	0-100m
Snipe	Spring and summer	The whole day	0-100m
Grey-headed Lapwing	Spring, summer, autumn	The whole day	0-100m
Turtledove	All seasons	22:30-10:30	0-100m
Lanius schach	All seasons	22:30-10:30	0-100m
Crested myna	All seasons	22:30-10:30	0-100m