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

ZSQD/TAO-青岛/胶东 QINGDAO/Jiaodong

ZSQD 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	N36°21.9′ E120°05.9′ Center of RWY16/34
2	机场基准点与城市的位置关系 Direction and distance from city	323 °GEO, 42.5km from the May Fourth Square
3	机场标高、基准温度、低温均值 ELEV/Reference temperature/Mean low temperature	9.2 m/30.3℃(JUL)/-4.6℃(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	7°17′W(2019)/-4′07″
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	Qingdao International Airport Group CO. LTD. Nr. 8 Hang'an nan Road, Jiaodong Town, Jiaozhou City, Qingdao City, Shandong Province, China Post code:266300 TEL:86-532-67897051 FAX:86-532-67896789 AFS:ZSQDYDYX E-mail:qdjcjtbgs@qdairport.com Website:www.qdairport.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/RWY16/34: 4F; RWY17/35: 4E
9	备注 Remarks	Nil

ZSQD 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

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

1	货物装卸设施 Cargo-handling facilities	Container cargo loader, bulk cargo loader, luggage towing vehicle, bulk cargo trailer, bulk luggage trailer, container trailer, unit load device (ULD) trailer, overlength and overweight container trailer (20ft in length), forklift
2	燃油牌号 Fuel types	Jet Fuel No.3,Jet A-1
3	滑油牌号 Oil types	Nil
4	加油设施/能力 Fuelling facilities & Capacity	Hydrant dispenser: 12-45L/s; Refueling truck(45000L): 12-40L/s; Apron refueling well: 400L/s
5	除冰设施 De-icing facilities	De-icing apron(Stands Nr. 434A, 436A, 438A, 601-604, 801-804, 826-829), 1 de-icing liquid filling station, de-icers, de-icing fluid: CLEANWING I 50/50.
6	过站航空器机库 Hangar space for visiting aircraft	Shandong Airlines Hangar available for five narrow body aircrafts (e.g. B737, A320), or two wide body aircrafts(e.g. B787); China Eastern Airlines Hangar available for four A320, or one A330 and one A320.
7	过站航空器的维修设施 Repair facilities for visiting aircraft	Periodic detection available for various types of aircraft on request. Engine and other aircraft component changement available for part of aircraft.

8	备注 Remarks	Tractor, power truck, air supply truck, air conditioning truck, ground power unit, ground air conditioning unit, high lift platform truck.

ZSQD AD 2.5 旅客设施 Passenger facilities

1	宾馆 Hotels	At AD and in the city
2	餐饮 Restaurants	At AD and in the city
3	交通工具 Transportation	Passenger's coaches, taxis, buses, metro
4	医疗设施 Medical facilities	First-aid equipment at AD, comprehensive hospital adjacent to AD (Ambulances on duty)
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

ZSQD AD 2.6 援救与消防服务 Rescue and fire fighting services

1	机场消防等级 AD category for fire fighting	CAT 10
2	援救设备 Rescue equipment	Fire fighting facilities: command car, rapid intervention vehicle, primary foam tender, heavy-duty foam tender, illumination truck, support vehicle, disassembly rescue truck. Rescue equipments: cutting saw, chain saw, mobile generator, smoke exhauster, rescue air cushion, air respirator, combustible gas detector, non-contact infrared temperature measuring instrument, descent control device, mechanical hydraulic clamp, manual hydraulic clamp, interphone.
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTWA up to B747(inclusive) or A340(inclusive) Device: uplift air cushion, tethered hoisting equipment, rescue towing tractor, mobile surface operation devices, traction rack, crosstie.
4	备注 Remarks	Nil

ZSQD 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 blowers, snow ploughs, de-icing fluid spreader, snow pusher(tractor equipped with snowboard)

2	扫雪顺序 Clearance priorities	RWY, TWY, apron clearing simultaneously
3	备注 Remarks	Nil

ZSQD 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 1330/R/A/W/T : Stands Nr.801-804, 826-829 PCR 1150/R/A/W/T : Stands Nr.805-816 PCR 1080/R/A/W/T : Stands Nr.601-605 PCR 1060/R/A/W/T : Stands Nr.501-521, 523A/B, 524-532 PCR 1000/R/A/W/T : Stands Nr.701-709 PCR 930/R/A/W/T : Stands Nr.101, 102, 122-125, 131, 132, 134-141, 148-151, 171, 172, 401-412, 425-433, 434A, 436A, 438A PCR 580/R/A/W/T : Stands Nr.103-120, 121A/B, 126-130, 133A/B, 142-147, 152A/B, 153-170, 173-180
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	宽度 Width	25m : A, A1-A8, B, B1(E of TWY B), B2, B3(E of TWY B), B5, B6, B8, C7(E of TWY B), J3, J5, K1, L1(N of TWY C2), L2, L3(N of TWY J5), M1(N of TWY N2), R1-R6 23m : B1(W of TWY B), B3(W of TWY B), B4, C, C1, C2, C3-C6(E of TWY C), C7(W of TWY B), D, D1-D6, E, E1-E6, F, F1, F2, F3-F6(W of TWY F), F7, J1(W of TWY L1, E of TWY L4), J2, J4, K2, L3(S of TWY J5), L4(N of TWY F2), M1(S of TWY N2), M2(N of TWY K2), M3, M4, P, Q, S1-S6 18m : C3-C6(W of TWY C), F3-F6(E of TWY F), J1(E of TWY L1, W of TWY L4), L1(S of TWY C2), L4(S of TWY F2), T1-T12 10.5m : M2(S of TWY K2), N1, N2
		道面 Surface	CONC
		强度 Strength	PCR 1370/R/B/W/T : D2-D5 PCR 1360/R/B/W/T : A2-A7 PCR 1350/R/B/W/T : J1(W of TWY L1, E of TWY L4) PCR 1340/R/B/W/T : J3 PCR 1330/R/B/W/T : J2 PCR 1310/R/B/W/T : K2 PCR 1270/R/B/W/T : D6 PCR 1260/R/B/W/T : D1, F1, F2, F3-F6(W of TWY F), F7 PCR 1240/R/B/W/T : C1, C2, C3-C6(E of TWY C), C7 PCR 1230/R/B/W/T : B2-B6 PCR 1220/R/B/W/T : E1-E6, L1(N of TWY C2), L2, L3, L4(N of TWY F2)

			PCR 1180/R/B/W/T : M1, M2(N of TWY K2), M3, M4 PCR 1170/R/B/W/T : J1(E of TWY L1, W of TWY L4), J5 PCR 1150/R/A/W/T : N1, N2 PCR 1120/R/B/W/T : B1, B8 PCR 1110/R/B/W/T : F PCR 1100/R/B/W/T : C PCR 1080/R/A/W/T : P PCR 1080/R/B/W/T : J4 PCR 1070/R/B/W/T : D PCR 1060/R/B/W/T : A1, A8, E PCR 1050/R/B/W/T : A, L1(S of TWY C2), L4(S of TWY F2) PCR 1040/R/B/W/T : B PCR 1030/R/B/W/T : K1 PCR 1020/R/B/W/T : M2(S of TWY K2) PCR 1000/R/A/W/T : Q PCR 1000/R/B/W/T : R2, R4-R6 PCR 990/R/B/W/T : R1 PCR 980/R/B/W/T : R3 PCR 950/R/B/W/T : S6 PCR 940/R/B/W/T : S5 PCR 930/R/A/W/T : C3-C6(W of TWY C), F3-F6(E of TWY F) PCR 870/R/B/W/T : S2 PCR 860/R/B/W/T : S1, S3, S4 PCR 580/R/A/W/T : T1-T12
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	

ZSQD 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. 102-120, 121B, 123-132, 133B, 134-151, 152B, 153-172, 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	Pre-threshold area, THR, RWY designation, edge line, RWY center line, TDZ, aiming point
		跑道灯光 RWY lights	RTHL, WBAR, REDL, RCLL, simple RTZL(34, 35), RTZL(16, 17), RENL
		滑行道标志 TWY markings	Edge line, center line, enhanced TWY center line, TWY shoulder marking, No-entry, mandatory instruction marking, information signs, close signs, RWY holding position(A1-A3, A7, A8, D1-D6), intermediate holding position
		滑行道灯光 TWY lights	Edge line lights, center line lights, No-entry bar(J3, R1-R6, S1-S6), unserviceability lights(TWY A4-A6(east of A, each side of RWY), A1(east of RWY), A3(east of RWY), J3(each side of RWY), TWY K2(west of TWY D, each side of RWY), D3(west of RWY)) , RETILs, intermediate holding position lights, De-icing/anti-icing facility exit lights
3	停止排灯和跑道警戒灯 Stop bars and runway guard lights	Stop bar lights: A1-A3, A7, A8, D1-D6 Runway guard lights: A1-A3, A7, A8, D1-D6	
4	其它跑道保护措施 Other runway protection measures	Nil	
5	备注 Remarks	Aircraft stand identification sign boards or ground markings at apron. RWY holding positions markings pattern B established at RWY16/17.	

ZSQD 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	TRANSMISSION_LINE	000/3143	35.3		
Antenna 002	Antenna	059/4457	57.4	LGT	
Antenna 003	Antenna	098/3884	56	LGT	
TRANSMISSION_LINE 004	TRANSMISSION_LINE	137/5448	56	LGT	
Antenna 005	Antenna	165/1504	24.5	LGT	
BLDG 006	BLDG	165/12979	126.7		RWY34 GP INOP, RWY35 VOR/DME FNA
BLDG 007	BLDG	178/4697	55.3	LGT	RWY34 GP INOP, RWY35 VOR/DME FNA
TRANSMISSION_LINE 008	TRANSMISSION_LINE	211/7555	67.5	LGT	
Antenna 009	Antenna	211/7932	79.3		
TRANSMISSION_LINE 010	TRANSMISSION_LINE	218/6715	73.4	LGT	
Antenna 011	Antenna	219/3046	24.7	LGT	
TRANSMISSION_LINE 012	TRANSMISSION_LINE	226/6214	69.2	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(º)/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
TRANSMISSION_LINE 013	TRANSMISSION_LINE	229/6051	69.2	LGT	RWY17 RNAV ILS/DME, ILS/DME missed APCH
Control TWR 014	Control TWR	237/1229	114.7	LGT	RWY16/35 GP INOP FNA; RWY17/35 VOR/DME missed APCH; Circling CAT A/B/C/D
TRANSMISSION_LINE 015	TRANSMISSION_LINE	241/5660	63.1	LGT	
TRANSMISSION_LINE 016	TRANSMISSION_LINE	249/5559	62.7	LGT	
TRANSMISSION_LINE 017	TRANSMISSION_LINE	257/5443	58.4	LGT	
TRANSMISSION_LINE 018	TRANSMISSION_LINE	265/5310	56.9	LGT	
TRANSMISSION_LINE 019	TRANSMISSION_LINE	273/5261	57	LGT	
Antenna 020	Antenna	283/2449	25.3	LGT	
TRANSMISSION_LINE 021	TRANSMISSION_LINE	284/5386	53.4	LGT	
TRANSMISSION_LINE 022	TRANSMISSION_LINE	293/5654	58.5	LGT	
TRANSMISSION_LINE 023	TRANSMISSION_LINE	297/5692	57.3	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(º)/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
TRANSMISSION_LINE 024	TRANSMISSION_LINE	300/5966	59.3	LGT	
TRANSMISSION_LINE 025	TRANSMISSION_LINE	308/7237	80.7	LGT	
Antenna 026	Antenna	316/5435	61.6	LGT	RWY35 take-off path; RWY17 GP INOP, VOR/DME FNA
Antenna 027	Antenna	354/1495	24.9	LGT	

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(º)/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
TOWER 028	TOWER	087/25276	245		
MT 029	MT	107/43149	683		
MT 030	MT	109/43806	667		
MT 031	MT	112/43490	672		
MT 032	MT	113/42974	609		
MT 033	MT	113/47193	759		
MT 034	MT	117/45212	593		

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(º)/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 035	MT	120/45940	732		
MT 036	MT	121/49851	902		
MT 037	MT	121/51853	1133		MSA SECT 270°-330°
MT 038	MT	122/37954	601		
MT 039	MT	123/38016	500		
MT 040	MT	124/44429	500		
MT 041	MT	124/47131	633		
TRANSMISSION _LINE 042	TRANSM ISSION_L INE	135/45239	408		
MT 043	MT	143/42919	368		
TV TWR 044	TV TWR	153/39938	347		RWY34/35 RNAV INA
BLDG 045	BLDG	153/41783	376		RWY34/35 traditional INA
BLDG 046	BLDG	157/38411	237		
STACK 047	STACK	171/37816	221		RWY34/35 traditional, RNAV INA
Bridge 048	Bridge	172/26844	177		RWY34/35 RNAV intermediate APCH
MT 049	MT	182/36263	231		RWY34 traditional intermediate APCH

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 050	MT	187/46632	439		
MT 051	MT	188/35562	351		RWY35 traditional intermediate APCH
MT 052	MT	188/44984	725		RWY35 traditional INA; MSA SECT 330°-030°
WINDMILL_FARMS 053	WINDMILL_FARMS	189/35842	402		RWY34/35 RNAV INA
MT 054	MT	194/43497	413		
WINDMILL_FARMS 055	WINDMILL_FARMS	350/53196	333		
WINDMILL_FARMS 056	WINDMILL_FARMS	356/53142	411		RWY16/17 RNAV ARR; MSA SECT 030°-270°
MT 057	MT	359/49579	224		

Remarks:

ZSQD 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	Qingdao ATMB MET Observatory
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	Qingdao ATMB MET Observatory;24h;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/Consultation provided	Briefing provided: T, TV Consultation provided: T
6	飞行文件及其使用语言 Flight documentation/Language(s) used	Chart,Table, International MET Codes;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	Briefing provided: METAR, TAF, SIGMET, AIRMET, significant weather charts, upper W/T charts, numerical forecast product, synoptic charts, satellite and radar material, AWOS real-time data, meteorological warning information(area and terminal warning, airport warning, low-level windshear warning)
8	提供气象情报的辅助设备 Supplementary equipment available for providing information	Meteorological service terminal, AWOS data display, Fax
9	提供气象情报的空中交通服务单位 ATS units provided with information	ACC, APP, TWR
10	其他信息 Additional information	Nil
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: 110m E of RWY16/34 RCL, 325m inward THR16; B: 100m E of RWY16/34 RCL, 1800m inward THR34; C: 110m E of RWY16/34 RCL, 325m inward THR34; D: 110m W of RWY17/35 RCL, 325m inward THR17; E: 100m W of RWY17/35 RCL, 1800m inward THR35; F: 110m W of RWY17/35 RCL, 325m inward THR35. SFC wind sensors 16: 100m E of RCL16/34, 320m inward THR; 16/34: 110m E of RCL16/34, 1800m inward THR34; 34: 100m E of RCL16/34, 320m inward THR; 17: 100m W of RCL17/35, 320m inward THR; 17/35: 110m W of RCL17/35, 1800m inward THR35; 35: 100m W of RCL17/35, 320m inward THR. Ceilometer

		16: On the RCL extension line, 915m outward THR; 34: On the RCL extension line, 915m outward THR; 17: On the RCL extension line, 915m outward THR; 35: On the RCL extension line, 915m outward THR.
4	观测系统的工作时间 Hours of operation for meteorological observation system	H24
5	气候资料 Climatological information	Climatography AVBL
6	其他信息 Additional information	Nil

ZSQD 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
16	162.36 °GEO 170 °MAG	3600×60	PCR 880/R/A/W/T CONC/-	Nil	THR 8.3m TDZ 8.7m	
34	342.36 °GEO 350 °MAG	3600×60	PCR 880/R/A/W/T CONC/-	Nil	THR 8.1m TDZ 8.4m	
17	162.36 °GEO 170 °MAG	3600×45	PCR 990/R/A/W/T CONC/-	Nil	THR 8.9m TDZ 9.1m	0.03%(1199m)/-0.05%(2401m)
35	342.36 °GEO 350 °MAG	3600×45	PCR 990/R/A/W/T CONC/-	Nil	THR 8.1m TDZ 8.6m	0.05%(2401m)/-0.03%(1199m)

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
16	Nil	Nil	3720×280	240×150	Nil	Nil
34	Nil	Nil	3720×280	240×150	Nil	Nil
17	Nil	Nil	3720×280	240×150	Nil	Nil

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
35	Nil	Nil	3720×280	240×150	Nil	Nil
Remarks: 1. The EFF gradient of RWY16 is 0.2028‰, and the cross gradient is 1.3%; The EFF gradient of RWY17 is 0.2917‰, and the cross gradient is 1.3%. 2. The RWYs shoulders are 7.5m, and the RWYs grooves are 6mm ×6mm ×32mm. 3. DIST BTN RCL16/34 and RCL17/35 is 2184m; THR35 is 500m S of THR34; THR16 is 500m N of THR17.						

ZSQD 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
16	3600	3600	3600	3600	Nil
16	3525	3525	3525	3600	FM A2
16	3214	3214	3214	3600	FM A3
34	3600	3600	3600	3600	Nil
34	3330	3330	3330	3600	FM A7
17	3600	3600	3600	3600	Nil
17	3527	3527	3527	3600	FM D2
17	3200	3200	3200	3600	FM D3
35	3600	3600	3600	3600	Nil
35	3525	3525	3525	3600	FM D5
35	3325	3325	3325	3600	FM D4

ZSQD 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
16	PALS CAT III SFL 900 m VRB LIH	GREEN Yes	PAPI LEFT 452m inward THR16 3 ° 21.2m	900 m	3600 m spacing 15m 0-2700m, WHITE 2700-3300m, RED/WHITE 3300-3600m, RED VRB LIH	3600 m spacing 60m 0-3000m, WHITE 3000-3600m, YELLOW VRB LIH	RED	Nil
34	PALS CAT I SFL 900 m VRB LIH	GREEN Yes	PAPI LEFT 455m inward THR34 3 ° 21.2m		3600 m spacing 15m 0-2700m, WHITE 2700-3300m, RED/WHITE 3300-3600m, RED VRB LIH	3600 m spacing 60m 0-3000m, WHITE 3000-3600m, YELLOW VRB LIH	RED	Nil
17	PALS CAT III SFL 900 m VRB LIH	GREEN Yes	PAPI LEFT 451.5m inward THR17 3 ° 21.2m	900 m	3600 m spacing 15m 0-2700m, WHITE 2700-3300m, RED/WHITE 3300-3600m, RED VRB LIH	3600 m spacing 60m 0-3000m, WHITE 3000-3600m, YELLOW VRB LIH	RED	Nil
35	PALS CAT I SFL 900 m VRB LIH	GREEN Yes	PAPI LEFT 448.6m inward THR35 3 ° 21.2m		3600 m spacing 15m 0-2700m, WHITE 2700-3300m, RED/WHITE 3300-3600m, RED VRB LIH	3600 m spacing 60m 0-3000m, WHITE 3000-3600m, YELLOW VRB LIH	RED	Nil
Remarks: RWY34 TDZ LGT: simple RWY35 TDZ LGT: simple								

ZSQD 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: 16: 115m E of RCL, 452.4m inward THR, LGT; 17: 107.5m E of RCL, 451.3m inward THR, LGT; 34: 115m W of RCL, 465m inward THR, LGT; 35: 107.6m W of RCL, 448.6m inward THR, LGT;
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 circuit electricity supply/1s Diesel generator/<15s Uninterrupted power supply/<1s
5	备注 Remarks	Nil

ZSQD 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

ZSQD 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
Tower control area	A circuit, 4 arcs with RAD 13km centered on center of 4 THRs, and and tangent lines BTN ADJ arcs.	900m(QNH) or BLW				
Fuel Dumping Area	N3600E12110- N3600E12245- N3510E12145- N3510E12110- N3600E12110	ABV 4000m				
Altimeter setting region and TL/TA	A circle with a RAD of 30NM centered on Jiaodong VOR/DME(JDG).	TL 3600m TA 3000m 3300m(QNH≥1031hPa) 2700m(QNH≤979hPa)				

ZSQD 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		127.2			H24	D-ATIS available
APP	Qingdao Approach	APP01:119.4 (124.6)			H24	
		APP02:121.15 (124.6)			0000-1400	
		APP03:119.775 (124.6)			0000-1400	
		APP04:119.475 (124.225)			by ATC	
		APP05:120.25 (124.225)			by ATC	
TWR	Qingdao Tower	TWR(E):118.7 (124.3)			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
		TWR(W):118.275 (124.3)			by ATC	
GND	Qingdao Ground	GND(E):121.65 (121.55)			H24	
		GND(W):121.75 (121.55)			by ATC	
APN	Qingdao Apron	APN(E):121.6			H24	
		APN(W):121.875			by ATC	
Delivery	Qingdao Delivery	121.95 (121.55)			H24	DCL available GND(E)
OP-CTL	Operational Control	128.85			H24	
		132.0			H24	
EMG		121.5			H24	

ZSQD 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
Jiaobei VOR/DME	JDW	116.85 MHz CH 115Y	H24	N36°19.8′ E119°58.6′ 256 °MAG/11600m FM ARP	49 m	Coverage 200NM
Jiaodong VOR/DME	JDG	114.45 MHz CH 91Y	H24	N36°22.7′ E120°04.0′ 308 °MAG/3200m FM ARP	13 m	Coverage 200NM

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
Shangma VOR/DME	JDE	116.25 MHz CH 109Y	H24	N36°17.4′ E120°15.2′ 128 °MAG/16400m FM ARP	52 m	Coverage 200NM
Xuejiadao VOR/DME	XDX	110.4 MHz CH 41X	H24	N35°58.7′ E120°17.4′	110 m	For VOR:BTN43-44NM enroute ALT 4200m on R164 °U/S.
IM 16		75 MHz		350 °MAG/345m FM THR16		
LOC 16 ILS CAT III	IDA	111.9 MHz		170 °MAG/315m FM RWY16 end		In operation CAT II
GP 16		331.1 MHz		120m E of RCL, 305m inward THR16		Angle 3 °, RDH 16.5 m
DME 16	IDA	CH 56X (111.9 MHz)			10m	Co-located with GP 16
LOC 34 ILS CAT I	IIN	108.55 MHz		350 °MAG/315m FM RWY 34 end		
GP 34		329.75 MHz		120m E of RCL, 305m inward THR34		Angle 3 °, RDH 16.5 m
DME 34	IIN	CH 22Y (108.55 MHz)			11m	Co-located with GP 34
IM 17		75 MHz		350 °MAG/345m FM THR17		
LOC 17 ILS CAT III	IQD	110.15 MHz		170 °MAG/315m FM RWY 17 end		In operation CAT II
GP 17		334.25 MHz		120m W of RCL, 305m inward THR17		Angle 3 °, RDH 16.5 m
DME 17	IQD	CH 38Y (110.15 MHz)			11m	Co-located with GP 17
LOC 35 ILS CAT I	IQX	109.75 MHz		350 °MAG/315m FM RWY35 end		

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
GP 35		333.05 MHz		120m W of RCL, 305m inward THR35		Angle 3 °, RDH 16.5 m
DME 35	IQX	CH 34Y (109.75 MHz)			12m	Co-located with GP 35

ZSQD AD 2.20 本场规定

1. 机场使用规定

1.1 本场禁止未安装二次雷达应答机的航空器起降，在特殊情况下，经华东管理局或空管局批准，可允许无二次雷达应答机的航空器起降。

1.2 本场可供 A380 及其同类以下机型使用，其中翼展≥65m 航空器仅可在 16/34 跑道起降。

1.3 所有技术试飞、表演飞行须事先申请，并在得到空中交通管制部门批准后方可进行。

2. 跑道和滑行道的使用

2.1 跑道运行规定

2.1.1 16/34 跑道与 17/35 跑道具备平行跑道同时仪表运行条件。目前实施隔离平行运行，独立平行离场试验运行。

ZSQD AD 2.20 Local aerodrome regulations

1.Airport operations regulations

1.1 Aircrafts without SSR transponder are forbidden to take-off/land. Take-off or landing are allowed if authorized by relative authorities in special circumstances.

1.2 Maximum aircraft to be available: A380 and equivalent. Only RWY16/34 is available for aircrafts with wingspan≥65m to take-off or land.

1.3 Each and every technical test flight and exhibition flight shall be filed in advance and shall be made only after clearance has been obtained from ATC.

2. Use of runways and taxiways

2.1 Rules for the use of RWYs

2.1.1 The conditions of simultaneous instrument operations on parallel RWYs have been met. But, at present, segregated parallel operation is temporarily implemented, independent parallel departure test

operation.

2.1.2 禁止航空器在跑道上做 180°转弯。

2.1.2 180 °turnaround on RWY is strictly forbidden for all aircrafts.

2.1.3 跑道方向使用规定

2.1.3 Rules for the use of RWY directions

2.1.3.1 原则上选择逆风方向。

2.1.3.1 Take-off and landing in the direction against the wind generally.

2.1.3.2 满足下列条件之一时，须转换跑道方向:

2.1.3.2 If one of the following conditions is met, the RWY direction shall be changed:

(1) 当气象自动观测系统显示跑道顺风分量达到 3.5m/s，且有继续增大趋势时;

(1) When the automatic meteorological observation system shows that the downwind component of the RWY reaches 3.5m/s and has a trend of increasing continuously;

(2) 湿跑道或者污染跑道条件下，当气象自动观测系统显示跑道为顺风，且有继续增大趋势时。

(2) Under the condition of wet or contaminated RWY, when the automatic meteorological observation system shows that the RWY is downwind and has a trend of increasing continuously.

2.1.3.3 在转换使用跑道方向过程中，使用跑道顺风分量大于 3.5m/s 但小于 5m/s 时，空管塔台管制员通知航空器驾驶员地面风向、风速后，当航空器驾驶员根据机型性能或者运行手册判断不能执行顺风跑道起飞或者着陆时，应立即告知塔台管制员。

2.1.3.3 During changing the operation direction of RWY, when TWR informs crews downwind component exceeds 3.5m/s, but less than 5m/s, if this is not acceptable due to aircraft performance or operation handbook, crews shall inform TWR immediately.

2.1.4 跑道起飞、着陆使用规定

2.1.4 Rules for the use of departure and landing RWY

2.1.4.1 起飞航空器占用跑道时间

2.1.4.1 RWY occupancy time of departure aircraft

起飞的航空器从接到塔台管制员进跑道指令至对正跑道不应超过 60s。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。

Departure aircraft shall finish RWY alignment within 60s after receiving TWR instructions of entering RWY. If flight crews consider that they can not fulfill the process within the required time, they shall inform TWR before reaching the RWY holding point.

2.1.4.2 落地航空器占用跑道时间

(1) 中型机（含）以下机型从飞越跑道入口至完全脱离跑道不应超过 50s;

(2) 重型机（含）以上机型从飞越跑道入口至完全脱离跑道不应超过 60s;

(3) 如机组认为无法在上述要求的时间内完成，须在联系五边频率时（最晚不迟于三转弯或建立航向道之前）通知进近管制员。

2.1.4.3 航空器驾驶员在收到起飞指令后，应尽快开始滑跑并保持常守塔台频率，不允许自动脱波。

2.1.4.4 航空器起飞后首次联系进近时，机组应向进近管制员通报起飞跑道号和起始高度。

2.1.4.5 发出着陆许可后，塔台管制员观察到着陆许可发布条件有变化时，应立即通知航空器复飞，并简要说明复飞原因；着陆航空器驾驶员认为有必要时，应立即复飞，并通知塔台管制员。

2.1.4.6 航空器结束着陆滑跑后，由塔台管制员给出脱离跑道指令、滑行指令以及下一个管制频率，机长应尽可能使用第一或第二快速脱离道脱离跑道，需要使用最后一条快速脱离道及远道口脱离跑道时，航空器驾驶员应在与塔台管制员建立联系时通报说明。

2.1.4.2 RWY occupancy time of landing aircraft

(1) Medium aircraft or below shall fully vacate RWY within 50s after flying over THR;

(2) Heavy aircraft or above shall fully vacate RWY within 60s after flying over THR;

(3) If flight crews consider that they cannot fulfill the process within the required time, flight crew shall inform APP when contact final approach frequency (no later than base-turn or established on the localizer).

2.1.4.3 Aircraft shall take off immediately after receiving take-off clearance by ATC, and keep watch on TWR frequency for further instructions.

2.1.4.4 Departure aircraft shall report the take-off RWY designator and initial altitude when first contact with APP.

2.1.4.5 After issuing the landing clearance, if TWR ATC observes any change in the release conditions of the landing clearance, TWR ATC shall notify the pilot to go around immediately and explain the reason briefly. Under such situation, pilot shall make a missed approach at any moment if it is considered to be necessary and notify the controller immediately.

2.1.4.6 After the aircraft finishes landing, TWR shall give the instructions of vacating RWY, taxiing and next frequency, crew shall fully vacate RWY via the first or second rapid exit TWY as far as possible. If need to vacate RWY via further TWY or the last rapid exit TWY, the crew shall inform TWR on the first contact.

2.1.5 跑道等待位置、警戒灯及停止排灯使用规定

2.1.5 RWY holding positions, RWY guard lights and Stop bar lights requirements

2.1.5.1 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（跑道等待位置详见机场图）。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，但不能超过此标志。航空器未获得塔台管制员许可，机头越过跑道等待位置标志时，应立即向塔台管制员报告。

2.1.5.1 Aircrafts shall stop and wait for the instruction of TWR at the designated RWY holding positions(refer to airport chart). The nose of aircraft shall get close to the RWY holding position marking without exceeding it when aircraft is waiting at the RWY holding position. Aircraft shall report to TWR when the nose of aircraft exceeds holding position without clearance;

2.1.5.2 当I类运行时，航空器应停止在“A 型等待位置标志”处，此处跑道警戒灯点亮；当II类运行时，航空器应停止在“B 型等待位置标志”处，此处跑道警戒灯点亮和停止排灯点亮。

2.1.5.2 RWY holding position Pattern A for CAT I operation where RWY guard lights is on, RWY holding position Pattern B for CAT II operation where RWY guard lights and stop bar lights are on.

2.1.6 胶东机场非全跑道起飞

2.1.6 Partial RWY take-off

2.1.6.1 塔台管制员应向航空器驾驶员发布非全跑道起飞所经由的滑行路线和可用的起飞滑跑距离。

2.1.6.1 The pilot shall be issued with the taxi routes to follow and the TORA for intersection departure by TWR.

2.1.6.2 当航空器驾驶员认为此位置可用的起飞滑跑距离不满足离场安全要求时应及时提出。

2.1.6.2 The pilot shall inform TWR in time if the TORA from the intersection cannot fulfill safety requirements for departure.

2.1.6.3 在胶东国际机场低能见运行程序启动期间，禁止使用非全跑道起飞。

2.1.6.3 No intersection departure is permitted during LVO.

2.2 滑行道使用规定

2.2 Rules for the use of TWY

2.2.1 滑行道转弯限制

禁止航空器在滑行道上做 180°转弯。

2.2.1 Limits for turnaround on TWY

180°turnaround on TWY is strictly forbidden for all aircrafts.

2.2.2 引导车和拖车服务

2.2.2 Follow-me vehicle and towing service

航空器可通过机坪管制频率申请引导车服务；通过OP-CTL（132.0MHz）申请牵引车服务。

Follow-me vehicle service is available via APN, and towing service is available via OP-CTL(132.0MHz).

2.2.3 航空器滑行要求

2.2.3 Requirements for aircraft taxiing

在脱离跑道首次与地面管制联系时，尤其在低能见度情况下，应向地面管制报告脱离的跑道和所使用的滑行道等具体位置。

After vacating RWY, flight crew shall report the RWY vacated and the TWY in use on initial contact with GND, especially under condition of low visibility.

2.2.4 滑行道使用限制

2.2.4 Limits for the use of TWY

滑行道/TWYs	航空器翼展限制（m）/Wing span limits for aircraft(m)
A, A1-A8, B, B1(E of TWY B), B2, B3(E of TWY B), B5, B6, B8, C7(E of TWY B), J3, J5, K1, L1(S of TWY J2, N of TWY C1), L2, L3(N of TWY J5), M1(N of TWY N2), R1-R6	< 80
B1(W of TWY B), B3(W of TWY B), B4, C, C1, C2, C3-C6(E of TWY C), C7(W of TWY B), D, D1-D6, E, E1-E6, F, F1, F2, F3-F6(W of TWY F), F7, J1(W of TWY L1, E of TWY L4), J4, K2, L1(S of TWY C1, N of TWY C2, N of TWY J2), L3(S of TWY J5), L4(N of TWY F2), M1(S of TWY N2), M2(N of TWY K2), M3, M4, P, Q, S1-S6	< 65
C3-C6(W of TWY C), F3-F6(E of TWY F), J1(E of TWY L1, W of TWY L4), J2, L1(S of TWY C2), L4(S of TWY F2), T1-T12	< 36
M2(S of TWY K2), N1, N2	< 24

2.3 翼展≥65m 航空器运行规则

2.3 Operational rules for aircrafts with wingspan≥65m

2.3.1 运行区域

2.3.1 Operational areas

2.3.1.1 运行跑道：16/34 跑道。

2.3.1.1 RWYs: RWY16/34.

2.3.1.2 运行滑行道：A、A1-A8、B、B1(B 以东)、B2、B3(B 以东)、B5、B6、B8、C7(B 以东)、J3、J5、K1、L1(J2 以南，C1 以北)、L2、L3(J5 以北)、M1(N2 以北)、R1-R6。

2.3.1.2 TWYs: A, A1-A8, B, B1(E of TWY B), B2, B3(E of TWY B), B5, B6, B8, C7(E of TWY B), J3, J5, K1, L1(S of TWY J2, N of TWY C1), L2, L3(N of TWY J5), M1(N of TWY N2), R1-R6.

2.3.1.3 运行停机位：136、432、605（试车机位，仅可沿滑行道 B1(B 以西)经 P 进入 605 停机位。航空器滑入时，P 滑东侧服务车道停止使用）、801（作为停放 65m≤翼展＜80m 航空器的停机位滑入时，其北侧服务车道靠近停机位半幅停止使用）。

2.3.1.3 Stands: Nr. 136, 432, 605(engine run-ups stands, aircrafts shall taxi into stand Nr.605 via TWY B1(W of TWY B) and P only. The service lane in the east of TWY P shall be closed when aircraft is taxiing into stand Nr.605), Nr.801(when the aircraft (65m≤wingspan ＜80m) is taxiing into stand Nr.801, the south half of service lane in the north of stand Nr.801 shall be closed).

2.3.1.4 除上述区域外，其他区域禁止翼展≥65m 的航空器运行。

2.3.1.4 Except for the operational areas mentioned above, the other areas are forbidden to use for aircrafts with wingspan≥65m.

2.3.2 运行规则

2.3.2 Operational rules

2.3.2.1 航空器在满足运行条件的区域运行，按管制员指令滑行，无特殊要求。

2.3.2.1 Aircrafts shall taxi by ATC instructions in operational areas.

2.3.2.2 航空器进港由引导车引导滑行，出港如需引导车，需向机坪管制申请。

2.3.2.2 The arrival aircrafts shall taxi by follow-me vehicle. Apply for follow-me vehicle to APN.

2.3.3 本场仅满足同时接收 3 架（含）以下翼展≥65m 航空器停场的需要。

2.3.3 The aerodome can accomodate 3 aircrafts (inclusive) on ground with wingspan≥65m at the same time at most.

2.4 机动区冲突多发地带位置见机场图，途经这些区域的航空器需注意如下事项：

2.4 Hot spot positions: refer to Aerodrome Chart. Aircrafts shall be aware of the following instructions when taxiing through these areas.

2.4.1 HS1：位于 D 与 J4、D3 滑行道交叉区域。航空器使用 J4 向西滑行时容易经 D3 误入 17 跑道。

2.4.1 HS1: The intersection of TWY D and TWYs J4&D3. Aircrafts taxiing to west via TWY J4 shall pay

attention to avoid taxiing into RWY17 via TWY D3 by mistake.

2.4.2 HS2: 位于 A 与 K1、A7 滑行道交叉区域。航空器使用 K1 向东滑行时容易经 A7 误入 34 跑道。

2.4.2 HS2: The intersection of TWY A and TWYs K1&A7. Aircraft taxiing to east via TWY K1 shall pay attention to avoid taxiing into RWY34 from TWY A7 by mistake.

2.4.3 HS3: 位于 R1 和 R5 之间的 A 滑行道区域。16 跑道使用 R1 脱离的航空器和使用 R3、R5、A7、A8 脱离的航空器在滑向移交点 C7/B 时是对头趋势，脱离跑道的航空器不要在此区域停留，否则容易与后续落地航空器产生冲突。

2.4.3 HS3: TWY A BTN TWY R1&R5. Landing aircrafts vacating RWY16 by TWY R1 and the ones vacating RWY16 by R3, R5, A7, A8 are in opposite trend when taxiing towards the handover point C7/B. Vacating aircraft shall leave this area as quickly as possible, otherwise a conflict with later landing aircrafts may occur.

2.4.4 HS4: 位于 R2 和 R6 之间的 A 滑行道区域。34 跑道使用 R2 脱离的航空器和使用 R4、R6、A1-A3 脱离的航空器在滑向移交点 C1/B 时是对头趋势，脱离跑道的航空器不要在此区域停留，否则容易与后续落地航空器产生冲突。

2.4.4 HS4: TWY A BTN TWY R2&R6. Landing aircrafts between vacating RWY34 by TWY R2 and the ones vacating RWY34 by R4, R6, A1- A3 are in opposite trend when taxing towards the handover point C1/B. Vacating aircraft shall leave this area as quickly as possible, otherwise a conflict with later landing aircrafts may occur.

2.4.5 HS5: 位于 J5 和 S4 之间的 D 滑行道区域。35 跑道使用 S2、S4、S6 脱离的航空器和使用 D1、D2、D3 脱离的航空器在滑向移交点 F1/E 时是对头趋势，脱离跑道的航空器不要在此区域停留，否则容易与后续落地航空器产生冲突。

2.4.5 HS5: TWY D BTN TWY J5&S4. Landing aircrafts vacating RWY35 by TWY S2, S4, S6 and the ones vacating RWY35 by D1, D2, D3 are in opposite trend when taxing towards the handover point F1/E. Vacating aircraft shall leave this area as quickly as possible, otherwise a conflict with later landing aircrafts may occur.

2.4.6 HS6: 位于 B 与 K1、M1、K2 滑行道形成的闭

2.4.6 HS6: A closed area formed with TWY B, K1, M1

合区域。航空器使用 K1、K2 滑行时易与在服务车道上横穿 K1、K2 滑行道的车辆产生冲突。

2.4.7 HS7: 位于 E 与 K1、M4、K2 滑行道形成的闭合区域。航空器使用 K1、K2 滑行时易与在服务车道上横穿 K1、K2 滑行道的车辆产生冲突。

3. 机坪和机位的使用

3.1 机坪管制

3.1.1 塔台管制责任区范围为：在本场有飞行活动期间，B（不含）以东的跑道、滑行道、联络道和 E（不含）以西的跑道、滑行道、联络道部分。

3.1.2 机坪管制责任区范围为：在本场有飞行活动期间，B（含）以西的滑行道、联络道、停机坪和 E（含）以东的滑行道、联络道、停机坪部分。

3.1.3 机坪管制责任区分为东、西两个扇区：青岛 01 东机坪扇区、青岛 02 西机坪扇区，代号分别为东机坪 APNE、西机坪 APNW。青岛东机坪扇区与青岛西机坪扇区，移交点共 7 个，分别为滑行道 J1-J5、K1、K2 与扇区分界线交接点。

3.1.4 航空器驾驶员应听清并正确复诵机坪管制员的滑行指令，尤其是条件性指令，发现疑问应及时证实；滑行期间，航空器驾驶员应依照机坪管制员的活动通报进行观察，并及时将观察到的不明活动情况通报给机坪管制员。

3.1.5 在机坪管制责任区内运行的航空器应开启应答

and K2. Aircraft taxiing on TWY K1, K2 may prone to collision with the vehicles crossing TWY K1, K2.

2.4.7 HS7: A closed area formed with TWY E, K1, M4 and K2, Aircraft taxiing on TWY K1, K2 may prone to collision with the vehicles crossing TWY K1, K2.

3. Use of aprons and parking stands

3.1 APN Control

3.1.1 TWR Control Area: the area of RWY16/34, RWY17/35, TWYs in the east of TWY B(exclusive), TWYs in the west of TWY E(exclusive) during airport operational period.

3.1.2 APN Control Area: the area of TWYs and aprons in the west of TWY B(inclusive), TWYs and aprons which are located in the east of TWY E(inclusive) during airport operational period.

3.1.3 The APN control area is divided into east and west sectors: Qingdao East APN 01 sector, Qingdao West APN 02 sector, whose codes are APNE and APNW. There are 7 hand-over points in east APN sector and west APN sector, which are the junctions of the sector boundaries with TWYs J1-J5, K1 and K2.

3.1.4 Pilot shall hear clearly and repeat the whole taxiing instructions issued by APN correctly, especially conditionality instructions and make them clear when there is a doubt; During taxiing, pilot shall pay attention to the related activities, and report the unknown activities to APN.

3.1.5 Aircrafts oprating in APN control areas shall turn

机地面模式。进港航空器完全入位后应关闭应答机，离港航空器收到“可以推出开车”指令后应打开应答机地面模式。

on the transponder in ground mode. Arrival aircrafts shall turn off the transponder when totally parking in stands. Departure aircrafts shall turn on the transponder in ground mode after reciving "push and start" instruction.

3.2 机坪使用及滑行限制

3.2 Use of aprons and taxiing limition

3.2.1 未经机坪管制同意，严禁航空器利用自身动力滑行。

3.2.1 Aircraft is strictly forbidden to taxi on its own power without APN permission.

3.2.2 航空器地面滑行时，若对人员、设备、设施可能构成威胁时，使用牵引车牵引。

3.2.2 If taxiing aircraft may possibly cause injury or constitute a hazard to personnel or equipment around, a tow tractor shall be used.

3.2.3 进港航空器均由引导车引导入位。离港航空器如需引导车服务，可向机坪管制申请。引导车引导过程中，航空器驾驶员应当加强观察，当无法目视前方引导车时，应当立即停止滑行并报告机坪管制。

3.2.3 All arrival aircrafts shall be guided by Follow-me vehicle to stands. Departure aircrafts can apply for Follow-me vehicle to APN if in need. Pilot shall pay close attention to the activities, stop taxiing immediately and report to APN when it is impossible to visually guide the Follow-me vehicle ahead.

3.2.4 停靠 102-120、121B、123-132、133B、134-151、152B、153-172 停机位的航空器须由目视停靠引导系统引导滑进停机位，其他机位航空器则由人工指挥滑进机位。当上述停机位目视停靠引导系统故障或停用时转为人工指挥滑进机位。

3.2.4 Aircrafts parking on Stands Nr. 102-120, 121B, 123-132, 133B, 134-151, 152B, 153-172 shall be guided by Visual Docking Guidance Systems(AGS) for entry, others shall be guided by marshalling assistance. When AGS fails, enter stands by marshalling assistance.

3.2.5 停机位 101-120、121A/B、122-132、133A/B、134-151、152A/B、153-172、431-433、525-532、701-709 停靠的航空器须由牵引车推出，停机位 605 作为试车机位使用时，航空器头朝西推入停机位，试车完毕后使用牵引车拖出停机位。其他情况下使用停机位 605 时航空器自滑入，顶推出；其他停机位停靠的航空器

3.2.5 Aircrafts parking on Stands Nr. 101-120, 121A/B, 122-132, 133A/B, 134-151, 152A/B, 153-172, 431-433, 525-532, 701-709 shall be push back by the tow tractors, when Stand Nr.605 is used as a run-up stand, the aircraft shall be pushed into the stand (head to west), and be pulled out by the tow tractors after the run-ups done. In

自滑出。

other cases, when using Stand Nr.605, the aircraft will taxi in and be pushed back, but the aircrafts parking in other stands will taxi out by themselves.

3.2.6 机坪管制责任区内离港航空器推出开车滑行流程:

3.2.6 Departure aircraft push back, start-up and taxiing procedures within APN control area

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

3.2.6.1 Departure aircraft shall contact with Qingdao Delivery for delivery clearance not earlier than 10min prior to push-out for engine start-up.

3.2.6.2 本机场放行时不再要求机组话音复诵已经通过数据链成功发布的放行许可;

3.2.6.2 No readback required when the delivery clearance has been received through DCL.

3.2.6.3 取得放行许可,待青岛放行指挥脱波后,向机坪管制申请推出开车;

3.2.6.3 Pilot shall apply for push back and start-up clearance after getting delivery clearance and disconnectting Qingdao Delivery FREQ.

3.2.6.4 离港航空器首次联系机坪管制时,应向机坪管制通报停机位;

3.2.6.4 Departure aircraft shall report aircraft stand number at the first contact with APN .

3.2.6.5 机坪管制发布“推出开车”指令后航空器驾驶员必须在 5min 内执行; 超出 5min 仍未推出开车视为管制指令失效,航空器驾驶员需重新申请“推出开车”;

3.2.6.5 Aircrew shall conduct the push back and start-up within 5min after getting clearance . Otherwise, apply for the push back and start-up clearance again.

3.2.6.6 航空器开车后,向机坪管制申请滑行许可,并按其指令执行;

3.2.6.6 Pilot should apply for taxiing clearance after start-up, and follow APN instructions

3.2.6.7 如需引导车服务,航空器驾驶员应提前通知机坪管制,并根据机坪管制指令跟随引导车滑行至规定位置等待,待机坪管制指挥脱波后,联系青岛地面或青岛塔台。

3.2.6.7 If need Follow-me vehicle, pilot shall inform APN in advance and taxi to the designated position according to APN instruction. After disconnectting APN FREQ, pilot shall contact with GND or TWR.

3.2.7 机坪管制责任区内航空器进港滑行流程:

3.2.7 Arrival aircraft taxiing procedure within APN control area.

3.2.7.1 航空器进入机坪管制责任区前,联系机坪管制申请进一步滑行许可;

3.2.7.1 Pilot shall contact APN to apply for further taxiing clearance before taxiing into APN control area.

3.2.7.2 需引导车引导的区域,航空器根据机坪管制指令跟随引导车滑行至指定停机位。

3.2.7.2 Aircraft shall taxi to the designated aircraft stand following the follow-me car according to APN instructions in the area of requiring Follow-me vehicle.

3.3 停机位使用限制

3.3 Limits for aircraft parking on the following stands

停机位/Stands	翼展限制/Wing span limits(m)	机身长度限制/Fuselage limits(m)
Nr. 136, 432, 605, 801	< 80	< 80
Nr. 525-532, 602-604, 803, 804, 827-829	< 65	< 76
Nr. 101, 102, 122-125, 131, 132, 134, 135, 137-141, 148-151, 171, 172, 431, 433, 434A, 436A, 438A, 704-709	< 65	< 75.5
Nr. 103-120, 121A/B, 126-130, 133A/B, 142-147, 152A/B, 153-170, 173-180, 401-412, 425-430, 501-507, 510-516, 519-521, 523A/B, 524, 601, 701-703, 802, 826	< 36	< 46.5
Nr. 508, 509, 517, 518	< 36	< 40
Nr. 805-816	< 24	< 27.5

3.4 机场地面设备代替 APU 管理规定

3.4 Ground equipment replace APU

3.4.1 为降低碳排放及噪音，所有停靠具有地面电源或地面空调设备停机位的航空器必须关闭 APU,使用 400Hz 地面电源及地面空调设备。以下特殊情况除外:

3.4.1 All aircrafts parking on stands with ground power or ground air conditioning equipment shall turn off APU, and use ground power(400Hz) and ground air conditioning equipment. Except for the following

circumstances:

(1) 相应停机位桥载设备故障，不能提供服务;

(1) Bridge equipment is unavailable;

(2) 航空器因启动发动机需要开启 APU;

(2) Aircraft needs APU to start up engine;

(3) 航空器进行 APU 的维修检测活动;

(3) APU is under maintenance;

(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。

(4) In case of exceptional circumstances influencing the operation safety, such as extreme weather, special plane support, insufficient flight transition time.

3.4.2 如航空器公司希望使用 APU，须在航班落地青岛机场前至少 2h 致电青岛国际机场集团有限公司机务维修公司申请，批准后方可使用 APU。

3.4.2 If the aircraft requires to use APU, airlines shall apply to the aircraft maintenance company of Qingdao International Airport Group Co. Ltd. at least 2 hours before landing for the pemission.

3.5 航空器试车规定

3.5 Regulations on Engine run-ups.

3.5.1 本场试车机位共三个：605，东方航空、山东航空自管机坪内各一个。东方航空、山东航空自管机坪内试车机位由机场管理部门统一调配使用。

3.5.1 Three run-ups stands in the airport: One is Stand Nr.605, and the other two are in the Airlines Self-management Apron. All run-ups stands are deployed by Aerodrome Management Department.

3.5.2 严禁未经机场 AOC、机坪管制员批准进行任何类型的试车。

3.5.2 Any type of engine run-ups is strictly forbidden without the clearance of AOC and APN.

3.5.3 翼展≥65m 航空器如在机坪范围推油门试车，需由机场管理部门确定时间并在指定位置进行。

3.5.3 In aprons, engine run-ups of aircrafts with wing span≥65m who need to push throttle should be confirmed by the aerodrom administration and carried out at the designated location at a certain time.

3.5.4 翼展＜65m 的航空器需要推油门的试车应在停机位 605 进行，试车时发动机尾喷应对准导流墙（机尾朝东）。

3.5.4 Engine run-ups of aircraft with wing span＜65m who need to push thrust should be carried out at the Stand Nr.605. During the engine run-ups, the engine tail should be aligned with the diversion wall (tail facing east).

3.5.5 冷转测试可在原停机位进行。怠速运转、不推油门的测试，可在除廊桥机位外的其他停机位进行。

3.5.5 Engine cool running test can be carried out at the local stand. Engine idle test without pushing thrust can be carried out at the other stands except at the broading bridge stands.

3.5.6 试车时发现任何影响安全的问题，应立即终止试车，并向 AOC、机坪管制员通报。

3.5.6 Engine run-ups must be terminated immediately if therecomes out any safety problem, and the AOC and APN shall be informed.

3.6 航空器除冰规则

3.6 Aircraft deicing rules

3.6.1 航空器除冰服务标准

3.6.1 Aircraft deicing service standards

3.6.1.1 本场航空器均采用定点除冰，采用定点慢车和定点关车两种除冰方式。

3.6.1.1 Aircraft at this airport shall deice at designated location, there are two ways for aircraft deicing service: deicing with aircraft engine idle and off.

3.6.1.2 定点慢车除冰实施条件：中雪（含）以下天气或能见度大于 150m，所有翼展＜36m 的航空器均实施慢车除冰。

3.6.1.2 Deicing with aircraft engine idle operation: all aircraft wingspan < 36m and light to moderate snow(inclusive) or visibility > 150m.

3.6.1.3 定点关车除冰实施条件：天气条件不满足慢车除冰作业或翼展≥36m 的航空器均实施关车除冰。

3.6.1.3 Deicing with aircraft engine off operation: when deicing with aircraft engine idle is forbidden due to weather or the aircraft wingspan≥36m.

3.6.2 航空器除冰程序

3.6.2 Procedures of aircraft deicing

3.6.2.1 申请：机组在航班登机前通过 OP-CTL 提出申请，明确除冰需求。

3.6.2.1 Deicing demand: Aircraft crews shall apply by OP-CTL before boarding.

3.6.2.2 入位：机组按照管制指令滑入除冰机位：

3.6.2.2 Taxiing into deicing stands: The aircraft shall be instructed by ATC to taxi into the deicing stand.

(1) 翼展＜36m 的航空器自滑进入除冰位；

(1) Aircrafts with wingspan < 36m taxi into the deicing stand by itself;

(2) 翼展≥36m 的航空器由机务地面入位引导员负责引导入位。

(2) Aircrafts with wingspan≥36m taxi into the decing stand by ground personnel.

3.6.2.3 除冰作业

(1) 航空器入位后，机组通过地面频率（机场、东上航、青岛航所属或协议航空公司使用 132.00MHz，山航所属或协议航空公司使用 128.85MHz）或内话耳机（翼展≥36m 的航空器）与除冰指挥员建立联系，按要求实施除冰工作。

(2) 慢车除冰过程中，飞机发动机推力应始终保持在“GND idle”。

3.6.2.4 除冰结束：完成除冰作业后，除冰指挥员通知机组并告知相关除防冰信息，机组向机坪管制员申请滑出。

4. 低能见度运行

4.1 实施标准II类运行/使用 HUD 实施特殊批准的II类运行

胶东机场 16、17 跑道可实施标准II类运行，且具备 HUD RVR 150m 起飞保障能力。34、35 跑道可使用 HUD 实施特殊批准的II类运行，且具备 HUD RVR150m 起飞保障能力。

4.2 低能见度运行程序的准备、实施和结束

4.2.1 通知启动低能见度运行准备的时机为：

(1) 接地端跑道视程（RVR）＜800m，预测天气将下降为满足低能见度运行天气标准且持续下降；

(2) 跑道起降端云高或垂直能见度＜90m，预测天气

3.6.2.3 Deicing operation

(1) After setting parking brake on, the crews use the GND or interphone headset to contact with the deicing controller, implement deicing according to the instructions.

(2) Keep aircraft engine thrust on "GND idle" while deicing with aircraft engine idle.

3.6.2.4 Complete deicing: After completing deicing, the deicing controller informs the crew relevant deicing information. The crews apply to APN for taxiing out.

4. Low visibility operation

4.1 Standard CAT II operation and special CAT II operation based on HUD

Standard CAT II and HUD RVR 150m take-off operation is available for RWY16,17. Special CAT II operation based on HUD and HUD RVR 150m take-off operation is available for RWY34, 35.

4.2 Preparation, implementation and termination of Low Visibility Operation Procedures

4.2.1 Under the following circumstances received from ATC, AOC will start-up preparation for Low Visibility Operation Procedures:

(1) The RVR at the touchdown end < 800m, and the weather is predicted to decline to meet the Low Visibility Operation standards and continue to decline;

(2) The ceiling or vertical VIS at the take-off and

将下降为满足低能见度运行天气标准且持续下降。

landing end of the RWY < 90m, and the weather is predicted to decline to meet the Low Visibility Operation standards and continue to decline.

4.2.2 当 150m≤跑道起降端跑道视程（RVR）＜550m 或 30m≤跑道起降端云高（云量≥5/8）或垂直能见度＜60m，经确认机场、空管等保障单位具备低能见度保障条件时，空管塔台管制宣布启动低能见度运行。

4.2.2 When 150m≤ RVR at the take-off and landing end of the RWY< 550m or 30m ≤ ceiling at the take-off and landing end of the RWY (cloud cover≥ 5/8) or vertical VIS< 60m, the airport, ATC and other support units confirmed to have the capability of Low Visibility Operation, TWR will instruct the implementation of Low Visibility Operation Procedures.

4.2.3 当出现跑道视程（RVR）＜150m 或云高（或垂直能见度）＜30m 时，保持低能见度运行程序启动状态，暂停航空器使用低能见度运行程序进行起降。

4.2.3 When RVR < 150m or the ceiling (or vertical VIS) < 30m, keep the Low Visibility Operating Procedures activated and suspend the use of Low Visibility Operating Procedures for aircraft to take-off and land.

4.2.4 当出现跑道视程（RVR）≥550m 和云高（或垂直能见度）≥60m，并呈上升趋势，或机场、空管等保障单位不具备低能见度保障条件时，空管塔台对运行情况综合研判决定结束低能见度运行程序。

4.2.4 When RVR≥ 550m and ceiling (or vertical VIS) ≥ 60m and forecast shows a increasing trend, or the airport, ATC and other support units do not have the capability of Low Visibility Operation, TWR will instruct the termination of Low Visibility Operation Procedures.

4.3 低能见度地面滑行路线详见《低能见度滑行路线图》。

4.3 Aircraft taxiing route under low visibility operation refer to Low Visibility Operation Taxiing Route Chart.

4.4 航空公司在需要实施II类运行精密进近着陆练习时，应提前向机场提出申请，经机场、空管同意后方可实施，航空公司应事先做好实施前准备工作和必要的安全应急措施。

4.4 If airlines need a training for ILS CAT II operation, airlines shall ask for permission from ATC department and AD administration in advance. Before implementation, airlines shall be prepared with necessary emergency solutions.

5. 直升机飞行限制，直升机停靠区

无

6. 警告

无

5. Helicopter operation restrictions and helicopter parking/docking area

Nil

6. Warning

Nil

ZSQD AD 2.21 减噪程序

1 噪音限制规定

1.1 航空器起飞减噪操作程序，用于起飞爬升阶段，目的是在确保飞行安全的前提下，尽量减少噪音对地面的影响;

1.2 青岛机场采用国际民航组织制定的消噪声离场程序 1（NADP1），旨在降低起飞跑道末端附近区域的噪音。

2 减噪程序

2.1 在保证飞行安全的情况下，要求所有飞行员执行以下减噪飞行操作程序:

2.1.1 在航空器起飞性能允许的情况下，尽可能使用减推力起飞;

2.1.2 航空器起飞爬升到 450m/1500ft(QNH)，调整和保持发动机爬升功率/推力,保持爬升速度 V2+20km/h（10kt），保持襟翼和缝翼在起飞状态;

2.1.3 航空器起飞爬升到 910m/3000ft(QNH)以上，转为正常航路爬升速度，并按程序收襟翼/缝翼。

ZSQD AD 2.21 Noise abatement procedures

1 Noise restrictions

1.1 Aircraft take-off noise abatement operation procedure is used for take-off and climbing phase. The purpose is to minimize the impact of noise on the ground in the premise of ensuring flight safty;

1.2 QingDao International Airport adopts ICAO Noise Abatement Departure Procedure 1 (NADP1 issued by ICAO) to reduce noise in the area near DER.

2 Noise abatement procedures

2.1 In condition of complying with the requirements of flight safty, the following noise abatement procedures shall be implemented :

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

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

2.1.3 Above ALT 910m/3000ft(QNH), accelerate to normal en-route climb speed and retract flaps/slats on

schedule.

2.2 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青岛塔台并说明理由（校验飞行等特殊飞行除外）。

2.2 If the procedures can not be implemented due to any reason except ATC , pilot shall inform Qingdao Tower with a reasonable explanation before take-off (except for special flights such as calibration flights).

ZSQD AD 2.22 飞行程序

1. 总则

1.1 除经青岛进近或青岛塔台特殊许可外，在青岛进近管制区和塔台管制区内的飞行，均须按照仪表飞行规则进行。

1.2 青岛胶东国际机场全天 24h 实施以 RNAV 飞行程序为主用，传统飞行程序为备用的运行模式。

1.3 凡不符合青岛胶东国际机场 RNAV 程序运行要求的航空器，驾驶员应在首次联系时告知管制员。

2. 起落航线

RWY17/35 起落航线在跑道西侧进行，RWY16/34 起落航线在跑道东侧进行；C、D 类航空器高度 450m（QNH），A、B 类航空器高度 300m（QNH）。

3. 仪表飞行程序

严格按照航图中公布的进、离场程序和进近程序飞行。当 ATC 指令高度与进离场程序中各类限制高度不一致时，以 ATC 部门的指令高度为准。

ZSQD AD 2.22 Flight procedures

1. General

1.1 Flights within Qingdao APP Area and TWR Control Area shall operate under IFR unless special clearance has been obtained from Qingdao APP or TWR Control.

1.2 RNAV flight procedures are primary procedures and traditional procedures are secondary procedures in Qingdao/Jiaodong airport for 24 hours.

1.3 Pilot shall inform ATC at the first contact when the aircraft can not execute RNAV flight procedures.

2. Traffic circuits

Traffic circuits shall be made to the W of RWY17/35 or to the E of RWY16/34, at the ALT of 450m(QNH) for aircrafts CAT C/D, and at 300m(QNH) for aircrafts CAT A/B.

3. IFR flight procedures

Strict adherence is required to the relevant ARR/DEP/APCH procedures published in the aeronautical charts. Follow ATC instructions when the instructions have a conflict with the ALT limits in the charts.

4. 雷达程序和/或 ADS-B 程序

在青岛进近管制区管制范围内，航空器间雷达管制最小水平间隔标准为 5.6km。

4. Radar procedures and/or ADS-B procedures

Radar control within Qingdao APP has been implemented. The minimum horizontal radar separation is 5.6km.

5. 无线电通信失效程序

5.1 航空器单向通信失效

5.1.1 航空器如果只具有信号接收能力，根据接收到的管制指令继续飞行，同时管制员将向沿途有关管制单位发送有关通信失效的情报。

5. Radio communication failure procedures

5.1 Aircraft communication partly failure

5.1.1 If the radio receiver is available, the radio transmitter is not available, continue flying in accordance with ATC instructions. At the same time, ATC shall send information to the relevant control unit about communication failure.

5.1.2 航空器如果只具备信号发送能力，航空器驾驶员应当立即将飞行意图告知管制员，并及时报告位置和高度信息，管制员根据航空器驾驶员报告的意图迅速调配其他的飞机避让。如有可能，管制员将通知航空器运营人使用其内部通信方式（如卫星电话）与该航空器联系。

5.1.2 If the radio transmitter available, the radio receiver is not available, the aircraft shall inform the flight intention to ATC immediately and report position and altitude in time, then ATC command other aircrafts to avoid the conflicts. If possible, ATC will inform aircraft operator to contact with aircraft by internal communication(e.g. satellite telephone).

5.2 航空器双向通信失效

参见 AIP 总则 3.4.5 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 Aircraft communication totally failure

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

5.3 本场通信失效

本场无线电收发功能失效，航空器无法与管制单位建立有效的通信联系时，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 Local control unit communication failure

If local control unit communication fails, when unable to establish effective contact with the control unit, the aircraft should contact the last control unit, and continue flying in accordance with its instructions.

6. 目视飞行程序

无

7. 目视飞行航线

无

8. 其它规定

无

6. Procedures for VFR flights

Nil

7. VFR route

Nil

8. Other regulations

Nil

ZSQD AD 2.23 其它资料

鸟情资料

胶东机场位于东亚-澳大利亚候鸟迁徙带，其三面环河、林田众多、地势低洼，生态环境复杂多样，季节性鸟类活动突出。机场周边常见鸟类 30 余种，机场附近鸟类的栖息地包括大沽河河流、大沽河河口、胶州湾滩涂、芦苇沼泽、人工库塘、滨海养殖池塘、机场周边居民区、农田等。鸟类种类和数量表现为：9 月下旬至 10 月中旬种类和数量最多，10 月中旬至 2 月为冬季鸟类活动时间，2 月下旬至 4 月下旬最少，5 月至 8 月为鸟类繁殖期。其中，3 月至 5 月中旬因夏候鸟迁到、冬候鸟飞离，9 月下旬冬候鸟迁到、夏候鸟飞离，此期间鸟类种类组成变化大。鸟类剐蹭航空器规律与季节性鸟类活动一致，3 月底至 5 月初、8 月底至 10 月中旬鸟击概率大，夜间 20:00 左右为高峰期，须关注 300m、900m、1200m 高度。主要防治措施以采用“生态防、科技防、人工防”相结合的方式降低机场鸟类活动数量及频率，生态防治包括防虫、控草、治水、灭鼠等从食物链、生存环境等源头治理；科技防治主要以探驱鸟设备为基础，进行听觉、视觉

ZSQD AD 2.23 Other information

Bird’s information

Qingdao Jiaodong International Airport is located on the East Asia-Australia migratory bird migration route, which is surrounded by rivers on three sides, forests and fields, low-lying terrain. The ecological environment around the airport is complex, accompanied with seasonal bird activities. There are more than 30 common species of birds around the airport, and the habitats that include the Dagu River, the estuary of the Dagu River, the mudflats of Jiaozhou Bay, reed marshes, artificial reservoirs, coastal breeding ponds, the residential areas, and farmlands. The species and numbers of birds are as follows: late SEP to mid-OCT has the highest number of species and numbers, the winter activity time from mid-OCT to FEB, the lowest number of birds from late FEB to late APR, and the breeding period from MAY to AUG. In particular, the composition of bird species varies greatly during this period due to the arrival of summer migratory birds and departure of winter

威慑；人工防治包括驱鸟车辆携带驱鸟设备进行流动巡视、应急处置等。

migratory birds from MAR to mid-MAY, and the arrival of winter migratory birds and departure of summer migratory birds in late SEP. The activity pattern of birds cutting aircraft is consistent with seasonal bird activities, and the probability of bird strikes is high from the end of MAR to the beginning of MAY and from the end of AUG to the mid-OCT,with a peak period around 12:00(UTC). We must pay attention to the heights of 300m, 900m, and 1200m. The main prevention and control measures to reduce the number and frequency of bird activities at the airport by combining “ecological prevention, technological prevention, and artificial prevention”. Ecological prevention includes pest control, grass control, water treatment, rodent control, which is to manage the food chain and the living environment from the source. Technological prevention are mainly based on the exploration of bird-repellent equipment to perform auditory and visual deterrence. Artificial prevention includes driving bird-driving vehicles with bird-driving equipment to carry out mobile patrols and emergency disposal.

飞行区内发现的主要鸟类活动特征:

Characteristics of common bird activities around the airport:

名称/Species	活动季节/Season of ACT	活动时间/Duration of ACT	飞行高度/Flight HGT	影响范围/Impact area
Phasianus colchicus	Common in all seasons, resident	Daytime	BLW 50m	Grassland at the AP, surrounding

	bird			farmland
Streptopelia orientalis	Common in all seasons, resident bird	Evening and nighttime	BLW 100m	AP forest , and grassland
Pica pica	Common in all seasons, resident bird	Daytime	BLW 100m	AP forest, residential area
Passer montanus	Common in all seasons, resident bird	Daytime	BLW 30m	AP perimeter, farmland, residential area
Falco tinnunculus	Common in all seasons, resident bird	Daytime	BLW 300m	AP and surrounding farmland
Tachybaptus ruficollis	Common in all seasons, resident bird	Daytime	BLW 40m ABV the water SFC	AP reservoir, Dagu River
Anas zonorhyncha	Common in all seasons, resident bird	Daytime	BLW 150m ABV the water SFC	Dagu River, echinohontan reservoir, AP airspace
Hirundo rustica	Late APR - early OCT, summer migratory birds	Daytime	BLW 500m	Residential area and AP overground
Egretta garzetta	Late APR - early OCT, summer migratory birds, few wintering	Daytime	BLW 100m	AP reservoir, grassland, surrounding farmland, forest,

				river
Nycticorax nycticorax	Late APR - early OCT, summer migratory birds	Nighttime	BLW 90m	AP reservoir, grassland, surrounding farmland, forest, river
Anas platyrhynchos	Late MAR - late APR and late SEP - early NOV, migratory, few breeding or wintering	Daytime	BLW 200m ABV the water SFC	Dagu River, echinohontan reservoir, AP airspace
Anthus richardi	Late MAR - late APR and late SEP - late OCT, migratory passerines	Daytime	BLW 200m	Grassland at the AP, AP airspace
Turdus eunomus	Late MAR - late APR, late SEP - late OCT Migratory, few wintering	Nighttime	BLW 100m	AP and surrounding airspace
Ardea cinerea	Late OCT - early APR, wintering birds	Daytime	BLW 100m	Grassland at the AP, forest, river
Larus smithsonianus	Late NOV - early APR, wintering birds	Daytime	BLW 300m ABV the water SFC	Dagu River Estuary, Jiaozhou Bay bottom, AP airspace
Fulica atra	Late NOV - late MAR, wintering	Daytime	BLW 50m ABV the water SFC	AP reservoir, Dagu River

	birds, few resident birds			
Asio flammeus	Late NOV - late MAR, wintering birds, few resident birds	Daytime	BLW 100m	Surrounding forest
Alauda gulgula	Late SEP - late MAR, wintering birds	Daytime	BLW 200m	Farmland, grassland, surrounding farmland, villages and houses