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

ZLIC-银川/河东 YINCHUAN/Hedong

ZLIC 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	N38 °19.2' E106 °23.6'
1	ARP coordinates and site at AD	RWY centre
2	方向、距离	147 °GEO, 18.7km from old city drum-tower
_	Direction and distance from city	7.7, 020, 107.111 11011 010 010, 01011 00.101
3	标高/参考气温	1141.3m/30.7 ℃(JUL)
3	Elevation / Reference temperature	1141.5ll/30.7 C(30L)
4	机场标高位置/大地水准面波幅	300m inward THR03/-
4	AD ELEV PSN / geoid undulation	300iii iiiwatu 17fK03/-
5	磁差/年变率	29/40/33/2014\/
3	MAG VAR/ Annual change	2°49′W(2014)/
	机场管理部门、地址、电话、传真、AFS、	Ningxia airport CO.LTD of China West Airport Group
6	电子邮箱、网址	Yinchuan Hedong International Airport Post code:750009
0	AD administration, address,	TEL:86-951-6912293
	telephone,telefax, AFS, E - mail, website	Website:www.ningxiaairport.com
7	允许飞行种类	IFR/VFR
/	Types of traffic permitted(IFR / VFR)	IPK/ VPK
	机场性质/飞行区指标	CIVIII (4F
8	Military or civil airport &Reference code	CIVIL/4E
9	备注	
	Remarks	Nil

ZLIC AD 2.3 工作时间 Operational hours

1	机场当局(机场开放时间)	1104
	AD Administration (AD operational hours)	H24
2.	海关和移民	H24
2	Customs and immigration	H24
	卫生健康部门	H24
3	Health and sanitation	H24
4	航行情报服务讲解室	H24
	AIS Briefing Office	N24

5	空中交通服务报告室 ATS Reporting Office (ARO)	H24
6	气象讲解室 MET Briefing Office	H24
7	空中交通服务 ATS	H24
8	加油 Fuelling	H24
9	地勤服务 Handling	H24
10	保安 Security	H24
11	除冰 De-icing	H24
12	备注 Remarks	Nil

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

1	货物装卸设施 Cargo-handling facilities	Tow truck, collection paneling trailer, container tractor, container lift truck(14 tons), conveyor truck
2	燃油/滑油牌号 Fuel/oil types	Nr.3 jet fuel
3	加油设施/能力 Fuelling facilities/capacity	Refueling truck(4000, 10000, 20000, 35000, 45000, 49000 liters), Hydrant dispenser; 17 litres/sec Apron refueling well
4	除冰设施 De-icing facilities	South deicing apron(stands Nr.301, 302) and north deicing apron(stand Nr.201) De-icer, de-icing fluid(I/II), deicing fluid filling vehicle, deicing fluid filling station
5	过站航空器机库 Hangar space for visiting aircraft	Nil
6	过站航空器的维修设施 Repair facilities for visiting aircraft	Line maintenance available for various type of aircraft on request; ladder; lifting jack(65 tons)
7	备注	ground power unit, ground air supply unit

Remarks	
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ZLIC AD 2.5 旅客设施 Passenger facilities

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

ZLIC 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 8
2	援救设备 Rescue equipment	Rapid intervention vehicle, primary foam tender, heavy-duty foam tender, dry-chemical tender, water tank truck, illumination truck, dissassembly rescue truck, command car, rescue logistics truck
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	Nil
4	备注 Remarks	Nil

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

1	可用季节及扫雪设备类型 Types of clearing equipment	All seasons snow blower	
2	扫雪顺序	RWY, TWY, Apron	
	Clearance priorities	, , ,	
3	备注	Nil	

Remarks

ZLIC AD 2.8 停机坪、滑行道及校正位置数据 Aprons, taxiways and check locations data

		Surface:	CONC	
1	停机坪道面和强度 Apron surface and strength	Strength:	PCN 77/R/B/W/T(apron Nr.3, south and nouth deicing apron, cargo apron) PCN 72/R/A/W/T(apron Nr.2) PCN 66/R/B/W/T(apron Nr.1)	
	滑行道宽度、道面和强度 Taxiway width, surface and strength	Width:	38m: A2, A8, D3-D5 34m: A5, A6, A9, D2 30.5m: A4, A10 28.5m: A1, A3, A7, D1 23m: A, T1-T4	
2		Surface:	Asphslt: A2, A4, A8 CONC: A, A1, A3, A5-A7, A9, A10, D10-D5, T1-T4	
		Strength:	PCN 77/R/B/W/T: A10, D3-D5, T1&T2(apron Nr.3), T3 PCN 73/F/B/X/T: A4, A8 PCN 72/R/A/W/T: A, A1, A3, A7, A9, T1&T2(apron Nr.2) PCN 66/R/B/W/T: A5, A6, D1, D2, T1&T2(apron Nr.1), T4 PCN 66/F/B/X/T: A2	
3	高度表校正点的位置及其标高 ACL location and elevation	Nil		
4	VOR/INS 校正点 VOR/INS checkpoints	Nil		
5	备注 Remarks	Nil		

ZLIC 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	Guide lines at all TW	ication sign board at stands.
2	跑道和滑行道标志及灯光	RWY markings	THR, RWY designation, center line, edge line, TDZ, aiming point

	RWY and TWY marking and LGT	RWY lights	THR,wingbar for RWY03 center line, edge line, RWY end	
		TWY markings	Center line, edge line, intermediate holding position, RWY holding position, No-entry marking	
		TWY lights	Edge line (reflector sticks), center line, RWY guard	
3	停止排灯	Nil		
3	Stop bars	INII		
4	备注	Rlue aprop adge line	e lights(reflector sticks), red OBST lights	
4	Remarks	Blue aproll edge line		

ZLIC AD 2.10 机场障碍物 Aerodrome obstacles

Obstacles within	Obstacles within a circle with a radius of 15km centered on the center of ARP						
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks	
1	*Pole	021	1682	1150.1			
2	*Pole	021	1771	1149.6			
3	*Antenna	032	2060	1128.7			
4	*Antenna	032	3435	1141.0	RWY21 GP INOP、 VOR/DME		
5	*Antenna	037	1518	1143.0			
6	Chimney	074	13846	1293.7			
7	BLDG	084	2888	1197.0	Circling CAT A		
8	Chimney	097	11691	1455.0			
9	MT	110	6464	1305.0			
10	MT	117	2076	1185.0			
11	Chimney	122	10417	1454.3			
12	Chimney	137	12116	1341.0			
13	MT	155	9032	1415.0	Circling CAT C		
14	MT	163	5335	1264.0	Circling CAT B		
15	MT	164	10922	1512.0	Circling CAT D		

Obstacles within	a circle with a radius of	of 15km centered or	n the center of A	ARP		
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
16	MT	166	11327	1447.0		
17	MT	182	5747	1248.0	RWY03 VOR/DME	
18	MT	184	7257	1291.0		
19	MT	184	10659	1241.0		
20	MT	186	2310	1183.0		
21	*Antenna	207	1510	1156.0		
22	MT	207	7179	1187.0	RWY03 GP INOP	
23	*Antenna	212	2060	1142.5		
24	*Pole	221	1956	1157.6		
25	*Pole	223	1968	1157.3		
26	*Pole	225	1780	1162.7		
27	*Pole	226	1697	1163.0		
28	*Pole	229	1096	1158.2		
29	*Pole	230	1019	1157.8		
30	*Pole	231	943	1157.7		
31	*Pole	242	618	1156.5	RWY03 ILS/DME	
32	*Pole	246	559	1156.3		
33	*Pole	250	503	1156.0		
34	*Pole	259	422	1155.3		
35	*Pole	267	376	1155.1		
36	*BLDG	270	780	1160.7		
37	*Pole	278	340	1155.0		
38	*TWR	287	1234	1199.2		
39	*Pole	290	317	1154.9		
40	*Pole	310	313	1154.9		

Obstacles within a circle with a radius of 15km centered on the center of ARP							
序号	障碍物类型(*代表	磁方位	距离	海拔高度	影响的飞行程序及起飞	备注	
Serial Nr.	有灯光)	BRG	DIST(m)	Elevation(m)	航径区	Remarks	
	Obstacle	(MAG)(degree)			Flight procedure / take -		
	type(*Lighted)				off flight path area		
					affected		
41	*Pole	322	330	1154.6			
42	*Pole	332	359	1154.3	RWY21 ILS/DME		
43	*TWR	334	734	1186.0			

Others:

No significant obstacle in the take-off flight path area.

Obstacles between	een two circles with the	radius of 15km and	1 50km centered	on the center of AI	RP	
序号 Serial Nr.	障碍物类型(*代表 有灯光) Obstacle type(*Lighted)	磁方位 BRG (MAG)(degree)	距离 DIST(m)	海拔高度 Elevation(m)	影响的飞行程序及起飞 航径区 Flight procedure / take - off flight path area affected	备注 Remarks
1	Chimney	018	27591	1318		
2	MT	060	26144	1218		
3	MT	063	39849	1320		
4	MT	070	25854	1293		
5	MT	074	29864	1327		
6	Chimney	080	30148	1543		
7	MT	082	43182	1414		
8	MT	097	34523	1351		
9	MT	106	15548	1236		
10	Chimney	128	16975	1496		
11	Chimney	130	44670	1514		
12	MT	132	33222	1443		
13	Chimney	134	25075	1500		
14	MT	138	46749	1453		

序号	障碍物类型(*代表	磁方位	距离	海拔高度	影响的飞行程序及起飞	备注
Serial Nr.	有灯光)	BRG	DIST(m)	Elevation(m)	航径区	Remark
	Obstacle	(MAG)(degree)			Flight procedure / take -	
	type(*Lighted)				off flight path area	
	_				affected	
15	Chimney	143	32362	1466		
16	Chimney	148	19831	1494		
17	Chimney	149	34900	1547		
18	Chimney	153	35787	1530		
19	MT	159	32105	1435		
20	MT	162	52423	1626	sector	
21	MT	171	15802	1411		
22	MT	173	47439	1468		
23	Chimney	181	26277	1444		
24	Chimney	192	18793	1326		
25	TWR	193	18792	1335		
26	Chimney	211	47780	1340		
27	MT	279	48764	1803		
28	BLDG	301	27577	1230		
29	MT	306	53386	3150	sector	
30	TWR	308	28574	1297		
31	BLDG	315	22130	1246		

ZLIC AD 2.11 提供的气象信息、机场观测与报告 Meteorological information provided & aerodrome observations and reports

1	相关气象台的名称 Associated MET Office	Ningxia 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	Ningxia ATMB MET Observatory 9 HR, 24 HR
4	趋势预报发布间隔 Issuance interval of trend forecast	Trend 1 HR
5	所提供的讲解/咨询服务 Briefing/consultation provided	P, T
6	飞行文件及其使用语言 Flight documentation, Languages used	Chart, International MET Codes, Abbreviated Plain Language Text, Ch, En
7	讲解/咨询服务时可利用的图表和其它信息 Charts and other information available for briefing or consultation	Synoptic charts, significant weather charts, upper W/T charts, satellite and radar material, AWOS real-time data
8	提供信息的辅助设备 Supplementary equipment available for providing information	FAX, MET Service Terminal, meteorological radar echoes monitor, satellite cloud monitor, AWOS data monitor.
9	提供气象情报的空中交通服务单位 ATS units provided with information	APP, TWR, ARO
10	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
11	气象报告类型及所包含的补充资料 Type of MET Report & supplementary information included	METAR, SPECI, TEND
12	观测系统及位置 Observation System & Site(s)	RVR EQPT (ATI) A: 90m E of RCL,368m inward THR; B: 90m E of RCL,1800m inward THR; C: 95m E of RCL,300m inward THR. RVR EQPT (FS) 90m E of RCL,300m inward THR. SFC wind sensors 03: 110m E of RCL,338m inward THR; RWY center: 110m E of RCL,1800m inward THR 21: 110m E of RCL,300m inward THR

		Ceilometer
		03: 115m W of RCL,260m outward THR.
		21: 115m W of RCL,260m outward THR.
13	气象观测系统的工作时间 Hours of operation for meteorological observation system	H24
14	气候资料 Climatological information	Climatological tables AVBL
15	其他信息 Additional information	TEL: 86-951-6911236

ZLIC AD 2.12 跑道物理特征 Runway physical characteristics

跑道号码 Designations RWY NR	真方位和磁方 位 TRUE &MAG BRG	跑道长宽 Dimensions of RWY(m)	跑道强度(PCN), 跑道道面/停止 道道面 RWY strength (PCN), RWY surface / SWYsurface	着陆入口坐标及 高程异常 THR coordinates and geoid undulation	跑道入口标高,精密进近 跑道接地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
03	029 GEO 032 MAG	3600×45	66/R/B/W/T CONC/-		THR1139.9m
21	209 GEO 212 MAG	3600×45	66/R/B/W/T CONC/-		THR1126.6m
跑道-停止道坡度 Slope of RWY-SWY	停止道长宽 SWY dimensions(m)	净空道长宽 CWY dimensions(m)	升降带长宽 Strip dimensions(m)	无障碍物区 OFZ	跑道端安全区长宽 RWY end safety area dimensions(m)
7	8	9	10	11	12
See Remark	Nil	Nil	3720×300	Nil	240×150
See Remark	Nil	Nil	3720×300	Nil	240×150

Remark:

1.RWY shoulder: 7.5m each side;

2.Anti-blast pad: RWY03:120m×60m; RWY21:60m×60m;

 $3. Slope \ of \ RWY: THR03 \rightarrow THR21: +0.47\% \ (300m); -0.45\% \ (3300m); \ THR21 \rightarrow THR03: \ +0.45\% \ (3300m); -0.47\% \ (300m).$

ZLIC 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
03	3600	3600	3600	3600	Nil
03	3200	3200	3200	3600	FM A9
21	3600	3600	3600	3600	Nil
21	3400	3400	3400	3600	FM A2
Remarks:					

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

跑道 代号 RWY Desig nator	进近灯 类型、 长度、 强度 APCH LGT type LEN INTST	入口灯 颜色、 翼排灯 THR LGT colour WBAR	目视进近坡 度指示系统(跑道入口最 低眼 近新道 指示器 VASIS (MEHT) PAPI	接地地带 灯长度 TDZ LGT LEN	跑道中心线灯 长度、间隔、 颜色、强度 RWY Center line LGT LEN, spacing, colour, INTST	跑道边灯长 度、间隔、颜 色、强度 RWY edge LGT LEN, spacing, colour, INTST	跑道末端 灯颜色 RWY end LGT colour	停止道灯 长度、颜 色 SWY LGT LEN, colour
1	2	3	4	5	6	7	8	9
03	PALS CAT I* 900m LIH	GREEN Yes	PAPI LEFT 366m inward THR03 3°	Nil	3600m** spacing 30m	3600m*** spacing 60m	RED	Nil
21	PALS CAT I 900m LIH	GREEN 	PAPI LEFT 340m inward THR21 3°	Nil	3600m** spacing 30m	3600m*** spacing 60m	RED	Nil

Remarks:

*SFL

**up to 2700m WHITE VRB LIH, 2700-3300m RED/WHITE VRB LIH, 3300-3600m RED VRB LIH

***up to 3000m WHITE VRB LIH, 3000-3600m YELLOW VRB LIH

ZLIC AD 2.15 其他灯光,备份电源 Other lighting, secondary power supply

1	机场灯标/识别灯标位置、特性和工作时间 ABN/IBN location, characteristics and hours of operation	Nil
2	着陆方向标/风向标位置和灯光 LDI/WDI location and LGT	WDI: RWY03:130m east of center line, 366m inward THR RWY21:130m east of center line, 360m inward THR
3	滑行道边灯和中线灯 TWY edge and center line lighting	TWY edge reflector sticks and center line lights.
4	备份电源/转换时间 Secondary power supply/switch-over time	Secondary power supply/1s, diesel dynamotor/15s
5	备注 Remarks	Nil

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

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

ZLIC AD 2.17 空中交通服务空域 ATS airspace

名称 Designation	水平范围 Lateral limits	垂直范围 Vertical limits	备注 Remarks
Yinchuan tower control are	A region bounded by 2 parallel lines 10km to RCL and 2 arcs centered at ARP with radius of 15km.	SFC to 1800m(QNH)	
Altimeter setting region and TL/TA	N385444E1063628-AGVEN-DOXED-MIMOK-IDGOB-DOMVA - N374453E1054307 - N385444E1063628	TL 3600m TA 3000m 3300m(QNH≥1031hPa) 2700m(QNH≤979hPa)	

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

服务名称 Service Designation	呼号 Call sign	频率 Frequency (MHz)	工作时间 Hours of operation	备注 Remarks
1	2	3	4	5
ATIS		126.65	H24	
APP	Yinchuan Approach	124.05(119.1)AP01	H24	
APP	Yinchuan Approach	125.6(119.1)AP02	0000-1000	Contact ZLIC AP01 when ZLIC AP02 U/S.
APP	Yinchuan Approach	126.075(119.1)AP03	by ATC	Contact ZLIC AP02 when ZLIC AP03 U/S.
APP	Yinchuan Approach	119.4(119.1)AP04	by ATC	Contact ZLIC AP01 when ZLIC AP04 U/S.
TWR	Yinchuan Tower	118.35(130.0)	H24	
GND	Yinchuan Ground	121.8	2300-1400(NEXT DAY) or by ATC	
APN	Yinchuan Apron	121.95	H24	
OP-CTL	Yinchuan Operation Control	121.6	HS	
EMG		121.5	H24	_

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

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标 高 Elevation of DME transmitting antenna	备注 Remarks
1	2	3	4	5	6

设施名称和类型 Name and type of aid	识别 ID	频率 Frequency	发射天线位置、坐标 Antenna site coordinates	DME 发射天线标 高 Elevation of DME transmitting antenna	备注 Remarks
Yinchuan VOR/DME	YHD	112.0MHz CH57X	N38°20.8′ E106°24.6′	1141m	VOR: R032 °,within 0.2NM for approach procedure U/S
Wuzhong VOR/DME	DWZ	112.4MHz CH71X	N37 '55.3' E106 '20.6'	1103m	
NDB	V	249kHz	032 MAG/1000m FM THR21		
LOC 03 ILS CAT I	ITY	109.3MHz	032 MAG/260m FM RWY03 end		Beyond 030 °rightside of front course U/S
GP 03		332.0MHz	120m E of RCL, 302m inward THR03		Angle 3°, RDH 16.9m
DME 03	ITY	CH30X (109.3MHz)	125m E of RCL, 304m inward THR03	1146m	Co-located with GP03
LOC 21 ILS CAT I	IVO	108.5MHz	212 MAG/260m FM RWY21 end		
GP 21		329.9MHz	120m E of RCL, 285m inward THR21		Angle 3 °, RDH 15m
DME 21	IVO	CH22X (108.5MHz)	125m E of RCL, 287m inward THR21	1132m	Co-located with GP

ZLIC AD 2.20 本场飞行规定

ZLIC AD 2.20 Local traffic regulations

1. 机场使用规定

- 1.1 本机场不提供航空汽油,如需加油应提前与中航油西北公司联系申请计划。
- 1.2 本场实施机坪运行管理,银川机坪负责机坪内 航空器的推出、开车、滑行、停放、拖曳等工作。

1. Airport operations regulations

- 1.1 Aviation gasoline not supplied. If necessary, pilot shall apply for gasoline with China Aviation Oil Supply Northewest Corporation in advance.
- 1.2 Yinchuan APN is responsible for aircraft push-back, start-up, taxi, park, drag and other

银川地面负责所有航空器放行许可的发布,当银 川塔台与地面合并后,由银川塔台负责。

operations. Aircraft shall contact Yinchuan GND for delivery clearance. Yinchuan TWR is available for delivery clearance when merge with Yinchuan GND.

1.3 离港航空器的操作程序

- 1.3 Procedure for departing aircraft
- 1.3.1 机组向银川地面申请放行许可。
- 1.3.1 Obtain delivery clearance from Yinchuan GND.
- 1.3.2 银川地面指挥已放行航空器脱波联系银川机坪, 航空器准备好后向银川机坪申请推出开车。
- 1.3.2 Contact Yinchuan APN and apply for push-back and start-up clearance from APN when aircraft standby.
- 1.3.3 滑出由银川机坪指挥航空器滑至移交点,移交银川塔台指挥。
- 1.3.3 Taxi to hand over point under Yinchuan APN's instruction, then contact Yinchuan TWR.

1.4 进场航空器的操作程序

- 1.4 Procedure for arriving aircraft
- 1.4.1 银川塔台将脱离跑道的航空器指挥至移交点,由银川机坪继续指挥。
- 1.4.1 Vacate and taxi to hand over point under Yinchuan TWR's instruction, then contact Yinchuan APN.

2. 跑道和滑行道的使用

2. Use of runways and taxiways

2.1 滑行道使用限制

2.1 Limits for TWYs

滑行道/TWYs	滑行道翼展限制/Wing span limits for TWYs
T1,D1(BTN T1&T2)	<65m
T4	52m≤wing span<65m
T2,T3,D2-D4(BTN T1&T2),D5(BTN T1&T3)	<52m
D5(west of T3)	<36m

- 2.2 通常情况下,起飞航空器从等待位置到对正跑 道时间应控制在 60s 以内;着陆航空器从接地到滑 出跑道应控制在 50s 以内;如需更长时间占用跑 道,应尽早通知管制员。
- 2.3 地面风与跑道转换程序
- 2.3.1 顺风分量持续大于 3.5m/s 时,管制部门需要 对跑道运行方向进行转换。
- 2.3.2 在转换跑道方向时,管制可根据运行情况, 短时安排航空器使用顺风分量大于 3.5m/s 但不大 于 5m/s 起降,但需通知航空器驾驶员。如不能接 受,航空器驾驶员应尽早通知管制部门。
- 2.4 非全跑道起飞运行规定
- 2.4.1 航空器驾驶员提出非全跑道起飞申请后,管制员可根据实际情况批准并提供管制服务。
- 2.4.2 塔台根据跑道实际运行情况,将安排航空器由 A9/A2 进入 RWY03/21 使用非全跑道起飞,如航空器驾驶员不能接受非全跑道起飞,应告知管制员。
- 2.5 机组须使用顺向快速联络道,尽快脱离跑道。

- 2.2 Normally, departure aircraft shall finish RWY alignment within 60s from holding position; landing aircraft shall fully vacate RWY within 50s after touchdown; if it takes longer to take up the runway, the pilot shall inform ATC as early as possible.
- 2.3 Surface wind and runway conversion procedure
- 2.3.1 If downwind speed is continuously more than 3.5m/s, ATC need change direction of runway in use.
- 2.3.2 When changing the direction of RWY in use, ATC can instruct aircraft to take off or land with 3.5m/s < downwind speed ≤5m/s for short time. Inform ATC as soon as possible if flight crew cannot accept it.
- 2.4 Partical runway take-off regulations
- 2.4.1 After flight crew apply for partical runway to take off, ATC can approve and provide air traffic control service according to the situation.
- 2.4.2 The tower controller can command aircraft to enter RWY03/21 via TWY A9/A2 by using partical runway for take-off. Inform ATC if flight crew cannot accept it.
- 2.5 Flight crew shall vacate RWY as soon as possible

via rapid exit TWY.

3. 机坪和机位的使用

- 3.1 停靠廊桥的航空器均由牵引车推出;
- 3.2 发动机试车须经管制部门和现场指挥中心许可,并在指定的地点进行。严禁在廊桥附近试大车:
- 3.3 机场停机坪东侧坡度较大航空器停放时注意 重心与平衡, 防止倾斜擦地。
- 3.4 机位使用限制

3. Use of aprons and parking stands

- 3.1 Aircraft parking/docking at boarding bridges are pushed back by tow tractors;
- 3.2 Engine run-ups are subject to Ground Control and AOC clearance, and may only be carried out at a designated location. Fast engine run-ups in the vicinity of boarding bridges are strictly forbidden;
- 3.3 Great slope at east apron,parking aircraft shall keep balance of that.
- 3.4 Limits for aircraft parking on the following stands

停机位/Stands	航空器翼展限制/		
	Wing span limits for aircraft		
Nr.1, 19, 105B, 201, 301, 303	<65m		
Nr.11,12, 16-18, 302, 304	<52m		
Nr.9	<48m		
Nr.4	<47m		
Nr.1A, 2,3, 5-8, 10, 13-15, 20-22, 57-64, 101-104	<36m		
Nr.55, 56	<32.5m		
Nr.105	<24m		
Nr.51-54	<22.5m		

- 3.5 停机位 104、105、105B、201、301 为隔离机位, 101-105 中任意一个与 105B 不能同时使用。
- 3.5 Nr.104, 105, 105B, 201, 301 are isolated stands. Stands Nr.101-105 are forbidden to use with Nr.105B simultaneously.
- 3.6 翼展 36 米 (含)以上航空器使用 1 号停机位时, 1A 号停机位不得使用;
- 3.6 When aircraft with wing span not less than 36m use stand Nr.1, stand Nr.1A is unavailable;
- 3.7 翼展 52 米 (含) 以上航空器使用 1 号停机位时,由 T4 滑入滑出,推出时使用专用推出线(白色虚线);
- 3.7 When use stand Nr.1: aircraft with wing span not less than 52m shall taxi in and out via TWY T4 and be pushed back via exclusive push back line(white dashed line);
- 3.8 翼展 52m (含) 以上航空器在 1 号机位停放期间, 1A 机位与 1 号机位之间的 T2 滑行道不可用。
- 3.8 When aircraft with wing span not less than 52m parking on stand Nr.1, TWY T2 (BTN stand Nr.1 and Nr.1A) is unavailable.
- 3.9 翼展 52m(含)以上航空器在1号机位推出及沿 T4 滑行通道滑出期间,2号机位、3号机位之间的 T2 滑行道不可用。
- 3.9 When aircraft with wing span not less than 52m being pushed back from stand Nr.1 and taxi out via TWY T4, TWY T2 (BTN stand Nr.2 and Nr.3) is unavailable.
- 3.10 停放在 1 号停机位的航空器使用专用推出线 (白色虚线)推出时, 51-55 号停机位不得使用;
- 3.10 When aircraft being pushed back from stand Nr.1 via exclusive push back line(white dashed line), stands Nr.51-55 are unavailable;
- 3.11 航空器沿 T1 与 T2 之间的 D1 滑入 1 号停机位期间, 51 号停机位不得使用;
- 3.11 When aircraft taxiing into stand Nr.1 via TWY D1(BTN T1 and T2), stand Nr.51 is unavailable;
- 3.12 银川机坪管制范围 (APN): T1(含)以西的 机场活动区 (1、2、3 号停机坪)。银川塔台、银川机坪负责向各自管辖范围内的航空器提供相应
- 3.12 Yinchuan APN control area: Maneuvering area(aprons Nr.1,2,3) on the W of TWY T1(inclusive). ATC service is available in the

的管制服务。

3.13 离场航空器,须在预计推出开车前 10min 向银川塔台申请放行许可;取得放行许可后,按照银川塔台指令转频到银川机坪,由银川机坪负责推出开车顺序。

3.14 机组须在 5min 内执行推出开车指令,如果超时,该管制指令自动取消,需重新申请。

3.15 进港停靠在 201、301-304 机位外的航空器需由地面引导车引导;所有离港航空器及停靠在 201、301-304 机位的进港航空器如有需要,机组可通过对应管制频率申请引导车或拖车服务。

3.16 廊桥机位 1、11-22 号配备 400Hz 桥载电源和 空调。

4. 进、离场管制规定

respective control area of Yinchuan TWR and Yinchuan APN.

3.13 Departure aircraft shall contact Yinchuan TWR for delivery clearance 10 minutes prior to push-back and start-up. After getting delivery clearance, flight crew shall follow instructions of Yinchuan TWR to change frequency to Yinchuan APN. Then obtain priorities of push-back and start-up from Yinchuan APN.

3.14 The clearance of push-back and start-up shall be performed within 5 minutes, otherwise, the clearance would be cancelled automatically and a new clearance shall be applied.

3.15 Arriving aircraft shall be guided by follow-me vehicle to park on stands(except stands Nr.201,301-304). If necessary, flight crew could apply for follow-me vehicle service or towing service via corresponding Control frequency for all departing aircraft and arriving aircraft parking on stands Nr.201,301-304.

3.16 Bridge power supply EQPT(400Hz) and air conditioner are available for aircraft parking on stands Nr.1 and 11-22.

4. Air traffic control regulations

无

Nil

5. 机场的 II/III 类运行

5.1 低能见度运行(II 类)

5.1.1 达到以下条件时,本场将进入低能见度运行程序准备阶段:

当预计 30mim 内 200m≤RVR < 450m 时,由航空公司或机组提出申请。

5.1.2 当满足下列条件时, 低能见度运行程序启动 实施:

03 号跑道 350m<RVR<450m, 30m<云底高<60m, 机场和空管具备低能见度程序保障能力。

5.1.3 低能见度运行程序在下列情形下解除:

5.1.3.1 RVR 回升到 800m 且云底高回升至 90m, 并预测天气将转好或稳定 30mins 后。

5.1.3.2 RVR 低于 200m 或云底高低于 30m, 并且 趋势预报在 1h 以上无法转好。

5.1.3.3 在低能见度运行期间因设备或其他原因不 具备低能见度程序保障能力时。

5. CAT II/III operations at AD

5.1 Low Visibility Operation Procedures(CAT II)

5.1.1 Low Visibility Operation Procedures will be prepared with following conditions:

Applied by airlines or flight crew when 200≤RVR < 450m within estimated 30min.

5.1.2 Low Visibility Operation Procedures will be implemented with following conditions:

When 350m< RVR<450m of RWY03 and 30m<ceiling<60m, aerodrome and ATC satisfy the requirement of Low Visibility Operation.

5.1.3 Low Visibility Operation Procedures will be closured with following conditions:

5.1.3.1 When RVR≥800m and ceiling ≥90m and forecast show a improvement trend and remain 30mins.

5.1.3.2 When RVR < 200m or ceiling < 30m and forecast show a decrease trend in more than 1h.

5.1.3.3 When eqquipment or other factors cannot satisfy the requirement of Low Visibility Operation Procedures.

- 5.2 航空器滑行
- 5.2.1 所有进、出港航空器的滑行必须由引导车引导。
- 5.2.2 在 RWY03 使用 HUD 执行特殊批准II类运行期间,有航空器进近时,等待起飞的航空器应在停机坪等待。
- 5.3 需要执行 HUD 特殊批准Ⅱ类运行程序的航空器, 应主动向管制员报告。

6. 除冰规则

无

7. 平行跑道同时仪表运行

无

8. 警告

- 8.1 本机场 03 号跑道入口以南 400m, 跑道中心线 以西 360m 处为起始点, 有一条平行于跑道宽约 25m 的公路, 向南延伸约 2000m, 夜间路灯可能 开启, 请机组注意。
- 8.2 因机场高速公路灯光较强, 机组使用 21 号跑 道降落注意观察跑道灯光。

- 5.2 Taxiing
- 5.2.1 Taxiing of departure and arrival aircrafts shall be guided by follow-me vehicles.
- 5.2.2 If approaching aircraft uses landing minima of Special CAT II with HUD, the departure aircraft shall wait at the apron.
- 5.3 Aircraft to use landing minima of Special CAT II with HUD shall report to ATC initiatively.

6. Rules for deicing

Nil

7. Simultaneous operations on parallel runways

Nil

8. Warning

- 8.1 There is a road about 25m wide and 2000m long parallel to RWY on the south of RWY03 THR, the north end of which start from point 400m south of RWY03 THR and 360m west of RCL. Lights of the road might be turned on during night. Please pay attention.
- 8.2 Lights of airport expressway is strong, aircraft landing with RWY21 shall take care to distinguish

RWY lights from that.

8.3 跑道北头水沟距跑道端较近, 机组在起飞、着陆过程中要严格按飞行标准执行, 防止航空器提前着陆擦地和冲出跑道。

8.3 Water channel is closed to the north of RWY end, aircraft taking-off or landing shall strictly follow the procedure to prevent early landing or overrun.

8.4 本场未配备系留绳和系留挂具。

8.4 AD not equipped with mooring rope and mooring rack.

9. 直升机飞行限制, 直升机停靠区

9. Helicopter operation restrictions and helicopter parking / docking area

无

Nil

ZLIC AD 2.21 噪音限制规定及减噪程序

ZLIC AD 2.21 Noise restrictions and Noise abatement procedures

无

Nil

ZLIC AD 2.22 飞行程序

ZLIC AD 2.22 Flight procedures

1. 总则

无

Nil

1. General

2. 起落航线

2. Traffic circuits

起落航线在跑道两侧, A、B 类航空器高度 1550 米, C、D 类航空器高度 1750m。

Traffic circuits shall be made to both sides of RWY, at the altitude of 1550m for aircraft CAT A/B, and 1750m for aircraft CAT C/D.

3. 仪表飞行程序

3. IFR flight procedures

正常情况下,严格按照航图中公布的进、离场程序和ENR2.2.1 中公布的有关规定飞行。如果需要,航空器可在空中交通管制部门指定的航路、导航台或定位点上空等待或做机动飞行。

On normal conditions, strict adherence is required to the relevant arrival/departure procedures published in the aeronautical charts and the relevant regulations published in subsection ENR2.2.1. Aircraft may, if necessary, hold or maneuver on an airway, over a navigation facility or a fix designated by ATC.

4. 雷达程序和/或 ADS-B 程序

银川进近管制区域内实施雷达管制, 航空器最小水平间隔为 6km。

4. Radar procedures and/or ADS-B procedures

Radar control within Yinchuan APP has been implemented,the minimum horizontal radar separation 6km.

5. 无线电通信失效程序

无

5. Radio communication failure procedures

6. Procedures for VFR flights

Nil

7. VFR route

8. Visual reference point

6. 目视飞行程序

无 Nil

7. 目视飞行航线

无 Nil

8. 目视参考点

无 Nil

9. 其它规定

它规定 9. Other regulations

无 Nil

10. 区域导航飞行程序相关数据

10. Data for RNAV flight procedures

Waypoint Coordinates

Waypoint ID	COORDINATES	Waypoint ID	COORDINATES
YC501	N383041.8E1064745.8	YC723	N374851.5E1063114.2
YC502	N382644E1065637	YC804	N382630.3E1063858.3
YC503	N381401.8E1064726.0	YC806	N383824.3E1063716.0
YC504	N382844.8E1055815.7	YC807	N383411.1E1063413.5
YC506	N385019E1071349	YC808	N382957.8E1063111.4
YC601	N375619.0E1060714.6	YC811	N384151.8E1062927.8
YC705	N374900.9E1060206.2	YC812	N383324.9E1062323.8
YC706	N380008.7E1060956.2	YC816	N383456.3E1064503.5
YC707	N380424.4E1061257.4	YC817	N383043.3E1064200.7
YC708	N380840.2E1061558.9	YC820	N384615.6E1064257.2
YC713	N375642.6E1061741.0	DWZ	N3755.3E10620.6
YC714	N380334.3E1060210.7	YHD	N3820.8E10624.6
YC715	N381206.2E1060812.8	AGVEN	N3857.4E10702.6
YC716	N382324.9E1061614.9	BELIP	N3759.3E10522.2
YC717	N380058.1E1062042.5	DOMVA	N3721.9E10645.1
YC718	N380513.7E1062344.3	DOXED	N3856.9E10727.2
YC719	N381726.4E1063227.6	IDGOB	N3724.4E10659.1
YC720	N384512.9E1065230.9	IVTEV	N3745.4E10630.4
YC721	N375844.2E1063816.9	LUVKO	N3749.1E10531.6
YC722	N374840.5E1064424.5	OPULI	N3844.1E10505.3

Coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course	Turn Direction	Altitude (m)	IAS (km/h)	VPA/ TCH	Navigation Specification
			1	3 Departure I				1
CA			032		2100			RNAV1
DF	YC501			R				RNAV1
TF	YC502							RNAV1
TF	YC506							RNAV1
TF	DOXED							RNAV1
			RWY03	B Departure D	OOM-08D			
CA			032		2100			RNAV1
DF	YC501			R				RNAV1
TF	YC502							RNAV1
TF	YC503							RNAV1
TF	YC721							RNAV1
TF	IVTEV							RNAV1
TF	DOMVA							RNAV1
			RWY0	3 Departure I	BEL-08D			1
CA			032		2100			RNAV1
DF	YC501			R				RNAV1
TF	YC502							RNAV1
TF	YC503							RNAV1
TF	YC721							RNAV1
TF	DWZ							RNAV1
TF	BELIP							RNAV1
			RWY03 Dej	parture BEL-	09D(BY ATC	C)	<u> </u>	
CA			032		2100			RNAV1

DF	YC504		L	↑3900	RNAV1
TF	BELIP				RNAV1
		RWY0	3 Departure	OPU-08D	
CA		032		2100	RNAV1
DF	YC501		R		RNAV1
TF	YC502				RNAV1
TF	YC503				RNAV1
TF	YHD				RNAV1
TF	YC504			↑3900	RNAV1
TF	OPULI				RNAV1
		RWY03 Dep	parture OPU	J-09D(BY ATC)	
CA		032		2100	RNAV1
DF	YC504		L	↑3900	RNAV1
TF	OPULI				RNAV1
		RWY2	1 Departure	DOX-18D	
CA		212		2100	RNAV1
DF	YC721		L		RNAV1
TF	YC503				RNAV1
TF	YC506				RNAV1
TF	DOXED				RNAV1
		RWY2	l Departure	DOM-18D	·
CA		212		2100	RNAV1
DF	DWZ		L		RNAV1
TF	IVTEV				RNAV1
TF	DOMVA				RNAV1
		RWY2	1 Departure	BEL-19D	•
CA		212		2100	RNAV1

CF	YC601	212				RNAV1
IF	BELIP					RNAV1
		RWY21	Departure	OPU-18D		
CA		212		2100		RNAV1
DF	YC721		L			RNAV1
TF	YC503					RNAV1
TF	YHD					RNAV1
TF	YC504			↑3900		RNAV1
TF	OPULI					RNAV1
		RWY21 Depa	arture OPU	J-19D(BY AT	C)	,
CA		212		2100		RNAV1
DF	YC504		R	↑3900		RNAV1
TF	OPULI					RNAV1
		RWY0	3 Arrival A	AGV-08A		
IF	AGVEN					RNAV1
TF	YC720					RNAV1
TF	YC719					RNAV1
TF	YC718			↑2100	MAX380	RNAV1
		RWY)3 Arrival I	DG-08A		,
IF	IDGOB					RNAV1
TF	YC722					RNAV1
TF	YC721					RNAV1
TF	YC718			†2100	MAX380	RNAV1
	<u>'</u>	RWY	3 Arrival I	UV-08A	. 1	1
IF	LUVKO					RNAV1
TF	YC705			↑2700		RNAV1
TF	YC723					RNAV1

TF	YC721					RNAV1
TF	YC718			↑2100	MAX380	RNAV1
		RWY03	Arrival LUV-0	9A(BY ATC		,
IF	LUVKO					RNAV1
TF	YC705			↑2700		RNAV1
TF	YC706			↑2100	MAX380	RNAV1
		RW	VY03 Arrival O	PU-08A		•
IF	OPULI					RNAV1
TF	YC504			↑3900		RNAV1
TF	YC716					RNAV1
TF	YHD					RNAV1
TF	YC719					RNAV1
TF	YC718			↑2100	MAX380	RNAV1
		RWY03	Arrival OPU-0	9A(BY ATC	C)	
IF	OPULI					RNAV1
TF	YC504			↑3900		RNAV1
TF	YC716					RNAV1
TF	YC715			↑2100	MAX380	RNAV1
		RWY03 App	roach Transition	1 YC706(BY	ATC)	•
IF	YC706			↑2100	MAX380	RNAV1
TF	YC707					RNAV1
TF	YC708			1800		RNAV1
	-	RWY03	Approach Tran	sition YC71	8	
IF	YC718			↑2100	MAX380	RNAV1
TF	YC717					RNAV1
TF	YC713					RNAV1
TF	YC706					RNAV1

TF	YC707						RNAV1
TF	YC708				1800		RNAV1
	10700	RW	 VY03 Approac	ch Transitic		ATC)	III VI I
IF	YC715	- KV	ТОЗ Търргоас	Zii Transitic	↑2100	MAX380	RNAV1
					2100	WAASOU	
TF	YC714						RNAV1
TF	YC706						RNAV1
TF	YC707						RNAV1
TF	YC708				1800		RNAV1
			RWY(03 Missed A	Approach		
CA			032		1800		RNP1
DF	YC719			R		MAX380	RNP1
TF	YC718						RNP1
			RWY03 Hol	ding(outbo	und time 1mi	n)	
НМ	YC720	Y	212	L	2700		RNAV1
НМ	YC722	Y	338	L	3000		RNAV1
			RWY2	21 Arrival A	AGV-18A		
IF	AGVEN						RNAV1
TF	YC820						RNAV1
TF	YC806				↑2100	MAX380	RNAV1
			RWY	21 Arrival l	DG-18A		
IF	IDGOB						RNAV1
TF	YC722						RNAV1
TF	YC721						RNAV1
TF	YC719						RNAV1
TF	YC804				↑2100	MAX380	RNAV1
			RWY2	21 Arrival I	LUV-18A	1 1	I
IF	LUVKO						RNAV1

TF	YC723				RNAV1
TF	YC721				RNAV1
TF	YC719				RNAV1
TF	YC804		↑2100	MAX380	RNAV1
11	10004	DWW21 A mix			KNAVI
	<u> </u>	RW Y Z1 AFTIV	val LUV-19A(BY ATC	,) 	
IF	LUVKO				RNAV1
TF	YC716				RNAV1
TF	YC812		↑2100	MAX380	RNAV1
		RWY21	Arrival OPU-18A		
IF	OPULI				RNAV1
TF	YC504		↑3900		RNAV1
TF	YC716				RNAV1
TF	YHD				RNAV1
TF	YC719				RNAV1
TF	YC804		↑2100	MAX380	RNAV1
	1	RWY21 Arriv	val OPU-19A(BY ATC	<u>'</u>)	-
IF	OPULI				RNAV1
TF	YC504		↑3900		RNAV1
TF	YC716				RNAV1
TF	YC812		↑2100	MAX380	RNAV1
		RWY21 Appı	coach Transition YC80	6	
IF	YC806		↑2100	MAX380	RNAV1
TF	YC807				RNAV1
TF	YC808		1800		RNAV1
	1	RWY21 Appr	oach Transition YC80	4	
IF	YC804		↑2100	MAX380	RNAV1
TF	YC817				RNAV1

TF	YC816						RNAV1
TF	YC806						RNAV1
IF	YC807						RNAV1
TF	YC808				1800		RNAV1
		RW	VY21 Approa	ch Transition	YC812(BY	ATC)	
IF	YC812				†2100	MAX380	RNAV1
TF	YC811						RNAV1
TF	YC806						RNAV1
TF	YC807						RNAV1
IF	YC808				1800		RNAV1
			RWY	21 Missed A	pproach		
CA			212		1800		RNP1
DF	YC719			L		MAX380	RNP1
TF	YC804						RNP1
RWY21 Holding(outbound time 1min)							
НМ	YC820	Y	212	L	2700		RNAV1
НМ	YC722	Y	338	L	3000		RNAV1

ZLIC AD 2.23 其它资料

ZLIC AD 2.23 Other information

1 鸟情资料: 机场飞行区全年有鸟类活动, 鸟类种类共计 40 种, 中型的危险鸟类有喜鹊、鸽子、灰头麦鸡、红隼、戴胜、纵纹腹小鸮等; 小型的危险鸟类有麻雀、家燕、云雀、凤头百灵、灰椋鸟、白鹡鸰、崖沙燕、赤颈鸫等鸟类。鸟类种类和数量表现为: 每年7-9 月为高峰期, 4-6 月为上升期, 10-12 月为下降期, 1-3 月为平稳期。

1 Bird Data: Activities of bird flocks are found all the year round, 40 kinds of birds are observed in aerodrome flight area. Medium-sized birds include Magpie, Pigeon, Grey-headed Lapwing, Common Kestrel, Hoopoe, Athene noctua Little Owl and so forth; Small-sized birds include Sparrow, Barn Swallow, Skylark, Crested Lark, Sturnus cineraceus,

Motacilla alba, Sand Martin, Red-throated Thrush and so forth. Performance of birds activities in whole year: steady period from January to March, rised period from April to June, peak period from July to September, and decent period from October to December.

2 鸟情信息

2 Bird information

Type of bird	Time of activity	Activity area	Flight height within AD
Magpie	The whole year	Flight area	0-100m
Pigeon	The whole year, morning and sunset	South end, west and southeast of RWY	0-200m
Grey-headed Lapwing	May-October	East and west of RWY	0-100m
Ноорое	The whole year	East of RWY	0-50m
Common Kestrel	The whole year	Above flight area	0-500m
Athene noctua Little Owl	The whole year, sunset and night	East of RWY	0-100m
Sparrow	The whole year	Flight area	0-20m
Barn Swallow	May-October	South end, north end and west of RWY	0-200m
Skylark	The whole year	East and southwest of RWY	0-200m
Crested Lark	The whole year	South end and east of RWY	0-200m
Sturnus cineraceus	The whole year	West enclosure	0-100m
Motacilla alba	May-October	East, south and north of RWY	0-50m

Sand Martin	May-October	East and north of RWY	0-200m
Red-throated Thrush	The whole year	East of RWY	0-50m

3 鸟击防范工作通过开展银川机场周围直径 8km 范围生态调研,科学系统分析鸟类、昆虫、植物 信息,结合季节变化,科学运用太阳能煤气炮、 太阳能灭虫灯、驱鸟车、定向声波驱鸟器、音频 驱鸟器、猎枪、仿真假人、彩色风车、双层鸟网、 双响炮等驱鸟设施设备,结合喷洒驱鸟剂、除虫 剂、除草剂,实施人工与机械割草、碾压等多种 措施,最大限度降低鸟击风险。 3 Bird strike precaution is executed via ecological research around aerodrome of 8km in diameter. Birds, insects and plants in this scope are analyzed scientifically. A plenty of bird dispersal equipment and methods for different seasons are adopted to reduce the risk of bird strike.