

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

ZSNB- 宁波/栎社 NINGBO/Lishe

ZSNB 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	N29° 49.6' E121° 27.8' 1250m FM THR 31.
2	方向、距离 Direction and distance from city	239° GEO, 10.5km from city center
3	标高 / 参考气温 Elevation/Reference temperature	4m/ 35° C (JUL,2001-2017)
4	机场标高位置 / 高程异常 AD ELEV PSN/ geoid undulation	RCL/-
5	磁差 / 年变率 MAG VAR/Annual change	4° W/-
6	机场管理部门、地址、电话、传真、 AFS、电子邮箱、网址 AD administration, address, telephone, telefax, AFS, E-mail, website	Ningbo Lishe International Airport Ningbo Lishe International Airport, Ningbo 315154, Zhejiang province, China TEL: 86-574-89006326 FAX: 86-574-87427089 AFS: ZSNBYDYX E-mail: nbairport@nbairport.com Website: www.ningbo-airport.com
7	允许飞行种类 Types of traffic permitted(IFR/VFR)	IFR/VFR
8	机场性质 / 飞行区指标 Military or civil airport & Reference code	Civil/4E
9	备注 Remarks	Nil

ZSNB AD 2.3 工作时间 Operational hours

1	机场当局 (机场开放时间) AD Administration (AD operational hours)	H24
2	海关和移民 Customs and immigration	HS or O/R
3	卫生健康部门 Health and sanitation	HS or O/R
4	航行情报服务讲解室 AIS Briefing Office	H24
5	空中交通服务报告室 ATS Reporting Office (ARO)	H24
6	气象讲解室 MET Briefing Office	H24
7	空中交通服务 ATS	H24
8	加油 Fuelling	H24
9	地勤服务 Handling	H24
10	保安 Security	H24
11	除冰 De-icing	H24
12	备注 Remarks	Nil

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

1	货物装卸设施 Cargo-handling facilities	Tow tractor, fork-lift, baggage transporter, dolly, container dolly
2	燃油 / 滑油牌号 Fuel/oil types	Nr.3 jet fuel --
3	加油设施 / 能力 Fuelling facilities/capacity	tank vehicle (45000 litres, 47000 litres, 49000 litres, 65000 litres): 20 litres/ sec;hydrant dispenser(20 litres/ sec, for stands Nr.17-26)
4	除冰设施 De-icing facilities	de-icer, deicing fluid(KHF-1, cleanwing-I, cleanwing-II)
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 on request for A319, A320, A321, B737-300/500/700/800, B757-200, CRJ-200; A319/320/321 APU change
7	备注 Remarks	Ground power unit, ground air supply unit, ground air preconditioning unit, towing truck, maintenance platform truck

ZSNB AD 2.5 旅客设施 Passenger facilities

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

ZSNB 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	Fire fighting facilities: foam tender, water tank truck, demolition rescue truck, illumination truck, chemical supply tender, medicament reinforcement car; Rescue equipments: mobile surface operation devices, steel plate, tightwire, towing truck for B767,B757, B747, A330, A340, EMB145, EMB190, CRJ200, B737-300/600/700/800, A319-100,A320-200, A321, MD82, MD90, corporate aircraft Rescue bandage for B757, A319/320/321, corporate aircraft
3	搬移受损航空器的能力 Capability for removal of disabled aircraft	MTWA up to A320-200
4	备注 Remarks	Nil

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

1	扫雪设备类型 Types of clearing equipment	All seasons Spreading vehicle, snow blower, snow pusher, snow removing plate
2	扫雪顺序 Clearance priorities	RWY, TWY, Apron
3	备注 Remarks	Nil

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

1	停机坪道面和强度 Apron surface and strength	Surface:	Cement concrete
		Strength:	PCN 78/R/B/W/T: (Stands Nr.17-26, 17A, 17B, 17C) PCN 66/R/B/W/T:(Stands Nr.1-16)
2	滑行道宽度、道面和强度 Taxiway width, surface and strength	Width:	42m: G; 34m: B, D, E, F; 28.5m: A(connect with RWY), C; 23 m: A
		Surface:	Cement concrete
		Strength:	PCN 78/R/B/W/T: G PCN 66/R/B/W/T:(Others)
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	

ZSNB 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 / 停放位置引导系统的使用 Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance signs at all intersections of TWY and RWY and at all holding positions. Guide lines at apron. Nose-in guidance for aircraft stands. Visual docking guidance system at stands Nr. 1-7.	
2	跑道和滑行道标志及灯光 RWY and TWY marking and LGT	RWY markings	THR, RWY designations, TDZ, center line, edge line, aiming point
		RWY lights	Center line, edge line, THR, RWY end, wing bar
		TWY markings	Center line, edge line, intermediate holding positions, RWY holding position, TWY shoulders
		TWY lights	Center line, edge line, intermediate holding positions, RWY guard lights
3	停止排灯 Stop bars	Nil	
4	备注 Remarks	Nil	

ZSNB AD 2.10 机场障碍物 Aerodrome obstacles

Obstacles within a circle with a radius of 15km centered on 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
1	*TWR	017	1920	49	CAT A/B Circling
2	*TWR	038	2820	49	
3	BLDG	057	10112	165	
4	BLDG	060	11427	188	
5	BLDG	061	10001	145	
6	BLDG	063	10071	139	
7	BLDG	063	9926	164	
8	BLDG	064	10472	178	
9	BLDG	065	10267	147	
10	BLDG	075	14641	266	
11	BLDG	092	7795	173	
12	BLDG	096	7996	173	
13	BLDG	105	8036	171	
14	BLDG	107	7790	228	
15	BLDG	108	7697	168	
16	Antenna	121	1028	20.3	
17	Light	127	2288	18	RWY13/Take-off path
18	Antenna	128	2181	16	RWY13/Take-off path
19	TWR	132	3002	22	
20	*TWR	179	552	45	RWY31/GP INOP, VOR/DME final approach
21	MT	272	10502	270	
22	MT	276	12686	537	RWY13/ILS/DME missed approach
23	MT	287	10108	277	
24	MT	289	10716	342	CAT D Circling RWY13/VOR/DME final approach
25	*TWR	292	3413	46	RWY13/VOR/DME final approach
26	MT	294	9217	100	CAT C Circling
27	MT	298	14154	416	
28	MT	306	14851	497.7	RWY31/Departure, take-off path
29	Light	308	2873	18	RWY31/Take-off path

Obstacles within a circle with a radius of 15km centered on 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
30	TWR	308	5248	41	RWY13/GP INOP final approach
31	BLDG	309	2924	18	RWY31/Take-off path
32	MT	309	14097	447	
33	BLDG	310	2493	12	RWY31/Take-off path
34	BLDG	311	2559	14	RWY31/Take-off path
35	Antenna	312	1591	20.2	RWY13/ILS/DME final approach
36	MT	313	10463	195	RWY31/Take-off path RWY13/GP INOP final approach
37	MT	313	12647	369	RWY13/GP INOP final approach
Remarks:					

Obstacles between two circles with the radius of 15km and 50km centered on 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
1	MT	015	28143	436	
2	MT	016	18416	294	
3	MT	066	48388	456	
4	MT	080	26675	388	
5	MT	096	30537	673	
6	MT	097	41175	542	
7	MT	107	32068	546	
8	MT	115	27778	556	
9	MT	125	15018	160	RWY31/VOR/DME, GP INOP final approach
10	MT	133	19649	465	
11	MT	136	23747	497	
12	MT	138	20019	465	
13	MT	140	19886	505	
14	fan #5	140	29438	643	
15	fan #9	143	29282	643.5	
16	MT	144	21353	536	RWY 31/ILS/DME, VOR/DME initial approach RWY31/ILS/DME intermediate approach
17	fan #30	144	25436	696	

Obstacles between two circles with the radius of 15km and 50km centered on 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
18	fan#28	145	25013	696	
19	fan#29	145	25235	712	RWY31/ VOR/DME, ILS/DME, PBN initial approach RWY31/RNAV ILS/DME intermediate approach
20	fan #17	146	28593	652	
21	fan #20	147	27949	656	
22	MT	148	45961	551	
23	MT	148	25500	635	
24	MT	185	24922	615	
25	MT	195	41631	764	
26	MT	204	33920	712	
27	MT	218	30183	810	
28	MT	225	42898	746	
29	MT	234	45610	930	
30	MT	252	28960	976	
31	MT	264	35952	896	
32	MT	265	23739	800	
33	MT	280	34082	777	
34	MT	281	16042	521	
35	MT	281	41533	649	
36	MT	289	18586	602	RWY31/ILS/DME, RNAV ILS/ DME, GP INOP,VOR/DME missed approach
37	MT	291	29559	650	RWY13/VOR/DME, ILS/DME, RNAV intial approach
38	MT	293	22032	538	
39	MT	298	39479	435	
40	MT	298	15994	521	RWY13/ILS/DME, RNAV ILS/ DME intermediate approach
41	MT	298	18216	573	
42	MT	298	31747	638	
43	TWR	300	18739	598	RWY13/ILS/DME, RNAV ILS/ DME intermediate approach
44	MT	301	21580	452	
45	MT	303	18103	535	
46	MT	304	16103	431	
47	MT	306	18591	515	
48	MT	308	15681	513	
49	MT	308	16915	466	
50	TWR	313	42166	243	
51	TWR	313	42104	291	

Obstacles between two circles with the radius of 15km and 50km centered on 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
52	TWR	332	44390	239	
53	MT	337	31295	446	
Remark: Other obstacles refer to AD OBST Chart.					

ZSNB 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	相关气象室的名称 Associated MET Office	Ningbo ATMB MET Office
2	气象服务时间、服务时间以外的责任 气象室 Hours of service, MET Office outside hours	H24 --
3	负责编发 TAF 的办公室;有效期 Office responsible for TAF preparation, Periods of validity	Ningbo ATMB MET Office 9 HR, 24HR
4	着陆预报类型、发布间隔 Type of landing forecast, Interval of issuance	Trend 1 HR
5	所提供的讲解 / 咨询服务 Briefing/consultation provided	T, P
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
9	接收气象信息的空中交通服务单位 ATS units provided with information	Ningbo Tower
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)	SFC wind sensors: RWY 13: 160m E of RCL, 446m inward THR; RWY 31: 90m S of RCL, 320m inward THR. RVR EQPT: A: 100m E of RCL, 440m inward THR; B: 100m E of RCL, 310m inward THR.

13	气象观测系统的工作时间 Hours of operation for meteorological observation system	H24
14	气候资料 Climatological information	Climatological tables AVBL
15	其他信息 Additional information	Nil

ZSNB AD 2.12 跑道物理特征 Runway physical characteristics

跑道号码 Designations RWY NR	真方位和磁方位 TRUE & MAG BRG	跑道长宽 Dimensions of RWY (m)	跑道强度 (PCN), 跑道道面 / 停止道道面 RWY strength (PCN), RWY surface/SWY surface	着陆入口坐标及高程异常 THR coordinates and geoid undulation	跑道着陆入口标高, 精密进近跑道接地地带最高标高 THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
13	124° GEO 128° MAG	3200 × 45	66/R/B/W/T Cement	Nil	THR 3.7m TDZ 3.7m
31	304° GEO 308° MAG	3200 × 45	66/R/B/W/T Cement	Nil	THR 3.7m TDZ 3.7m
跑道 - 停止道坡度 Slope of RWY-SWY	停止道长宽 SWY dimensions (m)	净空道长宽 CWY dimensions (m)	升降带长宽 Strip dimensions (m)	无障碍物地带 OFZ	跑道端安全区长宽 RWY end safety area dimensions (m)
7	8	9	10	11	12
0	Nil	Nil	3320 × 300	Nil	225 × 150m
0	Nil	Nil	3320 × 300	Nil	225 × 150m
Remarks: 60 × 60m anti-blast pad (asphalt concrete) on the both ends of RWY.					

ZSNB AD 2.13 公布距离 Declared distances

跑道代号 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
13	3200	3200	3200	3050	THR displaced 150m inwards
31	3200	3200	3200	3200	Nil
Remarks:					

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

跑道 代号 RWY Designator	进近灯 类型、 长度、 强度 APCH LGT type LEN INTST	入口灯 颜色、 翼排灯 THR LGT colour WBAR	目视进近坡 度指示系统 (跑道入口最低眼高), 精密进近航道指示器 VASIS (MEHT) PAPI	接地地带 灯长度 TDZ LGT LEN	跑道中心线灯 长度、间隔、 颜色、强度 RWY Center line LGT LEN, spacing, colour, INTST	跑道边灯长 度、间隔、颜 色、强度 RWY edge LGT LEN, spacing, colour, INTST	跑道末端 灯颜色 RWY end LGT colour	停止道灯 长度、颜 色 SWY LGT LEN, colour
1	2	3	4	5	6	7	8	9
13	CAT I* 900m LIH	Green Yes	PAPI Left/3°	Nil	3200m** spacing 30m	3200m*** spacing 60m	Red	Nil
31	CAT I* 900m LIH	Green Yes	PAPI Left/3°	Nil	3200m** spacing 30m	3200m*** spacing 60m	Red	Nil
Remarks: *SFL ** 0-2300m White VRB LIH, 2300-2900m Red/White VRB LIH, 2900-3200m Red VRB LIH *** 0-2600m White VRB LIH, 2600-3200m Yellow VRB LIH								

ZSNB AD 2.15 其它灯光, 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	着陆方向指示器位置和灯光; 风速表位置和灯光 LDI location and LGT, Anemometer location and LGT	LDI: see AD Chart Anemometer: on the Tower
3	滑行道边灯和中心线灯光 TWY edge and center line lighting	All TWYs
4	备份电源 / 转换时间 Secondary power supply/switch-over time	Dual feed, diesel engine driven generator / 15 sec
5	备注 Remarks	Nil

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

1	TLOF 坐标或 FATO 入口坐标及高程异常 Coordinates TLOF or THR of FATO Geoid undulation	Nil
2	TLOF 和 / 或 FATO 标高 (m) TLOF and/or FATO elevation (m)	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

ZSNB AD 2.17 空中交通服务空域 ATS airspace

名称 Designation	横向界限 Lateral limits	垂直界限 Vertical limits	备注 Remarks
Ningbo tower control area	A circuit, 2 arcs with radius 13KM centered at center of both RWY ends and 2 parallel lines of 13KM FM RCL.	SFC-1200m MSL	
Altimeter setting region and TL/TA	N300456 E1211619- N294501 E1205854- N292600 E1210643- N301509 E1214543-An arc with a radius of 30NM centered on Ningbo VOR(NGB).	TL 3600m TA 3000m 3300m(QNH $\geq$ 1031hPa) 2700m(QNH $\leq$ 979hPa)	

ZSNB 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		126.45	HO	Nil
APP	Ningbo Approach	125.45(119.55)	H24	Nil
TWR	Ningbo Tower	118.35 (118.70, 130.0)	H24	Nil
GND	Ningbo Ground	121.95	2230-1300	Nil

ZSNB 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
VOR/DME	NGB	116.3MHz CH 110X	29° 49.8' 121° 27.8' 331° MAG/ 493m FM ARP	9m	
Andong VOR/DME	AND	114.8MHz CH 95X	N30° 15.4' E121° 13.3'	5m	For VOR/DME: R294° - R306° clockwise U/S. For VOR: BTN 11.5- 15.5NM on R185° U/S.
Lishe NDB	BK	227kHz	N29° 53.7' E121° 20.0' 306° MAG/ 14877m FM ARP		*
LOC 13 ILS CAT I	IBK	108.9MHz	128° MAG / 290m FM end RWY 13		
GP 13		329.3MHz	120m N of RCL, 289m inward displaced THR		Angle 3.22° RDH 16.6m Coverage 10NM
DME 13	IBK	CH 26X (108.9MHz)		9m	Co-located with GP
OM 31		75MHz	128° MAG / 7600m FM THR RWY 31		Coverage 25NM
LMM 31	L	262kHz	128° MAG / 930m FM THR RWY 31		
LOC 31 ILS CAT I	ILL	110.9MHz	308° MAG / 290m FM end RWY 31		
GP 31		330.8MHz	120m N of RCL, 304m inward THR		Angle 3° RDH 16.6m Coverage 10NM
DME 31	ILL	CH 46X (110.9MHz)	123m N of RCL, 304m inward THR	9m	Co-located with GP 31

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
Remark: *: For arrival and departure procedure: 11-15.5NM on bearing 273° U/S, 8-10NM on bearing 061° U/S, 8-13.5NM and 16-17.5NM and 18.5-19.5NM on bearing 111° U/S; for holding procedure: 12-14NM on bearing 061° U/S; for departure procedure: 2-3.5NM on bearing 325° U/S.					

ZSNB AD 2.20 本场飞行规定**ZSNB AD 2.20 Local traffic regulations****1. 机场使用规定**

1.1 所有训练飞行和技术试飞需事先申请，并在得到空中交通管制部门批准后方可进行；

1.2 可用最大机型：B747同类及其以下机型。

1.3 应答机使用注意事项：

1.3.1 落地航空器脱离跑道后，应将应答机设置为地面模式：空客系航空器设置为“XPNDR”模式；波音系航空器设置为“STANDBY”模式；其他机型航空器应参照执行。

1.3.2 离场航空器在到达跑道外等待点前，应将应答机设置为地面模式：空客系航空器设置为“XPNDR”模式；波音系航空器设置为“STANDBY”模式；其他机型航空器应参照执行。

1.3.3 离场航空器在收到进跑道指令后应将应答机设置为空中模式。

1.4 机组应根据机型及进近方式，检查机场运行最低标准，若不能满足时应及时报告管制员。

2. 跑道和滑行道的使用

2.1. 可以通过现场指挥中心申请拖车服务；

2.2. 禁止航空器在滑行道和机坪滑行通道上做180°转弯；

2.3 对机组的要求：

1. Airport operations regulations

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

1.2 Maximum aircraft to be available: B747 and equivalent.

1.3 Notice for using transponder:

1.3.1 After landing aircraft vacate RWY, set transponder to ground mode; set Airbus aircraft to "XPNDR" mode; set Boeing aircraft to "STANDBY" mode; Other types aircraft shall carry out.

1.3.2 Set transponder to ground mode before departure aircraft reaching the runway holding point, set Airbus aircraft to "XPNDR" mode; set Boeing aircraft to "STANDBY" mode; Other types aircraft shall carry out.

1.3.3 After departure aircraft receive the enter RWY instruction, set transponder to air mode.

1.4 Aircrew shall according to aircraft types and approach mode, check the aerodrome operating minima, pilot shall inform ATC if can not fulfill the aerodrome operating minima.

2. Use of runways and taxiways

2.1. Towing service is available via Ground Control;

2.2. 180° turnaround on TWY and apron taxilane is forbidden for all aircraft;

2.3 Flight crew requirements:

2.3.1 飞行机组应认真听取并重复地面管制员的滑行指令，按指定的滑行路线滑行。发现问题及时证实。

2.3.1 Flight crew shall listen carefully, repeat and follow the taxi clearances given by ATC. IF there is any question, confirm in time.

2.3.2 推出前，机组应向地面管制员证实使用的跑道和推出方向。

2.3.2 Flight crew shall confirm the RWY in use and the taxiing direction before pushed-back.

2.4 滑行道使用限制 /Taxiing limits:

滑行道 /TWY	航空器翼展限制 / Wing span limits for aircraft
T1, T3	≤ 65m
C,T2	≤ 52m

2.5 B777, A340-600, B747-8 在本场运行时，需采用偏置转弯方式滑行。

2.5 Aircraft B777, A340-600 and B747-8 shall offset TWY centerline while turning.

2.6 掉头线限制 /Turning guidance marking limits:

掉头线位置 /Turning guidance marking	主起落架外轮外侧边间距限制 /Outside distance limits of main landing gear outer wheel	机身长度限制 / Fuselage limits	鼻轮转向角限制 /Steering angle of front wheels limits
RWY31 end	≤ 12.6m	≤ 70.67m	≤ 59°
RWY13 end	≤ 9m	≤ 47.32m	≤ 48.52°
Intersection BTW TWY B/C and RWY	≤ 10.9m	≤ 54.94m	≤ 48.19°

2.7 跑道运行原则:

2.7 General rules for using runways:

2.7.1 起飞航空器:

2.7.1 For departure aircraft:

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

2.7.1.1 Departure aircraft shall finish runway alignment within 60 seconds after receiving ATC instructions of entering runway; If flight crew consider that they can not fulfill the process within the required time, pilot shall inform TWR ATC controller before reaching the runway holding point(except for wet or contaminated RWY).

2.7.1.2 起飞航空器使用 13 号跑道时，离地后需保持跑道方向，联系宁波进近后听管制员雷达引导。

2.7.1.2 Departure aircraft use RWY13, keep the RWY direction after departure, contact APP ATC controller.

2.7.2 落地航空器:

2.7.2 For landing aircraft:

2.7.2.1 落地航空器应尽快退出跑道，从接地到滑出跑道时间应控制在 60s 以内，如机组认为无法在上述要求的时间内完成，须在首次联系塔台时向管制员说明（湿跑道或污染跑道除外）。

2.7.2.1 Aircraft shall fully vacate runway within 60 seconds after touching down; If flight crew consider that they can not fulfill the process within the required time, pilot shall inform TWR ATC controller at first contact(except for wet or contaminated RWY).

2.7.2.2 落地航空器应尽快退出跑道，脱离跑道后应及时向塔台管制员报告已脱离跑道和脱离所使用的滑行道。

2.7.3 在转换跑道运行方向过程中，短时使用跑道顺风分量大于3m/s，但不大于5m/s时，管制员应将该信息通知相关航空器驾驶员。航空器驾驶员根据机型性能或运行手册，决定是否使用管制员安排的顺风跑道起飞或着陆，并将决定告知管制员。

2.8 机动区冲突多发地带运行要求：

2.8.1 参照 ZSNB AD2.24-1,2。

2.9 在申请推出前确保飞机已完全准备好且牵引车已经挂好。获得推出指令后必须在 2min 内执行，若超时则管制指令自动失效，需要重新申请。

3. 机坪和机位的使用

3.1 未经空中交通管制部门同意，严禁航空器利用自身动力倒滑。航空器在机坪上活动必须经空管部门同意后，方可按指定的滑行路线滑行、牵引。

3.2 航空器发动机试车需经塔台和指挥中心许可，并在G滑行道以东的A滑行道和23至26号机位区域试车点进行，严禁在其他区域试车，试车时间是21:00至16:00(UTC)。

2.7.2.2 Landing aircraft shall vacate the RWY as soon as possible, then inform TWR ATC controller.

2.7.3 When aircraft change direction of runway in use, if downwind speed is more than 3m/s and not exceeding 5m/s for short time, ATC controller shall inform flight crew. According to aircraft performance or operation handbook, pilot shall decide whether aircraft will take off or land on downwind runway allocated, then inform ATC controller.

2.8 Hot spot procedure:

2.8.1 Refer to ZSNB AD2.24-1,2.

2.9 Aircrew shall make sure that aircraft has been ready and tractor has been hung up before applying for the push-back clearance. Aircrew must push-back after acquiring the clearance within 2 mins. Otherwise, the clearance is invalid and need applied again.

3. Use of aprons and parking stands

3.1 Aircraft push-back on its own power without ATC clearance is strictly forbidden. Aircraft taxiing and push-back on apron shall follow ATC clearance strictly.

3.2 Engine run-ups are subject to Tower Control and Command Center clearance, and may only be carried out between TWY A(east of TWY G) and stands Nr.23-26 from 21:00 to 16:00(next day). Other areas are strictly forbidden.

3.3 机位使用限制 /Limits for aircraft parking on the following stands:

停机位 /Stands	航空器翼展限制 / Wing span limits for aircraft	机身长度限制 / Fuselage limits	滑入、滑出方式 / Enter or exit
Nr. 3	≤ 65m	≤ 70.67	Taxi in/Push-back
Nr. 1, 2,17,18	≤ 64.92m	≤ 70.67m	Taxi in/Push-back
Nr. 19,20	≤ 51.97m	≤ 61.60m	Taxi in/Push-back
Nr. 8, 9	≤ 47.57m	≤ 53.61m	Taxi in/Push-back
Nr. 4-6, 21-26	≤ 36m	≤ 46.50m	Taxi in/Push-back
Nr. 7, 10-16	≤ 36m	≤ 44.50m	Taxi in/Push-back
Nr. 17A,17B,17C	≤ 24m	≤ 29.87m	Taxi in/Push-back

3.4 组合机位的使用模式 / Use of combined stands:

组合机位群 / Combined stands	组合模式 / Combined mode	模式包含机位及使用限制 / Stands included in use mode and limits			
		机位 / Stand	翼展限制 / Wing span limits	机身长度限制 / Fuselage limits	滑进、滑出方式 / Enter or exit
17,17A, 17B,17C	17	17	≤ 64.92m	≤ 70.67m	Taxi in/Push-back
	17A,17B,17C	17A	≤ 24m	≤ 29.87m	
		17B	≤ 24m	≤ 29.87m	
		17C	≤ 24m	≤ 29.87m	
	17A,17B	17A	≤ 24m	≤ 29.87m	Taxi in/ Taxi out
		17B	≤ 24m	≤ 29.87m	

4. 进、离场管制规定

无

4. Air traffic control regulations

Nil

5. 机场的 II/III 类运行

无

5. CAT II/III operations at AD

Nil

6. 除冰规则

无

6. Rules for deicing

Nil

7. 平行跑道同时仪表运行

无

7. Simultaneous operations on parallel runways

Nil

8. 警告

无

8. Warning

Nil

9. 直升机飞行限制, 直升机停靠区

无

9. Helicopter operation restrictions and helicopter parking/docking area

Nil

ZSNB AD 2.21 噪音限制规定及减噪程序

无

ZSNB AD 2.21 Noise restrictions and Noise abatement procedures

Nil

ZSNB AD 2.22 飞行程序

ZSNB AD 2.22 Flight procedures

1. 总则

除经塔台特殊许可外, 在塔台管制区内的飞行, 必须按照仪表飞行规则进行。

1. General

Flights within Tower Control Area shall operate under IFR unless special clearance has been obtained from Tower Control.

2. 起落航线

起落航线在跑道西南侧进行, C、D类航空器高度600m, A、B类航空器高度300m。

2. Traffic circuits

Traffic circuits shall be made to the southwest of runway, at the altitude of 600m for aircraft CAT C/D, and 300m for aircraft CAT A/B.

3. 仪表飞行程序

严格按照航图中公布的进、离场程序和ENR2.2.3中公布的有关规定飞行。如果需要, 航空器可在空中交通管制部门指定的航路、导航台或定位点上空等待或做机动飞行。

3. IFR flight procedures

Strict adherence is required to the relevant arrival/departure procedures published in the aeronautical charts and the relevant regulations published in subsection ENR2.2.3. Aircraft may, if necessary, hold or maneuver on an airway, over a navigation facility or a fix designated by ATC.

4. 雷达程序和 / 或 ADS-B 程序

4.1 宁波进近管制区域内实施雷达管制。航空器最小水平间隔为6km, 最小垂直间隔为300m。

4. Radar procedures and/or ADS-B procedures

4.1 Radar control within Ningbo APP Control Area has been implemented. The minimum horizontal radar separation is 6km, the minimum vertical radar separation is 300m.

5. 无线电通信失效程序

5.1 航空器通信失效

5.1.1 如果航空器具备信号接收能力, 根据接收到的管制指令继续飞行;

5.1.2 如果航空器不具备信号接收能力, 航空器应按照进近程序继续进近并尽快落地; 如果本场不具备落地条件, 飞行员可自行决定返航或者备降;

5. Radio communication failure procedures

5.1 Aircraft communication failure

5.1.1 If the radio receiver available, aircraft shall follow the instruction to fly.

5.1.2 If the radio receiver not available, aircraft shall continue to landing with approach procedure as soon as possible; If condition of airports not available for landing, the flight crew should decide to return or alternate by themselves;

a. 向13号着陆

航空器按照最后接收到的管制员指令高度 (如果低于1800m则上升至1800m) 飞向所许可的仪表进近程序中间进近定位点 IF, 进入等待程序盘旋下降后按照13号跑道仪表进近程序着陆;

a. landing to RWY13

Aircraft fly to the IF point of the permitted IAP according to the last command ALT (climb to 1800m if not reached), then join the holding procedure, descend to loss altitude and then approach and land according to RWY 13 instrument approach procedure;

b. 向 31 号着陆

航空器按照最后接收到的管制员指令高度 (如果低于 1800m 则上升至 1800m) 飞向 NGB 台, 进入等待程序盘旋下降后按照 31 号跑道仪表进近程序着陆;

5.1.3 未收到管制进场航线指令, 不得使用须经管制员许可的进场航线。

5.2 本场通信失效

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

5.3 无线电通信恢复

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

b. landing to RWY31

Aircraft fly to 'NGB' VOR according to the last command ALT (climb to 1800m if not reached), then join the holding procedure, descend to loss altitude and then approach and land according to RWY 31 instrument approach procedure;

5.1.3 Arrival procedures requiring ATC clearance are not available without ATC clearance.

5.2 Aerodrome communication failure

If aircraft cannot establish communication with the aerodrome control unit, aircraft shall contact the previous control unit, and follow the instruction to continue;

5.3 Radio communication resume to normal

It is available to resume activities when the aircraft that lose touch via Communication Channel has landed or get in touch again. Inform the ATC office immediately.

6. 目视飞行程序

无

6. Procedures for VFR flights

Nil

7. 目视飞行航线

无

7. VFR route

Nil

8. 目视参考点

无

8. Visual reference point

Nil

9. 其它规定

无

9. Other regulations

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
NB104	N295813E1211237	NB301	N294622E1214438
NB105	N300306E1210405	NB302	N295500E1220000
NB106	N300431E1211249	NB303	N294508E1212414
NB107	N295341E1210914	NB304	N293536 E1212648
NB108	N294939E1210436	NB305	N294554E1210931
NB109	N294924E1211646	NB306	N294729E1212008

NB203	N294152E1214114	NB307	N295355E1212010
NB204	N293721E1213750	AND	N3015.4E12113.3
NB205	N294005E1213303	HSN	N2955.9E12221.8
NB206	N294224E1212901	NGB	N2949.8E12127.8
NB207	N295947E1210217	SHZ	N2936.0E12049.0
NB208	N295818E1210326	BK	N2953.7E12120.0
NB209	N295418E1214236	SUPAR	N3001.4E12051.5

RWY13 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
AND-61X								
CA			128		200			RNP1
DF	NB306			R	1500	MAX350		RNP1
TF	NB109				1800			RNP1
TF	NB107							RNP1
TF	NB105							RNP1
TF	AND							RNP1
AND-63X(by ATC)								
CA			128		200			RNP1
DF	NB306			R	1500	MAX350		RNP1
TF	NB109				1800			RNP1
TF	NB307				by ATC			RNP1
TF	AND							RNP1
AND-65X(by ATC)								
CA			128		350			RNP1
CF	NB209		031	L	by ATC	MAX350		RNP1
TF	AND							RNP1
HSN-61X								
CA			128		200			RNP1
DF	NB306			R	1500	MAX350		RNP1
TF	NB109				1800			RNP1
TF	NB107							RNP1
TF	NB104							RNP1
TF	NB307				3000			RNP1
TF	NB209				3000			RNP1
TF	NB302				3000			RNP1
TF	HSN				3000			RNP1
HSN-63X(by ATC)								
CA			128		350			RNP1
CF	NB209		031	L	by ATC	MAX350		RNP1
TF	NB302				3000			RNP1
TF	HSN							RNP1
SHZ-61X(by ATC)								
CA			128		200			RNP1
DF	NB304			R	by ATC	MAX350		RNP1
TF	SHZ							RNP1
SHZ-63X								
CA			128		200			RNP1
DF	NB306			R	1500	MAX350		RNP1
TF	NB109				1800			RNP1
TF	SHZ							RNP1
SUP-61X								

CA			128		200			RNP1
DF	NB306			R	1500	MAX350		RNP1
TF	NB109				1800			RNP1
TF	NB107							RNP1
TF	SUPAR							RNP1

RWY31 SID Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
AND-62X								
CF	NB307		308		↑ 650			RNP1
TF	NB104							RNP1
TF	NB105							RNP1
TF	AND					MAX350		RNP1
AND-64X(by ATC)								
CF	NB307		308		↑ 650			RNP1
TF	AND					MAX350		RNP1
HSN-62X								
CF	NB307		308		↑ 650			RNP1
TF	NB104							RNP1
TF	NB107					MAX350		RNP1
TF	NB109							RNP1
TF	NB307				3000			RNP1
TF	NB209				3000			RNP1
TF	NB302				3000			RNP1
TF	HSN				3000			RNP1
HSN-64X(by ATC)								
CF	NB307		308		↑ 650			RNP1
TF	NB109				by ATC	MAX350		RNP1
TF	NB303				by ATC			RNP1
TF	NGB				by ATC			RNP1
TF	NB209				3000			RNP1
TF	NB302				3000			RNP1
TF	HSN				3000			RNP1
SHZ-62X								
CF	NB307		308		↑ 650			RNP1
TF	NB104							RNP1
TF	NB107					MAX350		RNP1
TF	SHZ							RNP1
SUP-62X								
CF	NB307		308		↑ 650			RNP1
TF	NB208					MAX350		RNP1
TF	SUPAR							RNP1

RWY13 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
AND-51F								
IF	AND							RNP1
TF	NB105				1500	MAX380		RNP1
AND-53F(by ATC)								
IF	AND							RNP1

TF	NB106				1500	MAX380		RNP1
HSN-51F								
IF	HSN							RNP1
TF	NB302				2700			RNP1
TF	NB209				2700			RNP1
TF	NB307				2700			RNP1
TF	NB109				↑ 1800	MAX380		RNP1
HSN-53F(by ATC)								
IF	HSN							RNP1
TF	NB302				2700			RNP1
TF	NB209				2700			RNP1
TF	NGB				by ATC			RNP1
TF	NB303				by ATC			RNP1
TF	NB109				↑ 1800	MAX380		RNP1
SHZ-51F								
IF	SHZ							RNP1
TF	NB108				1800	MAX380		RNP1
SUP-51F								
IF	SUPAR							RNP1
TF	NB207				1500	MAX380		RNP1

RWY13 Transition Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/ TCH	Navigation Specification
AND-51F								
TF	NB105				1500	MAX380		RNP1
TF	NB104				↑ 1000			RNP1
AND-53F(by ATC)								
TF	NB106				1500	MAX380		RNP1
TF	NB104				↑ 1000			RNP1
HSN-51F,HSN-53F(by ATC)								
TF	NB109				↑ 1800	MAX380		RNP1
TF	NB107				1500			RNP1
TF	NB104				↑ 1000			RNP1
SHZ-51F								
TF	NB108				1800	MAX380		RNP1
TF	NB107				1500			RNP1
TF	NB104				↑ 1000			RNP1
SUP-51F								
TF	NB207				1500	MAX380		RNP1
TF	NB104				↑ 1000			RNP1

RWY31 STAR Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/ TCH	Navigation Specification
AND-52F								
IF	AND							RNP1
TF	NB105							RNP1
TF	NB107							RNP1
TF	NB109							RNP1
TF	NB306				1500			RNP1
TF	NB206				1200			RNP1

TF	NB205				1200	MAX380		RNP1
AND-54F(by ATC)								
IF	AND							RNP1
TF	NB307				by ATC			RNP1
TF	NB109							RNP1
TF	NB306				1500			RNP1
TF	NB206				1200			RNP1
TF	NB205				1200	MAX380		RNP1
AND-56F(by ATC)								
IF	AND							RNP1
TF	NB209				by ATC			RNP1
TF	NB301				1200	MAX380		RNP1
HSN-52F								
IF	HSN							RNP1
TF	NB302				2700			RNP1
TF	NB209				2700			RNP1
TF	NB307				2700			RNP1
TF	NB104							RNP1
TF	NB107							RNP1
TF	NB109							RNP1
TF	NB306				1500			RNP1
TF	NB206				1200			RNP1
TF	NB205				1200	MAX380		RNP1
HSN-54F(by ATC)								
IF	HSN							RNP1
TF	NB302				2700			RNP1
TF	NB301				1200	MAX380		RNP1
SHZ-52F								
IF	SHZ							RNP1
TF	NB305				↑ 1800			RNP1
TF	NB109							RNP1
TF	NB306				1500			RNP1
TF	NB206				1200			RNP1
TF	NB205				1200	MAX380		RNP1
SHZ-54F(by ATC)								
IF	SHZ							RNP1
TF	NB304				1800	MAX380		RNP1
SUP-52F								
IF	SUPAR							RNP1
TF	NB107							RNP1
TF	NB109							RNP1
TF	NB306				1500			RNP1
TF	NB206				1200			RNP1
TF	NB205				1200	MAX380		RNP1

RWY31 Transition Navigation database coding table

Path Terminator	Waypoint ID	Fly over	Magnetic Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/TCH	Navigation Specification
AND-52F,AND-54F(by ATC),HSN-52F,SHZ-52F,SUP-52F								
TF	NB205				1200	MAX380		RNP1
TF	NB204							RNP1
TF	NB203				↑ 1100			RNP1
AND-56F(by ATC),HSN-54F(by ATC)								

TF	NB301				1200	MAX380		RNP1
TF	NB203				↑ 1100			RNP1
SHZ-54F(by ATC)								
TF	NB304				1800	MAX380		RNP1
TF	NB204							RNP1
TF	NB203				↑ 1100			RNP1

RWY13 Holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	M a g n e t i c Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/ TCH	Navigation Specification
Holding (outbound time 1 minute)								
HM	NB104	Y	128° (i n b o u n d angle)	R	1200	MAX400		RNP1
HM	NB108	Y	049° (i n b o u n d angle)	L	by ATC	MAX400		RNP1

RWY31 Holding Navigation database coding table

Path Terminator	Waypoint ID	Fly over	M a g n e t i c Course (°)	Turn Direction	Altitude (m)	IAS (km/h)	VPA/ TCH	Navigation Specification
Holding (outbound time 1 minute)								
HM	NB203	Y	308° (i n b o u n d angle)	R	by ATC	MAX400		RNP1
HM	NB305	Y	065° (i n b o u n d angle)	L	by ATC	MAX400		RNP1

ZSNB AD 2.23 其它资料

ZSNB AD 2.23 Other information

鸟类主要活动情况见下表，机场当局采取了驱赶措施，以减少鸟群活动。

Mainly activities of bird flocks are described in the following table. Aerodrome Authority resorts to dispersal methods to reduce bird activities.

Type of bird	Activity period	Flight altitude(m)	Activity habit
aigret	From end of June to beginning of October	0-30	bevy
night heron	From end of June to beginning of October	0-30	solo or little bevy
snipe	April to May, August to September	0-20	bevy
sparrow	Whole year	0-10	bevy
skylark	November to February(Next year)	0-30	bevy
swallow	April to August	0-20	solo or little bevy
kestrel	October to March(Next year)	0-200	solo