

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

ZSJN/TNA-济南/遥墙 JINAN/Yaoqiang

**ZSJN 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<br>ARP coordinates and site at AD                                                 | N36°51.5' E117°12.9'<br>Center of RWY                                                                                                                                                                                          |
| 2 | 机场基准点与城市的位置关系<br>Direction and distance from city                                                 | 040° GEO, 28.5km from Ximen bridge, Jinan                                                                                                                                                                                      |
| 3 | 机场标高、基准温度、低温均值<br>ELEV/Reference temperature/Mean low temperature                                 | 23.1 m/32.2°C(JUL)/-7.6°C(JAN)                                                                                                                                                                                                 |
| 4 | 机场标高位置的大地水准面波幅<br>Geoid undulation at AD ELEV PSN                                                 |                                                                                                                                                                                                                                |
| 5 | 磁差(测量年份)及年变率<br>VAR(Year)/Annual change                                                           | 6°19'W(2018)/-5'22"                                                                                                                                                                                                            |
| 6 | 机场管理部门、地址、电话、传真、AFS 地址、电子邮箱、网址<br>AD administration/Address/Telephone/Telefax/AFS/ E-mail/Website | Jinan International Airport CO. LTD.<br>Yaoqiang Airport, Licheng district, Jinan, Shandong province, China Post code:250107<br>TEL:86-531-82086166/82086266<br>FAX:86-531-82086111<br>AFS:ZSJNYDYX<br>E-mail:jinanaoc@163.com |
| 7 | 允许飞行种类<br>Types of traffic permitted(IFR/VFR)                                                     | IFR-VFR                                                                                                                                                                                                                        |
| 8 | 机场性质/飞行区指标<br>Military or civil airport/Reference code                                            | CIVIL/4E                                                                                                                                                                                                                       |
| 9 | 备注<br>Remarks                                                                                     | Nil                                                                                                                                                                                                                            |

**ZSJN AD 2.3 工作时间 Operational hours**

|   |                                   |           |
|---|-----------------------------------|-----------|
| 1 | 机场开放时间<br>AD Operational hours    | H24       |
| 2 | 海关和移民<br>Customs and immigration  | HS or O/R |
| 3 | 卫生健康部门<br>Health and sanitation   | HS or O/R |
| 4 | 航空情报服务讲解室<br>AIS Briefing Office  | HS or O/R |
| 5 | 空中交通服务报告室<br>ATS Reporting Office | HS or O/R |

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

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

|   |                                                       |                                                                                                                               |
|---|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1 | 货物装卸设施<br>Cargo-handling facilities                   | Platform lift(7t, 15t, 30t ), conveyor belt truck, tow-tractor                                                                |
| 2 | 燃油牌号<br>Fuel types                                    | Jet Fuel No.3                                                                                                                 |
| 3 | 滑油牌号<br>Oil types                                     | Nil                                                                                                                           |
| 4 | 加油设施/能力<br>Fuelling facilities & Capacity             | Tank refuellers(20000L, 45000L, 47000L), hydrant dispensers;<br>Capacity: 63L/s per vehicle, 333L/s for hydrant pits of apron |
| 5 | 除冰设施<br>De-icing facilities                           | Deicing apron(Stands Nr.511L/R, 512, 513);<br>13 deicers;<br>Deicing fluid: CLEANWING-I;<br>1 deicing fluid filling point.    |
| 6 | 过站航空器机库<br>Hangar space for visiting aircraft         | Nil                                                                                                                           |
| 7 | 过站航空器的维修设施<br>Repair facilities for visiting aircraft | Line maintenance available for aircraft on request.<br>Other maintenance work by prior arrangement.                           |
| 8 | 备注<br>Remarks                                         | Airport passenger buses and passenger boarding stairs                                                                         |

**ZSJN AD 2.5 旅客设施 Passenger facilities**

|   |                   |       |
|---|-------------------|-------|
| 1 | 宾馆<br>Hotels      | At AD |
| 2 | 餐饮<br>Restaurants | At AD |

|   |                               |                                                  |
|---|-------------------------------|--------------------------------------------------|
| 3 | 交通工具<br>Transportation        | Passenger's coaches, taxis                       |
| 4 | 医疗设施<br>Medical facilities    | First-aid center in airport and hospital in city |
| 5 | 银行和邮局<br>Bank and Post Office | At AD(0100-0800 UTC)                             |
| 6 | 旅行社<br>Tourist Office         | In the city<br>TEL: 86-531-6011908               |
| 7 | 备注<br>Remarks                 | Nil                                              |

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

|   |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 机场消防等级<br>AD category for fire fighting                   | CAT 9                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2 | 援救设备<br>Rescue equipment                                  | Fire fighting facilities: rapid intervention vehicle, primary foam tender, heavy foam tender, heavy water tender, dry-chemical tender, illumination truck, command car, demolition rescue truck, logistics truck.<br>Rescue equipments: aircraft hoisting gasbag, three-axle moving trailer, lifting equipment, movement surface, loader, dump truck, road roller, fork, transport vehicle, excavator. |
| 3 | 搬移受损航空器的能力<br>Capability for removal of disabled aircraft | Up to B747-400(included),<br>Moving EQPT: mobile surface operation devices, aircraft axle jack(90t, 65t), aircraft tractor, traction rack(30t, 60t), etc.                                                                                                                                                                                                                                              |
| 4 | 备注<br>Remarks                                             | Lifting EQPT can be made from city resources                                                                                                                                                                                                                                                                                                                                                           |

**ZSJN AD 2.7 可用季节- 扫雪 Seasonal availability-clearing**

|   |                                                                  |                                                                                                                          |
|---|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1 | 可用季节及扫雪设备类型<br>Seasonal availability/Types of clearing equipment | All seasons<br>Snow blowers, snow ploughs, snow board, snow fluid truck, snow removal vehicles, small-sized snow ploughs |
| 2 | 扫雪顺序<br>Clearance priorities                                     | RWY→TWY→apron                                                                                                            |
| 3 | 备注<br>Remarks                                                    | Nil                                                                                                                      |

**ZSJN 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<br>Apron surface and strength | 道面<br>Surface  | CONC                                                                                                                                                                                                             |
|   |                                        | 强度<br>Strength | PCR 880/R/A/W/T : Apron Nr.3 (stands Nr.321-324, 322L/R, 323L/R, 324L/R), Apron Nr.5(stands Nr.511L/R, 512, 513, 521, 522L/R, 523L/R, 524-529)<br>PCR 820/R/A/W/T : Apron Nr.2 (stands Nr.1-34, 201-203, 203L/R) |

|   |                                                    |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                   |
|---|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                    |                                                                                                                                                                                                                                            | PCR 650/R/A/W/T : Apron Nr.5(stands Nr.501-510)                                                                                                                                                                                                                                                                                                   |
| 2 | 滑行道宽度、道面和强度<br>Taxiway width, surface and strength | 宽度<br>Width                                                                                                                                                                                                                                | 28.5m : A1, A14, C, D, E(east of A), F, G<br>23m : A, B, B1-B3, B10-B14, E(west of A), J, K, L, L1, L2, N, P, T1-T4, U1-U3, W, W1-W5, Y2-Y4<br>18m : B15, T6, Y1                                                                                                                                                                                  |
|   |                                                    | 道面<br>Surface                                                                                                                                                                                                                              | CONC                                                                                                                                                                                                                                                                                                                                              |
|   |                                                    | 强度<br>Strength                                                                                                                                                                                                                             | PCR 1100/R/B/W/T : A(north of C)<br>PCR 880/R/A/W/T : B, B1-B3, B10-B15, T1-T4, U1-U3, W, W1-W5, Y4<br>PCR 870/R/A/W/T : A(south of C)<br>PCR 850/R/A/W/T : A1, A14<br>PCR 820/R/A/W/T : J, K, L, L1, L2, N, P, T6<br>PCR 800/R/A/W/T : E(east of A)<br>PCR 740/R/A/W/T : C, D, F, G<br>PCR 670/R/A/W/T : E(west of A)<br>PCR 650/R/A/W/T : Y1-Y3 |
| 3 | 高度表校正点的位置及其标高<br>ACL location and elevation        | Nil                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                   |
| 4 | VOR 校正点<br>VOR checkpoints                         | Nil                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                   |
| 5 | INS 校正点<br>INS checkpoints                         | Nil                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                   |
| 6 | 备注<br>Remarks                                      | Width of TWY shoulders:<br>3.5m for B15, Y3;<br>5m for Y1;<br>7.5m for B(north of B10, south of B3), B1-B3, B10-B14, T1-T4, U1-U3, W, W1-W5;<br>10.5m for A1, A14, B(BTN B10& B3), K(east of B), L(east of B), N(east of B), P(east of B). |                                                                                                                                                                                                                                                                                                                                                   |

## ZSJN 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<br>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.<br>Aircraft stand identification sign boards at stands Nr. 1-34, 201-203, 203R, 321-324, 501-510, 511R, 512, 513, 521, 522L, 522R, 523L, 523R, 524-529.<br>Guide lines at all TWYs.<br>Guide lines at all aprons. |                                                                     |
| 2 | 跑道和滑行道标志及灯光<br>RWY and TWY marking and LGT                                                                                                          | 跑道标志<br>RWY markings                                                                                                                                                                                                                                                          | THR, RWY designation, edge line, RWY center line, TDZ, aiming point |
|   |                                                                                                                                                     | 跑道灯光<br>RWY lights                                                                                                                                                                                                                                                            | RTHL, WBAR, REDL, RCLL, RENL                                        |

|   |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |
|---|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|   |                                                 | 滑行道标志<br>TWY markings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Edge line, center line, No-entry(C, D, F, G), RWY holding position, intermediate holding position |
|   |                                                 | 滑行道灯光<br>TWY lights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Edge line lights, center line lights, No-entry bar , RETILs, intermediate holding position lights |
| 3 | 停止排灯和跑道警戒灯<br>Stop bars and runway guard lights | Runway guard lights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                   |
| 4 | 其它跑道保护措施<br>Other runway protection measures    | Nil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                   |
| 5 | 备注<br>Remarks                                   | <p>Sign borads on RWYs and TWYs.</p> <p>Identification markings and signs for aircraft stands Nr.203L, 322L/R, 323L/R, 324L/R, 511L.</p> <p>Taxiing guidance signs at all holding positions except:</p> <p>the intermediate holding positions of TWY B11, L1, L2, W5, Y4, U2;</p> <p>the intermediate holding positions(west of TWY B) of TWY T6, N, L, P, K, J;</p> <p>the holding positions before TWY B3, T1 when taxiing via TWY B FM north to south;</p> <p>the holding positions before TWY J, stand Nr.31 when taxiing via TWY B FM south to north;</p> <p>the intermediate holding positions(north of stand Nr.510) of TWY Y1, Y2;</p> <p>and the intermediate holding positions of TWY Y3 west of stand Nr.501.</p> <p>Taxiway edge retro-reflective markers (blue) installed on some TWYs.</p> <p>No center line lights for TWY J, K, L1, and no center line lights for the turning-left segment from TWY Y4 to Y2.</p> <p>BLUE apron edge line lights</p> |                                                                                                   |

## ZSJN AD 2.10 机场障碍物 Aerodrome obstacles

半径 15 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles within a circle with a radius of 15km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志, 灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1                                           | 2                         | 3                                                                        | 4                                           | 5                                                                       | 6                                                                                   |
| Antenna<br>001                              | Antenna                   | 000/13277                                                                | 105.3                                       |                                                                         |                                                                                     |
| Antenna<br>002                              | Antenna                   | 001/12176                                                                | 126                                         |                                                                         | RWY01 departure<br>RWY19 ILS/DME, VOR/DME<br>Intermediate approach                  |

半径 15 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles within a circle with a radius of 15km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志, 灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| BLDG<br>003                                 | BLDG                      | 005/3220                                                                 | 41.1                                        | LGT                                                                     |                                                                                      |
| Pole<br>004                                 | Pole                      | 006/2783                                                                 | 38.1                                        |                                                                         | RWY01 Take-off path                                                                  |
| NAVAID<br>005                               | NAVAID                    | 006/2785                                                                 | 35                                          | LGT                                                                     | RWY01 Take-off path                                                                  |
| BLDG<br>006                                 | BLDG                      | 006/3219                                                                 | 41.0                                        | LGT                                                                     |                                                                                      |
| Antenna<br>007                              | Antenna                   | 011/1502                                                                 | 38.6                                        | LGT                                                                     |                                                                                      |
| STACK<br>008                                | STACK                     | 017/5666                                                                 | 67                                          |                                                                         | RWY19 GP INOP, VOR/DME<br>Final approach                                             |
| Antenna<br>009                              | Antenna                   | 034/2679                                                                 | 67.3                                        |                                                                         |                                                                                      |
| MT<br>010                                   | MT                        | 177/13719                                                                | 101.5                                       |                                                                         |                                                                                      |
| Antenna<br>011                              | Antenna                   | 182/1499                                                                 | 39                                          |                                                                         |                                                                                      |
| TRANSMISSION<br>_LINE<br>012                | TRANSM<br>SSION_L<br>INE  | 184/9114                                                                 | 65.7                                        |                                                                         |                                                                                      |
| NAVAID<br>013                               | NAVAID                    | 186/3000                                                                 | 43                                          | LGT                                                                     | RWY19 Take-off path, departure                                                       |
| Pole<br>014                                 | Pole                      | 186/3020                                                                 | 42.6                                        |                                                                         | RWY19 Take-off path                                                                  |
| TRANSMISSION<br>_LINE<br>015                | TRANSM<br>SSION_L<br>INE  | 187/9219                                                                 | 66.2                                        |                                                                         | RWY01 GP INOP, VOR/DME<br>Final approach                                             |
| TRANSMISSION<br>_LINE<br>016                | TRANSM<br>SSION_L<br>INE  | 189/9304                                                                 | 60.2                                        |                                                                         |                                                                                      |

半径 15 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles within a circle with a radius of 15km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志, 灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Antenna<br>017                              | Antenna                   | 191/6017                                                                 | 70                                          |                                                                         | RWY01 GP INOP, VOR/DME<br>Final approach                                             |
| ELECTRICAL_S<br>YSTEM<br>018                | ELECTRI<br>CAL_SYS<br>TEM | 191/14196                                                                | 86                                          |                                                                         |                                                                                      |
| STACK<br>019                                | STACK                     | 209/6292                                                                 | 102.9                                       | LGT                                                                     | Circling CAT B                                                                       |
| Antenna<br>020                              | Antenna                   | 220/5149                                                                 | 67.1                                        |                                                                         |                                                                                      |
| Bridge<br>021                               | Bridge                    | 252/7574                                                                 | 228.9                                       | LGT                                                                     | Circling CAT C/D                                                                     |
| Control TWR<br>022                          | Control<br>TWR            | 261/783                                                                  | 95.6                                        | LGT                                                                     | Circling CAT A                                                                       |
| BLDG<br>023                                 | BLDG                      | 289/839                                                                  | 71.4                                        | LGT                                                                     |                                                                                      |
| TRANSMISSION<br>_LINE<br>024                | TRANSM<br>ISSION_L<br>INE | 333/7071                                                                 | 110.1                                       |                                                                         |                                                                                      |
| TRANSMISSION<br>_LINE<br>025                | TRANSM<br>ISSION_L<br>INE | 338/6519                                                                 | 121.8                                       | LGT                                                                     |                                                                                      |

半径 15 千米-50 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles between two circles with the radius of 15km and 50km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志, 灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Antenna<br>026                              | Antenna                   | 001/51204                                                                | 133                                         |                                                                         |                                                                                      |

半径 15 千米-50 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles between two circles with the radius of 15km and 50km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志、灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| TRANSMISSION<br>_LINE<br>027                | TRANSMISSION_LINE         | 029/26514                                                                | 140                                         |                                                                        |                                                                                      |
| TRANSMISSION<br>_LINE<br>028                | TRANSMISSION_LINE         | 031/25630                                                                | 155                                         |                                                                        |                                                                                      |
| TRANSMISSION<br>_LINE<br>029                | TRANSMISSION_LINE         | 033/24888                                                                | 114                                         |                                                                        |                                                                                      |
| MT<br>030                                   | MT                        | 096/39452                                                                | 592                                         |                                                                        | sector                                                                               |
| MT<br>031                                   | MT                        | 100/32812                                                                | 393                                         |                                                                        |                                                                                      |
| MT<br>032                                   | MT                        | 103/35696                                                                | 699                                         |                                                                        |                                                                                      |
| Antenna<br>033                              | Antenna                   | 105/24686                                                                | 175                                         |                                                                        |                                                                                      |
| MT<br>034                                   | MT                        | 106/39272                                                                | 827                                         |                                                                        |                                                                                      |
| STACK<br>035                                | STACK                     | 130/30740                                                                | 246                                         |                                                                        |                                                                                      |
| MT<br>036                                   | MT                        | 133/36143                                                                | 374                                         |                                                                        |                                                                                      |
| MT<br>037                                   | MT                        | 135/39633                                                                | 694                                         |                                                                        |                                                                                      |
| MT<br>038                                   | MT                        | 135/97865                                                                | 1108                                        |                                                                        | MVA<br>K005                                                                          |
| MT<br>039                                   | MT                        | 136/48574                                                                | 762                                         |                                                                        |                                                                                      |
| MT<br>040                                   | MT                        | 139/49630                                                                | 834                                         |                                                                        |                                                                                      |



半径 15 千米-50 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles between two circles with the radius of 15km and 50km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志、灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| MT<br>041                                   | MT                        | 167/38124                                                                | 796                                         |                                                                        | RWY01 PBN Initial approach                                                           |
| MT<br>042                                   | MT                        | 170/39624                                                                | 853                                         |                                                                        | MVA                                                                                  |
| MT<br>043                                   | MT                        | 177/20639                                                                | 257                                         |                                                                        | MVA                                                                                  |
| MT<br>044                                   | MT                        | 177/37962                                                                | 746                                         |                                                                        |                                                                                      |
| MT<br>045                                   | MT                        | 177/44093                                                                | 858                                         |                                                                        |                                                                                      |
| MT<br>046                                   | MT                        | 179/19550                                                                | 254                                         |                                                                        |                                                                                      |
| MT<br>047                                   | MT                        | 179/33897                                                                | 757                                         |                                                                        | RWY01 ILS/DME, VOR/DME<br>Initial approach                                           |
| MT<br>048                                   | MT                        | 179/42558                                                                | 857                                         |                                                                        |                                                                                      |
| MT<br>049                                   | MT                        | 181/26481                                                                | 498                                         |                                                                        |                                                                                      |
| MT<br>050                                   | MT                        | 185/28613                                                                | 527                                         |                                                                        | RWY01 traditional, PBN Initial<br>approach                                           |
| MT<br>051                                   | MT                        | 185/49326                                                                | 976                                         |                                                                        | MVA                                                                                  |
| Antenna<br>052                              | Antenna                   | 195/22585                                                                | 370                                         |                                                                        | RWY0 Initial approach                                                                |
| MT<br>053                                   | MT                        | 195/67272                                                                | 1545                                        |                                                                        | MVA                                                                                  |
| MT<br>054                                   | MT                        | 196/17671                                                                | 174                                         |                                                                        |                                                                                      |
| MT<br>055                                   | MT                        | 197/41763                                                                | 567                                         |                                                                        |                                                                                      |
| MT<br>056                                   | MT                        | 198/44451                                                                | 626                                         |                                                                        |                                                                                      |

半径 15 千米-50 千米内主要障碍物 (相对 01/19 跑道中心)

Obstacles between two circles with the radius of 15km and 50km (centered on the center of RWY 01/19)

| 障碍物名称<br>或编号<br>Obstacle ID/<br>Designation | 障碍物类型<br>Obstacle<br>type | 障碍物位置<br>磁方位(°)/距离(m)<br>Obstacle position<br>MAG<br>BRG(degree)/DIST(m) | 标高或<br>(高)<br>Elevation<br>/(Height)<br>(m) | 障碍物标志、灯光<br>类型及颜色<br>Obstacle<br>marking<br>/Lighting Type<br>& Colour | 影响的飞行程序及<br>起飞航径区/备注<br>Flight procedure/take-off<br>path area affected<br>& Remarks |
|---------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Pole<br>057                                 | Pole                      | 199/15741                                                                | 133                                         |                                                                        |                                                                                      |
| MT<br>058                                   | MT                        | 199/35873                                                                | 755                                         |                                                                        | RWY01 PBN Initial approach                                                           |
| NATURAL_HIG<br>HPOINT<br>059                | NATURA<br>L_HIGHP<br>OINT | 201/30755                                                                | 580                                         |                                                                        | MVA                                                                                  |
| BLDG<br>060                                 | BLDG                      | 203/22901                                                                | 482                                         |                                                                        | RWY01 holding                                                                        |
| MT<br>061                                   | MT                        | 230/19745                                                                | 197                                         |                                                                        |                                                                                      |
| Remarks:                                    |                           |                                                                          |                                             |                                                                        |                                                                                      |

**ZSJN 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<br>Associated MET Office                                                                             | Shandong ATMB MET Office of CAAC                                                                                 |
| 2 | 气象服务时间、服务时间以外的责任气象台<br>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<br>Office responsible for TAF preparation/Periods of<br>validity/Interval of issuance | Shandong ATMB MET Office of CAAC;24h;6h                                                                          |
| 4 | 趋势预报及发布间隔<br>Trend forecast/Interval of issuance                                                              | trend 1h                                                                                                         |
| 5 | 所提供的讲解或咨询服务<br>Briefing/Consultation provided                                                                 | Briefing provided: P, T, TV                                                                                      |
| 6 | 飞行文件及其使用语言<br>Flight documentation/Language(s) used                                                           | Chart, International MET Codes, Abbreviated Plain Language Text;Ch, En                                           |
| 7 | 讲解或咨询服务时可利用的图表和其它信息<br>Charts and other information available for                                             | Synoptic charts, significant weather charts, upper W/T charts, satellite and radar material, AWOS real-time data |

|                                                    |                                                                                      |                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | briefing or consultation                                                             |                                                                                                                                                                                                                                                                                                                                                               |
| 8                                                  | 提供气象情报的辅助设备<br>Supplementary equipment available for providing information           | FAX, internet                                                                                                                                                                                                                                                                                                                                                 |
| 9                                                  | 提供气象情报的空中交通服务单位<br>ATS units provided with information                               | ACC, APP, ATS Reporting Office (ARO), TWR                                                                                                                                                                                                                                                                                                                     |
| 10                                                 | 其他信息<br>Additional information                                                       | Nil                                                                                                                                                                                                                                                                                                                                                           |
| 气象观测和报告<br>Meteorological observations and reports |                                                                                      |                                                                                                                                                                                                                                                                                                                                                               |
| 1                                                  | 机场观测类型与频率、自动观测设备<br>Type & frequency of observation /Automatic observation equipment | Hourly plus special observation/Automatic meteorological observation system                                                                                                                                                                                                                                                                                   |
| 2                                                  | 气象报告类型及所包含的补充资料<br>Type of MET Report/Supplementary information included             | METAR, SPECI                                                                                                                                                                                                                                                                                                                                                  |
| 3                                                  | 观测系统及安装位置<br>Observation system/Site(s)                                              | RVR EQPT<br>A: 100m E of RCL, 309m inward THR01<br>B: 100m E of RCL, 1800m inward THR19<br>C: 100m E of RCL, 336m inward THR19<br>SFC wind sensors<br>01: 110m E of RCL,319m inward THR<br>01/19: 110m E of RCL,1800m inward THR<br>19: 110m E of RCL,316m inward THR<br>Ceilometer<br>01: 110m E of RCL,309m inward THR<br>19: 110m E of RCL,306m inward THR |
| 4                                                  | 观测系统的工作时间<br>Hours of operation for meteorological observation system                | H24                                                                                                                                                                                                                                                                                                                                                           |
| 5                                                  | 气候资料<br>Climatological information                                                   | Climatological tables AVBL                                                                                                                                                                                                                                                                                                                                    |
| 6                                                  | 其他信息<br>Additional information                                                       | Nil                                                                                                                                                                                                                                                                                                                                                           |

ZSJN AD 2.12 跑道物理特征 Runway physical characteristics

| 跑道号码<br>RWY<br>Designator               | 真方位和<br>磁方位<br>TRUE &<br>MAG BRG  | 跑道长宽<br>Dimensions<br>of RWY(m)   | 跑道强度、跑道和停<br>止道道面<br>RWY strength/<br>Surface of<br>RWY /SWY | 跑道入口坐标、<br>跑道末端坐标、<br>跑道入口大地水<br>准面波幅<br>THR coordinates<br>& RWY end<br>coordinates &<br>THR geoid<br>undulation | 跑道入口标高和<br>精密进近跑道接<br>地带最高标高<br>THR elevation &<br>highest elevation<br>of TDZ of<br>precision APP<br>RWY | 跑道和停止道坡<br>度<br>Slope of<br>RWY/SWY             |
|-----------------------------------------|-----------------------------------|-----------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1                                       | 2                                 | 3                                 | 4                                                            | 5                                                                                                                 | 6                                                                                                         | 7                                               |
| 19                                      | 180° GEO<br>186° MAG              | 3600×45                           | PCR 800/R/A/W/T<br>CONC/-                                    | Nil                                                                                                               | THR 22.4m                                                                                                 | 0.05%(1170m)/-0<br>.01%(680m)/0.01<br>%(1750m)  |
| 01                                      | 360° GEO<br>006° MAG              | 3600×45                           | PCR 800/R/A/W/T<br>CONC/-                                    | Nil                                                                                                               | THR 23.1m                                                                                                 | -0.01%(1750m)/0<br>.01%(680m)/-0.0<br>5%(1170m) |
| 跑道号码<br>RWY<br>Designator               | 停止道长宽<br>SWY<br>dimensions<br>(m) | 净空道长宽<br>CWY<br>dimensions<br>(m) | 升降带长宽<br>Strip dimensions<br>(m)                             | 跑道端安全区<br>长宽<br>RESA<br>dimensions<br>(m)                                                                         | 拦阻系统的<br>位置及描述<br>Location&<br>Description of<br>arresting system                                         | 无障碍物区<br>OFZ                                    |
| 1                                       | 8                                 | 9                                 | 10                                                           | 11                                                                                                                | 12                                                                                                        | 13                                              |
| 19                                      | Nil                               | Nil                               | 3720×300                                                     | 220×150                                                                                                           | Nil                                                                                                       | Nil                                             |
| 01                                      | Nil                               | Nil                               | 3720×300                                                     | 220×150                                                                                                           | Nil                                                                                                       | Nil                                             |
| Remarks: RWY shoulder:7.5m on each side |                                   |                                   |                                                              |                                                                                                                   |                                                                                                           |                                                 |

ZSJN AD 2.13 公布距离 Declared distances

| 跑道号码<br>RWY Designator | 可用起飞滑跑距离<br>TORA(m) | 可用起飞距离<br>TODA(m) | 可用加速停止距离<br>ASDA(m) | 可用着陆距离<br>LDA(m) | 备注<br>Remarks |
|------------------------|---------------------|-------------------|---------------------|------------------|---------------|
| 1                      | 2                   | 3                 | 4                   | 5                | 6             |
| 19                     | 3600                | 3600              | 3600                | 3600             | Nil           |
| 01                     | 3600                | 3600              | 3600                | 3600             | Nil           |

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

| 跑道<br>号码<br>RWY<br>Designator | 进近灯<br>类型、长<br>度、强度<br>APCH<br>LGT<br>type/<br>LEN/<br>/INTST | 入口灯<br>颜色、翼<br>排灯<br>THR<br>LGT<br>colour/<br>WBAR | 目视进近坡度<br>指示系统类<br>型、位置、仰<br>角、跑道入口<br>最低眼高<br>Type of<br>VASIS/Position<br>/Angle/MEHT | 接地<br>带<br>灯长<br>度<br>TDZ<br>LGT<br>LEN | 跑道中线灯长度、<br>间隔、颜色、强度<br>RWY center line<br>LGT LEN/Spacing<br>/Colour/INTST                       | 跑道边灯长度、间<br>隔、颜色、强度<br>RWY edge LGT<br>LEN/Spacing<br>/Colour/INTST         | 跑道末端灯<br>颜色<br>RWY end<br>LGT<br>colour | 停止道灯长<br>度、颜色<br>SWY<br>LGT<br>LEN<br>/Colour |
|-------------------------------|---------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|
| 1                             | 2                                                             | 3                                                  | 4                                                                                       | 5                                       | 6                                                                                                 | 7                                                                           | 8                                       | 9                                             |
| 19                            | PALS<br>CAT I<br>SFL<br>900 m<br>LIH                          | GREEN<br>Yes                                       | PAPI<br>LEFT<br>446m inward<br>THR19<br>3°<br>22.5m                                     | Nil                                     | 3600 m<br>spacing 30m<br>0-2700m, WHITE<br>2700-3300m,<br>RED/WHITE<br>3300-3600m, RED<br>VRB LIH | 3600 m<br>spacing 60m<br>0-3000m, WHITE<br>3000-3600m,<br>YELLOW<br>VRB LIH | RED                                     | Nil                                           |
| 01                            | PALS<br>CAT I<br>SFL<br>900 m<br>LIH                          | GREEN<br>Yes                                       | PAPI<br>LEFT<br>456m inward<br>THR01<br>3°<br>22.5m                                     | Nil                                     | 3600 m<br>spacing 30m<br>0-2700m, WHITE<br>2700-3300m,<br>RED/WHITE<br>3300-3600m, RED<br>VRB LIH | 3600 m<br>spacing 60m<br>0-3000m, WHITE<br>3000-3600m,<br>YELLOW<br>VRB LIH | RED                                     | Nil                                           |
| Remarks:                      |                                                               |                                                    |                                                                                         |                                         |                                                                                                   |                                                                             |                                         |                                               |

**ZSJN 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<br>ABN/IBN location, characteristics and hours<br>of operation | Nil                                                                                                                                                                                             |
| 2 | 着陆方向标和风向标位置和灯光<br>LDI/ WDI location and LGT                                        | WDI:<br>01:89.4m E of RCL, 590m inward THR<br>19:89m E of RCL, 590m inward THR                                                                                                                  |
| 3 | 滑行道边灯和滑行道中线灯<br>TWY edge and center line lighting                                  | TWYs : green center line lights, blue edge line lights                                                                                                                                          |
| 4 | 备份电源及转换时间<br>Secondary power supply/Switch-over time                               | Standby power supply available/ < 15 sec<br>In HUD special CAT II operation, the secondary power supply of RTHL,<br>WBAR, REDL, RCLL, RENL are UPS and the switch-over time is less than<br>1s. |
| 5 | 备注<br>Remarks                                                                      | Nil                                                                                                                                                                                             |

**ZSJN 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<br>Coordinates TLOF or THR of FATO, Geoid undulation       | Nil |
| 2 | TLOF 和 (或) FATO 标高<br>TLOF and/or FATO elevation                                      | Nil |
| 3 | TLOF 和 FATO 区域范围、道面、强度和标志<br>TLOF and FATO area dimensions,surface, strength, marking | Nil |
| 4 | FATO 的真方位和磁方位<br>True and MAG BRG of FATO                                             | Nil |
| 5 | 公布距离<br>Declared distance available                                                   | Nil |
| 6 | 进近灯光和 FATO 灯光<br>APP and FATO lighting                                                | Nil |
| 7 | 备注<br>Remarks                                                                         | Nil |

**ZSJN AD 2.17 空中交通服务空域 ATS airspace**

| 空域名称和水平范围<br>Designation and lateral limits |                                                                                           | 垂直范围<br>Vertical limits                                                       | 空域分类<br>Airspace class | 空中交通服务单位呼号和使用语言<br>ATS unit callsign Language | 工作时间<br>Hours of applicability | 备注<br>Remarks |
|---------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------|-----------------------------------------------|--------------------------------|---------------|
| 1                                           | 2                                                                                         | 3                                                                             | 4                      | 5                                             | 6                              | 7             |
| Jinan tower control area                    | A circuit, 2 arcs with radius 15km centered at ARP and 2 parallel lines of 10km from RCL. | GND-600m                                                                      |                        |                                               |                                |               |
| Fuel Dumping Area                           | N3718.0E11710.0-N3724.5E11730.0-N3702.5E11730.0-N3700.0E11715.0-N3718.0E11710.0           | Above 4000m                                                                   |                        |                                               |                                | by ATC        |
| Altimeter setting region and TL/TA          | A circle with a radius of 55km centered on Jinan VOR/DME.                                 | TL 3600m<br>TA 3000m<br>3300m(QNH $\geq$ 1031hPa)<br>2700m(QNH $\leq$ 979hPa) |                        |                                               |                                | by ATC        |

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

| 服务名称<br>Service designation | 呼号<br>Callsign  | 频率<br>Frequency (MHz)    | 卫星话音通信<br>号码<br>SATVOICE number | 登录地址<br>Logon address | 工作时间<br>Hours of operation | 备注<br>Remarks                 |
|-----------------------------|-----------------|--------------------------|---------------------------------|-----------------------|----------------------------|-------------------------------|
| 1                           | 2               | 3                        | 4                               | 5                     | 6                          | 7                             |
| ATIS                        |                 | 127.05                   |                                 |                       | HO                         |                               |
| APP                         | Jinan Approach  | APP01:119.05<br>(121.4)  |                                 |                       | H24                        |                               |
|                             |                 | APP02:119.225<br>(121.4) |                                 |                       | 2300-1500(next day)        | Contact APP01 when APP02 U/S. |
|                             |                 | APP03:124.475<br>(121.4) |                                 |                       | 2300-1500(next day)        | Contact APP02 when APP03 U/S. |
| TWR                         | Ji'nan Tower    | 118.55 (123.6)           |                                 |                       | H24                        |                               |
| GND                         | Ji'nan Ground   | 121.85                   |                                 |                       | 0000-1200                  |                               |
| APN                         | Ji'nan Apron    | 121.725 (129.675)        |                                 |                       | H24                        |                               |
| Delivery                    | Ji'nan Delivery | 121.65 (123.6)           |                                 |                       | 0000-1200                  | DCL available                 |
| EMG                         |                 | 121.5                    |                                 |                       | H24                        |                               |

**ZSJN 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<br>Name and type of aid, VAR, Type of supported OPS, Declination of VOR/ILS | 识别<br>ID | 频率、波道<br>Frequency/ Channel number | 工作时间<br>Hours of operation | 发射天线坐标及相对位置<br>Coordinates of transmitting antenna/ Position | DME 发射天线标高<br>Elevation of DME transmitting antenna | 备注<br>Remarks                                |
|-----------------------------------------------------------------------------------------------------------|----------|------------------------------------|----------------------------|--------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------|
| 1                                                                                                         | 2        | 3                                  | 4                          | 5                                                            | 6                                                   | 7                                            |
| Jinan VOR/DME                                                                                             | YQG      | 113.7 MHz<br>CH 84X                | H24                        | N36°50.0'<br>E117°12.9'<br>186°MAG/1000m FM<br>THR01         | 31 m                                                |                                              |
| LOC 01<br>ILS CAT I                                                                                       | IFF      | 108.9 MHz                          |                            | 006°MAG/280m FM<br>RWY01 end                                 |                                                     | Beyond 13NM of front course, below 1200m U/S |

| 设施名称及类型、磁差、支持运行类别、VOR/ILS 磁偏角<br>Name and type of aid, VAR, Type of supported OPS, Declination of VOR/ILS | 识别<br>ID | 频率、波道<br>Frequency/<br>Channel<br>number | 工作<br>时<br>间<br>Hours of<br>operation | 发射天线坐标<br>及相对位置<br>Coordinates of<br>transmitting antenna/<br>Position | DME 发射<br>天线标高<br>Elevation of<br>DME<br>transmitting<br>antenna | 备注<br>Remarks         |
|-----------------------------------------------------------------------------------------------------------|----------|------------------------------------------|---------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------|
| GP 01                                                                                                     |          | 329.3 MHz                                |                                       | 120m E of RCL, 306m<br>inside THR01                                    |                                                                  | Angle 3° , RDH 15 m   |
| DME 01                                                                                                    | IFF      | CH 26X<br>(108.9 MHz)                    |                                       | 123m E of RCL, 306m<br>inside THR01                                    | 28m                                                              | Co-located with GP 01 |
| LOC 19<br>ILS CAT I                                                                                       | IGO      | 110.5 MHz                                |                                       | 186°MAG/280m FM<br>RWY19 end                                           |                                                                  |                       |
| GP 19                                                                                                     |          | 329.6 MHz                                |                                       | 120m E of RCL, 303m<br>inside THR19                                    |                                                                  | Angle 3° , RDH 15 m   |
| DME 19                                                                                                    | IGO      | CH 42X<br>(110.5 MHz)                    |                                       | 123m E of RCL, 303m<br>inside THR19                                    | 28m                                                              | Co-located with GP 19 |

ZSJN AD 2.20 本场规定

ZSJN AD 2.20 Local aerodrome regulations

1. 机场使用规定

1. Airport operations regulations

1.1 本场可供 B747-400 同类及以下机型使用。

1.1 Maximum aircraft to be available: B747-400 and the equivalent.

1.2 禁止未安装二次雷达应答机的航空器起降，在特殊情况下，经华东空管局批准，可允许无二次雷达应答机的航空器起降。

1.2 Takeoff or landing of the aircraft without SSR transponder is forbidden, except authorized by East China ATMB, CAAC in special situation.

1.3 所有本场训（熟）练飞行、技术试飞需事先申请，并在得到济南空中交通管制部门批准后方可进行。

1.3 Each and every training or technical test flight at this airport shall be filed in advance and be implemented with clearance from Jinan ATC.

1.4 优先着陆：实施优先着陆的航空器，经管制员允许后，按照 ATC 指令实施优先着陆。

1.4 Priority landing: with ATC clearance, priority landing shall be conducted by ATC.

1.5 出港航班机组应在不早于预计起飞（ETD）前 20min 内申请 ATC 放行许可，优先使用数字放行 PDC

1.5 Departure aircraft shall contact ATC for delivery clearance not earlier than 20 minutes in prior before



申请。

ETD. Use PDC via data link to apply in priority.

1.6 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。

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

1.7 机坪管制运行管理规定

1.7 Rules of Apron operation control area

1.7.1 机坪管制实施范围为 A 滑行道以西各 A 滑行道外等待点连线西侧（不含 A 滑、T3 以北的 B 滑、B15 滑、T3 滑）的机场活动区。济南机坪管制负责该区域航空器推出、开车、滑行和其他涉及航空器运行的指挥工作，具体管制移交点及移交方式听从管制员指令执行。

1.7.1 Apron operation control area: aerodrome movement area west of the line formed by each holding point west of TWY A, not including TWY A, B(north of T3), B15 and T3. Jinan Apron control(APN) is responsible for aircraft push back, engine-starting, taxiing and other operations in the area. Follow ATC instructions for details of control transfer positions and control transfer way.

1.7.2 离港航空器向济南塔台申请放行许可后：

1.7.2 The departure aircraft with delivery clearance:

a. 航空器准备完毕，经济南塔台同意后，向济南机坪管制申请推出开车许可；

a. Contact APN and apply for pushback and engine-starting clearance as the aircraft gets ready.

b. 离港航空器首次联系济南机坪管制时，机组应向济南机坪管制通报停机位编号；

b. Inform the parking stand number to APN at the first contact.

c. 航空器取得推出开车许可后方可推出开车，济南机坪管制发布许可指令后，机组应在 3min 之内执行；超过 3min 仍未推出开车视为指令失效，机组需要重新申请推出开车；

c. Conduct pushing back and starting engine within 3 min, when the clearance obtained from APN. Otherwise, apply for the clearance again.

d. 航空器推出开车后，向济南机坪管制申请滑行许可。

d. Contact APN, apply for taxi clearance after pushing back and starting engine.

1.7.3 进港航空器进入机坪管制区域前：联系济南机坪管制申请进一步滑行许可。

1.7.3 Before entering apron operation control area, the landing aircraft shall contact APN, apply for further taxiing clearance .

## 2. 跑道和滑行道的使用

## 2. Use of runways and taxiways

- 2.1 任何车辆、人员禁止穿越跑道，如确需通过时，必须经塔台管制员的许可。  
2.1 Any vehicle or personnel is prohibited crossing the RWY without TWR clearance.
- 2.2 更换跑道运行方向过程中，当跑道顺风分量大于 3.5m/s，但小于 5m/s 时，管制员向航空器驾驶员通报实时风向风速，可以短时指挥航空器顺风起飞或着陆，航空器驾驶员如不能执行，应及时报告管制员。  
2.2 During changing operation direction of RWY, if the downwind speed is more than 3.5m/s but less than 5m/s, the ATC shall inform flight crew the wind speed and direction, and could conduct downwind take-off or landing for a short time. If the aircraft unable to execute, the pilot shall inform ATC in time.
- 2.3 进港航空器一律实行引导车引导，见引导车后须向塔台报告，按塔台指令转频联系机坪。  
2.3 Landing aircraft shall be guided by follow-me vehicle. Aircraft shall inform TWR when follow-me vehicle visible and contact APN following TWR instructions.
- 2.4 滑行道的滑行限制  
2.4 Taxiing limits about the following TWYs:

| 滑行道/TWYs                                                                                                       | 航空器翼展限制 (m) /Wing span limits for aircraft(m) |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| T3                                                                                                             | ≤80                                           |
| A1, A14, B, B1-B3, B10-B14, E(east of B), J, K(east of B), L(east of B), L2, N, P, T1, T2, T4, U1-U3, W, W1-W5 | ≤65                                           |
| K(west of B), L(west of B), L1                                                                                 | ≤52                                           |
| B15, T6, Y1-Y4                                                                                                 | < 36                                          |

- B15 为拖机道，飞机不可自主滑行，需采用拖拽方式。  
The aircraft on B15 can not taxi automomously, it shall be towed.
- 2.5 管制员不得指挥飞机偏离滑行线，不得指挥飞机在滑行线、滑行道上进行 180° 转弯，除非有地面引导。  
2.5 The instruction of off-taxiing line or 180° turning around on TWY/taxiing line by ATC is forbidden without the guidance in gound.

## 2.6 对机组的要求

2.6.1 机组在申请推出前应确保飞机已完全准备好且牵引车已挂好。

2.6.2 机组须听清并复诵机坪管制员的推出开车指令，并将机坪管制员的要求转告给地面机务人员。

2.6.3 机组须听清并复诵管制员的滑行指令，尤其是界限性指令，如有疑问立即证实。

2.6.4 机组须密切观察地面相关活动，及时依照管制员的活动通报进行观察，当观察到冲突或不明活动时应及时通报给管制员。

2.6.5 航空器的具体滑行路线以管制员指令为准，机组必须依照管制员指令滑行。当机组误操作滑错方向或路线时，应该立即停止滑行并向管制员报告。

2.6.6 在低能见度情况下，应根据塔台管制员要求报告已脱离跑道和所使用的滑行道等具体位置。

2.6.7 专机滑行路线以管制员通知为准。

2.6.8 起飞航空器从等待位置到对正跑道时间应控制在 60s 以内；落地航空器从接地到滑出跑道时间应控制在 50s 以内。如航空器驾驶员不能满足跑道占用时间要求的，应当及时通知塔台管制员。

## 3. 机坪和机位的使用

## 2.6 Requirements for flight crews:

2.6.1 Before applying for push back, make sure get ready and the towing vehicle hitched to.

2.6.2 Listen and repeat the instructions of engine starting from APN, and convey to the ground crew.

2.6.3 Listen and repeat the taxiing instructions issued by ATC, especially those boundary limitation. If in doubt, confirm immediately.

2.6.4 The flight crews shall pay attention to the surrounding situations, and report to ATC in time upon finding conflict or unclear motion.

2.6.5 The taxiing route is assigned by ATC. The flight crew shall follow the ATC's instructions. When taxiing to the wrong direction by mistake, stop taxiing immediately and report to ATC.

2.6.6 After vacating RWY under conditions of low visibility, report the RWY designation, the TWY in use and more details to the request of TWR.

2.6.7 Taxiing routes of the special flight will be instructed by ATC.

2.6.8 The departure aircraft shall finish RWY alignment within 60s from the holding position. The landing aircraft shall fully vacate RWY within 50s after touchdown. If the flight crew cannot fulfill the process within the required time, the pilot shall inform TWR in time.

## 3. Use of aprons and parking stands

3.1 未经管制员同意,严禁航空器利用自身动力倒滑。

3.1 Push-back of aircraft on its own power is strictly forbidden without ATC clearance.

3.2 通常情况下,航空器的试车可在太古维修库区内申请进行,若需在停机坪试车,经机场运行指挥中心同意后可在指定的位置进行。

3.2 Generally, aircraft run-ups can be applied to be carried out at STAECO maintenance area. If aircraft required to runup at Apron, it shall be subject to AOC clearance, and may only be carried out at a designated location.

3.3 停机位使用限制:

3.3 Limits for aircrafts parking on the following stands:

| 停机位编号/Stand Nr.                                                                         | 翼展限制 (m) /Wing span limits(m) | 机身长度限制 (m) /Fuselage limits(m) | 进出方式/Enter or Exit |
|-----------------------------------------------------------------------------------------|-------------------------------|--------------------------------|--------------------|
| 322-324                                                                                 | 68.5                          | 76.4                           | Taxi in, Push back |
| 29, 31, 524-529                                                                         | 65                            | 76                             | Taxi in, Push back |
| 512                                                                                     | 65                            | 76                             | Taxi in, Taxi out  |
| 14                                                                                      | 65                            | 75.36                          | Taxi in, Push back |
| 7, 8                                                                                    | 65                            | 73.9                           | Taxi in, Push back |
| 203                                                                                     | 65                            | 70.6                           | Taxi in, Taxi out  |
| 30                                                                                      | 64                            | 76                             | Taxi in, Push back |
| 521                                                                                     | 48                            | 57                             | Taxi in, Push back |
| 23, 32                                                                                  | 48                            | 56                             | Taxi in, Push back |
| 202                                                                                     | 48                            | 55                             | Taxi in, Taxi out  |
| 2, 3, 15                                                                                | 47.57                         | 54.94                          | Taxi in, Push back |
| 25-28, 33, 34, 321, 322L, 322R, 323L, 323R, 324L, 324R, 501-510, 522L, 522R, 523L, 523R | 36                            | 45                             | Taxi in, Push back |
| 201, 203L, 203R, 511L,                                                                  | 36                            | 45                             | Taxi in, Taxi out  |

|                     |    |       |                    |
|---------------------|----|-------|--------------------|
| 511R, 513           |    |       |                    |
| 1, 4-6, 9-13, 16-22 | 36 | 44.51 | Taxi in, Push back |
| 24                  | 36 | 42.11 | Taxi in, Push back |

停机位 Nr.1-34 为廊桥机位，其中 Nr.7、8、14、29-31 为双桥机位。

Stands Nr.1-34 are bridge stands, and Nr.7, 8, 14, 29-31 are double bridge stands.

3.4 本场停机位 1-6、8-34、321-324、322L/R、323L/R、324L/R、501-510、521、522L/R、523L/R、524-529 设置航空器红色/蓝色推出程序，用于济南机坪指挥地面工作人员按照指定方向推出航空器，操作要求如下：

3.4 Aircraft RED/BLUE push-back procedure is used for ground staff to push aircraft in the designated direction by Ji'nan Apron(APN) , at stands Nr.1-6, 8-34, 321-324, 322L/R, 323L/R, 324L/R, 501-510, 521, 522L/R, 523L/R, 524-529. The operation requirements are as follows:

3.4.1 济南机坪发布指令给机组后，机组应复诵并转告地面人员。

3.4.1 After receiving Ji'nan Apron's instruction of push-back, the flight crew shall repeat and pass on the message to ground staff.

3.4.2 地面人员在接到机组转达的推出指令后，应复诵确认。航空器推出前，地面人员应再次确认地面标注的颜色线方向，确保按正确的方向推出。

3.4.2 After receiving the flight crew's instruction of push-back, the ground staff shall repeat and confirm it. Before pushback, the ground staff shall confirm the direction of RED or BLUE lines on ground again, make sure the aircraft is pushback in the right direction.

3.4.3 济南机坪或地面人员在推机过程中发现异常时，应及时联系，协调解决运行冲突。

3.4.3 If anything unusual found in pushback, Ji'nan Apron or the ground staff shall have timely contact, coordinate and resolve the operation conflict.

3.5 进港航空器和引导车应在滑行道上转入机位引入线之前观察确认无安全运行风险的情况下，减速慢行入位，否则应在滑行通道上停止并报告。

3.5 The landing aircraft and follow-me vehicle on the taxiway shall observe and confirm that no risk of safe operation before turning to stand lead-in line, then reduce the speed, enter the parking stand slowly, otherwise, stop on the taxiway and report.

3.6 324 号停机位为隔离机位。

3.6 Stand Nr.324 is isolated stand.

3.7 为降低碳排放及噪音，停靠航站楼停机位的航空器（除 A380 机型外）关闭 APU，接驳地面电源及空调系统。地面电源 400Hz 电源与飞机地面空调具体详见下表：

3.7 To reduce carbon emissions and noise, aircrafts (except A380) parking at the terminal apron should turn off APU, and connect to the ground power and air conditioning system. See the table below for the 400Hz ground power and ground air conditioning:

| 机位/<br>Stands Nr.          | 400Hz 电源功率/<br>400Hz power supply<br>(KVA) | 400Hz 电源台数/<br>Number of 400Hz<br>power | 飞机外接空调功率<br>/Aircraft external air<br>conditioning<br>power(KW) | 飞机外接空调台数<br>/Number of external<br>air conditioners |
|----------------------------|--------------------------------------------|-----------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------|
| 1, 4-6, 9-13, 16-22,<br>24 | 90                                         | 1                                       | equipment power<br>106<br>refrigerating<br>capacity 210         | 1                                                   |
| 2, 3, 15, 23               | 90                                         | 1                                       | equipment power<br>140<br>refrigerating<br>capacity 320         | 1                                                   |
| 7, 8, 14                   | 90                                         | 2                                       | equipment power<br>106<br>refrigerating<br>capacity 210         | 2                                                   |
| 25-28, 33, 34              | 90                                         | 1                                       | equipment power<br>121<br>refrigerating<br>capacity 169         | 1                                                   |
| 29, 30                     | 90                                         | 2                                       | equipment power                                                 | 2                                                   |

|                                   |    |   |                                                           |   |
|-----------------------------------|----|---|-----------------------------------------------------------|---|
|                                   |    |   | 192.2<br>refrigerating<br>capacity 248                    |   |
| 31                                | 90 | 3 | equipment power<br>192.2<br>refrigerating<br>capacity 248 | 2 |
| 32                                | 90 | 1 | equipment power<br>192.2<br>refrigerating<br>capacity 248 | 1 |
| 501-510                           | 90 | 1 | equipment power<br>110<br>refrigerating<br>capacity 154   | 1 |
| 511R, 513, 521,<br>522L/R, 523L/R | 90 | 1 | -                                                         | - |
| 512, 524-529                      | 90 | 2 | -                                                         | - |

3.8 11-15、22-27 号机位为机坪运行复杂区域，各运行保障部门须加强观察和控制，及时避让。不能同时运行的机位如下：

3.8 The situation of stands Nr.11-15, 22-27 is complicated, the operation support staff shall pay more attention and avoid the aircraft. See the following table for stands forbidden to be operated simultaneously:

|                                     |                                                              |
|-------------------------------------|--------------------------------------------------------------|
| 运行机位/The stand in operation         | 不能同时运行的机位/The stands forbidden to be operated simultaneously |
| 14(A/C with wing span > 52m in/out) | 11-13,15,16                                                  |

|                                     |               |
|-------------------------------------|---------------|
| 23(A/C with wing span > 36m in/out) | 21, 22, 24-26 |
|-------------------------------------|---------------|

3.9 机场现有 7 个强制等待点，供航空器滑行中等待使用。航空器经过 HP1、HP2、HP3、HP4、HP5、HP12、HP14 等待点时需听从机场管制塔台指令转频或机坪管制指令转频。HP 等待点位置详见机场停机位置图。

3.9 There're 7 compulsory holding positions(HP1-HP5, HP12, HP14) used for taxiing. Aircrafts shall hold at these HPs and wait for TWR or Apron Control's instructions to change frequency. Refer to APDC of ZSJN for HPs.

|                         |                                   |
|-------------------------|-----------------------------------|
| 等待位置/ Holding positions | 滑行方向/ Direction of taxiing        |
| HP1-HP5, HP12, HP14     | FM east to west & FM west to east |

3.10 慢车除冰要求：

本场启动定点慢车除冰运行程序时，511L、511R、512、513 号停机位为慢车除冰机位。慢车除冰采用人工引导入位，机组按入位引导员给出的信号设置停留刹车，保持发动机慢车状态。机组应按照机坪管制员指挥将一部 VHF 设备转频至 129.675MHz，并通过 VHF 设备与慢车除冰指挥员建立联系。

3.10 Deicing requirements with engine idling:

When deicing with engine idling in operation, the stands Nr.511L, 511R, 512, 513 are used for deicing. With marshaller guidance to the deicing position, the flight crew shall set parking braking and keep engine idling by the marshaller's instruction. Then follow the APN's instruction, change VHF frequency of a communication device to 129.675MHz, contact with the deicing service staff.

4. 低能见度运行

4. Low visibility operation

4.1 使用 HUD 实施特殊批准的低能见度运行

4.1.1 可使用 HUD 在本场 RWY01/19 实施特殊批准的 II 类精密进近和 RVR150m 低能见度起飞。

4.1.2 低能见度运行的准备、实施与终止

4.1.2.1 准备阶段

4.1 LVP based on HUD SA CAT I/II

4.1.1 Low visibility takeoff with RVR 150m and CAT II operation based on HUD for RWY01/19.

4.1.2 Preparation, implement and closure of Low Visibility Operation Procedures

4.1.2.1 Preparation



a. 当能见度 1000m 或云高 90m, 并呈下降趋势时, 由空管塔台通知机场指挥中心启动 HUD 低能见度运行准备。

b. 机场指挥中心通报各保障单位做好 HUD 低能见度运行准备工作。

c. 各保障单位完成 HUD 低能见度运行准备工作后报告机场指挥中心。

d. 机场指挥中心将 HUD 低能见度运行准备情况报告空管塔台。

#### 4.1.2.2 实施阶段

a. 当能见度降至 800m 或跑道视程降至 550m 或云高降至 60m 时, 且经确认机场具备保障条件后, 由空管塔台通知机场指挥中心启动 HUD 低能见度运行。

b. 机场指挥中心通知各保障单位启动 HUD 低能见度运行。

#### 4.1.2.3 终止阶段

a. 当跑道视程达到 550m 且云高达到 60m, 并呈上升趋势, 或经检查确认机场不具备保障条件时, 空管塔台通知机场指挥中心终止 HUD 低能见度运行。

b. 机场指挥中心通知各保障单位终止 HUD 低能见度运行。

#### 4.2 航空器引导

a. When VIS decreases to 1000m or Ceiling decreases to 90m, and shows a downward trend, TWR shall notify the airport control center of starting HUD Low Visibility Operation Procedures preparation.

b. The airport control center notify TWR and other related units prepare HUD Low Visibility Operation Procedures.

c. After complete the preparation of HUD Low Visibility Operation, relevant units report to the airport control center.

d. The airport control center report the preparation of HUD Low Visibility Operation to TWR.

#### 4.1.2.2 Implement

a. When VIS decreases to 800m or RVR decreases to 550m or Ceiling decreases to 60m, and the aerodrome's capability of LVP is confirmed, TWR shall notify airport control center of starting HUD Low Visibility Procedures.

b. The airport control center notify other related units operate HUD Low Visibility Procedures.

#### 4.1.2.3 Closure

a. When RVR reaches 550m and ceiling reaches 60m, with an increasing trend, or the airport condition hasn't got qualified for LVP, TWR shall notify airport control center of terminating LVP.

b. The airport control center shall inform relative department to terminate LVP on HUD.

#### 4.2 Aircraft guidance

4.2.1 使用 HUD 实施特殊批准 II 类运行时，机组应严格按照管制指令给出的路线跟随引导车滑行。

4.2.2 使用 HUD 实施低能见度起飞时，机组应严格按照管制指令给出的路线跟随引导车滑行，经塔台许可后方可进入 A 滑行道。

4.2.3 当出港航空器推出机位后距离移交点较近，或者低能见度运行期间满足 RVR400m 起飞气象条件，机组明确在机坪内滑行不需要引导车时，可不安排引导车引导。

#### 4.3 其他

4.3.1 准备使用 HUD 实施低能见度运行的航空器机组应主动向管制员报告。

4.3.2 低能见度运行时，飞机滑行过程中如需中止，机组应立即报告管制员，按经管制员同意的处置方式退出低能见度运行。

### 5. 直升机飞行限制，直升机停靠区

直升机的滑行要沿线滑行，离场方式须听从塔台管制员指挥，机位的停靠须听从机坪管制员指挥。

### 6. 警告

本场跑道与西侧平行滑行道近似，机组应空中加强观察，防止把滑行道当成跑道降落。

4.2.1 When operating LVP based on HUD SA CAT I/II, aircrew must follow the follow-me vehicle.

4.2.2 While using the HUD for low visibility takes-off, aircrew shall strictly follow the ATC instructions, and follow the guidance vehicle before taxiing in TWY A with the permission of the TWR.

4.2.3 When the departure aircraft is close to the handover point, or when the RVR 400m take-off meteorological conditions are met during the low visibility operation, the guidance vehicle may not be arranged to guide if the aircrew clearly does not require a guidance vehicle for taxiing on the apron.

#### 4.3 Other informations

4.3.1 The aircraft prepares to implement LVP with HUD shall report to ATC.

4.3.2 In LVP, the aircraft should report to ATC when it discontinue taxiing if necessary, and terminates LVP by ATC instruction.

### 5. Helicopter operation restrictions and helicopter parking/docking area

The helicopter shall taxi along the taxiing lines.

Departure helicopter shall follow the TWR instructions.

Aircraft parking on stands shall follow APN instructions.

### 6. Warning

Do not mistake the parallel TWY west of RWY for the RWY.

**ZSJN AD 2.21 减噪程序**

济南/遥墙机场 H24 小时开放。为了减小机场居民区的飞机噪音危害，特作如下规定：飞机起飞减噪操作程序，用于起飞爬升阶段，目的在于确保飞行安全的前提下尽量减少噪音对地面的影响。

在保证安全超障和飞行程序爬升梯度的条件下，飞机起飞时，飞行机组应该严格按照该机型的减噪操作程序操作。

**ZSJN AD 2.21 Noise abatement procedures**

The 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 ground in the permise of ensuring flight safety.

In condition of complying with the requirements of obstacle clearance and climb gradient required by flight procedure, the flight crew should obey the noise abatement procedures of this aircraft type strictly when take-off.

**ZSJN AD 2.22 飞行程序****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。

**2. 起落航线**

起落航线在跑道两侧均可进行，A、B 类航空器高度为 350m，C、D 类航空器高度为 500m。

**3. 仪表飞行程序**

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

**ZSJN AD 2.22 Flight procedures****1. General**

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

**2. Traffic circuits**

Traffic circuits shall be made to both sides of runway, at the altitude of 350m for aircraft CAT A/B, and 500m for aircraft CAT C/D.

**3. IFR flight procedures**

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

**4. 雷达程序和/或 ADS-B 程序****4. Radar procedures and/or ADS-B procedures**

## 4.1 最低监视引导高度扇区

## 4.1 Surveillance Minimum Altitude Sectors

|                                                                                                                                                                                                                                                     |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| SECTOR 1                                                                                                                                                                                                                                            | ALT limit: 600m or above  |
| N372912 E1173000-N372930 E1173057-N373417 E1174630-N370412 E1174630-N365619 E1173208-N365330<br>E1172700-N364407 E1172700-N364407 E1170417-N365330 E1170414-N370934 E1163935-N372912 E1173000                                                       |                           |
| SECTOR 2                                                                                                                                                                                                                                            | ALT limit: 900m or above  |
| N370934 E1163935-N365330 E1170414-N364407 E1170417-N364407 E1172700-N365330 E1172700-N365619<br>E1173208-N364205 E1173208-N364205 E1172700-N363812 E1172700-N363814 E1171158-N363906<br>E1170806-N363904 E1163930-N370934 E1163935                  |                           |
| SECTOR 3                                                                                                                                                                                                                                            | ALT limit: 1200m or above |
| N363904 E1163930-N363906 E1170806-N363814 E1171158-N363812 E1172700-N364205 E1172700-N364205<br>E1173208-N365619 E1173208-N370412 E1174630-N363400 E1174630-N363400 E1163932-N363904 E1163930                                                       |                           |
| SECTOR 4                                                                                                                                                                                                                                            | ALT limit: 1500m or above |
| N364000 E1152400-N370934 E1163935-N363904 E1163930-N363400 E1163932-N363400 E1174630-N370412<br>E1174630-N373417 E1174630-N374241 E1181300-N363800 E1181300-N362433 E1174630-N362436<br>E1165500-N360002 E1165500-N360002 E1152530-N364000 E1152400 |                           |
| SECTOR 5                                                                                                                                                                                                                                            | ALT limit: 2100m or above |
| N362436 E1165500-N362433 E1174630-N363800 E1181300-N360002 E1181300-N360002 E1165500-N362436<br>E1165500                                                                                                                                            |                           |
| SECTOR 6                                                                                                                                                                                                                                            | ALT limit: 2200m or above |
| A circle with radius of 13KM centered at N361542 E1170610.                                                                                                                                                                                          |                           |

**5. 无线电通信失效程序****5. Radio communication failure procedures**

5.1 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 If the radio receiver available, aircraft shall follow the instruction to fly;

5.2 本场无线电通信失效程序，参见 AIP 总则 3.4.5

5.2 Refer to AIP GEN3.4.5 general procedures for

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。

## 6. 目视飞行程序

无

## 7. 目视飞行航线

无

## 8. 其它规定

无

aircraft under instrument flight rule with air-ground two-way radio communication failure.

## 6. Procedures for VFR flights

Nil

## 7. VFR route

Nil

## 8. Other regulations

Nil

## ZSJN AD 2.23 其它资料

### 鸟情资料

1.1 全年有鸟类活动。机场当局采取了驱赶措施，以减少鸟群活动。

1.2 主要危害鸟类活动规律和特征

## ZSJN AD 2.23 Other information

### Bird's information

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

1.2 The details of bird activities as follows:

| 鸟种名/Type of bird | 主要活动时间/Activity       | 飞行高度 (m) /Flight altitude (m) | 活动习性/Characteristic     |
|------------------|-----------------------|-------------------------------|-------------------------|
| 麻雀 sparrow       | 全年 The whole year     | 0-10                          | 集群活动 Group              |
| 家燕 swallow       | 4-9 月 April-September | 0-20                          | 单独或小群活动 Single or Group |
| 红隼 mynah         | 全年 The whole year     | 15-50                         | 单独活动 Single             |
| 白鹭 aigret        | 6-9 月 June-September  | 0-50                          | 单独或集群活动 Single or Group |
| 池鹭 pheasant      | 6-9 月 June-September  | 0-50                          | 单独或集群活动 Single or Group |
| 家鸽 pigeon        | 全年 The whole year     | 2-20                          | 小群活动 Group              |

|               |                   |      |                         |
|---------------|-------------------|------|-------------------------|
| 环颈雉 pheasant  | 全年 The whole year | 0-10 | 单独或小群活动 Single or Group |
| 珠颈斑鸠 ringdove | 全年 The whole year | 5-30 | 成对或集小群活动 Rank or Group  |

INSTRUMENT  
APPROACH  
CHART-ICAO

AERODROME ELEV 23.1 ATIS 127.05  
VAR6° WTHR RWY01 ELEV 23.1 TWR 118.55(123.6) APP03 124.475(121.4)

APP01 119.05(121.4)  
APP02 119.225(121.4)  
ZSJN JINAN/Yaoqiang  
ILS/DME y RWY01

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

Missed approach turn MAX IAS380km/h  
Circling E of RWY (circling W of  
RWY by ATC)  
② For aircraft below 900, deviation to  
the south of D12.0 YQG arc not  
permitted.

JINAN  
113.7 YQG  
CH 84X

DME  
(108.9) IFF  
CH 26X

|         |                |   |     |     |     |     |     |   |
|---------|----------------|---|-----|-----|-----|-----|-----|---|
| GP INOP | DME (IFF) (NM) | 6 | 5   | 4   | 3   | 2.9 | 2   | 1 |
|         | ALT (m)        |   | 507 | 410 | 313 |     | 216 |   |

TL 3600  
TA 3000  
3300(QNH ≥1031hPa)  
2700(QNH ≤979hPa)

IF  
D8.7 IFF  
D8.0 YQG

FAF  
GP INOP  
D6.0 IFF  
D5.3 YQG

GP INOP  
D2.9 IFF  
D2.2 YQG

MAPt  
GP INOP  
D1.1 IFF  
D0.4 YQG

MISSED APPROACH  
Climb straight ahead to 500,  
turn LEFT to YQG at 1200  
or above, join the holding  
pattern and follow the ATC  
instructions.

|                    |                           |                   |   |                  |                         |                 |         |      |      |      |      |      |      |  |  |  |
|--------------------|---------------------------|-------------------|---|------------------|-------------------------|-----------------|---------|------|------|------|------|------|------|--|--|--|
|                    | A                         | B                 | C | D                | FAF-MAPt(GP INOP) 9.0km |                 |         |      |      |      |      |      |      |  |  |  |
| ILS/DME            | DA(H)<br>RVR/VIS          | 83(60)<br>550/800 |   |                  |                         | GS in           | kmH     | 150  | 185  | 220  | 260  | 295  | 335  |  |  |  |
| GP INOP            | MDA(H)<br>VIS             | 150(127)<br>1800  |   | 150(127)<br>2000 |                         | Time            | min:sec | 3:39 | 2:55 | 2:26 | 2:05 | 1:49 | 1:37 |  |  |  |
| CIRCLING           | MDA(H)<br>VIS             | 240(217)<br>3200  |   | 360(337)<br>5000 |                         | Rate of descent | m/s     | 2.2  | 2.7  | 3.2  | 3.8  | 4.3  | 4.9  |  |  |  |
| HUD Special CAT II |                           |                   |   |                  |                         |                 |         |      |      |      |      |      |      |  |  |  |
| CAT A,B,C,D        | (DH)(30),(RA)(31), RVR350 |                   |   |                  |                         |                 |         |      |      |      |      |      |      |  |  |  |

② HUD Special CAT I: (DH)(45),(RA)(47),RVR450

Changes: Landing minima.

2025-1-15 EFF2502191600

中国民用航空局CAAC

ZSJN AD2.24-10A

yinlei.org为航空和飞行模拟爱好者整理，本资料请不要用于实际飞行

INSTRUMENT  
APPROACH  
CHART-ICAO

AERODROME ELEV 23.1 ATIS 127.05

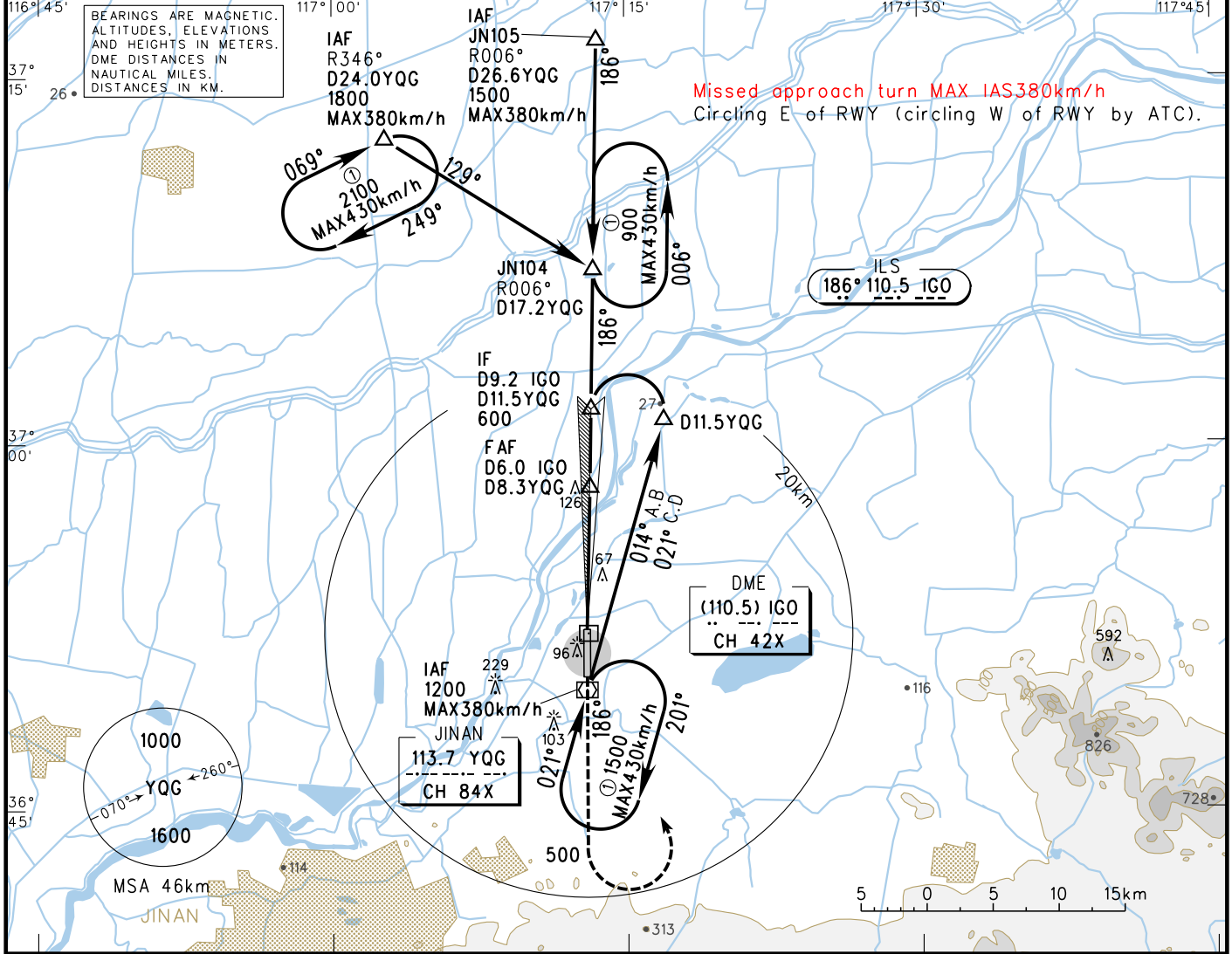
THR RWY19 ELEV 22.4 TWR 118.55 (123.6) APP03 124.475 (121.4)

APP01 119.05 (121.4)

APP02 119.225 (121.4)

ZSNJ JINAN/Yaoqiang

ILS/DME y RWY19



|         |                |   |     |     |     |     |     |   |
|---------|----------------|---|-----|-----|-----|-----|-----|---|
| GP INOP | DME (IGO) (NM) | 1 | 2   | 2.9 | 3   | 4   | 5   | 6 |
|         | ALT (m)        |   | 215 |     | 312 | 409 | 506 |   |

MISSED APPROACH

Climb straight ahead to 500,  
turn LEFT to YQG at 1200  
or above, join the holding  
pattern and follow the ATC  
instructions.

TL 3600  
TA 3000  
3300(QNH ≥ 1031hPa)  
2700(QNH ≤ 979hPa)

MAPt  
GP INOP  
D1.1 IGO  
D3.4 YQG

GP INOP  
D2.9 IGO  
D5.2 YQG

FAF  
GP INOP  
D6.0 IGO  
D8.3 YQG

IF  
D9.2 IGO  
D11.5 YQG

YQG

IGO

RDH-15m

MDA

300(278)

600(578)

230

300

-4.6 -0.30 1.7 5.0 10.7 16.7km

|                    |                           |   |                  |                  |
|--------------------|---------------------------|---|------------------|------------------|
|                    | A                         | B | C                | D                |
| ILS/DME            | 83(60)<br>550/800         |   |                  |                  |
| GP INOP            | 150(128)<br>1800          |   | 150(128)<br>2000 | 150(128)<br>2200 |
| CIRCLING           | 240(217)<br>3200          |   | 360(337)<br>5000 |                  |
| HUD Special CAT II |                           |   |                  |                  |
| CAT A,B,C,D        | (DH)(30),(RA)(31), RVR350 |   |                  |                  |

| FAF-MAPt(GP INOP) 9.0km |         |      |      |      |      |      |      |
|-------------------------|---------|------|------|------|------|------|------|
| GS in                   | kmH     | 150  | 185  | 220  | 260  | 295  | 335  |
| Time                    | min:sec | 3:39 | 2:55 | 2:26 | 2:05 | 1:49 | 1:37 |
| Rate of descent         | m/s     | 2.2  | 2.7  | 3.2  | 3.8  | 4.3  | 4.9  |

• HUD Special CAT I: (DH)(45),(RA)(47),RVR450

Changes: Landing minima.



INSTRUMENT  
APPROACH  
CHART-ICAO

VAR6°W

THR RWY01 ELEV 23.1 TWR 118.55(123.6)

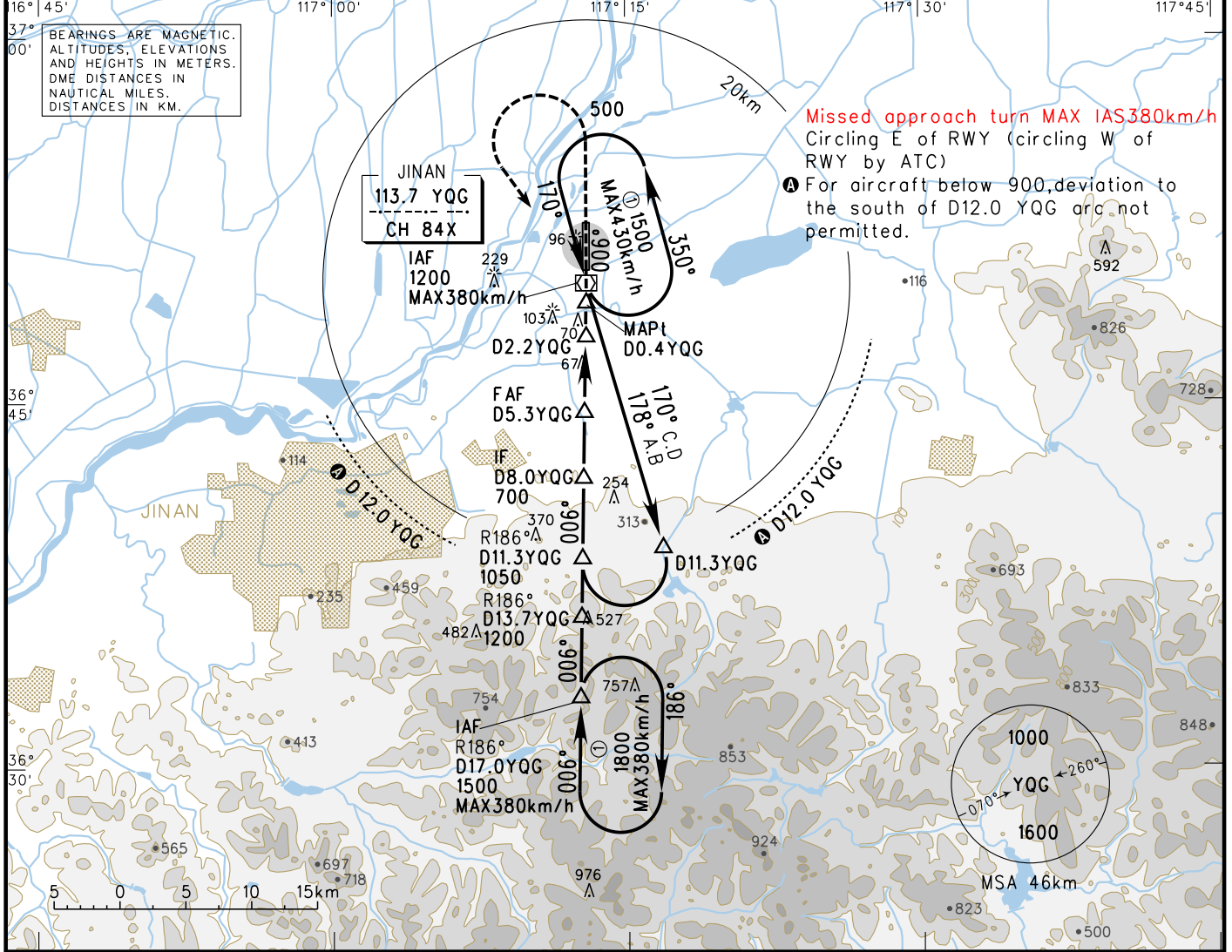
APP01 119.05(121.4)

APP02 119.225(121.4)

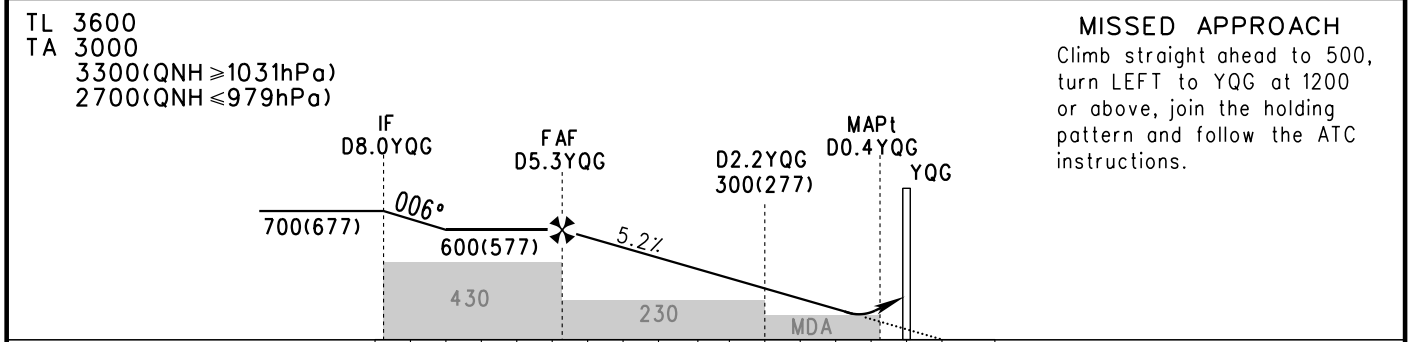
APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang

VOR/DME RWY01

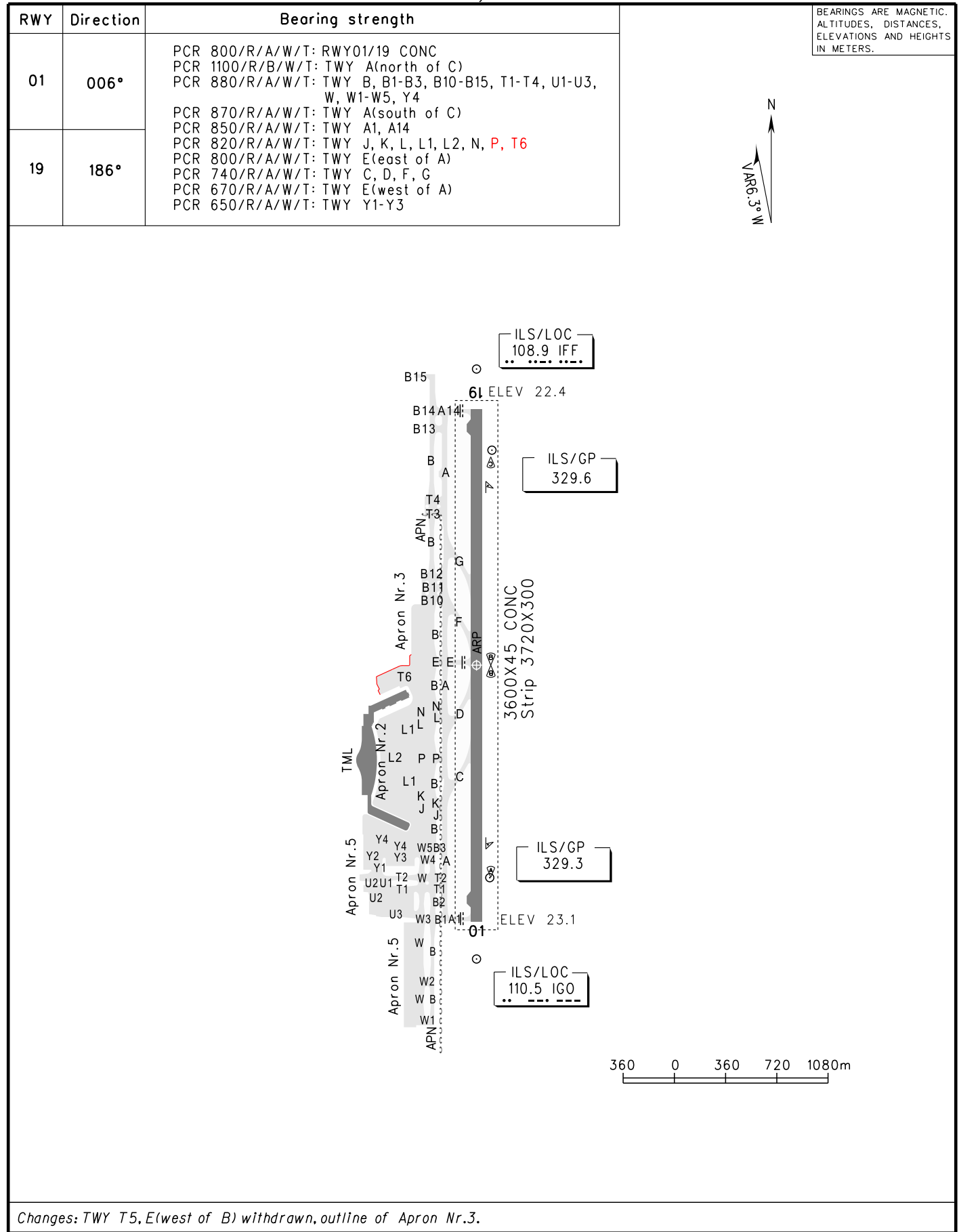


|                |   |   |     |     |     |     |     |     |
|----------------|---|---|-----|-----|-----|-----|-----|-----|
| DME (YQG) (NM) | 7 | 6 | 5   | 4   | 3   | 2.2 | 2   | 1   |
| ALT (m)        |   |   | 574 | 476 | 379 |     | 283 | 187 |



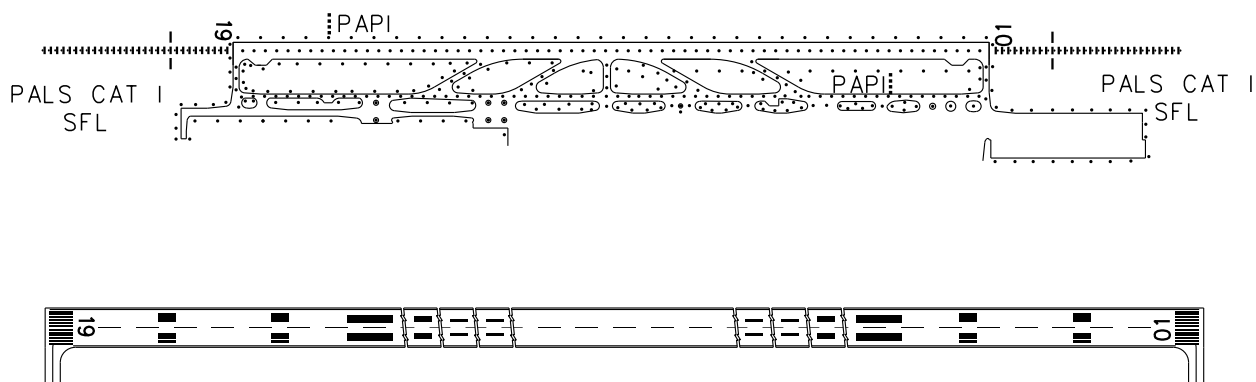
|          |        |                  |  |   |                          |                  |                 |         |      |      |      |      |      |      |
|----------|--------|------------------|--|---|--------------------------|------------------|-----------------|---------|------|------|------|------|------|------|
|          |        |                  |  |   | FAF-MAPt 9.0km           |                  |                 |         |      |      |      |      |      |      |
| VOR/DME  | MDA(H) | A                |  | B | C                        | D                | GS in           | kmH     | 150  | 185  | 220  | 260  | 295  | 335  |
|          | VIS    | 200(177)<br>2600 |  |   | 200(177)<br>2800         | 200(177)<br>3000 |                 |         |      |      |      |      |      |      |
| CIRCLING | MDA(H) | 240(217)<br>3200 |  |   | 360(337)<br>5000         |                  | Time            | min:sec | 3:39 | 2:55 | 2:26 | 2:05 | 1:49 | 1:37 |
|          | VIS    |                  |  |   |                          |                  | Rate of descent | m/s     | 2.2  | 2.7  | 3.2  | 3.8  | 4.3  | 4.9  |
|          |        |                  |  |   |                          |                  |                 |         |      |      |      |      |      |      |
|          |        |                  |  |   | Changes: Landing minima. |                  |                 |         |      |      |      |      |      |      |





# AERODROME CHART

ATIS 127.05  
 TWR 118.55(123.6) APN 121.725(129.675)  
 GND 121.85 Delivery 121.65(123.6)(DCL AVBL) N36° 51.5'E117° 12.9' ELEV 23.1m  
**ZSJN JINAN/Yaoqiang**



| TAKE-OFF MINIMA(WITH RELIABLE ALTN)(m) |          |               |                        | LIGHTS                                            |                                                   |
|----------------------------------------|----------|---------------|------------------------|---------------------------------------------------|---------------------------------------------------|
| ACFT Type                              | RWY01/19 |               | LVP in force, RWY01/19 | RWY01                                             | RWY19                                             |
|                                        | REDL     | NIL(Day only) |                        |                                                   |                                                   |
| 2 TURB ENG<br>or 3&4 ENG               | A        |               |                        |                                                   |                                                   |
|                                        | B        | RVR400        | RVR500                 |                                                   |                                                   |
|                                        | C        | VIS800        | VIS800                 |                                                   |                                                   |
|                                        | D        |               |                        |                                                   |                                                   |
| Other 1&2 ENG                          |          |               |                        |                                                   |                                                   |
| Note:                                  |          |               |                        | PALS CAT I<br>SFL<br>PAPI<br>REDL<br>RCLL<br>RENL | PALS CAT I<br>SFL<br>PAPI<br>REDL<br>RCLL<br>RENL |
| Changes: Nil.                          |          |               |                        |                                                   |                                                   |

INSTRUMENT  
APPROACH  
CHART-ICAO

AERODROME ELEV 23.1ATIS 127.05

VAR6° WTHR RWDY01 ELEV 23.1 TWR 118.55(123.6)

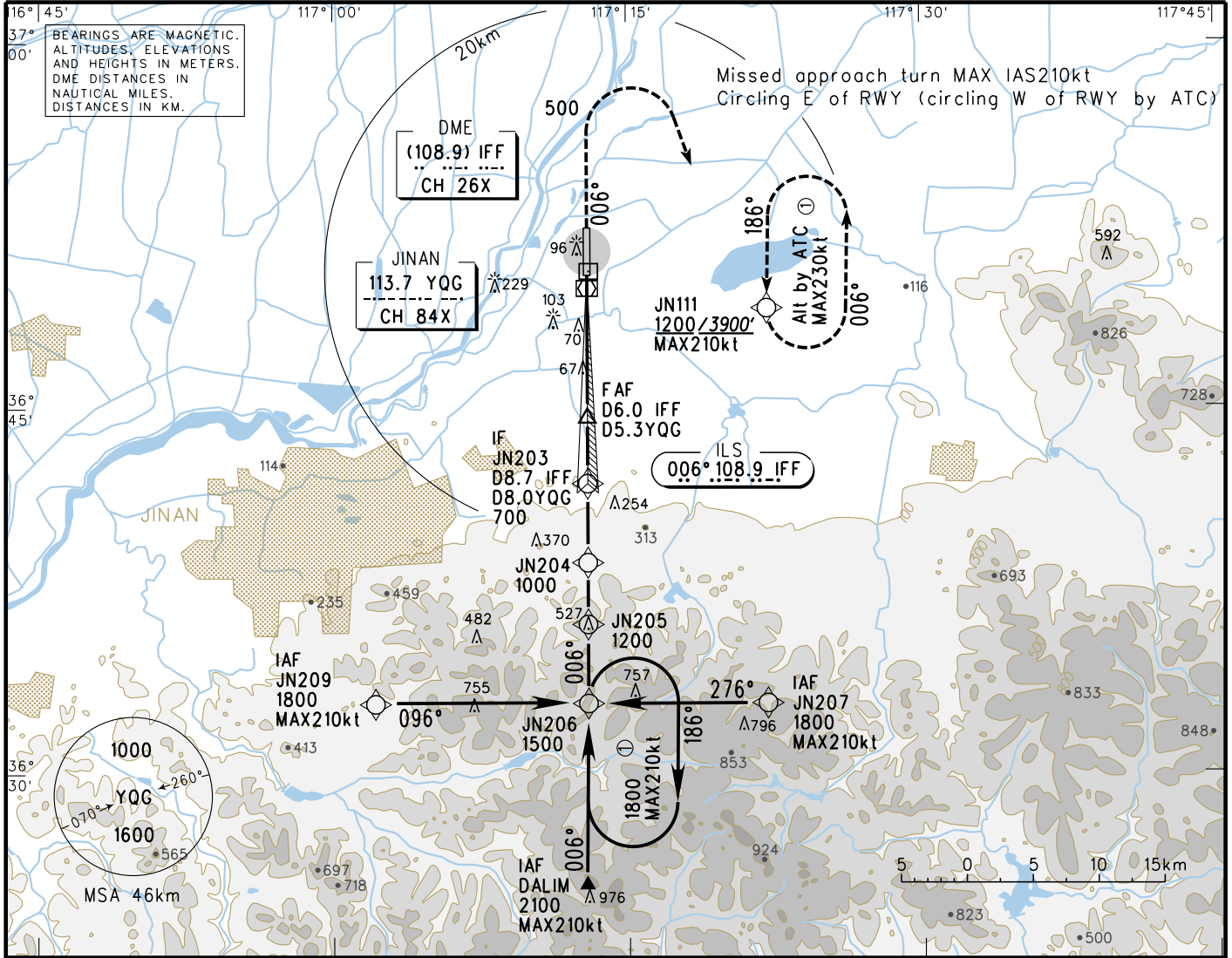
APP01 119.05(121.4)

APP02 119.225(121.4)

APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang

RNAV ILS/DME z RWDY01



|         |                |   |     |     |     |     |     |   |
|---------|----------------|---|-----|-----|-----|-----|-----|---|
| GP INOP | DME (IFF) (NM) | 6 | 5   | 4   | 3   | 2.9 | 2   | 1 |
|         | ALT (m)        |   | 507 | 410 | 313 |     | 216 |   |

TL 3600  
TA 3000  
3300(QNH≥1031hPa)  
2700(QNH≤979hPa)

IF  
JN203  
D8.7 IFF  
D8.0YQG

FAF  
GP INOP  
D6.0 IFF  
D5.3YQG

GP INOP  
D2.9 IFF  
D2.2YQG

MAPt  
GP INOP  
D1.1 IFF  
D0.4YQG

YQG

IFF

700(677)

600(577)

300(277)

430

230

MDA

RDH=15m

15.8km

10.7

5.0

1.7

1.0

0-0.3

006°

GP3°

MISSED APPROACH

Climb straight ahead to 500,  
turn RIGHT to JN111 at 1200  
or above, join the holding  
pattern and follow the ATC  
instructions.

|                    |                           |                   |                  |                  |                         |         |      |      |      |      |      |      |
|--------------------|---------------------------|-------------------|------------------|------------------|-------------------------|---------|------|------|------|------|------|------|
|                    | A                         | B                 | C                | D                | FAF-MAPt(GP INOP) 9.0km |         |      |      |      |      |      |      |
| ILS/DME            | DA(H)<br>RVR/VIS          | 83(60)<br>550/800 |                  |                  | GS in                   | km/h    | 150  | 185  | 220  | 260  | 295  | 335  |
| GP INOP            | MDA(H)<br>VIS             | 150(127)<br>1800  | 150(127)<br>2000 | 150(127)<br>2200 | Time                    | min:sec | 3:39 | 2:55 | 2:26 | 2:05 | 1:49 | 1:37 |
| CIRCLING           | MDA(H)<br>VIS             | 240(217)<br>3200  | 360(337)<br>5000 |                  | Rate of descent         | m/s     | 2.2  | 2.7  | 3.2  | 3.8  | 4.3  | 4.9  |
| HUD Special CAT II |                           |                   |                  |                  |                         |         |      |      |      |      |      |      |
| CAT A,B,C,D        | (DH)(30),(RA)(31), RVR350 |                   |                  |                  |                         |         |      |      |      |      |      |      |

• HUD Special CAT I: (DH)(45),(RA)(47),RVR450

Changes: Landing minima.

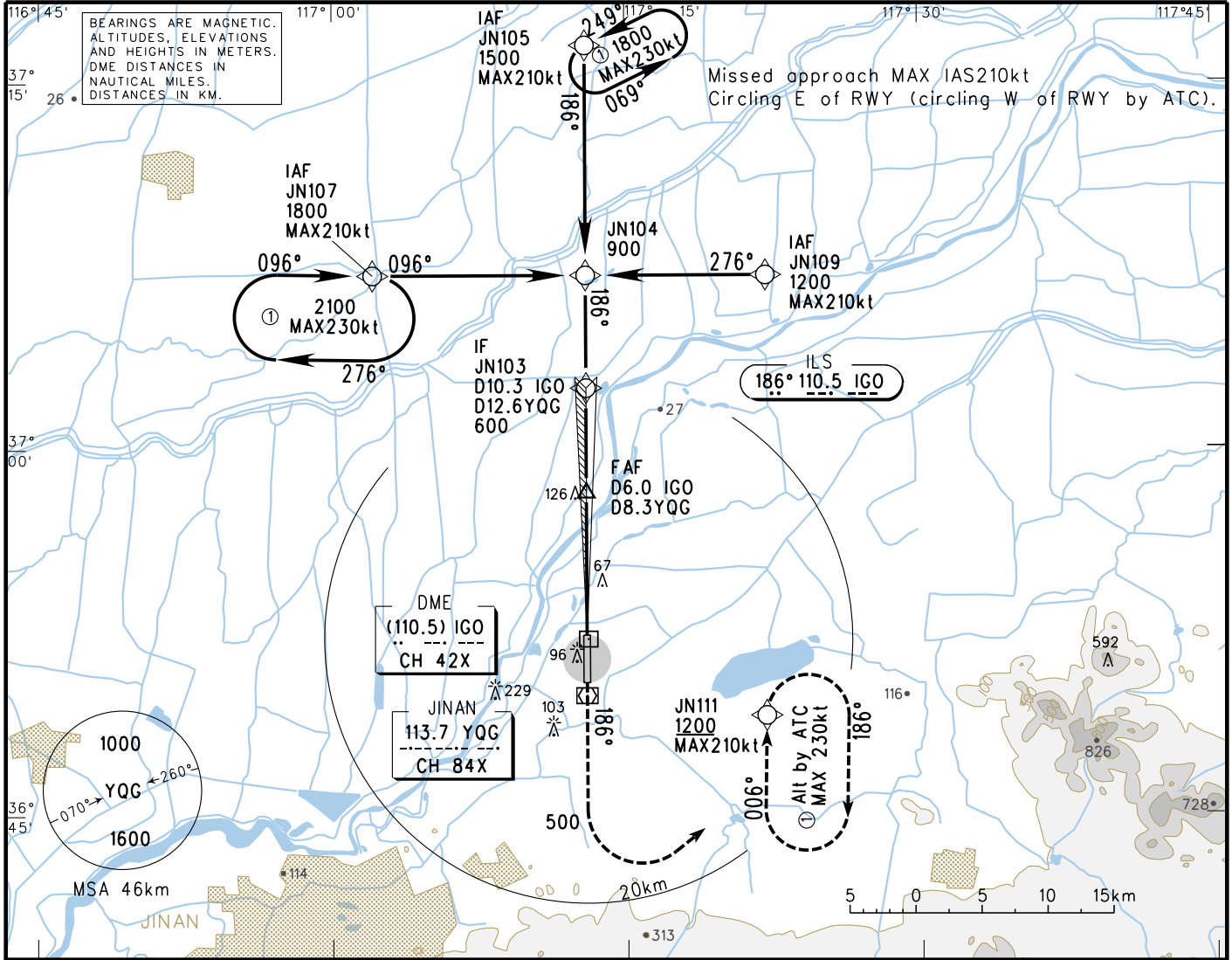


INSTRUMENT  
APPROACH  
CHART-ICAO

AERODROME ELEV 23.1 ATIS 127.05  
VAR6° WTHR RWY19 ELEV 22.4 TWR 118.55(123.6)

APP01 119.05(121.4)  
APP02 119.225(121.4)  
APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang  
RNAV ILS/DME z RWY19



|         |                |   |     |     |     |     |     |   |
|---------|----------------|---|-----|-----|-----|-----|-----|---|
| GP INOP | DME (IGO) (NM) | 1 | 2   | 2.9 | 3   | 4   | 5   | 6 |
|         | ALT (m)        |   | 215 |     | 312 | 409 | 506 |   |

MISSED APPROACH

Climb straight ahead to 500, turn LEFT to JN111 at 1200 or above, join the holding pattern and follow the ATC instructions.

YQG

IGO

RDH=15m

300(278)

GP 3°

MDA

230

300

600(578)

186°

-4.6

-0.30

1.7

5.0

10.7

18.7km

MAPt GP INOP D2.9 IGO D5.2 YQG D1.1 IGO D3.4 YQG

FAF GP INOP D6.0 IGO D8.3 YQG

IF JN103 D10.3 IGO D12.6 YQG

TL 3600 TA 3000 3300(QNH ≥ 1031hPa) 2700(QNH ≤ 979hPa)

|                                      |                           |   |                  |                  |
|--------------------------------------|---------------------------|---|------------------|------------------|
|                                      | A                         | B | C                | D                |
| ILS/DME <div>DA(H)<br/>RVR/VIS</div> | 83(60)<br>550/800         |   |                  |                  |
| GP INOP <div>MDA(H)<br/>VIS</div>    | 150(128)<br>1800          |   | 150(128)<br>2000 | 150(128)<br>2200 |
| CIRCLING <div>MDA(H)<br/>VIS</div>   | 240(217)<br>3200          |   | 360(337)<br>5000 |                  |
| HUD Special CAT II                   |                           |   |                  |                  |
| CAT A,B,C,D                          | (DH)(30),(RA)(31), RVR350 |   |                  |                  |

|                         |         |      |      |      |      |      |      |
|-------------------------|---------|------|------|------|------|------|------|
| FAF-MAPt(GP INOP) 9.0km |         |      |      |      |      |      |      |
| GS in                   | kmH     | 150  | 185  | 220  | 260  | 295  | 335  |
| Time                    | min:sec | 3:39 | 2:55 | 2:26 | 2:05 | 1:49 | 1:37 |
| Rate of descent         | m/s     | 2.2  | 2.7  | 3.2  | 3.8  | 4.3  | 4.9  |

HUD Special CAT I: (DH)(45),(RA)(47),RVR450

Changes: Landing minima.

# AIRCRAFT PARKING CHART-ICAO

TWR 118.55(123.6)

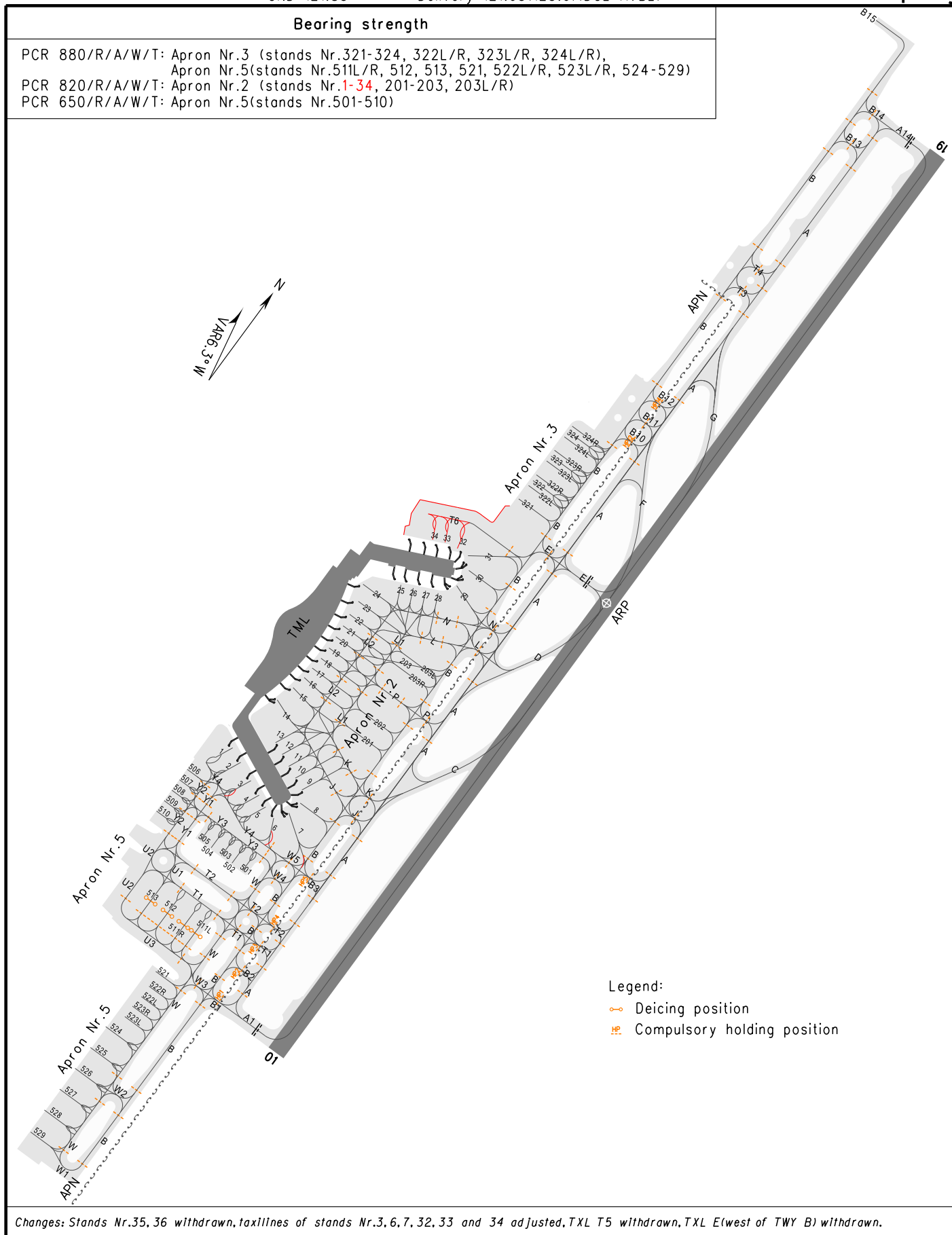
TWR 118.55(123.6)

|     |        |
|-----|--------|
| GND | 121.85 |
|-----|--------|

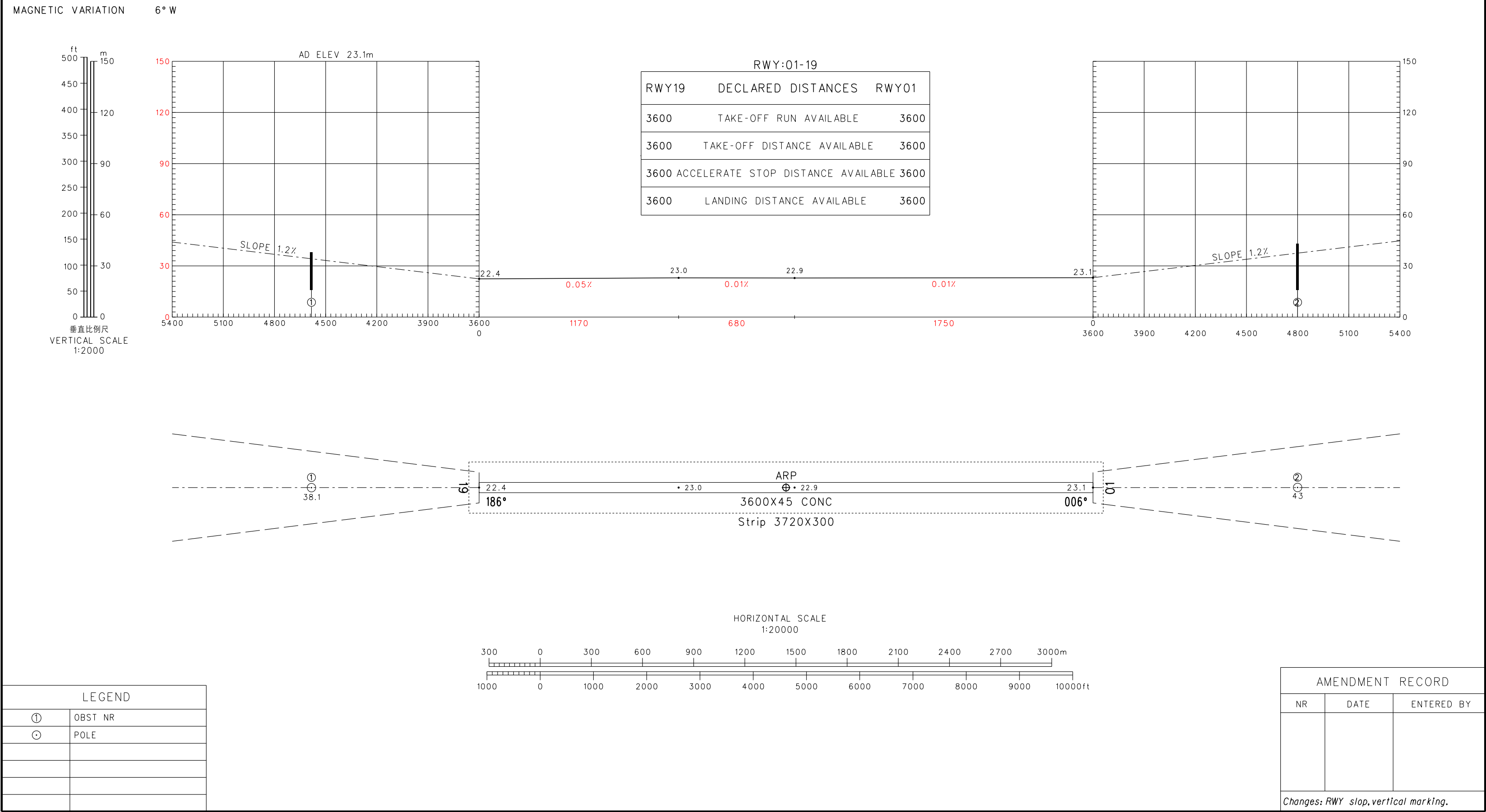
APN 121.725(129.675)

Delivery 121.65(123.6)(DCL AVBL)

ZSJM JINAN/Yaoqiang



*Changes: Stands Nr.35, 36 withdrawn, taxilines of stands Nr.3, 6, 7, 32, 33 and 34 adjusted, TXL T5 withdrawn, TXL E (west of TWY B) withdrawn.*





# ATC SURVEILLANCE MINIMUM ALTITUDE CHART

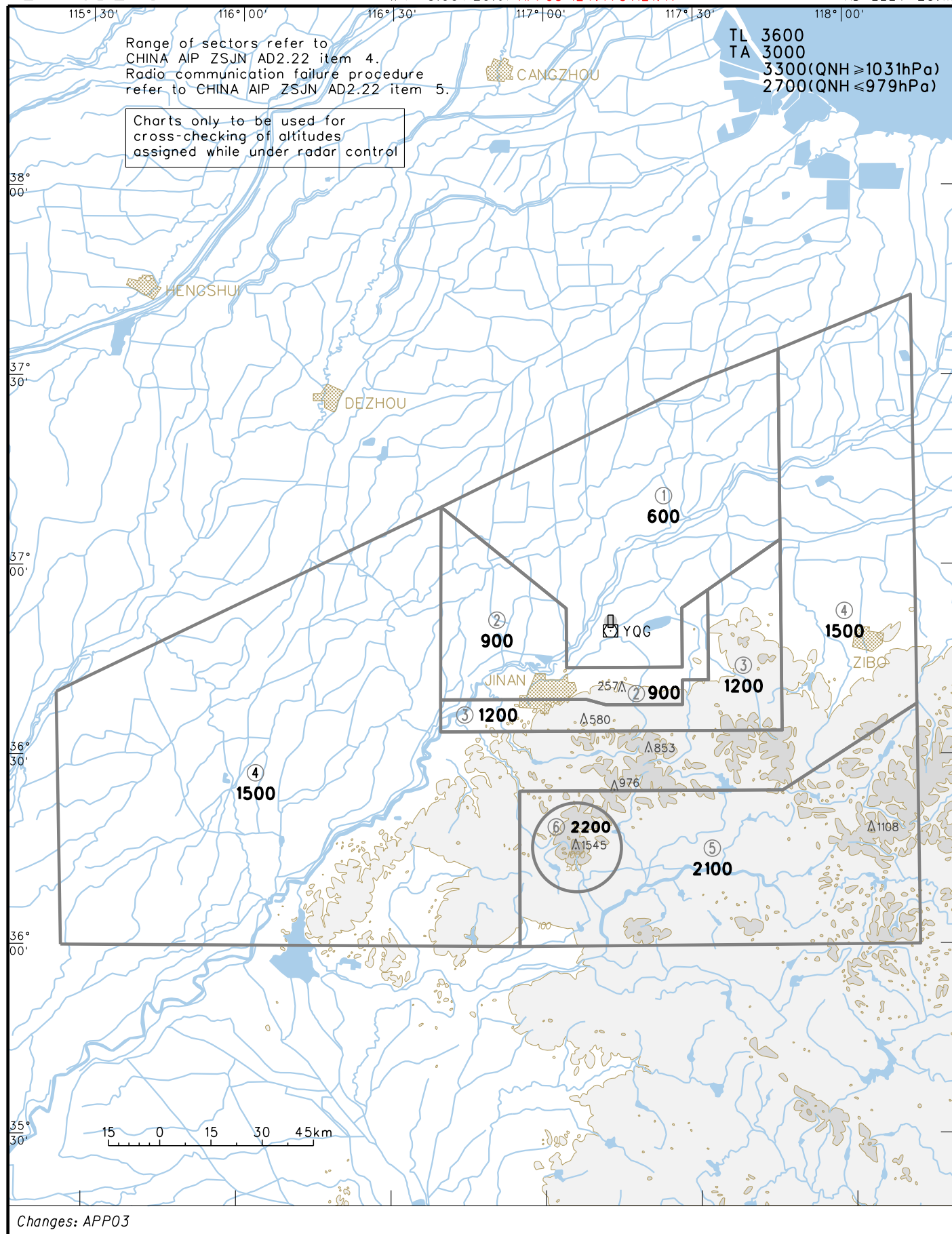
VAR6° W

ATIS 127.05  
TWR 118.55(123.6)

APP01 119.05(121.4)  
APP02 119.225(121.4)  
**APP03 124.475(121.4)**

**ZSJN JINAN/Yaoqiang**

AD ELEV 23.1m



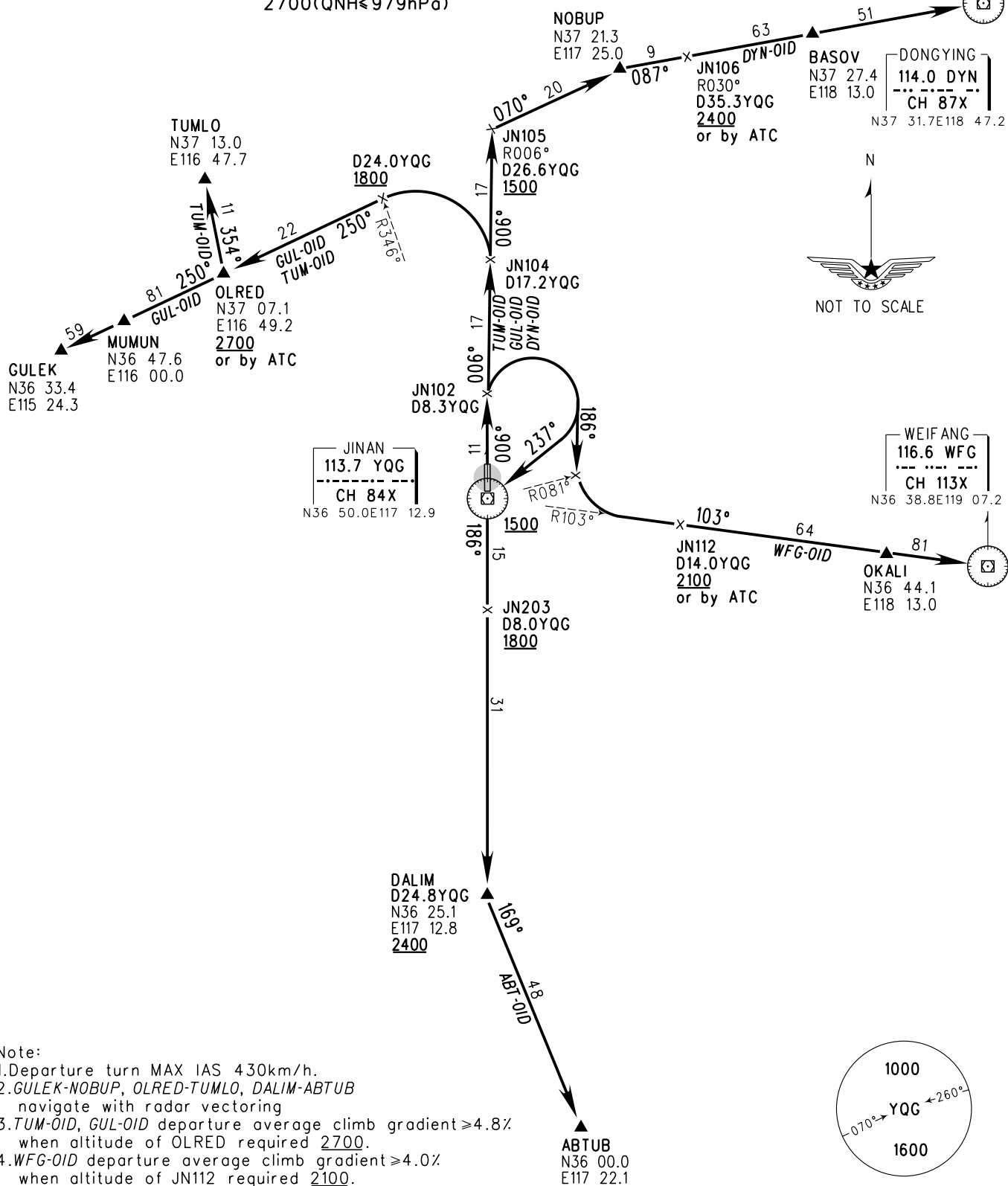
# STANDARD DEPARTURE CHART-INSTRUMENT

VAR6° W TWR 118.55(123.6) APP01 119.05(121.4)  
APP02 119.225(121.4) APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang RWY01

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

TL 3600  
TA 3000  
3300(QNH≥1031hPa)  
2700(QNH≤979hPa)



Note:

1. Departure turn MAX IAS 430km/h.
2. GULEK-NOBUP, OLRED-TUMLO, DALIM-ABTUB navigate with radar vectoring
3. TUM-01D, GUL-01D departure average climb gradient ≥4.8% when altitude of OLRED required 2700.
4. WFG-01D departure average climb gradient ≥4.0% when altitude of JN112 required 2100.

Changes: APP03.

# STANDARD DEPARTURE CHART-INSTRUMENT

ATIS 127.05  
VAR6° W TWR 118.55(123.6)

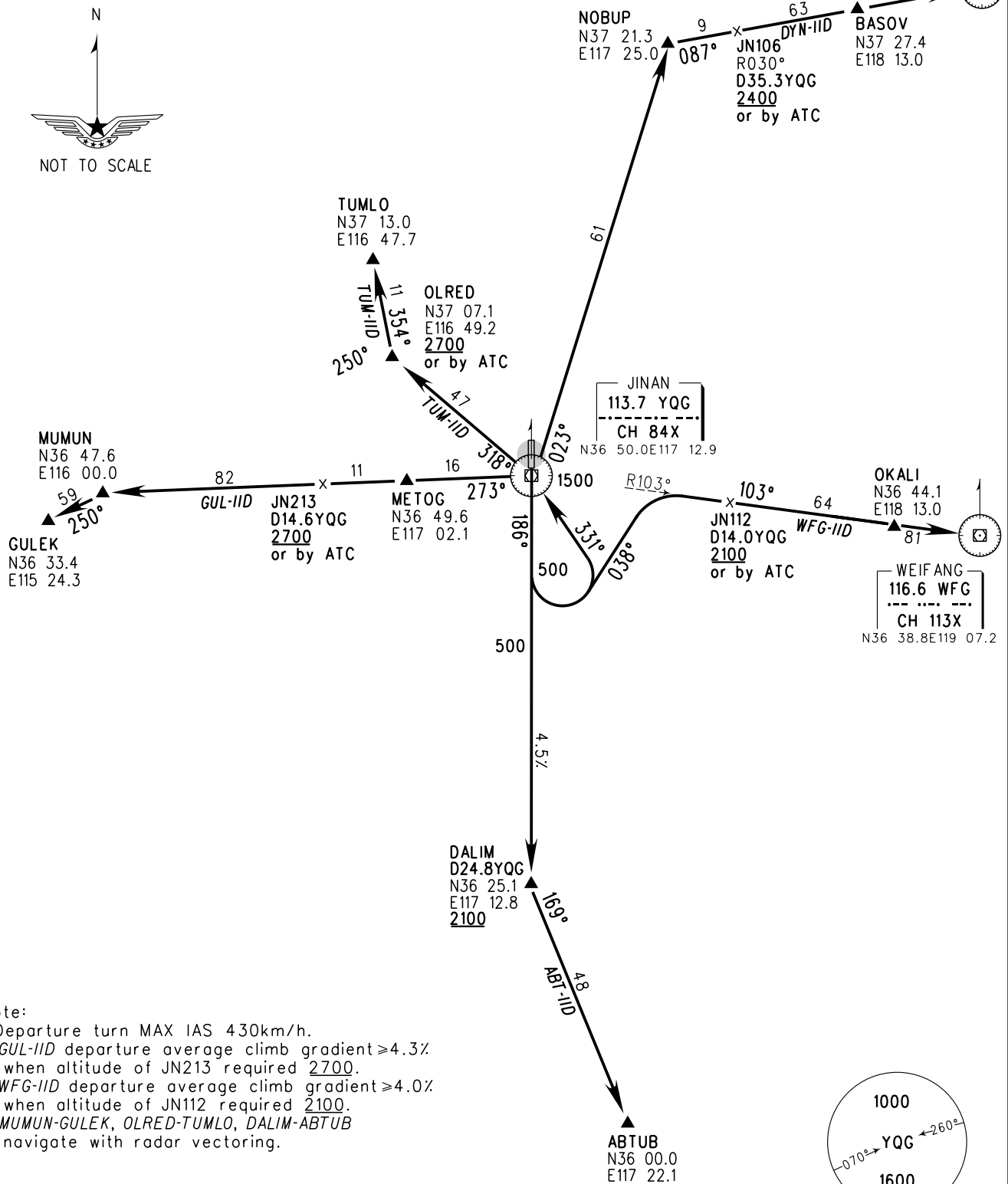
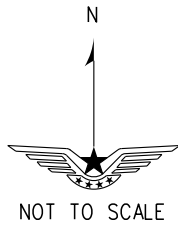
APP01 119.05(121.4)  
APP02 119.225(121.4)  
APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang  
RWY19

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

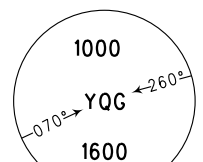
TL 3600  
TA 3000  
3300(QNH>1031hPa)  
2700(QNH<979hPa)

DONGYING  
114.0 DYN  
CH 87X  
N37 31.7E118 47.2



## Note:

1. Departure turn MAX IAS 430km/h.
2. GUL-IID departure average climb gradient  $\geq 4.3\%$   
when altitude of JN213 required 2700.
3. WFG-IID departure average climb gradient  $\geq 4.0\%$   
when altitude of JN112 required 2100.
4. MUMUN-GULEK, OLRED-TUMLO, DALIM-ABTUB  
navigate with radar vectoring.



MSA 46km

Changes: APP03.

# STANDARD DEPARTURE CHART-INSTRUMENT

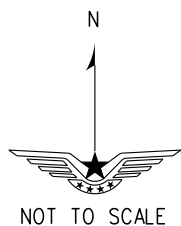
VAR6° W      ATIS 127.05  
TWR 118.55 (123.6)

APP01 119.05(121.4)  
APP02 119.225(121.4)  
APP03 124.475(121.4)

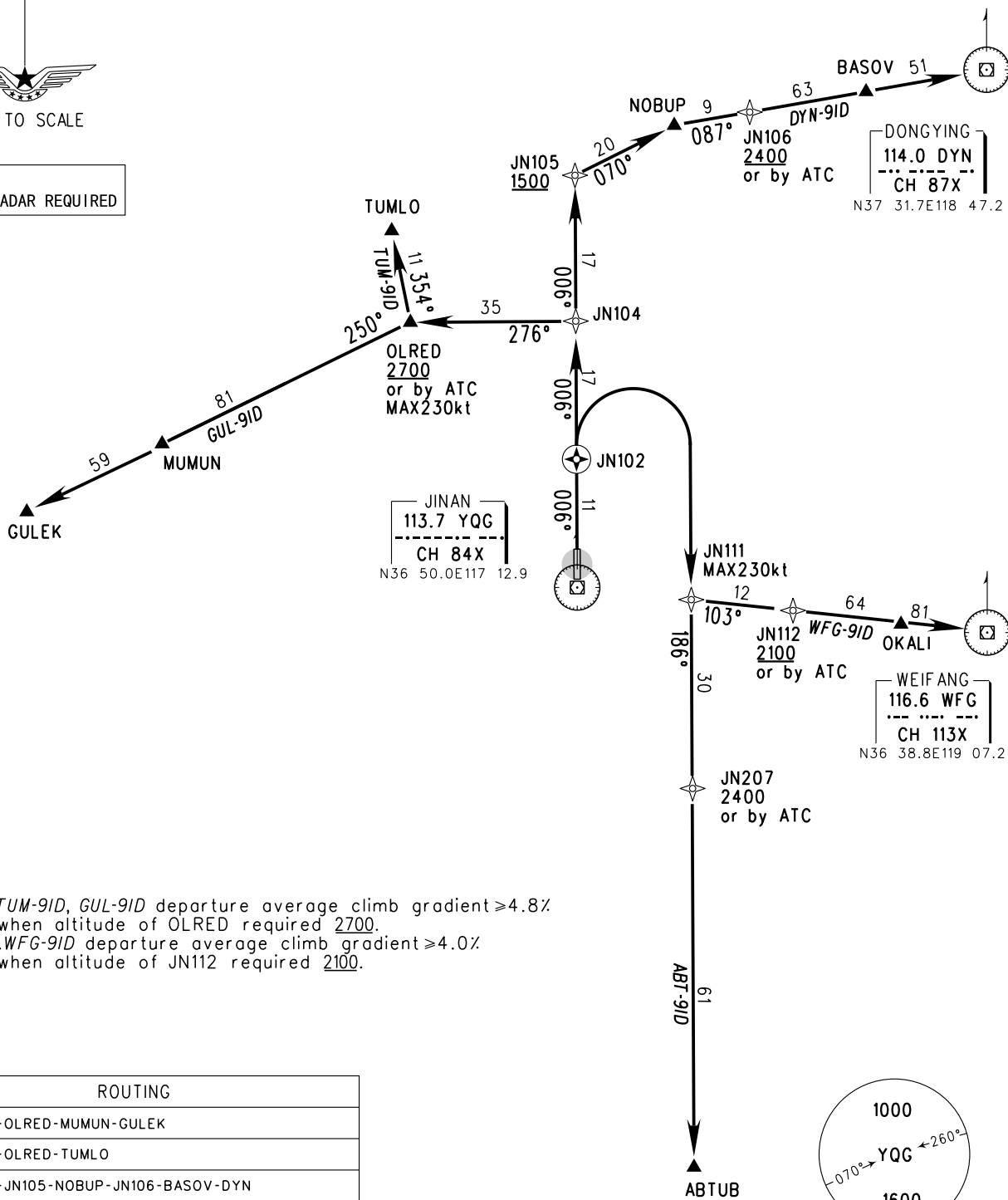
ZSJN JINAN/Yaoqiang  
RNAV RWY01

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

TL 3600  
TA 3000  
3300(QNH $\geq$ 1031hPa)  
2700(QNH $\leq$ 979hPa)



RNAV1  
GNSS, RADAR REQUIRED



Note: 1. *TUM-9ID*, *GUL-9ID* departure average climb gradient  $\geq 4.8\%$   
when altitude of OLRED required 2700.  
2. *WFG-9ID* departure average climb gradient  $\geq 4.0\%$   
when altitude of JN112 required 2100.

| SID            | ROUTING                                     |
|----------------|---------------------------------------------|
| <i>GUL-9ID</i> | JN104 - OLRED - MUMUN - GULEK               |
| <i>TUM-9ID</i> | JN104 - OLRED - TUMLO                       |
| <i>DYN-9ID</i> | JN104 - JN105 - NOBUP - JN106 - BASOV - DYN |
| <i>WFG-9ID</i> | JN102 - JN111 - JN112 - OKALI - WFG         |
| <i>ABT-9ID</i> | JN102 - JN111 - JN207 - ABTUB               |

Changes: APP03.

2023-10-1 EFF2311011600

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# STANDARD DEPARTURE CHART-INSTRUMENT

VAR6° W ATIS 127.05  
TWR 118.55(123.6) APP01 119.05(121.4)  
APP02 119.225(121.4) APP03 124.475(121.4)

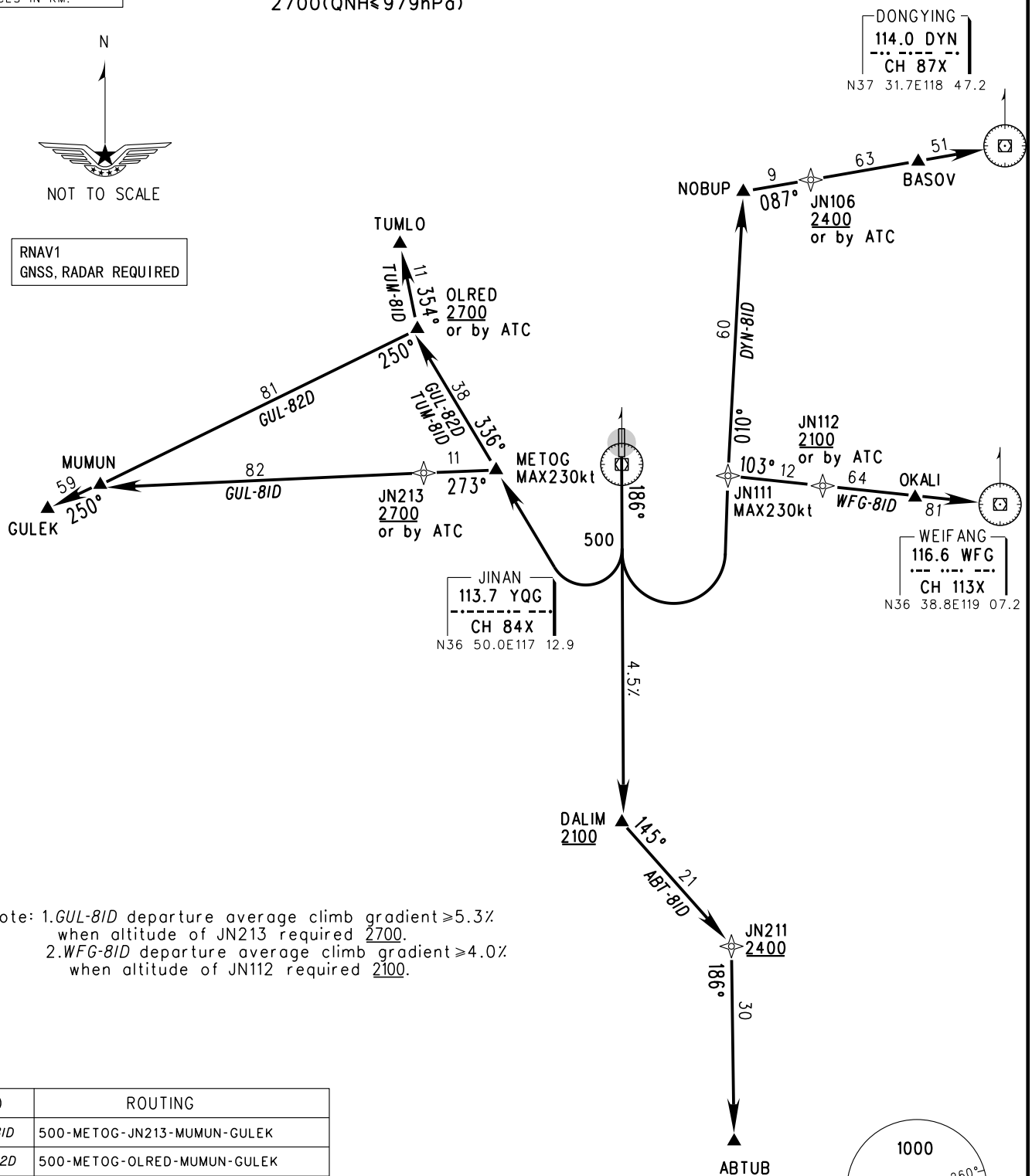
ZSJN JINAN/Yaoqiang  
RNAV RWY19

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

TL 3600  
TA 3000  
3300(QNH≥1031hPa)  
2700(QNH≤979hPa)



RNAV1  
GNSS, RADAR REQUIRED



Note: 1. GUL-8ID departure average climb gradient ≥ 5.3%  
when altitude of JN213 required 2700.  
2. WFG-8ID departure average climb gradient ≥ 4.0%  
when altitude of JN112 required 2100.

| SID     | ROUTING                         |
|---------|---------------------------------|
| GUL-8ID | 500-METOG-JN213-MUMUN-GULEK     |
| GUL-82D | 500-METOG-OLRED-MUMUN-GULEK     |
| TUM-8ID | 500-METOG-OLRED-TUMLO           |
| DYN-8ID | 500-JN111-NOBUP-JN106-BASOV-DYN |
| WFG-8ID | 500-JN111-JN112-OKALI-WFG       |
| ABT-8ID | 500-DALIM-JN211-ABTUB           |

Changes: APP03.

# STANDARD ARRIVAL CHART - INSTRUMENT

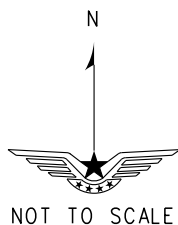
VAR6° W ATIS 127.05  
TWR 118.55(123.6)

APP01 119.05(121.4)  
APP02 119.225(121.4)  
APP03 124.475(121.4)

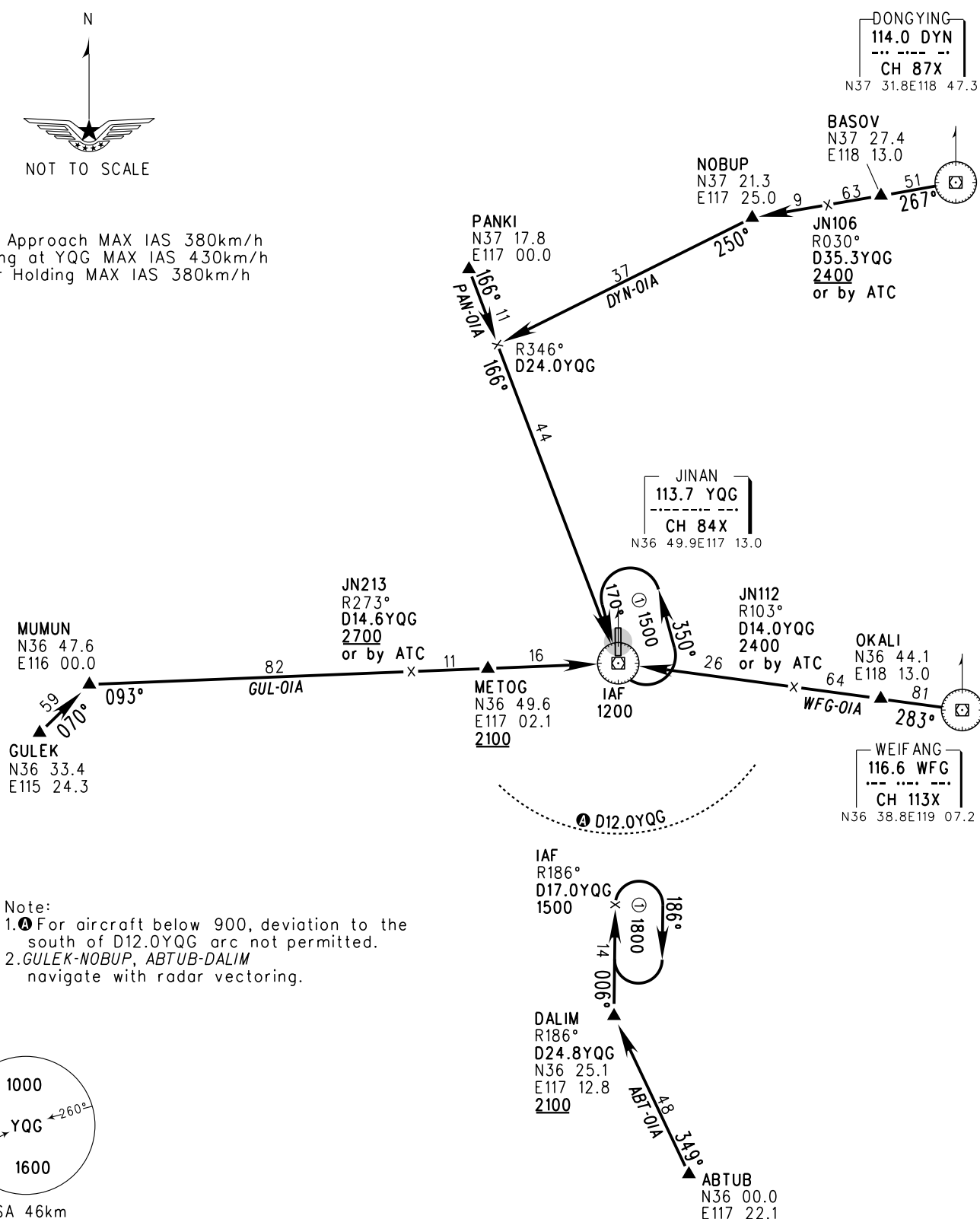
ZSJN JINAN/Yaoqiang  
RWY01

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

TL 3600  
TA 3000  
3300(QNH≥1031hPa)  
2700(QNH≤979hPa)

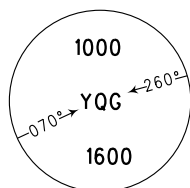


Initial Approach MAX IAS 380km/h  
Holding at YQG MAX IAS 430km/h  
Other Holding MAX IAS 380km/h



Note:

1. For aircraft below 900, deviation to the south of D12.0YQG arc not permitted.
2. GULEK-NOBUP, ABTUB-DALIM navigate with radar vectoring.



MSA 46km

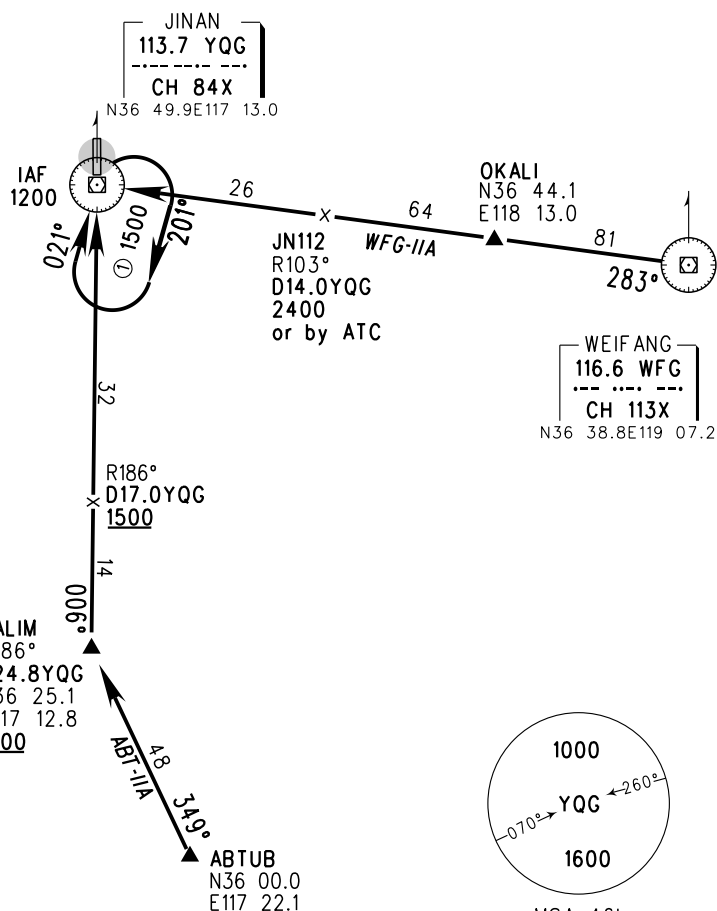
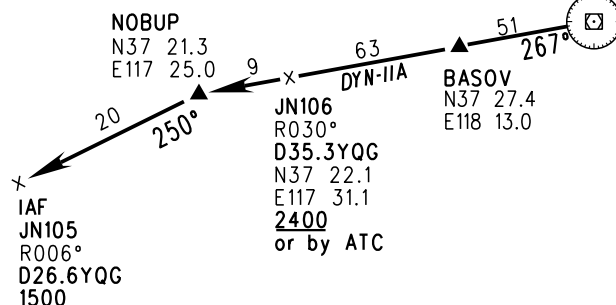
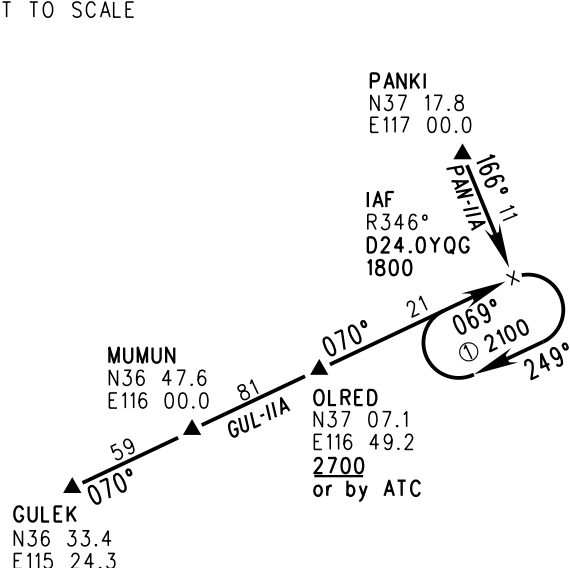
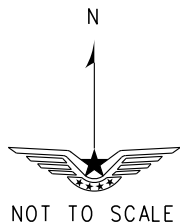
Changes: APP03.

BEARINGS ARE MAGNETIC.  
ALTITUDES, ELEVATIONS  
AND HEIGHTS IN METERS.  
DME DISTANCES IN  
NAUTICAL MILES.  
DISTANCES IN KM.

APP01 119.05(121.4)  
APP02 119.225(121.4)  
APP03 124.475(121.4)

RWY 19

DONGYING  
114.0 DYN  
--- ---  
CH 87X  
N37 31.8F118 47.3



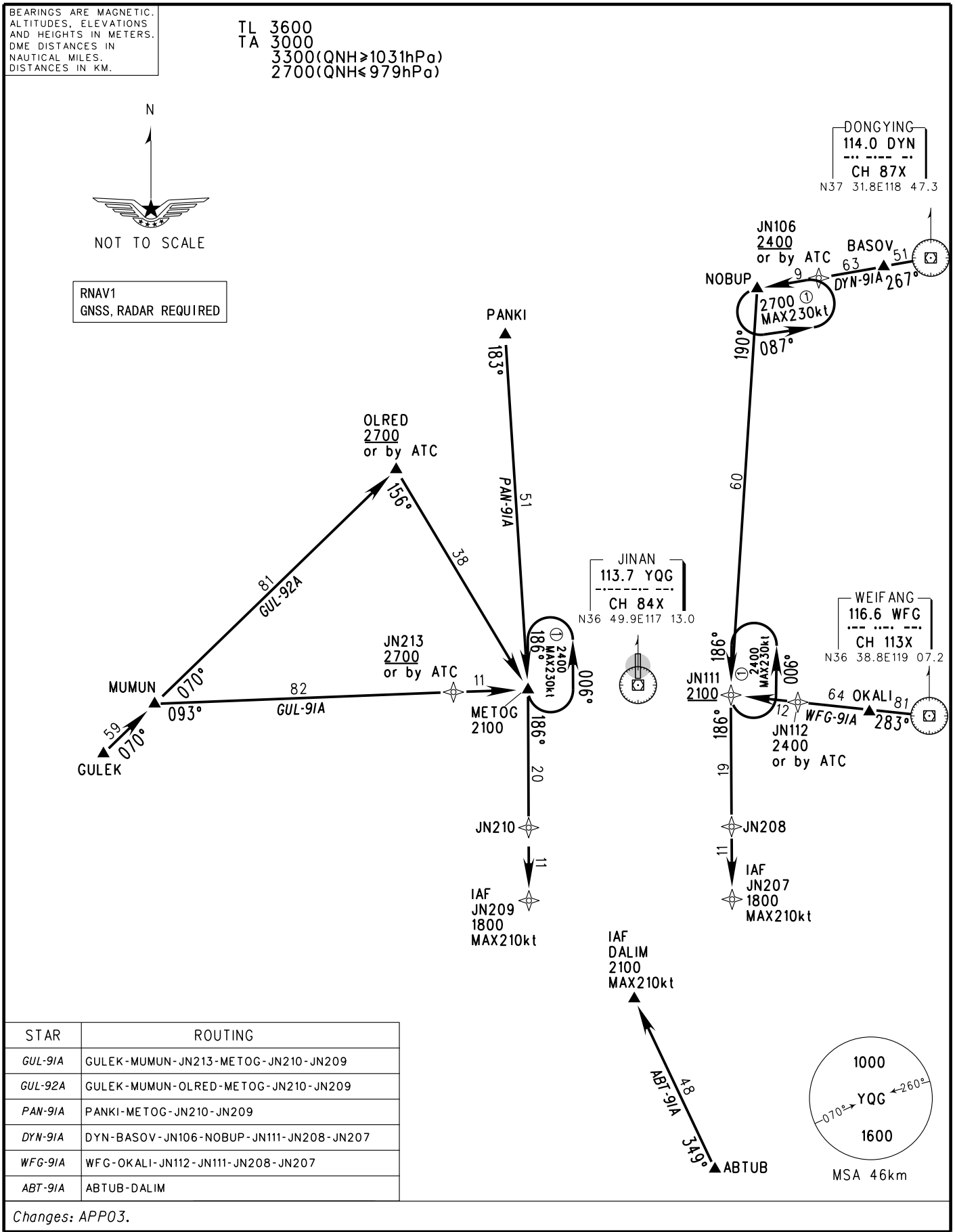
Note:  
1. Holding MAX IAS 430km/h  
2. Initial approach MAX IAS 380km/h  
3. *GULEK-NOBUP, ABTUB-DALIM*  
navigate with radar vectoring.

Changes: APP03.

STANDARD ARRIVAL  
CHART - INSTRUMENT

VAR6° W ATIS 127.05  
TWR 118.55(123.6) APP01 119.05(121.4)  
APP02 119.225(121.4) APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang  
RNAV RWY01



| STAR    | ROUTING                                 |
|---------|-----------------------------------------|
| GUL-91A | GULEK-MUMUN-JN213-METOG-JN210-JN209     |
| GUL-92A | GULEK-MUMUN-OLRED-METOG-JN210-JN209     |
| PAN-91A | PANKI-METOG-JN210-JN209                 |
| DYN-91A | DYN-BASOV-JN106-NOBUP-JN111-JN208-JN207 |
| WFG-91A | WFG-OKALI-JN112-JN111-JN208-JN207       |
| ABT-91A | ABTUB-DALIM                             |

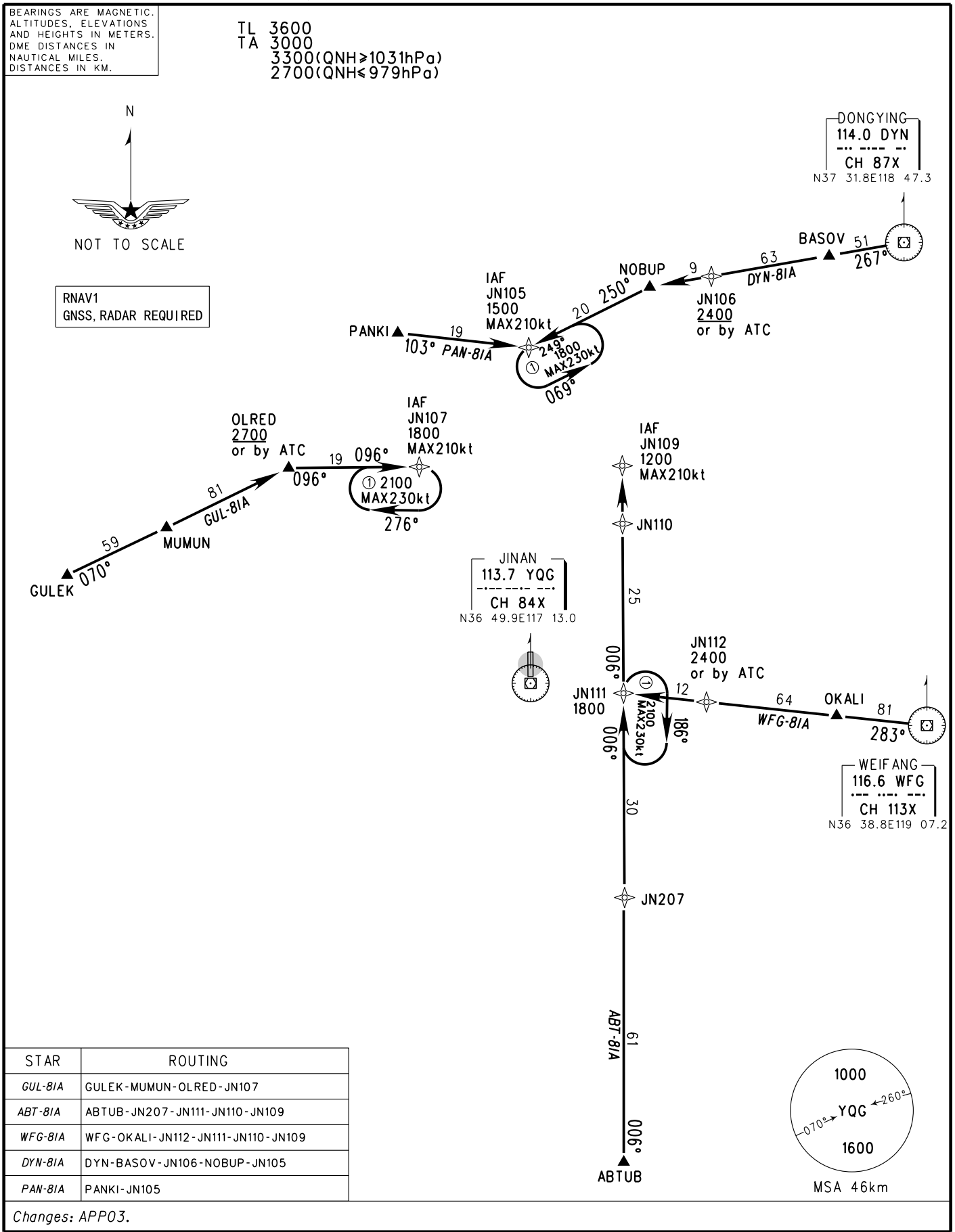
Changes: APP03.



STANDARD ARRIVAL  
CHART - INSTRUMENT

VAR6° W    ATIS 127.05    APP01 119.05(121.4)  
TWR 118.55(123.6)    APP02 119.225(121.4)  
APP03 124.475(121.4)

ZSJN JINAN/Yaoqiang  
RNAV RWY19



| STAR    | ROUTING                           |
|---------|-----------------------------------|
| GUL-81A | GULEK-MUMUN-OLRED-JN107           |
| ABT-81A | ABTUB-JN207-JN111-JN110-JN109     |
| WFG-81A | WFG-OKALI-JN112-JN111-JN110-JN109 |
| DYN-81A | DYN-BASOV-JN106-NOBUP-JN105       |
| PAN-81A | PANKI-JN105                       |

Changes: APP03.

## WAYPOINT LIST

JINAN/Yaoqiang

| WAYPOINT ID         | COORDINATES                 | WAYPOINT ID | COORDINATES             | WAYPOINT ID | COORDINATES |
|---------------------|-----------------------------|-------------|-------------------------|-------------|-------------|
| JN102               | N36° 58'12.9"E117° 12'57.6" | NOBUP       | N37° 21'16"E117° 25'00" |             |             |
| JN103               | N37° 02'31.3"E117° 12'58"   | OKALI       | N36° 44'03"E118° 13'00" |             |             |
| JN104               | N37° 07'08.4"E117° 12'57.6" | OLRED       | N37° 07'05"E116° 49'09" |             |             |
| JN105               | N37° 16'33.3"E117° 12'57.6" | PANKI       | N37° 17'45"E116° 59'59" |             |             |
| JN106               | N37° 22'06"E117° 31'07"     | TUMLO       | N37° 13'00"E116° 47'39" |             |             |
| JN107               | N37° 07'08"E117° 02'04"     |             |                         |             |             |
| JN109               | N37° 07'08"E117° 22'09"     |             |                         |             |             |
| JN110               | N37° 02'32"E117° 22'08"     |             |                         |             |             |
| JN111               | N36° 49'06"E117° 22'07"     |             |                         |             |             |
| JN112               | N36° 48'21"E117° 30'17"     |             |                         |             |             |
|                     |                             |             |                         |             |             |
| JN203               | N36° 41'55.3"E117° 12'57.6" |             |                         |             |             |
| JN204               | N36° 38'40.7"E117° 12'57.6" |             |                         |             |             |
| JN205               | N36° 36'08.7"E117° 12'57.6" |             |                         |             |             |
| JN206               | N36° 32'54.1"E117° 12'57.6" |             |                         |             |             |
| JN207               | N36° 32'54"E117° 22'05"     |             |                         |             |             |
| JN208               | N36° 38'40"E117° 22'05"     |             |                         |             |             |
| JN209               | N36° 32'53"E117° 02'08"     |             |                         |             |             |
| JN210               | N36° 38'40"E117° 02'08"     |             |                         |             |             |
| JN211               | N36° 16'26"E117° 22'08"     |             |                         |             |             |
| JN213               | N36° 49'26"E116° 54'46"     |             |                         |             |             |
|                     |                             |             |                         |             |             |
| DYN                 | N37° 31.7'E118° 47.2'       |             |                         |             |             |
| WFG                 | N36° 38.8'E119° 07.2'       |             |                         |             |             |
|                     |                             |             |                         |             |             |
| ABTUB               | N36° 00'02"E117° 22'04"     |             |                         |             |             |
| BASOV               | N37° 27'24"E118° 13'00"     |             |                         |             |             |
| DALIM               | N36° 25'04"E117° 12'47"     |             |                         |             |             |
| GULEK               | N36° 33'23"E115° 24'15"     |             |                         |             |             |
| METOG               | N36° 49'36"E117° 02'07"     |             |                         |             |             |
| MUMUN               | N36° 47'35"E116° 00'00"     |             |                         |             |             |
| Changes: New chart. |                             |             |                         |             |             |

DATABASE CODING TABLE

JINAN/Yaoqiang

| Path Terminator   | Waypoint ID | Fly over | Magnetic Course(°) | Turn Direction | Altitude (m)      | IAS (kt) | VPA/TCH | Navigation Specification |
|-------------------|-------------|----------|--------------------|----------------|-------------------|----------|---------|--------------------------|
| RWY01 SID DYN-91D |             |          |                    |                |                   |          |         |                          |
| CF                | JN104       |          | 006                |                |                   |          |         | RNAV1                    |
| TF                | JN105       |          |                    |                | 1500              |          |         | RNAV1                    |
| TF                | NOBUP       |          |                    |                |                   |          |         | RNAV1                    |
| TF                | JN106       |          |                    |                | 2400<br>or by ATC |          |         | RNAV1                    |
| TF                | BASOV       |          |                    |                |                   |          |         | RNAV1                    |
| TF                | DYN         |          |                    |                |                   |          |         | RNAV1                    |
| RWY01 SID WFG-91D |             |          |                    |                |                   |          |         |                          |
| CF                | JN102       | Y        | 006                |                |                   |          |         | RNAV1                    |
| DF                | JN111       |          |                    | R              |                   | MAX230   |         | RNAV1                    |
| TF                | JN112       |          |                    |                | 2100<br>or by ATC |          |         | RNAV1                    |
| TF                | OKALI       |          |                    |                |                   |          |         | RNAV1                    |
| TF                | WFG         |          |                    |                |                   |          |         | RNAV1                    |
| RWY01 SID ABT-91D |             |          |                    |                |                   |          |         |                          |
| CF                | JN102       | Y        | 006                |                |                   |          |         | RNAV1                    |
| DF                | JN111       |          |                    | R              |                   | MAX230   |         | RNAV1                    |
| TF                | JN207       |          |                    |                | 2400<br>or by ATC |          |         | RNAV1                    |
| TF                | ABTUB       |          |                    |                |                   |          |         | RNAV1                    |
| RWY01 SID GUL-91D |             |          |                    |                |                   |          |         |                          |
| CF                | JN104       |          | 006                |                |                   |          |         | RNAV1                    |
| TF                | OLRED       |          |                    |                | 2700<br>or by ATC | MAX230   |         | RNAV1                    |
| TF                | MUMUN       |          |                    |                |                   |          |         | RNAV1                    |
| TF                | GULEK       |          |                    |                |                   |          |         | RNAV1                    |
| RWY01 SID TUM-91D |             |          |                    |                |                   |          |         |                          |
| CF                | JN104       |          | 006                |                |                   |          |         | RNAV1                    |
| TF                | OLRED       |          |                    |                | 2700<br>or by ATC | MAX230   |         | RNAV1                    |
| TF                | TUMLO       |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID DYN-81D |             |          |                    |                |                   |          |         |                          |
| CA                |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                | JN111       |          |                    | L              |                   | MAX230   |         | RNAV1                    |
| TF                | NOBUP       |          |                    |                |                   |          |         | RNAV1                    |
| TF                | JN106       |          |                    |                | 2400<br>or by ATC |          |         | RNAV1                    |
| TF                | BASOV       |          |                    |                |                   |          |         | RNAV1                    |

Changes: New chart.

DATABASE CODING TABLE

JINAN/Yaoqiang

| Path Terminator    | Waypoint ID | Fly over | Magnetic Course(°) | Turn Direction | Altitude (m)      | IAS (kt) | VPA/TCH | Navigation Specification |
|--------------------|-------------|----------|--------------------|----------------|-------------------|----------|---------|--------------------------|
| TF                 | DYN         |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID WFG-81D  |             |          |                    |                |                   |          |         |                          |
| CA                 |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                 | JN111       |          |                    | L              |                   | MAX230   |         | RNAV1                    |
| TF                 | JN112       |          |                    |                | 2100<br>or by ATC |          |         | RNAV1                    |
| TF                 | OKALI       |          |                    |                |                   |          |         | RNAV1                    |
| TF                 | WFG         |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID ABT-81D  |             |          |                    |                |                   |          |         |                          |
| CA                 |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                 | DALIM       |          |                    |                | 2100              |          |         | RNAV1                    |
| TF                 | JN211       |          |                    |                | 2400              |          |         | RNAV1                    |
| TF                 | ABTUB       |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID GUL-81D  |             |          |                    |                |                   |          |         |                          |
| CA                 |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                 | METOG       |          |                    | R              |                   | MAX230   |         | RNAV1                    |
| TF                 | JN213       |          |                    |                | 2700<br>or by ATC |          |         | RNAV1                    |
| TF                 | MUMUN       |          |                    |                |                   |          |         | RNAV1                    |
| TF                 | GULEK       |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID GUL-82D  |             |          |                    |                |                   |          |         |                          |
| CA                 |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                 | METOG       |          |                    | R              |                   | MAX230   |         | RNAV1                    |
| TF                 | OLRED       |          |                    |                | 2700<br>or by ATC |          |         | RNAV1                    |
| TF                 | MUMUN       |          |                    |                |                   |          |         | RNAV1                    |
| TF                 | GULEK       |          |                    |                |                   |          |         | RNAV1                    |
| RWY19 SID TUM-81D  |             |          |                    |                |                   |          |         |                          |
| CA                 |             |          | 186                |                | 500               |          |         | RNAV1                    |
| DF                 | METOG       |          |                    | R              |                   | MAX230   |         | RNAV1                    |
| TF                 | OLRED       |          |                    |                | 2700<br>or by ATC |          |         | RNAV1                    |
| TF                 | TUMLO       |          |                    |                |                   |          |         | RNAV1                    |
| RWY01 STAR DYN-91A |             |          |                    |                |                   |          |         |                          |
| IF                 | DYN         |          |                    |                |                   |          |         | RNAV1                    |
| TF                 | BASOV       |          |                    |                |                   |          |         | RNAV1                    |
| TF                 | JN106       |          |                    |                | 2400<br>or by ATC |          |         | RNAV1                    |
| TF                 | NOBUP       |          |                    |                |                   |          |         | RNAV1                    |

Changes: New chart.

DATABASE CODING TABLE

JINAN/Yaoqiang

| Path Terminator                   | Waypoint ID | Fly over | Magnetic Course(°) | Turn Direction | Altitude (m)             | IAS (kt) | VPA/TCH | Navigation Specification |
|-----------------------------------|-------------|----------|--------------------|----------------|--------------------------|----------|---------|--------------------------|
| TF                                | JN111       |          |                    |                | <u>2100</u>              |          |         | RNAV1                    |
| TF                                | JN208       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN207       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| RWY01 STAR WFG-91A                |             |          |                    |                |                          |          |         |                          |
| IF                                | WFG         |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | OKALI       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN112       |          |                    |                | 2400<br>or by ATC        |          |         | RNAV1                    |
| TF                                | JN111       |          |                    |                | <u>2100</u>              |          |         | RNAV1                    |
| TF                                | JN208       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN207       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| RWY01 STAR ABT-91A                |             |          |                    |                |                          |          |         |                          |
| IF                                | ABTUB       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | DALIM       |          |                    |                | 2100                     | MAX210   |         | RNAV1                    |
| RWY01 STAR GUL-91A                |             |          |                    |                |                          |          |         |                          |
| IF                                | GULEK       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | MUMUN       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN213       |          |                    |                | <u>2700</u><br>or by ATC |          |         | RNAV1                    |
| TF                                | METOG       |          |                    |                | 2100                     |          |         | RNAV1                    |
| TF                                | JN210       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN209       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| RWY01 STAR GUL-92A                |             |          |                    |                |                          |          |         |                          |
| IF                                | GULEK       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | MUMUN       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | OLRED       |          |                    |                | <u>2700</u><br>or by ATC |          |         | RNAV1                    |
| TF                                | METOG       |          |                    |                | 2100                     |          |         | RNAV1                    |
| TF                                | JN210       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN209       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| RWY01 STAR PAN-91A                |             |          |                    |                |                          |          |         |                          |
| IF                                | PANKI       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | METOG       |          |                    |                | 2100                     |          |         | RNAV1                    |
| TF                                | JN210       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                | JN209       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| RWY01 Holding(Outbound Time:1min) |             |          |                    |                |                          |          |         |                          |
| HM                                | METOG       | Y        | 186                | L              | 2400                     | MAX230   |         | RNAV1                    |
| HM                                | JN206       | Y        | 006                | R              | 1800                     | MAX210   |         | RNAV1                    |
| HM                                | NOBUP       | Y        | 267                | L              | 2700                     | MAX230   |         | RNAV1                    |

Changes: New chart.

DATABASE CODING TABLE

JINAN/Yaoqiang

| Path Terminator                                         | Waypoint ID | Fly over | Magnetic Course(°) | Turn Direction | Altitude (m)             | IAS (kt) | VPA/TCH | Navigation Specification |
|---------------------------------------------------------|-------------|----------|--------------------|----------------|--------------------------|----------|---------|--------------------------|
| HM                                                      | JN111       | Y        | 186                | L              | 2400                     | MAX230   |         | RNAV1                    |
| RWY01 Approach Transition JN207                         |             |          |                    |                |                          |          |         |                          |
| IF                                                      | JN207       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| TF                                                      | JN206       |          |                    |                | 1500                     |          |         | RNAV1                    |
| TF                                                      | JN205       |          |                    |                | 1200                     |          |         | RNAV1                    |
| TF                                                      | JN204       |          |                    |                | 1000                     |          |         | RNAV1                    |
| TF                                                      | JN203       |          |                    |                | 700                      |          |         | RNAV1                    |
| RWY01 Approach Transition DALIM                         |             |          |                    |                |                          |          |         |                          |
| IF                                                      | DALIM       |          |                    |                | 2100                     | MAX210   |         | RNAV1                    |
| TF                                                      | JN206       |          |                    |                | 1500                     |          |         | RNAV1                    |
| TF                                                      | JN205       |          |                    |                | 1200                     |          |         | RNAV1                    |
| TF                                                      | JN204       |          |                    |                | 1000                     |          |         | RNAV1                    |
| TF                                                      | JN203       |          |                    |                | 700                      |          |         | RNAV1                    |
| RWY01 Approach Transition JN209                         |             |          |                    |                |                          |          |         |                          |
| IF                                                      | JN209       |          |                    |                | 1800                     | MAX210   |         | RNAV1                    |
| TF                                                      | JN206       |          |                    |                | 1500                     |          |         | RNAV1                    |
| TF                                                      | JN205       |          |                    |                | 1200                     |          |         | RNAV1                    |
| TF                                                      | JN204       |          |                    |                | 1000                     |          |         | RNAV1                    |
| TF                                                      | JN203       |          |                    |                | 700                      |          |         | RNAV1                    |
| RWY01 Missed Approach                                   |             |          |                    |                |                          |          |         |                          |
| CA                                                      |             |          | 006                |                | 500                      |          |         | RNP1                     |
| DF                                                      | JN111       |          |                    | R              | <u>1200</u>              | MAX210   |         | RNP1                     |
| RWY01 Missed Approach Holding JH111(Outbound Time:1min) |             |          |                    |                |                          |          |         |                          |
| HM                                                      | JN111       | Y        | 186                | L              | ALT by ATC               | MAX230   |         | RNP1                     |
| RWY19 STAR DYN-81A                                      |             |          |                    |                |                          |          |         |                          |
| IF                                                      | DYN         |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | BASOV       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | JN106       |          |                    |                | <u>2400</u><br>or by ATC |          |         | RNAV1                    |
| TF                                                      | NOBUP       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | JN105       |          |                    |                | 1500                     | MAX210   |         | RNAV1                    |
| RWY19 STAR WFG-81A                                      |             |          |                    |                |                          |          |         |                          |
| IF                                                      | WFG         |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | OKALI       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | JN112       |          |                    |                | 2400<br>or by ATC        |          |         | RNAV1                    |
| TF                                                      | JN111       |          |                    |                | 1800                     |          |         | RNAV1                    |
| TF                                                      | JN110       |          |                    |                |                          |          |         | RNAV1                    |
| TF                                                      | JN109       |          |                    |                | 1200                     | MAX210   |         | RNAV1                    |

Changes: New chart.

DATABASE CODING TABLE

JINAN/Yaoqiang

| Path Terminator                                         | Waypoint ID | Fly over | Magnetic Course(°) | Turn Direction | Altitude (m)      | IAS (kt) | VPA/TCH | Navigation Specification |
|---------------------------------------------------------|-------------|----------|--------------------|----------------|-------------------|----------|---------|--------------------------|
| RWY19 STAR ABT-81A                                      |             |          |                    |                |                   |          |         |                          |
| IF                                                      | ABTUB       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | JN207       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | JN111       |          |                    |                | 1800              |          |         | RNAV1                    |
| TF                                                      | JN110       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | JN109       |          |                    |                | 1200              | MAX210   |         | RNAV1                    |
| RWY19 STAR GUL-81A                                      |             |          |                    |                |                   |          |         |                          |
| IF                                                      | GULEK       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | MUMUN       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | OLRED       |          |                    |                | 2700<br>or by ATC |          |         | RNAV1                    |
| TF                                                      | JN107       |          |                    |                | 1800              | MAX210   |         | RNAV1                    |
| RWY19 STAR PAN-81A                                      |             |          |                    |                |                   |          |         |                          |
| IF                                                      | PANKI       |          |                    |                |                   |          |         | RNAV1                    |
| TF                                                      | JN105       |          |                    |                | 1500              | MAX210   |         | RNAV1                    |
| RWY19 Holding(Outbound Time:1min)                       |             |          |                    |                |                   |          |         |                          |
| HM                                                      | JN107       | Y        | 096                | R              | 2100              | MAX230   |         | RNAV1                    |
| HM                                                      | JN111       | Y        | 006                | R              | 2100              | MAX230   |         | RNAV1                    |
| HM                                                      | JN105       | Y        | 249                | L              | 1800              | MAX230   |         | RNAV1                    |
| RWY19 Approach Transition JN105                         |             |          |                    |                |                   |          |         |                          |
| IF                                                      | JN105       |          |                    |                | 1500              | MAX210   |         | RNAV1                    |
| TF                                                      | JN104       |          |                    |                | 900               |          |         | RNAV1                    |
| TF                                                      | JN103       |          |                    |                | 600               |          |         | RNAV1                    |
| RWY19 Approach Transition JN107                         |             |          |                    |                |                   |          |         |                          |
| IF                                                      | JN107       |          |                    |                | 1800              | MAX210   |         | RNAV1                    |
| TF                                                      | JN104       |          |                    |                | 900               |          |         | RNAV1                    |
| TF                                                      | JN103       |          |                    |                | 600               |          |         | RNAV1                    |
| RWY19 Approach Transition JN109                         |             |          |                    |                |                   |          |         |                          |
| IF                                                      | JN109       |          |                    |                | 1200              | MAX210   |         | RNAV1                    |
| TF                                                      | JN104       |          |                    |                | 900               |          |         | RNAV1                    |
| TF                                                      | JN103       |          |                    |                | 600               |          |         | RNAV1                    |
| RWY19 Missed Approach                                   |             |          |                    |                |                   |          |         |                          |
| CA                                                      |             |          | 186                |                | 500               |          |         | RNP1                     |
| DF                                                      | JN111       |          |                    | L              | 1200              | MAX210   |         | RNP1                     |
| RWY19 Missed Approach Holding JH111(Outbound Time:1min) |             |          |                    |                |                   |          |         |                          |
| HM                                                      | JN111       | Y        | 006                | R              | ALT by ATC        | MAX230   |         | RNP1                     |
|                                                         |             |          |                    |                |                   |          |         |                          |
|                                                         |             |          |                    |                |                   |          |         |                          |
|                                                         |             |          |                    |                |                   |          |         |                          |

Changes: New chart.