AD 1. 机场－简介

AD 1. AERODROMES – INTRODUCTION

AD 1.1 机场的可用性

AD 1.1 AERODROME AVAILABILITY

1. 机场及相关设施使用的一般条件

1.1 本部分包含所有可供国际飞行的航空器使用的机场资料。

1.2 机场管理

中国民用航空局及其派出机构－民航地区管理局对中国民用机场实施行业管理。

1.3 使用条件

1.3.1 除因紧急情况，必须在就近机场着陆的航空器外，外国民用航空器应根据航空协定或其它文件的规定在指定的机场着陆。

1.3.2 除非确在紧急情况下或得到特别许可，航空器不得在本航行资料汇编以外的机场着陆。

1.3.3 航空器起飞或者降落时，应当遵守中国民用航空局规定的机场最低运行标准。当机场天气实况低于该标准时，航空器不得起飞或者着陆。在紧急情况下如果航空器的机长决定低于机场气象最低条件着陆，须对其决定和由此产生的后果负完全责任。

1.3.4 在中华人民共和国境内的航路上或者起飞、降落机场附近有威胁航空器飞行的危险天气时，有关空中交通管制部门可以向航空器的机长提出推迟起飞、返航或者飞往备降机场的建议；航空器的机长对此类建议有最后的决定权并对其决定负责。

1. General conditions under which aerodromes and associated facilities are available for use

1.1 This section contains information on all aerodromes which are available for international flight operations.

1.2 Aerodromes administration

The civil aerodromes of China are professionally administered by the Civil Aviation Administration of China and its relevant regional administrations.

1.3 Conditions of Availability

1.3.1 Except in emergency situations which warrant landing at a nearby aerodrome, a foreign civil aircraft shall land at a designated aerodrome in accordance with an air agreement or other documents.

1.3.2 An aircraft is not permitted to land at aerodromes other than those listed in this AIP, except in cases of real emergency or where special permission has been granted.

1.3.3 When taking off from or landing at an aerodrome, an aircraft shall observe the aerodrome operating minima specified by the Civil Aviation Administration of China. No take-off or landing is allowed when weather conditions are below the minima. If, in the case of emergency, the pilot-in-command decides to land below weather minima, he will be held fully responsible for his decision and all the consequences arising therefrom.

1.3.4 In case of hazardous weather that will endanger the aircraft en-route or in the vicinity of an aerodrome of departure or landing within the territory of the People's Republic of China, the relevant ATC unit may advise the pilot-in-command of the aircraft in the affected area to postpone departure, turn back or make a diversion to an alternate as appropriate. With respect to such kind of advices, the pilot-in-command, however, has the authority to make a final decision for which he is likewise responsible.

2. 采用的国际民用航空组织文件

附件 14 – 机场，与附件 14 的差异在 GEN 1.7 中详细说明。

2. Applicable ICAO Documents

Annex 14 – Aerodrome.
Differences to ICAO Annex 14 are shown in subsection GEN 1.7.

3. 军民合用机场

本航行资料汇编中包含允许外国民用航空器使用的军民合用机场。在这些机场，所有非本国注册的航空器均应遵守当地军事管制区的有关规定。

3. Joint military/civil aerodromes

This AIP includes joint military/civil aerodromes which are available for use by foreign aircraft. All aircraft not registered in China shall observe the relevant restrictions of the local military controlled areas.

4. 机场的 II 类运行

4.1 如果公布的机场跑道为仪表着陆系统 II 类运行跑道，则该跑道已装备了合适的设备，并制定了相应的运行程序，需要时可供使用。

4.2 实施仪表着陆系统 II 类运行的机场,其设施和服务符合国际民用航空公约附件 10、附件 14 和 9365 文件《全天候运行手册》的要求。

颁布的内容至少包括下列设施可供使用:

仪表着陆系统 — 具有相关的性能级别。
灯光 — 适应所公布的运行类别。
跑道视程系统 — 跑道视程计量单位为米。

4.3 仪表着陆系统 II 类运行跑道的起飞标准见相关机场图；航空营运人在 II 类运行跑道实施的着陆最低标准不得低于该跑道公布的 MDH 或 DH。

4.4 为保护仪表着陆系统信号，在机场实施 II 类运行时，要求起飞航空器在滑行道上的等待位置较之平时距跑道的距离远一些。为此根据附件 14 设置了专门的等待位置标志和等待位置灯；当航空器在着陆后进入出口滑行

4. CAT II operations at aerodromes

4.1 If the published runway of an aerodrome is available for ILS Category II operations, it indicates that the runway has been suitably equipped, that procedures appropriate to such operations have been established and that it is available for use when required.

4.2 The facilities and services for the aerodromes providing ILS CAT II operations have met the requirements of the ICAO Annex 10, Annex 14 and ICAO Doc 9365 – All Weather Operation Manual.

The contents promulgated imply that at least the following facilities are available:

ILS — certification to relevant performance category.
Lighting — suitable for the promulgated category.
RVR system — RVR measurement units in meters.

4.3 The take-off minima for the runways providing ILS CAT II operations are listed in the relevant aerodrome charts. Operators shall not carry out landing minima at the runways providing ILS CAT II operations lower than the published MDH or DH for the runway.

4.4 For protection of ILS signals during ILS CAT II operations, the take-off holding position on taxiway of an aircraft requesting take-off is required to keep clear of the runway at a greater distance than usual. To this end, such holding positions have been appropriately marked and lighted conforming to the

道时，此时滑行道中线灯为黄绿相间颜色，驾驶员在滑行中发现这种黄绿相间颜色全部变为绿色时，即表示该航空器已完全脱离仪表着陆系统敏感区。

驾驶员不得将航空器滞留在仪表着陆系统敏感区内，当航空器完全脱离仪表着陆系统敏感区时，驾驶员应报告“已脱离跑道”

specifications in ICAO Annex 14. When aircraft enters exit taxiway after landing, pilot will find that exit taxiway center line lights alternate from green to yellow, and as the pilot continues taxiing he will find that the alternating colors will all turn into green, an indication showing that his aircraft is clear of the ILS Sensitive Area.

Pilots shall not hold their aircraft within the ILS Sensitive Area and shall report “Runway Vacated” after the aircraft is fully clear of the Sensitive Area.

4.5 在实施仪表着陆系统 II 类运行过程中，空中交通管制部门会通知航空器驾驶员气象条件变化和任何公布设施不能正常工作的情况，以便航空器驾驶员在必要时能根据运行手册来修订最低飞行标准。

4.5 During ILS Category II operations, pilots will be informed by ATC of any change in weather conditions and any unserviceability in the promulgated facilities so that they can amend their operations minima, if necessary, according to their operations manual.

4.6 航空器驾驶员如准备进行 II 类进近的训练，应在与进近管制（或管制塔台）最初的联系中提出申请。练习进近时，安全保卫程序不能保证得到全面实施，航空器驾驶员应预料仪表着陆系统信号受到干扰的可能性。

4.6 Pilots who wish to carry out training practice of CAT II approach are to request Practice CAT II Approach on initial contact with Approach Control (or Tower Control). For practice approaches there is no guarantee that the full safeguarding procedures will be applied and pilots should anticipate the possibility of resultant ILS signal disturbance.

4.7 II 类运行的申请

4.7 Applications for CAT II operations

4.7.1 航空营运人在仪表着陆系统跑道实施 II 类运行的最低标准，需要向中国民用航空局提出申请，获得批准后方可实施 II 类运行。

中国民用航空局飞行标准司负责审批 II 类运行的申请，其地址为:

中华人民共和国北京市东城区东四西大街 155 号，邮编 100710，中国民用航空局飞行标准司。

传真：86-10-64030972

电话：86-10-64030980

电子信箱：fsd@caac.cn.net

4.7.1 Air operators shall make an application to CAAC for approval for CAT II operations minima at the aerodromes providing ILS CAT II operations before the execution of such operations.

Flight Standards Department of CAAC is responsible for the assessment and authorization of application for ILS CAT II operations. Its postal address:

Flight Standards Department

Civil Aviation Administration of China

155 Dongsi Street West, Dongcheng District

Beijing 100710, People’s Republic of China

FAX: 86-10-64030972

TEL: 86-10-64030980

Email: fsd@caac.cn.net.

4.7.2 航空营运人向中国民用航空局递交申请的内容应包括：公司名称、使用的机型、本

4.7.2 The application to CAAC should include name of operator, aircraft type, and a copy of document of the aircraft type

国民航当局批准可实施 II 类运行机型的文本复印件。

approved by the civil aviation authority of the home country to carry out ILS CAT II operations.

5. 机场的平行跑道同时运行

5. Simultaneous Operations on parallel runways at aerodrome

5.1 定义

5.1 TERMS

5.1.1 正常运行区（Normal Operating Zone）是指从仪表着陆系统（ILS）航向道中心线向两侧延伸至指定范围内的空域。

5.1.1 Normal operating zone (NOZ): airspace of defined dimensions extending to either side of an ILS localizer course. Only the inner half of the normal operating zone is taken into account in independent parallel approaches.

5.1.2 非侵入区（No transgression zone）是指位于两条跑道中心线延长线之间特定的空域。在进行平行跑道同时进近的过程中，当一架航空器进入该空域时，管制员应当指挥另一架受影响的正常飞行的航空器进行避让。

5.1.2 No transgression zone (NTZ): in the context of independent parallel approaches, a corridor of airspace of defined dimensions located centrally between the two extended runway centre lines, where a penetration by an aircraft requires a controller intervention to maneuver any threatened aircraft on the adjacent approach.

5.2 运行模式

5.2 MODES OF OPERATIONS

5.2.1 独立平行仪表进近（模式 1）：在相邻的平行跑道仪表着陆系统上进近的航空器之间不需要规定的雷达间隔时，在平行跑道上同时进行的仪表着陆系统进近的运行模式。

5.2.1 Independent parallel ILS approaches (mode 1): simultaneous ILS approaches to parallel runways where radar separation minima between aircraft on adjacent ILS localizer course are not prescribed.

5.2.2 相关平行仪表进近（模式 2）：在相邻的平行跑道仪表着陆系统上进近的航空器之间需要规定的雷达间隔时，在平行跑道上同时进行的仪表着陆系统进近的运行模式。

5.2.2 Dependent parallel ILS approaches (mode 2): simultaneous ILS approaches to parallel runways where radar separation minima between aircraft on adjacent ILS localizer course are prescribed.

5.2.3 独立平行离场（模式 3）：是指离场航空器在平行跑道上沿相同方向同时起飞的运行模式。

5.2.3 Independent parallel departures (mode 3): simultaneous departures from parallel instrument runways.

5.2.4 隔离平行运行（模式 4）：是指在平行跑道上同时进行的运行，其中一条跑道只用于离场，另一条跑道只用于进近。

5.2.4 Segregated parallel approaches/departures (mode 4): simultaneous operations on parallel instrument runways in which one runway is used exclusively for approaches and the other runway is used exclusively for departures.

5.3 实施平行跑道同时仪表运行的航空器应当具有仪表飞行规则（IFR）以及按照仪表着陆系统实施进近所需的机载电子设备。

5.3 relative airborne avionic devices equipments are required to do IFR flights and ILS approaches while simultaneous operations are in progress.

5.4 平行仪表进近的系统要求

5.4 SYSTEM REQUIREMENTS FOR OF INDEPENDENT AND DEPENDENT PARALLEL ILS APPROACHES

5.4.1 每条跑道都装有仪表着陆系统。

5.4.1 Each of parallel runways is equipped with ILS.

5.4.2 制定了相关的仪表飞行程序。

5.4.2 Relative approach procedures are established for each of parallel runways.

5.4.3 实施平行跑道同时运行的程序操作已经得到了验证。

同时独立或相关平行进近的跑道仪表进近图应该包含一个说明，明确标出有关的跑道。

5.4.3 The procedures appropriate to such operations have been determined and tested;

Instrument approach charts applicable for a runway where simultaneous independent or dependent parallel approaches should contain a note indicating clearly the runways involved.

5.4.4 相关的情报服务。

5.4.4 Relative operating information should be provided.

5.4.5 雷达引导切入航向道。

5.4.5 Radar vectoring is used to intercept the ILS localizer course.

5.4.6 模式 1 运行时，有专职雷达管制员对每一条跑道进近的航空器进行监视，以保证当航空器之间的垂直间隔小于 300 米时，符合下列规定：

a. 航空器没有进入划定的非侵入区；

b. 在同一个仪表着陆系统航向道上的航空器之间符合规定的最小纵向间隔。

5.4.6 Considering mode 1, separate radar controllers monitor the approaches to each runway and ensure that when the 300m vertical separation is reduced:

a. aircraft do not penetrate the depicted NTZ; and

b. the applicable minimum longitudinal separation between aircraft on the same ILS localizer course is maintained.

5.4.7 模式 1 运行时，在未设立专用管制频率供雷达管制员指挥航空器直至着陆的情形下：

a. 在相邻的最后进近航迹上的两架航空器中较高的航空器切入仪表着陆系统下滑道前，应当将航空器通信移交给相应的塔台管制员；

b. 监视每条跑道进近的雷达管制员，应当具有对相应的机场管制频率超控的能力。

5.4.7 Regarding mode 1, if no dedicated radio channels are available for the radar controllers to control the aircraft until landing:

a. transfer of communication of aircraft to the respective aerodrome controller’s frequency is effected before the higher of two aircraft on adjacent final approach tracks intercepts the ILS glide path; and

b. the radar controllers monitoring the approaches to each runway are provided with the capability to override transmissions of aerodrome control on the respective radio channels for each arrival flow.

5.4.8 航站自动情报服务广播应当包含正在进行独立平行进近或独立平行离场的信息，并明确指出所涉及的跑道。

5.4.8 ATIS broadcasts should include the fact that independent parallel approaches or independent parallel departures are in progress, specifying the runways involved.

5.5 独立平行仪表进近

5.5 INDEPENDENT PARALLEL ILS APPROACHES

5.5.1 雷达引导

5.5.1 Radar vectoring

5.5.1.1 雷达引导进场航空器到一条平行跑道的航向道。当允许 ILS 进近时，不能进行程序转弯。

5.5.1.1 Radar vectoring is provided to arrival aircraft in order to intercept the respective ILS localizer course. No procedure turn is permitted after the clearance of ILS approach has been issued.

5.5.1.2 管制员引导航空器实施平行跑道同时仪表进近时使用“高边”和“低边”进行引导，以保证航空器在建立各自航向道之前遇有符合规定的垂直间隔。为此，应引导“低边”航空器在距下滑道切入点较远的距离建立航向道并保持指定的高度。在距离跑道入口至少 19 千米之前，“高边”航空器的高度应当比“低边”航空器的高度高 300 米。

5.5.1.2 Each pair of parallel approaches has a “high side” and a “low side” for vectoring to provide vertical separation until aircraft are established inbound on their respective parallel ILS localizer course. The lower-side altitude should be such that aircraft will be established on the ILS localizer course well before ILS glide path. The higher-side altitude should be 300m above the lower side at least until 19km from the threshold.

5.5.1.3 航空器之间的垂直间隔小于 300 米之前应当建立在各自的航向道上。

5.5.1.3 Aircraft shall establish inbound on their respective parallel ILS localizer course with a minimum vertical separation not less than 300m.

5.5.1.4 管制员发现航空器在转弯时切过了仪表着陆系统航向道，或者航空器将进入非侵入区时，应当指挥航空器立即回到正确的航迹上。

5.5.1.4 When an aircraft is observed to overshoot the turn-on or to continue on a track which will penetrate the NTZ, the aircraft shall be instructed to return immediately to the correct track.

5.5.1.5 发现航空器正在进入非侵入区时，负责监视相邻仪表着陆系统航向道活动的雷达管制员应当指挥在其监视的仪表着陆系统航向道上受影响的航空器立即爬升和转弯到指定的高度和航向，以避开偏航的航空器。航空器驾驶员应当立即按照管制员的指令执行。

5.5.1.5 When an aircraft is observed penetrating the NTZ, the aircraft on the adjacent ILS localizer course shall be instructed to immediately climb and turn to the assigned altitude/height and heading in order to avoid the deviating aircraft. The aircraft shall immediately follow the ATC instruction.

在障碍物评估时使用了平行进近障碍物评估面（PAOAS）标准的情形下，当航空器相对于跑道入口标高的垂直距离小于 120 米时，管制员不得向航空器发布航向指令；当航空器相对于跑道入口标高的垂直距离不小于 120 米时，管制员可以发布航向指令，但指定

Where parallel approach obstacle assessment surfaces (PAOAS) criteria are applied for the obstacle assessment, the air traffic controller shall not issue the heading instruction to the aircraft below 120m above the runway threshold elevation, and the heading instruction shall not exceed 45 degrees track difference with the ILS localizer course.

的航向与仪表着陆系统航向道的夹角不得大于45度。

5.5.2 雷达监控终止

5.5.2.1 航空器实施平行跑道独立仪表进近时，管制员应当对其实施持续的雷达监控，直到出现下列情形之一方可终止雷达监控:

a. 航空器之间已经建立了目视间隔，且空中交通运行机构已经按照《中国民用航空空中交通管理规则》中的规定制定了相关的程序，保证雷达管制员能够随时掌握使用目视间隔的情况;

b. 航空器已经着陆；或者航空器复飞至距离跑道起飞末端外至少 2 千米并且与其他航空器之间已经建立安全间隔。

5.5.2.2 通常情况下，管制员无需通知航空器雷达监控已经终止。

5.5.2 Radar monitoring termination

5.5.2.1 Radar monitoring shall not be terminated until:

a. visual separation is applied, provided procedures ensure that both radar controllers are advised whenever visual separation is applied;

b. the aircraft has landed, or in case of a missed approach, is at least 2 km (1.0 NM) beyond the departure end of the runway and adequate separation with any other traffic is established.

5.5.2.2 Usually, there is no requirement for air traffic controller to advise the aircraft that radar monitoring is terminated.

6. 所使用的摩擦系数测量仪器和跑道最低摩擦等级

一般情况下，使用跑道摩擦系数测试车定期测试跑道摩擦系数。航空器起降架次较多且多雨的机场，配备了机场专用摩擦系数测试车，需要时可随时测量。规定的测量和摩擦系数标准如下表:

6. The friction coefficients measuring equipment and the minimum category of the runway friction coefficients in use

In most cases, the runway friction coefficients measuring vehicle is used at regular intervals to determine the conditions of the runway. At busy aerodromes with plenty of rain, the runway friction coefficients measuring vehicle is provided to measure the coefficients at any time if needed. The standard measuring and the coefficients standards are shown in the following table:

测试轮胎 类型/压力 Measuring tire Type/pressure (KPA)	测试速度 Measuring speed (km/h)	测试水深 Measuring water depth (mm)	新表面的测试目标 Measuring aim of new surface	维护规划值 Maintenance and planning	最小的摩擦系数值 Minimum friction coefficient
B 210	65	1.0	0.82	0.60	0.50
B 210	95	1.0	0.74	0.54	0.41

当跑道摩擦系数低于表中最小值时，则表示该跑道在潮湿时很滑。

When the friction coefficients measured are below the Minimum Friction Coefficients, it indicates that the runway is very slippery when wet.

7. 目视停靠引导系统飞行员指南 7. Pilot instructions for Visual Docking Guidance System

7.1 START-OF-DOCKING 启动停靠系统

When the system is started, 'WAIT' will be displayed.
系统启动后，显示“WAIT (等待)”。

7.2 CAPTURE 捕获

The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.
闪动的箭头表明系统已被激活且处于捕获模式，对靠近的机型进行检测。

It shall be checked that the correct aircraft type is displayed. The LEAD-IN line shall be followed.
检查航空器类型是否正确。跟随引导线滑行。

7.3 TRACKING 跟踪

When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centre line indicator.
航空器被激光扫描仪捕获后，闪动箭头将被如图所示黄色中心线（停靠进度条）代替。

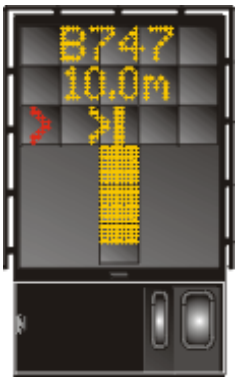
A flashing red arrow indicates the direction to turn.
红色的闪动图标表明航空器的转向。

The vertical yellow arrow shows position in relation to the centre line. This indicator gives correct position and azimuth guidance.
垂直的黄色箭头表示航空器距中轴线的位置。这个指示器指出航空器的正确位置并进行方位引导。

7.4 CLOSING RATE 停泊进度

Display of digital countdown will start when the aircraft is 30 meters from stop position.
航空器距泊位 30 米后，开始出现距离倒计数信息。

When the aircraft is less than 12 meters from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 metre, covered by the aircraft. Thus, when the last row is turned off, 0.5 metre remains to stop.
当航空器距停泊位 12 米时，停泊进度条将逐行关闭，每关闭一行相当于航空器前进 0.5 米。当最后一行关闭时，到停止位置只剩 0.5 米。



7.5 ALIGNED TO CENTRE 对准中线

The aircraft is 8 meters from the stop position. The absence of any direction arrow indicates an aircraft on the centre line.
如图，航空器距停止位置 8 米时，如果不显示任何方向箭头则表明航空器处于中轴线上。

7.6 SLOW DOWN 减速

If the aircraft is approaching faster than the accepted speed, the system will show ‘SLOW DOWN’ as a warning to the pilot.
如果航空器的速度超过系统设定的限制速度，系统将向飞行员显示“SLOW DOWN”警告。

7.7 AZIMUTH GUIDANCE 方位引导

The aircraft is 4 meters from the stop-position. The yellow arrow indicates an aircraft to the right of the centre line, and the red flashing arrow indicates the direction to turn.
如图，航空器距泊位 4 米。黄色箭头表明航空器偏到了中轴线的右边，红色箭头指出了航空器应转的方向。

7.8 STOP POSITION REACHED 到达停止位

When the correct stop-position is reached, the display will show 'STOP' and red lights will be lit.
当航空器到达正确的泊位位置时，显示器将显示“STOP”和如图所示的红色方块图标。

7.9 DOCKING COMPLETED 停泊结束

When the aircraft has parked, 'OK' will be displayed.
当停泊过程结束时，将显示“OK”。

7.10 OVERSHOOT 越过泊位

If the aircraft has overshot the stop-position, 'TOO FAR' will be displayed.
如果航空器滑动超出了泊位，将显示“TOO FAR”。

7.11 WAIT 等待

If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking close to STOP, the display will show ‘WAIT’.
靠近停止位时，如果某些物体阻挡了系统对行进航空器的观察，或者丢失了已检测到的航空器，显示屏显示等待“WAIT”。

The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again.
如果阻挡物体消失后或者系统检测到航空器，停泊过程将继续。

The pilot must not proceed beyond the bridge, unless the ‘WAIT’ message has been superseded by the closing rate bar.
飞行员不能继续滑行，直到“WAIT”消息被停泊进度条代替。

7.12 SLOW 减速

The display will show ‘SLOW’ when the DGS lose the aircraft very near the STOP position or visibility for DGS is reduced.
当停靠引导系统在停止位置附近丢失被引导的航空器或能见度降低时，显示屏显示“SLOW”。

The pilot must not proceed beyond the bridge, unless the closing-rate bar is shown.
航空器应停止滑行，直到显示进度条。

7.13 AIRCRAFT VERIFICATION FAILURE 航空器验证失败

During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 meters before the stop-position, the display will first show 'WAIT' and make a second verification check. If this fails 'STOP' and 'ID FAIL' will be displayed. The text will be alternating on the upper two rows of the display.
在航空器进入泊位的期间，系统将检测航空器的几何形状。如果由于某些原因在距离停止位置 12 米前没能完成航空器验证，显示器显示“WAIT”，并进行第二次检测。如果这次仍然失败，则显示“STOP”和“ID FAIL”。该文本将分成上下两行显示。

The pilot must not proceed beyond the bridge without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.
没有人工引导，航空器不能继续滑行，除非显示停泊进度条。

7.14 GATE BLOCKED 扫描停止位被阻挡

If an object is found blocking the view from the DGS to the planned stop position for the aircraft, the docking procedure will be halted with a 'WAIT' and 'GATE BLOCK' message. The docking procedure will resume as soon as the blocking object has been removed.
如果停靠引导系统和航空器预定停泊位置之间的视阈被某些物体阻挡，则停泊程序将被终止，同时显示“WAIT”和“GATE BLOCK”信息。一旦移除阻挡物体，停泊程序也将恢复。

The pilot must not proceed beyond the bridge without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.
没有人工引导，飞行员不能继续滑行，除非“WAIT”信息被停泊进度条取代。

7.15 VIEW BLOCKED 观测被阻挡

If the view towards the approaching aircraft is hindered, for instance by dirt on the window, the DGS will report a View blocked condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display.
如果系统对行进航空器的观察受到阻碍，例如窗口上的污垢所致，系统将报告此状况。一旦系统能够看到航空器，则显示停泊进度条。

The pilot must not proceed beyond the bridge without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.
未经人工引导，航空器不能继续滑行，除非“WAIT”信息被停泊进度条取代。

7.16 SBU-STOP

Any unrecoverable error during the docking procedure will generate an 'SBU (safety back-up)' condition. The display will show red stop bar and the text 'STOP','SBU'.
在停泊过程中的任何不可恢复性错误将导致系统显示SBU(安全备份)信息。显示器将显示红色的停止条和文字“STOP”、“SBU”。

A manual backup procedure must be used for docking guidance.
必须提供人工引导。

7.17 TOO FAST 太快

If the aircraft approaches with a speed higher than the docking system can handle, the message ‘STOP (with red squares)’ and ‘TOO FAST’ will be displayed.
如果航空器的速度超过了系统可以处理的范围，将显示“STOP(带红色的方格)”和“TOO FAST”信息。

The docking system must be re-started or the docking procedure completed by manual guidance.
必须重新启动停靠系统或者利用人工引导完成停靠过程。

7.18 EMERGENCY STOP 紧急停止

When the Emergency ‘Stop’ button is pressed, STOP is displayed.
当按下紧急停止按钮时，显示“STOP”。

7.19 CHOCKS ON 上轮机挡

‘CHOCK ON’ will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the ‘Chocks On’ button on the Operator Panel.
当地面人员在前轮放上挡物并在操作员面板按“Chocks On”时，将显示“CHOCK ON”。

7.20 ERROR 错误

If a system error occurs, the message ‘ERROR’ is displayed with an error code. The code is used for maintenance purposes.
如果系统发生错误，将显示“ERROR”及错误代码，该代码用于维护目的。

7.21 SYSTEM BREAKDOWN 系统崩溃

In case of a severe system failure, the display will go black, except for a red stop indicator. A manual backup procedure must be used for docking guidance.
如果遇到严重的系统故障，显示器将变黑，并显示红色的停止信息。这时必须提供人工引导。

7.22 POWER FAILURE 电源失效

In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance.
如果遇到电力中断，显示器将完全变黑。这时必须提供人工引导。

8. 在部分机场提供数字化放行（DCL）和数字化自动航站情报服务（D-ATIS）系统运行服务

8.1 简介

8.1.1 部分机场通过空中交通服务地空数据链通信提供数字化放行（DCL）运行服务和数字化自动航站情报服务（D−ATIS）运行服务。

8.1.2 DCL和D−ATIS系统能够通过数据链网络与航空器间实现数据链通信，使航空器能够通过VHF数据链与地面系统交换DCL和D−ATIS服务信息。

8.2 服务范围

8.2.1 具备地空数据链通信能力且装备有符合AEEC623标准的机载设备的航空器能够使用DCL和D−ATIS服务。

8.2.2 DCL和D−ATIS系统与所有航空器，通过数据链网络进行双向通信服务。

8.3 DCL和D−ATIS服务的数据链连接

8.3.1 DCL和D−ATIS系统使用频率:
131.45MHZ。

8.3.2 数据链请求和回复DCL和D−ATIS信息遵循AEEC 620、622和623标准。

8.3.3 在地空数据链通信报文第3行使用如下标准报文标识(SMI):

DCL:

a. RCD（B3）—起飞放行请求（下行报）

b. FSM（A4）—飞行系统信息（上行报）

c. CLD（A3）—起飞放行信息（上行报）

d. CDA（B4）—起飞放行回复信息（下行报）

D−ATIS:

a. RAI（B9）—ATIS请求报告（下行报）

b. DAI（A9）—ATIS信息报文（上行报）

8. Implementation of Departure Clearance (DCL) and Digital ATIS (D-ATIS) Service via Data Link Service at Some Airports

8.1 Introduction

8.1.1 DCL and D-ATIS services will be implemented at some airports via Air Traffic Service (ATS) air/ground data link.

8.1.2 The DCL and D-ATIS system could utilize datalink network to conduct datalink communication with aircrafts, which enables aircraft to exchange Pre-departure clearance and D-ATIS service information via VHF data link.

8.2 Area of Operation

8.2.1 DCL and D-ATIS data link service will be available for aircraft capable of air/ground data link communication and equipped with avionics that comply with AEEC specification 623.

8.2.2 DCL and D-ATIS systems conduct intercommunication with all aircraft via data link network.

8.3 Data Link Connection of DCL and D-ATIS Service

8.3.1 DCL and D-ATIS frequency:
131.45MHZ.

8.3.2 To request and respond DCL and D-ATIS information by datalink follows the AEEC specifications 620, 622 and 623.

8.3.3 The Standard Message Identifiers (SMI) on line 3 of the data link message are as follows:

DCL :

a. RCD(B3)-Departure Clearance Request(for downlink message)
b. FSM(A4)-Flight System Message(for uplink message)
c. CLD(A3)-Departure Clearance Message(for uplink message)
d. CDA(B4)-Departure Clearance Feedback Message(for downlink message)

D-ATIS :

a. RAI(B9)-Request ATIS Report(for downlink message)
b. DAI(A9)-Deliver ATIS Information(for uplink message)

8.3.4 DCL和D−ATIS服务请求格式如下:

DCL:
a. 起飞机场使用ICAO地名代码表示;
b. 目的机场使用ICAO地名代码表示;
c. ICAO的航班代号信息(在DCL请求页必须输入该信息);
d. IATA的航班代号信息;
e. 当前航空器泊位信息(3个字符)。

D−ATIS:
a. ICAO地名代码;
b. 进场/离场标识代码如下所示:
A—进场ATIS（ARR ATIS）
D—离场ATIS（DEP ATIS）
C—合同制ATIS（Auto Update ATIS）
T—终止C类服务（Terminate Auto−Update ATIS）
E—未使用
c. 1.2款所列机场均提供进场ATIS和离场ATIS服务。
d. C类模式120分钟自动终止服务。

8.3.5 使用话音通信
a. 当DCL服务不能使用，或者DCL服务不能获得回复的情况下，飞行员必须通过管制频率及时联系管制员获得话音放行许可。
b. 飞行员在DCL服务过程中，如果收到包含“REVERT TO VOICE”信息的DCL报文，飞行员应立即通过管制频率联系管制员获得话音放行许可。
c. 飞行员在不能获得D−ATIS服务时，必须收听ATIS通播，以获得ATIS信息。

8.4 DCL和D−ATIS服务程序

8.4.1 DCL服务程序

DCL服务程序遵照EUROCAE颁布的ED−85A标准文档，“数据链离场许可服务的数据链应用系统文件”。

a. 飞行员在预计推出开车前20分钟可以通过DCL服务提出起飞前放行申请;
b. 如果飞行员在发送DCL申请报文或发送DCL确认回复报文后，2分钟内未能收到表示DCL申请或确认回复成功的FSM报文，则视为服务失败，需要立即通过管制频率联系管制员获得话音放行许可。

8.3.4 Formats of requests for DCL and D-ATIS service are as follows:

DCL :
a. Departure airport shall be ICAO location indicator;
b. Destination airport shall be ICAO location indicator;
c. ICAO Flight ID (the information shall be filled in the DCL request page);
d. IATA Flight ID ;
e. Current aircraft parking position (3 characters).

D-ATIS :
a. ICAO location indicator
b. Arrival/Departure Indicator Codes shall be as follows :
A-Arrival ATIS (ARR ATIS)
D-Departure ATIS (DEP ATIS)
C-Contract ATIS(Auto Update ATIS)
T-Terminate C mode (Terminate Auto-Update ATIS)
E-Not Used

c. Arrival ATIS and Departure ATIS are available for the airports listed in item 1.2.
d. C-mode is automatically terminated after 120 min.

8.3.5 Use of voice communication
a. If the DCL service is not available, or cannot obtain response for any reason, pilots shall contact controller through appropriate ATC frequency for verbal ATC clearance.

b. If pilots receive DCL message with “REVERT TO VOICE” when being provided DCL service, they shall contact controller through appropriate ATC frequency for verbal ATC clearance immediately.

c. When D-ATIS service is not available, pilot shall listen to appropriate ATIS frequency.

8.4 DCL and D-ATIS Data Link Service Procedure

8.4.1 DCL Data Link Procedure
DCL data link procedure is in accordance with the ED-85A, “DATA-LINK APPLICATION SYSTEM DOCUMENT FOR THE ‘DEPARTURE CLEARANCE’ DATA-LINK SERVICE” by EUROCAE.
a. Pilot can send the DCL request 20 minutes before push back time.

b. It is considered as service failure if pilot doesn’t receive FSM message within 2 minutes after sending the DCL request or feedback message; he shall contact controller through appropriate ATC frequency for verbal ATC clearance.

c. 当飞行员收到DCL起飞放行信息报(CLD)后，需要在10分钟内发送起飞放行回复信息(CDA)，否则视为服务失败，需要立即通过管制频率联系管制员获得话音放行许可。

8.4.2 D-ATIS服务程序

D-ATIS服务程序遵照EUROCAE颁布的ED-89A标准文档，“数据链自动航站情报服务的数据链应用系统文件”。

8.5 数据链服务失败

飞行员在使用DCL和D-ATIS服务过程中，如遇任何问题，请通知相应机场的ATC部门。

8.6 安全与服务措施

a. 如果ATC部门最终通过话音方式完成ATC放行许可，此前获得的DCL信息自动失效。
b. 成功完成DCL服务的机组，在推出开车前必须向管制员复诵使用跑道代号和起始爬升高度信息。
c. 如果想进一步了解DCL和D-ATIS服务，请通过以下联系方式咨询:

康南
中国民用航空局空中交通管理局空中交通管理部
地址：中国. 北京. 朝阳区. 东三环中路 12 号
邮编：100022
电话：+861087786815
传真：+861087786810
邮箱：kangnan@atmb.net.cn

c. It is considered as service failure if pilot doesn't send DCL feedback message (CDA) within 10 minutes after receiving the DCL Departure Clearance Message (CLD); he shall contact controller through appropriate ATC frequency for verbal ATC clearance.

8.4.2 D-ATIS Data Link Procedure

D-ATIS data link procedure is in accordance with the ED-89A, "DATA-LINK APPLICATION SYSTEM DOCUMENT FOR THE 'ATIS' DATA-LINK SERVICE" by EUROCAE.

8.5 Data Link Failure

Pilot shall inform ATC unit at airport of any problems when using DCL and D-ATIS service.

8.6 Safety and Service Practices

a. After receiving any verbal ATC clearance, the former received DCL information is automatically invalid.

b. Before push back, pilot shall repeat runway designator in use and initial climb information to controller after successful DCL service.

c. Further information on details of the DCL and D-ATIS service may be obtained from the following address:

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