英汉对照
杰普逊航图入门

ENGLISH—CHINESE
JEPPESEN—CHART INTRODUCTION

许学伊　马士观　译
金焕章　审校

中国民航出版社

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一、CHART GLOSSARY

航图术语汇编

This glossary provides definitions for most of the terms and abbreviations commonly used on Jeppesen instrument charts. No attempt has been made to list the terms of basic aeronautical nomenclature.

All speeds in this glossary are knots. and all distances are in nautical miles, unless otherwise indicated.

Because of the international nature of flying, terms used in the "Lexicon" published by the International Civil Aviation Organization (ICAO) are included when they differ from USA definitions. These definitions are followed by the letters ICAO and are listed in sequence with the USA definitions.

本术语汇编提供杰普逊仪表图中常用的大部分词和简缩字的定义。并不是想列出基本的航空术语。

除另有说明外，本术语汇编中的所有速度为海里/时，所有距离为海里。

由于飞行的国际性，国际民航组织(ICAO)出版的《词汇汇编》中的词与美国(USA)的定义不同时，本术语汇编也包括国际民航组织的定义，并在定义后面标注 ICAO，依次与美国定义一起按顺序排列。

ABEAM (ABM) - Beside; An aircraft is abeam a station when that station is 90° to the right or left of the track of the aircraft.

正切(ABM) 旁侧的：当该电台在航空器航迹右侧或左侧90°时，为航空器正切电台。

ACCELERATE STOP DISTANCE AVAILABLE (ASDA) - The length of the take-off run available plus the length of the stopway, if provided.

可用加速停止距离(ASDA) 可用起飞滑跑长度加上停止道的长度，如备有停止道。

ADEQUATE VIS REF (Adequate Visual Reference) - Runway markings or runway lighting that provides the pilot with adequate visual reference to continuously identify the take-off surface and maintain directional control throughout the take-off run.

足够的目视参考 跑道标志或跑道灯光能够向驾驶员提供足够的目视参考，使驾驶员有连续标志的起飞道面并且能在起飞滑跑全部过程中保持和控制方向。

ADVISORY ROUTE (ADR) - A route within a flight information region along which air traffic advisory service, but not air traffic control, is available.

NOTE: Air traffic control service provides a much more complete service than air traffic advisory service, advisory areas and routes are therefore not established within controlled airspace, but air traffic advisory service may be provided below and above control areas.

咨询航路(ADR) 在飞行情报区内沿途可得到空中交通咨询服务，而不进行空中交通管制的航路。

注：空中交通管制服务较空中交通咨询服务提供更完善的服务。所以，管制空域内不建立咨询区和咨询航路，但可对管制区以上或以下的区域提供空中交通咨询服务。

ADVISORY SERVICE - Advice and information provided by a facility to assist pilots in the safe conduct of flight and aircraft movement. (See Airport Advisory Service, Enroute Flight Advisory Service, Radar Advisory.)

咨询服务 为协助驾驶员安全实施飞行和航空器运行，而由某一机构提供的咨询和情报。(**见机场咨询服务，航路飞行咨询服务，雷达咨询**)

AERODROME FLIGHT INFORMATION SERVICE (AFIS) - A directed traffic information and operational information service provided within an aerodrome flight information zone, to all radio equipped aircraft, to assist in the safe and efficient conduct of flight.

机场飞行情报服务(AFIS) 在机场飞行情报地带内，向所有有无线电设备的航空器直接提供的交通情报和运行情报服务，以帮助驾驶员安全地、有效地实施飞行。

AERODROME TRAFFIC FREQUENCY (ATF) - A frequency designated at an uncontrolled airport. An ATF is used to ensure

机场交通频率(ATF) 在非管制机场指定的一个频率。ATF是用于保证所有有无线电设备的航空器在该区域内的飞行，

all radio equipped aircraft operating within the area, normally within a 5 NM radius of the airport, are listening on a common frequency. The ATF is normally the ground station frequency. Where a ground station does not exist, a common frequency is designated. Radio call sign is that of the ground station, or where no ground station exists, a broadcast is made with the call sign "Traffic Advisory."
Jeppesen charts list the frequency and the area of use when other than the standard 5 NM.

正常为机场半径5海里内，并以共用频率收听。ATF 通常为地面电台的频率。如果该地没有地面电台，则要指定一个共用频率。无线电呼号即为该地面电台，或该地没有地面电台，则用呼号"Traffic Advisory"（交通咨询）进行广播。杰普逊航图中列出了不是标准5海里所使用的频率和区域。

AERODROME TRAFFIC ZONE (ATZ)- An airspace of detailed dimensions established around an aerodrome for the protection of aerodrome traffic.

机场交通地带(ATZ) 为保护机场交通，环绕机场周围建立的一个详细标明范围的空域。

AERONAUTICAL INFORMATION PUBLICATION (AIP)- A publication issued by or with the authority of a nation and containing aeronautical information of a lasting character essential to air navigation.

航行资料汇编(AIP) 国家发行的或由国家授权发行的汇编，载有对空中航行非常必要的、持久性的航行情报资料。

AERONAUTICAL RADIO INCORPORATED (ARINC)- An International radio network providing air-to-ground communications available on a subscription (fee) basis.

航空无线电公司(ARINC) 按照预订的费用，提供可用于空对地通信的国际无线电网络。

AGONIC LINE- A line connecting points of zero magnetic variation. (See Isogonic Line.)

零磁差线 磁差为零各点的连线。(**见等磁差线**)

AIRCRAFT APPROACH CATEGORY (TERPS)- A grouping of aircraft based on a speed of 1.3V_{so} (at maximum certificated landing weight). V_{so} and the maximum certificated landing weight are those values as established by the certificating authority of the country of registry. Aircraft Approach Categories and 1.3V_{so} speeds are shown below. Maximum speeds authorized for the execution of circle-to-land maneuvers are also indicated.

航空器进近分类(TERPS) 对航空器按照其失速速度的1.3倍(1.3V_{so})(为最大允许着陆重量)所得的速度进行的分类。失速速度和最大允许着陆重量的数据，由航空器登记国的发合格证当局制定。航空器的进近分类和1.3 V_{so}表示如下。进行盘旋着陆机动飞行允许的最大速度也予指出。

AIRCRAFT CATEGORY	1.3V_{so} (Speeds are Knots)	MAXIMUM SPEED FOR CIRCLING
A	<91	90
B	91/120	120
C	121/140	140
D	141/165	165
E	>166	...

航空器分类	1.3V_{so} (海里/时)	最大盘旋速度
A	<91	90
B	91/120	120
C	121/140	140
D	141/165	165
E	>166	...

Category E contains only certain Military Aircraft and is not included on Jeppesen Approach Charts.

E类只包括某些军用航空器，杰普逊进近图中不包括E类航空器。

AIRCRAFT APPROACH CATEGORY(ICAO)-The following ICAO table indicates the specified range of handling speeds (IAS) for each category of aircraft to perform the maneuvers specified. These speed ranges have been assumed for use in calculating airspace and obstacle clearance for each procedure.

航空器进近分类(国际民航组织) 下表为ICAO的航空器进近分类表，表中指明了各类航空器实施机动飞行的操作速度(指示空速)的范围。这些速度范围用于为每一个程序计算空域和超障余度。

Aircraft Category	V_{at}	Range of Speeds for Initial Approach	Range of Final Approach Speeds	MAX SPEEDS FOR Visual Maneuvering (Circling)	MAX SPEEDS For Missed Approach	
					Intermediate	Final
A	<91	90/150(110*)	70/100	100	100	110
B	91/120	120/180(140*)	85/130	135	130	150
C	121/140	160/240	115/160	180	160	240
D	141/165	185/250	130/185	205	185	265
E	166/210	185/250	155/230	240	230	275

航空器分类	跑道入口速度	起始进近速度范围	最后进近速度范围	目视机动最大速度(盘旋)	复飞最大速度	
					中间	最后
A	<91	90/150(110*)	70/100	100	100	110
B	91/120	120/180(140*)	85/130	135	130	150
C	121/140	160/240	115/160	180	160	240
D	141/165	185/250	130/185	205	185	265
E	166/210	185/250	155/230	240	230	275

V_{at}-Speed at threshold based on 1.3 times stall speed in the landing configuration at maximum certificated landing mass.

* -Maximum speed for reversal and racetrack procedures.

Category E contains only certain Military Aircraft and is not included on Jeppesen Approach Charts.

Note: The speed table applies to the new ICAO approach procedures which are identifiable by the OCA(H) figures and the PANS OPS notation on the lower left corner of the approach chart. Old ICAO approach procedure shows an OCL instead of OCA(H). For deviations in France see French Terminal pages 1 thru 10. Deviations in other areas are listed in the Air Traffic Control section.

V_{at}(跑道入口速度)为航空器在最大允许着陆重量时，着陆状态中失速速度的1.3倍。

* 表示反向和直角程序的最大速度。E类只包括某些军用航空器，不包括在杰普逊进近图内。

注：表中的速度用于新的ICAO进近程序。该程序可通过标记在进近图左下角的OCA(H)(超障高度/高)数值和PANS OPS(航行服务程序--航空器运行)加以辨认。老的ICAO进近程序给出的是OCL(超障极限)而不是OCA(H)。法国的差异见尾部几页。在其他区域的差异已列入空中交通管制章节。

AIRCRAFT CLASSIFICATION NUMBER(ACN)-A number expressing the relative effect for an aircraft on a pavement for a

航空器等级序号(ACN) 用以表示航空器对一具有规定标准土基等级的道面相对影响的数字。见道面等级序号。

specified standard subgrade category. See Pavement Classification Number.

The ICAO introduced the ACN/PCN System as a method to classify pavement bearing strength for aircraft with an all-up mass of more than 12,500 lbs (5,700kg).

The bearing strength of a pavement with an all-up mass EQUAL TO OR LESS than 12,500 lbs (5,700 kg) shall be made available by reporting the following information:

a) Maximum allowable aircraft mass; and

b) Maximum allowable tire pressure.

Example: 8,800 lbs (4, 000 kg)/0.50 MPa (73 psi)

ICAO 采用 ACN/PCN（航空器等级序号/道面等级序号）系统，作为起飞总重量超过 12 500 磅（5 700 千克）的航空器对道面承载强度的分类方法。

对于起飞总重量等于或小于 12 500 磅（5 700 千克）的道面承载强度，则应提供以下资料：

a）最大允许航空器重量；和

b）最大允许轮胎压力。

例如：8 800 磅（4 000 千克）/0.50 兆帕（斯卡）（73 磅/平方英寸）

AIR DEFENSE IDENTIFICATION ZONE (ADIZ)-The area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security.

防空识别区（ADIZ） 为了国家安全利益，在陆地或水上从地球表面向上延伸的空域范围内，要求对航空器加以识别、定位与管制。

AIRMET/AIRMAN'S METEOROLOGICAL INFORMATION (USA)-Inflight weather advisories issued only to amend the area forecast concerning weather phenomena which are of operational interest to all aircraft and potentially hazardous to aircraft having limited capability because of lack of equipment, instrumentation, or pilot qualifications. AIRMETs concern weather of less severity than that covered by SIGMETs or Convective SIGMETs. AIRMETs cover moderate icing, moderate turbulence, sustained winds of 30 knots or more at the surface, widespread areas of ceiling less than 1,000 feet and/or visibility less than 3 miles, and extensive mountain obscurement. (See SIGMET and Convective SIGMET.)

飞行员气象情报资料（美国） 提供飞行中的天气咨询，仅对有关天气现象的区域性预报的修正，这些天气现象对所有航空器的运行至关重要和对机载设备、仪表或驾驶员技能不足的航空器有潜在危险。AIRMETs（飞行员气象情报资料）报告的天气，其严重程度不如 SIGMETs（重要气象情报）或 Convective SIGMENTs（对流性重要气象情报）的报告。AIRMETs 包括中度结冰、中度颠簸、30 海里/时或以上持续的地面风，在大范围内云幕高低于 1 000 英尺和/或能见度小于 3 英里，和大山被掩盖模糊不情。（**见飞行员气象情报资料和对流性重要气象情报**）。

AIRPORT/AERODROME-An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

机场 陆地上或水面上用于或已打算用于航空器起飞或着陆的一个区域，并包括建筑物及各种设施在内。

AIRPORT ADVISORY SERVICE (AAS)-A service provided by Flight Service Stations at airports not served by a control tower. This service consists of providing information to arriving and departing aircraft concerning wind direction and speed, favored runway, altimeter setting, pertinent known traffic, pertinent known field conditions, airport taxi routes and traffic patterns, and authorized instrument approach procedures. This information is advisory in nature and does not constitute an ATC clearance.

机场咨询服务（AAS） 在无管制塔台服务的机场上，由飞行服务站提供的一种服务。这种服务包括向进离机场的航空器提供风向、风速、可供使用的跑道、高度表拨正、已知交通情况、已知机场条件、机场滑行路线、起落航线和批准的仪表进近程序等资料。这种资料是咨询性质的，并不构成 ATC（空中交通管制）的许可。

AIRPORT ELEVATION/FIELD ELEVATION-The highest point of an airport's usable runways measured in feet from mean sea level. In a few countries, the airport elevation is determined at the airport reference point. (See Airport Reference Point, Touchdown Zone Elevation.)

机场标高 从平均海平面，以英尺为单位，量至机场可用跑道的最高点的高度。在少数国家中，机场标高是按机场基准点测量的。（**见机场基准点，接地区标高**）

AIRPORT RADAR SERVICE AREA (ARSA) (USA)- Designated airspace in which ATC will, in addition to the services and

机场雷达服务区（ARSA）（**美国**） ATC（空中交通管制）在指定的空域内，除对 IFR（仪表飞行规则）的航空器提供服务和

separation currently applied to aircraft operating under IFR, resolve any potential conflict between an aircraft operating under IFR and an aircraft operating under VFR, as well as provide traffic advisory services and arrival sequencing to all aircraft. Each person operating an aircraft within the ARSA must maintain two-way radio communications with ATC and comply with ATC clearances and instructions. Ultra-light vehicles and parachute jump operations are not allowed in the ARSA except under the terms of an ATC authorization.

应用现行规定保持航空器间隔外，要解决按 IFR 和 VFR(目视飞行规则)飞行的航空器之间的冲突，也提供交通咨询服务和对所有航空器安排到达顺序。每一操作航空器在 ARSA 区内飞行的人员，必须与 ATC 保持双向无线电通信，执行 ATC 的许可和指示。除按 ATC 批准时间外，不允许在 ARSA 区内进行超轻型飞行器和跳伞飞行。

AIRPORT REFERENCE POINT (ARP)-A point on the airport designated as the official airport location.

机场基准点(ARP) 在机场上指定的一个点，作为正式的机场位置点。

AIRPORT SURVEILLANCE RADAR (ASR)- Approach control radar used to detect and display an aircraft's position in the terminal area. ASR provides range and azimuth information but does not provide elevation data.

机场监视雷达(ASR) 为进近管制雷达，用以探测和显示航空器在终端区内的位置。ASR 提供距离和方位信息，但不提供高度数据。

AIRPORT TRAFFIC AREA (USA)-Unless otherwise specifically designated in FAR Part 93, that airspace within a horizontal radius of 5 statute miles from the geographical center of any airport at which a control tower is operating, extending from the surface up to, but not including, an altitude of 3,000 feet above the elevation of the airport.

机场交通区(美国) 除在 FAR(联邦航空条例)第 93 部分中另有规定外，任何有管制塔台工作的机场，在其地理位置中心 5 英里半径范围内，高度由地面至高于机场标高 3 000 英尺但不含 3 000 英尺的空域为机场交通区。

AIR ROUTE-Navigable airspace between two points which is identifiable.

航路 在可识别的两点之间可航行的空域。

AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)-A facility established to provide air traffic control service to aircraft operating on IFR flight plans within controlled airspace and principally during the enroute phase of flight.

航路交通管制中心(ARTCC) 为了对在管制空域内按照 IFR(仪表飞行规则)飞行计划飞行的航空器，主要是在航路飞行阶段提供空中交通管制服务而建立的一个机构。

AIR TRAFFIC CLEARANCE/ ATC CLEARANCE/ CLEARANCE-An authorization by air traffic control, for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within controlled airspace.

空中交通许可/空中交通管制许可/放行许可 为了防止已知航空器之间发生相撞的目的，空中交通管制给予航空器在管制空域内，在规定交通条件下飞行的指令。

AIR TRAFFIC CONTROL (ATC)-A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic.

空中交通管制(ATC) 由有关当局提供的一种服务，以提高空中交通的安全性、秩序性和加速空中交通的流通。

AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA)-Airspace of defined vertical/lateral limits, assigned by ATC, for the purpose of providing air traffic segregation between the specified activities being conducted within the assigned airspace and other IFR air traffic. (See Restricted Airspace-Military Operations Area.)

空中交通管制指定的空域(ATCAA) 由 ATC(空中交通管制)指定的有垂直/横向限制的空域，用以隔离在指定空域中进行规定活动的空中交通和其他按 IFR(仪表飞行规则)飞行的空中交通。(**见限制空域--军事活动区**)。

AIRWAY-A control area or portion thereof established in the

航路 以走廊形式建立的管制区域或其一部分，其中心线由

form of a corridor, the centerline of which is defined by radio navigational aids.

无线电导航设施所确定。

ALERT AREA-(See Restricted Airspace.)

警戒区 （见限制空域）。

ALTERNATE AERODROME(ICAO)-An aerodrome specified in the flight plan to which a flight may proceed when it becomes inadvisable to land at the aerodrome of intended landing.

备降机场(国际民航组织) 飞行计划中规定的机场，当目的地机场变为不适于降落时，可以飞往该机场。

ALTERNATE AIRPORT(USA)-An airport at which an aircraft may land if a landing at the intended airport becomes inadvisable.

备降机场(美国) 当目的地机场变为不适于降落时，可供航空器降落的机场。

ALTIMETER SETTING-The barometric pressure reading used to adjust a pressure altimeter for variations in existing atmospheric pressure or to the standard altimeter setting (29.92 inches of mercury, 1013.2 hectopascals or 1013.2 millibars).

高度表拨正 以当时存在的大气压力变化调整气压高度表，或调整至标准的气压高度表拨正(29.29 英寸水银柱，1 013.2 百帕(斯卡)或 1 013.2 毫巴)的气压读数。

ALTITUDE (ICAO)-The vertical distance of a level, a point or an object considered as a point, measured from Mean Sea Level (MSL).

高度(国际民航组织) 从 MSL(平均海平面)测量到某一平面、某一点或考虑为点的物体的垂直距离。

ALTITUDE(USA)-The height of a level, point or object measured in feet Above Ground Level (AGL) or from Mean Sea Level (MSL). (See Flight Level.)

1. AGL Altitude- Altitude expressed in feet measured above ground level (QFE).

2. MSL Altitude-Altitude expressed in feet measured from mean sea level (QNH).

3. Indicated Altitude-The altitude as shown by an altimeter. On a pressure or barometric altimeter it is altitude as shown uncorrected for instrument error and uncompensated for variation from standard atmospheric conditions.

高度(美国) 某一平面、某一点或某一物体，以英尺测量的 AGL(高出地面)或自 MSL(平均海平面)的高。(**见飞行高度层**)

1. AGL 高度 从地面向上量起以英尺表示的高度(QFE)。

2. MSL 高度 从平均海平面量起，以英尺表示的高度(QNH)。

3. 指示高度 气压高度表所指示的高度。未修正仪表误差，亦未按标准大气条件补偿的压力式或气压高度表所指示的高度。

APPROACH CONTROL/APPROACH CONTROL FACILITY-A terminal air traffic control facility providing approach control service. (See Departure Control.)

进近管制/进近管制设施 由终端空中交通管制设施提供的进近管制服务。(**见离场管制**)

APPROACH LIGHT SYSTEM(ALS)-(See Terminal Chart Legend.)

进近灯光系统(ALS)。 (**见终端图例**)

APRON/RAMP-A defined area, on a land airport, intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking or maintenance. With regard to seaplanes, a ramp is used for access to the apron from the water.

停机坪/坡道 陆地机场上的一块划定区域，以供航空器上下客货、加油、停放或维护之用。对于水上飞机来说，坡道用于从水上通至停机坪。

ARC-The curved track over the ground of an aircraft flying at a constant distance from a navigational aid by reference to distance measuring equipment (DME).

弧形航迹 航空器用测距仪(DME)保持离导航设施一个固定距离飞行在地面上空的一条曲线航迹。

AREA MINIMUM ALTITUDE (AMA)-This is an altitude derived by Jeppesen. The AMA is designed to provide reference point clearance within AMA Envelopes shown on Area Charts. It represents the upper limit of all reference points adjusted upward for vertical clearance. AMA values clear all reference points by 1,000 feet in areas where the highest reference points are 5 000 feet MSL or lower. AMA values clear all reference points by 2,000 feet in areas where the highest reference points are 5,001 feet MSL or higher.

区域最低高度(AMA) 这个高度是杰普逊提出来的。AMA是在区域图上表示的AMA范围内提供的超越参考点的余度,它表示所有参考点向上修正垂直余度的上限。当区域内最高参考点为5 000英尺MSL(平均海平面)或以下时,AMA数值为高出区域内所有参考点1 000英尺;当区域内最高参考点为5 001英尺MSL或以上时,AMA数值为高出所有参考点2 000英尺。

AREA MINIMUM ALTITUDE (AMA) ENVELOPE-AMA Envelopes are generalized contour lines that enclose all known reference points above a specified elevation, omitting small valleys. An AMA Envelope Portrays the general layout of terrain in comparison to the detailed layout represented by terrain contour lines.

区域最低高度(AMA)**包线** AMA包线是概括的等高线,它包括所有已知的在一定标高以上的参考点,删去了小的凹地。一条AMA包线对比地形等高线所表示的详细轮廓描绘出了地形总的轮廓。

AREA NAVIGATION/RNAV-A method of navigation that permits aircraft operations on any desired course within the coverage of station-referenced navigation signals or within the limits of self-contained system capability.

区域导航 一种领航方法,它允许航空器在以电台为基准的导航信号范围内,或在航空器自备式导航系统能力范围内,在任意一条预定航线上飞行。

ARRIVAL ROUTES (ICAO)-Route identified on an instrument approach procedure by which aircraft may proceed from the enroute phase of flight to the initial approach fix. (Also see Terminal Route.)

进场航线(**国际民航组织**) 在仪表进近程序中有识别代号的航线,通过该航线,航空器可以从航路飞行阶段至起始进近定位点。(**也见终端航线**)

ATS ROUTE-A specified route designated for channeling the flow of traffic as necessary for the provision of air traffic services.

NOTE: The term "ATS Route" is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure route, etc.

ATS(**空中交通服务**)**航路** 为便于提供空中交通服务,将空中交通纳入通道而设计的指定航路。

注:ATS航路这个词,习惯上有不同的含义:航路,咨询航路,管制与非管制航路,进场与离场航线,等等。

AUTOMATED WEATHER OBSERVING SERVICE (AWOS)-An automated weather reporting system which transmits local real-time weather data directly to the pilot.

AWOS-1 Reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2 Reports same as AWOS-1 plus visibility.

AWOS-3 Reports the same as AWOS-1 plus visibility and cloud/ceiling data.

自动天气观测服务(AWOS) 一种自动的天气报告系统,可将当地天气实况直接播发给飞行员。

AWOS-1 报告高度表拨正值,风的资料,通常还包括温度、露点和密度高度。

AWOS-2 与AWOS-1报告的内容相同,另加能见度。

AWOS-3 与AWOS-1报告的内容相同,另加能见度和云/云幕高资料。

AUTOMATIC DIRECTION FINDER (ADF)-An aircraft radio navigation system which senses and indicates the direction to a L/MF non-directional radio beacon (NDB) ground transmitter or commercial broadcast station and radio range. Direction is indicated to the pilot as a magnetic bearing or as a relative bearing to the longitudinal axis of the aircraft depending on the type of indicator installed in the aircraft. In certain applications, such as military, ADF operations may be based on airborne and ground transmitters in the VHF/UHF frequency spectrum. (See Bearing, Non-directional Beacon.)

自动定向仪(ADF) 是一种航空器无线电导航系统,它检测并指示飞往低/中频NDB(无方向性信标)地面发射台或商业性广播电台和四航道无线电信标台的方向。向驾驶员指示的方向是磁方位或航空器纵轴线的相对方位角,决定于安装在航空器上指示器的型号的不同。在某些应用方面,如军用,ADF可根据机载和地面发射机用VHF(甚高频)/UHF(超高频)无线电频率工作。(**见方位,无方向性信标**)