



China Civil Aviation Report

Volume 10, Issue 8

October 2008

民航报导

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空中应急救援服务-中国

Biometrics as a Measure for Seamless and Secure Check-in Procedures

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From the Publisher's Desk

Another new beginning

As you can see, the China Civil Aviation Report has doubled its page count in this issue and transitioned into a bi-monthly publication. A large portion of content has been devoted to an aviation sector that is much badly needed in China – General Aviation.

After a decade of reporting what has happened in the development of China aviation, CCAR has become an international ambassador for China's civil aviation, sharing with the world China's civil aviation progress in the building its infrastructure and transitioning into the second largest aviation nation in the world.

Once the infrastructure is built, operation, management and maintenance will be the most important aspects of daily business, and new technology in operation and management will become vital to China civil aviation.

The change in the CCAR format will better provide technology related information to commercial aviation readers, and at the same time bring awareness of general aviation to support China in its building of a well balanced, and health aviation industry.

Thank you for your continued support.

又是一个新的开始

也许你已经发现了“民航报导”杂志在页数上增加了一倍并成为双月刊，同时很大一部分的内容是在介绍推广中国极度需要的航空产业 – 通用航空。

在连续十年介绍中国民航的改革开放与发展，“民航报导”杂志成功的成为中国民航的国际大使，与世界分享中国是如何建立民用航空的基础架构并逐步迈向世界第二大航空国的历程。

当航空基础架构完成建设后，运行，管理，维护将是每日工作中的重要事宜，相关的新科技将对我国民航产生重要的影响。

“民航报导”杂志的改版将提供更多相关科技的介绍，同时传递通用航空的资讯以协助我国民航建立一个平衡，健康发展的航空事业。

谢谢各位读者持续的支持。



Francis Chao
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China Civil Aviation Report (CCAR)

is published monthly by Uniworld LLC in conjunction with China Civil Aviation, the official publication of the Civil Aviation Administration of China (CAAC).

民航报导是经由民航局、国家新闻署核准，以《中国民用航空》英文版方式向全世界民航机构、企业，个人介绍中国民航改革开放成果和现况的刊物，印刷和电子版本同步发行。

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US\$95/Year (USA) US\$95/年 (美国本地)
US\$120/Year (International) US\$120/年 (国际)

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MA600 rolls off the assembly line

中国自主研发支线客机“新舟 600”下线

A milestone was achieved when the first MA600 rolled off the assembly line in Yanliang, Xi'an in Shanxi Province.

The MA600 is a new China-made regional turboprop aircraft. A domestic civil aircraft type newly developed by Xi'an Aircraft Industry Group Co. of AVIC 1. It is the newest member of the Modern Ark (MA) series aircraft.

The MA600 is a new version of the MA60, the first Chinese-owned brand of civil airliner. It adopts the turboprop engine widely used

for international regional aircraft.

It is lighter than the MA60, making it much more fuel efficient. The MA600 can operate on a runway with a length between 1,200 and 2,000 meters. It can also land and take off on an unpaved runway, a gravel runway, or even a snow-covered runway.

The MA60 has been put into operation in China, as well as some countries in Southeast Asia and Africa. The MA600 is estimated to be delivered to its first customer in 2009.



The MA600 is the newest member of the Modern Ark (MA) series aircraft with many new improvements over the previous MA60.

中国自主研发的新一代涡桨支线客机“新舟600”总装下线仪式将在陕西西安阎良举行。

“新舟600”飞机是中国一航西安飞机工业(集团)有限责任公司(简称“一航西飞”)最新研制的国产民机型号,是“新舟”系列飞机的新成员。

中国一航研发的“新舟600”飞机实现了对首个中国民用客机自主品牌——新舟60的升级换代。它采用目前普遍运用于国际支线飞机的涡轮螺旋桨发动机,具有成本低廉,燃油消耗少等优点,此外,与喷气式飞机对跑道要求极为严格不同,新舟600的跑道可以缩减到1200米到2000米之间,并可以实现在土跑道、砂石跑道乃至有雪覆盖的跑道上起降。

新舟600的上一代新舟60已经在中国以及部分东南亚及非洲国家投入运营。新舟600预计2009年交付首家用户。

Okay Airways gets first MA60

奥凯航接收首架新舟60国产支线飞机

Okay Airways received delivery of its first China-made MA60 regional aircraft in Xi'an. The delivery of the aircraft marks the entry of China-made aircraft into the domestic civil aviation transport industry.

Signing the aircraft delivery certificate were Meng Xiangkai, president of Xi'an Aircraft Industry (Group) Co. of AVIC 1; Zhao Hongwei, chairman of AVIC 1 International Leasing Co.; and Liu Jieyin, president of Okay Airways.

Witnesses to the signing were Zhang Xiaoqiang, vice director of the National Development and Reform Commission; Hong Feng, vice governor of Shanxi Province; Yang Guangxin, vice mayor of Xi'an City; Liu Liedong, vice mayor of Hefei City; Wu Chengchang, vice director of the Flight Standard Department of the Civil Aviation

Administration of China; Qiao Xinshan, vice director of the Northwest Regional Administration of CAAC; and Wu Fudong, researcher of the North China Regional Administration of CAAC. Vice Director Zhou Kaixuan of the Aircraft Airworthiness Department of the CAAC awarded the MA60 aircraft international register license and standard airworthiness certificate to He Yuecheng, the COO of Okay Airways.



奥凯航空有限公司在西安接收首架新舟60国产支线飞机。这标志着国产支线飞机开始批量进入国内民用航空运输领域,即将得到规模化发展。

一航西飞集团公司总裁孟祥凯、中航第一集团国际租赁有限责任公司董事长赵宏伟、奥凯航空有限公司总裁刘捷音在喜气洋洋的气氛中签署飞机交接证书。国家发改委张晓强副主任、陕西省洪峰副省长、西安市杨广信副市长、合肥市刘烈东副市长、中国民航局飞标司吴成昌副司长、民航西北管理局乔新山副局长、民航华北管理局吴复东研究员等嘉宾鉴签。随后,中国民航局航空器适航审定司副司长周凯旋向奥凯航空运行总裁何跃成颁发新舟60飞机国际登记证和标准适航证。

A380 hangar now operational

亚洲最大空客A380飞机维修机库正式投入使用

The largest A380 hangar in Asia is now operational after Ameco Beijing finished its construction in March. The construction of the hangar started in September of 2006.

The hangar can simultaneously accommodate six wide-body and four narrow-body aircraft, which covers all Boeing and Airbus series aircraft including the A380 "superjumbo" aircraft.

As one of the major projects for the Beijing Olympic Games, the A380 hangar will provide better service to Air China's fleet and also to other airlines.



一架波音737300飞机被缓缓拖入北京飞机维修工程有限公司（简称“Ameco”）空中客车A380机库准备实施8A检维修，这也是该机库落成后执行的首个飞机检修工作，这标志着亚洲最大的空中客车A380机

库正式投入使用。

空中客车A380机库于2006年9月破土动工，经过近2年的建设于2008年3月落成，6月正式通过竣工验收。这座机库是迄今为止亚洲最大的一座飞机维修机库，能同时停放6架宽体飞机和4架窄体飞机在其中进行维修，维修对象涵盖波音系列和空客系列所有飞机，包括目前世界上最大的空中客车A380飞机。

该机库也是2008年北京奥运会的重点工程。机库的正式启用将更好地服务飞速发展的国航股份机队及国际国内的其它客户。

Aircraft parts delivered to A320 plant in Tianjin

空客A320首批飞机组装部件日前顺利运抵天津

The first batch of aircraft parts had been transported to the A320 assembly site in Tianjin, China. The parts, valued at 994,000 Euros, are mainly for aircraft landing gears. Customs officers of the Tianjin Port Free Trade Zone checked the parts on site.

第一批飞机组装部件日前运抵空中客车A320组装现场。该批货物主要是飞机起落架部分的组装零件，货值99.4万欧元。

天津保税区海关关员来到现场对该批料件进行查验并办理完相关手续。随着此批飞机组装部件的到位，空中客车A320飞机的组装进入倒计时。



Qinghai to build 3 new airports before 2020

青海柴达木盆地将建机场 现已进入选址阶段

Qinghai Province will establish three new regional airports in the Qaidam Basin and the Guoluo Tibetan Autonomous Prefecture. The exact locations of the airports is being studied.

The Civil Aviation Administration of China has listed the construction of the three airports —Qinghai Huatugou, Delingha and Dawu — in the general construction plan of 2008-2020.

In June, experts from the CAAC's Northwest Branch of the China Airport Construction Corp. and the Northwest Regional Air Traffic Management Bureau visited the three areas to select the exact location of the airports.

The site of the Huatugou Airport project will be known by the end of the year.

The Huatugou and Delingha airports are both located in the Qaidam Basin. Huatugou is an important oil production base of the Qinghai Oilfield.

The construction of an airport will promote the development of Huatugou oil production base. The three airports will be put into operation before 2020.

The Qinghai Province will provide the plan for a new air network layout with the provincial capital of Xining as its center.



为完善机场网络布局，青海省将在柴达木盆地和果洛藏族自治州新增建3个支线机场。目前，3个机场均已进入选址阶段。

中国民用航空局已将建设青海省花土沟、德令哈、大武等3个支线机场列入2008年到2020年总体建设规划。6月中下旬，中国民航机场建设总公司西北分公司、民航西北空管局等单位的相关专家和专业技术人员前往拟建的3个机场进行了现场选址考察。其中，花土沟机场建设项目将在年内完成选址报告。

拟修建的花土沟、德令哈两机场均位于柴达木盆地，其中花土沟是青海油田重要的原油生产基地，机场的建设对于促进花土沟石油生产基地的发展将产生积极意义。而拟建的果洛大武机场，也将对该地区经济发展注入新的活力。

以上机场的修建，预计将在2020年前完成并投入使用。届时，青海省将形成以省会西宁为中心的新的航空网络布局。

China Eastern establishes new subsidiary

东方航空计划筹资5000万元成立公务航空公司

China Eastern Airlines announced that its board of directors has approved the investment of RMB 50 million to establish a new subsidiary, the China Eastern Business Aviation Services Co.

The statement disclosed that China Eastern Airlines had no plan to acquire corporate jets but may retrofit existing aircraft. The company is also negotiating with a first-aid company in the US.

It is estimated that at the beginning of next year, four corporate jets will be stationed at Shanghai.

China Eastern Business Aviation Services Co. will utilize the resources of China Eastern Airlines, including flight crew, mechanic, and ground services.

中国东方航空股份有限公司（China Eastern Airlines Corporation Limited，简称“东航”）表示，该公司董事会已经批准自筹资金5000万元人民币成立全资子公司——东方公务航空服务有限公司。

公司提供的新闻稿透露，东航近期暂无购买公务机计划，但不排除对现有机型的改造，同时该公司正与美国急救公司洽谈合作，预计明年初可正式将四驾公务机放置在上海。

东方公务航空服务有限公司将利用东航的飞行、机务、地面保障等航空资源。

Flight separation reduced in East China

华东空中雷达管制缩小航班飞行间隔标准

The East China Air Traffic Management Bureau adjusted and reduced flight separation standards.

This was done to expand flight flows and improve the capability to support safe flights during the Games.

The reduction of the radar control flight separation standards was implemented in Beijing, Shanghai and Guangzhou terminal areas.

After the implementation, the controller's commanding separation of flights under radar monitoring was reduced from 20 km. to 10 km.

In the approach control area, the separation was reduced from 10 km. to 6 km.

The new standard meant that the eastern China area radar control is almost on with the standards set by the International Civil Aviation Organization (ICAO).

为加大飞行流量，进一步提升保障航班安全飞行的能力，满足北京奥运会期间航班飞行量大的需求以及未来发展的需要，民航华东空中雷达管制航班飞行调配缩小了间隔标准。

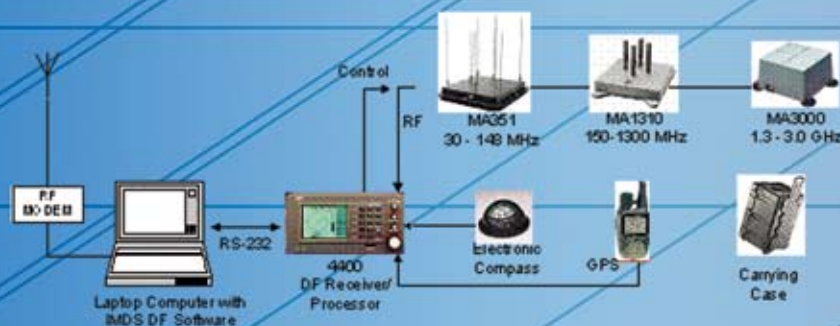
根据民航局空管局的要求，此次缩小雷达管制航班飞行间隔标准在东部部分地区，即北京、上海、广州等区域和终端区执行。该标准实施后，在区域管制中，管制员在雷达监控下指挥航班飞行的间隔由原来的20公里缩小为10公里；在近进管制范围内，指挥航班飞行的间隔则将从10公里缩小为6公里。这标志着我国东部地区航路雷达管制在向国际民航组织的标准靠拢，



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CAAC Updates



CAAC experts inspect Shanghai Eastern FFS, FTD

上海东方飞行培训公司模拟机通过民航局鉴定

Experts from the Civil Aviation Administration of China visited the Shanghai Eastern Flight Training Co. to inspect seven full flight simulators (FFS) and one flight training device (FTD).

To prepare for the inspection, the Simulator Maintenance Engineering Department of Shanghai Eastern fulfilled tests and analysis of more than 1,000 qualification test guides (QTG) and almost 10,000 technical parameters of the seven simulators, and reported the current situation and problems to the inspection group.

The group, under the practical identification requirements of CCAR-60 Flight Simulators Identification and Operation Regulations, made comparisons and verification of QTG objective test items in the first and second quarters. The group chose at random 150 QTG items from the seven simulators for testing.

The identification group also made subjective flight tests with the cooperation of instructors from the Flight Training Department.

They checked the cockpit apparatus

system and the color, brightness, focus and simulation of airport from the three channels.

They also conducted practical flight simulation tests, including taxiing, climbing, cruising, descending, approaching and landing under different weather conditions. After the tests, the group found the simulator to be in good condition.

At the identification general meeting, the inspection group declared that the simulators of Shanghai Eastern are stable and reliable. The seven FFS and the one FTD passed the training requirements.



Experts from the Civil Aviation Administration testing and inspecting one of the many full flight simulators of Shanghai Eastern.

中国民用航空局（简称“民航局”）模拟机专家鉴定组一行来到上海东方飞行培训有限公司，对七台FFS和一台FTD进行半年一度的鉴定。

模拟机维护工程部的同志为民航局鉴定做了精心的准备，完成了7台模拟机共1000余条QTG项目和近10000个技术参数的测试、分析，并将模拟机现状和存在的问题向鉴定组进行了汇报

鉴定组根据民航局CCAR-60部《飞行模拟设备的鉴定和使用规则》客观鉴定要求对一、二季度的QTG客观测试项目进行逐一比较验证，同时现场抽取了7台模拟机近150条QTG项目进行测试。

根据民航局CCAR-60部《飞行模拟设备的鉴定和使用规则》主观鉴定要求，鉴定组成员在飞行训练部教员的配合下上机进行了主观飞行测试。首先对驾驶舱内各个仪表系统进行功能检查。其次对视景三个通道进行颜色、亮度、聚焦及模拟机场真实度进行了检查。最后进行实际的模拟飞行测试，其中包括了不同气象环境以及其它特殊状况下的滑行、起飞、爬升、巡航、下降、进近、着陆等飞行科目。在两项测试后，鉴定组充分肯定了模拟机性能品质的良好状态。

在最后的鉴定总结会上，鉴定组认为上海东方飞行培训有限公司的模拟机总体性能稳定并保持良好的，七台FFS和一台FTD均达到了训练要求。

AIDC coordination meeting held in Kunming

西南、中南空管局实现跨区AIDC电子移交

The Southwest and the Central South Regional Air Traffic Management Bureaus held the Kunming-Nanning Air Traffic Services Inter-facility Data Communications (AIDC) coordination meeting in Kunming

The two agencies also signed the Kunming-Nanning technical information report and control transfer agreements, and discussed the AIDC work plan and its future development.

Among those who attended the meeting were leaders and technicians of Central South's communication and air traffic

(Continued on page 6)

(Continued from page 5)

management departments, Guangxi and Yunnan branches of the ATMB, and Southwest's communication and navigation and air traffic management departments.

AIDC is a protocol for the automatic transfer of the air traffic management automatic system control, recommended for use in the Asia Pacific region by the International Civil Aviation Organization.

Chinese civil aviation industry standard, MH2008, also defines transfer protocol between control centers. Through AIDC, automatic control transfer between different control centers can be fulfilled.

Comparing to the current transfer mode that completely depends on telephone, AIDC can reduce the workload of controllers and improve control effectiveness.

The Yunnan and Guangxi branches of the ATMB started the Kunming-Nanning AIDC experimental work in October last year based on the requirements of the Southwest and Central South Regional ATMBs.

With the cooperation of technicians and controllers, technical problems about the communication link, protocol standards and system adaptation between the two sites were resolved.

The cross-system electronic transfer from Telephonics to Raytheon was fulfilled.

In March 2008, the trial operation was started. After three months of verification and training, the system was a success. Transfer success rate reached 87.9 percent, which greatly reduced the pressure on controllers.

西南空管局与中南空管局在昆明召开了昆明-南宁AIDC协调会, 并签署了昆明-南宁技术信息通报协议和管制移交协议, 讨论明确了下阶段AIDC工作计划及完善思路, 中南空管局通信处、空管处、广西分局, 西南空管局通导处、空管处、云南分局相关领导和技术人员参加了会议。

ATS(Air Traffic Services) Interfacility Data Communications (AIDC)空管设施数据通信) 是国际民航组织在亚太地区推荐使用的空管自动化系统管制自动化移交协议, 中国民航行业标准MH2008也定义了管制中心间的移交协议。通过AIDC, 可实现不同管制中心之间的管制自动移交, 相比目前完全依靠电话移交的方式而言, 可降低管制员的工作负荷, 提高管制效率。因此, 利用AIDC实现管制自动移交是实现管制自动化功能的发展方向。

根据西南空管局与中南空管局对相邻管制区AIDC联网需求, 在两地空管局领导的大力支持下和相关部门的通力配合下, 云南和广西空管分局于2007年10月启动了昆明-南宁间的AIDC实验工作, 经过双方技术及管制人员的共同努力, 成功解决了两地间通信链路、协议标准、系统适配等技术难题, 在TELEPHONICS和RAYTHEON两种不同系统间实现了跨系统的电子移交。并于2008年3月开始管制试运行, 经过3个月的试用验证及实时培训, 取得了满意的效果, 移交成功率达到了87.9%, 大大减轻了管制员工作压力。

China, DPRK sign new air transport accord

中国与朝鲜政府就两国航空运输重新签订协定

China and the Democratic People's Republic of Korea signed a new air transport agreement.

Chinese Vice President Xi Jinping and Vice President Yang Hyong Sop of the Presidium of the Supreme People's Assembly of the DPRK witnessed the signing of the agreement by Minister Li Jiaying of the China Civil Aviation Administration and the director of the General Aviation of Civil Aviation of DPRK.

During his visit, Li also had a dialogue with Vice Premier Ro Tu Chol of the DPRK Cabinet to discuss developing bilateral aviation cooperation between the two countries.

在中华人民共和国国家副主席习近平与朝鲜民主主义人民共和国最高人民会议常务委员会副委员长杨亨燮的见证下, 中国民用航空局局长李家祥与朝鲜民用航空总局局长康基摄在平壤重新签订了《中华人民共和国政府和朝鲜民主主义人民共和国政府航空运输协定》。

Chinese, Belgian airports sign agreement

宁波栎社机场与比利时列日机场签订意向性战略合作协议

Ningbo Lishe International Airport in Ningbo, China, and Liege Airport in Liege, Belgium, signed a cooperation agreement to become sister airports.

Vice General Manager Xu Zhongwei of Ningbo Airport and board member Steven Verhasselt of Liege Airport signed the agreement.

Liege Airport is a leading airport in cargo. Buoyed by complete facilities, the airport's freight volume ranked among the top 10 in Europe in 2007. It is TNT's European operation center.

Ningbo Airport aims to become a Yangtze River Delta area freight hub as it has great potential in developing its air cargo market.

The cooperation aims to improve management efficiency, implement sharing of resources and develop air services between the two airports.

The two airports agreed to cooperate on exploring air routes, marketing, management training, and operation practices.

宁波栎社国际机场副总经理许忠伟与比利时列日机场董事史提芬华 (Mr.Steven Verhasselt) 双方签署了意向性战略合作书, 成为姊妹机场。

据了解, 比利时列日机场货运优势突出, 配套设施齐全, 2007年货运吞吐量位居欧洲排名前十位, 是国际货运航空公司TNT的欧洲运营中心。而宁波栎社国际机场定位于长三角货运枢纽, 货运业务发展的潜力很大。两机场开展合作有利于双方提升管理效率, 拓展空中服务, 实现资源共享、优势互补, 符合双方的共同愿望和目标。双方今后将在航线拓展、市场营销、管理培训、营运实务和标准及战略合作等领域开展广泛合作。

FSD: Most airlines report SDRs on time

为落实规章要求，飞标司加强对航空公司航空器使用困难报告上报的抽查

The Flight Standard Department of the Civil Aviation Administration of China (CCAR) checked the service difficulty reports (SDR) of airlines for July of this year and found that most airlines reported incidents on time, based on existing regulations.

The spot checks were done to ensure that the airlines followed Articles 707 and 708 of CCAR Part 121 and Articles 439 and 441 of CCAR Part 135 on malfunctions, failures and defects and other requirements of AC-121-60.

There were some instances, however, that airlines failed and filed late reports on incidents.

Of the 204 SDRs sent by airlines in July of this year, 21 SDRs were not reported, or SDRs were filed late.

The FSD asked airlines to report SDRs on time, accurately and completely based on the regulations.

It also asked all regional administrations to enhance supervision of SDR reports and investigations, ensuring timely and complete aircraft operation and maintenance information.

为认真落实规章要求，飞行标准司依据CCAR121部第707条和第708条以及CCAR135部第439条和第441条关于故障、失效和缺陷报告的规定及AC-121-60的相关要求，根据民航局发布的信息对2008年7月各航空公司使用困难报告（SDR）上报情况进行了抽查。从抽查的结果看，多数航空公司能够按照规章要求及时上报SDR信息，但是仍然存在漏报和迟报等不符合规章要求的现象。7月份共计上报SDR事件204起，未正常上报的SDR事件21起，其中包括漏报16起，迟报5起。

飞标司发明传电报对相关航空公司提出批评，要求航空公司严格按照规章要求及时、准确、完整地上报SDR信息。并要求各地区管理局加强SDR上报与调查的监督检查，确保航空器运行及维修信息的及时性和完整性。飞标司还将不定期进行抽查并发布抽

NDRC approves Chengdu control center project

成都区域管制中心工程获国家发改委批准

China's National Development and Reform Commission approved the feasibility report of the Chengdu Regional Control Center project.

The air traffic management facility will be finished by 2015. The project consists of a new air traffic control center occupying 8,500 sq.m., an air traffic management training building occupying 3,670 sq.m, a new ATM automation system, and a VHF remote control system. Total investment for the project is RMB 830 million.

国家发改委批准了成都区域管制中心工程可行性研究报告。本期空管设施以2015年为目标年。主要建设内容：新建管制中心大楼8500平方米、空管培训楼3670平方米、新建空管自动化主用系统；甚高频（VHF）遥控系统工程。项目总投资83000万元。

Shenyang Regional Control Center project okayed

沈阳区域管制中心工程获国家发改委批准

The National Development and Reform Commission approved the proposal for the Shenyang Regional Control Center project.

The project consists of a new air traffic control building occupying 6,730 sq.m, an air traffic management training building occupying 5,841 sq.m. and a VHF remote control system project. Total investment for the project is RMB 515.56 million.

国家发改委批准了民航沈阳区域管制中心工程项目建议书。本期工程空管设备按照2015年业务需求配置。项目总投资51556万元。

主要建设内容：建设管制大楼6730平方米，管制员培训楼5841平方米；甚高频（VHF）遥控系统工程。

Shanghai Terminal Control Center project gains approval

上海终端管制中心工程获国家发改委批准

The Shanghai Terminal Control Center project was approved by the National Development and Reform Commission.

The project, estimated to be finished by 2015, consists of a new control center occupying 5,000 sq.m at Shanghai Pudong Airport., It will expand the capacity of the ATM automation system, and establish a new Ningbo Secondary Radar Station as well as a new air traffic management training building occupying 7,000 square meters in Wuxi. Total investment for the project is RMB 448 million.

国家发改委批准了上海终端管制中心项目建议书。本期空管设施以2015年为目标年。主要建设内容：在上海浦东机场新建管制中心大楼5000平方米、扩容航管自动化主系统1套；新建宁波二次雷达站；在无锡新建空管训练用房7000平方米。项目总投资44800万元。

NDRC approves Urumqi project

乌鲁木齐区域管制中心工程获国家发改委批准

The National Development and Reform Commission approved the proposal for the Urumqi Regional Control Center project, estimated to be finished by 2015.

The project consists of a new air traffic control building, an air traffic management training building and auxiliary building occupying 14,000 sq.m. and a VHF remote control system project. Total investment for the project is RMB 498.18 million.

国家发改委批准了民航乌鲁木齐管制中心工程项目建议书。项目总投资49818万元。本期空管设施以2015年为目标年。主要建设内容：新建管制中心大楼、空管培训设施用房及附属用房14000平方米；甚高频（VHF）遥控系统工程。

Trilateral working group holds meeting

中、港、澳三方维修培训联合认可工作组第二次会议顺利召开

The second meeting of the JMM ATO Working Group was held in Xiamen.

This was attended by representatives from the Civil Aviation Administration of China, Hong Kong Civil Aviation Department and the Macau Civil Aviation Authority.

Discussed at the meeting were the trilateral maintenance training joint recognition and the next step in the work plan.

The development of the training recognition is based on the Part 147 regulation, which was initiated last August.

The three aviation authorities reached common understanding on maintenance training standards.

The trilateral joint maintenance training recognition cooperation agreement is expected to be signed in 2009.

由中国民用航空局、香港民航处、澳门民航局三方代表参加的维修培训联合认可工作组第二次会议(JMM ATO Working Group Meeting)在厦门顺利召开。会议讨论了三方维修培训联合认可工作安排，并就下一步工作计划进行了讨论。

中、港、澳三方维修培训联合认可工作的开展，是基于三方对彼此147部规章的相互承认的基础上进行的。此项目自2007年8月开始启动，经过三方对彼此147部规章的详细对比，最终达成共识，彼此承认维修培训标准。经过此次会议的进一步磋商，三方联合维修培训认可合作安排有望在2009年能够正式签署。届时，三方的民用航空器维修培训机构可以申请加入到联合认可范围内，为三方的机务维修人员提供高标准的维修培训。

Guilin Airport undergoes expansion

桂林两江机场投资近亿元扩建 可起降最大机型

The groundbreaking ceremony for the expansion project of the Guilin Lianjiang International Airport in Guangxi was held on August 12.

The special project, costing about RMB 100 million, is being carried out to accommodate the takeoff and landing of the A380, the world's largest jetliner today and is part of the 11th Five-Year Plan.

Under the project, the runway will be widened from 60 meters to 75 meters and the taxiway from 38 to 60 meters.

Two aircraft stands to accommodate the A380 or same-class aircraft will be built. Visual aid light will be constructed and the firefighting grade at the flight area will reach level 9.

The construction period will be done in eight months and is estimated to be finished by the Spring Festival in China next year.

The passenger throughput last year at Guilin Airport reached 4.665 million, or about 60 percent of the Guangxi passenger air transport market volume.

It is estimated that by 2020, passenger throughput at Guilin Liangjiang International Airport will reach 10 million.

8月12日，投资近亿元的广西首个满足目前世界最大机型保障条件的专项工程——桂林两江国际机场A380机型备降场扩建正式破土动工。

悉，此次A380备降场扩建是“十一五”规划的建设项目之一。通过扩建，桂林两江国际机场跑道和滑行道将由60米、38米分别加宽至75米和60米，新建2个A380等同类机型停机位，配套建设相应的助航灯光等，飞行区消防等级将达到9级。该项目建设工期预计为8个月，有望在2009年春节前完成主体工程。

桂林机场旅客吞吐量去年达到466.5万人次，创历史新高，占广西航空客运市场量近六成，比通航当年翻了三番。

据专家预测，到2020年，桂林两江国际机场旅客吞吐量将突破1000万人次。



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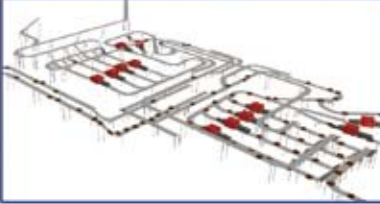
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Airborne Em



The recent natural disaster in China has galvanized the CAAC and the people of China to develop and deploy airborne EMS. The earthquake in the Sichuan Province saw the successful call-up and deployment of general aviation helicopters to assist with emergency and disaster relief in support of the main military helicopter rescue operation. This success has seen a further impetus being made for the continued development of this capability.

Airborne EMS capability has been a feature in other countries globally for many years. Historically, and as recently seen in China, it has been the General Aviation (GA) industry that provides the capacity and capability when required. From these small beginnings, there has risen a niche sector of the industry delivering EMS expertise, using high technology airborne equipment.

Historical development of the industry was, in general, outside of policy or strategic initiatives. Often, the establishment of EMS has occurred due to local needs and driven by the capability of a local operator, rather than a sound model founded on best practices, efficiency and services. From using whatever resource was available at the time during a disaster, we have seen a slow migration to professional aviation companies delivering contracted services 24/7/365 with aircraft and equipment that is “fit for purpose”.

Now, reliance is not based on whatever capability is available, but importantly, on defining the level of service required and the equipment that provides for this level of service.

This old type of bottom up development led to an EMS service configuration that inevitably had some anomalies and weaknesses from that of a top down “whole system” approach design.

The Model for China

China is in the unique position of establishing GA based airborne emergency service capability without the legacy structure and operational delivery systems that are seen in other countries. China finds itself in the position where incisive thinking and decision making can pave the way for the introduction of airborne EMS through the GA industry using a whole system managed approach to development.

With 23 provinces, 5 autonomous regions, 4 municipalities and 1.3 billion people, China is a large country. Along with the geography and administrative regions of China, demographics will have an influence on the deployment of services. The sheer size and aggregate number of people in each province provides, as usual, both opportunities and challenges. The great opportunity for the Chinese people now is the ability to implement a structure that works for the unique China environment. The administrative regions may provide a starting point for model development and deployment of airborne EMS capability throughout the country.

The delivery of services will include both rotary (HEMS) and fixed wing aircraft. Consequently an integrated approach across either a single provider or multi-providers will be needed. Inter-hospital transfer and potentially repatriation of foreign tourists and visitors will or could be required. This demands a level of capability currently not found in China.

Internationally there is a mixed model in service provision of; competitive services, integrated services funded through a mix of donations and insurance, those funded solely by insurance and those funded solely by donations. Unfortunately with the mix, many appear to exist from hand to mouth, often limiting flying to meet the funds available at the time. A more mature attitude is to view this service as providing a vital public service, but not necessarily relying on government resources. How this is managed in China is a complex funding and financial resourcing matter that will need to be resolved.

Potential Demand

Projecting future potential demand levels for missions is difficult. The current demand has been met on an ad-hoc basis.

Emergency Services – China

空中应急救援服务 – 中国

Overall, it can be assumed that demand will increase with the deployment of this capability. Performance criteria can be developed that will aid in the decision process; on the future of aircraft needs and the appropriate in-aircraft equipment levels, in developing a model of future demand projections.

Support Infrastructure

The services provided by airborne EMS capability does not occur in isolation. There is a close relationship between all of the providers in the delivery chain for this service to be efficient and viable; hospitals, medical facilities, physicians and training of personnel, to highlight a few. The management of the suppliers and their relationships will be a key feature of the model implemented.

Operationally, airborne EMS services may place extra demands on the current structure used for airspace and provision of Air Traffic Services, the latter in particular for GA operations. The current provision of ATC services is via the military with financial support from the government to provide ATC services to GA. Increased demand for GA ATC might divert the military ATC system away from its core objectives. The GA demand is characterised by different requirements from that of military aviation, consequently there would be a need to manage closely the interface and transition between the current provision of ATC services and future demands. The plan to open low-level airspace for GA aircraft use in 2010 provides time for continued development in ATC technology and capabilities specifically for GA. There will also be increased demands on GA MRO facilities throughout the country. In other countries the MRO providers were already present as the EMS industry developed. This may not necessarily be the situation in China or there may be an uneven distribution of MRO support capability

across the provincial regions.

There are no current industry standards or code of operating practice, nor have minimum equipment levels, for both aircraft and patient medical care been implemented.

There are a complex number of issues to be considered with support infrastructure for the industry, from service chain providers, training of personnel, through to the support of daily flight operations.

Conclusion

The following features are those that will be integral in the continued development and successful deployment of airborne EMS:

- Administrative and Operating model;
- Safety, Standards and Training;
- Optimization, Efficiency and Effectiveness;
- Policy and Regulatory Development;
- Emergency & Crisis Response Management;
- Management of the interface between GA and current ATC system structure

as demand increases.

Taking the time now to develop a top down approach will provide longer-term dividends for China as a country. The “whole system” approach provides the opportunity to ensure implementation and deployment of airborne EMS capability delivering appropriate services that benefit China as a country, its people and its economy.

One of the objectives of a China airborne EMS capability might be defined overall as missions to quickly take medically qualified rescue experts to the scene of all types of emergencies and to take emergency patients to the hospitals best suited for their treatment. Over short and medium distances, such services are provided by HEMS helicopters, while long distance missions are also performed by fixed-wing aircraft.

The CAAC, GA operators and people of China are converging on a critical step in the future development of Airborne EMS capability. Implementing the processes, systems and structures required to deliver these services needs to be managed such that they deliver the outcomes envisioned.





中国近来的自然灾害引起了中国民航局和中国人民对发展空中应急医疗救援（EMS）的关注。在四川的地震中，我们看到通用航空直升机被召集并协助主力军用直升机成功地参与到地震的应急救援中来。从此次民间直升机的成功调用中可以看出，这是一项适合被继续发展的事业。

空中应急救援多年来在世界上许多国家都起了重要作用。历史上和当前的中国，通用航空产业的运行者们毋庸置疑的在需要的时候提供了能力和能量。从这些微小的起步开始，一个利用高科技航空装备和技能提供特殊紧急医疗救援工作的产业已经开始孕育成型。

一般来讲，EMS产业的历史发展，并非由政策或战略方针所发起。通常，是建立于当地居民的需要而产生的，并由当地具备该项能力的营运者主导的，而不是一个建立在最具经验、效率和服务基础上的成熟模式。从在灾难发生时使用任何可获得的装备资源开始，缓慢发展到可提供航空器与相关装备的全年度全天候“满足要求”专业服务的飞行公司。现在，所依赖的已不是基于所能取得的仅有能力，更重要的是根据所需服务程度的定义取得相对应装备所提供的服务。

以往自下而上的发展模式导致了EMS服务的结构与自上而下的“整套系统”模式相比，无可避免地存在着某些异常和弱点。

中国的模式

因为没有像其他国家一样具有以往模式和运作方式，中国在建立一个以通航为基础的空中应急救援服务能力时是处于一个独特的位置。中国目前处于一个状况使得锐利的思维和决策模式可以完成通过通航产业的架构建设并开拓空中EMS的完整体系。

中国是一个拥有23个省，5个自治区，4个直辖市，与13亿人口的大国。根据中国的地理与行政区域划分，人口分布将对服务的提供起到一定影响。通常，每个省的地貌与总人口将带来不同机遇与挑战。对于中国人民而言，现在最大的机遇就是构建具有中国特色的独特架构。行政区域也许可作为创建全国空中EMS能力的起始点。

服务将包括由螺旋桨和固定翼的两类飞机提供。所以必须要能整合一个或多个服务供应商。将有可能出现医院之间的转运，以及可能将外国游客与访客运送回国的需求。目前，中国尚未具备有这些服务的能力。

国际上，存在一种混合服务模式：具竞争力的服务，通过来自捐赠与保险等方式募集资金的综合服务，或资金完全由保险公司提供与完全依赖捐赠所提供的服务等等。然而，这些混合模式通常是有限制性的，经常在某个时间会出现资金短缺的问题而无法提供飞行服务。一个更为成熟的观点，应将这些服务视为一项重要的公共服务，而又不依赖于政府的资源。那么中国将如何解决这一复杂的资金与财政来源问题仍有待探讨和解决。

潜在需求

预测未来的潜在需求是相当困难的。目前的需求在临时性服务的基础上已经被满足。整体而言，我们可以假设需求将随着此项能力的供应而增长。性能标准的发展将协助决策的过程；未来航空器的选型与适当的机载设备配置，会逐渐形成未来需求预测的模式。

配套基础设施

空中EMS服务不是可以独立发生的。在这条供应链上，所有的供应商之间都存在着有密切关系，以保证服务的有效性和可行性；医院、医疗设施、医生和人员培训仅是其中的一小部分。对各供应商及其关系的管理是整个模式实现的关键所在。

在运行时，空中EMS服务还可能在对空域与空中交通管制服务的额外需求，尤其是对于通航营运者而言。目前，ATC服务是经由军方通过政府提供的财政补贴方式为通用航空提供空管服务。通航ATC服务需求的增长可能使军用ATC系统偏移其原来的核心目标。通航需求的特点与军用航空存在不同要求，因此，现有ATC服务供应与未来需求之间更需要紧密地对接与转变。将于2010年为通航飞机开放低空空域的计划，为继续发展ATC技术，尤其是针对通航能力提供了时间。全国也将出现对通用航空的维护、维修、运行（MRO）设施的需求增长。在其他国家，MRO在EMS行业的成长之前就已经成熟。这在中国也许并不是这样的状况，或通过省级区域的划分出现不平衡的MRO支持能力的分布。

对于航空器与病患医疗，目前还不存在行业标准，或是与运行法规，甚至是最低的设备水平要求。

对于产业基础设施而言，仍存在许多复杂问题有待解决，从服务供应链，人员培训，到日常飞行操作。

结论：

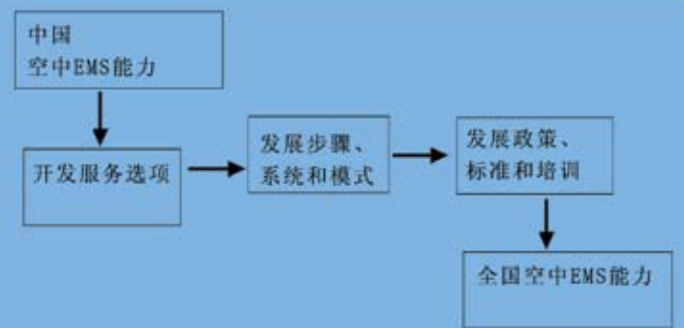
以下综合了可持续成功发展的空中EMS所需具备的特征：

- ★行政与运营模式；
- ★安全、标准和训练；
- ★优化、效率和效益；
- ★政策和法规的发展；
- ★突发事件和危机响应管理；
- ★随着需求增加，通用航空和现有ATC系统结构的对接管理；

发展一个自上而下的运行模式以一个国家的立场来说，这将为 中国带来长远的利益。“整套系统”的方法将提供确保空中EMS能力的实行和发展的机会，它所提供的服务将为中国及其人民与经济都带来福音。

中国空中EMS能力的目的之一也许可以概括为快速地让具备医疗资质的救援专家亲临各种救难现场，并将伤员及时送往能够获得最佳救治的医院。中短途任务可利用直升机 (HEMS) 执行，而远距离任务则由固定翼飞机来完成。

中国民用航空局，通用航空运营商和中国人民正为发展未来发展空中EMS能力而迈出关键性的一步。为了实现这些服务而所需完成的步骤、系统与结构，同完成后达成的结果是同样重要的。



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The Peet Aviation team advises leading aviation organisations and public institutions on aviation and business management issues ranging from specialist advice to effective organisation structure and efficient business processes. Collaborating with clients we develop solutions that fit with their unique political, financial and operational environments. From strategy and business plan development to operational deployment, Peet Aviation can provide the consultant expertise required to meet client needs. Brian has over 25 years experience in the aviation industry in operational and management roles.

布赖恩 维兰，拥有航空硕士MBA以及金融和管理专业学位，并持有飞行员执照。现任新西兰PEET航空咨询顾问公司总经理。

PEET航空咨询顾问公司致力于向航空客户提供一流的，高效的，本地化的航空解决方案。公司拥有经验丰富的航空咨询顾问，能为客户制定贴近本地政治状况，运行环境以及财务要求的商业战略以及商业推进计划。总经理布赖恩 维兰本人在航空界就拥有25年相关的管理和运行从业经验。

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**Written By : Christophe Mostert,
General Manager,
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During the past decade the aviation industry has bared witness to great advancements in the value and applicability of new technology to operational processes. As increasing operating costs and customer expectations have shifted the focus towards maximizing the efficiency of ground processes of recent, airlines are faced with very great challenges such as providing more differentiated services to the customer, enabling automated check-in and boarding services, reducing costs for local ground handling staff and equipment, delivering network-wide, high system stability and availability and assuring network-wide consistency to name a few.

Challenges of Technology on Future Ground Processes

The issue is that depending on the airline's use of technologies and knowledge of process efficiencies, the check-in and boarding processes can be a bottle neck in an airline's operation significantly increasing costs, reducing passenger satisfaction and threatening the entire airline network all together.

Today the most common trend in optimizing ground processes lies in airlines encouraging passengers to move towards more off-site CKI-channels. But while the operational and cost savings have certainly been significant, up to now the other half involving on-site passenger verification at Security and the Gate has not fully been covered. This absence of a complete end-to-end solution remains the critical gap to achieving efficient handling and movements of passengers and so must be addressed.

Since passenger data collection can mostly be assigned to pre-travel processes by off-site check-in channels, the real question is how passenger identity verification can

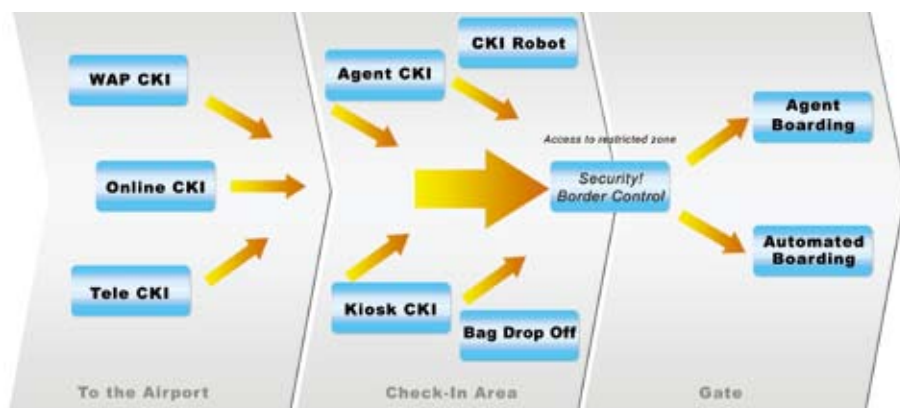
most efficiently be carried out. Let's face it though, passenger security processes are expected to simultaneously balance the needs of many key passenger handling stakeholders. Hence, a solution needs to be implemented that is able to satisfy secure passenger authentication for security personnel, seamless travel experience for the passenger, cost efficiency for the airline, and efficient passenger flows for the airport. One major initiative seeking to support these criteria is advancing rapidly and is expected to develop into a \$7 billion market within the next 5 years; the concept, biometrics as a measure for seamless and secure check-in procedures.

Characteristics of Biometric Systems

Biometrics is the measurement of different physical characteristics and behavioral mannerisms of the human body with the aim to identify definitely who a specific individual is. To-date, the longest modern use of biometrics had been only in crime detection. Unfortunately experience had shown though that many biometric technologies allow for a definite identification only after extensive durations of time, thus not practical for commercial aviation use. But while a problem in past years, new and affordable technology has paved the way to use biometrics for person identification in time-sensitive situations.

A standard biometric system check commences with an enrollment stage (submission and collection of various physiological and behavioral characteristics) followed by a matching stage using either "identification" or "verification". "Identification" requires the system to work to identify who the individual is solely on the readings received biometrically whereas "verification" relies on accessing the biometric reserve data based on who the individual claims to be and comparing with the received biometric readings.

Based on the evaluation of the most



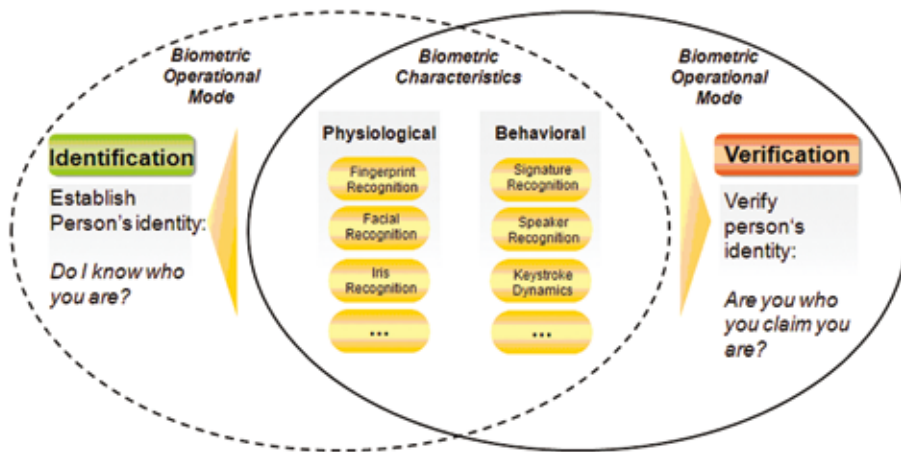
Biometrics as a Measure for Seamless and Secure Check-in Procedures

生物识别技术，便捷而安全的登机措施

commonly used biometrics across all industries, physiological characteristics have been considered the more applicable choice to aviation. This is due to the fact that passenger handling processes rely on the key selection criteria of uniqueness, performance and acceptability which is more likely obtained with physiological than behavioral traits.

In considering the most established biometric technologies, mainly four recognition methods are being considered for use in context with passenger handling processes: finger print recognition, facial recognition, hand geometry and iris recognition. While all of these methods are convenient to some extent, fingerprint recognition seems now and will continue to be the most accepted method due to its low transit time, low false non-match rate and high user satisfaction as compared with the other methods. These points considered, biometrics has opened a great, new perspective into automated recognition of passengers through the combination of science and IT throughout the airport.

Classification of Biometric Systems



Commercial Aviation Applications

In general, biometric technologies have optimization potentials in three areas of aviation security: employee access control, airport surveillance and passenger handling.

First, airport authorities will be able to carry-out the verification of employees and ensure that access to secured areas within an airport is restricted to only authorized personnel. This will also have applications in verifying flight and cabin crews prior to and following a flight thus making available the shortest path from briefing sessions to aircraft (gate, apron, etc.) and vice versa.

Secondly, airport surveillance will have the ability to be influenced for the better through increased protection of public areas in and around airports from external threats. Through the airport management's ability to identify persons that are on watch lists with or without the person's cooperation or knowledge, more quick and swift criminal identification processes will ensure greater border security.

Finally, passenger handling can be improved with reduced manpower requirements at the gate by automating the verification of passengers prior to their boarding of the aircraft. Also, expedited security screening (before flight) and immigration procedures (after flight) for passengers who meet the eligibility criteria and voluntarily provide personal information and clear a background check is a major opportunity.

Simplified Passenger Handling

Taking a closer look at the major implications on passenger handling, linking

travelers to electronic travel documents with the verification of biometric data will certainly lead to improved passenger handling. Considering this thought, related stakeholders can expect to benefit greatest from the implementation of biometrics supporting different passenger touch points within the departure and arrival processes such as:

ID Authentication for Check-in: After retrieving their booking data either remotely or at an airport kiosk, the existence of a valid ticket or 'Right to Fly' is confirmed by the airline. It is then that the passenger will be required to authenticate their identity via biometric authentication following the confirmation of their documentation validity and real-time reception of a 'Right to Board' notification from outbound and inbound immigration authorities. From the biometric reading, the passenger profile will be forwarded to security for potential risk based streaming of bags and passengers.

Receive e-token: A boarding token serves as a boarding pass consisting of either a mag-stripe or 2D barcode, frequent flyer card, credit card, machine-readable passport or even the passenger's biometric identifier through the introduction of this new technology.

Baggage Drop: Soon the passenger identity will be confirmed by means of biometric identifier for baggage reconciliation purposes when presenting their baggage at the drop zone. Through the biometric verification a bag tag will also be issued if this has not already been done and the bag will then be sent to security screening where it can be screened on a risk assessed basis. Any customs or bio-security data can also be captured for control authorities of the receiving country. A passenger checking in at home will also be able to proceed directly to the bag drop point where the validity of their travel documents will be confirmed and biometric authentication of their identity will be used to confirm their 'Right to Board' by the outbound and inbound immigration authorities.

ID Authentication (Access to Restricted Zone): Passengers will be able to authenticate their identity by means of a biometric identifier to ensure that only bona fide passengers enter the restricted area. Passengers with only carry-on baggage will also proceed directly to this point where their 'Right to Board' is also confirmable so to pass directly through to the restricted zone. The potential also exists for the passenger profile to be one day used to stream the passengers for security screening on a risk assessed basis.

Security Screening: All passengers and their carry-on baggage are screened to agreed minimum, international standards. Passengers deemed to be high risk according to their biometric profile maybe also be subject to an enhanced level of security.

ID Authentication (Boarding): Passengers will be able to confirm their 'Right to Fly' by means of the boarding token and authenticate their identity using a biometric identifier to confirm firstly, that they have the 'Right to Board' and secondly, for baggage reconciliation purposes that any passenger who has checked a bag has reported to the boarding gate.

Immigration (Arrival): At Border Control, authorities will also have the opportunity to optimize the immigration procedures to bring passengers back into the country through more swift verification of the person's identity.

In all many key benefits to passenger handling have the ability to be realized including enhanced process automation, securer verification of passengers, greater prevention of fraud, higher passenger throughput and reduced total expenditure of time by each passenger.

Current Issues

As the biometrics initiative moves forward quickly within the aviation industry, a clear and strong risk management approach is critical in helping to identify and quantify the operational effectiveness to be achieved. In general, airlines and airports have the opportunity to achieve more efficient and secure passenger authentication, reducing the failure rates of not catching fraudulent documents and inadmissible passengers, to realize a seamless, hassle free travel experience for passengers, to facilitate pre-travel procedures for travel agents, to optimize resource requirements and allocation at airports and to ensure efficient & secure transportation for governments through the removal of untrustworthy persons from the process. But while great potential lie in the improvements to be had, threats associated with implementing biometric technologies exist as well.



Airlines and airports are threatened by biometric technologies through the subsequent need to standardize procedures, technology and data between different stakeholders so to ensure worldwide interoperability, satisfy data privacy concerns while considering new legal issues and laws required to prevent privacy violation, improve on the lack of API definition today, agree on the duration of storage of personal data, balance commercial and government needs, and most importantly, acquire the capital to back the high investment requirements.

One of the most debatable of issues currently involves the successful enrollment of the individual's biometric data as it is a critical pre-condition for achieving successful verification against a stored template. Enrollment validity for biometric identification systems varies with purpose and can be broken down into three options for aviation clients: enrollment per trip, enrollment per person, enrollment for global purposes.

With 'enrollment per trip,' personal biometric data is collected for every single trip and is deleted after flight departure. This concept is advantageous being that privacy issues do not arise due to brief data storage. But while this option caters well to the non-frequent travelers, frequent travelers lose out greatly due to the constant need for multiple enrollments.

With 'enrollment per person', personal biometric data is stored on a special device (e.g. customer card, company ID, separate smart card) and can be used until the expiry of the device. As this option caters much more to the frequent travelers due to only one enrollment per validity period, interoperability is still not achievable unless cooperation between stakeholders is realized.

The final option of 'enrollment for global purposes' allows personal biometric data to be stored on commonly, readable documents (e.g. ePassport) and can be used by all stakeholders that require identification during the travel process (airline, airport, governmental authorities). While long validity & more trustworthy issuing from authorities allow for ideal verification during immigration, privacy violation for purposes unknown to the document holder are much more likely to occur.

In general the different types of enrollments possess many different advantages and disadvantages. But the choice as to which option to implement will depend mostly on the level and practices of data security within the governing party.

Biometrics Outlook

Through the dedication and cooperation of all stakeholders and harmonization of data standards at passenger touch points, the application of biometric technology has the ability to simplify passenger travel and allow aviation companies to reap many great benefits. As several related projects and initiatives have already been initiated and proven the usability of biometric technologies at airports in countries such as the U.S., U.K., Australia, Netherlands and Sweden, it will only be time until this technology becomes recognized as an industry standard.

生物识别技术，便捷而安全的登机措施

在过去的十年间，航空业在运行流程中见证了采用新技术的价值和适应性方面所取得的巨大进步。伴随着日益增长的运行成本与客户期望，焦点被转移到地面运营效率的最大化。航空公司正面临着巨大挑战，例如：为客户提供更为差异化的服务，实现自动登记和登机服务，减少当地地面工作人员和设备的成本，提供广阔的服务网络，系统高稳定性和有效性，保障网络化服务的一致性。

对未来地面运行技术的挑战

问题在于航空公司所使用的科技与作业效率的认知度，登记与登机手续有可能是航空公司值得注意的一个成本增长，降低客户满意度并威胁到整个航空公司网络的瓶颈。

今天，优化地面手续最为普遍的趋势就是航空公司鼓励旅客更多地通过外场的CKI通道。尽管营运成本的节约是显而易见的，但直到现在所有现场安检还有一半没有优化。缺乏端到端的全套解决方案成为无法实现高效的地面运行与旅客转移的关键缺口所在。

由于旅客资料大多数情况下是可以在出行前在现场外收集处理的，真正的问题在于如何最为高效地对旅客身份加以验证。让我们面对现实，旅客安检流程必需同时平衡其它许多关键性旅客处理的参与方的需求。因此，需要一套解决方案，既可满足安检人员对旅客加以身份识别的需要，还可在为旅客提供有完美的安全旅行体验同时，也节约了航空公司成本，并为机场带来了有效的旅客流量。一项寻求支持此一准则的重大倡议就是，预计在未来五年内发展成为一个70亿美元的市场：这个新观念就是生物识别技术，即将成为便捷而安全登记措施。

生物识别系统的特点

生物识别技术是为了识别个体特征而对人体进行不同生理特征与行为模式的一种测量方法。时至今日，现代生物识别技术最常见于罪案侦查中。不幸的是，实践表明，许多生物识别技术需要在较长时间内对身份加以识别，尚无法应用于商业航空领域。尽管这个问题存在过去多年，然而新型而经济的生物识别技术已可应用于即时身份识别。

一个标准的生物识别系统检测由登记阶段开始（提交与收集各种生理与行为特征），紧接着将采用“识别”或“确认”方式进入配对阶段。“识别”要求系统根据所接收到的生物数据来识别这个单独的个体是谁，而“确认”则是将读取生物特征存储数据库内单个数据与所接收到的生物数据加以对比确认。

在对所有产业中最为普遍采用的生物识别技术加以评估的基础上，生理特征被视为更为适用于航空应用的选择。这是根据实际情况得出的结论，即旅客处理过程中，作为关键性选择标准，生理特征比行为特征更具唯一性、更好性能与更为广泛的接受度。

根据早期建立的生物识别技术，主要有四种识别模式可用于旅客处理过程中：指纹识别、面部识别、掌纹和虹膜识别。从某种程度来说，所有这些都是方便的，指纹识别同其它识别模式相较，因其通行时间短，不匹配错误率低以及用户满意度高等特点，目前必将继续成为最受欢迎的方法。从上述特点判断，通过结合整个机场所使用的科学与IT技术，生物识别技术已开发出一个强大而全新的旅客自动识别系统。

商业航空的应用

通常，生物识别技术在以下三个航空安保领域有潜在的优化

作用：机场员工门禁控制；机场地面监控与旅客处理。

首先，机场当局将能够执行员工确认，以确保只有授权员工进入的机场禁区内安全。这样还可以在航班前后确认航班与机舱机组成员，使他们采用最快地捷径出入飞机（登机门、机坪等）。

其次，机场监控将提高安全保障能力，更有效地保障机场内公众区和机场周围地区不受来自外部的威胁。机场管理者不需得到黑名单上人物的合作也有能力识别他们，更快捷与迅速的罪犯识别处理将确保边境更为安全。

最后，在登机门前采用自动旅客身份识别可减少人力需要，旅客处理将得以改善。同时，让符合相关资格标准及主动提供个人信息的旅客完成背景检查以便登机前的快速安检与落地后的入境检查，这也是一个主要的使用机会。

简化后的旅客处理

我们仔细看看旅客处理过程中的几个主要环节，在旅客电子旅行文件中加入生物识别数据，将可直接改善客户处理能力。因此，在到达和出发过程中不同的旅客检查点进行生物技术检查可使有关机构单位成为最大的受益人，譬如说：

在登记时进行身份识别：无论是在远端或机场值机台接到预定信息后，航空公司将可确认其机票有效或是“可以飞行”。接着，旅客须将通过生物识别技术验证其身份，然后证实其证件的有效性并从出入境当局接收到实时登机的凭证。根据旅客的生物特征判读结果，安检部门可作为过滤可能存在潜在危险旅客与行李的依据。

接收电子牌：一张登机电子牌作为登机通行证，它包括一个磁条或一个二维码，常飞旅客卡，信用卡，机读护照，或是作为新技术而被引入的旅客生物识别证。

行李托运：旅客们在托运行李时经由生物识别技术加以确认以便到达时行李提取。生物技术识别的同时一个行李牌也将很快被附在行李上，并送往安检部门将按可能存在危险的行李进行检查。任何海关或生物保全数据也将同时送达目的地国家的主管当局备查。在家中登记的旅客也可在行李直托运点确认其旅行文件有效性时，同时他们通过生物特征确认其身份后，也将由出入境移民当局确认其“可以登机”。

身份证明（进入限制区）：旅客可通过生物识别器确认其身份，这可确保只有真正的旅客才可进入限制区。仅携带随身行李的旅客也将直接在登机口确认并可以进入限制区。旅客的信息资料有一天也将可能被用于按危险程度进行的安全检查的工作上。

安全检查：所有旅客和他们的随身行李都应至少满足国际标准进行检查。对于那些生物特征显示为高危旅客将按更高的安检级别



加以检查。

身份证明（登机）：旅客将首先通过生物识别器确认其身份后，获得“可以飞行”认可，同时并确认每个托运行李的客人都在登机口办理了登记手续并完成登机程序。

入境（到达）：在边境管理上，当局也将有机会优化入境手续，使旅客回到该国时更迅速的通过身份核查。

为旅客处理带来的所有关键优势包括提高了处理自动化，更为安全的旅客身份识别，更好地预防了蒙骗的发生，更高的旅客吞吐量，以及对每位旅客而言缩短了时间的消耗。

现有问题

在生物识别技术刚刚开始航空领域正快速发展之时，一个明确而强有力的风险管理方式至关重要，这将有助于判断与量化实际操作的有效性。一般的航空公司和机场通过处理中去除了不可靠的人为因素，都有机会提高效率，确保旅客身份，降低无法查获伪造文件与持有假证件的旅客的失误率，为旅客带来便捷而自由的旅行体验，协助旅行代理加快行前准备手续，优化机场资源与分配，移除飞行隐患人员为政府确保有效而安全的运输。但在生物技术的实施应用中仍存在相当大的潜在威胁。

航空公司和机场使用生物识别技术可能存在的问题，还需要通过不同相关单位统一的标准化程序、技术与数据，以确保全球通用性，满足数据保密要求，同时还要考虑到新的合法性问题，以及涉及保护个人隐私的法律问题，提高目前缺少的API应用程序界面，统一个人信息的保存周期，平衡商业与政府之间的需要，以及最为重要的，解决高投入所需的资金问题。

其中一个最值得商榷的问题，目前涉及成功注册的个人的生物统计数据，因为它是一个关键的先决条件，一个生物识别系统的存储模板的注册有效性根据航空客户的不同用途，可分为三种选择：按次注册，按人注册，全球性注册。

“按次注册”的个人生物数据备收集于每个单次旅程，并在航班起飞后删除。此概念的好处在于不会因数据储存而造成个人隐私问题。但此选择比较适用于非常飞旅客，而对于常飞旅客而言则因持续需要多次注册而带来不便。

“按人注册”的个人生物数据将存储于一个特殊装置中（例如：客户卡，公司身份识别证，单独的智能卡），可持续使用直至有效期届满。由于此选择在很大程度上满足了常飞旅客的需要，但每人注册只有一个有效期，除非相关单位联合使用，否则无法实

现联网使用。

最后一个选择是“全球性注册”，它允许个人生物信息被存储到常见可读文件中（如电子护照），并且可用于所有在旅行过程中所有需要身份识别的相关单位（航空公司，机场，政府机关）。从当局签发长期有效性及更多的信任允许在入境时的较为理想的核查，但文件持有者对个人隐私的侵犯也有着更高的可能性。

一般来讲，不同的注册方式各有其优缺点。但选择实施哪一个方案，将大部分取决于主管机构对数据安全的要求。

生物识别技术的前景展望

通过相关单位的贡献与合作，加上旅客检查点所需数据标准的和谐性，生物技术的应用可以简化旅客行程，并使得航空相关企业获得巨大利益。几个相关的项目和试验，已在不同国家，如美国，英国，澳大利亚，荷兰和瑞典等地的机场开始实施，这项技术将成为行业标准获得认可只是时间早晚的问题了。

Christophe Mostert

Christophe Mostert is Managing Partner of m2p Consulting which is a Management Consultancy company focused on the aviation industry with offices located in Frankfurt, New York and Dubai. With its dedication to the aviation industry, m2p has come to be regarded as a leader in Management Consulting, Professional Services and Outsourcing / Integration through providing its clients with leading edge strategic, operational and competitive advantage over the past ten years.

Christophe Mostert是在法兰克福，纽约和迪拜设有分公司从事航空事业的m2p顾问公司的合伙人。在过去的十年里，m2p顾问公司一直致力于航空服务事业，并已成为管理顾问、专业化服务与外包/一体化方面的引领者，为客户带来了胜人一筹的战略、运行与竞争优势。



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Xianyang Airport passes safety audit

西安咸阳国际机场顺利通过民航局首次安全审计

Xianyang International Airport in Xian City, Shaanxi, passed a safety audit conducted by the Civil Aviation Administration of China (CAAC).

This was the first safety audit conducted by the CAAC in northwest China after issuing CCAR-140 Civil Airport Operation Safety Management Regulations or CAAC Order 191.

The airport passing the audit means that it has reached international standards on safety management.

The safety audit was conducted by the CAAC to make compliance checks on airports, fuel and air traffic management units according to standards of the International Civil Aviation Organization (ICAO), national safety production rules and laws, civil aviation rules and other standards and regulations.

The audit, which lasted for five days, saw 33 auditors from the CAAC headquarters, CAAC Northwest Regional Administration and affiliated supervision offices and the CAAC Central South

Regional Administration conducting checks.

The audit group was formed into 10 subgroups. They focused on seven factors on safety audit and 10 aspects, including general safety, flight area safety, visual aid facility, apron safety, firefighting safety, emergency rescue, airport refueling, passenger transport, cargo transport and dangerous goods transport.

The group checked a total of 1,474 audit items and the compliance rate of the airport reached 96.96 percent.



西安咸阳国际机场安全审计顺利结束。此次审计是《民用机场运行安全管理规定》(CCAR-140) (民航总局令第191号) 颁布之后民航局对西北地区进行的首次安全审计, 咸阳机场因此成为今年西北地区首家通过审计的机场, 也意味着咸阳机场在安全管理上进一步与国际标准接轨。

民航安全审计作为国际性的安全工作, 是民航局依据国际民航组织标准和建议措施、国家安全生产法律法规及民航规章、标准和规范性文件, 对机场、油料、空管等单位进行符合性检查的安全监管行为。在此次为期5天的审计工作中, 来自民航局、民航西北地区管理局及辖区内4个监管办、民航中南地区管理局等共计33名审计员莅临进行审计工作。

审计组下设10个审计小组, 严格遵循审计有关程序、条款和要求, 分别采取听取汇报、查阅文件、现场检查、问卷调查等形式, 通过对安全审计7项审计要素, 综合安全、飞行区安全、目视助航设施、机坪安全、消防安全、应急救援、机场供油安全、旅客运输、货物运输、危险品运输等10方面内容进行了审计, 共完成审计项目1474项, 项目符合率达到96.96%。

Six airlines transfer to Beijing Airport's T2

海南航空公司转场首都机场1号航站楼

Six airlines under the Hainan Airlines Group transferred operation to Terminal 2 to Terminal 1 at the Beijing Capital International Airport on.

But the international flights and Hong Kong, Macau and Taiwan flights of Hainan Airlines, Grand China Airlines, Deer Jet and Grand China Express will still operate at Terminal 2.

The transfer of operations to Terminal 1 will reduce the check-in procedure of passengers from 30 minutes to 20 minutes. Passengers can also finish flight transfer in the airport within one hour.

BCIA's Terminal 1 has 13 air bridges, which can handle about 10 million passengers per year.

Today Hainan Airlines occupies 13-14 percent share of the Beijing air transport market.

For the transfer, the Beijing Airport retrofitted facilities according to the requirements of Hainan Airlines by removing shops and expanding space for passengers.

海南航空集团旗下的海南航空股份有限公司、大新华航空有限公司、金鹿航空有限公司、大新华快运航空有限公司从2号航站楼转场到1号航站楼运营, 其中国际航班和港、澳、台航班仍在2号航站楼运营。

海航转场1号航站楼后, 旅客办理乘机手续的截止时间由原来航班起飞前的30分钟缩短为20分钟, 首件行李可在15分钟内到达, 旅客可在60分钟内完成楼内航班中转。

1号航站楼拥有13座登机廊桥, 可满足1000万人次的旅客年吞吐量, 而目前海航已经占据北京航空运输市场份额的13%—14%, 单独使用1号航站楼将给海航发展带来更大的便利。据了解, 针对海航转场, 首都机场股份公司根据海航要求对楼内的设施进行了改造, 并拆除了部分商铺, 扩大了旅客活动的空间。

Reetek gains maintenance training certificate

瑞达航空技术培训中心获得CCAR-147合格证书

The Reetek Aviation Technical Training Center (RATA) was awarded the CCAR-147 maintenance training organization certificate issued by North China Regional Administration of the Civil Aviation Administration of China.

RATA is the first general aviation maintenance training organization of North China Regional Administration of the CAAC.

The certification of training qualification will have an impact on regulating general aviation maintenance training standards, cultivating qualified general aviation maintenance personnel, and improving general aviation maintenance quality.

RATA's affiliate, the Reetek United Aircraft Maintenance Engineering Co. Ltd., is the authorized domestic maintenance center of Canada and Austria Diamond Aircraft Industries Inc.

The company adopted advanced computer maintenance management software in domestic general aviation maintenance area, which can satisfy various customer requirements and operation modes.

Before it sent its application to the NCRA, RATA focused on fulfilling the requirements, including the current situation of general aviation, aircraft types, training and capability of its maintenance personnel.

RATA passed examination by the NCRA after almost one year of preparation.

In the future, RATA will provide aircraft type (including helicopter and home-made types) course development and training, general aviation practitioners' maintenance management training and basic maintenance training.

General aviation maintenance training will be included according to CCAR-147 regulations.



瑞达航空技术培训中心获得了民航华北地区管理局颁发的CCAR-147培训机构合格证书，至此，瑞达航空技术培训中心（RATA）已成为民航华北地区管理局首家通用航空维修培训机构。该培训资质的认证，对于规范通用航空维修培训标准，培养合格的通用航空维修人员，提升通用航空维修质量将发挥积极的作用。

瑞达从成立之日起，就将自身定位在通用航空领域，目前，瑞达旗下的瑞达联合飞机维修工程有限公司，已经获得了加拿大和奥地利钻石飞机制造公司指定的国内授权维修中心，并在国内通航维修领域内率先使用了先进的计算机维修管理软件，能够满足不同种类的客户需求和运营模式，为开创现代通航维修管理理念和维修水平积累了丰富的经验。

在维修实际工作中，瑞达有感于通用航空机型多、培训少、维修人员力量薄弱的现状，筹建了瑞达航空技术培训中心，并向民航华北地区管理局递交了建立通用航空维修培训机构的申请，在经过近1年的充分准备后，于今年六月通过了民航华北地区管理局的审定。

瑞达航空技术培训中心今后将主要为国内通用航空公司提供机型（包含直升机、国产机型）课程开发和培训、通用航空维修从业人员的维修管理培训和维修基础培训，将通用航空的维修培训纳入到符合CCAR-147规章规定的标准内，并不遗余力地提升通航维修从业人员的业务素质。

Taiyuan Airport's T2 completed

山西太原武宿国际机场改、扩建工程28日竣工

The retrofit and expansion of the Taiyuan Wusu International Airport was completed on schedule.

A ceremony marking the completion of the project was held in front of the newly constructed Terminal 2 building of the airport.

The project was begun in March 2006 as a key project of Shanxi Province in time for the Beijing Olympics. The project cost is about RMB 1.57 billion. The expansion project consisted of a new terminal building with an area of 55,000 sq. m., extending the runway and taxiway and widening of the runway and taxiway shoulders, and upgrading the flight area from 4D to 4E to accommodate large aircraft including the A380.

A new apron was also constructed with an area of 210,000 sq. m., adding 18 aircraft parking stands consisting of 12 contact stands and six remote stands.

太原武宿国际机场新建的二号航站楼前花团锦簇、彩旗招展，太原机场改扩建工程竣工仪式在这里隆重举行。

山西省的重点工程，2006年3月26日正式开工。改扩建工程共投资15.7亿元。主要建设内容包括：新建一座5.5万平方米的航站楼；将原有跑道及滑行道延长至3600米，并加宽跑道及滑行道道肩，飞行区等级由4D升格为4E级，可满足当前最大机型空中客车A380等飞机的备降要求；新建站坪21万平方米，增加机位18个，其中近机位12个，远机位6个。



Kelamayi Airport undergoes security audit

新疆管理局完成对克拉玛依机场航空保安审计

The Security Audit Group of the Xinjiang Administration under the Civil Aviation Administration of China audited nine areas of Kelamayi Airport, including organization and management, passengers, baggage handling and security.

Xinjiang Airport Group Co., Kelamayi City, and Kelamayi Airport invested capital to retrofit and upgrade security facilities and equipment of the Kelamayi Airport. Trainings on aviation security were provided to staff and units stationed at the airport.

新疆管理局保安审计组一行五人依照国家民用航空保安规划的要求对克拉玛依机场的组织机构和管理、旅客和手提行李、保安等九个方面的工作进行了全面的审计。新疆机场集团公司、克拉玛依市以及克拉玛依机场对此次审计工作高度重视，投入了大量的资金对克拉玛依机场的安防设施设备进行改造升级，并对全体员工以及驻场单位多次进行了航空保安知识全面的培训，克拉玛依机场安全保卫整体水平得到了很大的提高。

Expansion of Nanning Wuyu Airport approved

南宁机场飞行区扩建工程可行性研究报告获批

China's National Development and Reform Commission and the General Staff of the People's Liberation Army has approved the feasibility report for the expansion of the Nanning Wuyu International Airport flight area.

A new runway with a length of 3,200 meters and a width of 45 meters will be built east of the current runway to accommodate Class E type aircraft.

There will be a Class I precision approach lighting system installed at each end of the runway. The current runway will be retrofitted as a parallel taxiway and be extended 500 meters to the north.

There will also be three rapid exit taxiways and five vertical connection ways that will be established between the runway and taxiway. The new apron will occupy 29,360 sq.m. with 18 aircraft parking stands. Two control positions will be added to the air traffic management building.

The airport's runway takeoff line tower facility will be moved and an ATC automatic system installed.

The navigation station will be moved to the south end of the new runway and the DVOR and DME equipment will be upgraded. A set of automatic weather observation systems will be upgraded and airport patrol road, fence, drainage and firefighting facilities will be established.

The approved project cost is RMB 624 million.

The expansion of the flight area is a key project of the Guangxi Zhuang Autonomous Region.

The project will provide the opportunity for the Nanning Wuyu Airport to establish an international hub airport facing the Asean region.



日前，南宁吴圩国际机场飞行区扩建工程可行性研究报告获国家发展和改革委员会、中国人民解放军总参谋部正式批复。

根据《批复》要求，本期工程建设规模为：按照满足E类飞机使用要求，在南宁吴圩国际机场现跑道东侧190米处新建一条跑道长3200米，宽45米，两侧道肩各宽7.5米，跑道两端均设I类精密进近灯光系统。将现有跑道改造为平行滑行道并向北延长500米，跑道与滑行道之间新建3条快速出口滑行道和5条垂直联络道。新建站坪面积29360平方米，停机位18个，在航管楼内增设2个管制席位，配套内话和记录仪，搬迁跑道起飞线的塔台设施，配置空管自动化系统，搬迁导航台至新建跑道南端并更新DVOR和DME设备，更新一套气象自动观测系统，配套建设巡场路、围界、排水、消防等设施。批复项目总投资62400万元。

南宁吴圩国际机场飞行区扩建工程是广西壮族自治区层面的重点工程，同时也是自治区成立50周年大庆项目。该项目建成投入使用对南宁吴圩国际机场建成面向东盟的国际门户枢纽机场，提升南宁市作为区域性国际交通枢纽城市，促进广西对外合作开放具有十分重大的意义。

Shanghai Pudong's T1 up for renovation

上海浦东国际机场一号航站楼将进行升级改造

With the Terminal 2 of Shanghai Pudong International Airport operational since March, the retrofit of Terminal 1, which has been used for several years, will be implemented.

The Shanghai Municipal Political Consultative Conference on Measures of Shanghai Hub Airports to Handle Passenger Traffic Peak during World Expo 2010 was held.

China Eastern Airlines disclosed that the airline and Shanghai Airport have drafted a plan for the retrofit of T1, including expanding and retrofitting the boarding corridor and increasing the rest area.

Terminals 1 and 2 will follow the same hub operation standards. After the retrofit project, the systems and facilities of T1 will be the same as T2.

(Continued on page 23)

Air China has new FFS

国航首台A330/340
全任务模拟机投入训练

The A330/A340 Full Flight Simulator of Air China was put into operation at the Flight Training Center Department of the airline. The A330/340 FFS is the first Airbus series simulator introduced by Air China.

Vice President Song Zhiyong of Air China said that currently Air China has 62 Airbus aircraft including A319, A320, A330, and A340, occupying 35 percent of the total fleet.

The operation of A330/340 FFS, together with the A320 simulator of Air China Southwest Branch, can provide 6,000 hours of training yearly.

中国国际航空公司A330/340全任务飞行模拟机是国航总部引进的第一台空客系列飞机模拟机在国航培训部飞行训练中心正式投入训练运营。

据国航副总裁宋志勇介绍，目前国航拥有空客319、320、330、340机型62架，占整个机队的35%，空客330/340模拟机的投入使用，与国航西南分公司的320模拟机形成了国航的空客培训系列，能满足每年6000小时的培训时间，培训项目包括初始训练、复训、改装训练等。



Hohhot Baita Airport upgraded

呼和浩特白塔国际
机场升级为4E级机场

The flight area of the Hohhot Baita International Airport was upgraded from 4D grade to 4E. The airport can accommodate large aircraft such as the B747 and even the landing of the A380, today's largest aircraft.

After two years of expansion, the airport passed the acceptance examination by the Civil Aviation Administration of China in June.

The airport's runway is now 3,600 meters long and the new terminal building has an area of 54,499 sq. m. and can handle about 3 million passengers a year.

The new airport apron has an area of 320,000 sq.m. and can accommodate the parking of 32 aircraft simultaneously.

呼和浩特白塔国际机场日前正式由4D级升级为4E级机场。升级后的白塔国际机场具备了接收大型飞机的条件，可接收B747同类及其以下机型，同时可满足目前世界上最大型飞机A380的备降。

白塔机场经过两年多的扩建，已于2007年6月通过了国家民航行业部门的验收。扩建后的白塔机场跑道长3600米，新航站楼建筑面积54499平方米，可满足年吞吐旅客300万人次的使用要求。机场站坪总面积32万平方米，可供32架飞机同时停放。经过扩建，白塔机场等级达到了4E级标准，并得到了中国民航局的批准。



Lease expires for China Eastern's three aircraft

东航山西三架B737-300
飞机退租工作正式启动

Three B737-900 Boeing aircraft of China Eastern Airlines Shanxi Branch will be returned to GE Commercial Aviation Services (Gecas) after the lease expired this year.

The lease of the three aircraft -- the first group of B737 series aircraft introduced by the China Eastern branch between May and July in 1997 -- expired in May, June, and July of this year.

The Aircraft Maintenance Department of China Eastern Airlines Shanxi Branch held a mobilization meeting for the off-lease work for the three aircraft.

东航山西分公司执管的三架波音737-300型飞机B-2977、B-2978、B-2979号将分别到达租赁期限，届时，该三架飞机将退还给美国通用电气商业航空服务有限责任公司（GE Commercial Aviation Services，简称“GECAS”）。

上述三架飞机是东航山西分公司第一批引进的三架波音737系列飞机，分别引进于1997年5月至7月。加入东航山西分公司机队后，它们曾为分公司改善空中环境、提升服务品质、树立分公司良好的社会形象立下了汗马功劳。如今，它们即将离开分公司，踏上它们飞行“生涯”中的另一段航程。

东航山西分公司飞机维修部召开B-2977、B-2978、B-2979飞机退租启动工作动员会，正式启动了这三架飞机的退租工作。

(Continued from page 22)

Under the plan, the number of air bridges will be increased from 28 to 33-35, and the air bridge passage will be renovated.

The central garden area of T1 will be combined with the connecting corridor to construct a new area. It is estimated that each floor area will increase by 7,000 sq.m. for the VIP lounge area and transfer area.

自今年3月上海浦东国际机场二号航站楼（T2）投入运营后，服役多年的一号航站楼（T1）的改造也被提上日程。在上海市政协“上海航空枢纽港应对世博会期间客流高峰的举措”重点视察中，中国东方航空股份有限公司（China Eastern Airlines Corporation Limited，简称“东航”）透露，已与上海机场方面就一号航站楼适应性改造拟定了方案，包括改扩建登机长廊，增加休息区等。

东航表示，已和上海机场方面就上海浦东国际机场一号航站楼适应性改造取得了共识，一号航站楼和二号航站楼将遵循相同的枢纽运营标准，改造后的一号航站楼在软硬件方面将不低于二号航站楼的水准，部分设施还将超越二号航站楼的水准。根据目前正在拟订的改造方案，一号航站楼将改扩建登机长廊，廊桥数量由现在的28个增加到33至35个；对廊桥口进行改造，将出发旅客与到达旅客分流；一号航站楼的中心花园区域将与连接廊合并建设新区域，预计届时每层将增加面积约7000平方米，用于贵宾休息区、中转区等。

Nanjing Lukou Airport to undergo expansion

南京禄口机场扩建工程获准立项 将启动实施

The retrofit and expansion project of the apron and terminal building areas of Nanjing Lukou Airport has gained approval from the Jiangsu Provincial Development and Reform Commission.

The estimated project cost is RMB 361 million, which will cover a new apron area where 20 aircraft parking stands will be added.

The baggage conveyor system will be increased and the international ticket hall building will be retrofitted.

In addition, the domestic connecting corridor will be expanded and the domestic waiting hall including the ticket counter and domestic safety inspection areas will be renovated.

The expanding project will be finished by 2012. After the expansion, the Lukou Airport will increase its passenger capacity to 15 million and cargo and mail volume to 400,000 tons annually.

南京禄口国际机场的停机坪、航站区改扩建工程已获江苏省发展和改革委员会批准立项，不久将启动实施。

南京禄口国际机场停机坪、航站区改扩建工程预计投资3.61亿元，包括新建一个停机坪，增加20个停机位，增加行李传输线系统，改造国际办票厅用房，扩建国内连廊及改造中庭花园、办票岛、国内安检区等国内候机厅，增加远机位候机厅，扩建停车场等。扩建工程以2012年为目标年。此次扩建后，禄口机场将可以满足年吞吐旅客1500万人次、货邮40万吨的需求。



FedEx cargo hub passes inspection

白云机场联邦快递转运中心场所区工程通过竣工验收

The FedEx Asia Pacific hub at Baiyun International Airport passed the completion acceptance inspection by civil aviation agencies, provincial and municipal governments and experts.

Vice Mayor Gan Xin of Guangzhou City, the location of the hub, attended the acceptance ceremony.

In addition, FedEx's flight area project was inspected for acceptance in the second half of July.

FedEx started the hub at Baiyun Airport in July 2005. It is the largest base of FedEx in Asia Pacific outside the United States.

The hub is located at the east side of the east runway of Baiyun Airport, occupying an area of 2,451 mus. The project was designed to accommodate a daily parcel throughput of 179,000 pieces, an express parcel and cargo throughput of 1,823 tons, and a daily parcel sorting volume of 125,000 pieces by 2020.

FedEx Asia Pacific Hub is a large aviation cargo transport project of Guangdong Airport Management Group Co.

The project was constructed by Guangdong Airport Management and leased by FedEx.

白云国际机场联邦快递亚太转运中心场所区工程接受了来自民航、省市相关部门和专家的严格检验，顺利通过竣工验收。广州市副市长甘新出席了验收会议并作讲话。7月中下旬还将进行飞行区工程的验收，这标志着联邦快递亚太转运中心工程将全面竣工。

联邦快递亚太转运中心2005年7月正式落户白云机场，这是联邦快递公司除美国本土之外设在亚太地区最大的基地，也是中国首次设计建设的大型自动化快递枢纽工程，其主体建筑及工艺自动化程度已达到国际顶级水平。

转运中心位于白云机场东跑道东侧，占地面积2451亩。工程按2020年日平均快件吞吐量17.9万件、快件及货物吞吐量1823吨、快件日分拣量12.5万件设计。项目建设分场所区和飞行区两部分。

联邦快递亚太转运中心是广东省机场管理集团公司第一次与外方合作建设的大型航空货运项目，也是联邦快递公司在本土以外第一次直接参与建设的项目，采用由广东省机场管理集团公司投资建设、建成后由联邦快递公司租用的模式。

Deer Jet to establish FBO

金鹿公务航空在海航北京基地建公务机 FBO

Deer Jet establishes a business jet FBO at Hainan Airlines' Beijing base. Deer Jet takes it as a base to explore the market and develop several operations, such as domestic and foreign business-chartered flights, management, and business jet agents.

The Beijing FBO includes three parts: business jet terminal building, apron and hangar. The terminal building is including an office area and support facilities for business jet services such as lounge for clients, multifunction meeting room and joint inspection passage.

The construction scales of the apron and hangar can satisfy the fleet plan for business jets in the next 15 years.

金鹿公务航空在海航北京基地建设公务机FBO，将其作为市场拓展的根据地，开展国内外公务包机、执管、公务机代理等多项业务，也是一种适应新趋势的体现。

北京FBO主要包括公务机候机楼、停机坪和机库三个部分。其中候机楼中包括办公区域和提供公务机服务的配套设施，如为客户提供舒适的休息室，多功能会议室以及快捷的联检通道等，停机坪和机库的建设规模则可满足公务机未来15年的机队规划。

Kun Peng Airlines orders 5 Embraer 190 jets

EMBRAER将向鲲鹏航空出售五架E-190喷气飞机

Embraer (Empresa Brasileira de Aeronáutica S.A.) and Kun Peng Airlines Co., one of the main operators in the Chinese regional aviation market, signed a contract for five firm orders for the Embraer 190 jet, marking an important expansion of Embraer's presence in mainland China. The total value of the agreement is USD 187.5 million at list price.

Headquartered in Xi'an City, Kun Peng Airlines is a joint venture between China's Shenzhen Airlines and the Mesa Air Group from the United States, with the Chinese company holding the larger share.

Since its start-up in September 2007, Kun Peng already has more than 20 routes in operation. The new Embraer 190 of the Chinese airline will be configured with 98 seats in a comfortable dual-class layout, with the first delivery scheduled for 2008.

巴西航空工业公司与中国支线航空之一鲲鹏航空有限公司 (Kunpeng Airlines Co., Ltd., 简称“鲲鹏航空”) 签署了五架E-190喷气飞机的购买协议, 这标志着巴西航空工业公司在中国内地的业务又迈出了重要的一步。这笔合同的目录总价格为1.875亿美元。

鲲鹏航空有限公司的总部位于西安市, 它是中国深圳航空公司和美国梅萨航空集团共同组建的合资企业, 其中中方持有大部分股份。自2007年9月投入运营以来, 鲲鹏航空已经累计开通了20多条运营航线。鲲鹏航空所购买的E-190喷气飞机采取舒适的98座两级布局, 首架飞机的交付时间预计为2008年。



Tianjin airport's second runway to be built

天津滨海机场第二跑道工程获国家发改委批准

The National Development and Reform Commission approved the feasibility report for the second runway project of the Tianjin Binhai International Airport. The project is the airport's support of the Airbus A320 final assembly line located in Tianjin.

The second runway will have a flight area grade of 4E, a length of 3,200 meters and a width of 45 meters.

The parallel taxiway will be 3,200 meters long and 23 meters wide and will be established on the west side of the second runway.

A new air traffic control building will be built with an area of 5,000 sq.m.. Total investment for the project is RMB 1.454 billion.

天津滨海国际机场第二跑道建设工程可行性研究报告获得国家发改委批准, 该工程是A320飞机总装生产线合资项目的机场配套工程。主要建设规模: 飞行区等级指标为4E, 新建长3200米、宽45米的第二条跑道; 第二条跑道西侧建设长3200米、宽23米的平行滑行道; 新建航管楼5000平方米; 该项目总投资14.54亿元。

China Southern honored with safety award

南航荣获中国民航局颁发的安全最高等级奖

The Civil Aviation Administration of China, through Minister Li Jiaxiang, has honored China Southern Airlines with a Five-Star Flight Safety Award.

The award, handed out in Guangzhou, distinguished Southern Airlines as the airlines with the highest safety record in the country.

Through June 16, 2008, China Southern Airlines has recorded 169 consecutive months of safe flight operations, accumulating 5 million hours and carrying 250 million passengers.

The company's safety management not only leads the Chinese aviation industry but is one of the best in the world.

中国民用航空局局长李家祥在广州为中国南方航空公司颁发了“中国民航飞行安全五星奖”, 以表彰南航成为国内安全星级最高、实现安全周期最长的航空公司。

2007年, 南航客运量接近5700万人次, 位居全球第四、亚洲第一。截至6月16日, 南航已经累计安全飞行了500万小时, 连续保证了169个月的空防安全纪录, 安全运输旅客2.5亿人次, 安全管理水平已经跻身于国际先进之列。



IFSDs tackled in Beijing

CFM56发动机空中停车专题技术讨论会在京召开

Faced with more in-flight shutdowns (IFSD) that occurred in China, the Flight Standard Department of the Civil Aviation Administration of China (CAAC) invited representatives from airlines and GE Aviation to a technical symposium to establish preventive measures.

Representatives from the Supervision Office of the Xinjiang Administration of the CAAC and the Center of Aviation Safety

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Technology (CAST) also attended the symposium.

Among the approximately 32 persons who were present at the meeting were representatives from the Flight Standard Department, Aircraft Airworthiness Department, and technicians from 13 airlines including Air China.

针对近期国内空中停车故障较多的情况，飞标司为切实做好安全工作，制定有效预防措施而邀请各航空公司和GE公司代表在北京召开了专题技术讨论会，新疆管理局监管办和安技中心参加了此次会议。民航总局飞行标准司、航空器适航审定司、新疆管理局监管办、安技中心工程师、国航等13家航空公司工程技术人员和GE公司代表共32人出席了此次会议。



Wuhai Airport expansion project now finished

乌海机场扩建工程竣工 成功试飞波音737飞机

The expansion project of Wuhai Airport in Inner Mongolia was finished in July after two years of construction. A Boeing 737-800 held a test flight to the airport to symbolize the airport's completion. The expansion project started in September 2006 cost RMB 26.5 million. The project covered the runway, apron, airport patrol road, fence, visual aid light, power supply and instrument landing system.

Upon completion of the expansion project, the runway is now 2,600 meters long and the apron area increased to 23,350 sq. m., paving the way for the landings and takeoffs of large aircraft such as the B737-800.

The expansion project passed calibration by the Flight Inspection Center of the Civil Aviation Administration of China on flight program and minimum landing standard.

进行了为期近两年的扩建后，乌海机场扩建工程正式完工，当天下午成功试飞了波音737-800型飞机。

乌海机场飞行区扩建工程始建于2006年9月，工程概算总投资为2650万元。扩建工程主要包括跑道、站坪、巡场路、围界、助航灯光、供电工程及仪表着陆系统。扩建工程完成后，跑道长度达到2600米，停机坪面积达到23350平方米，可起降波音737-800型飞机。该工程4月21日通过了国家民航飞行校验中心飞行程序、最低着陆标准的校验。

Cargo volume at Tianjin Airport up by 33%

天津滨海机场国际航空货运量同比增长达33%

The number of domestic and international airlines operating freighter flights at Tianjin Binhai International Airport has increased to 13 as international cargo volume increased by the first of the year.

International cargo flights were opened from Tianjin to Frankfurt, Amsterdam, Manchester, and Seoul by Jade Cargo International Airlines, Great Wall Airlines, Grandstar Cargo, and Yangtze River Express.

International air cargo transport volume at Tianjin Binhai International Airport totaled 46,000 tons from this January to this June, an increase of 33 percent compared to the same period last year.

Freighter transport volume increased by 39.1 percent on year-on-year, or more than 50 percent of the whole cargo throughput of the airport.

Tianjin Airport is one of the domestic cargo transport centers established by the Civil Aviation Administration of China.

Freight flights were opened from Tianjin to Europe, North America, East Asia, and Central Asia. Weekly flights to Seoul reached 14 flights, while weekly flights to Amsterdam and Frankfurt reached seven and six, respectively.

随着翡翠国际货运航空有限责任公司 (Jade Cargo International Airlines Co., Ltd.)、长城航空有限公司 (Great Wall Airlines Company Limited)、银河国际货运航空有限公司 (Grandstar Cargo, 简称“银河货运”)、扬子江快运航空有限公司 (Yangtze River Express) 等货运航空公司相继开通天津至法兰克福、阿姆斯特丹、曼彻斯特、首尔等国际货运航线，在天津运营全货机航线的国内外航空公司已增至13家。天津滨海国际机场国际航空货运量呈现大幅增长态势，上半年累计完成国际货量4.6万吨，同比增长33%，其中全货机货量同比增长39.1%，占机场全部货量的50%以上。

据了解，天津滨海国际机场是中国民用航空局 (Civil Aviation Administration of China, 简称“民航局”) 确定的全国民航货运中心之一，多年来一直致力于发展航空物流业务。

目前，天津滨海国际机场货运航班已经通达欧洲、北美和东亚、中亚等地，其中飞往首尔每周达到14班，飞往阿姆斯特丹每周达到7班，飞往法兰克福每周达到6班。



Tianjin Airport has seen a dramatic increase in cargo volume as compared to the same time period of the previous year.

Construction of Yichun Lindu Airport starts

伊春林都机场主体工程开工建设 投资2.6亿元

A ceremony marking the start of the construction of the Yichun Lindu Airport in Heilongjiang Province was attended by city officials.

The domestic regional airport is located within the authority of the Yilin Operation Station of the Wumahe Forestry Bureau.

Once completed, the airport will have a flight area grade of 4C. A total of RMB 266.5 million will be spent for the project.

Among those who attended the ceremony were Mayor Wang Aiwen of Yichun; Geng Yizhi, standing committee member of the Yichun Party Committee; Zhang Weiguang, vice director of the standing committee of the Yichun Municipal People's Congress; Lin Hongkun, vice director of the Yichun Forestry Management Bureau; Jiang Haitao, vice chairman of the Yichun Municipal Political Consultative Conference; and chiefs of various departments.

伊春林都机场主体工程正式开工。林都机场建设地点位于乌马河林业局伊林经营所境内，该机场为国内支线机场，飞行区等级为4C，总计划投资为2.665亿元。

伊春市长王爱文，市委常委、政法委书记耿意志，伊春市人大常委会副主任张伟光，伊春市林管局副局长林宏坤，伊春市政协副主席姜海涛及相关部门的负责同志出席开工仪式。

Shijiazhuang Zhengding Airport now an international airport

石家庄机场新候机楼正式启用

The Hebei Province Information Office and Hebei Airport Management Holding Co. held a press conference to announce the opening of the new terminal building of the Shijiazhuang Zhengding Airport and renamed it the Shijiazhuang Zhengding International Airport.

The opening of the terminal building was announced by Ma Yaozong, press officer of the holding company.

The retrofit and expansion of the airport is a support project to the 2008 Beijing Olympic Games. Costing RMB 500 million, it is a key project of Hebei civil aviation.

The expanded terminal building, with an area of 55,500 sq.m., is designed to handle an annual cargo and mail throughput of 120,000 tons; 31,600 aircraft movements every year; and a yearly passenger volume of 2.3 million. At peak hours, passenger capacity will be increased from 900 to 1,500. Air bridges will be increased to eight and the flight area grade will become 4E, which can accommodate the landings and takeoffs of B747 and A380 wide-body aircraft. The firefighting grade will be upgraded from 6 to 8.

河北省政府新闻办公室和河北机场管理集团在石家庄正定机场召开新候机楼启用暨更名国际机场新闻发布会，河北机场管理集团新闻发言人马耀宗宣布，石家庄国际机场新候机楼正式启用。同时石家庄正定机场更名为石家庄正定国际机场。

石家庄国际机场奥运改扩建工程是2008年北京奥运会重要保障工程，是河北省民航基础设施建设的重点项目，总投资5亿元，主要内容为改扩建5.55万平方米候机楼，设计年货邮吞吐量12万吨，年起降架次31600次，年旅客吞吐量230万人次。高峰小时旅客吞吐量由目前的900人次提高到1500人次，登机廊桥增至8个，飞行区等级由4D达到4E级标准，可以满足波音747、空客380等宽体飞机的起降。消防等级由6级提升到8级。

Commission issues report on state-owned enterprises

南航集团首度晋升为A级央企

The China State-owned Assets Supervision and Administration Commission issued the 2007 evaluation result for enterprises directly under the central government.

The report says that China Southern Airlines has gained a profit of RMB 2.92 billion in 2007 and that the rate of return on common stockholders' equity reached 26 percent. The airline was upgraded to a Class A enterprise, becoming one of five new enterprises directly under central government to be upgraded.

This is the airline's successful upgrading from Class C in 2005 and Class B in 2006. It was reported that there are a total 40 enterprises directly under central government that were evaluated as Class A enterprises, occupying 26.32 percent of central-level enterprises.

近日，国资委公布了2007年度中央企业考核结果，中国南方航空集团公司因2007年大幅赢利29.2亿元，净资产收益率达26%，首度晋升A级企业，成为新晋A级的5家央企之一。这也是该集团自2005年排位C级、2006年升至B级后再次升级，成功实现三年“三级跳”。据悉，2007年度共有40家央企获评A级，占央企的26.32%。

Digital ATM system implemented

民航数字空管集成系统正式投产运行

The Civil Aviation Digital Air Traffic Management Integrated System was formally operated at Dalian Airport, Qingdao Airport, Hangzhou Airport, Shenzhen Airport and Haikou Airport. The system will greatly improve flights release speed and information service capability, enhance air traffic management operation efficiency, and effectively avoid flight delays by air traffic flow control.

Director Su Langen of the Air Traffic Management Bureau of the Civil Aviation Administration of China said that this was another important measure of the civil aviation air traffic management department to implement measures during the Olympic Games. Su said the new system consists of the PDC (Pre-Departure Clearance) and D-ATIS (Digital Automatic Terminal Information Service). The system is one of the key projects to be established during the 11th Five-Year Plan under the China air traffic management.

This technology turns flight departure clearance and flight terminal information service from manual handling to digital.

民航数字空管集成系统将在大连、青岛、杭州、深圳和海口机场正式投产运行，这将大幅提升航班放行速度和信息服务能力，提高空管运行效率，有效避免因空中流量管制而造成的航班延误。

中国民用航空局空管局局长苏兰根表示，这是民航空管部门为实现奥运期间民航“安全、顺畅、正点、高效”目标的又一重要举措。

苏兰根介绍，民航数字空管集成系统包括数字化起飞前放行（PDC）和数字化自动航站情报服务系统（D-ATIS），是我国空管“十五”建设的重点工程之一。这一技术将航班起飞放行和航站情报服务由人工处理转为数字化处理，在提高管制员和飞行员工作效率的同时，增强了信息传递的安全性。

Changbaishan Airport now operational

长白山机场竣工投入使用

Changbaishan Airport in Jilin Province has begun operation.

The regional airport is a key project of Jilin Province under the 11th Five-Year Plan. The construction of the airport was funded by the Civil Aviation Administration of China, Jilin Province and Capital Airports Holding Co. at a cost of RMB 549.9 million.

The airport was designed to handle 540,000 passengers, 1,080 tons of cargo and mail and 9,407 aircraft movements by 2015.

Changbaishan Airport has a flight area grade 4C that can accommodate the landings and takeoffs of B737 and A320 aircraft. The airport runway is 2,600 meters long and 45 meters wide.

Its terminal building has a total area of 8,690 sq. m. There are two air bridges and six aircraft stands.

Support facilities will be established such as the air traffic control, navigation, weather, communication, visual aid light, freight and terminal service.

我国首个森林旅游机场——长白山机场竣工并投入使用。

长白山机场是吉林省“十一五”期间重点工程，由国家民航局、吉林省政府和首都机场集团公司共同投资建设。长白山机场为国内支线旅游机场，本期工程是以2015年旅客吞吐量54万人次，年起降飞机9407架次，年货邮吞吐量1080吨的预测航空业务量为依据设计，建设规模为：飞行区飞行等级4C，可满足B737、A320等飞机的起降要求，机场跑道长2600米，宽45米，航站楼总面积8690平方米，2座登机桥，共6个停机位。同时建设有相应的航管、导航、气象、通信、助航灯光、货运、站区保障等配套设施。工程总投资54990万元。

Xiamen Airlines gets new B737-800

B-5383加盟 厦航机队迎来第20架波音737-800

The Boeing Co. delivered Xiamen Airlines' fourth B737-800 (with registry number B5383) at Xiamen Gaoqi International Airport.

This is the airline's 20th B737-800 aircraft, the 47th in its entire fleet.

It was put into operation on August 11 with a flight between Xiamen and Nanjing. The new aircraft will be used for other routes in the future to increase the passenger capacity of Xiamen Airlines.

Besides adding a new aircraft, Xiamen Airlines is adding more flights and making Fujian Province a convenient gateway between Southeast Asia and China.

厦门航空有限公司（Xiamen Airlines Ltd.，简称“厦航”）从波音公司引进的第四架波音737-800（中国国籍登记号：B-5383号）抵达厦门高崎国际机场，厦航机队迎来第20架波音737-800型飞机。至此，厦航机队的飞机总架数增加至47架。

据了解，这架注册号为B-5383的新飞机抵达的第二天，即投入首航厦门——南京航班的运营中。此后，该机还将执飞其它航线，为厦航安全、正点的运营提供充足运力保障，也为广大旅客出行提供更多便利。

随着新飞机的引进，厦航不断完善航线网络、丰富航班，努力实现向地区性、多基地航空公司的过渡，积极构建使福建成为东南亚往来中国的便捷通道。





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