



China Civil Aviation Report

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**Mineta San Jose International Airport:
The First U.S. Airport of the 21st century**
圣荷塞国际机场，美国21世纪的第一个新扩建机场
—期待凤凰的梧桐树

Introduction of China's Civil Airports
中国民用机场介绍

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扩大飞行员的来源才是解决之道

近年来，随着中国航空业的迅速崛起，飞行员紧缺的问题日益突出。由此带来一系列问题：飞行员成为各航空公司争相夺取的资源、飞行员跳槽赔付额度高、官司不断等等。

为稳定飞行员队伍、保障飞行安全、维护公共利益，8月份，民航华东局修订实施了《民航华东地区飞行员流动管理暂行办法》。

在航空发达国家，很多民航飞行员由通用航空的驾驶舱开始其飞行的生涯。这种模式的优点是，大量的飞行员可供航空公司雇用，使航空工业可以匹配经济的发展而扩充。中国飞行员培养一直都沿用由航空公司掏钱定向培养的方式，而这种机制既难以完成人才储备，也难以形成自由流动的市场。在中国稳坐国际民用航空第二大国的時候，建设通用航空产业来培养飞行人才就已成当务之急。

所以，尽快开放低空，发展通用航空，激发大众对飞行的热情，去体验飞行，感受飞行的乐趣，培养通用航空飞行员，为民航做飞行员储备，不失为一个解决飞行员问题的有效方法。实施暂行办法和扩大飞行员基数同步进行才是上上之策。

To Expand the Source Should be the Way out

In recent years, as China's aviation industry rose abruptly, the problem of the shortage of pilots is getting worse day by day, which brings out a series of matters, such as pilots being despoiled by every airline, a big sum of money to be paid by pilots who decide to switch jobs and ceaseless lawsuits and so on.

To stabilize the team of pilots, to guarantee flight safety and to maintain the commonality, in August 2011, the CAAC's East China Regional Administration revised and implemented the Interim Procedures for Managing the Pilots Flow in the CAAC's East China Area (hereinafter referred to as the Interim Procedures).

In aviation-developed countries, many civil aviation pilots start their flight career in general aviation. The advantage of this model is that many of the general aviation pilots can be hired by airlines and upgraded to a commercial pilot's license and the aviation industry can match the development of the economy. China has always adopted the orientation training method, that is, the airline pays to train its pilots. The flaw with this system is that the airlines alone cannot create the amount of talent needed to sustain the entire industry, and there is no room for pilots to freely move from job to job. In an era where China is the world's second largest aviation country, it is the highest priority for China to successfully develop general aviation to train the necessary amount of pilots to maintain their needs.

Therefore, to open up the low altitude airspace as soon as possible in order to develop general aviation and to arouse the public's passion for flying may be the best answer for this pilot shortage problem.



Francis Chao 赵嘉国
Publisher 发行人

Mineta San Jose International Airport: The First U.S. Airport of the 21st century 圣荷塞国际机场，美国21世纪的第一个新扩建机场 —期待凤凰的梧桐树

圣何塞国际机场是美国首家在21世纪建成使用的机场。圣何塞国际机场地处圣何塞市，乃至加州的心腹位置，位于圣何塞市西北部，距中心仅4公里。圣何塞市坐落于加州北部，旧金山湾区南端，是美国第十大城市以及全球最大的高科技企业聚集地—硅谷的故乡。尽管圣何塞市是旧金山湾区人口最为稠密的城市，但圣何塞国际机场却是湾区三家机场中规模最小的。机场客流量不及旧金山国际机场的三成，客流少于奥克兰国际机场。与奥克兰机场的情况极为相似，圣何塞国际机场主要吸引离旧金山国际机场过于遥远的旅客。

圣何塞市是美国第三大亚裔人口居住地，超过50万亚洲人居住于此，其中156,637个是中国人。有如此庞大的亚洲人口居住在圣何塞市，我们无需惊讶硅谷成为中国商业领域的主要投资者。许多圣何塞以及周边城市的居民因为公务或私人目的，经常性的前往中国及其他亚洲城市。然而目前圣何塞国际机场没有前往中国的直航服务，这就迫使众多旅客不得不到旧金山搭乘更加方便的航班。圣何塞国际机场亟待不久的将来能够吸引航空公司合作，提供前往中国以及其他亚洲国家的直航航线。

尽管没有从圣何塞到中国的直航航线，圣何塞仍旧努力成为中国的最大出口方之一。回到2009年，圣何塞曾凭借向中国出口货值17亿美金成为全美第七大对华出口地。全部计算在内，圣何塞作为美国第八大出口地，已向亚洲出口货值逾100亿美金。由于圣何塞出口货品全部仰仗航空运输，这也为中国航空公司的货运创造了非常重要的商业契机。

圣何塞国际机场是美国第一家在21世纪建成使用的机场，并一直致力于维护其高科技机场的美誉。圣何塞机场为应对旅客承载量及飞行流量的持续增长，近期完成了对机场主要设施的扩建和翻新工作。圣何塞国际机场最初于1965年建造。1990年，随着A航站楼的启用，机场规模得到极大的扩充。2010年6月，一个经重建及翻新的圣何塞国际机场正式开始运营。作为近期扩建和翻新的项目，圣何塞国际机场目前拥有全美最为先进的机场行李

The Mineta San Jose International Airport (SJC) was the first U.S. Airport to be completed in the 21st century. Mineta San Jose International Airport is located in the heart of San Jose, California, just two nautical miles (4 km) northwest of downtown San Jose. San Jose is located in Northern California, in the southern end of the San Francisco Bay Area. San Jose is the 10th largest city in the United States and home to Silicon Valley, the largest concentration of Hi-Tech companies in the world. Even though San Jose is the most populated city in the Bay Area, SJC is still the smallest of the three Bay Area airports, with less than one third of the amount of passengers of San Francisco International Airport (SFO), and fewer passengers than Oakland International Airport (OAK). Much similar to the Oakland Airport, San Jose International attracts those passengers who find SFO to be inconveniently distant from their homes.

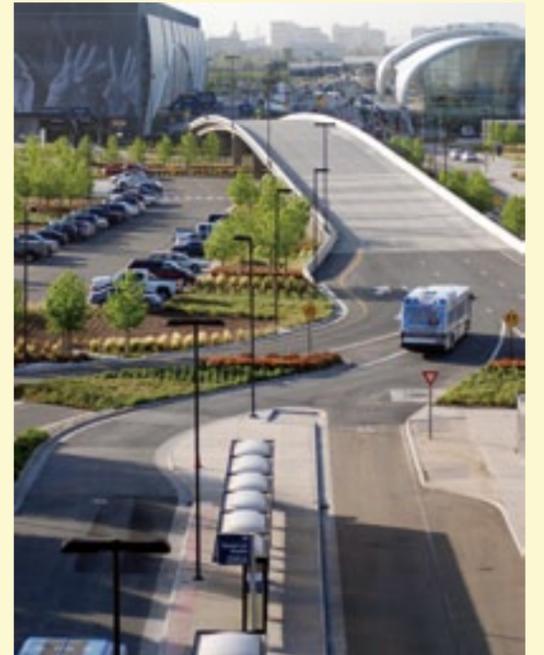
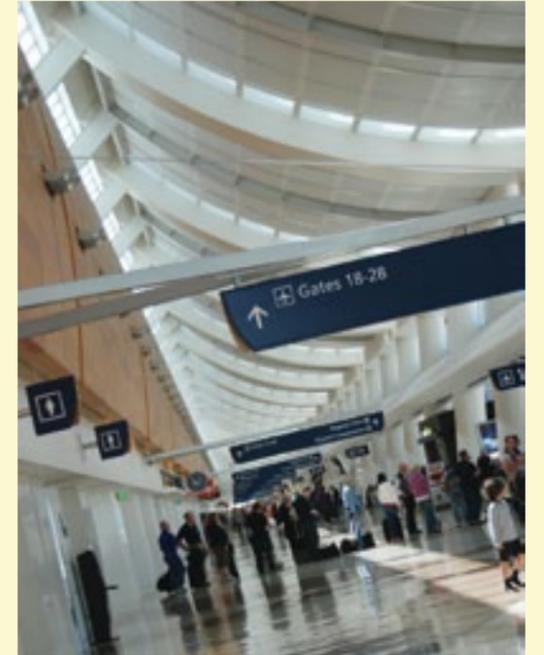
The city of San Jose has the 3rd largest population of Asians in the United States, with over half a million Asians living in San Jose, and of that half million population, 156,637 of them are Chinese. With such a high level of the Asian Population living in San Jose, it is no surprise that Silicon Valley is a leading investor of businesses in China, and many of the citizens of San Jose, as well as its neighboring cities, frequently take trips over to China, as well as other parts of Asia, for both business and personal reasons. Yet currently SJC does not offer any direct flight routes from San Jose to China, leaving a large population of travelers with no choice but to be inconvenienced with traveling up to SFO for a more convenient flight route. San Jose International Airport has high hopes to attract airlines that will offer



direct flights to China and other parts of Asia in the near future.

Despite the lack of direct flight routes to China from SJC, San Jose has still managed to become one of the largest exporters to China. Back in 2009, San Jose had exported over \$1.7 billion worth of goods to China, making it the 7th largest exporter to China in the United States. San Jose is overall, the 8th largest U.S. exporter and exports to Asia exceed \$10 Billion. Since exports from San Jose are shipped by air, this has created significant cargo opportunities for Chinese airlines.

San Jose International Airport was the first U.S. Airport to be constructed in the 21st century, and in efforts to maintain their reputation as a technologically advanced airport, as well as to deal with the increases in passenger volume and flight traffic, SJC has recently gone through some major expansions and renovations. San Jose International Airport was originally constructed back in 1965, and by 1990 it had greatly expanded its size with the opening of what is now called Terminal A. And in June 2010, a newly rebuilt and renovated San Jose international Airport was officially opened for operation. As a part of the recent expansion and renovation projects, SJC now has the most advanced Airport baggage handling and security system in the United States. Also thanks to the recent renovation, SJC has implemented common use technology for the gates as well as the ticketing counters in an effort to reduce the costs to airlines that do business there, and to minimize start up costs for airlines that are looking to set up operations at SJC. San Jose International Airport is ranked as one of the top Airports in the United States for on-time performance, with an average of only 5 days of weather delays per year. Currently there are 128 daily flights from 13 carriers to 28 non-stop destinations.



处理和安检系统。同样归功于近期重建项目的就是圣何塞国际机场将已经普及的科技应用在登机口及值机柜台的优化上，希望在圣何塞国际机场运营的航空公司的初始费用能降到最低。圣何塞国际机场在全美航班准时机场的排名中名列前茅，平均每年仅有5天时间是由于天气原因而造成晚点。目前圣何塞国际机场拥有日航班128架次，13家客运航空公司，为28个目的地提供直航服务。

Radar Upgrading Technology 雷达升级技术

作者：张立国 IE-China 市场部经理
Writer: Zhang Liguo, Marketing Manager, IE-China

When a radar system is past its mid-life point, owners are faced with the difficult and often expensive challenge of replacing their system. The hangar radar can be a cost effective solution to alleviate component obsolescence, which creates soaring maintenance and support costs and in turn affects the performance and reliability of the ageing radar system.



Many of these once state of the art radar systems have also become outdated due to the environment in which they operate in. Increased levels of non static clutter, such as wind farms, increased levels of air traffic densities and new requirements to track smaller cross section targets, like UAV's, all place extra strain on a system that was already operating at the peak of its current abilities.

Intersoft-Electronic, hardware and software can provide and bring new life to an old radar system. New technology and techniques are used to build a new extractor with tracker/combiner for PSR and SSR. Together with RASS-S and RASS-R, our Radar Upgrades can extend the operational cycle of the radar.

Intersoft-Electronics has field proven upgrades for both military and civil radar systems. These systems cover a diverse range of functions, such as:

- Airport surveillance radar
- Precision approach radar
- 3D air defence radar
- Tactical firefinder radar

The main step in the radar upgrade is the replacement of the full receiver processing unit, which results in an immediate improvement by using new state of the art radar processing techniques.

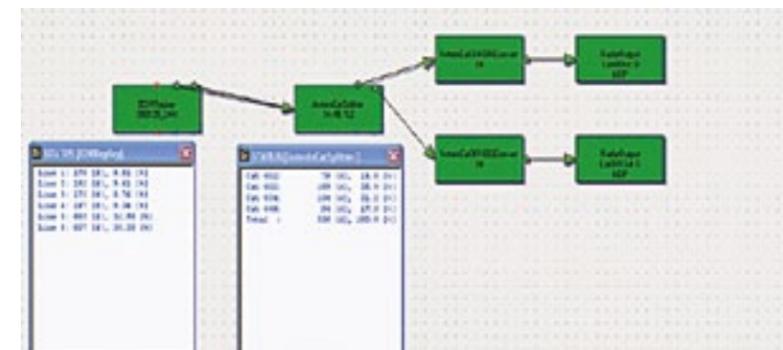
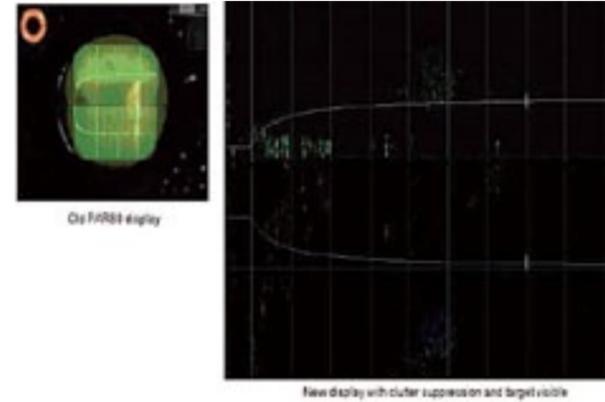
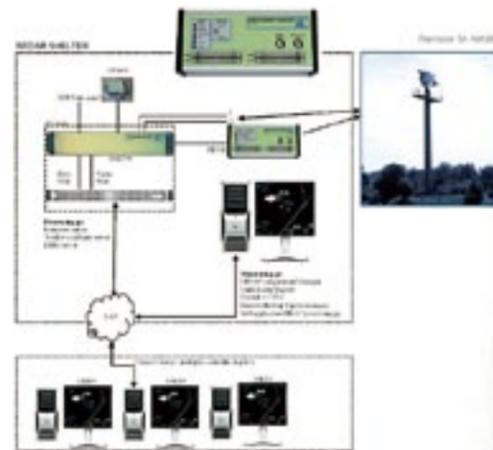
当雷达系统运行超过它的使用寿命时，使用者往往需要更换系统，而且费用常常比较昂贵。雷达组件要求不断增加的维修和支持费用，以减缓退化，进而影响老化雷达系统的性能和可靠性。雷达升级是个节约成本的解决方案。

许多雷达系统不能适应它的运行环境。不断增加的非静态杂波电平（如在风力发电场），逐渐增加的飞行密度和需要跟踪更小横截面积的目标（如无人机）的，对雷达系统提出的要求是它所不能完成的，尽管它应用了原来能够应用的最好科技。

Intersoft-Electronics 公司的硬件和软件工具可以实现老雷达系统的升级。新的科技和技术利用跟踪装置和组合器，可以为一次雷达和二次雷达建立一个新的提取器。与RASS-S系统及RASS-R系统结合使用，IE的雷达升级技术能延长雷达的运行周期。

IE的雷达升级技术在军方和民用雷达系统中已得到实例证明。这些系统用途范围广泛：

- 机场监视雷达
- 精密进近雷达
- 3D防空雷达
- 战术火力发现雷达



A standard configuration, running different software components, is presented in the figure to the right. We can see the following parts:

The video processing unit samples the analog I/Q video. This digitized video signal is then fed to an internal DSP for further preprocessing and data filtering. The video data is aligned with the timing signals (ACP, ARP and Trigger) and UTC time stamps are added by means of the GPS450.

The data processing unit contains 4 serial ports for input or output. It can receive SSR targets from the existing co-located SSR extractor on its serial input lines. The video and data processing unit are connected over a separate USB interface to a dedicated processing PC.

The control and monitoring software modules are installed on the processing PC, it performs the following functions:

Combiner/tracker function: combining the extracted PSR video with the SSR target data to create tracks.

Data handler module: to convert the data in any format (ASTERIX, Aircat, EV760 etc), to make recordings and to stream ream the data over the network (LAN, Serial port etc).

The Multi radar display: visualizes the SSR targets, PSR targets, combined targets, tracks and video.

The new technology can help radar engineers to easily improve the performance of their aging radar systems, increase its stability and to extend the life of the radar system.



雷达升级的主要步骤是替换老化雷达的接收处理单元。应用最新的雷达制造工艺，替换老化雷达的全部接收处理单元，雷达的性能将立即得到改善。

雷达升级的标准配置及不同运行的软件构件如上图所示。我们可以看到如下部分：

视频处理单元以模拟的I/Q视频为样本，这个数字视频信号被送到内部的数字信号处理器（DSP）供进一步处理和数据过滤。视频数据附加时间信号（ACP/ARP/TRIGGER），基准时间标识以GPS450的方式来累加。

数据处理单元包括4个串行端口供数据输入或输出。它可以从在其串行输入线上的二次雷达抽取器里接收二次雷达目标。视频和数据处理单元通过一个独立的USB接口连接到一个专门处理用的电脑上。

控制和监视软件模块安装在处理电脑上，它执行下列功能：

提取功能：根据数字化视频数据，实现普勒处理和绘抽取。

雷达数据处理模块（DHM）：转换任意格式的数据（ASTERIX, Aircat, EV760 等）并记录，同时通过网口或串口传输这些数据。

多雷达显示：显示二次雷达目标，一次雷达目标，合成目标，航迹和视频。

该新技术可以帮助雷达工程师改善雷达性能，增强稳定性和延长使用寿命。

Introduction of China's Civil Airports

中国民用机场介绍

编译：汪莉莉

Editor: Lili Wang

As an essential infrastructure for the development of China's civil aviation, and along with China's rapid economic development, China's civil airports have welcomed the rapid development of civil aviation in the implementation of the "Twelfth Five-year" plan. Let us review the "Eleventh Five-Year" for civil airport construction, and prospect the expected future developments of civil aviation airports in the "Twelfth Five-Year" period.

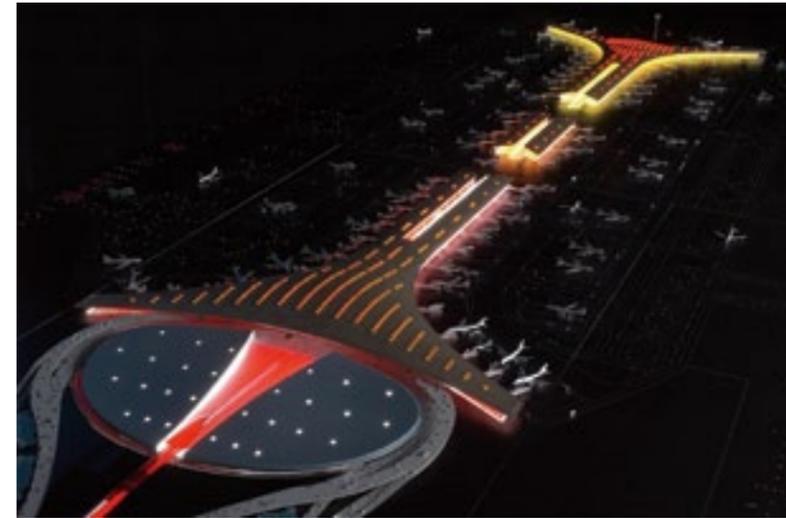
During the "Eleventh Five-Year" period, the total investment in airport infrastructure projects totaled 190 billion RMB, of which 123 billion RMB were self-raised by the airports and other investments, with 34 billion RMB invested by the local governments, and 33 billion RMB funded by the central government (including 24 billion RMB by the Civil Aviation Development Fund and 9 billion RMB from the national debts). The CAAC invested 11 billion RMB into the ATC projects, which were mainly used for the air traffic control facilities projects at new and reconstructed (expanded) airports. In addition, the CAAC also actively sought out industrial financial subsidies and tax incentives, totaling 31.55 billion RMB. Among them, the total subsidies given to the airports were 13.8 billion RMB, including 5.1 billion RMB subsidies for the small and medium airports (more than 70% for the Midwest airports), 2 billion RMB for airport infrastructure discount loans (about 50 times of the magnification for construction funds), and 6.7 billion RMB for other categories of subsidies. During the "Eleventh Five-Year" period, the average passenger throughput increased by 14.69%. The top 10 provinces (autonomous regions and municipalities) were: Hebei 45.05%, Inner Mongolia 34.00%, Ningxia 28.01%, Tianjin 27.10%, Qinghai 26.83%, Henan 23.75%, Shanxi 21.77%, Jiangsu 20.68%, Heilongjiang 19.48% and Hubei at 19.38%. National average growth of airport cargo and mail throughput was 12.27%. The top 10 provinces (autonomous regions and municipalities) were: Qinghai 33.27%, Inner Mongolia 25.92%, Jilin 24.61%, Gansu 23.60%, Ningxia 22.22%, Tianjin 20.53%, Shandong 15.60%, Jiangxi 15.46%, Beijing 14.94% and Tibet with 14.76%.

中国民航机场作为中国民用航空发展不可或缺的基础设施，伴随着中国经济的快速发展，再次迎来了民航高速发展的“十二五”计划的实施阶段。让我们一起回顾“十一五”期间民航机场建设的发展，并展望“十二五”期间对民航机场未来发展的预期。

“十一五”期间，全国机场基本建设项目投资合计1900亿元，其中，机场自筹及其他投资1230亿元，地方政府投资340亿元，中央投资330亿元（包括民航发展基金240亿元，国债90亿元）。民航局投入空管项目110亿元，也主要用于新建和改（扩）建机场的空管配套项目。此外，民航局还积极争取各项行业财政补贴和税费优惠政策，总计达315.5亿元。其中，给予机场补贴合计138亿元，包括：中小机场补贴51亿元（中西部地区机场补贴额占70%以上），机场基本建设贷款贴息20亿元（放大建设资金约50倍），其他各类补贴67亿元。

“十一五”期间，全国机场旅客吞吐量平均增长14.69%，排前10位的省（区、市）分别为：河北45.05%，内蒙古34.00%，宁夏28.01%，天津27.10%，青海26.83%，河南23.75%，山西21.77%，江苏20.68%，黑龙江19.48%，湖北19.38%。全国机场货邮吞吐量平均增长12.27%，排前10位的省（区、市）分别为：青海33.27%，内蒙古25.92%，吉林24.61%，甘肃23.60%，宁夏22.22%，天津20.53%，山东15.60%，江西15.46%，北京14.94%，西藏14.76%。

2010年，首都机场、上海机场、白云机场旅客吞吐量分别达到7393、7170、4096万人次，首都机场客运跃居全球第二位，浦东机场货运全球第三，



In 2010, the passenger throughput at Capital Airport, Shanghai Airport and Baiyun Airport reached 7393,7170,4096 million people respectively. Beijing Capital International Airport ranks as the 2nd busiest airport of the world for passenger transportation, and Shanghai Pudong International Airport ranks as the 3rd busiest airport for cargo transportation. There were 16 airports' with passenger throughput over 10 million people, and about 10 airports' passenger throughput approaching the 10 million people mark.

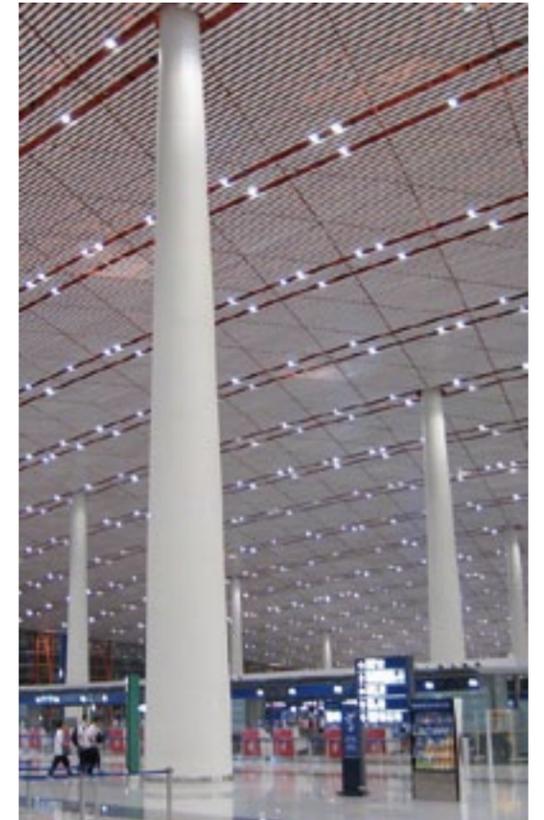
In 2010, among the 175 officially operated airports, the total losses were 1.68 billion RMB, with an average loss at each airport of only about 10 million RMB. However, most of those airports are municipal airports, serving more than 70% of the Nation's cities and counties, and contributing trillions of RMB to the local economy.

For detailed information regarding China Civil Airports in 2010, please refer to the attached table: Rankings of Traffic Volumes for China Civil Aviation (2010).

To better serve the development of the national and regional economies, China will build 56 new airports and reconstruct (expand) 91 airports in the "12th Five-year" period, and the industry-wide infrastructure investment will reach 425 billion RMB. Most of these airport projects will be in the Midwest, and the constructions will stimulate the local social and economic development.

The CAAC forecasts that industry-wide investment would be more than 1.5 trillion RMB in the next 5 years. By the end of the "12th Five-year" period, the annual passenger volume will reach 450 million people, the number of transport airport will be more than 230, and the number of total aircraft (including general aviation aircraft) will be more than 4,500.

The "Twelfth Five-year" is an important period for China's deepening of reform and accelerated economic development model and adjusting of the economic structure. China's civil aviation industry is also facing many new opportunities for development.



全国16个机场的旅客吞吐量超过1000万人次，还有近10个机场逼近千万人次大关。

2010年，正式通航运营的175个机场中，120个亏损，合计亏损约16.8亿元，平均每个机场仅亏损1000多万。但这些机场多是地市级城市机场，其服务覆盖了全国70%以上的县域，对地方经济贡献以万亿计。

2010年中国民用机场详尽数据请参考附表：2010年民航机场业务量（排序）。

为更好地服务国民经济和社会和区域经济发展，“十二五”期间，我国将新建机场56个，改（扩）建机场91个，全行业基础建设投资将达到4250亿元。这些机场建设项目大多数位于中西部，建成后将对当地社会经济发展产生更大的拉动作用。

中国民航预测，未来5年全行业投资规模在1.5万亿元以上，“十二五”期末，年旅客运输量达到4.5亿人，运输机场数量达到230个以上，包括通用航空飞机在内的机队规模达到4500架以上。

“十二五”时期，是中国深化改革、加快经济发展方式转变、调整经济结构的重要时期，民航业将迎来新的发展机遇。



民航机场业务量（排序）-1/Ranks of Traffic

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010							
机场	旅客吞吐量 (人) /Passenger Throughput				货邮吞吐量 (吨) /Cargo & Mail		
	名次	本期完成	上年同期	比上年同期增减%	名次	本期完成	上年同期
	Rank	Yr 2011	Yr 2010	Growing %	Rank	Yr 2011	Yr 2010
全国合计		564,312,300	486,063,435	16.1		11,289,872.1	9,455,645.2
北京/首都	1	73,948,114	65,375,095	13.1	2	1,551,471.6	1,475,656.8
广州/白云	2	40,975,673	37,048,712	10.6	3	1,144,455.7	955,269.7
上海/浦东	3	40,578,621	31,921,009	27.1	1	3,228,080.8	2,543,393.6
上海/虹桥	4	31,298,812	25,078,548	24.8	5	480,438.1	439,071.9
深圳/宝安	5	26,713,610	24,486,406	9.1	4	809,125.4	605,469.2
成都/双流	6	25,805,815	22,637,762	14.0	6	432,153.2	373,515.0
昆明/巫家坝	7	20,192,243	18,944,716	6.6	8	273,651.2	258,755.3
西安/咸阳	8	18,010,405	15,294,948	17.8	14	158,054.0	127,000.2
杭州/萧山	9	17,068,585	14,944,716	14.2	7	283,426.9	226,307.9
重庆/江北	10	15,802,334	14,038,045	12.6	12	195,686.6	186,005.9
厦门/高崎	11	13,206,217	11,327,870	16.6	9	245,644.0	196,025.1
长沙/黄花	12	12,621,333	11,284,282	11.8	18	108,635.2	86,995.0
南京/禄口	13	12,530,515	10,837,222	15.6	10	234,359.0	200,099.0
武汉/天河	14	11,646,789	11,303,767	3.0	17	110,190.8	101,874.7
青岛/流亭	15	11,101,176	9,660,129	14.9	13	163,748.7	135,364.4
大连/周水子	16	10,703,640	9,550,365	12.1	15	140,554.3	125,832.0
三亚/凤凰	17	9,293,959	7,941,345	17.0	31	45,255.6	38,396.9
乌鲁木齐/地窝堡	18	9,148,329	6,575,375	39.1	19	95,124.2	77,632.3
海口/美兰	19	8,773,771	8,390,478	4.6	20	91,667.3	77,779.6
郑州/新郑	20	8,707,873	7,342,427	18.6	21	85,798.1	70,533.0
沈阳/桃仙	21	8,619,897	7,504,828	14.9	16	123,816.4	112,444.6
天津/滨海	22	7,277,106	5,780,281	25.9	11	202,484.1	168,103.1
哈尔滨/太平	23	7,259,498	6,558,796	10.7	23	71,265.2	66,152.0
济南/遥墙	24	6,898,936	5,852,871	17.9	24	70,175.3	56,596.6
福州/长乐	25	6,476,773	5,451,196	18.8	22	79,350.2	64,400.9
贵阳/龙洞堡	26	6,271,701	5,687,652	10.3	26	61,653.0	51,619.0
南宁/吴圩	27	5,632,933	4,520,212	24.6	29	55,633.5	46,268.7
温州/永强	28	5,326,802	4,821,527	10.5	30	50,024.2	44,326.0
桂林/两江	29	5,259,260	5,319,362	-1.1	34	32,543.2	29,636.2
太原/武宿	30	5,252,783	4,632,179	13.4	33	41,227.3	34,495.7
长春/龙嘉	31	4,749,471	3,878,416	22.5	25	61,672.4	48,085.3
南昌/昌北	32	4,748,980	3,937,897	20.6	35	32,417.8	24,524.4
宁波/栎社	33	4,517,070	4,031,447	12.0	28	55,966.6	46,839.7
合肥/骆岗	34	3,817,051	3,205,694	19.1	36	31,883.0	28,115.8
呼和浩特/白塔	35	3,663,383	2,898,661	26.4	40	20,675.3	14,513.2
兰州/中川	36	3,603,512	2,861,507	25.9	37	30,742.6	27,021.2
银川/河东	37	2,939,822	2,305,930	27.5	41	20,343.2	15,127.5
石家庄/正定	38	2,723,596	1,320,241	106.3	38	25,709.8	18,672.3
无锡/硕放	39	2,535,277	2,217,932	14.3	27	57,070.7	47,021.3
烟台/莱山	40	2,496,318	2,094,804	19.2	32	41,514.2	29,189.6
丽江/三义	41	2,217,824	2,295,323	-3.4	63	3,058.7	1,674.8
北京/南苑	42	2,140,474	1,607,595	33.1	44	17,476.3	12,528.0
泉州/晋江	43	1,997,126	1,655,986	20.6	39	22,931.9	13,792.3

Volumes for China Civil Aviation (2010)-1

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010					
比上年同期增减%	名次	起降架次 (次) /Takeoffs & Landings			Airport
		本期完成	上年同期	比上年同期增减%	
Growing %	Rank	Yr 2011	Yr 2010	Growing %	
19.4		5,531,716	4,840,709	14.3	Grand Total
5.1	1	517,585	487,918	6.1	Beijing Capital
19.8	3	329,214	308,863	6.6	Guangzhou Baiyun
26.9	2	332,126	287,916	15.4	Shanghai Pudong
9.4	4	218,985	189,071	15.8	Shanghai Hongqiao
33.6	5	216,897	202,627	7.0	Shenzhen Baoan
15.7	7	205,537	190,094	8.1	Chengdu Shuangliu
5.8	9	181,466	172,572	5.2	Kunming Wujiaba
24.5	10	164,430	146,272	12.4	Xi'an Xianyang
25.2	11	146,289	134,058	9.1	Hangzhou Xiaoshan
5.2	12	145,705	132,619	9.9	Chongqing Jiangbei
25.3	13	116,659	105,939	10.1	Xiamen Gaoqi
24.9	15	115,635	110,023	5.1	Changsha Huanghua
17.1	14	116,087	106,142	9.4	Nanjing Lukou
8.2	16	112,521	113,332	-0.7	Wuhan Tianhe
21.0	17	103,975	98,033	6.1	Qingdao Liuting
11.7	18	91,628	85,390	7.3	Dalian Zhoujiazui
17.9	24	70,575	59,811	18.0	Sanya Fenghuang
22.5	19	86,491	65,511	32.0	Urumqi Diwopu
17.9	22	73,824	69,114	6.8	Haikou Meilan
21.6	21	84,180	75,743	11.1	Zhengzhou Xinzheng
10.1	23	70,786	67,027	5.6	Shenyang Taoxian
20.5	20	85,034	75,116	13.2	Tianjin Binhai
7.7	28	61,002	57,440	6.2	Harbin Taiping
24.0	25	69,145	63,602	8.7	Ji'nan Yaoqiang
23.2	26	62,108	51,575	20.4	Fuzhou Changle
19.4	27	61,231	57,354	6.8	Guiyang Longdongbao
20.2	30	52,396	44,597	17.5	Nanning Wuwei
12.9	33	49,854	44,800	11.3	Wenzhou Yongqiang
9.8	34	48,103	49,525	-2.9	Guilin Liangjiang
19.5	29	57,525	52,236	10.1	Taiyuan Wusu
28.3	37	42,199	35,909	17.5	Changchun Longjia
32.2	32	51,820	48,050	7.8	Nanchang Changbei
19.5	40	39,289	37,512	4.7	Ningbo Lishe
13.4	35	46,452	35,814	29.7	Hefei Luogang
42.5	36	43,331	33,190	30.6	Hohhot Baita
13.8	43	33,700	28,353	18.9	Lanzhou Zhongchuan
34.5	46	26,334	21,393	23.1	Yinchuan Hedong
37.7	31	51,929	32,481	59.9	Shijiazhuang Zhengding
21.4	47	21,978	19,723	11.4	Wuxi Shuofang
42.2	45	27,932	25,830	8.1	Yantai Laishan
82.6	48	21,085	22,143	-4.8	Lijiang Sanyi
39.5	53	16,507	13,252	24.6	Beijing Nanyuan
66.3	49	20,123	16,842	19.5	Quanzhou Jinjiang

民航机场业务量（排序）-2/Ranks of Traffic

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010							
机场	旅客吞吐量 (人) /Passenger Throughput				货邮吞吐量 (吨) /Cargo & Mail		
	名次	本期完成	上年同期	比上年同期增减%	名次	本期完成	上年同期
	Rank	Yr 2011	Yr 2010	Growing %	Rank	Yr 2011	Yr 2010
西双版纳/嘎洒	44	1,887,362	1,942,323	-2.8	48	7,400.9	6,664.9
珠海/三灶	45	1,819,051	1,385,858	31.3	43	17,578.8	13,759.6
九寨/黄龙	46	1,740,728	1,749,316	-0.5	167		0.0
汕头/外砂	47	1,727,934	1,266,407	36.4	47	10,842.5	9,088.7
西宁/曹家堡	48	1,664,823	1,351,759	23.2	46	12,265.9	7,458.7
包头/二里半	49	1,332,132	1,070,122	24.5	50	6,075.1	4,678.6
拉萨/贡嘎	50	1,296,328	1,121,613	15.6	45	13,827.3	12,872.6
张家界/荷花	51	1,126,361	1,201,976	-6.3	80	1,272.3	1,633.1
延吉/朝阳川	52	943,336	808,256	16.7	54	4,192.1	3,126.4
榆林/榆阳	53	905,161	631,769	43.3	97	639.0	327.4
威海/大水泊	54	824,938	675,451	22.1	58	3,751.5	3,003.4
鄂尔多斯/伊金霍洛	55	816,737	472,656	72.8	62	3,074.1	1,823.2
喀什	56	792,681	574,485	38.0	60	3,207.2	2,445.4
宜昌/三峡	57	724,121	657,507	10.1	61	3,184.7	3,498.4
义乌	58	695,148	559,652	24.2	56	3,802.1	3,259.4
北海/福成	59	694,177	505,440	37.3	64	2,849.2	1,130.6
徐州/观音	60	658,395	511,469	28.7	57	3,772.3	3,251.0
常州/奔牛	61	658,033	535,198	23.0	49	6,720.0	6,173.3
运城/张孝	62	618,463	506,642	22.1	76	1,677.8	1,024.1
台州/路桥	63	616,861	526,738	17.1	51	5,483.4	4,293.2
海拉尔/东山	64	608,804	532,463	14.3	69	2,130.4	1,094.5
武夷山	65	589,554	535,713	10.1	88	1,047.9	799.7
绵阳/南郊	66	577,236	280,903	105.5	52	4,833.8	3,812.2
临沂/沭埠岭	67	542,759	301,341	80.1	72	2,016.6	1,163.4
湛江	68	484,499	396,263	22.3	73	1,969.6	1,590.3
腾冲/驼峰	69	465,778	257,637	80.8	102	538.6	134.4
伊宁	70	455,584	202,130	125.4	100	556.0	353.1
西昌/青山	71	445,329	374,504	18.9	66	2,550.8	2,037.3
德宏/芒市	72	443,843	380,265	16.7	59	3,654.1	2,888.1
连云港/白塔埠	73	423,031	291,059	45.3	85	1,148.7	944.8
长治/王村	74	390,379	340,613	14.6	95	769.7	466.3
大庆/萨尔图	75	363,404	101,553	257.8	79	1,307.7	310.2
库尔勒	76	359,137	270,657	32.7	86	1,131.4	564.3
舟山/普陀山	77	356,869	447,956	-20.3	111	377.2	434.7
黄山/屯溪	78	343,033	285,179	20.3	78	1,499.8	963.3
柳州/白莲	79	321,610	309,354	4.0	55	3,844.4	3,285.6
赣州/黄金	80	315,246	189,105	66.7	67	2,205.5	1,459.7
景德镇/罗家	81	307,889	242,753	26.8	107	466.9	307.7
恩施/许家坪	82	295,660	472,839	-37.5	93	840.2	948.1
宜宾/菜坝	83	289,541	211,197	37.1	68	2,205.1	2,008.0
牡丹江/海浪	84	288,742	260,063	11.0	89	979.1	759.8
洛阳/北郊	85	285,774	231,968	23.2	84	1,170.1	1,239.8
南通/兴东	86	271,440	220,260	23.2	53	4,654.2	1,877.7
赤峰/玉龙	87	270,709	165,202	63.9	113	333.9	212.5

Volumes for China Civil Aviation (2010)-2

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010					
比上年同期增减%	名次	本期完成	上年同期	比上年同期增减%	Airport
Growing %	Rank	Yr 2011	Yr 2010	Growing %	
11.0	50	17,772	18,193	-2.3	Xishuangbanna Gasa
27.8	42	37,651	23,149	62.6	Zhuhai Sanzao
	55	15,126	13,411	12.8	Jiuzhai Huanglong
19.3	51	16,761	13,517	24.0	Shantou Waisha
64.4	54	15,645	12,326	26.9	Xi'ning Caojiabao
29.9	58	11,502	10,099	13.9	Baotou Erliban
7.4	57	11,720	10,064	16.5	Lhasa Gonggar
-22.1	62	9,363	10,760	-13.0	Zhangjiajie Hehua
34.1	67	7,962	7,457	6.8	Yanji Chaoyangchuan
95.2	61	9,774	6,675	46.4	Yulin Yuyang
24.9	59	10,579	9,850	7.4	Weihai Dashuipo
68.6	65	8,862	5,588	58.6	Ordos Yijinhuoluo
31.2	76	6,189	5,093	21.5	Kashi
-9.0	66	8,204	9,082	-9.7	Yichang Sanxia
16.6	77	6,148	5,322	15.5	Yiwu
152.0	60	10,553	5,357	97.0	Beihai Fucheng
16.0	64	8,951	9,065	-1.3	Xuzhou Guanyin
8.9	71	6,765	5,800	16.6	Changzhou Bengniu
63.8	70	6,820	6,116	11.5	Yuncheng Zhangxiao
27.7	73	6,278	5,340	17.6	Taizhou Luqiao
94.6	74	6,202	5,642	9.9	Hailar Dongshan
31.0	78	5,740	5,235	9.6	Wuyishan
26.8	8	189,906	2,897	6,455.3	Mianyang Nanjiao
73.3	69	6,979	26,241	-73.4	Linyi Mubuling
23.8	63	8,993	5,213	72.5	Zhanjiang
300.8	80	5,228	3,016	73.3	Tengchong Tuofeng
57.5	75	6,201	3,555	74.4	Yi'ning
25.2	84	4,702	4,134	13.7	Xichang Qingshan
26.5	86	4,528	3,870	17.0	Dehong Mangshi
21.6	79	5,548	3,747	48.1	Lianyungang Baitabu
65.0	83	4,982	4,595	8.4	Changzhi Wangchun
321.6	90	3,577	1,043	243.0	Daqing Saertu
100.5	72	6,360	5,371	18.4	Korla
-13.2	68	7,644	6,416	19.1	Zhoushan Putuoshan
55.7	89	3,752	3,396	10.5	Huangshan Tunxi
17.0	88	3,949	4,083	-3.3	Liuzhou Bailian
51.1	82	5,066	4,241	19.5	Ganzhou Huangjin
51.8	103	2,666	2,308	15.5	Jingdezhen Luojia
-11.4	99	2,962	5,637	-47.5	Enshi Xujiaping
9.8	93	3,429	2,468	38.9	Yibin Laiba
28.9	97	3,126	3,414	-8.4	Mudanjiang Hailang
-5.6	6	212,738	212,008	0.3	Luoyang Beijiao
147.9	44	28,435	30,634	-7.2	Nantong Xingdong
57.1	85	4,553	3,243	40.4	Chifeng Yulong

民航机场业务量（排序）-3/Ranks of Traffic

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010							
机场	旅客吞吐量 (人) /Passenger Throughput				货邮吞吐量 (吨) /Cargo & Mail		
	名次	本期完成	上年同期	比上年同期增减%	名次	本期完成	上年同期
	Rank	Yr 2011	Yr 2010	Growing %	Rank	Yr 2011	Yr 2010
常德/桃花源	88	268,789	236,263	13.8	117	251.1	110.1
迪庆/香格里拉	89	263,323	221,331	19.0	92	871.9	697.5
和田	90	260,396	188,434	38.2	90	899.5	771.5
泸州/蓝田	91	246,357	203,567	21.0	74	1,791.5	1,663.2
万县/五桥	92	244,045	209,154	16.7	71	2,078.1	1,623.9
济宁/曲阜	93	243,684	119,332	104.2	91	881.8	413.5
大理	94	227,072	210,475	7.9	108	465.4	361.2
阿克苏	95	225,393	170,488	32.2	109	454.2	247.0
普洱/思茅	96	219,689	191,090	15.0	103	508.0	215.0
敦煌	97	204,242	152,556	33.9	123	162.5	108.5
锡林浩特	98	201,251	131,786	52.7	118	214.6	138.2
秦皇岛/山海关	99	200,976	61,721	225.6	116	256.9	192.8
佳木斯/东郊	100	191,592	166,048	15.4	87	1,053.4	517.7
盐城/南洋	101	191,336	161,682	18.3	77	1,615.2	1,211.5
南阳/姜营	102	190,072	134,135	41.7	96	721.2	582.4
井冈山	103	182,412	105,766	72.5	94	769.8	151.7
乌海	104	180,883	115,493	56.6	127	129.2	28.6
满洲里/西郊	105	174,187	146,901	18.6	81	1,217.8	582.7
大同/倍加皂	106	166,420	112,844	47.5	83	1,193.5	484.8
达州/河市	107	164,435	144,383	13.9	75	1,691.3	1,188.2
阿勒泰	108	164,004	85,172	92.6	146	19.8	14.4
攀枝花/保安营	109	162,796	177,234	-8.1	65	2,848.4	2,378.5
襄樊/刘集	110	161,645	137,335	17.7	106	473.9	353.7
保山/云端	111	154,372	136,203	13.3	112	361.9	137.6
林芝/米林	112	148,796	119,702	24.3	101	544.3	436.1
潍坊	113	141,129	106,979	31.9	42	18,608.8	15,969.0
嘉峪关	114	133,513	89,604	49.0	120	201.1	83.2
衢州	115	133,498	128,389	4.0	121	180.2	172.1
怀化/芷江	116	133,109	72,995	82.4	161	0.9	3.5
临沧	117	126,636	114,543	10.6	99	589.0	338.0
邯郸	118	126,464	82,107	54.0	139	31.1	33.2
南充/高坪	119	124,570	63,727	95.5	115	306.1	123.8
齐齐哈尔/三家子	120	123,218	120,384	2.4	104	507.1	462.2
延安/二十里堡	121	120,121	86,285	39.2	134	42.9	28.4
通辽	122	118,316	94,894	24.7	105	477.4	275.4
佛山/沙堤	123	118,192	4,578	2,481.7	110	420.5	0.0
阜阳	124	108,630	17,406	524.1	152	5.3	0.4
白山/长白山	125	103,359	53,386	93.6	137	33.0	22.6
丹东/浪头	126	99,822	88,601	12.7	98	634.1	452.3
乌兰浩特	127	98,204	77,645	26.5	128	120.5	127.9
锦州/小岭子	128	96,355	57,767	66.8	82	1,204.6	545.6
黑河	129	94,878	84,987	11.6	125	153.8	139.9
昌都/邦达	130	88,842	76,780	15.7	114	316.4	297.8
布尔津/喀纳斯	131	82,530	19,362	326.2	158	1.5	3.8

Volumes for China Civil Aviation (2010)-3

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010					
比上年同期增减%	名次	本期完成	上年同期	比上年同期增减%	Airport
Growing %	Rank	Yr 2011	Yr 2010	Growing %	
128.2	52	16,717	2,930	470.5	Changde Taohuayuan
25.0	92	3,440	2,904	18.5	Diqing Shangri-la
16.6	110	2,326	1,728	34.6	Hetian
7.7	98	2,974	2,854	4.2	Luzhou Lantian
28.0	87	4,471	3,202	39.6	Wanxian Wuqiao
113.2	96	3,284	1,658	98.1	Ji'ning Qufu
28.8	102	2,764	2,688	2.8	Dali
83.9	81	5,168	3,996	29.3	Aksu
136.3	105	2,628	2,002	31.3	Puer Ximao
49.7	95	3,312	2,569	28.9	Dunhuang
55.3	91	3,568	2,300	55.1	Xilinhot
33.2	100	2,900	1,005	188.6	Qinhuangdao Shanhaiguan
103.5	117	2,038	1,970	3.5	Jiamusi Dongjiao
33.3	115	2,092	2,216	-5.6	Yancheng Nanyang
23.8	38	39,850	27,765	43.5	Nanyang Jiangying
407.5	106	2,614	2,336	11.9	Jinggangshan
351.7	114	2,115	1,420	48.9	Wuhai
109.0	111	2,323	1,872	24.1	Manzhouli Xijiao
146.2	112	2,305	1,668	38.2	Datong Beijiazao
42.3	118	1,986	1,728	14.9	Dazhou Heshi
37.5	109	2,481	1,616	53.5	Altai
19.8	124	1,696	1,858	-8.7	Panzhuhua Baoanying
34.0	39	39,388	33,633	17.1	Xiangfan Liuji
163.0	123	1,704	1,680	1.4	Baoshan Yunduan
24.8	135	1,296	918	41.2	Linzhi Milin
16.5	94	3,376	3,145	7.3	Weifang
141.9	125	1,650	1,330	24.1	Jiangyuguan
4.7	122	1,716	1,674	2.5	Quzhou
-75.5	120	1,753	1,049	67.1	Huaihua Zhijiang
74.3	130	1,412	1,406	0.4	Lincang
-6.3	108	2,497	1,767	41.3	Handan
147.3	41	39,188	36,798	6.5	Nanchong Gaoping
9.7	136	1,230	1,476	-16.7	Qiqihaer Sanjiazzi
50.8	101	2,860	2,256	26.8	Yan'an Ershilibao
73.4	113	2,217	1,868	18.7	Tongliao
	140	1,075	70	1,435.7	Foshan Shadi
1,230.3	107	2,512	360	597.8	Fuyang
46.0	126	1,623	792	104.9	Baishan Changbaishan
40.2	143	972	999	-2.7	Dandong Langtou
-5.7	119	1,980	2,220	-10.8	Ulanhot
120.8	137	1,144	880	30.0	Jinzhou Xiaolingzi
9.9	141	1,036	960	7.9	Heihe
6.3	146	872	776	12.4	Changdu Bangda
-61.5	149	808	306	164.1	Buerjin Canus

民航机场业务量（排序）-4/Ranks of Traffic

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010							
机场	旅客吞吐量 (人) /Passenger Throughput				货邮吞吐量 (吨) /Cargo & Mail		
	名次	本期完成	上年同期	比上年同期增减%	名次	本期完成	上年同期
	Rank	Yr 2011	Yr 2010	Growing %	Rank	Yr 2011	Yr 2010
九江/庐山	132	81,555	62,391	30.7	132	64.2	15.3
玉树/巴塘	133	81,131	7,484	984.1	70	2,129.4	0.1
鸡西/兴凯湖	134	80,955	15,641	417.8	119	214.0	27.1
安庆	135	76,330	30,187	152.9	141	25.8	12.3
中卫/香山	136	67,466	41,647	62.0	147	14.3	0.0
东营	137	66,545	75,574	-11.9	122	167.4	273.2
漠河/古莲	138	65,729	75,263	-12.7	133	51.9	38.3
百色/田阳	139	60,310	68,016	-11.3	169		0.0
文山/普者黑	140	56,771	56,916	-0.3	124	156.7	5.9
库车	141	49,669	30,472	63.0	136	36.1	19.8
哈密	142	49,538	29,104	70.2	142	25.4	4.4
梅县/长岗炭	143	49,372	33,879	45.7	144	20.9	11.9
广元/盘龙	144	48,540	16,533	193.6	126	153.0	0.6
二连浩特/赛乌苏	145	47,005			145	20.9	0.0
伊春/林都	146	43,903	10,252	328.2	155	2.1	0.0
铜仁/凤凰	147	42,249	37,363	13.1	130	104.9	7.5
梧州/长州岛	148	42,218	46,663	-9.5	149	9.6	8.1
格尔木	149	41,979	38,479	9.1	129	108.8	78.7
连城/冠豸山	150	41,931	43,460	-3.5	171		0.0
淮安/涟水	151	39,174			159	1.4	0.0
昭通	152	37,372	34,716	7.7	135	41.9	73.3
克拉玛依	153	34,051	32,875	3.6	153	4.4	3.6
永州/零陵	154	33,216	5,932	459.9	138	32.5	10.7
兴义	155	31,882	32,911	-3.1	148	10.4	5.3
那拉提	156	30,275	43,783	-30.9	143	23.0	33.4
塔城	157	25,896	15,399	68.2	156	1.9	0.4
黎平	158	25,784	15,099	70.8	154	2.4	1.6
鞍山/腾鳌	159	24,607			173		0.0
甘孜/康定	160	21,687	11,165	94.2	172		0.2
庆阳	161	18,700	20,577	-9.1	163	0.2	0.0
朝阳	162	16,113	21,877	-26.3	162	0.5	0.0
唐山/三女河	163	14,895			131	86.1	0.0
博乐/阿拉山口	164	11,798			164	0.2	0.0
汉中/西关	165	11,651	11,366	2.5	140	30.8	24.0
且末	166	8,361	7,501	11.5	151	5.6	1.0
天水/麦积山	167	6,768	23,718	-71.5	150	9.1	4.8
阿里/昆莎	168	6,434			157	1.7	0.0
固原/六盘山	169	5,283			174		0.0
长海/大长山岛	170	4,645	5,014	-7.4	170		0.0
黔南州/荔波	171	4,387	151	2,805.3	165	0.1	0.0
安康	172	1,844	2,854	-35.4	160	1.4	1.2
黔江/舟白	173	1,258			175		0.0
吐鲁番/交河	174	1,224			166	0.1	0.0
安顺/黄果树	175	219	491	-55.4	168	0.0	0.0

Volumes for China Civil Aviation (2010)-4

2010-01-01 至 2010-12-31/January 1st, 2010 to December 31st, 2010					
比上年同期增减%	名次	本期完成	上年同期	比上年同期增减%	Airport
Growing %	Rank	Yr 2011	Yr 2010	Growing %	
319.3	129	1,442	1,128	27.8	Jiujiang Lushan
3,275,886.2	132	1,358	114	1,091.2	Yushu Batang
689.7	139	1,096	234	368.4	Jixi Xingkaihu
110.6	121	1,732	1,118	54.9	Anqing
43,163.6	134	1,320	1,108	19.1	Zhongwei Xiangshan
-38.7	128	1,486	1,490	-0.3	Dongying
35.5	148	814	1,100	-26.0	Mohe Gulian
83.3	131	1,400	1,428	-2.0	Baise Tianyang
2,567.3	151	774	740	4.6	Wenshan Puzhehei
81.8	138	1,140	626	82.1	Kuqa
481.0	150	808	688	17.4	Hami
74.8	127	1,566	1,223	28.0	Meixian Changgangji
25,062.0	156	646	200	223.0	Guangyuan Panlong
	144	968			Erenhot Saiwusu
	154	652	226	188.5	Yichun Lindu
1,303.2	133	1,355	1,882	-28.0	Tongren Fenghuang
19.3	56	12,113	26,800	-54.8	Wuzhou Changzhoudao
38.3	155	651	555	17.3	Golmud
	160	504	598	-15.7	Liancheng Guanzhishan
	157	642			Huaian Lianshui
-42.9	161	488	520	-6.2	Zhaotong
23.0	104	2,659	863	208.1	Karamay
203.5	153	678	412	64.6	Yongzhou Lingling
96.7	142	1,012	772	31.1	Xingyi
-31.3	164	422	712	-40.7	Nalati
324.3	152	749	668	12.1	Tacheng
46.4	158	624	488	27.9	Liping
	165	418			Anshan Tengao
-100.0	163	445	365	21.9	Ganzi Kangding
	145	952	1,242	-23.3	Qingyang
1,345.5	168	296	509	-41.8	Chaoyang
	147	838			Tangshan Sannvhe
	167	310			Bole Alashankou
28.5	162	480	618	-22.3	Hanzhong Xiguan
449.3	169	258	200	29.0	Qiemo
87.3	166	344	1,072	-67.9	Tianshui Maijishan
	173	110			Ali Kunsha
	172	162			Guyuan Liupanshan
	159	520	589	-11.7	Changhai Dachangshandao
	171	175	14	1,150.0	Qiannanzhou Libo
15.7	170	200	250	-20.0	Ankang
	175	36			Qianjiang Zhoubai
	174	72			Turpan Jiaohe
	116	2,077	26	7,888.5	Anshun Huangguoshu

A Learning Experience: A VIP Tour of 5 Unique U.S. Airports 中航工业规划建设公司考察美国机场

By Vivian Chen, HMMH's Aviation Noise Project Specialist in China
作者：陈春桦，HMMH公司中国机场噪声项目专员



The China Aviation Planning and Construction Development Co., Ltd. (AVIC APC, derived from the China Aeronautical Project and Design Institute) was founded in 1951. As a professional subsidiary of the China Aviation Industry Corporation (AVIC), AVIC APC has grown into a large state-owned survey and design company and is in the Top 100 Survey and Design Enterprises in China. With 60 years of development, AVIC APC has gradually evolved from its origins as just an A & E company, into a value integration provider in the engineering construction field. The sustained growth of the Chinese economy promoted the expansion and prosperity of civil aviation. AVIC APC plays more and more of an important role in airport planning, terminal design and FBO design for general aviation. Due to the fast growth of airport construction demands and the positive development of the GA industry, and in order to help their senior technical staff to understand the technological process and architectural style of the terminals, airport planning and landside transport hub used by foreign airports, AVIC APC has asked the China Civil Aviation Report to arrange a trip to the U.S. to tour many different airports and to get a better understanding of the advanced technology and management used by the U.S. airports. The AVIC APC's main goal was to communicate and learn from foreign experts and airport operation companies to enhance the technological exchange and understanding between China and U.S.

中国航空规划建设发展有限公司（简称中航工业规划建设），其前身为始建于1951年的中国航空工业规划设计研究院，是中国航空工业集团公司的直属业务板块之一，是国家大型综合勘察设计单位。经过六十年的发展，公司已由单纯的工程设计院逐渐转变为工程建设领域的价值集成商。随着中国经济的持续发展带动民用航空领域的扩展和繁荣，中航工业规划建设在机场规划建设以及航站楼设计和通用航空FBO运行基地的设计方面的参与度与优势尤为凸显。随着国内机场建设需求的持续增长以及通用航空领域的积极发展，中航工业规划建设为提高其高级技术人员对国际机场航站楼内外部工艺流程、建筑风格及机场总体规划及陆侧交通枢纽的了解和认识，特邀请民航报导协助安排美国机场考察之旅以学习国际先进技术及管理理念，争取与国外专家及机场运营公司的交流学习机会，扩大并增强国内外技术交流和相互了解的契机。

民航报导是《中国民用航空》的英文版，创刊于1999年，是全世界唯一的以中英双语形式介绍中国民航的发展与成就的杂志，历经13年来的专注与坚持，民航报导已成为世界航空领域认识了解中国

The China Civil Aviation Report (CCAR), being the English version of China Civil Aviation Magazine, founded in 1999, is the only bilingual magazine with a focus on China's aviation development. After 13 years of hard work and dedication, the CCAR has become the only channel and tool for international aviation counterparts to learn about news and developments within China's civil aviation industry. Francis Chao, the publisher of the CCAR, has engaged in aviation exchange between China and the U.S. for past 30 years. He has previously served as a FAA contractor to provide interpretation and consulting services for interactive high level aviation exchanges between China and the U.S. He is an expert who covers the whole field of aviation. This trip, CCAR assisted AVIC APC in visiting 5 representative airports in the U.S., including Chicago International Airport, Teterboro Airport, Atlanta International Airport, Los Angeles World Airport and San Jose International Airport. This was a successful China-U.S. aviation exchange event facilitated by CCAR once again. Being HMMH's representative in China (HMMH is a professional airport noise and airport planning consulting company), I am very honored to be able to participate in this trip and share my experiences with all of you.

Chicago O'Hare International Airport

Being the 2nd busiest airport in the world, Chicago O'Hare International Airport is the world's leader in turnovers and ranked the world's third highest passenger volume. It provides direct service to 200 cities around the world. There are 53 carries and 189 gates in the airport. The airport had a passenger volume of 67,000,000 and cargo of 1,500,000 tons in 2010.

Chicago airport is proud of its 2 main projects. One is the rebuilding of the airport without affecting and disturbing the existing operation. The airport finished its design in 1940 and after 40 years of operation, they found that the cross runway was not a perfect choice for an airport that has that many



民航改革开放成果与发展路径的唯一渠道与工具。民航报导的发行人赵嘉国先生从事中美航空交流30年，曾作为美国联邦航空局的承包商，为中美航空高端互动交流提供翻译与咨询服务，是涵盖全航空领域的专业人士。此次民航报导协助中航工业规划建设考察了芝加哥国际机场、Teterboro通用航空机场、亚特兰大国际机场、洛杉矶国际机场及圣何塞国际机场等5个在美国范围内具代表性的机场。促成了又一次成功的中美航空交流之旅。作为美国HMMH公司（专业的机场噪声问题及机场规划咨询公司）在中国的业务代表，我非常荣幸能够参与此次考察并和大家分享此行的成果和收获。

芝加哥奥黑尔国际机场

作为世界第二大繁忙机场，芝加哥国际机场航班量为全球第一、旅客流量为全球第三；为世界范围内200个城市提供直航服务，机场共有53家客运航空公司及189个登机口，2010年输送旅客67,000,000人次，货运量为1,500,000吨。

芝加哥国际机场目前有两个最为骄傲以及引人注目的项目与成果，其一便是机场在不影响现有运行的情况下进行原地重建。芝加哥机场于1940年完成设计，运行40年后不断发现，作为中转机场，交叉跑道不是他们最佳的选择。为达到机场运行及指挥的最优化，芝加哥机场开始进行为期15年的重建计划。我们与芝加哥机场运行当局就其改建计划方案进行了富有成效的沟通与交流，就如何提高飞行区运行效率为目的，满足快速增长的业务量需求进行的重建计划进行了细致深入的探讨与交流。我们有幸可以参观到新跑道建设的施工现场，芝加哥机场所有的工程用料都采用循环利用的方式，即将拆除原有建筑的土方存放在机场特定的位置，压成碎石后用作新跑道的地基。这种最为高效且经济的资源运用手段和态度值得我们学习与致敬。

芝加哥机场的另一举措即是机场绿色屋顶规划。位于奥黑尔国际机场内的联邦快递办公楼拥有12块总计232,534平方英尺的全球最大的绿色屋顶，绿色屋顶使得楼顶温度降低40华氏度，以此减少空调的使用，极大的减少了能源消耗。机场已有计划新增126,456平方英尺的绿色屋顶。在整个参观过程中，我们时刻都可以感受到芝加哥国际机场重建施工中的高效与能源合理运用的环保理念。

纽约Teterboro通用航空机场

Teterboro机场是纽泽西州最早开始运行的机场，于1919年开始使用。机场占地面积829英亩，目前有2条分别为7000尺和6000尺的交叉跑

transfer flights. To achieve optimization of operation and command of the airport, Chicago airport began a 15-year modernization program. We had in-depth communication with the airport operations department, where we discussed how to improve the efficiency of the air side to meet the quickly increasing demands. We were fortunate to be able to visit the new runway construction sites. All the constructional materials used in the airport are recycled materials. For example, they stockpile the waste material from the original construction into a specific location; then they grind the waste material into gravel and use the gravel as the foundation of the new runway. This is the most efficient and economical way to use limited resources and definitely a technique worth learning and practicing.

Chicago airport's other initiative was their green roof program. The Fedex office building, which is a part of the Chicago O'hare International Airport, owns 12 sectors of green roof, a total of 232,534 square feet, which is the world's largest green roof area. The green roof effectively reduces the roof temperature by 40 degrees Fahrenheit; and as a result, they reduce their air conditioning usage and greatly reduce the level of energy consumption. The airport already has plans to increase 124,456 more square feet of green roof. During the airport tour, we could always feel the high level of efficiency and the environmentally friendly concepts being used in the modernization process.

Teterboro General Aviation Airport

Teterboro Airport was the first operational airport in the state of New Jersey. It was built-in 1919, and covers an area of 829 acres and has two cross runways of 7,000 feet and 6,000 feet respectively. Teterboro airport is very close to Newark International Airport, LaGuardia International Airport and John F. Kennedy International Airport. The 4 airports together creates a network that supports the busy flight routes of the state of New York. Teterboro Airport was originally designed as a relief airport to serve general aviation. Its total traffic accounted for 12% of the total air traffic of all four airports combined. Teterboro Airport has five fixed operating bases, which are Atlantic, First Aviation Service, Jet Aviation, Signature and Meridian. Teterboro airport's main sources of revenue come from fuel sales, aircraft maintenance and rental businesses.

Following the lead of the airport staff; we had the honor to visit the Jet Aviation terminal building. Walking through a five-star hotel-style revolving door, we entered the terminal. The hollow design of the hall makes the whole space bright and comfortable. The gate is about 30 meters from the main entrance. Many business jet owners walked right pass us, through the hall and beginning another journey. The comfortable seating area, accompanied by the soft sunlight shining into the lobby, creates a peaceful and relaxing rest area for travelers. On the left side of the first floor near the main entrance is a particular rest area designated for the pilots. There, the latest newspapers and magazines are available for the pilots and here the pilots could get some rest or some entertainment. There is a dedicated platform



道。与纽瓦克国际机场、拉瓜迪亚国际机场和肯尼迪国际机场为邻，共同支撑纽约州繁忙的航线任务。Teterboro机场最初被设计成纽约州通用航空设备的“缓释”机场，总运量占有所有四家机场的12%。Teterboro机场拥有5家固定运行基地，分别是Atlantic, First Aviation Service, Jet Aviation, Signature 和 Meridian。Teterboro机场的主要收入来自航油销售、飞机维修以及出租业务等。

在机场工作人员的引领下，我们有幸参观了Jet Aviation的候机楼。经过一个五星级酒店式的转门，我们进入了候机楼内部，中空设计的大厅使整个空间显得明亮舒适。登机门距入口大约30米距离。很多公务机拥有者从我们身边走过，通过大厅走向另一段旅程。大厅布置舒适的座椅，配合柔和的阳光，给旅途中的人们营造了一个绝佳的休息空间。一楼靠近入口的左侧是一块为公务机飞行员准备的分隔出来的休息区，最新的报纸、杂志应有尽有，飞行员可以在这边进行简短的充电和娱乐。进口处的一个办公台专门负责记录公务机拥有者到达

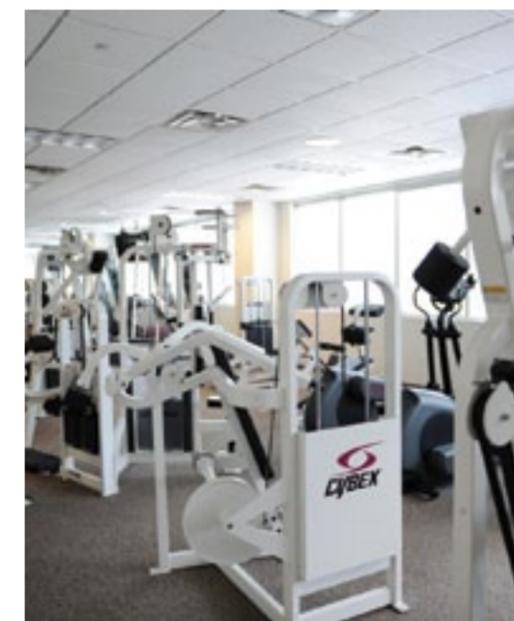


near the main entrance to make records of each jet owner's arrival and departure time in chronological order, to help arrange the most appropriate time for the limo driver to deliver the checked-in luggage at the appropriate time for boarding. Upstairs has a fitness area for the pilots and staff, and a kitchen to wash the dishes that were used in the jets, as well as a storage area for jet owners and pilots to temporarily store their personal belongings. All facilities are simple, quick and orderly, and all of the service was efficient, professional and smooth. Every place in the airport reflects Jet Aviation's business concept, that is, to do the best to take care of their passengers, to create a homely environment for travelers to rest, to handle passenger's information conveniently, quickly and efficiently to try to help them begin their next journey as quickly and efficiently as possible. Customer consideration in every possible way and trying the best to fully meet their needs, is what Jet Aviation is all about. Jet Aviation's operation manager told us that: "Here is the rest stop for the passengers, but not the destination."

Wednesdays to Fridays are typically the busiest times for Teterboro airport. The turnover in 2010 was 150,000. They spent much effort on aviation noise abatement, air quality control and security issues. TANAAC was founded in 1987; and they held 4 community conferences every year. The airport has 6 fixed noise monitoring stations and they created a rule that any aircraft which receives 3 complaints and exceeds noise standards, will never be allowed to land at Teterboro airport in the future. Meanwhile, the airport has a restriction on aircraft weight, in which ones that exceeds the standard are not allowed to land at the airport. They also have a 24-hour noise complaint hotline to handle noise concerns and questions from nearby residents. Regarding the safety issue, Teterboro Airport has installed the EMAX soft cement pavement on the north end of the runway in 2006, which could help to prevent aircraft overshooting off the runway. They plan to install EMAX protective measures on all the runways by 2015. U.S. general aviation airports commonly follow ICAO 140, Part 139, and they also make improvements according to their own characteristics and needs.

Atlanta International Airport

Atlanta International Airport is the world's largest passenger hub and the busiest airport. It is a major hub for Delta and Airtran Airlines. Atlanta is the largest city in the southern United States. Many domestic passengers



和下一段航行的时间，以便安排司机在最合适的时间将行李送至指定地点准备登机。楼上设有供公务机飞行员及员工使用的健身区域、用于清洗公务机内餐具的厨房以及存放公务机拥有者和飞行员私人信件及物品的橱柜。一切设施都简单快捷有序、所有服务都专业高效且一气呵成，每一个细微之处都能体现Jet Aviation的运行理念，即尽其所能关爱旅客，给旅途中的人营造家一般的休息环境，方便快捷高效的处理旅客信息以便使其最快速度开始下一站的航行，无微不至的为客户考虑并全力满足他们的需求。Jet Aviation的运营经理和我们分享：“这里只是旅客的休息站，而不是终点”。

Teterboro机场每周的周三周四周五最为繁忙。2010年的起降量为150,000架次航班。机场在噪声控制、空气质量控制和安全方面持续投入精力，积极为社区做出贡献。于1987年成立的TANAAC(机场航空器降噪指导委员会)，一年召

choose to transfer from Atlanta airport to their destinations, so the passenger traffic is enormous here. Like other airports that have nearly a hundred years of history, Atlanta Airport is the same and encountering a series of similar problems caused by the conflict between the original design and development of modern high-volume traffic and passenger demand. Atlanta airport changed its master plan in 1990. They retrofitted the airport facilities and runways. Currently there are six airport terminals, 199 parking stands, and each ramp allows two-way taxiing by Boeing 747, with a totally of five runways, the airport could handle about 226 landings and take offs each hour. The first, fourth, and fifth runway could allow take off and landings at the same time under any conditions. The fifth runway crosses through a highway, which cost the Atlanta airport 1.28 billion dollars to complete the runway design and construction. The airport's other infrastructure improvement is the splitting of the baggage sorting area from the same floor with the terminal part. By digging the basement space, the airport spent a year and a half to finish this project in order to optimize the use of the terminal and to improve service efficiency. We were very fortunate to have a chance to visit the baggage sorting center. The machine could handle 2,700 luggage per hour, and the ones that do not pass the machine sorting process, will be sent to the airport staff for manual examination. If everything is ok, the luggage will be accurately distributed to the appropriate flight. Atlanta airport has a very characteristic taxiway. There is a lower taxiway next to the west side of the second runway. When arriving at the Atlanta airport, our plane taxied to a very low position. The airport staff told us that this taxiway is 29 feet lower than the runway itself.

Regarding aviation noise abatement, the situation at Atlanta Airport is a little bit special. As Atlanta airport is not actually in the city of Atlanta, the airport needs to cooperate with all the cities surrounding it to deal with the aviation noise problem. Atlanta airport is a non-curfew airport and the



开4次社区会议；设有6个固定噪声监听站，规定在2年内某飞行器被举报三次并超过噪声标准，则永久不可降落在Teterboro机场。同时对降落飞机的重量有限制，超过标准的飞机不允许降落；设有24小时噪声投诉热线，以处理周遭居民对机场噪声的关切及疑问。安全方面，Teterboro机场在2006年对其北跑道末端安装了EMAX软水泥路面，以防止飞行器冲出跑道。预计在2015年，该机场所有跑到两端都将安装EMAX防护措施。美国通用航空机场除遵循ICAO140第139部的标准外，会根据自身的特点和客户的需求进行建设和改善。

亚特兰大国际机场

亚特兰大国际机场是全世界旅客转乘量最大、最繁忙的机场。达美航空和穿越航空都以此机场为主要枢纽。亚特兰大为美国南部最大的都市，所以许多乘客会选择搭乘国内线的班机到此然后转乘其他飞机到邻近的城市，使亚特兰大机场成为一个以中转为导向的机场，因此客流量极大。与其他有近百年历史的机场一样，亚特兰大机场面临一系列原始设计与现代高速发展的航空运输流量以及旅客需求间的矛盾与冲突。亚特兰大机场于1990年改变了机场建设主计划。对机场设施及跑道进行重建。目前机场有6个候机楼、199个停机位，每个机坪可允许波音747飞机双向滑行、五条跑道，每小时约226架次起降。第一、四、五这三条跑道在任何条件下可同时起降。其中第五条跑道要从高速公路上穿过，亚特兰大机场曾花费12.8亿美金完成这条跑道的设计与施工。机场另外一个基础设施的改善是原来进出港及行李分拣都设在同一楼层，机场在一年半时间内挖掘地下室空间，将行李分拣系统从楼面分离出去，以优化候机楼的使用并提高服务效率。我们非常有幸可以到机场行李分检中心的内部进行参观，机器分拣的处理能力为每小时2,700件行李；未通过机器分拣的行李被通道送至人工手检处，经过防爆检查后，行李则被准确的分配到相应航班上。亚特兰大机场有一段滑行道非常有特点，第二条跑道西边有一个较低的滑行道，飞机降落后经过此滑行道绕开跑道。我们抵达亚特兰大机场时，正巧所乘的飞机滑行到一个很低的位置。接待我们的机场工作人员告诉我们，这条滑行道与跑道间有29英尺的高度差异。

机场噪声治理方面，亚特兰大机场的情况较为特殊。由于机场不在亚特兰大市区范围内，所以机场需和相邻所有城市共同合作处理噪声问题。由于亚特兰大是无宵禁机场，噪声控制方面，DNL70

residents that live in DNL 70 will be in consideration for relocation. The people who live in the DNL 65-69 area will receive the airport's assistance to provide noise abatement measures. By use of federal and city funding, the airport bought the land on its west to use as an exhibition and leasing center. They also bought the land on its east side and developed the land into a transportation base of aviation and light industry. So far, the total cost to reduce the noise caused by Atlanta airport is 300 million U.S. dollars. Being the nation's busiest airport, Atlanta airport has committed to do their best to optimize airport's facilities and plans to continue to provide more quality and efficient service.

Atlanta airport's planning and design concept can be called the most successful case study ever. How did they make an airport in the area of only 5 million people the busiest airport in the world? This is inseparable from the pre-design, planning and the congenital conditions of the airport. At the very beginning when the airport began its operation, the designer decided to invest into this airport and developed it into a hub. They won over Delta and Airtran airlines, making Atlanta airport their main hub site. In addition, Atlanta airport has plenty of non-aviation revenue, which releases the financial burdens of the airlines relatively. This also encouraged and attracted airlines to land at Atlanta airport. For the hardware and facilities in the airport, the parallel runways and terminals could allow 2 Boeing 747 airplanes to land and take off simultaneously, which helps to maximize the airport traffic flow. Atlanta airport has the nation's most efficient FAA control tower. Good weather conditions is also counted as another important issue. There's no snow weather in Atlanta and the airport does not need de-icing operations. This is a very helpful element to ensure the high level of efficiency of the airport. All of these things combined have helped to create today's Atlanta airport, which can handle 90 million passengers annually (among them, including 85% of transit passengers).

We can not help but sigh at the idea that several decades ago in the last century, the unique designing and planning concept of Atlanta airport has made the airport in an area with only 5 million people, to became to the world's busiest airport almost a century later. This is a prime example of how a little bit of far-sighted planning and proper location can determine the success or failure of an airport.

Los Angeles World Airport

The Los Angeles World Airport is the 3rd largest airport in the United States and is the busiest airport in California. It was originally a very small airport when it was put into use back in 1923. After the Olympic Games back in 1984, the economy of Los Angeles continued to develop and the airport was quickly surrounded by the city. The conflict between the increasing amount of passengers and the airport's operational capacity was exposed gradually. Now Los Angeles airport keeps their busy operation while at the same time, upgrading the existing equipment. They currently have 2 main projects planned for its immediate future. The first project is to spend \$ 700



左右的区域内的民宅考虑搬迁，DNL65-69区域内的民宅由机场负责提供减噪措施。机场使用联邦基金及市政基金购买了机场西边的土地，用作展览中心和租赁中心；买下机场东边的土地发展成为航空及轻工业运输基地。到目前为止，亚特兰大机场用于减噪及搬迁等控制机场噪声的总费用已达3亿美元。作为美国最为繁忙的机场，亚特兰大国际机场一直致力于尽其所能优化机场设施与规划以提供优质高效的服务。

亚特兰大国际机场的规划设计理念堪称最为成功的营销案例。他们是怎么做到使亚特兰大这个仅有500万人口的区域的机场成为世界最繁忙的机场呢？这和前期的设计、规划以及先天条件密不可分。亚特兰大机场在刚开始运营时，建设者即决定投资将其发展成为枢纽机场，积极争取达美航空和穿越航空将其作为主要枢纽所在地；另外，亚特兰大机场非航空收入较多，航空公司的压力相对较低，对航空公司降落再次起到鼓励作用；硬件设施方面，机场平行跑道和候机楼可使两架播音767客机同时起降，使机场流量达到最大化；亚特兰大机场拥有全美最为高效的FAA塔台；此外，良好的气候条件，没有下雪天气、无需除冰作业也是机场高效运行的一个重要保障。所有的一切成就了今天可处理年旅客量9000万名（其中转机旅客占85%）的亚特兰大国际机场。

我们不禁感叹，几十年前的上个世纪，亚特兰大机场规划者独到的设计理念以及对机场的定位，



million on the renovation of the oldest terminal. The other project is the In-Line Baggage Screening Systems program. The airport staff introduced us to the work flow of the package system they currently use. All of the terminals could handle 10,000 packages per hour. One piece of luggage is put on a conveyor belt and sent into the system. After scanning for hazardous materials, explosives, and illegal substances, the luggage will be sent to the right flight by reading the barcode labeled on the luggage. The whole procedure is smooth, accurate and operates very fast. The In-Line package scanning system is very different from the traditional method used to check the passenger and their luggage when checked in. It uses a highly automated explosion detection system, which helps the busy airport deal with thousands of pieces of luggage per hour and greatly improves the efficiency of the airport. Los Angeles Airport's In-Line Package Scanning System project will be completed by the Airport Authority and the airlines. The total investment is approximately between 575-650 million U.S. dollars.

Los Angeles World Airport participates in an ongoing effort to provide environmental protection and aviation noise control. They optimize night flight procedures, use preferred runways and forbid engine tests at night. The airport also bought the houses near the end of its west runway. They also installed a noise monitoring system, opened a noise complaint hotline and held round table meetings periodically to invite the airport authorities, FAA representatives and local residents together to talk about the noise abatement issue. The airport's staff led us to visit its operation and management center. We stopped at a working area; these desks belong to the manager in charge of all the important departments in the airport. One security incident happened a period of time ago, which made the airport recognize that fast and efficient communication and timely response is critical in dealing with emergencies. One of the managers shared this comment with

使得这个仅有500万人口区域的机场在百年间成为全球最为繁忙的机场。可见具有远见的规划和机场定位决定着机场未来的走向和命运。

洛杉矶国际机场

洛杉矶国际机场是美国第三大机场以及加州最为繁忙的机场，在1923年建成投入使用时的规模非常之小。1984年奥运会之后，随着经济的不断发展，机场很快被城市包围。旅客增长与机场运转能力的矛盾逐渐凸现出来。洛杉矶机场在维护其繁忙运转的同时进行既有设备的更新工作。目前机场最大的两个项目是斥资7亿美金对最早投入使用的候机楼进行翻修，和In-Line包裹扫描系统项目。机场的工作人员向我们介绍了目前使用的包裹处理系统，所有航站楼每小时可总共处理10000件行李。行李从办理托运放在传送带上被送至系统内部，防爆扫描后，经过条码读取被送到正确的航班上。整个系统运转精确一气呵成。In-Line包裹扫描系统与传统的上机前旅客随身携带行李的扫描方式不同，采用高度自动化防爆侦测系统，在繁忙机场可达每小时检测数以千计的包裹。极大的提高了机场的工作效率。洛杉矶机场的In-Line包裹扫描系统项目由机场管理局和航空公司分工完成。总投资约为5.75-6.5亿美金之间。

在环境保护及噪声控制方面，洛杉矶机场持续进行努力。通过优化夜间飞行程序、使用优先跑道、夜间禁止发动机试车；购买西跑道头附近的民宅；安装噪声监测系统、开通噪声投诉热线以及定期举办噪声圆桌会议，机场当局，美国联邦航空局及社区代表共同讨论社区噪声问题等方式关切社区环境质量并控制机场噪声。工作人员引领我们参观了机场的运行管理中心。在一块工作区内大家停住了脚步，这几张办公桌的拥有者是机场所有重要部门的最高负责人。前段时间的某起安全隐患使得机场认识到，机场重要部门负责人快速有效的沟通并及时作出反应是至关重要的。其中一位负责人和我们讲到：“我们这些人在一起工作，遇到紧急问题时可立即讨论、确定处理方案并马上执行，当然我们的决定是以所有前方工作同事报告的情况为依据，并且我们有畅通的通道和华盛顿高层负责人直接报备。”

洛杉矶机场最为特殊的地方在于与当地有相关协议，即机场不再扩建。我们可想而知，无法扩建对于一个国际性的大型机场来说是怎样的挑战。而洛杉矶机场一直致力于在现有的条件下，最大程度的优化机场效率，更好的服务旅客。

us: "We work together and could talk and make decisions when encountering emergencies very quickly. The decisions we make is based on the actual situation reported by our colleagues and we have direct access to report to the senior officials in Washington".

One of the most vital facts about the Los Angeles airport is that they have an agreement with the local government that the airport will not expand. We can only imagine what kind of challenge it is for a major international airport to not be able to expand. Los Angeles airport has been working within its existing conditions to optimize the airport's efficiency and to provide better service to its passengers.

San Jose International Airport

San Jose International Airport is located to the northwest of San Jose, California, at the junction of three highways. The San Jose International Airport has less passengers on average than Oakland International Airport and San Francisco International Airport. With a similar situation as that of Oakland Airport, San Jose airport mainly attracts the passengers who live too far away from San Francisco International Airport, and served as an alternate airport for the other two airports. At first, San Jose airport was constructed with two terminals, A and C. There is a temporary car rental service area at the south end of Terminal A and near the highway. Due to the absence of car wash facilities, it was very inconvenient. However, with the rapidly emerging and prosperity of the high-tech industries in the area and the increasing level of visitors, San Jose's airport situation became far more serious. The narrow terminal and inadequate public health facilities were enormous problems for the airport's operation and development. From 2006 to 2010, the airport took 4 year to solve all of the problems. They built the new terminal B in the middle of Terminal A and C and also built a new car rental service area to the south of Terminal B. They demolished Terminal C and remodeled terminal A. After the expansion, the terminal building area increased from 55,000 square meters to 90,000 square meters. By use of scientific and technological problem solving, they optimized the boarding gates and reduced the quantity of gates from 32 to 28. The 28 gates has the equivalent efficiency of the previous 32 gates setup. As a global vane of technology and economic prosperity, the turnover of San Jose airport has gone down from 13.8 million before the Internet bubble burst to 10 million and now has fallen down to 8 million.

The new Terminal B has more food and retail shops and a new In-Line package scanning system, which highlights the applications of security and information technology. They use solar panels on the roof of the north corridor to take full advantage of the sunlight and to reduce energy consumption. San Jose airport originally had parking services, rental car services and car return services in different levels, which greatly hindered efficiency. The new layout combines all those services on the same level to optimize efficiency. The first phase of the renovation project cost 1.39 billion U.S. dollars. The project created another first of its kind, in that it is the first time an entire project was

圣何塞国际机场

圣何塞国际机场位于加州圣何塞市西北部，处于三条高速公路的交汇处。年均旅客人数少于奥克兰国际机场及旧金山国际机场。与奥克兰机场情况类似，主要吸引离旧金山国际机场太过遥远的郊区旅客，并担任旧金山和奥克兰机场的备用机场。起初圣何塞机场拥有A和C两个航站楼，在A航站楼的南面靠近高速公路处，设有一个临时性的租车服务区，由于没有车辆清洗设备，条件十分不便。随着新兴高科技产业繁荣而急速增加的旅客人数，圣何塞机场的情况日益严重，狭窄的候机楼以及公共卫生设施的不足对机场运行及发展造成巨大阻碍。圣何塞机场于2006年至2010年的四年间进行了机场改建计划。在A和C航站楼中间新建B航站楼，并在B航站楼南侧新建租车服务区域。取消C航站楼；对A航站楼进行改建。扩建后，候机楼的面积由原来的55000平方米增加至90000平方米。登机口则由32个减至28个，运用科技力量的新登机口可以大大的提高效率，28个登机口可等同于32个登机口的效率。作为全球科技及经济繁荣与否的风向标，圣何塞机场的吞吐量由互联网泡沫破灭之前的13,800,000降至10,000,000最后滑落至目前的8,000,000。

新建的B航站楼有更多的食品及零售商铺；安装有新的In-Line包裹扫描系统；更加凸显了安全和信息科技的应用，其中北走廊的屋顶使用太阳能面板，充分的利用日光，减低能源消耗。圣何塞机场最具独创性的将停车、租车及还车区域设在不同楼层，极大的优化了进出效率及旅客的方便。一期改建项目耗资13.9亿美金完成。该项目也开创了另一个先河，即将整个项目包给一个总承包商，所有内容在同一合同下进行。这样把传统项目中不同供应商之间相互制约的情况完全扭转，最终使机场改建项目如期顺利的完成。

我们随后参观了圣何塞机场的两个航站楼。B航站楼的外形酷似数根剥开来的电缆，向我们展示着这块科技沃土的独特色彩。经过A航站楼的时候，我们可以看到原来墙壁边缘的位置向空侧区域延伸，有了现在较为宽敞的空间；增加了12条新的值机柜台，大大提高了值机效率；同样安装了新的In-Line包裹扫描系统以及零售商业区域；新增了公共卫生设施。走过连接长廊我们进入了2010年6月刚刚启用的B航站楼内部。我们可以明显的感觉到置身在科技的世界中。正如圣何塞市政府对机场的期许，圣何塞机场需要体现自身的亮点及特质。二

contracted out to one prime contractor, with all sub-contractors under the same contract. This model successfully changed the common conflict often seen between sub-contractors in traditional projects, and finally helped the airport to complete the project successfully and in a timely manner.

We then visited the terminals. The design of Terminal B has a very modern industrial feel, which shows us the unique charm of this area, which is known for its plethora of advanced technology. When walking through terminal A, we can see the edges of the original wall, where they expanded the room to the air side and create a more spacious area. The 12 new check-in counters greatly improve ticketing efficiency. They also installed the In-Line Baggage System, created more retail area and public restrooms. Walking through the connection corridor, we entered the new terminal B, which was put into use in June, 2010. There we could clearly feel the exposure to the technological world. As the San Jose government hopes, the airport needs to reflect its own characteristics and highlights. A 4-meter-tall white robot on the second floor really catches the attention of the travelers by waving its long arms. Actually, the robot is a monitoring system, in which we can see the randomly captured images of the visitors from a big mirror on the robot's "face". Another amazing application of technology is the multi-layered walls composed of thousands of crystal panels flickering all the time. We were so puzzled to see what it was, and then we saw the answer on the screen nearby, it was a global city real-time weather forecast. The light and shade shows the weather conditions of a city. If somewhere is sunny, the panels will be all bright, if rainy; the panels become dim and start flickering. Standing under the walls, one really has a sense that it is raining inside the terminal. What should surprise the business people the most should be that twenty-five percent of the airport seats have a built in power source and USB interface device for travelers to use. The natural light makes the whole space a warm tone and lets people feel very comfortable. I think only at San Jose airport, could there be such an elegant and efficient connection between technology and life in such clever and wonderful ways.

The non-aviation revenue of the newly expanded San Jose airport accounts for 70% of the airport's total revenue. Of which 30 percent of that revenue is from parking, 40 percent from rental and sales. We have to admire San Jose airport's profit model, in which it maximizes its own advantages and minimizes its disadvantages. The dilemma of being surrounded on three sides by highways actually hides a huge business opportunity. We believe that the designer, planner and operators of the airport conducted in-depth research and analysis on their airport to explore the airport's developmental prospects. This is something we Chinese airports should learn.



楼里侧的一个4米高左右的白色机器人造型格外引人注目，机器人长长的手臂来回挥舞转动，这其实是一个监控设备，我们可以从顶部的镜面处看到被随机捕捉到的旅客的影像。另外一个让人惊艳的科技应用莫过于由数千张小晶体板组成的多层次的墙面，每个晶体板的灯光时明时暗，我们百思不得其解的时候发现答案就在旁边的一块液晶屏幕上：全球城市实时天气预报。晶体板的明暗演示着某地的天气情况。晴朗无云则一片明亮，多云阴雨则灯光暗淡并且明暗交替，站在下面似乎真的有落雨的感觉；最令旅途中的商务人士惊喜的莫过于，百分之二十五机场的座椅上设有电源、USB接口等设备供大家使用。整个航站楼在自然灯光的烘托下呈现出一股温暖的色调，让人无比舒适。也许全世界只有圣何塞机场可以把科技和生活如此巧妙而美妙的结合吧。

改建后的圣何塞机场非航空收入占总收入的70%，其中三成收入来自停车收费，四成来自于场地出租及销售。我们不得不感叹圣何塞机场的盈利模式，它将自己的优势和劣势都发挥到极致，三面被高速公路包围的窘境下面竟隐藏着如此巨大的商机。可见机场的设计、规划者以及运营者对机场进行了深度的研究和分析，探索机场的发展前景。这是值得我们国内机场学习和借鉴的。

噪声控制方面，圣何塞机场设立了噪声监测站，一年四次发布噪声情况数据，开通24小时的噪声投诉热线并限制夜间航班。圣何塞机场认为，被城市包围的机场应该实行宵禁。对社区的关切以及环境的和谐对于机场来说是至关重要的。

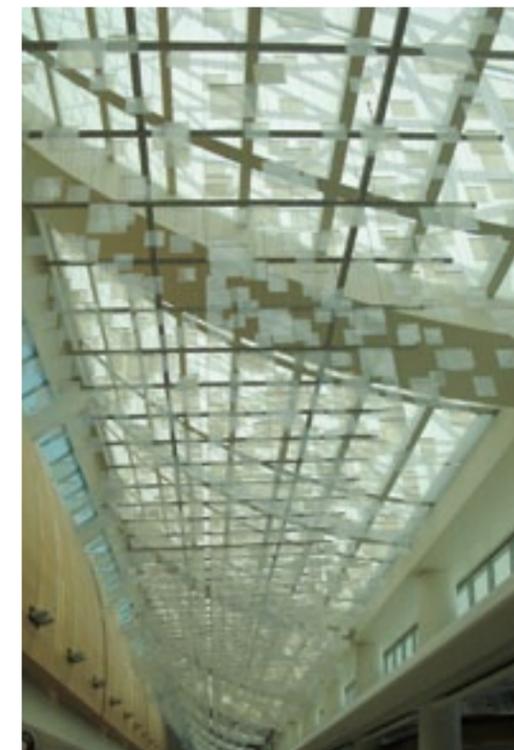
会议过半的时候，圣何塞百年历史上首位华人



For aviation noise control, the airport has installed a noise monitoring station, releases noise data 4 times a year, opened a 24-hour noise complaint hotline and restrict night flights. San Jose airport thinks that the airports which are surrounded by the city should conduct a curfew. Being a good neighbor is crucial to the success of the airport.

Half way through the meeting, the first Chinese City Council member in the 100-year history of San Jose, Mr. Kansen Chu and his wife Mrs. Daisy Chu came to the airport to join our meeting. Being an old friend of Mr. Chao, Mr. Chu was very happy to know that 4 of the chief designers from AVIC APC had come to visit U.S. airports, and commended that CCAR could facilitate this international exchange. Mr Chu is making positive efforts regarding San Jose-China flights. He hopes San Jose and China could have direct flight routes sooner. We feel both a great amount of excitement and respect for both the government officials and private sector individuals who are trying the best to support and be involved in the airport's development.

With the wonderful experiences at San Jose airport, we ended the airport tour. After visiting and learning from the five U.S. airports, it quickly became clear that China still has much to learn. I think the most important thing we should learn is from their service concepts and business models. We have received first-hand experience to see the philosophy of environmental protection reflected in airport construction and operation. We have seen the successful product of a thorough analysis and understanding of their airport and successful development of a long-term plan. We have witnessed airports that do their utmost to tap into the commercial potential of the airport, in accordance to the airport's own characteristics and convert their disadvantage into advantages. These airports try their best to meet passenger demands, care for their passengers, accelerate service model and optimize service processes. This is not just a simple sense of building luxury terminals in pursue of a fancy design and atmosphere. What's more important is we should understand the airport should most importantly, be functional and serve both the needs of the travels and the city.



市议员朱感生先生和太太周云菊女士来到机场接见我们。作为赵先生多年的好友，朱议员得知此次中航工业规划建设的几位总工程师前来美国考察学习感到十分高兴，并对民航报导能够促成这样的国际交流表示赞许。朱议员正在为圣何塞机场的中国航线积极努力，希望圣何塞和中国可以早日通航。这种从政府到民间对机场的支持及投入让我们感到振奋和尊敬。

随着最后一站在圣何塞机场的体验，我们结束了此次机场考察之旅。经过对美国5个机场的认识和了解，我们需要学习与借鉴的东西着实太多。我想我们最应该学习的是美国机场的旅客服务理念和商业运作模式。我们亲眼看到，亲身感受到美国机场建设及运行时体现出的环保理念；对自身机场透彻的分析和了解，并制定长远的发展规划；尽最大力量挖掘机场商业潜能，根据机场自身特点，变劣势为优势的非航空商业运作模式；以旅客需求为导向，关爱旅客，不断优化服务模式和加快服务流程，这不仅仅是简单意义上追求设计的奢华与大气，更重要的是我们应该明白，机场应为城市服务，为城市而生存。

依然愿意回味走在圣何塞机场新航站楼时的感觉，借着午后明媚的阳光，观赏世界上某一个角落的阴晴云雨，轻松惬意的踏上下一段旅程。

时事评论

民航报导发行人：赵嘉国

先前发生的航班违反飞行程序拒绝空管塔台指示避让的事件，严格的说来是航空业界积习的浮现表征，也是更严重事故发生的预兆和隐忧。

笔者在2010年第六期杂志编者的话“近亲繁殖是民航发展最大的安全隐患”里提到有关安全来自于程序的坚持。管理永远有改善的空间，但程序却是万万不可妥协的。航空安全的维系就在于坚持成千上万的程序。

但由于国内航空产业的特殊性，历史的原因让这个维系国家经济持续发展的重要产业在许多背景相同的人，出身相似的单位和环境相关联的决策机构组合下发展前进。近亲繁殖的结果导致相同的背景而引发类似的认知及习惯性的行为准绳，在众多的事件中可以看到“走个程序”的影子。当程序变成一个形式，程序的严肃性与重要性就在半麻痹下被妥协了，一旦妥协了程序那就无法从管理中补救将要发生的故事与灾难。防范胜于治疗，防范的唯一方法就是坚守程序，不妥协程序。让每个人，每个单位，每个事件都尊重程序，严守程序。当每个人都尊重程序，那这次不遵守飞行程序的事件就不会发生，当然就不用为因不避让所带来的可能的灾难性结果而捏一把冷汗。

Li Jian & Delegates Attend the 2011 Europe / US International Aviation Safety Conference 李健率团出席2011欧美国际航空安全年会

Li Jian, Deputy Minister of the CAAC, led a delegation to attend the 2011 Europe / US International Aviation Safety Conference held in Vienna in June. "Enhancing Global Aviation Safety – Future Challenges" was the main theme of the conference. Dedicated discussions were conducted on current aviation security hot topics and difficult issues that are common concerns to the international civil aviation industry, especially the operating personnel qualification and fatigue management, the approval and responsibility of airworthiness certification, and the aviation security management systems.

Deputy Minister Li Jian of the CAAC met with Mr. Patrick Goudou, Executive Director of EASA, and Ms. Peggy Gilligan, Associate Administrator of the FAA, respectively during the conference. The two sides briefed each other on the latest developments in the field of aviation safety, and exchanged views on mutual concerns of aviation safety issues. The two sides agreed to further strengthen cooperation in aviation safety, particularly the communication and cooperation on the Chinese-made large aircraft airworthiness certification, and to advance aviation safety based on enhancing understanding and mutual trust.

Co-sponsored by the FAA and EASA, Europe / US International Aviation Safety Conference has so far held 29 annual sessions. It has become the important platform for the international civil aviation community to share information and to expand cooperation on aviation safety. International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), Airports Council International (ACI) and other international organizations as well as U.S., EU member states of more than 30 countries and regions had sent representatives to attend. The mainly responsible people from the Office of Aviation Safety, Flight Standards Department, and Airworthiness Department of the CAAC participated as well.

6月，2011年欧美国际航空安全年会在维也纳召开，中国民用航空局副局长李健率团出席会议。本次会议以“加强全球航空安全，应对未来挑战”为主题，对当前国际民航界共同关注的航空安全热点、难点问题，特别是运行人员资质和疲劳管理、适航审定的批准和责任以及航空安全管理系统等议题做了专题研讨。

会议期间，李健副局长分别会见了EASA执行主任Patrick.GOUDOU先生和FAA助理局长Peggy.GILLIGAN女士，双方相互通报了各自在航空安全领域的最新进展，对相互关切的航空安全问题交换了意见。双方一致同意进一步加强在航空安全领域合作，特别是国产大飞机适航审定领域内的交流与合作，在增强理解和互信的基础上共同推进航空安全。

由FAA和EASA联合发起的欧美国际航空安全年会至今已经举办29届，已经成为国际民航界分享航空安全信息、拓展航空安全合作的重要平台。国际民航组织、国际航协、国际机场协会等多个国际组织以及美国、欧盟各成员国等30多个国家和地区派员参加了本次会议。航安办、飞标司、适航司主要负责人随团参加了会议。

China and France Held Civil Aviation Talks 中国与法国举行民航会谈

In June, the civil aviation delegation, headed by the Deputy Director of the International Department of the CAAC, Han Jun and Ms. Hélène Duchêne, Director of the Division of Mobility and Attractiveness Policy of the Ministry of Foreign and European Affairs from France, held a China-France civil aviation talk. The two parties reached a series of common agreements on revising certain items in the Sino-France Air Transportation Agreement which included: increasing destinations, appointing the number of carriers, enlarging the capability of passenger and cargo transportation and expanding the business cooperation between enterprises, and more.

This talk laid the legal foundation for Air China Cargo Co., Ltd. to formally operate Sino-France airlines and for Chinese and French air transportation enterprises to strengthen business cooperation. It also made it possible for Air France to open the Paris – Wuhan air route.

Currently, Air China Limited, China Eastern Airlines and China Southern Airlines operates a total of 24 passenger flights to France per week. China Cargo Airlines and Air China Cargo Co., Ltd. operates 7 cargo flights per week totally. Air France operates 33 passenger flights and 4 cargo flights per week to China.

6月，由民航局国际司韩钧副司长与法国外交与欧洲事务部移动政策司司长Duchêne女士率领的中法民航代表团在北京举行了新一轮中法民航会谈。双方就修订中法航空运输协定有关条款、新增目的地点和指定承运人数量、扩大客货运力以及拓展企业间商务合作等达成一系列共识。

此次会谈取得的成果为中国国际货运航空公司正式经营中法航线和中方空运企业与法方空运企业加强商务合作奠定了法律基础，也使法航开设巴黎—武汉航线成为可能。

目前，中国国际航空公司、东方航空公司、南方航空公司共经营每周24班至法国的客运航班。中国货运航空公司和中国国际货运航空公司每周经营7班至法国的货运航班。法国航空公司经营每周33个客班和4个货班。

Sakhalinsk Flights To & From Beijing Services Resumed 萨哈林斯克至北京往返航线复航

In May, Russia's SAT Airlines HZ171 (Sakhalinsk to Beijing) landed safely at the T2 Terminal of Beijing Capital International Airport, signifying the success of resuming service for flights from Sakhalinsk to Beijing after a lapse of 2 years.

The flight is operated by SAT Airlines on Boeing 737-500 aircraft, with one flight every Saturday, arrival time as 09:40 and departure time at 10:40 Beijing Time.

The flight route convenients passengers traveling in which passengers going to Sakhalinsk need not transit through Vladivostok, so as to save time and consumer cost, and also builds bridges for China-Russia economic and trade development exchanges.

5月俄罗斯萨哈林斯克航空公司HZ171（萨哈林斯克至北京）在北京首都国际机场二号航站楼（T2）安全着陆，标志着萨哈林斯克至北京航线时隔两年复航成功。

该航班由萨哈林斯克航空公司执行，机型波音为737-500，每周六一班，进港时间为9:40，出港时间为10:40（均为北京时间）。

该航线方便了旅客出行，旅客前往萨哈林斯克无需经海参崴中转，节省了时间和消费成本，也为中俄交流经贸发展架起了桥梁。

CAAC: Several Airport Expansion Projects Got Approved with a Total Investment of More Than Ten Billion Yuan 民航局：多家机场扩建工程获批 项目总投资超百亿

According to the Civil Aviation Administration of China, in June, several airport expansion projects, including Harbin Taiping International Airport, Dalian International Airport, Tianjin Airpor and Qinhuangdao Airport, got approved by the National Development and Reform Commission.

Among them, the Harbin Taiping International Airport expansion is designed to meet the year 2020's goal of passenger throughput of 15 million persons and the cargo-mail volume of 175 thousand tons. Major constructions are the runway and parallel taxiway smoothly extended south to 3,600 meters, a 51 stands apron and the de-icing fields, the 120,000 square meters 2nd terminal, and the supporting facilities of air traffic control, lighting and other related ancillary facilities. The total investment costs 3.472 billion Yuan.

Dalian International Airport expansion is built to satisfy year 2020's passenger throughput volume of 21 million persons and a cargo-mail volume fo 450,000 tons. Major construction will be a 15 stands apron, a 1,559 meters long parallel taxiway, a 70,000 square meters terminal, a reconstructed 14,000 square meters of the existing international terminal for domestic use, and supporting facilities for air traffic management, fuel supply, power supply, fire control and other related ancillary facilities will be built, with a 2.257 billion Yuan total investment.

Tianjin Binhai International Airport's phase II project is constructed to fulfill year 2020's passenger throughput of 25 million persons and a cargo-mail volume of 1.7 million tons. Main constructions are 3 new rapid exit taxiway at the east runway flight zone, a new 322,000 square meters apron, a 248,000 square meters terminal, a 700 meters long viaduct in front of the terminal, and the supporting facilities for offices, services, air traffic control, fuel supply, communications, fire control and others, a total investment of 5.691 billion Yuan.

The Qinhuangdao Civil Airport project is designed to fulfill the demand of year 2020's passenger throughput of 500 thousand persons and the cargo-mail volume of 1,200 tons. Major constructions are a Level 4C flight zone, a new 2,600 meters long runway, a 266 meters long vertical by-pass taxiway, the Type I precise approach lighting system at the primary landing course, the Type B simple approach lighting system at the secondary landing course, a new 8,600 square meters terminal, a 4 stands apron, and the supporting facilities for air traffic control, communications, weather, fire prevention and others, a 488 million Yuan total investment.

According to the announced the "12th Five-Year" Plan by CAAC, during the "12th Five-Year", 56 new airport construction, 16 airport relocation and 91 airport reconstruction-expansion are necessary, a nearly 500 billion Yuan total investment.

中国民航局6月称，包括哈尔滨、大连、天津和秦皇岛在内的多家机场扩建工程获得国家发改委的批准。

其中，哈尔滨太平国际机场扩建工程按满足2020年旅客吞吐量1500万人次、货邮吞吐量17.5万吨的目标设计。主要建设内容为，跑道、平滑向南延长至3600米，新建51个机位的站坪及除冰坪、第二航站楼12万平方米，并配套建设航管、灯光等相关附属设施。项目总投资34.72亿元。

大连机场扩建工程按满足2020年旅客吞吐量2100万人次、货邮吞吐量45万吨的目标设计。主要建设内容为，新建15个机位的站坪、平行滑行道长1559米、航站楼7万平方米，改造现有航站楼国际部分1.4万平方米为国内使用，配套建设空管、供油、供电、消防等相关附属设施。项目总投资22.57亿元。

天津机场二期工程按满足2020年旅客吞吐量2500万人次、货邮吞吐量170万吨的目标设计。主要建设内容为，在东跑道飞行区新建3条快速出口滑行道，新建32.2万平方米的站坪，24.8万平方米的航站楼，700米长的航站楼前高架桥，配套建设办公及服务、空管、供油、通信、消防等相关辅助设施。项目总投资56.91亿元。

秦皇岛民用机场工程按满足2020年旅客吞吐量50万人次、货邮吞吐量1200吨的目标设计。主要建设内容为，飞行区等级为4C，新建跑道2600米，垂直联络道266米，跑道主降方向设I类精密进近灯光系统，次降方向设B型简易进近灯光系统，新建8600平方米的航站楼，4个机位的站坪，配套建设空管、通信、气象、消防等配套设施。项目总投资4.88亿元。

根据民航局公布的“十二五”规划，“十二五”期间，要新建56个机场，外迁16个，改扩建91个，总投资近5000亿元。

Commercial Aircraft Corporation of China Determined LEAP as C919 Powering Engine 中国商飞确定C919动力为LEAP发动机

In June, the opening day of the Paris Air Show 2011, the Commercial Aircraft Corporation of China, Ltd. and its subsidiary, the COMAC Shanghai Aircraft Manufacturing Co., Ltd., held a special ceremony with CFM International, signing the C919/LEAP Integrated Process Systems (IPS) main contract.

LEAP is the product of CFM, a 50/50 joint venture company of SNECMA (Safran Group) and GE.

The final agreement designated CFM International as the only supplier from outside of China for the Integrated Process Systems (engines, nacelles, thrust reversers), and the LEAP-X1C engine will be the only engine from the western world for the new 150-seat medium-short range aircraft, which will be put into operation in 2016 as planned.



6月，在2011年巴黎航展开幕的第一天，中国商用飞机有限责任公司（简称“中国商飞”）及其下属公司上海飞机制造公司与CFM国际公司举行特别仪式，签署C919/LEAP集成推进系统（IPS）主合同。

LEAP是斯奈克玛（赛峰集团）和GE的平股合资公司CFM的产品。

最终协议明确CFM国际公司（CFM）将是来自境外的唯一集成推进系统（发动机、短舱、反推装置）的供应商，并且LEAP-X1C发动机将是新型150座级中短程飞机唯一西方的发动机，该飞机将按计划于2016年投入运营。

China Eastern Airlines and Alitalia Signed a Code-Sharing Agreement 东航与意大利航空签订代码共享协议

Alitalia and China Eastern Airlines signed the Code-sharing Agreement lately, which includes the Rome-Beijing route operated by Alitalia and the Rome-Shanghai route by China Eastern Airlines.

Such Agreement extends the two parties' code-sharing cooperation further to major destinations within China and Italy, and confirms the in-depth collaboration on operation, maintenance, cargo transport and frequent traveler membership plans.

The joint effort of Alitalia and China Eastern Airlines further reinforces the SkyTeam leadership in Asian market. Alitalia is a member of the SkyTeam Alliance, while China Eastern Airlines will join in this year.

意大利航空公司与中国东方航空公司日前签订代码共享协议，其中包含由意航执飞的罗马至北京航线以及由东航执飞的罗马至上海航线。

此份协议将双方公司的代码共享合作进一步延伸至意大利和中国境内的各主要目的地，并确定在运营、维修、货运以及常旅客会员计划等领域的深度合作。

意航与东航的此次携手进一步巩固了天合联盟在亚洲市场的领导地位。意大利航空公司是天合联盟的成员之一，而东航将于今年加入这一联盟。

Commercial Aircraft Corporation of China Established an European Business Office in Paris, France 中国商用飞机公司在法国巴黎成立欧洲办事处

In June, a day before the opening of the Paris Air Show 2011, the Europe Business Office of the Commercial Aircraft Corporation of China, Ltd. was established officially in Paris, France. This is the 2nd overseas business office established by the Commercial Aircraft Corporation of China subsequent to the office setup in the USA. This indicates that the Commercial Aircraft Corporation of China is accelerating the pace of international cooperation, increasing efforts to open communication, and widening the range of domestic and international aviation resources together to further promote the new regional aircraft ARJ21, especially the C919 large aircraft development.

Thierry Mariani, the French Secretary of State for Transport, Christian Sautter, the Deputy Mayor of Paris, Kong Quan, the Chinese Ambassador to France, and 30 plus guests attended the opening ceremony.

6月，巴黎航展开幕前一天，中国商用飞机有限责任公司（简称“中国商飞”）欧洲办事处在法国巴黎正式成立。这是继美国办事处之后，中国商飞公司在海外设立的第二个办事机构。这标志着中国商飞公司正在不断加快国际合作步伐，不断加大开放交流力度，广泛聚集国内外航空资源，深入推进ARJ21新支线飞机特别是C919大型客机研制。

法国交通部长蒂埃利·马利亚尼，巴黎市副市长克里斯泰安·索泰，中国驻法国大使孔泉等嘉宾30多人出席揭牌仪式。

Ministry of Finance Improves Subsidy Policy to Encourage Airlines to Operate Regional Aviation 财政部完善补贴政策 鼓励航空公司运营支线

Zhang Shaochun, Deputy Minister of the Ministry of Finance for the People's Republic of China, recently stated that the next step would be to continue the key supports on regional airport construction and operation of the central and western regions, promoting their healthy development; to adjust and perfect the present subsidy policy to encourage airline to operate regional aviation; to introduce specific measures to encourage general aviation development, and to offer supports on general aviation aerial works, pilot license training and infrastructures.

Zhang Shaochun indicated that during the 12th Five-year Plan period, constructing integrated transportation hubs and pro airport economic zones are major focuses to enhance the organic links between airports and railways, highways, urban light rails and other modes of transportation. On capital investment, the long-term mechanism of civil aviation construction financing and utilization management need to be studied; continue to implement the soft loan policy for civil aviation infrastructure, and broaden the market financing channels for civil aviation construction.

Zhang also said that during the "12th Five-year", import tax and value added tax on imports are waived for domestic airlines on aircraft used for regional routes as well as imported materials for aircraft engine maintenance. On the other hand, supports are given continually to domestic airlines that operate exclusive special long-range international routes, consider appropriate measures to encourage airlines to carry cargo operations and develop new profit growth prospects.

财政部副部长张少春日表示，财政下一步将继续重点支持中西部支线机场建设和运营，促进支线机场的健康发展；调整和完善现行支线航空补贴政策，鼓励航空公司运营支线；出台鼓励通用航空发展的具体办法，对通用航空飞行作业、飞行员驾照培训、基础设施建设等方面予以支持。

张少春表示，“十二五”期间将以建设综合交通运输枢纽和临空经济区为重点，促进机场与铁路、高速公路、城市轻轨等其他交通运输方式的有机衔接。在资金投入上，要研究民航建设资金筹集和使用管理的长效机制；继续实施民航基建贷款贴息政策，拓宽民航建设的市场融资渠道。

张少春还表示，“十二五”期间，一方面对国内航空公司用于支线航线飞机、发动机维修的进口航材免征进口关税和进口环节增值税，另一方面继续对国内航空公司独家执飞特殊远程国际航线予以支持，研究采取适当措施鼓励航空公司开展货运业务，培育新的利润增长点。

Research and Extension Center for Energy Conservation and Emission Reduction Established in Tianjin 民航大学节能减排研究推广中心在津成立

The Research and Extension Center for Energy Conservation and Emission Reduction of the Civil Aviation University of China was established in Tianjin in May, providing a stronger organizational security in the related research and promotion of energy conservation and emission reduction of the whole industry. Wang Changshun, Deputy Minister of the CAAC, attended the inauguration ceremony of the center.

At present, the center has assumed the related works on civil aviation energy saving and emission reducing guidance formulated by the CAAC; undertakes the "International Aviation Emissions Research" within the "Industrial Energy-saving and Emission-reduction in Issue 973 the Ministry of Science & Technology of PRC". The "International Aviation Emissions Research" conducted an in-depth research on the "Future Trends and Emission Peak Value of Civil Aviation", "Carbon Dioxide Intensity of Civil Aviation Emissions", "Target Countermeasures for Increasing Carbon-neutrality and Absolute Amount of Emission Reduction" and other major issues, effectively supports the CAAC's response toward international climate negotiations, getting high appreciation from leaders of the Science & Technology Department, National Authorities for Addressing Climate Talks and the CAAC. In order to promote the long-term, deep development, and to enhance the industry's meticulous management level on civil aviation energy conservation and emissions reduction, the center, commissioned by the Department of Planning & Development of the CAAC, finished the "Systemic Research on Statistics, Monitoring and Evaluation of Civil Aviation Energy-saving & Emissions Reduction", as well as studying issues in "bridge borne power unit replacement of APU", aviation biofuel strategic development and aviation noise control.

The Research & Extension Center for Energy Conservation and Emissions Reduction of the Civil Aviation University of China, commissioned by the Department of Planning & Development of the CAAC, works mainly on civil aviation industry's energy-conservation and emissions reduction policy studies, decision-making consultation, and technology research & promotion; at the same time, it provides professional services for foreign and domestic civil aviation industry related units, relying on the Civil Aviation University of China and a number of units inside and outside of the joint industry.



5月，中国民航大学节能减排研究推广中心在天津成立，这为行业节能减排相关研究和推广工作提供了更加有力的组织保障。民航局副局长王昌顺出席成立仪式并为该中心揭牌。

目前，该中心已承担民航局制定民航节能减排工作指导意见等相关工作，承担了“科技部973课题—行业节能减排方案”中的“国际航空排放问题研究”课题，该课题对“民航未来发展趋势及排放峰值”、“民航排放碳强度”、“碳中和增长和绝对量减排目标对策”等重大问题进行了深入研究，有力支持了民航局应对国际气候谈判工作，获得科技部、国家应对气候谈判主管部门和民航局领导的高度赞赏。为推动民航节能减排工作长期、深入地开展，提升行业节能减排工作精细化管理水平，该中心受民航局发展计划司委托，完成了《民航节能减排统计、监测、考核体系研究》，此外还承担了“桥载电源替代APU”、航空生物燃料战略发展以及航空噪声控制等方面的课题研究工作。

中国民航大学节能减排研究推广中心受民航局发展计划司委托主要从事民航业节能减排政策研究、决策咨询以及技术研究和推广工作，同时依托民航大学、联合行业内外多家单位、为国内外民航业相关单位提供专业服务。

Commercial Aircraft Project Cooperation of AVIC Jincheng and Hamilton Sundstrand Entered a Substantive Stage 中航金城与汉胜商用飞机项目合作进入实质阶段

In May, at the joint venture contract signing ceremony of Commercial Aircraft Vapor Cycle Cooling System between AVIC Jincheng Nanjing Engineering Institute of Aircraft System (AVIC Jincheng) and U.S. Hamilton Sundstrand, JJiao Yusong, President & Manager of AVIC Jincheng Group and Director of AVIC Jincheng, signed jointly the contract with Tom Pelland, Vice-President of Hamilton Sundstrand, marking the commercial aircraft cooperation project between the two parties entered into a substantive stage.

The investment total of the intended joint venture is US \$10,700,000, which each party holds 50% stake. After the company is established, it will first produce the Vapor Cycle Cooling System, including the Secondary Cooling Units (SCU), the Cargo Refrigeration Unit (CRU), and the Galley Cooling Unit (GCU) for commercial aircraft. Business scope will also expand to include system design and research & development.

5月，中航工业金城南京机电液压工程研究中心（以下简称“南京机电中心”）与美国汉胜公司商用飞机蒸发循环制冷系统合资合同签署仪式上，中航工业金城集团董事长、总经理，南京机电中心主任焦裕松与汉胜公司副总裁汤姆·佩兰德（Tom Pelland）共同签署合资合同，标志着双方在商用飞机项目上的合作进入实质性阶段。

本次拟组建的合资公司投资总额为1070万美元，双方股比为50%对50%。公司成立后，将首先为商用飞机生产蒸发循环制冷系统（包括辅助制冷装置（SCU）、货舱制冷装置（CRU）和机上厨房冷却装置（GCU）），业务范围还将扩展到包含系统的设计和研发等领域。

First Direct Route from China to Georgia Opened at Urumqi 中国首条直达格鲁吉亚航线在乌鲁木齐开航

As flight CZ6039 of China Southern Airlines Company Limited departed successfully from Urumqi Diwopu International Airport in June, the Urumqi-Tbilisi international route becomes official, and adds a "new wing" to the "bridgehead" for China going into Asia and Europe.

This is China's first direct flight route to Georgia, the 13th for opening international route of China Southern Airlines at Xinjiang, and also the air-bridge of Xinjiang opened up the ancient Silk Road, developing extensively the Asian & European international markets as well as achieving the cross-domain-style economic development.

6月，随着中国南方航空股份有限公司（简称“南航”）CZ6039航班从乌鲁木齐地窝堡国际机场顺利起飞，乌鲁木齐——第比利斯国际航线正式起航，为中国通向亚欧地区的“桥头堡”再添新翼。

这是中国首条直飞格鲁吉亚的航线，也是南航在新疆开通的第13条国际航线，更是新疆打通古丝绸之路、深耕亚欧国际市场、实现经济跨越式发展的空中桥梁。

China Aviation Supplies Holding Company and ICBC Leasing Jointly Ordered 88 A320s from Airbus

中航材与工银租赁共同向空客订购88架A320

Recently, China Aviation Supplies Holding Company and ICBC Leasing jointly ordered 88 A320s from Airbus. Among the 88 A320s, 42 were ordered by ICBC Leasing, which is the first mass ordering for aircraft by a leasing company in China.

By the end of May 2011, there will be 13 Chinese airlines operating 575 Airbus A320s.

中国航空器材集团公司和工银金融租赁有限公司日前共同向空中客车公司订购88架A320系列飞机。工银金融租赁有限公司订购了其中的42架，这是中国租赁公司首次较大批量订购飞机。

截止到2011年5月底，共有13家中国航空公司运营着575架空客A320系列飞机。

Nation's Largest Cargo Airlines Established

国内最大货运航空公司成立

The new China Cargo Airlines Ltd. held in Shanghai a grand inauguration ceremony in May. Following the issue of the business license by the Shanghai Administration for Industry & Commerce, and the Air Carrier Certificate by the CAAC's East China Regional Administration, China Cargo Airlines Ltd., the nation's largest cargo airlines, was formally established.

The China Cargo Airlines Ltd. is a joint venture of China Eastern Airlines Corporation Limited, China Ocean Shipping (Group) Company, EVA Airways Corporation and Singapore Airlines Cargo Pte. Ltd., united and re-organized on the basis of the original China Cargo Airlines Ltd., the Shanghai Airlines Cargo Intl. Co., Ltd. and the Great Wall Airlines Company Limited. The new China Cargo Airlines Ltd. is China's largest cargo airlines with a 3 billion RMB registered capital, and the stake ratio of 51% to China Eastern Airlines, 17% to China Ocean Shipping, 16% to EVA Airways and 16% to Singapore Airlines Cargo. The Board of Directors has 13 directors, which 7 (including the Chairman) are appointed by China Eastern Airlines, while 2 directors are appointed by each of the other three parties. The board of directors and the management staffs have fully reflected the professional advantages of the four investing companies in both experiences and professionalism that help to promote further the future development of the new China Cargo Airlines Ltd.

The new China Cargo Airlines Ltd. owns 18 full freighters, including five Boeing 747-400 freighters, four Boeing 777 freighters, four MD-11 freighters, two Boeing 757-200SF and three Airbus 300-600F freighters. Two more Boeing 777 freighters will also be brought in this year, and the Boeing 747-400 and Boeing 777 freighters will become China Cargo Airlines' main models by the end of the "12th Five-year", in such the fleet size and the transport capacity will maintain a leading position nationwide. China Cargo Airlines owns numerous freight routes operating the bellyhold cargo transportation business of China Eastern Airlines' 337 passenger aircraft in 152 flight destinations. It also conducts exchange accommodation, code-sharing and SPA transport collaboration with many airline companies in Asia, America and Europe; through continuous improvement of domestic and foreign ground truck distribution network, China Cargo Airlines Ltd. can provide clients worldwide with more than 200 accessible points of air transport services.

5月，新中国货运航空公司在上海举行隆重的挂牌成立仪式。随着上海市工商行政管理局和中国民用航空华东地区管理局（简称“华东管理局”）分别向新中货航颁发营业执照和运行合格证书，标志着中国国内最大货运航空公司正式挂牌成立。

新中国货运航空有限公司由中国东方航空股份有限公司、中国远洋运输（集团）总公司、长荣航空股份有限公司和新加坡货运航空公司共同投资，在原中货航、上货航、长城航空的基础上联合重组而成。新中货航是中国国内最大的货运航空公司，注册资本为30亿元人民币，股权比例为东航股份51%、中远集团17%、长荣航空16%、新加坡货航16%。中货航董事会有13位董事，其中7位（包括董事长）由东航委任，其余各方股东各委派2位董事。董事会及管理层人员，无论经验还是专业，都充分体现了东航、中远、长荣航空和新加坡货运航空的专业优势，有助于进一步推动新货航未来的发展。

新中货航拥有18架全货机，包括5架波音747-400货机，4架波音777货机，4架MD-11货机，2架波音757-200SF和3架空中客车A300-600F货机。今年还将引进2架波音777货机，波音747-400和波音777货机将在“十二五”末成为中货航主力机型，机队规模和运输能力将在全国保持领先优势。中货航拥有众多货运航线，经营着东航337架客机152个通航点的腹舱货运业务，并与亚洲、美洲及欧洲多家航空公司开展了互换舱位、代码共享、SPA联运合作，通过不断完善的国内外地面卡车配送网络，可为全球客户提供200余个通达点的航空运输服务。

The QD128 Combustion Engine of the AVIC Passed the Admittance Examination and Approval in the Iranian Market

中航QD128燃机发电机组通过伊朗市场准入审批

Recently, the QD128 generator unit of the combustion engine produced by the AVIC Shenyang Liming Aero-engine (Group) Corporation Ltd. smoothly passed the first examination and approval of core equipments and technology confirmation of the Department of Energy of Iran. This allows the QD128 Combustion Engine to be permitted to be used in all kinds of combustion engine power plants of 25MW and below in Iran.

In the beginning of 2011, the AVIC Shenyang Liming Aero-engine (Group) Corporation Ltd. and AVIC International Beijing Company Limited, signed a combustion engine agency agreement to jointly boost the market development of the Liming combustion engines. With the support and efforts of the two parties, and through the AVIC International Beijing Company Limited's active efforts and AVIC Shenyang Liming Aero-engine (Group) Corporation Ltd.'s concentrated coordination, the QD128 generator unit of the combustion engine smoothly gained admittance to the Iranian market. Gaining admittance to the Iranian Market was a planned marker of progress for the market development of the engine.

The issuing of the confirmation letter marked the QD128 generator unit of the combustion engine produced by AVIC Shenyang Liming Aero-engine (Group) Corporation Ltd. gaining recognition from the Iranian government, and paved the path for the QD128 combustion engine to enter into the Iranian market, as well as laid a solid foundation for the Liming combustion engines to enter into the international market.

中航工业黎明QD128燃气轮机发电机组近日顺利通过伊朗能源部首批核心设备技术确认书审批，获准在伊朗各类25MW及以下燃机电厂中推广使用。

2011年初，中航工业黎明与中国航空技术北京有限公司签订燃机代理协议，共同推动黎明燃气轮机在伊朗的市场开发工作。在协议双方领导的大力支持和不懈努力下，经过中国航空技术北京有限公司的积极努力和中航工业黎明通力配合，QD128燃气轮机发电机组顺利通过伊朗市场准入，取得市场开发的阶段性进展。

该确认书的签发，标志着中航工业黎明QD128燃气轮机发电机组得到了伊朗政府的认可，为QD128燃气轮机进入伊朗市场铺平了道路，同时也为黎明燃机走向国际市场奠定了坚实的基础。

Various Indicators of Kuqa Airport Met Standards & Passed Inspection

库车新机场各项指标全部合格 顺利通过校验

In May, a Citation 650 aircraft of the Flight Inspection Center of the CAAC conducted the flight inspection for Kuqa New Airport.

In order to ensure the safety, the successful completion and on-schedule of this flight inspection, the Kuqa Airport leaders, after receiving the inspection task, were highly concerned to carefully organize several coordination meetings with the airport relocation project team and the operation and controlling crews of the flight inspection center, conducted on-site inspection as well as made the detailed flight inspection security plan. Through the six-days joint efforts of Kuqa Airport security staffs, the airport's productive flight validation was completed with a success on June 5.

14 secured flight inspection missions were carried out during the flight inspection period, a total of 20 hrs. 35 min. which tested and validated the new airport's very-high-frequency omni-directional range/distance measuring equipment, the instrument landing system, the navigation lighting system, the very high frequency air-ground communications and the approach & departure procedures. The results indicated that all indicators are qualified.

5月，中国民用航空飞行校验中心的一架奖状560型飞机对库车新机场进行校验飞行任务。

为了确保本次飞行校验任务安全、如期、顺利完成，接到新机场校飞任务后，库车机场领导高度重视，精心组织，与新机场迁建工程指挥部、校飞中心运控人员多次召开协调会，进行现场实地考察，制定详细的校飞保障方案。通过库车机场保障人员6天的共同努力，于6月5日顺利完成了新机场投产校飞工作。

自5月31日至6月5日，库车新机场共保障校验飞行14架次，校飞时间共计20小时35分钟，对新机场的全向信标VOR/DME、仪表着陆系统ILS、助航灯光、地空通信VHF、进离场程序进行了校验。结果显示，各项指标全部合格。

Tianjin: College & Enterprise Jointly Establish the Civil Aviation Services Training Center

天津：校企合作建立民航服务实训中心



In May, the Civil Aviation Services Training Center jointly found by Tianjin Transportation Vocational College and Jintong Aviation Training Co., Ltd. was established officially.

The new training center occupied an area of 1,400 square meters with 6 major teaching areas: the airport check-in waiting area, the etiquette and physique training area, the air passenger service simulation training area, the aircraft model display area, the airport VIP service area, and the Civil Aviation CBT multimedia teaching area, highlighting the training orientation of service-oriented personnel for civil aviation. The training center fully meets the student's needs in the flight attendant profession in professional quality training, programs training, comprehensive practical training as well as external training. It becomes a high-quality high-end services-skilled personnel training base, and an open space, resource sharing, school-enterprise closely integrated multi-functional service area.

5月，天津交通职业学院与金通航空培训服务有限公司共建的民航服务实训中心正式落成。

新落成的民航服务实训中心占地1400平方米，共设有六大教学区域：机场值机等候区、礼仪形体训练区、民航客舱服务模拟训练区、飞机模型展示区、机场贵宾服务区、民航CBT多媒体教学区，突出民航服务型人才的培养导向。该实训中心充分满足空中乘务专业学生职业素养培养、项目训练、综合实训以及对外培训等需要，成为高素质高端服务技能人才的培养培训基地，成为空间开放式、资源共享型、校企紧密结合的多功能服务区。

Tibet Airlines Ordered CFM56 Engines 西藏航空订购CFM56发动机

Tibet Airlines Co., Ltd., China's newest establishment, signed an agreement with CFM International, ordering the CFM56-5B engines for its three Airbus A319 aircraft. The aircraft will be delivered starting July 2011, and the engine order is worth \$60 million.

Headquartered at Tibet Lhasa Gonggar Airport, Tibet Airlines will start the domestic passenger and cargo transport operations in July 2011. Tibet Airlines was established in May 2010, the first airline company setup in the Tibetan Autonomous Region.

中国最新成立的航空公司西藏航空有限公司与CFM国际公司签署协议，为其3架空中客车A319飞机订购CFM56-5B发动机。该批飞机将于2011年7月起交付，发动机订单价值6000万美元。

总部设于西藏拉萨贡嘎机场的西藏航空公司将于2011年7月开始国内客运及货运的运营。该航空公司于2010年5月成立，是设在西藏自治区的首家航空公司。

Shigatse Heping Airport Officially Opened Scheduled Flights 日喀则机场正式开通定期航班

In July, a CA4421 landed at Shigatse Airport safely, marking the official opening of regular flights, and the fifth civil airport in Tibet to officially be put into operation.

Shigatse Airport is well equipped, and has a shuttle bus to take visitors downtown. The operation of Shigatse Airport provides a convenient, time saving and cost-effective way of travelling for those in the Tibet region, and further accelerates the construction of Tibet's civil aviation hub. The new airport enhances the abilities of the regional air transport security and improves the layout of the Tibetan regional air transport network, which will play an important role in promoting the Shigatse region's economic and social development.

7月，中国国际航空公司CA4421次航班平稳降落在日喀则机场，标志着日喀则机场定期航班正式开通，西藏第五个民用机场正式投入运营。

日喀则机场设施设备齐全，配套开通了机场至日喀则市区的民航班车，该机场的投入运营，为广大旅客出行提供了便利，节约了时间和成本，进一步加快了西藏民航的枢纽化建设，提升了区内民航的运输保障能力，完善了西藏区内航空运输网络布局，必将对日喀则地区经济社会发展产生重要的促进作用。

New Terminal of Qingshan Airport Completed and Launched for Operation 青山机场改扩建工程新航站楼竣工并投入使用

After a year of intense construction, the 426 million yuan investment and the key construction project of Sichuan Province's "11th Five-year Plan", the reconstructed-expanded New Terminal of Xichang Qingshan Airport was launched into official operation in June. The annual passenger throughput of Qingshan Airport will increase to 1.1 million persons, and annual take-off & landing movements of 11,579.

The total investment of the reconstruction/expansion is 426 million yuan. The Aviation Administration of China supplied 198 million yuan in special funds to the expansion-construction project, while Liangshan Yi Autonomous Prefecture and Xichang City Government contributed 102 million yuan, and the remaining funds came from the bond funds reported to the National Reform and Development Commission by Sichuan Province Airport Group Co., Ltd. and the People's Government of Liangshan Yi Autonomous Prefecture jointly.

经过一年多的紧张施工，6月总投资4.26亿元，作为四川省“十一五”重点建设工程的西昌青山机场（简称“青山机场”）改扩建工程新航站楼正式投入使用，青山机场旅客吞吐量将增加为110万人次，年起降11579架次。

改扩建工程总投资为4.26亿元，其中中国民用航空局安排专项资金1.98亿元，凉山州、西昌市政府承担1.02亿元，其余资金由四川省机场集团有限公司和凉山州人民政府共同向国家发改委申报国债资金。

Chaoyang Flight College of CAUC Obtained Official Certification 中国民航大学朝阳飞行学院获得正式合格证

After two years of flight training, the Chaoyang Flight College of the CAUC was granted the CCAR-141 Civil Aviation Pilot School Certificate issued by the CAAC's Northeast Regional Administration in July. Chen Xibing, the chief pilot of the CAAC spoke highly of the construction of Chaoyang Flight College of the CAUC.

Chaoyang Flight College of the CAUC is the first flight training base of the CAUC. The flight college was established in April of 2007 and received the Civil Aviation Aircraft Provisional Pilot School Certificate from the CAAC in July 2009. Currently, the College has successfully ran for two years, with a total of 5,300 flying hours, trained four flight instructors, 12 skilled students with private pilot licenses, commercial pilot licenses and flight by instruments. There were also 19 commercial licensed and instrument rating pilots for Tianjin Airlines, Okay Airways, China Airlines, Sichuan Airlines, and Erdos GA Co., Ltd. and etc..

Chaoyang Flight College of the CAUC was set up jointly between the CAUC, the Chaoyang Municipal People's Government of Liaoning Province and Liaoning Province Airport Management Group Company.

7月，中国民航大学朝阳飞行学院经过两年的飞行训练运行，获得了民航东北地区管理局颁发的CCAR—141部民用航空器驾驶员学校正式合格证书，同时，首批13名学员成功取得商用驾驶员执照，标志着中国民航大学飞行技术人才培养进入了一个新阶段。民航局总飞行师陈锡兵代表中国民航局对朝阳飞行学院建设给予高度肯定。

朝阳飞行学院是中国民航大学的第一个飞行训练基地，成立于2007年4月，2009年7月获得了局方颁发的驾驶员学校临时合格证。目前，学院已安全顺利运行两周年，完成各类飞行5300多小时，先后培养出4名飞行教员、结业私商仪课程飞行养成学员12名，为天津航空、奥凯航空、华夏航空、四川航空以及中一太克、鄂尔多斯通航等培养多发商照和仪表等级驾驶员19名。

朝阳飞行学院由中国民航大学、辽宁省朝阳市人民政府和辽宁省机场管理集团公司三家单位合作共建。

New Aircraft Stands at Changsha Airport Opened for Operation 长沙机场航站楼新机坪停机机位正式投入使用

In July, new aircraft stands at Changsha Huanghua International Airport was formally ready for operation.

In July, an A320 aircraft from the Hu'nan branch of China Southern Airlines Company Limited landed at aircraft stand #234 of Apron C, which marked the official opening of operations of the aircraft stands of the new apron at the terminal of Changsha Huanghua International Airport. This event signifies the full completion of the Huanghua Airport's new terminal project which has lasted for more than two years, and this also indicates that the project has smoothly passed the flight operation security test, in accord with all of the airworthiness requirements.



7月，长沙黄花国际机场（简称“长沙机场”）新航站楼新机坪的停机机位正式投入使用

中国南方航空股份有限公司（简称“南航”）湖南分公司本场空中客车A320飞机顺利停靠到新航站楼C岛234机位，标志着长沙机场新航站楼停机机位正式投入使用。此举标志着历

时两年多庞大的黄花机场新航站楼工程已经全面完工，并顺利通过此次航班运行保障工作的检验，符合适航要求。新航站楼停机坪运行首日全天保障航班10个。

Grand China Aviation Technik Ltd., Co. Acquired Stakes of Turkish Maintenance Enterprise 大新华航空技术公司收购土耳其维修企业股权

In April, the National Development & Reform Commission approved the Grand China Aviation Technik Limited Company to acquire shares of Turkey's myTECHNIC Aircraft MRO Services.

The Grand China Aviation Technik Limited Company was established on March 25, 2010, as an aircraft maintenance and technical services company with an independent legal entity, organized on the basis of the MRO Project Business of Hainan Airlines, and fully integrated the aircraft maintenance resources of all airlines under the HNA Group. It gradually forms regional maintenance center at Haikou, Beijing, Xi'an, and maintenance base at Taiyuan, Urumqi and Guangzhou, a maintenance services network of 30-plus external stations worldwide.

4月，国家发改委核准大新华航空技术有限公司收购土耳其迈泰克飞机维修公司部分股权项目。

大新华航空技术有限公司（简称为大新华航空技术）成立于2010年3月25日，是以海南航空股份有限公司维修工程事业部为基础，全面整合海航集团旗下各航空公司飞机维修资源组建的、具备独立法人资格的飞机维修与技术服务企业。该公司已逐步形成了以海口、北京、西安为维修区域中心，太原、乌鲁木齐、广州等为维修基地，全球遍布30余个外站的维修服务网络。

Dalian Airlines Officially Unveiled 大连航空正式揭牌

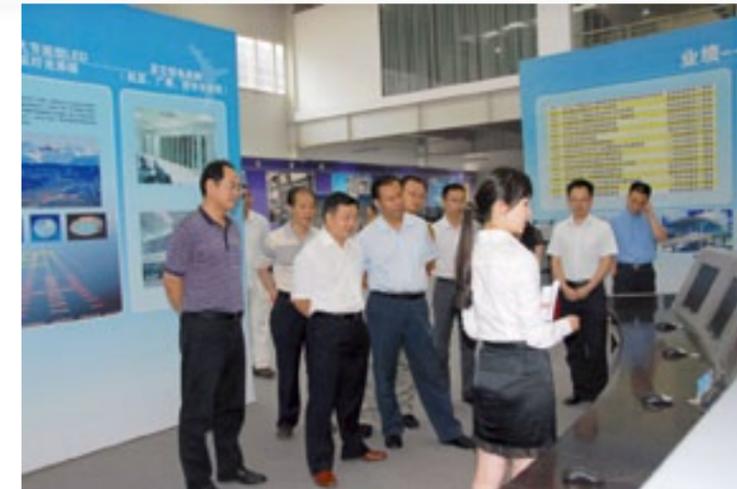
In August, the Dalian Airlines Co., Ltd. was officially unveiled at the Furama Hotel in Dalian, which means that the state-owned enterprise administrated by China's central government, Air China, has achieved substantive development in rejuvenating the old industrial base and has energized the regional economy in Northeast China. This also indicates that in Dalian city, there is finally an airline named after itself.

The Dalian Airlines Co., Ltd. was set up with an investment of 1 billion RMB, of which 80% was from Air China Ltd. (hereinafter referred to as Air China) and 20% was from the Dalian Baoshui Zhengtong Co., Ltd.. Dalian Airlines is expected to do its business before the end of this year. The Regional Hub strategy will be implemented to build an air transportation network matching the portal position of Northeast China. At the first stage, Dalian Airlines will be engaged in services of passenger transportation, cargo transportation and related services to mainly develop the domestic flight network. In the beginning, the flights to first-tier cities, such as Beijing and Shanghai, will be opened in order to connect to the Air China camp's main operation bases, and will gradually cover all the main domestic cities. When the domestic flight routes are sound and operational, then international routes to Japan, the Republic of Korea, etc., will be applied for ASAP. In the future, Dalian Airlines' flight routes will be connected to Air China's international and regional routes and the connecting flights to the Occident region will also be opened. At its initial stage, there will be 3 Boeing 737-800 aircraft in service and it is expected that by the first half of 2012, there may be 5 aircraft in its fleet. Meanwhile, taking itself as the main block, Dalian Airlines will cooperate with the Air China camp's airlines, such as Air China, Shenzhen Airlines and Shandong Airlines to help leapfrog its development.

8月8日，大连航空有限责任公司（简称“大连航空”）揭牌仪式在大连富丽华大酒店隆重举行，中央企业为振兴东北老工业基地的积极努力又有实质性进展，为当地经济发展注入了活力，同时也标志着大连市有了以自己城市名称命名的航空公司。

大连航空由国航和大连保税正通有限公司共同出资10亿元组成。其中，国航占80%，大连保税正通有限公司占20%。大连航空预计年内开航，将在大连实施“区域枢纽”战略，争取用5年的时间建成与东北门户地位相匹配的航空运输网络。先期将从事国内航空客货运输业务及相关服务，重点发展国内航线网络。首先开通大连至北京、上海等一线大城市航线，连接深圳等国航系主要基地，逐步覆盖国内主要城市。在国内航线运行成熟后，将尽快申请开通日韩等国际航线，未来将与国航的国际、地区航线网络对接，开通欧美联程航班。运营初期，使用3架波音737-800型飞机执行航班，计划2012年上半年达到5架运营规模。同时，将以大连航空为主体，加快与国航、深航、山航等国航系在大连市场的运力协同，实现跨越式发展。

Civil Aviation ATC & Electronic Information Scientific Research Base Passed Construction Inspection 民航空管和电子信息科研基地顺利通过建设验收



Recently, the Personnel, Science and Education Department of the CAAC had organized the construction inspection for the Civil Aviation ATC & Electronic Information Scientific Research Base (hereinafter referred to as the Base) in Chengdu.

Jin Erwen, Director of the Civil Aviation ATC & Electronic Information Scientific Research Base and Deputy Director of The Second Research Institute of the CAAC, reported the Base's construction situation to the inspection team. The professional inspection team conducted an on-the-spot investigation on the scientific platform. The inspection team also examined documents of the Declaration of Construction Inspection for Acceptance of the scientific base, the Report of the Construction Project Conclusion, the Report of Construction Funds Employment, the Report of the Acquaintance of the Counterpart Funds from Supporting Institutions and Report of Construction Inspection for Acceptance, and many more documents. In the end, the inspection team unanimously deemed that all the construction tasks of the Base listed in the document replied to by the CAAC had been finished and approved of the Base's passing of the construction inspection.

The Base was constructed with heavy reliance on the Second Research Institute of the CAAC. According to the CAAC's reply, the network synthetic test platform, the multifunction electrical control system, the research platform and development environment such as large relation data base has all been set up. The ATC technology laboratory, the electronic information technology laboratory and logistics technology laboratory has also been established. The automation application system based on small and medium ATC centers, the VHF networking technology and application system based on the ATC centers have also been researched and developed; and some strategic cooperation agreements with colleges & universities, civil aviation related units and regional departments have been signed.

近日，民航局人事科教司在成都组织了对民航空管和电子信息科研基地的建设验收。

中国民航局第二研究所副所长、科研基地主任金尔文向验收组汇报了科研基地建设情况，验收专家组实地考察了科研平台建设情况，审查了科研基地建设验收申请书、建设项目工作总结报告、建设资金使用报告、依托单位配套资金到位情况报告、建设验收报告等有关文件，并进行了质询和认真讨论。验收专家组一致认为，该科研基地完成了民航局批复文件的所有建设任务，同意通过建设验收。

民航空管和电子信息科研基地依托于民航二所建设，按照民航局批复要求完成了网络综合测试平台、多功能电气控制系统、大型关系数据库等研究平台和开发环境，建设了空管技术实验室、电子信息实验室和物流技术实验室，研发了基于中小型管制中心的自动化应用系统、管制中心甚高频（VHF）遥控联网技术和应用系统，还与多所高等院校、及民航、地方相关单位签订战略合作协议。

Delta Airlines Announced Its Code-sharing Cooperation with China Eastern Airlines 美达美航空宣布与东方航空开展代码共享合作

Delta Airlines Co. Ltd. of the U.S. announced in June its code-sharing cooperation with China Eastern Airlines Corporation Ltd., one of the three largest airlines in China. This is also the 1st code-sharing between Delta and China Eastern after China Eastern joined the SkyTeam Alliance in April 2010.

Code-sharing enables Delta Airlines to send its passengers to 21 cities in China using 49 China domestic flights currently operated by China Eastern Airlines. Meanwhile, the opened Trans-Pacific route can transport passengers directly to Los Angeles and New York from Shanghai. Similarly, China Eastern Airlines will use 38 U.S. domestic aviation network operated by Delta Airlines to link its flights to 21 U.S. cities. At the same time, Trans-Pacific aviation services will be achieved between Detroit and Shanghai as well as Atlanta and Shanghai.

Delta Airlines revealed that its number of flights in China will increase to 45 per week starting in Summer 2011.

美国达美航空公司于6月1日宣布，将和中国三大航空集团之一的中国东方航空股份有限公司（简称“东航”）开展代码共享合作。这也是继2010年4月，东航加入天合联盟之后，达美航空与东航之间首次共享航班代码。

代码共享后，达美航空将借助东航目前运营的49个国内航班的网络，将其乘客送达21个中国城市。而同时开通的跨太平洋航线，可使其乘客由上海直达洛杉矶和纽约；同样，东航也将借助达美航空运营的38个美国国内航空网络，将其航班衔接至美国21个城市。同时将在底特律和上海以及亚特兰大和上海之间，实现跨太平洋航空服务。

与此同时，达美航空透露，将从2011年夏季开始在中国增加航班数至每周45架次。

KRAUSS (China) Aviation Technologies Received FAA Air Agency Certificate 中航材西安凯龙公司获得FAA维修许可证

Recently, the FAA Singapore Office issued the FAA Air Agency Certificate to KRAUSS (China) Aviation Technologies Co., Ltd., making it the only FAA-qualified company in the northwestern region.

KRAUSS (China) Aviation Technologies, a joint venture between of China Aviation Supplies Holding Company and Krauss Aviation Technologies, is a Chinese-foreign joint venture run by China Aviation Supplies Holding Company, the main stockholder. KRAUSS (China) Aviation Technologies was registered and established on December 15, 2006, and gained the CAAC Maintenance Organization Certificate on May 5, 2008.

KRAUSS (China) introduced all technologies from Krauss Aviation Technologies, with model selections on production lines, non-standard equipments and debouching equipments designed by German technologists; mainly develop the surface fabrication process and reparation of civil aircraft fuselage components, landing gear attachments, aircraft engine parts and gas turbine components, including thermal spraying, welding, thermal treatment, non-destructive testing and electroplating of various parts. At present, KRAUSS (China) is providing parts maintenance-reparation and special arts and crafts support for Sichuan Snecma Aero-engine Maintenance Co., Ltd., Honeywell TAECO Aerospace (Xiamen) Co., Ltd., and Xi'an Aero-engine PLC.

近日，美国FAA新加坡办公室向中国航材西安凯龙航空技术有限公司颁发了FAA维修许可证证书，使西安凯龙成为西北地区唯一拥有这一资质的公司。

西安凯龙由中国航材集团与德国克劳斯航空技术公司合资成立，是中国航材集团控股的中外合资企业，于2006年12月15日注册成立，2008年5月5日获得CAAC维修许可证证书。

西安凯龙全部引进德国克劳斯航空维修公司技术，由德国技术人员设计生产线、非标准设备和进行设备的选型，主要开展民航飞机机身构件、起落架附件、飞机发动机零部件及燃气轮机零部件的表面工艺处理和修理业务，包括各种零件的热喷涂、焊接、热处理、探伤和电镀等特种工艺。目前，西安凯龙正在为四川国际航空发动机维修有限公司、厦门霍尼韦尔太古宇航有限公司和西安航空动力公司等国内主要发动机维修企业和制造厂提供零件维修与特种工艺业务支援。

China's First Full-motion Flight Service Cabin Simulator Developed Successfully in Shaanxi 全国首台空乘全动模拟训练舱在陕研制成功



Through more than 2 years of research & development, Xi'an Yanliang National Aviation Hi-tech Industrial Base successfully developed China's 1st independent intellectual property rights full-motion cabin simulator. It also symbolize the nation's design and manufacture standards of flight crew training equipment have entered the forefront worldwide.

Chief Engineer Zhang Baozhu of Xifei Asia-Pacific Aviation Simulation Co. Ltd. cited that the equipment could execute the four free dimensions training such as takeoff, landing, rolling and turbulence, a comprehensive simulation for flight crews to conduct various escape training.

The full-motion simulator is 15 meters long, weighs 20 plus tons, and can accommodate 50 trainees at one time. Though it costs 18 million Yuan, it fills the nation's void so that 3 orders were received in the first month of introduction less than one month's introduction.

经过两年多的研发，西安航空基地入区企业成功研制出我国首台拥有自主知识产权的全动模拟训练舱，这也标志着我国空中乘务训练设备的设计制造水平进入世界前列。

西安飞鹰亚太航空模拟设备有限公司总工程师张宝柱表示，这台设备可以进行四自由度的培训，比如说起飞、着陆、侧滚、颠簸，全面仿真使乘务员进行各种逃生训练。

这台全动模拟训练舱长十五米，重量超过20吨，可以同时容纳50名空乘人员进行训练。虽然价高达1800万，但由于填补了国内空白，推出不到一个月已经收到了3张订单。

Yining Airport Expansion Project Passed the Industry Acceptance of CAAC's Xinjiang Regional Administration 伊宁机场改扩建工程顺利通过新疆局行业验收

Recently, Yining Airport's expansion project successfully passed the Industry Acceptance conducted by the Industry Acceptance Committee by the CAAC Xinjiang Regional Administration.

Yining Airport's expansion project started in March 2009; it is the "11th Five-year Plan" key project of the Xinjiang Uygur Autonomous Region and Kazak Autonomous Prefecture in Yili, a total investment of 253.88 million yuan. The Industry Acceptance conducted on projects such as: an area of 12,910.14 sq.m. new framework terminal with three boarding bridges; a 16,924 sq.m. expanded plaza, a 11,864 sq.m. parking garage, and road, landscape engineering, as well as hardening area. After passing the Acceptance, the expansion of Yining Airport will be concluded and be put into use soon.

The Yining Airport expansion also included the asphalt concrete covering of the existing 2,400 meters long runway pavement and shoulder; two newly built 205.5m long, 23m wide, with a 7.5m wide shoulder on both sides, vertical by-pass taxiways (one being built on the original site); an addition of the 200 cubic meters water pond for fire rescue, a newly built 23,968 sq.m. apron with eight Class C and two Class B stands. At completion of the expansion project, the total area of Yining Airport Terminal will reach 16,680 sq.m., making airport's peak hour security capability rises from presently 12 movements & 300 persons per day to 24 movements & 1,200 persons per day, fulfilling the annual demand of 1.5 million passenger throughput. The Level 4C flight zone and the Level 6 fire-fighting & rescue can accommodate the Boeing 737-800, and under, model aircraft operations.



近日，伊宁机场改扩建工程顺利通过中国民用航空新疆地区管理局（简称“新疆民航管理局”）行业验收委员会的工程行业验收。

伊宁机场改扩建工程于2009年3月启动，是新疆维吾尔自治区和伊犁哈萨克自治州“十一五”重点

工程项目，总投资25388万元。此次进行的行业验收工程包括：面积为12910.14平方米新建框架结构航站楼，登机廊桥三座；16924平方米改扩建广场，11864m²的停车场，以及道路、绿化工程、硬化面积等。验收通过以后，伊宁机场改扩建工程将圆满结束，并于近期投入使用。

此次伊宁机场改扩建工程还包括对现有长2400米的跑道道面及道肩进行沥青混凝土盖被；新建长205.5米，宽23米，两侧道肩宽7.5米的垂直联络道两条（其中一条为原址新建）；增设200立方米消防水池，新建23968平方米站坪，共有10停机位，C类8个，B类2个；工程竣工后，将使伊宁机场候机楼总面积达到16680平方米，使伊宁机场高峰小时保障能力由现在的每天12架次、300人，提升为24架次、1200人，可以满足年旅客吞吐量150万的需求。飞行区等级达到4C级，消防救援等级达到6级，可供波音737-800及以下机型使用。

CAAC Minister Li Jiayang Met with the Chairman of The Boeing Company, Mr. McNerney 民航局长李家祥会见波音公司董事长麦克纳尼

Minister Li Jiayang of the CAAC met with Mr. McNerney, Chairman, President & CEO of The Boeing Company, in May.

Both parties exchanged further opinions on issues of personnel training, aircraft performance on high-altitude airports, aircraft technology updates, and research & development cooperation on China's large passenger aircraft.

5月李家祥局长会见了波音公司董事长、总裁兼首席执行官詹姆斯·麦克纳尼。

双方将就人员培训、高原机场飞机性能、飞机技术更新及中国大型客机研发的合作等议题进一步交换意见。

Modification-expansion Project of Lijiang Sanyi Airport Completed 丽江机场改扩建工程完工

In June, after Flight 8L9956 of Lucky Air Co. Ltd. took off safely from Lijiang Sanyi Airport, as the simple approach lights used for navigation were turned off one after another, and the Class I precise approach navigation lighting system blooming splendidly at the night sky, the historical mission of 16 years service of Lijiang Airport's Level 4C flight support facility was announced as successfully completed, and replaced by the more advanced 4D support facility.

Under the guide of the new 4D navigation equipment, Flight MU5945 of China Eastern Airlines Corporation Limited Yunnan Branch landed steadily at Lijiang Airport.

This marked Lijiang Airport's successful premier flight under Level 4D operation, thus has entered in rank of 4D among the 175 civil airports nation-wide.

6月，云南祥鹏航空有限责任公司（简称“祥鹏航空”）8L9956航班从丽江机场安全起飞后，随着用于导航的简易进近灯光次第熄灭，导改为I类精密进近灯光的导航灯光系统在机场夜空璀璨绽放，宣告丽江机场运行了16年的4C等级航班保障设施顺利完成了它的历史使命，被更先进的4D保障设施取代。

在新的4D导航设备的引导下，中国东方航空股份有限公司（简称“东航”）云南分公司MU5945航班平稳降落在丽江机场，标志着丽江机场按4D等级运行首航成功。

由此丽江机场改扩建工程完工并投入使用，飞行区等级由4C级提升到4D级，在全国现有的175个民用机场中，丽江机场迈入了4D机场行列。

Manzhouli Airport Renewed their Civil Airport Operating License, Upgraded to 4D 满洲里机场换发民用机场使用许可证，升为4D

In June, Manzhouli Xijiao Airport received the reply regarding the issuing of a new operating license from the CAAC's North China Regional Administration. Approved by the CAAC's North China Regional Administration, and registered at the Civil Aviation Administration of China, the Operating License for Manzhouli Airport (No. Y1562011117600) was officially renewed with 5-year validity. Meanwhile, the revised edition of the Manzhouli Xijiao Airport Operation Manual has also been approved by the authorities.

After the renewal of the operating license, the flight zone grade of Manzhouli Airport has been upgraded to 4D. The Pavement Classification Number is PCN55/R/B/W/T, with fire & rescue level at 6. The type and mode of the runway's operation is as a two-way Category-I precision approach runway, which can handle the aircraft of B767-200 and below.

As the 3rd 4D airport in Inner Mongolia, Manzhouli Airport had many competitive advantages, laying a solid foundation for rapid development. At the same time, it promotes opening-up to the outside, as well as economic cooperation and tourism development.

6月，满洲里西郊机场（简称“满洲里机场”）收到中国民用航空华北地区管理局（简称“华北管理局”）《关于换发满洲里西郊机场使用许可证的批复》。经华北管理局审核决定并报中国民用航空局备案，正式换发满洲里机场使用许可证，许可证编号Y1562011117600，有效期5年。同时，《满洲里西郊机场使用手册》修订版也正式得到局方批准。

换发新的使用许可证后，满洲里机场飞行区等级指标提升为4D，道面等级号为PCN55/R/B/W/T，消防救援等级为6级，跑道运行类别、模式为双向I类精密进近跑道，可使用机型为波音767-200及其以下机型。

作为内蒙古地区12家民用机场中第三家4D级机场，满洲里机场在行业区域内占据了竞争优势，为公司跨越式发展奠定了坚实的基础，创造了良好的条件。同时也对推动当地对外开放、经济合作和旅游业发展具有重要意义。

Xiamen Airport Opens New Apron 厦门机场启用新停机坪

After receiving completion acceptance and industry acceptance by the CAAC's East China Regional Administration, Xiamen airport's partial apron expansion project (ie, the eastward expansion of the ramp) was officially finished and ready for operation.

The new ramp is designed according to Civil Aviation's latest industry standards, with a total area of about 94,750 square meters. The new ramp also has 11 designed parking stands, a new parallel taxiway connection with the A7 contact road, apron flood lighting, fire-fighting facilities, surveillance camera equipment, and aircraft ground anchorages.

Excluding the self-use parking stands of Xiamen Airlines, there were original only 35 parking stands in Xiamen Airport. The new ramp will help ease the use of the limited existing parking stands and difficulties due to scarce resources. The new apron will also play a positive role in flight security.

近日，通过竣工验收和民航华东管理局组织的行业验收后，厦门机场停机坪改扩建部分工程（即东扩一段机坪）正式启用。

新机坪按民航最新行业标准设计，总面积约94750平方米，设计机位11个，新增1条与平行滑行道连接的A7联络道，配备相应的服务车道、机坪泛光照明、消防设施与监控摄像设备，并设有航空器系留地锚装置。

不包括厦航自用机位，厦门机场机坪原有机位35个，新建机坪的投用将有助于缓解现有运行机坪面积有限、机位资源紧缺的困难，为日益繁忙的航班保障发挥积极效用。

Yantai Municipal Government & Okay Airways Signed a Strategic Cooperation Framework Agreement 烟台市政府与奥凯航空签署战略合作框架协议

In July, the signing of the Strategic Cooperation Framework Agreement between Yantai Municipal People's Government and Okay Airways Co., Ltd. was held smoothly at Yantai City.

Li Shujun, Deputy Mayor of Yantai Municipal People's Government, and Wang Shusheng, Chairman of Okay Airways, signed the "Yantai Municipal People's Government & Okay Airways Strategic Cooperation Framework Agreement".

In accordance with the Agreement, Okay Airways will put in three domestic-made MA60 regional aircraft in Yantai within this year, initially build the Yantai based Circum Bohai Sea Express Network linking Tianjin, Dalian, Shenyang, Jinzhou, Dandong, Qinghuangdao, Ji'nan and Dongying. Before 2015, Okay Airways' trunk and regional aircraft in Yantai are expected to reach eight, and gradually becomes a better domestic, international routes network. Build China's regional aviation base, and make Yantai the birthplace of the domestic regional aviation.

This Agreement signing is a milestone for Okay Airways in strengthening the exchanges and cooperation between government and enterprises, as well as promoting the rapid development of Okay Airways in Yantai, marking the opening of a new chapter.

7月烟台市人民政府与奥凯航空有限公司（简称“奥凯航空”）战略合作框架协议签约仪式在烟台市顺利举行。

烟台市人民政府副市长李树军、奥凯航空董事长王树生分别代表双方共同签署《烟台市人民政府与奥凯航空公司战略合作框架协议》。

根据协议，奥凯航空今年内将在烟台投放3架国产新舟60支线飞机，初步构建以烟台为中心、连接天津、大连、沈阳、锦州、丹东、秦皇岛、济南、东营等城市的环渤海快线网络。2015年以前，奥凯航空在烟台的干、支线飞机预计达到8架，在烟台逐步形成较完善的国内、国际航线网络。打造中国的支线航空基地，成为国产支线航空的发祥地。

此次战略合作框架协议的签署，是奥凯航空加强政企交流与合作、推进奥凯在烟台快速发展的一个里程碑，标志着奥凯在烟台的发展开启了崭新的篇章。

The 3rd Runway at Hong Kong Airport Planned to be a Part of the Pearl River Delta Airspace 香港机场第三跑道被纳入珠三角空域规划



In July, Yau Shing-mu, Under Secretary of Transport and Housing for the Hong Kong SAR, said that Hong Kong, Macao and the Mainland authorities have begun to improve and rationalize the Pearl River Delta airspace management, air traffic control operations and flight procedures. The measures have been fully taken into account for the future operations of the third runway at Hong Kong International Airport.

Yau Shing-mu stated that at the SAR legislative Council, the Civil Aviation Administration of China, Hong Kong Civil Aviation Department and the Civil Aviation Authority of Macao had discussed how to improve the situation of the Pearl River Delta airspace and reached a consensus and a clear plan regarding airspace structure adjustment and optimization of the objectives, tasks and safeguards. The three parties agreed to a "unified planning, unified standards and unified management" principle, to jointly promote the overall airspace system interface procedures and standards, cover optimized airspace design to improve flight level allocations, unified air traffic control equipment, standards and procedures, and increase the Pearl River Delta civil air routes from northern China and many other civil works, which aims to improve the region to airspace and air traffic management planning. The three parties have already started to gradually improve and rationalize the Pearl River Delta and have committed to airspace management, air traffic control operations and flight procedures.

He said that due to the three parties' efforts, by the end of 2006, the Guangzhou and Hong Kong Flight Information Region had opened a new transfer point and relevant channel for flight over Hong Kong and landing in Guangzhou. In 2010, it completed the terminal airspace evaluation adjustment program in Zhuhai. The program is implemented in April this year. Besides the improvement measures for air traffic flow at the Pearl River Delta, it was also given full consideration in the future to enable the Hong Kong International Airport's third runway after the operation, and provide sufficient airspace. According to the "2030 Hong Kong International Airport Master Plan", if there is a 3rd runway put into use at Hong Kong International Airport, the actual maximum capacity of aircraft movements are expected to reach about 620,000.

香港特区政府署理运输及房屋局局长邱诚武7月6日表示，港澳和内地主管部门在有关共识基础上，目前已开始致力于改善和理顺珠三角空域管理、空管运作及飞行程序，有关措施已充分考虑到香港国际机场未来启用第三条跑道后的运作模式。

邱诚武当天在特区立法会会议上回答议员提问时说，中国民用航空局、香港民航处和澳门民航局通过商议，已就如何改善珠三角地区空域状况达成共识，并明确规划了2020年之前调整优化珠三角地区空域结构的目标任务和保障措施。三方同意采用“统一规划、统一标准、统一管理”的原则，共同推动全面的空域体制衔接程序及标准，涵盖范围包括优化空域设计、改善飞行高度层分配、统一空管设备的标准及程序，以及增加珠三角往返华北地区的民用航道等多方面工作，目的是改善区内地空域规划和航空交通管理。三方目前已开始致力于逐步改善和理顺珠三角空域管理、空管运作及飞行程序。

他说，经过三方共同努力，2006年底，广州与香港两个飞行情报区之间已经增设一个新移交点和相关航道，供飞越香港降落广州的航班使用。2010年又完成了珠海终端区空域调整方案的评估工作，该方案已于今年4月实施。有关改善措施除针对珠三角预计航空交通流量外，也充分考虑到香港国际机场日后启用第三条跑道后的运作模式，并为之提供了充足空域。根据《香港国际机场2030规划大纲》，香港国际机场如兴建第三条跑道并投入使用，每年实际最高航机升降容量约62万架次。

1st Boeing Sky-Interior Aircraft for China Southern Airlines Settled in Guangxi 南航首架波音天空内饰飞机落户广西

In June, the 1st innovative Sky-Interior Boeing 737NG, the newest passenger aircraft which China Southern Airlines purchased from The Boeing Company, departed from Guangzhou and arrived at Nanning Wuxu International Airport, officially delivered to Guangxi Branch of China Southern Airlines for use. At present, the Guangxi stationed fleet size of China Southern Airlines has increased to 12 aircraft. Deputy Chairman, Yang Daoxi, of Guangxi Zhuang Autonomous Region and leaders at all levels attended the welcoming ceremony of the arriving new aircraft.

With the sky-interior, the Boeing 737NG is the newest generation Boeing aircraft that has more advanced equipments, easier maintenance, lower failure rate, and more environmental-friendly and economical. The lighting system used inside the cabin is the concave ceiling LED that can choose several modes of lighting according to different flights or service stages, including boarding, takeoff, and dining; passengers can enjoy the pleasant soft blue sky, and also appreciate a quiet and relaxing evening. Moreover, the brighter LED replaces the incandescent identifications, the attendant lights and the halogen reading lights. After optimized the design of the cabin sidewall, the cabin noise can reduced by 1-2 dB throughout the flight, allowing passengers to experience a quieter cabin.

China Southern Airlines has purchased 55 of such new aircraft with the sky-interior design from The Boeing Company; the 1st sky-interior 737NG aircraft settled in Guangxi is the 737-800 model, which will mainly ensure the hub routes of Beijing, Shanghai and Guangzhou, and it brings active purpose in raising the service quality of Guangxi's commercial flights. Starting next year, China Southern Airlines will add yearly two to three 737NG aircraft to its Guangxi fleet, making the Guangxi stationed fleet size to reach 25 aircraft at the end of the "12th Five-Year".

6月南航从美国波音公司订购的首架具有创新性天空内饰的波音737NG最新型客机由广州飞抵南宁吴圩国际机场，正式交付给南航广西分公司执管使用。至此，南航在广西驻地机队规模增加到了12架。广西壮族自治区副主席杨道喜等各级领导出席了新飞机抵桂欢迎仪式。

设有天空内饰的波音737NG客机是最新一代波音飞机，设备更先进、更易于维护、故障率更低、也更环保经济。该飞机客舱内灯光照明系统采用了天花板凹形发光二极管(LED)灯光照明，可以根据不同的飞行或服务阶段选择包括登机、起飞、用餐等多种模式灯光，乘客可享受宜人柔和的蓝天，也能体会宁静放松的黄昏。同时，亮度更高的LED取代了白炽灯标识、乘务员灯和卤素阅读灯。客舱侧壁经过优化设计后，飞行过程中可以减低1-2分贝的舱内噪音，乘客会感觉客舱更安静。

南航共在波音公司订购了该新型天空内饰飞机55架，而落户广西的首架天空内饰737NG飞机为737-800型，将重点保障北京、上海、广州等枢纽航线，这对提升广西商务航线的服务品质将起到积极的作用。从明年起，南航增加到其广西分公司机队的737NG飞机数量，每年将增加2至3架，使南航驻广西机队规模在“十二五”末达到25架。

AVIC Xi'an Aircraft Industry Delivered the Last Two MA60 Aircraft to Merpati Nusantara Airlines 中航西飞向印尼鸽航交付最后两架新舟60飞机

In June, the last two Modern Ark 60 aircraft purchased by Merpati Nusantara Airlines departed Xi'an Yanliang Airport, would transit through Kunming-Bangkok, and arrive at Medan Polonia International Airport in Indonesia.

At this point, AVIC Xi'an Aircraft Industry has fulfilled the contract with Merpati Nusantara Airlines for 15 MA60 aircraft, which is also the largest export thus far.

6月，印度尼西亚鸽记航空公司（简称“鸽航”）订购的最后两架新舟60飞机从西安阎良机场起飞，将经昆明——曼谷转场飞行，到达目的地——印尼棉兰机场。

至此，中航工业西安飞机工业（集团）有限责任公司与鸽航签订的15架新舟60飞机购销合同全部履行完毕，这也是迄今新舟60飞机最大的出口合同。

Okay Airlines Received Two More MA60 奥凯再次接收两架新舟60



Two MA60 (Modern Ark 60) aircraft, introduced by Okay Airways Company Limited from Xi'an Aircraft International Corporation, landed safely within 12 minutes subsequently at Tianjin Binhai International Airport in June. Chairman Wang Shusheng and President Liu Weining of Okay Airlines arrived accompanying the aircraft.

After the successful operation of two MA60 in recent year, this is Okay Airlines' introduction of another the MA60 aircraft. At present, Okay Airlines owns four MA60 aircraft.

Up to the end of June 2011, Okay Airlines owns a transport capacity of 14 aircraft, with a total passenger throughput of more than 5 million persons and a cargo-mail volume of 80,000 tons plus. Applying "combining regional and trunk aviation to facilitate passenger and freight transports simultaneously" as the developmental strategy, Okay Airlines highly concerns the coordinate development of regional and trunk aviation. It will continue to lead in more MA60 aircraft, and creates a sizable domestic-made regional aircraft fleet, to vigorously develop the regional aviation market.

6月奥凯航空有限公司（简称“奥凯航空”）从西飞国际引进的两架新舟60飞机在12分钟内先后平安降落在天津滨海国际机场。奥凯航空王树生董事长、刘伟宁总裁随机抵达。

这是奥凯航空近年来成功运营两架新舟60飞机后，再次批量引进新舟60飞机。至此，奥凯航空拥有新舟60飞机数量达到4架。

截至2011年6月底，奥凯航空拥有14架运力，累计运送旅客超过500万人次，货邮运输量8万吨以上。奥凯航空将“干支结合、客货并举”作为公司的发展战略，高度重视支线航空与干线航空的协调发展。奥凯航空将继续引进新舟60飞机，打造一支初具规模的国产支线机队，大力发展支线航空市场。

The 50th Airbus A320 Aircraft Assembled in Tianjin FALC Delivered to Juneyao Airlines 第50架天津总装空客320系列飞机交付吉祥航空



Airbus S.A.S. celebrated the delivery of its 50th Airbus A320 aircraft, assembled in the Airbus A320 Family Final Assembly Line in China (FALC), to Juneyao Airlines Co., Ltd. in June. The delivery ceremony was held at the Airbus (Tianjin) Delivery Center. Leaders from the National Development & Reform Commission, Tianjin City, Juneyao Airlines, Airbus China, Airbus (Tianjin) Final Assembly Co., Ltd., Airbus (Tianjin) Delivery Center and the employees of Airbus (Tianjin) Delivery Center attended the delivery ceremony.

Chairman Wang Junjin of Juneyao Airlines said: "I am very pleased to come and receive the 50th aircraft that was assembled at the Airbus China Assembly Line. This is also our 20th brand new aircraft received from Airbus S.A.S., and the 3rd from Airbus China Assembly Line."

The Headquarter of Juneyao Airlines Co., Ltd. is located in Shanghai, with a fleet of all Airbus aircraft. Presently, it is operating a total of 19 Airbus aircraft, including two A319 and seventeen A320 aircraft.

6月，空中客车公司庆祝其天津总装线总装第50架空中客车A320系列飞机交付上海吉祥航空有限公司（简称“吉祥航空”）。交付仪式在空客（天津）飞机交付中心举行。国家发改委和天津市相关领导、吉祥航空公司领导、空中客车中国公司、空中客车（天津）总装有限公司、空中客车（天津）飞机交付中心领导和员工参加了交付仪式。

吉祥航空公司董事长王均金表示：“我很高兴能来接收空客中国总装线总装的第50架飞机。这也是我们从空客接收的第20架全新的飞机，是吉祥从空客中国总装线接收的第3架飞机。”

吉祥航空公司总部设在上海，为全空客机队，目前共运营着19架空中客车飞机，其中包括两架空中客车A319和17架A320飞机。

Juneyao Airlines Received CCAR-121-R4 Additional Certification Approval 吉祥航空通过CCAR-121-R4补充运行合格审定

In June, a ceremony was held in Shanghai to celebrate the issuing of the CCAR-121-R4 Additional Certification Approval to Juneyao Airlines Co., Ltd. by the CAAC's North China Regional Administration.

The President of Juneyao Airlines, Zhao Hongliang, took the CCAR-121-R4 Additional Certification Approval from the Deputy Administrator of the CAAC's North China Regional Administration, Tang Weibin, which marked the completion of the CCAR-121-R4 Additional Certification Approval process.

6月，中国民用航空华东地区管理局（简称“华东管理局”）向上海吉祥航空有限公司（简称“吉祥航空”）颁发CCAR-121-R4补充运行合格审定运行规范的仪式在上海举行。

吉祥航空赵宏亮总裁正式从华东管理局唐伟斌副局长手里接过R4补充审定运行规范，标志着吉祥航空已圆满完成R4补充审定工作。

Hohhot – Jeju Airline Opened for Operation 呼和浩特——济州岛航班通航



Eastar Air Inc. opened the Hohhot – Jeju airline in July with a fleet of Boeing 737-700 to establish a convenient air route for passengers.

Located at the south of the Korean Peninsula, Jeju, with an area of 1,825 square km, is the largest island in Korea. There are mysterious natural landscapes and inherent traditional culture in this beautiful island, which is called "the Peace Island". Many tourists yearn for Korean and Jeju. Formerly, tourists had no other choice but to go to Beijing for flights to Jeju. The opening of the Hohhot – Jeju flight will give much more convenience to tourists in Inner Mongolia, and give them opportunities to enjoy Jeju, "the Hawaii of Korea".

韩国易斯达航空公司已于7月开通呼和浩特——济州岛的航班，机型为波音737-700，为往来游客搭建便捷的空中通道。

济州岛是韩国最大的岛屿，面积1825平方公里，位于朝鲜半岛最南端，是有着神秘的自然景观和固有的传统文化的美丽岛屿，被世人称为“和平之岛”。更多旅客对韩国、对济州岛的向往跃然而生。曾经出行要从北京飞往济州岛，本次航班的出现，将为内蒙古游客带来极大的方便。此次航班的开通让更多的内蒙古游客感受到有“韩国夏威夷”之称的土地。

Successful Completion of Shanshan Radar Correction Flight Ensured Additional New Eye for Regional Radar Control 鄯善雷达校飞顺利完成 确保区域雷达管制添新眼

In May, the CAAC's Xinjiang Regional Air Traffic Management Bureau (the "Xinjiang Air Traffic Control") successfully completed the Shanshan Radar and Shanshan, Qitai's VHF radio correction flight task.

The correction flight mainly checks the Modes of Shanshan INDRA Secondary Surveillance Radar, and examined the coverage range of Shanshan, Qitai's RS VHF radios.

Together with Urumqi, Wujiaqu and Hami radars, and the soon-to-be-used Shanshan radar, they constitute a civil aviation airspace clairvoyance covering the existing #4 and #1 sectors of the eastern Urumqi area. Complete air surveillance equipment is ultimately the hard conditions and basic guarantees to achieve radar control, and will also provide a reliable material basis for increase and improve the Urumqi region's airspace capacity and security capabilities.

5月中国民用航空新疆空中交通管理局（简称“新疆空管局”）顺利完成了鄯善雷达及鄯善、奇台甚高频电台的校飞任务。

此次校飞，主要校验鄯善INDRA二次雷达（S模式），检测鄯善、奇台RS甚高频电台的覆盖范围。

连同乌鲁木齐，五家渠以及哈密雷达一起，即将投入使用的鄯善雷达，构成了覆盖乌鲁木齐区域东部现有4号和1号扇区的民航使用空域的千里眼。完备的航空监视设备正是最终实现雷达管制硬条件和基础保证，也必将为改善乌鲁木齐区域的空域容量和安全保障能力提供可靠的物质基础。

Tianjin Airlines Won Skytrax Best China Regional Airline 天津航空荣膺Skytrax中国最佳区域航空公司

In June, the world's authoritative assessment & consultancy of civil aviation services, the Skytrax Research, held the Skytrax awards ceremony during the Paris Air Show 2011. Tianjin Airlines was awarded the "China's Best Regional Airline" title.

Xin Di, President of Tianjin Airlines, received at the ceremony the award from the President of Skytrax. Xin Di stated that the gaining of the Skytrax "China's Best Regional Airline" honor marks Tianjin Airlines' foothold on the "local aviation, global operations" development strategy, which service quality improvement achieved phased results and breakthroughs, and has received international aviation recognition and praise. From now on, Tianjin Airlines will make persistent efforts to continue innovating the service brand contents, and create a broader future with a new look.

The 2011 Skytrax awards ceremony was made by Skytrax according to 10 months of global surveys on more than 200 airlines worldwide, from more than 100 countries with 18.8 million visitors participated in the survey.

Skytrax is a United Kingdom-based non-profit consulting firm, a Inflight Research Services subsidiary, and Skytrax's main business is conducting surveys for the airline's services.

6月，全球权威民航服务评估咨询机构Skytrax Research在巴黎航展期间举行Skytrax颁奖典礼，天津航空荣膺“中国最佳区域航空公司”称号。

天津航空总裁辛笛在庆典上接受了Skytrax主席的颁奖，辛笛表示，Skytrax“中国最佳区域航空公司”荣誉的获得，标志着天津航空立足“本地航空、全球运营”发展战略，服务品质提升工作取得了阶段性的成果和突破，并得到了国际航空界的认可和褒奖。今后，天津航空将再接再厉，不断创新服务品牌内涵，以崭新的面貌开创更广阔的未来。

2011年Skytrax颁奖典礼由SKYTRAX根据长达10个月的全球范围调查产生，覆盖全球200多家航空公司，来自100多个国家的1880万旅客参与了调查。

Skytrax是一家以英国为基地的非营利性质的顾问公司，是Inflight Research Services的附属公司，Skytrax的主要业务是为航空公司的服务进行意见调查。

Shenzhen Airlines & Star Alliance Signed a Memorandum—— Civil Aviation Enters into Alliance Era 深航与星空联盟签备忘录 民航进入联盟时代

In July, Shenzhen Airlines Co., Ltd. and Star Alliance, the largest international airline alliance, signed a MOU at Shenzhen, marking that Shenzhen Airlines has made the substantial progress in joining the Star Alliance. Jaan Albrecht, CEO of Star Alliance, Wang Rong, Secretary of Shenzhen Municipal Committed of the CPC, Xu Qin, Mayor of Shenzhen City, Liang Ningsheng, Director of the CAAC Discipline Inspection Department, Kong Dong, Chairman of Air China Limited, Guo Yuan, Chairman of Shenzhen International Holdings Limited, Feng Gang, President of Shenzhen Airlines, and Liu Jun, Secretary of Committee of the CPC, jointly attended the signing ceremony.

The responsible person of Shenzhen Airlines said that joining with the Star Alliance will help optimize and complement its routes network, at the same time, improve and expand Shenzhen Airlines' routes network using that of the alliance partners. By working with partners' effective convergence of inbound and outbound flights at the hub of Shenzhen, Shenzhen Airlines global network structure is optimized and transit becomes more convenient.

7月，深圳航空有限责任公司（简称“深航”）与国际最大的航空联盟——星空联盟（Star Alliance）在深圳签署了谅解备忘录，标志着深航加入星空联盟取得了实质性进展。星空联盟总裁杨·阿布莱奇、深圳市市委书记王荣、深圳市市长许勤、中国民用航空局（简称“民航局”）纪检组组长梁宁生、中国国际航空股份有限公司（简称“国航”）董事长孔栋、深圳国际控股有限公司董事会主席郭原以及深航总裁冯刚、党委书记刘军等共同出席了签字仪式。

深航相关负责人透露，深航加入星空联盟将有助于其航线网络优化和互补，同时借助联盟合作伙伴的航线网络改善和拓展深航的航线网络，通过与合作伙伴在深圳枢纽进出港航班有效衔接，使深航全球航线网络结构优化、中转更加方便。

China Eastern Airlines Completed the RNP APCH Flight Procedure Verification Test at Wenzhou Airport 东航完成温州机场RNP APCH飞行程序验证试飞

In June, an Airbus A321 aircraft of China Eastern Airlines Corporation Limited departed from Wenzhou Airport to conduct the field-proven flight of the RNP APCH procedure using the precise Global Positioning System navigation technology. After 68 minutes of verification flight, the aircraft successfully completed Wenzhou Yongqiang Airport's RNP approach and departure procedures, returned and landed smoothly.

Tang Weibin, the Deputy Administrator of the CAAC's East China Regional Administration, solemnly declared at the Verification Test Commentary Meeting held afterward that the Wenzhou Airport RNP APCH flight procedure verification tried by China Eastern Airlines was a success. This also marks China Eastern Airlines being the first in Wenzhou Airport to build the RNP APCH operational capabilities.

6月，一架中国东方股份有限公司（简称“东航”）空中客车A321飞机从温州机场起飞升空，运用卫星定位系统的精确导航技术，进行了名为RNP APCH程序的实地验证飞行。经过68分钟的验证飞行，该架飞机顺利完成了温州永强机场（简称“温州机场”）的RNP进近、离场程序等试飞工作，平稳返回、落地。

中国民用航空华东地区管理局（简称“华东管理局”）副局长唐伟斌在随后进行的验证试飞讲评会上郑重宣布，由东航试飞的温州机场RNP APCH飞行程序验证取得圆满成功。这同时也标志着东航率先在温州机场建立起RNP APCH运行能力。

Boeing and AVIC Work Together to Establish Innovation Center in China 波音与中航工业携手 在华设立制造创新中心

In June, The Boeing Company and the Aviation Industry Corporation of China (AVIC) announced their intention to establish the "AVIC-Boeing Manufacturing Innovation Center" in Xi'an, Shaanxi Province, China. Deputy Manager of AVIC, Geng Ruguang, and Ray Corner, Vice President of the Boeing Commercial Airplanes, signed the Agreement. The Innovation Center will raise AVIC's ability and efficiency to provide Boeing aircraft the high quality parts, and to reinforce the production system of The Boeing Company. Today, Boeing and AVIC Chengdu Civil Aircraft Co., Ltd. signed a contract for the production of the Boeing 737 rudder as the starting work package of the Innovation Center.

Through increasing the value of Boeing's supply chain, the Innovation Center will extend Boeing's competitive advantages, providing supports for the strategic development of Boeing Commercial Airplanes. The establishment of the Innovation Center will boost AVIC subsidiary factory to raise further the manufacturing capacity and technical level, enhance competitiveness and grow into a top global supplier of Boeing.

The Innovation Center will established in early 2012, and will provide classroom training as well as practical training to employees of AVIC subsidiary factory. These trainings will replicate Boeing's successful production methods to enhance AVIC's manufacturing capacity to meet Boeing's demands on quality, cost and delivery schedule.

6月，波音公司和中国航空工业集团公司宣布，他们将在中国陕西省西安市建立“中航工业-波音制造创新中心”。中航工业副总经理耿汝光和波音民机集团副总裁Ray Corner分别代表双方在合作协议上签字。创新中心将提升中航工业能力和效率，从而为波音飞机提供高质量的零部件，强化波音公司的生产体系。今天波音还与中航工业旗下的成飞民机公司签署合同，为波音737项目生产方向舵，作为创新中心启动工作包。

创新中心将通过增加波音供应链价值，扩展波音竞争优势，为波音民机集团发展战略提供支撑。创新中心的建立，将促进中航工业下属工厂进一步提高制造能力和技术水平，提升竞争力，成长为波音全球一级供应商。

将于2012年初建立的创新中心将为中航工业下属工厂的员工提供课堂培训和实习培训。这些培训将复制波音公司业已成功的生产方法，增强中航工业的制造能力以满足波音对质量、成本和交付进度的要求。

Commercial Aircraft Corporation of China and Myanmar Airways Signed a Sales Agreement for Two ARJ21s 中商与缅甸航空签2架ARJ21销售协议



Under the joint witness of Li Yuanchao, Minister of The Organizing Department of CCCPC, and U Tin Aung Myint Oo, the Vice-President of Myanmar, In June at the Presidential Palace in Naypyidaw, the Commercial Aircraft Corporation of China, Ltd. and Myanmar Airways International signed a sales agreement for two ARJ21-700s new regional aircraft. Jin Zhuanglong, General Manager of Commercial Aircraft Corporation of China, and U Maung Maung Ohn, Chairman of Myanmar Airways International, signed the agreement. The successful agreement signing is another important result for the new ARJ21-700 regional aircraft's entering into the overseas market, and laid a solid foundation on starting a long-term cooperation between Commercial Aircraft Corporation of China and Myanmar Airways.

ARJ21 new regional aircraft is developed by China with independent intellectual property rights, a medium-short range new turbofan aircraft with 78-90 seats and special features as low cost, high efficiency, high durability, high reliability, and high security. Flight range is 2,225 ~ 3,700 km, adapts to high altitude high temperature airport, and meets the development needs of the aviation market in Myanmar. Currently, there are four ARJ21-700s new regional aircraft into flight test certification that accumulated over 1,600 hours of flying time. Civil Aviation Administration of China and the U.S. Federal Aviation Administration has launched a comprehensive aircraft airworthiness review for ARJ21-700 new regional aircraft. The aircraft is expected to launch in the market at the end of this year, to be delivered to the first user, Chengdu Airlines Co., Ltd.

6月在中央组织部部长李源潮，缅甸副总统吴丁昂敏乌的共同见证下，在缅甸首都内比都总统府，中国商飞公司与缅甸航空公司签署了2架ARJ21-700新支线飞机销售协议，中国商飞公司总经理金壮龙与缅甸航空公司董事长丁茂吞分别代表双方在协议书上签字。协议的成功签署是ARJ21-700新支线飞机进入海外市场的又一重要成果，也为中国商飞公司与缅甸航空公司开展长期合作奠定了坚实基础。

ARJ21新支线飞机是我国自行研制、具有自主知识产权的中短程新型涡扇支线飞机，座级为78-90座，具有低成本、高效率、高耐久性、高可靠性、高安全性等特点。飞机航程为2225~3700千米，适应高原高温机场，符合缅甸航空市场发展需求。目前，已有4架ARJ21-700新支线飞机投入试飞取证，累计飞行时间1600多小时。中国民用航空局以及美国联邦航空局已经全面启动了对ARJ21-700新支线飞机的适航审查工作。该飞机预计今年年底投放市场，交付首家用户成都航空公司。

Phase II Expansion Construction of Tianjin Binhai International Airport Started 天津滨海国际机场二期扩建工程开工



The Phase II expansion construction of Tianjin Binhai International Airport started in May. Zhang Gaoli, the Secretary of the Tianjin Municipal Committee of the CPC, attended the kick-off ceremony and announced the beginning of the construction.

Zhang Gaoli stated that the implementation of Tianjin Binhai International Airport's phase II project has an important significance on strengthening the city's carrier functions, accelerating the development and opening up of Binhai New Area of Tianjin Municipality, and reaching the good as well as fast economic-social development of Tianjin. We have to coordinate closely with various parties to support fully the construction, to continually reinforce the passenger-cargo transport support capabilities, and to strive to build the Tianjin Binhai International Airport as the largest hub airport and the international air logistics center of northern China.

The total investment of Tianjin Binhai International Airport's phase II project is 5.92 billion yuan, with a planned completion time of 3 years. Intending to increase 66.64 hectares of construction land, the project is designed according to the airport's passenger throughput of 25 million persons, the cargo-mail transport volume of 1.7 million tons, and the aircraft movements of 225,000. The project includes building a new 248,000 square meters T2 terminal, a 322,000 square meters apron on the airside, a 92,000 square meters terminal area road on the landside, and a 30,000 square meters terminal viaduct. Moreover, the supportive 126,000 square meters underground integrated transportation center is built to achieve the seamless connection of multiple modes of transportations.

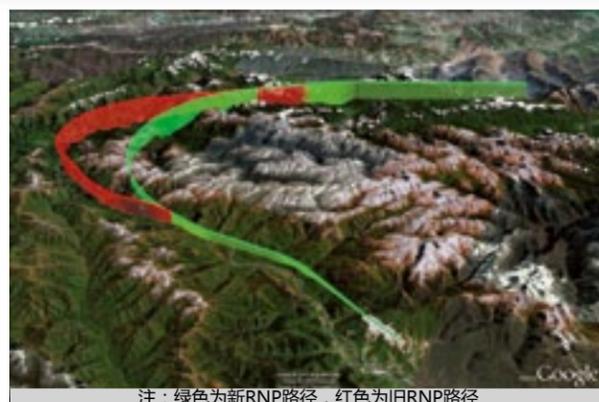


天津滨海国际机场二期扩建工程5月开工建设。天津市委书记张高丽出席开工仪式并宣布开工。

张高丽说，实施天津机场二期扩建工程，对于增强城市载体功能，加快滨海新区的开发开放，实现天津经济社会又好又快发展，具有十分重要的意义。我们要与各方面密切配合，全力支持工程建设，不断增强客货运保障能力，努力将天津机场构建为大型门户枢纽机场和我国北方国际航空物流中心。

天津滨海国际机场二期扩建工程总投资59.2亿元，计划用3年时间完成。拟新增建设用地66.64公顷，按机场旅客吞吐量2500万人次、货邮吞吐量170万吨、飞机起降量22.5万架次设计。该项目包括新建建筑面积24.8万平方米的T2航站楼，空侧建设32.2万平方米的站坪，路侧建设航站区道路9.2万平方米、航站楼高架桥3万平方米等。同时配套建设12.6万平方米地下综合交通中心，实现多种交通方式无缝衔接。

Jiuzhai Huanglong Airport Deploy Navigation Performance (RNP) Path 九寨机场部署导航性能 (RNP) 路径



注：绿色为新RNP路径，红色为旧RNP路径

In June, the Jiuzhai Huanglong Airport of the Sichuan Province, China, has chosen the Required Navigation Performances (RNP) Procedure of GE Aviation. This important contract marked China's first implementation of the RNP procedures sponsored by the airport.

With coordinations of the airport and the CAAC, GE will design and deploy the precision approach and departure paths applied to Jiuzhai Huanglong Airport for the eight airlines with the RNP capability, and custom-designed the vertical takeoff flight path. This enables Jiuzhai Huanglong Airport to provide a common RNP path for all airlines, and to provide the best performance for all aircraft fleets.

Jiuzhai Huanglong Airport, China's 3rd high-altitude airport, is located at 11,311 ft. (3,448 m) above the sea level in the Himalayan Mountains. Due to bad weather and low visibility, delays and diversions are frequent. The RNP procedures can be deployed at any airport for aircraft flying at a extremely precise path, with an accuracy of having less than a the wing span for error. Such otherwise precision allows the pilots to land in many weather conditions, which might require them to postpone landing, to divert to another airport, or even to cancel the flight before departure.

"In order to improve Jiuzhai Airport's operation efficiency, it is very important to be able to provide such a solution for not only one airline, but for all airlines." Yang Honghai, Director of the Flight Operations Management Bureau of the CAAC's Flight Standard Department, said, "we believe using the RNP procedures in Jiuzhai Airport will improve the airlines' operation efficiency and the passengers' flight experience simultaneously."

The RNP procedure, an advanced form of PBN, is a very precise flight path; it can be designed to shorten the flight distance, to reduce fuel consumption, to decrease exhaust emissions and noise pollution. Due to the RNP's precision and reliability, the technology can help the air traffic control to reduce flight delays, and ease air traffic congestion.

6月，中国四川省九寨黄龙机场选择了GE航空集团的所需导航性能 (RNP) 程序。这份重要的合同标志着在中国首次由机场赞助RNP程序的实施。

通过与机场和中国民航局 (CAAC) 的协调，GE将为8个具有RNP能力的航空公司设计和部署应用于九寨机场的高精度的进近和离场路径，自定义设计的垂直起飞飞行路径。这将使九寨机场为所有航空公司提供一个共同的RNP路径，为各航空公司的机队提供最佳性能。

九寨机场，位于喜马拉雅山海拔11311英尺 (3448米) 处，是中国第三高原机场。由于恶劣天气和能见度低，延误及改道经常发生。RNP程序可以部署在任何机场让飞机以非常精确的路径飞行，精确度达到误差小于机翼翼展。这种精度允许飞行员在很多天气条件下降落，而这些天气条件本来可能要求他们延迟降落，转移到另一个机场，甚至在出发前取消航班。

“为了改善九寨运营效率，能够做到不仅只有一家航空公司，而且要为所有的航空公司提供这种解决方案是非常重要的。”民航局飞标司航务管理处杨洪海处长表示，“我们相信，使用RNP程序将在九寨同时改善航空公司的运营效率和乘客的飞行体验”。

RNP程序，PBN技术的高级形式，是非常精确的飞行航迹，可以设计缩短飞机飞行航路距离，并减低油耗、减少对机场附近社区尾气排放和噪音污染。由于RNP的精度和可靠性，该技术可以帮助空中交通管制减少航班延误，缓解空中交通拥堵。

Flight Route from Harbin to Krasnoyarsk, Russia, Opened Officially 哈尔滨至克拉斯诺亚尔斯克航线正式开通



In May, the Flight U6735 from Krasnoyarsk, Russia, landed safely at Harbin Taiping International Airport, marking the official opening of the Harbin-Krasnoyarsk route. Presently, Harbin and Russia have achieved air transport in seven cities.

In recent years, the economic, trading and tourist exchanges between Heilongjiang Province and Russia have become more frequent that they continue to deepen their cooperations and increase the levels; the number of Russian clients coming to Heilongjiang doing investments and/or tourist sightseeing is climbing yearly. In 2010, the round-trip passengers on the Harbin-Russia route were 87 thousand persons, a 14.2% growth.

Relying on the adjacent Russian geography, Heilongjiang Airport Group will set as a goal "to build Harbin Taiping International Airport into a gateway airport to the Russian Far East", and actively develop the Russian aviation market. Routes from Harbin to Russian cities of Magadan, Blagoveshchensk, and Krasnoyarsk, have been opened successively since 2010. At present, Harbin Taiping International Airport has accomplished the air transportation with Russian cities such as Vladivostock, Magadan, Khabarovsk, Yakutsk, Ladimirovka, Blagoveshchensk and Krasnoyarsk, playing an important purpose for on enhancing the economic-trade exchanges and cooperation, as well as tourist development between the Heilongjiang Province and Russia.

5月，由俄罗斯克拉斯诺亚尔斯克飞往哈尔滨的U6735航班在哈尔滨太平国际机场（简称“哈尔滨机场”）安全降落，标志着哈尔滨—俄罗斯克拉斯诺亚尔斯克航线正式开通。至此，哈尔滨与俄罗斯七个城市实现了通航。

近年来，黑龙江省与俄罗斯经济、贸易和旅游交流日益密切，合作不断深入，层次不断提升，到黑龙江投资兴业、旅游观光的俄罗斯客商数量逐年攀升。2010年，哈尔滨——俄罗斯间航线往返旅客8.7万人次，同比增长14.2%。

依托毗邻俄罗斯的地缘优势，黑龙江机场集团以“将哈尔滨太平国际机场建设成为对俄远东地区门户机场”为目标，积极开拓对俄航空市场。2010年以来，先后开通了哈尔滨至俄罗斯马加丹、布拉格威申斯克、克拉斯诺亚尔斯克等城市的航线。目前，哈尔滨机场已实现了与俄罗斯海参崴、马加丹、哈巴罗夫斯克、雅库茨克、南萨、布拉格威申斯克、克拉斯诺亚尔斯克等城市的通航，为促进黑龙江省与俄罗斯经贸交流与合作以及旅游业的发展发挥了重要作用。

The Test Flight of the Newly Built Runway of Xi'ning Airport Was Successful 西宁机场二期工程扩建项目新建跑道试飞成功



In August, an A320 from the China Eastern Airlines Corporation Limited, landed safely on the newly built runway of the Xi'ning Caojiapu Airport, which signified that the test flight of the new runway was successful.

The successful flight test of the new runway made it the first established section of the expansion project of Phase II of Xi'ning Airport. The establishment of the new runway was a significant milestone of the expansion project of Phase II of Xi'ning Airport. The completion of the new runway was a significant accomplishment as in the past, there were only runways, without taxiways and there was only one-way ILS, without center-line lights.

The Xi'ning Airport was established and came into operation in Dec., 1991. The expansion of the terminal area was finished in 2005 with the completed runway being 3,000 meters long and 45 meters wide, with only one-way ILS and no parallel taxiways. In recent years, Qinghai province's economic and social status has developed rapidly. Xi'ning Airport is the capital airport of Qinghai province. Before the expansion of 2009, its facilities and support capabilities could not meet the air transportation's requirements for rapid growth and severely restricted the rapid growth of Qinghai's civil aviation industry. In 2009, the Phase II expansion project had formally kicked off and on Aug. 8th, 2011, the core section of the new runway had passed the specialists' preliminary acceptance. The new runway was 800 meters longer than the former one with 50% more endurance. The most advanced airworthy aircraft previously was the Boeing 757-300 with 250 seats and now the airport is capable of handling larger aircraft such as the Boeing 767-400 with 375 seats and the Airbus 330. After the new runway was put into operation, Xi'ning Airport's problems such as lower safety operation standards, fewer types of airworthy aircraft and severe decrement of load would be resolved completely. The operation standard and safety support capacity of Xi'ning Airport would be raised dramatically and this creates a firm foundation for making Xi'ning Airport as the main airport around the Qinghai-Tibet Plateau area.

8月，中国东方航空股份有限公司（简称“东航”）的一架空中客车A320平稳降落在西宁曹家堡机场（简称“西宁机场”）二期工程新跑道，标志着跑道试飞取得圆满成功。

随着西宁机场二期工程新建跑道试飞成功，成为西宁机场扩建工程首个建成项目。该项目的建成标志着西宁机场二期工程建设取得重大阶段性成果，不仅结束了西宁机场作为省会机场跑道、滑行道合用，只能单向盲降、没有中线灯的历史。

西宁机场于1991年12月建成投用，2005年完成航站区改扩建，原跑道长3000米，宽45米，实行单向盲降系统且没有平行滑行道。随着青海经济社会的快速发展，西宁机场作为全省中心机场，基础设施和保障能力已经无法适应快速增长的航空运输生产的需求，严重制约了青海民航事业的快速发展。2009年，该机场二期扩建工程正式启动，作为核心工程之一的新跑道建设工程于2011年8月8日通过专家初步验收。此次试飞的新跑道较之原有跑道长度增加了800米，长度为3800米，强度提高了50%，适航机型由250座的波音757-300型飞机升格为375座的波音767-400、空中客车A330等大型飞机。新跑道投入使用后，将彻底改变西宁机场安全运行标准低、适航机型少、高原减载严重等现状，极大地提高西宁机场运行标准和安全保障能力，并为打造青藏高原区域中心机场打下坚实基础。

The Navigation Devices of Yantai Laishan International Airport Has Smoothly Passed Flight Inspection 烟台莱山国际机场导航设备顺利通过飞行校验

In August, a King Air, the flight test aircraft of the Flight Inspection Center of the CAAC, had landed soundly at Yantai Laishan International Airport, which marked the finishing of the 2011 flight inspection of the Yantai Laishan International Airport (herein after referred to as the Airport) and the navigation devices of the Airport had once again received the opening capacity recognized by the CAAC and would continue to offer sound safeguards for civil aviation flights.

The Flight Inspection Center of the CAAC's test aircraft, a King Air with the registration number of B-3581, landed at Yantai Airport on Aug. 11th and conducted a series of flight test for the two sets of instrument landing system / distance measuring equipment (ILS/DME), one set of Doppler VHF Omnidirectional Range / distance measuring equipment (DVOR/DME), one set of Non-directional beacon (NDB) and the navigation lighting of precision approach path indicator (PAPI).

8月，随着中国民用航空局飞行校验中心的“空中国王”3581检验飞机平稳落地，2011年烟台莱山国际机场导航设备飞行校验全部结束，这标志着烟台国际机场导航设备继续获得民航局认可的开放资格，将为民航航班飞行安全提供可靠保障。

民航局飞行校验中心的注册号为B-3581的“空中国王”校验飞机于8月11日飞抵烟台机场，按民航局相关规定，对烟台机场两套仪表着陆系统/测距仪（ILS/DME）、一套全向信标/测距仪（DVOR/DME）、一套NDB以及助航PAPI灯光进行飞行校验。

The Shenyang Area Control Center Project Recieved Approval from the NDRC 沈阳区域管制中心项目获得国家发改委批复

In July, the Feasibility Research Report regarding the Project of the Shenyang Area Control Center got approval from the National Development and Reform Commission

The total investment of the Project of the Shenyang area control center of the CAAC's Northeast ATMB is 551,590,000 yuan. The ATC center building, which houses the ATC training facilities and auxiliary houses, has a total area of 14,675 m². A set of 21-seated main ATC automation system, a set of 21-seated spare ATC automation systems and 10 VHF remote control equipments will be newly constructed. 9 VHF remote control equipments will be extended, and simultaneously, voice switch, flight simulator and data transmission units have been setup. The Approval of the Feasibility Research Report of the Project of the Shenyang Area Control Center lays a foundation for the next steps which include preliminary plan examination & approval, construction drawing designs and project application for construction.

When this project is finished, the ATC management level and the flight security supporting capability in Northeast China will be highly improved.

7月19日，《沈阳区域管制中心项目可行性研究报告》获国家发改委批复。

东北空管局沈阳区管中心项目总投资55159万元，包括新建管制中心大楼、空管训练设施用房及附属用房14675平方米，新建21席位空管自动化主备系统各一套，新建甚高频遥控台10个，改扩建甚高频遥控台9个，同时建设内话、模拟机、数据传输设备等配套设施。该项目《可研》获得批复，为下一步初步设计审批、施工图设计和工程报建奠定了基础。

项目建成后，将大幅提高东北地区空中交通管理水平和飞行安全保障能力。

The Extension Project of the Zhangye Airport Has Passed the Initial Acceptance Inspection 张掖军民合用机场改扩建工程已通过初步验收

In August, the Gansu Airport Investment and Management Co., Ltd. organized several acceptance groups composed of related experts to conduct the initial acceptance inspection of the extension project of the Zhangye airport, an airport for both military and civilian use.

The extension project of the Zhangye Airport, a provincial project with a total investment of 296,000,000 RMB, is a key project invested jointly by the Civil Aviation Administration of China, the Gansu Provincial People's Government and the Zhangye Municipal People's Government. It is planned that, by the year 2020, the airport should be able to meet the demands of 243,000 people in passenger throughput volume and 1,723 tons of cargo throughput volume. The flight area level is 4C, and the original west runway was extended to 3,000 meters long and 55 meters wide (the runway included) so as to accommodate aircraft such as the Boeing 737 and the Airbus 320. A new terminal of 4,189 square meters, an integrated ATC building, a lighting substation for civil aviation use, buildings for civil aviation production and residential occupancies will be constructed. Facilities for power supply, water supply, water discharge, heat supply, fuel feeding and fire-fighting will also be set up.

On that day, by having reports, field inspections, learning about related materials and inquiries & discussions, the seven professional acceptance groups conducted an all-around and meticulous inspection of the seven projects, that is, the flight area, the power supply & air navigation lighting project, the ATC project, the weak electricity and facilities in the terminal, the residential building project, the fuel feeding building and the financial archives. After the field inspection, the acceptance groups believed the extension project of the Zhangye Airport was fully managed without variation and reasonably designed and the quality corresponded with the related requirements in the national and industrial standards. The construction field was deemed reasonably organized, the investment well controlled, the files and materials mostly completed. Therefore the seven acceptance groups agreed unanimously that the extension project should pass the acceptance test.

8月，由甘肃省机场投资管理公司组织系统相关专家组成的验收组，对张掖军民合用机场改扩建工程进行了初步验收。

张掖军民合用机场改扩建工程是中国民用航空局、甘肃省人民政府、张掖市政府共同投资建设的省属重点工程，项目总投资2.96亿元，以2020年为目标年，按满足旅客吞吐量24.3万人次、货邮吞吐量1723吨设计，规划飞行区等级为4C级，改建原西跑道3000米，宽55米（含道肩），以满足波音737、空中客车A320系列等机型起降；新建航站楼4189平方米，同时建设航管综合楼、民航灯光变电站，新建配套的民航生产业务和生活用房及供电、供水、排水、供热、供油、消防等工程。

当天，7个专业验收小组通过听取汇报、实地查看、翻阅资料、询问讨论等形式，对张掖军民合用机场改扩建工程的飞行区工程、供电助航灯光工程、空管工程、航站楼弱电及设备、房建工程、供油工程及财务档案7部分进行了全面细致的检查验收。通过现场检验，验收组认为，张掖军民合用机场改扩建工程管理规范、设计合理，工程质量符合国家和行业标准，现场组织合理有序，工程投资控制好，工程档案资料基本齐全，一致同意通过初步验收。

Northwest Regional Administration of the CAAC Issued a Certificate to Jinyu Civil Aviation MRO Training Institute 西北局为金宇民用航空维修培训机构颁合格证

The CAAC's Northwest Regional Administration issued the CCAR-147 Maintenance Training Organization Certificate to Jinyu Civil Aviation MRO Training Institute in Shannxi in May, making Jinyu the 6th certified training organization in the northwest region.

5月，中国民用航空西北地区管理局向陕西金宇民用航空维修培训机构颁发了中国民航《维修培训机构合格证》。

至此，陕西金宇民用航空维修培训机构成为西北辖区第6家取证的维修培训机构。

CAAC's Beijing Safety Supervision Administration Formally Established the Nanyuan Safety Supervision Office 北京监管局南苑安全监察办公室正式挂牌成立

To insure the safe operation of Beijing Nanyuan Airport, the CAAC's Beijing Safety Supervision Administration set up a safety supervision office in the airport to adapt to the demands of the industry as they develop to strengthen the supervision and inspection work of the civil aviation activities in Nanyuan Airport. In July, the Nanyuan Safety Supervision Office of the CAAC's Beijing Safety Supervision Administration held an opening ceremony at Nanyuan Airport.

The establishment of the Nanyuan Safety Supervision Office is an important measure for the Beijing Safety Supervision Administration to conduct its civil aviation safety supervision duties. It will be beneficial for the governmental departments to fully exert its service functions so as to boost the safe and healthy development of Beijing's civil industry. It will also be beneficial for the safety supervision duties to be conducted, problems to be found and potential safety hazard to be eliminated.

为确保北京南苑机场（简称“南苑机场”）安全运行，中国民用航空北京安全监督管理局（简称“北京监管局”）适应行业安全发展需要，在南苑机场设立安全监察办公室，加强对南苑机场民用航空活动的监督检查。7月，北京监管局南苑安全监察办公室揭牌仪式在南苑机场举行。

南苑安全监察办公室的成立，是北京监管局落实民航安全监管职责的重要举措，有利于充分发挥政府部门的服务职能，促进北京民航事业的安全、健康发展；有利于切实落实安全监管职责，及时发现问题，消除安全隐患；有利于完善自身建设，不断强化安全监管手段，提高安全监管效能。

China Southern Airlines unveils International Freight Business with Six Newly Purchased Boeing B777F Freighters 南航发展国际货运 新购6架波音B777F货机

Subsequent to Air China and China Eastern Airlines' self-strengthening their freight business sectors through reorganization and capital increase, the last of the three largest airlines, China Southern Airlines Co., Ltd., has also sped up its freight business layout. China Southern Airlines announced in June 1 that the company has purchased six Boeing B777Fs freighters from The Boeing Company in May. Adding to China Southern Airlines' present fleet of seven freighters, after the delivery of all six Boeing B777Fs in 2015, China Southern Airlines' cargo transport capacity will be similar to that of Air China and China Eastern Airlines.

As calculated by the ATK (available ton kilometers) of China Southern Airlines as of December 31, 2010, the six additional purchased Boeing freighters marks an approximate 8.4% growth in its transport capacity while the fleet scale has nearly an one-fold increase. According to the bilateral contract, The Boeing Company will complete the delivery of the six B777F freighters between the year 2013 to 2015.

在国航、东航先后通过重组增资等方式做强自身货运板块后，三大航中的最后一家南航也加快了货运业务布局。6月，南航发布公告称，已于5月向波音公司购买6架波音B777F货机。加之南航原有7架货机的机队规模，至2015年，6架波音B777F货机全部交付后，南航货运从运力上将国航、东航相若。

以2010年12月31日南航的可用吨公里计算，此次购买的6架波音B777F货机使南航运力增长约8.4%；而考虑南航现有7架货机，其机队规模待全部新货机到位后，近乎较当下翻了一番。依据双方合同，波音公司方面将于2013年至2015年间完成6架波音B777F货机的交付。