



China Civil Aviation Report

民航报导

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Interview 访谈

通航季刊 GA Quarterly

ABACE returns to Shanghai!

亚洲公务航空展再度在上海大放异彩!

The 2013 International Air Rally will be held for the first time in China

2013 国际飞行拉力赛将首次在中国举办

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在2006年美国公务机协会（NBAA）所主持的亚洲公务航空展（ABACE）首次在中国内地展出，地点选在上海。经过6年的时间亚洲公务机展又回到上海具有重大的意义。

由6年前仅有40家厂商参展的公务航空展发展到今年逾百家厂商参展，其代表的意义是证明了中国市场的发展潜力与商业机会。在国际经济尚未完全走出谷底，中国持续成长的同时，加上近年来中国政府“走出去”的政策诱导下，中国成为世界公务航空关注的焦点不是没有道理的。

NBAA 决定在上海再度举办亚洲公务航空大展是继霍克太平洋公司及NetJet公司在中国成立基地后的另一个信号，中国已经准备好公务航空起飞的试运行。

中国运输航空在努力20多年后，在2008年跃升为世界第二大航空国。支撑这个殊荣的背后是一个庞大的基础设施，包括了170个干线与支线机场，覆盖全国的空中交通指挥服务网络，瞬息万变的气象预报，随时可取得的航空加注油服务等等，这些基础设施正好都是公务航空运营与发展的重要因素与条件。

中国企业运营的全国化与全球化都给公务航空在中国的发展带来契机与活力，中国政府的“走出去”政策更促使大中型国有企业走的更远飞的更高。这些需求对于国内外公务航空业界来说都是销售，租赁，服务，培训，管理等的商业机会，这些机会有助于国际公务航空产业的纾困与持续发展。

寄语中国政府与航空主管机构能够抓住这个机会，在国际公务航空产业顶尖业者和社团共同关注中国公务航空发展的同时，配套得宜的措施与法规。认识公务航空与运输航空的差异，并提供公务航空便捷的运营环境和条件。使得中国公务航空产业与需要这个产业的民营企业能相互依存发展，在中国持续的国际经济发展中扮演不可磨灭的角色与功能。

我们预祝亚洲公务航空展圆满成功，中国公务机事业宏图大展！

In 2006, the first Asian Business Aviation Conference & Exhibition (ABACE) hosted by the National Business Aviation Association was held in mainland China, in Shanghai. Six years later, and ABACE returns to Shanghai!

The number of exhibitors grew from only 40 companies just 6 years ago, to 100 companies today. This demonstrates the value and potential of China's business aviation market and its opportunities. While the international economy has still not recovered from the slowdown, China's growth is continuing strong and the Chinese government's latest "Go Abroad" business policy has made China the most reasonable focal point for the global business aviation community.

NBAA's decision to hold ABACE in Shanghai, along with Hawker Pacific establishing a world class FBO in Shanghai and NetJet building an operational base in Zhuhai, all signifies that China is ready to proceed forward with a "test flight" of its own business aviation industry.

After 20 plus years' of effort, China has become the world's second largest aviation nation. Behind this achievement is a mass aviation infrastructure that includes 170 hub and regional airports, nationwide ATC service coverage, instant weather services and on-demand fueling services at all locations. These are all the elements needed to foster the growth and development of China's business aviation.

The branching out, both nationally and internationally, of China's enterprises has provided opportunities in developing China's business aviation. The state's "Go Abroad" policy aims to push medium and large state owned companies to fly higher and travel further. All of this push to reach outward creates new business opportunities for sales, leasing, service, training, and management for domestic and international equipment or service providers, which will be very helpful to the recovery and continued development for international suppliers.

I sincerely hope that China's government and aviation authorities can utilize the attention they are currently receiving to further develop the policies and regulations of Business aviation. At the same time, they need to understand the differences between Business Aviation and Commercial Aviation in order to provide the proper flexibility to allow Business Aviation to grow and thrive. By allowing for flexibility, this allows for both the business aviation industry and its users, both private and state owned enterprises, to grow simultaneously in order to support China's critical role in the global economy.

Our wish is that ABACE in Shanghai is a great success, and Go China Business Aviation!



Francis Chao 赵嘉国
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Publisher 发行人
Francis Chao 赵嘉国

Editor 编辑
Linda Gao 高瑞玲
Vivian Chen 陈春桦

Art Editor 美术编辑
Laura Yu 于海姣

Circulation Manager 杂志发行
Cathy Tien 田姗姗

Staff Writer/Photographer 文字摄影
Nelson Chao 赵敏诚

Business Development Manager 业务发展经理
Enlin Chao 赵恩临

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China Civil Aviation Report
c/o Uniworld LLC
690 Garcia Ave, Ste. A
Pittsburg, CA 94565
Tel: 925-439-3799 ext. 12#
Fax: 925-439-3268
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斯基S76C+型直升机配置：2台透博梅卡2S1发动机；集成仪表显示系统；4叶片铰接主旋翼系统；复式操作装置；2组200安培启动电动机/发电机两用的28伏电力系统；收放式起落架；281加仑可用燃油；双雨刮片装置；加强的外部照明；空气泄放及除雾功能；带有5点式可调节安全带的飞行员及副驾驶座椅；宽敞的机舱空间以及38立方尺的行李舱体积。

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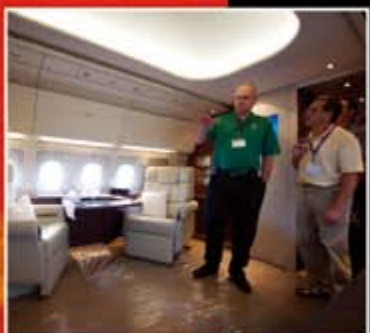


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在上海全面展出
—千万不要
错过这个机会**



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亚洲商务航空协会，上海展览中心会同上海机场当局共同举办。



亚洲商务航空会议及展览会参展厂商介绍

P702 Aerochine Aviation Ltd. 华运航空



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H519 LEKTRO, Inc.



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H512 Satcom1



Satcom1在丹麦和法国都设有公司，为全球各地的客户提供全方位的航空卫星通讯解决方案。通过电子邮件和互联网，即通过黑莓、网络电话、视频会议直播、电话、传真和由Inmarsat、Ku-band或Iridium支持的智能个人电视，Satcom1为客户提供领先的飞行中的机舱服务。如今，由Satcom1设计的Swiftbroadband、Yonder Ku-band是正在使用的核心科技，构成了最先进和最为创新的机上网络。此外，Satcom1的飞行服务还包括机队跟踪、飞行监控和定位功能，还能实现飞行计费服务，这项服务是包机运营商的理想选择。

除此之外，Satcom1还提供精良的工程咨询服务，为客户提供24小时的支持。

Satcom1以10多种不同语言为全球49个国家的800多个客户提供定制的通信解决方案。目前，我们的核心市场是中东、俄国及CIS地区、欧洲以及迅速增长的远东地区如中国，这些地区正在产生新的核心VIP客户。

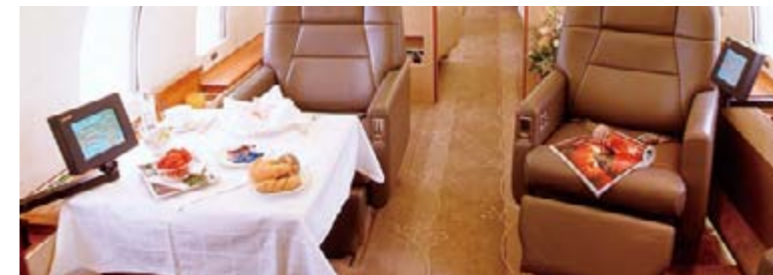
H517 Sennheiser Electronic Corporation



Sennheiser在专业音频行业拥有超过65年的历史，20年来已经为超过150家商用航空公司的飞行员提供主动降噪耳麦。

Sennheiser经过TSO认证的轻型专业ANC耳麦包括HMEC 46-1和全新的HMEC 26。欢迎光临我们的展台并进行试用。

H508 Chapman Freeborn



查普曼创立于1973年，拥有超过35年的专业服务经验，在全球五大洲有30余个办事处。查普曼的优势在于独立于任何一家航空公司。因此，能更灵活的选择最佳的飞机和运营商以满足客户需求。

自成立之日起，查普曼已涉足VIP包机服务。我们的包机专家团队确保为客户提供体贴而谨慎的包机服务。只需将您的飞行计划提供给我们，而我们将回馈您一个完美的飞行体验。

查普曼VIP包机服务可以满足以下需求：

- 行政包机
- 富裕人士出行
- 乐队巡回演出
- 电影宣传
- 招待&活动
- 旅行
- 国家元首、政府和外交出行
- 紧急撤离—有危险或灾害发生时的救援包机

P606 Private Jet Journeys 梦翔天下



Private Jet Journeys是私人专机飞行服务的提供商，为亚洲地区的极端成功的人士和企业客户提供豪华、独享的私人专机飞行服务，助其享受奢华的生活方式。Private Jet Journeys拥有各种机型以提供全球包机服务，小至可载8个人的公务机，大至可承载超过100名贵宾旅客的宽体飞机。Private Jet Journeys可以安排飞到苏格兰的高尔夫之旅、飞到澳门和拉斯维加斯赌博之旅，甚至可以安排飞到世界各地的观光胜地以及常人难以到达的地方。

Private Jet Journeys总部位于美国波士顿，在中国上海设有办事处。总裁Jane F. McBride女士从事航空和旅游业已超过25年时间。她成立了Flight Time Corporation，这是美国第一家从事包机经营的公司。后来，又在美国成立了University Air Charters，这是一个飞行服务网络，主要面向大学服务，如为海外学生和他们的家人安排飞行旅游。

H316 Fastransit Aviation Service 北京快速过站公务机地面代理服务公司



Fastransit主要为国内外通用航空公司的商务飞行、急救飞行、要客飞行、以及包机飞行提供专业、高效、一站式的地面代理服务。公司自成立之日即把“专业”、“标准”、“贴心”作为企业发展的核心理念，标准作业流程始终贯穿公司运行及管理。

总部坐落于北京首都国际机场，在北京、上海、广州、南京、成都、乌鲁木齐、武汉、哈尔滨、沈阳、昆明及三亚均设有分支机构，公司地面服务网络覆盖了中国近百家机场，并且在新加坡及香港都设有办事处，最大程度的满足了国内外公务机客户的运行需求。

我们的优势：

- 团队多年飞机运行控制操作经验
- 经验丰富的签派员为您保驾护航，保证您的飞行一路顺畅
- 24小时不间断的运行机制，为客户提供更及时更安心的服务
- 全球网络资源丰富，可随时为客户提供多种解决方案
- 您可以登录我们的网站www.fastransit.aero,选择Fastransit，让您的尊贵飞行全程无忧。



H302 TALCO Aviation



公司概况

TALCO Aviation是为贵宾和国家首脑提供飞机产品和服务的公司。TALCO Aviation为客户提供量身定制的专属解决方案，努力打造世界一流的运营能力，以真诚和品质追求顾客满意。TALCO Aviation重视每位顾客，力求与其建立长期稳固的合作关系。

TALCO Aviation的产品和服务：

- | | | |
|-----------|-----------|---------------|
| · 氧气系统 | · 内饰和航电工程 | · 飞机窗帘 |
| · 空气和照明系统 | · 项目管理 | · 金属电镀 |
| · 飞机内饰设计 | · 飞行娱乐系统 | · 完工技术鉴定 |
| · 定制豪华设施 | · 客舱管理系统 | · iPad EFB的整合 |
| | | · 定制飞机地毯 |

你通往成功之路的伙伴



H414 ACASS

ACASS 是一个全球性的供应商，为客户提供量身定做的商用航空支持服务。自1994年起我们就一直支持全球客户，这些客户包括国家元首、贵宾及财富500强公司。

H302 MedAire, Inc.



作为全球航空医疗救援行业的领军企业，MedAire为客户提供一套综合的安全方案，为旅客与机组人员提供机舱内或旅行途中全天候24/7 医疗与安全服务、医疗培训及设备。一旦发生医疗或安全事件时，客户可通过电话或电子邮件与MedAire的医疗与安全专家取得联系，立即获得专家的咨询服务以及到当地医疗机构就诊的建议。MedAire为客户提供的服务还包括安排无现金的医疗

就诊，帮助处理文件遗失的问题，提供签证及预接种疫苗方面的咨询，给予遗失医疗处方的客户提供援助，为伤员疏散提供支持等。MedAire也开辟专为会员提供医疗、安全及旅行信息咨询服务的网站。

H308 Megadoor



Megadoor是航空领域内机库门系统的领军品牌。Megadoor生产的机库门在可靠性、安全性和产量方面，可以完全接受行业的考验。Megadoor机库门已经在商业航空、公务航空和军用航空领域使用了很多年。

Megadoor主要研制航空领域所用的铝增强结构的垂直升降门。Megadoor的每个机库门都是按照明确规格设计和制造的，每个机库门都是以耐用、抗腐蚀的零部件制成，并由可靠性高的电子系统操作运行。由于Megadoor机库门使用很少的活动部件，所以很少需要保养。可以根据飞机外形的需要，设计合适的Megadoor机库门，因此，Megadoor机库门是满足您任何类型机库门需求的聪明之选！

H102 TAG Aviation



TAG亚洲是全球领先的公务机管理公司，已有超过45年的历史。在英国伦敦范堡罗、瑞士日内瓦、西班牙马德里及中国香港共管理和经营一百多架公务机。

TAG亚洲分公司于2006年在香港成立。公司结合TAG集团深厚的公务机管理经验及专业技术，配合TAG集团规模庞大的优势，为TAG亚洲客户提供个性化、高水平的公务机服务，包括公务机采购及转让、公务机管理、公务机维护保养、地面服务即公务机包机服务等。

TAG亚洲提供公务机采购及转让服务，帮助客户寻找合适的公务机卖家及买家，提供专业意见及完善支持，确保客户在合理价钱及保障下完成交易。

TAG亚洲提供全方位的飞机管理服务，客户除了可以验到个性化、一条龙式公务机管理方案外，更可以享受到规模庞大的TAG集团所带来的经济优惠及完善的飞机安全监控。

TAG亚洲的公务机维护及技术支持部门为客户提供高效率的飞机维修保养监控及详尽报告，通过定期及不定期的飞机维护检测，确保飞机符合安全标准，获得快捷及高额收益。

TAG亚洲提供全年每天24小时的飞机运营服务，不间断服务全球顾客。

TAG亚洲的包机服务网络遍布全球，提供不同类型的公务机供客户选择。全年每天24小时不间断服务，为客户提供专业、划算、可靠的飞行旅程。

TAG亚洲——您最佳的公务机伙伴。

P504 VISTAJET



Vistajet是美洲以外世界领先的豪华私人航空服务提供商。Vistajet的服务质量和方式服务的优良水平是无可比拟的。

VistaJet的服务机队是清一色的庞巴迪飞机，共有超过30架中型和大型远程飞机。由于VistaJet机队的飞机完全一样，机身表面都是独具特色的银色和红色条纹，飞机内部则呈现一种低调的奢华，每架飞机都带给人这种视觉和感觉。不论是远程或中程飞行，不论是飞环球6000还是挑战者605，顾客都能享受到同样的飞行体验。VistaJet机队里的飞机包括环球6000、挑战者850、挑战者650和里尔60XR。VistaJet致力于保持其在天空中飞行的是最年轻机队——平均飞机年龄不超过2年，每架飞机的年龄不超过3年。

VistaJet总部位于瑞士，在伦敦、萨尔茨堡、迪拜、吉隆坡、香港和北京都有办事处。

H412 Aichi Prefecture - NAGOYA Airport 爱知县 - 名古屋机场



爱知县名古屋市是丰田汽车公司总部所在地，这一地区有两个机场，即名古屋常滑中部国际机场和名古屋机场。名古屋常滑中部国际机场主要提供大宗国际货运和大型客运服务；名古屋机场的服务对象则主要是较小的飞机，如公务机和不超过100座级的支线飞机。

对于公务飞行的国际旅客来说，名古屋机场是日本最便利的机场。该机场最大的特点是其提供便捷的出入境检验检疫服务。此外，该机场建造的候机楼是专为公务飞行旅客设计的，特别考虑到了对旅客安全和隐私的保护。

虽然在2011年初的东日本大地震和福岛第一核电站事故对整个日本造成很大冲击，但我们现在已努力从灾后恢复过来。事实上，今日的爱知县名古屋、东京、大阪和其他日本的大都市仍在继续发展自己的经济，与灾前几乎一样。欢迎中国朋友来访爱知县与名古屋机场！

静态展示区 Gulfstream 湾流



湾流航空航天公司一直维护着商务航空领域最大的公司自营产品支持网络，拥有近3,500名专业人员。Gulfstream湾流提供的全方位服务、增强项目、备件、支持部门和技术出版物比任何其他商务喷气机制造商都要多。

Gulfstream湾流产品支持部的客户联络中心每天24小时、每年365天运营，公司同时还拥有一个专业部件修理中心，在全球还拥有九个服务中心，总面积超过500万平方英尺。2010年，这些分部为客户提供了9,500多架湾流飞机和非湾流飞机。

湾流和Jet Aviation及ExecuJet共同在六大洲建立了21家授权保修维修及航线服务分部。此外，湾流遍布全球的13个分销中心的可用零部件和材料价值高达12亿美元。接近50名现场服务代表（FSR）的服务团队为各运营商提供技术支持，并在世界上各战略要地担任Gulfstream湾流的联系人。

为了支持机队，湾流保留了商务航空领域最大的公司所有的产品支持网络，在全球各地派驻了3,500多名专家，没有任何一家商务喷气机生产商能够提供比湾流范围更广的服务、升级、备件、支持功能和技术出版物。

H522 AVFuel



Avfuel Corporation是独立的航空燃油和服务的全球供应商，在美国处于领先地位。Avfuel Corporation于40年前成立，起初主要从事航空用品和航空物流经营。从炼油厂到飞机加注，在航空燃油供应的各个方面，Avfuel都具有核心竞争力；Avfuel在全球拥有2000多个服务网点，为飞机提供加油服务，Avfuel还为600多家固定基地运营商供应航空油料和加油设备，并为固定基地运营商以创新的方案和服务提供设备设施支持。Avfuel 100%专注航空领域，其经营范围已经完全渗透到全球所有航空市场。

H220

Lufthansa Technik AG



Lufthansa Technik是领先的一站式服务提供商。Lufthansa Technik按照每个运营商的要求，为超级贵宾公务机、企业公务机和政府公务机提供个性化的服务。贵宾的公务机，对于由主流生产商生产的公务机，从小型的到大中型政府公务机，Lufthansa Technik都会提供贯穿于飞机整个生命周期的顶尖服务。Lufthansa Technik模块化的贵宾技术支持服务包括4个标杆部分：保养管理服务、维修服务、改装服务以及零部件和发动机服务，保证为客户运营各个方面提供完美的支持。

在Lufthansa Technik，贵宾飞机可以获得超过50年的德国工程设计和技术支持服务。到目前为止，位于德国汉堡的Lufthansa Technik的贵宾公务机解决方案部的专家们已经为60多架窄体和宽体飞机进行了安装和改装。

Lufthansa Technik已经被空客、波音和庞巴迪正式授权，为其所有公务机提供维护、翻新和整装服务。Lufthansa Technik的服务网络覆盖了欧洲和美国的4个地区，共有约2000名员工。该公司可以为众多公务机提供飞机内饰安装和修改服务，窄体飞机如波音BBJ公务机、空客的A320系列公务机，宽体飞机如波音767、波音777、空客A330和A340系列飞机，还包括大多数崭新的机型如波音787、波音747-8、A350和A380。

静态展示区

JETEX Flight Support 捷泰航务



捷泰航务近十年来致力为全球客户提供完善和高质量的航务支持。覆盖全球的服务网络允许我们在短时间内为世界各地的客户提供高效、有竞争力的优质服务。

捷泰航务集团总部设在迪拜，目前拥有两个世界级的豪华公务机航站楼，分别位于法国巴黎和爱尔兰香农。捷泰航务在乌克兰基辅和中国北京设有与总部同步的区域机构。

我们的服务范畴包括：

地面保障服务，起降和飞越许可，乘客和机组签证，安保，配餐，地面交通，酒店，运行签派，燃油，天气，跑道分析，航班风险评估以及实时飞行跟踪。

H310

DAC International

供应商	工程	制造	集成
DAC International, Inc. 是一家专业从事精密航空电子产品、系统和测试设备的销售和分销的公司。主要服务对象是航空公司、公务机运营商、飞机改装中心、飞机制造商和军航市场。	DAC International Inc. 拥有飞机内部所需航空电子设计和系统集成设计的能力。在这方面，DAC获得了FAA批准的航空电子产品生产资质、指定工程代表资质和航空电子系统设计的能力。	DAC International, Inc. 拥有生产自己所设计的零部件的能力。在这方面，DAC已经获得了FAA批准的生产资质、指定工程代表资质和将其所设计的机载系统进行集成的能力。	DAC International, Inc. 拥有在北卡罗来纳州和肯塔基州生产飞机内部所需各种航空电子零部件的能力。DAC是一个FAA批准的指定授权机构，拥有通过AS9100B认可的PMA和STC证书。

H522

Clay Lacy Aviation



位于美国西北部西雅图波音机场 (Seattle Boeing Field) 的Clay Lacy Aviation (CLA-BFI)，是私人经营的一流固定基地运营商。CLA-BFI提供自己的Clay Lacy式服务，即在所有方面全部以顾客为中心。CLA-BFI提供多种多样的航空服务，包括FBO、包租飞机、飞机管理、飞机买卖及维修等。CLA-BFI每周7天、每天24小时，随时为顾客提供服务。

我们的豪华服务项目包括：60000平方英尺的机库和7000平方英尺的办公区域，有竞争力价格的燃油，优质的航线检修服务，尊贵且个性化的客户服务，快速加油服务，飞行计划和天气预报服务，配有卫星电视的舒适的飞行员休息，私人休息室及淋浴间，会议室，送餐服务。

CLA-BFI的60000平方英尺的机库对驻场飞机和暂停于此的飞机开放。CLA-BFI是唯一提供现场飞机保养服务的固定基地运营商。不论您要在这里呆上一周，或只是从这里迅速转场CLA-BFI都尽心竭力为您提供优质的服务。

Clay Lacy Aviation在拥有、运营和管理世界各地的小型飞机、中型飞机和宽体飞机方面，已经有超过43年的经验。我们的销售团队有近50年的飞机交易经验，通晓复杂的新飞机和二手飞机交易市场。不论是买飞机还是卖飞机，CLA的行业专长和建立长期稳固的客户关系的良好声誉，可以为客户提供业内独特水平的服务。



**公务机地面服务，
托管及包机业务的佼佼者。**



首都公务机有限公司

www.ccjet.com

联系电话：010-6455-7365



国际飞行拉力赛 International Air Rally

International Air Rally国际飞行拉力赛（简称IAR飞行拉力赛）是航空联盟组织（Aviation Connection）举办的国际性飞行比赛。航空联盟组织是一个非营利性组织。从2001年起，IAR飞行拉力赛在100多个国家和地区举办，如加拿大、美国、加勒比群岛和拉丁美洲，包括法属圣皮埃尔岛和密克隆岛以及法国安地列斯群岛。

从2001年举行第一届IAR飞行拉力赛，该活动就不限制参赛队员的国籍和地域。不管是来自加拿大北部荒野地区的参赛者还是来自北冰洋的参赛者，亦或是来自加勒比群岛的参赛者，都会受到组委会的欢迎。迄今为止，已经有超过500名飞行员和航空爱好者参加IAR飞行拉力赛，飞越了加拿大、美国、加勒比海地区和拉丁美洲等地。

The International Air Rally (IAR for short) is an international flight competition hosted by the Aviation Connection. The Aviation Connection is a non-profit organization with the goal to promote General Aviation around the globe. The IAR was created back in 2001 and since then, the IAR has been in over 100 locations, such as Canada, the U.S., the Caribbean Islands and in Latin America, including the French territories of St-Pierre, Miquelon and French Antilles.

Since the first IAR in 2001, the organizing committee has known no borders, no nationalities and no limits; from the remote wilderness of the northern territories of Canada and the Arctic, to the islands of the Caribbean. To date, over 500 pilots and aviation enthusiasts have travelled across Canada, the USA, the Caribbean and Latin America as a part of the IAR.

During the IAR, pilots are confronted with questions regarding safety, navigation and air transport regulations. The competition aims to

The 2013 International Air Rally will be held for the first time ever in China! 2013年IAR国际飞行拉力赛将首次在中国举办

受IAR飞行拉力赛组委会的委托，2013年《民航报导》将首次在中国举办IAR飞行拉力赛。2013年在中国举办的IAR国际飞行拉力赛将会是一个大型的飞行比赛，也会是一个对中国大众进行通用航空宣传教育和提供通航信息的大好机会。

如果您希望成为活动协办方或参赛者参与这个充满激情和乐趣的活动，请联系《民航报导》，电话是：010-85590830。

The China Civil Aviation Report has been appointed by the International Air Rally committee to be the host for the 2013 International Air Rally. The 2013 International Air Rally event will be a large scale flight competition. We here at the CCAR believe that this is a great opportunity to provide education and information to China's general public regarding the many different aspects of General Aviation.

If you want to be a part of the exciting and fun event, as either a promoter or a participant, please contact China Civil Aviation Report at 010-8559-0830



在比赛过程中，飞行员可能会遇到各种问题，如安全、导航和空中交通管制等等。这个比赛旨在让飞行员在10至15天连续变化的飞行条件中，如天气条件、大气压、飞行经过地区的地形地貌、通信和导航程序等方面的变化，来了解和熟悉飞行程序。比赛中常常会遇到各国和当地出现的各种情况，如燃料、住宿和飞机起降点等问题。飞行员可以飞越很多自己以前从来没有飞过的地方，还要飞过很多疆界，这些经历都使得这个比赛是与众不同，可不是每个人都能够获得的一次体验！比如，2010年的加勒比海飞行挑战赛，飞行时间共15天。在这段时间里，飞行员需要穿越7到10个边界线。IAR飞行拉力赛还可以激励飞行员来拓展他们的视

increase awareness and familiarize pilots with flying procedures while exposing them to continuously changing flying conditions such as weather, atmospheric pressure and landscape, as well as familiarize themselves with communications and navigation procedures, during a period ranging from 10 to 15 days. The intervention of the defense ministry of native affairs (fuel, lodging, landing fields, etc..) makes this event an unique experience. For example, in 2010, during the Caribbean air challenge, pilots were confronted with crossing 7-10 borders in the course of 15 days. The IAR motivates pilots to expand their horizons while honing their aviation skills in the company of experienced and highly qualified pilots. Furthermore, by flying with professional experienced pilots, the new pilots can improve their flying techniques. Way point identification, precision landing, flying time and fuel consumption evaluations, are all a part of this exciting and exhilarating



野，增加他们的自信和能力。同时，通过与高素质的老飞行员共同飞行，使得他们的飞行技巧得以磨练。比赛的指标有对飞行航路的把握能力、降落的精准性、飞行时长和油耗水平等。同时，还有陆地上的比赛项目，即对飞行目的地的文化和历史的考核，这也是飞行员了解和熟悉当地的一个好机会。

旅游机构和航空航天领域伙伴的帮助，使得IAR飞行拉力赛不仅仅是航空领域在全球范围内的一个飞行比赛活动，也是一个展现通用航空和旅游的机会。它一直在对沿途的人民进行通用航空的宣传和普及。试想，当20多架飞机载着50多名来自各国的参赛者降落时，会给当地的人们留下多么深刻的印象！尤其是那些年青人看见飞行员走下飞机，更会让他们过目难忘。如果当地官方允许，飞行员可以载着孩子们飞上天，让他们免费体验人生中的第一次飞行。

每届IAR飞行拉力赛都有记者坐在飞机上跟拍整个比赛过程。每年都会有5大洲的大量航空类媒体争相报道IAR飞行拉力赛，超过8000万来自四大

activity. In addition, ground competitions related to both culture and history creates a good opportunity for pilots to familiarize themselves with the destinations they are visiting.

The IAR provides an opportunity to showcase both general aviation and local tourism with the help of the local Tourism Agencies and aerospace partners. The IAR has been playing a major role in the promoting of general aviation to the general population since day one. Just think about what an impact seeing over 20 aircraft landing with 50-60 people onboard from different countries has, especially with the youth, who get to meet the pilots upon arrival. When they are permitted by the local authorities, the pilots often propose free initiation flights for the children.

Every year during the IAR, there are journalists onboard to document the whole event. It is covered annually by the largest aviation magazines from across 5 different continents. Over 80 Million people from 4 continents have witnessed the adventures through TV documentaries, radio talk shows and extensive articles (stories with pictures) published in both magazines and newspapers. To date, 3 documentaries have been broadcasted for Canadian and US television networks. A full story and video of the event is produced every year and posted on the official website as a reference for pilots looking

洲的观众早已通过电视纪录片直播、无线电脱口秀和大量杂志和报纸上播报的文章（图文并举）熟知了IAR飞行拉力赛。在加拿大和美国的电视媒体网络上，迄今为止已经有3个纪录片报道IAR飞行拉力赛。关于这个活动的整体介绍和视频也会出现在网站上，推荐给寻找独特飞行体验和飞行目的地的飞行员。IAR飞行拉力赛还会被特别介绍给在加勒比海地区和拉丁美洲地区举行的飞行表演活动。

2012年4月份，将举行总督杯加勒比海IAR飞行拉力赛，4个来自加拿大、澳大利亚和美国的年轻飞行员将免费加入我们为期15天的IAR飞行拉力赛。届时，我们将参加在马提尼克岛举行的航展活动。我们的飞行员将按照飞机类型重组，并在马提尼克岛的500英尺上空进行自由的队形表演。最近，IAR飞行拉力赛组委会的一个成员刚从战斗机飞行员的工作岗位上退休下来，他会协调这个飞行表演。同时，将会有1个拍摄团队在飞机上全程拍摄IAR飞行拉力赛，制作成一个13集的纪录片，在加拿大的电视台播放。

for unique and safe destinations. The IAR is often invited as a special guest to air shows across the Caribbean and Latin America.

In April of 2012, the GOVERNOR GENERAL'S CUP CARIBBEAN AIR CHALLENGE 2012 will be held, and four young pilots from Canada, Australia and the USA will participate in this 15 day journey at no cost. This year, the China Civil Aviation Report will attend The Martinique Air Show. During that occasion, pilots will form groups according to aircraft type and proceed in a group formation at an altitude of 500 ft, over the island of Martinique. One of our committee members, a recently retired fighter pilot, will be responsible for the coordination of the flight. A film crew onboard will cover the air rally for a 13 episode documentary for Canadian television.

This year at the 2012 GOVERNOR GENERAL'S CUP CARIBBEAN AIR CHALLENGE, our publisher here at the China Civil Aviation Report, Mr. Francis Chao, will be onboard to document and report on the entire event which will be a feature article in our next issue of the CCAR. The upcoming feature article will cover this amazing event in detail. Please don't miss out on our full coverage of this spectacular event in our next issue. The schedule of events for this year's 2012 IAR is as follows:



在2012年4月份的IAR飞行拉力赛中，《民航报导》的发行人赵嘉国先生将作为随机飞行记者全程拍摄报导今年的详细比赛过程，届时《民航报导》将有专文报导，敬请期待！

2012年IAR国际飞行拉力赛日程

时间：2012年4月13日至4月27日

集合地点：美国佛罗里达州的劳德代尔堡机场

4月12日	4:00 PM – 6:00 PM: 在劳德代尔堡机场的Banyan飞行服务基地(www.banyanair.com)举行组委会欢迎参赛者仪式。
4月13日	8:00 AM: 本届飞行拉力赛行程介绍和简要说明。 9:00 AM: 出发。在制定该飞行路线时，已经考虑到了最慢飞机的飞行。
4月13日至 4月15日	第一站：特克斯和凯科斯群岛(www.turksandcaicostourism.com)。 本站目的地：GRAND TURK大特克岛。 从劳德代尔堡机场起飞，飞到普菲丹凯列斯国际机场(距劳德代尔堡机场508海里)，然后飞到杰格斯·麦卡特尼国际机场(距普菲丹凯列斯国际机场66海里)。 在飞往普菲丹凯列斯国际机场的途中，可以在埃克苏马国际机场加油。加油和通关手续办理：普菲丹凯列斯国际机场(距劳德代尔堡机场508海里)。 我们将沿着巴哈马群岛(Bahamas Islands)飞往特克斯和凯科斯群岛的普菲丹凯列斯。到达普菲丹凯列斯后，加油并办理通关手续(大特克岛没有加油站)。
4月16日至 4月17日	第二站：安圭拉(http://ivisitanguilla.com)。 要减少水上飞行，请按推荐路线飞行：杰格斯·麦卡特尼国际机场——普拉塔港竞技场——蓬塔卡纳机场——圣胡安机场(推荐在这里加油)——安圭拉机场。安圭拉机场跑道长5,440英尺。
4月18日至 4月19日	第三站：格林纳达(www.travelgrenada.com)。 从安圭拉机场飞往格林纳达国际机场。 (本届飞行拉力赛去程的折返点，然后从此站返航)
4月20日至 4月22日	第四站：马提尼克艾梅C é saire国际机场(距离格林纳达国际机场162海里)，即本届总督杯加勒比海飞行拉力赛的官方总部所在地。 MARTINIQUE FRENCH ANTILLES网站：http://www.martinique.org。 从格林纳达国际机场飞往马提尼克艾梅C é saire国际机场。马提尼克艾梅C é saire国际机场跑道长9,843英尺。我们的协办方是马提尼克旅游委员会，在4月21日至22日，这里将举行马提尼克航展，由BBA Aviation公司赞助。
4月23日	第五站：波多黎各的圣胡安机场(距离马提尼克艾梅C é saire国际机场418海里)从马提尼克艾梅C é saire国际机场飞往波多黎各的圣胡安机场。圣胡安机场跑道长5,542英尺。
4月24日至 4月25日	第六站：多米尼加共和国的康斯坦察机场(www.constanza.com.do/turismo/) (距离波多黎各的圣胡安机场265海里)。 从波多黎各的圣胡安机场飞往多米尼加共和国的康斯坦察机场。康斯坦察机场跑道长5,000英尺。
4月26日至 4月27日	第七站：本届飞行拉力赛终点站——特克斯和凯科斯群岛的普菲丹凯列斯国际机场(距离多米尼加共和国的康斯坦察机场192海里)。 普菲丹凯列斯国际机场跑道长7,600英尺，特克斯和凯科斯群岛是庆祝总督杯加勒比海飞行挑战赛最终胜利的最佳地点！
4月27日	飞回美国佛罗里达州的劳德代尔堡机场(距离特克斯和凯科斯群岛的普菲丹凯列斯国际机场509海里)。

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← 6月26-28日

通用航空商务交流会

2012年6月26-28日 | 中国北京

通用航空商务交流会是中国最具商务价值的通用航空聚会，每年两百名以上来自通用航空制造，运行，管理，融资机构及政府代表聚集一堂讨论中国通用航空的建设与商业机会。是投资者寻找项目，地方政府招商，运营者寻觅合作对象的最佳机会，每年促成无数项目，是中国通用航空产业的重要活动，产业领导者的盛会。

立即报名：
www.ChinaCivilAviation.com/GAForum
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通航商机

无处不在

EAA 飞来者大会

2012年7月23-29日 | 美国威斯康辛州Oshkosh市

EAA飞行探险活动（也称飞来者大会）是全世界最大的飞行爱好者年度聚会，每年夏天在美国威斯康辛州Oshkosh的Wittman社区机场举行。这个活动是由以Oshkosh为基地的国际性EAA（Experimental Aircraft Association 试验飞行器协会）所主持。活动每年吸引10,000架飞机前来参加活动，观众达450,000人，是全世界最大的航空活动。

立即报名：<http://events.uniworldoffice.com> 010-8559-0830 Info@UniworldUSA.com

7月23-29日 →





包租公务机与购买公务机，哪个更好？

Which is Best: To Charter or Own Business Aircraft?

英文撰稿人：Lilliam Tamm 中文译文：高瑞玲

大家都知道，公务机对于提高业绩很有用，它可以使企业的业绩增长得更快。有一个问题是，我们是包租公务机呢，还是考虑花钱买公务机呢？这两者各有各的优点也各有各的局限。下表列出了在考虑包租公务机和购买公务机时常要考虑到的主要因素。

So you have established that business aircraft are a useful tool for your business and using business aircraft can make it easier for your company to grow. One of the questions you may have is whether you should charter aircraft, or whether you should consider owning aircraft. Both options have benefits and limitations and the following chart compares some of major factors that should be considered when thinking about chartering vs. owning business aircraft:

包租公务机	购买公务机
<ul style="list-style-type: none"> 每次旅行使用不同的飞机——每次旅行过后，离开飞机时都需要将一切随行物品带走 A different type of aircraft for every trip You always need to take everything with you when you leave the aircraft 	<ul style="list-style-type: none"> 每次旅行使用同一架飞机——但可以把行李放在飞机上，无需随身携带 Always the same aircraft—You can keep your own things on board
<ul style="list-style-type: none"> 可以根据旅程需要选择机型（比如大飞机可用来承载多一些的旅客；还可以根据旅途的长短选择机型） Can select aircraft for the trip based on needs of the trip (for example, larger aircraft for more passengers, capability of longer or shorter flight, etc.) 	<ul style="list-style-type: none"> 无论哪种需要，都只能用同一架飞机 Always the same aircraft, no matter what the needs of the trip
<ul style="list-style-type: none"> 只有在包租飞机时，你才需要付费 Only pay for the aircraft when you have chartered it 	<ul style="list-style-type: none"> 每年都要有预算来维护和运营飞机 Regular annual budget to maintain and operate the aircraft
<ul style="list-style-type: none"> 很可能每次飞行/航班上服务的机组人员都不同 Likely a different flight crew on each flight and/or aircraft 	<ul style="list-style-type: none"> 每次飞行，机组人员都一样，他们会了解你的喜好 Same flight crew on every flight; they learn to know your preferences
<ul style="list-style-type: none"> 如果飞机在异地，需要付费让飞机飞过来接送你 If the aircraft has to come from another location to pick you up, you have to pay for it to be repositioned 	<ul style="list-style-type: none"> 你在哪里，你的飞机通常也在哪里 Your aircraft typically travels to where you travel to
<ul style="list-style-type: none"> 如果飞机需要你几个小时甚至一整晚，那你要为飞机的等待时间付费，同时也要向飞行员等待的时间和花销付费 If the aircraft has to wait for you for several hours, overnight, or several days before bringing you back, you have to pay for the time it waits for you; and for the pilots' time and expenses while they wait. 	<ul style="list-style-type: none"> 只要飞机和你在一起在外地，你需要为飞机的停放付费，也要为飞行员的时间和花销付费。如果你要在地呆较长时间，你可以请飞行员搭乘商业航班回去；当你回去时，再请他们回来开飞机接你 As long as your aircraft is with you (and away from your home airport), you have to pay for it to be parked, and for the pilot's time and expenses. If you are at a location for a longer period of time, you can send your pilots home on commercial flights and have them return to fly you home.
<ul style="list-style-type: none"> 包租飞机的每小时花费相对比自己买飞机每小时的花费高 The "per hour" operating cost of chartering an aircraft can be relatively high as compared to the per hour operating cost of owning an aircraft. 	<ul style="list-style-type: none"> 购买飞机每小时的花费相对比包租飞机每小时的花费低 The "per hour" operating cost of owning an aircraft can be lower than the per hour operating cost of chartering aircraft.
<ul style="list-style-type: none"> 如果你不经常旅行，那么包租飞机每年的总花销比购买飞机每年的花销要低 If you don't travel very often, the total cost annual cost of chartering aircraft may be less than the total cost of owning an aircraft. 	<ul style="list-style-type: none"> 如果你经常旅行，那么购买飞机的总花销比包租飞机的总花销要低 If you travel frequently, the total cost of owning aircraft may be less than chartering aircraft.



包租飞机可以让你有机会在每次旅行时乘坐不同的飞机。选择包机飞行是认识公务飞行的一个好方法，因为并不是所有情况下都需要公务飞机的。久而久之，当你发现采取公务飞行可以给你带来很多好处并且你可以负担公务飞行的费用，那么你的公务飞行需求将会增加。或者你发现包机飞行有很多弊端，比如，不能你在哪里飞机也在哪里，因为飞机常常会被别人租去了。如果这样的情况出现了，那就到了好好考虑一下的时候了，可能对你来说，购买一架公务机是正确的选择。

Chartering provides you with the opportunity to try several different types of business aircraft. It is also a very good way to move into using business aircraft since flying on business aircraft may not be suitable in every situation. As you become more comfortable with what you can accomplish using business aircraft and weigh the costs vs. the benefits over time, it may be that your use will increase. Or you may find that there are limitations to chartering such as not having the aircraft that you want available whenever you want it because it is frequently already booked by someone else. When these situations begin to occur, it is time to really consider if owning a business aircraft is right for you.

Lillian Tamm女士是Avicor Aviation公司的副总裁，已从事公务航空领域相关工作近30年时间。她是飞行器和航空业务估价师，提供航空市场调研和咨询服务。Avicor Aviation公司为航空业内的企业、金融机构、高资产人士、政府部门等提供服务，客户遍及全球各地。如需了解更多有关于Avicor Aviation公司的信息，请访问www.avicoraviation.com。亦可发送邮件至Ltamm@avicoraviation.com，直接联系Lillian Tamm女士。



Lillian Tamm is Vice President of Avicor Aviation Inc. and has been involved in business aviation for nearly three decades. She is an aircraft and aviation business appraiser, and provides aviation market research and advisory services. Avicor Aviation serves corporations, financial institutions, high-net-worth individuals, governments, and companies within the aviation industry around the world. For more information visit www.avicoraviation.com. To contact Lillian Tamm directly, email her at Ltamm@avicoraviation.com.



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中国通用航空产业园专栏 Special Column on General Aviation Industrial Park of China

编译：陈春桦 Edited & Translated by Vivian Chen



《民航报导》杂志自14年前创刊起至今，持续关注并报道中国通用航空的发展和新闻，从最早艰难的搜索新闻到如今海量的信息，《民航报导》杂志陪伴并见证了中国通用航空的成长。《民航报导》主办的“通用航空商务交流会”将于今天6月走到了第十个年头，我们历经了中国通用航空从无到有，从设想讨论到政策发布的过程。2010年底，国家发布“低空开放”政策后，通用航空已成为时下最为热门的讨论话题和投资方向。与此相对应的，通用航空业内所有的产业链都即将向中国整合，国内外企业正在蓄势待发。在这个契机下，《民航报导》杂志此次聚焦通用航空产业园，旨在了解目前通用航空产业园的构成、状态、发展以及目标。

我国的通用航空尚属起步阶段。我们所处的位置以及发展空间可以从如下的一组数据中了解：目前中国有168个民用机场，通用航空机场大都在筹建中；美国有800个民用机场，19,000个通用航空机场。我国通用航空飞机数量仅为美国的0.4%，相关产业产值仅为美国的0.2%，我国通航飞机与运输航空飞机的比例仅为0.67:1，远低于国际水平33:1。无疑通用航空即将迎来井喷式发展，这也将是中国最后一个还未开放的领域。从民间到政府都看到了通用航空的巨大商机并积极推动发展。各地政府则掀起了发展通用航空的热潮，力促航空产业园建设。如下表格为截至2011年中国航空产业园的分布情况。

During the 14 year history of the China Civil Aviation Report (CCAR), we have always reported on the news and development of general aviation in China. From the very beginnings when even searching for news regarding General Aviation was difficult, to the current flood of information nowadays, the CCAR has accompanied China's general aviation industry every step of the way. This year, at the 2012 General Aviation Forum, organized by the CCAR, we will celebrate the forums 10th anniversary in June. We have been involved in and experienced the entire growing process of China's general aviation, from conception and discussion to its policy creation. By the end of 2010, the state had finally issued a policy to "Open Low-Altitude Airspace", which suddenly made general aviation the hottest topic of discussion today and the most focused area of investment. So it would only make sense that all the many different players of the international general aviation market are looking to approach China. More and more domestic and foreign enterprises want to grasp this opportunity. In this special column, the CCAR will focus on general aviation industrial parks in China, with the aim to introduce their situation, composition, development and their target.

China's general aviation is still currently in its infancy stages. China's infancy status is very clear when looking at the data: At present, China has 168 civil airports, with general aviation airports mostly in the pipeline; While compared to the U.S. which has 800 civil airports and 19,000 general aviation airports. The number of GA aircraft currently in China makes up only a total of 0.4 percent of the number of GA aircraft in the United States. The economic impact of GA in China is only at 2 percent of that of the United States. For every 100 dollars that general Aviation in the United States generates, general aviation in China only generates 20 cents. In China, the ratio of General Aviation aircraft to commercial aviation aircraft is only 67:1, which is far much lower than the international average of 33:1. By taking a look at this data, there is no doubt that general aviation in China has to develop quickly to catch up to the international standard. From private enterprises to the government, everyone in China has seen the tremendous amount of business opportunities in general aviation and are actively promoting its development. Local governments have promoted the growth of the General Aviation industry by actively urging for the construction of Aviation Industrial Parks. The following table shows the distribution of China Aviation Industrial Parks in 2011.

级别 Level	序号 No.	园区名称 Name of the Aviation Base	批复年份 Approval Year	所在城市 City	省份 Province
National Aviation Industry Base 国家级航空产业基地	1	西安阎良国家航空高技术产业基地 Xian YanLiang National Aeronautics High-tech Industrial Base	2004	西安 Xi'an	陕西 Shaanxi Province
	2	沈阳国家航空高技术产业基地 Shenyang National Aviation and High Technology Industrial Base	2008	沈阳 Shenyang	辽宁 Liaoning Province
	3	安顺民用航空产业国家高技术产业基地 Anshun National Civil Aviation and Hhigh Technology Industry Base	2008	安顺 Anshun	贵州 Guizhou
	4	哈尔滨市民用航空产业国家高技术产业基地 Harbin National Civil Aviation and Hhigh Technology Industry Base	2008	哈尔滨 Harbin	黑龙江 Heilongjiang Province
	5	成都市民用航空产业国家高技术产业基地 Chengdu National Civil Aviation and Hhigh Technology Industry Base	2008	成都 Chengdu	四川 Sichuan Province
	6	天津滨海新区民用航空产业园 The Tianjin Binhai New Area Civil Aviation Industrial Park	2008	天津 Tianjin	天津 Tianjin
	7	上海临港新城航空产业园 Shanghai Lingang Town Aviation Industrial Park	2008	上海 Shanghai	上海 Shanghai
	8	南昌国家航空高技术产业基地 Nanchang National Aviation High Technology Industry Base	2009	南昌 Nanchang	江西 Jiangxi Province
	9	珠海航空产业国家高新技术产业基地 Zhuhai Aviation Industrial Park	2010	珠海 Zhuhai	广东 Guangdong Province
Regional Aviation Industry Park 地方设立的航空产业园	10	盐城航空航天产业园 Yancheng Aerospace Industrial Park	2010	盐城 Yancheng	江苏 Jiangsu Province
	11	包头众翔通用航空产业园 Baotou Zhongxiang General Aviation Industrial Park	2010	包头 Baotou	内蒙古 Inner Mongolia
	12	承德航空科技产业园 Chengde Aviation Science and Technology Industrial Park	2010	石家庄 Shijiazhuang	河北 Hebei Province
	13	北京航空产业园 Zhuzhou Aviation Industrial Park	2009	北京 Beijing	北京 Beijing
	14	株洲航空工业园 Aviation Industrial Park	2010	株洲 Zhuzhou	湖南 Hunan Province
	15	长沙航空工业园 Changsha Aviation Industrial Park	2010	长沙 Changsha	
	16	嘉兴航空航天产业园 Jiaxing Aerospace industrial park	2010	嘉兴 Jiaxing	浙江 Zhejiang Province
	17	长春航空科技产业园 Changchun Aviation Science and Technology Industrial Park	2010	长春 Changchun	吉林 Jilin Province
	18	武汉航空产业园 Wuhan Aviation Industrial Park	2010	武汉 Wuhan	湖北 Hubei Province
	19	福州通用航空产业基地 Fuzhou General Aviation Industrial Park	2010	福州 Fuzhou	福建 Fujian Province

级别 Level	序号 No.	园区名称 Name of the Aviation Base	批复年份 Approval Year	所在城市 City	省份 Province	
Regional Aviation Industry Park 地方设立的航空产业园	20	航空科技产业园 Aviation Science and Technology Industrial Park	2010	承德 Chengde	河北 Hebei Province	
	21	合肥航空产业园 Hefei Aviation Industrial Park	2010	合肥 Hefei	安徽 Anhui Province	
	22	济南航空产业园 Jinan Aviation Industrial Park	2010	济南 Jinan	山东 Shandong Province	
	23	青岛航空城 Qingdao Aviation City	2010	青岛 Qingdao		
	24	烟台航空产业园 Yantai Aviation Industrial Park	2010	烟台 Yantai		
	25	大高航空城 Dagao Aviation City	2010	滨州 Binzhou		
	26	威海航空产业园 Weihai Aviation Industrial Park	2010	威海 Weihai		
	27	莱芜航空运动基地 Laiwu Aviation Base	2010	莱芜 Laiwu		
	28	汉中航空工业园 Hanzhong Aviation Industrial Park	2008	汉中 Hanzhong		陕西 Shaanxi Province
	29	中航工业基础产业园 Catic Industrial Park	2010	西安 Xi'an		
	30	宝鸡飞行培训和航空安全装备制造园 Baoji Flight Training and Aviation Safety Equipment Manufacturing Garden	2010	宝鸡 Baoji		
	31	朝阳通用航空基地 Chaoyang General Aviation Industrial Park	2010	朝阳 Chaoyang	辽宁 Liaoning Province	
	32	大连通用航空城 Dalian General Aviation City	2010	大连 Dalian		
	33	盘锦通用航空产业园 Panjin General Aviation Industrial Park	2010	盘锦 Panjin		
	34	法库通用航空产业园 Faku General Aviation Industrial Park	2010	法库 Faku		
	35	建湖航空航天产业园 Jianhu Aerospace industrial park	2010	建湖 Jianhu	江苏 Jiangsu Province	
	36	镇江航空产业园 Zhenjiang Aviation Industrial Park	2009	镇江 Zhenjiang		
	37	南京航空产业园 Nanjing Aviation Industrial Park	2008	南京 Nanjing		
38	昆山航空产业园 Kunshan Aviation Industrial Park	2009	昆山 Kunshan			

由于招募时间有限，本期专栏我们将通过对珠海航空产业园、株洲通用航空城、沈阳国家航空高技术产业基地和大连登沙河航空产业园的介绍来了解中国航空产业园的情况，并通过《民航报导》的平台，向世界宣传中国的通用航空产业园正在不断发展、准备并等待国际力量的加入。

In this column we will only focus on Zhuhai Aviation Industrial Park, Zhuzhou General Aviation City, Shenyang National Aviation Hi-tech Industrial Base and Dalian DSH Harbor Industrial Zone Aviation Industrial Park to introduce and learn about the situation of China Aviation Industrial Parks.

株洲通用航空城 (株洲国家高新区董家垅高科技工业园) Zhuzhou General Aviation City

株洲通用航空城（株洲国家高新区董家垅高科技工业园）于2000年9月经科技部批准设立。扩建园区至57.6平方公里建设株洲通用航空城。打造出了一条完备的“航空发动机+通用飞机整机制造+通用航空运营+配套产业+衍生产业”的全价值航空产业链。

Zhuzhou General Aviation City was opened in September of 2000 and covers an area of 57.6 sq.km. The goal of the ZhuZhou General Aviation Park is to create a complete aviation industrial chain, which includes “aircraft engines, GA aircraft manufacturing, GA operation and all other supporting industries”





航空产业园概况

珠海航空产业园于2008年11月开园，是我国九大国家级航空产业基地之一，是国家发改委批复的“航空产业国家高技术产业基地”和工信部批复的“国家新型工业化产业示范基地”。它以珠海机场为核心，紧靠珠海市西部主城区，总规划面积99平方公里。园区与港珠澳大桥、珠海机场、广珠轻轨、机场高速公路相接驳，形成了海陆空一体的交通网络，是连接珠江三角洲东西部以及港澳地区的纽带。

园区的总体目标是建设成为“四个基地、一座新城”，即广东省的民用航空产业基地，国内一流的通用飞机（公务机）制造和服务基地，亚太地区综合性的航空维修基地，世界著名的航空展览基地，拥有相当一部分从事航空产业人口的、现代化的、宜居的珠海航空新城区。

Zhuhai Aviation Industrial Park was opened back in 2008 and is one of the nine national aviation bases. It is located close to Zhuhai International Airport and west of the city of Zhuhai, with a total area of 99 sq.km. Being a harbor focused on transportation, Zhuhai Aviation Industrial Park connects to the Pearl River Delta and the Hongkong Macao area.

Zhuhai Aviation Industrial Park has a desire to develop 4 bases and 1 new city. The four bases are: the civil aviation industrial base, the general aviation and business aviation manufacturing and service Base, the aviation maintenance base which would offer services to the entire Asian-Pacific region and a world famous aviation exhibition base. The goal is to create a new, modern and livable Zhuhai aviation city.



Shenyang National
Aviation and
High Technology
Industrial Base



沈阳国家航空高技术产业基地

Shenyang National Aviation and High Technology Industrial Base

打造中国最重要的民用航空产业基地
To create the most important civil aviation
industrial base of China

航高基地简介

At A Glance to The Base

“十一五”期间，沈阳以国家振兴东北老工业基地为契机，依托航空得天独厚的区位优势及发展航空制造业具有的雄厚基础，提出民用航空产业高速发展，实现产业集聚。2008年2月20日，国家发改委批准沈阳航空经济区为国家级产业基地。据此，沈阳民用航空产业国家高技术产业基地管委会（简称：航高基地管委会）正式组建，隶属于浑南新区（东陵区）人民政府。

航高基地位于沈阳大浑南核心区，东北最大的民用航空港—沈阳桃仙国际机场位于区域内，它的建设将在城市南部形成新的增长极，拉动城市向南拓展，有利于沈阳整体结构的调整和优化以及航空经济的形成。

航高基地以其重要的战略地位、独有的产业优势和巨大的发展潜力，将成为沈阳全面振兴的重要支撑，使沈阳一飞冲天、魅力四射，逐渐成为全世界的聚焦点。

During the 11th Five Year Plan (i.e.:2006-2010) of China, under the atmosphere of revitalizing Northeast China, Shenyang has set its resolution to push forward the development of local civil aviation industry and achieve scale economy in this field with its unique advantage of adjacent to airport and solid foundation of aircraft manufacture experience. On Feb. 20th, 2008, the National Development and Reform Committee has approved the organization of Shenyang National Aviation and High Technology Industrial Base (short for "SNAHTIB") as a state-level one which belongs to the Hunnan New District (Dongling) People's Government.

SNAHTIB locates at the core of the Great Hunnan Area of Shenyang, next to the largest civil international airport in Northeast China- Taoxian Airport, whose establishment will form a new growth point, and help to drive the city expand in the south, and pull up the by-air economy as well.

The future of SNAHTIB will definitely be glorious and sore into high sky, become the pillar of Shenyang revitalization by its irreplaceable strategic location, unique industrial advantage and development potential.



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通用航空的风采 The Beauty of General Aviation

By Grant Opperman 作者: Grant Opperman 译



想像您是一位商人，生活在通用航空欣欣向荣的未来的中国：现在的时间是周日下午2点，地址是中国上海。您与几位公司高层登上公司专机，前往成都与潜在供应商洽谈一个新项目。您及时到达成都，可以与供应商共进晚餐。在享用美好晚餐的同时，您与供应商讨论项目事宜。晚上您在成都休息，第二天周一的整个上午您都在开会。午饭后您离开成都，搭乘公司专机去广州与另一家合作伙伴见面。下午晚些时候您到达广州，正好赶上约好的会议和另一个商务宴请。第二天早晨，您的团队搭乘专机飞往厦门，和另一潜在客户洽谈一笔生意。商谈过后，您及时飞回上海和您的家人共进周二的晚餐。

结论是，您的商务行程涵盖了四个城市，而您的管理团队只花了2个工作日就完成了整个行程。周三他们就可以全部回到公司总部的办公桌前继续工作。而且，当你计算用公司专机飞往四个城市的总成本时，你会发现，平均每人的花费仅仅比商业航班的头等舱机票高了一点点。

我知道你现在正在想什么：这些是虚构的，现实中是不可能存在的。但是我要告诉你，这种高效率运营的方式不但可能实现，而且许多公司早已经这样做了。我在美国经营着一家公司。美国的通用航空历史悠久，基础设施强大。我和我的团队最近便飞了相同的距离：从旧金山出发，飞往墨西哥瓜达拉哈拉的一家工厂，在德克萨斯州拉雷多与合作伙伴会面，经停我们位于奥斯汀的办公室，然后飞回家。

Imagine for a moment that you are a businessman, living in some future China where general aviation is thriving: It's 2pm Sunday afternoon at your corporate headquarters in Shanghai. You board the company plane with four key managers to meet with prospective suppliers for a new project in Chengdu. You arrive in time for dinner with the vendors. After a good meal and discussion, you spend the night and have a full morning of meetings on Monday. Leaving Chengdu after lunch, you fly to see another set of partners in Guangzhou, arriving in time for late afternoon meetings and another business dinner. The next morning, your team is headed for Xiamen to talk with potential customers on another deal. After meetings there, you fly home to Shanghai in time to have dinner with your family Tuesday night.

In all, your trip encompassed four cities. Your management team spent just two business days traveling, so Wednesday morning they're all back at their desks in corporate headquarters. And, when you consider the operating costs to fly your company plane to all four cities, it was only slightly more expensive per person than a premium airline ticket.

At this point, I know what you're thinking: This is a fantasy world that can't possibly exist. But this is also the point where I tell you that such productivity not only can exist; it already does. I run a company in the US, where general aviation has a rich legacy and strong infrastructure. And, my team and I flew these same distances recently, starting from San Francisco, flying to a factory in Guadalajara, Mexico, meeting with partners in Laredo, Texas, stopping at our offices in Austin, Texas and returning home.

The distances are the same (and we even crossed an international border). We left on Sunday afternoon and were back home Tuesday night. The costs, same. What's dramatically different, however, is the general aviation climate. For a century, air links have played an important role in building the American economy.

距离是相同的（我们甚至飞越国界），我们周日下午出发周二晚上回家，而成本也是相同的。然而，真正不同的是，通用航空的大环境。过去一个世纪以来，航空产业为美国经济增长发挥了重要的作用。

从硬件基础设施来说：在美国各地，有大大小小近2万个机场，而且这些机场不仅仅分布在人口密集的地方，也分布在人口稀少的地方。所以，如果你要去拉雷多，那你直接飞到那里就好了，不必先到某一个大城市然后再驾车前往。同样的道理，在中国，这就意味着如果你要去苏州或者无锡，你可以不用从上海浦东国际机场驾车前往，直接飞过去就好了！

发展通用航空不仅仅促进商业发展为商人谋利，还可以为偏远地区提供医疗飞行救助服务。比如，我们公司就参加了一个慈善项目，叫“天使航班”，志愿为重症病人提供免费飞行服务，让他们到全国拥有优良医疗设施的地区接受治疗。再比如，有自然灾害时，通用航空更可以排上用场。当野火肆虐我们总部所在地加州时，灭火飞机飞了很短的距离到当地机场，加油并装上灭火剂投入灭火工作。当地政府则不用大老远从远方调用救助资源。在附近，总有合适的机场可以帮忙。

然而，在通航产业里，中美之间的差距不仅仅是硬件基础设施。美国拥有所有可飞行国家最开放的监管环境。不用每次飞行都缴费，空中交通管制也是全国性的，也不对使用者收费。想从旧金山飞往洛杉矶？如果你是目视飞行，自己飞就好了，不用事先报备；如果你是仪表飞行，在网上填一个飞行部计划表（免费），然后即可飞行。

觉得这是最好的了吧？但我要告诉你一件更美妙的事情。由于我不仅是我们公司的总裁，还是一名私人飞机飞行员，所以，当我需要旅行，我甚至都不用查看公司的Lear 60飞机的行程表，再去跟专用机组人员协调，而只需要去离我家和公司不到15公里的机场，跳上我自己的Cirrus SR22飞机，就可以飞了。

上个月，我利用这个优势，花了一天时间前往圣地亚哥去拜访客户。他们都在加州的卡尔斯巴德机场周围2公里内。所以，我上午8点离开家，赶上了上午11点的会议和稍后的午餐。回来后，我甚至有时间在回家晚餐前呆在办公室一会。总成本：大约350美元的燃料费。试想，如果搭乘固定航班需要多少花销？！如果我没有自己的飞机，我不可能



Start with the physical infrastructure: In the US, there are nearly 20,000 airports of all types. They're not just in major population centers, either. So, if you want to meet in Laredo, you can fly right there, rather than going to a major city and then driving. Imagine what this might mean in China if you could fly directly to Suzhou or Wuxi instead of driving from Pudong airport in Shanghai!

These facilities don't serve just businesspeople. They also provide medical airlift from rural areas. Our company participates in a charity program, for instance, called Angel Flights, in which we volunteer to fly critically ill patients at no charge to top medical facilities throughout the country. Or, say, there's a natural disaster. When wildfires ravaged California, where our headquarters are, fire suppression planes were able to fly short loops to local airports, refueling and loading up on fire retardant. Government authorities didn't have to stage their efforts from long distance. There was always a suitable airport nearby.

The differences between China and the US go beyond infrastructure, though. America has one of the most open regulatory environments of any flying nation. There are no per-flight fees imposed. Air traffic control is nationwide and free to all users. Want to fly from San Francisco to Los Angeles? If you are in visual conditions, you can go on your own without any prior arrangement. If you're flying on instruments, file a flight plan electronically at no charge, and you're on your way.

Think it can't get any better? I should make a small confession here. In addition to being president of my company, I also am a private pilot, myself. So, when I need to travel I don't even need to schedule our company's Lear 60 jet and coordinate with the professional flight crew. I just head to the airport that's less than 15 kilometers from my home and office, hop in my Cirrus SR22 and go.

Last month, I took advantage of this to make a day trip to San Diego to visit customers. They were located within 2 kilometers of the Carlsbad, California airport. So, I left home at 8 am, arrived in San Diego for an 11am meeting and lunch. After the flight back, I actually had time to stop by the office before heading home to dinner. Total cost: About \$350 in fuel. Try

用这种方式进行这个行程。但当我用这种方式去做这件事，我和客户的关系就得到了加强。

由此可见，美国拥有成熟的飞行环境。因此每天都有超过87000架次飞机飞在美国的天空，其中只有35%属于商业航班。当然，其中是少数富豪载着全家飞到科罗拉多去滑雪度假，但是其中成千上万的飞行属于工作的商业人士，他们促进着经济增长；也有提供重要服务的政府机构；还有城乡联系的飞行。试想，如果每天都有这么多飞机飞在中国大陆的上空，会产生多少经济价值！

如果你觉得这听起来这是个遥不可及的理想，欢迎你某一天来到加利福尼亚，我带你一同去飞行。

that on China Southern Airlines! If I had not had the convenience of my own plane, I wouldn't have attempted the trip. But my relationship with my customers is stronger because I went.

You can see what a rich flying environment we have in America. As a result, there are more than 87,000 flights in the skies over the United States every day. Only 35% of these are commercial airliners. Sure, a few of those are fat cats flying their family to a Colorado ski vacation. But tens of thousands of flights every day are business people building jobs and contributing to the economy; government agencies providing critical services; connections to rural areas. Imagine the value of 87,000 planes floating over the Chinese mainland every day!

If it sounds like an impossible dream to you, come to California some day soon and we'll go flying.

附注：

Grant Opperman是D.W.Morgan物流公司的总裁和首席战略官。D.W.Morgan的主要业务是提供那关键的“最后一英里”服务给世界各地的客户，特别是高科技、生物技术、医疗保健、航空航天运输和物流服务。他渴望看到通用航空在中国也能蓬勃发展，这样他就可以从珠海直接飞到沈阳。

Grant Opperman is President and Chief Strategy Officer of D.W.Morgan Company. The business provides critical, last-mile transportation and logistics services around the world to clients in high technology, biotech, health care and aerospace. He longs to see a thriving general aviation community emerge in China so that he can get from Zhuhai to Shenyang on a direct flight.



GRANT OPPERMAN先生个人简历

作为D.W.Morgan公司的总裁兼首席战略官，Grant Opperman先生将公司的业务聚焦在为全球制造商提供“最后一英里”的连锁供应服务。他带领了公司去实施此战略——从选择和建立新的服务网点到确定服务产品和与公司管理层并肩合作以确保持续执行该战略。在他的领导下，公司迅速发展，成为业界创新的楷模。在担任总裁前，Opperman先生负责Morgan公司的营销和技术创新。

Opperman先生还在许多顶级产业活动中担任主讲人，包括供应链产业世界会议、通信业联合会、产业周刊的“智能制造”座谈会、锤及公司的研讨会以及电子供应链协会举办的研讨会系列讨论会。他在D.W.Morgan公司的工作，最近被当成研究案例写在迈克尔·哈默博士的新书《更快更便宜更好》中。

Opperman先生取得西北大学硕士学位及波莫纳学院的语言学学士学位。

GRANT OPPERMAN, PRESIDENT & CHIEF STRATEGY OFFICER

As D.W.Morgan's President and Chief Strategy Officer, Mr. Opperman shapes the company's unique focus on providing "last mile" supply chain services to manufacturers worldwide. He has developed and directed the company's implementation of that strategy—from selecting and implementing new locations, to defining service offerings and working with the company's management to ensure consistent execution. In his time at Morgan, the company has grown dramatically and won recognition as an industry innovator. Prior to his current role, Mr. Opperman oversaw Morgan's marketing and technology initiatives.

Mr. Opperman has been a featured speaker at many top-level industry events, including the Supply Chain World Conference, Collaborative Communications Conference, Industry Week's Smart Manufacturing, Hammer & Company seminars and the Electronic Supply Chain Association's Symposium series. His work at Morgan was also recently highlighted as a case study in Dr. Michael Hammer's book, Faster Cheaper Better.

Mr. Opperman holds a master's degree from Northwestern University and a bachelor of arts degree in linguistics from Pomona College.

谁能为您飞行器买卖保驾护航？

——专访美国Aerlex法律事务所总裁STEPHEN R. HOFER先生及高级交易法律顾问AMANDA M. APPLGATE女士

Who Can Help To Protect Your Aircraft Acquisition?

——Interview With STEPHEN R. HOFER, President, and AMANDA M. APPLGATE, Senior Transactional Counsel, of Aerlex Law Group

美国与中国同属“航空大国”。但在私人飞行器买卖方面，中国只是起步阶段，美国的经验及技术能够给予我们重要的启示和帮助，尤其在购买飞行器过程中的法律及程序问题，美国同仁又是如何操作与执行的呢？本文带着上述问题访问了美国Aerlex法律事务所总裁STEPHEN R. HOFER先生及高级交易法律顾问AMANDA M. APPLGATE女士。

CCAR: 为什么我们需要美国律师代理人来协助进行飞行器购买程序？

Aerlex法律事务所: 当您选购新飞行器的时候，Aerlex法律事务所将协助您与制造商进行采购协议探讨及谈判，并为您提供机型选择指导以及个性化定制方案。我们将按您的要求对飞行器制造过程全程技术监督。Aerlex法律事务所可为美国以及其他国家的客户提供飞行器交付服务并协助完成飞行器销售及注册等文件的准备及备案。我们也会为您建议在如何飞行器交易过程中将税务负担降低至最低水平。

如果您购买的是二手飞行器，Aerlex法律事务所可协助您进行采购谈判并制定公正平等的购买协议，这将在购买前以及取得飞行器后有力的保护您的权利。此外，我们可为您提供飞行器购买前评估的技术支持，通过这一过程，我们可协助您确认飞行器重要的维修和养护问题。

无论飞行器日后在哪里运行，众多的飞行器买家都会选择在美国进行注册。非美国居民也可将其飞行器注册在美国名下，但这需要经过妥善处理以保证满足美国联邦航空局对飞行器的需求。作为有经验的美国航空律师，Stephen R. Hofer 先生和

The United States and China are the top two aviation nations in the world. But in the area of private aircraft buying and selling, China is still in its infancy. There is so much experience and knowledge we could learn from the United States, especially in the world of aviation law and regulation process. The CCAR had the opportunity to interview with Mr. Stephen R. Hofer, President, and Ms. Amanda M. Applegate, Senior Transactional Counsel, of Aerlex Law Group to find out how they help their customers in the world of aviation.

CCAR: Why do I need an American attorney to help me with my aircraft acquisition?

Aerlex Law Group: When you purchase a new aircraft, Aerlex Law Group assists in the negotiation of the purchase agreement with the manufacturer and advises you on the selection of options and the customization of the aircraft. We provide technical oversight throughout the entire manufacturing process. Aerlex supervises the delivery of the aircraft and the filing of the sale and registration documents, both in the United States and other countries. We also counsel you in minimizing tax liability on the transaction.

If you are purchasing a pre-owned aircraft, Aerlex assists with the negotiation and drafting of a fair and equitable purchase agreement, which protects your rights, both before and after the closing. In addition, we provide technical support in connection with the pre-purchase inspection of the aircraft, which could identify significant maintenance and repair issues.

Many aircraft buyers choose to register their aircraft in the United States even if the aircraft will be operated elsewhere. Non-U.S. citizens can still register aircraft on the U.S. registry but it must be done properly in order to satisfy the citizenship requirements of the U.S. Federal Aviation Administration. Being as experienced U.S. aviation attorneys, Stephen R. Hofer and Amanda M. Applegate, can help a non-U.S. citizen satisfy the FAA's citizenship and aircraft ownership requirements.

Amanda M. Applegate女士可以协助非美国籍人士满足联邦航空局对飞行器所有人资格认定的要求。

CCAR: Aerlex法律服务所可为我们提供什么服务?

Aerlex法律服务所: Aerlex法律服务所已成功处理数千个飞行器交易项目。我们可提供航空法律相关的全方位综合性专业服务,包括飞行器采购及销售、租赁、产权共享及各类会员卡。在飞行器包租运营、筹措资金、保险赔付、飞行器注册及命名、技术支持、资格认证、飞行器管理及运行等环节,我们为客户提供完备的咨询服务协助客户做出最好的选择。Aerlex法律服务所经验丰富的律师们为全球客户处理飞行器购买及销售事宜。Aerlex法律服务所拥有一位FAA认证及技术专家,以及一位交易及成交专家。我们也随时准备在交易结束后为客户提供有关飞行器问题的协助与支持。

CCAR: 你们从业航空法律多长时间了呢?

Aerlex法律服务所: Aerlex法律事务所的律师和助理律师在处理飞行器购买及所有权业务所有阶段的经验总计有上百年时间。公司总裁Stephen Hofer在航空法律领域有超过30年的从业经验。公司高级交易顾问Amanda Applegate女士加入公司前,曾作为法律顾问合伙人为全球最大的公务机产权共享公司服务12年时间。

CCAR:What does the Aerlex Law Group have to offer me?

Aerlex Law Group:The Aerlex Law Group has handled thousands of aircraft transactions. We offer comprehensive expertise in all aspects of aviation law including whole aircraft purchases and sales, leasing, fractional ownership and jet cards. We counsel our clients to make the best choices when it comes to charter operations, financing, insurance, aircraft registration and title matters as well as technical support, certification, and aircraft management and operations. Our experienced attorneys have handled aircraft acquisitions and sales all over the world. We have a FAA certification and technical specialist on our team, as well as a transaction and closing specialist. We are also ready to support and assist clients with aircraft issues after the transaction closes.

CCAR:How long have you been practicing aviation law?

Aerlex Law Group:Collectively, Aerlex attorneys and paralegals have hundreds of years of experience in handling all phases of aircraft acquisition and ownership. The firm's President, Stephen Hofer, has been practicing law for more than 30 years. Senior Transactional Counsel, Amanda Applegate, joined the firm after spending more than a dozen years as Associate General Counsel with the world's largest operator of fractional aircraft programs.

Stephen Hofer先生是Aerlex法律服务公司的总裁。公司坐落在加利福尼亚州圣塔莫尼卡。Stephen Hofer先生30年时间专业从事航空、公司、商业及职业法律领域方面的业务。

Stephen Hofer先生于2005年成立Aerlex法律服务公司。该公司在飞行器销售和租赁、产权共享和融资、FAA和DOT法律规章以及飞行器税务问题等领域向客户提供指引。Aerlex法律服务公司还为客户提供有关商业房地产、公司结构、合同、商标、知识产权、劳务与雇佣方面的咨询服务。

Stephen Hofer is president of the Aerlex Law Group in Santa Monica, California. He has been practicing law for over 30 years, specializing in the fields of aviation, corporate, commercial and employment law.

Mr. Hofer founded the Aerlex Law Group in 2005. The firm provides guidance to aviation clients in the fields of aircraft sales and leasing, fractional ownership and financing, FAA and DOT regulations and aircraft taxation issues. Aerlex also counsels clients in commercial real estate, corporate structuring, contracts, trademarks and intellectual property, and labor and employment law.



STEPHEN R. HOFER
President, Aerlex Law Group
Aerlex法律服务公司总裁
shofer@aerlex.com




AMANDA M. APPLGATE
高级交易顾问
Senior Transactional Counsel
Aerlex法律服务所
Aerlex Law Group
aapplegate@aerlex.com

Amanda Applegate女士是Aerlex法律服务所的高级交易顾问。在加入公司之前,她曾任职NetJets服务公司的助理法律顾问及副总裁12年时间,倡导飞行器产权共享。Amanda Applegate女士用其卓越的法律专业经验、令人钦佩的沟通技巧和商业领悟力服务公司的所有客户。

2006年,Amanda Applegate女士担任NetJets公司副总裁,带领25人的团队负责3,500个飞行器产权共享合同。作为公司的法律顾问合伙人,管理公司多种业务,包括数百万美金合同的谈判、合同执行、飞行器产权共享和租赁,以及其他日常业务事宜。

Amanda Applegate is Senior Transactional Counsel at Aerlex Law Group. Prior to joining the firm, she served as Associate General Counsel and Vice President of NetJets Services, Inc., where she spent twelve very productive years with the company that pioneered fractional jet ownership. Ms. Applegate brings her outstanding legal expertise as well as impressive negotiating skills and business savvy to the service of the firm's clients.

In 2006, Ms. Applegate was named Vice President at NetJets, assuming leadership of a 25-member team that handled more than 3,500 fractional ownership contracts. As the company's Associate General Counsel, Ms. Applegate directed a diverse range of business, including multimillion-dollar contract negotiations, contract enforcement, fractional ownership and leasing, and daily



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在中国购买航空电子设备不再困难重重 – 南海岸航空电子设备公司专访

Avionics for China's General Aviation Market - An Interview with Gulf Coast Avionics



航空电子在飞航安全中扮演不可或缺的角色，但却经常找不到需要的产品。为服务中国对航空电子设备的需求，南海岸航空电子设备公司现已正式开始服务中国通用航空市场。《民航报导》杂志(以下简称为CCAR)专访了南海岸航空电子设备公司总裁Rick Garcia先生(以下简称R. G.)，并带您了解他如何带领公司成为美国航空电子行业中的领导者，以及其对于中国通航市场的发展规划。

CCAR:您何时建立了GCA公司?

R. G.:公司于25年前创立于美国佛罗里达州坦帕市，开始我们的公司只是拥有两个人的小型办公室。

CCAR:您公司的目标是什么?

R. G.:公司最初的目标是为每一位客户提供价格最好、质量最高的产品。

CCAR:您怎样使GCA公司成为行业的领导者?

R. G.:严格履行我们的目标使我们在行业中非常成功。它已经不仅仅是一个“目标”，它为我们明确了业务的发展方向。我们持续为客户提供最好的服务以及最为质优价廉的商品，并一步一步地成为国际化大型企业。

CCAR:您公司的强项及竞争优势是什么?

R. G.:除拥有我们的核心业务价值外，更为重要的是公司的每一位员工都是飞行器业内极富经验的专业人士。从经营手段到产品销售，从设备安装到维修技术，我们专注于达成客户在航空电子技术、设备以及飞行员补给等方面的

Avionics plays an essential role in providing safe flight to pilots. However, in China, very often, we just can't find the right product for the right price at the right time. The good news is that Gulf Coast Avionics is now officially serving the China market. [China Civil Aviation Report] interviewed Mr. Rick Garcia, the President of Gulf Coast Avionics, and discovered how GCA become the leader in the avionics supply industry, and their plans in the emerging China GA market.

CCAR:When did you start GCA?

R.G.:The Company was started in Tampa Florida over twenty-five years ago. We were a small two-person office in the beginning.

CCAR:What is Your Mission Statement?

R.G.:From the very beginning, our mission has been to deliver to every customer the highest quality products at the lowest possible prices.

CCAR:How Did You Make GCA a Leader In the Industry?

R.G.:We have been successful by strictly sticking to our mission statement. It has been more than just a “statement”,it has defined our way of doing business. We continue to offer the best customer service we can deliver at the lowest possible price to a customer base that has literally grown to world-wide proportions.

CCAR:What Are Your Strengths and Competitive Advantages?

R.G.:In addition to our core business concepts, it is significant that every member of our staff is a highly experienced aircraft industry professional. From management to sales to installation and repair technicians, we are

需求。我们同时致力于用最快的速度回应客户要求并坚持在客户下单日发送货物。

CCAR:你们的主要技术是什么?

R. G.:我们所有的业务和产品都是航空电子设备。我们专注于此并对此方面的市场十分了解。每一位客户都相信我们能够满足他们个性化的需求。同样的，我们坚持用尽可能低的价格提供高质量的产品。

CCAR:是什么促使您进入中国市场?

R. G.:很明显，中国通用航空的市场非常巨大并正在持续发展中。中国的地理及经济情况都非常适合于支撑起一个强大的通用航空市场，我们可以提供一整套独有的技能与产品来服务于这个市场。

CCAR:您对中国通用航空的市场有何看法?

R. G.:对于任何一个发展中的市场而言，起步一般较为缓慢，一旦经过几个重要的发展阶段后，相信中国的通用航空市场将会超越美国。

CCAR:您对中国通用航空市场的计划及目标是什么?

R. G.:我们从近期和远期两个方面来看待中国市场。就短期而言，我们的目标是在行业领域内建立GCA的专业形象，并力争成为整个通用航空市场首选的航空电子设备和服务的供应商。从长远来看，未来是无止境发展的，我们计划在中国的关键位置成立三到四家航空器材商店及飞机维修改装点。

all focused on meeting our customers' needs in the areas of avionics, instruments and pilot supplies. We are also committed to providing the quickest possible response to our customers and we provide same-day shipping on practically all orders.

CCAR:What Is Your Key Expertise?

R.G.:All we do is Avionics. That is what we specialize in and we know the market very well. Every customer can be confident that we will meet their need on an individual basis and – again – do so with high quality products at the lowest price.



CCAR:What Made You Enter The China GA Market?

R.G.:It is obvious that a very large General Aviation market is developing in China. The geography and the economy of the Country are ideally suited to supporting a strong General Aviation market and we can bring a unique set of capabilities to serving that market.

CCAR:What Is Your Vision of the China GA Market?

R.G.:As with any developing market, it is starting slowly but as it progresses through progressive stages of development, it could very well be larger than the US market.

CCAR:What Are Your Plans and Goals for the China GA Market?

R.G.:We see it on both a short-term and long-term basis. In the short-term, our goal is to establish ourselves as experts in the field and as a preferred provider of avionics services to the entire GA Market. In the long-term, we think the future is unlimited and we foresee opening three or four shops in strategic locations throughout China.



Ricardo Garcia先生旗下拥有并经营着三家公司，它们分别是位于佛罗里达州雷克兰市的南海岸航空电子设备公司；位于俄亥俄州波特兰市的太平洋海岸航空电子设备公司以及位于佛罗里达州利斯顿的弗州中部航空电子设备公司。Garcia先生担任佛罗里达州雷克兰市举办的美国年度趣味飞行大会Sun N' Fun的董事会成员，担任佛罗里达州航空安全基金会的副主席以及佛罗里达州航空航天资源中心的会长职务。

Ricardo Garcia is owner and operator of Gulf Coast Avionics Corporation of Lakeland, Florida; Pacific Coast Avionics Corporation of Portland, Oregon; and Central Florida Avionics & Instruments of Leesburg, Florida. Garcia serves on the Board of Directors of the annual Sun N' Fun Fly-In held in Lakeland, Florida, is Vice-President of the Florida Aviation Safety Foundation, and is Chairman of the Florida Aerospace Resource Banner Center.

南海岸航空电子设备公司服务于整个航空电子装备、仪器和飞行员用品市场
 GULF COAST AVIONICS SERVES THE COMPLETE MARKET FOR AVIONICS,

INSTRUMENTS AND PILOT SUPPLIES

25年前，南海岸航空电子设备公司由只有2个人组成的小公司在佛罗里达州的坦帕市艰难起步。从那时起，南海岸航空电子设备公司就致力于以尽可能低的价格为世界各地的消费者提供高质量的产品和服务。正是这一经营理念，使公司得以持续发展，如今已经成为“一站式”商店，主要销售航空电子产品、仪器和飞行员装备等。

公司从成立到今天，早已经历了翻天覆地的变化。其中的变化之一是，1999年公司从坦帕搬迁到了佛罗里达州的雷克兰市，同时建立了一个29000平方英尺的设备大楼，也就是公司现在所占的面积。这个定制的设备大楼可以根据不断增长的国内外客户的要求，提供所需的各种空间，以便扩大公司的服务范围和能力。

在目前的所在地雷克兰地区机场，南海岸航空电子设备公司已经成为各种主流品牌航空电子产品的授权分销商。其销售列表所包括的商品繁多，包括航空电子产品、仪器和飞行员用品，常常接到来自世界各地的订单。除了销售列表中的零售商品外，通过其独特的电子商务网站，南海岸航空电子设备公司也已经成为互联网销售的领航人。而且，雷克兰设备大楼会在其销售大厅装有一个交互式展示最新航空电子产品的屏幕，来到销售现场的客户，就像可以动手体验所有最新的航空电子技术一样。

除了直接销售产品，南海岸航空电子设备公司还推出了专业安装航空电子产品和升级定制仪表盘的服务，并且已经成功完成了从小飞机到军用机到公务机等的各种工程。该公司9000平方英尺的仓库以及专业设计和制造团队，还有安装技师使得南海岸航空电子设备公司在相对较短的时间里，在这个专业强的特殊领域赢得了良好口碑。

今天，作为一个大的航空电子设备销售、安装和维修中心，南海岸航空电子设备公司仍然遵守最初的承诺：让用户以尽可能低的价格买到尽可能高的质量，并在不断增长的国际航空市场发挥我们的技术专长。



From its humble beginning over twenty-five years ago as a two-man office in Tampa, Florida, Gulf Coast Avionics has been committed to delivering the highest possible quality of products and services at the lowest possible prices to customers around the world. It is the business philosophy that has led the Company through a remarkable period of continuous growth and recognition as a true "one-stop shop" for avionics, instruments and pilot supplies.

The Company has experienced an amazing transformation from where it started to where it is today. One of the most significant milestones was the move from Tampa to Lakeland, Florida in 1999 and construction of the 29,000 square foot facility that the Company now occupies. This custom-built structure provides all the necessary space for expanding the services and capabilities of the Company to the level demanded by a growing domestic and international customer base.

From its current location on Lakeland-Linder Regional Airport, Gulf Coast Avionics has become an authorized distributor for all major brands of avionics products and maintains a comprehensive inventory of avionics, instruments and pilot supplies from which

they regularly fill orders on a worldwide basis. In addition to catalog retail sales, Gulf Coast Avionics has also become a leader in on-line sales through its popular e-commerce web site. Also, for on-site customers, the lobby of the Lakeland facility houses a unique interactive display of the latest avionics products, which allows customers to get a hands-on experience with all the latest avionics technology.

Beyond direct sales, Gulf Coast Avionics has developed the capability for expert avionics installs and custom panel upgrades, and has successfully completed projects on everything from kit planes to warbirds to business jet aircraft. The company's 9,000 square foot hangar and professional staff of design, fabrication, and installation technicians has enabled Gulf Coast Avionics to build a solid reputation in this particular area of expertise in a relatively short period of time.

Today, as a major avionics equipment sales, installation, and repair center, Gulf Coast Avionics continues to stand by their original commitment to highest possible quality at the lowest possible prices, and to extend their expertise to the growing international aviation marketplace.

The image displays a collection of avionics products arranged in a grid. Each product is accompanied by its brand logo and model name:

- Garmin:** aera® 796, GPSMAP-695, G500/GTN750/GTN650, aera® 500
- Dynon Avionics:** D1000
- Avidyne:** EX600
- Zanon Avionics:** XRX
- Aspen Avionics:** EFD1000 Pro PFD
- Icom:** IC-A6
- Vertex Standard:** VXA-220
- Lightspeed:** H10-13.4, Zulu.2



Gulf Coast Avionics China
 南海岸电子设备公司
 中国购买专线: 010-8559-0830
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 www.GCAChina.cn

Gulf Coast Avionics
 3650 Drane Field Rd-Lakeland Linder Regional Airport Lakeland, Florida 338
 Phone: 863-709-9714
 www.GCA.aero



中国通用航空的草根性飞行热情可以从这里开始

—— 民航报导专访美国精密飞行控制公司

Enjoying the Passion of Flying Anytime Anywhere – An Interview with Precision Flight Controls



《民航报导》杂志专访美国精密飞行控制公司 右为总裁Mike Altman先生 左为市场推广销售副总裁Tracy Cook先生

中国的低空正在逐步开放，但由于政策和资质等种种问题，真正随心所欲翱翔蓝天的梦想可能还要假以时日才能够实现。飞行模拟器无疑成了现阶段最佳选择，跨越空域的限制，随时可满足您想飞的热情。《民航报导》杂志专程采访了美国精密飞行控制公司总裁Mike Altman（以下简称为PFC公司）先生，和他畅谈了其公司的发展，模拟器种类和技术以及他们对中国市场的期许。

China's low-altitude airspace is gradually opening up. However, free flight in the blue skies is not happening in China yet. Flight simulators have become the best solution in the current transition period, to allow its users to fly any airplane at anytime, anywhere. China Civil Aviation Report interviewed Mr. Mike Altman, the President and CEO of Precision Flight Controls, and discussed the company's background, expertise, and plans for the China market.

CCAR: Mike, 您最开始为何开始飞行模拟器这个业务呢?

Mike Altman: 理由很简单，几乎每一个飞行员都有一种对“飞行”的激情和热爱，这种热情使得飞行贯穿了他们的整个生命。军方掌握了最新的技术与设备，那里有最先进的模拟器！从军队卸任后我希望保持自己的驾驶技能并继续飞行，但这时候我发现可供民用航空使用的飞行模拟器非常有限。我的目标是供应物美价廉的飞行培训解决方案并弥补商业与民用航空培训的差异。

CCAR: 你是否可以为我们简要介绍一下PFC公司的背景呢?

Mike Altman: 在我们那个年代，如果你想保持飞行技术的熟练，你必须驾驶真实的飞行器，因为那时飞行模拟器并没有现在这么普及而且也不容易接触到。1990年，我的一位同事告诉我在旧金山湾区有一家软件公司正在开发一种可应用在个人计算机上的仪表飞行程序训练软件。我们随后拜访了这家公司并请他们做了飞行模拟演示，令我们感到十分高兴的是，这个软件简直太棒了！这个软件对保持仪器操作熟练度有非常好的训练潜质；不为乐观的是仅有很少的廉价操纵杆进行界面操作。也就是说这个软件急需一些质量较好的硬件设备以完成界面连接，如需要操纵杆、脚踏板、航电设备等等。几个月后，我们再次来到这家软件公司，用我们按飞行器标准制作的操纵杆和脚踏板模型与软件界面连接，我们成功了！

CCAR: PFC公司的目标是什么?

Mike Altman: PFC公司的想法是继续改善我们的现有产品，通过研发更高级别的设备来扩充产品种类，如高级飞行训练仪器(FTD)和全飞行模拟器(FFS)等。我们提供极佳的客户服务、引领新兴技术潮流、提供有创造性的解决方案、保持公司的高度完整性以及高度的社会责任心来保证公司的发展和延续。PFC公司最为核心的，引领公司从建立至今20余年的观念是对个人的高度尊重、对产品质量和可靠性的追求、对社会责任的承诺以及公司存在的意义是为人类的进步和福利提供科技贡献。

CCAR: 你们有多少种模拟器?

Mike Altman: 我们已经开发了20余种模拟器和40多种飞行模式。我们提供多种模拟平台，如桌上式飞行模拟器、敞开式驾驶舱、封闭式驾驶舱、先进的多功能航空电子仪器单一显示屏模拟器、涡轮旋翼桨飞机模拟器和喷气式飞机模拟器等。



CCAR: So, Mike, why did you get into the flight simulation business in the beginning?

Mike Altman: It's simple, most pilots have a passion and love for flying that develops and stays with them their whole lives. The military has all the technological toys and when it comes to simulators they have the best! I kept flying when I left the service and wanted to maintain my flying skills to stay proficient but I found that there were very few flight simulators available for civil aviation. My goal was to provide cost effective flight training solutions and bridge the gap between commercial and civil aviation training.

CCAR: Would you please tell us a little bit about PFC's background?

Mike Altman: To maintain proficiency you had to fly airplanes as flight simulators were not as common as they are today and none easily accessible where I happened to live. In 1990 an associate of mine told me about a software company in the bay area where they were developing an instrument procedure trainer for the PC (personal computer). So we looked them up and scheduled a time to go see them, a short flight followed the next day and we arrived at their office for a demonstration flight, and to our delight, it was excellent! The software had great training potential for maintaining instrument proficiency; the down side was, there was only a limited amount of inexpensive joysticks to interface with. So as good as the software was it was in desperate need of some quality hardware interfacing, i.e. yoke, pedals, avionics and more. Several months later we went back to the software developer with our prototype (aircraft quality) yoke and pedals to interfaced with their software, it was a big hit!

CCAR: What is PFC's Mission Statement

Mike Altman: Precision Flight Controls vision is to continue refining our current products, expand our product line by developing higher level devices such as, advanced Flight Training Devices (FTD) and Full Flight Simulators (FFS). We can insure the company's growth and longevity by providing:



excellent customer service, pioneer new technology, creative solutions, maintain high company integrity and social responsibility. Precision Flight Controls core ideology, which has guided the company since its inception more than 20 years ago, includes a deep respect for the individual, a dedication to affordable quality and reliability, a commitment to community responsibility and a view that the company exists to make technical contributions for the advancement and welfare of humanity.

CCAR: How many simulator models do you have?

Mike Altman: We have developed over 20 types of simulators and have developed over 40 flight models. We provide many types of simulation platforms i.e. desktop, open cockpit, enclosed cockpit, technically advanced (glass displays), turboprop and jet.

CCAR: What types of airplanes can PFC's simulator support?

Mike Altman: Although we specialize in general aviation devices we have and continue to develop the following products: Single Engine Land, Multi-Engine Land, Technically advanced aircraft i.e. Garmin and Avidyne integrated simulators, Turboprop i.e. Beechcraft, Cessna, Pilatus, Boeing 737s and more.

CCAR: Who uses PFC products and systems?

Mike Altman: Companies and institutions like Honeywell, Boeing, USAF,

CCAR: PFC与其竞争者有何不同之处?

Mike Altman: 保证质量, 注重细节、功能齐全、效果逼真、客户服务、以及我们自己对完美的要求。在行业内20余年的长期发展, 我们基本上是飞行员在为飞行员们设计制造产品。

CCAR: 您的优势和竞争力是什么?

Mike Altman: 创新的思考和技术, 以及把每件事情做到最好的强烈希望。

CCAR: 过去20几年, 这个行业发生了怎样的改变?

Mike Altman: 电脑科技和软件设计能力的成长指数。电脑科技的飞快进步大量提升飞行模拟器的性能。

CCAR: 您在中国看到哪些潜在商机?

Mike Altman: 中国经济的强劲发展会使得越来越多的人参与航空, 人们对航空的兴趣会持续增长是必然的。中国民用航空的扩展前途无量。中国人十分聪明而且有创新力, 相信很快就会享受飞行的乐趣。

CCAR: 您在中国的初期发展计划是什么?

Mike Altman: 通过向我们在中国的合作伙伴、经销商和教育机构介绍我们产品的契机把航空教育引入中国。

CCAR: 您在中国市场的终极目标是什么?

Mike Altman: 我们希望成为中国最主要的飞行模拟器供应商, 并协助设立其飞行模拟器的质量和培训标准。

CCAR: PFC公司的未来前景如何?

Mike Altman: 天空无限的宽广! 我们会继续通过创新、服务和培训来制造更好的产品。

Mike Altman先生简介

Mike Altman先生是PFC公司的创始者并在过去21年时间里担任总裁及首席执行官职务。Mike Altman先生拥有商务管理及市场营销的学士学位, 在军用及民用航空、培训及模拟训练等领域从业超过30年时间。他曾为美国空军效力12年, 曾驾驶T-37、C-141 和 C5A飞机, 累积有记录飞行时间超过7,000小时, 有记录模拟器飞行训练时间数千小时。1990年, Mike Altman先生建立PFC公司, 公司主要生产飞行模拟器组件和系统。Mike主要负责产品工程理念、设计草图、产品研发、生产制造以及FAA认证程序。他同时兼顾公司国际市场开发和销售过程中的合同及项目管理的工作。

US Navy academy, Major Airlines, FBOs (Fixed Based Operators), FAA, Transport Canada, Gulfstream, colleges and universities around the world just to mention a few.

CCAR: What differentiates PFC from your competitors?

Mike Altman: Quality, attention to detail, functionality, realism, customer service and our drive to be the best. Over the last 20 years in the industry, we are basically pilots making products for pilots.

CCAR: What are your strengths and competitive advantages?

Mike Altman: Innovative thinking and engineering and the strong desire to be the best at everything we do!

CCAR: What has changed in the industry over the last twenty years or so?

Mike Altman: Exponential growth in computer technologies and software. Faster computer technology equals improved simulator capabilities.

CCAR: What emerging opportunities do you see in China?

Mike Altman: Strong economic growth in China will allow more people to get involved in aviation, growing interest in aviation is inevitable. Now that there is a move to expand civil aviation in China: the sky's the limit, (so to say). The Chinese people are smart and innovative and will embrace the joy of flight.

CCAR: What is your initial plan in China?

Mike Altman: Help bring aviation education to the people of China by introducing our products through Chinese partners, distributors and educators.

CCAR: What is your ultimate goal in this market?

Mike Altman: We wish to become "THE" simulator provider and help set the standards for quality simulation and training throughout the country.

CCAR: What does the future hold for Precision Flight Controls?

Mike Altman: The sky's the limit! We will continue to make our products better through innovation, services and training.

Mike Altman Bio

Mike Altman is the founder and has been President and CEO of Precision Flight Controls for the past twenty one years. His education includes a bachelor's degree in business and marketing. Mike has over thirty years of experience in military and civil aviation, training and simulation. Mike served for twelve years with the U. S. Air Force and has flown T-37, C-141 and C5A as well as many general aviation aircraft logging over seven thousand hours of flight time and several thousand hours logged in flight simulators. In 1990, Mike established Precision Flight Controls, Inc. to build flight simulation components and systems. Mike is responsible for product engineering concepts, design drafts, product research and development, manufacturing, and FAA certification. He also contributes to the firm's international marketing and sales as well as contracts and program management.



Precision Flight Controls, Inc.

专业飞行训练模拟器领导者！ 美国精密飞行控制公司

美国精密飞行控制公司创立于1990年，以研发、生产专业飞行训练仪器及相关软硬件著称于世。以为飞行员及飞行训练中心提供高水平、售价合理的飞行训练设备为宗旨，对创新改良精益求精。20年来，美国精密飞行控制公司已为许多飞行学校、FBO和其它航空相关产业提供低投入的工具，并以稳健的制造力和竞争性的低售价成为专业飞行训练设备仪器市场的领导者之一。

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- 低维修保养成本：不需定期换油、换零件，保养维修费用低；
- 安全：模拟飞行，可重复练习；
- 容易升级：软硬件皆可升级成更高级的飞行模拟器；
- 可变换机种：一台模拟飞行器可做不同机种的飞行训练；
- 训练飞行不同天候：电脑软件可提供不同地形、天候的模拟飞行训练。

河北建米2生产基地

The Mi-2 Helicopter Production Base was Established in Hebei

2月，河北席奥飞机制造有限公司与俄罗斯罗斯托夫·米里直升机设计制造股份公司在平泉举行签约仪式。两公司将在平泉打造米2M及米2A直升机亚洲唯一生产基地，生产并在亚洲销售上述机型，同时建立亚洲地区最大的米系直升机大修基地，承担亚洲地区所有米系直升机的大修任务。

俄罗斯罗斯托夫·米里直升机设计制造股份公司位于俄罗斯黑海之滨罗斯托夫市，始建于20世纪50年代，已生产米系列直升机6000多架，其中世界最大的50吨级米26直升机以及我国现用的米171等米系列直升机均由该厂生产。

河北席奥飞机制造有限公司位于平泉县工业聚集区，占地2000亩，总投资40亿元人民币，是由河北遨司特通用航空有限公司和河北银达投资有限公司共同出资组建的一家多机种、多用途的飞机制造企业。目前，占地700亩、投资14亿元人民币的一期生产基地已全面开工，预计今年7月底建成并达到试生产条件。

平泉县航空科技产业园被列为河北省“十二五”重点培育的战略性新兴产业园区，此次米2M及米2A直升机生产项目的签约将加速平泉航空科技产业的发展进程。

In February, Hebei Soar Aircraft Manufacture Co., Ltd. (Hebei Soar for short) and the Russia-based Rostov Helicopter Plant Public Limited Company, held a contract signing ceremony in Pingquan county, in Hebei province. The two parties will create the first Mi-2M and Mi-2A helicopters production base in Asia and plan to jointly produce and sell the above two helicopters. In addition, the two parties will also construct the largest MRO base for the “Mi” series helicopters in Asia and plan to provide MRO services for all “Mi” series helicopters.

The Rostov Helicopter Plant Public Limited Company is located in Russia, in the city of Rostov, located at the bank of the Black Sea. Since the creation of the company in the 1950's, they have produced more than 6,000 “Mi” brand helicopters. The Mi-26 helicopters, the largest helicopters in the world, and the Mi-171, currently being used in China, are both produced by this company.

Hebei Soar is located in the Pingquan Industry Clusters. It takes up an area of 2000 mu with an investment of over 4 billion Yuan. The Hebei Soar Aircraft Manufacturing Co., Ltd. received investment from the Hebei Aosite General Aviation Co., Ltd. and Hebei Yinda Investment Co., Ltd.. Currently, the construction of the first phase of the manufacture base, which consists of an area of 700 mu and an investment of 1.4 billion Yuan, has started. It is expected that by July of 2012 the first phase will be established for trial production.

The Pingquan Aviation Technology Industrial Park has been classified as the strategic emerging industrial park in the 12th Five-year Plan of Hebei province. The signing of the Mi-2M and Mi-2A project will accelerate the development of Pingquan's aviation technology industry.

华东局向东方公务航空颁发CCAR-135部合格证

The CAAC East China Regional Administration Issues the Certificate of CCAR-135 OPERATIONS SPECIFICATIONS to China Eastern Airlines Executive Air

2月，中国民用航空华东地区管理局(简称“华东局”)组织召开东方公务航空服务有限公司CCAR-135部《运行合格证》颁发暨签订航空安全责任书仪式。华东局副局长唐伟斌代表华东局向东方公务航空服务有限公司颁发了CCAR-135部《运行合格证》，并与东方公务航空服务有限

In February, during a ceremony held by the CAAC East China Regional Administration, the China Eastern Airlines Executive Air Co., Ltd. (China Eastern Airlines Executive Air for short) was issued the CCAR-135 Operation Certificate by Tang Weibin, the deputy administrator of the CAAC East China Regional Administration and the two parties during the ceremony signed the Aviation Safety Responsibility Agreement.

公司签订了航空安全责任书。

华东局于2011年6月启动了对东方公务航空的CCAR-135部运行合格审定工作。在历时7个多月的审定工作中，局方审定组与公司方密切配合、通力协作，严格按照规章要求，认真把握审定标准，顺利完成了相关审定工作。

本次仪式的召开，标志着东方公务航空已正式成为上海地区继上海金鹿公务航空有限公司之后，第二家取得CCAR-135部运行资质的提供高端公务机服务的通用航空公司。

In June of 2011, the CAAC East China Regional Administration launched the operation certification in accordance to the CCAR-135 OPERATIONS SPECIFICATIONS. During the examination and certification process, which had lasted for over 7 months, the CAAC East China Regional Administration and China Eastern Airlines Executive Air acted and collaborated closely and completed all tasks in strict accordance to related regulations and standards.

The holding of the ceremony signifies China Eastern Airlines' Executive Air as the second general aviation company after the Dear Jet, to provide high-end business aircraft services in Shanghai in accordance to the CCAR-135.

交通运输部与南航珠海直续签海上救助服务合同

Chinese Rescue and Salvage of the Ministry of Transport and Zhuhai Helicopter Renews the Contract for Maritime Rescue and Salvage Services



2011年12月上旬，交通运输部救助打捞局与中国南方航空股份有限公司(简称“南航”)珠海直升机分公司续签直升机海上救助服务合同。珠直与交通部的合作始于2003年，八年来分别在上海、大连、蓬莱、珠海、三亚等地参与海上搜救服务工作。在未来一年里，珠直与交通部将继续以珠海和三亚为据点，开展南海直升机救助飞行服务。

签约仪式上，交通部救助打捞局局长宋家慧与珠直分公司总经理李嘉华分别代表交通部救助局、南航珠海直致辞。宋局长表示，珠直精湛的飞行技艺、优质的服务，是交通运输部救助局与珠直再次携手合作的重要原因。

在新签订的合约中，交通部救助局将继续租用珠直的两架S76型直升机，以珠海和三亚为据点，开展南海直升机救助飞行服务，救助人民于险难之中，挽救宝贵的生命。

In late December of 2011, the Chinese Rescue and Salvage of the Ministry of Transport of the People's Republic of China (Chinese Rescue and Salvage of the Ministry of Transport for short) and China Southern Airlines' (Group) Zhuhai Helicopter Company (Zhuhai Helicopter for short) renewed the contract for maritime rescue and salvage services. The cooperation between Zhuhai Helicopter and the Chinese Rescue and Salvage of the Ministry of

Transport started back in 2003 and therefore Zhuhai Helicopter has been engaged in maritime rescue and salvage services in Shanghai, Dalian, Penglai, Zhuhai, Sanya, etc., for eight years. In 2012, using Zhuhai and Sanya as bases, Zhuhai Helicopter and the Chinese Rescue and Salvage of the Ministry of Transport will continue to operate maritime rescue and salvage services in the South China Sea.

At the ceremony, Song Jiahui, the director-general of the Chinese Rescue and Salvage of the Ministry of Transport, and Li Jiahua, general manager of Zhuhai Helicopter, on behalf of the Chinese Rescue and Salvage of the Ministry of Transport and Zhuhai Helicopter, both made speeches. Song stated that the expert flying skills and high-quality of service are the main reasons that the Chinese Rescue and Salvage of the Ministry of Transport cooperates with Zhuhai Helicopter.

In the new contract, the Chinese Rescue and Salvage of the Ministry of Transport will continue to hire two S76 helicopters from Zhuhai Helicopter and will continue to use Zhuhai and Sanya as bases to operate maritime rescue and salvage services in the South China Sea.

中南局向东海公务机颁发CCAR-91运行合格证 Donghai Jet is Issued the Air Operator Certificate of CCAR-91 by the CAAC Central and Southern Regional Administration

2011年12月，中国民用航空中南地区管理局（简称“民航中南局”）向东海公务机公司颁发CCAR-91部运行合格证和运行规范，标志着东海公务机公司正式获得航空代管人的运行资格。

民航中南局要求东海公务机公司以此为契，继续加强安全运行的意识，拓展业务；中国民用航空深圳安全监督管理局（简称“深圳监管局”）广大监察员应持续监察，确保安全运行，为通用航空的发展提供优质服务。

In December, 2011, the CAAC Central and Southern Regional Administration issued the OPERATIONS SPECIFICATIONS and the CCAR-91 Air Operator Certificate to Donghai Jet, Ltd. (Donghai Jet for short). This means that now Donghai Jet has formally received eligibility to operate as an aircraft custodian.

The CAAC Central and Southern Regional Administration requested that Donghai Jet take this opportunity to continue to enhance the awareness of safe operation and expand their business. Meanwhile the CAAC Central and Southern Regional Administration demand that supervisors of the CAAC Shenzhen Administration of Civil Aviation Security should consistently supervise Donghai Jet, in order to provide quality service to promote the development of Donghai Jet.

莱格赛650公务机通过中国民航局型号审定 Legacy 650 Certified by the CAAC

中国民用航空局（简称“民航局”）已完成了对巴西航空工业公司莱格赛650大型喷气公务机的型号审定，颁发了经修订的“型号认可数据单”。这样就为巴西航空工业公司客户今后在中国登记和运营莱格赛650公务机铺平了道路。除中国民航局外，莱格赛650飞机已经分别获得了巴西国家民用航空署（ANAC）、欧



洲航空安全局（EASA）和美国联邦航空管理局（FAA）等其他主要航空管制机构的认证。

莱格赛650选用了罗尔斯-罗伊斯AE3007A2发动机，在符合NBAA IFR规定的备份燃油条件下，搭载四名乘客时，莱格赛650的航程为7,223公里（3,900海里），可从中国北京直飞阿联酋迪拜，或从中国香港直飞澳大利亚阿德莱德。莱格赛650具有出色的高温高原运行性能，乘客可轻松往来于高原和/或高温地区的地

In the last year, the Civil Aviation Administration of China had completed the aircraft type examination for the Legacy 650 from Embraer S.A. and had issued the revised Aircraft Type Approval Date Sheet. This has paved the way for clients of Embraer S.A. to register and operate the Legacy 650 aircraft in China. The Legacy 650 has also received certification from other air control organizations, such as the Agência Nacional de Aviação Civil (ANAC), the European Aviation Safety Agency (EASA), the Federal Aviation Administration (FAA) and other air control agencies.

The Legacy 650 utilizes the RR AE3007A2 engine. When it is stocked with backup fuel that meets the NBAA IFR regulations, it can fly for 7,223 km (3,900 nm)

的地。机内配备了霍尼韦尔公司的全集成式Primus Elite航电套件，大幅提升了飞行的安全性。莱格赛650的驾驶舱采用最新技术，所需导航性能精度达到0.3（RNP0.3），并拥有支持定位信标垂直指引进近的广域增强系统（WAAS/LPV）、智能跑道（Smart Runway）和智能着陆（Smart Landing）跑道感知与引导系统等多项功能，既确保飞机在繁忙的空域中、在地形复杂的机场、在恶劣的天气条件下均能够发挥出色的运营灵活性又增强了驾驶员的态势感知能力。

with 4 passengers on board, which is as long as the distance from Beijing, China to Dubai, the United Arab Emirates, or between Hong Kong, China and Adelaide, Australia. The Legacy 650 has excellent performance when flying in the high plateau area or high temperature area. Passengers can utilize the Legacy 650 aircraft to travel between these types of areas with ease. By installing a fully integrated avionics units, the Primus Elite made by Honeywell, the flight security is drastically increased. The newest technology is equipped in the cockpit, enabling the required navigation performance accuracy to reach 0.3 (0.3 RNP). The cockpit is also equipped with the WAAS/LPV system and a runway perception and guide systems, such as the Smart Runway system and the Smart Landing system, which not only ensures that the aircraft can maneuver well in busy airspace, in airports, in complicated terrain areas and in poor weather conditions, but also enhances the ability for pilots to perceive situations.

南海第一救助飞行队获得CCAR-145部维修许可 Nanhai No.1 Rescue Flying Service Receives the CCAR-145 Maintenance Organization Certificate

2011年12月，南海第一救助飞行队正式取得CCAR145部维修许可证。

南海第一救助飞行队于2011年7月启动了CCAR145部维修许可证的申请工作，编制了维修管理手册和维修工作程序手册，完善质量系统、工程技术系统、培训系统、航材、厂房设施等组成的系统工作组，积极展开了前期准备工作，并于2011年10月向中国民用航空中南地区管理局正式提出申请。

2011年11月，民航中南地区管理局林和勇处长、广东监管局及深圳监管局等单位一行4人对南海第一救助飞行队维修单位运行合格审定工作进行了正式检查。检查人员对飞行保障部质量系统、工程技术系统、培训系统、厂房设施、航材等各项工作按照CCAR145部相关规定做了详细的检查和指导。



In December of 2011, Nanhai No.1 Rescue Flying Service of the Ministry of Transport of the People's Republic of China (Nanhai No.1 Rescue Flying Service for short) officially received the China Civil Aviation Regulation-Part 145 Maintenance Organization Certificate.

It was in July, 2011, that

the Nanhai No.1 Rescue Flying Service started the application preparation for the CCAR-145 Maintenance Organization Certificate. The maintenance management manual and maintenance program manual have been drawn up. A working team responsible for completing the quality system, engineering technology system, training system, air materials and factory facilities had started advance-phase preparation and in October of 2011, the team officially submitted an application to the CAAC Central and Southern Regional Administration.

In November of 2011, Lin Heyong, a chief director of the CAAC Central and Southern Regional Administration, and three other leaders from the CAAC's Guangdong Administration of Civil Aviation Security and the CAAC's Shenzhen Administration of Civil Aviation Security conducted formal examinations to the operation certification task of the Nanhai No.1 Rescue Flying Service. According to related regulations and rules, the four leaders carried out detailed inspections and guidance for the quality system, engineering technology system, train system, factory facilities and aviation materials of the Nanhai No.1 Rescue Flying Service.

中国新型AC352直升机完成鸟撞、雷击试验 Bird and Lightning Strike Experiment for the AC352 Helicopter Completed

2011年12月，AC352直升机座舱骨架（带双层风挡玻璃）鸟撞试验、部分结构件雷击直接效应试验如期完成。中国民用航空局（CAAC）、欧洲航空安全局（EASA）的审查代表与各相关单位的代表在现场共同见证了试验的整个过程。

AC352是中航工业与法国欧洲直升机公司按照最新适航标准研制的先进中型多用途直升机（法方代号EC175）。该机型是国际合作项目，须同时通过中国民用适航局和欧洲适航局的适航验证，意味着取证试验过程程序更为复杂。

In December, 2011, the bird strike experiment for the framework of the cockpit and the direct effect of lightning strike to some parts of the AC352 helicopter (equipped with a double-layer windshield) had been finished on schedule. Present at the experiment site were the review representatives from the Civil Aviation Administration of China (CAAC for short) and the European Aviation Safety Agency (EASA for short), as well as other representatives from related units who were witnesses to the whole process.

The AC352 helicopter is an advanced multi-use medium-sized helicopter (its code name in France is EC175) jointly developed by the Aviation Industry Corporation of China (abbr. AVIC) and Eurocopter S.A. in France, in accordance to the newest airworthiness standards. Because it is an international cooperative project, it needs to pass the airworthiness verification from both the Airworthiness Department of the CAAC and the airworthiness certification of the EASA.

厉山通航临时起降场可行性研究报告通过评审 The Feasibility Reports of the Lishan Temporary Landing Field for GA Passes Evaluation

2011年12月，中国民用航空中南地区管理局（简称“中南局”）在珠海组织民航有关方面专家，对湖北新民通航随州厉山通用航空临时起降场《工程可行性研究报告》和《飞行程序可行性研究报告》进行评审。

随州厉山通用航空临时起降场，原为随县厉山王岗机场（属于农用机场），位于湖北随县境内，由广州军区空军勘探设计院设计。2009年11月根据随县人民政府的申请，经湖北省人民政府和广州军区空军批准，湖北新民通航投资兴建临时起降场。

专家组通过对机场建设的总体规划、场址、地形、地貌和地质情况进行分析，对净空条件、飞行程序设计方案等内容进行反复研究和论证，认为随州厉山通用航空机场净空条件良好，能够满足直升机起降要求。专家组还就项目中长期规划的有关事项建议：一是投资方尽快同军民航管制部门及行业主

In December, 2011, the CAAC Central and Southern Regional Administration organized professionals in the field of civil aviation from Zhuhai city to carry out an evaluation for the Project Feasibility Reports and the Feasibility Reports of the Flight Procedures of the Lishan's Temporary General Aviation Landing Field (Lishan Temporary GA Landing Field) in Suizhou. The project was established and invested by the Hubei Xinmin General Aviation Industry Co., Ltd.

The Lishan Temporary GA Landing Field was originally the Suixian County Lishan Wanggang Airport (a rural airport) and was designed by the Investigation and Design Institute of the Air Force of the PLA Guangzhou Military Area Command. In November, 2009, after the People's Government of Hubei Province and the Air Force of the PLA Guangzhou Military Area Command approved the application of rebuilding the Suixian County Lishan Wanggang Airport, Hubei Xinmin General Aviation Industry Co., Ltd. invested resources to transform the airport into a temporary landing field.

After conducting an analysis of the airport, including the master plan, the location, the terrain, the landform and the geological conditions, as well as repeated study and reasoning of the clearance conditions and the flight procedures of the airport, the professional team believed the clearance conditions of the airport is suitable to meet the requirements of takeoff and landing for helicopters. The professional team also gave some advice regarding

管部门进行协调，优化飞行程序；二是在场址处设置气象观测站并按民航技术规范收集气象基础资料；三是明确供油主体和供油方案；四是就净空保护等相关问题，向地方政府报告，取得地方政府的支持，以保护机场净空环境，严格限制超高建筑物建设。

the medium-term and long-term planning of the project. First, they should coordinate between air traffic control units of both the military and civil aviation, as well as with industrial departments in charge, in order to optimize the flight procedures. Second, a meteorological observation station should be built at the airport so that basic meteorological data can be collected in accordance to technical specifications for the civil aviation industry. Third, the fuel supplier and fuel supply program should be confirmed. Fourth, problems regarding the clearance conditions should be informed to the local government, so that the local government can support the re-construction of the airport by restricting the construction of high-rise buildings so that the clearance conditions may be protected.

昆明启用直升机进行防火 Helicopters Used for Fire-fighting in Kunming

为了进一步加强昆明林区森林火灾巡逻防控工作，昆明森林公安于2月开始启用警用直升机开展森林火灾的巡逻防控。

面临连续严重干旱、高温大风天气、森林火险等级居高不下、森林火灾频发等严峻形势，昆明市森林公安局和相关部门决定启用2辆警用直升机对全市的国家级森林公园、国家重点风景名胜、国有林场、自然保护区、涉林旅游区、水源地保护区、特种用途林、集中连片的林区和城市面山等进行定时不定时的巡防，尤其关注容易发生火灾的森林区域和每天气温高又有农事用火的时段。

据昆明市森林公安局相关负责人介绍，该局将逐步建立警用直升机巡查与地面巡逻有机结合、全方位的森林火灾巡逻防控体系。

To further improve fire patrol and defense around the Kunming forest region, the Kunming Forest Public Security Bureau has started to carry out forest fire patrol and defense with the use of their police helicopter.

Faced with the grim situation that there are continuous severe drought, high temperatures, high winds, and the high forest fire danger rating, the Kunming Forest Public Security Bureau and related units have decided to increase patrol and defense around Kunming's national forest parks, national key scenic areas, national forest farms, natural reserves, tourism areas, wellhead protection zones, special purpose forests, centralized contiguous forests and city-faced mountains with the use of two police helicopters. The fire-prone forest zones and periods of high temperatures will receive special attention.

According to the introduction by the person in charge of the Kunming Forest Public Security Bureau, they will establish a full range of forest fire patrol and control systems with the organic combination of helicopter patrols and ground patrols.

河南宏力医院购置两架EC-135直升机试飞成功 Two EC-135 Helicopters Succeeded in Test Flight

2月，河南宏力医院购置的两架欧直公司生产的EC-135直升机在安阳航校试飞成功。将来，这两架EC-135直升机将飞到长垣，投入到河南宏力医院的救护工作中去。

EC-135直升机为轻型双发多功能，具有多任务基本型设计，并配有满足各种任务所需的丰富设备，在紧急医疗服务和空中执法领域被誉为同级别的标杆。具有优秀的续航性和航程，允许用户执行任何任务。宽敞的座舱可容纳6名乘客加一名飞行员，后部的蚌壳式舱门易于行李、病患或货物的装载，平直的地板和宽大无障碍的客舱易于快速便捷的重新布局。

In February, two EC-135 helicopters, purchased by Henan Honliv Hospital, succeeded in its test flight at Anyang Aero Sports School. In the future, the two EC-135 helicopters will fly to Changyuan county, in Henan province, to participate in the response and rescue tasks of Henan Honliv Hospital.

The EC-135 helicopter is a multi-function light twin helicopter that has a basic design suited for multiple tasks and is equipped with lavish facilities. The EC-135 is reputed as the exemplar of its type. Its endurance and cruising range is excellent, to allow users to be able to execute most tasks. It's wide cabin can accommodate 6 passengers and one pilot. Its rear-end clam shell hatch door makes it easy to load luggage, patients and cargo. It is easy to adjust the flat door and utilize its wide unobstructed cabin.



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国产AC313获民航型号合格证 已签订32架订单 Home-made Helicopter AC313 Receives the Type Certification Orders Regarding the sale of 32 AC313s Have been Signed

2011年12月，我国自主研发的13吨级大型民用直升机AC313获得了由中国民用航空局（简称“民航局”）颁发的型号合格证，这就标志着这款亚洲最大的吨位直升机成为了世界上第一型取得4500米海拔A地区的A类的涉航证的民用直升机，也标志着即将投入市场，在抢险救灾、森林防火、交通运输，海上作业以及各医疗救护、旅游观光、公用飞行等等领域会发挥非常大的作用。

AC313的总设计师徐朝梁介绍说这款飞机非常独特的性能在于它的高原适应性。2010年珠海航展上签订了32架意向的订单，目前首个用户已经确定了，是由中轮公司来接单，预计交付时间是在今年的三季度左右，一共是5架。

In December of 2011, mainland China's large home-made helicopter, the AC313, received the type certification issued by the Civil Aviation Administration of China (CAAC for short). It means that the largest tonnage helicopter in Asia has become the first Class A civil helicopter to be certified. This means it is allowed to fly in the Class A areas with a height of 4,500 meters above sea-level. It will be launched into the market and will play an important role in disaster relief, forest fire fighting, communication, transportation, offshore operations, medical care, tourism, sightseeing, public flights and so on.

According to the introduction by Xu Chaoliang, chief designer of the AC313, the unique feature of the AC313 is its excellently adaptive performance in plateau areas. During the 2010 China International Aviation & Aerospace Exhibition, 32 orders for the AC313 were signed. Currently, the first buyer is confirmed as the Jiangsu Zhonglun Machinery Co., Ltd.. The first 5 AC313 are expected to be delivered in the third quarter in 2012.

中航工业通飞与深航签收购鲲鹏飞行学校协议 AVIC General Aircraft and Shenzhen Airlines Signs an Agreement for the Acquisition of KUNPENG International Flight Academy

2011年12月中旬，中国航空工业集团公司（简称“中航工业”）通飞与深圳航空有限责任公司（简称“深航”）正式签署《鲲鹏国际飞行学校整体转让协议》，标志着通飞对鲲鹏飞行学校进行资产收购和人员接收的总体方案正式生效。

随后，双方工作组还将进行资产交割、人员转移和新飞行学校运行合格审定等工作，使新成立的珠海中航飞行学校正式进入飞行培训运行阶段。

鲲鹏飞校2007年9月挂牌成立，现有飞行教员29人，支持保障人员54人，各类教练飞机37架，迄今为止学校共安全飞行29726小时；总飞行架次达61012架次，已为公司培养了86名飞行学员，有30余名毕业学员在执行航班飞行任务。

In the Middle of December, 2011, AVIC General Aircraft Company Ltd. (AVIC General Aircraft for short) and Shenzhen Airlines Company Ltd. (Shenzhen Airlines for short) officially signed the Transfer Agreement for KUNPENG International Academy. This makes AVIC General Aircraft's acquisition of assets and the personnel acceptance of KUNPENG International Flight Academy official.

The work teams of the two parties would conduct the assets prompt, personnel transfer, the operation certification examination task, as well as other related tasks, so that the newly formed AVIC Flight Academy could officially enter the flight training phase.

KUNPENG International Flight Academy was established in September, 2007. Currently, this academy has 29 flight trainers, a support & security staff of 54 persons, and 37 trainer aircraft of various types. So far, this academy has conducted 29,726 safe flight hours, with 61,012 sorties. The academy has trained 86 pilots for

中航通飞集团总部位于珠海，是一家以发展公务机、水陆两栖飞机、轻型飞机等通用飞机产品，打造包括飞机研发、制造、总装、试飞、客服、维修、后勤保障及通航运营等业务的通用飞机全产业链的大型中央直属国有企业。在整个业务板块中飞行学校将作为其重要的组成部分为我国通用飞机产业发展作出贡献。

Shenzhen Airlines, among which, 30 of the pilots are conducting the airline flight mission.

The AVIC General Aircraft Group is headquartered in Zhuhai. The group is engaged in business aircraft, amphibian aircraft, light aircraft and other general aircraft products. Being a large scale state-owned enterprise administered by China's central government, the group is to create a whole general aircraft industrial chain, including the businesses of general aviation research and development, manufacturing, final assembly, flight testing, customer service, maintenance, logistics security and other related tasks. Among all the businesses, the flight training academy is considered an important segment because it is believed that it will do much for the development of mainland China's general aircraft industry.

南山公务机公司引进波音BBJ公务机 Nanshan Jet Introduces a Boeing Business Jet

南山公务机有限公司（简称“南山公务航空”）2011年11月底获得中国民用航空华东地区管理局（简称“民航华东局”）颁发的CCAR-135部运行合格审定证书之后，12月中旬，南山公务航空波音超大型公务机——BBJ绿飞机成功交付。这又是一件具有里程碑意义的重大事件，预示着南山公务航空即将正式拥有波音公务机，可以为乘客提供更舒适、豪华、便捷的服务。南山公务航空未来两年内将拥有7架全新豪华公务机，机型包括G450、G550、挑战者605、环球快车和BBJ。

所谓绿飞机，即指成“绿色”构型、无涂装、无内饰的飞机，所以高端客户可以与设计者一起完全按照机主的喜好来完成飞机的装修。波音BBJ超大型公务机最大航程10500公里，最大巡航速度870公里/小时，最大巡航高度41000英尺，可乘坐多达28人。是目前国内公务机领域承载量最大，航程最远，空间最宽敞，奢华程度最高的公务机。

BBJ绿飞机交付后，首先飞往DeCrane飞机系统集成集团（PATS）位于特拉华州的工厂进行远程辅助燃油系统的加装。然后，该机将飞往位于俄克拉荷马州BIZJET的改装中心，按南山公务航空特定的个性化构型完成内饰材料、机载娱乐系统及厨房设备等的安装。



After Nanshan Jet Co., Ltd. (Nanshan Jet for short) was issued the CCAR-135 OPERATIONS SPECIFICATIONS certificate by the CAAC East China Regional Administration in late November of 2011, a large Boeing business jet, the BBJ 'green' jet was delivered to Nanshan Jet in the middle of December 2011. The delivery of the BBJ jet is another event of landmark significance. It means that Nanshan Jet can now offer more comfortable, more luxurious and more convenient services for passengers. In the coming two years, Nanshan Jet will purchase another seven brand new luxurious business jets, including the G450, G550, Challenger 605, Global Express jets and BBJ jets.

A 'green' condition aircraft means that there are no interior furnishings or coating so that the owners can decorate it to their personal preference together with the designer. The large BBJ has a maximum range of 10,500 km, a maximum cruising speed of 870 km/h, a maximum cruising altitude of 41 thousand feet and a maximum load of 28 people. The BBJ has the largest load capability, the longest range, the widest space and is considered the most luxurious.

After the delivery, it will fly to DeCrane Aerospace, INC's PATS Aircraft Systems' factory located in the state of Delaware, in the USA, for the fitting of the remote auxiliary fuel system. Then it will fly to the retrofit center in the state of Oklahoma for fixture of interior materials, airborne entertainment system and gallery facilities in accordance to the desired configuration of Nanshan Jet.

新疆通航取得CCAR-147部维修培训机构合格证 Xinjiang GA Obtains the CCAR-147 Maintenance Training Organization Certificate

2月，新疆通用航空有限责任公司（简称“新疆通航”）CCAR-147部维修培训机构合格证颁发仪式在新疆石河子市隆重举行。颁证仪式由兵团航空企业管理局副局长罗全福主持，中国民用航空新疆管理局（简称“新疆管理局”）适航处戚超代表审定组详细介绍了CCAR-147部审核情况之后，新疆管理局副巡视员、中国民用航空乌鲁木齐安全监督管理局局长黄跃伟同志向兵团航空企业管理局局长、新疆通航总经理赵景祥和副总经理胡小秋颁发了CCAR-147部维修培训机构合格证。

新疆通航机务培训机构是新疆地区第二家获得《维修培训机构合格证》的培训机构，也是辖区首家主要面向通用航空企业的维修培训机构。其培训项目为：Y5（HS-5）、Y5B（ASZ-62）、Y12II（PT-6A）、Y12IV（PT-6A）型飞机机型机械和电子专业课程I类和II类的培训。CCAR-147部证书的获得标志着通用航空维修人员培训管理工作进一步规范化和系统化，从此将会改变通用航空维修培训资源匮乏的局面，对加快通用航空企业持续稳步的发展具有深远的意义。

In February, a ceremony honoring the issuing of the CCAR-147 Maintenance Training Organization Certificate to the Xinjiang General Aviation Co., Ltd. (Xinjiang GA for short) was grandly held in Shihezi, Xinjiang. The issuing ceremony was presided over by Luo Quanfu, deputy director-general of the Aviation Business Administration of Xinjiang Production and Construction Corps. At the ceremony, Qi Chao from the Airworthiness Division of the CAAC Xinjiang Regional Administration specifically introduced the examination and verification of the CCAR-147 Maintenance Training Organization Certificate. Then, Huang Yuewei, deputy inspector of the CAAC Xinjiang Regional Administration and director-general of the CAAC's Xinjiang Administration of Civil Aviation Security issued the CCAR-147 Maintenance Training Organization Certificate to Hu Xiaoqi, the vice general manager of Xinjiang GA and Zhao Jingxiang, the general manager of Xinjiang GA and director-general of the Aviation Business Administration of Xinjiang Production and Construction Corps.

Xinjiang GA is the second training institution in Xinjiang that has achieved the CCAR-147 Maintenance Training Organization Certificate and is also a maintenance training unit that serves mainly general aviation companies. Xinjiang GA's main training programs include the training of aircraft type & machinery and professional electronic courses of Class and Class. The issuing of the CCAR-147 Maintenance Training Organization Certificate means that the training management of the GA maintenance personnel is normative and systematic. Mainland China's lack of GA maintenance training resources will now be changed and its impact will have a far-reaching effect for GA enterprises in China.

飞行驾驶执照培训和管理出新规 New Regulations in Pilot Training Issued

2月，中国民航局飞行标准司已将滑翔机（含动力滑翔机）等五类航空器驾驶员执照训练和运行管理职责授权给国家体育总局航管中心。

中国民航局飞行标准司日前向民航各地区管理局、各通用航空公司和飞行学校下发了《关于滑翔机、自由气球等几类航空器驾驶员执照训练和运行管理有关问题的通

In February, the Flight Standards Department of the Civil Aviation Administration of China (CAAC for short) accredited the training of licensed pilots of five kinds of aircraft, such as sail gliders (including motor gliders) and the operational management of these aircraft to the General Administration of Sport of China.

Not long ago, the Flight Standards Department of the CAAC distributed the "Circular of Issues" Regarding the training of licensed Pilots of Several Kinds of Aircraft, such as Sail Gliders, Free Balloons and the Operational

知》，将滑翔机（含动力滑翔机）、初级飞机、自转旋翼机、自由气球以及充气体积小于4600立方米的飞艇等5类航空器驾驶员执照训练和运行管理职责授权给国家体育总局航管中心，包括对训练大纲的评审、训练质量的持续监督检查、飞行人员航空理论考试、飞行实践考试、审查执照申请文件、对驾驶员实施熟练或定期检查等。

国家体育总局航管中心表示，中国民航局对相关管理职责进行分解和授权，既满足航空体育日益扩大的执照申请和飞行培训需求，也是航空体育与社会私人娱乐飞行紧密结合的重大举措，更是对航管中心多年来工作的肯定与信任。中心已就此制定详细工作方案和推进计划，将严格履行授权职责，确保衔接有序、管理规范、服务便利。

Management of these Aircraft to all CAAC's regional administrations, all general aviation companies, flight training schools and the Aeronautical Radio Model Sports Management Center of the General Administration of Sport of China. The training tasks and the operational management tasks include the analysis and judgment of the Outline of Pilot Training, the continuous supervision and inspection of the training results, the examination of the pilots' aviation theory, flight practice examination, examination of the application materials for the pilot license, as well as a regular proficiency check of the flight practice of the pilots.

The Aeronautical Radio Model Sports Management Center of the General Administration of Sport of China stated that the CAAC's decentralization and accreditation of related management tasks will not only meet the requirements necessary to grow the field of sport aviation and flight training. It also means the Aeronautical Radio Model Sports Management Center of the General Administration of Sport of China has been awarded in recognition and trust. The Aeronautical Radio Model Sports Management Center of the General Administration of Sport of China has created a detailed working program and implementation plan, and will strictly carry out the newly authorized duties to achieve success in these tasks and offer convenient services for their clients.

南航艾维飞行学院部通过CCAR-91部合格审定 NUAA International Flying Academy Passes the CCAR-91 Examination and Approval

南航艾维国际飞行学院（南京）有限公司是江苏辖区第七家通用航空公司、第一家专业从事航空驾驶员培养的培训机构，也是国内首家拟在国外（南非）设置训练基地的飞行训练机构。

历时2个多月完成了预先申请、正式申请、文件审查、演示验证四个阶段的审定任务。2011年12月在南京举行了南航艾维学院CCAR-91部运行合格审定颁证仪式。

颁证仪式上，华东局对学院下一步工作提出三点要求：一、要抓好规章和手册的学习与贯彻；二、要健全安全管理体系，开展运行风险评估，对运行规范、运行手册实施动态管理；三、要正确处理好安全与生产、安全与效益、安全与发展的关系，严格规章标准，狠抓人员培训，狠抓学员可塑性发展，努力打造一流飞行训练机构，实现持续安全和科学发展。

The NUAA International Flying Academy Co., Ltd. is the seventh general aviation company and the first pilot training institute in the Jiang area. It is also mainland China's first flight training institute with plans to set up a flight training base in a foreign country, South Africa.

After two months of efforts, the NUAA International Flying Academy fulfilled the four phases of examination and approval. The four phases includes the application for beforehand examination, formal application, review of related documents and demonstration & verification. In December, 2011, the issuing ceremony of the CCAR-91 OPERATIONS SPECIFICATIONS was held in Nanjing.

In the issuing ceremony, the CAAC East China Regional Administration put forward three suggestions to the NUAA International Flying Academy. First, the NUAA International Flying Academy should learn and implement related regulations and manuals. Second, the security management system should be strengthened. Operation risk assessment should be launched and the dynamic management of operation specifications and manuals should be carried out. Third, the relationship between safety and production, the relationship between safety and benefits and the relationship between safety and development should be well handled. The regulations and standards should be strictly in compliance and the working staff should be well trained in order to create a first-class flight training institution, in order so safety and scientific development can be achieved.

凤凰学院获颁运行合格证

Shaanxi Phoenix International Flying College Achieved the Civil Aviation Aircraft Provisional Pilot School Certificate

2011年12月，陕西凤凰国际飞行学院（简称“凤凰飞院”）CCAR-141部（《民用航空器驾驶员学校合格审定规则》）运行合格审定颁证仪式在固原六盘山机场隆重举行。固原市副市长李守银、民航西北地区管理局副局长余文亮、宁夏监管局副局长杨柯、宁夏机场公司副总经理齐世民等出席仪式。

仪式上，民航西北地区管理局余文亮副局长向凤凰飞院院长倪振贤颁发了CCAR-141部民用航空器驾驶员学校临时合格证，这标志着凤凰飞院经过前期评审，硬件和飞行训练设施通过合格审定，成为西北地区首家拥有141部资质的飞行训练机构，这是民航业发展助力固原地方经济社会和地区通用航空产业双向利好发展的又一大事。

In December of 2011, a ceremony in honor of achieving operation certification regarding the CCAR Part 141 Pilot Schools Certification Regulations (CCAR-141 for short) for Shaanxi Phoenix International Flying College Co., Ltd. (Shaanxi Phoenix International Flying College) was held at Guyuan Liupanshan Airport. Li Shouyin, deputy mayor of Guyuan city, Yu Wenliang, deputy administrator of the Northwest Regional Administration of the CAAC, Yang Ke, CAAC's Ningxia Administration of Civil Aviation Security and Qi Shimin, deputy manager of Ningxia Airport Co., Ltd. all attended the ceremony.

At the ceremony, Yu Wenliang, deputy administrator of the Northwest Regional Administration of the CAAC issued the Civil Aviation Aircraft Provisional Pilot School Certificate CCAR-141 to Ni Zhenxian, president of Shaanxi Phoenix International Flying College, which means that Shaanxi Phoenix International Flying College has passed the pre-phase appraisal and examination, as its hardware and flight training facilities have passed the operation examination and it is now the first flight training institution with the CCAR-141 in the northwest area. This is one more significant example of civil aviation lending a hand to both Guyuan's economic and social development, as well as to the local general aviation industry.



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 - 3、机场运营管理——航空运营与非航空运营，与社区的互动与相依存。
 - 4、招商——会见美国通用航空制造商、运营商、服务商及投资商探讨前往贵城市开展通用航空事业。
- 培训期间将参观10个以上县属通用航空机场，包括公务机固定运营商（FBO），会见30家以上通航业者。主办单位还将提供后续培训支持服务，协助规划与执行通用航空产业园项目。

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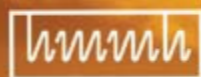
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Compiled and Translated by Francis Chao

整理翻译：赵嘉国



机场收益报导 (ARN) 是机场运营管理业中专注于报导机场收益趋势、运营策略和重大发展的杂志。最近该杂志宣布授予6个奖项给旧金山国际机场，以表彰其优秀的特许经营非航空服务计划。

在大机场的类别里，旧金山国际机场赢得了“最佳项目设计奖”、“最独特机场服务奖”及“最佳整体特许经营非航空服务计划奖”。

在单一候机楼类别里，旧金山国际机场新完成改建的第二候机楼赢得了三项奖项：“最佳项目设计候机楼奖”、“最佳客户服务候机楼奖”及“最佳特许经营非航空服务候机楼管理团队奖”。

机场主管 John Martin 说：“这是旧金山国际机场所有同仁倍感骄傲的一天，机场一直努力朝着提供世界一流的客户服务方向前进，机场收益报导 (ARN) 的肯定证明了我们的目标是可以实现的”。

2012 年的提名与选拔完全在网上进行，由航空业界参与，总数达1,300张的选票分别票选了5个机场类别、15个特别零售、新闻报摊、礼品店、食物和饮料贩售商类别。为了避免利益冲突，票选时机场管理当局仅能票选零售服务商的表现，而零售服务商仅能票选机场的项目表现。

年度业绩远远超过机场当局预估

旧金山国际机场的特许经营非航空服务营业额与2009/2010年相比成长了13.1个百分点。四个类别的主要服务领域——零售、餐饮、免税商品和租车——总营业额为71500万美元，给机场带来了9100万美元的租金收入。这个丰润的利益让旧金山国际机场提高了对市府缴纳费用的能力，由每年2800万美元增长至3100万美元。

Airport Revenue News (ARN), the Airport industry's foremost publication focused on revenue trends, strategies, and noteworthy developments, has awarded San Francisco International Airport (SFO) six major awards in recognition of the Airport's outstanding concession program.

In the Large Airport division, San Francisco International won awards for "Airport with the Best Program Design," "Airport with the Most Unique Services," and "Airport with Best Overall Concessions Program."

In the Single Terminal division, SFO's recently renovated Terminal 2 scored three more awards for the Airport by being named the "Terminal with the Best Program Design," "Terminal with the Best Customer Service," and "Terminal with the Best Concession Management Team."

"This is an extremely proud day for everyone at San Francisco International Airport," said Airport Director John L. Martin. "SFO has long been committed to providing unparalleled world-class customer service and this recognition from Airport Revenue News is validation of our commitment to that goal."

Nominations and judging for the 2012 awards was conducted entirely online and resulted in unprecedented industry participation, with over 1,300 votes cast in five airport categories and 15 specialty retail, news and gifts, and food and beverage categories. As in previous years, to avoid conflicts of interests, airport executives voted for concession companies and concessionaires voted for airport programs.

Actual Returns Far Exceed Airport's Forecast

San Francisco International Airport's concession sales have far exceeded expectations by a blistering 13.1% as compared with fiscal year 2009/10. The four primary concession areas – retail, food & beverage, duty free, and rental cars – generated sales in excess of \$715 million and netted the Airport almost \$91 million in rental fees. The increase in concession sales also allowed SFO to increase its annual service payment to the City's general fund from \$28 million to \$30.1 million.



总营业额/Gross Sales			
	2010-2011年度	2009-2010年度	同比增幅
餐饮 Food & Beverage	\$138,990,689	\$129,209,706	7.6%
零售 Retail	\$95,326,097	\$88,360,549	7.9%
免税商品 Duty Free	\$78,769,910	\$60,266,214	30.7%
租车 Rental Car	\$402,529,352	\$354,792,410	13.5%
总额 Total	\$715,616,048	\$632,628,879	13.1%

旧金山国际机场的特许经营非航空收入比起其他顶尖机场的表现也不差。纽约肯尼迪机场的每登机乘客平均消费为全国最高每人12.90美元，匹兹堡国际机场每人11.90美元，旧金山国际机场则为11.65美元居第三位。

“旧金山国际机场承诺了要给旅客一个世界级的服务与设施。”机场主管John Martin如是说，“机场持续的努力确保进出的旅客都能得到超越他们期望的服务，我们在经济低迷的时候有那么杰出的业绩表现，这足以证明了我们努力与承诺的实践。”

San Francisco International Airport's concessions also compare favorably with other airports across the nation. New York's John F. Kennedy Airport has the highest average sales per enplaned passenger at \$12.90. Pittsburgh International is second with \$11.90 and SFO ranks third in the nation at \$11.65 in sales per enplaned passenger.

“San Francisco International is committed to providing our passengers with world class service and facilities,” said Airport Director John L. Martin. “The Airport is constantly working to make sure all of our concessions meet the needs and exceeds the expectations of everyone that flies in and out of SFO. Our robust concession sales number, in spite of a very sluggish and uncertain economy, is validation of our commitment.”

支付机场租金/Rent Paid to Airport			
	2010-2011年度	2009-2010年度	同比增幅
餐饮 Food & Beverage	\$13,195,737	\$12,306,589	7.2%
零售 Retail	\$11,601,865	\$11,200,225	3.6%
免税商品* Duty Free*	\$26,400,000	\$26,400,000	0.0%
租车 Rental Car	\$39,665,099	\$34,704,461	14.3%
总额 Total	\$90,862,701	\$84,611,275	7.4%

*免税商品年租金由于最低年租金协议关系所以保持不变。
*Duty free rent remains the same due to a minimum annual guarantee.

有关旧金山国际机场

旧金山国际机场提供29个航空公司直飞31个国际城市的飞行服务，也是旧金山湾区最大的拥有20个航空公司直达美国69个城市的机场。想进一步了解最新到离港信息，机场平面图和商家，餐饮，文化展示，地面交通等细节请浏览www.flysfo.com。旧金山国际机场在2010年因为现代化有效率的设施和它多功能的运输模式被旅客票选为“北美最佳机场”。

About San Francisco International Airport

San Francisco International Airport (SFO) offers non-stop flights to more than 31 international points on 29 international carriers. The Bay Area's largest airport offers more than 69 non-stop cities in the U.S. on 20 domestic airlines. For up-to-the-minute departure and arrival information, airport maps and details on shopping, dining, cultural exhibitions, ground transportation and more, visit www.flysfo.com. SFO was voted “North America's Best Airport” in 2010 by passengers for its modern and efficient facilities and its multi-modal transportation systems.





夜间航班是否会扰人清梦?

How many people will be awakened by nighttime aircraft noise?

By Harris Miller Miller & Hanson Inc. 作者: HMMH公司 Translated by: Vivian Chen / 翻译: 陈春桦

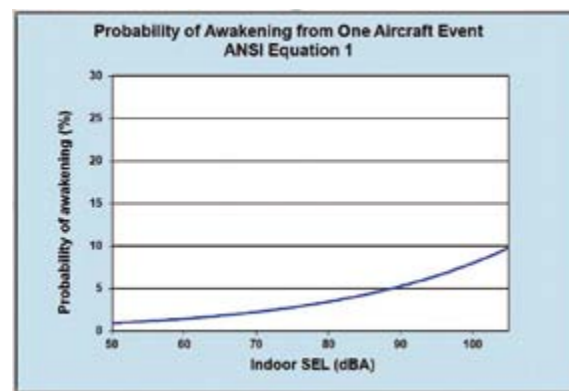


Figure 1 Probability of Awakening from Single Aircraft Noise Event
图表 1 单一飞行器噪声事件下的唤醒概率

The American National Standards Institute, ANSI, provides a standard for estimating awakenings from outdoor noise events, ANSI S12.9-2008 / Part 6. [http://webstore.ansi.org/RecordDetail.aspx?sku=ANSI%2fASA+S12.9-2008%2fPart+6] Work done by Nick Miller and Grant Anderson contributed significantly to this standard. [Anderson, G.S. and N.P. Miller, "Alternative analysis of sleep-awakening data," Noise Control Eng. J. 55 (2), 2007 March-April] Combining awakening data from three different studies and using statistical analyses, they developed a relationship between aircraft noise events measured in the rooms where people slept and the probability that an average person

would awake. Figure 1 below shows this relationship between a single aircraft noise event and the probability that an average person would awaken using Equation 1 from the ANSI standard.

成, Grant Anderson为制定工作做出了巨大贡献²。通过运用三种不同的研究方法整合唤醒数据并进行统计分析后,他们发现在人们睡眠过程中的卧室内所测量出的飞行器噪声事件与人们被唤醒的平均概率之间的关系。如下图表1显示了此种关系,其运用ANSI标准第一方程式计算出单一飞行器噪声与被唤醒的平均概率间的关系。

Further analyses of the data also showed that people will be more likely to awaken, the longer the time since they retired or went to sleep. Figure 2 shows the percent of aircraft noise events that caused awakenings by time since going to sleep (retiring). As a result, ANSI has a second method for determining awakenings that depends on the time of night that a noise event occurs. Figure 3 shows probabilities of awakening for different times using ANSI equation 2.

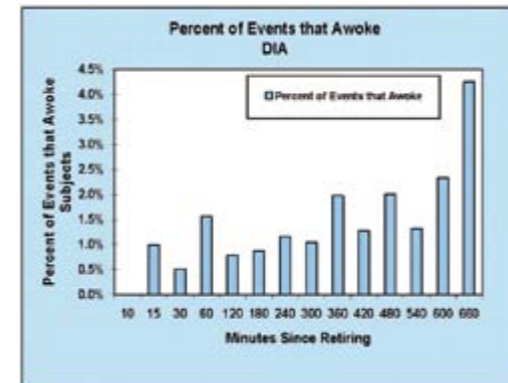


Figure 2 Percent of Aircraft Noise Events Causing Awakening by Time Since Going to Sleep

图表 2 入睡后不同时段可造成唤醒后果的飞行器噪声事件百分比

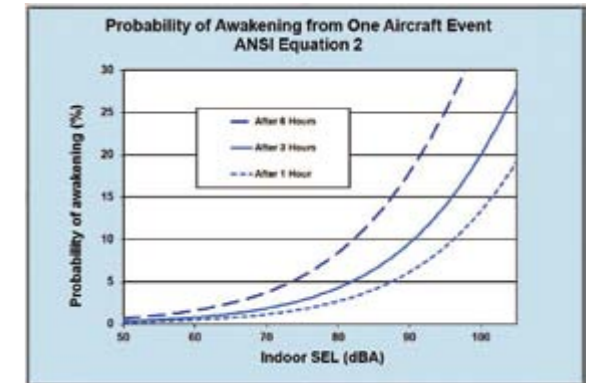


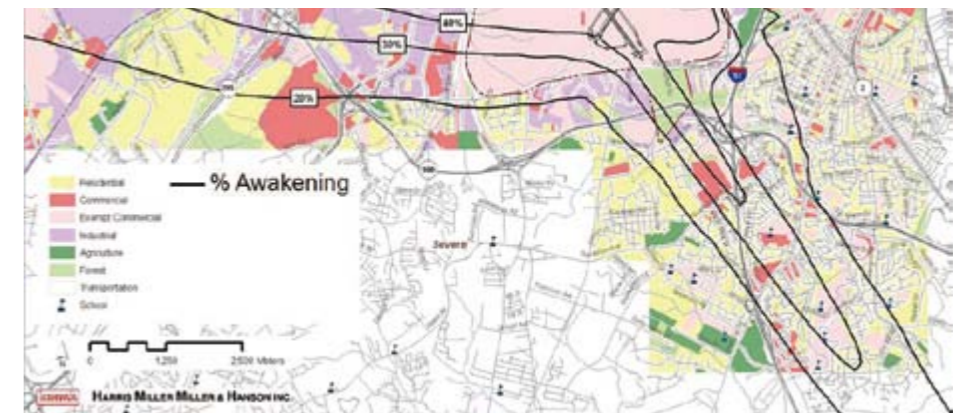
Figure 3 Probability of Awakening at Different Times from Going to Sleep

图表 3 入睡后不同时间段内被唤醒的概率

更深层次的研究数据展示了就寝时间越长或是入睡时间越长的人们更加容易被吵醒。图表2显示了人们入睡(或就寝)后的不同时间段内,可造成唤醒后果的飞行器噪声事件的百分比。结果,ANSI使用第二种计算方法,即根据夜间不同时间段的噪声发生情况来确定唤醒概率。图表3显示了运用ANSI第二方程式计算出的不同时间段的唤醒概率。

The ANSI standard also provides a method for estimating how many people around an airport would be awakened at least once from a full night of aircraft operations. By using either ANSI equation, and applying it to each aircraft noise event, it is possible to first compute the probability that no awakenings will occur. Then, by recognizing that if P_n is the probability that no awakenings occur, the $1-P_n$ is the probability that at least one awakening will occur. By using either measured or modeled distributions of aircraft SEL values at many locations around an airport, it is possible to construct awakening contours, such as those of Figure 4.

ANSI标准也提供了一套方法用以评估机场附近有多少人会整晚运行的飞行器至少唤醒一次。通过运用任一ANSI方程式计算并应用于每个飞行器噪声事件,可以首先计算出人们完全不被吵醒的概率。然后,确认 P_n 是不发生唤醒的概率, $1-P_n$ 的概率失少会发生一次唤醒事件。通过使用任一测量或模拟的机场周围诸多地点的飞行器噪声暴露值的分布情况,可以制作出如下图表4的唤醒地图。



此种方法对分析夜间飞行器操作产生变化时的影响较有帮助即当夜间货运操作或早间离港航班增加时。

This method can be useful for analyzing the effects of changes in night time operations – as when night time cargo operations increase, or when an increase in early departures is expected.

追踪报道：芝加哥奥黑尔国际机场原地改建项目 ——美国大型公共建设项目的楷模

Serial Report on the O'Hare Modernization Program — A Great Model for Large U.S. Infrastructure Projects

编辑/翻译：陈春桦 Edited & Translated by Vivian Chen



《民航报导》2011年秋季季刊中，曾刊有一篇介绍中航工业规划建设公司赴美国考察机场的文章。作为行程的第一站，我们曾介绍过芝加哥奥黑尔国际机场的情况以及他们正在进行的机场原地改建项目。目前原计划于2015年竣工，耗资几十亿美元的芝加哥奥黑尔国际机场原地改建项目提前并低于预算完成。作为全球第四大繁忙机场，在不影响正常运行的情况下原地改建，奥黑尔机场的非凡成就已成为美国乃至全球大型公共建设项目的楷模并有太多经验值得我们学习。此文中，我们将通过了解芝加哥奥黑尔国际机场原地改建项目，并从其改建背景、项目现状、发起历程、规划执行等一系列

In last Autumn's Issue of the CCAR, we had an article titled, "A Learning Experience: A VIP Tour of 5 Unique U.S. Airports", in which we introduced O'Hare International Airport and its amazing reconstruction project. Now the multi-billion dollar project at O'Hare has managed to finish key aspects of the project both under budget and ahead of schedule. Being the 4th busiest airport in the world, O'Hare managed to do it without affecting their routine operation. The success of the O'Hare Modernization Program (OMP) is one in which much can be learned. In this article, we will look into all aspects regarding the background information, current situation, planning and implementation of the OMP. Applying the lessons from the OMP can help the construction of other large, important infrastructure projects to be completed in a timely and fiscally responsible manner.

过程来分析它成功的因素以及给予我们的重大启示。更为重要的是，芝加哥机场的宝贵经验可为我所用，为中国大型基础设施项目提供参考性意见。

改建背景

芝加哥奥黑尔国际机场原始设计意图在于缓解芝加哥米德韦机场的交通压力并拉动地区人口流动性。经过一段时间，米德韦机场发展为二线机场，取而代之的奥黑尔机场成为美国乃至国际的交通枢纽。上世纪七八十年代，奥黑尔机场的交通流量不断增大，机场却不曾扩张。二十世纪九十年代中期，奥黑尔机场已达到满负荷运营，以至于由天气问题引发服务中断而导致的芝加哥地区空中交通阻塞会波及整个美国甚至国际的航空运输系统。为应对这场可预见的灾难，耗资66亿美金的奥黑尔现代化项目（以下简称为OMP项目）应运而生。分阶段进行的OMP项目意在不断的扩充机场容量。项目于2001年开始前期规划并于2005年进入施工阶段。对于缓解奥黑尔机场的航班延误及空域拥挤问题，OMP项目不仅仅是一个短期的解决方案。他们并非仅仅增加一条跑道，而是将重新规划并优化整个空域以增强机场的效率、容量以及安全性能。

项目发展现状

OMP项目在过去六年间顺利按时间表执行并保持略低于预算的花费。目前已经完成的三个项目包括将机场最繁忙跑道延长3000英尺，在机场北侧新建一条跑道并新建一个塔台。这些项目全部在规定时间内之前完成并总计节省预算四千万美金。目前正在施工中的新跑道，建成后可承载A-380及波音747-8等大型飞机。由于施工项目在不影响机场运营的情况下进行，所有项目需要考虑完备的规划以及妥善的跟进。

发起历程

任何基础设施项目的建设，尤其对于大型项目来说，必须要赢得所有参与单位的支持。芝加哥OMP项目也不例外，他们更需要克服复杂而冗长的政治阻碍。最大的障碍来自于机场的地理位置：四分之三的土地归属库克县，另外的四分之一属于杜佩奇县，东临芝加哥市。这个情况也造成了城市、郊区与机场之间“战斗”的局面。上世纪九十年代，城市与郊区的政治差异使得该项目一度失控。郊区的保守居民认为机场是城市的财产，而他们从中获利很少，继而反对一切有关于机场扩建的议题。而杜佩奇县又是伊利诺伊州共和党的中心所在，立法规定，新跑道的建设需要经过州政府准

Background information

Chicago's O'Hare International Airport was originally developed to relieve congestion at Chicago's Midway Airport and to help increase mobility in the region. As time progressed, Midway evolved into the secondary airport while O'Hare became a major national and international hub. However, as air traffic expanded in the 1970s and 1980s, the airport did not. By the mid-1990s the airport was operating at maximum capacity and any disruption in service, especially weather related, strangled air traffic in Chicago and sent a wave of delays across the national and international aviation system. The response to this impending crisis was the O'Hare Modernization Program (OMP), a \$6.6 billion series of projects intended to increase the capacity of the airport.² Conceived in 2001, construction began in 2005. The OMP would not just be a short-term solution to address O'Hare's pertinent delay and congestion problems. They were not just adding one runway but would completely realign and modernize O'Hare's airfield and increase its efficiency, capacity and safety for its future.

Current State of Construction

OMP has progressed over the past six years, staying on schedule and slightly under budget. The three completed projects include a 3,000-foot extension of the busiest runway at O'Hare, a new runway in the northern part of the airport, and a new air traffic control tower. These projects were completed on or ahead of schedule and collectively were \$40 million under budget. Currently a new runway is under construction that, when finished, will be able to accommodate large aircraft such as the Airbus A-380 and the Boeing 747-8. These projects required considerable planning and care because construction of the project occurred while the airport maintained operation.

From Concept to Reality: Building Support

To construct any infrastructure project, especially large projects, there must be support from the affected communities. Chicago's OMP was no exception and the political barriers that needed overcoming were complex and daunting. The largest political barrier was the airport's location: three-fourths in Cook County (which contains Chicago proper), and the remaining quarter in DuPage County, which is the suburban county west of the City of Chicago. This set the stage for the city-suburb battle with the airport in the center of the dispute. For most of the 1990s, the political differences between the city and the suburban communities surrounding the airport stalled the project. The conservative residents of the suburbs saw the airport as a city asset from which they received little benefit and therefore they vehemently opposed any discussion of airport expansion. In fact, DuPage County is the stronghold for the Illinois Republican Party and this caused a deadlock for discussion of airport expansion: "State law requires the approval of the governor for new runways at O'Hare. This was a major hurdle for the initial stages of the program.



予。这一法律制约是OMP项目最初的重大障碍。

1999年，芝加哥商业俱乐部的领袖发表了名为“2020芝加哥大都会”的文章，展望2020年芝加哥的发展前景。其中对于交通的建议中表述了奥黑尔国际机场的扩建对经济发展的促进作用。为加强对此议题的讨论，芝加哥商业俱乐部举办了一个区域性的经济研讨会，以明确机场对地区的重要性。由此，OMP计划有了新的契机。报告指出奥黑尔机场是芝加哥地区的经济引擎，每年提供370亿美金的财政收入以及40万个工作岗位。10A级的奥黑尔机场意味着新增19万5千个工作岗位以及180亿美金的额外收入。OMP项目预计每年为航空公司节省3亿7千5百万美金，为旅客节省3亿8千万美金。这些数据向广大民众介绍了机场的重大作用并引导了关于机场扩建的争论方向。下一步要做的是将所此项目相关的核心单位整合在一起。

商业团体们开始游说市长，但只得到了中立的意见。2001年参议员Tom Harkin了解并造访了芝加哥机场，自此他们并得到了联邦政府的声援。很快，商业俱乐部在芝加哥报纸中刊登广告向所有当地、州、以及联邦政府官员至公开信宣布奥黑尔机场扩建的必要性。超过50家公司签署并响应信件；随着媒体报道产生的舆论压力，这个项目最终得到了芝加哥市长的支持。在市长的支持下，芝加哥雇佣了专业的机场扩建专家，在Tom Harkin到访的30天内，一个初步的扩建计划成型了。政治争议以及前期规划占据了4年时间。能够得到芝加哥市长的支持是一项重大的胜利，项目的推进过程中，他们逐步逾越了所有政治障碍，获得杜佩奇县和本森威尔县等其他反对地区的支持。

规划执行

In 1999 Chicago's business leaders at the Commercial Club of Chicago released the "Chicago Metropolis 2020" publication, a look at the Chicago region in 2020. In this report the transportation recommendations stated that O'Hare had to be expanded to account for projected economic growth. To strengthen this argument, the Commercial Club of Chicago contracted with Booz Allen Hamilton to conduct a regional economic study to show the importance of the airport to the region. The study confirmed that O'Hare is the economic engine of the Chicago region, contributing about \$37 billion annually and over 400,000 jobs to the economy. A modernized O'Hare means the creation of 195,000 more jobs, and another \$18 billion in annual economic activity. The OMP is expected to save the airlines approximately \$375 million and passengers \$380 million a year. This data provided the needed economic research to inform the public of the magnitude of the airport's significance and guide the controversial discussion of expanding the airport. The next step was to bring the key players on board.

While the business community was on board, Chicago Mayor Daley's office was quiet. But in 2001, Iowa Senator Tom Harkin (D) came to Chicago to listen to concerns about the airport. Soon after the Commercial Club bought two pages of advertising in all of Chicago's newspapers with an open letter to local, state, and federal officials proclaiming the need for O'Hare expansion. More than 50 companies signed this letter; and with the media coverage and pressure on Chicago to tackle the problem, Mayor Daley indicated his support. With the Mayor's support, the city hired a group of airport expansion experts and within 30 days of Sen. Harkin's visit, the Mayor's office produced a preliminary expansion plan. Politics and planning dominated the four-year period between when the Mayor announced his plan in 2001 and the beginning of construction in 2005. Having the Mayor on board was an important step but there were other large political barriers the project needed to overcome. To move the project forward, the Mayor needed the support of DuPage County.

I FAA相关环保条例及规章制度回顾过程

当许多项目被延误在规章制度的履行过程中时，OMP项目成功的在四年时间内将规划案推进到施工阶段。FAA于2003年在芝加哥地区成立的地区办公室给OMP项目提供了巨大的协助。OMP项目办公室整合并协调与此项目相关的所有FAA内部部门，并协调FAA与机场项目赞助商之间的沟通与联络。这使得FAA与OMP项目之间保持了直接的并顺畅的沟通。

II 寻求财政协助

OMP项目基金来自于政治性的可靠来源，未使用地方或本州的税捐。截至2011年10月，基金总金额为40亿美元。以下是基金的几个来源：乘客设备费；机场一般性收入债券和联邦政府航空港改建计划援助基金。其中乘客设备费以及机场一般性收入债券经核准为项目提供基础基金，与此同时OMP项目非常成功的从联邦政府航空港改建计划援助基金处争取到了超过9亿5千万美元额外的支持。

III 航空公司扮演的角色

OMP项目的顺利推进还要归功于两家航空公司的协助，即美国航空公司和美国联合航空公司。在此项目之前，航空公司是机场交通延误的直接受害

Planning&Implementing

I Environmental and Regulatory Review Process, the FAA

While many projects are stalled in the regulatory process, the OMP managed to go from concept to construction in a remarkable four years. One factor that greatly helped the project was the Federal Aviation Administration's (FAA) opening of a regional office in the Chicago area in 2003. This Program Office coordinated and continues to coordinate the efforts of all FAA internal divisions involved in work associated with the project, and acted as a single point of contact for the FAA with the airport project sponsors. This helps with direct communication between the FAA and the OMP and ensures that there is fluid communication.

II Securing Finances

The funding for the OMP came from politically feasible and reliable sources, with no local or state tax dollars used in financing the project. The following sources were used for the program, securing \$4 billion dollars as of October 2011: Passenger Facility Charges (PFC), General Airport Revenue Bonds and Federal Airport Improvement Program Funds. PFCs and General Airport Revenue Bonds were approved to provide base funding and the OMP was very successful in securing discretionary money from the Airport Improvement Program (AIP). For the discretionary money that enhances the national system, Chicago has received in excess of \$950 million.

III Role of the Airlines



OMP runway system as of October 2011 (photo courtesy of the Chicago Department of Aviation).

者，所以他们十分乐意与商业团体合作以说服民众并为此项目的需要选举官员。除了从财政方面支持OMP项目，城市和航空公司共同营造了一个合作的工作环境，以便对各方的运作起到积极的作用。

IV 领导力和协调性

为使项目的施工过程得到良好的设计和执行，OMP项目花费巨大的资源为项目的所有环节吸纳最为优秀且经验丰富的领导者。芝加哥市政府雇佣了一位项目经理，负责施工监督以及流程核准，并保证工期按时间表严格执行。FAA在芝加哥地区成立区域办公室以监督项目，他们同样聘用了最权威的专家来确保这个国际大项目不会因为规章制度的问题而得到延误。机场的行政长官Rosemarie Andolino对项目起到了决定性的作用，她的领导与协调确保所有部门密切合作。在这个得以成功完成的项目中，所有不同部门的领导必须合作、协调以确保项目安全、高效的前进。

V 可持续发展

在OMP项目的施工过程中，关注环保的可持续发展项目得以启动。这个提案为项目增加了可持续发展的规划内容并避免了额外的费用。主要的可持续发展项目包括有：湿地迁址及减缩，减少土方搬运，机场绿色屋顶项目，经美国绿色建筑协会认证的FAA管控塔台。大多数的可持续发展项目都包括了在施工过程中尽可能减少垃圾的产生以及搬运。OMP项目限制施工现场土壤物质的搬进和搬出，并设计了种有绿色植物的新建筑。这就从根本上节省了支出并允许施工承包商根据可持续项目的需求寻找创新的解决方案。OMP项目的可持续发展观念获

Support from the two hub carriers at O'Hare, American Airlines and United Airlines, was essential for moving the project forward. The airlines were directly affected by the congestion delays leading up to the start of the project and they were very involved with the business community in working to convince the public and the elected officials of the need for the program. In addition to supporting the project financially, the city and the airlines engaged in a collaborative working environment so as to not negatively impact their operations.

IV Leadership and Coordination

In order to design and implement the construction process, the OMP spent significant resources to attract top talent and experienced leaders to all aspects of the program. The City of Chicago hired a program manager to oversee the construction and the permitting process, and to make sure that things stayed on schedule. The Chicago FAA office, which was opened to oversee the program, hired the best experts in the field to make sure that this internationally important program was not held up with regulatory problems. Airport Commissioner Rosemarie Andolino was crucial to this leadership, and her management skills ensured that all parties worked together. In addition to having good leaders, coordination between them was also important. With many actors involved in the successful completion of projects, the leaders of different sectors had to cooperate and coordinate to make sure that things moved safely and effectively forward.

V Sustainability

During the construction process the OMP initiated a sustainability program that addressed the environmental impacts of the program. This initiative was implemented in a way that added a sustainable design element

得了最后的成功，以致其他基础设施建设项目都追寻奥黑尔机场的观念来节省经济和环境资源。

VI 提前完成规章制度等手续

OMP项目提前完成了所有环保及FAA必要的规章审批申请。他们聘请负有经验的专业人士确保已经提前找到并处理可能引发项目延缓的所有问题。这可能不会加快申请手续的速度，但可以使得审批进程顺利进行并避免由于需要取得特别的申请而浪费时间和金钱。这个经验告诉我们，大型项目需要花费额外的资源用以确保规划者及领导者已开始准备全套文案工作。如芝加哥所证明的，在加快审批流程并避免延误方面的花费往往是非常值得的。

VII 持续的公众宣传

OMP项目通过特定的步骤赢得了公众的信任以及支持。他们持续向公众介绍进行OMP项目的原因并使公众相信，项目进展良好并即将交付满意的结果。另外项目中设定了分段的完成期限，并要求主要股东管控项目进程，监督预算情况。通过这些“小项目”如期并低于预算完成任务，民众对OMP项目的信任慢慢被建立起来。

启示

大型基础设施建设项目经常存在不可避免的延误、承包商的管理不善、以及令人抓狂的预算超标等等诸多问题。OMP项目打破了常规模式，克服了地方政治争议，严格遵循项目施工时间表，并提早低于预算完成施工。OMP项目展示了如何完成合理的规划以及主要基础设施的管理。这个成功案例可以被复制到美国其他项目中。如下我们总结了OMP项目成功的主要因素：建立并维持主要股东的支持与信任；贯穿整个项目的长期且有力的领导力；全面且灵活的规划方案和施工方法，以及对预算和时间表的强力管理和执行。

without incurring additional cost. Important sustainability projects included: Wetlands relocation and mitigation, Earthwork transport reduction, Green roofs on new airport buildings and LEED certified FAA control tower. Much of the sustainability included minimizing the amount of waste produced and moved during construction. The OMP limited the amount of soil material moved in and out of the project site and designed new buildings to include green features. This ultimately saved money and allowed contractors to find innovative solutions to the sustainability requirements. The sustainability aspect of the program has been a definitive success and other infrastructure projects have followed the efforts at O'Hare to conserve economic and environmental resources.

VI Being Proactive on Completing All Regulatory Filings

The OMP was proactive in filing environmental and other necessary federal permits. They hired well-trained professionals and ensured that they were proactive in finding and resolving any issue that may have needed to be mitigated. This did not necessarily speed up the regulatory process, but it certainly made it very smooth and thus did not lengthen the costly time it took to get necessary permits. The principal lesson shows that mega-projects require extra resources to ensure that qualified planners and leaders are preparing comprehensive documents. As demonstrated in Chicago, the payoff in terms of expediting the permitting process and avoiding delay is often worthwhile.

VII Sustaining Public Reach

The OMP took specific steps to ensure that public support and trust was maintained for the duration of construction. To continue to remind the public why the project is important and to convince them that it is delivering the promised results, the program set intermediate deadlines for certain projects and phases, which allowed for key stakeholders to measure progress and monitor the budget, as well as derive incremental benefits. With these smaller projects completed on time and under budget, the trust established in the beginning was maintained.

The Learning Experiences

Recent experience with large infrastructure projects involves frustrating delays, mismanaged contractors, sub-par construction, and infuriating cost over-runs. The O'Hare Modernization Program breaks that mold as a project that has overcome local controversy, maintained a rigid schedule, and managed completion to date under budget. The OMP shows how proper planning and management of major infrastructure can be done and there are ways in which to replicate this success in other parts of the United States. Key aspects to the OMP's success include: Building and maintaining support and trust with key stakeholders, strong and long-term leadership throughout the process, planning and construction methods that are comprehensive yet flexible and strong management over the budget and schedule.

国家空管法规标准研究中心挂牌成立

National Center of ATC Regulations and Standards Study is Unveiled

2012年1月，国家空管委办公室在北京航空航天大学新主楼会议中心举行了国家空管法规标准研究中心成立暨挂牌仪式。仪式由国家空管委办公室孙宏伟局长主持。

孙宏伟局长介绍了国家空管法规标准研究中心建设背景，宣读了国家空管委办公室《关于成立国家空管法规标准研究中心的通知》。孟国平副部长为国家空管法规标准研究中心主任张军教授颁发了聘书。胡凌云书记和孟国平副部长在新主楼为“国家空管法规标准研究中心”揭牌，并参观了“国家空管法规标准研究中心”和“国家空管新航行系统技术重点实验室”。

In January, 2012, the National Center of ATC Regulations and Standards Study was unveiled in a ceremony held in the conference center of the new main building of the Beijing University of Aeronautics & Astronautics. The ceremony was presided over by Sun Hongwei, administrator of the Office of the Air Traffic Control Commission of the State Council and the Central Military Commission.

Administrator Sun Hongwei introduced the background of the construction of the National Center of ATC Regulations and Standards Study and read the report regarding the Establishment of the National Center of ATC Regulations and Standards Study issued by the Office of the Air Traffic Control Commission of the State Council and the Central Military Commission. Meng Guoping, deputy director-general of the Headquarters of the General Staff awarded the engagement letter to Professor Zhang Jun, the director-general of the newly formed National Center of ATC Regulations and Standards Study. Hu Lingyun, secretary of the Party Committee of Beijing University of Aeronautics & Astronautics and Meng Guoping jointly unveiled the National Center of ATC Regulations and Standards Study. Afterwards they visited and observed the National Center of ATC Regulations and Standards Study and the National Key Laboratory of the New Navigation System of the Air Traffic Control Commission.

上海虹桥国际机场东跑道大修工程顺利竣工

Overhaul of the East Runway in Hongqiao Airport Completed

2011年12月中旬，经过近6个月不停航夜间施工，上海虹桥国际机场东跑道大修工程顺利竣工并通过行业验收，按新的标准开放使用，虹桥机场航班保障能力得到进一步提升。

虹桥机场日均起降航班超过630架次，是我国最繁忙的机场之一。东跑道从2005年改造以来，经过6年的高密度航班起降使用，道面结构承载能力和加铺层材料性能呈现衰减趋势。基于此，虹桥机场于2011年6月正式启动东跑道大修工程，主要建设内容包括地基注浆加固、助航灯光改造和沥青混凝土道面加铺等。为不影响白天正常航班运行，大修工程采用不停航施工

In the middle of December, 2011, after 6 months of construction without any suspension of air services, the overhauling of the east runway in Shanghai Hongqiao International Airport (Hongqiao Airport for short) smoothly finished and had passed the industrial inspection for acceptance. The east runway will be used according to new standards. The flight security capability of Hongqiao Airport has been improved further.

Hongqiao Airport's average daily flight amount surpasses 630 sorties and this airport is one of China's busiest airports. The reconstruction of the east runway started back in 2005. After 6 years of a high density of flights, the bearing capability and the performance of the added layers had been in the attenuation trend. So in June, 2011, Hongqiao Airport started overhauling the east runway. The main construction items are the foundation grouting consolidation, navigation lighting re-construction and adding of the asphalt concrete pavement and so on. The overhaul project was conducted during the nights with non-suspension of air services so that all the flights could operate regularly. Nearly a thousand workers went into the flight area to carry out the construction after the last nights flight had taken off and before the airworthiness conditions were recovered for regular flights.

The project started in June, 2011 and in November of the same year, the main work had been completed. 35,715 injected holes were dug, pavement of 142 thousand square meters consolidated, navigation lights of 796 sets reconstructed, power cables and control cables of 126 km laid,

方式，近千名施工人员在夜间航班结束后进驻飞行区施工，天亮前恢复适航条件。

工程自2011年6月中旬开工，同年11月中旬主体工程完工，共计开凿注浆孔35715个，加固道面面积14.2万平方米，改造助航灯具796套，铺设一二次电缆126公里，摊铺道面26万平方米，耗用沥青混凝土7.24万吨。东跑道大修工程通过技术创新，成功解决了注浆方案设计、注浆效果检测等5大技术难题，成为虹桥机场自去年西跑道和2号航站楼投运后又一项重大工程建设成果。



pavements of 260 thousand square meters paved and 72.4 thousand tons of asphalt concrete was used. In the east runway overhaul project, some technological innovations had been achieved. Therefore, 5 technical problems, such as the designing of the grouting program, the examination of the grouting results and other problems had been resolved.

咸阳机场二期扩建空管工程新跑道导航台、雷达站建安工程顺利通过验收

The Construction and Installation Project of the Range Station and the Radar Station of the New Runway at Xianyang Airport Passed the Approval Examination

2011年12月上旬，西北空管局协同陕西省工程质量监督站对咸阳机场二期扩建空管工程导航台、雷达站建安工程进行验收。

此次验收内容为靳里村场面监视雷达站，大石头村场面监视雷达站，新跑道DVOR/DME导航台，风廓线雷达站，新跑道东航向台、东下滑台、西航向台、西下滑台以及各台站相关室外低压电缆共计9个单位工程。其中建筑物总面积约380平方米，电缆总长度约8000米。参加验收的有关人员通过现场查勘，资料检查，听取汇报等方式对工程的施工质量、完成情况、档案整理、资金概算等方面进行验收，一致认为该工程各方面均符合验收要求，同意通过验收。陕西省工程质量监督站参验人员也对该工程建设情况给予肯定。

新跑道导航台、雷达站建设是整个咸阳二期扩建工程中非常重要的一个环节，直接关系到二期工程投产后的正常运行。该工程的顺利验收是西北空管局二期工程空管建设的一个重要里程碑，标志着西北空管局承担的空管工程建设任务从全面的建设阶段进入到验收阶段。

In early December, 2011, the construction and installation project of the newly built range station and the radar station of the new runway, a part of the ATC project of the second phase project of Xi'an Xianyang International Airport (Xianyang Airport for short) received the approval from the examination conducted by the CAAC's Northwest ATMB and the Shaanxi Engineering Quality Safety Supervision Station.

There are a total of 9 projects that have passed the approval examination, the Jinlicun Airport Surface Radar Station, the Dashitoucun Airport Surface Radar Station, the DVOR/DME station of the new runway, the wind profiler radar station, the East localizer of the new runway, the East glide path, the West localizer, the West glide path and the outdoor low-voltage cables of each stations. Among all those established projects, buildings have taken an area of 380 square meters and the cables are 8,000 meters long. The members of the approval examination team conducted approval examinations to the construction quality, completion, file sorting, capital budget and others by means of on-site reconnaissance, data checking and listening to reports, as well as other methods. Ultimately, the approval examination team unanimously agreed that all those projects were in line with related requirements and all the projects had passed the approval examination. The members from the Shaanxi Engineering Quality Safety Supervision Station also recognized the construction of those projects.

The construction of the localizer of the new runway and the radar station is one of the most important segments in the whole Xianyang Airport expansion project, because they will be closely related to the regular operation once they have been put into use. The passing of the approval examination of these projects is an important milestone in the ATC project process of the CAAC's Northwest ATMB. This signifies that the ATC projects of the CAAC's Northwest ATMB have moved from the full construction phase and has entered into the approval examination phase.

长沙机场扩建工程获得批准

The Expansion Project of Changsha Airport Received Approval

2011年12月，长沙黄花国际机场（简称“长沙机场”）飞行区东扩工程可研评审会议在长沙召开，明确工程投资约36亿，第二跑道等级为4F类，可起降空中客车A380。

长沙机场通航之初跑道为2600米，只能供中小型飞机起降。后来将跑道延长至3200米，使黄花机场飞行区等级达到4E，基本可以满足除空中客车A380超大型飞机以外的大型飞机起降。但随着湖南航空事业的飞速发展，旅客年吞吐量已超过1200多万人次，高峰小时飞机起降即将到达40架次。此次扩建的第二跑道是《长沙黄花国际机场总体规划》中的高等级跑道，按照规划，机场远期将再建第三、第四跑道。

In December of 2011, the feasibility report evaluation conference on the flight area expansion project of Changsha Huanghua International Airport (Changsha Airport for short) was held in Changsha. It was confirmed that the flight area will be expanded to the east, with a total estimated investment of 3.6 billion Yuan. The second runway reference code will be 4F and will be able to accommodate the landing and takeoff of the A380 aircraft.

In the beginning, when Changsha Airport was first opened, its runway was just 2,600 meters long and could only accommodate the landing and takeoff of medium and small aircraft. Afterwards, the runway was extended to 3,200 meters long and its reference code was upgraded to 4E, so that it can accommodate the landing and takeoff of all aircraft except the A380. As Hunan's aviation industry rapidly develops, the annual passenger throughput has surpassed 12 million. At peak hours, the landing and takeoff amount reaches 40 sorties. The second runway to be expanded is a senior runway planned into the Master Plan of Changsha Huanghua International Airport. According to the Master Plan, the third and fourth runway will be built in the future.

贵阳区域管制区新增扇区正式开放

Newly Added Sector of Airspace in the Guiyang Regional Control Area Opened

继2003年5月贵阳管制区双扇区开放运行之后，新增03号扇区于2011年12月中旬正式开放投入运行。该扇区的开放将进一步合理利用空域现有资源，缓解管制运行压力，减轻管制员工作负荷，提高空域容量冗余度。

贵阳管制区近年来航班量增长迅猛，连续四年每年都以百分之十以上的速度增长，日高峰从2003年的340架次增长到如今的1000架次，空管安全保障压力逐年增大，加上空域相对狭小、航路（线）结构复杂、交叉点多和军航活动日益增加的问题，空域使用矛盾进一步加剧，扇区容量已处于饱和状态，增设管制扇区势在必行。

扇区的成功划设和运行，是贵州空管发展道路上的一件大事。同时，也为即将到来的春运高峰大流量保障工作提供了一个良好的安全平台，为西南天路更加畅通、贵州空管运行保障更加高效奠定了坚实的基础。

After two sectors of airspace in the Guiyang Regional Control Area were put into operation in May of 2003, the third sector formally began its operation in the middle of December, 2011. The operation of the newly added sector will further promote the rational usage of current airspace resources, help to relieve the stress of the ATC operation, reduce the air traffic controllers' workloads and increase the redundancy of the airspace capacity.

In recent years, the flight volume in the Guiyang regional control area has grown sharply, with an annual increase rate of over 10% in the last four years. The flight volume on peak hours has increased from 340 sorties in 2003 to 1000 sorties today, which makes the pressure of the ATC security task larger and larger. Furthermore, the relatively small airspace, the complex structure of the air routes, too many junctions and increasing military activities has exacerbated the use of the overcrowded airspace. The capacity of the original two sectors has been saturated, thus it is imperative to add new ATC sectors.

The designation and operation of the newly added sector is an important event in the developmental history of Guiyang's ATC construction. Meanwhile, it has provided a good platform for large volume security work in the coming massive wave of travelers during the Spring Festival. It has also laid a firm foundation for the unclogging of the airways in the southwest areas of China and for the ATC security task in Guizhou to be more efficient.

重庆机场再扩建 第三条跑道和东航站区奠基

Chongqing Airport to be Once Again Expanded and the Foundation for the Third Runway and the East Terminal Area has Been Laid



2011年12月，重庆江北国际机场（简称“重庆机场”）举行第三跑道和T3A航站楼的东航站区工程奠基仪式。中共中央政治局委员、重庆市委书记薄熙来，重庆市市长黄奇帆、国家民航局副局长夏兴华等领导出席奠基仪式。仪式由重庆市副市长童小平主持。

本次奠基的第三跑道和东航站区总投资约260亿元，将于2012年实质性动工，2015年竣工投入使用。四年后，重庆江北机场将拥有三条跑道，70万平方米的航站楼，具有保障4500万年旅客吞吐量能力，为重庆机场成为大型枢纽机场奠定基础。

据重庆机场介绍，将要新修建的第三跑道长3800米，宽75米，配套平行滑行道和联络道。东航站区将包括50万平方米的T3A航站楼，7万平方米国内货运库房等相关设施。建成之后，重庆江北国际机场将可以满足世界上最大飞机A380的起降，飞机飞行区等级达到世界先进的4F级水平。

In December of 2011, a stone laying ceremony was held to commensurate the beginning of the construction of the foundation of the third runway and the East terminal area of the T3A terminal in the Chongqing Jiangbei International Airport (Chongqing Airport). Bo Xilai, secretary of the Chongqing Municipal Party Committee and member of the Political Bureau of the CPC Central Committee, along with Huang Qifan, the mayor of Chongqing, attended the stone laying ceremony hosted by Tong Xiaoping, the vice mayor of Chongqing.

The third runway and the East terminal area of the T3A terminal has received a total investment amount of 26 billion Yuan and the actual construction will take place starting in 2012. The whole project is expected to be completed and put into operation in 2015. When the project is fully completed four years from now, Chongqing Airport will possess 3 runways and its terminal area will take up an area of 700 thousand square meters, with a passenger throughput capability of 45 million people, laying the foundation for Chongqing Airport to be a large hub airport.

According to Chongqing Airport, the third runway will be 3,800 meters long and 75 meters wide with a parallel taxiway and a by-pass taxiway. The East terminal area contains a T3A terminal of 500 thousand meters and a homeland cargo warehouse of 70 thousand square meters as well as other related facilities. After all is completed, the Chongqing Airport will be able to accommodate the takeoff and landing of the largest aircraft, the A380, and the aircraft movement area reference code will reach 4F.

揭阳潮汕机场通航 Chaoshao Airport Officially Begins Operation



2011年12月中旬，揭阳潮汕机场落成通航庆典仪式在广东省揭阳潮汕机场举行。民航局局长李家祥、广东省代省长朱小丹出席庆典仪式并讲话。广东省原省长黄华华与广州军区副政委兼广空政委王玉发中将共同为揭阳潮汕机场揭牌。民航中南地区管理局局长蒋怀宇向广东省机场管理集团颁发了机场使用许可证。

李家祥代表民航局对揭阳潮汕机场正式落成通航表示祝贺。他说，揭阳潮汕机场的落成通航将为广东省特别是粤东地区经济社会发展“插上翅膀”，带来积极的推动作用。李家祥说，民航是科技含量最高、最现代、最便捷的交通运输方式，在调整经济结构、转变经济增长方式的过程中，民航将发挥出现代交通运输方式的综合提升作用。随着经济社会的快速发展，尤其是广东这样的经济大省，对发展民航业提出了更高的要求。李家祥希望民航成为广东省通过发展新兴战略产业和现代服务业带动经济社会全面发展的重要依托。他特别强调揭阳潮汕机场在今后的运行中，要突出安全第一的原则，发

In the middle of December, 2011, Chaoshan International Airport (Chaoshao Airport for short) was unveiled in a special ceremony held in the Guangdong province. Li Jiaxiang, Minister of the Civil Aviation Administration of China (CAAC for short) and Zhu Xiaodan, acting governor of Guangdong province, both attended the ceremony and made speeches. Huang Huahua, the former governor of Guangdong province, along with Lieutenant General Wang Yufa, the deputy political commissar of the PLA Guangzhou Military Area Command and political commissar of the Air Force of the PLA Guangzhou Military Area Command, unveiled the airport. Jiang Huaiyu, director-general of the CAAC's Central and Southern Regional Administration issued the Civil Airport Operating License to the Guangdong Airport Management Corporation.

On behalf of the CAAC, Li Jiaxiang congratulated Chaoshan International Airport on its successful unveiling and its formal operation. He said that the completion and operation of the airport will bring active and essential functions to help the economic and social development of the Guangdong province, especially in the eastern part of the Guangdong province. Li Jiaxiang said that civilian-use air transportation is a modern mode of transport. Being the most advanced and the most convenient form of travel and to aid in the process of restructuring the economy and transforming economic growth, the airport would exert an integrated promotion function that only a modern mode of transportation can accomplish. As the economy and society rapidly develops, China's regions and provinces are putting forward higher requirements for the development of the civil aviation industry. Li Jiaxiang hoped that the civil aviation industry could be an important support system for Guangdong to develop emerging strategic industries and modern service industries, in order to promote growth not only in economic terms, but also in political and cultural terms. He highlighted that in the coming operation stage, Chaoshao Airport should focus on safety as well as fully exerting the integrated functions of the airport. Meanwhile, he demanded that the CAAC Central and Southern Regional Administration needs to act as a strict safety watchdog for Chaoshan Airport.

Zhu Xiaodan was quoted saying that it was one of the most important strategic decisions to construct a modern airport and to speed up the development of the civil



挥好机场的综合功能，并要求民航中南地区管理局加强对揭阳机场的安全监管。

朱小丹说，建设现代化机场、加快发展民航业是广东省构建现代综合交通运输体系、助力产业转型升级、促进区域协调发展的重大战略决策。广东省历来高度重视民航事业的改革与发展，特别是近年来在民航局、空军等有关方面的大力支持下，积极深化机场管理体制变革，大力推进机场建设，着力发展空港经济，形成了民航运输新格局，对全省经济社会平稳较快发展、促进经济发展方式转变发挥了积极的促进作用。揭阳潮汕机场的正式通航是优化民航发展布局、完善综合立体交通体系的又一重大成果，对于促进粤东跨越发展，造福粤东广大人民具有十分重大而深远的意义。他希望潮汕机场狠抓安全运营和经营管理，力争把机场建设成“成本控制优、人员效率高、服务质量好、自身特色强”的现代化支线机场，希望当地能够依托潮汕机场，加快发展空港经济，推动粤东经济又好又快发展。

2011年12月，广东汕头外砂机场结束近38年的民航运输业务，转场至揭阳潮汕机场运营。揭阳潮汕机场位于揭阳市揭东县，地处汕潮揭三市中心，距离三市市区各为20公里左右。到2020年，该机场旅客吞吐量有望达到450万人次。

aviation industry in order for Guangdong to set up a modern integrated transport system, give impetus to industrial transformation and to promote balanced and fair development between regions. Guangdong province has always attached a significant amount of importance to the development and reforming of the civil aviation industry. Especially in recent years, backed heavily by the CAAC and the Chinese People's Liberation Army's Air Force related units, Guangdong province has been actively deepening the reform of the aviation management system, vigorously promoting the airport's construction and focusing on developing the airport area's economy. A new air transportation layout had been formed and it has played an active role in promoting Guangdong's steady, yet rapid economic and social development, as well as in accelerating the transformation of its economic development. The formal operation of Chaoshao Airport is another result of Guangdong's optimizing of the civil aviation development layout and completing the integrated transportation system. The official operation of the airport has great significance for promoting the leapfrog development of the east Guangdong area and for serving the people living in the east Guangdong area. He hoped that Chaoshan Airport could graciously implement operation safety and management and try to conduct Chaoshan Airport as a modern regional airport featuring optimal cost control, efficient staffing, services of good quality and distinct self features. He also hopes the local region can utilize Chaoshao Airport as a base to speed up the development of the airport area's economy and to promote the sound and rapid growth of the economy of the east Guangdong area.

The official operation of Chaoshan Airport also signified the end of the Guangdong based Shantou Waisha International Airport. In December, 2011, the Guangdong based Shantou Waisha International Airport ended its 38 years long civil aviation transport business and moved over to Chaoshan Airport to continue its operation. Chaoshan Airport lies in the Jiedong County, in Jieyang city, in the Guangdong province. It is located in between Shaotou city, Chaozhou city and Jieyang city, about 20 km away from the three cities. By 2020, its passenger throughput is expected to reach 4.5 million.

北京、上海、广州三地机场签订合作框架协议 Framework Agreement on Communication & Cooperation Between Airports in Beijing, Shanghai and Guangzhou Signed



2011年12月中旬，北京首都国际机场股份有限公司、上海虹桥国际机场公司、上海国际机场股份有限公司、广州白云国际机场股份有限公司在北京共同签署了《北京、上海、广州三地机场运行管理交流合作框架协议》，为北、上、广三地机场之间的友好合作开启了新的篇章。

签约仪式当天，首都机场股份公司常务副总经理高利佳、上海虹桥国际机场公司总经理助理张巍及三地机场运行管理部门负责人出席了签字仪式。三地机场的签约代表表示，在民航事业高速发展的推动下，北京、上海、广州机场业务量快速增长，面对屡创新高的航空运量、复杂多变的运行环境、不断提升的服务指标，大型机场的运行管理难度进一步增大，特别是面对日趋激烈的国际航空竞争环境，各机场独立运作的模式已不能解决快速发展中遇到的复杂问题，无法满足现代化大型机场运作的需求，打破地域限制、加强机场间的合作交流已成为顺应民航业快速发展的必然趋势，机场间的合作将远远大于竞争。三地机场的负责人也纷纷表态，各方将遵守协议要求，不断支持、深化、完善平台运作，在双赢中共享成功。

北京、上海、广州机场地处我国三大现代化国际大都市，以其重要的地理位置、一流的硬件设施、完美的服务体验、繁忙的交通流量领跑中国民航。

In the middle of December, 2011, Beijing Capital International Airport Co., Ltd., Shanghai Hongqiao International Airport Co., Ltd., Shanghai International Airport Co., Ltd. and Guangzhou Baiyun International Airport Co., Ltd. signed the Framework Agreement Regarding Operation Management and Communication & Cooperation Between the Airports in Beijing, Shanghai and Guangzhou, which begins a new chapter in friendly cooperation between the airports of Beijing, Shanghai and Guangzhou.

On the day of the signing ceremony, Gao Lijia, deputy manager of Beijing Capital International Airport Co., Ltd., Zhang Wei, assistant to the general manager of Shanghai Hongqiao International Airport Co., Ltd. and other leaders from the airport operation management departments of the airports in Beijing, Shanghai and Guangzhou all attended the signing ceremony. The representatives from the airports in Beijing, Shanghai and Guangzhou all stated that with the push due to the high speed of development of the civil aviation industry, the business volume of airports in Beijing, Shanghai and Guangzhou has grown rapidly. As transportation throughput moved at record levels, the operational environment was quite complex and the service indexes were continually rising, making it even more difficult to manage the operation of such large airports. Especially when faced with the increasingly fierce and competitive international aviation environment, the mode of each airport operating independently can neither resolve the complex problems arising from the rapid development, nor can it meet the operation requirements of modern large airports. As the civil aviation industry develops quickly, it is a necessary trend for airports to break geographical restrictions in order to strengthen their level of cooperation. For airports, cooperation amongst one another is more beneficial than competition. The officials in charge from each airport also stated that they would obey the requirements in the agreement and that they will support, deepen and complete the operation of the platform, so that all members of the agreement are successful.

As Beijing, Shanghai and Guangzhou are three of the top modern international metropolises in mainland China, the airports in these three cities also lead mainland China's civil aviation industry, owing to their important geographical positions, first class hardware facilities, perfect service experience and heavy transport flow. The passenger throughput of the airports in the three cities are among the top four in mainland China's civil aviation industry, which makes up 33.1% of the total



三地机场旅客吞吐量居全国前四位，占国内全部机场旅客吞吐量的33.1%，货邮吞吐量占国内全部机场货邮吞吐量的56.7%，对中国民航运输的快速发展发挥着积极的作用，对当地城市经济的发展做出了突出的贡献。

近年来，北京、上海、广州机场圆满完成了2008年北京奥运会、2009年上海世博会及2010年广州亚运会等世界大型活动航空运输保障任务，完善的保障流程、周到的旅客服务、严格的安保措施给世人留下了深刻的印象，创造了令世界瞩目的骄人业绩。2011年，三地机场的ACI旅客满意度排名进入世界前十名，并获得了一系列奖项，三地机场共同树立了机场的典范，向世界展示了中国民航的良好形象。

此次三地机场以“资源共享，优势互补，合作共赢”为目标建立的运行管理交流合作平台，将不断推进三地机场在信息共享、协调联动、业务研究、人才交流等方面开展广泛地合作，有助于进一步加强三地机场之间的沟通交流和经验分享，共同解决机场在高速发展中面临的突出问题、难点问题和热点问题，不断提升机场管理水平和运行品质。三地机场的强强联手，正是发挥自身区位优势，结合实际运行情况，借鉴先进管理经验，提升各机场国际竞争力的有益尝试，开创了国内机场合作发展的新模式。同时，三地机场希望通过彼此的合作交流，能够进一步提炼总结国内机场的运行管理模式，建立机场运行标准，完善机场运行体系，引领中国机场业的健康、快速发展，为实现“民航强国”战略发挥巨大的促进作用。

passenger throughput of all the airports in mainland China. The cargo and mail throughput of the airports in the three cities accounts for 56.7% of the total volume of mainland China. The airports in the three cities have played an active role in China's civil aviation development and have made outstanding contributions for their local city's economic development.

In recent years, the airports in Beijing, Shanghai and Guangzhou have fulfilled the transportation missions for world class activities, such as the 2008 Beijing Olympics, the 2010 Shanghai Expo, the 2010 Asian Games in Guangzhou, and others. The perfect combination of the support process, thoughtful service and strict security measures had impressed many people and had gained outstanding achievements that attracted worldwide attention. In 2011, the ACI passenger satisfaction degree of the airports in the three cities had ranked among the top ten in the world's ACI passenger satisfaction list and had received a series of awards. The airports in the three cities jointly set a positive example for other airports in China and had created a good example of China's civil aviation.

With sharing resources, enjoying complementary advantages and cooperation with group success as the goal, the communication and cooperation platform for operation management set by the airports in the three cities will push wide cooperation among the airports in information sharing, coordination and coupling, business study and brain exchange. This will be beneficial for further communication and experience sharing among the airports in the three cities, for the airports to jointly resolve serious problems, difficult problems and hot issues arising from the high speed development of airports and for continually improving the airport management level and operation quality. This group gain co-operation is a beneficial attempt for the airports in Beijing, Shanghai and Guangzhou to make use of their geographical advantages, to utilize advanced management experience while giving consideration to their own actual operation situation and to improve their own international competitiveness. This creates a new mode for cooperation among airports in mainland China. Meanwhile, the airports in the three cities hope that by cooperating with each other, the operation management mode of China's airports can be further extracted and concluded, so that an airport operation standard can be established and the airport operation system can be perfected, so that the airport industry in China can develop healthy and rapidly and play an important role in the strengthening of China through civil aviation development.

巴航工业向河北航空交付两架E190喷气飞机 Embraer Delivered Two E190 Jet Aircraft to Hebei Airlines



图为交付给河北航空公司的首两架之一

2011年12月下旬，巴西航空工业公司在其位于巴西圣若泽杜斯坎普斯的总部举行仪式，向河北航空有限公司（简称“河北航空”）交付了其订购的首批两架E-190喷气飞机。

河北航空公司于2011年4月与巴西航空工业公司签署了十架E-190喷气飞机的确认订单，同时包括另外五架E-190的购买权。这些E-190喷气飞机将以河北省省会石家庄市为基地展开运营，主要用于执飞由石家庄发往其他省会城市的航班，开辟更多航线，增加现有航班的频率，建立一条以河北省为中心点的枢纽网络。

In late December of 2011, a ceremony was held in Sao Jose dos Campos, Brazil, the headquarters of Embraer S.A. (Embraer for short). At the ceremony, Embraer delivered two E190 jets to Hebei Airlines Co., Ltd. (Hebei Airlines for short).

In April of 2011, Hebei Airlines and Embraer signed an agreement to confirm the ordering of 10 E190 jets. In the agreement, it is confirmed that Hebei Airlines possessed the purchasing rights of another 5 E190. These E190 jets will be operated with Shijiazhuang city, the capital of Hebei province, as its base. The E190 jets will fly routes from Shijiazhuang to other capital cities. More air routes will be opened to add to the volume of the current flights and a hub network with Hebei province as its center is expected to be established.

福州机场新停机坪启用 The New Apron at Fuzhou Airport Put into Use

投资超亿元扩建的福州长乐国际机场（简称“福州机场”）新停机坪2011年12月正式投入使用，这将缓解目前福州机场机位紧张的问题，以保障榕台空中直航需求。

近年来，福州机场发展迅猛。据预计，2011年福州机场旅客吞吐量将突破720万人次，旅客吞吐量、飞机总起降架次和货邮吞吐量均保持两位数增长。特别是榕台空中直航开通3年多以来，福州机场年发送直航旅客超30万人次，居大陆第5位。

为应对迅猛增长的航空客流，福州机场于2010年启动机场扩能建设，扩能建设共分两轮，主要包括停机坪扩建、航站楼改扩建及建设货运区等项目。至2015年末，福州机场将满足年旅客吞吐量2500万人次的保障能力需求。

With an investment of more than 100 million Yuan, the new apron at Fuzhou Changle International Airport (Fuzhou Airport for short) was formally put into use in December of 2011. It will ease the problem of position gate shortages in Fuzhou Airport and will support the requirements of the direct flights between Fuzhou and Taipei.

In recent years, Fuzhou Airport has developed rapidly. It is estimated that in 2011, the passenger throughput will exceed 7.2 million and in 2012, the passenger throughput, flight takeoff and landing sorties and the cargo and mail throughput will maintain its double-digit growth. Especially, after direct flight between Fuzhou and Taipei has been opened for more than three years, every year, Fuzhou Airport transports more than 300 thousand passengers to Taipei.

In response to the rapid growth of air passenger traffic, Fuzhou Airport started the expansion construction back in 2010. The expansion plan is divided into stages and mainly contains the apron expansion, terminal expansion and the construction of cargo transportation area. By the year 2015, Fuzhou Airport will be capable of supporting a passenger throughput of 25 million annually.

阿克苏机场改扩建工程空管工程项目通过验收 The ATC Segment of the Expansion Project at Akesu Airport Passed the Approval Examination

2011年12月，中国民用航空新疆空管局组织民航专业工程质量监督站新疆监督站、施工、监理单位对阿克苏机场改扩建工程空管项目进行现场检查验收。经验收小组现场实地勘察和资料审核，工程验收组一致认为：该工程项目符合中国民用航空局批准的初步设计及概算，符合国家和行业有关技术标准及规范，工程质量和设施设备运行指标基本达到设计要求，同意通过工程竣工验收。

作为阿克苏机场改扩建工程的重要子项，阿克苏机场改扩建工程空管项目2009年8月开工建设，2011年9月正式完工，主要包括航管工程、气象工程、通信工程等三个单位工程，该工程对改进阿克苏地区交通运输状况，提高阿克苏机场综合保障能力发挥着至关重要的作用。

In December of 2011, the CAAC's Xinjiang ATMB organized the Xinjiang branch of the Civil Aviation Special Construction Quality Surveillance General Station, the construction unit and the supervision unit to conduct the approval examination for the ATC segment of the expansion project of Akesu Airport. After carrying out the field check and material examination and audit, the approval examination team unanimously believed that this project was in line with the initial design & preliminary estimate issued by the Civil Aviation Administration of China and was in accordance with the related national and industrial technical standards and rules. The project quality and the operation index of the facilities and units meet the design requirements. Therefore, the team agreed that the project should pass the approval examination.

As an important sub-project of the expansion of Akesu Airport, the ATC item started back in August of 2009, and was finished formally in September of 2011. It mainly contains the air traffic control project, the meteorological project and the communication project. This project will play an important role in improving the transportation situation of the Akesu region and it will promote the integrated security capabilities of Akesu Airport.

扬子江快运成功开通成都至香港货运航线 Yangtze River Express Successfully Opens the Air Route for Cargo Transportation from Chengdu to Hong Kong

2011年12月上旬，扬子江快运航空有限公司（简称“扬子江快运”）顺利执飞成都=香港货运航线。该航线由波音737执飞。

扬子江快运开通此航线，将进一步开拓内地西部市场，构建西部地区与香港地区航空货运桥梁，完善航线网络布局，同时将为“航空第四城”货运吞吐量的增长再添助力。扬子江快运成都=香港货运航线的开通将有助于成都进一步发展为国内航空货运新的集散中心，提高国际航空货运增长幅度；也将会给香港地区与内地，特别是西部地区在航空货运领域的合作与交流，提供新的契机。

扬子江快运是以上海为基地的航空货运公司，现已开通了包括以上海、深圳、台湾、香港、卢森堡、洛杉矶、布拉格、莫斯科、芝加哥等为重要枢纽航点的国内、国际货运航线网络。

In early December of 2011, the Yangtze River Express Airlines Co., Ltd. (Yangtze River Express for short) successfully flew the Chengdu - Hong Kong route for cargo transportation with a Boeing 737 aircraft.

The operation of this flight route by Yangtze River Express will further utilize west China's aviation market, establish an air bridge for cargo transportation between west China and the Hong Kong area, and complete the air route network layout. Meanwhile, it will also contribute to the promotion of the cargo volume of Chengdu. It will also help Chengdu to become a new air cargo distribution center in mainland China and raise the increasing degree of the air cargo volume. It will offer new chances for cooperation and communication in air cargo between the Hong Kong area and mainland China, more specifically, the western China region.

The Yangtze River Express is a cargo transportation company with its base in Shanghai. So far, it has opened many local and international flight routes for cargo transportation, including routes to Shanghai, Shenzhen, Taiwan, Hong Kong, Luxembourg, Los Angeles, Prague, Moscow, Chicago, and more.

洛阳机场RNP APCH飞行程序通过验证试飞 The RNP APCH Flight Procedure in Luoyang Airport Passes Flight Verification Test



2011年12月，洛阳机场RNP APCH飞行程序顺利通过民航中南地区管理局实地验证试飞，成为中南地区继广州、深圳、三亚、长沙、武汉等机场后第五个具备“基于性能的导航（PBN）”能力的机场。

洛阳北郊机场RNP APCH项目于2011年9月启动，是民航中南地区第一个结合航班运输和飞行培训为一体的PBN项目。该项目由民航飞行学院新型导航技术项目组承担制定。

基于性能的导航（PBN）是建立在先进机载设备能力和导航技术基础上发展起来的一种航行新技术，涵盖了从起飞到着陆的所有飞行阶段。与传统地基导航相比，PBN技术能有效提高航空安全、增加空域容量、减少地面导航设施的建设和维护成本，促进节能减排。

中南管理局副局长梁世杰指出，PBN技术应用和推广将是飞行运行方式的重大变革，对中国民航的飞行运行、机载设备、机场建设、导航设施布局 and 空域使用产生重大影响，对有效促进行业安全、提高飞行品质和减少地面设施投入具有积极作用。PBN技术是我国建设新一代航空运输系统的核心技术之一，是实现民航强国战略计划中的重要组成部分。为充分发挥此项新技术作用，民航局已于2009年发布中国民航PBN实施路线图。目前，民航中南地区管理局按照路线图要求，制定并实施中南地区“十二五”PBN实施规划。预计到2012年底，中南地区所有国际机场将全部实现区域导航（RNAV-1）或RNP进近（RNP APCH）运行；到2015年底，中南地区所有29个运输机场都将具备运行能力并实施运行。

In December of 2011, the RNP APCH flight procedure for Luoyang Northern Suburbs Airport (Luoyang Airport for short) successfully passed the real flight verification test organized by the CAAC Central and Southern Regional Administration. Therefore, Luoyang Airport has become the fifth airport capable of operating PBN navigation in the central and southern areas of mainland China, after

Guangzhou Baiyun Interantional Airport, Shenzhen Baoan International Airport, Sanya Phoenix International Airport, Changsha Huanghua Internatonal Airport and Wuhan Tianhe International Airport.

Luoyang Airport's RNP APCH project was started back in September of 2011. It is the first PBN project that can be used simultaneously by both flight transportation and flight training. This was undertaken by the new navigation technology team of the Civil Aviation Flight University of China.

The PBN is developed from the capabilities of advanced airborne units and their navigation technology and it contains all the phases from takeoff to landing. Compared to ground-based navigation, PBN technology can efficiently improve aviation safety, increase the airspace capacity, reduce construction, maintenance costs of land navigation equipment, and promote energy conservation and emissions reduction.

Liang Shijie, a deputy director general of the CAAC Central and Southern Regional Administration, stated that the application and popularization of the PBN technology is a drastic change in flight operation. It will create a significant impact to flight operation, airborne units, airport construction, the layout of the navigation facilities and the airspace usage in mainland China. It will also efficiently enhance industrial safety, improve flight quality and reduce land units. The PBN technology is one of the core technologies for China to establish the new generation air transportation system and it is an important section to implement the strategy of strengthening the country through civil aviation development. To fully utilize this new technology, in 2009, the Civil Aviation Administration of China issued the PBN Implementation Map of China. At the present time, the CAAC Central and Southern Regional Administration is making and implementing the "Twelfth Five-year Plan" PBN Implementation Program of Central-southern China. It is expected that by the end of 2012, there will be 29 transportation airports where PBN navigation is in use.

西北局向陕西凌云电器集团颁发CTSOA批准书 Northwest Regional Administration of the CAAC Issued the CTSOA to the Shaanxi Lingyun Electronics Group

2011年12月，中国民用航空西北地区管理局向陕西凌云电器有限公司颁发LMMR-2组合接收设备技术标准批准书（CTSOA）。

该设备是集仪表着陆系统（ILS）功能、甚高频全向信标（VOR）功能和指点信标功能于一体的机载设备，主要用于飞机的导航及进场着陆引导。该CTSOA项目是陕西凌云电器有限公司首次涉足民用航空机载零部件的设计制造，填补了西北地区民用航空领域在研发制造多功能设备项目方面的空白。

In December, 2011, the Northwest Regional Administration of the CAAC Issued the Chinese Technical Standards of Approval (CTSOA for short) to the Shaanxi Lingyun Electronics Group Co., Ltd. (Shaanxi Lingyun Electronics Group for short) for the company's LMMR-2 combined receiving equipment.

The LMMR-2 combined receiving equipment is an integrated facility of the instrument landing system (ILS for short), the very-high-frequency omnidirectional range (VOR for short) and marker beacons. It is mainly used for navigating and instructing aircraft during the landing approach. This CTSOA project is the first project regarding the design and manufacture of aviation use parts that Shaanxi Lingyun Electronics Group has been engaged in. Previously there were no self-made multi-functional units used in the field of civil aviation in the northwest region of mainland China.

新疆空管局与吉尔吉斯空管签订管制移交协议 The CAAC Xinjiang ATMB and Kyrgyzstan's Authority for Air Traffic Management Signs Protocol Regarding the ATC Handover

2011年12月，中国民用航空新疆空中交通管理局（简称“新疆空管局”）蒋少华副局长率局代表团一行6人前往吉尔吉斯比什凯克，与吉尔吉斯空管当局签订了《中吉管制移交协议》，并进行了有关管制移交协调及管制移交通信方式等方面的技术交流。

《中吉管制移交协议》对双方管制信息的交互、移交工作程序、双方高度层体系间的转换，做出了详细完备的约定。该协议的签订，确保了双方管制单位航行管制工作的顺利开展，标志着新疆空管局年内与周边国家协议修订这一重要工作的圆满完成。

签署结束后，双方代表团就两国密切关注的问题进行了交流，肯定了以往的合作，讨论了运行中遇到的问题，双方还就进一步交流与合作，实行定期互访形成共识，达到了出访的预期目标。

In December of 2011, a delegation headed by Jiang Shaohua, deputy administrator of the CAAC Xinjiang ATMB, went to Bishkek, the capital of the Kyrgyz Republic, and signed the Protocol Regarding the ATC Handover between the PRC and Kyrgyzstan with the Kyrgyzstan's Authority for Air Traffic Management. The two parties had made communicated regarding the coordination of the ATC handover and the communication means of the ATC handover.

The Protocol Regarding the ATC Handover between the PRC and Kyrgyzstan has made detailed and comprehensive convention on the interaction of the bilateral ATC information, the handover procedures and the changeover of the two parties' altitude systems. The signing of the protocol ensures that the flight control task of the two parties' ATC departments can go ahead as planned and also marks the accomplishment of CAAC Xinjiang ATMB's task of signing protocols with some surrounding countries in 2011.

After signing the protocol, the two delegations spoke regarding the problems that the two countries pare paying close attention to. The two parties affirmed the past cooperation and discussed problems encountered during operation. The two parties also reached a consensus regarding regular exchange of visits.

青藏高原再添民用机场 花土沟机场正式奠基

Another Civil Airport in Qinghai-Tibet Plateau Appears, Foundation of the Huatugang Airport Officially Laid

2011年12月底，位于青海省海西蒙古族藏族自治州芒崖的花土沟民用机场正式奠基。这是青海省在青藏高原上规划新建的3座民用机场之一。

花土沟机场总投资7亿元，按照民航4C等级标准修建，机场跑道全长3600米，航站楼面积达3000平方米，预计2013年底基本建成，2014年6月正式通航。

建成后的花土沟机场初步规划将开通至青海西宁、青海格尔木、青海德令哈、甘肃敦煌和新疆库尔勒等航线，预计至2020年，年输送旅客9万人次以上，年运送货物100吨。

花土沟机场地处青海、新疆交界地带，海拔2945米。它所在的芒崖地区是青海油田原油生产的重要基地，周边拥有丰富的石油、石棉、钾肥等稀缺资源。其中石棉储量居全国之首；天青石储量占全世界储量的66%；石油远景储量11亿吨，是青海油田原油生产的重要基地。然而由于地处边远，受交通条件的限制，制约了当地的经济和社会发展。花土沟机场的建立将为当地资源开发提供航空支持，并将进一步完善青海乃至青藏高原的航空网络格局。

In the end of 2011, the foundation for Huatugang Airport, a civil airport in the Mangya Township was officially laid. It is one of the three airports that are planned to be built in the Qinghai-Tibet Plateau in the Qinghai province.

The Huatugang Airport has an investment of 700 million Yuan and will be constructed in accordance to the 4C level. Its runway will be 3,600 meters long, and the terminal area will be 3,000 square meters. It is expected to be completed by the end of 2013 and be put into operation in June, 2014.

After the Huatugou Airport is established, it is expected that flight routes to Xi'ning, Geermu, Delhi of Qinghai province, Dunhuang of Gansu province and Korla in the Xinjiang Uygur Autonomous Region will be opened as well as other flight routes. It is estimated that by 2020, the passenger throughput of the airport will reach 90 thousand and the cargo and mail throughput will reach 100 tons annually.

Huatugang Airport is located in the border region between Qinghai province and Xingjiang Uygur Autonomous Region, 2,945 meters above sea level. The Mangya region where it is located is an important base for the crude oil production of the Qinghai Oilfield Company of Petro China Co., Ltd. (Qinghai Oilfield for short). Around the Mangya region, there is an abundance of scarce resources, such as crude oil, asbestos, potash fertilizer, etc.. The storage capacity of asbestos ranks the first place nationally, and the storage capacity of Celestine takes up 66% of the global reserves. The long-term estimated reserves of crude oil is 1.1 billion tons, which makes this an important base for the crude oil production of the Qinghai Oilfield. Because it in a remote region, the traffic conditions are limited and economic and social development is also restricted. The setup of Huatugang Airport will provide air transportation for local resource development and will further complete the air transportation network of Qinghai province and Qinghai-Tibet Plateau.

南岳机场建设开工

The Construction of Nanyue Airport Kicks off

2012年1月，衡南县云集镇隆重举行了南岳机场奠基开工仪式，南岳机场建设正式开工。

衡阳南岳机场地点定为衡南县云集镇，是列入全国民用机场布局规划的支线机场之

In January of 2012, the construction of Hengyang Nanyue Airport (Nanyue Airport for short) was started and a foundation stone laying ceremony was held in the Yunji Township, in Hengnan County.

Nanyue Airport is located in Yunji Township, in Hengnan County and is listed as a regional airport in the national civil airport layout. It is planned and constructed in accordance

一，按照国内支线机场规划、建设，飞行区等级4C，设计起降波音737和空中客车A320系列飞机，主要服务范围为湘中南地区。该项目征地2142亩，工程总投资为6.56亿元，将新建一条标准为2600米×45米跑道，一座6000平方米的航站楼，一个3400平方米停机坪，并建设通信导航、助航灯光及相关配套设施。机场建成后，衡阳市水陆空大立体交通格局将初步形成，交通网络覆盖邵阳、永州、郴州和炎陵、攸县、茶陵等地近2700万人口广大区域。

截至目前，衡阳南岳机场飞行区初步设计、施工图设计、传统飞行程序设计、PBN飞行程序设计、飞机性能分析设计和航站楼设计等相关设计已陆续完成。南岳机场建设管理办公室相关负责人表示，机场建设开工后，将于2012年下半年进行场道面施工和航站区建设，2013年上半年进行设备安装、调试和航站楼装修，预计2013年底正式通航。

to the requirements of mainland China's regional airports. The aircraft movement area reference code is 4C, which means that it is capable of accommodating the Boeing 737 and Airbus A320 series aircraft. Its main service area is the central and southern areas of Hunan province. The airport takes up an area of 2,142 mu, with a total investment of 65.6 billion Yuan. In the project, a runway that is 2,600 meters long and 45 meters wide, a terminal of 6,000 square meters and an apron of 3,400 square meters will be constructed. Also, communication and navigation facilities, navigation lighting equipments and other supporting facilities will be built. After the airport is completed, a big three-dimensional transportation layout that incorporates the waterway, the landway and the airway in Hengyang will be preliminarily formed. The transportation network plans to cover an area of 27 million people, including the cities of Shaoyang, Yongzhou, Chenzhou, and counties of Yanling, You and Chaling and other surrounding areas.

Up till to now, the preliminary runway design, the construction design, the traditional flight procedure design, the PBN flight procedure design, aircraft performance analysis design and the terminal design have all been completed progressively. A relevant person in charge from the Nanyue Airport Construction Management Office stated that after the construction had been started, the airport's pavement and the terminal area will be constructed in the second half of 2012. In the first half of 2013, relative facility installations, adjustments and terminal fitment will be conducted. Finally in the end of 2013, the airport will be put into operation.

中国民用航空三亚安全监督管理局揭牌成立

CAAC Sanya Administration of Civil Aviation Security is Unveiled

2011年12月，中国民用航空三亚安全监督管理局（简称“三亚监管局”）举行揭牌仪式。中国民用航空中南地区管理局（简称“民航中南管理局”）、三亚市政府及中国民用航空海南安全监督管理局（简称“海南监管局”）的领导共同为三亚监管局揭牌。

民航中南管理局党委书记王瑞萍在揭牌仪式上强调，三亚监管局要认真履行行业监管职责，一要加强队伍建设，二要树立服务理念，三要依法严格监管，确保民航三亚辖区航空安全万无一失和航空运输市场有序发展。

三亚监管局表示，面对新的使命和责任，将坚持“持续安全”理念，依法行政，认真履行监管责任，及时、高效服务辖区企事业单位，引领三亚民航行业发展，确保辖区安全运行，进一步发挥民航在三亚经济社会发展中的作用。

In December, 2011, the CAAC's Sanya Administration of Civil Aviation Security (Sanya Administration of Civil Aviation Security for short) was unveiled in a ceremony. Leaders from the CAAC Central and Southern Regional Administration, the People's Government of Sanya, and the CAAC Hainan Administration of Civil Aviation Security attended the ceremony and unveiled the Sanya Administration of Civil Aviation Security.

Wang Ruiping, Secretary of the CAAC Central and Southern Regional Administration, stressed during the ceremony that the Sanya Administration of Civil Aviation Security should carefully perform the duties of the aviation industry's regulations. First, they should focus on building a strong and solid staff; second, they should establish the concept of service; and third, they should strictly regulate air transportation activities in accordance to the law so that aviation security is sound and the air transportation market can develop in an orderly manner.

Leaders from the Sanya Administration of Civil Aviation Security stated that, faced with new missions and responsibilities, they will obey the concept of continuous safety, conscientiously perform their duties in accordance to the law, offer timely and effective service to enterprises and public institutions in their prefecture so that the civil aviation industry develop safely, sound and fast, in order for the civil aviation industry to play a more important role in the social and economic development of the Sanya area.

上海终端管制中心工程已获得国家发改委批准 Shanghai Terminal Control Center Approved by the NDRC

国家发改委于2011年11月底批准了上海终端管制中心工程可行性研究报告。

该项目土建工程以2020年为设计目标年，空管系统和设备按满足2015年需求配置。主要建设内容：在上海浦东国际机场（简称“浦东机场”）新建管制中心大楼5000平方米，扩容航管自动化主系统1套，新建应急自动化处理系统和GPS时钟同步系统等，新建宁波二次雷达和虹桥、浦东机场2个VHF遥控台，配套建设通信、传输、供电、避雷等设施。项目总投资43182万元。

In the end of November, 2011, the National Development and Reform Commission approved the feasibility reports regarding the Shanghai Terminal Control Center project.

This civil engineering project takes the year of 2020 as its target year. The ATC system and related equipments are deployed according to the estimated requirements of the year 2015. The main items to be constructed are as follows. A control center building of 5,000 square meters will be constructed at Shanghai Pudong International Airport. A set of automatic air traffic control systems will be expanded. An automatic emergency response system and a GPS clock synchronizing system will be built. A secondary radar system will be built in Ningbo. Two VHF remote stands will be set up respectively in Shanghai Hongqiao International Airport and Shanghai Pudong International. The supporting facilities such as the communications, transmission, power supply and lighting prevention and so on will also be established. The total investment is 431.82 million yuan.

铜仁凤凰机场授牌仪式暨改扩建工程正式开工 Tongren Fenghuang Airport Reconstruction Project Kicks off



In December, 2011, a ceremony was held at Tongren Fenghuang Airport in honor of the launch of the airport's reconstruction project. At the ceremony, Liao Guoxun, secretary of the Tongren Municipal Committee of the CPC made a speech. He Zezhong, secretary of the Xiangxi Tujia and Miao Autonomous Prefectural Committee of the CPC announced the start of the reconstruction and expansion project. Ye Hongzhan, deputy secretary of the Xiangxi Tujia and Miao Autonomous Prefectural Committee of the CPC and director-general of the People's Government of Xiangxi Tujia and Miao Autonomous Prefecture, Wang Yong, director-general of the CAAC's Guizhou Administration of Civil Aviation Security, and Chen Jianying, secretary of the Guizhou Airports Group, all made important speeches. Wang Yong was the one to issue the name board to Tongren Fenghuang Airport. Xia Qingfeng, deputy secretary of the Tongren Municipal Committee of the CPC presided over the ceremony.

2011年12月，铜仁凤凰机场授牌仪式暨改扩建工程开工典礼隆重举行。铜仁地委书记廖国勋致辞；湘西自治州州委书记何泽中宣布开工；湘西自治州州委副书记、州人民政府州长叶红专，中国民用航空贵州监督管理局（简称“民航贵州监管局”）

In August, 2009, the Tongren Administrative Office, the People's Government of Xiangxi Tujia and Miao Autonomous Prefecture and Guizhou Airports Group held a conference to discuss the reconstruction and expansion of Tongren Fenghuang Airport. In September of the same year, the Guizhou Airport Group formally started the advanced-phase preparations of the reconstruction and expansion project of

the Tongren Fenghuang Airport. The main items of the reconstruction and expansion project are as follows: to extend the current runway of the airport to the south (the direction of Fenghuang, Hu'nan) from 2000 meters to 2600 meters long; to add a pavement layer of asphalt concrete of 15 centimeters in thickness to the current runway; to build an apron for two position gates; to build production auxiliary facilities, such as ATC system, navigation lighting system, fire fighting system and security system and so on. The total investment is 427 million Yuan. The project will take up an area of 360 mu and it is expected to be completed in two years. After the project is accomplished, the takeoff and landing of the Boeing 737-800 aircraft will be secured. By then, the airport will play an important part in Xiangxi and Tongren's exchanges with the outside world, promotion of exchange and cooperation with the outside world, and boost the economic and social development of the area.

局长王勇、贵州机场集团党委书记陈建英分别作了重要讲话。民航贵州监管局局长王勇等向铜仁凤凰机场授牌。仪式由铜仁地委副书记夏庆丰主持。

2009年8月，铜仁行署、湘西州政府及贵州机场集团举行会议，专题研究铜仁凤凰机场改扩建工程。同年9月，贵州机场集团正式启动改扩建工程前期工作。铜仁凤凰机场本期改扩建主要建设内容包括：将现跑道向北（湖南凤凰方向）延长600米，长度由2000米增加至2600米；对现跑道加铺15厘米沥青混凝土面层；扩建2个机位的站坪；配套建设空管、供油、助航灯光、消防救援、安全及其他生产生活辅助设施。项目总投资4.27亿元，占地规模360亩，预计两年建成。项目建成后，可确保波音737-800型飞机安全起降，对提升湘西和铜仁对外开放水平，促进对外交流合作，推进经济社会又好又快发展具有重要意义。

the Tongren Fenghuang Airport. The main items of the reconstruction and expansion project are as follows: to extend the current runway of the airport to the south (the direction of Fenghuang, Hu'nan) from 2000 meters to 2600 meters long; to add a pavement layer of asphalt concrete of 15 centimeters in thickness to the current runway; to build an apron for two position gates; to build production auxiliary facilities, such as ATC system, navigation lighting system, fire fighting system and security system and so on. The total investment is 427 million Yuan. The project will take up an area of 360 mu and it is expected to be completed in two years. After the project is accomplished, the takeoff and landing of the Boeing 737-800 aircraft will be secured. By then, the airport will play an important part in Xiangxi and Tongren's exchanges with the outside world, promotion of exchange and cooperation with the outside world, and boost the economic and social development of the area.

GAMECO取得EMB-190机型CCAR-147培训许可 GAMECO Achieves the CCAR-147 Training License Regarding the EMB-19 Aircraft

2012年1月，广州飞机维修工程有限公司（简称“GAMECO”）培训中心顺利通过CAAC的审核，取得EMB-190（CF34）飞机CCAR-147 I类机型培训许可。

EMB-190由巴西航空工业公司制造，随着2011年8月中国南方航空股份有限公司（简称“南航”）首架EMB-190交付使用，国内共有南航、海航和深航三家航空公司运营此类机型。2011年11月，根据南航的战略部署，自今年4月起，陆续交付的7架EMB-190飞机将由新疆分公司转为广州总部执管。为此，GAMECO各部门即刻动员，全力开展EMB-190飞机维修能力的建立，以确保南航运营计划顺利实施。

时间紧、任务重，GAMECO培训中心派遣两位教学主任与资深教员全力开始建立EMB-190 CCAR-147 I类机型培训资格。经过1个多月的奋战，培训大纲、培训手册、实操项目单、题库等按计划逐步完成，并于今年1月上旬顺利通过民航广东安全监管局的审核。

In January of 2012, the Training Center at Guangzhou Aircraft Maintenance Engineering Co., Ltd. (GAMECO) passed the examination and verification tests of the Civil Aviation Administration of China (CAAC for short) and received the CCAR-147 Training License in regards to the EMB-190 Aircraft (the CF4).

The EMB-190 is an aircraft produced by Embraer S.A.. In August, 2011, the first EMB-190 was delivered to China Southern Airlines Company Limited (China Southern Airlines for short). Now there are three airlines in China operating this aircraft. The airlines currently operating the EMB-190 in mainland China are China Southern Airlines Company Limited, Hainan Airlines Co., Ltd. and Shenzhen Airlines Co., Ltd.. In November, 2011, China Southern Airlines made strategic plans that starting from April of 2012; the 7 successively delivered EMB-190 aircraft will be handed over by the China Southern Airlines Xinjiang Company to China Southern Airlines' Headquarters in Guangzhou. Therefore, all departments of GAMECO took actions ASAP to set up capabilities of EMB-190 maintenance so that the China Southern Airlines' operation plan could be successfully accomplished.

This was a very difficult task to accomplish in such a short period of time. The Training Center of GAMECO designated two teaching directors and senior instructors to establish the CCAR-147 I training ability for the EMB-190 aircraft. After over a month of hard work, the Training Syllabus, the Training Manual and the test database had all been completed according to the plan. In January of 2012, the Training Center of GAMECO passed the examination and verification tests conducted by the CAAC's Guangdong Administration of Civil Aviation Security.

福建沙县机场建设工程飞行程序通过评审 Flight Procedures for the Construction of Sanming Shaxian Airport Passes Appraisal & Certification

2012年1月，中国民用航空华东地区管理局（简称“华东局”）组织中国民用航空福建安全监管局、华东空管局、三明机场建设公司等有关单位，在三明沙县召开了三明沙县机场（简称“沙县机场”）建设工程飞行程序初步设计评审会。

会议审查通过了上海华东民航飞行程序设计研究院编制的《三明沙县机场建设工程飞行程序初步设计报告》，为该机场建设工程后续的导航设备台址的申报等后续工作打下了坚实的基础。

In January of 2012, the CAAC East China Regional Administration organized the CAAC Fujian Administration of Civil Aviation Security, East China ATMB, CAAC and Sanming Airport Construction Co., Ltd. to hold a conference to conduct the preliminary design review for the construction project of Sanming Shaxian Airport in Sanming City, in Shaxian County.

During the conference, the Preliminary Design Report for the Flight Procedures portion of the Construction Project of Sanming Shaxian Airport, drawn up by the Shanghai East China Civil Aviation Flight Procedure Design Institute, had passed the examination. This has laid a solid foundation for follow-up tasks such as the report of the site of the navigation facilities and other construction items of the airport.

新疆管理局与香港机场保安有限公司签署协议 The CAAC's Xinjiang Regional Administration Signs an Agreement with Aviation Security Company Limited

2011年12月，中国民用航空新疆地区管理局与香港机场保安有限公司签署了《航空安保合作互助框架协议书》，并聘请香港机场保安有限公司行政总裁周富祥为新疆民航安保特聘专家。此次合作将加深香港、新疆两地在空防安全领域的交流合作，提升新疆空防安保工作质量。

根据互助框架协议书，民航新疆管理局与香港机场保安有限公司将按照平等互利、优势互补的原则，按照新疆民航和香港机场“十二五”期间航空安保工作的总体规划，充分发挥双方航空安保的优势和特色，形成合作互动、优势互补、互利共赢的工作格局。

香港机场保安有限公司航空安保管理理念先进，经验丰富，检查制度严谨，广受国内、国际航空安保领域好评，曾荣获全球最杰出航空保安机构奖。近年来，民航新疆管理局与香港机场保安有限公司保持着长期密切合作，培养了许多优秀的航空保安管理人才，学习和借鉴了诸多先进的航空安保管理理念和经验，辖区整体航空安保管理水平明显提高。

In December, 2011, the CAAC Xinjiang Regional Administration and Aviation Security Company Limited, a Hong Kong based company, signed the Framework Agreement for the Mutual Collaboration regarding Aviation Security. On the same day as the agreement signing, the CAAC Xinjiang Regional Administration hired Mr. Sidney Chau, Executive Director of the Aviation Security Co., Ltd. as a specially invited consultant. This cooperation will deepen communication in aviation security between Hong Kong and Xinjiang, as well as promote the quality of aviation security in the Xinjiang region.

According to the Agreement, the CAAC Xinjiang Regional Administration and Aviation Security Company Limited will obey the principals of equality & mutual benefit. The two parties will utilize their advantages to create a mutually beneficial situation.

In the area of aviation safety, Aviation Security Company Limited brings advanced ideas, years of experience and was awarded the Best Individual Award for Airport Security. In recent years, the CAAC Xinjiang Regional Administration has maintained long-term and close cooperation with Aviation Security Company Limited and has trained excellent aviation safety managers, and learned and utilized many advanced aviation safety management ideas. The aviation safety management capability in the Xinjiang region has been greatly improved.

巴彦淖尔机场通航 Bayannur Airport Put into Operation

2011年12月一架从北京首都机场飞来的中国国际航空股份有限公司（简称“国航”）波音737客机安全平稳地降落在跑道上，标志着内蒙古巴彦淖尔民用机场正式通航，这是内蒙古自治区正式运营的第13个民用机场。至此，“黄河明珠”巴彦淖尔170多万各族人民期盼已久的“飞天梦”得以实现。

首飞当天，巴彦淖尔机场首航暨机场使用许可证颁发仪式在这里隆重举行。巴彦淖尔市委书记何永林，市委副书记、代市长段志强等领导到机场迎接前来参加仪式的领导和来宾。民航华北局领导向段志强代市长颁发了机场使用许可证。

2012年，巴彦淖尔机场将逐步开通至呼和浩特、西安航线，通过北京、呼和浩特、西安三个中转枢纽实现巴彦淖尔地区的通达性。

In December of 2011, a Boeing 737 from Air China Limited (Air China for short) departing from Beijing Capital International Airport landed steadily at the runway of Bayannur Airport, which signifies that Bayannur Airport has officially been put into use. Bayannur Airport is the thirteenth civil airport in the Inner Mongolia Autonomous Region. Now, the dream of flight for 1.7 million people of all nationalities in Bayannur, the pearl of the Yellow River, has finally come true.

On the day of the maiden flight, Bayannur Airport's premier flight & Civil Airport Operating License issuing ceremony was held at the airport. He Yonglin, the mayor of Bayannur, Duan Zhiqiang, Acting Mayor and Deputy Secretary of the Bayannur Municipal Committee of the CPC and other related leaders went to the airport to welcome the leaders and guests at the ceremony. A leader from the CAAC North China Regional Administration issued the Civil Airport Operating License to Duan Zhiqiang.

In the year 2012, Bayannur Airport will open flight routes to Hohhot and Xi'an and open accessibility of the Bayannur area by connecting to the hubs of Beijing, Hohhot and Xi'an.

大连航空获得民航局颁发运行合格证 CAAC Issues Air Carrier Certificate to Dalian Airlines

2011年12月上旬，中国民用航空东北地区管理局（简称“东北管理局”）在大连举行大连航空运行合格证审定颁证仪式。东北管理局副局长即大连航空运行审定领导小组副组长刘军向大连航空总经理刘剑平颁发了公共航空承运人运行合格证和运行规范。标志着大连航空通过了民航局的运行合格证审定，运行安全管理得到了局方的认可，符合了民航规章的标准。

大连航空将通过三到五年的努力，逐步形成以大连为区域枢纽，连接国内干线、支线，形成东北亚区域性的国内国际航空运输网络。以安全为基础，以市场为导向，以效益为中心，以落实区域发展战略为主线，与时俱进，积极创新，内强素质，外树品牌，开创大连航空可持续发展的新局面。

In early December of 2011, the CAAC Northeast Regional Administration held a ceremony in Dalian to issue the Air Carrier Certificate to Dalian Airlines Co., Ltd. (Dalian Airlines for short). At the ceremony, Liu Jun, a deputy director general of the CAAC Northeast Regional Administration, as well as the deputy group leader of the Dalian Airlines operation certification team, issued the Air Carrier Certificate and the CCAR-121/135 OPERATIONS SPECIFICATIONS to Liu Jianping, the general manager of Dalian Airlines. This signifies that Dalian Airlines has passed the operation certification of the Civil Aviation Administration of China (CAAC for short), and that the operation safety management has received the recognition of the authority and Dalian Airlines has complied with the standards of civil aviation rules and regulations.

In three to five years, Dalian Airlines will establish a northeast Asia regional air transportation network, which will make Dalian the hub, and will connect to national regional flight routes and trunk flight routes. Dalian Airlines will focus on safety and the implementation of the regional development strategy so that it may keep up with the times, actively seek innovations and improve its own inner quality to create a positive image with the goal to create new prospects of sustainable development.

中国商飞北京民用飞机技术研究中心正式揭牌 COMAC Beijing Aeronautical Science & Technology Research Institute is Unveiled



2011年12月中旬，中国商飞北京民用飞机技术研究中心（简称“北研中心”）揭牌仪式暨101号科研办公楼落成典礼在北京市昌平区未来科技城举行，标志着中国商用飞机有限责任公司（简称“中国商飞”）在“两个建成”的奋进征程中又迈出了坚实的一步。

中国商飞公司总经理金壮龙，中编办四司副司长韩肃，科技部重大项目办主任许倬、高新技术司司长赵玉海，工信部装备司副司长李巍，中国商飞公司副总经理史坚忠，北京市委组织部副部长闫成等出席揭牌仪式。仪式由中国商飞公司总经理助理兼发展规划部部长马恒儒主持。

在仪式上，金壮龙、韩肃、闫成与中国商飞公司董事会秘书兼北研中心主任秦福光共同为北研中心揭牌。金壮龙等领导为北研中心101号科研办公楼的落成剪彩。

史坚忠在仪式上表示，作为中国商飞公司海外高层次人才创新创业基地和

The COMAC Beijing Aeronautical Science & Technology Research Institute was unveiled in the middle of December 2011. The COMAC Beijing Aeronautical Science & Technology Research Institute and the #101 scientific research office building was inaugurated at the Future Science and Technology City in the Changping District of Beijing. This means that the Commercial Aircraft Corporation of China, Ltd. (COMAC for short) has taken a solid step forward in the process of establishing COMAC as a World-class Aviation Corporation.

Jin Zhuanglong, general manager of COMAC, Han Su, deputy director of the Fourth Department of the State Commission Office for Public Sector Reform, Xu Liang, director of Ministry of Science and Technology of the Major Project Office of the Ministry of Science and Technology of the People's Republic of China, Zhao Yuhai, director of the High-tech Division of the Ministry of Science and Technology of the People's Republic of China, Li Wei, deputy director of the Equipment Industry Division of Ministry of Industry and Information Technology of the People's Republic of China, Shi Jianzhong, deputy general manager of COMAC and Yan Cheng, deputy director of the Organization Department of the Beijing Committee of the Communist Party of China all attended the ceremony hosted by Ma Hengru, the director of the Planning and Development Department of COMAC and assistant to the general manager of COMAC.

At the ceremony, Jin Zhuanglong, Han Su and Yan Cheng, together with Qin Fuguang, director-general of the COMAC Beijing Aeronautical Science & Technology Research Institute and secretary of the Board of COMAC unveiled the COMAC Beijing Aeronautical Science & Technology Research Institute. Then Jin Zhuanglong and other leaders cut the ribbon to signify the completion of the #101 scientific research office building.

引领中国民机技术发展的重要平台，北研中心的正式揭牌将提升民机型号总体论证、关键技术攻关、技术基础研究、前沿技术探索等方面的研究能力，这是中国商飞公司发展中的一个新的重要的里程碑。

At the ceremony, Shi Jianzhong said that the new research institute would act as an important innovation base for COMAC's senior overseas talents and an important center for the development of China's civil aircraft technology. This will promote the research capability of the overall study of civil aircraft type, the technological fundamental study and cutting-edge technology exploration. This is also a new important landmark in the history of the COMAC.

C919客机签署机载系统供应合同 Contracts Regarding Airborne Systems for China's C919 Signed

2月，中国商用飞机有限责任公司（简称“中国商飞公司”）在2012新加坡航展上就C919大型客机项目与德国利勃海尔公司和中航飞机起落架有限责任公司签署起落架系统合同、与利勃海尔公司签署空气管理系统合同，与美国穆格公司签署高升力系统合同。这表明C919大型客机项目工程发展阶段工作正全面展开。



根据合同，利勃海尔公司成为C919飞机起落架系统和空气管理系统的供应商，中航飞机起落架有限责任公司作为利勃海尔公司中方合作伙伴参与C919飞机起落架系统的研制；穆格公司成为C919飞机高升力系统的供应商，中航工业庆安集团有限公司作为穆格公司中方合作伙伴参与C919飞机高升力系统的研制。

正式签署机载系统采购合同、全面开展飞机机载系统的详细设计和制造是C919大型客机项目工程发展阶段的重要任务之一。目前，项目已全面进入工程发展阶段，飞机装机零件已在成都等地开工制造。飞机机载合同的相继签署意味着为期两年多的联合定义工作基本完成，飞机机载系统的详细设计和制造工作陆续展开，为飞机2014年首飞提供坚实支撑和保证。

In February, the Commercial Aircraft Corporation of China, Ltd. (COMAC for short) signed several contracts regarding its C919 large aircraft. COMAC signed a contract regarding the landing gear system with the Germany-based Liebherr Group and the AVIC Landing Gear Advanced Manufacturing Co., Ltd. The COMAC also signed a contract regarding the air management system with the Liebherr Group. The COMAC also signed a contract regarding the high-lift system with the U.S.-based Moog INC.. The signing of these contracts signifies

that the project development phase of the C919 large aircraft project has started.

According to the contracts signed, the Liebherr Group will be the supplier of the landing gear system and the air management system for the C919 aircraft and AVIC Landing Gear Advanced Manufacturing Co., Ltd. will act as the Chinese partner of the Liebherr Group to participate in the development of the landing gear system for the C919 aircraft. Moog INC. is the supplier of the high-lift system for the C919 with AVIC Qingan Group Co., Ltd. as its Chinese partner to participate in the development of the high-lift system for the C919 aircraft.

This is one of the most important steps of the development phase of the C919 large aircraft project to formally sign the contracts regarding the onboard systems for the C919 aircraft so that the design and manufacturing of the onboard systems can begin. Currently, the C919 aircraft project has entered into the project development phase and related parts for the C919 aircraft are being manufactured in Chengdu and other parts of China. The signing of the onboard system agreements signifies that the union definition task that has lasted for over two years is now almost finished and the detailed design and manufacturing of the onboard system has begun, which supports and guarantees the C919's primary flight date in 2014.

南航A380客机完成西安咸阳机场验证试飞 Airbus 380 Accomplished the Verification Flight of Xi'an Xianyang International Airport



2011年12月，南航A380客机成功试飞西安咸阳国际机场。

西安咸阳国际机场二期扩建工程已于近期完工，达到起降A380客机的运行标准。西安机场委托南航使用A380客机对机场飞行区工程进行验证试飞。

在试飞过程中，民航西北管理局对西安机场二期扩建工程进行了飞行程序、机场的导航设施、灯光系统、机场的标志标示、全新的跑道道面等情况的验证。经过试飞，证明了西安机场可以保障A380飞机，已经达到4F类机场的要求。

In December, 2011, an A380 aircraft from China Southern Airlines Company Limited (China Southern Airlines) successfully accomplished the flight test for Xi'an Xianyang International Airport.

The second phase expansion project of Xi'an Xianyang International Airport has been completed recently and now it meets the operational standards for the takeoff and landing of the A380 aircraft. Xi'an Xianyang International entrusted China Southern Airlines to conduct the verification flight test using the A380 aircraft.

In the process of flight testing, the Northwest Regional Administration of the CAAC carried out the flight procedures, the navigation system, the lighting system, the marks, symbols and the path pavement situation of the brand new runway. After the flight test, it was determined that Xi'an Xianyang International Airport can properly handle the A380 aircraft and has met the requirements of a 4F airport.

绵阳机场新增登机桥项目顺利通过民航业验收 The Aerobridge Project at Mianyang Airport Passes Industrial Acceptance Inspection

2月，民航西南地区管理局和民航西南地区专业工程质量监督站组织的绵阳机场目视助航系统维修改造工程和新增两座登机桥项目通过了民航行业验收并交付使用。

绵阳机场目视助航系统维修改造工程包含灾后重建和二、三类安全专项整

In February, the two newly added aerobridges, along with the maintenance and reconstruction of the visual navigation system of Mianyang Nanjiao Airport (Mianyang Airport for short) had passed the acceptance inspection organized by the CAAC Southwest Regional Administration and the CAAC Southwest Regional Professional Engineering Quality Supervision Station.

With an investment of 7.97 million Yuan, the maintenance and re-construction of the visual navigation system at Mianyang Airport included the post-disaster re-construction and the Class and Class specific safety improvements, which were given a written request to launch by the

治两部分工作内容，由民航西南地区管理局批复立项，概算投资797万元；新增两座登机桥项目是根据绵阳机场的发展需要，由绵阳市发改委批准立项，概算投资420万元。

项目的建成完善，使绵阳机场安全硬件基础更加牢固，服务环境得到进一步提升，服务流程更加顺畅，并成为西南地区首家按照民航新标准完成停机坪标志改造的机场。

CAAC Southwest Regional Administration. It is part of the development demands that Mianyang Airport increases two more aerobridges. With an investment of 4.2 million Yuan, the aerobridge project was approved to launch.

The establishment and completion and of the two projects will make the security hardware in Mianyang Airport more solid, improve the service environment and make the service flow more smoothly. Mianyang Airport is also southwest China's first airport to finish the apron mark reconstruction in accordance to civil aviation's new standards.

银川机场三期扩建工程获批 The Third Phase Expansion Project of the Yinchuan Airport has Received Approval

国家发改委于2011年12月初批准了宁夏银川河东机场（简称“银川机场”）三期扩建工程项目建议书。

本期工程按满足2020年旅客吞吐量1000万人次、货邮吞吐量10万吨目标设计。主要建设内容：将现跑道和平行滑行道向南延至3600米，新建7.5万平方米航站楼、10.37万平方米站坪和4500平方米航管楼，配套建设空管、供油等相关生产设施。项目总投资26.27亿元。

In early December of 2011, the National Development and Reform Committee approved the project proposal for the third phase expansion project of Yinchuan Hedong Airport (Yinchuan Airport for short).

This expansion project takes 2020 as its target year for completion. It is designed that by 2020, the airport can meet an annual passenger throughput of 10 million people and an annual cargo and mail throughput of 100 thousand tons. The main construction items are as follows. The current runway, along with its taxiway, will be extended to 3,600 meters to the south. A terminal of 75 thousand square meters, a parking apron of 103.7 square meters, an ATM building of 4,500 square meters, as well as ATC and fuel supply related facilities will be constructed. The total investment is 2.627 billion Yuan.

张家口机场改扩建工程获国家发改委批准 Re-construction & Expansion Project of Zhangjiakou Airport Gets Approved by the NDRC

国家发改委于2011年12月批准了河北省张家口机场改扩建工程可行性研究报告。

本期工程按满足2020年旅客吞吐量20万人次、货邮吞吐量900吨目标设计。主要建设内容：飞行区等级指标为4C，对现有跑道进行盖被，新建长268米、宽18米的垂直联络道，新建4500平方米航站楼，并建设通信、气象、消防救援等相关生产设施。项目总投资3.8432亿元。

In December, 2011, the National Development and Reform Commission (NDRC for short) approved the feasibility reports of the re-construction & expansion project.

This project is designed so that by 2020, the annual passenger volume will be 200 thousand and the cargo and mail volume will be 900 tons. The main construction contents are as follows: to upgrade the category of the flight area to the grade 4C; to pave coverlets on the runway; to build a new straight by-pass taxiway that is 268 meters long and 18 meters wide; to construct a terminal of 4,500 square meters and to establish necessary productive facilities, such as the communications, meteorology, fire-fighting, rescue and so on. The total investment is 384.32 million Yuan.

库车机场迁建工程航站楼及绿化工程通过验收

The Terminal and Landscape Engineering Section of the Reconstruction Project of the KUQA Airport Passes Acceptance Inspection

2月，库车机场迁建工程航站楼及绿化工程顺利通过了行业验收工作，标志着库车机场迁建工程已具备基本的运行保障功能。

此次验收工作是由民航新疆管理局组织自治区发改委、库车县政府、新疆机场集团公司等单位代表，依据“民航总局第129号令”要求，对库车机场迁建工程航站楼及绿化工程进行了行业验收工作。验收工作小组通过现场检查、抽测、设备运转、资料查阅，根据各专业技术标准及规范要求，按照设计文件内容进行了逐项检查、验收。验收委员会在听取各专业组验收情况汇报后认为库车机场迁建工程基本符合行业验收要求。

库车机场迁建工程是自治区、民航局“十一五”期间重点机场建设项目之一，于09年8月正式开工；11年7月，除航站楼及航站区绿化工程以外的其余工程通过行业验收工作，11年12月，航站楼及航站区绿化工程相继通过档案专项验收、消防验收、五方认证、竣工验收。库车机场迁建工程飞行等级达到4C级，机场消防保障等级为6级，站坪3C2B，并配有配套的设备设施，可降落737-800（含）以下机型，年运输旅客24万人次，货运年吞吐量270吨。

In February, the terminal and landscape engineering sections of the reconstruction project successfully passed the industrial acceptance inspection, which signifies that the reconstruction project of the KUQA Airport is capable of supporting operation.

The acceptance inspection was organized by the CAAC Xinjiang Regional Administration in accordance to Order No. 129 of the Civil Aviation Administration of China. The inspection was attended by representatives from the Xinjiang Uygur Autonomous Region Development and Reform Commission, the People's Government of KUQA County and the Xinjiang Airport Group Co., Ltd.. The items that had received the acceptance inspection were the terminal and landscape engineering sections of the reconstruction project. The main methods utilized were an on-site inspection, sample tests of the operation of equipment and data checking. According to the requirements of related professional & technical standards and specifications, the inspection teams inspected each side of the newly completed project. After listening to the reports of each professional team, the acceptance inspection commission believed the reconstruction project of the KUQA Airport was in accordance with industrial acceptance requirements.

This re-construction project is one of the many important airport projects planned in the Eleventh Five-year Plan by the Xinjiang Uygur Autonomous Region and the Civil Aviation Administration of China. This project was started back in August of 2009. In July, 2011, all projects except for the terminal and landscape engineering sections of the reconstruction project passed the industrial acceptance inspection. In December, 2011, the terminal and landscape engineering sections passed the archive acceptance inspection, fire control acceptance inspection, five-party certification and final acceptance inspection of construction. The flight area grade has reach 4C, the fire control and security of the airport has reached grade 6 and the level of the apron has reached 3C2B. There are now also supporting facilities. Now the airport can accommodate up to the Boeing 737-800 aircraft and can transport 240 thousand passengers and 270 tons cargo and mail annually.

美国达美航空与东航、南航代码签署共享协议

Delta Airlines Signs Code Sharing Agreements with China Eastern Airlines and China Southern Airlines

美国达美航空公司2月宣布拓展与中国最大的两家航空公司——中国东方

In February, the U.S.-based Delta Airlines Inc. (Delta Airlines for short) announced its expanding of its code sharing agreements with China Eastern Airlines Corporation Limited

航空股份有限公司（简称“东航”）和中国南方航空股份有限公司（简称“南航”）的代码共享协议。

经中国民用航空局（简称“民航局”）批准，东航和南航可将其航班号及代码添加至由达美航空运营的往返于西雅图和北京的航班。此外，达美航空往返于底特律和北京的航班将添加东航的代码和航班号。

达美航空公司与东航及南航之间的代码共享合作早前已经将东航的代码添加至达美航空运营的底特律至上海航线。同时，达美航空的代码也已添加至东航运营的纽约至上海、洛杉矶至上海，以及南航的洛杉矶至广州航线。

除此之外，在增加代码共享航班的计划实行之后，达美航空与东航之间的代码共享服务将覆盖中美共34个城市；同时，与南航之间的代码共享将覆盖中美18个城市。

(China Eastern Airlines for short) and China Southern Airlines Company Limited (China Southern Airlines).

Approved by the Civil Aviation Administration of China (CAAC), the flight numbers and flight codes of China Eastern Airlines and China Southern Airlines can now be added to the Delta Airlines' Seattle - Beijing flights. Furthermore, the flight numbers and flight codes of China Eastern Airlines can be added to the Delta Air Lines' Detroit - Beijing flights.

During the previous code sharing cooperation between Delta Airlines and China Eastern Airlines, the flight codes of China Eastern Airlines had been added to the Delta Airlines' Detroit - Shanghai flights. Meanwhile, Delta Airlines' flight codes had been added to the China Eastern Airlines' New York - Shanghai flights and Los Angeles - Shanghai flights. Also, Delta Airlines flight codes had also been added to the China Southern Airlines' Los Angeles - Guangzhou flights.

In addition to the current flight code sharing program, the flight code sharing services of Delta Airlines and China Eastern Airlines will cover 34 cities in China and the U.S.. The flight code sharing services of Delta Airlines and China Southern Airlines will cover 18 cities in China and the U.S..

中国“大飞机”C919导航系统由霍尼韦尔提供

Navigation System of China's C919 Aircraft is supplied by Honeywell

在中美经济与贸易合作论坛及签约仪式举行期间，霍尼韦尔与中国商用飞机有限责任公司（简称“中国商飞”）签订主合同，为C919窄体飞机提供搭载惯性基准系统和大气数据系统的航电产品。此前，中国商飞已选择霍尼韦尔辅助动力装置、电传飞行控制系统以及机轮与刹车部件装配全新的C919客机。

惯性参考系统（IRS）为飞机电传飞控系统提供位置数据，使飞机在飞行期间实现精密进近与精确定位。大气数据系统（ADS）测算关键的大气数据参数，并向飞机驾驶舱显示屏、飞行控制与飞行管理系统提供信息。

根据协议条款，霍尼韦尔将为LASEREF VI提供惯性基准系统（IRS）和一套载入霍尼韦尔PG1152大气数据模块的综合大气数据系统。



At the U.S. - China Economic Cooperation Forum during the signing ceremony, Honeywell International Inc. (Honeywell for short) and the Commercial Aircraft Corporation of China, Ltd. (COMAC for short) signed the main contract to supply the avionic products, i.e. the onboard Air Data System and the onboard Internal Reference System Master for China's C919 aircraft. Previously, COMAC has chosen Honeywell's auxiliary power unit (APU), the fly-by-wire flight control system, wheels and brakes in the assembly its brand new C919 aircraft.

The Internal Reference System offers the location data for the aircraft's fly-by-wire flight control system so that the aircraft can realize its exact approach and precise positioning. The Air Data System calculates critical air data parameters and provides these materials to the cockpit display, the flight control system and flight management system of the aircraft.

According to the articles in the agreement, Honeywell will offer the Internal Reference System and the integrated air data system that the Honeywell PG1152 has been using in the LASEREF VI.

三亚凤凰机场新贵宾航站楼落成

The New VIP Terminal at Sanya Airport Was Completed

今年1月初，三亚凤凰国际机场新贵宾航站楼已正式落成，是目前国内单体面积最大、厅室数目最多、配套设施较为完善的贵宾航站楼。

三亚凤凰机场新贵宾航站楼2011年7月正式动工，项目主体工程同年9月28日顺利封顶，建筑面积约1.1万平方米，楼内设有接待大厅、贵宾休息室、多功能会议中心、新闻发布中心、商业餐饮服务区、办公及服务用房等配套设施，集商业、娱乐、餐饮、商务、服务设施为一体。

In early January of 2012, the new VIP terminal at Sanya Phoenix International Airport (Sanya Airport for short) was completed. This VIP terminal is the largest one in mainland China, with the most rooms and proper supporting facilities.

The construction of the new VIP terminal at Sanya Airport was started back in July of 2011, and on the 28th of September of the same year, the main project was completed. The total construction area is 11 thousand square meters. In the building, there is a reception lobby, VIP lounges, multi-functional conference centers, news centers, a commercial catering service area, buildings for offices and service businesses and other supporting facilities. It is a blend of facilities suitable for commerce, entertainment, catering, business and service.

乌鲁木齐机场总体规划获得民航局和政府批复

Master Program of Urumqi International Airport and Fort Wo Receives Written Reply from the CAAC and the Government of Xinjiang

2月，中国民用航空局（简称“民航局”）与自治区人民政府以《关于乌鲁木齐地窝堡国际机场总体规划的批复》正式批复乌鲁木齐国际机场总体规划（2011年版）。

乌鲁木齐地窝堡国际机场（简称“乌鲁木齐机场”）是全国民用机场布局规划确定的国内干线机场、国家西部门户枢纽机场。此次规划以2020年为近期规划目标年，2040年为远期目标年。近期，按2020年满足旅客吞吐量3000万人次、货邮吞吐量42万吨、年飞机起降25.1万架次进行规划。预测远期2040年旅客吞吐量为6000万人次，规划修编综合考虑了乌鲁木齐机场建设和城市发展的衔接及协调，远期规划为两条远距平行跑道，按满足旅客吞吐量4800万人次、货邮吞吐量100万吨、年飞机起降36.2万架次进行规划控制。远期乌鲁木齐机场跑道容量饱和后增长的乌鲁木齐地区航空业务量需求，由新建乌鲁木齐第二机场承担。

总体规划是乌鲁木齐机场建设发展的纲领性文件，明确了机场各发展阶段建设任务，此次总体规划的批复，为“十二五”期间，将乌鲁木齐机场打造成为我国西部门户枢纽机场奠定坚实基础。

In February, the Civil Aviation Administration of China (CAAC) and the Government of the Xinjiang Uygur Autonomous Region of China (Government of Xinjiang for short) approved the master program of the Urumqi International Airport and Fort Wo (edition 2011) by jointly issuing the Written Reply to the Master Program of the Urumqi International Airport and Fort Wo (Urumqi Airport for short).

In the National Civil Airport Layout, Urumqi Airport is a domestic trunk airport and a portal hub airport in the western part of China. The master program aims for 2020 as the planned objective year and the year of 2040 as the long-term objective year. It is planned that by 2020, the airport will accommodate the annual passenger throughput of 30 million people, an annual cargo and mail volume of 420 thousand tons and the annual cargo and mail volume of 251 thousand sorties. It is expected that by 2040, the airport will accommodate an annual passenger throughput of 60 million people. The program takes the connection and coordination of the city development and the airports construction into full consideration. In the long-term plan, it is planned that two distant parallel runways will be constructed and the airport will accommodate a passenger throughput of 48 million, cargo and mail throughput volume of 1 million tons and annual flight sorties of 362 thousand. In the long-term plan, the air traffic volume that exceeds the capacity of the runway of the Urumqi Airport will be accommodated by the second airport in Urumqi.

The master program is a programmatic document for the development of the Urumqi Airport and it specifies all of the construction tasks in each development phase. The written reply lays a solid foundation for establishing Urumqi Airport as a portal hub airport in the western areas of China during the Twelfth Five-year plan.

中国民航当局受理生物航空煤油适航申请

CAAC Reviews and Accepts the Airworthiness Application for Bio-jet Kerosene

2月，中国民用航空局正式受理了中国石化提出的生物航空煤油适航审定申请。

生物航空煤油是以可再生资源为原料生产的航空煤油，与传统航空煤油相比，具有较好的降低二氧化碳排放的作用。为了减少碳排放，多个国家的航空公司正在尝试生物航空煤油的商业飞行。

中国石化介绍说，此次向中国民用航空局提出适航审定申请的产品——1号生物航空煤油，是中国首个自主开发成功的生物航空动力新产品。自己成为中国首家拥有自主生物航煤生产技术，并具有批量生产能力的企业。

中国石化是中国最大的一体化能源化工公司之一，是世界第二大炼油生产商。目前中国石化的航煤产量约占中国产量的73%。

In February, the Civil Aviation Administration of China (CAAC) officially reviewed and accepted the airworthiness certification application for a new bio-jet kerosene submitted by the China Petrochemical Corporation (Sinopec Group).

The bio-jet kerosene is a form of jet kerosene produced from renewable resources. Compared to traditional jet kerosene, it produces reduced carbon dioxide emissions. In an effort to reduce carbon emissions, many airlines around the world are testing out commercial flights fueled by jet kerosene.

According to the official introduction by the Sinopec Group, the product they submitted to the airworthiness certification application, bio-jet fuel No. 1, is the first new biological air power product successfully developed by China. The Sinopec Group is the first corporation in China that owns their own independent bio-jet fuel production technology and has mass production capabilities.

The Sinopec Group is a China-based integrated energy and chemical company and is the second largest refining manufacturer in the world. Currently, jet fuel production accounts for roughly 73 percent of China's total production.

上海中航商用航空发动机制造公司在浦东揭牌成立

Shanghai AVIC Engine Manufacture Unveiled in Pudong

2月，中航工业商发全资子公司——上海中航商用航空发动机制造有限公司暨中航商发总装试车中心（以下简称“中航商发制造”）在上海市浦东新区临港产业园区揭牌成立，并正式奠基开工。这是中航工业商发打造商用航空发动机全产业链的战略构想在上海落地的里程碑举措。

上海市副市长艾宝俊，中航工业副总经理谭瑞松出席仪式并为中航商发制造揭牌。国家工信部，上海市经信委等有关政府部门领导及上海交大、复旦、同济等高校的负责人出席仪式。

中航商发制造由商发出资成立，落户于商发临港基地。该基地规划建设科研试验区、装配试车区、维护大修区、对外合作区、综合办公区和动力配套区等六大功能分区，总投资约80亿元，建筑面积41万平方米，占地约1200亩。

In February, the AVIC Commercial Aircraft Engine Co., Ltd. (ACAEC) a wholly-owned subsidiary of Shanghai AVIC Engine Manufacture Co., Ltd. & ACAEC Assembly Test Center, was unveiled. The foundation had been laid and construction had started in the Shanghai Lingang Industrial Zone, located in the Pudong District of Shanghai. This is a significant move for the strategic vision of ACAEC in creating the whole industry chain.

Mr. Ai Baojun, a vice mayor of Shanghai, and Mr. Tan Ruisong, Executive Vice President of the AVIC, were both present at the ceremony and unveiled the Shanghai AVIC Engine Manufacture Co., Ltd. (Shanghai AVIC Engine Manufacture Co. for short). Leaders from the Ministry of Industrial and Information Technology of the People's Republic of China and the Shanghai Municipal Commission of Economic and Information, as well as the members in charge of the Shanghai Jiao Tong University, Fudan University and the Tongji University were also in attendance at the ceremony.

The Shanghai AVIC Engine Manufacture was invested fully by the ACAEC and is located at the base of the ACAEC, in the Shanghai Lingang Industrial Zone. The planning of this base is to construct six function zones; the Research and Test Area, the Assembly and Test Area, the Maintenance and Overhaul Area, the Foreign Cooperation Area, the Integrated Office Area and the Power Matching Area. The total investment is 8 billion Yuan, with a total construction area of 410 thousand sq.m, taking up an area of approximately 1,200 mu.

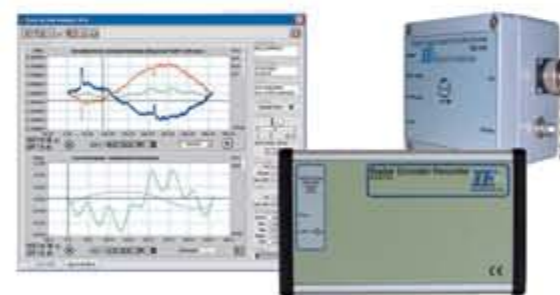
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RGI(Radar Gyroscope and Inclinator)
雷达陀螺倾角计

评估雷达天线的机械稳定性
测量编码器的准确度



RES(Radar Environment Simulator)
雷达环境模拟器

模拟2000多个SSR 或S模式目标
支持ADS-B数据链的各种协议
是雷达交货验收时的最佳检测设备与工具