

支线飞机与民航强国

Aviation in China Powered by Regional Aircraft



发展支线航空是中国由航空大国走向航空强国不可或缺的一个内容。在逐步完善航空运输体系的过程中，各个座级的机型都有其合适的市场空间，为细分化的航空运输市场做出自己的贡献，推动一个稳固、科学的航空运输体系的建立。继上一期简报中，共同探讨 100 座级支线喷气飞机在推动区域民航建设中的作用之后，在此，本文通过浅析目前国内航空公司 50 座级支线喷气飞机 ERJ145 运营的成功模式，并借鉴其在国外成熟的航空运输体系中所发挥的作用，探讨这一尺寸机型对于中国建设民航强国、航空公司实现战略性发展、促进地方经济发展的建设性作用。

以合理的运营模式，开辟支线蓝海，实现四方共赢

21 世纪初中国支线航空事业刚刚起步，50 座级喷气飞机被引入中国，其中包括巴西航空工业公司生产的



Regional aircraft are an essential component in the transformation of China's aviation industry from one that is large to one that will be surely be a great driver of the nation's economy. Airplanes of varying capacities all do their part to contribute to the improvement of the air transport system. In our previous issue, we explored how 100-seat jets were building regional aviation. In this issue, we analyze the success of 50-seat ERJ 145 operations by domestic airlines and cite some basic examples of ERJ 145s flying in overseas markets. We also discuss the role of the ERJ 145 in helping airlines achieve their expansion objectives, promoting local economic development and establishing China as a true aviation powerhouse.

A vast untapped market, a sound business model, and a win-win situation.

Earlier in the 21st century when China's regional aviation business was in its infancy, Chinese carriers acquired foreign-made 50-seat regional jets, including Embraer ERJ 145s. The segment was slow to start because of a shortage of qualified pilots and the volatility of the price of oil made it difficult for airlines to make a profit. As economies of the less developed areas of western and northern China expanded, the State Council introduced

policies that encouraged the introduction of regional airlines. Local governments spared no expense in attracting airlines to set up business in their areas. During that formative time, Sichuan Airlines, China Southern Airlines, Eastern Airlines Wuhan Co., Ltd., Eastern Airlines Jiangsu Co., Ltd., and Tianjin Airlines gained valuable experience in the regional aviation business. The carriers have different business models. Sichuan Airlines, Eastern Airlines and Tianjin Airlines have used ERJ 145s to build their networks and connect passengers to their mainline routes. China Southern Airlines used the ERJ 145 to train its pilots to address the crew shortage problem. All of the airlines eventually learned how to derive the most of their 50-seat regional jets.

Sichuan Airlines was the launch customer for the ERJ 145 in Asia. It recognized the potential in the aircraft's smaller size, short 20-minute ground turn around time and capability for high frequencies. It inaugurated China's first air shuttle between Chengdu & Chongqing in 2004. In March 2011, the airline adopted an aggressive network strategy. It based airplanes in Mianyang City, Sichuan Province, and started flights to Shijiazhuang, Lanzhou, Taiyuan, Shenyang, Guiyang, Quanzhou, Nanning and Chongqing. It established air bridges from what is often referred to as China's Silicon Valley West to provincial capitals and coastal cities and created a true airline network for greater Chengdu.

China Eastern Airlines Wuhan uses its ERJ 145 to develop the regional aviation market by better matching capacity to demand. In order to meet the growing volume of air travel in local cities, China Eastern used the ERJ 145's small capacity and flexibility to provide subsidized capacity service for the governments of Inner Mongolia and Guangxi. In this way, China Eastern was able to increase its market share, expand its network and help grow the economy by making air travel more accessible. The airline also uses the ERJ 145 to supplement or replace larger aircraft on main line routes when there are peak and seasonal variations in traffic demand.

China Eastern Airline Jiangsu Co., Ltd. uses its ERJ 145s to feed passengers to its larger aircraft and grow local markets. The Shanghai-Nanjing route has been a prime market for road, rail and airline companies. In 2005, China Eastern inaugurated service with large aircraft but discontinued the flights after only three days. In November 2009, the carrier reintroduced service with ERJ 145s with an emphasis on connecting traffic. It also started service between Nanjing & Pudong so that it could offer good connections

ERJ145。在过去相当一段时间里，由于整体支线航空运营环境处于缓慢完善的过程中，航空公司亦面临飞行员短缺的困难，加以小尺寸喷气飞机属于油价敏感型机型等等诸多方面的因素，使得航空公司在沿用与大型飞机相同的模式运营支线业务时难以盈利。近年来，随着国家经济发展不断向西、向北经济欠发达地区的渗透，中央政府相继出台多种鼓励支线航空运营的政策，地方政府亦积极呼应，以多种形式吸引航空公司进驻。与此同时，包括四川航空公司、南方航空公司、东航武汉分公司、东航江苏分公司、以及天津航空公司等运营商在不断的积极探索中取得了运营支线业务的宝贵经验。尽管运营模式各有不同，四川航空、东方航空、天津航空充分发挥利用 ERJ145 搭建航线网络、开拓市场、为干线输送客源、优化机队运力配置等作用；而中国南方航空则利用 ERJ145 培养飞行员有效缓解飞行员短缺的困难。各个航空公司都逐渐建立了 50 座级机型的合理运营模式，使其独特的优势和作用得到了充分的发挥。



四川航空公司是 ERJ145 机型在亚洲的启动用户，他们于 2004 年通过利用 ERJ145 小座位级、地面周转时间仅需 20 分钟、高密度航班频率的特点在国内率先推出空中快巴模式——“成渝快巴”；之后又于 2011 年 3 月，进一步发挥空中快速通道在搭建航线网络中的作用，在四川绵阳设立过夜基地，利用 ERJ145 飞机开通从绵阳始发到石家庄、兰州、太原、沈阳、贵阳、泉州、南宁和重庆等城市的航线，搭建起“西部硅谷”与省会、沿海城市的快速空中桥梁，打造绵阳的立体大交通网络格局，使其在构建四川航空“大成都”航线网络中起到了积极的作用。

东航武汉分公司用 ERJ145 发展地方航空运输市场，优化机队运力配置。为满足地方城市日益增长的航空运输需求，利用 ERJ145 适合客流量较低的航线，兼有较干线客机更为优异的灵活性、机动性等优势，东航武汉与内蒙古及广西地方政府采取保底补贴合作模式，大力发展地方航空运输市场，不仅提高公司市场占有率，

扩展航线网络，而且为促进地方经济发展、为当地群众提供便捷的航空出行服务做出贡献。公司也利用 ERJ145 优化运力配置。如根据淡旺季或高低峰时段客流量的变化，将其与干线飞机配合使用从而优化资源配置，武汉—温州这一航线上将 ERJ145 与大型客机交叉运营便是很好的例证。

东航江苏分公司充分发挥 ERJ145 为干线机型输送客源及市场培育先锋的作用。沪宁线是公路、铁路及航空争抢的黄金线。2005 年东航江苏曾利用干线机型推出沪宁航线，但仅三天便宣告退出。2009 年 11 月，公司用 ERJ145 重新开通沪宁航线，用“一票到底”和“中转联程”的方式，开通南京—浦东航班衔接中转洛杉矶、温哥华等上海浦东机场始发的国际航班，使南京的客户可“直飞”美国、加拿大。这一举措不仅使公司占有该航线及航班时刻资源，亦有效补充国际航线客源。东航江苏不仅用 ERJ 145 将二三线城市客源“摆渡”至枢纽机场，为干线航线“喂给”客源，也利用 ERJ145 培育市场。用 ERJ145 开辟新航线有效降低风险，待市场培育成熟、客流量稳定后，便改用干线飞机执飞，最典型及成功的案例便是石家庄—呼和浩特的航线。



天津航空是国内首个以支线起家的航空公司，近年取得令人瞩目的快速发展，其中 ERJ145 为其开拓区域航空市场、完善枢纽 - 辐射式的航线网络发挥了重要作用。2008 年天航前身大新华快运在新疆投放 ERJ145 客机，执行乌鲁木齐至疆内各城市的穿梭快线航班。凭借先进的机型、高效的运行保障以及优质的服务，天航在新疆迅速建立区域辐射式航线网络，为当地群众出行搭建便捷的空中桥梁。而良好的疆内支线网络又成为天航经营乌鲁木齐与国内其他枢纽机场的干线航线的一个强有力的支撑。在利用公司主打机型之一的 ERJ145 开拓区域市场的同时，天航将其与旗下另一主打机型，即 100 座的 E190 相互补充配合，以天津、西安、新疆

at Shanghai to Los Angeles and Vancouver. The new flights helped the airline build market share, add flights and fill seats. They also served as a source of new international passenger traffic. China Eastern realized that it had to serve the local market as well as offering connections to its international network. Today, the carrier uses its ERJ 145s to develop new markets to minimize risk. Larger aircraft replace the ERJ 145s when markets mature and there are healthy traffic volumes to sustain the greater capacity. The most successful example of this is the Shijiazhuang – Huhhot route.

As China's first airline to develop the regional aviation market, Tianjin Airlines has expanded rapidly over the past few years. The ERJ145 was instrumental in developing its regional network and building a hub and spoke operation. In 2008, Grand China Express, the predecessor of Tianjin Airlines, used the ERJ 145 for shuttle flights between Urumqi and other cities in Xinjiang. With its fleet and reputation for reliable, quality service, Tianjin also built a hub and spoke network with convenient, high-frequency schedules. The extensive regional network in Xinjiang has allowed Tianjin to open main line service between Urumqi and other domestic hubs. In addition to using the ERJ 145 to develop regional markets, the airline uses that aircraft type and its 100-seat E190s to offer flights between Tianjin, Xi'an, Xinjiang and Huhhot and second and third-tier cities. Today, Tianjin's network includes more than 40 domestic and foreign cities.

In addition to building markets, expanding airline networks and better matching capacity to demand, ERJ 145s help to train pilots and address the critical issue of crew shortages. Since 2004, China Southern Airlines has trained more than 300 captains and co-pilots on the ERJ 145 and graduated them to larger aircraft. A China Southern employee once remarked that pilots trained on the ERJ 145 have broader experience and a better understanding of flight science and airmanship skills.

Although these airlines have different business models, each has used the 50-seat jet to satisfy its development objectives and strategy. We were fortunate to interview Mr. Miao Guolin, Deputy General Manager and Party Secretary, Maintenance, at China Eastern, who shared with us how the airline has been cooperating with the municipal governments of Huhhot, Inner Mongolia, and Liuzhou, Guangxi, and deploying the ERJ 145. The following analysis shows how airlines are embracing the open skies policy and setting strategies to provide convenient air service for the

public, stimulate regional economic development and generate win-win results for the industry.

According to Mr. Miao, China Eastern began subsidized capacity cooperation for Huhhot, Inner Mongolia in 2010 when the ERJ 145s were based there and connected cities such as Chifeng, Ulan Hot, Tongliao, Wuhai, Manzhouli and Erdos. Mr. Miao said that Inner Mongolia has unique characteristics: a sparsely-populated, broad geographic area with low passenger volumes. In recent years, the economy of Inner Mongolia has developed rapidly which has placed new demands on aviation. The ERJ 145 was well-suited for the region because of its small capacity, reliability, accessibility to smaller airports and applicability on high-density shuttle routes. In 2010, the airline's Huhhot flights were profitable and helped to drive the region's economy through more convenient air service for the citizens of Inner Mongolia.

A good example is the Huhhot-Xilinhot shuttle flights. The Inner Mongolia Airport Group proposed the regional shuttle flight schedule to provide quick air service from the region's airports to Huhhot using small aircraft. This was intended to be a high-frequency, high-volume business model with Xilinhot as the pilot city. In 2010, the Xilin Gol League Administrative Office, the Inner Mongolia Airport Group, China Eastern and Tianjin Airlines joined forces to offer seven daily ERJ 145 flights. In just four months since the service started in April 2010, the Huhhot-Xilinhot shuttle flights carried 38,000 passengers, a 170% year-over-year growth and a 53% increase in Xilinhot Airport throughput. What is most remarkable is that Xilinhot Airport's traffic volume was greater than that of all the main line routes in Inner Mongolia. The Huhhot-Xilinhot flights also stimulated the economy of Inner Mongolia, especially tourism. Data from the Qiankun Travel Agency (Inner Mongolia-Xilinguole League) showed that it takes about 11 hours to travel by rail and 8 hours by road between the city pair. Tourists can cut the travel time dramatically with the shuttle flights. Qiankun Travel increased its tourist volume by 70% and profit 50% year-over-year. Tourist groups accounted for 60% of the passengers on the shuttle flights.¹ It's clear that the Huhhot-Xilinhot shuttle is a proven success that has contributed to the development of regional aviation and welfare of the travelling public.

¹.Source: "let all the people become affordable for aircraft" - "Regional Express Line" starts the new era for aviation popularization in Inner Mongolia, Civil Aviation Management, Issue No. 10, 2010

和呼和浩特为主运营基地，大力发展通往二三线城市的航线，目前天航航线网络覆盖 40 余座国内城市及部分国际城市。



ERJ145 不仅在培育市场、完善航线网络、

优化运力配置等方面扮演重要角色，同时也为加快飞行员培养步伐、扩大商用飞机飞行员选择范围、解决飞行员短缺这一困难做出了贡献。南方航空自 2004 年起至今，通过 ERJ145 培养并向大中型飞机输送的飞行员（包括机长和副驾驶）已达 300 余名。南航工作人员曾表示，由 ERJ145 培养出的飞行员拥有更丰富的航线经验、对航线知识、航线结构的理解更为透彻。

探讨各航空公司的运营模式之后，不难发现尽管模式有所不同，但各个航空公司均根据其市场发展战略需求，摸索出独特、合理的模式运营，有效发挥 50 座级喷气飞机的作用。日前，我们有幸采访了东航武汉机务维修部副总经理兼支部书记缪国林，为我们介绍东航武汉用 ERJ145 与内蒙古呼和浩特市政府及广西柳州市政府的合作。在此，我们仅以该模式为例，浅析航空公司如何通过正确的运营模式，开辟支线蓝海，实现航空公司战略性发展、为大众提供便捷航空服务、促进地区经济发展、促进区域民航建设四方共赢的成果。

据缪国林介绍，2010 年东航武汉与内蒙古呼和浩特市采取保底补贴的方式开展合作，由东航武汉的 ERJ 145 飞机在呼和浩特市驻场执飞航班，以呼和浩特为枢纽，基本辐射内蒙古拥有支线机场的城市，如赤峰、乌兰浩特、通辽、乌海、满洲里、鄂尔多斯等。缪国林表示，内蒙古具有其独特的特点：地域广袤、人口分布稀疏，客流量较低。近几年内蒙古经济的快速发展，对其省内航空事业发展提出新要求。而之所以选择以 ERJ145 机型合作，也正是基于该机型座位数适合客流量较低的航线，同时具有出色的签派可靠性和航班任务完成率、能够飞一些较小的机场、适合开通高密度的“快线式”航班等诸多优势。2010 年呼和浩特驻场航线盈利状况良好，同时对于拉动地方经济发展、促进内蒙支线航空发展、

便捷人们的出行做出了积极贡献。

以“呼锡快线”为例。内蒙古机场集团提出“支线快线”的模式，即以小型、高密度、高客座率的战略，打造区内支线机场至呼和浩特干线机场的快速空中通道，并以锡林浩特机场为试点。2010年，锡林郭勒盟行署、内蒙古机场集团、东



航武汉和天津航空公司合作，通过ERJ145以每天7次航班频率执飞。自2010年4月1日该航线启动至同年7月底，“呼锡快线”完成旅客运输量3.8万人次，同比增长170%，占锡林浩特机场旅客吞吐量的53%，且锡林浩特机场运输量首次超过区内干线运输量。“呼锡快线”的开通，也大大促进内蒙古经济的发展。以内蒙古旅游业为例。据内蒙古锡盟乾坤旅行社资料显示，由于锡林郭勒盟地面交通不便（呼和浩特至锡林郭勒铁路需11个小时，公路约8小时），航空的快捷优势凸显。“呼锡快线”给予旅客丰富的航班时刻选择。“呼锡快线”开通后，锡盟乾坤旅行社同比旅客量增长了70%，旅行社的利润同比增长了50%，60%的旅游团队通过“呼锡快线”进出。¹无论是就促进内蒙古经济发展，还是促进区域民航发展、为大众提供航空普遍服务等各方面而言，“呼锡快线”模式无疑获得很大的成功。

2010年10月底东航武汉与广西柳州市政府签定合作协议，由2架ERJ145执行柳州市驻场航班，执行武汉——柳州——三亚、柳州——武汉——温州、柳州——厦门、柳州——重庆、柳州——广州等多条航线。高频率、短距离、短时间的航班服务，加之中转航线上推出“行李直挂”服务，对于注重时间效益的商务旅客而言，尤为重要。以柳州——厦门这一航线为例，商务旅客可乘坐早8:50的航班，于当天上午10:10抵达厦门。一天紧张忙碌的公务活动之后，旅客即可乘坐当天19:00的航班回到柳州。当日

¹、数据来源：“让百姓都坐得起飞机”——“支线快线”开启内蒙古航空大众化新时代，《民航管理》杂志，2010年第10期。

China Eastern and the Government of Liuzhou, Guangxi Province, reached an agreement in October 2011 whereby two ERJ 145s would be based in Liuzhou to serve several routes including Wuhan--Liuzhou—Sanya, Liuzhou—Wuhan—Wenzhou, Liuzhou—Xiamen, Liuzhou—Chongqing, and Liuzhou—Guangzhou. The short, high-frequency flights feature “white glove baggage service” which is popular with passengers, especially business travelers who value their time. On the Liuzhou—Xiamen route for example, business travelers can depart at 8:50am and arrive in Xiamen at 10:10am. After a productive day, they can take a 7:00pm flight back to Liuzhou. The convenience of same-day travel without the hassles and expense of ground or rail modes is key for business travelers.

By cooperating with local governments through capacity subsidies for its ERJ 145s, China Eastern Airlines effectively lowered its operating risk. It opened new regional markets, built its network and established its influence in Inner Mongolia, Guangxi and the north gulf economic zone. As a result, the company’s market share has grown.

The 50-seat ERJ 145 is specially designed to meet market demand with its versatility, excellent performance capabilities and comfortable cabin. China Eastern’s deployment strategy is just one of the many successful airline business models. The dispatch reliability and punctuality of the ERJ fleet in China is the highest in the world. The combination of reliability and effective use of 50-seat jets can be a win-win for everyone - airlines to build their networks, economies to grow, travelers to have greater mobility, and civil aviation to prosper.

The 50-seat regional jet in the international market

In Europe and North America, 50-seat jets have been the mainstay of the hub and spoke philosophy by delivering passengers between small and medium cities and hubs for main line connecting flights. Today, there are more than 4,000 jet and turboprop aircraft of 50 seats and fewer in the commercial fleets of North American and European airlines. There are over two thousand 50-seat jets alone. From the mid 1990s to just a few years ago, 50-seat jets in North America & Europe were continuously being added to airline fleets. As market demand has grown, larger regional jets are replacing smaller RJs.

In the USA, some 1,100 city pairs are served by 30 to 50-seat jets that connect 300 communities. The RJS are an important economic tool for many of these cities that rely on the aircraft's frequency to promote local commerce.

Continental Express, now flying under the United Express name after the merger between United Airlines and Continental Airlines, has the largest fleet of ERJs. From its hub in Houston, it flies its ERJs to 25 cities in Mexico with daily nonstop services that give travelers in that country access to the entire United Airlines global network.

Delta Airlines uses 50-seat jets to capture the regional market through its Delta Connection partners. In Grand Rapids, Michigan, Delta uses narrow body jets on peak flights but off-peak times of the day are flown with 50-seat jets to its hubs in Atlanta, Cincinnati, Detroit, Minneapolis, New York, Memphis, Orlando and Washington.

While the demand for 50-seat regional jets has peaked in North America and Europe, there are some areas of the world that are showing a growing interest in the aircraft. From its hub in Dnipropetrovsk, Ukraine, Dniproavia Airlines is using the ERJ145 to build high-frequency services to key domestic business markets. In the last ten years, the aviation industry in Russia and the CIS

即能往返的行程，无需繁琐的差旅准备及额外差旅费用，备受商务旅客青睐。

东航武汉公司通过 ERJ145 飞机与地方政府采取保底补贴合作的模式，在有效降低公司运营风险的同时，在航空航线培育上，通过开辟区域支线航空市场这一广阔的支线蓝海，干支结合的航线网络进一步完善、服务半径得到延伸，大大增强东航武汉在内蒙古、在广西乃至泛北部湾经济区的地位和影响力，公司市场占有率大大提升。

50 座级的 ERJ145 是专为满足市场需求而研制。运营模式灵活、飞机性能卓越、客舱舒适。东航武汉的运营模式只是众多成功的运营模式之一。事实上，国内航空公司 ERJ145 机队的签派可靠性和航班准点率领先全球 ERJ145 机队。我们有理由相信，只要以正确的模式运营 50 座级机型，能够实现航空公司完善航线网络、促进地方经济发展、为地方民众提供普遍服务、促进地区民航快速发展四方共赢的局面，而这四者正是建设民航强国不可或缺的组成部分。

50 座级支线喷气飞机在国际市场的运营

在欧美航空运输市场上，50 座级飞机是在轮辐式航线网络中负责向干线航线输送客流、将干线客流疏散至中小目的地的主力机型。目前北美与欧洲商用机队 50 座级及 50 座级以下飞机共 4000 余架（包括喷气飞机和螺旋桨飞机），其中仅 50 座级喷气飞机的机队规模就达到了 2000 余架。事实上，上世纪九十年代中期至二十一世



ERJ145- 遍及全球 18 个国家，32 家航空公司
ERJ145--32 Airlines from 18 Countries

世纪初，欧美 50 座级喷气飞机出现了井喷式的发展，随着市场需求的持续增长，更大的支线喷气飞机正在取代较小的支线喷气飞机。

在美国，将近 1000 个城市对之间的航线服务是由 30 至 50 座级的喷气飞机提供的，将 300 个社区连接在一起。依托频繁的航班频率，支线喷气飞机已经成为促进这些城市经济发展的重要的工具。

联航快运（原英文名为 Continental Express，在美国联合航空公司与大陆航空公司合并后，更名为 United Express）拥有最大规模的 ERJ145 机队。联航快运在美国休斯顿国际机场向墨西哥 25 座城市提供由 ERJ145 系列飞机执飞的直达航班，使这些城市可通过美国联合航空公司全球航线网络通达世界各地。

达美航空公司（Delta）通过其达美航空联运公司利用 50 座级喷气飞机占领支线市场。在密歇根州的大溪地，达美航空公司只有在精选航线、客流高峰航班时刻使用窄体干线飞机执飞航班，而对于客流量较低的其他航班时刻及多数门户机场（如亚特兰大机场、辛辛那提机场、底特律机场、纽约机场和华盛顿机场等），公司均采用尺寸合适的 50 座级飞机执飞航班。

当北美和欧洲对 50 座级喷气飞机的需求达到顶峰时，世界其他地区也发现了 50 座级飞机的潜能，如乌克兰的第聂伯罗维亚航空公司便利用 ERJ145 搭建空中快速通道，满足国内商务旅客的需求。在过去的十几年里，俄罗斯及独联体的航空业有 53% 的商业航空公司或是被兼并或是停飞。仅从俄罗斯来看，国内航线上的客流量下降了近一半，多条接驳航线已经消失。但依靠旗下 25 架 ERJ 145 飞机，该公司精心构筑了自己的航线网络。公司相信 ERJ 145 是对波音 737 机队进行补充的理想机型。乌克兰地域辽阔，要想快速有效地运送人员和货物，航空运输必不可少。鉴于公务旅客比较青睐当日往返的行程，公司的 ERJ 145 机队部署战略即以适当的频率，在适当的时间安排航班，满足商务旅客需求。公司 ERJ 145 从波里斯珀尔机场出发，于工作日早晚时间飞往 7 个目的地城市，为商务旅客提供即日往返的便捷航班。

尽管世界各国在国情、人口及地域分布、经济发展上有差异，但各国对于 50 座级机型的运营模式有相同之处，如占有市场、完善航线网络；承担“喂给”使命为干线航线输送客源；优化运力配置等。欧美成熟市场的现状为发展中的中国支线航空勾画了蓝图。

随着国家对发展支线航空在政策上不断加大鼓励与支持的力度，各地方政府创造有利环境，吸引运营商进入，支线航空市场将得到不断完善。航空公司将会根据自身发展战略的需要，配置合适尺寸的各款机型，干支搭配，小支、大支协同作战，一个既合理、

has seen 53% of its commercial airlines merge or cease flying and many airports become obsolete. In Russia alone, traffic flow on domestic routes has fallen by nearly 50% with many feeder services simply vanishing. However, the airline has been carefully building its network with more than 25 ERJ 145s and believes it is the right size airplane to complement its fleet of B737s. The broad geography of the Ukraine makes air links essential for the efficient transport of people and goods. Since business travelers prefer same-day trips, Dniproavia's ERJ 145 deployment strategy is to use appropriate frequency and well-timed flights scheduled to accommodate business travelers. Seven ERJ145 cities from Borispol airport are served with prime weekday morning and evening departures every business day, providing travelers with same-day round-trip flights.

Although the general social and economic conditions of countries differ, all of them are adopting similar applications for 50-seat jets. These include market capture, building networks, the hub transfer of passengers between flights serving regional cities and flights on mainline routes, and matching capacity to demand. The mature RJ networks in Europe and North America is a blueprint for developing regional aviation in China.

Stronger institutional encouragement and support by the State and local governments for developing regional aviation is creating a favorable environment to attract airlines. This, in turn, is helping to improve the industry in China. Carriers will use regional jets to satisfy their business objectives in conjunction with larger aircraft. In the near future, the combination of aircraft types is expected to produce an efficient air transport network that maximizes the use all available resources.

It is believed that regional aircraft will play an essential role in making China a great civil aviation super power. Accordingly, here are comments from several leaders from the CAAC.

"Due to overlapping market positioning and strategies of airlines, the air transport structure in China is not reasonable and regional aviation lacks sufficient capacity. At the end of 2010, there were 1,506 aircraft operating in China yet only 140 of these were regional aircraft with up to 100 seats. Insufficient capacity is one of the major reasons that China's

regional aviation industry cannot meet the needs of regional economic and social development. The situation is critical. The CAAC will introduce policies to eliminate this capacity imbalance with incentives to encourage large airlines and regional airlines to establish equity-based strategic partnerships. This will promote greater connectivity between regional and main line flights to form an operating pattern that allows for a fair division of work and common development. Airlines are fundamental in developing regional aviation. In order to improve accessibility to small and medium-sized cities and enhance overall standard of service in the entire civil aviation industry, it is necessary to motivate airlines to develop regional business.” Minister, Li Jiayang, CAAC. (National Civil Aviation Planning & Airport Working Conference, April 2011).

“Regional aviation is for the welfare of the public to a certain extent and its social benefits are significantly more than just economic efficiency. Regional aviation is making great contributions in promoting the development of local economies, social stability, national unity and national defense construction. More than 55 new airports are planned to be constructed during the “12th five-year plan” period. This is critical to boost and support the development of regional air transport in the former revolutionary base areas, areas inhabited by minority nationalities, remote and border areas and poverty-stricken areas.” Vice Minister, Wang Changshun, CAAC. (National Civil Aviation Planning & Airport Working Conference, April 2011). ◀

高效，又使得各种资源得以尽可能优化的航空运输网络将在不久的将来建立起来。

支线飞机在建设民航强国中所发挥的重要作用毋庸置疑。本文结束之时，笔者谨援引国家民航总局领导的观点，做为此次关于支线飞机、支线航空与民航强国的探讨的结束语。

民航局局长李家祥：由于市场定位和战略同质化严重，我国航空运输结构不合理，支线航空运力严重不足。截至2010年年底，1506架运输客机中，100座级以下支线客机仅为140架。我国支线航空之所以滞后于区域经济社会发展需求，运力不足是主要原因之一。民航局将进一步完善政策，通过差异化路径破解支线运力不足的矛盾；鼓励大型航空公司和支线航空公司之间，建立股权等层面战略合作关系，支线与干线航班紧密衔接，形成分工合理，共同发展格局。航空公司是发展支线航空的主体，充分调动航空公司发展支线的航空积极性，实现干支线合作共赢是改善中小城市航空通达性、提高民航业普遍服务能力的必由之路。（2011年4月，全国民航规划暨机场工作会议）

民航局副局长王昌顺：支线航空具有较强的公益性，其社会效益远远大于经济效益，对促进地区经济发展、社会稳定、民族团结和国防建设作用十分巨大。“十二五”期间，我国计划新增机场55个以上，重点促进和扶持老少边穷地区支线航空运输的发展。（2011年4月，全国民航规划暨机场工作会议） ◀