

# PAPER AIRPLANES

**China, Indonesia, Japan and Korea all have big plans for a 100-seat jetliner for Asia. Will these planes ever get off the ground? And will they sell?**

*By Tim Healy and Jim Erickson*

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**A**FTER THE 1995 MAIDEN flight of Indonesia's first domestically designed and built commercial airplane, Research and Technology Minister B.J. Habibie seemed himself ready to soar. "This is the national awakening of higher technology in Indonesia," he said expansively.

Coming exactly a week before the 50th anniversary of Indonesia's declaration of independence from the Dutch, the flight of the N-250 turboprop brimmed with symbolism. Tears came to some onlookers as the greatest example yet of Indonesian aerospace achievement found the sky after two test dashes down the runway. A man in the crowd crowed: "This proves we are as good as anyone in the world."

President Suharto, acting the proud papa, said the nation would build on the success. He pledged \$2 billion in taxpayers' money to develop a regional jetliner by 2003. Amid the euphoria, Habibie stressed: "It's not because of prestige we are doing this. It is an economically calculated undertaking."

At least, that's the hope. But to some observers, it sounds more like hype. Look at the realities: In addition to Indonesia's proposed 100-passenger jet, China, South Korea and Japan are each making plans -- in some cases multiple proposals -- to wholly or partly build a short-haul or regional jet with 70 to 120 seats. Taiwan has for years talked to potential partners for a jet venture. And last month Malaysia looked into buying bankrupt Dutch manufacturer Fokker, one of the few companies that already build 100-seaters. Like Korea's Samsung Aerospace last year, Kuala Lumpur officials concluded a purchase was impractical.

As the list of would-be jetmakers grows, the market for them in Asia seems in doubt to some industry experts. "At most you're talking about 2,000 planes over the next 20 years," says Jim Eckes, general manager of Indoswiss Aviation, an airplane leasing company in Hong Kong. "That comes out to 100 planes a year, which is not very many to spread around a bunch of companies." Eckes says that the general lack of adequate airport infrastructure in Asia -- especially in China, which is expected to buy the bulk of 100-seaters -- limits the number of flights and planes most cities can handle. Since airports cannot handle a great number of flights, he argues, airlines need bigger planes to accommodate the traffic.

Other factors, however, do support regional jets. They are perfect for low-traffic routes, which will increase as business and tourism expand to frontier areas. Start-up airlines would find them to be affordable entry-level aircraft for their fleets. As competition and deregulation pressure carriers to come up with novel routes, the 100-seater would be the plane of choice to experiment with untried destinations.

Driving much of the lofty interest among Asian governments and companies is the near-certainty that Asians will take to the skies in ever greater numbers over the next 20 years, and the fervent hope that 100-seat jets will carry many of them. The number of Asians taking scheduled flights increased more than 10% a year from 1985 to 1993, outpacing global growth of 6.4%. And by 2010, Asian passengers will account for more than half of the world's total, up from about a third in 1993.

As new regional jets open up routes, travelers should reap benefits -- broad flight schedules that allow travel flexibility, more point-to-point flying that will save commuting time to and from congested central airports, even more safety thanks to fewer planes using the same airports and flight paths. "Remember, too, that newer planes have significant advantages in terms of noise, pollution and fuel conservation," says aviation analyst Joseph Berman of U.S.-based Avmark. "Some smaller, older planes today are much louder than the biggest jets."

Will small planes be cheaper to fly? If both planes are full, a 747 would cost less per passenger than a 100-seater. But on low-traffic routes, small planes are much more efficient and profitable than jumbos. Still, probably the main reason for Asian nations' regional jet ambitions is that it is the only size of aircraft they can manufacture and market largely on their own, rather than as a parts maker or junior partner of commercial aviation's Big Two, Boeing and Airbus. Hence, in almost all the 100-seater ventures shaping up, the Asian country aims to be in the cockpit, using its potential demand and lower-cost labor as a sweetener for Western planemakers, which are expected to supply technology, export marketing clout and capital.

Except Indonesia: Although it teamed up with Spanish and French manufacturers on smaller aircraft, the country so far is going it alone as it moves ahead to produce the N-2130 twin-engine jet. Indonesian officials say the plane is just the right size -- exactly 100 seats -- to find a market niche, and it uses cutting-edge technology. "The existing competitors use old concepts," says a senior official of Indonesia's state aircraft company IPTN. "And we are well ahead of the others, such as Boeing, who are just getting started." The Seattle giant has begun developing a 100-seater based on its 737 model.

But some analysts say crossing the finish line first won't necessarily bring market victory. "Indonesia is at the bottom of the pile," says Stephen Miller, founder in 1985 of Dragonair in Hong Kong and now head of an airplane leasing and consulting company called Trinity Aviation. "I don't think there is a great deal of confidence in the industry that the plane will actually be built."

Even in Indonesia, critics complain that the project is little more than an expensive toy for Habibie. They doubt the nation will get any practical benefit from making the plane because so many components will come from abroad. But to senior government aide Sofian Effendi, those who oppose the program "do not have pride in our products."

China seems to revel in its ability to draw from negotiations both money and technology from partners keen to gain access to its potentially vast market. Take its long-anticipated Air Express regional jet, the AE100, once widely known as the "Asian Express" which the region was expected to snap up. A year ago, the Air Express was to be a partnership between China, South Korea and a yet-to-be-selected Western entity (Boeing was the favorite). But by mid-1996, apparently after a dispute over where work on the plane would be done, the Koreans left. Boeing also dropped out, perhaps due partly to Sino-U.S. tensions during the Taiwan crisis, and to the improved sales tactics of Europe's small-plane consortium, Aero International (Regional), or AIR, which won the contract.

But not the deal: By the end of last year, AIR was out and a new European group -- different in style and substance, if not participants -- was in. Airbus took its place as the primary Western partner, bringing prestige and substantial marketing clout to the project. Tang Xiaoping, general director of the Chinese partner, Aviation Industries of China, told Asiaweek that the current ownership structure gives 46% to AVIC, 39% to the Airbus-led group and 15% to Singapore Technologies. "This won't change today," said Tang last week. "I can't say about tomorrow."

Still, AVIC seems pretty sure Air Express will eventually fly and win buyers. At a China aviation industry show in Hong Kong this month, a 1.5-meter-long model of the AE100 -- brightly painted in red, white and blue and sporting the AVIC logo on the tail -- stood prominently between models

of two existing McDonnell Douglas planes. A marketing brochure listed performance details. Three versions of the AE100 are currently envisioned: with 95 seats, 120 and 137. They will be designed to share parts and specifications with the A320, a 126-passenger plane that now, along with the A319, represents the smallest of the Airbus line.

Tang is confident the plane will attract buyers. "Air traffic today is mainly between big cities," he says, and "small-scale aircraft" will be needed to connect to more remote provinces. Airbus is more circumspect. "Our top priority," says Sean Lee, its spokesman based in Toulouse, France, "is to actually form the joint venture before the end of the year."

More than a few discarded China partners would say Airbus is just being smart. Two of them, in fact, are talking about teaming up to build their own regional jet. The Korea Commercial Aircraft Development Co., which groups Samsung, Hyundai, Daewoo, Korean Air and the South Korean government, was once a partner in Air Express. It now expects to sign a memorandum of understanding in June with AIR.

South Korean officials are clearly unhappy with how the China deal soured. One industry insider says Korean companies expected to take at least 30% of the final AE100 venture, with a foreign partner at 30% and the Chinese at 40%. But when China offered South Korea just 10% to 12%, the deal died. "It hurt South Korean pride," says a government official -- and spurred the nation to come up with its own plane project. "It was a question of South Korea being able to prove that we are not joking," says an executive of a firm in the Korea Commercial Aircraft consortium.

For AIR's part, since its three partners -- Alenia of Italy, France's Aerospatiale and British Aerospace -- are also in Airbus, its China failure is delicate. "It's very confusing," says AIR spokesman Giancarlo Fre tactfully. The company, which, like Airbus, is based in Toulouse, says it is continuing to negotiate with China, to build a 72-seat propjet. "There is a bit of controversy there," says Fre. "We say we need orders first, they say establish the production line [in China] first."

In the end, it may be that both one-time China partners now have what they wanted all along. Korea is working with an established player in the aviation business that seems ready to go full-tilt on producing a plane. Korean sources say the aircraft could be available for test flights in 2000 with sales and deliveries not long after. Thus, a Korean plane would probably be on the market before anyone else.

AIR looks likely to build a smaller jet than the Chinese wanted. "The jet contemplated by China wasn't a good fit for us," says Fre. Korean sources now talk about three AIR models: the largest with 84 seats. China meanwhile wants Airbus to build a plane much bigger than a 100-seater. But that may rival a German-assembled Airbus. At the recent air show in Hong Kong, an AVIC official changed the capacity figure on an Air Express brochure before giving it to a reporter.

Where does all this leave Japan, the Asian nation most technologically capable of making a jet? "We aim to conclude our feasibility study of the YS-X project by year's end," says an official at the state-sponsored Japan Aircraft Development Corp. Tokyo began studying the 100-seat YS-X jet in 1986. To many analysts, the sluggishness shows doubts about the plane's salability.

"There's no market," says an aviation consultant who recently scrutinized the YS-X plan. Japan's own Ministry of International Trade and Industry at one time estimated a domestic market of only 100 planes for the 100-seater. Even that may be too optimistic. Eckes, the Hong Kong aircraft leasing agent, notes that Japan uses 747s to haul large numbers of people domestically. It operates single-class 747s that, at 500-plus seats, have the highest capacity of any existing aircraft. "Japan doesn't need a small jet -- no way," says Eckes.

The Japanese receive plaudits for their go-slow approach. Rather than rushing to develop their own plane or lead a consortium, they seem content to build pieces of planes already making money. "Japan is getting rich off making parts," including 15% of the popular 767, says Eckes. Mitsubishi is considering a venture with Canada's Bombardier, one of the world's established regional jet manufacturers, to make wings for a stretch version of the company's new 70-seat plane.

Japan isn't the only industrial giant to consider building its own 100-seat jet and then take a pass. Through much of the late 1980s, Germany studied the feasibility of building the MPC 75. Its planemakers confidently predicted demand for the short-haul jet at more than 3,200 aircraft between 1988 and 2008. But earlier this decade, Bonn scrapped the project.

Consider other failures: Fokker made 100-seat jets which were widely considered to be solid, though overpriced. The company went bankrupt last year. A Samsung-led consortium originally looked into buying Fokker, but the group could never agree on whether the company's planes were commercially viable. Malaysian officials who considered a buyout recently now say they are relieved it didn't happen. "It was a joke to begin with," says an aviation executive in Kuala Lumpur. "The government thought it could pick up some cheap technology. But if you looked at the deal carefully, it wasn't cheap."

Given its highly developed commuter aviation system, Taiwan would seem a likely candidate to build a small jet. In fact, officials have tried for much of the last decade to cement a planemaking deal. In 1992, Taiwan Aerospace Corp. announced a \$2-billion tie-up to build a four-engine airliner with McDonnell Douglas. But TAC balked at the cost of technology rights and the uncertain prospects of MD's untested design. The next year came a \$1.1-billion tie-up with British Aerospace; it went sour in months. Recently, Taiwan ended talks to participate in the MD-95. It was also rumored that Taiwan was to be a silent partner in Beijing's AE100 venture through a Singapore entity. Late last year, the island apparently considered a venture with AIR similar to South Korea's.

None of this is to say the 100-seat jet does not have a chance. Barry Grindrod, editor and publisher of *Orient Aviation* magazine in Hong Kong, contends that China could use such a plane to connect its many far-flung cities with large populations. But he says that market isn't ready.

Still, national leaders have more on their minds than selling planes and meeting profit forecasts. In 1988, Eckes recounts, Deng Xiaoping flew on an aging government plane through a thunderstorm to Beijing. The flight was hairy. Upon touching down, Deng said: "Buy me a Boeing." Eckes met a Beijing emissary in San Francisco six months later who was "literally carrying a briefcase with \$2 million in cash to see Boeing and buy an airplane." The bigwigs of today could just as well say, "Build me an airliner." But will the buyers come?

*-- With reporting by Keith Loveard / Jakarta, Murakami Mutsuko / Tokyo, Laxmi Nakarmi / Seoul and Steven K.C. Poh / Kuala Lumpur*