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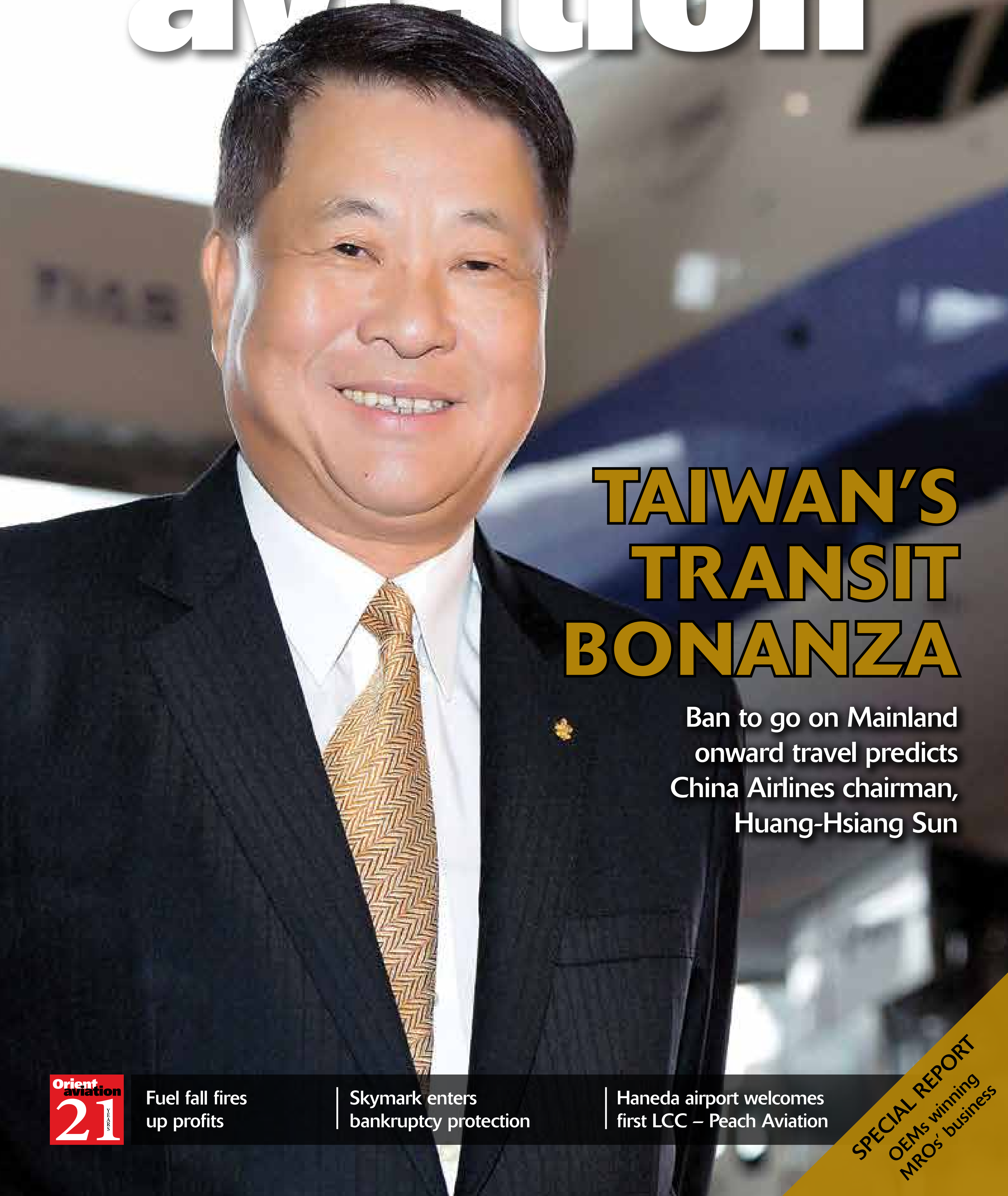

TAIWAN'S TRANSIT BONANZA

Ban to go on Mainland onward travel predicts China Airlines chairman, Huang-Hsiang Sun

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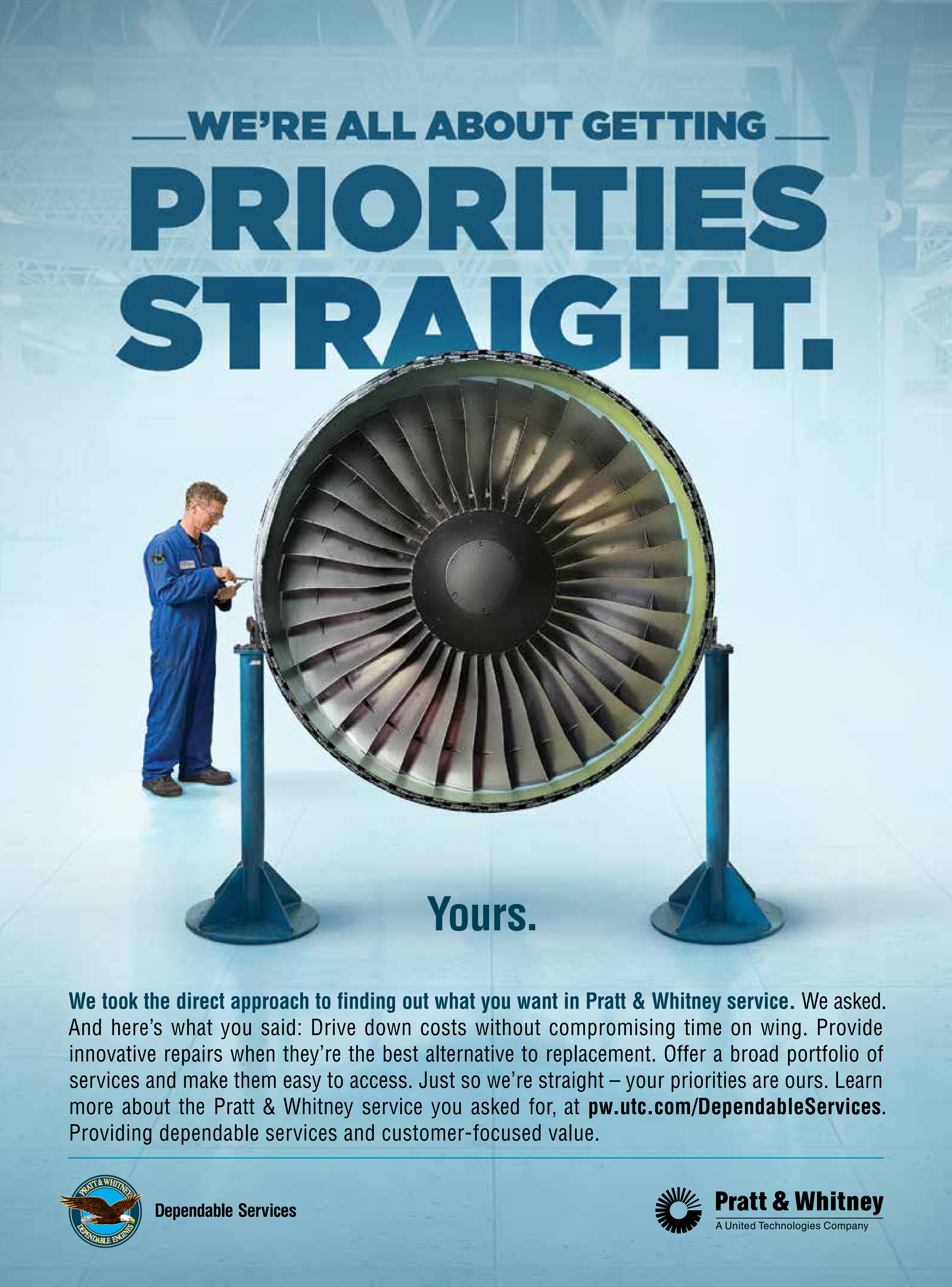
Fuel fall fires up profits | Skymark enters bankruptcy protection | Haneda airport welcomes first LCC – Peach Aviation

SPECIAL REPORT
OEMs winning MROs' business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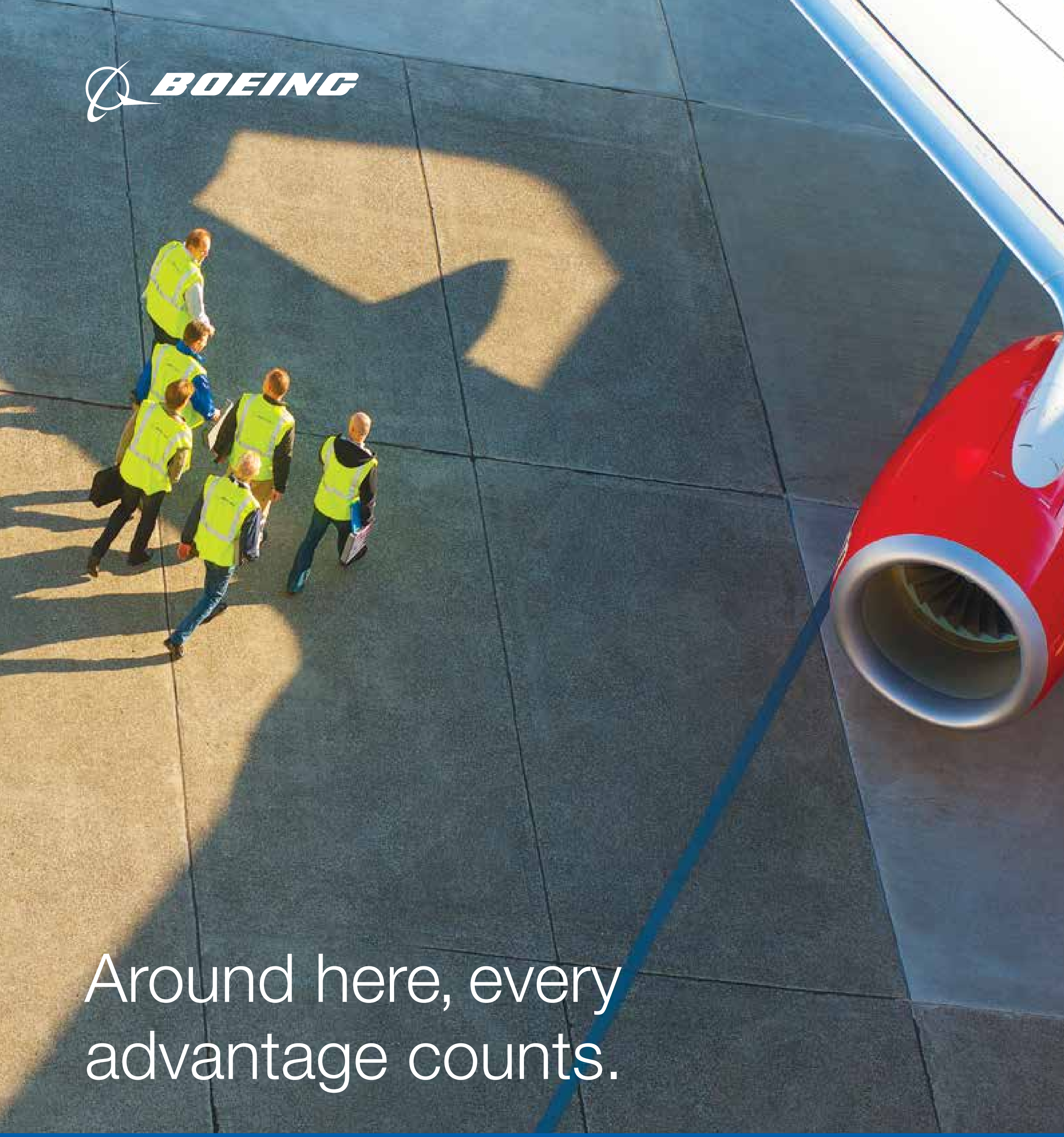

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How low can oil go?

The travelling public is expecting the dramatic decrease in the oil price should quickly be passed onto them in the form of lower airfares, as cautiously predicted by the International Air Transport Association.

But buying jet fuel, and managing its volatility over the annual operating cycle is more complex than it appears. These swings, of which the most recent is the 50% collapse in oil prices since last June, has confronted airlines with a Catch 22 situation.

Do you hedge? At what price? For how much and for how long? There is no simple answer to these questions. Ultimately, for airline senior management, it comes down to a gamble, no matter how informed the process was that lead to the decision.

In the Asia-Pacific, different airlines are taking different approaches to managing fuel volatility. With jet fuel at its lowest level in more than six years, carriers with less hedging in place and buying at spot prices will be the biggest beneficiaries of the current price, at US$50 per barrel.

Those who have locked in their fuel requirements at higher prices will suffer, as long as the price remains low. Those who take a hedging position at today's price will benefit significantly when fuel goes up.

Whatever happens, the fuel bill of low-cost carriers, who pay up to 50% of their operating costs for jet fuel, is in a sweet spot that AirAsia group boss, Tony Fernandes, described as "massive".

To illustrate how risk laden hedging can be, the region needs to look no further than the experience of some of its best run airlines. It was not so long ago that big operators like Cathay Pacific Airways, Singapore Airlines and the major Chinese carriers suffered serious paper losses after making wrong way bets on oil hedging. It is more than likely that for some airlines, 2015 will repeat that bitter experience.

Generally, there is no doubt the drastically lower cost of oil is a huge bonus for the industry. Last month, the average price for jet fuel was around $1.71 per gallon, some 18.1% lower than a month earlier and down a phenomenal 43.2%, year on year.

But IATA is right in reminding everyone that several risks remain for airlines in the global environment, including political unrest, conflicts, and some weak regional economies that will influence the oil price.

The short term landscape for oil remains positive. Some forecast the price will go as low as $43 a barrel. Other industry analysts insist producers will adjust their output and prices will rise.

At the 2014 IATA AGM last June, airline bosses said they have found they could manage the high price of oil, but oil's price volatility was a challenge to operations. How right they were. ■

TOM BALLANTYNE
Chief Correspondent
Orient Aviation Media Group

The voice of Asia-Pacific aviation

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"It has established itself as the primary source of information on industry topics in the Asia-Pacific region"

AirAsia's Fernandes wants single Asean regulator

*As news becomes available about the contents of **Indonesia AirAsia QZ8501's** flight and voice recorders, **AirAsia Group boss, Tony Fernandes**, has joined in calls for changes to the region's air safety systems. "It's time for **Asean** institutions to step forward, for commonality, for standardization and for quality," he said. "We should have one Asean regulator for air traffic, one Asean safety standard and one pilot training qualification so there will be mobility of the workforce."*

"Asean is not just open skies. It is about having some Asean standardization and institutions to advance the Asean aviation industry," he said.

Asean is pushing ahead with plans for a single aviation market, or "open skies" in 2015, that will allow its members' airlines unlimited access to the markets of each other. However, execution of Asean open skies in terms of adopting uniform technical and safety standards have been low priorities to date. ■

Korean LCCs control 50% of local air traffic

For the first time in their operating history, South Korean budget carriers held more than 50% of the country's domestic market last year, attracting 51.25%, or 24.4 million, domestic travelers in 2014, said the **Korean Airports Corporation (KAC)** in a January report. There are five South Korean low-cost carriers: **Jeju Air** (13.9%), **Air Busan** (11.7%), **Jin Air** (9.2%), **T'Way Air** (9%) and **Eastar Jet** (7.4%). KAC said since budget carriers began flying in South Korea in 2005, they earned a reputation as safe, but with competitive fares. The airport group said it expected the budget sector to increase its market share on short and medium haul international flights to Southeast Asia and Japan as well as in the domestic market. ■

THAI cutting routes not staff

Thai Airways International (THAI) president, former Stock Exchange of Thailand president, **Charumporn Jotikasthira**, has announced a two-year recovery plan that will eliminate loss-making domestic and international routes, sell off 22 older aircraft by July, but only involve staff redundancies as a last resort. THAI has recorded miserable results in 2014 as passengers continued to decline and budget carriers made ever greater inroads into its market, with the carrier now recording load factors approaching 60%. Extended political unrest and a poor performance in its domestic and nearby regional markets reduced THAI's annual passenger numbers from above 20 million a year in 2012 to 17.8 million last year. The new president, who took over in December, must deal with disposing of older aircraft, while taking delivery of new planes that will produce unwanted capacity at the carrier. Apart from a profit for the July-September quarter last year, mainly due to currency gains, THAI has posted losses for six quarters since civil protests in Bangkok took hold in the second half of 2013. The Thai military staged a successful coup d'etat in May last year. The junta will not let THAI fail, analysts who report on THAI said. ■

Korean Air's debt escalates

Flag carrier, **Korean Air (KAL)**, plans to sell off 44 airplanes, mainly B747s, by 2017 as part of efforts to reduce a multi- billion dollar debt that is forecast to increase when the company announces its final quarter results this month. In January, KAL associate company, **Hanjin Energy**, sold its 28.4% holding in South Korean refiner, S-Oil to Saudi Arabian offshore oil company, Aramco Overseas Co. The deal, worth US$1.83 billion, will be followed by a sale of shares in KAL in a new issue next month. Combined with progressive disposals of some lower valued assets, the share and aircraft sell off could provide KAL with another US$3.2 billion for debt reduction.

Separately, **Cho Hyun-Ah** (40), one of the three children of **KAL chairman, Cho Yang Ho**, remained in detention at press time, following her January 18 plea of not guilty in the South Korean courts to charges of flight plan changes, coercion and obstructing justice. She was ordered into detention at the end of December. The "nut rage" case, which became a national scandal in South Korea, erupted after the heiress became enraged when she was served Macadamia nuts in a bag rather than a bowl, as required in first class. At the time, the aircraft in which she was travelling had pushed back in New York and was taxing to the runway for take-off. She ordered the aircraft to return to the gate so the offending flight purser could be put off the plane. Cho could face up to 15 years in jail. It is predicted she will receive a suspended sentence, but that KAL will be punished with a fine of US$2 million and a ban on serving some of its route network for several weeks. ■

China tops chart for MRO growth

Global MRO forecasters predict China will lead the region in MRO business in the next decade with the Asia-Pacific continuing its role as the industry's growth engine, with an annual growth rate of 5% a year compared with a global average of 4.2%.

China's huge MRO business is expected to be 250% bigger by 2025, with an annual growth rate of 9.8%. India will expand at over 10% a year, but will remain a relatively small part of the total market, with growth averaging 1%-3% every twelve months.

China is a net exporter of aircraft MRO with Mainland Chinese airlines earning S478 million, with 91% of the contracts serviced by MROs based in China. The country's MROs are estimated to have earned $601 million from airlines, excluding modifications.

The Asia-Pacific generally is a net exporter of airframe maintenance services, with the region's airlines generating US$1.3 billion in aircraft MRO demand. About 93% of this demand is met by Asia-Pacific MRO providers. See Manufacturers winning battle for MRO business. Page 31. ■

Air New Zealand CEO, Christopher Luxon, was presented with the 2014 Orient Aviation Person of the Year award at a gala reception, sponsored by Airbus, in Auckland last month.

Mr. Luxon, who is the third Air New Zealand CEO to receive the award, is pictured with Isabelle Floret, Airbus senior vice president, Pacific and Christine McGee, publisher and editor-in-chief of the Orient Aviation Media Group. A few days earlier, Ms. Floret received the Legion d'Honneur, France's highest award for outstanding civil service, at a ceremony in Toulouse. ■

Perfect timing

SpiceJet co-founder, Ajay Singh, has bought the debt-ridden low-cost carrier for S$243.5 million in a deal that will give him full management control as well as 100% ownership of the carrier.

By Tom Ballantyne

SpiceJet's woes may not be over, but the widely expected deal that will see one of the carrier's founders returned to full ownership and control of the airline could not have been better timed.

Last month, entrepreneur Ajay Singh paid $243.5 million for the low-cost carrier at a time when global oil prices had fallen by more than 50% in seven months and Indian domestic air traffic growth was improving.

SpiceJet was in trouble. It owed its creditors, including airport operators, oil companies, ground handlers and other suppliers, more than $200 million. It had reduced its daily flights by a third since last September and grounded half its fleet. It had returned 20 B737s to lessors in the past few months because it couldn't meet its payments.

Payment of staff salaries have been delayed on two occasions. It posted a record loss of $162.8 million last year and has not been profitable, on a full-year basis, since the 2012-2013 fiscal year ending March 31, 2013.

Singh, who founded Spicejet with two partners in 2005, sold the Delhi-based carrier to media baron, Kalanidhi Maran, and his Sun Group and supporting investors in 2010. The airline tried to raise funds to keep flying to no avail until he emerged in late 2014 as SpiceJet's savior. Backed by an investor network, the deal was signed in January and is awaiting government approval.

A new five-year plan to rebuild the carrier includes an infusion of investment funds from associates of Singh. Indian media has reported the carrier will return to a single-type fleet of B737s, phase out its 15 Bombardier Q400s and shrink its network.

SpiceJet has 42 B737 MAX jets due for delivery from 2018. At press time, it was not known if the order would be reviewed.

Analysts said the SpiceJet resurrection is a good sign for the local airline industry. Amber Dubey, partner and India head of aerospace and defence at global consultancy, KPMG, said the failure of an airline with a 17% market share is the last thing India's beleaguered aviation sector needed.

"SpiceJet's revival is good for passengers, employees, lenders, suppliers and the industry as a whole. The airline has excellent slots, brand and staff. Given the right support, it can rebuild itself into a profitable airline in the next year," Dubey said.

New SpiceJet owner, Ajay Singh, to return to an all-B737 fleet?

While Indian aviation struggles with high costs, fierce competition and excessive taxation, analysts consider the market underserved. In recent months, there are signs the government will ease the biggest burden airlines have, the lowering of the value-added tax imposed by the country's various states on jet fuel.

Ranging from 4% to as high as 30% under different Indian state governments, the tax results in fuel making up as much as 50% of airline costs.

India's Civil Aviation minister, Ashok Gajapati Raju Pusapati, is visiting all 29 states – the process will continue throughout the year - to convince the provincial governments to lower the tax.

"The minister has decided to reach out to states to discuss and resolve issues pertaining to air connectivity, infrastructure development and rationalization of taxes on aviation turbine fuel (ATF). We will go to their doorstep and make all efforts to catalyse growth of the civil aviation sector," said a senior ministry official.

In the meantime, passenger demand continues to increase, with the latest figures from the Directorate General of Civil Aviation (DGCA) reporting air traffic expanded by 9.7% last year compared with 2013 although a significant amount of this growth was driven by discounting.

Indian airlines carried 10.9 million passengers in 2014 against 10 million a year earlier. Some 8.9 million passengers, or 81.6%, travelled on private airlines, with state-owned Air India reporting an 18.4% share, or two million passengers, of the market.

Low-cost carrier, IndiGo, was the market leader with 3.5 million passengers, or 31.8% of the market. The Jet Airways group, now part-owned by Abu Dhabi's Etihad Airways, carried 2.4 million passengers, 21.7% passengers for the year. Another budget airline, GoAir, attracted one million passengers (9.2%) for 2014.

All seven domestic carriers, including the new AirAsia/Tata joint venture, no-frills AirAsia India, and regional airline, Air Costa, reported higher load factors during the December peak season.

Air India's seat factor rose to 85.9% in December from 76.9% in November. IndiGo reported an 88.8% average load factor for the month compared with 78.6% in November. Jet Airways also reported an 89% seat factor against 83.8% in November. All of the carriers have benefitted from SpiceJet's forcibly reduced network. ■


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AirAsia crash prompts regional regulatory review

By Tom Ballantyne

The crash of Indonesia AirAsia flight QZ8501 on December 28, the third accident involving Southeast Asian carriers in nine months, dealt another body blow to the air safety reputation of the region's airlines.

And like the bizarre disappearance of Malaysia Airlines' MH370 and the murderous shooting down of MH17, the accident has raised serious questions about the region's safety systems and government regulatory oversight beyond the airlines involved.

It will be several months before the report on the Indonesia AirAsia A320 crash into the Java Sea, which claimed the lives of 162 passengers and crew, will be completed. But early disclosure of the data has made one fact clear: an extraordinary weather event was a major contributing factor to the accident.

Information from the flight data recorder revealed the single aisle jet suddenly climbed at least five times its capability, at some 6,000 feet per minute. Its rate of ascent far exceeded the normal limit of 1,000 feet per minute at the 30,000 feet plus height at which it was flying.

Pilots of A320s have said there is only one explanation for such an extraordinary ascent: the aircraft must have been trapped in a massive updraft in a severe thunderstorm that situation led it to stall and then spiral into a fatal plunge into the sea.

Accident safety experts are asking did the crew of the Indonesia AirAsia airliner contribute in some way to the aircraft's loss by mishandling the situation? Or were they totally incapable of doing anything about it?

They also want to establish why the aircraft was in the centre of such a severe storm cell. It is known the pilots were aware of storm activity - common in the region at that time of year – and requested clearance from air traffic control to climb to a higher altitude to avoid it. That request was met by some two minutes of silence. By the time controllers gave permission for the aircraft to climb to the higher altitude, QZ8501 had disappeared from radar.

What has emerged since the December 28 crash is air traffic control delays are common in a region that is experiencing unprecedented growth in traffic volume, with much of the expansion due to the boom in low-cost carrier operations.

LCCs are increasingly vying for space in now over-crowded air corridors. The number of passengers carried annually across the Asia-Pacific has jumped by two-thirds in the last five years, to more than 1 billion, and budget airlines make up about 60% of seat capacity in Southeast Asia.

While pilots in the region are reluctant to speak openly about the situation, privately they said the skies are becoming more dangerous as more aircraft enter service. One Indonesian captain, who regularly flies the same route operated by QZ8501, told *Orient Aviation* delays in requests for course changes and different altitudes occur frequently, mainly because of changed weather conditions. But they are often rejected because there are too many planes flying at the altitude requested.

"The result is you have to take a snap decision on whether to fly into the weather or, if you believe there is real danger, alter course without permission and worry about the consequences later," he said.

The pilots flying the AirAsia aircraft might have been in that situation and staying on course while waiting for ATC permission may have been their downfall, he said. A Singaporean pilot said as airways become more crowded, it is taking ATC longer to co-ordinate requests and give clearances such as higher altitudes and weather deviations. Delays to requests can be critical in a region where changing conditions such as strong winds and tropical thunderstorms pose time-critical challenges for pilots.

None of this information comes as a surprise to the local airline industry. At its annual Assembly of Presidents in Tokyo last November, the Association of Asia Pacific Airlines (AAPA) said airlines are investing heavily in fuel-efficient planes to meet rising demand, but there is growing concern about matching infrastructure expansion to this growth.

The growth in airline capacity, with new generation jets equipped with the latest high technology equipment, is outpacing developments in co-ordinating the region's aviation regulations and protocols, said carriers. "Leaving aside all the accidents, this region is going to see the largest growth of air traffic for the next 20 years," said Ken McLean, IATA's regional director of safety and flight operations. "Do we have the rules and regulations to meet it?" he asked. Right now, most airline chiefs would respond with a resounding 'No'."

McLean is one of the leaders in moving the region towards a concept of Asian "Seamless Skies", rather than attempting to mimic Europe's largely failed attempts to forge "Single Skies". The concept recognizes that Asia is a diverse continent with a myriad of differing regulators, unlike Europe with its European Union and single regulator. The Association of Southeast Asian Nations (ASEAN), for example, has no

Lion Air, Indonesia's largest airline, was found to have committed 35 violations of flight permits

regional agencies overseeing aviation safety or co-ordinating air traffic control, unlike the more developed European market.

Aviation experts hope QZ8501, tragic though it has been, may spur moves to improve the region's infrastructure and its patchwork of differing safety standards. Alan Khee-Jin Tan, professor of aviation law at the National University of Singapore said: "Hopefully, the QZ8501 crash will galvanize the states into making technical harmonization a priority." He pointed out there are difficult issues in achieving harmonization because they impact on national sovereignty. Countries in the region are also at very different levels of development and capacity.

The reputational stakes are particularly high for Indonesia, which is forecast to be one the world's largest aviation markets by 2020. Despite improvements, the air safety record of Southeast Asia's most populous nation remains patchy. Not surprisingly, Indonesia's air safety regime is being closely scrutinized after the latest crash.

In the recent past, serious lack of safety oversight by the country's regulators resulted in the nation's airlines being banned from flying to Europe and the U.S. A few airlines, including flag carrier, Garuda Indonesia, are now exempted from the bans.

But concerns remain in the industry about the country's air safety systems. At present, to keep aircraft travelling in a flight corridor at a safe distance from each other, Indonesian air traffic controllers still employ procedural separation, using pilots' radio reports to calculate their position relative to other traffic.

This operating procedure takes longer than the more sophisticated radar separation system used in Singapore and elsewhere where controllers can more quickly assess radar returns from all aircraft in the area.

"There is a lot of work to be done to address and identify deficiencies and to strengthen regulatory oversight. That's true in Indonesia and it's true in a number of other markets," said the AAPA's director general, Andrew Herdman.

He said the expanding air traffic in the region should push airline executives, governments and civil aviation bodies to improve coordination efforts. "Countries are quite sensitive to their progress. The industry is growing. The population is growing quite rapidly. So the quality of regulatory oversight has to keep pace with demand," Herdman said.

Even though there is a possibility the investigation into QZ8501 may find the disaster was not the fault of the airline, but the result of a string of events involving air traffic congestion and pressures, the Indonesian government has alleged Indonesia AirAsia was operating outside the rules.

It is reported the airline was cleared by the transportation ministry to fly the route from Surabaya to Singapore on Mondays, Tuesdays, Thursdays, and Saturdays, but it was actually flying on Mondays, Wednesdays, Fridays and Sundays (the day the accident occurred).

Contradicting this report is a statement by Singapore's Civil Aviation Authority (CAAS), which said it had authorized Indonesia AirAsia to operate daily flights during the winter season under a bilateral air-services accord. The conflict has revealed a lack of co-ordination between Singapore and Indonesian authorities.

For its part, Indonesia did react quickly. It immediately conducted an audit of flight permits for all domestic carriers and imposed sanctions on five domestic airlines. Transportation Minister, Ignasius Jonan, said the companies were Garuda Indonesia, Lion Air, Wings Air, Trans Nusa and Susi Air. The government suspended flight permits for 61 routes at the five airlines.

Lion Air, the largest carrier in the country, committed the most violations, with the government suspending 35 of its routes. Garuda breached regulations on four routes. The minister said all airport authorities and operators will be audited with the assistance of the National Police Criminal Investigations Directorate (Bareskrim), to learn if potential problems such as allegations of route buying were well founded. The country's Corruption Eradication Commission (KPK) would assist the ministry in the audit.

From June this year, the government will revoke the licences of airlines that do not own at least five aircraft and charter carriers that do not own at least one aircraft. "If airlines cannot fulfill this requirement their licenses will be revoked," he said.

According to Indonesian law, airlines must operate at least 10 aircraft with five owned by the carrier and five leased. Charter airlines must own at least one aircraft and lease at least two to operate. Jonan also said he was considering a plan to ban all LCC operations in Indonesia, which most observers believe will not eventuate.

Founder and chief executive of the AirAsia group, Tony Fernandes, said on the day of the crash: "Until today, we have never lost a life. But I think that any airline chief executive who said he can guarantee his airline is 100% safe, is not accurate. We have carried 220 million people up to this point. Of course, there's going to be some reaction, but we are confident in our ability to fly people," he said. ■

Over regulation limits crew recruitment

Martin Eran-Tasker, the technical director of the Association of Asia-Pacific Airlines said perceived shortages could be addressed if countries made it easier for qualified pilots and engineers to move freely between different jurisdictions for work.

"In our opinion, the perceived shortage problem in the near term is that the movement of qualified staff needed to fill available positions is restricted by the lack of harmonized regulatory procedures that allow the verification, confirmation and transfer of qualifications and licenses of technical and pilot staff from one jurisdiction to another," he said.

"Leaving aside all the accidents, this region is going to see the largest growth of air traffic for the next 20 years. Do we have the rules and regulations to meet it? Right now, most airline chiefs would respond with a resounding 'No'"

Regional director safety and flight operations International Air Transport Association

ICAO examines new tracking rules

The International Civil Aviation Organization (ICAO) is considering a proposal that all commercial aircraft operate systems that require airliners to report their position every 15 minutes. But not everyone is happy with the 12-month deadline for implementation.

Tom Ballantyne reports

At an International Civil Aviation Organisation (ICAO) safety conference in Montreal this month, the organization is expected to decide if it should introduce new regulations that require the world's airlines to operate a standardised global and more frequent aircraft tracking system.

The new rules, which would require all aircraft to report their position every 15 minutes, is a result of a review of global aircraft tracking practices conducted by the Aircraft Tracking Task Force (ATTF). The ATTF was set up after the still unresolved disappearance of Malaysia Airlines' MH370 in March last year.

At the time, the loss of the aircraft and 239 passengers and crew provoked widespread disbelief. Aerospace and safety experts have struggled to understand how a high technology passenger jet could disappear into thin air. No trace of the B777, believed to have ultimately crashed in the southern Indian Ocean after diverging from its Kuala Lumpur to Beijing route, has been found.

The industry task force, whose members included representatives of the International Air Transport Association (IATA) and regional airline bodies, as well as aircraft manufacturers, pilots' and Flight Safety Foundation representatives, issued its recommendations last November.

IATA, which led the task force, said the 12-month deadline for implementation may be impractical. Some airlines also believe adoption within a year of new performance criteria, including the ability to track planes across their entire potential range, is unrealistic. They argue the response to MH370 requires more time and investigation, IATA director general and CEO, Tony Tyler, told reporters at a briefing in Geneva last December.

At the same gathering, the organization's senior vice-president safety and flight operations, Kevin L. Hiatt, said airlines are being encouraged to evaluate their current tracking capabilities and that those not currently meeting the criteria should implement measures to do so within twelve months.

Hiatt pointed out that some airlines, based on their operations, may not be able to implement some items within the time frame. This month's ICAO safety conference is expected to take a close look at the deadline proposal.

ICAO spokesman, Anthony Philbin, said the proposals represented a "foundational flight tracking standard", which would apply while the organization developed stringent tracking recommendations. "If (member states) agree to the standard, the safety conference will be asked how quickly it expected implementation and if it would want ICAO to expedite that process. Once our states have made their views known, we'll have a better idea of the time frame," he said.

A large number of airlines already track their flights using satellites and most aircraft have systems on board that can transmit their positions. But the equipment isn't always turned on and there are gaps in satellite coverage, including on polar routes and some remote oceanic areas.

While radio, or voice communication, can be used, again there are gaps in transmission where reception is non-existent or of extremely poor quality.

In terms of unlawful interference - the ACARS (Aircraft Communications Addressing and Reporting System) and transponders on MH370 were disarmed before the flight disappeared - it is unlikely there will be moves to ensure they cannot be turned off by cockpit crew.

IATA's Hiatt said that without speculating what happened to MH370 "redesigning the aircraft's fail safe systems to ensure transponders or other key tracking systems cannot be shut off is well beyond the near-term focus of the ATTF".

Flight crews must be able to de-activate equipment in case of malfunction, such as ATC disruption, or a safety hazard, such as an electrical fire.

In the short-term, he said, the next step was to "use what we currently have and are being offered". In the near-term, it is to look to other solutions if the aircraft or airline doesn't have the latest technology. In the

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LOVE WHAT YOU FLY | EMBRAER Commercial Aviation medium-term, the goal should be to utilize new technology and look at tamper-proofing.

Another issue that has emerged since the MH370 disappearance is the difficulty of locating and retrieving aircraft black boxes after a plane crashes into the sea.

Airbus has begun talks with the European regulator, the European Aviation Safety Agency (EASA), with the aim of providing ejectable flight data recorders on its two largest jets, the A380 and the new A350. It is also looking at the possibility of placing them on new versions of the A330 and A320. If successful, Airbus would become the first manufacturer to install the ejectable black boxes on commercial airliners.

The upgraded recorders are widely used on military aircraft. The ejectable or deployable recorders separate from the tail during a crash and emit a satellite distress signal as they float.

"Airbus is working with EASA... and other stakeholders to advance the approval of such a solution industry-wide," said an Airbus spokesman, although he added there was no indication of when installation might occur.

"In the future, applicability for our other aircraft products could be likewise considered, but presently we have decided to focus on the A350 and A380."

There is disagreement within the industry about deployable recorders. Critics argue it would be far better to focus on a system that allows real-time transmission of data from flights, possibly activated when an emergency occurs.

Cost is a consideration. Each box costs between $13,000 and $16,000. A deployable recorder is estimated at $30,000 or above, with the additional investment of retrofitting fleets with the new boxes. ■

Aircraft tracking recommendations

The Aircraft Tracking Task Force's six key findings are:

- There is a range of existing technologies and services, many installed on aircraft, that can enhance world-wide tracking in the near-term.
- This range of technologies will enable airlines to take a performance-based approach when implementing or enhancing their tracking capabilities.
- There is a need to amend existing procedures and develop new or improved communications protocols between airlines and air navigation service providers.
- A set of performance-based criteria will establish a baseline level of aircraft tracking capability.
- Any changes to equipment to address unlawful interference are long-term prospects because of significant design, operational, procedural, certification and safety considerations.
- Additional options will become available as new products and services are developed.

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FUEL FALL FIRES UP PROFITS

Confidence among airline managements that 2015 could be one of their best twelve months for years is surging. Their optimism is driven by the dramatic plunge in the fuel price, continuing traffic growth and a revival in air freight.

Tom Ballantyne reports

Airline profit expectations for the coming year have become more positive, consistent with improvements in the industry's recent performance, with only the Asia-Pacific reporting slower growth.

In its latest quarterly survey of airline chief financial officers and cargo heads, released in January, the International Air Transport Association (IATA) said falling costs and growth in volumes were responsible for the better financial performance, in combination with a more positive outlook for the industry's performance.

IATA had already lifted its profit forecast for global airlines in 2015, from $19.9 billion to $25 billion, in December, which gave the industry a global profit margin of 3.2%. Asia-Pacific operators are expected to report a net profit of $5 billion this year, up from $3.5 billion in 2014. But the fuel price level, if sustained, could lead to better projections later in the year, analysts said.

Last month, the average price for jet fuel was around $1.71 per gallon, some 18.1% lower than a month earlier and down a phenomenal 43.2%, year on year, at press time. But despite demand being largely positive, IATA cautioned that risks persist in today's global environment, including political unrest, conflicts, and some weak regional economies.

"Nevertheless, with the global economy steadily recovering and the fall in oil prices expected to strengthen the upturn in 2015, the industry outlook is steadily improving," IATA said.

Unusually, the downward influences on airline performance in the past few months have been in the Asia-Pacific. After a slight improvement last October, annual international traffic growth for the region's carriers slowed to 4.9% in November, the latest period the data covers.

There is a slowdown in regional production activity, especially as China recalibrates the direction of its economy from exports to domestic sustainability, although trade volumes have remained strong.

Even if international traffic experienced a modest bounce-back in the peak December season, annual growth for Asia-Pacific carriers was expected to slow to an average of 4%, compared with global growth of 6%, said IATA.

On the other hand, the most significant freight expansion is taking place in two regions: the Asia-Pacific (up 5.9% in November) and the Middle East (up 12.9%). Carriers in these regions captured the vast majority of the global increase (93%) in air freight, with the Asia-Pacific accounting for 55% of the total year-on-year growth and a market share of 39.7%. Middle East airlines, which have 13.3% of global air cargo business, expanded their freight business by 38%.

Despite global financial services firm, Morgan Stanley, predicting oil will be as low as $43 a barrel by the third quarter of this year, the rock bottom fuel price does not guarantee more profits for some Asia-Pacific airlines.

Analysts predicted the ultimate impact of cheaper fuel on airlines' bottom lines will depend largely on individual carriers' fuel hedging policies. Airlines with low hedging exposure and that are buying fuel at spot prices will reap big benefits from cheaper fuel. Airlines with a large percentage of their fuel secured by hedges at higher levels than current fuel prices will lose out unless fuel soars again.

Many Asian airlines have been cautious about hedging after they burnt their fingers in 2008. Back then, they locked in fuel costs as crude oil surged above $100 a barrel for the first time. Then oil plummeted to less than $40 per barrel before the year's end.

As a result, many airlines suffered huge paper losses as they had to account for wrong-way fuel hedges or pay to unwind contracts prematurely. Among the big losers were Cathay Pacific Airways, which resulted in the airline's first annual loss in more than a decade, Singapore Airlines (SIA) and the major Chinese carriers.

SIA might be at risk again. It has hedged 65.3% of its fuel needs in the six months to March, 2015, at an average price of $116 a barrel. "We do have hedges in place… and that's going to mute the effect of lower fuel prices," the carrier's chief financial officer, Stephen Barnes, said at an earnings briefing last December. "On the other hand, it will protect our earnings from the full effects of a bounce if that were to happen."

Cathay Pacific would not comment on its current hedging position, but last August its finance director, Martin Murray, said the airline had hedged 44% of projected fuel needs for 2015 at $101 a barrel of Brent crude, and 25% of its needs for 2016 and 2017 at $99 a barrel. Thai Airways International has a high percentage of its fuel hedged and is looking to increase this position using current low prices.

Analyst Shukor Yusof, founder of aviation research firm Endau Analytics, pointed out that in the last six months of 2014 very few airlines were brave enough to go into the hedging market. And if they did, it was in very small volumes. With prices dropping so fast, carriers may see buying fuel in the spot market as a far better option than the possibility of being caught on the wrong side of a long-term hedge, he said.

Another analyst, who requested anonymity, said making decisions on hedging in the current circumstances is extremely tricky, but that hedging at today's low levels could be an excellent opportunity. He did not believe crude output would be sustained at current prices and said some increase in demand and a reduction in supply is bound to force up the price.

If the price does stay low, however, several carriers have been identified as potential beneficiaries of spot price purchases. South Korea's Asiana Airlines halted hedging last September because of price volatility.
It has hedged

Singapore Airlines has hedged 65.3% of its fuel needs in the six months to March, 2015, at an average price of $116 a barrel

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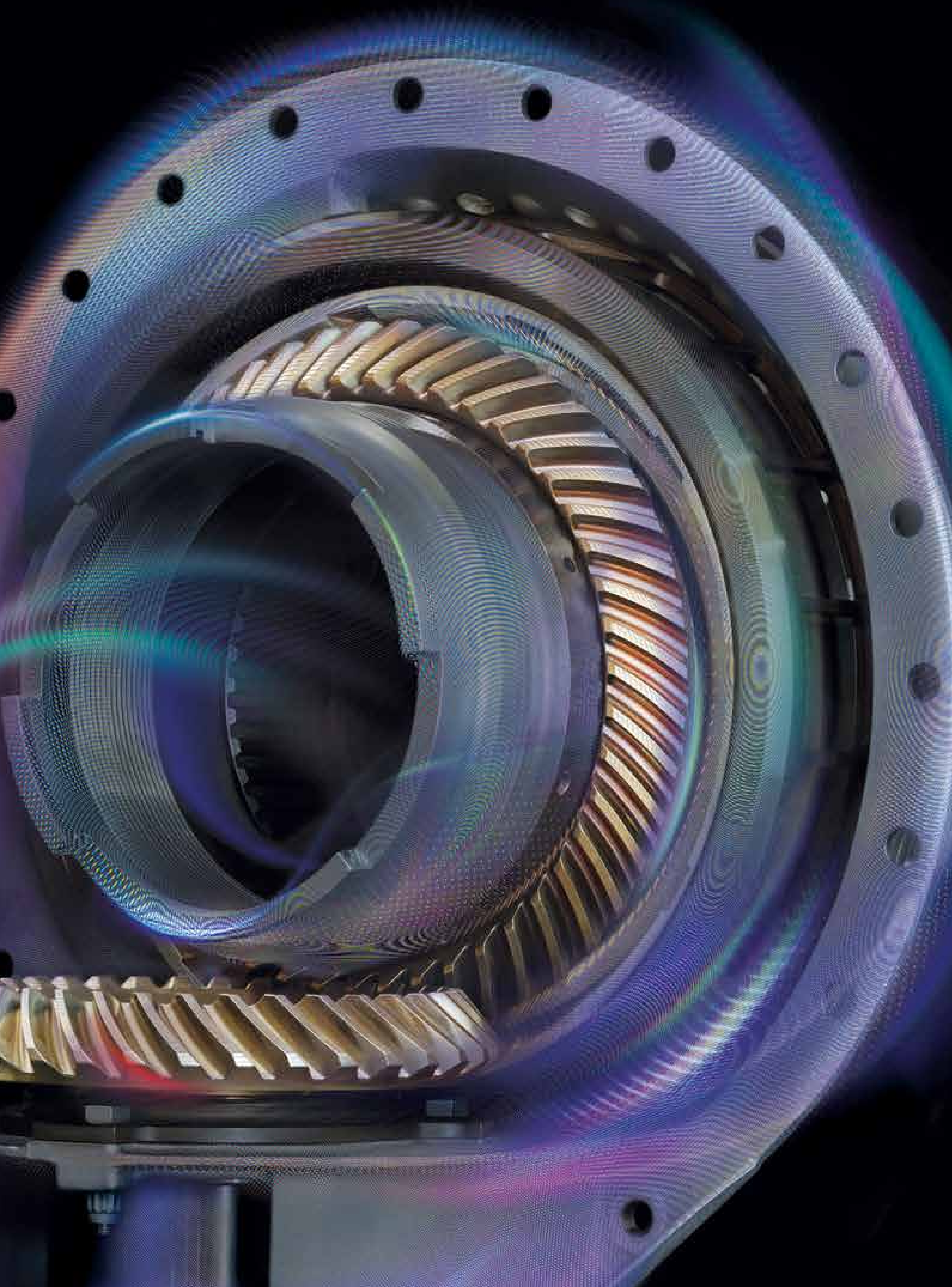

8.4% of its fuel needs for this year.

A spokesman for Shanghai-based China Eastern Airlines said the carrier does not hedge.

Air India, which also goes largely unhedged, estimated it could eliminate $375 million from its annual fuel bill of about $1.5 billion, based on savings made since prices began falling eight months ago. Nevertheless, the carrier's director of finance, S. Venkat, said Air India is looking at hedging between 30% to 40% of its fuel needs, or about 300,000 barrels a quarter, at current jet fuel prices.

Another winner could be Australia's Qantas Airways, which has "significant scope" to benefit, according to a spokesman. About 70% of the fuel that Qantas will use in the six months to June 30, will be bought at spot prices. The remainder will be priced between current levels and higher prices prior to September 2014.

The biggest beneficiaries of cheaper fuel in the region will almost certainly be low-cost carriers, whose fuel costs represent a higher proportion of expenses than full-service carriers, at up to 50%. AirAsia group chief executive, Tony Fernandes, said the oil price collapse is "massive" for the budget carrier group.

One aspect of the fuel price change that is confronting some airlines is fuel surcharges. The public, watching prices plummet at their local service stations, question why airlines are not reducing or eliminating this charge from their air tickets.

Some airlines are doing so. Japan Airlines (JAL) has announced significant reductions from February 1. On a JAL service from the Philippines to Japan and onto the U.S. the surcharge has been cut from $259 to $173 a ticket. On other routes the reduction is as high as 50%.

Despite the reluctance of many carriers to pass on fuel savings, IATA predicted fares will fall about 5% this year, if current fuel price trends continue. Ratings agencies expected this to be mainly driven by capacity growth outstripping demand. But it is anticipated there will be some impact from the rollback of fuel surcharges in regulated markets like China.

In the Asia-Pacific, Moody's warned a flood of capacity from start-up airlines could outstrip demand and weigh on yields and margins in the next few years. IATA forecast capacity in the region will rise by 8.5% this year, while traffic demand will expand by 7.7%.

There is another interesting development for the industry as a result of the fuel price collapse. Suddenly,

> The oil price collapse is "massive" for the Malaysian headquartered low-cost carrier group
>
> **Tony Fernandes**
> AirAsia group chief executive

hundreds of older aircraft, destined for the scrapheap, have become economically viable.

At an aircraft financier's conference in Dublin last month, delegates were told that jets bound for the desert or scheduled to be broken up, such as A340s and older B747s, have ben given a reprieve.

"We are seeing a big pick-up in demand for aircraft we thought we would scrap," Aengus Kelly, chief executive of lessor, AerCap, told the Airline Economics conference in Dublin. The world's largest independent leasing company, AerCap, has recently leased out older passenger aircraft and freighters such as A340s, B747s and B757s, rather than parking them up, he said.

The potential lives of some of these older aircraft had been extended by three and four years, Kelly said. Other delegates said some airlines were retrieving mothballed B747s from desert storage to return them to flying.

However, there is universal agreement that record orders for the new generation of fuel-saving, carbon-fibre aircraft, placed as carriers sought protection from high oil prices, will stay in place.

Indeed, if low fuel costs are sustained long-term, buying a new B787, A350, B737 MAX or A320neo will be even more attractive. The current jet fuel price is about 51.1% lower than the price Boeing assumed it would be when the manufacturer calculated estimated savings of $112 million for a fleet of 100 B737 MAX 8s.

The problem is, while airlines are relieved fuel is so much cheaper, they also are aware of the volatility of oil markets and their ability to surge suddenly to higher levels. ■

Asia-Pacific airline share spike

IATA's upbeat mood was underscored by ratings agency, Moody's. In January the credit ratings agency upgraded its outlook for global airlines to "positive" from "stable" as most carriers appeared set to benefit from the sharp drop in fuel prices from June last year. Moody's upgraded its projected profit margins for the global industry to 12%-14% for this year and 11.5% to 13.5% in 2016. This forecast is significantly higher than its previous estimate of 8.5%-9.95%. Airline shares across the Asia-Pacific shot up to their highest level in three years as the jet fuel price continued to drop.

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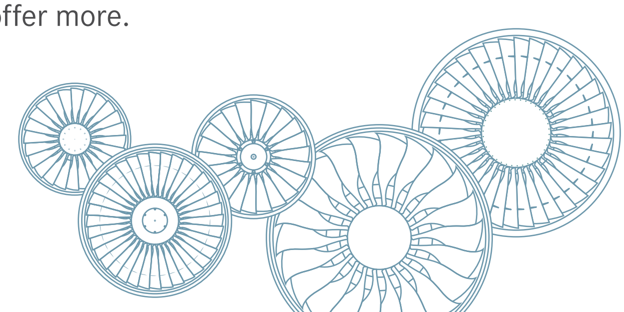

COVER STORY

SUN AWAITS TRANSIT BONANZA

Global economic volatility, fierce regional competition, a low-cost start-up and high operating costs have made profits elusive at China Airlines (CAL). But 2015 holds promise predicts chairman, Huang-Hsiang Sun, especially if China lifts the ban on Chinese tourists transiting through Taiwan.

Tom Ballantyne reports from Taiwan

As he watched China Airlines' (CAL) first B777-300ER fly out of Taipei to Los Angeles last December, the CAL chairman and airline veteran, Huang-Hsiang Sun, must have been relieved that some good news was finally coming the carrier's way after a punishing 12 months.

Apart from the fleet upgrade, which will see most of CAL's B747s phased out of operations, CAL is showing strong signs of recovery from last year's financial red ink. It suffered a net loss of US$81.06 million in the nine months to September 30, mainly due to high fuel prices in the early part of the year and a $90 million payment to settle a U.S. lawsuit on alleged price fixing.

However, the dramatic decline in the price of oil since last June resulted in a profit of $40.36 million in the third quarter to September 30, which could only improve with the thinning out of its B747s and as new planes come on line.

The B777s, which will number ten when deliveries are completed, are a pivotal part of CAL's multi-million revamp that is a quantum leap in CAL's service, network and cabin

standards. The brand facelift includes new cabin interiors, new lounges for its frequent travelers and cabin services, such as inflight bars and lounge areas, in aircraft fitted with wood paneling throughout their cabins.

Also on order are 14 A350-900XWB (with six options) that will begin arriving in the third quarter of next year (2016), as well as three B737-800s that will be added to the 16 the carrier has in its fleet.

Improvements in market conditions, lower fuel costs and upgraded airliners are all good news for CAL's bottom line. But the icing on the cake would the long awaited lifting of Mainland China's ban on allowing its citizens to transit through Taiwan to destinations across the world.

Sun told *Orient Aviation* he is confident a major breakthrough on this issue is on the horizon. Mainland Chinese international travelers can transit to third countries via South Korea, Japan and Hong Kong in North Asia but not Taiwan.

Statistics published by the U.S. Department of Commerce report that of the 1.8 million Mainland Chinese tourists who visit the U.S. annually, 60% transit through third-party airports such as Hong Kong, Seoul and Tokyo. If the restriction was lifted in the Mandarin speaking nation, Taiwan would offer both an appealing alternative for Chinese travelling abroad as well as allowing CAL access to a huge number of new passengers.

Just how confident is Sun that a breakthrough will be achieved? "This issue has been going on for some time. Too long," he told *Orient Aviation* in an interview in the airline's new VIP lounge at Taoyuan Airport.

"Now is about the time. I can see progress in the last couple of months that is very encouraging. The official dialogue has begun. I am quite optimistic. I think both sides will find a solution and make the transfer point in Taiwan feasible.

"I would say maybe in six months. We are ready for it and have been for a long time. The Chinese carriers are carrying a lot of beyond traffic from Taiwan, so I don't see any reason why we should not be able to do the same."

The policy change would be one of the most important developments in CAL's history. Since cross strait flights were introduced over the last decade, CAL has expanded its regional network to include 152 flights a week to 32 cities in China. Offering 75,000 seats weekly between the Mainland and Taiwan, CAL is the largest cross strait operator in available seat kilometres (ASK). It has almost 30% of the cross-strait market, and enjoys an average load factor of near 80%.

"Taiwan and China share the same language and culture so we aim to be the leading cargo and passenger carrier serving both sides of the Taiwan Strait," said Sun. "Taiwan is a small island with abundant resources for tourism and hi-tech development, which should boost business, particularly aviation industry prospects.

"Since we have opened the door to friendly dialogue between the two sides, when new [Mainland] destinations and flights are opened we will have more opportunities in the China market. Because of our geographic advantage, Taiwan is working aggressively towards being a a regional hub. As the largest airline based in Taiwan, business expansion is anticipated."

He said cross strait business has become one of CAL's focal markets. "With the partial deregulation of air travel we look forward to further relaxation of traffic rights for both China and Taiwan. In the meantime, the cross strait market not only contributes to our regional network, but also to our long haul load factor. So, it makes sense for CAL to continue to expand its cross strait network," he said.

There is another issue on the China front that Sun hopes can soon be resolved. Unlike other airlines, CAL is not permitted to fly over Mainland China en route to Europe. Its flights must detour through Southeast Asia and then fly north to Europe.

If overflights can be negotiated, the airline would benefit from thousands of hours of reduced flying time and have a much lower annual fuel bill. At present, it is not known how negotiations are progressing on these issues.

Sun is no stranger to the political and operational challenges of both Mainland Chinese and Taiwanese

CABIN CHIC

Underpinning CAL's determination to remain a major global airline are the investments it has made to lift service standards. It spent five years conducting field passenger surveys before it decided its core service concept should be "presenting the best of Taiwan".

Sun admitted to Orient Aviation that operating the B747 for so long resulted in CAL "not being as competitive as others". The new B777 is "a milestone for us", he declared.

CAL's B777-300ER, designed by acclaimed Taiwanese architect, Ray Chen, seats 358, and is designed to evoke the Song Dynasty (960-1276 CE) era. Persimmon tree grain paneling decorates the cabin throughout the aircraft. Poetry and period art decorate the walls, including aircrafts' bathrooms.

Each premium cabin has a Sky Lounge, which is a bar and relaxation area modelled on a classic Chinese teahouse, and library with a rotating selection of Chinese and English language books.

CAL has introduced the Family Couch in ten rows of economy, a product which raises arm and leg rests to create a full-flat bed across three seats. It purchased the rights from Air New Zealand, which created the product. "Everything was designed from ground zero," said Sun. "We will have new uniforms from the middle of this year."

aviation. He joined CAL in 1970 and has held leadership positions across the group and at several of its affiliates. In the past four decades, he has served as vice president of the carrier's passenger sales and corporate planning divisions, general manager of its Europe and San Francisco branch offices, vice president of Mandarin Airlines, president of Formosa Airlines and TransAsia Airways and chief executive of Yangtze River Express Airlines. He was appointed president of CAL in June 2008 and chairman in March 2013.

Obviously, lower fuel costs will help the airline financially, he said. "We have been nailed down by high fuel costs for quite some years. But now they are at a reasonable level. Also, cargo demand is looking a little better," he said.

"With the [oil] price drop people have more disposable income to travel. That's good for everyone. It's a good positive cycle. I am looking forward to a better 2015, but we still have to be very careful."

While the economic outlook is healthier, CAL is not ignoring the need for consistent cost reduction. It launched "Pheonix" six years ago, a company wide program to maximize revenue and minimize costs without sacrificing flight safety, service quality, market share and employee benefits.

Explained Sun: "our cost reduction projects cover fuel, ground operations, maintenance costs, procurement, process improvement and other smaller departments. All are tracked to maximize revenue, but in different way."

CAL added the Gap Abatement Project in May 2014 to produce further savings of US$50 million. It aims to reduce contract rates by 3%, achieve a 20% reduction in optional expenses and a suspension of non-urgent expenses.

Like Japan, until recently Taiwan had no home-grown low-cost carriers. CAL launched its Tigerair Taiwan subsidiary last September, a few months before V Air, a subsidiary of rival, TransAsia Airways, made its first flight.

Sun said that as the leader of Taiwan's aviation industry, the onus was on CAL to respond to the low-cost carrier (LCC) challenge. "We not only want to directly compete with existing LCCs, but also plan to offer travelers more choices that will promote Taiwan's tourism industry and economic development.

"We have full confidence in Tigerair Taiwan. Its biggest advantages are the high brand recognition of Tigerair in Taiwan and the Tigerair Group's route and sales network across the Asia-Pacific," Sun said.

"Tigerair Taiwan will focus on routes to Southeast and Northeast Asia such as Thailand, Japan and South Korea. If we can secure approval for new Mainland China services, our LCC will actively participate in that market."

Asked if he was concerned about Tigerair Singapore's (it has a 10% stake while CAL holds 90%) recent loss-making performance, Sun said the partnership was the most important factor in the deal.

"If we had set up our own LCC without a partner the learning curve would have been too steep. So yes, Tigerair may be having some difficulties, but I don't think that will affect our operation at all," he said.

"Tigerair Taiwan has been in operation for only a few months and everything is going quite smoothly. It is growing very fast. There were only two aircraft in its fleet at the end of 2014.

"By the end of this year, there will be seven and we are talking about adding five aircraft a year. There is room to grow. The LCCs certainly get part of CAL's traffic, but they also generate traffic. It's a fact of life."

Significantly, Tigerair Taiwan has been operating with load factors of around 90% since take-off and was expected to end 2014 with a relatively small loss that will only modestly impact on CAL's annual results.

There is little doubt the budget sector holds big promise. Singapore's Jetstar was the first LCC to fly into Taiwan, in 2004. Since then the number of LCCs servicing Taiwan has increased to 14, including airlines from Singapore, Malaysia, Japan, South Korea, Hong Kong and China.

According to Taiwan's Civil Aeronautics Administration (CAA), budget airlines account for up to 7% of passengers carried in Taiwan. The number of people traveling in and out of Taiwan on budget airliners has climbed from 260,000 in 2009 to 2.32 million in 2013.

Another important factor in CAL's strategy is its membership of global alliance, SkyTeam, which it joined in September 2011. Membership increased its international destinations from 118 to 1,052 and remains an integral part of CAL's strategy to increase its international traffic and profitability, said Sun.

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"Our relationship with SkyTeam members is very important, but there are some destinations the SkyTeam network doesn't completely cover, so we will develop partnerships with appropriate non-SkyTeam carriers."

CAL has code-share agreements with 17 airlines, including Qantas Airways, China Southern Airlines, China Eastern Airlines, Shanghai Airlines, Xiamen Airlines, Delta Air Lines, Garuda Indonesia, Vietnam Airlines, Korean Air, Czech Airlines, KLM, Alitalia, Japan Airlines, Hawaiian Airlines and Transaero Airlines.

"We've been concentrating on regional expansion. That must be right to feed a successful long-haul business," he explained. "Obviously, Mainland China is the big market. We have more than 152 flights a week between Taiwan and Mainland China, covering 32 destinations," he said.

"According to our analysis, passengers taking cross strait flights account for about 55% of total cross strait travellers. This means 45% of travellers transit through other regions on their way to China. So we would like to increase flight frequencies to China."

Japan is also important. "In 2011, the market was liberalized between Japan and Taiwan and we expanded our service to Japan from 95 flights a week, to 130 flights to 13 destinations each week. In Southeast Asia, we are increasing flights to major cities such as Manila, Jakarta and Bangkok," he said.

"But we are a full-service airline and we have a very viable long-haul business. In fact, our long-haul services account for around 45% of our passenger revenue. We have bought our new aircraft with the long-haul sector in mind."

Sun said the new B777s, and when they arrive, the A350s, will significantly improve the airline's long-haul network. After the first B777, which he describes as the "gold standard" for long-haul flying, began services to Los Angeles in December, CAL will add flights to San Francisco and New York with the aircraft type.

"China Airlines offers more than 20,000 seats a week between Taiwan and North America. To expand our network, we started code-sharing with Virgin America and WestJet last October, which provides passengers with a greater choice of destinations in the U.S. and Canada," he said.

"We expect both Intra-Asia and Trans-Pacific traffic to grow, but with limited expansion on longer-haul routes and increases in flight frequency on regional routes."

"More U.S. carriers coming to Taiwan are welcome. Maybe we can make the pie bigger. We are not so far away from the U.S. West Coast - nine to ten hours - but long-haul traffic is only about 10% of our total traffic. There is room for growth"

Huang-Hsiang Sun
Chairman China Airlines

Sun is not phased by greater competition from big U.S. carriers putting more capacity into Asia as they seek seats in the world's biggest aviation growth market. "They are coming, but I always say that it's not bad for competition," said Sun.

"You cannot stop it. The only way you can compete is to be better. More U.S. carriers coming to Taiwan are welcome. Maybe we can make the pie bigger. We are not so far away from the U.S. West Coast - nine to ten hours - but long-haul traffic there is only about 10% of our total traffic. There is room for growth.

"The Visa waver program, introduced in 2012 for Taiwanese travelling to the U.S., made a huge difference [to us] because people can go to the States any time they want. So it's not bad to have new competition."

Whatever the challenges ahead, Sun said CAL is prepared for them. "I've been in this industry for 40 years, but the last few years have definitely been the toughest. Airlines have been severely affected by events outside of their control.

"There has been global economic uncertainty, political instability, SARS and other potential pandemics. Fuel prices soared. It has become more and more difficult to manage an airline in such a volatile world.

"While it is more challenging than ever, airlines have grown stronger. There have been many improvements. By strengthening our core competencies we are better able to adapt to the outside environment," he said. ■

Fleet transition

CAL has a fleet of 81: 24 A330-300, six A340-300X, 16 B737-800, 11 B747-400, 21 B747-400F (three are in storage) and three B777-300ER. With the new B777s and A350s, it will entirely replace its long-haul fleet by 2018. The A340s, flown primarily on routes to Europe, will be retired by 2017. The B747s will be phased out in the next few years. A decision on ordering new narrow-body aircraft – either the B737 MAX or the A320neo - is planned for mid-year.

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IATA

Skymark appoints new president after airline enters bankruptcy protection

By Geoffrey Tudor in Tokyo

In a dramatic turn of events for Japanese aviation, internet entrepreneur and president of Skymark Airlines, Shinichi Nishikubo, faced the inevitable and resigned from the carrier on January 29, 18 hours after the airline announced it would file for bankruptcy protection.

The 59-year-old's decision was quickly followed by the appointment of Skymark's chief financial officer, Mazakazu Arimori, (58), as Nishikubo's successor.

Skymark over extended itself when in introducing the A330 into its fleet

At a press conference called after his elevation to the top job, Arimori sought to reassure shareholders with the news that the Integral Group would provide interim financing so that the carrier could continue to operate as Japan's third largest carrier. It is believed the private equity group is interested in investing in Skymark.

After an extraordinary general meeting on January 28, the Skymark board filed for protection with the Tokyo District Court under the Civil Rehabilitation Law as it faced debts of 71 billion yen (US$603 million). Analysts said this amount could blow out to 100 billion yen when off balance sheet items were included.

Earlier in January, Skymark announced JAL and ANA, its fiercest rivals, came together to offer Skymark code-shares on key routes out of Haneda, with a starting date of March 29.

At the time, the partnership of the strange bedfellows was regarded as the financial lifeline that would sustain Skymark through its darkest hours. However, mounting debt, coupled with an impending compensation duel with Airbus over the cancellation of a US$2.2 billion order for six A380s, pushed the carrier beyond its financial limits. Airbus has filed notice of an intended suit in the British courts.

Skymark, based at Tokyo Haneda airport, was profitable for several years, but had been running at a loss for most of 2014, particularly after it incurred unanticipated high costs for the introduction of A330s on some of its 27 domestic routes. It is forecast to lose 13.6 billion yen for the year, to March 31, a figure that could go higher.

Skymark Airlines broke new ground in Japan's highly regulated domestic airline industry when it set up in 1998 to challenge the dual supremacy of Japan Airlines (JAL) and All Nippon Airways (ANA).

After its years of success, when it offered lower fares than either JAL or ANA, the landscape changed with the arrival, in 2012, of local low-cost carriers and a consequent drop in its market share.

The situation was exacerbated by the start-up costs of adding A330s to its fleet and a commitment to six A380s.

Adding to the negative cash flow was a huge leap in the price of jet kerosene made worse by a declining Japanese yen. Almost all airline deals are done in US$ denominated currency. Negative publicity about its struggles did not help. Japan's notoriously risk averse travelers increasingly went elsewhere.

The airline has been selling off assets, such as ground handling and training equipment, since mid-2014 and has been actively seeking investors prepared to finance it through its very rough patch.

Skymark has almost completed domestic route code share agreements at Tokyo's Haneda Airport with JAL and ANA, which were predicted to add 16 billion yen to Skymark's bottom line.

Before the bankruptcy decision was made, investors told Skymark that a successful sign-off of the code share deals was a pre-requisite for any funding support.

At the time of Arimori's appointment, the airline said the code-share talks with JAL and ANA are continuing.

It is a highly unusual proposed arrangement, which in effect was intended to help their competitor survive. Skymark initially approached JAL last year on a possible code-share deal, to which the former flag carrier responded favorably.

But the Minister of Land, Infrastructure, Transport and Tourism (MLIT) was not comfortable with a JAL-only deal. In 2010, JAL had been saved by the previous government and backed by public funds. It would give JAL an unfair advantage, said the minister, Akihiro Ota.

How Skymark's situation, which bears similarities to JAL's position in 2010, will affect the proposed code-shares is yet to be played out.

The ministry went on to engineer a three-way deal, including ANA. A key element of the discussions was the MLIT's guarantee that it would maintain Skymark's Haneda slots indefinitely.

Slot allocations are usually reviewed every five years and a review was due in January. At press time, no change had been made about these assets, which allow Skymark to operate 36 services daily from the preferred downtown airport.

Haneda slots are a passport to profitability. Each one is worth between two billion and three billion yen in revenue. Not exactly licenses to print money, but close.

The three way code-share deal was being written to apply to five of Skymark's Haneda routes: Sapporo (New Chitose), Fukuoka, Kobe, Kagoshima and Naha. Three of these routes, Fukuoka, Sapporo and Naha are in the top 12 busiest city pair routes in the world.

Starting with the 2015 summer season, ANA and JAL planned to put their codes on these five routes, selling just less than 20% of the seat capacity. More than 20% would mean a change of slot ownership.

Skymark's triple code-share was planned to last five years. Industry sources estimated the deal will bring in eight billion yen annually to Skymark.

The carrier's load factor in December was 54.5%, its worst performance since 2010. Load factors on the five Haneda routes had fallen below 70%, compared with the early 80s in more recent times.

Skymark saw the code-share deal as a way to maintain its independence. It had resisted investment from ANA, which would have turned it into another feeder carrier for Japan's biggest airline. This has been the fate of other 'new' entrants in Japan since the mid-1990s, such as Solaseed, Starflyer and Air Do.

If joining ANA had happened, there would be the risk of higher domestic fares, which would be ironic, as Skymark launched into business on the crest of a wave calling for deregulation and cheaper fares in Japan. ■

Skymark appoints insider as president

Mazakazu Arimori, the 58-year-old successor to Shinichi Nishikubo as Skymark Airlines' president, has come to his job in unusual circumstances. But he knows what is ahead of him. Until January 29, finance trained Arimori was managing director and a director of Skymark, positions he has held since 2010.

He joined Skymark in 2004 as general manager accounting, after 25 years at leading Japanese finance sector firms, including Nikko Securities Co. Ltd, now SMBC Nikko Securities Inc. He was made a director and manager of the business planning office in 2005 before his promotion to managing director almost five years ago.

Government opens Haneda to local LCCs

By Geoffrey Tudor

Japan's first and most successful low-cost carrier (LCC), Peach Aviation, will notch up another first when it becomes Japan's first LCC to offer international flights from Tokyo's downtown airport, Haneda.

From the northern hemisphere summer, Kansai-based Peach will operate a scheduled daily service between Haneda and Taipei's Taoyuan International Airport, using vacant overnight slots. Taiwan is a huge market for Japanese travel.

Until late last year, Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT), regarded LCCs as predominantly leisure carriers that were only allowed to operate from Narita, a long journey from downtown Tokyo. Full service airlines are regarded by regulators as business travel oriented and are favored when international slots are allocated at convenient Haneda airport, which is 14 kilometres from central Tokyo.

However, of the 40 slots available daily at Haneda, from 11pm to 6 am, only 26 (65%) have been taken up, mainly because of limited late night access to the airport. The MLIT has nothing to lose by offering them to willing LCCs. To date, the only other LCC using Haneda is Hong Kong Express.

Peach is taking advantage of an MLIT program, introduced last November, intended to attract airlines to Haneda with lower late night and early morning landing fees. The incentive package offers carriers a 50% reduction in the first year, 30% in the second year and 20% in year three.

Even so, the MLIT has been cautious about granting Haneda slots to LCCs because it does not want to erode Narita's standing as an international airport. But having approved the Peach flights, it has set a precedent and may be forced to formulate a more LCC transparent policy.

In a recent interview in Japan's Asahi Shimbun, MLIT minister, Akihiro Ota, said he would accept LCC applications to use late night slots at Haneda "to make the most of the airports in the Tokyo metropolitan area". His main concern, he said, is to attract more foreign tourists to Japan through better inbound access.

Other Haneda slot issues remain. Valuable daytime slots are idle. Slots not taken up by U.S. carriers that are going spare can be used for international charters up to nine times daily in summer 2015, so long as the destinations are cities without scheduled services and are operated from Haneda.

Other Haneda slots planned for increasing frequencies on the Tokyo-China route have now become available as diplomatic relations between the two countries deteriorated. They will be used, temporarily, for domestic flights.

Peach, launched in 2012, operates from its original Kansai hub as well as a more recently established base in Naha (Okinawa), which will be used to develop a Southeast Asian network for the LCC.

This year, Peach will move into the Kanto region, in Greater Metropolitan Tokyo and commence flights out of Narita to Hokkaido (Sapporo) in northern Japan and Fukuoka in western Japan from March. ■

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Manufacturers winning battle for MRO business

Aviation's Maintenance, Repair and Overhaul (MRO) sector is undergoing a seismic shift as original equipment manufacturers (OEMs) win more and more long-term after care contracts from airlines. The aggressive strategy is a threat to the bottom lines of global maintenance providers.

Tom Ballantyne reports

When India's newest airline, the Singapore Airlines (SIA)-Tata joint venture full-service carrier, Vistara, entered the country's skies in January little attention was paid to a critical aspect of its fledgling operations, the maintenance of its 20-strong fleet of leased A320s.

And the news was not good for third party MRO companies. It won't be done in-house. Despite its links with SIA, Vistara's airliners won't be flown across the seas for maintenance at the the carrier's highly regarded SIA Engineering. Instead, Delhi-based Vistara has signed a long-term Flight Hours Services Tailored Support Package (FHS-TSP) with A320 manufacturer, Airbus.

The contract provides an integrated, guaranteed service that ranges from components supply and repair to full airframe maintenance and engineering services. An on-site Airbus team will manage daily maintenance activities, including spares, warehousing and line and engineering checks.

Said Rajender Singh, Vistara's senior vice president engineering, the commitment represented the airline's confidence that Airbus could deliver the highest quality MRO to Vistara. "Having the aircraft manufacturer supporting our aircraft inventory, maintenance and engineering is the most comprehensive solution for our operational readiness from day one," he said.


William Kircher, vice president of Pratt & Whitney's Singapore Overhaul and Repair subsidiary and president of UTC Aerospace Singapore

The deal was even more significant for Airbus. It marks an important step forward in the company's strategy to establish a major business in the global A320 maintenance market, explained Airbus executive vice president customer services, Didier Lux. Airbus' FHS subsidiary covers more than 150 aircraft at airlines whose fleets include the A320, A330 and the A380.

It is worrying trend for independent MRO providers especially as the OEM onslaught – not only from Airbus but from Boeing, Embraer and other aircraft manufacturers and Rolls-Royce, Pratt & Whitney and GE - is gathering pace as MRO demand is slowing.

And an additional concern is developing for Asia-Pacific MROs. Their cost advantage over rivals in the Northern Hemisphere is disappearing. MRO rates in the U.S. stand at around $50 per hour, against about $30 in Asia. By 2020, they are expected to be almost on par, according to forecasts.

A 2014 MRO survey by management consultants, Oliver Wyman, which interviewed airline, MRO, OEM and finance and leasing senior management, said OEMs are "aggressively invading MRO markets" by leveraging new aircraft as a means to persuade airlines to use OEM MRO services, despite competitors' claims the OEMs' rates are high. The survey concluded airlines and non-OEM MROs could "hold back the invaders, by banding together in joint partnerships".

But the penetration of OEMs into the traditional MRO market was made clear by the survey when airlines were asked who they would hire for future maintenance. In terms

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of engine maintenance, 69% of respondents said they would use OEMs. Only 31% opted for MROs. For components and structures, 63% said they would still go to an MRO, but a significant 44% would choose OEMs. Only in base maintenance would airlines plump for MROs (88%), with 6% nominating OEMs.

"For airlines seeking to compete and place engine and component maintenance on next-generation aircraft, OEMs have largely emerged as the only choice. Engine and large systems manufacturers have designed and deployed effective strategies to restrict alternative material and repair development by third party MROs," the survey said.

There is a lot at stake. In 2013, according to aviation consultancy, ICF International, the world's MROs supported 123,000 civilian and military aircraft flying about 97 million hours annually. The global MRO market earned $131 billion, with about 46%, or $60.7 billion, earned from air transport MROs.

North America remained the number one MRO market, with 31% of revenue. The Asia-Pacific edged out Europe for the first time (27% and 26% respectively), followed by the Middle East with 7%, South America at 5% and Africa (4%). It is forecast MRO spending will grow 3.9% annually to 2023, to $89 billion.

A TeamSAI study forecast MRO spend at a lower level. It valued the market at $57.7 billion in 2014, expanding to $86.8 billion by 2024 (for jets and turboprops), representing a 4.2% compound annual growth rate.

Whoever is winning the business, older aircraft such as the A330, B747, B767 and B777 will be phased out for fuel-efficient A350WXBs, B777Xs and the B787.

The Oliver Wyman survey said for both airlines and non-OEM MROs, this is a fundamental concern "because OEMs, Airbus and Boeing, are doing everything they can to sew up the after-sales MRO on these aircraft for themselves. Their chances of success will improve once the world's carriers are reliant on just a trio of their planes".

> MRO rates in the U.S. stand at about US$50 per hour against US$30 in Asia. By 202, they are expected to be almost on par

Even without this, it concluded, the OEMs are successful. "In 2014, OEMs were the winners for high-value, aftermarket aviation services, which left MRO scouting for paths to evolve and grow," Oliver Wyman said.

According to industry insiders, the OEMs' successful push into MRO represents a seismic shift from their former approach to the after-sales market. "For years, the OEMs seemed to regard MRO work as beneath them," said Wayne Plucker, Frost & Sullivan's industry manager for Aerospace & Defense.

"Now the global air transport MRO market is worth more than $60 billion annually, and growing, their attitude has changed. With all this revenue available, Airbus, Boeing and Bombardier can see the very real advantages of providing such after-market support, not just for the money it brings in, but for the chance it offered to keep customers buying their aircraft when fleet renewal falls due."

While 76% of MRO respondents said they had partnered with an OEM in the last three years, (up from 71% in 2013), just 56% described the partnership as a licence agreement (down from 82%). The proportion of MROs that reported a successful joint venture or intellectual property agreement with an OEM in the past three years is virtually the same, at 27%, compared with 31% previously.

The stagnation could mean MROs have given up on proposing advanced concepts to OEMs as they have failed to establish mutually beneficial frameworks during the past several years, said the survey.

"Failed collaboration in all forms declined from 2013 to 2014. It is the generational change in aircraft and engines that is playing a pivotal role in the changing face of global MRO.

The bottom line: MRO demand growth is decreasing because the fleet is getting younger, more reliable and has improved system design.

The penetration of OEMs into the MRO market is illustrated by the increasing number of contracts written by Pratt & Whitney's Singapore Overhaul and Repair Facility. William Kircher, vice president of the Singapore subsidiary and president of UTC Aerospace Singapore, told *Orient Aviation*

there is more demand for after sales agreements.

"In 2003, Pratt & Whitney had about 10% of its active engine fleet worldwide captured for maintenance through Fleet Management Programs (FMP). This has risen quickly to nearly 50%," he said. "Today, about 45% of the PW4000 fleet and about 60% of the V2500 fleet are under Pratt & Whitney FMPs.

"We anticipate about 80% of the Geared Turbo Fan engine fleet will be under FMP. It's a trend that will continue. Engines maintained under FMP provide operators with predictable maintenance costs, fewer unscheduled engine removals and longer time on-wing between shop visits. This offers greater value to the customer as engines stay on the wing longer."

Kircher said airlines want to focus on the core competencies of flying people and parcels. "They are transferring the ownership of maintenance on the MRO side. Whether it is engine development, on-wing health monitoring or overhaul and repair, customers want the value of having it all under one service program umbrella within a single transaction," he said.

Efforts by MROs to stem the OEM tide by establishing partnerships with the OEMs have stalled. The Oliver Wyman survey suggested MROs have reached a critical point in seeking fruitful forms of cooperation with OEMs.

Progress in shaping deeper relationships, however, appeared to have slowed or even cease.

Failed license agreements were reported by 64% of MRO respondents in 2013, declining to 46% this year.

Last year, 47% of MROs reported failing to finalize proposed joint ventures in the last three years. Without the steady influx of licensed work from OEM partners, generating new sources of revenue is imperative for MROs."

The OEMs are often accused of using their position to charge higher rates, a charge they deny. Rolls-Royce, one of the most successful after-market service providers, said it is only fair the company should seek as much MRO work on its engines as it can. It said its outlook is different from third-party MROs, as are the advantages and responsibilities. Mark Kerr, the UK company's head of marketing for services, said recently that by pricing its TotalCare support packages on a dollar-per-flight-hour rather than a time and materials basis, "we're incentivised to do things to the engine that makes it as reliable as possible.

"Independent shops, operating on a time and materials basis, don't have this incentive." Rolls-Royce believes its data shows engines supported by TotalCare stay on wing 20%–30% longer than engines handled independently by airlines.

"For these engines, the total life-cycle costs are lower. One reason is the contracts "take on board all the service directives, shop and repair activity that needs to be included," said Kerr. "Another benefit Rolls-Royce can offer airlines, although some MRO shops also can do this, is providing additional spare engines if customers need them.

"That tends to be at our expense," said Kerr. "There is a lot of risk transfer [to Rolls-Royce] involved" in its TotalCare agreements. "We get feedback from customers that they like this."

Obviously, airlines will decide who comes out on top in the OEM versus independent MRO battle. In today's high risk aviation business, where cutting expenses and eking out efficiencies are critical, whoever offers the most cost efficient solution will win the most customers. ■

Next generation aircraft reducing MRO demand

The generational change in aircraft and engines is playing a pivotal role in changing global MRO operations. Pratt & Whitney aftermarket president, Matthew Bromberg, summed up the situation at a major U.S. MRO conference last year when he said traditionally, MRO growth has been larger than OEM growth.

"Ten years ago, we estimated OEM growth of 3%–4% a year and MRO growth to be 6%–8%. And today? It is common knowledge we are riding an amazing bow wave of new aircraft deliveries. The installed base of aircraft is projected to reach more than 41,000 by 2030," he said.

"As a result, OEM growth is forecast to expand at 6%–8% for the next decade. One would expect MRO growth to follow. However, it has not. There is a solid consensus in the industry that global MRO spend will grow at only 3%–4% per year in the next decade."

Bromberg said: "Today, the average aircraft age is 15 years, which is the oldest fleet ever. In the next decade, this will drop as new aircraft are introduced into fleets and aircraft are retired. Since younger aircraft require less maintenance, the demand for MRO services will drop," he said.

Modern airliners require less maintenance

"This new fleet is more reliable. Pratt & Whitney is inserting cutting-edge technologies, such as our geared architecture, advanced materials, and 3D aerodynamics, to stretch engine performance. Engine time on wing and aircraft reliability have increased by 30% in the past 10 years."

He added that 40 years ago in-flight shutdown rates were in the range of 40 per 100,000 engine flight hours. Today, the industry targets a rate closer to one shutdown per one million hours, an improvement of almost 400 times.

"Finally, aircraft and engines are designed for reduced maintenance. The P&W Geared Turbofan engine has 2,000 fewer airfoils and six fewer LLP stages than a conventional turbofan. The engine has a 50% improvement in on-wing inspection intervals with many previous tasks eliminated. Engines are designed for less frequent and easier maintenance. This also reduces MRO demand."

"As the [global] fleet grows, it is becoming less diverse. In the last ten years, Boeing and Airbus aircraft types have reduced from 13 to seven. Today, 75% of all aircraft are narrow-body, and 90% of those are the B737 and the A320. Even with strong deliveries from Bombardier and Embraer, and new models from Mitsubishi, COMAC and Irkut, the worldwide fleet is becoming less diverse," Bromberg said.

"In the long run, this creates economies of scale across the MRO landscape. Consequently, the industry will require less diversity among parts, tools, and shops and less capacity to deliver the same MRO services."

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