

Risky Business

Air accidents and piracy in the Middle East give insurers a headache. By Richard Brown, London

hen suicidal Germanwings co-pilot Andreas Lubitz deliberately crashed flight 4U 9525 into the French Alps in March, compensation was most likely the last thing on the minds of the relatives of the 150 people killed.

A year after Malaysia Airlines flight MH370 disappeared, and following the shooting down of its sister aircraft over Ukraine last July, an unspoken truth has emerged about the complicated world of aviation and other passenger-vessel insurance: airline owners get paid for their loss right away, victims' relatives go months or years before being compensated.

The disaster that struck the Iranian carrier's Antonov-140 type aircraft last

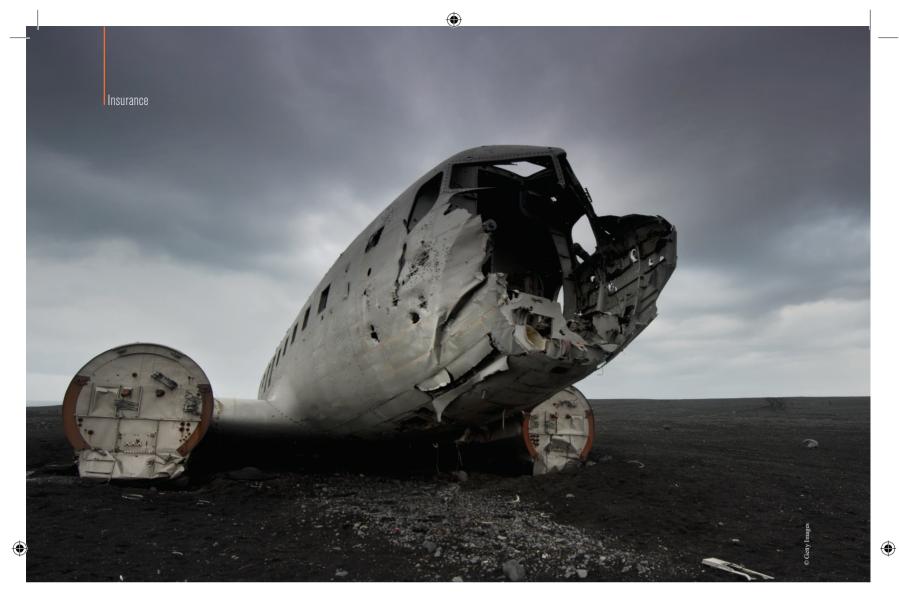
August was the first major flight catastrophe in the Islamic Republic since January 2011, when an Iran Air Boeing 727 fragmented on impact following an abortive emergency landing in a snowstorm, killing at least 77 people.

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Two further serious aerial accidents in recent years have marred Iran's flight safety record. In July 2009, a Russian-made jetliner crashed shortly after taking off from the capital, killing all 168 on board.

While in February 2003, a Russianmade Ilyushin-76 carrying members of the Revolutionary Guard crashed in the mountains of southeastern Iran, killing 302 people aboard. And in August 2000, an A-320 Gulf Air flight from Cairo plunged into the sea off Manama, Bahrain killing all 143 passengers and crew.

Suki Basi, Managing Director at the Russell Group, a London-based risk management software and services company, explains that, despite the acute human tragedy involved, the cold calculations of the insurance industry ensures those with most financial risk (aircraft owners) receive the fastest compensation. He says: "The hull gets paid out straight away, as long as there's no negligence. But the liability that the airline will face will be through the courts. That takes a number of years and involves people and their families. Awards can vary, depending on where the jurisdiction of the airline is."



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Given the shooting down of Malaysia Airlines flight MH17 over Ukraine last July, you would assume that routes over "dangerous" zones would entail an uplift in insurance premiums for planes. However, as Basi points out, the industry as a whole has been preoccupied with "ground" risk.

"If you look at the events in Libya and the near miss in Tel Aviv [rocket attack during the Gaza conflict last summer], the issue is more aircraft on the ground and knowing what the exposure is like there," says Basi. "There's a real concentration of dollars on the ground in big hubs like in the Middle East. Dubai probably presents someone with a headache in terms of the physical number of expensive aircraft on the ground at any one time. But the idea of finding out where airlines are actually flying at any one point and flying over a 'dangerous zone', there is a danger that you're in an overflood of data."

Basi goes on to explain that there's no indication the industry requires that degree of route-based granular depth in risk assessments. And with more than 30 million scheduled passenger and cargo flights performed globally each year, collecting data points from these flights' routes would be a Herculean task. But one that the much-heralded elixir of Big Data is surely able to handle?

One solution is to discover where the hazardous areas are, and then find out which are the routes that are suspect and collect the data points for those regions.

The Russell Group offers an application to calculate aviation risk called ALPS. Fourteen years since its first iteration, the ALPS app is suitable for aerospace, marine, energy and casualty insurance risk calculations. Of the models available to assess aircraft, risk the choice invariably falls between a top-down approach based on market share and exposure or a bottom-up one, such as the 'Monte Carlo model', which takes exposure and losses in different parts of the world and simulates the risk to the airlines based upon the carrier's number and value of its aircraft, cycles and volume of passengers carried.

"We take the losses that occur in any particular period (and that's up to the underwriter) and find out the losses to an airline in a particular region where the airline is domiciled and then allocate losses based on the airline's share of cycles.

"Ironically, you would have thought these days that some of the bigger airlines are not so volatile [in terms of risk profile], but you really have to run quite a number of scenarios to get some [model] stability."

Irrespective of the variety of long, medium or short-hop routes they fly, Gulf-based carriers such as Emirates, Etihad and Qatar Airways have large, new, expensive fleets, which skews any risk assessment. Basi adds: "The fact that they may not have huge amounts of flights concentrated in high-paying areas like the US doesn't matter because the hull is very expensive."

Additionally, after MH370's disappearance, it is clear that the airline industry needs to track its fleet better. "Anything that moves, the trend in the future is that it will be trackable. There will be receptors for real-time data," notes Basi. This information may – or may not – be made available to insurers.

Where sea-faring vessels are concerned, protection tends to be affected by issues relating to crew, an increase in the frequency and severity of larger claims, e.g. groundings, collisions, as well as a number of major catastrophe claims, namely from the RENA and Costa Concordia. In the Middle East, according to Simon Schnorr, Global Head of Marine at international insurer Torus, the period 2009-2011 was probably the height of piracy activity around the Gulf of Aden and in the Indian Ocean.

Though it has been 30 years since the last major incident of piracy aboard an ocean-going liner in the Middle East (the Achille Lauro, seized by guerrillas from the Palestine Liberation Front in 1985), in recent years, piracy per se has been virtually endemic to the Gulf of Aden, the Arabian Sea, the Red Sea and the Indian Ocean. The European Union Naval Force registered a peak of 176 attacks on mostly cargo ships and oil tankers in 2011, a peak year for piracy.

Torus' Schnorr says that, as a result of pirates' activity in 2009-2011, premium rates for war risks' insurance, which includes cover for acts of piracy, significantly increased for vessels when transiting through piracy-prone areas.

"At the same time, ship owners were required to implement ever greater levels of security measures on their vessels," adds Schnorr.

It also became a requirement for ship owners to implement and follow these



security requirements in order not to invalidate their insurance policies.

To complement the physical security measures they apply as preventative measures, most ship owners also purchase a variety of insurance products that protect their crew and vessels should they fall victim to a successful pirate attack.

The combination of extra security measures and additional insurances required had meant a sizable increase in ship owners' operating costs.

However, in more recent years and following a change in national and international laws the vast majority of owners now employ armed guards when transiting areas affected by piracy.

While the employment of armed guards does command a significant cost for ship owners, it has had a positive impact across the shipping industry in that the number of successful pirate attacks in the Indian Ocean and Gulf of Aden has dramatically declined in recent years, which, in turn, has also reduced the cost of piracy-related insurance plans.

Insurance for a ship's hull and machinery is typically based upon "agreed value" policies, where the ship owner stipulates the insurable amount based on criteria such as purchasing price, financing arrangements and the like.

Typical settlement periods for hulls claims will range from a couple of weeks to a couple of months, whereas claims payments in relation to passengers are governed by a number of national and international conventions, such as the Athens Convention which is universally applicable to players in the passenger sector.

Continued political instability in parts of the Middle East and North Africa region has the potential to raise the cost of insurance in the future for ship owners wishing to cover their vessels and crew against war and political unrest-related risks, as well as making it potentially hard to insure vessels to trade in certain territories and ports.