

# Jetstream

2015 AND BEYOND



GLOBAL AEROSPACE



INSURE WITH CONFIDENCE

# Making Insurance Simpler and More Convenient

At the end of 2014, after 26 years and 90 issues, we reluctantly grounded our “Flyer” newsletter. It was partly an internal publication, with additional content aimed at our external audience: Announcements of new product offerings and market analysis sat alongside cute photos of the latest Global babies. Many of us loved it, but it is time for a change. It is time to start producing something with our customers and business partners in mind. Accordingly, welcome to our inaugural issue of *Jetstream*.



**Nick Brown**  
CEO, Group Chief Executive

Although this is not a shareholders' report, I will briefly reflect on the state of our business, the recent past and our vision for the future.

As a specialist aviation underwriting business, we operate in a single-market sector—one which has seen a huge number of new entrants over the past decade. Add to the mix a general abundance of capital in the wider insurance market, fueled by the macroeconomics of low interest rates, and you have the perfect recipe for a highly competitive marketplace.

This environment has made the past few years a time of great change for our organization. Internally, we have modernized and automated our processes to operate more efficiently and we are increasingly using innovative technology to deliver our products and services to the benefit of our customers and their brokers. We are very excited about a range of new ideas we have in the pipeline—all aimed at making aviation insurance simpler and more convenient.

At the same time, we are looking to the future by embracing and fostering the development of new aerospace technologies. We do this not only by offering appropriate insurance products, but also by engaging with industry and governmental bodies to help find solutions to regulatory barriers and other concerns. A good example of this is the way we have been engaging with the fast growing UAS sector—a market that is opening up the possibility to use “aircraft” for a whole range of new applications and industries.

The entire aviation community shares a common interest in safety—and its importance has been highlighted by a number of tragic and high-profile accidents over the past 24 months involving airlines, manufacturers and general aviation operators. While achievements have been made, more can still be done. Global Aerospace will continue to invest in safety through our industry-leading SM4 program—now in its sixth year and evolving to meet the needs of our industry and customers.

In this edition of *Jetstream*, we share with you a collection of news and stories reflecting these themes.

I hope you will find some interesting reading in the following pages, and I wish you all every success in 2016—preferably with Global Aerospace as your partner!

# New Technology, New Risks: Stay Ahead with Global

Over the next 10 years, it is expected that aerospace manufacturers will introduce 3D printing technology in an increasingly wide range of components.

With aerospace manufacturers at the forefront of adopting this new technology into manufacturing processes, Global Aerospace has been proactive in advising clients of the potential exposures and new risks insurers will need to contemplate and assess.

The concept of 3D printing, also known as additive layer manufacturing, involves using lasers to fix layers of powdered material into a digital mould.

This technology has many manufacturing advantages, such as weight reduction, as well as increased customizability and overall construction efficiency of a component.

The benefits to the aviation industry are clear; however, insurance providers do not foresee an end to product liability litigation, because many new questions have arisen.

For example, the boundaries between manufacturer and end user may blur if the end users are able to print various components. In the case of an aircraft

accident linked to a 3D-printed component, liability targets may include the manufacturer of the part, the printer that was utilized, the software designer, the printer distributor, or the supplier of the feedstock used in the printer. Furthermore, as many 3D-printing processes involve powdered raw materials, small particles may potentially be released into the air, posing inhalation and other exposure risks. The consequences of these exposures may not be known until long down the road.

Ultimately, traceability and accountability will come to the forefront in any future litigation matters.

3D printing has the potential to reshape the aviation industry and a wide range of fabrication processes. Our objective at Global Aerospace is to ensure that all of our clients stay ahead of any possible risks and litigation related to this technology. ▼





# Airline Insurance: A Brief Flyover



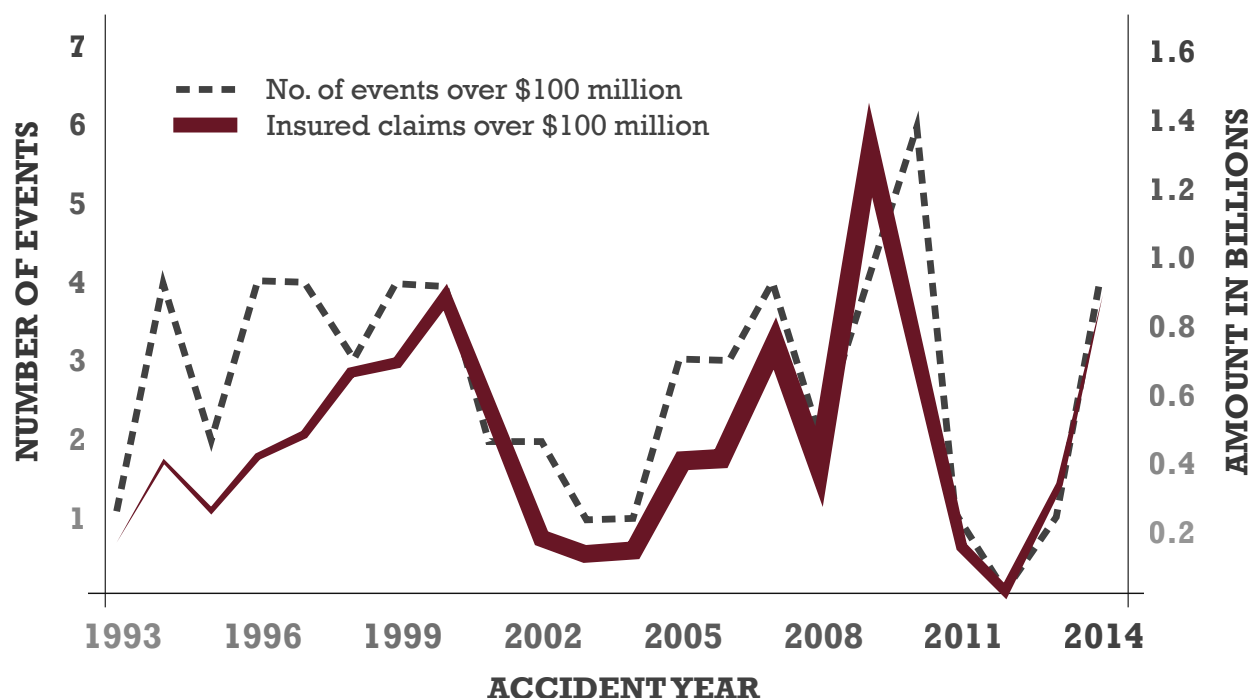
Aviation is a small niche sector of the non-life insurance market, but high-profile catastrophes often thrust this business into the spotlight. This happened in 2014 when Malaysia Airlines lost two B777 aircraft and earlier this year with the Germanwings Flight 9525 disaster.

Currently, total market premium is estimated to be approximately \$4.75bn (around 0.2% of total non-life premiums), split between the four major sub-classes of airline, aerospace, general aviation and space.

Airline is the most high-profile sub-class, providing hull and third-party liability cover to commercial airlines. War coverage is provided separately and covers a range of perils, such as acts of war, terrorism, sabotage, hijacking and intentional malicious acts.

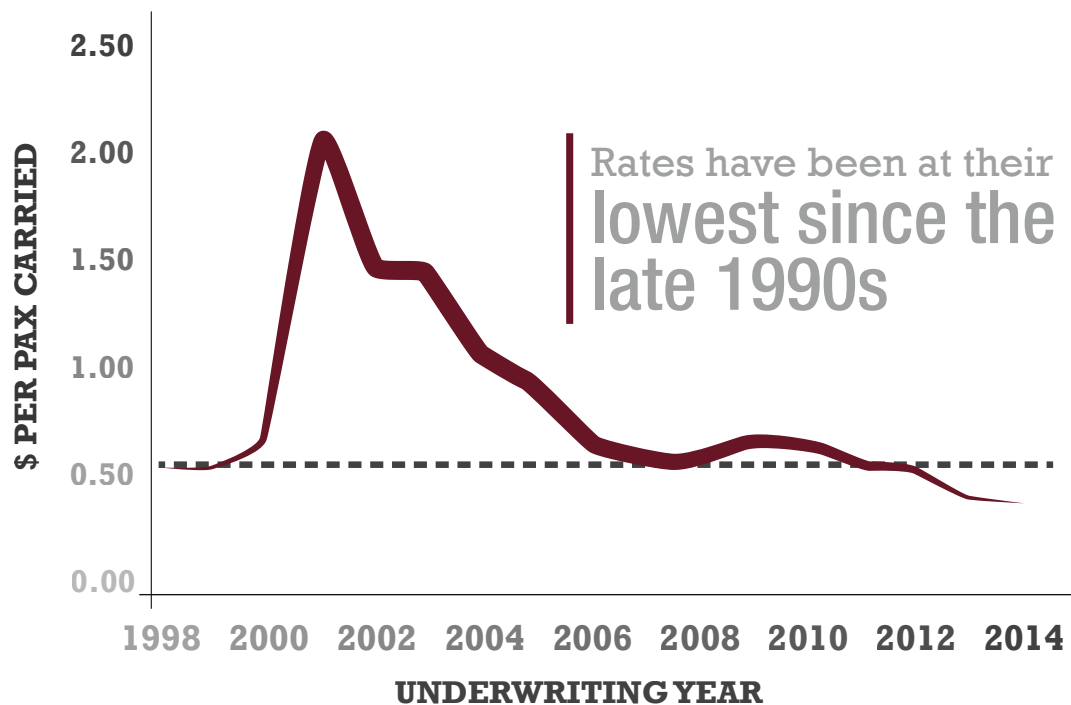
The exposures at risk for insurers are enormous. Hull losses can be upwards of \$100m, and with liability limits around \$2bn on a per-aircraft basis, coverage is effectively unlimited. For example, in the last five minutes there will have been 250 takeoffs worldwide, representing \$94bn at risk. The earned premium associated with this exposure? \$13,500!

2014 was undoubtedly a difficult year for insurers. With four catastrophic claims greater than \$100m, many insurers took a loss on their airline portfolios.



Over the past 20 years, commercial airlines have experienced an average of three catastrophic events per year. The recent upward trend, following the loss of Malaysia Airlines' two wide-bodied aircraft in 2014, is not out of the ordinary.

Chart 1: Airline Events Over \$100 Million



*Underwriting for the current aviation insurance market does not reflect the average frequency of catastrophic claims. Premium rates per number of passengers have persistently declined since the high following the September 11 attacks in 2001.*

*(continued)*

The circumstances of the events that occurred were highly unusual, so 2014 may have been perceived as an outlier.

On the contrary, Chart 1 (left) shows that 2014 wasn't an exceptional year for catastrophic claims; with an average of three per year over the past 20 years, 2014 is only slightly above average. It's reasonable to assume that this small deviation from average frequency would be reflected in the premium, but unfortunately that's not the situation in the current market.

In fact, due to an era of persistent decline in premium rates since the high following the September 11 attacks, rates have been at their lowest since the late 1990s, as shown in Chart 2 (above).

With current market premiums below \$1.5bn, non-catastrophic claims (less than \$100m) consistently around \$1.1bn and assuming expenses at 20% of the premium (which is somewhat optimistic), that leaves only \$100m to cover potential catastrophes and provide a reasonable risk margin.

Although catastrophic claims are relatively infrequent, based on the past we could reasonably expect two to three events per year. With an average cost of \$340m per event, \$100m is insufficient to cover one claim, let alone three. What's more, with only one year since 1993 (Chart 1) with no claims, the likelihood of generating a profit is very low.

Despite the losses, the 2014 renewal season showed no signs of a rebound in rates. Competition remains fierce in 2015 and looks likely to continue. To stay profitable in the future, insurers may have to be more selective of the risks they write. ▼

*Article amended from original publication authored by Randhir Bilkhu, Management Information Analyst, Global Aerospace: "On a Wing and a Prayer" published in The Actuary on 3 September 2015.*

## Best Value, Service and Product: A Custom Web Interface Benefits The Union of French Airports

In the current market, it takes credibility and competitive rates to gain new customers. To retain those customers, we believe it is critical to deliver on our promise and simplify the process. To that end, Global Aerospace is continually working to enhance efficiencies by investing in technology and innovation to provide the best value, service and product to the market.

Since early 2014, The Union of French Airports has directly benefited from our investment in technology. This professional association, which consists of 146 members operating in more than 160 airports in France, has utilized a custom web interface to streamline administrative tasks, enhance communication and simplify access to information.

Working jointly with Delta RM, a risk management and information systems company, Global designed a web-based platform that provides brokers and customers with direct access to cover notes, policy documentation and certificates. Claims information and first notice of loss can be instantly declared online with immediate acknowledgment and claim file reference information returned to the customer.

Real-time document sharing and financial data, coupled with geolocation information included with photos, help our customers review the connection between claim frequency, magnitude and loss

location. Additionally, the site provides detailed reports to further analyze incidents and identify areas that may require action to reduce risk and improve the safety of their operations.

*Real-time access to documents and financial data to improve efficiency and reduce costs*

By relieving the burdens of document management and administrative tasks, this technology has enabled our team of professionals to improve efficiency and reduce costs. Our customers are benefiting from instant access to resources, streamlined workflow and improved service from our team of professionals. ▼



## Global's Safety Contribution Tops \$3M: Industry-leading SM4 Program Launches Exciting New Initiatives

The 2010 launch of our SM4 Safety Program revolutionized the way insurance specialists help their customers achieve higher levels of operational safety.

The concept of providing targeted subject-matter experts and financial support had never before been tried in the aerospace insurance sector. We are pleased with the success of the program, but we also recognize that as the industry evolves, so must SM4. With a vested interest in helping our customers pursue higher levels of safety, we reaffirm our commitment to this critical area and are excited to announce that SM4 will undergo a two-year plan of continuous improvement.

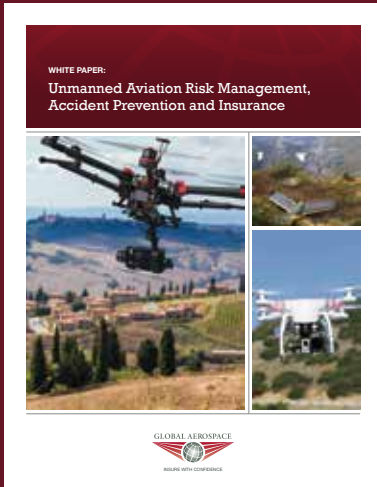
Starting in early 2016, our program will add new subject-matter experts who will provide a wider array of products and services to a broader customer base. In the major risks sector, our lead manufacturer and

airline clients will be able to work hand in hand with our underwriters, their brokers and SM4 partners to establish and execute customized safety training programs addressing many of the safety hazards still troubling our industry. During 2017, we will continue to improve the program and will update you on its transformation.

When we launched SM4 in 2010, we knew that we were changing the paradigm, but we had no way of knowing how important SM4 would ultimately become. Our commitment to the development and evolution of SM4 continues unabated, and we are confident that you will be impressed with our newly refreshed program. ▾



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Download the White  
Papers On Unmanned  
Aviation Risks



In February of 2015, the FAA released its Notice of Proposed Rulemaking (NPRM) regarding unmanned aerial systems—or drones. It appears to have been a pivotal time for corporations and entities that had previously adopted a wait-and-see approach about investing further in drone manufacturing and operations.



*A comprehensive look at UAS risk and insurance issues for those interacting with and within the drone community.*

# Drones: Opportunities and Risk

The global market for unmanned aerial systems/remotely piloted aircraft systems (UAS/RPAS) is evolving at an incredible rate. Approximately one year ago, Global Aerospace was receiving only a handful of submissions per week. Today, the weekly average submissions are in the hundreds worldwide, with the majority in North America.



At the current rate of development, the Teal Group projects global UAV production will total \$93 Billion in the next ten years<sup>1</sup>.

So what has changed? In short, regulators and policy makers are developing frameworks for integrating drones into commercial life, manufacturers are refining their products and commercial entities are embracing the possibilities. Global's approach to this risk class has been to assess each risk based on its merits. Our primary concern has been with operators who may intend to fly in close proximity to crowds of people.

Beyond the individual risk, Global has been actively involved with promoting the safe, sustainable growth of the UAS industry. In 2014, we collaborated with the Unmanned Safety Institute to bring cutting-edge safety solutions to our rapidly expanding customer base. In doing so, we were the first—and we believe the only—insurer to be able to deliver discounted, tailored safety solutions to operators.

<sup>1</sup> Teal Group Corporation Market Study Press Release, August 2015



In April 2015, we released a white paper, “Unmanned Aviation Risk Management, Accident Prevention and Insurance”. The publication is now widely considered to be the definitive guide to these subjects in what is a rapidly changing industry. Our second paper titled “Contracting With and Between UAS Operators” was published with Dentons, an international law firm expert in UAS, and provided a guide for companies seeking professional drone services and drone companies looking to safely and legally transact business.

Global has been active with many industry groups in North America and Europe dedicated to driving standards in this evolving industry. We have been selected by the Executive Agency for Small and Medium-sized Enterprises (EASME), under the power delegated by the European Commission, to lead the liability and insurance work packages of the DRONE-RULES.eu initiative. Our contribution will focus on educating pilots and operators on the importance of risk management and insurance, as well as the multiple legal environments that can be found across the 28 countries of the European Union.



Additionally, we are proud to be a founding partner of the Unmanned Aircraft System Insurance Association (UASIA), an industry body set up in 2015 to represent the interests of the insurance community, advocate on their behalf and educate the broader community. We look forward to playing an active role in these rapidly expanding associations.

Global Aerospace has presented at several conferences and conventions, including the International Civil Aviation Organization (ICAO) RPAS Symposium, AUVSI Expo, Interdrone, The Commercial UAV Expo and many others. These platforms have given us the opportunity to encourage active risk management across the community, as well as educate operators about the need for contracts. ▼

*As regulation develops, operating systems become more reliable and public perception evolves, we will continue to meet the needs of the UAS community and those who are committed to safe operations. Drones are truly the next frontier of aviation, and we are at the leading edge of this exciting technology.*



# A True Aviation Renaissance Man: Celebrating the Life of James Holahan

Global Aerospace would like to recognize the passing of James (Jim) Holahan, who died on July 4, 2015, at his home in Saddle River, New Jersey, at the age of 94. We would especially like to recognize and celebrate his contribution to aviation.

Jim was born on February 25, 1921, in Jersey City, New Jersey. He is survived by his wife, Madaline, and five children, as well as 12 grandchildren and three great-grandchildren. The Global Aerospace family was directly touched by his passing, as his daughter, Sharon Holahan (Executive Vice President, Director of Claims), has been a highly valued member of our team since 1984.

*Jim was one of the  
leading aviation  
writers of our industry.*

In 1972, Jim and current *Aviation International News* (AIN) managing director Wilson Leach founded The Convention News Company (now branded AIN Publications). They published the first issues of *NBAA Convention News* at that year's National Business Aviation Association Convention in Cincinnati, Ohio. Today, AIN still publishes *NBAA Convention News* but has branched into other products and aviation sectors, making it one of the most respected aviation news sources in the world. Jim was the AIN group's editor-in-chief for 27 years before retiring in



*Jim earned his wings flying Lockheed Lightning P-38s.*

December 1998. In 1970, James received the inaugural NBAA Platinum Wing Award in recognition of his lifetime of achievement and excellence in journalism.

Jim was a member of the U.S. Army Air Corps, where he earned his wings flying Lockheed Lightning P-38s and received training in avionics repair and maintenance. He subsequently worked as a radio engineer with Western Electric and flew F-80 jet fighters with the U.S. Air Force during the Korean War. In 1955, he began his career writing for *Aviation Age*, which later became *Aviation Week & Space Technology* magazine. Before his tenure at AIN, he also served as editor of *Business and Commercial Aviation* magazine.

Jim was one of the leading aviation writers of our industry, tracing the growth of business aviation from its formative years in the 1950s through the 1990s. He had a broad flying history and expansive knowledge of the aviation industry. His enthusiasm was evident in his writing, as he provided thorough analysis of industry news, products and developments. Jim will be fondly remembered as a man who had a passion for all things aviation—and his family. ▼



## A Claims Case Study: U.S. vs. Foreign Jurisdiction

Assigning jurisdiction on what can appear to be a multi-jurisdictional claim can be difficult. Aggressive plaintiff lawyers who work on contingency fees may look to present their case in the United States in an attempt to recover high damages from sympathetic juries. Therefore, defendants and insurers often try to remove cases from U.S. courts if at all possible. Often, it isn't easy, but it can be worth the effort.

Global's London office recently handled a claim for an insured domiciled in central Europe that had manufactured an aircraft in a factory in southern Europe. The aircraft was sold in the U.S. by an independent dealer, which, at the time of the accident, had an Australian address. The aircraft had an accident that occurred in Texas, killing the pilot and leaving a passenger with significant injuries. A lawsuit was subsequently filed in Indiana against

the insured's U.S. subsidiary and both European companies—even though the only tie the aircraft had to the U.S. was that it was purchased there. Global and our customer agreed that the case should not be tried in the U.S.; therefore, we began our strategy to move jurisdiction out of the U.S. court system.

At first, the trial court denied our motions to remove the case to a foreign court. At that point, we appealed on the basis of a U.S. Supreme Court decision (*Daimler v. Bauman*), which prevents a district court from exercising jurisdiction over foreign defendants simply on the basis that they have a U.S. subsidiary. The claimants knew that the appeal was likely to succeed, so they agreed to settle at levels far below those they would have hoped to achieve at trial. The *Daimler v. Bauman* case is likely to be a useful addition to the defense lawyer's toolkit when defending clients from outside the U.S. ▼

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