

# Insurance Special Report 2018

by Kim Rosenlof

## Industry players outline challenges, opportunities

Keynote speaker Dr. Doris Höpke, a member of the Board of Management of German insurance giant Munich Reinsurance Company (Munich RE) since 2014, painted a cautiously optimistic picture of the U.S. general aviation insurance industry at the 2018 Aviation Insurance Association (AIA) conference held April 29 to May 1 in Austin, Texas. Höpke noted that while profitability remains a challenge in an environment where a judgment in excess of US\$100 million can wipe out nearly 10 percent of aggregate annual premiums, new technologies and markets provide opportunities to return to profitability.

"These days we are facing some challenges that...could potentially change the entire business model of what we do," said Höpke. "The biggest challenge for us as a reinsurer is the [low] interest rate environment."



**Dr. Doris Höpke,**  
Board of  
Management  
Munich RE

**“These days we are facing some challenges that...could potentially change the entire business model of what we do.”**

Low interest rates present multiple challenges to the aviation insurance industry by preventing insurers and reinsurers from offsetting operating losses with interest gains, and by inviting investors seeking higher returns to infuse more capital into the aviation insurance market. The increased capital comes with increased competition, driving down premiums and making profitability even more challenging.

"If I can find something positive in [low interest rates], it's that it provides a welcome pause for those who believe that



JOHN A. MANFREDO

insurers can make a living on investment gains," said Höpke. "This is in essence a misunderstanding of what insurance is about. Our core is assessing and bearing risk, and if we are not able to make a living on our underwriting results, there are many reasons to rethink how this industry works."

Profitability in the GA insurance industry has become challenging in recent years. According to figures Höpke presented, the U.S. GA insurance market combined ratio of incurred losses (claims) plus expenses was approximately 105 percent of earned premiums in 2016. But even that figure was obtained by spreading out large (greater than US\$50 million) single-judgment losses over a 10-year period rather than the years the losses actually occurred. The U.S. GA insurance market is hit with a liability loss greater than \$50 million every 1.2 years and greater than \$100 million every 2.2 years. Currently the highest single policy loss so far is approximately \$120 million, or nearly 10 percent of the GA insurance industry's \$1.3 billion gross written premium. With the current profitability challenges, Höpke questioned the need for exceedingly high liability limits, suggesting that writing higher liability limits encourages courts to award increasingly larger judgments.

"Reinsurance provides the backbone for the U.S. GA market," said Höpke. "The largest policy limit in the market [at \$750 million] can cost 58 percent of the total

loss premium. This is an exposure showing that certainly the market cannot stand on its own and it requires reinsurance to transfer risk...But if historically the largest loss is 16 percent of the largest policy limit, what about the remaining 84 percent? This is capacity that is not needed. We should not raise the appetite for claims by simply making larger limits available if they are really not needed."

Despite profitability challenges, aviation remains a good portfolio diversification market because of its low systemic and accumulation risk, compared to other insurance markets, Höpke said.

"I can hardly imagine any [other] insurance segment that has so much data available," said Höpke. "Other business lines can only envy this. We can make better informed decisions...And the entire aviation industry is really geared to safety, whether it is governing bodies, manufacturers, pilots, as well as insurers. So the efforts in loss prevention of all of these parties are highly aligned with insurers and reinsurers. Information available is second to none and alignment interest is also very positive."

Höpke encouraged insurers, reinsurers, and brokers to differentiate themselves with bespoke products and to take advantage of technology, such as digitalization, to offer more than just "capacity at a cheap price."

"If we compete only on price, it comes to a dead end very quickly when cost cutting and risk selection is optimized," said Höpke. "We believe it's on us to ensure

that everybody adds value beyond capacity and beyond simply taking risks onto your balance sheet."

### New Insurance Markets: Cyber, Space, and Drones

Höpke briefly mentioned cyber and the internet of things (IoT) as new markets for reinsurers, noting the total size of the cyber market is already at \$4 billion and expected to grow to \$8- to \$10 billion by 2020. She said that cyber provides opportunities in risk management and



**Scott Ross,**  
vice  
president,  
Global  
Aerospace

**“The highest density of space debris is in low earth orbit, and with the forecast growth in low earth orbit nanosat constellations, the congestion issue will continue to be an area of concern.”**



mitigation services, “but it also comes with a very big challenge in accumulation control...the next outage is something we cannot control with insurance means and we need to make sure that cyber becomes more insurable.”

Scott Ross, vice president at aviation insurance company Global Aerospace, shared his insights on insurance for commercial space operations, a growing market with the introduction of relatively new launch vehicles and companies launching dozens of small nano-satellites for communications, earth observation, and future broadband purposes.

Ross noted that the 1984 Commercial Space Launch Act (CSLA) tasked the FAA to license all launch vehicles, satellites, and launch sites under one program, requiring the launch provider to be responsible for all third-party liability insurance. A 1988 CSLA amendment set up a three-tier system for third-party liability insurance with the first tier requiring insurance up to \$500 million based on a maximum probable loss (MPL) calculation for the commercial launch provider, or \$100 million for government property. Above this tier the U.S. government provides a layer of \$1.5 billion (in 1988 dollars or \$3.5 billion today) if approved by Congress before liability once again falls to the launch provider, being the third tier.

The FAA Office of Commercial Space Transportation makes the MPL calculation based on launch vehicle power, location of launch, and trajectory and what damage to persons and property could occur in the event of a launch vehicle failure. Ross said that the process of calculating the MPL is currently under review as there appears to be a lack of consistency. “For example, a [specific] Atlas V launch required \$193 million MPL. But a similar launch vehicle, SpaceX Falcon Nine, launched from the same site, carrying the same amount of weight, needed only \$45 million.”

Separate from the launch coverage is coverage of the payload, itself, while in space. Currently there are more than 1,700 operating satellites in orbit, with only about 300 insured, according to Ross. As the number of space objects increase—including more than 22,000 trackable pieces of debris larger than 5 cm and more than 300,000 pieces about the size of a marble—the chance for satellite malfunction or loss due to collision with debris increases. In 2009, satellites Iridium 33 and Cosmos 2251 collided at 789 km above the earth, creating nearly 2,000 pieces of cataloged space debris.

“It’s getting pretty crowded up there,” Ross said. “The highest density of space debris is in low earth orbit, and with the forecast growth in low earth orbit nanosat constellations, the congestion issue will

continue to be an area of concern.”

Drones or unmanned aerial systems (UAS) make up the third relatively new insurance market. Gerald Deneen, vice president at Swiss Re Management, focused mainly on the small UAS market of drones weighing less than 55 pounds with payload and discussed both recreational and commercial uses.



**Gerald Deneen, vice president Swiss Re Management**

**“The big question is should insurers provide drone insurance, including coverage for all trespasses and invasion of privacy?”**

“Property and casualty companies providing homeowners insurance are really struggling with drones,” Deneen said. “The big question is should insurers provide drone insurance, including coverage for all trespasses and invasion of privacy? People don’t like being photographed or being filmed by someone they don’t know. There are a lot of lawmakers who are opposed to drones. So if we ever get a catastrophic injury or terrorist activity with drones, this whole industry could be grounded.”

Deneen noted that many homeowners, especially in metropolitan areas ringed by small airports, may not realize that they reside within five miles of an airport and thus might be flying their drones illegally. However, just because an act is illegal doesn’t make it uninsurable.

“We cover things in the insurance industry that are illegal, such as covering an insured when he’s driving drunk and kills somebody,” Deneen said. “The question is whether this is an insurable exposure. From a societal benefit, should we not be covering [drone operators] when the drone is flown illegally?”

Deneen discussed exclusions that insurers may want to consider when writing commercial drone coverage, suggesting that insurers should refer to the Federal Aviation Regulations Part 107-Small Unmanned Aircraft Regulations for operating requirements. Insurers must decide whether they want to cover drones that do not meet the physical parameters (weight, speed, lighting),

pilot certification requirements, or other operational considerations under Part 107.

## **Don’t Be Too Quick To Be Added as an Additional Insured**

While your aircraft is undergoing its annual inspection at the local FBO, a storm blows through and collapses part of the hangar, damaging your aircraft. Whose insurance pays: the FBO’s or yours?

It may be obvious that the FBO’s commercial general liability (CGL) policy should pay for the damage to your aircraft. But according to Glenn Vallach, claims attorney for United States Aircraft Insurance Group (USAIG), aircraft owners can get tripped up by exclusions in CGL policies if the aircraft owner or operator demands to be added as an additional insured (AI) on the CGL policy.

A standard exclusion on nearly any commercial GL policy, Exclusion G “Aircraft, Auto or Watercraft” generally excludes coverage of such vehicles owned or rented by insureds of the policy. Exclusion G is meant to separate aircraft exposure from building exposure, meaning that hull coverage on aircraft owned or rented by the FBO should be provided under an aircraft policy, not under the CGL. Vallach said that third parties sometimes get caught by Exclusion G when they become AIs.

“This specific aspect of Exclusion G can be so broad in certain circumstances that it can change the ‘tried and true’ ground rule of risk management that entities should always ask to be an additional insured on their contractor’s insurance policies,” said Vallach. “Sometimes Exclusion G can operate in such a way that adding the wrong party as additional insured onto an aviation GL can have really restrictive consequences in terms of precluding coverage for both the additional and named insureds.”

The key to whether Exclusion G applies with respect to such a third-party AI is the wording within the exclusion and the extent to which it applies to the Hangarkeeper’s coverage of the policy. Essentially, if the Exclusion G uses the term “the insured,” then the exclusion generally applies only if the specific party seeking coverage (the FBO owner) for the claim owns or rents the aircraft at issue. However, this wording is rare for the Coverage A (third-party property damage and bodily injury coverage) exclusion and not even always used as the exclusion relates to Hangarkeeper’s coverage. Commonly, Exclusion G and its Hangarkeeper’s equivalent use the term “any insured.” Under this language, if the aircraft at issue in the claim is owned or rented by any insured on the policy,

including the AI, then liability coverage is generally precluded to all insureds under the CGL policy, potentially excluding certain of the coverages that the third party may have been seeking by asking to become an additional insured.

“It can be beneficial in the aviation context to skip that automatic additional insured reflex and just rely on the contractual indemnity provision to transfer risk instead,” said Vallach. “The ‘any insured’ language means that simply adding an additional insured onto the policy can trigger the exclusion because the additional insured becomes ‘any insured.’”

Vallach says that Exclusion G essentially means there may not be GL coverage behind hangar owners who add customer aircraft owners onto their CGL policies as AIs. “This stinks for the aircraft owner. They want to make a claim against the hangar owner, but more important, they want money for the claim. So it’s not ideal for them if the hangar owner is uninsured. And of course it’s even more important for the hangar owner, because GL is probably the only protection they have against this type of aircraft [property damage] claim.”



**Glenn Vallach, claims attorney for USAIG**

**“The ‘any insured’ language means that simply adding an additional insured onto the policy can trigger the exclusion because the additional insured becomes ‘any insured.’”**

Vallach noted that Exclusion G can also trip up owners of managed aircraft if management companies rely on CGL coverage rather than purchasing separate hull coverage for aircraft they operate or manage.

“It happens often where an aircraft manager damages an aircraft in the course of the management agreement and the aircraft owner wants to make a claim,” said Vallach. “Exclusion G thinks that this should be an aircraft hull claim and not a GL liability claim. The equation here is the same: ownership, maintenance,

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Left to right: Mark Pestana, Raymond Mariani, and Priscilla Kehoe led a panel discussion on safety management systems outlining the need to balance safety—and acceptable risk—with profits.

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or use of an aircraft operated by any insured. So property damage liability exposure [to an aircraft owned by an AI but managed by the policy holder] is definitely excluded from Coverage A by Exclusion G here. And for a lot of aviation GL policies, Exclusion G applies to Hangarkeeper's [language] word for word. Finally, even if the policy has the less restrictive Hangarkeeper's aircraft exclusion with 'the insured' in it, you may not even get to the 'the insured' vs. 'any insured' issue because 'the insured' is the aircraft manager, and they very well may be deemed to have leased or rented the aircraft for purposes of the claim. So there's probably not going to be GL coverage for this PD claim. It really should be a hull claim."

## SMS Effect on Insurance

Two different panel discussions highlighted the benefits of safety management systems (SMS) and their overall effect on insurance. Raymond Mariani, a New York-based attorney for Murray, Morin, & Herman, led a panel discussion on current uses of SMS, noting the March 8, 2018 deadline for Part 121 air carriers to implement an SMS per FAA Advisory Circular 120-92B. Mariani described the goal of SMS as balancing the tension between safety and profitability to achieve an "acceptable" level of risk.

"In the ideal world, everything would work to a point where there's no chance of accidents, losses, or bodily injury," said Mariani. "But is that really practical? It's not, and particularly not if you're running a private corporation that's for profit. Obviously many companies that are highly profitable are also fairly safe companies, but it's that middle ground that's fought between levels of safety

and levels of profitability where SMS can help manage to acceptable levels of risk. It shows a thoughtful organization that goes through a process of assessing risks, deciding what they can accept, and what they can and cannot mitigate."

Priscilla Kehoe, group senior director for safety insurance and risk at BBA Aviation, discussed using the risk assessment portion of the SMS process to help determine corporate insurance requirements.

"We have risk registers that we review and update on a biannual basis," said Kehoe. "Identifying risk is absolutely vital to determining your acceptable level of risk and then insuring against that. You determine what level of internal control you're going to keep over those policies by having a high deductible program, capative, or put that level of risk on an insurance program."

Kehoe described BBA Aviation as a "very diverse group of companies" with global reach, including 189 Signature Flight Support FBOs worldwide, Ontic aerospace parts manufacturing, and several engine repair and overhaul companies. The BBA Aviation leadership began discussing formalizing an SMS across the entire group in 2014 that could incorporate the different risks incurred by the varied operations: FBO operations and fuel farms, hangar space rental, maintenance and repair operations. Kehoe indicated that empowering employees to speak up was one key to implementing the SMS globally.

"When you're a global company, between the different cultural and language aspects, it's very difficult to implement one robust program," said Kehoe. "One of the goals we had as part of our SMS was to give our employees the right to say 'stop' to any type of event that they thought was going to be a safety issue.

## Astronaut Mark Kelly — The Power of Having a Goal and a Plan

Dressed in his blue NASA flight jacket adorned with patches from all four space shuttle missions that he flew as pilot or commander, astronaut Mark Kelly kept the AIA audience enthralled with stories of his first carrier deck landing as a U.S. Navy pilot ("the first thing my instructor pilot said to me when I got back to the naval air station that night was, 'Are you sure this career is for you?'"), his first combat mission during Gulf War in 1991 avoiding surface to air missiles over southern Iraq ("You know what's worse than seeing the first missile? Seeing the second one!"), nearly being downed by friendly fire ("Do not shoot down the moron in Iranian airspace!"), and landing the shuttle on the 15,000-foot runway at the Kennedy Space Center ("You may have noticed that on both sides of this runway is water, and what's in water in Florida? Alligators! I think NASA put that there as added motivation to land the \$2 billion ship on the runway.").

But the core theme of his talk was the power of having a goal and a plan. He says that he saw it first as a kid in New Jersey when his 5-foot-1-inch-tall mother decided to become a police officer and trained for months in the backyard to climb a 7-foot-2-inch wall as part of her physical fitness test. "I watched my mother go out there after dinner every night to try to get over the wall, and initially she couldn't even reach the top," Kelly said. "But after months of practicing, when she finally faced the test, instead of getting over in the required nine seconds, she got over in four and a half seconds, which was much faster than almost all of the men.

She became one of the first female police officers in that part of New Jersey."

Kelly says that his mother's hard work inspired him to work toward a lofty goal of his own: to be the first person to walk on Mars. "I believed that if I worked hard enough, took the right steps and maybe got lucky along the way, I could make it to Mars. Well, I left NASA several years ago without ever making it to Mars, but I got close and made it into space four times."



The power of a goal was also a key factor in the remarkable recovery of Kelly's wife, Congresswoman Gabrielle Giffords, who, after being shot in the head at close range in January 2011, returned to the House floor in August 2011 to cast a vote in favor of raising the debt ceiling.

"My wife, Gabby, entered Congress for the first time in 2007," Kelly said. "I thought I had the risky job. I'd flown 39 combat missions and by that point in my career at NASA, I'd also flown my first two flights on the space shuttle. But as it turned out, my wife Gabby is the one who nearly lost her life serving our country." ■

At first it was a difficult concept because employees thought they would be reprimanded. Over the last several years, we've made them realize that they have the right to stop any type of activity or operation that may lead to an accident."

Col. Mark Pestana (U.S. Air Force, ret.), also commented on employees being able to speak up to facilitate SMS success at NASA's Armstrong Flight Research Center where he currently serves as a research pilot and aerospace consultant. "We recently adopted a means by which we can communicate all the way to the highest level—to our center director who reports to the NASA Administrator—on safety issues. We assigned an individual from each office—pilot, flight crew, engineering, maintenance—to the safety

organization. When I did it, my boss was safety, not the chief pilot, and I'd meet monthly with our center director. Now there's no attribution for reporting; you can report incidences in confidence."

The panel determined that companies and organizations with fully implemented SMS can communicate hazards and risk avoidance more clearly both within the organization and to insurance underwriters. According to Mariani, SMS shows a proactive approach to risk management, proven ability to reduce losses, and establishes an ongoing safety culture that saves money, avoids injuries, and boosts morale. All of these options should make companies that implement an SMS more insurable and even yield rate reductions

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## Awards and Recognitions



Camille Knight accepts CAIP Award from AIA president Paul Herbers. She was one of six recipients of the award.

The AIA annually recognizes several members for their recent or lifelong contributions to the aviation insurance industry. The 2018 Pinnacle Award went to F. Thomas Bradshaw, president at Halton Hall & Associates. Bradshaw, who holds various insurance professional designations, joined Halton in July 1977 and has co-founded two other insurance-based companies: Falcon Insurance Company and Menger Underwriting Services.

Eleven members were inducted into the AIA's Eagle Society. Nominated by the current AIA president with concurrence by the board of directors, Eagle Society nominees must have 10 years

of consecutive AIA membership and have made substantial contributions to the aviation industry or demonstrated achievement in their aviation career. The 2018 Eagle Society inductees were John Brogan, Jeffrey Bruno, Deborah Elsasser, Jack Harrington, Christopher Jones, Raymond Mariani, David Sales, Ian Wigglesworth, John Young, Carla Zanette, and Christopher Zanette.

The association also recognized six members who earned the Certified Aviation Insurance Professional (CAIP) designation: Christopher Arnold, Gary Churchill, Jennifer Czyrba, Camille Knight, Lisa Ouellette and Joe Suarez. ■

» continued from preceding page as insurers and underwriters become more aware of SMS benefits.

The positive effects of an SMS system in mitigating risk were brought forward during the Lithium Battery Risk at Altitude panel, which discussed in detail the hazards of lithium-ion (Li-ion) batteries overheating and catching fire in various situations. Vickie Toman, manager of Flight SMS for American Airlines, described how the airline's SMS was used to quickly assess risks of various lithium-ion carrying products, including procedures for complying with the FAA's Emergency Restriction/Prohibition Order on the Samsung Galaxy Note 7 smartphone in October 2016.

"The airlines had already put measures in place regarding Li-ion batteries before the FAA [document] came out telling us to make sure to use our SMS to deal with this type of hazard," Toman said. "A couple of years ago we ran the hover board risk

through our SMS, decided that the risk was too high and we banned those from our aircraft. We brought our regional air operators in and also worked with other airlines when we did that [assessment]."

Toman indicated that the SMS is not used only for risk assessment but also for hazard identification, noting that e-cigarette and smart bag (suitcases containing built-in Li-ion batteries for charging devices) risks were both identified through the SMS. "As long as a smart bag goes into the cabin, no problem," said Toman. "But what happens if the cabin overheads are full and you have to check your bag? We do not allow anyone to check anything with the lithium battery inside of it. So we took that through our SMS, worked with the manufacturers, and created procedures for our employees to identify and stop these bags from being loaded as cargo and to have ticket and gate agents inform passengers how to remove the batteries." ■

# Bizav security conference explores risk management

by Curt Epstein

The threats business aviation flight departments face may take many forms, ranging from physical, to financial, to digital. Exploring how aware operators are of these potential hazards, and what they can do to help mitigate them was the goal of NBAA's second annual security conference, held in May in Dallas. As the presenters explained, harm to a company's assets or reputation can come from simply leaving a sensitive document on a hotel check-in desk, to an overheard conversation in a bar, to an intruder getting into a hangar and damaging an aircraft, to a flight crew and passengers put in peril from an unexpected geopolitical event.

One of the underlying themes of the conference is that security is everyone's responsibility, from the scheduler who selects the hotels, to the crewmember or passenger who is aware of possible danger, to the security coordinator who designs and implements the security plan at the home base, everyone must buy in to the program for it to have the best chance of preventing problems.

## Security Begins at Home

While flight crews may have a sense of familiarity and comfort at their home base, companies must be aware of who might be interested in harming either them specifically, or similar companies, and assess how tight the security at their facility is. Flight departments should establish a security plan for their facility, detailing security protocols such as who has access to the facility, what access-prevention systems are in place (if there are locks on doors, are they used all the time?), and are there adequate security enhancements such as proper lighting and video cameras? Those questions are difficult enough if your company is the sole occupant of the hangar, but they multiply if you share your hangar with another company and need to assess their level of security as well.

According to John Sullivan, managing partner of the Welsh-Sullivan Group, the plan is a living document that should be used to triage and improve lapses in security. Flight departments should conduct regular safety training, including tabletop scenarios with all the stakeholders, to ensure everyone understands the procedures, and he recommends that they continually assess their plan, refine it, and test it. If a breach of security does occur, Sullivan noted there needs to be an incident response procedure within

the company, where all members of the department, from the top down to the lowest, know whom to contact first.

## Taking It On The Road

When traveling abroad, flight crews and their passengers must understand the threats they face. Most Westerners are considered high-value targets, subject to anything from street crime to kidnapping to data theft. Crucial to the success of the trip is a preflight briefing using information readily available from a variety of sources both public and private, presented to both the passengers and the crew. They should be kept informed of any developing situations so they can respond to them if necessary during the mission. Sullivan recommends that the crew set an emergency rallying point away from their hotel, where they can gather and head to the airport, and they should also make sure that each passenger understands how to get to the aircraft if necessary.

In troubled areas, flight crewmembers should travel in pairs or groups and keep tabs on each other, as the ability for a return flight depends on their well-being. When traveling to areas in turmoil, crews should fuel on arrival in case a swift departure is required.

When the aircraft is on the ground, Sullivan recommends it be checked at least once every 24 hours and its security systems engaged to deter any tampering.

It might be surprising, but the number one cause of death for Americans abroad over the past several years is ground transportation. In cases of accidents, many travelers might not be able to accurately describe their location. William Archer, global security director for L-Brands, noted that web travel support services such as iJet Worldcue or International SOS allow users to easily send an emergency message from their smartphone with their GPS coordinates. Those same applications can also be configured so crew and passengers can check in at a specific time each day, and issue an alert if the check-in is missed.

Greg Kulis with L-Brands noted that passengers and crew are more vulnerable during their trip from the airport to their hotel, as any observers may notice that they arrived on a private aircraft and will draw their own conclusions about their potential target's worth. He recommends the use of vetted ground transport and cautioned that transportation that isn't secure enough for the passengers is not secure enough for the crew either. ■