Aviation Insurance Association

The Binder

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A Look Inside...

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President's Message

Todd S McCredie

Another fun and successful AIA conference has come and gone. I am excited and honored to be serving as the President of AIA for the next two years. It is hard to believe that another year has passed. I would like to thank Patrick Bailey whose participation on the board was much appreciated. Immediate Past-President, Paul Leonard, did an excellent job as President over the past two years. I appreciate all his hard work and devotion to the organization. Thank you, Paul.

Currently, your board is moving forward to make this next year another successful year. Areas that the board will be working with the Robstan Group over the upcoming months are: the development of online continuing insurance education courses, the annual conference, increasing the AIA Foundation funds and other projects and needs of our association.

In today's business environment we are all faced with challenges. These challenges are not confined to one region or country, but are on a global scale. These challenges make us react quickly and also make planning for the future very difficult. New ideas are an every day occurrence which increases our need to stay focused to face these new challenges.

The AIA allows all of us the ability to meet and learn about the current challenges and ones that may be on the horizon. I can't think of a better organization for this industry.

I look forward to seeing everyone in Vancouver during our 2010 Annual Conference in June and I would like all of you to know that in my office, I use the open door policy.

2010 VANCOUVER
AVIATION INSURANCE ASSOCIATION
JUNE 12 - 15, 2010

If you have any questions or concerns, please feel free to call or e-mail me or any of our board members and headquarters staff. We would like to hear from you.

Have a great year!

Fly Safe

Technologically Advanced Aircraft: Is Safer Really Safer?

by Dr. David Curry, Donald Knutson, and Steven Meyers

Aviation trade journals and other media sources have made anecdotal suggestions that Technologically Advanced Aircraft (TAA) are being operated by a new breed of aviators, and that the accident rate is abnormally higher than conventional aircraft. Is this simply the result of pilots failing to learn how to operate new technologies or does a focus needs to be made on the psychological factors that could influence the decision making skills of the TAA pilot?

Let's start by taking a look at an actual NTSB report (LAX05FA088), which typifies many of the accidents involving this new breed of aviator. A low-time private pilot (473 hours total time and 11 hours in actual IFR), was flying a Cirrus SR22 on an IFR flight plan from Lake Tahoe to Oakland, California. The pilot received a pre-flight weather briefing, which advised him that there were no pilot reports for his intended route of flight, and that the freezing level was at 6000 feet over Reno, Nevada. The pilot decided that he could safely make the flight. While en route, he unsurprisingly experienced structural icing at the forecasted levels, resulting in a departure from controlled flight. This led to his decision to deploy the ballistic parachute, which subsequently caused a catastrophic airframe failure.

Several key factors were noted during the subsequent accident investigation. The pilot clearly underestimated, and maybe trivialized, the severity of flying into icing conditions. The pilot could have believed that since the plane was equipped with multi-functional onboard weather displays and an Ice Protection System, that this would make him immune to the detrimental effects of structural icing. In fact, the aircraft was not certified for flights into known icing at all; the Pilot's Operating Handbook (POH) clearly indicated: "*Flight into known icing conditions is prohibited.*" The investigators also determined that the pilot had elected to deploy the parachute outside of its operating envelope (stated in the POH as 133 knots maximum indicated airspeed); and the subsequent parachute deployment forces were the cause of the in-flight breakup.

In essence, a combination of the aircraft being equipped with multiple safety features and the pilot lacking adequate training may have presented the operator with a false sense of security. Research has repeatedly shown that individuals oftentimes do not value increases in safety *per se*, but rather utilize an increased safety margin as a license to undertake greater risk-taking behavior. Some psychologists developed the theory of *risk homeostasis* to account for such behavior (Wilde, 2001). According to the theory, each individual determines an "acceptable" level of risk for any particular activity in exchange for the benefits they expect to receive for undertaking it, and their behavior is based on the relationship between the risk and the perceived benefit. If the level of risk associated with a particular activity is assessed as being *greater* than the acceptable level, people tend to exercise greater levels of caution (likely by not performing the activity). The opposite is also true: if the level of risk is assessed as being *lower* than their acceptable level, individuals tend to engage in actions that increase their level of risk-taking. Behavior is regulated so as to maintain a *homeostasis* (balance) between risk-exposure and risk-avoidance. A dangerous aspect of such behavior is that the risk-exposure level is *subjectively* (rather than objectively), evaluated.

A familiar example of this phenomenon is that of winter driving. The majority of drivers slow down when road conditions become icy. However, it is not unusual to see the drivers of four-wheel drive vehicles simply engage the traction control, and maintain or increase their speed based upon a perception that that they are adequately protected from the affects of reduced traction. Even though their vehicle's performance is improved while driving on straight and level surfaces, their ability to *stop* or *turn* on ice remains at its original level. If they had simply slowed down like their two-wheel drive counterparts, they would have experience a net *increase* in overall safety, but their behavioral change (i.e., not reducing speed as other drivers do) negates the advantages of the four-wheel drive system.

In the aviation arena, it is likely that such risk adjustment behavior would manifest itself as an increase in the likelihood of an individual being willing to expose themselves to greater levels

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New Aviation ACORD Forms

The Aviation Software Alliance (ASA) recently helped complete work on 8 additional ACORD forms for use by the aviation insurance industry. The forms include the following:

- Aircraft Loss Notice
- Witness Schedule
- Injured Schedule
- Certificate of Aviation Insurance
- Certificate of Aircraft Insurance
- Aviation Binder
- Aircraft Binder
- Aircraft Schedule

The forms were submitted to ACORD in September 2008 and were approved by ACORD membership in January 2009. These new forms are accompanied by the XML messages, which will eventually allow for electronic interface between broker and carrier. These additional forms compliment the already existing aviation forms, such as the pilot history form and various aviation applications.

The ASA is a group of aviation insurance brokers, whose mission is to develop and implement standards, as well as advance efficiency through the use of technology, within the aviation insurance community. For more information on the ASA or if you would like to become involved, contact Jason Wissmiller at 503-640-4686 or Jason@regalaviation.com, or visit www.asa-web.org. •

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of risk if the aircraft were perceived as being safer due to technological changes. It is important, therefore, not to focus strictly on the technological safety features or aircraft capabilities; but to recognize the performance of the human element. Each individual has an acceptable level of risk which they assign to any particular task; those that train to become pilots need to understand their personal limitations and the limitations of their equipment. This will increasingly be brought to the forefront as more technologically advanced aircraft and systems become available to less experienced pilots in general aviation. In many ways, these new aircraft can be every bit as complicated as a modern airliner; it is imperative that training and testing requirements be mandated that address this fact. When properly operated, such new aircraft and systems can offer quantum leaps in safety over previous generation aircraft, but not if their capabilities are used to venture into environments or situations which would previously have been considered unacceptable due to higher levels of risk acceptability on the part of their operators.

References:

Aircraft Owners and Pilot Association, (2007), Training Technologically Advanced Aircraft Safety and Training.

DiLillo, D. and G. Tremblay (2001). "Maternal and Child Reports of Behavioral Compensation in Response to Safety Equipment Usage." Journal of Pediatric Psychology **26**(3): 175-184.

Wylde, G.J.S. (2001) Target Risk 2: A New Psychology of Safety and Health, PDE Publications •

FAA Wings Program continued from 21

Aircraft (LSA) may not use this phase.

In a Nutshell

In the new WINGS program, three levels – basic, advanced, and master – replace the 20 phases of the old WINGS program. Six credits, three each for knowledge and flight are required at each level. At the basic level, at least one of the three credits must address leading causes of accidents, and the other credits are electives. At the higher two levels of the new program, the balance is reversed, with one core credit and two electives in each area, but you cannot earn advanced or master levels without completing the basic level first.

Unlike the old WINGS, flight time counts for nothing. Proficiency, to the applicable Practical Test Standards, is what matters.

All WINGS record-keeping is done online, preventing pilots pencil-whipping a Flight Review. The online program also keeps track of participation and reminds pilots when it's time to take the next step. Just like the old Wings, completing the basic level or above takes the place of a flight review (formerly Biennial Flight Review).

Will the all new WINGS program succeed in reducing GA accidents through better pilot proficiency? The key will be greater participation by pilots. The FAA's remarkable (for a government agency) move into online education and record-keeping will help, as will the concerted efforts of Master CFIs, ASASF and other industry players who are making the Aero-NewsBug aviation news reader available to pilots nationwide.

This article was written by Kevin D Murphy, a former VP for AOPA. He holds an FAA Commercial certificate and a Flight Instructor certificate, both with instrument and multiengine ratings. He and his wife own a 1981 Cessna 172 they fly for both business and pleasure With almost 40 years of hands-on GA experience, he specializes in creating online education and advocacy programs.