It was an honor to be a presenter at this year's 15th POPA celebration anniversary of the introduction of the PC12, I was also fortunate to celebrate the 10<sup>th</sup> year atop Mount Pilatus at the factories' gathering and speak on insurance. That said I hope you will enjoy looking back at where we started and see where we are and hopefully get an idea of where PC12 insurance is headed, here is my condensed power point....

# **Initial Challenges**

My firm has been engaged with the PC12 starting with serial number , which many of you might not know is actual the first unit sold in this country, there are no sub 100 number in the production run. These early serial number presented a number of challenges to the Atlanta Aviation underwriting community, *"Are you kidding me Toland, a \$2M single turbine engine airplane that has 10 seats plus, no simulator, are you nuts? "Pilatus? Don't they make toy airplanes?"* There were many other comments and no takers ....our problems were real..

# Serial number 103 and beyond

Establishing rates for the first aircraft was basically a shot in the dark for the underwriters, I had to convince them it was not a Cessna Caravan with its early issues, not to mention a Caravan had just crashed south of Atlanta, killing 17 sky divers on takeoff, cause of accident was pilot error and contaminated fuel dispensed from a rusty 55 gallon fuel drum. This loss is why you see NOT FOR AVIATION FUELS on most filters and hand fuel pumps, resulting from years of litigation, of the 17 casualties 10 were Attorneys...

Convincing the underwriters that the PC12 would be Saver than a King Air was hard to sell as well, initial orders were mostly owner flown transitions, and even professionally flown PC12s were rated up. Rule of thumb in the early days was double King Air rates minimum, then plus if you were owner flown...

Our solution was to get those underwriters who were pilots to fly it and educate them on the safety of the concept, we flew our pants off and it paid off, AIG's home office pilots liked it, and they smelled blood. First one in gets the highest rates...

# Early Days

With the first aircraft now flying and insured I soon had the first losses. Actually I had the first and second all in one flight. Basically a PC12 departed from a short strip down on the Baja and was made even shorter by the pilots discretionary call to not back taxi over a sand and gravel portion of available runway, on takeoff the rotation was followed by an impact of the main gear with a stone wall and chain link fence, this knocked one main off and the other up through the wing!!! First loss, second was the landing some 100 miles to the south with only the nose gear down. The landing was uneventful, did not even get a prop strike, all six passengers walk away unharmed...

When I received a call from the owner who I had meet several weeks before at my office on the way to training, he allowed all of the details of the accident, followed by *"I have thirty minutes to get the aircraft of the runway, the airport commandant has a D9 Caterpillar standing by to assist me if I don't get something going'* 

Well I will skip the details of how quickly Chris Finnoff and PILBAL responded, securing the aircraft and shipping it back to the states for inspection and repair but I will share with you that I got an immediate carpet call to be front center to discuss at AIG, after a good ass chewing, the conceded that I was right, it was a tough bird, just no more accidents Mr. Toland....please....**Welcome to my world**.

# Timing is everything

The mid 1990 were seeing across board increases in all lines of insurance, Aerospace was a rate rise leader with the loss of India's first satellite...*"it just kept on going"* and so did aerospace rates... this one loss alone was \$480M The late 1980 financial crisis escorted over 8 Aerospace underwriting Facilities out of the arena, Aviation Offices of America, Omni insurance, Stewart Smith, Southern Aviation Insurance Group, Southern Marine and Aviation, National Aviation Insurance. Several smaller markets as well were acquired by larger underwriting concerns and the rate race was off and running concurrent with the launch of the first PC12...

# History Always repeats itself...

During the second half of 2010 all three Asian space powers - China, India and Japan - suffered major satellite failures. Each failure is significant, but for different reasons. All launches were insured. What makes the loss of India's Insat-4B in early July - the first Asian satellite on this list - so important is the possibility that the satellite fell victim to deliberate act of sabotage as the result of a cyber-attack. This involves the very malicious "Stuxnet" worm. I must be emphasize that satellite failures happen rarely, but when they do it cost us all in Aerospace.

2009 handed aviation underwriters the Dulles hangar collapse, collective claims represents over \$660M in losses and unsettled reserves....Global Aerospace paid out the first loss on one Global Express around \$38M within 14 days of the event.

Last year Air France handed in a one off the coast of Brazil, reserves are rumored to be set north of \$1B in passenger legal liability settlements the hull losses claim that has been settled at around \$70M.

These losses will translate into rate increases at future Aerospace reinsurance treaty renewals. Total reserves for these losses are set at around \$4.5 B.

This chart represents an early serial number owner flown client who we have tracked to reveal market changes, note client has followed market and jumped to several companies as premium savings and broader coverage were availed. You will note a trend down toward lowest rates and a gradual increase as previously predicted. Rates are a percentage of per \$1000 dollars in hull value.

Additionally factor in 911, and the entrance of several new players bringing competition to the market starting in late 2005, rates have trended down but have bottomed out and are expected to rise over the coming years.



Further you should note that the drop in rates on PC12 in 1996 was largely due to our efforts with Pilatus and the Dealer network demonstrating to the various markets the PC12. This was mostly conducted in Atlanta, Dallas, NY, and Los Angeles. Without the support of PILBAL and the Dealer network, rates could be anywhere, as well many key underwriters travel on my PC12 serial 380 which keeps them acquainted with our fine mount... Client two reveals a professionally flown risk that elected to stay with one market since acquiring the aircraft. As you will note, there is only a slight variance in premium savings by moving from market. This client favors tenure over annual shopping and premium savings.





This chart represents a mean major aviation markets rate index. Note premium experience of clients relative to market index. Also consider that Lance Toland client's maintain a 95% renewal retention rate with the firm. We have over \$500,000,000 in Pilatus assets covered worldwide.

| CE-208 / TBM-700 / PC-12 / PA-46-500TP Accident Involvement Comparative Data         |           |       |        |              |           |         |
|--|-----------|-------|--------|--------------|-----------|---------|
| U.S. and Canadian Registered Fleets – Aircraft Introduction through 2010<br>TBM-700/ |           |       |        |              |           |         |
|  | ,         | 250   | DC 13  |              |           |         |
| <u>CE-208</u>  |           | TBM-8 |        | <u>PC-12</u> |           |         |
| Fleet Size (Year end 2010)   |           | 871   | 366    | 691          | 328       |         |
| Hours Flown  | 7,454,410 |       | 665,59 | 99           | 2,221,360 | 444,926 |
| Accidents  | 133       | 22    | 20     | 22           |           |         |
| Fatal Accidents  | 49        | 8     | 8      | 9            |           |         |
| Accidents due Power Loss/  |           |       |        |              |           |         |
| Mechanical Malf/Failure  |           | 17    | 1      | 3            | 2         |         |
| Accidents per 100,000 hrs.   |           | 1.78  | 3.31   | 0.90         | 4.94      |         |
| Fatal Accidents per 100,000 hrs.   |           | 0.66  | 1.20   | 0.36         | 2.02      |         |
| Power Loss Accident Rate   |           |       |        |              |           |         |
| per 100,000 flight hours   |           | 0.23  | 0.15   | .014         | 0.45      |         |
| Power Loss Fatal Accident  |           |       |        |              |           |         |
| Rate per 100,000 flight hours  |           | 0     | 0      | 0            | 0         |         |

Comparison of Domestic single engine turbine loss statistics from DOT. King Air 200 and 350 experience a higher per 100,000 loss rate. Statistically PC12 losses are insignificant relative to insurance rates; rather rates are set from overall aerospace pool loss performance. There is no statistical data to support owner flown PC12 have a higher loss record as a group, this is due to pre and post pilot simulator training and ongoing learning through POPA seminars and articles.

Q&A

*I fly because it releases my mind* from the tyranny of petty things . . .— Antoine de Saint-Exupéry