# **OWNER & PILOT**

A Magazine for Owners and Pilots from

# PARADIGM SHIFT?

Years ago a walk around the display area of a major industry show would offer a first-hand look at all of the new twin-engine turboprop aircraft available on the market at the time. From Commanders to King Airs to Conquests and Cheyennes, twin engine aircraft were the rule – not the exception. >> page 4

#### IN THIS ISSUE:

Last Chance for Bonus Depreciation? • 3 Preparing for the Unthinkable • 6 Pilatus Leads Survey • 8 The Cost of Connectivity • 10 ...

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#### **Rising From the Ashes**

Last week was not the best for us at Skytech. Piper Aircraft announced that it was going to suspend development of the Piper Altaire indefinitely. They indicated that "the market for light jets is not recovering sufficiently and quickly enough to continue developing the program". We are clearly disappointed.

Is there any good news here? Well, yes there is. Piper also said that going forward as a company, they will step up improvements to their turboprop and piston-powered product lines. The sad truth is that in today's economic environment you just can't do both at the same time. So, instead of a jet in four years, we hope to get some good product improvements a lot sooner.

A quick look at the history of successful General Aviation manufacturers tells us that those that can "freshen" their current aircraft with cost effective changes have the best longevity. We all want brand new designs, but the strains can be great. Over the years at Skytech, we have had to adapt many times, and this will be another. What we won't change is our core value of keeping our customers first, and striving to exceed their expectations.

Your thoughts, suggestions, comments and criticism are important to us and we will always welcome reader feedback.

Please respond to: Mike Fitzgerald Executive Vice-President mfitzgerald@skytechinc.com

## RATED AA+

Assign that rating to any airplane or any segment of general aviation and we would all be quite happy. However, that S&P rating and political dithering surrounding it, are causing widespread unhappiness. While most of the general aviation marketplace does not get a Demand Rating of AA, there has been a surprising amount of activity. Early this summer, many dealers reported, "They've never been busier." This was during the highly publicized debt ceiling talks. Could it be that we have grown numb to the incessant onslaught of alarming news? A good export market continues to bolster general aviation. Offshore and domestic buyers, want in before the best deals are gone. This, coupled with aggressive sellers, who want out before a weak economy gets worse, has made for a brisk market – up to now. It is likely that most of us are less interested in what was and more interest in what will be. More on that later.

#### PISTON SINGLES AND TWINS -

With few exceptions, piston aircraft are flat. For most of last quarter there was little or no downward pressure on prices. Remember, past performance may not be an indicator of future returns. Activity in the recent quarter was centered around the better airplane or the better deals. Rough, runout airplanes remain difficult (some say impossible) to sell at any price. Many of those better airplanes are being exported. It is common to see a low time Beech Bonanza or Piper Seneca bring as much as 20% more in Brazil than it would in Arizona.

TURBOPROPS AND JETS – Most dealers in the turbine markets gave

June and July of 2011 high marks – for activity. There were even a few pockets of slight upward price pressure including ProLine 21 King Air 350's, Citation Excels and very late model Gulfstream Vs and G550s.

We are just coming off one of the best quarters since 2008, and it's tempting to keep thinking happy thoughts. However, since Washington seems to be officially dysfunctional, it's best to stay in touch with reality. The big downturn of 2008 was relatively easy to predict. At that time, airplanes were grossly overpriced, and most lenders were eager to help out. When the easy money went away, so did the market. That's what we call a no-brainer. Now the future is not se easy to foretell. Airplane prices have been bouncing along the bottom for more than a year. There are some world-class deals out there. Right or wrong, several massive doses of stimulus have been administered - tax cuts and incentives, extended. Yet, talk of a poor economy prevails.

WHAT CAN WE DO NOW AND

WHAT DO WE THINK? Some things will not change. Private aircraft will remain an indescribably safe and efficient way to travel. Remind your customers and your colleagues of this often. Will costs go up? Almost certainly. It might be taxes, or it might be fuel, or it might be something else. However, corporate aircraft will always be, as Warren Buffet has said, 'indispensable.'

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Skytech, Inc., publisher of this magazine is an aircraft sales and service company with FBOs in Westminster, MD (DMW), Rock Hill, SC (UZA – Charlotte Metro Area) and Administrative Headquarters in Baltimore, MD (MTN).



## LAST CALL FOR 100% BONUS DEPRECIATION?

This has been a hot topic around Washington D.C. and in national news recently: cutting tax subsidies for corporate jet owners. Politics aside, we will take a look at current law, explain the proposed changes, and discuss some planning ideas.

#### CURRENT LAW - BONUS DEPRECIATION

President Obama signed H.R. 4853 into law in December 2010. This legislation allows 100% bonus deprecation for new business aircraft. The law is retroactive for new aircraft purchased after September 8, 2010 and will be in effect until December 31, 2011. The aircraft has to be placed in service by December 31, 2011. Bonus depreciation is 50% for new business aircraft for 2012 purchase. Bonus depreciation is simply a form of accelerated depreciation. 100% of the purchase price of a business aircraft can be deducted in the year of acquisition, provided that a taxpayer meets the requirements and provisions of the tax code - justification of business use, placed in service date, passive activity loss and related party rental regulations, etc. Federal Aviation Regulations Part 91 operator depreciates a business aircraft using MACRS (Modified Accelerated Cost Recovery System) double declining method with a five year life. Part 135 commercial aircraft operator depreciates a business aircraft with a 7 year life.

#### PROPOSED CHANGES

The President has proposed to change the depreciable life of "corporate jets" from five to seven years. It is unclear if new business aircraft will be prohibited from utilizing bonus depreciation or if this will affect turboprops and piston aircraft. The effect of changing depreciable lives will create a timing difference for taxpayers – depreciation deductions will be spread out over a slightly longer time frame, from six tax years to eight tax years. For businesses that have experienced losses during this recession, spreading out depreciation over a longer period may not have a material impact to its tax situation. Depreciation deductions will decrease in four of the first five tax years, but it will catch up in tax years six to eight.

#### PLANNING IDEAS

If your business is reporting significant taxable income and you have a need for a business aircraft, completing a purchase of a new aircraft by December 31, 2011 will result in immediate income tax savings. Managing your business use and minimizing personal use in 2011 is of paramount importance. In the current credit market environment, it is wise to begin financing application and get pre-approved for an aircraft loan. Aircraft manufacturers have reduced production in recent years. To ensure delivery by December 31, you should determine the aircraft that fits your business needs and place the order sooner than later. Getting your legal, finance and tax advisors together to determine the optimal structure for the aircraft acquisition should also begin as the myriad of federal, state and FAA regulations will require a thorough review of your current corporate structure.

Aviation Tax Consultants (ATC) assists aircraft purchaser in acquiring aircraft in a tax efficient manner. Our services include the elimination or reduction of sales tax at the time of purchase, maximizing income tax savings, controlling the cost of personal use of the aircraft, avoiding passive activity loss rules and complying with Federal Aviation Regulations. Cooperation with client's current tax and legal advisors is welcome and encouraged.

Daniel Cheung CPA, Member



#### FALL/WINTER 2011

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#### THE ADVANTAGE MAGAZINE STAFF REQUESTS YOUR FEEDBACK!

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The Pilot-In-Command is solely responsible for the safe and proper operation of his/her aircraft and it is the responsibility of the pilot-in-command to operate that aircraft in compliance with that aircraft's Pilot's Operating Handbook and other official manuals and directives.

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If a single-engine turboprop aircraft was found chances were it was an experimental or in the developmental stages of certification and off to the side of the display. Fast forward several years. As I write this article I just returned from the AOPA Aviation Summit in Hartford, Connecticut. I took a walk around the display and it's safe to say that times sure have changed. At a quick glance I counted 6 single-engine turboprop aircraft to only 2 turboprop twins on the ramp in the show. More single-engine turbines were scattered around the airport. Single-engine turbines have taken the market by storm (albeit not overnight) and have successfully completed a paradigm shift in an industry that isn't easy to change.





There's an old saying in the aviation industry that if something happens too fast it probably isn't a good thing long term. Slow-and-steady usually wins the race when you're dealing with the development of complex equipment - and aircraft most certainly qualify. For as many overnight success stories such as the North American P-51 Mustang (developed, tested and delivered after only 102 days of receiving the contract), there are hundreds more that rushed the process and paid the price. The same slow-and-steady logic can be applied to any multitude of other aviation scenarios: don't rush the pre-flight, follow the approach procedures without cutting any corners, etc... One segment of the industry that has certainly followed this approach has been that of the single-engine turboprops. The marriage of innovative and thoughtful design with now over 25 years of proven track records has firmly planted the single-engine turboprop class in the aviation success category.

#### IN THE BEGINNING

You always need one trend-setter to start the ball rolling and in the single-engine field that initial player was the Cessna Caravan. The first prototype of the Caravan was flown in late 1981 and certified in 1984. The Caravan became a literal "overnight" success when paired with Federal Express in 1985. In the first six months of operation the fleet amassed more than 2,000 flight hours and achieved a 99 percent dispatch reliability rating. Crossing the 1 million hour mark in 1996 the Federal Express fleet continues today to serve hundreds of feeder routes.

The Caravan may have been an instant success in the cargo market but the other segments of the industry were yet to get on-board. The General Aviation Manufacturers Association (GAMA) compiles industry statistics on a yearly basis and taking a look at the 1990 General Aviation Statistical Databook reveals the sign of the times. Focusing on turboprop aircraft, the total number of Active General Aviation Aircraft in the fleet were reported as 6,324. Of these, 6,094 were twin engine. The remaining 230 weren't even classified as single-engine turboprops but instead were called "Other". Another variable tracked by GAMA is the Hours Flown by Aircraft Type. In this year's report the hours flown by twin-engine turboprops was 3,006,000 compared to the 126,000 flown in single-engine turboprops. Obviously the twin engine ruled the day.



Airplanes such as the Caravan continued to do their job day in and day out and slowly they found homes in other areas of the industry. Of the major players, the Socata TBM 700 hit the market in 1991, the Pilatus PC-12 in 1995 and the Piper Meridian joined the fold in 2001. In 1997 a major hurdle in the total market acceptance of single-engine turboprops was cleared. Prior to 1997 the FAA imposed restrictions on single-engine turboprops operating Part 135 in IFR conditions. Among the restrictions for operating in IFR was that the flight be conducted in weather conditions allowing descent to VMC in the event of an engine failure. In order to make this work the route flown had to essentially be VFR or scattered ceiling for the entire flight. Post 1997, due to overwhelming amounts of evidence that single-engine turboprops are one of the safest and most reliable modes of transportation, the approval for carriage of passengers Part 135 during night IFR was passed. In the charts we can see how the single-engine turboprop growth has done in the past 20 years. In 1990 the "Other" class of turboprop aircraft represented 3.6% of the turboprop fleet. In 2010 the Single-Engine turboprop accounted for 43.7 %. Moreover, the list of delivered airplanes indicates it will only be a matter of time before singles overtake twins as the fleet leader. GAMA numbers for the most recent report in 2010 indicate 262 delivered turboprop singles compared to 101 turboprop twins.

#### MUST BE A REASON

Okay, so we've established that the single-engine turboprop is a major player, but why has it become so popular? One of the major reasons for single-engine success is the combination of impressive performance and substantial efficiency. It doesn't take a genius to figure out that one engine burns less fuel than two, but achieving performance nearly as good - or in some cases better - than two engine options means you aren't giving up anything for the reduced cost of operation. Beyond the fuel savings, the reduced noise footprint single-engine turboprops exhibit has led to success in the Special Operations field and even permission flying into and out of noise sensitive areas that were previously off-limits to turboprops. **In a world that increasingly favors the "greenest" alternative the single-engine turboprop has firmly planted its roots.** 

Pilot access is another valid reason that single-engine airplanes have climbed in market share. Beyond the simple fact that flying a multi-engine aircraft requires an additional rating, there is also the factor of maintaining proficiency in a twin-engine aircraft that demands professional attention to detail should one of the fans stop turning. We've all heard the saying that "the other engine of a twin takes you as far as the crash site" and while in a lot of cases that certainly isn't true, there is some merit in the fact that if you aren't completely up to speed with what to do in an emergency it could be riskier than accepting the glide performance of a cleaned up single. This leads us to one of the main reasons the single-engine market has succeeded – the engines used are just so reliable. Robert E. Breiling compiles accident data of both single and multi-engine turboprop aircraft each year comparing the safety record of every aircraft in the fleet. The end result of the most recent study lists the Power Loss Fatal Accident Rate per 100,000 flight hours of the Cessna Caravan, TBM-700/850, Pilatus PC-12 and Piper Meridian as zero. A very small amount of engine failures have been recorded through the fleet but the excellent glide ratio all of the airplanes employ - as well as the crash worthiness of having an engine out front - makes for a very safe product. A more telling statistic is seen when comparing the total single and multi-engine fleet on all parameters.

Studies have shown that it isn't the second engine that makes you safer but rather the second set of eyes – 25 years and countless studies back this claim up. Pick your reason: stellar cruise performance, short (and in some cases unimproved) airport access, ease of pilot use, a newer overall fleet with modern technology, efficient "green" travel....the list goes on. Years from now who knows what the ramp of a major show will look like? Considering the trends over the past quarter century and the reasons that back them up, I'm willing to bet single engine turboprops will have a seat at the table for a long time.

For More Information: Robert E. Breiling Associates, Inc. www.breilinginc.com General Aviation Manufacturers Association www.gama.aero

FATAL CUMULATIVE ACCIDENT FATAL ACCIDENT AIRCRAFT ACCIDENTS ACCIDENTS FLIGHT HOURS RATE RATE TWIN TP FLEET 362 51,798,602 2.03 0.70 1,052 AVERAGE SINGLE TP FLEET 77 211 10,987,725 1.92 0.70 AVERAGE

U.S. and Canada Business Turboprop Fleet - Flight Hours - Accidents - Accident Rates - Aircraft Certification through 2010

Source: Robert E. Breiling Associates, Inc.

Accident Rates (Accidents per 100,000 Flight Hours)

### PREPARING FOR THE UNTHINKABLE **BENJAMIN JEFFRY GOODHEART**

As pilots and passengers, none of us ever anticipate being involved in an aircraft accident; but planning can go a long way should that alarming scenario ever present itself. This article is not intended to be an exhaustive checklist of steps in response to an aircraft accident. Rather, it provides a few simple suggestions that, when implemented before the confusion and chaos, may help you navigate the unthinkable.

#### HAVE A PLAN

V Evaluate the scene and arrange for first

aid treatment for yourself and other injured

Secure the aircraft and protect it from

V Contact authorities and your insurance

V Do not provide information about the

accident to anyone other than rescue personnel, the FAA, the NTSB, or your

V Get business cards or contact information

V If you are able to do so safely, record

Get ousiness cards or contact intorme from all key rAAINTSBIARFF personnel

the scene with photos or video.

involved in the accident response)

accident to anyone other than rescue

insurance representative;

Emergency response plans are a staple of any professional flight department. Take a cue from the pros and prepare a short plan of your own. Things to consider include basic elements of your response to scenarios such as an off-airport landing, dealing with a sick passenger, a non-emergency mechanical malfunction, or worse, an accident. Simply putting pen to paper to develop a few key bullet points for

each situation is an invaluable planning tool, and you may even consider adding a laminated copy of scenario-specific checklists to your flight bag. Just as running through emergencies in the simulator helps make us more competent and confident aviators, "chair flying" through accident or incident scenarios is a critical step in being prepared for an accident. Creating a short accident response checklist that includes the considerations listed below, and adding your own, may help reduce the confusion following an accident:

#### EQUIP YOURSELF FOR SUCCESS

After an accident, there are a number of notifications to be made. The FAA, NTSB, local fire and police, FBO, family, and your insurer are just a few of the contacts expecting a call. Consider creating a wallet-sized card with key contact information listed on it, and don't forget your insurance broker's number. In many cases, your insurance representative can help by making calls on your behalf. Since an accident may mean that you are not able to make calls yourself, make sure to leave copies of your plan and contact list with friends or family members. On the reverse of your contact information card, you may want to include the sample accident checklist discussed earlier.

In addition to contact information, it is a good idea to have a copy of NTSB form 6120.1, the pilot/operator aircraft accident/incident report, available in your response plan. NTSB Part 830 provides guidance on when this form is required to be submitted. An ASRS (NASA) form is also handy. Not only may it protect you from enforcement action in certain situations, it also contributes to safety improvements by adding to general aviation safety data. These forms can be printed and included in your emergency response plan for easy reference.

Once you have identified a few scenarios, collected all your key contact information, and gathered up important documents, make several copies. Keep one in the aircraft, one at home, and leave one at the office or with a friend. You want this information to be readily accessible to you or to someone who can act on your behalf immediately after an accident. Talk to your insurance broker about additional suggestions that may be relevant to your aircraft or type of operations, and don't hesitate to ask them for help reviewing your plan.

parties;

further damage;

broker;



Consider keeping a well-stocked survival kit in your aircraft at all times. Several commercially-available kits are a great option, but don't shy away from making your own grab-and-go survival bag with supplies based on the "Ten Essentials" widely suggested to hikers and backpackers. In addition to the Ten Essentials, some form of shelter and water purification may also be useful for an unplanned overnight if your aircraft is forced down. Don't forget to include inspection of your survival kit as an item on your annual inspection. That way, you don't end up with dead batteries in your flashlight or expired water purification tablets when you really need them.

#### DON'T GO IT ALONE

Dealing with the aftermath of an aircraft accident is no time for a solo mission. Your insurance broker should be a trusted partner to help before, during, and after an accident. Your broker can provide tips and examples on how to prepare an emergency plan, even for owner-flown aircraft. If you are involved in an aircraft accident, a specialty aviation broker can help provide guidance on securing the aircraft, moving it from the accident site, coordinating repairs, and navigating the claims process. Resources such as the Aircraft Owners and Pilots Association (AOPA) and type-specific owners' groups can also be a tremendous help when dealing with the FAA and NTSB following an accident. While no one anticipates an aircraft accident, taking time to think about your response in advance may just pay dividends if that day ever comes.

Benjamin (B.J.) Goodheart manages claims and safety strategies for AirSure Limited, the country's largest general aviation insurance broker, with offices in Golden, CO and Dallas, TX. B.J. has extensive experience in aviation safety and accident investigation. He is an ATP-rated pilot and is completing a Ph.D. with a research focus on general aviation safety. To learn more about how AirSure can help you manage risk, call 303-526-5300.



VANTAGE ma



# PILATUS LEADS SURVEY OF CORPORATE TURBOPROPS COMPANY NOTES CATEGORY DOMINANCE SINCE 1998

In the 2011 Corporate Aircraft Product Support Survey of business aircraft operators, conducted annually by Professional Pilot magazine, Pilatus reports it again earned the top ranking in the turboprop division, for the tenth year in a row. The annual survey has been conducted for jet aircraft since 1991. Turboprops were included starting in 1998. Since that time, Pilatus has earned first place in the turboprop category every year except 2000, when no turboprop aircraft were included.

In five of those years, operators of Pilatus aircraft ranked their customer service experience even higher than perennial jet division winners Gulfstream and Cessna Citation.

"It is a great honor for our service team to win this award for the tenth consecutive year," said Piotr "Pete" Wolak, Vice President of Customer Service for Pilatus Business Aircraft. "There really is no magic formula, though. We have a great group of dedicated people who simply listen to our customers and work extremely hard to solve their problems. It is difficult to beat the combination of Swiss craftsmanship built into every PC-12 and the pride taken by those who support it."

Wolak also cited the experience and knowledge of Pilatus's worldwide network of service centers as a tremendous asset for its customers. The majority of Pilatus Centers have been with the company since the PC-12's introduction in 1994.

Wolak adds that the company won't rest on its laurels. "Being on top is great, but it increases the pressure on us to constantly improve what we do so that we can remain there."

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# THE COST OF CONNECTIVITY

SENDING MAIL

How much is staying in touch with those on the ground while flying worth to you? The answer is obviously different for everyone. For some flying is a time to get away and leave the emails and internet behind. For others the possibility of missing an important piece of information could have a significant impact on their personal or business lives. Either way, in past years the answer to "how much?" was usually well beyond the acceptable limit for anyone in the less-than large jet category. Equipment and installation costs totaling several hundred thousands of dollars have been the norm.... until recently.

Just as with other advances in technology, what once was out of the league for a typical turboprop or highperformance piston aircraft has worked its way into a respectable and attainable category. Who knows what the future holds but for those that want to stay connected once they cross the cabin door two options are worthy of consideration today.

## EMS AVIATION ASPIRE PORTABLE AIRMAIL UNIT (TEXT EMAIL ONLY)

EMS Aviation's Aspire Portable AirMail is a low-cost portable solution to send and receive text based emails while in-flight. Using an aircraft's existing Iridium antenna (or installing one if not currently equipped), the unit can support up to four passengers sending and receiving email via their personal smartphone. This unit is not installed on the aircraft, but is rather a carry-on. Once the unit is connected to the Iridium antenna and is receiving a signal, you can begin to send a receive text only email using your low-bandwidth Blackberry®, iPhone® or smartphone. This system does not support IMAP or POP3 email accounts but with over 66 satellites providing global coverage you can stay connected both on the ground and in the air no matter where your flight plan takes you. The download speed of the service won't handle attachments well (if at all) but the ability to remain in contact textually via a low cost / easy to install system is the main draw. The weight of the unit is 3 pounds and is 8.25" L x 8.25"W x 2.5"H. Costs for this system will range depending on whether your aircraft is currently equipped with an Iridium antenna. Plan on anywhere from \$15,000 to \$20,000 for an up and running system. For more information on the EMS Aviation Aspire visit www. emssatcom.com.

## SB200 SWIFT BROADBAND SYSTEM (FULL WIFI AND VOICE)

This service offered through AirCell and Thrane and Thrane as the Aviator 200 is an ideal system for mid-sized, light or very light jets and turboprop aircraft. Utilizing the global coverage of the Inmarsat Satellite Network, the introduction of the Inmarsat SB200 service has enabled hardware providers to develop smaller and lighter systems and antennas which have also reduced purchase and installation costs. The highlights of this system (which vary slightly depending on the provider) include:

- Up to 200 kpbs data transfer
- Simultaneous voice and data
- Small, low-gain blade antenna
- Coverage performance down to 20 degrees elevation
- Secure Wifi access in the cabin
- iPhone@ and iPad@, Blackberry@ and smartphone compatible
- Supports STP Voice Application (enables you to use the contacts on your smartphone)
- Under 15 pounds

Less than two years ago adding full service internet to your airplane would have cost half a million for 128 kpbs. Today 200 kpbs can be had for less than \$100,000 installed. Installation costs will vary depending on the aircraft but this is a dramatic improvement for the light-jet and turboprop segment of the marketplace. If you want full connectivity with access to the internet and voice, this is a system worth looking into. For more information visit www.thrane.com and www.aircell.com.

Skytech is constantly following advancements in the industry and how they can be applied to our core market. If you have any questions concerning the implementation of these – or other – systems in your aircraft please contact us.

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a word to the wise

BY DAVE CONOVER

## IT'S THAT TIME AGAIN

During a recent flight I realized "it's that time again"! While we encounter icing conditions at any time during the year at higher altitudes; we are entering into the season where the freezing levels are getting closer to the surface and icing conditions affect everyone.

Actually, to be honest about it, I hadn't really given the seasonal change that much thought prior to this flight. We were in between layers after climbing out thru some moderate mixed icing and had just verified the ship was clean; the TKS was doing its job perfectly. Then we starting hearing the calls to approach. Over the next hour or so we heard multiple radio calls from GA aircraft requesting altitude changes or vectors to get out of icing conditions. It was obvious from the tone in some of their voices, that some of the ships did not have any deice or anti ice equipment and needed to get out of icing conditions in a hurry. After overhearing the weather brief I had received prior to departure and listening to the various aircraft calls; the nonpilot passenger with me asked if those other planes got the same weather brief as we did? The WX brief had included multiple warnings of light to moderate mixed and rime in the clouds, freezing levels as low as 3,000ft, mountain obscuration, tops reported and confirmed with PIREPS to 16,000, along with ceilings barely MVFR.

Maybe the other folks were a bit surprised or caught off guard by the seasonal change as well; or maybe they didn't pick up a detailed weather brief? In either case (in my opinion), this wasn't a day for an aircraft not certified for known ice to be flying around.

As we launch into the winter weather season, now is a great time to double check all the de-icing systems on your ship, both on the ground and in flight for proper operation. Occasionally, deice systems function normally on the ground and act differently in flight. Also, take some time for a quick review of your POH procedures for inadvertent icing encounters and various approvals (if any) for the application of de-icing fluids prior to take off.

Additionally, there are many resources on -line to review icing procedures and the conditions that most commonly surround them. NASA has performed some very exhaustive icing studies at the Glen Research Center. Free courses as well as other resources can be found on their web site http://aircrafticing.grc.nasa.gov; Sporty's has some icing courses for a very nominal fee and Cessna E-Learning has online courses for booted aircraft as well as TKS equipped aircraft.

When icing is concerned – a non-contaminated aircraft prior to departure and avoiding or exiting icing conditions immediately if encountered in flight are the rule of thumb. However, a thorough understanding of your aircraft capabilities, some background training on icing, and a detailed weather brief goes a long way to preventing any seasonal surprises.