Since I have been flying the MU-2, Jay Hopkins’ first experience with the MU-2 (“Dangerous Airplanes or Dangerous Pilots?”, Flying, May 2008) is similar to others related by those pilots with the prerequisite skills and experience who have approached the MU-2 with an open mind and a commitment to master the aircraft. Like Fred George (“What’s Wrong with the MU-2?”, B&CA, February 2006), Jay has strong credentials in high-performance aircraft and the ability and forum to communicate his findings.

Jay’s comment that the MU-2 “does have (emphasis added) a higher than average accident rate” is also similar to comments I have heard from some in our MU-2 community. This comment seems to be offered as conventional wisdom even as Jay and such others obviously love the airplane. It is the use of the present tense that concerns me. Pilots who speak of the early Learjets as having had a high accident rate do not continue to speak of the Lear as having a high accident rate.

Jay bases his statement on Bob Breiling’s compilation of total accidents for an aircraft type compared to total number of aircraft delivered. Since no MU-2s have been delivered since 1985, this sort of “accident rate” can only get worse with each accident, regardless of cause or frequency or anything else. So long as King Airs don’t have accidents at least matching the production of new King Airs, their “accident rate” can only get better.

How does one find the real and useful truth about which aircraft to own, ride in or insure? One could follow Dean Ryder’s example (“Used Turbine Review – Mitsubishi MU-2s”, AOPA Pilot, October 1994):

This may sound funny, but I bought the MU-2 for its safety record. I looked at the accident statistics very closely and found that very few accidents were caused by component failures. That leaves the pilot responsible for most problems. So I do everything I can to minimize risk.

If you don’t have the time to analyze “the accident statistics very closely” then I offer some information for you to consider personally and in your conversations with others.
MU-2 Safety
(continued from previous page)

“...increased from 1977 through 1983. Overall accidents in the United States for the MU-2B series airplane fleet is decreasing, but the long-term trend for fatal accidents is stable at about two per year with a recent increase to four in 2004 and three in 2005.”

25 years have passed since 1983.
“MU-2 Facts” (available on the MU-2 websites, or you may contact me) in fact shows the MU-2 series to have had the least number of accidents and fatalities among comparable aircraft since January 1, 1997. I compiled “MU-2 Facts” as a response to those who were offering raw MU-2 accident totals since 1968 and saying “Look at all of those MU-2 accidents!” in an effort to ground our fleet.

While “MU-2 Facts” includes cabin-class piston twins and the Cessna Caravan as comparables, that is because the same number of lives can be at risk aboard such aircraft and such aircraft fly the same cargo missions as alternatives to the MU-2.

Consider the 24/7 all-weather world of FAR 135 air cargo, where the demands can be the greatest and in fact the resources required to be provided to the pilot can be the least. Paying passengers are entitled to more protection than non-paying passengers (autopilot OR two-pilot crew, and other even more basic equipment is required for FAR 135 passenger IMC) and all turbine aircraft with six or more seats are required to have TAWS. Exceptions to these requirements exist for cargo carriers. In my market, insurance underwriters have for several years required the passenger 135 King Airs with higher liability limits to carry two pilots even on King Airs with all of the passenger 135 required enhancements and autopilot. They have required all passenger carriers to have formal outside training, while bending such requirements for cargo-only operations. Nevertheless, as the MU-2 fleet has not had an accident since September 2006, domestic cargo MU-2s have not had an accident since September 2005 (a requirement for TAWS should have prevented one of those 2005 accidents). There is another little-noticed presentation worth mentioning.

Pages 7-8 of the FSB Report contain a table showing “the rate (I have no idea how derived) of part 135 fatal accidents for twin turboprop aircraft compared to total U.S. registered aircraft of each type (as of 8/15/05).”
MU-2 Safety
(continued from previous page)

From my experience, I will assert that in recent years (with perhaps an exception) the aircraft ranking above the MU-2B on the list are used in passenger 135 and the MU-2B (I know of two exceptions for the MU-2B) and those below it on the list are used in cargo 135. In addition to our MU-2 cargo operators’ fine record since September 2005, it looks like they were on top of the other freight operators in this respect as well.

By the way, this table put the FAA in the position of having to consider a safety evaluation of the aircraft ranking below the MU-2B. See the FAA MU-2B FOIA Reading Library online for the brief report of why such aircraft did not require such an evaluation. While the FAA used fleet size (repeatedly saying that fleet hours would be a better measure but were not available) to show a high accident rate for the MU-2B to justify its evaluation, they came up with fleet hours from the old days (when the lower ranking aircraft were commuter airliners and the MU-2B was a corporate transport) to excuse such lower ranking aircraft. How many hours does a 4-5 night per week, 2-3 trip per night check-hauling MU-2 accumulate versus a Metroliner that has a morning leg from the UPS hub to the spoke and an evening leg back to the hub?

Respect the MU-2 as a high-performance aircraft at the same level you should respect any high-performance aircraft. If the MU-2 record and your perception of it make you a safer pilot, don’t change your own style. But keep things in perspective.

Earle Martin is the owner of Mid-Coast Air Charter, a part 135 operator utilizing MU-2 Marquise tail number N644EM. Since its beginning in 1979, Mid-Coast has used a variety of MU-2 aircraft including a -20, -36A and -60. With over 8,500 hours in MU-2's since 1989, Mr. Martin is well known and respected throughout the aviation and MU-2 community. He is based at Atlantic Aviation in Houston (HOU). The “Air Facts” article can be viewed at www.mu-2aopa.com.
The first MU-2 Limited Edition project is well under way entering Phase Three of a Five Phase process. MU2B-26A, SN351SA is being renovated from the radome to the tail cone and from the tires to the vertical tail rotating beacon.

Phase One of the project included the complete disassembly of the aircraft. The wings, landing gear, horizontal stabilizer and interior were all removed. The props were sent to Hartzell for overhaul and the engines were routed for Dash 10 modification and overhaul. Other system components were sent out for overhaul as required. Areas of the aircraft requiring cleaning were thoroughly cleaned.

Phase Two included the complete inspection of the aircraft systems and structure. All discrepancies requiring repairs were addressed during this phase. Areas requiring new corrosion resistant treatment were cleaned, primed and / or painted as required.

Phase Three, the Phase currently being worked, includes the installation of new parts and the reinstallation of the overhauled components. This aircraft project will include the incorporation of seventeen (17) Service Bulletins and numerous new parts.

Phase Four will include the testing of all aircraft systems. The systems will be thoroughly ground tested and flight tested.

Phase Five will include stripping the old exterior paint, metal prep, etch,
MU-2 Limited Edition
(continued from previous page)

“...This aircraft will also be equipped with the Sagem Integrated Cockpit Display System which will include Dual 8.4 inch flat – panel Primary Flight Displays and a 10.4 inch flat – panel Multi-Function Display displaying engine indications, weather and traffic.”

For more information about the Limited Edition, please contact Dennis Braner at IJSC, 800-349-6827

alodine and apply corrosive resistant primer. Then the new exterior paint will be applied by Ranger. The interior will be completely refurbished and installed by Ranger Aviation. The interior will also include a totally new insulation and acoustic package.

This aircraft will also be equipped with the Sagem Integrated Cockpit Display System which will include Dual 8.4 inch flat – panel Primary Flight Displays and a 10.4 inch flat – panel Multi-Function Display displaying engine indications, weather and traffic. The system is a new STC for the MU-2 and is being certified on this aircraft.
Are Your Arteries Plugged?
By Joe Megna

As you probably know, blockage in the heart’s arteries is the leading cause of heart attacks. If you could clean out your arteries once a year, do you think your life span would increase dramatically? Same applies with fuel nozzles and aircrafts engines.

As fuel flows through the nozzles to the combustion chamber, restrictions develop in the fuel nozzle filter screens and passages that will limit the amount of fuel for combustion thus causing reduced engine performance. Additionally, carbon build-up or “Coking” can occur in the fuel nozzles causing streaks in the flow pattern. This streaking will eventually cause carbon build-up on the combustion liner, which could break off and cause erosion to the hot section. This “Coking” of the engine nozzles is inherent of the 331 engine, so this situation should be of no surprise to maintenance personnel in the field. Keeping the fuel nozzles clean, will help eliminate these potential problems.

What is the biggest enemy of an engine turbine section? EROSION. By cleaning nozzles more frequently, you can help reduce the chance of finding erosion when a Hot Section Inspection is completed. With the engine Hot Section “not to exceed cap” going
higher and higher, if you could eliminate a turbine wheel needing to be rebladed or replaced due to erosion, the cost of the extra nozzle cleaning would be an investment well worth it.

What is the proper cleaning interval of your engine fuel nozzles?

The engine manufacturer's maintenance manual recommends every 400 flight hours. In many cases the engines nozzles are being cleaned and tested only every four years or so. After cleaning and flow testing nozzles for more years than I would like to admit, I would argue that the manufacturer’s interval is too long. I feel that nozzle cleaning should be accomplished at 200 Hour intervals to maintain optimal engine performance and reduce the chance of carbon build-up. NOTE: The PT6 engine is noted for not having this carbon build-up problem, so the 400 Hour cleaning interval is satisfactory.

For the MU-2, this shorter interval will ensure that the turbine section is operating at its optimum performance and will operate to its design life expectancy. I also feel that the shorter intervals should increase the value of the aircraft. If I was looking to purchase an aircraft and saw that the operator was doing everything possible to ensure that the engines were being maintained to the highest standards, this would be reflected towards the value of the aircraft in my opinion. As we are all aware, the engine status and condition are at the top of the list when purchasing an aircraft.

If engine performance and reduced engine inspection costs appeal to you, cleaning your engines fuel nozzles at shorter intervals is the best thing you can do. While modern medicine does not give us a choice to clean our arteries, keeping your engine fuel nozzles clean is a choice you can make.
WHERE IS MY AIRCRAFT VALUE GOING?

By Dave Slivka

People always ask that question and usually there is a reasonably clear answer, except for the last few years. My recent response has been that the crystal ball is not very clear.

The attached graphs begin to indicate as of last quarter the market reactions to the increased fuel pricing and the “R” word. As you can see, the strength of aircraft marketplace varies with aircraft type as shown by the graphs with the turboprop segment being the most progressive. Turboprops are still the more fuel efficient aircraft as compared to most jets with comparable seating and volume and especially so for older fanjets.

There were 28 retail MU-2 deliveries during 2007, and there were 11 retail deliveries (33 annualized) for the first four months of 2008. This is contrasted with 80 to 100 annual retail deliveries prior to the SFAR during a good year. The MU-2 has declined in price over the last 2 to 3 years by about 20 to 30% depending on model, with the newer models taking the larger decline.

The arrival of the long awaited overdue SFAR combined with the latest series of positive press articles have contributed to a better MU-2 environment and reception by the Buyer. Still the majority of new MU-2 flyers/passengers will not succumb to the SFAR and the new articles. Only those fence sitters seem to have a chance of coming around to accept the MU-2 as a good aircraft choice. Since, our MU-2 market is small, a little change in unit demand goes a long way in terms of market acceleration. Congratulations to TAS, Scott Sobel and others...
for their affects regarding these recent positive articles and videos.

In spite of fuel prices and the “R” word, we at Anaconda have been experiencing good elevated MU-2 call volume that have been fanned by the recent PROPS and recent Flying magazine article. This renewed MU-2 activity should hopefully grow into some increased unit sales as the year progresses. We have, due to the dollar’s low value, experienced increased out of country interest with accelerating inquires and purchases especially from Europe, Africa, Canada and Brazil.

We have seen over the last two years a tightening of the price spread among the models. This has recently sparked a moderate increase in demand for the later models since they are not that much more expensive and are newer. This later model demand is necessary to once again open the price spread between the models as a prelude to overall sustained price appreciation.

I believe we saw a bottoming of the MU-2 prices in 4th quarter, 2007, but where the market goes from here considering SFAR, favorable articles, economy and fuel prices is a very cloudy crystal ball.

“The arrival of the long awaited overdue SFAR combined with the latest series of positive press articles have contributed to a better MU-2 environment and reception by the Buyer.”

Dave Slivka, shown here at a Toy Drop charity event with his daughter Krisite, is the owner of Anaconda Aviation in Boca Raton, Florida. Specializing in the MU-2 market for 30 years, Dave can be reached at 561-241-6111.
Another PROP is in the books. I understand plans are already under way for PROP 2010. Not surprising given the size of the show and the enormity of the commitment to produce the high-quality event that all of us MU-2 drivers look forward to. I’d go if for nothing else but to see the videos! But there is so much more to it than videos.

For me, the event underscores the commitment from Mitsubishi to the MU-2. As you look back and survey the landscape of turboprop airplanes, I cannot think of any out-of-production turboprop except for the MU-2 that is still factory supported. Some of you may say, “what about the Conquest I and II from Cessna?” I say, “read on”.

Last June, Cessna came out with a Special Inspection Documents (SID) for the Conquest II. The purpose of the inspection is to address “aging-aircraft issues”. According to the SID, owners will have until September to comply our face being grounded. The inspection runs between $120,000 and $180,000 and takes about 8 weeks depending on what is found. Additionally, it contains reoccurring inspections and places a 22,500 hour life limit on the airframe.

A recent article in the May 2008 issue of Aviation International News titled, “New Inspection Requirements Could Ground Cessna 441 Conquest II’s” cites one Cessna Service center manager as stating “Their (Cessna) official position on parts...is ‘if we make a part, we will sell you the part. If we don’t make the part, we won’t tool up for it, we won’t engineer it and you are on your own.’” To make matters worse, the parts in question are ones required to be inspected by the SID. Yet Cessna is not going to provide you with an option if you need a replacement part that they didn’t have in supply.

If you ever wanted to feel good about your decision to own an MU-2, all you need to do is read the following. Cessna’s official response to the AIN article was to state, “In light of the fact that Cessna has not produced the 441 for 20 years, we’ve been more accommodating than would be expected.” How about that! You have to wonder what kind of response they are going to get from the AIN product support survey.

One additional item that I found of interest in the article. One broker is quoted as saying, “When you look at the amount of the investment, operating costs and capability, nothing else will do what this airplane does.” Remember, the Conquest II did not come with a –10 engine. I am sure many have been converted, but they did not come that way. I would argue my Marquise will go head-to-head with a –10 Conquest in every category except range. A -8 Conquest will be left in the dust by the Marquise. Clearly the MU-2 is a far superior value, better or equal performer, less expensive to maintain and factory supported!

So back to my statement. I cannot think of any out-of-production turboprop except for the MU-2 that is still factory supported. What do you think-Is the Conquest II really factory supported?
It almost all boils down to the wing. The Commander designers opted for the big wing, which gives better takeoff performance, single engine characteristics, climb rates and greater fuel capacity (475 gal), which translates into more range. The biggest drawback is a rougher ride in turbulence due to the lower wing loading. One would think that the big wing would make the Commander easier to land; however, I make much nicer and more consistent landings in the MU2. I don’t know the reason for this; my guess is it has something to do with the geometry of the landing gear and how the landing loads are transmitted to the cabin in each airplane.

Many of these characteristics are subjective, and depending on how one weights the importance of each characteristic, reasonable people could differ on which airplane is “better”. If price were equal for airframes of similar age, time, condition and options, I would lean toward the Commander only if I routinely made trips of 1000 nm or greater. Otherwise, I prefer the MU2. Since price is (unjustifiably) not equal, the MU2 is the far better value in my opinion.

Why are the prices not comparable? Besides the negative publicity surrounding the MU2, I think some unique circumstances benefit the Commander market: 1) The Grand Renaissance upgrades provided by Eagle Creek, Byerly and others, especially when further upgraded to include the Meggitt glass cockpit can be $2 million projects, in addition to the airplane itself. Even though most purchasers of that upgrade probably don’t recoup their investments, they do add value to the fleet (including the non-Renaissance airplanes). 2) I think also that the size and financial strength of the major Commander dealers allow them to control the market to a greater extent than currently occurs in the MU2 market, taking airplanes into inventory with the ability to hold them for relatively long periods rather than sell them at a low price. 3) The Gulfstream/Rockwell pedigree also adds some prestige to the Commander which, when added to its own clearly superior performance over a King Air, makes it a more mainstream alternative than an MU2.
Commander vs. MU-2

<table>
<thead>
<tr>
<th>Feature</th>
<th>Commander 900 (-10)/1000</th>
<th>Mitsubishi MU2B-60 (Marquise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>305 @ FL260</td>
<td>285 @ FL230</td>
</tr>
<tr>
<td>Range</td>
<td>1300 nm</td>
<td>1000 nm</td>
</tr>
<tr>
<td>Passenger Cabin</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ride Comfort</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Takeoff Performance</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Landing Performance</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Build Quality/ Maintenance Costs</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Handling (Two Engines)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Handling (One Engine)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Current Market Price</td>
<td>$1.5M -- $3.5M</td>
<td>$600k -- $900k</td>
</tr>
</tbody>
</table>

Riley’s Marquise sporting its new colors. Certainly a contender for the next “Queen of the Fleet”!
New Owners

Jay Garnett

1. Tell us about your MU-2.

I have a '79 Marquise. I bought it in December of 2007 from a company based in San Angelo. It was an air ambulance for a while, before I bought it, although the total time is reasonably low, 5925.

2. Any upgrades changes planned in the near future?

I originally planned on replacing the King KLN 90 with a Garmin 430, but am going to wait on that. My #1 priority is a traffic advisory system. I’m leaning toward the Avidyne system, but am also considering L3’s Skywatch system. Long term, I would like to completely re-do the panel and put in glass panel displays.

3. What airplane did you upgrade from?

'79 Cessna 340

4. What other airplanes did you consider?

I really like the Garrett engines, so I looked primarily at King Air 100’s and Turbo Commanders.

5. Why the MU-2 (if you didn’t already answer in the previous question)?

The MU2 is built very solidly. There is no comparison to my Cessna 340. The MU2 is tight and feels like a massive shield around me.

Compared to the B100 and the Turbo Commander, the Marquise is faster (than the B100) and comparable to the dash 10 Turbo Commanders. The other reason why the MU2 won out is that I expect the maintenance costs to be less than the other two alternatives. I had the option to enter into a fixed price maintenance agreement, but decided to go without. I doubt a fixed price maintenance agreement is available on the B100 or Twin Commander. It’s available on the engines, but not the entire airframe.

Lastly, the purchase price was lower for my MU2, by several hundred thousand dollars.

6. Where are you based?

KUNO, West Plains, MO

7. What has surprised you the most about the MU-2 now that you are an owner?

It was a very pleasant surprise; The MU2 owner community has been overwhelmingly helpful. I introduced myself on the MU2 Yahoo forum and was contacted by several owners and offered assistance from several of them. Scott Dann has been especially helpful. I had a discouraging experience in my plane early on in my training and Scott offered to fly 600 miles to my home base to fly with me to be sure that my discouragement was short-lived. Fortunately, his “phone support” did the trick. There have been others who have been very supportive throughout my MU2 experience which has been very helpful and comforting.

8. Any other comments-

Now is a great time to buy an MU2!!!!!