

# FINAL APPROACH

An Update on M600

Piper®

OCTOBER 2015

## KEY MILESTONES COMPLETED

- ✓ Fuel sump capacity testing
- ✓ Air ingestion testing
- ✓ Ground brake testing
- ✓ Defrost airflow testing
- ✓ Water ingestion testing
- ✓ Propeller ground clearance testing
- ✓ M600 surfaces for Serial Number 4 completed



## MISSION ACCOMPLISHED!

*We successfully completed the M600 flap certification structural test.*



*Structural test (L to R): Mark Sutter, Eric Wright, Steve Higgins, Robert Paxton, Rick Dudney, Mike Melachrinou, John Mericle, Al Botelho, Simone Fevola, Guy Turner, Paul Glick and Brandon McShea.*

## JIM DUNCAN, M600 PROJECT PILOT AND LEAD UM/TEST FLIGHT AERODYNAMICS

### How long have you worked at Piper Aircraft?

Piper recruited me for a test pilot position on June 5th of 1995.

### What do you enjoy about your position as a Test Pilot at Piper?

Because we are a small company, we each wear a lot of different hats. We get a lot of direct contact and input with people and the product. It's nice to be part of a team working on the forefront of a new product.

### What makes the M600 the safe, favored aircraft it is said to be?

It's a single engine aircraft with excellent avionics. What has made it leaps and bounds beyond is its endurance. The ability to go farther is there, but even more important than that, and this is speaking from a pilot's perspective, you have time to make decisions. The extra fuel is a luxury.

### What does a day in the life look like for you currently on this project?

We are getting ready for certification testing. We're already writing up all the flight cards and preplanning the flights with all of the pertinent information so we can get certification as expeditiously as possible.

We typically conduct our preflight briefing in the morning, and then we make our flight. We come back for a debrief, have lunch, and then go back and do it again.



**"We are getting ready for certification testing."**

### What do you enjoy most about flying? Did you grow up knowing you wanted to be a pilot?

Yes. I always loved planes—ever since I was a kid. People use the words "test pilot", but I don't really identify with that. I always think of a test pilot as Chuck Yeager or Neil Armstrong. I just think of myself as an engineer with a pilot's license. I get to go fly airplanes, and then I get to be involved with the engineering aspects of it.

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**What are some challenges that come with your particular position?**

Anything in flying that's a challenge interests me. Particular tests that we conduct that require specific airspeeds, altitudes, and power settings are challenging. As test pilots, we are looking at the handling qualities of the airplane and basically pitting our skills against the aircraft. When we're first doing the initial stalls, there are several unknowns because it's never been tested before. That makes things interesting and challenging.

**How many hours are you flying right now?**

Each pilot is flying about 300-350 annually. During the height of testing we were flying sometimes up to five times a day.

**M600 has been hailed a more substantial aircraft than M500, yet still easy to operate. Do you find it's an easy aircraft to manage?**

It's such a simple airplane. Piper excels at taking things that are complex and making them simple, which makes them accessible to more people. The M600 is no exception to that rule. From a piloting perspective, there's no fuel management, for example. You turn it on and it automatically feeds the engine and keeps it level in the tanks. You don't have to worry about managing fuel.

The icing system is another prime example of simplicity. The way the induction system is designed, the aircraft always operates in icing/bypass mode. Our design doesn't require pilot action when entering icing. It's one less thing the pilot has to worry about.

The same is true of the landing gear. The system is designed to require hydraulic pressure to maintain the gear in the up position. If a hydraulic pump malfunction occurs and hydraulic pressure is lost, the gear automatically free falls to the down and locked position.

There's a single power lever, which makes the operation very simple. It's set up to maintain a fixed 2,000 RPM and is one less thing the pilot has to manage or maintain. Once you've done that, all you have is the throttle. It makes the operating of the engine very simple.

**“Piper excels at taking things that are complex and making them simple...”**

**How have advanced avionics, like Garmin 3000, revolutionized aviation?**

In my opinion, the thing that has revolutionized aviation is the weather information available to the pilot via satellite. It increases the safety aspect of flying because you can see what is going on 2,000 miles away. You have so much more situational awareness. You can preplan.

Also, traffic information is a big deal. Prior to this, you didn't know who was out there. Now, you can see how many airplanes are in your immediate area. It's monitoring it for you; when aircraft get too close, the traffic system alerts you.



**“We’re sticklers for following processes.”**

**In your opinion, what makes a proficient pilot?**

A proficient pilot is smart. He has good stick and rudder skills. That's a given. A good pilot is always thinking ahead. He knows the airplane, knows his own limitations, and never exceeds them.

**What do you enjoy outside of flying? Who is Jim Duncan beyond the walls of Piper? What are some of your hobbies?**

I don't know that I have any hobbies outside of flying (chuckling). Flying is my hobby. I have had the unique opportunity to combine my work and my hobby. I like reading. I enjoy the water. I love music. I play guitar. I like getting away to decompress. I'm pretty quiet.

**Who are the orange flights suits behind the program?**

We're a bunch of engineers who have pilot licenses. We are cut and dry. We're sticklers for following processes. We do it by the book, or we don't do it at all. We work well together. We communicate well. We want to put a safe product out to the public and take safety very seriously.

**“A good pilot is always thinking ahead. He knows the airplane, knows his own limitations, and never exceeds them.”**

**ON THE HORIZON IN THE NEXT ISSUE:**



- ☐ Inspiration for the M600 interior
- ☐ Flight Test update
- ☐ Behind the scenes of the M600 photo shoot

