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A RUGGED 185



Engine & Prop
UPGRADES

Better than New: 1962 Cessna 185

By Donna Jones of
Davis Aviation Services, Inc.

"Fireball"

Homer, Alaska-based George Mandes and Charlene "Charlie" Martin share a love of flying—logging about 1,000 hours each per year. When you see "Fireball," the affectionate nickname of their 1962 Cessna A185, you'll understand. Inside and out, this aircraft is a true beauty. Decked out with an IO-550

engine and MT propeller, it performs true to its name.

To appreciate it now, one must appreciate its history—it has come a long way from the stock 1962 Cessna. In addition to the Bonaire 550 engine conversion, other modifications include: RMD wingtips; a Sportsman wing cuff; and a full IFR panel with a Garmin 430, JPI and Aspen EFIS.

Heavy-duty landing gear, including XP Modifications' titanium gear legs, McFarlane axles, a Tru-Loc wheel-fastening system, 6-bolt Cleveland wheels and brakes, 26-inch Bushwheels and an ABW baby tail-wheel is also installed.

Some of these modifications were already installed prior to the plane's 2006 purchase, while others have been added

Photo by Scott Dickerson Photography (www.ScottDickerson.com).



along the way. The hard work has certainly paid off with phenomenal results. You would never believe it is nearly 50 years old—a true “better-than-new” result.

To refurbish this aircraft, Mandes and Martin made the wise decision to call upon Scott Mauch and his team at Beegles Aircraft Service, Inc., in Greeley, Colo. Beegles has been in business since 1946—longer than Cessna has been manufacturing 185s. They are expert sheet-metal fabricators and offer top-notch aircraft repair and rebuilds. Mauch admits, “We have a real soft spot for Cessna 185s. Dave Stieb, my shop foreman, is second to none with the Skywagon.” The pride in his voice is apparent when he describes the work they’ve done on hundreds of 185s through the years.

Mauch recommends the Bonaire 550 conversion on a regular basis due to its performance and ease of installation. He comments, “The 550 installation has a minimal cost difference from the standard installation, especially when you have to replace both the engine and propeller in a wrecked aircraft. By far, the performance difference outweighs the cost difference.”

Each aircraft Beegles puts its hands on has its own special place in its aviation log—but when you look at the hard work and detail put into “Fireball,” it has clearly become the favorite. That is, until Mandes and Martin pursue another project. They



Charlie Martin with “Fireball” before the refurb.

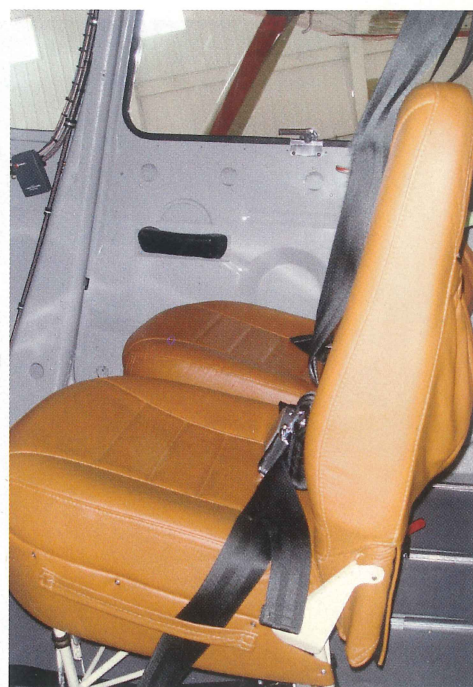
can’t say enough nice things about Beegles and the quality of its work and are especially thankful that Beegles’ regular updates kept them in the loop. As they watched their aircraft take shape, the excitement and anticipation of the transition was well worthwhile. Before his first flight after the refurb, Mandes gushed, “The Beegles guys have done a fantastic job,

essentially making a brand-new 185, and we can’t wait to see how it performs, as even 1,689 pounds with the 550 should be a hoot.”

The aircraft is as close to starting from scratch as possible because it was taken down to individual pieces before re-assembly. From disassembly to stripping and preparation, each piece was meticu-



The completed IFR panel with products from Garmin, J.P. Instruments and Aspen Avionics.



The interior after paint and installation of the Oregon Aero seats.

lously removed, evaluated and reworked or replaced as necessary.

Bill Baechler, IA, maintains Mandes and Martin's aircraft in Alaska and made the trip to Colorado to help with the refurb. He has become their "right arm," keeping up with their planes' regular maintenance. Baechler not only maintains "Fireball," but also several other aircraft, including another 185 equipped with the Bonaire 550 conversion—otherwise known as "Tigger." Martin laughs, "Actually, most of our planes have nicknames—many that Bill Baechler came up with ... kinda corny, but we get a kick out of it." They haven't had the opportunity to compare the two 185s in performance, but the actual numbers will be impressive. Tigger is a 1980 Cessna A185F equipped with the McCauley Black Mac 3-blade with an 88-inch diameter. Combined with the Black Mac prop, the float-equipped 185 has the extra power it needs to get out of remote areas.

When choosing the propeller for "Fireball," it came down to the lighter weight of the MT—ultimately reducing the prop weight by 26 pounds. With all of the extra modifications, the lighter prop was necessary to keep the useful load to the maximum. Along with the exterior changes, the interior was completely removed. Rather than reinstall the interior, the inside of the fuselage was painted white and Oregon Aero foam lightweight seats were installed. This also helped with the weight issue.



"Fireball" taken down to the basics.

Strictly a wheel and ski plane, the overall performance of this aircraft not only enhanced takeoff and climb performance but also gives the operator excellent cruise speed. In reality, any prop installed with the IO-550 would perform well on wheel, skis or floats, but it's always nice to have the installation fine-tuned to the

particular plane based on its operation.

The interest generated by this project along its progression was amazing—especially noticeable when reading the www.SuperCub.org "light 185 project" discussions. Everyone greatly anticipated the final weight and balance, as well as performance numbers. Comments like, "Wow, that is awesome! I can't wait for the weight. I can't imagine the performance!" were numerous. During the last of the discussions, Dave Younkin, a 15,000-plus hour 185 pilot who test-flew the aircraft after the refurb, advised on his first attempt to get it off short. With 10 hours on the new 550 at 7,800 feet DA, with just him and 40 gallons of fuel with no wind, the plane got off in 260 feet. The balance of the



New heavy-duty landing gear.

comments included congratulations on the impressive performance and the project as a whole.

The Alaska Airmen's Show

The May Alaska Airmen's Show in Anchorage has become a favorite and since Alaska has a huge Cessna population, it's easy to justify the trip. While the fact that it doesn't get dark the time of the year the show is held can make it a tiring excursion, once you see the wall-to-wall Cessnas on the picturesque Lake Hood, you know the journey was worthwhile.

"Fireball" made its debut on display at the show this past May. Scott Mauch and Dave Stieb from Beegles showed up a week before the show to help polish everything. Needless to say, the plane

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Photo by Scott Dickerson Photography (www.ScottDickerson.com).



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was a hit—always surrounded by a crowd. Observers couldn't believe the age of the plane and were impressed by the installed extras. Mauch and the Beegles group outdid themselves, making this aircraft better than new. Beegles' reputation and impressive work speaks for itself.

Happy Flying! ^{CO}

Donna Jones has worked in aviation for 17 years. She has helped establish more than 30 STCs for the single-engine Cessna line, as well as assisted in numerous field approvals and deviations when an STC was not available for a particular installation. Davis Aviation continues with worldwide distribution of the Bonaire 550 engine and propeller upgrade, propeller-only installations and engine-mount modifications. They are located in the Air Cargo Terminal of the Tri-Cities Regional Airport (TRI) in Blountville, Tenn., and can be reached at (423) 652-1113 or by visiting www.davisaviationservices.net.



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