INVESTING IN YOUR CESSNA'S SAFETY

IS THE SAFEST INVESTMENT YOU CAN MAKE.

NOW AVAILABLE FOR THE 340 SERIES, DUAL AFT BODY STRAKES ARE A LIFESAVING UPGRADE THAT WON'T DOWNGRADE YOUR SAVINGS ACCOUNT.

EXPERIENCED PILOTS KNOW IT'S NOT A QUESTION OF *IF* YOUR PLANE WILL HAVE MECHANICAL PROBLEMS; IT'S A QUESTION OF *WHEN*.

That's why there's a growing demand among Cessna pilots for aftermarket safety modifications such as vortex generators, low thrust detector systems and dual aft body strakes. These cost-effective, proven add-ons will greatly increase your chances of surviving a mechanical mishap, without putting your bank account in jeopardy.

Of course, adding safety modifications to your Cessna 340 or 400 Series cabin-class aircraft won't just protect your monetary investment. After all, it's easy to put a value on your plane. But can you put a value on the lives of your passengers?

On your family?

On yourself?

RISK MANAGEMENT IS KEY.

The best way to manage risk is to be prepared for it. And Steve Hinckley, retired American Airlines pilot and founder of Aircraft Performance Modifications (APM), has made it his personal mission to help pilots manage risk by making their Cessna cabin-class airplanes as safe as possible.

That's why he's so excited about rolling out a new dual aft strakes package for the Cessna 340 Series. Combined with his popular 400 Series strakes, the friendly skies are becoming friendlier – and safer – every day.

Of course, the skies were a lot different when Hinckley first took to the air. He got his start in aviation in 1964, piloting his first flight before he even got his driver's license, and graduated in 1972 from California State University (San Jose) with a BS in Aeronautical Aviation and Business Management. He also graduated at the top of his class from the Sierra Academy of Aeronautics in 1972. In 1973, he took a job with American Airlines and retired in 2004. Today, he runs APM from a pristine hangar/office suite in Colorado Springs, Colorado.

When it came to upgrading his personal plane, a Cessna 421C, Hinckley had three specific aftermarket mods in mind: vortex generators; a low thrust detector system; and a set of dual aft body strakes.

Vortex generators help lower the aircraft's stall speed. They also increase the effectiveness of the plane's rudders and ailerons, which helps improve control and safety at lower speeds. A low thrust detector system alerts the pilot when an engine is losing thrust, making them a potentially life-saving addition. Finally, aft body strakes streamline the body vortices under the aft fuselage, creating an area of increased pressure under the empennage and reducing drag. They also greatly reduce the amount of adverse yaw. Combined, these upgrades make the plane significantly safer, which is why Hinckley insisted on having them installed on his Cessna.

"YOU'RE IN COMMAND OF YOUR PLANE, WHICH MEANS YOU'RE RESPONSIBLE FOR IT AND THE LIVES OF YOUR PASSENGERS ..."

Unfortunately, while the first two mods were readily available, Hinckley was surprised to learn that nobody made aftermarket strakes for the Cessna 400 Series. So in true American spirit, he decided to make them himself. Today, he holds the STC (Supplemental Type Certificate) on all Cessna 340 and 400 Series aircraft.

BE PREPARED.

Throughout his career, Hinckley has adhered to the Boy Scouts' motto: Be Prepared. "An engine failure or other catastrophic mechanical problem can happen at any time, under any conditions," he said. "It's up to you to make sure you're ready to handle any situation. It's up to you to manage your risk."

"You're in command of your plane, which means you're responsible for it and the lives of your passengers," he continued. "So outfitting your plane with the proper safety equipment is paramount for any flight. Whether you're making a short jump or an extended trip, preparedness and risk management are crucial to your safety and survival."

Pilot and author Max Nernheim agrees. In the August, 2011 edition of *The Twin Cessna Flyer*, he wrote "safety requires constant dedication and focus. Annual recurrent training and tools are important. Let's do our part… for ourselves and our families."

AFTER EXPERIENCING A CATASTROPHIC ENGINE FAILURE AT 19,000 FEET, CERNAN WAS SURPRISED AT HOW LITTLE YAW ADJUSTMENT HIS 421B REQUIRED. "MAINTAINING COURSE WAS NO PROBLEM."

— Gene Cernan, Apollo XVII Commander

Hinckley believes every Cessna cabin-class aircraft should have a pair of dual aft body strakes. And not just because his company makes them. "Strakes are standard equipment on most newer cabin-class planes," he explained. "And on most military aircraft. Why? Because they work. Just because your Cessna is older doesn't mean it shouldn't be as safe as possible."

APM's strakes are a proven, inexpensive way to improve your Cessna's safety and performance. In fact, they cost about the same as a new Nav/Com/GPS system. And unlike trendy new electronic upgrades, your strakes will never become outdated or obsolete. They'll be just as effective 20 years from now as the day you bought them.

"HOUSTON, WE HAVE A PROBLEM."

Despite their high-flying, seat-of-the-pants reputation, America's astronauts are actually some of the most safety-conscious pilots you'll ever meet. After all, who could possibly appreciate the risks associated with soaring through the heavens more than someone who's literally done just that?

As Alan Shepard, America's first man in space, once said, "It's a very sobering feeling to be up in space and realize that one's safety factor was determined by the lowest bidder on a government contract."

Consider the case of Apollo XVII Commander Gene Cernan, the last man to walk on the moon and proud owner of a Cessna 421B. But as Cernan can attest, even an aircraft as dependable as his Cessna is not immune to mechanical difficulties.

That's why he had a pair of APM's aft body strakes installed.

Cernan is a firm believer in the value of Hinckley's product. After experiencing a catastrophic engine failure at 19,000 feet, he was surprised at how little yaw adjustment his 421B required. "Maintaining course was no problem," he said. "When landing was assured, and the power was reduced on the operating engine at touchdown, the aircraft was extremely stable with little yawing tendencies."

On another occasion, Cernan experienced a "landing gear unsafe" warning. He decided to burn off excess fuel on the affected side, which lowered the aircraft's speed to approximately 76-78 knots on final approach. He speculated he could have slowed the aircraft even further without compromising safety and felt the aircraft was extraordinarily stable at even such an unusually slow landing speed due to the strakes he had APM install.

NOW AVAILABLE FOR THE 340 SERIES.

"Development for the initial Cessna 400 Series strakes was an arduous process," Hinckley recalled. "Flight-testing for the strakes was provided by High Altitude Aircraft Solutions. After four years of testing, we were granted the STC, as well as its Parts Manufacturer Approval (PMA)."

While the initial strakes were designed for his 421, Hinckley has since expanded to create strakes for the Cessna 441 Series, and, most recently, the Cessna 340 Series.

Each set of strakes is handcrafted to exact specifications approved by the STC and APM, and installed by a select network of specially trained FBOs (Fixed-Base Operators) around the United States. The strakes are also approved for international sales. "At APM, we concentrate our efforts on one type of STC project," Hinckley said. "You won't find us making any other mods; we do one thing – strakes – and we do it better than anyone else."

In addition to the newly announced 340 Series, APM manufactures and installs aft body strakes for the Cessna 401, 401A, 401B, 402, 402A, 402B, 402C, 404, 411, 411A, 414, 414A, 421, 421A, 421B, 421C, 425, and the 441 Series.

PERFORMANCE. PLUS.

In addition to improving the Cessna's safety, dual aft body strakes will also significantly boost its performance. Benefits of APM's strakes include increased yaw stability, increased rate of climb, decreased stall speed, lower overall flight time, lower overall fuel costs, and a 4-7% increase in true airspeed (8-12 knots), to name a few.

Pilot Jerry Kroese confirmed the speed increase. "After having APM's dual strakes installed on our company's Cessna 425 Conquest, I noticed a definite 8-10 knot increase in true airspeed. With the extremely high cost of jet fuel, this will amount to a significant savings over time."

Another satisfied APM customer, pilot Barry Farrah, said his passengers have noticed a difference since having the strakes installed on his Cessna Conquest II. "I have passengers who regularly were in the aircraft before the strakes were installed," he said. "Upon their first flight after the strakes were installed they conveyed to me that it felt more stable."

Hinckley said pilots will also notice the aircraft's rate of climb has improved. "As soon as your Cessna reaches cruising altitude the improvement in airflow that the strakes provide do all the work for you. With the reduction in drag, we are confident you'll be pleased when you arrive at your destination safely, earlier than scheduled, and with more fuel on board," he said.

INCREASED RESALE VALUE.

Finally, if the safety and performance arguments aren't persuasive enough, consider how the strakes will help increase your plane's resale value.

According to an article by Chuck Blackaby in the May, 2010 edition of *Twin and Turbine*, performance upgrades such as aft body strakes, winglets and vortex generators actually pay for themselves during ownership through increased speed and reduced fuel consumption, while increasing a plane's value at the time of sale. They can also make an older airplane appear more modern and help it sell more quickly. "I don't know how you could ask for anything more than an upgrade that ultimately costs you nothing and makes your plane sell faster, for more money than one without the upgrade," he wrote.

INVEST IN SAFETY.

After nearly 40 years of flying, at this point in his career Steve Hinckley is less concerned about making money than saving lives. "I've had a great life doing the thing I love to do," he said. "And now that I'm in a position to help other pilots, that's what I want to do. Even if you never need the increase in safety our strakes provide, you'll always benefit from their increased performance. And they'll never, ever become obsolete or outdated."

"INVESTING IN YOUR PLANE'S SAFETY IS THE SAFEST INVESTMENT YOU CAN MAKE."

ABOUT THE COMPANY

Based in Colorado Springs, Colorado, Aircraft Performance Modifications, Inc., specializes in manufacturing and installing Cessna 340 and 400 Series strakes. APM's strakes are also installed by a select network of trained FBOs throughout the country.

APM AIRCRAFT PERFORMANCE MODIFICATIONS, INC

For Information, visit www.AircraftSTC.com, or email info@AircraftSTC.com. For technical and aerodynamics questions, contact Steve Hinckley toll-free at (855) 499-8316. To order, have your F.B.O. contact Brent Hinckley at (719) 331-7494.