The Eight Most Memorable Aviation Records of 2004

By Dustin Gouker

Dozens of world and national aviation records are set each year in the United States, but each year NAA identifies only a handful of these records as the year's "Most Memorable." NAA categorized eight records set in 2004 as some of the top moments in aviation last year. These records were picked were a variety of reasons: some for their historical implications, some for the difficulty of the task, or because of the unique nature of the record being set. The aircraft selected range from spacecraft to an autogyro. The one common thread: All these records should be remembered beyond just 2004.

The Highest Heights

The accomplishments of SpaceShipOne in 2004 were many. It became the first privately funded manned craft to reach outer space; it won the $10 million Ansari X-Prize; and it captured the imagination of people around the world, showing that almost nothing – even traveling into the heavens – is beyond the grasp of mankind.

With all the attention and media coverage fixed on SS1, few people know that the craft also set world aviation records. The first historic flight of SpaceShipOne took place on June 21, 2004, when Mike Melvill became the first civilian astronaut, and broke the record of the North American X-15 for Altitude, Aeroplane Launched From A Ship. After release from the carrier aircraft, White Knight, Melvill ignited the rocket motor at 46,500 feet and reached apogee just under three minutes later, having climbed an additional 281,310 feet.

SpaceShipOne was the brainchild of famed aircraft designer Burt Rutan, who created Voyager, the first plane to fly around the world nonstop without refueling. The design of SS1 was one of the most interesting aspects of an amazing project, as it accomplished the task of getting to space and back to Earth and unique fashion. While it leaves Earth's atmosphere somewhat like a space shuttle or rocket – by going straight up after being released from White Knight, it returns to Earth almost by freefall at the beginning of its descent. Its wings reconfigure so that it can drop straight down before moving back into its original position for a glide back to the ground.

The X-Prize

SpaceShipOne also became the first aircraft to establish a new record task. The flight of SS1, and the attempted development of private spacecraft around the world, was sparked by the $10 million Ansari X-Prize, which challenged anyone in the world to design a manned craft that could be flown to space twice within one week. Before the flights of SS1 ever happened, the Fédération Aéronautique Internationale came up with a new task to recognize the accomplishment and anyone who might attempt manned spaceflight in the future, namely Minimum Time Between Two Consecutive Flights in a Reusable Vehicle.

Brian Binnie flew SpaceShipOne to outer space on October 4, 2004, 95 hours 15 minutes and 8 seconds after Melvill had made a flight there aboard the same craft. In addition to earning another spot in the aviation record book, it also earned the SS1 team the X-Prize. Binnie's flight actually went higher than SS1's previous flights, reaching 367,442 feet, but that record was not claimed.

Binnie, like Melvill, is an experienced test pilot who had experience on 59 different aircraft, including extensive work with the F/A-18.

SpaceShipOne was honored for its accomplishments by NAA with the Collier Trophy, given each year to the greatest achievement in aviation each year. The SS1 team was presented with the trophy at the Collier Dinner on April 19 at the Smithsonian's National Air & Space Museum in Washington, D.C.

Around the World in Much Less than 80 Days

The story of Matt Brooks, Fred Lohden and Tim Weber shows that setting a record is within reach of almost any pilot. While an experienced trio when it comes to aviation, record setting wasn't something any of the three had experience with prior to their flight around the world last year.

But that didn't stop them from joining aviation history. They made a remarkable journey that took off from Teterboro, N.J. on May 12, 2004 that ended up with a record in their names: Speed Around the World (Westbound), 199 miles per hour. They landed back in Teterboro 4 days, 18 hours and 44 minutes after their first takeoff, covering 22,916 miles in a Cessna 501 Citation I/SP. A flight must cover 22,859 miles, the distance along the Tropics of Capricorn or Cancer, to be considered a circumnavigation. The flight was an amazing logistical challenge, as it included 23 stops, landing in 17 different countries and flying over 39. In addition to their around the world record, the trio claimed records for Speed over a Recognized Course of 27 different city pairs.

"I think that it's totally cool that I set a record," Brooks said soon after completing the flight. "I'm humble, I know I'm not any great aviator, I'm just an ordinary guy."

When Brooks got the idea to attempt an around the world flight, the standard Cessna he owned may not have been good enough to set the record on its own. So he approached Garrett Aviation about its FJ44 Eagle II STC package: the new engines and other upgrades would make his small aircraft capable of the big feat of flying around the globe.

And around the world they went, flying from New Jersey across North America to Russia, then Japan and through southern Asia and the Middle East, to Egypt and through Europe before flying back to the United States via Iceland, Greenland and Canada.

It keeps going and going . . .

When you think of aviation and records, you would normally think of an airplane going somewhere very fast. But records aren't always set in planes, and sometimes slow and steady wins the race, like in the case of a record set last year by the Saturn Relay Lightship.

Pilot Carl Harbuck and co-pilot Douglas McFadden established new records for Duration (time spent aloft) on September 14 of last year for six subclasses of gas airships without rigid framework, flying an American Blimp A-150 for 24 hours 39 minutes and 55 seconds. In staying airborne for more than a day, the lightship eclipsed the previous record by more than 10 hours.

Beyond the accomplishment of bettering an existing mark by so much, the record was also significant in demonstrating the changing nature of the use of blimps. While blimps where originally built privately when they first came into use and later used for military applications, they have been almost exclusively used for advertising in recent decades. But since the tragedies of September 11, 2001, blimps have been used regularly by law enforcement for surveillance, and this Duration record helped prove blimps' usefulness in staying in the air for long uninterrupted periods of time.

"We wanted to bring a little attention to airships and what they can do from a security standpoint," said Harbuck, who has flown over many big events, from the World Series to the Super Bowl.

Head over heels

Aviation records can even include a man simply falling through the air with others. Skydiving is a sport that is constantly evolving, as evidenced by a relatively new type of record that was set last year.

On April 30 of last year, 42 people jumped out of airplanes over Perris Valley, Calif., to attempt a record for Largest Formation – Head Down. There are more common types of skydiving formations that have been around for years. The sight of divers with their bodies parallel to the ground in free fall is the standard image of skydiving, while "canopy" formations, where divers link their parachutes, is fairly common.

But this group expanded the envelope on head down diving, beating the old record of 24 people. On the record attempt, three Dehvilland Twin Otters were used to take the skydivers to an altitude of 16,000 feet. Three different camera views were used to verify that all 42 people were linked in free fall. In all, people from seven different countries participated in the record, including the United States, France, Brazil, Canada, Sweden, Mexico and Venezuela. Five women were among the 42 people involved in the successful record attempt.

Is it a plane, is it a helicopter?

Andy Keech has been rewriting the record books for a relatively unknown type of air-

Andy Keech and his autogyro, Woodstock, set another record, this time for Altitude, to join 2004's Most Memorable.

craft recently. Last year, he continued to establish new marks for autogyros, earning a spot on the list of most memorable records with a new benchmark for altitude.

Autogyros, although they were first developed in the early 20th century, aren't commonly used anymore. Looking like a cross between an airplane and a helicopter, an autogyro uses a rotor to generate lift, but its similarity to the helicopter pretty much ends there. Autogyros have propellers either on the back or on the front, as in the case of Keech's yellow homebuilt Little Wing LW-5 aircraft, nicknamed Woodstock. The propeller generates forward motion, which in turn causes the rotor to spin and lift the autogyro into the air. Autogyros generally don't fly too fast, but they are capable of taking off or landing with very short runways.

On April 20 of last year, Keech tried to go higher than any previous autogyro on record. Taking off from an airport in Frederick, Md., Keech climbed to a height of 26,408 feet, beating a seven-year-old record by nearly 2,000 feet. He also set a Time to Climb record on this flight. Two months previously, he set a distance record, and completed two transcontinental flights in 2003.

Faster than a speeding hawk

Any aircraft that flies in the Reno Air Races is by its very nature fast, but that speed doesn't always translate into record setting. But Riff Raff, A 1960 Hawker Sea Fury that belongs to aviation enthusiast Mike Keenum made the crossover from racing to records last year.

On October 4, 2004, Keenum established a new mark for Speed over a 100 Kilometer Closed Course for piston engine aircraft. He flew at an average speed of 370 miles per hour, breaking a record that had stood for nearly 30 years by more than 100 miles per hour.

Riff Raff, piloted by former astronaut Hoot Gibson, won the Unlimited Silver division at last year's air races with a speed of 414 miles per hour. But the record attempt is much different than a race. While racing occurs at low altitudes, the record was flown at higher than 10,000 feet. And Riff Raff usually flies in the warm temperatures at Reno, not at the cold temperatures experienced at altitude. So for Keenum, who had flown only 250 hours in the plane, it was quite an accomplishment to set this record in this plane.

"It's kind of nice to raise the bar," Keenum said. "And I am sure someone will try to raise it even higher some day."

Last but not least

Leonardo Benetti-Longhini glided his way into the record book in the summer of last year, establishing a new record for Free Distance traveled for ultralight gliders. On July 10, he flew 390 miles in his Alisport Silent 2, a pure glider version of a motorglider of the same name.

Benetti-Longhini bested the old mark for Free Distance, which is the total distance traveled in a straight line, by 74 miles. The amazingly light craft he flew weighed just 280 pounds—with his weight of 150 pounds and 35 pounds of equipment, he qualified for the lightest class of glider recognized by Fédération Aéronautique Internationale.

The flight took him about seven and a half hours from when he was initially released from his tow plane, taking off from Zapata, Texas and landing near Sweetwater in the same state.