



PUTTING WINGS ON

YOUR DREAMS

VOLUME XIII

ISSUE 8

Submitted by Jim Hudson Membership and Safety Director.

As interest in our club grows, there has been some discussion about looking for another aircraft. The C206 is one aircraft that has surfaced in some of the discussions. One flying club recently purchased a Cessna 206 and went through a quite details analysis of their decision process, which follows. Member feedback would be of interest to the board as our club continues to grow.

From AOPA Flying Club Connector: Aircraft Spotlight: When You Need Six Pack for a Road Trip: The Cessna 206

August 22, 2016 By Steve Schapiro
The Aircraft Spotlight feature looks at an airplane type and evaluates it across six areas of particular interest to flying clubs and their members: Operating Cost, Maintenance, Insurability, Training, Cross-Country, and Fun Factor.



For a club looking for a larger single-engine aircraft there are only a few options, with the most popular generally being the Piper Cherokee Six/Saratoga line or the Cessna 206 or Cessna 210. The Flying Neutrons based at Lebanon-Warren County Airport (168) between Cincinnati and Dayton, Ohio have experience with both. The club just purchased a Cessna 206, which will be replacing a Cherokee Six that they have been operating for about 30 years.

“We surveyed the club and the club said we really want a six-place airplane, we really want something we can take my wife and three or four kids and you can’t do that in a 182. That’s why the 206,” Operations Officer Steve Pollack said.

Operating Cost (3 stars)

Prices vary greatly depending on the age, total time, and whether the engine is turbocharged or not. A naturally aspirated Cessna 206 dating to the 1960s or 1970s generally has a price range between \$90,000 to \$150,000. A late-model, turbocharged Cessna 206 has a purchase price ranging from about \$300,000 for a 2000 to \$600,000 for a model just a year or two old.

The club wanted to augment its fleet with a true cross-country aircraft, but didn’t want a turbo. “We wanted a naturally aspirated 206 for operational reasons – we’re in the Midwest, we don’t need [a turbo]. But the problem with that was only 15 percent of 206s made were naturally aspirated,” Steve said. “They are hard to find and they are very expensive because they are in demand. The average 206 on the market is \$300,000 or higher. For a 2000, if you look at 1999-2000 you’ll be at \$270,000-\$280,000 somewhere in there and then it goes up as you get newer.”

The Flying Neutrons were able to find what they were looking for—a 1999 naturally aspirated 206H—for \$200,000. The price fit the club’s budget because they took a risk. The aircraft had a prop strike, but has since flown 300 hours on the repaired engine with a new crank and new cam. The club also spent \$25,000 to upgrade the avionics including a Garmin 530 GPS and a Garmin 345 transponder with ADS-B capability.

The naturally aspirated 300-hp Lycoming IO-540 burns about 15 to 17 gph. The Flying Neutrons plan to charge \$175 an hour, Tach time wet.

Maintenance (4 stars)



One of the advantages of a 206 is it’s simple to maintain. “It’s built just like the other Cessna’s. That’s what’s nice about it,” Steve said. “It’s just a Cessna.” A typical annual runs approximately \$1,900 (28 hours of work) each year, he said.

However, he did note that it is a heavier airplane than most pilots are used to so care needs to be taken on landing. If a pilot drops it in, it’s possible to bend the gear box that supports the spring steel landing gear. Although he said the nose gear is very robust, if you porpoise the airplane and hit the nose gear on landing you can actually bend the firewall.

Insurability (4 stars)

The Flying Neutrons were interested in the 206 because it was easier to insure than the Piper Saratoga. “We were actually looking for a Saratoga to replace the Cherokee Six and the problem with that was the insurability,” Steve said. “You needed 300 hours of pilot time, you needed an instrument rating, and you needed I can’t remember how many hours in type, 50 I think.” None of that was

required for the 206. The rate for the 206 is similar to what the club pays for its 182 because both aircraft have similar hull values and the insurance company “didn’t extract a penalty” for higher horsepower for the 206. The cost to insure the 206 is \$7,700 each year.

Training (3 stars)

The 206 is a lot like a 182, so there is consistency in training, checkouts, and preflights, Steve said. The club doesn’t plan to use the aircraft for primary training or instrument training, although if someone wanted to pay the higher hourly rate and fly the 206 for their advanced ratings they could. However, members wishing to use the aircraft for cross country flights would get preference over someone looking to do IFR work.

Although the insurance company doesn’t have any specific requirements to fly the aircraft besides a checkout, the club will require members to have 10 hours of high performance time, 100 hours PIC or an Instrument Rating and they must complete the club’s ground school for the aircraft and pass a written test. In addition, members will “have to pass a pretty rigorous flight check, which includes a full gross weight cross country that is going to require you to balance the airplane properly so you know how to operate it correctly, know where all the weight issues are, make sure it’s in CG,” Steve said.

Cross Country Travel (5 stars)

The purpose of this plane is to be able to take a large load, whether it’s people or cargo, and go. It has a useful load of 1,390 pounds and carries 88 gallons of usable fuel with a range of 840 miles. The

aircraft seats six, although in Canada it is only certified for five people. On the flight from Florida to Ohio after the club purchased the plane they averaged about 145 knots true airspeed, although the book says you’ll get 133 knots TAS at 10,000 feet, Steve said.

“The 206 has four relatively comfortable seats and two seats for smaller people in the back, but it does not have a huge baggage compartment,” Steve said. “There’s a huge space between the pilot row to the first passenger row, so what you have to end up doing is putting baggage in that area because there’s just not enough room in the back.”

The aircraft has a pilot’s door on the left and a clamshell door on the back right, but access is not as easy as it is in the Cherokee Six. One of the flaws of the aircraft is to open the rear doors the flaps must be up. “If you have an emergency and have to land off airport and put the flaps down, you can’t open the rear doors fully,” Steve said. “So to egress, you have to crack the main back door, and then lower the flaps to have enough room to unlatch the rear door so people can get out of the back of the airplane.”

Fun Factor (3 stars)



When thinking about a 206, fun is

probably not the first thought that comes to mind. However, “fun can be defined in a number of ways,” Steve said. “Flying a high performance, heavy machine properly is fun. Flying an airplane that requires skill and having a successful outcome of that flight, being able to take an airplane with your loved ones on a trip, and actually getting an airplane that can do what you want it to do, the sense of satisfaction and fun that you get out of that is equivalent or similar to greasing a landing in an Aeronca.”

Overall (3.7 stars)

Adding a six passenger aircraft may attract members to your club who have a need for a larger aircraft to do cross country travel. The Cessna 206 is similar to the 182 so the transition should be fairly easy for members, and the maintenance costs should be similar. “I look forward to using this airplane in a way that is fun because it can do things that the other airplanes cannot,” Steve said. “It can haul a huge load with comfort and reasonable speed.”

While the club just got the plane and hasn’t had the opportunity to check members out in it yet, Steve said it has generated a tremendous amount of excitement in the club. “Members are chomping at the bit to get in the left seat.”

Factsheet

Operating Cost	3
Maintenance	4
Insurability	4
Training	3
Cross Country	5
Fun Factor	3
Overall	3.7

Fly Smart, Fly Safe, Have Fun, and don’t forget the “This is Stupid” Abort



Now. Button

Jim Hudson
Safety/Membership Director

“If it doesn’t look right, sound right, smell right, or feel right– Stop and check it out”

John Hook – MAF CFII

T-Craft Events to look forward to for the upcoming year.

October 4th, Plane Wash
 Fall Wx Class

Hours flown for aircraft*

7593S	43.6
4464R	42.8
13686	39.7

***These figures are reported at the directors meeting earlier in the month.**

September 2016

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Breakdown of Membership

98 Members

04 Social Members (non flying)
 38 Class I Members (39%)
 60 Class II Members (61%)
 13 Inactive

Calendar of Events:

9/9/16- 9/11/16 Hood River Fly In
 9/10/2016 - Accounts due
 9/13/2016 – Board Meeting.
 9/20/16 - Accounts past due
 9/27/16 - General Membership Meeting

Ratings

15 Student Pilots
 63 Private Pilots
 01 Recreational Pilots
 12 Commercial Pilots
 07 Air Transport Pilots
 29 Instrument Pilots

Fuel Reimbursement

\$3.50 per gallon.

Welcome New Members:

No new members this month.

The fuel account balance as of 08/25/16 was 950 gallons.

Accomplishments:

Top flyers for the month*

Lan Smith	18.5
Jim Hudson	12.6
Mark Turner	11.5

New Ratings

Pete Glick - Commercial – Rotorcraft
 Preston Rufe – Commercial ASEL
 Mitch Geibel - CFII

Highest billing aircraft*

7593S	\$4,752.00
9989E	\$4,248.00
4464R	\$2,910.00

Level II Upgrades

Bill Chapman

If you've achieved a new rating, BFR, or other accomplishment, please inform the Membership Director Jim Hudson, or Secretary/Newsletter editor Bert Osborn

Pete Glick earned his rotary craft Commercial Rating. Congratulations Pete!



If you have news or pictures that you would like to have included in the newsletter please submit them to Bert Osborn at 1berto@cableone.net

INTERNET PHONE

The new VOIP phone has been installed and is working well. Give Reggie Sellers a pat on the back for his hard work in installing this new technology and saving T-Craft money. The telephone number is now 208-546-4128

Still a Hot topic
From the Membership Director: Jim Hudson

MEDICAL REFORM

I continue to receive questions about the 3rd class Medical Reform legislations that has recently passed that will eliminate the need for 3rd class medicals. This is GREAT news. The FAA has one year to work out the details and implement the regulations for new law. You can find updates on the topic at the following link. [AOPA FAQ Medical Reform](#) We do not plan to change anything with respect to Schedule Master notifications of medical expirations until the FAA regulations are in place.

MEMBERSHIP BACK AT 98

Last month T-Craft accepted **FIVE** new members and surpassed its maximum membership limit of 98. With two resignations this month, membership is back to 98. There are 5 people on the waiting list. If you know anyone who is interested in the club, you can refer them to our web page and if interested can fill out a wait list form: [T-Craft Wait List](#). When our membership drops back below 98, we'll take new member applications as they come to the top of the wait list. The board discussed the fact that if a person wants to join T-Craft and be limited to light sport pilot status, there may not be a reason to put them on the waiting list. There are only a limited number of club members who fly 27G and perhaps T-Craft should consider not making them wait. We're also looking at our overall aircraft utilization with the possibility of increasing our maximum membership limit. The matter was referred to membership director Jim Hudson. Your input would be appreciated.

CFI's

We now 7 club member CFI's on the list of 21 instructors. Only instructors on our list can instruct in club aircraft unless you get an exception from the board. A reminder for those interested in getting instruction in the Champ; only the instructors noted on the list ** are approved by the board to instruct in the Champ.

WEB PAGE UPDATES

Several updates were made to the webpage last month, mostly about reaching our maximum membership and starting a wait list. Other additions were 160 HP STC for our C172's and ELT Operation manual (Fleet), John Hook's presentation on Short Field take-off seminar was held August 23rd in the hangar. Updates to the instructor listing and learn to fly page. For a guide to what's on our web page review this link [Webpage Guide](#)

Hourly Rates



N1227G
\$48.00



N67375
\$55.00



N4464R
\$68.00



N13686
\$70.00



N1891X
\$99.00



N9989E
\$107.00



N7593S
\$109.00

SQUAWKS

All of the aircraft are available for flight.

686 Maintenance removed and replaced the alternator. The left magneto was replaced after the impulse coupling broke and destroyed the internal mechanism. The unit was under warranty. The new PTT Yoke grip was installed on Co-pilot's yoke.

375 The spark plugs have been replaced. Maintenance also replaced the upper and lower limit switches for the flaps.

375 ELECTRONIC MAG

We continue to get questions about the existence and use of the electronic mag in 375. The on/off switch for the electronic mag should **ALWAYS** be left in the **ON** position. If during run-up the engine stops when on left mag check, the switch is probably off. Please read the checklist and STC for the electronic mag if you are not familiar with its operation.

93S The panel and instrument lights were squawked. New wiring was installed to the power supply and new lamps so they should work. The lower panel still which needs a new inverter (\$1,400 from Cessna). **Please ensure you have working flashlight for all night flights.**

A new extra high crank battery installed.

91X The brakes were serviced and new seals installed. The left side received new pads.

27G The step is broken! Please do not use the step. A new SkyTec starter has been installed.

If you have flown lately you have noticed that the Director of Maintenance Jim Eyre has put labels near the tachometers on all of the birds so we can tell when an airplane is nearing the 50 hour time for oil changes. If you are scheduled for an extended trip and the oil change time will fall in the middle of your trip, advise Jim and the oil change can be done before you leave.

++ You should notice black tape next to tachometer in each plane telling when next oil change is due. Please let me know if due time is close before you take her beyond that due time. Thanks.

++ Log Program – you tell us when you put oil in a plane so we can track engine usage. Each checklist clearly states minimum & maximum amount of oil that particular aircraft wants as we have determined over several years. Overfilling the sump wastes oil and misdiagnosing a nonexistent oil burning problem. If you desire to put more than checklist calls for please show at next plane wash to clean undercarriage of oil blown out breather tube. IF you can't read the dip stick please see your AME ASAP.

ADS-B REPORT

93S and 686 have both been upgraded to WAAS certified Garmin 430's. 93S is now ADS-B out compliant. 89E, 64R and 375 will follow. T-Craft will try to upgrade 2 aircraft per year.

MEMBERSHIP DUES

Effective February 1, 2016 membership dues were established at \$60.00 per month. That rate combined with the low hourly charges for the airplanes made available because of the well timed fuel purchases made by our Treasurer Dennis Wheeler and the great maintenance under the watchful of Maintenance Director Jim Eyre makes T-Craft the leader in high quality, low cost flying.

PLEASE REMIT PAYMENT IN FULL BY THE 10TH OF THE MONTH.

Your account will be PAST DUE if not received by the 20th and there will be a \$10.00 late fee. There will be a finance charge if your account is over 30 days past due and flying privileges will be suspended.

OFF FIELD FUEL REIMBURSEMENT

If you purchase fuel off site you will be reimbursed at the club rate per gallon, currently at \$3.50/gal. In order to get the reimbursement, send your receipt(s) to the club mail address to the attention of Reggie Sellers, or scan a legible copy and email to Reggie Sellers. DO NOT put your receipt in the club pouch, these are for Nampa fuel receipts only and your personal receipt will probably get lost.

CROSS COUNTRY FLIGHTS

When you log into schedulemaster and the flight log system, please enter your destination airports, instead of simply cross country. Occasionally there are times (false ELT or missing plane) when the board needs to know where to try to locate a pilot and/or plane. Also an alternate contact phone # in Schedulemaster would be helpful.

The following is an article that was submitted by the Director of Maintenance, Jim Eyre. Even though it is a re-print it is always a timely issue. (Ed)

The Ole Shimmy Dance

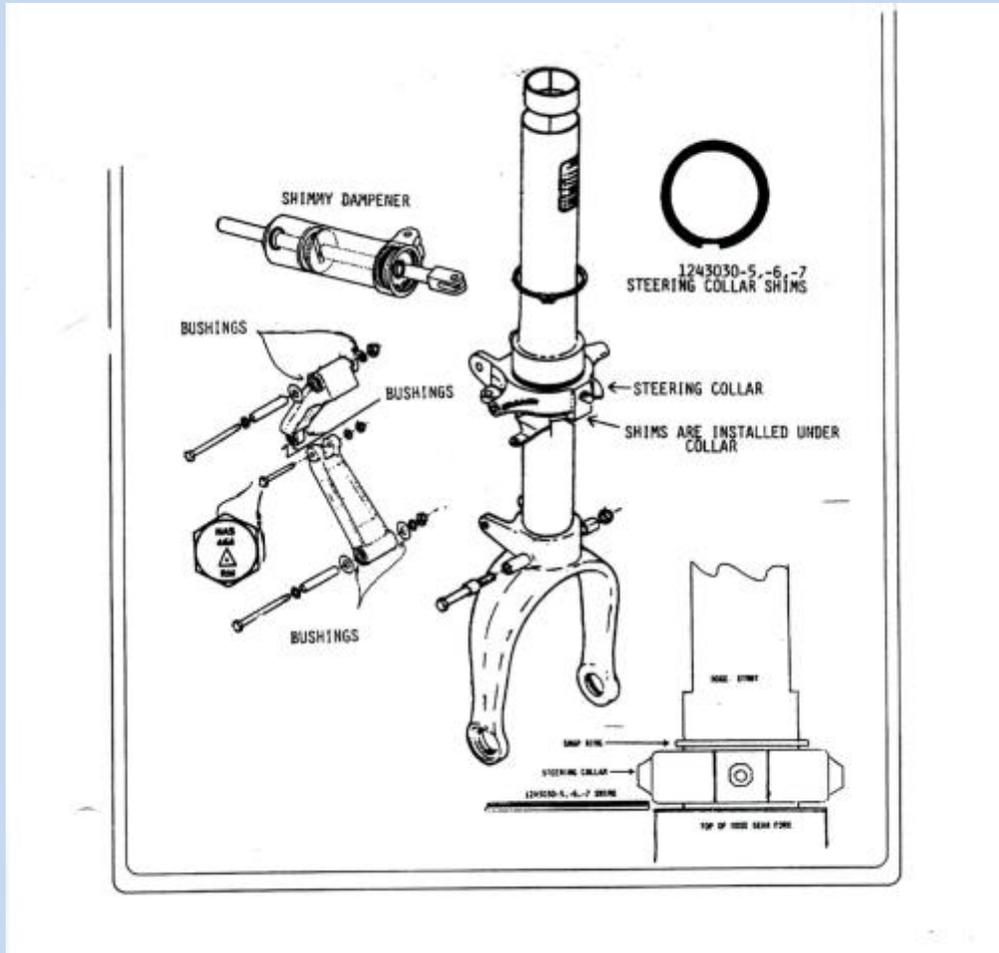
Nose wheel shimmy is a common problem with single engine Cessna's & we have had some issues with the nose gear on our aircraft (especially 375). The following should give you a better understanding of causes & corrections by Aero Services.

Balancing the nose wheel/tire assembly is the most important point to check. Aero Services uses both static & dynamic balancing. If the tire won't balance fairly quickly with a static balancer & the wheels & wheel bearings are in good shape, the tire is replaced. This has happened with new tires and we return them for replacement warranty adjustment. Whenever changing tires & tubes, or experiencing a vibration upon lift-off/landing, we balance the main tire/wheel assemblies in the same way.

Sometimes the nose wheel assembly may balance but still cause a shake due to an out-of-round tire or tire damage such as a broken belt or separating ply. All new

tires are checked for out of round. My philosophy has been to replace any tire (nose or main) that hints at being suspect.

The torque links are the connection between the nose tire/wheel assembly & fork, & the steering collar & shimmy dampener. Any wear, stop or looseness in the torque link bolts, spacers or bushings will allow shimmy to continue, undamped by the shimmy dampener. All bushings, spacers & bolts are replaced at same time when the torque links are rebuilt. It is critical that the correct high strength bolt is used in the center joint of the scissors. Look for a triangle or an NAS part number such as NAS 464, NAS 1103, NAS 6203, etc.



The steering arm assembly (collar) shims is another area of close inspection when trying to correct nose wheel shimmy problems. The upper end of the torque links attaches to the steering collar, so shimmy is transmitted from the wheel to the torque links, then to the collar. It's important that the collar only move in a rotational motion around the strut; any up & down or cocking movement of the collar will allow shimmy to continue since the shimmy dampener isn't designed to combat this movement of the collar. If cocking is detected, or shimmying continues after all other solutions have been attempted, removal of the complete nose landing gear is necessary for re-shimming of the collar. There are three shims of varying thickness that are designed to tighten up the collar & eliminate any up & down movement.

The shimmy dampener is a closed chamber full of hydraulic fluid. When shimmy occurs the motion is damped by hydraulic fluid being forced through a small hole in a moveable piston. Fluid leakage past the shaft & end cap seals, fluid leakage past the thermal relief valve O-ring & bent piston shafts can occur. Our mechanics check the bolt holes at the shimmy dampener attach points for elongation. Any play at these points will cause a shimmy that can't be dampened. If you experience the "shimmy dance" perhaps you need to take some load off the nose.

Articles of interest from other sources.



Sun Chronicle File Photo

Ross McCurdy of Smithfield and his 12-year-old son Aedan will be embarking on a transcontinental flight in a Cessna 182.

BY RICK FOSTER SUN CHRONICLE STAFF

Former Attleboro resident Ross McCurdy and a fellow pilot have completed a record-setting fuel efficiency flight using a small plane equipped with a biofuel-burning diesel engine.

McCurdy, a high school teacher in Rhode Island, and Thierry Staint Loup, an executive with SMA Engines in Texas, took off from New Jersey Tuesday and completed an 848-mile triangular course in just over nine hours.

According to a news release, the craft completed the trip using 56 gallons of fuel.

That resulted in a fuel efficiency of 15.1 nautical miles per gallon, establishing a world record in its class sanctioned by the Federation Aeronautique Internationale.

The Cessna 182 was weighed before taking off from Essex County Caldwell Airport and again after landing to determine the amount of fuel used.

During the trip, the plane travelled from Caldwell, N.J., to Buffalo, N.Y., then to Portland, Maine, and back to Caldwell.

The plane used a 50-50 mix of jet aviation fuel and biofuel derived from plant seeds.

The fuel burns with relatively the same efficiency as aviation fuel, McCurdy said, but the plane's SMA diesel engine is 30 percent to 40 percent more efficient than an equivalent gasoline-fueled engine.

Diesel engines are gaining popularity among small-aircraft owners, McCurdy said.

Last April, McCurdy and his son Aedan completed the first coast-to-coast trip in a biofuel-powered small aircraft.

FAA ACCIDENT ANALYSIS

The FAA is continuously trying to improve safety, and as part of that, they've released their top 10 causes of fatal GA accidents, with a specific accident for each type.

10) Thunderstorms Or Windshear

Weather is obviously one of the most hazardous parts of flying. This photo below is a Cessna 210 that flew into a level 6 thunderstorm. The pilot at the controls was Scott Crossfield, an accomplished Naval test pilot, and the first pilot to fly twice the speed of sound. Before he departed, he received a weather briefing, however he didn't get weather updates during his flight. The airplane broke apart in-flight, with wreckage found at three different locations.



[FAA](#)

9) Midair Collisions

Most midairs happen near airports, and in this accident, a Cessna 172 entered the traffic pattern and collided with a helicopter. Unfortunately, the 172 didn't make radio calls prior to entering the pattern, and the helicopter was unaware of them. The helicopter was able to land safely, but the 172 entered a spin, impacting the ground.



[FAA](#)

8) Systems Failure

This Cessna 335's attitude indicator failed in poor weather. The pilot became [spatially disoriented](#) and crashed.



[FAA](#)

7) Fuel Exhaustion Or Contamination

This Cessna 172 ran out of fuel in flight. The aircraft had just completed an STC (supplemental type certificate) to increase the engine's horsepower. However, new fuel burn rates weren't placed in the flight manual, and the pilot didn't plan for the increased fuel burn rate.



[FAA](#)

6) Flight In IMC

This King Air 200 was on a localizer approach, but the pilots were using a GPS to navigate to the IAF. The pilots inadvertently swapped the initial approach fix with the missed approach point on the GPS, using manually entered fixes. With no glideslope, and incorrect DME data, the plane flew approximately **5 miles past the missed approach point at the MDA altitude.** As the pilots executed a missed approach, they impacted the top of a mountain.

4) Low Altitude Operations

This P-3 air tanker was on a fire bombing run. The flight had an FAA examiner on board performing a checkride. As the P-3 descended over a hill, the left wingtip hit the ground, and the aircraft impacted terrain.



[FAA](#)

3) Powerplant Failure

In this crash, the aircraft had a right engine cylinder failure. The pilot feathered the prop, but didn't have enough single-engine performance to maintain altitude. The pilot elected to ditch the aircraft in the water. Fortunately the pilot and all the passengers survived.



[FAA](#)

2) Controlled Flight Into Terrain

This King Air 200 was on a medivac flight. The pilot was cleared for a [visual approach](#) into Bozeman, MT at night. Unfortunately the pilot identified the wrong airport, overflew Bozeman, and impacted terrain.



[FAA](#)

1) Loss Of Control In Flight

In this accident, the pilot [lost their right engine](#) immediately after takeoff. The pilot lost directional control, rolled inverted, and impacted the runway.



[FAA](#)

Production begins on Commuter Craft Innovator

August 2, 2016 by [General Aviation News Staff](#) [3 Comments](#)

ATLANTA — [Commuter Craft](#) has successfully completed pre-production flight tests of Innovator ShipOne and plans to start production with six “AlphaShips” this fall. These first production aircraft will be customer built in the Commuter Craft Facility under the Experimental aircraft category.

This will be followed by construction of eight “BetaShip” aircraft, leading to full general production in 2017, according to company officials.

Commuter Craft began taking position reservations in April of this year, and will continue to offer its pre-production special until September 2016.



The Innovator is a two-place aircraft that features a three-surface blend wing and lifting body airframe.

Top speed is over 200 mph with a 180 hp engine, company officials note. Fully loaded, the Innovator has a range of 800 nautical miles.

The aircraft will be customer built in two to three weeks in the company’s 82,000-square-foot facility in Cartersville, Georgia, utilizing factory tooling. The build process is primarily assembly and bonding with very little fabrication, company officials noted.

A technician is provided for each builder to ensure quality and proper technique.

Upon completion of the airframe, factory options are available for engine, propeller, instruments, interior and paint packages to finish the Innovator aircraft in as little as three months, company officials added.