From: Barry Campbell
To: Barry Campbell;
Subject: EAA 442 August Newsletter
Date: Wednesday, September 03, 2008 8:09:00 AM

EAA Chapter 442 August 2008 Newsletter

EAA 442 Chapter Officers:
President: Mike Hathaway ~ n5186mike@yahoo.com ~ 423-345-2498 or 423-612-4004
Vice President: Jim Pensinger ~ jim@pensinger.net ~ 423-234-5292
Young Eagles Coordinator: Bob Barlow ~ barlowbobl@hotmail.com ~ 423-323-5990
Treasurer: Vince Nicely ~ vincenic1@embarqmail.com ~ 423-288-4580
Secretary & NLE: Barry Campbell ~ barrya1946@yahoo.com ~ 423-754-2846
Technical Counselor: Jim Summers ~ summersjh@embarqmail.com ~ 423-246-7086
EAA442 Webpage majordomo: Barry Campbell ~ barrya1946@yahoo.com ~ 423-754-2846
The chapter webpage is: http://www.eaa442.com/

Minutes of the August 31, 2008 Chapter meeting:

President opened the meeting at 2:40, 16 in attendance.

Treasurers Report:
$832.77, and 28 Paid members.

Chapter Membership Renewal Time:
Membership in the chapter is on a calendar year basis and all members should renew their membership at the first of the year. Each chapter member must be a member of the national EAA as well. Annual dues are $15.00.

You may renew your membership by completing the renewal form and sending **1) the dues and 2) your national EAA member number and expiration date** to Vincent Nicely, 2605 Suffolk Street, Kingsport, TN 37660 or you may pay Vince at the next chapter meeting.

Secretary's Report:

Minutes were distributed in the last News Letter.

Young eagles Report:

Davy Jones flew one, so our Chapter total to date is 34. Our goal is 40.

Technical Counselors Report:

Jim Summers reported that he was assisting/supervising with a Taylorcraft. Mike Hathaway stated that the chapter needs 2 Tech Counselors, and the Richard is still the second.

Old Business:

President Mike; Sept. 20th Open House, how many planes will be available for YE flights. Four members at this meeting said they would be there to fly YE.Vince and his wife will again do the registration, but would like some help. Bob Barlow stated that we had some forms at the last event that pilots did not sign the forms yet. It was decided that the forms would be hand carried to the pilots with the YE to get signature. The use of caution tape at this event was discussed for traffic control, and member offered to provide the tape. Sequence for taking pictures of each YE so it will be ready for them to take. Parking of member's cars was discussed, and Jim Summers suggested that out in front of his hangar on the grass to free up parking lot space. Members should arrive at 9am to help set up, and pilot briefing. Starting the 2nd Friday of each month, at 7pm. Members will meet at Tri Cities FBO, Bob Barlow arranged for the meeting place. Vince stated that someone was scheduled to send out notices.

New Business:

None, meeting adjourned at 3:20

Program:
Steve Preston showed a slide show from Oshkosh, and talked about some of the events. An aerobatic helicopter, a Jet Pack, space rides and vehicles planned and the trip flying into Oshkosh. There was a short question answer period.

A Message from the Editor

Hi Everyone,
If you are working on a project, doing repairs take a picture, and send me a short blurb about it. A lot of you take short trips out and about to small airstrips, to lunch stops, and airplane museums. We would like to hear about it and share your story. Also if you hear of an event that is not listed in the newsletter or our web site, please email me with the information. This is "**your**" chapter newsletter, and thanks to those who have sent me material. As you read the articles in this newsletter you can appreciate the articles by fellow members. It sure makes reading the newsletter a better experience for us all.

This Newsletter includes the following Articles:

Trip Report by: Jim Pennsinger
Beach Trip by: Jim Pensinger
Wingnuts by : Charles Kremer
FAA looks at redefining homebuilt 51-percent rule By: Michael Golden
Video and Pictures added to our web site.

Calendar of Events

EAA 442 Chapter meetings are the last Sunday of
each month at 2:30pm RVN
Members are encouraged to bring a desert and a friend.

"Mastering Takeoffs and Landings"

Topic: Come learn some tips and techniques for making, smooth, trouble-free departures and arrivals.

On Thursday, September 11, 2008 at 7:00 PM

Location:
Clayton Homes Corporate Office
5000 Clayton Road
Maryville, TN 37804

OCTOBER 4-5 - WINCHESTER, VA
EAA CHAPTER 186 FALL FLY-IN

October 10 - 12 Smokey Mountain PPC Flyin

OCTOBER 25 - GEORGETOWN, DE
WINGS-N-WHEELS
WARBIRD, ANTIQUE, CLASSIC, HOMEBUILTS FLY-IN
SUSSEX COUNTY AIRPORT (GED)
410/991-2356 – WWW.RETURNDAY.ORG

NOVEMBER 8 - MILLVILLE, NJ
VETERANS APPRECIATION DAY –
MILLVILLE ARMY AIRFIELD MUSEUM
REENACTORS, WARBIRDS, FOOD
MILLVILLE AIRPORT (MIV) – 856/327-2347

DECEMBER 7 - MASSEY, MD
ANNUAL HANGAR DAY –
MASSEY AIRDROME (MD1) MASSEY AIR MUSEUM
1:00 TO 5:00 PM 410/928-5270 – www.massey.org

September 20th, EAA442 Open House (RVN)
Batavia, OH. A Sporty's Hot Dog Fly-In takes place every Saturday at Clermont County (I69). Free hot dogs every Saturday from noon until 2 p.m. Contact Jason Pruitt, 513/735-9500.

JANUARY 22-25, 2009 - - - - - - - - - - - - - - - - - SEBRING, FL
U.S. SPORT AVIATION EXPO
SEBRING REGIONAL AIRPORT (SEF)
www.sport-aviation-expo.com

Member Items For SALE or Rent

If you have an airplane project, or aircraft parts/items you want to sell, send me all the info. mailto:barrya1946@yahoo.com

Links of Interest by members and friends

This plane has to use just about **every inch** of the runway to get off the ground. Just listen to the Australian controllers in the tower while you watch this video. It's truly amazing that this plane made it off the ground.

http://www.alexisparkinn.com/photogallery/Videos/2008-2-9-Il76-in-Australia.wmv

A fully loaded Russian IL-76 cargo plane with a payload of 1 million pounds?!? Takes a lot of power to get 500 tons plus the plane's weight moving fast enough to get in the air.

This is the neat weather program. Check out the analyst one. www.grlevelx.com

E.A.A.'s memorable video with music plus meaningful images of our piloting airplanes
. . for decades :

http://www.youtube.com/watch?v=BvZeuzXGFb0

Great video series on the Spitfire:

http://www.youtube.com/results?search_query=Spitfire%2C+the+legend&search_type=

YE Video from June 14th 2008 click on the video link.

Pictures from the Ulster Program on June 28th, click on the YE pictures link. www.eaa442.com

WWII Carrier Flight Operations.. Great Pics, (History Channel video clip)

http://video.google.com/videoplay?docid=7166330178234459087

Point of interest...about 3 minutes 20 seconds into the clip, you will see an F6F Hellcat, it's hydraulics shot away during a strafing run, pancake on the carrier deck and slew into the island. A deckhand was crushed between the aircraft and the superstructure and killed. The number on the plane is 30.

The lanky pilot sitting dazed in the cockpit is a gentleman named Andy Cowan, . He is hale and hearty at 87 and lives just north of Salinas, Ca. To this day he cannot recall this accident without a tear coming to his eye. The swabby who was killed was his crew chief.

Andy is a marvel. He has absolute total recall of those bygone days. He is regularly invited back to the Naval War College to give a power point demonstration to the young fighter jocks of today's Navy. They hang on his every word. A living link to the past... to the days when you got up close and personal to kill the enemy. No over-the-horizon missile kills...

Andy was the longest serving Navy fighter pilot in WWII. He was on his shakedown cruise off Gitmo on December 7th, 1941. The carrier Ranger made flank speed to Norfolk and the pilots were transhipped to San Francisco by train, then sped to Hawaii by ship. He saw Pearl not long after the sneak attack, and again is unable to speak of it... a horrible disaster. He immediately went aboard the Lexington and in the course of the war had 4 carriers shot out from under hi m as he fought in every major Pacific battle. Coral Sea, Midway, Battle of Santa Cruz, Guadalcanal, Iwo Jima... you name it. Credited with 4.5 kills. Flew with Butch O'Hare, Cmdr Thatch
(inventor of the 'Thatch Weave'), flew with high scoring ace David McCampbell... served under Admirals Nimitiz, Bull Halsey...

He has studied the Japanese side of the Pacific War and is a recognized expert on their side of it. He can reel off the names of all their capital ships and admirals and battles from memory. Remarkable man... and still alive to tell the tale...

Trip Report by: Jim Pennsinger

W75, Saluda VA & JGG, Williamsburg, VA

I left TN99 to go to GCY to pick up Julia and our luggage. I can get out of TN99 with 36 gal of fuel but don't want to try much more (until I get the new addition to the runway smoother). I filed for an IFR flight to Saluda even though the weather looked good because IFR just seems so much easier to me. I can actually go through special use areas that I wouldn't try to

under VFR. The route I was cleared for was GCY to HCM VOR then to W75, Saluda VA at 7000 feet.

Nearing Richmond, we had our clearance changed (this always happens) to go to the Richmond VOR and fly directly over that airport. After Richmond, I requested a lower altitude, was cleared to 5000 and asked for the GPS01 approach at W75 with the HCM transition. I still hadn't gotten the approach clearance, or lower altitude, and when I was about 3 minutes from HCM VOR, I asked Potomac Control what I should do at HCM. My choices were to fly directly to W75, as cleared, or proceed to the next waypoint on my requested approach. I really wanted to do the approach because fires in east NC had reduced the visibility to just over 3 miles. Finally, in the "nick of time", I was cleared for the approach and made an uneventful landing at W75. Total tack time from TN99 was 2 hours 57 minutes. I just love tail winds! We had a good time visiting friends in Saluda

The leg from W75 to JGG was short and done VFR at 2000 feet. There is a GREAT restaurant on the airport that has been written up in some gourmet magazines. We planned on spending the night here while visiting our son. He is the brewer at Williamsburg Ale Werks and the overnight would allow me to test out his brews again!

We decided to fly home VFR at 6500 feet from JGG, over OTEDE intersection then directly back home. Our path took us north of R6602A (surface to 4000 feet), north of Picket1 MOA (500 to 6000 feet) and over Farmville MOA (300 to 5000 feet). Since we would be a short distance south of Richmond, I decided to get flight following through there. I thought everything was good till the Richmond controller told me to alter course because the R6602A area had been expanded and the ceiling raised to 10,000 feet! So much for reading Notams. I get part way through them then get tired of reading and probable skipped this important one. This is why I like IFR flying, the ATC people are taking care of this for me. I normally don't use flight following but was glad I did this time! It worked the other way for me on my way to Sun-N-Fun last spring. Around Jacksonville, there is usually a change in clearance. My change put me right through the middle of a restricted area. When I questioned ATC, they told me that the restricted area was only active to an altitude below me so it was OK. The latest Garmin database had the entire airspace going much higher. Again, it was

probably in the Notams.

After successfully passing this area, I noticed some storms forming across my projected path. Shortly after, a cloud bank looked to have bases around 4000 feet with tall tops. Soon it was clear that the trip couldn't be completed VFR and the developing storms didn't look good for IFR so we diverted to MTV, Martinsville, VA. I had been there before and knew they also have a nice "on-field" restaurant. We had a 4 hour lunch while watching one of the most intense rain storms I had ever seen. Nothing could be seen out the windows, not even the ground. Finally the rain moved along leaving a lot of scud and non-convective cumulus. We filed IFR and started home. As we got past the mountains at TRI, the weather improved so we canceled IFR and proceeded to give Julia her first arrival into TN99. She said it was a lot like a roller coaster where, just before reaching the top, you wished that you hadn't gotten on it! The landing was good and she is game to do it again. We had another problem though. Since the car was at GCY with the garage door opener in it and we didn't have a house key, we were locked out. A call to a neighbor who has a spare key to our house solved that problem and the next day we had more keys made.

Beach Trip by: Jim Pensinger

19 August – 22 August

It seemed like a good idea. I like the beach, most of my "honey-do" projects were caught up and the weather looked good. We had been planning a family trip to the Outer Banks all summer but first, the grandchildren decided they didn't want to go during their visit here and then, when Julia and I were planning on going, the weather turned bad.

I decided to leave on Tuesday, after several morning projects were taken care of. I planned a VFR flight above some scattered clouds to ONX (cheap fuel) then to FFA to look at the First Flight Museum then finally to HSE at Cape Hatteras.

I filled 3 of my 4 gas tanks, loaded my camping gear and left from TN99. At about 8000 feet, I got above the haze layer but clouds were still higher in

front of me so I continued my climb, ending at 11,500. Needless to say, the visibility was great and the OAT was 45 degrees. I added a little cabin heat to counter the slight chill. On the eastern side of Richmond, there was a trough that had developed 4500 foot ceilings further to the east along the shore. I descended VFR to lower than that and continued, a little bumpier and a little warmer. The trip was a little over 3 hours and fuel at ONX was $4.46 as advertised.

FFA was much more than expected. There was only one other airplane at the airport. For those who haven't been there, the grounds are huge. In addition to the visitor center with replicas of the early Wright planes, there are two large halls with displays and, while I was there, a series of films narrated by a NASA employee tracing the Wright brothers from their bicycle shop days to when their airplane factory was producing planes for other companies after the demise of theirs. There were lots of other activities and displays and I recommend this as a land or air stop to anyone interested in aviation.

I was told by the National Park Service that I could walk from HSE to the campground at Frisco. When I got there, one parking area at midfield was empty and the main one at the western end was about ¼ full. Chain tie downs were there but I used the nylon ropes that I always carry. The eastern end of the runway is close to the campground but there was no way to get through the brush. I walked along the road (15 minutes) to the campground where I hoped to find a transportation solution for my camping gear. I had about 2 trips worth to carry by hand. The campground host agreed to trade me a ride in my airplane for transport for my gear – both ways. That was a very agreeable trade. After getting home, I remembered a folding chair/ truck from boat days that I will take with me on future camping trips.

The campground was great. It was just a short walk on a boardwalk across the dunes to the beach. It was dark at night but the water and air were still warm enough to be enjoyed. No bug problem either. Thursday was one of my best ever days at the ocean. Good breaking waves came rolling in all day. There are 3 restaurants within easy walking distance of the campground as well as a gas station and convenience store. I recommend this also.

I decided to come home on Friday. The weather continued to look good but Fay was still active in the south and rain bands were already in southern North Carolina. An added benefit was a forecast 15 knot tailwind! I came home via IFR because of low forecast stratus in the TRI area. After climbing through the cloud layer at the beach, at 8000 feet, I was about 500 feet above the clouds and had a smooth ride. The winds turned out to be mainly a crosswind and the flight home was a little under 3 hours. Still, not bad for a westerly flight. West of TRI, as I descended, the ride got bumpier to the point that I considered going to GCY but decided to make a non-committed pass at TN99. As I descended through the pass on final, the turbulence died and I was able to make a normal landing at home.

WINGNUT NEWS

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published occasionally and irregularly

Aug 08

August Thanks to John & Kathy for the Dushore Flyin

and

Thanks to John & Kim for the Lairdsville Flyin

as usual a great time was had by all

Upcoming Events

Sept 13th weekend flyin at Dave, Jody & Todds

Oct 18th weekend flyin with Glenn & Linda

I will be needing material to include in news letter, upcoming events, sale items, wanted, birthdays etc etc

If anyone has trouble opening this program (wordpad) please let me know at Chasgoat@Yahoo.com 570-889-3438 (house) 570-590-5042 Cell before 8 pm please.

For sale Telex Headset mod MRB2400 boom mike & PTT $65.00
Ory Garin (retired airline cptn who has flown everything from J3 to747, I am sure this headset has many stories and is in great shape) 570-275-0755

For sale 1996 Mini-Max 1300Z 1/2 vw 68 1/2 hrs T.T. Charlie

Pilot earns Distinguished Service Cross after fighting off surprise attack
sent to NL editor by: Richard Pike
By Sean D. Naylor<snaylor@atpco.com
Posted : Sunday Jul 20, 2008 11:47:16 EDT

In the clear skies north of Baghdad, a single word — "Mayday!" — turned a special operations mission on its head, diverting some of America's most elite forces from their mission to kill or capture a known terrorist to a desperate fight for their lives, pinned down, outnumbered and outgunned.

In the brutal hours that followed that Mayday transmission on Nov. 27, 2006, Chief Warrant Officer 5 David Cooper of the 160th Special Operations Aviation Regiment — the "Night Stalkers" — would earn a Distinguished

Service Cross for his heroic actions to relieve his beleaguered colleagues,
while an Air Force F-16 pilot would lose his life.

Cooper received his award — the highest ever for a Night Stalker — from Adm.
Eric Olson, head of U.S. Special Operations Command, July 11 at the 160th's
home post of Fort Campbell, Ky.

In the early afternoon of Nov. 27, 2006, Cooper was the pilot in command of
an AH-6 Little Bird attack helicopter, flying lead pilot in a flight of six
helicopters: two AH-6s, two MH-6 troop-carrying Little Birds and two MH-60
Black Hawks, also with special ops ground troops aboard. Their mission was
to kill or capture a "foreign fighter facilitator," according to a summary
of the action released by the 160th.

The weather was perfect — "Clear, blue and 22," in aviator-speak. But as the
six helicopters flew between "logger" sites about 50 kilometers northwest of
Baghdad, Cooper's wingman suddenly transmitted "Mayday!"

An insurgent had hit the aircraft with a rocket-propelled grenade, but no
one had realized that at first because it didn't explode. "I looked out the
window there and saw that he didn't have a tail rotor, and if you know
anything about helicopters, that's an important piece," Cooper said in a
July 10 interview.

Cooper's wingman had to land the aircraft quickly, while simultaneously
keeping its speed up so that the wind would keep the helicopter straight.

Fortunately, the landscape below was mostly flat, open desert.

"He did an excellent job of doing a running landing in the desert, where he hit the desert floor at about 60 miles per hour," Cooper said. "The pilots had only superficial injuries, but certainly that event changed the center of gravity of the mission that day."

The four troop-carrying helicopters landed beside the crippled helicopter immediately. The special operators jumped off, checked on the pilots of the crashed aircraft and then set up a perimeter.

The Black Hawks quickly evacuated the pilots of the stricken aircraft, leaving 18 to 20 ground troops, plus the two MH-6s and their four pilots. Cooper declined to identify which unit the troops came from, beyond calling them "friendly special operations forces," but the 160th forms part of the Joint Special Operations Command task force in Iraq, where it typically flies special operators from Delta Force, Naval Special Warfare Development Group and the 75th Ranger Regiment.

Cooper and his co-pilot stayed airborne for several minutes to make sure the position was safe, then, seeing no enemy forces, he landed.

After about 40 minutes, several trucks with anti-aircraft machine guns approached their location. Unsure whether these belonged to Iraqi police, a local militia or enemy fighters, the senior ground force non-commissioned

officer asked Cooper to get airborne and check them out. The question was
answered when the gun trucks opened fire on the small special ops force.

Cooper took off and quickly realized the full extent of the threat: there were six to eight gun trucks mounted with double-barreled ZPU-2 14.5mm
anti-aircraft machine guns about 1,400 to 1,600 meters away. Each gun truck
was crewed by four or five men, "so there were probably about 40 fighters
out there," he said.

Meanwhile, another two trucks had appeared and disgorged at least 20 enemy
fighters. They occupied a house about 800 meters from the grounded helicopter and took the U.S. force under fire with mortars, rocket-propelled
grenades, RPK machine guns and AK-series assault rifles.

The U.S. troops were armed with infantry weapons that could reach the enemy
fighters in the house, but not those in the gun trucks.

To make matters worse, the desert offered no cover to escape the gun trucks'
murderous fire. "It was flat like a tabletop, so we really had no defilade to get to," Cooper said. "The ground forces were pinned down immediately …
It was kind of a one-sided deal."

As soon as Cooper was aloft, the enemy fighters directed all their fire to
his aircraft. "That's OK — until you get hit — because if they're shooting
at me, they're not shooting at the ground forces," he said.

Cooper and his co-pilot, a chief warrant officer 4 whom he declined to

name
because he's still flying combat missions, were the only friendly force capable of attacking the gun trucks, which they did, using their two six-barreled 7.62mm miniguns that fire about 3,000 rounds per minute and a
pair of 2.75-inch rocket pods loaded with a mixture of flechette, high explosive and smoke rounds. "We tried to put as much fire as we could on the
gun trucks and on the fighters at the house," Cooper said.

Air Force F-16s were on station to provide close air support, but from their
high altitude they were unable to discern the friendly and enemy forces,
Cooper said. "We realized quickly that we were the only fire support that we
were going to get that day," he added.

Flying anywhere from 5 to 50 feet off the ground, Cooper could feel his
helicopter shuddering and hear the metal-on-metal sounds as enemy rounds
struck the aircraft as it flew in again and again, firing at the insurgent positions.

He could also hear the enemy's near misses. "When that round goes past the
cockpit it sounds like the snap of someone's fingers — a pop," he said.
"That day, it sounded more like popcorn."

But as the minutes ticked by, Cooper and his wingman could tell they were
gaining an edge. "The rate of [enemy] fire had diminished, so we knew we had
hit either the guns or the crews of probably at least two of those trucks,"
he said.

Even as he tried to kill them, Cooper was impressed with his enemies' resilience. "They were not fleeing, they were hanging right in there," he said. "They were disciplined fighters."

After 12 to 15 minutes, Cooper was running low on ammunition, and landed back beside the crashed aircraft. He and his co-pilot stared at each other wide-eyed.

"Neither of us really expected to get out of this fight alive," Cooper said.

He paid tribute to the four MH-6 pilots on the ground, who all later received Bronze Stars with "V" devices. "Those guys were off-loading unstable rockets off of the downed aircraft and loading them into my aircraft when I landed," he said. "That's not a recommended procedure in the book, [and] they were doing that all the time under fire and in plain view of the enemy."

After no more than five minutes, Cooper and his copilot took off again. "We weren't ordered to go back up," he said. "I'm a gun pilot, and my duty is to support the ground forces."

After another 15 minutes of fighting against a hail of insurgent fire, Cooper was running out of fuel and ammo and had to put down again. "I was going through ammunition at a fairly rapid clip," he said.

The MH-6 pilots used a Leatherman tool to remove the crashed Little Bird's auxiliary fuel tank and use it to refuel Cooper's aircraft.

Then Cooper took off yet again, this time spending half an hour in the air.
He got as close as 800 meters from the gun trucks and 200 from the house. "I
was flying as erratically as I could to throw off the aim of the gunners," he said.

Cooper and his wingman were slowly turning the tide of the battle. Most of
the insurgents who had occupied the house a couple of hours before were now
dead. Half of the gun trucks were out of action, with many insurgents killed
and wounded in and around them.

No longer able to cope with the withering fire that the AH-6 was delivering,
the surviving insurgents began to retreat. Then tragedy struck. Maj. Troy
Gilbert, an F-16 pilot providing close-air support for the mission, was
finally able to identify the moving enemy vehicles and was placing effective
fire on them when his aircraft crashed about four or five miles away from
the downed helicopter. He was killed. Gilbert was posthumously awarded a
Distinguished Flying Cross with "V" device.

The actions of Cooper, 48, and his wingman were later credited with
preventing further loss of friendly forces.

Cooper was "ordered off the battlefield" after he landed for the fourth
time. "We were out of gas and out of bullets and they needed to get a new
team of AH[-6]s in there," he said.

The new team arrived, but the battle was over. The special operators
remained on the ground until nightfall, when a downed aircraft recovery team

flew in to extract the crashed helicopter and the troops.

"By the time I got that aircraft back to base I was pretty well spent," Cooper said.

According to a summary of Cooper's actions released by the 160th, "his aggressive actions, complete disregard for his personal safety and extreme courage under fire resulted in him single-handedly repelling the enemy attack … If not for CW5 Cooper's actions, the ground force would have become decisively engaged and would certainly have taken heavy casualties."

But Cooper is humble when discussing his role.

"I just happened to be the guy there that day," he said. "Any one of the Night Stalkers that's in this formation would have done the same thing I did."

FAA looks at redefining homebuilt 51-percent rule **By: Michael Golden**

By AOPA ePublishing staff

The FAA is scrutinizing "fast build" homebuilt aircraft programs and with that may come policy changes that affect future kit designs.

The FAA has released several draft documents to clarify the regulation of the homebuilt aircraft segment. The biggest potential change is to the definition of the so-called 51-percent rule. The FAA's original intention was that the individual would fabricate more than 50 percent and assemble more than 50 percent of the aircraft.

The FAA became concerned when fast-build kits entered the market where an aircraft owner's contribution resulted in 51 percent of the assembly only. The agency felt that this did not meet the intent of building "solely for their own education or recreation."

The FAA now defines 51 percent as the builder completing, at a minimum, 20 percent of the assembly and 20 percent of the fabrication with the remaining 11 percent made up from either additional assembly or

fabrication. The FAA now states that the commercial assistance or "for hire" building programs will not count toward 20 percent of the assembly by the individual.

The policy changes would not affect those flying traditionally certified aircraft or already completed amateur-built aircraft. Existing kit designs essentially would be grandfathered, while new models, after the rules go into effect, would get the extra scrutiny.