



THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

Voted to Top Ten Newsletters, 1997, 1998 McKillop Award Competition

President	Gary Aldrich	661-609-0942
Vice-President	George Gennuso	661-265-0333
Secretary	Kent Troxel	661-947-2647
Treasurer	Doug Dodson	661-256-7276
Newsletter Editor	Russ Erb	661-256-3806

<http://www.eaa1000.av.org>

May 2006

Chapter 1000 meets monthly on the third Tuesday of the month in the USAF Test Pilot School Scobee Auditorium, Edwards AFB, CA at 1700 or 5:00 PM, whichever you prefer. Any changes of meeting venue will be announced in the newsletter. Offer void where prohibited. Your mileage may vary. Open to military and civilian alike.

This Month's Meeting:

**No Third Tuesday Meeting This Month!
Instead, We Expect You To Participate In:**



Fifteenth Annual Scotty Horowitz Going-Away Fly-In--13 May 2006, High Cay, Rosamond Skypark

Yes, it's that time of the year again—time for EAA Chapter 1000's big annual shindig. Rosamond Skypark will be abuzz with way-cool EAAers like yourself, and they're expecting you to be there. This is Chapter 1000's annual big event where we invite area EAAers to come hang out with the *Project Police*.

NOTE

Just like last year, this event will be at **High Cay** (**Doug and Gail Dodson's** hangar) at 4431 Knox Ave. That's down at the Runway 7 approach end (west end of the field).

This year's celebration will be unique, just like all of the previous fly-ins. *Project Police* intelligence sources have determined that **Scott** gave up on the private sector at Morton Thiokol and has returned to the government dole at **Burt Rutan's** favorite government agency as the "NASA Associate Administrator for Exploration Systems." We think that means he's in charge of building NASA's next manned space conveyance rocket thingee. We could bother trying to contact him to invite him to his own party, but that would be work. He knows that the fly-in happens every May, and thus should check the **Big Web Site** to figure it out. If he shows up, great, but that's not a requirement for us to send him off again!

We will be having our traditional **Spot Landing Contest** (0900-1100) for you to show off your airmanship skills (the target will be a chalk line about 150 feet beyond the displaced threshold). Be sure to read the rules so you know how you will be graded and/or laughed at. Only your first landing counts, and you should declare your landing attempt on the CTAF prior to landing. Also, landing short is disqualifying—think of it as smacking into

the carrier fantail or hitting the FAA supplied 50-foot tree. The aviator displaying the highest level of aviating proficiency will receive a device of suitable plaquage in keeping with his/her exploits for posting on her/his hangar wall or other favorite location.

You'll want to get your airplane washed and cleaned up nice too so you have a fighting chance in front of the most critical judges—the assembled masses. All participants will have a chance to vote for their favorite airplane in the **People's Choice** contest. The pilot of the most popular aircraft will also receive a device of suitable plaquage recognizing her/his recognition. **Opus** is rumored to be flying in from Tucson with his F1 Rocket to shoot for something that's never happened before—winning the People's Choice award two years in a row. Clean up your airplane so that at least he'll have some competition.

And of course there's the most important part—the imbibing and eating festivities. Rest assured that the Stan/Eval **Project Police Grillmeister** will be there to whip up the usual culinary masterpieces on the renown chapter grill, starting around 1000-ish.

We're looking forward to seeing you there, and be sure to take a few minutes to help out somewhere. You'll be glad you did.

Spot Landing Contest Rules:



1. Only one landing at L00 will be judged. This will be your first landing
2. Spot landing attempt should be declared on CTAF (122.9) prior to final approach
3. Target touchdown point is a chalk line about 150' beyond the displaced threshold
4. Touchdowns prior to the target touchdown point will be disqualified (No landing short—you'll smack the fantail)
5. Distance is measured from target line to the first touchdown point of the main landing gear
6. Helicopters, ultralights, VTOL or V/STOL aircraft are not eligible. Aircraft must have a valid registration number (N-number or equivalent)
7. The decisions of the *Project Police* judges are final. No Whining.
8. Award will be presented after lunch

Last Month's Meeting

EAA Chapter 1000

Rick Husband Lounge
USAF Test Pilot School, Edwards AFB CA
18 April 2006
Gary Aldrich, Presiding

The monthly meeting was held on Tuesday 18 April at the Edwards AFB Test Pilot School lounge hosting the first of two sections of visiting USAFA cadets enrolled in the Aeronautical Engineering 456 (Aero Engr 456) flight test course. The cadets were at Edwards to fly in T-38s to collect data for their final project (in lieu of a final exam). Accompanying them were course director **Maj Steve Brandt** and **Dr. James Baughn**, a distinguished visiting professor from UC Davis. **Vice-Kommandant Gennuso** served as **grillmeister** for the event. Of note, we were surprised at the distinct and unexpected lack of appetite of this particular group of students, our previous experience to the contrary.

The second section of students were treated to a BBQ at High Cay (L00/ROX- Rosamond International) on Friday night 21 April, hosted by **Doug** and **Gail Dodson**. They were accompanied by two other instructors, **Lt Col Carl Hawkins** and **Dr. Martiqua Post**. Also present were **Dennis and Tami Buehn**, owners and operators of the Grumman HU-16 Albatross that was currently flying at TPS. They had originally planned to be enjoying a relaxing weekend on Catalina Island at this time, but a self consuming engine on climbout from Lake Isabella followed by a successful single engine recovery at Mojave changed their weekend plans (engine change), so they took us up on our invitation to join us. **"Knife" Gennuso** again presided as resident **grillmeister** and provided a dazzling display of Beni Hana style burger flipping.

In addition, Chapter 1000 hosted the touring EAA B-17 "Aluminum Overcast" at Fox Field (WJF) on 10-13 April. Volunteers were: **Kommandant Aldrich**, **Vice-Kommandant Gennuso**, **Bill Grahn**, **Russ Erb**, **Tim Brien**, **George Fischer**, **Stormy Weathers** and **Kent Troxel**.

The airplane arrived around 1130 on 10 April and flew a media flight at 1300. **Mike Machat** participated in that flight in his guise as Editor/Publisher of *Wings* and *Airpower* magazines. Look for a mention in an upcoming issue. **Kommandant Aldrich** also scarfed up a seat on the flight when a media dude failed to show.

They launched three "revenue" sorties on Tuesday and two more on Wednesday. **Tim Brien** reportedly sold \$1000+ worth of merchandise each day. The B-17 departed for Van Nuys (VNY) at 1045 on Thursday. Passengers for this flight included **George Fisher**, **Stormy**, **Tim**, and **Doug Dodson's** mother-in-law **Lorraine**. **Doug** was supposed to fly her to Burbank (BUR) in the **FM-20C Strike Mooney** to catch a commercial flight home, but she hopped on the bomber to fill an empty seat instead. **Doug** picked her and **George** up at VNY and completed the mission to BUR. The **Kommandant** flew the **VC-180 "Fightin' Skywagon"** to VNY and returned to WJF with **Tim** and **Stormy**.

On a personal note, during dinner at Barone's following B-17 tour duty, I was lamenting that **Gary** and **George** had cool titles like **Kommandant** and **Vice-Kommandant**, but the office of Secretary was definitely lacking in the cool department. **Russ "Erbman" Erb** suggested that the office of Secretary be renamed as **"Minister of Propaganda"** as befitting the duties of the office. The propriety of the new title was immediately self-evident to everyone and the **Kommandant** so ordered it.

A busy month.

- **Kent "Cobra" Troxel**
Minister of Propaganda

Aluminum Overcast Survives The Project Police



Aluminum Overcast drags the field before landing. No flares, so the crew must be okay



PPO Mike Machat, officially commissioned *Project Police* large airplane inspector, begins his investigation to determine if the *Aluminum Overcast* is worthy of endorsement by the *Project Police*



The preflight briefing, being checked for accuracy by PPO Machat, flanked by his bodyguard Kommandant Aldrich



The Kommandant as "Doc Brown" and George Fischer as "Marty" take the turbosupercharger ride "Back To The Past"



Number 2 belches to life with a cloud of oil smoke



Knife lives the life of his childhood hero, Bugs Bunny as the armament quality assurance inspector



Departing on the Project Police evaluation flight



Lorraine exits the Boeing time machine at VNY



Kommandant's Korner

Fly-in season is upon us! It appears that someone has finally thrown the "Spring Weather" switch here in the Antelope Valley...bringing



warm days and brisk winds. It seems that the changeover from cold, nasty wind to warm (and sometimes nasty) wind occurred during the visit of "Aluminum Overcast" last month. One day it was blowing, spitting rain, and bone-chilling...the next it was a beautiful spring day. Despite the schizophrenic weather, the "Aerospace Valley" responded well to the visit of this historic aircraft. There was a steady stream of visitors and a surprising number of folks who booked rides in the newly-repaired bomber. For its part, the plane is gorgeous. The sheet metal wizards in Oshkosh really displayed their art as the airplane has never looked better.

Eighth Air Force veteran Fortress pilot **Bob Springer** participated in the welcome for the aircraft and provided some interesting stories for the assembled media. Bob logged over 600 combat hours in B-17s and declined the offer to ride in the Aluminum Overcast...saying that he'd "been there, done that".

The chapter responded well to the challenge of hosting what will become one of our annual events. Their names are noted elsewhere in this edition of the 'Edge, but I would like to single out **Tim Brien** who spent vacation time to hawk souvenirs to the crowd. In large part because of his diligent efforts, the chapter received a check for almost \$1600. The ride in the bomber down to Van Nuys was only a portion of the repayment for helping out. The look on the veterans' faces and the questions and comments of those touring the ship were priceless memories for all involved. Remember that next spring when the Kommandant is seeking volunteers...

Hey! Time for our annual "laid-back, low-key" gathering at **High Cay**. Yup, we're expecting you to show up at **Doug and Gail's** palatial Rosamond estate to help out with setup, teardown, and disposing of some of Knife's famous food faire. As a new feature this year, **all paid-up members will eat FOR FREE!** Ahhh, the



aviators' favorite four-letter "F" word. Now you have no excuse. Bring out the family (sorry, only the member eats for free) and enjoy the day. Consider it another benefit of belonging to the "chapter with the most zeros". If you are one of those "Dues Delinquent" criminals, **Project Police Financial Officer Opie** will be on hand to accept your dues coupon (which looks suspiciously like a \$20 bill). Also watch for a "new improved" look that your chapter staff will be sporting...I suspect you'll see a spread in GQ when the word gets out.

Well, better get this on the wire before **Zurg** pops a gasket (*thanks—that whole gasket popping thing is really messy and it's the maid's day off*). Tomorrow is another aviation adventure in the Fightin' Skywagon (WJF-IFP-MRY-WJF). Stay tuned for the report.

Check 6, fly safe, and see you on the 13th.

- **Gary Aldrich**
Kommanding

From the Publisher, Republic Press

Membership dues for EAA Chapter 1000:	\$20
Gas to drive round trip to Fox Field:	\$30
Six WINGS/AIRPOWER B-17 Back Issues Gift Sets given to the B-17 crew in the name of EAA Chapter 1000:	\$180
My B-17 Flight:	Priceless

- **Mike Machat**
<http://www.wingsairpower.com>

Haven't Had Enough Warbirds Yet?

The Collings Foundation B-17, B-24 and B-25 are scheduled to arrive at WJF the afternoon of 10 May (Wednesday) from Long Beach, and depart the afternoon of 12 May (Friday) to San Luis Obispo.

The B-17 holds 9 pax at \$425 per. The B-24 holds 8 also at \$425 per. The B-25 holds 2 up front at \$400 per and 4 in back at \$325 per. Aircraft usually fly "Dawn" and "Dusk" patrols of about 20-30 minutes each every day, but demand and weather will dictate the schedule. Rides from city to city are also available at same price, so one could fly into WJF from Santa Ana, or depart from WJF to SLO.

- **Kent "Cobra" Troxel**
Collings Foundation Rep

B-52H Flight Operations 101

(as told to the Bearhawk e-mail list)

First, I flew the -H model, with the turbofans. The airplane was way overpowered with 8 engines running.

It easily flies with 4 running. In my entire time with the -H, I went to max power exactly 2 times. One was a max weight takeoff (we did one per year), this one on a hot summer day. The other was a max effort climb just after a (practice) bomb run with an F-4 (simulated bad guy) on my tail. Ever see a B-52 climbing at 45 degrees? Pilot's heels on the horizon.

With the engines at a "normal" power setting they could accelerate the airplane beyond it's max speed, which was .84 mach.

Max weight missions were a pain because your landing weight was limited to 270,000 lbs max. We had to fly around (long mission) a lot to burn down all that fuel.

Normal (12 to 14 hour) missions didn't require full fuel. We practiced air refueling, but usually didn't take much fuel, just enough to confirm system operation, because it was more efficient for us to lift the fuel off the runway than the KC-135.

There was a large pitch to power couple. Push in power and be ready to trim down if you didn't want to climb. You really learned to fly at known power settings. If you "jockeyed" the throttles you would wear yourself out trying to hold altitude.

Because of the sweep of the wings, there was a large yaw to roll couple. Yaw a bit and there was a lot of roll in the direction of the yaw. This made the BUFF a real "rudder" airplane, which was more of a pain than a help. As mentioned, the -H model used spoilers for roll control. Turn the wheel left, the left spoiler pops up. This kills some lift, but also provides some drag. The drag is "pro-rudder" so very little rudder is needed from the pilot's feet.

The rudder was most important to counteract asymmetric thrust, (engine/s out or hung gear, particularly a tip protection gear). On the runway, the rudder was used to hold the airplane on the center-line (rudder for heading, aileron (really spoiler as mentioned) to hold the wings level). In the event of an engine failure, the pilot would automatically use the correct rudder just by keeping the airplane on the center line.

Don't be too rough on the rudders since the airplane was critical in body side loading, on the ground and in the air. It would start slithering side-to-side like a snake if you quickly reversed your rudders.

So on takeoff it was rudder for heading, aileron to hold the wings level. After takeoff it was back to normal with roll for heading control, pitch for airspeed. After level-off it was roll for heading, power for airspeed, pitch for altitude.

On a side note, the spoilers acted as roll devices (like ailerons) but also acted as air brakes (six positions total). These were used to help slow down in the air and on the runway after landing. During air refueling the spoilers were partially extended (position 2), so with wheel input one would move up as the other would move down, giving "double" roll effect. The extra drag also allowed the engines to be "pushed up" during air refueling into a throttle range where the engines were more responsive.

There was very little elevator authority, it took elevator and trim to land the airplane. The pilots' stations were a long way from the wing center, so if you "pumped" the yoke, you would shake yourself up and down, like being on the end of a fishing pole. For landing it was roll for heading until you got "close", then it was roll to hold the wings level and rudder for heading. Power for airspeed control, which as mentioned messes up the pitch, and pitch for glide path control. Flare for landing with pitch and pitch trim, throttles idle, remember as the power is pulled off the nose wants to drop, so more pitch trim. Wait to land, rear trucks first. The rear trucks touch, the nose drops, so down you go about 4 to 6 feet.

Keep the wings level so you don't bang the tip gear, rudder to stay on center line, call for the co-pilot to put out the drag chute, check the brakes, chute opens, keep flying the wings stay on center line since the snow plows have cleared only 25 feet either side of center line.

The airplane was very stable, but very sensitive at bombing speeds. One degree of pitch was about 2,000 ft/min VSI (VVI for the military Vertical Velocity Indicator) and you are flying 200 feet above the ground. Radar Altimeter for altitude, heading indicator, driven by the Bombardier (call the Radar Navigator) and the bomb system for heading. Throttles for airspeed.

Twelve to 14 hour missions, four to six hours of paperwork as pilot (you have to check everyone's work). You were up 4 hours prior to takeoff, engines were running 30 (45 in winter) minutes prior to takeoff. It's been a long day!

Whew, I'm wore out for now. We can talk air-fueling another day. The bottom line, you had to fly precisely and smoothly, or you wouldn't have the physical strength to last the mission.

- Rob "Zippydoggg" Gaddy

Recollections of the Curtiss C-46 Commando Part III: Ancillary Stories



"Where can we land?"

"Another feature of the double bubble was that the floor could act as a tension member to hold the sides together when the cabin was pressurized. **Of course the C-46 was never pressurized.**" Reference Part II.

Mongolians

Which leads to a story: It was told to me either by the brother of my high school buddy or a college classmate. Whichever one told me doesn't matter. They both were radio men in the Burma Road and "Hump" operation during WW II.

The Army Air Corps used to transport Chinese personnel on some trips and did not provide oxygen for the passengers. The passengers were usually quiet because they fell asleep due to lack of oxygen at the flight altitudes.

On one flight the passengers were Mongolians. At altitude the pilot was having trouble keeping trim in pitch. First nose up and then nose down. One of the crew was dispatched to see if there was anything wrong in the passenger area. There the Mongolians were running up and

THE LEADING EDGE

down the fuselage, flapping their arms trying to keep warm. (They must have had some lung capacity!)

Easily Overloaded

One of the problems with the C-46 was the potential of being easily overloaded. With the cavernous fuselage and at a military overload gross weight of 50,675 pounds, full fuel tanks (1400 gallons, 8400 pounds), there was only 12,790 pounds of cargo permitted.

A full upper cargo compartment (2300 cubic feet) would require cargo density to be only 5.56 pounds/cubic foot (balsa wood is about 9 pounds/cubic foot). That meant if the cargo was lumber, the upper segment could be only 1/8 full (284 cubic feet) based on volume. Think of how empty it would look if it were loaded with steel parts (31 cubic feet, 8 x 2 x 2 feet). (The C-47 could be overloaded too. A good friend of mine told me so. "And another story")

On a sea level standard day, if one 2000 hp engine failed on takeoff, I calculate rate of climb to be only about 400 feet per minute on sea level standard day. Takeoff on a hot summer day in St. Louis will decrease that value. Engine failure on takeoff happened to many unscheduled air carriers right after WW II and during the Korean "Police Action." I remember one at Lambert Field when I lived in the St. Louis area.

And now, I have written a partial autobiography around experiences with the Curtiss C-46 Commando. Has a particular aircraft been entwined in your life?

- **Lee H. Erb** (aka Erb the Elder)
EAA Chapter 1000 Det. 5, Arlington, TX

Recent Bearhawk Progress (and gratuitous space filler)



Interior fabric in place and Poly-Brushed. Interior fabric was much more complicated than the exterior because of all of the tubes that must be worked around



Belly fabric in place



"Bearhawk Wedding Dress" pseudo-envelope clamped in place prior to cementing in place



The reason that some sewing is required—the fuselage to vertical fin transition. Turned out surprisingly well.





The first 30 inches of the top fabric is rib laced to the structure to prevent excessive ballooning in flight



Positioning the gascolator blister attachment ring



Overall view of exterior fabric

So is it time to schedule the first flight? Not even close. There's still finishing tapes, covering the gear legs and tail feathers, spraying and painting. Then there's the instrument panel, finishing the engine installation, and all of the other unknown issues that will invariably crop up....



Tail access attachment rings in place



Project Police Aircraft Spotters Quiz

Last month, **Evil Editor Zurg** produced this oddball aircraft for your identification. To review, here are the pictures you were provided:



Only Lathan Collins III was brave enough to take on **Zurg** this month with his correct response of:

"The aircraft is a MiG 105-11 Spiral EPOS (Experimental Passenger Orbital Aircraft) of the late 1960s. It had a rocket and turbojet engine and carried out several test flights (including airdrop). It was overcome by the plans for the Buran space shuttle."

<http://www.astronautix.com/craft/mig10511.htm>

Web Site Update

As of 7 May 2006, the hit counter stood at **107198**, for a hit rate of about 25 hits/day for the last month.



Just a reminder that the EAA Chapter 1000 Web Site is hosted courtesy of Quantum Networking Solutions, Inc.

You can find out more about Qnet at <http://www.qnet.com> or at 661-538-2028.

Chapter 1000 Calendar

May 9: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

May 10-12: **Collings Foundation B-17, B-24, and B-25** at General William J. Fox Field, Lancaster, CA. (661) 947-2647

May 13: Fifteenth Annual Scotty Horowitz Going Away Fly-In, Rosamond Skypark (L00), Rosamond CA. (661) 256-3806

May 16: NO EAA Chapter 1000 Monthly Meeting, go to Fly-In instead

Jun 6: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jun 13: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Jun 20: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jul 4(?): EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jul 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Jul 18: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jul 4(?): EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jul 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Jul 18: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jul 24-30 EAA Airventure, Oshkosh WI

To join Chapter 1000, send your name, address, EAA number, and \$20 dues to: EAA Chapter 1000, Doug Dodson, 4431 Knox Ave, Rosamond CA 93560-6428. Membership in National EAA (\$40, 1-800-843-3612) is required.

Contact our officers by e-mail:

President/Flight Advisor Gary Aldrich: gary.aldrich@pobox.com

Vice President George Gennuso: pulsar1@sbcglobal.net

Secretary Kent Troxel: kenttroxel@sbcglobal.net

Treasurer Doug Dodson: dodsond@qnet.com

Technical Counselors: Gary Sobek GASobek@Comcast.net

Ron Wilcox aviator@verizon.net Bill Irvine wgirvine@yahoo.com

EAA Chapter 1000 Technical Assistants

<i>Composite Construction</i>		
Doug Dodson	dodsond@qnet.com	661-256-7276
George Gennuso	pulsar1@sbcglobal.net	661-265-0333
Brian Martinez	brianmmartinez@cs.com	661-943-5379
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
<i>Wood Construction</i>		
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
<i>Aluminum Sheet Metal Construction</i>		
Bill Irvine	wgirvine@yahoo.com	661-948-9310
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
Russ Erb	erbman@pobox.com	661-256-3806
<i>Welding/Welded Steel Tube Construction</i>		
Russ Erb	erbman@pobox.com	661-256-3806
<i>Engine Installation</i>		
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
Doug Dodson	dodsond@qnet.com	661-256-7276
<i>Electrical Systems</i>		
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
<i>Instrumentation and avionics requirements for VFR/IFR</i>		
Gary Aldrich	gary.aldrich@pobox.com	661-609-0942

Inputs for the newsletter or any comments can be sent to Russ Erb, 661-256-3806, by e-mail to erbman@pobox.com

From the **Project Police** legal section: As you probably suspected, contents of *The Leading Edge* are the viewpoints of the authors. No claim is made and no liability is assumed, expressed or implied as to the technical accuracy or safety of the material presented. The viewpoints expressed are not necessarily those of Chapter 1000 or the Experimental Aircraft Association. **Project Police** reports are printed as they are received, with no attempt made to determine if they contain the minimum daily allowance of truth. So there!

THE LEADING EDGE

MUROC EAA CHAPTER 1000 NEWSLETTER

C/O Russ Erb

3435 Desert Cloud Ave

Rosamond CA 93560-7692

<http://www.eaa1000.av.org>

ADDRESS CORRECTION REQUESTED

THIS MONTH'S HIGHLIGHTS:

15th HOROWITZ FLY IN 13 MAY 2006 @ L00

REPORT ON ALUMINUM OVERCAST

FLYING THE MIGHTY BUFF

MORE ON THE C-46



The Leader In Recreational Aviation