

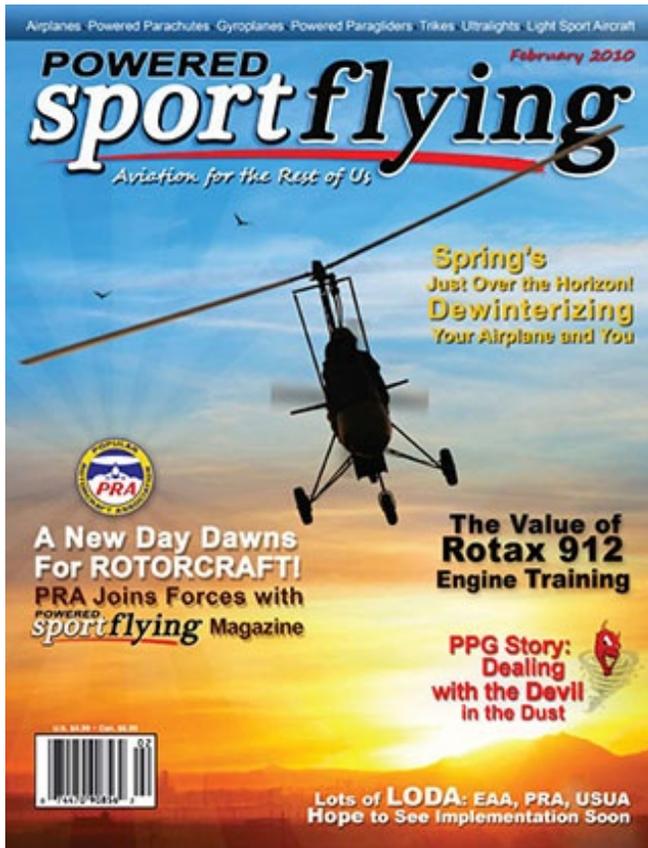
URA



Utah Rotorcraft Association

March 2010

NEW PRA Magazine Debuts This Month



Among the fruits of PRA's February leadership change (see *Regional Report*, page 2) already evident is a decision on the status of Rotorcraft Magazine. It will fold up shop effective immediately, and PRA will now be represented in one-third of the content in a new magazine called Powered Sport Aviation, formerly UltraFlight Magazine, edited by Roy Beisswenger of Greenville, IL. The discussion to pool content began in early December, and was reportedly driven by the parallel plight of PRA and UltraFlight's

In This Issue...PRA Regional Report (2), Robinson's new R-66 turbine (5), Sport Copter/Lycoming Enters Flight Test (6), Webinars Wind Down (4), ROTR Update (3), February Minutes (7), Doug's Thoughts (8), Next Meeting (2)

existing stakeholders, US Ultralight Association and the US Powered Paragliding Association - declining membership numbers and difficulty eliciting content.

In its new form, Powered Sport Aviation will feature sections for each organization. According to PRA Director Tom Milton, the sections will be presented as discreet "magazines within a binder," and the three organizations will alternate getting the binder's cover art. PRA members will now get a magazine monthly for the first time in years, (instead of bi-monthly,) get what amounts to a free subscription to what used to be UltraFlight, and PRA's content will be seen by members of the other two organizations. Roy acknowledges the long heritage of Rotorcraft Magazine, and is promoting it to his existing readers as an asset. The first issue will be out within days.

There appears to be awareness that this new arrangement will raise the bar on content, and require greater input and participation from the experimental rotorcraft community. Our hobby will become more conspicuous among enthusiasts of other light sport machines, which may represent an opportunity if we present our sport in its best light. UltraFlight reportedly has a circulation of about 5,000, more than triple the number of readers reached by Rotorcraft Magazine.

The financial impact on PRA will be dramatic. The organization has been spending over \$43 of every member's \$50 annual dues to cover magazine expenses, leaving little or nothing for advocacy and promotional efforts. Under the new arrangement, the number of issues delivered to members will double, while the annual cost to PRA's budget will fall nearly in half to \$22 per member, per year.

In a post on the Rotary Wing Forum, New PRA President Scott Lewis promises, "All kinds of NEW PRA information sources will be available in the coming weeks and months..." One already here is a new, separate website dedicated to PRA's international convention in Mentone, IN. It's still under construction at www.praconvention.com.

PRA Regional Report

NW/Mtn Regional Rep Paul Plack

I'm pleased to report that the PRA Regional Representative program is moving. Those of us nominated to run unopposed in our regions, not requiring a subsequent election, were green-lighted to start work in correspondence from PRA Chapter Coordinator Dave Bacon on February 17. I'll serve as a liaison between the board and chapters here in the NW/Mountain Region. Jon Carleton of Taylorsville, GA is representing the Southern Region, (KY, TN, NC, SC, MS, AL, GA and FL,) and Jeff Jones of Santa Anna, CA the Western Region (CA, NV and AZ.)

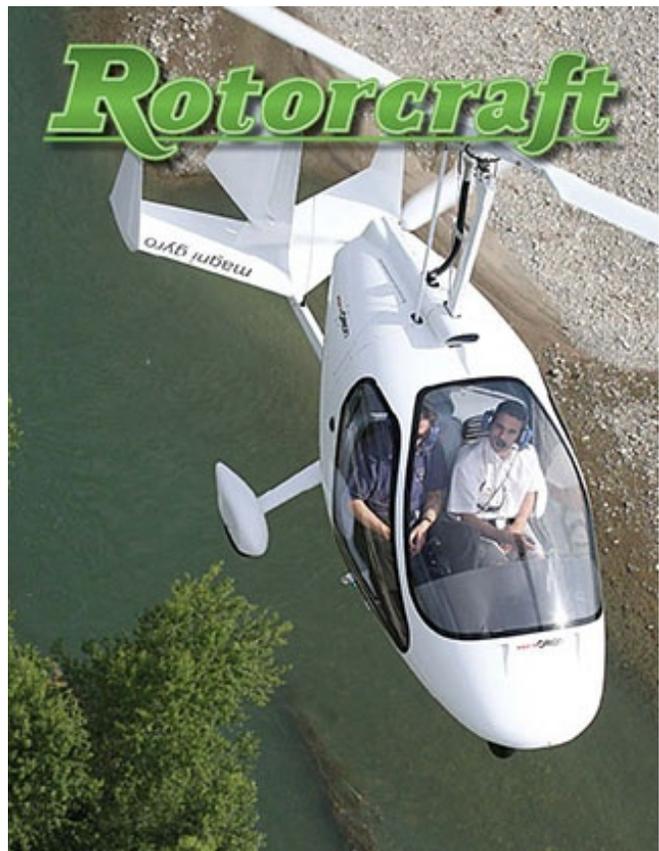
It is hoped other regions will select reps once they see the program starting without them. For now, we'll have the ear of the PRA board in a unique way. If you have any thoughts on how PRA and its local chapters could better work together to grow and improve the sport, please let me know anytime a thought strikes you, at secretary@utahrotorcraft.org.

Major changes are afoot at the Popular Rotorcraft Association. In the most rapid political movement insiders can remember, PRA's directors accepted the resignation of President Rick Marshall, handing off the gavel to VP Tim O'Connor. Within the next few days, the board voted to change the bylaws to remove the requirement for three years' tenure on the board to be eligible for president, and elected Scott Lewis to the post on February 9.

Scott is the president of the Sunstate Wing & Rotor Club (PRA26) which hosts Bensen Days each year in Florida. He's credited with leadership which brought that event back to prominence and good attendance in the past few years, and was reportedly deemed the kind of personality needed to move PRA forward. While the haste with which the bylaws were changed and Scott elected has ruffled a few feathers, reaction to the change in leadership has been very positive.

Scott has moved quickly to fold Rotorcraft Magazine as a separate entity, ending a huge drain on the organization's resources, and join forces with two other light aircraft groups in Powered Sport Flying Magazine. (See page 1.) In turn, PSF is expanding to 48 pages effective with the next edition, which will be out this month.

This change brings both benefits and risks. The benefits will be exposure of our sport to a large pool of likely converts – ultralight and PPC enthusiasts who are grounded by even moderate winds. The challenge will be providing enough good content to keep the Rotorcraft portion of the new magazine vibrant. Find my audio interview with PSF Editor Roy Beisswenger in two parts, dated February 18 & 19, in the archives at www.aero-news.net.



Above: PRA's segment of the new combined Powered Sport Flying Magazine will feature this aerial photo of a Magni M24 gyroplane. Each of the magazine's three sections will feature its own "sub-cover" art.

Next Meeting – Join us at 10am on Saturday, March 13 in the second-floor classroom at Airgyro Aviation, Hangar 75 at the Spanish Fork / Springville Airport, or online. We expect to have an update on gyroplane and helicopter traffic patterns at Brigham City for ROTR. Then, stay with us at 11am for the last in this year's URA Winter Webinar Series, in which Stan Foster will show us his beautiful Helicycle build.



ROTR 2010 Update

Airport Developments - Curt Pittman's new hangar at Brigham City Airport (KBMC) is complete now, and ready for its role as the "remote clubhouse" for URA during Rotors Over The Rockies 2010. A relatively up-to-date (2009) aerial photo of the airport has been provided by the city for our use in planning the event, as presented during our February meeting.

Airport Board Meeting - Doug and Paul represented URA at the February 3 meeting of the airport board, and in answering some questions of board members, it became clear that Saturday, June 12 will provide unexpected opportunities to introduce members of the general public to the excitement of small rotorcraft. It turns out that in addition to an airport open house, tentatively planned for 10am to 2pm on the 12th, that Saturday is also the date of the downtown Brigham City Heritage Arts Festival.

From the City's Website - "Held annually on the 2nd Saturday in June on the Bill of Rights Plaza the community enjoys the artisans on the plaza ranging from basketweaving to broommaking, quilt shows, a car show held on historic downtown main street and entertainment that ranges from taiko drumming to great bands! The community can be found bringing lawn chairs and sitting under the wonderful shade of the chestnut tree throughout the day's festivities."



There is official guidance to provide us with a starting point. The FAA offers the following guidance on rotorcraft patterns in Advisory Circular 90-66:

9. OTHER TRAFFIC PATTERNS - Airport operators routinely establish local procedures for the operation of gliders, parachutists, lighter than air aircraft, helicopters, and ultralight vehicles. Appendices 2 and 3 illustrate these operations as they relate to recommended standard traffic patterns.

A. Rotorcraft

(1) In the case of a helicopter approaching to land, the pilot must avoid the flow of fixed-wing aircraft and land on a marked helipad or suitable clear area. Pilots should be aware that at some airports, the only suitable landing area is the runway.

(2) All pilots should be aware that rotorcraft may fly slower and approach at steeper angles than airplanes. Air taxi is the preferred method for helicopter ground movements which enables the pilot to proceed at an optimum airspeed, minimize downwash effect, and conserve fuel. However, flight over aircraft, vehicles, and personnel should be avoided.

(3) In the case of a gyrocopter approaching to land, the pilot should avoid the flow of fixed-wing aircraft until turning final for the active runway.

(4) A helicopter operating in the traffic pattern may fly a pattern similar to the airplane pattern at a lower altitude (500 AGL) and closer to the airport. This pattern may be on the opposite side of the runway with turns in the opposite direction if local policy permits.

(5) Both classes of rotorcraft can be expected to practice power-off landing (autorotation) which will involve a very steep angle of approach and high rate of descent (1,500-2,000 feet/minute).

BRIGHAM CITY (BMC) 3 NW UTC-7(-6DT) N41°33.14' W112°03.73' SALT LAKE CITY H-30, L-110 IAP

4229 B S4 FUEL 100LL, JET A NOTAM FILE CDC

RWY 16-34: H7501X100 (ASPH) S-30 MIRL

RWY 16: REIL, PAPI(P2L)—GA 3.0' TCH 45'

RWY 34: REIL, PAPI(P2L)—GA 3.0' TCH 45'

AIRPORT REMARKS: Attended Mon-Sat 1500-0100Z. Self svc 100LL avbl 24 hrs with credit card. Birds inof apch end of Rwy 16. Mid rwy dep not authorized from Rwy 16 or Rwy 34. ACTIVATE MIRL Rwy 16-34, REIL Rwy 16 and Rwy 34, and PAPI Rwy 16 and Rwy 34—CTAF.

WEATHER DATA SOURCES: AWOS-3 135.075 (435) 723-3852.

COMMUNICATIONS: CTAF/UNICOM 123.05

① SALT LAKE CITY APPROX COM 121.1 CLNC DEL 126.0 OTS indef.

RADIO AIDS TO NAVIGATION: NOTAM FILE CDC.

(L) VOR/DME 112.9 LHO Chan 76 N41°47.57' W112°00.59' 175° 14.6 NM to fld. 5358/14E.

VOR portion unusable:

- 010°-045° byd 20 NM bto 15,000'
- 045°-070° byd 20 NM bto 16,000'
- 070°-110° byd 20 NM bto 15,000'
- 110°-155° byd 15 NM bto 12,000'
- 155°-215° byd 15 NM bto 15,000'
- 155°-215° byd 20 NM
- 305°-320° byd 20 NM bto 15,000'

DME portion unusable:

- 010°-045° byd 20 NM bto 15,000'
- 045°-070° byd 20 NM bto 16,000'
- 070°-125° byd 20 NM bto 15,000'

NDB (MHW) 294 BMC N41°30.95' W112°04.69' 002° 2.3 NM to fld. Unusable 340°-150° byd 10 NM.

KBMC Traffic Pattern - Airport board members expressed a concern that in the past, when helicopters have operated at KBMC, they have used a wide variety of approaches, and taxied directly across runways and taxiways in a manner that created a risk of incursions with fixed-wing traffic using the standard patterns and procedures. Given the number of machines and pedestrians expected June 12, the airport board decided to make board member Fred Kluss our liason in devising a specific set of instructions for use during our meet, to be developed with the assistance and input of the helicopter schools which will be operating at the airport with us.

The FAA's Airport Facilities Directory has official, published pattern instructions for fixed-wing traffic at KBMC, calling for left patterns whether using runway 16 or runway 34. The only other remarks of note in the AFD warn of birds in the vicinity of the approach end of runway 16, and advisories for instrument pilots detailing the areas in which the VOR and DME are unusable to the the proximity to sharply rising terrain to the east of the airport.

URA officers will represent us at all remaining airport board meetings between now and the event, and the board has agreed to make room for us on its monthly agendas to permit discussion of these issues. We should have final details in the April newsletter.

Webinars Wind Down

February was a busy month for webinars, with four unique presentations in seven sessions. Jay Carter's February 13 presentation was remarkable in its breadth, as Jay discussed all his technological pursuits since the mid-60s, including his steam car, ducted-fan gyro and wind turbine projects.



CFI Mike Burton kicked off our Tuesday night series on the 9th with tips for choosing the right path to a pilot's certificate based on your circumstances and goals, and Greg Gremminger followed up on the 16th and 23rd with a two-parter on gyroplane stability. These are all archived at www.utahrotorcraft.org.

Our final webinar in this series will follow the 10am March 13 meeting. PRA Director & Secretary Stan Foster is near completion on a Helicycle build, and plans to share both still photos and a live webcam, with lots of time for Q-&A.



An informal survey of participants in our first try at webinars suggests the ability to receive audio through the computer speakers, instead of over a long-distance phone connection, would be an improvement. We have access to such a platform, and while it offers fewer virtual "seats," we have yet to exceed it in our meetings or webinars. So, for the March meeting and webinar, we'll try it.

The Dimdim platform allows a simplified setup at our meeting place, easier incorporation of webcams, a built-in chat function which allows asking questions without using the phones, access to a conferencing system for those who do want to use the phone, and a 20-seat room is available on a free account. If this system works well, it will allow us to put all our monthly meetings online, provided we meet in a location with fast internet connection. Instructions will be distributed by e-mail in advance of March 13.

Winter Flying Photos

We think of winter as a time to stay indoors or travel by car, but if you're committed enough, experimental rotorcraft can be a year-round pursuit. Tim O'Connor of Cincinnati, OH took this photo on a five-hour cross-country flight on New Years Day, 2009. Tim's based at Clermont County Airport.



But the photo at right is hard to beat as an example of dedicated winter flying. Randy Workman, president of the Cincinnati Rotorcraft Association (PRA40), plowed the snow off his grass strip, and flew his Bensen!

Of course, everyone reacts to winter differently, especially in a year when some states are getting hammered with record snowfall. Peggi Johnson of Bettendorf, Iowa is obviously not a big fan of the season. She posted the picture below on her Facebook page.



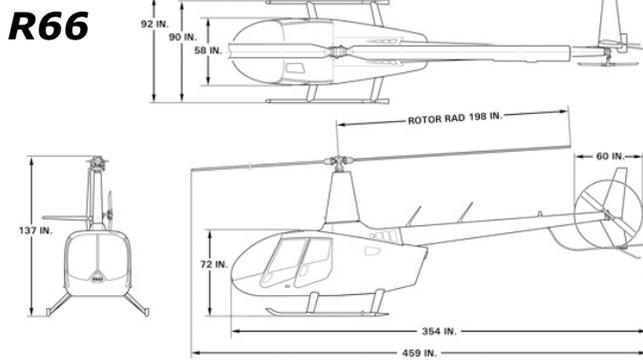
We're pretty much done with the worst of winter now, though late-season storms have historically made for some unwelcome surprises in our region. Still, a look on the calendar reveals we're only about two weeks away from the official start of Spring. Let's focus our thoughts on ROTR 2010, which is only three months away. Time will fly!

Industry News

R66 Pricing Announced - Frank Robinson has broken the monopoly of millionaires on turbine helicopter ownership. The company is taking orders for the highly-anticipated R66, five-seat turbine, at a remarkable US\$ 770,000.

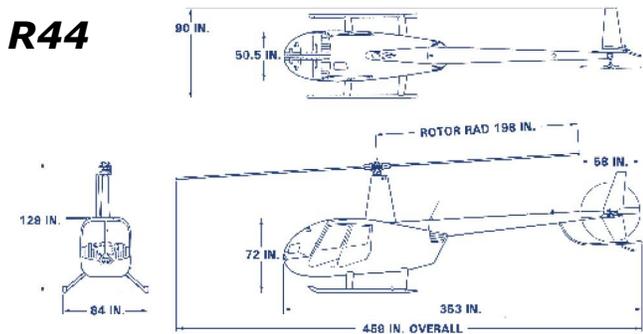


As can be seen below, the new ship is only an inch longer than the four-place, piston R44, and only 2" wider at the skids. Cabin heights are identical at 72" from top to ground, the rotors are identical in length at 33 feet, and the R66 tail rotor is 2" larger in diameter. In overall height, the R66 gains 9" to stand 137" tall to the top of the rotorhead, and cabin width gains 7.5" to 58" to accommodate the fifth seat.



DIMENSIONS

Apply to both Raven II and Raven I



Except for the third seat in the back row, (*above*), the R66 will look very familiar to the R44, including the T-bar cyclic (*below*.) That familiarity, along with the low cost and extensive dealer network, will no doubt make the R66 a no-brainer for flight schools looking for a turbine trainer.



In projections which Robinson disclaims as subject to revision, the R66 betters the R44 Raven II's allowable total weight for passengers and baggage with full fuel by 221 pounds, 927 to 706, and that's with 73.6 gallons of Jet-A (493 pounds) on board, to the R44 Raven II's total of 48.9 gallons (294 pounds) of avgas in its standard and aux tanks. All that extra fuel onboard means the thirstier turbine still has a range of 325 nm, close to the 44's 350 (without reserve.) The R66 beats the R44's cruise speed by three knots, at 120, and high hover is no contest - 8,950'/7,500' in/out of ground effect for the piston R44, both above 10,000 feet with the turbine.

(Industry News continues on page 6.)

The URA Monthly Newsletter welcomes your submissions, both articles and photos. Share your build progress, photos and stories of memorable flights or rotorcraft events, technical expertise and more with fellow members! Submit materials and any questions to: secretary@utahrotorcraft.org.

Industry News *(from page 5)*



SCII/Lyc in Flight Test - The second Sport Copter II test aircraft, (*above*), the first to feature the new Lycon IO360 powerplant, has received its airworthiness certificate and is undergoing flight testing at Sport Copter in Scappoose, OR. Jim Vanek explains that the change from the water-cooled, 2.5L Subaru auto conversion to the air-cooled, 5.9L, Lycoming-based engine was driven by both perceived and real shortcomings in the original prototype.

Reaction to the original, Ferrari-red, Subaru-powered prototype (*at top, right*) at EAA AirVenture 2007 made it clear that most passersby interested in an aircraft in this price class were not interested in an auto engine conversion. Worse, the stigma proved justified. Jim says the vendor's claimed 190 horsepower was a significant overstatement, and the geared reduction drive has proven unreliable.



The Lycon IO360, by comparison, makes a reliable 220 HP on the dynamometer, and installed weight is less than the Subaru. (This is a modified Lycoming design, legal for use only in experimental aircraft.)

Unfortunately, the change required new molds for a longer engine cowl, and a complete rethinking of the cooling scheme for the air-cooled engine.



Above - Side-by-side photos of the Lycon-powered SCII, left, and the original Subaru-powered prototype, right, show the longer cowl which was required for the bigger Lycon engine. Despite more than doubling displacement, the Lycon is lighter.



These factory photos show a clear view of the luggage space behind each seat. A similar space exists under each seat. Golf clubs, no...but a couple of briefcases and gym bags are certainly doable.

Jim says the cabin design of this machine was not so much about luggage space as it was about the panel space, electrical capacity and payload to allow equipment for special missions, including FLIR imaging. The panel includes a standard aircraft "radio rack" and space for a variety of avionics options.



Watch for more details as flight testing continues.

February Minutes

The February 13 meeting was called to order in the classroom at Airgyro Aviation at 10:10am MST by President Doug Barker. In attendance were six members locally, and two participating via the internet, Jake Jones of Casper, WY and Lyle Carson of Pocatello, ID. Among the new members in attendance was Douglas Dick of Riverton, UT. Introductions were exchanged.

The minutes of the January meeting were approved as published in the newsletter. Treasurer Nate Oldham was not present, but had forwarded a report showing a total of \$625.01 in our three accounts. The report was accepted as read.

Under Member Updates, Lyle detailed some of the issues he's faced in getting his used Air Command gyro airworthy, and Doug B. showed us photos of his progress on his Butterfly Super Sky Cycle. Doug D. mentioned he has had parts for a Monte Hoskins drop-keel gyroplane in storage since the early 90s, and is seeking any information other members may have on the machine. Doug B. reports that URA VP Curt Pittman was unable to attend the meeting due to the need to prepare the concrete floor of his new hangar at Brigham City Airport for the application of an epoxy floor finish on Monday (2/15.)

New member applications formally approved included Douglas B. Dick of Riverton, UT; Curtis Stout of Lancaster, CA; and Ron England of Cottonwood Heights, UT. Members now total 32, in nine states.

Doug B. reported that URA requests to the Brigham City Airport board for provision of items such as portable toilets and barricades for Rotors Over The Rockies were accepted, although the city needs to inventory items available. Activities at ROTR will include instructional forums, a Saturday morning fly-in pancake breakfast, Saturday evening closing awards banquet, and the availability of a group tour of Hill AFB. Volunteers and committee chairmen are still needed. Copies of an updated (2009) aerial photo of the airport were available to members at the meeting.

Paul announced that PRA has elected a new President, Scott Lewis, the PRA26 chapter president. PRA has decided to stop publishing its own magazine, Rotorcraft, and instead join with the US Ultralight Association and US Powered Paraglider Association in a common magazine, Powered Sport Aviation, an outgrowth of UltraFlight. The next issue received by PRA members will be the new format. Doug B. urged all present to be PRA members.

Doug B. apologized for the inadvertent use of a slightly-oversized mailing envelope for the February newsletter, which resulted in a few members having

their copies arrive postage due. The problem will be corrected next month.

The meeting was adjourned at about 10:52am to prepare for a webinar presentation by Jay Carter, Jr.

Gyroplane Honeymoon?

URA charter member Heath Lowry and his bride, Laurie, have been posting honeymoon photos on the Rotary Wing Forum. Among their stops was at Larry Neal's shop in Carter, Oklahoma.



They both got into flights in Larry's tandem, and Heath commented, "The Golden is a very large, but yet stable and nimble aircraft. This was our first experience in an open cockpit aircraft. With windchill it was near 0! Yet it was still a delight to get back up into the air and experience this great aircraft."



They also visited the remote four corners monument, maintained by the Navajo. You can stand in one spot and by touching Utah, Colorado, Arizona and New Mexico at the same time.



AZ Fly-In Finalized

The Arizona Rotorcraft Association (PRA15) will host its first San Manuel Fly-In Saturday and Sunday, April 17 & 18, at the San Manuel Airport (E77), 35 nautical miles northeast of Tucson International Airport, and 2 miles Northwest of San Manuel, AZ.

Camping, (but not hook-ups,) rest rooms and water are available on the field. A hot dog & apple pie cookout is planned for Saturday night, and attendees are encouraged to bring both flying aircraft and incomplete projects. For more information and pre-registration, e-mail markroads2585@yahoo.com, or call (520) 840-0186.

Doug's Thoughts

URA Pres. Doug Barker

Well it's the first of March and spring is sneaking up quickly on us. Before we know it, spring will be here and summer will be just a few months away. "Rotors Over the Rockies" is coming quickly so I hope you all have it scheduled off with your work so you will be able to join us.

For those that are looking for a little adventure we are trying to put together a group to head down to Arizona for a weekend (April 17 & 18.) We will make a road trip out of it, camp out while there to keep costs down and we should be able to pull it off while only taking one day off from work (assuming you work Mon – Fri.) If we get several to go and split gas costs we should be able to do it quite economically, so if you have an adventurous spirit and want to go participate in some gyro fun, let me know.

I hope you have all taken advantage of the great webinars that we put together over the last couple months. If you didn't get to participate in them when they were happening, it's not too late. They are all hosted on our website so you can go back and watch them when ever you like. Our last one is coming up on the 13th and should be a great show. For those that don't know Stan, you want to get to know him and here is your chance. I hope to see you (or hear you) there.

Rotors Over the Rockies is coming up fast. We have a lot more activities planned for this year and it is going to take a lot of help. We can't pull this off with just a few people helping this year. It is going to take a big effort and we need YOUR help! I have always been impressed with the huge volunteer force that Oshkosh is always able to recruit. People take their vacations and spend it back there year after year just so they can be a part of that great event. We will never be that big or ask that much commitment from any of our volunteers but we hope this turns into such an incredible event that people

will mark it on their calendars and plan on being there every year. We're only talking a couple days off to be there for the whole event, and your help is desperately needed. Please take off what ever time you can spare and plan to be with us. Once you decide what you are going to do, let me know and volunteer to help. We will have staff shirts for all those that help this year and the bottom line is you will get so much more out of it, if you are part of it.

It is going to be magic this year. I hope you will decide to be part of it with us. Together we can make this the best rotorcraft event in the country. See you soon. - Doug

Those Flying Videos!

Sharing your flying experiences by video is now within the budget of anyone with \$300. Shawn Adams, a professional videographer based in Jacksonville, OR, mast-mounted a wide-angle HD camera and took us all for a wild ride on his single-place Air Command gyro. (*Below.*)



Find a link to this video at www.rotaryforum.com by searching "Super Wide Angle Camera."

URA member Dennis Dubois mounted a camcorder to his helmet, and created a 10-minute montage viewable at www.youtube.com by searching "viewmaster landings." (*Below.*) Fly safe!

