



# Utah Rotorcraft Association

February 2010

## February Brings Seven Webinar Sessions

### Your Pilot Test

Care and preparation for  
practical and proficiency tests

**What We Learned** - URA's first online meeting, and the webinar which followed, were a partial success. We had a couple of members with reservations who were unable to login due to a couple of last-minute changes in procedure, a missed checklist item during the last-minute setup rush resulted in compromised recordings, and we discovered the value of a dress rehearsal. The good news is that everything appears to have looked and sounded just fine for the folks on the live feed, we've been able to post archives of both the business meeting and Terry Brandt's presentation on our website, and we can approach the February webinars with confidence of achieving a bug-free experience. (See "Webinars," page 2)



**Tuesday Webinars** - CFI Mike Burton instructs full-time at Airgyro Aviation. Mike has a masters in education from Grand Canyon University, and has worked to develop distance-learning tools for use in flight training.

On February 9, Mike will present a webinar titled, "Choosing the Right Instruction," intended to help prospective students find the most appropriate instruction to prepare them for their specific goals. (See "Webinar Schedule," page 2.)

**ROTR Update** - Members of an ad hoc Rotors Over The Rockies event committee met twice Friday, January 22 to consider issues identified as still unresolved for the event. Much progress was made, and while a number of matters had to be tabled pending further information, some details are taking shape. (See "ROTR Update," page 8.)

**Next Meeting** - Our February 13 meeting will start at 10am MST at Airgyro, and will also be held online using the Glance web meeting platform. Members will be notified well in advance by e-mail of the procedures and meeting codes required to join the online session. As in January, you'll need both a DSL-or-faster internet connection and a computer to view any graphics or photos shared, and a phone to receive and transmit audio. Members joining us on the web will be able to vote on any motions offered, by audio or electronically. (Details to come.) Members who do not have enough internet speed will be invited to participate via phone with audio only.



Then, at 11am MST, we'll be joined by Jay Carter, Jr., for the second of our Saturday webinars. We expect to be joined by quite a number of folks online for this one, so be sure to login on time if you're counting on one of 100 available "virtual seats" at the webinar. (See "Webinar Instructions," page 2.)

## Webinars (from page 1)

Regarding our experimentation, it would be fair to ask why we're re-inventing the wheel here. After all, doesn't corporate America do this every day?

Yes. And they usually use WebEx. We got a quote from WebEx for a 100-seat room for our webinars which would have cost \$445 per month, \$1,335 total, or well in excess of our total 2009 revenues.

Glance.net, the less elaborate service we chose to use, charges \$9.95 per 24-hour period. That means we can put both our meeting and the following webinar online for that price. If we can make this platform work, it might be feasible to put all our meetings online and stay within our means. This would be a significant extension of our mission to build a community for personal rotorcraft enthusiasts across the US Intermountain West.

If you haven't seen the first attempt yet, visit the website, click "Webinars" or "Online Meetings" in the left column, watch one of the presentations, and imagine it with better sound and a little more polish. And plan to join us for Jay Carter on the 13th!



ura.glance.net

## Webinar Instructions

It became clear in January that we will probably not overflow the 100 available seats for most of our planned webinar sessions. To make sure we give this concept an adequate test, we need fuller rooms, so we have decided to open all webinars first to URA members, but then to the general public on a first-come, first-served basis. Here's how it will work:

**(1) URA members should look for an e-mail** about 72 hours before the start of each meeting or webinar, which will include a four-digit "Session Key" required to receive the visual portion of the webinar from [www.ura.glance.net](http://www.ura.glance.net). The e-mail will also include instructions for dialing into the audio portion, which uses an ordinary telephone. You'll need this to hear the presenter and ask questions.

**(2) About an hour before each webinar**, notice will go out to non-members who've requested to be on our list, and a notice will be posted simultaneously on the Rotary Wing Forum, providing the same login and telephone instructions.

**(3) Glance limits attendance to 100**, including any connections used by the presenters, so it will be important to login early if seats are tight. It does not appear so far that we will challenge this capacity this season. To be safe, login in time for the Saturday meetings, since the release of unclaimed seats to the general public will happen just as the meetings start at 10am MST.

## Webinar Schedule

Here are the remaining webinar sessions, and notes about each presenter and his plans for his session.

**Tuesday, February 9** - Mike Burton is the only gyroplane CFI currently instructing full-time in the western US. Based at Airgyro Aviation, located at the Spanish Fork/Springville Airport in Utah, Mike is a Nebraska native has also lived in Oregon and Alaska. Mike has a masters degree in education from Grand Canyon University, and is also an alumnus of Brigham Young University and Utah Valley University. His work in developing distance-learning tools for gyroplane students is one of the inspirations for URA's test of webinar technology.

Mike will present a session titled, "Choosing the Right Instruction," intended to help prospective students find the most appropriate instruction to prepare them for their specific goals. (6pm & 8pm MST)

### Session 2:

#### Gyroplane Stability BASICS

##### Primary Stability Issues:

- **Buntover or "PPO" (Power Pushover)**
- **PIO (Pilot Induced Oscillations)**
- **Divergent Dive**

**Tuesdays, February 16 & 23** - Greg Gremminger is chairman of the ASTM Subcommittee for Rotor Wing Light Sport Aircraft, led development of gyroplane stability standards for LSA, and has advised manufacturers in the preparation of petitions for E-LSA approval for gyroplanes. (*Continued next page.*)

## **Webinar Schedule** *(from page 2)*

Greg has served as the PRA's voice before the FAA, and is the official US importer for the Magni line of gyroplanes from Italy.

Greg will present a two-part series on how to determine a gyroplane's safe flight envelope through flight testing, and how changes to a gyroplane's design can be employed to expand that envelope.

There are currently two sessions planned for each Tuesday night webinar, one at 6pm MST (8pm EST) for the Eastern and Central time zones, and another at 8pm MST, for those of us in Mountain and Pacific zones. All sessions will start with a formal PowerPoint presentation, followed by live Q-&A sessions for all in attendance. Anyone in any time zone is free to attend either session each night.



### **Saturday, February 13 -**

Jay Carter, Jr., a private pilot since 1967, is founder, CEO and Principal Designer of CarterCopters, LLC. He attended Texas Tech University and graduated with a BS in Mechanical Engineering, and did graduate work in Aeronautical Engineering. He designed and built two autogyros with guidance from his father while attending college.

Jay worked at Bell Helicopters as a Research and Development Design Engineer for more than two years, where he contributed to the design of the V-15 tilting prop rotor. In 1970, he founded Jay Carter Enterprises with his father and developed a steam powered automobile, the first car in the world to meet the original 1976 EPA emission level standards. The car could make a cold start in 30 seconds, travel at more than 80 MPH, and was featured on the front cover of several magazines, including Popular Science.

In 1976, Jay founded Carter Wind Systems, and spent the next 17 years as President and Principal Designer. By 1983, the company had grown to over \$7 million in sales with more than 100 employees. The company installed wind turbines throughout the US and worldwide. His ability to develop and market a very lightweight and cost effective wind turbine enabled the company to survive the industry decline in the mid-1980s and to emerge as one of the only two US wind turbine manufacturers still in existence by 1988.

In 1994, he founded CarterCopters, LLC and began the formal development of the company's innovative fourth generation rotorcraft that combines the best characteristics of helicopters and fixed wing aircraft.



Jay's webinar on February 13 is titled, "Carter's Unique Aviation Technologies," and will offer a look into the specifics of the company's rotors, propellers and landing gear. Jay will use almost 50 slides to illustrate the unique construction and performance of these technologies, and answer participant questions afterward. URA members attending our 10am MST regular meeting should remain logged in for the webinar starting at 11am.

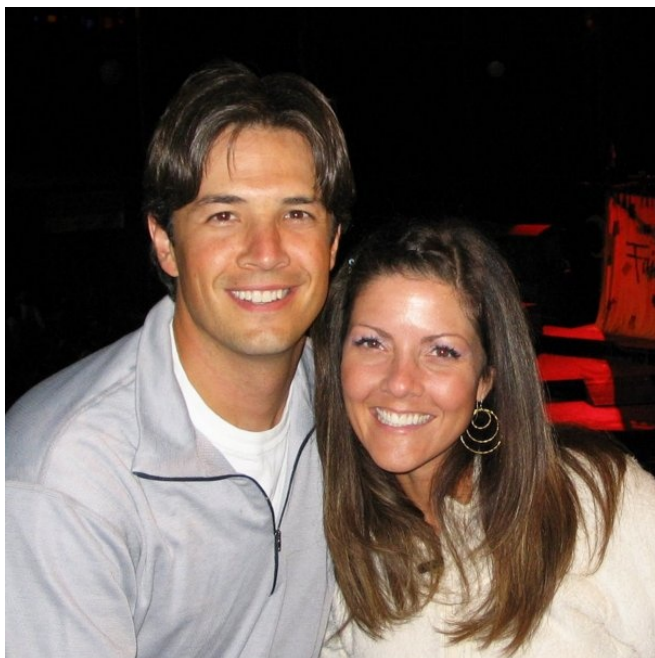


**Saturday, March 13** – Stan Foster is secretary of the Popular Rotorcraft Association, and has owned a series of gyroplanes, the last a SparrowHawk which he sold in 2008. His current aircraft project is a single-seat Helicycle turbine helicopter. In his webinar session, Stan will share an online version of his builder's log with photos, and answer questions about some of the unique mods he's made to the original kit. Q-&A will follow. URA members attending our 10am MST regular meeting should remain logged in for the webinar starting at 11am.



**Website Changes** - The underused library sections called, "For Builders," "For Pilots" and "For Students" have been removed temporarily from the navigation bar at the left side of the home page. They'll return at such time as we have content for them. The Photo/Video gallery is not yet active, but is expected to have content soon. Three new navigation options include "Web Meetings," where you'll find recordings of our online meetings; "Webinars," where you'll find archives of the URA Winter Webinar Series, and "Guide to ROTR," which will fill with information on our upcoming event as it develops.

**New Members** - Our newest members are Ronald England of Cottonwood Heights, UT, and Curtis Stout of Lancaster, CA. Both submitted membership applications through our website. We now have 31 members in nine states. Welcome, guys!



**Congratulations!** - URA Treasurer Nate Oldham will be unable to attend our February membership meeting due to a conflict with his wedding! Nate, awesome excuse. All the best to you and Joanna!

**PRA Regional Rep Update** - The PRA's Regional Representative Program, launched at Mentone back in August and announced officially in the September/October edition of Rotorcraft magazine, appears stalled. Nominations came forth in only three of the PRA's eight US regions, and at least one of those will be a contested race. The PRA's website, [www.pra.org](http://www.pra.org), does not yet have the online voting provision described in the announcement. We'll have more details when available. The main duty of the Regional Representative is to be a two-way conduit between the PRA board and chapters in the region. When the program gets underway, look for a monthly "Regional Page" in this newsletter.

**Industry News** - The Helicopter Association International's Heli-Expo 2010 will be held this year at the George R. Brown Convention Center in Houston, TX, Saturday-Tuesday, February 20-23. The first day features HAI's Safety Symposium in the morning and a welcome reception in the evening, but the middle of the day is typically filled with press briefings and new product announcements. The exhibit floor opens Sunday morning, and will feature products ranging from complete helicopters to specialized components. URA Secretary Paul Plack has been assigned to cover the event for Aero News Network and Aero TV, and promises to bring back a report with pictures for our March meeting.

## ***What's Next? (Doug's Thoughts)*** ***URA President Doug Barker***

This month I would like to elaborate a little more on a couple of the items listed in last month's article. While you already know what you need to do I hope to give you a better understanding of why you should or exactly how you can take some of those steps. For many people wanting to get into flying Rotary Winged aircraft, it can seem like such a major commitment and taking that first step seems so intimidating that it just never really gets started. If you really understood how easy it is to get started and that it's OK to take little steps until you are ready to run, many more people would begin that journey.

**Join local or national organizations.** While to a large degree, I am preaching to the choir with this one, there are some you out there that may be reading this article that haven't yet made the commitment to actually join the URA or the PRA. Because we want to help you and support you at whatever level you are at, we have elected to make this newsletter available (at least an electronic version that covers some of the same information) to anyone that declares an interest, even if they aren't serious enough to become a member and start paying dues to our organization. We want to support you and help in any way we can, but I have to be honest here. If you are not serious enough about your dream of flight to join the only organization in thousands of square miles around you, that can help you to reach your goal, you probably really don't want it enough for it ever to really happen. Let's face it, flying is an expensive sport and while you don't have to be rich to participate, you do have to be willing to commit some of your discretionary funds to the pursuit or you are just kidding yourself about really wanting it. (enough said)

**Attend regional and national events.** This is what I really want to talk about this month. We are currently at the beginning of a new year. It's time to plan how you want to spend the discretionary time you have available for the coming year. I'm a big believer in trying to live a balanced life. (*Cont, p. 5*)

## ***What's Next?*** (from page 4)

While there are many different aspects to finding balance in your life, one of those aspects is how you choose to spend your time, I would never presume to tell you how you should spend your time or how much of your valuable time you should allocate to any one of your priorities in life. But from personal experience I can tell you that every one of us, spend every minute of time we have. Time marches on, regardless of how we choose to spend it. It doesn't matter if we waste time doing less productive things or cram our days so full of activities that we barely have a few hours left to sleep, the result is always the same, at the end of the day, it is gone. We either have memories and accomplishments to show for how we spent our time, or time just slips by and we don't have much to show for it.

I suggest that you spend some time setting priorities in your life, and then plan and allocate how much time you feel you can devote to accomplishing those priorities. If we fail to plan our time and simply take care of life as it comes up, there will always be things that come up and consume our time. The years fly by (even faster as you get older) and before you know it, the opportunity for something that was important to you has passed you by. Too many people come to the end of their journey (here in life) with their song still inside of them. We all are capable of accomplishing much more than we do, it is usually simply a matter of motivation. If you haven't seen them yet, I highly recommend watching "The Bucket List" & "Second Hand Lions" (a couple of my favorite movies) They are very good movies to start you thinking about life and what you want to accomplish while you have the chance.

I encourage you to determine how many days of vacation you can allocate to pursuing your dream of flight. If the answer is Zero, that is a good indication that you may want to reconsider a different dream, because this one just isn't cutting it for you. If the answer is (any number of days) then take a look at our upcoming events page on our website and decide where would be the best place to spend the number of days you have available. For most of us the best use of limited time and funds would be to plan to attend our local event "Rotors Over the Rockies" (June 10-12). Some may want to attend some of the regional events because they can be done around a weekend and with only one or two days off work you can pull off a great weekend event. Those with more time and a desire to see as much as possible in their limited time may decide to go to the national PRA convention (Aug. 3-7) in Mentone, IN. Regardless of how much time you decide you have to spend, it is critical that you decide and schedule that time now, or it simply will not happen. Now is the time to decide and to make commitments if you really want it to happen.

For those that plan to attend our local event, make that a commitment. Schedule the time off from work now. Contact a member of the URA board and volunteer for a work assignment. This years event is growing in size and scope and it is going to take a lot more participation from group members to pull it off. We are going to put on a Pancake Breakfast for the Fly In on Sat. morning and have a Banquet and Awards Dinner Saturday Evening so we are going to need cooks and cooks helpers for both of those. We want to expand the number of forum presentations and are looking for people with expertise in a given subject (or the willingness to develop a level of expertise between now and then) so think about what you have to share and offer to present a forum topic. We are going to have a big crowd on Saturday between 10 AM and 2 PM and will need several people to work crowd control as security or ushers. Instead of just showing up on Saturday and catching what you can (without any real cost of time off) make a commitment to be a part of the event, plan on being there on Thurs. & Fri. and I promise you that you will get much more from the event. It always amazes me how we will have people take a week off and travel from as far away as Canada, California, Montana or even the Midwest to come to our event, and yet we have lots of people who live right here, within an hours drive of the event that won't take a day or two off and drive a couple hours to be a part of the fastest growing regional rotorcraft event in the Western United States.

Now is the time, to decide what your future is going to hold. Decide what you want to accomplish, choose some small steps that you can take now that will get you moving in the right direction. Once you have direction and momentum, the rest will work itself out. Let us know how we can help you and how you can help us. I promise you that those that give the most will get the most back in return. Keep the rotor side up!!! - Doug

## ***West Coast Gyro History***

Last Month, we shared a brief overview of the early days of the experimental gyroplane movement in the Pacific Northwest. This month, a gem from the vaults!

Chuck Vanek, who started Vancraft in 1958 in Portland OR, and whose son, Jim, is the president of Sport Copter, offered a rotorblade kit which could be used on Vancraft machines, and also as an interchangeable option for Bensen owners. As a program was being prepared to commemorate Chuck's first flight in 1957, this preserved copy of Chuck's 1962 newsletter came to light. In it, he offers background on how his blades are made, and advertises a rotorblade kit at a price which today sounds unbelievable. Take a look, enjoy the read, and check out these pictures of the gyroplane scene around Portland almost five decades ago!





## AUTOGYRO BLADES for... GYROCOPTERS

### DESIGN AND OPERATION ---

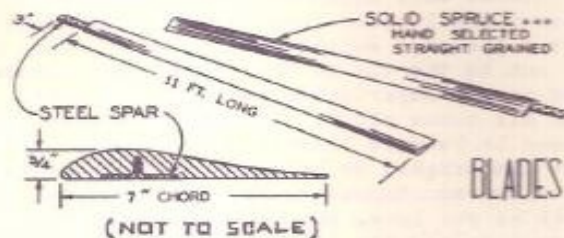
It should be interesting to know that a great deal of knowledge was obtained on the functional behavior of copter blades as we watched an Air Force film in which a movie camera had been mounted on the hub of a helicopter rotor and focused down one blade. When in actual flight, the film revealed the blade flexing like a snake, while the tips were steady. This proved to us that the copter rotor blade material must be able to withstand a considerable amount of flexing---so therefore, it must have that natural quality in it. It was formerly believed that the centrifugal and chordwise balance would be affected, but this proved to be untrue, which made us very happy.



The above picture shows my copter in flight so that the "coning angle" may be studied ---as you can see, it is very good. Trim tabs are always mounted, but seldom need to be adjusted. The gross weight of the copter in the picture is 558 pounds, and flies very nicely. I have a 72 H.P. McCullough engine with a Carlson propeller 45 x 24. Everyone in our copter club is using solid spruce blades and find them superior to other blades.

Sincerely,  
C. A. Vanek

1962



### SPECIFICATIONS ---

All Van Craft Gyro-Copter Blades are 11 feet by 7 inch wide (chord) by 3/4 inch thick (camber) with the proper contour and a smooth finish. When using a 12 inch hub, the rotor diameter is 23 feet. These blades are completely adaptable to the Bensen units. The blade is flat on the bottom so that the home builder may take a skillsaw, or a router, set it at the thickness of the steel spar, and rout out with ease for each spar. The leading edge of the steel spar is placed one inch in from the leading edge of the blade. The weight of each blade is 7 pounds (without steel spar) and 12 pounds (with steel spar). The steel spars are drilled for upper retention straps and nose weights. The builder should see to it that every blade is fiber glassed with any weight cloth he chooses as an added safety factor. Also remember, "glass smooth" finish is the secret to good lift and high cruising speed.



The above picture shows the normal droop of a set of rotor blades when 40 ounce nose weights have been added.

**January Meeting Minutes** - The meeting was called to order at 10:15am MST by President Doug Barker in the second-floor conference room at DTI in Springville UT, and online through Glance.net. A total of six members and no guests were present in the room, with guest Robert Kluttz of Salisbury NC joining us online. Robert left once he confirmed he had logged in successfully, saying he would return for the webinar scheduled for 11am MST.

The minutes of the last business meeting (November 2009) were approved as published in the December newsletter. Treasurer Nate Oldham reported balances totaling \$576.92 in the chapter's checking and savings accounts. The report was approved as read. (Continued, bottom of page 7.)



### MATERIAL STRENGTH ---

We chose to use "solid spruce" blades as a result of three years of experiments with all types of blades and camber designs. The solid spruce has proven itself superior to any built-up type. We used fir plywood in some, aircraft mahogany in others, and all blades were equipped with 1/8" thick tapered steel spars long enough to properly fasten the nose weights to, or go all the way out to the tip of the blade. All blades used in our experiments were fiber glassed with six ounce cloth. The spruce blades seemed to be more limber up to a point. This limberness, we believe, contributes to the ultra-smoothness while in flight, because as you know, the hub is constantly teetering, and the tips are tracking---so a more elastic blade would be smoother in operation than other material. It is well to know that all Van Craft blade material is the best hand picked, air dried, straight grained, solid spruce wood in the Northwest. It is purchased in sufficient quantity so that a favorable price can be passed on to the buyer.



Club member in flight.

### COST (F.O.B. Portland, Oregon)

\$29.50 per pair of rotor blades (plain)  
\$49.50 per pair of rotor blades (with steel spars)

Make all checks or money orders payable to C. A. Vanek. Personal checks must "clear" through bank before shipment. These blades are very reliable and have been proven as such through the years---they are much better than other blades now on the market.



Club members getting together for "copter talk" and inspection prior to take off.



Club member making a beautiful "flare-out" landing.



The car is pulling a ten foot wide swivel wheel trailer with a fifteen foot tongue. The copter is mounted on trailer which as-simulates actual flight and tests copter for blade track and balance. The swivel wheels are a must for "feel" in ground action.

### SHIPMENT ---

We ship via Railway Express, except as the customer otherwise directs. Approximate shipping cost is from \$3.00 to \$8.00 depending on location.

Under Member Progress Reports, Doug showed photos of the upgraded front fork assembly which has been retrofitted to his Butterfly Super Sky Cycle. The manufacturer designed the original part to be adequate in strength for the application, but it's spindly appearance was a customer perception issue. The tubing diameter, as well as the size of the mounting sleeve at the top of the fork have both been beefed up. Doug also showed us his machine's shock height control assembly.

Doug offered an update on the construction of Curt Pittman's new hangar at Brigham City Airport, which will be available for our use during Rotors Over The Rockies 2010. Details of the schedule for the URA Winter Webinars were announced by Secretary Paul Plack.

New member applications approved included Lance Marshall of McGill NV, Chuck Strough of Boise ID, Claudius Klimt of Baltimore MD, Glenn Kerr of Kearns UT, Robert McElroy of Amarillo TX, and Dennis Dubois of Battle Ground WA.

(Continued, page 8)

## **Minutes** (from bottom of page 7)

Doug led a discussion of activities which could be offered at Rotors Over The Rockies, and reminded attendees that we will need volunteers and committees to handle planning and execution. Activities could include forums, a fly-in breakfast, a group tour of nearby Hill Air Force Base, an awards dinner, and a group cross-country flight. CFI Mike Burton noted that there is a very good restaurant at Ogden UT, and that flights to see the Great Salt Lake and other points of interest from the air might be possible, depending on the capabilities of the aircraft and pilots attending the event.

On the topic of handouts for ROTR guests unfamiliar with personal rotorcraft, Doug offered for discussion a suggestion by Paul that instead of traditional, tri-fold, printed pamphlets which are costly to print in volume and may become outdated, URA invest in 500 or 1,000 business cards which direct visitors to our website, which is easily updated. Paul offered samples of the cards issued him by Aero News Network, which have a glossy finish with one side devoted to an eye-catching, color, in-flight photo of SpaceShipOne, and the other side printed with contact information. A motion to authorize the expenditure was approved. Paul will contact the printer of the Aero News cards and make arrangements.

Doug also suggested that making back issues of Rotorcraft and other aviation magazines available as handouts would be appropriate.

Doug handed out URA 2010 wall calendars to all present, and is making them available to all members for \$5 by mail, or free by e-mail for members who'd prefer to print them at home. The meeting was adjourned at 11:00am MST.

Following the meeting, the Glance web meeting system was used to present a webinar, hosted by Designated Pilot Examiner and Master CFI Terry Brandt from his home in Arizona. Titled, "What to Expect on Your Gyroplane Check Ride," Terry's hour of instruction offered tips applicable to gyroplanes and other categories of aircraft, for candidates seeking Private or Sport Pilot certificates. Session statistics show four online guests for our first webinar, but many more views are expected from the archives on our website

## **ROTR Update** (from page 1)

Rotors Over The Rockies remains scheduled officially for Thursday-Saturday, June 10-12, 9am-9pm at the Brigham City Airport. If visitors need to arrive early or stay late to work with instructors or inspectors, provision will be made for aircraft to be stored in Curt Pittman's new hangar. As in years past, campers will

will be welcome to stay Saturday night, and fly Sunday, if they wish.

It has been decided to take on the preparation of two meals, a morning fly-in pancake breakfast, and an end-of-event awards banquet Saturday evening, tentatively at 6pm, in Curt's hangar on the airport. Awards are tentatively planned for Pilot & Machine, Innovation, Farthest Traveled and Farthest Flown to attend the event, Grand and Reserve Champion Rotorcraft, and an award for the aircraft flown the most at the event. The meal will be an informal barbecue. As with the breakfast, exact menu and pricing for the banquet will be researched before final determinations are made.

URA officers have divided up assignments for attendance to represent URA at remaining monthly meetings of the airport board, to ensure that we can get needed decisions regarding ROTR addressed, and to demonstrate our involvement and partnership with the board. Among the issues still outstanding with the airport and city are: procurement of an up-to-date airport diagram or aerial photo for planning exact event layout; contact info for publicity releases; a better understanding of requirements for marking and lighting for any vehicles operated on the airport; emergency procedures and phone numbers; and what is available from the city in terms of barricades, portable toilets, waste containers, etc.

A projector for use inside the hangar has been sourced, along with a small sound system for forums and the awards presentation. Flight schools and manufacturers will be provided with showcase opportunities. Some may be asked to lead forums.

We expect to be able to conduct hang tests from a beam 21' above the hangar floor, and Doug has a source for scales which could weigh an aircraft.

At least three helicopter flight schools, with a variety of aircraft, have indicated they plan to attend ROTR.

For routine ground communications, all members will be urged to bring FRS radios. We expect to need two handheld aircraft radios for use during the event. If you plan to attend and could bring one, please contact Paul Plack, secretary@utahrotorcraft.org, or (801) 290-2304.

The ad hoc event committee so far includes the URA officers and Stayton Barnes. Roughly 30 assignments have been split among these five people, not counting the cooking. If you can help us in any of these areas, contact Doug Barker using the info on the "Contact" page at utahrotorcraft.org.

Join us for further updates at our meeting on February 13. We have only four meetings left before Rotors Over The Rockies, and the one thing we know for sure will fly between now and then...is time!