



KNOX COUNTY RADIO CONTROL

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March 2023 Newsletter

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President's Corner

By Warren Oliver

Once again February and March tease us all with highly variable weather conditions. Between that and doing a bit of traveling I have only been to the field once or twice this month. I have been doing a bit of building on a very large (nine-foot wingspan) Nieuport 28 project. World War one airplanes need to be covered with fabric if you ask me. This project has been a great example of modelers helping each other out. Craig Dieter has come up with some 9-inch diameter wheels and some fabric to use as covering. I am developing a new group of materials for covering an airframe with fabric. The fabric Craig is generously supplying is screen printing mesh (fabric). This is a very interesting "high tech" material that has an extremely consistent fine weave so that it achieves fine pixel density in printing. It is made from a PET polymer and has great heat shrinking characteristics. For the printing processes they mount it on a frame and heat shrink it tight. I am doing the same thing on an air frame.

One problem I encountered was how to choose an adhesive to bond the fabric to the air frame. There are several materials on the market for this purpose, but they all generate fumes that annoy my better half and are not great to breathe. It turns out my first guess at a substitute works quite well. I had some Minwax Polycrylic (picture below)

that I have used to toughen up the surface of foam based ARFs. It works very well in that application and is totally odorless. This stuff is relatively inexpensive and available at Home Depot. I used a foam brush and painted a coat on the airframe. I then sanded the airframe and put on an additional coat. After it cured overnight, I used a standard film covering iron set at a fairly high temperature and simply ironed on the silk screen mesh. After covering one side I added another coat of Polycrylic on the areas that would overlap and covered the other side. The hot air gun shrunk things up and a very light coat of Polycrylic has the surfaces ready to spray on colors. The result was a very strong, light covering.





Finally, I would like to call everyone's attention to Todd Thompson's effort to get our field setup properly with AMA and the FAA. Take a look at the minutes of the March meeting and the attachment at the end of this newsletter and pay attention to the flight area map we are proposing. Todd has a number of reasons for choosing what he did but I am sure he would be happy to hear your input. Thanks very much Todd for working on this.

Well hopefully next month there will be more flying and less building.

February Meeting

By Richard Love

KCRC Meeting Minutes – March 14, 2023

President Oliver opened the meeting at 7:02 PM.

The meeting was held at Fellowship Church with 14 members in attendance.

Minutes for the prior monthly meeting held 14 February were approved.

Joel Hebert presented the treasurer's report. He also stated that today was the last day to pay dues for 2023 without penalty (\$10 late fee). He also asked us not to give out the gate combination. Anyone asking should call Joel to obtain it. Pertaining to the gate combination lock, someone

is leaving the chain and lock in a contorted position making it very difficult to unlock.

Safety officer Phil Cope had no incidents to report for the past month.

Old Business:

It was reported that Steve Patterson has someone coming to the field next week to give us a quote for gravel on our flightline access path.

Todd (Thomas) has begun our FRIA (FAA Recognized Identification Area) application. He made several points:

- We do not get FRIA status automatically as a member of AMA. AMA will help us with establishing our flight boundaries and will process our application for us.
- The typical flight boundary is usually described by a circle of a chosen radius around the flight field in the center. This will not work for our club as it would include restricted areas over homes, a public utility (water plant across the street), and maybe the road adjacent to our field (which should perhaps be called a 'service' road due to its very infrequent use).
- Todd recommended that we immediately pay our rent to the Knox County Parks department to get permission to use all the property. Joel (Hebert) to get a copy of our lease. He will start on this tomorrow.
- Todd said there is a Freedom Coalition attempting to raise the weight of a drone from 250 grams to 1 kilogram (2.2 lbs) without coming under FRIA. Another person mentioned that Part 107 applies to any commercial use of a drone, and this could affect some of our members.

The motion made for Todd to move ahead immediately to get our FRIA application approved was passed unanimously.

New Business:

Recently it was observed that a strong wind gust lifted several sheets of roofing material on the shed. It is considered that this requires immediate repair. Joel will contact Roger (Koodsma) to see if he can make the repairs and Joel will send out an email to the membership for volunteers.

Due to his current condition, the vote to waive 2023 dues for Eric Knieper was approved.

The following field events for this year were discussed and a month for each was suggested. These are:

May Cookout (20th or 27th)

June Funfly (8th)

July Cubfest

August SPA

Other possibilities are EDF and Warbird events.

Jimmy (Russell) will submit a proposed event list at the next meeting.

Models shown and/or discussed:

Jimmy Russell showed his Eric Nessler inspired "Daddy Rabbit" he is building. It is of laser cut balsa construction that he designed on a CAD system. It will have a 64" wingspan and is powered with a 40 mm motor. Special features include the landing gear mount construction and dual dowel horizontal stab mounting.

Bob Tatum brought some old micro helis and a classic WC2 Futaba World Champion Radio. These items are for sale.

Warren showed the rudder assembly he made for his Nieuport 28C that he displayed at the last meeting. It is constructed with a silkscreen mesh covering a balsa frame and coated with Minwax Polycrylic water based polyurethane. He also uses this Polycrylic on foam planes to toughen surfaces. Warren was looking for a fume free technique and found it in this odorless product.

Jimmy won the bragging rights this month.

Steve Patterson, if he had been present, would have won crash of the month for dropping his Ultra-stick into a tree.

Our next meeting will be held again at Fellowship Church on April 11 at 7:00 PM. After the April meeting, we will hold meetings at the field.

The meeting was adjourned at 8:20 PM.

Meet the Cold and Damp Weather



Well, time out at the field has been very limited for most of us. A few of us were lucky enough to catch the few nice days, but the rest of us had to lay low. So, no new faces this month. I'm looking forward to seeing more of you next month!

Armstrong's X-15 adventures

By Michael A. Catlin

Neil Armstrong had some X-15 adventures before becoming an astronaut and being the first to walk on the moon.

Excerpt from ***The X-15 Rocket Plane-Flying the First Wings into Space*** by Michelle L. Evans:

Smith Ranch was the launch lake farthest from Edwards used during the X-15 program. With a lot of heavy winter weather, it fell to Armstrong to fly up to see if it could support an emergency landing for a mission scheduled the next day with Bob White. "In this particular case," Paul Bikle recalled, "It had been wet, and we sent some guys up there to check it out. Jack McKay was the primary one

who ended up in the argument. Jack did an overflight, came back, and said it looked dry enough to him." Some of the air force chase pilots disagreed. Bikle said, "The pilots were arguing about it, and Joe Vensel, who was director of operations, picked Neil, because he wasn't doing anything." Vensel was insistent, and he was the boss.

Bikle said, "The idea was, Neil was going to fly a T-33 and land on the lake-which he wasn't in favor of particularly, but that's what Vensel said to do.... If Neil felt it was too soft, he could punch it and take off again before it slowed down." The air force pilots continued to say it was a bad idea. Bikle continued, "One of the air force guys that said it was too wet was Chuck Yeager, who said, 'You're gonna get your ass stuck up there so deep you can't get out! But I'll go along.' So Yeager went in the back seat, and they went up to Smith Ranch and touched down, rolling along for quite a way. They slowed down, then suddenly, went in over the axles! Neil was saying afterward that he could hear Chuck hollering and laughing!"

John McTigue told of his part in the unfolding drama: "I was part of the support team that went uprange for the X-15 flight. We landed in a C-47 Gooney Bird, and you could land it a lot better than they could with the T-33. We drove over to them, and Neil and Yeager were sitting on the wing. I can't remember his exact words, but Yeager said, 'You're never stuck until you've been in military power for fifteen minutes!'" His reference was to Neil's attempt to use full engine thrust to push them back off the lakebed and into the air. It failed, only digging themselves deeper into the soft surface. McTigue said, "Yeager was sitting there laughing like mad, and poor Neil was kind of a little down, but it's one of those things."

Armstrong's streak of bad luck continued for another month past the 24 April incident at Smith Ranch.

On the morning of Monday, 21 May 1962, Bob White met with Paul Bikle, starting a long chain of events. White spoke about how the incident began: "Bikle asked me, 'Bob will you do me a favor and go up to Delamar Dry Lake?' I flew up and made some passes, came back, and told him, 'It looks

fine.' I added, 'But don't have anybody go up there and practice landings until they paint the black stripes,' because it was just like trying to judge your depth perception over a calm sea-very difficult." Bikle explained the beginning of the convoluted events that transpired over the next several hours: "A series of days of bad weather and delays led us up to a point where we were pretty anxious to go."

At that particular time, Armstrong, Bill Dana, and Milt Thompson were rotating up to Boeing on the X-20, so they would always have a NASA pilot there to sit in on the meetings and put their stamp on the Dyna-Soar. Bill had come back, and Neil was on his way up, stopping by the pilot's office first to pick up stuff before he went to Seattle. Paul exclaimed, "Joe Vensel nailed him again! He said, 'Neil, get in an F-104 and shoot a landing at Delamar, and let us know if you think it's okay or not.' Neil said, 'I have to go to Seattle.'" Armstrong was really upset and didn't want to go to check a lakebed. Bikle said, "I can understand that, but Vensel said, 'I told you to go on up there!' So Neil goes down, and he's really huffy and charges off."

Armstrong grabbed an F-104 and headed to Delamar. According to Bikle, "Instead of making a little pass to look at everything, he starts at 40,000 feet and dumps all the drag like an X-15-simulated landing. Neil poured down over the lakebed, flared just at X-15 altitude, rips out across the lake bed with the gear up until it's time to slow down.... He disappeared off our radar screens when he got down low. We didn't see or hear from him again until about forty-five minutes later."

When next he heard what happened to Neil, Paul understood the mess this simple task was turning into. "We get a call from Nellis Air Force Base, Nevada, and the officer of the day said, 'We got a guy from your shop here, and he just tore the arrester gear out of the runway on approach! Then Neil got on the phone, and he said, 'Oh, I had a little problem up there. It's okay for an x-15 landing. I'm going on up to Seattle.' Vensel asked, 'What about the F-104?' Neil said, 'Well, you'd better send a trailer up for it. It's on the ramp out here.'" Vensel couldn't believe what he was hearing.

"There was a whole circus of events after that," Bikle continued. "Neil had gone up there, and when he'd put the gear down he wasn't quite high enough. We went up there in a C-47 later in the day and you could see where the wheels first touched the ground. The tire tracks were two feet apart instead of ten, where they're supposed to be. The F-104 was so close to the lakebed that's the furthest they could come down!"

As the obscuring cloud started to clear over the spiraling events, Bikle explained what happened from the moment Neil dove his F-104 downward to check out the Delamar lakebed:

Neil realized what he'd done and he firewalled the thing. He gained enough speed to get off the ground, but while the engine was picking up speed, the ship kept getting lower and lower, and you could see these wheel tracks come together. They got to within about a foot of each other, which meant [the gear] was almost full up. Then you could see them spread out again, to where they were fully extended.

In the meantime, he'd dragged one tip tank off and dragged the ventral off the tail, which released the arrestor hook back there. Of course, he didn't know that. It also tore out one of the hydraulic systems and the radio antenna, which left him without any radio, only emergency hydraulics, and red lights Bashing all over the place in the cockpit.

So, he just goes over to Nellis, and he can't call on the radio. He knew he had some problems, but he didn't know what, so he figured he'd make a flaps up landing.... Neil came in at about 230 knots at the approach end of the runway at Nellis, and this damn hook's hanging out the back. He snagged that arresting chain across the runway at 230 knots, just tore the chain out of the runway! His airplane went down the runway dragging all this junk and blew the tires!

Nellis was tied up about three hours getting the runway cleared off... Then Milt goes up in a two place F-104B to bring Neil back down, and he overshot the runway, blew tires off, and tied the thing up again! Bill Dana went up, and when he got up there the aerodrome officer called and said, "Hey you guys, don't send any more airplanes up

here! We'll load all your guys in one of ours and bring 'em down!" Disgraceful display all round.

Bikle was livid that one of his pilots could create such havoc. It was bad enough to have to deal with it all within the X-15 program office, but having to now include another base in all that had transpired was simply embarrassing for everyone involved. Paul reported that his first response was, "I grounded Neil and made him ride ten hours with Joe Walker before he could fly again. Oh, he was pissed off. What I really didn't like about that one was that he was just going to go on up to Seattle without assuming any responsibility or telling us what had happened."

Bikle bore some responsibility for the incident, since White had warned him ahead of time that the lakebed needed runway stripes marked on it so a pilot could gauge his height properly. Forty-four years later, White still recalled the incident vividly. "I went up the next day to Bikle, and I gave him hell. I said, 'Paul, am I a member of this team or not? Come on, I told you. Now it's your embarrassment, not mine.' It was unfortunate, you hate to see it happen, but it made me unhappy to think that he's questioning my judgment. And here I am, one of the prime guys in the program."

With one thing and another seeming to pile up, Armstrong was looking at what he should do next. There was one last X-15 flight for him to make, coming two months after the string of incidents. On 26 July he was ready for flight, and Neil was determined to make it a good one.

Talking about the X-15, Neil said, "The [research] pilot's role was very little flying. Most of the role had to do with project planning, flight planning, data acquisition techniques, and so on.... The job was finding ways to get the data that you wanted to get.... The project teams would prioritize the data needs and figure out what flight trajectories and methods of getting as much of that as practical, [and] as efficiently, as possible in each flight.... We were a team working together."

Preparing the aircraft for flight took many people. The one with the final say-so was the operations engineer for each aircraft. John McTigue filled that role, saying, "I was the one who had to make sure the systems were going to work. I signed each

airplane off prior to flight [and] my signature said, "Yes, the vehicle's ready to fly."

After Neil was secured inside the no. 1 cockpit that morning, a ninety minute hold was called as the C-130, which was to support the mission, was delayed. Finally, Fitz Fulton started the engines on B-52 no. 003 and moved into position. At 10:34 a.m. Fulton pulled back on the mother ship's yoke, lifting off on a forty-eight-minute ride up and around Mud Dry Lake for the launch from 45,000 feet. Once dropped, at 11:22 a.m., Neil lit off the LR-99 and pushed to the highest speed he attained on the X-15, Mach 5.74, just 11 miles an hour shy of 4,000 mph. It was a routine flight to 98,900 feet.

If you enjoy these flying adventures, go ahead and get this highly rated book for other interesting facts and stories. [The X-15 Rocket Plane: Flying the First Wings into Space \(Outward Odyssey: A People's History of Spaceflight\): Evans, Michelle, Engle, Joe H.: 9780803228405: Amazon.com: Books](#)

Sample audiobook [The X-15 Rocket Plane: Flying the First Wings into Space | Audiobook Sample - YouTube](#)

Attachment

See the proposed FRIA layout below.

Purple circle – 1000 ft radius

Yellow circle – 1500 ft radius

Blue circle – 2000 ft radius

Red polygon – proposed FRIA boundary

If you have comments or questions, please contact Todd Thomas.



Williams Bend Island

Bluff

Williams Bend

Melton Hill Park

Knox County Radio Control Society (KCRC)

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