

N.E. Kansas Blue Sky Squadron, Inc.

Smoke Screen

I.M.A.A Chapter #291

A.M.A. Charter #2826

Pres: Mark Davidson

<http://nekbssi.org/>

VP: Bill Miller

Secretary: Sam Carkhuff

Treasurer: Sam Brown

Safety: Don Regier

Editor: Ainsley Charest

CD: Aaron

Charest

Presidents Conner

MARK'S REMARKS,

FEBRUARY MEETING

Our February meeting will be LIVE AND IN PERSON at the Museum of Kansas National Guard at Forbes Field Sunday, February 21 at 2 pm. I think we can spread out enough at that space to follow the county guidelines and be 6 feet apart. We will need to wear masks. It will be good to get back together face to face. We have several items of business to cover and vote on as well as making plans for the future. If you have something to bring for "show and tell" please bring it. We would love to see what you have been working on.

FAA REGULATIONS

On December 29, 2020, the FAA released the final "**Remote Identification of Unmanned Aircraft**" document. I came across an article in another club's newsletter that summarizes what the FAA says and how it affects us. I thought it would be helpful to share it with you.

"Basically if you are operating an Unmanned Aircraft System (UAS) all be it a drone, helicopter or fixed wing airplane within the confines of our field you WILL NOT be affected by this ruling and have nothing further you need to do. Let me say this one more time, if you fly at our field you just keep flying the same safe way following AMA and club rules like you always have. This is great news and my hat goes off to the AMA for protecting our rights as model aviation hobbyist. If you fly outside of our field (your backyard for example) you will have to comply with other aspects of the Remote ID ruling. Below I will try to provide a summary of the Remote ID ruling.

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There are 3 classifications described in the Remote ID document: **Standard Remote ID** – This applies to manufactures of UAS that are 100% complete and ready to fly right out of the box like a DJI Mavic. Manufacturers will have 18 months to incorporate a Remote ID module into their aircraft weighing over 0.55 pounds that will broadcast flight data such as location, air speed, altitude and an identifying ID.

Remote ID Module – This option is for existing UAS operating outside a FAA recognized identification area (FRIE). In other words, flying my existing drone, helicopter or airplane in my backyard or local park. In this case operators will have 2.5 years to comply. Basically you will need to purchase a Remote ID module and install it in your aircraft. They anticipate this module being the size of a small receiver and costing between \$20 and \$50. Basically, this how you can legally operate your existing aircraft at someplace other than our field.

FAA-recognized identification area (FRIA) – Basically this is category most of us fall into. We will register our flying field with the FAA, then any aircraft operating within the confines of our field is exempt from having a Remote ID. You will still need your FAA registration and you will need to affix the FAA number to your aircraft but you will not be required to have a remote ID module broadcasting your flight information. We will have up to 2.5 years to complete the registration of our field as a FRIA. This registration will have to be renewed every 2 years. (The AMA anticipates coordinating this registration process

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much like they did with the Letter of Agreement between us and Forbes Airfield and also float flying on Lake Shawnee.)

Like anything with government regulations there are a lot more details but what I tried to do was provide a quick overview of the salient information.”

MEMBERSHIP DUES for 2021

All returning members for 2021 should make sure they have renewed their AMA Insurance and, if required, their FAA registration.

AMA: www.modelaircraft.org

FAA: www.faa.gov/uas/getting_started/register_drone

Also your \$35 club dues for 2021 are now due. If you are an existing member and pay after March 1 there is an additional \$5 late fee. To pay your club dues for the season, either as a renewing member or a new member, please forward them to Sam Brown, Treasurer. He plans to be at our meeting this Sunday so you can pay him in person there. As you all know we depend on our dues to fund projects and general maintenance for our club.

That's all I have for this month. I look forward to seeing you Sunday.

Your president,
Mark Davidson

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Just completed my new winter project- Kadet Sr. Electric powered with an E-flite Power 46 & a 4s lipo. They said the wing loading was rather light, hence the P46. Thought I could use my old P60 & 6s hv5000 Mah lipo, but it made it very nose heavy.



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Bill's Shop Time

It has been a crazy time this winter. With getting Covid and this cold weather, things have been pretty quiet in the shop. But with the down time, it allowed me to focus more time to my robot Otto. Some of you were at the meeting last year at the museum, when I brought Otto for show and tell. At that meeting I showed many details and explained the robot project's history.

In this article I will share with you what improvements I have made. The goal of the project was to build Otto in the likeness of my original robot, HERO2000, from Heath Kit. I wanted to improve the original robot's design and add more flexibility. I had a vision, at the time I started it in 2003, and have to say I've reached all my goals this winter.

My original robot used the BasicX35 microcontroller. It was very powerful at its time, but I soon out grew its memory capacity. I have been actively using and programming Arduino controllers for many years now. In fact, the elaborate 7 door and ladder gear door sequencer for the Cessna 310, I designed and programmed with an Arduino Nano controller.

As of today, my robot has 4 Arduino Mega 2560 controllers, 1 iPod like voice sound player and new sonar modules on the head and base. The sensors consist of 2 sonars, 3 proximity detectors, wheel distance encoders and 2 H-Bridge motor controllers which can detect when the wheels are stuck or in a bind. It now has First Person View ability. I will soon be adding a sound detection function as well.

The robot has 4 ways it can be controlled. By using a Bluetooth connected tablet / PC or through its First Person View (FPV) camera with a WiFi radio. It can be activated as an Access Point or a Router Client. You can use a smart phone or PC to access the FPV camera and drive the robot with its web Graphical User Interface (GUI). You can run many of the commands

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form the head mounted key pad. The fourth way is to run its program called Wander. Here the robot is in antonymous mode and will wander around trying to stay out of trouble. But if it does see something or get trapped, it will respond with verbal comments about the situation then will use its sensors to get out of the jam. Also, when the Wander program is running, you can send various commands over the Bluetooth connected tablet such as, read the battery voltage, turn up the volume of the voice or stop the robot's program. You can also read some of the sensors independently of the program that is running.

I have included a few pictures of some of these changes. Hope you enjoy my progress.

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Otto the Robot

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New head mounted sonar



New blue LCD display



Android tablet with Bluetooth control App

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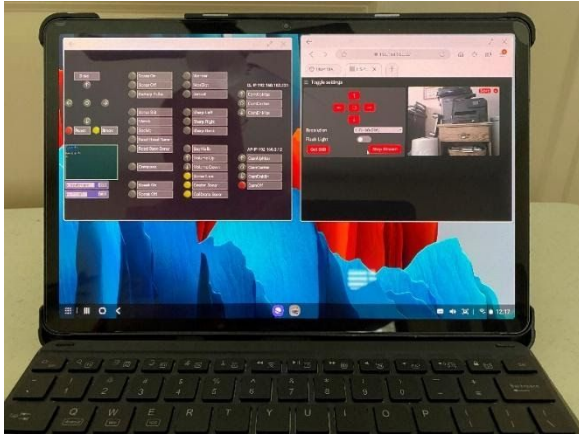
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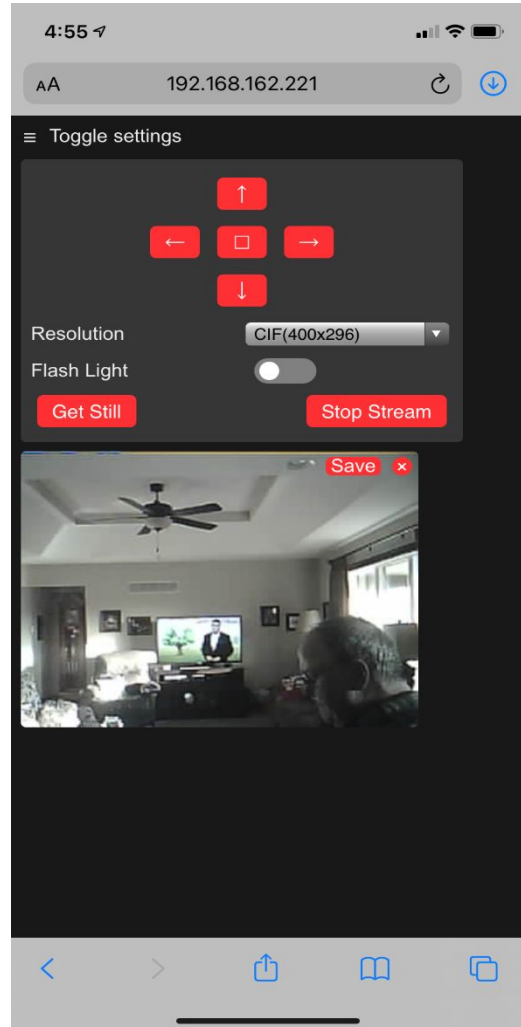
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Samsung Tablet S7 with Bluetooth control App running and a web browser logged into the FPV camera web page.



Screen shot of a smart phone connected to the FPV web page of the camera

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Minutes of the NEKBSSI Monthly Meeting, January 17, 2021

The meeting was held via Zoom videoconference and called to order at 1:40 p.m. by the president, Mark Davidson. There were 13 members and no guests present.

Officer Reports:

Secretary: Not present but the minutes of the previous meeting were read and accepted with one correction: The second paragraph of Old Business references the Executive Board meeting of November 16, 2007. It should read November 16, 2017.

Treasurer: Reported \$4727.15 beginning balance, receipts of \$173.68, and expenditures of \$251.00 yielding an ending balance of \$4649.83. There are currently 18 members paid for 2021.

VP: Nothing to report.

Safety Officer: Not present.

Old Business: As no record of membership approval of the November 2017 executive board meeting decision that established our current dues structure was found, a motion to approve the board's dues structure was made by Bud Park, seconded by Dave Boudreau, and passed unanimously.

The by-laws committee chairman, Bud Park reported the results and recommendations from the committee's review of the by-laws and the secretary's proposal to add the definition of a new member to the by-laws. The committee concluded that such details do not belong in the by-laws, but suggested a "dues structure" document be created by the board, approved by the membership, and posted to the website. The committee also identified a grammatical error in Article VIII that needs to be corrected.

New Business: VP Bill Miller said that he has received several reports that the field cameras are not working properly. He will check them after his Covid-19 quarantine ends.

Greg Inkmann asked if there was any interest in local clubs sharing their

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newsletters among members of other clubs, on an individual basis, to help promote activities of other clubs that they might not otherwise know about.

Motion by Bud Park, seconded by Sam Brown to amend by-laws Article VIII to require future amendments be proposed in writing, and to correct a grammatical error in the last sentence of the article. There was no discussion; a copy of the complete proposal with justification is published and attached below, and scheduled to be voted on at the February meeting.

There being no further business the meeting was adjourned at

2:05 p.m. **Program/Show and Tell:** None

Attachment: Proposal to amend NEKBSSI By-laws

To amend Article VIII of the club by-laws to require amendment proposals be presented in writing, and to correct a grammatical error in the last sentence of the Article.

As reads:

ARTICLE VIII Amendments or Changes to the Constitution and By-Laws

Amendments may be proposed at any regular or special meeting by any member in good standing, to be published and voted on no earlier than the next regular or special meeting. Amendments must be approved by two-thirds (2/3) of the voting members present. Proposed amendments or changes to the Constitution and By-Laws shall be made available to the membership by any one of several methods: publication on the Club web site, through E-mail, publication in the monthly Club Newsletter, or by individual mailing, and must be available to the membership prior to any vote. No amendment to the Constitution of By-laws may be voted on at the meeting at which the amendment is proposed.

Proposed (changes shown in bold italics):

ARTICLE VIII Amendments or Changes to the Constitution and By-Laws

Amendments may be proposed ***in writing*** at any regular or special meeting by

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any member in good standing, to be published and voted on no earlier than the next regular or special meeting. **Amendment proposals will include both the current wording and the proposed new wording.** Amendments must be approved by two-thirds (2/3) of the voting members present. Proposed amendments or changes to the Constitution and By Laws shall be made available to the membership by any one of several methods: publication on the Club web site, through E-mail, publication in the monthly Club Newsletter, or by individual mailing, and must be available to the membership prior to any vote. No amendment to the Constitution **and** By-laws may be voted on at the meeting at which the amendment is proposed.”

Discussion: Making changes to the by-laws is necessarily a cumbersome procedure. This helps reduce frivolous changes and provides for a more stable governance of the club. Requiring such changes to be presented to the membership in writing will streamline the amendment process and yield several other benefits. It will:

1. Require the person proposing the amendment to carefully think through the change and wording thereof,
2. Provide the exact wording of the proposed change for the secretary to publish in the minutes and to the membership prior to the next meeting for voting,
3. Reduce or eliminate misunderstanding by the membership as to what is being proposed,
4. Reduce or eliminate unnecessary "wordsmithing" that wastes time when such changes are proposed orally, and,
5. Provide the continuity from the meeting at which the amendment is proposed to the next meeting at which the proposal is voted.

Respectfully submitted for the Secretary by Bud Park.