

NCRCC Coordination with the FAA, Guidance for Flying Model Aircraft, and Regulations – John Watkins

I have volunteered to coordinate NCRCC interaction with the FAA, some of which will involve the AMA. The most important task - by far - is to establish the NCRCC flying field as an FAA-Recognized Identification Area (FRIA). If Remote ID (RID) for Unmanned Aircraft Systems (UAS) is implemented as planned, the FRIA would exempt our field from the RID requirement and allow visual line of sight flying of “old school” radio-controlled aircraft not equipped with RID. Rules for RID have not been finalized, nor have the rules defining a Community Based Organization (CBO). Both must be in place before the FRIA process can begin. So, there is no action to be taken right now.

In the meantime, I will provide information on the following topics in several monthly installments:

- Review of safe operation of R/C model aircraft in the vicinity of manned aircraft.
- Current FAA UAS (R/C model aircraft, “drone”) regulations and operating limitations.
- Use of B4UFLY and Low Altitude Authorization & Notification Capability (LAANC).
- Future FAA UAS regulations and RID.

After that, I will provide status updates on FAA regulations and requirements as it becomes necessary.

Safe Operation of R/C Aircraft in the Vicinity of Full-Scale Aircraft:

In these days of well-publicized YouTube videos and reports of drone sightings by manned aircraft, it’s important to be sure we avoid flying near manned aircraft. There are a number of airports surrounding the NCRCC field, and it’s common to see manned aircraft nearby. The vast majority of our flights are well below altitudes where these aircraft typically fly, so there is little potential for conflict. Even so, we must remain vigilant. *In the simplest terms, Manned aircraft always have the right of way, and we must “see, hear, and avoid”. Any time you see or hear a manned aircraft, immediately descend to an altitude that is certain to be safely below the aircraft.*

It’s also a good idea to understand the types of airspace near the NCRCC field, where manned aircraft might be flying, and where UAS can fly. The following may seem complicated and more regulation than should be needed to fly a model airplane, but it is what it is. Keep in mind that the FAA knowledge test will have questions about airspace, so you will eventually need to understand all this to pass the test.

Figure 1 shows the classes of airspace in the US. The classes of airspace that are near the NCRCC field and of greatest interest to us are circled in red. Without a waiver or other authorization, all UAS are restricted to operation in Class G uncontrolled airspace and below 400-feet Above Ground Level (AGL). Figure 1 shows the NCRCC field in Class G airspace, underneath the outer area of Class C airspace.

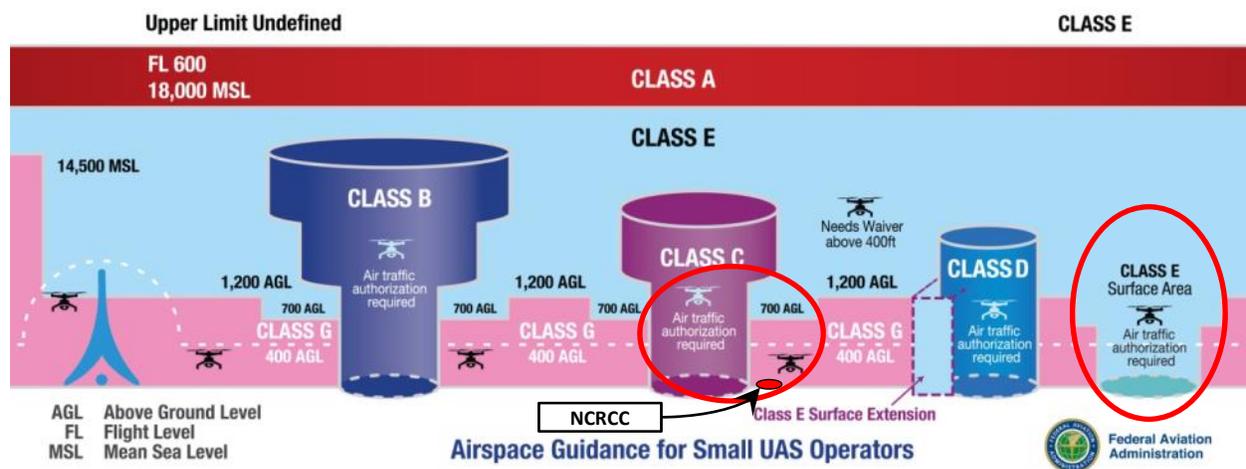


Figure 1 –Classes of Airspace in the US, With Limits for R/C Model Aircraft Operation

The reason UAS are generally restricted to 400-feet AGL is to maintain vertical separation between manned aircraft and UAS. FAA regulations require manned aircraft - except during takeoff and landing - to maintain a distance of at least 500 feet from any person or man-made object when flying over sparsely populated areas. The 400-foot altitude restriction for UAS provides a 100-foot buffer zone.

Figure 2 is a screen shot from an air navigation chart, showing the NCRCC field, nearby airports, and Bradley International Class C airspace. Also shown is an airliner on approach to Bradley International Airport, heading North at 2,075 feet Mean Sea Level (MSL). Following is a list of airports and airspace shown in Figure 2:

- Ellington Airport, [7B9](#), 2 miles East-Southeast, Class E airspace in Figure 1.
- Skylark Airpark, [7B6](#), 4.3 miles to the West, also Class E airspace.
- Bradley International Airport, [KBDL](#), 10 miles to the West.
- Bradley Airport is surrounded by Class C airspace, which consists of an inner circle at a 5 Nautical Mile (5.75 Statute Mile) radius from the airport, and an outer circle 10 Nautical Mile (11.51 Statute Mile) radius. As shown in Figure 1, the Class C controlled airspace between the inner and outer circles does not extend down to the surface. The NCRCC field is between the inner and outer circles, in Class G airspace underneath the Class C airspace.
- Roberts Farm, [CT85](#), Bancroft, [CT14](#), and several other small registered but restricted airports. They have little traffic, and are not really a factor.



Figure 2 – Air Chart Showing Nearby Airports, Bradley International Class C Airspace and Airliner on Approach to Bradley Airport

The label **C: 2100-4200** on the outer circle says the outer area of Class C airspace extends from 2,100 to 4,200-feet MSL. The label **C: GND-4200** on the inner circle indicates Bradley International Class C airspace within that circle extends from the ground to 4,200 ft MSL.

Our field is at an elevation of a little less than 300-feet MSL, so the outer area of Class C airspace extends from 1,800 to 3,900-feet above the NCRCC field. That means aircraft flying in Bradley Class C airspace could be as low as 1,800 ft over the NCRCC field, as is the case with the airliner in Figure 2 that just passed over our field. This is well above the altitudes we normally fly, but large R/C models can be easily seen and flown at these altitudes, so good judgment needs to be exercised on days when airliners are passing overhead on approach to Bradley Airport.

We are outside the normal traffic patterns for both Ellington Airport and Skylark Airpark, but fixed-wing aircraft entering the traffic pattern for either of these airports could be flying about 1,000-feet above our field. There is a helicopter flight school at Ellington Airport, and their helicopters frequently operate at less than 1,000-feet. It is legal to fly manned aircraft as low as 500-feet above our field, so there could be low-flying aircraft in our vicinity. On rare occasions, aircraft such as helicopters inspecting nearby power lines can be even lower. There is an active skydiving operation at Ellington Airport, but the jump planes and skydivers seem to keep well away from our field.

That's it for this month. Next month will be a review of current UAS regulations. If you have any questions, you can e-mail me at jwatkins@cshore.com, and I will provide an answer in the next newsletter.