



**THE RAPTOR CENTER**  
*at the*  
**UNIVERSITY OF MINNESOTA**  
College of Veterinary Medicine

February 3, 2002

U.S. Fish and Wildlife Service  
Wallkill River National Wildlife Refuge  
1547 County Route 565  
Sussex, NJ 07461-4013

Attn: Steven Kahl, Refuge Manager

Dear Mr. Kahl:

This letter is written in response to the extended comment period on the draft Compatibility Determination for the conduct of model aviation activities at Shawangunk Grassland National Wildlife Refuge.

I feel particularly able to comment on this issue owing to my 35 years + involvement in model aviation as well as a professional career in endangered species management, conservation and veterinary activities addressing conservation issues. I have also practiced falconry for most of those years and have a deep understanding and firsthand knowledge of the response of many different types of prey species to perceived overhead threats (i.e. soaring raptors). My wildlife experience involves undergraduate training in wildlife management, teaching animal behavior in veterinary curricula, providing medical care to more than 14,000 raptors, coordinating the restoration of the peregrine falcon to the Midwestern section of the United States, addressing toxicological and human-disturbance issues involving bald eagles, and collaborated on field work on migrating ospreys using radio-satellite telemetry, to mention a few.

I am a professor at the University of Minnesota College of Veterinary Medicine, specializing in avian medicine, surgery and conservation, and I am a member of the Conservation Biology graduate faculty at that same University. I have also flown radio-controlled aircraft in areas where we shared both the air and ground-space with a variety of avian species ranging from galliformes to passeriformes to falconiformes and have firsthand observations to back my assertions regarding the impact of model-flying activities on these birds. Last, I have piloted full-scale aircraft on eagle and peregrine falcon surveys in Minnesota, Wisconsin and Greenland, and have been the biologist/observer in helicopters hovering c/in 20 meters of an incubating peregrine falcon, which would not budge despite the disturbance. I have also witnessed a radio-controlled flying site, used by our club for 30 years, that had an abundance of wildlife present, to be taken over and converted in the short span of 4 years to a massive townhouse and condo development now completely devoid of wildlife. For those of us concerned with environmental preservation there are much greater threats than the relatively benign use of open grasslands by model aviators.

I find the CD to have a strong negative bias in the review of biology, a misrepresentation of the nature of modeling activities, and a speculative overstatement of the possible impact of modeling activities at this site. The case may have more meritorious consideration were it framed in the perspective of preservation of a pristine area for grassland, the value for which lies in its preservation. But we are talking about an old airport with an 8,000-foot runway that has been the subject of high levels of disturbance-prone activities for decades – yet, all that notwithstanding, the area is still described as “one of the largest and most productive grasslands in the Northeast” (your letter to Dave Brown, 26 November 2001). That being the case, I can now understand how the much less intense use of this area by modelers would reverse this situation.

The section profiling the impact of aircraft (full-scale based on references provided) to model aircraft on avian species (waterfowl in the cases cited) compared to woodland and grassland species listed as using this area is an apples and oranges comparison and fails for a variety of reasons. The natural tendency of flocking birds such as waterfowl (brandt, snow geese) is to take to the air when threatened by a predator. I’ve witnessed this on numerous occasions when a trained falcon

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is put in the air a half mile away from a flock of several thousand geese feeding in a corn field. As soon as the falcon is visible above the tree-line, the geese take to the air en/masse. In comparison, solitary grassland birds exhibit the exact opposite response, hunkering down and making themselves inconspicuous. With repeated exposure, they typically habituate and demonstrate no response when experience has shown the perceived threat causes no harm. These birds live every minute of their life dealing with the threat of predators; an overhead object represents nothing to them to which they are not evolutionarily adapted. The statement that piping plovers modified their behavior in response to kite; flying says, nothing they modify their behavior to the rising and setting of the sun too! And the statement that these activities will result in birds fleeing the refuge is utterly without merit. As long as food and cover is present, they won't. To wit, we have bald eagles nesting on lakes in the Twin Cities metro area that are continuously exposed to fishing boats, sailboats, and water-skiers at very close range-they've habituated. The fact that model airplanes are used at airports to scare nuisance birds away is not relevant, a) because they are not very effective as the birds just move out of the way, and b) the planes are flown directly and threateningly at the target birds-I know-I've done it. The radio-controlled planes that would be flown at this site are necessarily flown with a range restricted by the visual acuity of the pilots, probably going no more than 200 yards either side of the pilot and oriented down a flightline in the middle of the field. All clubs require mufflers to attenuate noise. The free-flight planes either have no noise-producing source of power or, if they do, the engine runs are restricted to periods of a fraction of a minute, after which they become quiet soaring objects, not different from gulls or hawks. My experience and my knowledge of birds says that none of these activities will have serious or measurable negative impact.

At flying fields where I've flown, killdeer have hatched their eggs in the gravel overrun at the end of the runway, kestrels have landed and hunted from the racing pylons, and one day last fall, we suspended flying activity for about 20 minutes while a kettle of several hundred broad-winged hawks passed over the field at a low altitude. We've soared with red-tailed and eagles, and have had peregrines take passing shots at electric powered gliders. Harriers hunt over the adjoining areas, mourning doves and meadow larks typically abound in the grasses adjoining the runways. No, these are not detailed studies, but they are more than casual observations also. I'm more sensitive to land use and its impacts on wildlife than most, and I do not see a problem or incompatibility with model flying and wildlife use of an open area.

Model airplane club members everywhere operate under a strict code of regulations that are enforced by the club. And my experience with aviators in general, whether the massive convention of full-scale enthusiasts at Oshkosh, WI or modelers at local flying fields, is a keen sense of keeping things clean and picked up. You will never find so much as a scrap of loose paper at any of these sites. At our field, and I'm sure we're not alone, you are required to pick up and dispose of any pieces remaining from a crashed airplane so that no trace is left anywhere on the field. Through this mechanism of club rules and the attendant peer-driven enforcement, it would be possible to implement codes of conduct and operation that would be compatible with the essentials of model flying and any concerns about maintaining environmental protection. This cannot be said for other users (hunters, bird-watchers) who come out on their own recognizance and are in no way held accountable by others for their actions. Indeed, the \$16,640 identified as needed for enforcement provided by the service lies not with the modelers, but rather with the general public that otherwise uses the area. So that cost along with the port-a-potty, garbage pick-up and other costs identified in your budget exist whether modelers use this area or not.

Modelers everywhere value flying sites. Consequently, they are responsible, considerate and agreeable to reasonable limitations on use-more so than most of the general public, and they take nothing for granted. Given the historical use of this site by modelers as well as a host of other much more intrusive activities, the apparent health of the wildlife despite this history of use, and the negligible impact that modeling activities have had, there has to be some compromise situation that will allow this decommissioned airport to be available to a broad cross-section of the public, including modelers. There is a strong kinship between aviators (especially free-flighters) and birds-with a little imagination and cooperation, I think they could become part of the educational and interpretive process at the refuge. I'll bet they could demonstrate to the public in real understandable terms why an osprey has a high aspect ratio wing and a red-tail a low aspect ratio wing and the consequences this has for flying style, habitat utilization and prey preferences! Did you know that the wing of the Spitfire was designed based on studies of the wing shape of small passerines like sparrows-high-lift, short take-off, high maneuverability, low stall speed?. Let's come out from behind the cloak of pseudo-scientific gobbledy-gook and get down to brass tacks with real people who have an historical and genuine need to have a place where they can enjoy their hobby a truly great past-time for young and old, capable of bonding the generations, and yet be among the least environmentally disturbing activities engaging people in this day and age.

Thank you very much for your consideration of my comments.

Sincerely,



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