

BLM Aviation Rules and Actions to Reduce Disturbance

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The BLM Arctic Office, the office that manages the public land within the National Petroleum Reserve in Alaska (NPR-A), has been grappling with the issue of disturbance associated with low-flying aircraft for many years. The law that governs the NPR-A requires the BLM to protect subsistence resources and access to those resources. We recognize disturbance from aircraft as a threat to subsistence activities and, like ICAS and the North Slope Borough, we have also fielded numerous complaints from residents.

We have divided this document into several sections that address various aspects of the aviation problem. The first explains BLM’s understanding of the problem and how the impacts to subsistence from aircraft have been evaluated in BLM land use plans. The second section explains how, through our planning process or with our operators and authorized users, BLM regulates aircraft use in the NPR-A. Subsequent sections are copies of our established measures (BMPs) on aviation and the aviation awareness and conflict avoidance letter we distribute to all permittees. Final sections explain why the aircraft disturbance problem on the North Slope is difficult to solve and the authority required to regulate the airspace, while the next lays out possible ways, beyond what BLM has done, that it could be addressed.

The BLM is committed to continue working on this problem with its North Slope partners and permittees.

BLM’s understanding of the North Slope aviation disturbance problem

The BLM has tracked disturbance from aircraft as the most commonly reported impact on subsistence activities on the North Slope. Since the BLM NPR-A Subsistence Advisory Panel (SAP) was established

in 1998; aircraft has been discussed at every meeting and has been the specific subject of numerous SAP workshops and presentations. BLM has discussed the particularly heavy aircraft traffic near Nuiqsut with the Native Village of Nuiqsut council in ongoing, weekly government-to-government meetings since early 2013. In public comments and testimony received on recent proposed development projects, there is nearly universal opposition to development options that include more airstrips and thus increased traffic. BLM's anthropologist/subsistence specialist has spent time on the land with hunters near Atqasuk and Nuiqsut experiencing firsthand the impacts of air traffic and has interviewed residents of all NPR-A communities about the issue.

The BLM frames the aircraft problem as an issue of resource availability: when noise, traffic, and infrastructure affect the availability of key resources, predominantly caribou. Even localized or "limited" changes in caribou distribution resulting from displacement can affect the availability of caribou to harvesters because of residents' limited means to access caribou at different times of the year and in certain areas. This means that whether or not aircraft divert caribou from larger migration routes, the BLM recognizes the substantial impacts of localized diversion.

Aircraft pose a unique type of disturbance. Other aspects of development that affect resource availability include construction noises and smells, drilling activities, development infrastructure, traffic, and pipeline height. Hunters know where these activities are and can expect these impacts on resource availability at the actual site of development or near town. These known impacts can be avoided when hunters choose to hunt elsewhere. In contrast, impacts from aircraft traffic cannot be foreseen or avoided and can therefore cause much more acute stress and disruption to hunters.

BLM also understands that the acute stress and disruption caused by aircraft disturbance during the hunting season can turn into long-term stress and financial and food-security issues throughout the year: lack of success hunting caribou means not only lack of meat, but substantial loss of money and time. Those hunters then have to come up with more money and time to either undertake further hunting expeditions or money to purchase packaged commercial meat at the store, which is extremely expensive, not nearly as healthy as caribou, and not connected to traditional Inupiaq cultural traditions. Thus, lack of hunting success due to aircraft can lead to economic problems, food security problems, and social, cultural, and possibly mental (stress, anxiety, depression) and physical (nutrition) health issues.

The BLM also recognizes that this is not a new issue. Aircraft associated with oil exploration and development were depicted as an "onslaught" in Nuiqsut's 1979 cultural plan (Nuiqsut Paisanjich, Brown, 1979). That plan's list of village concerns about the encroaching development began with: "*Too many airplanes and helicopters scare away the moose and caribou*" (Brown, 1979, p. 38). The NPR-A Working Group's Guiding Principles for Development of Infrastructure in Northern Alaska states:

"Development projects should be designed to minimize new airstrips and aircraft flights, especially low-level flights. Traditional Knowledge tells us that aircraft pose one of the greatest potential negative impacts to the success of subsistence hunters and that such flights can also impact caribou movements over the long term." (NPR-A WG 2014).

In the subsistence impacts analysis in the SEIS for GMT1, impacts from aircraft constituted a substantial factor in concluding that the project would have “major” impacts to subsistence for Nuiqsut. In 2014, the Secretary of the Department of the Interior released Secretarial Order No. 3330: Improving Mitigation Policies and Practices of the Department of the Interior. Because of Order 3330, a compensatory mitigation fund is set aside to mitigate residual impacts of GMT1 and a Regional Mitigation Strategy is under development that will guide the use of those funds. The BLM recognizes that while the problem is more intense in the Nuiqsut area, aircraft traffic is having a substantial negative impact to subsistence hunters across the North Slope.

What BLM does to address North Slope aviation disturbance problems

The BLM Arctic Field Office permits many types of projects and activities in the NPR-A, including oil and gas exploration and development, scientific research and monitoring, guided recreational activities, and guided hunting.

The BLM requires that all permittees submit information on:

- a. The number of aircraft take offs and landings the project will involve
- b. Where the access to land is requested
- c. The type of aircraft used (make, model, business name) and aircraft tail number, if available

The BLM then consolidates all the aircraft information submitted by permittees that are proposing to use aircraft into an excel spreadsheet. BLM uses this aviation data to track the number of flights estimated to occur and includes it on the annual spreadsheet of BLM permitted projects in the NPR-A, which is distributed in the early summer. After the season, permittees submit data on when, where, and how many flights actually occurred.

The specialists within BLM review each proposal for a permit and determine whether the permit merits consultation with tribes and communities. The BLM also provides maps of North Slope camps and cabins to permittees and, when possible, works with permittees to alter their planned activities to avoid peak subsistence hunting times and areas.

All permittees are required to adhere to the measures established in BLM’s Use of Aircraft for Permitted Activity F-1 Best Management Practice. The objective of the measure is to minimize the effects of low-flying aircraft on wildlife, subsistence activities, and local communities by setting minimum altitudes for aircraft over several sensitive areas.

The BLM also sends an Aviation Awareness and Conflict Avoidance Letter to all permittees that explains the disturbance problem, lists major subsistence rivers used by residents of Barrow, Wainwright, Point Lay, Atqasuk, and Nuiqsut, and asks pilots and other aircraft users to avoid those areas as well as consult with potentially affected communities.

Other actions that the BLM has taken to address the issue include:

- Held NPR-A Subsistence Advisory Panel workshops on the aircraft issue

- Requested that ConocoPhillips and BLM present on aircraft use and monitoring systems at NPR-A Subsistence Advisory Panel meetings
- Met directly with USGS researchers to discuss complaints about aircraft use associated with USGS research camps.
- Worked closely with ConocoPhillips to come up with efficiencies and solutions to heavy aircraft use in the Colville Delta area
- Worked closely with the Native Village of Nuiqsut and the SAP to create new measures to regulate and reduce air traffic

Use of Aircraft for Permitted Activities: BLM NPR-A Integrated Activity Plan Record of Decision Best Management Practice F-1

National Petroleum Reserve-Alaska

Integrated Activity Plan

Record of Decision

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Use of Aircraft for Permitted Activities

F-1 Best Management Practice

Objective: Minimize the effects of low-flying aircraft on wildlife, subsistence activities, and local communities.

Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines (Note: This best management practice is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objectives of the stipulations and best management practices. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.):

- a. Aircraft shall maintain an altitude of at least 1,500 feet above ground level when within ½ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and within ½ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from the BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 feet above ground level (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would

endanger human life or violate safe flying practices. Caribou wintering areas will be defined annually by the authorized officer. The BLM will consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges.

- c. Land user shall submit an aircraft use plan as part of an oil and gas exploration or development proposal. The plan shall address strategies to minimize impacts to subsistence hunting and associated activities, including but not limited to the number of flights, type of aircraft, and flight altitudes and routes, and shall also include a plan to monitor flights. Proposed aircraft use plans should be reviewed by appropriate federal, State, and borough agencies. Consultations with these same agencies will be required if unacceptable disturbance is identified by subsistence users. Adjustments, including possible suspension of all flights, may be required by the authorized officer if resulting disturbance is determined to be unacceptable. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered to allow larger aircraft to be employed, resulting in fewer flights to the facility.
- d. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
- e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet above ground level (except for takeoffs and landings) over the Teshekpuk Lake Caribou Habitat Area from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.
- f. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet above ground level (except for takeoffs and landings) over the Utukok River Uplands Special Area from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.
- g. Hazing of wildlife by aircraft is prohibited. Pursuit of running wildlife is hazing. If wildlife begins to run as an aircraft approaches, the aircraft is too close and must break away.
- h. Fixed wing aircraft used as part of a BLM-authorized activity along the coast shall maintain minimum altitude of 2,000 feet and a ½-mile buffer from walrus haulouts, unless doing so would endanger human life or violate safe flying practices. Helicopters used as part of a BLM-authorized activity along the coast shall maintain minimum altitude of 3,000 feet and a 1-mile buffer from walrus haulouts, unless doing so would endanger human life or violate safe flying practices.
- i. Aircraft used as part of a BLM-authorized activity along the coast and shore fast ice zone shall maintain minimum altitude of 3,000 feet and a buffer of 1 mile from aggregations of seals, unless doing so would endanger human life or violate safe flying practices.

BLM Aviation Awareness and Conflict Avoidance Letter

To: Bureau of Land Management NPR-A Permittees

Re: Aviation Awareness and Conflict Avoidance

This letter is being sent to as many agencies, groups, institutions, and private individuals as we can identify who may use aircraft, especially helicopters, in and around the National Petroleum Reserve in Alaska (NPR-A). Of particular concern is aircraft use near the NPR-A communities and on the primary rivers used for subsistence activities near those villages, including the following subsistence use areas:

<u>Community</u>	<u>Heavily used subsistence rivers</u>
1. Nuiqsut.....	Colville, Ublutuoch, Fish and Judy creeks
2. Point Lay.....	Utukok, Kokolik, Kuparuk
3. Wainwright.....	Kuk and tributaries (Kaolak, Ketik, Avalik, Ivisaruk, Kungok), Kugrua
4. Atqasuk.....	Meade, Nigisaktugvik, Isiqtuq
5. Barrow.....	Inaru, Topagaruk, Chipp, Ikpikpuk, Miguakiak, Piasuk

The Bureau of Land Management (BLM) recognizes the necessity of using aircraft to conduct scientific studies, perform compliance inspections, conduct visitor trips, or carry out other important public and oil industry business. However, the increased use of aircraft in the NPR-A has resulted in an increased number of complaints by residents over conflicts with subsistence activities.

Since 1999, the BLM has systematically been soliciting and recording advice and input from NPR-A subsistence hunters via the BLM NPR-A Subsistence Advisory Panel. The primary complaints that individuals have had throughout the past 15 years center on helicopters flying low over hunting areas or landing along rivers when moose or caribou hunters were actively pursuing game, or hovering overhead near fishing and hunting camps. While we are now able to verify a few of these allegations through automated flight tracking, we can't track all flights. However, the perception of local residents is that their way of life is being adversely impacted by outsiders and hunters recount that significant effort, time, and resources are wasted when their hunts are thwarted by aircraft.

The Bureau of Land Management requests that when you or your organization are operating aircraft in these areas, remember to be sensitive to the needs of local people. If you see people on the ground, on a lake or on a river, make an extra effort to avoid them. Keep in mind that people on the ground hear and see aircraft long before pilots see them. If you see caribou, please divert your path to avoid coming any closer to them. Consistent with air safety rules and mission requirements, please try to maintain an

altitude of 2,500 feet or more above ground level. When landing, take the time to scout out the surrounding area to make sure you may not be setting down next to a subsistence camp site or an area actively being hunted. Please remind pilots and aircraft managers of the situation so that they too can be looking out for possible conflicts.

Residents have requested that operations notify the affected community's city and tribal government offices before aviation activities occur. Experience has shown that notification results in fewer negative reactions. If we all take the time to avoid unnecessary conflicts with local subsistence users, it will make everyone's business go more smoothly. The BLM is asking for your assistance: Please pass this message on to anyone you know who may be flying in the NPR-A. Thank you for your efforts to avoid conflicts with subsistence activities and for the important work you are doing in the NPR-A.

Why the aviation disturbance problem on the North Slope is difficult to solve

Despite understanding the aircraft problem and taking numerous actions to address it, aircraft use remains the most disruptive activity in the NPR-A. The BLM sees several reasons for that:

1. The BLM is limited to imposing restrictions and stipulations on activities that are permitted by BLM and that include landing on BLM-managed land (not airports and not Native-owned land). The BLM has no authority over private aircraft or aircraft used by projects that do not have BLM permits. **BLM-chartered aircraft and aircraft use by BLM permittees accounts for a small percentage of the overall aircraft use in the NPR-A.**
2. BLM permittees are exempted from the minimum flight restrictions established in BMP F-1 if they are conducting **wildlife surveys, if they are experiencing foul weather, and during take offs and landings.** These situations likely account for a substantial portion of the aircraft disturbance situations on the North Slope, whether they are BLM-permitted activities or otherwise.
3. Helicopters normally operate between 500 – 1,000 feet above the ground. The ceiling is commonly lower on the North Slope. **It is extremely difficult for helicopters to fly at 1,500-2000 feet or higher** and is where small planes might be operating that helicopters want to avoid.
4. **The Federal Aviation Administration (FAA) is the only federal agency that has authority to regulate and oversee aviation** in the airspace above the North Slope. Neither the BLM, the NSB, nor any other agency can impose overflight prohibitions.
5. There is an ever-increasing interest in the Arctic and need to conduct climate change related science and thus increased amounts of air traffic.
6. North Slope residents, various NSB departments, the BLM, and other agencies generally want and require **environmental studies that require aircraft use.**

7. New researchers and tourists are largely unaware that aircraft disturbance is such a problem on the North Slope. Many people fly a great deal there and never see anyone on the ground (they do not realize that there are often camouflaged hunters who see and hear them from miles away).

Steps that could be taken to address the North Slope aviation problem

The BLM sees a few ways that all North Slope residents, industry, and researchers could work to address the aviation problem.

- A. **Increase awareness** of the issue among all types of people involved with activities on the North Slope. BLM has shared ICAS resolution with its NPR-A Subsistence Advisory Panel email list (approximately 250 residents, industry representatives, and researchers). It has also shared its Aviation Awareness and Conflict Avoidance letter with that group, with CH2M Hill Polar Services and with numerous aviation companies. An article on the subject ran in Alaskan papers in October 2014. As that article mentions, the North Slope Science Initiative is ideally positioned to disseminate information and take the lead on addressing the issue at higher levels.
- B. Encourage the **use of the Automated Helicopter Landing Logger (AHLL)**. Justin Blank of Olgoonik Fairweather and others have developed the Automated Helicopter Landing Logger (AHLL). Previously, tracking and recording flight data was an onerous chore that required constant attention from the pilot, was subject to human error, did not automatically record when and where the helicopter landed, and did not provide the data in the format used by BLM or other flight data monitoring systems. The AHLL is a group of electronic hardware that includes an altitude meter, a GPS, and a data logger to safely capture the exact time and location that the helicopter contacts or leaves the ground. Two prototypes AHLLs were designed and tested in the summer 2014 season on Conoco's helicopters and several improvements were made over the course of the season to meet the requirements of a device attached to a helicopter that would not interfere with vision or flying. The unit is entirely self-contained, requires no electrical connection to the aircraft, and creates a text and a .gpx file on a removable memory card. The units have a patent pending and are available for rent in the upcoming flying season. Contact Olgoonik Fairweather for more information: 907-326-3247.
- C. Petition the FAA to **establish a charted area for prohibited airspace** similar to some areas within NOAA Marine Sanctuaries and other U.S. Wilderness areas. In some limited areas within marine refuges and Wilderness areas, certain types of flights are prohibited and altitude restrictions (2,000 feet) are requested. These restrictions were imposed when enough complaints came in to the FAA or agencies like NOAA requested them to protect wildlife. Organizations and individuals can submit complaints and requests for a prohibited airspace restriction to the FAA by calling 1-866-TELL-FAA