



Interim Best Management Practices for Aircraft Operations in Thaidene Nene National Park Reserve

v.2020-06-17

Background

Thaidene Nene National Park Reserve is located on the East Arm of Great Slave Lake, in the Northwest Territories. The park reserve is part of Thaidene Nene Indigenous Protected Area (IPA), which also includes a territorial protected area and a proposed conservation area. The area is accessible by water and air. Fixed or rotary wing aircraft operated by air charter companies are key means of transportation. Parks Canada does not maintain any runways or docks in Thaidene Nene National Park Reserve. The majority of aircraft take-offs and landings occur on waterbodies by planes equipped with floats or skis. Helicopters are used less frequently, and may be used to access inland areas of the National Park Reserve.

Scope

These Best Management Practices (BMPs) apply to aircraft operations in Thaidene Nene National Park Reserve. Aircraft operations include the flight paths, take-offs and landings, and impacts associated with the presence of visitors brought into the Park by aircraft. These BMPs are mitigations that are meant to reduce the potential impacts of aircraft operations. They are a key component of the preliminary screening process as defined in the *Mackenzie Valley Resource Management Act*. Abiding by these BMPs will be a requirement of the terms and conditions specified on air charter business licences issued by Parks Canada. Emergency landings and response operations (e.g., search and rescue, human-wildlife conflict, wildfire) that require prioritization of human life are not subject to these BMPs.

The use of drones, parachuting, sky-diving and BASE jumping (including the use of wing-suits) are prohibited activities in Thaidene Nene National Park Reserve. Special permits may be issued for use of drones in research, photography or filming activities.

Goal

The overarching goal of these BMPs is to support air charter companies operating in Thaidene Nene National Park Reserve, while minimizing potential impacts associated with aircraft operations on the natural, social and cultural environments.

Impact Assessment

The potential impacts of aircraft operations on the natural environment include damage to soil, air, water, vegetation, and wildlife (see Table 1). Several species at risk are known to inhabit Thaidene Nene National Park Reserve; however, impacts from aircraft operations should be negligible if these BMPs are applied.

The potential impacts of aircraft operations on the social and cultural environments include negative effects on Indigenous people, heritage resources¹, and visitor experience within Thaidene Nene National Park Reserve (see Table 2). Again, impacts from aircraft operations should be negligible if these BMPs are applied.

¹Heritage resources are defined as archaeological or historic sites, burial sites, artifacts and other objects of historical, cultural, or religious significance, and historical or cultural records directly associated with an important aspect or aspects of human history.

Table 1: Assessment of potential impacts of aircraft operations on the natural environment of Thaidene Nene National Park Reserve.

	Soil	Air	Water	Vegetation	Wildlife
All aircraft	<ul style="list-style-type: none"> • Contamination from fuel spills • Rutting and compaction at landing sites 	<ul style="list-style-type: none"> • Chemical pollution from exhaust/ fuel odours • Noise disturbance 	<ul style="list-style-type: none"> • Contamination from fuel/oil leaks and spills 	<ul style="list-style-type: none"> • Contamination from fuel spills • Physical damage/destruction at landing sites • Introduction of invasive species 	<ul style="list-style-type: none"> • Habitat degradation • Altered movement patterns • Stress response • Wildlife attractants at landing sites
Fixed wing (floats/skis)	<ul style="list-style-type: none"> • Shoreline erosion from wave action or running plane up on to the beach 	See all aircraft	<ul style="list-style-type: none"> • Turbidity • Sedimentation • Introduction of invasive aquatic species 	<ul style="list-style-type: none"> • Physical damage/destruction from increased wave action 	<ul style="list-style-type: none"> • Habitat degradation (aquatic)
Helicopters	<ul style="list-style-type: none"> • Erosion from rotor wash 	See all aircraft	See all aircraft	<ul style="list-style-type: none"> • Physical damage/destruction from rotor wash • Reduced photosynthesis from dust deposition 	See all aircraft
Visitors arriving via aircraft	<ul style="list-style-type: none"> • Loss of nutrients if bones, antlers, fossils collected • Compaction along trails • Litter • Contamination from improper human waste management 	<ul style="list-style-type: none"> • Noise disturbance 	<ul style="list-style-type: none"> • Litter • Contamination from human waste • Over/illegal fishing 	<ul style="list-style-type: none"> • Physical damage/destruction from trampling • Introduction of invasive species 	<ul style="list-style-type: none"> • Habituation to people • Food-conditioning • Increased fatalities from human-wildlife conflict • Disturbances from viewing/photography activities • Nest/habitat destruction • Illegal harvesting

Table 2: Assessment of potential impacts of aircraft operations on the social and cultural environments of Thaidene Nene National Park Reserve.

	Indigenous People	Heritage Resources	Visitor Experience
All aircraft	<ul style="list-style-type: none"> • Interference with traditional harvesting rights and on-the-land activities • Noise disturbance • Reduced soil, air and water quality 	<ul style="list-style-type: none"> • Increased access to cultural and ceremonial sites • Physical damage/destruction of cultural and ceremonial sites 	<ul style="list-style-type: none"> • Degraded wilderness experience with increasing levels of overflight activity • Interference with water and land-based recreation near landing sites
Visitors arriving via aircraft	<ul style="list-style-type: none"> • Noise disturbance • Litter • Contamination from improper human waste management 	<ul style="list-style-type: none"> • Unauthorized use of cultural and ceremonial sites • Removal or destruction of historical artifacts 	<ul style="list-style-type: none"> • Overcrowding at popular recreation sites • Litter • Contamination from improper human waste management

Best Management Practices

It is anticipated that aircraft operations in Thaidene Nene National Park Reserve will grow with increasing visitor activity. The following BMPs are intended to mitigate the potential impacts associated with rotary and fixed-wing aircraft on the natural, social and cultural environment of the area.

Registration and Permits

A permit is required to cache fuel within the National Park Reserve. Please refer to the Interim *Best Management Practices for Fuel Caching in Thaidene Nene National Park Reserve*.

A permit is required to fish in the National Park Reserve. Fishing permits can be obtained from www.pc.gc.ca/thaidene-nene.

Visitors are required to register for travel within Thaidene Nene Indigenous Protected Area. Parks Canada is facilitating the registration process. Guide outfitters (e.g., flightseeing tours, sea kayak tours) are expected to register their clients. Self-guided groups, such as those using a boat or air charter to access the park, must register themselves.

Protect Ecological Integrity

As part of the pre-trip briefing all clients must be:

1. Informed that natural and cultural resources cannot be removed, defaced, damaged or destroyed. Berries are allowed to be harvested and consumed in Thaidene Nene National Park Reserve.
2. Asked to remove mud and/or seeds from their footwear, clothing, and pets prior to departure to prevent the introduction of non-native/invasive species into the National Park Reserve.
3. Encouraged to use washroom facilities before departing for the National Park Reserve for a day trip.
4. Reminded to pack out all items brought into the park, including personal belongings and garbage.
5. Informed that they are in bear country. Visitors should always be aware of their surroundings (i.e., be on the look out for fresh tracks, scat, digs). Bear spray is recommended for effective self-defense. People should be familiar with its use before travelling into the park, and have quick (and unimpeded) access to it at all times.
6. Informed that firearms are permitted in Thaidene Nene National Park Reserve for wildlife defense only – visitors are not permitted to hunt. All firearms must be properly locked and stored when travelling. Note: traditional harvest by Indigenous peoples continues in Thaidene Nene National Park Reserve.

To minimize compaction and damage to soils and vegetation:

7. Choose landing sites with durable surfaces (e.g., rock, talus, gravel or sand), when possible.
8. Bring the plane to shore at the same general location to minimize the overall footprint of the landing site.
9. Encourage clients to stand on durable surfaces while at landing sites.

To prevent shoreline erosion and disturbance to shallow water habitats:

10. Reduce aircraft speeds when taxiing toward shore to prevent large wakes.
11. Deplane clients and cargo along a single path from plane to shore.
12. Remove debris and vegetation from pontoons and skis before all take-offs and landings to prevent translocating non-native/invasive species in the National Park Reserve.

To minimize contamination from improper human waste management:

13. Use outhouse facilities where available.
14. Move at least 60 meters away from the aircraft landing site, heritage resources, hiking trails, camping areas, and water bodies before urinating/defecating.
15. Bury solids in a shallow hole (e.g., 15 to 20 cm deep) in soil-covered areas and a deep hole (1 – 2 feet) in snow-covered areas. Avoid disturbing plant communities.
16. Pack out or burn (in the hole or a fire box) all used toilet paper.

Protect Wildlife

To minimize disturbance to wildlife:

17. With the exception of landings and take-offs, or when required for safety, maintain an altitude of at least 2000ft (610m) above ground level (AGL) while flying over the park reserve.
18. Never circle, chase, hover over, dive bomb, pursue, or in any other way harass wildlife from the air.
19. Avoid wildlife travel corridors, feeding areas, calving grounds and nesting sites.
20. Alter the flight path or ascend in elevation when wildlife are observed.
21. Avoid landing within:
 - 2km of caribou herds;
 - 500m of large carnivores, large herds (e.g., muskox), and large congregations of birds; and
 - 150m of all other wildlife.
22. During stopovers, ensure clients maintain a distance of at least 100m from known den or nest sites.

23. Keep dogs on a leash and all times. Off-leash dogs can cause wildlife to feel threatened and become aggressive. Aggressive animals pose a significant risk to human safety.
24. Ensure clients never approach wildlife or encourage wildlife to approach them. This can cause wildlife to lose their natural wariness of people. Habituated animals are at greater risk of human-wildlife conflict.
25. Calmly leave the area following an encounter with a large carnivore (e.g., bear, wolf). Never run – it may trigger an instinctual chase response.
26. Be respectful when photographing wildlife – animal behaviour is unpredictable. Keep a safe viewing distance at all time (100m).

Please note: Flying activities that intentionally disturb wildlife for viewing or photographic opportunities can result in a business licence being revoked or charges being laid under the *Canada National Parks Act*. Feeding wildlife is also illegal and can result in charges. This includes feeding wildlife directly by offering them food, or indirectly by leaving food/garbage behind for them to find.

Respect Others

As part of the pre-trip briefing all clients must be informed that:

27. Indigenous people can and may be exercising their traditional rights (e.g., harvesting wildlife and other on the land activities) within the National Park Reserve and that these rights must be respected.
28. Certain areas of the park may be closed due to cultural significance or activities. Please check for area closures prior to travel.
29. Heritage resources cannot be removed or otherwise disturbed. This includes rocks from any features that look, even remotely, like they were human-made, such as cairns (rock piles), tent rings, and food caches.
30. Inuksuit are not culturally appropriate and should not be built.
31. Parks Canada and Lutsel K'e Dene First Nation equipment and boats are not for public use.
32. Plan trip routes to avoid flying over trails, campsites and people.
33. Avoid lengthy circling or hovering over landing sites.
34. Turn off the engine while at landing sites to reduce exhaust fumes and noise.

Emergency Response

Aircraft Incidents

- Contact the Joint Rescue Coordination Centre (JRCC) if you require immediate medical or evacuation assistance;
- Report all aircraft incidents to Transport Canada, and Parks Canada, Southwest NWT Field Unit if the incident occurred within Thaidene Nene National Park Reserve.

Wildlife-related Incidents

- Contact Parks Canada, Southwest NWT Field Unit if you are involved in or observe negative encounters with wildlife (e.g., aggressive behaviours, damage to property, accessing human foods); illegal harvest; sick or injured animals, or a wildlife carcass.

Wildland Fire

- Contact Parks Canada, Southwest NWT Field Unit if you are involved in or observe smoke, positive lightning strikes (e.g., causes fire or physical damage), unattended/abandoned campfires, or forest fires.

Contaminant Spills and/or Fuel Drums

- Contact the Northwest Territories Spill Line if you are involved in or observe any fuel or contaminant spills greater than 100 liters.
- Contact Parks Canada, Southwest NWT Field Unit if you are involved in or observe any fuel or contaminant spills within the National Park Reserve. Similarly, report all observations of fuel barrels, abandoned or otherwise, at any location with the exception of the fuel cache at Reliance.

Emergency Contacts

Parks Canada Dispatch (24hr emergency line) at 1-877-852-3100 (toll free), or email jasperdispatch@canada.ca

Northwest Territories Spill Line (24hr Report Line) at 1-867-920-8130, or Email spills@gov.nt.ca

Joint Rescue Coordination Centre – Central and Arctic (24hr Line) at 1-800-267-7270 (toll free), or 1-613-965-3870, or email jrcctrenton@sarnet.dnd.ca

Non-Emergency Contact

Thaidene Nene National Park Reserve (non-emergency line)
Parks Canada Yellowknife Office (M-F; 9-5)
867-766-8460 (landline), or e-mail pc.thaidene.nene.pc@canada.ca