Standard Operating Procedure (SOP) 2: Training Observers

Protocol for Monitoring American Peregrine Falcons

Central Alaska (CAKN) Inventory and Monitoring Network

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The main Narrative for the Protocol for Monitoring Peregrine Falcon in Central Alaska (CAKN) Inventory and Monitoring Network is available from the NPS Inventory and Monitoring Central Alaska Network website (http://science.nature.nps.gov/im/units/CAKN/) and the Natural Resource Publications Management website (http://www.nature.nps.gov/publications/nrpm/

SOP 2 – Training Observers

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SOP 2.0 – Introduction

This SOP describes the annual training procedures required for personnel involved with Peregrine Falcon monitoring for the Central Alaska Inventory and Monitoring Network (CAKN) conducted along the upper Yukon River in YUCH. Training is carried out well in advance of the upcoming field season and should be completed by the middle of April prior to field work in May. Survey and data processing/management personnel will be familiar with the Peregrine Falcon protocol narrative and SOPs (see SOP 1). Survey personnel will complete National Park Service (NPS) safety training as well as data collection training to comply with quality assurance protocols. Safety is the most important aspect of conducting studies for monitoring Peregrine Falcon, as working in the wilderness and in bear country can be dangerous. With this in mind, survey operations will be conducted with safety as the top priority in decision making processes. Yukon-Charley Rivers National Preserve and Gates of the Arctic National Park and Preserve (YUGA) have backcountry safety policies that must be followed for all backcountry operations. This guidance can be found on the YUGA intranet page at:
https://sites.google.com/a/nps.gov/yuga-admin-handbook/yuga/safety

SOP 2.1 – Safety Training

To ensure crew safety, the NPS requires a high degree of training before crew members are allowed into the field. Each crew member must be able to show that they possess current certification and/or training in the classes listed below.

SOP 2.1.1 – Required Safety Training

1) Bear and Firearms Safety Training (4 hours, annually provided by YUGA, usually within the last two weeks of May). The bear safety portion of the class is required of all NPS field personnel and volunteers. This training can be obtained by local vendors in the spring, several months prior to field work (e.g. Joe Nava's Firearms Instruction) or by NPS or other DOI agencies (e.g. BLM, FWS, etc.). Per YUGA's backcountry policies, the firearms (shotgun) training is not required of personnel who are not required (or allowed) to carry firearms in the field (volunteers, SCAs and anyone who has not had firearms training cannot carry or handle firearms). However, it is useful for the crew members to take the training to understand and maintain firearm safety when one is present. Field crew members on the Peregrine Falcon surveys are not required to carry firearms but are required to carry pepper spray at all times and will be trained in its use. However, a firearm may be carried by senior personnel during Peregrine Falcon surveys.

2) Motorboat Operator Certification Training (MOCC; 30 hr) teaches boating rules and safety, river reading, boat motor and trailer maintenance and boat driving and trailering techniques. This is optional for seasonals and difficult to schedule but useful for all crew members to take.

3) Satellite phone use, SPOT, communications and safety check-ins in the field (1 hour annually). All field crew members will be taught how to use the satellite phone and SPOT, and how and when to make twice daily safety check-in with the Alaska Regional Communications Center (ARCC) in DENA. This training will occur the Friday prior to the start of field work, the following Monday and again reviewed in the field.

4) CPR/First Aid (4 hours annually). Basic CPR and First Aid is required for all NPS staff personnel going into the field (it is highly recommended for volunteers). A wilderness first aid course is even better.

5) Personal Protective Equipment (PPE) and field clothing (1 hour annually). The crew members must have a basic understanding of the use of personal protective equipment (PPE). PPE, including nitrile gloves for handling Peregrine Falcon and warm, wicking layers, rain gear, rubber knee boots, sunglasses, etc. for working in the backcountry in inclement weather.

6) Operational Leadership (16 hour initial training-8 hour class for seasonals; 2 hour annual refresher). This training for all permanent, term, seasonal crew members (highly recommended for volunteers) is essential to empower staff to be assertive about their safety, the team's safety, risk management and the decision-making process. More information can be found at: https://www.nps.gov/training/nrs/academy/G_both_graphic/operational_leadership.html

SOP 2.1.2 – Required Communications Training

Communications will comply with all applicable policies and regulations issued by the Department of the Interior (DOI), National Park Service YUGA (Yukon-Charley Rivers National Preserve and Gates of the Arctic National Park and Preserve) backcountry and safety policies, DENA backcountry and safety policies and the Alaska Regional Communications Center (ARCC) communications and safety policies (https://sites.google.com/a/nps.gov/arcc-region/home).

The ARCC requires a float plan to be submitted one week prior to the start of field work (see SOP 1) and twice daily check-ins with two-way communication devices. The Peregrine Falcon crew will call in each day at 9 am and 4 pm. Calls will be made by either cell phone, satellite phone or park radio. The project manager (Melanie Flamme) YUGA Radio Number will be used to identify the project: **349**. ARCC DENA Radio Number is: **700**. When making a call to ARCC, it should go something like this:

- **Radio Calls to ARCC**
  (example: Radio: "700 (seven hundred=ARCC), this is YUGA 349 (three-hundred forty-nine) checking in for the Peregrine Falcon crew (you may also need to say the PIs name, "Flamme," to provide more detail to the dispatcher if they don't seem to recognize the project).

-**Satellite or cell phone check in:**
  (example: "Hello, this is YUGA 349 (three-hundred forty-nine) checking in for the Peregrine Falcon Crew.

The SPOT device is programmed with the ARCC email address as well as the CAKN Program Manager and YUGA Chief of Resources. Each night after establishing a camp, a SPOT message will be sent to ARCC signaling that all are ok and back in camp for the evening.

SOP 2.2 – Survey Technique and Protocol Review: Identification of Peregrines by Sight and Vocalization

Observers should be able to identify all raptor species in their area. In particular, peregrine falcons can be confused with the gyrfalcons (*Falco rusticolus*) (similar shape and slightly larger), and a smaller falcon, the American kestrel (*Falco sparverius*). Both of these species nest in and near much of the peregrine falcon habitat in interior Alaska. Individual peregrine falcons can occasionally be identified (although not positively) based on facial color pattern, noting details of the helmet pattern (placement of narrow or wide cheek stripes). This can be a useful way of noting when replacement and probable interruption of the nesting sequence has occurred. Digital photographs taken with a spotting adapter provide good records of individual facial patterns.

Procedures:

1. Observers should read a number of references on raptor identification from sources such as Dunne et al. (1988) or Peterson's Hawk Identification (Clark and Wheeler 1998). General bird identification guides (National Geographic 1987; Robbins et al. 1983) are also useful in learning to identify this species.

2. Tapes or CDs of the vocalizations of 3 species (peregrine falcons, gyrfalcons, and American kestrels) can be used to learn and distinguish vocalizations.

3. Slides or photographs of peregrine falcons and similar raptors are useful learning tools.

4. Other suggested reference materials for raptor identification:
   - Tapes or CDs of bird songs are produced by Cornell Laboratory of Ornithology's Library of Natural Sounds, and may be obtained from State Wildlife Agencies.
   - National Audubon Society Interactive CD-ROM Guide to North American Birds. This interactive CD-ROM is an excellent resource for learning calls, site ID and background information on bird species.
   - Bird slides of species likely to be encountered can be obtained from Cornell Laboratory of Ornithology.

SOP 2.3 – Identification of Behavioral Cues Indicating Breeding Stage for Peregrine Falcons

Each phase of the peregrine falcon breeding cycle can be distinguished by different adult behaviors. Identifying these behaviors correctly will be useful in determining the most efficient timing of visits, and therefore, the final territory status. Differences observed in vocalizations, aerial flight displays, destination of prey brought into the territory, and visibility of one or both members of a pair can be used to determine breeding stage. Observers will find good descriptions of peregrine falcon breeding behavior in Cade et al. (1996), Stokes and Stokes (1995), White et al. (2002), Palmer (1988), and Craig and Enderson (2004).

SOP 2.4 – Aging and Sexing Adult and Subadult Peregrine Falcons

Aging and sexing adult and subadult peregrine falcons requires careful observation, knowledge of sex-specific behaviors, and experience. In general, observers should use "Unknown" for age and sex unless they are very confident of their determination. Useful references on aging and

sexing peregrine falcons include: Stokes and Stokes (1995), White et al. (2002), Palmer (1988), Cade et al. (1996).

Procedures:

1. Aging peregrine falcons: Peregrine falcons do not reach full adulthood until their third year, until then they are called subadults. Occasionally, and rarely, one member of a pair will be a subadult, so it is important, when possible, to ascertain age. Subtle plumage characteristics and foot and cere coloration are the best means to distinguish between these two ages. Observers should read the cited references for detailed descriptions of plumage, cere and foot characteristics by age.

2. Sexing peregrine falcons: The female peregrine falcon is larger in size than the male by about one-third. This size difference is apparent when both birds are observed together in flight, but is often difficult to note when the birds are not together. Behavior at the nest will be the best way to distinguish sex in adult peregrine falcons, as all but the most experienced observers will find it difficult to identify the sex of a lone peregrine away from the nest. Observers should read the cited references for detailed descriptions of the difference between sexes in peregrine falcons.

SOP 2.5 – Aging and Sexing Adult and Subadult Peregrine Falcons

In interior Alaska, peregrine falcons nest on a wide variety of substrates and ledges on cliff faces. There are two steps to identifying the active nest site (cavity or ledge where eggs are laid). Initially, the territory is surveyed to find which cliff face is being used this year, usually during the first (occupancy) visit. The next step is to pinpoint the exact nest site on the cliff face. This is usually determined during the incubation or nestling phases by sightings of the peregrine falcon entering the nest during subsequent visits. During the early visits, the location of fresh peregrine falcon whitewash (feces) can provide clues to help focus observation on specific areas of a cliff when presence, absence, or specific area of use has not been determined yet.

Procedures:

1. Observers can be shown photographs of previously used peregrine falcon nest ledges, well-used perches, as well as those of other raptor species known to nest in the area. The concentration of whitewash will differ between well-used perches and the active nest site. Active peregrine falcon nest ledges rarely have a lot of whitewash, if any, early in the nesting season, but can sometimes be identified by a few single, long streaks of whitewash. Well-used perches, in contrast, are thick with whitewash. Note that whitewash from previous years will take on a yellowish hue.

2. Before the start of field season, observers can be taken to peregrine falcon and other raptor nest sites occupied during the past season to develop their skills.
3. If an experienced observer is paired with an inexperienced observer, this kind of field knowledge can be transferred through the course of the field season.

SOP 2.6 – Contaminants Monitoring of Peregrine Falcons

The USFWS Monitoring Plan for the American Peregrine Falcon focuses on population monitoring, with a secondary emphasis on contaminant monitoring in a subset of the Recovery Regions. See the USFWS Plan protocol for contaminant monitoring provided in SOP 6. Training for contaminant monitoring involves obtaining permits, and competency in the more complicated procedure of entering nests to band nestlings, collecting addled eggs and collecting feather samples.

SOP 2.7 – References

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