Standard Operating Procedure (SOP) 1: Before the Field Season

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 American Peregrine Falcons in Central Alaska (CAKN) Inventory and Monitoring Networks 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 1 – Before the Field Season

Standard Operating Procedure #1
Version 1.0 (May 2018)

Revision History Log:

Previous Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #
Add rows as needed for each change or set of changes associated with each version.					

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SOP 1.0 – Introduction

This SOP describes how to prepare for the field season for American Peregrine Falcon occupancy and productivity surveys along the upper Yukon River. Prior to the field season each year, usually in early March, observers should review this entire protocol, including all SOPs. Review of peregrine falcon identification by sight and sound, and knowledge of indicators of nesting behavior (SOP 2) are very important. This SOP also gives a brief description of how peregrine falcon monitoring should be scheduled at CAKN Parks and Preserves. All observers should follow the outlined field schedule. All of the equipment and supplies listed in this SOP should be organized and prepared for the field season, and copies of the field data forms attached to this SOP should be made on acid free, write-in-the-rain paper.

SOP 1.1 – General Preparation and Review

For all territories sampled as part of the triennial USFWS Plan (2003):

1. Contact the Regional Coordinator for changes to the protocol.

For all known and potential territories in the study area:

1. Contact the Regional Coordinator for changes to the protocol.
2. Review appropriate references on peregrine falcons, their biology and behavior, and survey techniques for peregrine falcons.
3. Review available reports, notebooks, maps, and photographs from previous surveys to familiarize observers with known territories and ledges used.
4. Review and be familiar with all fields on the "Raptor Observation Record Card."
5. Review specific location information of all known peregrine falcon territories and associated nest sites. Use appropriate methods for specific location: latitude and longitude, marked topographic quad maps, labeled photographs, sketches, or written directions. Specific territory location data should be available from individual Parks (such information is not maintained by the USFWS).
6. Cade *et al*. (1996) includes photographs of known age nestlings, and should be available at the Park unit to estimate nestling age. This document can be purchased from The Peregrine Fund, 5568 West Flying Hawk Lane, Boise, ID 83709, Ph. 208-362-3716, email: tpf@pereginefund.org

SOP 1.2 – Suggested Reference Manuals for Peregrine Falcon Surveys

Cade, T.J., J.H. Enderson, and J. Linthicum. 1996. Guide to management of Peregrine Falcons at the eyrie. The Peregrine Fund, Boise, Idaho.

Craig, G.R., and J. Enderson, 2004. Peregrine Falcon Biology and Management in Colorado, 1973-2001. Colorado Division of Wildlife. Tech. Pub. #43. Fort Collins, CO.

Dunne, P. D. Sibley, and C. Sutton. 1988. Hawks in Flight. Houghton Mifflin Company, Boston. 254 pp.

National Geographic. 1987. Field Guide to Birds of North America, 3rd Edition. National Geographic, Washington, D.C. 480 pages.

Steenhof, K. 1987. Assessing Raptor Reproductive Success and Productivity. Pages 157-170 in B.A Giron Pendleton, B.A. Millsap, K.W. Cline, and D.M. Bird, eds. Raptor management techniques

manual. Nat'l. Wildl. Fed., Washington, D.C.

Stokes, D. W. and L. Q. Stokes. 1989. Stokes Nature Guides: A Guide to Bird Behavior. Volume 111. Little, Brown and Company, Boston. 397 pp.

White, C. M., N. J. Clum, T. J. Cade, and W. G. Hunt. 2002. Peregrine falcon (Falco peregrinus). In The Birds of North America, Inc. Philadelphia, PA.

SOP 1.3 – Required Permits

Required permits for the American Peregrine Falcon survey include: 1) NPS Institute of Animal Care and Use Committee (IACUC) approval, and 2) NPS park compliance and research permits from Yukon-Charley Rivers National Preserve, 3) U.S. Fish and Wildlife Service Migratory Bird Permit, 4) State of Alaska Scientific Collecting Permit. All must be obtained before conducting American Peregrine Falcon surveys within YUCH. The permitting processes for the NPS IACUC require at least 120 days prior to the project start date but more time lead time is always better as the IACUC only meets once per month to review projects. If possible, try to complete the IACUC review in February, March or April prior to field work in August. Once summer hits in Alaska, many parks are conducting projects and the IACUC may become inundated and overwhelmed with projects to review. YUCH requires at least 90 days prior to the project start date. Applications for park permits can be submitted online through PEPC, and will be reviewed by the park compliance team. The project PI(s) must ensure that permits are obtained well in advance of survey operations to avoid delays in collecting data. They must also ensure that all personnel have or are scheduled for appropriate training prior to conducting surveys (see SOP-5).

SOP 1.4 – Scheduling Work

1. Peregrine falcon breeding surveys will begin in late April or early May (depending on access to study area) and extend to late July or early August., a period that includes the courtship through nestling and fledging phases of the breeding cycle. Inclement weather, personnel workloads, and slight variations in timing of breeding onset depending on elevation and seasonal differences, will preclude the scheduling of surveys to specific annual dates. Sampling dates should be scheduled and logistics organized prior to the start of each field season.

2. Monitoring efforts within YUCH will require, at minimum, one experienced observer, to survey the study area 2-3 times over the course of the breeding season. Time required per potential and known territories will vary among territories; work at some territories may be accomplished relatively quickly, while others may require most of a day per visit.

3. Field visits are scheduled to collect three main pieces of information: whether or not a territory is occupied, where the nest ledge is so that nest status can be more accurately determined later, and whether (and how many if possible) young were successfully produced. Unless alternate methods are agreed upon, this is best accomplished by making two to three visits to known or potential nesting territories. Visits should be scheduled as follows. The first visit should occur after both adults have arrived on territory and courtship and egg-laying has begun (due to the short season in Alaska, there is very little courtship). The second visit should be after hatching when nestlings are between 0 and 32 days old. The third visit should be when nestlings are more than 32 days old (80% of fledging age), and successful fledging is assumed.

SOP 1.5 – Organizing Supplies and Equipment

1. Equipment should be organized and made ready several weeks before the field season. This allows time to make needed repairs and order equipment. The following is a list of field equipment (Table 1.) needs for one observer; if two or more observers work simultaneously then equipment needs will change accordingly.

2. Reservations for a large GOVs seating 6 people each and with capacity for field gear should be made in April or May to ensure availability for towing the boat to Circle. Reservations are made on the YUGA Google calendar. If no GOVs are available at YUGA, vehicles maybe reserved through DENA or rented. The GOV configuration that is optimal is a Suburban or pickup with an enclosed back to keep field gear from getting dusty or rained on during the 4+hr drive to Circle.

Table 1. Field equipment list for peregrine falcon surveys.

Number Req.	Description
1	Field notebook
1	Cade et al. 1996
	Raptor Observation Record and Eyrie Cards, USFWS data form if needed
1	10X magnification binoculars[1]
1	High quality, portable spotting scope (15-40X zoom or 50x wide is most useful), ≥ 60mm objective lens preferable for better lighting[1]
1	Sturdy tripod which accepts interchangeable heads, preferably with "fluid" adjustment aids for tracking flying birds[1]
1	Rangefinder (1000 m range) for recording distance of observation post to nest
1	GPS unit, maps, sketches, directions, or photographs for locating sites
1	Compass with inclinometer for determining aspect of newly found nests
	Appropriate outdoor gear and field food (tent, sleeping bag, pad, stove, cook kit, rain gear, hat, insect repellent, sunscreen, first aid kit, folding chair, etc.)
	Boat with motor sufficient for 2 w/gear, boat gas, oil, boat kit with spare spark plugs, spare fuel hoses, bung wrench, funnel, fuel transfer hose, tools, etc.
	Truck or SUV with trailer hitch and lights

[1] Craig and.Enderson (2004)

SOP 1.6 – ARCC Requirements for Daily Communications

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. An ARCC Backcountry Plan or Float Trip form needs to be submitted two weeks prior to the start of field work (see Appendix SOP 1.1).

The ARCC requires twice daily check-ins with two-way communication devices. The American Peregrine Falcon crew will call in each morning from the Rock Creek camp at 10 am (after the first trapping session) and at 6 pm (prior to the 8 pm trapping session). Calls will be made by either cell phone, satellite phone or park radio. We will use the PI's (Melanie Flamme) YUGA Radio Number to identify our project: **349**. ARCC DENA Radio Number is: 700. Below is an example of how to make the call to ARCC,:

- **Radio Calls to ARCC**
  (Example: Radio: "700 (seven hundred=ARCC), this is YUGA 349 (three-hundred forty-nine) at Rock Creek Checking in for the American Peregrine Falcon crew

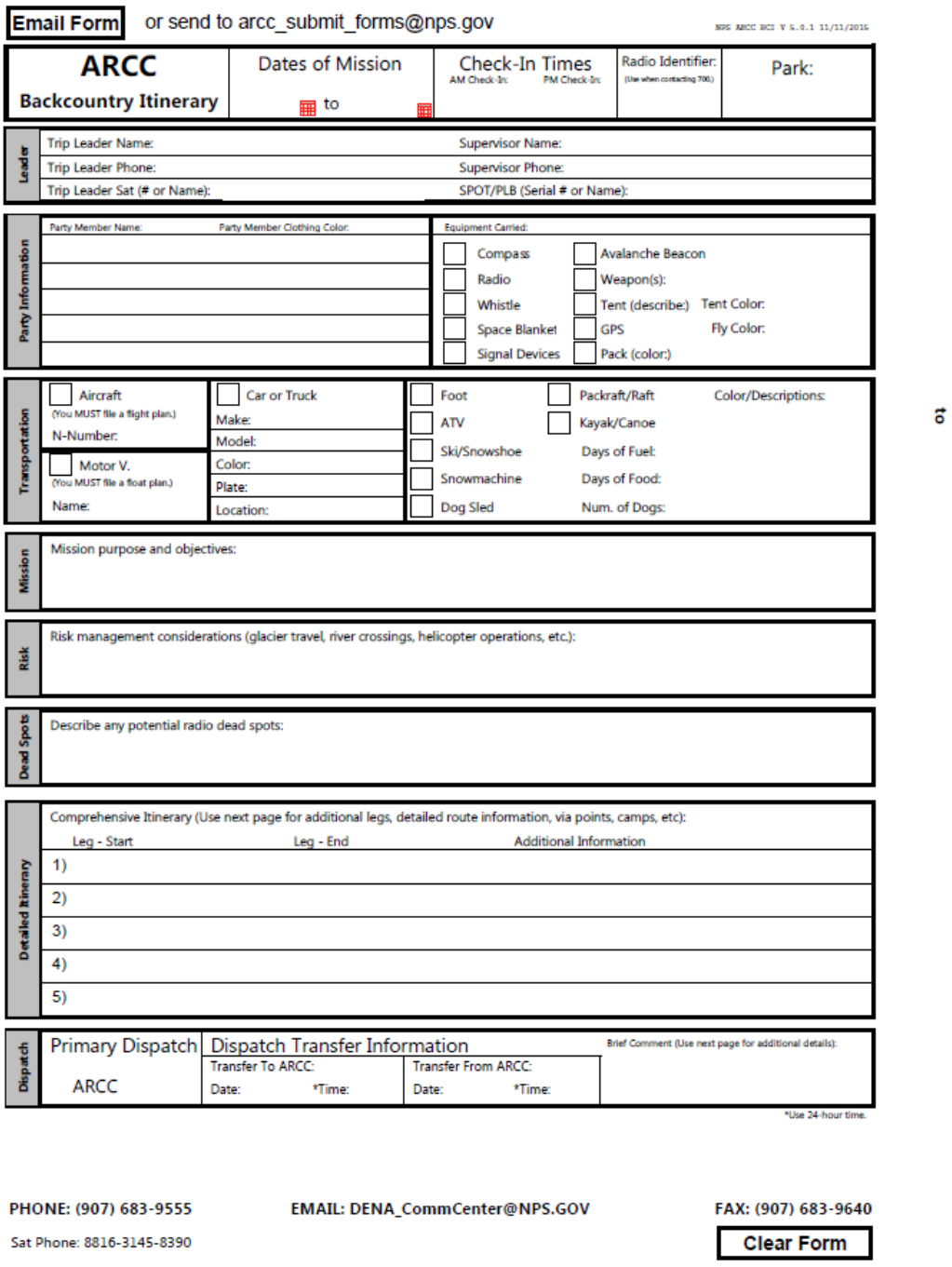
-**Satellite or cell phone check in:**
  (Example: "Hello, this is YUGA 349 (three-hundred forty-nine) at Rock Creek checking in for the American Peregrine Falcon Crew.

Our SPOT device is programmed with the ARCC email address as well as the CAKN Program Manager and YUGA Chief of Resources. Each night, once a camp for the night is established, a SPOT message is sent to ARCC signaling we are all ok.

SOP 1.7 – Personal Protective Equipment (PPE) and Field Safety

This field work requires handling wildlife, inclement weather and backcountry camping in rugged terrain and where bears may be present. Personal protective equipment (PPE) is worn to enhance safety of personnel. Personal protective equipment required for handling American Peregrine Falcon, samples and eggs includes nitrile gloves, to mitigate transmission of zoonotic diseases. CAKN will provide the gloves and bleach wipes, hand sanitizer and soap and crew members will wash hands after handling samples and prior to handing food. CAKN will provide each field crew member with a pepper spray to be worn at all times for bear safety. The pepper spray will be stored each night in the vestibule of their tents. Each crew member will bring layers of warm, wicking clothing, sun hat, sun glasses, gloves, warm hat, full rain gear, rubber knee boots and hiking boots for inclement weather and backcountry camping. CAKN will provide a fully stocked first aid kit for the field crew.

Appendix A – Alaska Regional Communications Center Backcountry Plan Form



Email Form or send to arcc_submit_forms@nps.gov

NPS ARCC BCI V 5.0.1 11/11/2016

ARCC
Backcountry Itinerary

Dates of Mission ▦ to ▦

Check-In Times
AM Check-In: PM Check-In:

Radio Identifier: (Use when contacting 700.)

Park:

Leader

Trip Leader Name:	Supervisor Name:
Trip Leader Phone:	Supervisor Phone:
Trip Leader Sat (# or Name):	SPOT/PLB (Serial # or Name):

Party Information

Party Member Name:	Party Member Clothing Color:

Equipment Carried:

- ☐ Compass
- ☐ Radio
- ☐ Whistle
- ☐ Space Blanket
- ☐ Signal Devices
- ☐ Avalanche Beacon
- ☐ Weapon(s):
- ☐ Tent (describe:) Tent Color:
- ☐ GPS Fly Color:
- ☐ Pack (color:)

Transportation

- ☐ Aircraft (You MUST file a flight plan.) N-Number:
- ☐ Motor V. (You MUST file a float plan.) Name:
- ☐ Car or Truck — Make: / Model: / Color: / Plate: / Location:
- ☐ Foot
- ☐ ATV
- ☐ Ski/Snowshoe
- ☐ Snowmachine
- ☐ Dog Sled
- ☐ Packraft/Raft
- ☐ Kayak/Canoe

Color/Descriptions:

Days of Fuel:

Days of Food:

Num. of Dogs:

Mission

Mission purpose and objectives:

Risk

Risk management considerations (glacier travel, river crossings, helicopter operations, etc.):

Dead Spots

Describe any potential radio dead spots:

Detailed Itinerary

Comprehensive Itinerary (Use next page for additional legs, detailed route information, via points, camps, etc):

Leg - Start	Leg - End	Additional Information
1)		
2)		
3)		
4)		
5)		

Dispatch

Primary Dispatch: ARCC

Dispatch Transfer Information

Transfer To ARCC:	Transfer From ARCC:
Date: *Time:	Date: *Time:

Brief Comment (Use next page for additional details):

*Use 24-hour time.

to

PHONE: (907) 683-9555 EMAIL: DENA_CommCenter@NPS.GOV FAX: (907) 683-9640

Sat Phone: 8816-3145-8390

Clear Form

Email Form or send to arcc_submit_forms@nps.gov

NPS ARCC BCI V 5.0.1 11/11/2015

ARCC **Backcountry Itinerary**	Dates of Mission to	Check-In Times AM Check-In: PM Check-In:	Radio Identifier: (Use when contacting 700.)

Supplemental Information

Comments: