



7555-01

NATIONAL SCIENCE FOUNDATION

Notice of Permit Applications Received Under the Antarctic Conservation Act of 1978 (P.L. 95-541)

AGENCY: National Science Foundation

ACTION: Notice of Permit Applications Received under the Antarctic Conservation Act of 1978, (Public Law 95-541), as amended by the Antarctic Science, Tourism and Conservation Act of 1996 (Public Law 104-227).

SUMMARY: The National Science Foundation (NSF) is required to publish a notice of permit applications received to conduct activities regulated under the Antarctic Conservation Act of 1978. NSF has published regulations under the Antarctic Conservation Act at Title 45 Part 671 of the Code of Federal Regulations. This is the required notice of permit applications received.

DATES: Interested parties are invited to submit written data, comments, or views with respect to this permit application by **[Insert 30 days from date of publication in the Federal Register]**. This application may be inspected by interested parties at the Permit Office, address below.

ADDRESS: Comments should be addressed to Permit Office, Room 755, Division of Polar Programs, National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230.

FOR FURTHER INFORMATION CONTACT: Polly A. Penhale, Environmental Officer, at the above address or ACApermits@nsf.gov or (703) 292-7149.

SUPPLEMENTAL INFORMATION: The National Science Foundation, as directed by the Antarctic Conservation Act of 1978 (Public Law 95-541), as amended by the Antarctic Science, Tourism and Conservation Act of 1996 (Public Law 104-227), has developed regulations for the establishment of a permit

system for various activities in Antarctica and designation of certain animals and certain geographic areas a requiring special protection. The regulations establish such a permit system to designate Antarctic Specially Protected Areas.

APPLICATION DETAILS:

1. Applicant

Permit Application: 2016-011

Dr. Stephanie Jenourvriér

Woods Hole Oceanographic Institution

Woods Hole, MA 02453

Activity for Which Permit is Requested: The applicant intends to collect a multi-scale and temporal baseline data set on the largest cluster of Adelie penguin breeding colonies in the Antarctic Peninsula (AP). The area near the Danger Islands in the Weddell Sea (eastern AP) may account for half of the total breeding population of Adelie penguins in the AP, yet these colonies are little known. Penguin population shifts have been documented in the western AP and this study will help reduce uncertainty for the eastern AP populations. Should the weather preclude reaching the site, alternative study sites have been identified.

Unmanned Aerial Vehicle (UAV) Filming: The applicant wishes to fly a small, battery operated, remotely-controlled quadrotor Unmanned Aerial Vehicle (UAV) in order to photograph penguin colonies as part of a multiscale spatial survey of penguin colonies. The primary flight mode for the vehicles will be automatic take off, landing, and waypoint using ground station software. The secondary/emergency mode is remote control operation of the UAV by a trained pilot on the ground. In both flight modes the quadcopter will always be flown within visible sight of the pilot and designated observers. Operations will only be conducted inside the 10m/s maximum wind speed estimate. The UAV will only be flown in visual meteorological conditions. Flights will be flown between 50 and 200 ft. above the colonies in keeping with previous experience by other researcher engaged in similar UAV-

based surveys of wildlife in the Antarctic. A risk analysis and mitigation measures should reduce the risk of loss the UAV. The UAV pilots will be trained to the standard of ground school training provide for a private pilot's license and training on simulators and significant flight time with the UAVs will be conducted before deployment. The applicant is seeking a Waste Permit to cover any accidental releases that may result from flying a UAV.

Remote Cameras: The applicant wishes to deploy a network of four solar-powered, satellite-linked remote cameras to examine penguin vital rates. The time-lapse cameras, specially designed for this application, have been field tested over the winter at other sites in the Antarctica. The cameras will be mounted on a scaffold pole supported by an aluminum tripod. No malfunctions or adverse effects were seen in previous deployments. The instruments also record air temperature. The cameras are intended to remain in situ and operate remotely for five seasons. The units are completely weatherproof and are powered by batteries that are charged via a solar cell.

Dates

1 December 2015 through 1 January 2016

Nadene G. Kennedy
Polar Coordination Specialist
Division of Polar Programs

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