ATTN: Dr Carl B. Schreck; 104 Nash Hall; Dept of Fisheries and Wildlife; Corvallis, OR 97331

**United States of America**
**FEDERAL COMMUNICATIONS COMMISSION**
**EXPERIMENTAL**
**SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL
(Nature of Service)

KS2XAM
(Call Sign)

XR MO
(Class of station)

S-3206-EX-98
(File number)

NAME OREGON STATE UNIVERSITY

in waters of Oregon, Washington, and Idaho
(Location of station)

Special Temporary Authority is hereby granted to operate the radio transmitting apparatus described below:

| Frequency (MHz) | Authorized Power (ERP) | Emission Designator |
|---|---|---|
| 148 - 149.9 | 2.3 uW | 2K00P0N |

Purpose of Operation: Monitoring migration of juvenile salmon.

This special temporary authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This special temporary authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control by the Government of the United States conferred by Section 706 of the Communications Act of 1934.

This authorization effective April 1, 1998 and will expire 3:00 A.M. EST. October 1, 1998

FEDERAL COMMUNICATIONS COMMISSION

S 3206-98 ICAO

APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION TO USE WILDLIFE TELEMETRY EQUIPMENT (CFR 47, § 5.56)

**Name and address:**

Dr. Carl B. Schreck, Leader and Professor
Oregon Cooperative Fishery Research Unit
104 Nash Hall
Department of Fisheries and Wildlife
Oregon State University
Corvallis, OR 97331
(541) 737-1961

**Need for special action:**

We are aware that many users of wildlife radio-telemetry are not operating under FCC authority. Since our work involves cooperation between the U.S. Gelogical Survey (Biological Resources Division), National Marine Fisheries Service, Bonneville Power Administration, U.S. Army Corps of Engineers, and Oregon State University, proper authorization is important.

**Purpose of operation, including narrative description:**

Low power radio telemetry transmitters and receivers will be used in water to monitor the migration of juvenile spring chinook salmon in the Columbia and Snake Rivers and several of their tributaries; transmitters will be implanted in the stomach. Receivers will be operated from fixed locations, from boats and from light aircraft. The goals of this research are to learn how young fish migrate from their hatching and rearing areas to the ocean.. Further, our studies on the Columbia will help assess the effect of barging (transporting young fish around dams) on smolt migration downstream and the effect of predation by squawfish, terns, and gulls on salmon released from barges or through dams. Our studies will play a significant part in current evaluation of techniques for conservation of endangered salmonids in the Pacific Northwest.

**Time and dates of proposed operation:**

The most active field season when telemetry is in use continues from April through June. Individual transmitters for juveniles have a maximum battery life of 21 days.

**Class of station, call sign of station, and nature of service:**

not applicable

**Location of proposed operation:**

For the 1998 field season our operations extend from Lower Granite Dam in Idaho/WA, down the Snake River, and into the Columbia River, to its mouth at Astoria.

Schreck, Appl. 2

**Equipment to be used, including name of manufacturer, model and number of units:**

Our frequency band of operation is 148-150 MHz. Transmitters and receivers are manufactured by Advanced Telemetry Systems, Inc (Isanti, MN) and LOTEK Engineering (Newmarket, Ontario). Transmitters are powered by one to two 1.5V silver oxide batteries and emit an effective radiated power (in air) of -26.5 dBm. The pulse rate is 30 to 60 bpm. Their size is 7 x 15 mm, with a weight of 1-2 g in water. We plan to use up to 500 units. We have two types of receivers manufactured by either LOTEK or Advanced Telemetry Systems.

**Frequencies desired:**

148-150 MHz

**Plate power input to final radio frequency stage:**

not applicable

**Type of emission:**

pulsed signal, 30 to 60 bpm

**Overall height of antenna structure above ground:**

Fixed yagi antennae will be placed in no more than 10 locations along the rivers. We will use existing structures for placement, with overall height of less than 12 feet.

OREGON STATE UNIVERSITY

FISHERIES & WILDLIFE

# FACSIMILE TRANSMITTAL COVER SHEET

From: Tom Stahl / Carl Schreck
Department of Fisheries & Wildlife
Oregon State University
104 Nash Hall
Corvallis, OR 97331-3803

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To: Carl Huie
FCC Office of Eng. + Technology

Date: 2/24/98
Time: 3:00 PM

Fax Phone: 202·418·1918
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3 Page (s) Faxed (Including this cover sheet)

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Carl,

Pursuant to our conversation earlier today, I am sending in this application for Special Temporary Authorization. This would essentially be similar to the previous Special Temporary Authorization, which has the following information:

Call Sign: KS2XAM
File Number: 5-2885-EX-97
Name: Oregon State University
Location: waters of OR, WA, ID
Expires: October 4, 1997

Thanks for your help. If there are any questions, please call me at 541·737·1979.

Tom Stahl