

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL
(Nature of Service)

KS2XAM
(Call Sign)

XD MO
(Class of station)

S-2885-EX-97
(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 - 150	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 4, 1997 and
will expire 3:00 A.M. EST. October 4, 1997



S-2885-EX-97

SIA

18 March 1997

*NO
Fee
Required*

Mr. Frank Wright
Federal Communications Commission
Room 7326
Washington, D.C. 20554



OREGON
STATE
UNIVERSITY

Department of
Fisheries and Wildlife

104 Nash Hall
Corvallis, Oregon
97331-3803

Dear Mr. Wright:

For the past five years you have issued a Special Temporary Authorization for radio-telemetry use in our salmon research here in Oregon. We understand that authorization must be renewed every six months. A new application covering our work in 1997 is enclosed..

We appreciate your acting favorably on our renewal request. If more than a few weeks are necessary to issue the authorization would you please call or fax? Thank you.

Sincerely yours,

John C. Snelling

John C. Snelling
Faculty Research Assistant
(541) phone 737-2592, fax 737-3590

attachments

Telephone
541-737-1938

Fax
541-737-3590

COOPERATORS:

National Biological Service, Oregon State University and the Oregon Department of Fish and Wildlife

**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, Nash Hall Rm 104, 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. Geological 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 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.

Schreck, Appl. 2

Time and dates of proposed operation:

The most active field season when telemetry is in use continues from April through August.

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 1997 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.

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 three 1.5V silver oxide batteries and emit an effective radiated power (in air) of -26.5 dBm. The pulse rate is 40 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 1000 units.

905-836-6680

We have two types of receivers manufactured by either LOTEK or Advanced Telemetry Systems.

(612-444-9267)

EX units for FCC approval

19

148-149.9

273 mW

Not for FCC approval, (612-444-9267)
Cite Tomlinson for Govt

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Frequencies desired:

148-150 MHz

Plate power input to final radio frequency stage:

3

not applicable

Type of emission:

pulsed signal, 40 to 60 bpm

260 PPM (in del ant)

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.