

Williams Sound Corp.

Exhibit 1

FCC Form 442

I. INTRODUCTION AND BACKGROUND

Williams Sound Corp. is an innovative manufacturer of radio frequency ("RF") devices used for auditory assistance purposes. It maintains its position in the industry by continually developing new products in response to evolving needs and is now in the process of developing a new generation of low-power auditory assistance devices.

Williams Sound currently operates and markets its devices as permitted under Part 15 of the FCC's rules governing unlicensed RF devices (i.e., devices that do not require an individual license) and expects soon to offer such devices as permitted under Part 95 governing low power radio services or "LPRS" (i.e., devices used for auditory assistance purposes). See 47 C.F.R. Parts 15, 95 (1995). In other instances, Williams Sound has sought and received special temporary authority to test and market devices that have not yet been approved. For example, it has requested and received authorization to evaluate prototype devices under an STA issued under call sign KS2XAW, File No. S-2596-EX-96. Attached is a copy of that STA for your convenience.

Williams Sound believes, however, that its practice of obtaining approval or special temporary authority for each product before conducting research and development does not provide it the needed flexibility to adapt quickly to changes in research plans and requirements. Consequently, Williams Sound now seeks a regular experimental license -- subject to the non-interference and other conditions described below -- to test, demonstrate and market its prototype auditory assistance transmitters and associated receivers. Attached for the staff's convenience is a draft authorization prepared for this purpose.

Williams Sound believes the public interest, necessity and convenience will be served by the grant of its request, as it would enhance the company's ability to obtain information needed to ensure its products accommodate and promote new technologies and services.

II. RESPONSES TO INDIVIDUAL QUESTIONS ON FCC FORM 442

Item 4(A): Frequency

Williams Sound seeks authorization to operate its devices in the following two categories of frequencies: (1) on the 72-73, 74.6-74.8 and 75.2-76 MHz bands as set forth in Section 15.237 of the Commission's rules governing unlicensed Part 15 devices; and (2) on the 25 kHz and 50 kHz channels in the 216-217 MHz band set forth in Section 95.629(b) & (c) (except channels 19, 20 and 50 allocated exclusively for law enforcement tracking purposes) governing low power radio services ("LPRS") devices.

Item 4(B): Transmitter Power

The FCC does not specify the transmitter power of unlicensed Part 15 transmitters; those devices operate at a maximum field strength of 80 mV at 3 meters, however. The LPRS devices would operate at a maximum of 100 mW, as permitted under Section 95.639 of the FCC's rules.

1.17 mV (ex)
1.2

Item 4(C): Maximum Effective Radiated Power

As noted above, unlicensed Part 15 devices are rated according to field strength, not radiated power; nevertheless, the maximum effective radiated power of the Part 15 devices is 0.002 (EIRP). The maximum ERP for the LPRS Part 95 devices is 100 mW.

Item 4(D): "Mean" or "Peak"

All power levels described in Item 4(c) are "Peak."

Item 4(E): Emission

The emission designator for the unlicensed Part 15 devices is 200KF3E; the emission designators for the Part 95 LPRS devices are 25K0F3E and 50K0F3E.

Item 4(F): Modulating Signal

See Item 4(E) above.

Item 4(G): Necessary Bandwidth

The maximum bandwidth for the Part 15 devices is 200 kHz. The maximum bandwidth for the Part 95 LPRS devices is 25 kHz and 50 kHz, as set forth in Section 95.633(d)(2) & (3) of the Commission's rules.

Item 5(b): Location of Proposed Operation

Williams Sound proposes to conduct its experimental operations within the United States. It would test, operate and demonstrate products at its own premises, at the premises of entities and related participants involved in the design and development of the products, at the premises of third party manufacturers developing related products, and at trade shows or similar presentations.

Items 6, 15: Antenna Information

Williams Sound will restrict operation under its experimental authorization to ensure compliance with FCC and Federal Aviation Administration ("FAA") requirements. Most devices would operate within a building or less than 6 meters above ground or an existing building. Williams Sound does not propose to mount any antennas or antenna structures.

Item 10: Narrative Statement

See discussion under "Introduction and Background" above.

Item 13: Equipment to Be Installed

The section above entitled "Introduction and Background" describes the equipment to be installed under the authority requested in this application. Williams Sound proposes to operate a sufficient number of units as discussed below to complete performance, functionality, acceptance and marketing testing of devices.

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how?

Item 19: Owner and Operator of Equipment

Williams Sound understands that the FCC permits companies to obtain compensation for their business efforts through agreements and contracts with parties involved in design and development. See 47 C.F.R. § 5.206; see also Part 15 Revisions, 6 FCC Rcd 1683, 1685 (1991). Thus, Williams Sound by this application seeks authorization to test, operate, demonstrate and lease its auditory assistance devices as contemplated under Section 5.206 of the FCC's rules and to sell and deliver such devices to entities engaged in the design and development of the units. No units would be sold to the public, however.

*not market
studies*

To obtain accurate data, Williams Sound must employ a sufficient number of units during its studies. It expects that it will be able to complete such studies with a maximum of 100 units per product generation. These numbers are intended to reflect the maximum number of unapproved units that will be in operation at any given time. In other words, Williams Sound anticipates that before it begins to experiment on a new product, it will have obtained approval for certain of the existing products under experimentation or it will have recalled those products and ceased operation.

Williams Sound recognizes that the operation of any unapproved device under experimentation must not cause harmful interference to authorized facilities. Should interference occur, Williams Sound will take reasonable steps to resolve the interference, including if necessary arranging for the discontinuance of operation. In this regard, Williams Sound would advise entities receiving the equipment that permission to operate the equipment has been granted under experimental authority issued to Williams Sound and that operation is subject to the conditions that the equipment not cause harmful interference and that the equipment must accept any interference received, including interference that may cause undesired operation. Also, as Williams Sound does not intend to sell any units to the public, all test and demonstration participants will be advised that they do not have a property right in the units and that the units may be recalled and the experimentation cancelled at any time. See 47 C.F.R. § 5.206. To that end, Williams Sound proposes to label the equipment or user information as follows:

FCC STATEMENT

Permission to operate this device has been granted under experimental authority issued by the Federal Communications Commission (FCC) to Williams Sound Corp., is strictly temporary, and may be cancelled at any time. Operation is subject to the following two conditions (1) this device may not cause harmful interference and (2) this device must accept any interference received including interference that may cause undesired operation.

This device has not been approved by the FCC and is not, and may not be, offered for sale or sold until the approval of the FCC has been obtained. Thus, the user does not hold a property right in the device and may be required to return the device. However, this device may be marketed in limited quantities to certain entities involved in design and development.

Item 20: Contacts for Inquiries

Technical Contact:

Mr. Todd E. Bergum
National Sales Manager
Williams Sound Corp.
10399 West 70th Street
Eden Prairie, MN 55344-3459
Tel: (800) 328-6190
(612) 943-2252
Fax: (612) 943-2174

Legal Contact:

David E. Hilliard, Esq.	(david_hilliard@wrf.com)
Kurt E. DeSoto, Esq.	(kurt_desoto@wrf.com)
Wiley, Rein & Fielding	
1776 K Street, N.W.	
Washington, D.C. 20006	
Tel: (202) 429-7000	
Fax: (202) 429-7207	

IV. CONCLUSION

Williams Sound submits that grant of this application will serve the public interest, convenience and necessity, as it would allow Williams Sound to enhance its ability to develop innovative products to support the information needs of the public.

ATTN: Todd Bergum; 10399 West 70th Street; Eden Prairie, MN 55344-3459

Exhibit 2

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL
(Nature of Service)

KS2XAW
(Call Sign)

XD MO
(Class of station)

S-2596-EX-96
(File number)

NAME WILLIAMS SOUND CORPORATION

- (1) Columbia Baptist Church; Falls Church, VA
(2) Indianapolis Convention Center; Indianapolis, IN
(Locations of station)

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

Frequency (MHz)	Authorized Power (watts)	Emission Designator
72.1, 72.3, 72.5, 72.7, 72.9, 74.7, 75.3, 75.5, 75.7, 75.9	0.002 (EIRP)	200KF3E

Purpose of Operation: Test, development, and demonstration of auditory assistance transmitter (model PPA T4).

Special Condition: Devices that have not received equipment authorization must be identified as "not approved by the Federal Communications Commission" and "this device is not, and may not be, offered for sale or lease, or sold or leased until the approval of the FCC has been obtained."

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 September 10, 1996 and
will expire 3:00 A.M. EST. December 31, 1996



ATTN: TODD E. BERGUM, 10399 EDEN PRAIRIE, MN 55344-3459

**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

Exhibit 3

EXPERIMENTAL
(Nature of Service)

XXXXXX
(Call Sign)

XD FX & MO
(Class of station)

XXXX-EX-PL-96
(File number)

DRAFT

NAME WILLIAMS SOUND CORP.

Within the United States
(Location of Station)

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications.

Frequency
(MHz)

Authorized
Power (watts)

Emission
Designator(s)

72-73, 74.6-74.8. 75.2-76

0.002 (EIRP)

200KF3E

216.0125, 216.0375, 216.0625, 216.0875,
216.1125, 216.1375, 216.1625, 216.1875,
216.2125, 216.2375, 216.2625, 216.2875,
216.3125, 216.3375, 216.3625, 216.3875,
216.4125, 216.4375, 216.5125, 216.5375,
216.5625, 216.5875, 216.6125, 216.6375,
216.6625, 216.6875, 216.7125, 216.7375,
216.7625, 216.7875, 216.8125, 216.8375,
216.8625, 216.8875, 216.9125, 216.9375

100 mW

25K0F3E

216.025, 216.075, 216.125, 216.175,
216.225, 216.275, 216.325, 216.375,
216.425, 216.525, 216.575, 216.625,
216.675, 216.725, 216.775, 216.825,
216.875, 216.925, 216.975

100 mW

50K0F3E

Operation: In accordance with Sec. 5.202(d), (f), (g), (i) and (j) of the Commission's Rules.

*This authorization is granted for the purpose of testing, operating, demonstrating and leasing a limited number of auditory assistance devices as described in application. Participants in the experimentation shall be informed that this operation is for experimental purposes only and can be cancelled at any time. The equipment must be identified as "not approved by the Federal Communications Commission" and that the device "is not, and may not be, offered for sale or sold until the approval of the FCC has been obtained." These devices may be marketed in limited quantities to entities involved in design and development.

This authorization effective November XX, 1996 and
and will expire 3:00 A.M. EST November XX, 1998.

**FEDERAL
COMMUNICATIONS
COMMISSION**

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