

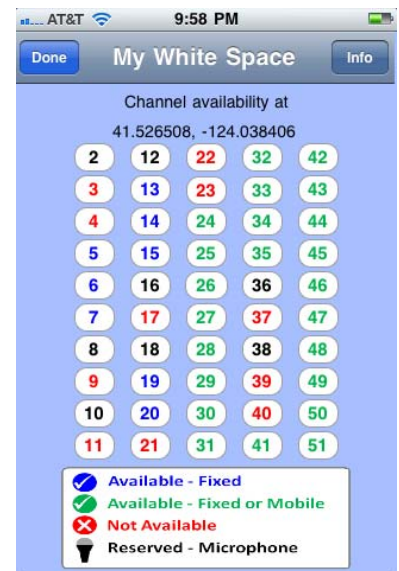
Exhibit 1: Description of Yurok Tribe, Klamath CA - White Spaces Network Program of Research and Experimentation

Carlson Wireless Technologies Inc. aka Carlson Wireless respectfully requests the issuance of an experimental license using the equipment and operating parameters set forth in its application for an experimental license (FCC File No. 0500-EX-PL-2010) (the "Application"). Grant of this license will enable Carlson Wireless and the Yurok Tribe in Northern California to conduct research and experimentation using vacant spectrum in the television broadcast bands (the "TV white spaces") for the testing of fixed white spaces devices.¹

Carlson Wireless and the Yurok Tribe in Northern California are working jointly with Spectrum Bridge in investigating the usefulness of available white space (VHF & UHF) spectrum for use in rural broadband applications and enhanced wireless broadband access for residents living and working in rural underserved areas. Carlson Wireless and the Yurok Tribe in Northern California are also working with RUS in investigating the feasibility of utilizing white spaces and associated technologies in fulfilling BTOP (Broadband Technology Opportunity Program) initiatives. A non-commercial outdoor network will be constructed that consists of 3 separate access points. Each access point will service up to 8 fixed subscriber stations.

Spectrum Bridge will serve as a white space data base provider and assist in insuring compliance with the FCC's white space rules. Although the request is for frequencies that span the upper VHF (174-216 MHz) and UHF portions (470-698 MHz) of the white space band, only channels permitted for use by FCC rules will be utilized. These channels are shown in the figure at the right:

Fixed spoke devices will be located within the immediate area (3 km radius) of each base station location specified in the Application, and the total deployment will not exceed 24 spoke portable/fixed devices which will communicate directly with the fixed outdoor base station(s).



¹ See *Unlicensed Operations in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices, Below 900 MHz and the 3 GHz Band*, Second Memorandum Opinion and Order, FCC 10-174.

Koos Technical Services (KTS) will provide the necessary hardware and software to conduct these experiments. The proposed experiment will utilize fixed stations with the following parameters:

Lower and upper frequencies and frequency units	174-216 MHz (channel size 6 MHz)
ERP and ERP units	2 watts
Frequency tolerance	< 1 ppm
Station class (i.e., fixed or mobile).	Fixed

The equipment to be used for these experiments is manufactured by KTS.

The solution incorporates a fixed “base station” connected to the internet. The base stations (hubs) provide broadband connections (approx 3 Mbits/sec (using an FSK modulation) to a number of fixed client devices that provide broadband connectivity. One goal is to show how VHF/UHF operation, combined with 6 MHz channels of TV white space provides a practical solution to providing broadband connectivity within and throughout an rural community, in challenging terrain. It is the intention of Yurok Tribe to upgrade the radios to commercial FCC-certified white space radios, when they become available, to maintain services the services within their area. The experiment is expected to last approximately 12 months.

As previously mentioned, these experiments will use White Space radios controlled by a white spaces database managed by Spectrum Bridge. These experiments are expected to facilitate fixed operations in the white spaces without causing harmful interference to incumbent television stations. The Yurok Tribe white space network will not transmit on any channel or in a manner that impacts an incumbent television licensee entitled to interference protection. In the unlikely event that a potential interference issue arises, the following persons should be contacted:

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The Commission has indicated that it expects the availability of white space spectrum will promote the development and deployment of innovative new services. It is expected that these experiments have a reasonable promise of contribution to the development of white space technologies and policy. Carlson Wireless and the Yurok Tribe also believe that this research effort will further these goals by testing the viability of new applications and acquiring test data while insuring interference-free operation.

Carlson Wireless and the Yurok Tribe and its partners fully anticipate that these experiments will further the development of innovative white spaces applications, and respectfully requests expedited processing of the Application.