

From Ships at Sea to UC TV

UC's Radiofrequency Licenses and FCC Coordination

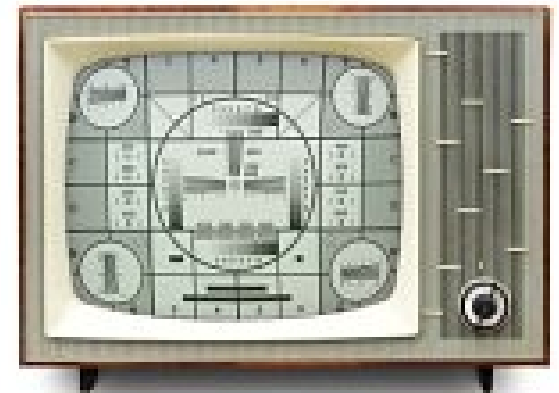
Connie Geraghty, FCC Coordinator

Information Technology Services – UC Office of the President

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KALX – UC Berkeley

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How Did the IT Department End up with the FCC?



- FCC stands for the Federal Communications Commission
- In December 1982 the responsibility to submit license applications to the FCC was formally delegated via the President to the Vice President, Information Technology Services (ITS)
- IT is the functional home for related network, communications, and technology areas

Types of UC FCC Licenses

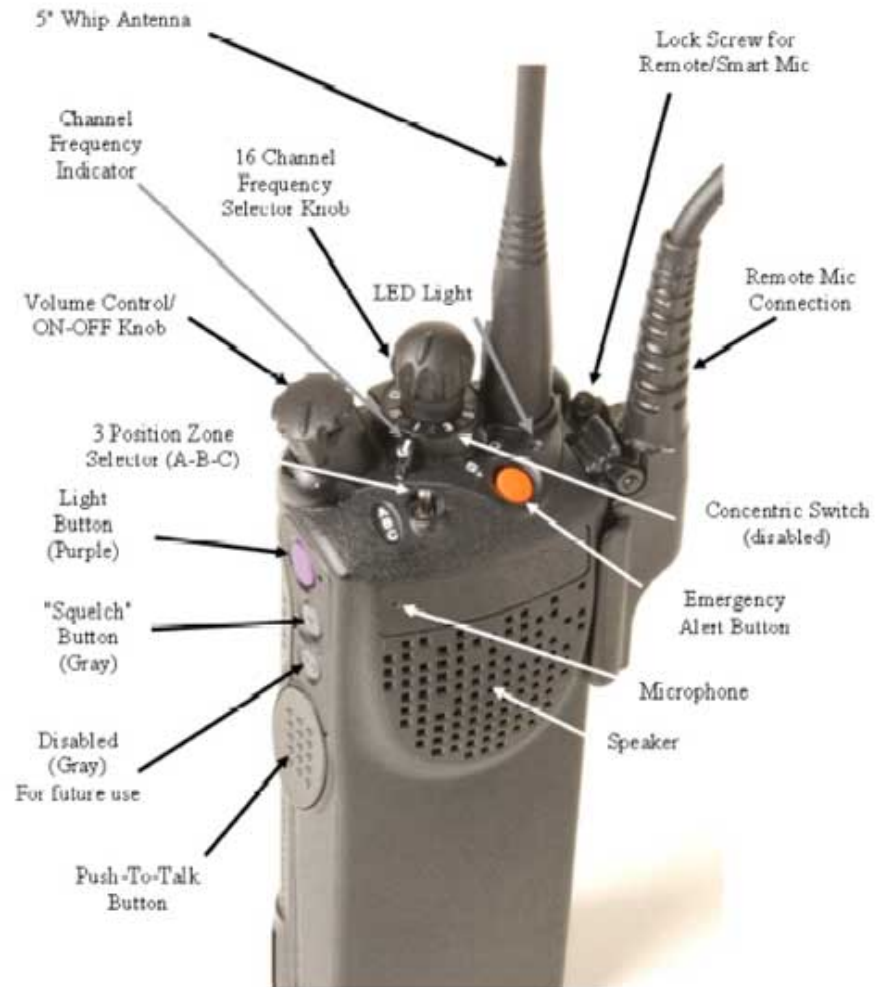
- UC has 250 FCC licenses issued to 10 campuses and 5 medical centers
- There are 135 categories of FCC licenses
- UC has licenses in 27 categories such as:
 - Radio/TV Licenses
 - Ship/Marine Licenses
 - 800 MHz Public Safety Licenses
 - Educational Broadcasting Licenses
 - Microwave
 - Experimental
 - STAs (Special Temporary Authority)

FCC Coordination

- The Regents own all UC radiofrequency stations
- The FCC coordinator manages the licenses to ensure compliance with FCC regulations:
 - Prepare new license requests for campuses
 - Keep existing licenses renewed and current
 - Respond to FCC correspondence (and complaints!)
 - Work with OGC, outside counsel, and vendors (such as Motorola, Sprint, frequency coordination firms etc.)
 - Coordinate all FCC mandated programs

Public Safety Licenses

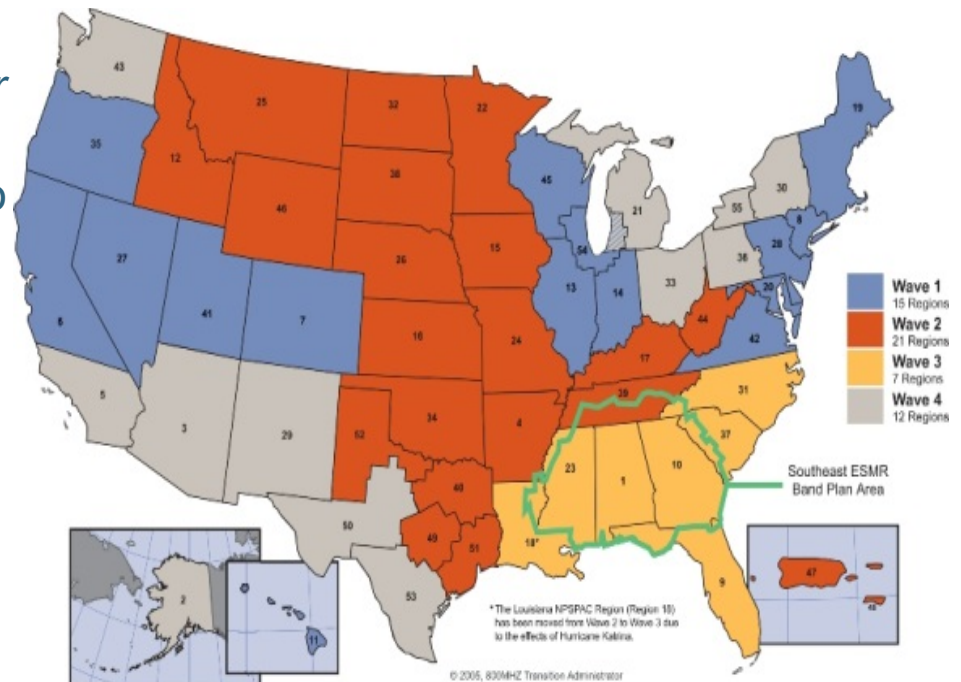
- UC has 19 licenses in 800 MHz (megahertz) range
- Used for public safety radio systems by police and firefighters
- In 1999 these systems began experiencing interference
- Interference was due to cellular providers – Nextel
- In 2002 FCC issued the “rebanding” order to eradicate interference problems



800 MHz police radio

800 MHz Rebanding Process

- FCC gave Sprint/Nextel the *upper* portion of 800 MHz spectrum
- Public safety licensees got the *lower* portion
- Requires every public safety radio to be retuned or replaced
- Project timeline was 30 months, starting June 2005
- U.S. divided into 4 sections or “waves”
- Sprint paid the cost
- In 2008 UC northern campuses were completed (Wave 1)
- By Feb. 2015, work on Wave 4 still underway
- Wave 4 includes UC southern campuses



Ship License for UC Research Vessel



- R/V Roger Revelle was built by the U.S. Navy in 1995
- Scripps at UCSD, along with the UCSB and UCSC marine science institutes, won the competition to operate the vessel
- Requires FCC license to sail
 - Operates internationally and communicates with foreign coasts
 - Carries radio and research equipment.

Special Temporary Authority (STA) Licenses

- STA permits the operation of a communications facility for a limited period of time – usually 6 months
- Issued for emergency situations or due to circumstances when licensee cannot wait for *normal* FCC licensing process
- They **MUST** be renewed every 6 months
- UC currently has 8 STAs; 2 were issued in 2007!



Educational Broadcasting System (EBS) Licenses

- UC has 10 EBS licenses
- Licensed only to non-profit educational institutions
- Used for delivery of instruction and educational programming
 - For example, campus research groups send video and data 24/7 for various studies and experiments
- FCC allows schools to lease spectrum not in use to commercial telecommunications companies (Clearwire, Sprint)
- UC has leased portions of all 10 licenses and derives significant revenue from each



TV and Radio Licenses

UCTV

A non-commercial educational TV station operated by UCSD

<http://www.ucsd.tv/>

- In existence for over 20 years
- Provides 24 hr. educational and enrichment programming from the UC campuses, national laboratories, and medical centers
 - Documentaries, lectures, debates, interviews, live performances...
- Switched from analog to digital in 2011
 - Given border location, had to verify no interference with Mexican stations
 - Required approval from FCC and Mexico's federal telecommunications commission

Radio Stations

- UC has 6 radio stations

FM Radio at UC

Sandra Wasson

General Manager

KALX 90.7 FM

UC Berkeley



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Where It All Began

- Berkeley 90.7 FM kalx.berkeley.edu
- Davis 90.3 FM kdvs.org
- Irvine 88.9 FM kuci.org
- Riverside 88.3 FM kucr.org
- Santa Barbara 91.9 FM www.kcsb.org
- Santa Cruz 88.1 FM www.kzsc.org



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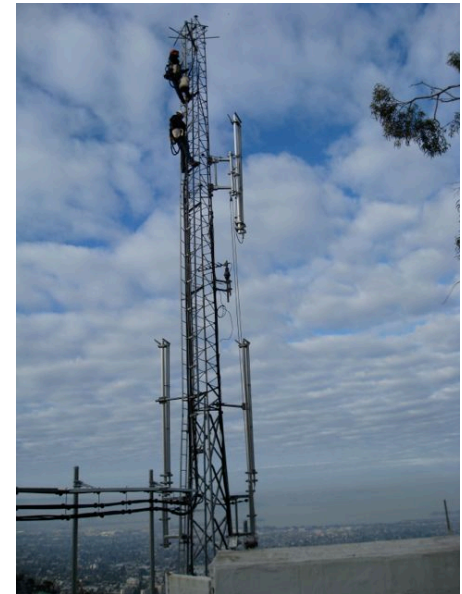
On the Air: the regulatory story

public interest, convenience and necessity

The FCC

- Indecency, Obscenity & Profanity
- Quarterly Programming Reports
- Station Identification
- Broadcast of Telephone Conversations
- And many more

The U.S. Copyright Office, IRS and others



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Current Operations

- Non-commercial educational
- Volunteer
- 24/7/365
- UC and listener supported



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Programming

- Music
- Public Affairs
- Sports
- News



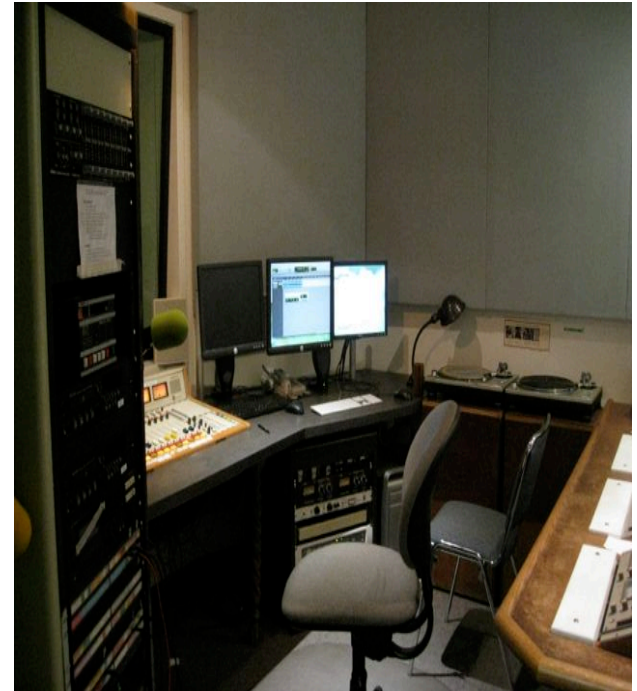
<http://newscenter.berkeley.edu/2014/05/13/kalx-student-sports-announcers>



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Public Service

- Student Development & Opportunity
- Community (campus and beyond)
- Public Service Announcements
- Emergency Alert System



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Questions????

Resources

- FCC license search: <http://wireless.fcc.gov/uls/index.htm?job=home>
- FCC guide, *The Public and Broadcasting*: <http://www.fcc.gov/guides/public-and-broadcasting-july-2008>
- Radio and television broadcast rules: <http://transition.fcc.gov/mb/audio/bickel/amfmrule.html>

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Photo Credits

- Slide 12 KALX FM
- Slides 13, 14 & 16 Sandra Wasson
- Slide 15 Phil Ebiner / UC Berkeley