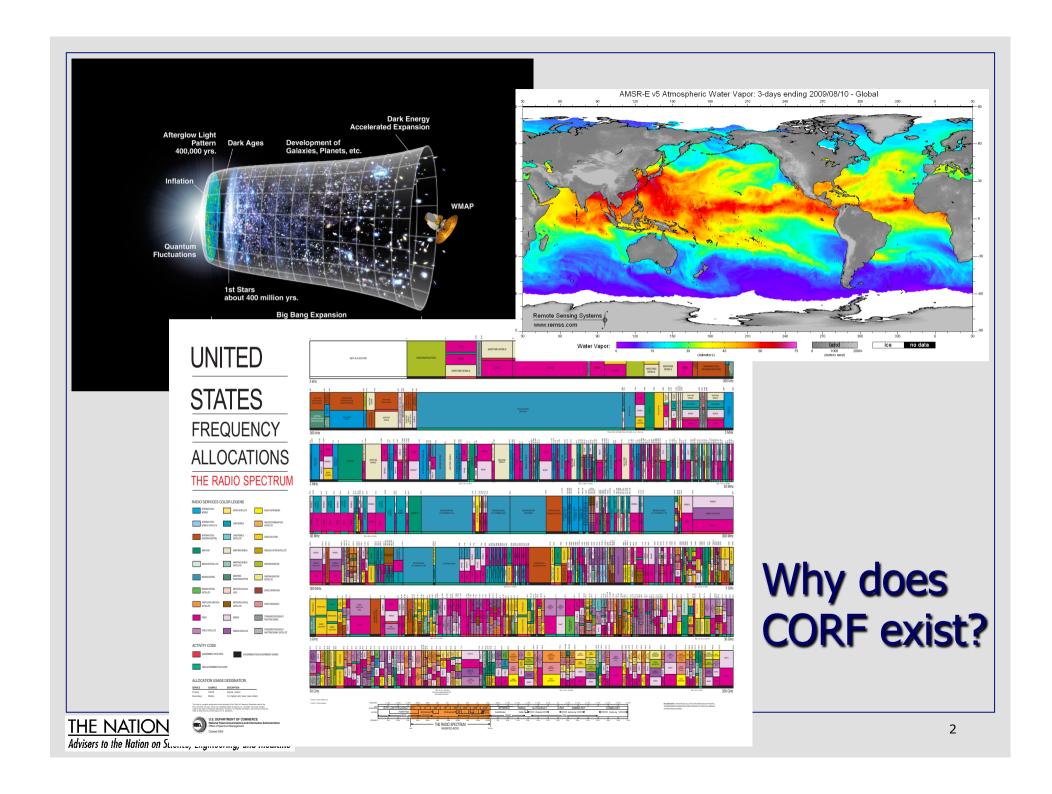
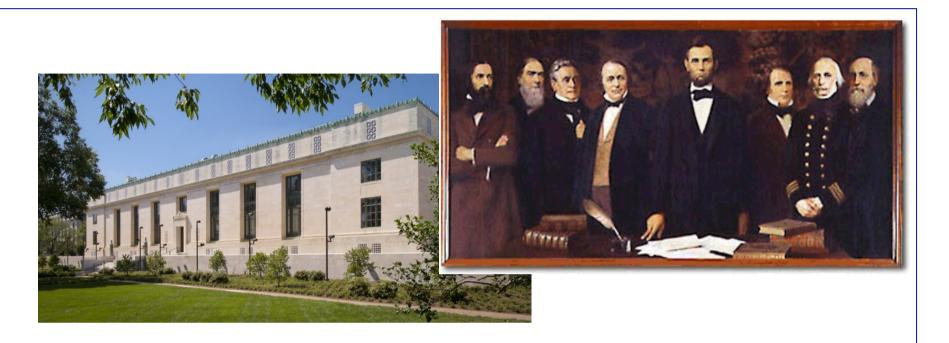


The Committee on Radio Frequencies of the U.S. National Academy of Sciences

Fourth School in Spectrum Management for Radio Astronomy
JAO, Santiago, Chile, 7-11 April 2014

David Lang, CORF Staff





The U.S. National Academy of Sciences (NAS) was established on March 3 1863 by Act of Congress, signed into law by President Abraham Lincoln in the midst of the United States Civil War.

The NAS was established to "investigate, examine, experiment, and report upon any subject of science or art" whenever called upon to do so by any department of the government.

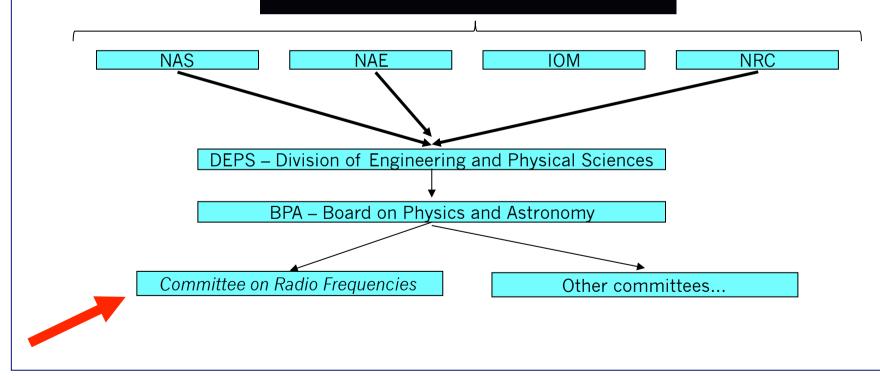
NAS Organizational Context

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.

www.national-academies.org

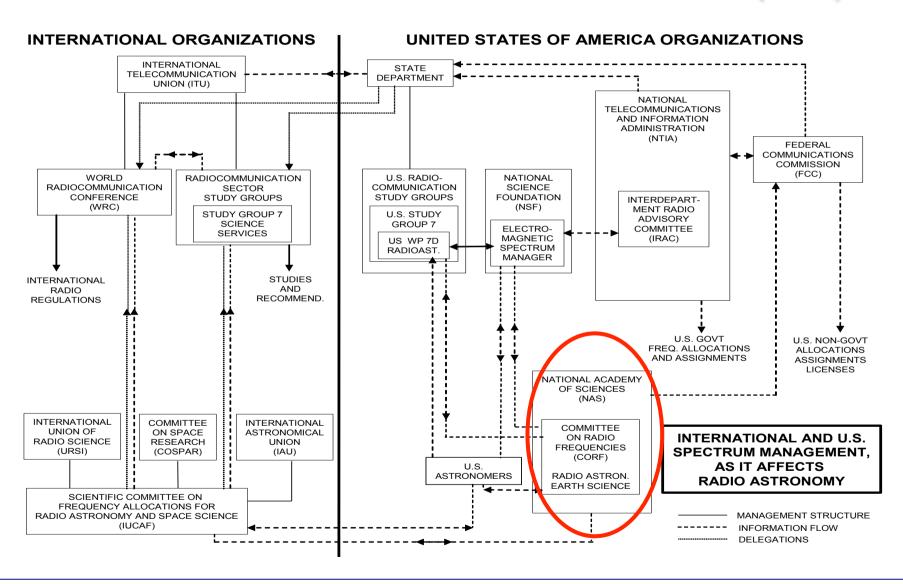


Responsibilities of The Committee on Radio Frequencies (CORF)

- Coordinates the views of U.S. radio astronomers and Earth remote sensing researchers to represent their interests
- Manages radio-frequency requirements for scientific use and interference protection by filing comments in public proceedings of the Federal Communications Commission (FCC) and the National Telecommunications and Information Association (NTIA)
- Conducts report-writing and outreach activities

Supported by NASA and NSF. Established in 1961.

Where CORF fits into the Broader Context (RAS)



CORF's Membership

Committee Members

David DeBoer, UC-Berkeley, Chair

Jasmeet Judge, U. Florida, Vice-Chair

William Blackwell, MIT Lincoln Lab

Sandra Cruz-Pol, U. Puerto Rico-Mayaguez

Todd Gaier, Jet Propulsion Laboratory

Kenneth Kellermann, NRAO

Amy Lovell, Agnes Scott College

David LeVine, NASA-Goddard

Timothy Pearson, Caltech

Paul Siqueira, U. Massachusetts, Amherst

Gregory Taylor, U. of New Mexico

Tom Wilson, NRL

Liese van Zee, Indiana U.

Consultants

Darrell Emerson, retired

Paul Feldman, Esq., Fletcher, Heald and Hildreth

Michael Davis, retired

Staff

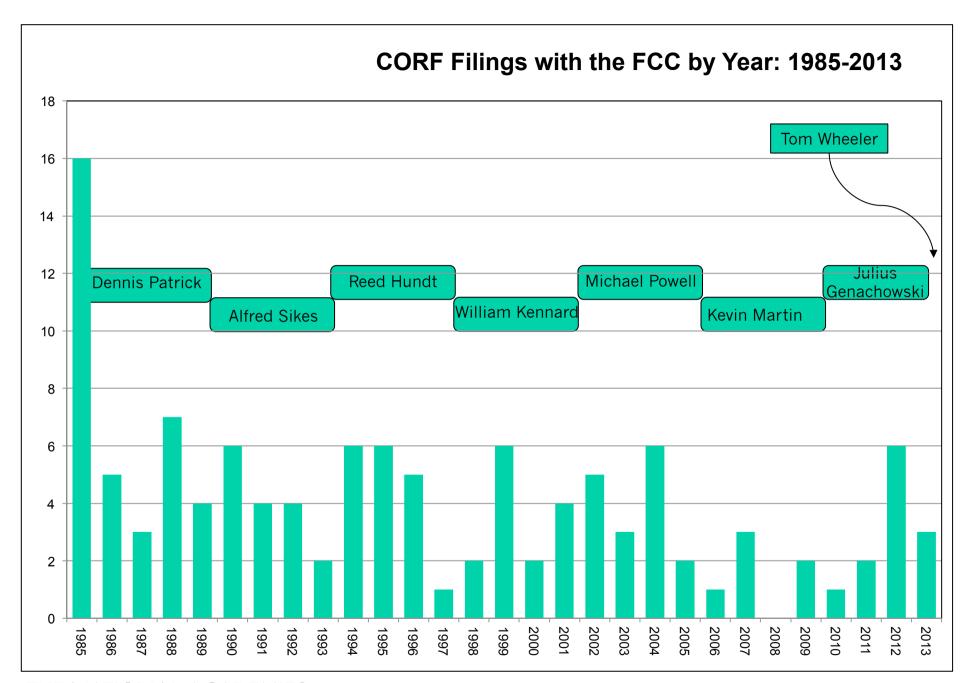
David B. Lang, Senior Program Officer

James Lancaster, Director, Board on Physics and Astronomy

Linda Walker, Administrative Coordinator

Recent Filings with the FCC

- Aug 26, 2013. 14.0-14.5 GHz. Broadband on planes.
- May 7, 2013. WRC-2007 Implementation.
- Jan 25, 2013. Spectrum auctions and 608-614 MHz.
- Oct 1, 2012. Public safety in ~700-800 MHz
- Jul 25, 2012. DACA technologies.
- Jul 16, 2012. 14.0-14.5 GHz for air-ground comms.
- May 23, 2012. 5.925-7.250, 24.05-29.00,75-85 GHz for tank level radars.
- Feb 27, 2012. 78-81 GHz for airport FOD radars.
- All filings are available on CORF's webpage at http://sites.nationalacademies.org/BPA/BPA 048830

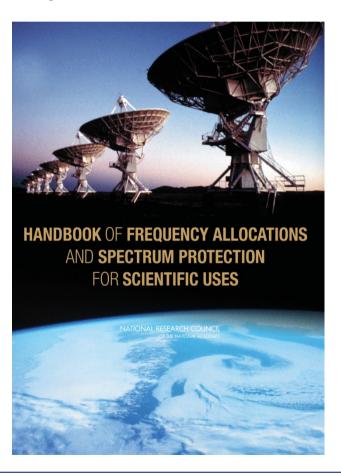


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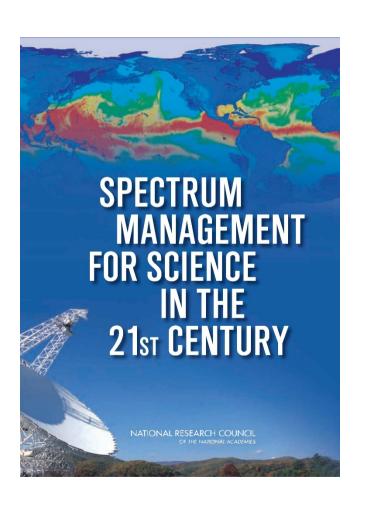
"The CORF Handbook"

Handbook on Frequency Allocations and Spectrum Protections for Scientific Uses (2007)



- A resource for scientists, engineers, and spectrum managers.
- Detailed information including a description of regulatory bodies and issues, a discussion of the relevant scientific background, a list of science spectrum allocations in the United States, and an analysis of spectrum protection issues for RAS and EESS.

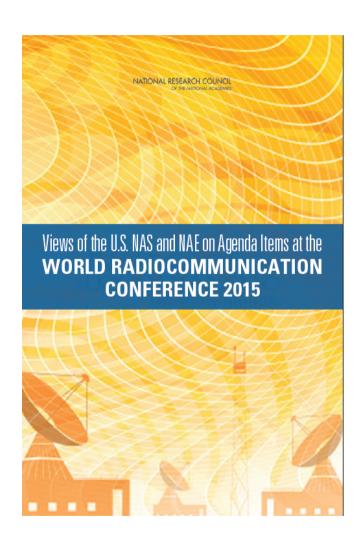
Spectrum Management for Science in the 21st Century (2009)



- Addresses the tension between the active commercial services' demand for greater spectrum use and the passive users' need for quiet spectrum
- Recommendations provide a pathway for putting in place the regulatory mechanisms and associated supporting research activities necessary to meet the demands of both users

CORF Views on WRC-2015 (2013)

- CORF provided input to the U.S.Government on Agenda Items at issue at the WRC-15
- Comments on agenda items with potential impact to RAS and EESS services



A Survey of the Active Scientific Use of the Radio Spectrum

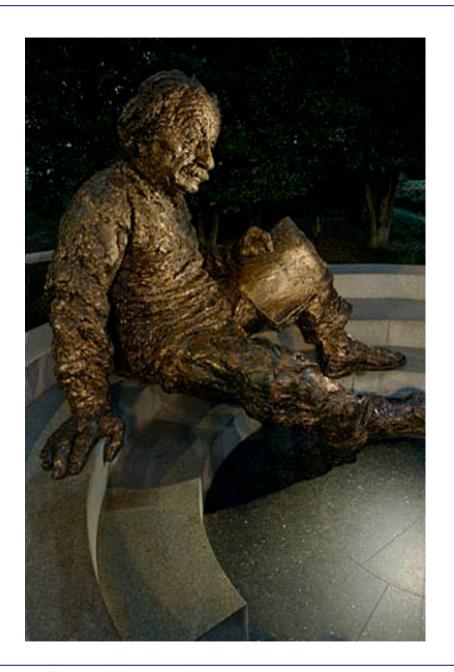
- A new study committee led by Fawwaz Ulaby (U. Michigan) is conducting a study of the active scientific use of the spectrum similar to Spectrum Management for Science in the 21st Century.
- Supported by NASA. To be completed released by the end of the year.

Current & Future CORF Activities

- Meets in-person twice per year. Periodic teleconferences.
- Update CORF Handbook.
- Complete Active Sensing Study.
- Begin Views on WRC-2019.

International CORF Activities

- Symposium in August 2009 in Santiago,
 Chile.
- Symposium in Puebla, Mexico, in 2015?
- Invites spectrum managers from around the world to provide updates at meetings.
- CORF consultant attends WP7D meetings and reports back.



Thank You!

dlang@nas.edu