

Division on Engineering and Physical Sciences
Board on Physics and Astronomy

Committee on Radio Frequencies

November 20-21, 2024

Hybrid meeting - National Radio Astronomy Observatory Rm225 (Day 1), GBO Auditorium (Day 2)

- KEY items to NOTE regarding Access**
- Shoes must cover the entire foot. No high heels.
 - Full-length trousers or slacks are required for the tour on Day 2. Dresses, skirts, and/or shorts are prohibited.
 - If you are experiencing any symptoms of illness, do not come on site.
 - State-Issued Driver's License is required for entry.
 - NRAO Visitor's Badge is required for entry.

DAY 1 - Wednesday, November 20, 2024

NRAO ARRIVAL/PARKING INSTRUCTIONS



The facility is located at 520 Edgemont Road, Charlottesville, VA. See the map at left showing three parking areas (main, lower, upper). **All participants should utilize the Main parking area when they arrive for the meeting.** If the main parking space runs out, please use the lower lot. The upper lot is for last resort for those who come later. For those parking in the upper lot, they will have to walk along the road to go back down to the main entrance. The auditorium is just next to the front entrance.

(Times are in Eastern Time)

OPEN SESSION - View the livestream and ask questions at the following link: [CORF 2024 Fall meeting](#)

8:30	Welcome and Meeting Objectives	Scott Paine, CORF Chair
8:35	Overview of the National Radio Astronomy Observatory (NRAO) and the Spectrum Management Division <i>25 min presentation + 15 min Q&A</i>	Chris De Pree, NRAO deputy spectrum manager
9:15	The National Radio Quiet Zone and Coordination efforts <i>25 min presentation + 10 min Q&A</i>	Sheldon Wasik, Zone Coordinator for National Radio Quiet Zone
9:50	<i>Break (10 mins)</i>	
10:00	Coordination efforts between NRAO and satellite constellation operators	
	- NRAO efforts <i>25 min presentation + 15 min Q&A</i>	Chris De Pree and Bang Nhan, NRAO
	- SpaceX efforts <i>25 min presentation + 15 min Q&A</i>	Brian Schepis, SpaceX
	- Discussion	
11:20	Earth remote sensing talk <i>25 min presentation + 15 min Q&A</i>	Joe Munchak, tomorrow.io
12:00	<i>Working Lunch (60 mins)</i>	
1:00	Tour of NRAO Central Development Lab <i>2.5 hours</i>	
3:30	Discussion with Participants <i>30 min</i>	
4:00	<i>Open Session Ends</i>	

(see more on page 2)

DAY 2 - Thursday, November 21, 2024

GBO ARRIVAL/PARKING INSTRUCTIONS

The facility is located at 155 Observatory Rd, Arbovale, WV.
Please recall there is no reception on the way to GBO and be sure to review the Directions to Meeting at the bottom of this agenda. See the map at right showing the main parking area.



(Times are in Eastern Time)

OPEN SESSION - View the livestream and ask questions at the following link: [CORF 2024 Fall meeting](#)

10:00	Reconvene meeting	Scott Paine, CORF Chair
10:05	Sessions with Green Bank Observatory (GBO) staff	
	- GBO Overview 25 min presentation + 15 min Q&A each	Karen O'Neil, GBO senior scientist
	- Radio Astronomy talk 25 min presentation + 15 min Q&A	Ryan Lynch, GBO scientist
11:45	Break (15 min), Move to Working Lunch at GBO cafeteria (45 mins)	
12:45	Tour of GBO 2.25 hours	
3:00	Open Session Ends	

CORF STATEMENT OF TASK

The standing Committee on Radio Frequencies (CORF) considers the needs for radio frequency requirements and interference protection for scientific and engineering research, coordinates the views of the U.S. scientists, and acts as a channel for representing the interests of U.S. scientists in the work of the inter-union commission on frequency allocations for radio astronomy and space science (IUCAF) of the International Council of Scientific Unions. CORF monitors and responds to radio frequency interference and allocation issues as they arise and works closely with the spectrum manager at the National Science Foundation (NSF) and the frequency management office at the National Aeronautics and Space Administration (NASA). CORF participates in filing comments before the Federal Communications Commission (FCC) and the National Telecommunications and Information Administration (NTIA).

NOTES FOR PRESENTERS

Your presentation may not include unpublished data, ITAR controlled and/or other sensitive information. If you are showing a presentation: at some point a staff member will be asking you to sign a consent form allowing us to use your presentation, specifically to post it on our website.

NOTES FOR GENERAL PUBLIC

This meeting is being held to gather information to help the committee in its charge. This committee will examine the information and material obtained during this, and other public meetings, in an effort to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn nor will recommendations be made. Observers who draw conclusions about the committee's work based on this meeting's discussions will be doing so prematurely.

Furthermore, individual committee members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given committee member may not necessarily reflect the position he or she may actually hold on the subject under discussion, to say nothing of that

person's future position as it may evolve in the course of the project. Any inference about an individual's position are therefore also premature.

***If you would like to join the meeting in-person, please contact staff officer Christopher Jones (cjones@nas.edu) by 3pm on Friday, November 1 to arrange attendance and further details*

DIRECTIONS FOR INTERNET ACCESS AT GBO

There is no wi-fi on site at GBO; however, ethernet connection will be provided. GBO will have limited number of USB-C RJ-45 adapters for loan to participants. If you have a connection other than USB-C, please make sure to bring your own ethernet port adapter.

DIRECTIONS TO MEETING

IMPORTANT NOTE: this is **no reception** about 40min from GBO. Be sure to download directions and a map before heading to the meeting location. If necessary, the closest towns that have good cell reception are Monterey, VA, and Snowshoe Resort, WV. Both are about 30 min from GBO.

How to Get to National Radio Astronomy Observatory HQ

- [Route to NRAO-CV](#) (Far view) (gif)
- [Route to NRAO-CV](#) (Closer view) (pdf)
- [Route from NRAO-NTC to NRAO-ER](#)
- NRAO-CV area, with major street names and hotels:
 - [PNG format](#)
 - [JPG format](#)
 - [PDF format](#)
- [NRAO-CV area, with many street names](#)

(see more on page 3)

How to Get to Green Bank Observatory

(See [Google Maps](#), [Bing Maps](#), [what3words](#))

If you are coming from:

The **North**, take **I-79 S** to **RT 33 East** to **RT 92 S**

The **South**, take **I-77 N** to **I-64 E** to **RT 92 N**

The **East**, take

- **I-64 W** to **RT 92 N – OR**
- **RT 33 W** to **RT 28 S/W** to **RT 92 S**

The **West**, take:

- **RT 50 E** to **I-79 S** to **RT 33 E** to **RT 92 S – OR**
- **I-64 E** to **I-79 N** to **RT 33 E** to **RT 92 S – OR**
- **I-64/I-77 E** to **I-64 E** to **RT 92 N**

More information is [here](#).

