

Radio Workshop Report: Technical Methods and Strategies for Mitigating Radio Frequency Interference (RFI)

J. R. Fisher

NRAO, P.O. Box 2, Green Bank, WV, USA

1. Introduction

This discussion session opened the Radio Workshop on Thursday 15th July 1999. There were four agenda items proposed:

1. The role of the IAU in controlling RFI
2. Support of spectrum management
3. Characterization of the RFI environment
4. Research and development.

Discussion of the first item continued throughout the day, but it was pointed out at the beginning that the IAU is only one of a number of international and national organizations that play a role in spectrum management and RFI control for radio astronomy, e.g. IUCAF, ITU-R (Working Party 7D), URSI, OECD, CRAF, CORF/NAS, PTT's/FCC, and the AAS.

This session also opened the discussion of suggestions for revisions to the General Secretary's draft report to the Technical Forum of UNISPACE III.

2. Action Items

Four major action items emerged from this workshop session:

- First, Sullivan, Gergely, Butcher and Fisher were assigned the task of drafting a letter to radio observatory directors asking for their support of spectrum management activities and RFI research and development. The letter will remind them of the Kyoto Declaration and will make the following points:
 1. Ask directors to encourage staff involvement in RFI matters. A particular concern is that this encouragement include adequate credit towards career advancement for participation this activity.
 2. Encourage directors to ensure that their own observatory is in compliance with the ITU-R R.A.769-1 radiation limits. The key point here is that there is a moral imperative on us to ensure that our own activities do not corrupt the radio astronomy bands to any greater extent than the levels which we ask other users of the radio spectrum to respect. This

is particularly important to radio astronomers' bargaining position when they are negotiating in various spectrum management fora.

3. Offer the IAU's assistance in obtaining funds for research and development of RFI measurement and mitigation techniques.

- The second of the action items was a request for a new chapter for the ITU-R Handbook on Radio Astronomy, to cover RFI measurement techniques and standards. Fisher will compose the first draft and submit it to ITU-R Working Party 7D for revision and final disposition.
- The third item that resulted from both this discussion and the discussion on RFI databases was an agreement to organize a session on RFI Measurements, Standards, and Databases for the IAU General Assembly in Manchester in August 2000. Van Driel and Fisher undertook to organize this session.
- Finally, it was agreed to reactivate the IAU Commission 40 Working Group on Astrophysically Important Spectral Lines, under the Chairmanship of Ohishi.

Editor's Note: The following Internet site was created shortly after the end of Symposium 196:

<http://www.atnf.CSIRO.AU/SKA/intmit/>

“a meeting place for anyone interested in the technical problems of making radio astronomical measurements in the presence of other radio signals.”