

# IEEE-GRSS Frequency Allocations in Remote Sensing (FARS) Technical Committee

## Minutes of 2017 Annual Meeting

July 25th, 2017

The meeting is convened at 18:00 in room 201A at the Forth Worth Convention Centre in Fort Worth, TX, USA, by FARS Technical Committee (FARS-TC) outgoing chair Sidharth Misra and new elected chair Paolo de Matthaéis.

Thirty-four persons in attendance: Ian Adams, Dan Bishop, Sayak K. Biswas, Tobias Bollian, Alexandra Bringer, Adriano Camps, Debasgisg Chkravarty, Sandra Cruz-Pol, Daniel Czech, Paolo de Matthaéis, Xiaolong Dong, David Draper, Spencer Lee Farrar, Al Gasiewski, Brian Hornbuckle, Takehiro Hoshino, Jasmeet Judge, Yann Kerr, David M. Le Vine, David Long, Hao Luy, Sidhart Misra, Priscilla N. Mohammed, Abel Morales, Roger Oliva, Hyuk Park, Jeffrey R. Piepmeier, Steen Savstrup Kristensen, Adam Schoenwald, Rashi Shah, Ahmed Kiyoshi Sugihara, Minglian Tao, Thomas von Deak and Tianlin Wang.

Tobias Bollian and Roger Oliva take notes for the minutes.

- Sidhart Misra introduces the new technical committee: chair Paolo de Matthaéis, and co-chairs Roger Oliva and Yan Soldo.
- Paolo de Matthaéis summarizes the FARS-TC activities of the past year:
  - improvement of the Database of Frequency Allocations for Microwave Remote Sensing and Observed RFI, now integrated into GRSS website at <http://www.grss-ieee.org/microwave-interferers/>;
  - organization of the RFI 2016 Workshop in Socorro, NM, USA, in cooperation with the Radio Astronomy community.
- Sandra Cruz-Pol presents the agenda items of the World Radiocommunication Conference 2019 (WRC-19) of relevance to the remote sensing community. The presentation triggers some comments on current levels of protection and WRC agenda items:
  - Jeff Piepmeier starts a brief discussion on what protection remote sensing services have in the case of co-primary allocation;
  - Thomas von Deak explains that, with the possibility of new allocations being given to other services in bands contiguous to those allocated to remote sensing, there is a need to make studies on the WRC agenda items;
  - Jasmeet Judge adds that the Committee on Radio Frequencies (CORF) of the US National Academy of Sciences has already made its recommendations for the WRC-19 agenda items;

- Thomas von Deak notes that NASA accepts inputs and recommendations from different groups and the position on the WRC agenda items are discussed every year at the Space Frequency Coordination Group meetings.
- Sandra Cruz-Pol continues the meeting presenting on the proposed bands for future international mobile telecommunications and discussing what could be done to prevent RFI. For example, the Radio Astronomy community recommends to turn satellite transmissions off when their orbit passes over radio astronomical observatories. As part of this discussion:
  - Al Gasiewsky suggests that telecommunication companies consider leaving a guard band if they are to use bands near allocations to remote sensing services;
  - Sandra Cruz-Pol explains that telecommunication companies consider guard bands as a waste of spectrum and that they do not understand that passive services use the allocated band even if there are no emissions;
  - Thomas von Deak explains that there is a constant discussion to define the Out of Band emissions and the remote sensing community needs to get more administrations concerned about the problems in order to have a greater weight in defending the spectrum.
- After Sandra's presentation, David Le Vine wonders how FARS-TC can impact the WRC-19 decisions:
  - Al Gasiewsky suggests informing regional groups, which are a good place to provide input, about the possible concerns, so those group can develop their position, then have FARS collect those positions and issue a statement (approved by the IEEE) that can be presented at international level;
  - Jasmeet advises FARS-TC to produce a document similar to the Views on the WRC Agenda Items prepared by CORF.
- Paolo talks about FARS upcoming activities:
  - presentation at URSI general assembly in August;
  - participation in the Space Frequency Coordination Group meeting in September;
  - GRS magazine contribution by FARS-TC, submissions due in December
    - Sid mentions that people are welcome to provide input for this.
    - Sandra considers that it could be a good idea to write on the importance of the 50 GHz band protection.
- Paolo lists other proposed initiatives, such as summer school on RFI and spectrum management in remote sensing, and asks if there is a need and interest for it:
  - Sid mentions that he does not know how many students would be interested in spectrum management itself, but if it were combined with microwave

- remote sensing and spectrum management as a part of it, then this would be more appealing;
- Paolo adds that this school could also include detection and mitigation techniques as a more technical part;
  - the majority agrees that it is a good idea and that more details need to be figured out;
  - Tom says he is more than willing to help with this to be successful;
  - Paolo says he will inquire with radio astronomers, who already periodically organize a school on spectrum management for Radio Astronomy through the Inter-Union Commission on Frequency Allocations for Radio Astronomy and Space Science (IUCAF);
  - Adriano Camps proposes to hold a tutorial at the next IGARSS as an alternative;
  - Jeff Piepmeier also agrees that it would be a good idea to start with a tutorial, instead directly organizing a summer school.

The meeting is adjourned at 19:00.