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

Minutes of 2022 Annual Meeting

Date: November 30, 2022
Location: Virtual meeting
Participants: P. Mohammed, R. Natsuaki, R. Oliva, H. Ren, R. Onrubia, D. Lubar, P. de Matthaeis, M. Bettenhausen, M. Tao, T. Wang, D. LeVine, A. Camps, B. Backus, J. Ciccorossi, Wernerwiesbeck, D. Kunkee, A. Manavi Alam, M. Kurum, J. Peng, T. Bollian, S. Shafiyoddin, W. Emery

Agenda
1. Guest talk
2. Summary of past and ongoing activities
3. Discussion

Discussion

Guest Speaker: J. Ciccorossi

The need of reliable spectrum to ensure the success of your space mission

- Question about RFI at higher frequencies such as 24 GHz and above.

FARS meeting

- Roi presents the objectives of FARS Technical Committee
- FARS-TC chair members presented
    - Tobias Bollian stepping down as Co-chair due to new job position
- Conferences and Outreach
    - FARS-TC organized 2 invited sessions for IGARSS 2022
    - Organizing one community contributed session for IGARSS 2023
    - RFI 2022 Workshop held in Feb 14-18, 2022, hosted by ECMWF
        - Remote sensing, astronomy and meteorological communities involved

    - FARS-TC presence in other conferences includes Living Planet Symposium, URSI General Assembly and RWW/Sharc
    - FARS-TC chapter in China
        - Academic and Industry presentations by Mingliang Tao in China to promote FARS activities
        - Ongoing research activities in X-band SAR satellites and L-band radar remote sensing
    - FARS Online Tools, frequency allocation table
        - GRSS FARS-TC tool available on GRSS website shows information on different services and country specific allocations was also added
        - RFI observations tool – 4 satellites reported RFI, SMOS, SMAP, Aquarius, GMI, SFCG group added this tool to their website
    - GRSM Magazine, articles submitted by P. de Matthaeis and other two articles from FARS will come in upcoming editions
    - FARS-TC contributed to GRSS newsletter
- Spectrum management activities
    - WRC23 Agenda Items
        - 18.6-18.8 GHz and other bands, Earth stations in motion
        - 11.7-12.7, 18.2-18.6, 18.8-20.2 and 27.5-30 GHz, intersatellite links
    - FARS participated in Spectrum management meetings
        - ITU study groups: Working party 7C and working party 3J
        - 3J: Modeled sea-surface reflections from satellite transmissions
        - 7C: report on 18 GHz interference caused by broadcast signals over the ocean surface
            - Involved in process of developing conditions for new secondary allocations to radar sounders at 40-50 MHz
        - Space Frequency Co-ordination Group
            - IEEE GRSS RFI database linked at the SGCG website
            - FARS-TC contributed 2 documents to the 2022 annual meeting
        - Working on GRSS Views for the WRC-23 Agenda Items
    - Pocketqube initiative led by Adriano Camps
        - Development of optical payload and RF payload at L-band
        - Discussion with A. Camps for a 3rd module to monitor RFI at 24 GHz (due to 5G)
        - Delivery of 2 pocketqubes by March 2023
        - Initial drone campaign to assess performance to take place in Spain, 5 flights assess L-band and 24 GHz
        - 2nd drone to monitor 5G transmissions at 24 GHz (needs to be deployed where 5G areas more affected, likely outside Spain which will not have much 5G implemented)
    - FARS-TC and Standards Committee

        - FARS-TC developing IEEE standard to definite a methodology to evaluate RFI in any given frequency band
            - Initial flow chart shows how to develop standard

- At the end of the discussion, Roi thanks everyone for their participation and adjourns the meeting at 12:00 EDT. The meeting was recorded, and the slides will be posted at the GRSS website.