

NSMA Working Group 3

Frequency Coordination and New Issues

2018 Conference Report
www.NSMA.org

Larrie Sutliff, Chair

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NSMA Working Group 3

2018 Conference Report

- Mission
- Participation
- Meetings
- Results
- Issues

Mission

- Provide an industry forum for spectrum discussions
- Develop industry consensus on spectrum issues
- Develop specific coordination procedures
- Create recommendations for industry guidance
- Interpret FCC rules
- Develop/defend responsible spectrum use policy
- Prepare regulatory filings on key issues
- Interact with regulatory agencies
- Initially manage new issues

Participation

- NSMA is an open industry forum available to all who wish to participate and contribute to development of responsible spectrum use recommendations and policy.
- Working Group 3 is the place to start if you would like NSMA to consider a spectrum-related issue.
- Issues are handled as part of the WG3 agenda or spun off to a separate committee or working group.
- You are invited to come and bring your issues!

WG3 Participants

- Frequency coordinators
- Radio manufacturers
- Spectrum managers
- Service providers
- System Vendors
- Spectrum users
- Broadcasters
- Consultants
- Licensees
- Retirees

Meetings

- Meetings are by monthly teleconference
 - 3rd Tuesday at noon ET
 - Next meeting June 19th at noon ET (2nd Tuesday)
- Agendas include background so new participants can come up to speed quickly. ~ 30 pages
- At most meetings we discuss 3 or 4 issues extensively and track about 12 other technical spectrum issues

Meeting Agenda Categories

- Recommendations
- Spectrum allocation issues
- Regulatory activity
- Interference and coordination
- Licensing and administration
- Industry spectrum use activity
- Tracking issues

Meetings

Attendees at the April 17th meeting:

- Robert Ferguson
- George Kizer
- Thu Nguyen
- Will Perkins
- Arman Kolukcija
- Larrie Sutliff
- Dave Meyer
- Tom Willis
- Brad Youngblood

Meetings

Agenda Items



1 & 2. Roll call, welcome and Agenda Review

3. Recommendations

- 3.1 ATPC
- 3.2 Adaptive Modulation
- 3.3 BAS-FS Coordination in the 7 and 13 GHz bands
- 3.4 NLOS Coordination
- **3.5 Coordination Accuracy**
- 3.6 Coordination Procedures
- 3.7 Expedited Coordination and Growth Channels
- 3.8 Bucking
- **3.9 Development of a Standard Spectrum Evaluation**
- **3.10 Revision of WG3.86.002 Contents of PCNs**
- **3.11 Antenna Pattern Measurements & Reports**

Meetings

Agenda Items



4. Spectrum Allocation Issues

- 4.1 4 GHz Band Utilization
- 4.2 7125-8500 MHz
- 4.3 ESV
- 4.4 Docket 10-153 backhaul
- 4.5 3600-3700 MHz
- 4.6 Mobile Operations Above 24 GHz
- 4.7 FWCC Petition to Create Service Rules in the 42.0-43.5 GHz band
- 4.8 28 GHz Band Reallocation
- 4.9 **ITU Issues - WRC-19**

Meetings

Agenda Items

4. Spectrum Allocation Issues

- 4.10 71-86 GHz
- 4.11 23 GHz – Mimosa Wider Bandwidth Channels
- 4.12 TDD Systems- Mimosa and others
- 4.13 102-109.5 GHz Band
- 4.14 24 GHz and Above (Docket 14-177)
- 4.15 Upper 6 GHz 60 MHz Channels
- 4.16 Satellite Allocations for NGSO (Docket 16-408)
- **4.17 Reallocation of 4 and 6 GHz Bands for Mobile Operation**

Meetings

Agenda Items



5. Interference and Coordination

- **5.1 TIA TSB-10 Revision- Working Group on Microwave Systems (WGMS)**
- **5.2 Experimental Operations**
- **5.2.1 Higher Ground- Satellite Messaging in 4 and 6 GHz Bands**
- **5.3 5.8 GHz Rules- Docket 13-49 Cambium Proposal**
- **5.4 71-76/81-86 GHz Activity**
- **5.6 PCN Circulation to Broadcasters**
- **5.7 Earth Station Audit**
- **5.8 NSMA Coordination Role**
- **5.9 Earth Station Full-Band, Full-Arc Coordination**

Results

- NSMA industry recommendations
- FCC spectrum filings
 - Includes broadcaster input on BAS
- FCC visits
- Technical spectrum support to other industry groups
 - NSMA is technical advisor to FWCC
- Joint spectrum consensus with broadcasters
- Forum for exchange of information on spectrum issues

Recommendations

- **Antenna Characteristics**
 - **Antenna Pattern Measurements & Reports**
 - **Rev of WG3.86.002 Contents of Prior Coordination Notifications**
- **ATPC revision - awaiting TSB-10G**
- **Adaptive Modulation - awaiting TSB-10G**
- **BAS/FS: Coordination – Complete!**
- **NLOS Coordination - dormant**
- **Coordinate Accuracy - underway**
- **Expedited Coordination – Complete!**
- **Bucking – Complete!**

FCC activity

- Broadcast/FS work on ULS database
- Technical support to FWCC
 - Text contributions
 - FCC
 - RF Exposure- FCC action expected soon
 - ULS Database Accuracy
- Tracking regulatory issues

BAS/FS Spectrum Sharing

- 7 and 13 GHz “BAS bands” allocated for Part 101 BAS/FS sharing
- Recommendation completed WG3.17.001
- Ongoing work:
 - Providing input to FCC filings
 - ULS coordination accuracy – continuing issue
 - Many non-existent satellite links being protected
 - Good progress being made on uplink stations

BAS/FS Spectrum Sharing Committee

- Broadcast Auxiliary Service – Fixed Service sharing
 - Next BAS Coordination Committee meeting:
1:30 PM ET, Tuesday, June 19th

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Joe Snelson and Larrie Sutliff, Co-Chairs

Bring any broadcast issue

We welcome your participation!

Summary

- NSMA WG3 is an open forum
- **You** are invited to participate
- You will be most welcome!
- Bring spectrum issues
- Thank you!

NSMA Working Group 3

Next Meeting June 19th, 12 Noon ET, 1600 GMT

Followed by BAS-FS Coordinating Committee

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Larrie Sutliff, Chair

We Welcome Your Participation!