

Collaborative Regulatory Responses to Radio Frequency Interference

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INTELSAT
Interference Management Initiative

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Rethinking Regulation



- Since the New Deal, government's role in regulation has been to set and apply standards in order to achieve some concept of the public interest

Collaborative Regulation

- Collaborative Regulation provides an additional path by which governments can facilitate agreement between stakeholders in particular regulatory matters
- A collaborative regulatory process is one in which:
 - Participants seek consensus rather than using the process to create strategic advantages vis-a-vis other stakeholders; and
 - Representatives of similarly situated stakeholders are included

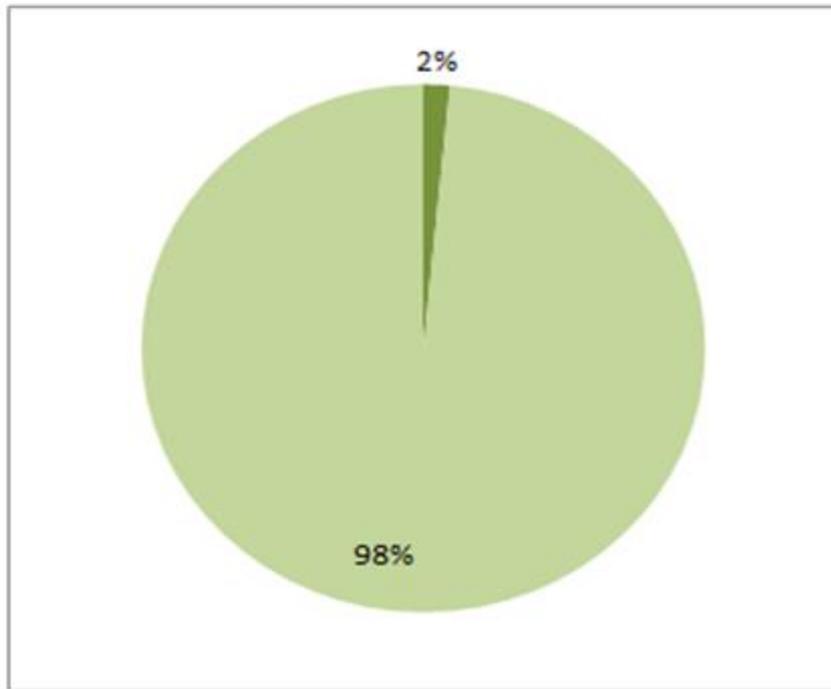


The Limits of “Collaborative Regulation”

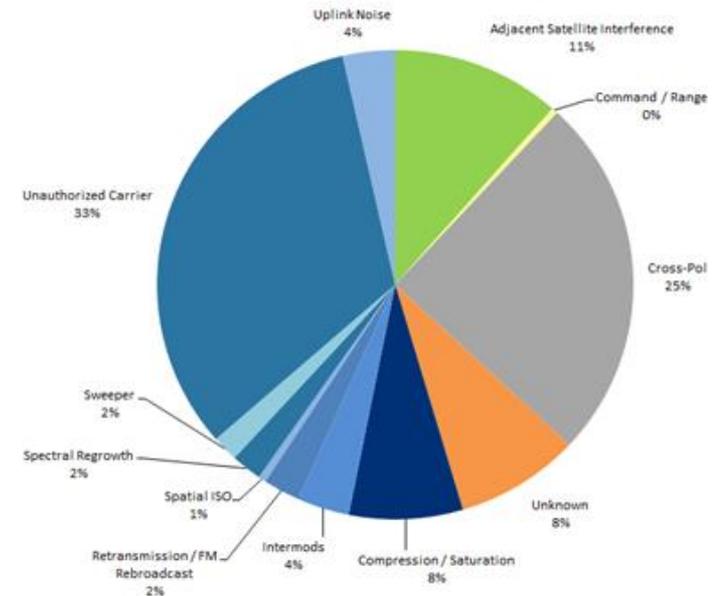
- **To be effective:**
 - Participation must be limited to groups that will not undermine the collaborative nature of the process, while providing access to all legitimate stakeholders
- **Regulators may need to exclude groups that have no interest or incentive in reaching a consensus**
- **The government would retain responsibility for adopting and implementing regulations and ensuring:**
 - Compliance with agreed norms; and
 - That proposals reached by consensus further a broadly held conception of the public interest

RFI – The Current Situation

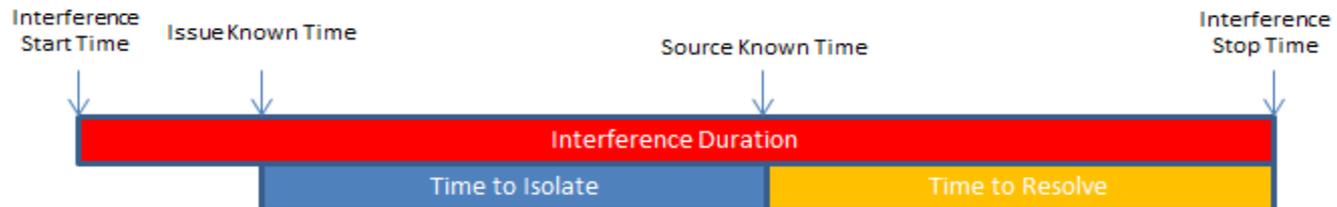
Capacity impacted by Interference



Interference Type Breakdown by Ticket

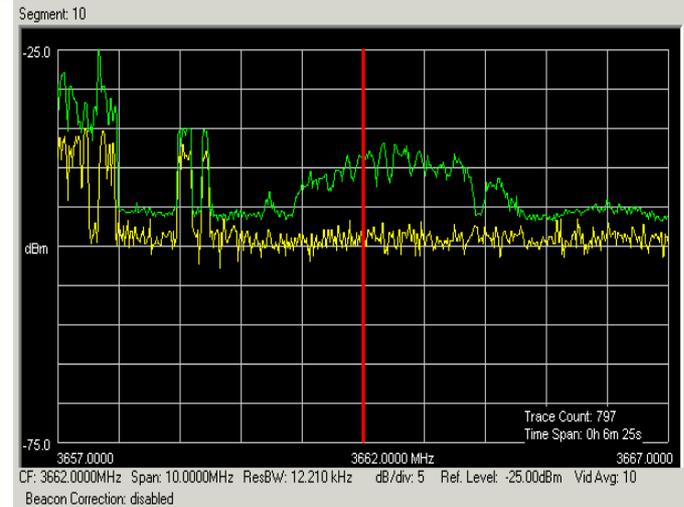


Global satellite operator experience 2012



Industry Initiatives

- **New Monitoring Systems**
 - Discovery of offenders
- **New Geolocation Systems**
 - Isolation of offenders
- **Training**
 - Use, access, impacts



Industry Initiatives (cont'd)

- **Data Sharing**
 - Contacts, Alerts, Troubleshooting Aids
- **Carrier ID**
- **Regulatory**
 - WRC-15



Technology also Plays a Role

- **Spot Beams**
 - Isolation of coverage
- **On Board Processing**
 - Switching and processing
- **Active Arrays**
 - Beam shaping
- **Steerable Beams**



Space Data Association

- **Not-for-profit association for satellite operators**
- **Purpose**
 - Increase safety of flight
 - Deal with the growing problem of RFI
 - Enable more efficient operations for all
- **Current members**
 - Currently 21 contributing operators:
 - 90 LEO satellites from 5 operators
 - 267 GEO satellites from 16 operators

Growing SDA Participation



Conclusion

- **Current industry collaboration and investment driven by a desire to solve common problems, not by regulation**
- **Collaborative regulation may offer domestic and international authorities a new tool for managing complex radio frequency and orbital safety issues**
- **SDA, industry interference initiatives, and technology advances and investments offer greater potential to realize the “public interest”**

How do we create a new partnership between government and industry that recognizes the commercial sector’s vital role in maintaining the health and economic vitality of the space and RF environments?