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November 4, 2004

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: IB Docket No. 02-10, *Earth Station Vessels*
Ex Parte Communication

Dear Ms. Dortch:

On behalf of the Fixed Wireless Communications Coalition (FWCC) and pursuant to Section 1.1206(b)(2) of the Commission's Rules, I am electronically filing this notice of an oral *ex parte* communication.

Yesterday Dennis Guill and Dennis Gross of Alcatel, Randy Young of Keller & Heckman LLP, and I, representing the FWCC, met with Peter Daronco, Joel Taubenblatt, Uzoma Onyeije, Tom Stanley, and Mike Pollak of the Commission staff.

A copy of our presentation is attached. We emphasized the need for advance frequency coordination of ESVs and a mechanism to ensure that ESVs operate in accordance with their coordination parameters.

Please call with any questions about this filing,

Respectfully submitted,

Mitchell Lazarus
Counsel for the Fixed Wireless
Communications Coalition

cc: Meeting participants

Voice of the Fixed Services Community

Earth Station Vessels
IB Docket No. 02-10

Fixed Wireless Communications Coalition

November 3, 2004

Contact:
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Policy Issues

- Parties' positions:
  - ESV proponents seek rules authorizing ESVs in U.S. waters
  - Fixed Service operators seek protection from ESV interference
- Central issue: which industry will bear the burden of interference?
  - ESVs seek "fair and balanced rules"
  - The FWCC urges that new services be required to protect incumbents.

Fixed Service at 6 GHz

- 6 GHz Fixed Service is widely used nationwide, including port and coastal sites
- Applications include:
  - public safety (backhauling police and fire dispatch)
  - coordinating railroad trains
  - controlling natural gas and oil pipelines
  - regulating the electric grid
  - backhauling wireless telephone traffic
- Many applications require 99.999% availability
  - some meet 99.9999% (<30 sec. total outage per year).

Do ESVs Interfere with FS?

- ESV proponents claim the Fixed Service has not documented any case of interference from ESVs
- Coastal Fixed Service stations *do* experience unexplained outages
  - many outages are transient, consistent with ESV operation
  - but ESV operators refuse to provide data needed to correlate outages with ESVs

➢ **ESV claims of "no proven interference" reflect only non-cooperation by ESV operators.**

Options to Protect the FS

- Best: No C-Band ESV operation within 300 km of U.S. shoreline
  - FWCC has no objection to Ku-band ESVs anywhere
- Second best:
  1. coordination;
  2. measures to ensure compliance with coordination;
  3. measures to identify sources of any ESV interference that occurs; and
  4. measures to minimize widespread ESV proliferation.

Non-Coordinated ESVs Will Interfere

- The Commission proposed non-coordinated ESV operation on a non-interference basis, subject to safeguards
- At best the safeguards help to identify an interfering ESV *only after interference occurs*
  - this shifts the interference burden to the Fixed Service
  - and is incompatible with ESV on a non-interference basis
- ESV operators may have to accept non-optimal conditions in exchange for entering a crowded band.

ESV Coordination Is Not Enough

- ESV proponents argue coordination alone will prevent interference
  - but coordination is highly location-sensitive
  - coordination protects against a terrestrial earth station because the earth station stays put
- ESVs require additional safeguards because a vessel has the capability to violate coordinated parameters, *e.g.*,
  - stray from the coordinated route; or
  - enter a route segment where coordination was not possible; or
  - drop below coordinated speed.

Coordination Plus . . . (1)

- Protecting the Fixed Service requires coordination plus:
  - automatic GPS-based shut-off if the vessel leaves coordinated routes
    - ESV proponents resist this proposal
    - but there is no other way to assure compliance with coordination parameters
  - real-time access to ESV itinerary and frequencies
    - can be through a trusted third party
  - 24/7 ESV contact capable of remote shut-down
  - periodic renewal of frequency coordination
  - two-year license term.

Coordination Plus . . . (2)

- Coordinating ESV *routes* will eliminate many regions as Fixed Service sites
- To control proliferation of ESV coordination:
  - limit coordination to
    - needed frequencies (not to exceed 36 MHz in each direction on each of two satellites)
    - azimuths and elevations for those satellites
  - limit ESVs to 5,000 gross tons (deep draft vessels)
    - intention is to cover all cruise ships
    - FCC proposal of 300 gross tons includes many inland vessels -- even small ferryboats
- Apply long- and short-term interference criteria.

Conclusion

- As an incoming technology, ESVs should be required to protect the Fixed Service from interference.
- Coordination is necessary but not sufficient for a moving interference source.
- ESVs should be required to shut off automatically when away from coordinated routes.
- Fixed service operators (or a trusted third party) need access to ESV itinerary and frequencies
- ESVs should be limited to needed frequencies and to vessels of 5,000 gross tons.
- Nothing less will protect vitally needed Fixed Service operations.

Voice of the Fixed Services Community

Thank you!

Fixed Wireless Communications Coalition

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