*Fletcher, Heald & Hildreth, P.L.C.*
*1300 North 17th Street 11th floor*
*Arlington VA 22209*
*703-812-0400 (voice)*
*703-812-0486 (fax)*

**MITCHELL LAZARUS**
**703-812-0440**
**LAZARUS@FHHLAW.COM**

December 8, 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***

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, Tom Keller of the Association of American Railroads, Randy Young representing the American Petroleum Institute, Dennis Gross of Alcatel, and I, all on behalf of the FWCC, met separately with Sheryl Wilkerson of Chairman Powell's office, Paul Margie of Commissioner Copps's office, Sam Feder of Commissioner Martin's office, and Barry Ohlson of Commissioner Adelstein's office, on issues in the above-referenced docket.

A copy of our presentation is attached. We emphasized the need for mechanisms to ensure that ESVs operate in accordance with their frequency coordination parameters, and to discourage ESVs from coordinating excessive spectrum over wide geographic areas.

Please call with any questions.

Respectfully submitted,

Mitchell Lazarus
Counsel for the Fixed Wireless
Communications Coalition

cc: Sheryl Wilkerson, Paul Margie, Sam Feder, Barry Ohlson

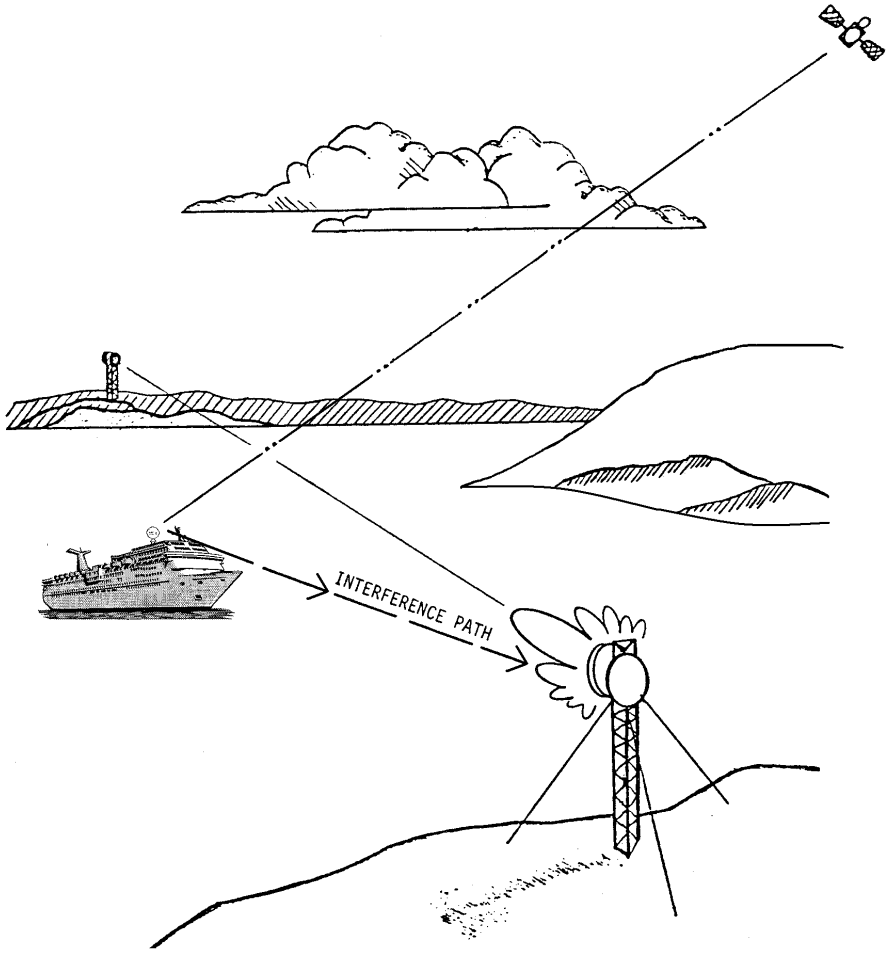

# Earth Station Vessels
# IB Docket No. 02-10

Fixed Wireless Communications Coalition

December 3 & 7, 2004 (rev.)

Contact:
Mitchell Lazarus | 703-812-0440 | lazarus@fhhlaw.com

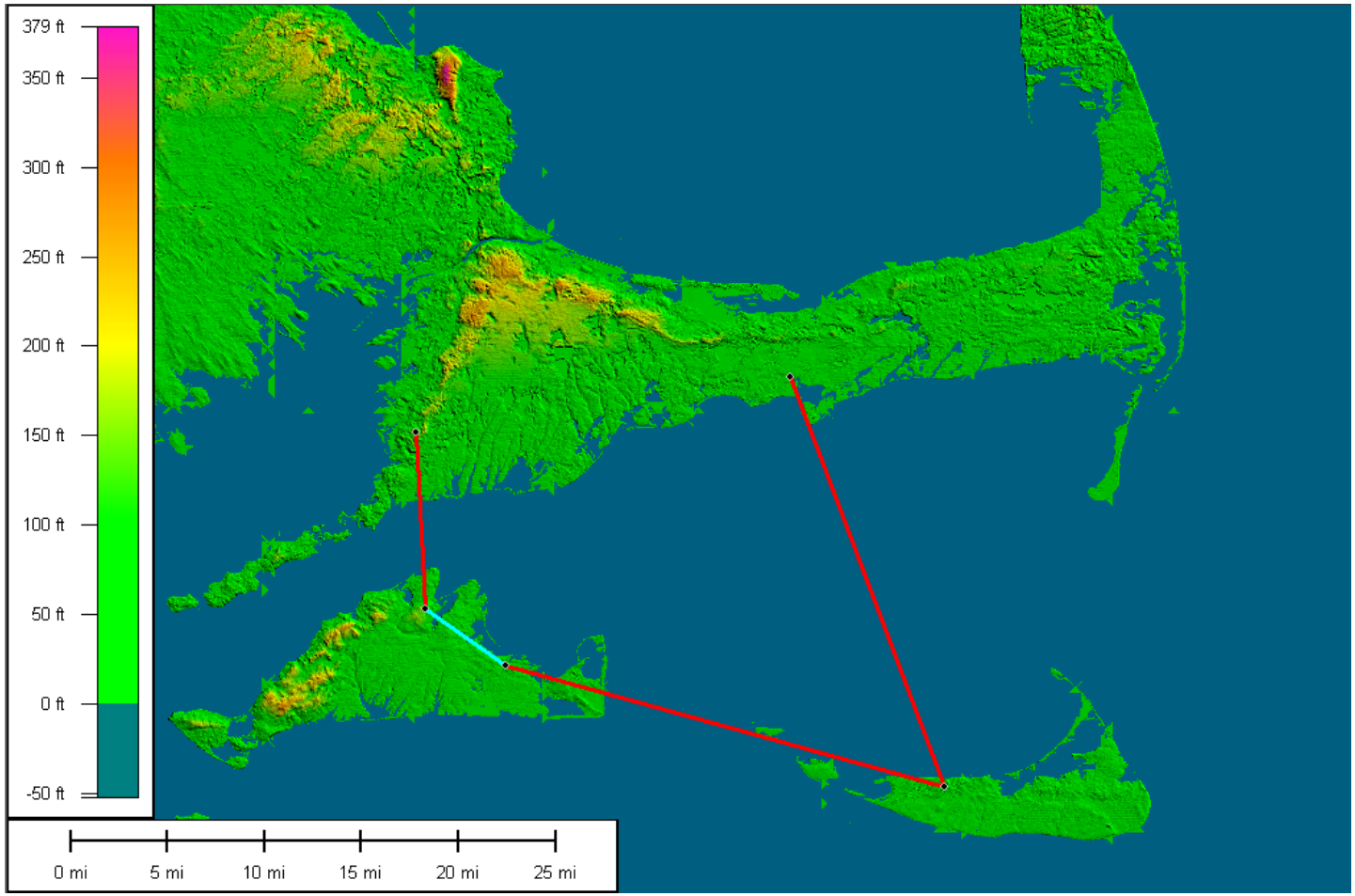
# ESV / Fixed Service Sharing



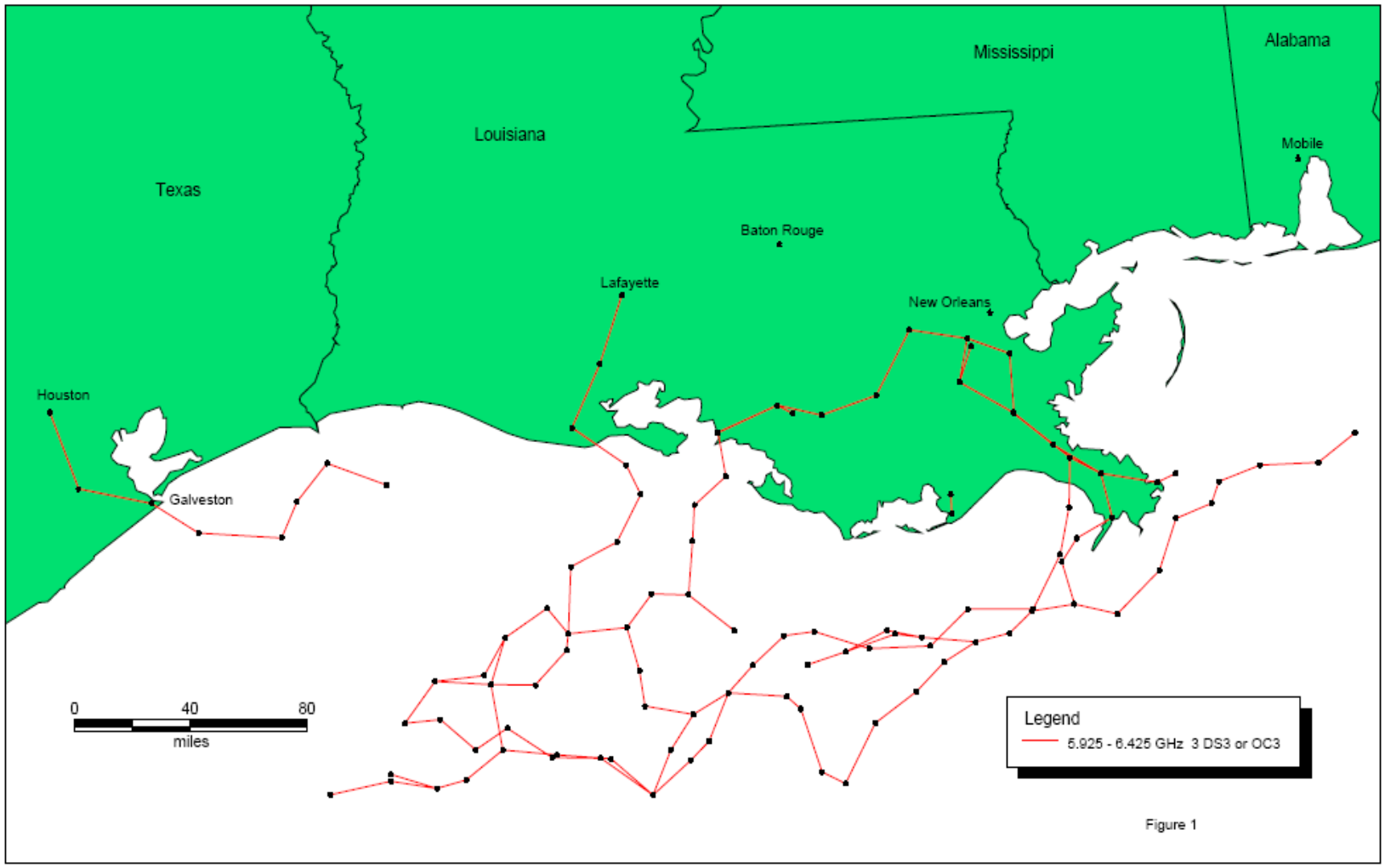
# Central Issues

- Do ESVs threaten interference to the 6 GHz Fixed Service?
  - Interference from a single ESV – regardless of antenna angle – can disrupt a Fixed Service network
  - ESV statements otherwise are mistaken
- Which industry bears the burden of interference?
  - Incoming services should have to protect established incumbents.

# Coastal Fixed Service -- 1



# Coastal Fixed Service -- 2



# Fixed Service at 6 GHz

- Widely used nationwide, including port and coastal sites
- Critical applications:
  - 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% (less than 30 seconds total outage per year).

# Can ESVs Cause Interference?

- **ESV claims of "no proven interference" reflect only non-cooperation by ESV operators**
  - coastal Fixed Service stations have unexplained outages
  - many are transient, possibly from ESV operation
  - but ESV operators refuse to provide data needed to confirm
- **ESV "analysis" of interference makes fundamental mistakes about the Fixed Service**
  - *e.g.*, Broadband Maritime says the Fixed Service uses 3 foot antennas, not 8 foot (filed Nov. 18, 2004)
  - *in fact* 3 foot antennas would violate FCC rules; 8 foot antennas and larger are commonplace (and many other examples).

# Needed Measures – 1

1. Frequency coordination for each ESV and route
   - prior database check to ensure ESVs on that route will not interfere
   - routinely required for all Fixed Service stations and fixed satellite earth stations that share spectrum
   - needed all the more for transmitters in motion
2. Compliance with coordination parameters
   - automatic shut off if ship leaves coordinated route
   - otherwise, unlikely that anyone will turn off the ESV
   - sanctions for license violation – even if provable – would come long after damage is done.

(cont'd)

# Needed Measures – 2

3. Means to identify sources of ESV interference
   - itinerary and frequencies (real time and stored)
     - data can be held by trusted third party
4. Restrict widespread ESV proliferation
   - limit ESV access to satellites and frequencies
     - if multiple ships coordinate multiple frequencies, Fixed Service would have no room for expansion
   - limit ESVs to deep draft vessels (5,000 gross tons)
     - restrict ESVs to coastal areas – not inland waterways and Great Lakes

- **ESV operators may have to accept non-optimal conditions in exchange for using crowded C-band.**

# Non-Coordinated ESVs Will Interfere

- A single ESV can disrupt an entire Fixed Service network
  - even if the ESV antenna points *away* from the Fixed Service receiver
- ESV providers oppose coordination, seek “non interference” operation, subject to safeguards
  - but the safeguards will not prevent interference
  - at best they may help to identify an interfering ESV *only after interference occurs*
- This improperly shifts the interference burden to the Fixed Service.

# Conclusion

- As the incoming technology, ESVs must protect the Fixed Service.
- Coordination is necessary but not sufficient.
  - ESVs must shut off automatically when away from coordinated routes
  - ESV operators must provide itineraries and frequencies
  - ESVs should be limited as to frequencies and vessel size.
- **Nothing less will protect vitally needed Fixed Service operations.**


# Thank you!

Fixed Wireless Communications Coalition

Mitchell Lazarus
703-812-0440
lazarus@fhhlaw.com
www.fhhlaw.com