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**HUGHES**  
NETWORK SYSTEMS

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May 28, 2002

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**EX PARTE**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
The Portals Building  
445 12th Street, SW TW-A325  
Washington, D.C. 20554

Re: ET Docket 01-278  
RM-9375; RM-10051

Dear Ms. Dortch:

On May 28, 2002, Paul Gaske, Robert Kepley, and Joslyn Read of Hughes Network Systems, Inc. and John Janka counsel for HNS from Latham & Watkins, met with Commissioner Kathleen Abernathy and Bryan Tramont concerning the above-referenced proceeding. The attached document and HNS' positions of record in this proceeding formed the basis for the discussion.

Sincerely,

/s/ Joslyn Read

Joslyn Read  
Assistant Vice President  
Regulatory & International Affairs

Attachment

cc: Commissioner Abernathy  
Bryan Tramont

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List ABCDE

*otg*

Corporate Offices  
11717 Exploration Lane  
Germantown, MD 20876  
Tel: (301) 428-5500  
www.hns.com

# **Part 15 NPRM on Radar Detector Interference**

**Hughes Network Systems**

Paul Gaske, Robert Kepley, Joslyn Read

# HNS Overview

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*HNS is the world's premier provider of broadband satellite services, products and network solutions*

- **Hughes Network Systems, a subsidiary of Hughes Electronics Corporation, is the world's largest provider of broadband satellite network solutions for businesses and consumers.**
- **Over 500,000 VSAT systems installed in more than 85 countries - more than half of which are in the USA.**
- **HNS pioneered the development of high-speed satellite Internet access services, marketed globally under DirecPC® and DIRECWAY® brands.**
- **Revenues in 2001: \$1.3 billion.**
- **Headquartered in Germantown, MD, with a major facility in San Diego, CA, and more than 30 facilities and sales offices worldwide, HNS employs over 4,400 people in engineering, operations, marketing, sales, and support.**
- **HNS operates manufacturing facilities in Maryland; the U.K.; and Mexico.**<sub>2</sub>

# Innovator of Broadband Services, Products, and Network Solutions

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1983



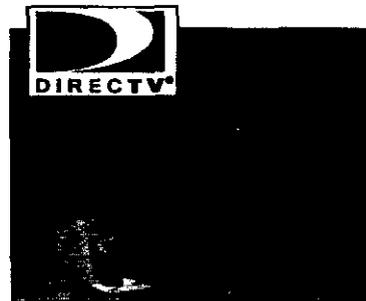
*Invention of first VSAT*

1990



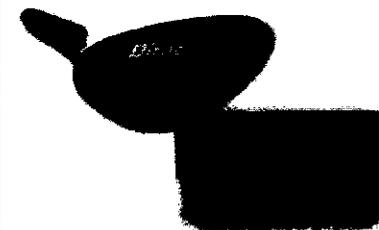
*First Mesh VSAT (PES™)*

1994



*DIRECTV®*

1995



*DirecPC®  
Dial Return Service*

1999



*DirecDuo™*

2000



*Shipped 8,000,000th  
DIRECTV Set-Top box*

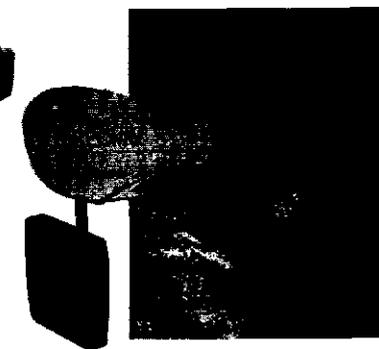
2001



*DIRECTWAY®  
Satellite Return Service*

2003

SPACEWAY.



*Next Generation K&band  
Broadband*

# Corporate VSAT Services

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- **VSATs provide networking services to every sector of the American economy:**
  - **Oil and gas**
    - ◆ HNS has more than 40,000 gasoline retail locations under contract today
  - **Financial services**
  - **Shipping**
  - **Merchandising**
  - **Telecommunications**
  - **Law enforcement**
  - **Local, state and federal governmental agencies**
- **VSAT services are provided today in C and Ku Bands under primary FSS allocation**
  - **VSATs operate pursuant to earth station licenses issued by the Commission**
- **Licensed operators and customers have legitimate expectation of protection from harmful interference**

# Current Regulation of Radar Detectors

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- Radar detectors as Part 15 devices are required to operate on a non-interference basis
- Radar detectors are exempted from emissions limits in Section 15.109 by Section 15.101(b)
  - Impractical and difficult to enforce existing part 15 non-interference rules against consumers who operate radar detectors
- General Section 15.109 Emissions Limit - - *but not Radar Detectors*
  - 500 microvolts/meter measured at a distance of 3m for frequencies above 960 MHz
- FCC issued NPRM in October 2001 to resolve this radar detector interference problem and subject these devices to Part 15 emissions limits

# **The Radar Detector Interference Problem**

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- **Radar detectors produce harmful interference into licensed VSAT operations**
  - Interference events increasing
  - New radar detectors active in more bands above 960 MHz
  - Levels emitted are above 100,000 microvolts/meter measured at a distance of 3 meters
  
- **Commercial impact of this interference is significant**
  - For Customers: Credit card and billing transactions may be rendered non-operational
  - For Satellite and Network Operators: Current and prospective customers are concerned about continued viability of VSAT services

# Necessary Solution

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- **Regulate emission levels of radar detectors**
  - ***Need to establish emissions limit of 85 microvolts/ meter measured at 3 meters for radar detectors operating between 10.7-12.7 GHz***
  - ***Subject radar detectors operating in other frequency ranges above 30 MHz to the relevant emission limits of 15.109(a)***
- **Require all radar detectors to comply with the new emission limits immediately**
  - ***Apply new regulation to all radar detectors not yet sold***
  - ***Impose compliance on radar detectors already in circulation through trade-in programs or other mechanisms***

# Conclusion

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- **Record is complete with uncontroverted showings of harmful interference caused to VSATs by radar detectors**
- **Need urgent action by FCC to establish rule for radar detectors with immediate effect**
  - **For radar detectors operating between 10.7-12.7 GHz,**
    - ♦ **Regulate emissions levels of radar detectors at level of 85 microvolts/meter measured at 3 meters**
  - **For radar detectors operating in other frequency ranges above 30 MHz,**
    - ♦ **Apply the relevant emissions limits of 15.109(a)**
- **Impose new regulation on all existing and future radar detectors**