

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

|                                           |   |                     |
|-------------------------------------------|---|---------------------|
| In the Matter of                          | ) |                     |
|                                           | ) |                     |
|                                           | ) |                     |
| Third Annual Report to Congress on        | ) | IB Docket No. 09-16 |
| Status of Competition in the Provision of | ) |                     |
| Satellite Services                        | ) |                     |

**COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION**

The Satellite Industry Association (“SIA”) submits these comments in response to the International Bureau’s Public Notice of May 14, 2009, seeking information on the state of competition in the provision of satellite services.<sup>1</sup> SIA is a U.S.-based trade association providing worldwide representation of the leading satellite operators, service providers, manufacturers, launch services providers, remote sensing operators, and ground equipment suppliers. SIA is the unified voice of the U.S. satellite industry on policy, regulatory, and legislative issues affecting the satellite business.<sup>2</sup> SIA is filing these comments to provide an industry-wide consensus perspective on the intensely competitive environment in which satellite services providers operate.

---

<sup>1</sup> IB Invites Comment for Third Annual Report to Congress on Status of Competition in the Satellite Services Market, DA 09-1045 (May 14, 2009) (“Public Notice”).

<sup>2</sup> SIA Executive Members include: Artel Inc.; The Boeing Company; DataPath, Inc.; CapRock Government Solutions; The DIRECTV Group; Hughes Network Systems, LLC; DBSD North America, Inc.; Integral Systems, Inc.; Intelsat, Ltd.; Iridium Satellite, LLC; Lockheed Martin Corp.; Loral Space & Communications Inc.; Northrop Grumman Corporation; SES Americom, Inc.; SkyTerra Communications, Inc; and TerreStar Networks, Inc. Associate Members include: ATK Inc.; Comtech EF Data Corp.; DRS Technologies, Inc.; EchoStar Satellite, LLC; EMC, Inc.; Eutelsat Inc.; iDirect Government Technologies; Inmarsat Inc.; Marshall Communications Corp.; Panasonic Avionics Corporation; Spacecom Ltd.; Stratos Global Corp; SWE-DISH Space Corp; Telesat; ViaSat Inc.; and WildBlue Communications, Inc. Additional information about SIA can be found at <http://www.sia.org>.

## I. INTRODUCTION

The Commission initiated its reviews of market forces facing satellite service providers in response to a 2005 amendment to the Communications Satellite Act, in which Congress directed the Commission to provide an annual report on the satellite services competition.<sup>3</sup> The Commission submitted its First Annual Report (“First Report”) on March 26, 2007,<sup>4</sup> and released its Second Annual Report (“Second Report”) on October 16, 2008.<sup>5</sup> In the First Report, the Commission conducted a thorough analysis of the markets in which satellite operators participate and provided Congress with extensive background information on the historical, regulatory, and technological circumstances of satellite providers. Based on this detailed analysis, the Commission correctly held that “the market for commercial communications satellite services is effectively competitive.”<sup>6</sup> The Commission emphasized the consumer benefits that flow from robust competition among service providers, focusing on both satellite and terrestrial sources of capacity.<sup>7</sup>

In the Second Report, the Commission reviewed updated information regarding satellite industry characteristics and reassessed market performance. The Commission again determined that “satellite services are subject to effective competition.”<sup>8</sup> In particular, the Commission found that:

---

<sup>3</sup> Amendment to the Communications Satellite Act, Pub. L. No. 109-34, 119 Stat. 377 (2005), codified at 47 U.S.C. § 703.

<sup>4</sup> *Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, First Report, FCC 07-34, 22 FCC Rcd 5954 (2007).

<sup>5</sup> *Second Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, Second Report, FCC 08-247, 23 FCC Rcd 15170 (2008).

<sup>6</sup> First Report, 22 FCC Rcd at 5955 (¶ 2).

<sup>7</sup> *Id.* at 6011 (¶ 188).

<sup>8</sup> Second Report, 23 FCC Rcd at 15171 (¶ 3).

Developments in the satellite sector are consistent with achieving and maintaining financial viability through time given the substantial, long term, fixed and sunk costs resulting from investment in communications satellites, and there is no evidence that such developments harm consumers or otherwise adversely affect rivalry among competitors in the communications satellite services.<sup>9</sup>

SIA strongly supports the assessments made in the First and Second Reports, which reflect the direct experience of SIA member companies as they seek to gain and retain customers in a challenging competitive environment. SIA demonstrates herein that satellite service providers continue to face vibrant and increasing competition from vendors using a range of both satellite and terrestrial technologies. As part of that record we attach the recently released annual study sponsored by SIA and prepared by Futron Corporation on the State of the Satellite Industry.<sup>10</sup>

SIA also responds to the questions in the Public Notice relating to the ability of U.S. satellite service firms to gain access to foreign markets, attaching its most recent comments to the U.S. Trade Representative concerning these matters.<sup>11</sup>

## **II. SATELLITE SERVICE PROVIDERS CONTINUE TO FACE EFFECTIVE COMPETITION THAT BENEFITS CONSUMERS**

As discussed above, the Commission determined in the First and Second Reports that markets in which satellite services providers operate are effectively competitive based on a thorough and detailed analysis. The Commission did not rely on a specific definition of “effective competition” for purposes of those assessments, but asks in the Public Notice whether it should adopt such a definition here.

---

<sup>9</sup> *Id.* at 15201 (¶ 100).

<sup>10</sup> State of the Satellite Industry Report, June 2009, submitted as Attachment 1 hereto (“2009 SIA/Futron Report”).

<sup>11</sup> Comments of SIA pursuant to Section 1377 of the Omnibus Trade and Competitiveness Act of 1988 and letter of Patricia Cooper, President, SIA, to Ms. Christine Bliss, Assistant U.S. Trade Representative, both dated Dec. 12, 2008, submitted as Attachment 2 hereto.

In SIA's view, defining effective competition is not necessary for this proceeding, but if the Commission prefers to adopt a definition, SIA supports the one developed in the *Foreign Carrier Entry* rulemaking. More importantly, in preparing the Third Report the Commission should conform to its past practice of considering satellite services in the context of the real-world competitive environment, including terrestrial substitutes for satellite offerings, and of assessing the resulting benefits to consumers of satellite services.

**A. The Definition of Effective Competition in the *Foreign Carrier Entry Order* Is Appropriate For Satellite Services**

The Public Notice observes that in adopting the statutory requirement for the Commission to report on "effective competition" for satellite services, Congress did not define that term.<sup>12</sup> The Commission notes, however, that it has adopted definitions for effective competition in other contexts. In particular, in the *Foreign Carrier Entry Order*, the Commission determined that "[e]ffective competition means competition among service providers in a market that benefits consumers by expanding service offerings, promoting development of innovative technology, and lowering prices."<sup>13</sup>

In past reports, the Commission has used a range of indicators in evaluating satellite services markets. The Public Notice asks whether the Commission should maintain that approach or adopt a definition of effective competition for purposes of its analysis.

SIA believes that the Commission's use of numerous factors in the First and Second Reports to assess competitiveness was reasonable given the lack of a statutory definition of effective competition for purposes of this reporting requirement. However, to the extent that the Commission seeks to apply a specific definition of effective competition for satellite services

---

<sup>12</sup> Public Notice at 1-2.

<sup>13</sup> *Id.* at 2, citing *Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order, 11 FCC Rcd 3873 at ¶ 1 (1995) ("*Foreign Carrier Entry Order*").

going forward, SIA suggests that the Commission employ the definition adopted in the *Foreign Carrier Entry Order*.

The *Foreign Carrier Entry Order* definition of effective competition has two key features that make it suited for use in assessing the market environment for satellite services. First, the definition does not limit its scope to service providers using a particular technology, and accordingly permits consideration of both intramodal and intermodal competition. Second, as the Commission has done in its analyses to date, the definition focuses on customers and the benefits they reap from having a variety of sources for communications services. These are essential attributes when evaluating the real-world competitive framework facing satellite services providers.

**B. Satellite Services Providers Experience  
Increasing Competition from Multiple Sources**

As SIA has explained in its comments submitted in connection with preparation of the First and Second Reports, considering all modes of competition for satellite services is both necessary to ensure an accurate understanding of the competitive environment and consistent with Commission precedent. Viewed from this complete perspective, it is clear that competition faced by satellite services providers is both vibrant and increasing.

The Commission has expressly recognized that its analysis of competition facing satellite services providers must take into account both satellite and terrestrial offerings. In the First Report the Commission found that:

Recognizing intermodal competition is consistent with customary descriptions of relevant markets. Satellite technology is one technology platform, an input that can be used to provide a communications service. It is not uncommon for the same service – the same communications capability that a consumer uses – to be provided by differing platforms such as satellite, radio transmitters on the earth’s surface (“terrestrial wireless”),

and/or wires (copper, coaxial, or fiber optic). These different technologies afford consumers substantially the same capability.<sup>14</sup>

Similarly, in the Second Report the Commission emphasized the need to consider market participants who compete using technologies other than satellites.<sup>15</sup> The Commission observed that customers of satellite services increasingly have the ability to substitute terrestrial transmission facilities in whole or in part, noting in particular the growing use of hybrid terrestrial/satellite networks for traditional VSAT services.<sup>16</sup>

As SIA has previously noted, taking a comprehensive approach to competition analysis conforms to the practice of the Commission and other agencies in similar proceedings. In the annual video programming and CMRS reports, the Commission consistently has looked at all sources of competition.<sup>17</sup> In addition, both the Commission and other agencies have looked to non-satellite delivered services in evaluating mergers involving satellite service entities.<sup>18</sup>

As it updates its analysis here and develops the Third Report, the Commission should adhere to this precedent and take a broad view of the competitive landscape faced by satellite services providers. Specifically, customers considering the use of satellite services will typically have three categories of alternative providers: facilities-based satellite operators with coverage of the desired service area; resellers of satellite capacity; and terrestrial providers with connectivity to the desired endpoints for the communications.

---

<sup>14</sup> First Report, 22 FCC Rcd at 5966 (¶ 35).

<sup>15</sup> Second Report, 23 FCC Rcd at 15174 (¶ 16).

<sup>16</sup> *Id.* at 15185 & 15198 (¶¶ 54 & 93).

<sup>17</sup> *See* Comments of the Satellite Industry Association, IB Dkt No. 07-252 (filed Dec. 7, 2007) at 4-5 (noting that in both its reviews of competition in the commercial mobile radio services and video programming markets, the Commission considers all service alternatives, including non-traditional sources of competition).

<sup>18</sup> *Id.* at 4 (reviews of satellite merger transactions by both the Commission and the Department of Justice reflect the fact that satellite operators compete in a broader market for communications services).

Facilities-based satellite operators with U.S. coverage and market access are numerous. They include, but are not limited to: Intelsat; SES Americom; Telesat; Satmex; Eutelsat, WildBlue; DirecTV; EchoStar; Hughes Communications; Sirius XM; Iridium; Inmarsat; Globalstar; and SkyTerra.<sup>19</sup> As the 2009 SIA/Futron Report makes clear, orders for new satellites have continued at a steady pace. These include spacecraft procured by incumbent operators to replace satellites being retired and expand their fleets, as well as satellites being built for new facilities-based providers such as ViaSat.<sup>20</sup> Many entities resell satellite communications capacity, offering it either as a stand-alone service, or bundling it with other elements such as ground equipment and network management services.

Further, substitutes for services provided by satellite are offered by a multitude of terrestrial competitors – ranging from undersea and terrestrial fiber optic cable operators to the many wireline and wireless communications providers that transmit video, audio, voice, and data. Most of these companies are able to provide both domestic and international services, and these terrestrial-based providers continue to expand their networks and program offerings.

The Commission has expressly recognized that fiber optic cable is an effective substitute for satellite capacity that affects demand for satellite services.<sup>21</sup> Because fiber deployment continues to increase,<sup>22</sup> more and more enterprise customers can choose between satellite and

---

<sup>19</sup> Although an individual satellite operator may focus its offerings to attract a particular set of prospective customers, it is important for the Commission to recognize that the underlying transmission capacity can typically be used for multiple kinds of services. For example, transponders on a fixed-satellite service spacecraft can be used for myriad purposes, including corporate data services, direct-to-home video offerings, broadband delivery, and service to maritime mobile terminals.

<sup>20</sup> 2009 SIA/Futron Report at 16.

<sup>21</sup> See Second Report, 23 FCC Rcd at 15185 (¶ 54).

<sup>22</sup> See *id.* at 15181 n.45 (noting the “[c]ontinued growth in the number and capacity of fiber optic cables as substitute media”).

terrestrial networks and are increasingly turning to terrestrial cable as an alternative provider of point-to-point and point-to-multipoint communications services.<sup>23</sup>

The same dynamics are clear with respect to consumer broadband services, which are offered by a variety of providers using a range of underlying transmission platforms, including cable modem service, local exchange companies offering fiber optic service, and satellite-based providers. Terrestrial-based networks continue to upgrade their facilities to reach more users and offer higher speeds,<sup>24</sup> increasing the pressure on competing satellite-based offerings.

In short, satellite service providers face extensive and growing competition not only from other satellite-based service offerings but also from rival carriers using a range of terrestrial delivery platforms.

### **C. Competition Benefits Satellite Service Customers**

As the Commission has recognized, consumers reap significant rewards as a result of the competitive environment in which satellite service providers operate. In the Second Report the

---

<sup>23</sup> For example, the Commission observed that satellite “transponder capacity may be used in tandem with fiber optic cables to provide path redundancy for highly critical telecommunications services.” *Id.* at 15185 (¶ 54). In practice, however, the Commission found that “[i]ncreasingly, it appears that transmission restoration capacity is being provided by other fiber optic transmission facilities rather than satellite transponder capacity.” *Id.*, n.58.

<sup>24</sup> Verizon continues to expand its FiOS fiber optic service. Verizon reported that FiOS reached over 12.7 million homes passed by end of 2008, with a goal of 18 million homes passed by 2010. *See* Communications Industry Trends and Verizon Advanced Network Services, presentation by Paul Brigner, Executive Director, Internet and Technology Policy, Verizon, Feb. 15, 2009, available at <http://www.narucmeetings.org/Presentations/NARUC%20Winter%202009%20-%20Paul%20Brigner.pdf>.

In October, the National Telecommunications Cooperative Association released the results of an annual survey of its small-town and rural local telephone company members. All of the respondents indicated that they offered broadband service to some portion of their customer base, up from just 58% of respondents to the 2000 survey. Furthermore, 44% of respondents indicated they were providing Internet access using fiber-to-the-home or fiber to the curb, up from 32% the previous year. *See* NTCA Survey Reveals Upturn in Broadband Take Rates, Fiber Deployment, Oct. 28, 2008, available at [http://www.ntca.org/index.php?option=com\\_content&view=article&id=2188:ntca-survey-reveals-upturn-in-broadband-take-rates-fiber-deployment&catid=182:2008-press-releases&Itemid=35](http://www.ntca.org/index.php?option=com_content&view=article&id=2188:ntca-survey-reveals-upturn-in-broadband-take-rates-fiber-deployment&catid=182:2008-press-releases&Itemid=35).

Commission found that “consumers of communications satellite services continue to realize significant benefits in terms of service choice, innovations fostered by technological change and improvements in both space and ground segment, and improvements in service quality.”<sup>25</sup>

The Second Report went on to highlight a number of areas where these gains have occurred. For example, the Commission observed that “technological advances have enabled more efficient reuse of spectrum.”<sup>26</sup> The Commission also noted that sophisticated on-board processing systems that have been developed “can achieve higher service speed and throughput capacity, and can support the type of fully-meshed connectivity that is necessary for peer-to-peer communications.”<sup>27</sup> By allowing services to be offered more flexibly and efficiently and introducing enhanced capabilities, these competition-driven technological changes enhance customer choice and drive down costs.

The Commission also noted the explosion in offerings involving mobile uses of fixed-satellite service capacity for service to users traveling on the sea, through the air, and on the ground.<sup>28</sup> Consumers have derived significant benefits from these new service options, which have expanded the availability of voice and data services to travelers and serve important safety and national security functions as well.

Pricing and service quality are also key areas of competition.<sup>29</sup> The Commission has noted that the historic excess supply of transponder capacity “tends to exert downward pressure on transponder lease rates, at least at the margin.”<sup>30</sup> Satellite operators also offer significant

---

<sup>25</sup> Second Report, 23 FCC Rcd at 15171 (¶ 3).

<sup>26</sup> *Id.* at 15192 (¶ 69).

<sup>27</sup> *Id.* (¶ 70).

<sup>28</sup> *Id.* (¶ 71).

<sup>29</sup> See First Report, 22 FCC Rcd at 6002 (¶ 159) (noting evidence of “price and quality rivalry” for both wholesale and retail services).

<sup>30</sup> Second Report, 23 FCC Rcd at 15185 (¶ 52).

discounts for long term leases and leasing of multiple transponders as a way to limit the risk that they will not be able to recover the huge sunk costs of spacecraft and network infrastructure.<sup>31</sup> Reliability is a critical element for many prospective customers, leading operators to emphasize this factor in marketing their services as well. Satellite service providers build in redundancy and search for ways to minimize service outages because they recognize this factor can make the difference in their attempts to gain new customers or retain existing ones.

Thus, consumers are the direct beneficiaries of the robust competition faced by satellite services providers.

### **III. MARKET ACCESS ISSUES PERSIST IN MANY FOREIGN JURISDICTIONS**

SIA's views on the foreign market access questions raised in the Public Notice are contained in Attachment 2. This information addresses issues relating to market access for satellite services in a number of WTO member or candidate countries and highlights obstacles that directly impact SIA's member companies.

### **IV. CONCLUSION**

In developing the Third Report, the Commission should continue to take a broad view of the competitive environment in which satellite services providers operate and recognize the substantial consumer benefits that result from those competitive forces.

Respectfully submitted,



Patricia A. Cooper  
President  
Satellite Industry Association  
1730 M Street N.W., Suite 600  
Washington, D.C. 20036

June 15, 2009

---

<sup>31</sup> *Id.* at 15188-89 (¶ 59).

# **ATTACHMENT 1**



# State of the Satellite Industry Report

June 2009

*Sponsored by the*



*Prepared by  
Futron Corporation*





## Study Overview

- The latest comprehensive satellite industry statistics in SIA's series of annual studies
- Based on year-end 2008 annual statistics from key players representing four satellite industry segments:
  - Satellite Services
  - Satellite Manufacturing
  - Launch Industry
  - Ground Equipment
- Performed by Futron Corporation, the report includes surveys of over 70 SIA members and key companies in the industry, augmented with publicly available data and research to derive industry revenues and statistics



# Satellite Industry Overview

## Satellite Services

- Mobile
  - Mobile Data
  - Mobile Voice
- Fixed
  - Broadband
  - Private Networks
  - Transponder Agreements
- Remote Sensing
- Broadcasting
  - Satellite Television
  - Satellite Radio



## Satellite Manufacturing

- Satellite Manufacturing
- Component and Subsystem Manufacturing

## Launch Industry

- Launch Services
- Vehicle Manufacturing

## Ground Equipment

- Network Equipment
  - Gateways
  - Control Stations
  - Very Small Aperture Terminals (VSATs)
- Consumer Equipment
  - Direct Broadcast Satellite (DBS) Dishes
  - Handheld Satellite Phones
  - Digital Audio Radio Service (DARS) Equipment
  - Global Positioning System (GPS) Primary-Use Hardware



## Methodology Notes

- Satellite Manufacturing data
  - Include commercial manufacturing activity for both commercial and government customers
- Launch Industry data
  - Include services provided by private companies for both commercially-owned and government-owned payloads
  - Do not include government launches, such as Shuttle launches or ISS missions, except in cases where the launch service was provided commercially
- Launch Industry and Satellite Manufacturing revenues are recognized in the year of launch
- Revenue is expressed in real-year U.S. dollars (not adjusted for inflation)



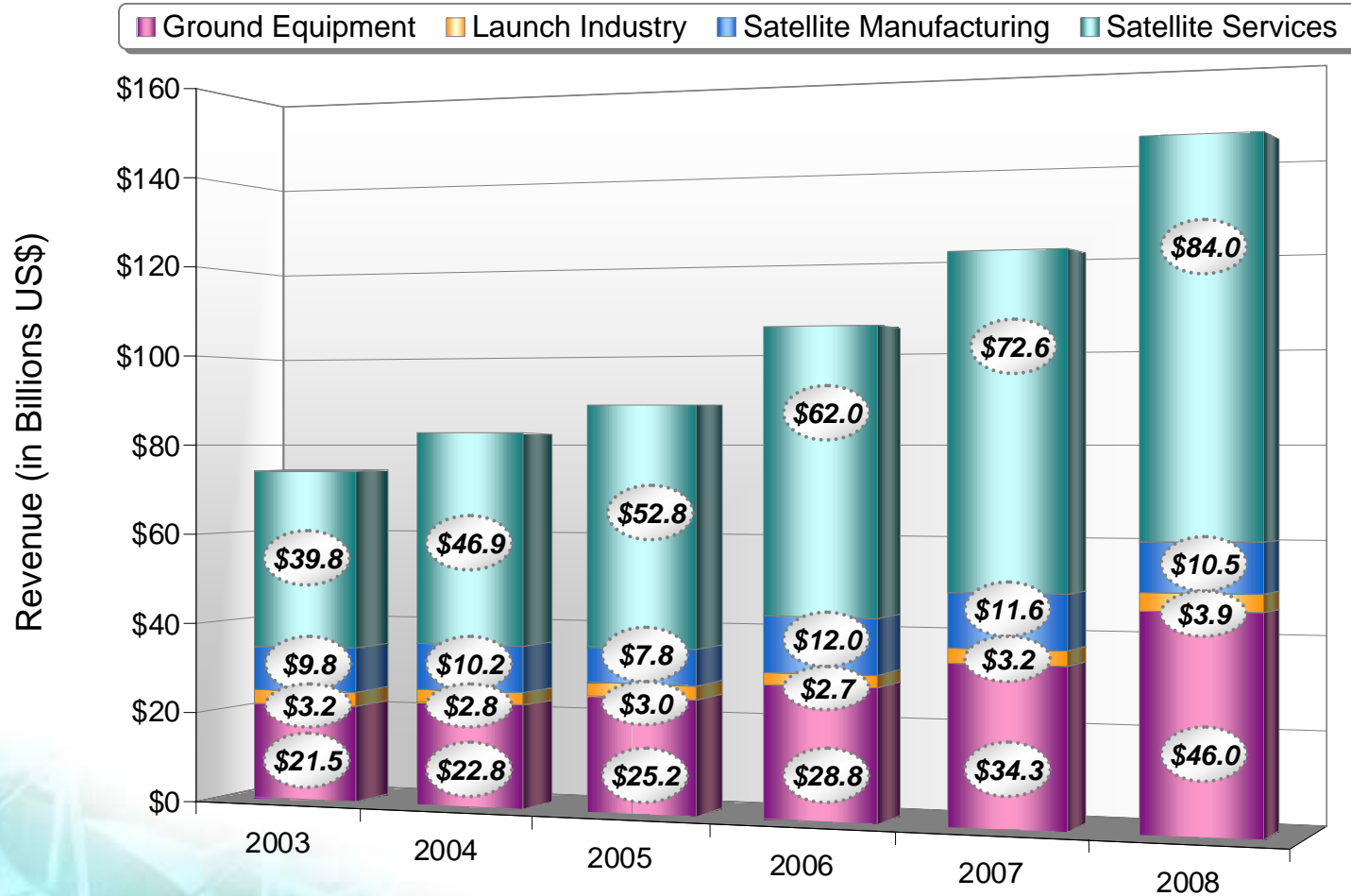
# World Satellite Industry Revenues



*World satellite industry revenues had average annual growth of 14.2% for the period from 2003 to 2008*



# World Revenues By Sector



*Satellite Services showed continued strong growth of 16%, solidifying its role as the driver of this industry, while Ground Equipment revenues surged 34%*

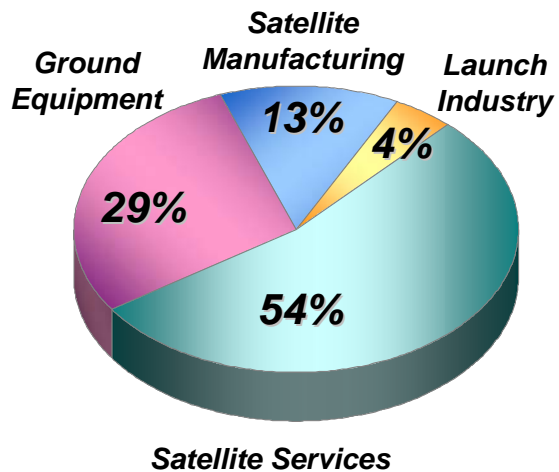


## Top-Level Satellite Industry Findings

- Overall worldwide industry revenue growth was 19% from 2007 to 2008, compared with a 15% increase from 2006 to 2007
- Satellite Services increased by more than 16% from 2007 to 2008, largely due to growth in satellite television revenues
- Satellite Manufacturing revenues declined slightly, reflecting fewer satellites launched
- Launch Industry revenues grew by 20% from 2007 to 2008, fueled by a general increase in launch prices, despite fewer launches
- Ground Equipment revenues grew by 34% in 2008, a significant increase over the 19% growth in 2007

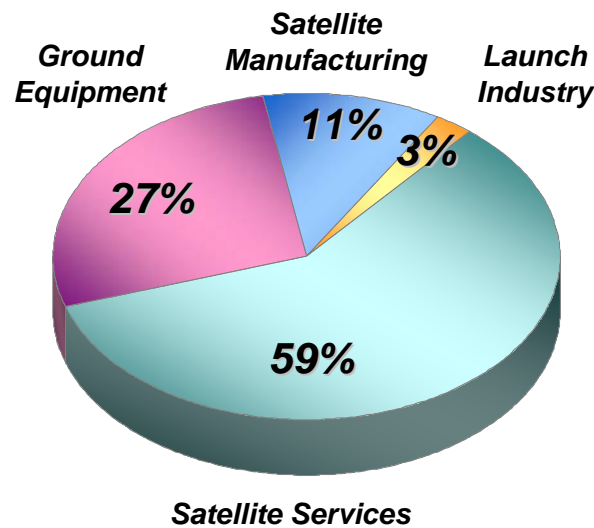
**2003**

**US\$74.3 Billion**



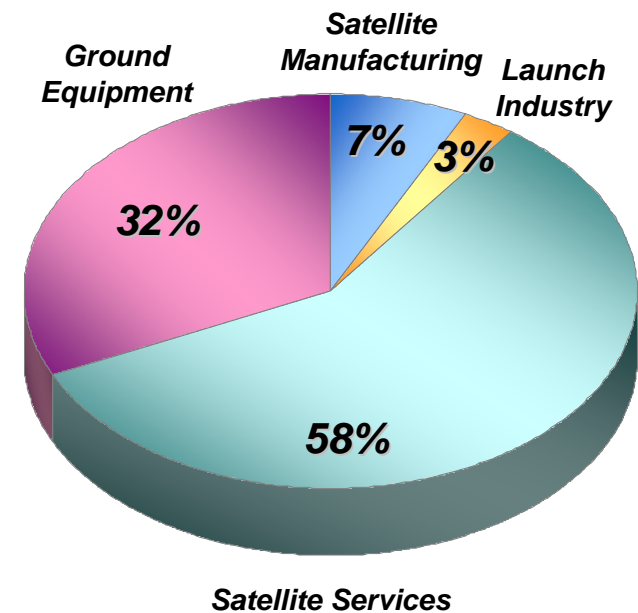
**2006**

**US\$105.5 Billion**



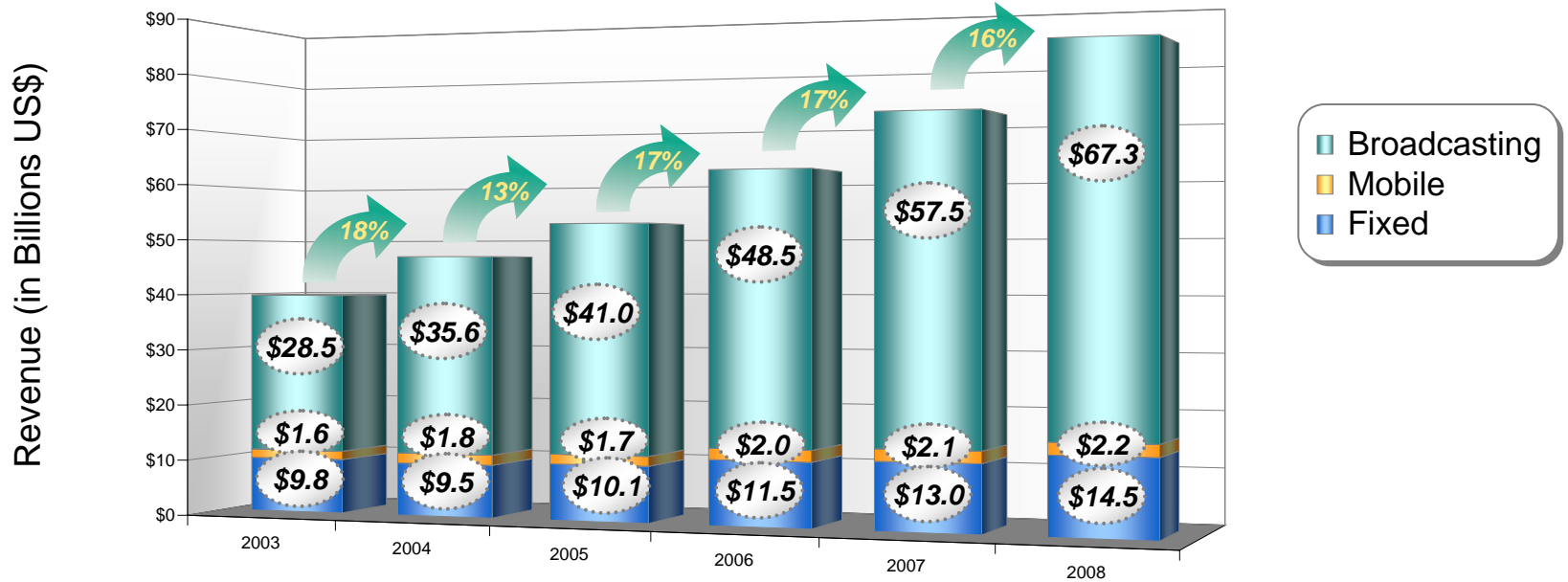
**2008**

**US\$144.4 Billion**



■ Ground Equipment 
 ■ Launch Industry 
 ■ Satellite Manufacturing 
 ■ Satellite Services

# World Satellite Services Revenue



|                                         | 2003          | 2004          | 2005          | 2006          | 2007          | 2008          |
|-----------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Broadcasting</b>                     | <b>\$28.5</b> | <b>\$35.6</b> | <b>\$41.0</b> | <b>\$48.5</b> | <b>\$57.5</b> | <b>\$67.3</b> |
| - Satellite TV (DBS/DTH)                | \$28.4        | \$35.3        | \$40.2        | \$46.9        | \$55.4        | \$64.9        |
| - Satellite Radio (DARS)                | \$0.1         | \$0.3         | \$0.8         | \$1.6         | \$2.1         | \$2.5         |
| <b>Mobile<sup>1</sup></b>               | <b>\$1.6</b>  | <b>\$1.8</b>  | <b>\$1.7</b>  | <b>\$2.0</b>  | <b>\$2.1</b>  | <b>\$2.2</b>  |
| <b>Fixed</b>                            | <b>\$9.8</b>  | <b>\$9.5</b>  | <b>\$10.1</b> | <b>\$11.5</b> | <b>\$13.0</b> | <b>\$14.5</b> |
| - Transponder Agreements                | \$7.4         | \$7.0         | \$7.3         | \$8.5         | \$9.6         | \$10.2        |
| - Managed Network Services <sup>2</sup> | \$1.7         | \$1.9         | \$2.0         | \$2.2         | \$2.6         | \$2.8         |
| - End-User Broadband                    | \$0.3         | \$0.2         | \$0.3         | \$0.3         | \$0.4         | \$0.8         |
| <b>Remote Sensing</b>                   | <b>\$0.4</b>  | <b>\$0.4</b>  | <b>\$0.5</b>  | <b>\$0.4</b>  | <b>\$0.4</b>  | <b>\$0.7</b>  |
| <b>Total</b>                            | <b>\$39.8</b> | <b>\$46.9</b> | <b>\$52.8</b> | <b>\$62.0</b> | <b>\$72.6</b> | <b>\$84.0</b> |

Note: Numbers may not sum exactly to rounding 1. Includes mobile satellite telephony and data 2. Includes VSAT services



## Satellite Services Findings

- Satellite Services growth of 16% in 2008 was robust, parallel to the 17% growth in 2007
- Satellite television (DBS/DTH subscription revenues), representing three-quarters of total satellite services revenues in 2008, maintained a steady growth, increasing by 17% to \$64.9 billion
  - Satellite pay TV subscribers grew by more than 30% over 2007 levels, surpassing 130 million globally
  - Satellite pay TV subscribers in the U.S. exceeded 30 million in 2008
- Transponder agreement revenues represent the core of the fixed satellite services sector, and continued to grow, increasing by 6% in 2008
  - Includes contracts for full or partial transponders and occasional use video services

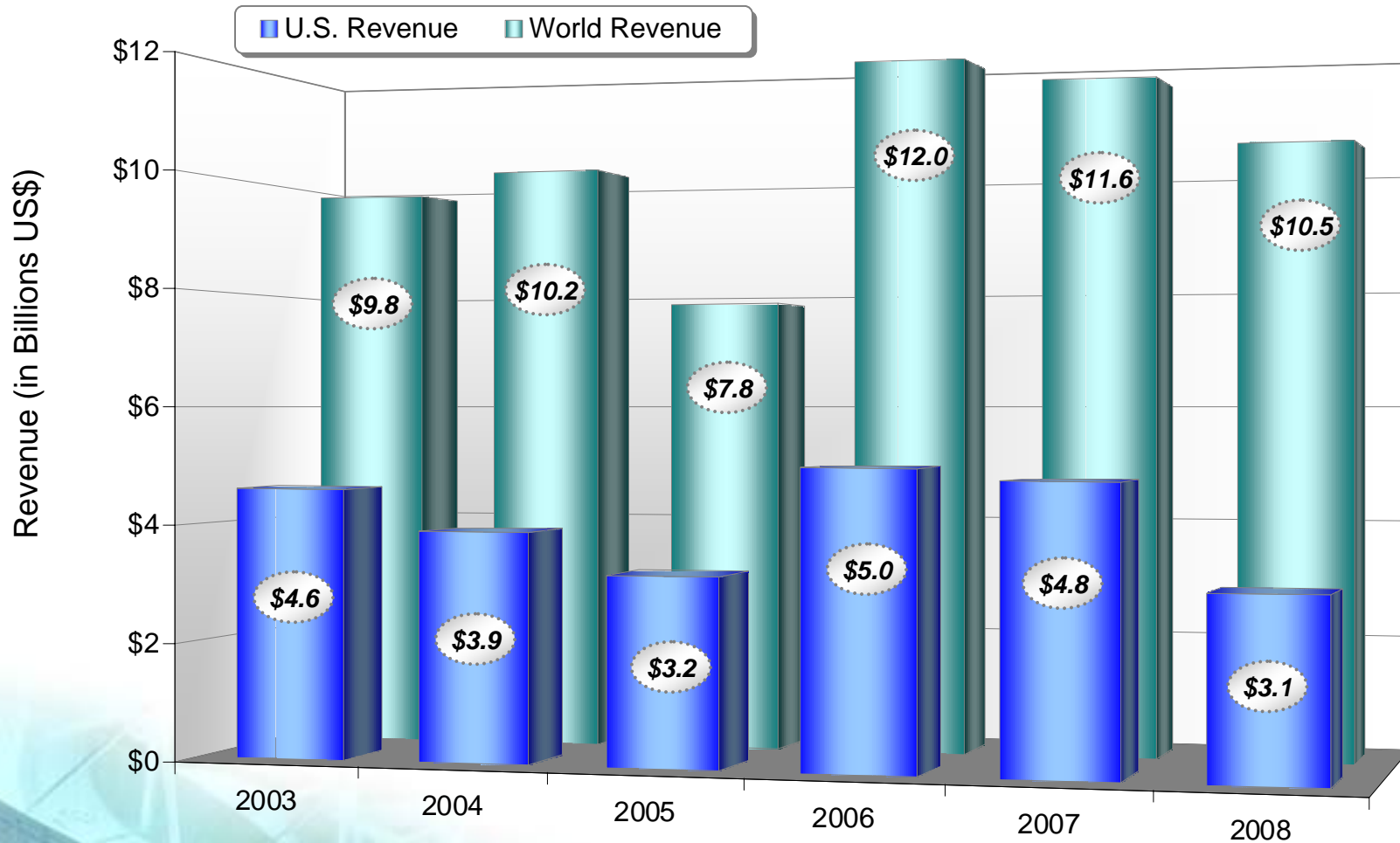


## Satellite Services Findings (2)

- Data applications continued to drive mobile satellite services growth
  - Mobile data services revenues grew by 22%, compared to 14% in 2007, and now represent almost 70% of all mobile satellite services
  - Revenues for mobile telephony declined by 24% in 2008, largely due to the recent decline in Globalstar voice services
  - Satellite broadband revenues doubled, driven by subscriber growth in the U.S.
- Satellite radio (DARS) continued to experience strong growth, although at a lower pace than previously
  - Subscription revenues increased to \$2.45 billion, reflecting an 18% growth versus the 29% growth from 2006 to 2007
  - Subscribers grew by 13% to 20.5 million, roughly half the growth rate of the previous year



# Satellite Manufacturing Revenues



Note: Satellite Manufacturing revenues are recorded in the year the satellite is delivered/launched, not when contract is awarded. World revenue includes U.S. revenue.



## Satellite Manufacturing Findings

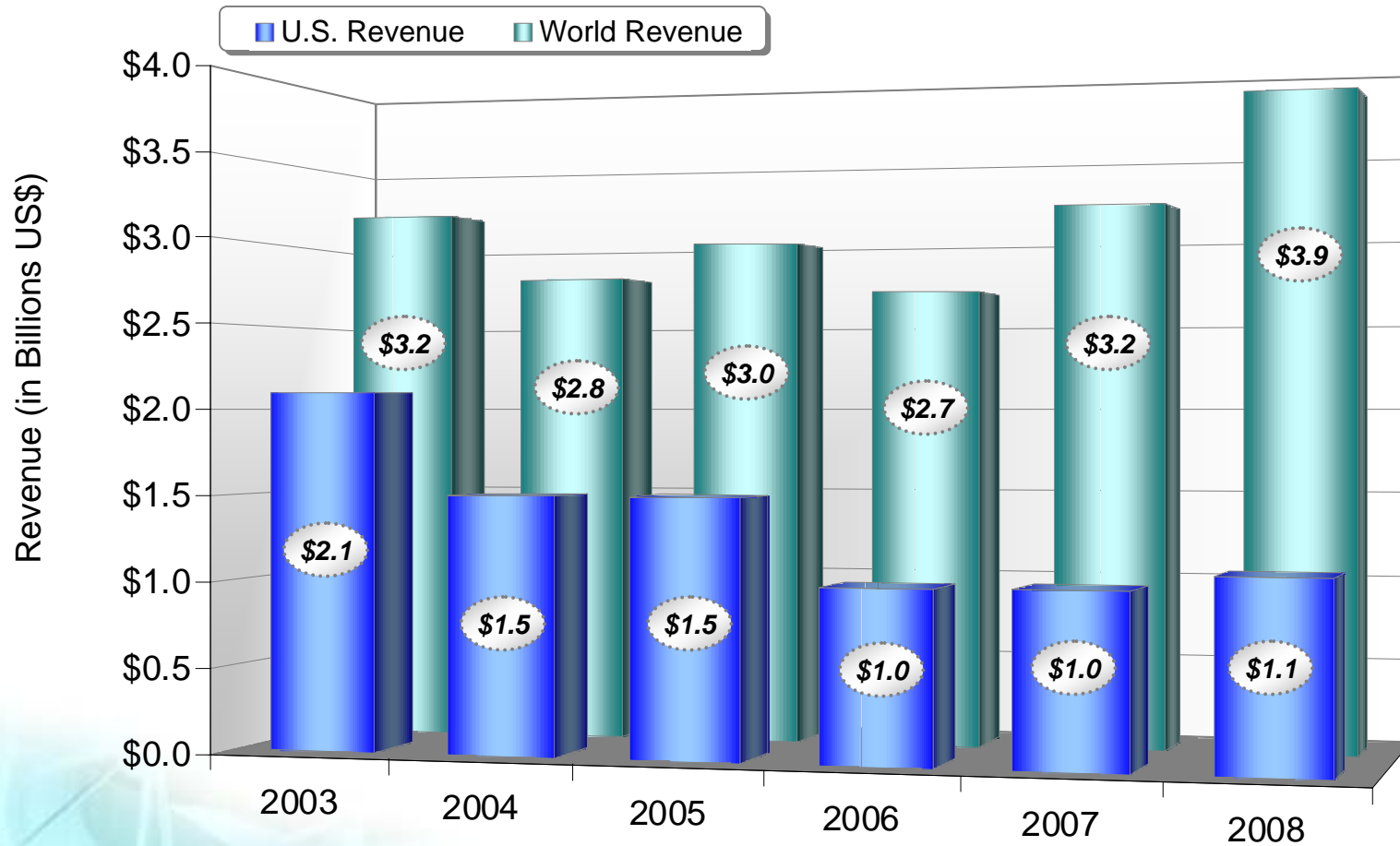
- Global Satellite Manufacturing revenues decreased slightly from \$11.6 billion in 2007 to \$10.5 billion in 2008
- Overall revenue decline can be attributed largely to the reduction in number of satellites launched
  - 94 satellites were launched in 2008, versus 102 in 2007
- Meanwhile, U.S. manufacturing revenues declined from \$4.8 billion in 2007 to \$3.1 billion in 2008
- The U.S. share of manufacturing revenues also fell, from 41% of the world total in 2007 to 29% in 2008
  - In 2007, 48 launched satellites were manufactured in the U.S.
  - In 2008, only 21 launched satellites were manufactured in the U.S.



## Satellite Manufacturing Findings (2)

- Global Satellite Manufacturing revenues from commercial customers grew to \$5.2 billion in 2008
  - The proportion of manufacturing revenues from commercial customers (versus government and military customers) rose from about 33% of manufacturing revenues in 2007 to nearly 50% in 2008
- Future commercial spacecraft orders:
  - 21 new commercial geosynchronous orbit (GEO) satellite manufacturing orders were announced in 2008, the same number as in 2007
    - U.S. manufacturers received 52% of these orders, the same proportion as in 2007
    - European manufacturers received 33% of these orders, down from 43% in 2007
    - Russian, Chinese, and Japanese manufacturers each received one order, together constituting 14% of new orders—up from 5% in 2007

# Launch Industry Revenues



Note: Launch Industry revenues are recorded in the year the launch occurs, not when contract is awarded. World revenue includes U.S. revenue.



## Launch Industry Findings

- Worldwide Launch Industry revenues increased by 20% in 2008, slightly higher than the previous year's growth
  - Revenues were virtually evenly divided between launch procurements by commercial entities and those commercially contracted by governments
- Launch prices rose on average
  - This was reflected both in input provided by survey respondents, as well as widespread industry media reports
  - One factor influencing launch price increases was fluctuating exchange rates of the U.S. dollar versus other currencies
- 37 spacecraft were commercially launched on behalf of government clients, while 41 spacecraft were on behalf of commercial clients
- While global commercial launch revenues rose in 2008, U.S. revenues remained relatively constant at \$1.1 billion
  - Despite stable revenues, the U.S. share of worldwide launch revenues declined from 31% in 2007 to 28% in 2008
- However, future U.S. geosynchronous (GEO) commercial launch orders doubled—from 3 announced orders in 2007 to 6 announced orders in 2008



# World Ground Equipment Revenues



Includes: *Network Equipment* – Gateways, Network Operations Centers (NOCs), Satellite News Gathering (SNG) equipment, flyaway antennas, and Very Small Aperture Terminals (VSATs); and *Consumer Equipment* – Satellite TV and broadband dishes, satellite radios, satellite phones, and select GPS devices



## Ground Equipment Findings

- Overall revenue in the Ground Equipment sector grew by 34% from 2007 to 2008, making it the fastest-growing satellite industry segment
- Ground Equipment is second only to Satellite Services as a proportion of satellite industry revenues, contributing 32% of all revenues in 2008, up from 28% in 2007
- Consumer equipment revenues led growth in this sector
  - Users of consumer-oriented products such as satellite TV and broadband, mobile satellite, and GPS devices drove hardware sales growth
    - GPS device sales accounted for slightly over half of ground equipment revenues
  - New applications and services are driving subscriber churn, which also increases sales of new hardware



## Ground Equipment Findings (2)

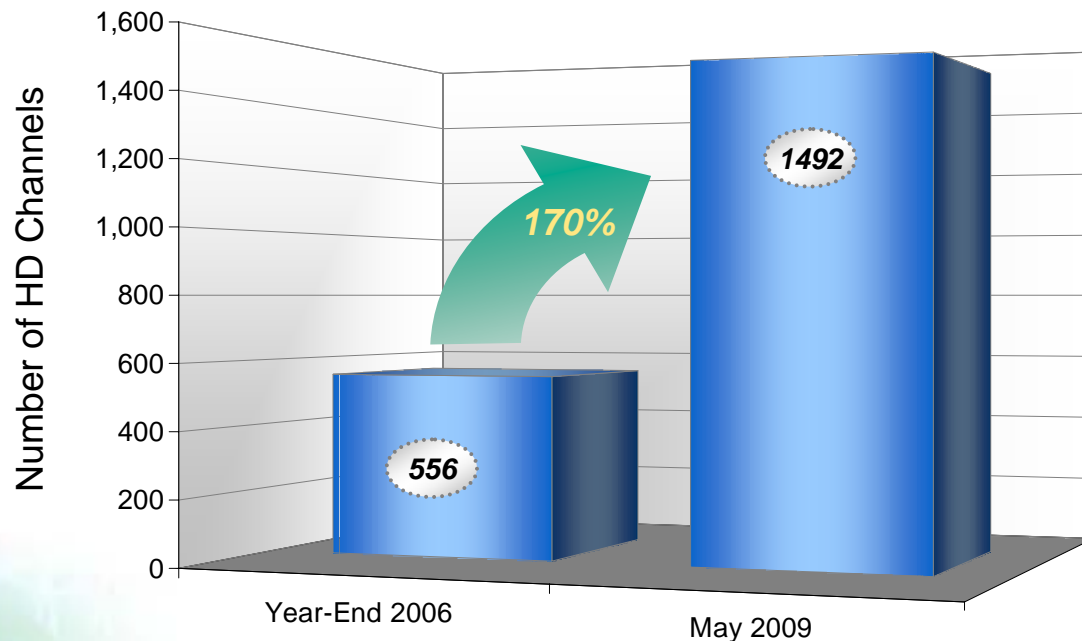
- End-user terminal numbers grew across all sectors

| Terminals in Service (Millions) | 2007  | 2008  |
|---------------------------------|-------|-------|
| Satellite TV                    | 100.5 | 133.6 |
| Satellite Radio                 | 18.0  | 20.4  |
| Mobile Satellite Services       | 1.83  | 1.9   |
| Mobile Satellite TV             | 0.95  | 1.3   |
| End-User Broadband              | 0.68  | 1.0   |

Note: For consumer services, terminal number estimates are based on reported subscriber numbers

- Growth of end-user broadband between 2007 and 2008 occurred primarily in the U.S.
  - U.S. satellite broadband subscribers grew from approximately 622,000 in 2007 to approximately 842,000 in 2008
- Mobile satellite TV is currently offered mainly in Asia, although service is starting in the U.S. and Europe

- Growth in satellite carriage of High Definition Television (HDTV) continued to drive both transponder and DTH service revenues
  - The number of HDTV channels worldwide grew by almost 170% over 2.5 years (between the end of 2006 and May 2009)
  - More than 60% of HDTV channels currently serve North American market
  - Remaining HDTV channels primarily serve European and Asia-Pacific markets





# U.S. Satellite Industry Employment

- The U.S. satellite industry added over 2,000 jobs between 2006 and 2007, led by satellite services employment growth of 21%

| Satellite Industry Sector               | Estimated U.S. Personnel (2006) * | Estimated U.S. Personnel (2007) * |
|-----------------------------------------|-----------------------------------|-----------------------------------|
| Satellite Services                      | 69,377                            | 83,993                            |
| Satellite Manufacturing                 | 32,368                            | 26,724                            |
| Launch Industry                         | 51,262                            | 50,670                            |
| Ground Equipment                        | 102,367                           | 96,190                            |
| <b>Total Estimated U.S. Employees *</b> | <b>255,374</b>                    | <b>257,577</b>                    |

\* Includes launch tracking and telemetry services

Source: U.S. Bureau of Labor Statistics (BLS). All figures 2007 — the most recent complete data as of May 2009

Figures derived from three inputs: BLS Current Employment Statistics Survey (CES); BLS Quarterly Census of Employment and Wages (QCEW); U.S. Census Bureau North American Industry Classification System (NAICS)

Note: The apportionment of 2007 U.S. satellite industry employment statistics among the four satellite industry segments varies from the 2006 employment statistics reported in last year's satellite industry indicators. This is the result of re-centering due to the following changes:

- 1) The BLS revised slightly revised its year-end 2006 numbers retroactively once year-end 2007 numbers were tabulated.
- 2) One North American Industry Classification System (NAICS) code was no longer updated between 2007 and 2008, resulting in a change in the calculation of ground equipment sector employment.
- 3) The overall allocation of employment figures among the four satellite industry sectors was re-calculated based on updated assumptions developed for the 2007 employment metrics in consultation with the U.S. BLS.



## 2009 Trend Summary

- Overall satellite industry growth of 19% indicates fundamental robustness
- Relative industry composition demonstrates the increasing weight of the Satellite Services and Ground Equipment segments
  - These two segments combined constituted 86% of satellite industry revenues in 2006, but have now grown to 90%
- Consumer services, both satellite TV and satellite radio, continue to lead overall Satellite Services growth and fuel revenue growth in the Ground Equipment segment
- Launch price increases, rather than more launches, fueled an increase in Launch Industry sector revenues between 2007 and 2008
  - Despite fairly constant revenues, U.S. share of world launch revenues decreased from 31% in 2007 to 28% in 2008
- Lower Satellite Manufacturing revenues reflect fewer spacecraft launched in 2008 versus 2007
  - The U.S. share of manufacturing revenues fell from 41% in 2007 to 29% in 2008



## 2009 Trend Summary (2)

- Some industry-wide trends continued
  - Commercial satellite operators continued to replace and realign their fleets
  - Robust global appetite continued for consumer satellite applications, mobility and convergence
  - Carriage of HDTV continued to reach critical mass in major markets globally
- Full impact of economic downturn on satellite industry not yet reflected
  - Economic downturns have historically had a delayed impact on the satellite industry, but growing interdependence among all four sectors may serve to shorten negative business cycles

## **ATTACHMENT 2**



December 12, 2008

**Filed Electronically at [www.regulations.gov](http://www.regulations.gov) USTR-2008-0039**

Ms. Gloria Blue  
Executive Secretary, Trade Policy Staff Committee  
ATTN: Section 1377 Comments  
Office of the U.S. Trade Representative  
600 17th Street, N.W.  
Washington, DC 20036

Dear Ms. Blue:

The Satellite Industry Association (“SIA”) welcomes the opportunity to submit the attached comments in response to the notice issued by the Office of the U.S. Trade Representative pursuant to Section 1377 of the Omnibus Trade and Competitiveness Act of 1988 (19 USC §3106) concerning the US telecommunications trade agreements.

SIA is a U.S.-based trade association providing worldwide representation of the leading satellite operators, service providers, manufacturers, launch services providers, and ground equipment suppliers. SIA is the unified voice of the U.S. satellite industry on policy, regulatory, and legislative issues affecting the satellite business.<sup>1</sup>

SIA offers these comments in an effort to realize the benefits of existing multilateral and bilateral trade agreements. In a related effort, we are sending a separate letter describing the commitments that are relevant to the provision of satellite services and should be a focus of USTR’s objectives in the ongoing negotiations for accession to the World Trade Organization and in the Doha Round of WTO negotiations.

Respectfully submitted,

A handwritten signature in black ink that reads "Patricia Cooper". The signature is written in a cursive, flowing style.

Patricia Cooper  
President, Satellite Industry Association  
1730 M Street, N.W. Suite 600  
Washington, D.C. 20036

Attachment

---

<sup>1</sup> SIA Executive Members include: Arrowhead Global Solutions Inc.; ARTEL Inc.; The Boeing Company; DataPath, Inc.; The DIRECTV Group; Hughes Network Systems LLC; ICO Global Communications; Integral Systems, Inc.; Intelsat, Ltd.; Iridium Satellite LLC; Lockheed Martin Corp.; Loral Space & Communications Inc.; SkyTerra Communications Inc.; Northrop Grumman Corporation; SES Americom, Inc.; and TerreStar Networks Inc. Associate Members include: ATK Inc.; Constellation Networks Corp.; EchoStar Satellite LLC; EMC Inc.; Eutelsat Inc.; Inmarsat Inc.; iDirect Government Technologies; Marshall Communications Corp.; New Skies Satellites, Inc.; Panasonic Avionics Corp.; Spacecom Ltd.; Stratos Global Corp.; SWE-DISH Satellite Systems; and WildBlue Communications, Inc.

## COMMENTS FILED BY THE SATELLITE INDUSTRY ASSOCIATION

Comes now the Satellite Industry Association (“SIA”) on behalf of its Member Companies and files these its Comments Concerning Compliance with Telecommunications Trade Agreements in response to the Notice issued by the Office of the United States Trade Representative as follows:

### **Egypt WTO Violations**

Lack of transparency. In violation of its GATS Art. III obligation to publish all relevant measures of general application which pertain to or affect implementation of its WTO commitments, there are no established regulations regarding satellite services in Egypt. Regulatory policies governing satellite services in Egypt are unknown or ad hoc.

Failure to provide market access. While Egypt has made recent strides towards competition, the market for the provision of satellite services in Egypt remains limited. Egypt has a national satellite operator (Nilesat) and four VSAT licensees. Egypt’s failure to allow unlimited VSAT operators and satellite service operators directly contradicts its Schedule of Specific Commitments. Egypt specifically agreed to remove all market access barriers in all services, including VSAT, international voice and data, private leased lines, etc. as of December 31, 2005. Its failure to do so is a direct violation of its WTO commitments.

### **Israel WTO Violations**

Restrictions on market access. Israel promised in its Schedule of Specific Commitments to provide market access and national treatment to satellite services (voice and data) without any limitations. Unlike the entries for voice and data telephone services and private leased circuit services, there are no foreign ownership limitations on satellite operators. The Schedule does not list any requirement for local presence of any sort, promising access through Modes 1 and 3. In violation of these commitments, Israel applies a 74% foreign ownership limit to satellite service providers and imposes a requirement for establishment of a local presence in order to sell services to the Israeli market. Both the foreign ownership limits and the local presence requirement violates Israel’s WTO obligations.

Unreasonable and discriminatory regulation. In addition, Israel applies unreasonable and discriminatory regulation on companies seeking authorization to install and operate an earth station to access or use capacity on a foreign satellite. These companies require a variety of permits and licenses (wireless license, telecommunications services license, type approval license, trading license, and special import license) which are specifically tailored to the particular operator, rather than broadly defined. These licensing requirements impose an undue burden on the provision of service and discriminate against satellite services provided by foreign-owned satellites. As such, they violate Israel’s national treatment commitment and contradict the GATS Article VI requirement that regulations be administered in a reasonable manner.

## **Malaysia WTO Violations**

National treatment. Malaysia's Schedule of Specific Commitments provides no limits either on market access or national treatment on Mode 1 access for foreign providers of domestic and international satellite services and satellite links/capacities. In direct violation of this obligation, Malaysia requires that government agencies use satellite services provided by local companies. Use of satellite services provided by local companies is not mandatory for private sector companies, although such use is "encouraged." Malaysia has agreed to provide national treatment and has failed to do so.

Lack of transparency. Earth station licenses are granted by the Ministry of Energy, Communications and Multimedia, based on advice from the Communications and Multimedia Commission. The Ministry has broad discretion in the grant of earth station licenses and there is little transparency in the criteria used to authorize earth station licenses. Malaysia did not adopt the Reference Paper in its entirety so there is technically no violation of the obligation in Section 4 of the Reference Paper to make all licensing criteria publicly available. But under Article VI of the GATS, Malaysia has an obligation to implement its regulations affecting trade in services in an objective and impartial manner. It is impossible to tell whether Malaysia is meeting this obligation given the way earth station licenses are issued.

## **Mexico WTO Violations**

Market access. Mexico's schedule with respect to satellite services is not particularly clear. The Schedule of Specific Commitments does say, however, that "services other than international long distance services which require use of satellites must use Mexican satellite infrastructure until the year 2002." This appears to give foreign satellite service providers a right to market satellite services, other than voice telephony, beginning January 1, 2002. There is no local presence specified with respect to this commitment. Notwithstanding this commitment, Mexico does not permit foreign-owned satellites to be used in Mexico without a bilateral agreement and a local presence. The creation of a local entity requires 51% Mexican-owned. Further, it requires MSS operators to deploy gateway earth stations, which are not necessary technically, to satisfy security policies. Newer technologies are available and, therefore, the gateway requirement serves as a barrier to market entry.

Excessive fees and capitalization requirements. Mexico applies substantial spectrum usage fees under the Federal Rights Law that bear no relationship to the cost of licensing and operation of the regulator. These fees are not reasonable as required by Article VI of the GATS. Similarly, Mexico applies extremely high capitalization requirements that are not related to the operational abilities of the licensees. Again, these requirements are not reasonable and violate Article VI of the GATS.

## **Venezuela WTO Violations**

National treatment and most-favored nation treatment. As of November 27, 2000, Venezuela committed to providing national treatment to foreign-owned and operated satellite service providers, subject to a local incorporation requirement. In violation of this commitment, Venezuela's Organic Telecommunications Law calls for preferential treatment

of Venezuelan-owned satellites. Furthermore, draft regulations on satellite services provide an additional preference for satellites of “international entities” by subjecting them to more lax local presence requirements than those imposed on other satellite operators (both foreign and domestic). These “international entities” operate their satellites pursuant to national authorization and preferential treatment of these entities violates Venezuela’s obligation to provide MFN treatment under Article II of the GATS.

The draft regulations also contain another potential violation of Venezuela’s commitment to provide MFN treatment. There is a provision requiring the Venezuelan regulator to sign bilateral reciprocity agreements with administrations notifying foreign orbital positions prior to licensing satellites in those orbital positions to serve Venezuela. Article II of the GATS provides for non-discriminatory treatment of all WTO members and directly prohibits any requirement for reciprocity.

### **Viet Nam WTO Violations**

Lack of transparency. Viet Nam joined the WTO in 2007 and launched a national FSS satellite, Vinasat-1, in April 2008. Upon WTO accession, Viet Nam committed to limited market access and national treatment for satellite services, but also to broaden these commitments within three years from accession. Nonetheless, Viet Nam has not yet published any regulations concerning licensing of satellite services. This failure violates Viet Nam’s obligations under Article III of the GATS to make publicly available all measures of general application related to its specific commitments. This lack of transparency makes it virtually impossible for foreign satellite service providers to take advantage of Viet Nam’s market access commitments.



December 12, 2008

Ms. Christine Bliss  
Assistant U.S. Trade Representative for Services, Investment  
Office of the U.S. Trade Representative  
600 17th Street, N.W.  
Washington, DC 20036

Dear Ms. Bliss:

In connection with the annual review of telecommunications trade agreements pursuant to section 1377 of the Omnibus Trade and Competitiveness Act of 1988 (19 U.S.C. § 3106), the Satellite Industry Association ("SIA") has also collected information from its members on issues related to accession negotiations and improvements needed in existing trade commitments. As your office has recently added trade in telecommunications services to its portfolio, SIA would like to acquaint you with some of the concerns of its members. We hope that these concerns will be a focus of USTR's objectives in the ongoing negotiations for accession to the World Trade Organization and in the Doha Round of WTO negotiations.

SIA is a U.S.-based trade association providing worldwide representation of the leading satellite operators, service providers, manufacturers, launch services providers, and ground equipment suppliers.<sup>1</sup> SIA is the unified voice of the U.S. satellite industry on policy, regulatory, and legislative issues affecting the satellite business.

Respectfully submitted,

A handwritten signature in black ink that reads "Patricia Cooper". The signature is written in a cursive, flowing style.

Patricia Cooper  
President  
Satellite Industry Association  
1730 M Street, N.W. Suite 600  
Washington, D.C. 20036

Attachment

---

<sup>1</sup> SIA Executive Members include: Arrowhead Global Solutions Inc.; ARTEL Inc.; The Boeing Company; DataPath, Inc.; The DIRECTV Group; Hughes Network Systems LLC; ICO Global Communications; Integral Systems, Inc.; Intelsat, Ltd.; Iridium Satellite LLC; Lockheed Martin Corp.; Loral Space & Communications Inc.; SkyTerra Communications Inc.; Northrop Grumman Corporation; SES Americom, Inc.; and TerreStar Networks Inc. Associate Members include: ATK Inc.; Constellation Networks Corp.; EchoStar Satellite LLC; EMC Inc.; Eutelsat Inc.; Inmarsat Inc.; iDirect Government Technologies; Marshall Communications Corp.; New Skies Satellites, Inc.; Panasonic Avionics Corp.; Spacecom Ltd.; Stratos Global Corp.; SWE-DISH Satellite Systems; and WildBlue Communications, Inc.

## COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

### A. NECESSARY ELEMENTS IN WTO COMMITMENTS

In the context of the discussions regarding accession to the WTO and improvements in existing commitments, SIA suggests adoption of the following principles:

1. *Provide transparent, non-discriminatory procedures.* Licensing or authorization procedures should be streamlined and transparent, and should be the same for earth stations, handsets, and all terminal equipment accessing domestic or foreign satellite systems. Countries should be encouraged to act on satellite access applications within a reasonable period of time, not to exceed six (6) months.
2. *Delete or eliminate local entity/local presence requirements.* A requirement for local corporate presence in order to obtain authorization to provide satellite services is last saved by Croyd a significant market access barrier. It is burdensome, adds costs and delays entry. Policy objectives of protecting consumers and retaining control over a licensee can be achieved through other means.

The United States provides one example of a way to maintain control over licensees, without requiring a local presence. A satellite system licensed by an administration other than the United States or owned by a non-U.S. company is permitted to serve the United States without establishing a U.S. company. The Federal Communications Commission ("FCC") authorizes foreign-owned or licensed satellites to provide service in the United States (by addition to the Permitted Space Station List) as long as there is a U.S. point of contact for FCC matters.

The United States and other countries recognize that it would not be feasible for global satellite operators to maintain corporate subsidiaries and offices in the all countries in their coverage areas. To facilitate cross-border services, many countries require only a local post address to receive official licensing correspondence. Others have blanket licensing procedures or registration requirements in place for handsets and portable terminals operating with foreign MSS systems without a local presence requirement.

3. *Non-discrimination among satellite service providers.* Limits that favor domestic satellite operators or satellite operators from only certain countries should be eliminated. Full national treatment and Most Favored Nation ("MFN") treatment (without exemptions) should be clearly stated for satellite operators and services.
4. *Eliminate burdensome frequency coordination requirements.* Market entry should not be denied if the multi-year coordination process has not been definitively completed; rather, the frequency coordination process of the International Telecommunication Union ("ITU") should address actual technical issues in a separate process.

In the United States, the FCC does not require an applicant to complete international coordination before granting that applicant's satellite system authorization to provide service in the U.S. Rather, authorizations are conditioned upon the requirement to undertake ITU coordination. WTO member countries should adopt similar policies and not attempt to block the entrance by U.S. satellite operators simply by requiring, and then withholding, completion of international coordination.

5. *Eliminate monopoly.* No special monopoly status should be afforded to incumbent telecommunications operators or satellite systems in such a way that permits the operator or system to act as an intermediary in the sale of foreign space segment, or in the granting of access to MSS systems. Foreign operators should be able to sell space segment capacity directly to any licensed earth station operator in the accession countries – e.g., to a broadcaster, telephone company, internet service provider, corporation/enterprise, VSAT service provider, etc.

In the case of MSS systems, end-users should be able to access their preferred mobile satellite services (“MSS”) provider without going through a local company or a local monopoly provider. Wherever spectrum tables provide for the exclusive operation of Global Mobile Personal Communication Services (“GMPCS”) the operation of MSS handsets should not require individual authorizations but should instead be operable based on blanket authorizations.

There should be no customs duties or barriers to impede the temporary importation of MSS handsets and associated equipment by callers wishing to access MSS systems in country.

6. *Permit the transport of broadcast video signals and associated audio signals.* The delivery of broadcast video services via satellite should not be excluded from a country's WTO offer. Governments should allow foreign satellite operators to deliver video programming and any associated audio signals to, for example, cable head ends, since this is merely a transport service of the content developed by licensed broadcasters. The foreign satellite operator does not intervene at the content or programming level.
7. *Countries should not mandate deployment of particular technologies to achieve technical and policy requirements.* For example, in the case of any security requirements imposed on MSS operators, the MSS operator should be able to demonstrate compliance via the most advanced technical means available, without regard to particular technologies or configurations.

## B. COUNTRY SPECIFIC ACCESSION ISSUES

In the context of the specific discussions regarding the ascension to the WTO of Kazakhstan and the Russian Federation, SIA wishes to underline the importance of adoption the following principles in their specific offers:

### 1. Kazakhstan

- Background. KazSat, a 100% government-owned company, launched its first national satellite (KazSat 1) in June 2006. Recently that satellite stopped transmitting and was declared a total loss. KazSat is building a second spacecraft, KazSat-2, for launch in December 2009. KazSat has also indicated that it is planning to launch another satellite in 2013.
- National and non-discriminatory treatment. There should be no preferential or special treatment for any domestic satellite system. The government has started to require certain Kazakh satellite service providers to move some of their services to the KazSat satellite system. While this is no longer possible with the loss of KazSat, it should not be a requirement in the future. In addition, the KazSat officials have told satellite operators that government-related traffic would be required to go on the national satellite system (there remains a question as to whether this would only be for governmental customers or also government-owned commercial entities). With regard to VSAT licensing, KazSat officials have stated that the government would likely adopt a VSAT licensing approach similar to that used in the Russian Federation. This means high fees, burdensome and time-consuming procedures for VSAT licenses to operate with foreign satellite operators in contrast to easy and timely approval of VSAT access to domestic satellites.

Local presence, limits on foreign ownership and other barriers. A requirement that services can only be provided by “juridical” persons of Kazakhstan imposes a local incorporation requirement, which as noted above is time-consuming, expensive and unnecessary to protect the Kazakh public interest. Therefore, it should be removed. The current offer contains limitations on foreign investment in telecommunications service providers that should be eliminated. Kazakhstan should undertake not to impose requirements for licensees of satellite services to operate a gateway or billing center in Kazakhstan.

- Transport of video signals should be allowed. Kazakhstan should not exclude broadcasters or cable companies from the entities which can purchase space segment directly from the foreign satellite operators.

## 2. Russian Federation

- Transparency. Satellite regulation in the Russian Federation is not transparent. The legal requirements and administrative responsibilities associated with the provision of satellite services, especially for new applications, are not clearly defined.
- National treatment. The Russian Federation (through Government Decree No. 88) establishes a preference for the use of Russian satellite communications systems. In addition, Order No. 97 of the Ministry of Information Technologies and Communications requires that the connection of communication centers (nodes) located within the boundaries of the Russian Federation be done exclusively through communication lines that run across the territory of the Russian Federation or connected via communication satellites controlled from the Russian Federation.

Any preference or special treatment for Russian satellites should be removed from the WTO offer of the Russian Federation. There should be no first right of refusal for the Russian Satellite Communications Company (“RSCC”) on the sale of satellite capacity in the Russian Federation, nor should there be a requirement to sell satellite capacity through RSCC.

The Ministry of Communications has implemented a so-called “simplified procedure” for the usage of Ku-band VSAT terminals in a certain frequency spectrum. This new procedure is simple and inexpensive, but it only applies to spectrum used for services provided by satellites in the RSCC (Express) and Gascom (Yamal) satellite fleets. In contrast, VSAT operators using non-Russian satellites must go through the old procedure, which is cumbersome and time consuming. This disparity in procedures should be eliminated as part of Russia’s WTO accession as it discriminates against non-Russian services and satellites.

- Security concerns. The Russian Federation has cited security concerns as a reason for requiring the deployment of earth station gateways for MSS services. This requirement has been superseded by technical innovation. Security concerns and policies should not require deployment of specific technologies in ways that favor local operators.
- Frequency coordination. Market entry should not be denied if the multi-year coordination has not been definitively completed; rather, the ITU frequency coordination process should address actual technical issues in a separate process.
- Certification process. There is an expensive certification process for anyone who wants to sell satellite equipment or handsets in the Russian Federation or wants a license. This constitutes a barrier to entry. The Russian Federation should recognize certifications from the United States and the European Union and the GMPCS Mark and reduce or eliminate barriers to certification and sale or lease of terminals.

## C. COUNTRY SPECIFIC DOHA ROUND ISSUES

### 1. Bangladesh

- Market access and national treatment. Bangladesh should remove the limits on market access and national treatment.
- Local presence. A satellite operator is required to have a local partner in order to obtain a license and provide space segment for use in Bangladesh. This local presence requirement should be eliminated.

### 2. Brazil

- Background. Brazil did submit an offer as part of the negotiations on telecommunications services but that offer was never accepted by its negotiating partners and is therefore not in force. Nonetheless, Brazil made significant commitments with respect to satellite services which must be maintained as part of Brazil's commitments. There are three areas where Brazil's laws and regulations are inconsistent with its offered commitments on satellite services.
- Local entity. Brazil's General Telecommunications Law No. 9.472 requires that foreign satellite operators provide their services in Brazil through an entity constituted under Brazilian laws and with its administrative headquarters in Brazil, which acts as the legal representative of the foreign satellite in the country. This legal entity requirement violates Brazil's WTO commitments. Brazil's schedule states that satellite services have to be provided through a "local branch or representative office in Brazil." The incorporation requirement in Law No. 9.472 goes beyond this requirement and violates Brazil's offered commitments.
- National treatment. Local regulations require that preference be given to Brazilian satellite providers for the provision of satellite telecommunications services, as long as there is equivalency with other companies. There is nothing in Brazil's proposed Schedule of Specific Commitments which permits it to discriminate in such a fashion. In fact, Brazil has promised national treatment with no limitations for satellite services.
- Excessive fees. Foreign satellite operators are subject to excessive fees. The fee calculation formula used by ANATEL takes into account the last price paid at auction for the right to operate a Brazilian orbital slot. GATS Article VI requires regulation to be reasonable and objective. Tying future fees to unrelated domestic actions is not reasonable.

### 3. China

- Lack of market access. China is a restricted satellite market. In order to provide satellite services, the satellite operator needs a Basic Telecommunications

License, which can only be granted to entities that have at least 51% state ownership and a capitalization of more than \$145 million. So while theoretically possible, in fact there is no market access. Instead, foreign satellite operators must provide service through the existing state-owned satellite company, China Direct Broadcast Satellite Co., Ltd. (“China DBSAT”). China DBSat was created in 2007 through the merger of China Satellite Communications Corporation, Sino Satellite Communications Company Ltd. and China Orient Telecommunications Satellite Company Ltd. Foreign operators are prohibited from leasing transponder capacity directly to end-users, except for two Hong Kong satellite operators (AsiaSat and APT) who had received authorization to provide direct service prior to China’s accession to the WTO.

- Transparency. There is a lack of transparency in satellite regulation in China.

#### 4. **India**

- Lack of market access for direct-to-home (“DTH”) services. The Ministry of Information & Broadcasting has established guidelines that provide a preference for Indian satellites for DTH services, but which allow the use of foreign satellites if the foreign satellite has completed the international frequency coordination process with the domestic INSAT satellite system. However, in practice, DTH licensees are not able to contract directly with foreign operators even if the coordination has been completed. Foreign satellite capacity must be procured through the Indian Space Research Organization (“ISRO”), the operator of the INSAT system. ISRO only permits such use if it does not have available capacity on its own system.
- Lack of clarity regarding Department of Space (“DOS”) role. The Department of Telecommunication’s New Telecom Policy 1999 stated that users of transponder capacity would be able to access both domestic and foreign satellites, in consultation with the DOS, of which ISRO forms part. While it might be necessary for the DOS to ensure that foreign satellites are completing international coordination agreements with the INSAT system, there are no technical or commercial reasons why foreign satellite capacity should need to be procured through DOS (ISRO), a direct competitor of foreign satellite operators. This “middleman” role of DOS results in a competitive advantage for the domestic Indian satellite system.

A true “open skies” policy should be adopted for the provision of satellite services in India. Domestic users should be allowed to contract directly with any satellite operator that has the ability to serve India, and not be constrained by regulatory policies that establish a preference for a domestic operator or satellite system.

- Ku-band restrictions. Ku-band is banned for use of broadcasting to cable head ends. There is no logical reason for this restriction, given that Ku-band capacity is just as suitable for video distribution as is C-band capacity, which is currently approved for this application in India. India’s commitments should be technology neutral.

- Security concerns. Security restrictions on MSS operators require the deployment of particular gateway infrastructure despite the fact that more advanced technologies can meet policy concerns.
- Restrictions on VSAT services. The provision of VSAT services is stifled by unnecessarily restrictive policies. Current Department of Telecommunications (DoT) policy states that VSAT services can only be offered to closed user groups (CUGs) and as a result, VSAT services to consumers (e.g. two-way broadband services) cannot be directly enabled.
- Licensing of satellite terminals. India should be encouraged to adopt license exemption and/or streamlined class-licensing regulations for certain types of satellite terminals (such as mobile satellite handsets and VSAT terminals) which meet internationally-accepted technical standards and to streamline the national type approval processes overseen by DoT - similar to practices in the USA, Europe and many other countries.

## 5. Korea

- Lack of market access and national treatment. As a result of foreign ownership limits in Korea, foreign satellite operators can only provide satellite capacity to Korean customers via the few licensed Korean carriers (Korea Telecom, Dacom, Onse). The U.S.-Korea Free Trade Agreement would allow U.S. companies market access and national treatment without limitation. Korea should improve its WTO commitments in a similar fashion.

## 6. Philippines

- Market access and national treatment. The Philippines has mandated in Memorandum Circular No. 4-3-99 a right of first refusal for its national satellite operator (Mabuhay) in providing space segment capacity in the Philippines. This discriminatory rule should be abolished and equal treatment provided to foreign-owned satellites.
- Local presence. Foreign satellite operators actively seeking customers in the Philippines are required to establish a local commercial presence. This measure significantly increases operating costs and should be abolished.

## 7. South Africa

- Foreign ownership restrictions. Foreign ownership restrictions should be eliminated.
- Market access. The current duopoly should be lifted and foreign satellite operators should be allowed to provide space segment and satellite services directly to authorized entities in South Africa.

- Excessive fees. South Africa imposes extraordinarily high license fees for MSS. South Africa should apply reasonable fees for all similarly situated providers.

## 8. Thailand

- Market access. Shin Satellite has had an exclusive arrangement with the Communication Authority of Thailand (“CAT”), which results in the Thaicom satellite system being the *only* satellite system authorized to serve Thailand. Thailand should abolish this exclusive arrangement and provide market access and national treatment to all satellite systems of WTO members.
- Transparency. The National Telecommunications Commission (“NTC”) has not developed any satellite-related regulations. Along with a market access commitment, NTC should follow the transparency provisions of the GATS and the Reference Paper.

## 9. Venezuela

- Local presence. Venezuela should eliminate all requirements for a local presence for satellite service providers. Draft regulations on satellite services classify the sale of space segment as a “service,” requiring a foreign operator to obtain two instruments of authorization, both of which trigger a domicile requirement in accordance with Venezuelan law. Additionally, the foreign operator must name a technical and commercial representative, all of which will drastically increase the cost of doing business in Venezuela. These burdensome requirements should be eliminated or minimized.

### Malaysia WTO Violations

National treatment. Malaysia’s Schedule of Specific Commitments provides no limits either on market access or national treatment on Mode 1 access for foreign providers of domestic and international satellite services and satellite links/capacities. In direct violation of this obligation, Malaysia requires that government agencies use satellite services provided by local companies. Use of satellite services provided by local companies is not mandatory for private sector companies, although such use is “encouraged.” Malaysia has agreed to provide national treatment and has failed to do so.

Lack of transparency. Earth station licenses are granted by the Ministry of Energy, Communications and Multimedia, based on advice from the Communications and Multimedia Commission. The Ministry has broad discretion in the grant of earth station licenses and there is little transparency in the criteria used to authorize earth station licenses. Malaysia did not adopt the Reference Paper in its entirety so there is technically no violation of the obligation in Section 4 of the Reference Paper to make all licensing criteria publicly available. But under Article VI of the GATS, Malaysia has an obligation to implement its regulations affecting trade in services in an objective and impartial manner. It is impossible to tell whether Malaysia is meeting this obligation given the way earth station licenses are issued.

### Mexico WTO Violations

Market access. Mexico's schedule with respect to satellite services is not particularly clear. The Schedule of Specific Commitments does say, however, that "services other than international long distance services which require use of satellites must use Mexican satellite infrastructure until the year 2002." This appears to give foreign satellite service providers a right to market satellite services, other than voice telephony, beginning January 1, 2002. There is no local presence specified with respect to this commitment. Notwithstanding this commitment, Mexico does not permit foreign-owned satellites to be used in Mexico without a bilateral agreement and a local presence. The creation of a local entity requires 51% Mexican-owned. Further, it requires MSS operators to deploy gateway earth stations, which are not necessary technically, to satisfy security policies. Newer technologies are available and, therefore, the gateway requirement serves as a barrier to market entry.

Excessive fees and capitalization requirements. Mexico applies substantial spectrum usage fees under the Federal Rights Law that bear no relationship to the cost of licensing and operation of the regulator. These fees are not reasonable as required by Article VI of the GATS. Similarly, Mexico applies extremely high capitalization requirements that are not related to the operational abilities of the licensees. Again, these requirements are not reasonable and violate Article VI of the GATS.

### **Venezuela WTO Violations**

National treatment and most-favored nation treatment. As of November 27, 2000, Venezuela committed to providing national treatment to foreign-owned and operated satellite service providers, subject to a local incorporation requirement. In violation of this commitment, Venezuela's Organic Telecommunications Law calls for preferential treatment of Venezuelan-owned satellites. Furthermore, draft regulations on satellite services provide an additional preference for satellites of "international entities" by subjecting them to more lax local presence requirements than those imposed on other satellite operators (both foreign and domestic). These "international entities" operate their satellites pursuant to national authorization and preferential treatment of these entities violates Venezuela's obligation to provide MFN treatment under Article II of the GATS.

The draft regulations also contain another potential violation of Venezuela's commitment to provide MFN treatment. There is a provision requiring the Venezuelan regulator to sign bilateral reciprocity agreements with administrations notifying foreign orbital positions prior to licensing satellites in those orbital positions to serve Venezuela. Article II of the GATS provides for non-discriminatory treatment of all WTO members and directly prohibits any requirement for reciprocity.

### **Viet Nam WTO Violations**

Lack of transparency. Viet Nam joined the WTO in 2007 and launched a national FSS satellite, Vinasat-1, in April 2008. Upon WTO accession, Viet Nam committed to limited market access and national treatment for satellite services, but also to broaden these commitments within three years from accession. Nonetheless, Viet Nam has not yet published any regulations concerning licensing of satellite services. This failure violates Viet Nam's obligations under Article III of the GATS to make publicly available all measures of

general application related to its specific commitments. This lack of transparency makes it virtually impossible for foreign satellite service providers to take advantage of Viet Nam's market access commitments.