Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Fourth Annual Report to Congress on Status of Competition in the Provision of Satellite Services	)))	IB Docket No. 10-99

COMMENTS OF GLOBALSTAR LICENSEE, LLC

Globalstar Licensee, LLC ("Globalstar") hereby comments in response to the International Bureau's Public Notice regarding the state of competition in the provision of satellite services, including mobile satellite services.[1] Having persevered through financial and technical adversity earlier in its license term, Globalstar is competing vigorously in the provision of mobile satellite service ("MSS") with a unique focus on consumers, and is now set to launch the world's first second-generation Low Earth Orbiting ("LEO") satellite constellation. Globalstar faces substantial competition from service providers across a variety of technology platforms, as well as from certain equipment manufacturers. Accordingly, in its next annual report on satellite competition, the FCC should find that there is "effective competition" for satellite services.

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1 *International Bureau Invites Comment for Fourth Annual Report to Congress on Status of Competition in the Satellite Services Industry*, Public Notice, IB Docket No. 10-99, DA 10-1353 (IB rel. July 22, 2010).

I. GLOBALSTAR: COMMITTED TO CONSUMER-BASED SERVICES AND THE LAUNCH OF ITS SECOND-GENERATION BIG LEO CONSTELLATION

In 1995, the FCC authorized Globalstar to construct, launch, and operate a "Big LEO" system.[2] Globalstar, now headquartered in Covington, Louisiana, is licensed for uplink transmissions (mobile earth stations to satellites) in the L band at 1610-1618.725 MHz, and for downlink transmissions (satellites to mobile earth stations) in the S band at 2483.5-2500 MHz.[3] Today, Globalstar's MSS network currently consists of 44 in-orbit, non-geostationary ("NGSO") satellites and 27 ground stations located all over the world. The FCC has also authorized Globalstar to operate ancillary terrestrial component ("ATC") facilities in 19.275 megahertz of spectrum, in the L band at 1610-1617.775 MHz and in the S band at 2483.5-2495 MHz.[4]

In the years following its initiation of commercial service in 2000, Globalstar experienced significant adversity. Globalstar's predecessor-in-interest voluntarily entered Chapter 11 bankruptcy in February 2002, and Globalstar's current ownership did not gain control of the company and its licenses until April 2004.[5] In early 2007, Globalstar's Big LEO constellation experienced a serious degradation of the satellites' S-band antenna subsystems, which caused the downlink from the satellites to the subscribers' terminals to become

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2 *Application of Loral/Qualcomm Partnership, L.P. For Authority to Construct, Launch, and Operate Globalstar, a Low Earth Orbit Satellite System to Provide Mobile Satellite Services in the 1610-1626.5 MHz/2483.5-2500 MHz Bands*, Order and Authorization, 10 FCC Rcd 2333 (IB 1995).

3 Iridium is authorized to share spectrum with Globalstar at 1617.775-1618.725 MHz.

4 *Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands; Globalstar Licensee LLC, Authority to Implement an Ancillary Terrestrial Component*, Report and Order and Order Proposing Modification, 23 FCC Rcd 7210, ¶¶ 20, 30 (2008).

5 The Commission approved the license transfer on March 8, 2004, and the parties consummated their transaction on April 14, 2004. *International Authorizations Granted*, Public Notice, 19 FCC Rcd 4079 (IB 2004).

intermittent and unreliable.[6] As a result of this S-band degradation, Globalstar has been unable to provide consistently reliable voice and duplex data services.

Fortunately, Globalstar's story did not end with the degradation of its first-generation MSS system. Globalstar has reemerged with a new, energetic focus on affordable consumer-based services and on the launch of its next-generation MSS constellation. First, taking full advantage of the still-intact L-band capabilities of its global MSS network, Globalstar developed an innovative product category by combining a GPS receiver with a multi-featured MSS L-band transmitter to create a new consumer-oriented, hand-held tracking and emergency messaging device. From any location in Globalstar's global MSS footprint, Globalstar's SPOT Satellite GPS Messenger (the "SPOT") can transmit a user's GPS coordinates as well as status updates to any e-mail address in the world.[7] The SPOT can be used to track a customer's location, or to send an "OK" message, a non-urgent "HELP" message, or an SOS message requesting emergency assistance. Since becoming available in November 2007, Globalstar's simplex SPOT service has played a critical role in the provision of emergency and safety-of-life services to individual consumers beyond terrestrial wireless reach. During this period, the SPOT has been used to initiate more than 650 rescues in over 50 countries on land and at sea.

In addition to generating substantial public safety benefits, Globalstar's SPOT product line has been a considerable commercial success, and Globalstar continues to develop and roll out new products and services that use this innovative technology. As a result of this ongoing effort, Globalstar is now the world's largest provider of mobile satellite voice and data services.

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6 *See* Globalstar Press Release, *Globalstar, Inc. Files Form 8-K with SEC* (Feb. 6, 2007), *available at*: <http://www.globalstar.com/en/news/pressreleases/press_display.php?pressId=429>.

7 *See* Globalcom Press Release, *SPOT Satellite Messenger and Globalstar*, *available at*: <http://www.globalcomsatphone.com/spot/spot_globalstar.html> (viewed Aug. 22, 2010).

Globalstar provides affordable, high-quality data service to over 400,000 customers in 120 countries, and Globalstar's products and services are offered through over 10,000 retail points of distribution around the world, as well as through multiple on-line retail sites.[8] In addition to individual consumers, Globalstar's customers include entities in government, the military, emergency preparedness, transportation, heavy construction, oil and gas, mining, forestry, and commercial fishing. For these government and business customers, Globalstar's data solutions are ideal for asset and personal tracking, data monitoring, and supervisory control and data acquisition ("SCADA") applications. Globalstar's services are available in all areas of the world, except in central and southern Africa, Southeast Asia, and the Indian subcontinent, areas in which Globalstar is working diligently to expand coverage.

Globalstar also is investing in a state-of-the-art, second-generation MSS constellation that will enable *everyone* to stay connected beyond the reach of traditional terrestrial wireless networks. Once the launch program for its 24 new LEO satellites is completed – expected by mid-summer 2011 – Globalstar will become the first global MSS voice and data company to deploy a second-generation LEO satellite system. Globalstar has made substantial progress toward deploying its second-generation network. In 2006-2007, Globalstar entered into contracts with Thales Alenia Space and Arianespace for the construction and launch of these satellites, and last year Globalstar obtained full funding of the $900 million cost of designing, manufacturing, delivering, and launching this constellation.[9] Thales Alenia Space earlier this

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[8] On-line, the SPOT II Satellite GPS Messenger is available for approximately $150 through Amazon.com, Bass Pro Shops, and REI, among other retail sites. The basic service plan for the SPOT costs $100 annually. Access to the SPOT tracking service costs an additional $50 annually, and SPOT subscribers can obtain $100,000 in search and rescue coverage for an additional $13 per year.

[9] This financing also enables Globalstar to continue developing its next-generation ground segment. Globalstar has contracted with Thales Alenia to upgrade its satellite operations and

month delivered the first three next-generation satellites to Globalstar in Rome, Italy, and these satellites have been shipped to the Baikonur Cosmodrome in Kazakhstan for a scheduled October launch.[10] Based on Arianespace's current schedule, the new constellation will be fully operational in the fourth quarter of 2011.

Once launched, these 24 new satellites will be integrated with eight replacement satellites launched in 2007 to form Globalstar's 32-satellite, second-generation MSS constellation, expected to operate through 2025. The second 24 satellites under construction will be held as on-ground spares to replace the eight 2007 satellites when they reach end-of-life and any second-generation satellites that experience failures. With its new constellation and ground systems in place, Globalstar will restore consistently reliable service quality to existing voice and duplex data customers.[11] Globalstar will also be able to provide current and future customers with advanced (and affordable) voice, two-way data, and messaging services, including uplink data speeds of 256 kbps and downlink data speeds of up to 768 kbps for fixed service and up to 256 kbps for mobile service.[12] These second-generation offerings promise great benefits in rural and

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control center, and with Hughes Network Systems to delivery next-generation ground network equipment, software upgrades, and satellite handset chipsets.

[10] *See* Globalstar Press Release, *Globalstar Takes Delivery of New Second-Generation Satellites from Thales Alenia Space* (Aug. 9, 2010), *available at*: <http://www.globalstar.com/en/news/pressreleases/press_display.php?pressId=623>. .

[11] Globalstar's second-generation satellites will be fully compatible with its first-generation mobile satellite products and services. With each of the four second-generation launches, Globalstar's existing voice and duplex data customers can expect progressive improvement in availability, reliability, and overall service quality.

[12] In addition to supporting higher data speeds, Globalstar's second-generation satellites have been improved to guard against radiation damage to the antenna subsystems, which may have caused the S-band anomaly in its first-generation satellites.

remote areas, including Native American Tribal Lands,[13] and will bolster competition in the global marketplace for satellite services.

Globalstar is also the first, and so far the only, MSS operator to use its ATC authority for the provision of wireless broadband service to consumers. Globalstar has partnered with Open Range Communications, Inc. ("Open Range") with the goal of launching WiMAX-based wireless broadband services in over 500 rural American communities.[14] With a $267 million loan from the Rural Utilities Service and equity financing of $100 million, Open Range began offering wireless broadband service to rural subscribers in Northern Colorado in November 2009. Open Range has indicated that by the end of 2010 it will have deployed service in 261 small and rural communities in thirteen states.[15]

II. GLOBALSTAR FACES ROBUST COMPETITION ACROSS A VARIETY OF TECHNOLOGICAL PLATFORMS

For the FCC's annual Satellite Competition Report, Congress requires that the FCC provide "an analysis of whether there is effective competition in the market for domestic and international satellite services."[16] Globalstar agrees with the MSS/ATC Coalition's recommendation last year that the FCC maintain the "broad approach" that it has previously applied in its analysis of competition in the provision of satellite services.[17] As the Coalition

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[13] Globalstar's subsidiary, Globalstar Broadband Services, Inc., has applied to the Rural Utilities Service for a grant that would support the provision of Globalstar's second-generation MSS to unserved Native American Tribal Lands.

[14] *See Globalstar Licensee LLC; Application for Modification of License for Operation of Ancillary Terrestrial Component Facilities*, Order and Authorization, 23 FCC Rcd 15975 (2008).

[15] *See* Comments of Open Range Communications Inc., associated with IBFS File No. SAT-MOD-20091214-00152, at 3 (Apr. 5, 2010).

[16] Amendment to the Communications Satellite Act, Pub. L. No. 109-34, 119 Stat. 377 (2005) ("Amendment Act"), § 4(b)(1)-(3). The Amendment Act amended the Communications Satellite Act of 1962, 47 U.S.C. § 701-769.

[17] Comments of the MSS/ATC Coalition, IB Docket No. 09-16, at 8-9 (June 15, 2009).

pointed out, the FCC's evaluation of competitive marketplace conditions "would be incomplete if it were limited to satellite services in particular, or, more narrowly, to the regulatory classification of a certain satellite spectrum band (e.g., FSS or MSS)."[18] As the FCC recognized in its *First Satellite Competition Report*, competition can come from "participants that use technology platforms other than communications satellites to provide services that compete with satellite providers."[19] As described below, Globalstar faces robust competition from other service providers offering a range of mobile and fixed communications options, as well as from manufacturers of Personal Locator Beacons ("PLBs").

Mobile Satellite Services, Generally

Numerous companies around the world currently operate or will soon operate satellite networks in spectrum bands allocated to MSS, including Iridium, Inmarsat, LightSquared (formerly SkyTerra), SkyTerra (Canada), TerreStar, DBSD, ORBCOMM, ACeS, Telecomunicaciones de Mexico, Informcosmos, Thuraya, Optus MobileSat, INSAT 3C, and N-STAR. These MSS operators typically provide (or will provide) a number of different communications services, including two-way voice and data, asset tracking/fleet management, and mobile video.

Global Mobile Satellite Services

Globalstar competes vigorously with the two other global MSS providers, Inmarsat and Iridium. Inmarsat owns and operates a fleet of geostationary ("GSO") MSS satellites, and deployed its fourth-generation MSS satellites earlier this decade. Inmarsat's multi-satellite footprint achieves greater coverage of the oceans than does Globalstar's MSS constellation, and

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18 *Id.* at 9.

19 *Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, First Report, 22 FCC Rcd 5954, ¶ 35 (2007) ("*First Satellite Competition Report*").

Inmarsat is currently the leading provider of satellite communications services to the maritime sector. Inmarsat also offers global land-based and aeronautical communications services. Iridium, like Globalstar, owns and operates a fleet of NGSO satellites, and its 66-satellite constellation supports the global provision of voice and data services. Iridium's customers operate in a wide variety of industries, including maritime, aeronautical, government/defense, public safety, utilities, oil/gas, mining, forestry, heavy equipment and transportation. Globalstar competes with Inmarsat and Iridium on the basis of coverage, quality, portability, and the pricing of services and products.

Regional Mobile Satellite Services

Globalstar also competes with regional mobile satellite communications services that are available in several areas of the world. For customers who require regional, but not global, mobile voice and data services, these providers constitute a viable alternative to the global offerings of Globalstar, Inmarsat, and Iridium. All of these regional operators rely on GSO satellites. In the Americas, Globalstar's regional MSS competitors are LightSquared and SkyTerra (Canada), Inc., which operate in the MSS L band. These MSS operators offer a range of mobile services, including voice, data, facsimile, two-way radio, fleet management, and asset tracking services.[20] Outside of the Americas, other regional MSS competitors include Thuraya, primarily in the Middle East and Africa; ACeS (now operated by Inmarsat) in Asia; and Optus MobileSat (Thuraya) in Australia.[21]

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[20] While they are not yet providing commercial services, 2 GHz MSS licensees TerreStar and DBSD have launched technologically advanced satellites that are capable of providing voice and broadband services to customers throughout North America.

[21] Based in part on the presence of multiple service providers, the FCC earlier this year found that the acquisition of LightSquared by Harbinger Capital Partner Funds was unlikely to have anticompetitive effects on the provision of MSS. *SkyTerra Communications, Inc., Transferor and Harbinger Capital Partners Funds, Transferee; Applications for Consent to*

Fixed Satellite Services

Globalstar also competes with Fixed Satellite Service ("FSS") operators that offer communications services to business customers through private networks using very small aperture terminals ("VSATs"). VSAT operators have become increasingly competitive as a result of technological advances leading to smaller, more flexible, and cheaper FSS terminals. In particular, FSS capacity is increasingly being used on ships, airplanes, and vehicles to provide voice and broadband connectivity to passengers and crew on a global basis. Globalstar also competes with Qualcomm's FSS OmniTRACS offering, which provides asset tracking/fleet management services to the over-the-road transport marketplace.

Terrestrial Services

In addition, any comprehensive evaluation of the competitive landscape must also include alternative services provided by terrestrial wireless providers. For example, terrestrial providers such as Jasper Wireless offer asset tracking/fleet management services that compete with satellite services.[22]

Equipment

Since Globalstar's launch of the SPOT product line, its devices and services have competed with Personal Locator Beacons ("PLBs") marketed and sold by such manufacturers as ACR Electronics and McMurdo. PLBs are radiobeacons that aid in the detection and location of boats, aircraft, and people in distress who do not have access to normal emergency services. PLBs transmit distress signals that are received by the COSPAS-SARSAT satellite system, an

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Transfer of Control of SkyTerra Subsidiary, LLC, Memorandum Opinion and Order and Declaratory Ruling, 25 FCC Rcd 3059, ¶ 43 (2010).

22 *See* "About Jasper Wireless," *available at*: <http://www.jasperwireless.com/company/about.html> (viewed Aug. 22, 2010).

international search and rescue satellite network that was established in 1979. PLB users do not pay any service fees.

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As described above, Globalstar and other satellite service providers face vigorous competition across different technology platforms. A variety of reasonably substitutable services are available to individual consumers, businesses, and government customers. Accordingly, the FCC should conclude in its next satellite competition report that satellite services are subject to "effective competition."

Respectfully submitted,

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