

RADIO STATION AUTHORIZATION

Expiration Date:

MAR 3 0 2004

Name: Mobile Satellite Ventures Subsidiary LLC

Authorization Type: Modification of License

Grant Date: 07/02/2002

Call Sign: E900081

File Number: SES-MOD-19990727-01301

File Number: SES-

07/02/2006

Common Carrier

Nature of Service: Domestic Mobile-Satellite Service Nature of Service: International Mobile Satellite Service

Class of Station: Mobile Earth Station

A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1) 1	50100 half-duplex METs in the CONUS, AK,			0	
	HI, PR, USVI, & coastal areas up to 200	<u>,</u>			
	miles offshore,				

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning January 21, 1992 (3 AM Eastern Standard Time) and ending July 2, 2006 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is January 21, 1997 (3 AM Eastern Standard Time). Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, re	fer to Section H.		Max EIRP	Max EIRP Density			
# Frequency (MHz)	Polarization Code Emission	Tx/Rx Mode	/Carrier (dBW)	/Carrier (dBW/4kHz)	Associated Antenna	Special Provisions Modulation (Refer to Section H) Services	
1) 1626.5000-1645.5000	L,R 1K20G1D	Tx	14.00	14.00	1	Mobile messagi and multi-mo messaging servi	de mobile
2) 1626.5000-1645.5000	L,R 2K40G1D	Tx	17.00	17.00	1	Mobile messagi and multi-mo messaging servi	de mobile
3) 1626.5000-1645.5000	L,R 4K80G1D	Τx	20.00	19.00	1	Mobile messagi and multi-mo messaging servi	de mobile
4) 1626.5000-1645.5000	L,R 9K60G1D	Tx	23.00	19.00	1	Mobile messagi and multi-mod messaging servi	de mobile



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Max

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#	Frequency (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	/Carrier	Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions Modulation/ (Refer to Section H) Services	
5) 1530	.0000-1544.0000	L,R	1K20G1D	Rx			1	Mobile messaging and multi-mode messaging service	service mobile
6) 1530.	.0000-1544.0000	L,R	2K4OG1D	Rx			1	Mobile messaging and multi-mode messaging service	service mobile
7) 1530.	.0000-1544.0000	L,R	4K80G1D	Rx			1	Mobile messaging and multi-mode messaging service	service mobile
8) 1530.	.0000-1544.0000	L,R	9K60G1D	Rx			1	Mobile messaging and multi-mode messaging service	service mobile
9) 1626.	5000-1645.5000	L,R	1K20G1D	Tx	14.00	14.00	2	Mobile messaging and multi-mode messaging service	service mobile
10) 1626.	5000-1645.5000	L,R	2K40G1D	Tx	17.00	17.00	2	Mobile messaging and multi-mode messaging service	service mobile
11) 1626.	5000-1645.5000	L,R	4K80G1D	Tx	20.00	19.00	2	Mobile messaging and multi-mode messaging service	service mobile
12) 1626.	5000-1645.5000	L,R	9K60G1D	Tx	23.00	19.00	2	Mobile messaging and multi-mode messaging service	service mobile
13) 1530.	0000-1544.0000	L,R	1K20G1D	Rx			2	Mobile messaging and multi-mode messaging service	service mobile
14) 1530.	0000-1544.0000	L,R	2K4OG1D	Rx			2	Mobile messaging and multi-mode messaging service	service mobile
15) 1530.	0000-1544.0000	L,R	4K80G1D	Rx			2	Mobile messaging and multi-mode messaging service	service mobile
16) 1530.	0000-1544.0000	L,R	9K60G1D	Rx			2	Mobile messaging and multi-mode messaging service	service mobile
17) 1626.	5000-1645.5000	R	20K0G1D	Tx	6.00	-1.00	3	OQPSK/Packet data	
18) 1530.	0000-1544.0000	R	5K00G1D	Rx	0.00	0.00	3	OQPSK/Packet data	

FCC Form 488



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C) Frequency Coordination Limits

Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East West Limit Limit	Elevation (Degrees) East West Limit Limit	Azimuth (Degrees) East West Limit Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
1530.0000-1544.0000	101.0W-101.0W	00.0-00.0	000.0-000.0	0 1	
1626.5000-1645.5000	101.0W-101.0W	00.0-00.0	000.0-000.0	0 1	
1530.0000-1544.0000	101.0W-101.0W	00.0-00.0	000.0-000.0	0 2	
1626.5000-1645.5000	101.0W-101.0W	00.0-00.0	000.0-000.0	0 2	
1530.0000-1544.0000	101.0W-101.0W			3	
1626.5000-1645.5000	101.0W-101.0W			3	
	1530.0000-1544.0000 1626.5000-1645.5000 1530.0000-1544.0000 1626.5000-1645.5000 1530.0000-1544.0000	(MHz) Limit Limit 1530.0000-1544.0000 101.0w-101.0w 1626.5000-1645.5000 101.0w-101.0w 1530.0000-1544.0000 101.0w-101.0w 1530.0000-1544.0000 101.0w-101.0w 1530.0000-1544.0000 101.0w-101.0w	(MHz) Limit Limit Limit Limit Limit 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 1626.5000-1645.5000 101.0W-101.0W 00.0-00.0 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0	(MHz) Limit Limit <th< td=""><td>(MHz) Limit Limit Limit Limit Limit Limit Limit Limit Horizon (dBW/4kHz) 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 1 1626.5000-1645.5000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 2 1626.5000-1645.5000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 2 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 2</td></th<>	(MHz) Limit Limit Limit Limit Limit Limit Limit Limit Horizon (dBW/4kHz) 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 1 1626.5000-1645.5000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 2 1626.5000-1645.5000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 0 2 1530.0000-1544.0000 101.0W-101.0W 00.0-00.0 000.0-000.0 0 2

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this License:

^{1) 1} to AMSC-1 @ 101.0 degrees W.L. (U.S. Licensed)

E) Anteni	na Faciliti	es			Site/Elevation:	0 (Meters) Al	MSL
	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1		1	18000	0.15	Rockwell Collins, Trimble Navigation	Pro-2000, Galaxy7003	0 AGL/ 0 AMSL	
	Max C	Gains(s): 5	.0 dBi @	1.6000	GHz 5.0 dBi @	1.5000 GHz		
	Maxim	num total inp	ut power	at antenna	flange (Watts) =	.00		
	Maxim	num aggregat	e output	EIRP for a	ll carriers (dBW) =	.00		
1		2	0	0.4	Trimble Navigation	1700	0 AGL/ 0 AMSL	
	Max C	Gains(s): 1	4.0 dBi	@ 1.600	0 GHz 14.0 dBi @	1.5000 GHz		
	Maxim	num total inp	ut power	at antenna	flange (Watts) =	.00		
	Maxim	num aggregat	e output	EIRP for a	ll carriers (dBW) =	.00		
1		3	17000		VISTAR Felecommunications, In	100000 standard		
	Max G	Sains(s): 2	.8 dBi @	1.6310	GHz			
	Maxim	num total inp	ut power	at antenna	flange (Watts) =	2.10		
	Maxim	num aggregat	e output	EIRP for a	ll carriers (dBW) =	6.00		



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F) Remote Control Point:

NETWORK OPERATION CENTER IS LOCATED AT 10802 PARKRIDGE BLVD.

Call Sign: E900081

RESTON, FAIRFAX, VA 20191

703-716-6531

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
 - 1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.
 - 1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
 - 2300 --- Authority is granted to operate this station by remote control provided that: (1)The parameters of the transmissions of this station monitored at the remote control point, and the operational functions sufficient to insure that the operations of this station are in full compliance with the station authorization at all times; (2) upon detection by the grantee, or upon notification from the Commission, of a deviation of the operation of this station shall be immediately suspended until the deviation is corrected, except the transmissions concerning the immediate safety of life or property may be conducted for the duration of such emergency; and (3) the grantee shall have available, at all times, the technical personnel necessary to perform the technical servicing and maintenance of this station expeditiously.
 - 2325 --- Antennas and all antenna supporting structures used under this authorization shall not exceed 20 feet in height.
 - 2916 --- Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.
 - 3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR 1.1307 (b) (5).
 - 3848 --- The authorized frequency band(s) has (have) been cleared with the National Telecommunications and Information Administration.



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H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
 - 5747 --- Licensee's mobile earth station terminals operating on board aircraft shall comply with all applicable Federal Aviation Administration and International Civil Aviation Organization (ICAO) rules and regulations and all other international agreements in forces to which the United States is a party.
 - 5748 --- Licensee's mobile earth station terminals operating on board maritime vessels shall comply with all applicable U.S. Coast Guard and International Maritime Organization (IMO) rules and regulations and all other international agreements in force to which the United States is a party.
 - 5749 --- Licensee's mobile earth station terminals operating on board aircraft shall comply with the Section 87.147(d) of the Commission's Rules. See 47 C.F.R. Section 87.147(d).
 - 5779 --- Upon completion of construction each licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that construction of the facility as authorized has been completed, and that the station is operational including the date of commencement of service, and will remain operational during the license period unless the license is submitted for cancellation.
 - 5858 --- This authorization does not permit the licensee to provide common carrier services outside of the United States. If licensee wishes to provide such service, it must obtain authority pursuant to Section 214 of the Communication Act, 47 U.S.C. § 214, before doing so.
 - 5871 --- This authorization is issued pursuant to and subject to the conditions and terms set forth in the Commission's Order released July 2, 2002 (DA 02-1565) and Memorandum Opinion, Order and Authorization released March 12, 2004 (DA 04-693) (MSV)
 - 5874 --- Licensee IS GRANTED a waiver of the real-time priority and preemptive access requirements of Footnote US315 to Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, and ITU Radio Regulation 5.353A, for the term of the license.
 - 5875 --- Licensee's operation of the authorized METs is on a secondary basis to safety and distress communications of those stations operating in the Global Maritime Distress Satellite Service.
 - 5956 --- The authorized mobile earth terminals (METs) shall comply with the out-of-band emission limits set forth in Sections 25.202(f) and 25.216 of the Commission's rules. See 47 C.F.R. §§ 25.202(f) and 25.216; Out-of-Band Emission Orders, FCC 02-34 (rel. May 14, 2002), as amended by FCC-03-0283 (rel. November 18, 2003).
 - 6305 --- Mobile Satellite Ventures Subsidiary LLC's MET operations shall be limited to 2.0 MHz of spectrum in each direction of the 1626.5-1645.5 MHz and 1530-1544 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement, and that no additional spectrum will be requested or used.
 - 6306 --- In the absence of a continuing annual operator-to-operator coordination agreement, Mobile Satellite Ventures Subsidiary LLC's operation in the 1626.5-1645.5 MHz and 1530-1544 MHz band will be on a non-harmful interference basis. Consequently, in the absence of a coordination agreement, Mobile Satellite Ventures Subsidiary LLC shall not cause harmful interference to any other lawfully operating satellite or radio facility and shall cease operations upon written notification of such interference. Furthermore, Mobile Satellite Ventures Subsidiary LLC must notify all other operators in these frequency bands that it will be operating on a non-harmful interference basis. MSV, Inc. must also notify its customers in the United States that its operations are on a non-harmful interference basis.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

6307 --- MSV's MET operations shall meet the priority and preemption limits set forth in MSV's letter of January 10, 2003 and that this authorization shall not be viewed as setting any precedent for future applications.

B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R.§ 17.4

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulates is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993". These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.