

(4) Continue to maintain the space station at the authorized longitude orbital location in the geostationary satellite arc with the appropriate east-west station-keeping tolerance.

[69 FR 54587, Sept. 9, 2004]

**§ 25.281 Automatic Transmitter Identification System (ATIS).**

All satellite uplink transmissions carrying broadband video information shall be identified through the use of an automatic transmitter identification system as specified below.

(a) Effective March 1, 1991, all satellite video uplink facilities shall be equipped with an ATIS encoder meeting the specifications set forth in paragraph (d) of this section.

(b) All video uplink facilities utilizing a transmitter manufactured on or after March 1, 1991 shall be equipped with an ATIS encoder meeting the performance specifications set forth in paragraph (d) of this section and the encoder shall be integrated into the uplink transmitter chain in a method that cannot easily be defeated.

(c) The ATIS signal shall be a separate subcarrier which is automatically activated whenever any RF emissions occur. The ATIS information shall continuously repeat.

(d) The ATIS signal shall consist of the following:

(1) A subcarrier signal generated at a frequency of 7.1 MHz  $\pm$ 25 KHz and injected at a level no less than -26 dB (referenced to the unmodulated carrier). The subcarrier deviation shall not exceed 25 kHz peak deviation.

(2) The protocol shall be International Morse Code keyed by a 1200 Hz  $\pm$ 800 Hz tone representing a mark and a message rate of 15 to 25 words per minute. The tone shall frequency modulate the subcarrier signal.

(3) The ATIS signal as a minimum shall consist of the following:

(i) The FCC assigned earth station call sign;

(ii) A telephone number providing immediate access to personnel capable of resolving ongoing interference or coordination problems with the station;

(iii) A unique ten digit serial number of random number code programmed into the ATIS device in a permanent

manner such that it cannot be readily changed by the operator on duty;

(iv) Additional information may be included within the ATIS data stream provided the total message length, including ATIS, does not exceed 30 seconds.

[55 FR 21551, May 25, 1990. Redesignated at 62 FR 5932, Feb. 10, 1997]

**§ 25.282 Orbit raising maneuvers.**

A space station authorized to operate in the geostationary satellite orbit under this part is also authorized to transmit in connection with short-term, transitory maneuvers directly related to post-launch, orbit-raising maneuvers, provided that the following conditions are met:

(a) Authority is limited to those tracking, telemetry, and control frequencies in which the space station is authorized to operate once it reaches its assigned geostationary orbital location;

(b) In the event that any unacceptable interference does occur, the space station licensee shall cease operations until the issue is rectified;

(c) The space station licensee is required to accept interference from any lawfully operating satellite network or radio communication system.

[69 FR 54587, Sept. 9, 2004]

**§ 25.283 End-of-life disposal.**

(a) *Geostationary orbit space stations.* Unless otherwise explicitly specified in an authorization, a space station authorized to operate in the geostationary satellite orbit under this part shall be relocated, at the end of its useful life, barring catastrophic failure of satellite components, to an orbit with a perigee with an altitude of no less than:

$$36,021 \text{ km} + (1000 \cdot C_R \cdot A/m)$$

where  $C_R$  is the solar pressure radiation coefficient of the spacecraft, and  $A/m$  is the Area to mass ratio, in square meters per kilogram, of the spacecraft.

(b) A space station authorized to operate in the geostationary satellite orbit under this part may operate using its authorized tracking, telemetry and control frequencies, and outside of its assigned orbital location, for