

MODIFICATION TO EARTH STATION LICENSE

Call Sign E000696

SES Americom (“SES”) respectfully requests modification of its earth station license E000696 to add two new antennas (designated NWM-16 and NWM-17) to be located within 1 arc second of the licensed coordinates of E000696. Information relating to the points of communication, frequencies, emissions, and frequency coordination for these two antennas can be found in Schedule B to the Form 312 and other attachments. This Narrative sets out additional information about the proposed operations, including an associated waiver requests.

All other information on earth station license E000696 relating to the existing NSS-EC-01 antenna remain unchanged and should not be altered as a result of this proposed modification.

Points of Communication. SES notes that two of the new points of communication in this application – SES-6 at 40.5° W.L. and NSS-806 at 47.5° W.L. – are the subject of pending applications before the Commission. See File Nos. SAT-PPL-20120717-00117 (call sign S2870; accepted for filing Aug. 31, 2012); SAT-MPL-20130528-00078 (call sign S2591; filed May 28, 2013). SES respectfully requests that the Commission not wait on the processing of those two applications, but to instead grant such portions of this earth station modification application as may be ready for grant, and to defer the remainder.

Minor Modification to “Grandfathered” FSS Earth Station in 3650-3700 MHz. Earth station E000696 is a “grandfathered” primary FSS earth station authorized to operate in the 3650-3700 MHz band. SES is requesting authority to add two new antennas to that grandfathered license that will also receive in the 3650-3700 MHz bands on a primary basis. The two new antennas will be located less than 1 arc second from E000696, and therefore will not impose any greater coordination burden on Part 90 terrestrial wireless licensees than the existing grandfathered antenna. The 150km radius coordination zone around E000696 will remain unchanged. This is the kind of “minor” modification that is permissible under the Commission’s grandfathering rules.¹

The Freeze on New Earth Stations in 3600-3650 MHz Does Not Apply. Earth station E000696 is also already licensed to receive in the 3600-3650 MHz band. As a result, the proposed addition of two new antennas located less than 1 arc second away to the same license does not implicate the current freeze on new earth station applications in that band.²

Request for Waiver of 47 C.F.R. § 25.115(h). In this application, SES Americom (“SES”) is requesting authority to operate 1-MHz-wide, FM-modulated telecommand carriers (emission designator 1M00F8D) in the conventional C-band uplink frequencies (5925-6425 MHz) on both antennas. Such transmissions will comply with the applicable off-axis EIRP envelopes for analog C-band carriers in Section 25.218(c). This is mathematically assured because (i) the antenna is known to comply with the applicable antenna

¹ *Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band*, 15 FCC Rcd 20488, at ¶ 29 n.83 (2000) (noting that a change of 1 degree in latitude on latitude as a change in coordinates for an earth station). See also footnote NG169 of the U.S. Table of Allocations.

² See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, FCC 12-148, Notice of Proposed Rulemaking and Order, GN Docket No. 12-365, at ¶ 154 (rel. Dec. 12, 2012) (imposing a freeze on applications for new earth stations located more than 10 statute miles from an existing earth station licensed to operate in the 3600-3650 MHz band).

sidelobe performance standards in Section 25.209, and (ii) the maximum input power density for these telecommand transmissions will be no greater than -0.5 dBW/4 kHz .³

Accordingly, SES respectfully requests a waiver of the requirement in Section 25.115(h) to provide the three tables of off-axis EIRP levels in each of the geostationary and elevation planes, as well as the EIRP levels towards the horizon. A waiver is warranted in this case because the purpose of rule would not be undermined by the omission of such tables. The purpose of Section 25.115(h) is to ensure compliance with the applicable off-axis EIRP envelopes in Section 25.218(c). Here, compliance is assured for the reasons given above.

³ For example, for off-axis angles between 1.5° to 7° in the geostationary plane, the off-axis EIRP density limit of $29.5 - 25\log\theta \text{ dBW/4 kHz}$ will always be met for a transmission where the input power density is limited to -0.5 dBW/4 kHz and the antenna sidelobe performance complies with the $29 - 25\log\theta \text{ dBi}$ standard specified in Section 25.209(a) (i.e., $-0.5 + 29 - 25 \log\theta = 28.5 - 25 \log\theta \text{ dBW/4 kHz}$). This is true for all other off-axis angles and planes specified in Section 25.218(c) of the Commission's rules.