



December 21, 2021

Filed via ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Subject: SES Americom, Inc. – Quarterly Report; GN Docket Nos. 18-122, 20-173

Dear Ms. Dortch:

Please find enclosed SES Americom, Inc.'s quarterly report, filed pursuant to Section 27.1412(f) of the Commission's rules.¹ The report describes the status of SES's clearing activities conducted between September 16, 2021 and December 15, 2021.

As described in more detail in the attached report, we remain on track and in some cases are ahead of the schedule set out in our September 30, 2021 updated Transition Plan.² We look forward to continued engagement with the FCC, the Relocation Coordinator, and other stakeholders to continue the smooth transition of the 3700-4000 MHz band.

Yours Sincerely,

/s/ Christophe De Hauwer

Christophe De Hauwer
Chief Strategy & Development Officer

¹ 47 C.F.R. § 27.1412(f).

² Letter from Brian D. Weimer, Counsel to SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 & 20-173, Appendix E (filed Sept. 30, 2021).

SES Americom, Inc. C-band Transition Quarterly Report

December 21, 2021

This report describes the transition activities undertaken by SES Americom, Inc. (“SES”) between September 16, 2021 and December 15, 2021, to achieve the accelerated clearing deadlines set out in the FCC’s C-band Report and Order.¹ The activities described in this report reflect the day-to-day work required to implement SES’s Transition Plan. SES filed its Final Transition Plan on August 14, 2020,² which reflected the comments SES received from the FCC until that time. As subsequently directed by the FCC, SES submitted updates to its Transition Plan to account for the transition updates reported in its quarterly reports. Unless otherwise specified, all references to “Transition Plan” in this report are to the most recently updated Transition Plan filed on September 30, 2021.³

This report provides a comprehensive summary of the actions taken with respect to customer services, SES-associated incumbent earth station (“IES”) operators, and vendors. The format of this report includes topics that we expect to report on and update over the course of the transition; therefore, it contains items for which there is no updated information at this time. We will provide any available updates in future reports.

I. Overview

A. Successes

During this period, SES certified to the completion of its Phase I clearing activities, and that certification was validated by the FCC on November 24, 2021.⁴ With the completion of Phase I, we are now fully focused on completing our Phase II transition activities in advance of the December 5, 2023 clearing deadline. The below graphic sets out the high-level Phase II transition timeline.

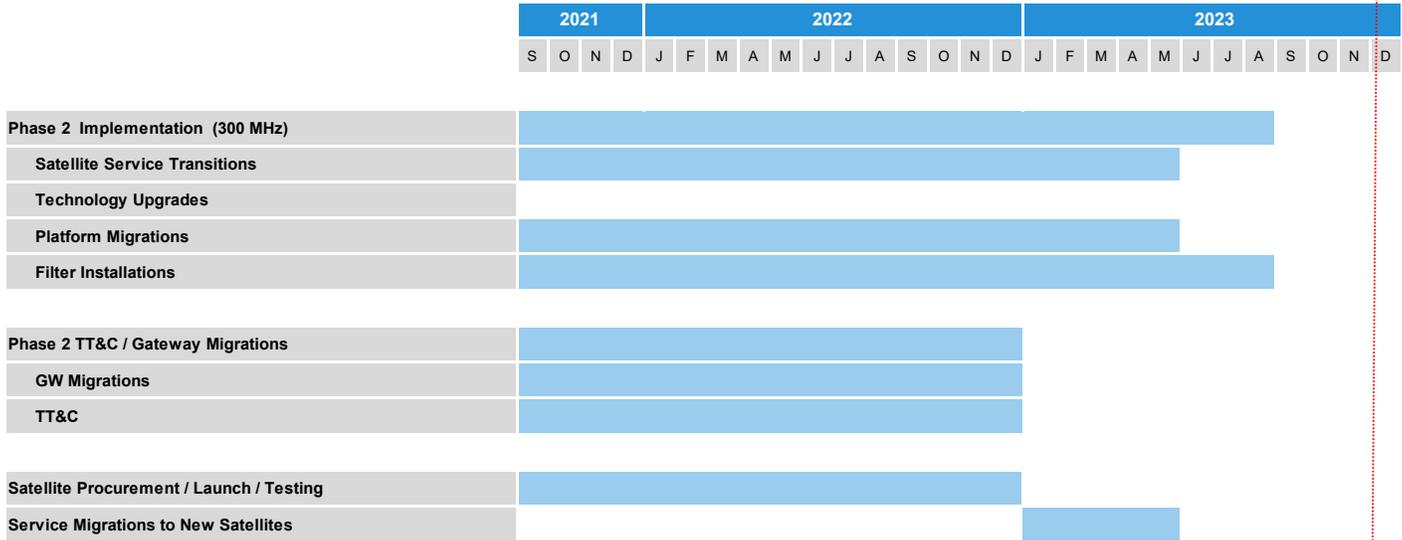
¹ *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, 35 FCC Rcd 2343, ¶ 316 (2020) (“C-band Report and Order”); 47 C.F.R. § 27.1412(f).

² Letter from Brian D. Weimer, Counsel, SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 & 20-173, Attachment (filed Aug. 14, 2020).

³ Letter from Brian D. Weimer, Counsel, SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 & 20-173, Attachment (filed Sept. 30, 2021).

⁴ *Expanding Flexible Use of the 3.7 to 4.2 GHz Band; Phase I Certification of Accelerated Relocation of SES Americom, Inc., as amended*, Order, DA 21-1472, GN Docket Nos. 18-122 & 21-320 (rel. Nov. 24, 2021).

Phase 2 Deadline
 Dec 5, '23



Phase II Transition Timeline

We have completed approximately 30% of the Phase II satellite transitions, which include broadcast TV, cable network services, and other services being received in the 3820-4000 MHz range.

Our installers have completed the installation of blue bandpass filters at approximately 30% of the IES locations associated with SES satellites. We have installed approximately 10% of the antennas associated with our Phase II transition schedule.

As previously reported, all SES-associated IESs designated to receive compression equipment have received their equipment, including IESs receiving services between 3820-4000 MHz. All compressed services were transitioned by October 31, 2021.

Filter installation can only occur after all of the services received by the IES in the filter range (3700-3980 MHz for blue filters) have been fully transitioned on the satellite. As noted in our Transition Plan, in some cases we installed filters for IESs subject to Phase II during our Phase I activities because they were already operating above 4.0 GHz or it would reduce the impact on the IES operator. As SES is continuing to transition satellite services, we will continue to install filters on any IES that has completed the satellite transition process.

TT&C/Gateway antenna construction and other upgrades are on track.

Gateway services that will be transitioned to our Brewster or Hawley facilities are also on schedule, with approximately 50% of the transitions associated with Phase II now complete.

We have continued our partnerships with various stakeholders, including customers—individually and through trade associations—and earth station operator associations, to

communicate our transition plans, address questions and concerns, and reiterate near-term transition plans. Specifically, we continue to work with numerous radio, cable, and broadcasting associations to communicate the latest moves regarding the C-band transition. A number of associations have agreed to post information on their websites and newsletters, including NCTC, ACA Connects (America's Communications Association), NAB (National Association of Broadcasters), and NRB (National Religious Broadcasters). We have also presented our transition progress on a monthly basis to members of the Technical Working Group #2, which includes dozens of customers and IES operators. ACA Connects conducts monthly webinars at which SES representatives present status and upcoming activities to ACA Connects members and address any questions and concerns they may have. Additionally, ACA Connects and SES have an ongoing dialog to address specific member questions and concerns outside of the regularly scheduled webinars. In all cases where we have presented material to groups of stakeholders, IES operators that elected to accept the lump sum relocation payment were invited and received all of the same information about SES's transition process and timing as all other SES-associated IES operators. We continue to participate in other industry meetings virtually whenever practical. We have a helpdesk and email address to answer questions and concerns.

SES and the other satellite operators engage on a weekly basis with RSM US LLP in its role as the Relocation Coordinator.

B. Risks/Challenges

Satellite Manufacturing Risk: As is typical in satellite procurements, industry-wide issues concerning the reliability of certain components and their testing can arise. This is no different for the satellites under procurement as mentioned in this report. While some delay outside of SES's control has arisen as a result of such issues, SES continues to work collaboratively with its vendors to ensure the deadlines in the Transition Plan remain on track.

COVID-19 Related Risks: At this time, we remain on schedule to meet our Phase II clearing obligations. However, as noted in our prior quarterly reports, COVID-19 is impacting our satellite manufacturing programs, and in very few instances, our installation activities at IES sites. With respect to our satellite programs, all satellite manufacturers have received notifications from some of their subcontractors indicating that the COVID-19 pandemic has impacted their production capabilities, and consequently, the component forecast delivery dates are delayed. We are working with our satellite manufacturers to mitigate the effects of such component delays and maintain margin in the manufacturing schedule.

In a few cases, COVID-19 restrictions and IES operator or equipment installer infections have prevented access to IES sites. At this point, however, these delays have not impacted our overall transition timeline. In all cases, we have worked with the impacted parties to develop workarounds, including rearranging schedules to mitigate the effects of these impacts to our overall transition schedule.

Other Risks: In addition to the risks described in our Transition Plan, such as the risk of launch failure or other operational issues with our first four satellites, we continue to experience

delayed responses from some IES operators when we or our installers contact them to verify antenna details at their sites or schedule antenna and/or filter installations. The delayed response from these IES operators has not, at this point, caused a delay in the clearing schedule. In the event a delayed response could impact our ability to complete our Phase II clearing activities on time, we may need to raise any residual lack of responses with the Relocation Coordinator and the FCC.

During the period covered by this quarterly report, we also experienced freight shipping delays due to supply chain issues affecting a number of industries. These delays have not impacted the overall operational schedule, but are putting pressure on the schedule.

Additionally, we experienced delays in the local permit review process related to antennas we need to build at our Brewster and Manassas facilities. Specifically, the delay in Washington State has become more challenging during the course of the reporting period and is impacting our ability to install redundant TT&C equipment. Nevertheless, at this time, the delays are not impacting the final construction of the antennas we need to complete for Phase II; but if local officials do not act on our pending applications, our antenna construction schedule could be impacted. The delays we previously reported in relation to the Hawley facility have been resolved.

C. Requests for FCC Assistance/Intervention

At this time, we are not requesting any assistance or intervention from the Commission. In the event the non-responsive IES operators described above do not provide a response to our further outreach, we will engage the Relocation Coordinator and may ultimately ask the Commission for assistance in either confirming the operating status of any of the IES operators or removing them from the Commission's list of Incumbent Earth Stations.⁵

D. Other Observations

At this time, we have no further observations on the clearing process.

II. Satellite Manufacture and Launch Procurement

As previously reported, SES contracted with Boeing and Northrop Grumman to manufacture three satellites that will be launched to 103° W.L., 131° W.L., and 135° W.L. These three satellites will carry services that must be transitioned to clear the lower 300 MHz of C-band spectrum. SES has also purchased an in-orbit spare satellite that will be located at 103° W.L. This in-orbit spare satellite at 103° W.L. is necessary to mitigate the risk that SES experiences an in-orbit failure of one of the SES satellites delivering C-band service to the United States. SES also contracted with Thales Alenia Space to manufacture two ground spares. As described in our Transition Plan, these ground spares are necessary to ensure we can meet our clearing

⁵ See *International Bureau Identifies Earth Station Antennas on C-band Incumbent List that May be Inactive or Otherwise Not Operational on the 3.7 GHz band*, Public Notice, IB Docket No. 20-205, DA 21-1206 (rel. Sept. 27, 2021).

obligations in the event one or more of the first four satellites experience a launch or technical issue that makes them inoperable. In this regard, SES reiterates that it has contractual commitments to customers that can only be satisfied through the provision of the in-orbit spare satellite at 103° W.L. and the two ground spares.

The satellite procurement programs are progressing as planned with all three satellite manufacturers. Boeing, Northrop Grumman, and Thales have successfully completed the design phases and most of the components have been manufactured, tested, and delivered. Assembly, integration, and testing at the subsystem level has started for the SES-18, SES-19, SES-20, SES-21 and SES-22 satellites. Construction of SES-23 began on June 1, 2021. Subject to the successful launch and deployment of the first four satellites included in the Transition Plan, SES will then determine whether or not to finalize the SES-23 program and will seek reimbursement only for the costs incurred until that moment for the second ground spare program, including termination liability.⁶

We have submitted applications for authority to launch and operate SES-18, SES-19, SES-20 and SES-21.⁷ Those applications are currently under review by the International Bureau.

As previously reported, we have also signed contracts with ULA and SpaceX to launch the first four satellites in 2022. Spacecraft and launch vehicle integration analyses are near completion for all programs with no programmatic or technical risks identified. The 30-day launch slot selection for SES-18 and SES-19, SES-20 and SES-21, and SES-22 are on track to be confirmed by February 2022. The launcher for SES-23 has not been selected yet.

Notwithstanding the impacts of the industry-wide issues affecting certain satellite components and the COVID-19 pandemic described in more detail above in Section I.B., the forecasted start of services for all satellites remain on track. Critical paths for each spacecraft are well-identified and the satellite manufacturers are required to enforce heightened focus on their supply chains to ensure the critical deliveries will come on time and will not disrupt the overall delivery schedules.

III. Satellite Service Migrations

We have completed approximately 30% of our Phase II service transitions on our satellites. Based on our performance in the completion of our Phase I service transitions, we anticipate completing all Phase II service transitions on time and in accordance with our overall timelines as reflected in our Transition Plan.⁸

⁶ SES's transition costs are being incurred in reliance on its Transition Plan. *See Wireless Telecommunications Bureau Opens Window for Eligible C-Band Satellite Operators to Account for Final Phase I Updates to Their Transition Plans*, Public Notice, GN Docket Nos. 18-122 & 20-173, DA 21-1100 n.13 (rel. Sept. 3, 2021) (noting that satellite operators may "rely" on their transition plans in carrying out transition activities).

⁷ *See* IBFS File Nos. SAT-RPL-20210812-00099, SAT-RPL-20210812-00100, SAT-RPL-20210812-00101, SAT-RPL-20210812-00102 (filed Aug. 12, 2021).

⁸ Letter from Brian D. Weimer, Counsel, SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 & 20-173, Attachment (filed Sept. 30, 2021).

IV. Compression Technology

Uplink Completed/Remaining: As previously reported, all uplink compression equipment has been shipped to and installed at the earth station locations associated with the SES services requiring compression technology. All of the equipment has been configured and tested and all uplink services subject to compression are currently in service.

Downlink Completed/Remaining: As previously reported, all of the downlink equipment, including demodulators, decoders, transcoders and related equipment, has been shipped to IES operators—including lump sum electees—receiving the SES satellite services requiring compression technology. All IESs subject to compression have been fully transitioned and are on air as of October 31, 2021.

V. Incumbent Earth Station Migration

USSI continues to conduct virtual site surveys for IESs subject to our Phase II activities. The virtual site survey process identifies the individual needs of each IES site, the quantity and configuration of antennas accessing SES satellites, and any other relevant information needed in order for SES to prepare the sites for satellite service transitions and the eventual installation of passband filters. Additionally, in cases where the performance of an antenna (primarily antennas with multiple feeds) must be assessed to determine if that antenna can support a higher adjacent satellite interference environment associated with the repacked satellite spectrum, we will be conducting individualized on-site testing at the IES sites. Installation technicians measure and record antenna performance metrics whenever possible before and after filter installation to ensure that each antenna is able to receive substantially the same or better service during and after the transition.

We installed a number of filters for IESs subject to Phase II during our Phase I activities because the IESs were already operating above 4.0 GHz or it would reduce the impact on the IES operator. As SES continues to transition satellite services, we will continue to install filters on any IES that has completed the satellite transition process.

As of the date of this report, we have installed approximately 10% of the new antennas we anticipate will be needed to complete the Phase II transition. We will continue to identify IESs that require new antennas through our outreach efforts.

A detailed list of SES-associated IES records, which excluded the Commission's final list of IESs that are subject to a successful lump sum election, was included in Appendix C to our Transition Plan.⁹ We will continue outreach activities on the most current list of IES records provided by the FCC on September 15, 2021.¹⁰

⁹ See *id.* at Appendix C.

¹⁰ *International Bureau Releases Updated List of Incumbent Earth Stations in the 3.7-4.2 GHz Band in the Contiguous United States*, Public Notice, IB Docket No. 20-205 and GN Docket No. 20-305, DA 21-1157 (rel. Sept. 15, 2021).

VI. TT&C/Gateway Construction/Service Transition

Construction of our TT&C/Gateway facilities in Brewster, WA, and Hawley, PA, remains on target. Activities required for Phase II are on track. The TT&C antenna installations, along with the associated ground equipment, are near completion at both Brewster and Hawley, with completion scheduled by the end of 2021 and well in advance of the Phase II deadline.

All four gateway antenna systems planned for the Hawley facility have been fully installed, tested and put into operation. As of the filing of this quarterly report, approximately 50% of the Phase II gateway services have been transitioned.

Both communications equipment shelters at Hawley have been fully installed, along with all of the required communications equipment. All services from international satellites that could not be relocated to frequencies above 3820 MHz have now been transitioned to the Hawley facility.

Phase II TT&C antenna construction and the modification of existing antennas to be utilized for TT&C purposes has commenced at SES's Hawley, Manassas, Woodbine, South Mountain, and Hawaii locations. All major equipment required for the TT&C operation of the new SES satellites has been ordered and the overall project schedules remain on track.

As noted in our prior quarterly reports, we have successfully established contractual arrangements with USEI at Brewster, WA, to host a full motion TT&C antenna to support SES's TT&C needs. The antenna foundation, shelter foundation, and propane tank foundations have been poured at the Brewster facility. The antenna has been delivered and erected. We have successfully run test patterns on the antenna. All associated electrical work at the Brewster facility is progressing in accordance with the schedule. However, we are still waiting on Washington State's approval of our shelter plans before we can finalize and deliver our permanent equipment shelter to the site. In the interim, we have used a temporary shelter to install a single thread configuration of equipment that will allow us to be operational by the end of 2021. All of the communications equipment is currently at the site ready to be integrated into the permanent shelter.

VII. Costs

A. Costs Submitted for Reimbursement/Paid to Date

During the period covered by this report, we submitted approximately \$146 million in reimbursement claims. This raises the total amount requested to \$846 million. We did not receive any additional reimbursements during the period covered by this report.

B. Updates to Estimates

At this time, there are no changes to the cost estimates provided in SES's Transition Plan.

VIII. Updates to Transition Timeline

At this time, there are no changes to the transition timeline provided in SES's Transition Plan.