



June 28, 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 March 16, 2021 and June 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 October 28, 2020 revised 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/ Petra A. Vorwig

Petra A. Vorwig
Vice President, Legal & Regulatory Affairs

¹ 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, Appendix E (filed Oct. 28, 2020).

SES Americom, Inc. C-band Transition Quarterly Report

June 28, 2021

This report describes the transition activities undertaken by SES between March 16, 2021 and June 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 carry out the Final Transition Plan we have filed with the FCC. SES engaged in numerous discussions with the FCC in advance of filing our Final Transition Plan on August 14, 2020,² which reflected the comments we received from the FCC.³

This report provides a comprehensive summary of the actions taken with respect to the 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

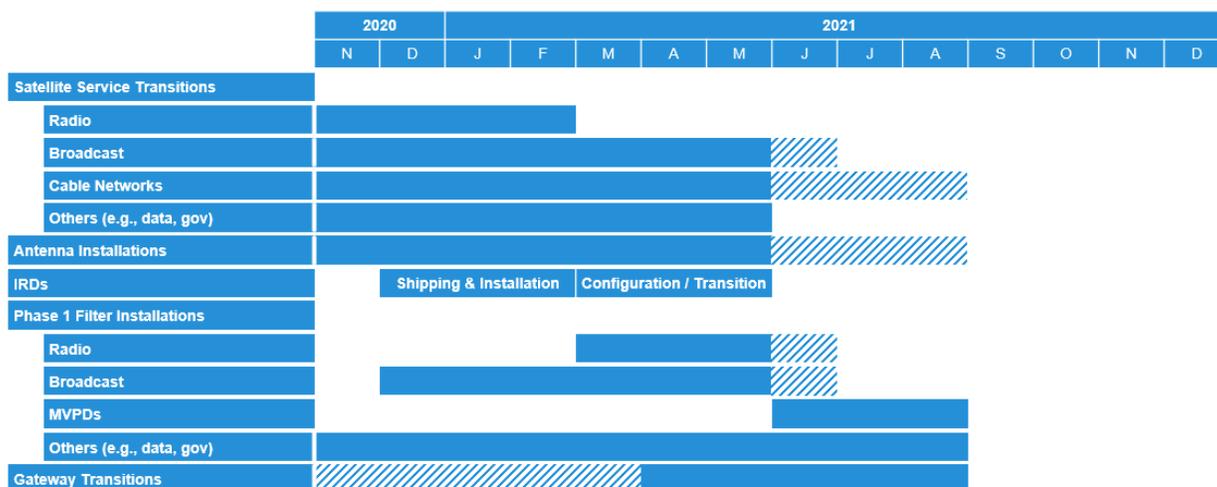
During this period, we remain on track and in some cases are ahead of the schedule set out in our October 2020 Transition Plan.⁴ The below graphic sets out the high-level Phase 1 transition timeline. The solid bars indicate the original plan, and the patterned bars indicate extension to the plan as described in this report.

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 R&O*”); 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 (filed Aug. 14, 2020) (“August 2020 Transition Plan”).

³ SES will file an amended Transition Plan to reflect the updates reported in this and previous quarterly reports in advance of filing its Phase 1 Certification of Accelerated Relocation per the guidance provided by the FCC. *See Wireless Telecommunications Bureau Opens Window for Eligible C-Band Satellite Operators to Account for Updates in Their Transition Plans*, Public Notice, GN Docket Nos. 18-122 & 20-173, DA 21-736 (rel. June 23, 2021) (“Transition Plan Update PN”).

⁴ Letter from Brian D. Weimer, Counsel, SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 & 20-173, Appendix E (filed Oct. 28, 2020) (“October 2020 Transition Plan”).



Phase 1 Transition Timeline

We have completed nearly all Phase 1 satellite transitions, which include radio, broadcast TV, cable network services and other services. We extended dual illumination for a limited number of services, as indicated in Appendix B, to allow for the transition at a number of IESs that have elected a lump sum payment as well as for earth stations that are not classified as an IES where such an extension did not compromise our ability to complete all transition activities according to our August 2020 Transition Plan. In any case, all dual-illumination of Phase 1 services are expected to be completed by August 31, 2021. We also continued transitioning services that are part of the Phase 2 transition.

We have installed approximately 50% of the antennas associated with our Phase 1 transition schedule. The remaining Phase 1 antennas will be installed no later than August 31, 2021.

As previously reported, all SES-associated IESs designated to receive compression equipment have received their equipment, and 96% have their equipment installed. 90% have had their equipment authorized and/or are receiving the compressed services. The remaining IESs will have their equipment installed and fully transitioned by August 31, 2021.

Filter installation can only occur after all of the services received by the IES in the filter range (3700-3800 MHz for red filters and 3700-3980 MHz for blue filters) have been fully transitioned on the satellite. As of the end of the reporting period, we have installed filters at nearly 60% of the Phase 1 sites. During the reporting period, we have been conducting MVPD filter installation in cooperation with Intelsat as well as completing the remaining filter installations at radio and broadcast TV sites. ATCi continues installing filters on IES Simulsat antenna feeds that receive SES services. We anticipate that all Phase 1 filters will be installed by

August 31, 2021. We have continued to build up filter inventory for all Phase 2 activities during the reporting period.

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

Platform services that will be transitioned to our Brewster or Hawley facilities are also on schedule. The equipment required for Phase 1 transitions has been installed, and we are now transitioning the Phase 1 platform services, which will be fully complete by August 31, 2021.

We have continued our partnerships with various stakeholders, including customers—individually and through trade associations—as well as with 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. Additionally, with COVID-19 restrictions lifting, we plan to attend industry meetings and trade conferences beginning in 3Q2021 to engage directly with IES operators at those venues. 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 that the deadlines in the transition plan remain on track.

COVID-19 Related Risks: At this time, we remain on schedule to meet our Phase 1 and Phase 2 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 August 2020 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 although as we near the end of the Phase 1 transition period, we may need to raise any residual lack of responses for scheduling filter installations with the Relocation Coordinator and the FCC.

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 non-responsive IES operators or removing them from the Commission's list of Incumbent Earth Stations.⁵

The status of the Relocation Payment Clearinghouse's C-Band Handbook and dispute resolution procedures, the form of the Certification of Accelerated Relocation, and the certification challenge process are near-term items on which SES will, to the extent necessary, pursue further clarity and resolution.

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. to

⁵ See *International Bureau Identifies Inactive C-Band Incumbent Earth Station Antennas and Unresponsive C-Band Incumbent Earth Station Operators*, Public Notice, IB Docket No. 20-205, DA 21-81 (rel. Jan. 19, 2021).

carry services that must transition to clear the lower 300 MHz of C-band spectrum as well as an in-orbit spare satellite that will be located at 103° W.L. and used only in the event we experience an in-orbit satellite failure at 103° W.L. or with other 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 August 2020 Transition Plan, these ground spares are necessary to ensure we can meet our clearing obligations in the event one or more of the first four satellites experience a launch or technical issue that makes them inoperable.

The satellite procurement programs are progressing as planned with all three satellite manufacturers. Boeing, Northrop Grumman and Thales have successfully completed Critical Design Reviews (“CDR”) for SES-18, SES-19, SES-20, SES-21 and SES-22 satellites.

On June 1, 2021, Thales began manufacturing the second ground spare, SES-23, as anticipated in the August 2020 Transition Plan. Subject to the successful launch and deployment of the first four satellites included in the August 2020 Transition Plan, SES will then determine whether or not to finalize the second ground spare program and will seek reimbursement only for the costs incurred until that moment for the second ground spare program, including termination liability.⁶

As previously reported, SES has also signed contracts with ULA and SpaceX to launch the first four satellites in 2022. Mission requirement reviews are progressing according to plan with ULA and SpaceX. In the current reporting period, the final coupled load analyses and spacecraft CAD models were provided to LV Providers and no major issue was identified. 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 delivery dates for the 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 drive the overall delivery schedules.

III. Satellite Service Migrations

SES provided a detailed list of services subject to the transition in Appendix B of our October 2020 Transition Plan. We are attaching an updated version of Appendix B, which reflects the status of each service: Transition Completed, In Transition, Pending Transition, Deleted, or Added—indicated by a “C”, “I”, “P”, “D” or “A”, respectively. Changes to transition

⁶ SES’s transition costs are being incurred in reliance on its August 2020 Transition Plan and any subsequent amendments filed with the FCC. *See* Transition Plan Update PN at n.14 (noting that satellite operators may “rely” on their transition plans in carrying out transition activities).

timelines of individual services from our October 2020 Transition Plan are also indicated by red font.

Deletions Since Last Report: As of June 15, 2021, 14 services were removed from the October 2020 Transition Plan because the service was terminated, the service contract expired, the service is no longer required to transition, or we have been informed that the service will expire without renewal prior to the transition dates. These deleted services will not be included in future updates.

Additions/Changes Since Last Report: We have added 9 services since our last report and have made minor revisions to a number of transitions such as modified transition dates since our last report. All additions and revisions reflect refinements to the overall October 2020 Transition Plan and have been fully confirmed by the affected customers. All of the additional and revised service transitions will occur within the previously established timeline for our clearing activities.

Migrated/Remaining: We have completed 94% of our Phase 1 and 7% of our Phase 2 service transitions on our satellites. The completion of these transitions has allowed us to focus on filtering IESs that are now receiving services exclusively above 3820 MHz. Based on our performance in the completion of our Phase 1 service transitions, we anticipate completing all Phase 2 service transitions on time and in accordance with our overall timelines as reflected in our October 2020 Transition Plan.

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 being dual-illuminated.

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. 95% of IESs subject to SES's Phase 1 Transition Plan and subject to compression have been fully transitioned and are either authorized or on air. The remainder of non-lump sum Phase 1 IESs subject to compression will be fully transitioned by June 30, 2021, and all IESs in SES's Transition Plan and subject to compression will be transitioned by August 31, 2021.

V. Incumbent Earth Station Migration

Our primary IES equipment installation vendor, USSI, has completed virtual site surveys for 99% of IESs subject to our Phase 1 clearing activities and 10% of IESs subject to our Phase 2 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 us 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 have conducted 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.

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,⁷ was included in Appendix C to our March 26, 2021 report.⁸ We are attaching an updated version of Appendix C that reflects the current list of IES records that are not subject to a lump sum election and that we believe receive at least one service from an SES satellite.

On June 22, 2021 the International Bureau released an updated list of Incumbent Earth Stations.⁹ The Relocation Coordinator informed SES that the Relocation Coordinator will not have sufficient time to revise the list it maintains and provides to the satellite operators to assist in developing their respective quarterly reports to reflect the updated list of Incumbent Earth Stations. Therefore, this quarter's report does not reflect any changes that may be reflected in the June 22, 2021 updated list.

We will continue outreach activities on the most current list of IES records provided by the FCC and will update the list of SES-associated IESs in subsequent quarterly reports. We also include an indexing of each IES record that was developed by the Relocation Coordinator. Below is a summary of the information reflected in the updated Appendix C.

IESs Added Since Last Report: We have added 58 IES operators (based on location) representing 88 IES records to Appendix C. These additions are the result of our ongoing efforts to confirm whether any antennas operating under an IES record are receiving SES services.

⁷ *Id.*

⁸ The FCC has published a number of updated lists reflecting valid IES registrations. The list includes individual records, each of which represents a single registration in the International Bureau's Filing System ("IES record"). Many records include multiple antennas which qualify as IESs, but only a few may be receiving services from an SES satellite. Appendix C provides one line item for each IES record that includes at least one antenna that is receiving a service from an SES satellite ("SES-associated IES") but does not indicate that all of those antennas are receiving a service from an SES satellite.

⁹ *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, GN Docket No. 20-305, DA 21-731 (rel. June 22, 2021).*

IESs Removed Since Last Report: Since our last report, we removed 233 IES operators (based on location) representing 629 IES records that were determined as (1) not having an antenna accessing an SES satellite based on our various methods of outreach, (2) no longer in operation based on correspondence with the IES operators or (3) not having an antenna at the address or geo-coordinates as shown on the FCC's IES List.¹⁰ These removed IES records are indicated in a tab titled "Unclaimed" in the updated Appendix C. We have informed the Relocation Coordinator of these changes for their further investigation and disposition of these IES records. There are approximately 5 IES operators who we continue to attempt to contact but have not yet responded. We have developed additional internal procedures for reaching out to these non-responsive IES operators and are working closely with the Relocation Coordinator to monitor the impact on our transition schedule. While the current lack of response from the operators has not caused a delay in the clearing schedule, we note that we will not be able to clear these IESs in a timely manner without a response from the operator. To the extent we, in consultation with the Relocation Coordinator, identify IESs that are at risk of missing their clearing deadline, we will inform the Relocation Coordinator, and if those IESs are not favorably dispositioned within 30 days of our informing the Relocation Coordinator, we will deem this a transition delay "beyond the control" of SES, inform the FCC, and remove the relevant IES records from our Appendix C.¹¹

IES Transition Status: With the aforementioned changes, we now expect to transition one or more IESs within 3110 IES records during the three-year clearing period. Of those, it is estimated that approximately 150 IES sites will require one or more antennas to be installed for the Phase 1 clearing. To date, we have installed approximately 50% of the estimated number of antennas and have completed the filtering at nearly 60% of all Phase 1 earth station sites. Note, however, that in Appendix C, we only characterize an Incumbent Earth Station as transitioned after the filter installations have been fully audited; therefore the fully transitioned earth stations reflected in Appendix C are less than the number of earth stations that have had filters installed. The remaining filter installations will be reflected in our next report once they have been audited.

Self-Installations: As noted in the October 2020 Transition Plan, some IES operators wish to install equipment themselves, and we asked operators to notify us if they intend to do so. To date, 28 IES operators (based on location) in the top 46 PEAs, representing 77 IES records, have notified SES that they will be self-installing filters; the associated IES records for the

¹⁰ On June 18, 2021, SES and PSSI Global Services, LLC, filed a letter with the FCC confirming they had executed a binding agreement whereby PSSI will undertake all duties and responsibilities to timely transition the six PSSI earth station antennas that the Relocation Coordinator assigned to SES on May 6, 2021. *See* Joint Letter from Brian Weimer, counsel to SES Americom, Inc., and Stephen Diaz Gavin, counsel to PSSI Global Services, LLC, filed in GN Docket Nos. 18-122 & 20-173 (filed June 18, 2021). The six PSSI earth station antennas were not previously reflected in SES's October 2020 Transition Plan or subsequent quarterly reports because they were only assigned by the Relocation Coordinator in May 2021. Since PSSI has agreed to take responsibility to transition those earth station antennas, they will not be reflected in Appendix C of this or any future quarterly report.

¹¹ *C-Band R&O* ¶ 294.

specific antennas are designated as such in the updated Appendix C. Of these 28, 13 have notified SES that they have completed the filter installations as indicated in Appendix C. In future quarterly reports, we will inform the FCC whether the operators conducting the installation themselves have provided SES with notice of completion of installation activities.

VI. TT&C/Gateway Construction/Service Transition

Construction of our TT&C/Gateway facilities in Brewster, WA, and Hawley, PA, remain on target to support the Phase 1 and Phase 2 clearing deadlines. The TT&C antenna installations, along with the associated ground equipment, are underway at both Brewster and Hawley, with completion scheduled well in advance of the required dates.

All four gateway antenna systems planned for the Hawley facility have been fully installed and tested. The data center is complete, and the majority of the equipment required for Phase 1 platform transitions has been installed and tested in the data center. The transition of one platform service to one of the new gateway antennas has been completed. All Phase 1 platform services are expected to be transitioned by August 31, 2021.

Both communications equipment shelters at Hawley have been fully installed, along with all of the required communications equipment. All electrical work required for all Phase 1 operations is complete, including the emergency backup power systems, communications equipment, and power systems. The antenna migration to the Hawley facility will allow for the reception of services from international satellites that could not be relocated to frequencies above 3820 MHz. Planning for platform moves required for Phase 2 has begun.

As previously reported, 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. We are currently waiting on Washington State's approval of our shelter plans before we can finalize and deliver our equipment shelter to the site. All of the communications equipment is currently at the site ready to be integrated into the shelter. The shelter delivery and full operation of the antenna system are well within our required completion timeline.

VII. Costs

A. Costs Submitted for Reimbursement/Paid to Date

During the period covered by this report, we did not submit any costs for reimbursement.

B. Updates to Estimates

At this time, there are no changes to the cost estimates provided in SES's October 2020 Transition Plan.

VIII. Updates to Transition Timeline

At this time, there are no changes to the transition timeline provided in SES's October 2020 Transition Plan.