March 31, 2022

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 December 16, 2021 and March 15, 2022.

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 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).

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SES Americom, Inc. C-band Transition Quarterly Report

March 31, 2022

This report describes the transition activities undertaken by SES Americom, Inc. ("SES") between December 16, 2021 and March 15, 2022, 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 and relevant stakeholders 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]

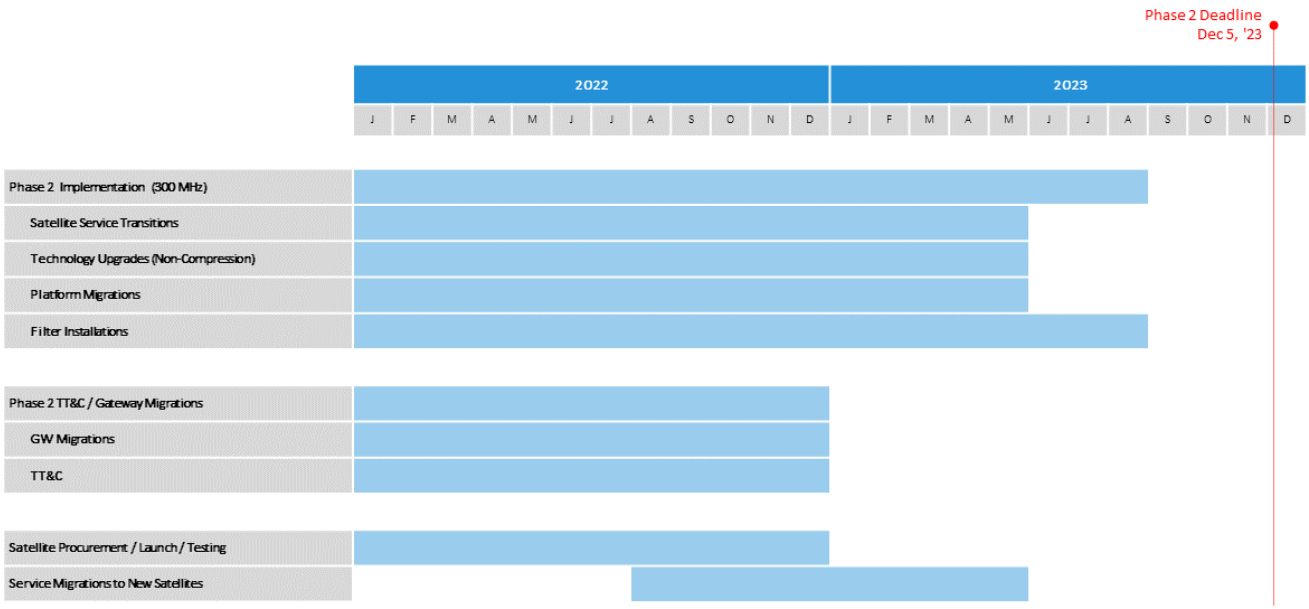
This report provides a comprehensive summary of the actions taken with respect to the customer services, SES-associated incumbent earth station ("IES") operators, and vendors. The format of this report includes topics that we expect to report on and update over the course of the transition. Therefore, this report 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

We remain on track and in some cases ahead of schedule for 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 (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 (filed Sept. 30, 2021).



Phase II Transition Timeline

We have completed approximately 34% 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 42% of the IES locations associated with SES satellites. We have installed approximately 20% 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. SES continues other non-compression technology upgrade activities for customer uplinks and platform and other service moves to the Hawley, PA gateway, as well as downlinks and terrestrial backhaul services from the Hawley, PA gateway to IES locations for satellite services SES is unable to migrate above 4000 MHz.

Filter installation can only occur after all of the services received by the IES in the range of 3700-4000 MHz 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 4000 MHz. 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 70% of the transitions associated with Phase II now complete.

During the reporting period, SES learned of manufacturing delays at Northrop Grumman on the SES-18 and SES-19 satellites that create a significant risk these satellites will not be in commercial operation by the end of 2022 as originally envisioned. At the same time, SES learned the SES-22 satellite will be completed and available for launch by early July 2022. As described in the Transition Plan, SES has always intended to launch the first satellites that are available to meet its satellite replacement schedule.[4] Therefore, SES currently plans to launch SES-22 in early July 2022 and bring it into service at 135° W.L. in early August 2022. Once in service, SES can begin transitioning services to the new satellite as described in Appendix B of the Transition Plan. In August 2022, SES anticipates it will launch SES-20 to 103° W.L., where it will operate as a dark spare, and SES-21 to 131° W.L.

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 activities. 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 continues to engage on a weekly basis with RSM US LLP in its role as the Relocation Coordinator in coordination with other satellite operators.

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. As described above, some manufacturing delays outside of SES's control have affected the delivery schedule for SES-18

[4] Transition Plan at 10.

and SES-19. SES is able to mitigate this delay by launching its first ground spare, SES-22, in July 2022. As a result of this mitigation, the clearing schedule in the Transition Plan is slightly altered, but remains on track to satisfy the Phase II transition deadline.

COVID-19 Related Risks: Thanks in part to having SES-22 available to launch in July 2022, at this time, SES remains on schedule to meet its Phase II clearing obligations. However, as noted in our prior quarterly reports, in addition to the satellite manufacturing risks mentioned above, 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 over the past quarter, 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. With the current COVID-19 situation improving, it is unclear if these delays will continue in the upcoming quarter.

Impact of Russian War in Ukraine: Thales Alenia Space ("Thales") relied on the Ukrainian Antonov AN-124 aircraft charter for the transportation of geostationary satellites, such as SES-22, to the launch sites. However, because of the Russian war in Ukraine, there is no Antonov aircraft available to transport SES-22 to the launch site in Cape Canaveral, Florida. We are working closely with Thales to transport SES-22 to the launch site by sea and ensure a timely July 2022 launch.

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 C-band transition 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 continue to experience delays in the local permit review process related to antennas we need to build at our Brewster facility. 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. However, our antenna construction schedule could be impacted if the local officials do not act on our pending applications. During the reporting period, we received the necessary permits for our Manassas facility and construction has begun.

C. Requests for FCC Assistance/Intervention

At this time, we are not requesting any assistance or intervention from the Commission related to SES's clearing activities. 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

On March 21, 2022, SES announced an agreement with Verizon to expand Verizon's access to the 3700-3800 MHz block in certain markets in the contiguous United States earlier than the Phase II clearing deadline set by the C-band Report and Order. This type of agreement is specifically contemplated by the C-band Report and Order[6] and does not impact SES's Transition Plan or clearing timeline.

II. Satellite Manufacture and Launch Procurement

As outlined in SES's Transition Plan, SES contracted with Boeing, Northrop Grumman, and Thales to manufacture in total six satellites – four C-band transition satellites and two "ground spares" to be launched in the event delivery of one or more of the first four satellites is substantially delayed, or any of the first four satellites experience a launch or in-orbit failure. The satellites will be launched in the order they are completed with the first to be operated at 135° W.L. (SES-22), the second to be located as an in-orbit spare at 103° W.L. (SES-20), the third to be operated at 131° W.L. (SES-21), and the last to be operated at 103° W.L. (either SES-18 or SES-19). The order of operation is slightly revised from that described in the Transition Plan. This change is necessary, however, to account for manufacturing delays encountered by Northrop Grumman as explained above. By launching SES-22 before SES-18 and SES-19, SES will be able to transition services from the center of the arc to 135° W.L. as early as possible and therefore begin filtering as scheduled. Furthermore, the in-orbit spare satellite at 103° W.L. is necessary to provide contractual service protections that mitigate the risk SES experiences an in-orbit failure of one of the SES satellites delivering C-band service to the United States during the transition. If such a loss occurs, the in-orbit spare will be available to continue service and reduce

[5] *See 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 22-266 (rel. Mar. 14, 2022).

[6] *See* C-band Report and Order para. 186 n.497 ("[N]othing in this *Report and Order* is intended to preclude private negotiations among parties . . . to accomplish earlier clearing than the deadlines we establish in this Order.").

the likelihood of a prolonged service outage. 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.

Additionally, the two ground spare satellites have always been an integral part of the SES Transition Plan 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 or there is a manufacturing delay—as is the case with SES-18 and SES-19. As described above, the Northrop Grumman satellites, SES-18 and SES-19, have experienced manufacturing delays and there is a significant risk the satellites will not be commercially available by the end of 2022. The first Thales satellite, SES-22, however, will be available for launch in the beginning of July 2022. The Boeing satellites, SES-20 and SES-21, are expected to be available for launch in August 2022. SES now plans to launch SES-22 to 135° W.L. where it is expected to start operations by early August 2022. The availability of SES-22 on time has proven critical to maintaining SES's Phase II clearing schedule in the face of delays in the manufacture of SES-18 and SES-19, and the lessons SES learned during the Phase I clearing process.[7] With the launch of SES-22, SES will be able to begin transitioning services from the center of the arc to the upper C-band frequencies, thereby protecting the overall transition timing.

Construction by Thales of the second ground spare, SES-23, began on June 1, 2021. Subject to the successful launch and deployment of all necessary C-band transition satellites, 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.[8] SES is in discussions with the Relocation Payment Clearinghouse as to the appropriate mechanism for realizing the value of any satellites that may no longer be necessary for the relocation process.

The FCC has granted SES authority to launch and operate SES-18, SES-19, SES-20 and SES-21.[9] On March 15, 2022, we filed an application to launch and operate SES-22 at 135° W.L. in July 2022.[10] We will modify the remaining authorizations to the extent necessary to reflect our revised launch plan.

As previously reported, we have also signed contracts with ULA and SpaceX to launch the C-band satellites in 2022. Spacecraft and launch vehicle compatibility analyses have been performed with no programmatic or technical risks identified. The launch slot for SES-22 is

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[7] The number of IESs requiring clearing in Phase II is approximately 2.5x that of Phase I. Accordingly, it is critical SES maintains its Phase II transition timeline, as additional time will be needed for the clearing. The placement of SES-22 at 135° W.L. in early August 2022 will greatly reduce the associated schedule risks and allow for timely clearing of the spectrum in advance of the December 5, 2023 clearing deadline.

[8] 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 No. 18-122 and GN Docket No. 20-173, DA 21-1100, 3 n.13 (noting that satellite operators may "rely" on their transition plans in carrying out transition activities).

[9] *See* IBFS File Nos. SAT-RPL-20210812-00099, SAT-RPL-20210812-00100, SAT-RPL-20210812-00101, SAT-RPL-20210812-00102 (granted Mar. 14, 2022).

[10] SES Americom, Inc., IBFS file No. SAT−LOA−20220315−00030 (filed Mar. 15, 2022).

confirmed by SpaceX for July 2022. The 30-day launch slot for SES-20 and SES-21 has been confirmed by ULA for August 2022. The launcher for SES-23 has not been assigned. The 30-day launch slot selection for SES-18 and SES-19 is still to be confirmed.

III. Satellite Service Migrations

We have completed approximately 34% 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.

IV. Compression Technology

As previously reported, all compression activities were completed as of October 31, 2021. At this time, we do not envision any additional technology requirements.

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 and undersized antennas) 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.

A number of filters were installed for IESs subject to Phase II during our Phase I activities for those IESs that were already operating above 4000 MHz. 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 42% of the filters we anticipate are needed to complete the Phase II clearing.

As of the date of this report, we have installed approximately 20% 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. We expect the Relocation Coordinator's quarterly report will identify the status of all associated IESs, including those associated with SES. We will continue outreach activities

on the most current list of IES records provided by the FCC on March 14, 2022.[11]

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 full motion TT&C antenna installations, along with the associated ground equipment, are complete at Hawley and are near completion at Brewster, with completion dependent on Washington State's approval of the permanent shelter. Currently, both full motion TT&C antennas are in operation and available to support our 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 70% of the Phase II gateway services have been transitioned.

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 for the new C-band spacecraft 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 received, 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. 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 utilized a temporary shelter at the site to install a single thread configuration of equipment that has allowed us to put the antenna into operation. 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 $60 million in reimbursement claims. This raises the total amount requested to $907 million. We did not receive

[11] *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 22-266 (rel. Mar. 14, 2022).

any reimbursements during the period covered by this report.

B. Updates to Estimates

SES continues to incur interest and financing charges related to its outstanding reimbursement claims. Since February 2022, these costs amount to approximately $160,000 per day.

VIII. Updates to Transition Timeline

We have advanced the start of the service migrations to the new satellites to reflect the earlier launch of SES-22, which was made necessary by the manufacturing delays encountered by Northrop Grumman on the SES-18 and SES-19 satellites.