## REQUEST FOR EXTENSION OF SPECIAL TEMPORARY AUTHORITY

Skynet Satellite Corporation ("Skynet"), pursuant to Section 25.120 of the Commission's Rules,¹ hereby requests a 30-day extension of its special temporary authority ("STA")² permitting Skynet to operate its Telstar 12 satellite ("T12"), located at 109.2° W.L.,³ with an increased station keeping tolerance ± 0.10°.

The current STA expires November 30, 2020, and T12 has been utilizing less fuel than previously expected, by virtue of having disabled the inclined orbit bias generator. There is now sufficient fuel to operate through the end of 2020 and then to deorbit the satellite to a disposal altitude of approximately 300 km above geostationary orbit, barring a catastrophic failure of satellite components.

Although Skynet plans to begin maneuvers to relocate T12 to a graveyard orbit beginning December 7, 2020 and to complete these maneuvers by December 12, 2020, it is requesting a full 30-day extension out of an abundance of caution in case there are unanticipated delays. Upon completion of deorbit maneuvers, Skynet intends to discharge all stored energy sources on board the satellite.

Skynet will continue to accept and operate under the conditions set forth in its current STA. The technical characteristics and statements made thereto remain unchanged. Moreover, Skynet agrees it will terminate operations under its STA in the event a satellite is launched into a location such that T12's station keeping volume would overlap a satellite's  $\pm 0.10$  degree station keeping volume, but would not overlap a  $\pm 0.05$ ° degree station keeping volume, unless Skynet has successfully coordinated its physical operations with those of the other spacecraft.<sup>4</sup>

Under present conditions, this condition should not come into play. When T12 operates with a  $\pm$  0.10° station keeping tolerance, it will come no closer than 0.6° to its nearest neighbors, EchoStar 10 and EchoStar 11.5 There will be an even greater

<sup>2</sup> See Stamp Grant, Skynet Satellite Corporation, IBFS File No. SAT-STA-20190830-00086, granted Sept. 5, 2019; see also extension by Stamp Grant, Skynet Satellite Corporation, IBFS File No. SAT-STA-20190911-00089, granted Oct. 5, 2019; extension by Stamp Grant, Skynet Satellite Corporation, IBFS File No. SAT-STA-20200316-00026, granted Apr 3, 2020; extension Stamp Grant, Skynet Satellite Corporation, IBFS File No. SAT-STA-20200925-00116, granted Oct 1, 2020; extension Stamp Grant, Skynet Satellite Corporation,

<sup>&</sup>lt;sup>1</sup> 47 CFR §25.120.

IBFS File No. SAT-STA-20201028-00125, granted Nov 12, 2020. ("Skynet Station-keeping STA"). 
<sup>3</sup> Stamp Grant, Skynet Satellite Corporation, call sign S2462, IBFS File No. SAT-MOD-20160513-00050, granted Aug 18, 2016.

<sup>&</sup>lt;sup>4</sup> See Skynet Station-keeping STA, condition 2.

<sup>&</sup>lt;sup>5</sup> The closest separation will occur when T12 and either of the other satellites are simultaneously at the closet edges of their respective station keeping boxes.

separation with the next closest neighbor, MSAT-1, which is controlled by Skynet's parent, Telesat.

The following statement concerning T12's health, which originally was made when Skynet applied to extend the license term for T12,6 remains valid: Although there have been anomalies, the overall health of Telstar 12 is good. Despite one of two command receivers having failed, a Redundant Command Unit ("RCU") software patch was uploaded that restored redundancy. While Telstar 12 experienced some solar array string failures that affected the total power available to the spacecraft, there has been no operational impact to date. Apart from some failures of payload units, all other satellite subsystems are functioning nominally. There is no single point of failure in the satellite's design; and with the RCU patch in place, the satellite has redundancy for critical systems, i.e., propulsion and tracking, command and telemetry.

The operation of Telstar 12 at 109.2° W.L is the subject of a Mutual Informal Understanding between the U.S. and Canadian Administrations under which the satellite is subject to Canadian authority, through a license held by Skynet's affiliate, Telesat Canada, from ISED.8 At the request of the International Bureau, Skynet also modified its FCC license for Telstar 12 to specify operation at 109.2° W.L.9 It is Skynet's understanding that the Bureau wanted Skynet to continue to hold an FCC license for Telstar 12 because the United States, in connection with the launch of Telstar 12, had registered the satellite under the UN Convention on Registration of Objects Launched into Outer Space.

Grant of Skynet's extension request is in the public interest as it will allow T12 to maximize spacecraft life and fuel. Given that T12 is currently operating in inclined orbit,<sup>10</sup> the additional proposed east-west movement is small relative to the north-south daily motion and will not impact services that utilize tracking antenna systems.

Accordingly, and for good cause shown, Skynet's STA extension request should be granted.

<sup>&</sup>lt;sup>6</sup> Skynet Satellite Corporation, call sign S2462, IBFS File No. SAT-MOD-20171106-00150, granted Mar. 8, 2018.

<sup>&</sup>lt;sup>7</sup> See Telesat Canada, Annual Report, SEC Form 20, available at https://www.sec.gov/Archives/edgar/data/1465191/000114420417012314/v457388\_20f.htm#tIOC, at 43.

<sup>&</sup>lt;sup>8</sup> Mutual Informal Understanding of the Administration of Canada and the Administration of the United States for the Operation of the Telstar 12 Satellite at the 109.2° W Orbital Position, Attachment to grant of Telstar 12 modification application, FCC File No. SAT-MOD-20160513-00050, dated August 18, 2016. 
<sup>9</sup> See FCC File No. SAT-MOD-20160513-00050.

<sup>&</sup>lt;sup>10</sup> See letter, dated April 19, 2016, from Joseph A. Godles, attorney for Skynet, to Marlene H. Dortch, Secretary, FCC.