

other proceeding relating to the 40 GHz band until after WRC-97 and until after the Commission has reviewed the results of the impending satellite filing window.

HCI realizes that the Commission has expressed an indication to move forward to designate the 47.2 - 48.2 GHz band for terrestrial use.<sup>57</sup> Though the text of the Commission's decision has not yet been released, the prospect of moving forward with this part of the band demonstrates the very danger of piecemeal implementation identified above. As the satellite industry's comments have demonstrated, the 47.2 - 48.2 GHz band is a vital portion of the 40 GHz satellite uplink band and designation of that band for terrestrial use would break up the existing, contiguous 3 GHz satellite uplink band in a manner that could have an adverse impact on the efficient use of the corresponding downlink band. And as a practical matter, spectrum above 50 GHz is not available to replace the 1 GHz to be designated for terrestrial use because spectrum above 50 GHz is not feasible for satellite use due to atmospheric signal degradation.

At the same time, other than the Sky Station application, no terrestrial interests have demonstrated a need or desire to utilize this band. Indeed, the Terrestrial TIA proposal leaves "open" the 400 MHz at 47.5 - 47.9 GHz.<sup>58</sup> HCI and other satellite companies believe that Sky Station can be accommodated quite adequately above 50.2 GHz.<sup>59</sup> And as TRW noted, Sky Station's spectrum requirements most likely could be satisfied with substantially less bandwidth

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<sup>57</sup> See Public Notice, FCC Makes Available 1 Gigahertz of Spectrum in 47 GHz Band for Public Commercial Use, Report WT 97-22 (rel. May 2, 1997). The Commission has not yet released the accompanying Report and Order.

<sup>58</sup> Terrestrial TIA Comments at 22, Appendix A.

<sup>59</sup> See Motorola Comments at 9; TRW Comments at 10-11, n. 6.

than the 600 MHz Sky Station has requested.<sup>60</sup> Therefore, by not waiting to review the comments in this comprehensive proceeding, the Commission has threatened to segment a contiguous band of spectrum that is vital to the satellite industry by designating a sub-band for terrestrial use at a location in the band that is not itself essential for any existing or planned terrestrial system.

Given the complexity of constructing an overall band plan, HCI also agrees with TRW that the Commission should refrain from issuing any further licenses for terrestrial systems in the 39.5 - 40.0 GHz band.<sup>61</sup> This band represents vital capacity for the future global satellite systems at 40 GHz because the European deployment of High Density Fixed Service has reportedly not progressed above 39.5 GHz. Due to the delayed implementation by U.S. terrestrial licensees in this band, the Commission has the opportunity to organize the band in a way that most appropriately aligns with the existing international use of the 40 GHz band and that preserves existing global satellite allocations. Further terrestrial licensing in this band, of course, could well prohibit such a satellite designation.

### **CONCLUSION**

The satellite-industry comments make plain that Commission's proposed 40 GHz band plan does not adequately support the range of future broadband satellite systems the will be necessary to satisfy the industry and consumer demand for the services they will provide. The satellite industry agrees that the Commission must designate a much larger block of 40 GHz spectrum for satellite systems and HCI submits that 4 GHz in each direction is the minimum

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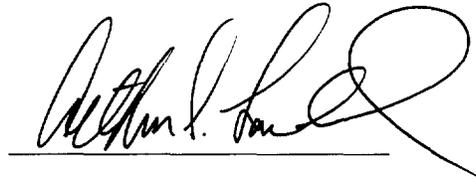
<sup>60</sup> See TRW Comments at 10-11, n. 6.

<sup>61</sup> TRW Comments at 9.

amount of 40 GHz spectrum necessary to sustain these next-generation broadband satellite systems. The satellite industry also agrees, quite rightly, that the Commission does not possess at this time the information that it needs to rationally segment the 40 GHz band. The results of WRC-97 and of the impending 40 GHz satellite filing window are both critical to the assessment of a rational and fair apportionment of the 40 GHz spectrum between the terrestrial and satellite interests. The Commission and the parties with a stake in the 40 GHz band would be ill-served by any action that affects use of the 40 GHz band prior to the receipt of this indispensable information. Therefore, the Commission should not take any action to implement spectrum designations in the 40 GHz band, and should defer further licensing in the 39.5 - 40.0 GHz sub-band, until it has further information that facilitates a rational disposition of the entire band.

Respectfully submitted,

HUGHES COMMUNICATIONS, INC.

A handwritten signature in black ink, appearing to read "Arthur S. Landerholm", written over a horizontal line.

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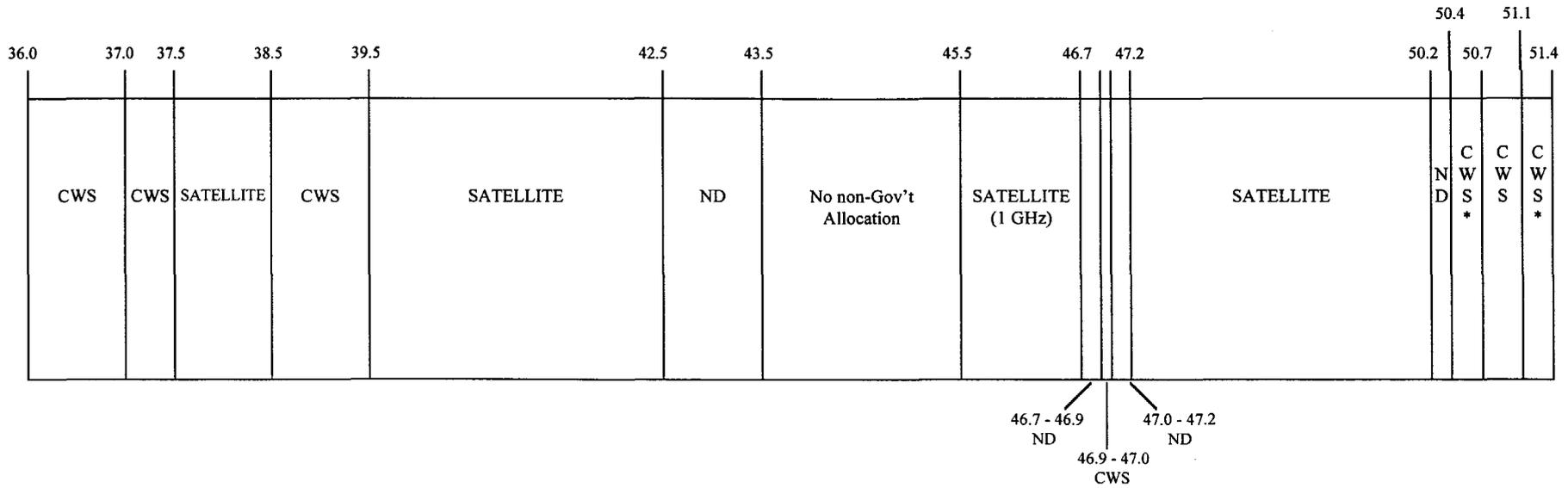
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# Appendix A

## Hughes Communications Alternative Band Plan U.S. Domestic Designations



KEY	
SATELLITE	= Satellite Services
CWS	= Commercial Wireless Service
ND	= No Designation at this Time
Uppercase letters	= Primary status

\* Stratospheric Repeater Systems, 50.4 -50.7 and 51.1 - 51.4 GHz