

G. Peter Carr
Senior Research Engineer
The Walt Disney Company
PO Box 10000
Lake Buena Vista, FL 32830

December 6, 2016

VIA OET EXPERIMENTAL LICENSING SYSTEM

Office of Engineering and Technology
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: Request for Information, Correspondence Reference No. 34750
Application of The Walt Disney Company for Experimental STA
File No. 1570-EX-ST-2016

The Walt Disney Company (“Disney”) hereby submits this letter to address issued raised in a request for information, Correspondence Reference No. 34750, by the Satellite Division of the International Bureau (“Bureau”) of the Federal Communications Commission (“FCC”) in connection with the above-referenced application (the “Application”) for Special Temporary Authority (“STA”).¹ Each of the Bureau’s inquiries is set forth below in italicized font, followed by Disney’s responses thereto.

1a) Will all 30 devices located in California operate simultaneously and transmit all the time?

All 30 devices located in California will operate simultaneously. Importantly, the transmitters are time division multiplexed, such that only a single device will be transmitting at any particular time, notwithstanding the fact that all 30 devices will be operated simultaneously.

1b) Will all 70 devices located in Florida operate simultaneously and transmit all the time?

All 70 devices located in Florida will operate simultaneously. Importantly, the transmitters are time division multiplexed, such that only a single device will be

¹ See Email from Doug Young, FCC, to G. Peter Carr, Request for Info – STA File #1570-EX-ST-2016 (Nov. 17, 2016).

transmitting at any particular time, notwithstanding the fact that all 70 devices will be operated simultaneously. In addition, note that over half of the devices in Florida will be deployed inside only, and will not be used outdoors.

2a) What is the maximum device antenna altitude for California?

The maximum device antenna altitude for California is 30 meters above ground level (“AGL”), but, as set forth in response to Question 3a, antennas in California will typically be operated at 15 meters AGL. Note that Disneyland has a ground elevation of 40 meters, which would result in a maximum device antenna altitude of 70 meters.

2b) What is the maximum device antenna altitude for Florida?

The maximum device antenna altitude for Florida will be 36 meters AGL for indoor antennas and 26.5 meters AGL for outdoor antennas. The aforementioned maximum device antenna altitudes assume the antenna is located at the highest point of the structure but, as set forth in response to Question 3b, antennas in Florida will typically be operated at 9 meters AGL. Note that Walt Disney World has a ground elevation of 25 meters, which would result in a maximum device antenna altitude of 61 meters AGL for indoor antennas, and 51.5 meters AGL for outdoor antennas.

3a) What is a typical antenna altitude in California?

The typical device antenna altitude for California is 15 meters AGL. Note that Disneyland has a ground elevation of 40 meters, which would result in a typical device antenna altitude of 55 meters.

3b) What is a typical antenna altitude in Florida?

A typical antenna altitude in Florida is 9 meters AGL. Note that Walt Disney World has a ground elevation of 25 meters, which would result in a typical device antenna altitude of 34 meters.

4a) Will all the devices operate close to each other or will they be randomly dispersing throughout the park?

See Exhibit A.²

5) In Lake Buena Vista, FL, there is one FSS earth station (E/S) license that in within the radius of 8.5 km. However, this FSS E/S license belong to Disney (Call Sign E7429, see attachment). Can Disney FSS E/S licensee can coordinate with the Disney experimental operator and inform the FCC that they have reached an agreement?

² Exhibit A contains confidential information and thus has been redacted from this Response.

Disney no longer operates earth station E7429 and, in February 2016, surrendered this license.³

6) In Lake Buena Vista, FL, there are three other FSS E/S licenses in close proximity to the radius of operation. Our analysis indicates that the 500MHz emission may not be possible for outdoor operations in the 3700-4200 MHz range giving the short separation distance from existing earth stations.

At this time, Disney does not intend to operate the devices using spectrum adjacent to the FSS earth stations in close proximity to the radius of operation in Lake Buena Vista, Florida in order to mitigate the potential for harmful interference to these earth stations.⁴

Sincerely,

/s/G. Peter Carr

G. Peter Carr

³ See IBFS File No. SUR-NDR-20160201-00007.

⁴ Disney understands that the Bureau is concerned with operations of devices in the vicinity of earth stations E7429, E960295, E050133, E080069, E130168, E4125, E4543, and E860163. As noted in response to Inquiry (5) above, Disney surrendered the license for earth station E7429.