## **Morgan Lewis**

#### **Timothy L. Bransford**

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#### **REDACTED - FOR PUBLIC INSPECTION**

October 1, 2020

#### **VIA ELS**

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street SW Washington, DC 20554

RE: File Number: 1497-EX-ST-2020

**Request for Confidential Treatment and** 

**Request for Special Temporary Authority Experimental Radio License** 

Dear Ms. Dortch:

On behalf of Loon LLC ("Loon"), enclosed please find attached a cover letter and exhibits in support of a Request for Special Temporary Authority related to the pending Application for an Experimental License in the above referenced file number.

Pursuant to 5 U.S.C. § 552 and Sections 0.457 and 0.459 of the Commission's Rules, 47 C.F.R. §§ 0.457, 0.459, Loon respectfully requests that the information attached hereto be treated as confidential and not subject to public inspection. The information and responses constitute confidential and proprietary information that, if subject to public disclosure, would cause significant commercial, economic, and competitive harm. As described below, Loon's request satisfies the standards for grant of such requests set forth in Sections 0.457 and 0.459 of the Commission's Rules.

Loon seeks confidential treatment for the unredacted/non-public versions of the following exhibits (together the "Exhibits"):

- 1. Exhibit A Narrative Statement
- 2. Exhibit B Technical Information
- 3. Exhibit C Pre-Coordination Correspondence

#### **REDACTED - FOR PUBLIC INSPECTION**

#### Identification of the Information for Which Confidential Treatment is Sought.

Loom seeks confidential treatment for the unredacted/non-public version of the information contained in the exhibits, which have been marked "CONFIDENTIAL - NOT FOR PUBLIC INSPECTION".

## Identification of the Commission proceeding in which the information was submitted or a description of the circumstances giving rise to the submission.

Loon is filing the enclosed Information in support of its Request for a Special Temporary Authority Experimental Radio Service License.

## Explanation of the degree to which the information is commercial or financial, or contains a trade secret or is privileged.

The enclosed information contains and reveals highly sensitive commercial information related to the proposed operations and such confidential information is not routinely available for public inspection and is not made publicly available in the ordinary course of business. This confidential information therefore qualifies for protection pursuant to Commission rules and the Administrative Procedure Act.

## Explanation of the degree to which the information concerns a service that is competitive.

The enclosed information contains closely guarded proprietary specifications related to the geographical footprint for end user or backhaul communications of Loons proposed services and operations and thus, such information is subject to vigorous competition from multiple U.S. and non-U.S. third parties.

### Explanation of how disclosure of the information could result in substantial competitive harm.

Disclosure of the redacted information contained in the enclosed information and responses would provide valuable insight into Loon's highly confidential proposed operations, business plans and strategies, and would cause substantial competitive harm to Loon's market position.

### Identification of any measures taken by the requesting party to prevent unauthorized disclosure.

The enclosed information and responses contains sensitive commercial information that is highly confidential and closely guarded. Loon takes significant care to ensure that such information is not released to competitors or the public.

Identification of whether the information is available to the public and the extent of any previous disclosures of the information to any third parties.

Marlene H. Dortch, Secretary October 1, 2020 Page 3

#### **REDACTED - FOR PUBLIC INSPECTION**

The disclosures contained in the enclosed information and responses is not available to the public, and has only been disclosed as necessary to limited third parties that are Loon technology partners, and under the expectation of confidentiality. Furthermore, such third parties may also have claims to assert that the information contained therein is confidential.

#### Justification of the requested period of confidentiality

Loon requests that the Commission withhold the enclosed information and responses out of public view for an indefinite period of time. Release of this information may cause substantial harm to Loon for the reasons set forth herein.

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To the extent you have questions or concerns related to this submission, please contact the undersigned.

Respectfully submitted,

/s/ Timothy Bransford

Timothy L. Bransford Counsel to Loon LLC

Loon LLC File No. 1497-EX-ST-2020 Exhibit A

#### **EXHIBIT A – NARRATIVE DISCUSSION**

Consistent with the standards set forth in Section 5.61 of the Federal Communications Commission's (FCC's or Commission's) Rules, 47 C.F.R. § 5.61, Loon LLC (Loon) requests a new Special Temporary Authority Experimental Radio Service License (Experimental License) and outlines below the compelling reasons why the application should be granted expeditiously.

#### Loon Background

Loon is working to develop High Altitude Platform Station (HAPS) systems as a transmission medium for connecting unserved and underserved communities around the world. Loon's unmanned HAPS balloons are capable of months-long flight at altitudes of approximately 20 kilometers. Depending on the application and configuration, Loon's balloons may be equipped with an energy-efficient communications payload that employs frequencies capable of supporting LTE-based transmissions for user access links, and/or, they may be equipped with E-band payloads for feeder link service. When configured for feeder link service, the balloons backhaul aggregated end user traffic to the Internet from local area networks employing LTE for last mile connectivity. Loon HAPS balloons serving end users directly can provide service over 13,000 square kilometers using standard LTE frequencies to communicate with terrestrial User Equipment (UE). Loon HAPS balloons employing E-band frequencies can establish point-to-point links exceeding 1000 kilometers by interconnecting multiple HAPS balloons. Given Loon's ability to expeditiously launch HAPS balloons that cover a large geographic footprint for end user or backhaul communications, our technology has demonstrated itself as a valuable transmission medium to restore mission critical communications after natural disasters.



1 of 2

Loon LLC File No. 1497-EX-ST-2020 Exhibit A



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Loon LLC File No. 1497-EX-ST-2020 Exhibit B

#### **EXHIBIT B - TECHNICAL INFORMATION**

**Applicant Name:** Loon LLC **Applicant FRN:** 0026885012

#### **Technical Contact Details**

Name of Contact:	Nikolai Chernyy		
<b>Contact Details:</b>	1600 Amphitheatre Parkway		
	Mountain View, CA 94043		
	Phone: 202-744-4910		
	Email: nchernyy@loon.com		
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Should any interference be reported, the proposed operator will cease transmissions immediately unless and until the interference incident has been resolved. The technical point of contact above has "kill switch" capability for all devices involved in the proposed conventional experimental license application ("License Application").

#### **Legal Contact Details**

Name of Contact:	Jeanette Kennedy
<b>Contact Details:</b>	1600 Amphitheatre Parkway
	Mountain View, CA 94043
	Phone: 650-495-6228
	Email: jtkennedy@loon.com



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#### **Station 1 – HAPS 3.5 GHz Terminal**

Radius of Operation	150 km
Geographic Centerpoint	40° 54' 21" N
(Lat / Long. NAD 83)	117° 48' 21" W
<b>Elevation (Meters)</b>	Not applicable / Maximum altitude of HAPS 80,000 AGL

Loon LLC File No. 1497-EX-ST-2020 Exhibit B

### **Station 1 / Transmitter 1**

Device Manufacturer & Model:	L-Com / HG3516DP
<b>Number of Transmitters:</b>	4 units

Tx Frequency Range / Tolerance	High (MHz)	Low (MHz)
	3500.0000	3400.0000

Frequency	Modulation	Emission	Bandwidth	Power Out	ERP
Range /		Designator	(MHz)	(Watts)	(Watts)
Tolerance					
	5G NR	100MW7W	Maximum	10.0 W	243 W
	(BPSK,		100.0		
	QPSK,				
	16QAM,				
	64QAM)				

Antenna Details	
Type	Dual-polarization
Quantity	4
Gain	16 dBi (@ 0 degrees from boresight)
Beam Width at Half-	18 degrees each from
Power Point	boresight, symmetric, four will be
	installed
Orientation in	Boresight pointing 18 degrees off nadir
Horizontal Plane	
Orientation in	Boresight pointing 18 degrees off nadir
Vertical Plane	

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Loon LLC 1497-EX-ST-2020 Exhibit C

### **EXHIBIT C**

### **REDACTED IN ITS ENTIRETY**