

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
Universal Space Network, Inc.) File No. _____
Letter of Intent for Authority to Operate a)
Receive-Only Earth Station Associated With a)
Non-U.S. Licensed Satellite at the Center)
Frequency 8090.0 MHz)
)
)

LETTER OF INTENT

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of)
Universal Space Network, Inc.) File No. _____
Letter of Intent for Authority to Access the)
U.S. Market Using a Non-U.S. License)
Satellite at the Center Frequency 8090.0)
MHz)
)

LETTER OF INTENT

Universal Space Network, Inc. (“USN”), pursuant to Section 25.137 of the Commission’s rules and the Commission’s *Space Station Licensing Reform Order*,¹ hereby files this Letter of Intent seeking authority to operate a receive-only fixed earth station in North Pole, AK (the “North Pole earth station”) that will receive signals from the PROBA-V satellite (“PROBA-V”) in order to assist the European Space Agency (“ESA”) and Swedish Space Corporation (“SSC”) with the collection of global environmental and agricultural monitoring images from the science instrument on PROBA-V using the center frequency 8090.0 MHz (space-to-Earth). USN provides in this Letter of Intent information required by 47 C.F.R. § 25.137 for applicants seeking to operate a receive-only earth station that will receive signals from non-U.S.-licensed spacecraft. Technical information relating to the proposed earth station is provided on the attached Schedule S.

¹ See *Amendment of the Commission’s Space Station Licensing Rules and Policies*, 18 FCC Rcd 10760, at ¶ 294 (2003) (“*Space Station Licensing Reform Order*”).

I. GRANTING USN's LETTER OF INTENT WILL SERVE THE PUBLIC INTEREST.

USN has previously demonstrated its qualifications as a Commission licensee of spacecraft and earth station networks. USN has a long history and extensive expertise in providing and developing satellite communications technologies for NASA, the U.S. Department of Defense, and other scientific research and commercial uses.

Granting USN's request for authorization to operate the North Pole earth station is in the public interest because the North Pole earth station supports the science research operations of PROBA-V. Launched on May 7, 2013, PROBA-V is a small satellite that was specifically designed to perform global environmental and agricultural monitoring.² PROBA-V captures image data that maps land cover and vegetation growth across the entire planet every two days, and provides images of most of Earth's landmasses every day. PROBA-V's satellite platform is controlled from ESA's Redu Centre in Belgium.³ The images that PROBA-V captures are used for science research that benefits the public interest, including climate impact assessments, water resource management, agricultural monitoring, and food security assessments.

In addition to vegetation monitoring, researchers and service providers use the data provided by PROBA-V for day-by-day tracking of extreme weather effects, alerting authorities to crop failures, monitoring inland water resources, and tracing the spread of deforestation and desert. The data that PROBA-V collects is downlinked to the North Pole earth station once per orbit, and is then relayed to the VITO Flemish Institute for Technological Research in Belgium

² See http://www.esa.int/Our_Activities/Observing_the_Earth/Proba-V/About_Proba-V.

³ See http://www.esa.int/Our_Activities/Operations/Redu_station.

(the “Flemish Institute”).⁴ Researchers at the Flemish Institute then process the data and distribute it to users.

USN has been operating the North Pole earth station to receive signals from PROBA-V since July 16, 2014 under several grants of Special Temporary Authority (“STA”) from the Commission. USN now wishes to obtain a standard 15-year authorization to operate the North Pole earth station. The North Pole earth station and PROBA-V are engaged exclusively in the scientific research described above, and will not impact the United States telecommunications market in any way. Especially because PROBA-V’s scientific research benefits the global community, granting USN’s request will serve the public interest.

II. MARKET ACCESS

A. **The Operations of PROBA-V and the North Pole Earth Station Are Not Commercial And Will Not Affect Competition in the United States Market.**

Section 25.137 of the Commission’s rules requires that applications proposing to use U.S.-licensed earth stations to communicate with foreign-licensed spacecraft demonstrate that the Commission’s policies for U.S. market access are satisfied.⁵ Since Section 25.137 is directed at situations when a non-U.S.-licensed satellite will “serve the United States,”⁶ this Section of the Commission’s rules does not apply to the North Pole earth station and its relationship with PROBA-V. While the data collected by PROBA-V will ultimately benefit the United States through its application in vegetation and climate studies, neither PROBA-V nor the North Pole earth station will be used for any commercial operations, or otherwise serve the United States

⁴ VITO stands for *Vlaamse Instelling voor Technologisch Onderzoek*, which is Dutch for *Flemish Institute for Technological Research*.

⁵ 47 C.F.R. § 25.137(a).

⁶ 47 C.F.R. § 25.137(a).

market directly in any way. USN is not seeking permission for the North Pole earth station to communicate with PROBA-V for purposes of providing service to the United States within the meaning of Section 25.137, and therefore Section 25.137 does not apply to this request.

To the extent the Commission disagrees with the above analysis, USN requests a waiver of the market access and other requirements imposed by Section 25.137 of the Commission's rules. The Commission may grant a waiver for good cause shown.⁷ Since the market access analysis described in Section 25.137 is intended to ensure that U.S.-licensed satellite systems have access to "effective competitive opportunities," and neither PROBA-V nor the North Pole earth station will compete in the United States or any other market, granting a waiver of Section 25.137 is appropriate and will not affect the objectives of this rule.⁸

B. PROBA-V and the North Pole Earth Station Satisfy the Commission's DISCO II Requirements.

Even if the Commission believes that a full analysis under the Commission's *DISCO II* framework applies to this Letter of Intent, USN's request should be granted because PROBA-V and the North Pole earth station satisfy the Commission's requirements.⁹ The *DISCO II* analysis includes consideration of a number of factors, such as the effect on competition in the United States, spectrum availability, eligibility requirements, technical requirements, national security,

⁷ 47 C.F.R. 1.3

⁸ 47 C.F.R. § 25.137(a).

⁹ See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, 12 FCC Rcd 24094, at ¶¶ 30-49 (1997) ("*DISCO II*").

law enforcement, foreign policy and trade concerns.¹⁰ Each of these factors weighs in favor of granting this Letter of Intent.

A. Effect on Competition in the United States

In *DISCO II*, the Commission established a rebuttable presumption that it will further competition in the United States to allow non-U.S. satellites authorized by WTO Members to provide services covered by the U.S. commitments under the WTO Basic Telecommunications Agreement.¹¹ PROBA-V is owned and operated by the ESA, an intergovernmental organization that operates in cooperation with the European Union via a Framework Agreement implemented in 2004.¹² The EU and ESA are subject to the WTO Basic Telecommunications Agreement, and so the presumption in favor of entry applies to this request.

B. Spectrum Availability

This Letter of Intent requests authorization for the North Pole earth station to receive signals from PROBA-V using the center frequency 8090.0 MHz (space-to-Earth). The North Pole earth station will be receive-only: it will not transmit any signals using this frequency. USN does not request protection for this frequency, and understands that there is a potential for interference from Government users in this band.

C. National Security, Law Enforcement, and Public Safety Matters

Grant of this Letter of Intent is consistent with U.S. national security, law enforcement, and public safety considerations. PROBA-V's authorization is held by the ESA, which promotes

¹⁰ See, e.g., *Telesat Canada, Petition for Declaratory Ruling for Inclusion of Anik F2 on the Permitted Space Station List, Petition for Declaratory Ruling to Serve the U.S. Market Using Ka-band Capacity on Anik F2*, 17 FCC Rcd 25287, at ¶ 6 (2002).

¹¹ *DISCO II*, at ¶ 39; see also 47 C.F.R. § 25.137(a)(2).

¹² See <http://ec.europa.eu/DocsRoom/documents/2894/attachments/1/translations/en/renditions/native>.

space research and technology for exclusively peaceful purposes. Similarly, USN has a long history of providing satellite communication services to U.S. government users, including NASA, to further scientific research. The data received by the North Pole earth station enables researchers around the globe to closely monitor the status of climate and its impact on vegetation, and availability of agricultural and water resources, all which impact national security and public safety in a myriad of ways. Therefore, granting USN's request will benefit public safety and national security in the United States.

III. LEGAL AND TECHNICAL INFORMATION

A. Legal Qualifications

USN's legal qualifications are set forth in this Letter of Intent and in the attached Form 312. Specifically, the Letter of Intent and attached Form 312 demonstrate USN's satisfaction of the applicable requirements for receive-only earth station applicants set forth in Section 25.137 of the Commission's rules.¹³ As noted above, USN holds several Commission licenses, and its legal qualifications are a matter of record before the Commission. USN supports a similar U.S.-licensed spacecraft under authorization E110171 and formerly also under authorization E120040.

B. Technical Qualifications

Included with this Letter of Intent is the Schedule S for this request, which includes the required Part 25 technical information.

¹³ See 47 C.F.R. § 25.114.

IV. ADDITIONAL REQUIREMENTS

A. Milestones and Bond Requirement

It is USN's understanding that the ESA will continue to operate the PROBA-V spacecraft in compliance with the Commission's milestones established in the *Satellite Licensing Reform Order*.¹⁴ As discussed above, PROBA-V was launched in May 2013 and has been operating in accordance with these milestones since that time.

B. Reporting Requirements

USN will comply with all applicable reporting requirements for the North Pole earth station, and will work with the ESA to ensure that all applicable reporting requirements are met for PROBA-V.

C. Spectrum Usage

This request for market access is consistent with the limits of Section 25.137(d)(5) of the Commission's rules.

D. Ownership Information

USN is a United States-based subsidiary of SSC, which is a Swedish corporation. USN operates as an independent U.S. corporation under a Special Security Agreement with the Defense Security Service, with United States government approval and oversight, and is headquartered at 417 Caredean Drive, Suite A, Horsham, PA, 19044. The following are the officers and directors of USN, all of whom can be reached c/o USN at the address above.

Directors

Eric J. Zahler, Chairman
James W. Cuminale
Lt. Gen (Ret) Michael Hamel
Stefan Gardefjord

¹⁴ See 47 C.F.R. § 25.137(d)(4). See also *Space Station Licensing Reform Order*, at ¶ 311.

Åse Lagerqvist

Officers/Senior Management

John E. Williams, President and CEO

Anita M. Primo, Vice President, Finance and Administration, and CFO

Stephen M. Tanous, Vice President, Operations and Engineering


Erik J. Eliassen, Vice President, National Security Space Programs and Strategy

Dave Massey, Chief Technologist

V. CONCLUSION

For the foregoing reasons, granting USN's Letter of Intent seeking authority to operate the North Pole earth station to receive data from the PROBA-V satellite under the authority of the ESA will serve the public interest, convenience, and necessity. USN respectfully requests that the Commission promptly grant this Letter of Intent.

Respectfully submitted,

/s/ 

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Erin Chesney

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Suite 750

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(202) 442-3518

Counsel for Universal Space Network, Inc.



**UNIVERSAL SPACE
NETWORK**

Agreement of Coordination

Agreement between Universal Space Network, Inc. (USN) and Planet Labs, Inc. in support of coordination between USN and Planet Labs to allow for the payload “receive only” support of the European Space Agency’s Proba-V spacecraft at USN’s ground station in North Pole Alaska:

AGREED:

That the undersigned, Planet Labs, Inc. and Universal Space Network, Inc. (USN), hereby concur that USN’s payload “receive only” services in support of the European Space Agency’s Proba-V satellite mission as the spacecraft traverses over USN’s North Pole Alaska ground station is not causing interference to Planet Labs’ missions and that USN can continue to perform such services without causing interference to each other.

PLANET LABS, INC.

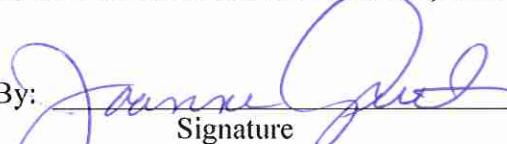
By: 
Signature

Name: Michael Safyan

Title: Director of Launch and Regulatory Affairs

Date: 5/14/2015

UNIVERSAL SPACE NETWORK, INC.

By: 
Signature

Name: JOANNE GREET

Title: MGR. CONTRACTS & COMPLIANCE

Date: 5/15/2015



UNIVERSAL SPACE NETWORK

jgreet@uspacenet.com

Agreement of Coordination

Agreement between Universal Space Network, Inc. ("USN") and DigitalGlobe Corporation ("DG") in support of coordination between USN and DG to allow for the payload "receive only" support of the European Space Agency's Proba-V spacecraft at USN's ground station in North Pole Alaska:

AGREED:

That each of the undersigned DigitalGlobe Corporation and Universal Space Network, Inc. hereby acknowledges that as of the date of this Agreement it has not observed harmful interference to DG operations resulting from USN's payload "receive only" services in support of the European Space Agency's Proba-V satellite mission as the spacecraft traverses over USN's North Pole Alaska ground station (the "USN Services"); and

That in the event harmful interference to DG operations from the USN Services is observed in the future, the parties hereby agree to negotiate immediately in good faith the means to mitigate such interference from reoccurring.

DIGITALGLOBE CORPORATION

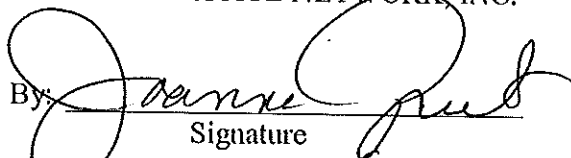
By: 
Signature

Name: Anthony Mann

Title: Manager of Remote Ground Stations

Date: 6/22/2015

UNIVERSAL SPACE NETWORK, INC.

By: 
Signature

Name: JOANNE GREET

Title: Mgr. CONTRACTS + COMPLIANCE

Date: 6/22/2015