# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4713649

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	THIRD AMENDMENT TO PATENT SECURITY AGREEMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DURHAM GEO-ENTERPRISES INC.	11/30/2017
ROCTEST LTD.	11/30/2017

### **RECEIVING PARTY DATA**

Name:	SILICON VALLEY BANK	
Street Address:	3003 TASMAN DRIVE	
Internal Address:	HF 150	
City:	SANTA CLARA	
State/Country:	CALIFORNIA	
Postal Code:	95054	

### **PROPERTY NUMBERS Total: 15**

Property Type	Number
Patent Number:	7002696
Patent Number:	9574949
Patent Number:	6842254
Patent Number:	7897406
Patent Number:	7684657
Patent Number:	6934015
Patent Number:	6933490
Patent Number:	8559770
Patent Number:	7355163
Patent Number:	8005323
Patent Number:	6417926
Patent Number:	6380534
Patent Number:	6285446
Patent Number:	7865044
Patent Number:	7813898

### **CORRESPONDENCE DATA**

**Fax Number:** (800)494-7512

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

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504666927 REEL: 044592 FRAME: 0340

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 800-494-5225

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Correspondent Name: STEWART WALSH

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130

Address Line 2: COGENCY GLOBAL INC.
Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	F174098
NAME OF SUBMITTER:	ANDREW NASH
SIGNATURE:	/Andrew Nash/
DATE SIGNED:	12/01/2017

## **Total Attachments: 12**

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#### THIRD AMENDMENT TO PATENT SECURITY AGREEMENT

This third AMENDMENT TO PATENT SECURITY AGREEMENT (this "Amendment"), dated as of November 30, 2017, is entered into by and among DURHAM GEO-ENTERPRISES INC., a Georgia corporation, ROCTEST LTD., a British Columbia corporation, and each of the signatories hereto (together with any other entity that may become a party hereto as provided herein, each a "Grantor") and SILICON VALLEY BANK, as Administrative Agent (in such capacity, the "Assignee") pursuant to (i) that certain Guarantee and Collateral Agreement, dated as of February 21, 2013 (as amended, amended and restated, supplemented, restructured or otherwise modified, renewed or replaced from time to time, the "Domestic Guarantee and Collateral Agreement"), among Assignee and the Grantors, (ii) that certain Credit Agreement, dated as of February 21, 2013, amended on April 1, 2013, further amended on November 4, 2014, further amended on December 4, 2015, further amended on January 5, 2017, and further amended as of the date hereof entered into by and among the Grantors, Assignee, and the Lenders party thereto.

WHEREAS, reference is made to that certain Patent Security Agreement dated as of February 21, 2013 (as amended, amended and restated, supplemented, restructured or otherwise modified, renewed or replaced from time to time, the "Original Patent Agreement"), among Assignee and the Grantors, pursuant to which each Grantor granted to Assignee, for the ratable benefit of the Secured Parties, a security interest in all of such Grantor's right, title and interest in, to and under certain Patents (as defined in the Patent Agreement), including, without limitation, those described on Schedule A annexed thereto, which Patent Agreement was recorded with the United States Patent and Trademark Office on February 22, 2013 at Reel 029855, Frame 0271;

WHEREAS, reference is made to that certain First Amendment to Patent Security Agreement dated as of November 4, 2014 (the "First Amendment"), among Assignee and the Grantors, pursuant to which each Grantor granted to Assignee, for the ratable benefit of the Secured Parties, a security interest in all of such Grantor's right, title and interest in, to and under certain Patents (as defined in the Patent Agreement), including, without limitation, those described on <u>Schedule A-1</u> annexed thereto, which First Amendment was recorded with the United States Patent and Trademark Office on December 16, 2014 at Reel 034648, Frame 0730;

WHEREAS, reference is made to that certain Second Amendment to Patent Security Agreement dated as of December 4, 2015 (the "Second Amendment", and together with the Original Patent Agreement and the First Amendment, as amended, amended and restated, supplemented, restructured or otherwise modified, renewed or replaced from time to time the "Patent Agreement"), among Assignee and the Grantors, pursuant to which each Grantor granted to Assignee, for the ratable benefit of the Secured Parties, a security interest in all of such Grantor's right, title and interest in, to and under certain Patents (as defined in the Patent Agreement), including, without limitation, those described on Schedule A-2 annexed thereto, which Second Amendment was recorded with the United States Patent and Trademark Office on December 8, 2015 at Reel 037221, Frame 0276; and

WHEREAS, the Grantors and Assignee wish to amend the Patent Agreement as set forth herein;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Grantor and Assignee hereby agree as follows:

- 1. <u>Schedule A</u> to the Patent Agreement is hereby amended by adding the Patents listed on <u>Schedule A-3</u> attached hereto (the "<u>Additional Patents</u>"), which such Additional Patents, together with (i) all reissues and extensions of any letters patent described on such schedule and all goodwill associated with such letters patent, reissues and extensions, (ii) all divisions, continuations and continuations-in-part of any applications for letters patent described on such schedule, and (iii) all rights to obtain any reissues or extensions of the foregoing, shall be and become part of the "Patents" referred to in the Patent Agreement and <u>Schedule A, Schedule A-1</u> and <u>Schedule A-2</u> attached to the Original Patent Agreement, the First Amendment and the Second Amendment, respectively, and shall secure all Secured Obligations.
- 2. Grantors hereby: (a) reaffirm all prior grants of security interests in favor of Assignee in all of such Grantor's right, title, and interest in, to, and under the Patents identified on <u>Schedule A</u> to the Original Patent Agreement, <u>Schedule A-1</u> to the First Amendment and <u>Schedule A-2</u> to the Second Amendment prior to the effectiveness of this Amendment, and (b) represent and warrant that <u>Schedule A</u> to the Patent Agreement, as amended by <u>Schedule A-1</u> attached to the First Amendment, as amended by <u>Schedule A-3</u> attached to the Second Amendment, and as amended by <u>Schedule A-3</u> attached hereto, contains a true and accurate list of all of each Grantor's Patents existing as of the date hereof
- 3. The Patent Agreement, as amended hereby, is and shall remain in full force and effect. This Amendment shall constitute a Loan Document for all purposes. Capitalized terms not otherwise defined herein have the respective meanings ascribed to them in the Guarantee and Collateral Agreement, the Credit Agreement or the Patent Agreement, as applicable.
- 4. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK. Each Grantor hereby irrevocably and unconditionally:
  - (a) submits to the exclusive jurisdiction of the State and Federal courts in the Southern District of the State of New York; provided that nothing in this Amendment shall be deemed to operate to preclude the Administrative Agent or any Lender from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Administrative Agent or such Lender. Each Grantor hereby expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Each Grantor hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to the Loan Parties at the address set forth in Section 10.2 of the Credit Agreement and that service so made shall be deemed completed upon the earlier to occur of your actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid;
  - (b) WAIVES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AMENDMENT, THE OTHER LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER

- IS A MATERIAL INDUCEMENT FOR THE ADMINISTRATIVE AGENT TO ENTER INTO THIS AMENDMENT. EACH GRANTOR HAS REVIEWED THIS WAIVER WITH ITS COUNSEL; and
- (c) waives, to the maximum extent not prohibited by law, any right it may have to claim or recover in any legal action or proceeding referred to in this Amendment any special, exemplary, punitive or consequential damages.
- 5. This Amendment may be executed by one or more of the parties to this Amendment on any number of separate counterparts (including by facsimile and/or electronic mail), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

[Signature pages follow.]

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IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:	Address of Grantor:
By: Name: Janet Barbookles Title: Director and Secretary	2175 West Park Court Stone Mountain, GA 30087 Attention: Janet Barbookles Facsimile No.: 781-897-1218 E-mail: janbarbookles@novang.com
By: Janet Barbookles Title: Director	680 Birch Street Saint-Lambert, Quebec J4P 2N3, Canada Attention: Janet Barbookles Facsimile No.: 781-897-1218 E-mail: janbarbookles@novang.com
NOVA METRIX (LUXEMBOURG) S.A.R.L.  Société à responsabilité limitée  Registered office: 51, allée Scheffer, L-2520 Luxembourg  R.C.S. Luxembourg: B 155364  Share Capital: EUR 12,500	51, Allée Scheffer L-2520, Luxembourg Attention: Facsimile No.: E-mail:
By: Name:	

Signature Page to Third Amendment to Patent Security Agreement

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:	Address of Grantor:
DURHAM GEO-ENTERPRISES INC.	2175 West Park Court Stone Mountain, GA 30087 Attention: Janet Barbookles
By:	Facsimile No.: 781-897-1218
Title:	E-mail: janbarbookles@novang.com
ROCTEST LTD.	680 Birch Street
	Saint-Lambert, Quebec J4P 2N3, Canada Attention: Janet Barbookles
Ву:	Facsimile No.: 781-897-1218
Name:	E-mail: janbarbookles@novang.com
NOVA METRIX (LUXEMBOURG) S.A.R.L.  Société à responsabilité limitée Registered office: 51, allée Scheffer, L-2520 Luxembourg R.C.S. Luxembourg: B 155364 Share Capital: EUR 12,500  By:	51, Ailée Scheffer L-2520, Luxembourg Attention: Facsimile No.: E-mail:
Name: Enpoint Jane	
Title: <u>Jole Marafl</u>	
Rep. by duile MKHLOUF,	
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Signature Page to Third Amendment to Patent Security Agreement

# **NOVA METRIX CORPORATION** 500 Edgewater Drive, Suite 585 Wakefield, MA 01880 Attention: Janet Barbookles By: Facsimile No.: 781-897-1218 Name: E-mail: janbarbookles@novang.com Title: Director and Secretary NOVA METRIX (CANADA) CORP. 550 Burrard St., Suite 2900 Vancouver, BC V6C 0A3, Canada Attention: Janet Barbookles By: Facsimile No.: 781-897-1218 Name: Janet Barbookles E-mail: janbarbookles@novang.com Title: Director FISO TECHNOLOGIES INC. 500 av. Saint-Jean-Baptiste, Suite 195 Quebec City, QC G2E 5R9, Canada Attention: Janet Barbookles By: Facsimile No.: 781-897-1218 Name: Janet)Barbookles E-mail: janbarbookles@novang.com Title: Director SENSORNET LIMITED Unit 340, Phase 300 Centennial Park, Elstree, Hertfordshire WD6 3TJ **United Kingdom** By: Attention: Janet Barbookles Name: Janet Barbookles

Title:

<u>Director</u>

Facsimile No.: 781-897-1218

E-mail: janbarbookles@novang.com

NOVA METRIX GROUND MONITORING (CANADA) CORP.  By: Name: Janet Barbookles Title: Director	550 Burrard St., Suite 2900 Vancouver, BC V6C 0A3, Canada Attention: Janet Barbookles Facsimile No.: 781-897-1218 E-mail: janbarbookles@novang.com
By: Name: Janet Barbookles Title: Director	Delftechpark 20 2628 XH Delft The Netherlands Attention: Janet Barbookles Facsimile No.: 781-897-1218 E-mail: janbarbookles@novang.com
NOVA METRIX (NETHERLANDS), B.V.  By:  Janet Barbookles	Delftechpark 20 2628 XH Delft The Netherlands Attention: Janet Barbookles Facsimile No.: 781-897-1218

Director

Title:

E-mail: janbarbookles@novang.com

ASSIGNEE:

SILICON VALLEY BANK

Ву:

Name: Jordan Salmijan Title: Vice President

Signature Page to Third Amendment to Patent Security Agreement

# SCHEDULE A-3

# **Issued Patents**

Name of Loan Party	Jurisdiction	Patent No.	Issue Date	Title
Roctest Ltd.	United States	7,002,696	February 21, 2006	BAND PASS INTERFEROMETER WITH TUNING CAPABILITIES
Roctest Ltd.	United States	9,574,949	February 21, 2017	AUTOMATED SYSTEM AND METHOD FOR TESTING THE EFFICACY AND RELIABILITY OF DISTRIBUTED TEMPERATURE SENSING SYSTEMS
FISO Technologies Inc.	Canada	2,499,021	May 1, 2007	SYSTEM AND METHOD OF MEASURING AN OPTICAL PATH DIFFERENCE IN A SENSING INTERFEROMETER
FISO Technologies Inc.	United States	6,842,254	January 11, 2005	SYSTEM AND METHOD FOR MEASURING AN OPTICAL PATH DIFFERENCE IN A SENSING INTERFEROMETER
FISO Technologies Inc.	Canada	2,509,909	May 24, 2011	METHOD AND SENSOR FOR DETECTING A CHEMICAL SUBSTANCE USING AN OPTICALLY ANISOTROPIC MATERIAL
FISO Technologies Inc.	United States	7,897,406	March 1, 2011	METHOD AND SENSOR FOR DETECTING A CHEMICAL SUBSTANCE USING AN OPTICALLY ANISOTROPIC MATERIAL
FISO Technologies Inc.	United States	7,684,657	March 23, 2010	SINGLE PIECE FABRY- PEROT OPTICAL SENSOR AND METHOD OF MANUFACTURING THE SAME
FISO Technologies Inc.	Sweden	SE514745	April 9, 2001	FÖRFARANDE OCH ANORDNING FÖR BÖJKOMPENSATION VID INTENSITETSBASERADE OPTISKA MÄTSYSTEM

Name of Loan Party	Jurisdiction	Patent No.	Issue Date	Title
FISO Technologies Inc.	United States	6,934,015	August 23, 2005	METHOD AND A DEVICE FOR BENDING COMPENSATION IN INTENSITY-BASED FIBRE- OPTICAL MEASURING SYSTEMS
FISO Technologies Inc.	United States	6,933,490	August 23, 2005	METHOD AND DEVICE FOR FIBER-OPTICAL MEASURING SYSTEMS
FISO Technologies Inc.	United States	8,559,770	October 15, 2013	FABRY-PEROT OPTICAL SENSOR AND METHOD OF MANUFACTURING THE SAME
FISO Technologies Inc.	European Patent Office (EPO)  (in force in Germany, U.K. and France)	EP 1203211	August 21, 2016	METHOD AND DEVICE FOR FIBRE-OPTICAL MEASURING SYSTEMS
FISO Technologies Inc.	European Patent Office (EPO)  (in force in Germany, U.K. and France)	EP 1929249	October 12, 2016	SINGLE PIECE FABRY- PEROT OPTICAL SENSOR AND METHOD OF MANUFACTURING THE SAME
Sensornet Limited	United States	7,355,163	April 8, 2008	DIRECT MEASUREMENT OF BRILLOUIN FREQUENCY IN DISTRIBUTED OPTICAL SENSING SYSTEMS
Sensornet Limited	Japan	4943320	March 9, 2012	DIRECT MEASUREMENT OF BRILLOUIN FREQUENCY IN DISTRIBUTED OPTICAL SENSING
Sensornet Limited	United States	8,005,323	August 23, 2011	METHOD AND APPARATUS FOR GENERATION AND TRANSMISSION OF HIGH ENERGY OPTICAL PULSES FOR LONG RANGE MEASUREMENTS

Name of Loan Party	Jurisdiction	Patent No.	Issue Date	Title
Sensornet Limited	European Patent Office (in force in U.K. only)	EP 1604174	July 21, 2010	METHOD AND APPARATUS FOR GENERATION AND TRANSMISSION OF HIGH ENERGY OPTICAL PULSES FOR LONG RANGE MEASUREMENTS
Sensornet Limited	Canada	2,515,705	Dec 18, 2012	METHOD AND APPARATUS FOR GENERATION AND TRANSMISSION OF HIGH ENERGY OPTICAL PULSES FOR LONG RANGE MEASUREMENTS
Sensornet Limited	Canada	2,295,780	June 19, 2007	WAVELENGTH MEASURING SYSTEM
Sensornet Limited	United States	6,417,926	July 9, 2002	WAVELENGTH MEASURING SYSTEM
Sensornet Limited	European Patent Office (in force in Germany, U.K., Switzerland)	EP 998662	November 8, 2006	WAVELENGTH MEASURING SYSTEM
Sensornet Limited	Japan	3780322	May 31, 2006	DISTRIBUTED STRAIN AND TEMPERATURE SENSING SYSTEM
Sensornet Limited	Canada	2,274,505	September 27, 2005	DISTRIBUTED STRAIN AND TEMPERATURE SENSING SYSTEM
Sensomet Limited	Canada	2,563,597	February 18, 2014	DIRECT MEASUREMENT OF BRILLOUIN FREQUENCY IN DISTRIBUTED OPTICAL SENSING SYSTEMS
Sensornet Limited	United States	6,380,534	April 30, 2002	DISTRIBUTED STRAIN AND TEMPERATURE SENSING SYSTEM
Sensomet Limited	European Patent Office (in force in Germany, U.K., Switzerland)	EP 0944813	October 6, 2004	DISTRIBUTED STRAIN AND TEMPERATURE SENSING SYSTEM
Sensornet Limited	Canada	2, 288,746	July 11, 2006	DISTRIBUTED SENSING SYSTEM
Sensornet Limited	United States	6,285,446	September 4, 2001	DISTRIBUTED SENSING SYSTEM
Sensornet Limited	European Patent Office (in force in Germany, U.K., France)	EP 983486	August 31, 2005	DISTRIBUTED SENSING SYSTEM

Name of Loan Party	Jurisdiction	Patent No.	Issue Date	Title
	European Patent Office			DIRECT MEASUREMENT OF BRILLOUIN FREQUENCY IN
Sensornet Limited	(in force in Germany, U.K., France, Switzerland)	EP 1756527	June 8, 2014	DISTRIBUTED OPTICAL SENSING SYSTEMS
Sensornet Limited	United Kingdom	GB 2446334	September 7, 2011	SENSING SYSTEM USING OPTICAL FIBER SUITED TO HIGH TEMPERATURES
Sensornet Limited	United Kingdom	GB 2477241	March 14, 2012	SENSING SYSTEM USING OPTICAL FIBER SUITED TO HIGH TEMPERATURES
Sensornet Limited	United States	7,865,044	January 4, 2011	SENSING SYSTEM USING OPTICAL FIBER SUITED TO HIGH TEMPERATURES
Sensornet Limited	United States	7,813,898	October 12, 2010	PROCESSING SENSING MEASUREMENTS

PATENT REEL: 044592 FRAME: 0353

**RECORDED: 12/01/2017**