

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM332932

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
ORBITAL SCIENCES CORPORATION		02/09/2015	CORPORATION: DELAWARE
RECEIVING PARTY DATA			
Name:	BANK OF AMERICA, N.A.		
Street Address:	101 N TRYON ST		
Internal Address:	ONE INDEPENDENCE CENTER		
City:	CHARLOTTE		
State/Country:	NORTH CAROLINA		
Postal Code:	28255		
Entity Type:	NATIONAL ASSOCIATION: UNITED STATES		
PROPERTY NUMBERS Total: 14			
Property Type	Number	Word Mark	
Registration Number:	3836239	INNOVATION YOU CAN COUNT ON	
Registration Number:	3671692	INNOVATION YOU CAN COUNT ON	
Registration Number:	2950528	HOTBENCH INTEGRATED TESTBED	
Registration Number:	2904294	POWERPADDLE	
Registration Number:	2904293	STIC	
Registration Number:	2946869	TRANSITION MODULE	
Registration Number:	2905728	SPECTRUM TRANSITION INTERFACE CARD	
Registration Number:	2264116	ORBITAL	
Registration Number:	1345713	OSC	
Registration Number:	1604510	PEGASUS	
Registration Number:	1605972	PEGASUS	
Registration Number:	1605426	PEGASUS	
Registration Number:	1604987	PEGASUS	
Registration Number:	1793206	TAURUS	
CORRESPONDENCE DATA			
Fax Number:	6508385109		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent</i>			

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

Phone: 650-838-3743
Email: JLIK@SHEARMAN.COM
Correspondent Name: BENJAMIN PETERSEN
Address Line 1: 3000 EL CAMINO REAL, 6TH FLOOR
Address Line 2: SHEARMAN & STERLING LLP
Address Line 4: PALO ALTO, CALIFORNIA 94306

ATTORNEY DOCKET NUMBER:	3232/606
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NAME OF SUBMITTER:	BENJAMIN PETERSEN
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SIGNATURE:	/BENJAMIN PETERSEN/
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DATE SIGNED:	02/23/2015
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Total Attachments: 10

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, amended and restated, supplemented or otherwise modified from time to time, the “*IP Security Agreement*”) dated February 9, 2015, is made by the Persons listed on the signature pages hereof (collectively, the “*Grantors*”) in favor of Bank of America, N.A. (“*Bank of America*”), as Administrative Agent (the “*Administrative Agent*”) for the Secured Parties (as defined in the Credit Agreement referred to below).

WHEREAS, Orbital ATK, Inc., a Delaware corporation (f/k/a Alliant Techsystems Inc.) (the “*Borrower*”), has entered into a Third Amended and Restated Credit Agreement dated as of November 1, 2013 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), with Bank of America, N.A., as Administrative Agent, and the other Agents and the Arrangers party thereto. Terms defined in the Credit Agreement and not otherwise defined herein are used herein as defined in the Credit Agreement.

WHEREAS, the Borrower and certain of its affiliates (the “*Existing Grantors*”) are parties to that certain Third Amended and Restated Security Agreement dated November 1, 2013 made by the Existing Grantors in favor of the Administrative Agent (as amended, amended and restated, supplemented or otherwise modified from time to time, the “*Security Agreement*”).

WHEREAS, the Grantors have executed and delivered that certain Security Agreement Supplement, pursuant to which the Grantors have agreed to join the Security Agreement as grantors and have granted to the Administrative Agent, for the ratable benefit of the Secured Parties, a security interest in, among other property, certain intellectual property of the Grantors, and have agreed as a condition thereof to execute this IP Security Agreement for recording with the U.S. Patent and Trademark Office, the U.S. Copyright Office and other governmental authorities.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor agrees as follows:

1. Grant of Security. Each Grantor hereby grants to the Administrative Agent for the ratable benefit of the Secured Parties a security interest in all of such Grantor’s right, title and interest in and to the following (the “*Collateral*”):

(a) the patents and patent applications set forth on Schedule A hereto (the “*Patents*”);

(b) the trademark and service mark registrations and applications set forth on Schedule B hereto (provided that no security interest shall be granted in United States intent-to-use trademark applications to the extent that, and solely during the period in which, the grant of a security interest therein would impair the validity or enforceability of such intent-to-use trademark applications under applicable federal law), together with the goodwill symbolized thereby (the “*Trademarks*”);

(c) all copyrights, whether registered or unregistered, now owned or hereafter acquired by such Grantor, including, without limitation, the copyright registrations and applications set forth on Schedule C hereto (the “*Copyrights*”);

(d) all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the foregoing, all rights in the foregoing provided by international treaties or conventions, all rights corresponding thereto throughout the world and all other rights of any kind whatsoever of such Grantor accruing thereunder or pertaining thereto;

(e) any and all claims for damages and injunctive relief for past, present and future infringement, dilution, misappropriation, violation, misuse or breach with respect to any of the foregoing, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and

(f) any and all proceeds of, collateral for, income, royalties and other payments now or hereafter due and payable with respect to, and supporting obligations relating to, any and all of the Collateral of or arising from any of the foregoing.

2. Security for Obligations. The grant of a security interest in, the Collateral by each Grantor under this IP Security Agreement secures the payment of all Obligations of such Grantor now or hereafter existing under or in respect of the Loan Documents, whether direct or indirect, absolute or contingent, and whether for principal, reimbursement obligations, interest, premiums, penalties, fees, indemnifications, contract causes of action, costs, expenses or otherwise.

3. Recordation. Each Grantor authorizes and requests that the Register of Copyrights, the Commissioner for Patents and Trademarks and any other applicable U.S. government officer record this IP Security Agreement.

4. Execution in Counterparts. This IP Security Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

5. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Administrative Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein.

6. Governing Law. This IP Security Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

IN WITNESS WHEREOF, the undersigned has caused this IP Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

ORBITAL SCIENCES CORPORATION

By: 

Name: Garrett E. Pierce

Title: Chief Financial Officer

Address for Notices:

45101 Warp Drive

Dulles, Virginia 20166

Attn: Michael Williams, Senior

Vice President and Treasurer

With copies to:

45101 Warp Drive

Dulles, Virginia 20166

Attn: General Counsel

Intellectual Property Security Agreement (Orbital)

TRADEMARK

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**Schedule A
Patents**

U.S. Issued Patents

Title	Application/ Serial No.	Patent No.	Issue Date	Owner
Axially Arrayed Helical Antenna	08/191,247	5,587,719	December 24, 1996	Orbital Sciences Corporation
Battery Charge Control Method	08/997,923	5,834,923	November 10, 1998	Orbital Sciences Corporation
Carrier Suppression Type Modulator with Encoded Modulating Signals	10/856,801	7,369,624	May 6, 2008	Orbital Sciences Corporation
Deployable Helical Antenna	08/642,454	5,721,558	February 24, 1998	Orbital Sciences Corporation
Distributive Multiplexer For Space Applications	10/456,317	6,707,350	March 16, 2004	Orbital Sciences Corporation
Electronic Safe/Arm System and Methods of Use Thereof	12/778,046	8,573,124 B2	November 5, 2013 (expected expiration date of May 6, 2031)	Orbital Sciences Corporation
Emergency Communications Channel System and Method for Satellite Command	13/438,377	8,483,888	July 9, 2013 (expected expiration date of April 3, 2032)	Orbital Sciences Corporation
Flexible Feed Line for an Antenna Systems	08/362-047	5,668,565	September 16, 1997	Orbital Sciences Corporation

Intellectual Property Security Agreement (Orbital)

Title	Application/ Serial No.	Patent No.	Issue Date	Owner
Frangible Joint Separation System	08/970,363	5,390,606	February 21, 1995	Orbital Sciences Corporation
Method and Receiver for Coded Satellite Digital Audio Broadcasting	09/061,255	5,970,085	October 19, 1999	Orbital Sciences Corporation
Method and System for Formation Keeping Between Orbiting Spacecraft by Varying their Ballistic Coefficients	08/692,401	5,806,801	September 15, 1998	Orbital Sciences Corporation
Method and System for Turbo-Coded Satellite Digital Audio Broadcasting	08/908,045	5,907,582	May 25, 1999	Orbital Sciences Corporation

Title	Application/ Serial No.	Patent No.	Issue Date	Owner
Method and System for Turbo-Coded Satellite Digital Audio Broadcasting	09/275,081	6,061,387	May 9, 2000	Orbital Sciences Corporation
Method for Injecting Payloads into Orbit	08/111,095	5,681,011	October 28, 1997	Orbital Sciences Corporation
Method for Making an Explosive Separation System	08/300,834	5,535,502	July 16, 1996	Orbital Sciences Corporation
Multi-Mission Spacecraft Bus Having Space Frame Structural Design	07/851,043	5,314,146	May 24, 1994	Orbital Sciences Corporation
Multi-Mission Spacecraft Bus Having Space Frame Structural Design	08/192,566	5,518,209	May 21, 1996	Orbital Sciences Corporation
High Performance Diplexer and Method	09/944,781	6,597,258	July 22, 2003	Orbital Sciences Corporation
Phase-Array Antenna Diplexing	10/456,760	6,771,222	August 3, 2004	Orbital Sciences Corporation
Satellite Having a Stackable Configuration	08/191,831	5,522,569	June 4, 1996	Orbital Sciences Corporation
Secondary Payload Interface	12/185,717	8,355,359	January 15, 2013	Orbital Sciences Corporation
Self Monitoring Satellite System	09/938,983	6,667,713	December 23, 2003	Orbital Sciences Corporation
Self-Deploying Helical Structure	08/896,728	5,977,932	November 2, 1999	Orbital Sciences Corporation
Shear Viscous Damped Hinge	08/191,246	5,546,632	August 20, 1996	Orbital Sciences Corporation

Intellectual Property Security Agreement (ATK)

Title	Application/ Serial No.	Patent No.	Issue Date	Owner
Shock Simulation Method and Apparatus	12/874,211	8,479,557	July 9, 2013 (expected expiration of May 26, 2031)	Orbital Sciences Corporation

U.S. Pending Patents

Title	Application/ Serial No.	Patent No.	Filing Date	Owner
Method of Manufacturing Flexible, Lightweight Photovoltaic Array	12/540,685		August 13, 2009	Orbital Sciences Corporation
System/ Methods for Mitigating Disturbances in a Dual Gridded Reflector Panel	13/558/080		7/25/2012	Orbital Sciences Corporation
Systems and Methods for Reconfigurable Faceted Reflector Antennas	13/834,214		3/15/2013	Orbital Sciences Corporation
Hybrid Cycle Liquid Rocket Engine	61/787,344		March 14, 2014 (provisional filed March 15, 2013)	Orbital Sciences Corporation
Protection of Commercial Communications	61/791,057		3/15/2013	Orbital Sciences Corporation
Systems and Methods for Multifunctional Deployable Booms	61/837,337		6/20/2013	Orbital Sciences Corporation
Ground-Based Satellite Antenna Pointing System	14/496,701 (non-provisional)		9/25/2014 9/26/2013	Orbital Sciences Corporation

Intellectual Property Security Agreement (ATK)

Title	Application/ Serial No.	Patent No.	Filing Date	Owner
	61/882,690 (provisional)			
Secondary Payload Interface	13/740,672		1/14/2013	Orbital Sciences Corporation

**Schedule B
Trademarks**

U.S. Registered Trademarks

Trademark	Serial Number	Reg Number	Reg. Date	Owner
Innovation You Can Count On		3836239	August 17, 2010	Orbital Sciences Corporation
Innovation You Can Count On		3671692	August 25, 2009	Orbital Sciences Corporation
Hotbench Integrated Testbed	76516959	2950528		Orbital Sciences Corporation
Powerpaddle	76516958	2904294		Orbital Sciences Corporation
STIC	76516957	2904293		Orbital Sciences Corporation
Transition Module	76516955	2946869		Orbital Sciences Corporation
Spectrum Transition Interface Card	76516956	2905728		Orbital Sciences Corporation
Orbital (& Design)		2264116	July 27, 1999	Orbital Sciences Corporation
OSC		1345713	July 2, 1985	Orbital Sciences Corporation
Pegasus		1604510	July 3, 1990	Orbital Sciences Corporation
Pegasus		1605972	July 10, 1990	Orbital Sciences Corporation
Pegasus (& Design)		1605426	July 10, 1990	Orbital Sciences Corporation
Pegasus (& Design)		1604987	July 3, 1990	Orbital Sciences Corporation
Taurus		1793206	September 24, 1993	Orbital Sciences Corporation

U.S. Pending Trademarks

None.

Intellectual Property Security Agreement (Orbital)

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**Schedule C
Copyrights**

Copyrights

None.

Intellectual Property Security Agreement (Orbital)

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RECORDED: 02/23/2015

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