# PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	Termination and Release of Security Interest in Patents (For Lien Recorded October 15, 2007 at Reel 019955 Frame 0825)	

#### **CONVEYING PARTY DATA**

Name	Execution Date
Citibank, N.A., as Administrative Agent	06/07/2011

# **RECEIVING PARTY DATA**

Name:	Orbital Sciences Corporation	
Street Address:	21839 Atlantic Boulevard	
City:	Dulles	
State/Country:	VIRGINIA	
Postal Code:	20166	

### PROPERTY NUMBERS Total: 22

Property Type	Number
Patent Number:	7369624
Patent Number:	6061387
Patent Number:	5977932
Patent Number:	5970085
Patent Number:	5907582
Patent Number:	5834923
Patent Number:	5806801
Patent Number:	5721558
Patent Number:	5681011
Patent Number:	5668565
Patent Number:	5587719
Patent Number:	5546632
Patent Number:	5535502
Patent Number:	5522569

**PATENT REEL: 026406 FRAME: 0146** 501557746

Patent Number:	5390606
Patent Number:	5917433
Patent Number:	5808565
Patent Number:	5199672
Patent Number:	4901949
Patent Number:	6064319
Patent Number:	4812041
Patent Number:	4835389

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	040324.037 JES
NAME OF SUBMITTER:	John E. Slaughter

#### **Total Attachments: 3**

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> PATENT REEL: 026406 FRAME: 0147

# TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS (For Lien Recorded October 15, 2007 at Reel 019955 Frame 0825)

This TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS, dated as of June 7, 2011 ("Release"), is made by Citibank, N.A. ("Citi"), in its capacity as agent for the Secured Parties (as defined in the Credit Agreement referred to below) (in such capacity, the "Administrative Agent") in favor of Orbital Sciences Corporation, a Delaware corporation (the "Grantor").

WHEREAS, pursuant to the Credit Agreement dated as of August 17, 2007 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement") among Orbital Sciences Corporation (the "Borrower"), the Lenders and Issuers party thereto and Citi, as agent for the Lenders and Issuers, the Lenders and the Issuers agreed to make extensions of credit to the Borrower upon the terms and subject to the conditions set forth therein;

WHEREAS, the Grantors are party to a Pledge and Security Agreement dated as of August 17, 2007 in favor of the Administrative Agent (the "Security Agreement") pursuant to which the Grantor was required to execute and deliver the Patent Security Agreement dated as of August 17, 2007 ("Patent Security Agreement"); and

WHEREAS, the Patent Security Agreement was recorded at the United States Patent and Trademark Office ("USPTO") on October 15, 2007 at Reel 019955 Frame 0825.

NOW THEREFORE, in consideration of the mutual promises and undertakings set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and with the intention of being legally bound hereby, Administrative Agent (for itself and as agent for the Lenders and Issuers) and Grantor (the "parties") agree as follows:

- SECTION 1. <u>Defined Terms</u>. Unless otherwise defined herein, terms defined in the Credit Agreement, Security Agreement, or Patent Security Agreement and used herein have the meaning given to them in the Credit Agreement, Security Agreement, or Patent Security Agreement.
- **SECTION 2.** <u>Termination and Release</u>. The Administrative Agent, for itself and as agent for the Lenders and Issuers, hereby:
- (a) terminates the Patent Security Agreement, Security Agreement, and any other agreement under which Grantor has granted a collateral mortgage, pledge, hypothecation, grant, assignment, lien, or security interest in, to, and under the Patent Collateral;
- (b) cancels, discharges, and releases the mortgage, pledge, and hypothecation and lien on and security interest in and to the right, title, and interest in, to, and under the Patent Collateral, including the Patent Collateral listed on Schedule A attached hereto; and
  - (c) authorizes the recordation of this Release with the USPTO.

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IN WITNESS WHEREOF, the Administrative Agent has caused this Termination and Release of Security Interest in Patents to be duly executed as of the date first set forth above.

Secured Party:

Citibank, N.A., as Administrative Agent

Name: Michael Vondriska

Title: Vice President

[TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS SIGNATURE PAGE]

#### Schedule A

# Orbital Sciences Corporation (Delaware Corporation)

# U.S. Patents Subject to Security Interest Granted by Orbital Sciences Corporation In Favor of Citibank, N.A. Recorded October 15, 2007 at Reel 019955 Frame 0825

# **Issued Patents**

Toraspion	EPOTETATION STATE	- Kingley
CARRIER SUPPRESSION TYPE MODULATOR WITH ENCODED	7369624	05/06/08
MODULATING SIGNALS	7507024	05/00/00
METHOD AND SYSTEM FOR TURBO-CODED SATELLITE DIGITAL	6061387	05/09/00
AUDIO BROADCASTING	0001307	03/03/00
SELF-DEPLOYING HELICAL STRUCTURE	5977932	11/02/99
METHOD AND RECEIVER FOR CODED SATELLITE DIGITAL AUDIO	5970085	10/19/99
BROADCASTING	22.000	20,22,22
SYSTEM FOR TURBO-CODED SATELLITE DIGITAL AUDIO	5907582	05/25/99
BROADCASTING		
BATTERY CHARGE CONTROL METHOD	5834923	11/10/98
METHOD AND SYSTEM FOR FORMATIONKEEPING BETWEEN	5806801	09/15/98
ORBITING SPACECRAFT BY VARYING THEIR BALLISTIC		
COEFFICIENTS		
DEPLOYABLE HELICAL ANTENNA	5721558	02/24/98
METHOD FOR INJECTING PAYLOADS INTO ORBIT	5681011	10/28/97
FLEXIBLE FEED LINE FOR AN ANTENNA SYSTEM	5668565	09/16/97
AXIAL ARRAYED HELICAL ANTENNA	5587719	12/24/96
SHEAR VISCOUS DAMPED HINGE	5546632	08/20/96
METHOD FOR MAKING AN EXPLOSIVE SEPARATION SYSTEM	5535502	07/16/96
SATELLITE HAVING A STACKABLE CONFIGURATION	5522569	06/04/96
FRANGIBLE JOINT SEPARATION SYSTEM	5390606	02/21/95
ASSET MONITORING SYSTEM AND ASSOCIATED METHOD	5917433	06/29/99
GPS TRIGGERED AUTOMATIC ANNUNCIATOR FOR VEHICLES	5808565	09/15/98
METHOD AND APPARATUS FOR DEPLOYING A SATELLITE NETWORK	5199672	04/06/93
ROCKET-POWERED, AIR-DEPLOYED, LIFT-ASSISTED BOOSTER	4901949	02/20/90
VEHICLE FOR ORBITAL, SUPRAORBITAL AND SUBORBITAL FLIGHT		
METHOD AND SYSTEM FOR REGULATING SWITCHING OF TRAFFIC	6064319	05/16/00
LIGHT		
SPECTROMETER SYSTEM HAVING PIVOTALLY MOUNTED INTERNAL	4812041	03/14/89
REFLECTANCE ELEMENT	<u> </u>	
INTERNAL REFLECTION SPECTROSCOPY FOR DEEP CONTAINER	4835389	05/30/89
IMMERSION		

License of Patent No. 5723923 from NASA to Orbital Sciences Corporation.

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PATENT REEL: 026406 FRAME: 0150

RECORDED: 06/08/2011