PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3612790

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JAMES D. DUNAWAY	11/10/2015

RECEIVING PARTY DATA

Name:	ORBITAL ATK, INC.
Street Address:	45101 WARP DRIVE
City:	DULLES
State/Country:	VIRGINIA
Postal Code:	20166

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14938646

CORRESPONDENCE DATA

Fax Number: (801)531-9168

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

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

Phone: 801-532-1922

Email: bknielsen@TraskBritt.com

Correspondent Name: TRASKBRITT **Address Line 1:** P.O. BOX 2550

Address Line 4: SALT LAKE CITY, UTAH 84110

ATTORNEY DOCKET NUMBER:	2507-P13029US(23025-US)	
NAME OF SUBMITTER:	NATHAN E. WHITLOCK	
SIGNATURE:	/Nathan E. Whitlock/	
DATE SIGNED:	11/12/2015	

Total Attachments: 2

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PATENT 503566163 REEL: 037022 FRAME: 0191

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned ASSIGNOR does hereby:

SELL, ASSIGN AND TRANSFER to ORBITAL ATK, INC. ("ASSIGNEE"), a corporation of the State of Delaware, having a place of business at 45101 Warp Drive, Dulles, VA 20166, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements that are disclosed in the Application for United States Letters Patent that has been executed by each undersigned ASSIGNOR concurrently herewith, and titled GAS GENERATORS, LAUNCH TUBE ASSEMBLIES INCLUDING GAS GENERATORS, AND RELATEDSYSTEMS AND METHODS, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent or the legal equivalent thereof that have been or may be filed in the United States and all foreign countries relating to any of such improvements; all original, reexamined and reissued patents that have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application made in the United States;

AUTHORIZE the ASSIGNEE to apply for and receive any and all United States and foreign patents relating to such improvements in its own name;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to and in the name of the ASSIGNEE;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement or encumbrance affecting the rights and property herein conveyed has been or will be made or entered into by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the ASSIGNEE, to carry out in good faith the intent and purpose of this Assignment, to execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications relating to any and all such improvements; to execute all rightful oaths, declarations, assignments, powers of attorney and other papers; to communicate to the ASSIGNEE all facts and provide to the ASSIGNEE all documents and things known and accessible to the undersigned relating to such improvements and the history thereof, and testify as to the same in any interference, litigation or other proceeding relating thereto; and generally to do everything possible that the ASSIGNEE shall consider desirable for vesting title to such improvements in the ASSIGNEE, and to secure, maintain, defend and enforce valid and enforceable patent protection for such improvements;

PATENT REEL: 037022 FRAME: 0192 AGREE AND ACKNOWLEDGE that the SALE, ASSIGNMENT AND TRANSFER of rights and property set forth herein is and shall be IRREVOCABLE and BINDING upon the heirs, assigns, representatives and successors of each undersigned ASSIGNOR and EXTEND to the successors, assigns and nominees of the ASSIGNEE.

ASSIGNOR:	
James D. Dungunger James	Date: 10 NOV 2015 UT 84302
COUNTY OF BOX Elder) : ss. STATE OF Land : ss. On this lo day of lovembre D. DUNAWAY, to me known to be the person winstrument, and acknowledged to me that he/she do	
MAREN HARRIS Notary Public State of Utah My Commission Expires on: January 29, 2019 Comm. Number: 681423	Marin Hussia Notary Public in and for said County and State
My Commission Expires: 29 January 2019	

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