502146279 11/30/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
James D. Dunaway	11/29/2012
Duane J. Garbe	11/29/2012
William P. Sampson	11/29/2012
Robert L. Hatch	11/29/2012

RECEIVING PARTY DATA

Name:	Alliant Techsystems Inc.
Street Address:	7480 Flying Cloud Drive
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55344

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13690040

CORRESPONDENCE DATA

Fax Number: 8015319168

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

801-532-1922 Phone:

Email: djpfeil@traskbritt.com

Correspondent Name: TRASKBRITT, P.C./ ALLIANT TECH SYSTEMS

P.O. BOX 2550 Address Line 1:

Address Line 4: SALT LAKE CITY, UTAH 84110

NAME OF SUBMITTER: Gregory C. Baker

Total Attachments: 4

502146279

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> **PATENT** REEL: 029383 FRAME: 0219

Attorney Docket No. 2507-P11643US (22578-US)

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 Alliant Techsystems Inc. ("ASSIGNEE"), a corporation of the state of Delaware, having a place of business at 7480 Flying Cloud Drive, Minneapolis, Minnesota 55344, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the Application for United States Letters Patent, which has been executed by each undersigned ASSIGNOR concurrently herewith entitled GAS GENERATORS, LAUNCH TUBES INCLUDING GAS GENERATORS AND RELATED SYSTEMS AND METHODS, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent or the legal equivalent thereof which 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 which 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 which 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: 029383 FRAME: 0220 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.

ASSIGNORS:	
James D. Dunaway Residing at: 860 West 730 South, Brigham City, UT 84302	Date 11/29/2012
Duane J. Garbe	Date
Residing at: 190 East 500 North, Mendon, UT 84325 William P. Sampson Residing at: 1195 East 3300 North, North Ogden, UT 84414	Date
Residing at: 1193 East 3300 North, North Ogden, OT 6777. Robert L. Hatch Residing at: 2794 West 5272 South, Wellsville, UT 84339	Date 11/29/2012

COUNTY OF BOXEIDER)
	: SS.
STATE OF UT)

On this 29 day of November 2012, before me personally appeared James D. Dunaway to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same.

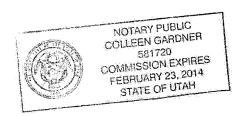
Notary Public in and for said County and State

My Commission Expires:

February 23,2014

COUNTY OF BOX EIDER) : ss.)

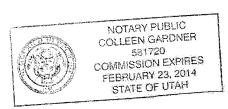
STATE OF UT



On this 29 day of Movember, 2012, before me personally appeared Duane J. Garbe to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same.

My Commission Expires:

February 23,2014



COUNTY OF BOX EIDER)
	: ss
STATE OF UT)

On this <u>An</u> day of <u>November</u>, 2012, before me personally appeared William P. Sampson to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same.

Notary Public in and for said County and State

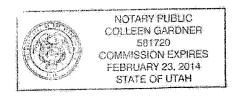
My Commission Expires:

February 23,2014

COUNTY OF BOXEIDER): ss.

)

STATE OF UT



On this <u>29</u> day of <u>Normbel</u>, 2012, before me personally appeared Robert L. Hatch to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same.

Notary Public in and for said County and State

My Commission Expires:

February 23, 2014

NOTARY PUBLIC
COLLEEN GARDNER
581720
COMMISSION EXPIRES
FEBRUARY 23, 2014
STATE OF UTAH

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