

# PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Dean Modroukas</td> <td>05/26/2009</td> </tr> <tr> <td>Jason S. Tyll</td> <td>06/05/2009</td> </tr> <tr> <td>Florin Girlea</td> <td>06/08/2009</td> </tr> <tr> <td>John C. Leylegian</td> <td>05/14/2009</td> </tr> <tr> <td>Richard Perlman</td> <td>07/09/2009</td> </tr> </tbody> </table>		Name	Execution Date	Dean Modroukas	05/26/2009	Jason S. Tyll	06/05/2009	Florin Girlea	06/08/2009	John C. Leylegian	05/14/2009	Richard Perlman	07/09/2009
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<b>RECEIVING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>ALLIANT TECHSYSTEMS INC.</td> </tr> <tr> <td>Street Address:</td> <td>7480 Flying Cloud Drive</td> </tr> <tr> <td>City:</td> <td>Minneapolis</td> </tr> <tr> <td>State/Country:</td> <td>MINNESOTA</td> </tr> <tr> <td>Postal Code:</td> <td>55344</td> </tr> </table>		Name:	ALLIANT TECHSYSTEMS INC.	Street Address:	7480 Flying Cloud Drive	City:	Minneapolis	State/Country:	MINNESOTA	Postal Code:	55344		
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<b>PROPERTY NUMBERS Total: 1</b>													
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<b>CORRESPONDENCE DATA</b>													
<p>Fax Number: (801)531-9168  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 801-532-1922        Email: pastivers@traskbritt.com        Correspondent Name: James R. Duzan        Address Line 1: P.O. Box 2550        Address Line 4: Salt Lake City, UTAH 84110</p>													
ATTORNEY DOCKET NUMBER:	2507-8875.1US												
NAME OF SUBMITTER:	James R. Duzan												

CH \$40.00 12465407

**500907346**

**PATENT**  
**REEL: 022940 FRAME: 0130**

**Total Attachments: 15**

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**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 Serial No. 12/465,407, filed on May 13, 2009, and entitled **HYSPIKE MULTI FUEL ENGINE**, 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;


**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:

  
\_\_\_\_\_  
Dean Modroukas  
Residing at: 34 Alden Court, Scarsdale, NY 10583

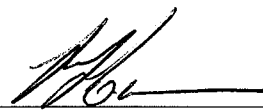
Date 5/26/09

  
\_\_\_\_\_  
Jason S. Tyll  
Residing at: 162 Division Ave., Blue Point, NY 11715

Date 5/26/09

\_\_\_\_\_  
John C. Leylegian  
Residing at: 15-4 Granada Crescent, White Plains, NY 10603

Date \_\_\_\_\_

  
\_\_\_\_\_  
Florin Girlea  
Residing at: 144-80 Sanford Avenue, Apt. 6E, Flushing, NY 11355

Date 5/26/09

\_\_\_\_\_  
Richard Perlman  
Residing at: 656 N.W. 164<sup>th</sup> Avenue, Pembroke Pines, FL 33028

Date \_\_\_\_\_

COUNTY OF )  
: ss.  
STATE OF )

On this 28 day of May, 2009, before me personally appeared Dean Modroukas, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

Mary G. Morales  
Notary Public in and for said County and State

My Commission Expires:  
MARY G. MORALES  
NOTARY PUBLIC, State of New York  
No. 01M05081802  
Qualified in Suffolk County  
Commission Expires July 14, 2011

COUNTY OF )  
: ss.  
STATE OF )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Jason S. Tyll, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:  
\_\_\_\_\_

COUNTY OF                    )  
                                      : ss.  
STATE OF                    )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared John C. Leylegian, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

COUNTY OF                    )  
                                      : ss.  
STATE OF                    )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Florin Girlea, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

COUNTY OF                    )  
                                  : ss.  
STATE OF                    )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Richard Perlman, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

heirs, assigns, representatives and successors of each undersigned ASSIGNOR and EXTEND to the successors, assigns and nominees of the ASSIGNEE.

ASSIGNORS:

\_\_\_\_\_  
Dean Modroukas  
Residing at: 34 Alden Court, Scarsdale, NY 10583  
Date \_\_\_\_\_

\_\_\_\_\_  
Jason S. Tyll  
Residing at: 162 Division Ave., Blue Point, NY 11715  
Date 6/5/09

\_\_\_\_\_  
John C. Leylegian  
Residing at: 15-4 Granada Crescent, White Plains, NY 10603  
Date \_\_\_\_\_

\_\_\_\_\_  
Florin Girlea  
Residing at: 144-80 Sanford Avenue, Apt. 6E, Flushing, NY 11355  
Date 6/8/09

\_\_\_\_\_  
Richard Perlman  
Residing at: 656 N.W. 164<sup>th</sup> Avenue, Pembroke Pines, FL 33028  
Date \_\_\_\_\_



COUNTY OF )  
: ss.  
STATE OF )

Jason Tyll ←

On this 5<sup>th</sup> day of June, 2009, before me personally appeared ~~Dean~~  
~~Medroukas~~, to me known to be the person whose name is subscribed to the foregoing instrument,  
and acknowledged to me that he executed the same.

Mary G Morales  
Notary Public in and for said County and State

My Commission Expires:

MARY G. MORALES  
NOTARY PUBLIC, State of New York  
No. 01M05081802  
Qualified in Suffolk County  
Commission Expires July 14, 2011

COUNTY OF )  
: ss.  
STATE OF )

Florin Gisle ←

On this 6<sup>th</sup> day of June, 2009, before me personally appeared ~~Jason S. Tyll~~,  
to me known to be the person whose name is subscribed to the foregoing instrument, and  
acknowledged to me that he executed the same.

Mary G Morales  
Notary Public in and for said County and State

My Commission Expires:

MARY G. MORALES  
NOTARY PUBLIC, State of New York  
No. 01M05081802  
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ASSIGNORS:

\_\_\_\_\_  
Dean Modroukas  
Residing at: 34 Alden Court, Scarsdale, NY 10583  
Date \_\_\_\_\_

\_\_\_\_\_  
Jason S. Tyll  
Residing at: 162 Division Ave., Blue Point, NY 11715  
Date \_\_\_\_\_

  
\_\_\_\_\_  
John C. Leylegian  
Residing at: 15-4 Granada Crescent, White Plains, NY 10603  
Date 5/14/09

\_\_\_\_\_  
Florin Girlea  
Residing at: 144-80 Sanford Avenue, Apt. 6E, Flushing, NY 11355  
Date \_\_\_\_\_

\_\_\_\_\_  
Richard Perlman  
Residing at: 656 N.W. 164<sup>th</sup> Avenue, Pembroke Pines, FL 33028  
Date \_\_\_\_\_

COUNTY OF )  
: ss.  
STATE OF )

On this \_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Dean Modroukas, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

COUNTY OF )  
: ss.  
STATE OF )

On this \_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Jason S. Tyll, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

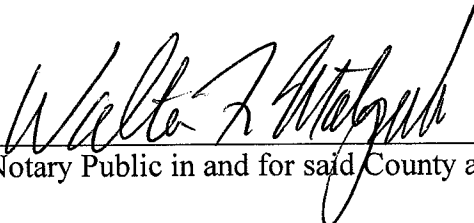
My Commission Expires:

\_\_\_\_\_

COUNTY OF Brooklyn )  
 : ss.  
STATE OF N.Y. )

On this 14th day of MAY, 2009, before me personally appeared John C. Leylegian, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

**WALTER F. MATYSTIK**  
Notary Public, State of New York  
No. 02MA4811742  
Qualified in Westchester County  
Commission Expires August 31, 2012

  
\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

8/31/2010

COUNTY OF \_\_\_\_\_ )  
 : ss.  
STATE OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Florin Girlea, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

COUNTY OF                    )  
                                  : ss.  
STATE OF                    )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2009, before me personally appeared Richard Perlman, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

\_\_\_\_\_  
Notary Public in and for said County and State

My Commission Expires:

\_\_\_\_\_

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ASSIGNORS:

\_\_\_\_\_  
Dean Modroukas  
Residing at: 34 Alden Court, Scarsdale, NY 10583

Date \_\_\_\_\_

\_\_\_\_\_  
Jason S. Tyll  
Residing at: 162 Division Ave., Blue Point, NY 11715


Date \_\_\_\_\_

\_\_\_\_\_  
John C. Leylegian  
Residing at: 15-4 Granada Crescent, White Plains, NY 10603

Date \_\_\_\_\_

\_\_\_\_\_  
Florin Girlea  
Residing at: 144-80 Sanford Avenue, Apt. 6E, Flushing, NY 11355

Date \_\_\_\_\_

  
\_\_\_\_\_  
Richard Perlman  
Residing at: 656 N.W. 164<sup>th</sup> Avenue, Pembroke Pines, FL 33028

Date 7/9/09



COUNTY OF Suffolk )  
: ss.  
STATE OF New York )

MARY G. MORALES  
NOTARY PUBLIC, State of New York  
No. 01M05081892  
Qualified in Suffolk County  
Commission Expires July 14, 2011

On this 9<sup>th</sup> day of July, 2009, before me personally appeared Richard Perlman, to me known to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

Mary G. Morales  
Notary Public in and for said County and State

My Commission Expires:

July 14, 2011