

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Swales & Associates, Inc.	03/31/2008

RECEIVING PARTY DATA

Name:	Alliant Techsystems Inc.
Street Address:	5050 Lincoln Drive
City:	Edina
State/Country:	MINNESOTA
Postal Code:	55436

PROPERTY NUMBERS Total: 43

Property Type	Number
Application Number:	60215588
Application Number:	60391006
Application Number:	60415424
Application Number:	60421737
Application Number:	60486467
Application Number:	10676265
Application Number:	60514670
Application Number:	10694387
Application Number:	10890382
Application Number:	11167759
Application Number:	60144308
Application Number:	60381993
Application Number:	60143916
Application Number:	60804036
Application Number:	11759073

PATENT

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REEL: 020729 FRAME: 0341

CH \$1720.00 60215588

Application Number:	60870303
Application Number:	60863429
Application Number:	60863251
Application Number:	60743651
Application Number:	11690110
Application Number:	60681479
Application Number:	11383953
Application Number:	11383740
Application Number:	11275105
Application Number:	60621539
Application Number:	60640230
Application Number:	11257396
Application Number:	60655485
Application Number:	11359766
Application Number:	60983039
Application Number:	60977021
PCT Number:	US0331110
PCT Number:	US0334165
PCT Number:	US0435548
PCT Number:	US0120603
PCT Number:	US9922047
PCT Number:	US0140734
PCT Number:	US0041518
PCT Number:	US0019467
PCT Number:	US0019462
PCT Number:	US0019460
PCT Number:	US0019461
PCT Number:	US0645545

CORRESPONDENCE DATA

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

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PATENT

REEL: 020729 FRAME: 0342

ATTORNEY DOCKET NUMBER:	SWALES-APPLICATIONS
NAME OF SUBMITTER:	Laura A. Ryan
Total Attachments: 4 source=Executed Assignment-Swales & Associates, Inc. to ATK-Applications#page1.tif source=Executed Assignment-Swales & Associates, Inc. to ATK-Applications#page2.tif source=Executed Assignment-Swales & Associates, Inc. to ATK-Applications#page3.tif source=Executed Assignment-Swales & Associates, Inc. to ATK-Applications#page4.tif	

ASSIGNMENT

WHEREAS, We, Swales & Associates, Inc., a corporation organized and existing under the Laws of the State of Maryland, having its principal place of business at 5050 Powder Mill Road, Beltsville, Maryland 20705, U.S.A., are in possession of certain patent applications and disclosures as described below ("the Applications"), and


WHEREAS, Alliant Techsystems Inc., a Delaware corporation having a principal place of business at 5050 Lincoln Drive, Edina, Minnesota 55436, hereinafter referred to as "Assignee," is desirous of acquiring, from Swales & Associates, Inc., the entire right, title and interest in and to the inventions described in the Applications and in and to the Letters Patent that may be obtained therefore or thereupon, equivalent patent applications filed in other countries, and equivalent patents issued in other countries related to the subject matter of the Applications;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have assigned and transferred, and by these presents do hereby assign and transfer to Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements described in the Applications, and in and to any applications based on the Applications and any divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patents that may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications that have been or shall be filed in any foreign countries for Letters Patents on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries that may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration identified above, we hereby agree to make, execute and deliver any and all other instruments and documents which may be necessary for the carrying out of this assignment in full, and will communicate to the Assignee, its successors and representatives all facts known to us relating to the Patents and the history thereof and will testify in all legal proceedings and generally do all things that may be necessary or desirable to effectually secure to and vest in the Assignee, its successors or assigns the entire

right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby assigned and conveyed, or intended so to be.

SWALES & ASSOCIATES, INC.

By: 

Keith D. Ross

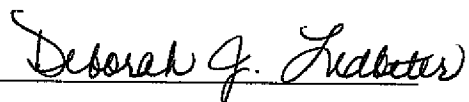
Its: Chairman, Vice President & Secretary

STATE OF Minnesota

) SS.

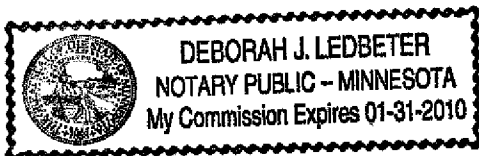
COUNTY OF Hennepin

Subscribed and sworn to before me this 31 day of March, 2008.



Notary Public

My Commission Expires: 1-31-2010



PATENT APPLICATIONS AND DISCLOSURES

Application Number	Title	Country
2004286255	Manufacture of a Heat Transfer System	Australia
PI0416000-2	Manufacture of a Heat Transfer System	Brazil
200480039154.6	Manufacture of a Heat Transfer System	China (Peoples Republic)
03799379.7	Evaporator For a Heat Transfer System	European Patent Convention
03779362.7	Heat Transfer System	European Patent Convention
04810031.7	Manufacture of a Heat Transfer System	European Patent Convention
04016584.7	Thermal Management System	European Patent Convention
06004620.8	Phase Control in the Capillary Evaporators	European Patent Convention
1740/DELNP/2005	Heat Transfer System	India
2458/DELP/2006	Manufacture of a Heat Transfer System	India
2005-501910	Heat Transfer System	Japan
2006-538194	Manufacture of a Heat Transfer System	Japan
PA/a/2005/004443	Heat Transfer System	Mexico
PA/a/2006/004692	Manufacture of a Heat Transfer System	Mexico
2005116246	Heat Transfer System	Russian Federation
60/215588	Phase Control in the Capillary Evaporators	United States of America
60/391006	Heat Transport System	United States of America
60/415424	Evaporator For a Heat Transfer System	United States of America
60/421737	Packaging of Annular Evaporator and an Annular Condenser as an Annular Loop Heat Pipe For Use in Cooling a Refrigerator Having a Cylindrical Geometry	United States of America
60/486467	Thermal Management System	United States of America
10/676265	Evaporator For a Heat Transfer System	United States of America
60/514670	Manufacture of a Heat Transfer System	United States of America
10/694387	Heat Transfer System	United States of America
10/890382	Thermal Management System	United States of America
PCT/US2003/031110	Evaporator For a Heat Transfer System	Patent Cooperation Treaty
PCT/US2003/034165	Heat Transfer System	Patent Cooperation Treaty
PCT/US2004/035548	Manufacture of a Heat Transfer System	Patent Cooperation Treaty
PCT/US2001/20603	Phase Control in the Capillary Evaporators	Patent Cooperation Treaty
PCT/US1999/022047	Method and Apparatus For Improved Solar Concentrator Arrays	Patent Cooperation Treaty
11/167759	Wick Having Liquid Superheat Tolerance and Being Resistant to Back-Conduction, Evaporator Employing a Liquid Superheat Tolerant Wick, and Loop Heat Pipe Incorporating Same	United States of America
PCT/US2001/40734	Wick Having Liquid Superheat Tolerance and Being Resistant to Back-Conduction, Evaporator Employing a Liquid Superheat Tolerant Wick, and Loop Heat Pipe Incorporating Same	Patent Cooperation Treaty
PCT/US2000/41518	Anti-Distortion Insert For Mounting Optical Elements on a Honeycomb Panel	Patent Cooperation Treaty
PCT/US00/19467	Low Shock Anti-Friction Release Device	Patent Cooperation Treaty
60/144308	Anti-Friction Release Device	United States of America
PCT/US2000/19462	Anti-Friction Release Device	Patent Cooperation Treaty
PCT/US2000/19460	High Temperature Isostatic Pressure Bonding of Beryllium Pressure Vessels With an Interior Void	Patent Cooperation Treaty
60/381993	Wide Field Collimator	United States of America

PATENT APPLICATIONS AND DISCLOSURES

Application Number	Title	Country
60/143916	High Temperature Isostatic Pressure Bonding of Hollow Beryllium Pressure Vessels Using a Bonding Flange	United States of America
PCT/US2000/19461	High Temperature Isostatic Pressure Bonding of Hollow Beryllium Pressure Vessels Using a Bonding Flange	Patent Cooperation Treaty
60/804036	Optical Assemblies With Thermal Management	United States of America
11/759073	Integral Assemblies For Thermal Management of Optical Systems	United States of America
60/870303	Freeze Tolerant Heat Exchanger	United States of America
60/863429	Loop Heat Pipe With Subcooling Recuperation	United States of America
60/863251	Thermoelectric Cooler	United States of America
60/743651	Flow Through Reservoir For Core Sweepage	United States of America
11/690110	Flow Through Reservoir For Core Sweepage	United States of America
60/681479	Two-Phase Hybrid Heat Transfer System	United States of America
11/383953	Two-Phase Heat Transfer System	United States of America
11/383740	High Heat Flux Evaporator	United States of America
11/275105	Evaporator For Use in a Heat Transfer System	United States of America
PCT/US2006/045545	Evaporator For Use in a Heat Transfer System	Patent Cooperation Treaty
60/621539	Ceramic Evaporator For Use in a Heat Transfer System	United States of America
60/640230	Ceramic Evaporator For Use in a Heat Transfer System	United States of America
11/257396	Evaporator For Use in a Heat Transfer System	United States of America
60/655485	Thermal Capacitance Device Integrated With a Condenser of a Two-Phase Heat Transfer System	United States of America
11/359766	Two-Phase Heat Transfer System Including a Thermal Capacitance Device	United States of America
60/983039	Thermal Ground Plane and Related Methods and Components	United States of America
60/977021	High Power Thermal Management System	United States of America
	Anderson Patent Analysis (Hybrid Loop Cooling of High Powered Devices)	United States of America