# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
ATK Space Systems 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: 26

Property Type	Number
Patent Number:	4599832
Patent Number:	4761084
Patent Number:	4834561
Patent Number:	4801231
Patent Number:	4895046
Patent Number:	4969301
Patent Number:	5024111
Patent Number:	5040907
Patent Number:	5154027
Patent Number:	5189773
Patent Number:	5184444
Patent Number:	5222277
Patent Number:	5267424
Patent Number:	5296044
Patent Number:	5298085
	DATENT

PATENT '

REEL: 020723 FRAME: 0559

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Patent Number:	5487791
Patent Number:	5496414
Patent Number:	5578139
Patent Number:	5909197
Patent Number:	6218605
Patent Number:	5961738
Patent Number:	6177627
Patent Number:	7301095
Patent Number:	6422357
Patent Number:	6423895
Patent Number:	7211722

#### **CORRESPONDENCE DATA**

Fax Number: (952)351-3036

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

Phone: 952-351-2865

Email: Deborah.Ledbeter@ATK.com

Correspondent Name: Debbie Ledbeter
Address Line 1: 5050 Lincoln Drive

Address Line 4: Edina, MINNESOTA 55436

ATTORNEY DOCKET NUMBER:	ATK SPACE(ABLE)-PATENTS
NAME OF SUBMITTER:	Laura A. Ryan

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

source=Executed Assignment-ATK Space Systems Inc. to ATK-Patents#page1.tif source=Executed Assignment-ATK Space Systems Inc. to ATK-Patents#page2.tif source=Executed Assignment-ATK Space Systems Inc. to ATK-Patents#page3.tif

PATENT REEL: 020723 FRAME: 0560

#### **ASSIGNMENT**

WHEREAS, We, ATK Space Systems Inc., a corporation organized and existing under the Laws of the State of Delaware, having its principal place of business at 600 Pine Avenue, Goleta, California 93117, U.S.A., are in possession of certain patents as described below ("the Patents"), 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 ATK Space Systems Inc., the entire right, title and interest in and to the United States Letters Patent, United States Patent Applications and any and all Letters Patents 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 Patents;

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 disclosed in the Patents and in and to the Patents, all 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 assignce 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

PATENT REEL: 020723 FRAME: 0561 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.

ATK SPACE SYSTEMS INC.

Keith D. Ross

Its: Chairman, Vice President & Secretary

STATE OF Musesota)

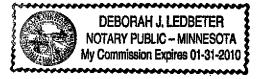
) SS.

COUNTY OF Herrefin

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

Notary Public

My Commission Expires: 1-31-2010



PATENT

**REEL: 020723 FRAME: 0562** 

## **PATENTS**

Application Number	Patent Number	Title	Country
06/688795	4599832	Extendible Structures	United States of America
07/068564	4761084	Bearing System With Redundant Race	United States of America
07/195943	4834561	Bearing System With Redundant Race	United States of America
07/036785	4801231	Self-Driven Nut and Joinders Incorporating It	United States of America
07/264092	4895046	Incremental Drives	United States of America
	***************************************	Relatchable Launch Restraint Mechanism	- "
07/365947	4969301	For Deployable Booms	United States of America
07/428395	5024111	Adjustment of Zero Spring Rate Suspensions	United States of America
07/479699	5040907	Bearing System With Redundancy of Races	United States of America
		Deployable/Retractable Mast Independently	ormore officers of the following
07/758266	5154027	Rotatable When Deployed	United States of America
07/730238	5189773	Mast Forming and Deployment System	United States of America
07/743522	5184444	Survivable Deployable/Retractable Mast	United States of America
		Intermittently and Reversibly Operable Hot	Torrida Grand Grand Grand
07/860788	5222277	Wax Energized Hinge	United States of America
		Module For an Articulated Stowable and	The Clark of the Control of the Cont
07/866029	5267424	Deployable Mast	United States of America
		Lightweight Stowable and Deployable Solar	
07/847720	5296044	Cell Array	United States of America
07/857542	5298085	Support Blanket For Solar Cell Arrays	United States of America
		Stowable and Self-Deployable Parallelogram-	
08/249125	5487791	Type Panel Array	United States of America
		Stowable and Deployable Concentrator For	
08/252998	5496414	Solar Cells	United States of America
		Stowable and Deployable Solar Energy	
08/368774	5578139	Concentrator With Fresnel Lenses	United States of America
		Deployable Helical Antenna Stowage in a	
08/832982	5909197	Compact Retracted Configuration	United States of America
		Performance Optimizing System For a	
08/841526	6218605	Satellite Solar Array	United States of America
08/903123	5961738	Solar Array For Satellite Vehicles	United States of America
		Solar Cell Array With Multiple Rows of Cells	
	6177627	and Collapsible Reflectors	United States of America
11/249143	7301095	Solar Cell Array	United States of America
09/566983		Braking Apparatus	United States of America
09/805308	6423895	Solar Array For Satellite Vehicles	United States of America
		Structures Including Synchronously	· · · · · · · · · · · · · · · · · · ·
		Deployable Frame Members and Methods of	
10/117314	7211722	Deploying the Same	United States of America

3/26/2008

**RECORDED: 03/31/2008** 

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