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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5644931

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jeffrey Freedman	12/09/2014
Ted Kaplan	12/09/2014
Arnold Berman	12/09/2014
Michael Mandell	12/09/2014
Brian Sipos	12/09/2014
Scott Conrad Markley	12/09/2014
Erik Halvorson	12/09/2014
David Marshack	12/09/2014

RECEIVING PARTY DATA

Name:	RKF ENGINEERING SOLUTIONS, LLC
Street Address:	1875 K STREET, NW
Internal Address:	SUITE 400
City:	WASHINGTON
State/Country:	D.C.
Postal Code:	20006-1265

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16010659	

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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.

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER: 35876-0012004 ARLENE F. YATES NAME OF SUBMITTER:

PAIENI REEL: 049912 FRAME: 0487 505598130

SIGNATURE:	/Arlene F. Yates/	
DATE SIGNED: 07/31/2019		
Total Attachments: 3		
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PATENT REEL: 049912 FRAME: 0488

Attorney's Docket No.: 35876-0012001

ASSIGNMENT

For valuable consideration, we, JEFFREY FREEDMAN of 11378 Bishops Gate Lane, Laurel, MD 20723, TED KAPLAN of 11500 Evelake Court, North Potomac, MD 20878, ARNOLD BERMAN of 737 Devonshire Place, NW, Apt. # 211, Washington, DC 20008, MICHAEL MANDELL of 29423 Wellington Street, Farmington Hills, MI 48334, BRIAN SIPOS of 1308 Michigan Avenue, Alexandria, VA 22314, SCOTT CONRAD MARKLEY of 2201 N Street, NW, Apt #1, Washington, DC 20037, ERIK HALVORSON of 2241 Chestertown Drive, Vienna, VA 22182, and DAVID MARSHACK of 10540 Farnham Drive, Bethesda, MD 20814, hereby assign to: RKF Engineering Solutions, LLC, a corporation of Delaware having a place of business at: 1229 Nineteenth Street, NW, Washington, DC 20036; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled HIERARCHICHAL BEAM MANAGEMENT, filed 3/15/2013, and assigned U.S. Serial Number 13/841,572, and U.S. Provisional Patent Application entitled <u>HIERARCHICAL BEAM MANAGEMENT THIS</u> ASSIGNMENT filed 9/5/2012, and assigned U.S. Serial Number 61/697,143, including said applications, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

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Attorney's Docket No.: 35876-0012001

Date:	12/9/14	JEFFREY FREEDMAN			
Date					
Witnessed	by:				
Name:	Thouston		Date:	12/9/14	
Name:	PAGER		Date:	12/9/14	
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XX71. 1		MICHAEL N	MANDELL		
Witnessed	by:				
Name:	Thoms Det -		Date:	12/9/14	
Name:	PLANCE		Date:	12/9/14	

Attorney's Docket No.: 35876-0012001

Date: _	12/9/14	Draw of &	po-	
		BRIAN SIPOS		
Witness	ed by:			
Name: _	Thomas Dend	Date:	12/9/14	
Name: _	PAGRA	Date:	12/9/14	
Date: _	12/9/14	SCOTT CONRAD MAI	RKLEY	
Witness	ed by:			
Name: _	Thoush and	Date:	12/9/14	
Name: _	PAGRA	Date:	12/9/14	
Date: _	12/9/14	ERIK HALVORSON		
Witness	ed by:			
Name: _	Thomsdend	Date:	12/9/14	
Name: _		Date:	12/9/14	
Date: _	12/9/14	DAVID MARSHACK		
Witness	ed by:			
Name: _	Thom Del	Date:	12/9/14	
Name: _		Date:	12/9/14	

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