

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT										
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT										
<b>CONVEYING PARTY DATA</b>											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Mr. Aaron T. Rood</td> <td>10/16/2008</td> </tr> <tr> <td>Dr. Greg S. Shaw</td> <td>10/16/2008</td> </tr> <tr> <td>Ms. Jessica M. Moore</td> <td>10/16/2008</td> </tr> <tr> <td>Mr. Douglas Wajda</td> <td>10/17/2008</td> </tr> </tbody> </table>		Name	Execution Date	Mr. Aaron T. Rood	10/16/2008	Dr. Greg S. Shaw	10/16/2008	Ms. Jessica M. Moore	10/16/2008	Mr. Douglas Wajda	10/17/2008
Name	Execution Date										
Mr. Aaron T. Rood	10/16/2008										
Dr. Greg S. Shaw	10/16/2008										
Ms. Jessica M. Moore	10/16/2008										
Mr. Douglas Wajda	10/17/2008										
<b>RECEIVING PARTY DATA</b>											
<b>Name:</b>	Orbital Research Inc.										
<b>Street Address:</b>	4415 Euclid Ave. Ste. 500										
<b>City:</b>	Cleveland										
<b>State/Country:</b>	OHIO										
<b>Postal Code:</b>	44103										
<b>PROPERTY NUMBERS Total: 1</b>											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12253430</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12253430						
Property Type	Number										
Application Number:	12253430										
<b>CORRESPONDENCE DATA</b>											
<b>Fax Number:</b>	(216)649-0397										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
<b>Phone:</b>	216 649 0376										
<b>Email:</b>	kolkowski@orbitalresearch.com										
<b>Correspondent Name:</b>	Orbital Research Inc.										
<b>Address Line 1:</b>	4415 Euclid Avenue										
<b>Address Line 2:</b>	Suite 500										
<b>Address Line 4:</b>	Cleveland, OHIO 44103										
<b>ATTORNEY DOCKET NUMBER:</b>	ORB-066										
<b>NAME OF SUBMITTER:</b>	Brian M. Kolkowski										
Total Attachments: 5											

**OP \$40.00 12253430**

**500678745**

**PATENT  
 REEL: 021697 FRAME: 0490**

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### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

Aaron T. Rood  
Greg S. Shaw  
Jessica M. Moore  
Douglas Wajda

Additional name(s) of conveying party(ies) attached?  Yes  No

**2. Name and address of receiving party(ies)**

Name: Orbital Research Inc.

Internal Address: \_\_\_\_\_

Street Address: 4415 Euclid Ave. Ste. 500

City: Cleveland

State: OH

Country: US Zip: 44103

Additional name(s) & address(es) attached?  Yes  No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) October 16, 2008 and October 17, 2008

- Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License  
 Other \_\_\_\_\_

**4. Application or patent number(s):**

This document is being filed together with a new application.

A. Patent Application No.(s)

12/253,430

B. Patent No.(s)

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Brian M. Kolkowski

Internal Address: \_\_\_\_\_

Street Address: 4415 Euclid Ave. Ste. 500

City: Cleveland

State: OH Zip: 44103

Phone Number: (216) 649-0376

Fax Number: (216) 649-0397

Email Address: kolkowski@orbitalresearch.com

**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40**

- Authorized to be charged to deposit account  
 Enclosed  
 None required (government interest not affecting title)

**8. Payment Information**

Deposit Account Number 409310

Authorized User Name Brian M. Kolkowski

**9. Signature:**

  
Signature

10/17/08  
Date

Brian M. Kolkowski  
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

5



**Assignment of Rights, Title and Interest in Invention  
(Multiple inventors; single assignee)**

Docket No.  
ORB-066

*Whereas, we, the above-identified Inventors, have invented certain new and useful improvements in the Invention identified above and described in the above-identified patent application(s) and/or patent(s) (hereinafter referred to as "Invention");*

*And, whereas we desire to assign our above-identified rights, title and interest in the Invention to the above-identified Assignee;*

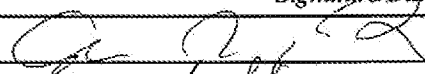
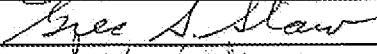

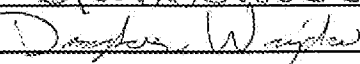
*Now, this indenture witnesseth, that for good and valuable consideration, the receipt whereof is hereby acknowledged;*

*We hereby assign, sell and transfer our above-identified rights, title and interest in said Invention, said application(s) as identified above, including any divisions, continuations, and continuations-in-part thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted or have granted for said Invention, and in and to any and all reissues and reexaminations thereof, and in and to any and all priority rights, Convention rights, and other benefits accruing or to accrue to us with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, unto said Assignee;*

*And we hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Letters Patent which may issue for said Invention to said Assignee, as assignee of the whole right, title and interest thereto;*

*And we further agree to sign and execute all necessary and lawful future documents, including applications for foreign patents, for filing divisions, continuations and continuations-in-part of said application for patent, and/or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid Invention, as the Assignee or its Designee(s) may from time to time require and prepare at its own expense.*

*Inventors' Signatures (if Notarization is desired, do not sign here and proceed to next page)*

Name	Signature/Date
Aaron T. Rood	 10/15/2008
Greg S. Shaw	 10/16/08
Jessica M. Moore	 10/16/08
Douglas Wajda	 10/17/08

Assignment of Rights, Title and Interest in Invention  
(Multiple inventors; single assignee)

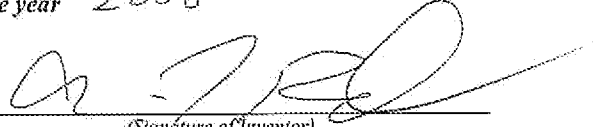
Docket No.  
ORB-066

Notarization

(Although notarization is not necessary, it will be considered prima facie evidence of execution pursuant to 35 U.S.C. 261.)

Executed this 16<sup>th</sup> day of October, in the year 2008

at

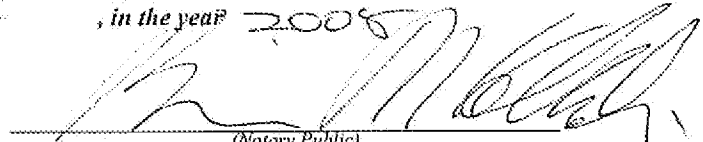
  
(Signature of Inventor)

State of Ohio

County of Cuyahoga

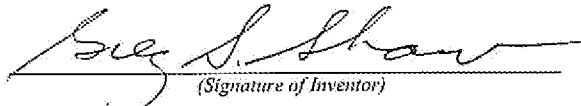
Before me personally appeared Aaron T. Rood  
who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to  
execute the same this 16 day of Oct, in the year 2008

BRIAN M. KOLKOWSKI, ATTORNEY  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE

  
(Notary Public)

Executed this 16<sup>th</sup> day of October, in the year 2008

at

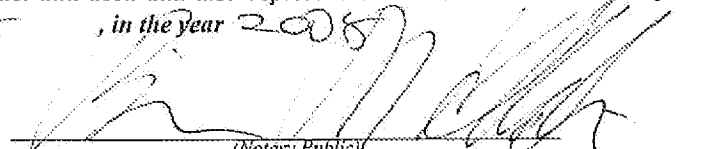
  
(Signature of Inventor)

State of Ohio

County of Cuyahoga

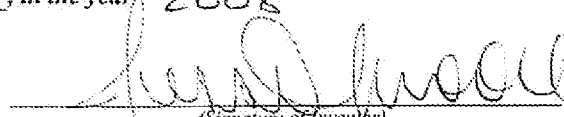
Before me personally appeared Greg S. Shaw  
who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to  
execute the same this 16 day of Oct, in the year 2008

BRIAN M. KOLKOWSKI, ATTORNEY  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE

  
(Notary Public)

Executed this 16 day of OCTOBER, in the year 2008

at

  
(Signature of Inventor)

State of Ohio

County of Cuyahoga

Before me personally appeared Jessica M. Moore  
who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to  
execute the same this 16 day of Oct, in the year 2008

BRIAN M. KOLKOWSKI, ATTORNEY  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE

  
(Notary Public)

Assignment of Rights, Title and Interest in Invention  
(Multiple inventors; single assignee)

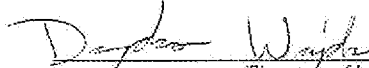
Docket No.  
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Executed this 17<sup>th</sup> day of October, in the year 2008

at

  
\_\_\_\_\_  
(Signature of Inventor)

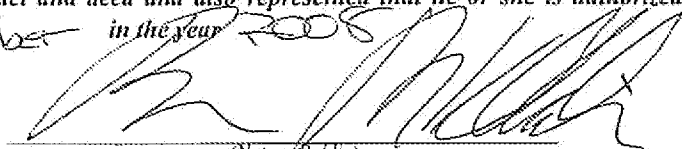
State of Ohio

County of Cuyahoga

Before me personally appeared Douglas Wajda

who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to execute the same this 17 day of October in the year 2008

**BRIAN M. KOLKOWSKI, ATTORNEY  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE**

  
\_\_\_\_\_  
(Notary Public)

Executed this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_

at

\_\_\_\_\_  
(Signature of Inventor)

State of Ohio

County of Cuyahoga

Before me personally appeared \_\_\_\_\_

who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to execute the same this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_

\_\_\_\_\_  
(Notary Public)

Executed this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_

at

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(Signature of Inventor)

State of Ohio

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Before me personally appeared \_\_\_\_\_

who acknowledged the foregoing instrument to be a free act and deed and also represented that he or she is authorized to execute the same this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_

\_\_\_\_\_  
(Notary Public)