

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5179873

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ADAM C. SCOFIELD	10/03/2018
THOMAS JUSTIN SHAW	10/03/2018
GEORGE C. VALLEY	10/03/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE AEROSPACE CORPORATION
<b>Street Address:</b>	2310 E. EL SEGUNDO BOULEVARD
<b>City:</b>	EL SEGUNDO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	90245
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16154584
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(212)755-7306
<i>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.</i>	
<b>Phone:</b>	8583141200
<b>Email:</b>	cjhines@jonesday.com, wtokmakidis@jonesday.com
<b>Correspondent Name:</b>	JONES DAY
<b>Address Line 1:</b>	250 VESEY STREET
<b>Address Line 2:</b>	WENDY TOKMAKIDIS
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10281-1047
<b>ATTORNEY DOCKET NUMBER:</b>	12709-074-999
<b>NAME OF SUBMITTER:</b>	CARRIE J. HINES
<b>SIGNATURE:</b>	/Carrie J. Hines/
<b>DATE SIGNED:</b>	10/09/2018
<b>Total Attachments: 4</b>	
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source=12709-074-999_Assignment#page3.tif	



## ASSIGNMENT

WHEREAS, WE, Adam C. Scofield, citizen of the United States, having a mailing address of 5511 S. Verdun Avenue, Los Angeles, CA 90043 residing at Los Angeles, CA, Thomas Justin Shaw, citizen of the United States, having a mailing address of 12334 Coleraine Court, Reston, VA 20191 residing at Reston, VA and George C. Valley, citizen of the United States, having a mailing address of 2827 Wigtown Road, Los Angeles, CA 90064 residing at Los Angeles, CA, ASSIGNORS, are the inventors of the invention in **RESERVOIR COMPUTING OPERATIONS USING MULTI-MODE PHOTONIC INTEGRATED CIRCUITS** for which an application for a Patent of the United States has been filed.

- which is identified by Jones Day docket no. 12709-074-999 (CAM: 467972-999074)
- We hereby authorize and request attorney(s) Carl A. Kukkonen, III at Jones Day, to insert here in parentheses (Application number 16/154,584 , filed October 8, 2018 ) the filing date and application number of said application when known.

and WHEREAS, The Aerospace Corporation, a corporation organized and existing under the laws of the state of California, and having an office for the transaction of business at 2310 E. El Segundo Boulevard, El Segundo, CA 90245, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement.

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 10/3/2018, 2018 Adam C. Scofield L.S.

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

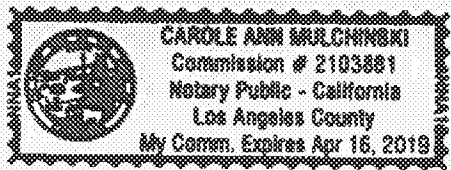
STATE OF California )  
 )  
 SS.:  
 COUNTY OF Los Angeles

On 10/3/18 before me, Carole Ann Mulchinski, Notary Public, personally appeared Adam C. Scofield, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature Carole Ann Mulchinski (Seal)



Date \_\_\_\_\_, 2018 \_\_\_\_\_ L.S.  
Thomas Justin Shaw

WITNESS: \_\_\_\_\_ Date: \_\_\_\_\_

WITNESS: \_\_\_\_\_ Date: \_\_\_\_\_

Date \_\_\_\_\_, 2018 \_\_\_\_\_ L.S.  
Adam C. Scofield

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

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STATE OF )  
                                  )  
                                  ) SS.:  
COUNTY OF )

On \_\_\_\_\_ before me, \_\_\_\_\_, Notary Public, personally appeared Adam C. Scofield, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature \_\_\_\_\_ (Seal)

Date October 3, 2018 \_\_\_\_\_ L.S.  
Thomas Justin Shaw

WITNESS: [Signature] Date: 2018-10-03

WITNESS: [Signature] Date: 10/3/2018

Date 3 Oct, 2018

George C. Valley  
George C. Valley

L.S.

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

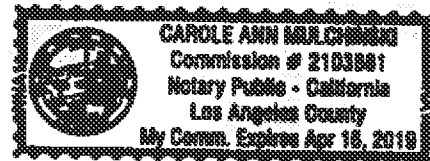
STATE OF California )  
                                  )  
                                  ) SS.:  
COUNTY OF Los Angeles)

On 10/3/18 before me, Carole Ann Mulchenko, Notary Public, personally appeared George C. Valley, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature Carole Ann Mulchenko (Seal)



ACCEPTED AND AGREED TO BY ASSIGNEE, The Aerospace Corporation:

Signature: Domenic C. Rigoglioso

Date: 10/3/2018

Printed Name: Domenic C. Rigoglioso

Title: Associate General Counsel