

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5519762

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	EXECUTIVE ORDER 9424, CONFIRMATORY LICENSE
CONVEYING PARTY DATA	
Name	Execution Date
GE AVIATION	06/11/2017
RECEIVING PARTY DATA	
Name:	DEPARTMENT OF THE NAVY
Street Address:	47076 LILJENCRANTZ ROAD
Internal Address:	BLDG. 435
City:	PATUXENT RIVER
State/Country:	MARYLAND
Postal Code:	20670
PROPERTY NUMBERS Total: 18	
Property Type	Number
Application Number:	11767548
Application Number:	11565472
Application Number:	11565387
Application Number:	11565180
Application Number:	11565273
Application Number:	11641286
Application Number:	12339974
Application Number:	11781485
Application Number:	11837680
Application Number:	11567080
Application Number:	12627474
Application Number:	12627517
Application Number:	12627538
Application Number:	12627558
Application Number:	11948570
Application Number:	11753907
Application Number:	12473413
Application Number:	12181079

CORRESPONDENCE DATA**Fax Number:** (301)995-0823*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.***Phone:** 3013429565**Email:** tanya.bashioum@navy.mil**Correspondent Name:** TANYA BASHIOUM**Address Line 1:** 47076 LILJENCRANTZ ROAD**Address Line 2:** BLDG 435**Address Line 4:** PATUXENT RIVER, MARYLAND 20670**ATTORNEY DOCKET NUMBER:** N00019-04-C-0093**NAME OF SUBMITTER:** TANYA BASHIOUM**SIGNATURE:** /TMB/**DATE SIGNED:** 05/13/2019**Total Attachments: 37**

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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)

GE Aviation

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

2. Name and address of receiving party(ies)

Name: Department of the Navy

Internal Address: NAVAIR AIR-11.OP

Street Address: 47085 Buse Road Bldg. 462

City: Patuxent River

State: Maryland

Country: USA Zip 20670

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

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

Execution Date(s) 06/11/17

- 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)

B. Patent No.(s)

11/767548, 11/565472, 11/565387, 11/565180, 11/565273, 11/641286,
12/339974, 11/781485, 11/837680, 11/567080, 12/627474, 12/627517,
12/627538, 12/627558, 11/948570, 11/753907, 12/473413, 12/181079

Additional numbers attached? Yes No

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

Name: Mark D. Kelly

Internal Address: NAVAIR AIR-11.OP

Street Address: 47085 Buse Road Bldg. 462

City: Patuxent River

State: Maryland Zip 20659

Phone Number: 301-342-9568

Fax Number: 301-757-2940

Email Address: mark.d.kelly@navy.mil

6. Total number of applications and patents involved: 18

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

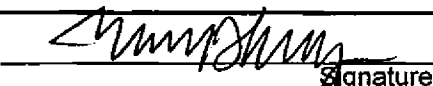
- Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized User Name _____

9. Signature:


Signature

5-2-19
Date

MARK D. KELLY
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 8

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

N00019-04-C-0093

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 203945

Invention Title: BIMATERIAL TURBINE BLADE DAMPER

Inventors: Patrick, D. Keith; Bauer, Randall

U.S. Filing Date: 25 June 2007

Non-Provisional Application Number.*: 11/767548

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, European Patent Office, and Japan

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

1. The nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention described in any patent application and in any and all divisions, continuations, and continuations in part, and in any and all patents and re-issues granted thereon throughout the world; and
2. All Other rights acquired by the Government by reason of the above identified agreement/contract and the laws and regulations that are applicable to the agreement/contract.

The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 019470 Frame: 0243 Recording Date: June 25, 2007

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

* Data Not Known at Execution Time May be Added Later for Better Identification

LICENSE TO THE UNITED STATES GOVERNMENT

Signed this 3rd day of November, 2017.

By Sushupta T. Sudarshan

S.T. Sude
(Signature)

Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
Cincinnati, OH 45215

I certify that I am the Secretary of the above-identified Corporation; that the officer who signed this instrument on behalf of the Corporation was then Manager of Legal Contracts of the Corporation, acting by authority of its governing body within the scope of its corporate powers.

Signed on 6 / 11 / 2017 Signature of Secretary Christopher J. Asgian
Day Month Year

(Corporate Seal)

Christopher J. Asgian

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 205645

Invention Title: METHODS AND SYSTEM FOR SHIELDING COOLING AIR TO FACILITATE COOLING INTEGRAL TURBINE NOZZLE AND SHROUD ASSEMBLIES

Inventors: ESTILL, ERIC; LAFLEN, JAMES HARVEY; LEE, CHING-PANG; JONES, DANIEL VERNER

U.S. Filing Date: 30 November 2006

Non-Provisional Application Number.*: 11/565472

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): None

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

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2. All Other rights acquired by the Government by reason of the above identified agreement/contract and the laws and regulations that are applicable to the agreement/contract.

The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 018569 Frame: 0168 Recording Date: November 30, 2006

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

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S.T. Sudarshan
(Signature)

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For: GE Aviation Legal

At: One Neumann Way
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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 205646

Invention Title: METHODS AND SYSTEM FOR COOLING INTEGRAL TURBINE SHROUD ASSEMBLIES

Inventors: LAFLEN, JAMES HARVEY; LEE, CHING-PANG; ANDERSEN, KATHERINE JAYNETORRENCE; JONES, DANIEL VERNER; PLACKE, DUSTIN ALFRED; Moore, George

U.S. Filing Date: 30 November 2006

Non-Provisional Application Number.*: 11/565387

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, European Patent Office, Japan

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

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2. All Other rights acquired by the Government by reason of the above identified agreement/contract and the laws and regulations that are applicable to the agreement/contract.

The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 018568 Frame: 0814 Recording Date: November 30, 2006

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

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LICENSE TO THE UNITED STATES GOVERNMENT

Signed this 3rd day of November, 2017.

By Sushupta T. Sudarshan

S. T. Sudarshan
(Signature)

Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
Cincinnati, OH 45215

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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 208410

Invention Title: METHODS AND SYSTEM FOR RECUPERATED
CIRCUMFERENTIAL COOLING OF INTEGRAL TURBINE NOZZLE AND
SHROUD ASSEMBLIES

Inventors: ESTILL, ERIC; LAFLEN, JAMES HARVEY; LEE, CHING-PANG;
ANDERSEN, KATHERINE JAYNETORRENCE

U.S. Filing Date: 30 November 2006

Non-Provisional Application Number.*: 11/565180

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): None

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

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The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 018568 Frame: 0038 Recording Date: November 30, 2006

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

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Signed on 6 / 11 / 2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 214423

Invention Title: METHOD AND SYSTEM TO FACILITATE ENHANCED LOCAL COOLING OF TURBINE ENGINES

Inventors: ESTILL, ERIC; LAFLEN, JAMES HARVEY; LEE, CHING-PANG; WYMORE, MICHAEL ELIOT; Vitt, Paul

U.S. Filing Date: 30 November 2006

Non-Provisional Application Number.*: 11/565273

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, European Patent Office, Japan

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

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The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 018568 Frame: 0462 Recording Date: November 30, 2006

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

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S.T. Sudarshan
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Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 216494

Invention Title: CLUSTER BRIDGED CASTING CORE

Inventors: BRASSFIELD, STEVEN; LEE, CHING-PANG

U.S. Filing Date: 19 December 2006

Non-Provisional Application Number.: 11/641286

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): China, Germany, European Patent Office, France, Great Britain, Japan, Korea

The invention identified above is a Subject Invention under Title 35 of the United States Code, Section 200 *et. seq.* and the Patent Rights Clause 52.227-12 and Alt 1 that is a term of the identified agreement or contract from the United States Government. This document is confirmatory of:

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The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 018730 Frame: 0834 Recording Date: December 19, 2006

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

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By Sushupta T. Sudarshan

S. T. Sudarshan
(Signature)

Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
Cincinnati, OH 45215

I certify that I am the Secretary of the above-identified Corporation; that the officer who signed this instrument on behalf of the Corporation was then Manager of Legal Contracts of the Corporation, acting by authority of its governing body within the scope of its corporate powers.

Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 218204

Invention Title: CMAS MITIGATION COMPOSITIONS, ENVIRONMENTAL BARRIER COATINGS COMPRISING THE SAME, AND CERAMIC COMPONENTS COMPRISING THE SAME

Inventors: NAGARAJ, BANGALORE; Boutwell, Brett; Hazel, Brian; Kirby, Glen; Fu, Ming

U.S. Filing Date: 19 December 2008

Non-Provisional Application Number.*: 12/339974

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): European Patent Office, Japan, France, Great Britain

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The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 027515 Frame: 0019 Recording Date: January 11, 2012

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

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At: One Neumann Way
Cincinnati, OH 45215

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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 218217

Invention Title: AIRFOIL AND METHOD FOR PROTECTING AIRFOIL LEADING EDGE

Inventors: Schneider, Michael; BAUR, ROBERT G.; Schilling, Jan

U.S. Filing Date: 23 July 2007

Non-Provisional Application Number.*: 11/781485

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, Germany, European Patent Office, Spain, France, Great Britain, Japan

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2. All Other rights acquired by the Government by reason of the above identified agreement/contract and the laws and regulations that are applicable to the agreement/contract.

The Recipient/Contractor warrants that it has the right to grant such a license by virtue of assignment executed and recorded in the U.S. Patent Office as follows:

*Reel: 019678 Frame: 0302 Recording Date: August 10, 2007

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

The acceptance of this license shall not constitute an acknowledgement by the Government of the validity or scope nor shall it operate to estop the Government from contesting the validity of the scope of any patent.

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S.T. Sudarshan
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Title: Counsel Intellectual Property

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Cincinnati, OH 45215

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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgarian
Day Month Year

Christopher J. Asgarian

(Corporate Seal)

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 218217

Invention Title: AIRFOIL AND METHOD FOR PROTECTING AIRFOIL LEADING EDGE

Inventors: Schneider, Michael; BAUR, ROBERT G.; Schilling, Jan

U.S. Filing Date: 13 August 2007

Non-Provisional Application Number.*: 11/837680

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, Germany, European Patent Office, Spain, France, Great Britain, Japan

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Day Month Year

(Corporate Seal)

Christopher J. Asgian

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 219733

Invention Title: METHOD AND APPARATUS FOR SENSOR FAULT DETECTION AND COMPENSATION

Inventors: PONZIANI, ROBERT; Adibhatla, Sridhar

U.S. Filing Date: 5 December 2006

Non-Provisional Application Number.*: 11/567080

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): None

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*Reel: 018586 Frame: 0178 Recording Date: December 5, 2006

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LICENSE TO THE UNITED STATES GOVERNMENT

Signed this 3rd day of November, 2017.

By Sushupta T. Sudarshan

S. T. Sudarshan
(Signature)

Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
Cincinnati, OH 45215

I certify that I am the Secretary of the above-identified Corporation; that the officer who signed this instrument on behalf of the Corporation was then Manager of Legal Contracts of the Corporation, acting by authority of its governing body within the scope of its corporate powers.

Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

(Corporate Seal)

Christopher J. Asgian

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 219979

Invention Title: ENVIRONMENTAL BARRIER COATINGS FOR HIGH TEMPERATURE CERAMIC COMPONENTS

Inventors: Boutwell, Brett; Kirby, Glen

U.S. Filing Date: 30 November 2009

Non-Provisional Application Number.*: 12/627474

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Germany, European Patent Office, France, Great Britain, Japan

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*Reel: 027701 Frame: 0968 Recording Date: February 16, 2012

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Christopher J. Asgian

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 219979

Invention Title: SLURRY COMPOSITIONS FOR MAKING ENVIRONMENTAL BARRIER COATINGS AND ENVIRONMENTAL BARRIER COATINGS COMPRISING THE SAME

Inventors: Boutwell, Brett; Kirby, Glen

U.S. Filing Date: 30 November 2009

Non-Provisional Application Number.*: 12/627517

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Germany, European Patent Office, France, Great Britain, Japan

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*Reel: 029409 Frame: 0470 Recording Date: December 5, 2012

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S. T. Sudarshan
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For: GE Aviation Legal

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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

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LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 219979

Invention Title: METHODS FOR MAKING ENVIRONMENTAL BARRIER COATINGS USING SINTERING AIDS

Inventors: Boutwell, Brett; Kirby, Glen

U.S. Filing Date: 30 November 2009

Non-Provisional Application Number: 12/627538

Contract Number: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Germany, European Patent Office, France, Great Britain, Japan

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*Reel: 029239 Frame: 0781 Recording Date: November 5, 2012

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Day Month Year

(Corporate Seal)

Christopher J. Asgian

LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 219979

Invention Title: METHODS OF IMPROVING SURFACE ROUGHNESS OF AN ENVIRONMENTAL BARRIER COATING AND COMPONENTS COMPRISING ENVIRONMENTAL BARRIER COATINGS HAVING IMPROVED SURFACE ROUGHNESS

Inventors: Boutwell, Brett; Kirby, Glen

U.S. Filing Date: 30 November 2009

Non-Provisional Application Number: 12/627558

Contract Number: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Germany, European Patent Office, France, Great Britain, Japan

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*Reel:027514 Frame: 0822 Recording Date: January 11, 2012

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Signed on 6 / 11 / 2017 Signature of Secretary Christopher J. Asgian
Day Month Year

Christopher J. Asgian

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LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 220809

Invention Title: BUSHING AND CLOCK SPRING ASSEMBLY FOR MOVEABLE TURBINE VANE

Inventors: WOOD, BILL T.; DAVIS, BRIAN MICHAEL; LORENZI, LOUIS; REIMELS, GREGORY

U.S. Filing Date: 30 November 2007

Non-Provisional Application Number.*: 11/948570

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, France, Great Britain, India, Japan, Korea.

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*Reel: 020182 Frame: 0918 Recording Date: November 30, 2007

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S. T. Sudarshan
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Title: Counsel Intellectual Property

For: GE Aviation Legal

At: One Neumann Way
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Day Month Year

Christopher J. Asgarian

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LICENSE TO THE UNITED STATES GOVERNMENT

Docket Number: 221605

Invention Title: TURBINE ENGINE VALVE ASSEMBLY AND METHOD OF ASSEMBLING THE SAME

Inventors: Corsmeier, Donald; Dawson, David

U.S. Filing Date: 25 May 2007

Non-Provisional Application Number.*: 11/753907

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Germany, European Patent Office, Spain, Great Britain.

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*Reel: 019345 Frame: 0779 Recording Date: May 25, 2007

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Day Month Year

Christopher J. Asgian

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Docket Number: 225685

Invention Title: REAL-TIME SCHEDULING OF LINEAR MODELS FOR CONTROL AND ESTIMATION

Inventors: Taware, Avinash; Brunell, Brent; Viassolo, Daniel

U.S. Filing Date: 28 May 2009

Non-Provisional Application Number.*: 12/473413

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, European Patent Office, Japan.

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*Reel: 022744 Frame: 0909 Recording Date: May 28, 2009

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Signed on 6/11/2017 Signature of Secretary Christopher J. Asgian
Day Month Year

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Christopher J. Asgian

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Docket Number: 228907

Invention Title: METHOD AND SYSTEMS FOR CONTROLLING GAS TURBINE ENGINE TEMPERATURE

Inventor: Adibhatla, Sridhar

U.S. Filing Date: 28 July 2008

Non-Provisional Application Number.*: 12/181079

Contract Number.: N00019-04-C-0093

Foreign Applications filed/intended in (countries): Canada, European Patent Office, Japan.

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*Reel: 021302 Frame: 0633 Recording Date: July 28, 2008

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