504028811 09/29/2016 PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | | NEW ASSIGNMENT | |
|---|---|--|-------------------------------------|
| NATURE OF CONVEYANCE: | | ASSIGNMENT | |
| CONVEYING PARTY DATA | | | |
| | | Name | Execution Date |
| VIANNEY CHRISTOPHE | E MARIE M/ | ANIERE | 08/24/2016 |
| MATTHIEU JEAN LUC \ | /OLLEBRE(| ЭТ | 07/25/2016 |
| GAETAN JEAN MARIE I | LOUPY | | 07/19/2016 |
| PAUL HENRI JOSEPH | JAUCLAIR | | 07/25/2016 |
| RECEIVING PARTY DA | TA | | |
| Name: | SNECMA | | |
| Street Address: | 2, Bouleva | rd Du General Martial Valin | |
| City: | Paris | | |
| State/Country: | France | | |
| Postal Code: | 75015 | | |
| PROPERTY NUMBERS Property Type | Total: 1 | Number | |
| Property Type | | Number | |
| Application Number: | 15 | 105359 | |
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| Fax Number: | (70 | 3)413-2220 | |
| Fax Number: <i>Correspondence will b</i> | • | 3)413-2220 e e-mail address first; if that is unsu | ıccessful, it will be sent |
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| Correspondence will be using a fax number, if p Phone: | e sent to th provided; if (70 | e e-mail address first; if that is unsu t that is unsuccessful, it will be sent (3) 413-3000 | |
| Correspondence will be using a fax number, if p Phone: Email: | e sent to th brovided; if (70 mo | e e-mail address first; if that is unsu that is unsuccessful, it will be sent (3) 413-3000 atley@oblon.com | |
| Correspondence will be using a fax number, if µ Phone: | e sent to th provided; if (70 mo OB | e e-mail address first; if that is unsu t that is unsuccessful, it will be sent (3) 413-3000 | |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: | e sent to th provided; if (70 mo OB 194 | e e-mail address first; if that is unsu t that is unsuccessful, it will be sent (3) 413-3000 atley@oblon.com SLON, ET AL. | |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 4: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsu that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com LON, ET AL. 40 DUKE STREET | |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 4: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsu that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com LON, ET AL. 40 DUKE STREET EXANDRIA, VIRGINIA 22314 | via US Mail. |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsu that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com LON, ET AL. 40 DUKE STREET EXANDRIA, VIRGINIA 22314 472651US41PCT | <i>via US Mail.</i> TAN OATLEY |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER: SIGNATURE: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsu that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com ELON, ET AL. 40 DUKE STREET EXANDRIA, VIRGINIA 22314 472651US41PCT MICHAEL PENNINGTON SEBAST | <i>via US Mail.</i> TAN OATLEY |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsul that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com SLON, ET AL. 40 DUKE STREET EXANDRIA, VIRGINIA 22314 472651US41PCT MICHAEL PENNINGTON SEBAST /Michael Pennington Sebastian Oat | via US Mail. TAN OATLEY tley/ |
| Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NU NAME OF SUBMITTER: SIGNATURE: | e sent to th provided; if (70 mo OB 19 ² ALI | e e-mail address first; if that is unsul that is unsuccessful, it will be sent 3) 413-3000 atley@oblon.com SLON, ET AL. 40 DUKE STREET EXANDRIA, VIRGINIA 22314 472651US41PCT MICHAEL PENNINGTON SEBAST /Michael Pennington Sebastian Oat 09/29/2016 | via US Mail. TAN OATLEY tley/ |

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Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

| inventor Nome | Complete Address |
|-----------------------------------|---|
| MANIERE, Viandey Christophe Marie | 51 rue du Père Correitin 75014 PARIS FRANCE |
| | I |

(Hereinalter referred to as the Assignor) have made an invention entitled:

Title of Investion (in English)

Title of invention (in French)

for which an application for Letters Patent has been filed in the following country:

| Country | Filing Date | Serial Number | |
|---------|-------------|---------------|--|
| FRANCE | DEC-18-2013 | 1362927 | |
| | | | |

The above-identified application(s) was/ware made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

| Corporation Name | Complete Address |
|------------------|---|
| SNECMA | SPIECMA 2 Boulevard du General Martial Valio 75015 PARIS FRANCE |
| | |
| | |

(Hereinafter referred to as the Assignee(s)) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignce[s] is hereby acknowledged, by these presents, 1, the Assignor, have sold, assigned. transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignce[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereoi, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may be granted to this invention in any country and all cetters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof, and all report and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I MEREBY further covenant and agree that I will communicate with the Assignes(s), its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be oncessary or desirable to perfect the title to this invention in said Assignee(s), its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee(s), its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee(s) or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee(s), its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HEREBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (S) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

| Date | Piace | inventor Ivame & Signature | Witness Name & Signature |
|-----------------|-----------|--|--------------------------|
| | VALAROCHE | MANIERE, Vianney Christophe Marie | SCHNEU, Lydie |
| August 24, 2016 | | | |
| | | $1 \land 0 \land \cdots \land \cdots \land \cdots$ | Schnell |
| | | V. Belian | |
| | | | |

PATENT REEL: 039895 FRAME: 0231

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

| | | *************************************** |
|-------------------------------|---|---|
| Inventor Name | Complete Address | · · · · · |
| VOLLEBREGT, Matthieu Jean Luc | 30, Rue des Champs 92600 ASNIERES sur SEINE FRANC | C.E |
| | | |

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (In English)
Title of Invention (In French)

for which an application for Letters Patent has been filed in the following country:

| Country | Filing Dote | Serial Number |
|------------|-------------|---------------|
| FRANCE | DEC-18-2013 | 1362927 |
| | | |

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

| Corperation Name | Complete Address |
|------------------|--|
| SNECMA | SNECMA 2 Boulevard du Général Martial Valin 75015 PARIS FRANCE |
| | |
| | |

(Hereinafter referred to as the Assignee[s]) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may be granted thereon, and all reissues thereof, and all letters Patent that may be granted to this invention in any country and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s], its/their successors, and assigns, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HEREBY acknowledge that any willful faise statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

| Date Place | inventor Name & Signature | Witness Name & Signature |
|---------------------------------|--|----------------------------------|
| July 25,2016 GENNEVILIA | VOLLEBREGT, Matthleu Jean Luc | (ANSADE, Laxed by and Acre David |
| Strend & 2, w 18 Gerame AILLIAG | and an and and | × / |
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| | V * | |

PATENT REEL: 039895 FRAME: 0232

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

| Inventor Name | Complete Address | | |
|--|---|--|--|
| LOUPY, Gaëtan Jean Marie | 4/5 33 Dalintober Street, G5 8JZ Glasgow - UNITED KINGDOM | | |
| (Hereinafter referred to as the Assignor) have made an invention entitled: | | | |
| Title of Invention (in English) | | | |
| | | | |
| | | | |
| Title of Invention (in French) | | | |

for which an application for Letters Patent has been filed in the following country:

| 1 | Country | Filing Date | Serial Number |
|---|---------|-------------|---------------|
| | FRANCE | DEC-18-2013 | 1362927 |
| | | | |

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

| - | Corporation Nome | Complete Address |
|--|------------------|--|
| | SNECMA | SNECMA 2 Boulevard du Général Martial Valin 75015 PARIS FRANCE |
| | | |
| and the second s | | |

(Hereinafter referred to as the Assignce[s]) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may be granted thereon; and I hereby and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted to this invention in any country and all Letters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HEREBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

| Date | Place | | Witness Name & Signature |
|---------------|---------|--------------------------|--------------------------|
| July 19, 2016 | Glasgow | LOUPY, Gaëtan Jean Marie | CHIRICO, Guilia |
| | | China | Griveise Orizi a |

PATENT REEL: 039895 FRAME: 0233

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

| Inventor Nome | Complete Address |
|-----------------------------|--|
| MAUCLAIR, Paul Henri Joseph | 49 Allée de la Farigoulatte 13300 SALON DE PROVENCE FRANCE |
| £ | |

(Hereinalter referred to as the Assignor) have made an invention entitled:

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| itie of Invention (in French) |
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for which an application for Letters Patent has been filed in the following country:

| Country | Filing Date | Serial Number |
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| FBANCE | DEC-18-2013 | 1362927 |
| | | |

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

| Corporation Name | Complete Address |
|------------------|--|
| SNECMA | ENECMA 2 Boulevard du Général Martial Valin 75015 PARIS FRANCE |
| | |
| | |

(Hereinafter referred to as the Assignee(s)) is/are desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all register that may be granted thereon, and all reissues thereof, and all register that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof, and all request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee[s], its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HERERY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

| Date | Ploce | Inventor Name & Signature | Witness Name & Signature |
|---------------|---------|-----------------------------|---------------------------------------|
| July 25, 2016 | B ordes | MAUCLAIR, Paul Henri Joseph | FAABOUL, Thomas Examples Christian |
| | | (V.Cabba | |

PATENT REEL: 039895 FRAME: 0234

RECORDED: 09/29/2016