# 504400107 06/06/2017 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4446804

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY	DATA				
			Name	Execution Date	
LANCE SHERRY				05/09/2017	
JOHN SHORTLE				05/08/2017	
ZHENMING WANG				05/09/2017	
RECEIVING PARTY I	DATA				
Name:		GE M/	ASON UNIVERSITY		
Street Address:	4400 U	INIVE	RSITY DRIVE		
City:	FAIRF	FAIRFAX			
State/Country:	VIRGIN	VIRGINIA			
Postal Code:	22030				
Property Type		15.40	Number		
PROPERTY NUMBERS Total: 1 Property Type		Number	]		
Application Number:		1549	5491671		
		(670)	400.0001		
Fax Number: <i>Correspondence wil</i> l		• •	420-9301 <b>e-mail address first; if that is un</b> s	successful, it will be sent	
•	if provided	•	at is unsuccessful, it will be ser	nt via US Mail.	
Phone:			20.9300		
Email: Correspondent Nam	~.		irj@ballardspahr.com ARD SPAHR LLP		
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			37552.0013U2		
NAME OF SUBMITTER:			CHARLEY F. BROWN		
SIGNATURE:			/Charley F. Brown #52,658/		
DATE SIGNED:			06/05/2017		
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### Docket Number: GMU.16.021U

## ASSIGNMENT OF INVENTION

WHEREAS, Lance Sherry, hereinafter called the "Assignor," has invented a new and useful invention entitled "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data"

for which the United States Provisional Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Provisional Patent Application Number 62/324,406 was filed on April 19, 2016,

and for which the United States Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Patent Application Number 15/491,671 was filed on April 19, 2017,

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee; the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefore, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TE	STIMONY WHEREOF, the	said Assignor has hereunto set his hands and affixed his seal.
Date:	5/9/17	fourth
WITN	IESSED:	LanceSherry
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Date:	- <u></u>	- furcia g. Toure
Date:	************	

PATENT REEL: 042617 FRAME: 0668

#### Docket Number: GMU.16.021U

## ASSIGNMENT OF INVENTION

WHEREAS, John Shortle, hereinafter called the "Assignor," has invented a new and useful invention entitled "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data"

for which the United States Provisional Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Provisional Patent Application Number 62/324,406 was filed on April 19, 2016,

and for which the United States Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Patent Application Number 15/491,671 was filed on April 19, 2017,

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefore, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

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John Shorth	ç.

WITNESSED: Along Hurcia Date: 5/8/12

Date:

Date: 5/8/17

PATENT REEL: 042617 FRAME: 0669

# Docket Number: GMU.16.021U

## ASSIGNMENT OF INVENTION

WHEREAS, Zhenming Wang, hereinafter called the "Assignor," has invented a new and useful invention entitled "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data"

for which the United States Provisional Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Provisional Patent Application Number 62/324,406 was filed on April 19, 2016,

and for which the United States Patent Application entitled, "Method and Apparatus for Probabilistic Alerting of Aircraft Unstabilized Approaches Using Big Data", Patent Application Number 15/491,671 was filed on April 19, 2017,

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, nonprovisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefore, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

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Date: 05/09/2017	3 the art
2,946%,	Zhenming Wang
WITNESSED:	
Date: 05/09/2017	J 枯

Date:

PATENT REEL: 042617 FRAME: 0670

**RECORDED: 06/06/2017**