505175054 11/05/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AMOL OGALE	11/02/2018

RECEIVING PARTY DATA

Name:	THE BOEING COMPANY	
Street Address:	100 NORTH RIVERSIDE PLAZA	
City:	CHICAGO	
State/Country:	ILLINOIS	
Postal Code:	60606	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16179324

CORRESPONDENCE DATA

Fax Number: (734)418-3320

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: 7344183142

Email: mail@vivacqualaw.com

Correspondent Name: VIVACQUA LAW

Address Line 1: 3101 E EISENHOWER PKWY STE 1
Address Line 4: ANN ARBOR, MICHIGAN 48108

ATTORNEY DOCKET NUMBER:	18-0584-US-NP
NAME OF SUBMITTER:	STEVEN L. CRANE
SIGNATURE:	/STEVENLCRANE/
DATE SIGNED:	11/05/2018

Total Attachments: 2

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PATENT 505175054 REEL: 047410 FRAME: 0602

ASSIGNMENT AND OATH/DECLARATION

and declare that:

The above-identified application was 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 above-identified application.

and 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.

I have reviewed and understand the contents of the above-identified application and am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, Sec. 1.56.

AND WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation—in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for

PATENT REEL: 047410 FRAME: 0603 LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the first paragraph of this Assignment.

IN TESTIMONY WHEREOF, I I	have signed this Assignment on the date specified below	
Tregale	2 nd November 2018	
Amol Ogale	Date	

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PATENT REEL: 047410 FRAME: 0604