504382356 05/24/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4429051 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LUIS LEON	05/24/2017
MICHAEL NILL	05/24/2017
PRADIP K SAHA	05/22/2017
CAROL S OLIVER	05/24/2017
RICOLE A JOHNSON	05/24/2017

RECEIVING PARTY DATA

Name:	THE BOEING COMPANY
Street Address:	100 NORTH RIVERSIDE PLAZA
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606-1596

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15603899

CORRESPONDENCE DATA

Fax Number: (919)854-2084

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: 919-854-1844

Email: uspto-assignments@coatsandbennett.com

Correspondent Name: COATS & BENNETT/BOEING

Address Line 1: 1400 CRESCENT GREEN, SUITE 300 CARY, NORTH CAROLINA 27518

ATTORNEY DOCKET NUMBER: 7474-064 / 16-1691-US-NP

NAME OF SUBMITTER: DAVID M KRASNOW

SIGNATURE: /David M. Krasnow, Reg. No. 34203/

DATE SIGNED: 05/24/2017

Total Attachments: 4

source=7474-064_Assignment#page1.tif

PATENT REEL: 042492 FRAME: 0503

504382356

source=7474-064_Assignment#page2.tif source=7474-064_Assignment#page3.tif source=7474-064_Assignment#page4.tif

> PATENT REEL: 042492 FRAME: 0504

ASSIGNMENT

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 N. Riverside Plaza, Chicago, Illinois 60606-1596, USA, with a mailing address of 100 N. 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, 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 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 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 bereafter 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.

> PATENT REEL: 042492 FRAME: 0505

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 direct 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 have signed this Assignment on the date specified below.

Huis R. Leob	May 29, 20,
Michael A. Nill	24 m _m , Zo17 Date
Pradip K. Saha	Date
Garol S. Oliver	May 24, 2017 Date
Ricole A. Johnson	Date

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 direct 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 have signed this Assignment on the date specified below.

Luis R. Leon	Date
Michael A, Nill	Date
Pradip K. Sahay)
Carol S. Oliver	Date
Ricole A. Johnson	Date

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 direct 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 have signed this Assignment on the date specified below.

Luis R. Leon	Date
Michael A. Nill	Date
Pradip K. Saha	Date
Carol S. Oliver	Date
Ricolanhum	MAY 24, 20

RECORDED: 05/24/2017

2

Date