# 504206283 01/31/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4252960

		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY DA	ATA		
		Name	Execution Date
MARK R. DAVIS			01/31/2017
MICHAEL S. FOSTER			01/31/2017
MING CHEN			01/31/2017
RODNEY D. CAMERON			01/31/2017
RECEIVING PARTY DA	ГА		
Name:	THE BOEING COMPANY		
Street Address:	100 N. RIVERSIDE DRIVE		
City:	CHICAGO		
State/Country:	ILLINOIS		
Postal Code:	60606		
Property TypeApplication Number:154		Number   5421231	
	I		
	ΑΤΑ		
Fax Number: <i>Correspondence will be</i>	e sent to t	he e-mail address first; if that is unsu if that is unsuccessful. it will be sent	
Fax Number: <i>Correspondence will be</i>	e sent to t provided;	<i>he e-mail address first; if that is unsu if that is unsuccessful, it will be sent</i> 49-862-8480	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email:	e sent to t provided; 94 do	<i>if that is unsuccessful, it will be sent</i> 49-862-8480 ocketing@goapogee.com	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	e sent to t provided; 9ª da A	<i>if that is unsuccessful, it will be sent</i> 49-862-8480 ocketing@goapogee.com POGEE LAW GROUP PC	
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Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	e sent to t provided; 94 da 20 IF	<i>if that is unsuccessful, it will be sent</i> 49-862-8480 pocketing@goapogee.com POGEE LAW GROUP PC 20 MAIN STREET, SUITE 600 VINE, CALIFORNIA 92614	
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Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NU	e sent to t provided; 9ª da A 20	<i>if that is unsuccessful, it will be sent</i> 49-862-8480 ocketing@goapogee.com POGEE LAW GROUP PC 020 MAIN STREET, SUITE 600 RVINE, CALIFORNIA 92614 BOE14009CIP 141384USCIP2 FRANCISCO A. RUBIO-CAMPOS	
Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	e sent to t provided; 9ª da A 20	<i>if that is unsuccessful, it will be sent</i> 49-862-8480 pocketing@goapogee.com POGEE LAW GROUP PC 020 MAIN STREET, SUITE 600 RVINE, CALIFORNIA 92614 BOE14009CIP 141384USCIP2	

WHEREAS, Mark R. Davis, residing at 100 North Riverside Plaza, Chicago, Illinois 60606-2016 (hereinafter "Assignor") is an original co-inventor of certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled SWITCHABLE TRANSMIT AND RECEIVE PHASED ARRAY ANTENNA WITH HIGH POWER AND COMPACT SIZE for which Assignor authorized making or has authorized being made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith.

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, Chicago, Illinois 60606-1596, with a mailing address of M/C 1640-2101, 15460 Laguna Canyon Road, Irvine, California 92618, 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 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 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.

IN TESTIMONY WHEREOF, I/We have signed this Assignment on the date specified below.

1/31/2017

WHEREAS, Michael S. Foster, residing at 100 North Riverside Plaza, Chicago, Illinois 60606-2016 (hereinafter "Assignor") is an original co-inventor of certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled SWITCHABLE TRANSMIT AND RECEIVE PHASED ARRAY ANTENNA WITH HIGH POWER AND COMPACT SIZE for which Assignor authorized making or has authorized being made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith.

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, Chicago, Illinois 60606-1596, with a mailing address of M/C 1640-2101, 15460 Laguna Canyon Road, Irvine, California 92618, 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 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 unencombered title to 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 Assignce's tight to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I/We have signed this Assignment on the date specified below.

31/2017 MICHAEL S. FOSTER

WHEREAS. Ming Chen, residing at 100 North Riverside Plaza, Chicago, Illinois 60606-2016 (hereinafter "Assignor") is an original co-inventor of certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled SWITCHABLE TRANSMIT AND RECEIVE PHASED ARRAY ANTENNA WITH HIGH POWER AND COMPACT SIZE for which Assignor authorized making or has authorized being made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith.

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, Chicago, Illinois 60606-1596, with a mailing address of M/C 1640-2101, 15460 Laguna Canyon Road, Irvine, California 92618, USA (hereinafter called "the Assignce"), 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, reissne, 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 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 emoyed 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.

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IN TESTIMONY WHEREOF, I/We have signed this Assignment on the date specified below.

With Clean 01/31/2017

WHEREAS, Rodney D. Cameron, residing at 100 North Riverside Plaza, Chicago, Illinois 60606-2016 (hereinafter "Assignor") is an original co-inventor of certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled SWITCHABLE TRANSMIT AND RECEIVE PHASED ARRAY ANTENNA WITH HIGH POWER AND COMPACT SIZE for which Assignor authorized making or has authorized being made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith.

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, Chicago, Illinois 60606-1596, with a mailing address of M/C 1640-2101, 15460 Laguna Canyon Road, Irvine, California 92618, 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 freaty, 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.

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IN TESTIMONY WHEREOF, I/We have signed this Assignment on the date specified below.

Zhay D. Comencon 1/31/2017 DNEY D. CAMERON

PATENT REEL: 041138 FRAME: 0702

**RECORDED: 01/31/2017**