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Form PTO-1595	

12-06-2001



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U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office

OMB No. 0651-0027 (exp. 5/31/2002)	
To the Honorable Commissioner of Patents and Trademarks: 1  1. Name of conveying party(jes):	Please record the attached original documents or copy thereof.
1. Name of conveying party(ies):	Name and address of receiving party(ies)
1. Donald R. McMillan	Name: Northrop Grumman Corporation
2. Gregory Foroglou 3. Scott E. Hoffman	Internal Address: 1840 Century Park Eas
4. Joaquin E. Carvajal	
Additional name(s) of conveying partyles attached? The Yes X No	Los Angeles, CA 90067-2199
3. Nature of conveyance:	90007-2199
Assignment 📮 Merger	_ ,
☐ Security Agreement ☐ Change of Name	Street Address: See above
☐ Other	
	City:Los Angeles State: CA Zip90067-
11/20/2001	2199
Execution Date:	Additional name(s) & address(es) attached? 📮 Yes 📮 No
4. Application number(s) or patent number(s):	
If this document is being filed together with a new applied	cation, the execution date of the application is $11/20/200$
A. Patent Application No.(s)	B. Patent No.(s)
09/994250	
Additional numbers att	l lached?
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: $\frac{1}{\sqrt{1}}$
Name: Northrop Grumman Corporation	7. Total fee (37 CFR 3.41)\$ 40.00
Internal Address: 1840 Century Park East	☐ Enclosed
Internal Address. 1040 Century Fark Edst	Authorized to be charged to deposit account
Los Angeles, CA 90067-2199	, takiniza to so sharged to deposit decount
.2/05/2001 GTON11 00000057 141325 09994250	
1 FC:561 40.00 CH	8. Deposit account number:
Street Address: See above.	14-1325
CityLos AngelesState: CA Zip: 90067-	(Attach duplicate copy of this page if paying by deposit account)
DO NOT USE	THIS SPACE
Statement and signature.	
To the best of my knowledge and belief, the foregoing is	information is true and correct and any attached copy
is a true copy of the original document.	$\int \int \int d^{3}x  d^{3$
Bruce B. Brunda / UL Name of Person Signing	Signature Date
Name of Person Signing	Signature

## **ASSIGNMENT**

WHEREAS, I, <u>Donald R. McMillan</u>

, hereinafter referred to as Assignor

have invented certain new and useful improvements in

STREAMLINED METHOD AND APPARATUS FOR ALIGNING A SENSOR TO AN AIRCRAFT

described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

N WITNESS WHEREOF, the undersigned Movember, 2001, and has executed the refere			, day of, 20
	Dan	LLR Jus Just Assignor's Signatu	<u>Kas</u>
STATE OF Florida			
COUNTY OF $\frac{6 \cos \alpha}{\cos \alpha}$ ss			
On Nol. 20, 2001 before me, Ponald R	2. McMillan		personally appeared
•	personal	ly known to me → or – proved	to me on the basis of
satisfactory evidence to be the person(s) whose name(sexecuted the same in his/her/their authorized capacity(is or the entity upon behalf of which the person(s) acted, ex	es), and that by his/her/their	strument and acknowledge to signature(s) on the instrumer	o me that he/she/they nt to be the person(s),
MITNESS my hand and afficial soal			

WITNESS my hand and official seal

(Seal)

Lorri A Hughes

My Commission CC866606

Expires August 26, 2003

Notary's Signature

		ASSIGNMENT			
WHEREAS, I,	Gregory Foroglou	<del></del>	, hereinafter referre	ed to as Assignor	
have invented certain n	ew and useful improvements in	STREAMLINED METHOD A SENSOR TO AN AIRCRAFT		ALIGNING A	
described in an application	on for United States Letters Pater	it, executed by me on the date a	s stated below;		
Park East, Los Angeles,	rthrop Grumman Corporation, a D California 90067, hereinafter refe rovements and said application:				
valuable consideration, the street that the st	ORE, in consideration of Assignment of Preceipt and Sufficiency is herethereby sell, assign, transfer and title and interest in, to and unquations-in-part thereof, and all Unall applications for Letters Patent wes, including the full right to claim lustrial Property and other prioritintry or countries foreign to the Unpereof; and Assignor hereby autificial of any country or countries. Letters Patent for said improvements of this instrument;	set over, unto Assignee, its suc der said improvements, and sa ited States Letters patent which which may hereafter be filed for so in for any such application the pri y-conferring treaties, and all Le hited States and all extensions, de horizes and requests the Comp foreign to the United States, who	sold, assigned, transferrocessors, legal represer aid application and all may be granted thereon aid improvements in any iority benefits of the Intestiters Patent which may divisions, continuations, missioner of Patents and ose duty it is to issue pa	red and set over, a ntatives and assig divisions, renewan and all reissues a y country or country ernational Conventry be granted for s continuations-in-put d Trademarks of atents on application	and als, and ries tion art, the
	y <u>acknowledges that at the time</u> signee, Assignor's entire right, titl			ignor was under	an
executed, and will not ex assigns and other legal r term or terms for which s	y covenants that Assignor has fu ecute, any agreement in conflict he epresentatives shall have the rig uch Letters Patent shall or may be denjoyed by Assignor had this As	nerewith and that Assignee, Nor ht to hold and enjoy for its and e granted, reissued or extended	throp Grumman Corporation their own use and bene	ation, its successore fit, to the end of the	ors. the
any and all facts known mprovements, said invernterference or litigation continuations-in-part, divipossible to aid Assignee.	further covenants and agrees to to Assignor respecting said imprintion, and said Letters Patent as or other legal proceedings relate sional and reissue applications; its successors, legal representations without further compensions.	ovements; to promptly provide as may be known or accessible to the thereto; to sign all lawful particular and to make all rightful oaths over and assigns in obtaining and	Assignor with all docum to Assignor; to testify as pers, execute all exten- or declarations and ger d enforcing all the rights	nents relating to some in a sions, continuation nerally do everythis herein conveyed legal representative.	aid ny ns, ing for
IN WITNESS Y	WHEREOF, the undersigned and has executed the reference		this instrument this day of	20 day 20	<u>of</u>
			Assignor's Signatur	- re	_
STATE OF FLORIDA	`			<u></u>	
COUNTY OF BREWKED	) ss				
	efore me, Gregory F	proslow		personally appear	
satisfactory evidence to be executed the same in his/	e the person(s) whose name(s) is her/their authorized capacity(ies) of which the person(s) acted, exec	s/are subscribed to this instrume, and that by his/her/their signature.	wn to me or - proved to the or and acknowledge to ure(s) on the instrument	me that he/she/th	iey
VITNESS my hand and o	official seal				



(Seal)

**PATENT** REEL: 012335 FRAME: 0955

## **ASSIGNMENT**

Scott E. Hoffman WHEREAS, I,

, hereinafter referred to as Assignor

have invented certain new and useful improvements in

TREAMLINED METHOD AND APPARATUS FOR ALIGNING A SENSOR TO AN AIRCRAFT

described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument:

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 201 November, 20 61, and has executed the referenced patent application on the

Assignor's Signature

STATE OF Florida

COUNTY OF Breward

On 20 Nos. 200 before me,

personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

(Seal)

Lord A Hughes My Commission CC888608 Expires August 26, 2003

	,	ASSIGNMENT
WHEREAS, I,	Joaquin E. Carvajal	, hereinafter referred to as Assignor
have invented certain	new and useful improvements in	STREAMLINED METHOD AND APPARATUS FOR ALIGNING A SENSOR TO AN AIRCRAFT
described in an applica	tion for United States Letters Patent	, executed by me on the date as stated below;
Park East, Los Angeles	orthrop Grumman Corporation, a De , California 90067, hereinafter refer provements and said application:	elaware corporation, having its principal place of business at 1840 Century red to as Assignee, is desirous of acquiring the entire right, title and interest
valuable consideration, by these presents does Assignor's entire right, continuations, and continuations thereof, and foreign to the United States for the Protection of In improvements in any corenewals and reissues United States, and any	the receipt and sufficiency is hereby sell, assign, transfer and sittle and interest in, to and undinuations-in-part thereof, and all Uniall applications for Letters Patent whates, including the full right to claim dustrial Property and other priority puntry or countries foreign to the Unithereof; and Assignor hereby authofficial of any country or countries for improvements.	r's obligations to Northrop Grumman Corporation, and for other good and y acknowledged, Assignor has sold, assigned, transferred and set over, and set over, unto Assignee, its successors, legal representatives and assigns, er said improvements, and said application and all divisions, renewals, ted States Letters patent which may be granted thereon and all reissues and nich may hereafter be filed for said improvements in any country or countries for any such application the priority benefits of the International Convention-conferring treaties, and all Letters Patent which may be granted for said ted States and all extensions, divisions, continuations, continuations-in-part, orizes and requests the Commissioner of Patents and Trademarks of the preign to the United States, whose duty it is to issue patents on applications ents to said Assignee, its successors, legal representatives and assigns, in
Assignor herel obligation to assign to A	by acknowledges that at the time ssignee, Assignor's entire right, title	of making the improvements herein identified, Assignor was under an and interest in, to and under said improvements;
executed, and will not exassigns and other legal term or terms for which	xecute, any agreement in conflict he representatives shall have the righ	I right to convey the interest herein assigned, and that Assignor has not erewith and that Assignee, Northrop Grumman Corporation, its successors, to hold and enjoy for its and their own use and benefit, to the end of the granted, reissued or extended as fully and completely as the same right or ignment not been made.
any and all facts known improvements, said investigation continuations-in-part, dispossible to aid Assignee	to Assignor respecting said impro ention, and said Letters Patent as or other legal proceedings related visional and reissue applications; a e, its successors, legal representativ	communicate to Assignee, its successors, legal representatives and assigns, vements; to promptly provide Assignor with all documents relating to said may be known or accessible to Assignor; to testify as to the same in any difference; to sign all lawful papers, execute all extensions, continuations, and to make all rightful oaths or declarations and generally do everything es and assigns in obtaining and enforcing all the rights herein conveyed for ation, but at the expense of Assignee, its successors, legal representatives
November, 200	WHEREOF, the undersigned had an arranged to the reference of the reference	as executed and delivered this instrument this day of day of, 20
		Assignor's Signature
STATE OF Florid	$(\lambda \zeta)^{ss}$	
On 20 Nov. 200 lb	pefore me, Jaquin E.	personally known to me or – proved to me on the basis of
executed the same in his	be the person(s) whose harrie(s) is	and that by his/her/their signature(s) on the instrument to be the person(s),

WITNESS my hand and official seal

Notary's Signature

(Seal)

Lorri A Hughes

My Commission CC866606

Expires August 26, 2003

PATENT REEL: 012335 FRAME: 0957

## ASSIGNMENT

WHEREAS, I.

William R. Ghecolal Checchia CONC.

, hereinafter referred to as Assignor

have invented certain new and useful improvements in

STREAMLINED METHOD AND APPARATUS FOR ALIGNING A SENSOR TO AN AIRCRAFT

described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications the felt states have been said improvements in any country or countries. foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this day of November , 20 01, and has executed the referenced patent application on the day of 20\_

STATE OF Florida COUNTY OF Bres

On <u>20 Not. 2001</u> before me, <u>William</u> Checchia

satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(les), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

(Seal)

My Commission CC866606 Expires August 26, 2003

RECORDED: 11/26/2001

**PATENT** REEL: 012335 FRAME: 0958