

11-14-2001



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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name and Address of Conveying Party(ies):

Douglas E. Shultz
1100 Orangewood Drive
Brea, Orange County, California 92821
Individual Citizenship: United States of America

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

2. Name and Address of receiving Party(ies):

Name: Northrop Grumman Corporation

Internal Address:

Street Address: 1840 Century Park East

City: Los Angeles

State: California Zip: 90067

Additional name(s) &
Address(es) attached?☐ Yes ☒ No

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3. Nature of conveyance:

☐ Assignment☐ Merger☐ Security Agreement☐ Change of Name☒ Other-Correction to
Reel/Frame

011708/0816;

Recorded 04/05/2001

Execution Date: 3/23/01

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 3/23/01

A. Patent Application No.(s):

B. Patent No.(s):

Additional Numbers

☐ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed to:

Name: Robert M. Chiaviello, Jr.
Internal Address: BAKER BOTTS L.L.P.
Street Address: 2001 Ross Avenue
City: Dallas
State: Texas Zip: 75201-2980

6. Total number of application and patents involved: One

7. Total Fee (37C.F.R. 3.41): \$40.00

☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit Account Number:

No. 14-1325 of Northrop Grumman Corporation
(Attach Duplicate Copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Robert M. Chiaviello, Jr.

Signature

Date

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DAL01:595593.1

PATENT
REEL: 012300 FRAME: 0569

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Internal Address:

Street Address: 1840 Century Park West

City: Los Angeles

State: California Zip: 90067

Additional name(s) &
Address(es) attached?☐ Yes ☒ No

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09/828639

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DAL01:595593.1

PATENT
REEL: 012300 FRAME: 0570

ASSIGNMENT

WHEREAS, I, Douglas E. Shultz, hereinafter referred to as Assignor, have invented certain new and useful improvements in METHOD AND SYSTEM FOR DIRECTING AN OBJECT, 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 Assignee, and for other good and valuable consideration, the receipt and sufficiency of which 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;

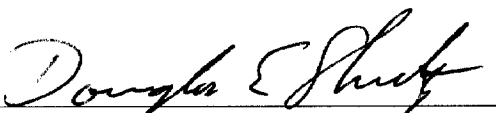
Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

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, 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 might 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 23rd day of March, 2001, and has executed the referenced patent application on the 23rd day of March, 2001.


Douglas E. Shultz

STATE OF CALIFORNIA)

COUNTY OF Los Angeles)^{ss}

On March 23, 2001 before me, Janis Ruttle, Notary Public, personally appeared Douglas E. Shultz, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the instrument to be the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Notary's Signature Janis Ruttle

