U.S. DEPARTMENT OF COMMERCE

REC Form **PTO-1595** U.S. Patent and Trademark Office (Rev. 10/02) 102731894 OMB No. 0651-0027 (exp. 6/30/2005) Tab settings ⇒ ⇒ ⇒ ▼ To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) 1. Name of conveying party(ies): Name: Northrop Grumman Corporation George Nicholas Bullen Internal Address: \_\_\_\_\_ Additional name(s) of conveying party(ies) attached? Yes V No 3. Nature of conveyance: Merger ✓ Assignment Street Address: 1840 Century Park East Security Agreement Change of Name Other City: Los Angeles State: CA Zip: 90067 04/19/2004 **Execution Date:** Additional name(s) & address(es) attached? Yes V No 4. Application number(s) or patent number(s): 04/19/2004 If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: 7. Total fee (37 CFR 3.41).....\$ Alan G. Towner, Esquire Pietragallo, Bosick & Gordon Enclosed Internal Address: Authorized to be charged to deposit account 8. Deposit account number: Street Address: One Oxford Centre, 38th Floor 500859 301 Grant Street City: Pittsburgh State: PA Zip: 15219 DO NOT USE THIS SPACE 9. Signature. April 21, 2004 Alan G. Towner Name of Person Signing Date

> Total number of pages including cover sheet, attachments, and documents: Mail documents to be recorded with required cover sheet information to:

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mmissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

> PATENT REEL: 015254 FRAME: 0624

## ASSIGNMENT

WHEREAS, I, GEORGE NICHOLAS BULLEN, residing at 352 Hollywood Boulevard, Oxnard, CA 93035, a citizen of the United States of America, have invented certain improvements in APPARATUS AND METHOD UTILIZING AN AUTOMATED MACHINE TOOL SYSTEM AND MANDREL FOR COLD WORKING OF HOLES IN METAL COMPONENTS for which I have this day executed an application for Letters Patent; and

WHEREAS, NORTHROP GRUMMAN CORPORATION (hereinafter the "Assignee"), a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at 1840 Century Park East, Los Angeles, CA 90067, is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of continued employment and/or other undertakings and/or other good and valuable consideration paid to me by said Assignee, receipt whereof I hereby acknowledge, I do hereby assign, sell, transfer, and set over unto said Assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights associated therewith for every country, said Assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by me had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. I covenant that I am the lawful owner of the said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use, or vend the said inventions or improvements or any of them, and that I have the full right to make this assignment.

And for the consideration aforesaid, I agree that I will communicate to said Assignee or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request, but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said Assignee or by counsel for said Assignee, to assist or enable said Assignee to obtain and enforce full benefits from the rights and

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PATENT REEL: 015254 FRAME: 0625 interests herein assigned. This assignment shall be binding upon my heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said Assignee.

GEORGE NÍCHOLAS BULLEN

State of CALIFORN

County of LOS MAKELES:

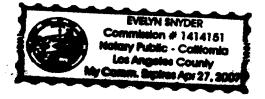
Before me, a Notary Public in and for the said County and State, personally appeared GEORGE NICHOLAS BULLEN who acknowledged that he is the person who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 19th day of April, 2004

Euclipe Sayle

Notary Public

(NOTARIAL SEAL)



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