| Form PTO-1595 (Rev. 03-05)<br>OMB No. 0651-0027 (exp. 6/30/2005)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 05-10-2006                                                                                                                                                                                                                                                                                                                                                                                 |
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| RECORDATION FO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DRM 0<br>103235263                                                                                                                                                                                                                                                                                                                                                                         |
| To the Director of the U.S. Patent and Trademark Office: Please                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | se record the attached documents or the new address(co)                                                                                                                                                                                                                                                                                                                                    |
| 1. Name of conveying party(ies):         Daniel N. HELD (3/21/2006), JR. COLE, Elbert L.         (3/14/2006), Martin DECKER (3/20/2006), and         Charles Y. CHEN (3/14/2006)         Additional name(s) of conveying party(ies) attached?         Yes       X No         3. Nature of conveying party(ies) attached?       Yes         Yes       X No         3. Nature of conveyance/Execution Date(s):         Execution Date(s):       in parentheses after inventor name         X Assignment       Merger         Change of Name         Security Agreement       Joint Research Agreement         Government Interest Assignment         Executive Order 9424, Confirmatory License         Other         4. Application or patent number(s):         A. Patent Application No.(s)         11/326,383 | 2. Name and address of receiving party(ies) Name:Northrop Grumman Corp Internal Address:Street Address: Electronics Sensors Systems Div. Law Department P.O. Box 17319 MS A440 City:Baltimore State:Maryland Country: United States of America Zip: 21203-73 Additional name(s) & address(es)YesNo attached: This document is being filed together with a new application B. Patent No.(s) |
| Additional numbers attache<br>5. Name and address to whom correspondence<br>concerning document should be mailed:<br>Name: William L. Gates<br>BIRCH, STEWART, KOLASCH & BIRCH,<br>LLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6. Total number of applications and 1                                                                                                                                                                                                                                                                                                                                                      |
| Internal Address: Atty. Dkt.: 1215-0558PUS2<br>Street Address: 8110 Gatehouse Road<br>Suite 100 East<br>P.O. Box 747                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Authorized to be charged by credit card<br>Authorized to be charged to deposit account<br>Enclosed<br>None required (government interest not affecting                                                                                                                                                                                                                                     |
| City:         Falls Church           State:         VA         Zip:         22040-0747           Phone Number:         (703) 205-8000         Fax Number:         (703) 205-8050           Email Address:         mailroom@bskb.com         Fax Number:         Fax Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8. Payment Information     a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 02-2448 – if neede Authorized User Name                                                                                                                                                                                                                                                 |
| 9. Signature:<br><u>William L. Gate</u><br>Signature<br>William L. Gates - 20,848                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | May 5, 2006<br>Date<br>Total number of pages including cover<br>sheet, attachments, and documents:                                                                                                                                                                                                                                                                                         |
| Name of Person Signing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                            |

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Birch, Stewart, Kolasch & Birch, LLP

WLG/mpe

PATENT REEL: 017865 FRAME: 0598



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## ASSIGNMENT JOINT

In accordance with existing Employee Intellectual Property Agreement(s) and/or other undertaking(s) entered into for good and valuable consideration, receipt of which is hereby acknowledged, we, Daniel N. HELD of Severna Park, MD 21146, Elbert L. COLE, Jr, of Catonsville, MD 21228, Martin J. DECKER of Baltimore, MD 21229, and Charles Y. CHEN of Odenton, MD 21113, hereby sell and assign to NORTHROP GRUMMAN CORPORATION, a Corporation organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1840 Century Park East, Los Angeles, California 90067-2199, U.S.A., its successors, assigns, nominees, or other legal representatives, the entire right, title and interest in and to the invention in **METHOD OF OPERATING A** MULTIBEAM RADAR, invented by us and the application for United States patent therefor, executed on the same day as the assignment is executed and all original and reissued patents granted therefor, and all divisions and continuations thereof, including the subjects-matter of any and all claims which may be obtained in every such patent, and the right to apply for and obtain patents and Utility Model Registrations in countries foreign to the United States, and in and to any Letters Patent or Utility Model Registration which may be granted thereon in such foreign countries, and authorize and request 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 the said Letters Patent or Utility Model Registration to the said NORTHROP GRUMMAN CORPORATION its successors, assigns, nominees or other legal representatives, as assignee of the entire interest, and covenant that we have full right to convey the entire interest herein assigned and that covenant that we have full right to convey the entire interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith, and agree that we will communicate to said Corporation, its successors, assigns, nominees or other legal representatives, all facts known to us respecting said invention, whenever requested, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and do all lawful acts requisite for the application for such divisional, continuing or reissue applications, or the procuring thereof, and that if and when said NORTHROP GRUMAN CORPORATION its successors, assigns, nominees or other legal representatives desire to file a disclaimer relating thereto, we will, upon request sign all lawful papers file a disclaimer relating thereto, we will, upon request, sign all lawful papers requisite for the filing of such disclaimer, and we further covenant and agree that we will, at any time upon request, do everything legally possible to aid said Corporation, its successors, assigns, nominees or other legal representatives, either in its or their own name, to apply for, obtain and enforce proper patent and/or Utility Model protection for said invention in all countries, all without further consideration but at the expense of said NORTHROP GRUMMAN CORPORATION its successors, assigns, nominees or other legal representatives.

|    | IN TESTIMONY | WHEREOF, | I have | hereunto | set | my | hand  | and    | seal  | this | 21            | day |
|----|--------------|----------|--------|----------|-----|----|-------|--------|-------|------|---------------|-----|
| of | Mortice.     | 2006.    |        |          |     |    |       | $\sum$ |       |      |               |     |
|    |              |          |        |          |     | 2  | -     | 7      | 1-    | ~    | $\rightarrow$ |     |
|    |              |          |        |          |     |    | Danie | elN    | . HEL |      |               |     |

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this of Much , 2006.

Elbert L. COLE. Jr.

> PATENT REEL: 017865 FRAME: 0599

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this  $\frac{20}{M_{\text{even}}}$  day of  $M_{\text{even}}$ , 2006.

Martin J. DECKER

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 14 day of MarC1, 2006. Charles Y. CHEN