Form PTO-1595 (Rev. 03-05)

OMB No. 0651-0027 (exp. 6/30/2005)	Inited States Patent and Trademark Office
R	086542
To the Director of the U.S. Patent and Trademark Office: Please	
Name of conveying party(ies):	2. Name and address of receiving party(ies)
Richard S. KONAPELSKY (07/29/2005) and John WOJTOWICZ (09/09/2005)	Name: Northrop Grumman Corp.
Additional name(s) of conveying party(ies) attached? Yes X No	Internal Address: Street Address:
3. Nature of conveyance/Execution Date(s):	Electronics Sensors Systems Div.
Execution Date(s): in parentheses after inventor name X Assignment	Law Department P.O. Box 17319 MS A440
Security Agreement Joint Research Agreement	City: Baltimore
Government Interest Assignment	State: Maryland
Executive Order 9424, Confirmatory License Other	Country: United States of America Zip: 21203-7319 Additional name(s) & address(es) Yes X No
Additional numbers attached?	Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: William L. Gates BIRCH, STEWART, KOLASCH & BIRCH, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: 1215-0538PUS1 Street Address: 8110 Gatehouse Rd	Authorized to be charged by credit card Authorized to be charged to deposit account
Suite 100 East P.O. Box 747	x Enclosed
	None required (government interest not affecting title
City: Falls Church	8. Payment Information
State: VA Zip: 22040-0747 Phone Number: (703) 205-8000	a. Credit Card Last 4 Numbers Expiration Date
Fax Number: (703) 205-8050	b. Deposit Account Number
Email Address: mailroom@bskb.com	Authorized User Name
9. Signature:	
William L. L. Signature	September 16, 2005 Date

09/20/2005 HMARZI1 00000046 11227111 04 FC:8021

40.00 OP

William L. Gates - 20,848

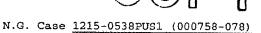
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Total number of pages including cover sheet, attachments, and documents:



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, Richard S. Konapelsky of Columbia, MD 21044, and John Wojtowicz of Hampstead, MD 21074, 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 IMPROVED THINDED ARRAY ANTENNA SYSTEM, 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, 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 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 represe

of July , 2005.

Richard S. Konapelsky

RECORDED: 09/16/2005

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this day of September, 2005.

John Wojtowicz

PATENT REEL: 017000 FRAME: 0005