DAHLGREN DIVISION         Street Address: 6703 W HWY 98       8. Deposit Account Number: 04-0814         City: PANAMA CITY State: FL Zip: 32407-7001       (Attach duplicate copy of this page if paying by deposit account)         /1399_10948877_0000136_040814393(2075       933(2075         158:       40,150_D2         9. Statemen 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.         HARVEY A. GILBERT Reg. No. 27331       Automation is true and correct and any attached copy is a true copy of the original document.         HARVEY A. GILBERT Reg. No. 27331       Automation is true and correct and any attached copy is a true copy of the original document.         CERTIFICATE OF MAILING (37 CFR ±1.8a)       Date	Image: 1       06-02         5.18.99       Image: 1         To the Honorable Commissioner of Patents thereof:       10105	ed original documents or conv
Execution Date:	DARRYL G. UPDEGROVE Additional name(s) of conveying party(ies) attachedyes/_X_no 3. Nature of conveyance:X_AssignmentMergerSecurity Agreement	Name:       The United States of America as Represented by the Secretary of the Navy         Internal Address:       Chief of Naval Research, Office of Counsel, Code OOCC         Street Address:       Ballston Tower One 800 N. Quincy Street
4. Application number(s) or patent number(s): If this document is being fied together with a new application, the execution date of the application is:		
5. Name and address of party to whom correspondence concerning document should be mailed:       6. Total number of applications and patents involved: 1         Name:       HARVEY A. GILBERT         Internal Address:       OFFICE OF COUNSEL, CODE CP2L         COASTAL SYSTEMS STATION	A. Patent Application No.(s) B. Patent No.(s) Navy Case No.: <b>79,736</b> Serial No. :	
Internal Address:       OFFICE OF COUNSEL, CODE CP2L COASTAL SYSTEMS STATION DAHLGREN DIVISION         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         Street Address:       6703 W HWY 98         City:       PANAMA CITY         Street Address:       6703 W HWY 98         Street Address:       6703 W HWY 98         Street Address:       DO NOT USE THIS SPACE         9. Statemen and signature:       DO NOT USE THIS SPACE         9. Statemen and signature:       Signature         Marker A. GILBERT Reg. No. 27331       Signature         Name of Person Signing       Signature         CERTIFICATE OF MAILING (37 CFR ±1.8a)       CERTIFICATE OF MAILING (37 CFR ±1.8a)         I hereby certify that these papers, along with a	5. Name and address of party to whom correspondence concerning	
City: PANAMA CITY State: FL Zip: 32407-7001 (Attach duplicate copy of this page if paying by deposit account) (3399 159498077 6000135 640814 23317075 (Attach duplicate copy of this page if paying by deposit account) (3399 159498077 6000135 640814 23317075 DO NOT USE THIS SPACE 9. Statemen 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. HARVEY A. GILBERT Reg. No. 27331 CERTIFICATE OF MAILING (37 CFR +1.8a) I hereby certify that these papers, along with any paper referred to as being attached or enclosed, are being deposited with the United States Postal Service on the date shown b with sufficient postage in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231. By: HARVEY A. GILBERT	Internal Address: OFFICE OF COUNSEL, CODE CP2L COASTAL SYSTEMS STATION	
/1399_1%H48977_000013E_040814033(7075	Street Address: 6703 W HWY 98	8. Deposit Account Number:04-0814
Image: 158:       40.00 D4       DO NOT USE THIS SPACE         9. Statemen 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.       Image: 100 Not USE THIS SPACE         HARVEY A. GILBERT Reg. No. 27331       Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE         Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE         Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE         Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS SPACE       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space         Image: 100 Not USE THIS Space       Image: 100 Not USE THIS Space       Image	-	(Attach duplicate copy of this page if paying by deposit account)
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.          HARVEY A. GILBERT Reg. No. 27331       Harvey Studies       5/14/99         Name of Person Signing       Signature       Date         CERTIFICATE OF MAILING (37 CFR +1.8a)       I hereby certify that these papers, along with any paper referred to as being attached or enclosed, are being deposited with the United States Postal Service on the date shown b with sufficient postage in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.         By:       Harvey A. GILBERT         HARVEY A. GILBERT       Date:		JSE THIS SPACE
Patent Counse	To the best of my knowledge and belief, the foregoing information is true and document. <u>HARVEY A. GILBERT Reg. No. 27331</u> Name of Person Signing CERTIFICATE OF I I hereby certify that these papers, along with any paper referred to as being attached or with sufficient postage in an envelope addressed to the: Assistant Commissioner for Pat By:	MAILING (37 CFR · 1.8a) r enclosed, are being deposited with the United States Postal Service on the date shown b

PATENT REEL: 009981 FRAME: 0780

## ASSIGNMENT

WHEREAS, I Daryl G. Updegrove of Panama City, Florida, while employed by the Government of the United States, have invented certain new and useful improvements in:

## EMBEDDED FIBER OPTIC CIRCUIT BOARDS AND INTEGRATED CIRCUITS

identified as Navy Case No. 79,736 described in application for Letters Patent of the United States of America executed by us on \_\_\_\_\_\_\_\_, 19\_\_\_\_\_\_; and

WHEREAS, the Government of the United States, represented by the Secretary of the Navy and hereinafter referred to as the Government, is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to exercise such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, we hereby assign and transfer to the Government the entire right, title and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent to be held by the Government to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment not been made.

I do hereby also grant unto the Government, the option to take the entire right, title and interest in the invention and all patent applications or other forms of protection thereon in all countries foreign to the United States in which the Government may file, or cause to be filed, applications for Letter Patent or other forms of protection, without payment of any consideration. This option may be exercised at any time within eight months from the filing date of any application for the United States Letters Patent covering the invention, or within eight months from the declassification of the invention, whichever is later, by the Government obtaining an assignment for foreign filing executed by one or more of the inventors. However, if one or more or all inventors declines or is unable for any reason to execute an assignment for foreign filing upon written request by the Government does not exercise its option as above described, all foreign rights not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign policies of the Government.

I hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, I have set my hands and affixed our seal.

DARRYL G. UPDEGROVE

Date 5/14/99

PATENT REEL: 009981 FRAME: 0781

**RECORDED: 05/18/1999**