

PATENT ASSIGNMENT

Electronic Version v1.1

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| SUBMISSION TYPE:  | NEW ASSIGNMENT               |               |                |                     |            |                  |            |                |            |
|---|------------------------------|---------------|----------------|---------------------|------------|------------------|------------|----------------|------------|
| NATURE OF CONVEYANCE:   | ASSIGNMENT                   |               |                |                     |            |                  |            |                |            |
| CONVEYING PARTY DATA  |                              |               |                |                     |            |                  |            |                |            |
| <table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Leslie Mobley</td><td>03/02/2004</td></tr><tr><td>Patrick A. Ferat</td><td>03/08/2004</td></tr><tr><td>Juan I. Arvelo</td><td>03/02/2004</td></tr></tbody></table> |                              | Name          | Execution Date | Leslie Mobley       | 03/02/2004 | Patrick A. Ferat | 03/08/2004 | Juan I. Arvelo | 03/02/2004 |
| Name  | Execution Date               |               |                |                     |            |                  |            |                |            |
| Leslie Mobley   | 03/02/2004                   |               |                |                     |            |                  |            |                |            |
| Patrick A. Ferat  | 03/08/2004                   |               |                |                     |            |                  |            |                |            |
| Juan I. Arvelo  | 03/02/2004                   |               |                |                     |            |                  |            |                |            |
| RECEIVING PARTY DATA  |                              |               |                |                     |            |                  |            |                |            |
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| City:   | Baltimore                    |               |                |                     |            |                  |            |                |            |
| State/Country:  | MARYLAND                     |               |                |                     |            |                  |            |                |            |
| Postal Code:  | 21218                        |               |                |                     |            |                  |            |                |            |
| PROPERTY NUMBERS Total: 1   |                              |               |                |                     |            |                  |            |                |            |
| <table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>10544747</td></tr></tbody></table>  |                              | Property Type | Number         | Application Number: | 10544747   |                  |            |                |            |
| Property Type   | Number                       |               |                |                     |            |                  |            |                |            |
| Application Number:   | 10544747                     |               |                |                     |            |                  |            |                |            |
| CORRESPONDENCE DATA   |                              |               |                |                     |            |                  |            |                |            |
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| Correspondent Name:   | Benjamin Y. Roca             |               |                |                     |            |                  |            |                |            |
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| NAME OF SUBMITTER:  | Benjamin Y. Roca             |               |                |                     |            |                  |            |                |            |
| Total Attachments: 3<br>source=1923-ASSIGNMENT#page1.tif<br>source=1923-ASSIGNMENT#page2.tif<br>source=1923-ASSIGNMENT#page3.tif  |                              |               |                |                     |            |                  |            |                |            |

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PATENT  
REEL: 016552 FRAME: 0394

ASSIGNMENT

WHEREAS, Juan I. Arvelo, Patrick A Ferat, and Leslie Mobley, hereinafter referred to as the ASSIGNORS, have made an invention as described in a United States patent application entitled:

Method and Apparatus for High-frequency Passive Sonar Performance Prediction

which application was executed by them on March 2, 2004, March 8, 2004, March 2, 2004, respectively, and

WHEREAS, The Johns Hopkins University, a corporation organized and existing under the laws of the State of Maryland and having its principal place of business at Baltimore, Maryland, hereinafter referred to as the ASSIGNEE, desires to acquire an interest therein;

NOW, THEREFORE, in consideration of his employment by ASSIGNEE, the ASSIGNORS do hereby sell, assign and transfer to the ASSIGNEE the entire right, title and interest in and to said invention in the United States and its territories and possessions and in all foreign countries and the entire right, title and interest in and to said international application and any substitutions, divisions, continuations, or continuations-in-part based upon said application, and in and to any and all Letters Patent, whether original or reissue, which may be granted for said invention in the United States and its territories and possessions and in any and all foreign countries, the invention, said patent application, and any and all such patents to be held and enjoyed by the ASSIGNEE for its own use and benefit and for its legal representatives as fully and entirely as the same would have been held by the ASSIGNORS had this agreement not been made.

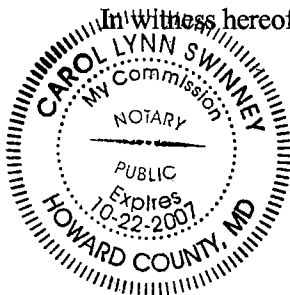
THE ASSIGNORS here further agree to make, execute, and deliver to the ASSIGNEE, its successors, assigns, and legal representatives, upon request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the aforesaid application, and of any United States or foreign applications, and of any substitutions, divisions, continuations, or continuations-in-part of said application, or applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, assigns, and legal representatives in every way in protecting the said invention as may be requested, provided, however that they shall not have to pay any expenses arising from extending such assistance.

THE ASSIGNORS hereby covenant that they have the right to grant the foregoing assignment.

*Juan I. Arvelo* SEAL 3/2/04 DATE  
Juan I. Arvelo

STATE OF MARYLAND )  
COUNTY OF HOWARD )

On this 2<sup>nd</sup> day of March, 2004, before me, the undersigned officer, personally appeared the above-named Juan I. Arvelo, known to me or satisfactorily proven to be the person whose name is subscribed to within the instrument and acknowledged that he executed the same for the purpose therein contained.



In witness hereof I hereunto set my hand and official seal.

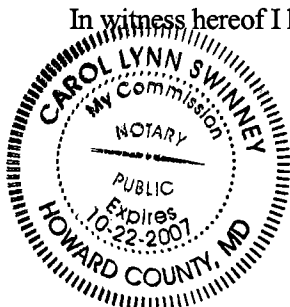
*Carol Lynn Swinney*  
Signature  
CAROL LYNN SWINNEY  
Printed Name

Notary Public  
My Commission expires 10-22-2007

*Patrick A. Ferat* SEAL 3/8/04 DATE  
Patrick A. Ferat

STATE OF MARYLAND )  
COUNTY OF HOWARD )

On this 8<sup>th</sup> day of March, 2004, before me, the undersigned officer, personally appeared the above-named Patrick A. Ferat, known to me or satisfactorily proven to be the person whose name is subscribed to within the instrument and acknowledged that he executed the same for the purpose therein contained.



In witness hereof I hereunto set my hand and official seal.

*Carol Lynn Swinney*  
Signature  
CAROL LYNN SWINNEY  
Printed Name

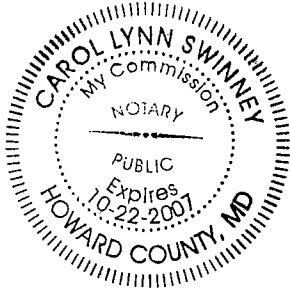
Notary Public  
My Commission expires 10-22-2007

Leslie Mobley SEAL 3/2/04 DATE  
Leslie Mobley

STATE OF MARYLAND )  
COUNTY OF HOWARD )

On this 2<sup>nd</sup> day of March, 2004, before me, the undersigned officer, personally appeared the above-named Leslie Mobley, known to me or satisfactorily proven to be the person whose name is subscribed to within the instrument and acknowledged that she executed the same for the purpose therein contained.

In witness hereof I hereunto set my hand and official seal.



Carol Lynn Swinney  
Signature  
CAROL LYNN SWINNEY  
Printed Name

Notary Public  
My Commission expires 10-22-2007