

Form PTO-1595 (Rev. 07/05)  
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### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

John R. Welch  
Andrew J. Hull  
Shawn M. Amorino

Additional name(s) of conveying party(ies) attached?  Yes  No

**2. Name and address of receiving party(ies)**

Name: The United States of America

Internal Address: Naval Undersea Warfare Center, Division

Newport, Office of Counsel

Street Address: 1176 Howell Street

City: Newport

State: RI

Country: U.S. Zip: 02841-1708

Additional name(s) & address(es) attached?  Yes  No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) 10 July 2007

- Assignment  Merger
- Security Agreement  Change of Name
- Joint Research Agreement
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other \_\_\_\_\_

**4. Application or patent number(s):**

This document is being filed together with a new application.

**A. Patent Application No.(s)**

Serial No. 11/829,566

Navy Case No. 97283

**B. Patent No.(s)**

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Office of Counsel, Bldg. 11

Internal Address: Naval Undersea Warfare Center,  
Division, Newport

Street Address: 1176 Howell Street

City: Newport

State: RI Zip: 02841-1708

Phone Number: 401-832-4736

Fax Number: 401-832-1231

Email Address: \_\_\_\_\_

**6. Total number of applications and patents involved:**

1

**7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00**

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

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b. Deposit Account Number 14-0590

Authorized User Name NUWC

**9. Signature:**

Jean Paul A. Nasser  
Signature

8/1/07  
Date

JEAN-PAUL A. NASSER  
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 2

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ASSIGNMENT

WHEREAS, I, (1) John R. Welch, (2) Andrew J. Hull, and (3) Shawn M. Amorino, of (1) Westport, County of Bristol, Commonwealth of Massachusetts, (2) Portsmouth, County of Newport, State of Rhode Island and (3) Waldorf, County of Charles, State of Maryland, while employed by the Government of the United States, have invented certain new and useful improvements in SYSTEM AND METHOD FOR CALCULATING THE DIRECTIVITY INDEX OF A PASSIVE ACOUSTIC ARRAY identified as ATTORNEY DOCKET NO. 97283 and described in application for Letters Patent of the United States of America executed by us on 7/10/07; 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 my 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 as may issue therefrom and any reissue or extensions thereof, said invention, application and 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.

We 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 Letters Patent or other forms of protection, without payment of any consideration; provided, however, that we may elect to take foreign rights in the invention, or applications or other forms of protection thereon, if the Government is not pursuing international patent protection within eight months of the filing date of any application for United States Letters Patent covering the invention, or within eight months from the declassification of the invention, whichever is later, 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 country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

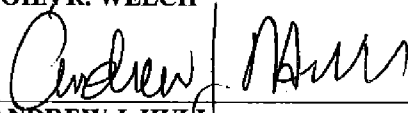
We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for 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 hand and affixed my seal.

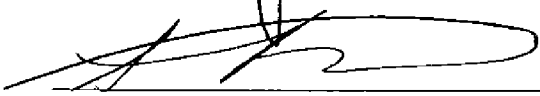
06/28/07  
Date

  
Seal  
JOHN R. WELCH

06/20/07  
Date

  
Seal  
ANDREW J. HULL

07/10/07  
Date

  
Seal  
SHAWN M AMORINO

PATENT