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## **How to Perform a Technology Survey at Your Lab**

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## ***DR. THERESA A. BAUS***

- Head of both the Technology Partnership Enterprise Office (TPEO) and Office of Research and Technology Applications (ORTA), Naval Undersea Warfare Center (NUWC), Division Newport, 2006-present
- Responsible for all aspects of Division's partnering activities with industry, academia, state and local governments, and other federal labs
- ORTA/Technology Transfer Manager, NUWC Division Newport, 1999-2006
- Facilitated access to the Division's unique expertise, equipment, and facilities necessary for successful product development
- Holds advanced degrees in physics and applied mathematics



## ***OUTLINE***

- What is a technology survey?
- What are the steps?
- Naval Undersea Warfare Center example



## ***TECHNOLOGY SURVEY***

- Identification and status of intellectual property available for transfer
- Includes patents and inventions, as well as facilities and expertise
- Utilized for internal prioritization and external marketing

**You need to know what you have before you can market it**



## ***TECHNOLOGY SURVEY (Cont.)***

Why do it?

- Organizes available patents and inventions
- Can be used to support search for CRADA and licensing partners
- Saves time
- Points out areas of strong activities
- Identifies top technologies or patents



## ***TECHNOLOGY SURVEY (Cont.)***

- Can contract out
- Or do internally



# ***COMPONENTS***

- Gather
- Organize
- Assess
- Make available
- Market



## ***GATHER (FIGURING OUT WHAT YOU HAVE)***

- Copies of patents
- Facility descriptions
- Invention disclosures
- Inventors, patent attorneys and program managers

Initial screening process



# TYPES OF INTELLECTUAL PROPERTY AND CAPITAL



US006932016B1

(12) **United States Patent**  
 Giesecke

(10) Patent No.: **US 6,932,016 B1**  
 (45) Date of Patent: **Aug. 23, 2005**

## Unique Software

## Test Facilities

(54) **VORTEX-ASSISTED PRESSURE CONTROL AT INLET OF UNDERWATER LAUNCH SYSTEM**

(76) Inventor: **Thomas J. Giesecke**, 60 Division St., Newport, RI (US) 02840

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 147 days.

(21) Appl. No.: **10/695,497**

(22) Filed: **Oct. 29, 2003**

(51) Int. Cl.<sup>7</sup> ..... **B63B 3/13**

(52) U.S. Cl. .... **114/238; 114/316; 114/320**

(58) Field of Search ..... 244/199; 114/20.1, 114/20.2, 238, 239, 312, 313, 318, 319, 337, 382, 320

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,694,357 A	11/1954 Lee	98/1
2,951,662 A	* 9/1960 Theodorsen	244/207
3,807,274 A	* 4/1974 Cohen	891/81
4,039,161 A	* 8/1977 Bauer	244/313
4,174,083 A	11/1979 Mohr	244/53 B
4,455,943 A	* 6/1984 Pinson	1102/489
4,609,687 A	* 6/1987 Rudolph	244/215
4,696,442 A	9/1987 Mazzitelli	244/53 B
5,005,909 A	* 4/1991 Moody	114/238
5,044,253 A	* 9/1991 Moody	891/81
5,165,360 A	* 11/1992 Moody	114/319
5,209,438 A	* 5/1993 Wygnanski	244/203
5,283,828 A	* 10/1993 Cox	244/199
5,363,791 A	* 11/1994 Stalhard, III	114/318
5,755,408 A	* 5/1998 Schmidt et al.	244/204
5,964,175 A	* 10/1999 Stimulis et al.	114/238

5,979,354 A	* 11/1999 Arzola	114/312
6,105,904 A	* 8/2000 Lay et al.	244/199
6,131,853 A	* 10/2000 Bauer et al.	244/113
6,302,360 B1	* 10/2001 Ng	244/203
6,418,870 B1	* 7/2002 Lanowy et al.	114/238
6,431,498 B1	* 8/2002 Wats et al.	244/198
6,474,604 B1	* 11/2002 Carlow	244/199
6,484,971 B2	* 11/2002 Layukallo	244/130
6,519,554 B1	* 2/2003 Giesecke et al.	703/6
6,584,924 B2	* 7/2003 Jordan	114/238
6,680,638 B2	* 12/2003 Hwang	73/147
6,685,143 B1	* 2/2004 Prince et al.	244/203
6,736,685 B2	* 5/2004 Giesecke	440/07

\* cited by examiner

Primary Examiner—Michael J. Carone  
 Assistant Examiner—John Richardson  
 (74) Attorney, Agent, or Firm—James M. Kasischke;  
 Michael P. Stanley; Jean-Paul A. Nasser

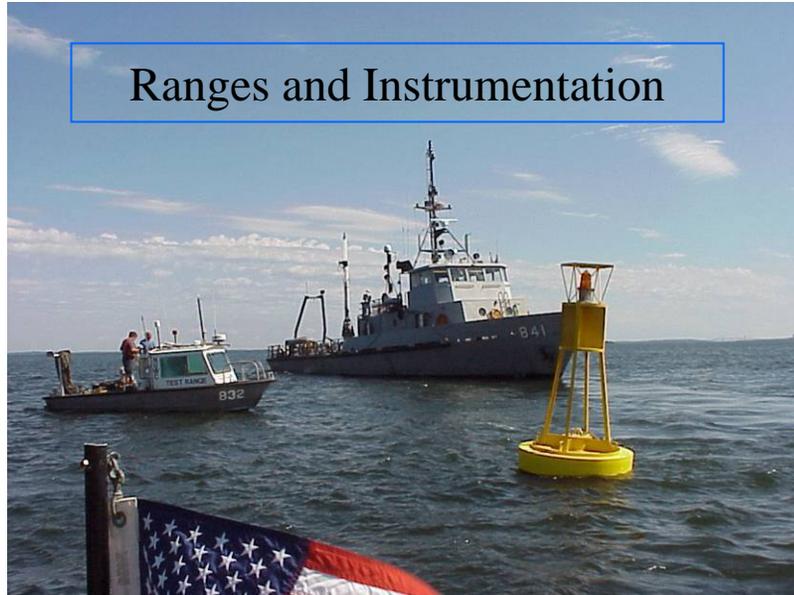
### ABSTRACT

(57) A vortex-assisted pressure control system is provided for controlling fluid flow into an inlet formed in a vehicle where such fluid flow into the inlet occurs during vehicle movement. Vortex generator(s) is (are) positioned forward of the inlet with respect to forward movement of the vehicle to generate streamwise vortices in the fluid as the vehicle moves through the fluid. Each vortex generator is controllable to adjust strength of the streamwise vortices and a lateral position of the streamwise vortices relative to the inlet. Sensors are used to i) detect the lateral position of the streamwise vortices relative to the inlet, and ii) pressure of the fluid that has entered the inlet. A controller adjusts the vortex generator(s) based on sensor measurements in order to control the lateral position of the streamwise vortices and the pressure of the fluid entering the vehicle via the inlet.

5 Claims, 2 Drawing Sheets



## Ranges and Instrumentation



## Issued Patents and Filed Patent Applications

Data



## ***ORGANIZE***

Develop a category scheme to group related items

- Could use core competencies or sort by departments or programs
- Should be easy for you and others to use to get to the information needed
- Patents can be separated from facilities or other expertise



## ***ASSESS***

- What technology does the IP support?
- What problems does it solve and what are its benefits?
- How deep is the innovation (Just an idea? Several patents and papers? Is there a prototype? Is it in use?)
- How does it relate to other technologies?
- Is the inventor willing to work with you to transfer the technology?



## ***SELECT TOP TEN***

- Try to get a mix of technology areas
- Narrow down to top five to start
- Gather supporting information
- Develop patent information sheets to help market



## ***MAKE YOUR PROPERTIES AVAILABLE***

- Website
  - Allows potential partners to view capabilities anonymously and without commitment
  - Track hits and review monthly
  - TechMatch
  
- Brochure of available patents and facilities
  - Needs to be updated regularly



**NUWCDIVNPT Work Status**

**Engineers Wanted!**

**Patents Page**

**Fleet Feedback**

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## Recent Patents Available for Licensing



[Acoustic Sensor, Transducers, and Arrays](#)

[Unmanned Undersea Vehicles  
\(UUVs\)](#)

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## Patents - UUV

[General UUV](#)

[Guidance and Control](#)

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## Patents

### Table of NUWC Patents for UUV - General

PATENT No.	TITLE
<a href="#">6,796,260</a>	Elastomeric ejection system with acoustically improved check valve
<a href="#">6,776,079</a>	Asymmetrically contoured elastomeric disk
<a href="#">6,766,745</a>	Low cost rapid mine clearance system
<a href="#">6,739,266</a>	High-speed supercavitating underwater vehicle
<a href="#">6,736,685</a>	Stowable integrated motor propulsor fins
<a href="#">6,732,788</a>	Vorticity generator for improving heat exchanger efficiency
<a href="#">6,732,410</a>	Precision hinge mounting stops

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US006736685B2

**(12) United States Patent**  
**Gieseke**

**(10) Patent No.: US 6,736,685 B2**  
**(45) Date of Patent: May 18, 2004**

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**(54) STOWABLE INTEGRATED MOTOR PROPULSOR FINS**

**(75) Inventor: Thomas J. Gieseke, Newport, RI (US)**

**(73) Assignee: The United States of America as represented by the Secretary of the Navy, Washington, DC (US)**

**(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.**

**(21) Appl. No.: 10/267,100**  
**(22) Filed: Oct. 8, 2002**  
**(65) Prior Publication Data**  
US 2004/0065248 A1 Apr. 8, 2004

**(4,145,877 A \* 3/1979 Montgomery ..... 60/226.2**  
**2002/0079404 A1 \* 6/2002 Schroeder et al. .... 244/3.3**

**\* cited by examiner**

**Primary Examiner—Stephen Avila**  
**(74) Attorney, Agent, or Firm—James M. Kasischke; Michael F. Oglo; Jean-Paul A. Nasser**

**(57) ABSTRACT**

A control surface system is particularly well suited to provide improved control for undersea vehicles having integrated motor propulsors (IMP). The control surface system is deployable beyond lateral peripheral dimensions of the IMP and undersea vehicle. A plurality of arc-shaped control elements is disposed in a stowed position in an annular intake recess inside of an annular duct on the undersea vehicle. Struts connect each of the control elements to the annular duct. A deployment device rotates each of the control elements and the struts radially outwardly toward

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development projects. For more information, contact:

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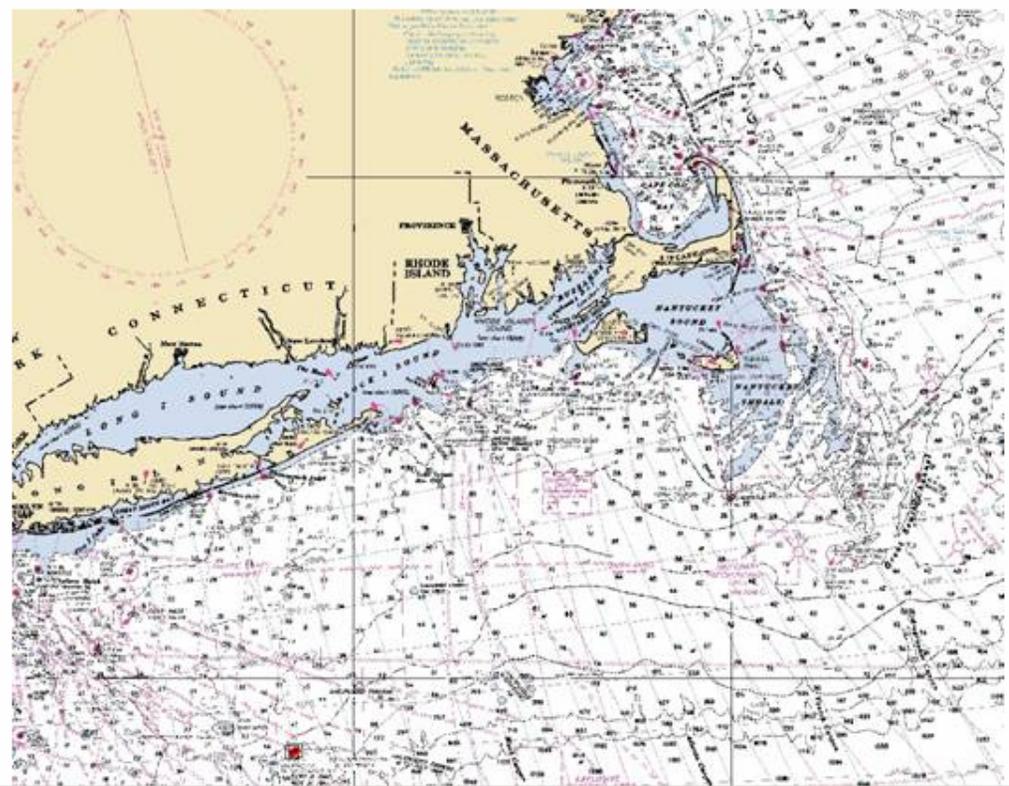


[Narragansett Bay Shallow Water Test Facility](#)



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## ***TECHNOLOGY SURVEY TIPS***

- Take your time
- Use meaningful categories
- Enlist help
- Use your survey
  - Elevator speech on top five patents or inventions
  - Awareness of facilities
  - Other innovations in technology area



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