David Reid
NOAA, OAR
Gold Medal
Leadership

Nominee Information:

Salutation (Ms., Mr., etc.) [Select from Drop Down]	**Nominee Name (or Organization Name)**	**Bureau, First Subdivision** (Ex. – NOAA, National Weather Service)	**Position Title**	**Pay Plan, Series, and Grade**	**Nominee is Eligible Based on Current Rating of Record** (Yes or No; select from Drop Down)	**Past Awards** (Honor or high-level awards received in last 5 years; do not include Special Act or Cash-In-Your- Account Awards)
Dr.	David F. Reid	NOAA	Physical Scientist	GS-1301-14	No, Justification Requir	Bronze Medal, 2002

The Department of Commerce limits group nominations to 10 members and joint organizational nominations to 3 organizational units.

X As the nominator, I certify, through checking the box to the left of this statement, that the nominee(s) listed above have a minimum current rating of record of Level 4 or higher; Commendable or higher; Eligible (Demo); or Meets or Exceeds Expectations (Two-Level). *If any nominee has a current rating of record of Level 3 or Fully Successful, a separate, one-page justification which details the specific reasons why the award is recommended must be attached to this nomination.*

Nominator's Name and Phone Number: Dr. Doran M. Mason, 734-741-2148

Medal Type (select Gold or Silver from drop-down): Gold

Nomination Type (select one from drop-down): Individual

Category (select one from drop-down): Leadership

What is the significance of this accomplishment? *(Maximum of 200 characters)*

This question is designed to give an overview of the importance of the contribution. The response should focus on the value of the accomplishment in concrete, results-oriented terms.

Research established saltwater flushing of empty ballast tanks as a beneficial practice that protects the ecosystem and improves environmental stewardship of the maritime industry in the Great Lakes.

Describe how this accomplishment exceeds the performance expectations of the individual(s) or organization(s). (*Maximum of 300 characters)*

Use this section to provide a compelling statement describing how the nominee exceeded performance expectations as opposed to merely doing his or her job. Please note, while exceeding a performance metric and contributing to the accomplishment of the Department's organizational mission and strategic goals is laudable, it does not necessarily evidence exceptional work above that which would have been expected by the nominee in the normal course of his or her job. The impact of the nominee's accomplishment must be truly exceptional and reflect only the highest level of achievement in the Department.

Reid led a multiyear binational research program that resulted in enhanced Great Lakes ecosystem protection, improved federal ballast management regulations, and improved environmental stewardship by the maritime commerce industry. Outcome exceeds DOC Strategic Goal 3 Obj. 3.2 expectations.

I. Certificate Citation: *(Maximum of 150 characters)*

The certificate citation must begin with the word, "*For*" followed by a statement, which summarizes the accomplishment. (Example - For developing a technique to estimate current and historic rates of natural gas flaring through an effective use of satellite imagery data.)

For research that improved environmental stewardship related to maritime commerce and enhanced Great Lakes ecosystem protection from invasive species.

II. Program Booklet Citation: *(Minimum of 450 characters, maximum of 600 characters)*

The program booklet citation must adhere to the following format. Individual nominations (*Mr. Smith is recognized for*…); Group nominations (*The group is recognized for*…); Organizational awards (*The organization is recognized for*…). In lieu of "recognized for", the following may also be used, "*honored for*" or "*cited for*". The program booklet must begin with one of the above introductory phrases, which clearly states what is being recognized followed by details on the nominee's work, and conclude with a sentence on the impact or importance of the accomplishment.

Dr. Reid is honored for developing and leading a multiyear, bi-national research program on ballast-borne invasive species risk from "NOBOB" (no-ballast-on-board) ships, which threatened both the Great Lakes ecosystem and transoceanic maritime commerce therein. Saltwater flushing was identified as a practicable, enforceable procedure that was adopted by U.S. and Canadian regulators for enhanced protection of the Great Lakes ecosystem. It significantly reduces risk while providing the maritime commerce industry with a new management practice to strengthen its environmental stewardship.

III. Justification:

The following questions are designed to succinctly clarify the nominee's accomplishment(s) and the reasons this nomination merits either a Gold or Silver Medal. The justification should be concise and clear, written in "Plain English," and should not rely on acronyms, jargon or extremely technical text. In addition, the justification should be written for the lay reader, not an expert in the field. Complicated technical descriptions often serve to confuse the reader and are seldom necessary to describe the accomplishment. Complete nominations must include responses to Section 1, if applicable, and to both Sections 2 and 3.

Section 1 – Definitions (*Maximum of 500 characters)*

Use this section to define all scientific/technical terms, acronyms, or terms-of-art whose meanings are not readily apparent to a lay reader. This section is <u>only</u> for the definition of terms used in the justification below. Do not define terms in common use within the Department, such as ITA, DOC, OPM, etc.

USCG: U.S. Coast Guard

NOBOB: "no-ballast-on-board" - a transoceanic ship entering U.S. waters loaded with cargo and thus carrying only residual ballast water and sediment in its ballast tanks. Ballast operations of such ships were unregulated and can pose a significant risk of invasive species introduction to aquatic ecosystems. NOBOBs are a large component of maritime commerce in the Great Lakes.

GLPF: Great Lakes Protection Fund

Section 2 - Award Justification *(Maximum number of characters for all four questions in this section cannot exceed 2000)*

1. **What was the specific goal, challenge or problem related to the Department's mission and/or strategic plan?**

Supports DOC Goal 3, Obj 3.2. Ballast water discharge is responsible for ~70% of the aquatic alien species in the Great Lakes, a serious ecosystem threat. Continued discovery of new alien species led to increasing public blame of transoceanic maritime commerce & increasing pressure for severe restriction of maritime commerce access to Great Lakes. In '93 USCG established regulations for ballast mgmt on ships entering the Great Lakes, but authority was only for ships carrying pumpable ballast water, thus did not include NOBOBs. NOBOBs add new ballast water & discharge it in the Great Lakes. Live alien organisms from NOBOB ballast can be discharged with new ballast & pose a serious ecosystem threat. NOBOBs were identified as a major issue in the Great Lakes - over 80% of ships enter the Great Lakes as NOBOBs, not covered by the 1993 regulations. The challenge was to identify practicable management approaches to better protect the Great Lakes ecosystem & reduce negative public pressure against transoceanic maritime commerce.

2. **What was the context in which the nominee addressed the goal, challenge or problem?**

Reid conceived & led a research program to scientifically characterize the NOBOB risk, then conceived & established another research program to investigate saltwater flushing & other ballast management practices to reduce the maritime commerce NOBOB risk.

3. **What specific actions did the nominee take to address the goal, challenge or problem?**

Reid identified a binational multi-institutional research team, incorporated the maritime commerce industry as a partner, obtained funding (GLPF, NOAA, EPA, USCG), & managed & participated in the research. He conducted extensive outreach to the shipping & regulatory communities to explain the science, & the benefits & limitations of saltwater flushing.

4. **What were the results of the actions in either quantifiable or qualitative terms?**

New ballast management regulations for NOBOBs requiring saltwater flushing have been implemented for Great Lakes. Provided maritime industry with tool for improved environmental stewardship & regulators with enforceable solution to reduce a serious ecosystem threat without harsh regulations. Reduced public pressure against maritime industry.

Section 3 - Additional Information *(Maximum number of characters for all six questions in this section cannot exceed 2000)*

1. **How long did it take to complete the accomplishment? When was the accomplishment completed/implemented/deployed?**

Research was initiated in 2001, completed in 2007, with Reid providing leadership for the entire programmatic period; new regulations and enhanced ecosystem protection resulting from research were established between 2006 and 2008.

2. **What is the short-term impact (1-2 years) of the accomplishment on the bureau and/or Department's mission?**

Short-term: immediate enhancement of Great Lakes ecosystem protection by reducing risk of new ballast-borne invasive species; immediate reduction in public sentiment to close the St. Lawrence Seaway in order to stop influx of transoceanic cargo ships, thus aiding in retention of strong transoceanic maritime industry in the Great Lakes and providing a tool to the maritime industry for improved environmental stewardship.

3. **What is the long-term impact (3-5 years) of the accomplishment on the bureau and/or Department's mission?**

Long-term impact: expecting reduced influx of new species attributed to ballast discharges in the Great Lakes and more time for development and implementation of effective on-board ballast treatment technologies. Saltwater flushing requirement will likely be replaced only when on-board treatment to a legislated discharge standard is a practicable reality, likely to be at least 5-10 years off.

4. **Does the accomplishment affect other bureaus/Department or other Federal agencies? If so, how?**

The research directly affected and changed the regulatory and enforcement positions of the USCG, the St. Lawrence Seaway authorities, and the Canadian Ministry of Transport and provided them with a practicable and enforceable new tool to improve protection of the Great Lakes ecosystem and allow maritime commerce to continue operating without imposition of potentially restrictive ballast management requirements.

5. **Did the accomplishment result in a major advancement in science, technology, or automation? If so, how?**

Resulted in a major advancement in scientific understanding and mitigation of the risk to the Great Lakes ecosystem posed by NOBOBships.

6. **Did the accomplishment result in a major advancement in non-scientific areas such as customer service or administrative support? If so, how?**

Yes - immediate and direct impact on federal policy and regulations of the U.S. and Canada governing ballast management on foreign (saltwater) ships operating in the Great Lakes.