



## *United States Naval Academy*

**Press Release from Public Affairs Office PAO-4375-77  
29 August 1977**

The U. S. Naval Academy's new, 380-foot towing tank was dedicated last week (August 24) in a unique ceremony, during which vials of water from a score of similar installations around the country and several foreign nations were emptied in to it by officials of those facilities.

The participants were in Annapolis to attend the 18th American Towing Tank Conference, which has met every three years since 1938. More than 250 representatives of various towing tank facilities attended the meeting, co-sponsored by the Naval Academy, the Office of Naval Research and the Naval Sea Systems Command.

Located in the Rickover Engineering Studies Complex, the Academy's new tank, which holds 1.2 million gallons of water to a depth of 16 feet, is capable of creating various sea states, wave heights and patterns. Models of different ship hull designs, some as long as 25 feet, are towed through the tank to study their performance under a variety of conditions such as those met at sea

On hand for dedication of the Academy Towing Tank were past and present faculty members who were instrumental *in* developing its design over the past decade, including Rear Admiral D. L. Kauffman, USN (Ret.), who was Naval Academy Superintendent when the tank was first proposed, Rear Admiral R. W. King, USN (Ret.) head of the Division of Engineering and Weapons, when the concept was first put forward, Captain J. R. Wales, current head of the Division of Engineering and Weapons, and Captain J. J. Shanley, CEC ROICC. Professor Bruce Johnson, now Director of the Hydromechanics Laboratory at the Academy, first began pressing for a new towing tank 11 years ago, and emceed the ceremony which saw that idea reach fruition. (See photo of Admiral Kauffman making his remarks on the next page)

The new facility will be used for midshipmen instruction and for research by midshipmen and faculty members in various academic areas, such as Naval Architecture, Marine Engineering, Ocean Engineering, Mechanical Engineering, Oceanography and others.

As early as the 17th Century, such scientists as Newton began investigating the best shape for ship hull designs in order to develop the least resistance to movement through the sea.

Benjamin Franklin became interested in the subject during one of his visits to Europe and *in* 1764 tested models to verify observations he had made in Holland.

Designs developed from models played a large part in development of sailing ship hulls, in particular the first "clipper" ship design produced in the early 19th Century in Aberdeen, Scotland. Naval ship designs have been developed through the use of model hulls by the British Admiralty since the Froude era and the Dutch Royal Navy built its first experimental tank in 1873. Since 1900, towing tanks have been in wide use around the world.

The major site of U. S. Navy towing tank experiments is the David Taylor Naval Ship Research and Development Center at Carderock, Md., a laboratory operated by the Naval Material Command and possessing the largest facilities existing today in the field of hydromechanics research. (See photo of Dr. Cummins mixing in DTMB water into the NAHL tank.)

The Dedication finished with a "Mixing of the Waters" ceremony involving water from over 30 worldwide towing tanks. William Crago, representing the British Towing Tank Panel, poured the first vial, with water from five British facilities including the Froude Tank, the world's first modern experimental towing tank, constructed in 1871, which is still in use. (Naval Academy Photos follow)



RADM King, Professor Johnson, RADM Kauffman delivering remarks, and Captain Wales

### Mixing of the Waters Ceremony



Mr William Crago, pouring Froude Water from British Tanks



Dr. William Cummins,  
Technical Director DTMB



Mr. Sidney Mathews  
Director, Ottawa Canada Tank

# Program for the 1977 ATTC Hydromechanics Lab Dedication Ceremony

The following agencies and contractors were instrumental in bringing this outstanding teaching and research facility to completion

Chesapeake Division Naval Facilities Engineering Command, Washington Navy Yard and Annapolis Branch	Project Administration
Division of Engineering and Weapons, U. S. Naval Academy	Conceptual Design and Technical Management
Warnecke/Ewing Joint Venture Washington, D. C.	Rickover Hall Architect/ Engineer
Norair Engineering Washington, D. C.	Basin Construction
J. E. Bateson Baltimore, Maryland	Rickover Hall Construction
AAI Corporation Cockeysville, Maryland	Carriage Design and Data Link Specifications
ABA/Electromechanical Systems Inc. St. Petersburg, Florida	Carriage, Drive System, and Data Link
ITT Gilfillan Van Nuys, California	Optical Data Transmission System
CADCOM, Inc. Annapolis, Maryland	Digital Systems Specification and Integration
Computer Sciences Corporation Falls Church, Virginia	Computer, Data Acquisition and Software Systems
MTS Systems Corporation Minneapolis, Minn.	Wavemaker, Beach, and Wavemaker Computer Control
HYDRONAUTICS, Incorporation Laurel, Maryland	Dynamometry and Instrumentation
AKROEX, Inc. Annapolis, Maryland	Installation Engineering

## DEDICATION CEREMONY

OPENING ..... PROF BRUCE JOHNSON  
 DEDICATION PRAYER ..... CAPT J. W. CONTE, CHC, USN  
 REMARKS ..... RADM D. L. KAUFFMAN, USN, RET  
 REMARKS ..... RADM R. W. KING, USN, RET  
 PRESENTATION OF FACILITY ... CAPT J. J. SHANLEY, JR., CEC, USN  
 DEDICATION ..... CAPT J. R. WALES, USN  
 "MIXING OF THE WATERS" ..... U. S. AND FOREIGN GUESTS  
 CLOSING ..... PROF BRUCE JOHNSON

### 18th ATTC EXECUTIVE COMMITTEE

Dr. Bruce Johnson, USNA, Chairman  
 Dr. Jack Hoyt, USNA  
 Dr. C. P. Leone, Sao Paulo, Brazil  
 Mr. S. T. Mathews, Ottawa, Canada  
 Dr. T. Y. Wu, Cal Tech.

### 18th ATTC ORGANIZING COMMITTEE

Dr. Bruce Johnson, USNA, Chairman

Max Altman	Robert Keane, NAVSEC
Roger Compton	LCDR Sam Lowrie, CF
Stanley Doroff, ONR	Bruce Nehrling
LCDR William Harris	LCDR Ronald Ruys
John Hill	CDR Henry Schmidt
Jack Hoyt	CAPT John Wales

### MENU

Maryland Crab Soup  
 Tossed Salad  
 Chicken Cordon Bleu  
 Green Beans Almondine  
 Rolls  
 Raspberry Sherbert  
 Coffee - Tea  
 Rosé d'Anjou (Alexis Lichine)

### 18th ATTC TECHNICAL COMMITTEE CHAIRMEN

Resistance & Flow	Prof Louis Landweber, U. of Iowa
Cavitation	Prof Blaine Parkin, Penn State
Seakeeping	Prof J. R. Paulling, U. of Calif.
Maneuvering	Mr. William Smith, DTNSRDC
Propulsion	Mr. Raymond Wermeter, DTNSRDC
Systems & Techniques	Mr. Peter Ward Brown, Davidson Lab

### PROGRAM

INTRODUCTION & ACKNOWLEDGEMENTS - Prof Bruce Johnson  
 REMARKS - RADM J. W. Lisanby, USN, COM NAVSEC