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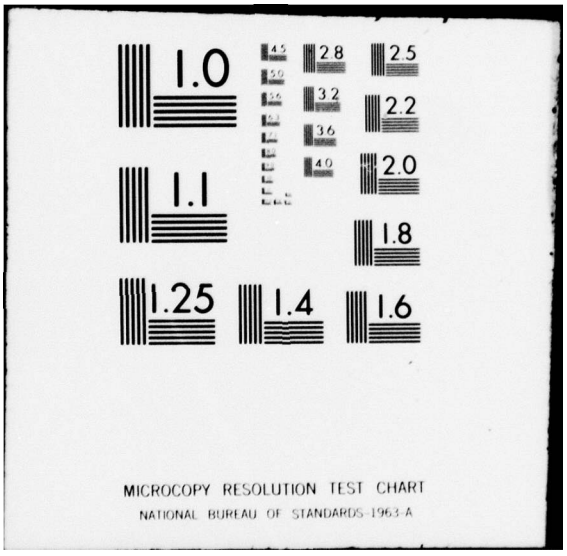
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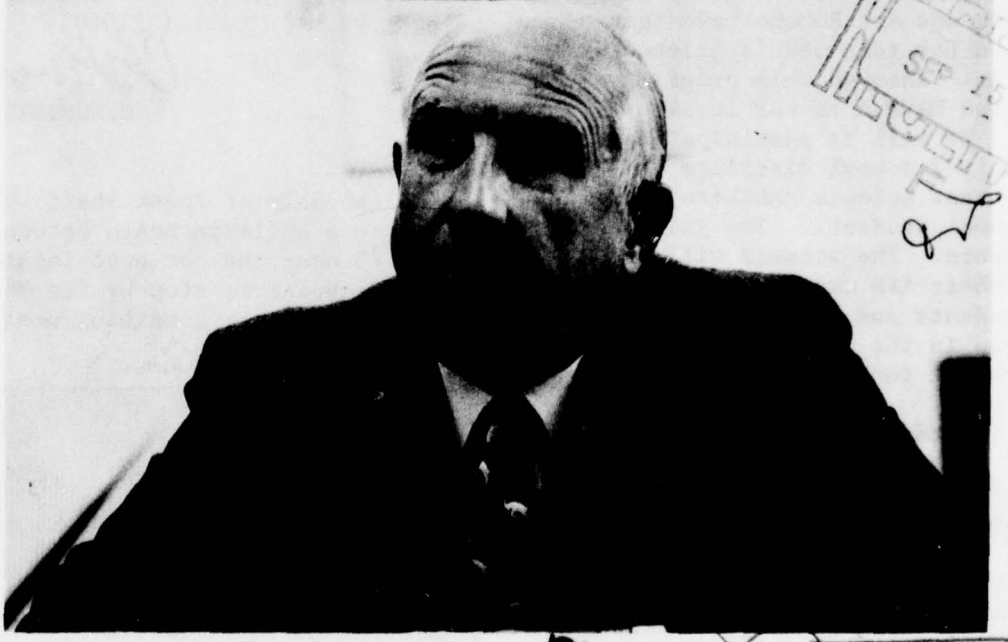
The scientist & engineer

Vol.4 No. 2 March 1978

LEVEL II

15th ANNUAL TECHNICAL SYMPOSIUM (15th) PROGRAM ISSUE.

Volume 4, Number 2.



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Guest Speaker

Admiral Thomas H. Moorer

(10) Robert G. Mende, Jr

(12) 28 p.

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See page 27

President's Message ☆☆

I am extremely pleased to report to you that ASE is as healthy as it has been in many years. Our membership has increased by approximately 150 due to the outstanding efforts of Bob Aiken and his Keyman Committee. Our Legislative efforts under the direction of Dick Maley are starting to pay dividends. Our recent effort is House Bill 99-15 which was prepared for Rep. Mark Hannaford and now has 14 co-sponsors in the House. This Bill, if approved, will eliminate the BOQ provisions from the FY 78 Appropriations Act. In the weeks to come we will be analyzing and working directly with our local Representatives on matters pertaining to the Civil Service Commission's plans to restructure the "rules" affecting the employment of civil servants. I expect that Civil Service Commission plans will be submitted to the Congress within the next couple of weeks at which time our direct involvement will commence.

The Science and Education Committee under the leadership of Co-Chairmen Norm Eubanks and Art Romano have things well in hand for this year's Science Fair program. Through this program we bring ASE and NAVSEA to our local community. We will be participating with approximately 7 school districts to choose the best science exhibits prepared by high school students. The judges will be ASE members. The winners will be presented their ASE awards at a luncheon for the students and their parents which will be held in the latter part of April or early May at the David Taylor Model Basin.

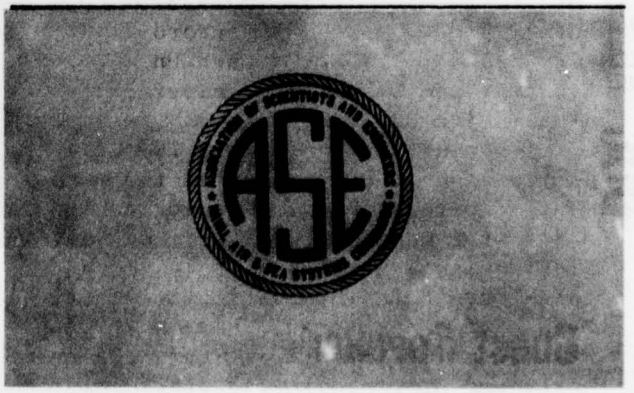
With regard to this year's Symposium which will be held at Stouffers on 31 March -- George Sweger has been experiencing the normal trials and tribulations of organizing an effort as large as our Symposium; however, I expect that we will have an absolutely outstanding affair. We have the full complement of technical papers, and we are hopeful of confirming the acceptance of one of this country's most respected leaders as the Key-Note speaker.

Another area which I am extremely pleased about is the relationship of ASE with Command Management. We have received outstanding support and cooperation from Admiral Bryan, COMNAVSEA and Admiral Lisanby, COMNAVSEC. This cooperation and similarity of purpose to promote and achieve technical development and excellence is of vital importance to the success of ASE and the well-being of the Commands. It is important to recognize that both Admiral Bryan and Admiral Lisanby have solicited direct ASE participation on matters which affect the whole of our membership. For example, as your President I participate in the NAVSEA Senior Civilian Executive Planning Board and served on the Committee which selected the recently awarded COMNAVSEC Professional Achievement Award. Direct participation of ASE in matters such as these should provide for a greater representation of ASE member views within the NAVSEA/NAVSEC management councils (i.e., if I am doing my job).

As you might observe, we've got a lot of things going -- if you want to help, give me a call (X21060).

C. GEIGER

P.S.
Due to the help of Frank Stafford, ASE will have a Bulletin Board between NC #2 and NC #3 near the car pool locator. Make it a point to stop by for the latest news. If you want something posted, call Don McCallum, X29296.



Admiral Thomas H. Moorer, USN (Ret.)

Admiral Thomas H. Moorer, who retired from active duty in July 1974 after 41 years of service with the U.S. Navy, is a former Chairman of the Joint Chiefs of Staff.

Admiral Moorer is a native of Mount Willing, Alabama and was born February 9, 1912. He graduated from the U.S. Naval Academy in 1933 and was commissioned Ensign. Through subsequent promotions, he attained the rank of Rear Admiral, Vice Admiral and in 1964 was promoted to Admiral.

President Johnson named Admiral Moorer the eighteenth Chief of Naval Operations in 1967, the position he held until he was nominated and confirmed to be the Chairman of the Joint Chiefs of Staff in 1970.

Admiral Moorer attended the Naval War College from 1952 to 1953. He holds honorary degrees from Stanford University, Alabama (LLD); Auburn University, Alabama; and Troy State University, Alabama (Ph.D.).

Upon his retirement in 1974, Admiral Moorer was presented the Department of Defense Distinguished Service Medal with Oak Leaf Cluster; the Navy Distinguished Service Medal with Four Gold Stars, and the Distinguished Service Medals of the Army and the Air Force. He also holds the Silver Star, Legion of Merit and Distinguished Flying Cross.

Admiral Moorer recently co-authored a Washington Paper published by Sage Publications for the Center for Strategic and International Studies, Georgetown University, entitled U.S. Overseas Bases: Problems of Projecting American Military Power Abroad. Among his numerous accomplishments, the following are noteworthy:

- o Chairman, Board of the Naval Aviation Museum Foundation, Inc.
- o President, Association of Naval Aviation, Inc.
- o Member, Board of Texaco, Inc.
- o Vice Chairman, Board of Blount, Inc.
- o Member, Board of Fairchild Industries
- o Member, Board of Alabama Dry Dock & Shipbuilding, Inc.
- o Member, Advisory Board of the Center for Strategic and International Studies, Georgetown University
- o Member, Board of U.S. Strategic Institute
- o Member, Board of Advisors of the Valley Forge Foundation and the Citadel in Charleston, South Carolina
- o Member, the American Management Association
- o Member, the Society of Naval Architects and Marine Engineers
- o Author, "Formulation of National Policy", Strategic Review, Volume III, Fall 1975

As Principal Speaker at our 15th Annual Technical Symposium, Admiral Moorer will present a paper entitled; "Future Trends: Political and Technical."

The Fifteenth Annual Technical Symposium

The Annual Technical Symposium of the Association of Scientists and Engineers will be held this year on March 31, 1978. This year's theme "TECHNICAL EXCELLENCE FOR TOMORROW" is a challenge to all Naval Material Command engineers to shake off complacency and mediocrity. Your ASE Committee is convinced that this year's Symposium will continue in the past tradition of success.

The first Symposium, held in 1964 was, at that time, a daring venture. It was put together successfully by the then President Gil Graves and Symposium Chairman John Nachtsheim, during one of the most difficult and formative eras of the Association. This will be the fifteenth edition of a Symposium which has become, not only the highlight of the ASE year, but also an event highly regarded by the entire naval engineering community. The Symposium has earned its excellent reputation because of the quality and timeliness of the technical papers and the professionalism of their presentation; the banquet program which concludes the days' activities with stirring martial music; the welcome and delicious meal; stimulating remarks by our meeting commanders; presentation of awards to outstanding engineers; and an address by a prominent figure in government or private industry. This year is no exception. The same popular formula is being followed and thus attendees are assured of another rewarding experience.

The technical sessions will be held in three rooms, concurrently, and the times and subjects are enumerated in this issue. The Session Moderators will be Mr. H. G. Kloehn, Dr. R. S. Johnson, and Mr. J. W. Abbott, all of the Naval Ship

These gentlemen will enhance the technical sessions by their professional manner, and ensure good audience participation. This year's Professional Development Chairman, Mr. John Kenworthy, will ensure the smooth running and timing of the technical sessions.

Pre-registration, which was developed for ASE a few years ago by Messers. Ed Sheridan and Harry Smith has proved very successful in eliminating crowding and waiting at the check-in table. Pre-registration should be made directly to Mr. Angelo Karadimos, NAVSEC 6133, X29087. It is suggested that each office make up one or two tables of 10; if there are any vacancies, invite people from other offices to join you. If less than 10 names are listed, then table reservations cannot be made. A congenial table contributes greatly to the evening's enjoyment. Note that this year the Social hour begins at 6:00 P.M. and the banquet begins promptly at 7:15 P.M.

ASE President Geiger and the Executive Board, in addition to the Authors, Moderators and Symposium Committee urge all Naval Material Command engineers, affiliated industry engineers, and all other interested parties, to attend.

Let's start off our "Technical Excellence for Tomorrow" today.

Donald McCallum
Publicity Chairman

Welcome New Members

Membership #	Name	Code
1151	Donald M. Johnson	SEA 04C
1152	William R. Steele	SEC 6107
1153	James L. Moore	SEC 6107
1154	James H. Livingston	SEC 6107

We currently have 705 members in good standing whereas last year at this time we had approximately 585 members in good standing. This represents a 20% increase in paid membership. With respect to NAVAIR membership, of 71 names that were on the roles only 38 have paid this year's dues. This represents approximately 5% of the total membership.

Robert C. Aiken

15th Annual Technical Symposium

Friday, March 31, 1978
Stouffer's National Center Hotel
Arlington, Virginia

Symposium Program

Registration Main Lobby Corridor	1:30 - 3:00 P.M.
Technical Sessions James-Potomac Room Decatur Room Dewey Room	3:00 P.M.
Social Hour Plaza Level Corridor (Cash Bar)	6:00 P.M.
Banquet Admiralty Ballroom	7:15 P.M.

Theme
"Technical Excellence for Tomorrow"

Symposium Committee

Chairman	G.A. Sweger
Registration	A.S. Karadimos
Technical Program	J.O. Kenworthy
General Arrangements	J.C. Rowe
Publicity	D.N. McCallum
Host	D.J. Weiler
Awards	R.J. Cauley
Printing	R.J. Kemezis
Keyman Organization	R.C. Aiken

Banquet Program

7:15 P.M. - Admiralty Ballroom

MUSIC
U.S. Navy Band Ceremonial Unit

PRESENTATION OF THE COLORS
Joint Armed Forces Color Guard

WELCOMING REMARKS
Clifford G. Geiger
President, A.S.E.

INVOCATION
RADM W. M. Moore
Deputy to Chief of Chaplains

DINNER

VIEWS FROM THE BRIDGE
VADM C. R. Bryan, USN
Commander, Naval Sea Systems Command

PRESENTATION OF AWARDS
Outstanding Service Award
John C. Niedermair Award
Professional Achievement Award
ASE Silver Medal Award

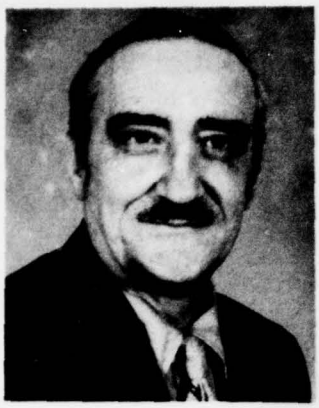
GUEST SPEAKER ADDRESS
Admiral Thomas H. Moorer, USN (Ret.)
Former Chairman of the Joint Chiefs of Staff
Former Chief of Naval Operations

CLOSING REMARKS

TOASTMASTER
Bill Mayhugh
WMAL Radio

Technical Papers

TIME	DEWEY ROOM	JAMES-POTOMAC ROOM	DECATUR ROOM
	MODERATOR: Mr. H. G. Kloehn Naval Ship Engineering Center	MODERATOR: Dr. R. S. Johnson Naval Ship Engineering Center	MODERATOR: Mr. J. W. Abbott Naval Ship Engineering Center
3:00 P.M.	"THE INTEGRATION OF SHIP ELECTRICAL SERVICE POWER WITH SHIP ELECTRICAL PROPULSION POWER" D. S. TOFFOLO	"POLLUTION ABATEMENT FROM COMPENSATED FUEL OIL SYSTEMS G. D. HAGEDON D. E. WATERS	"A PROPOSAL TO IMPROVE CONFIGURATION MANAGEMENT OF SHIPS AND SHIPBOARD EQUIPMENT" CAPT. P. R. WALKER R. PETERSEN
3:45 P.M.	"ACCOMMODATING ANTENNA SYSTEMS IN THE SHIP DESIGN PROCESS" P. E. LAW, JR.	"WHY NOT SAILS?" K. C. MORRISSEAU	"THE TRADEOFF BETWEEN LEARNING AND INFLATION IN SHIPBUILDING" C. TODD F. A. P. FRISCH
4:30 P.M.	"SHIP ELECTRONIC SYSTEMS DEGRADATION" C. E. GARTLEY, JR.	"THE STEPCHILD OF R&D - THE DISPLACEMENT MONOHULL" R. G. KEANE	"A USEFUL WAY TO ORGANIZE SHIP DESIGN DATA" R. LUTOWSKI
5:15 P.M.		"FINS OF THE FUTURE - FFG 7" L. W. NELSON D. N. MCCALLUM	"FROM OPERATIONAL NEEDS TO NOTIONAL SHIPS - A NEW LOOK" C. ATCHISON H. APPLEGATE F. O'HARA C. COGHLAN A. SCHMIDT



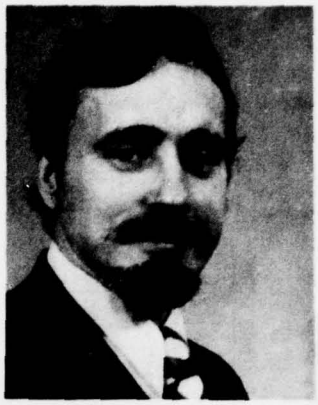
D.S. Toffolo

Graduated in 1944 from George Washington University with a B.S.E.E. degree. Served as Ensign in the U.S. Navy 1944-1946, stationed at the Naval Research Laboratory. Accepted civilian employment as Electrical Engineer at NRL in 1946, remaining until 1970. Pioneered in the development of magnetoelectric (PM) machines for aircraft electrical systems. Other projects engaged at NRL were the development of fast ionization chambers for use with coaxial transmission lines, electrostatic precipitators for shipboard use, magnetic energy storage devices using superconducting coils, the measurement of magnetic properties of superconducting materials used in electrical machinery, and the development of high-power high-frequency amplifiers. Completed work for the doctor's degree in applied physics at Catholic University 1970-1974. The doctoral dissertation "The Deceleration of Dense Charged Particle Beams Interacting with Electromagnetic Fields Propagating in Structures" is currently under review. Accepted position as consultant with the Electrical Propulsion Section of NAVSEC in 1974.

ABSTRACT - SHIP ELECTRICAL PROPULSION AND ELECTRICAL SERVICE POWER INTEGRATION

Three basic systems are examined on a conceptual qualitative basis. Relative advantages and disadvantages are discussed. The latest development progress of the component parts are delineated, and the prospects for successful development are projected.

A baseline for comparison on the basis of cost acquisition, maintenance and manning, fuel costs, tactical capability, and projected reliability will be the Spruance class destroyers with their present propulsion system replaced by an electrical system.



Preston E. Law, Jr.

Mr. Law received his BSEE and graduate level education from the University of Maryland. Currently employed by the Naval Ship Engineering Center, Washington, DC, he is Head, Topside Antenna System Integration Section, NAVSEC 6174F.

Beginning his Federal career in military service as an Electronics Technician, USN, he first went to work during, and immediately after, college at the Naval Research Laboratory, Washington, DC. Afterwards, specializing all the while in communications systems engineering, he worked with the Federal Aviation Agency-Alaska, the Voice of America, the Defense Communication Agency-Thailand, and finally, in 1971, with NAVSEC for a total of more than 25 years in government.

Mr. Law is a member of the Association of Scientists and Engineers (ASE), having been presented the 1977 ASE Outstanding Service Award for his work as Editor and Publications Chairman. Currently he is serving as ASE Historian and is on the Public Relations Committee.

He is also a member of the Armed Forces Communication-Electronics Association (AFCEA), Tau Beta Pi National Engineering Honor Society, Eta Kappa Nu National EE Honor Society, and is a registered PE in the State of Maryland.

ABSTRACT - ACCOMMODATING ANTENNA SYSTEMS IN THE SHIP DESIGN PROCESS

Placement of the many and varied antenna systems required for a multitude of missions is a complex task in the ship design process. The competition for useable real estate on which to locate antennas, striving, for example, to provide good vertical height to attain clear radiation/reception, and sufficient horizontal separation to maintain transmit-to-receive isolation is acute, where great amounts of C^3 (command, control, and communication), Navaids, ECM, radar, and gun-fire control functions must be satisfied while immersed in a small, concentrated, and hostile electromagnetic environment.

This presentation discusses the iterative processes involved in accommodating topside antenna systems aboard Navy ships where an especially large number of electromagnetic sensors are clustered on and about the masts and superstructure. The long road from initial concept is outlined, to the final antenna configuration compromise reached in an arena of fiercely competing subsystems. In providing this description, opportunities might then be identified for improving the support available from the technical community.

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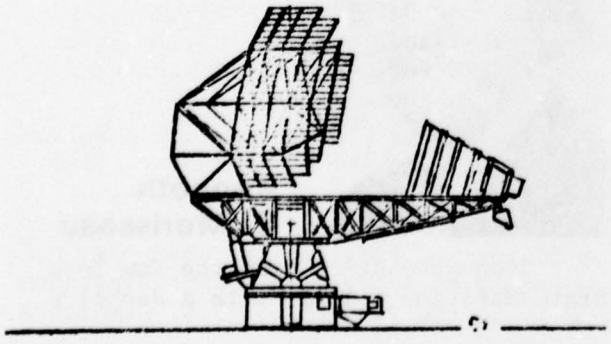
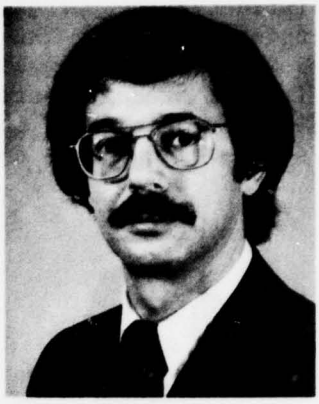




Clyde E. Gartley, Jr.

Clyde E. Gartley, Jr. is a native of Northern Virginia. He received his B.S. degree in Electrical Engineering from the University of Maryland. Upon graduation, he began his engineering career with Philco Ford Corp.; later transferring to RCA Corp.; and finally the Naval Ship Engineering Center. His NAVSEC career began in the Communications and Antenna Systems Design Section of the Ship Design and Fleet Engineering Branch; later transferring to the Electromagnetic Interference and Radiation Hazards Section of the Electromagnetic Effectiveness Branch, SEC 6174.

During his career at NAVSEC, Mr. Gartley has joined the ASE and authored and co-authored the following articles:

a. "Unauthorized Topside Appendages" - NAVSEA Technical News,

b. "Designing Communications Antenna Systems for Navy Ships" - Signal Magazine, November 1973

c. "Caution: SEMCIP Has Determined That Rusty Bolts May Be Hazardous to Your Communications Systems." NAVSEA Journal, July 1975

ABSTRACT - SHIP ELECTRONIC SYSTEMS DEGRADATION

The purpose of the paper is to emphasize the necessity of the various technical disciplines within the Naval shipbuilding community to appreciate, or at least be aware of, how the non-electronic communities' decisions

influence the performance of ship electronic systems. The paper will discuss some of the "who-would-of-thought-it" items that contribute to Electromagnetic Interference (EMI) and subsequent combat system degradation on Navy surface ships.

Gregg D. Hagedorn

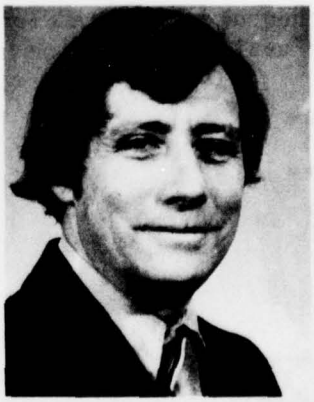
Mr. Hagedorn has a degree in civil engineering from Oregon State University, and a masters degree in engineering administration from the George Washington University. He served in the U.S. Navy Seabees as a Civil Engineer Corps officer. Since coming to the Naval Ship Engineering Center, he has worked in the Environmental Pollution Control Branch. Mr. Hagedorn is a professional engineer in Virginia.

Douglas E. Waters

Mr. Waters, born in Richland, Washington in 1945, graduated as a chemical engineer from N.C. State University in 1966. Since graduation, Mr. Waters has spent his working career in the Naval Ship Engineering Center. During his first 5 years in the Cryogenic Section he was an assistant project engineer for liquid oxygen/liquid nitrogen generating equipment. During the formation in 1971 of the Environmental Pollution Control Branch, Mr. Waters was selected as a charter member. He has served in the Oil Pollution Abatement Section as a project engineer and as section head. He has written reports on shipboard bilge/ballast oily waste generation, and has been the project engineer on every oil pollution abatement project. He presently serves as the acting section head of the oil pollution abatement section and as the Deputy Program Manager for the oil pollution abatement program. He is married to Herminia Garcia Waters, has two sons, and resides in Arlington, VA.

ABSTRACT

This paper discusses considerations in designing and modifying compensated fuel oil systems to reduce oil pollution during refueling. The causes of oil pollution within the tanks are investigated and specific recommendations for tank design are described to reduce the significance of the causes. Data demonstrating the effectiveness of the recommendations is presented and discussed.



Kenneth C. Morisseau

Upon graduation from the New York State Maritime College with a Bachelor

of Marine Engineering Degree in 1956, Mr. Morisseau reported for work at the Bureau of Ships. After completing eighteen months of training, he was assigned to the Hull Mechanical Section (Code 447) of the Hull Design Branch (Code 440). During his tour in Code 447, Mr. Morisseau was involved in the contract design of various materials handling features of naval ships including vehicle and cargo handling for amphibious ships, electronics equipment handling, and replenishment at sea. Mr. Morisseau was also charged with the management and operation of the divisions computer installation. In 1964 Mr. Morisseau was detailed to Code 440 as the Hull Project Coordinator for the AOR-1 Class, the AO(J) 51 Class, and the AOE-3 Class. After completing the contract designs for these classes Mr. Morisseau was detailed to the Auxiliary Type Desk (Code 527) and was assigned the AE-26 Class as Project Engineer. From March of 1965 to April 1974 Mr. Morisseau was the Program Manager for the FAST System and the Missile/Cargo STREAM System in the Underway Replenishment Project Management Office (PMS-390)/Underway Replenishment Division (SHIPS 490) and its predecessors (Codes 6325, 630A, 06U and 6698R). With the merger of SHIPS 490 and SHIPS 427 in April 1974, Mr. Morisseau was made Head of the Underway Replenishment Improvement Branch in SEA 941; the position he currently holds.

ABSTRACT - WHY NOT SAILS?

With the shortage of fossil fuels becoming a serious problem and the high cost and environmental hazards of nuclear propulsion, it appears to be a good time to go back and take a hard look at the use of sails as the device and wind as the energy source for ship propulsion. (In the interest of adding credence to what may be considered a questionable endeavor, it should be noted that serious studies are being made both in Britain and West Germany concerning the practicality of sail propulsion for commercial vessels.)

The paper reviews the history of sails as a means of propulsion, the capabilities and limitations of modern sailing ship designs with both conventional displacement hulls and unconventional hull forms such as semi-submersible and hydrofoil supported considered.

A variety of designs to suit naval and commercial applications are provided for further consideration.

Robert G. Keane, Jr.

Mr. Keane is presently the Acting Head of the newly established Hull Form Design, Performance and Stability (SEC 6136), Hull Design Division, Naval Ship Engineering Center (NAVSEC), Washington, D.C. He received a B.E.S. degree in Mechanical Engineering from the Johns Hopkins University in 1962, a Master's Degree in Mechanical Engineering from the Stevens Institute of Technology in 1967 and a M.S.E. degree in Naval Architecture from the University of Michigan in 1970, and has done graduate work in Management Science and Operations Research at the Johns Hopkins University.

Mr. Keane began his career with the Navy in 1967 as a Hydrodynamicist in the Seaworthiness Branch of the David W. Taylor Naval Ship Research and Development Center (DTNSRDC). In 1968 he moved to NAVSEC and has held positions as a Naval Architect and Section Head in the Ship Arrangements Branch (SEC 6131), Head of the Hull Equipment Branch (SEC 6132) and Head of the Hull Form and Fluid Dynamics Branch (SEC 6136),

ultimately attaining his current position at NAVSEC in 1977. In addition to his naval architecture experience, he was a Marine Engineer in the Dredge Division of Ellicott Machine Corporation, a teaching assistant in the Mechanical Engineering Department of the Stevens Institute of Technology, and a Product Reliability Engineer in the Aerospace Division of Westinghouse Electric Corporation.

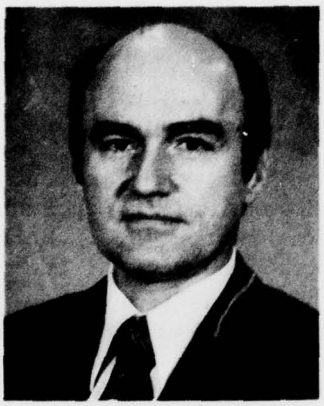
He is a member of ASE, SNAME, ASNE, and Society of Allied Weight Engineers (SAWE). Active in all, he has been President of the D. C. Council of Engineering and Architectural Societies; is a member of the SNAME Seakeeping Panel; has served on many ASE and ASNE committees; and is presently the Secretary of ASE. He is also listed with those appearing in the 1977-78 edition of "WHO'S WHO IN THE EAST" and "WHO'S WHO IN ENGINEERING," and has received numerous awards for his technical and society contributions, including ASE's John C. Niedermair Award.

ABSTRACT - THE STEPCHILD OF R&D, THE DISPLACEMENT MONOHULL

This paper demonstrates the need for a comprehensive Advanced Development RDT&E Program in the area of the hydrodynamic design of displacement monohulls for naval surface ships, and outlines a proposed Surface Ship (Ship Hydrodynamics - Improved Performance) R&D Program which will fulfill this need. In particular, the paper:

- o describes some of the existing hydrodynamics-related design deficiencies and gives examples of some specific problems which these deficiencies have caused in recent surface ship designs;
- o shows that the general consequences of such design deficiencies are either: failure to meet potential performance capabilities: excessive cost required to attain a given performance level; or unnecessary and costly delay in the design of naval surface ships;
- o explains that the present approach of attempting to correct this situation in a piece-meal fashion under individual ship acquisition programs or existing limited Exploratory Development (6.2) RDT&E programs will not work, and that this fact reflects no discredit on such programs;
- o analyzes the underlying cause of the above deficiencies, and shows that these are just symptoms of the lack of an Advanced Development (6.3) RDT&E effort for the application of hydrodynamics technology to surface ship design;
- o proposes a solution to the underlying problem, namely, the establishment of an Advanced Development (6.3) RDT&E program, aimed at the development of performance-oriented hydrodynamic design methods which effect either significant improvements in surface ship performance, or acquisition and operating cost reductions for given performance requirements;
- o describes the proposed program in sufficient detail to establish that it will indeed provide a remedy for the basic problem;
- o lists some of the benefits to be derived from the proposed programs, such as reduced ship acquisition costs, increased speed capability, reduced fuel consumption, improved crew performance, reduced propulsion system size, improved tactical maneuvering, etc.; and finally
- o shows that, given an achievable level of performance improvement in just one area (speed/power), the financial

investment involved in the program can be recovered many times through cost savings to be realized as a result of improved surface ship performance.

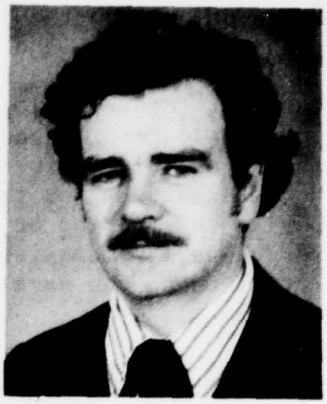


Louis W. Nelson

Louis W. Nelson is an Electrical Engineer with the Ship Control Systems and Equipment Branch of the Naval Ship Engineering Center, and has technical responsibility for the control and machinery portions of active fin stabilizers. He holds a B.S.E.E. degree from the University of Virginia and has done graduate work in mathematics and applied mechanics. Mr. Nelson has presented technical papers at the Eighth and Ninth Midwestern Mechanics Conferences, and at the Second Ship Control Systems Symposium.

ABSTRACT - "FINS OF THE FUTURE - FFG7"

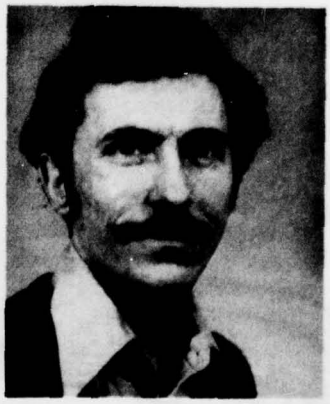
This paper addresses the justification, design philosophy, system description and technical evaluation of the FFG 7 fin stabilization system - the fins of the future. These fins are to be installed on FFG 7 class ships to provide increased mission effectiveness. Details of "lessons learned" are addressed, and are shown to be incorporated into this new design. Reliability and maintainability of the total system is stressed. Appendices provide useful design and specification tools.



Donald Mccallum

Mr. Donald McCallum is employed in the Hull Form, Performance and Stability Branch (SEC 6136) as a Naval Architect. He is involved with ship stabilization, stack design, hull form design, and model testing. Born in Scotland, Mr. McCallum obtained his Naval Architect degree at Glasgow, and served his apprenticeship as a Draftsman on the Clyde. His subsequent experience, prior to joining NAVSEC in 1971, was in design offices of commercial shipyards in Canada, Ohio, and Washington.

Mr. McCallum is married and has four children. He and his wife, Lise, live in Silver Spring, Maryland. He is a member of SNAME, ASE and has his Professional Engineering License in Mechanical Engineering and Naval Architecture.



Richard Lutowski

Mr. Lutowski graduated with a B.S. degree in Naval Architecture and Marine

Engineering from the University of Michigan in 1970, and has a M.S. degree in Ocean Engineering from Stevens Institute of Technology. He has worked in the Advanced Technology Branch of the Naval Ship Engineering Center as a Naval Architect for the past seven years. During this period of time, he has served as a specialist in applying computers to the Naval ship design process.

ABSTRACT - A USEFUL WAY TO ORGANIZE SHIP DESIGN DATA

This paper introduces a method of organizing ship design data that is significantly different from existing approaches. This new method of data organization allows data classification systems to be expanded to meet new demands, while at the same time retaining the constancy necessary to keep old data from becoming obsolete. In addition, it allows different engineers to view the same data different ways to meet their own needs.

The net result can be reduced cost to the design agency, as data classification systems using this approach will stand the test of time longer. Also, improvement in the ship design process can be expected as the greater flexibility of this approach will allow engineers to do their jobs more effectively.

Charlie Todd

Mr. Charlie Todd is a graduate of Howard University School of Engineering, Washington, D.C. He has also pursued graduate work at the same university. He has fifteen years experience in new construction shipbuilding acquisition programs concentrating in the areas of major ship class project engineering and program management. He worked in this capacity on LSD-36 and LSD-37 class ships and in the Special Craft Section of the Combatant Craft Acquisition Project. In the Combatant Craft Project, he was the principal engineer for the design and development of a new class of patrol craft considered to be the fastest and most versatile craft of its size in the U.S. Navy inventory.

He is currently assigned to the NAVSEA Ships Appraisal Division in the Office of the Special Assistant for Shipbuilding as a Project Planning Engineer.

Dr. Franz A.P. Frisch

Dr. Franz A. P. Frisch graduated from the Technical University of Vienna, Austria. He has 30 year's experience in shipbuilding and related subjects. He has worked as a Naval Architect, Guarantee Engineer, Chief Estimator, Production Manager, and Director for Shipyard Planning and Maintenance in Austria, Denmark, Sweden and Germany. In 1956 he was first invited to the U.S.A. to testify on foreign cost and production in subsidy cases before the Maritime Administration. From 1957 through 1962 he was associated with several U.S. Naval Architect firms; was owner's representative in Europe and Japan; conducted studies on transport economy for Venezuela, ICC, and ship-owners; was consultant for shipyard planning in Brazil and Europe. In 1963 he joined the Staff of CNA (Center for Naval Analysis) and became head of the logistic section and study director; there he originated the FDL ship and ship concept, and was assigned as advisor to the project manager. From 1968 through 1974 Dr. Frisch was faculty member and visiting lecturer at the M.I.T. (Massachusetts Institute of Technology); he lectured on shipyard management, ocean transportation, systems theory in transportation, and in interdisciplinary seminars. In 1972 and 1973 he was consultant to Dubai Drydock, Ltd. for layout of a new ship-yard in the Arabian Gulf. Since 1973 Dr. Frisch has been with NAVSEA, mostly involved in special projects.

ABSTRACT - THE TRADE OFF BETWEEN LEARNING & INFLATION IN SHIPBUILDING

Learning leads to a decrease in program cost. Inflation leads to an increase in program cost. At a certain time, the benefits of learning and the penalty due to inflation will balance each other. This time is defined as the critical time.

The critical time depends upon the number of ships to be built because this determines the possible gain in learning. The critical time depends also on the assumed inflation, upon the achievable learning rate and on the material/labor ratio of the first ship. Learning expectation can be influenced by planning and the material/labor ratio by a make- or buy-decision. Assumptions on future learning are as vague as assumptions on inflation.

The paper shows that it is almost impossible to beat inflation. It shows that accelerated programs are preferable and that make-decisions supersede the value of buy decisions. The result is derived from an abstract treatment of the subject.

Capt Peter R. Walker

CAPT Peter R. Walker is a graduate of the U.S. Naval Academy, class of 1953. His sea duty has been in various billets in cruisers and destroyers. He has commanded USS STONE COUNTY (LST 1141) and USS BRUMBT (FF 1044). He also served on the Staff of Commands, Carrier Division

SIX. Ashore, he served on the staff of Commander in Chief, U.S. Atlantic Fleet, and in the American Embassy, Tokyo. He came to his present assignment in the Naval Sea Systems Command from the Office of the Chief of Naval Operations where he served in the Fleet Modernization Division.

Rodney P. Petersen

Rodney P. Petersen is the Deputy Executive Director of the Fleet Modernization Support Group in the Naval Sea Systems Command. The group is responsible for coordinating the planning, development, and execution of the Fleet Modernization Program (FMP) within the Naval Material Command. He has a career of 34 years, all of which has been in and with the Navy. He has, as a Navy and civilian technician, gained first nand experience in equipment/system maintenance, repair and modification on all kinds of electronic equipment and on several other types of equipment. After a comprehensive testing program in 1957, the Civil Service Commission awarded him certification as an Electronic Engineer. He came to the former Bureau of Ships in 1961 to manage from headquarters some of the same things he had been doing in the field. He has been associated with the FMP since 1968 as the Head Engineer of a Ship Logistic Division in the former Naval Ship Systems Command, and in 1971, as the Assistant Director FMP Management Division. He has been a strong advocate for a standard no-nonsense configuration control procedure for modifying shipboard systems and equipments, regardless of the source or sponsor of that system or equipment.

ABSTRACT - A PROPOSAL TO IMPROVE CONFIGURATION MANAGEMENT OF SHIPS AND SHIPBOARD EQUIPMENT

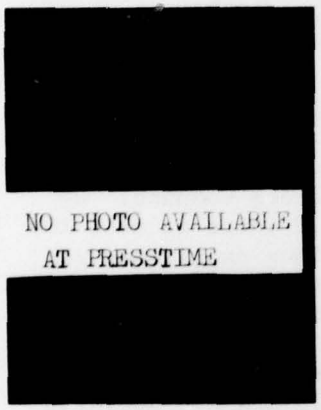
At present, modifications to ships and shipboard equipments are managed via several vehicles: SHIPALT, ORDALT, Field Changes. As a result, configuration management in our ships is unsatisfactory with less than complete logistics support being provided. A change to the present system has been proposed.

The proposal would divide all modifications into two categories depending upon the impact of the work on the ship. Each modification would be assigned a classification according to the level of industrial capability required to install the modification. Each modification would also be classified as either military in nature, or technical in nature. Based upon the category and the classes assigned, a matrix would be developed which would schedule the modifications for installation on the applicable ships. Based upon this schedule, the various plans required to support the installation would be developed to assure that the modification will be installed as scheduled and, once installed, will be supported logistically.

Charles M. Atchison

Mr. Charles M. Atchison is Head of

the Engineering Analysis Unit, Naval Ship Engineering Center. He received his B.S. degree in Physics in 1951 from the College of the Holy Cross which he attended following service in the U.S. Army during World War II. He was employed at the David Taylor Model Basin for twelve years, working in the field of underwater explosion shock effects on surface ships. Following his transfer to the Bureau of Ships, he participated in the Defense Systems Analysis Education Program, majoring in economics and operations research. Currently he is providing systems engineering support to various ship design projects including the Surface Effect Ship Program. He is a member of the American Association for the Advancement of Science and the American Society of Naval Engineers.



H.J. Applegate

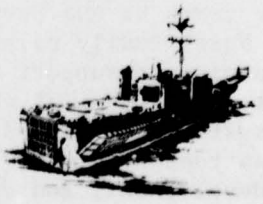
Mr. Applegate joined private industry in 1957 after graduating from American University with a B.S. in physics. His work experience has consisted entirely of analyses of naval warfare systems with heavy concentration in antisubmarine warfare, surface warfare, naval mining, and mine countermeasures. In 1971 he joined the staff of the Military Effectiveness Office of the Computation, Mathematics and Logistics Department at the David Taylor Naval Ship R&D Center in Carderock, MD. In this capacity, he has: led analyses of effectiveness predictions of advanced ship designs; performed as the Navy-wide custodian of the APSURF ASW simulation model; developed various data storage and retrieval computer programs; conducted trade-off studies of numerous advanced and conceptual naval warfare systems. He is currently a member of the American Defense Preparedness Association.

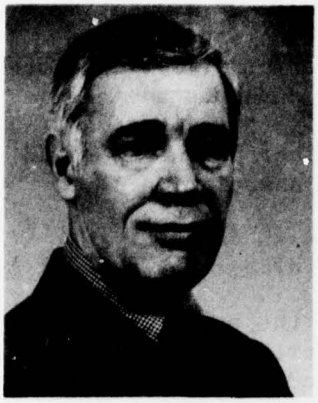
ABSTRACT - FROM OPERATIONAL NEEDS TO NOTIONAL SHIPS -- A NEW LOOK

A "new look" at the early stages of ship development is presented with a more positive, orderly, and integrated Pre-Acquisition phase. Operational needs and the associated gaps and shortfalls are usually not systematically examined until a ship conceptual design begins. In many cases the products of subsystem development programs cannot meet the production schedule of the ship which could utilize the development.

In order to address this situation the Notional Ship Development (NSD) program has been under development by NAVSEA 031 for approximately two years. The program is centered around a computerized Requirements Base Line (RBL) data bank which identifies the mission essential subsystems of planned advanced ships. The new look stresses the use of existing tools; operational needs, current shipborne equipments, and pertinent R&D data associated with the NAVSEA Ship Work Breakdown Structure (SWBS) and OPNAV Sub-Operational Capabilities (SOC) which are principal elements in the data bank.

By improving the early planning (Pre-Acquisition) stages of ship development, it is presumed that some of the problems normally encountered in the latter stages will disappear or become more manageable. However, the proposed program must be understood, accepted, and used to be of value.



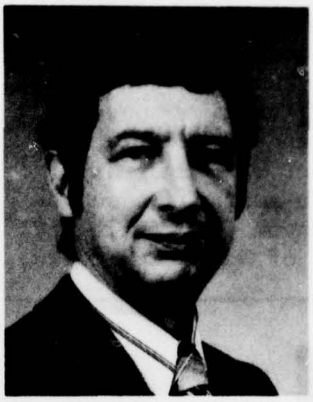


Frank O'Hara

Frank O'Hara is a retired Marine Corps fighter pilot with over 11 years of experience in industry in support of Navy programs. This contractor support experience ranges from R&D planning to SHAPM management to CINCLANTFLT Command Control. The author attended the Naval War College, earned the M.S. in International Affairs from George Washington University, and is a member of the Marine Corps Aviation Association.

Cecil L. Coghlan

Presently employed by the Marine Engineering Research and Technology Branch of Wheeler Industries, Inc. For the past seven years he has been engaged in task areas specifically related to long range planning to support objectives for management improvement of ship and shipborne subsystem acquisition. Prior to that, he was responsible for engineering, design, development, and operation of management information systems for use in planning, programming and budgeting in various functional areas. Each system was computer based, capable of multi-level processing, with predetermined multi-format output capability. Attended Southeastern Louisiana College and retired from the U.S. Army after 25 years of military service.



Arthur W. Schmidth

Arthur W. Schmidt is the Planning Coordinator for the Technology and Systems Planning and Appraisal Branch of the Naval Sea Systems Command. He has spent the last 18 years in ship R&D planning. His previous experience was in BUSHIPS' Preliminary Design Branch specializing in submarines, followed by a tour with Gibbs & Cox in New York designing merchant ships. His current efforts focus on relating R&D decision making to ship design decisions. As the first "Long Range Planner" in SHIPS 03, he presented a paper on that subject at the second ASE symposium in 1965. He was the first Program Manager for "Ship Concept Formulation" on which he co-authored a paper for ASE in 1966. He also presented a paper at the MORS Symposium on "Appraisal of R&D." Mr. Schmidt is a Naval Architect from Webb Institute with Masters degrees, in Mathematics, from Adelphi College, and in R&D Management, from American University.

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First Comnavsec Professional Award

The first award to recognize the professional development among employees of the Naval Ship Engineering Center (NAVSEC), Arlington, VA, was granted on 8 February to Mr. Albert Himy. Mr. Himy, the head of NAVSEC's Electrochemical Power Section, is an internationally-known battery expert.

Presiding at the ceremony was Rear Admiral James W. Lisanby, Commander, NAVSEC, who presented the citation and plaque to Mr. Himy before an audience of 130 colleagues and friends.

Initiated by Rear Admiral Lisanby, the COMNAVSEC Professional Award will be presented in succeeding years to NAVSEC employees, military or civilian, who have demonstrated general professional development, special efforts or innovations resulting in increased productivity, contributions to and participation in professional societies, and contributions to the development of knowledge in a technical field.

The 1978 award specifically cited Mr. Himy for his contributions in the development of a mercury-free silver zinc battery. The need to eliminate mercury compounds from battery electrodes was necessary because of the hazards associated with mercury.

Mr. Himy also was cited for his other professional involvement in national and international organizations and other engineering initiatives. Among these involvements are Vice-Chairman of the Battery Division of the Electrochemical Society, and member of the American Society of Naval Engineers, Department of Energy's U.S. National Battery Advisory Committee, and the NATO Sub-committee for Standardization of Batteries. Additionally, he holds four U.S. battery patents and nine other patents in five foreign countries.

His academic background includes a B.S. degree in chemistry from the University of Algiers, Algeria, and M.S. degrees in physics, mathematics, and electrical engineering from the University of Grenoble, Grenoble, France.

Receiving special awards is not unusual for Mr. Himy, who hails originally from Casablanca, Morocco. In 1967, he also received various forms of professional achievement awards from the McDonnell Douglas Corp. and National Aeronautics and Space Administration and two others from the Naval Ship Engineering Center.

Success in the family is extending this week from father to son, Eric, who on 6 February in Norfolk, VA gave his first performance as a guest soloist with a symphony orchestra. This professional achievement supplements his winning last year two national piano competitions, and qualifying as a semi-finalist in an international piano competition held at the University of Maryland.

Congratulations to the Himy's of University Park, MD for their achievements in professionalism!

NAVSEC PUBLIC INFORMATION OFFICE Release No. 112-78 (2-9-78)

Mr. Al Himy is congratulated by Rear Admiral James W. Lisanby, COMNAVSEC at the award ceremony.

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4 January 1978

Virginia State Board of Examination
and Certification of Architects,
Professional Engineers and Land Surveyors
P.O. Box 1-X
Richmond, VA 23202

Gentlemen:

It is the purpose of this letter to request the Virginia State Board of Examination and Certification of Architects, Professional Engineers and Land Surveyors to consider expansion of the examination options provided to include questions relating directly to Naval Architecture.

The Naval Air and Sea Systems Commands has established a continuing program, initiated by the Association of Scientists and Engineers, to provide NAVY engineers an opportunity through in-house refresher course work to pursue their Professional Engineers License. One group of forty engineers has recently completed the first of the two-part program which has generated considerable interest.

Recent studies conducted by the Naval Ship Engineering Center conclude that the population of Naval Architects exceeds 10,000 with perhaps an additional output of 500 students per year graduating from universities. A significant portion of this total is involved in positions directly supportive of Naval Ship Design efforts.

Your consideration of this request is appreciated.

Sincerely,

C. G. Geiger
President

cc: Chairman of Uniform
Examination Committee
National Council of Engrg
Examiners
Eugene N. Bechamps
Carr, Smith & Associates
1237 Ferdinand Street
Coral Gables, FL 33134

The Difference

A winner says, "Let's find out."
A loser says, "Nobody knows."

When a winner makes a mistake, he says,
"I was wrong";
When a loser makes a mistake, he says,
"It wasn't my fault."

A winner isn't nearly as afraid of
losing as
A loser is secretly afraid of winning.

A winner works harder than a loser
and has more time;
A loser is always "too busy" to do
what is necessary.

A winner goes through a problem;
A loser goes around it, and never gets
past it.

A winner makes commitments;
A loser makes promises.

A winner says, "I'm good, but not as
good as I ought to be";
A loser says, "I'm not as bad as a
lot of other people."

A winner listens;
A loser just waits until it's his
turn to talk.

A winner respects those who are superior
to him and tries to learn something
from them;
A loser resents those who are superior
to him, and tries to find chinks in
their armor.

A winner explains;
A loser explains away.

A winner feels responsible for more
than his job;
A loser says, "I only work here."

A winner says, "There ought to be a
better way to do it";
A loser says, "That's the way it's
always been done here."

A winner paces himself;
A loser has only two speeds--hysterical
and lethargic.

TRADETALK
Oct-Nov 1977

NOTICE

Several copies of back issues of the Scientist and Engineer are available free for the asking in the ASE Editor's office. This may be of interest particularly to new members desiring recent past issues, or to members who may have missed an issue for some reason.

ASE The scientist & engineer

EDITOR — A. R. Fortunato
ASSISTANT EDITOR — Dianne B. Glymph

ELECTED OFFICERS

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Executive Director (NAVSEA)	Anthony Ruffini
Executive Director (NAVSEC)	Edward Kinney
Audit	Clark Stephens
Legislative	Richard Maley
Rules and By-Laws	Richard Kemezis
Membership	Robert Aiken

APPOINTED COMMITTEE CHAIRMEN

Awards	Ronald Caufey
Professional Development	John Kenworthy
Public Relations	Donald McCallum
Historian	Preston E. Law, Jr.
D. C. Council	Don Cebulski
Symposium	George Sweger
Nominations	Dan Weiler
Publications	A. R. Fortunato
Keyman	Robert Aiken

The ASE Scientist and Engineer is a joint publication of the Naval Sea Systems Command and the Association of Scientists and Engineers of the Naval Air and Sea Systems Commands. Printing of this publication has been approved by the Commander of the Naval Sea Systems Command. It is printed on Government equipment with appropriated funds in accordance with Publications and Printing Regulations P-35, January 1974. This publication is issued ten times annually by the association. Items of interest are invited for publication. Material should reach the editor by the 15th day of each month. This organization is member of the D. C. Council of Engineering and Architectural Societies.

Federal Pay and Inflation

Nicholas von Hoffman's Jan. 18 column ["Inflationary Trend of the Federal Payroll," Style] reveals an astonishing ignorance of the way federal pay is set.

Federal workers do *not* get cost-of-living raises to "offset the inflationary degradation of the dollar." Under the pay-comparability concept, federal employees' raises are tied to the levels of *pay* of their private-sector counterparts. These private-industry pay levels are measured in an annual national survey of 80-plus representative jobs that exist in both sectors and that span the types and levels of work from GS-1 to GS-15. Last year the survey conducted by the Bureau of Labor Statistics included over 35,000 establishments in every part of the country, employing over 21 million people, over 3 million of whom were in the kinds of jobs we can match with federal jobs. This process is exacting and laborious, lasting six full months, and takes a great deal more analytical effort than simply counting the number of expensive beauty salons in a given city. When Mr. von Hoffman urges us to stop tying federal pay to the Consumer Price Index, but instead relate it to private-sector wages, he is asking us to abandon something we have never done and adopt something we have been doing regularly for over 15 years.

Moreover, the private-industry data are further subjected to a statistical comparison process that weights the computation to reflect the federal employment distribution, and also takes the already existing federal-pay levels into account each year. Various refinements in this process over the past few years have reduced the amount of several federal raises below the rate of change measured by the raw survey data. The end result is that in the eight years since full comparability was first achieved, the Consumer Price Index has gone up 71 percent, private-sector pay for the federal counterpart jobs has gone up 75 percent, but General Schedule federal pay has risen only 63 percent. So much for the notion that "inflation-equalization raises" in the private sector "come more slowly."

The average household income in this area may indeed be $27,702 but the average federal employee was earning only $18,862 last year, and federal employees constitute less than 25 percent of the local workforce. Obviously some other large and affluent groups in the area's working population are pushing the average up--be they doctors, lawyers, realtors, lobbyists or even syndicated journalists. The average General Schedule employee in the Washington area is in GS-9, which now pays between $13,662 and $19,617, hardly the sort of target that led some of the country's most exclusive department stores to open branches here.

The reason income levels are higher in Washington (and they undeniably are) is not that government workers are concentrated here. In fact only 12 percent of the federal workers are located in the Washington area. The reason is that Washington lacks basic industry. It has *no docks, farms, oil wells, assembly* plants, factories, canneries, blast furnaces and the like. Hence it cannot be home to the millions of American production workers who operate our massive industrial society, and whose relatively lower pay pulls the overall average salary down in other cities.

To misplay income statistics in such a way as to conclude that federal employees are paid "astounding rates" is bad enough. But to leap from that false premise to the conclusion that most civil servants feel a "contempt" toward other citizens is certainly bad social science, and I would think unacceptable journalism.

ALAN K. CAMPBELL,
Chairman, U.S. Civil
Service Commission

1977 Engineering Graduates Encounter Favorable Job Market

1977 engineering and technology graduates encountered one of the most favorable job markets since the 1960s, according to results of the annual placement survey conducted by the Engineering Manpower Commission of Engineers Joint Council.

While the Engineering Manpower Commission says there is no single measure of success in the placement of new graduates, the percentage of engineering students who found employment in 1977 by graduation was the highest since 1969, while the percentage without job offers or other firm plans was only about half of last year's figure. In addition, master's and doctorate-degree graduates seemed to be even more in demand than those at the bachelor's level.

Starting salaries continued to rise at about the same rate as the consumer price index. Average salaries varied from 5.1 percent increases for doctor's-degree engineers to 11.3 percent for associate-degree technology graduates, with the cost of living rising by 6.7 percent during the year. Between 1964 and 1977, the premium for a master's degree over a bachelor's degree in engineering dropped from 22 to 11 percent, while the relative salary advantage of a doctor's degree compared with a master's fell from 42 to 28 percent.

Women engineering graduates, representing about 5 percent of the bachelor's degrees earned during this school year, continued to enjoy higher salary offers than did their male classmates. According to The College Placement Council, Inc., Bethelehem, PA, women's average offers were 3.8 percent higher than men's, amounting to salaries of almost $16,000 annually for new graduates without work experience.

●●●

Salary Offers

Starting salary offers for most BS engineering curricula were close to the average of about $15,400 a year; however, the $18,000 average annual salary for petroleum engineering was higher than the master's-degree figure. Chemical engineering headed and civil engineering lagged the other specialties, in accord with the trend of the last several years.

According to the Engineering Manpower Commission's report, placement trends in recent years have reflected the ups and downs of the national economy. The number of unplaced graduates increased sharply following the 1970-71 aerospace and research cutbacks, began leveling off in 1973-74, then increased again as inflation and recession depressed the economy. This year's improvement occurred despite economic uncertainties and a 5.4 percent increase in the number of BS degree graduates.

The findings also suggest a trade-off between employment and graduate study that depends on the relative abundance of job offers: More students opt for further study when jobs are in short supply; when employment demand is very strong, students put off graduate school and enter the job market. However, because advanced degrees are also subject to demand, in some fields graduate study remains popular despite strong employment demand at the bachelor's level.

EE TIMES
February 6, 1978

Minutes of the Association of Scientists and Engineers (ASE)
Executive Committee Meeting
8 February 1978

The meeting was called to order by President Geiger at 12:00 P.M.

President Geiger informed everyone that ASE now has a bulletin board located between NC #2 and NC #3 near the EEO bulletin board. There are two keys, one will be given to Don McCallum and the other key will be placed in the ASE records. The bulletin board can be used for Keyman notices and other ASE news.

President Geiger inquired if there were any changes to the minutes of the 4 January 1978 Executive Committee meeting. Mr. Cebulski pointed out that the sentence in parenthesis on page 2 should be taken out due to the fact that the additional information on E&A Day was not attached. With no other corrections, the minutes were accepted as submitted.

Treasurer. Mr. Fick's report is attached. The following items were subsequently discussed:

(1) Clark Stephens said that he and Mr. Fick had done an informal audit and everything was in order.

(2) Mr. Fick stated that the interest on the savings account was included in the balance rather than listed separately.

Secretary. Mr. Keane:

(1) mailed out the final notices for membership dues to those members that have not paid. He intends to go over the list of 225 names and contact those that are in the area and notify them that their names are being removed from ASE's list of active members unless their dues are paid immediately.

(2) plans to have the membership list purged by the middle or end of February.

(3) has sent out membership cards to most of the new members and will continue this effort until all new members have received their cards.

(4) has received business envelopes for those who want them.

(5) had looked into the problem of retirees getting their mail late. He found out that the retirees are getting their mail at the same time as everyone else.

NAVSEC Executive Director. Mr. Kinney stated that Admiral Lisanby had established the Professional Development Award, which was to be presented on the day of this meeting to an ASE member, Al Himey. He also pointed out that all the people nominated for this award from NAVSEC Washington were ASE members.

Legislative Committee. Mr. Cebulski reported for Mr. Maley.

(1) ASE was to testify in hearings on pay comparability. The White House wanted one of its staffers to come and talk with ASE concerning pay comparability.

(2) Mr. Maley was to arrange various meetings in order for President Geiger to get to know Congressional staff better, and on a more personal basis. These meetings will also be used to learn their positions on pay comparability, as well as other issues of general interest to all ASE members (e.g., use of BOQ, freeze on GS-13 promotions, retirement system, etc.).

Rules & Bylaws Committee. Mr. Kemezis brought up the issue of the technical associate members paying only $6 in annual dues and the regular members having to pay $7.50. It was pointed out that the Executive Committee had proposed an amendment to the Bylaws to specify that all members pay $7.50 in annual dues.

Professional Development Committee. Mr. Keane reported for Mr. Kenworthy that the Professional Engineer review course for registration as a Mechanical Engineer will start on 14 February, and that the 39 people to attend the course have been selected.

Membership Committee. Mr. Aiken submitted four applicants for new membership which were unanimously approved. Mr. Aiken reported that there are 705 members in good standing. There are 96 new members this year. He also reported that out of the 71 members from NAVAIR only 38 have paid this year's dues. Mr. Aiken is going to try and get each Keyman to bring in at least one new member this year.

Awards Committee. Mr. Kinney reported for Mr. Cauley that nominations will be accepted until February 15, 1978 for ASE awards. A number of strong nominees have been submitted and will be reviewed by the committee members.

Technical Symposium Committee. Mr. Sweger reported that all members met last week and arrangements are proceeding on schedule. There are 11 papers in draft, and one is ready for final printing. There is only one paper left which needs to be submitted. The artwork for the announcement has been finalized. Three moderators have been selected for the technical sessions. Prospective banquet speakers have been contacted but one has not been confirmed; however, confirmation is expected shortly.

Nominating Committee. Mr. Weiler reported that he has met with committee members and has proposed a slate of prospective candidates for ASE office which have been contacted to see if they would accept the nomination.

D.C. Council Delegate. Mr. Cebulski reported that the Council saw a film on energy conservation. This film and others are available from the FEA Library. He put an article in the Observer informing people in NAVSEC and NAVSEA about Engineers and Architects (E&A) Day. Announcement of E&A Day is going up on the bulletin board in NC #2, 3 and 4. He is writing memos to Admirals Lisanby and Bryan for 6 hours of administrative leave for E&A Day. Nominations are being requested for civil and mechanical engineers to serve on the D.C. Board of Registration for Professional Engineers.

Publications Committee. Mr. Fortunato reported that he is preparing an editorial concerning the difficult times getting engineering positions approved by CAPSON at the higher grades. He requested that President Geiger determine if other divisions/offices within NAVSEC and NAVSEC are experiencing similar problems.

President Geiger requested if there was any Old Business, but none was offered.

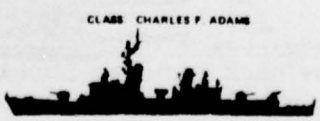
President Geiger then requested if there was any New Business, and the following items were discussed:

(1) Joint ASE-ASNE Symposium. With the approval of the Executive Committee, he will suggest to CAPT Albee, Chairman of ASNE Flagship Section, that ASE not participate in the Joint Symposium this year, and that one not be held.

(2) Next Executive Committee Meeting. The next meeting will be held on Wednesday, 8 March 1978, from 12:00-2:00 P.M. in Room 3E34, NC #3.

Respectfully submitted,

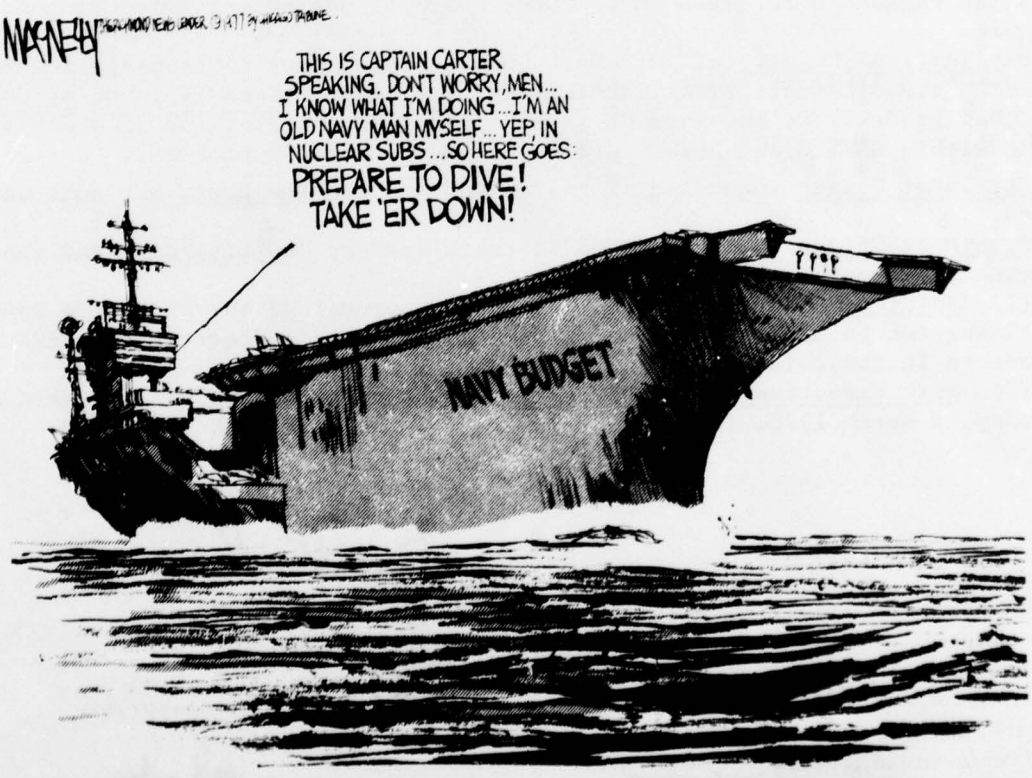
Robert G. Keane, Jr.
Secretary



Treasurers Report of 8 Feb. 1978

1.	Balance of 4 January 1978		
	Savings Nat'l Permanent S&L	$ 596.85	
	Savings Services National Bank	4445.30	
	Total		$5042.15
	Checking Services Nat'l Bank	3593.58	3593.58
	Total Savings and Checking		$8635.73
2.	Income		$ 412.00
3.	Expenses		$1915.77
4.	Balance of 8 February 1978		
	Savings Nat'l Permanent S&L	$ 604.73 (including interest)	
	Savings Services National Bank	5001.31 (including interest)	
	Total		$5606.04
	Checking Services Nat'l Bank		2089.81
	Total Savings and Checking		$7695.85

Note credit of interest in Savings accounts and transfer of $500 to Savings.



Editorial

Once again we reach the highlight of the ASE year - the Annual Technical Symposium. As past Editors have done, this issue is the "Program" issue for the Symposium.

George Sweger, Symposium Chairman, and his committee have worked diligently in preparing for this event. Outstanding arrangements have been made at Stouffer's National Center Inn, with an equally outstanding agenda. Not very often do we have the opportunity to grow professionally, enjoy good company, and have a fine meal - all in a single evening.

The theme for this, our 15th Symposium, is "TECHNICAL EXCELLENCE FOR TOMORROW." Let us do our part today. Mark your calendar for 31 March 1978, and see your Keyman for reservations.

See you at the Symposium,

A. R. Fortunato

TRUDY —By Jerry Marcus

"He had a hard day at his office. The guy he passes the buck to was out."

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THE ASSOCIATION OF SCIENTISTS AND ENGINEERS OF THE NAVAL AIR AND SEA SYSTEMS COMMANDS

". . .to promote and protect the best interests of the Government of the United States at all times, to promote the general welfare of the membership professionally and socially, to foster a spirit of good fellowship and cooperation, and to maintain high standards of professional ethics and competence."

The scientist & engineer

The Scientist and Engineer is published by the Association of Scientists and Engineers of the Naval Air and Sea Systems Commands, Washington, DC. Human interest and technical items pertinent to the Navy engineering community are invited for publication. Letters to the Editor are welcomed as an opportunity for ASE members to voice opinions and ideas, questions and suggestions, and openly discuss matters of interest to all. Material should reach the ASE Editor, NAVSEC 6107D, Room 419, National Center Bldg. 4, Phone 692-9000, by the 15th of the month for inclusion in the next issue.

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The Society of Naval Architects and Marine Engineers
One World Trade Center, Suite 1369, New York, N.Y. 10048

SNAME MEETINGS

including those in which SNAME participates jointly with other societies or co-sponsors. Listing does not include local SNAME Section Meetings.

Date	Event	Location
	1978	
April 17-19	AIAA/SNAME Advanced Marine Vehicles Conference	Sheraton Harbor Island Hotel, San Diego, CA
April 26-29	SNAME 1978 Spring Meeting/STAR Symposium	U.S. Coast Guard Academy, New London, CT
May 8-11	Offshore Technology Conference	Houston, TX
May 24-25	Propellers '78	Cavalier Hotel, Virginia Beach, VA
June 19-21	Engineers Public Affairs Forum	Washington, DC
September 6-8	OCEANS '78	Sheraton-Park Hotel, Washington, DC
October 16-17	Vibration Symposium	Sheraton-National Hotel, Arlington, VA
November 16-18	SNAME 86th Annual Meeting	The New York Hilton, New York, NY

Information provided with the compliments of Robert G. Mende, Secretary, The Society of Naval Architects & Marine Engineers.