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1968-06-10

## Naval Postgraduate School Faculty Bulletin, 1968-06-10

Monterey, California, Naval Postgraduate School

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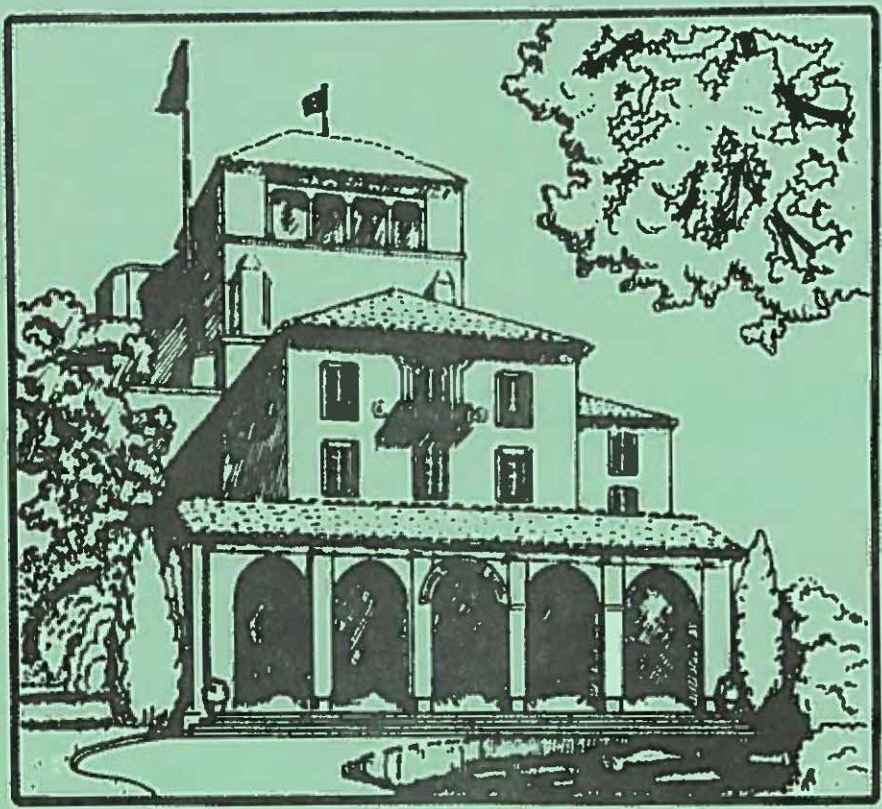
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Naval Postgraduate School  
**FACULTY  
BULLETIN**

10 June 1968

GRADUATION EXERCISES

Graduation Exercises for 300 students will be held Friday, 21 June, in the outdoors area adjacent to Spanagel Hall. Of these students, one will be awarded the Ph. D. degree, eight will be awarded the degree of Aeronautical Engineer or Electrical Engineer, approximately 170 students the M.S. degree, 100 students baccalaureate degrees, and 10 students Diplomas of Completion.

Professor Michael H. Vavra of the Department of Aeronautics will receive the honorary designation of Distinguished Professor at the ceremonies.

The commencement speaker will be Vice Admiral Thomas F. Connally, USN, Deputy Chief of Naval Operations for Air.

## ADVANCED METEOROLOGY AND OCEANOGRAPHY CURRICULA CHANGES

The Chief of Naval Personnel has approved changes in the Advanced Meteorology and Oceanography Curricula, adding courses in oceanographic sound forecasting, air-sea interaction, and acoustics. The changes were recommended by the Postgraduate School to meet additional requirements of the curricula sponsors, the Oceanographer of the Navy and the Commander of the Naval Weather Service Command. The changes will increase the length of the curricula from seven to eight quarters.

## NAVAL POSTGRADUATE SCHOOL CATALOGUE

The Naval Postgraduate School Catalogue for 1968-1970 will be available for distribution in July. As an economy measure, this issue of the Catalogue will cover a two-year period. Changes incorporated in this issue of the Catalogue include the establishment of the Department of Oceanography (September 1968), and all recent changes to the curricula except those changes to the Advanced Meteorology and Oceanography curricula described above.

## FACULTY PUBLICATIONS

Clark, John R., and Leibovich, Harry A.

Domains in imperfect crystals. Journal of Applied Physics, Vol. 39, No. 2, p. 988. February 1, 1968.

Haltiner, G. J., Bleick, W.E., and Faulkner, F. D.

A proposed method for ship-routing using long range weather forecasts, Monthly Weather Review, Vol. 96, No. 5, p. 319-322. May 1968.

Abstract: Two advances in the calculus of variations method for minimal time ship routing are described. The first is a scheme for constructing ocean wave field forecasts which may be expected to have considerable skill for perhaps a week. The second is an improved technique for varying time extremal ship tracks toward admissibility. Both ideas are illustrated by calculating the optimum track ship route of a VC2AP3 vessel on a transpacific voyage. Possible future developments are discussed.

Reese, W., and May, L. F.

Studies of phase transitions in order-disorder ferroelectrics: II. Calorimetric investigations of  $KD_2PO_4$ . Physical Review, Vol. 167, No. 2, p. 504-510. March 10, 1968.

Abstract: Calorimetric investigations of  $KD_2PO_4$  in the neighborhood of the ferroelectric phase transition show that the transition

is of first order, that the existing measurements of heat capacity and spontaneous polarization can be understood within the context of a mean-field theory except in the immediate vicinity of the transition, and that critical point phenomena seem to produce a logarithmic divergence of the heat capacity immediately below the transition.

Reese, W., Higgins, P.J., and Rostine, G. W.

Effects of radiation-induced cross-links on the low-temperature thermal properties of polystyrene. Journal of Applied Physics, Vol. 39, No. 3, p. 1800-1802. February 1968.

Abstract: Measurements of the low temperature thermal conductivity and heat capacity of polystyrene cross-linked by exposure to 80MeV electrons at the NPGS LINAC are reported. It is found, in contrast to most other materials, that the thermal conductivity is scarcely affected by the irradiation while a considerable change in the heat capacity takes place. This behavior is understandable within the context of our current understanding of the thermal properties of polymers and supports conjecture of excess low temperature heat capacity in polymers previously made by one of the authors.

#### PRINCIPAL PROFESSIONAL ACTIVITIES

Associate Professor Maurice B. Danard of the Department of Meteorology and Oceanography presented a paper entitled "A Simple Method of Including Long-wave Radiation in a Tropospheric Numerical Prediction Model" at the Annual Meeting of the Canadian Meteorological Society held at Calgary, Canada, 3-5 June.

Professors Harold Titus, David Hoisington, James Demetry, and Captain Donald Johnson, USMC, were co-authors of a paper presented at the 14th Annual Tri-Service Radar Symposium held at Fort Monmouth, New Jersey, 4-6 June. The paper was entitled "An Adaptive Filter for Radar Tracking Using Target Maneuver and Jamming Sensors."

A team from the Navy Management Systems Center composed of Professor H. P. Ecker, Associate Professor William A. Mauer, and Assistant Professor Sherman W. Blandin, Jr., presented a five-day program on Planning Programming, and Budgeting for the German Government in Munich 20-24 May. The program in Munich was followed by a one-day presentation on the same subject to 14 NATO Ambassadors in Brussels on 27 May, and another presentation to members of their staff the following day. Professor Ecker continued on to Bonn for consultations with the German Ministry of Defense.

The following faculty members were installed as the new officers of the Point Lobos Section, American Institute of Aeronautics and Astronautics at a dinner meeting on 5 June 1968:

Chairman:	G. H. Lindsey	Associate Professor of Aeronautics
Vice-Chairman:	C. A. Hering	Professor of Material Science and Chemistry
Secretary:	LT D. C. Wooten	Assistant Professor of Aeronautics
Treasurer:	P. F. Pucci	Professor of Mechanical Engineering.

### PROFESSIONAL MEETINGS

The Naval Postgraduate School will host the 24th Annual Meeting of the Institute of Navigation to be held 19-21 June. The technical sessions will be held in King Hall. Dean Carl E. Menneken, a member of the Institute, will chair the opening session. About 200 participants are expected to attend.

## CALENDAR OF PROFESSIONAL TRIPS

P. F. Pucci	6/14-6/30	Seattle Minneapolis	Attend Heat Transfer and Fluid Mechanics Inst. Attend U. of Minn. special course in Measurement Techniques in Heat Transf
R. L. Armstead	6/15-6/23	Los Alamos	Attend APS Mtg., Division of Electron & Atomic Phy
J. A. Miller T. Sarpkaya	6/16-6/19	Seattle	Attend Heat Transfer and Fluid Mechanics Inst.
R. F. Rinehart R. D. Strum G. J. Thaler J. R. Ward	6/16-6/21	Los Angeles	Attend Annual Mtg ASEE.
P. R. Milch	6/18-6/23	Port Hueneme	Discuss research in under way replenishment.
L. O. Olsen	6/20-6/30	Tempe Arizona	Attend mtg of American Assn of Physics Teachers.
J. E. Brock	6/24-6/28	San Francisco	Attend annual mtg of ASTM.
A. E. Fuhs	6/24-6/26	Los Angeles	Attend AIAA Fluid and Plasma Dynamics Conf. and AIAA Entry Vehicle Tech. Committee mtg.

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