

October 1, 1968



MEMORANDUM FOR DR. ROBERT TURNER

SUBJECT: Unsound ASW Bibliography

During the last four years I have been accumulating documents which relate more or less to JASON's Unsound ASW interests. Recently a friend whom I lent the documents listed these and gave me a copy of the list. As it might have some value I am sending it to you for possible use.

John M.
John Martin
Director

cc: H. Lewis w/Encl.
W. Munk w/Encl.
W. Nierenberg w/Encl.
J. Hartle w/Encl.
R. Dashen w/Encl.
F. Zachariassen w/Encl.
C. Callan w/Encl.

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FLP 5.6

LIST OF DOCUMENTS

Relating to Wave Statistics and Physics

Collected by Dr. John Martin

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Carl Eckart, "The Generation of Wind Waves on a Water Surface," *Journal of Applied Physics*, Vol. 24, No. 12, pp 1485-1494 (December 1953).

Charles Cox and Walter Munk, "Measurement of the Roughness of the Sea Surface from Photographs of the Sun's Glitter," *Journal of the Optical Society of America*, Vol. 44, No. 11, pp 838-850 (November 1954).

Charles Cox and Walter Munk, "Some Problems in Optical Oceanography," *Journal of Marine Research*, Vol. 14, No. 1, pp 63-78 (June 30, 1955).

Allen H. Schooley, "Profiles of Wind-Created Water Waves in the Capillary-Gravity Transition Region," *Journal of Marine Research*, Vol. 16, No. 2, pp 100-108 (1958).

Charles S. Cox, "Measurements of Slopes of High-Frequency Wind Waves," *Journal of Marine Research*, Vol. 16, No. 3, pp 199-230 (1958).

O. M. Phillips, "On Some Properties of the Spectrum of Wind-Generated Ocean Waves," *Journal of Marine Research*, Vol. 16, No. 3, pp 231-242 (1958).

Allen H. Schooley, "Relationship between Surface Slope, Average Facet Size, and Facet Flatness Tolerance of a Wind-Disturbed Water Surface," *Journal of Geophysical Research*, Vol. 66, No. 1, pp 157-162 (January 1961).

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M. S. Longuet-Higgins, et al, "Observations of the Directional Spectrum of Sea Waves Using the Motions of a Floating Buoy," Ocean Wave Spectra, Prentice-Hall, pp 111-136 (1963).*

Mahinder S. Uberoi, "Directional Spectrum of Wind-Generated Ocean Waves," Journal of Fluid Mechanics, Vol. 19, Part 3, pp 452-464 (1964).

A. J. Faller and A. H. Woodcock, "The Spacing of Windrows of Sargassum in the Ocean," Journal of Marine Research, Vol. 22, No. 1, pp 22-29 (January 15, 1964).

M. D. Sawhney, "A Study of Ocean Wave Amplitudes in Terms of the Theory of Runs and a Markov Chain Process," New York University, College of Engineering, Dept of Meteorology and Oceanography (January 1962).

H. W. Marsh, "Sea Surface Statistics Deduced from Underwater Sound Measurements," Annals of the New York Academy of Sciences, Vol. 118, Art. 2, pp 135-146 (September 23, 1964).

A. J. Carsola, et al, "Spectra of Temperature Fluctuations Over the Continental Borderland Off Southern California," Deep Sea Research, Vol. 12, pp 685-691, Pergamon Press, GB(1965) (DDC No. AD 626-025).

Technical Memorandum prepared by D. H. Shonting, "Preliminary Studies on the Turbulent Characteristics of Ocean Waves," U. S. Naval Underwater Ordnance Station TM No. 342, Newport, Rhode Island (July 1965).

Jan Willems and R. F. Hill, "The Statistical Properties of the Slope of a Wind Driven Water Surface of a Model Tank," Rhode Island University, Division of Engineering Research and Development, Department of Electrical Engineering Technical Report No. 10 (May 15, 1965) (DDC No. AD 617-777).

R. C. Y. Koh, et al, "Wave Shoaling," National Engineering Science Co., Pasadena, California, NESCO Report SN-134-9 (January 15, 1966) (DDC No. AD 632-849).

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*Pages 111-136 listed on document. Only pages 112, 113, 118, 119, and one unnumbered page, figure 3-1-8, in document.

LIST OF DOCUMENTS (Concluded)

C. C. Hsu, et al, "A Comparison Between Theoretical and Measured Waves Above a Submerged Rankine Body," Hydronautics, Incorporated Technical Report 231-10, Washington, D.C. (February 1966) (DDC No. AD 632-718).

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F. E. Snodgrass, et al, "Propagation of Ocean Swell Across the Pacific," Philosophical Transactions of the Royal Society of London, No. 1103, Vol. 259, pp 431-497 (5 May 1966).

Gladys Sturdy and William H. Fischer, "Surface Tension of Slick Patches near Kelp Beds," Nature, Vol. 211, No. 5052, pp 951-952 (August 27, 1966).

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J. Pedlosky and H. P. Greenspan, "A Simple Laboratory Model for the Oceanic Circulation," J. Fluid Mech, Vol. 27, Part 2, pp 291-304 (1967).

D. H. Shonting, "Measurements of Particle Motions in Ocean Waves," Journal of Marine Research, Vol. 25, No. 2, pp 162-181 (May 15, 1967).

T. P. Barnett, "On the Generation, Dissipation, and Prediction of Ocean Wind Waves, Journal of Geophysical Research, Vol. 73, No. 2 (January 15, 1968). pp 513-529

Edward C. Monahan, "Sea Spray as a Function of Low Elevation Wind Speed," Journal of Geophysical Research, Vol. 73, No. 4 (February 15, 1968). pp 1127-1137

V. W. Pidgeon, "Doppler Dependence of Radar Sea Return," Journal of Geophysical Research, Vol. 73, No. 4 (February 15, 1968). pp 1333-1341

Interview with Walter Munk
at La Jolla, California
by Ron Doel
8 January 1997

[EXCERPT]

MUNK: Yes, G.I. Taylor, and George Batchelor were here. That may have been during-- way back there was a meeting called Project Sorrento. There's a Sorrento Valley here, of course it's not the original Sorrento in Italy.. it was the earliest attempt to ask whether one can detect enemy submarines by other than acoustic means. It's a field in which I have spent a great deal of time. Non-acoustic; it's called Unsound A.S.W. by the detractors. I think in some ways it's a field which I started within JASON, and had some very interesting history, which we probably cannot discuss. But G.I. [Taylor] and George Batchelor, and Tommy Gold, and Leonard Lieberman, were here. And there was a meeting, that I was not a member of, which was the earliest discussion of what are possible ways of detecting submarines.