

## WAVE REPORTS

SIO Reference Number	SIO Contribution Number	
43-1	1. Sverdrup, H. U. and W. H. Munk. Wind, waves and swell: a basic theory for forecasting. 1943. 130p. [Superseded by SIO Contribution 307]	
43-2	2. Wind, waves and swell: principles in forecasting. 1943. 57p. [Superseded by SIO Reference 44-5]	
43-3	3. Distance from which observed swell comes and wind which produced the swell. 24 November 1943. 2p.	
43-4	4. Brass Box (wave meter); description of Dr. Maurice Ewing's instrument as adapted to the measurement of ocean swell. 1943. 4p.	
44-1	5. Munk, Walter. Measurement of waves from pressure fluctuations at ocean bottom. 18 January 1944. 6p.	
44-2	6. The transformation of waves in shallow water; theoretical aspect. February 1944. 8p.	
44-3	7. Munk, Walter and W. T. Edmonson. Discussion of wave observations. 21 February 1944. 18p.	
44-4	8. Height of breakers and depth at breaking; preliminary report on results obtained at La Jolla and comparison with South Beach data and B.E.B. tank results. 11 March 1944. .3p.	
44-5	9. The transformation of waves in shallow water. Part I. Brass Box records. 18 March 1944. 5p.	
44-6	10. Wind, waves and swell: principles in forecasting. Published as H.O. Misc. Publication 11,275. 1944. 71p.	
44-7	11. On wave heights in straits and sounds where incoming waves meet a strong tidal current. 20 April 1944. 7p.	
44-8	12. Comparison between wave records obtained by the Woods Hole Brass Box and the Scripps Institution Wave Machine. 21 April 1944. 5p.	

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44-9	13. Waves in shallow water. Report No.I. 11 May 1944. 28p.
44-10	14. The transformation of waves in shallow water. Part II. Breaking of water on gently sloping beaches. 15 May 1944. 3p.
44-11	15. Sverdrup, H. U. Effect of earth's rotation on wave motion. 27 May 1944. 3p.
44-12	16. Waves in shallow water. Report No.II. The velocity of waves in shallow water as derived from observations along the Scripps Institution pier. 1 June 1944. 31p.
44-13	17. Waves in shallow water. Report No.III. Comparisons between forecast and observed height of breakers. 7 June 1944. 10p.
44-14	18. Method of determining depth in shallow water from aerial photographs (wave velocity method). 17 June 1944 /Superseded by Underwater Depth Determination, OPNAV-16-VP46/
44-15	19. Foam line analysis. 3 August 1944. 6p. /Superseded by Underwater Depth Determination, OPNAV-16-VP46/
44-16	20. Following and opposing winds. 1944. 2p.
44-17	21. Depth determinations from aerial photos of explosion waves. 27 September 1944. 46p.
44-18	22. Surf conditions as related to landing operations. 12 October 1944. 6p.
44-20	23. Breakers and surf; principles in forecasting. Published as H.O.No.234. November 1944. 68p.
44-19	24. Effect of bottom slope on breaker characteristics as observed along the Scripps Institution pier. 23 October 1944. 15p.

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44-21	25.	Measurement of wave period from a moving ship or plane. 28 November 1944. 8p.
44-25	26.	Proposed uniform procedure for observing waves and interpreting instrument records. December 12, 1944. 28p.
45-7	27.	Observed changes in wave height from deep to shallow water. 7 March 1945. 19p.
45-4	28.	Surface wind velocity and sea-air temperature difference. 13 February 1945. 7p.
44-22	29.	Francis, W. J., Jr. Waves and swell from a tropical storm. November 1944. 45p. [In print: CNO, Aerology NAVAER 50 IT-307]
44-23	30.	Non-dimensional presentations of generation and decay of waves. 7 December 1944. 20p.
44-24	31.	A method of presenting refraction corrections. 7 December 1944. 5p.
44-26	32.	Verification of theoretical relationships between waves, wind, and fetch. 29 December 1944. 17p.
45-1	33.	The effect of bottom slope on wave velocity. February 6, 1945. 11p.
45-2	34.	Preliminary report on the diffraction behind a rigid breakwater. 13 February 1945. 5p.
45-3	35.	Procedure for computing surface wind velocities. 13 February 1945. 2p.
45-5	36.	Computation of correction factors for deep water wave meter. (Appendix to HE-116-49) February 16, 1945. 15p.
45-9	36A.	Notes on the dynamics of a damping disk system. April 4, 1945. 8p.
45-6	37.	Sverdrup, H. U. and Walter Munk. Wind, waves and swell: theoretical basis of diagrams used in forecasting. February 24, 1945. 28p.
45-12	38.	Effect of wave refraction on breaker heights. Contract NObs-16290. 1 May 1945. 27p.

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45-10		39. Preliminary report on diffraction behind a rigid breakwater of finite length. Contract NObs-16290. 19 April 1945. 11p.
45-11		40. Longshore currents. 23 April 1945. 18p. [Superseded in part by SIO Reference 45-14, Wave Report No.46]
45-8		41. Instructions for use of the refraction transparency, and instructions for use of the refraction disk. Published by the U. S. Navy Hydrographic Office as H.O. Misc.11,697. March 26, 1945. 5p.
45-14		42. Application of a solution of the water wave diffraction problem. Contract NObs-16290. 15 May 1945. 17p.
45-13		43. New instructions for use of Plate III, H.O.234. Contract NObs-16290. 10 May 1945. 5p.
	282	44. Arthur, Robert S. Refraction of water waves by islands and shoals with circular bottom-contours. American Geophysical Union. Transactions, v.27, no.2, April 1946. pp.168-177.
45-15		45. When to expect excessive roll and pitch. Contract NObs-16290. 19 May 1945. 6p.
45-16		46. Forecasting longshore currents. Contract NObs-16290. 20 June 1945. 9p.
45-18		47. Height of breakers and depth of breaking. Contract NObs-16290. 6 August 1945. [A re-examination of all available field and laboratory data] 54p.
45-17		48. Effect of surf and beach gradients on landings with LCVP's and LCM's. Contract NObs-16290. 5 July 1945. 7p.
45-20		49. Supplement to Breakers and Surf, principles in forecasting, H.O.No.234 (preliminary). Contract NObs-16290. 29 August 1945. 21p.
45-22		50. An analysis of student forecasts for the Moroccan coast. Contract NObs-2490. 5 December 1945. With appendix: Beaches and wave action, general character of beaches. Contract NObs-16290. 5 December 1945. 29p.

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45-19		51. The effect of refraction on wave height. Contract NObs-16290. 23 August 1945. 6p.
45-21		52. Variability in direction of wave travel. Contract NObs-16290. 10 November 1945. 36p.
46-1		53. A statistical study of wave conditions at four open sea localities in the North Pacific. Contract NObs-2490. 15 January 1946. 30p.
46-2		54. Comments on the paper and translation of: Kennzeichnung des gemessenen Seegangs auf Grund der Häufigkeitsverteilung von Wellehöhe, Wellenlänge und Steilheit, by H. Ehring, <u>Technische Berichte</u> , v.4, 1940, pp.152-155. Contract NObs-2490. 15 January 1946. 13p.
	303	55. Sverdrup, H. U. and W. H. Munk. Wind, sea, and swell: theory of relations for forecasting. <u>U. S. Hydrographic Office. Technical Report No.1, H.O. Publication No.601</u> , March 1947. 44p.
46-4		56. Beaches and wave action. Contract NObs-2490. 22 February 1946. 13p.
46-5		57. Water waves caused by a local disturbance of finite depth. Contract NObs-2490. 12 June 1946. 17p.
	309	58. Munk, Walter H. Increase in the period of waves traveling over large distances; with applications to tsunamis, swell, and seismic surface waves. <u>American Geophysical Union. Transactions</u> , v.28, no.2, April 1947. pp.198-217.
46-8		59. Sverdrup, H. U. Comparison between the methods for forecasting sea, swell, and surf developed by the British Admiralty and the Scripps Institution of Oceanography. Contract Noori-111, Task VI. 20 November 1946. 5p.
	300	60. Sverdrup, H.U. and W.H. Munk. Empirical and theoretical relations between wind, sea, and swell. <u>American Geophysical Union. Transactions</u> , v.27, no.6, December 1946. pp.823-827.

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	301	61. Sverdrup, H. U. and W. H. Munk. Theoretical and empirical relations in forecasting breakers and surf. <u>American Geophysical Union. Transactions</u> , v.27, no.6, December 1946. pp.828-836.
	307	62. Munk, W. H. and Melvin A. Traylor. Refraction of ocean waves: a process linking underwater topography to beach erosion. <u>Journal of Geology</u> , v.55, no.1, January 1947. pp.1-26.
	392	63. Munk, Walter H. and Marston C. Sargent. Adjustment of Bikini Atoll to ocean waves. <u>American Geophysical Union. Transactions</u> , v.29, no.6, December 1948. pp.855-860.
	306	64. Munk, Walter H. Tracking storms by forerunners of swell. <u>Journal of Meteorology</u> , v.4, no.2, April 1947. pp.45-57.
		65. NOT ISSUED
	305	66. Sverdrup, H. U. Period increase of ocean swell. <u>American Geophysical Union. Transactions</u> , v.28, no.3, June 1947. pp.407-417.
	371	67. Putnam, John A. and Robert S. Arthur. Diffraction of water waves by breakwaters. <u>American Geophysical Union. Transactions</u> , v.29, no.4, August 1948. pp.481-490.
47-9		68. A statistical study of wave conditions at five open sea localities along the California coast. Prepared for U. S. Engineer Office, Los Angeles. Contract W-04-353-Eng-1951. July 1947. 128p.
47-17		69. A statistical study of wave conditions at four sheltered areas. ONR Contract NObs-2490. October 31, 1947. 44p.
	352	70. Munk, Walter H. Wave action on structures. <u>American Institute of Mining and Metallurgical Engineers. Technical Publication No.2322. Class G, Petroleum Technology</u> , March 1948. 18p.
47-18		71. Graphs for obtaining orbital displacements and velocities. November 12, 1947. 4p.

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	372	72. Arthur, Robert S. Forecasting Hawaiian swell from January 2 to 5, 1947. <u>American Meteorological Society Bulletin</u> , v.29, no.8, October 1948. pp.395-400.
47-19		73. Arthur, Robert S. Revised wave forecasting graphs and procedure. Contract N6ori-111, Task Order VI. December 31, 1947. 28p.
	422	74. Putnam, John A., Walter H. Munk and Melvin A. Traylor. The prediction of longshore currents. <u>American Geophysical Union Transactions</u> , v.30, no.3, June 1949. pp.337-345.
	377	75. Cochran, John D. and Robert S. Arthur. Reflection of tsunamis. <u>Journal of Marine Research</u> , v.7, no.3, 1948. pp.239-251.
	475	76. Horner, Paul L. Southern hemisphere swell and waves from a tropical storm at Long Beach, California. <u>U. S. Beach Erosion Board Bulletin</u> , v.4, no.3, July 1, 1950. 18p.
48-4		77. Hamill, Estil L. Application of method for tracking storms by forerunners of swell. Contract N6ori-111, Task VI. March 1948. 9p.
	354	78. Burt, Wayne V. and J. F. T. Saur, Jr. Hindcasting technique provides statistical wave data. <u>Civil Engineering</u> , v.18, no.12, December 1948. pp.47-49.
	406	79. Munk, Walter H. The solitary wave theory and its application to surf problems. <u>New York Academy of Sciences Annals</u> , v.51, art.3, May 1949. pp.376-424.
	408	80. Arthur, Robert S. Variability in direction of wave travel. <u>New York Academy of Sciences Annals</u> , v.51, art.3, May 1949. pp.511-522.
	391	81. Munk, Walter H., Hector V. Iglesias and Theodore R. Folsom. An instrument for recording ultra low frequency ocean waves. <u>Review of Scientific Instruments</u> , v.19, no.10, October 1948. pp.654-658.

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	409	82. Munk, Walter H. Note on period increase of waves. <u>Seismological Society of America. Bulletin</u> , v.39, 1949. pp.41-45.
48-12		83. Osborn, Palmer. Tsunami travel times to La Jolla. Contract N6ori-111, Institute of Geophysics. 1948(?) 12p.
48-13		84. Osborn, Palmer. Refraction of long swell off La Jolla, 18-30 seconds. Contract N6ori-111, Institute of Geophysics. 1948(?) 24p.
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		86. NOT ISSUED
	434	87. Munk, Walter H. Surf beats. <u>American Geophysical Union. Transactions</u> , v.30, no.6, December 1949. pp.849-854.
	512	88. Munk, Walter H. Ocean waves as a meteorological tool. <u>In Compendium of Meteorology</u> . Boston, American Meteorological Society, 1951. pp.1090-1100.
	511	89. Munk, Walter H. and Robert S. Arthur. Forecasting ocean waves. <u>In Compendium of Meteorology</u> . Boston, American Meteorological Society, 1951. pp.1082-1089.
49-22		90. Miller, Robert L. Wave and weather correlation at Apra Harbor, Guam, M. I., from 18 March to 31 May, 1949. Contract N6ori-111, Task Order VI. December 1949. 14p.
	470	91. Arthur, Robert S. Refraction of shallow water waves: the combined effect of currents and underwater topography. <u>American Geophysical Union. Transactions</u> , v.31, no.4, August 1950. pp.549-552.
	498	92. Isaacs, John D., E. Allan Williams and Carl H. Eckart. Total reflection of surface waves by deep water. <u>American Geophysical Union. Transactions</u> , v.32, no.1, February 1951. pp.37-40.
		93. NOT ISSUED

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51-23	501	94. Arthur, Robert S. The effect of islands on surface waves. Issued as <u>SIO Bulletin</u> , v.6, no.1, 1951. 24p.
51- 7		95. Munk, W.H. and R.S. Arthur. Wave intensity along a refracted ray. ONR Project NR-083-005, Contract N6ori-111, Task VI, and the U.S. Army Beach Erosion Board, Contract W-49-055 eng. 3. June 1, 1951. 21p.
50-14		96. Arthur, Robert S. Wind and weather correlation at Apra Harbor, Guam, M.I., from 1 June to 30 November 1949. Contract N6ori-111, Task Order VI. Technical Report of June 6, 1950. 9p.
50-23		97. Scanlon, Thomas S., Jr. and Palmer Osborn. Mark II tsunami recorder Project NR-083-005, Contract N6ori-111, Task Order VI. Technical Report of 1 September 1950. 29p.
51-56	530	98. Arthur, Robert S. Wave forecasting. <u>Conference on Coastal Engineering. 1st, Long Beach, California, October 1950. Proceedings</u> , chapter 8, 1951. pp.82-87.
51-57	531	99. Munk, Walter H. Origin and generation of waves. <u>Conference on Coastal Engineering. 1st, Long Beach, California, October 1950. Proceedings</u> , chapter 1, 1951. pp.1-4.
51-12		100. Eckart, Carl. Surface waves on water of variable depth. Lecture Notes, Fall Semester, 1950-51. ONR Project NR-083-005. Contract N6ori-111, Task VI and U.S. Army Beach Erosion Board Contract W-49-055-eng.3. Marine Physical Laboratory. August 1951. 99p.

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53-63		102. Groves, Gordon W. A statistical description of average wave conditions near the entrance of San Diego Bay. ONR Contract N6ori-111(06). 10 December 1953. 69p.

This ends the series