

References

1. Hayward L. *The History of Air Cushion Vehicles*. Kalerghi-McLeavy Publications, 1963.
2. King HF. *Aeromarine Origins*. Putnam & Co. Ltd, 1966.
3. Wheeler RL. *From River to Sea – the Marine Heritage of Sam Saunders*. Cross Publishing, Newport, Isle of Wight, 1993, ISBN 1 873295 05 7 (contains extensive summary of SRN and BHC series ACV design development).
4. Mantle PJ. *A Technical Summary of Air Cushion Craft Development*, David W. Taylor Naval Ship Research and Development Center, Report 80/012, January 1980.
5. Colotkin CA. *Damage to ACV and HFC*. Shipbuilding Press of former USSR, 1981 (in Russian).
6. Russell BJ. *The Interservice Hovercraft (Trials) Unit*. Hover Publications, Gosport Hampshire, England, April 1979.
7. Yun L, Gu X, Zhu JZ. *The Technical Evaluation of a 65 tonne Amphibious Hovercraft*. CACTS 1989.
8. Lamb H. *Hydrodynamics*, sixth edition. Cambridge University Press (Dover Publications in USA), 1932, Library of Congress Card 46–1891.
9. Benya YY, D’Yachenko VK. *Basic Theories of Air Cushion Vehicles*, AD742425.
10. West AA. On the performance of the hovercraft single wall skirt. *Aeronautical Quarterly (UK)*, November 1967.
11. Kaplan P, Schneider J, Goodman TH. *Motions of Air Cushion Vehicles in Waves*. Symposium on the Dynamics of Marine Vehicles and Structures in Waves, U.S.A., 1974.
12. Yun L, Ju ZX, Huang WJ. *Hovering Characteristics and Experimental Investigation of Two Dimensional Bag-Finger Type Skirt*. MARIC report, 1975 (in Chinese).
13. Yun L, Lee CL. On the hydrodynamic problem in hovercraft research and design. *Annual Meeting Proceedings of CSNAME*, 1982 (in Chinese).
14. Ju ZX, Hua Y. *Experimental Investigation of Scale Effect and Vertical Stability for Static Hovering of Two Dimensional Skirt with Bag Finger Type*. MARIC report, 1997 (in Chinese).
15. Barratt MJ, Everest JT, Hogben N, Shipway JC, Wheatley JHW. *Estimation of Power and Drag for Marine Hovercraft*. NPL Hovercraft Unit Report No.11, 1969.
16. Beardsley MW. *Wave Pumping and its Effect on the Design and Operation of Air Cushion Ships*. ADA-022583, 1975.
17. Newman JN. *Marine Hydrodynamics*. MIT Press, 1977, ISBN 0 262 14026 8.
18. Newman JN, Poole FAP. Wave resistance of a moving pressure distribution in a canal. *Schiffs-technik*, 9, January 1962.
19. Colezaev BA et al. *Handbook of the Design of Ships with Hydrodynamic Support Principle*. Shipbuilding Press of the former USSR, 1980 (in Russian).

20. Everest JJ, Hogben NA. Theoretical and experimental study of the wavemaking of hovercraft of arbitrary plan form and angle of yaw. *Transactions of the RINA*, **111**, 1969.
21. Doctors JJ, Sharma SD. The wave resistance of air cushion vehicle in accelerated motion. *JSR*, **16**, 1972, published by SNAME.
22. Tatinclaux JC. On the wave resistance of surface effect ships. *SNAME Transactions*, **83**, 1975.
23. Hoerner SF. *Fluid Dynamic Drag*. Published by the Author, Hoerner Fluid Dynamics, P.O. Box 342, Brick Town, New Jersey, USA 08723, 1965.
24. Plackett M. *Design Aspect of Seal System for Air Cushion Vehicles*. AIAA paper 78-755, 1978.
25. Plackett MJ. *Design Aspects of Seal Systems for Air Cushion Vehicles*. AIAA/SNAME Advanced Marine Vehicles Conference, San Diego, California, U.S.A, 1978.
26. Chaplin JB. *Amphibious Surface Effect Vehicle Technology – Past, Present and Future*. AIAA paper no. 74-318, 1974.
27. Hua Y, Dang FS, Lee GL, Yun L. *The Method for Predicting Drag of Hovercraft on Calm Water*. MARIC report, 1989 (in Chinese).
28. Murao R. On the propulsion performance of SES on water surface (second part). *Journal of the Japan Society for Aeronautical and Space Science*, **24**, No. 26, 1979 (in Japanese).
29. Lee GL. The influence of changing the geometric parameters of sidewalls on the drag of SES. *Jiang Su Ship*, 1987 (in Chinese).
30. Yim B. On the wave resistance of surface effect ships. *JSR*, **15**, 1971.
31. Ozawa H, Tanaka H. The drag characteristics of catamaran type air cushion vehicles. *Journal of the Japan Society for Aeronautics and Space Sciences*, February 1979.
32. Rong HZ. *Calculation of Wave Profile Induced by Moving SES*. Master Thesis at MARIC, 1982.
33. Chaplin HR, Ford AG. *Some Design Principles of Ground Machines, Section D – Drag*. Report AD636277.
34. Blount DL, Fox DL. Small craft power prediction. *Marine Technology*, January 1976 (SNAME).
35. Hardler IB. The prediction of performance on planing craft. *SNAME Transactions*, 1966.
36. Fowler HS. *On the Lift Air Requirement of Air Cushion Vehicles, and its Relation to the Terrain and Operational Mode*. National Research Council of Canada (NRC) report, 1979.
37. Fowler HS. *Overland and Amphibious ACV Design : Data Relating to Performance*. NRC Report No. 17423, 1979.
38. Wilson RA, Wells SM, Heber CE. *Powering Prediction for Surface Effect Ships Based on Model Results*. AIAA paper 78-741, 1978.
39. Wilson RA. Status of hydrodynamics technology related to model tests of high speed marine vehicles. *Proceedings of 16th ITTC (International Towing Tank Conference)*.
40. Yen TK. *Isolation Technology for Mechanical Vibration*. Shanghai Scientific and Technology Press, 1985.
41. Yun E, Xu YC, Lin XC. *On the Transverse Stability of SES on Cushion (part 1)*. Second International Conference on Stability of Ships and Ocean Vehicles, Tokyo, October 1982.
42. Blyth AG. The roll stability of surface effect ships. *Transactions of the Royal Institution of Naval Architects (RINA)*, pp 271-285 (ex 138), 1993.
43. Chekhov CA. *Sidewall Hovercraft*. Translated and published by Research Institute of Water Transportation of Heilong-Jiang Province of China, 1983 (in Russian).
44. Bogdanov AY et al. *Experimental Investigation of the effect of speed on the stability of SES During Ultimate Rolling Angle*. Sea Fleet Literature No 246 (in Russian).
45. Zhou WL, Hua Y, Clao X. Analysis of the Stability of ACV. *Proceedings of Second National Conference on High Performance Vehicles*, China, 1984.
46. Hua Y, Zhou WL, Dang FS. *The Influence of Geometric Parameters of ACV on Transverse Stability*. MARIC Report, 1982 (in Chinese).

47. Coles AV. *Demonstrated Performance of the Amphibious Assault Landing Craft JEFF(B)*. The Third International Conference on Air Cushion Technology; Brighton, UK, 1976 (Ref FFI).
48. Marine Technology Requirements Board. *Stability and Control of Hovercraft, Notes for Commanders*. Published by Department of Industry, HM Stationary Office, London, 1980 (BHC Technical Report SP 4432).
49. Cook CC, Duffy RE. *Forward Speed Effects on Peripheral Jet Air Support Systems*. AIAA paper No.71-908.
50. Crago WA. Problems associated with the use of skirts on Hovercraft. *Hovering Craft and Hydrofoil*, April 1966 (Ref. Fast Ferry International which succeeded H&HI).
51. Lavis DR. *The Development of Stability Standards for Dynamically Supported Craft, A Progress Report*. The Third International Conference on Air Cushion Technology, Brighton, UK, 1976.
52. Kozalev BA. *Handbook on Hydrofoil and Hovercraft*. Translated and published by National Defence Press of China, 1985 (in Russian).
53. Huang TT, Wong KK. Disturbance induced by a pressure distribution moving over a free surface. *Journal of Ship Research, SNAME, (JSR)*, 14, 1970.
54. Standing RG. *Experience in Computing the Wavemaking of Hovercraft*. NPL report, *Ship 191*, September 1975.
55. Fein JA, Magnuson AH, Moran DD. *Dynamic Performance of Air Cushion Vehicles in a Marine Environment*. AIAA Paper 74-323.
56. Svensson R. *Experience with the KaMeWa Waterjet Propulsion System*. AIAA Paper No 89-1440-CP, 1989.
57. Zheng XJ. *On the Manoeuvrability of ACV*. First National Conference on High Speed Craft, China, 1979.
58. Murao R and Nojiri T. *On the Manoeuvring Simulation of an Antarctic Hovercraft*. Joint International Conference on Air Cushion Technology, Canadian Air Cushion Technology Society, 1985.
59. Wheeler RL. Control of single propeller hovercraft with particular reference to BH-7. *Canadian Aeronautics and Space Institute Journal*, May 1971.
60. Zeitfuss W Jr, Brooks EN Jr. *An Analysis of Desired Maneuvering Characteristics of Large Arctic SEV's*. AIAA paper No.72-600.
61. Waldo RD. Some speed problems in SES. *Journal of Hydronautics*, 2, No 3, July 1968.
62. Xie YN, Hua YT. *Static Calculation of Forces Acting on Bag-finger Type Skirt*. Joint International Conference on Air Cushion Technology, 1985 (in Chinese).
63. Hua Y, Zheng N. *Analysis of Forces Acting on Three Dimensional Skirt of Bag-finger Type*. MARIC Report, 1986 (in Chinese).
64. Zheng N, Wu TF. Approach to the influence of bottom pressure under the stern seal on the formation of skirts. *Ship Engineering*, No 5, 1984 (in Chinese).
65. Boland JA. *Lift and Drag Measurement and Analysis of the Stern Seal of the Captured Air Bubble Testcraft XR-3*. ADA 039149.
66. Zhou WL, Ma T. *The Experimental Investigation of Bounce Characteristics of ACV Responsive Skirt*. CACTS International Conference on Air Cushion Technology, 1986.
67. Reynolds AJ, West RP, Brook BE. Heaving and pitching response of a hovercraft moving over regular waves. *Journal of Mechanical Engineering Science*, 14, October 1972.
68. Doctors LJ. Nonlinear motion of an air cushion vehicle over waves. *Journal of Hydronautics*, April 1975.
69. Zhou WL, Hua Y, Yun L. *Nonlinear Equations for Coupled Heave and Pitch Motions of Surface Effect Ships in Regular Waves*. CACTS International Conference, Ottawa, Canada, 1980.
70. Zhou WL, Hua Y. *Seakeeping Quality of ACV, and the Influence of Compressibility of Cushion Air on Seakeeping*. MARIC Report, 1984 (in Chinese).

71. Lavis DR. *On the Prediction of Acceleration Response of Air Cushion Vehicles to Random Seaways, and the Distortion Effect of the Cushion Inherent in Scale Models*. AIAA paper 72-598.
72. Magnuson AH. *Seakeeping Trials of the BH-7 Hovercraft*. Report ADA 016340.
73. Moran DD, Fein JA, Ricci JJ. Seakeeping characteristics of a high length-to-beam ratio surface effect ship. *Journal of Hydronautics*, **17**, No.3, July 1977.
74. Xin SD. *Experimental Report on the Seakeeping Quality of Craft Model 711CM11*. CSSRC report, 1982 (in Chinese).
75. Yu ZD. Experimental investigation of SES with bow fin. *Shipbuilding in China* No.2, 1981 (in Chinese).
76. Gersten A. *A Synthesis of AALC Program ACV Seakeeping Data*. ADA 040122, April 1977.
77. Yun L, Wu TF, Cheng YN. *Coupled Roll and Heave Motions of Surface Effect Ships in Beam Seas*. The Hovercraft Society (THS) International Conference on Hovercraft Technology, Southampton, England, May 1987.
78. Arfiliev MY *et al*. *Inland River Transport Catamarans*. 1980 (in Russian).
79. Barr R. Supercavitating and superventilated propellers. *Transactions SNAME*, **76**, 1970.
80. Bhattacharyya R. *Dynamics of Marine Vehicles* (US Naval Academy, Annapolis Maryland, USA). Published by J Wiley & Sons, 1978.
81. Hua Y, Cheng YN. *Tensile Tests for Skirt Materials*. MARIC Report, 1980 (in Chinese).
82. Castor EB. *TMB 2, 3, and 4 Bladed Supercavitating Propeller Series*. DTMB (NSRDC) Report 1637, January 1963.
83. Cox JN. The evolution of safety requirements for dynamically supported craft. *Hovercraft and Hydrofoil*, November 1977.
84. *Current Status of U.S. Navy Stability and Buoyancy Criteria for Advanced Marine Vehicles*. AIAA paper 74-332, 1974.
85. Tachmindji AJ, Morgan WB. *The Design and Estimated Performance of a Series of Supercavitating Propellers*. Second Symposium on Naval Hydrodynamics, Office of Naval Research, US Navy, 1958.
86. *Rules and Regulations for Classification and Construction of Inland River Vessels (3)*. Inland River Ship Register of Russia, 1979.
87. Du Cane R. *High Speed Small Craft*, revised third edition. David & Charles, 1974, ISBN 0 7153 5926 6.
88. Allison JL. Propellers for high performance craft. *SNAME Marine Technology*, **15**, pp335-380, Oct. 1978.
89. *The Fundamentals of ACV Habitability and Ride Characteristics*. SAE paper No.710534, 1971.
90. Troost L. Open water test series with modern propeller forms. *Transactions of the North East Coast Institution of Engineers and Shipbuilders*, Part 1, **54**, 1937-38, Part 2, **56**, 1939-40, Part 3, **67**, 1950-51.
91. van Lammeren WP, van Manen JD, Oosterveld MWC. The Wageningen B-screw Series. *Transactions SNAME*, **77**, 1969.
92. Elsley GH. *Hovercraft Towards the Second Quarter Century*. 3rd International Hovercraft Conference, The Hovercraft Society, UK, November 1981.
93. Vaganov AM. *Design of High Speed Vessels*. Shipbuilding Press of the former USSR, 1978 (in Russian).
94. Tremills JA, Band EGU, St Laurent R. A Design Synthesis Model for ACV/SES Lift Systems. *Proceedings of Canadian Symposium on Air Cushion Technology*, pp 143-180, 1981.
95. *Development of ACV's in BHC*. General information leaflet issued by the Company, 1980.
96. Ram recovery of a flush intake for air cushion vehicles. *Hovering Craft & Hydrofoil*, September 1968.

97. Tang ZF. Selection and design of lift fans on hovercraft. *MARIC Hovercraft Bulletin*, November 1981 (in Chinese).
98. *Introduction to the Design of Power Plant of Hovercraft*. Published by MARIC, December 1971 (in Chinese).
99. Wheeler RL. *Hovercraft Skirts*. International Hovercraft, Hydrofoil, and Advanced Transit System Conference, U.K., 1979.
100. Zhou J. Design of ACV 7202. *MARIC Hovercraft Bulletin*, November 1981 (in Chinese).
101. Wheeler RL. An appraisal of present and future large commercial hovercraft. *Proceedings of the Royal Institution of Naval Architects*, July 1976.
102. Men ZX, Yu YF. *Approach for Design Criteria of ACV/SES Structures*. First National Conference on High Speed Craft, 1979 (in Chinese).
103. Yen ZL, Wong F, Zhao WS. Calculation of overall longitudinal strength and external loads off/on the hull structure of an ACV. *Proceedings of Annual Meeting of Structural Mechanics Committee of CSNAME*, 1991 (in Chinese).
104. Elsley GH, Devereux AT. *Hovercraft Design and Construction*. David & Charles, UK, 1968.
105. *Hull Structure of Hovercraft – Construction Rules for River Hovercraft of USSR*. Translated from Russian and published by MARIC, 1983 (in Chinese).
106. Bureau Veritas. *Building and Operations of Vibration Free Propulsion Plants in Ships*, Chapter C: responses of propulsion apparatus and auxiliary engines.
107. *Classification of Seagoing Ships and Rules for Construction of USSR – Technical Standards for Vibration*. Translated and published by MARIC, 1974 (in Chinese).
108. Mitchell JS. *An Introduction to Machinery Analysis and Monitoring* (second edition). Penn Well, 1993.
109. Newton RN, Rader HP. Performance data of propellers for high speed craft. *RINA Transactions*, pp 93–118, 1961.
110. Osborne WC. *Fans*. Pergamon Press, 1967, Library of Congress Card 66–18408.
111. Abbott IH, von Doenhoff AE. *Theory of Wing Sections*. Dover Publications, 1959.
112. Gawn RWL, Burrill LC. Effect of cavitation on the performance of a series of 16-inch model propellers. *Transactions of RINA*, 1957.
113. Allison JL. Marine waterjet propulsion. *SNAME Transactions*, **101**, pp 275–335, 1993.
114. Lewis RI. *Turbomachinery Performance Analysis*. Arnold, 1996, ISBN 0 340 63191 0, and Wiley 1996, ISBN 0 470 23596 9.
115. Civil Aviation Authority. *British Hovercraft Safety Requirements*. ISBN 0 86039 128 0.
116. Lloyds Register of Shipping. *Rules and Regulations for the Classification of Special Service Craft*, 1996.
117. Harrington RL. *Marine Engineering*. The Society of Naval Architects and Marine Engineers, 1992 edition, ISBN 0 939773 10 4.
118. *IMO High Speed Craft Code*. Document IMO-187-E (English), 1996, ISBN 92 801 1326 7.
119. Trillo RL. *Jane's High Speed Marine Craft and Air Cushion Vehicles*. UK, 1986.

Sources

Given below are contact details for the main sources of technical papers given as references above.

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 Refer to Publications section for High Speed Craft Code, Document IMO-187-E (English).

Lloyds Register (LR)

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