

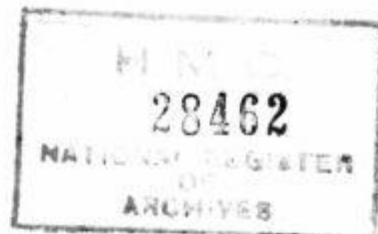
## **Hovercraft Museum Trust**

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The National Archives



Westland Aircraft Ltd. - Saunders - Roe Division

Records of the SRNI Hovercraft / Westland Aircraft Ltd.  
Saunders-Roe Division, Osborne, East Cowes.  
1955-1964  
6 boxes  
38 x 28 x 13 cm.

Correspondence, reports, drawings and photographs of the development and testing of the SRNI Hovercraft.  
Included are reports from Hovercraft pilots on the performance and handling of the craft and from the Aerodynamics dept. and Stress Office on the SRNI structure.

The papers originate from the office of W.S. Worner, Trials Department, Westland Aircraft Ltd., Saunders Roe Division with one file from the office of R. Stanton-Jones chief designer at Westland Aircraft Ltd. Donated to the Museum by British Hovercraft Corporation Ltd.

No published version  
No restrictions on access to the collection  
Usual regulations apply to photocopying, photographing and reproducing items from the collection.  
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List Available Archives: SRNI  
SRNI Hovercraft (Inv. No. 1963-540 ) at Wroughton.

BRITISH HOVERCRAFT CORPORATION LTD. / SRNI HOVERCRAFT /  
GROUND EFFECT MACHINES.

Inv. No. 1968-540.  
Transferred to Library from Dept. 5 1980 Jan 10.  
ScM Library Room 411.

No Exhibition Record  
Blueprint drawings microfilmed by ScM 1985  
Microfilm No.

Science Museum Library  
South Kensington  
London  
PAPERS, DRAWINGS AND PHOTOGRAPHS  
relating to the SR.N1 Hovercraft

1. Letters and reports

1. Letters and Reports in Ring Binder

a) Power Plant 1955-1968 [covering such topics as Viper Engines, Hours run, accidents, maintenance, effects of spray on gas turbine engines etc.]

b) Programme and Planning 1958-1962 [covering such topics as Research and development, spray measurement, acceleration and cushion pressures, pitching and rolling movements etc.]

2. Letters and Reports on Hovercraft Trials 1959-1964  
File Nos.FT/84/10

March 1959 - June 1960

June 1960 - April 1961

April 1961 - February 1962

May 1963 - February 1964

3. Letters and Reports on SR.N1 Hovercraft - General matters  
File Nos.FT/34/27

August 1958 - January 1961

February 1961 - August 1961

August 1961 - March 1962

April 1962 - October 1964

4. Unfiled Memoranda and Reports re SR.N1 1958-1962

1) Memoranda and Minutes of Meetings re SR.N1 May 1958 to Aug. 1959

2) Reports and Drawings on Manned Model Test Programme

3) Memoranda from Computing Department 1961

4) Miscellaneous Notes on Hovercraft Operation and Research

## 2. Technical Notes

1. Pilots Reports SR.N1  
May 1959 - March 1964  
File No.FT/34/36
2. SR.N1 Structure, Technical Memos from Stress Office. 1959-1964
3. SR.N1 Trial Technical Notes from Flight Test Department.  
August 1959 - March 1964
4. SR.N1 Hovercraft Mk 3-6 Flight Test Technical Notes December 1961  
- May 1963

## 3. Drawings

66 drawings including General Arrangement of Hovercraft [produced as dyeline prints]

## 4. Photographs

Binder of Photographs showing the construction of the SR.N1 and its testing over various terrains

## 5. Booklets

1. Hovercraft SR.N1 Operating Instructions May 1959 [Photocopy]
2. SR.N1 The Worlds First Hovercraft  
Published by British Hovercraft Corporation Ltd. July 1960

1/1. Letters and Reports

1/1. 1955 - 1968

## Power Plant

Details of SR Leonides 523/5 Installation, Fuel System Ground Test, Discussions with Rolls-Royce over possible use of R-R engines, Investigations of Marbore jet engine, Installation and performance of Marbore engine, loan of Viper ASV8 engine, Installation and performance of Viper.

## Programme and Planning

Possible applications of hovercraft, NRDC proposals, Development programme, Research programmes, Modifications to craft, Use of Models

1/2. Hovercraft Trials

1/2-1. 1959 Mar - 1960 Jun

Initial SRN1 Test Programme, Review of Safety conditions, cushion pressure efficiency, Report on Trials and condition and performance of craft, SRN1 with DH Gypsy-Major Engines, SRN1 with Marbore Jet Engine.

1/2-2. 1960 Jun - 1961 Apr

Notes on general condition of craft after 1 year in use, Notes on sea trials, Rudder response, Hovercraft navigation, Radio services for Hovercraft, Viper Installation, Flexible trunking installation

1/2-3. 1961 Apr - 1962 Feb

Trials with Viper engine, Trials programme review, Over wave performance, Operational limitations, Loan of SRN1 to Ministry of Aviation

1/2-4. 1963 May - 1964 Feb

Trial reports, Handling and performance, Skirt development history, Viper 104 replaces Viper 5 engine.

1/3 General Matters

- 1/3-1. 1958 Aug - 1961 Jan Hovercraft demonstrations and appearance at shows. Proposed programme for research trials.  
Progress meeting minutes, HDL Research contract, Reports from Aerodynamic and Hydrodynamic departments, Hovercraft visitors.
- 1/3-2. 1961 Feb - 1961 Aug HDL Research programme details, Preliminary damage reports, Analysis of tests on model, Design office test schedule, Reports from Hydrodynamic department.
- 1/3-3. 1961 Aug - 1962 Mar HDL Research programme details, Reports from Hydrodynamic department Test on Model, Notes on meeting with Admiralty representative, Hovercraft servicing schedules.
- 1/3-4. 1962 Apr - 1964 Oct HDL Research programme details, Reports from Hydrodynamic and Aerodynamic departments, SRN1 works orders.

1/4-1. Memoranda and Minutes of Meetings

1. 1958 May 13 Memorandum - Possible extension of Hovercraft Work. 2p.
2. 1958 Aug. 20 Memorandum - Further work on the Hovercraft Project. 3p.
3. 1958 Sept. 12 Hovercraft Development Programme. 4p.
4. 1958 Sept. 19 Note on Conversation in London on Avro (Canada) Ltd. - Special Projects. 3p.
5. 1959 July 31 SRN1 Operation Calais - Dover. A Record of Radio and Telephone Messages Preceding the Channel Crossing. 5p.
6. 1959 Aug. 5 Contract Programmes, Test Reports and Technical Memoranda. 11p.
7. 1959 Aug. 14 Hovercraft - Minutes of 9th Progress Meeting held at NRDC Headquarters London, 6 Aug. 1959. 7p.
8. 1959 Aug. 31 Hovercraft - Minutes of Meeting held at Lee-on-Solent, 26 Aug. 1959. 5p.

1/4-2. Manned Model Test Programme. [ex File HO 3A]

1. 1958 Feb. 3 drawings relating to Hovercraft Model
  - a) Wind Tunnel Lines Drawing - 1/2 scale.
  - b) Body Lines - Full scale.
  - c) Base of Model 1/2 and Full scale.
2. 1958 Oct. [3 drawings giving] preliminary geometric details of main bends in the plenum chamber and propulsion ducts, the splitter of the propulsion ducts and the layout of the cushion jet nozzle in the single and twin jet configuration. 1/4 scale.  
[Plus Note 30 Oct. of] amendment to sketch of plenum chamber
3. 1958 Oct. [2 drawings of] preliminary layout of splitters and spoilers in the lifting duct and geometric details of the propulsion duct. 1/12 scale.

4. 1959 Apr. Report from J.B.Chaplin/Initial tethered Hover to free tests at 5 knots forward speed on calm water.  
Tests A1:1 to B2:2. p13.
5. 1959 Aug. Memorandum on model 14. 1p. Figs.4.

1/4-3. Computing Department Memoranda. [ex File 34/27]

1. 1961 Apr. Preliminary match between Analogue Computer and Test Tank Model Results including the effect of Pitch Control over Shorter Waves.[iv] 4p 6 graphs.  
Report No.205
2. 1961 Apr. Comparison between Wave Moment and the Pitching Moment due to the Pitch Control Foils. [ii] 2p 1 graph.  
Report No.206.
3. 1961 Apr. A means of assessing the Effectiveness of Pitch Control Systems. [ii] 4p 1 graph.  
Report No.209.
4. 1961 Jun. The Representation of Natural Seas on the Analogue Computer. [ii] 5p Figs.2.  
Report No.212.
5. 1961 Jul. Natural Frequencies and Dampings. Model 14a. [ii] 3p Table 1, Fig.2.  
Report No.220.
6. 1961 Jul. Wave Forcing and the Required Amount of Pitch Control. [ii] 5p Figs.4.  
Report No.221.
7. 1961 Dec. Setting up and Testing the Servo System for the SRN1 Automatic Pitch Control System. [ii ] 7p Figs.6.  
Report No.226.
8. 1961 Nov. Preliminary Tests and Analysis on the Overland Behaviour of the SRN1 with Automatic Pitch Control. [ii ] 5p Figs.5.  
Report No.227.



1/4-4. Hovercraft Operation and Navigation - Miscellaneous Reports.

1. 1960 Nov. 30 Analysis of Further Acceleration Measurements on the SRN1 Hovercraft when flying over Ships' Wakes, Ditching and Flying over Waves. 14p Figs.12.  
Reference PRC/DGG/MFKI/P
2. 1961 Apr. Proposed Research Studies for Hovercraft Development Ltd. from April 1st 1961. 3p. Tables 1A, 2A-2F, 3A-3B, 4A.
3. 1962 Sept. Sea Keeping Trials with the SRN1 Hovercraft 11p, App.VII, Tables 4, Figs.12. Admiralty Experiment Works Report No.25/62.

2/1. Pilots Handling Reports SR.N1. 1959-1964

1. 1959 Jun. 12 Pilot's Handling Assessment of the SR.N1. 5p.
2. 1959 Jun. 17 Pilot's Handling Assessment of the SR.N1. 2p.
3. 1959 Jun. 24 Pilot's Handling Assessment on the Water. 9p.
4. 1959 Jul. 6 Pilot's Handling Assessment on the Water. 9p.
5. 1959 Jul. 17 Pilot's Handling Assessment on the Water. 5p.
6. 1959 Aug. 19 Pilot's Handling Assessment on the Water. 3p.
7. 1959 Aug. 20 Pilot's Handling Assessment during Cross Channel Crossing from Calais to Dover. 3p.
8. 1959 Sep. 7 Pilot's Handling Assessment overland. 2p.
9. 1959 Sep. 12[?] Demonstration during S.B.A.C. Week at Farnborough. 4p.
10. 1959 Oct. 6 Brief Pilot's Handling Assessment in Cowes Harbour with complete Inner Duct Blanking and Inter-Connectors between segments removed. 1p.

2/1 cont.

11. 1959 Dec. 7 Trials with Underwater Weapons and Underwater Detection Establishment at Portland. 8p + Fig.1.
12. 1959 Dec. 29 Trials with Doors fitted to the Cockpit and Anticooustic headsets [MK 6]. 2p.
13. 1959 Dec. 30 Trials with H.R.H. Prince Philip as passenger and driver. 4p.
14. 1960 Mar. 1 Trials in an attempt to develop a satisfactory water speed indicator. 3p.
15. 1960 Apr. 23 Trials with Marbore II Turbo Jet Engine. 6p.
16. 1960 Apr. 26 Demonstration at the Isle of Wight Industries Fair. 2p.
17. 1960 May 5 Cylinder failure of the Leonides engine prior to demonstration at Isle of Wight Industries Fair. 2p.
18. 1960 May 24 Demonstration on the Thames for Members of Parliament and Commonwealth Prime Ministers. 5p + Fig.1.
19. 1960 Jun. 10 Demonstration on the River Medway as Climax to Royal Engineers Annual Demonstration of Equipment. 6p.
20. 1960 Jun. 29 Trials at Browdown range as a rehearsal for 7-7-1960. 3p.
21. 1960 Sep. 15 Trials of the SR.N1. during August with rubber skirts attached. 4p
22. 1960 Oct. 21 Further Sea Trials with rubber skirt attachment. 3p.
23. 1960 Dec. 7 Initial Sea Trials at night. 5p.
24. 1960 Dec. 12 Further night trials. 2p.
25. 1960 Dec. 16 Visit to Harley landing lamps at St. Neots. 3p.
26. 1960 Dec. 21 Sea Trials to check Doppler Speed Unit, calibration of water speed indicator and effectiveness of Wynn windscreen wiper. 4p Fig.1.

2/1 cont.

27. 1961 Jan. 3 Shallow water drag characteristics. 2p.
28. 1961 Jan. 31 Sea Trials at night fitted with two Harley Landing Lamps. 4p.
29. 1961 Mar. 23 Initial Land and Sea Trials with modified rubber skirt attachment. 7p.
30. 1961 Mar. 29 Engine Bay Fire and Failure of Leonides Engine. 2p.
31. 1961 Apr. 10 Further Sea Trials with skirt attachment. 6p.
32. 1961 Jun. 22 Sea Trials fitted with Viper thrust engine to investigate further the flight envelope. 7p + 7 Appendix.
33. 1961 Jul. 11 Sea Trials fitted with Viper thrust engine to investigate further the flight envelope. 9p.
34. 1961 Oct. 19 Initial Handling Assessment fitted with Automatic Pitch Control and Modified Bow and Stern Sections. 3p.
35. 1961 Nov. 9 Continuation of Handling Assessment fitted with above and flared bow with Breaker strip. 4p.
36. 1962 Oct. 4 SR.N1. MK IV Fitted with 4ft Trunks and Centre Inflatable Keel. 4p.
37. 1962 Oct. 4 Continuation of Trials fitted with 4ft skirts. 3p.
38. 1962 Nov. 5 Sea Trials at Thorney Island. 4p.
39. 1963 May 14 SR.N1. Handling MK VI Configuration. 2p.
40. 1963 Nov. 15 Holed in One [SR.N1.]. 1p.
41. 1964 Jan. 31 Viper Failure. 1p.
42. 1964 Mar. 12 Memorandum on SRN1 Viper Throttle Actuator Control. 1p.

2/2. Hovercraft Structure - Reports from Stress Office

1. Missing.
2. 1959 Jan. Hovercraft Strength Requirements. 6p.
3. 1960 Sep. Impact loads following rapid closing of engine throttle while hovering over a hard surface. 3p Fig.1.
4. 1960 Sep. 12 An Assessment of Recorded Fan Movements. 2p Fig.2.
5. 1960 Oct. 7 An Assessment of Bow Secondary Damage due to Wave Impact. 2p Fig.1.
6. Missing.
7. 1961 Nov. 17 SR.N1. MK 4 Damage to the Outer Skirt Structure. 1p Fig.3.
8. 1962 Feb. 5 SR.N1. MK 4 version. Modifications and further Damage to the Outer Skirt Structure. Nov. 10th 1961 to Jan. 18th 1962. 3p Fig.6.
9. 1962 Feb. 8 SR.N1. MK 4 version. Further Damage and Repairs to the Outer Skirt Structure. Jan. 18th to Feb. 4th 1962. 3p Fig.3.
10. 1962 Jul. 6 SR.N1. MK 4 version. Modification and further Damage to the Outer Skirt Structure. Feb. 4th to 28th 1962. 2p Fig.3.
11. 1962 Jul. 6 Condition of Trunks on return of Craft from H.T.U. 2p Fig.1.
12. Missing.
13. 1964 Jan. 21 Skirt Lifting Cable Failure. 2p Fig.2.
14. 1964 Apr. 1 Condition of 4th Trunks, February 1964. 5p.

2/3. Flight Test Technical Notes SR.N1.

1. 1959 Aug. Preliminary Tests to Determine the Hover Flight and Control Characteristics of the SR.N1. Hovercraft. 2p Tables [2 ] Figs.3p. Report No.FT/34/N/01.
2. 1959 Oct. Pitching Stability. Preliminary Measurements of Pitching Moments. 1p Figs.[19p]. Report No.FT/34/N/02.

2/3 cont.

3. 1959 Oct. Thrust Calibration. 1p Tables 5 Fig.1.  
Report No.FT/34/N/03.
4. 1959 Oct. Preliminary Tests to Determine Hovercraft Drag Over Dry Land. 1p Fig.1.  
Report No.FT/34/N/04.
5. 1959 Oct. Further Tests to Determine the Hover Height of the SR.N1. Hovercraft. 3p Tables 2 Figs.5.  
Report No.FT/34/N/05.
6. 1959 Nov. Further Tests to Determine the Pitching Moment Characteristics of the SR.N1. Hovercraft. 2p Tables 3 Figs.3.  
Report No.FT/34/N/06.
7. 1959 Nov. SR.N1. Hovercraft, Preliminary Rolling Moment Measurements. 1p Tables 3 Figs.3.  
Report No.FT/34/N/07.
8. 1959 Dec. SR.N1. Hovercraft, Fan Total Head Measurements 2p Tables 5 Figs.8.  
Report No.FT/34/N/08
9. 1959 Dec. Notes on a Series of Tests to Measure the Intake of Spray on the SRN1 Hovercraft on the 1st and 2nd December 1959. 3p Fig.1.  
Report No.FT/34/N/09.
10. 1960 Mar. SR.N1. Hovercraft, Frequency Response to a step Input and Control Induced Oscillations in the Single Jet Configuration over Dry Land in the Static Hovered Condition. 2p Fig.1.  
Report No.FT/34/N/10.
11. 1960 Mar. 16 Frequency Response of the SR.N1. Hovercraft in the Double and Single Jet Configurations Hovering Over Dry Land. 2p Table 1 App.1.  
Report No.FT/34/N/11.
12. 1960 Apr. Further Fan Total Head and Static Pressure Measurements. 2p Figs.2.  
Report No.FT/34/N/12.
13. 1960 Apr. Normal Accelerations Experienced by the SR.N1. Hovercraft when Entering the Sea, Wallowing. Flying over Waves and Ship's Wakes and Ditching. 2p Figs.4.  
Report No.FT/34/N/13.

2/3 cont.

14. 1960 Apr. SR.N1. Hovercraft Spray Intake Measurements with craft in Single Jet Configuration. 3p Figs.9.  
Report No.FT/34/N/14.
15. 1960 May SR.N1. Hovercraft, Propulsion Duct Pressure Measurement. 2p Figs.11.  
Report No.FT/34/N/15.
16. 1960 May Tests to Determine the Pitching Moment Characteristics of the SR.N1. in the Single Jet Configuration. 2p Figs.2.  
Report No.FT/34/N/16.
17. 1960 May Tests to Determine the Rolling Moment Characteristics of the SR.N1. in the Single Jet Configuration. 2p Figs.2.  
Report No.FT/34/N/17.
18. 1960 May Tests to Determine the Pitching Moment Characteristics of the SR.N1. operating at a heavy all-up-weight. 2p Figs.4.  
Report No.FT/34/N/18.
19. 1960 Jun. Calibration of Water Speed Indicator. 2p Figs.2.  
Report No.FT/34/N/19.
20. 1960 Jun. Static Thrust Calibration of the Marbore II No.109 Jet Turbine Engine on the SR.N1. Hovercraft. 2p Figs.1.  
Report No.FT/34/N/20.
21. 1960 Jul. Some Notes on the Variation of Rise Height with Craft Attitude [3p ] Figs.3.  
Report No.FT/34/N/21.
22. 1960 Jul. 19 Impact Accelerations experienced following Comparatively rapid closing of the Leonides Engine Throttle while hovering over a hard surface. 2p Figs.2.  
Report No.FT/34/N/22.
23. 1960 Jul. 22 Preliminary Results of Accelerations and Impact Pressures experienced by the SR.N1. Hovercraft when flying over Ship's Wakes, Ditching and Flying over Waves. 3p Figs.13.  
Report No.FT/34/N/23.

2/3 cont.

24. 1960 Aug. Summary of Ditching Characteristics and Behaviour following a simulated Engine Failure. 5p Fig.1. File No. FT/34/N/24.
25. 1960 Aug. Pitching Moment Measurements on the SR.N1 fitted with Flexible Rubber Skirts around the lifting jets. 2p. Figs 10. Report No. FT/34/N/25.
26. 1960 Sept. SR.N1 Hovercraft, First Experiments on Methods of Increasing the Hover Height by the use of Flexible Skirts. 4p. Figs 2. Report No. FT/34/N/26
27. 1960 Aug. Brief Review of Past Flight Trials and Proposals for Future Programme. p9. Report No. FT/34/N/27
28. 1960. [?] SR.N1 Hovercraft - General Engineering Records. 44p. Fig 1. [with Amendment 1 to Above Report dated 1961 Aug.] Report No. FT/34/N/28.
29. 1960 Oct. 19. Further Impact Tests from a static Hovered Condition 2p. Fig 1. Report No. FT/34/N/29.
30. 1960 Oct. 26. Tests to Determine the Efficiency of the Maboré Intake Spray Separation System with Knitmesh Filter 4p. Tables 4, Figs 3. Report No. FTR/34/N/30.
31. 1960 Oct. 27. Pitching Moment Measurements on the SR.N1 Fitted with Flexible Trunking around the Lifting Jets. 2p. Fig 10. Report No. FT/34/N/31
32. 1960 Nov. 25. Total Head Measurements beneath the SR.N1 Hovercraft [2p] Figs 5. Report No. FT/34/N/32.
33. 1960 Nov. A Preliminary Investigation into the Normal Accelerations Experienced in Various types of Vehicle including the SR.N1 Hovercraft 7p. Figs 10. Report No. FT/34/N/33.

2/3 cont.

34. 1961 Jan. 20. Flexible Trunking Development Trials and Engineering History September 1960 to January 1961 9p. Tables 6 Figs 7.  
Report No. FT/34/N/34.
35. 1961 Jan. First Attempts at a Photographic Method of Recording Pitch Frequency and Damping of the SR.N1 at Forward Speed. 2p. Figs 4.  
Report No. FT/34/N/35.
36. 1961 Jan. 10 Some Measurements of the Accelerations and Impact Pressures experienced by the SR.N1 Hovercraft with Flexible Trunks fitted when operating over Waves and Ship's Wakes 3p. Figs 10.  
Report No. FT/34/N/36.
37. 1961 Jan. 16. Propulsion Duct Forward Thrust Calibrations 2p. Fig 4.  
Report No. FT/34/N/37
38. 1961 Feb. 28. Sea Trials on Marbore knitmesh Intake Filter 3p. Tables 2 Figs 3.  
Report No. FT/34/N/38
39. 1961 Feb. Further Pitch Frequency and Damping Records of the SR.N1 at Forward Speed 2p. Figs 3.  
Report No. FT/34/N/39.
40. 1961 Feb. 10. SR.N1 Hovercraft Drag and Trim Characteristics 3p. Figs 3.  
Report No. FT/34/N/40.
41. 1961 Feb. 24. Some Measurement of Natural Period, Damping and Control Response Characteristics in Pitch and Roll of the SR.N1 Fitted with 12" Flexible Trunks to both Lifting Jets 3p. Figs 10.  
Report No. FT/34/N/41
42. 1961 Feb. 27. Sea Trials on Marbore Knitmesh Intake Filter with Side Panels Fitted. 3p. Tables 2p. Figs 4.  
Report No. FT/34/N/42.
43. 1961 Mar. 6. Recalibration of Water Speed Indicator 2p. Fig 1.  
Report No. FT/34/N/43.



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44. 1961 Mar. 16. A Possible Method of Determining the Salt Intake of the Marbore II at Sea.  
3p. Tables 2p. Fig 2.  
Report No. FT/34/N/44.
45. 1961 Mar. Rise Height Measurements of the SR.N1 Fitted with Long, thin Material Trunks around both Lifting Jets 3p. Fig 5.  
Report No. FT/34/N/45.
46. 1961 Apr. Pitching Moment Measurement on the SR.N1 fitted with New Type Flexible Trunks around both Lifting Jets 1p. Fig 5.  
Report No. FT/34/N/46
47. 1961 Jun. SR.N1 Drag and Trim Measurements with the Craft Fitted with Long Thin Material Trunks (Scheme "F"). 3p. Fig 12.  
Report No. FT/34/N/47.
48. 1961 Jul. 13. Rise Height Measurements of the SR.N1 with and without added Extensions to the outer Jet Trunking. 2p. Figs 4.  
Report No. FT/34/N/48
49. 1961 Jul. Pitching Moment Measurements on the SR.N1 Fitted with Viper and Minor Extensions to the Outer Jet Trunking. 1p Figs 4.  
Report No. FT/34/N/49
50. 1961 Jul. 1. Calibration of the Air and Water Speed Indicators on the SR.N1. 2p. Figs 2.  
Report No. FT/34/N/50
51. 1961 Jul. Thin Gauge Terylene and Nylon Trunking Trials March 1961 to July 1961 (Scheme F Installation) 11p. Tables 7 Figs 4.  
Report No. FT/34/N/51
52. 1961 Jul. 19. Propulsion Duct Forward Thrust Calibration at a Craft all-up-weight of 13,500 lb  
2p. Figs 2.  
Report No. FT/34/N/52
53. 1961 Jul. 20. Static Thrust Calibration of Viper ASV8 Jet Turbine Engine on the SR.N1 Hovercraft  
2p. Figs 2.  
Report No. FT/34/N/53

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54. 1961 Aug. 18. Unpredicted Behaviour whilst operating at Speed over Water at Reduced Trunk Clearance Heights ("Ploughing in")  
8p. Tables 3 Figs 5.  
Report No. FT/34/N/54
55. 1961 Sept. 4. Drag and Trim Measurements on the SR.N1 fitted with the viper ASV8 Jet-Turbine Engine and Scheme "F" Trunks. 3p. Figs 6.  
Report No. FT/34/N/55
56. 1961 Jul. Movable Water Ballast System 2p. Fig 1.  
Report No. FT/34/N/56
57. 1961 Jul. Some Notes on Operation over Obstacles, when Fitted with Flexible Trunks around the Lift Jets 3p. Table 1.  
Report No. FT/34/N/57
58. 1961 Sept. 6. Some Preliminary Measurements of Trim and Drag when Operating in Shallow Water  
3p. Figs 5.  
Report No. FT/34/N/58
59. 1961 Sept. 12. Some Total Head Measurements beneath the SR.N1 Fitted with with Scheme F(3) Trunks 2p. Figs 4.  
Report No. FT/34/N/59
60. 1961 Aug. First Measurements of Normal Accelerations Experienced by the SR.N1 Hovercraft fitted with Scheme "F" Trunks and Marbore when Operating over Waves and Ship's Wakes  
3p. Figs 16.  
Report No. FT/34/N/60
61. 1961 Aug. Viper Installation 3p. Fig 1.  
Report No. FT/34/N/61
62. 1961 Sept. 18. Further Pitch Frequency and Damping Measurements at Zero Forward Speed Overland, Craft Fitted with Viper and Scheme "F" Trunks, Table 1, Figs 4.  
Report No. FT/34/N/62
63. 1961 Aug. Results of Long Duration Testing of a Section of Flexible Material in Lift Duct Plating  
Report No. FT/34/N/63

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64. 1961 Sept. 7. Further Measurements of Normal Accelerations Experienced by the SR.N1 Hovercraft Fitted with Viper and Scheme "F" Trunks when Operating over Waves 2p. Fig 6.  
Report No. FT/34/N/64
65. 1961 Sept. 15. Further Measurements of Normal Accelerations Experienced when operating over Ship's Wakes; Craft fitted with Viper and Scheme F2 Trunks 2p. Figs 3.  
Report No. FT/34/N/65
66. 1961 Sept. 14 Summary of Operations and Developments from June to July 1961 2p. Figs 5.  
Report No. FT/34/N/66
67. 1961 Sept. 18. Removal of Salt Deposits and Anti-Corrosive Treatment for the Engines of the SR.N1 3p.  
Report No. FT/34/N/67
68. 1961 [?] Calibration of the Speed Indicators on the SR.N1 3p. Figs 5.  
Report No. FT/34/N/68
69. 1962 April 12. Rise Height Measurements on the SR.N1 Mk IV with scheme "G" Flexible Trunks Fitted 1p, Figs 5  
Report No. FT/34/N/69
70. [nd?] Pitching Moment Measurements on the SR.N1 Mk IV Fitted with (C.P. shifter) Controls 2p. Figs 5.  
Report No. FT/34/N/70
71. [nd?] Normal Accelerations Experienced by the SR.N1 Hovercraft Mk IV when Operating over Waves in Manual and Automatic Pitch Control 3p. Figs 17.  
Report No. FT/34/N/71
72. [nd?] Pitch Response of the SR.N1 Hovercraft Mk IV Fitted with Automatic Pitch Control when Operating over Waves and Ship's Wakes 3p. Figs 13.  
Report No. FT/34/N/72

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73. [nd?]            Some Comparisons of the Normal Accelerations Experienced by the SR.N1 Hovercraft MK II and III with the Mk IV when Operating over Waves  
4p. Figs 2.  
Report No. FT/34/N/73
74. 1962 Nov. 5.    Drag Measurements on the SR.N1. A.C.V.  
Mk V 2p. Figs 2.  
Report No. FT/34/N/74
75. 1963 Mar.        Trials with 48 inch Trunks - SR.N1 MK V.  
14p. Figs 12.  
Report No. FT/34/R/75
76. 1963 Feb. 28.   Summary of First Series of Trials, Feb 8th to Feb 13th 1963. SR.N1 Mk VI ACV. 3p. Fig 1.  
Report No. FT/34/N/76
77. 1963 June        Summary of Second Series of Trials  
February 14th to May 22nd 1963  
SR.N1 ACV Mk VI 5p.  
Report No. FT/34/N/77
78. 1963 Jul.        Measurement of the Normal Accelerations Experienced by a 41.5 ft Hard Chine Marine Vessel 3p. Figs 4.  
Report No. FT/34/N/78
79. 1964 Mar. 17    Summary of Third Series of Trials  
23rd May 1963 to 30th January 1964.  
SR.N1 Mk VI ACV 5p. Figs 3.  
Report No. FT/34/N/79.

2/4. SR.N1 Hovercraft Mk 3-6 Flight Test Technical Notes

File containing

1. Proposed Operational Programme - May 1961
2. Notes on SR.N1 Trials 26-30 June 1961
3. Programme of Trials 22 Sept 1961
4. Test Schedules - Programmes for Sea Sorties  
No. 1 - No. 33  
1962 Sept 27 - 1964 Jan. 9.

3. Drawings of Hovercraft N1

- 3/1. 1959 Mar. 13      General Arrangement of Hovercraft  
Drawing No. H1  
Scale 1/24
- 3/2. 1958 Nov. 18.      Assy. Buoyancy Tank  
Drawing No. H4 Sheet 2  
Scale 1/6 and 1/1
- 3/3. 1958 Nov. 18.      [Buoyancy Tank]  
Drawing No. H4 Sheet 3  
Scale [ ]
- 3/4. 1958 Nov. 24      Top Plating Buoyancy Tank  
Drawing No. H4 Sheet 4  
Scale: 1" to lft and 1/1
- 3/5. 1958 Nov. 20.      Assy. Buoyancy Tank  
Drawing No. H4 sheet 5  
Scale: Full
- 3/6. 1958 Nov. 26.      Assy. Buoyancy Tank  
Drawing No. H4 Sheet 6  
Scale: Full
- 3/7. 1958 Dec. 9.      Assy. Buoyancy Tank  
Drawing No. H4 Sheet 7  
Scale: Full
- 3/8. 1958 Dec. 4.      Assy. Nacelle Ducting  
Drawing No. H5 Sheet 1  
Scale: [ ]
- 3/9. 1959 Jan. 23.      Assy. Nacelle Ducting  
Drawing No. H5 sheet 2  
Scale: 1/1 and 1/4
- 3/10.                      Assy. Inner Wall. Inner Lift Duct.  
Drawing No. H8  
Scale: Full
- 3/11. 1958 Dec. 22.      Assembly and Geometry  
Drawing No. H14  
Scale: 1/4 and 1/8
- 3/12. [    ]              Cabin Structure  
Drawing No. H20  
Scale: 1/4
- 3/13. 1958 Dec. 31.      Assy. Intake duct (outer wall).  
Drawing No. H28 Sheet 1  
Scale: 1/1, 1/2, 1/4.

- 3/14. 1959 Jan. 12. Assy. Intake duct (outer wall)  
Drawing No. H28 Sheet 2  
Scale: Full
- 3/15. 1959 Jan. 1. Guide Vane (270)  
Drawing No. H48  
Scale: 1/12, 1/2, 1/1.
- 3/16. 1959 Jan. 6. Inner Nacelle Ducting in way of Exhaust Pipe  
Drawing No. H51  
Scale: 1/1 and 1/2
- 3/17. 1959 Jan. 6. Guide Vane (30 degrees)  
Drawing No. H52  
Scale: 1/12, 1/4, 1/1.
- 3/18. 1959 Jan. 7. Fixed Portion Propulsion Duct  
Drawing No. H55  
Scale: 1/4
- 3/19. 1959 Jan. 7. Oil Cooler Duct  
Drawing No. H57  
Scale: 1/1
- 3/20. 1959 Jan. 15. Exhaust Pipe Outlet  
Drawing No. H60  
Scale; 1/1
- 3/21. 1959 Jan. 18 Engine Bay Drain  
Drawing No. H80  
Scale: 1/1, 1/4
- 3/22. 1959 Feb. 3. Propulsion Duct Details  
Drawing No. H83 and 84  
Scale: 1/2 and 1/1
- 3/23. 1959 Jan. 27. End Lift Duct Segment  
Drawing H85 and 86, sheet 1  
Scale: 1/1 and 1/8
- 3/24. 1959 Jan. 27. End Lift Duct Segment  
Drawing H85 and 86, sheet 2  
Scale: Full
- 3/25. 1959 Jan. 27. End Lift Duct Segment  
Drawing No. H85 and 86, sheet 3  
Scale: Full
- 3/26. 1959 Feb. 3. Lift Duct Side Segment  
Drawing No. H87 and 88, sheet 1  
Scale: 1/8 and 1/1.

- 3/27. 1959 Feb. 3. Lift Duct Side Segment  
Drawing No. H87 and 88, sheet 2  
Scale: 1/1
- 3/28. 1959 Jan. 21. Beaching Chassis  
Drawing No. H90  
Scale: 1/1
- 3/29. 1959 Jan. 21. Guide Vane  
Drawing No. H93 and 94  
Scale: 1/2
- 3/30. 1959 Jan. 22. Cabin Floor and Forward Structure  
Drawing No. H95 Sheet 1  
Scale: 1/4
- 3/31. 1959 Jan. 22. Cabin Floor and Deck Structure - Details  
Drawing No. H95 Sheet 2  
Scale: 1/1
- 3/32. 1959 Feb. 18. Cabin Floor and Deck Structure - Details  
Drawing No. H95 Sheet 3  
Scale: 1/1
- 3/33. 1959 Feb. 18. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 4  
Scale: [ ]
- 3/34. 1959 Feb. 18. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 5  
Scale: 1/1
- 3/35. 1959 Feb. 18. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 6  
Scale: 1/1
- 3/36. 1959 Feb. 17. Cabin and Forward Structure  
Drawing No. H95 sheet 7  
Scale: 1/4
- 3/37. 1959 Feb. 17. Cabin Floor and Forward Structures  
Drwing No. H95 sheet 8  
Scale: Full
- 3/38. 1959 Feb. 17. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 9  
Scale: Full
- 3/39. 1959 Feb. 24. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 10  
Scale: Full

- 3/40. 1959 Feb. 18. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 11  
Scale: 1/1
- 3/41. [ ] Cabin Floor and Forward Structure  
Drawing No. H95 sheet 12  
Scale: 1/1 and 1/2
- 3/42. 1959 Feb. 24. Cabin Floor and Forward Structure  
Drawing No. H95 sheet 13  
Scale: 1/4 and 1/1
- 3/43. 1959 Jan. 30. General Assembly, Deck Structure  
Drawing No. H97 sheet 1  
Scale: 1/8 and 1/1
- 3/44. 1959 Feb. 18. General Assembly, Deck Structure  
Drawing No. H97 sheet 2  
Scale: [ ]
- 3/45. 1959 Feb. 27. General Assembly, Deck Structure  
Drawing No. H97 sheet 3  
Scale: 1/8, 1/2, 1/1
- 3/46. 1959 Feb. 3. Control Valve-Propulsion Duct  
Drawing No. H98  
Scale: 1/4, 1/2, and 1/1
- 3/47. 1959 Jan. 30. Structure and Door Assembly  
for P. and S. Lift Duct Valve  
Drawing No. 100 and 101  
Scale: 1/2 and 1/1
- 3/48. 1959 Feb. 10. Side control valve  
Drawing No. H115  
Scale: 1/1
- 3/49. 1959 Feb. 12. Forward and Aft. Control Valve  
Drawing No. H116  
Scale: 1/2
- 3/50. 1959 Feb. 18. Water Speed and Depth Indicator Assembly  
Drawing No. H125  
Scale: 1/1 and 2/1
- 3/51. 1959 Feb. 18. Aft. Rudder General Assembly and Mounting  
Drawing No. 127 and 128  
Scale: 1/4, 1/2, 1/1
- 3/52. 1959 Feb. 24. Forward Rudder General Assembly and Mounting  
Drawing No. 133 and 134  
Scale: 1/4, 1/2, 1/1



- 3/53. [ ] Aerial Mounting  
Drawing No. H137  
Scale: [ ]
- 3/54. [ ] Aerial Mounting  
Drawing No. H137  
Scale: [ ]
- 3/55. 1959 Mar. 3. Elevon General Assembly and Mounting  
Drawing No. H139 and 140  
Scale: 1/4 and 1/1
- 3/56. 1959 Mar. 5. Assembly of Link Plates  
Drawing No. H147  
Scale: [ ]
- 3/57. 1959 Mar. 6. Planing Bottom  
Drawing No. 149 and 150  
Scale: 1/8 and 1/1
- 3/58. 1959 Mar. 10. Propulsion Duct Support Structure  
Drawing No. 151 and 152  
Scale: 1/12 and 1/1
- 3/59. 1959 Mar. 23. Rudder and Elevon Guard  
Drawing No. 161 and 162  
Scale: 1/4 and 1/1
- 3/60. 1959 Mar. 3. General Assembly Controls  
Drawing No. 45 - 1  
Scale: 1" = 1ft.
- 3/61. 1959 Feb. 5. General Assembly Leonides 523/5 Installation  
Drawing No. 50 - 2  
Scale: 1/4 and 1/1
- 3/62. 1961 Feb. 16. Viper Engine Mounting  
Drawing No. 50 - 39  
Scale: 1/8, 1/4, 1/1
- 3/63. [1959 Feb. 6.] Fuel and Oil System Assembly  
Drawing No. 57 - 14  
Scale: 1/4
- 3/64. [1960 Apr. 1.] [Leonides Petrol System; Marbore Kerosine System]  
Drawing No. 57 - 26  
Scale: [ ]

- 3/65. 1959 Jan. 28. General Assembly Electrics  
Drawing No. 81 - 1 sheet 1  
Scale: [ ]
- 3/66. 1959 Jan. 28. General Assembly Electrics  
Drawing No. 81 - 1 sheet 2  
Scale: [ ]

4. Additional Photographs - donated June 1980.

- B831-B Hovercraft under construction
- B832 Viper Engine [?]
- B839 Hovercraft under Construction
- B840C Fan Housing being fitted to Viper Engine[?]
- B843G 1st Tethered Hover Trials
- B845M Press View of Hovercraft at Cowes
- B845N Press View of Hovercraft at Cowes
- B845P The Launch of the Hovercraft
- B846F The SR.N1 and The Queen Mary
- B847B The SR.N1 passing the SS United States  
during Sea Trials
- B850 - 15 The First Flight
- B852B Hovering on Rye Sands
- B859K Taking part in 1959 Farnborough Air Show
- B860B Taking part in 1959 Farnborough Air Show
- B864 Hovering on Hard Surface at Farnborough
- B881 SR.N1 on the River Thames
- B911E First Flight on The Solent
- E1754-A Press Day for the Hovercraft Model

4.      SR.N1 PHOTOGRAPHS

- B 827              Buoyancy Tank Structure - 9.1.59.
- B 827/A            Hufford Stretch Form Tool and Component for Lift Duct Nozzle - 9.1.59.
- B 827/B            Buoyancy Tank Structure - 9.1.59.
- B 829              Lower Buoyancy Tank - 28.1.59.
- B 829/A            Inner Lift Duct - 28.1.59.
- B 830              Assembly of Buoyancy Tank, Inner Jet Nozzle Skin and Engine Nacelle Cockpit in background - 27.2.59.
- B 830/A            Assembly of Buoyancy Tank, Inner Jet Nozzle Skin and Engine Nacelle Cockpit in background, with portion of Outer Intake Duct - 27.2.59.
- B 830/B            Fairing Ring and Fan - 27.2.59.
- B 830/C            Top Portion of Intake Duct - 27.2.59.
- B 830/D            Top Portion of Intake Duct - 27.2.59.
- B 831              Four Different Types of Ribs as used for Lift Ducts - 9.3.59.
- B 831/A            Oil and Petrol Tanks and their maintains - 9.3.59.
- B 831/B            Commencement of Assembly of Top Deck and Lift Duct - 9.3.59.
- B 832              Hovercraft Engine before installation - 19.3.59.
- B 834              Assembly of lift duct and deck structure - 31.3.59.
- B 834/A            Forward end showing lift duct and deck structure - 31.3.59.
- B 834/B            Aft end showing lift duct and deck structure - 31.3.59.
- B 834/C            Interior of Cockpit - 31.3.59.
- B 834/D            Propulsion Ducts (partly finished) - 31.3.59.
- B 836              General view of craft with hoisting sling in position - 27.4.59.
- B 839              General view of hovercraft assembly - 14.5.59.
- B 841/C            General view of SR.N1 hovercraft - 6.6.59.
- B 841/K            SR.N1 hovercraft hovering and tethered - 6.6.59.
- B 844              General view of hovercraft untethered - 9.6.59.
- B 845/L            A large party of Press representatives inspect the SR.N1 prior to the demonstration at Columbine Works - 11.6.59.
  
- B 846
- B 847              The 2nd flight - 12.6.59.
- B 847/C            SR.N1 with the America in the background during 2nd test flight - 12.6.59.
- B 848/B            First beaching trials of SR.N1 at Osborne Bay - 21.6.59.

B 848/D SR.N1 entering the water from Osborne Bay - 21.6.59.  
B 848/E SR.N1 taxi-ing along waters edge at Osborne Bay - 21.6.59.  
B 849 General view of SR.N1 hovercraft - 30.6.59.  
B 850/12 Hovercraft in moderately rough water (into wind) - 3.7.59.  
B 850/19 Hovercraft approaching mooring buoy - 3.7.59.  
B 855/C Hovercraft being guided into position over the deck of the lighter -  
B 855/K SR.N1 on board the lighter taking it to France -  
B 856/15 Hovercraft at Calais - 24.7.59.  
B 856/16 " " " " "  
B 856/18 " " " " "  
B 857/5A Calais to Dover crossing - 25.7.59.  
B 857/13 " " " " "  
B 857/21 Hovercraft at Dover - 25.7.59.  
B 857/26 " " " " "  
B 860/B Royal Marines aboard SR.N1 at Farnborough - 7.9.59.  
B 862/23 Chief of the Defence Staff, Admiral of the Fleet Earl Mountbatten, with Mr. Stanton Jones, Chief Designer, at the SBAC Show, Farnborough - 8.9.59.  
B 864/B SR.N1 at Farnborough - 8.9.59.  
B 867 Cockpit of the hovercraft - 29.9.59.  
F 1266 Mr. E. Mensforth, Chairman of Westland Aircraft Ltd. with HRH Prince Philip - 18.12.59.  
B 878 Trials of the SR.N1 fitted with jet engine - 24.4.60.  
B 878/A SR.N1 high speed trials showing Norris Castle in the background - 25.4.60.  
B 878/B SR.N1 trials at East Cowes - 25.4.60.  
B 878/C SR.N1 high speed trials - 25.4.60.  
B 878/E SR.N1 high speed trials fitted with jet engine - 25.4.60.  
B 879/A Hovercraft demonstration at Puckpool for the Island Industries' Fair - 26.4.60.  
B 881/C SR.N1 on the River Thames showing the House of Commons in the background - 17.5.60.  
B 881/5 SR.N1 going under Lambeth Bridge - 17.5.60.  
B 882 Mr. Hennesey talking to Mr. Cockerell at Osborne Bay - 24.5.60.  
B 882/A SR.N1 at Osborne Bay - 24.5.60.  
B 882/C SR.N1 at Southsea - 24.5.60.  
B 882/E Mr. Hennesey arriving at Southsea - 24.5.60.  
B 882/F SR.N1 at Osborne Bay - 24.5.60.

B 896 SR.N1 on the slipway showing clearing under craft - 25.10.60.

B 896/A SR.N1 on the slipway showing clearing under craft - 25.10.60.

B 897/B SR.N1 carrying 20 NATO visitors - 27.10.60.

B 897/C " " " " " "

B 929/A SR.N1 leaving slipway at low water - 12.6.61.

B 929/N High speed run on River Medina at Folly - 12.6.61.

B 937/A Hovercraft at sea 23.6.61.

B 937/C SR.N1 showing Viper jet engine, at sea - 23.6.61.

B 939 Showing Viper installation - 28.6.61.

B 939/A " " " - "

B 943 SR.N1 showing general layout looking forward - 4.6.61.

B 943/A General view of SR.N1 showing Viper engine, port side - 4.6.61.

B 943/B SR.N1 general layout looking aft - 4.6.61.

B 943/C General view of SR.N1 showing Viper engine, starboard side - 4.6.61.

B 943/D General arrangement of equipment aboard SR.N1 - 4.6.61.

B 943/E General arrangement of equipment aboard SR.N1 - 4.6.61.

B 943/F View showing Water Speed Indicator and Viper engine - 4.6.61.

B 943/G Rear view showing line of thrust of the Viper - 4.6.61.

B 943/H SR.N1 showing bow before modification - 4.6.61.

B 943/J View under hovercraft looking  $\frac{3}{4}$  aft - 4.6.61.

B 943/K View under hovercraft looking  $\frac{3}{4}$  forward - 4.6.61.

B 959 SR.N1 runs on the Solent Mk.4 - 31.10.61.

B 959/A SR.N1 runs on the Solent Mk.4 - 31.10.61.

B 959/C " " " " " "

B 959/G SR.N1 Mk.4 leaving the slipway - 31.10.61.

B 959/H SR.N1 runs on the Solent Mk.4 - 31.10.61.

B 960/C General view of the SR.N1 Mk.4 with new bow - 31.10.61.

B 1012 Early trials with 4' skirts - 19.10.62.

B 1012/B " " " " " "

B 1012/C " " " " " "

B 1012/F " " " " " "

B 1012/M Early beaching test with 4' skirts - 19.10.62.

B 1012/N Hovering on slipway showing new skirts fully extended - 19.10.62.

B 1012/O SR.N1 Mk.5 running at speed - 19.10.62.

B 1012/R SR.N1 Mk.5 running at top speed - 19.10.62.

B 1013 Beaching test at Osborne Beach - 23.10.62.  
B 1013/B Skirts fully extended - 23.10.62.  
B 1013/D Travelling over the peak of the groyne - 23.10.62.  
B 1013/E SR.N1 running parallel with the shore, Osborne Beach - 23.10.62.  
B 1014 SR.N1 running over the pond at Browdown - 25.10.62.  
B 1014/B H.T.U. Browdown - 25.10.62.  
B 1014/C SR.N1 running over rough ground at Browdown - 25.10.62.  
B 1014/E SR.N1 at Browdown - 25.10.62.  
B 1014/F Running over the pond at Browdown - 25.10.62.  
B 1014/G Operating through bushes at Browdown - 25.10.62.  
B 1014/J SR.N1 at Browdown - 25.10.62.  
B 1014/K Refuelling the craft during sorties - 25.10.62.  
B 1014/N SR.N1 at Browdown - 25.10.62.  
B 1015/3 SR.N1 crossing the Solent to begin trials at RAF Thorney Island - 30.10.62.  
B 1015/5D SR.N1 en-route for Thorney Island - 30.10.62.  
B 1016 Turning craft prior to a run down the ramp - 31.10.62.  
B 1016/C Operating over the mud - 31.10.62.  
B 1016/F SR.N1 operating over the saltings at RAF Thorney Island - 31.10.62.  
B 1016/J Craft approaching Point Bravo - 31.10.62.  
B 1019 View under SR.N1 with new skirts fitted - 15.12.62.  
B 1019/A State of skirts after tests - 15.12.62.  
B 1019/B SR.N1 being lifted - 15.12.62.  
B 1028 SR.N1 with long skirts hovering in Osborne Bay - 12.2.63.  
B 1028/A SR.N1 hovering at Osborne Bay - 12.2.63.  
B 1028/B " " " " " "  
B 1028/C " " " " " "  
B 1028/D " " " " " "  
B 1028/E " " " " " "  
B 1028/F " " " " " "  
B 1028/H " " " " " "  
B 1028/J " " " " " "  
B 1031 SR.N1 crossing the Solent on its way to Browdown - 15.2.63.  
B 1031/A SR.N1 crossing the Solent on its way to Browdown - 15.2.63.  
B 1031/B SR.N1 hovering over rough ground at Browdown - 15.2.63.  
B 1031/C " " " " " " "  
B 1031/D Crossing the Solent on its way to Browdown - 15.2.63.

B 1031/E SR.N1 hovering up the slipway after Browndown trip - 15.2.63.

B 1031/G SR.N1 at Browndown - 15.2.63.

B 1031/H SR.N1 hovering over ground at Browndown - 15.2.63.

B 1032 SR.N1 hovering among the bushes at Thorney Island - 15.2.63.

B 1032/A SR.N1 hovering among the bushes at Thorney Island - 15.2.63.

B 1032/C SR.N1 hovering over rough ground at Thorney Island - 15.2.63.

B 1033 SR.N1 Mk.V hovering over Beaulieu Marshes - 18.2.63.

B 1033/A SR.N1 crossing the Solent on its way to Beaulieu Marshes - 18.2.63.

B 1033/B SR.N1 crossing the marshes at Beaulieu - 18.2.63.

D 65B Corrosion of hovercraft engine unit - 3.7.59.