

Catalogue L, for box-files L1 – L2.

Scope: War-time Naval gunnery control (fire control) from the 1920s, with especial reference to Elliott (electro-mechanical) equipment. Naval radar and post-war fire control developments in the 1950s. Retrospective reviews, up to 2011.

Cat. No.	Date	Description	Comment
L1	1937	A Century of progress, 1800 - 1937	Photocopy of four pages of a publicity booklet produced in 1937 by Elliott Brothers (London) Ltd. Gives photos of various pieces of Elliott naval fire-control equipment. (Provenance: Ron Bristow). See also section 7 of the Elliott catalogue, box-file R4, for more photos.
L1	1946	Naval fire-control radar. J F Coales, H C Calpine, D S Watson. Journal IEE, part IIIA, no. 2, pages 349 – 379.	Photocopy. Contains many illustrations.
L1	1946	Abstracts of papers on naval gunnery radar by C A Laws, H W Pout, H A Prime, T C Finimore, W D Mallinson. Pages 325 – 330 (of above IEE Journal?)	Photocopy.
L1	1946	Abstracts of Servo Convention papers by J O H Gairdner, G H Farrington, J Bell, W E C Lampert. Pages 533 – 539 (of above IEE Journal?)	Photocopy.
L1	Dec. 1948	Fire control: work in progress, Dec. 1948. Admiralty file ADM 220/222 at The National Archive, Kew.	Photocopy. This file gives the hand-over notes, at Dec. 1948, by Cdr F C Morgan to Cdr T W Best, Gunnery Radar Applications Officer, ASRE. Mentions progress on MRS5 at Borehamwood. See * file EPRO1.doc
L1	1949	HMAS TOBRUK - Flyplane control system Mark 2 - Summary of progress report. Contents date range: 1949 – 1950. Australian National Archives, file MP981/1	Photocopy of eight pages (mostly photos and diagrams).
L1	1953	<i>Flyplane Predictor System Mk 5: user handbook 1953-1958</i> . BR 1644(1), first issued May 1953. The National Archive, file ADM 234/680	Photocopy of one page from this Report, showing: 'AA Primary Operation – Flow Diagram'. (Original A3 sheet and an A4 reduction).
L1	1971	HMS Belfast. John Wingate. Profile Publications. ISBN: 085 3850835.	Photocopy of pages 19 – 21, which includes diagrams of the Elliott fire control equipment. See also SHL's photos ***
L1	1973	Guns at sea. Peter Padfield. Published by Hugh Evelyn Ltd., London.	Photocopy of pages 224 -231 (includes photos). Gives an idea of the electro-mechanical fire control systems in use

			during the First World War.
L1	Jan. 1984	British mechanical gunnery computers of World War II. Allan G Bromley. Technical Report 223. Basser Dept. of Computer Science, University of Sydney, Australia.	Photocopy of 28 typed pages of text plus 18 pages of illustrations. Exterior light blue plastic cover. Inserted is an e-mail from Allan Bromley to SHL dated February 2002. Allan died a year or so later.
L1	1986	Early development of naval fire control. Desmond Dreyer. Naval Review, pages 238 – 241.	Photocopy.
L1	1989	The post-war generation of tactical control systems. R Benjamin. Journal of Naval Science, vol. 15, no. 4, pages 263 – 275.	Photocopy. Includes some history of the Comprehensive Display System (CDS) built by C A Laws and M V Needham at Borehamwood.
L1	c. 2007	List of World War II British naval radar.	Description by type-numbers of the main technical characteristics. Six-page print-out from the 'answers' website.
L1	1993	Radar at Sea – the Royal Navy in World War 2. Published by MacMillan.	Photocopied extracts of many (about 30) selected pages. Contains useful glossary. Also, some SHL hand-written notes are included.
L1	1995	The application of radar and other electronic systems in the Royal Navy in World War 2. Edited by F A Kingsley. Published by Macmillan.	Photocopied extracts. Includes time-chart of milestones and extracts from a long section on Weapon Control by H W Pout.
L1	?	Dumaresq instruments. Anon.	Photocopy of a four-page typed leaflet, probably produced by the National Maritime Museum, Greenwich. Contains diagrams and explanation, for calculating rates of change of range and deflection.
L1		The mechanical analogue computers of Hannibal Ford and William Newell. A B Clymer. IEEE Annals of the History of Computing, vol. 15 no. 2, pages 19 onwards.	Photocopy of pages 19 – 26. Relevant to ship-borne gunnery control. Gives history of US naval fire control.
L1	c. 2000	A slice of history: the Battenberg Course Indicator. Gloria Clifton and Peter Iffland. Navigation News, November/December 2000	Photocopy, two pages. Contains diagrams.
L1	2001	Fire control for British dreadnoughts: choices of technology and supply. Ph.D. thesis by John Brooks. Chapter 2: Long range naval gunnery. Also, Appendices. Dept. of War Studies, Kings College, London.	Photocopy, plus letter dated 20 th Nov. 2001 from John Brookes.
L1	c. 2002	The Admiralty Fire Control Tables. John Brooks. Warship 2002-2003, pages 69 – 93.	Photocopy. Describes the Elliott naval fire control equipment, including photos. Very useful background to Elliott's work. See also * CD from John Brooks in section 7, box-file R4, of the Elliott catalogue.
L2	2003 & 2010	Notes made at the Public Record Office (National Archives) on Admiralty files.	Notes on the following files which were thought to be relevant to Elliotts, MRS5 and fire control in general: ADM

			178/309, 234/148, 234/680,263/149, 294/15, 294/13, 220/222, 220/1225, 220/1668, 1/22119, 1/31000, 1/22753.
L2	2005	Supplementary radar material: Elliott's Cassegrain aerial system and other radar developments, and comments.	Manuscript notes from John Kinnear, plus technical comments from Dr J E B Ponsonby, Jodrell Bank, University of Manchester.
L2	2000	Naval Research & Development: some sources.	Includes a Public Records Office (aka National Archives) leaflet; guide to naval & maritime museums, etc.
L2	2001 - 2007	Miscellaneous correspondence regarding naval Fire Control and Elliott's involvement.	Includes correspondence between SHL and John Brooks, Ron Bristow, John Harding (MOD) & Royal Navy Museum.
L2	March 2011	TEWERN: Technical Evolution of Weapon Engineering in the RN. Also: Introduction to RN Command & Control, with Annexes A-N. Version. 1.2. Peter Marland.	Crown Copyright spiral-bound Report. Peter Marland is with DSTL Naval Systems, Portsmouth. See also: <i>Postwar Fire Control in the Royal Navy</i> , by Peter Marland, a former RN weapon engineer officer now working as an operational analyst. This 'describes and assesses the Royal Navy's postwar efforts to produce effective fire control systems for its ships'. This is held as * file <i>Naval Postwar Fire Control.pdf</i>
L2	2011 – 2012.	TEWERN Notes and correspondence with Peter Marland.	Reports, e-mails and letters. Note that Peter Marland visited SHL on 18 th November 2013 to inspect the classified Borehamwood Reports catalogued in section 2 (box-files J1 to J4) and was able to declare them now 'declassified'.