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Aircraft Seventy, edited by J. W. R. Taylor, *Checkmate: The 325th Fighter Group in North Africa and Italy; Dwell Under the Stars*, by Wilhelm Johnson, *Great Atlantic Air Race*, The, by Peter Bostock; *House's Guide to Light Aircraft 1970*; *Jane's Weapon Systems 1969-70*; *Louis Renault*, by Anthony Rhodes; *USAF Serials, 1946 to 1969*, by Peter Danby: 188

British Aviation, The Great War and Aftermath, by Harold Penrose; *Douglas and the Battle of Britain*, by Robert Wright; *Civil Airliner Recognition*, by John W. R. Taylor; *Japanese Aircraft of the Pacific War*, by R. J. Francillon; *A History of Marine Aviation*, by John Killen; *Flight's Directory of British Aviation 1970*; *Aerospace Law*, by Nicolas Maresco; *Matter: The Motor Balloon "America"*, by Edward Mabley; *Aircraft Carriers*, by Norman Polman: 329

The Language of Aviation, by W. S. Barry; *Jane's 1969-1969 100 Significant Aircraft*, compiled by H. F. King and edited by John W. R. Taylor; *The German Air Raid on Great Britain 1914-1918*, by Capt Joseph Morris; *Royal Air Force Unit Histories, Vol 1: Nos 1 to 100*, by Edward Bishop; *5301: Growth of an Aircraft*, by John Green; *545: Civil Aircraft Manufacturers*, by John W. R. Taylor, 548; *Aviation Forecasts, Fiscal Years 1970-1981 (FAA)*, *Directory of Airlines in the Middle East and Air Transport in the Arab World*, by Elias Ayyeh, 881.

Airspeed Aircraft since 1911, by H. A. Taylor; *The Mighty Eighth*, by Roger Freeman; *The Republic F-105 "Thunderchief"*, by Robt. D. Archer; *RFC RAF 1917-1937* by Charles W. Cain (illustrations by Tony White); *US Military Aircraft 1917-1934* by Charles W. Cain and Tony White; *1970 Interavia ABC World Directory of Aviation and Astronautics (Interavia 3A)*; *The Phantom 2* by Richard E. Gardner; and *Tomcat*, by Jimmy Sangster: 1010

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