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Medical History

FDR and American Military Deployment: “My” Armed Forces and their Health

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INTRODUCTION

The prevention and management of epidemic infections are a major responsibility of national leaders in peace and war. Belfast suffered outbreaks caused by meningococci in 1906,1907, 1908 and 1915; Bordeaux, France, endured Spanish influenza in 1918. In the UK, cerebrospinal fever became notifiable in 1912, so that epidemiologic data were collected for the World War I years. Canadian troops brought meningococci to the UK in 1914-15; it spread to the civilian population. Two to four percent of persons carry meningococcus in their pharynx but during an epidemic, the percentage of carriers may increase ten to twenty-fold. The main groups can be identified by agglutination tests. A, formerly caused the majority of epidemics, while B was responsible for sporadic infections, until historically replaced by Group C as the predominant epidemic organism. Group D rarely caused human disease. The use of Flexner’s serum during the Belfast outbreaks of 1906-1908 reduced mortality from 82 percent to 25-35 percent7. In the British military, mortality in 1915 approached 50% even with the use of serum8. In 1915, Regius Professor of Medicine at Oxford, Sir William Osler reported on recent outbreaks of cerebrospinal fever in military and naval camps and barracks, and the existence of a “meningitic type of poliomyelitis”9.

John C. Slessor (JCS) had lived with William Osler’s family in Oxford for five years just before World War I11. (Fig 1) In 1915, Professor Sir William Whitla1 and Regius Professor Sir William Osler wrote authoritative reviews of the management of meningococcal epidemics9.

The following year, 1916, the Osler’s only child Revere died of war wounds received as a gunner subaltern in the Ypres Salient. Harvey Cushing, a close family friend who had been married from the Osler’s home, attempted to save his life and broke the sad news to the senior Oslers11,13.

EDUCATION OF A PRESIDENT

After attending the Groton School in Massachusetts, Franklin Delano Roosevelt (FDR) wanted to attend the U.S. Naval Academy at Annapolis14. Roosevelt had been given for Christmas 1897, aged 15, A.T. Mahan’s The Influence of Sea Power upon History. His distant cousin and close family friend President Theodore Roosevelt, and FDR’s father, James, both advised “Harvard” as preferable. James died during FDR’s freshman year at Harvard.

The following summer, FDR took his mother, Sara, to see Kaiser Wilhelm II. FDR sailed his mother in the Roosevelt yacht to Sorge, Norway, adjacent to the S.M.Y. Hohenzollern. Sara and her son FDR invited the Kaiser to tea. He accepted and reciprocated on the Hohenzollern14.

On June 7, 1910 Theodore Roosevelt gave the Romanes Lecture at Oxford sponsored by Professor Osler15. In 1913, FDR was appointed Assistant Secretary, United States Navy14,16. He served 8 years with wide-ranging responsibilities which eventually affected Northern Ireland. FDR was in control of building the U.S. Navy’s extensive installations along the Gironde, Bordeaux. FDR provided

* The Medical Research Council Report (9) and other contemporaneous sources use the Gordon Classification of Types I, II, III and IV.

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the impetus for the 1918 mine blockage from Scotland to Norway and the promotion of an effective U.S. Naval Air Service campaign against German U-boats. FDR took two trips to WWI front lines in France and Italy. Wherever he went, he was treated like a Head of State. On his inspection tours, FDR’s personal U.S. Navy Flag was the first U.S. flag raised and flown over the Royal Navy flags since the War of 1812.

Returning from Europe after his 1918 World War I trip, FDR was seriously ill with ‘Spanish’ flu and subsequent pneumonia. Upon arrival in Hoboken, NJ, he was transported by ambulance to his mother’s home in Manhattan where he was nursed by his wife Eleanor, together with U.S. Navy nurses. Post-Armistice, on his January 2, 1919 return trip to Europe, he was accompanied by his wife Eleanor, by authority of the Secretary of the Navy, Josephus Daniels.

The U.S. Navy in 1919 employed the largest airplanes in the world, the NC flying boats. NC4 was the first plane to be flown across the Atlantic, two weeks before Alcock and Brown, landing at Lisbon, Portugal on May 27, 1919 from Washington, D.C. via the Azores.

FLYING FORTRESS AND FDR

On August 8, 1934, Boeing filed its proposal for the B-17 Heavy bomber. Eleven months later a Boeing-financed Flying Fortress prototype flew from Boeing Field. The U.S. Air Corps placed, with FDR’s approval an order for 65 B-17 Flying Fortresses. On the prototype’s second flight it crashed and killed its pilots. FDR told the RAF Tactical Planning Committee, which included JCS (see below) and Dowding (later victor of the Battle of Britain), that 12,000 B-17s would be built in the event of war with Germany. Otherwise the RAF and French could tender for them. By July 1945, 12,731 had indeed been produced by Boeing.

JCS

Sir John (Jack) Cotesworth Slessor GCB 1948, KCB 1943, DSO 1937, MC 1916, later Head of RAF (JCS) was born in India on 3 June 1897, the son of Major Arthur Kerr Slessor of the Sherwood Foresters. JCS married Hermione Guinness in 1923. JCS was on the Air Staff, Air Ministry 1928-30, Instructor Staff College, Camberley 1931-1934; back to India 1935-37. He was in command of No. 3 Wing Quetta, 1935, Director of Plans, Air Ministry 1937-41, ADC to King

CATALINAS AND FDR

FDR became President and Commander-in-Chief of the United States on March 4, 1933. FDR let it be known that as Commander-in-Chief he would allocate U.S. heavy bombers. Within 6 months, Hitler became Chancellor of Germany. In October 1933, the U.S. Navy contracted Consolidated, Martin and Douglas to build competing prototypes for a patrol flying boat. Each Consolidated Catalina, winner of the competition, cost $US 90,000. Four thousand fifty-one were produced, of which approximately 200 were based in Northern Ireland during World War II.
George VI, 1938, Air Representative to French Conversations 1938-39\(^{21,22,23}\). In 1940, he went to the USA, as sole RAF representative to the Anglo-American staff conversations and in US 1942, leaving Jan. 1943, then en route to the Casablanca Conference with FDR and Prime Minister Churchill\(^{22,24}\). JCS wrote much of the Final Report. Slessor flew from the UK to Washington DC seven times from 1940 through the end of 1943 and spent many weeks there\(^{23,24}\) (Fig. 3).

JCS knew that FDR had been severely criticised for tardiness in deploying anti-bera to the large U.S. Navy base at Bordeaux, France\(^{19}\). JCS, despite his post-polio leg weakness, had become a war hero in the RFC and RAF. As a protégé of Lord Trenchard, JCS was given important planning posts for development of planes for the inter-war RAF\(^{25}\). In 1935 JCS was in command of the RAF group of squadrons at Quetta where the earthquake struck: thirty thousand died\(^{16}\). JCS and Donegal-born Lieutenant Colonel Bernard Law Montgomery arranged for the burial of the dead and the supply of vaccines, drugs, equipment, nurses, physicians and engineers\(^{16}\).

In late 1940, JCS was sent as the sole RAF representative to prepare and take part in the American-British-Canadian (ABC) conference in Washington, D.C.\(^{23,24}\). There, Slessor met FDR at the White House and they worked out the U.S. proposed planning for Northern Ireland\(^{23,26,27,28}\). FDR insisted on Crevagh Hospital (Londonderry) being built for “My Navy”. FDR recommended sending 30,000 U.S. workers from a still neutral U.S.A. to help local artisans build Crevagh Hospital, docks and airfields for “My Navy” and “My Army”, since “My Bombers” needed a convalescent hospital and lodge therein. FDR likened Lough Foyle to the Gironde where he had supervised U.S. construction in 1917-1919. FDR knew of JCS’s RAF plan M. He shared with JCS his own enquiries, projections and modus operandi\(^{23,24}\).

JCS, with FDR’s assistance, found 674 Hudsons, 91 Catalinas, 58 Liberators and 20 Flying Fortresses awaiting delivery to the UK\(^{20,30,31}\). JCS wrote to the head of the RAF: “The present system is whereby we bribe a few American pilots:……we want……at least 1,000 pilots”\(^{29}\). FDR intervened and arranged that the Fortresses be flown by RAF pilots from Seattle or Vancouver to Prestwick or Aldergrove. The other pilots were to be U.S., Canadian and British air-men. On arrival at Belfast hotels, the ten-gallon hats, high-heeled Texan boots and Canadian hooded parkas were certainly noticed. Sir Frederick Banting, of insulin fame, was the first civilian fatal casualty from a Hudson being ferried across the North Atlantic. He froze to death after surviving a Newfoundland crash\(^{11,22}\).

As part of the ABC 1 and 2 plans of 1940 and early 1941, 26 airfields were planned for Northern Ireland. Langford Lodge was planned to be an American assembly, modification and repair depot\(^{27}\). Langford Lodge had a satellite airfield at Greencastle, County Down. Between 1942 and 1945, 48 aircraft accidents were directly related to Langford Lodge Air Depot\(^{27}\); the Medical, Dental and Nursing staff were U.S. citizens and Lockheed employees. The Station Surgeon was Major Samuel Blank\(^{27}\). In planning this hospital, both JCS and FDR knew of the 1907, 1908 and 1915 Belfast Cerebrospinal fever epidemics and the U.S. forces Bordeaux 1917-18 epidemics of cerebrospinal fever and influenza\(^{2,3,7,8,9}\). FDR also knew of JCS’s Oselrian background and his 1935 Quetta earthquake experience: fly in or stock vaccines and drugs\(^{11,26,33}\).

FDR and JCS strongly influenced Allied deployment in both Northern Ireland and elsewhere. Both were good at dealing with the US leadership of Ernest King, Commander of the US Navy and H.H. “Hap” Arnold, Commander of the US Army Air Force\(^{34}\). The US provided the majority of planes for RAF Coastal Command and the escort carriers of the Allies\(^{34}\). Why did JCS and FDR get on so well? Both had paralytic polio—JCS walked with one or two sticks and for cricket was allowed a runner; FDR employed leg braces and human aid. Each admired the other’s charm and intellect. Slessor’s wife, Hermione, was a Guinness and FDR’s wife, Eleanor, was Theodore Roosevelt’s favourite niece\(^{35}\).

**HUDSONS AND LOCKHEED**

Early on 13 May 1938, leaving a crowd of journalists and aviation enthusiasts at Burbank, near Los Angeles, California, Waclaw Makowski flew a LOT purchased Lockheed Hudson L14 to Warsaw, Poland. The arrival in Warsaw was triumphant. A radio failure was due to faulty cable insulation short-circuiting at higher altitude\(^{35}\). Makowski later led RAF Squadron 300 to sink German invasion barges in the Battle of Britain. Conversion of 300 Squadron from Fairey Battles to Vickers Wellingtons commenced in October 1940. On March 23, 1941, Makowski led his squadron to bomb Berlin. Remarkably, no Wellington was lost. In 1984, Makowski was honoured by the U.S. Airforce together with Jimmy Doolittle (leader of the 1942 Tokyo raid), Chuck Yeager (breaking of the sound barrier) and Adolf Galland (Air Battle for Europe, Luftwaffe ace). At the USAF presentation of Great Moments in Aviation History, Makowski said “I am honoured to be…among aces…whose achievements surpass mine\(^{35}\)."

By February 1939, Hudsons began to be delivered to RAF squadrons. At the outbreak of war, 78 were in RAF service\(^{36,37,38}\). During World War II the 2,000 Hudsons of RAF Coastal Command flew out of all 26 Northern Irish Airfields\(^{36}\). Two thousand nine hundred and forty-one Hudsons were produced by Lockheed between 1938 and 1943\(^{19,20,23,37}\).

**LIBERATOR B-24 JCS AND FDR**

In May 1938, the French government issued a “specification to U.S. firm, Consolidated, for a heavy bomber”\(^{39}\). FDR approved this initiative. A contract for a prototype was signed on 30 March 1939\(^{39}\). On 29 December 1939 the Liberator B-24 made its maiden flight from the Lindbergh Field at the Consolidated plant in San Diego\(^{39}\). After the June 1940 French capitulation, 2 Liberators flew into Nutts Corner to form the genesis of RAF Coastal Command Liberators based in Northern Ireland. Approximately 300
In 1940, FDR asked for an estimate of “overall production requirements... to defeat our potential enemies”30. As far as the Air Corps was concerned, 4 officers were named to “make a forecast of our needs”. The veterans Harold George and Ken Walker were named to this panel along with Larry Kuter and H.S. Hansell, Jr., from the younger echelon of the U.S. Army Air Force. This was their estimate:

2,200,000 men
63,467 airplanes
239 combat groups; along with 108 separate squadrons not formed in groups.”

“Our full-strength air offensive against Germany could not be developed before April 1944. The prophecy of that panel of four officers seems outstanding,” wrote LeMay post World War II30. FDR kept this reply to himself and Hopkins30.

The existing Slessor arrangement with FDR, had resulted from the ABC conversations of January to March 194121,24. Although never formally approved (but initialed by FDR), the Slessor Agreement was essentially followed for six months after 29 March 194131,40. The Slessor agreement with FDR “called for Britain to retain all the output from her own production, all U.S. produced aircraft from the British orders already in process.” The Slessor Agreement included the now surrendered French orders and an allocation from the continuing American production as well as the “entire output” from any new U.S. expansion24. If the U.S. were to be drawn into World War II any new U.S. capacity would be allocated between the U.S. and the RAF on a 50-50 basis21,24.

Between 1941 and 1945 18,482 Liberators were completed39. After Pearl Harbor the Slessor Agreement basically continued but FDR increased U.S. production of Liberators “to one every hour”39.

MEDICAL COVERAGE

Typically, the RAF had 11 Medical Officers in Northern Ireland at any one time during World War II41. The practice of these MOs depended on the plane type being flown. For 502 Ulster Squadron (Limavady) many survivors had burns, fractures and head injuries from Whitley take off, landings and mountain crashes42,43. In 1941, one-half of the Limavady Whitleys were lost with the majority of their aircrew; many were drowned in the Atlantic and their bodies not recovered44,45. When 502 was moved to attack the ‘U-boat choke point, the Bay of Biscay’, medical coverage had to be expanded41,46. The RAF hospitals and EMS hospitals provided surgery for both RAF Coastal Command and for Ernest King’s US Liberators47,48. Unfortunately, US Navy

† Here is what the U.S. Army Air Force and the U.S. Navy actually ended up with, as of 1945: 2,400,000 men, 80,000 aircraft, 243 combat groups40

Liberator navigation was inadequate, U.S. crews having been trained in the Gulf of Mexico46. King insisted that they be retrained by RAF Coastal Command. King then transferred them to Morocco46. With long range Liberators, some Africa-based, the Battle of the Bay of Biscay was won47,48. The US and Royal Navies also interdicted, with 502 Ulster Squadron’s help, German blockade runners from Japan. During the Battle of the Bay the Germans learned presumably from captured aircrew, the sites of RAF hospitals at Torquay, near Truro and in Glamorgan. These were bombed by the Luftwaffe and nurses and RAF aircrew killed41,49.

NORTH ATLANTIC TRANSFER

Approximately 10,000 U.S. manufactured aircraft were flown across the North Atlantic in World War II31. The Hudsons flew primarily to Aldergrove and the B-17 Flying Fortresses and B-24 Liberators to Prestwick29,31. Four percent were lost to the North Atlantic or crashed in Northern Ireland or Scotland30,31. The Catalinas flew to Lough Neagh, Lough Erne, Castle Archdale or Greenock on the Clyde41.

Medical cover for the aircrew was provided by 11 RAF physicians and 50 Princess Royal RAF nurses at Castle Archdale, as well as the Emergency Medical Services (EMS)
in Northern Ireland\textsuperscript{47,49}. By March 1943, Ballykelly had been opened and No. 120 Squadron had operational very long-range Liberators and Squadron 220, at Nutt’s Corner, had U.S.-transferred Flying Fortresses in time for the successful victory in the Battle of the Atlantic late in 1943\textsuperscript{47,48}.

\section*{TRAINING AND CARE}

My\textsuperscript{‡} father-in-law, George Waller joined RAF Coastal Command 502 Squadron (Ulster) in 1940\textsuperscript{50,51}. In 1941, Waller became Staff officer for Air Vice Marshal Sir Geoffrey R. Bromet, D.S.O., AOC 19 Group in Plymouth; appointed in charge of training and safety, Waller deposited Bromet in the leaves and branches of a big oak\textsuperscript{50,51}. The Tiger Cub’s broken propeller, converted to hold a clock, remains in the family. Bromet, in his role as Commander-in-Chief went on to conquer and occupy the Azores and in January 1943, Waller was transferred to the staff of JCS, newly AOC Coastal Command\textsuperscript{50} (Fig. 4). During 1944 and 1945, Waller remained at Coastal Command headquarters with Sir Sholto Douglas, MC, DFC, who succeeded JCS as AOC CC, 1944-45\textsuperscript{52} (Fig. 5).

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\begin{figure}[h]
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\includegraphics[width=0.5\textwidth]{Fig5.jpg}
\caption{William Sholto Douglas, Marshal of the Royal Air Force, oil on canvas, 1940, by Sir Herbert James Gunn, RA (1893-1964), 72.2 cm x 63.5 cm. From the collections of the Imperial War Museum, Art.IWM ART LD 997, and reproduced with their permission exclusively for this Medical History.}
\end{figure}

My father-in-law, now Wing Commander Waller, recalled a conversation with A/C/M Sir Sholto Douglas when playing bridge with him. “I made some remark slightly uncomplimentary about Air Marshal Dowding who had been Commander-in-Chief of Fighter Command during the Battle of Britain. Saying nice things about people was not one of Sholto’s strong points, but when he heard my remark he said, ‘Young man, never say anything like that again.’ We all owe our lives to Dowding. Had it not been for his work in the years before the War we would have lost in 1940. I was only posted to succeed him as Commander-in-Chief Fighter Command at the end of 1940 because he was absolutely exhausted.”

In late 1942, FDR’s wife Eleanor flew to Langford Lodge, Northern Ireland to see the results of the planning and deployment of U.S. Forces\textsuperscript{47}. Creevagh Hospital, U.S. Navy Overseas Hospital Number 1, had not had a fatality although busy with casualties from the war\textsuperscript{47,54}. Nutrition and health of U.S. forces and their morale were most satisfactory\textsuperscript{28}. Sholto Douglas states “I had been impressed by the forcefulness and alertness of her [Eleanor’s] mind. She and her husband shared a great strength of character\textsuperscript{55}. After World War II, Sholto Douglas served as Military Governor of the British Zone in Germany, succeeding Field Marshall B.L. Montgomery. In 1948 he was created Lord Douglas of Kirtleside. In later years he was Scholar and later Hon. Fellow of Lincoln College, Oxford University\textsuperscript{55}.

FDR received a state funeral and is buried on the grounds of his Hyde Park, New York home overlooking the Hudson River. On JCS’s death, his son, Group Captain J.A.G. Slessor received a letter from Lt. General Ira C. Eaker of the USAF which states, “It was a rare experience of a lifetime to have known and cooperated with Sir John Slessor. I shall never forget his friendship and never cease to admire his great qualities of mind and heart\textsuperscript{51,55}. JCS voiced, in 1943, similar feelings about FDR to my father-in-law.

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