Notes to Pages 485-92

13 Jones, War in the Air, iv, 287-8, app. xvii, 453-6
14 Ibid., 284-5
15 Canadian Bank of Commerce, Letters from the Front: Being a Record of the Part Played by Officers of the Bank in the Great War, 1914-1919, C.L. Foster and W.S. Duthie, eds. (Toronto [1920-1]), i, 256
16 ‘Flugzeugverluste an der Westfront März bis September 1918,’ in Deutschland, Oberkommandos des Heeres, Der Weltkrieg 1914 bis 1918, Band xiv Beilagen: Die Kriegsführung an der Westfront im Jahre 1918 (Berlin 1944), Beilage 40
17 Ibid.; 84 Squadron air combat reports, 17 March 1918, Air 1/1227/204/5/2634/84; 84 Squadron operational record, 17 March 1918, Air 1/1795/204/155/2
18 K. Bodenschatz, ‘Das Jagdgeschwader Frhr.v.Richthofen Nr 1,’ quoted in G.P. Neumann, ed., In der Luft unbesiegt (München 1923), 227, DHist sgr I 196, Set 72
19 [E.] Ludendorff, My War Memories, 1914-1918 (London nd), ii, 589, 596; Edmonds, Military Operations: France and Belgium, 1918, i, 109, 154-5; Jones, War in the Air, iv, 268
20 Jones, War in the Air, iv, 268; Edmonds, Military Operations: France and Belgium, 1918, i, 109, 152-4
22 v Brigade work summary, 21 March 1918, Air 1/838/204/5/285; Ludendorff, War Memories, ii, 596; Edmonds, Military Operations: France and Belgium, 1918, i, 161
23 Herbert Hill, Retreat From Death (London nd), 86, 87
24 Ludendorff, War Memories, ii, 577; Ernst von Hoepner, Deutschlands Krieg in der Luft (Leipzig 1921), 155, DHist sgr I 196, Set 73; W. Shaw Sparrow, The Fifth Army in March 1918 (London 1921), 74; S. McCance, History of the Royal Munster Fusiliers (Aldershot 1927), ii, 150; Edmonds, Military Operations: France and Belgium, 1918, i, 157
25 Edmonds, Military Operations: France and Belgium, 1918, i, 224; 59 sb, 21 March 1918, Air 1/1781/204/150/14
28 No 82 sb, 21 March 1918, Air 1/1436/204/34/12; Read, In Retreat, 16; Gustav Goes, Unter dem Stahlhelm, Band vii: Der Tag X: die grosse Schlacht in Frankreich, 21. März-5. April 1918 (Berlin 1933), 64, DHist sgr I 196, Set 78
31 i. III. v, and ix Brigade work summaries, 20–22 March 1918, Air 1/838/204/5/285; ‘A Copy of the 1918 Diary of Captain Henry John Burden, DSO, DFC,’ Burden biographical file, DHist
33 Theodor Rumpel, ‘Musings of a Jagdflieger,’ Cross & Cockade Journal, x, fall 1969, 213–17; G.P. Neumann, ed., In der Luft unbeseigt (München 1923), 228, DHist SGR I 196, Set 72; Jones, War in the Air, IV, 252, app. XII, 433, 434
34 Jones, War in the Air, IV, 296–7; v Brigade work summary, 21–22 March 1918, Air 1/838/204/5/285
35 IX Brigade work summary, 21–22 March 1918, Air 1/838/204/5/285
36 III Brigade work summary, 21–22 March 1918, ibid.; Salmond to Trenchard, 22 March 1918, Air 1/475/15/312/201; 13 SRB, 22 March 1918, Air 1/1629/204/90/19; ‘Diary,’ Burden biographical file, DHist
37 III Brigade work summary, 22 March 1918, Air 1/838/204/5/285; Jones, War in the Air, IV, 302
38 Denyes Reitz, Trekking On (London 1933), 212
39 Edmonds, Military Operations: France and Belgium, 1918, i, 264; 82 SRB, 22 March 1918, Air 1/1436/204/34/12; annex ‘A’ to v Brigade work summary, 23 March 1918, Air 1/838/204/5/285
41 v Brigade work summary and annex ‘A,’ 22 March 1918. Air 1/838/204/5/285
42 III, v, and IX Brigade work summaries, 22–23 March 1918, ibid.
43 Dunham, The Long Carry, 151
44 III Brigade work summary, 23 March 1918. Air 1/838/204/5/285; Deutschland, Bayrischeskriegsarchiv, Erinnerungsbücher deutscher Regimenter, Band LXXVI: Das K.B. 14, Infanterie Regiment Hartmann (München 1931), 280, DHist SGR I 196, Set 80
45 Douglas Reed, Insanity Fair (London 1938), 40–1
46 Commandant’s lecture, RAF Staff College, nd, Air 1/2385/228/10
47 ‘No. 24 Squadron History,’ nd, Air 1/168/15/160/1
48 Annex ‘A’ to v Brigade work summary, 23 March 1918. Air 1/838/204/5/285
49 Hoeppner, Deutschlands Krieg in der Luft, 156
50 John Ewing, The History of the 9th (Scottish) Division, 1914–1919 (London 1921), 268, 277
51 IX Brigade work summary, 23 March 1918, Air 1/838/204/5/285
52 Salmond to Trenchard, 25 March 1918, Air 1/475/15/312/201
53 No 3 Squadron war diary, 24 March 1918, Air 1/166/15/142/19
54 Goes, Unter dem Stahlhelm, 119; Herbert Ulrich, Res.-Inf.-Regt 52 im Weltkriege (Cottbus nd), 470, DHist SGR I 196, Set 96
55 Annex 'A' to v Brigade work summaries, 24 and 25 March 1918, Air 1/838/204/5/285; Edmonds, Military Operations: France and Belgium, 1918, i, 367; Goes, Unter dem Stahlhelm, 119

56 'Air Warfare,' nd, 50, Air 1/2385/228/10

57 Hoeppner, Deutschlands Krieg in der Luft, 156; P.J. Carisella and James W. Ryan, Who Killed the Red Baron? The Final Answer (Wakefield, Mass. 1969), 63

58 i, iii, v, and ix Brigade work summaries, 23–24 March 1918, Air 1/838/204/5/285

59 Hoeppner, Deutschlands Krieg in der Luft, 156

60 Ibid.

61 i, iii, and v Brigade work summaries, 24–25 March 1918, Air 1/838/204/5/285

62 v Brigade work summary, 24–25 March 1918, ibid.; 84 SRB, 25 March 1918, Air 1/1795/204/155/2

63 L. de S. Duke diary, Duke biographical file, DHist

64 iii Brigade weekly summary, 21–28 March 1918, Air 1/838/204/5/285

65 Das K.B. 14. Infanterie Regiment Hartmann, 282; 'Air Warfare,' nd, 50, Air 1/2385/228/10; Der Weltkrieg 1914 bis 1918, XIV, 184–5, DHist SGR I 196, Set 74

66 Heinrich Hermann, Geschichte des Königlich Sachsischen Leibgrenadier Regts Nr. 100 (Zittau nd), 158, DHist SGR I 196, Set 96

67 Ulrich, Res.-Inf.-Regt 52, 474

68 'Air Warfare,' nd, 50, Air 1/2385/228/10; G.M. Knocker, 'Six Months with Sixty-Five,' Cross & Cockade Journal, XII, winter 1971, 302

69 Douglas, Years of Combat, 280

70 Das K.B. 14. Infanterie Regiment Hartmann, 282

71 i Brigade work summary, 26 March 1918, Air 1/838/204/5/285

72 iii Brigade weekly summary, 22–28 March 1918, ibid.

73 Edmonds, Military Operations: France and Belgium, 1918, i, 542; Der Weltkrieg 1914 bis 1918, XIV Beilagen, Beilage 40

74 Hoeppner, Deutschlands Krieg in der Luft, 153, DHist SGR I 196, Set 85; Foch to Fayolle, 1 April 1918, Edmonds, Military Operations: France and Belgium, 1918, ii (London 1937), app. v, 506–8; J.C. Slessor, Air Power and Armies (London 1936), 128

75 Salmond to trenchard, 26 March 1918, Air 1/475/15/312/201

76 Der Weltkrieg 1914 bis 1918, XIV, 196–7, DHist SGR I 196, Set 74

77 'Air Warfare,' nd, 50, Air 1/2385/228/10; brigade work summaries, 27 March 1918, Air 1/838/204/5/285

78 Der Weltkrieg 1914 bis 1918, XIV, 210, 212, DHist SGR I 196, Set 74

79 i, iii, and v Brigade work summaries, 26–27 March 1918, Air 1/838/204/5/285

80 A.A. McLeod biographical file, DHist

81 G.G.H. Lawrence, 'Echoes of War, 1915–1918 (Pt. 4),' Militaria, 8/4, 1978, 62

82 London Gazette, 1 May 1918, 30663

83 Ludendorff, War Memories, ii, 599–601; Edmonds, Military Operations: France and Belgium, 1918, ii, 152–3; Der Weltkrieg 1914 bis 1918, XIV, 221, DHist SGR I 196, Set 2

84 Bodenschatz, 'Das Jagdgeschwader Frhr. v. Richthofen Nr 1,' 229; History of 101 Regt of 23 Div, 137, 140, and History of 122 Fus Regt of 243 Div, 240, DHist SGR I 196, photo items 48 and 49, Set 75
CHAPTER 17: AMIENS

1 John Terraine, Douglas Haig: the Educated Soldier (London 1963), 452
2 James E. Edmonds, Military Operations: France and Belgium, 1918, IV (London 1947), 573-4
3 Ibid., 574-5; H.M. Urquhart, Arthur Currie: the Biography of a Great Canadian (Toronto 1950), 237
5 Nicholson, Canadian Expeditionary Force, 388-91, 393; Edmonds, Military Operations: France and Belgium, 1918, iv, 8
6 H.A. Jones, The War in the Air, being the Story of the Part played in the Great War by the Royal Air Force, vi (London 1937), 433-4; Air Historical Board narrative, France May-November 1918, 96, Air 1/677/21/13/1887; Deutschland, Kriegswissenschaftlichen Abteilung der Luftwaffe, Die Luftstreitkräfte in der Abwehrschlacht zwischen Somme und Oise vom 8. bis 12. August 1918 und Ruckblicke auf ihre vorangegangene Entwicklung (Berlin 1942), 146, DHist SGR I 196, Set 70c
7 Air Historical Board narrative, 104-14, Air 1/677/21/13/1887; Jones, War in the Air, Appendices (London 1937), 116-23, 130-41, and vi, 434-5
8 France, Ministère de la Guerre, État-Major de l'Armée, Service Historique, Les Armées françaises dans la grande Guerre (Paris 1923), Tome VII, 170
9 Jones, War in the Air, vi, 436; Die Luftstreitkräfte, 155-7, DHist SGR I 196, Set 70d
10 Air Historical Board narrative, 97-9, Air 1/677/21/13/1887
11 Ibid., 104-9
12 Sir J.C. Slessor, Air Power and Armies (London 1936), 166
13 Charlton to V Brigade, 5 Aug. 1918, Air 1/1592/204/83/17; Slessor, Air Power, 165-9
14 Jones, War in the Air, vi, 436
15 Air Historical Board narrative, 111, 119, Air 1/677/21/13/1887; 9 Wing records, 7-8 Aug. 1918, Air 1/1533/204/176/14
16 No 57 Squadron, bomb dropping report no 136, 8 Aug. 1918, Air 1/958/204/5/1033; IX Brigade summary, 7-8 Aug. 1918, Air 1/977/204/5/1135; 107 Squadron, bomb dropping report no 21, 8 Aug. 1918, Air 1/1901/204/227/10; 205 SRB, 8 Aug. 1918, Air 1/2009/204/304/11
17 'No. 5 Squadrons Work under Command of Major C.H. Gardner, from July 1918, to November 11th 1918,' 3, Air 1/1313/204/13/96; HQ RAF, 'Notes on Corps Squadron Work during the Somme Offensive August 1918,' 1, Air 1/725/97/2
18 'Notes on Corps Squadron Work,' 1-2; '5 Squadrons Work ...' 1-3, 7, Air 1/1313/ 204/13/96; V Brigade, RAF Information for Ground Services for Forthcoming Operations,' 6 Aug. 1918, Air 1/1592/204/83/17
19 'No. 5 Squadrons Work ...' Air 1/1313/204/13/96; V Brigade summary, 7-8 Aug. 1918, Air 1/077/204/5/1135
20 Jones, War in the Air, vi, 464-5; T. Leigh-Mallory, 'History of Tank and Aeroplane Co-operation,' 31 Jan. 1919, 1-5, Air 1/725/97/10
21 Charlton to V Brigade, 14 Aug. 1918, Air 1/1592/204/83/17; Edmonds, Military Operations: France and Belgium, 1918, iv, 95
22 Die Luftstreitkräfte, 169, DHist SGR I 196, Set 70d
24 HQ RAF, 'Notes on Corps Squadron Work ...' 2-3, Air 1/725/97/2
25 No 8 SRB, 8 Aug. 1918, Air 1/1670/204/109/11; V Brigade summaries, 7-11 Aug. 1918, Air 1/977/204/5/1135

27 V Brigade, annex to summary of work, 8 Aug. 1918, Air 1/977/204/5/1135; 24 Squadron air combat report, 8 Aug. 1918, Air 1/1221/204/5/2634/24

28 No 65 Squadron air combat report, 8 Aug. 1918, Air 1/1226/204/5/2634/65

29 V Brigade, annex to summary of work, 8 Aug. 1918, Air 1/977/204/5/1135; 84 SRB, 8 Aug. 1918, Air 1/1795/204/155/3; RAF war diary, 8 Aug. 1918, Air 1/1187/204/5/2595

30 V Brigade, annex to summary of work, 8 Aug. 1918, Air 1/977/204/5/1135; Jones, *War in the Air*, VI, 438

31 C.E.W. Bean, *The Official History of Australia in the War of 1914–1918*, VI: The *Australian Imperial Force in France during the Allied Offensive, 1918* (Sydney 1942), 600

32 Urquhart, *Currie*, 237


34 *Die Luftstreitkräfte*, 158–9, 167, DHist SGR 1 196, Set 70d

35 IX Brigade operation order (day) no 57, 8 Aug. 1918, Air 1/1057/204/5/1135

36 Air Historical Board narrative, 126, 138, Air 1/677/21/13/1887; Jones, *War in the Air*, VI, 442

37 Air Historical Board narrative, 122–3, Air 1/677/21/13/1887; 205 SRB, 8 Aug. 1918, Air 1/2009/204/304/11; IX Brigade summaries, 7–9 Aug. 1918, Air 1/977/204/5/1135

38 Air Historical Board narrative, 123, Air 1/677/21/13/1887; 98 Squadron bomb dropping report, 8 Aug. 1918, Air 1/958/204/5/1033; ‘History of No. 98 Squadron,’ Air 1/176/15/197/1; RAF war diary, 8 Aug. 1918, Air 1/1187/204/5/2595; 98 Squadron air combat reports, 8 Aug. 1918, Air 1/1227/204/5/2634/98

39 Air Historical Board narrative, 124–5, Air 1/677/21/13/1887

40 Ibid., 125–6; 73 SRB, 8 Aug. 1918, Air 1/1533/204/76/14; 73 Squadron air combat reports, 8 Aug. 1918, Air 1/1226/204/5/2634/73

41 IX Brigade operation order (night) no 14, 8 Aug. 1918, Air 1/1057/204/5/1136; 102 Squadron bomb raid report, 8–9 Aug. 1918, Air 1/958/204/5/1033; Air Historical Board narrative, 129, Air 1/677/21/13/1887

42 IX Brigade operation order (day) no 58, 8 Aug. 1918, Air 1/1057/204/5/1136

43 Ibid., Peter Robertson, ‘W.J. Dalziel, Canadian Bomber Pilot – Western Front,’ *CAHS Journal*, VIII, spring 1970, 4; Jones, *War in the Air*, VI, 446–7; Air Historical Board narrative, 130, Air 1/677/21/13/1887; IX Brigade summary, 8–9 Aug. 1918, Air 1/977/204/5/1135

44 Air Historical Board narrative, 130–1, Air 1/677/21/13/1887; IX Brigade summary, 8–9 Aug. 1918, Air 1/977/204/5/1135; 107 Squadron air combat report no 26, 9 Aug. 1918, Air 1/1901/204/227/10; ‘History of No. 107 Squadron,’ 2, 107 SRB, 9 Aug. 1918, Air 1/176/15/203/1

45 No 107 Squadron air combat report no 19, 9 Aug. 1918, Air 1/1901/204/227/10; Immediate Award table, Army Form W 3121, 14 Aug. 1918, Air 1/176/15/203/1

46 No 205 SRB, 9 Aug. 1918, Air 1/2009/204/304/11; III Brigade summary, 8–9 Aug. 1918, Air 1/977/204/5/1135; Air Historical Board narrative, 132–3, Air 1/677/21/13/1887

47 Air Historical Board narrative, 132; 205 SRB, 9 Aug. 1918, Air 1/2009/204/304/11
CHAPTER 18: PERFECTING THE AIR WEAPON

2 J.F.C. Fuller, Tanks in the Great War, 1914–1918 (London 1920), 226; Charlton to OC 15 Wing and OC 22 Wing, RAF, 14 Aug. 1918, Air 1/1592/204/83/17
4 Charlton to OC 15 Wing and OC 22 Wing, RAF, 14 Aug. 1918, Air 1/1592/204/83/17; H.A. Jones, *The War in the Air: being the Story of the Part played in the Great War by the Royal Air Force*, vi (London 1937), 474-5

5 Fuller, *Tanks in the Great War*, 244; Leigh-Mallory, 'Experiences,' 12-13. See also HQ RAF, 'Notes on Corps Squadron Work during the Somme Offensive, August 1918,' nd, Air 1/725/97/2.


7 No 73 SRB, 21 Aug. 1918, Air 1/1533/204/76/14

8 Fuller, *Tanks in the Great War*, 253

9 H.H. Russell, 'A Brief History of No. 56 Squadron, RAF,' *Cross & Cockade Journal*, 1, winter 1960, 1-15; 'A Copy of the 1918 Diary of Captain Henry John Burden, DSO, DFC,' Burden biographical file, DHist

10 OC 3 Squadron to OC 13 Wing, 1 Sept. 1918, Air 1/163/15/142/7; 3 SRB, 21 Aug. 1918, Air 1/166/15/142/19

11 No 60 Squadron, 'Report on Attack on Enemy Infantry,' 21 Aug. 1918, nos 9 and 17, Air 1/1555/204/79/60

12 Nos 27 and 107 Squadrons, bomb dropping reports, 21 Aug. 1918, Air 1/958/204/5/1033 and Air 1/1901/204/227/10

13 No 102 Squadron bomb raid report, 21-22 Aug. 1918, Air 1/958/204/5/1033

14 No 54 Squadron Air Combat reports, 22 Aug. 1918, Air 1/1901/204/227/10

15 RA F communiqué no 21, 19-25 Aug. 1918, DHist 75/414

16 232 Reserve Regiment (107 Inf Div), 164, DHist SGR I 196, reproduction 73, Set 95 pt II; Edmonds, *Military Operations: France and Belgium, 1918*, iv, 213; 'Diary,' Burden biographical file, DHist


18 No 102 Squadron, 'Report of Machines which found Targets on Roads,' 24-25 Aug. 1918, Air 1/958/204/5/1033; 45 Infantry Regiment (221 Inf Div), 235-6, DHist SGR I 196, reproduction 56, Set 95 pt II

19 'Quex' [G.H.F. Nicholls], *Pushed and the Return Push* (Edinburgh and London 1919); Joseph Hayes, *The Eighty-Fifth in France and Flanders* (Halifax 1920), 136; RAF Staff College, 'The Employment of Aircraft in War,' nd, 52, Air 1/2385/228/10


21 Ibid., 280; 'Capt. E.J. Lussier, 73 Sqn.' in F.H. Hitchins, 'Canadian Airmen in World War I,' nd, DHist 73/1551


25 Jones, *War in the Air*, vi, 493-4
26 Hayes, *The Eighty-Fifth in France and Flanders*, 137; 1 and V Brigade war diary resumés, Aug.–Nov. 1918, PAC RG 9 III, vol. 4614, folder 19, file 3, 8 SRB, 2 Sept. 1918, Air 1/1670/204/109/12

27 Jones, *War in the Air*, vi, 498–9; Deutschland, Oberkommandos des Heeres, *Der Weltkrieg 1914 bis 1918*, Band XIV Beilagen: Die Kriegführung an der Westfront im Jahre 1918 (Berlin 1944), Beilage 40


29 J.A. MacDonald, ed., *Gun-Fire: an Historical Narrative of the 4th Bde. C.F.A. in the Great War (1914–18)* (Toronto 1929), 145

30 1 and V Brigade resumés, PAC RG 9 III, vol. 4614, folder 19, file 3

31 Ibid.; 8 SRB, 3 Sept. 1918, Air 1/1670/204/109/12; Edmonds, *Military Operations: France and Belgium*, 1918, iv, 416

32 Jones, *War in the Air*, vi, 501; *Der Weltkrieg 1914 bis 1918*, XIV Beilagen, Beilage 40

33 Quoted in Jones, *War in the Air*, vi, facing 550

34 No 20 Squadron air combat report, 5 Sept. 1918, Air 1/1220/204/5/2634/20

35 Ibid., 6 and 7 Sept. 1918

36 Donald Roderick MacLaren biographical file, DHist

37 'British Battles During 1918 (8th August to 11th Nov),’ Jones, *War in the Air*, vi, facing 550

38 Ibid., 506; 84 Squadron air combat report, 20 Sept. 1918, Air 1/1227/204/5/2634/84


41 Ibid., 20

42 No 83 Squadron reconnaissance reports, 20–21 Sept. 1918, Air 1/971/204/5/1113/1

43 No 102 Squadron reconnaissance reports, 21–22 Sept. 1918, Air 1/972/204/5/1113/2


45 Fuller, *Tanks in the Great War*, 269; Jones, *War in the Air*, vi, 513

46 No 8 SRB, 27 Sept. 1918, Air 1/1670/204/109/12

47 Leigh-Mallory, ‘Experiences,’ 16; Fuller, *Tanks in the Great War*, 149, 269; DFC citation, W.H. Hubbard biographical file, DHist

48 1 and V Brigade resumés, PAC RG 9 III, vol. 4614, folder 19, file 3; Jones, *War in the Air*, vi, 520

49 ‘Lieut. W.A.W. Carter, 201 Sqn.’ in Hitchins, ‘Canadian Airmen’

50 ‘Work of Canadian Officers and Men with the Royal Air Force No. 5,’ 5 Dec. 1918, CAF/-17-2-5, DHist 181.002 (d100)

51 Jones, *War in the Air*, vi, 523


53 RAF communiqué no 27, 30 Sept.–6 Oct. 1918, DHist 75/414
Notes to Pages 564–81

54 Quoted in Edmonds and Maxwell-Hyslop, Military Operations: France and Belgium, 1918, v, 186
55 Jones, War in the Air, vi, 535
56 W.S. Douglas, 'A Record of Experiences during the War, 1914–1918,' 41–2, Air 1/2386/228/11/13
57 413 Infantry Regiment (204 Inf Div), 144, DHist SGR 196, reproduction 88, Set 95 pt ii
58 No 5 SRB, 15 Oct. 1918, Air 1/1480/204/36/1418; ‘Record of Work Done by Canadian Officers and other Ranks serving in 1st (Corps) Wing, Royal Air Force,’ month ending 31 Oct. 1918, Air 1/1485/204/36/162; ‘Squadron “Canadian” Reports for October 1918,’ quoted under ‘Lieut. R.H. Schroeder, 4 Sqn.’ in Hitchins, ‘Canadian Airmen’
59 413 Infantry Regiment (204 Inf Div), 142, DHist SGR 196, reproduction 88, Set 95 pt ii
60 Ibid.
61 No 46 Squadron air combat report, 26 Sept. 1918, Air 1/1223/204/5/2634/46
62 Jones, War in the Air, vi, 491
63 Copy of Air Ministry account on J.L.M. White biographical card, DHist
65 Jones, War in the Air, vi, 545–6, 548
66 No 107 Squadron bomb-dropping report, 30 Oct. 1918, Air 1/972/204/5/1114; IX (110) Brigade and 1 Brigade work summaries, 30 Oct. 1918, Air 1/976/204/5/1132
67 x Brigade work summary, 30 Oct. 1918, ibid.
69 No 8 Squadron war diary extracts, June–Nov. 1918, ibid., file 4
70 Knight, ‘No. 5 Squadron’s Working...’ PAC RG 9 III, vol. 4611, folder 11, file 5; 5 SRB, 9 Nov. 1918, Air 1/1476/204/36/116
72 RAF communiqué no 32, 4–11 Nov. 1918, DHist 75/414
73 Douglas Haig, 1st Earl Haig, Sir Douglas Haig’s Despatches, J.H. Borastone, ed. (London & Toronto 1919), 301–2
74 B.H. Liddell Hart, Memoirs (London 1965), ii, 263

CHAPTER 19: TOWARDS THE ESTABLISHMENT OF A CANADIAN AIR FORCE

1 Daily Mail and Empire (Toronto), 27 April 1917, 6; Toronto World, 8 June 1917, 2; 23 June 1917, 6; 10 Sept. 1917, 6; Toronto Star, 26 July 1917, 8; Globe (Toronto), 19 Dec. 1917, 8
5 Morden, 'Recommendation for the Establishment of Canadian Flying Corps,' nd, Hitchins Papers, file B1
6 DAS to HQ OMFC, 6 March 1917, Thacker to Turner, 7 March 1917, Gow to War Office, 8 March 1917, DAS to Overseas Ministry, 17 March 1917, OS 10-9-27, vol. 1, PAC, RG 9 III, vol. 80
7 'Notes on Australian-Canadian Conference,' 29 March 1917, ibid.; Perley to Henderson, 17 April 1917, P-5-94, PAC, RG 25, vol. 267
8 Dawson to Perley, 10 March 1917, Henderson to Perley, 19 May 1917, Kennedy to Hazen, 1 June 1917, Carson to Borden, 29 June 1917, P-5-94, PAC, RG 25, vol. 267; Perley to Borden, 14 June 1917, Borden to Perley, 19 June 1917, Perley Papers, PAC, MG 27 II D 12, vol. 9
9 Borden to Perley, 22 May 1917, OS 10-9-27, vol. 1, PAC, RG 9 III, vol. 80
10 Henderson to Perley, 26 May 1917, P-5-94, PAC, RG 25, vol. 267
11 Wanklyn to Perley, 29 May 1917, Henderson to Perley, 1 June 1917, ibid.
12 Henderson to Perley and enclosed statistical memorandum, 7 June 1917, ibid.
13 Perley to Borden, 12 June 1917, ibid.
15 Ibid.
16 Gwatkin to Hoare, 23 July 1917, Air 2/166/RU4116; Hoare quoted in Gwatkin to Kemp, 4 Aug. 1917, HQ OMFC 0-2-49, PAC, RG 9 III, vol. 3431
17 Kemp to Borden, 11 Aug. 1917, P-5-94, PAC, RG 25, vol. 267
18 Daily Mail and Empire, 5 Dec. 1916, 1
19 Turner to Perley, 13 July 1917, P-5-94, PAC, RG 25, vol. 267
20 Ibid.
21 Turner to Perley, 22 Sept. 1917, ibid.
22 McDonald to Perley, 5 June 1917, Perley to Mulock, 16 July 1917, Mulock to Perley, 22 July 1917, ibid.
24 Ibid.
25 Ibid.
26 Perley to Borden, 10 Aug. 1917, ibid.
27 Ibid.
28 Borden to Kemp, 14 July 1917, OS 10-9-27, vol. 1, PAC, RG 9 III, vol. 80
29 'Notes on Proposals for a Canadian Flying Corps,' [Aug. 1917], ibid.
30 Kemp to Perley, 22 Aug. 1917, Perley to Kemp, 2 Oct. 1917, P-5-94, PAC, RG 25, vol. 267
31 Perley to Borden, 7 Nov. 1917, Perley to Salmond, 6 Dec. 1917, Perley to Bell-Irving, 1 Jan. 1918, Perley to Kemp, 1 Jan. 1918, Warner to Perley, 9 Feb. 1918, Perley to Kemp, 11 Feb. 1918, Perley's minute on conversation with Kemp,
6 March 1918, ibid.; Turner to Kemp, 9 Feb. 1918, Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59
33 Table on Canadians in RAF, 26 April 1918, Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59
34 Hitchins, ‘Dominion Squadrons,’ 11
36 Panel inscription; Rudi Aksim, ‘C.E.F. Transfers to the British Flying Services,’ nd, 15, DHist 74/14
37 Aksim, ‘C.E.F. Transfers,’ 26–9
38 Ibid., 29–35
39 Turner to Kemp, 30 April 1918, ‘Reasons for the Scheme,’ [3 May 1918], Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59
40 Ibid.
41 Kemp to Turner, 14 May 1918, ibid.; Turner to Kemp, 15 May 1918, HQ OMFC 0–2–49, PAC. RG 9 III, vol. 3431
42 Currie to Turner, 3 Nov. 1917, Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59
43 Ibid.
44 Bishop to Morrison, 10 April 1918, ibid.
45 Critchley to Gibson, 26 April 1918, OS 10–9–27, vol. 1, PAC. RG 9 III, vol. 80
46 Kemp to Weir, 16 May 1918, Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59
47 28th Air Council meeting, 23 May 1918, Air 6/12; Hitchins, ‘Dominion Squadrons,’ 13
48 Hitchins, ‘Dominion Squadrons,’ 14–15
49 Ibid., 15–16
50 Ibid., 16
51 Ibid.; Groves to CAS, 27 May 1918, Air 2/109A/19942
52 Groves to CAS, 27 May 1918, Air 2/109A/19942
53 Hitchins, ‘Dominion Squadrons,’ 17–18; memorandum of conference at the Air Ministry, 28 May 1918, Kemp Papers, PAC. MG 27 II D 9, vol. 157
54 Weir to Kemp, 29 May 1918, Kemp Papers, vol. 132
55 Ibid.
56 Kemp to Weir, 4 June 1918, ibid.
57 Memorandum of conference at Air Ministry, 5 June 1918, ibid., vol. 157; ‘Minutes of Meeting held on June 5th on Manning of R.A.F. Squadrons with Canadian Personnel,’ 5 June 1918, Air 2/109A/19942
58 Appendix 1 to minutes, 5 June 1918, Air 2/109A/19942
59 ‘Minutes of Conference on the Question of Formation of Canadian Air Force,’ 27 June 1918, ibid.; McDonald to Secretary, Air Council, 28 June 1918, Robinson to GOC OMFC, 8 July 1918, OS 10–9–27, vol. 1, PAC. RG 9 III, vol. 80
60 Kemp to Borden, 16 May and 24 June 1918, Kemp Papers, PAC. MG 27 II D 9, vol. 132; Globe, 21 May 1918, 4: Toronto Star, 25 May 1918, 10; 12 July 1918, 10
61 Canada. Parliament, House of Commons, Debates, 24 April 1918 (J.E. Armstrong), 1114–16; 2 May 1918 (Sir Sam Hughes), 1417–18; 13 May 1918 (W.F. Nickle), 1906; PC 1984, 19 Sept. 1918
Notes to Pages 602-6

62 Memoranda on the Canadian Air Service. [May]-8 June 1918, Air 1/461/15/312/108

63 Ibid.

64 United States, Navy Department, *German Submarine Activities on the Atlantic Coast of the United States and Canada* (Washington 1920), 7, 22-3; Borden, *Robert Laird Borden*, II, 665; memorandum to Captain-in-Charge, Halifax Dockyard, 6 July 1915, Kingsmill to Crothers, 10 July 1915, NS 1062-13-4, PAC, RG 24, vol. 4022; Colonial Secretary to Governor General, 11 Nov. 1916, NS 1065-7-2, vol. 1, Ibid., vol. 4031; Kingsmill to Minister and Deputy Minister Naval Service to Under Secretary External Affairs, 10 Feb. 1917, extracts from Interdepartmental Committee proceedings, 45th meeting, 10 Feb. 1917, 46th meeting, 12 Feb. 1917, Hazen to Naval Ottawa, 28 Feb. 1917, Seddon to Kingsmill, 21 and 25 March 1917, NS 1034-3-3, vol. 1, Ibid., vol. 3894

65 Foster to Borden, 30 March 1917, Ibid.; J.D.F. Kealy, "Naval Aviation in Canada during the First World War," 6-7, DHist 74/25

66 Admiralty minutes, 7 (signed 9) and 24-29 Jan. 1918, Air 1/272/15/226/123; Admiralty to Colonial Office, 3 Jan. 1918, Colonial Secretary to Governor General, 11 Jan. 1918, NS 1017-10-1, vol. 1, PAC, RG 24, vol. 3831; US Navy Department, *German Submarine Activities*, 23, 25; Operations Committee minutes, 18 Feb. 1918, Adm 1/8564, copy in Marder Papers, PRO 284, DHist M46

67 Operations Committee minutes, 2 March 1918, Ibid.; Colonial Secretary to Governor General, 26 Feb. and 11 March 1918, NS 1034-3-4, vol. 1, PAC, RG 24, vol. 3894; Scarlett, "Report on the Possibility of Establishing Aircraft Patrols for Anti-submarine Purposes on the Canadian Coast," 1 March 1918, Colonial Secretary to Governor General, 11 March 1918. Air 1/272/15/226/123

68 Governor General to Colonial Secretary, 15 March 1918, Naval Ottawa to Admiralty, 20 April 1918, DAD to C-in-C NA & WI, 23 April 1918, Ibid.; Admiral Superintendent Halifax to Secretary, Naval Service, 23 March 1918, NS 40-4-1, DHist 77/58, vol. 22; Stephen's memorandum, 6 May 1918, Admiralty to Kingsmill, 7 May 1918, NS 63-10-1, Ibid., vol. 20; correspondence between C-in-C NA & WI, Naval Ottawa and Halifax, 1-30 April 1918, NS 1065-7-6, PAC, RG 24, vol. 4031; C-in-C NA & WI to Admiralty, 22 April 1918, Naval Service to Borden, 3 May 1918, Kingsmill to Ballantyne and Ballantyne's minute, 3 May 1918, NS 1034-3-4, vol. 1, Ibid., vol. 3894

69 Admiralty to Paine, 29 April 1918, Barron to DAD, 24 May 1918, Air 1/272/15/226/123; F.H. Hitchins, "The Royal Canadian Naval Air Service," 4-5, Hitchins Papers, DHist 75/514, file D12

70 PC 1379, 5 June 1918; "Air Service - Organization," 8 May 1918, Fuller to Deputy Minister Public Works, 23 May 1918, NS 63-10-1, DHist 77/58, vol. 20

71 "Report on Selection of Sites for Proposed Air Stations at Halifax, N.S., and Sydney, C.B.," [May 1918], Chief of Naval Operations USN to C-in-C NA & WI, 17 May 1918, Cull to Kingsmill, 11 July 1918, NS 1034-3-4, PAC, RG 24, vol. 3894; USN to C-in-C NA & WI, 27 July 1918, Cull to Kingsmill, 31 July 1918, C-in-C NA & WI to Kingsmill, 31 July 1918, Cull to Kingsmill, 3 Aug. 1918, NS 63-10-1, DHist 77/58, vol. 20

72 Hose to Admiral Superintendent Halifax, 28 Aug. 1918, NS ZZ 40-4-1, DHist 77/58, vol. 22; RCNAS weekly summaries, 1, 4, 7, and 11, 9 and 30 Sept., 21 Oct. and 18
Nov. 1918, NS 63–1–4, ibid., vol. 2; US Navy Department, *German Submarine Activities*, 7; Richard E. Byrd, *Skyward* (New York 1931), 64–5, 69–71

73 Letter to Cull [June 1918], Naval Ottawa to Admiralty, 11 July 1918, DAD to MGP, 12 July 1918, sol Air to DAD, 16 July 1918, DAD to Deputy First Sea Lord, 4 Sept. 1918, Air 1/272/15/226/123; Admiralty to Naval Ottawa, 18 July 1918, NS 63–10–1, DHist 77/58, vol. 20

74 Borden to Naval Ottawa, 31 July 1918, press release, 8 Aug. 1918, DHist 77/58, vol. 20

75 ‘Report of Formation and Future Policy of the Canadian Naval Air Service,’ [27 Aug. 1918], Air 1/272/15/226/123

76 Ibid.; Borden, *Robert Laird Borden*, II, 847; Christie to Desbarats, 30 Aug. 1918, NS 63–1–1, PAC. RG 24, vol. 5666; PC 2154, 5 Sept. 1918

77 Toronto Star, 25 Oct. 1918, 6: R CNAS weekly summaries 2–9, 15 Sept.–4 Nov. 1918, NS 63–1–4, DHist 77/58, vol. 2

78 McDonald to Turner, 24 Sept. 1918, Bishop to Mewburn, 26 Sept. 1918, HQ OMFC A–6–36, vol. 1, PAC. RG 9 III, vol. 3068; McDonald to Turner, 1 Oct. 1918, Gow to Kemp, 2 Oct. 1918, Kemp to Turner, 26 Oct. 1918, Kemp Papers, PAC. MG 27 II D 9, vol. 143


84 Brancker to Gibson, 16 Nov. 1918, Gibson to McDonald, 19 Nov. 1918, OS 10–9–27, vol. 1, ibid., vol. 80


89 ‘Progress Report No. 2 – No. 1 Sqn.,’ 31 Dec. 1918, HQ OMFC R-4-49, PAC. RG 9 III, vol. 3432; Warman to Air Ministry, 11 April 1919, HQ OMFC A-1-49, ibid., vol. 3428; Leckie to DAS, 12 April 1919, HQ OMFC P-12-49, Leckie to DAS, 14 April 1919, HQ OMFC P-6-49, ibid., vol. 3431; Warman to Air Ministry, 15 April 1919, Edwards to de Dombasle, 19 May 1919, de Dombasle to Air Ministry, 23 May 1919, HQ OMFC A-6-36, vol. 2, ibid., vol. 3068

90 Wing lists, April–May 1919, HQ OMFC P-8-49, squadron lists, April–May 1919, HQ OMFC P-12-49, ibid., vol. 3431

91 F.H. Hitchins, ‘Gift Aircraft and Equipment,’ 1–5, Hitchins Papers, DHist 75/514, file E5

92 Milner to Governor General, 4 June 1919, Turner Papers, PAC. MG 30 E 46, vol. 9, folder 59

93 F.H. Hitchins, Air Board, Canadian Air Force and Royal Canadian Air Force (Mercury Series, Canadian War Museum Paper No 2; Ottawa 1972), 5–6, 407

94 RCNAS weekly summary 11, 18 Nov. 1918, NS 63–1–4, DHist 77/58, vol. 2; Ballantyne to Borden, 22 Nov. 1918, Borden to Ballantyne, 24 Nov. 1918, NS 63–10–1, ibid., vol. 20; Ballantyne to Desbarats, 5 Dec. 1918, NS 63–9–1, ibid., vol. 19; PAC. MG 3009, 5 Dec. 1918

95 Hitchins, ‘The Royal Canadian Naval Air Service,’ 17–18; Desbarats to Ballantyne, 13 Dec. 1918, NS 63–1–1, PAC. RG 24, vol. 5666

96 Desbarats to Ballantyne, 13 Dec. 1918, NS 63–1–1, PAC. RG 24, vol. 5666

97 MacLaurin to Desbarats, 20 Aug. 1919, ibid.; Hitchins, ‘The Royal Canadian Naval Air Service,’ 18–19

98 Kemp to Mewburn, 8 Feb. 1919, Gwatkin to AG, 12 Feb. 1919, Mewburn to Kemp, 14 Feb. 1919, HQ C2841, vol. 5, DHist 77/57


100 Kemp to Borden, 19 Feb. 1919, Kemp Papers, PAC. MG 27 II D 9, vol. 132

101 Borden to Kemp, 24 Feb. 1919, ibid.; Mewburn to White, 23 Feb. 1919, Gwatkin to Military Secretary, 9 Jan. 1919, Gwatkin to Macallum, 8 Feb. 1919, HQ C2841, vol. 5, DHist 77/57

103 Game to CAS. 17 March 1919, Air 2/122/b9478

104 Groves to Game. 19 March 1919, Gibson to CAS, 27 March 1919, ibid.

105 ‘Aerial Expansion with Particular Reference to Canada,’ enclosed in Gibson to Kemp, 29 April 1919, Kemp Papers, PAC. MG 27 II D 9, vol. 132

106 Gibson to Kemp and enclosure ‘Aviation in Canada,’ 29 April 1919, ibid.; DCAS to DAO, 10 March 1919, HQ OMFC O–2–49, PAC. RG 9 III, vol. 3431


109 Gibson to Kemp, 5 June 1919, ibid.

110 Kemp to Gibson, 12 June 1919, ibid.


APPENDIX C


2 Interview with R.V. Dodds, DHist. 9 Dec. 1975

3 Canadian Bank of Commerce, Letters from the Front: Being a Record of the Part Played by Officers of the Bank in the Great War, C.L. Foster and W.S. Duthie, eds. (Toronto [1920–1]), 11

4 Alan Sullivan, Aviation in Canada, 1917–1918: Being a Brief Account of the Work of the Royal Air Force Canada, the Aviation Department of the Imperial Munitions Board and the Canadian Aeroplanes Limited (Toronto 1919), 146

5 The analyses used here were the most useful of those presented in three preliminary reports. Andrew Johnson, ‘Canadians in the British flying services: statistical report on the computer programme,’ DHist 74/39; O.A. Cooke, ‘Canadians in the British flying services: enlistments, manpower losses, honours and awards, operational service; analyses from the computer programme,’ DHist 75/279; Jane Desbarats, ‘Statistical study of Canadian participation in the British flying services in World War I,’ DMS staff note, no 26/75, Directorate of Mathematics and Statistics paper, 1975, DHist 76/123

Notes to Pages 635–45

Force, 1914–1919 (Official History of the Canadian Army in the First World War; Ottawa 1964), 343
8 Duguid, Official History, 1, 53
9 ‘Canadian volunteers and the Royal Naval Air Service,’ nd, DHist 75/402
10 Recruiting advertisements for Royal Flying Corps Canada, DHist 77/18
11 Curtis Kinney and Dale M. Titler, I Flew a Camel (Philadelphia 1972), 16–17
12 Rudi Aksim, ‘C.E.F. transfers to the British flying services,’ 27–35, DHist 74/14
13 See 641–2.
14 Desbarats, ‘Statistical Study,’ 20
Index

Canadian airmen named in footnotes for the sole purpose of identifying their unit at a particular time are not included in this index.

Abbott, Lt R.F.P. 176, 250
accidents see air crashes and accidents
‘ace’: exaggerated claims 572, 574; graph, 1918 573; American and French method 574n; other refs 331, 350n
Acosta, Bert 41, 83
Adams, Lt R.A. App. A
Ader, Clement 4n
Admiral Commanding Aircraft 195
Admiralty: Naval Wing, RFC 6; requests
Canadian-built aircraft 31; supports idea of a Canadian government flying-school 62; bombing programme 147; Grand Fleet’s air arm 156–7; representation on Air Board 164; Haig’s request for fighter sqns 167; scraps seaplane operations at Dunkirk 172; exaggerated view of bombing damage 180; convoy system 186; changes in establishment of RAF 194–5; friction with Air Ministry 226–7; 1920 aircraft requirements 228; transfer of home defence 235; retaliation policy 238; establishment of 3 (Bomber) Wing 261; Elder on long-distance bombing 263; bombing value 281; concern over committing sqns to RFC 391; approves Trenchard’s request for sqns 395; shortage of pilots, Western Front 423; Canadian east-coast air patrol 603–7; other refs 44, 56, 58–9, 64–6, 123, 127, 131–2, 141–2, 150–2, 155, 162–3, 166, 168, 170–1, 191, 195, 205, 208, 212, 214, 219, 236, 267, 270, 272–3, 275, 277, 282, 381, 390, 408
– Air Department 56, 133, 135, 281, 604
– First Lord of the Admiralty: commits brigade of Royal Marines 134; Balfour 135, 143, 163–4, 166; Geddes 194; extinction of RNAS 226; conflict with War Office and Air Board 273; other refs 58, 267
– First Sea Lord: Fisher 128; Jackson 135, 267; Jellicoe, mandate for A/S measures 166; ruthless control of shipping 186; other refs 127, 134, 179
– Third Sea Lord 267
– Fifth Sea Lord for Air 164, 167–8, 194, 273, 290
Adriatic 190–1, 213–14
Advisory Committee on Aeronautics (UK) 5
aerial cameras see aerial photography and photographs
Aerial Defence Committee (UK) 5
Aerial Experiment Association 4
aerial fighting: early accounts 346–8; growth of 349; Boelcke and Immelmann 350; German technology 355; changes and improvements 356–7, 361; Somme 372, 379; German ascendancy 383–90; Interceptor Zone 399–400; 16 Sqn, protection for 402–3; Bishop 406; layer formations
aerial superiority and supremacy: North Sea 187; struggle for 208: Germans credit allied success to 364; Somme 373; Trenchard doctrine 376; middle and high altitude 438; Cambrai 441; Macedonia 452-4, 458; Italy 457, 463-82; German staff over-emphasize 509; British 517; Germans compelled to move at night 548; Fokker D-VII 565-6; other refs 150, 201, 361, 383-90, 393, 396, 409, 415.

Aerial gunnery 8S-6.

Aerial League of the British Empire 115
aerial photography and photographs: aerial photograph of Halifax Citadel 3; 79 and 81 Sqns RFC Canada 86; cadet training, RFC Canada 98; camera gun 103; Eastern Mediterranean 138; reconnaissance, Dunkirk 145; survey of Zeebrugge and Ostend 205; 'A' Camera 344; importance of photo intelligence 360; St Eloi 362; Mount Sorel 363-4; Somme 368-75; Trenchard 376; Courcellete 382; 'compass stations' 389; Vimy 401; Italian front 457; Drocourt Quéant 554; other refs 159-60, 171, 180, 199-200, 210, 215, 295, 302, 348, 355, 359, 378, 385-6, 388, 402, 408, 417, 425, 460, 463, 467, 472-4, 490, 495, 497, 513, 526-7, 536, 560, 571.

Aero Club of America 29, 42
Aero Club of British Columbia 41, 93
Aero Club of Canada 87, 115, 579
aerobatics: loop 87; the spin 104; civilian declaration 335; 'Immelmann turn' 350; D.H 12 esteemed for 361; other refs 211, 437, 459, 477, 611. See also tactics
aerodromes and airfields: Hoare selects Camp Borden 78-9; Texas 94; Beamsville 103, 160, 176; Independent Force's attacks, assessment 325; German, bombing of 377; A.W. Bishop 412-13; advanced land fields 422; Langemarck 424; Richthofen Circus, attack on fields of 429; evacuation of 564; other refs 79-80, 180, 208-9, 290, 296, 301, 304n, 313, 398, 411, 429, 431, 441, 457-8, 485, 495, 502, 526, 532, 569, 571-2, 574. See also tactics
aerial gunnery 85-6, 94, 295, 364-5, 406, 485. See also gunlayers
Aeriel League of the British Empire 115
aerial photography and photographs: aerial photograph of Halifax Citadel 3; 79 and 81 Sqns RFC Canada 86; cadet training, RFC Canada 98; camera gun 103; Eastern Mediterranean 138; reconnaissance, Dunkirk 145; survey of Zeebrugge and Ostend 205; 'A' Camera 344; importance of photo intelligence 360; St Eloi 362; Mount Sorel 363-4; Somme 368-75; Trenchard 376; Courcellete 382; 'compass stations' 389; Vimy 401; Italian front 457; Drocourt Quéant 554; other refs 159-60, 171, 180, 199-200, 210, 215, 295, 302, 348, 355, 359, 378, 385-6, 388, 402, 408, 417, 425, 460, 463, 467, 472-4, 490, 495, 497, 513, 526-7, 536, 560, 571.

aerial superiority and supremacy: North Sea 187; struggle for 208: Germans credit allied success to 364; Somme 373; Trenchard doctrine 376; middle and high altitude 438; Cambrai 441; Macedonia 452-4, 458; Italy 457, 463-82; German staff over-emphasize 509; British 517; Germans compelled to move at night 548; Fokker D-VII 565-6; other refs 150, 201, 361, 383-90, 393, 396, 409, 415.
office and air board 273; debates relative merits day and night bombing 281; perley's meeting with 582; other refs 36, 61–5, 72–3, 75–6, 83, 90, 105, 143, 164, 166–7, 245, 277–8, 294, 306, 381, 391, 450, 598

air board (canadian) 615–16

air council: proposed solution to raf canada's manpower dilemma 109–10; established 284; policy strategic bombing 307; independent canadian flying corps not acceptable 598; canadians 599; responsible for command and administration canadian sqns 601; other refs 160n, 179, 194, 207, 226, 614

air crashes and accidents 4, 29, 96, 101–3, 106–7, 235, 361, app. c

air defence great britain see home defence (uk)

air force (constitution) act: canadian air force 601–2; other refs 168n, 179, 283

air mail: first officially authorized flight canada 115; other ref 71

air ministry, uk: friction with admiralty 226–7; recommendation for formation of 279; list of canadians 594; a/s patrol, canada 605–6, officers, canadian sqns 609; aircraft gift 614; caf costs 618–19; other refs 76, 194, 216, 218, 312, 317, 325, 599, 604, 611, 613

air raids. allied see bombs and bombing

air raids, german: early raids on uk 130; on dunkirk 149; achievements 234; gotha raids 243–55; last aeroplane raid on uk 256; bearing on creation of raf and independent force 257; terror bombing 312; other refs 282, 431, 435, 510, 541. see also zeppelins

air staff, raf 307–8, 316, 324, 598, 616–18

air stations (rfc. rnas. raf) 131, 143, 152, 156, 165–6, 181, 186

– bainville-sur-madon: ho 41 wing 286

– bertrangles 380

– biggin hill 256

– bircham newton 314, 318

– calais 248

– cuxhaven: attack on 128, 131

– davenport 181

– detling 255, 261

– dover 133, 147, 159, 162, 171, 179, 180–1, 211–13, 238

– dundee 180, 238

– dunkirk: rnas 131–3; attack on 149; comparison with rnas mediterranean 158; role in somme battles 159–60; inflated strength 164; units placed under c-in-c, bef 179; peak pilot strength 180; canadian contribution 211; other refs 123, 134–5, 140–1, 143, 145, 147–8, 161–2, 165, 171–2, 205, 207, 232, 246, 248, 261, 270, 275–6, 287, 377, 391, 411, 431

– eastchurch: naval flying school 7, 251

– felixstowe: spider-web patrol 182; convoy duty 186; german air raid 189; gotha raid 248; other refs 169, 185, 187, 208, 223, 238

– great yarmouth 180–2, 201, 203, 223, 242, 256, 258

– killingholme 180

– luxeuil-les-bains: 3 (naval) wing, established 143; first raid 264–8; receives first handley page 0/100 271; assessment of 275–7; other refs 171, 232, 238, 262–3, 272, 390

– manston 249n, 251, 287

– nancy: 3 naval ( bomber) wing 264, 268, 279, 282, 297

– north weald 254

– ochey: 3 naval ( bomber) wing 264, 268, 282, 290

– pembroke 181

– portland 168

– redcar 287

– scapa flow 127

– scarborough: anti-zeppelin patrolling 238

– south shields 180

– walmer 250–1
Index

AIRCRAFT OF THE ALLIED POWERS

- American: Curtiss Canada C 1 44; Curtiss F-type flying-boat 39; Curtiss H 4 Small America 143, 168-9; Curtiss H 2 Large America; at Dunkirk 172, 182-4; convoy duties 186; at Felixstowe, Yarmouth, and Killingholme 187; other refs 143, 169, 177, 179, 181, 188-9, 201, 258; Curtiss H 16 222, 614; Curtiss H 5 L 606; Curtiss JN 3; pilot training in Canada 39; other ref 44; Curtiss JN 4 (JN 4A to HN 4H) 83; Curtiss JN 4D Canuck 44-5, 80, 82-3, 86, 92-3, 100n., 101, 103, 115-17
- British: Armstrong-Whitworth 249, 252, 255, 421, 450, 453, 491-2; Armstrong-Whitworth FK 8 507-8; unsuitable in anti-tank role 543; Avro 130; Avro 504: advanced and standard trainer 105; gift to Canada 614; other refs 8, 132, 147-8, 405; Blackburn Kangaroo 219-20; Bristol F 2a/F 2b Fighter: service ceiling 256; first employment, armament 415-16; McKeever 445-6: 139 Squadron, Italy 471-2; multi-squadron patrolling 485; gift to Canada 614; other refs 254, 466, 469, 487, 535, 539, 549, 558; Bristol Scout 336, 450; de Havilland DH 2: offensive patrol formations 380; Macedonia 452; other refs 244, 359, 361, 366, 373n., 384, 386, 388, 450, 575; de Havilland DH 12: comparison with Gotha IV 287; performance characteristics 309; gift to Canada 614; Russia App. A; other refs 172, 175, 177, 189-90, 203, 205, 208, 210, 215, 219, 258, 277-8, 281, 286, 289, 291, 293, 421, 426, 486, 494, 497, 510, 512, 539, 558; de Havilland DH 15: close ground support 424; Cambrai 441; attack German batteries 442; de Havilland DH 16: as training aircraft 83; other refs 116, 219-21; de Havilland DH 19: performance characteristics 309; Macedonia 459; gift to Canada 614; other refs 202, 207, 211n., 214-15, 219, 258, 281, 293-4, 299-300, 303n., 308, 310-11, 532, 539, 548, App. A; de Havilland DH 9A: defects 308; performance characteristics 309; dissatisfaction with, CAF 611; other refs 313, 568, 608; FBA 168, Fairey Campania 196; Felixstowe: series development 169; Felixstowe F 1 169; Felixstowe F 2 169; Felixstowe F 2A 169, 200-2; Felixstowe F 3 216; Felixstowe F 5 116; Felixstowe F 5L 116; Felixstowe Porte Baby 168-9, 181, 190; Handley Page: requirement for, 133; other refs 124, 172, 177-9, 205, 207-8, 212, 219, 261, 270, 282, 289, 300, 311, 525; Handley Page 0/100 172, 192, 271, 281, 287, 303; Handley Page 0/400 281, 303, 313; Handley Page V 1500 314-15, 317, 319-20; Martinsyde 277, 366, 376, 421, 429; Martinsyde Scout 347, 359, Royal Aircraft Factory: BE 2 8, 252, 368, 397, 401, 404-6, 450, 454; BE 2a 343, 359, 368, 400; BE 2c 147, 181, 215, 237, 241, 253, 256, 353, 355-6, 371, 373, 386, 389, App. B; BE 2d 247; BE 2e 247, 253, 255,
Index

French: Bréguet (two-seater) 147-8, 454n; Bréguet Michelin IV 267-8; Bréguet v 266; Caudron 147-9, 159-60, 337; Caudron G4 147, 160, 162; Farman XL-I 267; Henri Farman 132, 137n, 139, 160, 191, 215; Henri Farman F 27 147; Hanriot 461; Morane Saulnier 137n, 346; Sopwith Triplane 47; Supported 559; 1 Squadron.


German aircraft: Marine Corps 150; effective strength, increased 189; G Series 244; ascendancy and numbers 389-90; Vimy 402-3; technological superiority lost 445; refusing to engage 482-3; Western Front, spring 1918 488; ground attacks on retreating British 499; fuel shortages restrict flights 516-17n; number destroyed, Haig despatch 571; trophies, to Canada 614n; other refs 488-9, 301-2, 325, 349-50, 369, 454, 483, 485-6, 532, 549

French types: Albatros 177, 179, 189, 208, 210, 381-2, 353, 355, 359, 381, 384-5, 388-90, 406, 408, 412, 461, 484, 549; Albatros D-I 384-5, 394; Albatros D-II 384-5, 394; Albatros D-III design borrowed from Nieuport 17 393; Manfred von Richthofen 395; other refs 177, 201, 394, 416, 437, 453, 454n, 458, 462, 465, 472-3, App. B; Albatros D-V 416, 454n, 456, 459, 462-3, 465-6, 474, 484, 495;
Canada: Repair

Index

Fokker D-V 378n; Fokker D-VII: technological superiority 517, 565–6; other refs 208, 211n, 384, 516, 555; Fokker Dr-I Triplane 208, 395n, 495, 508, 533, 547; Fokker E-I: equipped with synchronising mechanism 350; other refs 355, 575; Fokker E-III 355, 378, 387; Fokker E-IV 378; Fokker MSK: synchronising mechanism 350; Fokker monoplanes 378, 387; Fokker Scouts 267; Friedrichshafen 452; Friedrichshafen FF 33 189; Friedrichshafen FF 33h 161, 169n; Friedrichshafen FF 49 172; Friedrichshafen FF 49c 189; Gotha 178, 189, 208, 431, 439, 452; Gotha G IV: raids on Britain 176, 246–54; comparison with DH4s 287; Gotha WD 11 176n; Halberstadt 379, 383–4, 389, 394, 402, 406, 412, 450, 453; Halberstadt CL-II 428n; Halberstadt D-II 379; Halberstadt two-seaters 305, 533; Hansa-Brandenburg 189; Hansa-Brandenburg GW 176n; Hansa-Brandenburg W 12 172, 189, 199; Hansa-Brandenburg W 29 199, 203, 211; Junkers J-1 428n; LFG Roland 380, 383–5, 388–9, 394; LFG Roland C-II 380; LFG Roland D-I 379; LFG Roland D-II 380; LVG 210–11, 347, 387, 472, 484, 495; LVG C-II 380; Pfalz 208–9, 301, 305, 534; Pfalz D-III 497, 502; Pfalz D-XII 555; Phönix 454n; ‘R’ types (Staaken) 253–4n, 256, 283n, 317; Rumpler 452, 465, 567; Rumpler 68 1 161, 189; Rumpler C-I App. B

AIRCRAFT OF THE PREWAR PERIOD

Aerial Experiment Association: June Bug 4; Red Wing 4, 97n; Silver Dart 4, 10–14; White Wing 4; Bristol Boxkite 6; British Aeroplane No 1 4–5; Burgess Dunn 27–9, 47; Canadian Aeroplane Company: Baddeck I 10, 13–15; Baddeck 2 13–15; Cody Cathedral 7; Curtiss biplanes 8; Grahame-White Boxkite 9; Sopwith Tabloid 8; Wright Flyer 4

AIRCRAFT OF THE POSTWAR PERIOD

Curtiss Kittyhawk 576n; Focke-Wulf 190 576n; Hawker Typhoon 576n; Illyushin 11-2 576n; MIK 3 576n; Supermarine Stranraer 116; Westland Lysander 572n aircraft carriers: Engadine 127–8: after Jutland 155; Manxman 170; first generic use of term 196n; Tondern Raid, evolution of aircraft carrier technique 202; Argus 227; other refs 150–1, 164, 190, 195
aircraft design and experimentation: S.F. Cody 4–5, 11; arrestor wires 150–1; experiments with skids 202; other refs 8–9, 43, 155–6, 194, 243–4, 253, 254n, 271
aircraft engines see aero-engines
aircraft manufacture see aircraft production and individual company names
aircraft production: RFC Canada: Repair Park activities 82; US purchases Canadian-made 1N4s 92n; total Canadian production 115; Suter responsibilities for 135; British programme for 278; British bomber requirements 281; estimates Handley Page V1500 315; German methods 349; German production 517; other refs 22, 83, 105, 116, 213, 232, 270, 285, 575
Aircraft Production Board (USA) 92
aircraft recognition: German Nieuports 388
Aircraft Repair Park 359, 455
aircraft-tank co-operation: Amiens 527
Index

Aird, F/S/L H.R. 148, 192
Aird, Sir John 69
Aird, Lt John K. 77, 80
airfields see aerodromes and airfields
airships and dirigibles: programme for rigid 135; lack of naval foresight 164; coastal patrolling in UK 165–6; coastal airship bases 198n; raid on Tondern 219; gift to Canada 614; other refs 16, 128, 155–6, 160, 180, 186, 198n, 225, 234, 604; SS Airships 138, 165, 191; SSZ Airships 225; Akron 16; Mayfly 5; see also zeppelin
Aitchison, Lt D.B. 313
Albania 214
Alberta Flying Corps proposal 47
Alcock, J.N.W. 192
Alderson, Lt-Gen. E.A.H. 363
Alexander, FIL W.M. 274, 418, 426
Allen, 2/Lt A.A. 566
Allen, Wing Cdr D.L. 111
Allen, Maj. Dermott 77, 81, 97
Allen, F/L H. 175
Allen, Capt. J.R. 172, 178, 205
Allison, J.W. 69n
altitude: RAF bombers 208; improved zeppelins 243–4; Handley Page 0/100s 271; offensive patrols 481; other refs 4, 168
ambulances, flying 115n
America and American see United States
American Legion 89
Amiens: aerial support for offensive 522–3; RAF operational roles 524–30; German reinforcements 531; other refs 335, 508, 542
ammunition: Buckingham bullet, and Brock and Pomeroy 239–40; explosive 251n; production crisis 351; artillery ammunition accumulated 359; aircraft used in a re-supply role 524; armour piercing 547; other refs 241, 251n, 476, 501, 504, 512, App. B
Amy, Lt C.L. 465
Anderson, F/S/L G.B. 407
Anderson, Capt. W.F. 410, 438, App. A
Andrews, Lt C.G. 464
Andrews, C.H. 106
Andrews, Lt R.L. 451, 467, 469
Angstrom, Maj. Lawrence C. (USA) 94n
anti-aircraft guns and fire: Gotha raids on UK 243–53; number of personnel ground defence 257; machine-guns in front-line defences 435–6; Richthofen, death of 515; special trained machine-gunners 552; other refs 162, 190, 205, 208, 236, 238, 268, 291, 296, 309, 311, 346, 356, 420, 426, 441, 451, 464, 482, 493, 495n, 516, 526, 560, 570
anti-submarine warfare: crucial campaign 124; air reconnaissance 133; opposed views on 134; bombing of shipyards 160, 177–8; aircraft endurance 181–2; effect of convoy system 186; last U-Boat through Strait of Dover 213; Adriatic and Mediterranean 214–17; air contribution, 1918 224; Canadian coast 603–6; RCNAS 607; other refs 133, 170, 180, 185, 194–6, 198, 203, 219, 227, 426
anti-tank guns: casualties from 527; effectiveness 543, 546; defensive methods against 542–3, 552–3; mastery of 562
Appleby, 2/Lt P.E. 302, 310
Apps, Lt G.F.M. 466
Archibald, Lt L.M. 290, 431
armament (aircraft): Felixstowe and Curtiss H12 169; Large Americas 184; German naval aircraft 189; Sopwith 2F.1 Camel 196; anti-zeppelin 237, 240; Gotha G.IV 245; Sopwith ½ Strutter bomber 266; requirement for machine-guns 346–8; Bristol F.2A, SE.5, and Camel 416; Hanriot 461; Sopwith Snipe 566, other refs 184, App. B. See also machine-guns
ARMIES
- American 90–1, 310, 564
- Austrian 456
- Belgian 211, 408, 561
- British (including BEF): generally 4, 131, 331, 334–6, 340–2, 357, 393, 454, 464,
<table>
<thead>
<tr>
<th>Page</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>471, 477, 479, 487</td>
<td>First 393, 510–12, 521, 552–3, 557, 561–3; Second 174, 408, 410, 426, 428, 487, 510–11; Third 365–6, 376, 393, 398, 404, 441, 443–5, 483, 487–8, 490–7, 500, 539, 542, 545, 549, 553, 558, 561; Fourth 173, 358–9, 365–6, 369, 376, 446n, 482, 519, 521, 525, 536, 549, 558, 561, 564–6; Fifth 173–4, 373, 414, 424, 426–7, 483, 487–8, 490–5, 497–8, 500–1, 503, 506, 521; Tenth 491–5; Reserve 373, 376</td>
</tr>
<tr>
<td>471, 477, 479, 487</td>
<td>First 393, 510–12, 521, 552–3, 557, 561–3; Second 174, 408, 410, 426, 428, 487, 510–11; Third 365–6, 376, 393, 398, 404, 441, 443–5, 483, 487–8, 490–7, 500, 539, 542, 545, 549, 553, 558, 561; Fourth 173, 358–9, 365–6, 396, 446n, 482, 519, 521, 525, 536, 549, 558, 561, 564–6; Fifth 173–4, 373, 414, 424, 426–7, 483, 487–8, 490–5, 497–8, 500–1, 503, 506, 521; Tenth 491–5; Reserve 373, 376</td>
</tr>
<tr>
<td>French: generally 287, 290, 334, 339, 408, 454, 456, 471, 477, 507; First 174, 519; Third 503, 506; Fourth 564; Fifth 338; 340–1; Sixth 340–1; Seventh 276; Ninth 340–1; Tenth 360</td>
<td></td>
</tr>
<tr>
<td>German: generally 334, 430, 454, 487–8, 500–1, 503, 507–9, 511–12, 514, 519–21, 530–1, 541–2, 548, 551, 563–4, 569; First 338, 340, 479; Second 340–1, 390, 483, 501–2, 504, 507, 509, 521, 531, 553; Fourth 161, 419, 514; Sixth 510, 512n, 523; Seventh 507, 523; Ninth 531, 553; Fourteenth 460; Seventeenth 483, 500; Eighteenth 483, 531, 553</td>
<td></td>
</tr>
<tr>
<td>Italian 450, 454, 455n, 471–2, 477</td>
<td></td>
</tr>
<tr>
<td>Turkish 138, App. B</td>
<td></td>
</tr>
</tbody>
</table>
| Armistice: destruction of LVG, 10 Nov. 1918 211; surrender, High Seas Fleet 227; Macedonia 478; Treaty of Brest-Litovsk App. A; with Turkey App. B; other refs 319, 475, 571 Armour Heights, Ont. 80, 105–6, 108 armoured cars 131 Armstrong, F/S/L F.C. 396 Army Council (UK) 50, 79; approves reorganization RFC in France 342, 591 ‘Army of the Orient’: Salonika theatre 450 Army Report Centre: air co-operation 428 Arnold, Maj. Henry H. (USA) 93n Arras 397, 400, 408 arrester gear 227 artillery: RFC co-operation 331; grid systems devised 344; aerial photography 351; Crerar 371–2; Trenchard 376; Flers-Courcelette 381; Messines 410; German 428; zone calls sent down 429; attacks on German batteries 442; Austro-German 455; Italy 463–7; German bombardment, spring 1918 offensive 488–90; Amiens offensive, fire power 520; message dropping 526; co-ordination 542; Central Wireless Information Bureau 543–5; Counter-Battery Office 559–60; German losses 564; Valenciennes 569; other refs 174, 343, 363–5, 368, 393, 404, 414–15, 422, 431, 468–9, 473, 487, 492, 524, 539, 542, 552, 558. See also spotting and observation artillery ranging see spotting and observation artillery units British: 176th Siege Battery 464; 197th Siege Battery 468; 247th Siege Battery 464; 302 Siege Battery 467 Canadian: Canadian Corps Heavy Artillery 402, 423, 567; 2nd Canadian Divisional Artillery 404; RCMA 467; 2nd Bde., Canadian Field Artillery 404; 3rd Canadian Siege Battery 404; 9th Canadian Siege Battery 482 Arundel, H.H. 150 Arundell, Lt A.W.H. 548, 568 Ashmore, Brig.-Gen. E.B.: command of London AA defence area and zone x 250; on wireless sets in aircraft 256–7; commands 1 Wing 351; other refs 252, 254, 257 Asquith, Herbert H. 6, 166. See also Prime Minister, UK Australia and Australians 70, 75, 515, 579, 582. See also corps, Australian Australian Flying Corps 50n, 61, 569, 619. See also squadrons Austria and Austrians: Austrian Fleet 157; Austrian Naval Air Service 214; withdraw 470; other refs 190, 213, 449, 454, 468 Austrian air service: K.u.K. Luftfahrttruppen (Imperial and Royal Air Service
Troops): composition July 1914 454; growth 456n; other refs 462, 471–2; Fliegerabteilung 465n; Fliegerkompanie (FK) 456n; Jagdfliegerkompanien 456n; aviation medicine 115

Index
Troops): composition July 1914 454; growth 456n; other refs 462, 471–2; Fliegerabteilung 465n; Fliegerkompanie (FK) 456n; Jagdfliegerkompanien 456n; aviation medicine 115

Babington, F/L J.T. 270–1
Bacon, Vice-Adm. Reginald 134, 145, 147, 149, 159n, 160–2, 171–4, 176, 178, 205, 263, 290, 391
Baddeley, N.S 4, 11
Baguley, 2/Lt F.R. 402
Bailie, F.W. 79
Baird, Maj. J.L., MP (UK) 240n
Baker, Lt F.L. 402
Baker Point, N.S 606
Baldwin, Frederick Walker 4, 10–16
Baldwin, M.D., and Company 11
Balfour, Lord A.J. 58, 135, 143, 164, 166–7, 267, 273
Ball, Capt. Albert 412–13, 423
Ballantyne, C.C. 603, 606n, 607, 614–15
Ballantyne, Capt. D.M. 215
balloons: pre-ww1 3–5; in naval use 135, 137, 155–6, 159, 164, 186, 198, 217, 219, 223; home defence (UK) 252, 257; German 296, 409, 421, 571; with British Army 343, 359, 455, Canadian 606, 614–15; other refs 170, 343, 359, 398, 457, 462, 475, 506, 536, 546, 562. See also airships and dirigibles; zeppelins
Barès, Lieutenant-Colonel 264, 273–4
Baring, Maurice 410
Barker, 2/Lt E. 546
Barnard, F.L. 388
Barogar, Lt F.B. 256
Barron, F/C J.A. 139, 166, 191, 604–5
Baskerville, 2/Lt W.R. 208
Bath, Lt C.L. 387
BATTALIONS
British: Honourable Artillery Company 473; Royal Munster Fusiliers 490; Royal Newfoundland Regiment 451; 1st Royal Scots Fusiliers 495
– Canadian: Princess Patricia’s Canadian Light Infantry 435; 1st 440; 5th 422; 14th 439, 555; 31st 435, 440; Young Soldiers Battalion 610n
Bawlf, L.D. 176
Baylis, 2/Lt C.J. 409
Beamsville, Ont. 102–3
Beatty, Adm. Sir David 152, 154–6, 168, 170, 192, 195, 226
Beauchamp, Lt F.E. 529
Beauchamp-Proctor, Lt A.W. 558
Behncke, Konteradmiral Paul 234
Belgian air force 147–8, 390, 415
Belgium and the Belgians 160–1, 338, 343.
See also armies
Bell, Dr Alexander Graham 4
Bell, Capt. G.G. 458–9, 477
Bell, Lt H.B. 462, 466, 468
Bell, Lt W.G. 423
Bell-Davies, Wing Cdr R. 140, 266–7, 276
Bell-Irving, Alan Duncan 345n, 346, 352–3, 356, 388–9
Bell-Irving, H. 53
Bell-Irving, Richard 345n
Belliveau, Lt A.H. 549
Below, General Otto von 454–5, 483
Benbrook Field, Texas 94
Bennett, Lt-Col. J.B. (USA) 91
Bennett, R.B. 47
Benson, 2/Lt D.G. 300
Bentivegni, Hauptmann 253
Beresford, Adm. C.W. 70
Berlin 314–18
Bethmann-Hollweg, Theobald von 257
Beveridge, Lt G. 535
Bewsher, Paul 272
Bibby, F/S/L J.R. 157
Bicknell, Lt Frank R. 215, App. A
Biggar, Col. O.M. 602n
Billing, N. Pemberton 262
Bingham, Col. Hiram (USA) 91–2
Birks, Lt G.A. 465–6, 468, 470
Bishop, Lt-Col. W.A.: earns VC, 412–14; views on a Canadian air force 597, 608; other refs 384, 404–6, 416n, 423, 579
Bishop-Barker Aeroplanes Ltd 116
Black, Lt S. McB. 294, 302
Blakie, Capt. James 274
Blaklock, Lt G.W. 417
Blair, Lt T.H. 215
Blériot, Henri 23
Board of Invention and Research 236
Boddecker, Konteradmiral F. 152
Bodenschatz, Karl 493-4, 541n, 549
Boelcke, Oswald 350, 384, 386, 389-90
Bogart, Capt. H.H. 1-16
bomb loads: Curtiss H1 12 169; L 70 202, 258; Handley Page 0/100 271; DH4 286–7; Gotha 287; FE2b 287; Handley Page 0/400 303
bomb release gear 212, 271–2, 339
bomb sights 102, 177, 184, 212, 264n, 271–2, 339, 354, 425, 494, 548, 575
Bone, J.T. 139
Bonnell, 2/Lt G.H. 387–8
Booth, 2/Lt C.S. App. A
Booth, 2/Lt E.B. 436
Borden, Sir Frederick 13, 15. See also Minister of Militia and Defence
Borden, Sir Robert: opposition to Canadian air service 61; aircraft manufacturing 68; gave no leadership 75; conscription 83; discourages enlistment of Americans 89; reorganizes Canadian military in England 580; appoints Canadian liaison officer, RFC 583; promotion complaints 585; Kemp’s recommendations to 587; Perley’s recommendation 590–1; A/S air patrols 603, 606; demise of RCNAS 614–15; CAF demobilization 616; Russian intervention App. A; other refs 21, 37, 44, 46–8, 53n, 59–60, 70, 73, 581, 601, 608. See also Prime Minister (Canada)
Boswell, F/S/L H.G. 185
Bottrill, Lt W.E. 305, 310
Bourlon Wood 445, 562
Boyd, Capt. J.E.D. 139
Boyd, Lt P.B. 402
Boyd, Capt. K.G. 213
Boyd, Lt W.H. 537
Bracken, Lt K.O. 469–70, 473
Brander, Brig.-Gen. William Sefton: possible reinforcement crisis 62; need for training establishments in Canada 74; home defence (UK) 239; Canadian and Australian conference 582; CAF squadrons 610; other refs 6, 49, 56, 70, 106n, 111n, 112, 335, 351, 361, 376n, 383, 580, 601n
Brand, R.H. 57–9, 62
Brandenburg, Hauptmann Ernst 247, 256
Brawley, Capt. G.M. 458
Breadner, F/S/L G.M. 155
Breadner, Maj. Lloyd S. 42, 144–5, 150, 155, 163, 177–8, 396, 406–7
Brereton, Lt L.R. 490
Brett, 2/Lt W.A. 546
Brewer, Griffith 49
Bricha, Lt J.G.O. 402
BRIGADES, RFC/RAF
- Middle East 216, 449, App. B
  - I: 354, 373, 397, 402, 404, 408, 423, 441, 445, 495, 498, 500, 502–5, 507, 521, 523–4, 536, 539, 554, 562, 568–70
  - II: 160, 368, 408–9, 428, 439, 505, 507, 513
  - III: 368, 373n, 376, 386, 402, 405, 411, 443–4, 445–6, 492, 495, 497–8, 500, 502, 504, 507, 523–4, 535, 537–8, 554, 559, 562
  - IV: 173–4, 359, 365, 368, 374, 379, 434
  - V: 373n, 394, 402, 418, 492, 494, 496, 498, 501–2, 507, 524, 535–6, 562
  - VI: 256–8
  - VII: 203, 205–7, 455, 460
  - VIII: 290–3, 295
  - X: 521, 523, 539, 569
British Columbia Aviation School 41
British Commonwealth Air Training Plan 84, 99, 107
British Expeditionary Force see armies
British Recruiting Mission 84
Brock, Lt C.G. 547
Brooke-Popham, Lt-Col. H.R.M. 348
Brophy, Lt J.A. 242, 375–7, 381
Brown, Capt. A. Roy 42, 514–15
Brown, Lt E.M. 470
Brown, Capt. F.E. 486
Brown, 2/Lt F.R. 210
Brown, L/Cpl F.S. 18
Brown, G. McL. 69
Brown, Lt L.L. 525
Brown, Lt W.H. 499, 504
Bruce, Capt. R.W. 350, 356
Bruce, Lt W. 294
Bruges 208, 212
Brunowski, Hauptmann Godwin 465n, 470

Brutinel, Brig.-Gen. R. 595
Bülow, Generaloberst 340–1
Bulgaria and Bulgars 450, 477–8
Burden, Lt H.J. 492, 495, 513–14, 538, 547, 549
Burgess Company 27–8, 47–8
Burke, Lt-Col. C.J. 34, 52, 342
Burton, E.C. 104
Bush, 2/Lt G.H. 462
Bush, R.E. 140
Butt, Lt N. 570
Butterworth, F/S/L C.H.S. 266–7
Byng, Lt-Gen. Sir Julian 363, 487, 542
Byrd, Adm. Richard E. 41n, 606

Cabinet (Canadian): request to Cabinet for funding of aircraft, 1910 15–16; strong opposition to a Canadian air service 61; rejects Morden as liaison officer, RFC 583; Canadian policy on separate flying service reopened 584; refuses to retain postwar air service 619; other refs 21, 51, 68, 71–2, 74, 110, 580, 601, 603, 608, 614–15
Cabinet (UK): amalgamation of RFC and RNAS 168n, 280; reactions to air raids on Britain 236, 244–8, 251n, 279, 282; Air Force bill 283; bombing of Berlin 314; other refs 135, 143, 163, 166, 171, 195, 252, 278, 281, 290, 293, 297, 307, 312, 358, 391, 426, 447
Cadbury, Maj. Egbert 258–9
cadets: RNAS 607–8, 615. See also recruits and recruiting; training
Cain, Capt. R.C. 467, 469–70, 473
Calderwood, 2/Lt D.M. 558–9
Caledonia 274
Calman, Lindley B. 227
Cambrai 375, 393, 404, 430, 441, 443, 561, 564
cameras see aerial photography
Cammell-Laird Ltd 57
camouflage 334, 422, 487
Camp Borden 78–9, 86, 90, 94–6, 101
Camp Mohawk 80, 86, 106
Camp Rathbun 86
Camp Tafiéro, Texas 94
Campbell, Lt G.B.D. 558
Campbell, CPL J.K. 382
Campbell, Lt W.K. 361
Canadian Aerodrome Company 10
Canadian Aeroplanes Ltd: established 44; first mass production of Canadian aircraft 45; new plant 83; sale to USA 92; skifitted aircraft 97; production 100; JN4s for Imperial Munitions Board 115; other refs 56, 79, 91, 92n, 603
Canadian Air Force: towards the establishment of 579ff; Morden's proposals 581–3; renewed inquiries and proposals 586–91; Turner's summary and recommendation 595–6; Kemp's approach to UK officials 597–9; two sqns approved 600; responsibilities for 601; Militia Act 602; organization and manning 608–13; discussions on retention 616–19; disbanded 620; other refs 112n, 432n, 615
Canadian Aircraft Works 41
Canadian Army Dental Corps 115
Canadian Army Medical Corps 115
Canadian Aviation Corps 27, 47, 511
Canadian Aviation Fund 51–6, 87
Canadian Expeditionary Force: 1st Contingent 22, 26–7, 48, 352; 2nd Contingent 48; RFC Canada tradesman threatened with enlistment in 108–9; reserve of cadets and mechanics created 114; transfers to air services 365, 594–5; possible attachment of Canadian air sqns 586; statistical analysis, transfer to flying corps App. C; other refs 26–7, 67, 75–6, 79, 83, 86, 364, 579
Canadian Forestry Companies, CEF 298
Canadian High Commissioner, London: British training establishment for Canada 75; Morden's proposed appointment 583; Canadian Air Service 587–8; other refs 50–1, 58, 61, 64, 71, 111, 580, 592. See also Perley, Sir George
Canadian identity 109–11, 113, 144n, 583–90, 593–601, App. C

Index

Canadian Military Institute 56
Canadian Officers Training Corps 84
Canadian Siberian Expeditionary Force
App. A
Canadian Vickers 68. See also Vickers Ltd
Canal du Nord 443, 555, 561
Carr, F/S/L G.B. 156
Carr-Harris, 2/Lt G.C.C. 546
carrier pigeons 184
Carroll, 2/Lt R.S. 373–4
Carruthers, Capt. D. 537
Carson, Sir Edward 166
Carson, Maj.-Gen. J.W. 67
Carter, Maj. A.D. 613
Carter, Alfred W. 43
Carter, Capt. F.M. 534, 548, 568
Carter, Lt F.W. 385
Carter, Lt R.H. 481–2
Carter, Lt W.A.W. 562–3
Carthew, Lt-Col. T. 454n
Castle, Capt. Vernon 86n
casualties: training 41, 96, 101, 611, App. C; pilot 118; pilots at Dunkirk 180; raid on Felixstowe 189; total Canadian casualties, RNAS 192n; other Canadian air casualties 211, 296, 326, 361, 379, 392, 402, 404, 407, 412, 427, 470, 540–1, Apps. A–C; air raids on Britain 235, 246, 278; first Canadian airman KIA 352; 10 (N) Sqn 412; RFC generally 423, 431; air battle, Le Cateau 487; German soldiers, from air action 504, 509; air battle, Amiens 540–1; other refs 87, 172, 289–90, 293–4, 301, 313, 339, 350–1, 352n, 354–5, 369, 371–2, 375, 385–6, 394, 400, 416, 425–6, 431, 438, 440, 448, 451–3, 459–61, 463, 475–8, 482, 492, 496, 502, 517, 519, 528, 532–4, 539, 552, 593. See also statistics
Cavan, Gen. Lord 471–2
Cavell, Edith 274
Cavers, Lt J.P. 458, 460
Caws, Lt S.W. 350–3
Cecil, Lord Hugh 278, 280
Central Air Office 128
Chadwick, F/C A.J. 171, 176
Chambers, Rear-Adm. B.M. 606
Chambers, Col. E.J. 118
Chambers, Lt J.A. 300
Chapman, Lt J.A. 300
Chaplin, Lt 380
Charlton, Brig.-Gen. L.E.O. 90, 524-7, 540, 575n
Chasard, Adjutant 271
Chase, Capt. C.K. 214, 216
Chief of Staff, BEF 395, 404-5
Chief of the Air Staff, RAF: Trenchard 194, 284; terms of reference for Independent Force 296-7; dealings with Trenchard 298-9; RFC in the defence 480; Somme bridges 540; Canadian Air Force 598-601, 617-18; other refs 206, 286, 614
Chief of the Air Staff, RAF, Deputy 317, 616-18
Chief of the French General Staff 506
Chief of the General Staff 12, 17, 26, 113-14, 377, 548n
Chief of the German General Staff 234, 334
Chief of the German Naval Staff, Deputy 234
Chief of the Imperial General Staff 5, 249, 282, 391, 423
Chief of the Naval Staff (Canada) 167
Chisam, F/S/L W.H. 177
Chisholm, Thomas, MP 13
Christie, Loring 60-1, 64, 591, 607
Churchill, Winston 127, 131-2, 134-5, 261-2, 283
Clapperton, F/S/L A.G.A. 430
Clappison, H.G. 210
Clark, Lt A.S. 453
Clark, 2/Lt E.J. 548, 561
Clark, Lt J.W.G. 559
Claxton, Lt W.G. 405, 536-7
Clayton, F/L C.J. 200
Cleghorn, F/S/L W.F. 175, 208
Clement, Capt. C.M. 382, 387-8
Clothing and equipment: winter flying in Canada 97; old RNAS and RFC uniforms worn in RAF 194; signal lamps and Very lights 343; Sterling wireless set 351; Klaxon horn 375; CAF 601; air patrol, Canada 606; RNAS 607, App. B; other refs 79, 382-3, 441, 528, 551, 613-14 coastal motor boats see motor boats and coastal motor boats
Cockerell, Sgt 381
Cody, S.F. 4-5, 11
Collishaw, Maj. Raymond: victories 550; other refs 145, 175, 179, 193, 266-8, 396, 405, 411-12, 418, 513, 550, 558, 609, App. A
Colonial Office 50
Colonial Secretary 50, 64, 67, 614
Command and control: RNAS Bombing Operations 143; Independent Force 298; 27 Group 314-19; RNAS with RFC 391; RFC 510, 524; Canadian sqns 601; A/S air patrol, Canada 606; other refs 72, 502, 539-40, 598. See also Canadian identity
Commander-in-Chief, BEF 132, 143, 179, 339, 426
Commander-in-Chief, East Indies Station 151
Commander-in-Chief, Eastern Mediterranean 135
Commander-in-Chief, French Armies 263, 289, 339-40
Commander-in-Chief, Home Forces 245, 247
Commander-in-Chief, Mediterranean 216
Commander-in-Chief, Plymouth 182
Commander-in-Chief, Portsmouth 166
Committees: Committee of Imperial Defence 6; Joint War Air Committee 262-3, 274; Parliamentary Aerial Defence Committee 5; War Policy Committee 414, 426, 447
Communication see wireless
Communiqués, RFC 386, 513, 564, 571
Compton, Lt A.S. 549
Comstock, Lt W.H. 201
Conn, Lt K.B. 569
Connaught, HRH Duke of 14, 37, 89
Index

Conscription 83
Constantinople 214-16, 450
Construction see aircraft production; aerodromes and airfields
Conte Rosa 156
Controller of Technical Department, RAF 285
Convoy and convoy system: scheduled transatlantic convoys begin 186; aircraft, balloons, and tactics 124, 186, 217, 224-5; Mediterranean 217; adoption of complete convoy system 218; Canadian coastal air patrol 606; other refs 124, 213, 219, 224-5, 228, 426, 603
Cook, Lt C.W. 502
Cook, 2/Lt H.C. 221
Cooper, Lt 457
Cooper, Capt. R.A. 360
Corey, 2/Lt I.B. 539
Corps
- Anzac: II Anzac Corps 410
- Australian: Richthofen’s death 515; other refs 428, 519-20, 524, 528-30, 539, 553
- British: Cavalry Corps 520, 524-5; I Corps 336, 339; II Corps 336, 338-9, 420; III Corps 369, 371, 374, 520, 524; IV Corps 490-2; V Corps 362-3; VIII Corps 365, 372-3; IX Corps 359; X Corps 371, 373, 410; XI Corps 455, 511; XII Corps 450; XIII Corps 369, 375; XIV Corps 419, 425, 464, 476-7; XV Corps 369, 371, 374; XVI Corps 450, 458; XVII Corps 553
- Canadian: transfers to RFC 365, 594-5; air support 524; Counter Battery Office and air support 559-60; other refs 362-4, 375, 393, 421-2, 435, 438, 440, 481, 498, 500, 520-1, 526, 529, 536, 539, 552-5, 562, 569
- French: XII Corps 464
- German: Asia Corps, App. 8; 39 Reserve Corps 509
Cowley, F/S/L A.T.N. 140, 148
Cox, Brig.-Gen. E.W. 506
Craig, Lt W.B. 209-10
Crang, Lt J.G. 424
Crashes see air crashes and accidents
Creery, Lt C.J. 42, 387
Creery, 2/Lt K.A. 352
Creighton, Lt G.S. 464
Cerar, Lt-Col. H.D.G. 560
Crichtley, Brig.-Gen. A.C. 597
Croil, Capt. George M. 451-2, App. B
Crombie, Lt W.E. 306
Cronin, Lt E.J. 453, App. A
cross-country flying 86, 98
Crossan, Lt E.P. 529
Crossland, Lt E.F. 417
Crummy, Lt F.C. 549
Crysler, Lt C.A. 515-16
Cull, Lt-Col. J.T.: formation of RCNAS 605-8; other refs 139, 614-15
Culley, Lt S.D. 202-3
Curie, Gen. Sir Arthur: on Canadian air force 596-7; other refs 439, 520, 524, 531, 579, 595
Curry, Lt W.H. 291
Curtis, Capt. G.W. 471
Curtis, F/S/L W.A. 41, 433, 437, 439
Curtiss Aeroplane Company 83, 115n
Curtiss Aeroplane and Motors Ltd, Toronto 31, 44, 68, 71-2, 83
Curtiss, Glen 4, 8-10
Curtiss School of Aviation: San Diego 26n; Toronto 31-2, 36-7, 39-40; no fatalities or serious injury in two seasons of operation 41; other refs 78, 123, 126, 139, 243, 391
Costain, H.H. 178
Cotton, 2/Lt W.M.V. 385
Counter Battery Office 560, 569
Cowdray, Lord 278, 282
Curzon, Lord 36, 61-2, 65-6, 75, 143, 163-4, 166, 239, 273-4
Czechoslovakia 475
DaCosta, Capt. W.R.C. 382
Daily Mail (UK) 61, 312
Dardanelles 133-5, 151, 191, 215, 261
Darby, Capt. C.H. 148, 160, 162, 175, 178, 207-8
Darber, F/S/L W.A.N. 187
Index

Davidson, Maj.-Gen. J.H. 506
Davidson, Lt W.M. 463
Davis gun 116
Dawes, 2/Lt R.J. 465-6
Dawson, Sir A. Trevor 67-70
Debeney, Général M.E. 519, 523
de Castelnau, Général 287, 289, 297
Declaration of St Petersburg, 1868 159n
Declaration of The Hague, 1899 159n
de Dombasle, Lt-Col. G.C. 612, 614, 616-18
De Forest Co 8
De Havilland, Geoffrey 9, 293
Delamere, F/S/L R.D. 140, 227, App. B
Dempsey, Lt H.E. 537
Deniken, General A.I. App. A
Dennistoun, Maj. J.A. 253
Dennistoun, Lt J.R. 356
Department of External Affairs 24n
Department of Indian Affairs: Mohawk field made available 80
Department of the Interior: Gwatkin’s recommendations 586
Department of Justice, Military Service Branch 109
Department of Militia and Defence: policy toward pre-ww1 aviation 31; recommendation for aviation policy 10, 15, 16, 109
Department of National Defence see Department of Militia and Defence
Department of the Naval Service 34; Gwatkin’s recommendations 586; anti-submarine patrol force 602-4; R CN AS 607
Department of Public Works: facilities for coastal air patrol 697
De Pencier, Lt J.D. 439
depth charges 225
Derby, Earl of 70; unable to resolve differences over strategic bombing 142-3; bombing of industrial targets factor in creation of Joint Air War Committee 262-3, 274
de Robeck, Vice-Adm. J.M. 135; persuades Admiralty to send out additional aircraft 137
Desbarats, J.G. 615
Deseronto 55; Wing HQ moves there on 24 April 1917 86, 95, 96, 115n
Deslauriers, Lt J. 569
D’Esperey, Général Franchet 341, 477
Diaz, Generale Armando 471
Dickey, F/S/L R.F.L. 187-8
Dietrich, Kapitänleutnant Martin 243
Digby, Maj. F.T. 319
Dinnick, A.G.C. 53, 56-7, 61
Director, Admiralty Air Department 56, 128-9
Director, Admiralty Air Division 194
Director General Military Aeronautics (UK) 48-9, 56, 351
Director General of National Service 586
Director General Operations (UK) 600
Director of Air Organization (UK) 239, 580
Director of Air Service (OMFC) 612
Director of Air Services (UK) 263, 273
Director of Aircraft Equipment (UK) 61
Director of Engineering Services (Canada) 10, 13
Director of Fighter Operations (UK) 256
Director of Flying Operations (UK) 215, 285, 307, 312, 316, 600, 617-18
Directorate of Intelligence 14
Director of Manning (UK) 609
Director of the Naval Service 32, 604-7
Director of Training (UK) 112
Director, Royal Canadian Air Force 97n discipline 98-9, 211n; 10 (Naval) Squadron 431-4; Canadian Air Force 601; A/S patrol, Canada 606
displays and trials 11-16, 67. See also experiments and tests
Dissette, F/S/L A.C. 275
Divisions

- Canadian: 2nd Canadian Div. 362-4, 382, 435n; 4th Canadian Div. 555; Canadian Training Div. 365


- Canadian: 2nd Canadian Div. 362-4, 382, 435n; 4th Canadian Div. 555; Canadian Training Div. 365
## Index

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Bean Chemical Co</td>
<td>23</td>
</tr>
<tr>
<td>Elliot, Capt. W.B.</td>
<td>535</td>
</tr>
<tr>
<td>Ellis, F.H.</td>
<td>25, 106</td>
</tr>
<tr>
<td>Elsdale, Capt. H.</td>
<td>3</td>
</tr>
<tr>
<td>Ely, Eugene</td>
<td>9, 156n</td>
</tr>
<tr>
<td>endurance (air): A/S tactics dependent upon</td>
<td>181–2; distance from fields a factor for Germans 502; other refs 4, 124</td>
</tr>
<tr>
<td>Engine Repair Park</td>
<td>80, 97, 108–9</td>
</tr>
<tr>
<td>engines, aircraft see aero-engines</td>
<td></td>
</tr>
<tr>
<td>English Channel</td>
<td>123. See also mines and mining</td>
</tr>
<tr>
<td>enlistments: recruiting and in training in Canada 29–30; RFC Canada to Jan. 1918 96n; total Canadians, RNAS 192n; statistical analysis by province and city App. C. See also recruits and recruiting equipment see clothing and equipment Ericson Aircraft Ltd 117</td>
<td></td>
</tr>
<tr>
<td>Ericson, F.G.</td>
<td>97n, 117</td>
</tr>
<tr>
<td>Erle, 2/Lt W.S.</td>
<td>361</td>
</tr>
<tr>
<td>Eschwege, Oberleutnant Rudolf von</td>
<td>451</td>
</tr>
<tr>
<td>establishments: aircraft, RFC 359; RFC; Nov. 1916 392; squadrons, aircraft 401n; reduction in naval squadrons 448n; RFC squadrons, 1 March 1918 481n; recommendation for postwar CAF 618</td>
<td></td>
</tr>
<tr>
<td>Evans, 2/Lt H.C.</td>
<td>379–80</td>
</tr>
<tr>
<td>Evening Citizen (Ottawa)</td>
<td>23</td>
</tr>
<tr>
<td>Evening Journal (Ottawa)</td>
<td>14</td>
</tr>
<tr>
<td>Everman Field, Texas</td>
<td>94</td>
</tr>
<tr>
<td>expenditure, financial: first Canadian military expenditure for aviation 11; purchase of Burgess-Dunne aircraft for Canadian Aviation Corps 27–8</td>
<td></td>
</tr>
<tr>
<td>experiments and tests: wireless, floats, bombs, machine-guns, and torpedoes 2–10; ski-fitted undercarriages 97; fore and aft arrestor wires 150–1; deck-flying 155; skids 202. See also displays and trials exploration 71</td>
<td></td>
</tr>
<tr>
<td>Eyre, F/S/L R.T.</td>
<td>187</td>
</tr>
<tr>
<td>Falconer, Sir Robert</td>
<td>84</td>
</tr>
<tr>
<td>Falkenberg, Capt. C.F.</td>
<td>499, 504, 530, 537, 559, 564, 613</td>
</tr>
</tbody>
</table>

- German: 243rd Div. 509
dogfights see aerial fighting.
Doidge, Lt E.L. 294, 302
Dominion Battery 159
Donaghe, Lt (USN) 606
Dore, Capt. W.H. 532, 534
Dostler, Oberleutnant Eduard 426
Douai 445
Douglas, 2/Lt G.E. 221
Douglas, Maj. W. Sholto 427, 435, 493, 505
Dover, F/S/L M.G. 144n, 151
Dowding, Lt-Col. H.C.T. 376n, 383
Dowler, 2/Lt G.E. 571
Doye, Capt. M.L. 538, 547–8
dress see clothing and equipment
Drew, Brig.-Gen. B.C.H. 111, 600, 608
Drocourt-Quéant 553
Duff, Rear-Adm. A.C. 170
Duffus, Maj. C.S. 378, 382, 494
Duke, Capt. L. 499, 503–4
Duncan, Lt S.M. 291, 431
Dunlop, Lt S.L. 535
Dunn, Lt A.S. 463
Dunn, Lt G.W. 196
Dunne, Lt J.W. 27–8
Dunning, S/C H.E. 170
de Peuty, Commandant 360, 365, 393
Duval, Général 297

East Africa 138–9, 151, App. B
Eastern Mediterranean: RNAS responsibilities 157; forgotten theatre 158; Aegean Squadron 214; other refs 135–8, 151
Eaton, Lt E.C. 482
Edmonds, Sir James 520n
Edwards, Lt-Col. C.M. 612, 616–18
Edwards, F/S/L H. 275
Edwards, 2/Lt H.L. 557–8
Edwards, Lt J.W. 291
Egypt 213, App. B
Elder, Wing Capt. W.L.; visits Canada 31; discusses proposal for joint bombing operations 263; alters opinion of Handley Page 0/100 271–2; reprisal raid 274; Sopwith fighters 275; commends his airmen 276; other refs 56, 264, 268–9
Falkenhayn, *General* Erich von 234, 358, 376, 384, 451
Fall, F/L J.S.T. 176, 396, 406–7
Farley, Lt J. 548, 550
Farnborough 335
Farr, Harry A. 28–9
Farrell, Lt C.M. 529, 537
*Fédération aéronautique internationale* 26, 29, 39
Ferrie, 2/Lt R.L.M. 444
Fi a la Fernbrugg, Oberleutennt Benno Ritter 470
Field, Lt C.V. 361
field service regulations 7, 9
finance: costs for maintaining a front-line squadron 587; implications of Canadian squadrons 601n; factor, A/S air patrol 603; aircraft and equipment given Canada 614; settlement with US 615; Air Ministry and CAF 618–19; Kemp’s appreciation of costs being a factor 620; other refs 605, 613
Findlay, F/S/L D.D. 452
Findley, Lt T.I. 491
fire patrols 71
first and last: first flights in Canada 4; first message by wireless from aircraft 8; first Canadian military expenditures for air 11; first Canadian officer to fly on military duty 15; first officially authorized air mail flight in Canada 115; first attack on zeppelin 130; first pilot to destroy a zeppelin 132; first recorded attack by a heavier-than-air machine on submarine 133; first aviator to make a sighting report with a fleet in action 155; first aircraft to sink a submarine 177; first 1000-kg bomb, Gotha 254; first wireless directional signals 255; last aeroplane raid on England 256; first wireless receiver sets in aircraft 256; first ground signals for night flying 295–6; first RFC reconnaissance missions 335; first RFC battle casualty 336n; aerial fighting becomes part of duties 348; first roundels 348n; Garros, deflector 349; first synchronizing mechanism 350; Sterling wireless sets 351; first Canadian airman to be killed in action 352; first bombing raids, RFC 353; first bombing raid in darkness, RFC 354; first Canadian airman to be awarded DSO 356; first gas-filled bombs App. A
Firstbrook, Lt J.H. 372
Firth, Capt. John 461
Fiset, Col. Eugène 12, 16–17
Fisher, Admiral of the Fleet Lord 128, 134–5, 261
Fisher, F/S/L P.S. 148, 162, 172
flak see anti-aircraft guns and fire
Flavelle, Capt. Gordon 289, 525
Flavelle, Sir Joseph 57, 63, 72–4, 79
Fleming, F/L G.R.S. 274
Flers-Courcelette 375, 381
Flett, F/S/L W.E. 274
*Flight* 141
flight engineers 184, 191, 200
flights, RNAS 147n, 250
floats, pontoons, and skids 8–9, 43, 202
flotillas, German: II Destroyer 150; III Destroyer 162; VI Destroyer 171; IX Destroyer 162, 171; Flanders U-boat 213
flying regulations 617
Flynn, Capt. J.H.L. 539, 555
Foch, Maréchal F. 207, 308, 310, 340–1, 471, 506, 519, 539, 542
Foggo, Lt N.Q.M. 530
Fokker, Anthony 349–50
Forbes, Lt E.A. 310
Foreign Enlistment Act (US) 88
Foreign Office 89
Forestry 586, 617
Forman, Capt. J.H. 557
formation flying see tactics
Forrestal, James V. 93n
Forster, Lt K.B. 468, 473
Fort Worth, Texas 93–5
Foss, 2/Lt D.B. 471n
Foss, 2/Lt R.H. 471n, 472
Foster, Lt G.B. 499
Foster, Lt G.F. 537
Foster, Sir George 52, 603
Fotheringham, Lt J.B. 417
Index

Foulois, Maj. Benjamin D. (USA) 91
Fox, Capt. J.B. 291–2
Frankfurter Zeitung: condemns Bishop of London 237
Fray, William 26n
Fremantle, Rear-Adm. Sydney 194
French and France: early military aviation, role of the balloon 4; withdraw squadron from Dunkirk 149; espouse strategic bombing 231; approached to co-operate in long-distance bombing 263; reaction to co-operative bombing 267; brunt of land campaign in 1914 334; aircraft, 1916 359; withdraw troops from Italy 464; Foch 506; reinforce air arm for Amiens attack 523; other refs 6, 159, 273, 275, 297, 354, 404, 414, 479, 487, 515, 519–21
French air service: squadron at Tenedos 137; strength, 1914 147; Dunkirk loses six flying-boats to Germans 172; Groupe de Bombardement 261; co-operation with 3 (Naval) Wing 264–5; 4e Groupe de Bombardement 268; Escadrille Lafayette 268, 415; night-bombing units 287; Nancy area 297; strength and composition at outbreak of war 335; aircraft, end of 1915 357; aircraft, 1916 359; reorganization at Verdun 359–60; strength, Oct. 1916 390; Les Cigognes 415; airfield bombed 452; negligible force 506; reinforced Amiens attackers 523; Division aérienne 523; aircraft claims 574n; other refs 148, 157, 163, 415
French navy 207, 222, 227
French Supreme Command 338
French, Field Marshal Sir John: expresses concern over home defence 245; means at disposal inadequate 247; approves reorganization of RFC units 342; relieved of command 351; cites RFC contribution 354; other refs 338, 340–1, 343–4, 351n
Fryatt, Capt. Charles 274
fuels and lubricants see petroleum and lubricants
Fullerton, 2/Lt W.H.F. 388
Galbraith, Capt. C.F. 527, 555
Galbraith, F/S/L D.M.B. 42, 159, 160, 162, 391
Gallagher, Lt E.G. 309
Galliéri, Général Joseph 340
Gallipoli 123, 137–8, 450
Galpin, F/S/L J.O. 42, 181, 187–9, 199
Game, Brig.-Gen. P.W. 614, 617–18
Gammell, Lt-Col. J.A.H. 312, 316
Garros, Lt Roland 349
gas (fuel) see petroleum and lubricants
gas and gas attacks 448, App. A
Geddes, Sir Eric: First Lord of the Admiralty 194; extinction of RNAS accepted under protest 226; favours definite development of air policy 281
Gathorne-Hardy, Maj.-Gen. J.F. 476–7
Gavotti, Lt. 9
Gazette (Montreal) 69
George, Lloyd see Lloyd George, David
Germans and Germany: strategic bombing 231–2; morale 276; advantage in air 359; tactics and defences 393–4; unable to maintain air superiority 448; in Balkans 450; air effort undermined 501–2; oil importation difficulties 516; other refs 123, 375
German air force: ground attack role 173; Torpedo Air Unit, Zeebrugge 176; attacks on RAF airfields 208; raids on UK 244–56; air defence 267–70; forces opposing Independent Force 325; strength and composition at outbreak of war 334; reorganization 349; number of aircraft at end of 1915 357; successes 359–60; aircraft on Somme 364; establishment 384; successes, ‘Bloody April’ 400; fighter tactics 416–17, ground support squadrons 445; unable to maintain superiority 448; commitment to spring offensive 488n; battle flights 493; abandons high-level patrolling 502; out fought 507; attrition 512; Richthofen’s death 514–15; rationing of fuel 516–17; strength in Aug. 1918 523; Amiens 531–6; unable to absorb casualties 541;
shortages 550; use of fighter wings 554; Fokker D-VII and Pfalz D-XII 555; reduction of fuel ration 561; numbers of aircraft destroyed. Haig Despatch 571; other refs 174, 374, 402–3, 509–10, 521, 557, App. B

Bombengeschwader: No 1 178; No 3 178; No 8 325

Fliegerabteilungen: No 62 350; No 300

Jagdgeschwader: generally 416, 502, 555; No 1 (Richthofengeschwader) 415, 417, 432, 444, 493, 495, 508–9, 514–15, 531, 541, 549; No 3 554

Jagdstaffeln (Jas tas): generally 245, 384, 386, 394, 531; No 2 384, 386, 388–9, 514; No 4 415; No 6 415, 426; No 7 434n; No 10 415, 423; No 11 402, 415, 423, 429; No 23 493; No 43 561

Kampfgeschwadern (Kagohl): No 1 (Englandeschwader) 245, 452; No 2 296; No 3 245n, 247, 251, 254

Kampstaffel: No 31 296; No 32 296

Richthofen’s Circus see Jagdgeschwader 1


German army see army, German

German East Africa App. B

German Foreign Office 274

German High Command: objects of Englandeschwader 245; needs of armies in field more important than bombing England 256; Inspectorate of Military Transport 349; unwilling to reinforce air units 364; recognizes increased importance of air force 384; change in defensive tactics 430–1; preparation for supreme effort 479; theories on employment of air power 493; offensive grinds to a halt 514; other refs 244, 276, 358

German Naval Air Division 154, 189

German Naval Air Service: experiments with torpedoes 176n; reorganized and expanded 189; strength, Oct. 1916 390

Marine Korps 150, 161

1st Marine Jagdstaffel 161

2nd Marine Feldflieger 161, 171

Marine Jagdgeschwader 208

Seeblingsation Flanders 1 145, 148, 169n, 172

T-Staf fel, Zeebrugge 176n

German Naval Airship Division: strength 130; received no bombs until Oct. 1914 234; terms of reference 235; morale drops 241; death of commander in L 70 258–9; other refs 156, 160, 188, 202, 232, 240

German navy: High Seas Fleet 126; naval air policy 141; 2nd Flotilla, Zeebrugge 150; Jutland 153–4; seaplanes accompany minesweepers 170; priority to submarines 194; mine programme 195; mutiny and surrender 227; terms of reference, Naval Airship Division 235; large ocean-going submarines 603–4; other refs 152, 156, 181, 203, 206

Gibbard, 2/Lt W.C. 99–100

Gibraltar 123, 213, 216–17

Gibson, Maj. T.: proposal for takeover of RAF Canada 110; obtains agreement CAF sqn will not be broken up 610; defence of CAF 616–19; permits CAF officers to return to RAF 620; other refs 111, 600, 613

Gilbert, 2/Lt H.H. 211

Gillie, Lt G.D. 438

Gillis, Capt. G.H. 533

Gilpatric, Guy 41

Gilroy, Capt. W.H. 420

Girardot, Lt D. 221

Girling, Lt A.S. 215

Glen F/L J.A. 176, 264–6

Glenny, Lt W.R. 215

Globe (Toronto) 12, 40, 601

Globe and Mail (Toronto) 144n

Godard, Lt J.S. 290

Godfrey, Capt. A.E.: twin Lewis gun mountings 422n; twelfth victory 432; other refs 103, 252, 255, 422–3

Goering, Haupimann Herman 531

Gonyon, Capt. H.H. 172, 213

Gooderham, F/S/L C.G. 140, 145, 147–8, 238
Gordon, Charles Blair 58n, 64, 71
Gordon, Lt-Col. E.B. 318
Gordon, Maj. J.L. 42, 223
Gorman, Lt G.W. 533
Gorman, F/L Joseph 43, 157
Gorringe, 2/Lt F.C. 481
Goudie, 2/Lt Norman 382, 527
Gorringe, 2/Lt F.C. 481
Governor General 14, 37, 53, 70, 89. See also Connaught, HRH Duke of
Gow, Walter 581, 608
Gower, Lt J.L. 557
Graham, 2/Lt C.W. 570
Graham, Lt D.L. 453, 459
Grahame, 2/Lt J.H. 568
Graham-White, Claude 5
Grain Island Experimental Depot 150, 155-6, 225. See also experiments and tests
Grange, F/S/L E.R. 147, 162, 391, 392n
Grant, 2/Lt C.F. 529
Grant, Lt S.A. 215
Grant, Adm. Sir W.L. 604
Grants and honoraria: gratuities and grants for students of Toronto Curtiss School 31, 38; Canadian Aviation Fund 40-1; gift of aircraft to Canada 614; other refs 62, 73
Gray, Lt G.R. 435
Greece and Greeks: neutral 450; enters war 453; Macedonia 477
Green, Lt C.D.B. 458-9
Green, Lt J.E. 210-12
Grey, C.G. 237, 246, 272
Grey, Sir Edward 88-9
Ground recognition 102, 295, 524, 527
Ground signals: lighthouse beacons 295; German coded flares 296; morse code and popham panels 343-4; Auber's Ridge 346; Loos 351-2; Somme 366; Flers-Courcelette 382; letter code to direct aircraft 422; Italy 474; advancing artillery 526; flares and panels 527
Ground support: ground conditions 221; Lambe's complaint, Ochey 290; Independent Air Force 298; German 428, 499; technique still to be developed 430; German attacks on Canadian infantry 440; at Cambrai 441-2; attacks on Austrian flying schools 472; devastation of Austrian forces 476-7; havoc among Bulgars, Macedonia 477-8; defensive role 480; descriptions 500-1; technique formulated 505; against German Seventh Army 507; RAF's busiest day 513; close cooperation at Amiens 521-8; night attacks more important 548; attacks to be as low as possible 553; Canal du Nord 562; horror for retreating Germans 570; Haig's tribute 571; disappears from post-war RAF doctrine 575; massed German formations 576; other refs 262, 333, 374, 386, 422-3, 434, 439, 446, 469, 474-5, 485, 488, 492-3, 496, 503-4, 546, 550-2, 554, 563-5, 569, App. b. See also bombs and bombing
Ground trades: in Canadian Aviation Corps 28-9; Royal Engineers, RFC/RAF Canada 82; possible mass exodus 108-9; women in RFC/RAF Canada 114; never enough armourers 221; lack of in 'A' Naval sqn 290; Germans remove for other services 517, 550; objections if mechanics sent overseas 586; Canadian Air Force 609; statistical analysis, App. c; other refs 49, 84, 87, 113, 169, 182n, 197-8, 472
GROUPS
Royal Air Force: Adriatic Group 213, 216; Aegean Group 213, 215-16; Egypt Group 213, 216; Gibraltar Group 213, 216; Malta Group 213, 216; 4 Group 202, 223, 227; 5 Group 203, 206-11, 316; 9 Group 222, 224; 10 Group 222, 224; 14 Group 222; 18 Group 219-29, 224; 22 Group 222, 224; 23 Group 222-3; 27 Group: formed with considerable secrecy 314; composition 318; Mulock kept in London to forestall possible bombing of Berlin 319
Royal Flying Corps: Home Defence Group 250, 254, 256-7. See also v1 Bde Groves, Brig.-Gen. P.R.C. 307, 315, 317, 600
GROVES, Brig.-Gen. R.M. 284, 616–18
GROVES, Maj. W. Peer 599
Grundy, Lt A. 545
gunlayers 270–1, 275, 295, 306, 311
guns and gunnery (naval): ships’ officers reluctant to believe spotting corrections
137; fleet bombardment of Smyrna 158;
German Knocke Battery 159; week-long
bombardment of Belgian coast 161;
Zeebrugge and Ostend 204–7; German
ocean-going submarines 603–4; other
refs 45, 236–8, 246. See also spotting and
observation
Guthrie, Lt J.B. 465–6
Gwatkin, Maj.-Gen. G.W.: proposal for a
Canadian sqn 50; first and only Inspector-General of the short-lived Canadian
Air Force 51n; statement presages
Canadian government’s change in policy
towards aviation 55; advises Hoare to
return to UK 77; legislation rendering
RAF Canada releases subject to service
with CEF 109; takes steps to ensure RAF
Canada not starved for recruits 113–14;
reasons for a flying service in postwar
Canada 586; other refs 38, 46–8, 52, 56,
71, 78–9

HAIG, Field Marshal Sir Douglas: cancels
plan to attack Ostend 159; request for
diversionary show of naval strength 161;
requests fighter sqns 167; plans landings
on Channel coast 173; assumes com-
mand of RNAS Dunkirk-based units 179;
ordered to launch bombing raids on
Germany 253; paper opposing long-
distance bombing 273–4, 280; com-
mands BEF 351n; aims 358; presses for
air reinforcements 390; RFC require-
ments forecast 392; argues for a Flanders
offensive 414; temporarily calls off
ground attack 420; on shortage of RNAS
pilots 423; convinces politicians to main-
tain offensive 426; still harbours illusion
of cavalry breakthrough 434; memo-
randum on defensive measures 480; resists
temptation to weaken key positions 511;
‘backs to the wall’ 512; offensive at
Amiens 517–21; vigorous pursuit 525;
orders halt on Somme 536, 539; quick to
appreciate possibilities 542; despatch
outlining RAF operations 571; other refs
6, 75, 147, 178, 207–8, 249, 261, 277–9,
281–4, 289, 359, 363, 365, 381, 391, 427,
443, 447
Hains, F/S/L C.L. 147, 271
Halahan, Lt-Col. F.C. 203
Hales, Lt J.P. 550
Halifax 603–5
Hall, 2/Lt G.W. 442
Hall, F/S/L N.D. 177
Hall, 2/Lt W.E. 555
Hallam, F/C T.D. 25, 139, 182
Halliday, Lt G.R. 256
Hallonquist, Capt. J.E. 466, 474–5
Halstead, J. Sterling 100, 106
Halton Park 609–11
Hamely, Lt E.H. 474
Hamilton, Gen. Sir Ian 137
Hammond, Lt Arthur 507–8
Hampton, Lt Percy R. 486, 516
Hanlan’s Point 39
Handley Page, Frederick 318
Hankey, Col. Maurice 447
Hanning, Lt J.E. 491
Happe, Capt., French Air Service 264
Harman, J.A. 43
Harmon, Lt B.W. 444
Harper, Lt N.S. 300
Harrison, Lt W.L. 421, 502
Harrower, Capt. G.S. 178, 250
Hart, Basil Liddell see Liddell Hart, Basil
Hartney, Lt-Col. Harold E (USA) 94n
Harvey, F/S/L G.E. 391
Harvey, Sir Paul 61, 66, 72
Harwich Force 201–3
Hawker, Maj. L. 379
Hay, Lt B.M. 18
Hazell, Maj. T.F. 613
Hazen, J.D. 47, 64, 71–2, 585n, 603
Healey, Lt M.C. 494
Heardon, Brig.-Gen. J.G. 112
Hearst, W.H. 70
Heinkel, Ernst 189
Heligoland Bight 170, 189, 199, 201–3, 224
Hendershot, Lt W.F. 569
Henderson, Maj.-Gen. Sir David: unadvisable to form Canadian units 65; thinks financial terms too favourable to Canada 73; questions deployment of naval aircraft 277; memorandum recommending separate unified air force 279; committee to work out procedures amalgamation 280; resigns from Air Council 284; reorganization in France 342; returns to War Office and Military Aeronautics Directorate 351; possibility of drawing on Naval resources 381; bitterness at Admiralty 390–1; RFC, Macedonia quite inadequate 450; pressure to appoint Morden Canadian liaison officer 583; promotion of Canadians 584; supplies statistical table promotion Canadians 585; other refs 6, 29, 56–8, 60–1, 66, 70, 74–5, 164, 236, 239, 245, 281, 335–8, 376n, 395, 581, 589n
Henderson, F.C. 151
Hentsch, Oberstleutnant 341
Hervey, F/C G.E. 147–8, 251
Hewson, 2/Lt C.V. 375
Hewson, Maj. G.C.V. 147
Hewson, Lt H.W. 538
Heyles, Cadet A. 101
Hichens, W.L. 57
Hickey, Capt. C.R.R. 209–11
Hicks, 2/Lt E.D. 378
Hicks Field, Texas 94
Higgins, Brig.-Gen. T.C.R. 250, 256
Hilborn, Lt C.L. 490
Hilborn, Capt. W.C. 465–6
Hill 70 421–3
Hindenburg Line 394, 551, 553, 559, 561
Hindenburg, Feldmarschall Paul von 257, 384
Hinkler, Petty Officer A. 177
Hipper, Admiral Franz 154, 227
Hoare, Brig.-Gen. Cuthbert G.: commander, RFC Canada 76; meets with Gwatkin 77; writes to Gwatkin setting out requirements 79; starts flying training 80; prefers JN4 to DH6 83; promised more instructors 85; recruiting of US citizens 89–90; investigates sites 91; arrangements to train in US 92; complains of lack of information for up-to-date training 105; Canadianization 111–13; 4500 cadets required 114; as one of the fathers of aviation in Canada 118; rank of 584; views on establishing a Canadian air service 586–7; rebuffs Kingsmill’s request for training assistance 605n; other refs 78, 81, 86, 95, 106, 108
Hoare, Lt-Col. F.R. Gurney 81
Hobbs, F/S/L B.D. 42, 184, 187–8, 190
Hobson, Lt D.I. 300
Hodder, 2/Lt A.E. 473–4
Hoepner, General Erich von 244–5, 384, 499
Hoidge, Capt. R.T.C. 423, 432, 561
Holland, Lt H.L. 464, 468
Holleran, Capt. O.C. 547
Holman, Maj.-Gen. H.C. App. A
Holt, Lt-Col. F.V. 239, 431–3, 435
home defence (Germany) 295–6, 304, 310–11, 325
home defence (UK): RNAS 128; responsibility handed over to Admiralty 130–1; negotiations to relieve RNAS of burden 134; air defences unable to bring down a single zeppelin 235; RFC responsibility 236; aircraft needed for 239; furor over and defence against raids 245–53; poor results 254; zeppelin attacks 255; last aeroplane raid 256; total ground forces employed on 257; 151 Squadron 551; other refs 141, 143–4, 237–8, 262. See also air stations; groups
Home-Hay, Capt. J.B. 300, 304–5
honours and awards: ‘Wings’ 98; Warneford’s VC 132; Robinson’s VC 241; Tempest 242; Watkins 244; first Canadian airman to be awarded DSO 356; Hawker first pilot to win VC 379; 3 (N) Sqn 396; Collishaw 412; Bishop’s VC 412–14; Rosevear 430n; McKeever 439,
Index

446; Goulding 453; G.W. Barker 457; Brown 473; McLeod’s VC and Hammond 508; Claxton and McCall 537n; Barker’s VC 567–8; notification of awards to Canadians 593; CAF appointments 613; Russia App. A, App. B: other refs 98n, 177n, 185n, 188n, 190, 244n, 251, 274n, 302n, 304n, 312, 342, 345, 373, 380, 391, 406, 425–6, 451, 458, 475n, 484, 491n, 504, 505n, 515n, 525, 527, 529, 538, 549, 552, 562, 566
Hopkins, 2/Lt B.W. 214
Horne, Gen. Sir Henry S. 369, 552
Horton, H.M. 8
Hose, Capt. Walter, RCN 604, 606
House of Commons (Canada) 13, 25, 46, 602
House of Commons (UK) 262, 275, 283
Howard, G.E.C. 210
Howsam, Lt G.R. 568
Hubbard, Capt. W.H. 513, 545–6, 562
Hudson, Lt H.B. 458, 460, 463, 466
Hughes, G.W. 147
Hughes, Maj.-Gen. Sir Sam: ‘does not want any steps taken this year (1912) neither towards training nor purchase of aeroplanes’ 17; authorizes purchase of aeroplane and improvises a flying corps 27; methods and manner 46; kills proposal for a Canadian sqn in RFC 51; denies he gave authority for presentation of scheme 68; commits Canada to Morden’s scheme 70; 5th Division, considers a 6th, 83; question on Canadian air service 602; other refs 21, 24, 26, 47–8, 57, 62, 66–7, 69–73, 75, 89, 580. See also Minister of Militia and Defence
Humphreys, W.R.S. 246
Hungary and Hungarians 473
Hutchinson, 2/Lt J.A. 420
Hutier, General Oskar 483
Hyde-Thomson, Wing Cdr D. 152–3
hydrophones 219, 225
identification: roundels 348n; unit markings switched 522; special markings 524; tank co-operation 527; distinctive badges for Canadians in flying services 585; Kemp proposal 597; Canada badges 599
Imbros 138
Immelmann, Max: death of 378; other refs 350, 355, 361
Imperial Munitions Board: felt competent to deal with Ottawa 62; and a Canadian air service 75; obtains permission for construction at Camp Borden 79; asked to investigate manufacture of DH6 in Canada 83; leases site at Beamsville 103; numbers of JN4s produced for 115; mechanics 586; other refs 44, 57, 61, 63–4, 71, 76, 82, 116, 580
Imperial Oil building 78
Ince, F/S/L A.S. 140, 145
incendiaries 205, 209, 311–12, 316n. See also bombs and bombing
Independent Air Force: impossible task 233; forerunner Independent Bomber Force 282; aircraft and aircrew never received in numbers promised 284; obliteration theory unworkable 286; limited experience of pilots 289n; Salmond and build-up of force 291; night bombing meeting no fighter resistance 293; terms of reference 296–7; statistical analysis can only be approximate 298–9; reinforcements for 303; reaches maximum 308; reorganized into three wings 309–10; terror bombing 312; efforts to bomb Berlin 314–19; assessment of work 320; findings of British investigating commission 321–3; not a success strategically 324; losses 325; Trenchard and 308, 326; typical Canadian in force 327; other refs 212, 253, 278, 283, 540, 618
India 76
industries 252, 321–4
Innes-Ker, Capt. Lord A.R. 37, 64–5, 84
Intelligence: Admiralty’s defective 151–2; knowledge of German ground attack lacking 173–4; records wireless transmissions of zeppelins 189; estimate of enemy bomber force 282–3; and artillery co-
operation 344; primary importance as gathered from aerial photography and reconnaissance 360; pilots' display of daring 372; contact patrols 382; Hindenburg Line 394; evidence of impending attack 487; considers many German divisions unfit for battle 519; other refs 164n, 199n, 205, 210, 240n, 253, 419, 456, 467, 473, 560

Inter-Allied Independent Air Force 361. See also groups 27; wings, RFC/RAF 41

Inter-Allied Transportation Council 540

International Red Cross: British government cites incidents 274

interrupter gear 361

Ireland, S/C de G. 142

Ireland, F/S/L H.M. 177

Ireland, Capt. J.G. 222

Iron Coast 133

Ironside, Maj.-Gen. Sir Edmund App. A

Irwin, Lt R.H. 18

Irwin, Capt. W.R. 538

Italy and Italians: employment of aircraft and airships in 1910–11 6; Anglo-Italian convention signed 454; defeat at Caporetto 455; arguments for offensive action 471; RAF ground attack causes complete chaos to Austrians 476–7; other refs 214, 232, 447, 479

Italian air force (Aeronautica del Regio Esercito): composition 454–5n

Italian Supreme Command: drops all offensive plans 468; urged to undertake offensive operation of its own 471

Jackson, Lt W.E. 539

Jackson, Adm. Sir Henry 135, 167, 267

Jacques, Lt E.J. 538

Janney, Capt. E.L. 27–9, 48, 608

Jarvis, Lt A.E. de M. 458–60

Jarvis, Lt R.H. 385

Jellicoe, Adm. Sir John: aircraft and seaplane carriers 127, 151, 156; air policy 135; control of air service 164n; other refs 152–5, 168, 170–1, 179, 195, 414

Jenkins, 2/Lt W.S. 210, 212

Jennings, Lt H.M. 458–9

Joffre, Général J.J. 340–1, 358–9, 393

Johnson, F/S/L F. Ross 172, 175, 178

Johnson, Lt Frederick R. 293, 302, 304n, 311

Johnson, Capt. G.O. 481, 486, 613

Joint War Air Committee 142–3

Jones, H.A. 400n, 409n, 446n, 472n, 500n, 515n, 523n

Jones, Lt T. 361

Jones, Lt W.H. 290

Joubert de la Ferté, Lt-Col. Philip 456, 462–4

Joyson-Hicks, William, MP (UK) 237, 262, 278

Judge Advocate General (Canada) 602n

Junor, Capt. K.W. 484

Jutland 141, 153–6

Kaiser (German) 234–5

Keirstead, F/L R.M. 176, 178

Kemp, Sir A.E.: appointed Minister of Militia and Defence 580; Canadian flying corps 586–7; exclusively Canadian units 591–2; Canadian section, RAF 597–9; on Canadian squadrons 601; demise of CAF 619–20; other refs 59, 600, 608. See also Minister of Militia and Defence

Kenly, Maj.-Gen. W.L. (USA) 95

Kennedy, Lt H.A. 421

Kennedy, Capt. K.E. 69, 345, 350, 580, 584n

Kennedy, M.A. 26

Kenny, Capt. W.R. 185n, 222

Ker, 2/Lt R.H.B. 379

Kerby, F/L H.S. 137, 139, 250–1

Kerr, Rear-Adm. Mark 194, 282–4

Kerruish, F/S/L H.B. 187, 196

Ketchen, Brig.-Gen. H.D.B. 363

Kettles, 2/Lt A.G. 472, 474–6

Keyes, Vice-Adm. Sir Roger 179, 203–8, 211–12, 316

Kiggen, Lt-Gen. L.E. 395, 404–5

King, Lt C.L. 463, 467–70, 473

King, 2/Lt F.C. 568

King Stephen: fishing vessel 237
Kingsford, F/S/L M.R. 250–1
Kingsmill, Vice-Adm. Sir Charles: attacks proposed Canadian flying school and flying service 65; coastal air patrols 604; training requests rebuffed 605n; other refs 34, 37, 52, 88n, 607
Kingston-McCloughry, E.J. 325
Kinnear, Lt A.M. 446
Kirkpatrick, Capt. George Dennison 258
Kitchener, Field Marshal Lord 26, 48–9, 89, 130, 235–6
kite balloons see balloons
Kluck, General Alexander von 338–41
Knight, 2/Lt A.G. 379–81, 386, 389–90
Koch, 2/Lt A. 436, 495, 504
Kuhl, General von 509
Kyte, G.W., MP 69n
Ladner, B.C. 91
Lale, Capt. H.P. 557–8
Lambe, Brig.-Gen. C.L. 133, 145, 149–50, 160–2, 171–6, 179, 203–6, 208, 211n, 212, 263, 290, 316, 391
Lambert, Lt W.C. 100, 528
landing fields see aerodromes and airfields
landings see take-offs and landings
Landry, Jean Marie 26n
Langemarck 149, 423–4
Langmuir, Lt J.W. 530
Lanrezac, Général C.L.M. 338
Larter, F/S/L N.I. 187
Law, Andrew Bonar 275
Lawrence, Col. T.E. App. B
Lawson, F/S/L A.H.S. 391
Layfield, 2/Lt H.D. 429
Leach, Maj. Jack 106, 613
Leaside, Ont. 80, 102
Le Cateau 487, 564
Leckie, Capt. Robert: destruction of zeppelin 187–8; shoots down L. 70 258–9; commands Canadian Wing 612, 613; other refs 181, 189–90, 198, 201, 223, 227, 256
Lee, Lt A.G. 417, 441
Lee, Lt E.B. 487
Leeson, Lt T.D. 345, 353, 355
Leigh-Mallory, Maj. T.L. 527
Leitch, Capt. A.A. 529
Leith-Thomsen, Major Hermann von der 349
Lennarz, Hauptmann Erich 130
Le Royer, Capt. J.A. 550
Leslie, H.G. 147
Leslie, Lt H.T. 494
Leslie, Capt. W.A. 295, 494
L’Etoile, Joseph 10
Lettow-Vorbeck, General-Major Paul von App. B
Libby, Capt. Frederick (USA) 94n
Liddell Hart, Basil 575
Lipsett, 2/Lt R.S. 309
List, German seaplane base 189
Lloyd George, David: heads reconstituted coalition government 166; alleges 4000 German planes to attack London 283; Trenchard’s letter points out deficiencies in planning 284–5; wishes to cancel Flanders offensive 426; other refs 282, 414. See also Prime Minister (UK)
Lloyd, Lt R.H. 402
Lobley, Lt A.C. 530
Lockhart, 2/Lt W.S. 197
Logan, Lt R.A. 363–4
Logan, Lt T.F. 496
Logie, Maj.-Gen. W.A. 78
Lohner, George 14–15
London, England: first zeppelin attack 130–1; airship raids proposed 234; Gotha raids and defence against 242–56; 11 squadrons and 3 balloon sections in London anti-aircraft defence area 257; other refs 236, 238, 240–1, 281
London Gazette 599–600
Long Branch, Ont.: Canada’s first proper airfield 39; RFC Canada 80; Cadet Wing relocated 86; other refs 44, 78, 95–6
Long, Walter 67, 70
Longmore, Brig.-Gen. A.M. 127n, 133–4, 213
Lord Privy Seal 143
Lord, Lt T.V. 435
Lossberg, Colonel Fritz von 479
losses see casualties
Lossnitzer, Kapitänleutnant von 258–9
Love, Lt S.H. 256
Low, Col. R.S. 79
lubricants see petroleum and lubricants
Lucas, Lt G.E. 291–3, 300
Ludendorff, General Erich von: German assault on Wanes 468; reinforces retreating armies 531; force pushed back with large losses 542; sanctions general withdrawal 553; peace offer 563; other refs 384, 479, 500, 510, 514–15, 519, 561
Ludford, Cadet John Edward 101
Lulu Island, BC 91
Lusitania 274
Lusk, F/S/L C.E.S. 172, 177–8
Lussier, Lt E. J. 533, 546, 552
Lussei see stations
Luxton, Lt R.H. 463
Lye, Lt R.G. 514
McA’Nulty, Lt J.T.J. 475–6
Macaulay, Theodore C. 41
Mcbain, Lt W.W. 475
McCall, Capt. F.R. 483–4, 536–7
McCallum, Lt J.R.R.G. 528
McCallen, Lt J.P. 559
McConkey, Lt T.W. 407–8
McConnell, Lt H.J.W. 463
McConnell, F/S/L R.K. 497
McConnell, 2/Lt R.K. 505–6
McCrimmon, Maj. J.D. 610
McCudden, Capt. J.B. 248–9, 423, 432
McCurdy, J.A.D.: sends first wireless message from an aircraft 8; early demonstration of aircraft to military 11–16; proposes a combination flying corps and domestic aircraft industry 48; scheme to create Canadian air service 68; other refs 4, 10, 17, 26, 36, 38, 52, 59–60, 67, 70–2
McDiarmid, Lt H.D. 468, 474, 476
MacDonald, F/S/L A. 289
MacDonald, Lt W.M. 466, 468
MacDonald, William 11
Macdonnell, Lt I.C. 26n, 369
MacDougall, Lt D. App. A
McElroy, Lt H.V. 547
McEwen, Lt C.M. 462, 465–6, 470, 472
McGill, F/S/L F.S. 140, 181, 187
MacHaffie, Lt J. 429
Mackenzie, Brig.-Gen. D.S. 6, 7n, 61
McIntyre, Lt L.H. 537, 547
McKay, 2/Lt A.E. 379–80, 389–90
McKay, Capt. E.A. 301–2, 304
Mackay, G.C. 210–11
Mackay, Lt J.M. 530
Mackensen, General August von 451
Mackenzie, Maj.-Gen. G.J. 17
Mackenzie, H.W. 43
MacLaren, Maj. D.R. 405, 444n, 484–5, 492, 495, 497, 558, 566, 613
McLaren, Lt R.G. 474
MacLaurin, Maj. C.C. 140, 615
McLean, 2/Lt D.G. 462
Maclean, F/S/L G.A. 147
MacLean, Lt M.S. 496, 501
Maclean, W.F. 54
McLellan, Lt F.M. 215
MacLennan, Lt J. 529
MacLennan, 2/Lt R.W. 448n
McLeod, 2/Lt A.A. 447, 507–8
McLeod, Lt G.D. 466
McMurty, Maj. E.O. 404
McNaughton, Lt-Col. A.G.L. 11, 559–60, 567–8
McNeil, F/S/L P.G. 396
McPhee, Lt R. 557
MacPherson, Lt H. 221
Macpherson, Lt J.S.B. 352
Macpherson, Maj. O.C. 82
McRae, Maj. D.A. 560
McRae, Lt D.J. 402
McRae, Lt J.P. 443
McRae, Lt R.F. 366
Macedonia 331–2, 449–51, 458, 477
Index

machine-guns: first tests in 1912; Lewis 9, 240, 266, 348, 361, 416, 422n, 435-6; Vickers 85, 266, 416, 566; deflection firing 103; Hotchkiss 262, 349; Parabellum 349; German on Somme 372; Spandaus 384, 402; double cam for Sopwith Pup 392n; Bristol F.2a, S.E.5a, and Sopwith Camel 416; anti-aircraft defence 435-6; Bulgars 451; Richthofen’s death 515; ammunition re-supply 524; deflection firing Sopwith Snipe 566; other refs 80, 86, 116, 130, 184, 196, 353, 420

Majgr, F/S/L N.A. 172, 177-8, 189, 200
Mail and Empire (Toronto) 25, 88
Malcolm, 2/Lt O.I. 310
Malone, F/I J.J. 396, 407
Malta 123, 213, 216-17
Malzéville, France 261
manpower: crisis in RFC Canada 109; Canadians major source of aircrew 448; strain on 551; selection for CAF 609; other refs 280, 448, 603. See also recruits manufacturing see aircraft production; individual company named
Manuel, F/S/L J.G. 426
Manzer, Capt. R. 530
Marindin, Lt-Col. C.C. 49-50, 52, 56
Marix, S/C R.L.G. 140
Marne, Battle of the 340-1
Marshall, Lt K.D. 294
Martin, Lt F.W.H. 536
Martin, I.M. 227n
Martin, Capt. R.H. 502
Marwitz, General Georg von der 445
Mason, Lt H.D. 404
Mason, 2/Lt J.A.R. 221-2
Master-General of Ordnance (Canada) 10
Master-General of Ordnance (UK) 5
Master-General of Personnel (UK) 109-10, 112, 194
Matheson, F/S/L W.M.C. 150, 155
Mathy, Kapitänleutnant Heinrich 130, 235, 240-2
Maud, Lt-Col. A.C. App. A
Maunoury, Général M.J. 340

Maunsell, Maj.-Gen. G.S.: early interest in military use of aircraft 10; first Canadian officer to fly while on duty 15; interest in aviation 24; other refs 12, 16-17, 25, 47, 52
May, 2/Lt W.R. 515
Mechanical Transport Section 80, 113
mechanics see ground trades
Menzies, 2/Lt R. 472, 474-6
merchantmen 141, 156, 176n, 204, 217-18, 220, 225
Merritt, Col. William Hamilton 38, 40-1, 51-4, 87
Mesopotamia 123, 139, App. B
messages and message bags 366, 374, 428, 491, 560
Messines 410
Mewburn, Maj.-Gen. S.C.: manpower dilemma of RAF Canada 110; CAF to be demobilized 616; favours retention of CAF 619; other refs 111, 608. See also Minister of Militia and Defence
Michelin Tire Co. 9
Middleton, 2/Lt C.W. 457
Military District No 13 47
Military Service Act 113
Militia Act 602
Militia and Defence see Department of Militia and Defence
Militia Council 10-11, 15-16, 18, 51n, 73-4
Militia Headquarters 29, 38
Mills, F/S/L F.S. 451
Milne, Lt-Gen. G.F. 452-3, 459
Milne, Capt. William 362
Milner, Sir Alfred 57
mines and mining: coastal reconnaissance flights 133; German submarines 165; shipping losses 185; Dover Barrage 179, 191, 195, 218-19; Otranto Barrage 191, 214, 216-19; Brestlau sunk by 192; build-up of mine programmes 195; Northern Barrage 195, 219, 223; Heligoland Bight 199; mine defences successful 204; other refs 124, 128, 135, 141, 143, 148, 152-3, 176, 188, 221, 226
Index

Minish, 2/Lt H.W. 468, 473–4
Minister in Council 51
Minister of Finance 63, 72
Minister of Marine and Fisheries 64, 72
Minister of Militia and Defence: Deputy
Minister 15, 17, 24n, 27; authorizes purchase of an aeroplane 27; proposals for a Canadian air service 586–7; Canadian Air Force 616, 619; other refs 13, 16, 24, 46–8, 56, 62, 71–2, 110–11, 580, 608. See also Borden, Sir Frederick; Hughes, Maj.-Gen. Sir Sam; Kemp, Sir A.E.; Mewburn, Maj.-Gen. S.C.
Minister of the Naval Service 64, 603, 607, 614–15
Minister, Overseas Military Forces of Canada: Perley 580–91; Kemp 592, 601; proposal for a Canadian section in the RAF 597–600; Kemp’s initiative 601; demise of CAF 619–20. See also Overseas Military Forces of Canada, Headquarters
Ministry of Munitions (UK) 58, 68, 164, 283
Misener, Lt M.S. 530
Mitchell, 2/Lt James 361
Moloney, 2/Lt P.J. 444
Moltke, Colonel-General Helmuth von 341
Molyneux, Lt H.A.S. 538
Monaghan, Lt. H.B. 306, 311
Mons 131
Montagu of Beaulieu, Lord 70, 142
Montgomery, Maj.-Gen. Sir Archibald 520n
Moore, F/S/L C.E. 144n
Moore, Lt C.M. 569
Moore, Lt H.F. 502
moral: RNAS squadrons lent to RFC 175; German zeppelin crews 241; civilian 244; German civilians 276; ‘Fokker scourge’ 355; Trenchard 355, 383, 386, 427, 433–4; German on Somme 364; French army mutinies 414; problem 427; death of Voss 432; 10 (Naval) Sqn 432–4; Richthofen’s death 514; factor for establishing a Canadian air force 597; other refs 173n, 252, 311–12, 314–15, 320–5, 417, 483, 500n, 510, 517, 519, 542, 551, 557
Morden, W. Grant 67, 69–71, 580–4
Morgan, Lt R.C. 352
Morrish, F/S/L C.R. 185
Morrison, Brig.-Gen. E.W.B. 595
Morrison, 2/Lt R.G.K. App. A
Morrow, Capt. E.T. 513, 549
Morton, 2/Lt H.S. 496
motor boats and coastal motor boats 162, 172, 202–3, 604–5
motor transport: RFC’s on mobilization 335; ground attacks on 411; vehicles given to Canada 614; other refs 80, 113, 298, 338, 374, 423, 546, 548, 569
Mott, 2/Lt J.E. 438
Mount Sorrel 363–4
Mulock, Col. R.H.: first interception of airship 130; bombing raid on zeppelin sheds 133; No 27 Group 314–19; leadership methods 396; recommendations concerning Canadian air service 588–90; postwar Canadian aviation policy 612–19; other refs 123, 131–2, 139, 145, 147, 167, 178, 180, 206–7, 209n, 319n, 327, 395, 579, 599
Munday, Capt. A.H. 200, 220
Munday, Lt E.R. 258
Murmansk App. A
Murray, Capt. D.F. 215
Murray, Lt W.E.G. 345, 347, 350
Musgrave, 2/Lt H.S. 525, 535
Nares, F/S/L H.G. 150
navigation 243–4, 251–2, 264, 295, 425
Navratil, Oberleutnant Friedrich 470
Naylor, Lt L.A. 292–3, 300, 302
Nelles, F/S/L D.A.H. 160, 172
Newell, Brig.-Gen. C.L.N. 282, 286, 289–91, 322, 394
newspapers see public opinion and publicity; individual newspapers by name
Nickle, Lt D.J. 498
Nicol, 2/Lt M. 473
Nicholl, s/c V. 189–90
Nicholson, Lt F.A. 481–2
Nicholson, F/S/L L.E. 150
Nicholson, Field Marshal Sir W.G. 5
night fighters 151, 252–6, 293, 551
night flying: training 144; landing 148; by flying-boat 201; air defence 235–6, 252–6; Luxeuil Wing 268–9; night bombing 289–96, 306–7, 483, 560–1; against Somme bridges 536; tactical 548; other refs 172, 271, 425
Nicholson, Field Marshal Sir W.G. 5
Nightigale, A.J. 140, 151
Nivelle, General Robert 393–4, 408
Noltenius, Friedrich 557
Nordeney 189
Norman, Sir Henry, MP (UK) 285
Nobody Secundus 5
observation see spotting and observation
observers: graduates, RAF Canada 117; RNAS 135; 2 Wing, Eastern Mediterranean 138; armourers employed as 168; trawlermen used to fill ranks 221; separate training schools 295; first RFC battle casualty 336n; contact patrols 346; Sterling wireless set 351; lack of training 364; Somme 364–72; counter-battery role 402; standardization of methods 431; Italy 463; RFC requests observer trainees from CEF 595; other refs 123, 140, 154, 159–60, 176, 178, 185, 196, 199, 214–16, 254, 271–2, 290, 292–4, 300, 304–6, 310–11, 314, 353, 356, 378, 410, 417–18, 423, 425, 438, 445–7, 453, 469, 474, 482, 498, 502, 534–5, 549
O’Callaghan, 2/Lt M.A. 425–6
Oertling, Lt L. 529
oil see petroleum and lubricants
Oliver, Lt A.R. 547, 550
Operation Alberich 394
orders-in-council: first Canadian flying regulations 24; releases from RFC Canada 109; Canadian Air Force legalities 602; RNAS 607; other refs 580, 614
orders of battle 351, 409, 455, 464
O’Reilly, Maj. Breffney 115
Orkneys 223
Oserton, Lt Charles 255
Ostend 171, 204–7, 211, 408
Otranto, Strait of 213
Otter, Maj.-Gen. W.D. 12, 46
Overseas Military Council 612
Overseas Military Forces of Canada, Headquarters: Canadians in air services 593–4; proposal for a Canadian air force 595–6; squadron equipment 600–1; other refs 580, 582, 598, 608
Owen, Capt. Daniel 289
Owen, Lt J.C.E. 451
oxygen 243, 481
Pace, 2/Lt W.J. 293
Pacey, 2/Lt F.C. 555
Paine, Maj.-Gen. Sir Godfrey: proposes solution to RAF Canada manpower dilemma 109; Fifth Sea Lord 168; amalgamation of air services 280; other refs 110–11, 194, 273, 279
Palestine 476, App. B
parachute flares 205
parachutes 541n
Paris 157, 339
Parke, 2/Lt W.I. 293
Parker, 2/Lt John 352n
Parliament Buildings 593–4, App. C
Parliamentary Air Committee 164n
Partridge, Lt W.M. 256
Passchendaele 282, 434–8
Paterson, Capt. G.I. 491
patrols and patrolling: over home waters 128, 165–6, 199; anti-zeppelin 130, 237; RNAS in the land battle 150, 174; zeppelins and High Seas Fleet scouting 156; Mediterranean naval air 157, 217; Dunkirk bomber interception 173; A/S 179–82, 185, 195, 219; over Northern Barrage 223; contact patrols 345–6, 375, 523, 555; German and British ‘Barrage’ Patrons 360, 364, 409; Somme 365; Trenchard’s doctrine and offensive patrols 376, 380, 398–400, 404, 436, 524, 559; Fliers-Courcelette 382; layered protective patrols 428–9; German trench patrols 428; in Italy 457, 460; experiments with
multi-squadrons 485; for deception 521; lead fighters to likely targets 528; central wireless information bureau 543–5; other refs 133, 145, 147, 161, 169, 171, 176, 178, 186, 213, 215, 224, 238, 245, 348, 367, 373, 378, 387, 417, 422, 438, 443, 459, 465, 468, 471, 474–5, 481, 495, 497–8, 503, 526, 536–7, 563
Pattinson, Capt. T.C. 200
Pattison, F/S/L C.E. 275
pay and allowances 34, 84, 111, 601
Peace, Lt A.G. 438
Peace, Capt. W.J. 525
Pearson, Lt A.M. 458
Peberdy, W.H. 30, 140
Peck, Capt. Brian A. 85, 115
Peellatt, Sir Henry 53
Pemberton, Capt. F.D. 356, 408
Perley, Sir George: notified of British training organization to be established in Canada 75; head of Overseas Ministry 580; non-committal stand on Canadian squadrons 582; consults Borden re Morden’s appointment as Canadian liaison officer 583; assesses validity of complaints, treatment of Canadians 584; Canadian Flying Service 586–90; replaced by Kemp as Canadian Overseas Minister 592; other refs 47, 50, 58, 61, 64–5, 71, 89, 581, 585, 591. See also Canadian High Commissioner, London; Minister, Overseas Military Forces of Canada
Perrin, Lt G.St.C. 11
Perry, J.F. 57–9, 63, 71
Pershing, Gen. J.J. (USA) 91
Pétain, Général Henri 289, 408
Petawawa 11–16
Peterkin, 2/Lt S.Mc. 423
petroleum and lubricants: winter flying in Canada 97; German consumption of 208; lack of 496; German difficulties 516–17, 550, 557, 561; other refs 575, App. A, App. B
Philips, Lt A.McM. 211
Phillimore, Rear-Adm. R.F. 195
photography, aerial see aerial photography and photographs
Pickard, Lt C.F. 305
pilots: recruiting in Canada and USA 90–5; training 98; number in RNAS Jan. 1917 168; reduction in RNAS fighter squadrons 173; strength and casualties at Dunkirk 180; large drafts to Adriatic Group 216; in short supply in UK 221, 236, 239, 245; limited experience of in Independent Force 289n; had to fly, observe, and transmit 343; first Canadian killed 352–3; inexperienced 372; training in low-level attacks 441; life expectancy 514; other refs 275, 379, 510n, 575
Pinder, Lt F.G. 361
Pink, Lt-Col. R.C.M. 602–3, 617–18
Pitman, Lt R.C. 293, 311, 431
Plumer, Gen. Sir Hubert 363–4, 426–7, 434
Pole, 2/Lt H.J. 512
policy: pre-WW1 aviation in Canada 3; recruiting in US 88–9; RAF Canada 110–11; RN and RNAS 141–2; Curzon and Balfour 163–4; Fifth Sea Lord 168; strategic bombing 195; defence of UK 246–7; bombing raids on Germany 253; von Hindenburg on bombing of UK 257; 3 (Naval) Wing 260; Churchill on bombing 261; long-range bombing and unification of air services 273–81; effect on Canadian defence policy 283; ‘Strategic Council’ on 285; variance with policy 307; Trenchard’s doctrine 376; offensive patrols 404; Trenchard’s continuous offensive 427; British defensive failures 436; new Canadian initiatives 580; Borden on fair treatment of Canadians 584; Mulock’s attachment to OMFC 612; demise of CAF 619–20; other refs 10, 157, 172, 293, 308, 587
political considerations and pressures: allocation of bombers 212–13; public demand for stronger air defences 234; demand for reprisals 237; long-range bombing 278–82; St Eloi 363; concept of
Index

strategic bombing 575; supply in the event a Canadian air force established 589-90; CAF 601

Polson Iron Works 44

Popham, 2/Lt A.E. 473

Porter, 2/Lt Wilson 502

Portugal and Portuguese 511

Potter, E.C. 266, 270

Potvin, F/S/L J.E. 172

Powell, Capt. F.G. 533

Pratt, Lt H.W. 8

Prime Minister (Canada): Canadian Aviation Fund and aviation schools 52-3; McCurdy’s scheme for aircraft manufacture 68; gave no leadership 75; American volunteers 89; reorganizes Canadian military in England 580; appointment of Canadian liaison officer, RFC 583; Kemp’s recommendations, Canadian flying service 587; Perley and supply and liaison 590-1; air stations, Canadian east coast 607; demise of RCNAS 614-15; CAF demobilization 616; Russian intervention App. A; other refs 21, 37, 47-8, 51, 61, 74, 581, 601, 608. See also Borden, Sir Robert

Prime Minister (UK) 142, 166, 279, 282, 362, 414. See also Lloyd George, David; Asquith, Herbert H.

Primeau, 2/Lt C.W. 436

prisoners of war 274-5, 296, 298, 314, 351, 487, 539, 542, 553, 558-9, 564

Pritchard, 2/Lt T.B. 224, 244n

Privy Council (Canada) 15

procurement: first Canadian military aircraft 27; US purchases JN4s 92n; large increase in orders for HD4s and Handley Pages 281; other refs 163

production see aircraft production promotion and appointments 583-5, 601 provinces App. C

public opinion and publicity: Canadian Aviation Fund 53-4; recruiting campaign 87; Toronto Star and RAF Canada 118-20; Flight 141; long-range bombing 164n; public demand for stronger air defences 234; zeppelin raid, Midlands 237; rioting 238; aircraft raids on Britain 244; absenteeism munition factories 252; propaganda value, Richthoven’s death 515; east-coast air patrol 607; Kemp 620n; other refs 39, 69, 144, 212, 232, 240, 278-9, 282, 601

Public Record Office (UK) 112

Puglisi, W.R. 517n

purchase see procurement

Purdy, F/S/L Claude C. 169

Purslow, Capt. J.E. 565

Purvis, Lt M.C. 306

Quartermaster-General 12

Q-ships 165

Race, Capt. G.E. 560-1

‘Race to the Sea’ 341

radio see wireless

Raesch, Josef 561

raids see air raids

Ramsay, 2/Lt W.B. 471

Ranken Dart 237

Rankin, Lt F.S. 387

Rathbone, Wing Cdr C.E. 270, 274, 276

Rawlinson, Gen. Sir Henry: Somme 365; final order overheard by enemy 371; proposes limited attack 519-21; other refs 173, 358, 536, 542

Read, Maj. W.R. 314

reconnaissance: coastal 133; Jutland 155; Ostend 159; prevention of enemy reconnaissance 173; failure of RNAS to detect German preparations for offensive 174; Grand Fleet changing from seaplanes to aeroplanes 195; German navy denied complete freedom of home waters 203; Aegean Group 214-15; first RFC missions 335; first vital contribution 336; Général Joffre’s gratitude to RFC 340;
strategic air reconnaissance 343; efforts to intercept and shoot down 346; wing established at RFC HQ 359; Verdun 359–60; importance 360; Somme 365; RFC’s performance weak 372; Hindenburg Line 394; protection and German success against 400; hampered by weather 445; Macedonia 451–3; Italy 456; defence role 480; 5th Army’s squadron expended 483; failure of 488; weather restricts Germans in allied offensive 521; of anti-tank guns 543; recognition of ground troops 564; Haig’s tribute 571; other refs 135, 137, 142, 145, 156, 162, 176, 191, 205, 223–4, 337–8, 341, 348, 361, 373–4, 376, 407, 414, 417, 443, 446–7, 459, 466–7, 471–2, 481, 495, 512, 559, App. B. See also patrols and patrolling.

recruits and recruiting: individual requirements 29–30; temporarily suspended 33; difference in requirements, RNAS-RFC 36–8; need for pilots’ certificates eliminated 38; RNAS-RFC recruiting, 1915–16 39; recruiting for RFC Canada 77, 83–4; type of recruit sought 87; recruiting of American citizens in USA 89–90; British Recruiting Mission 90; CGS ensures RAF Canada not starved for recruits 113; enrolment in Canada 167; statistical analysis of enlistments App. C; other refs 31–2, 34–5, 76

Redpath, F/C R.F. 267, 432–4

regiments, British see battalions

regiments, German: 14th Bavarian Infantry 504; 61st Infantry 563; 100th Liebgrenadier 504; 176th Infantry 563; 51st Reserve 511; 52nd Reserve 504; 119th Reserve 563; 209th Reserve 383; 211th Reserve 383; 413th Infantry 565

Reid, F/S/L E.V. 274, 412, 418
Reid, Capt. G.T. 311–12
Reid, F/S/L H.V. 451
Reid, P.H. 26
Reid, Lt R.G. 468, 472
Reid, Lt William 345, 351

reinforcements: crisis changes RFC’s approach to Canadian question 62; to RNAS Western Front 173; and growing enemy air strength 263; German, of Cambrai sector 445; RAF unable to seal battlefield from Germans 519; Luder­ dorff reinforces retreating armies 531; transfers to air service, effect on CEF 595; Canadian sqns 601; other refs 65, 303, 340

Reynolds, Maj. L.G.S. 313
Rhys-Davids, Capt. A.P.F. 423, 432
Richardson, Lt R.R. 220
Richthofen, Lothar von 531
Richthofen, Ritter Manfred von: death 515; other refs 380, 395n, 400, 402, 415, 423, 487, 493

Ridley, Lt Walter 458, 460
Rivers-Malet, F/S/L F.A. 159
Robb, 2/Lt R.E. 482
Robertson, 2/Lt J.A.M. 457
Robertson, Lt W.D. 453
Robertson, Field Marshal Sir William 70, 249, 253, 280–2, 391

Robinson, Capt. F.V. App. A
Robinson, Lt J.B. 352
Robinson, F/S/L John App. B
Robinson, Sir W.A. 598
Robinson, Lt W.F.R. 555
Robinson, Lt W.L. 240–1

Roe, A.V. 5

Roberts, Capt. W.W. 254
Ross, C.S. 5
Romania 451–2, 516
Roevear, 2/Lt A.B. 211
Roevear, F/S/L A.W. 430, 513
Ross, Lt B.F. 104
Ross, Lt D.W.R. 461
Ross, 2/Lt J.H. 373
Ross-Hume, Capt. A. 33–4
Rothermere, Lord 194, 284
‘Round Table Movement’ 57 roundels 348
Rowat, 2/Lt M.A. 457
Rowland, Sub-Lt D.P. 151
Royal Aero Club 5, 39, 345
Royal Air Force: Air Force (Constitutional) Act 168, 283; RNAS strength on incorporation 192; use of old uniforms 194; strategic bombing policy 195; re-numbering of former naval wings and squadrons 203; lacked flexibility 213; Adriatic Group and Aegean Squadron 214; public and political pressure for creation 234, 257; home defence 245-56; disjunction in aims of new staff 284; significant part in a major military operation 470; Italian campaign 476-7; most offensive day 513; airpower balance 516; support for American offensive 521-3; strength, August 1918 523; importance of to-w-flying fighters 529; Somme bridges 531; aerial fighting 537; effectiveness diminishes 539; serious questions about chain of command 540; fighter sqns' activities curtailed 557; more than 1000 aircraft for assault 562; losses 566; last pilots killed and last victories 571; losses and claims 573-4; review of roles and postwar doctrine 575; leads way in tank co-operation 576; Canadian strength in 593-5; 'Imperial Air Force' 598; records of Canadians 599; headquarters to compile a monthly record of work of Canadians 600; presentation of aircraft and equipment to Canada 614; in Russia App. A; Canadians App. B; statistical analysis App. C; other refs 108, 125, 193, 212, 471, 475, 511-12. See also Royal Flying Corps Royal Air Force (WWII) 228 Royal Aircraft Factory 7, 68, 104, 124, 400 Royal Canadian Air Force: senior air station 79; heritage of WWI experience 576; other refs 140n, 193, 620 Royal Canadian Engineers 15, 18 Royal Canadian Naval Air Service 602-8 Royal Canadian Naval Volunteer Reserve 34 Royal Canadian Navy: St Lawrence patrol 603; American craft under Canadian control 605; HMCS Acadia 606; RCNAS 607 royal commissions: Shell Committee 69
Index

tency 423; offensive strategy with defensive tactics not considered 427; ground support role and Trenchard’s policy 428; allocation of resources 492; response to emergency 494; Canadian liaison officer 580; other refs 344, 445

- RFC/RAF Canada: inception 75; responsible to War Office 76–7; HQ established 78; Camp Borden 79; Aviation Department, Stores Department, Engine Repair Park 80; Mechanical Transport and Royal Engineers 82; JN4s 83; agreement with US 92–3; Fort Worth 94; live gunnery practice 95; accidents 105–7, App. c; repercussions on manpower 108–10; contribution to Canada 120; anti-submarine air patrol 606; other refs 56, 258, 613, 624

Royal Marines 7, 128, 131, App. A
Royal Military College of Canada 139, 584
Royal Naval Air Service: established 7; Canadian and American recruits 29–34, 36–9, 88; Canadians in 123, 141, 167, 593–4; A/S campaign 124, 180, 226; long-range bombing development 125; RAF 125n; auxiliary to main force 217; home defence (UK) 128–30, 134, 145; Dunkirk Stations 133; air policy and command 135; Gallipoli 137–9; officers strength, Dec. 1915 141n; duties 142; wing organization, June 1916 147n; Jutland 153–5; deployment 157; too many roles 158; Dunkirk and Somme battles 159–60; RFC bombing offensive 160; Curzon’s criticism 164; demise 166, 192, 226; pilot strength, Jan. 1917 168; sqns on Western Front 172–3; failure to detect German preparations 174; peak pilot strength, Dunkirk 180; DH4s against high-flying zeppelin 189–90; Goeben episode 192; wings and sqns re-numbered for RAF 203n; pioneered strategic bombing 232; disagreement over defence against airships 236; bombing chief task 261; necessity to maintain strength of sqns on Western Front 273; RFC view of 381n; loan of squadron to RFC 391; further sqns to RFC 395; shortage of pilots, Western Front 423; efforts to replace casualties 448n; detachment in Romania 451; Canadians, statistical analysis, App. c; other refs 126, 155, 161–2, 170, 175, 270, 279, 354, 377, 390, 449, 450

Royal Navy: Grand Fleet takes up war station 127; air policy and command 135; Jutland 152–5; Haig requests diversionary show of strength 161; Curzon’s criticism 164; German submarine campaign 165; carriers 170; Canadians 170, 204; A/S commands 180; convoys 186; dependent upon Air Ministry for design and supply of aircraft 194; Grand Fleet operations and A/S warfare 195; in advance of High Seas Fleet in heavier-than-air resources 203; effect of Otranto Barrage 216; friction with Air Ministry 226–7; Eastern Mediterranean Squadron 452; blockade 516; other refs 141, 151–2, 156, 158, 163, 168, 197, 218

Rupprecht of Bavaria, Crown Prince 509–10, 531, 563
Russell, Lt J.G. 470
Russia and Russians 341, 390, 393, 447, 450, App. A
Rutherford, Col. R.W. 10–12, 15–16
Rutland, F/S/L F.J. 154–5, 170

Sachsenberg, Oberleutnant zur See G. 208
St Eloi 362–4
St Quentin 443, 487, 491, 494, 561
Salmond, Maj.-Gen. J.M.: plan to evacuate Dunkirk 205n; Independent Force 291; employment of RAF in offensive 521; Amiens 523–4; bridges 532–3; miscalculates speed of German reaction 540; objections to separate Canadian air service 598; other refs 207, 296, 344, 351, 480, 483, 500, 506, 536, 553
Salonika 450, 452
Salter, Capt. E.J. 549
Samson, Wing Cdr C.R. 131, 133, 135, 137–8, 155, 190, 202, 223
Sands, F/S/L L.A. 177
Sandwell, Capt. A.H. 148, 162, 222
Sarrail, Général Maurice 450
Saundby, Capt. Robert 244
Saunders, Kenneth F. 42
Sands, F/S/L L.A. 177
Sandwell, Capt. A. H. 148, 162, 222
Sarrail, General Maurice 450
Saundby, Capt. Robert 244
Saunders, Kenneth F. 42
Sands, F/S/L L.A. 177
Sandwell, Capt. A. H. 148, 162, 222
Sarrail, General Maurice 450
Saundby, Capt. Robert 244
Saunders, Kenneth F. 42
Secretory of State for Air: Dover and Dunkirk air strength 206–7; controversy re appointments 284; Trenchard’s report 299, 301; zeal for strategic bombing diminishes 308; bombing of Berlin 319–20: Kemp’s proposal, Canadian section, RAF 597; other refs 109, 111–12, 194–5, 284, 598–600
Secretary of State for War: approved idea of a Canadian sqn 48–9; home defence (UK) responsibility 130, 235–6
security 521–2
Seddon, Wing Cdr J.W. 603
Seely, Col. J.E.B. 6
Selfridge, Lt Thomas E. 4
Serbia and Serbs 450, 477
Seymour, Maj. Munro 93
Sharman, F/C J.E. 270, 274, 418
Sharp, Lt J.G. 464–5
Sharpe, Lt W.F.N. 26n, 27–9
Shaughnessy, Lord 53
Shaw, F/S/L J.A. 175
Shearer, Capt. A.B. 214
Shearer, Thomas R. 43
Shell Committee 57, 69
Shepherd, Lt L.J. 473
Shephard, Lt G.L. 561
Sherren, Maj. P.C. 377–8, 569–70
ship building and production 128, 218
shipping 185, 194
shipping losses 128, 185–6, 204n, 217, 414
SHIPS, NAVAL
– American: Pennsylvania 156n
– British: Actaeon 7; Ajax 227; Anne 151, 190; Argus 156, 227, App. A; Ark Royal 135, 137, 157, 191; Asturias 274–5; Australia 196; Ben-my-Chree 138, 151, 190; Birkenhead 196; Blanche 153; Braemar Castle 222; Campania 127, 153–4, 156, 170, 187, 195–6; Canning 156; Cardiff 227; Courageous 151, 156; Curacao 203; Empress 127–8, 151, 190, 217; Engadine 127–8, 154–6, 170, 217, 604; Furious 151, 156, 170, 195–6, 198; Galatea 154; Glorious 151, 156; Halcyon 190; Hercules
762

Index

156; Hermes 170, 217; Indefatigable 155; Lion 154; Manica 137; Manxman 150, 170, 192; Medusa 152; Menelaus 156; Mersey 138–9; Nairana 170, 195, App. A; Ouse 220; Pegasus 170, 195–6; Queen Mary 155; Raven 1151, 190; Redoubt 203; Riverina 127–8, 147, 187, 604; Severn 138–9; Sydney 197; Termagant 211; Vindex 140, 147, 151, 604; Warrior 155

- Canadian: Acadia 606; Niobe 34

- German: Breslau 157, 192; Derfflinger 198; Goeben 157, 191–2, 213, 215; Gradenz 199; Königsberg 138–9, App. B; Moltke 198; numbered destroyers 172, 212

- Greek: Leon 215

Shook, Capt. A.M. 147–8, 211n
Shorncliffe (Camp), UK 246
Short Bros. 5, 142
Siegert, Major William 244–5
Simpson, Capt. G.H. App. A
Simson, Lt 314
skiis 97
Slade, Edward 47
Slessor, Sir John 442n, 520n
Smith, H.H. 227
Smith, 2/Lt J.H. 497
Smith, F/S/L K.M. 144n
Smith, F/S/L L.E. 267, 269–70
Smith, 2/Lt R.J. 496, 501
Smith-Barry, Maj. R.R. 103–6, 379, 389
Smith-Dorrien, Lt-Gen. Sir Horace 338–9
smoke and smoke screens 160, 205, 524, 527, 552, 563
Smuts, Gen. Jan Christian: London air defence 250, 252; unification of RNAs and RFC 279; Committee 280, 282
Smyrna 158
Smythies, Maj. B.E. 553, 562
Snyder, Lt F.C.H. 417
Soden, Capt. F.O. 530
Somme: naval diversion 161; 8 (N) Sqn 163; assault agreement 359; commit 400 aircraft 364; plan 364; aircraft and roles 366; bombardment commences 368; RFC’s superiority 376; bridges 531–40; other refs 22, 38, 64, 87, 158–9, 263, 276–7, 358, 487
Sopwith, T.O.M. 5, 8, 124
Sorsoleil, Capt. J.V. 486, 499, 503
sound ranging 253, 560
South Africa 70
South African Aviation Unit 49
Spance, F/S/L A.G.A. 430
Spanner, 2/Lt H. 378, 387
Spear, F/S/L R.E. 166

spotting and observation: Smyrna 158; A/S 182; enters new phase 343; artillery officers to be instructed in 343; difficulties 344; efforts to shoot down 346; chief function 359; German and French, Verdun 359–60; Somme 366–75; Trenchard’s doctrine 376; Flers-Courcelette 381–2; Vimy Ridge 400–1; shells a hazard 404, 425; Messines 410; hampered by weather 420; 16 Sqn 420–1; method to counter German aircraft 422; lack of fighter escorts 426; Germans 428–9; standardization 431, 446; batteries engaged 439, 497, 512; Macedonia 450–1; Italy 456, 467; in defence 480; zone calls ignored 491–2; Amiens 524; neutralizing fire calls 526; artillery observation aircraft not suitable in anti-tank role 543; unopposed 552; fleeting target calls 555; Counter Battery Office 559–60; Haig’s tribute 571; RAF postwar 572; other refs 9, 86, 98, 133, 137, 142, 145, 159, 171, 179, 210, 363–4, 385, 417, 463, 468–9, 471–2, 481, 495, App. B. See also artillery; guns and gunnery (naval)
Sprangle, 2/Lt A.T. 555
Spriggs, Lt W. 562
Sproatt, Capt. C.B.: CFS bomb sight 264n; other refs 150, 159–60, 171, 175, 177, 179, 258, 377
Squadrons

- American

17th Aero: 94, 209
22nd Aero: 94
27th Aero: 94
28th Aero: 94
139th Aero: 94

- Australian
  1: 50n
  2: 569
  3: 522
  4: 566, 569

- Canadian
  1: formation approved 600; responsibilities for 601; authorization and manning 608-9; dissatisfaction with aircraft 611; casualties 611n
  2: formation approved 600; responsibilities for 601; authorization and manning 608-9; dissatisfaction with aircraft 611

- RFC/RAF: establishments 401n; renumbering of RNAS squadrons 511
  1: Canadians 561; other refs 341, 343, 345, 352, 356, 361, 410, 505, 522, 532
  2: Canadians 521n; other refs 335, 342, 344-5, 348, 351, 356, 368, 397, 446, 507-8, 512
  3: Canadians 500n, 537; other refs 77, 339, 342, 344-5, 352, 366, 440-2, 500-1, 546-7
  4: 335, 342-5, 365-6, 371, 385, 420, 424-5, 565-6
  5: Canadians 521n, 522n, 563n; with Canadian Corps 553-4; other refs 335, 347, 350, 356, 363, 522, 524, 526-8, 555, 570
  6: supports Canadian Corps 363; other refs 342, 348, 352, 379, 410, 522, 526, 528
  7: 345, 353, 368, 385, 388, 425-6
  8: Canadians 527n, 543n; other refs 366, 422, 446, 491-2, 527, 543, 545, 554-5, 562, 570
  9: 361, 365-9, 419, 425, 522, 524, 526, 528
  10: 305, 351, 353, 355-6, 359, 368, 421
  11: 351, 379, 389, 418, 432, 439, 445-6, 523, 535

12: 351, 368, 372, 386, 495
13: Canadians 554n; other refs 368, 372-3, 483, 559
15: 342n, 365-6, 373, 385
16: Mount Sorel 363-4; effective work supporting Canadian Corps 401; Vimy Ridge 402; contact and artillery observation for Canadian Corps 421; Canadians 363n, 481n; other refs 345-6, 348-9, 368, 397, 402, 420, 423, 481-2, 498, 565
17: 215, 450-1, 453
18: Canadians 512n; other refs 361, 381, 386-7, 394, 523, 539
19: Canadians 493n, 569n; other refs 439, 505, 514, 536, 568
20: Canadians 363n, 588n; other refs 361, 363-4, 415, 505, 557-9
21: 366, 374-6, 387
22: Canadians 498n, 554n; other refs 365, 378, 380, 382, 387, 498, 502, 512, 536, 554
23: Canadians 373n, 554n; other refs 386, 408, 429, 432, 436, 493, 496, 501, 512, 536
24: Canadians 515n; other refs 362, 365, 379-80, 386, 499, 522, 524, 536-7
25: Immelmann’s death 378; Canadians 494n; other refs 397, 401-2, 421, 483, 494
26 (South African): 49
27: Canadians 494n, 533n; other refs 277, 365, 376-8, 386-7, 421, 429, 483, 494, 510, 525, 533-4, 538, 549
28: 436-7, 455, 457, 464-6, 470-2, 474-5, 522
29: 363-4
32: Canadians 555n; other refs 373n, 387-8, 522, 533, 538-9, 555
33: 239, 242
34: 382, 455, 461, 464-74
35: 491, 522
36: 242
37: 243, 246-9
38: 207, 209, 265
Index

141: 255
143: 255
144: 216
150: 458-9
151: Canadians 551n; other refs 522, 534, 551
185: 227
201: Canadians 513n, 530n, 562n; other refs 203-4, 207, 456-7, 471, 513, 522, 524, 530, 562, 567
202: 203, 205, 210-11
203: Canadians 550n; other refs 511, 513, 530n, 562n; other refs 203-4, 207-11
101: Canadians 550n; other refs 511, 513, 549-50, 558, 562-3
204: 205n, 207-11
205: Canadians 532n, 568n; other refs 522, 524, 526, 532, 535, 539, 568
207: Canadians 525n; other refs 205n, 522, 525, 539
208: Canadians 533n; other refs 511, 553, 562
209: Richthofen’s death 514-15; Canadians 553n, 570n; other refs 522, 524, 553, 562-3, 570
210: Canadians 511n; other refs 203-4, 207-11, 511
211: 209
213: Canadians 571; other refs 203, 207, 209-11, 464-6
214: 207-8, 209n, 212
215: 303, 306, 522
216: 297, 300, 303, 313-14, 319
217: 203, 211
218: 207-9
221: App. A
226: 216
228: 223
232: 223
233: 211n
243: 222
256: 220
266: App. A
‘Elope’: Canadians, App. A
Wireless: 343

- RFC/RAF Canada
1 Aerial Fighting: 113
2 Aerial Fighting: 113
3 Aerial Fighting: 113
4 Aerial Fighting: 113
78: 80, 86
79: 80, 86
80: 80, 85-6
81: 80, 86
82: 80, 86
83: 80, 86
84: 80, 86
85: 80
87: 80, 86
88: 80, 86
89: 80, 86
90: 80, 86
91: 80, 86
92: 80
93: 80, 113
X: 80
Y: 86

- RNAS: establishment 147n, 173; renumbered on incorporation into RAF 511
A (France): 149-50, 286, 289-90
A (Aegean): 191
B (Aegean): 191
C (Aegean): 191
D: 191
E: 191
F: 191, 452
G: 191
1 (N): 133, 179, 395, 408, 429-30
3 Naval (1915): 133, 135
3 (N) (1916-18): 175-6, 178-9, 250, 395-6, 406-7, 411, 495, 507, 511
4 (N): 179, 248
5 (N): 179, 486, 494
6 (N): 179
7 (N) (Dunkirk): 287
8 (N) (Dunkirk): 161, 163, 167, 171, 179, 391, 395, 421-2, 481n, 511
9 (N): 171, 178-9
10 (N): Canadians 411; other refs 173, 175, 179, 395, 408, 412, 415, 426, 431-4, 511n
11 (N): 173
13 (N): 179
16 (N): 481n
17 (N): 179

- French see French air service
- German see German air force

Squier, Brig.-Gen. George O. (USA) 90-1, 95
Stanger, 2/Lt S. 457, 465-6, 472
Stanton, Lt-Col. E.A. 29-30, 37-8, 50-1, 64
Stark, William M. 26n

stations see air stations (RFC, RNAS, RAF)

statistics: wastage 70; RFC/RAF Canada 97n, 107, 114; RNAS Dunkirk and Eastern Mediterranean 158; shipping losses 185, 217-18; A/S, July-Dec. 1917 186-7; RNAS strength on incorporation into RAF 192; Canadians in RNAS 192n; U-boats 213, 218, 225; Canadians on A/S operations 228; zeppelin raids on Britain 235, 243; ground defences, UK 257; Canadians on home defence, UK 257; Canadians and destroyed zeppelins 258; "R" planes 283n; Canadians, VIII Bde 296; strategic bombing 320n; damage to German industry 321; losses, Independent Force 325; Canadians, Independent Force 327; RFC 357; Canadians, RFC 357, 365, 392; guns and howitzers, BEF 393; air losses, claims, and casualties 400, 407, 440, 573; ground casualties, July-Nov 1917 440; RFC and German aircraft, spring 1918 488; promotion of Canadians 585; figures compiled at OMFC 593-4, 600; statistical analysis, enlistments, numbers, for RNAS, RFC, and RAF, city, rural, and province, also casualties App. C

Stayer, Lt C.S. 550
Stedman, Lt-Cdr E.W. 270-2
Steel Co of Canada 71
Steele, R.C. 632
Stemming, Lt C.B. 538
Sterley, 2/Lt R.D. 424-5
Sterling, Lt W.C. 529

Stephens, F/S/L M.H. 269
Stephens, Cdr R.M.T. 64
Stephens, T.G.M. 151
Stephens, 2/Lt W.F. 220
Stephenson, 2/Lt W.S. 502, 513n
Stevenson, F.J. App. A
Stevenson, Lt W.G. 294, 302
Stewart, Lt J.A. 311-12
Stinson, Marjorie 43
Stinson School 42n, 43
Stoneman, E.C.R. 214
stores depot 80
strafing see ground attacks

Strasser, Fregattenkapitän Peter 154, 188, 201, 237, 240-3, 258-9
Stratton, F/S/L K.V. 439

strengths: RFC/RAF Canada, Armistice 114; RNAS 130, 168, 192; RNAS, Canadians 192n; fighters, Grand Fleet 197; A/S 224; German Naval Airship Division 235; Independent Air Force 297-8; RFC 335, 343; German and French aircraft 357; Somme 364; Oct. 1916 390; Messines 408-9; Third Battle of Ypres 415; Army of the Orient 450; Italian and Austrian 454; spring 1918 481, 488; allied and German 519; RNAS authorized 607; statistical analysis, Canadians in British flying services App. C

Stubbs, 2/Lt G.W. 214

submarines: policy 124, 134, 170; Antwerp shipyards 160; German campaign 165; bombing 177-8, 180; German strength, Feb. 1917 181; increasing contact 185; convoy system 186; German policy 194; Grand Fleet operations 195-6; A/S escorts 198; Strait of Dover 204, 213; Adriatic 214; Mediterranean 217; German production 218; defeated 219; attacks on 220; convoy air escorts 224; called in 227; German ocean-going 604; Canadian east coast 606; other refs 123, 128, 133, 135, 138, 141, 143-4, 148, 153, 191, 203, 221, 225, 414

- British: E 33 185
Sultan of Darfur 449
Superintendent Aircraft Construction 151
supply: authority over 164; to Russia 390
App. A; RNAS assistance to RFC 395;
Macedonia 449; Italy 455; attacks on
493; German 509, 516-17, 541, 550;
Canadian Air Force 601; other refs 163,
187, 194, 381
Supreme War Council (Allies) 308, 471,
App. A
Sussan, F/L W.J. 185
Sussex: passenger ship 274
Sutherland, R.B. App. B
Sutton, Lt G.E.F. 373
Swayne, Lt W.T. 555
Sweet, 2/Lt G.A. 300
Syddall, Capt. George Baxley 482
Sydenham, Lord 66, 70, 73-5, 381
Sydney, N.S. 603-5
Sykes, Maj.-Gen. Frederick: Chief of Air
Staff 194-5, 226; Strategic Council 285;
Independent Force 296-7; and Trenchard
298-9, 376n; psychological value
of bombing 312; Berlin bombing 319;
Somme bridges 540; Canadian Air Force
598-9, 601; other refs 6, 284, 286, 307,
317, 320, 322, 325
synchronizing gear 85, 266, 350-1, 355,
416
tactics: RAF use of high altitudes 208; Ger-
man 208, 302, 364, 386, 393-4, 416,
426, 493, 536, 554, 575-6; home defence
(U.K.) 237, 239, 256; British air forma-
tions 266, 287, 307, 362, 416, 426, 428,
485; low-level night attack 306; aerial
fighting 350; French formations, Verdun
360; need for escorts 373; offensive
patrols 380, 559; Mulock and 3(N) Sqn
395-6; compass stations 409; ground let-
ter code 422; ground attack 428, 504-5;
aerial photography 472; RFC flexibility
and versatility 510; air/ground doctrine
542; other refs 379, 413, 440, 452, 500.
See also aerial fighting; bombs and
bombing
take-offs and landings: with skis 97; car-
rriers and trials 150-1, 155-6, 170, 198;
flyin g-boats 169; from gun turrets 196-7;
from lighters 199, 202; other refs 101,
252, 405
tanks (armour): Cambrai 441-4; Amiens
520, 524, 527, 528; air-tank co-operation
524, 527; all-arms co-operation 542; spe-
cialized air support 546, 562; German
576; other refs 375, 491, 519, 525, 530,
553
Tanqueray, Lt J.F.D. 525
Taylor, Lt F.H. 502, 571
Taylor, Sir Frederick Williams 69
Teepoorten, Lt D.J. 474-6
Telegram (Toronto) 144n
Tempest, Lt Edmund R. 345, 443-4, 497
Tempest, 2/Lt W.J. 241-2
Thacker, Maj.-Gen. P.E. 47
Thom, F/L G. 147-8, 162, 391
Thomas, Lt A.M. 378
Thompson, Lt A.H. 431
Thompson, Lt G.A. 249
Thompson, 2/Lt H.G. App. A
Thompson, Lt H.K. 420
Thompson, 2/Lt L.M. 549
Thompson, Lt V.W. 444, 492
Thurby, Vice-Adm. C.F. 452
Tidey, F/L A.M. 159
timber surveys (ranging) 71, 117
Times (Orillia) 101
Tiverton, Maj. Lord 307-8, 312
Todd, A.S. 147
Tondern 201-2
Tooke, F/L A.S. 145, 148
topography 586, 617
Toronto 38
Toronto Star 12, 119-20, 579, 601-2, 607
Toronto World 45, 53
Index

Torpedoes (airborne) 124, 142, 152–3, 170, 176, 190, 192, 215
Tracy, Capt. H.L. 565
Tradesman see ground trades
Training: in Canada 31, 33, 39, 42, 84–5, 96, 98–105, 113–17; Canadians in US 42, 93–5; US trainees in Canada 93–4, 96; night flying 252; home defence (UK) sqns in training organization 165, 239; navigation and observers 295; ground support role 441; air-tank co-operation 527; German 550, 576; Canadian sqns 601; RCNAS cadets 608; statistical analysis RFC/RAF Canada App. A; other refs 112, 123, 144, 168, 303, 318, 448, 462, 515, 552, 557, 617
Trapp, F/S/L G.L. 418, 426
Trapp, F/S/L s.w. 391
Treasury (UK) 62–3, 73, 75, 163
Treaty of Brest-Litovsk App. A
Trenchard, Sir Hugh: early bombing policy 149, 261, 273, 278–9, 281–3; use of RNAS units 160, 172–3, 391, 433–4; Lambe 161; aggressive attitude 174, 381, 387, 398, 427, 514; attack on Smuts report 280; appointed Chief of Air Staff, resigns 284; command of Independent Force 286, 297n, 298; Allied High Command 297; strategic and Independent Force policy 301, 307, 312, 320–6; 27 Group 314–17, 319; air support policy and RFC in the field 273, 332, 344, 351, 360–1, 365–6, 376, 398, 402, 428, 480; field commands 335, 342, 351; morale 383, 386, 427, 433–4; air tactics 362; Mulock and 3(N) Sqn 396; aircraft to Canada 614; other refs 74–5, 123, 167, 175, 205n, 247, 277, 292, 294–6, 303–4, 311, 353, 359, 366, 377, 379n, 393, 395, 404, 420, 447, 500, 506–7, 575, 618
Trites, Lt S.B. 562
Trudeau, Lt G.A.H. 429
Tudor, Rear-Adm. F.C.T. 155, 167, 277
Tudor-Hart, Lt W.O.T. 372
Turkish air force App. B
Turks and Turkey 138, 151, 157, 214, 216, 450, App. B
Turnbull, 2/Lt G.M. 431
Turnbull, Wallace Rupert 4
Turner, Lt-Gen. Sir R.E.W.: Commander, OMFC 580; Canadian identity 584; proposals for a Canadian air force 588, 595–6; Canadians on Air Staff 599–600; other refs 363, 579, 585, 589, 608
Tylee, Maj. A.K.L. 112
Tyrell, Capt. W.G. 11
Tyrwhitt, Vice-Adm. R. 151, 202–3
U Boats see submarines
Udet, Leutnant Ernst 541n
Under Secretary of State (UK) 598–9, 614
Under Secretary of State for External Affairs 24n
United States: Civil War balloons 4; government asked to prohibit unauthorized flights over Canada 24; RFC recruitment of US citizens 88–9, 118n; purchase of Canadian JN4s 92; pilot training on JN4 115; Canadian purchase of American ground equipment and American donation 615; other refs 6, 24n, 76, 92n, 218, 393, 440, 447, 518–19
United States Air Service 90–1, 95, 179, 298, 574n
United States Navy: naval cadets arrive in Canada 93, 94n; aviation force in European waters 186; operations off Canadian east coast 604–5; Lt Richard E. Byrd 606; other refs 202, 220, 223, 227
University of Toronto 84
Urich, 2/Lt C.P. 470
Usborne, Capt. G.C.O. 589n–90n
Valenciennes 569
Valentine, Lt J. 304
Valcartier Camp 36–8, 79
Van Allen, K. 147–8
Vaughan-Lee, Adm. C.L. 65, 135, 153, 236, 261–3, 277, 391
Vehicles see motor transport
Index

Verdun 149, 163, 276, 358-60, 376, 564
Vice-Admiral, Dover 133, 179, 203-7, 282
Vice-Admiral, East Coast 219
Victoria College, Toronto 86
Vickers Ltd 5, 67, 72
 Vimy and Vimy Ridge 393-4, 397, 400-1, 579
Victoria Cross: Wameford, destruction of zeppelin 132; Robin son, destruction of S.L.I 241; Hawker, first pilot to be awarded 379; Bishop 412; McLeod 508; Barker 567-8
Vladivostok App. A
Voss, Werner: death 432; other refs 395n, 423
Vyvyan, Maj.-Gen. A.V. 56, 216
Walker, F/S/L M.B. 157
Wallace, Capt. H.L. 537
Waller, F/S/L E.B. 175, 272
Wambolt, F/L H.R. 159, 396
Wanklyn, Maj. F.A.: with 4 Sqn, 1914 342; only Canadian airman in France 344; other refs 26n, 342n, 345, 350, 365, 584
War Measures Act 602n
War Office: prohibits further aeroplane trials 5; proposal for dominions sqns 50; supports idea of Canadian factory 62; requests establishment of training school in Canada 64; Commander RFC Canada responsible to 76; recruiting in US 90; aerial supremacy 130; home defence (UK) burden 134, 235; and RNAS 142, 273, 390; other refs 13, 15-16, 26, 36, 40, 44, 56, 58-9, 71, 73, 75, 79, 83, 88-9, 92, 95, 105, 135, 236, 239, 240n, 247, 262, 361, 453
War Records Office, OMFC: Canadians in air services 593-4; proposal for a Canadian air service 595-6, App. C
Ward, Lt C.T.R. 417
Ward, 2/Lt G.F. 220
Warneford, F/S/L R.A.J. 132
Warner, Col. W.W. 582
warships see ships, naval
wastage: training and operations 70; RNAS Western Front 172-3; casualties per hundred sorties 427; Canadian aircrew Western Front 448; Somme bridges 534; other refs 99, 118, 211n, 593, 603. See also casualties; statistics
Waters, Cmdr D.W. 219
Wakins, Lt Edward J. 243
Watkins, Lt Loudon P. 243-4, 246-7, 249
Watson, Maj.-Gen. Sir David 67
Watts, 2/Lt A.E. 402
Waugh, F/L J.K. 168
Webb-Bowen, Brig. Gen. T.I. 455
Webber, 2/Lt W.H. 529
Webster, F/S/L H.L. 178
Weir, Brig.-Gen. J.G. 318
Weir, Sir William: Secretary of State for Air 194, 278n; strategic bombing 195; allocation of aircraft 226-7; Handley Page 281; Trenchard’s report 299, 301; zeal for strategic bombing diminishes 308; Berlin bombing discussed 319; Canadian section, R.A.F., and Canadian air force 597, 600; other refs 284-6, 297-8, 320, 599
Weltkrieg, Der: lists German air victories and losses 572
Wemp, F/S/L Bert 144n, 152, 180
Wemyss, Adm. Sir Rosslyn 179, 192, 226
West, Lt H.D. 294, 311
Westergaard, 2/Lt A.N. 547
Wheatly, F/S/L A.T. 396
White, Lt J.F. 494
White, Capt. J.L.M. 529, 537, 566
White, F/S/L J.P. 396
White, Sir Thomas 63, 616
Whitehead, Lt T.R. 457
Whittall, Lt F.A. 545
Wilcox, C.S. 71
Wilkinson, Lt E.S. 356, 361
Wilkinson, Lt K.B. 313
Williams, 2/Lt A. 420
Williams Lt Arthur 101
Williams, Lt J.L. 350, 355-6
<table>
<thead>
<tr>
<th>Index</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
<td>318</td>
</tr>
<tr>
<td>87</td>
<td>318</td>
</tr>
<tr>
<td>88</td>
<td>309–10</td>
</tr>
<tr>
<td>– RFC/RAF Canada:</td>
<td></td>
</tr>
<tr>
<td>Cadet Wing, RFC/RAF Canada:</td>
<td>84, 86, 95–6, 98, 113, 115</td>
</tr>
<tr>
<td>42 (Camp Borden):</td>
<td>94, 96</td>
</tr>
<tr>
<td>43 (Desoronto):</td>
<td>94, 96</td>
</tr>
<tr>
<td>44 (North Toronto):</td>
<td>96–7</td>
</tr>
<tr>
<td>– RNAS: wings (generally): composition June 1916</td>
<td>147n</td>
</tr>
<tr>
<td>1:</td>
<td>145, 147, 149, 161, 171</td>
</tr>
<tr>
<td>2:</td>
<td>138, 192</td>
</tr>
<tr>
<td>3 (Bombing):</td>
<td>143, 165, 167, 171, 232, 238, 260–77</td>
</tr>
<tr>
<td>4:</td>
<td>147, 160–1, 171, 173, 179, 277, 434</td>
</tr>
<tr>
<td>5:</td>
<td>147–8, 160–1, 171–2, 179, 277, 377</td>
</tr>
<tr>
<td>6:</td>
<td>190–1</td>
</tr>
<tr>
<td>winter flying: RFC Canada</td>
<td>97</td>
</tr>
<tr>
<td>wireless and telephone: in balloons, 1908 8</td>
<td></td>
</tr>
<tr>
<td>RFC Canada training</td>
<td>86, 98; in ‘Large America’ 184; naval intelligence and wireless intercept 187–9; zeppelins’ dependency on 243; German directional signals 255; receiving sets in aircraft 256, 343; No 27 Group wireless control 318; counter-battery employment 343, 401–2; jamming and interference 344; Sterling set 351; compass stations 409; ground observation posts 435; analysis of traffic 487; Central Information Bureau 543–5; central wireless station 560; other refs 9, 102, 143, 145, 160, 182, 198, 201, 237, 295, 346, 364, 374, 425, 526–7, 562</td>
</tr>
<tr>
<td>Wittups, 2/Lt H.</td>
<td>568</td>
</tr>
<tr>
<td>Woltho, 2/Lt</td>
<td>457, 462</td>
</tr>
<tr>
<td>women: employment with RAF Canada</td>
<td>114n</td>
</tr>
<tr>
<td>Wood, E.R.</td>
<td>79</td>
</tr>
<tr>
<td>Wood, 2/Lt H.A.</td>
<td>379–81, 386–7</td>
</tr>
<tr>
<td>Wood, Rear-Adm. (USN)</td>
<td>604</td>
</tr>
<tr>
<td>Woodward, F/S/L A.G.</td>
<td>157</td>
</tr>
<tr>
<td>World War II see Second World War</td>
<td></td>
</tr>
<tr>
<td>Wrangel, General App.</td>
<td>A</td>
</tr>
<tr>
<td>Wright Bros.</td>
<td>4, 42, 49</td>
</tr>
</tbody>
</table>
Index

Wright Schools 42, 144, 379
Wright, F/S/L D.R.C. 272
Wyatt, F/S/L C.J. 150, 171

Yeomans, 2/Lt F.L. 435
Ypres 87, 159, 254, 343

Zeebrugge 132, 135, 139, 147–8, 150, 161–2, 165, 171–2, 176, 204–7, 408
Zeppelin, Graf Ferdinand von 234
zeppelins: wireless intercepts 187; losses institute precautions 188; abortive attacks on 189–90; strategic air offensive 232; raids on Britain 235, 237–8, 240–4, 255–6, 258–9; types 235n; performance improvements 242–3; directional signals 255; Canadian victories over 258; other refs 54, 123, 128, 131–2, 142, 144, 151–2, 154, 156, 160, 233, 236–8, 244, 261

THE MEDITERRANEAN ROYAL AIR FORCE STATIONS, NOVEMBER 1918

KEY TO THE OPERATIONAL GROUPINGS OF STATIONS

GIBRALTAR GROUP

MALTA GROUP

ADRIATIC GROUP

AEGEAN GROUP

EGYPT GROUP

Aeroplanes

Seaplanes

Airships

Kite Balloons

Aircraft Carriers

H.M. Ships Vindex, Maxxman, Engadine, Ark Royal, Empress, Riviera and Peony where operating in the area either as depot ships or mobile bases
of them published here for the first time, this book should prove invaluable to the military historian and of wide appeal to the aviation enthusiast and general reader alike.

S.F. Wise, a pilot in the Royal Canadian Air Force during the Second World War, is a former Director of History, NDHQ. Among his published works is *Men in Arms: A History of the Interrelationship of Warfare and Western Society* (4th edition, 1979) written with R.A. Preston. He is a past president of the Canadian Historical Association and of the Social Science Federation of Canada. Currently he is Professor of History and Director of the Institute of Canadian Studies at Carleton University and Chairman of the Ontario Heritage Foundation.

The painting on the dustjacket is *The Red Air Fighter* by J.A. Turnbull (1890–?), accession number 8905, Canadian War Museum / National Museum of Man / National Museums of Canada. Turnbull, a Scot, flew operationally with the RFC in 1916 and 1917. This work was painted in 1918 and immediately bought by the Canadian War Memorials Fund Committee, founded and chaired by Lord Beaverbrook.

**Canadian Airmen and the First World War**

From the reviews

‘Truly a wonderful book! [The author’s] access to government files, skill as a professor of history, and experience as a WWII RCAF pilot are joined to produce a highly readable book ... as engrossing as a novel ... All theatres of war are examined in rewarding detail ... a wealth of insights and information.’ *World War I Aeroplanes*

‘He writes history as literature and conveys atmosphere skilfully ... by far the most detailed and best documented book that has yet appeared on the subject.’ *Kingston Whig-Standard*

‘Like all good histories, this official RCAF chronicle is one of cause and effect and makes it easy to understand how the exploits and determination and, later, the technical know-how of 20,000 airmen affected Canada’s destiny ... maintains a high level of freshness and immediacy.’ *Ottawa Citizen*

‘A brilliant history of Canada’s contribution to the air war of 1914–1918 ... This is a truly fascinating story about a largely unknown phase in this country’s development.’ *Hamilton Spectator*