101 Years of Aircraft Accident Investigation

P R Coombs

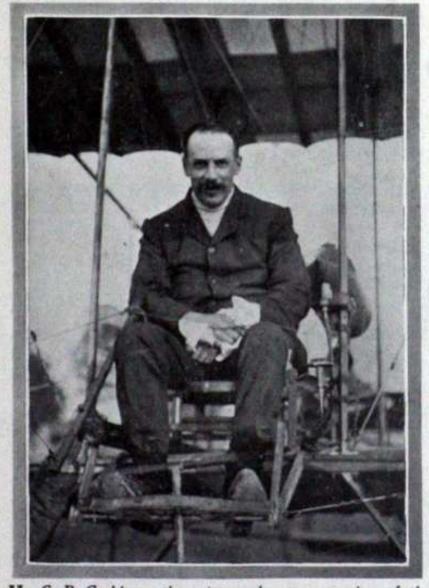
Link to recording of this lecture at the RAeS in London on 11th April 2013











Mr. G. B. Cockburn, the aviator who, as a member of the Aero Club of the U.K., will fly on behalf of Great Britain at the Rheims Flight Meeting next week.







The King's Patronage,

The Chairman, Sir Chas. D. Rose, Bart., M.P., has received a notification from the Right Hon. Sir William H. P. Carington, G.C.V.O., C.B., P.C., the Keeper of the King's Privy Purse, that His Majesty The King has been graciously pleased to become Patron of the Royal Aero Club.

A meeting of the Committee was held on Tuesday, the 4th inst., when there were present: -Sir Charles D. Rose, Bart., M.P., in the Chair, Mr. Griffith Brewer, Col. J. E. Capper, C.B., R.E., Mr. G. E. Cockburn, Capt. Bertram Diceson, R.F.A., Capt. J. D. B. Fulton, R.F.A., Col. H. C. L. Holden, C. B., F.R.S., Prof. A. K. Huntington, Mr. F. K. McClean, Mr. Alec Ogilvie, Mr. C. F. Pollock, Mr. R. W. Walkee, K.C., and the Secretary.

The Late Mr. Wilbur Wright,-The Chairman, before pro ceeding with the business of the meeting, referred to the deplorable loss to the science of aviation sustained by the death of Mr. Wilbur Wright. He reported that immediately on receipt of the sad news he had dispatched the following cablegram to Mr. Orville Wright :"The Members of the Royal Aero Club have received with

great serrow the sad news, and desire to tender you most brastfelt sympathies."

He had also cabled as follows to the Aero Club of America:—

The Committee of the Royal Acto Club desires to express its deepest regret at the loss of Wilbur Wright and its high appreciation of his eminent and unrivalled work in aviation."

aviation."

The Chaircan's action was unanimously approved and confirmed. On behalf of the members of the club Lord Monfagu, a member of the Club's Council, sent a wreath to the funeral from New York.

New Members,—The following new members were elected:— Major P. N. Buckley, Andre Marcel Descutter, William Hugh Ewen, Samuel Jordan Gillchrest, Rabert Leisester Harmsworth, M.P., Richard Heyne, O. F. Gdell, Andrew Mitchell Ramsay, Sir John C. E. Shelley, Bart, and Frederick Horosby Wright. Total membership to date 1,375.

Aviators' Certificates.-The following aviators' certificates were

318. Henry Charles Biard (Howard Wright Biplane, Hendon).

 Hugh Percy Nesham (Bristol Biplane, Brooklands).
 Charles Lindsay Campbell (Bristol Biplane, Salisbury).
 Francis Henry Fowler (Howard Wright Biplane, Hendon). 222. Thomas O'Brien Hubbard Howard Wright Riplane,

Hendon). 223. Montagu Righton Nevill Jennings (Bristol Biplane,

Salisbury). 224. Alphouse Potet (French subject) (Blériot Monoplane,

(Subject to sanction Acro Club de France).

225. Richard T. Gates (Howard Wright Biplane, Hendon).
225. Licat. David Percival, R.G.A. (Bristol Biplane, Salisbury).
227. 2nd. Corporal Frank Ridd, R.E. (Bristol Biplane, Salisbury).
228. Licat. Leonard Dawes (Bristol Biplane, Salisbury).

229. Lieut. J. N. Fletcher, R.E. (Cody Biplane, Laffans Plain). 230. Lieut. Baron Trevenen James, R.E. (Howard Wright Biplane, Hendon).

231. Marcus Dyos Manton (Howard Wright Biplane, Hendon). British Manufacturers' Sub-Committee, - Prof. A. K. Huntington reported on the meeting of the manufacturers held on May 22nd, 1912. The proposals for the formation of a subcommittee were approved, and it was resolved that the matter be

proceeded with. Public Safety and Accidents Investigation Committee .- On Fublic Satetw and Accidents Investigation Committee.—On the motion of Col. H. C. L. Holden the following report of this Committee was unanimously adopted :—Meetings were held on the fll, ars, grand and asth May, 1912, when there were present :—Col. H. C. L. Holden, U.B., F.K.S., in the chair, Mr. A. E. Berriman, Mr. G. B. Cockbarn, Capt. J. B. D. Fulton, R.F.A., Mr. F. K. McClean, 51r. W. O. Manning, Mr. Alec Oglivie, Mr. Mervyn O'Gorman, Sir Charles D. Rose, Bart, M.P., Major-General R. M. Ruck, R. E., Staff-Surgeon H. V. Wells, R.N., and the Secretary.

APPOINTMENT OF OFFICIAL REPRESENTATIVES. - It was decided to appoint Club Representatives at the various centres to enquire into and report on all accidents. The following have so far been appointed:— Easteburch—Mr. F. K. McClean, Mr. Alec Ogilvie, and Com.

C. R. Samson, R.N. Salishury-Mr. G. B. Cockburn, Capt. J. D. B. Fulton, R.F.A.,

Matistary — M. G. D. Southern St. A. M. L. Charteris. and Capt. E. L. Gerrard, R.M.L.I. Brooklands—Mr. W. O. Manning and Mr. R. L. Charteris. Hendon—Mr. C. Grahame-White, Mr. H. Barber, and Mr. R. T.

Manchester-Mr. P. B. Murray, Mr. J. B. Butler, and Mr. E. A.

Freshfield-Mr. G. Higginbotham.

BROOKLANDS ACCIDENT.—Report on the fatal accident to Mr. E. V. B. Fisher and his passenger, Mr. Victor Mason, when firing at Brooklands on Monday, May 13th, 1912, at about 6 p.m.

Brief Description of the Accident.—Mr. E. V. B. Fisher flying with a passenger on a Flanders monoplane fitted with a 60-h.p. Green engine had made two or three circuits of the Brooklands flying ground. He was making a left-hand turn when the aircraft fell to the ground, killing both the aviator and passenger. Almost immediately after contact with the ground, the aircraft was in flames.

Report,—The Special Committee sat on the following dates:—

Tuesday, May 21st, Wednesday, May 22nd, and Tuesday, May 28th, 1912, and heard the evidence of two eye witnesses, both of whom were aviators holding certificates. The Committee also heard the evidence of the designer and manufacturer of the aircraft, and of the representative of the maker of the motor. The written reports of other witnesses, and the report of Dr. Eric Gardner, were also considered.

From the consideration of this evidence the Committee is of opinion that the following facts are clearly established:-

(1) That the accident originated while the aircraft was making a left-hand turn at about 100 feet from the ground. (Evidence as to height, in the opinion of the Committee, is not conclusive.) (2) That the aircraft had turned through an angle of about 90' in

the borizontal plane,

(3) That it then side-slipped inwards.

(4) That it struck the ground head first, with the tail practically

(5) That from the effect produced on the engine and other parts the velocity at the moment of striking the ground was very

(6) That the fire which took place originated subsequently to the fall, and was the result not the cause of the accident.

(7) That there is no reason to suppose that the structural failure of any part of the aircraft was the cause of the accident.

(S) That from the commencement of the flight the aircraft was

flying tail down. (9) That the engine was actually running when the aircraft struck

the ground.

(10) That Mr. Fisher was not in any way incapacitated so far as the normal control of the aircraft was concerned by an injury to his left shoulder, which he had sustained on April 18th, 1912.

(11) That the passenger did not cause the accident.
(12) That Mr. Fisher was thrown, fell, or jumped out of the aircraft when the latter was a considerable height from the ground, his body being found about on ft. in front of the spot where the aircraft struck. The passenger remained in the aircraft: his position was such that be could not readily have been thrown out.

313 Mr. Fisher was granted his Aviator's Certificate No. 77, on May and, 1911, by the Royal Aero Club.

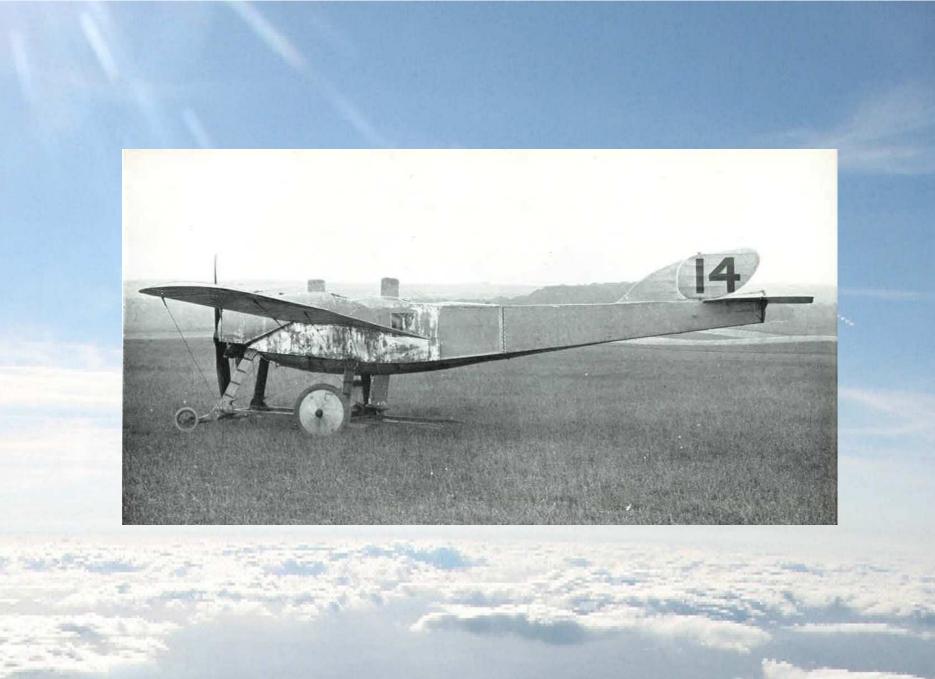
Opinion.—The Committee is of opinion that the cause of the accident was the aviator himself, who failed sufficiently to appreciate the dangerous conditions under which he was making the turn, when the aircraft was flying tail down, and in addition was not flying in a proper manner

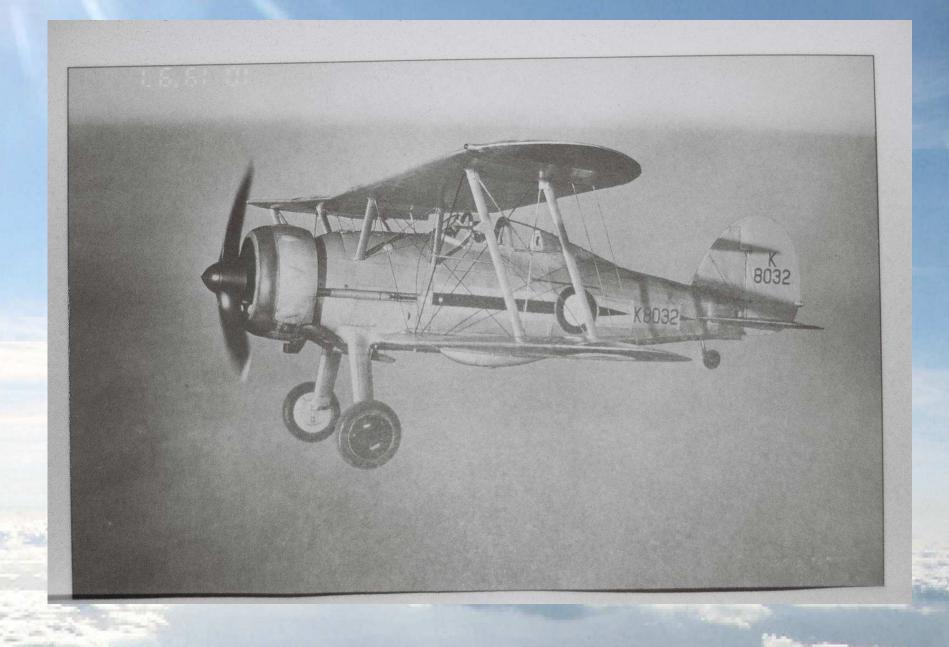
A side slip occurred, and Mr. Fisher lost control of the aircraft. It seems probable that his losing control was caused by his being thrown forward on to the elevating gear, thereby moving this forward involuntarily, which would have had the effect of still further turning the aircraft down. This would explain his being

In the opinion of the Committee it is possible that if the aviator had been suitably strapped into his seat he might have retained con-

It was unanimously resolved that this Report be forwarded to the Committee with a recommendation that it be published in extenso







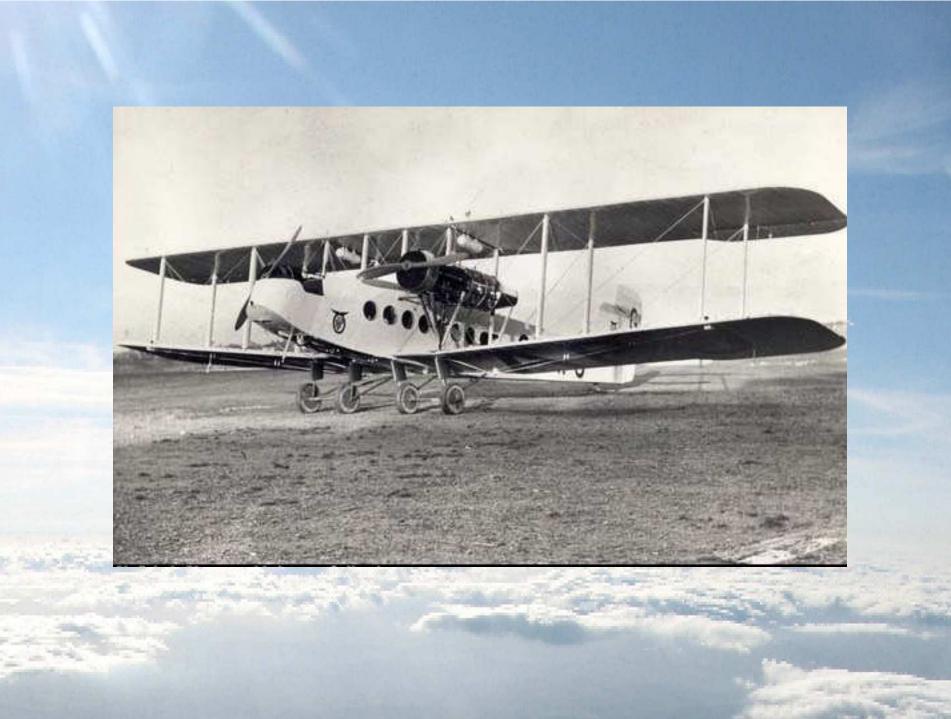






1919. Civil Accidents.			
	accidents.	Killed.	Injured
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Pelnung	0	0	0
march.		0	
april		0	0
May.	.5	0	9.11
gune.	O	0	0
July. August.	4		4
September.	4		3
October.	.3	0	<u> </u>
November		2	0
Duember.	L	2	0
Total:	.18	6	16 mm m m m m m m m m m m m m m m m m m

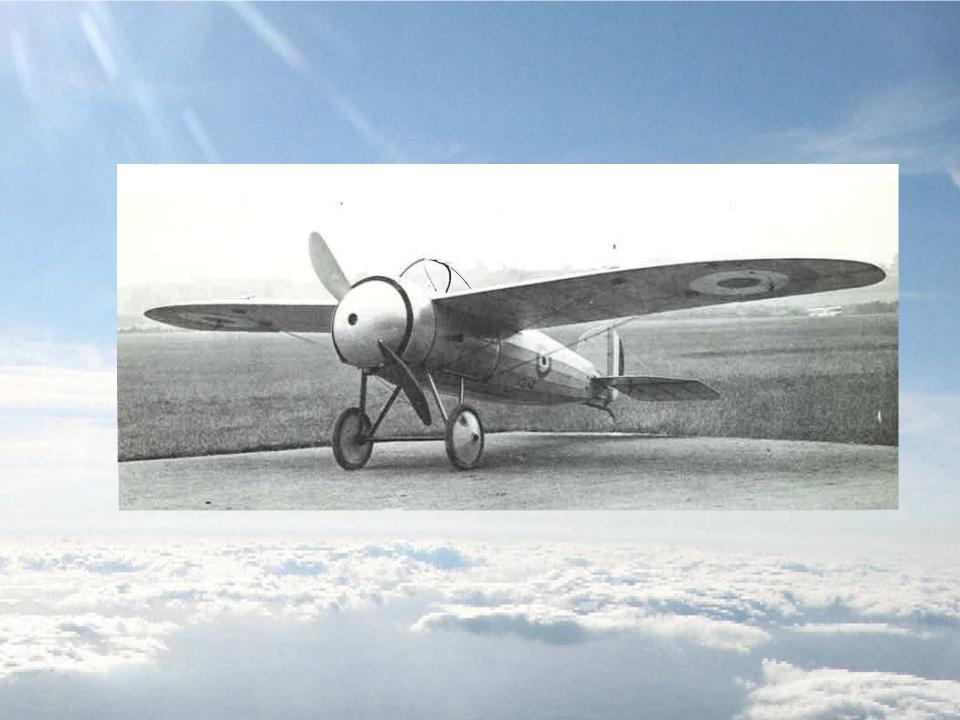


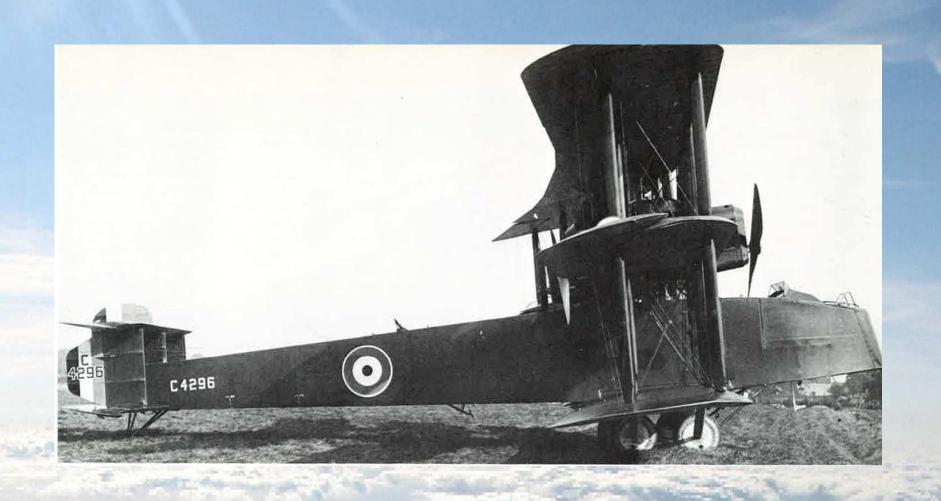




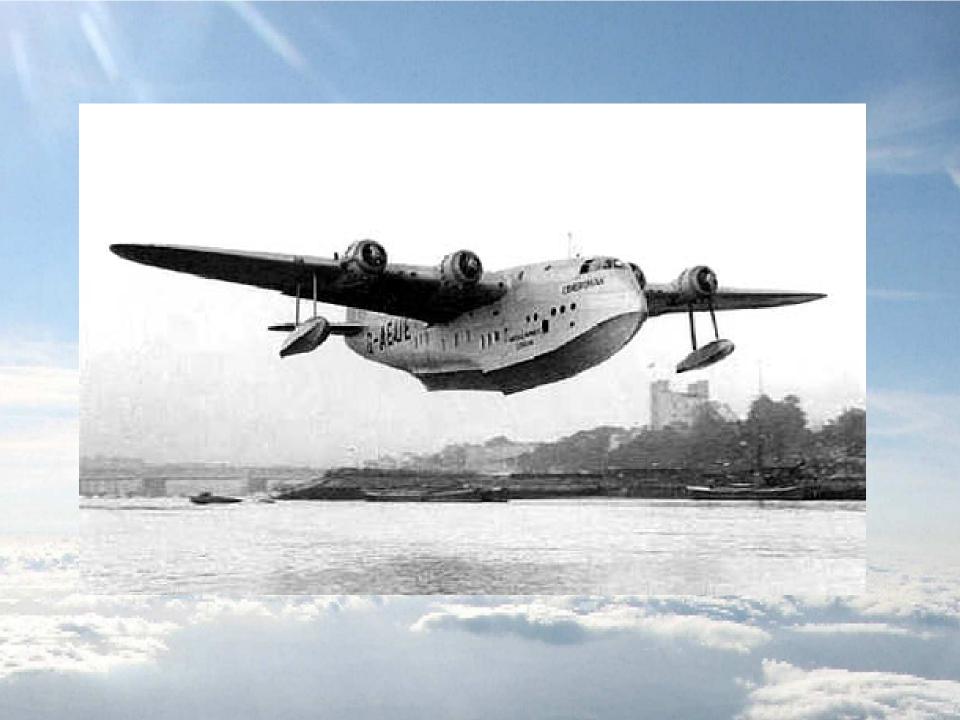














International Standards and Recommended Practices



Annex 13 to the Convention on International Civil Aviation

Aircraft Accident and Incident Investigation

This edition incorporates all amendments adopted by the Council prior to 23 February 2010 and supersedes, on 18 November 2010, all previous editions of Annex 13.

For Information regarding the applicability of Standards and Recommended Practices, see Chapter 2 and the Foreword.

Tenth Edition July 2010

International Civil Aviation Organization



FRONTIER AIRLINES





