

RAF COLLEGE CRANWELL

HRD Waghorn AFC



Winner of Schneider Trophy 1929
RAF Cranwell 1922 - 1924

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Henry Richard Denvers WAGHORN



"Roxa" Looseleaf Books 138 Sp. 42074
J. W. Raddock & Sons, Lincoln and London

COLLEGE SEQUENCE NUMBER 168.		CHRISTIAN NAMES HENRY RICHARD DANVERS.		SURNAME WAGHORN.	
BORN	DATE	NATIONALITY	DATE	RELIGION	DATE
JOINED COLLEGE	6/9/04.	English.		Church of England.	
LEFT COLLEGE	15/9/22.	ORDER OF MERIT ON JOINING		NO. IN CLASS ON JOINING	
	30/7/24.	ORDER OF MERIT ON LEAVING		23.	
		6.		NO. IN CLASS ON LEAVING	21.
PROMOTED		JOINED		DROPPED	
CADET CORPORAL		1ST CLASS	15/9/23.	AFTER	TERM
CADET SERGEANT		2ND CLASS	2/2/23.		
UNDER OFFICER	17/1/24.	3RD CLASS	14/9/23.	AFTER	TERM
		4TH CLASS	18/1/24.		
COMMISSIONED IN R.A.F.	31/7/24.	REASON FOR WITHDRAWAL IF COURSE NOT COMPLETED			
NAME OF PARENT OR NEXT OF KIN Mrs. A.M. Waghorn.			ADDRESS The Norfolk Hotel, Harrington Road, South Kensington.		
PROFESSION OF PARENT OR NEXT OF KIN Father, Civil Engineer, deceased.			CHANGE OF ADDRESS		
WHERE EDUCATED Wellington College.					
PRIZES, ETC., ON JOINING			PRIZES, ETC., ON LEAVING Sword of Honour.		
REMARKS AND FURTHER HISTORY					
<p>The following notice appeared in the London Gazette dated 20th September, 1929:-</p> <p>"The King has been graciously pleased to approve of the award of the Air Force Cross to Flying Officer Henry Richard Denvers Waghorn in recognition of his achievement in winning the recent "Schneider Trophy" Air Race. (A.M.W.O. 602/29).</p> <p>Promotions: Flying Officer 31/1/26. Flight Lieutenant 13/11/29. Died of injuries as the result of a flying accident 7/5/31. (Farnborough).</p>					
COLLEGE SEQUENCE NUMBER 168.		CHRISTIAN NAMES HENRY RICHARD DANVERS.		SURNAME WAGHORN.	

College Journal Extracts - Autumn 1929

This is the first of the four slides, which highlight the exploits of Messrs Waghorn and Atcherley during the 1929 Schneider Trophy win. A number of Cranwellians made significant contributions to record breaking long range and high speed flights.

OLD CRANWELLIAN NEWS.

FROM THE EDITOR'S MAIL.

WE are glad to hear of the recovery, after an accident in a Hyderabad bomber at Upper Heyford, of P./Officer W. R. Worstall.

Congratulations on their engagements to F./Officer Part, F./Lieut. King Lewis and F./Lieut. David.

The following Old Cranwellians have entered the married state since we last went to press, and we offer them our best wishes:—F./Officer J. McN. Campbell, F./Lieut. Walter Akerman, F./Officer Pearson Rogers, F./Officer G. N. J. Stanley-Turner, F./Lieut. Opie and F./Lieut. E. Ward.

F./Lieut. G. E. Nicholetts, who, along with many other Old Cranwellians, we must congratulate on his promotion, took part in the Far East Flight of Supermarines to Singapore.

We were glad to receive visits this term from R.A.F. teams, and which comprised Old Cranwellians; in fencing from Owen, Jörgensen, and Worsley; in boxing from Beamish, Cannon, Bigg, and Loughnan.

We offer our sympathy to his parents in the death of their son, J. E. Jörgensen. He was last up at Cranwell for the Old Cranwellians' day.

Congratulations to S./Ldr. D. O. Mulholland on his engagement.

F./Officer George Beamish captained the R.A.F. rigger side last season, and had with him F./Officer J. Clarke, F./Officer N. H. White, F./Lieut. F. V. Beamish, P./Officer J. R. Pott, P./Officer J. G. Llewellyn, P./Officer Constantine, and P./Officer Letchworth.

We were very sorry to hear of the death, as the result of a motor accident, of P./Officer H. W. Gibbs. He was sub-editor of this Magazine, and a valued friend of the writer of this note. We offer his parents our sincere sympathy in the loss of their only son.

On March 23rd last F./Officer F. H. Moon died in hospital, Aden, of enteric fever. We offer his parents our sincere sympathy in the loss which all of us—and not least the writer—have sustained.

Yacoub Bashir has rejoined the Military College at Baghdad. He will probably visit us next year.

F./Officer H. R. D. Waghorn, R.A.F., has joined the High Speed Flying Section of the Marine Aircraft Experimental Establishment, Felixstowe. Four of the five C.F.S. Instructors who put up that marvellous display on Genet-Moths at the R.A.F. Display of 1927 are now attached to the High Speed Flying Section.

F./Officer R. L. R. Atcherley has looped and rolled the Gloster IV, which is one of the machines in which the Flight is being trained.

F./Lieut. F. V. Beamish has been posted to Camp Borden, Canada, and has taken over an instructional flight of Moths and Lynx Avros. Camp Borden is eighty miles from Toronto, well out in the blue. At present his mess is isolated, except by radio, as the roads and railway are impassable owing to the floods due to the thaw. Life there is very pleasant, and there is plenty of sport. Badminton, soccer, and golf hold sway. There are tennis courts, a swimming bath, and a nine-hole golf course.

This is one of the very few permanent Canadian messes, and it is exactly like the standard Royal Air Force Mess. There is no end of flying, there being a service flight of many different types, as well as the Moth and Lynx.

Schneider Trophy
Winners

College Journal Extracts - Spring 1930

This is the second of the four slides, which highlight the exploits of Messrs Waghorn and Atcherley during the 1929 Schneider Trophy win. A number of Cranwellians made significant contributions to record breaking long range and high speed flights.

OLD CRANWELLIAN NOTES.

It must be remembered that these notes do not profess to record the activities of all Old Cranwellians, but only record the activities of those which come to the notice of the Editors, who are very glad to hear from all Old Cranwellians at any time.

It is with great regret that the retirement of Air Vice-Marshal C. A. H. Longcroft, C.B., C.M.G., D.S.O., A.F.C., is noticed. The first Commandant here, he has always been the friend of the College, and taken a keen interest in its activities.

Congratulations to the late O.C. "B" Squadron, Wing-Commander I. T. Lloyd, and the late O.C. "A" Squadron, Squadron-Leader D. O. Mulholland, A.F.C., on their marriages.

We are glad to see the announcement of the marriages of F./Officer Southey and F./Lieut. E. H. M. David.

Congratulations to F./Lieut. G. R. M. Clifford and F./Officer Hunt on their engagements.

It is with deep regret that we announce the fatal illness of J. C. Don, in South Africa, in March of last year. He will be remembered by many as a keen and knowledgeable whipper-in of the College Beagles. To his parents and friends we tender our sympathy.

Congratulations to F./Lieut. H. R. D. Waghorn, A.F.C., on winning the Schneider Trophy Race for Great Britain, and to F./Lieut. R. L. R. Atcherley on putting up the fastest lap and so breaking many world's air-speed records.

Congratulations to A. P. F. M. Berkeley on the award of the Spanish Decoration for his recent activities.

Schneider Trophy Winners

CLICK



F/C Sgt RLR Atcherley

Spring 1930 - Schneider Trophy (1)



U/O HRD Waghorn

This is the third of the four slides, which highlight the exploits of Messrs Waghorn and Atcherley during the 1929 Schneider Trophy win.

THE SCHNEIDER TROPHY.

A VIEWPOINT BY FLIGHT-LIEUTENANT H. R. D. WAGHORN, A.F.C.

It was with rather mixed feelings that I took my first look at the sea on the morning of the Schneider Trophy race. After a period of training made up of a series of disappointments, I fully expected that the "Weather King" had some card up his sleeve which he would produce on that memorable day. It did not require much to cause a postponement, which would be a source of disappointment to thousands of people. The slightest swell or white horse on the one hand and dead calm on the other were the limits that bounded our capabilities.

The day was unique, a deep blue sky of a type rarely seen in this country, coupled with an amazingly good visibility. At the time, it was blowing ten miles an hour, and all was bustle on the tarmac. Some machines were already on their pontoons, while others were black with mechanics using the last minute for finishing-touches. The machine that I was to fly, the Supermarine N247, was not out yet.

Only eight hours before, one of the Rolls-Royce mechanics noticed a small bit of metal on the electrode of one of the plugs. Uneasy, they removed the block to find a seized piston and a hopelessly scored cylinder. What bad luck! No one considered it possible to be able to change the cylinder block of this particular engine in the time left. Under ordinary conditions, Rolls would not undertake it while in the machine; and it was midnight before the race! The story of how that block was changed, how their specialists (by chance in Southampton) were woken by police, is well known. Suffice it to say that these mechanics did it, and by so doing saved the trophy.

It was about 10.30 on Saturday morning when N247 came out of the hangar and had its final run-up. Soon after this, she was put on her pontoon and joined the queue of shipping which was still emerging in one long stream from Hamble River and Southampton Water. She had about two miles to go to the place that had been decided on for our take-off point. This was between Lee-on-Solent and Calshot, and so chosen because of the wind which was south-east. Here were already anchored the big pontoon and the three Macchis and our other pontoons with Greig's and Atcherley's machines on board. There was also the official starting ship—the *Medea*.

At about seven minutes to two, my engine was started by Lovesay, the Rolls expert, and was run by him for barely two minutes. I then climbed in and made myself as comfortable as possible. At two minutes to two I was lowered into the water and started to take off immediately.

I will here digress slightly and describe in detail the procedure followed up after opening the throttle, as the S6 was in many ways peculiar. Owing to the slow revs. of engine and propeller, coupled with the great power and consequent great torque effect, the first thing that happened on opening up the engine was that the left wing tried to dig itself into the water. This almost submerged the left float, and the drag so produced swung the machine rapidly to the left, making her quite uncontrollable; the more the machine swung to the left of the wind, the more rapid did the swing become until centrifugal force became greater than the drag of the left float, and she would suddenly throw her right wing down rather violently, making it essential to shut off the engine.

With a fairly fresh wind and full load, it is advisable to take off directly into wind, and with that end in view we found it essential to point the machine about 70 degrees to the right of the wind and to have right rudder on from the start.

The machine then runs along with its left wing a few inches from the water across wind, but not swinging. She is clear of the spray, which up to 30 m.p.h. completely envelops the pilot. Having got her, therefore, running across wind at 40 to 50 m.p.h., one is now confronted with what is really the trickiest part of the proceedings, and that is to get her into wind without letting her swing right round, which she will want to do. Once left rudder is applied, the machine will accelerate rapidly and, provided you have not put on too much rudder, should reach her hump speed by the time she is directly into wind. At this point she assumes a new position on the water—very much lower in front—and accelerates rapidly up to taking-off speed. She seems to leave the water at about 100 miles an hour, and I have never been able to take off with full load without two or three bounces.

To return to the race, once off the water I made my way towards Old Castle Point, and then turned left and dived down over the starting-line at about 350 miles an hour. The pylons were mounted on destroyers, and stood out quite well, provided they were not anchored against a background of shipping. We could not get a view directly ahead, and had to pick up the correct line largely while turning the previous pylon. On the long legs, we picked our course mainly by landmarks or shipping which we passed near. As an example, the Seaview turn was anchored, say, half a mile from the shore. By plotting our radius of turn on the chart, and from previous practice, we knew that we should have to have the coast, say, 500 yards on our right. By aiming to do this, we would arrive in approximately the correct position; when about 200 yards off the pylon we could see it, so that the actual turn itself was gauged with the pylon in view.

The first lap was naturally the most difficult, because we were not used to the various groups of shipping which afterwards helped so much to our course-keeping. As an example, while passing the Seaview turn on my first lap, I looked for the Chichester turn-ship and picked out the only isolated vessel in that area. I made for it, and while still some little way from it saw the pylon away on my left. I had been quite unable to see it, as it had had a background of shipping immediately behind it. The ship which I had mistaken for the turn-ship was in fact an oil tanker, and should not have been allowed to stray where it had. Atcherley, indeed, turned round it. My own detour cost me six miles an hour, and that is the reason my first lap speed was only 324. From the Chichester turn I could see the Southsea pylon while still turning and had no difficulty at all in passing it, the esplanade on my right being also a great help. Next I came to what was the most difficult leg of the course—that from Southsea to Cowes—as there was no land and practically no shipping to guide one on approaching the turn. To make matters more interesting for the competitors, someone had conveniently parked a flotilla of destroyers immediately behind the pylon; hence the amazing turns of some of the Italians embracing all the destroyers. I think in any future race (if there is one) the authorities should make quite sure that there be a lane quite clear of ships behind the pylon as viewed from the direction of approaching aircraft; this, of course, is not the same thing as a lane in continuation of the actual course, since the aircraft approach the turn very wide. Once round the Cowes turn the course was plain sailing again, there being plenty of shipping and the shore of the Isle of Wight to help one.

I had completed several laps, everything was going beautifully—never a miss from the engine, and the machine handling perfectly—when I noticed the Italian Macchi diving towards the starting-line just as I was coming up to



F/C Sgt RLR Atcherley

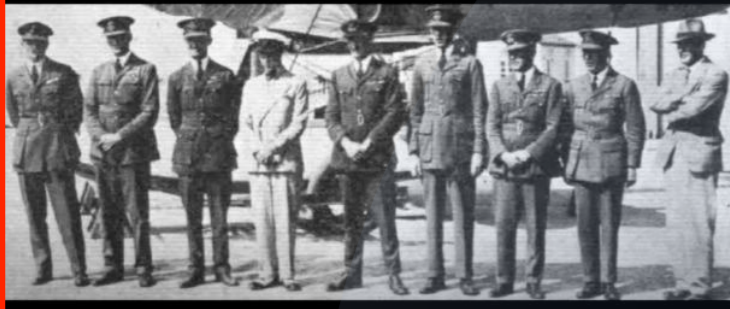
Spring 1930 - Schneider Trophy (2)



U/O HRD Waghorn

This is the fourth of the four slides, which highlight the exploits of Messrs Waghorn and Atcherley during the 1929 Schneider Trophy win. The title on this and the previous page links you to a YouTube recording of the Schneider Trophy competition in 1929.

Prince of Wales with the British Team



N247/2 Supermarine S.6



the Cowes turn; at the Seaview turn I could not see him at all; at the Chichester turn I saw him a speck in front, and at the Southsea turn I saw him disappearing over Alverstoke—this time much nearer, and as I was obviously overtaking him rapidly, the question was, would I overtake him on the straight before the Cowes turn or just after? I hoped for the latter, for if I should catch him before the turn, I should not be able to see him. However, it planned out as I hoped; for, on rounding the Cowes pylon, I saw him just coming out of his turn a few hundred yards in front. I decided to pass him on the inside, and swung about a hundred yards to the left to clear him. I passed him about half-way down the straight.

By now, I had completed five laps and everything was going just as it should. The air in the cockpit was very hot, but, owing to a stream of fresh air from the ventilating pipe over my face, I was not too uncomfortable. An attempt to rest my knees on the sides of the fuselage was abruptly stopped when I discovered that they were to all intents and purposes red-hot; a slight exaggeration, perhaps, but that is what it felt like, and through my slacks, too! I was flying at about 150 to 200 feet, as I found that at that height I got the best view of the course, and it was sufficiently low to be able to keep level. I had been running all the time somewhat below full throttle, as, owing to the unexpected increase in power and consequent petrol consumption of the engine, she would not last the course with the petrol we were able to carry safely. The rate that petrol can be poured out of a two-gallon tin will give some idea of the rate that the engine was consuming its petrol during that race. I had therefore been told on no account to use full throttle, as I should not finish the course; imagine, then, my feelings when the engine momentarily cut right out and started missing badly just after I had finished what I imagined was my sixth lap! Would the Rolls engineers ever believe that I had not given full throttle? I began to gain height and continued round the course with the engine spluttering and only taking about half throttle. I climbed as much as possible, in the hope that, should she run right out, I could perhaps glide the remaining distance over the line; I was, incidentally, getting a very fine bird's-eye view of the entire course, but under the circumstances was not impressed. I got to the Cowes turn and, while banking, the engine cut out completely, and I was forced to land off Old Castle Point—only a few miles short of the finish. I leave my feelings to your imagination.

It was twenty minutes later that I learnt I had done an extra lap, and I also realized how deadly accurate had been Lovesay's estimation of the petrol consumption.

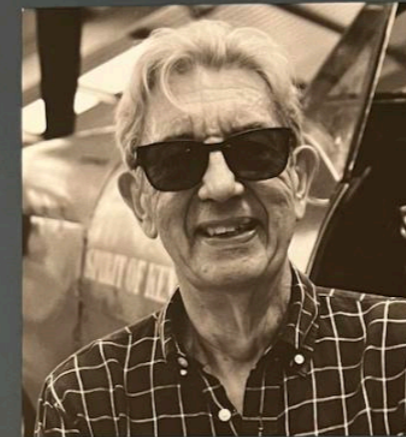
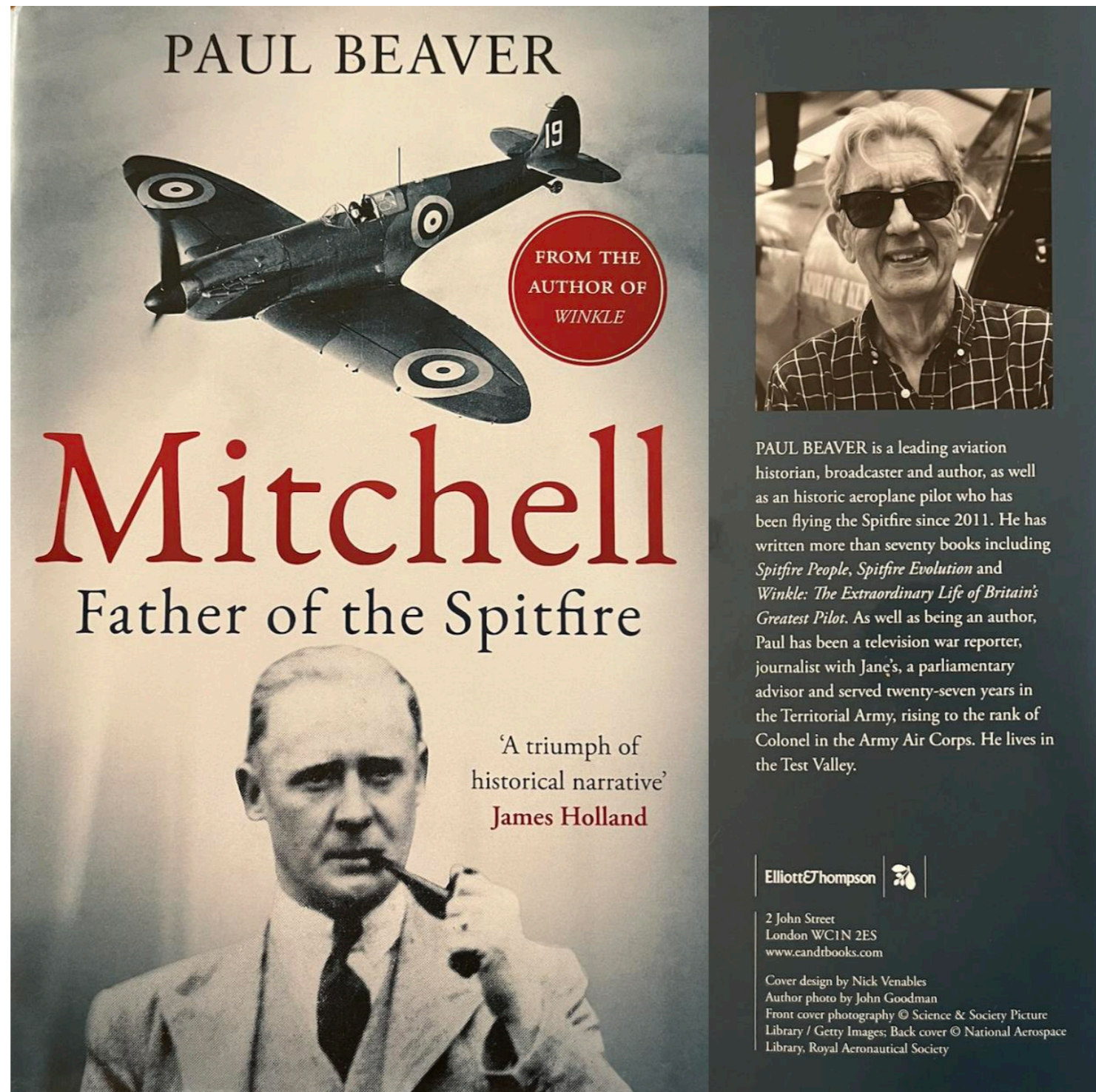


[By courtesy of "The Aeroplane."]

F./LIEUTS. GREIG, WAGHORN AND ATCHERLEY AFTER THE SCHNEIDER COMPETITION—SUMMER, 1929.

2025 Extracts from 'Mitchell - Father of the Spitfire' (1)

Not only did Cranwellians Waghorn and Atcherley play pivotal roles in the Schneider Trophy, but another adopted Cranwellian (1925-27), TE Lawrence, was to play a role.



PAUL BEAVER is a leading aviation historian, broadcaster and author, as well as an historic aeroplane pilot who has been flying the Spitfire since 2011. He has written more than seventy books including *Spitfire People*, *Spitfire Evolution* and *Winkle: The Extraordinary Life of Britain's Greatest Pilot*. As well as being an author, Paul has been a television war reporter, journalist with *Janęs*, a parliamentary advisor and served twenty-seven years in the Territorial Army, rising to the rank of Colonel in the Army Air Corps. He lives in the Test Valley.

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Cover design by Nick Venables
Author photo by John Goodman
Front cover photography © Science & Society Picture
Library / Getty Images; Back cover © National Aerospace
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Whilst reading the above book released in 2025, we noted several references to TE Lawrence and his contribution to the administration of the 1929 Schneider Trophy, won by Cranwellian Dick Waghorn. There are no references at the RAF College to this administrative work by Lawrence, as AC Shaw, during the conduct of the air race. So we approached Paul Beaver for permission to reproduce the relevant extracts of his book here, which he has kindly now given.

2025 Extracts from *'Mitchell - Father of the Spitfire' (2)*

Extract on TE Lawrence from Page 59 and the chapter entitled *'Schneider 1922 and 1923'*:

Schneider 1922 and 1923

Exchange in 1925. Mitchell was one of those who bought shares and watched his investment go from strength to strength. The capitalisation rose from £13,500 to £250,000 in a year.

There is no doubt that Scott-Paine was visionary. Unlike Pemberton-Billing, he was interested in the physical rather than the theoretical and theatrical. He had inspired the company's leadership in flying-boat design. He also saw the flying boat's potential as an airliner for linking countries without the need for expensive runways and airports – parallel thinking to Juan Trippe in Florida, who created Pan American Airlines using flying boats. In 1927, Scott-Paine's new company, British Power Boats, pioneered custom-built tenders for flying boats and its clientele included

“Cranwellian” TE Lawrence, as TE Shaw, was to work closely with former Supermarine owner, Scott-Paine, both sharing a love of speed on water and the subsequent development of speedboats. Scott-Paine later took his designs to the USA at the start of World War II and produced the first American MTBs, working with the Elco company.

Imperial Airways. He was also associated with T. E. Lawrence,* then an airman under an assumed name in the Royal Air Force with a passion for fast boats. Lawrence and Scott-Paine shared a love of speed on the water, although it is reported that the latter found the former 'tiresome'. Scott-Paine would go on to hold the world speed record for a watercraft with *Miss Britain III* at 110 mph in 1934.

Back at Supermarine, the firm was going from strength to strength. By the time Scott-Paine left, it had a serious following of London supporters, including members of the Air Council such as the Duke of Sutherland (Under Secretary of State for Air), Brigadier-General Ralph Bagnall-Wild (formerly president of the Royal Aeronautical Society and then director of research for

Shunning publicity, TE Lawrence, as TE Shaw, spent two years at RAF Cranwell (1925-27).

* Lawrence of Arabia had become a household name after the highly successful guerilla operation he had led in the Arabian Desert in the First World War.

2025 Extracts from 'Mitchell - Father of the Spitfire' (2)

Extracts on TE Lawrence from Page 117 and 118 and the chapter entitled 'Schneider 1929':

Mitchell's plans were taking shape. However, during the late 1920s, various senior members of the Air Council and the Air Staff expressed concerns about the resources going into the Schneider, so it wasn't all plain sailing. Mitchell isolated himself from the

Whitehall debates, but he had an ally in the wings. Probably unbeknownst to Mitchell, T. E. Lawrence, who had been serving in the Royal Air Force under the assumed name of Aircraftsman Shaw in 1925-26, was a strong supporter and not without political influence. He was a friend of the Salmond* brothers; the Italians liked him, and he seems to have lobbied for a Schneider Committee to be formed with military-aviation as well as political

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* Air Chief Marshal Sir Geoffrey Salmond and his younger brother, Marshal of the Royal Air Force Sir John "Jack" Salmond, were two of the most influential figures in the early history of the Royal Air Force (RAF) and the only brothers to both hold the top post of Chief of the Air Staff (CAS).

membership. It helped that the then chancellor of the exchequer, Winston Churchill, was a huge supporter of aviation. However, as is typical for government, support waxed and waned: at one stage, after the 1927 race in Venice, the High Speed Flight had been disbanded, but it was now back in business for the future races after political intervention.

A Treasury note was circulated on 28 December 1928: 'Their Lordships agree that on this occasion a suitable British team can be provided only by the Royal Air Force and They therefore sanction the expenditure involved by this course. They trust however that the Air Council will be careful not to commit themselves to competing in any contest which may be held in the future.'

In 1929, Lawrence was able to witness the Schneider contest first-hand. After being posted to the North-West Frontier, he seems to have been offered a choice of posting, and chose RAF Cattewater on Plymouth Sound, the south-west approaches' flying-boat station. There he could indulge his interest in high-speed water craft. He wrote to a friend and said: 'I'm a cross between clerk and deck-hand on a RAF Motor Boat.'³ It is not every aircraftsman that is personally posted by the Chief of the Air Staff, but such was the relationship between Lawrence and Trenchard. Suddenly, Lawrence found himself involved in the preparations for the Calshot race event of 1929.

The last race, in which the Supermarine S5 had taken first and second prizes, had been held at Venice in 1927. The cost of annual competitions was making a worthwhile event difficult to achieve so the aero clubs of the competing nations got together and agreed to hold the event every two years instead. A biennial event would

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'3' here refers to TE Lawrence/Shaw's contribution to the Schneider Trophy

2025 Extracts from 'Mitchell - Father of the Spitfire' (2)

Extracts on TE Lawrence from Page 121 and 122 and the chapter entitled 'Schneider 1929':

as well as their flying qualities and speeds . . . The Prince was deeply interested and impressed.⁶ Also present were the prime minister, the dour Scot Ramsay MacDonald, T. E. Lawrence, Hubert Scott-Paine and various diplomats from London. Lawrence was again masquerading as a very junior airman, driving one of Scott-Paine's high-speed launches around the Solent and acting as the administration clerk for the enterprise – as well as being invited to parties with diplomats all keen to meet him. Interestingly, Lawrence is quite circumspect about racing seaplanes. Throughout his correspondence of the period, he seems to be more concerned about how much work was involved, how tiring it all was, and what a relief it was when it was finally over. There was, no doubt, personal and professional pride and satisfaction in a job well done – Lawrence later told Lord Trenchard: 'The Schneider show ran like clockwork: a great relief, after all the months everybody spent on it. It tired me out, anyway'.⁷

Did Lawrence celebrate the victory that day? Historian Pieter Shipster writes that:

Lawrence's letters reveal no sentiments of overt or jingoistic pride in Britain's victory. This is perhaps not surprising given Lawrence's lifelong dislike for competitive contests, but it is surprising that Lawrence with his professed love of flying and his passion for speed and mechanical perfection did not make any comment – at least in his correspondence – on the beautiful Schneider Cup [sic] aircraft that were at the cutting edge of aviation technology

Mitchell: Father of the Spitfire

and high speed flight that he saw being flown day after day while at Calshot.⁸

Perhaps Lawrence did take note when, five days after the Schneider contest, Squadron Leader Orlebar,* commanding officer of the High Speed Flight, flew an S6 airframe to a new world absolute air-speed record of 357.7 mph. It was another triumph for Mitchell, Supermarine and all those who had supported the Schneider entries.

At Southampton, aboard the steward ship *SS Orford*, Ramsay MacDonald pledged his support and that of the government, including the Air Ministry and Royal Air Force, to defending this second successive win with a view to gaining the Schneider Trophy permanently. It would take a mere two months to change that pledge.

Following the Wall Street Crash in October 1929, and with a worsening world economic outlook, the government of Ramsay MacDonald withdrew funding and direct support for a third and final bid to win the Schneider Trophy outright in the 1931 contest at Cowes. In a surprise announcement, the government blamed the move away from Schneider's original intentions (it was not lost on Mitchell that Jacques Schneider had wanted his competition to help the development of commercial rather than military aviation), and saying that sufficient high-speed flight data had been collected and further official support was no longer needed. The wording of

* After the Schneider Trophy contest Orlebar went on to command RAF Northolt as the Hawker Hurricane came into service, then No 10 Group and finally was Deputy Commander of Combined Operations.

