

# The de Havilland Aeronautical Technical School, Portsmouth

*Bob Wright (Student 1952-1957) et al*

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Having read Garth Rogers' excellent account of the DHAeTS at Christchurch in the Newsletter and on the web-site, I felt that I ought to complete the story by putting finger to keyboard and composing a few words about de Havilland's Airspeed Division at Portsmouth Airport and, later, some details of its branch of the DHAeTS.

But first, a bit of background on the Airspeed company and its founders. The close connections between de Havilland and Airspeed go back to the early 1920s. Airspeed's co-founders, both ex-de Havilland people, were A. Hessel Tiltman, a Senior Designer, and Nevil Shute Norway, a performance calculator. Norway was better known in his latter years by his pen-name, Nevil Shute, the popular author, after dropping his surname. Norway joined de Havilland at Edgware after he came down from his engineering degree course at Balliol College. On one occasion Sir Geoffrey de Havilland took Norway up for a flight in his personal DH 6, ostensibly to demonstrate exactly what he meant by stability.

After his time with de Havilland's, Norway joined Barnes Wallis on the R100 airship project, first as a calculator, later becoming Barnes Wallis's Deputy Chief Engineer. The R100 was being constructed by a subsidiary of the Vickers company. With the demise of airships generally, following the crash of the competing Government R101, Norway was out of a job and together with Tiltman set up Airspeed Ltd. at York in 1931, with the backing of Sir Alan Cobham, also a one-time de Havilland employee. Such was the initial success of the company that they were granted a licence to build the Douglas DC 2 (not taken up). This was quite possibly extendable to the DC 3. What might have been?



*Aerial view of Portsmouth Airspeed Division's No 1 Factory. Langstone Harbour shoreline is just across the football pitch in the foreground. No. 2 Factory is along the road to the left. Portsmouth Aero Club's blister hangar is at the top of the picture. (Photograph by courtesy of David Fagan)*

The company moved to the (then) new airport at Portsmouth in 1933, thanks to the City Council's very benevolent terms and also due to a futuristic plan to develop a seaplane base in Langstone Harbour. In 1938, with WWII looming, but with a very substantial order book for Airspeed AS.10 Oxfords, Norway, after a falling out with his Board, resigned. He later decided to put his skills into helping with the war effort and joined the RNVR. He rose to the rank of Lt.Cmdr., working at the Admiralty's Directorate of Miscellaneous Weapons Development (aka the "Department of Wheezes and Dodges"), creator of the ill-fated Great Panjandrum wheel and many other, more successful, projects.

Later, Norway emigrated to Australia, devoting his second career to writing.

As mentioned in the article on the DHAeTS at Christchurch, in 1940 de Havilland bought out ship builders Swan Hunter's controlling block of Airspeed shares. Also, at about this time, the Christchurch plant was built as a shadow factory for Portsmouth, partly because His Majesty's Dockyard, some 2.5 miles away, was a major target during the Blitz of WWII.

By then, de Havilland and Airspeed were busy building each others' aircraft, eg. the 1500 plus Airspeed Oxfords built by de Havilland and a large volume of Mosquitos built by Airspeed. Another significant aircraft produced in its thousands during WWII, was the Airspeed AS.51 Horsa glider.

In 1951 de Havilland completed their acquisition of the Airspeed company by a 'one-for-one' share exchange and the company became the Airspeed Division of de Havilland. Immediately after WWII, there was some activity converting ex-military Oxfords into civilian AS.65 Consul passenger aircraft. However, by the early 1950s the Portsmouth factory was relegated to the role of component producer, making such significant items as the major Centre Section assembly for the AS.57 Ambassador; Vampire Trainer T Mk 11 fuselages; Venom drop tanks; Comet fuselages for Hatfield; Sea Vixen centre sections; Venom and Vampire wings. The latter were supplied fully equipped with wiring looms, plumbing, dive brakes, bag tanks, and the full paint job. At this time, as during WWII, the site was the second largest employer in Portsmouth, next to HM Dockyard.

Norway himself still occasionally would visit his old haunts at the factory in the 1950s, flying in with his personal Hornet Moth, or was it a Leopard Moth?

The Portsmouth operation occupied three separate locations. The No 1 factory was situated on the East coast of Portsea Island, adjacent to Langstone Harbour (see aerial photograph above). Just before WWII, the Eastern Road was built along the strip of land between the factory and the shore line. This road became one of only two roads onto Portsea Island and access to the city itself. The No. 2 plant was about half a mile to the West and, in our era, the main activity there was Vampire and Venom wing manufacture, but there was also a substantial machine shop. The final site was the Tool Room, located some two miles to the North at Farlington.

A few disconnected memories:-

.....within the No. 1 factory, Pete Strong recalls the lovely 'pear drop' aroma emanating from the Dope Shop, where an acetate based coating was applied to taughten fabric covered structures, possibly Oxford/Consul control surfaces, (a glue sniffers' paradise)

.....and Frank Valerio remembers being instructed never to go into the factory alone as "the girls would get him"!

Referring again to the aerial photograph, the Technical School occupied the white building immediately behind and slightly to the right of the odd-shaped brick built administration block, nearest the main road. (It is worth noting that Norway, in 1934, had himself set up an Aeronautical College, with fees for a three year course pitched at 250 guineas. Eventually this became the basis for the site's DHAeTS.) The accommodation in the school consisted of a fitting section and a machine shop, together with the instructors' offices. Further along was a drawing office cum lecture room which was also capable of handling instructional film shows, and the Principal's and his secretary's offices.

The Technical School at Portsmouth was supervised by the said Principal, Flt.Lt. Jack Glover, and had an annual intake of about 24 to 30 lads, plus the occasional BOAC seconded apprentices. He was ably assisted by two workshop instructors, Harry Stubbs and Reg Fox, and a technical drawing instructor, Mr Stevenson. Stevenson had had a most

interesting career in the aircraft industry, having worked in the 1910s for Alliot Verdon Roe (Mr AVRO) as a rigger/fitter/mechanic, in the early days of aviation, at Laffans Plain, Farnborough. He could be very easily distracted during a lecture, once he started reminiscing, particularly if he had brought in his collection of photographs! (Maybe, unknowingly, that was a part of the learning process and the generation of our enthusiasm.)



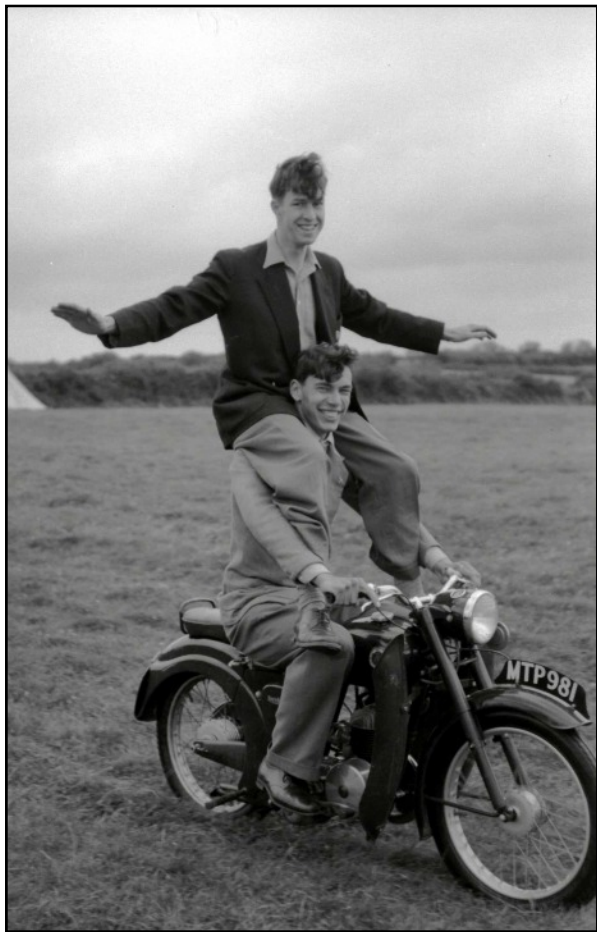
*Some of Ray Yeoman's pristine tools, after 55 years of use. L to R, depth gauge, drilling vice, washer vice.*

The syllabus at the School, as far as I can compare, was essentially similar to other dH Technical Schools. I recall that we all made our own tools. Amongst the various test pieces that we had to make was a one inch brass cube that had to fit into a matching



square hole in a cast iron block, in any attitude. Woe betide anyone if Reg could insert his 0.0015 inch feeler! Typically, a year was spent in the Technical School, made up of six months in the fitting section and, later, six months in the machine shop. Thereafter, it was a traditional round the houses, with three to six months in each department.

Similar to the other Technical Schools, all apprentices had day release to the Portsmouth College of Technology (now the University of Portsmouth) and two or more evenings at night school. Some students, who had successfully passed their ONC and had made good progress with the first year of their HNC/HND, were offered the option of transferring to Christchurch where the various technical departments, such as Aerodynamics, Stress, Design, Research, Flight Test, etc. were located and where they actually built aircraft!



One benefit that was most advantageous to all Portsmouth employees was the company's Sports and Social Club's affiliation with the adjacent Portsmouth Aero Club. Flying was still regarded as a sport and was subsidised to the tune of £2 of the £3 an hour flying fee. Three of our apprentices, Mike Burden, Barry Lance and Mike Shortt all had their Private Pilot's Licence (PPL) and they had no shortages of passengers to take up for a flight most lunch hours. At ten shillings for a half hour flip in an Auster with two passengers, or five shillings for a quarter of an hour of aerobatics in a Tiger Moth (that was long enough for those with weak stomachs) there was frequently a waiting list.

Motorcycles, their maintenance and modification, occupied a lot of the students' time, and was an easy identification aid, eg. "You must know him, he's got the 500cc Ariel".

The memory is quite clear on who owned what, i.e.

Mike Burden's 250cc AJS;  
 Jerry Devenish's 350cc Rudge;  
 Dick Furneaux's 350cc AJS;  
 Ian Grant's 350cc Matchless;  
 Godfrey Knight's 150cc Francis-Barnett and 350cc BSA;  
 Barry Pulford's 125cc Francis-Barnett and 500cc AJS;  
 Mike Shortt's (kickstart-less) 350cc Manx TT Norton;  
 Pete Strong's 225cc Francis-Barnett;  
 Frank Valerio's 350cc Velocette;  
 Mike Vaughan's 350cc Triumph;  
 Bob Wright's 350cc AJS and 500cc Triumph;  
 Ray Yeoman's LE Velocette.

Pictured above, riding his Francis-Barnett, is Godfrey ("Knocker") Knight, supporting Mike ("Digweed") Johnson, both *sans* crash hats!

"Join de Havilland and fly!"

Barry Pulford gets airborne over the South Downs on his Francis-Barnett.



The Airspeed Division was finally closed down in 1968. The low building to the extreme right in the aerial photograph was the Planning Department and is now roughly the location of a giant Morrison's Supermarket. Portsmouth Airport is, regrettably, no more, having fallen to the developers. The civil airport had continued to operate as such until 1973, but its death knell had been spelt out in 1967 when, on the same day, two HS 748s on flights from Jersey overran the grass strip, one ploughing through a fence and ending up straddling and blocking the Eastern Road, which at that time, as mentioned, was one of only two roads onto Portsea Island and into the city. The subsequent application for building the M275 into Portsmouth on the west side of Portsea Island simply sailed through, removing the congestion and dependence on the former two routes. The sole reminder of once great times is that an approach road to the vast retail and industrial parks has been re-named from Rat Lane to Norway Road, although it is doubtful whether even local people connect the name with Nevil Shute, author of such well known novels as "On the Beach", "No Highway" or "A Town Like Alice".

#### References:-

- (i) "Sky Fever", the autobiography of Sir Geoffrey de Havilland.
- (ii) "Slide Rule", the autobiography of Nevil Shute Norway.
- (iii) Various web sites.

Unfortunately, we have not been as successful as others in relocating 'old boys' but have had one or two highly enjoyable get-togethers of some seven guys (see photo below) and their wives. If any Pompey lads should read this and wish to be re-discovered, please contact DHAeTSA.



*A gathering of a few greying Portsmouth ex-apprentices, (on the shores of Langstone Harbour), most of whom went on to complete their last year at Christchurch.*

*Pictured, left to right, are Barry Pulford, Frank Valerio, Pete Strong, Bob Wright, Godfrey Knight, Roy Withers and, almost in view, Mike Burden.*