



*Buccaneer launch from raised catapult,
8 Sept 1960 (NAD1-1566)*



8x8 wind tunnel from the air (date not known)

Future Newsletters This is now the fourth newsletter we have produced. We thank everyone who has taken the trouble to respond to these newsletters. Comments are always welcome. If you have any suggestions for what to include in future issues, or more brief recollections, as per those below, please contact us. We are preparing a BAHG web-site. Your suggestions about what it could contain would be helpful.

Early Years At Bedford Airfield (by Tony Smith) My first visit to the airfield was with a local Scout Group in 1953. We were shown the construction work then in progress; specially highlighted was the main runway. Our guide was Group Captain Snaith, the Security Officer. "Groupie" Snaith had been a test pilot in the 1930's and was one of the pilots on the team that won the Schneider Trophy in a Supermarine floatplane that was a predecessor to the Spitfire.

When I applied to join the National Aeronautical Establishment in 1955 I was interviewed by Dai Morris in his office on the Tunnel Site. The tunnels were already in operation but the airfield was not mentioned during the interview. It was therefore something of a surprise when, some months later, in October 1955, I reported for work and found myself being sent to work in Naval Air Department on the airfield site.

My office, shared with a retired Naval engineer (Ron Whittingham) and helicopter specialist (Ivor Rye) was in the wartime buildings at Reservoir Gate. My first boss was Jack Shayler. He headed up the Future Projects team whose main tasks were to estimate the future aerodynamic and engine performance of the NA39 (Buccaneer) aircraft and to wrestle with the problems of ship-motion prediction. I was assigned to work for Dr John Williams on the ship motion project. Our engine specialist was Francis Kirk, a French scientist who had left France in a hurry in 1940.

Most of the Department was housed in the Eager Beaver building in the middle of the airfield. A telephone exchange, operated by 2 young ladies, and a transport pool were also housed in the building. The canteen, located at Reservoir Gate, was the Enlisted Men's facility from USAAF times. It was very basic, serving Irish stew and not much else. The canteen was frequented mainly by the construction workers employed by Laing. After some months a wartime aircrew bus was provided which transported staff to the somewhat superior but temporary Tunnel Site canteen.



When I joined NAD there was no boundary fence. The hangars on the south side of the airfield were under construction, as were the office blocks, canteen and various other airfield facilities. The first office block to be completed was the NAD building. We moved in during June 1956. The picture shows the NAD complex in 1967.

Millennium Studios The Bedford Enclave, formerly the home of Aero Flight, BLEU and (later) Flight Systems boffins and the flight simulator complex, is now owned by Millennium Studios, with all sorts of novel uses, especially for the former simulator buildings. See web site www.millenniumstudios.co.uk.

Film Clips We had a request recently from the University of Liverpool for some film clips of helicopter agility research undertaken in the 1980s? We found some suitable material and arranged for it to be digitised. It will be used in a lecture to be given by Prof Gareth Padfield in the USA. Something similar was undertaken for the European Commission-funded research project "Greenwake". Funded by the Framework 7 programme and led by the UK, its aims are to detect wake vortices behind aircraft and wind shear in the atmosphere in a timely manner and mitigate their effects on aircraft and occupants. Significant research on the effects of wake vortices was undertaken by RAE Bedford in the 1970s. Learning of the Greenwake project from the UK leader, BAHG suggested some of its archival material might be helpful. Subsequently, BAHG have contributed some movie clips from its archive. These illustrate the nature of wake vortices and, quite dramatically, the effect they can have on one aircraft following another. They will be used to help the research team understand the problem. BAHG is delighted that its archive material can be used in this way.

An Outsize Load (by Mike Dobson)

At the time of its manufacture (1952) the 8ft x 8ft Tunnel was the largest pressure vessel in Europe. Mainly circular in cross section, its pressure shell was manufactured from steel plates, which were each curved to the required radius in the Darlington factory of Whessoe Ltd. These plates were transported to the tunnel site at Bedford where they were welded together to form a circular “course” of tunnel shell. These “courses” were then further welded together to build up the tunnel circuit. Clearly the 16,000 feet of 4-atmospheres pressure-resisting weld had to be of very high quality and every inch was subjected to x-ray inspection. On-site fabrication of structures of this size was novel at the time, and the experience with the Bedford wind tunnels was put to good use in the design and construction of the nuclear reactor pressure vessels at Calder Hall, the first British atomic power station. On-site fabrication also meant that large sections of structure did not have to travel by road. Just occasionally, however, such conveyance was necessary, the photograph showing a forty-foot diameter section on its way. Apparently, Health and Safety was not of concern!



Wings Over Thurleigh Now that the latest printing has sold out, a fourth edition of the book, this time in soft-cover, is being planned.

Talks Recent talks about RAE Bedford have been given to the South Hampshire Historical Aviation Society in Romsey (making due reference to Farnborough at the other end of the county), to the Cardiff Branch of the RAeS and to local history societies. In general, each talk yields a donation to BAHG funds. If any reader would like to invite us to talk to a local society, please contact us.

FAST (Farnborough Air Sciences Trust) has opened its new web site. Do take a look (see www.airsciences.org.uk). FAST is about the Farnborough aeronautical heritage, which has a longer aviation history than just RAE. During WWI, Farnborough was the home of the Royal Aircraft Factory and also the HQ of the Royal Flying Corps in Britain. RAE as such came into existence on 1 April 1918, when the Royal Air Force was formed and the Factory had to change its name to avoid confusion.

Forty Years Ago at Bedford Concorde prototype G-BSST made its one and only visit to Thurleigh, conducting a touch-and-go on 25 Jan 1972. In Feb 1972, Gloster Meteor NF14 WS838 departed Thurleigh. It is now on display in the Midland Air Museum, Coventry. On 29 March, 3 RAE Comets came together for a formation photograph. Then, on 26 April 1972, Comet XP915 made its last flight at Thurleigh. The aircraft was retained for another year or so for various ground-running tests.



Contributions to the BAHG Archive Since the formation of BAHG our archive has benefited from information and artefacts donated by ex-RAE Bedford people. We are grateful to the following for their support: Pat Albon, Richard Burger, Martin Downes, Roy Easson, John Holton, Bill Johns, Jan Killick, Mary Ledwidge, Bruce Lumsden, Peter Marlton, John and Louise Marshall, Ronald McConnell, Reg Redford, Tony Smith and Mary Webb. If anyone has been forgotten then let us know, and please accept our humble apologies. We would, of course, be pleased to hear from anyone else who has relevant material they are willing to donate, or loan for copying (we have excellent scanning and photographic equipment).

Contact Us To contact us with any news or comments, please email Barry Tomlinson (bahg-bt@hotmail.co.uk).

Bedford Aeronautical Heritage Group