The de Havilland Aeronautical Technical School Association

Aerial View of Manor Road site, August 1960

Among some photographs sent to us in 2013 was an aerial view, dated 3rd August 1960, of what we all knew either as the Manor Road site or simply "Props.". The site was then largely occupied by the de Havilland Engine and Propeller Companies. (This was just before the changes consequent on the take-over by Hawker Siddeley.) It was also home to some de Havilland Aircraft Company test facilities, notable the wind tunnels and the fatigue test tank. As an exercise in nostalgia of those days when DH "did everything", an attempt has been made to identify the major and memorable buildings and facilities. They are labelled on the accompanying copy of the photograph. The grid system used has been left in place to aid additions and corrections by those blessed with a good memory. The guide below has been compiled largely from input by Robin Webb (Wind Tunnels) with help from Peter Stokes (Engine Company Test Facilities), Peter Banton (Rolls-Royce Site Personnel Officer 1975-1990) and Roger Coasby (Props. apprentice 1956-1961).

At the top left of the picture is the Blue Streak fuel flow test tower, from the top of which (to great excitement the first time it happened!) used to come a big torch of flame and smoke. It is a myth that the Blue Streak motor was tested in that rig – that was done at Spadeadam, in Cumbria. Below that is No. 25 Test Bed, used for Gyron and Olympus testing. Nearby are No. 24 Bed and possibly No. 23, used for Gyron Junior production testing. Below are the rocket test beds. Centre left is the Halford Laboratory where engine components such as compressors, turbines and flame tubes for new designs were tested at full scale. The huge compressors in there later supplied compressed air to the V/STOL Tunnel for testing powered models of the Harrier and the various versions of V/STOL airliners investigated in the 1960s and 1970s. The row of Production Engine Test Beds shows up clearly. These were originally development test beds 10-17 for the Goblin and Ghost, with an open test bed for the Gyron Senior. On the right is the Gnome Rotor Rig – a framework much like the framing of a smallish gas-holder, wrapped around with heavy steel mesh, wherein were tested Gnome engines up on a tower and complete with helicopter rotors. In the lower left corner is the Engine Company flight test hangar, with what is thought to be the Spectre Canberra VN813 on the tarmac.

Working down the left-central portion of the picture, the '15 Op. Shop' can be seen, where final wire-locking of critical items was done before engines were crated for dispatch. The origin of the name is lost in the mists of time, but is believed to stem from Gipsy engine days. Further down is the Engine Company Admin. Block and a Propeller Company building possibly associated with flight testing and/or with vibration. Nearer to the taxyway are the Engine Company Plant Dept. workshops; the three-roofed building is the Gnome dynamometer test house, formerly Gipsy test beds.

The right-central part shows the Propeller Manufacturing Shops at the top. This area included The Hollow Steel Prop Autoclaves for curing the compound used as a filler, the Mechanical and Chemical Testing laboratory and the Propeller Investigation Department. Below are the two long Missile Design Offices. The latter were NP1 and NP2 (NP for New Project). Later, NP3 was built in line on the vacant plot to the left. Lower down is the High Speed Wind Tunnel HSWT), located in No. 52 Test bed, one of a pair of 200ft long hexagonal concrete tubes built at the end of WW2 for full scale testing of propellers mounted on engines. No. 51 Bed was for air-cooled engines and No. 52 Bed was for liquid-cooled engines. 51 Bed was still operational for propeller testing well into the 1960s; from time to time it used to come to life with a dull roar and a cloud of smoke, which was then suddenly sucked back in and re-appeared at the other end when the prop pitch was reversed. When propeller testing finished it was gutted; a floor was inserted at mid-height and compressors and vacuum pumps were installed at ground level to serve test cells for cabin air-conditioning equipment at first floor level. Legend has it that 52 Bed only ever ran once, then in 1953 it was gutted and the Ghost engines and exhaust diffuser of the HSWT were installed. The Control Room containing the Working Section was a separate building against 52 Bed on its far side. Near 51 Bed is the Napier Engines Test Bed, which in 1960 was still functioning and from which from time to time issued smoke and noise! It was later taken over by Dynamics and turned into an electronics lab. In the foreground is the Props. Flight Test Hangar.

At the top right of the picture is the Pig Farm on the other side of Manor Road. When the wind was northerly the whole site was left in no doubt of that fact. Like all the land around it belonged to the Company. The Propeller Company Admin. block ('The Odeon') stands out, adjacent to the site entrance still in use in 1960. A few years later the entrance was moved to the parallel road, the site being just off the picture. Below that is the Canteen, reckoned by most to be superior to any of those on the Aircraft side. It was open for all meals at weekends, in the late 1950s at any rate, a boon to the residents of the Astwick Manor hostel where weekend catering was conspicuous by its absence. Below that in turn is the Propeller Company Plant Dept., and below that again is the Low Speed Wind Tunnel. Centre right are the C Block workshops, with the fatigue test tank on the right.

Compiled by Roger de Mercado March 2014, with much help from those named above. *Version 4, 31st May 2014.*

Please send additions and corrections to r.demercado@ntlworld.com