

**RAF BENSON
PHOTOGRAPHIC
RECONNAISSANCE
UNIT (PRU)**

by Jane Farquharson

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and the National Trust**

The PRU and their Spitfires moved to Benson in 1940, where they had enough space for their growing photographic developing and printing laboratories as well as their Photographic Interpretation and Intelligence Sections. Many of these sections were housed in the Old Mansion, next to Cottesmore Lane in the adjacent parish of Ewelme, where Nissen huts were erected in the grounds. Several Spitfire Flights also operated from a satellite airfield at nearby Mount Farm (now Berinsfield), where there was a second Intelligence Section. The Intelligence Officers selected target areas in occupied territory for the pilots to photograph and these were shown by small flags pinned to maps of Europe hung on the wall. At the start of the war, the Spitfire's flying time was limited to one and a half hours, but the planes were later modified with extra fuel tanks so that they could fly for up to 6 hours and cover France, Germany the Low Countries and even Italy. The longest Spitfire sortie flown was 1,500 miles from Benson to Gdansk in Poland.



Mapping PRU targets in the Operations Room of the Old Mansion,
Ewelme, near Benson F/O Tozer on the right

Thousands of flights set out from Benson on expeditions deep into enemy territory. Their missions varied enormously but they were often ordered to photograph potential targets before bombing raids, and then to photograph them again afterwards to assess the damage. Both were dangerous operations from which many pilots did not return. 209 airmen were killed in accidents or shot down and 74 had no known grave. Their names were posted as “Missing” on the Ops Room blackboard.

In 1941, the sky blue Spitfires at Benson were joined by the twin engine Mosquito aircraft, which had a greater range, and space for a navigator who could also operate the seven or eight cameras. The first operational sortie of the Mosquito took place on 17th September 1941 and was flown by Squadron Leader Clerke (see photo below). The Spitfire was retained because of its manoeuvrability, which enabled it to evade enemy aircraft and often pass undetected through enemy radar networks.



Mosquito from below showing circular camera ports



Squadron Leader Clerke flew the first mission

Benson PRU also operated from Wick in Scotland, from where they searched for enemy shipping around the Scottish coast and Norway. In May 1941, P/O Suckling discovered and photographed the German battleship, Bismark in a Norwegian fjord, 5 miles from Bergen. The Royal Navy was informed and the Bismark was sunk soon afterwards. Sadly, Suckling was shot down 2 months later.



P/O Suckling of 1PRU



Brest harbour, photographed by 1PRU, 1942

The PRU also kept several battleships under surveillance while they were at anchor in French and German ports. When photographs were needed of ports along the western coast of France, a PRU flight was sent from Benson to RAF St Eval in Cornwall for several months so that they could extend their range southwards. From Cornwall the three German battleships in Brest harbour were photographed three times daily for over a year. Pilots from Benson were also detached to Gibraltar, accompanied by their developing and printing teams and Intelligence Officers with orders to photograph targets on the North African coast.



Above: Unloading negatives from the aerial cameras of a Mosquito at RAF Benson



Above: Printing aerial photographs from negatives taken by PRU pilots

Below: Drying and glazing the prints in the Old Mansion, Ewelme



Assistant Section Officer Delia Britain interpreting aerial photographs using a stereoscope, consisting of twin lenses which were placed over two overlapping exposures, producing a three dimensional image.



Intelligence Officers Thompson and Chalmers checking maps in the Old Mansion, Ewelme

The Intelligence Section, based in the Old Mansion at Ewelme was commanded by Flt Lt Weaver. A large wooden office was erected in the grounds , which became the briefing and de-briefing room. Here the Intelligence Officers would brief aircrew on their targets, enemy defences and any allied operations on the target area. Two further buildings were constructed next door, which were used for developing film and storage.



Intelligence Officer Craig (left) and F/O Morgan in the Old Mansion, Ewelme



Briefing and de-briefing room. F/O Hughes on the left, who volunteered as a PRU Pilot, because he was a Quaker and felt unable to engage in armed combat.
Intelligence Officer, F/O Hornby on the right

Medmenham Once the prints had undergone a preliminary assessment at RAF Benson, good quality photographs were either sent straight to RAF squadrons to be used by pilots or sent by courier for further analysis to RAF Medmenham, a Royal Air Force station based at Danesfield House in Buckinghamshire. During the Second World War, it was the main interpretation centre for photographic reconnaissance operations in the European and Mediterranean theatres. The centre was organised into specialist sections, such as Shipping, Airfields, Radar etc.

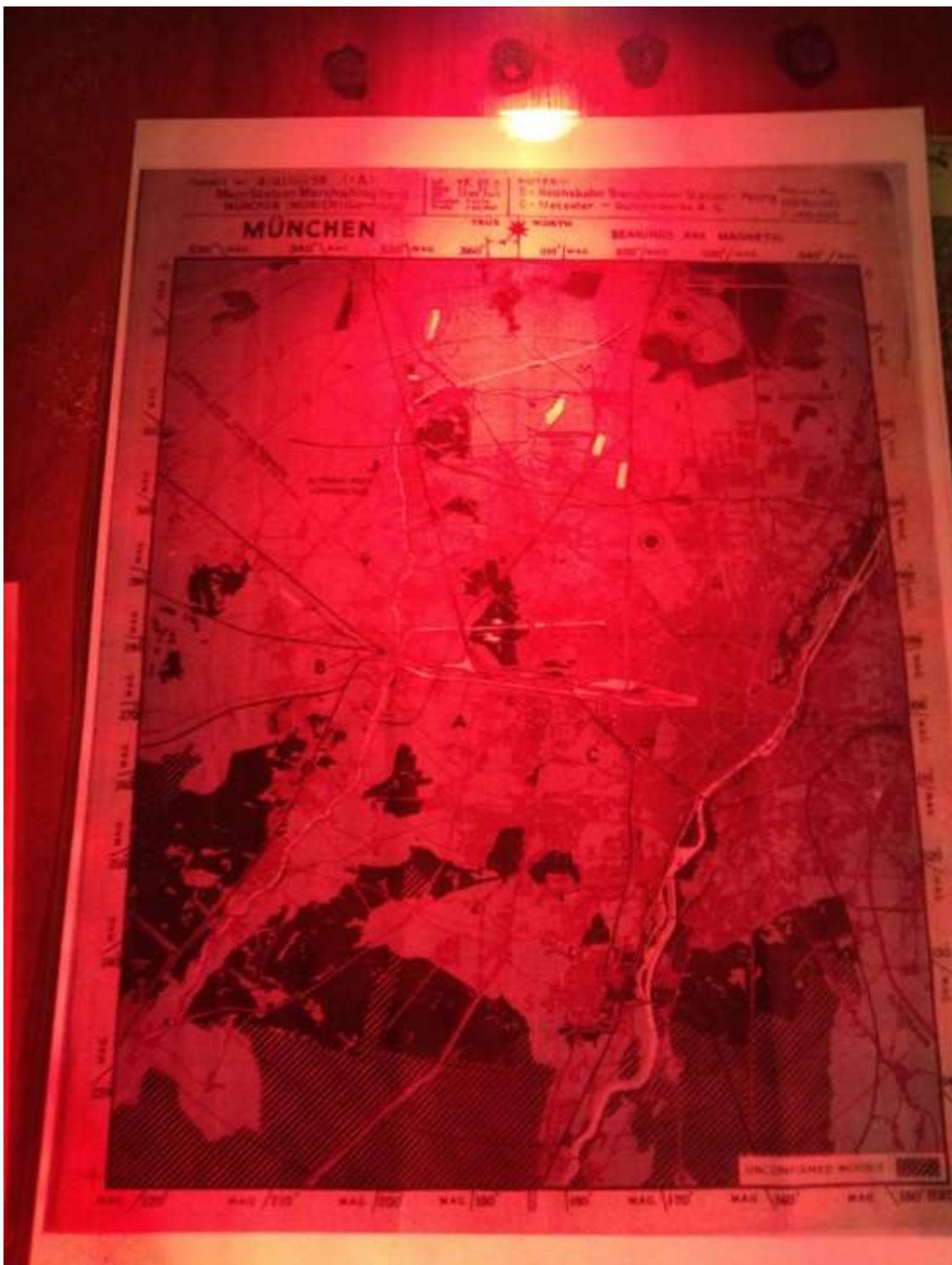
As new aerial photographs were brought in, they were compared with thousands of photographs from previous missions to assess new developments. Existing maps could then be updated with crucial new information. In 1945, the daily intake of material averaged 25,000 negatives and 60,000 prints. By VE-day, the print library held 5,000,000 prints from which 40,000 reports had been produced. Medmanham's greatest operational success was "Operation Crossbow" which, from 23 December 1943, identified and destroyed the V-1 rocket infrastructure in Northern France.

Nuneham Park PRU prints were also sent to Nuneham Park, Oxfordshire, ten miles from RAF Benson. The manor house was a training establishment for photographic interpreters. Here the aerial photographs were used as source material for constructing accurate three-dimensional models of strategic locations in occupied territories.

Hughenden Manor (Hillside) In the early years of the second world war, RAF Bomber Command urgently needed accurate maps to improve the finding and precise bombing of their targets. These coloured maps were to be based on the latest intelligence provided by the black and white PRU aerial photographs and produced at a secret base at Hughenden Manor, Buckinghamshire, codenamed "Hillside", and commanded by Major Quaife. The Air Ministry requisitioned the manor, and in 1941 brought together about 100 skilled

artists, architects, graphic designers and cartographers to draw and update coloured maps by hand. Many of them were billeted locally in the Hughenden valley.

Hillside carried out vital map-making for crucial raids including the sinking of the Tirpitz and the bombing of Eagle's Nest, Hitler's bunker at Berchtesgaden. Map makers at Hughenden Manor also contributed to the Dambusters bombing success. The maps were produced on transparent foils, about A3 size and showed the target in the centre of several concentric circles covering an area of about 7 miles. They were printed on machines requisitioned from all over the country, in magenta, black, white and grey. These colours helped the pilots and navigators to read the maps under the red cockpit light when flying at night. Over 3,500 targets were mapped here. An example showing Munchen can be seen below.



Target map of Munchen under red light

TARGET NO 3/AIR/389

Experimental Establishment
PEENEMUNDE (N^o GREIFSWALD) (Germany)

Lat 54° 05' N.
Lon 13° 45' E.
Alt: 50 Feet
Circle: 1 mile
Scale: 1:63,360

NOTES:-

GU 4784 Relevant Map
22/Rev. 1943.
1:100,000.

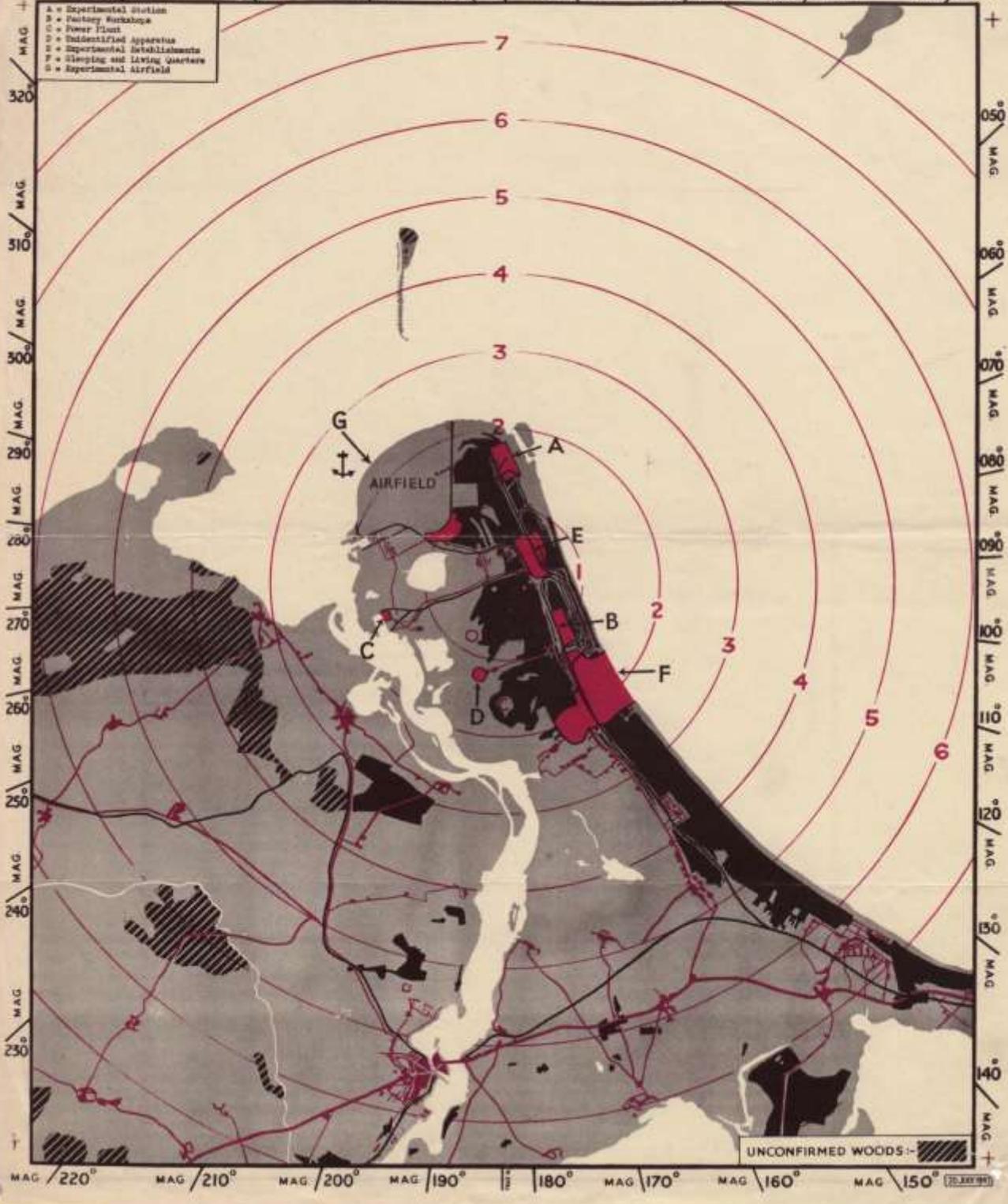
PEENEMUNDE

TRUE NORTH

BEARINGS ARE MAGNETIC

330° MAG. 340° MAG. 350° MAG. 360° MAG. 010° MAG. 020° MAG. 030° MAG. 040° MAG.

- A = Experimental Station
- B = Factory Workshops
- C = Power Plant
- D = Industrial Apparatus
- E = Experimental Installations
- F = Sleeping and Living Quarters
- G = Experimental Airfield



Target map of Peenemunde, Germany, where the V1 flying bomb and the V2 rockets were developed. (Produced in 1943 at "Hillside" and reproduced here by kind permission of the National Trust)

Until recently it was only known that the Air Ministry used Hughenden Manor during the Second World War, but exactly what went on there was a mystery. It was perhaps best known for being the countryside retreat of Queen Victoria's trusted Prime Minister Benjamin Disraeli, who lived there from 1848 until his death in 1881. The finding that 100 intelligence staff were based there secretly plotting Hitler's downfall was made by National Trust researchers during plans to mark the 60th anniversary of the end of the Second World War. It was also learned that Hughenden Manor was once at the top of Hitler's list, although it never suffered a direct bombing raid, and remained unharmed.



“Hillside” or Hughenden Manor, Buckinghamshire.

After the war Hughenden Manor was adapted into a museum and given to the National Trust, which still looks after it. A fascinating display has been created, explaining the importance of operations at “Hillside” during the war years. Visitor information can be found at <http://www.nationaltrust.org.uk/hughenden>

“Saint Praftu” by Murray Anderson.

One time Flt Lt Murray Anderson DFC & Bar, began flying reconnaissance sorties at RAF Benson in May 1941, when the station Commander was Wing Commander Tuttle. Part 1 of his book titled 'Saint Praftu' describes the author's early childhood in India, followed by his wartime service in the RAF flying reconnaissance missions. At one period during the war, he belonged to the select group of pilots who undertook the hazardous operation of flying Lysanders to France at night, to land and pick up Resistance agents. After the war, he completed twenty years of civil flying in Burma, India and Nepal. Anderson retired at the age of 60, with 22,000 logged flying hours! His illustrated book details the techniques of high level reconnaissance flying during the early years of the war, before going on to describe his post-war flying career.
