

Force Multiplier

42nd Electronic Combat Squadron



Building 383 was the headquarters of the 42nd Electronic Combat Squadron. It had an unprotected 'soft' side for everyday use. This 'hard' side was used during alerts. It can withstand a direct hit from a 600 lb (227 kg) bomb. It has a controlled environment. Access was via an Entry Control Point with an armed guard.



From 1977 biological and chemical agents were expected as well as high explosive bombs and radioactive contamination.

Not just the people using the building were at risk.

Building 383 could decontaminate 100 people at a time.

Improved Soviet air defences relied on radar to control anti-aircraft missile and guns. The EF-111A Raven was developed to 'jam' Soviet radar and protect attacking aircraft. Thirteen Ravens of the 42nd Electronic Combat Squadron were based at RAF Upper Heyford from 1984 until 1992. They were 'Force Multipliers' making the attacking aircraft more effective. In 1988 Heyford Ravens led the raid on Libya in retaliation against Libyan support for international terrorism.

Housing the Ravens led to the fast extension of the airbase with the compulsory purchase of the co-called '30 acre site'.



Greenham was set up. The vets became a

"The Ravens were seen as an escalation of the nuclear arms race similar to Cruise missiles. The extension area was occupied by supporters of the peace camp until their eviction in 1993".
Steve Barwick, Peace Camp Organizer

EF-111A Ravens were nick-named 'Fat Tails' or 'Spark Varks'.

The Army Roadstone Company Ltd built five more Hardened Aircraft Shelters which were operational until 1984.





Protesting for Peace



In 1979 the Cold War entered a new phase following the Soviet Russian invasion of Afghanistan and US President Ronald Reagan's Rollback doctrine to challenge Soviet influence. Amid rising concern about heightened tensions leading to a nuclear conflict, a Peace Camp was set up at Upper Heyford on Easter Sunday 1982 on The Portway, a blocked up bridleway just off Camp Road, outside the airbase eastern perimeter fence. It was argued that The Portway was a public right of way that had been closed illegally by the British Ministry of Defence.

Supported by the CND (Campaign for Nuclear Disarmament), the Peace Camp organised many civil disobedience protests including blockades of nine of the airbase's gates on New Year's Eve 1982, and from 31 May to 3 June in 1983. A Metropolitan Police Special Branch Threat Assessment resulted in Police being called in from forces across the UK. 752 protesters were arrested.



"Protesters were a nuisance. I recall a few did penetrate the perimeter and spray paint some items. Situation had to be handled delicately since they were British citizens supposedly and shooting them would bring problems. Better to catch them on base and turn them over to local authorities. There was no way they could get into the sensitive areas so not a big threat." Gino Passaro, 79th TFS, USAF



British citizenship status of the protesters caused problems as USAF Law Enforcement had no jurisdiction to arrest them. Security sensitive areas of the airbase were protected by Security Police authorized to use lethal force but only against military threats. Security for Gate 7, nearest the Portway Peace Camp, became the responsibility of Ministry of Defence Police who could arrest protesters. Anti-nuclear protests at Upper Heyford continued for some years after the original Peace Camp protesters left.

"The peace camp was very much inspired by the women at Greenham Common and the movement against the deployment of Cruise missiles. But we were equally opposed to Russian nuclear armament and in fact five protesters were arrested outside the camp. Maggie [Name] was arrested. Camp Organizer"



"Hand painted peace symbols and anti-nuclear signs were hung on the fence along with bouquets of wilted or dead flowers and strands of faded bunting. A handful of motley looking hippy-like characters could be seen cooking lunch on a smoking barbecue pit. I wonder if the Commanding Officer kept his job. (Three years later I was the same festering eyesore camp. It took long to discover how difficult it was to get in visiting General Lee Downer, 20th TFW W. RAF Upper Heyford in 1983.)"

"It's all a waste of time. No one wants a war - it's all ghastly. But what they are doing won't make a scrap of difference. And they are a nuisance to the village". Jean Slatter, Upper Heyford village



"Peace camps at Upper Heyford and Greenham as well as CND's mass demonstrations helped give voice to rising concern about nuclear escalation and possible conflict. Thankfully in 1987 the first of a number of nuclear disarmament treaties was signed by Gorbachev and Reagan." Steve Barwick, Peace Camp Organizer

Aircraft Movements

Control Tower complex



UH4/1



UH4/2

Control Tower



UH4/5

In 1918 this RAF Watch Office administered field operations. It survived both the clearance in 1924 and this accident. It was demolished to make way for the new airfield which opened in 1927.

UH4/6



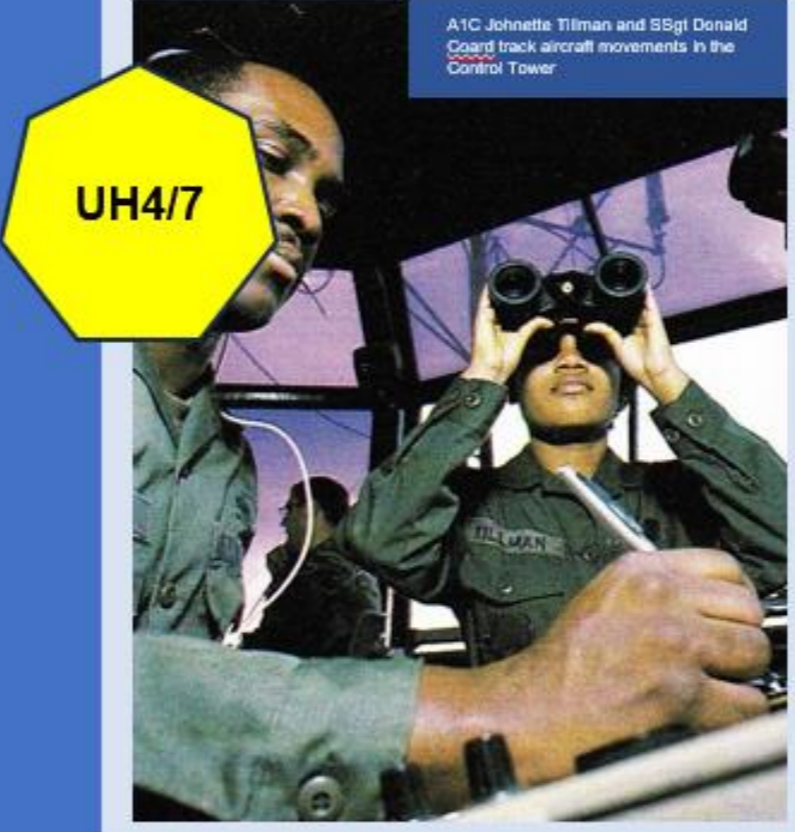
The second RAF control tower (left) in 1950. This was demolished when the South Runway was laid. A new bigger RAF Very Heavy Bomber Station was operational by 1953.



UH4/3

Nose Dock

Nose Dock (Building 335) was built for maintenance work on aircraft too large for the hangars. From 1966 until 1973 it housed two HH-43 Huskie helicopters of the 44th Aerospace Rescue and Recovery Squadron. Later it was used by the 20th Security Police Squadron and for parades during bad weather.



UH4/7

A1C Johnette Tillman and SSgt Donald Coard track aircraft movements in the Control Tower

UH4/8

Wash Rack



UH4/9

"How nasty it is to be as... The rain suit is sticky... doesn't keep you dry or... Crouching under the aircraft... landing gear you are constantly... get soap in your eyes. We would... three aircraft per night so you were soaked for 8-9 hours. After washing the aircraft you still had to lube it. In the winter you were not only wet, but cold. The water would sometimes freeze as you sprayed it on the aircraft." Eric Tumball



UH4/4

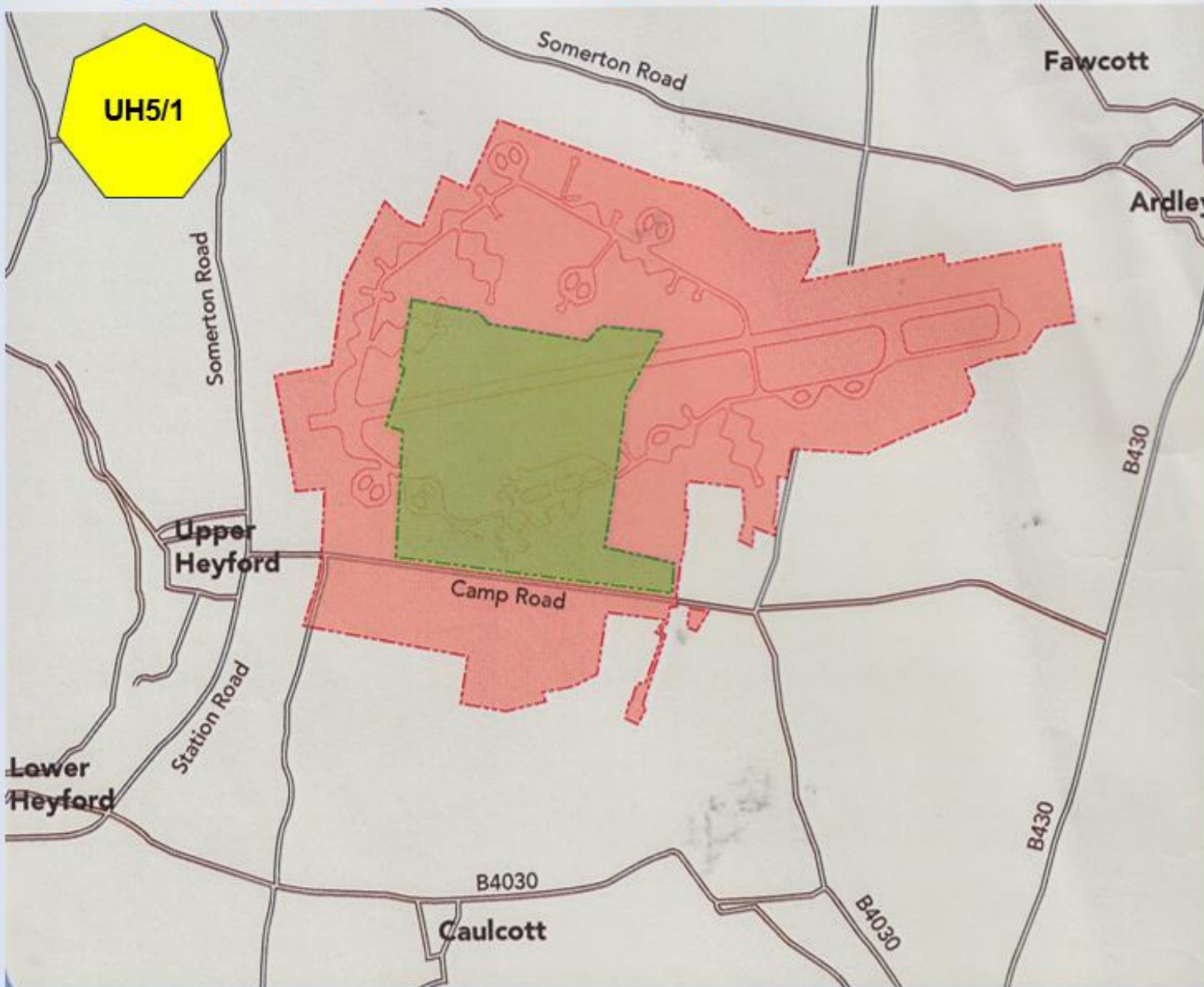
Fire Station

RAF Upper Heyford had two fire stations. 'Crash' dealt with incidents on the Flying Field. The Station House, Camp Road is on the site of the other fire station.

100 Years of Innovation and Change



— 1918 AERODROME — USAF AIRBASE



10 Facts About Upper Heyford

- Heyford is named after a ford across the River Cherwell. It was used mostly at hay harvesting time.
- The first farmers lived at Heyford in the Bronze Age (2500 BC-1200 BC).
- 14 people lived in Upper Heyford in 1086.
- By 1821 there were 82 families, 47 worked in agriculture and 12 in trades and handicrafts.
- In 1850 the Great Western Railway linked Lower Heyford with Banbury.
- The railway doubled the population of Upper Heyford over the next ten years to over 400.
- Over 1,000 Americans arrived in 1961 to upgrade the airbase for use by the US Air Force.
- By the 1980s almost 13,000 Americans lived in the area.
- In 1984 the Americans left and the airbase was handed back to the Ministry of Defence.
- The Dorchester Group acquired the 1,231-acre airbase site in 2008 for development [in](#) to the new community of Heyford Park.

DID YOU KNOW?

Post-World War 2, RAF Upper Heyford was one of four airfields in and around Oxfordshire chosen by the USAF to serve as stations for American bomber aircraft in England.



Petrol, Oil, Lubricants (POL) Systems



RAF Upper Heyford was connected to a JP4 AVGA 8 (aircraft fuel) pipeline from Southampton with a pumping station at Islip. The pipeline entered the airbase on Camp Road near POL 21.

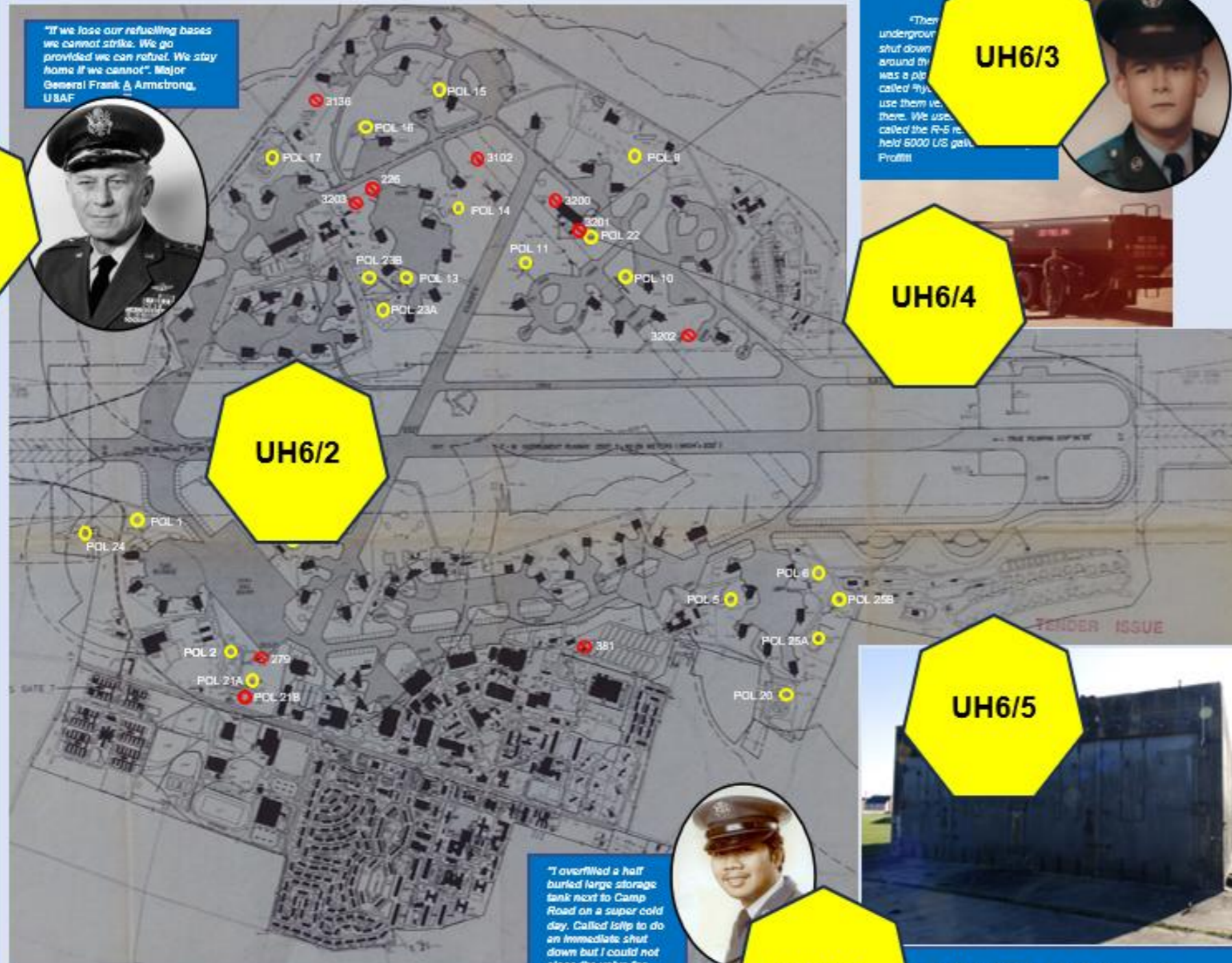
Diesel and petrol was delivered to the airbase by road and stored at POL 20.

From the 1960s there were twelve 12,000 UK gallon (14,400 US gallon) JP4 tanks and three 7,500 UK gallon (9000 US gallon) AVOL tanks. By 1977 nearly 2.8 million UK gallons (3.12 US gallons) were stored at Heyford.

"If we lose our refuelling bases we cannot strike. We go provided we can refuel. We stay home if we cannot". Major General Frank A. Armstrong, USAF



UH6/1



UH6/2

UH6/3

"The underground shut down around the was a pit called 'fly', use them we there. We use called the R-5 held 5000 US gallons. Profit!



UH6/4



UH6/7



Operation Ghost Rider: training mission for the 1986 raid on Libya.

"Two aerial refuellings were conducted over the ocean on the 6 hour flight to the target, and our F-111s had to change tankers after the first refuelling. We used 17 tankers in all, with 6 meeting us in mid-Atlantic from the U.S. on the way over and 4 coming out of Mildenhall, England, on the way home. Each F-111 required about 70,000 pounds (11,182 US gallons or 13,424 UK gallons) of jet fuel during the mission in 4 refuellings."

Lieutenant Colonel Dale Thompson, Wing Commander, 20th TFW, RAF Upper Heyford



UH6/8

DID YOU KNOW ?

At cruising speed an F-111E can fly about 2.5 miles on one UK gallon of fuel and 0.12 miles in full attack mode.

Tanker aircraft extended aircraft range by inflight refuelling.

UH6/5



Hardened Fuel Tank Shelter built in 1980 (Building 278).

UH6/6

"I overfilled a half buried large storage tank next to Camp Road on a super cold day. Called Islip to do an immediate shut down but I could not close the valve for about 3-4 minutes until the pressure returned to normal. I spilled about 2000 gallons". Oscar Castelo



- USAF JP Jet Fuel.
- NATO JP Jet Fuel.
- Hardened Tanker Shelter.

Communication and Control

Buildings 123, 126 and 129



"The Command Post (Building 126) is the heartbeat of the wing. Without it and the information it receives and disseminates, the wing would have difficulty performing its mission. The commander decides what action is needed in advance through plans and operational orders. The controllers respond to these directions through the use of checklists and an intensive training program". Bruce Taylor, Upper Heyford Guardian

Command Post 126



UH7/1

"Wing Command Post. The enlisted personnel there live to brag about how they're running day-to-day air ops in/out of the airfield when in fact they're just in charge of making sure the grass gets mowed. Air Traffic Controllers run the flow of air traffic." Javier Arroyo



UH7/3



UH7/4

In 1963, Telecoms and Operational Command Centre (Building 123) was opened.

By 1968 US Intelligence knew that the Soviet Union was building bombers capable of attacking Upper Heyford. The unprotected Building 123 was vulnerable.

Building 128 opened in 1961. The new command post could survive a direct hit from a 1600 lb (455 kg) high explosive bomb. A decontamination suite protected against biological and chemical agents, and radioactive contamination. Armed guards controlled entry.

123 Telecoms and Operational Command Centre



UH7/6

"A new Wing Communications Building (123) was built to replace our old confining Base Communications Centre. We moved to the new Crypto Centre using our own Emergency Evacuation Plan. The Base Air Provost Marshal and his Air Police co-operated fully with our instructions. And provided the security zone needed". Technical Sergeant Maurice F. Mercure



UH7/7

"The base switchboard/operators was actually in a building next to the Command Post (Building 123). Had a chance to visit a few times and see the old-time switchboard in action". Airman 1st Class Jon Palmer



UH7/8

"The total number of calls handled each day is between 2,800 and 3,000. Operators have to work with a system that dates back to 1939. They have to listen to people become frustrated with that system. They will have to wait until the end of this year (1967) before the system will get any better". Bruce Taylor, Upper Heyford Guardian



UH7/10

Building 128 Telephone Exchange



UH7/9

The main military switchboard and exchange was in the unprotected Building 123. In 1967 a new 'hardened' military telephone exchange opened (Building 128) with a Nortel DM 100 system.



UH7/2

The most secure area was the EA (Emergency Action) Cell, staffed by armed personnel at all times. It contained all Emergency War Plans. A separate telephone exchange maintained direct contact with the Joint Chiefs of Staff in Washington and the Headquarters of USAF Europe.



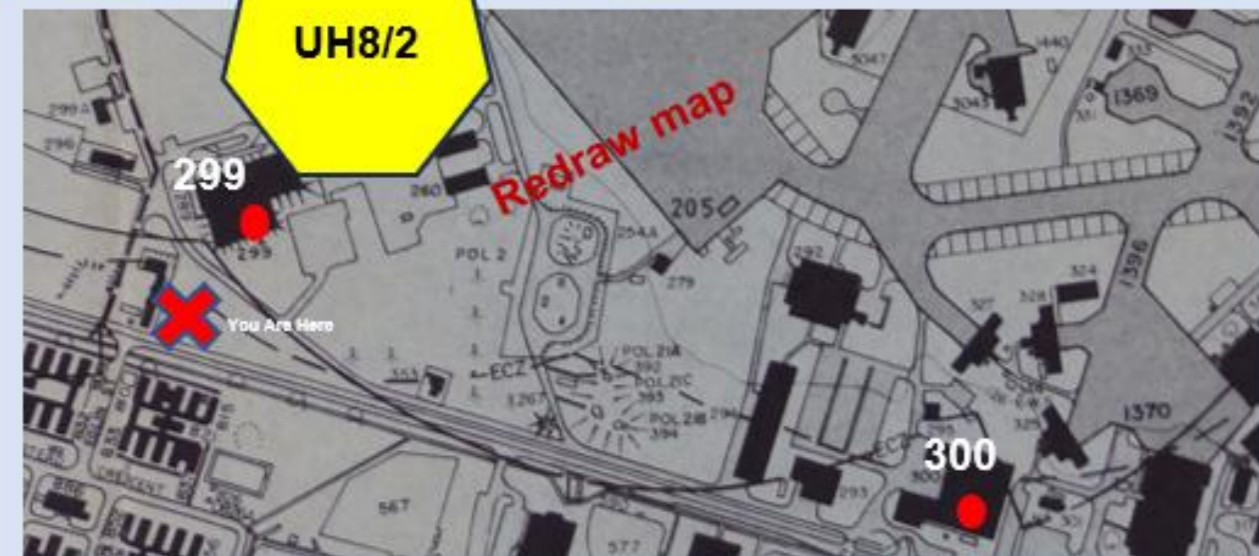
UH7/5

Mission Support

Building 299



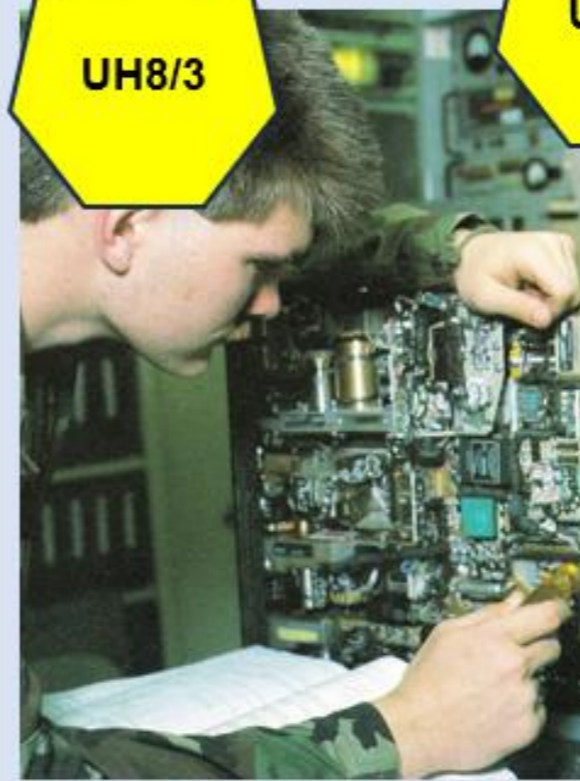
UH8/1



UH8/2

In 1980 work began on Building 299 Phase 1 to maintain F-111 aircraft avionics (electrical equipment). It was designed to survive attack from high explosive bombs, chemical and biological agents. Building 299 was vital to support the launch of a second strike.

Building 299 replaced the unprotected Building 300 from December 1981.



UH8/3

UH8/5

Inside the CENPAC (Central Processing Avionics Computer) simulated the F-111 onboard systems for testing.



UH8/6

In 1977 work began to protect vital operational facilities from Soviet air attack.

UH8/7

"It was a busy place, always work to do, breaks of course, go out for fresh air, get food on nights, Americans like to eat. For the most part day or night was not recognizable if you did not go out for air. During winter if you worked nights during exercises you never saw daylight until the exercise was over." John Martinovic, 20th CRB



299 was highly protected building with an armed Security Control Point. concrete was used and a direct hit from a 454 kg high explosive bomb.

A controlled environment and decontamination suite to were used to combat biological and chemical agents, and radioactive contamination.

UH8/4

"Inside the bunker of 299 were the Photo Shop, Manuals (radios), Electronic Wipers and Autos. The Autos shop, so called as most of the equipment was automated to some degree, tested and repaired black boxes of Flight Control, Bomb Navigation, Inertial Guidance, Terrain Following Radar, as well as numerous control boxes!" Master Sergeant Richard Winters, 20th CRB



In 1983 the MEAS (Mission Essential Avionics Store) extension to Building 299, became operational.

Vehicles drove down the ramp. The crane was used to unload avionics 'pods' and attach them to an overhead monorail. The 'pods' were moved around the building on the monorail.

UH8/8



DID YOU KNOW ?

Brad Pitt cycled past this building during the filming of World War Z.

General Service Aeroplane Sheds Type A



RAF Handley-Page Hyderabad bombers in 1925.



UH9/1

RAF Upper Heyford in 1923. The Type A 'hangars' were built in 1926 to house at least three squadrons (36 bombers). From 1948 the A Types were used for other purposes.

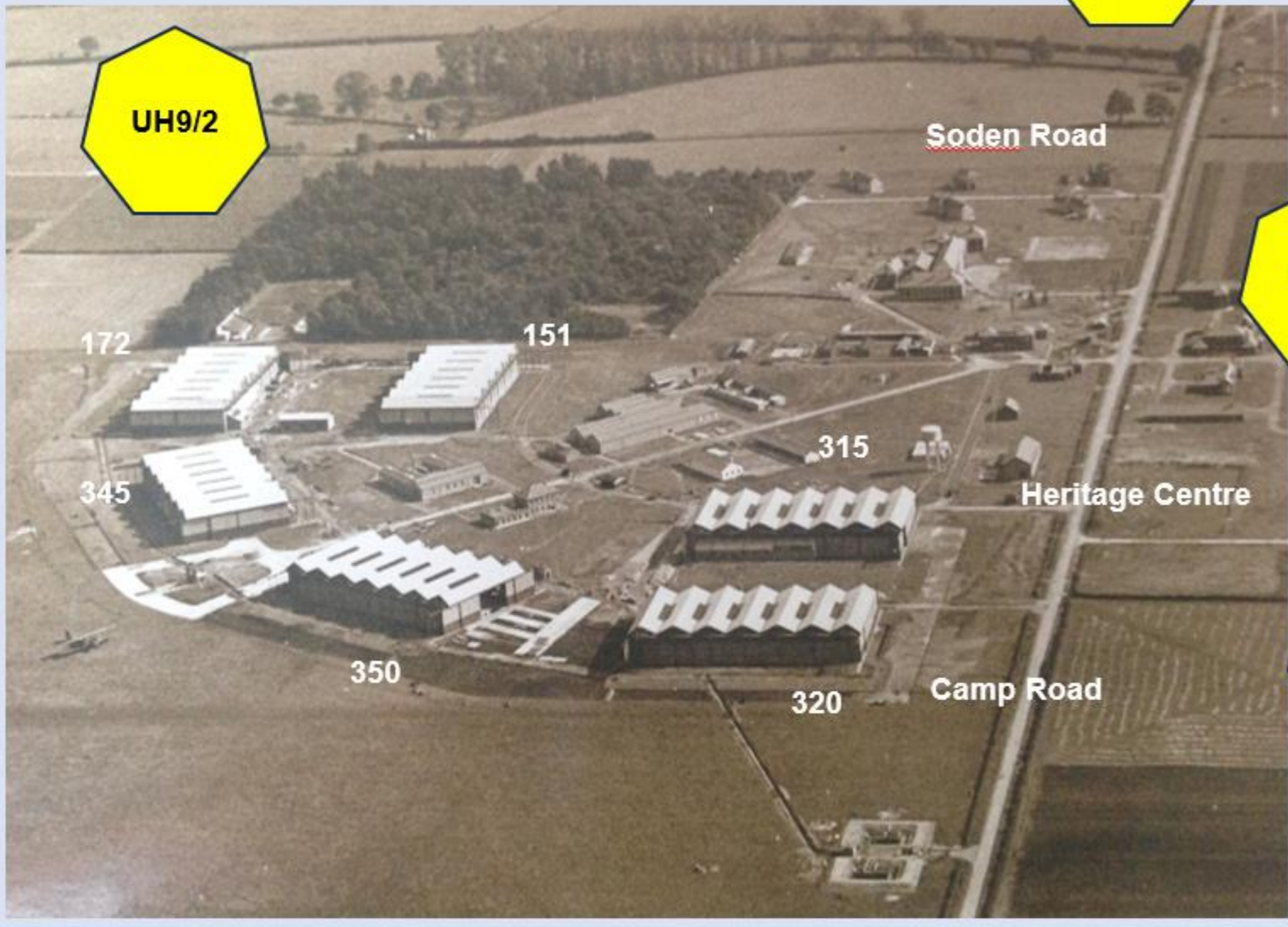


UH9/3

"We began our training in a great big aeroplane hangar where, with the help of lots of ropes, harnesses, scaffolding and mats, we learned how to jump and land, and how to control our parachutes while descending". Private Bernard Cobble, Course 221B, Parachute Regiment, 1947.



UH9/4



UH9/2

UH9/5



Parachute storage 1956-1965.

"My favourite trick was to spin up a rope to the top of the drying room ceiling, to disappear in to the folds of the canopy of a chute to form a hammock. Swinging up there with the warm breeze I would then read Shakespeare." AC2 Brian Blessed, RAF



UH9/6

UH9/7



Building 345 Phase inspection 1966-1993.