Anti-aircraft batteries were not giant batteries used to power the anti-aircraft guns! They were the place where the guns were located. Hundreds of these AA batteries were built during the Second World War to protect the country from air raids and both men and women worked there throughout the day and night.

So what could you expect to find when you turned up for your first day or night on duty? There were usually 4 or 8 guns depending on where the AA battery was built and what it was defending. As well as the guns there would be a number of brick or concrete buildings including stores for the ammunition, a command post where you would receive or send important information and an air raid shelter. There would also be range-finding equipment such as radar to help locate the enemy aircraft in the sky, huts where you would sleep and not forgetting the toilets. You might need a wee during an air raid but make sure to go before the Germans turn up!

Did you know... Ack Ack was the nickname given to the anti-aircraft guns.

Additional resources

Watch our Ack Ack Attack! video on the Royal Armouries YouTube channel.

There are several other videos about the Second World War including one on the SOE (Special Operations Executive) and ‘ARP-ing On!’ about the Air Raid Precautions (ARP).
During the overnight air raid of 9-10 January 1941, Fort Nelson was itself bombed by enemy aircraft. Luckily the damage was not as catastrophic as it so easily could have been, and despite the attack the Fort continued to supply ammunition to the anti-aircraft guns. Imagine working at Fort Nelson that night knowing that inside the ammunition sheds were thousands of tons of explosives and one German bomb could blow the whole Fort to smithereens!

Fort Nelson was built by the Victorians in 1871 for a war that never started. However just over 60 years later, the Fort played an important role helping protect Britain’s south coast against air attack during the Second World War.

Over 50 gun sites were built along the south coast to protect cities and naval bases from air attack. Fort Nelson was an ammunition store and supplied the AA batteries protecting Portsmouth. That needed an awful lot of ammunition! Just to give you some idea of how much, on the nights of 10 and 11 January 1941 alone, Fort Nelson supplied 1,220 rounds of ammunition during one of the worst air raids that Portsmouth endured during the war.

Fort Nelson has many underground tunnels leading to the magazines. Now these are not magazines you read, they are where the gunpowder was stored in Victorian times. During the Second World War these magazines became really useful again and they were used to store the shells for the AA guns. However as they needed to store so much ammunition they also had to build ten, special blast-proof sheds on the parade ground. Can you see the long white buildings in the photograph above? These two remaining stores are now used to display the museum’s big guns.

How Fort Nelson played its part in the Second World War
Women were not allowed to fight in the Second World War as they were considered ‘too hysterical’ to work with the guns. Can you believe it – attitudes then were very different to those of today. However as so many men were going away to fight overseas women had to take over many of the support tasks. Lots of women joined the Auxiliary Territorial Service also known as the ATS (just because it is much easier to say) and some of them worked alongside the men at the AA batteries.

Searchlights are like giant torches. They were operated by the ATS and were used to illuminate the night sky so the gunners knew where to aim. Once one searchlight had highlighted an enemy plane, others would train their beams on it too. Now, if you are a German bomber what are you going to aim for first – the gun that will be shooting at you or the light showing the gun where to shoot? Women may not have been allowed to fight with guns but they were allowed to operate the searchlights. It was an extremely dangerous job, and over 700 casualties were reported during the Second World War.

Did you know?
The searchlights were so bright that the operators had to wear special glasses to protect their eyes.
This was a team of women that calculated how far away the target aircraft was. Jobs included height and range finders and predictors, who worked together to plot where the enemy aircraft was in the sky and give the co-ordinates to the gunners. Remember, the gunners had to aim ahead of the aircraft. Bombers do not stand still in the sky waiting for you to do your maths. You had to be very quick with your calculations under a lot of pressure – would you be up to the job?

One of the main guns used for air defence during the war was the Quick Firing 3.7 inch Anti-Aircraft gun or the QF 3.7 AA, for short. There were two types – fixed or mobile – depending on if you were moving about or not. Their main job was to fire against enemy aircraft travelling around 400 miles per hour in the night sky, but they could also be used for shooting at tanks should the Germans invade on the ground. This means they can be fired either elevated (upright or slanted position) or horizontal, depending on the target. Firing the guns was the ONLY job exclusively carried out by men.

Quick-fire quiz
Test your knowledge! Do you have what it takes to join an anti-aircraft unit?

1. Outside of London, the South Coast was the most heavily defended area of Britain, why do you think that was?

2. Put the sequence of jobs into the right order
   A. Predictor (predict the place to aim the guns on)
   B. Searchlights (find the aircraft in the sky)
   C. Gunners (fire the guns)
   D. Raise the alarm (activate the air raid siren)
   E. Lookout (spot the enemy aircraft approaching)
   F. Height and range (work out where the aircraft is in the sky)

3. Do you know what these acronyms stand for?
   1. WW2  2. ATS  3. AA  4. QF

   Answers
   1. The South Coast is the closest point in Britain to Europe, making it the first line of defence.
   2. E, D, B, F, A, C
   3. World War Two / Auxiliary Territorial Service / Anti-Aircraft / Quick Firing
How do you think the brave men and women of Britain knew that they were needed to fight for their country?

Few households had a TV and the internet had not been invented. Recruiting offices opened up throughout the country, in cities, towns and villages, where people could join the different military forces. Posters like these were everywhere, railway stations, cafes, newspapers, cinemas and shops.

Design a poster to encourage people to join an anti-aircraft unit.
Imagine you are on duty during the nights of 9 and 10 January 1941.

Maybe you were working at Fort Nelson or maybe you were on duty at another AA battery – the choice is yours. Think about everything you have read and heard about bombing raids during the Second World War and remember to check out our short video ‘Ack Ack Attack’ on our website or You Tube channel for some more ideas.

Write a diary entry about it. You could be manning the guns, operating a searchlight, spotting the enemy in the sky or even listening to it all from a nearby air raid shelter.

**Remember to include things like:**

- A date and time
- Writing in the past tense
- Words like ‘I’, ‘we’, ‘my’ and ‘our’
- What you were doing
- The most important events
- How it made you feel
- Writing about the events in order