British response to V1 and V2
How did Britain respond to the threat of attack by missiles in 1943?

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Introduction

In 1939, Britain and her allies went to war with Germany and her allies. To begin with, Germany was very successful in defeating her enemies. In the first two years of the war, German bombers attacked British cities causing great damage and loss of life. Roughly 43,000 people were killed and 2 million made homeless by the bombing. However, by 1943 the tide of war was turning and Germany was on the defensive.

It was then that intelligence of a new threat to Britain’s cities began to emerge - missiles and rockets. The V1 missile, once launched, flew without a pilot until it ran out of fuel and came crashing down, blowing up. The V2 rocket was a long distance weapon that could travel at the speed of sound. You will investigate how serious a threat these weapons were to Britain in 1943.

Tasks

Look at Source 1 and 2

1. You must advise the War Cabinet on the threat level from three sites: Peenemunde, Wissant and Watten. These sites are believed to be part of the German rocket project. Read the documents and then answer the questions.
   a) Is Peenemunde part of the German rocket project? Should it be bombed? Give reasons for your answer.
   b) Is Wissant part of the German rocket project? Should it be bombed? Give reasons for your answer.
   c) Is Watten part of the German rocket project? Should it be bombed? Give reasons for your answer.

How good was the advice you gave?

1a. Yes: 10 points No: 0 points
   Should we bomb Peenemunde?
   There was clear evidence that the Germans were developing a long-range rocket there. This site was so dangerous that it had to be attacked as soon as possible.

1b. Yes: 1 point No: 9 points
   Should we bomb Wissant?
   While answering yes is not completely wrong, it was decided not to bomb the suspected launch sites at the time.

1c. Yes: 8 points No: 2 points
   Should we bomb Watten?
   This site turned out to be where the fuel was put into the rockets. So it was very dangerous and had to be attacked.
Score of 27
Excellent, you could not have given better advice. If the Germans were allowed to develop their missiles and rockets, then huge destruction could have been caused to British cities. You are going to be promoted.

Score of 15 or above
Well done, you have given good advice. If the Germans were allowed to develop their missiles and rockets, then huge destruction could have been caused to British cities.

Score of 14 or less
You have given poor advice. If the Germans were allowed to develop their missiles and rockets, then huge destruction could have been caused to British cities. You are in danger of being transferred to the Ministry of Food where your job will be to give advice on nothing more serious than how to make tasty meals using powdered eggs.

Look at Source 3

2. Plan the attack on Peenemunde.

You need to advise the bomber pilots on which parts of the site they should aim to destroy.

Study the aerial photograph of Peenemunde. Can you identify the areas listed in the table below? If you need more help finding them, have a look at the target map in the transcript. Which of the following targets would you advise the bomber pilots to aim for? Give reasons for your choice of targets:

- Experimental station
- Factory workshops
- Power plant
- Unidentified machinery
- Experimental establishments
- Sleeping and living quarters
- Airfield.

When you have finished you can read source 4 to see what happened.

Look at Source 4

3. This is an extract from the account of the raid on Peenemunde on the night of 17-18 August 1943 by Group Captain John Searby, the Master Bomber.

d) In this account of the air raid, 250 scientific workers died. What do you feel about the killing of scientists in the attack?

e) Bomber Command losses in this operation were 41 Lancasters. How many RAF men were lost if this many Lancasters were shot down? (HINT: A Lancaster had a crew of 7 men).
Background

The people of Britain called the V1 missiles 'Buzz Bombs' or 'Doodlebugs'. The first was dropped at Swanscombe in Kent on 13 June 1944 and the last one at Orpington in Kent on 27 March 1945. During that time, 6,725 were launched at Britain. Of these, 2,340 hit London, causing 5,475 deaths, with 16,000 injured. Three lines of defence were put in place against the missiles: fighter planes over the English coast, anti-aircraft batteries in Kent and barrage balloons around London. These were successful in destroying 3,500 V1 missiles.

V2 rockets were first launched against England in September 1944. Over the next few months, nearly 1,400 struck London. They were less accurate than V1 missiles, but since they travelled at the speed of sound, and so made no warning noise before impact, it was almost impossible to defend against them.

The Royal Air Force began bombing the launch sites in 1944. The threat from these weapons ended in 1945 as the British army and their allies advanced across France, Belgium and Holland capturing the launch sites.

Teachers Notes

This lesson could be used as part of the following topic areas:

- Changing technology and warfare, showing how new inventions completely change the way war is waged.
- The Home Front. The story of the V1 and V2 bombings is part of the story of the Blitz as well as the mobilisation of the British people in the World War Two. Air-raids are some of the most powerful British memories of the 20th century and present opportunities for students to do some independent research.
- Civilians and "total war". The 20th century introduced the British people to "total war". For students who have studied the Zeppelin raids of World War One and the Cold War as prescribed by the National Curriculum at Key Stage 3, this lesson could be used to compare and contrast these conflicts and help conclude the unit.

Sources

Illustration: V2 Rocket diagram (AIR 40/2541)
Source 1: An extract from Air Scientific Intelligence Interim Report on German Long-range Missiles, 26 June 1943 (DEFE 40/12)
Source 2: Extracts from the report by Duncan Sandys to the War Cabinet Chiefs of Staff Committee on German Long-range missile development, 26 August 1943 (AIR 20/2629)
Source 3: Aerial photograph of Peenemunde (AIR 34/184) - Transcript Peenemunde Site Plan/Target Map, 1943 (AIR 34/632)
Source 4: Extracts from the account of the raid on Peenemunde on the night of 17-18 August 1943 by Group Captain John Searby, the Master Bomber on the raid. (AIR 20/4040)
Schemes of Work

Hot war, cold war why did the major twentieth-century conflicts affect so many people?
Key Stage 3, Unit 18.
Source 1: An extract from Air Scientific Intelligence Interim Report on German Long-range Rockets, 26 June 1943 (DEFE 40/12)

**SUMMARY**

The evidence of the existence of a long range rocket is reviewed; this evidence comes mainly from three types of source: secret agents, prisoners-of-war, and photography. Collateral evidence from other types of source is considered.

The evidence shows, beyond doubt of "planting", that the Germans have for some time been developing a long range rocket at Peenemuende. In its present form this rocket is about 38 feet long by 6-7 feet diameter, with probably three tail fins, and a weight of 40-80 tons; it has been photographed. It is uncertain how much of the development and constructional work is done at Peenemuende, but it would be consistent with the large majority of the reports if Peenemuende were the sole site.

The principal trouble experienced has been that of controlling the rocket in flight, and it is doubtful whether this trouble has yet been entirely overcome. The technical authorities would therefore probably prefer to delay using the rocket until next year at least, but the Fuhrer is said to be demanding its operation as soon as conceivably possible, within the next few months. In this case the rocket is likely to be erratic, and London would be the only worthwhile target. The present production of rockets is probably small, so that the rate of bombardment would not be high. The only immediate counter measure readily apparent is to bomb the establishment at Peenemünde.
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Source 2: Extracts from the report by Duncan Sandys on German long-range rocket development, 26 August 1943 (AIR 20/2629)

7. There is little definite information about the range of the projectile. A variety of different ranges have been mentioned in the statements of agents and of prisoners of war. In the great majority of these statements the ranges quoted are over 100 miles. In some cases they are very much greater.

8. Assuming that the Germans have developed a new fuel with a very high caloric value, a range of 200 miles or over for a projectile of this kind is by no means impossible.

10. In view of the size and weight of the rocket and of gear required to project it, it seems most probably that the firing sites, whatever form they may take will be rail-served and will be fitted with some form of turn-table.

39. My earlier reports have drawn attention to the construction in the neighbourhood of Wissant of a series of large concrete platforms fitted with railway turn-tables and linked to the main railway system by specially constructed spurs. Apart from the fact that the purpose of these sites is unexplained, that they are situated on railway sidings within 180 miles of London and that they are very closely guarded, there is no conclusive evidence that they are connected with the long-range rocket project.

40. Until such time as guns or other weapons are emplaced upon them, attacks on these sites would not appear to be justified. They should, however, be kept under constant watch by means of air reconnaissance.

4. The works offer a small target and would be extremely difficult to locate and hit at night. The Air Staff therefore propose that the attack should be carried out in daylight by American bombers. The Americans have agreed to undertake the task. In view of the short range and the fact that fighter support can be afforded, this attack presents no difficulties. Furthermore, the position of Watten is such that the attack would fit in well with air operations already planned in other connections. Owing, however, to the small size and great strength of the construction, there is little prospect of inflicting more than temporary damage and delay with the bombs at present available.

41. The purpose of the works which are being undertaken at Watten has been further considered. The most recent photographs, together with a model of the site, have been examined by constructional engineers and scientists. These experts have reached the conclusion—

(a) that this plant has not been erected for any normal purpose or process known in this country;
(b) that the layout of the building does not bear out the suggestions that have been made that it might be intended as an operations room, and underground store or a power-house;
(c) that the buildings appear to be designed to handle large and heavy objects which will be brought in for some kind of processing and then taken out again;
(d) that the buildings have the appearance of having been designed to handle large quantities of liquids which will pass through various processing chambers.

42. Owing to the danger of air attack, Watten is obviously a most unsuitable place to carry out any manufacture or chemical processing which could be performed elsewhere. It seems, therefore, most probable that the construction of these installations is in one way or another connected with offensive action against this country.

45. In these circumstances, I consider that a bombing attack should be made upon the new installations at Watten as soon as possible.
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Source 3: Aerial photograph of Peenemunde (AIR 34/184)
Source 3: Peenemunde Site Plan/Target Map (AIR 34/632)
Source 4: Extracts from the account of the raid on Peenemunde on the night of 17-18 August 1943 by Group Captain John Searby, the Master Bomber (AIR 20/4040)

Approximately 750 Lancasters comprised the "main force" of bombers: the first group of yellow markers went down and these were followed almost at once by the red aiming point indicator; this was correctly placed. At 0200 heavy bombing commenced. Several broadcasts were made to all aircraft from time to time assuring them of the accuracy of the marking and exhorting them to keep up this very high standard.

By 0210 the attack was going well and extensive fires could be seen below.

At 0245 hrs all aircraft were informed that we were returning to base and therefore no more broadcasts would be made. We made one final run over the target area but it was now quite impossible to distinguish individual buildings owing to the tremendous fires which were sweeping the area.

Photographic cover of Peenemunde obtained a few days later revealed extensive damage to all sections of the establishment: as a kind of bonus it was discovered at a later date that 250 scientific workers of varying degrees of importance had lost their lives in the attack. The effect of the raid was to delay Germany's "V" weapon programme by six months.

Bomber Command losses in this operation were 41 Lancasters.
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