



Wasserwerk Siracourt

By Jack Livesey

Over a number of years, many authors have written about the large concrete bunkers codenamed Wasserwerk ("waterworks") connected to the FZG 76 (V1) flying bomb programme. Some have even claimed that these bunkers were developed to house flying bombs equipped with unconventional warheads filled with poison gas or chemical weapons. However, while carrying out research for a new book, I have come across some evidence that for most of their existence they were nothing more than a skilful and highly successful German deception plan. For ten months in 1944 the Wasserwerk sites and the V1 Ski sites were 'Bomber Bait' for the combined Allied bomber force. I would also suggest that for technical reasons they were never suitable for the purpose attributed to them by many historians.

When the idea of the FZG 76 was first put to Generalfeldmarschall Milch in July 1942, he was delighted and could envisage a constant stream of flying bombs descending on London and other targets. He must have been a science fiction fan, as a number of books and films of the 1930s had shown great fleets of robot aircraft attacking and destroying the enemy, having been launched from underground bunkers, for as development of the FZG 76 progressed, he came up with the idea of launching the FZG 76 from within a bomb-proof shelter. Design work was started in early 1943 by the Organisation Todt although the designers and builders of the new giant bunkers were never told what they were to be used for. Great for secrecy but difficult for practical design!

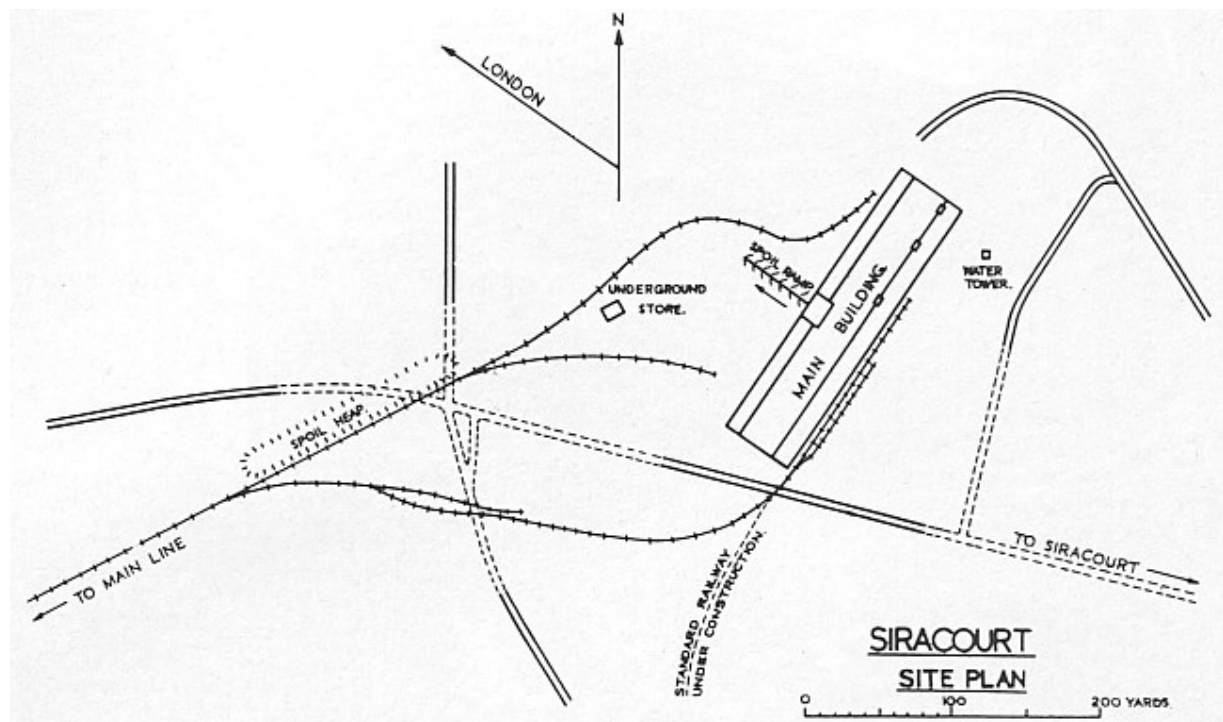
Due to the effect of the Allied bombing on other large concrete structures under construction in France, a new method of building called '*Verbunkering*' was developed. This type of construction started with the digging of two parallel trenches in the bottom of which shuttering was put in place for air raid shelters and offices. Over this was placed a cage of steel reinforcing rods and then the concrete was poured for the first part of the wall of the bunker. Two further trenches were dug for the rest of the side wall construction and filled with steel reinforcing rods but a central earth core some forty feet wide was left untouched in the middle of the excavation. The rest of the concrete for the side walls was now poured and allowed to set and the top of the earth core was levelled. Steel shuttering was placed directly on top of this with a mesh of steel reinforcing rods over it. The concrete for the roof was now poured on the top of the shuttering and the reinforcing rods. Once this concrete was set work could begin on excavating the central earth core, which would be done by starting at the openings in the side and end of the bunker. When finished there would be a central chamber some forty feet wide and twenty feet high that could now be fitted out. This was the general plan of construction for this type of bunker but at none of the four sites was it completed. When work was abandoned the most advanced was Wasserwerk Saint Pol at Siracourt in the Pas de Calais.

Four of these giant bunkers were planned: Wasserwerk Saint Pol in Siracourt, Wasserwerk Desvres near Lottinghem, Wasserwerk Valognes near Valognes/Cherbourg, and Wasserwerk Cherbourg near Martinvast/Cherbourg. Construction by the firm of Philipp Holzmann A.G. of Frankfurt-am-Main started in late August 1943. These bunkers were all to be some 212.3 metres long (697 feet) and 36.2 metres wide (119 feet) with an overall height of 10 metres (33 feet) externally while the internal dimensions of the main chamber were 190.5 metres (625 feet) in length with a maximum width of 14.6 metres (48 feet) and a height of 5 metres (16.5 feet). They were designed to house some 150 FZG 76 flying bombs. The bombs, if we believe what has been written since the end of the Second World War, would be assembled inside the bunker and then pushed out of the side door and straight onto a firing ramp. This is the assumption from the case of St Pol and Desvres as their side doors were on a direct alignment with London. What the alignment of the two bunkers near Cherbourg was we do not

know as all drawings and plans for all the bunkers were destroyed by the Germans and these two were never sufficiently completed to allow a guess.

When Oberst Max Wachtel¹ and his officers saw the designs in late August 1943 it must have been very clear to them that they could not fire the FZG 76 from the giant Wasserwerk bunkers. The first reason for this is that the FZG 76 was fitted with a cheap mass-produced aviation compass. All FZG 76 flying bombs had to have their compasses swung before launching in a building with no ferrous metal in it, which seems impossible to me in a bunker containing some 5,000 tons of steel reinforcing rods and steel shuttering. The bomb would have to be removed from the building, taken several hundred yards away from the influence of the steel and then the compass would have to be swung on a special non-ferrous rig. This process would have taken some twenty to thirty minutes and included aligning the magnetic fields of the skin of the FZG 76 using wooden mallets. The bomb compass and gyroscope were then locked in position after which the V1 could be placed back in the bunker but not in long term storage: it had to be used shortly after the compass had been swung. As the compass deviation was different for each FZG 76, each bomb would have had to be taken outside the bunker for some thirty minutes exposing the compass crew and the bomb to attack.

This was a minor problem compared with the dangers of the actual launch, which is one of the most compelling cases against using these facilities as firing bunkers. The T Stoff and Z Stoff used in the Dampferzeuger (Starter Trolley) were extremely volatile and could not be kept in the bunker in case of an explosion. They would have had to be stored outside along with the starter trolley, meaning that the starter crew could be exposed to attack. The danger of an explosion on the firing ramp, which could either be caused by the starter trolley failing or the bomb detonating prematurely and was not unusual, meant that both the ramp and the starter trolley would also have to be some hundred feet from the bunker to allow a safe distance and prevent an accident outside causing a maelstrom of explosions inside.



¹ Commandant of Flak Regiment 155 (W), the only unit to fire the V1



The author of this article retains the copyright of the material. No part of this article may be reproduced or distributed in any form other than for private use without the express permission of the author. Permission may be sought via the [BCMh Newsletter Editor](#)

On 12th November 1943 a meeting was held at Zempin², the main topic of which was the speed of development of the FZG 76, the construction of the launching sites and the construction of the Deep Sites (Wasserwerk). Oberst Max Wachtel and his officers were all at the meeting along with Oberst Berg and Oberstleutnant Ziervogel, representatives from the Führer Headquarters, Oberstleutnant Niemeier from Luftwaffe High Command, and Major Berneburg from Army Headquarters. The meeting went very well and finally turned to the subject of the Wasserwerk. Leutnant Dr Pohl noted the following in the diary of Flak Regiment 155 (W):

'A very profitable discussion was held on the subject of Wasserwerk Oberst Berg stated that a construction site had been attacked in the Cherbourg area, as a result there was now some doubt about the value of these deep sites. The size of the construction sites makes it very difficult to provide a foolproof camouflage, as the Cherbourg example proved. In view of the enemy's present superiority in the air the bunkers would probably be destroyed before they could be finished. The time involved and the expenditure of labour and materials involved was too great and so construction would be terminated'³.

This was confirmed a few days later when an order arrived from the Führer Headquarters.

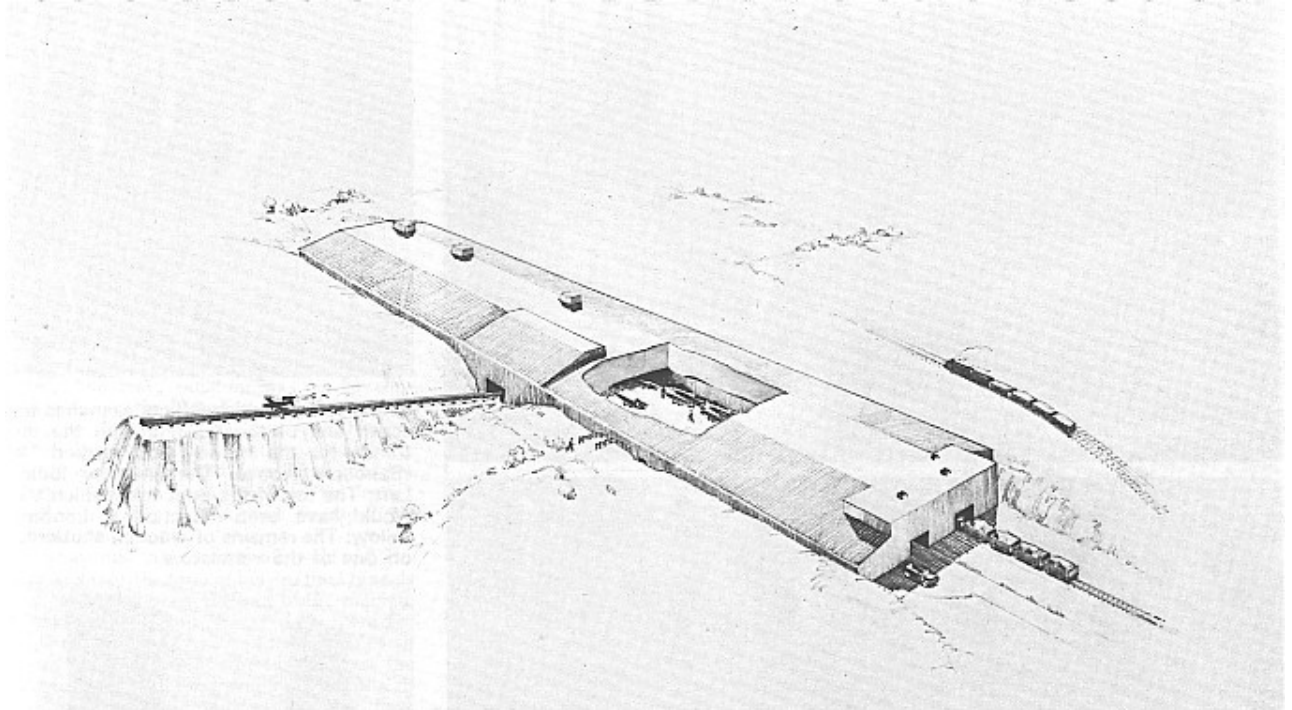
Further discussions then followed the meeting and it was decided that skeleton construction crews would continue at St Pol (Siracourt) to act as a deception so that Allied intelligence services would think the bunker was still being built. It would be a tempting target for Allied bombers. The four Wasserwerk bunker sites would now become 'bomber bait' and very successful bait they were.

In late 1944 Colonel Sanders led a field investigation team to look at the Heavy Crossbow sites in Northern France⁴. They examined both Wasserwerk Saint Pol in Siracourt and Wasserwerk Desvres near Lottinghem and very quickly discovered that there were no drawings or other documents for these bunkers. As the Germans had left no clear idea as to what these bunkers were going to be used for, Colonel Sanders drew upon intelligence sources and interviewed a number of locals to try to find out. His team then mapped the site and came to a number of possible conclusions and a drawing of what the site might have looked like if it had been finished.

² Headquarters for the training of Flak Regiment 155 (W) personnel

³ War Diary of Flak Regiment 155 (W) page 34-35. Text as originally translated

⁴ Lord Duncan Sandys files at the Churchill Archive DSND 2/3/15



Artist's impression of what the Wasserwerk St Pol would have looked like if it had been finished

And this is where the romancing truly started. The artist's illustration is precisely what the caption says, an impression, but most historians and authors since 1977 have only reproduced the artist's impression from the Sanders report and taken the possible personal conclusions of Sanders in the report to be fact rather than speculation. The so-called ramp in the artist's picture, shown with a V1 scudding on its way, is labelled as a spoil heap in the site map and in no way could have been anything else. The vibration during the launching of the FZG 76 was so great that the launch crew had to wear a form of body corset to keep their internal organs from moving around and causing internal injuries. As the earth bank spoil heap had no form of reinforcement, it would have shaken itself to bits after just a few launches. What is shown on both site plan and artist's impression is fully explicable within the premise of unfinished 'bomber bait'.

At this stage, I would like to examine another hypothesis that has been put forward for the use of the Wasserwerk bunkers: that they were to be used for housing and launching the V2 rocket. However, this was simply not possible as this weapon was just too large for the internal space of the bunker. The V2 had a span of 11.7 feet and an overall height of 14.2 feet when mounted on the lowest transport trolley available, so it would just fit inside the bunker, which has a maximum internal height of 16.5 feet. It would therefore be impossible for V2s to be delivered to site by train and unloaded inside the bunker, because of the lack of height: the V2 on a railway flat car would just not fit. If delivered to site by road on the basic transport trailer it would also not fit inside the bunker. To lift the weapon from the very small transport trolley, designed for use within an ammunition dump and not out on the open road, would require a crane or mobile gantry which needs height overhead to function. One or two authors have even suggested that there was going to be a slot cut into the 16-foot thick roof, so that the V2 could be launched vertically from inside the bunker, again just not possible as there is no room to lift it into a vertical position, apart from all the other practical considerations.

At the end of the war Sanders was able to interview Albert Speer, the German Minister for Armaments and Production, and one of his principle assistants, Dr Saur. He asked both men about the other large Crossbow targets in Northern France and then proceeded to the Wasserwerk bunkers. Albert Speer at first hesitated to answer and after a long hesitation he said they were storage bunkers, which was



The author of this article retains the copyright of the material. No part of this article may be reproduced or distributed in any form other than for private use without the express permission of the author. Permission may be sought via the [BCMh Newsletter Editor](#)

Page 5 / 5

confirmed by his assistant Dr Saur. With the evidence now available to us from the Flak Regiment 155(W) diaries, I think we can assume that he was a little surprised by the question. He had probably completely forgotten about these failures.

After the Second World War, the story of these sites was glossed over once it had become clear to British Intelligence, the Royal Air Force and the United States Army Air Force that the Ski sites and the Wasserwerk were nothing but a deception plan. The truth has been lost in many official histories and with good reason. The combined effort of both the American and British bomber fleets led to some 2,650 tons of bombs being dropped on Siracourt alone. Just to make sure the bunker was destroyed, 17 of the six-ton 'Tallboy' bombs were dropped on it in the final raid of 25th June 1944. The Allied air forces lost 154 aircraft and had over 400 aircraft damaged, resulting in a total of 771 aircrew killed, on totally unnecessary raids on the Wasserwerk. The only substantive result of the bombing was that the village of Siracourt was removed from the map and had to be completely rebuilt between 1949 and 1951. However, very little damage was done to the bunker as can be seen if you visit the site today. As Oberst Max Wachtel the commander of the 155 (W) Flak Regiment put it to his officers, the Ski sites and Wasserwerk bunkers had been turned into 'Bomber Bait' and very good bait it turned out to be.

Jack Livesey
6th May 2008

Mars & Clio 22 Spring 2008