

## Fort Eben-Emael - Belgium

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### Fort Eben-Emael

Eben-Emael was a Belgian fortress in between Liège and Maastricht, near the Albert Canal, defending the Belgian-German border. Constructed in 1931-1935, it was reputed to be impregnable. But on 10 May 1940, 74 paratroopers of the German 7th Flieger later 1st *Fallschirmjäger* Division landed on the fortress with gliders (type DFS 230). One day later, they were reinforced by the German 151st Infantry Regiment. At 13:30 h on 11 May, the fortress surrendered. 1200 Belgian soldiers were captured. Eben-Emael, a diamond-shaped fort, was Belgium's hope to defend the eastern side from invasion, charged with defending or destroying three key bridges. It also gave protection to the south what was called the *Gap of Vise*. A fortress to protect this approach to Liège had been conceived in the latter 19th century, but only became politically convincing after the Albert Canal was dug (to provide a route for Belgian river transport that did not require entering Dutch territory). Thus the fortress was only completed in 1935, being sited between the river and the canal that bypassed it. With its steel and concrete cupolas, Fort Eben-Emael was thought to be impenetrable.

### Capturing the Fort with gliders !

However, the Germans had planned the capture of the fort well in advance. In preparation they had practiced assaulting forts in occupied Czechoslovakia similar to Eben-Emael. [1] Adolf Hitler himself conceived of a plan to take over the fort by getting men on the fort by using gliders (it would have been difficult and messy to parachute a large number of men into the small area) and utilizing top secret new shaped charge (also called "hollow charge") bombs to penetrate the cupolas. A shaped charge is an explosive charge shaped to focus the effect of the explosive's energy. Various types are used to cut and form metal, initiate nuclear weapons, and penetrate armour. A typical modern lined shaped charge can penetrate armour steel to a depth of 7 or more times the diameter of the charge's cone (cone diameters, CD), though greater depths of 10 CD and above are now feasible. Good espionage and superior planning, combined with bad luck and unpreparedness on the Belgian side, helped make the May 10, 1940 execution of Hitler's top secret plan a swift and overwhelming success. The capture of Eben-Emael involved the first utilization of gliders for the initial attack and the first use of hollow charge devices in war. The gliders led by First Lieutenant Rudolf Witzig landed on the "roof" of the fortress. There they were able to use the hollow charges to destroy or disable the gun cupolas. They also used a flamethrower against machine guns. The Belgians did destroy one of the key bridges, preventing it from being used by the Germans but also preventing a relieving force from aiding the fortress. After its capture, the fort was evaluated for use as an underground factory for the V-1 rocket, but production was never undertaken. The Germans had appreciated the usefulness of airborne forces and then within these to have yet a further level of elite troops for 'Storm Troop' assault operations. Also, during the 1930's when they were not allowed to build up an air force they got around the rules by an extensive use of gliders both as

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a vehicle for pilot training, but also as a means of delivering troops silently to an objective.

### **Assault Battalion**

Assault Battalion Koch (Major Koch would also land close to Hill 107 during the invasion of Crete) was one such crack group within 7th Flieger Division commanded by General Kurt Student. In the plan for the German attack in the west Hitler gave his backing for General von Manstein's plan which called for an armoured thrust through the Ardennes as this would surprise the Allies - they would have been led to believe that the main German attack would be through Holland, basically the 1914 Schlieffen Plan. Manstein's plan relied on the right flank of the panzer attack being covered by the infantry of the 6th Army. This army would need to cross the Albert Canal and in their way, defending the bridges over the canal was the Belgian fortress complex at Eben Emael. Koch's 500 man Assault Battalion would be assigned to take Eben Emael and following that, airborne forces would be dropped on targets around Rotterdam. The whole timing of the German attack in the west was dependent on this relatively little known airborne assault. The German army would not begin its general assault until 5 minutes after the assault gliders landed, and the airborne operations in Holland would be timed for 30 minutes after those landings. The fortress was, as you would expect, sited in a strong defensive position. It stood on a 150 foot high ridge with the River Maas and the Albert Canal protecting it from the East and North East, while the South and South West perimeter were the sites of field fortifications and anti-tank ditches. The guns on the fortress were like those of the old fort Douaumont at Verdun, mounted in retractable cupolas or thick steel 'helmets'.

### **Actual capture**

The attack was to come from 11 gliders, each with 7 - 8 men inside, and they would be landed on the roof of the fort complex which was some 800 yards long by 650 yards wide, with gun emplacements as physical obstructions. The whole operation depended on the element of surprise, there would be no declaration of war on Belgium before the attack. The Germans would rely on stealth and their specialized training to '....put out of action the armoured cupolas... destroy the enemy's resistance and defend the gains you have made until relieved.' (Koch's orders to Witzig whose force would land in the gliders.) While Lieutenant Witzig's group were taking the fortress there would be three other elements of Koch's battalion to seize bridges at Veldwezelt, Vroenhoven and Canne. The general German offensive in the west, of which the airborne assault was the spearhead, was codenamed 'Gelb' and would begin at 5.25 am on 10 May. Koch's battalion took off from airfields around Cologne at 4.30 am, there were 42 gliders carrying 493 officers and men but as with most airborne operations (Crete, Arnhem) not all goes to plan. The Eben Emael Commander's glider was one whose tow line parted and he had to land back in Germany and try again. His second in command, Lt. Delica, would have to command the fortress assault and the action on the southern edge of the attack area, Sgt. Wenzel would now take control at the northern end. Released at 7,000 ft. with some 20 miles to run the assault gliders began their silent approach to the bridges and the fortress at Eben Emael. The gliders for the fortress were all assigned individual gun

positions and cupolas to attack with hollow-charge grenades and flame throwers, and this was accomplished within 10 minutes of the gliders touching down. In the original planning the Germans believed that the Belgians might recover sufficiently within 60 minutes to start counter-attacking, so rapid support of the glider-borne troops was necessary to capitalize on early success. This would require the other elements of Koch's battalion to take their objectives, the three bridges. While two were seized, the nearest to the fortress, the bridge at Cannes, was blown by the defenders. Witzig, after his glider lost its tow, landed back in Germany and took off again. He landed at Eben Emael at 8.30 am just as his group's energy and morale were flagging because of the failure to take the Canne bridge, he rallied them sufficiently for them to hold their position until they were relieved at 07.00 on the 11th May. The success of the airborne troops used against Rotterdam were mixed and will not be gone into here, suffice it to say that their success was dependent upon the accuracy with which they were dropped and the time it took their support to arrive. Some had no support until the 14th May. The gliders at Eben Emael carried out a successful 'coup de main', as the Allies would do later with 3 gliders against Pegasus Bridge on D-Day. This success, and the effect of the drop on Rotterdam gave General Student and his ideas on airborne assault the credibility needed to propose the assault on Crete in May 1941, and have the plan backed by Hitler. Finally about the gliders, here's what Paul Witkowski (Infantry magazine) wrote.

### **Glider assault on Eben Emael as an archetype for the future**

In these wee hours of the morning on May 10, 1940, a flight of 11 German Luftwaffe Ju-52 tri-motor transport planes clawed their way into the dark sky above Ostheim, Germany. Connected behind each transport plane by a towrope was a high-wing motorless aircraft loaded with highly trained paratroopers. These paratroopers turned glidermen would make the opening blow of Germany's plan to seize France via striking through Holland, Luxembourg, and Belgium. Slightly over the Dutch border, the tow planes released their gliders. Nine of the 11 gliders reached their objective. Even though they had trained for months for this attack, none of the glidermen knew their objective by name until they loaded their gliders that morning. In the morning nautical twilight, nine Luftwaffe gliders silently descended upon the Belgian fortress of Fort Eben Emael. Within 20 minutes of landing, the 70 German glidermen rendered Belgium's most modern fortress, garrisoned by more than 800 soldiers, useless. The breach in Belgium's line of defense opened by these glidermen paved an open road for the German panzers to Blitzkrieg into the heart of Belgium. This event not only marked the end of the Phoney War, but was also the debut of gliders in combat. Gliders were not a new invention; some of the earliest attempts at human flight were made in gliders. At the dawn of World War II, however, the concept of teaming powered aircraft with gliders to deliver combat troops to a specific landing zone in large enough numbers to overwhelm enemy defenders was revolutionary. The western Allies did not pursue a military glider program until after the Germans' success at Eben Emael. However, the Allies quickly exploited and expanded on what they had learned from German glider use at the fort. The German glider assault was a textbook example of the use of surprise in a military assault and served as a template for subsequent airborne operations conducted by the Allies in World War II.

Contribution in the article of Regiment: **Dutch Aviation Support**

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