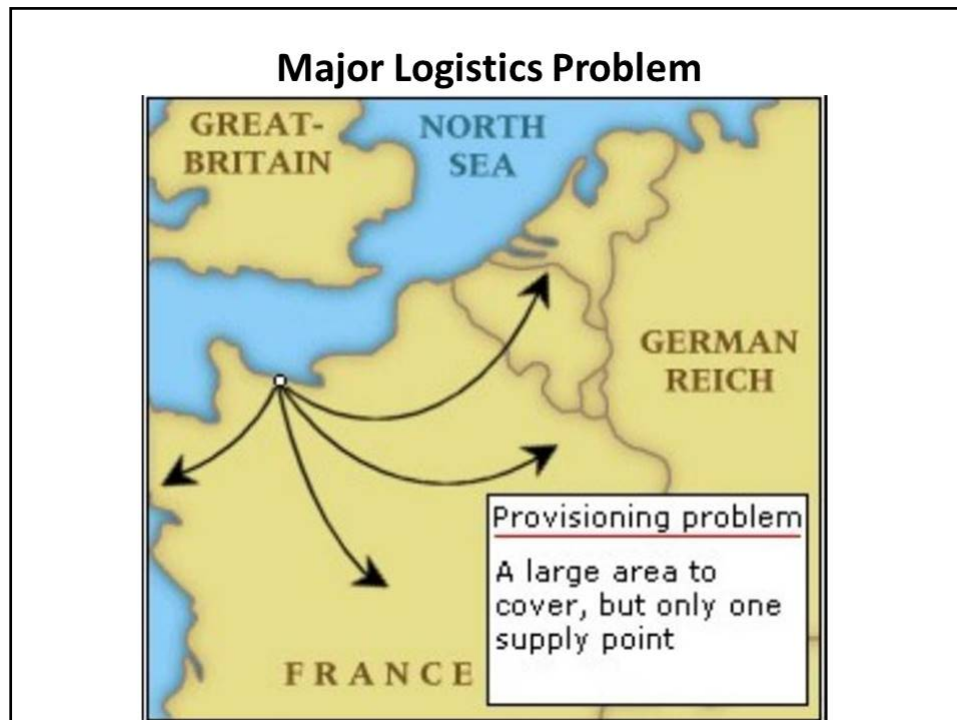




Strategic Imperatives

- Prior to D-Day, to disrupt German logistics efforts, the Allies spent considerable effort in bombing the French rail network, although aware this would also affect their own operations in the event of a breakout.
- By August, supply sources for the armies were still limited to the original invasion beaches, the nearby deep water port of Cherbourg, and some minor ports in Normandy. Although over-the-beach supply operations outperformed expectations, September saw deteriorating weather and rising seas and the end of their usefulness was clearly in sight. Logistical problems were slowing the allies advance considerably. Additional deep-water ports were therefore required; Cherbourg was useful, but far from the front.
- On 4 September, Montgomery's troops captured the massive port of Antwerp virtually intact, but the Scheldt Estuary leading to it was still under German control. Some argued that the capture of Le Havre and Antwerp made the original plan of clearing French ports further south unnecessary. Antwerp could have been opened sooner by the Canadians if Montgomery had given priority to clearing the approaches, but Eisenhower and Montgomery persisted with the original plans to capture the French ports.
- The failure to open the port in Antwerp was a major tactical blunder This included not cutting off the German Fifteenth Army of 80,000 men who were trapped on the coast west of Antwerp, and who were evacuated north over the Scheldt Estuary and then joined the battles for the bridges in the Eindhoven and Nijmegen sectors.
- Pressure on Eisenhower from Washington to mount a major airborne operation before the end of the war in Europe.



Allied Intelligence

- A number of reports about German troop movements reached Allied high command, including details about the identity and location of German armoured formations.
- On 16 September ULTRA decrypts revealed the movement of 9th and 10th SS Panzer Divisions to Nijmegen and Arnhem, creating enough concern for Eisenhower to send his Chief of Staff, Lieutenant General Walter Beddel-Smith, to raise the issue with Montgomery on 10 September; however, Montgomery dismissed Smith's concerns and refused to alter the plans for the landing of 1st Airborne Division at Arnhem.
- Further information about the location of the German Panzer Divisions at Arnhem was revealed by aerial photographs of Arnhem taken by a photo-reconnaissance RAF Spitfire as well as information from members of the Dutch resistance
- Fearing that 1st Airborne Division might be in grave danger if it landed at Arnhem the chief intelligence officer of the division, Major Brian Urquhart arranged a meeting with Gen Browning the British commander of all 3 airborne divisions, and informed him of the armour present at Arnhem. Browning dismissed his claims and ordered the division's senior medical officer to send Urquhart on sick leave on account of "nervous strain and exhaustion".

German Forces

- Von Rundstedt and Model suspected that a large Allied airborne offensive targeting the bridges at Nijmegen and Arnhem was likely. The arrival of airborne troops confirmed this, and especially did the retrieval by the Germans of the detailed Market Garden plan from the body of a dead US officer, who had carried the plan into battle, even though forbidden to do so.
- When Hitler learned of Market Garden he gave absolute priority to resourcing Luftwaffe and Wehrmacht units opposing the operation. German forces were therefore increasing while allied forces were being reduced by attrition.
- German forces comprised:
 - 9th and 10th SS Panzer divisions- 7,000 troops
 - Fifteenth army (which escaped from the Scheldt Estuary) 80,000 troops
 - First Parachute army- 30,000 troops
- German commanders could therefore anticipate allied tactics and had the resources to counteract them.

Strategy







● Market:

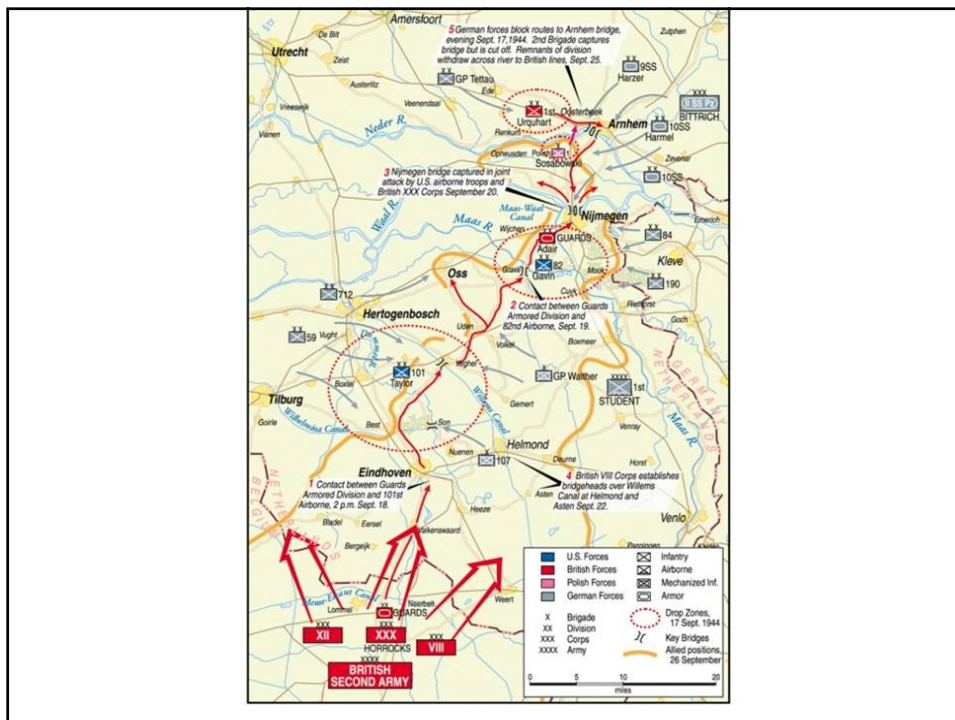
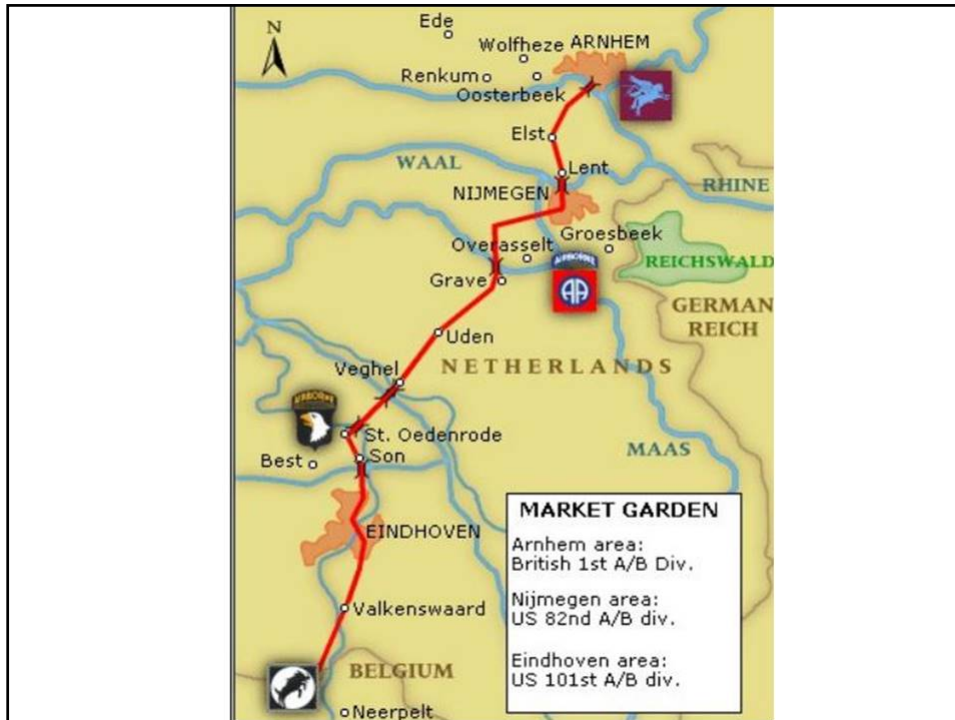
- US 101st Airborne to attack the Eindhoven area to secure Highway 69 in that area including the bridges over the Wilhelmina Canal at Son and the Zuid- Willems Canal at Veghel
- US 82nd Airborne to attack the Nijmegen area to secure the bridges over the Maas-Waal canal and the Waal rivers to permit land forces to progress up Highway 69
- 1st British Airborne division to land at Oosterbeek and over the Rhine river.
- Overall strength- 41,628 airborne troops
- Plans were made to seize bridges across all obstacles nearly simultaneously – any failure to do so could result in serious delay or even defeat.

● Garden:

- Ground forces of the Second Army to move north and link up with airborne forces .
- The XXX Corps would spearhead the move and it comprised 1 armoured division, 2 infantry divisions and 1 armoured brigade

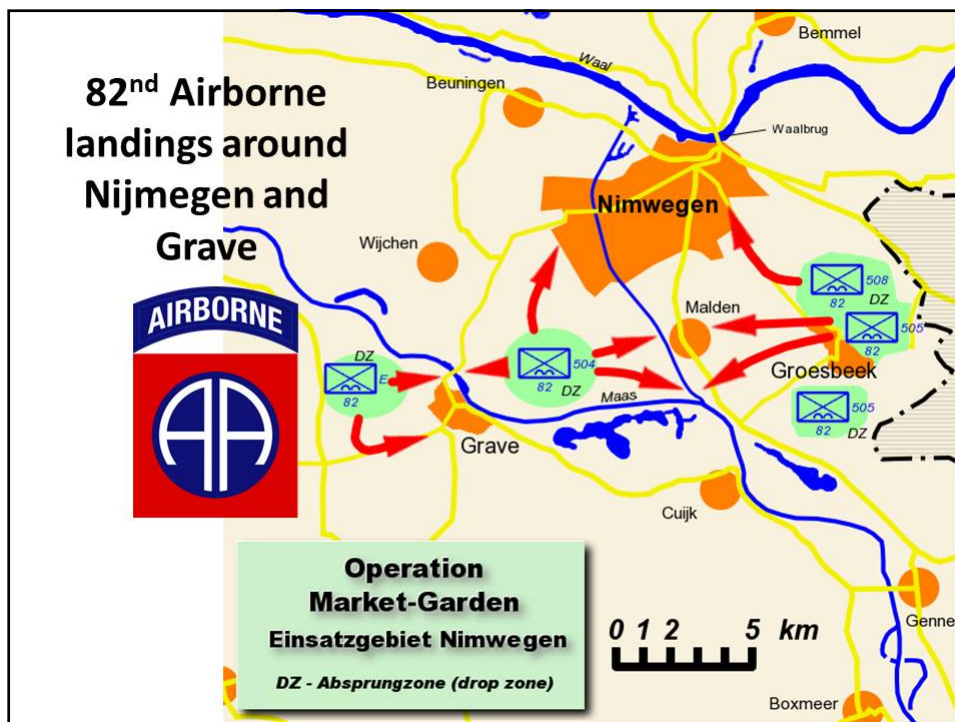


Major Water Obstacles	
	1. Wilhelmina Canal at Son: Nazis destroy; 100 feet (30 m) wide delay 10 hours
	2. Zuid-Willems Canal at Veghel: 80 feet (20 m) Captured intact
	3. Maas River at Grave: 800 feet (240 m) Captured intact
	4. Maas-Waal Canal: 200 feet (60 m) Captured intact
	5. Waal River at Nijmegen: Groesbeek Hts; 850 feet (260 m) taken 1830 20/9.
	6. Nederrijn at Arnhem: 300 feet (90 m) Frost seizes N. end; Nazis hold.



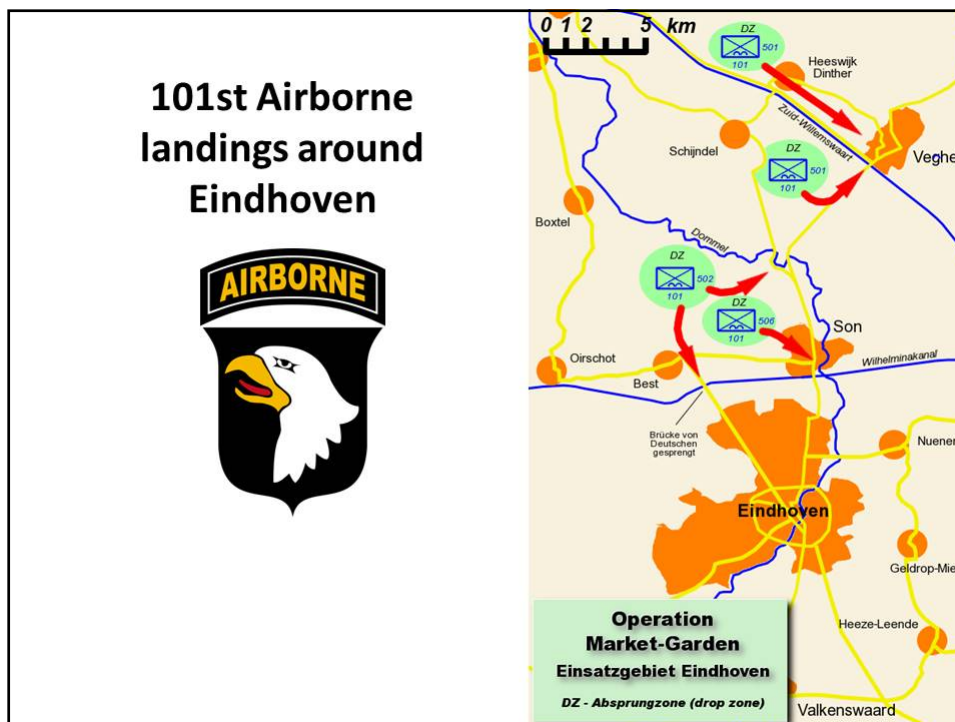
82nd (All American) Airborne Division

- Successful landings around Nijmegen on 17th September
- Captured target bridges over the Maas-Waal canal and the Waal rivers



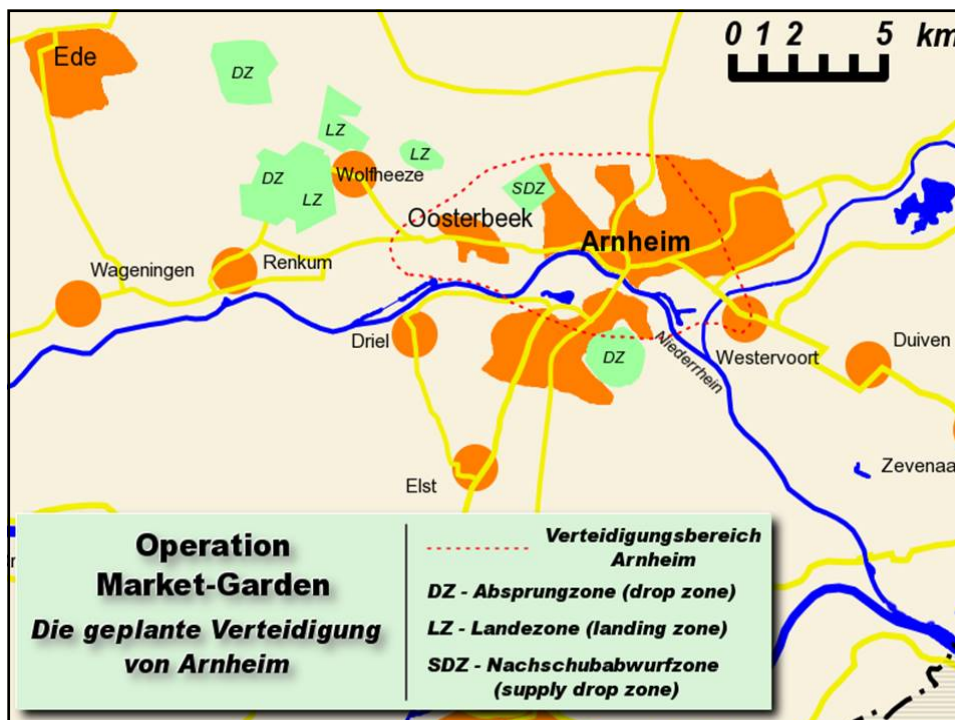
US 101ST (Screaming Eagles) Airborne Division

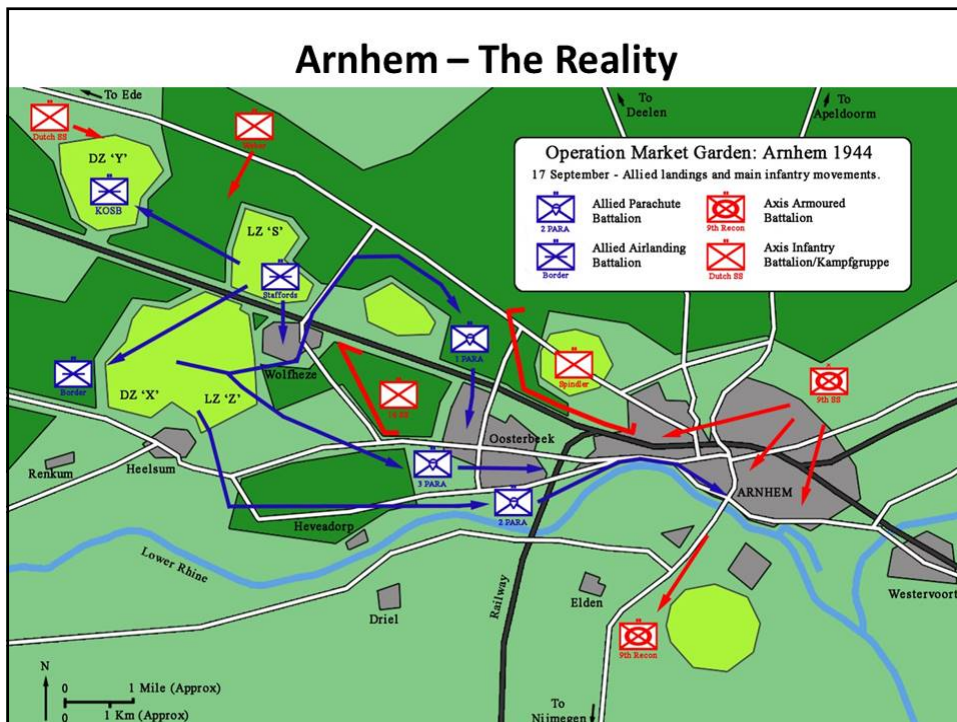
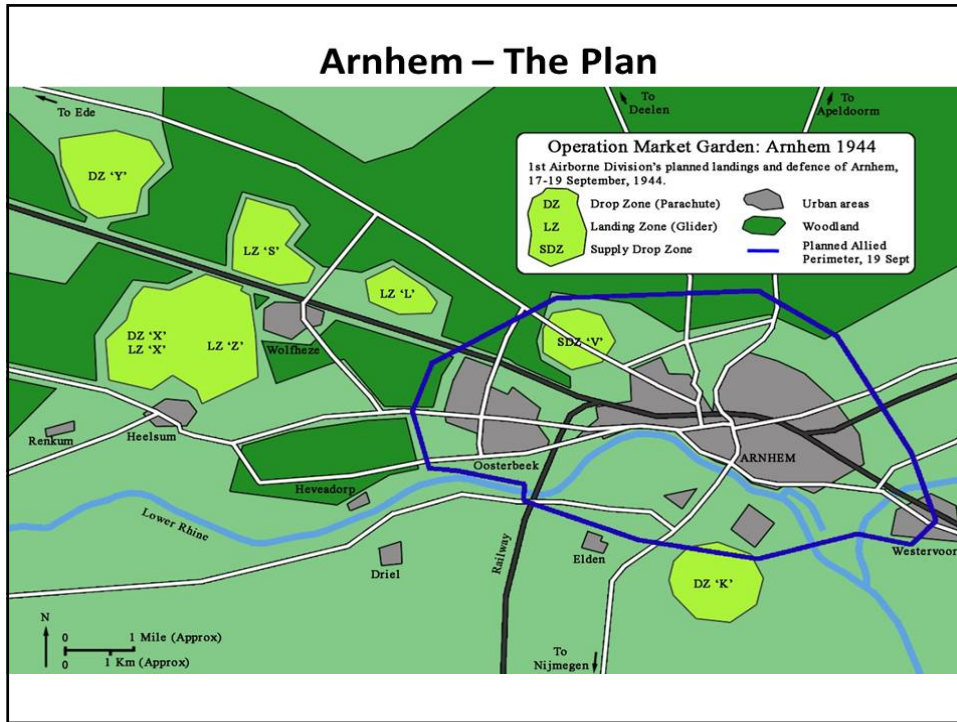
- Landed at Eindhoven and Veghel on 17th September
- Successful, with the support of XXX Corps, in capturing bridges over the Wilhelmina Canal at Son and the Zuid Willems Canal at Veghel

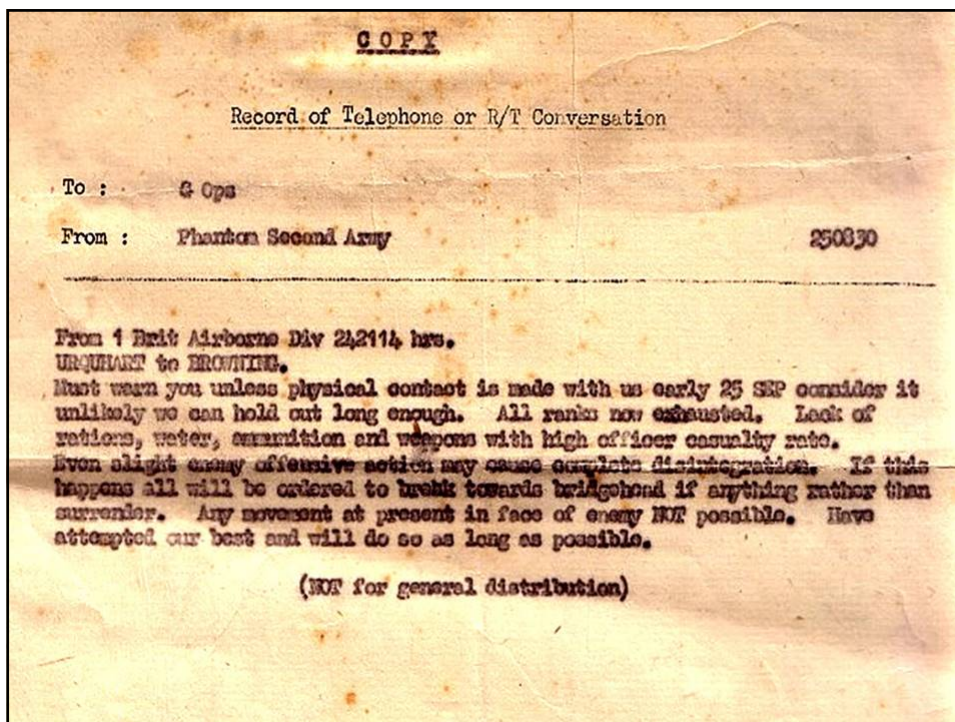


British 1st Airborne Division

- the British First Airborne division, under the command of Major- General Roy Urquhart, and the Polish 1st Independent Parachute Brigade were given the task of securing the bridge at Arnhem.
- Glider infantry and paratrooper units were landed in the Oosterbeek area on 17 September. The Polish paras were only dropped 3 days later due to weather. The bulk of the force was dropped 11kms from the bridge, eliminating the critical element of surprise.
- The 2nd Parachute Bn under Lt Col John Frost managed to make its way as far as the bridge but was only able to secure the northern end.
- The 1st and 3rd battalions met resistance from the German 9th SS Panzer Division, which had formed a barrier between Oosterbeek and Arnhem, and could not reach the bridge
- 2nd Bn ran out of ammunition after valiantly holding out for 4 days and was captured on 21 September.
- Urquhart made the decision to regroup at Oosterbeek and withdraw in order to meet up with XXX Corps.







Arnhem Today



Hartenstein Hotel, where Urquart set up his HQ- Now the Airborne Museum

John Frost Bridge

Arnhem- Oosterbeek war cemetery- 1,759 dead mainly British and some Polish airborne troops

British XXX Corps

- With significant artillery and air support, the Irish Guards led the XXX Corps on the first day of operations. Lieutenant-General Horrocks had expected they would have been able to advance the 13 miles (21 km) to Eindhoven within 2-3 hours; however, they had only covered 7 miles (11 km). The operation was already behind schedule.
- Dependent on Highway 69 to advance, much of off road terrain was boggy, and tanks had to stick to a 2 lane highway. Made it easy for German anti tank units which slowed armoured progress considerably.
- XXX Corps ground force advance was delayed by the initial failure of the airborne units to secure bridges at Son and Nijmegen. German forces demolished the bridge over the Wilhelmina Canal at Son before it could be secured.
- The 82nd Airborne's capture the main road bridge over the river Waal at Nijmegen being delayed to 20 September also delayed the advance of XXX Corps.
- Once the 82nd Airborne had taken the Nijmegen bridge, the Grenadier Guards' tank regiment, with a clear 11 mile run to Arnhem, was ordered by General Horrocks to take an 18-hour break, by which time Frost's men at Arnhem Bridge had been defeated, and the battle was lost. The reasons for this delay are unclear.



Generalleutnant Kurt Student

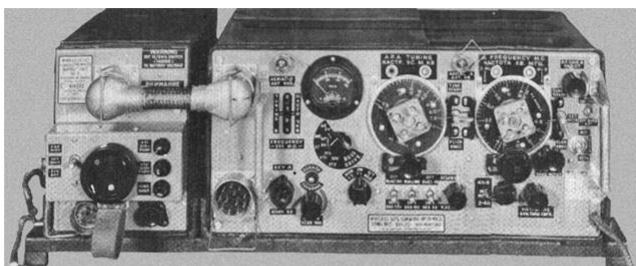
- Generalleutnant Kurt Student, commanding 1st Parachute Army (based in Holland).
- A pilot in WWI, led 100,000 man German Airborne invasion of Holland in 1940, until then airborne drop in history.
- Shot in the head by SS interfering with a cease fire negotiating Dutch surrender.
- A few months before Market Garden, Student returns as commander of German Airborne Forces in Holland.
- Commanding all German Paratroopers, Student's airborne and country knowledge is important for the Germans during Market-Garden, who delay the advance of XXX Corps, which directly leads to the failure of Operation Market Garden.



Reasons for the Failure of Market Garden

- Poor planning, it was planned and executed on the fly, with only one week between the first planning conference in England and Market-Garden's D-Day on September 17, 1944. The final plan depended on everything going right for the Allies, with no room for error *anywhere*. The British XXX Corps *had* to reach the First Airborne Division (and the Polish brigade) in 48 hours...96 hours at most, this never happened.
- Overconfidence and poor use of intelligence. Montgomery's dismissal of evidence of the 9th and 10th Panzer Divisions in the Arnhem and Nijmegen areas.
- Despite commanding all three airborne divisions, Gen Browning had no operational airborne experience. Some poor decision, eg rejected offer of additional help to take Nijmegen bridge.
- Drop zones too far from objectives- British 1st Div. dropped at Oosterbeek 11kms from Arnhem. Only 2nd Battalion made it to the bridge. Lost the element of surprise.
- The terrain-one of the worst places for armoured combat. Dependent on Highway 69 to advance, much of off road terrain was boggy, and tanks had to stick to a 2 lane highway. Made it easy for German anti tank units which slowed armoured progress considerably.
- Shortage of transport aircraft. Many of the planes needed for Market Garden were either busy ferrying fuel, food, and ammo to the other armies south of the Ardennes or needed to be serviced in order to participate in the operation. As a result, instead of dropping the 35,000 paratroopers on September 17 in one big lift, Market Garden called for three drops over three consecutive days.
- The weather. Market Garden was extremely dependent on the weather. However, fog, clouds, and rain in England *and* Belgium/Holland over the next few days affected the timing of the second and third lifts...badly. By the time all the airborne troops landed in Holland, the Germans had recovered from their initial surprise and reacted to the attack.
- The only battle in the European campaign to be fought without allied air superiority- due to weather and other reasons
- The Grenadier Guards' tank regiment, with a clear 11 mile run to Arnhem, was ordered by General Horrocks to take an 18-hour break, by which time Frost's men at Arnhem Bridge had been defeated, and the battle was lost.

Wireless Set No. 19, 10 watts



Three channels:

- longer range communications within squadron or regiment. Command and link/relay vehicles had provision to operate two A sets, one of which could be a high-power variant.
- short range communication between tanks in a troop.
- internal communication (IC) between crew inside the tank.

Weight (complete) ~40 kg; vehicle-mounted

Range: A-set 10 miles (16km); B-set 1,000 yards (910 m) moving.

Wireless Set No. 22, 1.5 watt



Weight (complete) 16.5 kg (36.5 lb); intended to be vehicle-mounted with facilities for manpack

Range: 5 miles (8km) extended rod aerial; up to 20 miles (32km)

Wireless Set No. 18/68 (man pack), 0.25 watt



Weight (complete) 14.5 kg (32 lb); man packed (Model WS 68P).

Range: up to 10 miles (16 km)



Poor planning decisions

- Lack of correct communications procedures within 1st Airborne Division (e.g., div and brigade were on different frequencies)
- Inadequate risk assessment/management. Planning staff knew ranges were excessive for radios (eg, 1st Div-Bridge=8km; 1st Div-HQ=15km)
- Loss of the initial advantage of the element of surprise (DZ/LZ location)
- Loss of mass due to single lift per day spread over days (effectively brigade strength for 2 days, due to having to hold the DZ/LZs for the 2nd lift)
- Degradation in communications (impact of DZ/LZ distances to objective on range of available communications equipment)
- Loss of effective command and control (due to lack of communications)
- Severe degradation in logistics, loss of re-supply including spare wireless sets and batteries (due to lack of communications)
- No concentration of available firepower (due to lack of communications)
- Loss of available maneuver elements (due to lack of communications)
- Inflexible mind-sets amongst British leaders below Montgomery all the way down (due to careerism, fear of Monty, etc.)

The Outcome

- Operation Market Garden was a failure as the allies failed to secure the bridge over the Rhine at Arnhem and hence access to Germany's industrial heartland in the Ruhr.
- Part of Holland, the area surrounding Highway 69, to Nijmegen was liberated
- Significant suffering of the Dutch people- the "Hongerwinter"
- Allied casualties of 15,326 to 17,000.
- Arnhem was only finally liberated in April 1945 by the the First Canadian Army a month before the complete surrender of Germany.

The failure of Market Garden ended Allied expectations of finishing the war by Christmas 1944.

Operations Manna and Chow Hound

- The 1944-45 winter was called *Hongerwinter* (Hunger Winter) in Holland. It started early and by Dutch standards was extremely cold, with freezing temperatures night and day.
- Twenty thousand of the 4,500,000 Dutch civilians under German control starved to death. Others survived by eating sugar beets, tulip bulbs, dogs and cats.
- By agreement with Reichskommissar Arthur Seyss-Inquart and CINC General Johannes Blaskowitz, the Allies received permission to drop food to Dutch civilians within specified air corridors in unliberated western Holland.
- Three Allied aircraft were lost during the operations, two in a collision and one from an engine fire. Several planes had bullet holes.



Operation Manna

- From April 29th to May 7th, 1945 the RAF aided by air forces of Australia, Canada, New Zealand and Poland dropped supplies over Holland in what was called Operation Manna.
- No parachutes were available, so food, dried food and chocolate was free dropped from altitudes of 120m-150m into designated DZs.
- 3,301 sorties dropped 6,680 tons of food.

Operation Chowhound

From 1st to 8th May 1945, the U.S. Air Force dropped over 4,000 tons of food during 2,268 sorties. 400 B-17 Flying Fortresses dropped 800 tons of K-Rations on Amsterdam Airport Schiphol from 1-3 May alone.



Celebrity Beneficiary

- Ten-year old Audrey Hepburn lived in Arnhem and studied ballet during Operations Manna and Chowhound.
- Despite her later wealth she suffered lifelong medical problems including anemia, respiratory illnesses, and œdema.
- A UNICEF Goodwill Ambassador, she visited and brought food to people around the world.
- UNICEF's Audrey Hepburn Society has raised \$100 million to date.

