



D-Day 6 June, 1944

D for D-day – the Allies invasion in Normandie, France

The Allied invasion of Normandy was among the largest military operations ever staged.

The Self-declared “Führer”



1934: Adolf Hitler
declared himself as
„Führer und
Reichskanzler“

His plan:
To unify all German-
speaking people

“Peace in our Time”



Adolf Hitler: “... there will no longer be any further territorial problems for Germany in Europe!”

The Münich Agreement

29 September 1938



The “Blitzkrieg”



Oslo, 9 April 1940
German soldiers marching on Karl Johan Street.





Churchill's War Room



"This is the room from which I will direct the war,"



Churchill's chair –
with his fingernail
scratch marks on
the chair arms!



The Cabinet War Rooms is located beneath the Treasury building in the Whitehall area of Westminster.

Battle of Britain, 10 July – 31 October 1940



Aldwych tube station being used as a bomb shelter in 1940

Churchill: *“Never in the field of human conflict was so much owed by so many to so few.”*

August 20, 1940



Spitfire



Hurricane

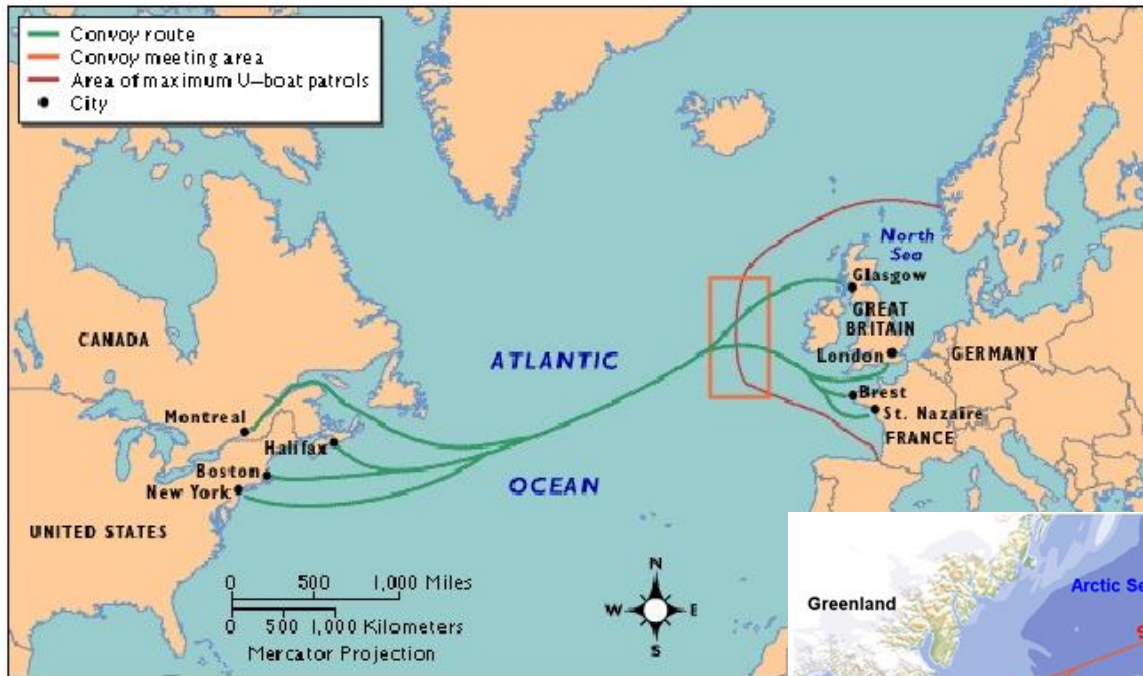


Smoke rising from fires in the London docks, following bombing on 7 September

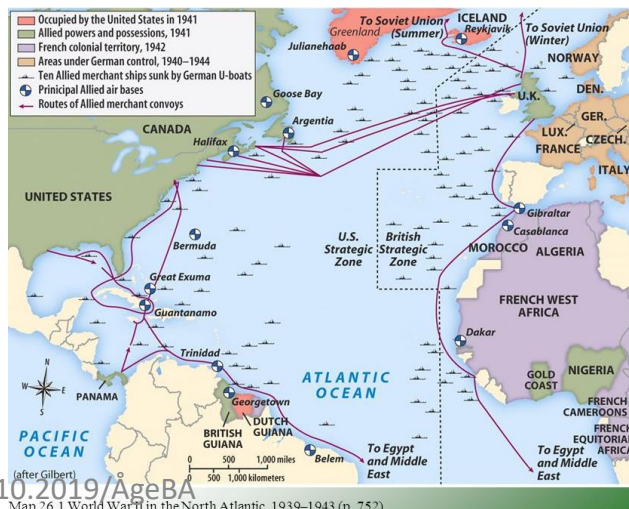


Messerschmitt

The Convoys – Allies' “lifeline”



Ship after ship headed from US east coast towards Britain with guns, planes, tanks – and fuel.



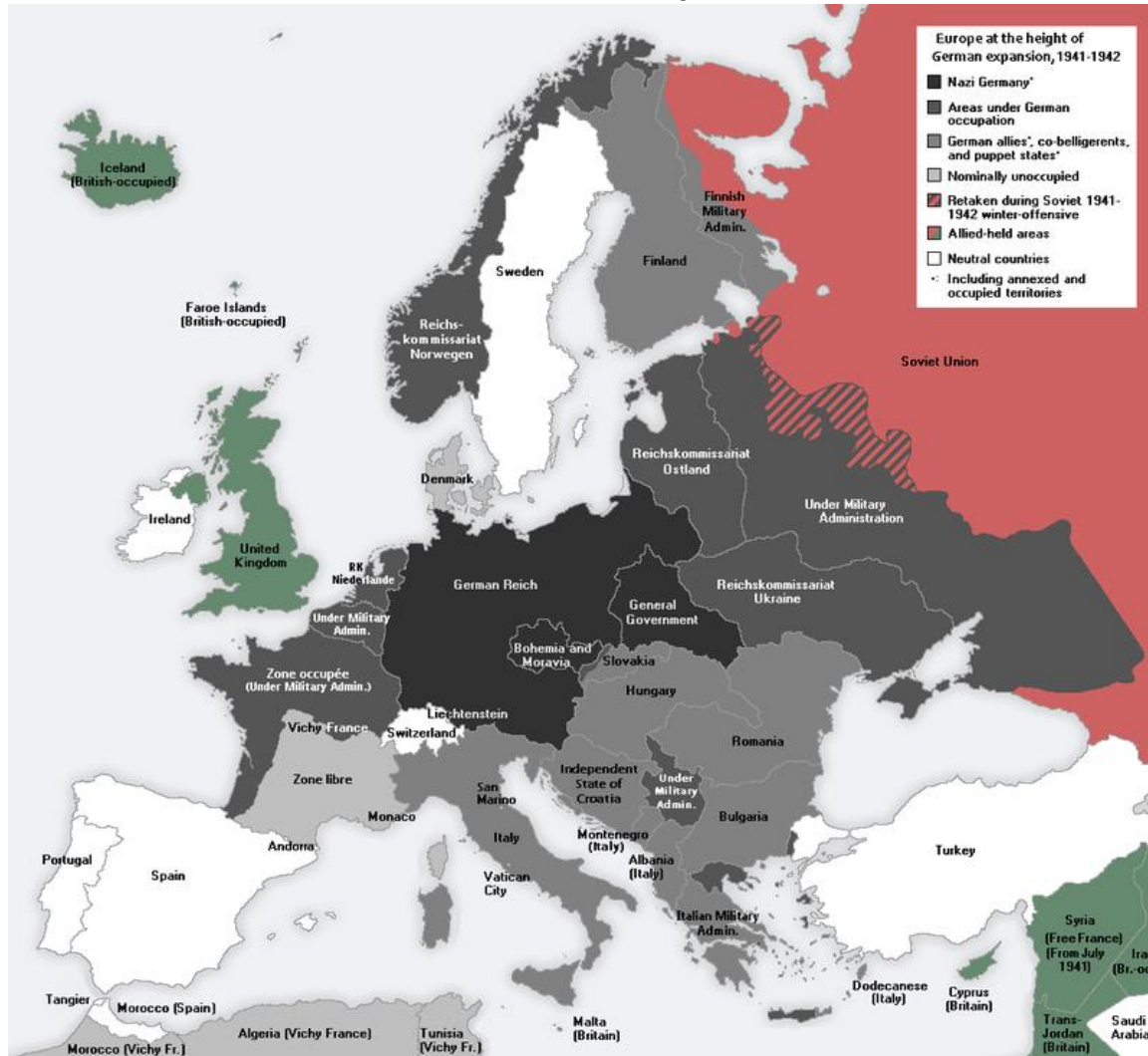
Battle of the Atlantic



The invention of SONAR (sound navigation ranging) was very important factor for the outcome of the battle against German U-boats ('wolf packs')

- 36,200 sailors killed
- 36,000 merchant seamen killed
more than 3,700 Norwegians
- 3,500 merchant vessels were sunk
694 Norwegian ships
- 175 warships
- 741 RAF Coastal Command Aircraft lost
in anti-submarine sorties

Europe at the height of German military expansion, 1942



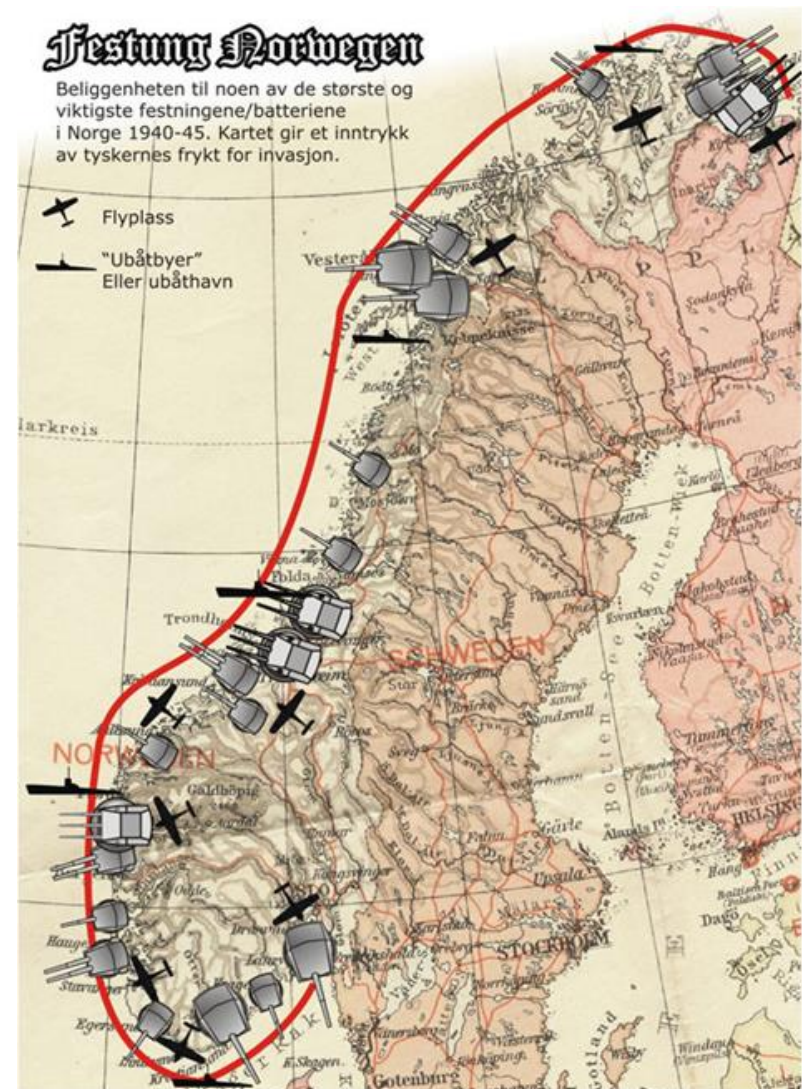
Hitler's intentions:

- the Netherlands and Norway—become part of the German Reich
- France and Serbia, would eventually be included more loosely in a German-dominated European bloc.
- Poland and the Soviet Union, were to be a colonial area for German settlement and economic exploitation.

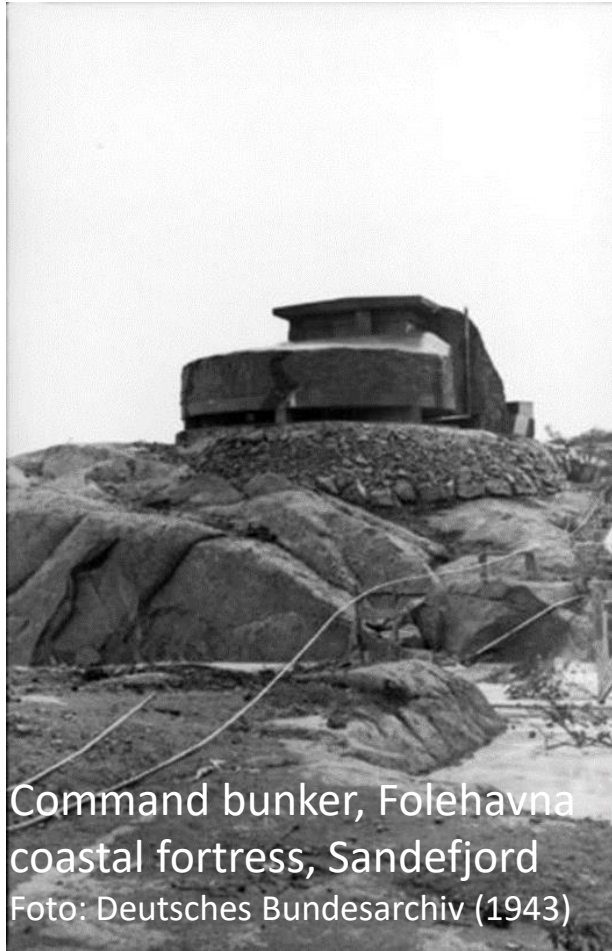
The Atlantic Wall



Map of the Atlantic Wall, shown in yellow
 Black: Axis and occupied countries
 Green: Allies
 White: Neutral countries



Festung Norwegen



Command bunker, Folehavna
coastal fortress, Sandefjord
Foto: Deutsches Bundesarchiv (1943)



Vedafjellet coastal fortress
Sirevåg, Jæren

Foto: LB

German armed forces in Norway counted
about 350 000 men

At the end of the war, there were 221 batteries
divided into 29 units & 10 regiments.

Beach Defences, Normandy 1944



Beach defences in Pas-de-Calais.



D-Day plans showing photos taken during low-level Spitfire flight

The Decision of D-Day – “Operation Overlord”

Casablanca Conference

January 14 – 24, 1943



(L-R) General Henri Giraud, Franklin Delano Roosevelt, Charles de Gaulle, and Winston Churchill

The First Quebec Conference

August 17–24, 1943



The “Quadrant” Conference in Quebec, August 1943.
Roosevelt, Churchill, surrounded by the members of the Combined Chief of Staffs (CCS)

The Allies agreed to begin discussions for the planning of the invasion of France, codenamed Operation Overlord, commenced 1 May 1944.

Operation Bodyguard

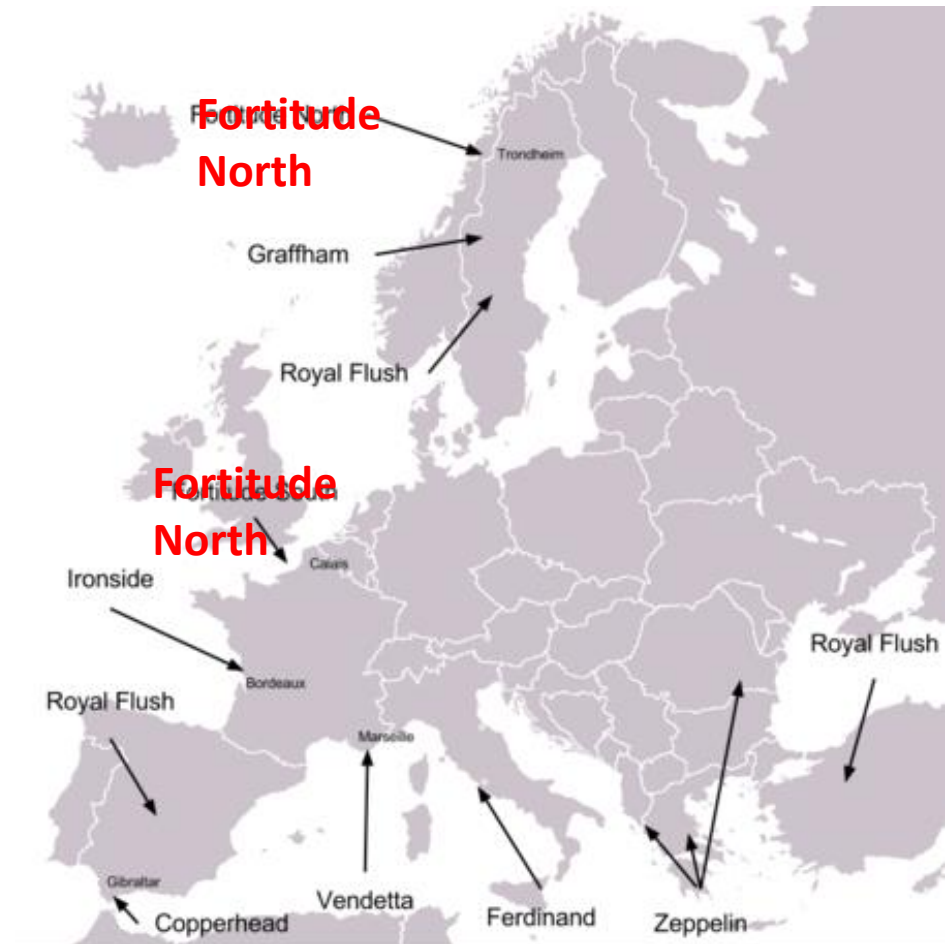
Operation Fortitude

Operation Bodyguard

Tehran, Iran, Dec. 1943



First meeting of the Big 3, plan the final strategy for the war against Nazi Germany and its allies, set date for Operation Overlord



“In wartime, truth is so precious that she should always be attended by a bodyguard of lies.” Winston Churchill to Joseph Stalin, Tehran Conference, Dec. 1943

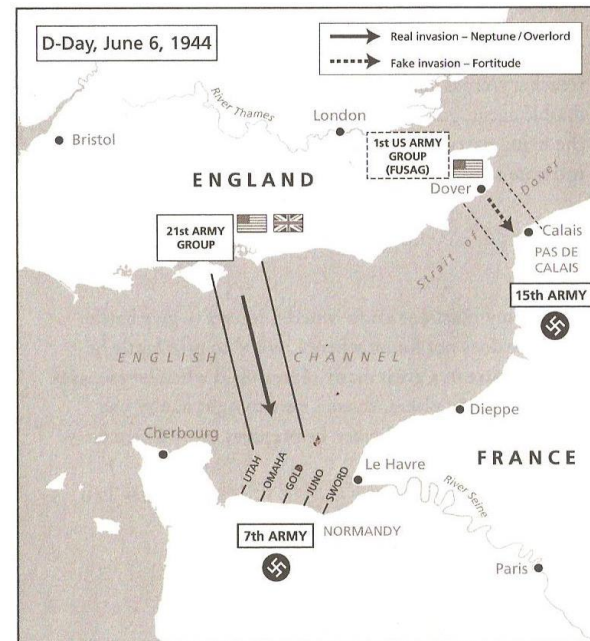
Operation Fortitude: The Big Deception



First United States Army Group



Lieutenant General
George S. Patton

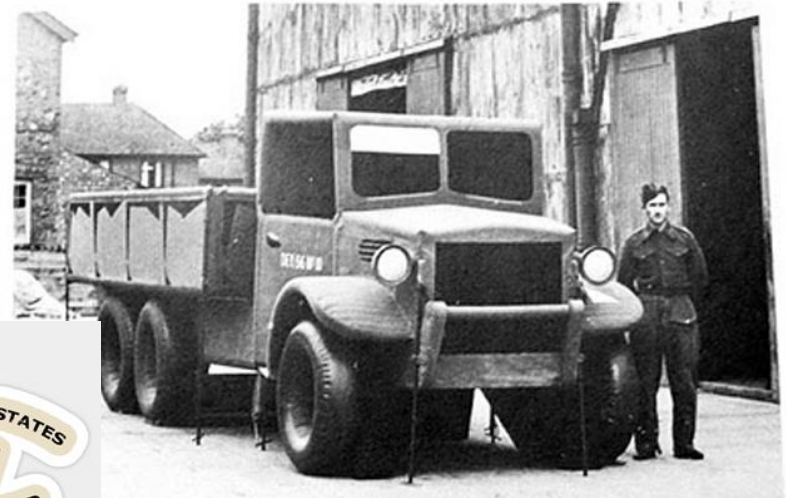


The Allied intelligence services created two fake armies to keep the Germans on their toes. One would be based in Scotland for a supposed invasion of Norway and the other headquartered in southeast England to threaten the Pas-de-Calais.

Decoys and Dummies



Inflatable «Sherman tanks»



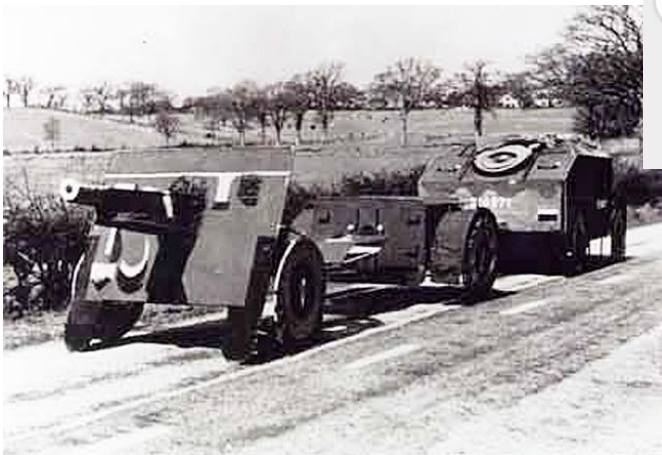
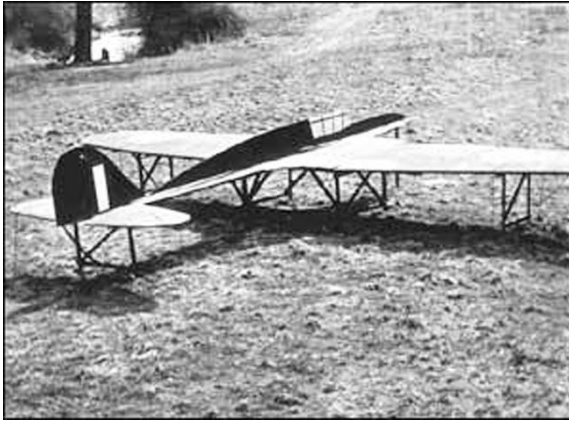
Inflatable trucks»



Balloon landing craft



Decoys and Dummies



Bletchley Park

Codebreaking

Enigma - The Imitation Game

Bletchley Park, main building



The Enigma's 3 to 5 rotors rotated every time a key was pressed to keep the cipher changing continuously.

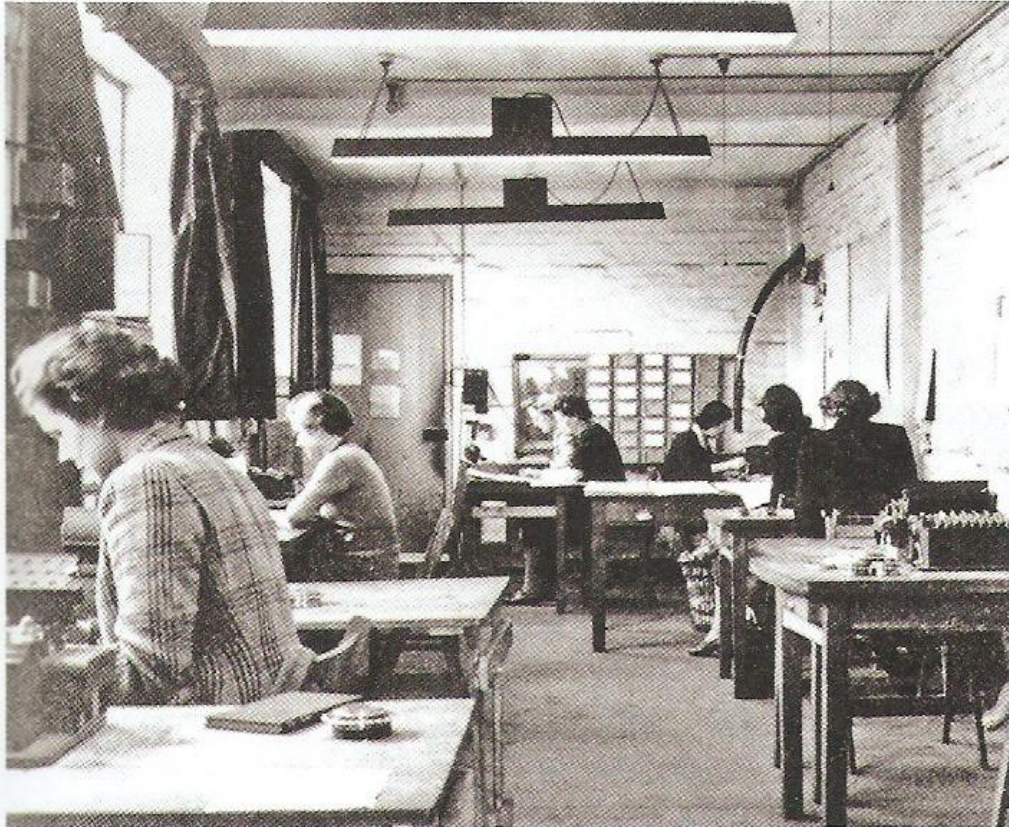
A plug board on the front of the machine combined pairs of letters; these two systems combined offered 103 sextillion (10^{36} , or 10^{21} US) possible settings.

The Germans believed Enigma was unbreakable.



Enigma cipher machine of World War II

Code breakers at work



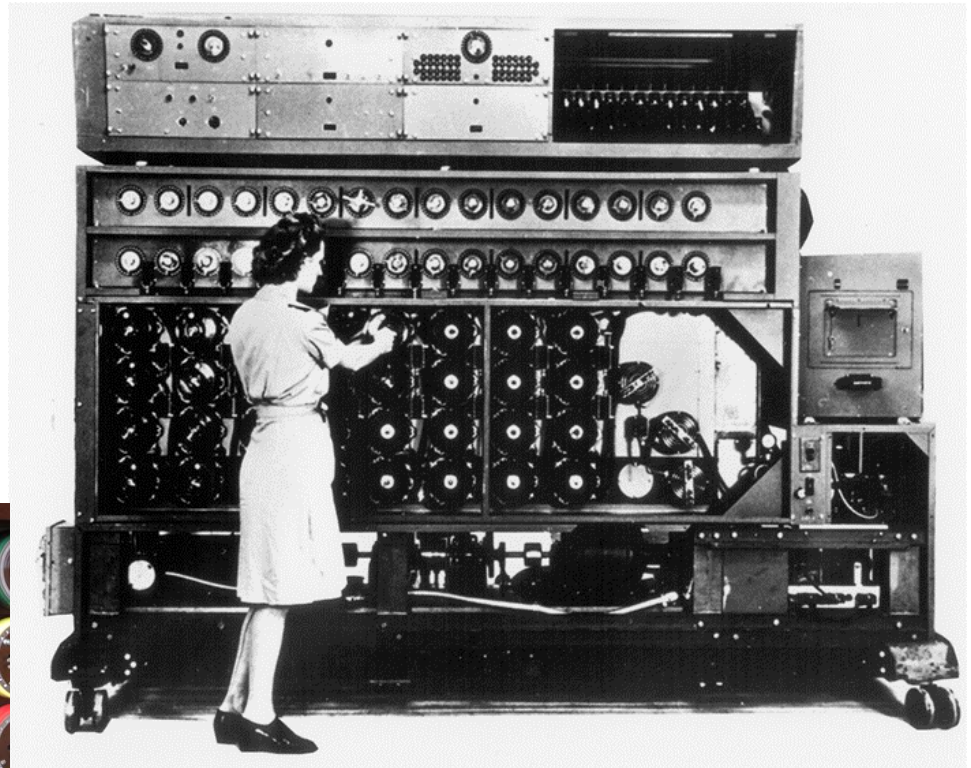
Deciphered German messages were circulated as MSS, “Most Secret Sources”

In January 1945, at the peak of codebreaking efforts, some 10,000 personnel were working at Bletchley and its outstations.

Breaking Enigma – The “Bombe”



Alan Turing (1912–1954)



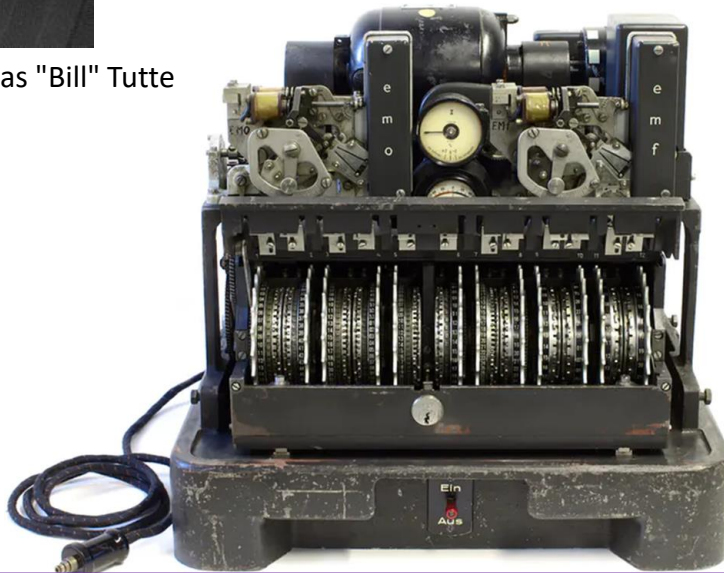
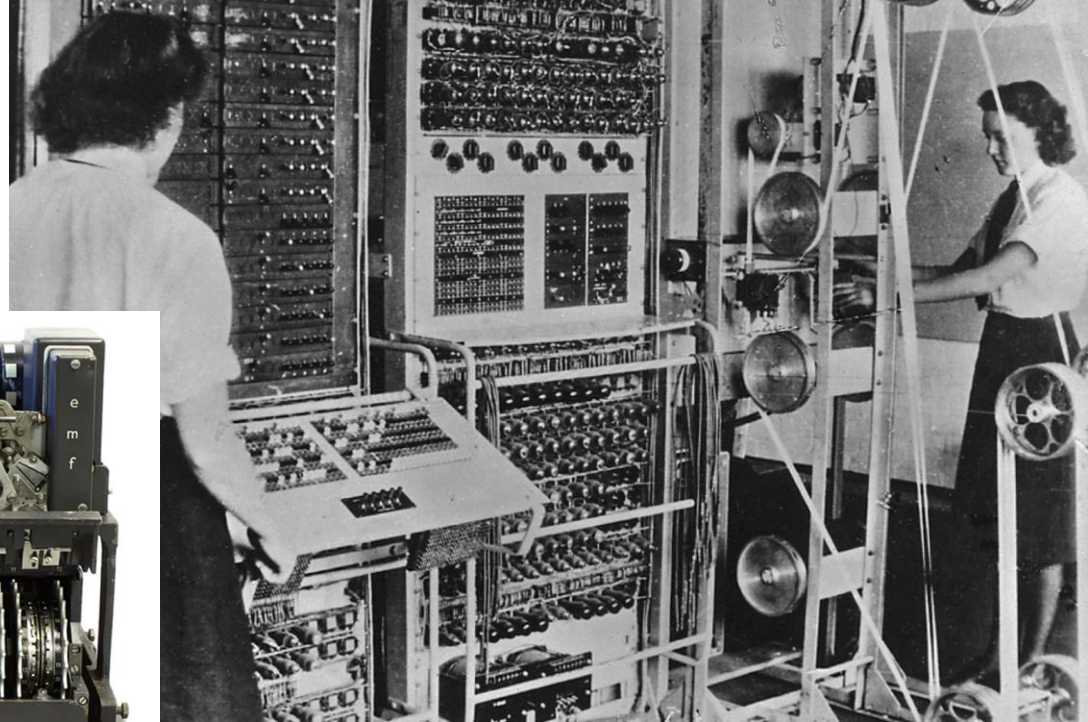
The Race: The Germans changed the settings daily – and each military branch had their own versions of Enigma. The Codebreakers did a marvellous job helping the Allies to win the Battle of Britain and the Battle of the Atlantic, which was crucial for the transport of supplies from US to Britain and to Murmansk in the Soviet Union.

New challenge – The Lorenz Cipher Machine



William Thomas "Bill" Tutte
(1917-2002)

Tutte established a method for determining the various elements that made up the Lorenz mechanism the Lorenz machine – a high class of «reversed engineering».



The redemptive 'crib' was created because a sloppy German operator didn't follow the instructions given. The message he sent was cracked.

The Colossus computer at Bletchley Park, Buckinghamshire, England, c. 1943. The first semi-programmable electronic computer – **designed for cracking the Lorenz messages, following Tutte's method.**

The Hunt for 'cribs'

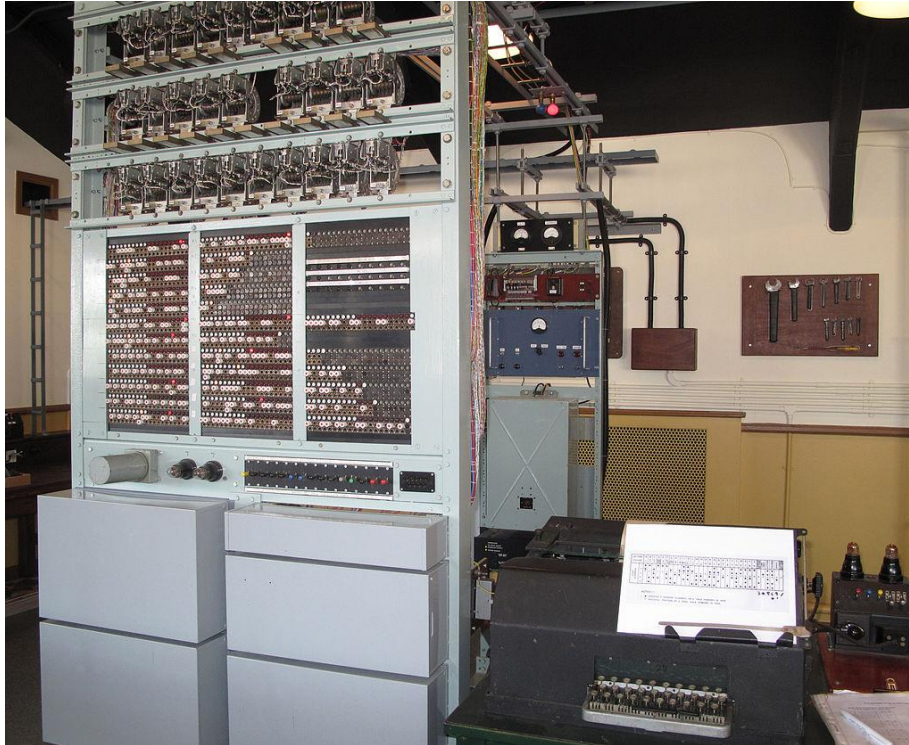


Above: HMS *Tartar*'s boarding party prepares to board the weather ship *Lauenburg* north east of Iceland on 28 June 1941. The capture of the *Lauenburg*'s copy of the 1941 Enigma settings enabled Britain's cryptographers to break the Naval Enigma during the crucial months from August 1941 to January 1942.



The *Lauenburg* is sunk so that the Germans will not see that she has been captured.

Bletchley Park achievements



A rebuilt British Tunny ("Lorenz-machine") at The National Museum of Computing, Bletchley Park. It emulated the functions of the Lorenz SZ40/42, producing printed cleartext from ciphertext input.

In March 1944, the Codebreakers succeeded in reading the communication between Field Marshal von Rundstedt in Paris and the government in Berlin.

Here they could read Rundstedt's assessment of what was needed to defend the French coast against attack.

The Japanese, the accidental helper



Baron Hiroshi Ōshima, Japanes amassador to Berlin, presents his credentials to Hitler, while Foreign Minister Ribbentrop looks on.

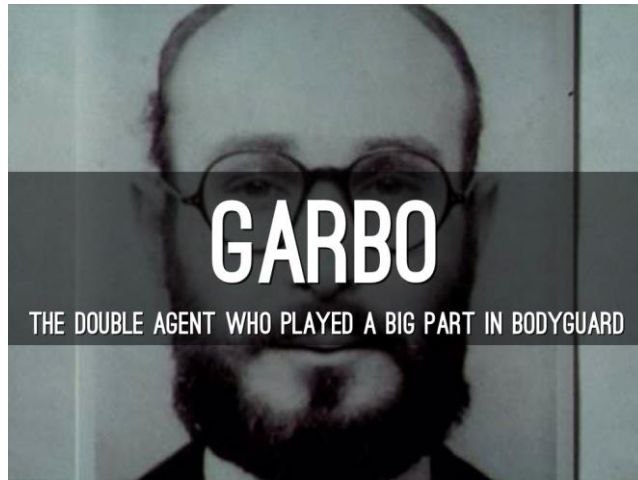
Thanks to the Codebreakers at Bletchley Park:

Baron Ōshima Hiroshi, in October 1943 sent a long message to the military commanders in Japan about his knowledge of German troop divisions in France and Belgium, and the plans for reinforcement in case of an invasion.

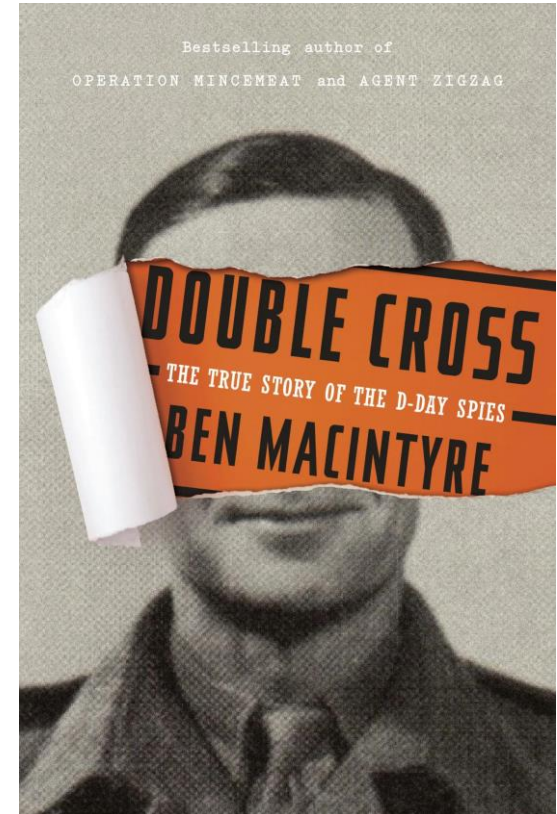
A Japanese military attaché Komatsu sent 32 pages description of almost every building and every armament mounted in the German coastal fortification, the Atlantic Wall.

The Double Cross System

The Double Cross (XX)



Joan Pujol Garcia (codename Garbo)
The Iron Cross from Hitler and the an
MBE (Member of the Order of the British
Empire) from King George VI.



The entire German spy network in Britain consisted of double agents. There were no real German agents left.

The Amazing Story of Mutt and Jeff



In April 1941, the Norwegians Tor Glad and Helge Moe paddled in a inflatable boat to a beach in north-east Scotland.

The pair had been recruited by the Abwehr in Norway and flown across the North Sea in a Luftwaffe flying boat.

The Germans thought they had gained two valuable spies in Britain, but Glad and Moe were patriots.

Upon their arrival, to the astonishment of the Banffshire police, the pair gave themselves up as German spies.

Under the code names Mutt and Jeff after two popular cartoon characters lined Glad and Moe the Germans with disinformation.

Among other things, they tricked the Nazi leaders in Berlin into believing that the British were planning an invasion of Norway.



<https://www.nrk.no/urix/nordmenn-lurte-hitler-1.575928> <https://www.telegraph.co.uk/news/obituaries/1333056/John-Moe.html>

The Weather

The Met-organization

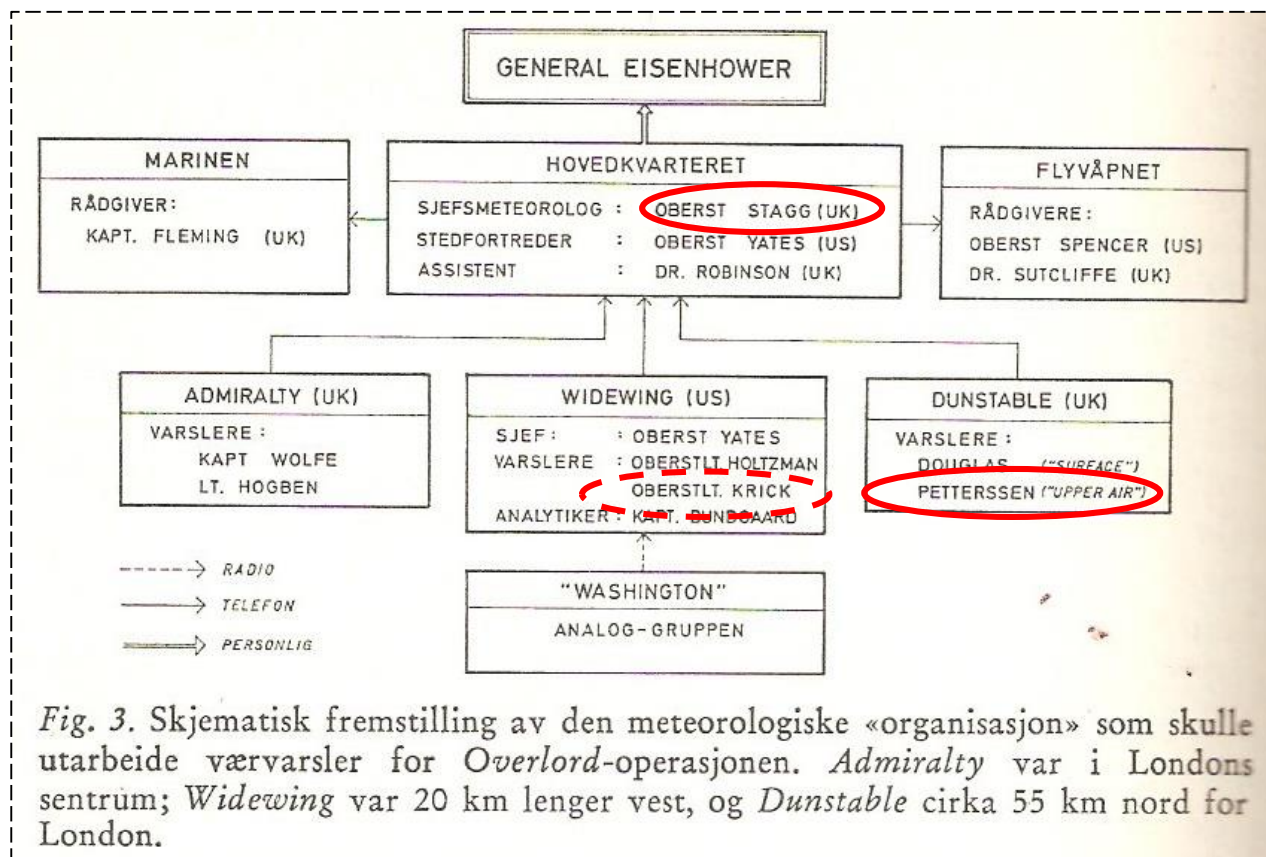


Fig. 3. Skjematisk fremstilling av den meteorologiske «organisasjon» som skulle utarbeide værvarsler for Overlord-operasjonen. Admiralty var i Londons sentrum; Widewing var 20 km lenger vest, og Dunstable cirka 55 km nord for London.



James Stagg
(1900-1975)



Sverre Petterssen
(1898-1974)

The Final Decision



5 June 03:00 Weather conference. Stormy weather over British Islands, the Channel, and North-France.

5 June 04:00 Commanders meeting.
Stagg : A coherent met-organization reports there should be a break in the storm at dawn 6 June. Go-code was given.

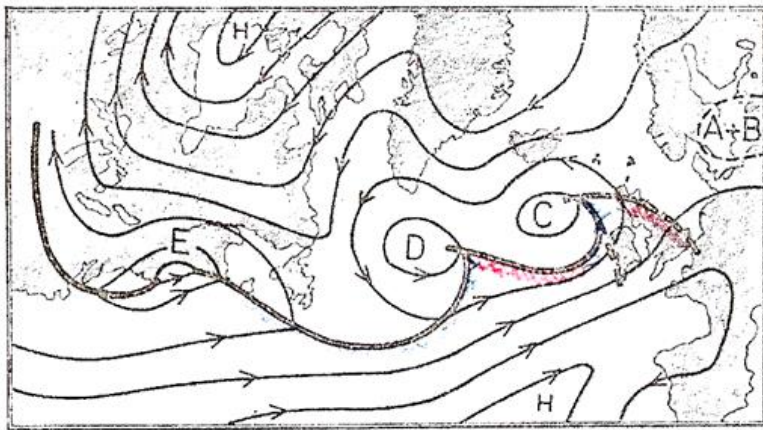
5 June 04:?? “OK, we’ll go”

5 June 0900 The convoys set out again in the face of force 5 winds.



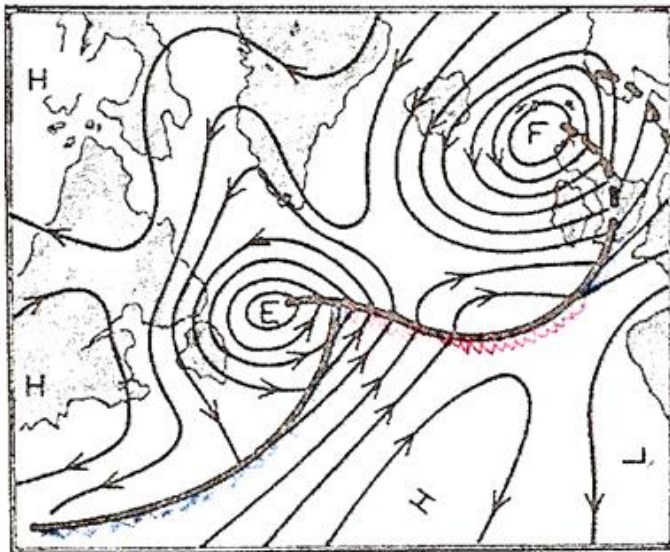
Petterssen's Weather Maps

Source: "Kuling fra nord"



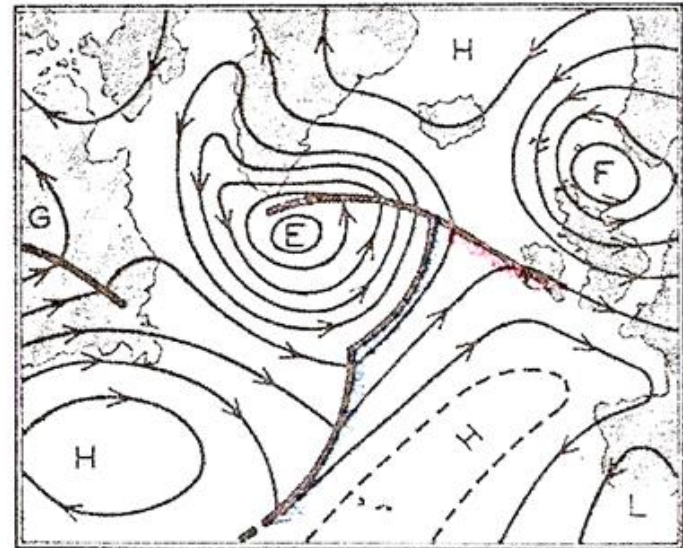
3 June 13:00

Arctic air reinforce storm activities in North Atlantic.
Advice: Postpone the invasion.



4 June 13:00

Invasion 5 June would be
disastrous.



6 June 06:00

Barely acceptable conditions.

Eisenhower's tribute to Petterssen

Supreme Headquarters
ALLIED EXPEDITIONARY FORCE
Office of the Supreme Commander

19 September 1944

Dear Dr. Petterssen,

I desire to commend you for your part in the coordination of the operation of the Meteorological Service in support of the 'OVERLORD' assault of the Continent of Europe. Considerable research and long hours of work by you and your associates resulted in the reconciliation of differences in forecasting methods and the development of a procedure which enabled me to receive the advice necessary for the selection of D-day with confidence that the information received was the best obtainable.

This service on your part, and those associated with you is sincerely appreciated and merits very special commendation as an outstanding contribution to the success of the Allied invasion.

*Sincerely
Dwight D. Eisenhower*

Dr. Sverre Petterssen
Meteorological Office
Air Ministry
London, W.C.2.

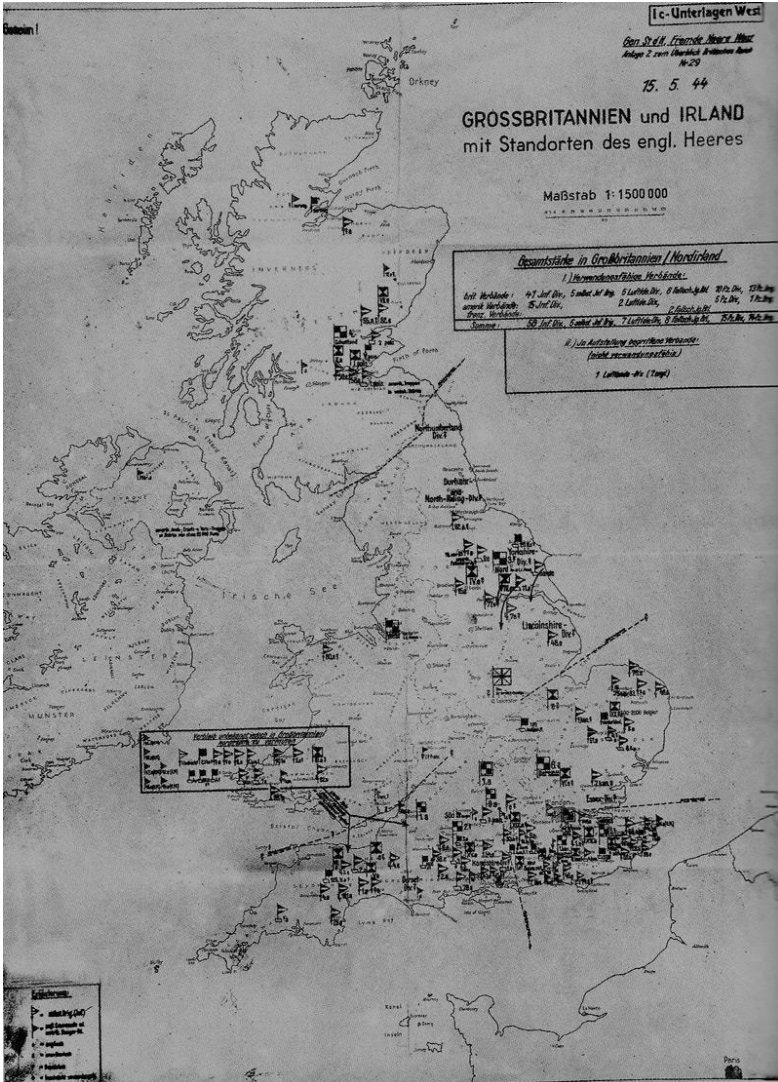


In September 1944, the Supreme Commander of Allied Expeditionary Force sent a letter to the Norwegian meteorologist Sverre Petterssen, expressing appreciation for “.. an outstanding contribution to the success of the Allied invasion”

The letter copied from “Kuling fra nord”



The German view



Rommel inspecting division in May, 1944



Operation Overlord

Operation Neptune

South England – restricted zone



In August, 1943, Southsea seafront was declared a restricted zone and by 1st April, 1944 Portsmouth became part of the coastal strip, from the Wash to Land's End, closed to all visitors.

Ready to go



Tricks and disguises



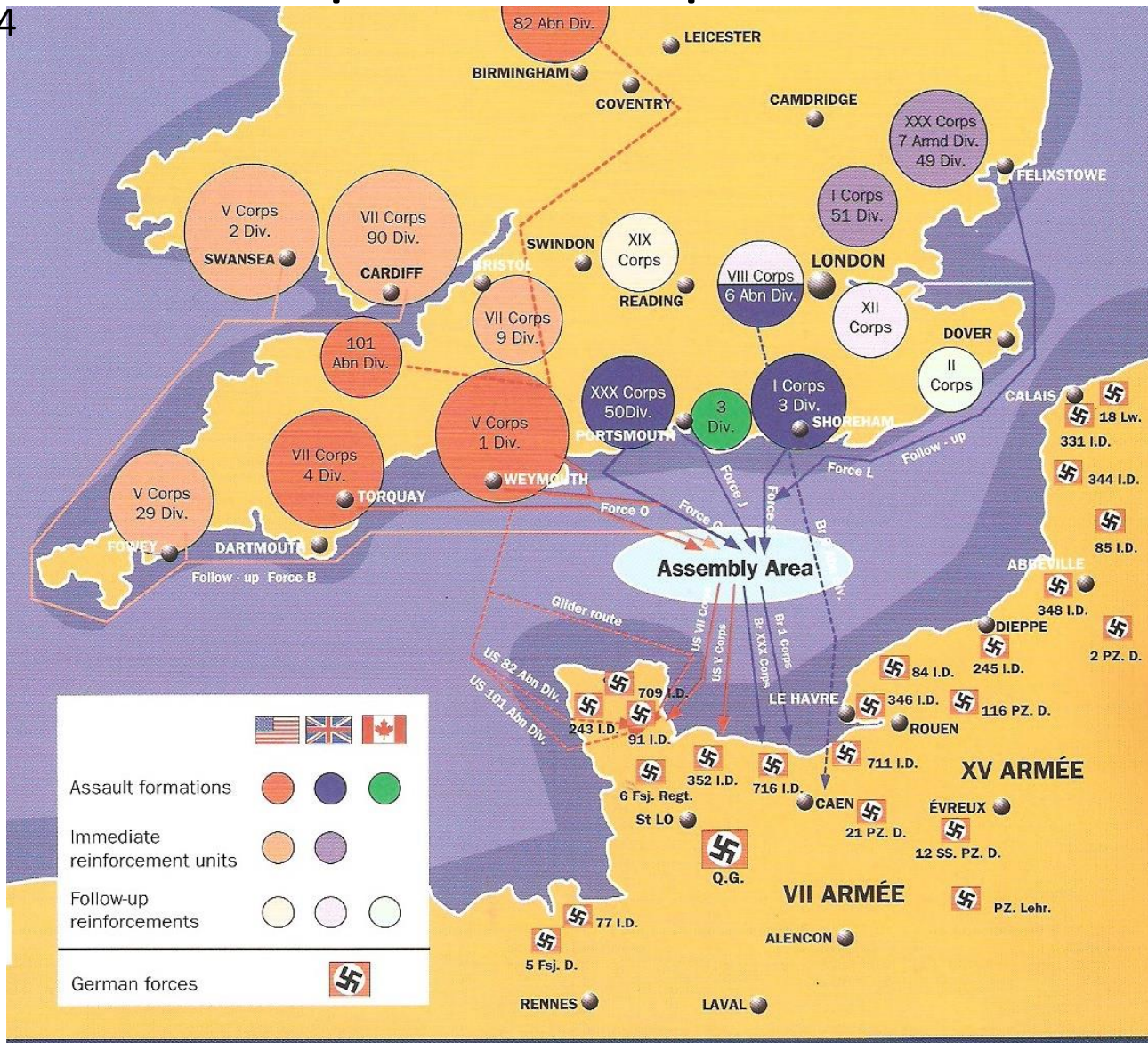
Just prior to the invasion, Lancasters dropped tinfoil strips over Calais, which confounded German radar and disguised the position of the real bombers.



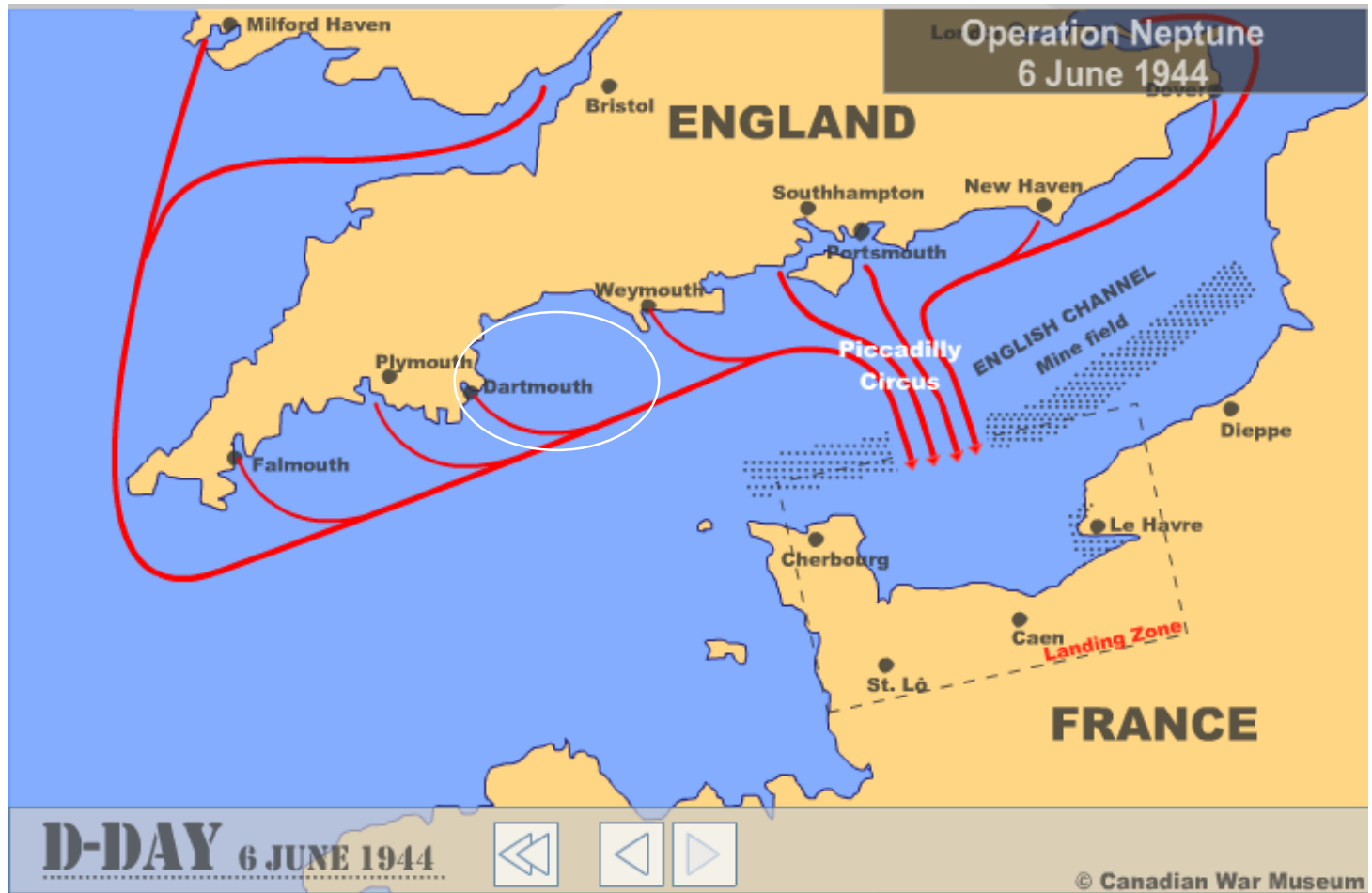
Dummy paratroopers made of rubber were tossed out over Calais.

Operation Neptune

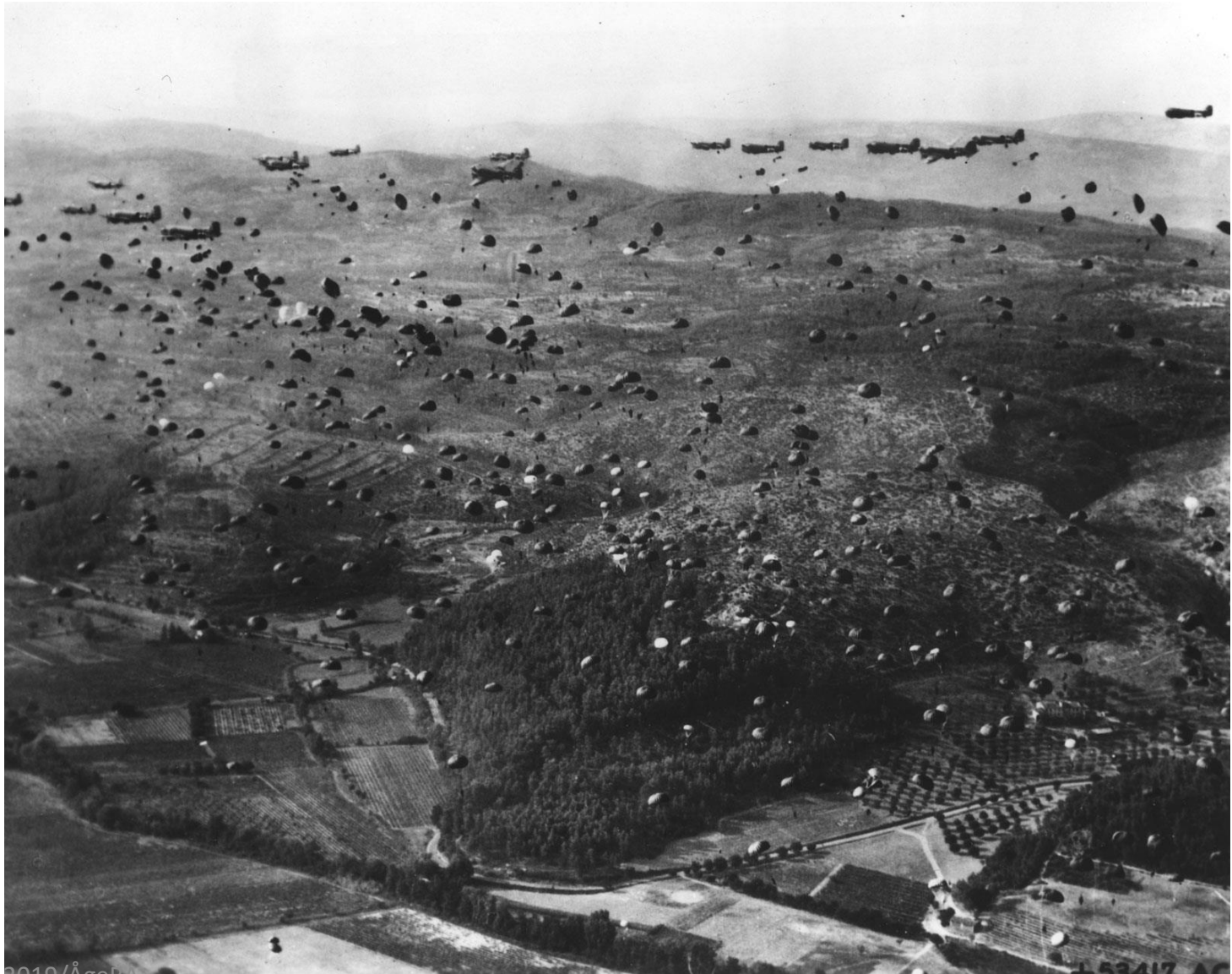
5. June 1944
22:00



Naval routes through English Channel



Airborne troops

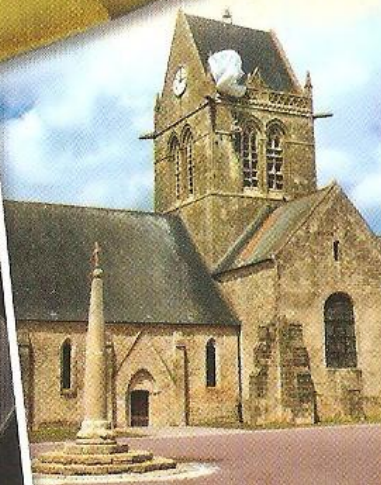
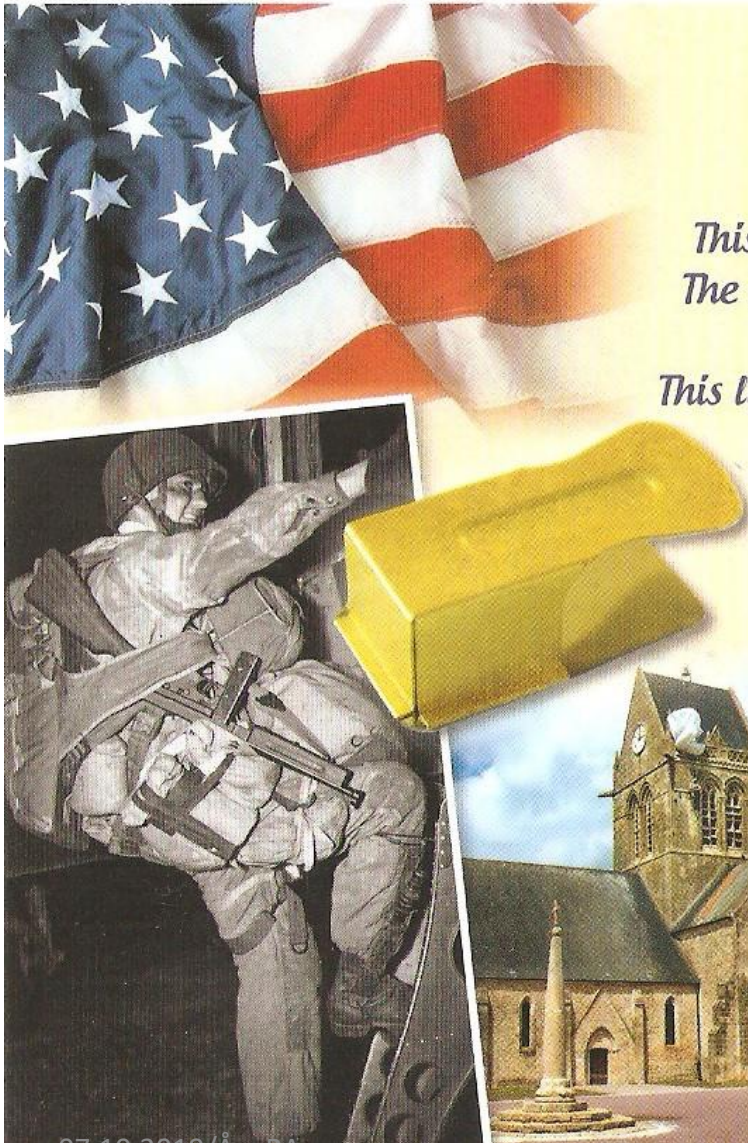


The click-click signal

THE D-DAY CRICKET

6.6.1944

*This famous D-Day clicker, immortalised in the film **The Longest Day**, was actually part of the kit carried by paratroops in the **101st AIRBORNE DIVISION**. This little brass object was used by the men to identify themselves after landing around the town of Sainte-Mère-Église on the night of 6 June 1944. Their signal was a single click-click and the response a double click-click.*



The (un)lucky John Steele



Sainte-Mere-Eglise
6 June 1944



Pre-invasion bombing

Pointe du Hoc,
Omaha Beach,
6 June 1944

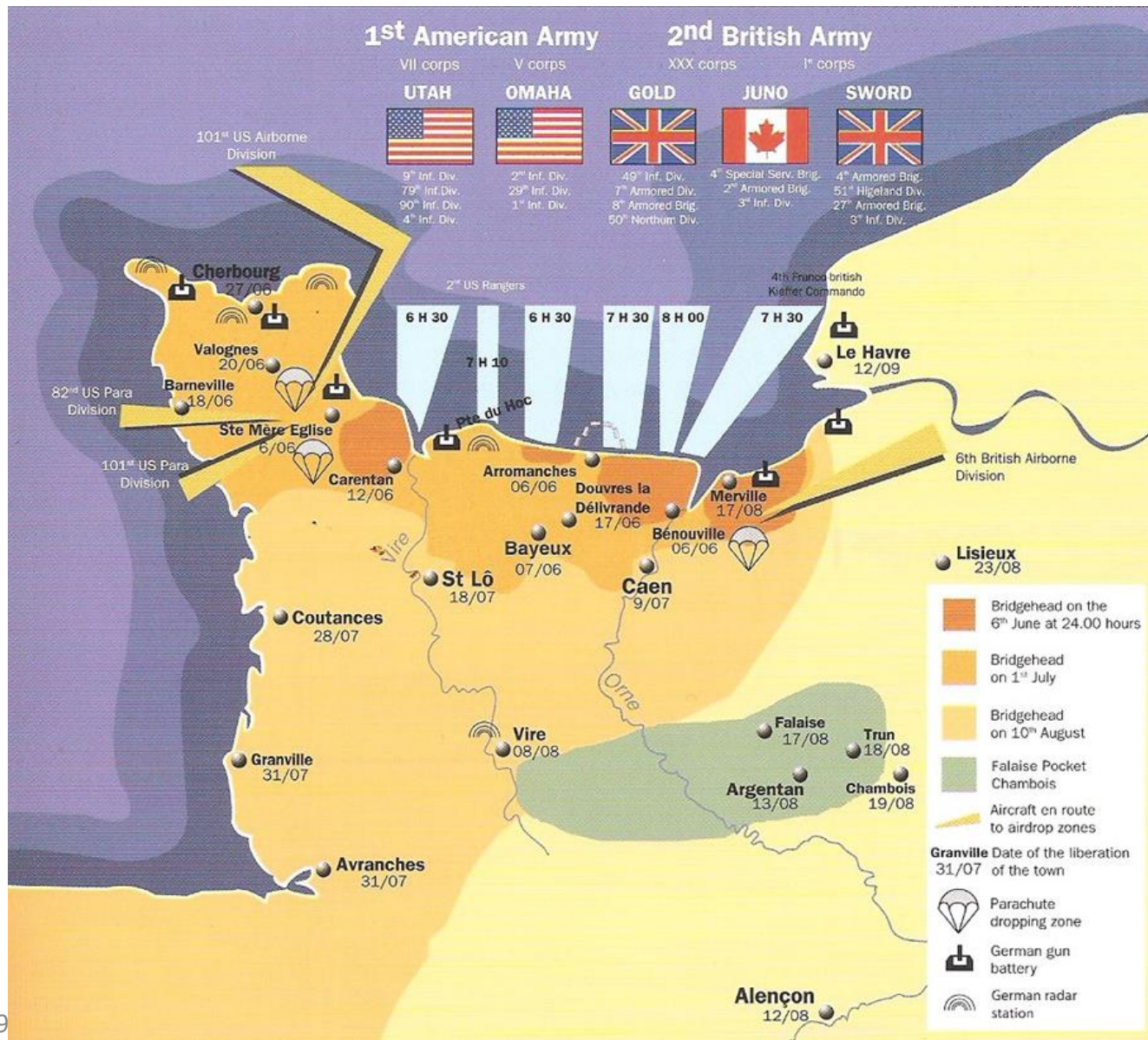


Pre-invasion bombing by A-20 bombers of Pointe du Hoc at Omaha Beach, Normandy, France, 6 Jun 1944
https://ww2db.com/image.php?image_id=6584

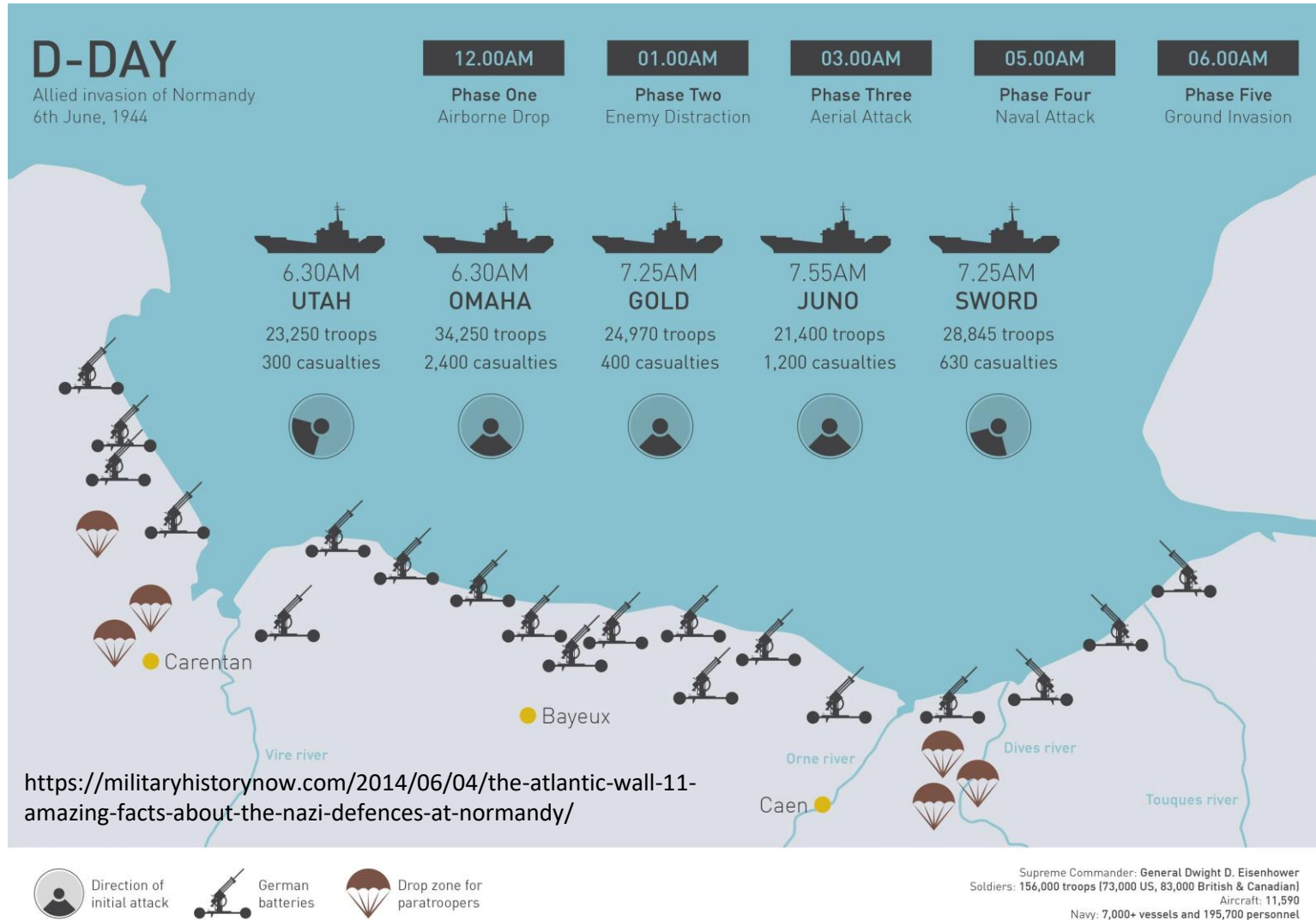
British landing craft (LCT) in front of the Normandy coast.



The invasion – Battle of Normandy



D-Day in Numbers



Pointe du Hoc



US Army Rangers showing off the ladders they used to storm the cliffs of Pointe du Hoc, Normandy, France, 6 Jun 1944

https://ww2db.com/image.php?image_id=6558



German prisoners are led past the rangers' command post on Pointe du Hoc on D-Day plus 2, June 8, 1944.

An aerial view of Operation Overlord



An aerial view of Operation Overlord, the largest amphibious invasion force in history, shows landing craft, barrage balloons, and allied troops landing in Normandy, France.

Juno Beach, 6 June 1944



Royal Marine Commandos of Headquarters, 4th Special Service Brigade, British 2nd Army landing at Juno 'Nan Red' Beach from LCI(S) landing craft, Normandy, France, 6 Jun 1944

https://ww2db.com/image.php?image_id=6257

Troops taking cover behind German beach obstacles, Normandy, 6 Jun 1944

https://ww2db.com/image.php?image_id=461



Robert Capa

Juno Beach, 6 June 1944



Men of Canadian 9th Infantry Brigade disembarking from LCI(L) landing craft onto Nan White Beach near Bernières-sur-Mer, Juno Beach, Normandy, France, late morning 6 Jun 1944; note many with bicycles. Photo 1 of 2. https://ww2db.com/image.php?image_id=6578



Men of Canadian 9th Infantry Brigade disembarking from LCI(L) landing craft onto Nan White Beach near Bernières-sur-Mer, Juno Beach, Normandy, France, late morning 6 Jun 1944. Photo 2 of 2. https://ww2db.com/image.php?image_id=18986

Utah Beach, 6 June 1944



Men of Force U assaulting Utah Beach, Normandy,
https://ww2db.com/image.php?image_id=6602



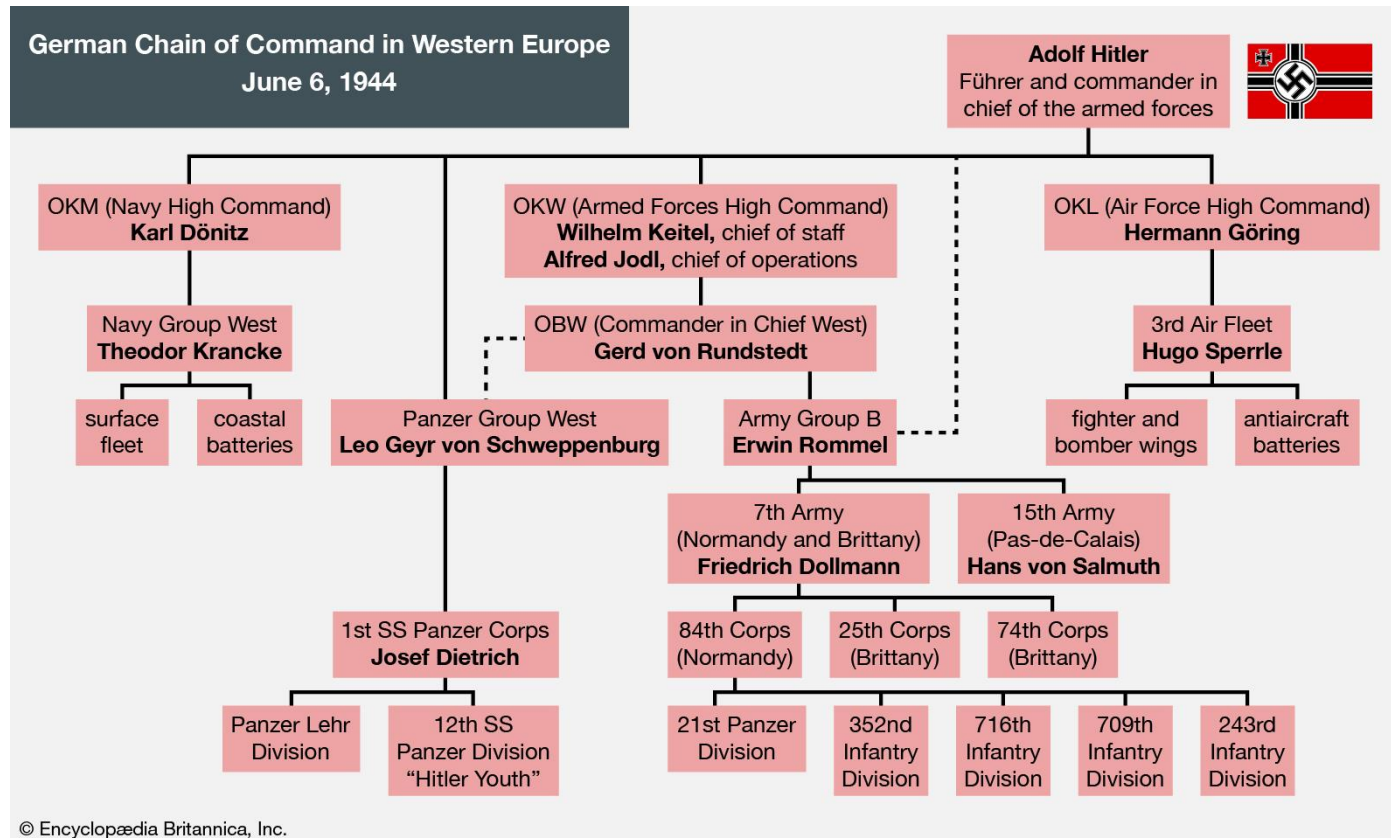
Mulberry, artificial harbour



Remains of artificial bridges set up for D-Day
seen on Arromanches beach, near Gold Beach,
in Normandy, France, May 28, 2019



German Chain of Command in Western Europe, June 1944



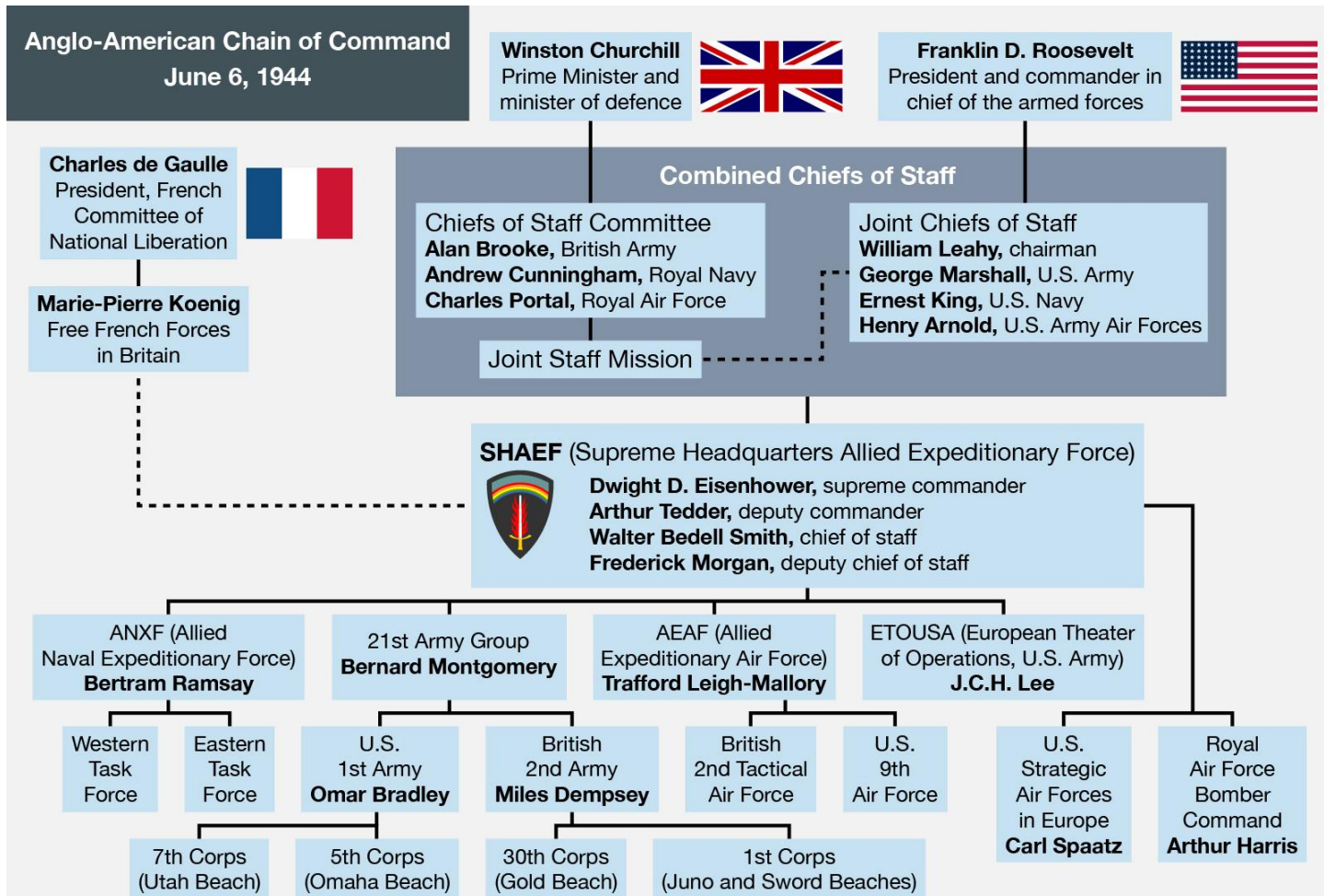
The military disaster was implicit in this inefficient organizational structure.

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<https://www.britannica.com/topic/German-Chain-of-Command-in-Western-Europe-June-1944-1673116>

With pressing tactical concerns, the commander Erwin Rommel, was entitled to appeal personally to Hitler. On the evening of 5 June, der Führer took a sleeping pill, and nobody dared to wake him up – while the invasion was unfolding. The Panzer Group West and the Army Group B was put on hold.

Anglo-American Chain of Command in Western Europe, June 1944



The Anglo-American allies managed to avoid the division of responsibility that was built into the German chain of command and that proved fatal to the Germans' war effort from D-Day on.

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<https://www.britannica.com/topic/Anglo-American-Chain-of-Command-in-Western-Europe-June-1944-1673115>

Piper Bill Millin

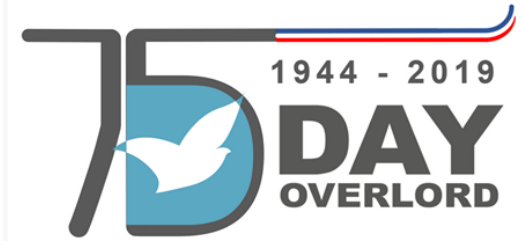


Millin: "German snipers claimed they did not shoot at him because they thought he had gone mad!"



Piper Bill Millin Statue at Sword

Taken its Toll



► Human losses (killed, wounded, missing or prisoners)

10,500 Number of Allied casualties on 6 June at midnight (killed, wounded, missing, prisoners)

10,000 Estimated number of German losses on 6 June 1944

6,000 US Losses on D-Day

3,800 Number of allied soldiers killed as part of Operation Neptune on June 6, 1944

2,500 US Losses on Omaha Beach on D-Day

1,063 Canadian losses on Juno Beach on D-Day

708 Canadian wounded and missing in actions on Juno Beach on D-Day

630 British Losses on Sword Beach on D-Day

413 British Losses on Gold Beach on D-Day

355 Number of Canadian soldiers killed on Juno Beach on D-Day

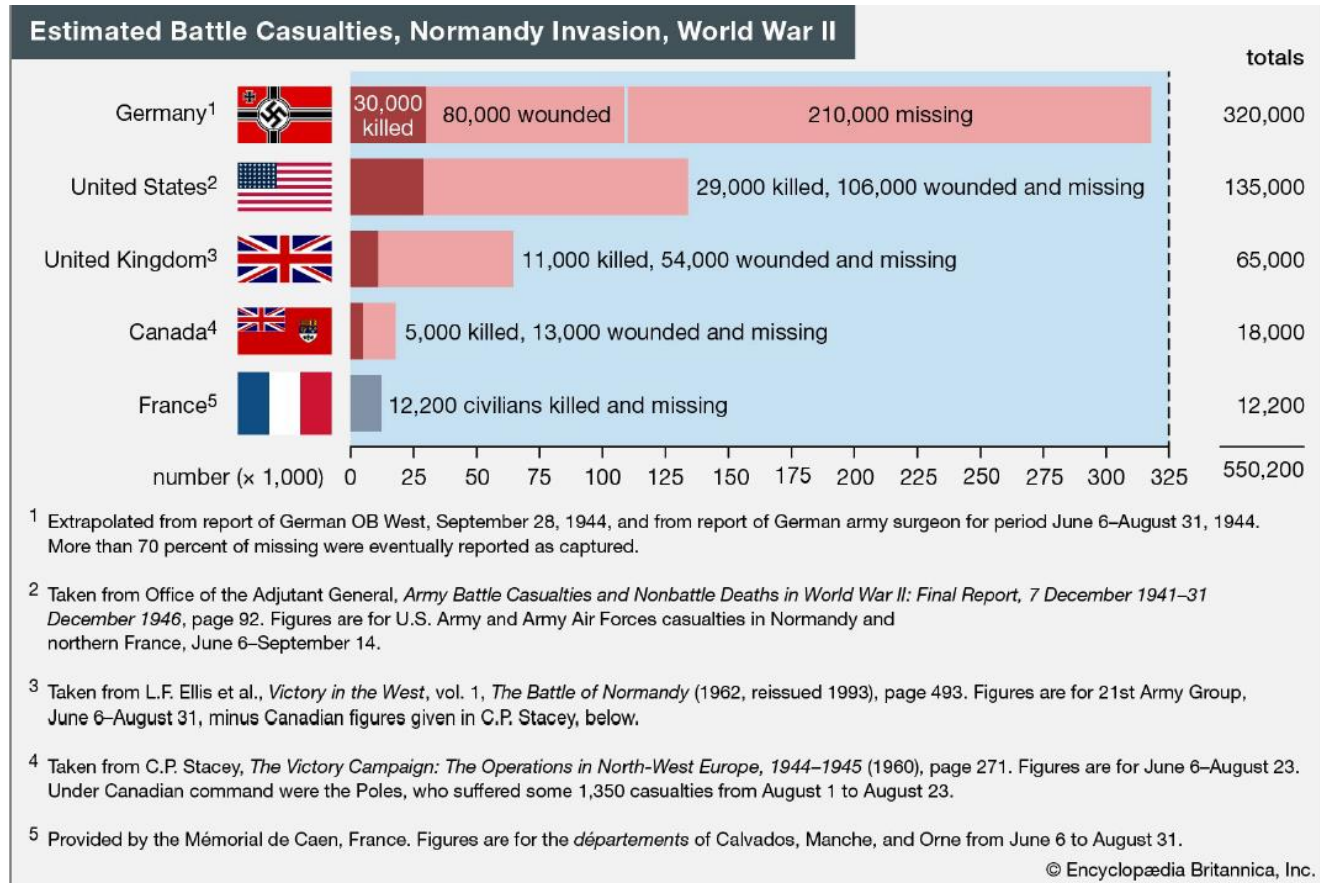
197 US Losses on Utah Beach on D-Day

41 French losses of the Kieffer commando on June 6, 1944

31 Number of French commandos injured on D-Day

10 Number of French commandos killed on D-Day (2 officers, 8 commandos)

Battle Casualties, Normandy Invasion

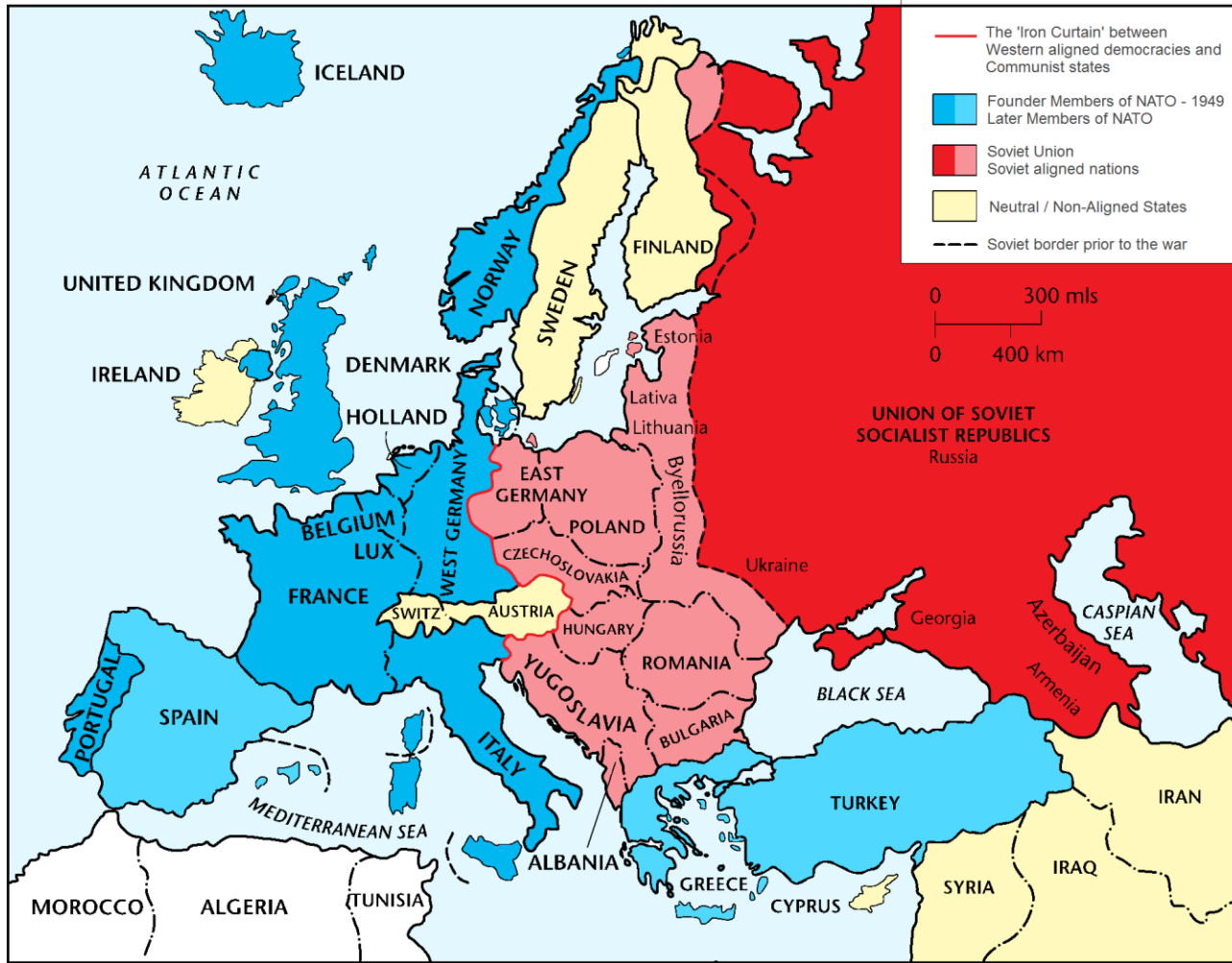


The Normandy American Cemetery and Memorial, Colleville-sur-Mer



<http://www.dday.center/index.html>

Map of Europe 1945



<https://www.pinterest.com/pin/704391197946033113/>

“He Is Dead, But He Won't Lie Down»

«Otto Nielsen fine antifascistiske sang fra 1966, fremført for første gang i radioprogrammet Søndagsposten. «He Is Dead, But He Won't Lie Down» er en amerikansk sang. Den ble skrevet av Hoagy Carmichael (melodi) og Johnny Mercer (tekst) til westernfilmen Timberjack (1954), der den ble sunget av Vera Ralston.

Otto Nielsen skrev en norsk tekst. Den hadde samme tittel. Teksten alluderte til de nynazistiske strømningene i verden i etterkrigstiden og var et brennende oppgjør med fascismen. Sangen ble utgitt som single på selskapet Nor-Disc (NOR 143). Etter oppstyret rundt Søndagspostfremføringen ble det besluttet at plata var uegnet for spilling i NRK.»

<https://www.youtube.com/watch?v=8r84eWTePqA>

Tekst: Otto Nilsen
Melodi: Hoagy Carmichael

Jeg kan huske en trall, fra de første trettital
noen strofer a´n i alle fall.
Fra dens engelske refreng
har jeg hentet mitt poeng:
He is dead, but he won´t lie down.

Under grus og ruin. i en bunker i Berlin
gjorde herrefolkets sjef sorti´n.
Med pistol og cyanid
sluttet voldens storhetstid -
he is dead, but he won´t lie down.

He is dead - He is dead
og hans aske ble for alle vinder spredd.
Som så mang en tyrann
Gjennom tiden endte han
i et ragnarokk av bål og brann.

Likevel ser vi så menn
at herr Hitler går igjen.
He is dead, but he won´t lie down.

(Sangen har flere vers – se lenke)

http://testicanzoni.mtv.it/testi-G%C3%A5-inn-i-din-tid_27952772/testo-He-Is-Dead,-
But-He-Won%27t-Lie-Down--Singback-40822782

Originalsangen:
<https://lyricsplayground.com/alpha/songs/h/hesdeadbutthewontliedown.html>