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"

Wrong-footed
As well as a streamlined command structure, the Germans enjoyed air superiority that overpowered Allied and Norwegian resistance.

4 Apr 10 & 13
Royal Navy inflicts heavy losses on German destroyers and supply ships at Narvik

7 Apr 16
Start of landings of force of British, French, and Polish troops at Harstad

11 Jun 8
Allied evacuation from Narvik

2 Apr 9
German seaborne troops land at Kristiansand, Bergen, Trondheim, and Narvik

9 Apr 24
Norwegians attack Germans south of Narvik, but are forced to retreat

6 Apr 16
British and French troops land at Namsos for attack on Trondheim

10 May 2
Germans force Allied evacuation from Namsos

5 Apr 16
British and French troops land at Andalsnes

8 Apr 20
German and British troops clash around Lillehammer

3 Apr 9
During landings at Oslo, German cruiser *Blücher* is sunk, but city is soon in German hands

1 Apr 9, 1940
German forces invade Denmark

Harstad, Narvik, Bodo, Namsos, Steinkjer, Trondheim, Storen, Andalsnes, Dombas, Lillehammer, Bergen, Stavanger, Oslo, Kristiansand, Aalborg, Copenhagen, Wilhelmshaven

Scapa Flow, Rosyth

NORWAY, SWEDEN, FINLAND, DENMARK, GERMANY, ESTONIA, LATVIA, LITHUANIA, EAST PRUSSIA, BRITAIN

North Sea, Gulf of Bothnia, Baltic Sea

Stockholm

300 km / 300 miles

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."*
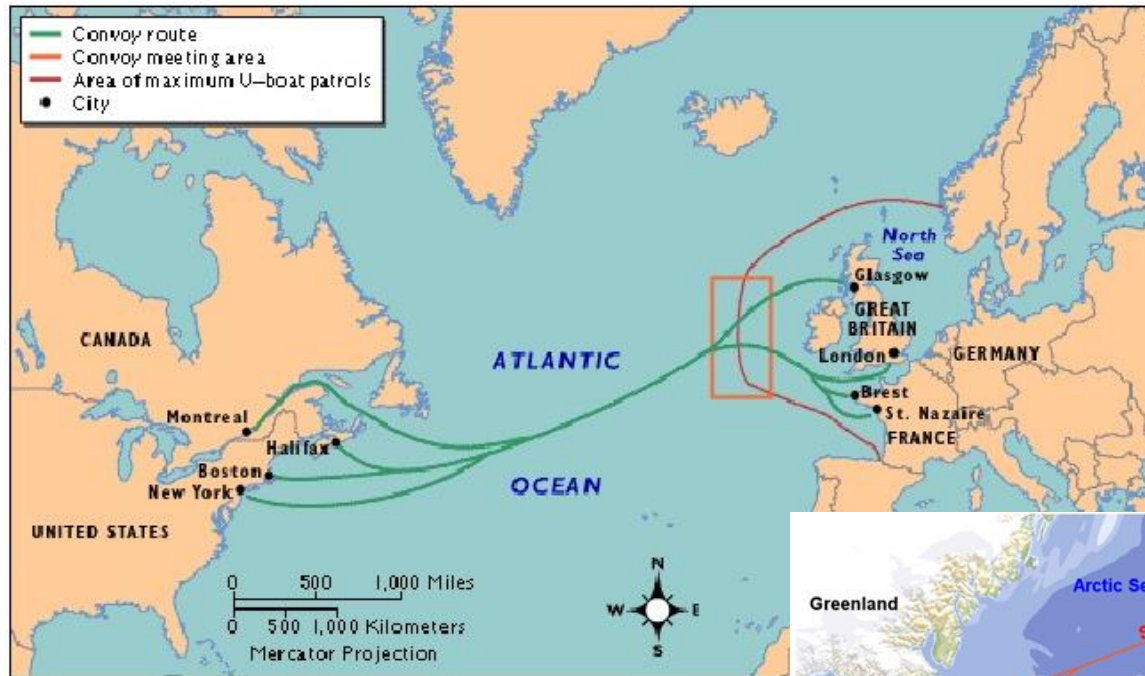August 20, 1940

Spitfire

Hurricane

Messerschmitt

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

The Convoys – Allies' "lifeline"

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

Map 26.1 World War II in the North Atlantic, 1939–1943 (p. 752)
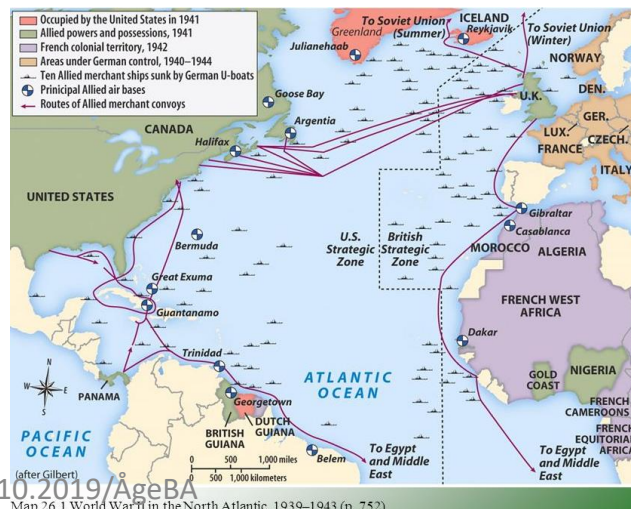
Battle of the Atlantic

The invention of SONAR (sound navigation ranging) was very important factor for the oucome 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

8

Europe at the height of German military expansion, 1942

Europe at the height of German expansion, 1941-1942

- Nazi Germany*
- Areas under German occupation
- German allies*, co-belligerents, and puppet states*
- Nominally unoccupied
- Retaken during Soviet 1941-1942 winter-offensive
- Allied-held areas
- Neutral countries
- * : Including annexed and occupied territories
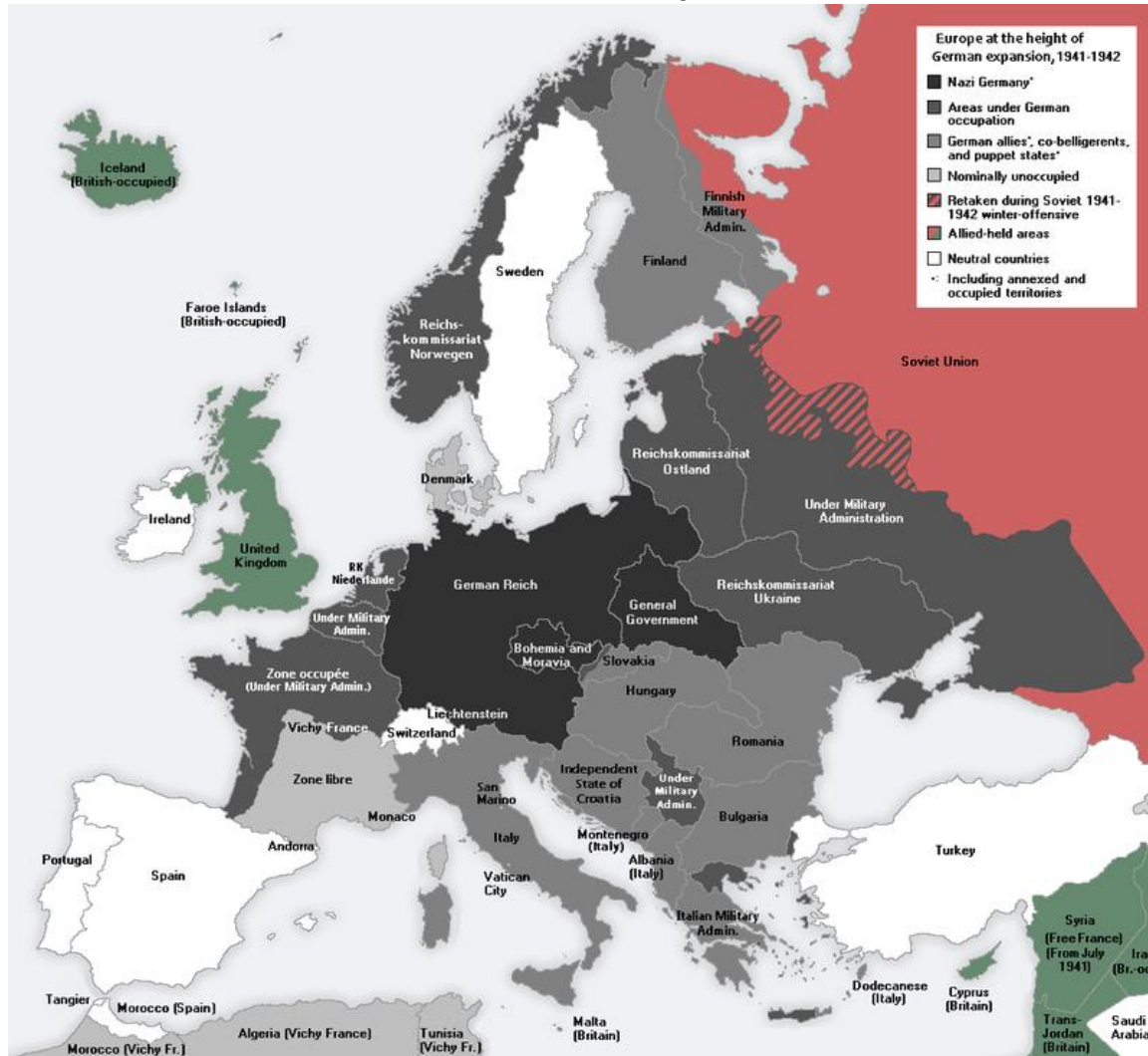
Hitler's intentions:

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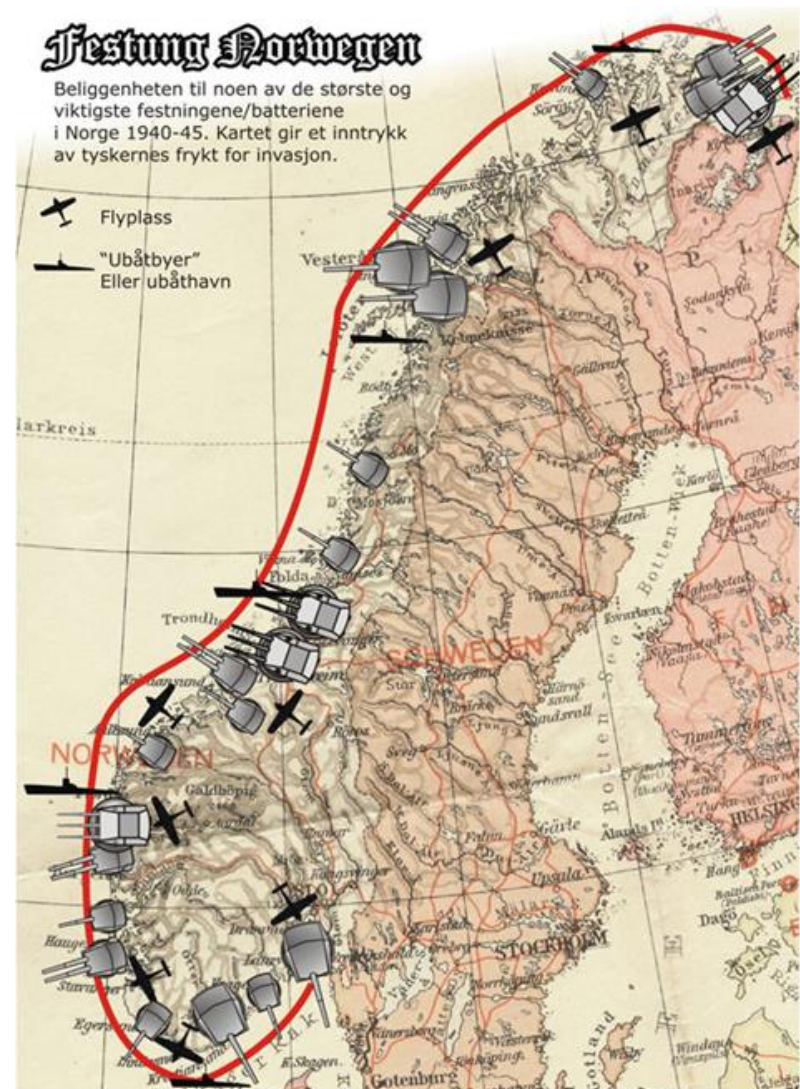
Festung Norwegen
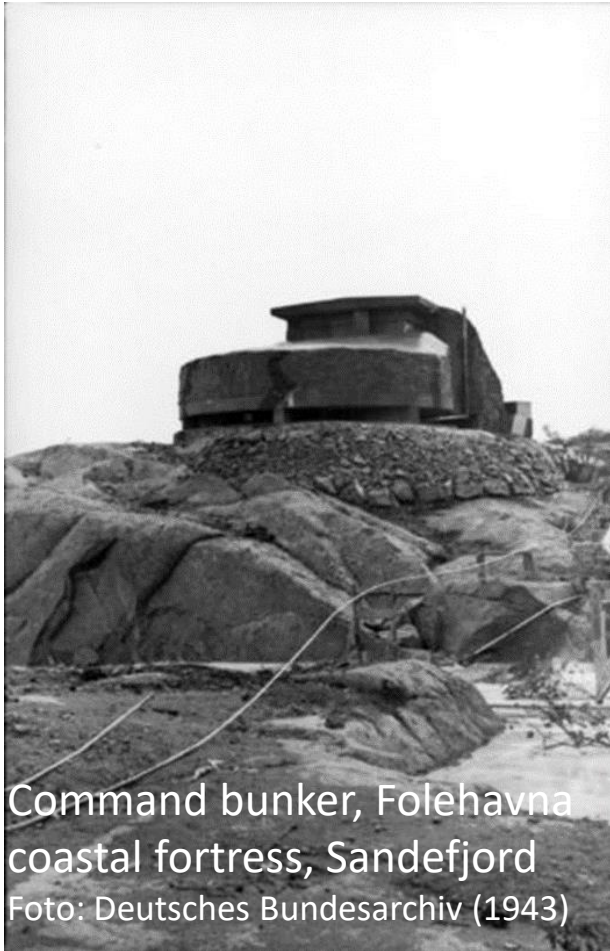
Command bunker, Folehavna
coastal fortress, Sandefjord
Foto: Deutsches Bundesarchiv (1943)

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.
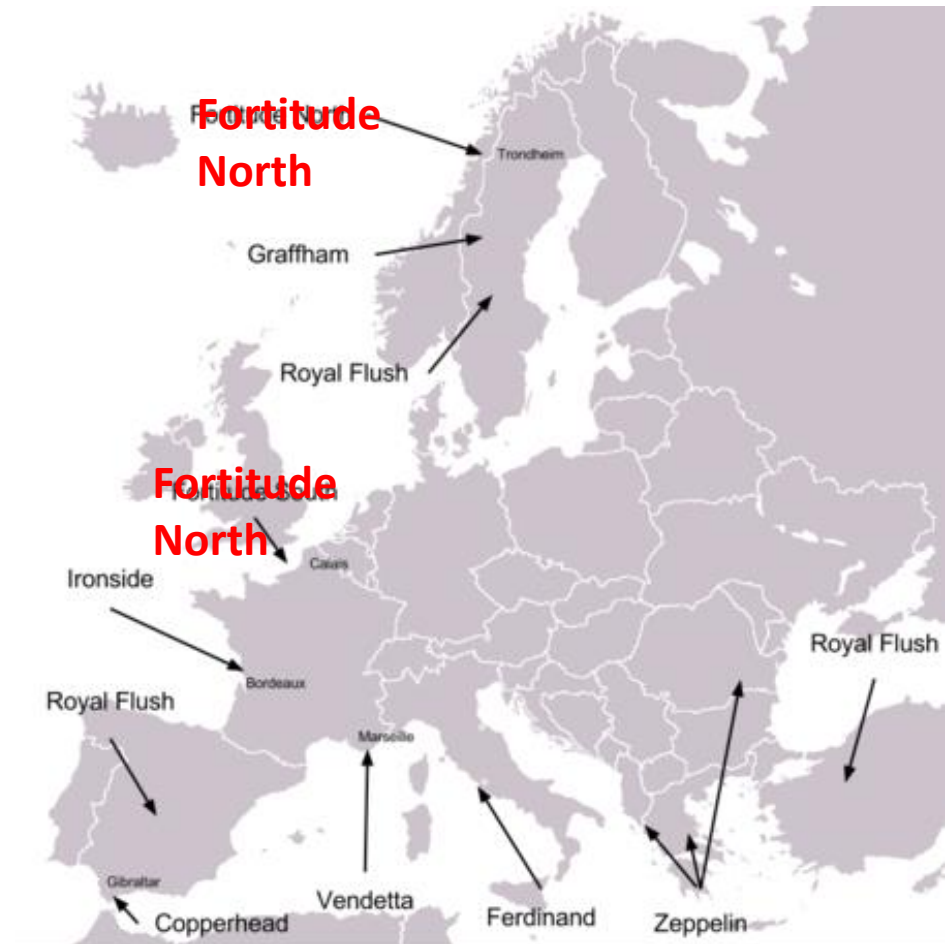
Operation Bodyguard

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

Fortitude North

Fortitude North

"In wartime, truth is so precious that she should always be attended by a bodyguard of lies." Winston Churchill to Joseph Stalin, Teheran Conference, Dec. 1943
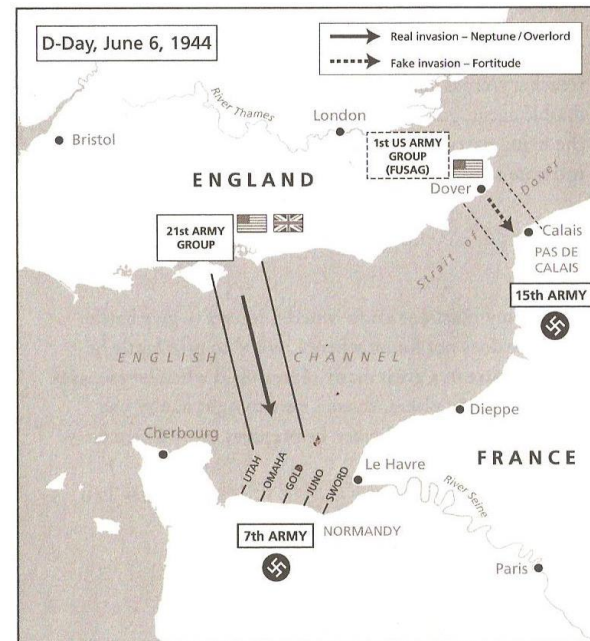
Operation Fortitude: The Big Deception

FUSAG

First United States Army Group

Lieutenant General George S. Patton

D-Day, June 6, 1944

→ Real invasion – Neptune / Overlord
⇢ Fake invasion – Fortitude

ENGLAND · Bristol · London · Dover
1st US ARMY GROUP (FUSAG)
21st ARMY GROUP
15th ARMY
ENGLISH CHANNEL
Calais · PAS DE CALAIS
Cherbourg · Dieppe · Le Havre
UTAH OMAHA GOLD JUNO SWORD
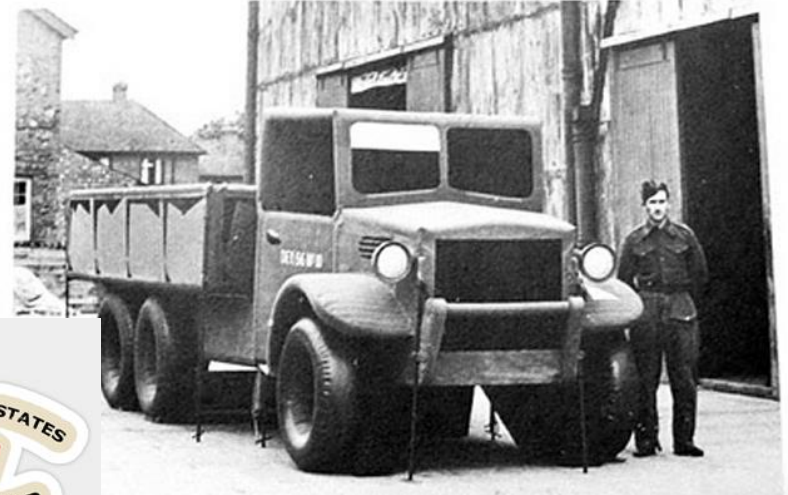7th ARMY · NORMANDY
FRANCE · Paris

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
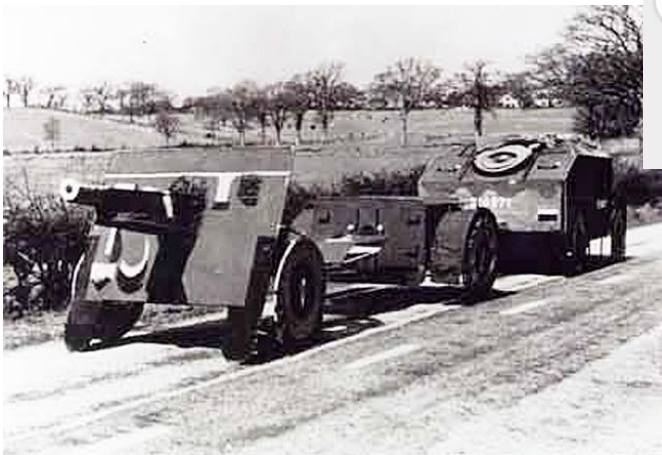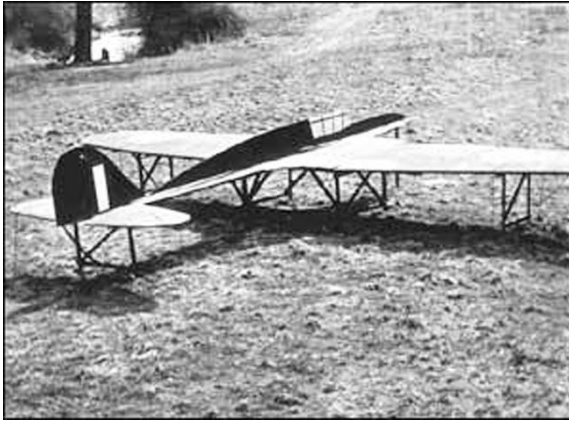

Inflatable «Sherman tanks»

Inflatable trucks»

Balloon landing craft

Decoys and Dummies

Bletchley Park
Codebreaking

Enigma - The Imitation Game

Bletchley Park, main building

Rotors
Lampboard
Keyboard
Plugboard

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 (10exp36, or 10exp21 US) possible settings.

The Germans believed Enigma was unbreakable.

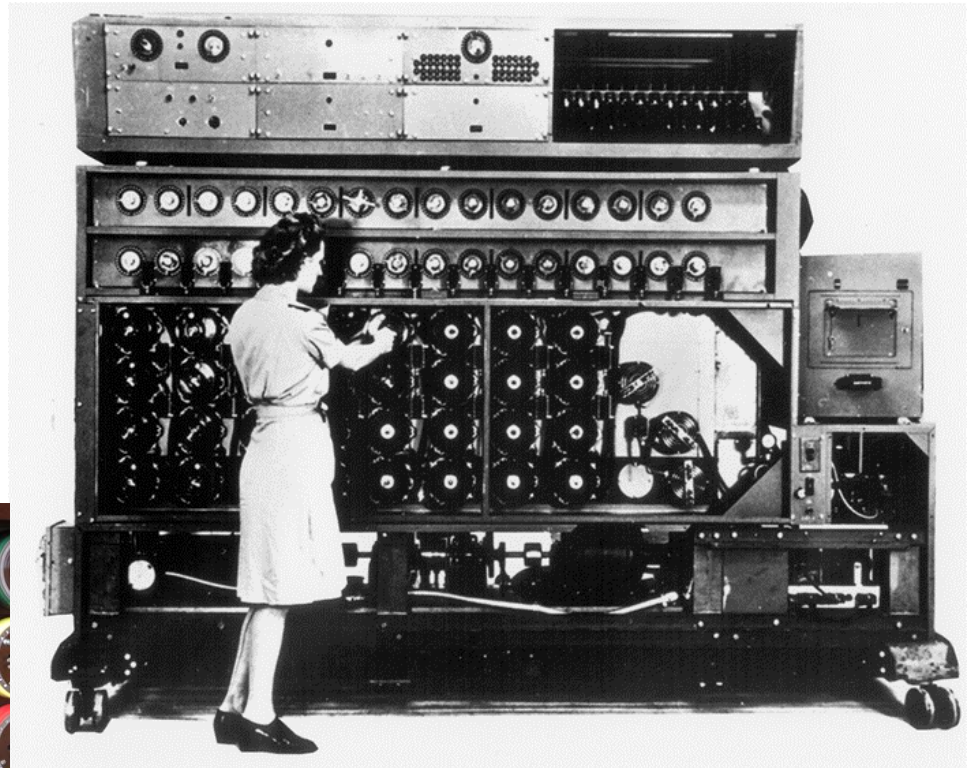Enigma cipher machine of World War II

Code breakers at work
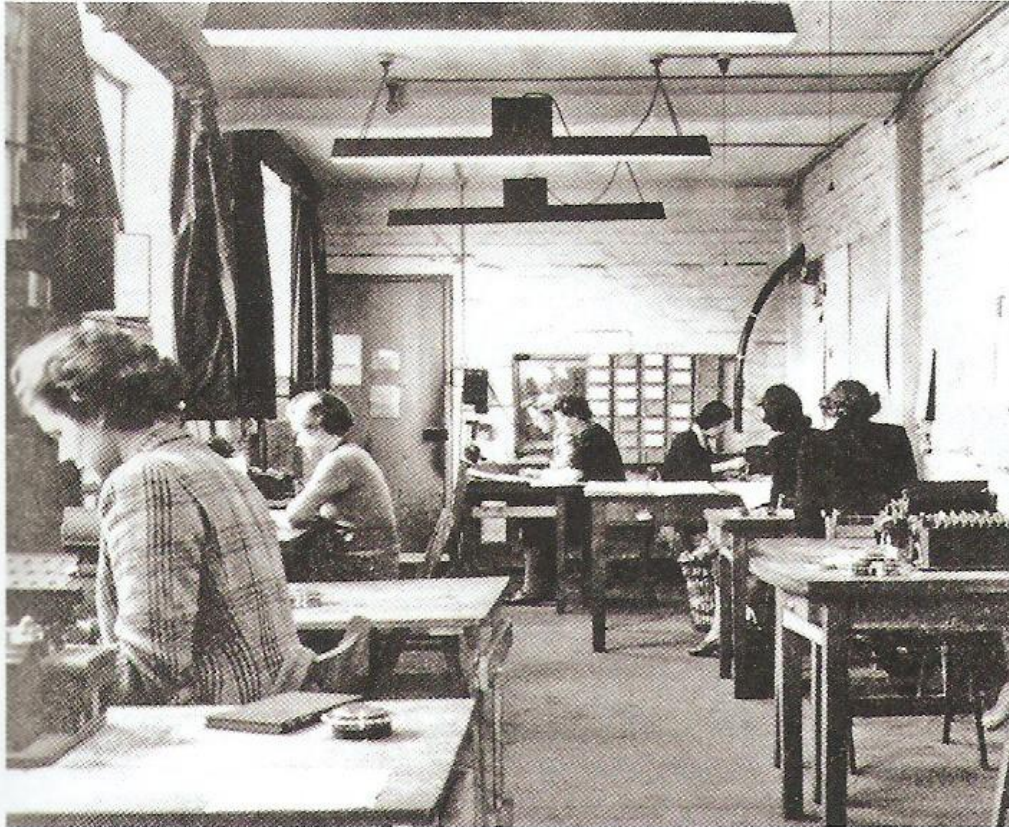
Deciphered German messages were circulated as MSS, "Most Secret Sources"

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

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

William Thomas "Bill" Tutte
(1917-2002)
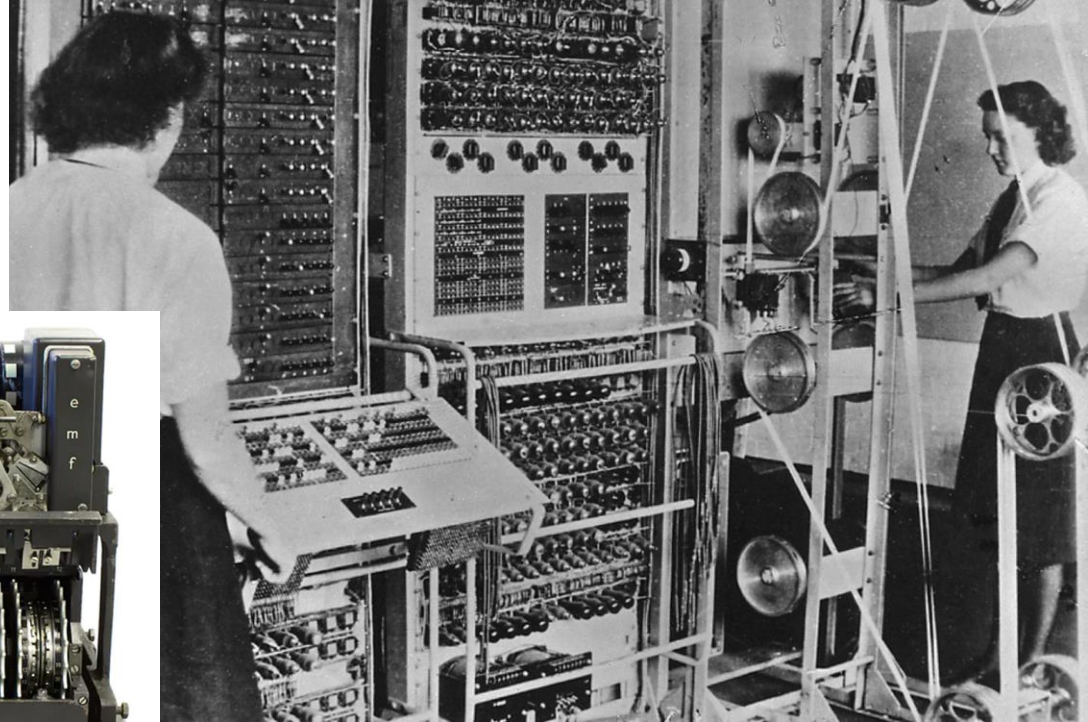
The Colossus computer at Bletchley Park, Buckinghamshire, England, c. 1943. The first semi-programmable electronic computer – **designed for cracking the Lorenz messages, following Tutte's method.**

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

The Hunt for 'cribs'

*Above*: HMS *Tartar*'s boarding party prepares to board the weathership *Lauenbur[g]*
north east of Iceland on 28 June 1941. The capture of the *Lauenburg*'s copy of th[e]
1941 Enigma settings enabled Britain's cryptographers to break the Naval Enigm[a]
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 captu[red]

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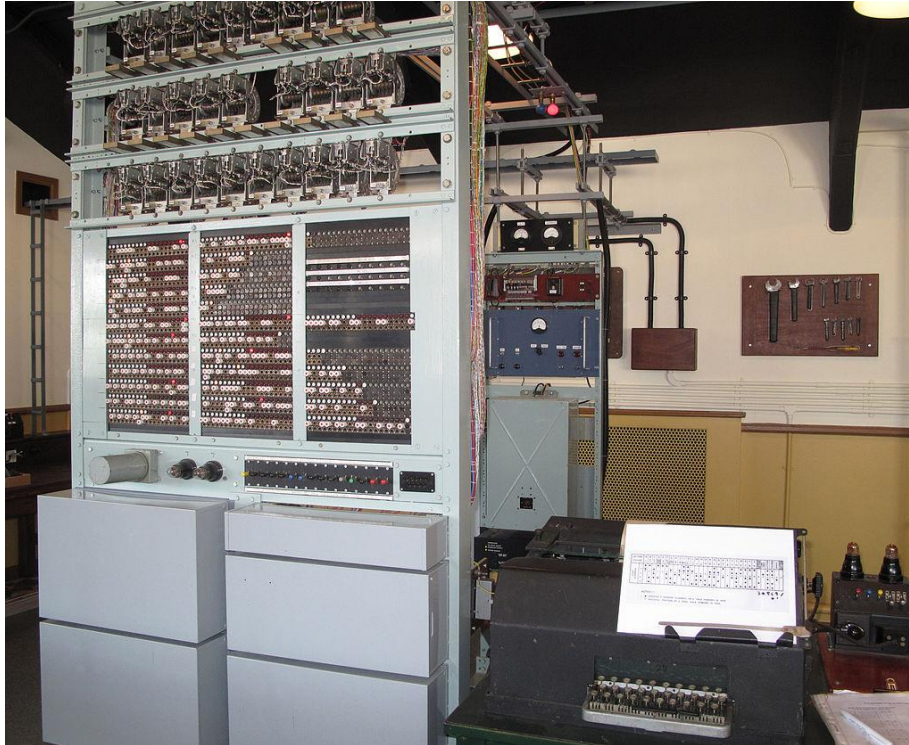
A rebuilt British Tunny ("Lorenz-machine") at The National Museum of Computing, Bletchley Park. It emulated the functions of the Lorenz SZ40/42, producing printed cleartext from ciphertext input.

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 Õshima 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)

GARBO
THE DOUBLE AGENT WHO PLAYED A BIG PART IN BODYGUARD

Bestselling author of
OPERATION MINCEMEAT and AGENT ZIGZAG
DOUBLE CROSS
THE TRUE STORY OF THE D-DAY SPIES
BEN MACINTYRE
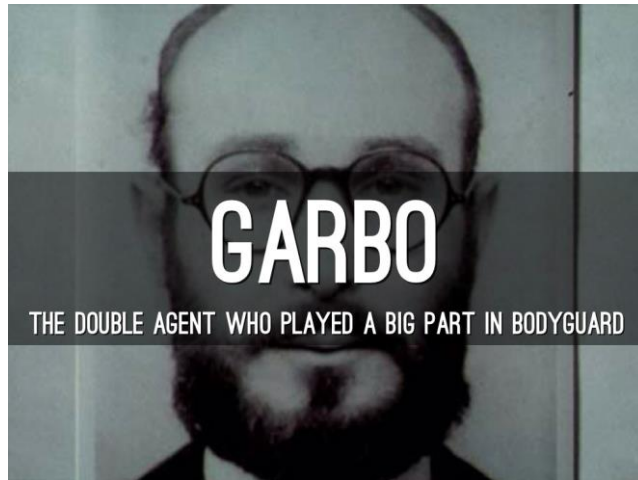
Joan Pujol Garcia (codename Garbo)
The Iron Cross from Hitler and the an MBE (Member of the Order of the British Empire) from King George VI.
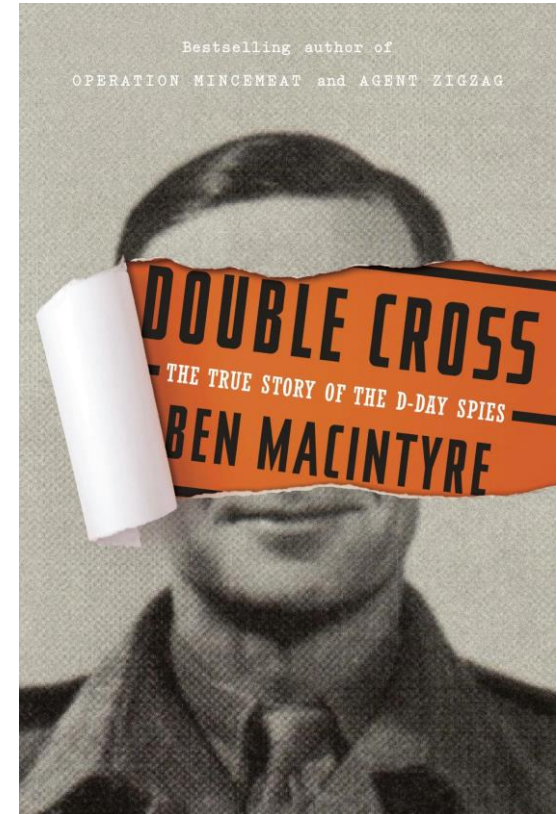
The entire German spy network in Britain consisted of double agents. There were no real German agents left.

Mutt and Jeff

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.
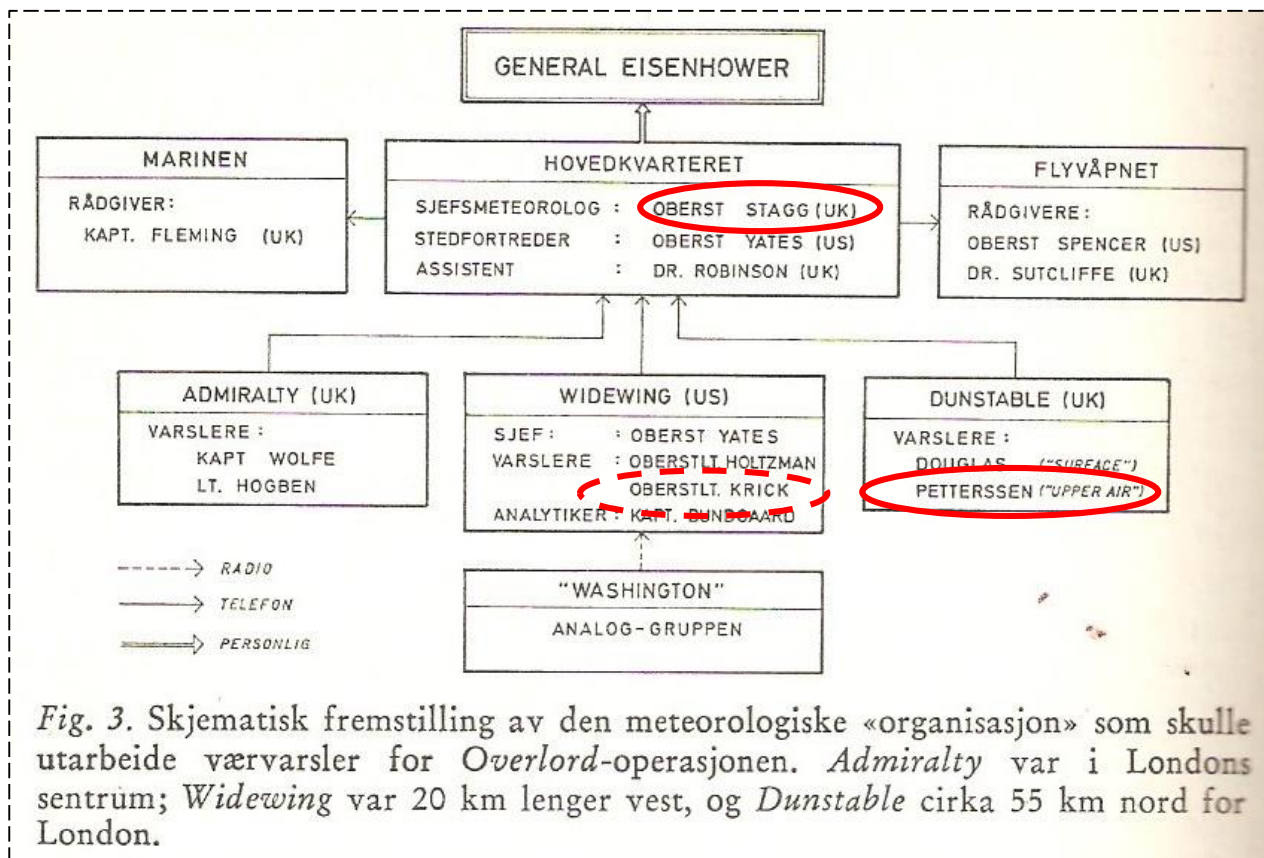
James Stagg
(1900-1975)

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.
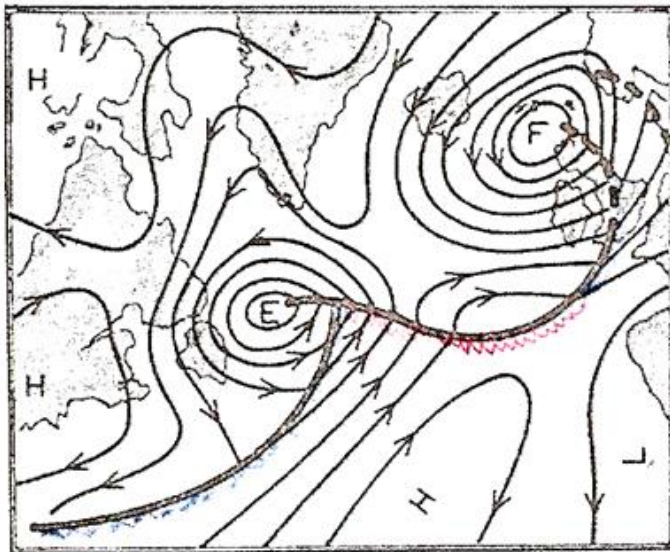
4 June 13:00
Invasion 5 June would be *disastrous*.
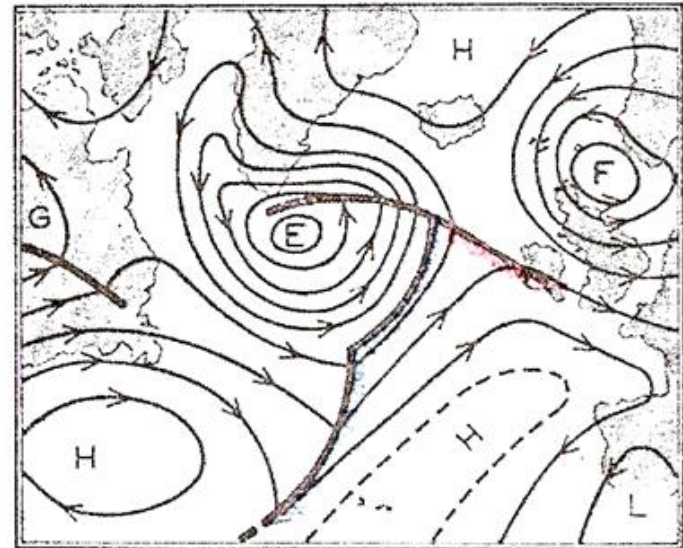
6 June 06:00
Barely acceptable conditions.

Eisenhower's tribute to Petterssen

Supreme Headquarters
ALLIED EXPEDITIONARY FORCE
Office of the Supreme Commander

19 September 1944

Dear Dr. Petterssen:

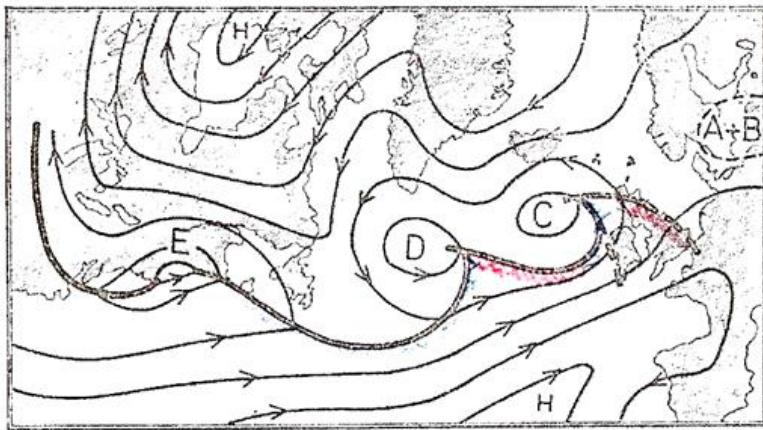I desire to commend you for your part in the coordination of the operation of the Meteorological Service in support of the 'OVERLORD' assault of the Continent of Europe. Considerable research and long hours of work by you and your associates resulted in the reconciliation of differences in fore-casting 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 contri-bution to the success of the Allied invasion.

Sincerely
Dwight D. Eisenhower

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

The letter copied from "Kuling fra nord"

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 German view
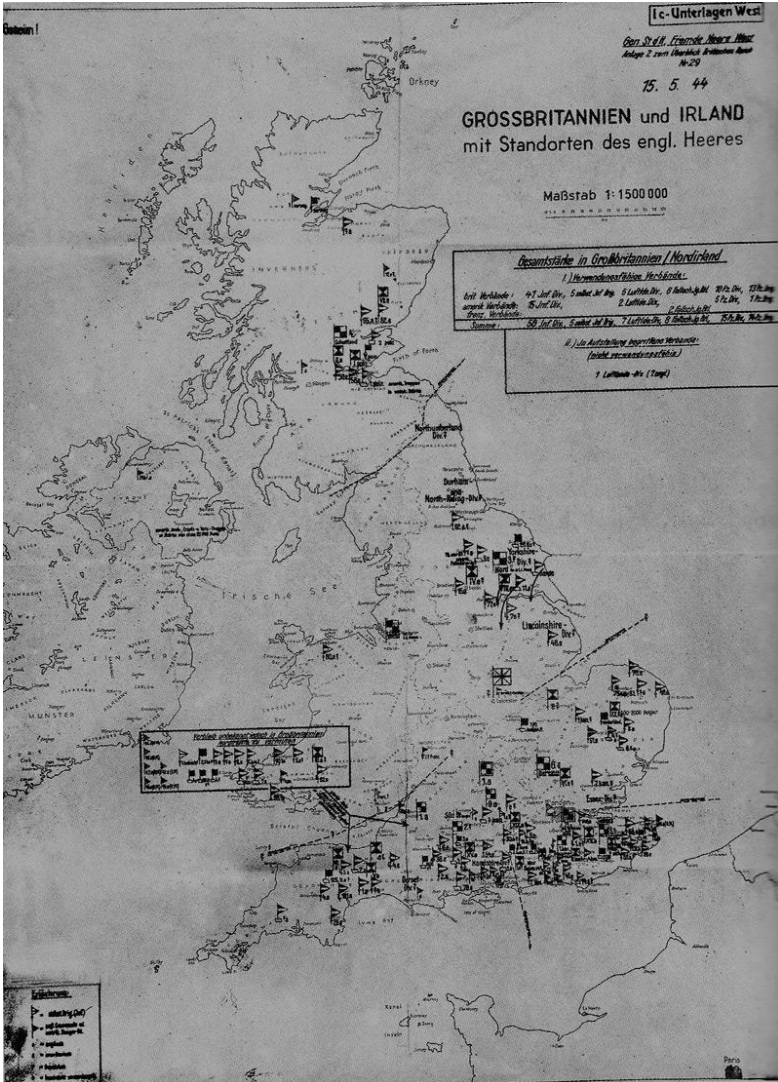
Rommel inspecting division in May, 1944

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.

Dummyparatroopers made of rubber were tossed out over Calais.

Operation Neptune

5. June 1944
22:00
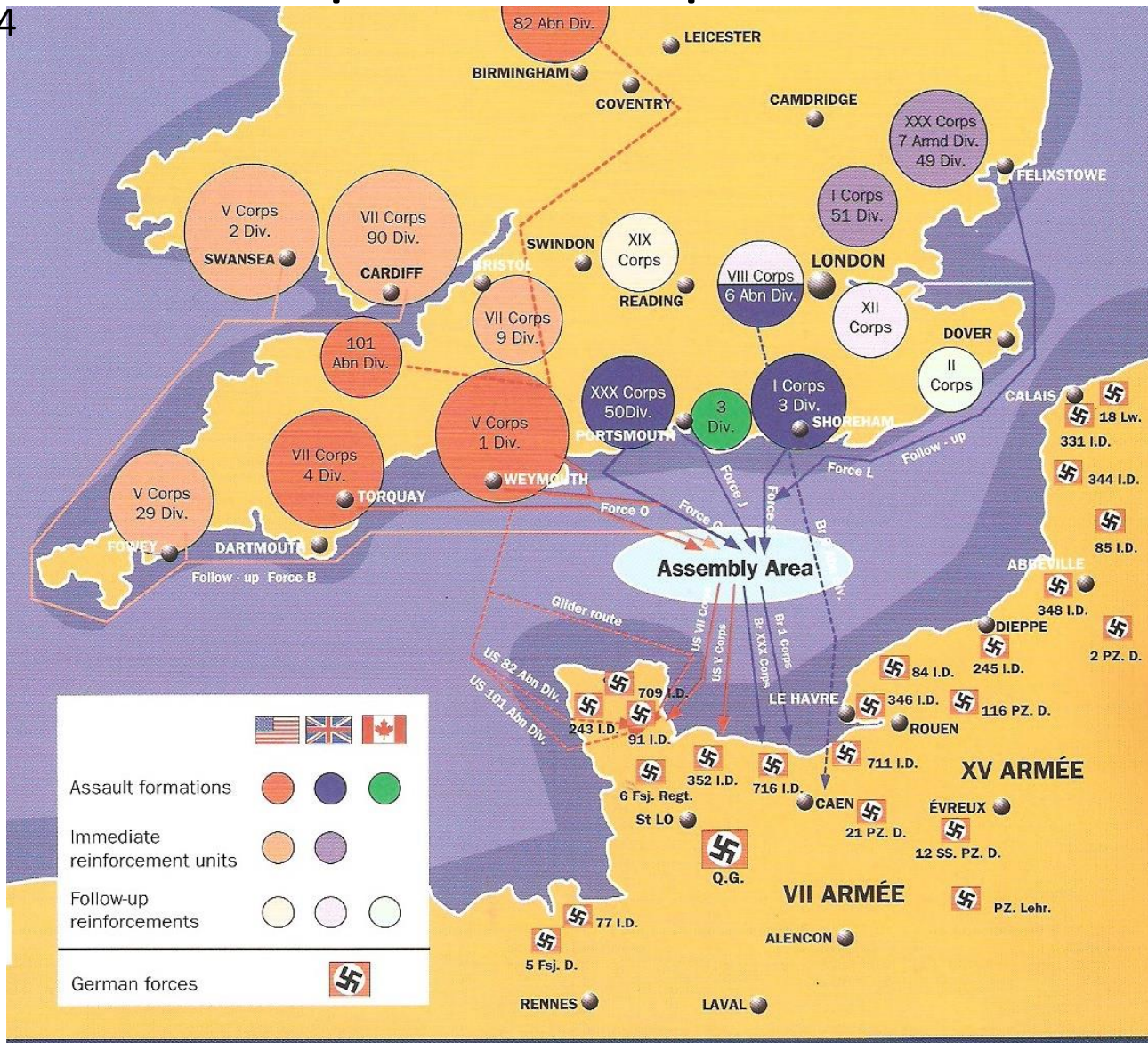
Naval routes through English Channel
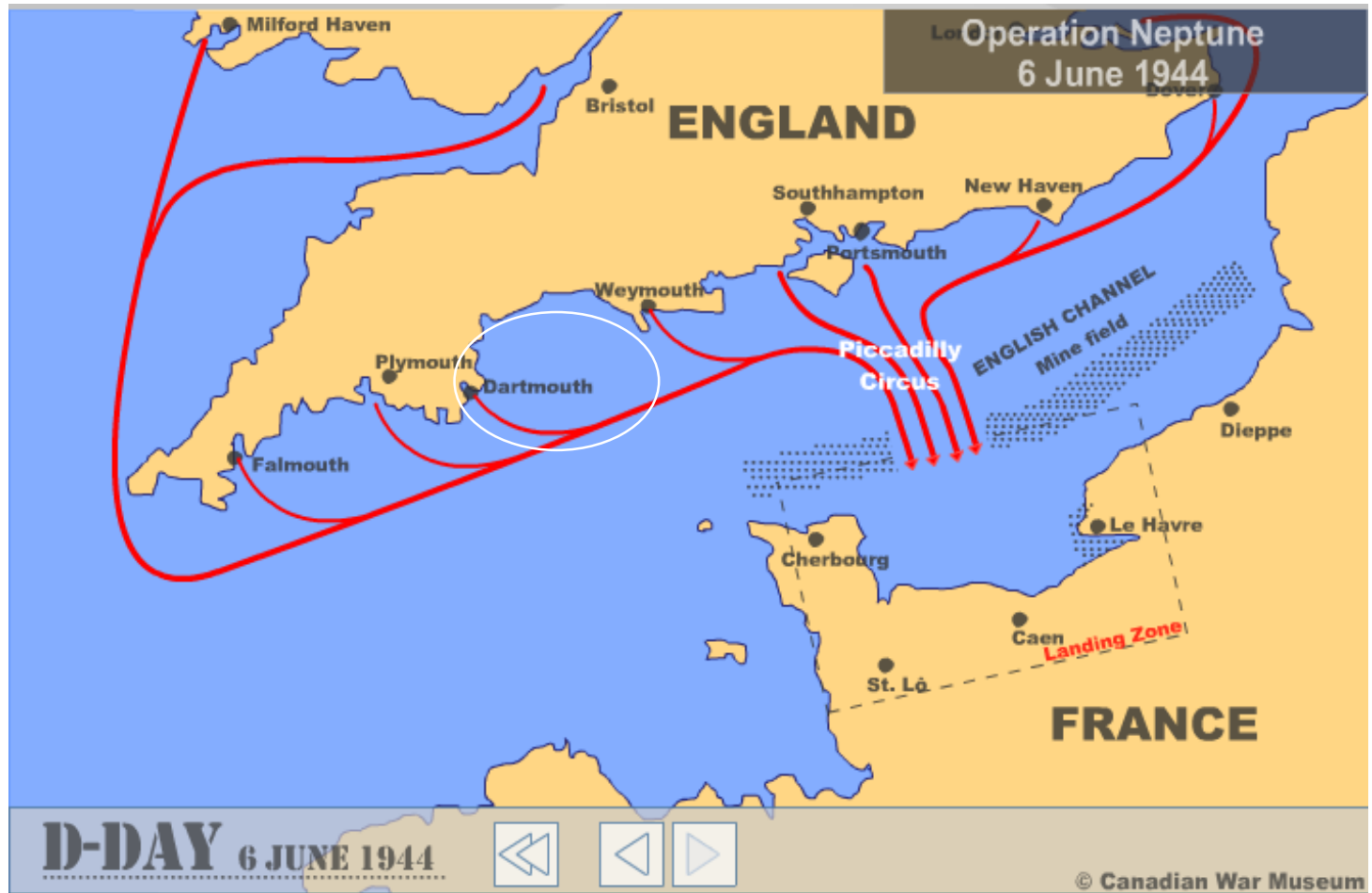
Airborne troops
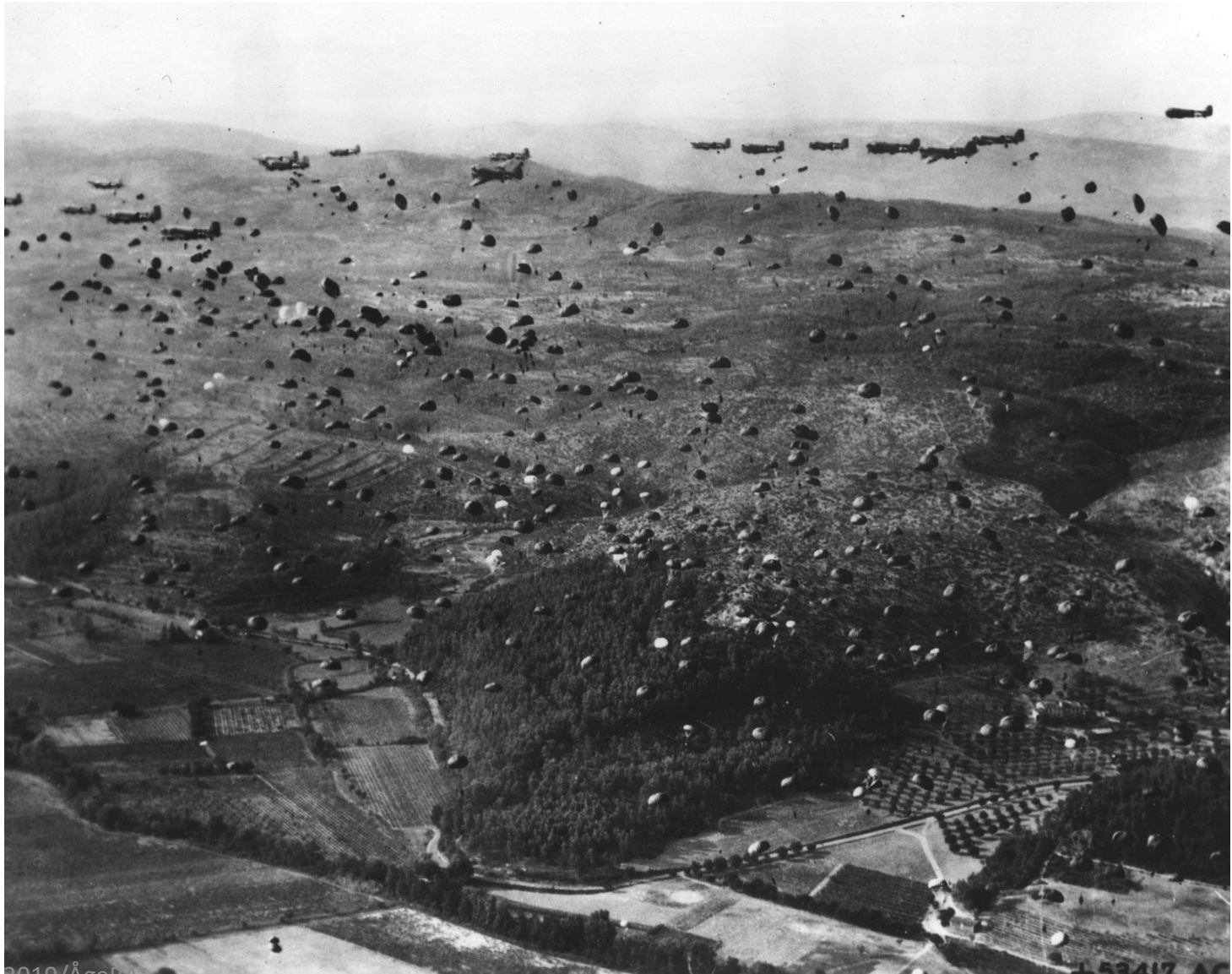
The click-click signal

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.

AIRBORNE
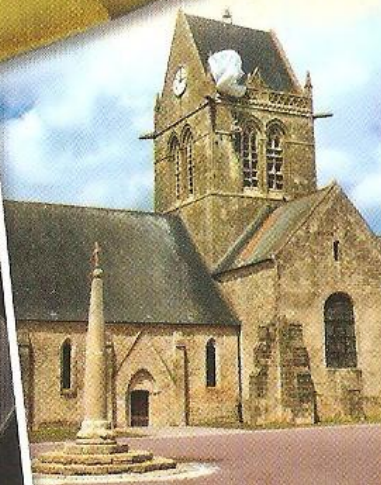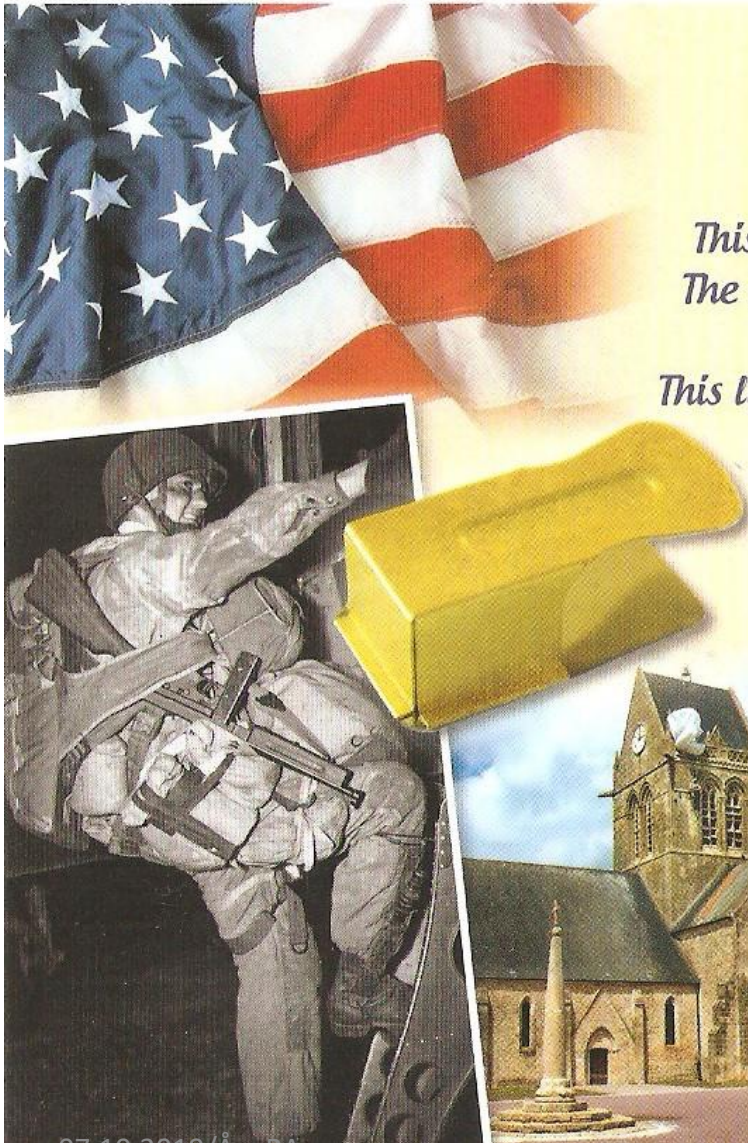
The (un)lucky John Steele

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

D-DAY
Allied invasion of Normandy
6th June, 1944

Phase One	Phase Two	Phase Three	Phase Four	Phase Five
12.00AM	01.00AM	03.00AM	05.00AM	06.00AM
Airborne Drop	Enemy Distraction	Aerial Attack	Naval Attack	Ground Invasion

6.30AM UTAH	6.30AM OMAHA	7.25AM GOLD	7.55AM JUNO	7.25AM SWORD
23,250 troops	34,250 troops	24,970 troops	21,400 troops	28,845 troops
300 casualties	2,400 casualties	400 casualties	1,200 casualties	630 casualties

Carentan

Bayeux

Vire river

Orne river

Dives river

Caen

Touques river

https://militaryhistorynow.com/2014/06/04/the-atlantic-wall-11-amazing-facts-about-the-nazi-defences-at-normandy/

Direction of initial attack

German batteries

Drop zone for paratroopers

Supreme Commander: **General Dwight D. Eisenhower**
Soldiers: **156,000 troops (73,000 US, 83,000 British & Canadian)**
Aircraft: **11,590**
Navy: **7,000+ vessels and 195,700 personnel**

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

German Chain of Command in Western Europe
June 6, 1944

Adolf Hitler
Führer and commander in chief of the armed forces

OKM (Navy High Command)
Karl Dönitz

OKW (Armed Forces High Command)
Wilhelm Keitel, chief of staff
Alfred Jodl, chief of operations

OKL (Air Force High Command)
Hermann Göring

Navy Group West
Theodor Krancke

OBW (Commander in Chief West)
Gerd von Rundstedt

3rd Air Fleet
Hugo Sperrle

surface fleet

coastal batteries

Panzer Group West
Leo Geyr von Schweppenburg

Army Group B
Erwin Rommel

fighter and bomber wings

antiaircraft batteries

7th Army
(Normandy and Brittany)
Friedrich Dollmann

15th Army
(Pas-de-Calais)
Hans von Salmuth

1st SS Panzer Corps
Josef Dietrich

84th Corps
(Normandy)

25th Corps
(Brittany)

74th Corps
(Brittany)

Panzer Lehr Division

12th SS Panzer Division "Hitler Youth"

21st Panzer Division

352nd Infantry Division

716th Infantry Division

709th Infantry Division

243rd Infantry Division

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

The military disaster was implicit in this inefficient organizational structure.

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

Anglo-American Chain of Command June 6, 1944

Charles de Gaulle President, French Committee of National Liberation

Marie-Pierre Koenig Free French Forces in Britain

Winston Churchill Prime Minister and minister of defence

Franklin D. Roosevelt President and commander in chief of the armed forces

Combined Chiefs of Staff

Chiefs of Staff Committee
Alan Brooke, British Army
Andrew Cunningham, Royal Navy
Charles Portal, Royal Air Force

Joint Chiefs of Staff
William Leahy, chairman
George Marshall, U.S. Army
Ernest King, U.S. Navy
Henry Arnold, U.S. Army Air Forces

Joint Staff Mission

SHAEF (Supreme Headquarters Allied Expeditionary Force)
Dwight D. Eisenhower, supreme commander
Arthur Tedder, deputy commander
Walter Bedell Smith, chief of staff
Frederick Morgan, deputy chief of staff

ANXF (Allied Naval Expeditionary Force) **Bertram Ramsay**

21st Army Group **Bernard Montgomery**

AEAF (Allied Expeditionary Air Force) **Trafford Leigh-Mallory**

ETOUSA (European Theater of Operations, U.S. Army) **J.C.H. Lee**

Western Task Force

Eastern Task Force

U.S. 1st Army **Omar Bradley**

British 2nd Army **Miles Dempsey**

British 2nd Tactical Air Force

U.S. 9th Air Force

U.S. Strategic Air Forces in Europe **Carl Spaatz**

Royal Air Force Bomber Command **Arthur Harris**

7th Corps (Utah Beach)

5th Corps (Omaha Beach)

30th Corps (Gold Beach)

1st Corps (Juno and Sword Beaches)

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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.

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)**

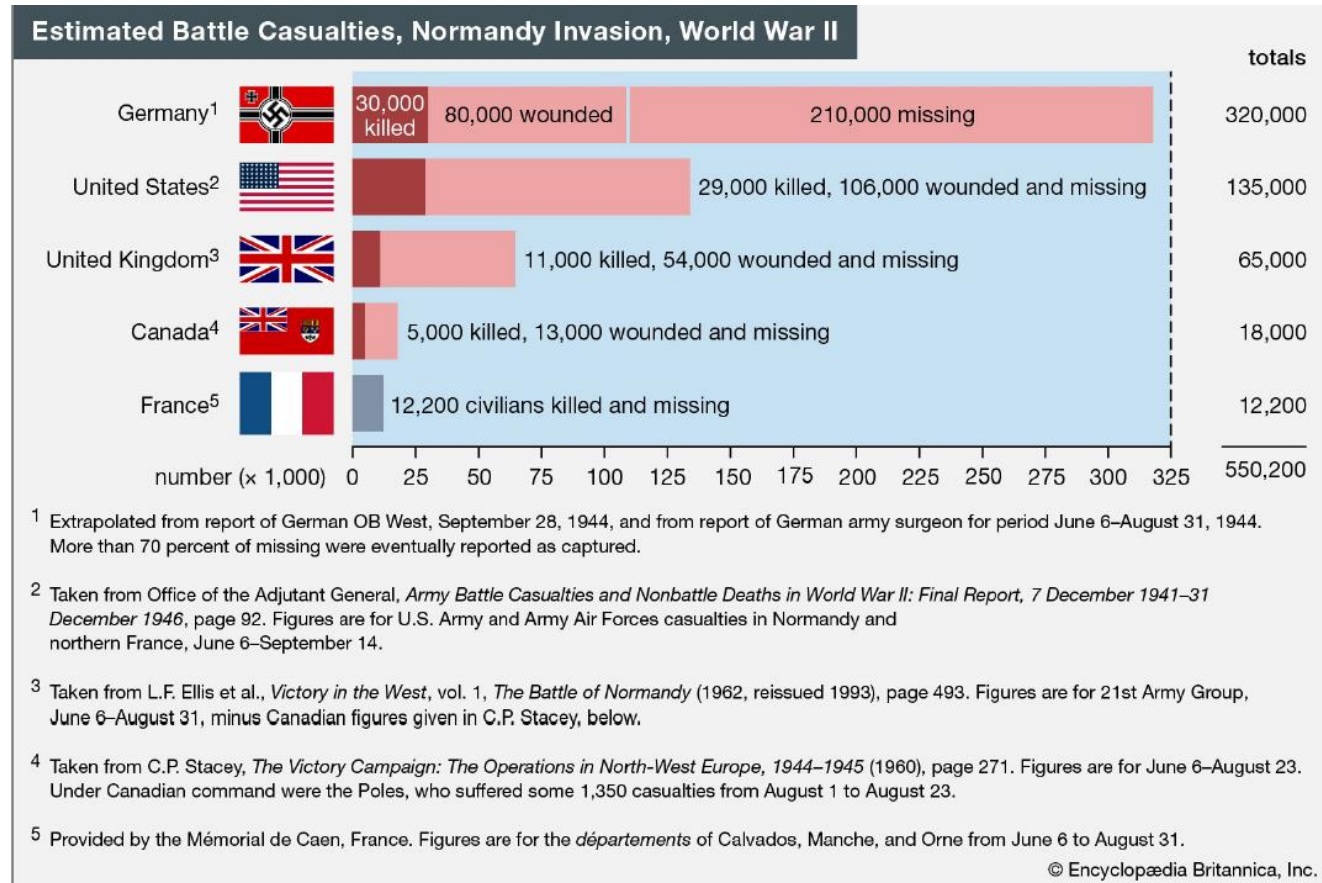|	
10,500	Number of Allied casualties on 6 June at midnight (killed, wounded, missing, prisoners)
10,000	Estimated number of German losses on 6 June 1944
6,000	US Losses on D-Day
3,800	Number of allied soldiers killed as part of Operation Neptune on June 6, 1944
2,500	US Losses on Omaha Beach on D-Day
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)

https://www.historyonthenet.com/d-day-casualties

Battle Casualties, Normandy Invasion

Estimated Battle Casualties, Normandy Invasion, World War II

	totals
Germany[1] — 30,000 killed, 80,000 wounded, 210,000 missing	320,000
United States[2] — 29,000 killed, 106,000 wounded and missing	135,000
United Kingdom[3] — 11,000 killed, 54,000 wounded and missing	65,000
Canada[4] — 5,000 killed, 13,000 wounded and missing	18,000
France[5] — 12,200 civilians killed and missing	12,200
number (× 1,000)	550,200

[1] Extrapolated from report of German OB West, September 28, 1944, and from report of German army surgeon for period June 6–August 31, 1944. More than 70 percent of missing were eventually reported as captured.

[2] Taken from Office of the Adjutant General, *Army Battle Casualties and Nonbattle Deaths in World War II: Final Report, 7 December 1941–31 December 1946*, page 92. Figures are for U.S. Army and Army Air Forces casualties in Normandy and northern France, June 6–September 14.

[3] Taken from L.F. Ellis et al., *Victory in the West*, vol. 1, *The Battle of Normandy* (1962, reissued 1993), page 493. Figures are for 21st Army Group, June 6–August 31, minus Canadian figures given in C.P. Stacey, below.

[4] Taken from C.P. Stacey, *The Victory Campaign: The Operations in North-West Europe, 1944–1945* (1960), page 271. Figures are for June 6–August 23. Under Canadian command were the Poles, who suffered some 1,350 casualties from August 1 to August 23.

[5] Provided by the Mémorial de Caen, France. Figures are for the *départements* of Calvados, Manche, and Orne from June 6 to August 31.

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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/
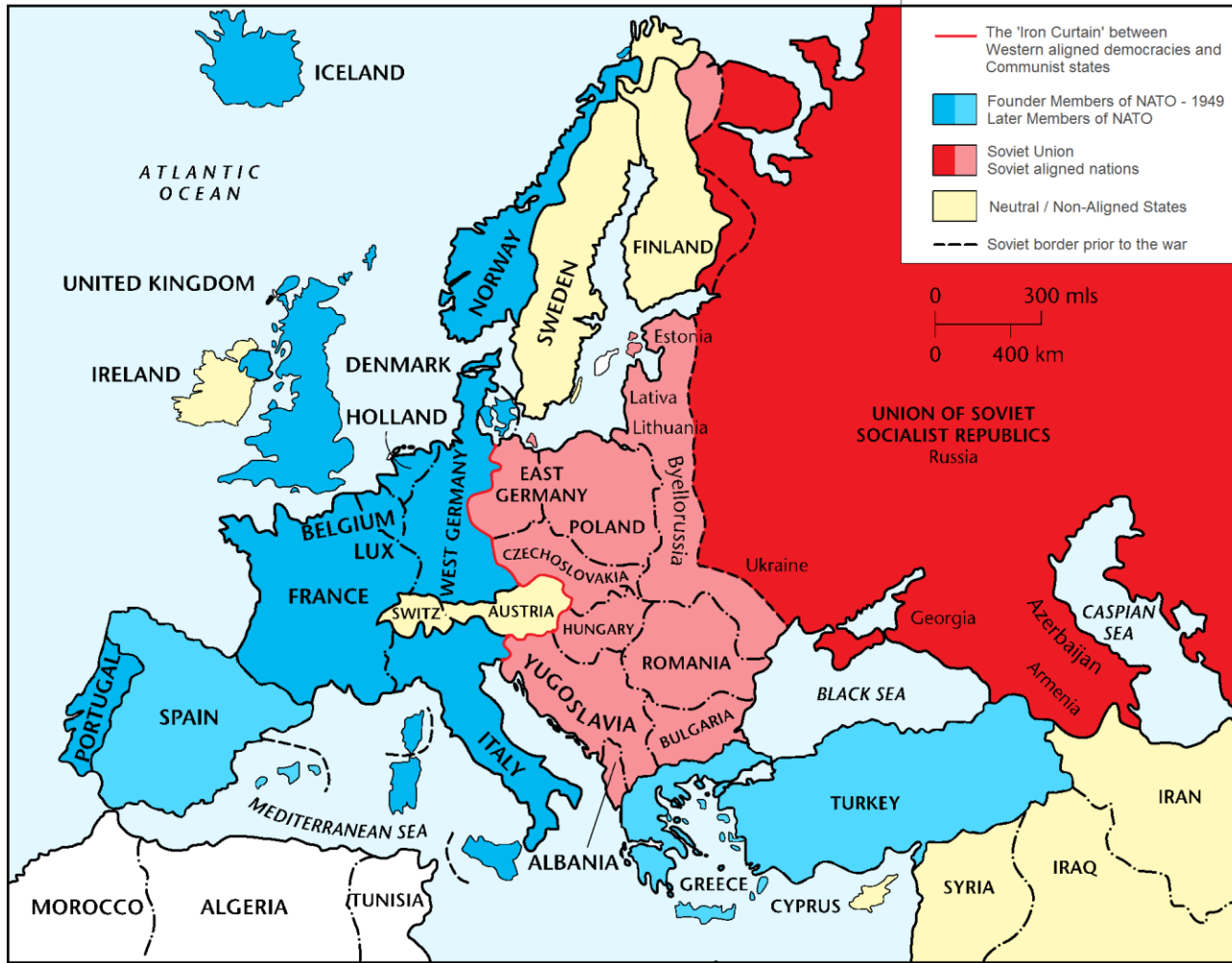
"He Is Dead, But He Won't Lie Down»

«Otto Nielsen fine antifascistiske sang fra 1966, fremført for første gang i radioprogramnmet 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

Originalsangen:
https://lyricsplayground.com/alpha/songs/h/hesdeadbuthewontliedown.html

Tekst: Otto Nilsen
Melodi: Hoagy Carmichael

Jeg kan huske en trall, fra de første trettitall
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