PRIVATE JAMES KEMPLEY

AVON DASSETT'S D-DAY HERO

BEFORE THE WAR

James Kempley was born on 16 January 1920 at Hayton in Yorkshire. He was educated at the independent, Catholic boarding school, Downside in Somerset, leaving at the age of 16. At the outbreak of war he was employed as a builder's labourer in Avon Dassett.

WAR SERVICE

He enlisted in 1940 and joined the 1/5th Battalion Welch Regiment, fighting in France and Belgium before being evacuated at Dunkirk in June 1940.

OPERATION EPSOM

On 18 June, General Montgomery wrote, 'To-day is D plus 12, and we have now been fighting since 6 June. During this time we have been working on the original directive issued by me in England.' He recognised that 'after the very great intensity' of D Day he had to change tactics and launched a 'blitz attack' on the German army. He knew, through air reconnaissance, that 1st SS Panzer Division, the third division in Hitler's armoured reserve, had left Belgium and that II SS Panzer Corps was en route to Normandy from Poland. Montgomery feared that he would lose the initiative. He decided to commit the newly landed VIII Corps, under Lieutenant-General Richard O'Connor, to a large offensive, codenamed 'Epsom', to the west and south-west of Caen.

The Battle for Caen 'Epsom' commenced on 26 June, its goal to drive across the River Odon Valley and up onto the high ground of Hill 112 to the south of Caen. The hill offered a commanding position over the open terrain to the south of the city and was an ideal launching point for an armoured thrust to threaten the German defences in the area. The attack would be launched by some 60,000 troops and over 600 tanks supported by 696 guns, 250 medium bombers, 18 squadrons of fighter bombers and the firepower of three cruisers and one monitor from the Royal Navy.

The opposition facing VIII Corps initially consisted of the 12th SS Panzer and Panzer Lehr Divisions. Both formations had taken a 'battering' since the invasion, with 12th SS Panzer Division already reduced to about 75 per cent of its strength. The Germans had at their disposal just short of 200 tanks and between 60 to 80 88mm anti-tank guns.

The plan required the infantry, supported by the heavy Churchill tanks of 31st Tank Brigade, to advance on a narrow frontage to maximise the concentration of firepower and ensure that sufficient troops were available to follow up the attack in force. The advance would take place behind a rolling artillery barrage, which would move ahead at the rate of 100 yards every three minutes. Once the infantry had breached the German defences, they were to pave the way for the newly arrived 11th Armoured Division to break out to the south of Caen.

Things did not go quite according to plan. Due to bad weather, the promised RAF support did not materialise and the advance was far slower than expected. Determined German resistance around the village of Cheux and St. Manvieu held up the infantry and they began to lose contact with the rolling barrage. By lunchtime, the division was still some 2 miles from its main objective of the first day, the bridges over the River Odon. Nonetheless and in spite of these delays, it appeared that the German defences were 'stretched to breaking point' and O'Connor decided to launch 11th Armoured Division into the battle earlier than planned. It failed to break through and by the end of the day, VIII Corps was still 1 mile short of the Odon. The German position had held, if only just; 12th SS Panzer Division suffered the loss of over 700 troops killed, wounded or missing, the most it had experienced in any single day of action.

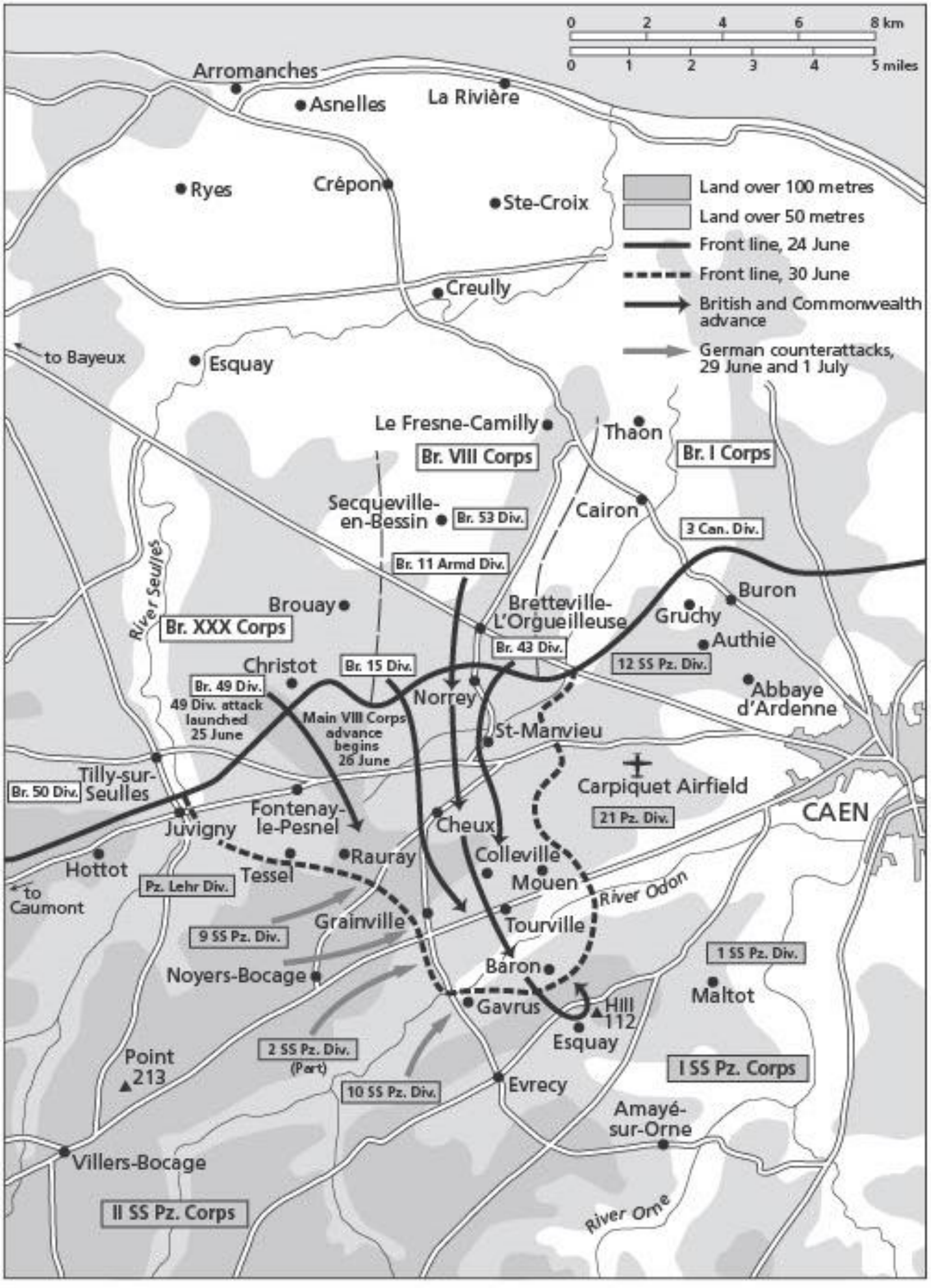
The next day, a successful attempt was made to cross the River Odon and on 28 June the 11th Armoured Division assaulted Hill 112, which was taken after much bitter fighting. Events now intervened. 'Epsom' had pre-empted a major German counter-offensive to be launched by the II SS Panzer Corps, which had recently arrived from Poland. Montgomery and Dempsey, fully aware that this new formation was preparing to go into action, decided to continue with 'Epsom' irrespective. Their goal was to retain the initiative and force the Germans to commit their reinforcements piecemeal and at a time and place of British choosing.

With Allied artillery and naval gunfire support already in situ and ready for a battle in and around the salient created by VIII Corps' advance, it was understood that 'Epsom' now represented an excellent opportunity to inflict serious attrition on the German Army. O'Connor ordered his men to hold on to their positions and await the expected counterblow, which was duly delivered on 29-30 June. Even with the prior warning, the intensity of the German offensive caught Second Army by surprise; some units fell back and others were overrun. But the German assault stalled as determined infantry supported by air attack (now that the weather had improved) and artillery fire began to inflict grievous losses on the attacking units. The battle was a 'holocaust for the Germans. Their dead lay in piles among the wheat'.

It was in this battle that Kempley lost his life. He had sailed with his regiment to Normandy on 24 June and was sent into active combat against the Germans on 30 June, near Brouay. He was killed in action the same day, one of more than 4,000 allied troops killed, wounded, missing in action or taken prisoner between 25 and 30 June 1944.

GRAVE

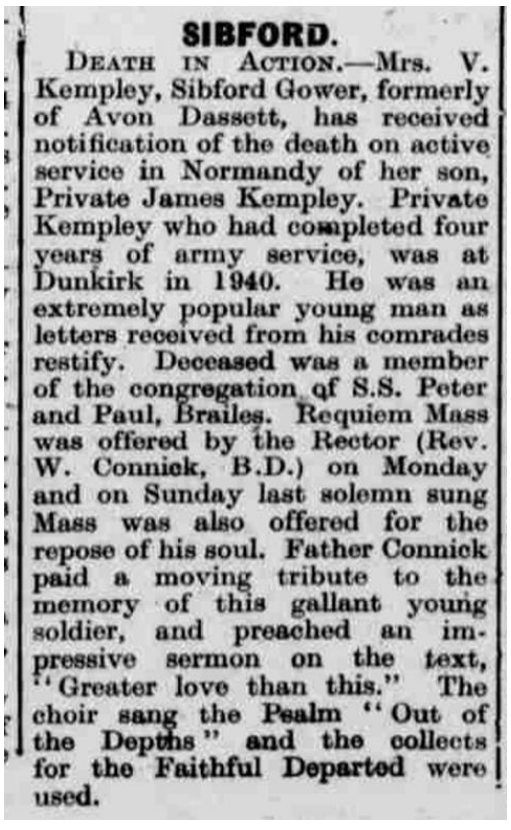
Kempley is buried at St. Manvieu War Cemetery, Cheux and commemorated on the Avon Dassett War Memorial. The personal inscription on his grave reads, 'OF HIGH TRENWICK, MARKET WEIGHTON, YORKS. "MY JESUS, MERCY!" R.I.P.



Operation Epsom, 26 June-1 July 1944

James Kempley's grave at St. Manvieu War Cemetery, Normandy

Avon Dassett War Memorial



SIBFORD.

DEATH IN ACTION.—Mrs. V. Kempley, Sibford Gower, formerly of Avon Dassett, has received notification of the death on active service in Normandy of her son, Private James Kempley. Private Kempley who had completed four years of army service, was at Dunkirk in 1940. He was an extremely popular young man as letters received from his comrades restify. Deceased was a member of the congregation of S.S. Peter and Paul, Brailes. Requiem Mass was offered by the Rector (Rev. W. Connick, B.D.) on Monday and on Sunday last solemn sung Mass was also offered for the repose of his soul. Father Connick paid a moving tribute to the memory of this gallant young soldier, and preached an impressive sermon on the text, "Greater love than this." The choir sang the Psalm "Out of the Depths" and the collects for the Faithful Departed were used.

Banbury Guardian

17 August 1944

BACK IN AVON DASSETT

ENGAGEMENT.

Allsop—Cooper.—The engagement is announced between JOHN ALAN ALLSOP, only son of Mrs. and the late Mr. Allsop, of Butlers Marston, Warwick, and FRANCES IRENE COOPER, eldest daughter of Mr. and Mrs. A. A. Cooper, Avon Dassett, Near Leamington Spa.

FORTHCOMING MARRIAGE.

Hutson—Nicholls.—The forthcoming marriage is announced between HENRY GORDON HUTSON, of Texas, U.S.A., and BEATRICE SARAH MAY NICHOLLS, of Bloxham.

ENGAGEMENTS.

Hicks—Hazlewood.—The engagement is announced between RAYMOND LESLIE HICKS, only son of Mr. and Mrs. A. Hicks, of Hill Top Farm, Avon Dassett, and NORA WINIFRED HAZLEWOOD, only daughter of Mr. and Mrs. H Hazlewood, Woodbine Cottage, Warmington, Banbury.

E. Cave.

AVON DASSETT.

RED CROSS AND ST. JOHN.—PRISONERS OF WAR FUND.—On January 10 a whist drive and raffle was organised by Mrs. Kynaston, Mrs. Hall, Mrs. Preston and Mr. Preston, who acted as treasurer, and held in the Village School. The following sums were realised—Admission £10 15s., raffle £12 10s., auction £22 8s. 6d. and donations £4 6s. 6d. As there are no expenses a cheque for £50 has been sent to the Red Cross and St. John Fund. Mrs. Sumner, presented the whist prizes to the winners and Miss Profumo drew the winning tickets for the raffle as follows:—Chicken, Mrs. Andrews, Farnborough; bottle of port, Mrs. D. Spike, Avon Dassett; cigarettes, Mr. Sidwell, Northend. The organisers thank all who helped by giving prizes, donations and attending the function, thereby adding to its success.

SO MUST WE!

Whether it's a shell spattered bridgehead . . . a bullet-swept beach, or a rain-sodden swamp, rely on the British Tommy to get there. We, at home, don't need such courage, such fortitude to reach *our* objective. Just determination—to reach and pass the savings figure fixed for our SALUTE THE SOLDIER WEEK. Show our fighting men we're crack marksmen too—on our savings target.

SALUTE THE SOLDIER WEEK

INVEST ALL YOU CAN IN—

3% Savings Bonds 1960-70 • 2½% National War Bonds 1952-4 • 3% Defence Bonds • Savings Certificates • Savings Stamps • The Post Office Savings Bank • A Trustee Savings Bank

FOOD FACTS

The Housewife's part

A YEAR ago, when our merchant seamen were fighting for their lives against the U-Boat packs, everyone at home joined in the battle by cutting down food-waste. Tens of thousands of tons were saved by the British housewife.

The need is just as great today. Lives are still at stake. Not only ships, but trains and lorries too, are wanted for the arms and reinforcements that will support our fighting men on their way to Berlin. It's a matter of wheels as well as keels. Not a foot of space can be spared for food that is thrown away.

Here is something we all can do — stop kitchen-waste, larder-waste, plate-waste. Let's think not only of the ships which bring our wheat, meat and fats, but of the road transport which is needed even for the foods we grow here. Our old friend the potato, for instance, needs transport from farm to market, and from market to shop—and he's no light-weight you know!

So on with the fight. Here are some tips to help you:—

SAVE BREAD by allowing new bread to become quite cold before putting it into the bread bin: Using bread when it is 24 hours old, and never when it is new because you get more slices to the loaf: Using stale bread for browned breadcrumbs, rusks for children, bread puddings, sweet or savoury, for thickening soups, as breakfast cereal, or (soaked in water and squeezed out) for stuffing: By keeping it in a clean, dry bin swathed in a clean cloth: By not eating it at the same meal as potatoes.

SAVE FAT by converting scraps of meat fat into cooking fat, and clarifying dripping so that it can be used for frying and for making pastry.

Trim the fat off the meat before cooking. Cut the scraps up small and put in a tin in a cool oven. When melted, strain off the fat carefully from the dried up bits of meat and pour into a bowl. This makes fat for pastry and puddings and can be used with half margarine for cakes.

SAVE MILK by protecting it from 'weather-waste'. Milk should be kept in the coolest spot in larder or kitchen. The floor is cooler than an upper shelf. Never place milk in an airless cupboard. Fill a basin to within 1½ inches of the top with cold water. Stand the milk bottle in the water, and having saturated a thoroughly clean flower-pot or several thicknesses of butter muslin under the cold water tap, put it over the milk bottles, resting it on the neck and touching the water. Change the water at regular intervals, every few hours in hot weather.

To clarify dripping, cut it up, put it in a saucepan, cover with cold water and bring to the boil. Pour into a bowl and let it get cold. Now lift off the hard white lid which has formed, scrape away any meat from the underside, and melt the fat gently, heating it till it stops bubbling. This is to remove any remaining water. If any water is left the fat won't stay fresh. Pour into a bowl and use as needed.

To-day's Scraps
To-morrow's Savouries

Make the best use of every ounce of food you have. Here are some suggestions for using-up left-overs.

1 Chop up odd scraps of cold meat and bake in a batter or use as a filling for savoury pancakes, omelettes or fritters.

2 Left-over beans make splendid fillings for pastry turnovers.

3 Use up cooked fish in a salad or as a sandwich filling.

SAVE POTATOES by taking a little more trouble in preparation. Now that we are at the end of the season, potatoes need rather more care in peeling but peel them *thinly*. Heavy peeling wastes a quarter of the potato before you start, whenever possible don't peel them at all—this makes them more valuable as a food, and keeps the flavour too.

LISTEN TO THE KITCHEN FRONT ON TUESDAY, WEDNESDAY, THURSDAY and FRIDAY at 8.15 a.m.

THE MINISTRY OF FOOD, LONDON, W.1. FOOD FACTS No. 281

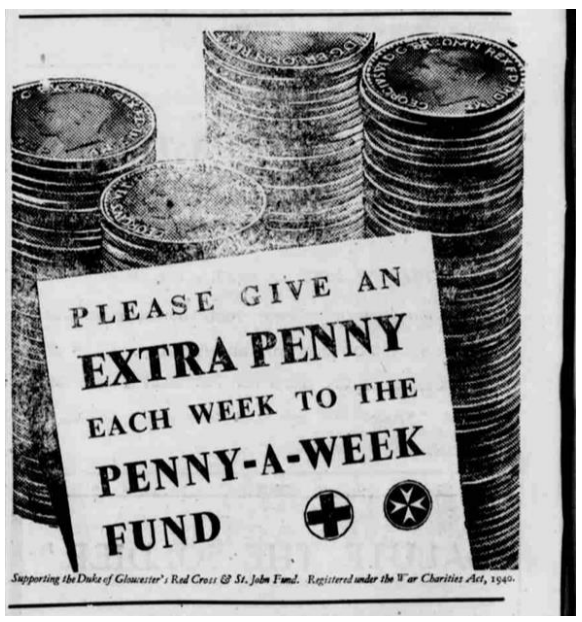
MARRIAGES.

Broomfield—Dancer. — August 26th at St. Mary's Church, Adderbury, by the Rev. T. H. South, L.A.C. SIDNEY GEORGE BROOMFIELD, R.A.F., youngest son of Mr. and Mrs. Broomfield, of Pilly, near Lymington, Hants, to AMY EILEEN DANCER, only daughter of Mr. and Mrs. A. Dancer, The Green, Milton.

Smith—Hubbard.—August 24th at Avon Dassett Parish Church, ALFRED SMITH, eldest son of Mr. and Mrs. C. Smith, of Leicester, to EVELYN MARY HUBBARD, eldest daughter of Mr. and Mrs. J. Hubbard, of Avon Dassett.

ITALIAN PRISONER KILLED BY BULL.

An Italian prisoner, Ernesto Rasi, employed on the farm of Colonel P. R. Worrell, C.B.E., D.S.O., M.C., of Bitham Hall, Avon Dassett, met his death on Monday as the result of being gored by a bull. It appears that he was sent to drive a bull from a field and was found dead by another prisoner about 9 p.m. with multiple injuries. The inquest took place yesterday (Wednesday) when a verdict of death by misadventure was returned.



Supporting the Duke of Gloucester's Red Cross & St. John Fund. Registered under the War Charities Act, 1940.

Avon Dassett Charities

What happened during World War 2

Historically, Charities were set up to help those who would benefit from additional income. Avon Dassett Charities were no exception and, between 1617 and 1780, benefitted from four Charities, three set up by generous persons and one as the result of the enclosure of common-land and the provision of allotments in their place. One Will directs that the money should be given to the industrious poor. The Meeting and Accounts records during the course of WW2 are very sparse but they do give us a brief insight into village life at the time.

Payments to villagers at Christmas continued to be made up to December 1940 by the provision of coal, but it was then decided by the trustees to make the payments in cash, this was due to rationing and the difficulty in obtaining it, as well as the cost. This change became permanent even when the war had finished. A Mr.T.A.Spike, who lived in Avon Dassett, was the coal merchant at the time.

The minutes of the Charities during the war show simple one liner entries but we know from the accounts that contributions were received from Baroness Profumo, Reverend Abbott and Mrs. Worrall.

The war damage compensation scheme was one of the success stories of the war. In October, 1940, when Britain stood virtually alone and the Battle of Britain was being fought in the air, the then Prime Minister, Winston Churchill, announced that a comprehensive war damage scheme would be inaugurated at once.

As a result, in December, 1940, the Chancellor of the Exchequer, Sir Kingsley Wood, introduced the Bill which became the War Damage Act 1941. As Sir Kingsley Wood said at the time, the Bill was an instrument of justice and an Act of social solidarity spreading the burden of the war damage over the whole community. Incidentally, it reflected confidence in ultimate victory.

Over the 1941-1946 period more than £200 million was paid nationally and Avon Dassett Charities paid it's contribution to Region No.9, one of 16 regional offices set up throughout the country to administer the scheme. A yearly sum of 6/6p (six shillings and sixpence, equivalent to £18.52 in today's money) was paid each year, which was calculated on the basis of what property and land was owned.

The Charity trustees over the 1939 – 1945 period were Canon Feist, Frank Stranks, Mrs. Worrall, Mrs. Bullock, Mrs. Sumner and W. Healey.

Although times and circumstances have drastically changed the principles set up many years ago are still upheld today. The Charities continue to provide to state school children, pensioners and needy persons who qualify up to the present day.

D. DAY LANDINGS

BY ROY W JENKINS

Soldiers packed like sardines in this landing Boat
Ramp goes down no longer afloat
Into the water rifles held high
Each man lands with their rifles kept dry.

Adrenalin is high it shows on each mans face
As he faces the carnage that is taking place
Stepping firmly on the sand his life is now in gods own hands
Soon men are falling so sad helplessly on the sand.

Struck down by enemy bullets that fly through the air
They are flying across the beaches everywhere
Facing terrible danger men fight on
To end a war that's gone on too long.

The noise of shells flying over head from our ships out at sea
Bombarding the enemy lines out of sight that one can'tsee
And the stench of gunfire fills the air
Hard to breath man no fresh air .

To paint a true picture of the invasion on D Day
Only men who took part can say
So all we can do is Imagine what it was like someway
And a Big Thank you to you all for giving us life in this world today

TURMOIL ON THE BEACHES

D .DAY

By Roy.W.Jenkins

Gathering together before the fray
Great forces gather before the big day.
Not knowing what lies ahead,
rumours are everywhere it has to be said.

The Big day has arrived at last,
What's facing the forces will be a great task.
To drive the enemy out of sight,
with all their stamina and with all their might.

Military carnage strewn everywhere,
dense black smoke fills the air.
With exploding ordnance all around,
Very little shelter can be found.

Why was D ,Day brought about?
To drive Adolf Hitlers maniacs out.
All over Europe was in his power,
defeating Countries hour by hour.

So Giant Forces throughout the world,
gathered on this fateful day
To drive the mad mans army well away.
this giant forces across the Channel went,
to fight the enemy trench by trench.

We must never forget this great day,
and the terrible price we had to pay.
Human sacrifice in a living hell,
only those who took part could tell.

Let us not forget D.Day; remember it with pride,
The part of WW2 that turned the tide.
To defeat a dictators army,
who the whole world knew he was barmy.

Roy W. Jenkins grew up in Avon Dassett and was the last child to attend the school before it closed.

D-DAY FACTS AND FIGURES

Deployed forces

1,527,000	Number of US soldiers deployed to England on D-Day
287,000	Number of personnel on board allied ships on D-Day
156,115	Number of Allied soldiers and paratroopers engaged in Normandy on June 6, 1944
132,000	Number of Allied soldiers who landed on June 6, 1944
25,000	Number of Allied sailors engaged in Operation Neptune
73,000	Number of British soldiers who landed on June 6, 1944
59,000	Number of US soldiers who landed on June 6, 1944
40,000	Number of German soldiers in the landing areas
34,250	Number of US soldiers disembarked at Omaha Beach on June 6, 1944
28,845	Number of British soldiers disembarked at Sword Beach on June 6, 1944
24,970	Number of British soldiers disembarked at Gold Beach on June 6, 1944
23,250	Number of US soldiers disembarked at Utah Beach on June 6, 1944
21,400	Number of Canadian soldiers disembarked at Juno Beach on June 6, 1944
15,500	Number of Americans parachuted on June 6, 1944
7,900	Number of British paratroopers dropped on June 6, 1944
360	Number of Allied pathfinders dropped over Normandy
225	Number of American Rangers of the 2nd Battalion engaged at Pointe du Hoc on June 6, 1944
177	Number of soldiers of the French commando Kieffer having landed on Sword Beach

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)

Deployed equipment

200,000	Number of beach obstacles installed by the Germans along the Atlantic Wall
200,000	Number of allied vehicles of all kinds landed in Normandy on June 6, 1944
11,590	Number of allied aircraft (hunters, bombers, transport, reconnaissance and gliders)
10,395	Tonnage of allied bombs dropped on Normandy all day of June 6, 1944
9,500	Number of allied attack and support aircraft on D-Day
7,616	Tonnage of allied bombs dropped on Normandy during the night of June 5-6, 1944
6,939	Total number of vessels deployed during Operation Neptune
3,200	Number of vehicles landed on Juno Beach on D-Day
2,218	Number of Allied bombers engaged during the night of June 5-6, 1944
1,900	Number of Allied aircraft and gliders used during the night of June 5-6, 1944
1,742	US vehicles disembarked at Utah Beach on D-Day
1,695	Tonnage of material landed by the Americans in Utah Beach
832	Number of Douglas C-47 Dakota aircraft engaged on the night of June 5-6, 1944
815	Number of German Air Force (*Luftwaffe*) aircraft available on D-Day
200	Number of warships participating in the naval bombardment of 6 June 1944 (battleships, monitors, cruisers and destroyers)

Material losses

120	Number of allied ships damaged (6-30 June 1944)
59	Number of allied ships sunk (from 6 to 30 June 1944)
27	Number of American amphibious tanks sunk at Omaha Beach on D-Day

Missions performed

11,085	Number of missions by the Allied Air Force on 6 June 1944
10,750	Number of Allied Aviation departures during the 24 Hours of D-Day

2 218
Bombardiers lourds alliés engagés
Heavy allied bombers deployed

11 590
Total des avions alliés engagés
Total Allied aircraft deployed

815
Avions allemands disponibles en France
Available German aircraft in France

832
Douglas C-47 engagés
Douglas C-47 deployed

10 395
Tonnes de bombes larguées
Tonnage of bombs dropped

25 500
Marins alliés
Allied sailors

DAY OVERLORD

06.06.1944
www.dday-overlord.com

23 400
Parachutistes alliés
Allied paratroopers

6 939
Total des navires alliés déployés
Total allied ships deployed

200 000
Obstacles de plage
Beach obstacles

15
Nations alliées engagées
Deployed allied Nations

132 000
Soldats alliés débarqués
Landed allied soldiers

40 000
Soldats allemands sur le front
German soldiers on the front

12 500
Véhicules alliés
Allied vehicles

20 500
Pertes alliées et allemandes
Allied and German losses

1 550
Chars alliés
Allied tanks

D-DAY TIMELINE

APRIL 22 1944 :

Allied forces begin Exercise Tiger, a rehearsal for the D-Day invasion

JUNE 06: 6.30am :

American forces land at Omaha Beach

JUNE 06: 7.25am :

British and Free French forces land at Sword Beach in Operation Overlord

Stretching 8km from Ouistreham to Saint-Aubin-sur-Mer, Sword Beach was the farthest east of the landing points during the operation, and around 15km from Caen. The initial landings were achieved with low casualties, but the British forces ran into heavily defended areas behind the beachhead. These were the only Allied landings that faced attack by German Panzer divisions on 6 June 1944.

JUNE 06: 7.35am :

British forces land at Gold Beach

JUNE 06: 7.55am :

Canadian and British forces land at Juno Beach

JUNE 06: 8.30am :

Brécourt Manor assault

JUNE 07 :

The British forces initiate Operation Perch to capture German-occupied Caen

The intention of Operation Perch was to encircle and seize the German-occupied city of Caen, a major Allied objective in the early stages of the invasion of north-west Europe. Fierce German resistance and miscommunication among the British top-brass inhibited the operation, before its objectives were finally achieved.

JUNE 10 :

RAF successfully knocks out Panzer Group West's La Caine headquarters

Three days after the Normandy landings, the new location of Panzer Group West's headquarters was revealed to British intelligence, who had deciphered German signals traffic. On 10 June 1944, aircraft of the Second Tactical Air Force bombed the village. The raid was carried out by 40 rocket-armed Typhoons in three waves from low altitude, and by 61 Mitchells, which dropped 500lb bombs from 12,000ft.

JUNE 11 :

Battle of Le Mesnilpatry

JUNE 13 :

Battle of Bloody Gulch

JUNE 13 :

Battle of Villers-Bocage

During Operation Perch, a Brigade group of the 7th Armoured Division attempted to exploit a gap in the German defences to the west of the city. The British bypassed the frontline, and reached the small town of Villers-Bocage, but the Germans had anticipated the thrust and hastily repositioned their reserves to cover their open flank. As the Brigade group advanced beyond the town, it was ambushed by German heavy tanks, which forced the British to abandon Villers-Bocage for a more defensible position. The Brigade group was withdrawn during the night of 14-15 June.

JUNE 23 :

British forces launch Operation Martlet

JUNE 28 :

Main attack of Operation Epsom

Operation Epsom was plagued by bad weather on 26 June, both at the battlefield itself, where rain had made the ground boggy and there was a heavy mist, and over the United Kingdom during the early hours of the morning, resulting in aircraft being grounded and the planned bombing missions being called off. However, No.83 Group RAF, already based in Normandy, were able to provide air support throughout the operation. The 49th (West Riding) Infantry Division resumed Operation Martlet at 0650, although without significant artillery support as this was diverted to the main operation. The Germans were able to slow the British advance, and then launched an armoured counter. This in turn was halted after a strong start, when British armour moved up, and the two sides engaged in a tank battle in the confined terrain. However, informed during the afternoon that a major British offensive was under way further east, SS-Standartenführer Kurt Meyer of 12th SS Panzer called off the counter-attack, and ordered his tank companies to return to their initial positions south of Rauray. During the rest of the day, the 49th Division was able to make progress, halting just north of Rauray.

JULY 10-12 :

Operation Jupiter

JULY 18 :

Liberation of Caen

By the end of D-Day, the allies had achieved their main goal of carving out a beachhead along the Normandy coast. They were then to move inland, with the Canadians and the British pushing south towards Caen. Caen was not to be an easy prize. From 7-12 June, the 3rd Canadian Division would encounter well-led and effective German troops, including an SS Panzer Division. Caen saw intense combat between Allied and Axis forces. British and Canadian forces finally captured the city on 9 July 1944. After the war, rebuilding took 14 years.

JULY 18-20 :

Operation Goodwood

JULY 19-25 :

Battle of Verrières Ridge

JULY 25-27 :

Operation Spring

AUGUST 07 :

Germans launch a counter-attack

Operation Lüttich was intended to break the Allied offensive in Normandy, and allow the Germans to destroy the Allied forces there. The operation was code-named Lüttich (Liège), the point at which Ludendorff had opened the way for the great German march of encirclement across the rear of the French army exactly 30 years before.

AUGUST 14-21 :

Operation Tractable

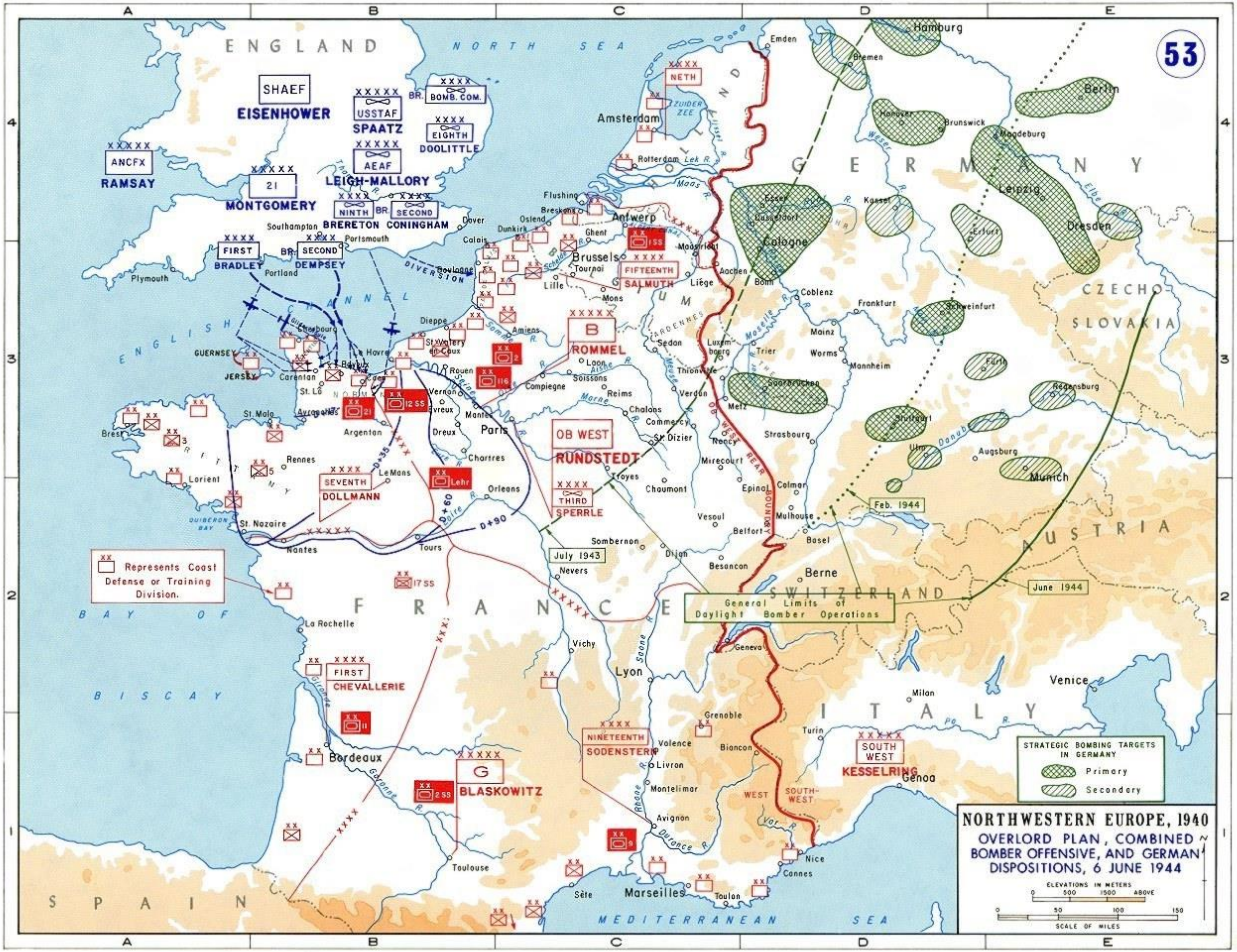
AUGUST 21 :

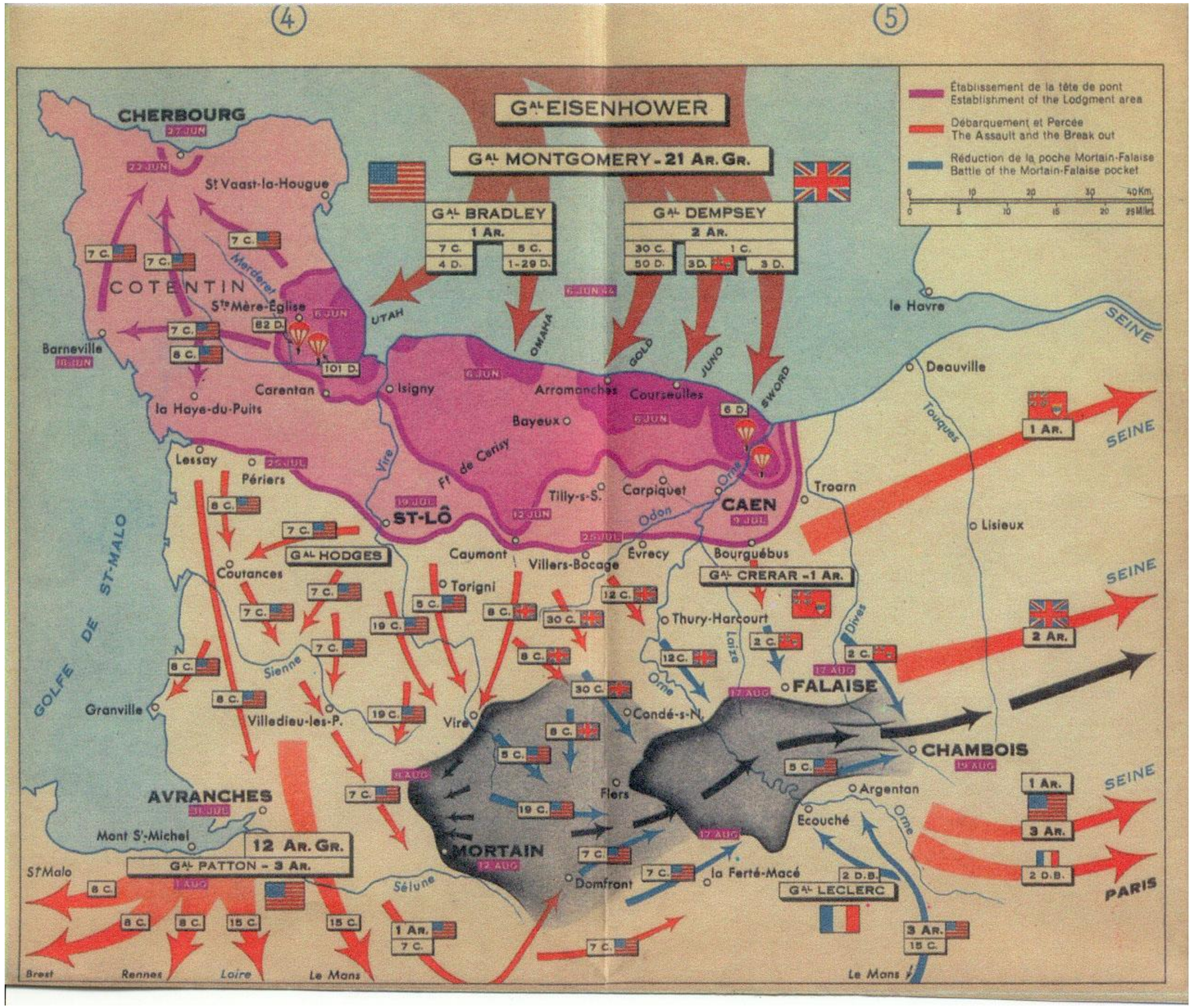
German position in Normandy collapses after fierce fighting at Hill 262

Hill 262 or Mont Ormel Ridge, nicknamed ‘The Mace’ (elevation 262m), was the location of a pivotal engagement fought as part of the wider battle of the Falaise Pocket during the Normandy campaign. The German Seventh Army had found itself surrounded by the Allies near the town of Falaise, and the Mont Ormel Ridge, with its commanding view of the area, sat astride the Germans’ only escape route. Polish forces seized the ridge’s northern height on 19 August 1944, and, despite being isolated and coming under sustained attack, held it until noon on 21 August, contributing greatly to the decisive Allied victory that followed.

AUGUST 25 :

Liberation of Paris


53
NORTHWESTERN EUROPE, 1940
OVERLORD PLAN, COMBINED BOMBER OFFENSIVE, AND GERMAN DISPOSITIONS, 6 JUNE 1944
ELEVATIONS IN METERS
0 500 1500 ABOVE
0 50 100 150
SCALE OF MILES
STRATEGIC BOMBING TARGETS IN GERMANY
Primary
Secondary
Represents Coast Defense or Training Division.
General Limits of Daylight Bomber Operations
July 1943
Feb. 1944
June 1944
SHAEF
EISENHOWER
USSTAF
SPAATZ
BR. BOMB. COM.
EIGHTH
DOOLITTLE
ANCFX
RAMSAY
21
MONTGOMERY
AEAF
LEIGH-MALLORY
NINTH
BRERETON
BR. SECOND
CONINGHAM
FIRST
BRADLEY
BR. SECOND
DEMPSEY
DIVERSION
D+35
D+60
D+90
NETH
FIFTEENTH
SALMUTH
B
ROMMEL
OB WEST
RUNDSTEDT
THIRD
SPERRLE
SEVENTH
DOLLMANN
FIRST
CHEVALLERIE
G
BLASKOWITZ
NINETEENTH
SODENSTERN
SOUTH WEST
KESSELRING
1 SS
2
116
21
12 SS
Lehr
17 SS
11
2 SS
9
OB WEST REAR BOUNDARY
WEST
SOUTH-WEST
ENGLAND
NORTH SEA
ENGLISH CHANNEL
BAY OF BISCAY
MEDITERRANEAN SEA
GERMANY
FRANCE
SWITZERLAND
ITALY
AUSTRIA
CZECHO-SLOVAKIA
SPAIN
BRITTANY
NORMANDY
Plymouth
Portland
Southampton
Portsmouth
Dover
GUERNSEY
JERSEY
Cherbourg
Carentan
St. Lo
Avranches
St. Malo
Brest
Lorient
Rennes
St. Nazaire
Nantes
Le Mans
Argentan
Caen
Le Havre
Rouen
Dieppe
Amiens
Boulogne
Calais
Dunkirk
Ostend
Flushing
Breskens
Antwerp
Ghent
Brussels
Tournai
Lille
Mons
Liège
Aachen
Maastricht
Amsterdam
Rotterdam
ZUIDER ZEE
Emden
Bremen
Hamburg
Hannover
Brunswick
Magdeburg
Berlin
Kassel
Essen
Dusseldorf
Cologne
Bonn
Coblenz
Frankfurt
Erfurt
Leipzig
Dresden
Schweinfurt
Mainz
Worms
Mannheim
Fürth
Regensburg
Stuttgart
Ulm
Augsburg
Munich
Saarbrucken
Trier
Luxembourg
Sedan
Thionville
Metz
Verdun
Nancy
Strasbourg
Colmar
Mulhouse
Basel
Belfort
Epinal
Mirecourt
St. Dizier
Chalons
Commercy
Reims
Laon
Soissons
Compiegne
Paris
Vernon
Evreux
Mantes
Dreux
Chartres
Orleans
Tours
Troyes
Chaumont
Vesoul
Dijon
Besancon
Sombernon
Nevers
Vichy
Lyon
Geneva
Berne
Grenoble
Valence
Livron
Montelimar
Avignon
Marseilles
Toulon
Cannes
Nice
Sète
Toulouse
Bordeaux
La Rochelle
Turin
Milan
Genoa
Venice
Biancon
Seine R.
Somme R.
Loire R.
Marne R.
Aisne R.
Meuse R.
Moselle R.
Saone R.
Rhone R.
Durance R.
Garonne R.
Gironde
Danube R.
Elbe R.
Weser R.
Maas R.
Lek R.
Po R.
Var R.
ARDENNES
QUIBERON BAY


Gal EISENHOWER
Gal MONTGOMERY - 21 Ar. Gr.
Gal BRADLEY
1 Ar.
7 C.
5 C.
4 D.
1-29 D.
Gal DEMPSEY
2 Ar.
30 C.
1 C.
50 D.
3 D.
3 D.
Établissement de la tête de pont
Establishment of the Lodgment area
Débarquement et Percée
The Assault and the Break out
Réduction de la poche Mortain-Falaise
Battle of the Mortain-Falaise pocket
0 10 20 30 40 Km
0 5 10 15 20 25 Miles
CHERBOURG
27 JUN
22 JUN
St Vaast-la-Hougue
7 C.
7 C.
7 C.
Merderet
COTENTIN
Ste Mère-Église
6 JUN
82 D.
101 D.
7 C.
8 C.
Barneville
18 JUN
Carentan
la Haye-du-Puits
UTAH
OMAHA
GOLD
JUNO
SWORD
6 JUN 44
6 JUN
Isigny
Arromanches
Courseulles
6 D.
6 JUN
Bayeux
Vire
Fl de Cerisy
Lessay
22 JUL
Périers
8 C.
7 C.
Gal HODGES
Coutances
Tilly-s-S.
Carpiquet
Odon
CAEN
9 JUL
ST-LÔ
10 JUL
13 JUN
25 JUL
Caumont
Villers-Bocage
Évrecy
Bourguébus
Gal CRERAR - 1 Ar.
Torigni
8 C.
12 C.
30 C.
Thury-Harcourt
2 C.
12 C.
Laize
Dives
2 C.
17 AUG
FALAISE
Orne
Condé-s-N.
Granville
Villedieu-les-P.
19 C.
Vire
CHAMBOIS
12 AUG
Flers
Argentan
Écouché
AVRANCHES
31 JUL
Mont St-Michel
12 Ar. Gr.
Gal PATTON - 3 Ar.
MORTAIN
12 AUG
Domfront
la Ferté-Macé
2 D.B.
Gal LECLERC
St Malo
1 AUG
Sélune
Brest
Rennes
Loire
Le Mans
15 C.
1 Ar.
3 Ar.
Le Mans
le Havre
SEINE
Deauville
Touques
Troarn
Lisieux
1 Ar.
2 Ar.
3 Ar.
2 D.B.
PARIS
GOLFE DE ST-MALO

OMAHA BEACH-EAST (Colleville-sur-Mer)

SCALE 1:7920 (8"=1 mile; 1"=220 yds.)

Map from GSGS 4490, sheets 79 & 80 and air photo examination. Grid square equals 1 kilometer (1000 meters).

Contours shown are at 10 meter (approx. 33 ft.) intervals above mean sea level, which is 13 ft. above low low water.

COLLEVILLE-SUR-MER

St. Laurent-sur-Mer

Cabourg

les Moulins

BAIE DE LA SEINE

A.T. ditch, with some parts flooded – 20' average width

A.T. ditch 12' wide

A.T. ditch with some parts flooded average width 18'

A.T. ditch with some parts flooded-18' average width.

HEDGEHOGS

NOTE: Hedgehogs are not placed in definite rows. The closure indicates their extent. The number of hedgehogs is shown between the indicated dimensions.

ELEMENT C

STAKES

STAKES AT RANDOM

RAMPS

ELEMENT

HEDGEHOGS

LOW LOW WATER MARK

DEPTH OF WATER OVER SANDBARS BELOW L.L.W. LEVEL UNCERTAIN

FLOOD CURRENT

2.2 KNOTS MAXIMUM DURING SPRING TIDES

(SEE CURRENT TABLES ON REVERSE SIDE OF THIS SHEET)

1.3 KNOTS MAXIMUM DURING NEAP TIDES

EBB CURRENT

1.2 KNOTS MAXIMUM DURING NEAP TIDES

(SEE CURRENT TABLES ON REVERSE SIDE OF THIS SHEET)

2.1 KNOTS MAXIMUM DURING SPRING TIDES

GRID SECTION

RESERVOIR

SPOT ELEV. 62 METERS

SPOT ELEV. 54 METERS

Lat 49°21'N

Long 0°50'W

Lat 49°22'30"N

Long 0°53'W

Boysux 10.7 mi.

Colleville-sur-Mer 1.7 mi.

Formigny 2.4 mi.

Port-en-Bessin 4 mi.

Vierville-sur-Mer 1 mi.

This sheet joins OMAHA BEACH-WEST (Vierville-sur-Mer) at this edge – NO OVERLAP

RUINS OF HOUSE 696890

COLLEVILLE-SUR-MER CHURCH 696882

VALLEY

VALLEY OF RIVER RUQUET

CONSTRUCTION AGTIVITY 669902

LES MOULINS

WESTERN LIMIT OF ROCKS AND CLIFFS AT 696893 — EXTEND EASTWARD 1½ MILES

BEACH EXIT 697893

HOUSE 693893

BEACH EXIT 693894

HOUSE 689893

BEACH EXIT 688896

RUINS 684897

RUINS OF HOUSE 676900

HOUSE 676901

RUINS 671903

HOUSE 667906

LEGEND

AREAS WITH NO SYMBOLS PRINTED OVER THEM ARE GENERALLY OPEN FIELDS

SUPER HIGHWAY - - - 8 meters (26 ft.) or more wide
PAVED ROAD - - - - - 6 to 8 meters (20-26 ft.) wide
PAVED ROAD - - - - - 3 to 6 meters (10-20 ft.) wide
SECONDARY ROAD - 3 to 6 meters wide, unpaved
OTHER ROADS - - - - 3 meters (10 ft.) max. width
TRACKS & PATHS of Military significance
RAILROAD (Number of lines indicates number of tracks)
ELECTRIC RAILWAY or STREET CAR
BUILDING
CHURCH
WATER TOWER
LIGHTHOUSE
SEAWALL
RUINS
STONE WALL
CEMETERY
DEPRESSION or PIT
SPRING
RIVER → DIRECTION of WATER FLOW
STREAM-Large
STREAM-Small
DRAINAGE DITCH or CANAL (WITH BRIDGE)
GRAVEL or SHINGLE

OVERFLOWED LAND
TIDAL FLATS or MUD FLATS
MARSH LAND
TREES Density of symbol indicates density of growth
ORCHARD
HEDGES
BUSHES
GRASSY AREA
SAND DUNES or SAND BARS
SAND
CLIFFS (40°-90°)
SLOPES (15°-40°)
ROCKY CLIFFS or LEDGES

WARNING: USE ALL SOUNDINGS AND BEACH CONTOURS WITH CAUTION. (See note on reverse side.)

LOW WATER SOUNDINGS AND CONTOURS
LOW LOW WATER MARK
3 ft. line (½ fathom) — 18 ft. line (3 fathoms)
6 ft. line (1 fathom) — 24 ft. line (4 fathoms)
12 ft. line (2 fathoms) — 36 ft. line (6 fathoms)
All sounding datum is reduced to approximate level of lowest possible low water. Brown figures are low low water soundings in feet. Circled brown figures indicate height of beach in feet above low low water.

HIGH WATER SOUNDINGS AND CONTOURS
HIGH HIGH WATER MARK
3 ft. line (½ fathom) — 18 ft. line (3 fathoms)
6 ft. line (1 fathom) — 24 ft. line (4 fathoms)
12 ft. line (2 fathoms) — 36 ft. line (6 fathoms)
High water fathom lines are shown only between high high and low low water marks to serve as beach contours.

Panoramic shoreline sketch above shows beach as seen from water level height, approximately 2000 yards offshore, with sea at about 15 feet above low low water.

NOTE to COXSWAIN or NAVIGATOR

Building landmarks, especially near the beach, may be destroyed before any craft land. Terrain features, therefore, are much more reliable for visual navigation from panoramic shoreline sketch above. Green solid and broken lines with letter at each end on chart above refer to Beach Gradients on reverse side of this sheet. Also on reverse side are Sunlight and Moonlight Table, data on Inshore Currents and Tidal Stages.

PREPARED BY COMMANDER TASK FORCE 122, APRIL 21, 1944

LEGEND

BEACH OBSTACLES:
HEDGEHOGS
ELEMENT C
LOG RAMPS
CURVED RAILS
STAKES
NOTE: Where spacing permits obstacles are plotted individually as dots and labeled.
ANTI-TANK DITCH
ROAD BLOCKS
MINE FIELDS:
FROM AIR COVER
REPORTED FIELDS
OR SCATTERED MINES
PROBABLE MINES
NUMBER OF ROWS
DISTANCE BETWEEN ROWS
SPACING OF MINES IN ROWS
SIMPLE, FOUR ROW MINE FIELD OF THIS PATTERN

METER SCALE 500 400 300 200 100 0 500 1000 METERS (1 METER = 3.3 FEET)

YARD SCALE 500 400 300 200 100 0 500 1000 YARDS

GRID REFERENCE SCALE 0 1 2 3 4 5 6 7 8 9 10

This scale can be used to accurately measure tenths eastward or northwards in any grid square on the map.

LONGITUDE SCALE 0" 10" 20" 30" 40" 50" 60"

LATITUDE SCALE 0 10" 20" 30"

These scales can be used to accurately measure seconds of latitude or longitude using latitude and longitude squares on the map.

FIRST BEACH OBSTACLE OVERPRINT - Information as of 12 May

TOP SECRET - BIGOT

UNTIL DEPARTURE FOR COMBAT OPERATIONS--THEN THIS SHEET BECOMES RESTRICTED

SUNLIGHT AND MOONLIGHT TABLE

MAY 25 TO JUNE 21, 1944

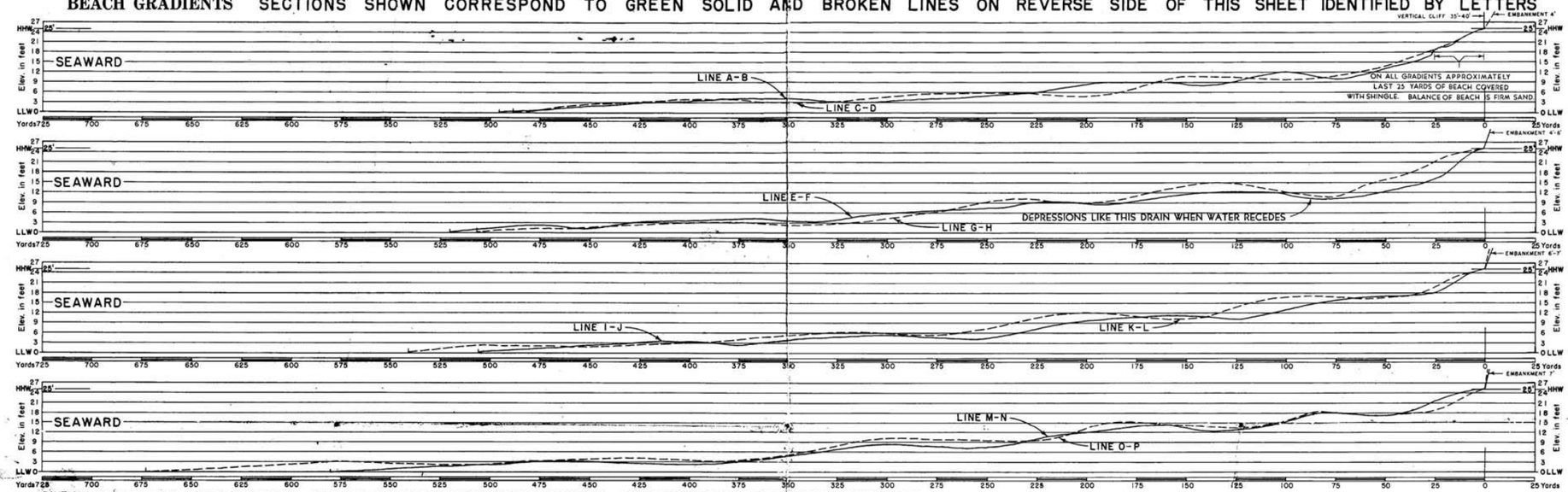
ALL TIMES SHOWN ARE MST (GMT PLUS 2 HOURS)

FIRST LIGHT and LAST LIGHT are here defined as the beginning and ending respectively of Civil Twilight (Sun 6° below the horizon).

	MAY							JUNE																			
DAY OF MONTH	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
FIRST LIGHT	0528	0527	0526	0525	0524	0523	0522	0521	0520	0519	0518	0517	0516	0516	0516	0515	0514	0514	0514	0513	0513	0513	0512	0512	0512	0512	0512	0513
SUNRISE	0608	0607	0606	0605	0604	0604	0603	0602	0601	0601	0600	0559	0558	0558	0558	0557	0557	0557	0557	0557	0557	0556	0556	0556	0557	0557	0557	0557
SUNSET	2154	2155	2156	2157	2159	2200	2201	2202	2203	2204	2205	2206	2207	2208	2208	2209	2210	2210	2211	2211	2212	2212	2212	2213	2213	2214	2214	2214
LAST LIGHT	2234	2235	2237	2238	2239	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2255	2256	2256	2256	2257	2257	2257	2258
MOONRISE	*0853*	*0948*	*1048*	*1150*	*1252*	*1356*	*1459*	*1603*	*1708*	*1815*	*1924*	*2033*	*2144*	2250	2351		0043	0126	0202	0232	0258	0324	0349	0415	0444	*0517*	*0556*	*0642*
MOONSET	0011	0102	0145	0220	0250	0315	0337	0359	0419	0441	0504	*0531*	*0604*	*0643*	*0742*	*0831*	*0940*	*1054*	*1211*	*1329*	*1445*	*1602*	*1715*	*1832*	*1945*	*2054*	*2158*	*2254*
PHASE OF MOON	)	)	)	)	)	1ST QTR)	)	●	●	●	●	●	FULL MOON ●	●	●	●	●	●	(	LAST QTR (	(	(	(	(	(	(	NEW MOON	

Moonrise and Moonset figures in *italic* indicate that moonrise and/or moonset occur during daylight, i.e., between First Light and Last Light.

BEACH GRADIENTS SECTIONS SHOWN CORRESPOND TO GREEN SOLID AND BROKEN LINES ON REVERSE SIDE OF THIS SHEET IDENTIFIED BY LETTERS



CAUTION: The vertical scale is *5 times* the horizontal scale. HHW on each graph represents approximate highest possible high water. LLW on each graph represents approximate lowest possible low water.

CURRENTS

The currents in this region are complex and their detailed behavior little known. In general, they flow eastward along the shore as the tide rises, reach a maximum about half tide, become slack during high water stand and then reverse, flowing westward as the tide falls, again reaching a maximum at about half tide and becoming slack near the time of low water. Maximum currents are experienced during spring tides and minimum currents, during neap tides. Maximum currents attain velocities of about 2.7 knots at a distance of five miles offshore and decrease as they approach the shore, becoming about 2.2 knots at a distance of one mile offshore. The currents slack and reverse directions somewhat sooner near the shore than to seaward. Closer inshore than one mile, the current directions become more confused as the depths decrease, but in general, the velocities also decrease, and it is reasonable to assume that they become insignificant at the proposed grounding points. The following table of currents has been compiled from all the available information. The listed values have been estimated from measured values at other points along the coast, and so should be treated as estimates only. Strong and persistent winds may cause considerable departure from the average values shown in the table.

ESTIMATED INSHORE CURRENTS

Use with caution

Time Referred to the end of High Water Stand (see tide curves)	Set	5 Miles Out Drift Kts During Spring Tides	5 Miles Out Drift Kts During Neap Tides	Set	3½ Miles Out Drift Kts During Spring Tides	3½ Miles Out Drift Kts During Neap Tides	Set	1 Mile Out Drift Kts During Spring Tides	1 Mile Out Drift Kts During Neap Tides
6 hours before	E	0.2	0.1	E	0.5	0.3	E	0.7	0.4
5 hours before	E	1.8	1.1	E	2.1	1.2	E	1.8	1.1
4 hours before	E	2.7	1.6	E	2.5	1.5	E	3.2	1.3
3 hours before	E	3.6	1.5	E	2.2	1.3	E	1.8	1.1
2 hours before	E	1.6	0.9	E	1.1	0.6	E	0.7	0.4
1 hour before	E	0.7	0.4	E	0.2	0.1	W	0.3	0.2
End of high water stand	W	0.1	0.1	W	0.8	0.5	W	1.2	0.7

Time Referred to the end of High Water Stand (see tide curves)	Set	5 Miles Out Drift Kts During Spring Tides	5 Miles Out Drift Kts During Neap Tides	Set	3½ Miles Out Drift Kts During Spring Tides	3½ Miles Out Drift Kts During Neap Tides	Set	1 Mile Out Drift Kts During Spring Tides	1 Mile Out Drift Kts During Neap Tides
End of high water stand	W	0.1	0.1	W	0.8	0.5	W	1.3	0.7
1 hour after	W	2.3	1.4	W	2.1	1.2	W	1.7	1.0
2 hours after	W	2.7	1.6	W	2.5	1.5	W	2.0	1.2
3 hours after	W	2.7	1.6	W	2.5	1.5	W	2.0	1.2
4 hours after	W	2.5	1.5	W	2.1	1.2	W	1.7	1.0
5 hours after	W	1.3	0.8	W	1.0	0.6	W	0.6	0.3
6 hours after	W	0.2	0.1	W	Slack	0	W	0.3	0.1

Example of the Use of the Current Table

Suppose that it is desired to determine the inshore currents at 0600 MST on 10 June.

From the tidal curves below, it is seen that 10 June low about one third between spring and neap tides, the last spring tide having occurred on 8 June and the next neap tide being expected on 14 June; the end of high water stand on 10 June is seen to be 0225 MST. Since 0600 is 3 hours and 35 minutes after the end of high water stand, the current table is entered with this value, and the probable currents found to be between 2.6 and 1.5 knots at five miles offshore, between 2.3 and 1.3 knots at two and one half miles offshore, between 1.8 and 1.1 knots at one mile offshore. Closer interpolation is not warranted in general, but may be made, if desired, to allow for the period from the last spring tide. If this is done, the most probable values of 2.2 knots, 2.0 knots, and 1.4 knots, are found for five miles, two and one half miles and one mile offshore, respectively.

TIDAL STAGES

ALL TIMES SHOWN ARE M.S.T. (G.M.T. PLUS 2 HOURS)

The accompanying tidal curves show the height of the water at any time above the approximate level of lowest low water. Soundings are shown on the chart in plain brown figures (not circled) and they represent depths measured at lowest low water. To find the depth at these points at any time:

(1) Find the height of the tide in feet at the time in question, from the tidal curve.

(2) ADD the sounding figure to height of tide. The sum gives the depth of water in feet at the time and place in question.

FOR EXAMPLE: At 1000 on June 9th the height of tide is 13 ft. The sounding figure at the point we select is 15 ft.; 15 ft. plus 13 ft. equals 28 ft. depth.

The circled brown figures in the water area between the high high and low low water marks represent points which are sometimes above water. These figures give the height of the beach in feet above the approximate level of lowest low water. To find the depth of water at any time over these points, proceed as follows:

(1) Find the height of the tide in feet at the time in question from the tidal curve.

(2) SUBTRACT the circled brown figure from the height of tide. The result is the depth of water in feet at the time and place in question. If the circled brown figure is greater than the height of the tide and cannot be subtracted, it means that the point will be above water at this time.

FOR EXAMPLE: At 0130 on June 21st the height of tide is 20.5 ft. The beach height figure at the point we select is 9 ft.; 20.5 ft. minus 9 ft. equals 11.5 depth.

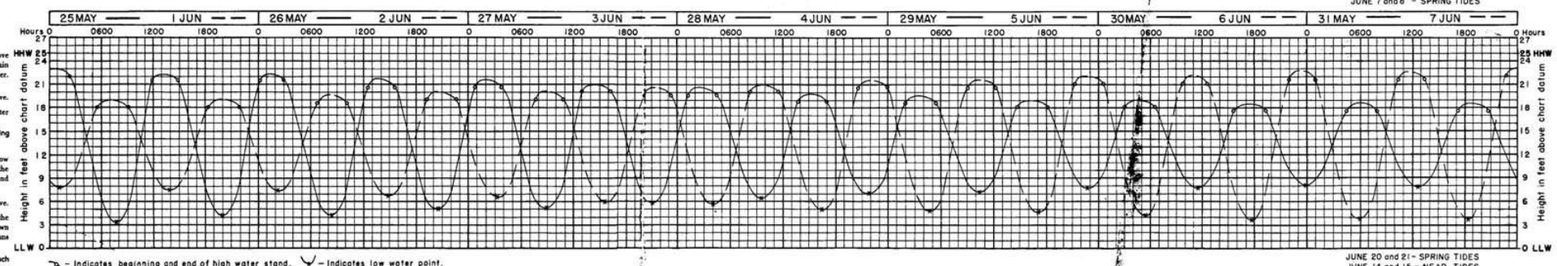
The soundings on the high water fathom lines (figures in blue on chart) should not be used to compute spot depths. The high water fathom lines are shown on the chart merely to give an idea of the underwater beach contours between the high high water and low low water marks.

WARNING ON TIDAL, SOUNDING AND BEACH CONTOUR FIGURES

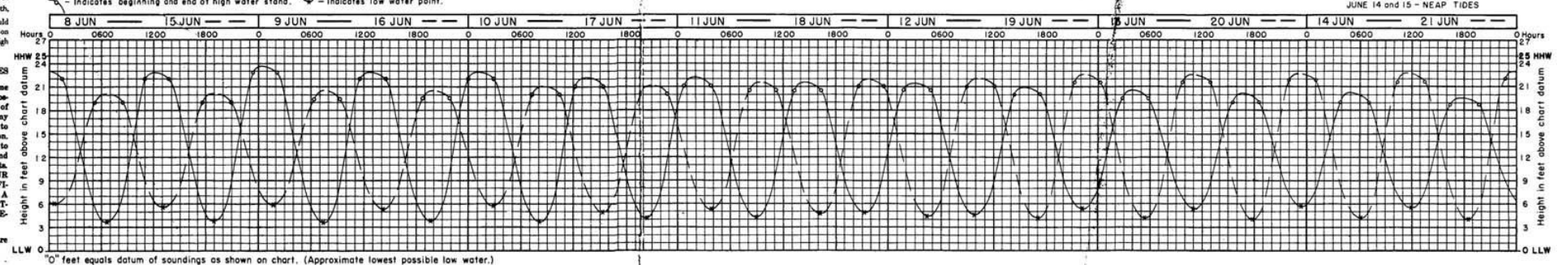
Any tidal, sounding and beach contour figures, even for familiar home waters, are only approximate. The combined influence of wind and atmospheric pressure alone may cause variations from the predicted heights of high water and low water, amounting to as much as 1½ feet. For enemy waters these figures are likely to be even more subject to error due to difficulties of obtaining recent accurate tidal and sounding information. Beach Gradients based on such sounding figures may also be subject to inaccuracies. Tides may form grooves and ridges in the sand parallel and perpendicular to the beach which will not show on navigation charts. THEREFORE, USE ALL TIDAL, SOUNDING AND BEACH CONTOUR FIGURES WITH EXTREME CAUTION. ALWAYS ALLOW A SUFFICIENT SAFETY FACTOR BY FIGURING THE WATER MAY BE A FEW FEET SHALLOWER THAN CALCULATED. WHEN NAVIGATING NEAR ROCKS OR SANDBARS ALLOW AN ADDITIONAL SAFETY FACTOR.

IMPORTANT: All soundings on chart and all readings on graphs are in FEET.

MAY 30 and 31 – NEAP TIDES
JUNE 7 and 8 – SPRING TIDES



JUNE 20 and 21 – SPRING TIDES
JUNE 14 and 15 – NEAP TIDES



6 June 1944 - D - Day
In honor of my uncles
of the 110th F.A., 28th. Inf. Div.
T/5 Harry F. Green
Col. David Green

Tim Roop
P.O. Box 2602
Ocean City, MD. 21842

OMAHA BEACH-WEST (Vierville-sur-Mer)

Contours shown are at 10 meter (approx. 33 ft.) intervals above mean sea level, which is 13 ft. above low low water.

SCALE 1:7920 (8"=1 mile; 1"=220 yds.)

Map from GSGS 4490, sheets 79 & 80 and air photo examination. Grid square equals 1 kilometer (10000 meters).

METER SCALE 1 METER = 3.3 FEET

YARD SCALE

GRID REFERENCE SCALE This scale can be used to accurately measure tenths eastward or northwards in any grid square on the map.

LONGITUDE SCALE

LATITUDE SCALE

These scales can be used to accurately measure seconds of latitude or longitude using latitude and longitude squares on the map.

TOP SECRET - BIGOT UNTIL DEPARTURE FOR COMBAT OPERATIONS--THEN THIS SHEET BECOMES RESTRICTED

VIERVILLE-SUR-MER

Hamel au Prêtre

Gruchy

le Haut Chemin

Pointe et Raz de la Percée

Mines reported every 30' Three rows

Wall, sloping face (40°) 6' to 10' high

Wall steep-faced 4 to 8' high

Vertical Wall across road 12' to 14' high

CLIFFS MINED

RETARDS

RAMPS

Element "C"

Stakes

Ramps

TOWER

LOW LOW WATER MARK

SANDBAR REPORTED ABOVE LOW LOW WATER LEVEL

EXACT LOCATION OF ROCKS AND POSITION OF L.W. MARK IN THIS AREA UNCERTAIN

DEPTH OF WATER OVER SANDBARS BELOW LOW LOW WATER LEVEL UNCERTAIN

FLOOD CURRENT 2.8 KNOTS MAXIMUM DURING SPRING TIDES 1.3 KNOTS MAXIMUM DURING NEAP TIDES (SEE CURRENT TABLES ON REVERSE SIDE OF THIS SHEET)

EBB CURRENT 2.0 KNOTS MAXIMUM DURING SPRING TIDES 1.2 KNOTS MAXIMUM DURING NEAP TIDES (SEE CURRENT TABLES ON REVERSE SIDE OF THIS SHEET)

MAGNETIC NORTH 13° W 1944

BAIE DE LA SEINE

FIRST BEACH OBSTACLE OVERPRINT - Information as of 12 May

LEGEND

BEACH OBSTACLES:
- HEDGEHOGS
- TETRAHEDRONS
- ELEMENT "C"
- LOG RAMPS
- CURVED RAILS
- STAKES

NOTE: Where spacing permits obstacles are plotted individually as dots and labeled.

- ANTI-TANK DITCH
- ROAD BLOCK
- MINEFIELDS:
  - FROM AIR COVER
  - REPORTED FIELDS OR SCATTERED MINES
  - PROBABLE MINE FIELDS
  - NUMBER OF ROWS
  - DISTANCE BETWEEN ROWS
  - SPACING OF MINES
  - SIMPLE FOUR ROW MINE FIELD OF THIS PATTERN (N - 4, D - 13', S - 13')

AREAS WITH NO SYMBOLS PRINTED OVER THEM ARE GENERALLY OPEN FIELDS

LEGEND

- SUPER HIGHWAY - - - 8 meters (26 ft.) or more wide
- PAVED ROAD - - - - - 6 to 8 meters (20-26 ft.) wide
- PAVED ROAD - - - - - 3 to 6 meters (10-20 ft.) wide
- SECONDARY ROAD - - 3 to 6 meters wide, unpaved
- OTHER ROADS - - - - 3 meters (10 ft.) max. width
- TRACKS & PATHS of Military significance
- RAILROAD (Number of lines indicates number of tracks)
- ELECTRIC RAILWAY or STREET CAR
- BUILDING
- CHURCH
- WATER TOWER
- LIGHTHOUSE
- SEAWALL
- RIVER
- STREAM-Large
- STREAM-Small
- DRAINAGE DITCH or CANAL (WITH BRIDGE)
- RUINS
- STONE WALL
- CEMETERY
- DEPRESSION or PIT
- SPRING
- DIRECTION of WATER FLOW
- GRAVEL or SHINGLE
- OVERFLOWED LAND
- TIDAL FLATS or MUD FLATS
- MARSH LAND
- TREES Density of symbol indicates density of growth
- ORCHARD
- HEDGES
- BUSHES
- GRASSY AREA
- SAND DUNES or SAND BARS SAND
- CLIFFS (40°-90°)
- SLOPES (15°-40°)
- ROCKY CLIFFS or LEDGES

WARNING: USE ALL SOUNDINGS AND BEACH CONTOURS WITH CAUTION. (See note on reverse side.)

LOW WATER SOUNDINGS AND CONTOURS
LOW LOW WATER MARK
- 3 ft. line (½ fathom)
- 6 ft. line (1 fathom)
- 12 ft. line (2 fathoms)
- 18 ft. line (3 fathoms)
- 24 ft. line (4 fathoms)
- 36 ft. line (6 fathoms)

All sounding datum is reduced to approximate level of lowest possible low water. Brown figures are low low water soundings in feet. Circled brown figures indicate height of beach in feet above low low water.

HIGH WATER SOUNDINGS AND CONTOURS
HIGH HIGH WATER MARK
- 3 ft. line (½ fathom)
- 6 ft. line (1 fathom)
- 12 ft. line (2 fathoms)
- 18 ft. line (3 fathoms)
- 24 ft. line (4 fathoms)
- 36 ft. line (6 fathoms)

High water fathom lines are shown only between high high and low low water marks to serve as beach contours.

Panoramic shoreline sketch above shows beach as seen from water level height, approximately 2000 yards offshore, with sea at about 16 feet above low low water

RUINS 663918 — HOUSE 659909 — SEAWALL & RETARDS 662909 — 659916 — HAMEL AU PRETRE — 655913 — HOUSE 654913 — SEAWALL — ROCKS 659916 — VIERVILLE-SUR-MER CHURCH 647910 — 16' TARMAC ROAD — RETARDS 649917 — VALLEY HOUSE 644913 — 647918 — HOUSE 645920 — EASTERN LIMIT OF ROCKS AT 646920, EXTEND WESTWARD 11 MILES — 30' TOWER 638926 — PONTE ET RAZ DE LA PERCEE

NOTE to COXSWAIN or NAVIGATOR

Building landmarks, especially near the beach, may be destroyed before any craft land. Terrain features, therefore, are much more reliable for visual navigation from panoramic shoreline sketch above. Green solid and broken lines with letter at each end on chart above refer to Beach Gradients on reverse side of this sheet. Also on reverse side are Sunlight and Moonlight Table, data on Inshore Currents and Tidal Stages.

PREPARED BY COMMANDER TASK FORCE 122, APRIL 21, 1944

This sheet joins OMAHA BEACH-EAST (Colleville-sur-Mer) at this edge — NO OVERLAP

SUNLIGHT AND MOONLIGHT TABLE

MAY 25 TO JUNE 21, 1944

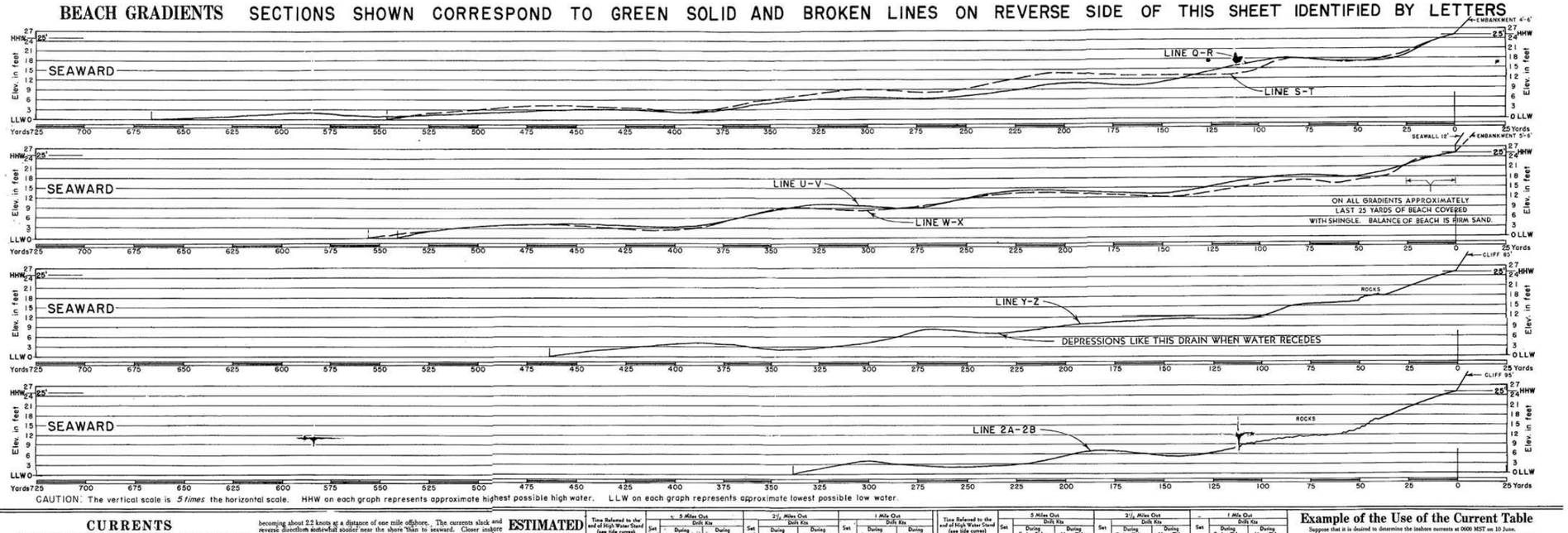
ALL TIMES SHOWN ARE MST (GMT PLUS 2 HOURS)

FIRST LIGHT and LAST LIGHT are here defined as the beginning and ending respectively of Civil Twilight (Sun 6° below the horizon).

DAY OF MONTH	MAY 25	26	27	28	29	30	31	JUNE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
FIRST LIGHT	0528	0527	0526	0525	0524	0523	0522	0521	0520	0519	0518	0517	0516	0516	0516	0515	0514	0514	0514	0513	0513	0513	0512	0512	0512	0512	0512	0513
SUNRISE	0608	0607	0606	0605	0604	0604	0603	0602	0601	0601	0600	0559	0558	0558	0558	0557	0557	0557	0557	0557	0557	0556	0556	0556	0557	0557	0557	0557
SUNSET	2154	2155	2156	2157	2159	2200	2201	2202	2203	2204	2205	2206	2207	2208	2208	2209	2210	2210	2211	2211	2212	2212	2212	2213	2213	2214	2214	2214
LAST LIGHT	2234	2235	2237	2238	2239	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2255	2256	2256	2256	2257	2257	2257	2258
MOONRISE	*0853*	*0948*	*1048*	*1150*	*1252*	*1356*	*1459*	*1603*	*1708*	*1815*	*1924*	*2033*	*2144*	2250	2351		0043	0126	0202	0232	0258	0324	0349	0415	0444	*0517*	*0556*	*0642*
MOONSET	0011	0102	0145	0220	0250	0315	0337	0359	0419	0441	0504	*0531*	*0604*	*0643*	*0742*	*0831*	*0940*	*1054*	*1211*	*1329*	*1445*	*1602*	*1715*	*1832*	*1945*	*2054*	*2158*	*2254*
PHASE OF MOON						FIRST QTR						FULL MOON								LAST QTR						NEW MOON		

Moonrise and Moonset figures in *italic* indicate that moonrise and/or moonset occur during daylight, i.e., between First Light and Last Light.

BEACH GRADIENTS SECTIONS SHOWN CORRESPOND TO GREEN SOLID AND BROKEN LINES ON REVERSE SIDE OF THIS SHEET IDENTIFIED BY LETTERS



CAUTION: The vertical scale is *5 times* the horizontal scale. HHW on each graph represents approximate highest possible high water. LLW on each graph represents approximate lowest possible low water.

CURRENTS

The currents in this region are complex and their detailed behavior little known. In general, they flow eastward along the shore as the tide rises, reach a maximum about half tide, become slack during high water stand and then reverse, flowing westward as the tide falls, again reaching a maximum at about half tide and becoming slack near the time of low water. Maximum currents are, experienced during spring tides and minimum currents, during neap tides. Maximum currents attain velocities of about 2.7 knots at a distance of five miles offshore and decrease as they approach the shore, becoming about 2.2 knots at a distance of one mile offshore. The currents slack and reverse direction somewhat sooner near the shore than to seaward. Closer inshore than one mile, the current directions become more confused as the depths decrease, but in general, the velocities also decrease, and it is reasonable to assume that they become insignificant at the proposed grounding points. The following table of currents has been compiled from all the available information. The listed values have been estimated from measured values at other points along the coast, and so should be treated as estimates only. Strong and persistent winds may cause considerable departure from the average values shown in the table.

ESTIMATED INSHORE CURRENTS

Use with caution

Time Referred to the end of High Water Stand (see tide curves)	5 Miles Out Set	5 Miles Out Drift Kts During Spring Tides	5 Miles Out Drift Kts During Neap Tides	2½ Miles Out Set	2½ Miles Out Drift Kts During Spring Tides	2½ Miles Out Drift Kts During Neap Tides	1 Mile Out Set	1 Mile Out Drift Kts During Spring Tides	1 Mile Out Drift Kts During Neap Tides
6 hours before	E	0.2	0.1	E	0.5	0.0	E	0.7	0.4
5 hours before	E	1.8	1.1	E	2.1	1.2	E	1.8	1.1
4 hours before	E	2.7	1.6	E	2.5	1.5	E	2.2	1.3
3 hours before	E	2.6	1.8	E	2.2	1.3	E	1.8	1.1
2 hours before	E	1.6	0.9	E	1.0	0.6	E	0.7	0.4
1 hour before	E	0.7	0.4	E	0.2	0.1	W	0.3	0.2
End of high water stand	W	0.1	0.1	W	0.8	0.5	W	1.2	0.7

Time Referred to the end of High Water Stand (see tide curves)	5 Miles Out Set	5 Miles Out Drift Kts During Spring Tides	5 Miles Out Drift Kts During Neap Tides	2½ Miles Out Set	2½ Miles Out Drift Kts During Spring Tides	2½ Miles Out Drift Kts During Neap Tides	1 Mile Out Set	1 Mile Out Drift Kts During Spring Tides	1 Mile Out Drift Kts During Neap Tides
End of high water stand	W	0.1	0.1	W	0.8	0.5	W	1.3	0.7
1 hour after	W	2.3	1.4	W	2.1	1.2	W	1.7	1.0
2 hours after	W	2.7	1.6	W	2.5	1.5	W	2.0	1.2
3 hours after	W	2.7	1.6	W	2.5	1.5	W	2.0	1.2
4 hours after	W	2.5	1.5	W	2.1	1.2	W	1.7	1.0
5 hours after	W	1.3	0.8	W	1.0	0.6	W	0.6	0.3
6 hours after	W	0.2	0.1	W	Slack	0	E	0.2	0.1

Example of the Use of the Current Table

Suppose that it is desired to determine the inshore currents at 0600 MST on 10 June.

From the tidal curves below, it is seen that 10 June lies about one third between spring and neap tides, the last spring tide having occurred on 8 June and the next neap tide being expected on 14 June; the end of high water stand on 10 June is seen to be 0255 MST. Since 0600 is 3 hours and 35 minutes after the end of high water stand, the current table is entered with this value, and the probable currents found to be between 2.6 and 1.5 knots at five miles offshore, between 2.3 and 1.3 knots at two and one half miles offshore, between 1.8 and 1.1 knots at one mile offshore. Closer interpolation is not warranted in general, but may be made, if desired, to allow for the period from the last spring tide. If this is done, the most probable values of 2.2 knots, 2.0 knots, and 1.4 knots, are found for five miles, two and one half miles and one mile offshore, respectively.

TIDAL STAGES

ALL TIMES SHOWN ARE M.S.T. (G.M.T. PLUS 2 HOURS)

The accompanying tidal curves show the height of the water at any time above the approximate level of lowest low water. Soundings are shown on the chart in plain brown figures (not circled) and they represent depths measured at lowest low water. To find the depth at these points at any time:

(1) Find the height of the tide in feet at the time in question, from the tidal curve.

(2) ADD the sounding figure to height of the tide. The sum gives the depth of water in feet at the time and place in question.

FOR EXAMPLE: At 1000 on June 9th the height of tide is 13 ft. The sounding figure at the point we select is 15 ft.; 15 ft. plus 13 ft. equals 28 ft. depth.

The circled brown figures in the water area between the high high and low low water marks represent points which are sometimes above water. These figures give the height of the beach in feet above the approximate level of lowest low water. To find the depth of water at any time over these points, proceed as follows:

(1) Find the height of the tide in feet at the time in question from the tidal curve.

(2) SUBTRACT the circled brown figure from the height of tide. The result is the depth of water in feet at the time and place in question. If the circled brown figure is greater than the height of the tide and cannot be subtracted, it means that the point will be above water at this time.

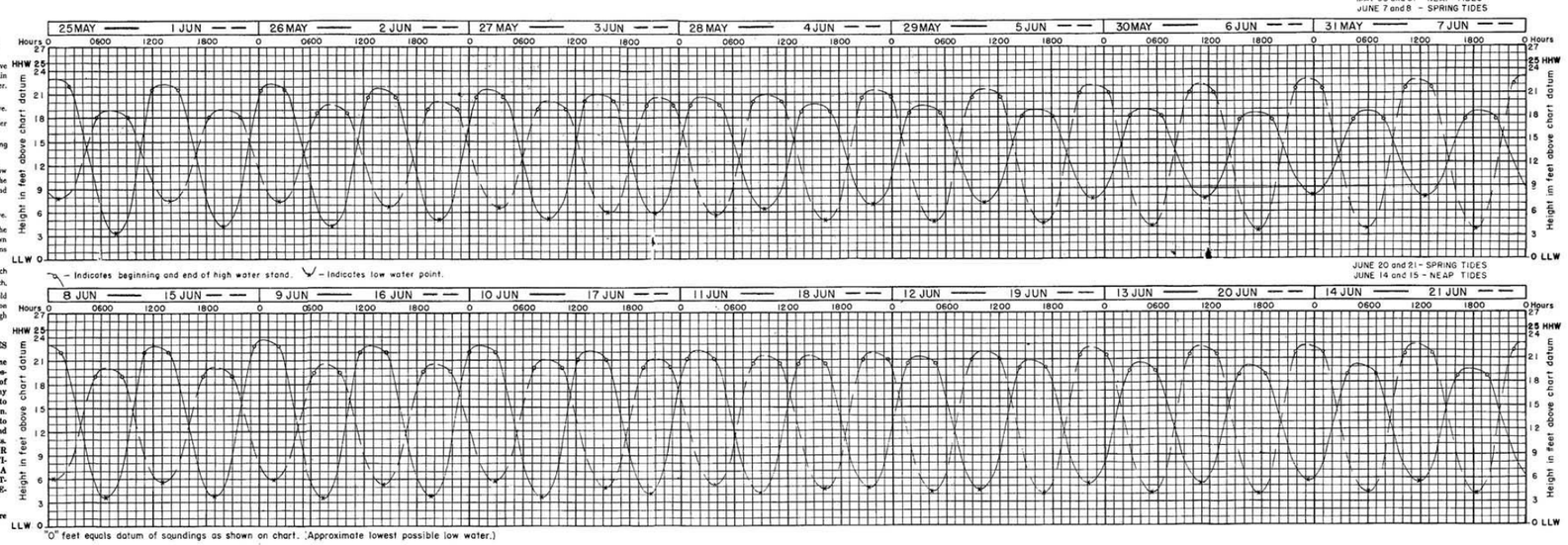
FOR EXAMPLE: At 0130 on June 21st the height of tide is 20.5 ft. The beach height figure at the point we select is 9 ft.; 20.5 ft. minus 9 ft. equals 11.5 depth.

The soundings on the high water fathom lines (figures in blue on chart) should not be used to compute spot depths. The high water fathom lines are shown on the chart merely to give an idea of the underwater beach contours between the high high water and low low water marks.

WARNING ON TIDAL, SOUNDING AND BEACH CONTOUR FIGURES

Any tidal, sounding and beach contour figures, even for familiar home waters, are only approximate. The combined influence of wind and atmospheric pressure alone may cause variations from the predicted heights of high water and low water, amounting to as much as 1½ feet. For enemy waters these figures are likely to be even more subject to error due to difficulties of obtaining recent accurate tidal and sounding information. Beach Gradients based on such sounding figures may also be subject to inaccuracies. Tides may form grooves and ridges in the sand parallel and perpendicular to the beach which will not show on navigation charts. THEREFORE, USE ALL TIDAL, SOUNDING AND BEACH CONTOUR FIGURES WITH EXTREME CAUTION. ALWAYS ALLOW A SUFFICIENT SAFETY FACTOR BY FIGURING THE WATER MAY BE A FEW FEET SHALLOWER THAN CALCULATED. WHEN NAVIGATING NEAR ROCKS OR SANDBARS ALLOW AN ADDITIONAL SAFETY FACTOR.

IMPORTANT: All soundings on chart and all readings on graphs are in FEET.



– Indicates beginning and end of high water stand. – Indicates low water point.

"0" feet equals datum of soundings as shown on chart. (Approximate lowest possible low water.)

TREATING THE WOUNDED

The death rate was very significantly held down by advances in battle field medical treatment. Medical personnel were brought into the combat area within a few days of D-Day. Facilities were crude and makeshift, with casualty clearing stations erected in large canvas tents.

The development of antibiotics was undoubtedly one of the greatest medical advances of the 20th Century. In 1928 Alexander Fleming first observed that colonies of the bacterium Staphylococcus aureus could be destroyed by the mould Penicillium notatum, proving that there was an antibacterial agent. Fleming set about establishing the identity of the substance that was killing the bacteria, giving it the name 'penicillin'. It was wartime necessity which forced this antibiotic into mainstream use. By 1939, Howard Florey had taken up the study of antibiotics at the William Dunn School of Pathology at Oxford University and in May 1940, carried out the first experiment of penicillin on living creatures. Human trials began in 1941.

A field hospital in Normandy, June 1944

In 1943, the required clinical tests were completed and penicillin was shown to be the most effective antibacterial agent to date. The increasingly obvious value of penicillin in the war effort led the War Production Board (WPB) to take responsibility for increased production of the drug later that year. Penicillin production was quickly scaled up and available in quantity to treat Allied soldiers wounded on D-Day. As production was increased, the price dropped from nearly priceless in 1940, to $20 per dose in July 1943, to $0.55 per dose by 1946.

Marie Page - Queen Alexandra's Royal Army Nursing Corps
"We were all well trained in the use of penicillin; it was so new. Battle injuries were so severe, sometimes we were just pouring the penicillin into open wounds."

Vera Hay – Queen Alexandra's Royal Army Nursing Corps
"The Penicillin we used was in its granular form, looking like brown Demerara sugar. It was necessary to dissolve it in sterile water so it could be injected every two hours to counter bacterial infection. There were plenty of really serious injuries and amputations so we were using huge quantities. The casualty clearing tent were I worked was really quite a size. Stretchers would typically be brought in 25 at a time, so we had two sections of 25 on each side, making a total of 100 men. There was constant movement of stretcher cases; newly injured coming in, and treated cases being moved down to the beach head for the journey back to England. With that quantity of soldiers to treat, we just worked until we dropped. People ask how we kept going, but we just did. There was a critical job to do."

There is no doubt that thousands of allied lives were saved during Operation Overlord and the Normandy Campaign which followed as a result of this super drug. This new antibiotic was used extensively for military patients who had undergone amputation and other major operations, or had extensive wounds. QAs would administer penicillin every three hours and often would no sooner finish one drug round of penicillin injections than they would have to start all over again. Although time consuming, there was no doubt of penicillin's effectiveness. Queen Alexandra nurses and medical officers were estimated to have saved up to 15% of lives with penicillin.

Fleming, Florey and Chain were jointly awarded the Nobel Prize for physiology or medicine in 1945, recognising the tremendous contribution of penicillin to human welfare.