Course of World War II

Class 7

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Ship Construction and Ship Losses



U-boat Losses

'ear	1939	1940	1941	1942	1943	1944	1945
J- ooats .ost	9	24	35	86	243	249	120
Cum Total		33	68	154	397	646	766

Notes on Losses

- It was not until February 1943 that Allied ship construction tonnage exceeded that sunk by German submarines in the same month
- It was not until September 1943 that Allied ship construction tonnage exceeded the tonnage of all Allied ship losses
 - I.e Those sunk by German subs, German surface ships, Axis mines, and marine accidents in which ships capsized, ran aground, or collided with an obstacle or another ship

The Cost of the War in the Atlantic

From September 1939 to May 1945, the Allies lost 2,452 merchant ships and tankers in the Atlantic and 175 escort warships

- Merchant tonnage loss was nearly 13 million GRT
- The British lost 55,800 merchant seamen; the Americans 9,400
- The Germans lost 766 out of their 1156 commissioned U-boats and 25,870 out of their 40,900 U-boat crewmen
 - 63 percent of the men were KIA and 75% became casualties
 - 66.3 percent of the U-boats were lost
- The German sub casualty rate far exceeded that suffered by any other service arm of any combatant country in the war

What Won the Battle of the Atlantic

- The Allied use of airplanes and escort carriers (CVEs)
- The Allies had broken the German Navy code by use of Enigma
- The Allies found out that the Germans had broken the convoy codes and developed a new code that the Germans never broke
- The Allies developed a seaborne radio locator system
- The Allies developed an Air to Surface Vessel (ASV) radar capable of locating submarines on the surface of the ocean
- The Allies developed a type of sonar that could detect depth as well as range and bearing
- The development of the Leigh Light for aircraft

Effects of the War in the Atlantic - 1

Before mid-1943, when the Germans were winning:

- Forced the British standard of living down to near-subsistence levels
 - In 1942, British imports dropped to a third of their peacetime level
- Precluded an Allied invasion of Western Europe in 1942 & 1943
- Prevented a North African invasion on a scale sufficient to rapidly seize Tunisia, thus prolonging the North African campaign into 1943
- Limited the amount of Lend-Lease aid that could be gotten to Russia
- Created tensions between the Western Allies and Russia over the issue of a Second Front
- Led to massive merchant ship construction programs
 - Revolutionized ship construction techniques and procedures

Liberty Ship



USS John W. Brown – Pinup Art



Effects of the War in the Atlantic - 2

- After mid-1943 when the Allies had to a large extent neutralized the German submarine menace:
 - Allowed for large-scale movement of troops and supplies to England, making
 possible the Normandy invasion of 1944
 - Allowed large amounts of Lend-Lease aid to flow to Russia
- Gave rise to the field of Operations Research which used statistical analysis of available data to make military and convoy-handling decisions
 - Used to determine the optimal size of convoys & optimal color of aircraft
 - After the war, Operations Research began to be applied to all sorts of business problems, ranging from routing of buses & planes to supply chain management to personnel scheduling

North Africa & Italy

The Rationale for Operation Torch

- Rommel's victories in Cyrenaica and Tobruk plus his invasion of Egypt had several consequences
 - Led the Americans to divert airpower from India (where it was en route to China) to Egypt
 - Led Stalin to release Polish POWs and civilians deported to Central Asia for the creation of a Polish Army in Egypt
 - Led Roosevelt and GEN Marshall to agree to Operation Torch an invasion of French North Africa to ease the pressure on Montgomery and enable the Allies to catch him in a vise between the British in the East and the Americans & British in the West

Rommel at El Alamein

In his march into Egypt, Rommel suffered from lengthening supply lines, the decreasing ability of the Italian Navy to protect his supply line, and the greater amount of supplies and tanks available to the British 8th Army

- By August 1942, the number of men, tanks, and aircraft were turning decisively in Britain's favor
 - Montgomery had 1,350 tanks, supported by 900 guns and 530 aircraft
 - Rommel had 500 guns and 350 aircraft, but of his 11 divisions, only 4 were German
- On 23 October 1942, Montgomery launched an offensive
 - After 10 days, the British broke through, forcing the Axis to retreat on the coast road to the West

The Impact of El Alamein

Montgomery's victory at El Alamein ensured both the safety of Egypt and the Suez Canal

It enabled the British to invade and conquer Libya

- The Allied invasion of French West Africa forced the Axis to abandon Libya and head for Tunisia in order to prevent the destruction of the Axis forces in North Africa
 - Tunisia was close to Sicily and could be more easily supplied by the Axis than could Libya
 - With mountains, Tunisia was much more defensible than Libya

Operation Torch

The size of Operation Torch was the outcome of two factors

- The Allied shipping situation, which because of the U-boat menace, preclude very large scale operations in 1942 and 1943
- A dispute between the British and the American military over how many resources should be committed to North Africa

What resulted was a 3 task force operation (35,000 to 40,000 men each) to land at Casablanca, Oran, and Algiers under the command of LGEN Dwight D. Eisenhower

- The landings were successful and Vichy French resistance was quickly overcome
- The failure was to get to Tunisia before the Germans

Hitler's Response to Torch & El Alamein

- The defeat at El Alamein and the Torch landings made North Africa untenable for the Axis
 - Rommel knowing this had advised evacuation
- Hitler, however, decided to pour men and materiel into Tunisia
 - This delayed Axis defeat in North Africa until May 1943
 - It helped ensure German defeat at Stalingrad by drawing Axis forces (and air transport) to North Africa at a time of crisis on the Eastern Front
 - When defeat came, it resulted in the surrender of 250,000 Axis troops (half o them German)
 - Partly because of the Tunisian Campaign, it forced the Allies to abandon their plan to invade Northern France in 1943, postponing D-Day until 1944

Casablanca Conference

From January 14-24, 1943, Roosevelt, Churchill, and their respective military staffs met at Casablanca

At this conference, the following key decisions were made

- After victory in North Africa, the Allies would invade Sicily
- Top priority would be given to winning the Battle of the Atlantic
- The U.S. would join Britain in the strategic bombing of Germany with the British bombing by night and the Americans by day
- The only terms the Allies would accept from Italy, Germany, and Japan would be unconditional surrender

The Impact of Axis Defeat in North Africa

- The growing British-American naval presence and the inability of the Germans to capture Soviet oil fields in the Caucasus exacerbated the Italian Navy's shortage of oil
 - This made it impossible for the Italian Navy to interfere with the Sicilian invasion
- By the end of the North African campaign in May 1943, over 350,000 Italians had become POWs
- The loss of so many of its best divisions in Africa, combined with the disaster suffered by the Italian 8th Army (220,000) at Stalingrad drove the Italian high command and the king to begin plotting the removal of Mussolini

The Overthrow of Mussolini

- While the vast bulk of the Italian and German forces were able to escape from Sicily, its capture secured the Allied lines of communication through the Mediterranean
- Its loss persuaded Italy's ruling elite that it must change sides
- On 25 July 1943, a vote of the Fascist Grand Council resulted in the king summoning Mussolini to the royal palace where he was arrested and imprisoned
 - King Victor Emmanuel assumed direct command of the armed forces and Marshal Pietro Badoglio became Prime Minister
- The new government entered into direct negotiations with the Allies on 5 August with an armistice signed on 3 September

Consequences of Mussolini's Overthrow

- It led the Germans to disarm the Italian army and to occupy areas of Europe formerly occupied by Italy
- It left Italy divided between a southern Italy controlled by the Allies and a central and northern Italy controlled by the Germans
- It led to a major partisan movement in areas under German control
 - The resistance was led by the Communists but also included Catholics and Conservative Nationalists who hated the Germans
 - The prime beneficiaries of the resistance were the Communists who were successful in recruiting large numbers of urban workers and the Christian Democrats

Invasion of Italy

- On 3 September, the British landed at Reggio Calabria
- On 9 September, the Americans landed at Salerno
- The Italian Campaign, however, proved a hard and costly slog since Italy's mountainous terrain was ideal for defense
 - The Allies did not enter Naples until 1 October 1943
 - The Allies did not enter Rome until 4 June 1944 despite a landing at Anzio which was only 30 miles south of Rome
 - The Allies did not capture Florence until 12 August 1944
 - The Allies did not reach Lombardy, Genoa, or Venezia until April 1945

From D-Day to Victory

German Strategy for 1944

- Hold the front in Italy as far south as possible
- Hold as well as it could in the East against Russia
- Concentrate forces in the West sufficient to crush an invasion attempt
- After crushing any invasion attempt, transfer forces from the West to the East for a major counter-offensive against the Russians
- Take advantage of the time gained to deploy new submarines, jet planes, and rockets which could prevent any subsequent attempt to invade in the West

German Forces in France & Belgium

- The Germans had 60 divisions in France and Belgium, 10 of which were panzer or motorized infantry divisions
- The German military commanders were divided over the strategy to be followed
 - Keep the panzer divisions in a central reserve and deploy them after the landing
 - Deploy the panzer divisions near the beaches since deploying them from a central reserve would subject them to Allied air power
- Hitler decided to split the difference 2 near Calais, 1 near Normandy, and 3 in a central reserve to be deployed only with the approval of Hitler's operations staff

Why Normandy as the D-Day Site

Allied choice of a landing site was dictated by the operational radius of a Spitfire, the most numerous Allied fighter

- The radius reached from the Pas de Calais to the Cotentin Peninsula in Normandy – Places east of the Pas de Calais and west of the Cotentin Peninsula were thus eliminated
- Within the radius zone, many beach areas were unsuitable because of wetlands or high & steep cliffs

Thus the two logical landing sites were either the Pas de Calais or Normandy

• The Pas de Calais had the attraction of sandy beaches, close proximity to England and the channel ports, and a short route into Germany.

Allied Deception Operations

- The massive Allied superiority in airpower prevented Luftwaffe aerial reconnaissance beforehand
- In addition, the Allies had broken the German Enigma code while the Germans had not broken the Allied Army codes
- Finally, all the German agents in England had been "turned" by British counterintelligence so all their reports to the Germans were valueless and misleading
- This made it possible for the Allies to engage in a massive deception operation which convinced Hitler that Normandy would be only a feint while the real invasion would be at the Pas de Calais

The Normandy Landings

- Initial plans called for landing 3 divisions with airborne units on each flank
- Eisenhower wanted to land 5 divisions with the airborne brigades increased to 3 airborne divisions
- This near-doubling required a proportionate increase in the number of landing craft, which delayed the landing from May to June

After the Landings

Once the Allies landed at Normandy, it became a race between the Allies and the Germans to bring reinforcements and supplies to the battlefield

- What made the invasion a success was that the Allies' transport capability across the English Channel greatly exceeded the carrying capacity of French roads and railroads beset by Allied airpower
 - Thus it took German units a longtime to reach the battlefield

By June 26th, the Allies had 25 divisions ashore with another 15 on the way opposing 14 German (including 8 Panzer) divisions

• What delayed the Allied advance was the failure of the British to take Caen and the hedgerows of *bocage* country which greatly favored the defence

American vs German Arms

- Unlike most German infantry divisions (which still depended on horses), the American infantry divisions had both trucks and tracked personnel carriers, which made them much more mobile
- The German Panther and Tiger tanks were far superior to the American Sherman tanks and the German
- Other German weapons were superior to American weapons
 - The German MG-42 machine gun outfired the American Browning Automatic Rifle
 - The German Panzerfaust hand-held antitank weapon was superior to the American bazooka (which could not penetrate the front armor of German tanks)

Why the Germans Lost the Battle of France

- A major Russian offensive, Operation Bagration, prevented the Germans from sending troops from the East to the West
- Overwhelming Allied air superiority greatly curtailed German mobility
- Thanks to their trucks and tracked vehicles, American infantry divisions were far more mobile than German infantry divisions
- American troops were well-trained, well-supplied and had excellent artillery support
- A device invented by an American Sergeant enabled Sherman tanks to plow through the hedgerows into the plains of Brittany and southern Normandy
 - This enabled 7 divisions under GEN Patton to encircle and nearly destroy two German field armies in a pocket around Falaise

Breakout & On to Paris

- With the American breakout at Avranches into Brittany and southern Normandy, Hitler ordered an attack to cut off Patton's forces.
 - The attack was defeated which created the possibility of encircling the whole German 7th Army and 5th Panzer Army
 - Although the Allies were unable to complete the encirclement, they inflicted heavy casualties on the Germans
- With the Germans in retreat, the Paris pollce force and the Maquis revolted
 - This led Eisenhower to order the French 2nd Armored Division to enter Paris which it did on the evening of 23 August. On 25 August, the German garrison of the city surrendered

Parisians Cheering the French 2nd Armored Division



American 28th Infantry Division Parading in Paris



Allied Advance Towards Germany

- After the liberation of Paris and the crossing of the Seine estuary, the Allied armies advanced into northeastern France and Belgium, but in September began meeting increasing German resistance and increasing supply problems
- By December, the Allies had reached the Westwall and had seized Aachen, but the advance stalled for the following reasons:
 - Hitler's garrisoning of the 12 channel ports, so that all Allied supplies had to come in via Cherbourg and Marseilles and be transported by truck to the Front
 - The lengthening of Allied supply lines
 - Hitler's ability to reconstitute the German forces in the West
 - The Allied manpower problem

Battle of the Bulge

- Hitler believed a surprise offensive could break through and seize the port of Antwerp and equalize the balance of forces on the Western Front
- The main thrust was to be made by the 6th SS Panzer Army in the north and the 5th Panzer Army in the south with the 15th and 7th Armies providing flank support
 - In the North, the Americans held, but in the South the Germans broke through, advancing to Bastogne
 - The failure to take Bastogne caused the advance to slow until it was stopped by Allied air power and the counterattack of the American 3rd Army

Battle of the Bulge - 2

Casualties on both sides were heavy, but the Allies could replace thei losses while the Germans could not

The Battle of the Bulge had three major repercussions

- It showed that determined and well-led American troops could face Germans with better tanks and hold their ground
- The hesitation of Montgomery compared to the dash of Patton allowed a German army to escape when it could have been cut off.
 - This delayed an end to the war and created bad blood between the British and Americans
- It paved the way for a rapid advance by the Red Army because the Germans had no reserve forces to throw into the breach
Allied advance to the Rhine, 7 Feb to 7 March



Allied advances 7 Feb to 28 March



Allied Advances

- In January, Allied armies gradually chipped away at the bulge created by the German advances in the Battle of the Bulge
- In February, Allied armies advanced into Luxembourg, eastern Belgium, through the Siegfried Line, and to the Rhine
- In the first week of March, the American army captures Trier and Cologne and cross the Rhine at Remagen on 7 March
- By the end of March, Allied armies had crossed the Rhine in several places, advancing into Bavaria and the Ruhr

From the Rhine to the Elbe 29 March-7 May



The Emerging Cold War

The Emerging Cold War

- Political scientists note that all nations seek security
- They also note that things a nation does to enhance its own security can often seem threatening to other nations
- This is the situation that arose after World War II
- Neither the Soviet Union nor the Western Allies wanted a recreation of the unstable international situation that led to World War II
- Both groupings wanted a stable world in which they could achieve their international objectives
- The problem was that the Western Allies and the Soviet Union had radically different view as to what a post-war world should look like

Diverging Goals

- Stalin's goals
 - To ensure that no external threat would ever again place his country at risk
 - To rebuild the war-torn Soviet Union
- The first goal meant attempting to dominate the European continent as thoroughly as Hitler attempted to do
 - This meant the creating of pro-Russian regimes in Eastern Europe and Germany
- Roosevelt's goals
 - To establish democratic regimes in Eastern Europe and eventually in Germany
 - To establish a new global economic system which would prevent the recurrence of the Great Depression
 - To deter and, if necessary, punish aggression by the creation of a new collective security organization

Poland

The only way to reconcile Stalin's and Roosevelt's requirements would be if all of the Eastern European countries had been willing to elect leaders who were willing to follow a pro-Russian policy

- This Czechoslovakia and Finland did, but Poland could not follow this path since Stalin's prior actions had eliminated any possibility that a Polish government subservient to the Soviet Union could sustain popular support
 - The Nazi-Soviet Pact
 - The murder of some 4,000 Polish officers at Katyn Forest in 1940
 - Doing nothing when the Nazis brutally suppressed the 1944 Warsaw uprising even though the Red Army was on the outskirts of Warsaw at the time
 - Soviet taking of a third of Poland's territory after the war

Poland - 2

Since Poland would never elect a pro-Soviet government, Stalin decided to impose one

- This resulted in a permanently resentful Poland
- Stalin's imposition of a Soviet-style government on Poland in violation of his promises at Yalta convinced the Americans and British that Stalin could not be trusted
 - As a disillusioned Roosevelt put it, "Stalin has broken every one of the promises he made at Yalta"

Occupied Germany

It had been decided at Yalta that Germany would be divided into separate occupation zones, with Berlin (even though it was in the Soviet zone) similarly divided

- The Soviet zone contained a third of Germany's population, but few of its industrial facilities
- Stalin believed that the Soviet zone with its Marxist-Leninist government would act as a magnet for Germans in the western zones
 - This, Stalin believed, would cause the West Germans to elect leaders who would eventually unify the country under Soviet control

Occupied Germany - 2

There were two big problems with Stalin's plan

- The brutality of the Red Army in occupied East Germany
 - Mass expropriation of property and extraction of reparations on an indiscriminate scale
 - The rape of 2 million German women
- The way the Soviets had handled their affairs in Eastern Europe and in their zone of Germany made the British and the Americans wary of cooperation with Moscow
 - Thus the Western Allies refused Russian demands for reparations from their zones
- This led the Western Allies to follow a policy of preserving their zones of Germany under Western rule rather than risk the danger that all of Germany fall under Soviet control

The Far East

- The events in Eastern Europe and Germany in turn convinced the United States to exclude the Soviet Union from any role in the occupation of Japan
- The Soviet decision to declare war on Japan and invade Manchuria and North Korea had two major impacts
 - It resulted in the partition of Korea
 - It persuaded the Japanese to surrender
- The Atom bombing of Hiroshima and Nagasaki intensified Stalin's insecurity and led him to institute a crash Soviet A-bomb program to catch up with the United States

The Kennan Telegram

On 22 February 1946, George F. Kennan, a junior Foreign Service officer at the American Embassy in Moscow, sent an 8,000 word cable to the State Department

- In it, Kennan blamed Russian intransigence on the internal necessities of Russia's Stalinist regime and that nothing the West could do could alter that fact
- To Kennan, Soviet leaders had to treat the outside world as hostile because this provided the only excuse "for the dictatorship without which they did no know how to rule, for cruelties they did not dare not to inflict, for sacrifices they felt bound to demand"
- The American response should be a "long-term, patient but firm and vigilant *containment* of Russia's expansive tendencies.