D-DAY IN NORMANDY

Speaker: Walter A. Viali, PMP
Company: PMO To Go LLC
Website: www.pmotogo.com

Welcome to the PMI Houston Conference & Expo and Annual Job Fair 2015

- Please put your phone on silent mode
- Q&A will be taken at the close of this presentation
- There will be time at the end of this presentation for you to take a few moments to complete the session survey. We value your feedback which allows us to improve this annual event.
D-DAY IN NORMANDY
The Project Management Challenges of the “Longest Day”

Walter A. Viali, PMP
PMO To Go LLC
• Worked with Texaco in Rome, Italy and in Houston, Texas for 25 years and “retired” in 1999.
• Multiple PMO implementations throughout the world since 1983.
• On the speaker circuit since 1987.
• PMI member since 1998, became a PMP in 1999.
• Co-founder of PMO To Go LLC (2002).
• PMI Houston Chapter Board Member from 2002 to 2008 and its President in 2007.
• PMI Clear Lake - Galveston Board Member in 2009-2010.
• PMI Region 6 Mentor (2011-2014).
• Co-author of “Accelerating Change with OPM” (2013).
• Project Management Instructor for UH College of Technology.
More than 9,000 of our boys rest in this foreign land they helped liberate!
WHAT WAS D-DAY?

• In the early morning hours of June 6, 1944, American, British, and Canadian troops launched an attack by sea, landing on the beaches of Normandy on the northern coast of Nazi-occupied France.

• The first day of this major operation was known as D-Day and it was the first day of the Battle of Normandy, code-named Operation Overlord, in World War II.
“D-DAY” AT THE MOVIES

• “The Longest Day” with an exceptional cast, was released in 1962 to wide acclaim. The film won numerous awards.

• “Saving Private Ryan” told the dramatic story of our U.S. troops at Omaha in the first part of the film. Released in 1998, it also earned critical acclaim and won several awards.
WHY D-DAY?

- World War II is raging in Europe and in the Pacific.
- The Axis forces have surrendered in Northern Africa.
- The Russians are fighting the Germans on the eastern front in a bitter war of attrition.
- Stalin is pressuring his allies to open another front in western Europe and relieve the pressure on the eastern front.
• March 1943 - British Lieutenant General Frederick Morgan is assigned the task of planning the invasion of Northern France.

• April 1943 – U.K. Prime Minister Winston Churchill meets with President Roosevelt in Washington, D.C.
  - They decide that the invasion of Northern France will take place during the summer of 1944.
• February 1944 - President Roosevelt officially appoints Dwight Eisenhower as the Supreme Allied Commander in Europe. He is charged with planning and carrying out the Allied assault on the coast of Normandy in June 1944 under the code name Operation Overlord, the liberation of Western Europe and the invasion of Germany.
THE “PROJECT BOARD”

• (Seated from left) Air Chief Marshal Sir Arthur Tedder, Eisenhower, General Sir Bernard L. Montgomery;

A HUGE CHALLENGE

• Preparations for the Allied invasion of Normandy are unprecedented in scale and complexity.
  • Two million soldiers are assembled in Great Britain.
  • Millions of tons of material are stored in Great Britain.
  • Allies gathered hundreds of specialized landing craft in ports across southern England.

• The logistical planning for this landing exercise was extraordinary.
  • More than 4,000 transport ships were needed.
  • Hundreds of these ships were built specifically in the U.K. and in the U.S.
THE ATLANTIC WALL

• A 2,000-mile long chain of fortresses, gun emplacements, tank traps, mines and obstacles.
• Early in 1944, Field Marshal Erwin Rommel was assigned to improve the Wall’s defenses.
• Rommel believed the coastal fortifications were entirely inadequate and immediately began strengthening them.
  • Under his direction, reinforced concrete pillboxes were built along the beaches to house machine guns, antitank guns and light and heavy artillery.
  • Mines and antitank obstacles were planted on the beaches and underwater obstacles and mines were placed in waters just off shore.
  • The intent was to destroy the Allied landing craft before the enemy soldiers could exit the craft.
PLAN TAKES SHAPE

• Plan focuses on the invasion of a 50-mile stretch of beaches in Normandy.

• The landing zones are code named
  • Utah – U.S. troops
  • Omaha – U.S. troops
  • Gold – British troops
  • Juno – Canadian troops
  • Sword – British troops

• U.S. Rangers will neutralize the big German guns at Pointe du Hoc

• Extensive naval shelling and air carpet bombing will take place before the landings.
In the early hours of 19 August 1942, the Allies launched Operation Jubilee – the raid on Dieppe:

- 65 miles across from England.
- 252 ships crossed the Channel in a five-pronged attack carrying tanks together with 5,000 Canadians, 1,000 British and American troops plus a handful of fighters from the French resistance.

- The Dieppe Raid saw more than 3,300 Canadians killed, wounded, or captured by the Germans on the beaches of northern France.
In charge of the operation, Vice Admiral Lord Louis Mountbatten, cousin to King George VI, would later say:

- ‘If I had the same decision to make again, I would do as I did before ... For every soldier who died at Dieppe, ten were saved on D-Day.’

**Lessons Learned**

- A direct assault on a well-defended harbor was not an option for any future attack.
- Superiority of the air was a prerequisite.
- Churchill concluded that the raid had provided a ‘mine of experience’. 
THE FAILED DIEPPE RAID

• Hitler also felt a lesson had been learned, knowing that at some point the Allies would try again.
  • ‘We must reckon with a totally different mode of attack and in quite a different place’.
• Hitler became convinced that the Allies would attack at Pas de Calais, the closest French harbor to England.
  • 21 miles from Dover.
HOBART'S FUNNIES

- DD Tank
- Flail Tank
- Bobbin Tank
- Fascine Tank
THE MULBERRY HARBORS

• The Mulberry harbor was a portable temporary harbor developed by the British to facilitate rapid offloading of cargo onto the beaches during the invasion.

• By 9 June, just 3 days after D-Day, two harbors codenamed Mulberry "A" and "B" were constructed at Omaha Beach and Arromanches (Gold Beach).

• A large storm on 19 June destroyed the American harbor at Omaha,

• The surviving Mulberry "B" came to be known as Port Winston at Arromanches.
THE MULBERRY HARBORS

• Port Winston was used to land over 2.5 million men, 500,000 vehicles, and 4 million tons of supplies over 8 months (designed to last 3).

• The Royal Engineers built a complete Mulberry Harbor out of 600,000 tons of concrete between 33 jetties, and had 10 miles of floating roadways to land men and vehicles on the beach.

• Port Winston is commonly upheld as one of the best examples of military engineering.
A PIPELINE UNDER THE ENGLISH CHANNEL

• Operation Pluto, short for Pipe Line Under The Ocean, was to be a means to supply fuel by way of a pipeline under the English Channel, a phenomenal feat for the time and multiple problems were addressed and eventually overcome.

• Operation PLUTO reflected the best of wartime cooperation between the military, private industry, and engineering.

• Commanding more than 100 merchant navy officers, a variety of ships, and 1,000 men, it was used to deliver more than 1,000,000 gallons of fuel a day across the Channel.
“THE MIGHTY EIGHTH”

- The D-Day invasion force owes a huge debt of gratitude to the U.S. 8th Air Force, which spent two years conducting daytime bombing raids over Germany and ultimately almost totally crippled the Luftwaffe.

- This achievement, however, carried a high price. The 8th Air Force suffered one-half of the U.S. Army Air Forces’ casualties in World War II:
  - 47,000-plus casualties with more than 26,000 deaths.
  - The Eighth’s personnel also earned 17 Medals of Honor, 220 Distinguished Service Crosses, 850 Silver Stars, 7,000 Purple Hearts, 46,000 Air Medals.
GETTING READY FOR THE INVASION

• In the weeks before D-Day the Royal Air Force (RAF) prepared occupied territory in Europe for the invasion of ground forces.

• The RAF targeted the rail system in France and Belgium, used for transporting German troops and equipment.
  • The destruction of railways and road communications successfully stopped German reserve troops getting to Normandy during the landings and for some time afterwards.
  • By D-Day, Normandy had been virtually isolated by the combined Allied fighter and bomber offensive.
GETTING READY FOR THE INVASION

- Strategic bombing intensified after April and included military camps, arms factories in France and Belgium, batteries and radar sites along the French coast.

- The French Resistance carried out numerous attacks on German targets in the weeks leading up to D-Day.

- The role played by the French Resistance fighters in Operation Overlord was significant and very costly.
THE FRENCH RESISTANCE

• **Plan Vert** was a 15-day operation to sabotage the rail system.

• **Plan Bleu** dealt with destroying electrical facilities.

• **Plan Tortue** was a delaying operation aimed at the enemy forces that would potentially reinforce Axis forces at Normandy.

• **Plan Violet** dealt with cutting underground telephone and teletype cables.

• A 1965 report from the Counter-insurgency Information Analysis Center details the results of the French Resistance's sabotage efforts: "In the southeast, 52 locomotives were destroyed on 6 June and the railway line cut in more than 500 places. Normandy was isolated as of 7 June."
THE WEATHER FACTOR

• In order to be successful, the operation called for:
  • a full moon to illuminate obstacles and landing places for gliders;
  • a low tide at dawn to expose the elaborate underwater defenses installed by the Germans.
• High winds and rough seas could capsize landing craft and sabotage the amphibious assault; wet weather could bog down the army and thick cloud cover could obscure the necessary air support.
“OK, WE’LL GO”

• Weather posed a serious threat to the entire operation, initially scheduled to launch on June 5.

• It deteriorated rapidly on June 4 and the three-day window for the invasion began to rapidly close. It was decided to delay the invasion by 24 hours, until June 6.

• Captain James Stagg, the only meteorologist allowed direct contact with Gen. Eisenhower, had to make the final recommendation to him.

• On June 5, he suggested that the weather might improve enough to allow for the invasion to take place on June 6.

• Gen. Eisenhower took it upon himself to make the final call: “Ok, we’ll go.”
“Soldiers, Sailors, and Airmen of the Allied Expeditionary Force! You are about to embark upon the Great Crusade, toward which we have striven these many months. The eyes of the world are upon you. The hope and prayers of liberty-loving people everywhere march with you. In company with our brave Allies and brothers-in-arms on other Fronts, you will bring about the destruction of the German war machine, the elimination of Nazi tyranny over the oppressed peoples of Europe, and security for ourselves in a free world. Your task will not be an easy one. Your enemy is well trained, well equipped and battle-hardened. He will fight savagely.”
The D-Day

"D-Day" is a day when a certain military operation starts. The most famous of the D-Days is 6th June 1944, when Allies invaded Normandy.

PHASE 1: Airborne drop Midnight - 2 A.M.
Over 13,000 paratroopers were dropped behind enemy lines, and managed to accomplish many objectives.

PHASE 2: Art of deceit 1 A.M. - 4 A.M.
To distract the enemy, the Allies failed that another invasion was taking place in the most expected region - Pas de Calais.

PHASE 3: Aerial attack 3 A.M.
300 planes dropped 13,000 bombs on German defenses in the landing sector.

PHASE 4: Naval attack 5 A.M.
Naval bombardment preceded the invasion.

PHASE 5: The invasion

Interesting quote:
"Captain, just who the hell are we fighting anyway?"
Unknown GI, after it turned out that there were Russian, Ukrainian and various Asian collaborators fighting for the Germans...
THE “DETAILED” EXECUTION PLAN FOR D-DAY

• The U.S. 101st and 82nd Airborne Divisions are dropped behind enemy lines west of the landing beaches.

• The U.K. 6th Airborne Division is dropped behind enemy lines east of the landing beaches.

• “Rupert” is dropped behind enemy lines.

• Thousands of bombs are dropped by the Allies with the intent of destroying the German fortifications on the Normandy coast.

• 5,000 ships rendezvous at “Piccadilly Circus” and head for the coast of France.

• As they come within range, they begin a massive shelling operation of the German position on the French coast.
• USS Texas BB-35 was commissioned on March 12, 1914.
• She played a key role during the Normandy D-Day landings, as Bombardment Force Flagship for Omaha Beach, in the Western Taskforce.
• On 17 April 1947, the Battleship Texas Commission was established by the Texas Legislature to care for the ship.
• On 21 April 1948 USS Texas BB-35 was turned over to the State of Texas to serve as a permanent memorial.
• The San Jacinto Battleground State Historic Site is now home to the USS Texas.
RUPERT GOES TO WAR

• An army of 3-foot tall “paratroopers” was dispatched over northern France on the eve of D-Day.

• Approximately 500 Ruperts were parachuted, which caused chaos among the German defenders.

• The 'paradummies' were designed to ignite and explode on landing to confuse the enemy.

• Six SAS soldiers were parachuted with the dolls, with equipment playing the sounds of a loud battle to make the subterfuge even more realistic.
D-Day was planned to begin with paratroopers dropping into France by moonlight, the early morning before the invasion. 

- Their goal was to take over the bridges and roads that the Germans needed to move to the battlefields once the invasion had begun.

- However, the Germans had flooded several areas south of the French coast, making the parachute drops difficult and dangerous.

- Drops didn’t go as planned and drop zones were often missed leading to many stranded paratroopers totally lost in the dark.
“FLYING COFFINS”

• “America’s first military stealth aircraft – the Waco CG-4A combat glider – silently soared into World War II history in 1944, powered only by the prevailing winds and the guts of the men who flew them.”

• 52 CG-4 Waco gliders landed anti-tank guns and support troops in two different missions called “Detroit” and “Chicago.”

• The gliders were towed by C-47 aircraft and the missions were considered successful, since casualties were light, in spite of all the crash landing.

• Glider pilots had to deal with several obstacles, including massive hedgerows typical of the region.
• One of the immediate key targets of the invasion was Pointe du Hoc.

• A promontory with a 100-foot cliff overlooking the English Channel on the coast of Normandy in Northern France.

• Six German guns on Pointe du Hoc threatened both Omaha Beach and Utah Beach.

• James Earl Rudder, Lt. Colonel, U.S. Army 2nd Rangers Battalion, led 225 Rangers in a ferocious skirmish that lasted two days before reinforcements arrived.
The Rangers had to climb 100 feet to reach the top of the cliff, while under constant fire from the German troops.

Having fought their way to the top, they found that the big German guns had been moved.

Patrols eventually found five of the six German guns and destroyed their firing mechanisms.

The fighting grew fierce and by the time the Rangers were relieved on June 8, only 95 of 225 men were still able to fight.

Col. Rudder had also been wounded twice, but had continued to fight on.
• The rest of the troops would land on 5 beaches.
  • The British Army would land in the east on the code-named beaches Sword and Gold.
  • The Canadians would invade Juno beach.
  • Omaha and Utah beach would be invaded by the U.S. Army.
At 5:50, forty minutes before H-Hour, 138 Allied ships, positioned between three and thirteen miles out, began their tremendous bombardment of the German coastal defenses.

Above them, 1,000 RAF bombers attacked, followed in turn by 1,000 planes of the USAAF. Between them, the aircrews flew 13,688 sorties over the course of D-Day alone.
• From their ships, soldiers, weighed down with weapons and seventy pounds of equipment, scaled down scramble nets and into their landing craft.

• It took over three hours for the vessels to cross the eleven or so miles to the coast.

• The men, trembling with abject fear, shivering from the cold and suffering from severe seasickness, endured and held on as their tightly packed vessels were buffeted by six-foot high waves and eighteen miles per hour winds.
• On all five landing spots, the most dangerous task fell to the men whose job it was to explode and neutralize the German mines littered across the beaches in order to clear a path for the first full wave of troops coming up directly behind them.

• The courage to attempt such a task is beyond imagination.

• The fatality rate among these courageous select men was horrendously high, reaching 75 per cent.
• Luck played into the Allies’ hand at Utah.
• Strong currents had forced the landing crafts a mile south of their intended target.
• There, the US 4th Infantry had come across a lightly defended stretch of coastline.
• Utah beach was secured within a couple of hours, having forced the German defenders into surrender.
• By midday, they had linked up with the paratroopers of the 101st Airborne Division who, together with the 82nd, had been dropped 2 to 5 miles inland.
• By midnight, 23,250 troops had landed in France via Utah beach at the cost of 210 men killed or wounded,
The defenses around Omaha were formidable.

Rommel’s men had placed thousands of ‘dragon’s teeth’ on the beach to take out the base of landing craft, and had topped them with mines.

Gun emplacements had the entire length of the beach in their range.

The naval bombardment and the subsequent aerial one had made little impact on Omaha.
OMAHA BEACH

• Ten landing craft were sunk.
• Men, leaping into water too deep, drowned, weighed down by their equipment.
• The U.S. soldiers faced the most experienced German troops from the 352nd Infantry Division.
• They jumped from their landing craft into a barrage of gunfire.
• All but two of the DD amphibious tanks sank in the rough sea.
• German defenses were equipped with MG 42s, the most deadly machineguns of the time, capable of firing 1,500 rounds per minute (25 rounds per second).

• Omaha soon became a killing field, littered with bodies and burning equipment.

• Terrified men, sprinting as best they could across the expanse of beach, found some cover at the base of the cliffs – if they managed to get that far.

• At 8 a.m., as destroyers came close enough to pound and weaken the German defenses, sufficient numbers had congregated to begin the climb up the cliffs.
• By 11 a.m. a contingent broke out and captured the village of Vierville-sur-Mer.

• Their colleagues, still pinned down on the beach and with the tide now coming in, were in danger of being pushed back to the sea.

• But the German soldiers, in maintaining their constant barrage, were close to exhaustion.

• Finally, at 2 p.m., the first beach exit was cleared.

• By 4 p.m., tanks and vehicles were able to move off the beach.

• By the end of the day, 34,000 troops had landed on Omaha beach at the cost of 2,400 killed or wounded.
The five-mile-wide Gold beach, the central beach, was to be the site for one of the two Mulberry Harbors.

Landing at 7:45 a.m., troops secured three beach exits within the hour.

By 9 p.m., troops had seized the town of Arromanches.

By midnight, having landed 25,000 troops with fewer than 400 casualties, they had linked up with Canadians at Juno beach.
The objective for the Canadian troops landing at Juno was to link-up with their British colleagues landing at Gold and Sword beaches either side of them.

Beach mines destroyed a third of the landing craft.

Despite coming under heavy fire, they secured the first beach exit within three hours.

By midnight, 21,000 troops had landed via Juno, at the cost of 1,200 casualties, and the advance guard had pushed seven miles inland.
The objective of the British commandos landing on Sword beach was to advance towards the city of Caen, eight miles inland.

By 8 a.m., they were already breaking out behind the five-mile wide beach, the furthest east of the five beaches, and advancing on the nearest German-held villages, hoping to reach Caen by nightfall.

By 1 p.m., the commandos had linked up with the paratroopers guarding Pegasus and Horsa bridges over the Caen Canal and River Orne.

By midnight, 29,000 British troops had landed at Sword with a cost of 630 casualties and had penetrated six miles inland.
“THE LONGEST DAY”

- As June 6, 1944 came to an end, the Allies had landed 156,000 men in France with about 9,000 casualties, of whom 4,571, over half, had been killed.
• In her diary for 6 June, Anne Frank wrote:

  • “Is this really the beginning of the long-awaited liberation? The liberation we’ve all talked so much about, which still seems too good, too much of a fairy tale ever to come true? Will this year, 1944, bring us victory? We don’t know yet. But where there’s hope, there’s life. It fills us with fresh courage and makes us strong again.”
D-DAY AND THE PMBOK® GUIDE

• Stakeholder management
• Scope management
• Quality management
• Procurement management
• Communication management
• Human Resource management
• Time management
• Cost management
• Risk management
• Integration management
Gen. Eisenhower had to deal with several high-power, high-interest stakeholders on this project.

U.K. Prime Minister Winston Churchill and American President Roosevelt were Eisenhower’s primary stakeholders.

Gen. Eisenhower’s team included very big egos and he had to constantly address the inevitable conflict situations they created.
The scope of the project was huge, even when it was decided that the invasion would be “limited” to the Normandy coast.

Hundreds of thousand of pictures were taken by reconnaissance missions over northern France and converted to 3D images through stereoscopes.

The project scope called for the use of thousands of ships, landing craft, airplanes, tanks, and artillery.

It also called for the training of hundreds of thousand of U.S., British, and Canadian troops (land based and airborne).
The invasion forces were to occupy a 50-mile stretch of beaches codenamed Utah, Omaha, Gold, Juno, and Sword.

Each beach was divided into sectors to aid in the navigation of the landing crafts (Tare Green, Uncle Red, and Victor for Utah Beach).

Artificial harbors and an underwater pipeline were needed to accommodate the massive logistics requirements.

Credible deception plans had to be developed and implemented with secrecy being of the upmost importance.
SCOPE MANAGEMENT

• The coordination of the various phases of the invasion was extremely complex:
  • French resistance sabotage missions
  • 75 ship convoys
  • Deception activities
  • Glider transported troops and equipment
  • Paratrooper landings
  • Rupert on the move
  • Shelling by Allied ships
  • Bombing by Allied planes
  • Landings on five separate beaches covering a stretch of 50 miles of French coast in multiple waves
  • Landing heavy equipment and material on the Normandy beaches
QUALITY MANAGEMENT

• Extreme attention to detail was placed in developing the plans for the invasion and mitigate risk.

• Soil samples were collected in secret missions using frogmen who had reached the Normandy coast via submarines.

• Landmarks were identified to help guide the direction of landing craft.

• Tides were studied carefully to help determine extent of slopes at the landing sites to ensure that heavy equipment and tanks would have the necessary traction to move inland.
• Quality problems did come into play with some of the equipment available to U.S. troops.

• The Germans had flooded several areas inland, which were target landing zones for U.S. paratroopers.

• Several paratroopers landed in the water and drowned, since getting out of their vests and equipment took too long because of the many impractical straps and buckles.

• As Germans fired on landing crafts, as they approached the beaches, several soldiers jumped from the sides of the landing craft right into the water and many drowned for the same reason.
Many field radios became unusable during the landing operations.

Radiomen in landing crafts jumping into the water either lost their radios or had them damaged by the salt water.

Several radiomen who actually made it to shore were killed or their radios were destroyed.

Damaged by water and shrapnel, the lack of working radios caused massive communication breakdowns between the landing areas and the ships off the coast of Normandy.
There were several problems with the Duplex Drive (DD) tanks used during D-Day.

- DD tanks worked by erecting a 'flotation screen' around the tank, which enabled it to float, and had a propeller powered by the tank’s engine to drive them in the water.
- DD Tanks were not designed for rough seas and were put in the water too far from shore.
- At Omaha, 27 of 29 DD Tanks were lost at sea.
- This left the invasion troops at Omaha with no protection from enemy fire.
• The project had significant procurement challenges.
• Landing craft of all types had to be built for the invasion.
  • For nearly thirty years, the boat building company founded by Andrew Jackson Higgins was an important fixture in New Orleans.
  • What began as a sideline to the petroleum industry, in 1930, soon developed into a thriving commercial concern.
  • Higgins specialized in shallow-draft boats suitable to the bayous of Louisiana. With the war, Higgins Industries became one of the largest manufacturers of U. S. naval combat boats during the World War II.
The ability of the company to design and produce vessels in record time meant that during the war they produced 20,094 boats, employing 20,000 workers at seven plants in the New Orleans area.

Their most famous vehicles were the landing craft used during the Normandy Invasion on D-Day (LCVP), which prompted General Eisenhower to remark that Andrew Higgins "won the war for us."

A replica Higgins Boat, built in the 1990s using the original specifications from Higgins Industries, is on display in the National World War II Museum in New Orleans.
• The communication “network” set up on D-Day relied extensively on traffic between the command posts on the ships off shore and the radiomen fighting on the beaches that they had invaded.

• A communication breakdown actually occurred at Omaha beach and at Pointe du Hoc, as radios were lost or damaged, thus becoming unusable.

• At one point there was so much confusion, that the command posts could not decide whether to call for a full retreat from Omaha or send in another wave of “fresh” troops.
COMMUNICATION MANAGEMENT

• The ultimate hi-tech communication technology!
• Several pigeons were used to communicate between Normandy and England during the D-Day events.
• **Gustav** was a pigeon of the RAF pigeon service. He was awarded the Dickin Medal, also known as the animal’s Victoria Cross, for bringing the first report of the Normandy landings to the British mainland.
• Another Dickin Medal went to the **Duke of Normandy**, dropped behind enemy lines with the British paratroopers.
HUMAN RESOURCE MANAGEMENT

• Gen. Eisenhower’s role was that of a Chief Executive Officer (CEO), a role which was conceptually adopted by American Corporations in the 1950s.
• He reported to a “Steering Committee” which was made up by President Roosevelt and U.K. Prime Minister Winston Churchill.
• Gen. Eisenhower was able to rely on a high-caliber team made up of top U.S. and British superior officers.
Allied troops went through extensive training and exercises to prepare for the D-Day invasion.

The southern coast of England was used to simulate landings of troops and equipment, but during one such exercise, German PT boats destroyed two landing ships at a cost of over 1,000 casualties.

There were lessons learned for the Allies from this debacle:

- The realization that there were no rescue craft assigned to the exercise;
- The soldiers had not been instructed in inflating their life preservers, nicknamed Mae Wests;
- British and American radio signals were on different frequencies.
HUMAN RESOURCE MANAGEMENT

• Soldiers were fed a huge breakfast the morning of the invasion.

• Crammed in their landing crafts for hours in rough seas, several became sea sick and totally dehydrated by the time they reached shore and had to race for their lives, carrying a 70 lbs. pack on their backs.

• Omaha became known as “Bloody Omaha,” but the training and the exercises paid off, as the troops stood their ground as well as they could against awful odds.

• Racing across the beach and over the shingle, they huddled under the cliffs at Omaha beach and fought back as well as they could, even though casualties were horrific.
There were several acts of heroism on all fronts on D-Day.

At Bloody Omaha, two men stand out above all others. They both received the Distinguished Service Cross for their acts of valor.

Gen. George A. Taylor found the remnants of his exhausted and shell-shocked men pinned down along the seawall. He was able to motivate, organize and lead the attack inland.
- "There are two kinds of people who are staying on this beach: those who are dead and those who are going to die. Now let's get the hell out of here."

Gen. Norman “Dutch” Cota is famous for rallying his troops on Omaha Beach, by engaging in combat with them and personally leading their first successful breakout.
- "Gentlemen, we are being killed on the beaches. Let us go inland and be killed."
- “Rangers, lead the way!”
• Brig. General Theodore Roosevelt Jr. was the oldest son of 26th U.S. President Theodore Roosevelt.

• Despite a heart condition and arthritis that forced him to use a cane, he led the assault on Utah Beach on June 6, 1944, and was the only general on D-Day to land by sea with the first wave of troops.

• During the assault he remained cool, calm, and collected and inspired all with humor and confidence, reciting poetry and telling anecdotes of his father to steady the nerves of his men.

• He was posthumously awarded the Medal of Honor.
TIME MANAGEMENT

• The events tied to D-Day were planned and scheduled in extreme detail.

• Once all the military objectives were identified, time was allocated to developing detailed tasks and related dependencies.

• Even under enemy fire, these tasks were executed satisfactorily, as a defensible beachhead was established, according to the project schedule, by the end of the day on June 6, 1944 on all landing areas.
COST MANAGEMENT

- Project costs were astronomical, but it is unlikely that a business case was developed along with a detailed cost/benefit analysis.

- Interesting to note that a single 1,400 lb. armor piercing shell fired by a 14-inch 45 caliber gun on the Battleship Texas cost $10,000, which at the time was a huge amount of money.
• The Allies needed to become familiar with the geography of Normandy, where the Nazis were, the many obstacles on the beaches, land mines, etc.

• British citizens were asked to send in any information they might have on northern France, including old postcards.

• The Allies sent "frogmen" to obtain sand samples from the beaches patrolled by German sentries.

• French patriots gave "anti-tank ditch around strong point" or "hedgehog 30 to 40 feet apart" map notations.
RISK MANAGEMENT

• The biggest risks to the project were potential information leaks that could have totally derailed the efforts of thousands of people.

• Risk mitigation efforts were significant when it came to protecting the secrecy of Operation Overlord.

• Operation Bodyguard was the code for the massive deception plans that the Allied planners employed to confuse the Germans as to where the actual invasion was to take place.
There were five deception plans within Operation Bodyguard:

- Ferdinand and Vendetta involved fake invasions of parts of the Western Mediterranean;
- Ironside was the code name for the fake invasion of France from the Bay of Biscay;
- Zeppelin was the invasion code for the fake invasion of the Balkans;
- Operation Fortitude North and South.
• The two branches of Operation Fortitude were used as the decoys employed to create fake field armies that were supposed to be based in South England and in Edinburgh.

• Fortitude North was the “threat” to Norway, while Fortitude South was a “threat” to Pas de Calais.

• Part of Operation Fortitude was its two airborne operations:
  • Operation Glimmer and Operation Taxable.
  • This required the use of heavy bombers that flew very low in the sky to drop pieces of aluminum foil in varying sizes.
  • Glimmer was implemented by the 218 Squadron, which flew towards Boulogne.
  • Taxable was handled by the 617 Squadron, and flew towards Dieppe.
• The key element of Fortitude South was Operation Quicksilver.

• It was meant to convince the Germans that the Allied force consisted of two army groups:
  • 21st Army Group under Gen. Montgomery (the actual Normandy invasion force),
  • 1st U.S. Army Group, a fictitious force under General George Patton, located in southeastern England for a crossing at the Pas de Calais.
One of the main deception channels for the Allies were double agents. The three most important double agents during the Fortitude operation were:

- **Joan Pujol Garcia (Garbo)**, a Spaniard recruited by German intelligence; he sent them convincing disinformation from Lisbon, until he was employed by the British. He created a network of 27 imaginary sub-agents by the time of Fortitude. He was awarded both the Iron Cross by the Germans and an MBE by the British after D-Day.

- **Roman Czerniawski (Brutus)**, a Polish officer. Captured by the Germans, he was offered a chance to work for them as a spy. On his arrival in Britain, he immediately turned himself in to British intelligence.

- **Dusan Popov (Tricycle)**, a Yugoslav lawyer employed by the German Secret Service. Awarded the OBE by the British Government.
INTEGRATION MANAGEMENT

• D-Day was an extremely complex operation and provided enormous challenges, since it was and still remains the largest amphibious operation in history.

• No project had so many different parts and components that had to be so carefully coordinated, with timing of all operations on D-Day extremely critical.

• U.S., British, Canadian, and French forces had to come together at the right time and in the right places to attack, defend, sabotage, and hold crucial positions, while fighting back German troops and tanks.

• “In battle, plans are worthless, but before the battle, planning is everything.”

“Plans are worthless, but planning is everything.”
- Dwight D. Eisenhower
Our landings in the Cherbourg-Havre area have failed to gain a satisfactory foothold and I have withdrawn the troops. My decision to attack at this time and place was based on the best information available. The troops, the air and the Navy did all that bravery and devotion to duty could do. If any blame or fault attaches to the attempt, it is mine alone.

- July 5
“The one quality that can be developed by studious reflection and practice is the leadership of men.”

-Dwight D. Eisenhower

“In the Army, whenever I became fed up with meetings, protocol, and paper work, I could rehabilitate myself by a visit with the troops. Among them, talking to each other as individuals, and listening to each other’s stories, I was refreshed and could return to headquarters reassured that, hidden behind administrative entanglements, the military was an enterprise manned by human beings.”

-Dwight D. Eisenhower
“Leadership is the art of getting someone else to do something that you want done because he *wants* to do it.”

- Dwight D. Eisenhower

“Always take your job seriously, never yourself.”

- Dwight D. Eisenhower
“Character
in many ways is
everything in leadership. It is
made up of many things, but I would say
character is really integrity. When you delegate
something to a subordinate, for example, it is absolutely your
responsibility, and he must understand this. You as a leader must take
complete responsibility for what the subordinate does. I once said, as a
leadership consists of nothing but
everything that goes wrong and
credit for everything that
taking responsibility for
giving your subordinates
goes well.”

- Dwight D. Eisenhower

“Optimism and pessimism are infectious and they spread more rapidly
from the head downward than in any other direction.”
- Dwight D. Eisenhower
"The **real satisfaction** was for a man who did the best he could. My ambition in the Army was to make everybody I worked for regretful when I was ordered to other duty."

-Dwight D. Eisenhower

"There arrives that moment at which soft speaking should be abandoned and a fight to the end undertaken. Any man who hopes to exercise leadership must be ready to meet the requirements face to face when it arises; unless he is ready to fight when necessary, people will finally begin to ignore him."

-Dwight D. Eisenhower
“History does not long entrust the care of freedom to the weak or the timid.”

— Dwight D. Eisenhower

“Never waste a minute thinking about people you don't like.”

— Dwight D. Eisenhower
• The debt we owe to those who took part on D-Day and the subsequent Battle of Normandy is immense.

• The invasion of 6 June 1944 changed the course of history.

• The outcome of the war and the make-up of a post-war Europe would have been very different had the invasion of Normandy failed.

• The story of D-Day would have marked the continuation of Europe’s new Dark Age and not “the beginning of the end.”
WHAT MIGHT HAVE BEEN.....

• Had the Allies’ invasion of France been repulsed, had the Germans triumphed during the Battle of Normandy, had the Germans not been so emphatically deceived, it would have spelled disaster for the Allies and the cause of freedom.

• Germany would have been on full alert for a repeat attempt, which would have taken another year or more to prepare, had it taken place at all.
WHAT MIGHT HAVE BEEN.....

- America would have turned its attention and its resources to the war in the Pacific.
- Hitler would have had a free hand to concentrate his efforts in defeating the Soviet Union in the East.
- Had he failed, which, in all likelihood would have been the case, Stalin’s troops, having overrun Berlin, would have advanced into western Germany and, from there, into Western Europe.
WHAT MIGHT HAVE BEEN.....

• The post-war map of Europe would have looked far different – instead of an ‘Iron Curtain’ separating East from West, the curtain would have separated North and South, dividing Britain from a Europe dominated throughout by Stalin.

• Much of Western Europe would have suffered continued subjugation – only under a different master and different uniform.

• The Cold War, as chilly as it was, would have been that much colder.

• *May we never forget*...
D-DAY IN NORMANDY

The Project Management Challenges of the “Longest Day”

Walter A. Viali, PMP
PMO To Go LLC
Contact Information

• Speaker: Walter A. Viali, PMP
• Company: PMO To Go LLC
• Website: www.pmotogo.com
• Phone: 713-252-9722
• E-mail: viali@pmotogo.com

Thank You