# **Exhibit History**

Jerry Roberts has designed and built over 60 exhibits, for several museums. These have ranged from simple *in-case* installations to multi-million-dollar exhibitions including major set construction and multi-media components. Roberts' involvement normally includes overall project management from conceptualization through installation. Elements include master planning, research, storyboarding, scripting, resourcing images, documents and artifacts, graphic design, set design, fabrication and installation.

# Intrepid Sea Air Space Museum 1984-2005

The Intrepid Museum, located at Pier 86 on Manhattan's Hudson River waterfront, encompasses the decommissioned WWII aircraft carrier USS Intrepid, the Cold War era submarine USS Growler and the Vietnam War era destroyer USS Edson.

# **British Airways Concorde**

Roberts spent several days in England working with British Airways to prepare for the transfer of one of the last Concordes to the Intrepid. After its final transatlantic flight from London, Roberts and his team designed new all-weather boarding ramps, created internal protective case-work, an interpretive boarding experience, and conservation plan for this supersonic aviation icon.

# **Day of Destiny**

\$1.5M multi-media immersive re-enactment of the Intrepid's darkest day when it was hit by two kamikaze aircraft within five minutes during the Second World War. The project combined full sized, real and mock-up aircraft, simulated fire and smoke, and five large drop-down screens projecting vintage film and images combined with actors, dramatic lighting and sound effects. The backdrop to the exhibit was a 32-foot-long by 15-foot-tall mural painted by artist Russell Buckingham.

# **Flying Machines**

From the Wright Brothers to the Concorde, this 2003 exhibit celebrated the centennial of flight with actual aircraft and models, climb aboard simulators and an immersive atmosphere incorporating huge murals and multi-media enhancements. Simulators allowed visitors to experience stepping into a hot air balloon basket and challenged them to propel a human powered aircraft.

# **Cobra Attack**

An Interactive climb-aboard display of one the Army's most famous combat helicopters.

# **Ground Zero Monument**

Major outdoor monument on the Intrepid's pier was created from World Trade Center structural beams recovered by Roberts and the Intrepid operations team. It was the first official

9-11 monument in New York City (also, the world) and became a gathering place for first responders and victims' families.

### September 11

The nation's first major 9-11 exhibit incorporated many artifacts recovered from ground zero, as well as the iconic, "Lady Liberty" statue mysteriously left in front of the local fire battalion which lost 15 men. The exhibit included unpublished photos taken on the ground during the collapse, actual first responder uniforms and equipment, a huge mural backdrop that had been due to be installed in the Trade Center three days after the attack and a poignant set of clocks, each stopped to mark significant events throughout the day. Elements of this exhibit were later donated to the National September 11 Memorial Museum.

### All Hands On Deck

Hands-on interactive adventure at sea for kids of all ages, this exhibit incorporated a large hydraulic platform that pitched and rolled like a ship's deck. A ship's wheel, interactive radar and other navigation equipment allowed visitors to get their "sea-legs" and "experience" commanding a ship at sea. An eighteen-foot high sea-scape mural backdrop completed the experience.

### Korea, The Forgotten War

50-year anniversary of the first major conflict of the Cold War era included a panoramic backdrop with integral display cases containing uniformed mannequins and other artifacts.

### **Prepare to Dive**

The evolution of the submarine from 1776 to the present. The exhibit featured a 32-foot long by 15-foot tall mural backdrop depicting pioneering submarines in an underwater panorama enhanced by undulating blue lighting. The exhibit included a full-sized climb-aboard re-creation of the world's first combat submarine, Bushnell's Turtle, built in Connecticut during the Revolutionary War. The exhibit also included the restoration of one of John Holland's pioneering one-man submarines built in 1900.

### The Spanish American War

The little war that launched the United States onto the world stage. The exhibit featured newly commissioned ship models and dioramas depicting phases of the sea battles, a massive panoramic background mural and a full-scale recreation of the bow of the USS New York which incorporated the ship's actual figurehead.

### **Mission Control**

Featured the Intrepid's role as a prime recovery vessel during the space race. The exhibit included a refurbished mock-up of a Mercury space capsule built for the 1964 World's Fair as well as NASA artifacts and multi-media displays of launch and recovery operations.

### Titanic, the Myth, the Legend, the Truth

The real story behind history's most infamous maritime disaster. Exhibit included a dramatic mural backdrop of the ship going down, a simulation of ship's helm and a 10-foot long model of the Titanic.

#### Iwo Jima Monument

Restoration and interpretation of the original plaster sculpture created by Felix de Weldon, displayed in front of the War Department during the Second World War. It was later used to produce the iconic bronze monument at Arlington National Cemetery. The statue was in very bad condition and significant plaster work had to be done as well as re-applying a bronze-like patina utilizing the original formula.

### D-Day

The greatest one-day battle in history on which hinged the fate of Europe during the Second World War.

### The Normandie Disaster

The fire and capsizing of France's great ocean liner in New York Harbor. This was largely an exhibit of vintage photographs but also included artifacts and models.

#### The Air War Over Europe

The Allies campaign to defeat Hitler's war machine from the air. The exhibit featured vintage photographs, maps and videos and over 100 model aircraft including a 10 x 30-foot diorama containing a formation of American bombers being attacked by German fighters.

#### The Age of Exploration

Columbus and the New World; both sides of the story. The exhibit featured model ships, vintage maps, and artifacts representing both the European and indigenous peoples involved in the impact between these radically different cultures.

#### The Battle of Britain

The tenacity and technology that saved Great Britain in 1940. The exhibit featured a full-scale mock-up of a London subway platform with mannequins representing families sheltering from an air-raid. A sound track played period music and excerpts from BBC war reports and speeches by Winston Churchill ("Never before in the field of human conflict has so much been owed by so many to so few..."etc.) A model aircraft contest was conducted before the exhibit from which the best models in several categories were selected to be displayed. An outdoor entry was created featuring an unexploded bomb surrounded by sand-bags and warning signs.

#### **The Eastern Front**

The End-Game of the War in Europe, produced in conjunction with the Central Armed Forces Museum in Moscow shortly after the collapse of the Soviet Union. For this exhibit Roberts traveled to Moscow to sign a treaty with the Russian Armed Forces Museum and select artifacts to be loaned for the exhibit.

### Flight Deck Experience

Interactive A-6 Intruder cockpit allowing visitors to land and take off from an aircraft carrier using simulators built into the cockpit of an actual aircraft.

## Washington's Navy

The six "super frigates" and the rebirth of the United States Navy. Models of all six of America's large frigates (like the USS Constitution, the Constellation, the Philadelphia, etc.) were barrowed or commissioned for the exhibit. Sound scape included sea chanties and maritime sound effects.

# **Undersea Frontier**

The history and technology of underwater exploration and archaeology. This large-scale exhibit included a "stage set" which simulated an undersea habitat complete with real fish swimming within five portholes. Other large tanks and dioramas displayed artifacts recovered from regional shipwrecks. An actual undersea lab-pod was recovered from Long Island Sound specifically for this exhibit. It was to support this project that Roberts formed the Intrepid Dive Team and personally visited several shipwrecks off the Atlantic Seaboard. The exhibit also included a diving bell and a research submersible loaned by International Underwater Contractors founded by Jacques Cousteau's original partner, Andre Galerne. Meant to be a one-year installation, it was so popular that it remained in place for seven years.

# What's in A Name

The legacy of the four US Navy ships named Intrepid from the small sailing vessel used by Stephan Decatur in the Barbary Wars to the WWII carrier CV-11 which served on through the War in Vietnam and the space race and is now a major museum in New York.

# **The Growler Experience**

Interactive Tour of America's 317-foot long Cold War Submarine USS Growler. This project involved the creation of an audio tour scripted by Roberts and narrated by one of the ship's original crewmen.

# **G-Force Experience**

Immersive cockpit simulators recreated the experience of being catapulted from the deck of an aircraft carrier, flying around the fleet and landing back on deck with the jolt of a tail-hook capturing the arresting cables.

# Intrepid's Flight-Deck Then and Now

The evolution of the Intrepid from WWII to the Jet Age. Two fifteen-foot-long models of Intrepid's flight deck Roberts commissioned and placed side by side within a large custom-built glass enclosure. One depicted the original 1944 straight deck configuration with model aircraft and the other showed the deck after the 1950s jet-age angled flight-deck re-fit. Push buttons and laser pointers were used to allow visitors to highlight specific areas on each model.

### **USS Nevada Project**

Rebuilding of the 36-foot-long fiberglass prop used in the filming of *Tora, Tora, Tora* after it had fallen from a crane while being loaded aboard the Intrepid. Roberts spent two intensive weeks re-aligning the hull and using fiberglass boat repair techniques to put the shattered hull back together and re-patina it to match the rest of the hull. Meanwhile woodworkers rebuilt the collapsed deck and superstructure.

# SE5-A Cockpit

Roberts created the entire cockpit instrumentation for a British WWI fighter plane using wood, brass, and styrene plastic. The finished product was indistinguishable from the real thing.

# Gemini Capsule

This project involved transforming the mock-up of a Gemini space capsule used to film a television production into a complete museum quality display. Roberts created the missing seven-foot parabolic heat-shield from fiberglass over a spray-foam and plywood substructure. He also created missing cockpit gauges from styrene plastic.

# National Lighthouse Museum 2005

This project was initiated to create a major museum complex to represent all historic lighthouses and lightships across the nation. The site chosen by a national search committee (with which Roberts served) was the old US Lighthouse Depot on Staten Island which contained seven historic Lighthouse Service buildings and a major pier. Roberts worked on master planning to transform the site into multi-faceted public attraction celebrating our nation's Lighthouse Service.

# **Connecticut River Museum 2006-2024**

Located on the Essex waterfront six miles upstream from the river's mouth on Long Island Sound, the museum campus comprises three historic buildings including the 1872 Steamboat depot and the 1732 Samuel Lay House. The museum celebrates the dynamic history and rich environmental splendor of the Connecticut River which runs 410 miles through four states as it flows southward from its source near the Canadian border.

# Battle Site Essex Project & Exhibit

In 2009, as the bicentennial of the War of 1812 approached Roberts set out to establish the true scope of the British Raid on Essex in 1814 during which 27 ships were burned, the largest single loss of American shipping during the war. Grants were secured through the Connecticut Humanities Council and the National Park Service American Battlefield Protection Program. These funded extensive research of both sides of the Atlantic and extensive archaeology along the river. Many artifacts were found including the remnants of one of the burned American Privateers in the river. The project resulted in recognition of Essex as a state and federal War of 1812 battle site. An exhibit was created within the Connecticut River Museum which included

artifacts, graphic panels, a diorama of the burning of the ships and a 20-foot long mural of the British landing on the Essex waterfront. From this work, Roberts created a documentary and the book, *The British Raid on Essex, the Forgotten Battle of the War of 1812*.

## Battle Site Essex Heritage Tourism Corridor 2014

Roberts was commissioned to create outdoor battlefield interpretive graphics at four locations along the Connecticut River along with battlefield tri-fold map for statewide distribution. This allows visitors to access key locations associated with the British raid and understand what took place there.

### The River From the Air

Roberts partnered with pilot/photographer Tom Walsh to document the river's 410-mile course from the air. An exhibit was created incorporating 90 high-resolution images. The exhibit included a 4 by 12-foot table-top map of the river's course which incorporated a grid system allowing visitors to identify where each image was taken.

### **Treasures in a Bottle**

An interpreted collection of over 60 folk-art ships and whimsies in bottles.

### **Taming the Beast**

The dramatic evolution of steam power on the Connecticut River. Exhibit included large scale models, maps, paintings, a hands-on re-creation of a steamboat navigation bridge (ship's wheel and binnacle) and a ticketing office as well as an actual eight-foot tall vintage stream engine.

### **Messing About in Boats**

From canoes and runabouts to schooners and steam yachts this exhibit told the story of recreational boating on the Connecticut River. The exhibit featured dozens of images from the museum's collection as well as artifacts and models.

### **Hidden Treasures**

An eclectic collection of artifacts from mastodon tusks to octants, astrolabes, paintings, models and other seldom seen treasures from the museum's storage vaults.

# On the Great River

Four Hundred miles and four hundred years of dynamic history and stunning natural wonder were depicted through artifacts, models, maps, graphic panels video presentations and a soundscape. Products made along the river we also featured.

### The Eagles of Essex

A hands-on primer to the annual "invasion" of bald eagles to the Lower River Valley. Visitors can build their own full-sized eagle's nest and measure their own "wingspan" as compared to an eagle's. A digital slide show cycles through recent photos of eagles on the river and visitors are encouraged to send in their own eagle images, some of which are added to the

presentation.

## Monitoring the Connecticut River

The mechanics of how this 410-mile long river works as an eco-system, and why it matters. A USGS monitoring system installed on the museum's pier feeds information to the exhibit as well as a central USGS database. Fun fact: On average, The same amount of water flows past the museum's docks every hour as flows over Niagara Falls every 13 minutes!

### **Interactive Turtle**

Dive into history aboard this full-sized climb-aboard replica of the Revolutionary War submarine which was built nearby in 1776. Roberts designed this \$80K replica which was fabricated for the Intrepid's *Prepare to Dive* exhibit and facilitated its donation to CRM. Once inside the replica, visitors can peddle the pedals, crank the cranks, operate the rudder and look through portholes at a mural depicting the view from the sub of a British *man-of-war* in New York Harbor in 1776. Sound effects take each visitor through the attack sequence "narrated" by pilot Ezra Lee as water gurgles outside along with the sound of the propeller squeaking through the harbor.

### **Mysteries of the Turtle**

To further interpret the interactive Turtle, Roberts and his team created a fully interactive touch screen experience containing hours of graphic information including plans, animated maps, and detailed information of the sub's construction and the locations of its testing and combat operations.

# **Blue Water Bound**

A collection of stories, maps, artifacts, models and paintings of the captains of Connecticut and their adventures on the high seas. Graphic panels tell their stories while a large interactive board game allows visitors to wind and move spinners to make their own voyage across the Atlantic and back... but watch out for those shoals and nor'easters!

# **Climbing the Connecticut**

What was once a three-story internal fire escape was transformed into a vertical gallery. As visitors ascend the staircase they can explore a continuous painting of the river and its features winding up the central column with corresponding aerial photographs on the outside walls. On each landing, windows allow visitors to look out over the river as they climb towards its source on the Canadian border (on the third floor!)

# Acquisition of 1732 Samuel Lay House, Essex

In 2014, Roberts working with the board of directors, spearheaded the acquisition of the adjacent Samuel Lay house and grounds, effectively doubling the size of the CRM campus and incorporating this historic building into the fabric of the visitor experience.

# Essex Historical Society 2014

In 2014 Roberts created a special exhibit in the Essex Public Library which told the story of the British raid with graphic panels and artifact cases.

# New England Air Museum 2014-2018

Located adjacent Bradley International Airport in Windsor Locks, Connecticut, NEAM's 56 acre campus includes six major buildings and houses a collection of over 100 historic aircraft and thousands of aviation artifacts.

# Air War Vietnam

During the 50<sup>th</sup> anniversary of the war in Vietnam, Roberts created an exhibit comprising 18 Vietnam War era aircraft and specialized graphic display panels.

### **Professor Silas Brooks**

Celebrating New England's Quintessential Aeronaut this exhibit restaged Brook's original balloon basket and a retro, spectral imaging theater that projected a hologram-like program depicting an encounter between the time-traveling Professor Brooks and a young Connecticut farm girl, enthralled with aviation, named Amelia.

### Sky Crane Experience

After restoring a Sikorsky Sky Crane helicopter that had been outdoors for many years, a unique visitor experience was created in the cargo pod which could originally carry up to 45 troops. Six large flat-screen monitors were installed and played a video filmed from a helicopter Roberts commissioned to fly around Bradley Airport and over the museum. Combined with a sub-woofer sound system blasting the sounds of the helicopters engine. The result gives the illusion that visitors are looking out the windows at the museum campus and the airport below.

# **DC-3** Restoration

The museum's vintage DC-3 was completely stripped of its many coats of exterior point and polished to its original shiny aluminum finish by NEAM's restoration team who also painted the large blue stripes on either side of the fuselage. Specialized painters were then commissioned to hand paint the aircrafts letting and logos. The results were stunning and represent the most authentic exterior restoration of a DC-3 to its original 1947 markings.

# **Observation Mezzanines**

Roberts most ambitious infrastructure project was to transform two storage mezzanine areas, inaccessible to the public, into major public observation decks and new exhibit spaces overlooking the aircraft collections. New grand staircases were built, elevators installed, and carpeting and railings completed the stunning new spaces. At the same time the museum's aging fluorescent lighting systems in the massive public hangars were replaced with modern LED lights and the old heating system (without air conditioning) was replaced with modern efficient HVAC systems.

### Kaman, A Legacy of Innovation

This exhibit tells the story of Charles Kaman one of the nation's great innovators in helicopter theology. A true renaissance man, Kaman created an incredible legacy which spanned six decades and continues today through the corporation he built. The exhibit includes three of his pioneering helicopters one of which required a specially engineered mount to simulate flight. A 50-foot display wall incorporates clean modern design and includes built in graphic panels, display cases and a large flat screen monitor playing a film specially produced for the exhibit.

### Welcome to NEAM Lobby Exhibit

In a move to transform the museum's entry lobby and evoke the mood of a retro air terminal, old signage was removed from the walls and a large glass oval map of the world was placed on stand-offs from the wall. The landmasses and air routes were affixed to the glass while the water areas were left clear. This provided a 3-D look and showed how the adjacent Bradley International Airport connects New England to the world. Above the route map a series of clocks depict the time zones of major destinations like New York, London, Moscow, Tokyo, etc. The installation quickly became a favorite backdrop for family selfies. As the sign above the clock says "Welcome to the New England Air Museum" family photos posted to social media become instant marketing tools.

# **Exterior Branding and Wayfinding**

Roberts replaced the museum's ineffectual logo to feature NEAM's most important artifact, the 1938, Sikorsky transatlantic flying boat. New signage was created for the exterior of the museum while a wayfinding system within the museum welcomes visitors and points them to features such as the mezzanines, the VS-44 and other destinations within the multi-hangar complex.

# **Rentschler Field Annex Project**

In 2016 Roberts worked with a Pratt & Whitney engineering team and Centerbrook Architects to create an adaptive reuse design incorporating two historic aircraft hangars at Rentschler Field in East Hartford into an annex facility of the New England Air Museum. The plan called for a new visitor center which complemented the historic structures. In one of the hangars a two-level mezzanine system would provide lofty vistas to overlook the aircraft collection.