



THE CHINA LAKER

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COSO OLD FORT

BY
C. JOHN DiPOL

No, the Naval Ordnance Test Station was not the first military establishment on what is now the China Lake North Range area. That appellation belongs to an outpost of the U. S. Army Independence that dates back to the 1862-1877 time frame is located in the Coso Mountains in Coso Canyon one mile northeast of Coso Village. Before we describe the specifics of Coso Old Fort, let us review some of the background.

With the 1859 discovery of the Comstock Lode in Nevada, many more prospectors were streaming into Eastern California. These included stockmen and settlers that first arrived in the Owens Valley in 1861. The hard winter of 1861—62 gave rise to conflicts between the native inhabitants and the settlers. By early 1862, the violence increased to the point where the settlers asked for protection by U. S. Army troops. A detachment of troops from the 2nd Cavalry Regiment, California Volunteers was dispatched for a reconnaissance. Their report led to the establishment of Camp Independence in the Owens Valley on July 4, 1862, manned by companies from the 2nd Cavalry. For the next several years, the violence raged to and fro, with periods of peace, followed by battles. In 1864, with the Civil War at its peak in the east, the Army pulled the 2nd Cavalry from Camp Independence. The native inhabitants ruled the Valley, but by November, 1865, following the conclusion of the Civil War, the Army reoccupied Camp Independence with hardened veterans from the Union armies, stabilized the conflict and essentially ended all fighting by the end of the 1866/early 1867. Camp Independence remained in operation until 1877.

This was a dark period in the history of the Owens Valley. Author Chalfant's final paragraph at the end of several chapters on the subject in his book, "The Story of Inyo", says it best: "Perhaps it is not the business of a record of this character to philosophize in the Indian War subject. The facts have been set down as fully and impartially as they have been learned. That the Indian should resist trespass on hereditary domain was but natural. Some white men proved themselves as savage and ruthless as those they fought. But the white domination, and its ability to make use of resources Were as inevitable here as they have been elsewhere as civilization advanced."

But, back to Coso Old Fort. The site is located at Coso Springs (formerly Darwin Springs) in Coso Canyon and consists of ruins of three main building structures and several minor features. The building ruins are of sufficient integrity, however, that their functions and original floor plans have been reconstructed (on paper, of course). The **barracks** building is located adjacent to the springs, the **redoubt** is on a ridge in the canyon wall high above the barracks, and the third structure is an explosive **magazine/storage** facility separately located between the first two.

The Barracks is built of cut and dressed granite blocks and mud mortar. The overall dimensions are 67 ft. by 21 ft. which enclosed four rooms. The northern portion is an extension 13 x 12 ft., with a fireplace and may have been a kitchen. There is a fireplace in the furthestmost of the other of the other 3 rooms. One window and several doors between rooms and to the exterior are evident. The building most likely had a gables roof. The Magazine/storage facility is cut into the hill at an elevation slightly higher than the barracks. It is square in shape made out of crudely stacked and unmortared rock.

(Continued on page 2)

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The front wall is 19 ft. in width, the wing walls are 17 ft. and 14 ft. in length and the granite outcrop make up the rear wall. The center of the structure is cut into the hill to form a level floor. The original height was probably four feet. The Redoubt is a trapezoidal structure built of natural rock, unmortared and crudely stacked. There is no obvious entrance, but two of the walls have intact sections low enough to climb over, one of which has an access ramp created with rock and earth fill. There is a steep drop on three of the sides. The walls are four to five high. Spaces left between the rocks provide loopholes or gun ports. These 13 openings combined allow for a full view of the surrounding area and approaches to the fort. The gun ports average 5 inches square and are positioned in the wall to accommodate standing, kneeling, and sitting soldiers.

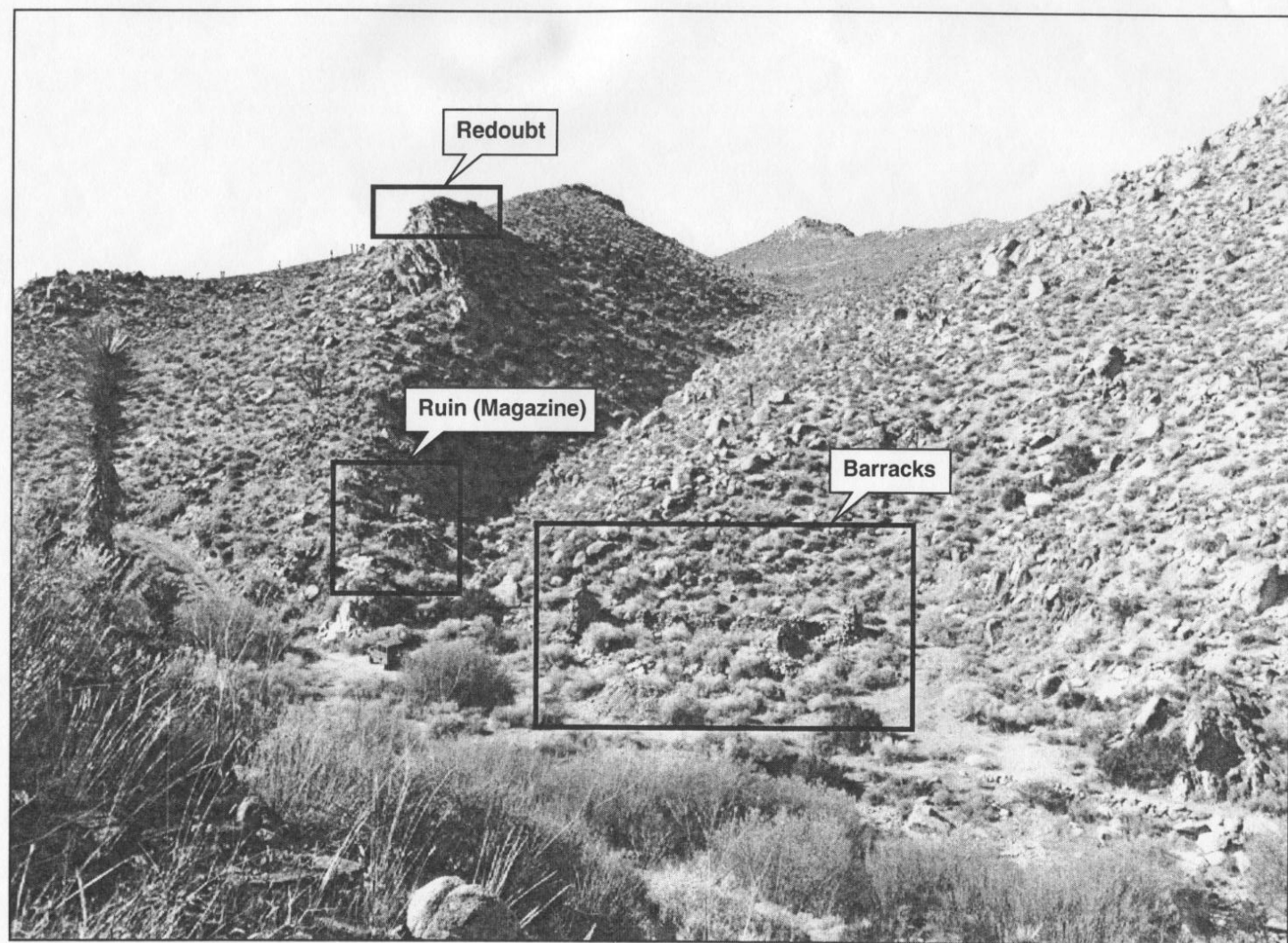


Figure 6. Relative Location of Old Fort Site Barracks, Ruin and Redoubt at Darwin Springs, CA-INY-5754H

At this point it would be well to mention that the water springs at the site of the Old Fort in Coso Canyon is, and continues to be, the primary source of water for the mining town of Darwin, 8 miles distant. The history of the Darwin Springs Water System is a story all of its own and will not be covered by this article. However, it would be well to note the following: The mining discoveries in Darwin were made in 1874. The mining camp boomed. Victor Beaudry, of Cerro Gordo fame, quickly claimed, or acquired the rights to, water at several springs in the Coso area. The most plentiful of these was a spring most commonly called in later years as "Darwin Springs". He formed the Darwin Water Works in early 1875, (Cont'd on page 4)

China Lake Museum Foundation

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Past President's Report by Paul Homer

As you see by my byline, this is my last report to you as President of the Foundation. During the October meeting of the Board of Directors, the election of officers of the Foundation was conducted. Bob Campbell was elected President, and Paul Homer was elected to the office of Vice President for Operations, replacing Burrell Hays. Karl Ficenc was elected to the Treasurer's Office, replacing Wane Doucette. Continuing in their positions are Pat Doucette, VP for Membership, Bob Peoples, VP for Public Relations, Charles White, VP for Facilities, and Jack Latimer, Corporate Secretary. I wish to thank all of the officers and Board members for their outstanding efforts during the four years that I have served as President of the Foundation. Together, we have accomplished a great deal in furthering the objectives of the U. S. Naval Museum of Armament and Technology. Likewise, thanks go

to all of our volunteers at the Museum, who continue to keep the doors open and lead tours in the Museum, and do other good works on displays and publications. I look forward to continuing to work with President Campbell and the Board, the Foundation, and the Museum staff to gain the funds for construction of a new building to house a great variety of new displays to highlight the rich history of the China Lake community and Naval armament and technology.

Since the last newsletter, the Foundation held its annual members meeting, and elected to the board eight Directors to serve three-year terms. The eight Directors are Alice Campbell, Wayne Doucette, Karl Ficenc, Paul Homer, Ruth Hornibrook, Charles Roulund, Betty Seaman, and Bill Sumners. Congratulations to all!

Commenced development at Darwin Springs, installed the eight mile water line and first delivered water to Darwin in July , 1875. For over 130 years that system, through many owners, much maintenance and repair and full replacement is in operation to this day.

Darwin Springs. It has been known by many different names over the decades. It is not alone. Students, amateur or professional, of the history of the Coso and Argus areas (and throughout the whole West, for that matter) have noticed a pattern. Either some landmarks, such as springs, have become mobile over the decades, moving from one site to another (!) or prospectors, stockmen, settlers, mapmakers often decided to give them a name of their own choosing. Correspondence from pioneer Elizabeth Meham on file in the Eastern California Museum indicates that Darwin Springs has been called "Coso Cold Springs", "Santa Rosa Springs", "Town Springs", and "Coso Springs".

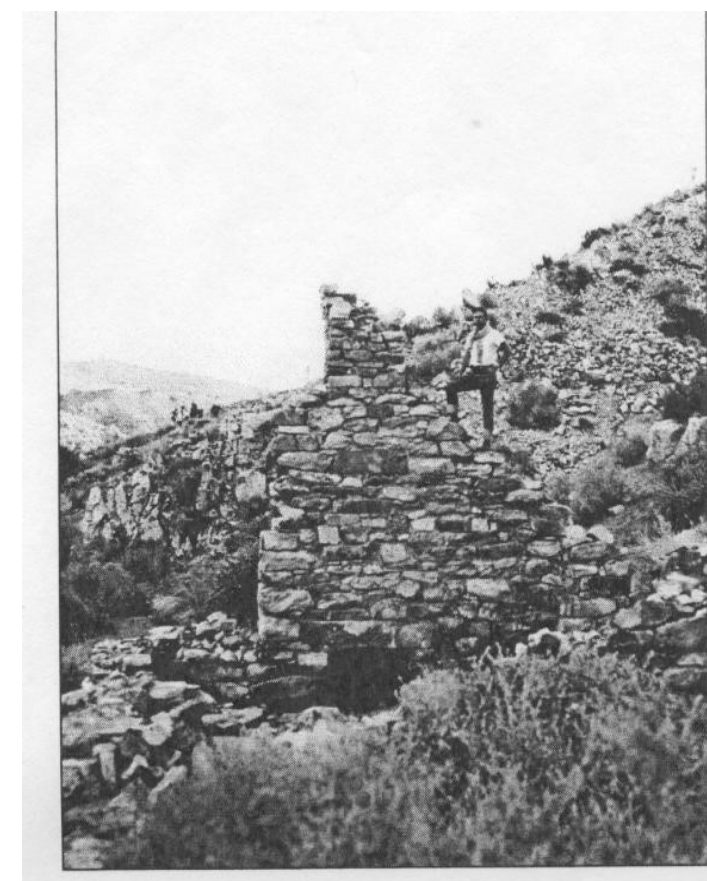
(Note: She also indicates that, as a young girl, she used to find Calvary uniform buttons there.) The USGS 15' Coso Peak, Calif. Topographical quadrangle of 1951 labels the spring as "Coso Springs". The Fraasier map "U. S. Naval Ordnance Test Station, Inyokern, China lake, California—Range Roads and Landmarks", compiled in the mid or late 1940s by J. A. Fraasier, and early China Laker, labels the site as "Darwin Springs" and also has the notation "Old Fort". An 1877 map, based on the 1872 Wheeler Survey, labels it as "McGuinness Springs". And, more recently, a researcher from the Eastern California Museum has found a 1862 document that named the site "Granite Springs".

Old Fort Barracks with Pop Lofinck, 1956



The most recent and most intensive field work, research and analysis effort for the origins and history of the Coso Old Fort was undertaken jointly by the firms of PAR Environmental Services, Inc. California and JRP Historical Consulting Services, Davis, California. Primary documents at libraries and archives in both California and Washington, D. C. Depositories were accessed. While conducting research at the National Archives in Washington, a number of record groups were reviewed. In addition to the archival and record research effort, contacts were made with historians and archaeologists working on western military-related sites to gain comparative information. This effort was accomplished under contract to NAWS and detailed in the eh joint PAR and JRP report: "National Register Evaluation for the Coso Old Fort and Darwin Springs Water System, China Lake, Inyo County, California", dated January, 2000. The report concluded that the Old Fort Site was associated with U. S. Army activities based at Camp Independence, serving as an outpost for patrolling troops, most probably during the 1862—1866 period of the Indian Wars. It further determined that the Old Fort site appears eligible for inclusion in the National Register of Historic Places.

Barracks Bldg 1970s, Old Fort Site



The PAR/JRP report makes comment on some local theories about the origin and purpose of the Old Fort. Local Folklore has portrayed the fort as an 1860s outpost constructed to protect the mining town of Coso Village from Indians. The term "Old Fort" may have evolved from this theory. Research performed by historian Robert Palazzo indicated that attorney Pat Reddy gained control of the Defiance mine in Darwin through default when original Hispanic owners could not pay their legal fees. A local historian who became aware of this research theorized, in an unpublished document, that the Hispanics who were pushed out of the Defiance Mine were extremely resentful, and the new owners were fearful that in retaliations they would sabotage the Darwin Springs water supply that was so important to the town and mine. The mine owners then built the fort to protect the springs and water pipeline.

The existence of an old military outpost on the China Lake North Ranges has been known since the very beginning of the NOTS facility. However, the uniqueness, rarity, and historical significance of the Old Fort site has been recognized only in very recent years. The PAR/JRP research team has emphasized this very strongly in their joint report:

Within the context of a local military theme, the stone

buildings at the site are representative of a type, period and method of construction that is rare in the region.

The overall preservation of the site is excellent and site has a high potential to yield comparative information valuable in a study of outposts in the west during the Civil War Era.

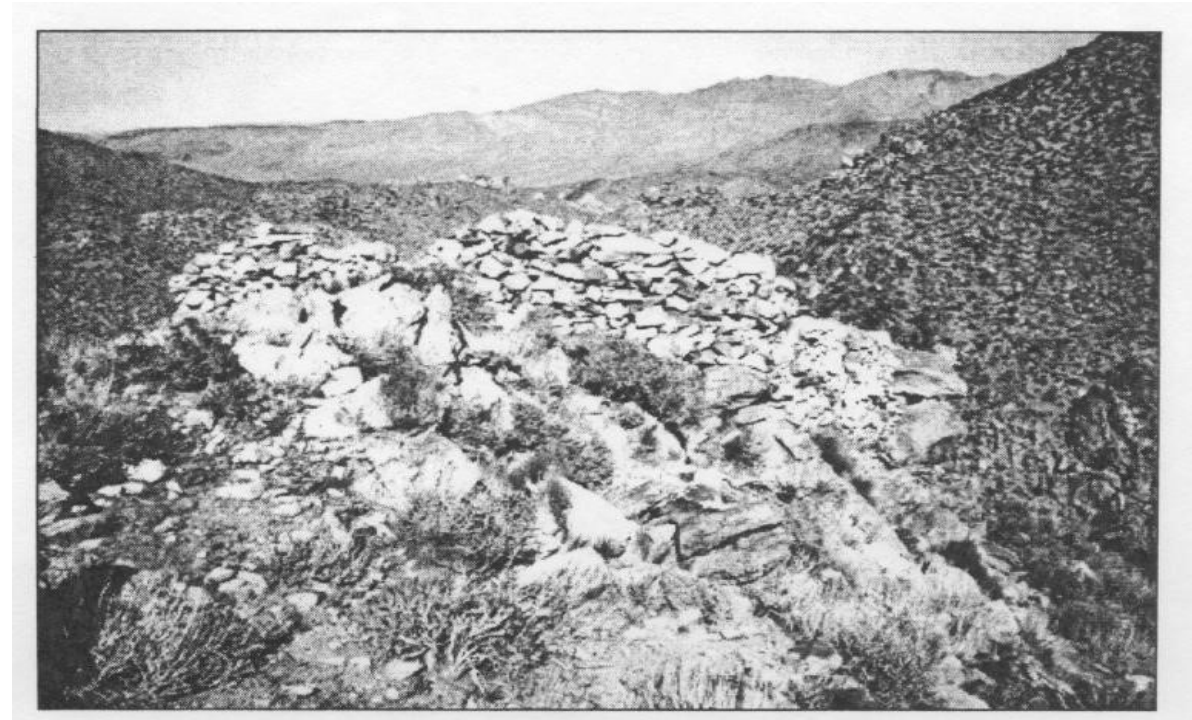
Compared to other posts that have been recorded in the Mojave, this site is remarkably intact. The relationship between the various buildings is evident, the barracks and redoubt retain their original configuration, and there is a strong sense of time and place while standing at the barracks or crouching in the redoubt.

What other surprises might be hidden in the China Lake million acres?? Any ideas??
Subscript: A note of appreciation is due to Russ Kaldenberg, NAWS Command Archeologist, for the loan of the PAR/JRP Project Report which was an important source for this article.

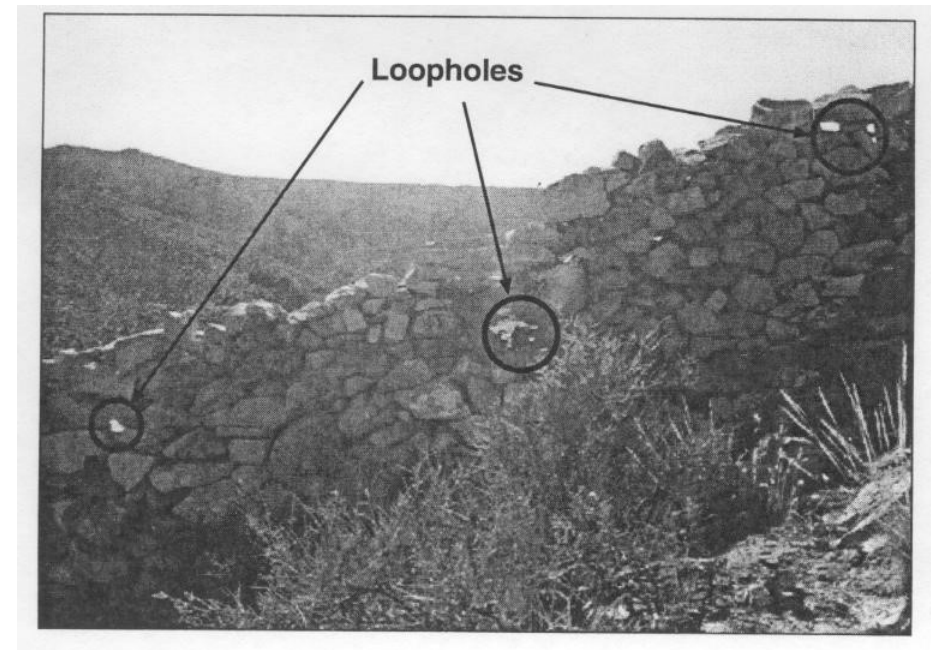
Barracks Bldg, Nov 1998, Old Fort Site



Overview of Redoubt Facing East, Old Fort Site



Closeup of South Exterior Wall, Old Fort Site



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On the Origin of the Name of the Tiny Tim Rocket

The following letter from Mr. Edward Price was received at the Naval Museum of Armament and Technology in August 2006. Mr. Price worked at NOTS Inyokern/China Lake from 1944 through 1975. His letter was in response to an article in the Summer 2006 issue of the China Laker, which contained an article about the Tiny Tim rocket.

I noted in an article in the Summer 2006 China Laker that you are interested in the Tiny Tim rocket. I thought you might be interested in the origins of the name Tiny Tim. I helped pick out the name in December 1943, while I was with the Cal Tech Eaton Canyon project, but I don't think you will find this early history on the Web or in NOTS – NWC ---NAWS histories.

The Cal Tech team had completed development of the 5.0 inch HVAR (Holy Moses) in 1943, and the design team was looking for something bigger. The design team (R. N. Wimpers, William Corcoran, Quentin Elliot, and Edward Price) was guided by some very practical considerations, two of which were wartime urgency and the need for a "really big" aircraft rocket that could penetrate hard targets. The 11.75-inch diameter was chosen because commercially (or reclaimed) oil well casing was available in that size. The propellant charge could be made from four modified Holy Moses charges. The size was suitable for a payload adapted from shells for 12-inch naval guns. With these considerations in mind, preliminary design drawings were completed "surreptitiously" in late December without inputs from the chain of command. The design team decided to present the design to their supervisor—Bruce Sage—as a Christmas present, and in the spirit of the season they named the rocket "Tiny Tim."

The first Tiny Tim motor was static-fired in the Eaton Canyon test bay about six months later. Although the test was successful, the test bay was severely damaged by the big motor, and it was decided that all future tests would be carried out in the larger Cal Tech-designed facilities at China Lake. This was a time when Cal Tech was playing a major role in the development of NOTS. Many members of the Cal Tech team stayed on at China Lake when the Cal Tech program was phased out near the end of the war. This transition included transfer of the pilot production program of the Tiny Tim to NOTS, where it became a major weapon development program, most widely known for the heroic development of air launching technology for this 30,000-pound thrust rocket.

Ed Price
 NOTS 1944-1975

Note: *The Grand Experiment at Inyokern*, History of the Naval Weapons Center, China Lake California, Volume 2 (page 98) describes in more detail the damage caused by the first Tiny Tim test firing at Eaton Canyon test facility: "the blast from one of the completed four-grain motors lifted the concrete roof off the wall of a static firing bay at Eaton Canyon and flattened the calls outward. From that point on full-size motors got their static tests in the open desert at Inyokern."

Origins of the Twenty-One Gun Salute

The practice of firing gun salutes has existed for centuries. Early warriors demonstrated their peaceful intentions by placing their weapons in a position that rendered them ineffective. In early times, it was customary for a ship entering a friendly port to discharge its cannon to demonstrate that they were unloaded.

The rendering of gun salutes in odd numbers may be traced to the superstition that odd numbers were considered lucky. Seven, for example, was held by the earliest civilizations to have mystical powers. Seven gun salutes were widely used. Forts ashore, which could store gunpowder more readily and in greater quantity than on board ship, would sometimes fire three shots for each shot fired afloat. Salutes with an even number of guns came to signify that the captain or ship master had died on the voyage.

For many years, the number of guns fired for various purposes differed from country to country. By 1730, the Royal Navy was prescribing 21 guns for certain anniversary dates, although this was not mandatory as a salute to the Royal family until later in the eighteenth century.

Several famous incidents involving gun salutes took place during the American Revolution. On 16 November 1776, the Continental Navy brigantine *Andrew Doria*, Captain Isaiah Robinson, fired a salute of 13 guns on entering the harbor of St. Eustatius in the West Indies (some accounts give 11 as the number). A few minutes later, the salute was returned by 9 (or 11) guns by order of the Dutch governor of the island. At the time, a 13 gun salute would have represented the 13 newly-formed United States; the customary salute rendered to a republic at that time was 9 guns. This has been called the "first salute" to the American flag. About three weeks before, however, an American schooner had had her colors saluted at the Danish island of St. Croix. The flag flown by the *Andrew Doria* and the unnamed American schooner in 1776 was not the Stars and Stripes, which had not yet been adopted. Rather, it was the Grand Union flag, consisting of thirteen alternating red and white stripes with the British Jack in the union.

The first official salute by a foreign nation to the Stars and Stripes took place on 14 February 1778, when the Continental Navy ship *Ranger*, Captain John Paul Jones, fired 13 guns and received 9 in return from the French fleet anchored in Quiberon Bay, France.

The U.S. Navy regulations for 1818 were the first to prescribe a specific manner for rendering gun salutes (although gun salutes were in use before the regulations were written down). Those regulations required that "When the President shall visit a ship of the United States' Navy, he is to be saluted with 21 guns." It may be noted that 21 was the number of states in the Union at that time. For a time thereafter, it became customary to offer a salute of one gun for each state in the Union, although in practice there was a great deal of variation in the number of guns actually used in a salute.

In addition to salutes offered to the President and heads of state, it was also a tradition in the U.S. Navy to render a "national salute" on 22 February (Washington's Birthday) and 4 July (the anniversary of the Declaration of Independence).

A twenty-one gun salute for the President and heads of state, Washington's Birthday, and the Fourth of July became the standard in the United States Navy with the issuance of new regulations on 24 May 1842. Those regulations laid out the specifics:

HOLIDAY POTLUCK LUNCH

Please come and join us on December 14th at the Museum for our annual Holiday Potluck Lunch. It will be in the conference room from 1100 until 1400. All are invited, just give Chris a call at 939-3530 and let her know that you will be there and what dish you would like to bring to share with everyone. Come on out and share a little Holiday Cheer with everyone!

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