

Coast Artillery Living History Ft. Hancock, NJ

On 20-22 October 2022, the National Park Service (NPS), in conjunction with the Army Ground Forces Association (AGFA) hosted the annual "Fort Hancock Days". This event commemorates the formal renaming of the "Fortifications at Sandy Hook" (also known as the "Military Reservation of Sandy Hook") as "Fort Hancock" by the US War Department (now known as "Department of the Army") on 30 October 1895. The Fort was named in honor of MG Winfield Scott Hancock, a US Army hero of the American Civil War. The entire Sandy Hook peninsula constitutes the Fort Hancock and Sandy Hook Proving Ground National Historic Landmark.

2023 marks the 80th year since Battery Gunnison was restructured with the two M1903 6-inch disappearing guns removed and the two M1900 6-inch barbette rifles installed and the battery being renamed Battery Peck.

The members of AGFA who participated during the weekend were Andy Bennett, Callum Bujdos, Donna Cusano, Paul Cusano, Gus Filippelli, Joel Gonzalez, Richard King, Bryce Kleeman, Henry and Mary Komorowski, Anne Lutkenhouse, Mike Mason, Tom Morrison, Mike Murray, Paul Taylor, John Uhler and Shawn Welch.

There were three major components to the weekend; (1) the Harbor Defense Lantern Tour on Friday evening; (2) AGFA's annual business meeting and dinner on Saturday and (3) Fort Hancock Days event on Sunday.

The educational focus was interpreting the Coast Artillery mission at Fort Hancock in the World War II-era, specifically 1943 emphasizing the ongoing U-Boat war, the threat of saboteur activity and potential shelling of Fort Hancock by submarines using deck guns. The event addressed the operation of the Advance Harbor Entrance Control Post ("HECP") Number 1, which was located at Fort Hancock on top of Battery Potter, and the role that Battery Gunnison/New Battery Peck played as Advance HECP #1's Examination Battery. Key elements in our interpretation on Sunday were the 13 separate times that the battery fired upon ships entering the harbor which had failed to follow the instructions of the HECP, service of the guns, ammunition service in the magazine and loading drills on Gun #2.

The photo below shows most of the participants on Sunday, 22 October in front of Battery Gunnison/New Battery Peck. At the top of the stairs is the Battery Commander's station with its M1910A1 Azimuth Instrument in place on the concrete pedestal, ready to track ships.



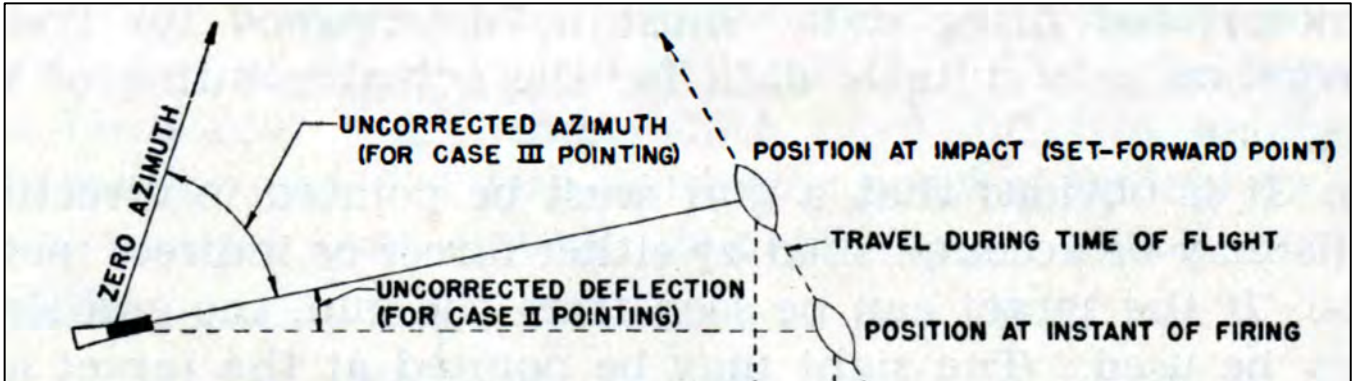
Work on restoration projects continued throughout 2023. Reports on our work are available on the AGFA website at <http://armygroundforces.org/restoration.html>. For October 2023, the most significant addition was AGFA used Gun #2 (north side) for the first time at a public interpretive event since 2007 - over 15 years prior to October 2023. And significantly, Gun #2 is now fully restored for interpretation - the first time this has occurred since AGFA began work in 2002. A summary of major work conducted since May 2023 follows:

- A) Gun #2 traverse and elevation systems are fully restored. This includes the elevation indicator for the elevation drum.
- B) The M1904 sight cradle for Gun #2 has been fully restored and reinstalled.
- C) Emplacement #2 fire control telephone booth has been painted and all telephone and time-interval system connections restored.
- D) A project to upgrade and secure all doors and windows to the Harbor Defense Command Post (mortar battery) has been given initial approval by the National Park Service. Conceptual designs have been approved and work will begin by December.
- E) Work continues restoring the twelve remaining platform lights from 9-gun battery.

The completion and installation of the M1904 telescopic sight cradle on Gun #2 brought that specific gun into "full interpretive" capability. We can now demonstrate the calculation of deflection in the plotting room using the M1905 deflection board and then send that data to the guns to be set on the M1904 sight cradle. The photo below shows 1st Sgt Murray aiming the M1900 6-inch gun using the M1904 telescopic sight resting in the M1904 sight cradle. The large brass circle (see yellow arrow) is the sight deflection adjustment knob. There are only three M1904 sight cradles in the USA and two of them are at Fort Hancock. Gun #1's sight cradle will be restored for use by May 2024.



The image below is an extract from an Army training manual from 1942. It shows graphically how the M1904 sight is used to apply "Deflection" or the offset of the line of sight from the telescope to the target as it relates to the axis of the bore of the gun. The line of sight is shown below as the hashed line and the axis of the bore is the solid line. Time of flight of a 6-inch shell to maximum range is about 25 seconds (16,000 yards or 9.5 miles). Therefore, the aiming point is ahead of the target as it is being tracked. The point of impact is called the "set-forward point" - the point at which the shell and the ship "meet."



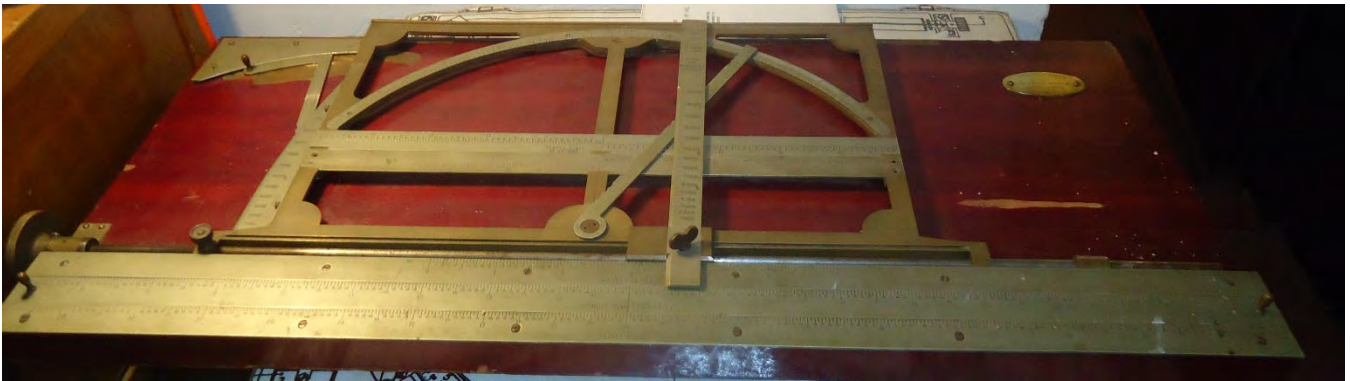
The rear of the sight cradle has a "deflection scale" and that is shown in the photo below. The yellow arrow identifies the black "pointer" which is set to "5" on the deflection scale. The gun is leading a target by two degrees as the target moves to the left. The deflection adjusting knob is the large brass knob and shaft to the right.



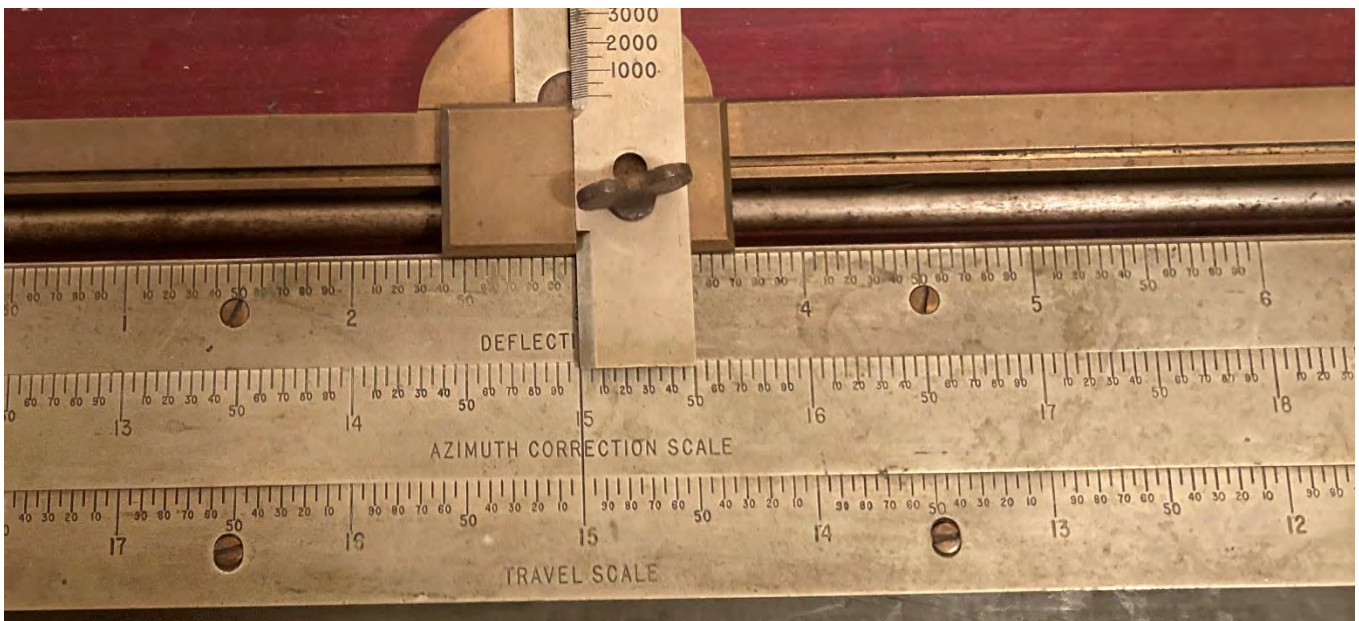
Below shows the deflection scale more closely and shows the pointer (end of the yellow arrow) as it points to "5" on the deflection scale. This setting from the M1905 deflection board is for a target moving from right to left. The maximum deflection is 6 or "3 degrees". A setting of "5" indicates a moderately fast-moving target.



Below is an M1905 Deflection Board. This board was manufactured at Frankford Arsenal in Philadelphia around 1910 for 6-inch guns. The M1904 sight cradle receives its deflection settings from this board.



The photo below shows the three scales on the M1905 Deflection Board - from the bottom up they are "travel scale", "Azimuth Correction Scale" and "Deflection Scale". The "Range Time Scale Arm" which is shown below on "3" or the "Normal" of the board (the "normal" equals "0"). The Range Time Scale Arm is set to the correct Deflection as firing data is calculated in the plotting room. That data will be telephoned to the Gun Pointer to set the deflection scale on the M1904 sight cradle.



"Normal" numbers are used to removed negative numbers from the calculations. The normal for the M1905 Deflection board and the M1904 sight cradle deflection scale are set at "3" which is "0" for firing data calculation purposes. The M1905 deflection board would have been used until 1943 when Battery Gunnison was converted to Battery Peck and the fire control instruments in the plotting room were upgraded.

The M1905 deflection board was limited to a maximum range of 15,000 yards (about 9 miles). The M1900 6-inch guns at Battery Peck had a range of 16,500 yards - which slightly exceeded the range of the M1905 deflection board. The deflection scale covers 6 degrees - 3 in each direction. By the 1930s this was barely sufficient.

The M1905 deflection board was replaced by 1946 with an M1 Deflection Board which could adjust to a longer range (26,000 yards) and had a "normal" of "6" which created a scale of 12 degrees vs 6 degrees. The M1 board was identified in the 1946 updated Battery Emplacement Book which AGFA copied from the National Archives.

AGFA was able to obtain an M1905 Deflection Board - the only such board we know to exist. It was used with many batteries equipped with M1900 6-inch guns during WWII. Its use in 1943 at Battery Peck is historically possible.

Friday 20 October was a busy day. Below 1LT Bennett works with SSG King on platform lights. These lights came from 9-gun battery in very bad condition.



Below 1LT Bennett and SSG King]are drilling holes into the reproduction cast iron light reflectors for the platform lights. The drill press was made in 1951 and was originally used at Fort Hancock.



The photo below shows 10 of the 12 platform lights that SSG King is working to complete. The boxes are holding unfinished parts for each light. Each light has an identifying tag on them. The reflectors (white) are all reproduction.



SSG King and 1LT Bennett also worked on finishing two display boards for charts and graphs. Below 1LT Bennett is cutting one of the legs to one of the frames.



Below 1LT Bennett and SSG King are finishing one of the display board panels.



Below 2LT Cusano and 1LT Lutkenhouse set up their medical display. They are setting up tables, the shelving in the back has bandages and supplies and the large item to the right is a 1943 Picker Field X-Ray machine.



Below 1LT Lutkenhouse reviews the final placement of medical displays.



Below is one of the medical display tables.



Below the stew for the evening meal is heating in a vintage 1944 Army field cooking pot on a 1940 Coleman 500 Speed-master stove.



CPT(Chaplain) Uhler arrived at about 1500 and began assembling his Army Chaplaincy displays in the powder magazine.



A new tool that CPT(CH) Uhler brought was a band saw to cut steel. Below SSG King examines the saw.



Below CPT(CH) Uhler demonstrates how the saw can be lifted vertically and used in a vertical manner. This saw will be critical to the project to secure the Mortar Battery.



Friday 20 October was a rainy day and that rain continued into the evening when we conducted the Harbor Defense Lanter Tour. Below 1LT Bennett, CPL Cusano and PVT Filippelli are outside the "Guard House" waiting for our attendees.



And we had visitors - exactly one! And we conducted the tour for our visitor. Below the team pauses on the Multi-Use-Path crossing point on Atlantic Drive.



Below our visitor consults with PVT Filippelli on our location on the map.



Below CPT(CH) Uhler and T-3 Komorowski await our visitor inside the Machine Shop. T-3 Komorowski is examining drill bits he just sharpened using AGFA's "Drill Doctor".



Below is CPT(CH) Uhler's chaplaincy exhibit fully established in the powder magazine. The powder cans are on both sides in racks.



Below is a view of other aspects of CPT(CH) Uhler's exhibit including the field organ and communion set.



The ammunition exhibit has been revised significantly. The charts have been placed in new display boards. The 1920 Frankford Arsenal sectionalized fuse board is displayed to the right and several different artillery projectiles and fuses are on the table.



Pictured below are the 9-gun platform lights in various stages of restoration. The wooden boxes and railing are for demonstration of the project to the National Park Service (NPS).



Below is another view of the platform lights and the demonstration assembly for the NPS.



Our visitor is below in the medical exhibit area. 1LT Lutkenhouse explains the use of the 1943 Picker Field X-Ray Machine.



Our visitor next visited T-3 Komorowski inside the machine shop. The rain had been pouring outside so we focused on the interior of the Battery.



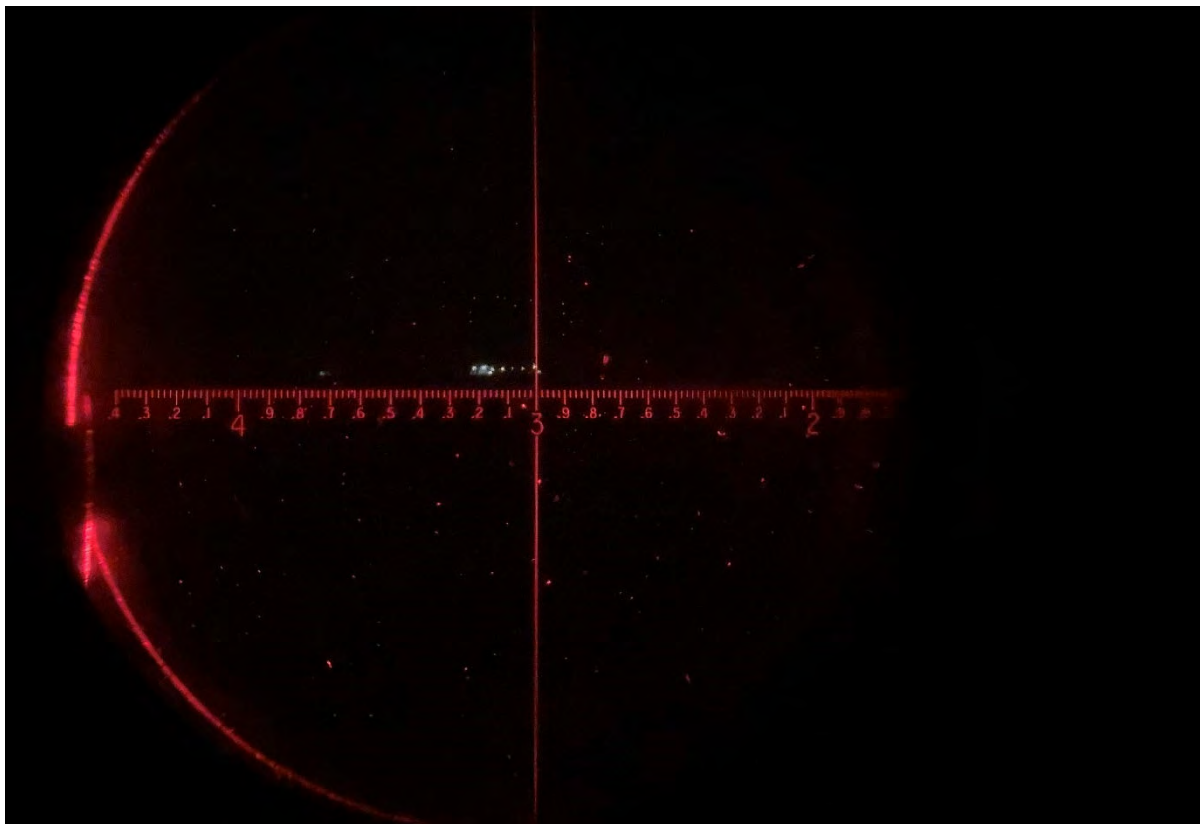
Below CPT(CH) Uhler has just finished explaining his exhibit to our visitor.



By about 2045 in the evening, the rain let up enough for us to visit the Battery Commander's Station. Below 1LT Bennett explains the workings of the station.



The photo below shows a large ship in the distance as viewed through the M1910A1 Azimuth Instrument.



Below is another view of the Battery Commander's Station. The amount of rain is noticeable. During the rain the M1910A1 was covered in a large plastic bag. This is why only part of the pedestal is wet. We were fortunate the rain paused during our visit to the Battery Commander's Station.



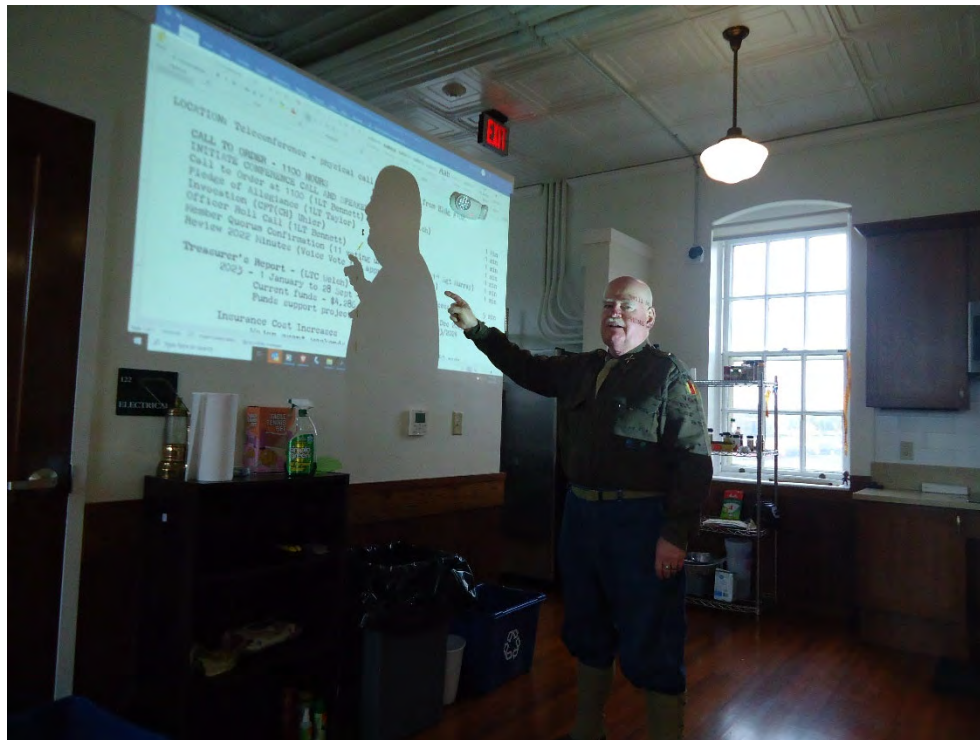
Because of the rain we had decided not to open up Gun #2. Below is a view of Gun #2 and New York City in the background.



Saturday morning, we conducted our Annual Business Meeting in the dining/kitchen area of Bldg #102 which is a restored 1907 barracks building. Below in front from left to right are CPL Cusano, 1LT Bennett, 1LT Taylor, in the back is PVT Kleeman, 1LT Lutkenhouse and 2LT Cusano.



Below LTC Welch points out a key item on the agenda shown on the screen.



Below 1LT Taylor ponders a point by T-3 Komorowski as 2LT Gonzalez and CPT(CH) Uhler listen intently.



After the meeting, a large group headed to the Mortar Battery (Harbor Defense Command Post). Below, the team stops to look at the Fort Hancock Radio building.



The photo below shows members walking to the back of the Radio Station building which was constructed in the 1920s. Both operational control radios and the "Special Services Division" entertainment low-power AM station operated.



The photo below shows the condition of the interior of the building - sadly it is not in good condition.



After seeing the Radio building, the team moves to the HDCP. The members are carrying 1930s Coleman lanterns for use in the HDCP. From the left are 1LT Taylor, CPL Bujdos, 1LT Bennett, PVT Kleeman, CPL Cusano, 2LT Gonzalez and PVT Antonucci.



The protective wall below is part of the Mortar Battery (HDCP). The entrance is about three quarters down the length of the wall.



The purpose of the visit was further analysis and measurements of the project to secure the Battery. The massive amount of graffiti and damage done to the structure is the primary reason AGFA asked the NPS if we could execute this project. This photo is the inside of the large door we will replace.



Below is the exterior view of the door inside the back mortar pit. The pit is very overgrown.



We took time to review the various rooms inside the HDCP. This room is the General's Office. AGFA has furniture and equipment for this office once the moisture is under control and electricity is once again inside the structure.



Below is full picture of the team outside the HDCP after we completed our tour.



As we headed back to the Barracks, we passed Bldg #36 - the Mule Barn Tavern - <https://www.mulebarntavern.com/> - a great place to eat!



Below is another view of the Mule Barn Tavern on a Saturday afternoon - notice the number of cars - a very good restaurant well worth one's time.



Saturday evening, we conducted our Annual Dinner in the kitchen/dining area of Bldg #102. Below we are awaiting the catered meal's arrival.



Below T-3 Komorowski sits with Pete McCarthy (NPS site manager), Stacy and Scott Daniels. Scott is the Gateway Rec Area Facility Manager.



Below its time for chow - left to right 2LT Gonzalez, CPT(Dr) Cusano, 1LT Bennett, 1LT Taylor and seated is Mike Mason.



Below, a long view of the dining area with PVT Filippelli and CPL Bujdos nearest.



Below is the AGFA team with our guests on the stairs to the 2nd floor.



Below is the AGFA team.



Sunday morning we attended a non-denominational religious service presided over by CPT(Chaplain) Uhler.



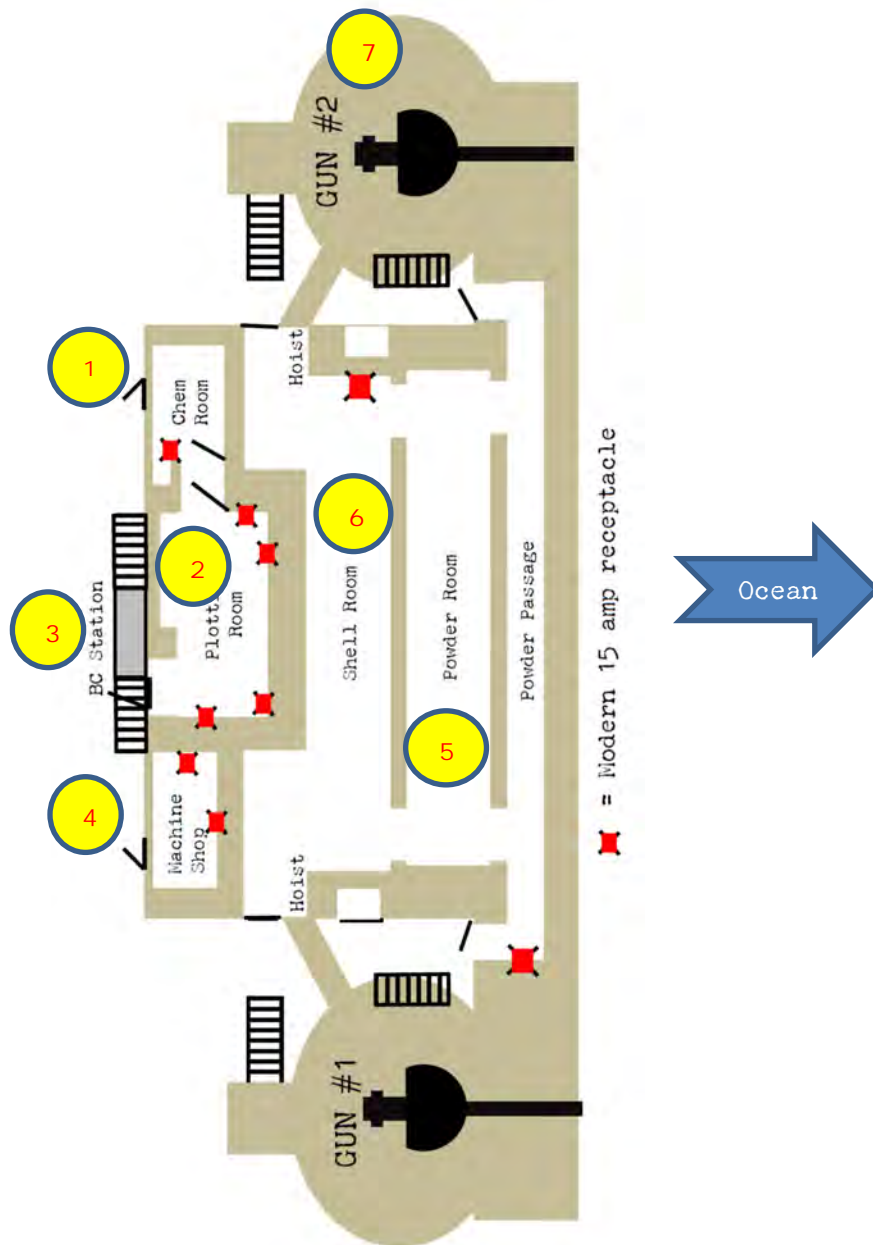
And then it was off to Battery Gunnison/New Battery Peck to prepare for Fort Hancock Days. Below CPL Bujdos and CPT(CH) Uhler set up Gun #2. This is it's first use for a public event since 2007.



On Fort Hancock Days (Sunday 20 Oct) the Battery was structured with the “interpretive stations” as outlined below. These stations operated throughout most of the day.

- A) Station #1 (Medical Operations & M1 Collective Protector)
- B) Station #2 (Plotting Room)
- C) Station #3 (Battery Commander’s Station)
- D) Station #4 (Machine Shop)
- E) Station #5 (Chaplain)
- F) Station #6 (Magazine - Ammunition & Mine Operations; restoration projects)
- G) Station #7 (Gun #2)

Each station was manned until a Gun Loading Drill was conducted on Gun #2. For gun drills members would close their stations and proceed to the gun platform.



Below setup continues on Gun #2.



Below is the Gun #2 telephone booth. The cables are for the three telephones used on Gun #2. The telephone booth was cleaned, painted and all telephone and time interval connections were activated over the summer of 2023.



Below is the rear of the Gun #2 emplacement with the elevation setter's information telephone.



Below 1LT Bennett pauses for a moment after the setup of the Battery nears completion.



One of the last items to go to the Gun #2 platform is the Signal Corps equipment chest that contained the telephones and time interval bell.



Below 1LT Lutkenhouse carries the "Hedgehog" out to the Gun #1 area. It is a reproduction - in plastic - so is relatively light in weight.



Below 2LT Gonzales continues the setup of the Battery Commander's Station.



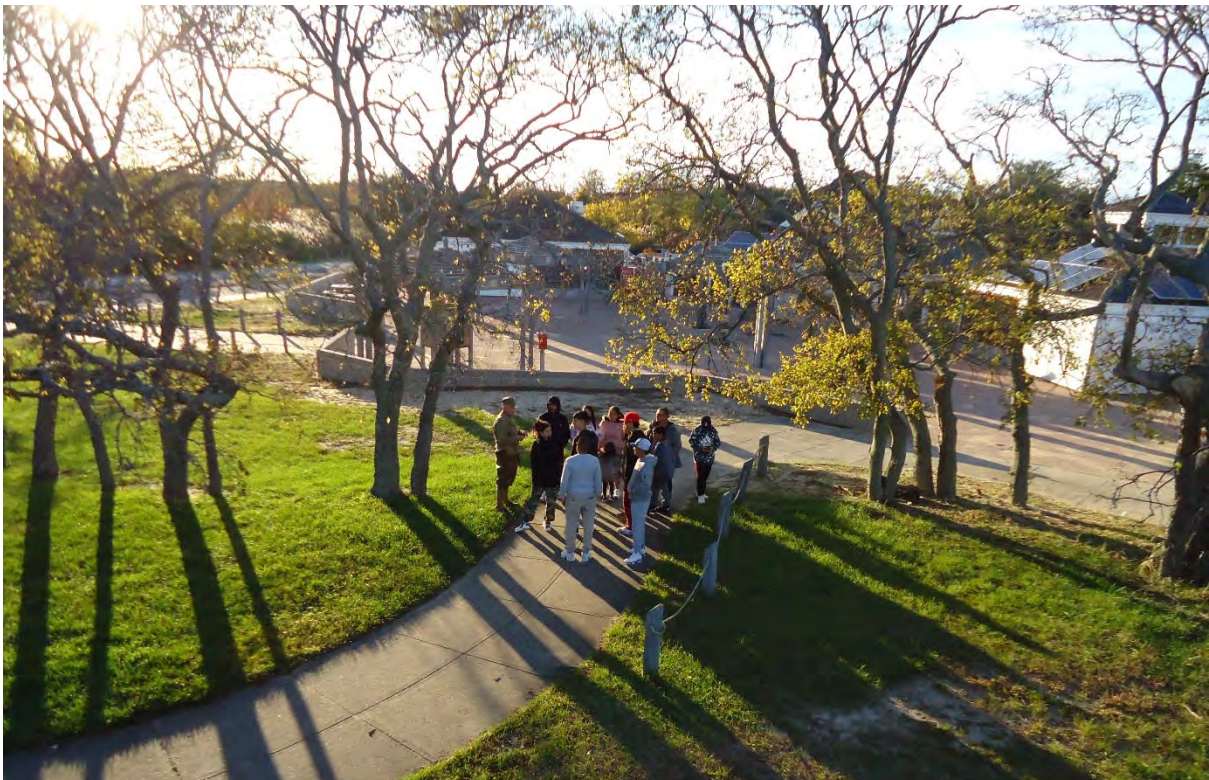
A very new and unique addition is an "ordnance training telescope" shown below. This device, manufactured in 1918, enables the demonstration of how an azimuth instrument or telescopic sight functions. All lenses and the prism are visible and easily demonstrate the functioning of the instrument.



Below the team takes time out for lunch in the plotting room.



During the day visitors generally arrived in small groups. Below 1LT Taylor greets a group behind Gun #2.



2LT Cusano and 1LT Lutkenhouse explain the medical exhibits.



Another view of the medical exhibit room with public visitors.



Below 1LT Taylor explains the plotting board to public visitors.



Another view of the plotting room and plotting board as 1LT Taylor explains their operation.



Below is an EE-85 Time Interval Apparatus from 1943. This device operates the time interval bells throughout the Battery.



The photo below is of the M1905 Deflection Board.



Below in the machine shop are, from left to right, a drill press, lathe and end mill machines.



Below T-3 Komorowski uses the shaper to cut metal as CPL Bujdos secures a tool from the table behind T-3 Komorowski.



Below CPL Bujdos climbs the stairs to Gun #2 platform.



Below CPL Cusano observes 2LT Bennett as he works on the gun. 1st SGT Murray talks with 1LT Taylor.



The photo below shows 1st Sgt Murray tracking a ship through the M1904 telescopic sight on the newly restored M1904 sight cradle.



Below is the ship 1st Sgt Murray is tracking.



Below is the M1904 telescopic sight and M1904 cradle. The cradle is adjusted to a deflection of 1 degree.



Below is a side view of the restored M1904 sight cradle. The pointer for the deflection scale is attached to the light holder which is attached to the stationary portion of the sight cradle. The cradle is traversed from side to side using the brass knob on the right of the picture.



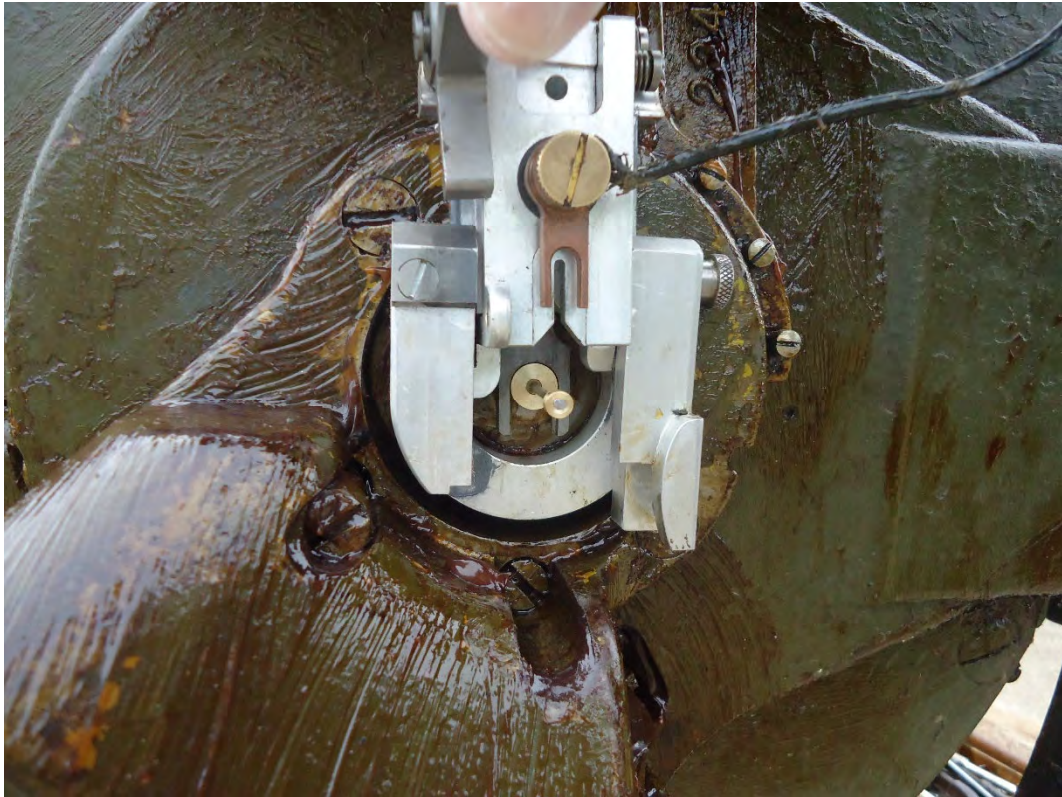
The photo below shows the elevation drum and newly fabricated pointer. The elevation is set to 185 mils which gives a range of about 12,000 yards at 10 degrees elevation. 12,000 yards is about 6.8 miles.



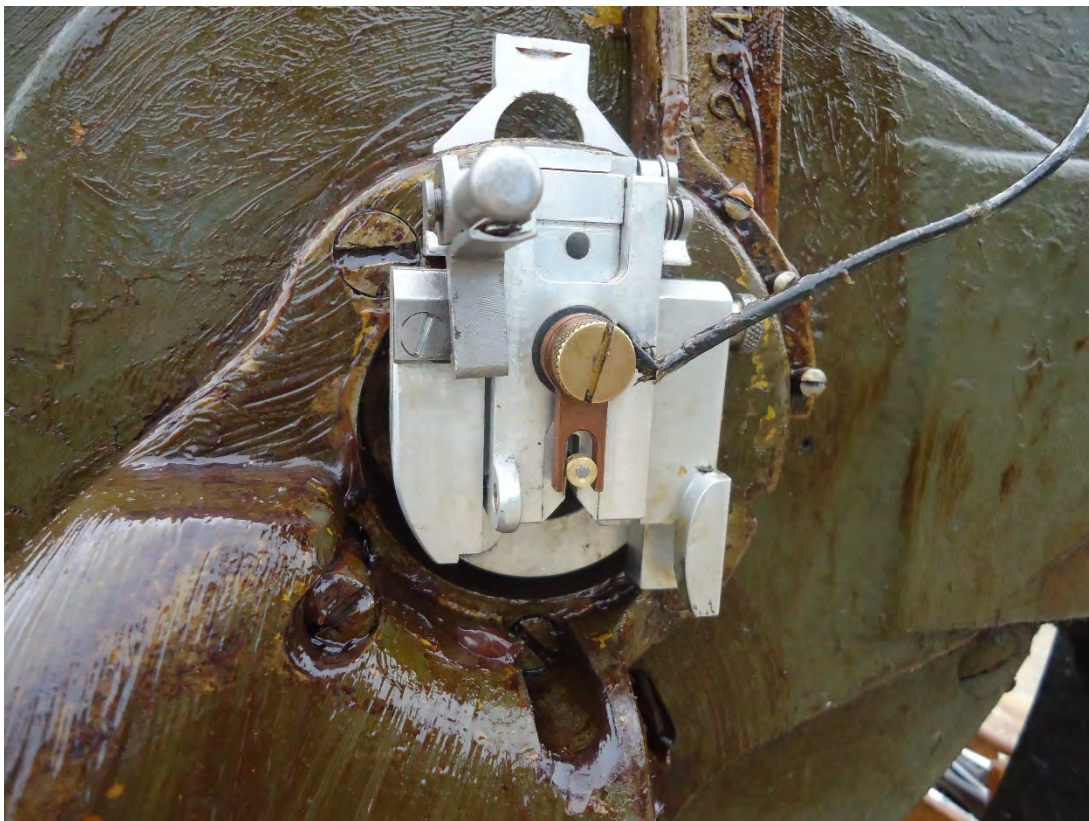
Below is Gun #2 fully assembled for the day. This is the first time that all major components are fully installed and operable. Using arrows as indicators, from 1200 clockwise, the M1904 sight assembly, the azimuth indicator, the M1900 firing device and the elevation indicator.



Below is the M1900 firing device "open" showing a reproduction primer inserted.



Below is the M1900 firing device closed on a reproduction primer.



Below LTC Welch, 2LT Gonzales and CPL Bujdos just demonstrated the shell hoist.



Below is a drill shell being raised on the hoist to the steel receiving table. The shell is made out of wood with a 20 pound steel weight inside.



Below 2LT Gonzalez operates the M1910A1 Azimuth Instrument.



The ship below is being tracked by 2LT Gonzalez using the M1910A1 Azimuth Instrument. The ship is about five miles distant.



Below is a view of the Battery Commander's Station with 2LT Gonzalez on the M1910A1 Azimuth Instrument.



Below SSG King explains the 9-gun platform light project to visitors.



Below is a panoramic photo of the Gun #2 side of the Battery.



At the end of the day 2LT Cusano and 1LT Lutkenhouse begin the process of packing their exhibits and materials.



Another "Fort Hancock Days" weekend has come to an end and we look forward to seeing more visitors in 2024!

For additional information, call the National Park's Visitor Center at (732) 872-5970 or visit the NPS website to review the Park's program guides to see the schedule event at Fort Hancock <https://www.nps.gov/gate/planyourvisit/index.htm> or visit the Army Ground Forces Association Website at <http://armygroundforces.org>.