



# The CDSG Newsletter



The Coast Defense Study Group, Inc. — May 2015



## Chairman's Message

Norm Scarpulla

Our 2015 conference, April 29 to May 3, covered the defenses of the Delaware River. We saw First-System Fort Mifflin at Philadelphia, little changed from its 1790's configuration, and later fortifications including Third-System Fort Delaware, and World War 2 Fort Miles at the ocean. The site owners, including New Jersey and Delaware state park managers, were gracious hosts, arranging lunches and allowing us to see everything.



During the conference we held the annual meeting on May 2 in Battery 519. The former Fort Miles battery has been cleaned and restored by the Fort Miles Historical Association. Our finances continue to be strong. However, each year we tend to lose as many members as we gain. We have published the third edition of *American Seacoast Defenses*, our reference book on the subject. It is available both electronically and on paper, and we are printing on demand, so that we do not hold an inventory.

We need members to write articles for the *Journal* and *Newsletter*. Even a short report about a visit to a fort is useful. Articles that narrate the history of a fort or the experiences of a coast artillery veteran can be published in the *Journal*. More complex are articles that examine why and how the forts were built and operated, or the history and operation of a particular piece of equipment. If you have an idea for an article, contact our *Journal* editor, Bolling Smith, and discuss what might be needed to write it.

Please consider being a site representative, a member who stays in contact with the owner or manager of a coast defense site, and acts as a conduit for information both ways. What is going on at the site? What questions does the site manager have? You don't need to be an expert on coast defense; you just need to be willing to make contact with the site owner or manager periodically and show that CDSG will support the preservation and interpretation of the site.

## CDSG Meeting and Tour Calendar

Please advise Terry McGovern of any additions or changes at [tcmcgovern@att.net](mailto:tcmcgovern@att.net)

CDSG Special Tour

February 27 - March 7, 2016

Panama Canal Zone

Terry McGovern, [tcmcgovern@att.net](mailto:tcmcgovern@att.net)

2016 CDSG Annual Conference

October 2016

HD Portsmouth NH

Craig Lentz, [windsorgroup@msn.com](mailto:windsorgroup@msn.com)

2017 CDSG Annual Conference

April 2017

New York

N. Scarpulla & S. Welch, [nands.scarpulla@verizon.net](mailto:nands.scarpulla@verizon.net)

CDSG Special Tour

June 2017

Defenses of Switzerland

Terry McGovern, [tcmcgovern@att.net](mailto:tcmcgovern@att.net)

2018 CDSG Conference

April 2018

Proposed Columbia River, OR/WA

## Other Meetings and Tours

June 13, 2015

Association Saint-Maurice d'Etudes Militaires Tour

Gondo/Route Napoleon Tour

Col. Pascal Bruchez, [president@www.asmem.ch](mailto:president@www.asmem.ch)

September 5-12, 2015

ECCOFORT Reg. Association Tour

Verona, Italy

Hans-Rudolf Neuman, [hrv.neumann@t-online.de](mailto:hrv.neumann@t-online.de)

September 9-13, 2015

Association Vauban Study Tour

Stockholm, Sweden

Mary Pierdait Fillie, [pierdaitfillie.m@free.fr](mailto:pierdaitfillie.m@free.fr)

September 16-21, 2015

Association Saint-Maurice d'Etudes Militaires Tour

Hamburg, Germany

Col. Pascal Bruchez, [president@www.asmem.ch](mailto:president@www.asmem.ch)

<p>September 2015 Annual Meeting Deutsche Gesellschaft fur Fetungsforschung Nurnberg, Germany</p> <p>September 2015 Fortress Study Group Annual Conference Clyde, Scotland Norman Clark, chairman@fsgfort.com</p> <p>September 2015 Association Vauban Tour Sweden Mary Pierdait Fillie, marie.peirdarfillie@laposte.net</p> <p>October 3 - 10, 2015 Menno van Coehoorn Meeting and Tour Wesel, Germany Fritz van Horn, fritsvanhorn@xs4all.nl</p> <p>October 10-11, 2015 International Fortress Forum Fair Citadelle de Montmedy Michel Mansuy, tourisme.otpaysdemontmedy@gmail.com</p> <p>October 16, 2015 International Fortress Council Annual Meeting Antwerp, Belgium Kees Neisingh, secretariat@internationalfortresscouncil.org</p> <p>November 7, 2015 Menno van Coehoorn Meeting Grouw, Netherlands Fritz van Horn, fritsvanhorn@xs4all.nl</p>	<p>November 7, 2015 Association Saint-Maurice d'Etudes Militaries Annual Meeting St.-Maurice, Switzerland Col. Pascal Bruchez, president@www.asmem.ch</p> <p>May 2016 Fortress Study Group Overseas Tour Menorca/Majorca TBA, casemate@fsgfort.com</p> <p>May 2016 Council on Ameirica's Miitary Past Annual Conference Baltimore, MD Marylou Gjernes, mgjernes@earthlink.net</p> <p>September 2016 Association Saint-Maurice d'Etudes Militaries Annual Meeting Italian Alps - Dolmiten Col. Pascal Bruchez, president@www.asmem.ch</p> <p>Sept/Oct 2016 ECCOFORT Reg. Association Tour Edirne, the Dardenelles, Istanbul Hans-Rudolf Neuman, hrv.neumann@t-online.de</p> <p>October 2016 International Fortress Council Annual Meeting Toulon, France Kees Neisingh, secretariat@internationalfortresscouncil.org</p> <p>May 2017 Fortress Study Group Overseas Tour Lake Garda, Italy Norman Clark, chairman@fsgfort.com</p>
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Currently, we have 362 members. We need to continue to attract people interested in military history and coast defense. When you visit a fort or a military event, be an ambassador for the CDSG. Wear a CDSG shirt, hat, or patch. Talk to people about the organization and point them to our website, CDSG.org. Can you recruit a new member in 2015?

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**Membership Committee Chairman**

CDSG needs a volunteer to serve as Membership Committee Chairman. This person would be responsible for receiving new and renewal member payments, maintaining membership records, receiving CDSG Fund donations, maintaining membership brochures and posters, and developing methods to build membership. Note that this person's address becomes the "face of the organization," and because of that, we need the volunteer to commit to holding the position for at least three years. If you are interested, please contact CDSG Board Chairman Norm Scarpulla at nands.scarpulla@verizon.net or 978-475-2094.

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**USS Missouri Cannon**  
Norm Scarpulla

Over the past few years, CDSG has facilitated the donation of the navy's spare 16" gun barrels for the Iowa-class battleships to memorials and former army 16-inch gun batteries. One of the barrels, once on USS *Missouri* (BB-63), is now part of the Arizona World War 2 memorial in Bolin Memorial Park, in front of the state capitol in Phoenix, AZ. The memorial also includes a 14-inch gun barrel from USS *Arizona*.



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### CDSG Tour to the Defenses of the Panama Canal

Terrance McGovern

Paolo Sanfilippo and Terry McGovern have finalized plans for a CDSG special tour to the defenses of the Panama Canal from February 27 to March 7, 2016. The first and last CDSG tour to Panama was in 1993, so it has been 22 years since the CDSG has held a tour to these defenses. Paolo has developed the tentative schedule for a 10-day tour to the defenses of the Panama Canal. For complete details please see the flyer attached to this issue of the CDSG Newsletter.

We plan to stay at the Amador Ocean View Hotel on the Pacific side and the Four Points Sheraton on the Atlantic side. The estimated in-country cost is \$2,000 per person (hotels, meals, transportation, guides, fees). The current cost of airfare from Washington, DC to Panama City is about \$750 round trip.

Please send a \$100 deposit (made out to Terry McGovern – Panama Tour) to Terry McGovern at tcmcgovern@att.net or 1700 Oak Lane, McLean, VA 22101 along with your contact information if you want to attend this 10-day special tour to Panama. Our planning on based on 20 members attending, so the first 20 members to send me their \$100 deposit will be include in the tour.

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### Preservation Committee Report

Gordon Bliss

At Fort Emory (HD San Diego) the navy is going to demolish Battery 134 as part of a major development of training facilities. They are planning to keep and reuse Battery Grant (BCN 239) and the PSR for Battery 134. However, without Battery 134, the site may no longer qualify as an historic district. The CDSG will be receiving a copy of the documentation on the battery that the navy is obliged to do, and if there are any salvageable artifacts the navy has agreed to loan them to an appropriate institution or museum but so far the only item seen is a pair of doors. Overall, it is unfortunate that the navy has decided to go this way rather than reusing the battery as they have in the past.

An item which I left off the “2014 Year in Review” column in the last Newsletter is the sale of House Island in Portland harbor, Maine. It is the site of Fort Scammel. The Portland city government has declared it an historic district which will make if very difficult for the new owner to do anything that will negatively impact the fort. So far it looks like the fort is safe from any development or alteration.

Pulpit Rock Tower (HD Portsmouth) was featured on a segment of a network affiliate’s local interest program. This may help The Friends of Pulpit Rock Tower in their efforts to raise money for the preservation of the tower and to ensure repairs to the exterior concrete. They will be having an open house on May 23 and additional ones later in the year. Further information can be found at the Friend’s website at <http://www.friendsofpulpitrocktower.org/>

In San Francisco the Doyle Drive/Presidio Parkway project continues to move forward. I continue to get email advisories on traffic changes as the project progresses. Further information on this project can be found at <http://www.presidioparkway.org/>.

There has been no change in the situation at Fort Monroe and no changes to the status of plans at Gateway NRA since the last newsletter’s column. I have listed the primary sources of information of these again below.

Information about the General Management Plan for Gateway NRA can be found at

<http://parkplanning.nps.gov/projectHome.cfm?projectId=16091>

Information on the NPS plans for Fort Monroe can be found at

<http://parkplanning.nps.gov/projectHome.cfm?projectId=41444>

and more general information at the Fort Monroe Authority’s website <http://www.fmauthority.com/>

In Boston, the demolition of the bridge to Long Island, site of Fort Strong, has been completed; with any possible replacement years away, any visit to Fort Strong will be very difficult at best and may also mean that if there is any damage to the structures there, it may go unnoticed for an extended period of time. I will check into what the situation with the fort will be.

If you have a preservation issue, or for further information on any of the items I have mentioned, contact Preservation Committee Chair Gordon Bliss at [preservation@cdsg.org](mailto:preservation@cdsg.org).

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### CDSG Fund Report for 2014

Terrance McGovern, Trustee

The CDSG Fund supports the efforts of the Coast Defense Study Group, Inc., by raising funds for preservation and interpretation of American seacoast defenses. The CDSG Fund is seeking donations for preservation projects supporting these goals. Donations are tax-deductible for federal tax purposes as the CDSG is a 501(c)(3) organization, and 100% of your gift will go to project grants. Major contributions are acknowledged annually. Make checks or money orders payable in US funds to: Coast Defense Study Group Fund or the CDSG Fund. The trustees for the fund for 2014 were Terry McGovern, Mark Berhow, and Sam Stokes.

The Fund is always seeking proposals for the monetary support of preservation and interpretation projects at public parks and museums. A one-page proposal briefly describing the site, the organization doing the work, and the proposed work or outcome should be sent to the address below. Successful proposals are usually distinct projects rather than general requests for donations. Ideally we desire to fund several \$500 to \$1,500 grants per year. Upon conclusion of a project a short report suitable for publication in the Newsletter is requested.

During 2014, the Fund received a record amount of donations (both in the amount donated and the number of donors), but made only one grant during the year due to the lack of qualified grant requests. This grant was to the Monmouth County, NJ, Park System for the restoration of Battery Lewis and the movement of 16-inch/50 barrel to this former battery. Our membership, especially our CDSG Reps, need to reach out to organizations

that are working to preserve and interpret fortification and coast defense sites.

The Fund again recognized the efforts of CDSG volunteers by hosting a dinner at the annual conference in San Diego. We also continued a program to supply public fort sites with copies of our publications to aid their understanding and preservation of the structures in their care.

The CDSG Fund received \$6,209.47 in donations during 2014 while making \$3,501.07 in grants, leaving the Fund with a balance of \$10,037.83 at the end of 2014. The Fund trustees and Board of Directors wish to publicly thank the following individuals for making contributions to the Fund during the 2014 calendar year:

Batha, Tom	Libby, Edmund
Bogart, Charles	McGovern, Terrence
Case, John	Newman, Cory
Creedon, Robert	Ormsby, Jim
Derose, Peter	Percy, Peter
Duchesneau, Robert	Preston, William
Dwyer, Martin	Roma Stephen
Fanciullo, Stephen	Scarpulla, Norm
Fiorini, Michael	Scholes, John
Frizzell, Glen	Schillare, Quentin
Garie, Franklin	Seeger, Mark
Hardey, Alan	Shepherd, John
Heacock, Shawn	Skelley, Stephen
Holder, Alex	Sterling, Christopher
Hunter, Gary	Stokes, Samuel
Kirchner, David	

Send donations to (and made out to):

CDSG Fund  
c/o Mark Berhow  
PO Box 6124  
Peoria, IL 61601-6124 USA  
berhowma@comcast.net

Or use your credit card via PayPal on the www.cdsg.org website.

Send grant requests to:

The CDSG Fund  
c/o Terry McGovern  
1700 Oak Lane  
McLean, VA 22101-3326 USA  
tcmcgovern@att.net

Please prepare a written request of your need and how your request relates to the goals of the CDSG.

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## Coast Defense Study Group Press Annual Update

Terrance McGovern, Chairman

### 2014 Reviewed

The CDSG Press only exists because of the volunteer efforts of its committee members. We need to thank all current members of the CDSG Press - Mark Berhow, Terry McGovern, Jon Prostack,

Tom Kavanagh, and Tom Batha for their long-term volunteer work for our organization.

We have added "Volume 28" (2014) of the *Coast Defense Journal* and *CDSG Newsletter* to our list of back issues at a \$55 price. Additionally, Mark Berhow has updated the entire *Journal/Newsletter* collection on a DVD, which represents over 11,000 pages of coast defense material for only \$55. Once you purchase this DVD, *CDSG Publications 1985-2014*, you can buy yearly updates for only \$10 upon the return of previous DVD. The document collections, known collectively as "HD Records" (such as RCW, Engineer Notes, Quartermaster, and Annexes) is also available under our CDSG ePress label in PDF format (see references page at our web site, cdsg.org). The complete collection of these digital files is available for \$250. These 10 DVDs provide a collection of the key National Archives CD documents without all the paper. These are great reference items and can help you write articles for our CD Journal. Single harbor defenses collection of these documents are also available at the cost of \$50 on one or two DVDs. A companion digital product is our "CDSG Documents" DVD with a great collection of key coast artillery reports and manuals for only \$55.

Here is a summary of reprint efforts to date: Our 2011 project, *Artillerists and Engineers* has sold 63 books on demand through Lulu.com, while we sold 68 hard copies to date out of a press run of 69 (99%). Our 2007 project, *Endicott-Taft Report* has sold 235 books/plates to date out of a press run of 427 (55%). Our 2004 project, *American Seacoast Defenses* - 2nd Edition (ASDII), has sold 501 books to date out of a press run of 503 (98%). Our 2001 reprint project, *American Coast Artillery Material*, has sold 264 units to date out of 404 books printed (65%). Our 1998 reprint book, *Permanent Fortification and Seacoast Defenses*, which covers the Third System of U.S. fortifications, has sold 177 units out of a press run of 344 (52%). Our 1997 reprint, *Service of Coast Artillery*, has sold 331 units (62%) out of 532 printed. Our 1996 reprint book, *Seacoast Artillery Weapons*, has sold 414 copies out of our press run of 419 (98%). We have sold a total of 353 copies of our 1994 reprint book, *Notes on Seacoast Fortification Construction*, out of our total press run of 356 (99%).

As you can see from the paragraph above we have almost sold out of several titles. We plan to continue to offer these books through an "online print-on-demand" service, but we do need to consider the number of future sales to justify the set-up costs to have these print-on-demand titles. We are also offering the 3rd Edition of *American Seacoast Defenses* in digital format (PDF) for \$40 via FTP file transfer.

We have been donating our remaining stock of the 1st edition of ASD to coast defense site owners to help educate them about our favorite subject. Please provide to Terry McGovern the contact information for site owners that would benefit from having a copy of ASD. You should also consider donating your own 1st edition (once you purchase the 3rd edition) to non-members to encourage them to join the CDSG.

### 2015 Plans

The CDSG Press published our first "print-on-demand" book through Lulu.com, an internet provider of books, in 2011. Using this method we do not need to pre-sell the book to insure we

have enough funds to cover about half of the print run. Members (and the general public) can order through Lulu's website using a credit card and the book will be printed and delivered in a few weeks. *Artillerist and Engineers: The Beginnings of American Seacoast Fortifications, 1794-1815*, by Col. Arthur Wade, is doctoral dissertation covering the development of the 1st and 2nd coastal fortification systems during the early days of the United States. This excellent experience with "print-on-demand" we hope will lead to other such titles. Please provide your suggestion to Terry McGovern on worthwhile titles (remembering to consider the copyright when suggesting titles) for the CDSG Press to publish.

We plan to publish (hardcopy version) the 3rd Edition of *American Seacoast Defenses* starting in May 2015 via Thomson-Shore, but we will be using their "print on demand" service this time. We have received over 50 "pre-orders," but unlike the traditional printing process we will only be ordering a similar number of books, as we can always have more printed on demand. Mark has been updating and expanding the range of coast defense information for the 3rd Edition (it is also available now in digital form). Please place your order for a hardcopy version of ASDIII as soon as possible so you will have the most comprehensive guide on your favorite subject. The book will be available from the CDSG Press and our website.

The CDSG Press is working on companion volume to the ASDIII. This publication will be a *Guide to Modern American Seacoast Forts (1885-1950)*. This work (ASF) will focus on the history, key features, location, and the current status/access of each American coast defense fort (using site maps and old & current aerial photos). The book will also include an introduction, battery listing, and sources. Terry McGovern is assembling this work with Mark Berhow providing his excellent layout skills. Once we finish the 1st draft, we will be circulating it to various regional CDSG members for their review and comments. Please contact Terry McGovern at [tcmcgovern@att.net](mailto:tcmcgovern@att.net) if you have information about your local fort or forts that you want to include and/or if you would like to review the manuscript.

Several proposals have been offered for future new CDSG Press projects. One such proposal is a collection of rare ordnance photographs and drawings from the archives of the Aberdeen Proving Grounds. This publication would be professionally printed and bound which will allow for high quality grey scale and/or color illustrations (not currently possible in the *Coast Defense Journal*). Another proposal is a "then and now" photograph book of various U.S. forts, with the goal of promoting the preservation of these sites. We ask our membership to keep offering new ideas for the CDSG Press.

We plan to add "Volume 29" (2015) of the *Coast Defense Journal* and *CDSG Newsletter* to our list of back issues for a price of \$55. While the CDSG Press does not print new works on coast defenses authored by our members at this time, the Redoubt Press will publish such works. Please contact Terry McGovern at [tcmcgovern@att.net](mailto:tcmcgovern@att.net) or 703/934-3661 (work) if you have such a title that you would like to be considered.

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## Coast Defense Study Group Annual Meeting Minutes

Saturday, May 2, 2015

Battery 519, Cape Henlopen State Park,  
Lewes, Delaware 19958

Board Members Present: Norman Scarpulla and Quentin Schillare.

Quorum present? Yes.

Committee Chairs Present: Mark Berhow, Gordon Bliss, Charles Bogart, Terry McGovern, and Bolling Smith.

Attendance: 70 CDSG members.

### Proceedings

The meeting was called to order by Chairman Norm Scarpulla at 6:45pm in the Fort Miles Historical Association (FMHA) boardroom in Battery 519, a partially restored 12-inch coast defense battery. Charles Bogart ceremoniously posted the oozle-finch, the mythical mascot of the Coast Artillery Corps, to start the meeting.

Introductory Remarks: Board chairman Norm Scarpulla welcomed the group and thanked the members of the FMHA, representatives of Delaware State Parks, and Cape Henlopen State Park employees for their support for the conference. He especially thanked Dr. Gary Wray, FMHA president, for hosting the CDSG 2015 conference at Fort Miles. Mr. Scarpulla recognized and thanked the chairs of the various CDSG committees.

State of the CDSG: Mr. Scarpulla related that the CDSG is a strong organization with a bright future but needs increased membership to sustain excellence. He told the group that the CDSG now has about 350 members, down from 2014, with five new members and 56 former members who have not renewed. Membership is important so that the CDSG has the numbers to support its mission as a non-profit educational organization dedicated to education, documentation, preservation, and interpretation of seacoast and harbor defenses and fortifications.

### Challenges

Membership. The incumbent membership chair stepped down for health reasons and his duties are now shared by Mark Berhow and Terry McGovern. This temporary measure will continue until a replacement membership chair is found.

Journal Authors. The *Coast Defense Journal* remains an informative and rigorously edited publication but more authors are needed. Mr. Scarpulla requested that members consider writing for the Journal.

Site Representatives. CDSG members can facilitate the preservation and proper interpretation of seacoast defense sites only by working with the various governmental managers and private land owners. The CDSG is moving to a regional approach for this activity with broader geographical coverage while still welcoming site representative for individual forts.

### Committee Reports

Mr. Scarpulla requested updates from the various committees that help the CDSG run.

Finance. CDSG treasurer Terry McGovern presented the unaudited 2014 financial summary showing a surplus for the year of \$2,750.37 (11%) and a five-year rolling average of a \$21,818.18 (17.7%) surplus.

CDSG Fund. Mr. McGovern reported for the fund trustees (himself, Mark Berhow, and Sam Stokes) that the fund has a balance of \$10,037.83. Grants are awarded in the \$500 to \$1,500 range upon a written request from an organization after the trustees make a recommendation to the Board of Directors. Mr. McGovern will report in the May *CDSG Newsletter* reminding readers of this valuable source of financing for preservation and interpretation.

CDSG Press. Mr. McGovern reported for the Press Committee (himself, Mark Berhow, Jon Prostack, Tom Kavanagh, and Tom Batha). He submitted a detailed press update to the Board. Mr. McGovern reviewed the activities for 2014 and the plans for 2015. In addition to adding Volume 28 (2014) of the *Coast Defense Journal* and the *CDSG Newsletter* to the back-issues DVD, future historical reprints and other special publications of the CDSG will be provided as print-on-demand rather than a press run of the entire document. The next publication for this process will be the Third Edition of *American Seacoast Defenses*, edited by Mr. Berhow. There are currently 62 orders to be printed and distributed in May. A benefit for ordering the updated ASD is an electronic copy with each hard copy order.

*Coast Defense Journal*. Editor Bolling Smith reported that the Journal is doing well with about two years worth of articles in backlog. However, there is a recurring need for original scholarship to provide flexibility in the content of each issue. Mr. Smith reminded the attendees that publication in the Journal is a way to further the mission of the CDSG and learn. An important part of each Journal is the book review section, and anyone considering a book for review is encouraged to contact him. Mr. Berhow reminded the group that through the *Journal* and *Newsletter* the group publishes over 100 pages of information each quarter on coast and harbor defense.

Totten Manuscript. Mr. Smith mentioned that he has located a manuscript by Joseph G. Totten, a 19th century Army engineer officer who served as chief engineer of the US Army and was famed for supervision of seacoast fort construction. Mr. Smith related that the hand written document is essentially "How to Build a Fort." Carol Weaver volunteered to work with Mr. Smith to transcribe the document for inclusion in the Journal or as a stand-alone work.

Web Site. Mr. Berhow reminded the group that the CDSG web site (<http://cdsg.org/>) is a member benefit and the virtual home of the CDSG. The format and content of the web site was enhanced through the use of a contractor in 2014, but more attention is needed to sustain it. He will research a contractor for a long-term maintenance contract and report to the Board of Directors.

Site Representative. Mr. Scarpulla informed the group that after he leaves the Board of Directors in October 2015 he will head up the site representative program to facilitate the CDSG preservation and interpretation efforts in each region. (After the

meeting, two members volunteered as site representatives: Gary Alexander for the sites between Beaufort, NC, and Savannah, GA, and David Ruebsamen for Baltimore, MD.)

### Conferences and Tours

2016 Conference (Portsmouth and North Boston). Craig Lentz is the coordinator for this conference tentatively scheduled for the early fall of 2016. After the meeting he gave a presentation to orient the group on the proposed sites to be visited along the coast in Maine, New Hampshire, and Massachusetts. Planning continues.

2017 Conference (Eastern and Southern New York Harbor). Mr. Scarpulla related that he and Shawn Welch are conducting the preliminary coordination for this conference with planned visits to coast defense sites in and around New York City and New Jersey. Discussions are on-going.

Special Tour (Panama). Mr. McGovern briefed the attendees on this tour to the former American defenses of the Panama Canal scheduled for February 27 to March 7, 2016. Fourteen CDSG members have sent their \$100 reservation fee; twenty are needed for the tour. He provided the attendees an application. Mr. McGovern will continue planning while awaiting six more reservations.

Special Tour (Cuba). Charles Bogart briefed the group on efforts by him and Glen Williford to arrange a tour to the harbor defenses of Havana. After talking to two tour operators he is of the opinion that general tours to Cuba to visit Spanish defensive works are at least three years away, as efforts at normalization of diplomatic relations between the United States and the Republic of Cuba will require some time to bear fruit.

### Preservation

Preservation Committee Chair Gordon Bliss informed the attendees that he will provide a report for a future CDSG Newsletter. It will contain information on the Gateway National Recreation Area (New York and New Jersey), Fort Monroe, and Battery 134 at Fort Emory. Terry McGovern provided an update on his efforts to find home for four 16-inch 50-caliber barrels remaining at the St. Juliens Creek Annex of the Norfolk Naval Shipyard. He was not very sanguine that the remaining interested parties can raise the funds to move these 120-ton/70-foot-long historical artifacts to a new location. It can be done; one was recently moved to Battery Lewis in Navesink by the Monmouth, NJ, County Parks. Mr. McGovern reminded the attendees that they saw one of the recently claimed barrels in its cradle in the cantonment area of Fort Miles.

### Elliot Deutsch Comments

Long-time CDSG member Elliot Deutsch related the positive impact on him of his 15 years as membership chairman of the group and stressed the importance of the position. He asked the attendees to consider volunteering for the job.

Mr. Bogart retired the oozlefinch and the meeting adjourned at 7:30pm.

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## Archaeological dig planned for Glouco site of 1777 battle

Edward Colimore, Inquirer Staff Writer

Posted: Monday, March 30, 2015, 11:59 PM

ecolimore@phillynews.com

856-779-3833 InkyEBC



"I think it's just as compelling a story as Valley Forge," Jennifer Janofsky, curator of the Red Bank Battlefield Park in National Park, N.J., says of the 1777 battle for Fort Mercer.

image: [http://media.philly.com/images/20150330\\_jdig\\_600.jpg](http://media.philly.com/images/20150330_jdig_600.jpg),

CLEM MURRAY / Staff Photographer

The Hessians were out for blood that autumn day in 1777. They marched 10 miles from Haddonfield to Red Bank, hoping to surprise the American defenders of Fort Mercer on the Delaware River.

Instead, they fell into a trap.

Many of Britain's German allies passed over the abandoned earthen walls topped with pointed logs, and then cheered, thinking they'd breached the fort and were close to victory.

On the other side, though, was another wall - and a deadly hail of artillery and musket fire that cut through their ranks like a scythe.

Soon, the ground was blue with the uniforms of 400 dead and dying Hessians - fully a third of the assaulting German force.

Their remains were interred the next day outside the fort, at what is now the Red Bank Battlefield Park in National Park, Gloucester County.

In June, the mass burial sites and surrounding battleground will become an archaeological dig expected to give up numerous artifacts and clues about what happened 238 years ago. Research, including the translation of German and French accounts, is already shedding new light.

The effort - funded with a \$46,200 grant from the National Park Service - will be detailed in a free public program at 7 p.m. April 9 in Room 500 of the Health and Sciences Building at Rowan College at Gloucester County in Sewell.

Among the relics likely to be recovered? Belt and shoe buckles, parts of weapons, musket balls, metal badges, shrapnel, cannon-

balls, and canister - metal balls fired from artillery like a giant shotgun. Their distribution may show where the fight was hottest.

What happened at Red Bank is a great story, said Jennifer Janofsky, curator of the Red Bank Battlefield Park and Whitall House and also the Giordano Fellow in Public History at Rowan University. "I think it's just as compelling a story as Valley Forge.

"The tide of the Revolution began to turn in the fall of 1777 with the tenacity of the soldiers fighting at Fort Mercer," she said. "This is what gave Washington the momentum he needed."

The archaeology work at the site will "help us sift through the myths, distill them, and remove the stories that are irrelevant so we can better understand and interpret the battlefield," said Wade Catts, regional director of cultural resources for JMA, the West Chester firm that will conduct the archaeological work.

"This project will be challenging but manageable compared to Gettysburg," he said. "Red Bank is very, very exciting because nothing quite like this has ever been done there."

Fort Mercer on the New Jersey side of the Delaware River and Fort Mifflin on the Pennsylvania side were major obstacles to the British forces in 1777. The forts' artillery fire along with chevaux-de-frise - iron-tipped logs set in the river to sink or disable enemy ships - prevented a dozen British ships from supplying the 18,000-strong redcoat army occupying Philadelphia.

Without the supplies, the British couldn't hold the city, much less pursue the Continental Army under Gen. George Washington, who told Fort Mifflin's commander to hold the fort to "the last extremity."

The stakes were high on Oct. 22, 1777, as the Hessians left Haddonfield. Fort Mercer's defenders knew the Germans were likely to attack, and they reconfigured the fort - with a French engineer's help - to make it more defensible, Janofsky said.

A local 18-year-old, Jonas Cattell, who heard of the enemy's plans in Haddonfield and ran ahead to the fort, provided the extra warning needed to make final preparations.

Up to 600 soldiers, including many African Americans, manned Mercer, which was commanded by Col. Christopher Greene, a Rhode Islander. They faced an attack by about 1,200 enemy soldiers, part of a larger force of 2,300, according to the latest research.

One Hessian column, American Capt. Stephen Olney wrote in a journal, "had made its way into that part of the fort which we had evacuated, and supposing they were masters of the fort, huzzaed! and came, perhaps, to cut up their prisoners."

That's when the defenders opened up from the reengineered fort, mowing down the Hessians under Count Emil Kurt von Donop.

The enemy's numbers were further thinned by bar-shot - two cannon balls connected by an iron bar - fired from American vessels in the river. At least one Hessian soldier was decapitated.

Donop was mortally wounded, and much of the command staff was killed as other attackers were "repelled with great loss," Hessian Capt. Johann Ewald wrote in his journal.

The British faced more bad news the next day. The 64-gun frigate Augusta came under heavy fire, struck the shoals on the New Jersey side, caught fire, and blew up.

At the Red Bank Battlefield, ground-penetrating radar, metal detectors, and excavation will help locate and recover artifacts.

If human remains are encountered along “with grave goods, my preference is to leave them in place,” Catts said. “We’ll make that decision when we come to it.

“This will be done carefully. On some level, this is sacred ground.”

Identifying the original footprint of the fort will be another goal of the work, said Janofsky, who plans to give tours to about 200 local schoolchildren on June 8 and 10.

“I think a lot will be found - everything from buttons to cannon shot,” she said. “This is the first systematic archaeological study of the battlefield and it should give us a more comprehensive story.”

Read more at [http://www.philly.com/philly/news/new\\_jersey/20150330\\_Archaeological\\_dig\\_planned\\_for\\_Glouco\\_site\\_of\\_1777\\_battle.html#3KvF64gPIAq6uQcL.99](http://www.philly.com/philly/news/new_jersey/20150330_Archaeological_dig_planned_for_Glouco_site_of_1777_battle.html#3KvF64gPIAq6uQcL.99)

[http://www.philly.com/philly/news/new\\_jersey/20150330\\_Archaeological\\_dig\\_planned\\_for\\_Glouco\\_site\\_of\\_1777\\_battle.html](http://www.philly.com/philly/news/new_jersey/20150330_Archaeological_dig_planned_for_Glouco_site_of_1777_battle.html)

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### Update on the Navy project to demolish Battery 134

Marvin Heinze (heinzemh@san.rr.com)

The Navy has made the final decision to pursue the alternative which calls for the demolition of Battery 134 at Fort Emory, San Diego. In the Memorandum of Agreement between the Navy and the California State Historic Preservation office (CDSG was a concurring party) Navy agrees to ensure all the contributing resources within Fort Emory are recorded in accordance with the Historic American Building Survey. On May 8th, Navy and the contractor held a kickoff meeting to discuss this scope of work, make an introduction of key personnel, discuss schedule, and arrange access to the facilities. I represented CDSG at this meeting.

Navy has an aggressive schedule and desires to complete the historic documentation by November 2015 to allow demolition to commence during the winter months. The contractor, JRP Historical Consulting Services of Davis California, has previous knowledge of Fort Emory as they did the 1997 historic documentation of Fort Emory when the Batteries were entered on the National Register of Historic Places. The project will include written historical and descriptive narrative, digital photographic images, reproductions of architectural drawings and historic photographs and oral histories.

#### CDSG Action

JRP consulting would like to potentially interview CDSG members to get additional insights on the historic significance of these batteries if we have any members who:

- Served at Fort Emory or other Series 100 coastal defense batteries.
- Can provide information on the significance of Battery 134, Battery Imperial (155mmplatform), Battery Grant (6 in carriage barbette), the PSR or other supporting structures.

\* \* \* \* \*

### Three Un-Authorized CAC Belt Buckles

Charles H Bogart

Among the items I purchased at the 2015 Ohio Valley Military Society Show of Shows were three military belt buckles seen below. These belt buckles however, were not just any belt buckles. Each of the three belt buckles had centered on it the CAC branch insignia of cross cannons with a shell superimposed on the cannons. These three belt buckles are obviously not government issue. I would suspect that they were bought by their owner at the Post Exchange sometime during the 1920s and 1930s, and were only worn by their owners when off base.

The upper belt buckle and the lower left belt buckle have stamped on their underside “Solid Brass Made in USA.” They also have red coloring placed around the shell. The right belt buckle has no marking on its inside and no red paint around the shell. This belt buckle, while smaller than the other two belt buckles, weighs considerable more than the other two belt buckles.



\* \* \* \* \*

### A Selection of CAC Cloth Insignia

Charles H. Bogart

There are many aspects to the study of American coast defense. One can study the forts, guns, fire control towers, and auxiliary support structures. One can also delve into the history of the Coast Artillery Corps (CAC) and trace its various reorganizations. One can even collect materials related to the coast defense of the United States. This collecting of CAC-related material can run the gamut from objects used in the harbor defenses to technical manuals, photographs, and insignia. I must admit that I am a half-hearted collector of patches and insignia related to the CAC. Below is a display frame that hangs in my home office, with a variety of CAC unit, branch of service, rank, and qualification patches. This kind of CAC insignia can be found on eBay and at military relic shows, as well as occasional antique shops.



ROW 1, left to right.

- #1- New England Frontier Defense Sector
- #2 – New York-Philadelphia Frontier Defense Sector
- #3 – Chesapeake Bay Frontier Defense Sector
- #4- Southern Coastal Frontier Defense Sector
- #5- Pacific Coast Frontier Defense Sector
- #6 – Hawaiian Separate Coast Artillery Brigade

ROW 2, left to right.

- #1 - Eastern Defense Command
- #2 – Southern Defense Command
- #3 – Hawaiian Coastal Defense Command
- #4 - Antiaircraft Artillery Command  
Western Defense Command
- #5- Antiaircraft Artillery Command  
Southern Defense Command
- #6 - Antiaircraft Artillery Command  
Central Defense Command
- #7 – Antiaircraft Artillery Command  
Southern Defense Command

ROW 3, left to right.

- #1 – Officer sewn dress collar insignia
- #2 - Coxswain
- #3 – First Class Gunner
- #4 – Second Class Gunner
- #5– Officer sewn khaki collar insignia

ROW 4, left to right.

- #1 – Coast Artillery Corps “excellence” insignia for wear just above a the cuff of a sleeve.
- #2 – Corporal blue fatigues
- #3 – Casemate Electrician
- #4 – Antiaircraft Command
- #5 – First Class Gunner
- #6 - Engineer

\* \* \* \* \*

## History on the Move! Transport of WW2 Gun Barrel to Hartshorne Woods Park

Gail L. Hunton

The Monmouth County Park System is pleased to announce that a historic WW2 naval gun from the Battleship *New Jersey* has been transported to Battery Lewis at Hartshorne Woods Park for permanent display as part of the Battery Lewis restoration. The gun barrel, which is 68 feet long and weighs 120 tons, is almost identical to the 16-inch guns on Battery Lewis during WW2.

Originally on the USS *New Jersey* and donated by the U.S. Navy to the Monmouth County Park System, the gun barrel travelled by rail from Norfolk, Virginia to Red Bank, where it was offloaded onto a tractor trailer for transport to Hartshorne Woods Park. At the park location it was unloaded with a crane into its temporary position next to Battery Lewis. Once restoration of the gun barrel is complete and a pedestal is constructed, it will then be moved to its permanent location in the battery casemate.

Transport of the gun barrel from Red Bank to Hartshorne Woods Park occurred Monday March 30, 2015. From the NJ Transit rail yard in Red Bank, the truck travelled via Pearl Street in Red Bank to Route 35 North to New Monmouth Road to Leonardville Road to Route 36 to Portland Road into the park.

Gail L. Hunton  
 Supervising Historic Preservation Specialist  
 Monmouth County Park System  
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 Lincroft, NJ 07738  
 (732) 842-4000 ext 4259  
 ghunton@monmouthcountyparks.com

### NJ park welcomes 68-foot-long WWII battleship gun barrel to exhibit

4/03/15 by Jennifer Cruz [Asbury Park Press]

After spending decades in storage, the gun barrel from the USS *New Jersey*, a World War II battleship, has made its way via train to its permanent home in a New Jersey park.

The 68-foot-long, 120-ton Navy Mark 7 with a 16-inch diameter is part of the Battery Lewis exhibit, where guns will eventually be placed at both the north and south ends.

“We’ve had quite a crowd out there the last two days,” said Gail Hunton with the Monmouth County Park System. “What’s very gratifying is how many people have gotten so enthusiastic about this who didn’t know about Harshorne Woods Park.”

The goal of the park’s restoration project is to show visitors how Battery Lewis may have originally looked during World War II. Hunton said the project probably won’t be completed for another year.

## Historic, 68-foot-long Navy gun barrel now in Middletown

Jerry Carino, @NJHoopsHaven  
 10:55 p.m. EDT April 2, 2015

<http://www.app.com/story/news/local/monmouth-county/2015/04/02/hartshorne-woods-park-uss-new-jersey-gun-barrel-world-war-ii/70816098/>



(Photo: Debra Carmody)

MIDDLETOWN – History lovers, Navy buffs and anyone who likes really big guns will get a kick out of the newest addition to Hartshorne Woods Park.

A 68-foot-long battleship gun barrel from World War II, one that originally had been on the USS *New Jersey* before spending decades in storage in Norfolk, Va., is now part of the county park’s Battery Lewis exhibit.

The Navy Mark 7, measuring 16 inches in diameter and weighing 120 tons, arrived via train earlier this week.



This World War II gun barrel arrived in Middletown this week. It was once on the USS *New Jersey*. (Photo: Courtesy Monmouth County Park System)

“We’ve had quite a crowd out there the last two days,” said Gail Hunton, supervising historic preservation specialist for the Monmouth County Park System. “What’s very gratifying is how many people have gotten so enthusiastic about this who didn’t know about Harshorne Woods Park.”

The park already possessed a valuable piece of military history. Battery Lewis, which was constructed during World War II, is New Jersey’s only 16-inch gun battery. It’s 600 feet long, with gun placements on the north and south ends. The newly arrived gun barrel, which currently sits on a fenced-in patch of grass, eventually will be displayed at the south end.

The addition is part of a larger restoration project intended to give visitors a good idea of how Battery Lewis looked in its prime. It can be found in the park’s Rocky Point section, accessed off of Route 36.

“We hope to be in construction this summer,” Hunton said. “It’s probably a good year before we’re really done.”

Hartshorne Woods Park originally was an estate owned by the Hartshorne family, who sold it to the U.S. government in 1942. A base quickly was erected to defend New York Harbor. Battery Lewis, which was designed to withstand battleship and aerial attack, could launch 2,100-pound projectiles as far south as Point Pleasant Beach and as far north as Long Beach in Nassau County.

When the base was deactivated in 1974, the Monmouth County Park System got 151 acres at no cost.

“We asked the Army Corps of Engineers to keep Battery Lewis and several other tactical structures from the World War II era,” Hunton said. “It would have been really expensive to demolish. Plus it’s fascinating for people to see.”

The aforementioned gun barrel came off the USS New Jersey in 1953 and was stored with others of its kind in Norfolk.

“The Navy was looking for a place for these artifacts, where they could be on display,” Hunton said. “They’re history, so they wanted to find suitable homes.”

Hartshorne Woods Park was happy to volunteer.

“We had our choice of a number of gun barrels from the various battleships, but of course it makes perfect sense for us to take one from the USS New Jersey,” Hunton said. “So we’re excited, and the Battleship New Jersey museum is pleased, too. This is an obvious link to their mission in Camden.”

Staff writer Jerry Carino: jcarino@app.com.

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### The CDSG Fund

The CDSG Fund supports the efforts of the Coast Defense Study Group, Inc., by raising funds to support preservation and interpretation efforts concerning seacoast defenses around the United States. The CDSG Fund is seeking tax-deductible donations for preservation projects around the United States consistent with the goals of the CDSG.

The CDSG Fund is always seeking proposals for the monetary support of preservation and interpretation projects at public parks and museums. A one-page proposal briefly describing the site, the organization doing the work, the project to be done or supported, and how the money would be used, should be sent to Terry McGovern or Mark Berhow.

\* \* \* \* \*

### CDSG Logo Hats, Shirts & Patches

The CDSG is pleased to offer custom-made hats, T-shirts and patches to our membership. Wearing these hats, T-shirts and patches are a great way to make others aware of the CDSG and its goals. It is also an excellent way to promote new memberships in the CDSG.

The CDSG patches have been available for several years. Designed especially for the CDSG, these quality patches combine the Coast Artillery Corps and the Corps of Engineers symbols to reflect their involvement in U.S. coastal defenses. This logo is now on hats and a set of T-shirts which are great for showing the CDSG “flag.”

To order your hat, T-shirt or patch, please complete the order form below and send it along with your check (made out to CDSG, Inc.) to Terry McGovern at 1700 Oak Lane, McLean, VA 22101-3326 USA (e-mail: tcmcgovern@att.net).

CDSG hats, T-shirts and patches ordering information

Black T-shirt with white ink:

Size & # \_\_\_L \_\_\_XL \_\_\_2XL \_\_\_3XL

Red T-Shirt with white ink:

Size & # \_\_\_L \_\_\_XL \_\_\_2XL \_\_\_3XL

Kaki T-Shirt with black ink:

Size & # \_\_\_L \_\_\_XL \_\_\_2XL \_\_\_3XL

Navy T-shirt with yellow ink:

Size & # \_\_\_L \_\_\_XL \_\_\_2XL \_\_\_3XL

Total Number: \_\_\_ times \$ \_\_\_ = Total \$ \_\_\_

(domestic \$18/overseas \$26 each)

Patch: \_\_\_ times \$ \_\_\_ = Total \$ \_\_\_

(domestic \$4/overseas \$6) each

Hats: \_\_\_ times \$ \_\_\_ = Total \$ \_\_\_

(domestic \$20/overseas \$25) each

Be sure to include your name and shipping address.

You can also order online at <http://cdsg.org/shopping/>



Battery Edwards, 1870s casemate and fire control tower at Fort Mott, New Jersey, in April 2015.

Terry McGovern photograph

\* \* \* \* \*

## CDSG Special Tour to Norway Norwegian and Atlantic Wall Defenses

Part IV: Defenses of the Harstad/Narvik

Terrance McGovern

The CDSG Special Tour to the coast defenses of Norway took place from June 8 to June 19, 2013, with 24 tour members. The goal of this tour was to visit the world's best collection of surviving coast artillery, especially the dozen "big guns" (greater than 280 mm) that remain, as well as other wonderful coast defense sites that still have their smaller-caliber artillery. German armed forces built (or converted existing Norwegian defenses) over 280 coast defense batteries mounting over 1,000 guns in Norway during their occupation of Norway during World War II. Many of these "Atlantic Wall" defenses were used by the Norwegian coast defense service after the war and a portion were maintained into the 1990s. The Norwegians added modern 75 mm and 120 mm batteries during the Cold War. The tour was able to visit over 50 examples of surviving coast artillery during the tour, many in their original emplacements.

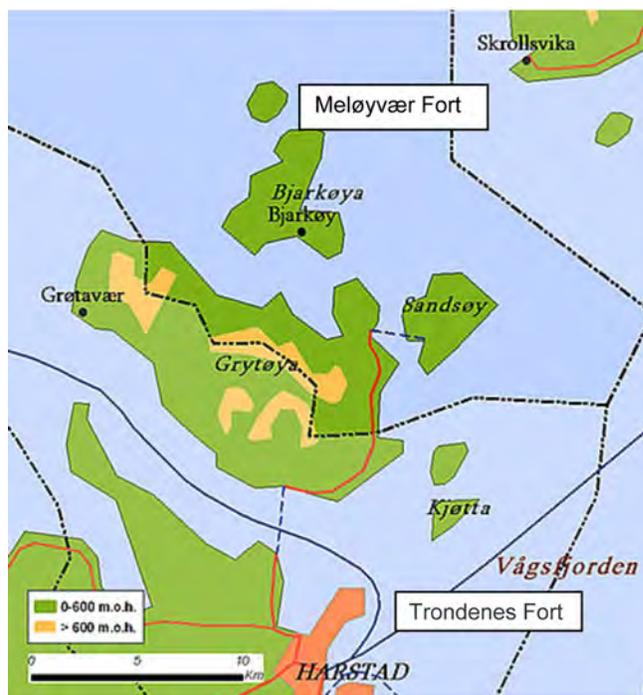
This is the ninth special tour that I have organized for the CDSG and the most complex logistically, due to the remoteness of the locations and the long distances between coast defense sites

we visited. The tour's planning and ultimate success were due to the efforts of our local tour leaders, Svein Wiiger Olsen, Vic Phillipson, Pål Johnsen, and Harald Isachsen, who both arranged access to the many sites and guided us to these defenses. This tour would have never happened without their efforts and we owe them many thanks for a great tour. We also want to thank tour members Mike Fiorini, Alan Fyson, Terry McGovern, Michel van Best, and Keith Estes, who each undertook the responsibility to organize and drive our five rental vehicles. They did a great job considering they have not been to Norway before and successfully kept track of all their passengers during the long tour. Finally, we want to thank Denise Agostino from Premiere Travel for arranging the air, hotel, and rental vehicles for the group.

The November 2013 issue of the *CDSG Newsletter* contained the report for Part I of the tour to the defenses of the Oslofjord, while the May 2014 issue contained Part II, the tour report to the defenses of Kirstiansand. The February 2015 issue of the newslet-



CDSG Special Tour to Norway – June 8 to 19, 2013



Map of the Vasfjorden – Site of Trondenes Fort and Meløyvær Fort (Jean-Bernard Wahl)



Map of the Krøttøya and Meløyvær – Site of Meløyvær Fort

ter contains our report on Part III of the tour, to the defenses of the Trondeimsfjord. Part IV of our tour begins with us having breakfast at the Thon Hotel Harstad in the city of Harstad on



Thon Hotel Harstad in the city of Harstad

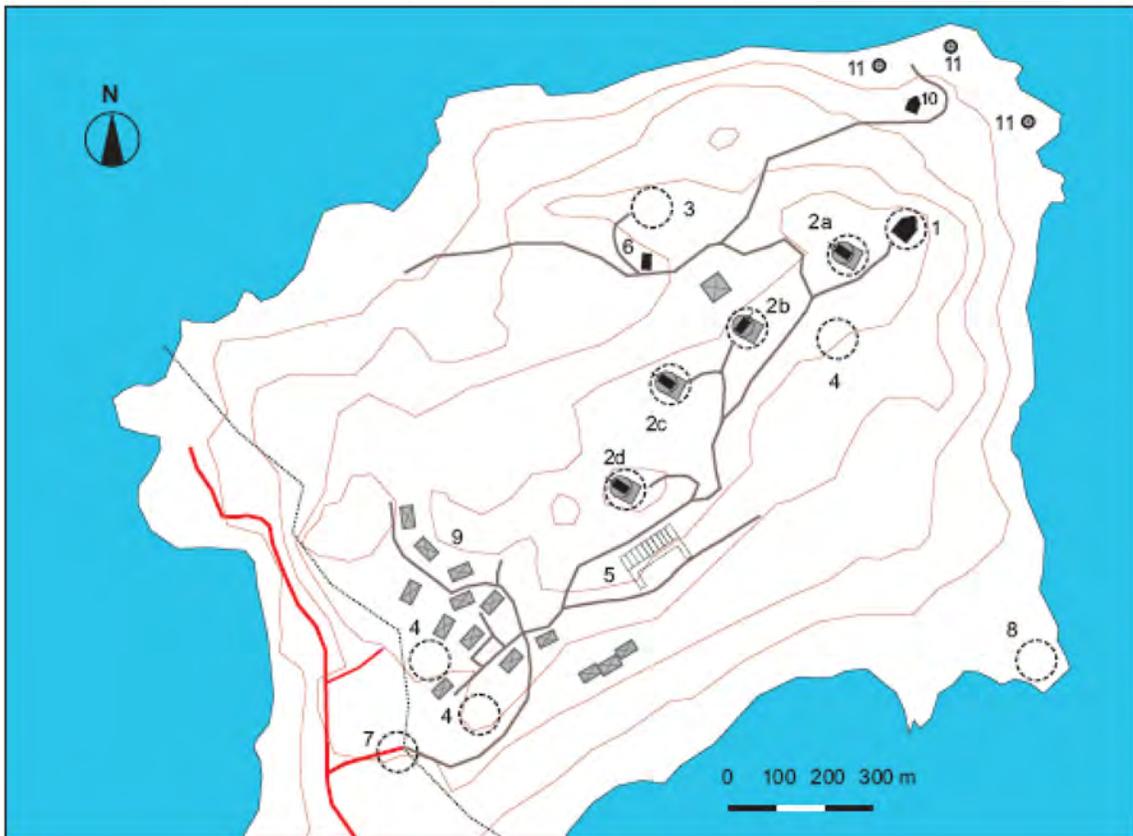
Day 10 (June 2, 2013) prior to our short walk to the nearby dock for the 8:15 AM ferry to Krøttøya and Meløyvær, two small islands about 50 minutes north of Harstad. Our local organizer, Harald Isachsen, arranged the day's program and made sure we made it to all the sights. These isolated islands were the site of the Norwegian **Meløyvær Fort**. This was completed in 1988, with a 12/70 coast artillery battery consisting of three fully independent 12 cm gun emplacements, a command center, ranging stations, and a close-in defense system with AA guns, mortar positions, and troop shelters.

The 12/70 system was designed to be installed in large holes blasted in the bedrock. Once installed several meters of densely reinforced special concrete were placed over the underground structures. The Bofors 12/70 gun is a fully automatic, water-cooled, vertical-sliding wedge design mounted in an armored sliding turret that electrically traversed under computer control while the

elevation motor is controlled manually. It is fed from a magazine several meters below the turret, where the crew uses special air-cushion carts to feed cartridges onto a loading table. From the loading table, the cartridge is fed through a hoist system and loaded into the gun using a pendulum loader. Spent cartridges are passed down a chute into a space at the bottom of the gun well, which is over 18 meters (59 feet) deep.

The turret is manned by three men (gun commander, traverse operator, and elevation operator), with the rest of the gun crew working in the magazine or the crew/utility levels below. To

protect the gun system from ground shockwaves and overpressure in case of a nuclear detonation, the barrel is lowered into its storage position in a special "ground attachment fork" and the turret is hydraulically lowered and anchored to its foundation. The muzzle is automatically sealed when the barrel is lowered into storage position. During a nuclear attack, the turret crew may not stay in the turret because of the initial radiation, but they may reoccupy it and be ready to fight immediately after the attack thanks to a special liner which reduces induced radiation to the point that it is safe to immediately reoccupy the turret.



Map of Trondenes & Harstad-Nord

MKB 5./511 Trondes

- 1 – Command bunker and fire command post, S 100 type
- 2a – S 384 type emplacement with restored 40.6 cm SKC/34 i.Bett.SGC gun (museum)
- 2b-2c-2d – Three S 384 type emplacements with 40.6 cm SKC/34 i.Bett.SGC/39 gun
- 3 – 8.8 cm Flak battery, one gun remaining, command post and fire command bunker
- 4 – Three medium and light Flak platoons, with three gun positions each
- 5 – Main underground ammunition dump, with two entrances, ten cells L 15 to 30 cm
- 6 – Vf marine type ammunition bunker (likely M 145 type)
- 7 – Battery entrance defense: Vf SK for 4.7 cm Fest.Pak + R 632 bunker
- 8 – Infantry defenses: R 622 shelter, tobruks, trenches
- 9 – Modern barracks (former German barracks site)

MKB 1./511 Harstad-Nord

- 10 – Command bunker and fire command post, Vf type
- 11 – Three 17 cm SKL/40 gun positions



High-speed ferry from Harstad to Krøttøy (and Meløyvær Fort)



View from the top of Krøttøy looking at Meløyvær – Valhall Hotel & Inn in foreground

Each gun emplacement is supported by a three-story structure placed below the magazine and turret levels, with a power supply, accommodation, and galley. This enables at least 60 days endurance when cut off from the outside world. It consists of a steel-framed structure placed on rubber cushions for protection from ground shockwaves.

The fort's command and control center is a larger installation consisting of a five-story underground building of a similar design and standards to the gun emplacements. It also has a more capable kitchen and a sickbay with surgery capability. In addition to cables and ordinary radio masts, the 12/70 command features reserve masts which are normally stored in silos below ground and may be raised as needed. The 12/70 system uses a digital fire control system that allows for fire control information from several type of ranging stations, chiefly a radar system which consists of a radar antenna normally stored below ground under an armored hatch. At least two surveillance radars are attached to the battery, and so when a target is detected the fire control radar may be raised and used for ranging, reducing the time it is exposed above ground. The other main fire control ranging instrument is a laser rangefinder installed along with a low-light TV camera in an armored turret called the "laser eye." This can be remotely controlled from the ranging station or command center and takes the place of the periscopes used in older installations.

In the late 1980s eight guns were exported from Sweden to Norway, where they were installed in two 3-gun batteries and one 2-gun battery between 1989 and 1994. Unlike the Swedish installations, the Norwegians decided to implement complete EMP protection and enlarge the supporting installations in order to improve crew comfort. The Norwegian installations, being about 10 years newer the Swedish, also feature a more modern fire control and communications system. All these guns were mothballed in 2001; seven of the guns were dismantled in

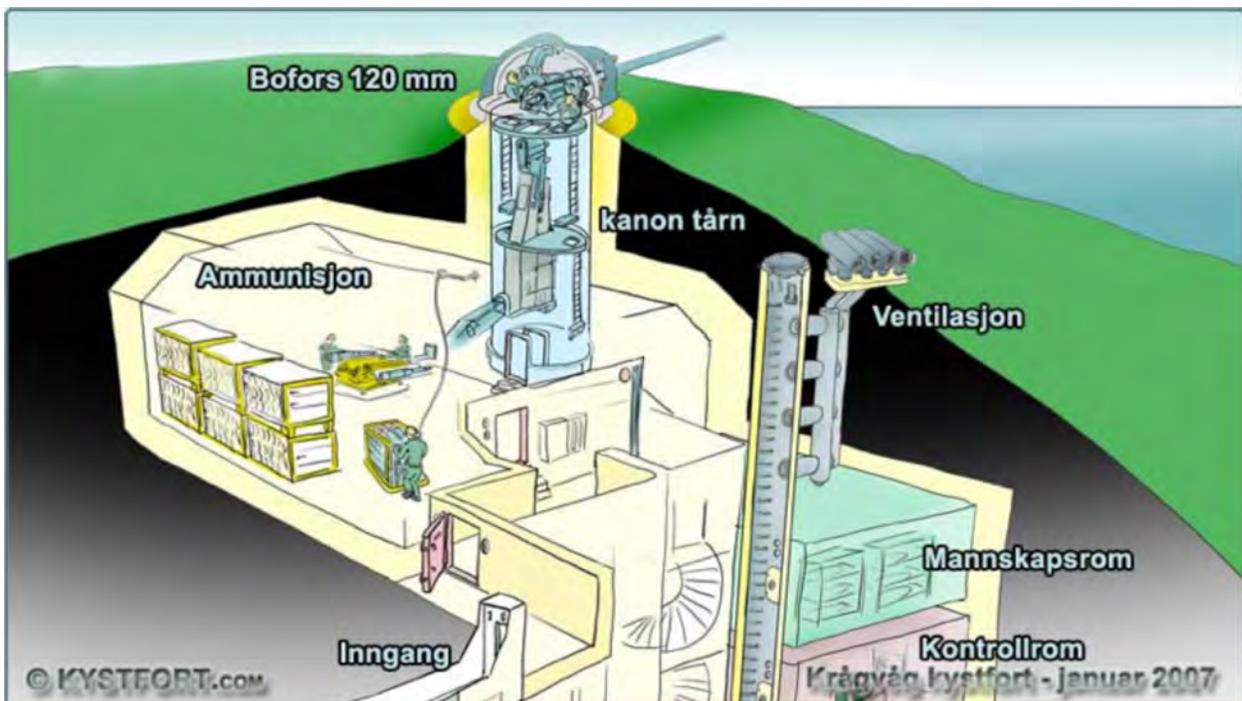


Diagram of the 12/70 gun emplacement – Showing the main level and turret (lower portion not shown)

2012/2013. One gun at Meløyvær Fort is preserved along with the command central as a museum for guided tours. Temperature and humidity are monitored in order to avoid damage to the equipment over time. Meløyvær Fort was one of the last three coastal forts built in Norway. The other two forts, Nes Lodingen and Kråkvåg Trondheimsfjorden, have now been sold to private firms. Today, Meløyvær stands out as the last complete fort in authentic condition showing the fort's historic importance in relation to Northern Norway's role during the Cold War.

The ferry deposited us on the vacant dock on the south end of Krøttøy and quickly left to return to Harstad. For a while we were worried that our island hosts had forgotten about us, but soon a small mini-bus from the Valhall Hotel & Resort appeared and we crammed aboard for our ride to the north end of the island. Our first stop had us at a turreted 12 cm Bofors, one of three, hiding under a fiberglass cover, pretending to be a rock, but soon the group was led through armored doors and decontamination

showers to the underground works with six levels supporting the one gun. There was great excitement and interest here, where we not only had full access up into the turret interior (tight, as it is an auto-loading system), but even more so in the magazine room full of plastic racks of shells and a high-speed shell handling system (with our group trying out the feeding of shells).



12cm L/70 gun at Meløyvær Fort - Fiberglass camouflage in place



Getting the close-up photo of the 12 cm L/70 gun barrel



Unlocking the armored blast doors to enter the 12/70 gun emplacement



Magazine for the 12 cm L/70 gun – Shell racks, pallet mover, and shell loader

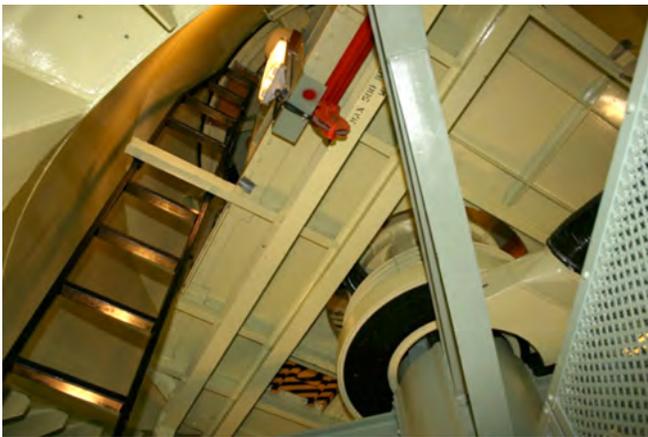
Our next stop was the command and control center where we first viewed the external features – armored laser rangefinder turret and several protected radar antennas. Proceeding underground through the heavy blast doors and NCB defenses we visited the multi-floor control center with almost all of its equipment just like the day the fort was deactivated. The tour group inspected the five-story structure from top to bottom. Our next stop was everybody's favorite - lunch.



The automatic shell loader for the 12 cm L/70 gun – door behind loader leads to turret



Mariusz Jachimowicz has a souvenir but will it fit in the overhead bin on the airplane?



12/70 gun emplacement- ladder up the turret well into the turret for the 12 cm L/70 gun



12/70 gun emplacement - crew mess area – just missing the food!



The normal CDSG dilemma - who is going to move first to be out of your photograph



12/70 gun emplacement – Mercedes Benz engine



12/70 gun emplacement - crew berthing area



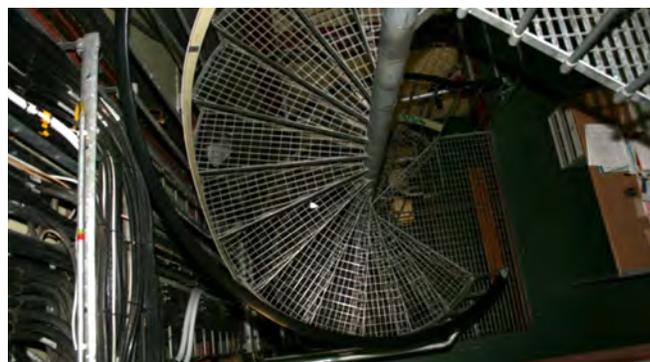
12/70 command and control center – target radars console for each gun



12/70 command and control center – surveillance radar console



12/70 gun emplacement –kitchen area – very clean!



12/70 command and control center – spiral staircase take you from one level to the next



Armored turret for the 12/70 laser rangefinder – another photograph stand-off!



12/70 command and control center – plotting room for the 3 gun battery



The CDSG lunchtime at the Valhall Hotel & Resort on Krøttøy

After a very leisurely lunch at the Valhall Hotel & Resort, where half of us fell asleep in their lounge after lunch as the pace of the 12-day tour was taking its toll. The stronger members of our tour launched into a 2 km walk across one of the bridges that connects the islands to visit another of the 12/70 gun sites (turret views but only from outside). These islands and their surrounding waters provide us with raw beauty and at 69° North this would be the farthest north as we would go on this tour. Reunited at the hotel we wedged our way back on to the mini-bus for our ride to the ferry landing where the waiting ferry returned us to Harstad for a brief excursion out to Åsegarden Camp (caretaker status - used for NATO training) where we photographed two abandoned German 88 mm Flak 36 guns in front of one of the camp's barracks. We finished the day with a visit to **Stangnesodden** (an inactive military installation), where the Germans had constructed a battery during World War II and Norwegians continued to use post-war. Several abandoned concrete structures remain with the principal one being an M162a Fire Control Position. We then returned to the hotel and our tour members sought out dinner in town.



M162a fire control bunker at Stangnesodden (south of Harstad)

Our final full day (Day 11 – June 18) of the tour was upon us with the best site for last – Battery Theo with its surviving four German 40.6cm SKC/34 guns! We convoyed in our vans from the hotel to **Trondenes Fort**. The fort is an active Norwegian military establishment (which hosts the Kystjegerkommandoen (KJK: “The Coastal Ranger Command”), so we needed special permission for our tour and were escorted by four military police throughout our visit. Our local organizer, Harald Isachsen, was essential in arranging this access and guiding us around this large battery.

Trondenes is a forested peninsula on the northern part of Norway's largest island – Hinøya - about 4 km north of the city of Harstad. However, the importance of this area was as great for the Germans in World War II as it was for the Norwegians during the Cold War. These fjords (Vestfjord and Vagsfjord) almost cut Norway into two parts. The importance for the Germans was to protect the shipping of Swedish iron ore from Narvik to Germany. British, Polish, and French forces landed in Harstad during the April 1940 before attacking the German forces that were occupying Narvik.



Glen Williford searches for a serial number on German 88 mm Flak 36 at Åsegarden Camp



The big gun – 40.6cm SKC/34 at Battery Theo – Emplacement No. 1 (“Barbara”)

This battery was called Trondenes I during building, but upon its completion it was officially named Battery Theo (*MKB 5./511 Theo*). Two such batteries were built in Norway by the German navy, Batteries Dietl and Theo, which were commenced in 1942 and built simultaneously. Theo protected the northern entrance to the port of Narvik, whilst its sister battery Dietl, on the island of Engeløya, protected the western entrance. The battery at Trondenes had four 40.6 cm guns and Battery Dietl had three. These guns were built by Krupp and originally intended for six new super battleships. The guns, nicknamed “Adolf” guns, had 70-foot barrels with a lifespan of 250-300 firings. They could fire a 1,300 lb. shell about 34 miles and a standard 2,200 lb. shell about 26 miles. The guns firing rate at less than 20 degrees elevation was theoretically one round for minute. As the loading had to take place at zero elevation, loading when the gun between 20 and 52 degrees took a little longer, reckoned at 3 minutes per round. The gun crew was 68 men - 20 in the turret and 48 in the magazine. The bunker type chosen for both was S-384 with S-100 as the command bunker. Russian prisoners of war were used as slave labor for all the heavy work during the construction and many of them died due to starvation and neglect. The number of deaths is uncertain, but some estimate as many as 1,300 Russians (for both batteries) perished. The batteries fired their first test shots in May 1943, but did not participate in any war-related actions. In addition to the 40.6 cm guns, the Germans installed three 170 mm guns, eight 88 mm guns, and nine 20 mm AA guns at the battery site.

After the war, Battery Theo became part of the peacetime complement for the Norwegian Coastal Artillery from 1951, along with 1,227 shells. The battery was last fired in 1957 and formally decommissioned in 1961. The three Battery Dietl guns were sold for scrap in 1968, but the four guns at Trondenes were spared. The battery was withdrawn from active use in 1964 as technological development rendered the guns obsolete. The bunkers were painted and improved so that the original WWII environment was partly lost. The battery at Trondenes has the only remaining German 40.6 cm guns in the world and it is also one of the best preserved Atlantic Wall fortifications.

Our military escort led our van convoy to the battery site, where we parked our vehicles next to Emplacement No. 1, which is now a museum and open to guided tours arranged through the city's



Our Norwegian military police escort - exciting duty guarding the CDSG!

tourist information center. Harald Isachsen, who had led us the day before, guided us around the gun (named “Barbara”) and the excellent museum in the bunker underneath, as he is the author of a superb book on the battery ([www.adolfkanonen.com](http://www.adolfkanonen.com)). We inspected the gun, mount, gun well, magazines, power rooms, crew rooms, shell/powder lifts, rail car system, plotting room, and fuel and water supply; in fact we crawled and climbed over every single inch of this emplacement and of course took photographs of everything. By this time it was noon and Harald had arranged for us to have lunch at the base's mess, so we departed the battery to drive to the barracks area, where we joined the chow line with the Norwegian marines.



Harald Isachsen ready to teach us about Battery Theo and its 40.6 cm guns



Shell table with overhead hoist to transfer projectile from magazine into gun well – one at a time.



Powder canisters with transfer table in background to move powder to the gun well and lift



Shell wagon to move projectile to shell lift as the gun rotates to firing position



Harald Isachsen explains the 40.6 cm gun drill to an audience of CDSG members



40.6 cm projectiles await use in the magazine



The shell table is now swung into place so the hydraulic rammer can do its job



Two of several motor generators to power the gun emplacement



Rebecca McGovern models the breech of the 40.6 cm gun for our group

After recharging ourselves at lunch, we returned to the battery site, as we had arranged for a special tour of the remaining three 40.6 cm guns (the normal tour is only to Emplacement No. 1). We walked to the S-100 fire command bunker on the crest of the peninsula overlooking the fjord. The site today is used for military communications, so our military escort would neither allow us to photograph nor enter the structure. Backtracking by Emplacement No. 1, we were able to visit the exteriors of Emplacement



The 40.6cm gun and carriage in its emplacement – note our tour members size on the left



Battery Theo's Emplacement No. 1 and 40.6 cm gun – for the record



Lunchtime in the Trondenes Fort mess



Battery Theo's Emplacement No. 2 and 40.6 cm gun – for the record



Locked door to the magazines for Battery Theo's Emplacement No. 2



Battery Theo's Emplacement No. 3 and 40.6 cm gun – for the record

No. 2 and No. 3, as they are close together. We confirmed they each contained the impressive 40.6 cm gun and carriage. Our visit to the heavy flak battery with a surviving German 88 mm Flak 36 gun was canceled due to a live-fire exercise being conducted in that area. The crack of rifle fire convinced us that visiting that site might indeed be hazardous. Emplacement No. 4 is further away, so we hiked around to this site. Our military escort in the lead spotted a moose ahead so we needed to wait until it was all clear to proceed. We were told that moose don't like sharing their space with CDSG members and can become very aggressive. We verified that the 40.6 cm gun was still in place and getting along well with the moose family. We then returned to our parked vans



Battery Theo's Emplacement No. 4 and 40.6 cm gun – for the record – note no moose!



The official CDSG Tour group photograph – taken by Svein Olsen (with a Norwegian marine’s help)

and departed the fort as the other battery related structures were off-limits to us. Our military police left us at the main gate and we had to deal with the fact we had visited our last battery on this tour. Just as this depressing fact started to affect us, Harald offered to show us one more German coast artillery battery. Addicted as we are, we all agreed to follow him.

Playing “follow the leader” in our vans, we followed him over the mountains NW from Harstad to former **Elgsnes Fort (HKB 13./983 Elgsnes)** which mounted four 15.5 cm K418 (f) guns in open positions. The drive was long with very impressive scenery, but a lot of effort for not a lot – four overgrown emplacements and a small concrete box used as an FCP. Yet this battery visit allows us to come down from our tour highpoint - the visit to Battery Theo and its 40.6 cm guns.



German “Panama mount” emplacement at HKB 13./983 Elgsnes for one 15.5 cm K418 (f) gun



The CDSG photographs an AA emplacement at Elgsnes Fort (HKB 13./983 Elgsnes)

We returned to our hotel to prepare for our special group dinner on the final night. At the end of a terrific day, we had a splendid final dinner at Restaurant Røkenes Gård on a farm outside of Harstad – the restaurant itself is located in a converted barn. We partook of the same menu enjoyed by the Kings and Queens of Norway and Sweden that very lunchtime. The royal Norwegian yacht was seen in the harbor at Harstad in front of our hotel when we returned from Trondenes Fort. After our five-course dinner, we were ready to return to our hotel and prepare for our next’s day flight from Evenes Airport to Oslo’s Gardemoen Airport. The final day (Day 12 – June 19) began when we took our vans back to the airport and flew to Oslo. This marked the official end of the CDSG Tour to the Norwegian and Atlantic Wall defenses of Norway. The group said its farewells and departed for their homes around the world. A few members of our tour



The CDSG tour final night group dinner starts with a round of drinking at Restaurant Røkenes Gård

still wanted to see more steel and concrete, so they travelled to Stockholm to tour Swedish fortifications for three days with Lars Hansson, but that is another story.

Attending the tour was Alan Bailey, Charles Blackwood, Christopher Bristow, Andrej Bristow, Kenneth Estes, Genevieve Perrin, Pamela Fiorini, Michael Fiorini, Alan J. Fyson, Christian Casartelli, Maurice Gehlen, Alan Hardey, Leif Hogberg, Mariusz Jachimowicz, Thomas Kavanagh, Scott Loomer, Terrance McGovern, Rebecca McGovern, Svein Wiiger Olsen, David Page, Gary Paliwoda, Karl Schmidt, Andrew Rohde, Michel Van Best, and Glen Williford. Our local organizers were Svein Wiiger Olsen, Vic Phillipson, Pål Johnsen, Jan Egiland Fjortoft, and Harald Isachsen.

# BIG GUNS in NORWAY



June 2013  
By Charles Blackwood

In June 2013 the Coast Defence Study Group ran a Special Tour to the Coast Defences of Norway with the avowed intention of seeing as many as possible of the huge number of guns still mounted in Norwegian coast defences, especially those of the larger calibres.

I count it a privilege to have been part of this amazing trip, with the most complicated logistics ever, involving four internal flights, five hotels, three van hires (of five vans) and numerous ferries. The trip was further complicated by the large distances involved between the main locations of Oscarsborg and the Oslofjord defences, Kristiansand, Trondheim and Harstad.

This report is a fairly brief summary of the highlights, of which there were many.

For a fully detailed report you need to read Terry McGovern's report, Part 1 in CDSG Newsletter November 2013 (Parts 2, 3, and 4 to follow), which you can find online at [www.cdsog.org](http://www.cdsog.org).

Terry writes During WW2 Germany built (or converted existing Norwegian defences) over 280 coast defence batteries in Norway, mounting over 1000 guns. Many of these 'Atlantic Wall' defences were used by Norway during the Cold War, when Norway added



The fire control capota at Vardøfortet

modern 75mm and 120mm batteries and maintained the defences into the 1990s. The group was able to visit over 50 examples of surviving coast artillery during the tour, many in their original emplacements.

### Before the main tour

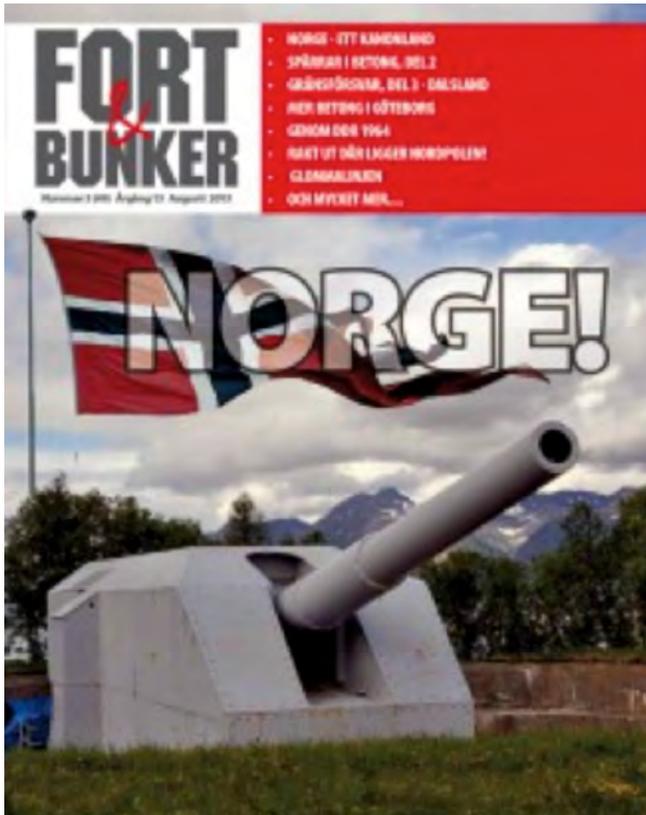
But my tour started a couple of days earlier when I met up with Mike and Pam Fiorini to share an apartment for a couple of nights enabling us to visit the old bastioned fortress of Akershus on Oslo's harbour side followed by a day visiting Norwegian defences against Sweden, led and organised by Svein Wiiger-Olsen and his Swedish friend

Leif Hogberg who did all the driving on a long day.

Akershus started as a castle around 1300, rebuilt in the Renaissance style with a modern bastion trace in the first half of the C17<sup>th</sup>. The castle remains at the core of the fortress and has numerous historic displays, some super tapestries and is well worth a visit; there is an entry charge. The walls are typical of Norwegian fortress construction being built of large granite blocks (top; there is one full bastion and two demi-bastions)

Next day we were collected by Svein and Leif at 09.00 returning at 21.30 after a round trip of about 400km

The CDSG Tour to Norway makes big news in both Swedish and English publications



Seachlight drawing by Jerry Butler

\* \* \*

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Submission deadlines are the first of the month in February, May, August, and November of each calendar year. All rights are reserved. Comments on business matters should be addressed directly to the Chairman of the Board of Directors.

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Notes on Seacoast Fortification Construction, by Col. Eben E. Winslow (GPO, 1920), hard cover reprint, with 29 plates included in a separate paperback.

Both items: \$35 / \$45

Seacoast Artillery Weapons (Army Technical Manual 4-210, 13 Oct. 1944), hard cover reprint. \$25 / \$35

The Service of Coast Artillery, by F. Hines and F.W. Ward (1910), hardcover reprint \$40 / \$60

Permanent Fortifications and Sea-Coast Defenses, Congressional Report No. 62, U.S. House of Rep. (1862), hardcover reprint \$30 / \$45

American Seacoast Matériel, Ordnance Dept. Doc. #2042, (1922), Hardcover reprint \$45 / \$65

The Endicott and Taft Reports, reprint of original reports of 1886, 1905, 1915, hardcover, with plates included in a separate paperback \$45/ \$80

Artillerists and Engineers, the Beginnings of American Seacoast Fortifications, 1794-1815, by Arthur P. Wade (2010) \$25/ \$40

American Seacoast Defenses: A Reference Guide, Third Edition edited by Mark Berhow (2015), hardcover \$45 / \$80

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