NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY



7500 GEOINT Drive Springfield, Virginia 22150

Dr. Gary E. Weir Chief Historian (Ret.)

Education:

Doctor of Philosophy, 1982. University of Tennessee, Knoxville.

Fields of Specialty: Naval - Industrial – Scientific Relations, Military Intelligence, American and German Naval History.

Dissertation: The Origins of German Seapower: Military - Industrial Relationships in the Development of the High Seas Fleet, 1897-1912.

Work Experience:

Assistant Professor of History, U.S. Naval Academy, 1986-1987.

Branch Head and Historian of Science and Technology, Contemporary History Branch of the U.S. Navy History and Heritage Command, Washington D.C., 1987 - 2006

Current and most recently:

Guest Investigator, Marine Policy Center, Woods Hole Oceanographic Institution, 1993 – Present

Chief Historian, National Geospatial-Intelligence Agency, Emeritus (2006 - 2020; Retired, January 2020)

Recent Awards and Honors:

Deutscher Akademischer Austauschdienst Stipendiat, 1980-1981. (Dissertation research)

Department of the Navy Special Achievement Award (1 May 1988--30 April 1989; 1 May 1992--30 April 1993; 1 May 1993 -- 30 April 1994; 1 May 1994 -- 30 April 1995; 1 May 1995 -- 30 April 1996; 1 May 1996 -- 30 April 1997), repeated awards.

Frank Brown Memorial Readership, Library of the Marine Biological Laboratory, Woods Hole, MA, summer 1992. Project: A history of the <u>Meteor</u> Oceanographic Expedition conducted by the German Navy and the University of Berlin, 1925-1927.

Frank Brown Memorial Readership, Library of the Marine Biological Laboratory, Woods Hole, MA, summer 1993. Project: A history of U.S. Naval Oceanography.

Office of Naval Research Grants - for research into the history of naval oceanography -Ocean Sciences Directorate of the Office of Naval Research, 1992-2000 (Three awards for three different projects).

Named "Distinguished Faculty Mentor" by the Phi Kappa Phi Honor Society at the University of Maryland, 1993. (Teaching Award)

Recipient of the Theodore and Franklin D. Roosevelt Naval History Prize for Forged in War: The Naval Industrial Complex and American Submarine Construction, 1940-1961 -- 1993.

Visiting Scholar, Scripps Institution of Oceanography, University of California San Diego, summer, 1995.

University of Maryland University College Innovative Teaching Grant, 1996

Creator and convener of the Matthew F. Maury Workshops on the History of Oceanography with support from the Office of Naval Research (Oceanography) and the Marine Policy Center of the Woods Hole Oceanographic Institution, June 1997 and later.

DoD Nunn-Lugar Grant for the Russian-American Joint History Initiative sponsored by the Contemporary History Branch of the U.S. Naval Historical Center, March-October 1998.

John Lyman Book Award from the National Society for Oceanic History, 2001 for *An Ocean in Common: American Naval Officers, Scientists, and the Ocean Environment* (Texas A&M University Press)

Richard W. Leopold Prize from the Organization of American Historians, 2001 for *An Ocean in Common: American Naval Officers, Scientists, and the Ocean Environment* (Texas A&M University Press)

Superior Civilian Service Medal, U.S. Naval Historical Center, 2006

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Synnot Lecturer, Sea Power Centre (Canberra), Royal Australian Navy, 2007

Nott Prize, U.S. Naval War College Review, 2010

Distinguished Civilian Service Medal, National Geospatial-Intelligence Agency, 2020.

Fields of Research and Teaching Experience:

Naval/Military History

Intelligence History; Geospatial Intelligence emphasis; intelligence tradecraft history

History of Science and Technology, Germany and the United States -- Navy\military, industry, and the ocean sciences.

Modern Europe

Contemporary America (since 1945)

Economic History (industry and technological change)

Oral History

University of Maryland University College

Courses Taught: 1987-2021

World War One World War Two Twentieth century Europe Renaissance and Reformation Early Modern Europe II [1650-1789] French Revolution and Napoleon

Teaching experience: 47 years

Research and Publications:

2018 Beyond a Classical Intelligence Organization: The History of the National Geospatial-Intelligence Agency, NGA Historical Papers, No. 7 (classified, internally published study)

2016 *Rebooting System: The Evolution of the IT Enterprise at NIMA/NGA, 1996 – 2015* NGA Historical Papers, No. 6. (National Geospatial-Intelligence Agency; classified, internally published study)

2015 *Ground Truth* NGA Historical Papers, No. 5. (National Geospatial-Intelligence Agency; classified, internally published study on geo-positioning)

2013 You Cannot Surge Trust: Combined Naval Operations of the Royal Australian Navy, Canadian Navy, Royal Navy, and the United States Navy 1991 – 2003 (Washington D.C.: Naval History and Heritage Command)

2013 *ABI: The Emergence of Activity Based Intelligence*. NGA Historical Papers, No. 4. (National Geospatial-Intelligence Agency; classified, internally published study)

2011 *The Spectral View*. NGA Historical Papers, No. 3. (National Geospatial-Intelligence Agency; classified, internally published study on spectral imaging accomplished on a grant from the Office of the Director of National Intelligence)

2011 Agents of Transformation: The 9-11 Attacks and the American Intelligence Community NGA Historical Papers, No. 2. (National Geospatial-Intelligence Agency; classified, internally published study)

2009 *Becoming Galileo: The Photo Interpreter from Artisan to Imagery Analyst*, NGA Historical Papers, No. 1. (National Geospatial-Intelligence Agency; classified, internally published study)

2009 – "Fish, Family, and Profit: Piracy and the Horn of Africa. Chapter 13 of Bruce Elleman, Andrew Forbes, and David Rosenberg, *Piracy and Maritime Crime: Historical and Modern Case Studies*. Newport Paper 35. Newport, RI: Naval War College Press. A version of this chapter also appeared as the lead article in the U.S. Naval War College Review, summer 2009. The latter won the Nott Prize in September 2010 as the best article published by the Naval War College Review in 2009. 2008 – "Charting a New Course, 1945-1953," chapter fourteen in Kenneth Hagan and Michael McMaster, eds., *In Peace and War: Interpretations of American Naval History*. Westport, CT: Praeger Security International.

2006 – 2009. Fourteen history articles published in the *Pathfinder* magazine at the National Geospatial-Intelligence Agency for the education and information of the agency staff. Some of these articles appeared in commercial magazines by arrangement with NGA.

2006 "The American Sound Surveillance System: Using the Ocean to Hunt Soviet Submarines1950 – 1961" *International Journal of Naval History*, Volume 5 No. 2.

2005. Virtual War in the *Ice Jungle*: "We don't know how to do this," *The Journal of Strategic Studies*, volume 28, number 2 (April 2005), 411-427.

2005. *Rising Tide: The Untold Story of the Russian Submarines that Fought the Cold War* (Basic Books; Perseus Publishing Group) – Russian Translation, published in Moscow.

2004. "At Sea with Hydro: William Metcalf and USS *Edisto's* Arctic Cruise, spring 1951," in *Charting Northern Waters: Essays for the Centenary of the Canadian Hydrographic Service*. Edited by William Glover. Montreal and Kingston: McGill-Queens University Press.

2004. "Fashioning Naval Oceanography: Columbus O'Donnell Iselin and American Preparation for War, 1940-1941," in *The Machine in Neptune's Garden: Historical Perspectives on Technology and the Marine Environment*, Edited by Helen M. Rozwadowski and David K. van Keuren. Sagamore Beach MA: Science History Publications.

2003. *Rising Tide: The Untold Story of the Russian Submarines that Fought the Cold War* (Basic Books; Perseus Publishing Group) American edition.

2001. An Ocean in Common: American Naval Officers, Scientists, and the Ocean Environment (Texas A&M University Press). John Lyman Book Award from the National Society for Oceanic History Richard W. Leopold Prize from the Organization of American Historians

1999. "Listening: Jezebel, Michael, and the Origins of SOSUS, 1937-1961," appeared in 1999 in the *Historisch-Meereskundliches Jahrbuch* published in Hamburg, Germany by the Deutsche Gesellschaft für Meeresforschung.

1998. Lowell Thomas, *Raiders of the Deep*. Edited by Gary E. Weir. Naval Institute Press.

1997. "Admiral Reinhard Scheer" in Jack Sweetman, ed. *Great Naval Commands at Sea* (U.S. Naval Institute Press). This work was translated into Spanish by the war college of the Navy of Argentina in 1999.

1997. "Surviving the Peace: The Advent of American Naval Oceanography, 1914-1924;" published in the *Naval War College Review*, autumn 1997.

1996. "A Gathering at Wardman Park: The Laboratory Role in Fashioning the Culture of Postwar American Oceanography, 1946-1950;" presented at the symposium celebrating the Fiftieth anniversary of the Marine Physical Laboratory, San Diego.

1994. "Investigating the Pacific: The Origins of International Cooperative Oceanographic Investigations in the Pacific Ocean, 1920-1939," examined the genesis of the Pan-Pacific Science Congresses and their role in promoting international cooperation in Pacific naval and civilian oceanography. This paper was presented, in cooperation with the Marine Policy Center of the Woods Hole Oceanographic Institution, at the July meeting of the Oceanographic Society in Honolulu.

1993. "American Submarine Development, 1944-1990," 100th Anniversary *Transactions* of the Society of Naval Architects and Marine Engineers in September.

1993 Forged in War: The Naval Industrial Complex and American Submarine Construction, 1940-1961. Washington DC: U.S. Naval Historical Center.

Theodore and Franklin D. Roosevelt Naval History Prize from the Naval League of the United States

Second place in the Blue Pencil Competition sponsored by the National Association of Government Communicators.

Republished in paperback by Brassey's International in 1998.

1993. "Coming up to Speed in American Submarine Construction, 1938-1943," *War and Society* in October 1993 (vol 11, number 2).

1993. "A Truly Allied Undertaking: The Progeny of Britain's *Empire Liberty*," focused on American, British, and Canadian on merchant ship construction in support of the Battle of the Atlantic during World War II. The paper was presented at a conference sponsored by the Naval History Branch of the British Ministry of Defense in Liverpool, United Kingdom (May). It appeared [Spring 1994] in the *Naval Engineers Journal*, published by the American Society of Naval Engineers. Another version of the paper appeared in the conference proceedings edited by Stephen Howarth and Derek Law.

1993. "Selling Bellevue: The Emergence of Naval Oceanography in the United States, 1914-1924" examined the political, scientific, and strategic motives behind U.S. Navy's commitment to oceanographic research during and after World War I. This was presented at the Fifth International Congress on the History of Oceanography held at the Scripps Institution of Oceanography (July). It appeared the conference proceedings, published by the University of Washington Press in 1997.

1992. Building the Kaiser's Navy: The Imperial Naval Office and German Industry in the Tirpitz Era, 1890-1919. Annapolis: Naval Institute Press.

1991: "The Naval Industrial Complex and a New Concept of Undersea Warfare, 1945-1955," delivered at the annual meeting of the American Military Institute at Duke University.

1991. Building American Submarines 1914-1940, Washington DC: U.S. Naval Historical Center. This book was named one of the "Notable Naval History Books of 1991" by the U.S. Naval Institute.

1991. "The Search for an American Submarine Strategy and Design, 1916-1936," appeared in the winter, 1991 issue of the *Naval War College Review*. This article was nominated by the Naval War College Review editor, Frank Ulig, for the Navy Prize as the best article in American naval history published in 1991.

1991: -- A paper: entitled "The Navy, Industry, and Conflicting Expectations: Fried. Krupp of Essen and the Electric Boat Company of Groton CT " at the Ninth Naval History Symposium of the U. S. Naval Academy (October). This paper appeared in the proceedings of the symposium.

1991. My article entitled "A Twelfth Hour Attempt to Save Everything: The Scheer U-boat Program of 1918," appeared in the *Mariner's Mirror* (UK) in August of 1991.

1990. "Tirpitz and Technology" Naval History (winter, 1990).

1989: "Submarines and the Ocean Environment, 1914-1945," presented at a conference in Halifax, Nova Scotia on the Undersea Dimension of the Maritime Strategy sponsored as part of the Inter-University Seminar on Armed Forces and Society by Dalhousie University and the University of New Brunswick. An abstract of the paper was published in the conference proceedings which appeared in June of 1991.

1989. "The Navy, Industry, and Diesel Propulsion for American Submarines, 1914-1940," *Naval Engineers Journal* (May, 1989).

1985. "Alfred Tirpitz: Architect of Modern German Naval Power" published by the U.S. Naval Academy Dept. of History in a collection of papers from the Seventh Annual Naval History Symposium held at the Academy.

1985. I wrote the entry on Admiral Reinhard Scheer for Brassey's *International Military and Defense Encyclopedia*.

1984."The Imperial Naval Office and the Problem of Armor Prices in Germany, 1897-1914," *Military Affairs*.

1984. "Tirpitz, Technology and Building U-boats, 1897-1916," International History Review.

Professional Activities:

1983: -- A paper: at the Annual Meeting of the American Historical Association entitled "Navies and New Technology, 1897-1918".

1985: -- A paper: entitled "Tirpitz: Architect of Modern German Naval Power" at the Seventh Naval History Symposium (U.S. Naval Academy).

1988: -- A paper: entitled "The Scheer Program" at the annual meeting of the American Military Institute in April as part of a panel on German military-industrial relations at the end of World War One.

1988: -- Deployment: as part of my research into submarine technology, I deployed for a cruise on the American nuclear attack submarine USS <u>Augusta</u>, SSN-710 (September).

1989: --A paper: entitled "The Navy, Industry, and Diesel Propulsion for American Submarines, 1914-1940" at the annual conference of the American Society of Naval Engineers (May).

1989: -- A paper: entitled "Submarines and the Ocean Environment, 1914-1945" at a conference in Halifax, Nova Scotia on the Undersea Dimension of the Maritime Strategy sponsored as part of the Inter-University Seminar on Armed Forces and Society (June).

1989: -- A paper: entitled "The Navy, Industry, and Conflicting Expectations:

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Fried. Krupp of Essen and the Electric Boat Company of Groton CT " at the Ninth Naval History Symposium of the U. S. Naval Academy (October). This paper appeared in the proceedings of the symposium published in 1991.

1990: -- A paper: entitled "The Role of Technology in the Search for a Consensus on American Submarine Strategy and Design, 1916-1940" at the Naval Historians' Seminar, Naval Historical Center, 19 April.

1991: -- A paper: entitled "The Naval Industrial Complex and a New Concept of Undersea Warfare, 1945-1955," delivered at the annual meeting of the American Military Institute at Duke University in March.

1992: -- A paper: on the expansion of American industrial capacity for submarine construction presented at the annual conference of the North American Society for Oceanic History (April).

1993: -- A paper: "A Truly Allied Undertaking: The Progeny of Britain's <u>Empire</u> <u>Liberty</u>," focused on American, British, and Canadian on merchant ship construction in support of the Battle of the Atlantic during World War II. The paper was presented at a conference sponsored by the Naval History Branch of the British Ministry of Defense in Liverpool, United Kingdom (May). It appeared [Spring 1994] in the <u>Naval Engineers Journal</u>, published by the American Society of Naval Engineers. Another version of the paper appeared in the conference proceedings edited by Stephen Howarth and Derek Law.

1993: -- A paper: "Selling Bellevue: The Emergence of Naval Oceanography in the United States, 1914-1924" examined the political, scientific, and strategic motives behind U.S. Navy's commitment to oceanographic research during and after World War I. This was presented at the Fifth International Congress on the History of Oceanography held at the Scripps Institution of Oceanography (July). It will appear the conference proceedings, published by the University of Washington Press in 1997.

1994: -- A paper: "Investigating the Pacific: The Origins of International Cooperative Oceanographic Investigations in the Pacific Ocean, 1920-1939," examined the genesis of the Pan-Pacific Science Congresses and their role in promoting international cooperation in Pacific naval and civilian oceanography. This paper was presented, in cooperation with the Marine Policy Center of the Woods Hole Oceanographic Institution, at the July meeting of the Oceanographic Society in Honolulu.

1994: -- A paper: "Finding a Niche; Columbus Iselin and Mobilizing Oceanography for War," presented by invitation at the Physical Oceanography Seminars of

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both the Woods Hole Oceanographic Institution and the University of Rhode Island Marine Sciences Campus at Naragansett Bay in October and November respectively.

1995: -- A paper: "Admiral Reinhard Scheer at Jutland: Intuition under Fire," presented at the invitation of the Great War Society at their annual meeting in Washington D.C., September 1995.

1995: -- A paper on the potential of history as a decision-making tool for the submarine engineering community. Presented at the October meeting of the Annapolis Chapter of the American Society of Naval Engineers, October 1995.

1995: -- A paper: "Necessity is the Mother of Oceanography: Scripps and the U.S. Navy Hydrographic Office, 1919-1936," presented at the annual meeting of the History of Science Society, Minneapolis, MN, October 1995.

1996: -- A paper: "A Gathering at Wardman Park: The Laboratory Role in Fashioning the Culture of Postwar American Oceanography, 1946-1950;" presented at the symposium celebrating the Fiftieth anniversary of the Marine Physical Laboratory, San Diego (October).

1997: -- An article: "Surviving the Peace: The Advent of American Naval Oceanography, 1914-1924;" published in the <u>Naval War College Review</u>, Autumn 1997.

1997: -- Deployment, on board USS <u>Albany</u> [SSN-753] as part of my research into undersea warfare.

1998: -- International project -- to Moscow and St. Petersburg to lay the groundwork for a Russian-American Joint History Initiative with the historians of the Russian Federation Navy Staff and the Institute for Military History. March.

1998: Created the Roles and Missions Roundtables, a project to bring history to the fleet as a decision-making tool. Initiated the three part 1998 roundtable series with the Commander Submarine Force Atlantic, February

1998: -- Two papers -- presented at the CMAST facility of the University of Massachusetts at Dartmouth. The first visited the origins of American oceanography. The second looked at WHOI's Columbus Iselin and fashioning a role for oceanography in American preparation for war, 1940-1941. These papers were presented by invitation as part of the CMAST guest lecture series. April.

2001: Founder and editor emeritus, *The International Journal of Naval History* 2001 – Present (<u>www.ijnhonline.org</u>)

2001: Deployed on USS <u>Nebraska</u> [SSBN-739] as part of my research into the history of undersea warfare.

2001: Project leader for the DoD historical response to the 9-11 attack on the Pentagon [ambitious oral history project initiated one week after the event; produced over 200 oral histories with witnesses and those involved at the Pentagon; later employed by the 9-11 Commission as sources in its examination of the event] I received a commendation from the Undersecretary of Defense for Intelligence for the initiative.

2002: Embarked on oral history and text source research in Russia [Moscow and St. Petersburg] for the book *Rising Tide*, which appeared in 2003.

2007 Synnot Lecturer, Sea Power Centre, Royal Australian Navy

2010 Led an effort to evaluate the immediate impact of the 9-11 events on the intelligence community along with four other intelligence agencies. This led to the classified study, *Agents of Transformation: The 9-11 Attacks and the American Intelligence Community* NGA Historical Papers, No. 2. (National Geospatial-Intelligence Agency)

2012 – 2019 Created the NGA east headquarters museum and led the production of seven exhibits to populate the museum at its opening.

2014 – 2016 Recruited a team to produce a single volume history of the National Geospatial-Intelligence Agency and completed the project through peer review and publication in less than two years.

I have conducted more than three hundred **oral histories** thus far with naval officers, businessmen, engineers, intelligence officers, and scientists. All of these interviews are currently on file with the U.S. Navy's Operational Archives at the Washington Navy Yard, the Data Library and Archive of the Woods Hole Oceanographic Institution, and the Historical Research Center of the National Geospatial Intelligence Agency.

I have written **book and exhibit reviews** for the *Moscow Times*, the *Friday Review of Defense Literature*, the *Newsletter* of the North American Society for Oceanic History, the *American Neptune*, *Naval History, the Public Historian, Naval Engineers Journal*, Journal of American History, the Northern Mariner, the Mariners' Mirror, the Journal of Modern History, the Journal of Military History, the International History Review, Isis, Technology and Culture and the American Historical Review. I have also evaluated article and book manuscripts for publication for the Naval Institute Press, the U.S. Naval Historical Center, the University of Oklahoma Press, The Center for American Places, Yale University Press, and the University of Kentucky Press.

Media I have appeared on television as historical expert on undersea warfare, World War One, World War Two, German History, the Cold War, and the history of oceanography and intelligence. The programs aired on the History Channel, TLC, NOVA, National Geographic, Discovery Channel, BBC, the Travel Channel, and German regional television (ARD; ZDF).

Current work:

1. I am working on a history of the development of oceanography as a multidisciplinary science by looking at the evolution of the Woods Hole Oceanographic Institution and its relationship with the U.S. Navy since 1930.