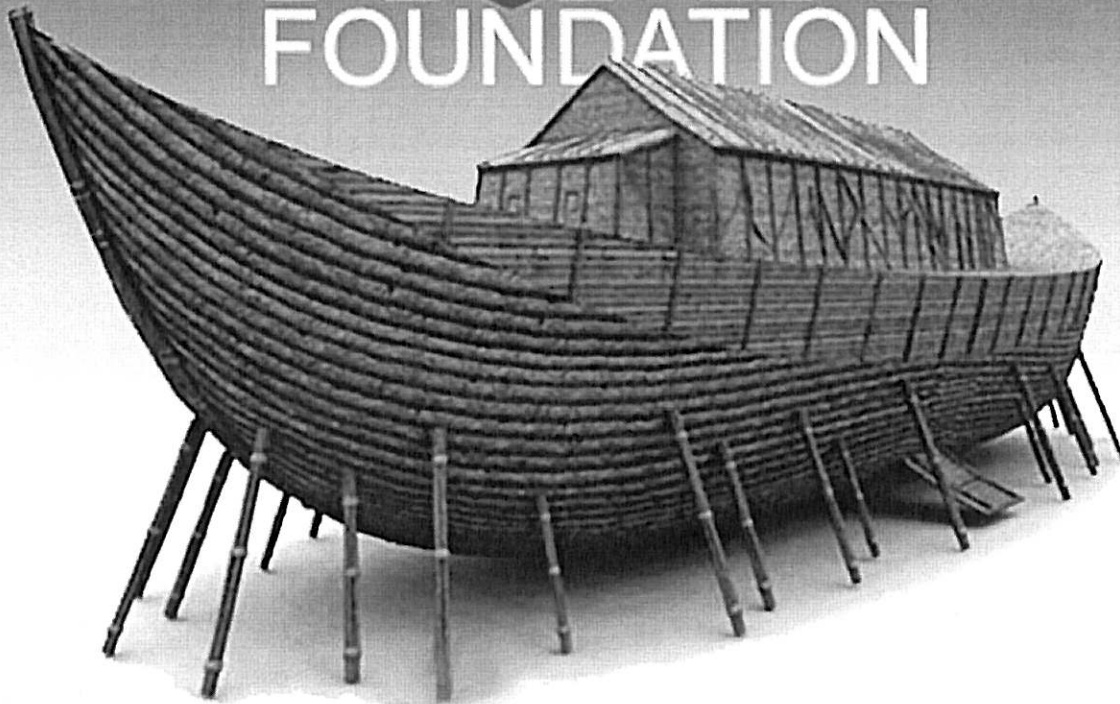


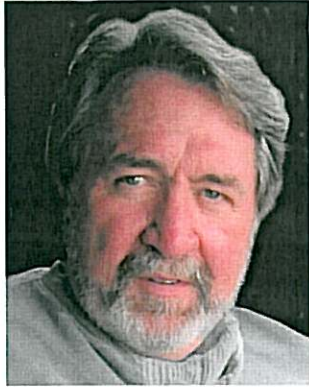
THE
NOAH
FOUNDATION



Protecting
North Carolina
Critical Infrastructure



The NOAH Foundation is a non-government organization dedicated to the protection and security of our power grid against acts of nature, solar EMP, and cyber or terrorist attack.



Sid Morris

Morris International Inc

The NOAH Foundation

There is a relatively small segment of leaders in the business world; individuals who are able to build relationships, and rapport with almost anyone, and then are able to broker those relationships and make connections between people, creating partnerships and alliances, and motivating forward momentum to “get things done.” A high energy, fiscally conscious, and goal-driven entrepreneur, Sid Morris approaches each new business challenge with his intrinsic flair for innovation, creative problem-solving and measured risk-taking.

Sid Morris founded Morris International in 1971 and became the first and only AAAA advertising agency specializing in Sports Marketing with his major focus on motorsports. In 1978 Charlotte Motor Speedway retained Morris International as their Agency of Record. In 1984, when Bill France Jr. wanted a new image for Daytona, Darlington and Talladega motor speedways and the famed Daytona 500, NASCAR called on Morris. So began an impressive, results-driven tenure with Morris bringing Proctor & Gamble’s Crisco and Tide brands to the sport, along with developing one of the first “Official” NASCAR sponsorships with AC Delco, Western Auto, Wrangler and Sears Craftsman.

Morris made world sports history in April 1988 by organizing the first professional sailboat racing series in the world, The Salem ProSail Series. In their first year of competition, the ProSail regattas were featured in three ESPN sports television programs. Privately owned and operated by Morris International, of Davidson, NC, Morris designed ProSail to be the NASCAR of water sports.

In 1991 Morris acquired The Lake Norman Company, a commercial property management and real estate development company. Morris provide the leadership and general management needed to accomplish a complete turnaround of the struggling company; growing and expanding operations to feature the only waterfront office space offerings on Lake Norman, along with five marinas, Davidson Mini-Storage, and The North Harbor Club restaurant.

In March 2011, Sid embarked on a daunting new journey, one that will have a profound effect on our community and in fact our very way of life. The NOAH Foundation.



Dr. William R. Forstchen

Military Historian

NY Times Best Selling Author

- William R. Forstchen has a Ph.D. from Purdue University with specializations in Military History and the History of Technology. He is a Faculty Fellow and Professor of History at Montreat College.

He is the author of over forty books, including the New York Times bestselling series *Gettysburg* and *Pearl Harbor* (coauthored with Newt Gingrich), as well as the award-winning young adult novel *We Look Like Men of War*. He has also authored numerous short stories and articles about military history and military technology.

In March 2009, Dr. Forstchen's latest work, *One Second After*, (Forge/St. Martin's books) was released. Based on intensive research and interviews, it examines what might happen to the social order in a "typical" American town in the wake of an EMP attack on the United States. The book was cited by Congressman Roscoe Bartlett (R.-MD) on the floor of Congress and before the House Armed Services Committee, as a realistic portrayal of the damage of an EMP attack on the continental United States.

Dr. Forstchen's interests include archaeological research on sites in Mongolia, and as a pilot he owns and flies an original World War II "recon bird." Dr. Forstchen resides near Asheville, North Carolina with his teenage daughter Meghan and their small pack of golden retrievers and yellow labs.



R. JAMES WOOLSEY

U.S. Ambassador

Former Director of Central Intelligence

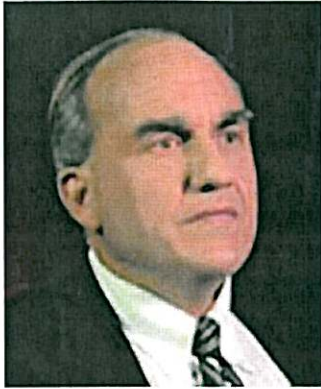
Ambassador R. James Woolsey, a former Director of Central Intelligence, chairs the board of the Foundation for Defense of Democracies and is a Venture Partner with Lux Capital Management.

Woolsey also currently chairs the Strategic Advisory Group of the Washington, D.C. private equity fund, Paladin Capital Group, and the Advisory Board of the Opportunities Development Group, and he is Of Counsel to the Washington, D.C. office of the Boston-based law firm, Goodwin Procter. In the above capacities he specializes in a range of alternative energy and security issues.

Mr. Woolsey previously served in the U.S. Government on five different occasions, where he held Presidential appointments in two Republican and two Democratic administrations. From July 2002 to March 2008 Mr. Woolsey was a Vice President and officer of Booz Allen Hamilton, and then a Venture Partner with VantagePoint Venture Partners until January 2011. He was also previously a partner at the law firm of Shea & Gardner in Washington, DC, now Goodwin Procter, where he practiced for 22 years in the fields of civil litigation, arbitration, and mediation.

During his 12 years of government service, in addition to heading the CIA and the Intelligence Community, Mr. Woolsey was: Ambassador to the Negotiation on Conventional Armed Forces in Europe (CFE), Vienna, 1989–1991; Under Secretary of the Navy, 1977–1979; and General Counsel to the U.S. Senate Committee on Armed Services, 1970–1973. He was also appointed by the President to serve on a part-time basis in Geneva, Switzerland, 1983–1986, as Delegate at Large to the U.S.–Soviet Strategic Arms Reduction Talks (START) and Nuclear and Space Arms Talks (NST). As an officer in the U.S. Army, he was an adviser on the U.S. Delegation to the Strategic Arms Limitation Talks (SALT I), Helsinki and Vienna, 1969–1970.

Ambassador Woolsey currently serves on a range of government, corporate, and non-profit advisory boards and chairs several, including the Advisory Boards of the Clean Fuels Foundation and the New Uses Council, and he is a Trustee of the Center for Strategic & Budgetary Assessments. Previously he was Chairman of the Executive Committee of the Board of Regents of The Smithsonian Institution, and a trustee of Stanford University. He has also been a member of The National Commission on Terrorism, 1999–2000; The Commission to Assess the Ballistic Missile Threat to the U.S. (Rumsfeld Commission), 1998; The President's



Dr. Peter Vincent Pry

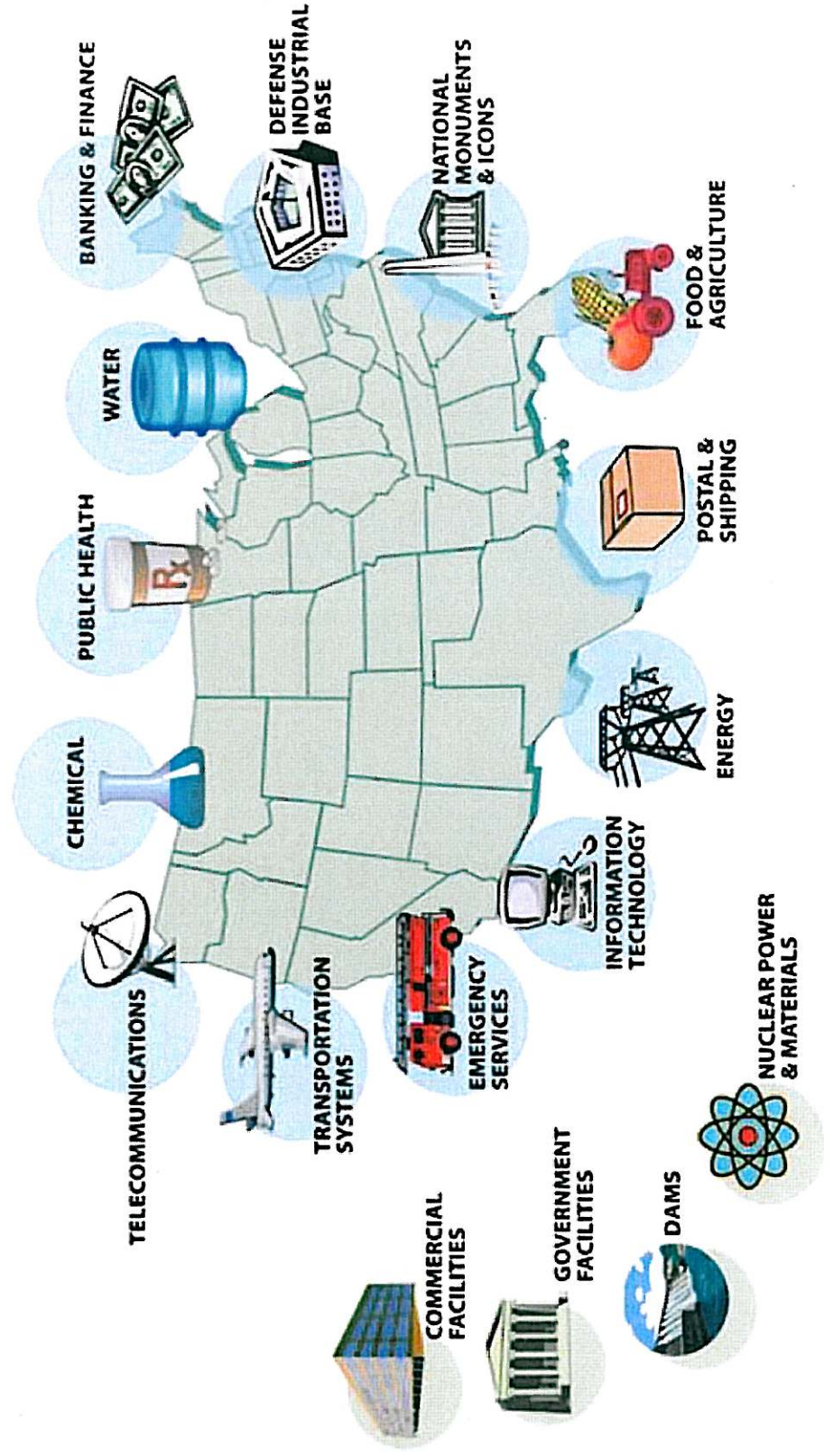
Task Force on National and Homeland Security

Dr. Peter Vincent Pry is Executive Director of the Task Force on National and Homeland Security, a congressional advisory board dedicated to achieving protection of the United States from electromagnetic pulse (EMP) and other threats on an accelerated basis. Dr. Pry also is Director of the United States Nuclear Strategy Forum, an advisory body to Congress on policies to counter Weapons of Mass Destruction.

Dr. Pry has served on the staffs of the Congressional Commission on the Strategic Posture of the United States (2008-2009); the Commission on the New Strategic Posture of the United States (2006-2008); the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack (2001-2008); as Professional Staff on the House Armed Services Committee of the U.S. Congress, with portfolios in nuclear strategy, WMD, Russia, China, NATO, the Middle East, intelligence, and terrorism (1995-2001); as an Intelligence Officer with the Central Intelligence Agency responsible for analyzing Soviet and Russian nuclear strategy and operational plans, including EMP threats (1985-1995); and as a Verification Analyst at the U.S. Arms Control and Disarmament Agency responsible for assessing Soviet compliance with nuclear and strategic forces arms control treaties (1984-1985).

Dr. Pry played a key role: running hearings in Congress that warned terrorists and rogue states could pose an EMP threat, establishing the Congressional EMP Commission, helping the Commission develop plans to protect the United States from EMP, and working closely with senior scientists who first discovered the nuclear EMP phenomenon. Dr. Pry has written numerous books on national security issues, including *Civil-Military Preparedness For An Electromagnetic Pulse Catastrophe*, *War Scare: Russia and America on the Nuclear Brink*, *Nuclear Wars: Exchanges and Outcomes*, *The Strategic Nuclear Balance: And Why It Matters*, and *Israel's Nuclear Arsenal*.

The national electric grid system supports all other critical infrastructures, including food and water delivery, banking and financial services, transportation and emergency services, telecommunications, and hospital and emergency services.



NORTH CAROLINA--THE HINGE OF HISTORY

DR. PETER VINCENT PRY STATEMENT ON PROTECTING THE NORTH CAROLINA ELECTRIC GRID FROM ELECTROMAGNETIC PULSE (EMP)

TO NORTH CAROLINA JOINT LEGISLATIVE COMMISSION ON ENERGY POLICY

December 3, 2013

Honorable members of the North Carolina State Legislature, thank you for the opportunity to appear before this body and speak in support of NOAH's initiative to protect North Carolina's electric grid from natural and manmade electromagnetic pulse (EMP).

As Executive Director of the Task Force on National and Homeland Security, an advisory board to the U.S. Congress, and as a former member of the Congressional EMP Commission, I unreservedly endorse NOAH's initiative and urge you to act swiftly to protect North Carolina's electric grid from an EMP catastrophe.

The National Intelligence Council, that writes National Intelligence Estimates for the President and speaks for the entire U.S. Intelligence Community, in a recent study *Global Trends 2030*, warned that natural EMP from a geomagnetic super-storm is one of only eight "Black Swan" events that could--sometime during the next 17 years--change the course of global civilization.

The Congressional EMP Commission estimated that a geomagnetic super-storm occurs about once a century, the last such called the Carrington Event that happened in 1859. In those horse and buggy days, civilization did not depend upon electricity. If a Carrington Event recurred today, given the current state of unpreparedness, the EMP Commission assessed that electric grids could collapse everywhere on Earth, causing a protracted planetary blackout, endangering the lives of billions worldwide.

Scientists are concerned that another Carrington Event may recur soon, that such an event is overdue, because it has been more than a century since the last. Moreover, in December 2012, the Sun entered its solar maximum, and over the next year shall emit more solar flares and coronal mass ejections, increasing the possibility of a geomagnetic super-storm.

The EMP Commission warned that terrorists and rogue states could inflict a protracted EMP catastrophe on the entire United States by launching a primitive nuclear missile off a ship near our shores, and detonating the warhead at high-altitude over the United States. According to the EMP Commission, this could collapse the national electric grid and other critical infrastructures--communications, transportation, banking and finance, food and water--and kill up to 90 percent of the American people by starvation, disease, and societal collapse.

Scientific and strategic consensus exists among every major U.S. Government study that, given the current state of unpreparedness, a natural or nuclear EMP event would have catastrophic

consequences for the nation--and therefore the electric grid must be protected. This consensus includes reports by the Congressional EMP Commission (2004 and 2008); the National Academy of Sciences (2008); the Congressional Strategic Posture Commission (2009); the Department of Energy and North American Electric Reliability Corporation (2010); and an interagency study that included the Department of Defense, Department of Homeland Security, and Oak Ridge National Laboratory by the U.S. Federal Energy Regulatory Commission (2010). Most recently, two new independent reports by the Task Force on National and Homeland Security (2013), a Congressional Advisory Board, also concurs with the consensus that the electric grid must be protected from EMP.

There is no excuse for North Carolina or any of the United States to be vulnerable to a natural or manmade EMP catastrophe. Cost-effective technologies for protecting electronic systems from EMP were developed by the Department of Defense and have been known for fifty years by using such proven technologies as surge arrestors, blocking devices, and faraday cages..

Estimating the cost of protecting an electric grid can vary widely because there are a wide variety of ways to achieve EMP protection. One plan for robust protection of the entire U.S. national electric grid, proposed by the Congressional EMP Commission, would cost a one-time investment of \$2 billion dollars, which is what the United States gives every year in foreign aid to Pakistan. Another plan by the U.S. Federal Energy Regulatory Commission estimates that protecting the U.S. national electric grid from EMP would cost the average rate payer an increase in their electric bill of merely 20 cents annually.

Rough preliminary calculations indicate that the North Carolina grid can be protected for less than \$10 million--and possibly for substantially less.

The biggest obstacle to achieving national EMP preparedness is not technological or financial--but political.

Unfortunately, despite strong bipartisan support in Congress to advance legislation to protect the national electric grid from EMP, these efforts have not been able to overcome the bureaucratic politics of Washington. For years, both parties have tried to protect the grid, and the lives of the American people, and failed.

The core problem is that the electric power industry is the only critical infrastructure that is allowed to regulate itself. No federal department or agency has legal authority to require the electric utilities to protect the grid from EMP or any threat.

Congressional efforts to pass legislation to require the electric power industry to protect the grid have failed repeatedly because of dysfunction in the congressional committee system and especially because of opposition by the powerful electric power lobby, led by the North American Electric Reliability Corporation (NERC).

For example, in 2009, when Democrats controlled the House, the House Homeland Security Committee tried to pass a bill requiring industry to protect the national electric grid.

Unfortunately, the bill never came to a vote because of jurisdictional squabbles between the House Homeland Security Committee and the House Energy and Commerce Committee.

For example, in 2010, Democrats and Republicans joined forces to pass the GRID Act through the House unanimously. Every Member of the House, liberal democrats and conservative Republicans alike, voted "Aye" in a very rare act of unanimous bipartisanship to send the GRID Act sailing over to the Senate. Unfortunately, a single Senator used committee rules to prevent the GRID Act from a vote in the Senate Energy and Natural Resources Committee.

For example, in 2011, with Republicans in charge of the House, despite the bitterly partisan 2010 elections, both parties again joined forces behind the Republican initiated SHIELD Act that, like the GRID Act, enjoys overwhelming bipartisan support. Unfortunately, lobbying by NERC has kept SHIELD bottled in the House Energy and Commerce Committee, where it has languished without a vote for three years.

The White House has also been stymied in efforts to protect the national electric grid. Presidential Policy Directive 8 "National Preparedness" and other White House initiatives have called upon industry to protect the electric grid from "all hazards" including EMP. Unfortunately, because there is no legal authority to require grid protection, voluntary compliance by NERC with these Presidential Directives has not been forthcoming.

Most recently, on October 30, 2013, Rep. Trent Franks introduced the "Critical Infrastructure Protection Act" to the House Homeland Security Committee. This bill will require the Department of Homeland Security to create a new National Planning Scenario focused on EMP that will become the basis for training and planning by Federal, State and local emergency responders. Unfortunately, because the House Homeland Security Committee lacks jurisdiction over the electric grid, this bill cannot require NERC to protect the grid.

North Carolina has an opportunity with NOAH's grid protection initiative to lead the entire nation toward EMP preparedness. If just one state takes the lead and starts to protect its electric power infrastructure from EMP, others will follow, and this almost certainly will break the logjam in Washington.

Technically, it is possible to protect from EMP that portion of the electric grid within a State, even though the State is part of a larger regional grid. "Islanding" North Carolina's electric grid can be accomplished by protecting the Extra-High Voltage transformers, SCADAS, and other critical assets within the State. Such a strategy will in no way impede North Carolina's ability to receive electric power or to transmit electric power from other States.

Indeed, if the North Carolina grid is protected, this will also enhance the energy security of neighboring states by making it easier for their recovery from a catastrophic blackout.

EMP protection does not protect against EMP alone but against all hazards. Since EMP is the worst-case threat, if the electric grid is protected from EMP, it will also be more secure from lesser threats. EMP protection will also mitigate cyber threats, sabotage, and natural disasters like hurricanes and tornadoes.

Because the electric grid is the keystone critical infrastructure, grid protection will enable the recovery of other critical infrastructures. However, there can be no recovery of other critical infrastructures, nor can society long endure, under conditions of a protracted blackout lasting months or years.

Recently, the State of Maine has received much credit from the press for being the first State to launch an initiative to protect its electric grid from EMP, and deservedly so. While Washington has struggled to protect the nation from EMP for five years unsuccessfully, Maine passed an EMP protection initiative in just three months earlier this year.

Ambassador Woolsey has rightly praised Maine's EMP protection initiative, likening its importance to the Battle of Gettysburg: "Men from the 20th Maine defended the hill Little Round Top in the Battle of Gettysburg, in an action widely regarded by historians as the decisive moment that saved the Union. Now Public Utility Commissions and electricity providers are in the frontlines of the cyber battlefield, where EMP is the heavy artillery of cyber warfare, and Maine by quirk of fate or chance has again become the hinge of history."

However, North Carolina may still be nearer than Maine to achieving EMP protection of a State electric grid, thanks to years of work by Sid Morris and NOAH. NOAH has already prepared and planned to hit the ground running to protect the North Carolina grid, while Maine is still exploring the most cost-effective technical options, even while being lobbied to do nothing by NERC.

And North Carolina, like Maine, has also been the hinge of history.

In 1776, the North Carolina delegation to the Continental Congress was the first to be authorized to declare independence from Great Britain and establish as a free republic the United States of America. In 1903, North Carolina became "first in flight" with the Wright Brothers airplane. Just eleven years later, in 1914, the new technology of aerial reconnaissance saved western democracy from losing World War I to Germany by making possible their victory in the First Battle of the Marne, considered by historians one of the most decisive battles in world history.

Now, civilization is again at risk from the looming threat of cyber warfare, and especially from EMP, that is indeed the heavy artillery of cyber threats coming our way. Now North Carolina, by quirk of fate or chance, is again at the crossroads of history, facing new barbarians armed with an unprecedented technological terror.

So do the right thing. Protect the people of North Carolina and their life sustaining electric grid from an EMP catastrophe, and by this brave example lead your Nation to safety from the ultimate cyber threat.