

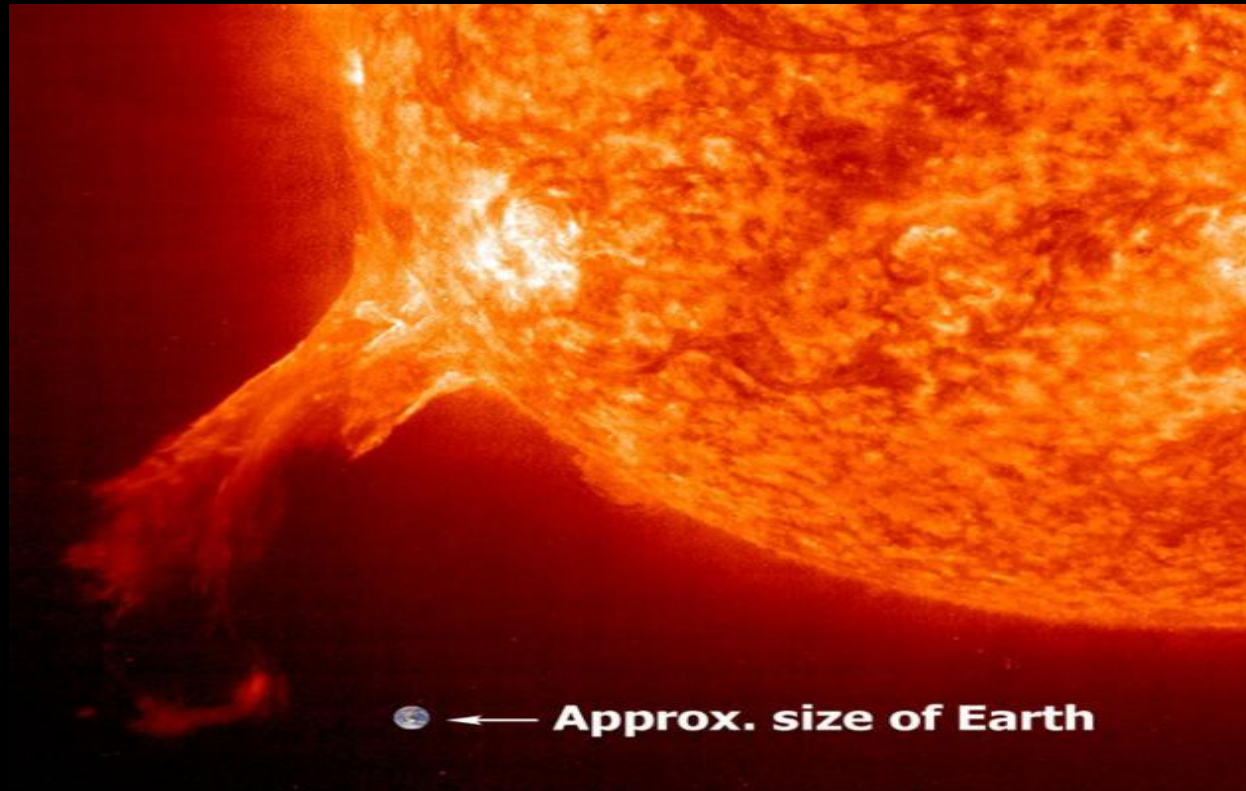
# Blackout Wars

Dr. Peter Vincent Pry

EMP Task Force on National and Homeland Security

[EMPTaskForceNHs.com](http://EMPTaskForceNHs.com)

**JULY 23, 2012**



Coronal Mass Ejection (CME) capable of generating catastrophic geomagnetic super-storm narrowly missed Earth on July 22, 2012. NASA estimates the likelihood of such a storm hitting Earth to be 12 percent over the next decade--which virtually guarantees a natural EMP catastrophe will happen in our lifetimes or that of our children.

# NUCLEAR HEMP AREA COVERAGE



EMP field coverage increases with increasing height-of-burst. A balloon or jet aircraft could loft a nuclear warhead to an altitude of 30 kilometers which, targeted over New York City, would also cover Washington, D.C., New York State, New Jersey, Pennsylvania, Virginia, Maryland, Delaware, and most of New England.

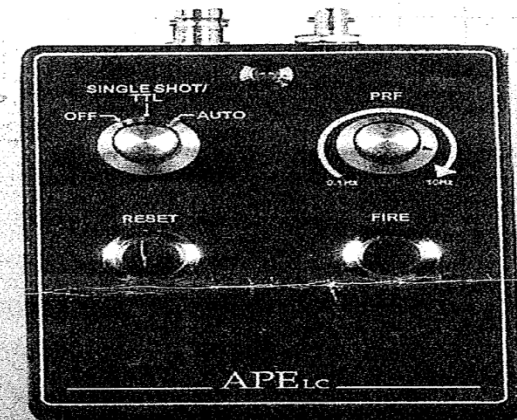
# EMP SUITCASE

## COMPACT 2100 SERIES

**APELC** proudly introduces the latest compact directed-energy solution. This portable and rugged Gigawatt-class source generates high-amplitude electric fields suitable for affecting electronics and testing system vulnerabilities. The development of **APELC's** EMP Suitcase was driven by input from DoD groups that required a powerful, reliable, compact EMP source capable of disabling or defeating electronics.



Exterior Dimensions  
24.6 x 19.7 x 8.6 in.



# APELC

APPLIED PHYSICAL ELECTRONICS, INC.

(513) 264-1004

Made in the USA

## THE THREAT FROM NORTH KOREA



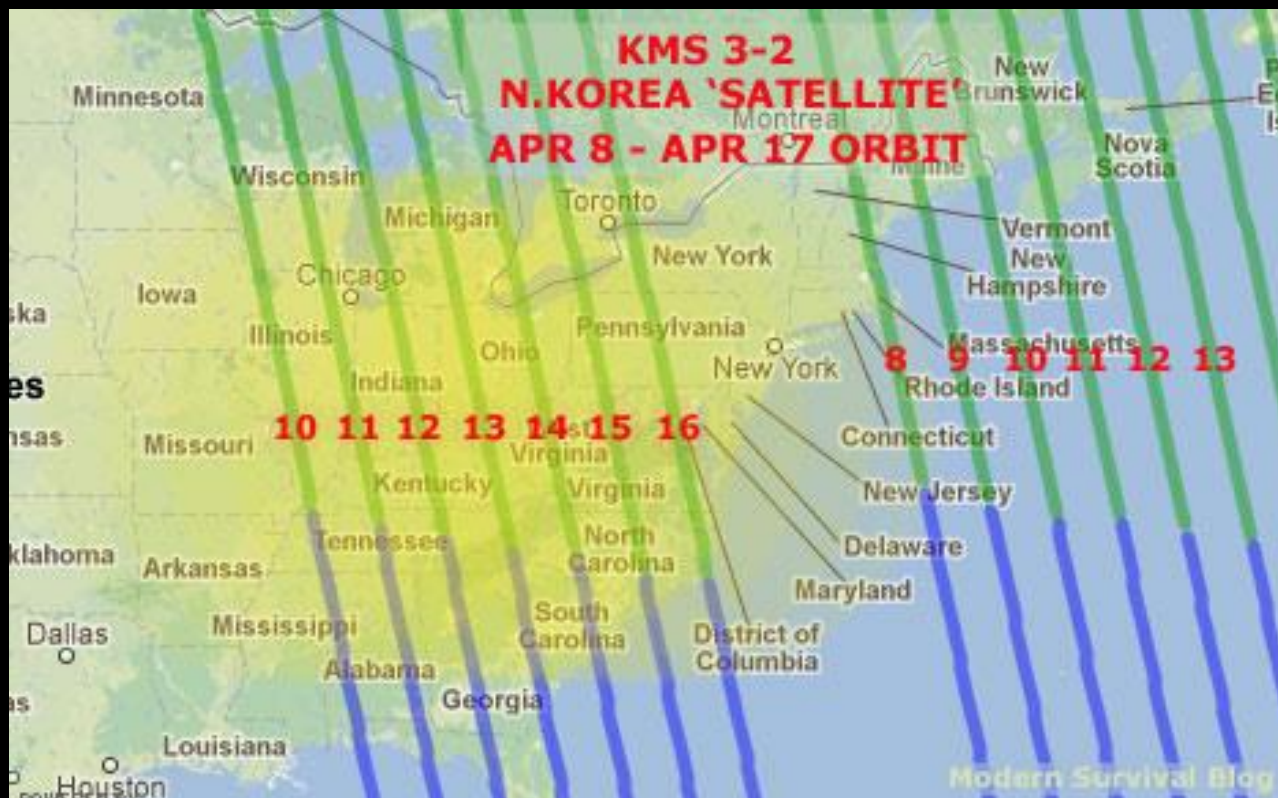
An April 2013 photo of North Korean despot Kim Jong Un at an urgent meeting with his top generals. The map is labeled “The Strategic Forces’ Plan to Strike the U.S. Mainland.”

### North Korea has:

- ★ Tested nuclear weapons, including reportedly a ‘super EMP’ design obtained from Russia
- ★ Repeatedly threatened the U.S. with nuclear attack
- ★ Orbited a satellite that could be used in an EMP strike
- ★ Collaborated closely with Iran on nuclear arms and missiles



# THE THREAT FROM NORTH KOREA



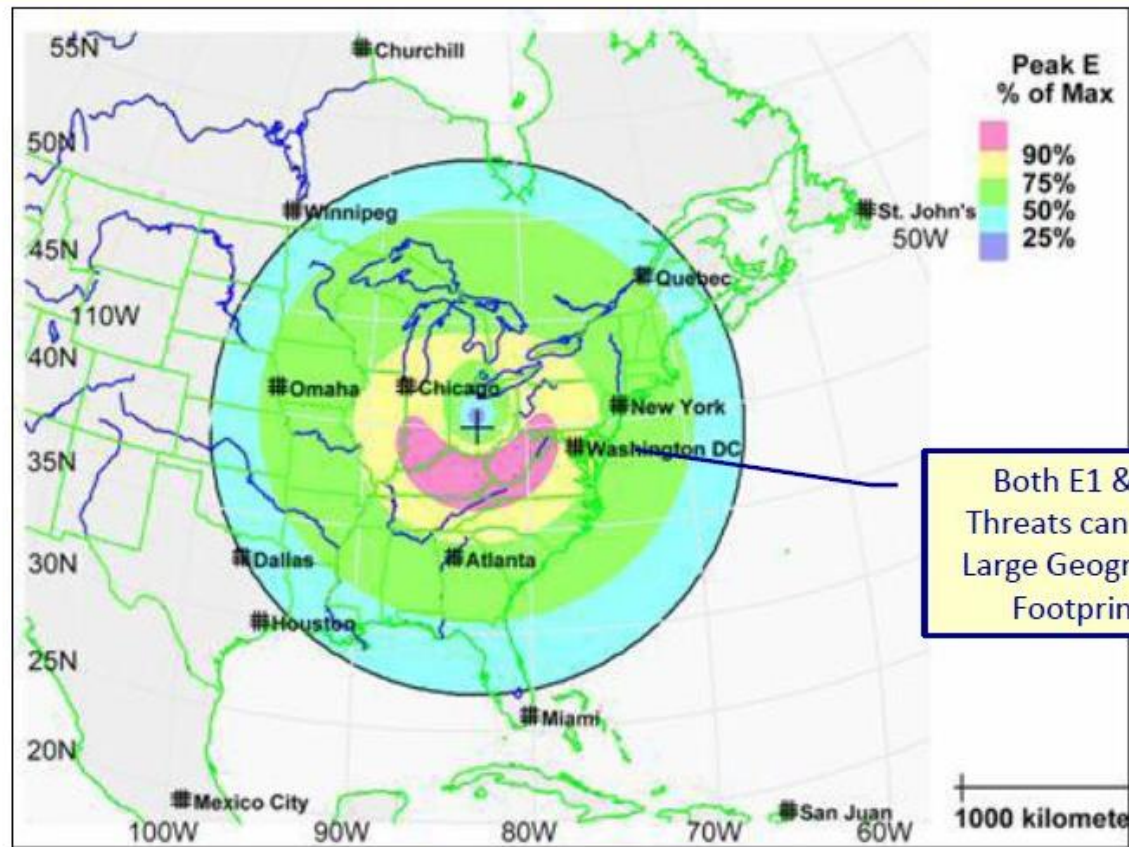
Orbital passes in April 2013 of the North Korean KMS 3-2 satellite over the most populous parts of the U.S. east of the Mississippi

- North Korea's KMS 3-2 satellite is compatible with the size and weight of a small nuclear weapon – particularly one optimized for EMP effects – and is orbiting at an altitude suited for such use. It also approaches the U.S. from the south, a direction which lacks early warning or missile defenses.

# NUCLEAR HEMP OVER

## High Altitude-EMP Threats to US Electric Grid

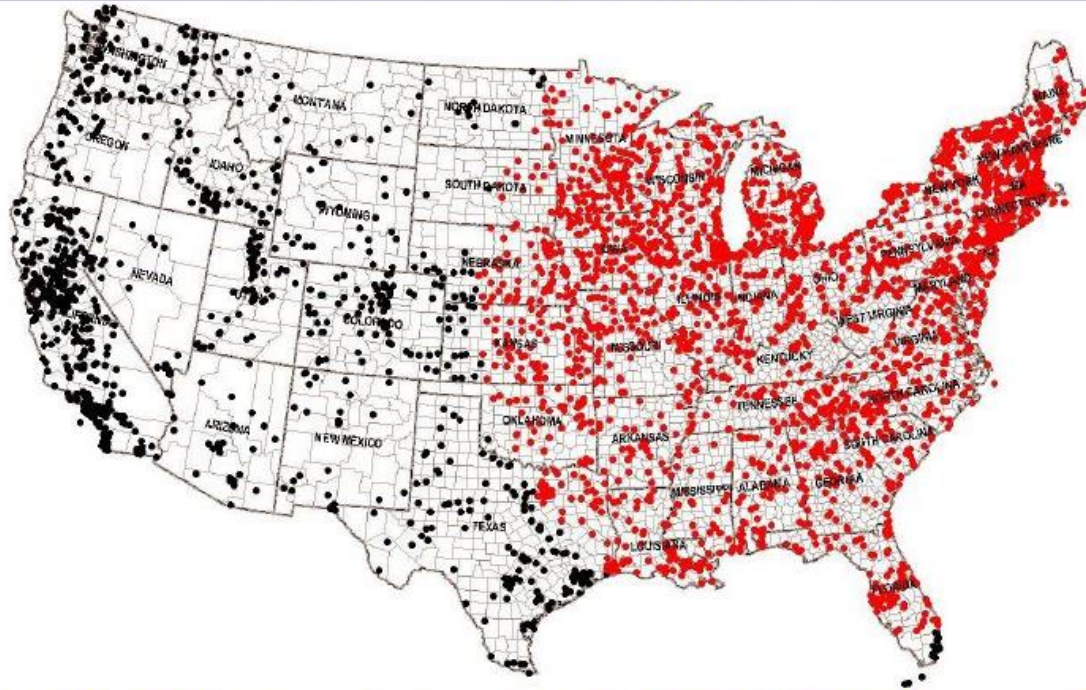
Source: EMP Commission Executive Report



HEMP Effects Area – Fast Pulse

# 74.4% OF U.S. POWER GENERATION CAPACITY

## EMP Threats to US Electric Grid Large Electric Generation Plants



HEMP Fast Pulse exposed power plants (Red) total 10,730 with a generation capacity that is ~74.4% of the U.S. total generation capability.



## THE 'SCUD-IN-A-TUB' THREAT



A Scud ballistic missile on its launcher (left) and ready to fire one concealed in a ship-borne container (above)

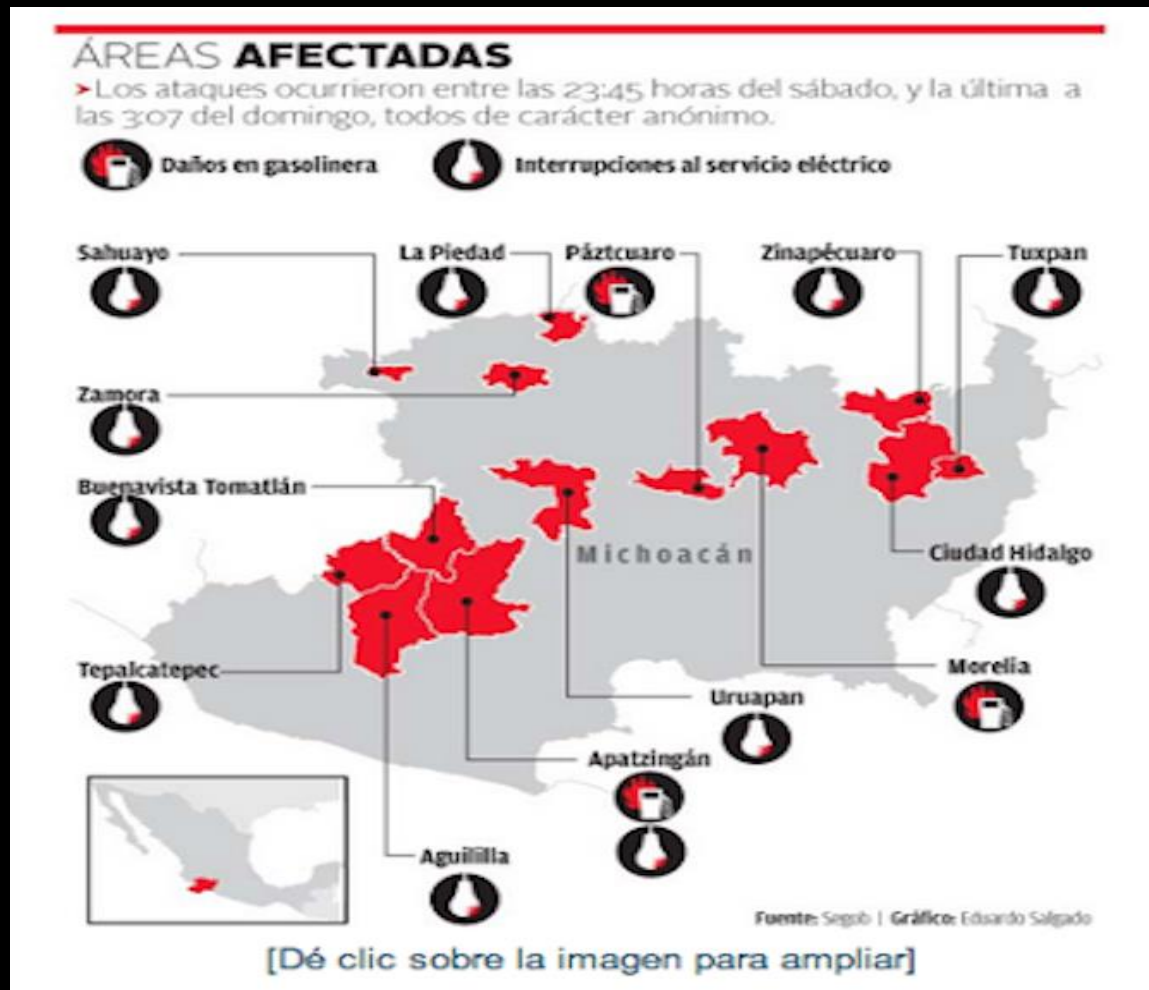
# IS AN EMP-FROM-THE-SEA THREAT REALISTIC?



The *Chong Chon Gang* , a tramp steamer owned by Iran's ally, North Korea, and its secret cargo, hidden under 10,000 tons of sugar

Two full-up, nuclear-capable SA-2 missiles on their launchers were discovered in Panama on a North Korean-flagged vessel under sugar bags in July 2013

# MEXICO'S MICHOACAN STATE BLACKOUT BY KNIGHTS TEMPLARS TERRORIST DRUG CARTEL OCTOBER 27,2013



# TERRORISTS BLACKOUT YEMEN

## JUNE 9, 2014

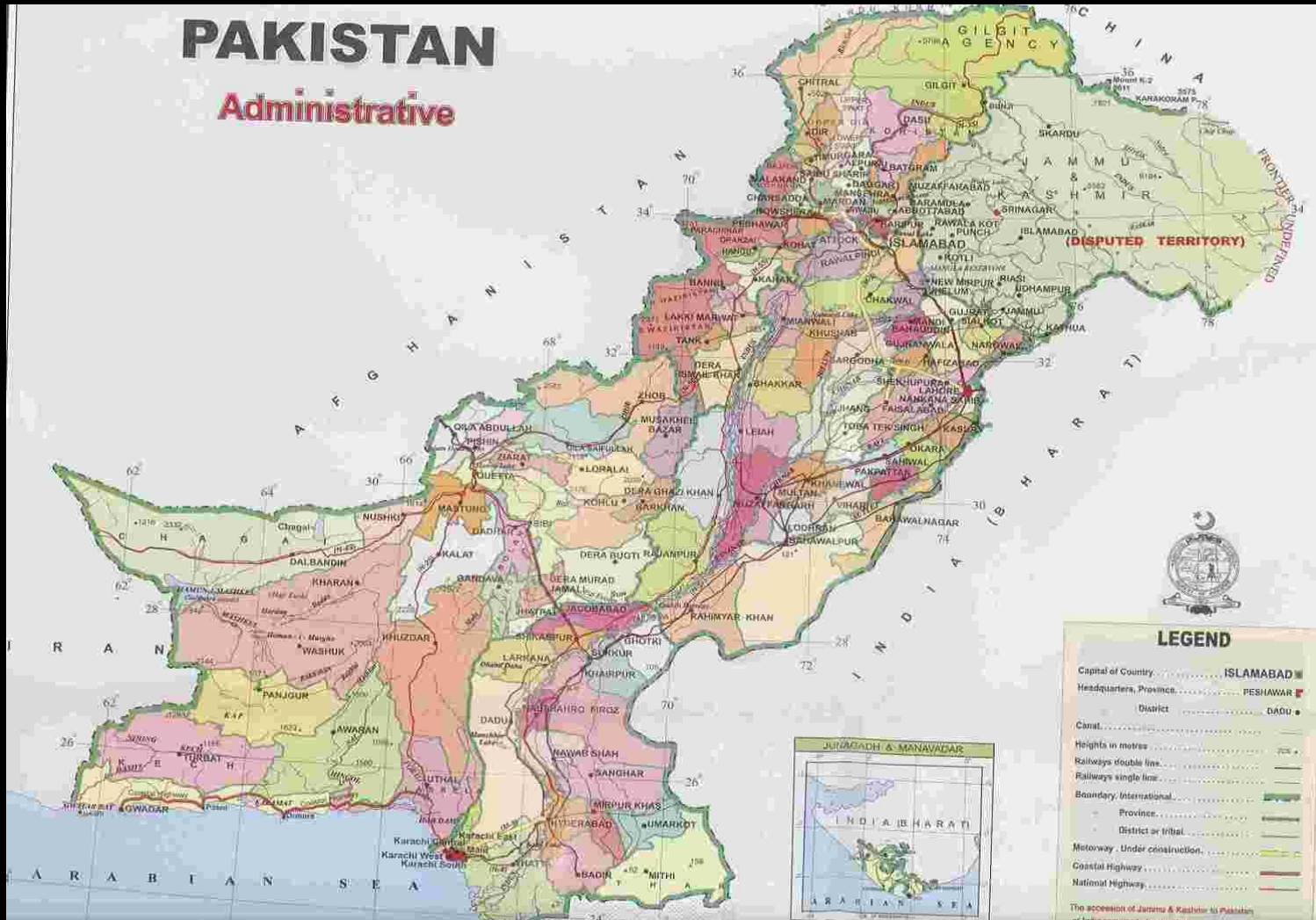






# TERRORISTS BLACKOUT PAKISTAN

## JANUARY 25, 2015



# **TURKEY BLACKOUT REPORTEDLY BY IRAN CYBER ATTACK**

## **MARCH 31, 2015**



# UKRAINE BLACKOUT REPORTEDLY BY RUSSIAN CYBER ATTACK

## DECEMBER 23, 2015





# REVOLUTIONS IN MILITARY AFFAIRS

Soviet Major General P.A. Zhilin, in his classic *The History of Military Art*, a Cold War era textbook still used in Russia's Voroshilov General Staff Academy, describes history as a series of Revolutions in Military Affairs. For example, according to Zhilin:

- The Agricultural Revolution makes possible the rise of the first kingdoms and armies that are conquered and unified into the first Empires by Egypt and the Hittites whose greater productivity enables them to field bigger armies, the first equipped with massed chariots.
- The Persian Empire falls to Alexander the Great and his new Macedonian Phalanx enabling Greek civilization to conquer the Near East and inaugurating the Hellenistic Age.
- Hellenism is conquered by the Roman Empire with its numerically and organizationally superior Roman Legions, military roads, catapults, ballistas and other early war engines.
- Feudal Europe with its castles, mounted knights, and semi-autonomous baronies is shattered by the invention of gunpowder, artillery, and the longbow and is dominated by kings and kingdoms.
- Kingdoms are eclipsed by early nation states, rising nationalism, and the early Industrial Revolution that invents mass citizen armies of the Napoleonic Era and Total War.
- World War I, the first scientific Total War, harnesses the machine gun, poison gas, and industrial mass production to slaughter million man armies, destroying the old world order dominated by Western Europe.
- Nazi Germany nearly wins World War II with the Blitzkrieg, but is defeated by the USSR's "scientific socialism" that supposedly enables the Soviets to out-produce and outfight the Nazis with a better Blitzkrieg.
- Zhilin ends *The History of Military Art* with the Revolution in Military Affairs that is the Nuclear Missile Age, which Zhilin predicts will enable the USSR to defeat the West.

# RUSSIA: THE NEW REVOLUTION IN MILITARY AFFAIRS

## BLACKOUT WARS

Russian General Vladimir Slipchenko in military textbook **No Contact Wars** outlines theory of Sixth Generation Warfare that combines and coordinates use of cyber operations, physical attacks, RF weapons, and nuclear EMP attack (the ultimate cyber weapon) to blackout electric grids and other critical infrastructures to decisively defeat the adversary. The greatest RMA in military history it renders armies and navies obsolete and enables small powers, and even subnational actors, to destroy the most powerful and successful societies on Earth.

# CHINA: TOTAL INFORMATION WARFARE

*With their massive destructiveness, long-range nuclear weapons have combined with highly sophisticated information technology and information warfare under nuclear deterrence....Information war and traditional war have one thing in common, namely that the country which possesses the critical weapons such as atomic bombs will have "first strike" and "second strike retaliation" capabilities....As soon as its computer networks come under attack and are destroyed, the country will slip into a state of paralysis and the lives of its people will ground to a halt. Therefore, China should focus on measures to counter computer viruses, nuclear electromagnetic pulse...and quickly achieve breakthroughs in those technologies in order to equip China without delay with equivalent deterrence that will enable it to stand up to the military powers in the information age and neutralize and check the deterrence of Western powers, including the United States.* Peoples Liberation Army textbook by Shen Weiguang **World War, the Third World War--Total Information Warfare**

# IRAN MILITARY DOCTRINE ADVOCATES EMP ATTACK

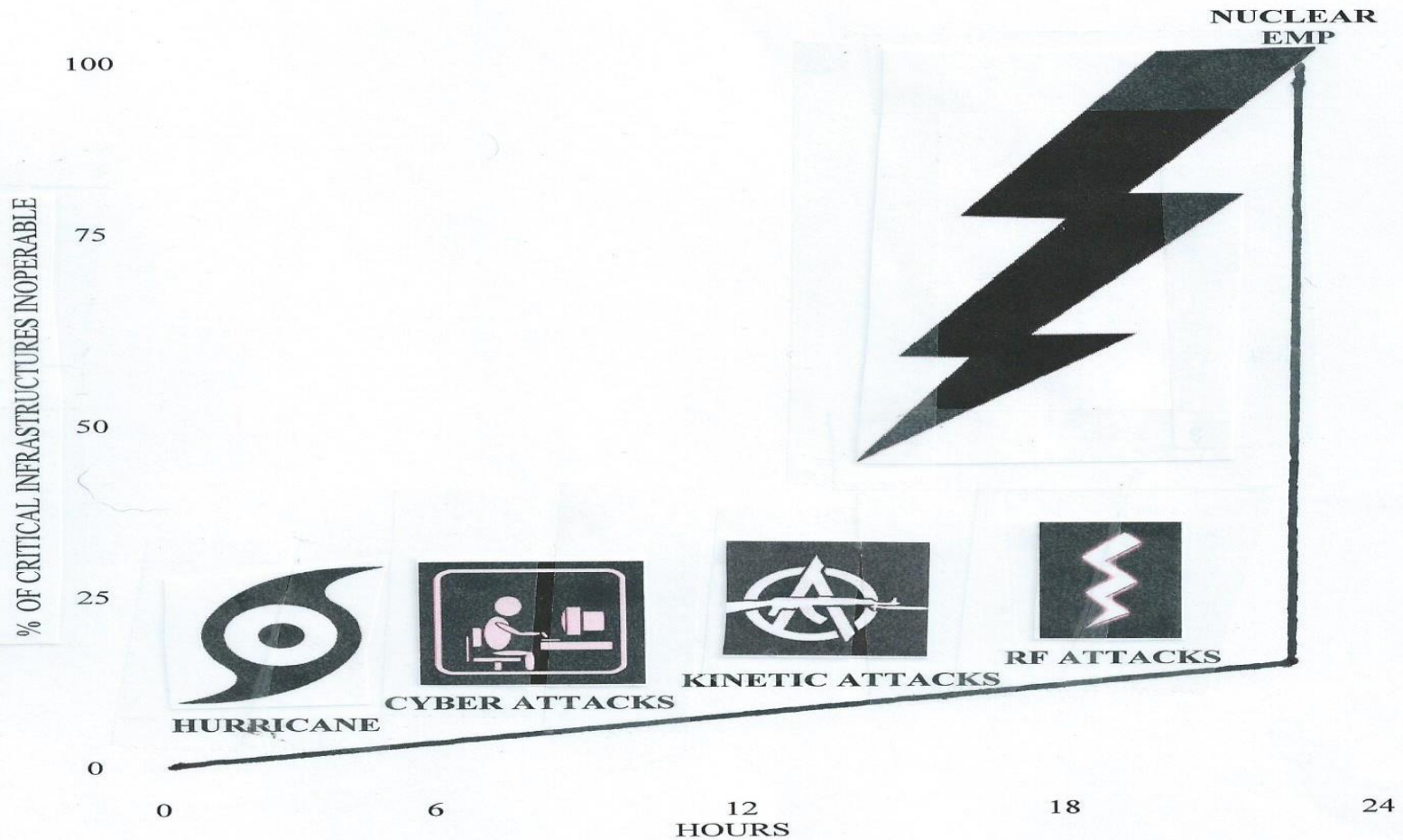
*As a result of not having the other destructive effects that nuclear weapons possess, among them the loss of human life, weapons derived from electromagnetic pulses have attracted attention with regard to their use in future wars...The superficiality of secondary damage sustained, as well as the avoidance of human casualties, serves as a motivation to transform this technology into an advanced and useful weapon in modern warfare.*

Iranian military textbook **Passive Defense** (2010).

*If the world's industrial countries fail to devise effective ways to defend themselves against dangerous electronic assaults, then they will disintegrate within a few years....American soldiers would not be able to find food to eat nor would they be able to fire a single shot. Iranian article "Electronics To Determine Fate Of Future Wars (1998)*



## BLACKOUT WAR



Severe weather, cyber attack, sabotage, RF weapons, and nuclear EMP attack used in coordinated operation to collapse the electric grid and other critical infrastructures.  
Source: Dr. Peter Vincent Pry