



EMET

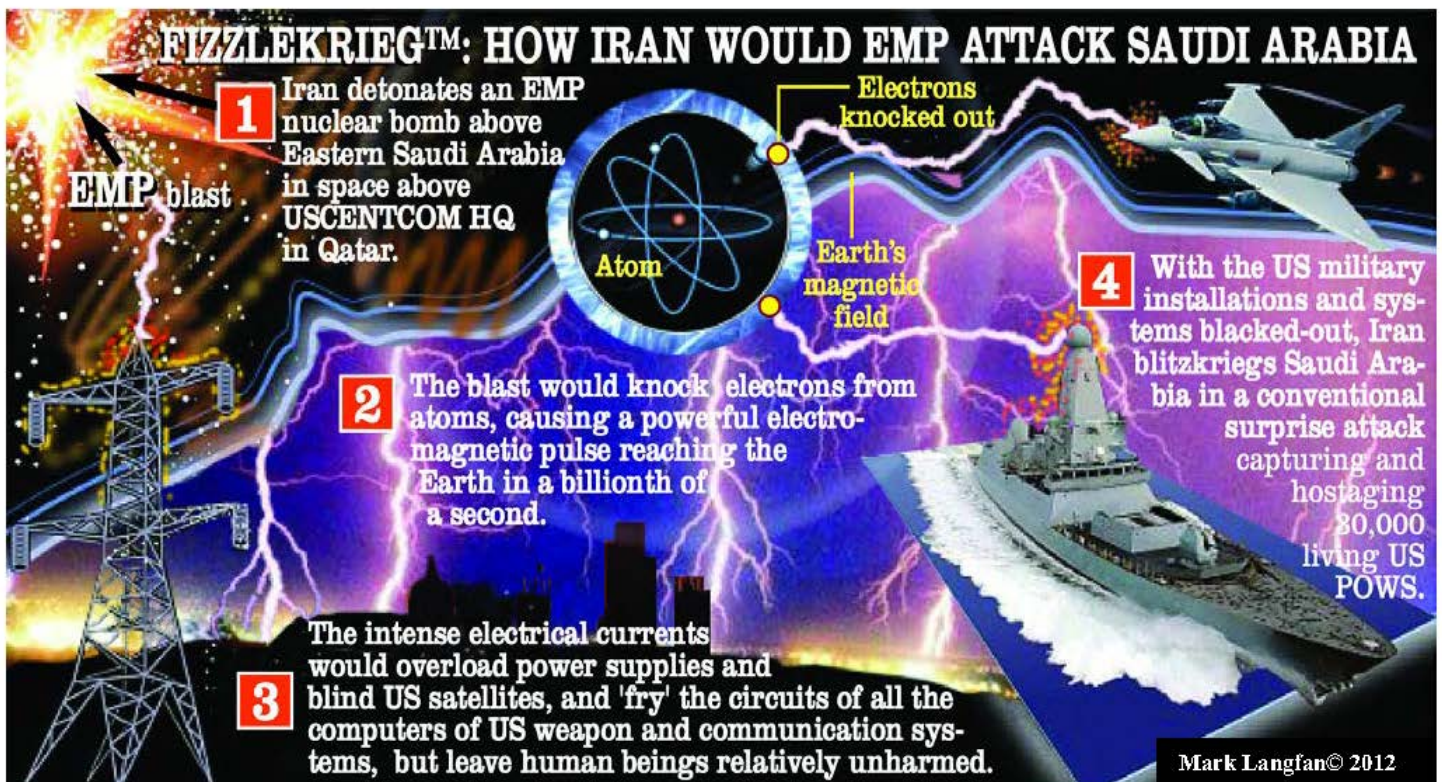
Endowment for Middle East Truth

and



CENTER FOR SECURITY POLICY

Invite you to attend a symposium:
What are Iran's True Intentions?
Russell Senate Office Building, Room 385
Washington, D.C.
January 8th, 12:00-2:00 pm



Langfan Contact Information – mapmun@aol.com

Office # (212) 832-0200 – Cell (646) 263-4606

For a copy of this document go to:

www.marklangfan.com/emetspeechgraphics.html



Video: <http://youtu.be/PCQFm7PjWb8>

The Real Rouhani <http://realrouhani.com/>

Rouhani In His Own Words

<http://www.unitedagainstnucleariran.com/rouhani/in-his-own-words>

Shevat 4, 5773, 15/01/13 09:40

Opinion

Arutz Sheva 
www.IsraelNationalNews.com



Op-Ed: Iran is a 'War Crime' Regime: A Legal Brief, Part I

Published: Sunday, February 12, 2012 12:51 AM

Reminder: Iran is a signatory to the Geneva Convention even if Hamas and Hizbullah are not. The writer shows the legal implications.

Part I

On February 3, 2012, the Supreme Leader of the Islamic Republic of Iran Ayatollah Khamenei stated:

“One of the outcomes of these movements is decline and isolation for the Zionist regime, which is very important, because the Zionist regime is truly a cancerous tumor in the region and it must be, and will be, cut off.”

http://english.khamenei.ir//index.php?option=com_content&task=view&id=1581&Itemid=2



Obama Falls for Iranian 'Fatwa' Hoax on Nuclear Weapons

by [Joel B. Pollak](#) 29 Sep 2013 [123 post a comment](#)

Last week, President Barack Obama assured the United Nations General Assembly that Iran did not actually seek nuclear weapons. However, the basis for Obama's defense of Iranian intentions is an elaborate hoax.

Obama [said](#) that a "fatwa," or religious ruling, by Ayatollah Ali Khamenei (to whom Obama referred by the official honorific, "Supreme Leader"), banned nuclear weapons and provided a basis for future peace:

We are not seeking regime change, and we respect the right of the Iranian people to access peaceful nuclear energy. Instead, we insist that the Iranian government meet its responsibilities under the Nuclear Non-Proliferation Treaty and UN Security Council resolutions.

Meanwhile, the Supreme Leader has issued a fatwa against the development of nuclear weapons, and President Rouhani has just recently reiterated that the Islamic Republic will never develop a nuclear weapon.

These statements made by our respective governments should offer the basis for a meaningful agreement. We should be able to achieve a resolution that respects the rights of the Iranian people, while giving the world confidence that the Iranian program is peaceful.

However, as the Middle East Media Research Institute (MEMRI) [reports](#), that fatwa "was never issued by Supreme Leader Khamenei and does not exist; neither the Iranian regime nor anybody else can present it."

<http://www.breitbart.com/Big-Peace/2013/09/29/Obama-Falls-for-Iranian-Fatwa-Hoax>



Author [Barbara Slavin](#) Posted
November 26, 2012

US Can Deter and Contain Iran, Brzezinski Says

Former White House national security adviser Zbigniew Brzezinski said Monday [Nov. 26] that **the United States has “no implicit obligation to follow like a stupid mule” an Israeli strike on Iranian nuclear sites** and that a US or an Israeli attack on the Islamic Republic would be “the worst option” should negotiations fail.

[It’s no secret that Brzezinski](#), who served President Jimmy Carter during the 1978-79 Iranian revolution and the subsequent US hostage crisis, opposes war with Iran. However, on Monday he fleshed out his arguments in favor of what amounts to a containment strategy as the “least bad” alternative in the event that Iran develops a nuclear weapon.

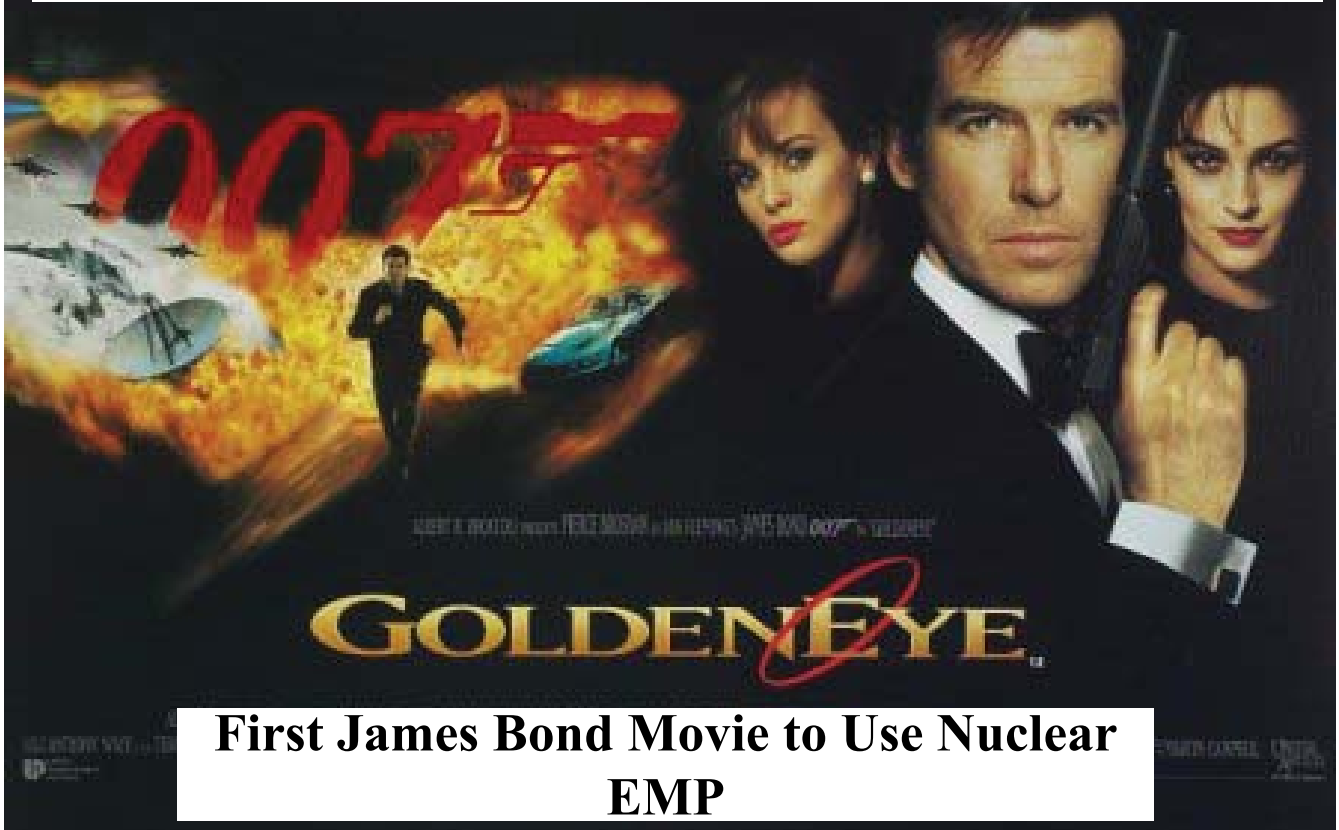
While the veteran national security strategist was initially reluctant to use the word “containment” to describe potential policy toward Iran, he conceded under questioning from *Al-Monitor* that “something modeled on it if not identical” to the strategy the US pursued with the old Soviet Union, China and even North Korea was what he had in mind.

Speaking to an audience near Capitol Hill at an event organized by the Arms Control Association and the National Iranian American Council, Brzezinski said such a policy toward Iran would consist of “painful but not strangulating sanctions” shaped in such a way that they would assist forces seeking eventual democratic change in Iran.

He said sanctions should be combined with an “explicit security guarantee” to countries in the region, including Israel, that are friendly to the United States – much as the US protected Europe from the Soviets and is still deterring North Korea from using its nuclear weapons against South Korea and Japan.

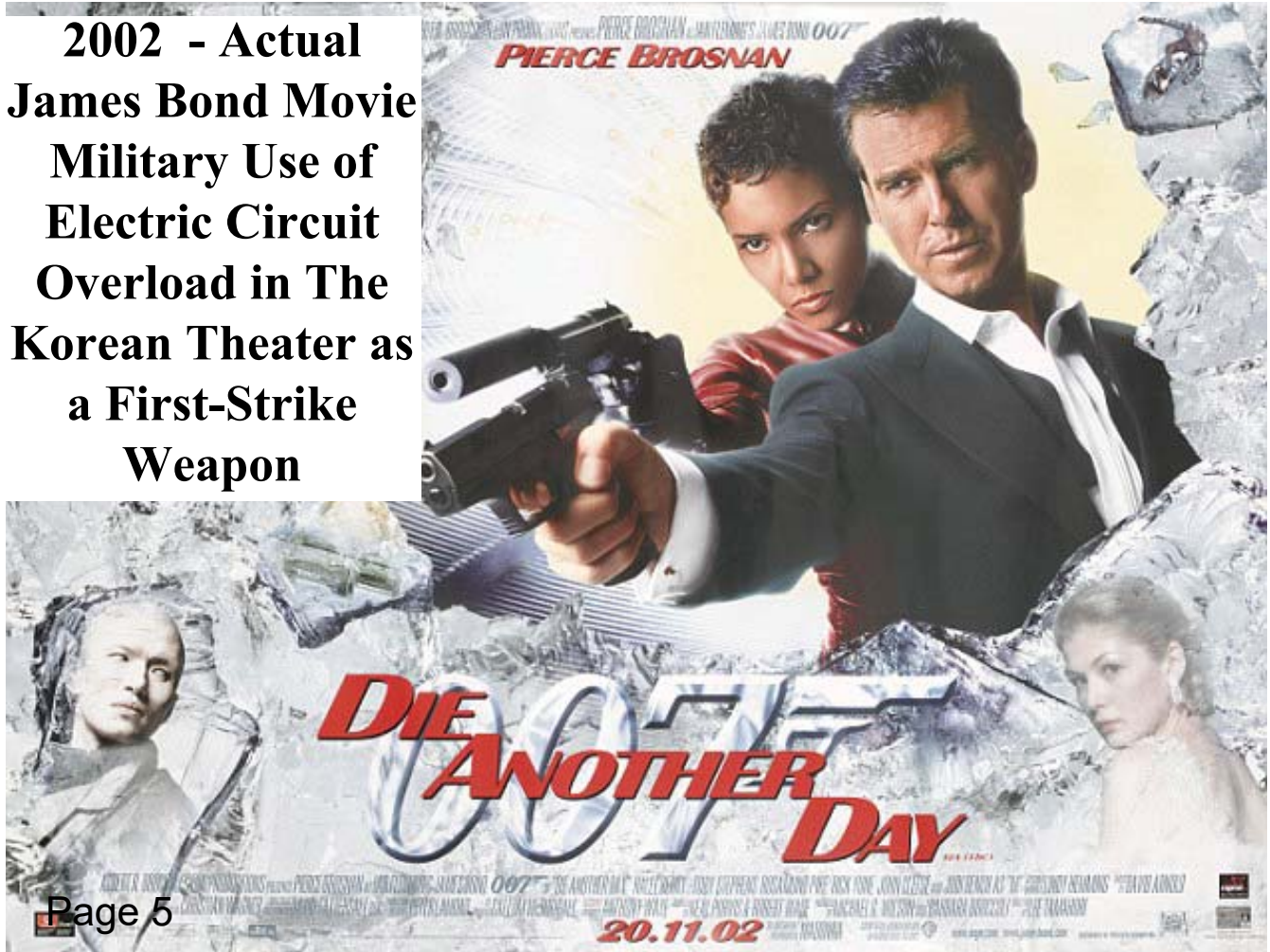
<http://www.al-monitor.com/pulse/originals/2012/al-monitor/brzezinskiusiran.html##ixzz2pMYfsbqx>

1995 - North Korean Supreme Leader Kim Jong-il a Supreme James Bond Fan



First James Bond Movie to Use Nuclear EMP

2002 - Actual James Bond Movie Military Use of Electric Circuit Overload in The Korean Theater as a First-Strike Weapon





'Nuclear Iran's First Target: the Saudis'

Arutz Sheva's Mark Langfan tells Erick Stakelbeck that one Iranian EMP-nuke can knock out Saudi Arabia and lead to a Shiite Caliphate.

Arutz Sheva

Appearing on Erick Stakelbeck's The Watchman show this week, *Arutz Sheva* strategic analyst Mark Langfan predicted that once Iran achieves nuclear weapons capability, it will first attack the eastern Saudi oil fields.

One Iranian EMP nuclear bomb can knock out the Saudi and American defenses in Saudi Arabia, said Langfan.



[An EMP, or electro-magnetic pulse bomb](#), explodes at high altitude, knocking out the electric grid of a large area and rendering computers and other electronics useless.

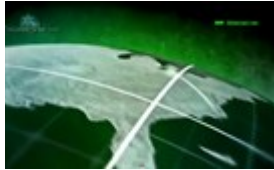
Langfan predicted that the EMP nuke could put the Iran in control of the Shiite-majority areas of eastern Saudi Arabia where almost 100% of Saudi oil is located.

He also drove home the fact that most of the world's oil reserves are located within the so-called "black gold triangle" which Iran can turn into a Shiite Caliphate.

On last week's The Watchman, Langfan explained that a Palestinian Authority state [would render Israel defenseless](#).

Earlier today, a BBC report claimed Saudi Arabia had arranged to [obtain nuclear weapons from Pakistan](#) in the event Iran passes the nuclear threshold. It comes as Gulf state's confidence in US efforts to prevent Tehran from developing a nuclear weapons program - along with relations between Riyadh and Washington - are [at an all-time low](#).

Opinion



Arutz Sheva
www.IsraelNationalNews.com



The 100% Fatwa-Compliant Iranian EMP Nuclear Weapon

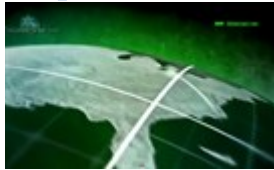
When Iran says "Nuclear weapons are a grave sin" it sounds almost as good to pundits as "Peace in our time" sounded to the useless idiot pundits in 1938 - but this article shows how Iran can keep its word and destroy the West. Read carefully.

<http://www.israelnationalnews.com/Articles/Article.aspx/11551#.UsbfLLQszbO>

ARABIC TRANSLATION - www.marklangfan.com/shariacompliantarabic.html

Shevat 4, 5773, 15/01/13 09:40

Opinion



Arutz Sheva
www.IsraelNationalNews.com



بقلم مارك لانغفان

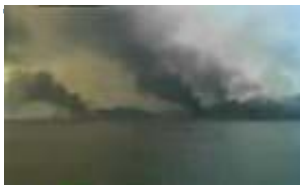
19 نيسان/أبريل 2012

لقد قيل وسيقال الكثير عن خطاب المرشد الأعلى لإيران خامنئي غير الرسمي في شباط/فبراير 2012 أمام مجموعة من العلماء النوويين الإيرانيين حيث تمت ترجمة أقواله إلى اللغة الانكليزية بحيث أنه قال:

KOREAN ARTICLE- www.marklangfan.com/nkorealightsout.html

Opinion

Nisan 13, 5773, 24/03/13 03:03



북한의 암전 게임 – 가능성 무시 못해

한반도 상공에서 폭발시킬 수 있는 작지만 상대적으로 조잡한 핵 장비로도 10 kV/m가 충분히 넘는 자기장의 EMP를 생성할 수 있고, 이로써 비보호 전자 시스템을 대량으로 파괴할 수 있다.

보도: Mark Langfan

(이 기사가 올라오기 며칠 전에 다음 기사가 게재되었습니다:
[/News/Flash.aspx/264866](http://News/Flash.aspx/264866))

Arutz Sheva
www.IsraelNationalNews.com

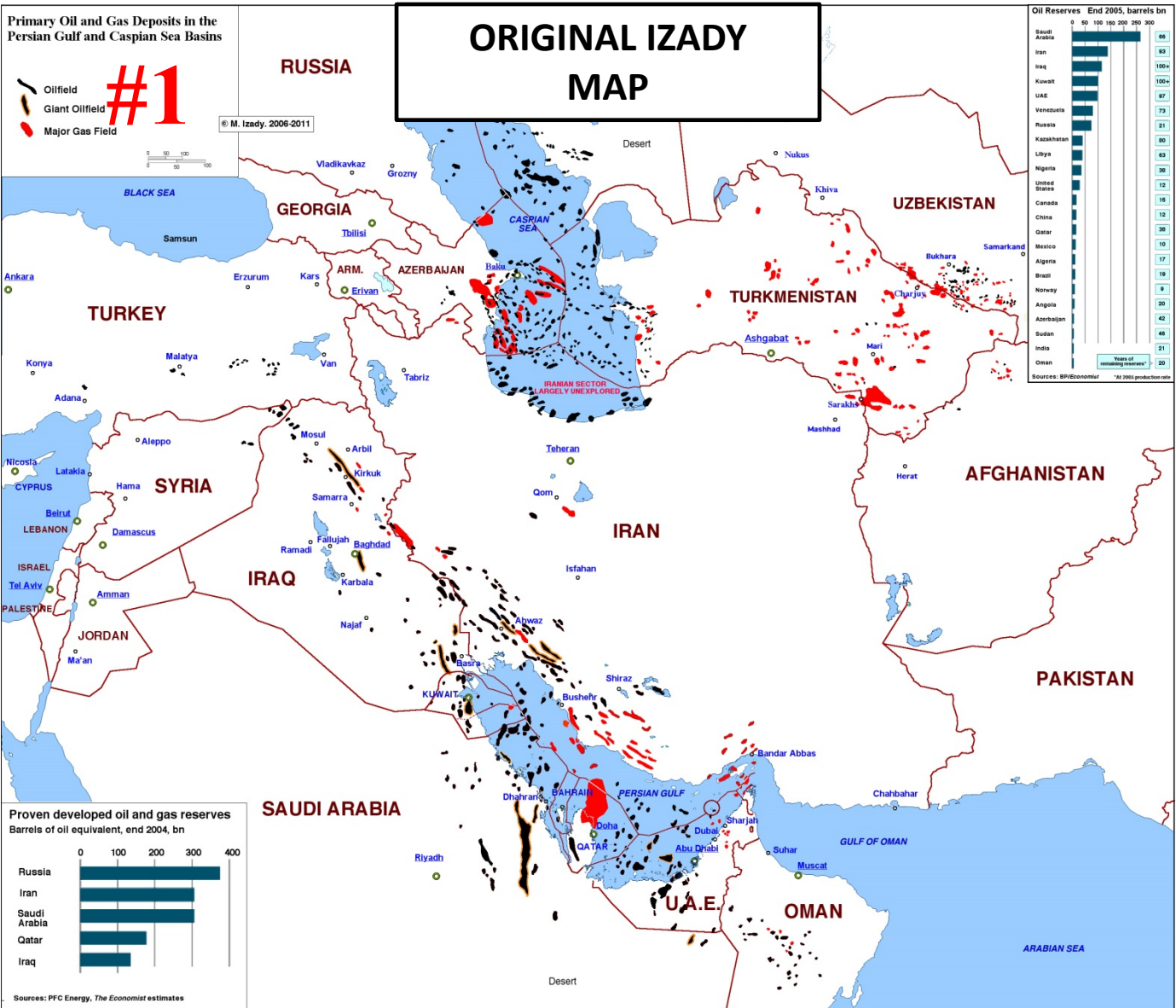
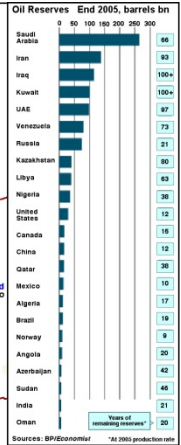


Primary Oil and Gas Deposits in the Persian Gulf and Caspian Sea Basins

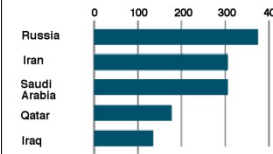


© M. Izady, 2006-2011

ORIGINAL IZADY MAP



Proven developed oil and gas reserves
Barrels of oil equivalent, end 2004, bn



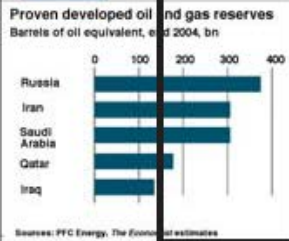
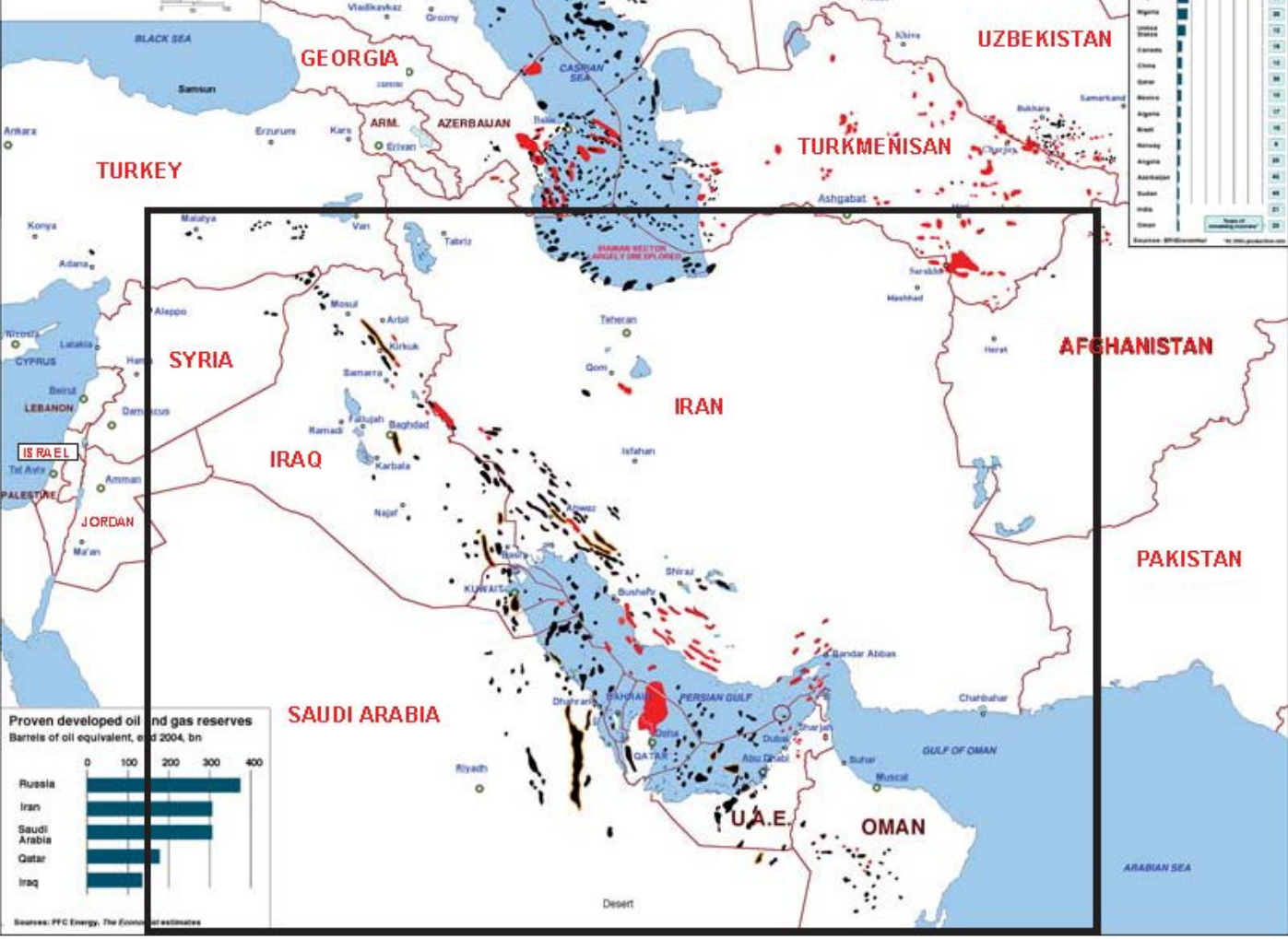
Sources: PFC Energy, The Economist estimates

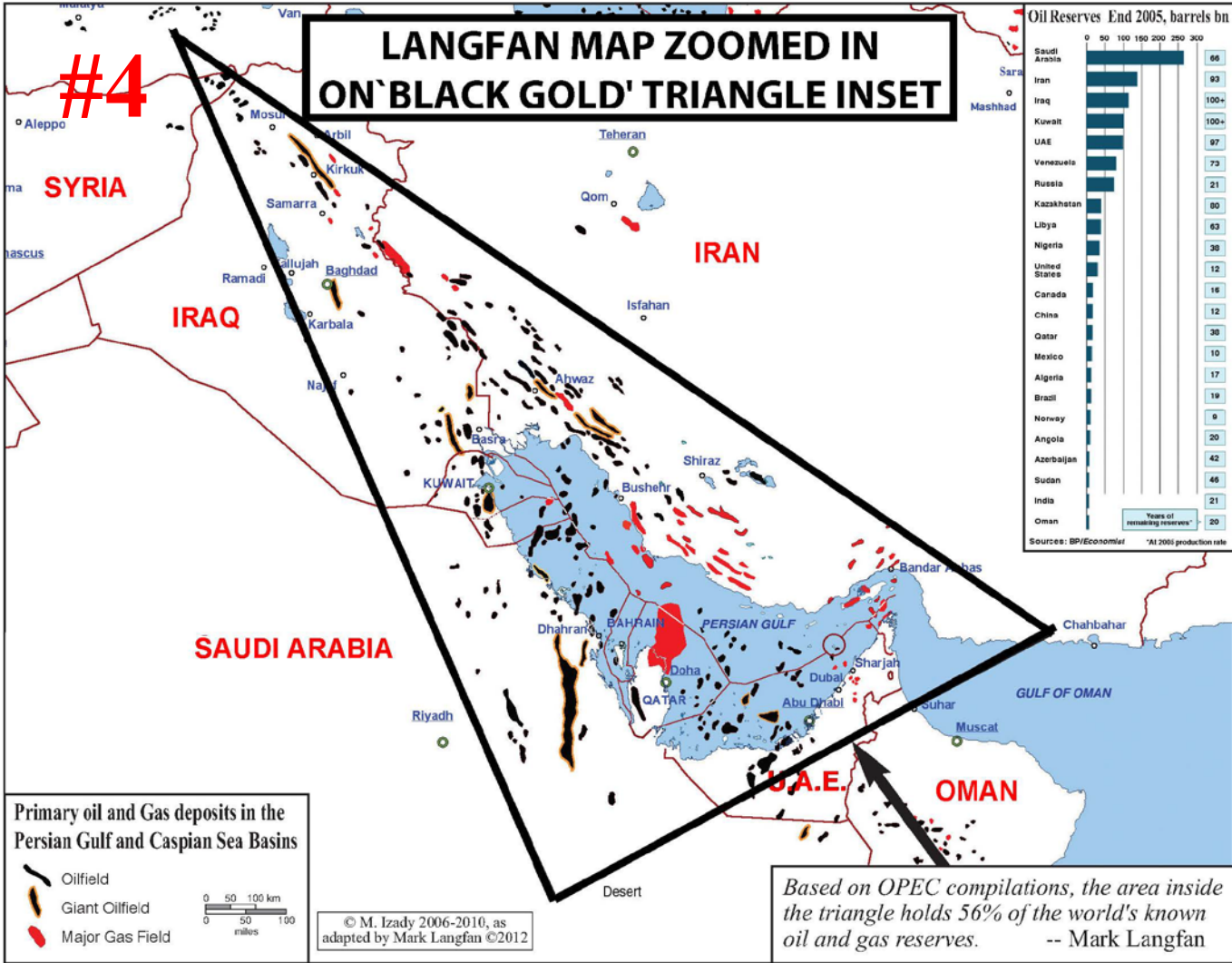
Primary Oil and Gas Deposits in the Persian Gulf and Caspian Sea Basins



© M. Izady, 2006-2011

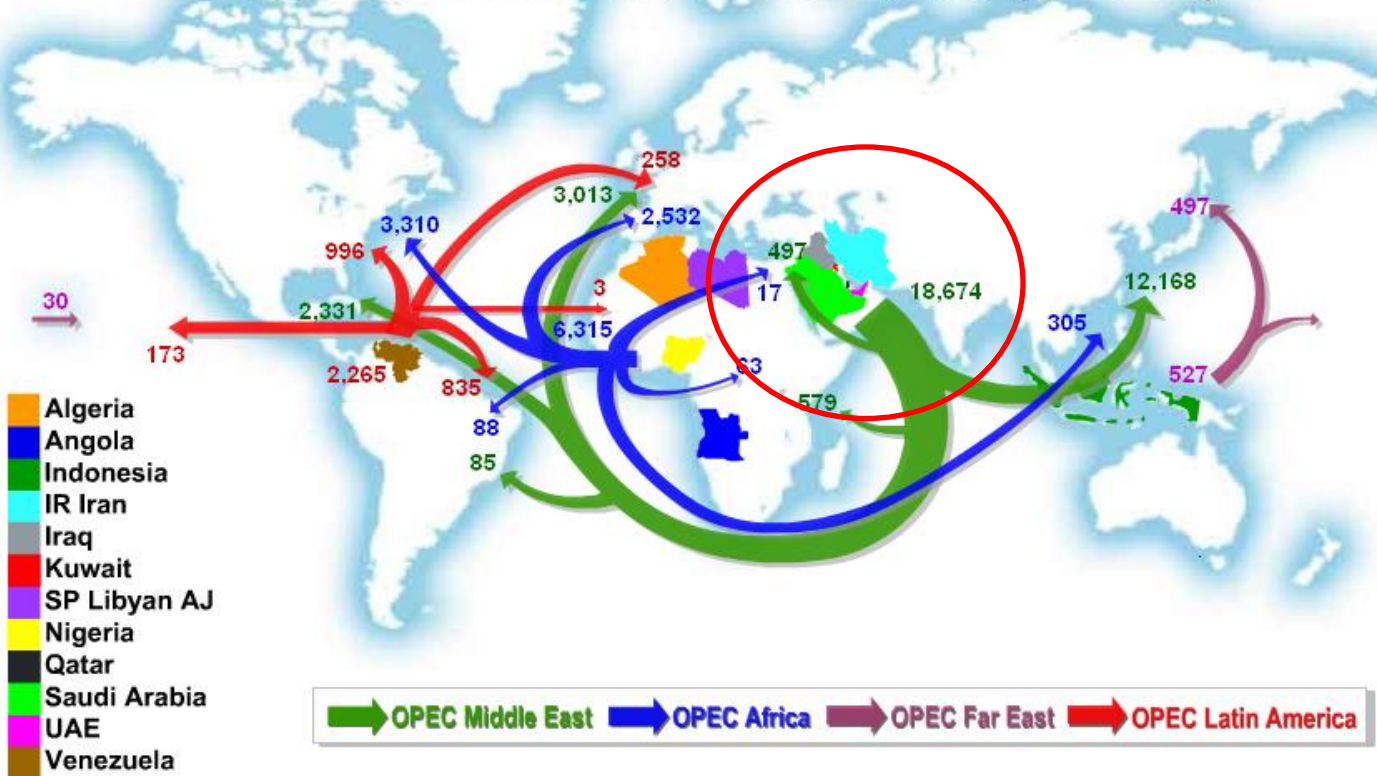
LANGFAN MAP INSET "ISOLATED"





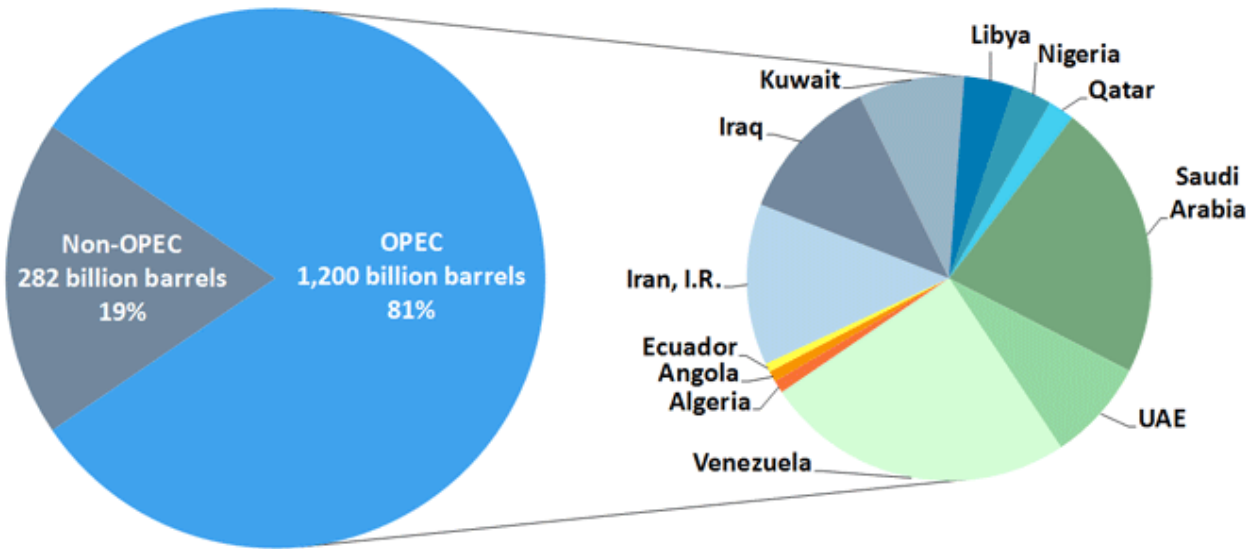
[View Table](#)

OPEC flows of crude and refined oil, 2006 (1,000 b/d)



18,674,000 Barrels per day
from the Persian Gulf

OPEC Share of World Crude Oil Reserves 2011



OPEC proven crude oil reserves, end 2011
(billion barrels, OPEC Share)

Venezuela	297.6	24.8%	Iraq	141.4	11.8%	Libya	48.0	4.0%	Algeria	12.2	1.0%
Saudi Arabia	265.4	22.1%	Kuwait	101.5	8.5%	Nigeria	37.2	3.1%	Angola	10.5	0.9%
Iran, I.R.	154.6	12.9%	United Arab Emirates	97.8	8.2%	Qatar	25.4	2.1%	Ecuador	8.2	0.7%

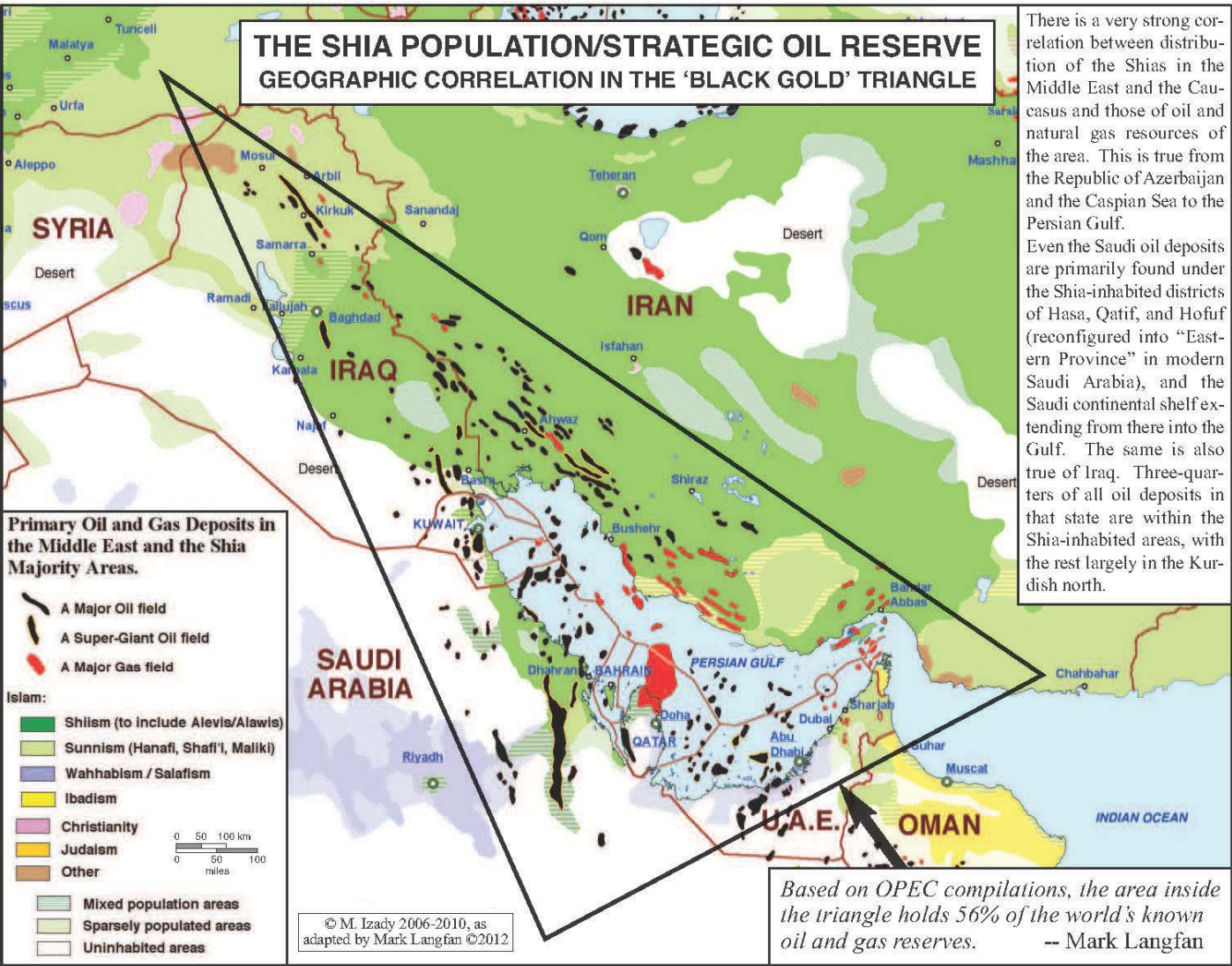
Source: OPEC Annual Statistical Bulletin 2012

The Persian Gulf holds 56% of the World's reserves + Caspian Sea Area = 70% of the World's reserves

THE SHIA POPULATION/STRATEGIC OIL RESERVE GEOGRAPHIC CORRELATION IN THE 'BLACK GOLD' TRIANGLE

There is a very strong correlation between distribution of the Shias in the Middle East and the Caucasus and those of oil and natural gas resources of the area. This is true from the Republic of Azerbaijan and the Caspian Sea to the Persian Gulf.

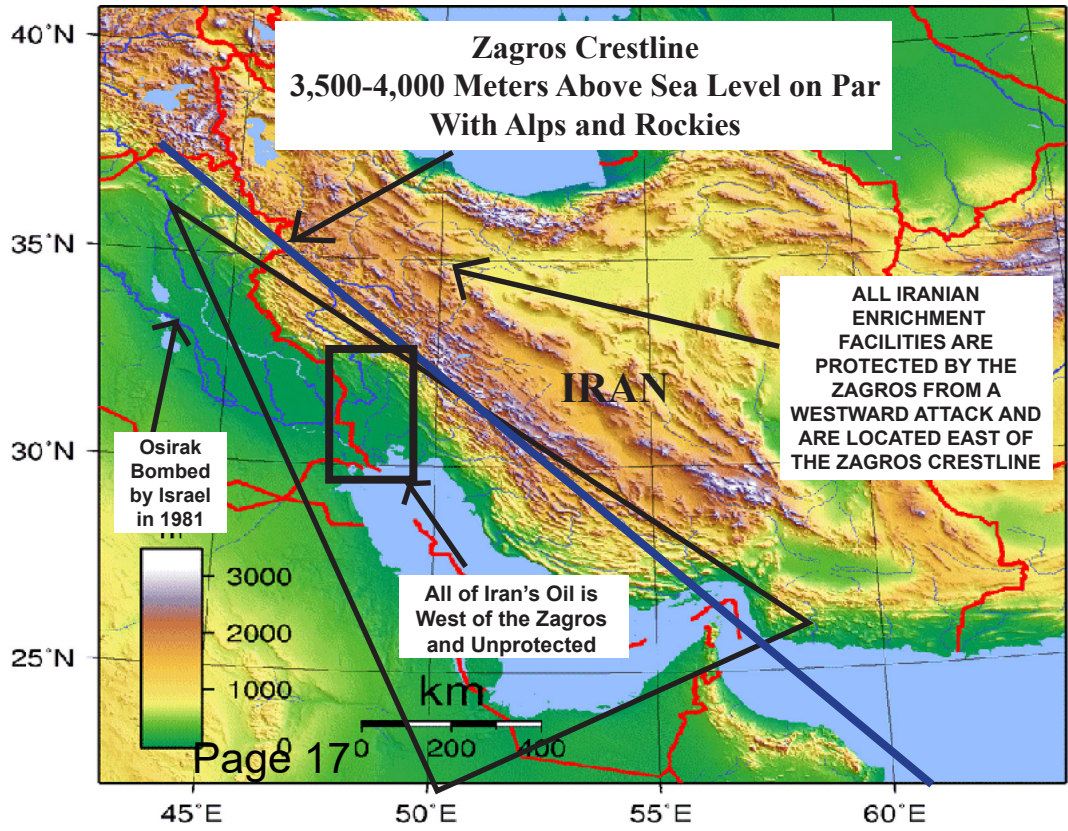
Even the Saudi oil deposits are primarily found under the Shia-inhabited districts of Hasa, Qatif, and Hofuf (reconfigured into "Eastern Province" in modern Saudi Arabia), and the Saudi continental shelf extending from there into the Gulf. The same is also true of Iraq. Three-quarters of all oil deposits in that state are within the Shia-inhabited areas, with the rest largely in the Kurdish north.



Based on OPEC compilations, the area inside the triangle holds 56% of the world's known oil and gas reserves. -- Mark Langfan

Language Map of Black Gold Triangle





Iran's nuclear facilities

Iran has revealed to the U.N. nuclear watchdog the existence of a second uranium enrichment plant.



Nuclear facility sites are approximate



100 km
100 miles

Possible new enrichment site built inside a mountain

Uranium enrichment plant








IRAN'S UNDERGROUND FACILITY



Fordow

Preparations have been carried out at former military base which is now ready to start uranium enrichment



-  Uranium processing/enrichment
-  Research reactor/facility
-  Heavy-water facility
-  Light-water reactor
-  Uranium mining

Arak, heavy water plant

22 June 2010

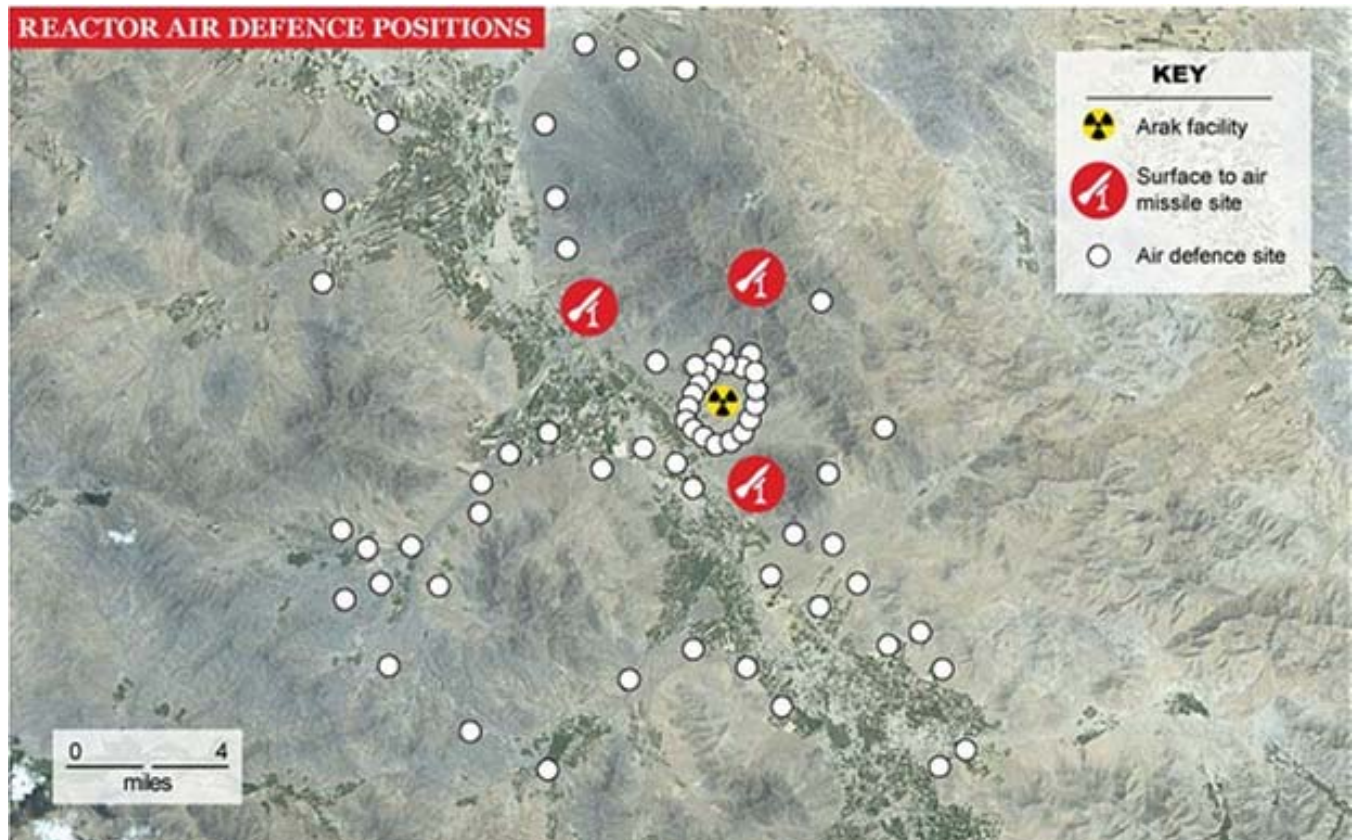


500 metres
1,000ft

7 October 2011



GEO EYE SATELLITE IMAGE/GOOGLE



Iran's Achilles Heel – The Shia Arabs of Ahwaz Who Sit on ALL of Iran's Oil



Zagros
Mountains

The Persian Karun River Diversion

Ahwaz News Agency

“Destruction of Ahwaz's marshes is like the destruction of the Amazon”

📅 Friday, May 17, 2013 🧑‍🎓 BAFS

A speech by Ahwazi environmental activist Haifa Assadi, at the [Ahwaz human rights meeting](#) in the UK's Houses of Parliament, 15 May 2013



The Ahwaz region faces an environmental catastrophe on a par with the destruction of the Amazon rainforests. River diversion and the draining of the marshes are turning a once fertile land into desert while industrial pollution has made Ahwaz City the most polluted place on Earth, according to the World Health Organisation. As well as destroying the unique ecology of the region, the effects have been devastating for the indigenous Ahwazi Arab population.

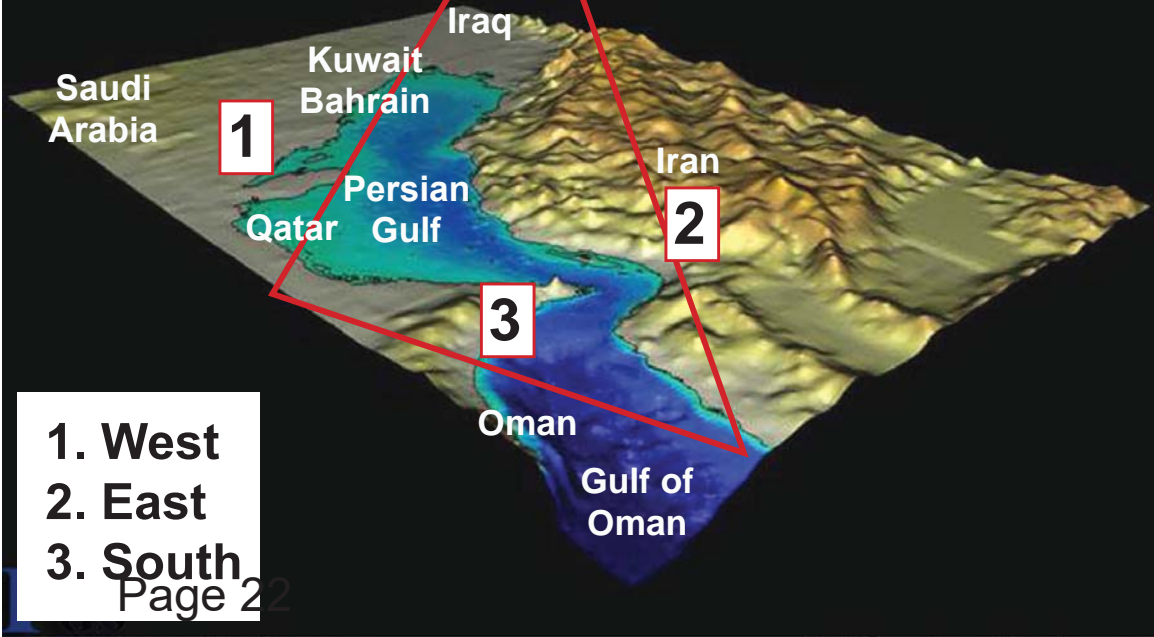
<http://www.ahwaziarabs.info/2013/05/destruction-of-ahwazs-marshes-is-like.html>

Ahwaz proves that it's not a Sunni vs. Shi'ite battle; it's a Persian vs. Arab battle. But the Shi'ite are too mesmerized by the “stimulant’ of religion” to realize that they are being played for fools by the Persians.

#10

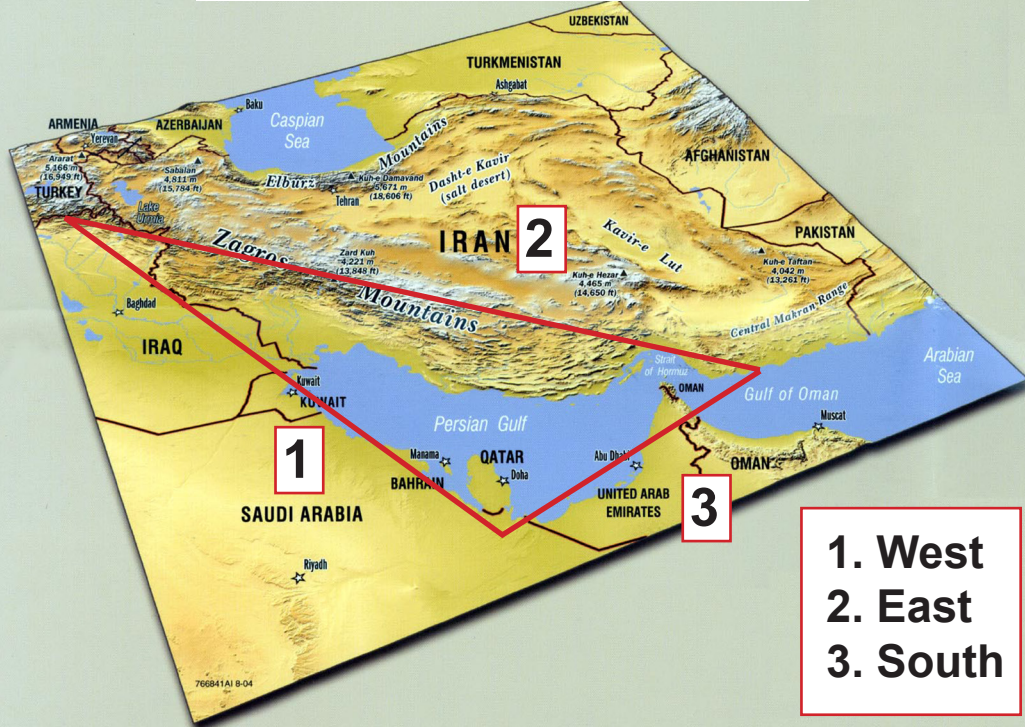
Persian Gulf Topographic Asymmetry

-3360 -2000 -1000 0 1000 2000 3400



- 1. West
- 2. East
- 3. South

Persian Gulf Topographic Asymmetry



The NRI Memorandum Report dated October 1, 1980-Sept. 30, 1981 stated:

NRI Memorandum Report 4734

AL 111419

**Electromagnetic Pulse (EMP) Handbook Development
for the Defense Nuclear Agency (DNA)
Annual Report for the
Period October 1, 1980 - September 30, 1981**

2

J. M. PIERRE

*Plasma Radiation Group
Plasma Physics Division*

DTIC
ELECTE
FEB 25 1982
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February 22, 1982

This research was sponsored by the Defense Nuclear Agency under Subtask 099QAXCE,
work unit 00001 and work unit title "Handbook Integration."



NAVAL RESEARCH LABORATORY
Washington, D.C.

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DTIC FILE COPY

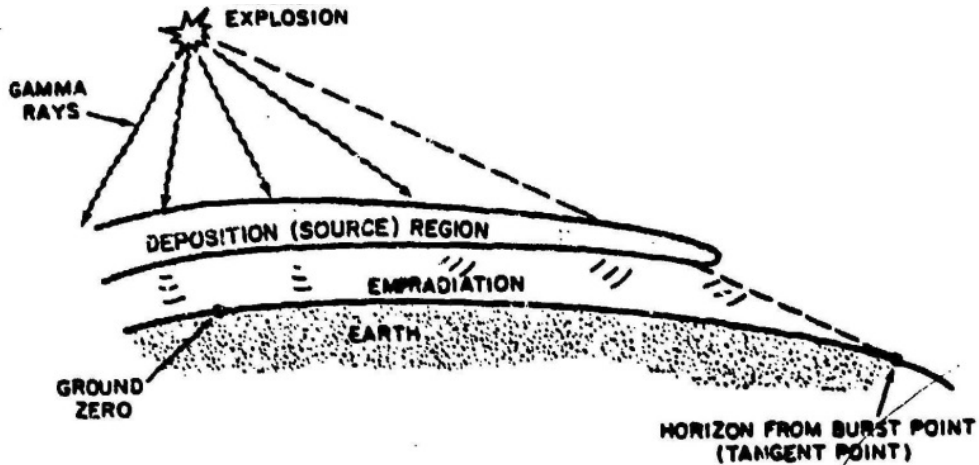


Exhibit 1. Generation and extent of EMP effects.

The Federation of American Scientist (FAS) posted a US Department of Defense Declassified guide which stated:

~~OFFICIAL USE ONLY~~

CHAPTER 8

HIGH-ALTITUDE NUCLEAR WEAPONS EFFECTS INFORMATION

purposes of this guide, the weapon effect phenomena definition from *The Effects of Nuclear Weapons* is used to identify high-altitude tests. However, the HA and Yucca shorts, although conducted below this altitude, are also included.

When a nuclear weapon is detonated at high altitude, there is little or no air present in which to deposit the radiative output of the weapon. Therefore, a radiation opaque fireball does not form, other attenuation effects are minimized, and the radiation can travel great distances while remaining at significant energy levels. One result of such detonations can be widespread radio and radar blackout.

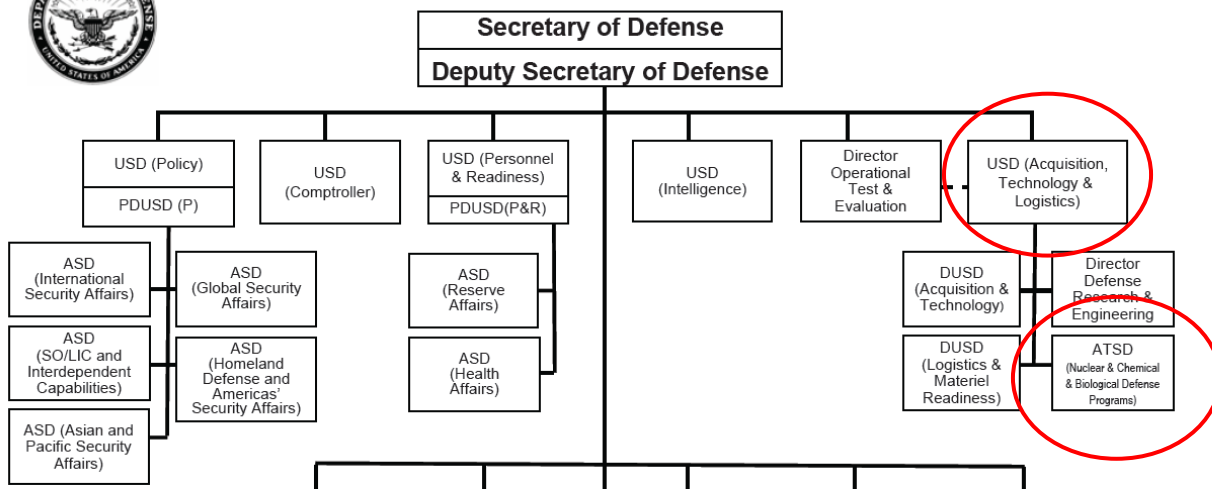
The United States has performed a limited number of high-altitude nuclear weapon effects tests to gather data about these phenomena. These tests are identified in section D of this chapter.

<http://www.fas.org/sgp/othergov/doe/cg-hr-3/chap8.pdf>

In April 2005, the U.S. Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics put out a Report of the Defense Science Board Task Force on *Nuclear Weapon Effects Test, Evaluation, and Simulation*, (<http://www.fas.org/irp/agency/dod/dsb/nweffects.pdf>) which stated:



Office of the Secretary of Defense



http://www.defense.gov/pubs/pdfs/2010_CMPR_Final.pdf



Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L))
<http://www.acq.osd.mil/>

3.4 Nuclear Survivability for In-Place Forces

From 1990 to the present, widespread avoidance of nuclear survivability issues put many in-place systems and platforms in high-risk (possibly vulnerable) categories.

Some, fielded with hardened components, are in question because of little or no surveillance and/or testing. Others were simply built and fielded with COTS-based electronics in an era of inattention or lack of concern about hardening requirements.

Added to the current situation is a low-level of understanding of the impact on operations of unhardened platforms and supporting systems. Wargames and exercises do not routinely include the use of a nuclear weapon such that operational workarounds and/or mitigation actions are not being developed in parallel with conventional concepts of operation.

Consider the example of an adversary EMP attack. Any potential for U.S. units in a large geographical area to experience significantly degraded electronics would be unacceptable. A series of questions puts the issue in perspective. What would be the impact on a U.S. Marine Corps (USMC) or an Army division debarking at a Middle Eastern or Korean port and/or airfield (C2, computer-driven equipment, weapons systems, etc.)? What impacts would a carrier battle group (weapons platforms, avionics, ship systems, etc.) experience in the Straits of Taiwan? What vulnerabilities does a forward-deployed Air Force wing have with regard to EMP (platforms, C2, avionics, ground and test equipment, etc.)? **The crucial issue here is that commanders and planners cannot be assured that current weapons platforms, C2, ISR and associated support systems will be available should a nuclear detonation occur. We simply do not know!** (pg. 25-26)

Report: China building electromagnetic pulse weapons for use against U.S. carriers

[China's military](#) is developing electromagnetic pulse weapons that Beijing plans to use against U.S. aircraft carriers in any future conflict over [Taiwan](#), according to an intelligence report made public on Thursday.

Portions of a [National Ground Intelligence Center study](#) on the lethal effects of electromagnetic pulse (EMP) and high-powered microwave (HPM) weapons revealed that the arms are part of [China](#)'s so-called "assassin's mace" arsenal - weapons that allow a technologically inferior [China](#) to defeat U.S. military forces.

EMP weapons mimic the gamma-ray pulse caused by a nuclear blast that knocks out all electronics, including computers and automobiles, over wide areas. The phenomenon was discovered in 1962 after an aboveground nuclear test in the Pacific disabled electronics in Hawaii.

The [declassified intelligence report](#), obtained by the private National Security Archive, provides details on [China](#)'s EMP weapons and plans for their use. Annual [Pentagon](#) reports on [China's military](#) in the past made only passing references to the arms.

"For use against [Taiwan](#), [China](#) could detonate at a much lower altitude (30 to 40 kilometers) ... to confine the EMP effects to [Taiwan](#) and its immediate vicinity and minimize damage to electronics on the mainland," the report said.

The report, produced in 2005 and once labeled "secret," stated that Chinese military writings have discussed building low-yield EMP warheads, but "it is not known whether [the Chinese] have actually done so."

The report said that in addition to EMP weapons, "any low-yield strategic nuclear warhead (or tactical nuclear warheads) could be used with similar effects."

<http://www.washingtontimes.com/news/2011/jul/21/beijing-develops-radiation-weapons/#ixzz2pNAeZ3lz>

2005 NGIC REPORT

Regraded UNCLASSIFIED on
13 September 2010
by USAINSCOM FOI/PA
Auth para 4-102, DOD 5200-1R

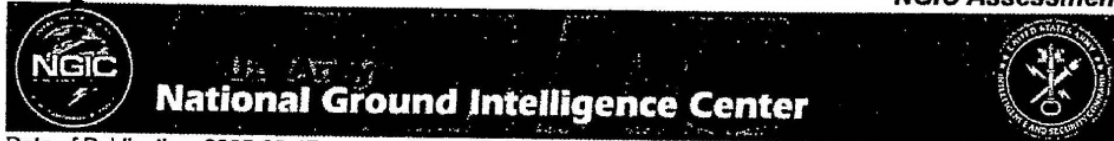
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138



~~SECRET//NOFORN//MR~~

NGIC Assessment



Date of Publication: 2005-08-17

(U) China: Medical Research on Bio-Effects of Electromagnetic Pulse and High-Power Microwave Radiation

(U) Purpose

(U) The purpose of this report is to explore the possible meanings and relevant implications of China's medical research on the bio-effects of intense high-power microwave (HPM) and electromagnetic pulse (EMP) radiation.

(U) Key Points

- (U) A team of Chinese medical researchers has recently reported (open forum) research activity related to studies of the bio-effects of high-power microwave (HPM) and electromagnetic pulse (EMP) radiation.
- (U) Animals studied included mice, rats, rabbits, dogs, and monkeys. Dose-related effects on eyes, brain, heart, bone marrow, reproductive, and other vital organs were reported. The researchers' interest in potential human effects is apparent.

NGIC Assessment, 8/17/05, Page 1

<http://media.washtimes.com/media/misc/2011/07/22/ngic-emp.pdf>

United States Army Intelligence and Security Command



~~(C)~~ Several Chinese authors (both on Taiwan and the mainland) have specifically discussed HEMP as a Trump Card or Assassin's Mace weapon (Trump Card would be applicable if the Chinese have developed new low-yield, possibly enhanced, EMP warheads, while Assassin's Mace would apply if older warheads are employed). Within this context, [redacted] b1

[redacted] b1 The medical research contribution would help insure that China's use of HEMP against Taiwan and any vulnerable U.S. CVBG assets would not push the U.S. across the nuclear-response threshold. China's HEMP capability could be used in two different ways: as a surprise measure after China's initial strike against Taiwan and after U.S. CVBG assets have moved into a vulnerable position, and as a bluff intended to dissuade the United States from defending Taiwan with the CVBG. One article describing the bluff scenario suggests that China might announce a resumption of atmospheric nuclear testing and warn of tests during a specified time period, then strike Taiwan with the conventional infrastructure attack during the specified period. They would then wait to see whether the United States would call their bluff by moving the CVBG to defend Taiwan. This bluff scenario would be accompanied by prior announcements/leaks of their intentions (which seems to be the case as sources for this article confirm).

(U) Conclusions

~~(S)~~ [redacted] b1 suggests that China may consider (as an option) the employment of HEMP as a Trump Card or Assassin's Mace weapon against the Taiwan electronic infrastructure or against a U.S. CVBG (or at least to threaten such actions), should a conflict break out in the Taiwan Strait. The minimization of military casualties on CVBG assets is calculated to lessen the likelihood of a U.S. nuclear response to a Taiwan strike employing nuclear EMP. The minimization of casualties on Taiwan is calculated to lessen the animosity among Taiwan's populace over forced reunification.

NGIC Assessment, 8/17/05, Page 6

<http://media.washtimes.com/media/misc/2011/07/22/ngic-emp.pdf>



The *NGIC Assessment* states that, in 2001, “these same researchers published the results . . .”:

(U) Exposure Levels

~~(S//NF)~~ Exposures ranged up to 16 W/cm² (HPM) and 60 kV/m (EMP) for whole body single-pulse irradiation with 20 ns rise-time and 30 μs duration. (This rise-time is too slow and the duration is too short for a real nuclear EMP, but these parameters may be as close as these researchers could come to simulating a real EMP.) These levels of exposure could only have resulted from close-range irradiation with powerful radiation sources. [redacted] b1

[redacted] b1 From the nature of the reported organ injuries, it is likely that the frequencies for these sources ranged from the tens of MHz to the low GHz range (EMP falls primarily in the lower range while HPM occupies the upper range). This sensitivity is a recent phenomenon because these same researchers published the results of related experiments in 2001 in which full details of sources and radiation parameters were provided. An EMP simulator developed jointly by the Academy of Military Medical Sciences and the National University of Defense Technology was the source for the 2001 publication [redacted]

[redacted] b1

NGIC Assessment, 8/17/05, Page 2

<http://media.washtimes.com/media/misc/2011/07/22/ngic-emp.pdf>



The *NGIC Assessment* states that, in 2004, “a single, specially-designed low-yield . . . may not necessarily evoke a large nuclear retaliatory. . .”:

(U) In 2001, the U.S. Congress commissioned a study of the U.S. vulnerability to an HEMP attack. In 2004, a threat assessment and a final commission report were released. Quoting from the threat assessment:

(U) "The threat of an attack against the United States involving EMP is hard to assess, but some observers indicate that it is growing along with worldwide access to newer technologies and the proliferation of nuclear weapons. In the past, the threat of mutually assured destruction provided a lasting deterrent against the exchange of multiple high-yield nuclear warheads. However, now a single, specially-designed low-yield nuclear explosion high above the United States, or over a battlefield, can produce an EMP effect that results in a widespread loss of electronics, but no direct fatalities, and may not necessarily evoke a large nuclear retaliatory strike by the U.S. military."

NGIC Assessment, 8/17/05, Page 5

<http://media.washtimes.com/media/misc/2011/07/22/ngic-emp.pdf>



The *NGIC Assessment* states that, in 2005, “all three briefings made it clear that the real purpose was to investigate potential human. . .”:

~~SECRET//NOFORN//MR~~

(U) Chinese medical researchers presented three briefings at the Asia-Pacific Electromagnetic Fields, Research, Health Effects, and Standards Harmonization Conference in Bangkok, Thailand (26 to 30 January 2004), on the bio-effects of intense HPM and EMP radiation. Although the data presented related only to animal experiments (mice, rats, rabbits, dogs, and monkeys), all three briefings made it clear that the real purpose was to investigate potential human effects of exposure to these specific radiations. One briefing, "Effects and Mechanisms of EMF and HPM on Optical Systems in Monkey, Dog, and Rabbit," dealt mostly with eye injury. "Bio-effects of S-Frequency High Power Microwave Exposure on Rat Hippocampus" dealt mostly with brain injury. The third and final briefing, "The Species Specificity and Sensitive Target Organs of Injury Induced by Electromagnetic Radiation (BIO-EFFECTS OF EMP AND HPM)," dealt with species-related injury thresholds for all affected organs. Dose-effects relationships were established in all three studies. Abstracts for these presentations are available on the Internet.^b Members of the research team are affiliated with the Institute of Radiation Medicine of the Academy of Military Medical Sciences, Beijing. A senior member of the team is involved in organizing The Fourth International Seminar on Electromagnetic Fields and Biological Effects, scheduled to be held in Kunming, China, 12 to 16 September 2005.

NGIC Assessment, 8/17/05, Page 2

<http://media.washtimes.com/media/misc/2011/07/22/ngic-emp.pdf>



Even a small, relatively crude nuclear device detonated above the Korean peninsula would generate an EMP with field strength well above 10 kV/m, ensuring wholesale destruction of unprotected electronic systems.⁵³ The first-order effect on coalition forces would be a command, control, and communications (C3) blackout. The EMP would permanently destroy most computers and displays at the joint task force headquarters and combined air operations center and would wipe clean critical magnetically stored data. Radio, satellite, and cell phone communications would be permanently shut down, as well as wireline telephone systems relying on microprocessor control.⁵⁴

(From November 2005 Report, *Electromagnetic Pulse Threats in 2010*, by Major Colin Miller http://www.au.af.mil/au/awc/awcgate/cst/bugs_ch12.pdf)

On November 6, 2008, the Washington Post reported that:

The Washington Post

Russia Gives Obama Brisk Warning

In a wide-ranging speech in which he sharply criticized the United States but also offered to repair relations with its incoming president, Medvedev accused Washington of using Russia's recent war with Georgia as an excuse to accelerate development of the missile defense system. He said he would respond by deploying Iskander missiles "to neutralize, when necessary," the U.S. shield.

He said the missiles would be supplemented by "radioelectronic equipment" to jam the U.S. system and by naval forces, presumably missile-armed warships in the Baltic Sea. He also said he had canceled plans to dismantle three missile regiments south of Kaliningrad in the western town of Kozelsk. [Bold added for emphasis]

<http://www.washingtonpost.com/wp-dyn/content/article/2008/11/05/AR2008110502987.html>

Military and Security Developments
Involving the People's Republic of China
2010



Office of the Secretary of Defense

In 2010, Office of the Under Secretary of Defense of US Department of Defense (DoD) issued a report that stated:

Beijing has consistently asserted that it adheres to a “no first use” (NFU) policy, stating it would use nuclear forces only in response to a nuclear strike against China. China’s NFU pledge consists of two parts—China will never use nuclear weapons first against any nuclear weapon state and China will never use or threaten to use nuclear weapons against any non-nuclear-weapon state or nuclear-weapon-free zone. **However, there is some ambiguity over the conditions under which China’s NFU policy would or would not apply, including for example, whether strikes on what China considers its own territory, demonstration strikes, or high altitude bursts would constitute a first use. Moreover, some PLA officers have written publicly of the need to spell out conditions under which China might need to use nuclear weapons—for example, if an enemy’s conventional attack threatened the survival of China’s nuclear force, or of the regime itself.** However, there has been no indication that national leaders are willing to attach such nuances and caveats to China’s “no first use” doctrine. (pg. 34-35, **Bold added**)

(See *Annual Report of Congress, Military and Security Developments Involving the People’s Republic of China 2010*, http://www.defense.gov/pubs/pdfs/2010_CMPR_Final.pdf)



DoD Nuclear Survivability Program

Dr. John Kuspa

May 20, 2011



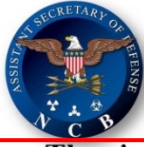
History of DoD Nuclear Survivability

- DoD nuclear survivability is firmly rooted in the Cold War
 - Strategy was to defeat a peer adversary
 - To counter the Soviet threat, DoD maintained very strict survivability standards ensured with rigorous testing and maintenance
- Collapse of Soviet Union significantly altered role/need for nuclear survivability
 - With no perceived threat, there was little incentive to harden systems; but plenty of savings



(See DoD Nuclear Survivability Program report dated May 20, 2011

<http://www.dtic.mil/ndia/2011CBRN/Kuspa.pdf>)



History of DoD Nuclear Survivability (cont)

▪ The rise of COTS: 1996-2002

- All references to nuclear survivability were deleted in the 1996 5000-series revision
 - “Unless waived by the Milestone Decision Authority, mission critical systems shall be survivable to the threat levels anticipated in their operational environment.”
 - With survivability no longer emphasized, U.S.-Russian détente and the push for rapid acquisition through COTS, survivability was quickly dumped by program managers, the Services, etc.



- The 2000 revisions did not address how to acquire nuclear survivable systems nor did they assign OSD responsibility for oversight

(See DoD Nuclear Survivability Program report dated May 20, 2011

<http://www.dtic.mil/ndia/2011CBRN/Kuspa.pdf>)



Focus Example: Resurrecting Standards

▪ MIL-STDs were largely weakened or ignored

- Many nuclear survivability standards now provide only general guidance:
 - “Compliance shall be verified by system, subsystem, and equipment-level tests, analyses, or a combination thereof.”
- In 2007, USSTRATCOM requested DTRA develop an upgraded and extended HEMP survivability standard
 - Goal was to provide quantifiable mission assurance
- MIL-STD 3023 “HEMP Protection for Military Aircraft” provides a set core of requirements/metrics for hardening and testing aircraft to a fixed design margin
 - Contention on fixed vs. tailorable design margins



▪ Other standards on the way: maritime and space

(See DoD Nuclear Survivability Program report dated May 20, 2011

<http://www.dtic.mil/ndia/2011CBRN/Kuspa.pdf>)

On June 12, 2009, Kim Myong Chol wrote an essay published by the Asia Times entitled “Nuclear war is Kim Jong-il's game plan” that stated that:

ASIA TIMES
www.atimes.com

Korea Jun 12, 2009

Nuclear war is Kim Jong-il's game plan

By Kim Myong Chol



Kim Myong Chol is author of a number of books and papers in Korean, Japanese and English on North Korea, including Kim Jong-il's Strategy for Reunification. He has a PhD from the Democratic People's Republic of Korea's Academy of Social Sciences and is often called an "unofficial" spokesman of Kim Jong-il and North Korea.

Four types of hydrogen bomb raids

The game plan for nuclear war specifies four types of thermonuclear assault: (1) the bombing of operating nuclear power stations; (2) detonations of a hydrogen bombs in seas off the US, Japan and South Korea; (3) detonations of H-bombs in space far above their heartlands; and (4) thermonuclear attacks on their urban centers.

The third possible attack, a high-altitude detonation of hydrogen bombs that would create a powerful electromagnetic pulse (EMP), would disrupt the communications and electrical infrastructure of the US, the whole of Japan, and South Korea.

Many of the essential systems needed to survive war would be knocked out, as computers are instantly rendered malfunctioning or unusable. Military and communications systems such as radars, antennas, and missiles, government offices, would be put out of use, as would energy sources such as nuclear power stations and transport and communications systems including airports, airplanes, railways, cars and cell phones.

Ironically the ubiquity of high-tech computing gadgets in the US, Japan and South Korea has made them most vulnerable to EMP attacks.

(See 6/12/09 Asia Times, *Nuclear war is Kim Jong-il's game plan*, <http://www.atimes.com/atimes/Korea/KF12Dg01.html>)

On March 30, 2010, the Korea Herald issued an article stating:

The Korea Herald

The Nation's No.1 English Newspaper

Seoul to enhance defense against nuclear attacks

South Korea plans to build up defenses by 2014 against nuclear electromagnetic pulse attacks that could devastate power grids and electronic systems.

The ministry announced a 178 trillion won (\$141 billion) mid-term defense plan for 2010-14, aimed to bolster response to North Korean nuclear and missile threats.

The military will spend about 100 billion won to ready measures to shield strategic assets from a possible EMP strike from North Korea. About 6 billion won has been earmarked to fund the project design in next year's budget.

An EMP is unleashed from a nuclear blast and disrupts electric and electronic devices.

A nuclear weapon with a yield of 30 kilotons detonated 100 kilometers above the Earth's surface could have devastating effects on up to 70 percent of electrical systems up to 1600 kilometers in every direction, according to a 2007 report by an Alaska emergency response commission.

South Korea, one of the world's most wired countries, is seen as especially vulnerable to such a threat, which a U.S. report said could instantly regress a country dependent on 21st century technology by more than 100 years.

(See 3/30/10, The Korea Herald, *Seoul to enhance defense against nuclear attacks*,

<http://www.koreaherald.com/national/Detail.jsp?newsMLId=20090704000014>)

On their website as of March 30, 2011, the DTRA stated:



One of the dangers of a nuclear weapon – even one too small or too far away to kill or harm anyone – is the electromagnetic pulse, or EMP. While a blast of radiation might not do anything to properly protected troops, it would “fry” anything electronic: laptops, sensors, our highly computerized planes, even a simple cell phone. **A weapon that doesn’t kill a single person could still destroy our technology.**

[Bold added]

<http://dtra.mil/Missions/NuclearDeterrenceDefense/RadiationHardenedTechnology.aspx>



DEFENSE SCIENCE
BOARD

OFFICE OF THE SECRETARY OF DEFENSE
3140 DEFENSE PENTAGON
WASHINGTON, DC 20301-3140

10 August 2011

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
TECHNOLOGY AND LOGISTICS

SUBJECT: Summary Report Number One of the Permanent Task Force on the Survivability of DoD Systems and Assets to Electromagnetic Pulse (EMP) and other Nuclear Weapon Effects

I endorse the study's findings and encourage you to review them.

Dr. Paul G. Kaminski
Chairman

Many areas of concern remain

- Operational
 - Non-concurrence by the Air Force for the new aircraft EMP standard with potential impacts on survivability requirements for new aircraft (F-35, tanker, next generation bomber, White House platforms)
 - Limitations of Service assessments that identify mission critical equipment instead of mission critical capabilities
 - Fragmentation of responsibilities and lack of priority for survivability of communications networks and command and control (C2) systems
 - **Lack of engagement of Combatant Commands (COCOMs) except USSTRATCOM and very recently, European Command (EUCOM)**
 - Limited understanding of survivability of infrastructure critical to DoD missions

State of Forces and Their Battle Command

However, the ubiquitous dependence on Commercial-Off-The-Shelf (COTS) in almost all military and commercial systems that support military operations, while a natural evolution based on cost effectiveness, creates a twofold downside when considering nuclear survivability. First, the unknown response of virtually any basic COTS device to NWE leads to further uncertainties when inserting such devices in military systems. Second relates to the testability of the commercial long distance networks that enable long range reach-back. The network response to NWE is unknown and at that, scale is not testable.

In summary, the survivability, effectiveness, and adaptation of GPF to NWE is at best unknown. If GPF were subjected to a nuclear event in the foreseeable future, mission execution would depend upon combinations of luck and ingenuity in workarounds for failed equipment. There would almost certainly be an unnecessarily high human cost. **The Task Force is not arguing for hardening GPF, but we do see the gap in knowledge of how vulnerable we might be and how to adapt operations through force architecture, Tactics, Techniques and Procedures (TTPs), redundancy, workarounds, etc., as a serious and potentially show-stopping issue.** (pgs. 7-9)

(See Aug. 10, 2011, DoD, *Interim Report of the Defense Science Board (DSB) Task Force on the Survivability of Systems and Assets to Electromagnetic Pulse (EMP) and other Nuclear Weapon Effects (NWE)*, Summary Report No. 1, <http://www.acq.osd.mil/dsb/reports/ADA550250.pdf>)

On Sept. 17, 2011, Reuters issued an article stating:



Analysis: West fears possible Iran-North Korea nuclear links

Iran's nuclear program is based on uranium enrichment, activity which can have both civilian and military purposes.

North Korea has twice tested plutonium-based nuclear devices, drawing international condemnation, although it last year revealed the existence also of a uranium enrichment site, potentially giving it a second pathway to bombs.

"They complement each other so well (in terms of their expertise). There is just a lot of synergy in how they would be able to exchange capabilities," Hecker said at a seminar for diplomats in Vienna, the IAEA's headquarters, this month.

Citing Western intelligence sources, the Munich newspaper Sueddeutsche Zeitung said in August that North Korea had this year delivered software, originally developed in the United States, that could simulate neutron flows.

Such calculations, which can help scientists identify self-sustaining chain reactions, are vital in the construction of reactors and also in the development of nuclear explosives.

With the help of the program, Iran could gain important knowledge of how to assemble nuclear weapons, the paper said.

[Bold added]

(See 9/17/11 Reuters *Analysis: West fears possible Iran-North Korea nuclear links* <http://www.reuters.com/article/2011/09/17/us-nuclear-iran-northkorea-idUSTRE78G2HD20110917>)

On Sept. 20, 2011, YONHAP News Agency issued an article stating:



S. Korea defenseless against N. Korean electronic attack

SEOUL, Sept. 20, 2011 (Yonhap) -- Major military facilities in South Korea, including the defense ministry, are defenseless against potential North Korean electronic attacks, reports showed Tuesday.

According to the Agency for Defense Development (ADD) and the Defense Acquisition Program Administration (DAPA), no technology exists in South Korea that can fend off electromagnetic pulse (EMP) bombs from North Korea. The two agencies submitted reports to Grand National Party (GNP) lawmaker Chung Mee-kyung during the annual parliamentary audit into defense agencies.

"Major military facilities, which will be used as a wartime command center for the president, the defense minister and other key officials, will be helpless against North Korean electronic offensives," Chung said. "We have to prepare measures so that our defense against EMPs at the new JCS headquarters and other places can meet higher global standards."

[Bold added]

(See 9/20/11 YONHAP News Agency, *S. Korea defenseless against N. Korean electronic attack*,

<http://english.yonhapnews.co.kr/national/2011/09/20/95/0301000000AEN20110920001500315F.HTML>)

On Nov. 13, 2011, YONHAP News Agency issued an article stating:



Source: Hundreds of N. Korean nuclear and missile experts working in Iran

SEOUL, Nov. 13, 2011 (Yonhap) -- "Hundreds of North Korean nuclear and missile engineers and scientists have been working at more than 10 sites (in Iran), including Natanz and Qom," the source said, citing human intelligence he declined to identify for security reasons.

The source would not allow the specific number of North Koreans to be published, citing the sensitivity of the intelligence, and would not give further details on the extent of the collaboration. The source spoke on condition of anonymity because of the delicate nature of the issue.

A senior South Korean official said Seoul is keeping a close eye on developments.

"It's not a matter that the government can officially confirm," another government official said. That official added that nuclear cooperation between North Korea and Iran has not been confirmed, though the countries have cooperated on missiles. The two officials asked not to be identified, citing office policy.

[Bold added]

(See 11/13/11 YONHAP News Agency, *Source: Hundreds of N. Korean nuclear and missile experts working in Iran,*

<http://english.yonhapnews.co.kr/northkorea/2011/11/12/38/0401000000AEN2011112002600315F.HTML>)

North Korea builds EMP munition

by [Mike Hoffman](#) on July 20, 2012



North Korea is developing an electromagnetic pulse munition to jam South Korean and U.S. military electronics, according to a Communist Party-controlled journal citing GPS disruptions observed by South Korean aircraft flying near the demilitarized zone separating South and North Korea.

An EMP munition can jam electronic-based weapon systems ranging from fighter jets to hand held GPS units carried by soldiers. An EMP blast occurs when a nuclear weapon is detonated and spews electromagnetic radiation frying electronic systems in the area.

Military Analyst Li Daguang wrote the article for the monthly Bauhinia journal saying the North Korean are specifically targeting the South Korean's military equipment.

“North Korea has always planned to develop small-scale nuclear warheads. On this foundation, they could develop electromagnetic pulse bombs in order to paralyze the weapons systems of the South Korean military — most of which involve electronic equipment — when necessary,” Daguang wrote.

Militaries can create an EMP blast by detonating a nuclear warhead in the Earth's atmosphere. However, this is not the only method to cause an electronic blackout. North Korea has completed two nuclear tests. The Communist government has failed to produce a ballistic missile capable of delivering a nuclear warhead with any sort of accuracy.

Daguang suggests the North Koreans could use the EMP blast to knock out power in South Korea ahead of an invasion of North Korea's special forces.

“Once North Korea achieves the actual war deployment of EMP weapons, the power of its special forces would doubtlessly be redoubled,” Daguang writes.

<http://defensetech.org/2012/07/20/report-north-korea-building-emp-weapon/#ixzz2pM3v5DBZ>

North Korea developing electromagnetic pulse weapons: report

Published: November 5, 2013 - 9:09AM



North Korea is using Russian technology to develop electromagnetic pulse weapons aimed at paralysing military electronic equipment south of the border, according to South Korea's spy agency.

The National Intelligence Service (NIS) said in a report to parliament that the North had purchased Russian electromagnetic pulse (EMP) weaponry to develop its own versions.

EMP weapons are used to damage electronic equipment. At higher energy levels, an EMP can cause more widespread damage including to aircraft structures and other objects.

The spy agency also said the North's leader Kim Jong-Un sees cyber attacks as an all-purpose weapon along with nuclear weapons and missiles, according to legislators briefed by the NIS.

The North is trying to hack into smartphones and lure South Koreans into becoming informants, it said.

It has collected information on where South Korea stores chemical substances and oil reserves as well as details about subways, tunnels and train networks in major cities, it said.

The spy agency also said North Korean spies were operating in China and Japan to distribute pro-Pyongyang propaganda.

North Korea is believed to run an elite cyberwarfare unit of 3000 personnel.

A South Korean official, citing government data, said last month the North had staged thousands of cyber attacks against the South in recent years, causing financial losses of about \$US805 million (\$846 million).

In addition to military institutions, the North's recent high-profile cyber attacks have targeted commercial banks, government agencies, TV broadcasters and media websites.

North Korea has denied any involvement in cyber attacks and accused Seoul of fabricating them to fan cross-border tension.

<http://www.smh.com.au/technology/sci-tech/north-korea-developing-electromagnetic-pulse-weapons-report-20131105-2wxy1.html>

North Korea's Nuclear Capability

Tests and detonations

1 kilotonne = 1,000 tonnes of TNT equivalent

North Korea

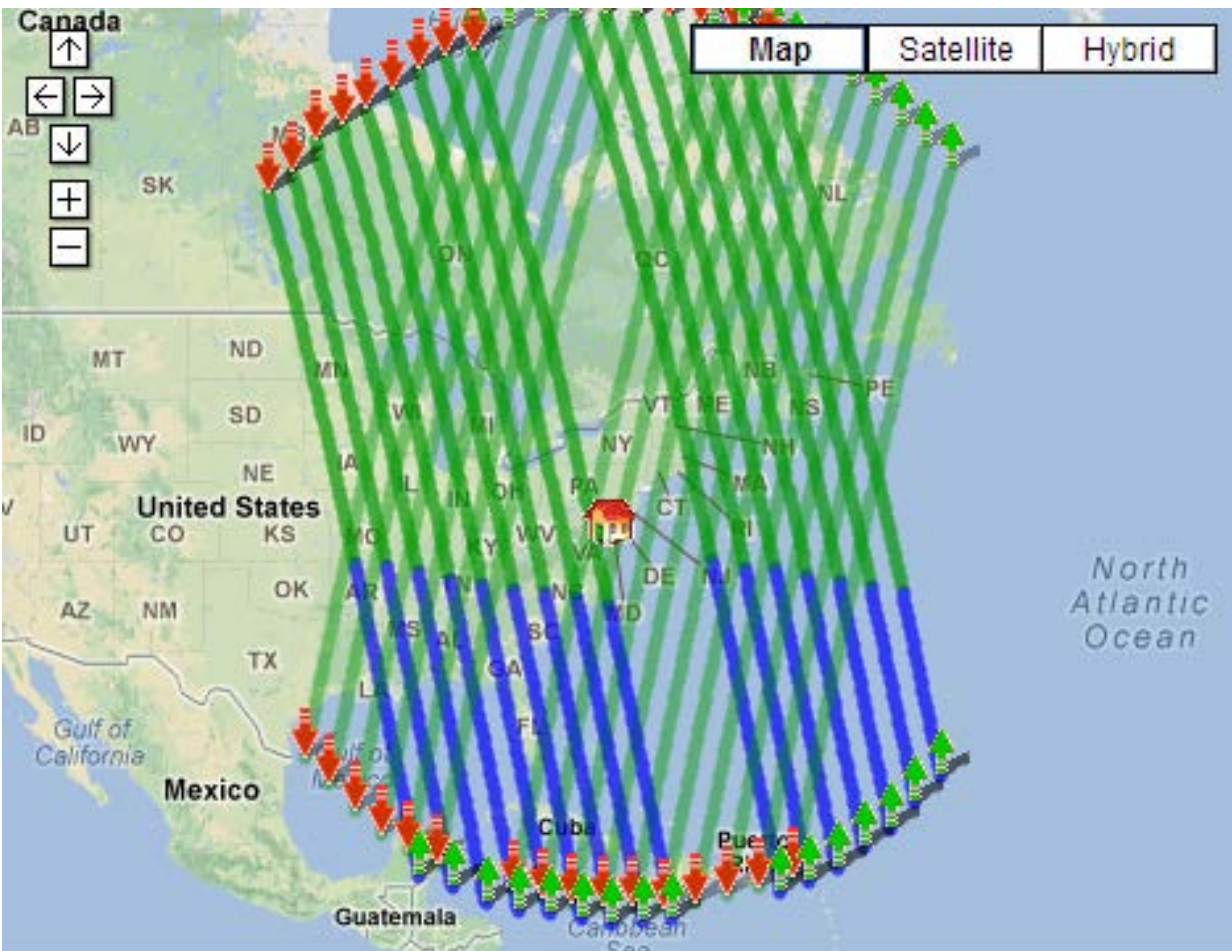


US Nuclear Bombs on Japan, 1945



Source: Bulletin of Atomic Scientists, US Director of National Intelligence, Comprehensive Nuclear-Test-Ban Treaty

Mark Langfan



5-DAY PREDICTIONS FOR KMS 3-2

KWANGMYONGSONG 3 is a North Korean Earth observation satellite, which according to the DPRK is designed for weather forecast purposes, and whose launch is widely portrayed in the West to be a veiled ballistic missile test.

[More](#)

[TRACK KMS 3](#)

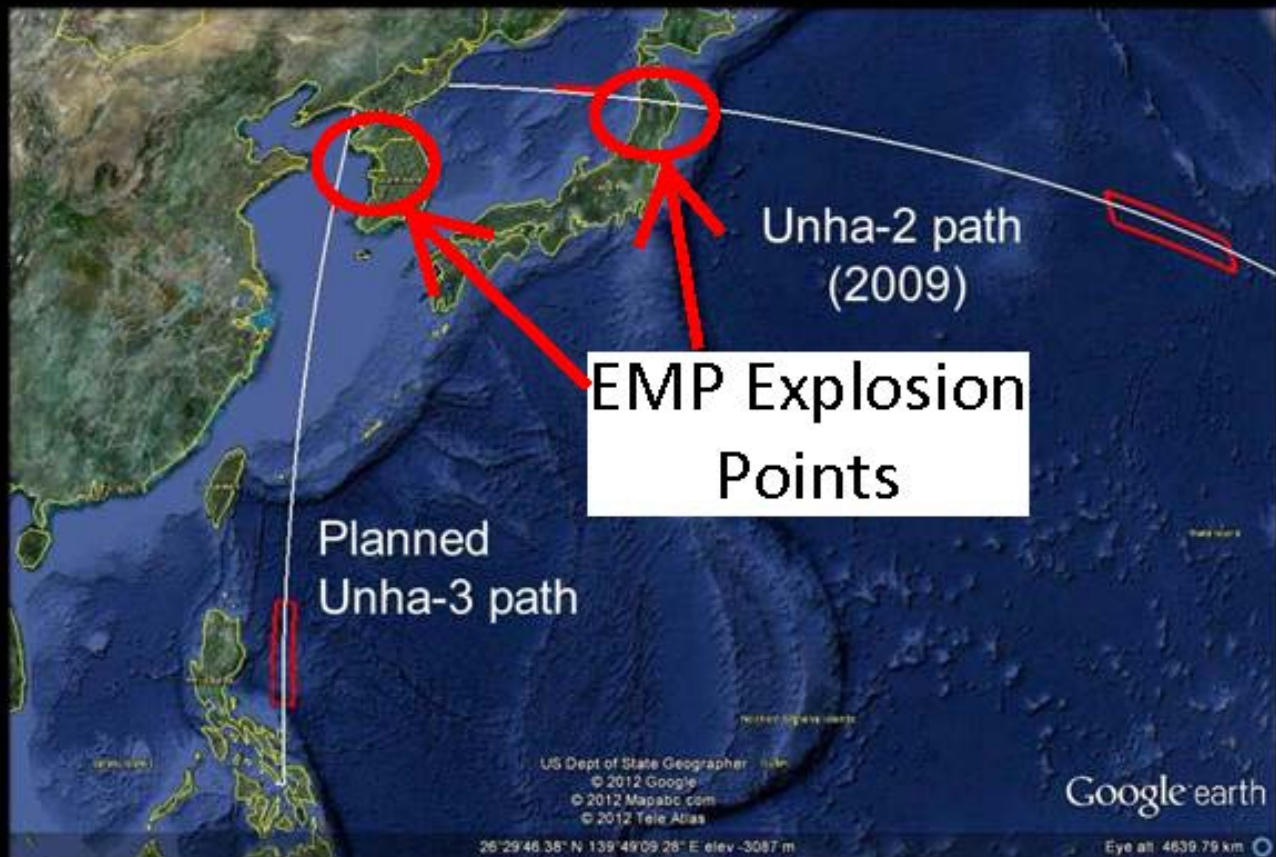
North Korea's botched launch

Successful EMP



When “Botched” Equals Successful

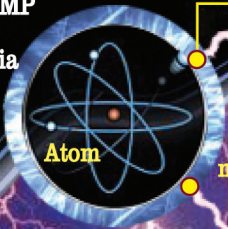
Comparison of Unha-2 and Unha-3 Flight Paths



If viewed as EMP Nuclear delivery systems both “botched” tests would be unalloyed successes.

FIZZLEKRIEG™: HOW IRAN WOULD EMP ATTACK SAUDI ARABIA

1 Iran detonates an EMP nuclear bomb above Eastern Saudi Arabia in space above USCENTCOM HQ in Qatar.



Electrons knocked out

Earth's magnetic field

4 With the US military installations and systems blacked-out, Iran blitzkriegs Saudi Arabia in a conventional surprise attack capturing and hosting 30,000 living US POWs.

2 The blast would knock electrons from atoms, causing a powerful electromagnetic pulse reaching the Earth in a billionth of a second.

3 The intense electrical currents would overload power supplies and blind US satellites, and 'fry' the circuits of all the computers of US weapon and communication systems, but leave human beings relatively unharmed.

EMP blast

US Iraqi Defeat/Retreat- Iran Expansion Nightmare Scenario

FROM THE "4TH
REICHASTAN" BY
MARK LANGFAN 2006

Phase Two: Shamshir of Mahdi



IV. At *H-Hour* plus 3 nanoseconds *Al Udeid*/CENTCOM HQ= Desert One



Al Udeid Air Base, Qatar
USCENTCOM HQ 2012



Al Udeid Air Base, Qatar
USCENTCOM HQ 2012



* May G-d watch over and bless the precious 8 US servicemen who died here. **



Iranian EMP Fizzlekrieg™: Target Saudi Arabia

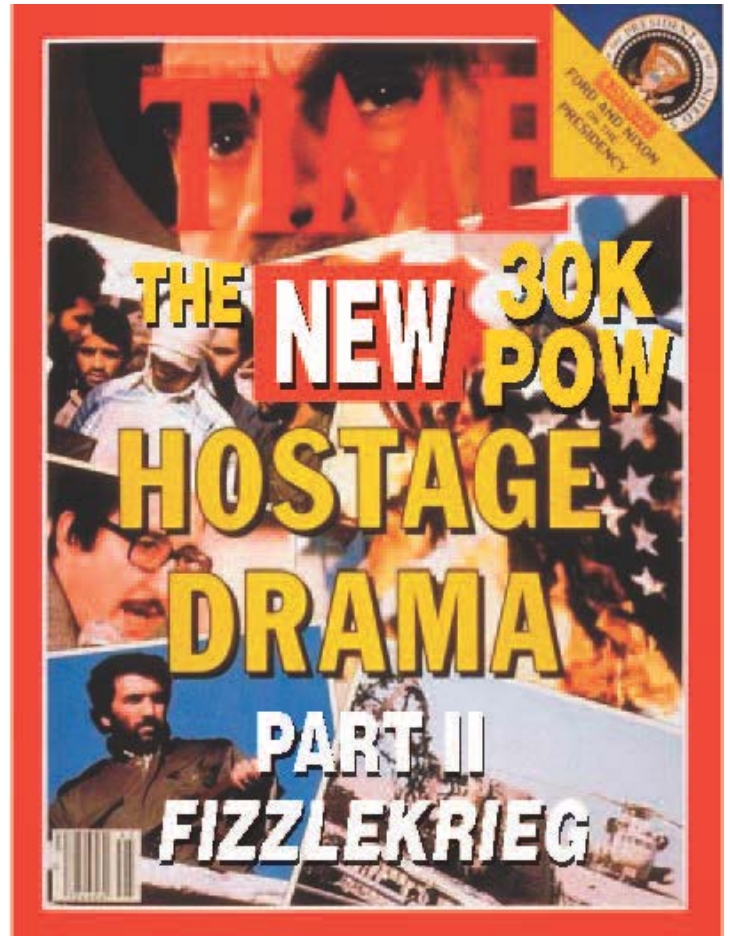
Jstars + NGIC EMP= 30,000 living US POWs



IV. What no live feed?? Just snow

Fizzlekrieg Situation Room 2015





Saddam plus nuclear bomb=Kuwait is still called *Kadhima*, the 19th province of Iraq



+



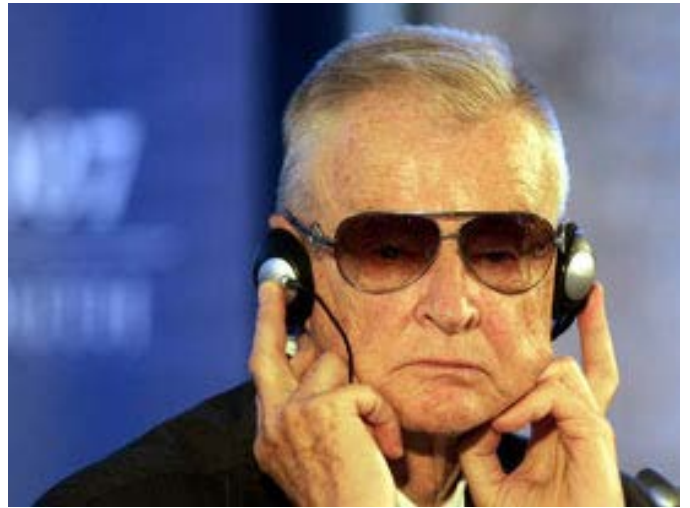
= Kuwait is still called *Kadhima*, the 19th province of Iraq

Separated at Birth

Dr. Strangelove

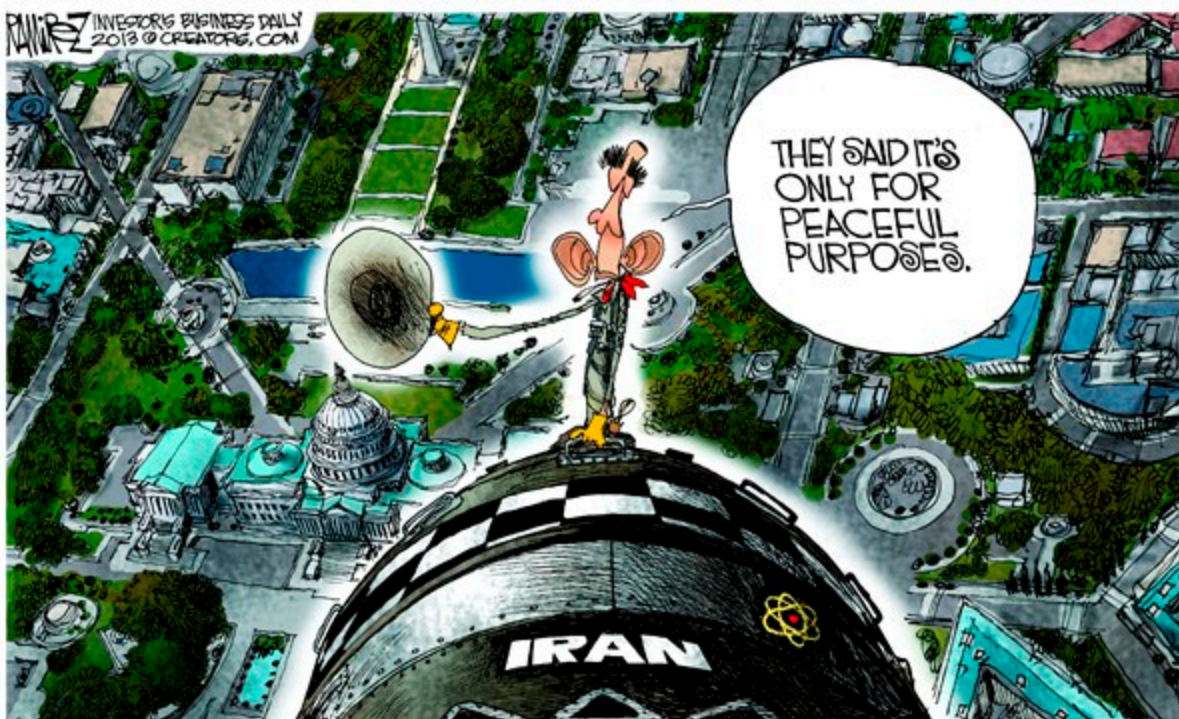


Dr. Brzezinski



Who is Madder?

A mad 1964 fictional-Nazi MAD nuclear-game-theorist worried about a “Mineshaft Gap,” or a 2014 mad real-life virulent anti-Semitic MAD nuclear-game-theorist who thinks he can “contain” an Iranian nuclear Fizzlekrieg attack on Saudi Arabia.

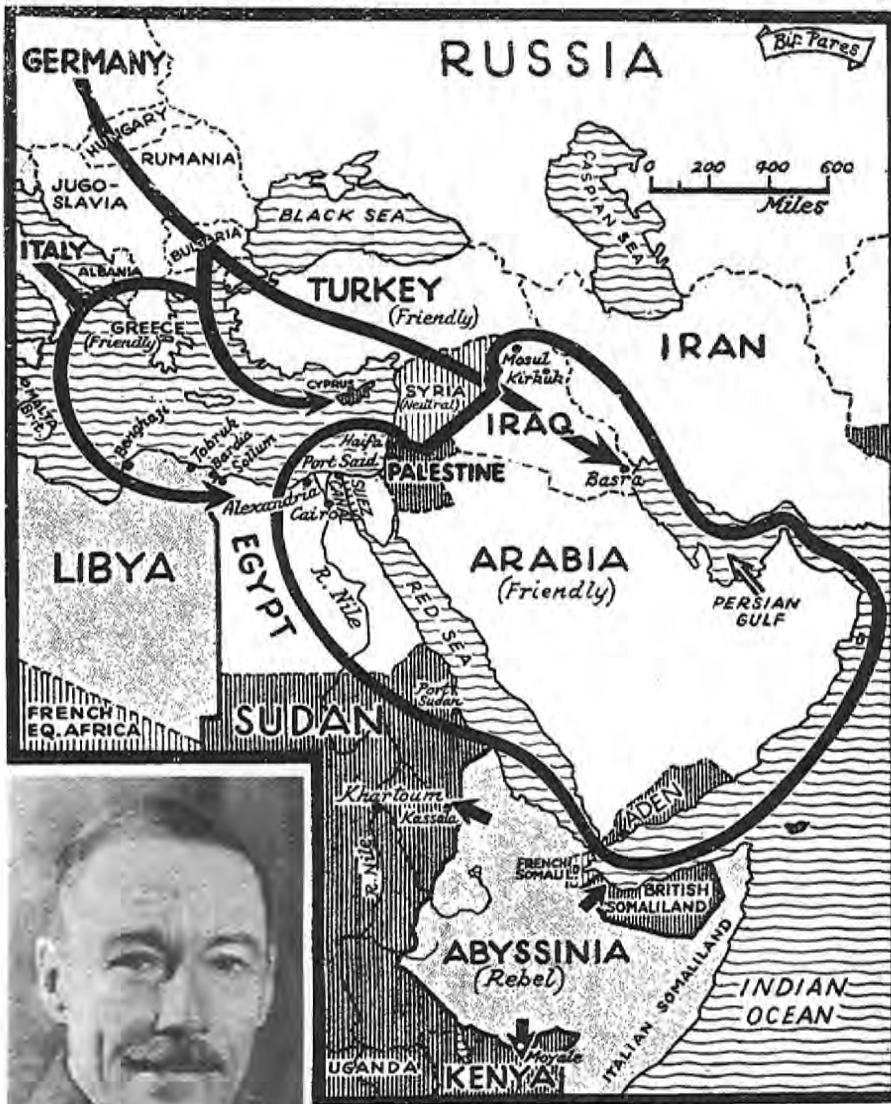


Page 58 **Dr. Strangepolicy**

www.investors.com/cartoons

Or: How I Learned To STOP Worrying And LOVE The Iranian Bomb.

Vast Indeed are the Two Dictators' Designs



But between the dream and its accomplishment lies—what? First the Navy of Britain and the British Commonwealth, which is far superior to the navies of Germany and Italy combined. Moreover, it is the Navy which, since the Dutch wars of the seventeenth century, has never lost a battle. For two hundred years and more Britain's warships have controlled the Mediterranean—not to mention the Seven Seas; and still today, despite all Mussolini's boasts about "Mare Nostrum," the British flag braves the breeze within sight of Italy's heavily-defended shores.

On land the forces which may be ranged to meet the legions of the Dictators are far smaller than those which would have taken the field prior to France's collapse. But Britain's army in the Near East, outnumbered though it may be by the Italians, is far superior in fighting spirit. The Anzacs are in Egypt—and the men who smashed the Kaiser's finest regiments on the Western Front 25 years ago are little likely to fear the worst that the Italians can do. They have British regulars at their side, men trained to war through the arduous years of peace; Indian troops, too, warriors of races which for centuries made war their pastime, their very life. Before Mussolini's soldiers can reach the banks of the Canal they must cross some five or six hundred miles, much of it desert, entirely waterless; and they must march along one narrow road within sight of the sea, within range the whole way of the guns of Britain's ships.

Then there are Britain's allies and the possible allies of tomorrow. There is Turkey, which never forgets that the Italian programme of expansion includes the whole of her Mediterranean coasts; there is Greece, which is also fearful of Mussolini's designs; there are Iraq and Iran, neither likely to sacrifice their independence without a blow; there are Egypt and the Sudan, and ranged on the southern frontier of Italian East Africa are the planes and battalions which South Africa has sent to the war. Then, finally, there is Russia—that vast enigma which hovers on Hitler's flank.



How vast are the ambitions of the Axis schemes will be clear from this map, in which the top set of arrows indicate planned drives, while the "ceilo" encloses the area that Britain must surely hold. Left, Lt. Gen. Sir Philip Neame, V.C., who took over the command of the British Forces in Palestine and Transjordan early in August, 1940. Photo, "Daily Mirror"

had to envisage a war on two fronts, and having envisaged it they shrank from it in alarm. Now, however, that Tunis, like Metropolitan France, is out of the war, Mussolini's 250,000 men in Libya are set free from that hampering fear of an attack in the rear and may now perhaps march on Egypt—that prize which has fascinated the gaze of conquerors through all the ages—and from the Nile to the Canal is but a step.

This seized, Britain's communications between the Mediterranean and India, the Cape and Australia, would be cut in their most vital spot and from Suez the Italian legions might expect to continue their career of conquest through Palestine and on to Iraq and even Iran. Here, too, France may be said to have played into Mussolini's hands, for until recently a great French army stood to arms in Syria ready and eager to help Britain in the defence of the Near East.

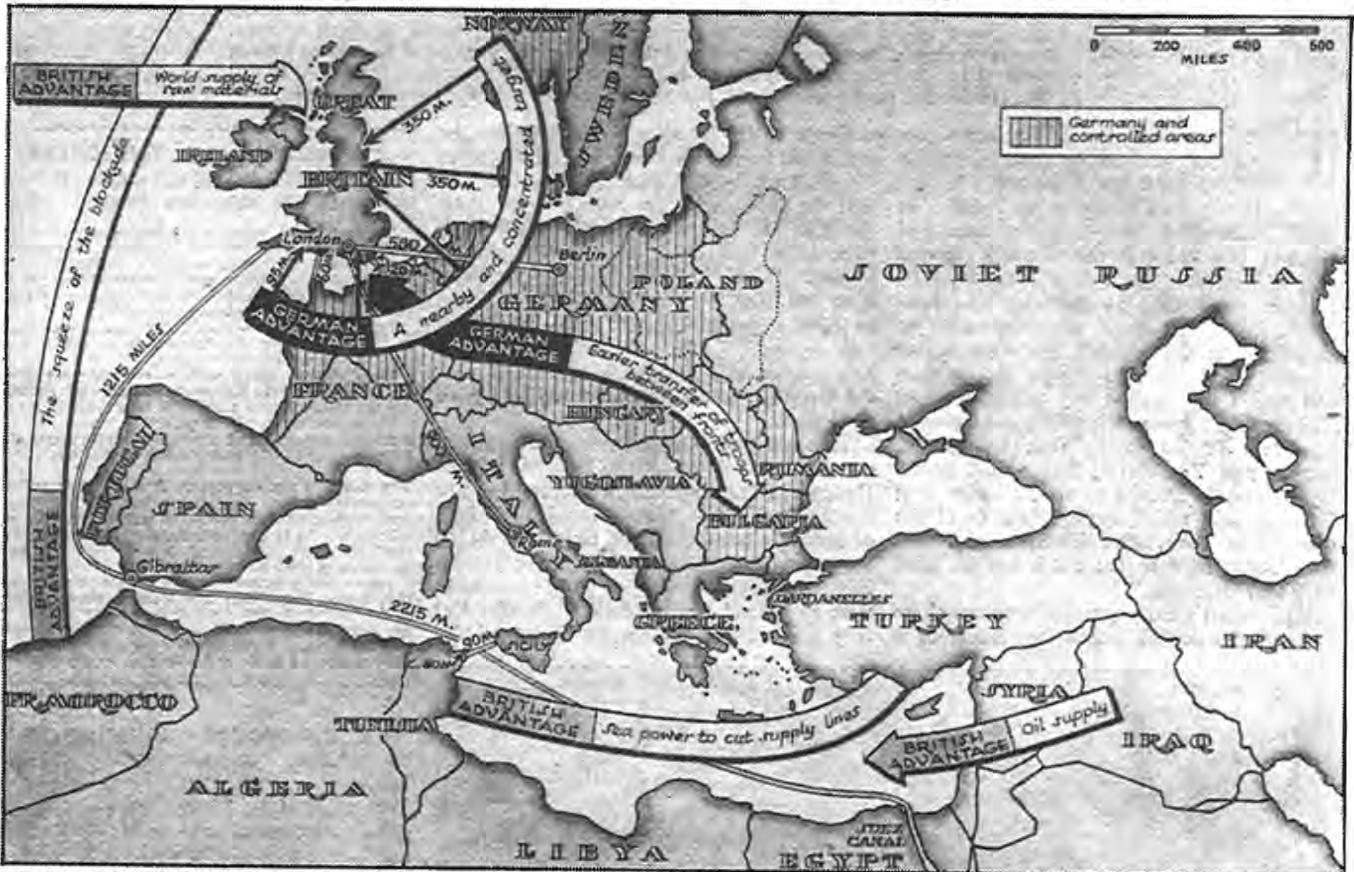
But not only the Near East would be brought into the new war zone. While the German planes continued to dash themselves in a frenzy of onslaught on the defences of the British fortress, Spain's war-weary soldiers would be gingered and goaded into

an attack on Britain's stronghold of Gibraltar, so that with both Gibraltar and Suez lost the British fleet might be caught in the Mediterranean trap. Italian columns might dash across the desert to the upper waters of the Nile in the Sudan. Khartoum would be threatened from Abyssinia; Port Said and Aden, Berbera and Sokotra, the islands of the Persian Gulf and the great oil refineries at Abadan, Basra where the great rivers of Mesopotamia meet—all would hear the guns. Still the imperial looters would not be satisfied. Alexander refreshed his tattered legions in the waters of the Indus; through all his most vigorous years India was to Napoleon a tantalizing dream. Where Alexander succeeded and Napoleon dreamed, might not Hitler dream and succeed?



A British R.N.R. surgeon in a hospital in the Near East is examining an Italian pilot-officer, one of the many brought down by the R.A.F. Photo, British Official: Crown Copyright

Britain v. Germany: the Strategy of the War



THE CAMPAIGN OF 1941 is being fought over a vast battlefield stretching from the Atlantic to the Black Sea, from the North Atlantic to the Suez Canal. How advantageous in some respects is Germany's position will be apparent from this map; but it shows, too, the strength that Britain derives from her sea power.

A Note on Strategy

FROM the Pyrenees to North Cape, from the English Channel to the Black Sea, Hitler's legions march with none to say them nay. Not even Napoleon at the height of his greatness ruled over so many countries, chained so many peoples to his war machine. The swastika flag waves over regions into which the Roman eagles never penetrated. Never was Europe so "united" as today, when, with the exception of only two or three comparatively minor states, the whole family of continental countries makes up Hitler's empire.

Great have been the victories won by the generals and the soldiers of the man who was a company runner on the Western Front in the last war. Great victories and many, but still the war is not over. Just beyond the rim of Hitler's Europe sail the ships of Britain's Navy. If the land is Germany's the sea is still what it has been for centuries—Britain's. As in Napoleon's day so in this, the mighty struggle is one between a whale and an elephant.

Germany's Supremacy on Land

The elephant's strength is based on what are called the interior lines. He occupies the inside of the circle, and it is an easy matter for him to transfer his troops and his trains from one sector to another. His communications are magnificent, consisting as they do of the network of railways and roads with which generations of enterprise have equipped the continent. He has enormous populations—his own and the races he has enslaved—on which to draw for his cannon fodder and his industrial serfs. Then for years he prepared for war, and he did not make the mistake of thinking that this new war would be fought on the same lines as that of 1914-1918; in other words, he thought not of trenches and

barbed wire and concrete, but of tanks and motor lorries, of dive bombers and troop-carrying 'planes, of spies and Fifth Columnists. It is not really surprising that with all these advantages, to which may be added the tradition of discipline of Europe's greatest militarist nation, the Germans should have proved able to crush all their foes within reach of their armoured columns.

Britain's Mastery of the Sea

Against this continent in arms Britain flings into the balance her Islands, her Commonwealth, her Mercantile Marine and incomparable Navy, the resources of a quarter of the globe, the products of the labour of one fifth of the human race. All that might tends to be concentrated in the waters that surround the Fuehrer's Reich. To the British Isles a great stream of ships brings food and raw materials without which our millions could not live, the war supplies without which we could not continue the fight. At the same time our fleets have swept from the seas Hitler's ships, and hold the Continent in the relentless grip of the blockade. No doubt there are many leaks in the blockade; in our impatience its operation seems all too slow. But there is not a home, not a factory, not a fort or camp in Hitler's Germany which is not the poorer because of our patrolling Navy.

Sea-power, then, is Britain's great advantage. Because of it she can feed her own people and (eventually, at least) make the Germans go hungry. Her fighting line can be supplied from America, democracy's inexhaustible arsenal. She can tap the world's oil supplies, whereas the Germans have to "go easy" on petrol, and if they want to replenish their stocks must make a drive against Iraq or the Russian oil fields in the Caucasus.

But the sea is no obstacle to the aeroplane, and Hitler's air power is still greater than

Britain's. Far out over the Atlantic rove his bombers, seeking whom they may devour of our merchant ships, and night after night there descend from the skies on our cities loads of death-dealing metal. True, Britain too has a great Air Force, one which is growing daily in numbers and might; but in the air war the Germans have the advantage of a concentrated target, whereas the British offensive has to be distributed over a vast area, many of the most vital spots being almost out of range of even our long-distance 'planes. Already there is discernible a shift of industry from the much-bombed Rhineland and Ruhr to Czechoslovakia and even to Poland; and as our air strength grows, as our bombers multiply and grow in range, more and more of Germany's factories will be transferred to the more distant parts of Nazi-controlled Europe. But in Britain no such transfer is possible; war workers, her civilian population, are in the front line in very deed. They must fight where they stand; they can do no other.

Whale or Elephant: Which?

This, then, is the strategical setting of the battle of 1941. Already the curtain has gone up on the terrific drama; already the issue is joined between the hordes of Hitler's slaves and the armies of free men put into the field by the British Commonwealth and its Allies. In the passes of Greece, on the sun-blistered desert of North Africa, the mechanized Attila is struggling furiously, with an utter disregard for human life, to pierce the ranks of those—oh! so few and none too well equipped—who alone stand between him and the domination of the world.

Before the year ends the issue will have been decided. Whale or elephant; which will win? By the time the leaves now forming in the spring sunshine have withered and fallen we shall know.

Without Oil the Wheels of War Must Stop

As long ago as 1904 Lord Fisher declared that the countries which control oil supplies will control the world. Today, during a war of petrol- and oil-driven machines, the advantage possessed by the Allies, who have not only huge oil resources of their own but may draw on the resources of the whole world, must become ever more apparent.

If it be true to say that civilization could not continue without oil, it is still more true to say that without oil, war as it is waged in the twentieth century would be quite impossible. Aeroplanes, tanks, armoured cars, mechanical transport, ships of war—all are dependent on the oils extracted from the bowels of the earth. In 1938 the world production of crude petroleum was over 270,000,000 metric tons.

Nature has greatly favoured the democratic powers in the distribution of petroleum. By far the greatest producer is the United States, which is responsible for some 60 per cent of the world's present supplies. In 1938 Germany and Austria produced only 615,000 tons, Italy 140,000 tons (127,000 from Albania), Poland (507,000) and Japan 356,000. Compare with these figures the production of the U.S.A. of over 164,000,000 tons, and even of Canada, which in 1938 produced 940,000 tons.

Next largest producer to the U.S.A. is the U.S.S.R. In 1913 Russia's extraction of petroleum was over 9,000,000 tons; from 1920 to 1925 it oscillated between 3,000,000 and 8,000,000 tons, and since then has shown a steady increase, mounting in 1938 to about 29,000,000 tons. At present the Russian refineries are capable of dealing with the output, but many of them are out of date. Moreover, the industry produces only sufficient

to satisfy the country's own requirements, as is shown by the fact that between 1932 and 1938 Russian exports of mineral oils fell from just over 6,000,000 tons to 600,000 tons. Russia might increase her petroleum exports by intensifying her production, and this would seem feasible enough seeing that she has vast deposits of oils still unexploited. But it would take time, and it would necessitate a thorough overhaul of her present very defective transport organization.

Only a very little short of Russia's production is that of Venezuela, which in 1938 produced just under 28,000,000 tons; as recently as 1935 her production was under 3,000,000 tons. There are indications that oil might be tapped right along the Andes to the south of Argentina.

Britain's Huge Oil Base in Iran

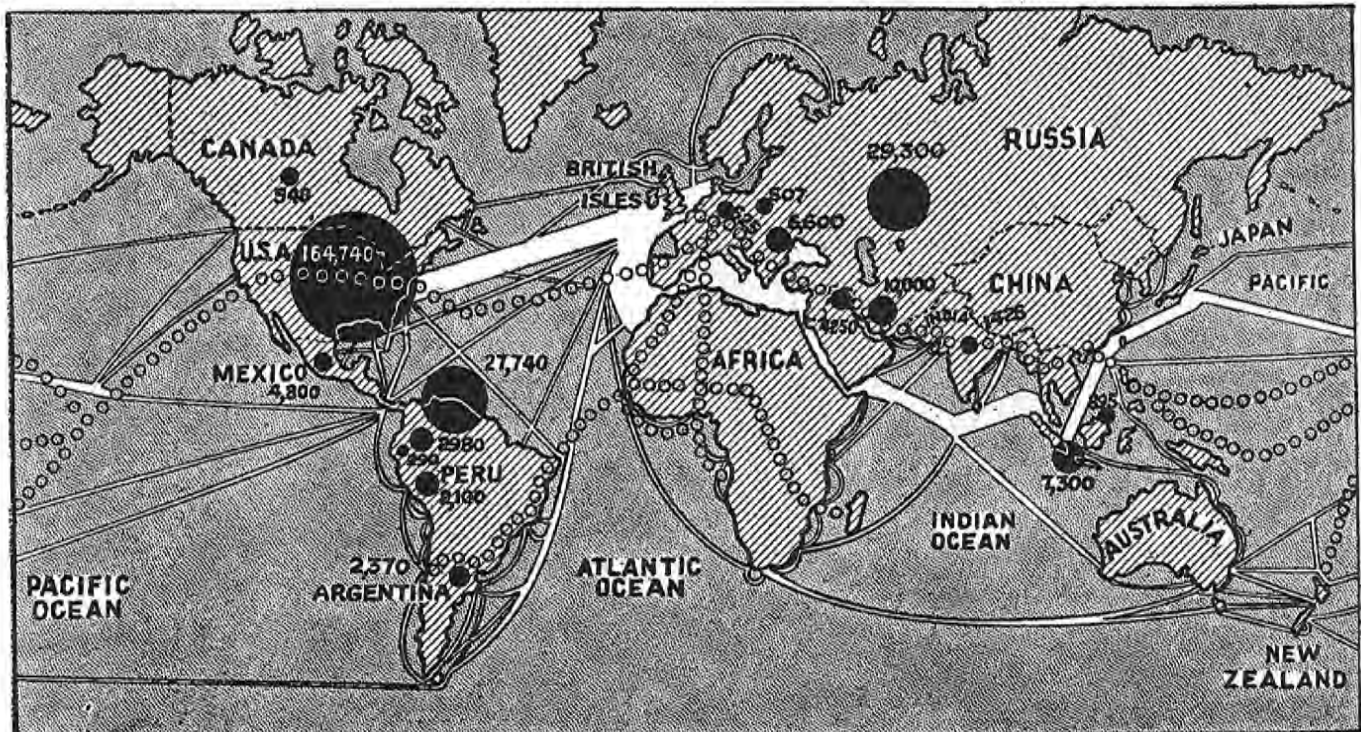
Next on the list is Iran, where in 1938 the production of crude petroleum was over 10,000,000 tons. Its exploitation is in the hands of the Anglo-Iranian Oil Company, which possesses at Abadan one of the three largest oil refineries in the world. Its storage capacity is nearly a million tons. Abadan is the refuelling centre of the British Navy in the East.

Of the other producer-countries the most important are the Netherlands Indies, which produced over 7,000,000 tons in 1938; Rumania (6,600,000 tons), Mexico (4,800,000 tons), Irak (4,250,000

tons), the British West Indian island of Trinidad (2,470,000 tons), Argentina (2,370,000 tons), Peru (2,100,000 tons) and British Burma (1,060,000 tons).

At the present time interest centres on Germany's hopes of obtaining large quantities of petroleum from Russia and Rumania. During 1938 the Reich imported nearly 5,000,000 tons of petroleum, motor fuel and lubricating oils, but in time of war her requirements must be far greater. As just stated, Rumania's production in 1938 was under 7,000,000 tons, and it would seem to be hardly likely that Russia could set aside for export 5,000,000 to 10,000,000 tons of petroleum annually. Even if she could produce it, how could it be delivered to Germany, seeing that all the existing Soviet pipe-lines have their outlets either on the Black Sea or the Caspian? Rail would be the only means available.

It is true that Germany has made immense efforts to assure her self-sufficiency in the matter of petroleum supplies by seeking oil beneath her soil and by the synthetic preparation of motor fuels. With regard to the former, soundings have so far been unsatisfactory, and it seems that the maximum production cannot exceed 700,000 tons even if Austria be included. As to synthetic fuels, the Reich does not seem capable of producing more than 3,000,000 tons annually of petrol and gas oil.



In this sketch map are indicated the principal oil-producing centres of the world and the routes by which petroleum is conveyed to the principal areas of consumption. The black disks give some indication by their comparative sizes of the petroleum deposits. The chains of circles mark the main lines of distribution of petroleum products by oil tankers, pipe lines, rail and other methods.

From Berlin to Baku: Hitler's Thrust for Oil



Germany's oil situation is a matter of perpetual controversy, but here in this picture diagram we have illustrated some at least of the most important facts. Right, oil derricks at Baku, chief centre of the oilfields in the Caucasus whence Russia derives 90 per cent of her oil supplies.

Diagram specially drawn for THE WAR ILLUSTRATED by Haworth; Photo, Planet News

