

Death by computer

How to win a nuclear war from your living-room

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A better title would be:

The promise of technology in the American
Grand Strategy - primacy in the postindustrial
age

Strategic culture and the impact of technology

MAD – an unacceptable outcome

The US has been utterly frustrated for being held hostage by a 'primitive' and 'antiquated' war-waging technology - the nuclear/thermonuclear bomb;

1. Rather short ownership of nuclear technology;
2. Soviet Union matched the technology first nuclear, then thermonuclear in short periods of time;
3. It essentially became a game of numbers - quantity became a quality in itself

'this concept of mutual homicide, sure and certain, has in many ways been peculiarly comforting to those holding it. It makes plausible the conviction that when governments are informed of the terrible consequences of a nuclear war they will realize there could be no victors. There would be no sense to such a war' - *Hermann Khan - On Thermonuclear War*

The dawn of Clausewitzian logic

Hedley Bull - Strategic Studies and its critics – 1968

- the prospect of nuclear obliteration changed significantly strategic thinking as it was no longer the preserve of the military;
- away from war as an instrument of policy toward the threat of war, and studies of actual violence have given place to analyses of "deterrence," "crisis management," "the manipulation of risk";
- the civilian strategists have entered the citadels of power and have prevailed over military advisers on major issues of policy;
- anything 'strategic' inevitably became the work of theorists, able and willing to 'overwhelm the military with their quality and quantity of contributions to the literature'

Leading to the development of **game theory** and, later on, to the concept of **strategic culture**

Neither would deliver the US from the prospect of being at the mercy of its nuclear adversary

The promise of technology - 'classical' combat operations

Stalemate conundrum was to be overturned by the new technologies - particularly computers and electronics - overwhelmingly an American enterprise

the Strategic Defense Initiative aka the 'Star Wars' initiative by President Reagan in 1981

Computer power allowing modelling, automation, task management and correction, aid to decision making, etc

Defensive and offensive weapons and weapons support systems

C4ISR - Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance

EBO - Effects Based Operations, SoSA - System of Systems Analysis, ONA - Operational Net Assessment, SOD - Systemic Operational Design

Strategic Defense Initiative

Ground-Based Midcourse Defense

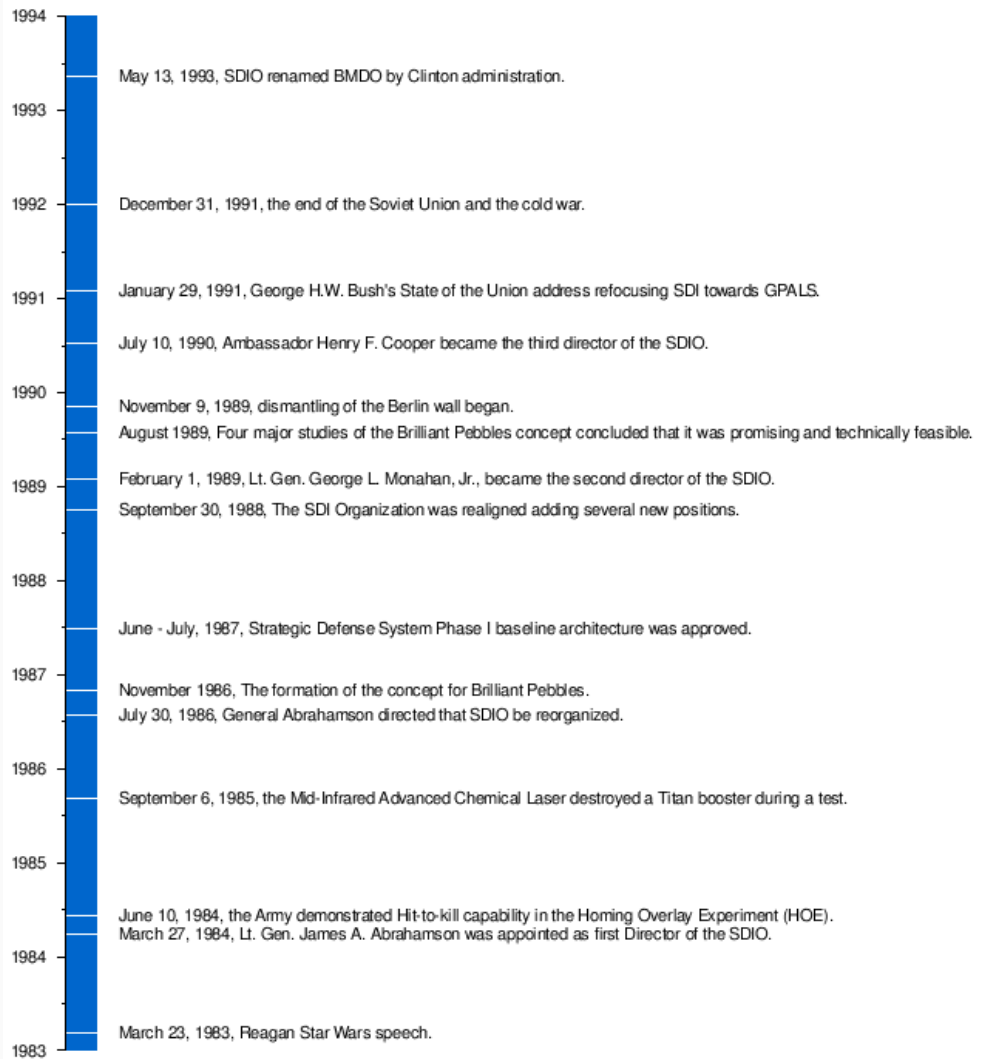
Aegis Ballistic Missile Defense System

Conventional Prompt Global Strike

STRATCOM merged US SpaceCom

Joint Functional Component

Command for Global Strike JFCC-GS



Joint Functional Component Command for Global Strike

JFCC-GS - five suggested scenarios

is designed to optimize planning, execution and force management for the assigned missions of deterring attacks against the United States, its territories, possessions and bases

provides integrated global strike capabilities to deter and dissuade threats and when directed, defeat adversaries through decisive joint global kinetic and non-kinetic combat effects.

A near-peer competitor had used its *emerging* counter-space capability to destroy a U.S. satellite.

The United States wanted to destroy a package of special nuclear materials that a terrorist organization had shipped to a neutral country.

A small package of weapons of mass destruction was located temporarily in a rural area of a neutral country.

The leadership of a terrorist organization had gathered in a known location in a neutral country.

A rogue state armed with a nuclear weapon was threatening to use that weapon against a U.S. ally. *

Operationalization of Strategy

Strategy is driven by what can be technologically achieved

As such strategy no longer bears the attribute of political reason - slowly becomes enslaved by marketers that advertise technological prowess with little regard to actual *strategic objectives*

Game theory seemed too simplistic so by introducing an indefinite number of variables (attack vectors), which are devised and controlled by integrated systemic models, one must tilt the balance in their favour.

'the Army has no wish to scrap its previous experience in favor of unproven doctrine, or in order to accommodate enthusiastic theorists having little or no responsibility for the consequences of following the courses of action they advocate'

General Matthew B. Ridgeway - 1955

The promise of technology

'The Prompt Global Strike concept is meant to sustain the US monopoly in the military sphere and to widen the gap between it and the rest of the world. Combined with the deployment of missile defense supposed to keep the US immune to retaliatory strikes from Russia and China...'

'In essence, the new US nuclear doctrine is an element of the novel US security strategy that would be more adequately described as the strategy of total impunity...'

Rick Rozoff

The non-nuclear arsenal used for disabling and destroying the air defenses and strategic, potentially all major, military forces of other nations will consist of intercontinental ballistic missiles, adapted submarine-launched ballistic missiles, hypersonic cruise missiles and bombers, and super stealthy strategic bombers able to avoid detection by radar and thus evade ground- and air-based defenses.

Any short-range, intermediate-range and long-range missiles remaining in the targeted country will in theory be destroyed after launching by kinetic, "hit-to-kill" interceptor missiles. Should the missiles so neutralized contain nuclear warheads, the fallout will occur over the country that launches them or over an adjoining body of water or other nation of the U.S.'s choosing.

Comparison of the GDP's

USA

1980 - 2,862.5 US\$ (bln.)

2014 - 17,408.19 US\$ (bln.)

% of the world economy

22.53%

After a nuclear war

2-5%?

USSR/Russia

1980 - 940 US\$ (bln.)

2014 - 1,857.5 US\$ (bln.)

% of the world economy

2.40%

After a nuclear war

.5%?

Absorption capacity

in a nuclear exchange - nuclear war that has been won

The ability to maintain a reasonable level of government after a nuclear counter-strike either counter-value or counter-force or both.

Ability to defend any allies that are subject to a conventional attack in the aftermath

Ability to recover in terms of military-industrial capacity and re-engage to maintain a dominant position.

Ability to recover a dominant position and the timespan to do so.

If a hybrid or nuclear exchange can be won it suggests US adversaries will alter their strategy to check all (and more) of the post conflict absorption capacity indices - military-industrial capacities, carrier battle groups, satellites etc.

If this strategy succeeds, the US will most likely lose its primacy position for the long term.

May trigger further attacks from challengers willing to fill in that primacy position

MAD

replaced by

PAD?

Primacy Assured Destruction
US primacy replaced by
Germany, China, Japan...?



'Russian fascination with game theory stems partially from the well-known Soviet propensity to look for technical solutions to non-technical problems. The same tendency is evident in the Russian exuberance over the benefits that computerization and cybernetization are supposed to hold for Soviet society'



Thomas W. Robinson, Game Theory and Politics: Recent Soviet Views (Santa Monica, CA: RAND Corporation, 1970)

New computer models and analyses ought to take into account not only how to defeat an adversary but how to preserve, at least in part, the real asset of American Grand Strategy which is *primacy* not *military supremacy*. Military supremacy is unsustainable without primacy.

Extreme reliance on technological breakthroughs is counterproductive especially if tries to adjust or alter strategic objectives.

'Technology is a poor substitute for strategic thinking' - Colin Gray

Thank You

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