

MANAGING RISKS AND UNCERTAINTIES IN A NEW STRATEGIC AGE

Richard Mies 29 January 2009

UNPREDICTABLE, DIVERSE, GROWING THREATS

- Changing character of war: irregular, catastrophic, disruptive, and asymmetric
- No longer confined to the battlefield
- Proliferation of nuclear weapons, biological agents, and cyber technology
- Proliferation of ballistic and cruise missile technology
- Proliferation of hard and deeply buried targets
- Non-state actors
- Emergence of potential peer, near-peer competitors

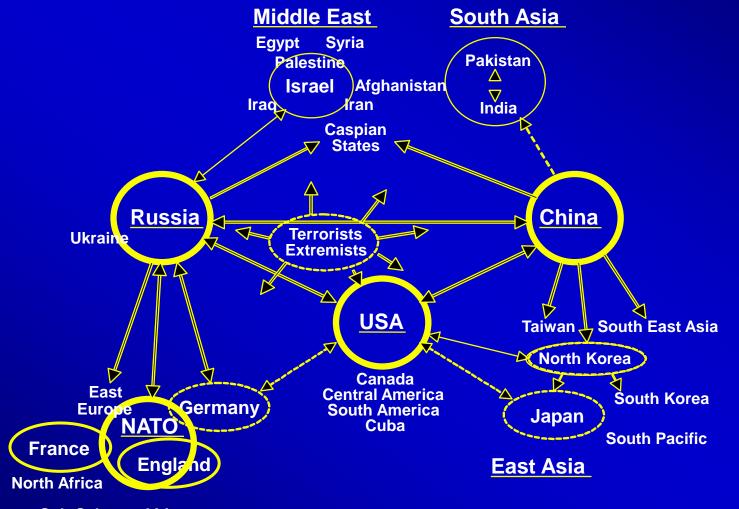






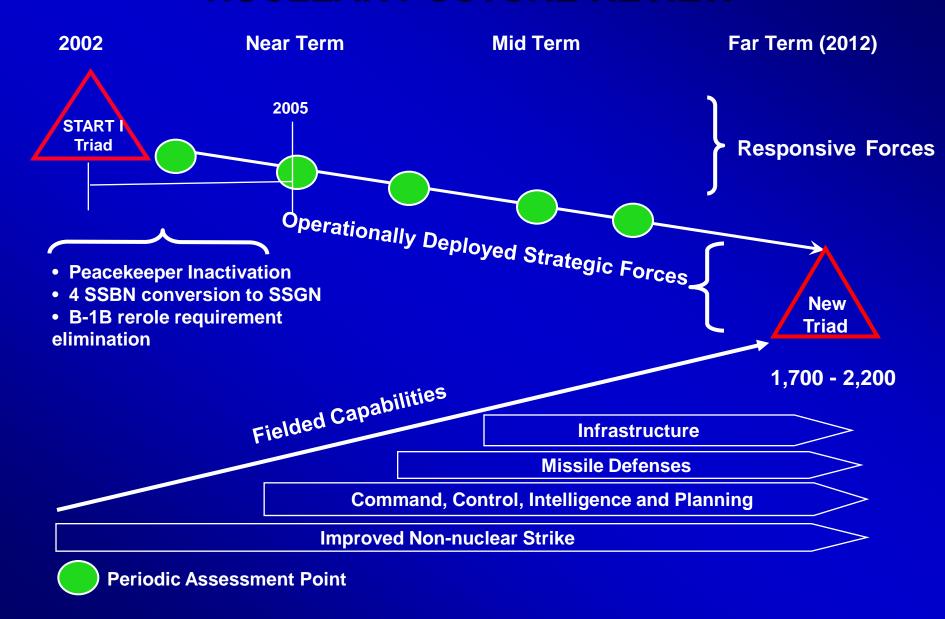


DETERRENCE RELATIONSHIPS IN A MULTI-POLAR WORLD



Sub-Saharan Africa

THE PROMISE AND PERILS OF THE 2001 NUCLEAR POSTURE REVIEW

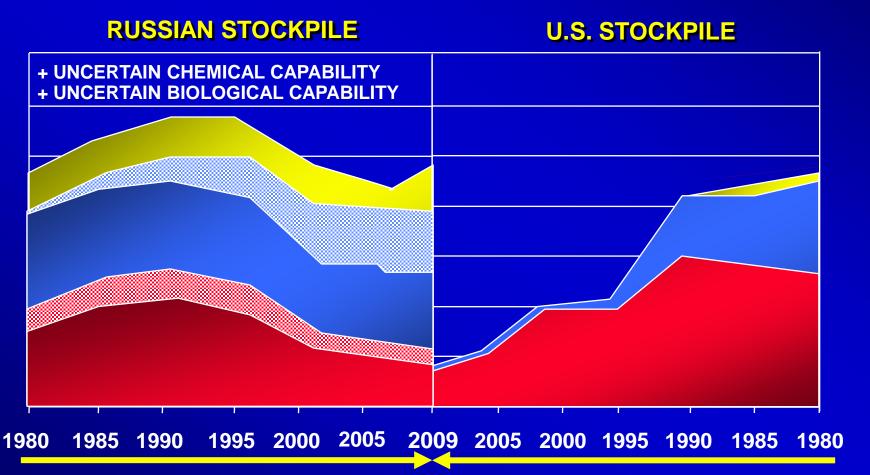


THE RISKS OF FURTHER STRATEGIC FORCE REDUCTIONS

- Credibility of our extended deterrent commitments may fall into serious question
- Potential adversaries may be emboldened to challenge us
- Comparative stockpile asymmetries become more pronounced
- Loss of inherent robustness and flexibility in options available to the President
- Shift from counter-force to counter-population strategy

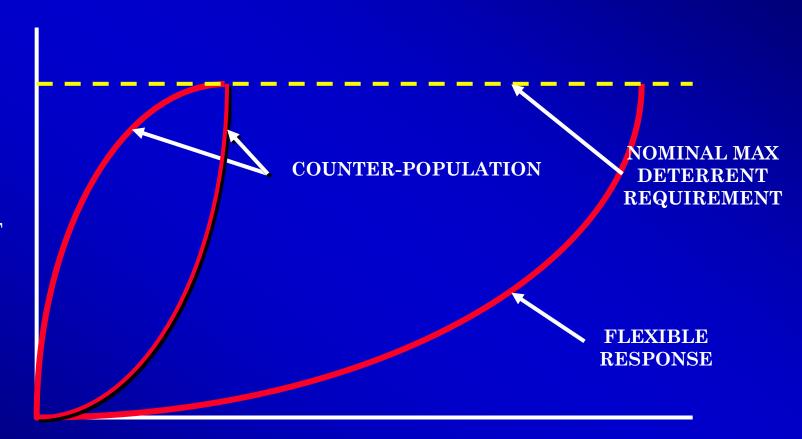
US / RUSSIAN STOCKPILE COMPARISON





Stockpile asymmetries more pronounced at lower strategic force levels

THE STRATEGIC TARGETING DOCTRINE DILEMMA



MEASURE OF DAMAGE

NUMBER OF AVAILABLE WEAPONS

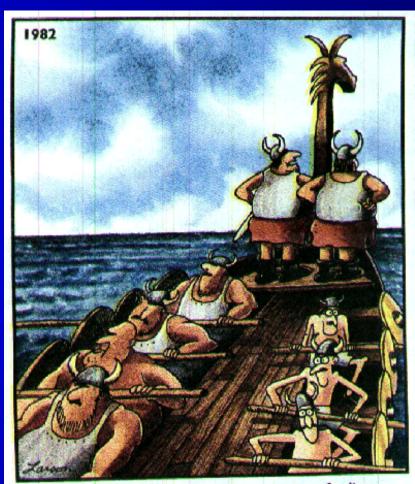
STRATEGIC FORCE ATROPHY

Weaknesses highlighted in numerous reports. Erosion of:

- Senior leadership interest
- People and expertise
- Research and development
- Technology
- Infrastructure
- Congressional support

"Our lack of nuclear weapons production capability – and our stricture against not only development but design – holds our future hostage."

Defense Science Board 2007 Summer Study



"I've got it, too, Omar ... a strange feeling like we've just been going in circles."

THE NUCLEAR ENTERPRISE

Addressed in arms control indirectly via launcher accounting rules



Tactical Nuclear Weapons

Inactive Nuclear Stockpile

Nuclear Warhead Components

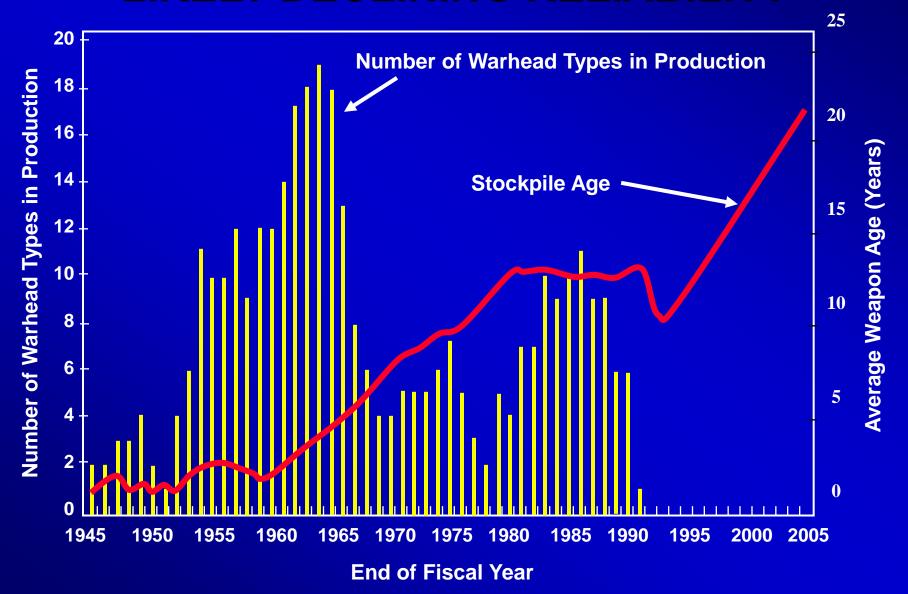
Fissile Material

Nuclear Infrastructure

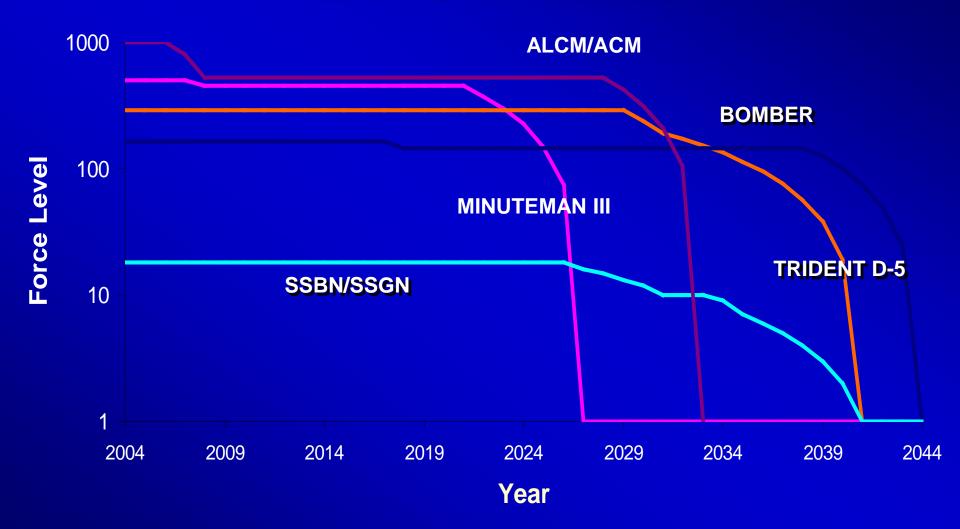
Scientific/Technical Expertise

Arms control frameworks need to be more comprehensive

AN AGING STOCKPILE OF UNCERTAIN AND LIKELY DECLINING RELIABILITY

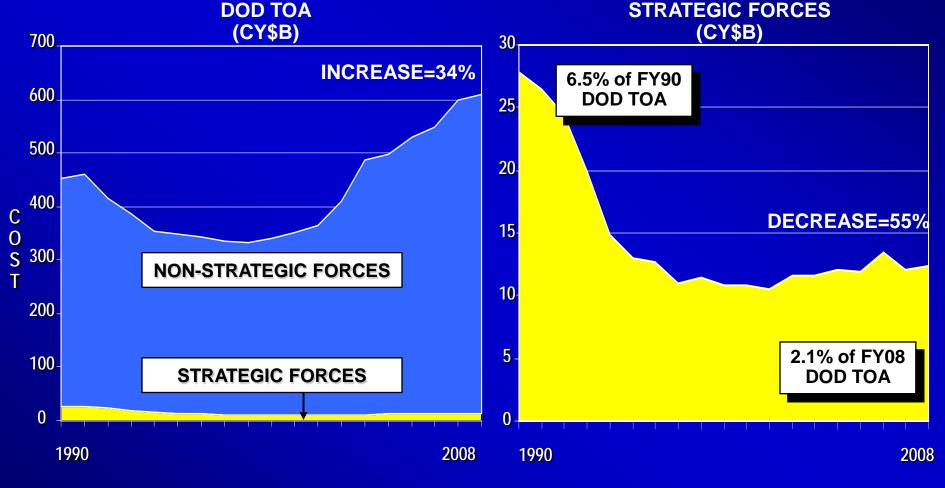


THE APPROACHING DELIVERY PLATFORM CLIFFS



STRATEGIC COSTS

(1990 - 2008)



FISCAL YEARS

CY\$: FY07

STRATEGIC FORCE HEDGING OPTIONS

FORCE STRUCTURE

- Diversity of operationally deployed and stockpiled warheads
- Diversity of delivery platforms and tactics
- Reconstitution capabilities
- Integration of strategic offense and defense
- Integration of kinetic and non-kinetic

FORCE POSTURE

- Initiatives to improve survivability
- Flexibility in force generation
- Strategic communication/signaling

INTELLIGENCE/TACTICAL WARNING/ATTACK ASSESSMENT

- Diversity of land/sea/air/space-based sensors
- Reliance on dual phenomenology
- Potential establishment of joint/international data exchange centers and verification means

NEEDED STRATEGIC CAPABILITIES

- Senior leadership commitment, advocacy, and involvement
- Improved strategic intelligence
- Comprehensive strategic research and development
- Replacement warhead designs with enhanced safety, security, and use control as well as new designs to address existing mission shortfalls
- Enhanced strategic communications/declaratory policy
 - Understand/engage/influence
- More robust adaptive planning
- Stronger commitment to non-proliferation initiatives
 - Prevention
 - Mitigation/consequence management
 - Attribution
 - Response
- Better integration of all instruments of national power

THE ILLOGIC OF ZERO

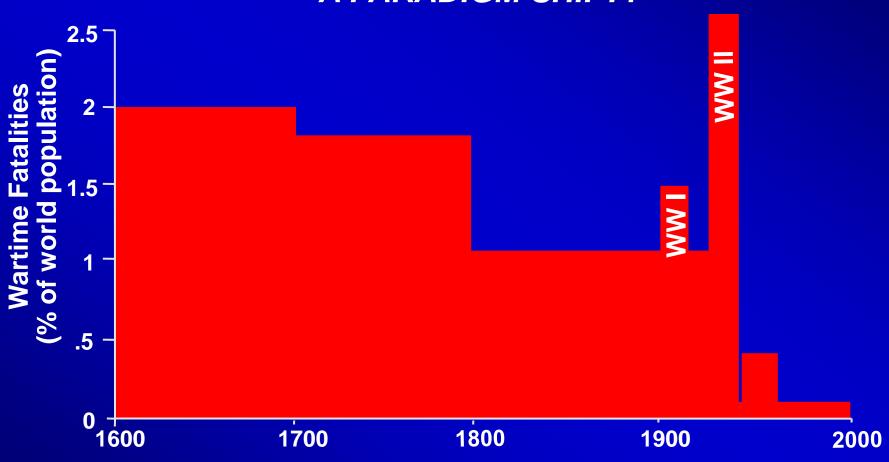
- Is it feasible?
- Is it verifiable and enforceable?
- Is it inherently stabilizing and hence sustainable?
- Is it desirable?

"The means for creating a world without actual nuclear weapons would have to be of a basic political kind, not a matter of technical arms control. Secure nuclear abolition would be consequence, not cause; and in the journey it has to be cart, not horse."

Sir Michael Quinlan

STRATEGIC DETERRENCE





"Better a world with nuclear weapons but no major war, than one with major war but no nuclear weapons."

Sir Michael Quinlan

THE ABOLITION CART BEFORE THE GEOPOLITICAL HORSE?

"The trouble with disarmament was (it still is) that the problem of war is tackled upside down and at the wrong end. Upside down first; for nations do not arm willingly. Indeed, they are sometimes only too willing to disarm, as the British did to their sorrow in the Baldwin days. Nations don't distrust each other because they are armed; they are armed because they distrust each other. And therefore to want disarmament before a minimum of common agreement on fundamentals is as absurd as to want people to go undressed in winter. Let the weather be warm, and people will discard their clothes readily and without committees to tell them how they are to undress."

Salvador de Madariaga

STRATEGIC FORCE REDUCTION GUIDING PRINCIPLES

- The journey is more important than the destination
- Focus on stability and capabilities rather than just numbers
- View reductions as a means to an end national security- and not as an end in itself
- Strategy must drive numbers rather than numbers driving strategy
- Preserve strategic adaptability as a hedge against uncertainty
- Place burden of proof on reduction advocates
- Eliminate artificial distinctions between strategic and non-strategic nuclear forces
- Utilize deliberate planning as the foundation of adaptive planning
- Exercise capabilities regularly

A WISE STRATEGIC ARCHITECT

