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NUCLEAR TERRORISM

THE ULTIMATE
PREVENTABLE
CATASTROPHE

GRAHAM ALLISON



"Graham Allison is a latter day Paul Revere, calling citizens to arms against the real and rising threat of nuclear terrorism... This book is essential reading."

-- Sam Nunn, former U.S. Senator and co-chairman, Nuclear Threat Initiative.

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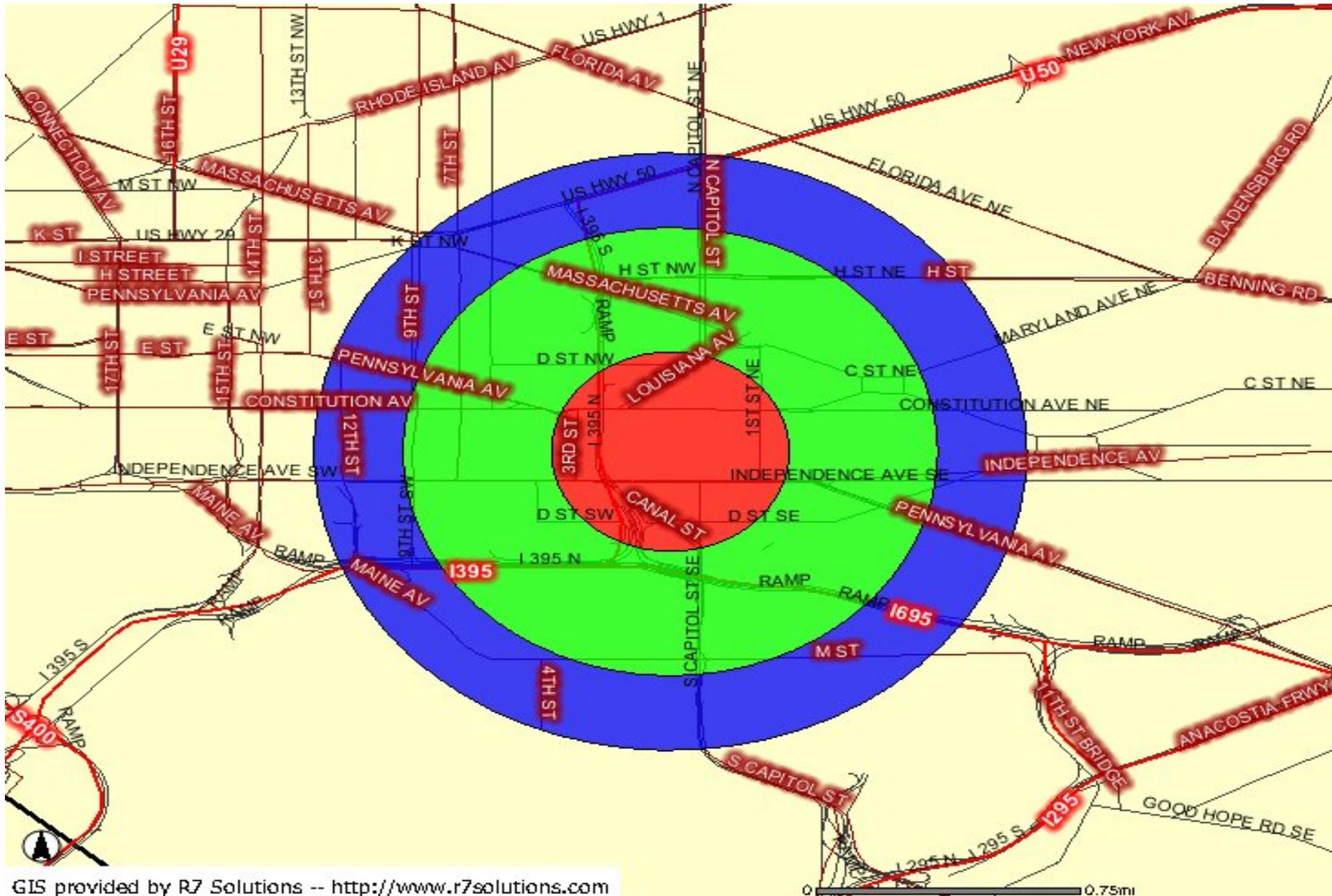
Please send technical questions and comments to bcsia_ksq@harvard.edu

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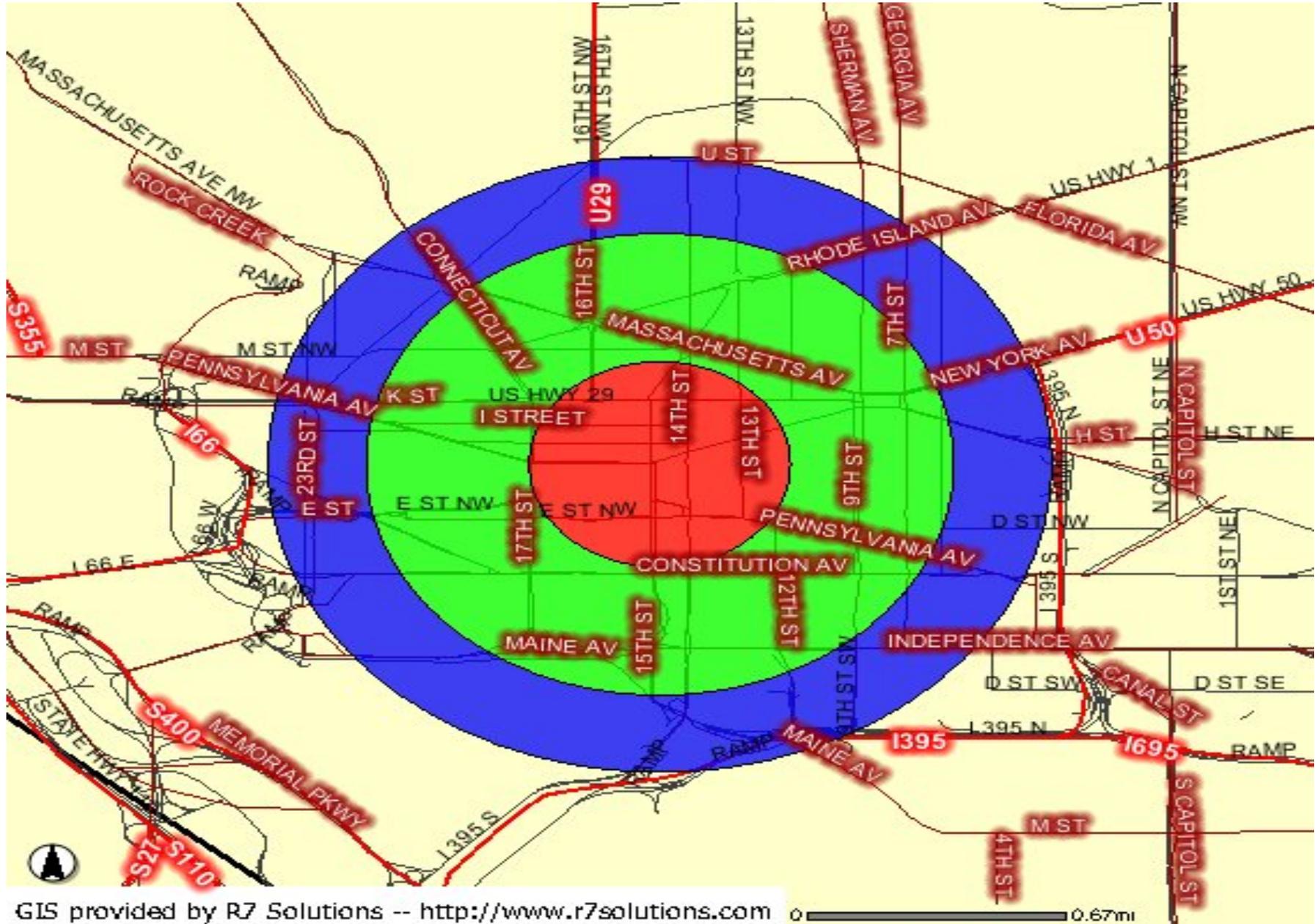
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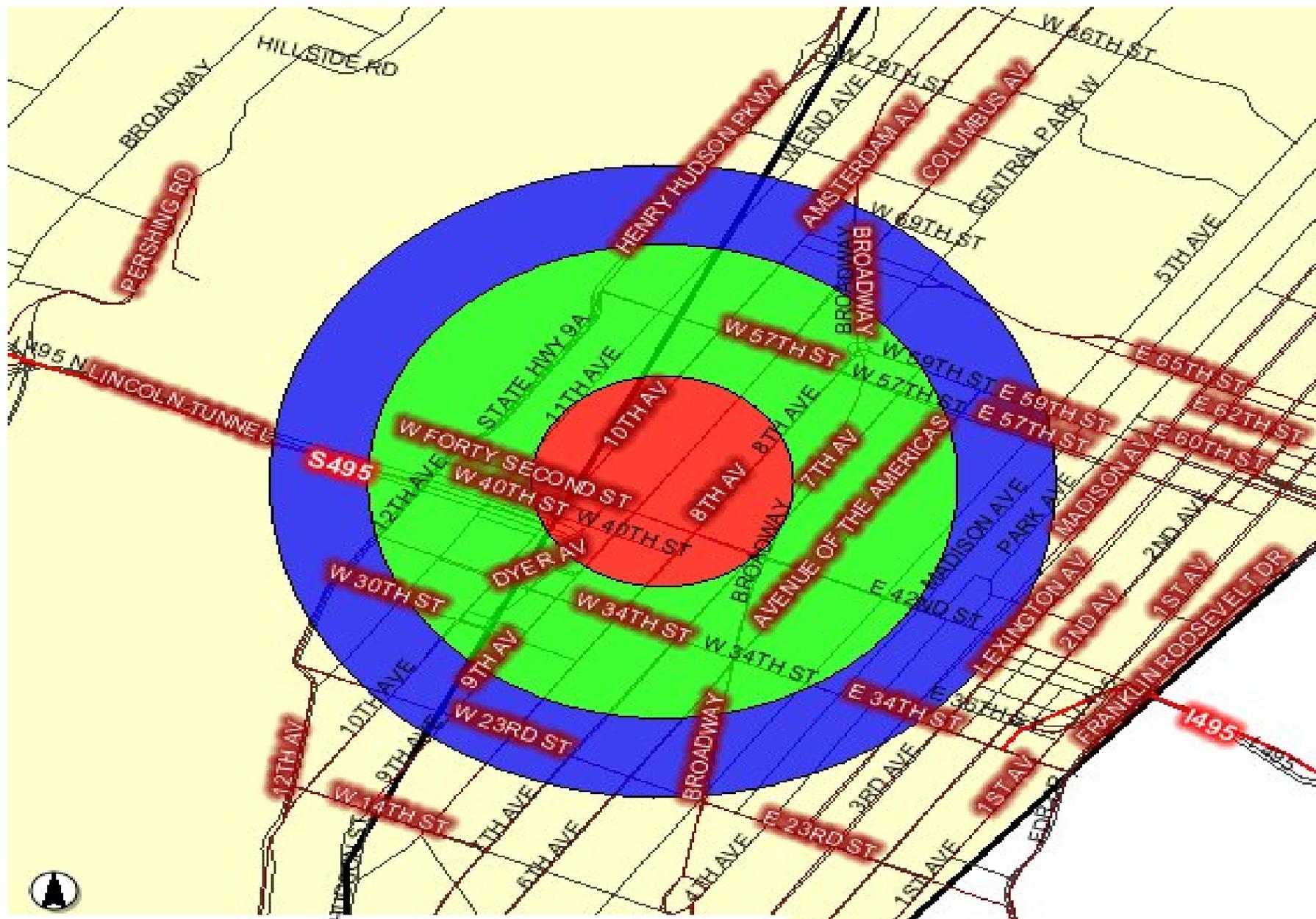
Washington, DC—The Capitol Building



Washington, DC—The White House



New York City—Times Square



Davy Crockett nuclear artillery weapon



Atomic Demolition Munitions



Scientists displaying the warhead (left) and packing container for the Medium Atomic Demolition Munition (MADM), a low-yield (1- to 15-kiloton) nuclear land mine designed to be deployed behind enemy lines and destroy tunnels, bridges, dams, and disrupt enemy troop movements. The entire unit (including warhead) weighed less than 400 pounds and was deployed from 1965 to 1986.

Atomic Demolition Munitions



The carrying case for the W54 Special Atomic Demolition Muniton (SADM). The SADM had a yield of 0.01, or 0.02-1 kiloton and was operationally deployed between 1964 and 1988.

The entire unit weighed less than 163 pounds (74 kilograms).

W48 155-millimeter Nuclear Artillery Shell



Weapons designers examining a mock-up of a test version of the W48 155-millimeter nuclear artillery shell

During the 1950s and 1960s, nuclear weapons were developed for every conceivable military mission. An estimated 1,000 W48 nuclear artillery shells (designed by Lawrence Livermore National Laboratory) were produced and deployed with Army and Marine Corps forces between 1963 and 1991. The W48 had a yield of 0.02-0.04 kilotons (equal to 2-4 tons of TNT).

Various nuclear artillery shells



Nuclear Terrorism

Part I: Inevitable

1. Who?
2. What?
3. Where?
4. When?
5. How?

Nuclear Terrorism

Part II: Preventable

6. Through the Prism of 9/11
7. Where We Need to Be: A World of Three
Nos
8. Getting from Here to There: A Road Map of
Seven Yeses

Preventing Nuclear Terrorism: A Report Card (2001-2004)

Carnegie
Conference
Presentation
6/22/04

Subject	Past Year	Grade
No Loose Nukes		D+
No New Nascent Nukes		C-
No New Nuclear States		D

No Loose Nukes

Actions Required for A-level Performance:

- Make preventing nuclear terrorism an absolute priority
- US and Russian presidents must engage his counterpart in a joint program to assure no nuclear weapons or materials are stolen
- Appoint individuals of stature reporting directly to US and Russian presidents as commanders in the war on nuclear terrorism
- Develop new “gold standard” for security of world’s nuclear weapons and materials
- Secure all nuclear weapons and materials to the gold standard as fast as technically possible on a set timetable
- Overcome bureaucratic obstacles, e.g., US-Russian liability and access disputes
- Lead a joint US-Russian campaign to persuade other nuclear states to adopt the gold standard
- Draw on previous nuclear cooperation with China to enlist Pakistan in the preventing nuclear terrorism club
- Launch Global Cleanout campaign to take back HEU from both Soviet- and US-supplied research reactors on fastest technically feasible timetable
- Hold accountable cabinet-level officials at DOE-State and Industry and Energy-Foreign Affairs for Global Cleanout

No New Nascent Nukes

Actions Required for A-level Performance:

- Close current NPT loophole that permits signatories to develop nuclear fuel production capabilities
- Orchestrate consensus that there will be no new national HEU enrichment or Pu reprocessing
- Guarantee supply of reactor fuel to non-nuclear weapons states at prices less than half national production costs
- Organize program to securely store spent fuel from civilian reactors
- Persuade all states to adopt the Additional Protocol
- Limit import of equipment for existing civilian programs to states that have signed Additional Protocol
- Criminalize proliferation on both domestic and international levels
- Expand Proliferation Security Initiative beyond current 16 states
- Make grand bargain with Iran: in exchange for dismantlement of enrichment and reprocessing facilities, offer fuel-cycle agreement, acceptance of Bushehr, relaxation of trade sanctions, and security guarantee
- Pose credible threats to Iran sufficient to persuade it to accept grand bargain
- Accelerate and highlight deep cuts in US-Russian nuclear arms, and minimize role of nuclear weapons as fulfillment of NPT Article IV
- Resume Fissile Material Cutoff Treaty (FMCT) negotiations

No New Nuclear States

Actions Required for A-level Performance:

- Draw bright line under today's eight nuclear powers and declare: no more
- Subordinate all policy objectives on N. Korea (e.g., regime change) to this goal
- Send Rice or Powell to Pyongyang for candid private discussions on condition that all nuclear activity is frozen for duration of talks
- Offer carrots in exchange for verifiable dismantlement: bilateral non-aggression pledge, expansion of food aid, resumption of Japan-S. Korea fuel shipments
- Describe further phased benefits: financing for natural gas pipeline, construction of two light-water reactors, aid for infrastructure reconstruction, N. Korean Nunn-Lugar, eventual normalization of relations
- Pose credible threat to North Korea sufficient to persuade it to choose nuclear disarmament
- Ratify Comprehensive Test Ban Treaty (CTBT)