What Future Might US Nuclear Arms Control Have?

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PRESENTATION QUESTIONS

I. What are the Trump administration’s views regarding nuclear weapons and their control? How do they compare with those of the Obama Administration?

II. What nuclear threats has the Trump Administration identified that arms controls might help reduce?

III. What do previous successful arms control efforts offer as guidance to how one might help reduce these threats diplomatically?
SHORT ANSWERS I


1) US must compete militarily against China, Russia, Iran and the DPRK by, among other things, modernizing its nuclear arsenal and missile defenses and making its nuclear use policies more credible;

2) that for now, nuclear weapons elimination is impractical;
The key emerging military nuclear threats the Trump administration has emphasized, which arms control might help mitigate are:

1) The proliferation of nuclear-capable missiles

2) Chinese and Russian programs designed to deny the US military & commercial use of space
A successful arms control effort that suggests how the Trump Administration might cap or eliminate the emerging nuclear threats it faces is

- The 1987 Intermediate Nuclear Forces (INF) Treaty, which leveraged U.S. deployments of intermediate-range nuclear missiles to get Russia to join the US in eliminating this class of weapons
I. WHAT ARE THE TRUMP ADMINISTRATION’S VIEWS REGARDING NUCLEAR RESTRAINTS COMPARED TO THE OBAMA ADMINISTRATION’S?
OBAMA TRANSITIONS FROM COLD WAR MILITARY COMPETITION TO CONVERGENCE INITIATIVES

Prague Nuclear Weapons speech, April 5, 2009
NEW START
April 8, 2010
INTELLECTUAL UNDERPINNING

Francis Fukuyama

THE END OF HISTORY
AND THE LAST MAN
TRUMP OFFICIALS CONTEND US MUST COMPETE AGAIN TO BE SECURE
US NUCLEAR FORCES MUST BE FLEXED AND MODERNIZED

US NUCLEAR MODERNIZATION

The United States is embarking on its most far-reaching nuclear modernization since the 1980s...

US B-1 bombers fly near North Korean border

B61s in Turkey

US SSN at Busan, South Korea

Yokosuka Naval Base in Kanagawa

Al Udeid Air Base, Qatar, April 9, 2016
WHEN NUCLEAR DETERRENCE FAILS: MISSILE DEFENSES

US and Japanese planners take part in Integrated Air and Missile Defense Wargame

THAAD Deployment in S. Korea

US approves $15 billion sale of THAAD missile launchers to Saudi Arabia
INTELLECTUAL UNDERPINNING
II. WHAT EMERGING MILITARY NUCLER THREATS MIGHT ARMS CONTROL HELP REDUCE?
GROWING MISSILE THREATS

IRAN’S BALLISTIC MISSILES

Iran possesses the largest and most diverse missile arsenal in the Middle East, with thousands of short- and medium-range ballistic and cruise missiles capable of striking as far as Israel and southeastern Europe. Missiles have become a central tool of Iranian power projection and anti-access/area denial capabilities in the face of U.S. and Gulf Cooperation Council naval and air power in the region.

CHINA’S BALLISTIC MISSILES

China has the most active and diverse ballistic missile development program in the world, upgrading its missile forces in number, type, and capability. China is modernizing its ICBMs, developing multiple independently-targetable reentry vehicles and maneuvering boost-glide vehicles, and has begun deploying a new fleet of nuclear ballistic missile submarines. Short- and medium-range cruise and ballistic missiles form a critical part of its regional anti-access and area denial efforts.

RUSSIA’S LAND-BASED MISSILES

Russia boasts the widest inventory of ballistic and cruise missiles in the world. Moscow's strategic rocket forces perform a variety of missions, from anti-access and area denial in local conflicts to the delivery of strategic nuclear weapons. Significant modernization efforts include new heavy ICBMs, as well as ground-launched cruise missiles in violation of the Intermediate-Range Nuclear Forces (INF) Treaty.

NORTH KOREA’S BALLISTIC MISSILES

North Korea's ballistic missile program is one of the most rapidly developing threats to global security. In recent years, an unprecedented pace of missile testing has included new and longer-range missiles, sea-launches, and the re-arming of satellites. The most notable of these advances has been North Korea's development of two new intercontinental ballistic missiles, the Hwasong-14 and -15, which can likely reach the continental United States.
WHERE WORLD’S MISSILE RANGE ARCS OVERLAP MOST
MANEUVERING REENTRY VEHICLES CAN PUNCH THROUGH DEFENSES

Iran’s Emed missile

Indian MaRV

DPRK MaRV missile

China’s DF 21D

ROK Hyunmu
HYPERSONIC BOOST GLIDE VEHICLES: WILL BE EVEN MORE DIFFICULT TO DEFEND AGAINST

US Falcon HTV-2

China’s Wu 14

Russian Yu-74
POWERED HYPERSONICS, A DECADE AWAY?
MOST PRESSING SPACE CONTROL THREAT: ASAT SATELLITE STALKERS

July 20, 2013, Chinese maneuvering satellite killer satellites

Russian Rokot launch, March 2015
III. WHAT DOES ARMS CONTROL HISTORY RECOMMEND:

COMPETE TO CAP, CLOSE OUT, AND WIN STRATEGIC COMPETITIONS — THE INF TREATY CASE
INTERMEDIATE-RANGE NUCLEAR FORCES

US BGM-109G Gryphon

Soviet RSD-10 Pioneer missile

US Pershing II missile
INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY

December 8, 1987
NUCLEAR ARSENALS SHRINK AFTER INF

U.S. Nuclear Arsenal Shrinks, Nuclear States Still Emerge

The U.S. has 80 percent fewer nuclear weapons than it did in 1987. Since then, Pakistan and North Korea have become nuclear powers, and Iran has aggressively sought to develop nuclear weapons.

U.S. NUCLEAR ARMS LEVELS

- Strategic Offensive Warhead Levels

1968 Nuclear Non-Proliferation Treaty
1972 SALT I
1979 SALT II*
1988 INF Treaty
1991 START I**
1993 START II***
2003 SORT

- Limited Test Ban Treaty

15,000
12,000
9,000
6,000
3,000

WHAT COMPETING TO CLOSE OUT OR CAP NUCLEAR-RELATED COMPETITIONS MIGHT ENTAIL TODAY
US COULD DEVELOP MORE HYPERSOONICS TO CHALLENGE CHINA, RUSSIA
US COULD COUNTER IRANIAN & DPRK MISSILE THREATS WITH BOOST PHASE MISSILE DEFENSE SYSTEMS
POSSIBLE NUCLEAR-CAPABLE MISSILE CONTROLS

- Work with France, EU, Russia, and China, to offer Iran and other Middle Eastern states space launch services in exchange for a ban on launches of SLVs in region; ban the export of any Missile Technology Control (MTCR) Category I missile systems or components into the region

How to Stop Iran's Missile Program
By William Tobey and Henry Sokolski
December 10, 2017

America must unite, not divide, other major powers to constrain Iran.
MISSILE CONTROLS, CONTINUED

- Begin negotiations to limit the further spread of hypersonic technologies among the major developers of such technology – US, Russia, and China. Tighten MTCR controls on the technology.
MISSILE CONTROLS, CONTINUED

- Begin multilateral talks, starting with Russia and China, to ban all “nuclear missiles” – i.e., ground based nuclear-capable missiles beyond Missile Technology Control Regime Category I limits

GLOBALIZING REAGAN'S INF TREATY: Easier Done Than Said?
By David A. Cooper


The Security Threats Nuclear-Capable Missiles Pose and How to Best Control Them
By Alexander G. Savelyev
Head of the Department of Strategic Studies, Institute of World Economy and International Relations (IMEMO), Russian Academy of Sciences
MISSLE CONTROLS, CONTINUED

• Propose a UN resolution that nations that violate the Nuclear Nonproliferation Treaty may not launch nuclear capable missiles outside of their air space and if they attempt to do so, these missiles may be neutralized within their airspace.

*National Review*

*What to Do about Pyongyang*

Nuclear nonproliferation is on the ropes. Does the U.S. have the will to act?

By Henry Sokolski—April 2, 2009
CHEAP US SPACE LAUNCH AND STEALTHY MANEUVERING SATELLITES

US Airforce autonomous space shuttle X-37

SPACEX launch and reentry

US Airforce maneuvering satellite system

Misty US Stealthy Satellite Program
PUSHING THESE SYSTEMS COULD SET STAGE TO SECURE RULES NEEDED TO PREVENT SPACE PEARL HARBORS

• Negotiate with Russia and China and other satellite faring states to allow each state only to transit near another state’s key satellite assets for so long with so many satellites.

• Agree that if these limits are violated, the violated party could exercise their right to self defense.

Strategic Studies Quarterly

“Stalkers In Space: Defeating the Threat”

Brian G. Chow
Summer 2017
GETTING BEYOND THE CURRENT WISDOM

Nuclear Deterrence

OR

GLOBAL ZERO A WORLD WITHOUT NUCLEAR WEAPONS