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Controlling Missiles

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Controlling Missiles

by Jonathan Dean, Union of Concerned Scientists A paper produced for the Weapons of Mass Destruction Commission

Two years ago, Secretary General Annan submitted to the UN General Assembly the report of the Panel of Governmental Experts on the issue of missiles in all its aspects (A57/229, 23 July, 2002). The report correctly established the continuing proliferation and numerical increase of ballistic and cruise missiles, the paramount delivery systems for nuclear, biological and chemical weapons, as an issue of serious international interest. It concluded that several developments related to missiles, including the proliferation of missile technology and potential use of missiles in conflict, presented "serious concerns for international peace and security in the world today."

Recent Developments

Developments in the past two years have intensified these concerns.

- 1. In June, 2002, the U.S. withdrew from the ABM Treaty and began deployment of a nationwide missile defense system.
- The administration will complete deployment of a rudimentary, mid-course missile defense system in September-October 2004. The system is untested, but it will nevertheless be expanded. A Democratic administration would probably proceed more cautiously, but in the same direction.
- 3. Administration work on boost-phase missile defense includes a space-orbiting sensor satellite which incorporates a kinetic kill vehicle. This is the Near Field Infrared Experiment (NFIRE), now scheduled for deployment in orbit in early 2006. The Missile Defense Agency states that it will not use the kill vehicle to deliberately collide with the test warhead, but that is the function for which it

has been designed. In the event of deployment, this device, whose funding was assured by the positive vote in mid-July, 2004, of the joint Senate-House conference committee on the 2005 Defense Department appropriation, will be the first weapon deployed in space since Soviet deployments in the mid-1980s. The Soviet deployments are unlikely to be repeated. However, the U.S. deployment is sure to be followed by others as the weaponization of space proceeds.

- 4. The U.S.-UK military campaign against Iraq in March-April 2003 placed great reliance on cruise missiles whose targeting was guided by global positioning satellites. The Bush administration considers use of these weapons to have been highly successful, confirming its own reliance on use of these weapons for a wide range of military purposes.
- 5. U.S. concern with the possibility of missile attack from North Korea and Iran using NBC weapons continues strong in the light of failure thus far to reach a negotiated settlement in either case.
- Given the accuracy of U.S. targeting, U.S. armed forces have expressed considerable interest in developing an ICBM armed with conventional explosives, perhaps fuel vapor explosives.
- The Peoples Republic of China continues its large-scale buildup of missiles aimed across the Straits at Taiwan.
- 8. India and Pakistan continue to deploy nuclear-armed missiles aimed at each other.
- Israel and Iran appear to be moving into competition between missiles and missile defense.
- 10. The second session of the UN Panel of National Experts on Missiles has concluded without agreement on a final report.

These developments are likely to make the U.S., the world's preeminent missile power, less receptive than ever to proposals for freezing and reducing missiles on a worldwide basis. China too, with an eye on Taiwan's moves toward independence and on the deepening of its nuclear arms inferiority vis-à-vis the U.S. through deployment of U.S. missile defenses, is likely to strongly resist proposals for limiting or reducing its missile stocks. Similar considerations will sooner or later affect Russia.

These circumstances argue that worldwide measures to control missiles, which remain much needed, should either focus on specific individual actions or be placed in the context of much broader approaches to the control of nuclear weapons.

Specific Approaches

Several specific approaches seem especially desirable at this time:

Data exchange and launch notification. Data exchange under the Code of Conduct Against Ballistic Missile Proliferation should be extended beyond the points listed in paragraph 4 of the Code to include an annual report to the UN Arms Register on all holdings of both ballistic and cruise missiles with specifications at or beyond those controlled by Missile Technology Control Regime export restrictions (300 km range, 500 kilo payload). A worldwide missile census would be an invaluable tool. It might be possible to include an obligation to provide missile data to the UN Register in the Code of Conduct itself if the larger countries, especially the U.S., took the lead. China and Israel would re reluctant to cooperate, but it could be tried nonetheless.

Joint Center for Exchange of Missile Data. Implementation of the June 2000
U.S.-Russia agreement on establishment of a Joint Center for the Exchange of
Data on Early Warning Systems and Notification of Missile Launches should
be energetically promoted. The center is intended to reduce the possibility of
false alarm of missile attacks. In December 2000, Russia and the U.S. signed
a memorandum of understanding on how to create a technical base for a
prenotification system between the two governments and committing both to
seek agreement on how to open this system to the voluntary participation of
interested countries.

Establishment of this data exchange center and its possible extension to a multilateral regime may be the most important single action for control of missiles that can be undertaken at this time. However, establishment of the center and implementation of the December 2000 memorandum of understanding have, together with several other cooperative U.S.-Russian projects, been held up by an inexplicable four-year U.S.-Russian wrangle about local Moscow taxes and liability insurance for American personnel. Presidents Putin and Bush once again discussed the tax and liability issue at the June, 2004 G-8 summit in Sea Island, Georgia. It is not clear from this exchange when these issues will be resolved, but at least they are receiving high level attention.

My specific suggestion to the Commission is that its report draw attention to the desirability of continuing with these two projects. Outside attention might create additional pressure on the U.S. and Russian bureaucracies to remove the obstacles to their implementation. U.S. and Russia are already committed to prenotification of ICBM launch by their agreement of 1988. Russian officials state that Russia is publicly prenotifiying space and ICBM launches. It is time to move on the joint data center and make its scope multilateral. I urge the commission to emphasize this issue in its report.

2. *Assistance in Space Launch*. When the Missile Code of Conduct was originally being discussed, it was several times suggested that the major spacefaring countries might offer satellite launch assistance at low cost as an inducement for countries without missiles to commit themselves not to acquire them. All of these suggestions were ultimately dropped. Presumably, this was because no standard formula for assessing costs could be developed and because the spacefaring countries did not want to undertake an open-ended commitment to non-missile countries. Whatever the motive at the time for dropping the idea of space launch assistance, now that the Code of Conduct is in operation, this concept should be looked at once more. It may now appear more feasible.

Broader Solutions

- <u>North Korea</u>. A negotiated solution that would eliminate North Korea's missile and nuclear capability is possible and should be the highest priority of the five governments negotiating with North Korea. Success in these talks would eliminate the most serious current missile threat to others as well as the main source of freebooting missile parts and technology. As I suggested in my paper of June 1, 2004 to the commission on "Reviving the Non-Proliferation Regime," it could be useful if the Security Council were to declare that it would be prepared, if an adequate solution is reached concerning North Korea, to back security guarantees for North Korea that may be extended by the other negotiating partners. The prospect that the Security Council would back a possible U.S. security guarantee for North Korea could reassure North Koreans as to the value of that guarantee and thus add to its value as an inducement for agreement. This action could be taken in addition to the highly desirable endorsement of a U.S. security guarantee by the other negotiating partners – China, Russia, Japan, and South Korea.
- 2. <u>Iran.</u> It would also be valuable if this Security Council statement, or a separate one, covered the case of Iran and offered security assurances from the Council for the event of agreement.

With help from others, Iran has become capable of producing its own missiles as well as nuclear weapons. Negotiation is the only practical way to control Iran's nuclear and missile potential. As regards missiles, one possibility might be a regional pact limiting both missiles and bomber aircraft of all countries in the area. Participants would be Syria, Jordan, Saudi Arabia, Yemen, the Gulf States, Iran, Egypt and Israel. In contrast to its policy of deliberate ambiguity on its nuclear weapons, Israel has not sought to conceal its missile and air force capability. It might be willing to negotiate separately

on this segment of a comprehensive Mideast armaments agreement – the segment which contains the greatest threat for Israel.

3. <u>Conference of the Eight Nuclear Weapon States</u>. In my paper on "Reviving the Nonproliferation Regime" submitted to the Commission at the beginning of June, 2004, I suggested a conference of all the states known to have nuclear weapons – the NPT five, plus India, Pakistan and Israel -- without Israel if necessary. The object of the conference could be to encourage the participants to commit themselves to the full range of anti-proliferation measures contained in Security Council Resolution 1540 of April 28, 2004 and to a generally worded commitment to move toward elimination of their nuclear weapons.

A further objective could be to encourage the participants to *become full members of the Missile Technology Control Regime*. Several points in Resolution 1540 call for action to stop transfer of delivery systems as well as of WMD components. Since China as a permanent member of the Council agreed to and promoted the resolution, China should now be prepared to accept full membership in the MTCR. India and Pakistan, not members of the MTCR and in their own eyes victims of its constraints on sale of missile components, should be prepared nonetheless to commit themselves specifically not to transfer components of WMD or missiles to non-governmental groups. Against the background of ensuring that black market activities of Dr. A.Q. Khan are not repeated, Pakistan should also be persuaded to become a full member of the MTCR. India and Israel should be urged to commit themselves explicitly to the non-transfer provisions of Resolution 1540 and then to MTCR membership.

4. <u>De-alerting</u> in the form of separating warheads from delivery vehicles, missiles and aircraft, should be discussed among all the nuclear weapon governments to ascertain whether they can work out a mutually acceptable form of verification. It might be possible to check covered missiles with sensors to confirm that warheads are not attached.

5. <u>No New Types of Missiles.</u> One further action relevant to missiles might be made by this group of nuclear capable governments. They could agree to abstain from testing and deploying new types of long-range (over 5,000 km) ballistic and cruise missiles for a ten-year period as of a specified date. Russia and China are known to be introducing new long-range missiles. The proposed measure could go into effect at a time following their deployment.

Actions in the Long Term Future

In the long run, after change in the U.S. administration, if the United States and Russia as the world's leading nuclear powers wish to make further deep cuts in their nuclear arsenals, they will have to find a way to control and reduce not only their nuclear warheads but also to restrict delivery systems and missile interceptors, applying the basic principle of the ABM Treaty of limiting the number of defensive missile interceptors if the number of attack missiles are to be limited. If really major cuts are to be made, all three weapons -- warheads, delivery systems and missile interceptors – will have to be tightly linked together. If missile defense systems exist in some states, they cannot be left out of account.

The rationale for this view is that, if all of these types of weapons are not limited in some way, and if missile defense is expanded and gives greater evidence of working, one preponderant national missile defense system could convert equal warhead levels in a nuclear reduction plan to great disadvantage and inferiority for the countries that do not have missile defense of that scope. Similarly, an unregulated preponderance of nuclear capable missiles in a nuclear reduction system could give great advantage to a participating government if it had concealed warheads or wished to overcome the rudimentary missile defense of another participant. Thus, all three armaments, warheads, missiles, and missile interceptors are linked and would have to be limited in future reduction agreements. For example, in a new global reduction agreement covering all states with nuclear weapons, a weapon state would be permitted to deploy missile defenses, but if so, it must accept a limit on the number of deployed interceptors as well

as on deployed warheads and delivery systems. Each state might be given an overall numerical quota to cover all warheads, missiles and missile interceptors, with freedom to mix numbers of these components under its overall ceiling.

To apply this principle in a less far-reaching way, participants in a future conference of states with nuclear weapons might agree to freeze the level of all of their deployed nuclear weapons and of their deployed ballistic and cruise missiles and their deployed missile defense interceptors, and allow production only for replacement. The U.S. and Russia have accepted restrictions on their delivery systems in the START I Treaty. It could be to their advantage if this restriction were made general.

To make this understanding acceptable to China, which would be severely disadvantaged by a freeze on deployed warheads and missiles at present levels, participants could agree at an equal level for deployed delivery systems of any range over 300 km, say 1,000 units, with "room at the top" for China to increase its missile holdings up to the level of the others. They would also agree not to base in space weapons of any kind, including missile interceptors, and to limit the number of their deployed air, land, or sea-based missile interceptors.

If the states with nuclear weapons were in the future willing to freeze the level of their deployed warheads, delivery systems, and missile defenses, they will have a convincing platform to develop an equitable approach for reducing all these forces. They also will have a convincing platform to approach remaining missile-possessing countries with a proposal that they too freeze the level of their deployed ballistic and cruise missiles with ranges of 300 km and over.

List of published studies and papers

All papers and studies are available as pdf-files at the Commission's website: www.wmdcommission.org

No 1 "Review of Recent Literature on WMD Arms Control, Disarmament and Non-Proliferation" by Stockholm International Peace Research Institute May 2004

No 2 "Improvised Nuclear Devices and Nuclear Terrorism" by Charles D. Ferguson and William C. Potter June 2004

No 3 "The Nuclear Landscape in 2004: Past Present and Future" by John Simpson, June 2004

No 4 "Reviving the Non-Proliferation Regime" by Jonathan Dean, June 2004

No 5 "Article IV of the NPT: Background, Problems, Some Prospects" by Lawrence Scheinman, June 2004

No 6 "Nuclear-Weapon-Free Zones: Still a Useful Disarmament and Non-Proliferation Tool?" by Scott Parrish and Jean du Preez, June 2004

No 7 "Making the Non-Proliferation Regime Universal" by Sverre Lodgaard, June 2004

No 8 "Practical Measures to Reduce the Risks Presented By Non-Strategic Nuclear Weapons" by William C. Potter and Nikolai Sokov, June 2004

No 9 "The Future of a Treaty Banning Fissile Material for Weapons Purposes: Is It Still Relevant?" by Jean du Preez, June 2004

No 10 "A Global Assessment of Nuclear Proliferation Threats" by Joseph Cirincione, June 2004

No 11 "Assessing Proposals on the International Nuclear Fuel Cycle" by Jon B. Wolfsthal, June 2004

No 12 "The New Proliferation Game" by William C Potter, June 2004

No 13 "Needed: a Comprehensive Framework for Eliminating WMD" by Michael Krepon, September 2004

No 14 "Managing the Biological Weapons Problem: From the Individual to the International" by Jez Littlewood, August 2004

No 15 "Coping with the Possibility of Terrorist Use of WMD" by Jonathan Dean, June 2004

No 16 "Comparison of States vs. Non-State Actors in the Development of a BTW Capability" by Åke Sellström and Anders Norgvist, October 2004 **No 17** "Deconflating 'WMD'" by George Perkovich, October 2004

No 18 "Global Governance of 'Contentious'" Science: The Case of the World Health Organization's Oversight of Small Pox Virus Research" by Jonathan B. Tucker and Stacy M. Okutani, October 2004

No 19 "WMD Verification and Compliance: The State of Play" submitted by Foreign Affairs Canada and prepared by Vertic, October 2004

No 20 "WMD Verification and Compliance: Challenges and Responses" submitted by Foreign Affairs Canada, October 2004

No 21 "Meeting Iran's Nuclear Challenge" by Gary Samore, October 2004

No 22 "Bioterrorism and Threat Assessment" by Gary A. Ackerman and Kevin S. Moran, November 2004

No 23 "Enhancing BWC Implementation: A Modular Approach" by Trevor Findlay and Angela Woodward, December 2004

No 24 "Controlling Missiles", by Jonathan Dean, December 2004

No 25 "On Not Confusing the Unfamiliar with the Improbable: Low-Technology Means of Delivering Weapons of Mass Destruction" by Dennis M. Gormley, December 2004



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