

Appendix I

Towards a multilateral missile early warning and surveillance system (multilateral missile threat management system)

1. In cooperation with civil society, Canada should arrange for **the early convening of an international panel of experts** to begin to map out the **operational design** of a system that could give substance to the US-Russian agreement in principle on joint early warning, and, especially, to **consider multilateral approaches to missile threat management.**

2. Why a multilateral approach to ballistic missile threat management?²

2.1 John Steinbruner warns that the Russian-American nuclear deterrent system, that still operates and that is based primarily on nuclear weapons based on ballistic missiles, is fragile.

"The pre-emptive damage that the United States and NATO are capable of inflicting on Russian forces virtually precludes the comprehensive forms of retaliation envisaged by traditional deterrence doctrine and virtually compels reliance on rapid-reaction practices to assure even the most minimal deterrent standard."

Thus Russian forces are maintained on high alert, even though

"Russia cannot maintain its forces on rapid-reaction status without running an unreasonable risk of triggering an accidental, unauthorized or inadvertent engagement."

Russia's detection system involves a high degree of risk because its "glaring deficiencies" are in danger of confusing signals and inadvertently triggering a nuclear response to a false warning.

2.2 A joint warning and surveillance system would allow both states to have more confidence in their early warning and surveillance date and would facilitate them taking weapons off alert status. Eventually, says Steinbruner, China would be drawn into a system through which all three states would "reliably receive the surveillance and tracking data generated by the system." Furthermore, they would all receive it at the same time and would have the same capacity to interpret it.

2.3 Expanding the concept to include the multilateral sharing of information is the logical next step. "In order to be effective..., joint surveillance would have to be extended to the pre-launch conditions of all nuclear weapons delivery systems..., and, beyond, to all states with ballistic missile capacity or programs. Steinbruner's proposal is focussed on the immediate and pre-eminent danger of an unreliable Russian detection system, but the same basic idea and technology could be transformed into an effective response to non-traditional missile threats – bringing transparency to the status and capability of such missile programs.

3. The US and joint early warning:

3.1 The basic principle of joint early warning was accepted by the United States and Russia at

² The basic idea, and following quotes, are from John Steinbruner's article in the November 1999 issue of *Arms Control Today*, "National Missile Defense: Collision in Progress."