Summarizing the Current Debate

Should the U.S. build and deploy a midphase National Missile Defense System within the next five years?

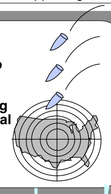
Draft v.6

Please send comments and suggestions to hornbob@earthlink.net.

This chart summarizes the current policy debate on National Missile Defense attempting to show the main reasons for supporting or opposing NMD.

Start Here

The U.S. should build a National Missile Defense (NMD) system to guard the U.S. against attack by rogue nations (such as North Korea, Iraq, and Iran), possessing a small number of intercontinental ballistic missiles (ICBMs) armed with biological, chemical or nuclear (BCN) weapons.

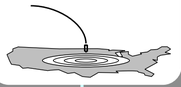


is supported by

Protect the country. The primary job of the U.S. government is to protect its citizens against attack from foreign countries or terrorist groups. The threat of missile attack is serious enough to require building and deploying an NMD as soon as possible.

is supported by

Growing Threat. The threat of nuclear attack from rogue nations is growing. By 2003, Iran and North Korea will be able to deploy nuclear missiles able to reach the U.S. (Rumsfeld Report to Congress 1998.)



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North Korea tests missile. In 1998 North Korea tested a multistage missile. The long-range nature of the weapon suggests that it is to be aimed at the U.S.

is supported by

Develop technology. The NMD program should be funded at a maximum in order to make sure that the U.S. develops the technology of missile defense at the optimum speed.

is supported by

Partially successful defense would limit damage. The U.S. government's major objective should be to protect the country from direct attack. If National Missile Defense is possible, it should be built. Even a leaky shield would protect some Americans, and hence would be better than no shield at all. No U.S. leader would want to face a threat of nuclear attack with no defense at all.

is supported by

Complicate attack planning. Even a partially successful defense would complicate the planning of a potential rogue state so greatly that no rational planners could be confident in hitting the targets they want to hit and thus would be less likely to attack because of the certain risk of being destroyed.

is supported by

Preserve U.S. ability to use conventional force. An NMD would preserve freedom of action for the U.S. to use military force in international crises. It would prevent a rogue state from trying to use "nuclear blackmail" to dissuade the U.S. from acting against such a rogue state in a confrontation.

is supported by

Policy of U.S. is to deploy NMD. "It is the policy of the United States to deploy a national missile defense." This law passed the House by 345-71 and the Senate by 97-3, and was signed by President Clinton in July 1999.

is supported by

Immoral to use nuclear weapons. "Would we really incinerate every Iraqi because of some action by Saddam Hussein? I'm not sure we would, and I'm not sure we should." Sen. Jon Kyle, quoted in *NY Times*.

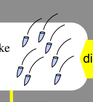
is disputed by

Is the midphase National Missile Defense system technically feasible?

Not feasible. The ***midphase*** National Missile Defense system is technically ***not*** feasible against the ICBMs that rogue nations can build.

supported by

Chemical or biological bomblets impossible to stop. Equipping attack missiles with multiple chemical or biological "bomblets" would make it impossible to stop any ICBM attack with a National Missile Defense system. Glanz, J. "Missile Defense Rides Again," *Science*, 284, 416-420.



is disputed by

Only anthrax is a major bomblet danger. Chemical bomblets have a very narrow range of danger. Most biological agents need great amounts of dosage to endanger great numbers of people. Only anthrax is a significant danger. It can be treated by ciprofloxacine, a broad spectrum antibiotic treatment, within 2 - 4 days and save approx. 90% of those exposed. Dean Wilkening, personal communication.

is supported by

Countermeasures easy and inexpensive. It is easy and inexpensive to build countermeasures that will confuse the National Missile Defense system's radar and infrared detection systems.

is disputed by

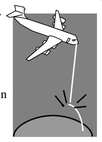
Techno-optimism. Tests will fail but if we keep at it our engineers will ultimately succeed in developing a reliable NMD.

is supported by

Computer software unreliable. Computer system software is not certifiably reliable. It could not be trusted to direct the defense system perfectly. Parnas, D. several papers. Neuman, P., *Computer Related Risks,* ACM, 1995.

supported by

Boost phase defense better. A better approach to National Missile Defense would be to develop a ***boost phase*** defensive system that would attack enemy weapons before they leave the atmosphere. Garwin, R., quoted in O'Hanlon, Michael, Star Wars Strikes Back, *Foreign Affairs*, Nov./Dec. 1999, 68-82.



is disputed by

Not as dangerous. Such biological and chemical weapons would not be as dangerous as a nuclear weapon. O'Hanlon, Michael, Star Wars Strikes Back, *Foreign Affairs*, Nov./Dec. 1999, 68-82.

is disputed by

Newest biological weapons more dangerous than nuclear. Chemical weapons may not be as dangerous as nuclear ones but the newest biological weapons are arguably much more dangerous.

is supported by

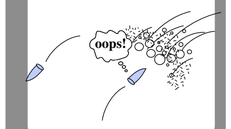
No way to plan and build against countermeasures. "An attack with as few as five missiles would present the defense with a cloud of many hundreds of objects: a few hundred radar reflecting decoy balloons made of aluminized Mylar; lightweight dummy RVs that simulate the radar and infrared signatures of real ones; balloons that contain either real or dummy RVs (re-entry vehicles); clouds of thin, metallic wires that reflect radar waves and obscure other objects; an aerosol that surrounds the entire group of objects in a cloud that emits infrared radiation; and finally, the reentry vehicles that carry the nuclear warheads." Tsipis, K. (nuclear physicist, ex-director, Program in Science and Technology for International Security, MIT,) *The Sciences*, Nov/Dec 2000, 18-23.

is disputed by

Difficult to build countermeasures. A country that cannot test many missiles will have difficultly building and deploying successful countermeasures. O'Hanlon, Michael, Star Wars Strikes Back, *Foreign Affairs,* Nov./Dec. 1999, 68-82.

is supported by

NMD field test failures. The field tests of the National Missile Defense system so far have failed. They have involved only one RV (re-entry vehicle) and one decoy.



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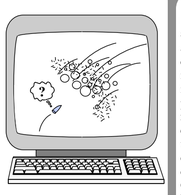
Simulation tests failures. "Investigators have also experimented with pattern-recognition schemes, applying information gleaned during tests of Russian ICBMs to attempt to distinguish real RVs from decoys. Such efforts have failed..." Tsipis, K. (nuclear physicist, ex-director, Program in Science and Technology for International Security, MIT,) *The Sciences,* Nov/Dec 2000, 18-23.



is supported by

No defense against nuclear explosions in space There are available technologies for countermeasures that include nuclear explosions in space that emit powerful bursts of radiation that destroy electronic systems upon which the NMD missiles depend to aim the defensive hit vehicles. Coyle, P.E III, Defense Department, director, operational test and evaluation, 1994-2000, quoted in *NY Times,* 1/16/01.

is disputed by

Rogue states don't care. The technical debate over countermeasures doesn't make much sense if we are building weapons to protect against rogue states, who aren't expected to act rationally or be deterred.

Are intercontinental ballistic missiles the most likely way the U.S. could be threatened by biological, chemical, or nuclear weapons?

Too costly for protection offered. The NMD is too costly for the amount of protection it provides. The NMD provides little or no protection from a determined or crazy leader of a rogue nation and would cost $60-100 billion dollars.

is supported by

Other delivery means possible. A determined rogue nation with the goal of attacking the U.S. could easily use other means to deliver BCN weapons.

supported by

NMD does not counter cruise missiles. The National Missile Defense system will not protect against cruise missiles or short-range ballistic missiles fired from a boat a few hundred miles offshore.

is supported by

Smuggling more likely delivery means. Smuggling chemical, biological, or even nuclear weapons into the U.S. is a far more likely method of threatening the U.S. with BCN weapons.

is disputed by

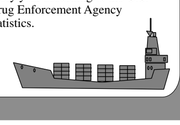
Missiles better than smuggling. Missiles can be delivered quickly and directly so would be preferred by an opponent to smuggling which is inherently risky.

is disputed by

Protect against all delivery means. Just because there are other means of delivery is no reason not to protect against one, especially a particularly dangerous one.

is supported by

Smuggling drugs is easy. Smuggling drugs into the U.S. is relatively easy. Hundreds of tons of marijuana and approx. ____ of cocaine are smuggled in every year according to the U.S. Drug Enforcement Agency statistics.



is supported by

Undetectable and untraceable. Smuggled weapons may very likely be undetectable and untraceable to their source nation and so retaliation would be precluded.

Will leaders of nuclear rogue states be deterred by the threat of a U.S. nuclear retaliatory strike?

Deterrence is effective enough. Deterrence by the certainty of an overwhelming and effective destructive reprisal by the U.S. if it is attacked will prevent rogue nations from attacking the U.S.

disputed by

Rogues not deterred. Leaders of rogue nations will not be deterred by the threat of a U.S. nuclear retaliatory strike. They are by definition not making rational decisions.

is disputed by

North Korea may be abandoning nuclear strategy. "North Korea...has displayed behavior of late that is far from irrational: it is abandoning piecemeal its nuclear and ballistic-missile development programs in exchange for financial and technical aid from the United States, Japan and even South Korea." Tsipis, K. (nuclear physicist, ex-director, Program in Science and Technology for International Security, MIT,) *The Sciences*, Nov/Dec 2000, 18-23.

disputed by

Saddam was deterred. "During the Persian Gulf War of 1990 and 1991, Saddam Hussein of Iraq was certainly deterred from deploying chemical weapons on the ballistic missiles that Iraq fired into Israel. President Bush had threatened a retaliatory nuclear attack against Iraq and his warning was heeded." Tsipis, K., *The Sciences*, Nov/Dec 2000, 18-23.

Are there better ways to protect the U.S. from biological, chemical, and nuclear (BCN) missile attacks by rogue nations?

NMD will decrease overall security. National Missile Defense will decrease U.S. security overall in the nuclear world in the near future and is thus strategically dangerous.

is supported by

Non-proliferation treaties give better security. A better way to achieve the objective of protecting the U.S. from BCN attacks is to continue to work on non-proliferation treaties and regimes.

is supported by

Increase danger of miscalculation and error. Increases in Russian and Chinese nuclear forces would increase the dangers of miscalculation, error, and preemptive first strikes in extreme crisis situations.

is supported by

Russia will stop nuclear arms reductions. If the U.S. begins to build an NMD system, Russia will stop its missile reductions and resume testing nuclear weapons spurred on by its paranoia and its economic and strategic inferiority.

is supported by

Dangerously speed up nuclear arms race dynamics. In the absence of firm data about the efficacy of the U.S. NMD system, the Russians and Chinese would have to build up their nuclear missile force on the basis of worst-case assumptions. This would mean that they would have to deploy many more nuclear missiles than necessary in order to be sure to overwhelm the U.S. defense. The U.S. would respond by building more nuclear weapons so as to have a credible deterrence. This would create a new nuclear arms race destroying the arms control and arms reduction progress already made in the past 30 years.

supported by

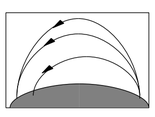
Dangerous India-Pakistan arms race. If China builds more nuclear weapons, India will respond by building more. Then Pakistan will respond by building more. This will produce a very dangerous arms race, especially since the command and control systems of India and Pakistan are weak.

supported by

Fear U.S. nuclear blackmail. China has expressed fear that the NMD would enable the U.S. to make threats against other countries of using overwhelming military force including nuclear weapons without fearing retaliation on its own homeland.

supported by

China's minimal deterrence threatened. China currently has 18 single warhead land-based liquid-fueled CSS-4 missiles kept on low alert with warheads stored separately from the missiles. It also has 12 missiles on a submarine. "American intelligence officials project that the Chinese will have 'several tens' of new and old missiles that can reach the United States by 2014." *NY Times,* May 28, 2000.



is disputed by

Fissile materials treaty. The Fissile Materials treaty is regarded as a major requirement to stop or slow proliferation of nuclear weapons. China is refusing to go ahead with the treaty negotiations on banning the production of fissile materials, if the U.S. deploys missile defense.

is disputed by

ABM treaty irrelevant. The Anti-Ballistic Missile (ABM) Treaty is now irrelevant because one of the original signatories of the ABM Treaty, The Soviet Union, no longer exists.

is disputed by

Russia is bound by ABM. Russia is still bound by other treaties, obligations and debts of the former Soviet Union and considers itself a party to the ABM Treaty.

supported by

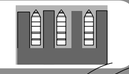
War with China over Taiwan most dangerous threat. Most experts agree that a nuclear confrontation with China is the most dangerous and immediate threat the U.S. faces.

supported by

NMD increases danger of war. If the US. is protected, pro-independence forces in Taiwan might be encouraged to declare independence that would force Beijing to war over Taiwan. Xan Xuetong, Director of Institute of International Affairs, Quinghua Univ., quoted in *NY Times*, 1/28/01.

supported by

Danger of China increasing nuclear missiles. If the U.S. begins to build a NMD system, China will expand its ballistic missile attack force rapidly.



is supported by

China supply countermeasures. A major threat is that China might supply missiles or countermeasures to rogue nations that the NMD is designed to protect against. Mulvenon, J. Rand Corp. China expert, quoted in *NY Times*, 1/21/01

is supported by

China might deploy multiple warhead missiles It is possible that China would deploy multiple warheads on its land-based missiles, which would make them a greater target for an attack. This would increase the danger of China moving to a launch-on-warning policy. *NY Times*, 1/28/01.

is disputed by

China can be reassured. The U.S. can reassure the Chinese diplomatically by offering to ensure that the Chinese deterrent can get through any NMD that the U.S. deploys.

supported by

Increase China danger. China has indicated that it strongly objects to a U.S. NMD and could take multiple actions, all of which would increase danger of nuclear war.

supported by

Threatens prevention of terrorists getting nukes program. Building a NMD could also threaten the U.S. Nunn-Lugar program that pays for and helps Russia keep its nuclear weapons secure from being sold to terrorists.

is disputed by

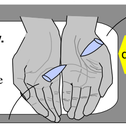
Convince Russia they've nothing to fear. Russia could easily overwhelm the contemplated 100 National Missile Defense weapons by keeping its 1000 attack missiles on full alert. And the U.S. could convince Russia of this and hence that they have nothing to fear.

is disputed by

Great threat now from deteriorating Russian satellites. The Russian early warning system is only partially working now, which increases the threat of an accidental attack based on erroneous data from faulty Russian satellites.

is disputed by

Share NMD technology. The U.S. could share its NMD technology with Russia and hence they have nothing to fear.

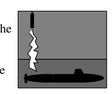


is disputed by

Sharing would never happen. Neither the U.S. Congress nor the Pentagon would seriously consider sharing NMD technology with Russia.

is supported by

Accident almost happened recently. In 1995, a scientific weather missile launched in the North Sea was misinterpreted by Russia as a nuclear missile attack from an American submarine, resulting in a preparation to retaliate thus starting a nuclear war, by mistake.



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Miscalculation and error are greatest threats. Reducing nuclear armaments and reducing the threat of miscalculation should be our preferred way of reducing the threat of nuclear weapons. The danger of error and miscalculation in Russia's huge and shakily managed nuclear weapons system is much greater than that of a single weapon or two from a rogue nation.

Ways U.S. could reassure Russia that the NMD was not directed against it

- The U.S. could limit the size of its NMD deployment and reduce its nuclear armaments unilaterally to the force ceilings set by START II Treaty and propose lower levels for START III (to approx. 1000 missiles).
- The U.S. could also openly reduce the alert level of many or all of its nuclear forces which would alleviate concerns about a surprise attack.
- The U.S. could help fund Russian early warning satellites (which are not in severe disrepair) and which Russia cannot presently afford to replace due to its sagging economy.
- The U.S. could also postpone indefinitely Baltic and Ukrainian membership in NATO to reduce Russia's strategic concerns about NATO.
- The U.S. could also support Russian economic expansion if it is able to come up with a workable economic reform effort.

Would a U.S. President have sufficient confidence in an NMD system to expect it to protect the U.S. in case of a confrontation with a nuclear-armed rogue nation?

NMD must work perfectly the first time. The NMD system must work successfully at the first attack by a rogue nation that is using unpredictable countermeasure tactics.

is supported by

Scenario. (1) A nuclear-armed rogue nation attacks or threatens to attack on one of its weaker nations (e.g. Iraq attacking Kuwait).

(2) The international community wants to prevent this attack and would prefer to intervene only using conventional weapons.
(3) The rogue nation threatens to use nuclear weapons against the U.S. even if it intervenes with conventional weapons.

supported by

Can't assume it would work. The President of the U.S. would have to assume that at least one large U.S. city would be destroyed in a nuclear attack -- even with the NMD system in place.

supported by

Too complex to be tested adequately. The NMD system is so complex that it can never be tested or practiced under realistic conditions before being used.

supported by

Can't assume it would be technically feasible. It is unrealistic to assume that the NMD system will be 100 percent effective in first use. See section on this map: Is the midphase National Missile Defense system technically feasible?

supported by

Need guarantee it would work reliably. The President of the U.S. would need some guarantee that it would work if he or she was counting on it in a situation where the U.S. was being threatened.

supported by

U.S. would not accept nuclear casualties. The U.S. electorate does not accept losses of military personnel in combat. It would not accept the threat of the loss of millions of civilians.

Conclusion. The NMD would not be reliable enough to protect the US. against such a nuclear threat. The U.S. would be deterred by uncertainty as to whether the NMD would work well enough to protect its cities.

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