Comments on the Draft Environmental Impact Statement (EIS) on National Missile Defense Deployment

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The Institute for Energy and Environmental Research is submitting these comments on the Draft NMD EIS in order to ensure that all relevant and significant environmental considerations are taken into account in the EIS process. Discussion of alternatives to NMD deployment here is intended to further that goal. It does not imply endorsement of or opposition to any particular approach to reducing the risks arising from weapons of mass destruction.

Overall recommendations regarding process

The Draft EIS is fundamentally incomplete in a number of ways, including a lack of context for assessing the environmental consequences of a decision to deploy National Missile Defenses (NMD). The best way to address this problem is to shelve the Draft EIS until a Programmatic EIS (PEIS) is prepared. This PEIS should consider the range of programmatic alternatives to the overall question of how to protect the United States from the harm that could be caused by use of one of more weapons of mass destruction (WMD). The 1994 PEIS on Ballistic Missile Defense does not address this fundamental question. [1] A decision whether to deploy NMD should be made only in the context of the various means of risk reduction and the interaction between the risks of WMD use if the United States makes a decision to deploy NMD.

If a PEIS is not done, then the comments made here should, at a minimum be incorporated into this EIS process. Since this Draft EIS is so fundamentally incomplete, it would be preferable to discard it and begin over. This new draft should include alternatives to NMD EIS as well as environmental and health risks that have not been considered in the current Draft EIS. Since several crucial alternatives and many important risks have not been discussed, the present Draft EIS cannot be modified to produce a Final EIS and ROD in which the public had a reasonable chance of reviewing the relevant alternatives, risks, and impacts.

Detailed Comments and Recommendations

1. The Draft NMD EIS is premature

This Draft EIS is pre-mature because it must first be preceded by a PEIS on WMD risks and various approaches to addressing them. The Draft EIS on NMD deployment cannot properly address the environmental impacts outside of that framework. Even a small increase in the probability of an attack using weapons of mass destruction by non-missile means of delivery resulting from NMD deployment could cause a huge increase in the estimate of potential damage and hence risk to the United States. Therefore, an NMD EIS cannot properly assess the environmental consequences of a decision to deploy NMD outside that context. A PEIS on ways to address risks from weapons of mass destruction is therefore needed. (We call this WMD PEIS for short in these comments.) The WMD PEIS would address the relative impact of and interactions between various ways of addressing WMD risks.

Many different increases in risk of devastation by weapons of mass destruction need to be analyzed before the specific issues in the Draft EIS become relevant. For instance, the deployment of NMD may make it more likely that a potential aggressor might use a ship or truck for an attack. The National Intelligence Council considers this type of attack to be less difficult than one using missiles:

> "Although non-missile means of delivering WMD do not provide the same prestige or degree of deterrence and coercive diplomacy associated with an ICBM, such options are of significant concern. Countries or non-state actors could pursue non-missile delivery options, most of which:
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> - Are less expensive than developing and producing ICBMs.
> - Can be covertly developed and employed; the source of the weapon could be masked in an attempt to evade retaliation.
> - Probably would be more reliable than ICBMs that have not completed rigorous testing and validation programs.
> - Probably would be more accurate than emerging ICBMs over the next 15 years.
> - Probably would be more effective for disseminating biological warfare agent than a ballistic missile.
> - Would avoid missile defenses.
>
> The requirements for missile delivery of WMD impose additional, stringent design requirements on the already difficult technical problem of designing such weapons. For example, initial indigenous nuclear weapon designs are likely to be too large and heavy for a modest-sized ballistic missile but still suitable for delivery by ship, truck, or even airplane. Furthermore, a country (or non-state actor) is likely to have only a few nuclear weapons, at least during the next 15 years. Reliability of delivery would be a critical factor; covert delivery methods could offer reliability advantages over a missile. Not only would a country want the warhead to reach its target, it would want to avoid an accident with a WMD warhead at the missile-launch area. On the other hand, a ship sailing into a port could provide secure delivery to limited locations, and a nuclear detonation, either in the ship or on the dock, could achieve the intended purpose. An airplane, either manned or unmanned, could also deliver a nuclear weapon before any local inspection, and perhaps before landing. Finally, a nuclear weapon might also be smuggled across a border or brought ashore covertly. [2]"

Since deployment of a NMD, should it be workable or considered to be workable, would make alternative non-missile means of delivery more attractive to a potential aggressor, it is necessary to consider the

interaction between the various threats and hence the range of risks to the environment posed by NMD deployment. Moreover, the 1994 PEIS is clearly insufficient, given the rapid evolution of the international situation since that time in respect to several countries of interest. A WMD PEIS is needed in order to realistically assess the risks and benefits of a decision to deploy NMD within the next several months or years.

The National Intelligence Council's assessment that pursuit of ballistic missiles in preference to non-missile means of delivery may be influenced by considerations like "prestige" and "coercive diplomacy" rather than actual effectiveness and reliability of delivery of a weapon should be a central factor in the analysis of NMD deployment. NMD deployment may cause a shift of resources to non-missile means of delivery, which would make a potential aggressor's delivery systems more likely to succeed, at least in the next 15 years. Hence, the likelihood of an attack as well as the probability of its technical success in actually delivering a nuclear weapon may be significantly increased by a decision to deploy a NMD system. The environmental impacts corresponding to this differential risk must be evaluated.

As a second example, there are sufficient grounds to believe that a NMD is may create a new arms race with China and/or Russia (see Section 5 below on US strategic posture and the NMD). Such a response from China and/or Russia may in turn trigger a counter response from the United States. Therefore, a static assessment of a NMD deployment of the type carried out in the Draft EIS is clearly insufficient to characterize the environmental risks both from added production and deployment as well as from increased risk of possible use arising from increasing tensions. A WMD PEIS that evaluates the net changes in vulnerability of the US public to harm as a result of a decision to deploy NMD is needed. Specifically, the risks to the United States posed by increasing Russian-Chinese military cooperation precipitated by a decision to deploy NMD should be analyzed.

Three categories of potential harm need to be examined in a WMD PEIS:

- the environmental impacts on the United States arising from the production and testing aspects of a renewed arms race with Russia and/or China that may be triggered by a NMD deployment;
- the net change in risk of a nuclear war by accident or miscalculation arising from responses to a US NMD deployment (including possible cancellation of arms reduction programs and other US-Russian and US-Chinese cooperation and possible increases in Russian-Chinese cooperation);
- the net change in threats between different categories of weapons of mass destruction and different means of their delivery as a result of a decision to deploy NMD.

Recommendation:

The Draft EIS should be shelved as premature until a thorough WMD PEIS is completed. Such a PEIS should assess the various threats of weapons of mass destruction faced by the United States and the potential various alternative preventive, defensive, and risk reduction responses that are possible. A WMD PEIS should also consider the effect of one type of action on other risks. In view of the interaction between threats, risks, and the measures of defense that might be taken, EIS's in specific areas should be undertaken only when a WMD PEIS is complete and a Record of Decision on the WMD PEIS has been published. If a WMD PEIS is not done, a new Draft EIS that includes the various critical environmental risks discussed above (and below) should be prepared for public comment.

2. The Draft EIS does not consider the plausible alternatives to NMD deployment

The Draft EIS considers only NMD deployment and a "no action" alternative. This does not represent the full range of alternatives of dealing with WMD threats from states or non-state parties that now have few (if any) such weapons and are the main announced reasons for NMD deployment. The NATO-Yugoslavia conflict of 1999 showed that it is possible to destroy a large range of targets with non-nuclear precision-guided munitions. This Draft EIS has not considered whether this alternative would be more or less harmful than NMD deployment. Of course, this alternative would carry its own risks, such as those arising from dispersal of nuclear, biological, or chemical agents, if attempts were made to destroy manufacturing facilities or the weapons themselves (as distinct from the delivery systems).

Another alternative to NMD deployment is the intensification of preventive diplomacy through implementation of existing treaties, notably the Nuclear Non-Proliferation Treaty. Article VI of the NPT, as interpreted by the World Court, requires the nuclear weapons states to negotiate and carry out complete nuclear disarmament in all its aspects. Some of those aspects would be:

- extensive and intensive verification, including internationally mandated inspections of sites suspected of manufacturing weapons of mass destruction or their delivery systems;
- actions to destroy WMD, including systems for their delivery, such as those undertaken during the 1991-98 United Nations inspections of Iraq.

Global cooperation on a process of complete nuclear disarmament would make cheating and evasion much more difficult, reducing risks of attack and the consequences should one be carried out. It would deepen international cooperation to detect cheating and to find and destroy WMD systems made or deployed in violation of international agreements. For instance, implementation of complete nuclear disarmament, required by Article VI of the NPT, could be completed within a 15-year period. While there are also other possible routes to nuclear disarmament, a 15-year disarmament scenario would be a useful frame-of-reference for analyzing plausible alternatives to NMD deployment, given the National Intelligence Council's analysis of missile and non-missile threats quoted above. A disarmament approach would allow more intensive and thorough use of multilateral means of prevention and of destruction of clandestine WMD stocks (as was demonstrated during the 1991-98 UN inspections of Iraq).

Moreover, given the likely adverse reaction of Russia and/or China and possibly other powers, a US decision to deploy NMD is likely to result in making nuclear disarmament impossible for the foreseeable future. Hence, the nuclear disarmament alternative and the NMD deployment alternative may be mutually exclusive and must both be considered in any reasonable environmental evaluation of risk.

A third alternative to NMD deployment would be to strengthen safeguards in the absence of a specific path to nuclear disarmament. For instance, this could involve safeguards agreements and procedures outside of the framework of the NPT but inside that of the UN Security Council. The United Nations inspections and destruction WMD stocks in Iraq during 1991-98 and the US agreement with North Korea illustrate this alternative. The relative efficiency and environmental impact of this approach to safeguards compared to a disarmament approach should be assessed.

Recommendation:

At least three alternatives to an effectiveness of NMD deployment in protecting the health of the US public and the environment should be assessed in the EIS and compared for their overall environmental impact with NMD deployment and the no-action alternative. They are:

- unilateral or multilateral use of non-nuclear precision guided munitions for destruction of delivery systems of weapons of mass destruction and/or the weapons themselves);
- preventive measures, notably implementation of universal disarmament for weapons of mass destruction, accompanied by a regime of inspections and multilateral actions for destruction of stocks of WMD and their delivery systems.
- strengthened safeguards, inspection and destruction of clandestine WMD stocks outside of the context of nuclear disarmament.

3. The Draft EIS does not consider the potential Impact of NMD deployment on the US-North Korean agreement

The US-North Korean agreement currently being implemented puts restraints on North Korean missile development and prohibits North Korean nuclear weapons development. It provides for on-site inspections. This agreement has the support of other regional powers, including China. The impact of NMD deployment on the North Korean agreement should be assessed in the EIS. Specifically, the assessment should include the increase in risk from further indigenous North Korean missile development and from possible Chinese assistance to North Korea due to breakdown of US-Chinese cooperation.

Recommendation:

- The EIS should fully evaluate the potential increase in risk from North Korean missiles resulting from NMD deployment and the potential effect of that increase on the size and scope of the NMD system.

4. The Draft EIS does not consider the environmental impact of NMD deployment relative to political-legal timing of the decision

The environmental impact and risks of a US decision to deploy NMD are likely to depend greatly on the timing of that decision. The various timing possibilities in relation to US treaty obligations are:

- Before or after agreement with Russia on changes to the Anti-Ballistic Missile (ABM) Treaty
- Before or after agreement with European NATO allies about NMD deployment.
- Before or after implementation of the nuclear disarmament clause of the NPT which requires complete nuclear disarmament.

The most severe increases in the risk of nuclear war, as well as impacts of a new arms race, are likely to be incurred if there is a deployment prior to agreement with Russia regarding the modification of the ABM Treaty. These increases in risk would not only come from Russian or Chinese responses, but could also involve a range of European actions. For instance, it is possible that Germany might decide to acquire nuclear weapons capability due to the lower relative security for Europe implied by an NMD protection for the US only. This possibility is implied in a recent statement by German Foreign Minister

Joschka Fischer. According to the Washington Post:

> "'There is no doubt that this [NMD deployment by the United States] would lead to split security standards within the NATO alliance,' said German Foreign Minster Joschka Fischer during a trip to Washington this week. 'I see lots of problems developing in this respect, which we must discuss calmly and reasonably with our American friends.'
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> "Fischer said that Germany's commitment to be nonnuclear 'was always based on our trust that the United States would protect our interests, that the United States, as the leading nuclear power, would guarantee some sort of order.' A drive by the United States to build its own defense, he said, would erode that confidence by effectively putting European cities at greater risk of nuclear missile attack than those in America." [3]

The EIS must evaluate two different possible environmental impacts of a US decision to deploy NMD as regards a European response:

- impacts of an expanded deployment that would meet European concerns of the type expressed by Mr. Fischer, including the possible Russian and Chinese responses to such an expanded deployment;
- impacts of actions, such as repatriation of US nuclear bombs now based in Europe and development of nuclear weapons capability by Germany, in case a US decision to deploy is made without satisfying the concerns of all its major NATO allies.

Recommendation:

- The alternatives examined the EIS should include alternative timing scenarios for a decision to deploy NMD. The EIS should then examine the risks and environmental impacts that might arise from each one of these alternative timings.

5. The Draft EIS does not consider the impact of NMD deployment on US Strategic Posture

The United States strategic posture includes the option of using nuclear weapons first. The current US strategic arsenal as presently configured is capable of a counterforce attack. Much of it can be launched within a few minutes of the order to do so. A first-strike counterforce attack would have a greater possibility of success, and would be viewed as having a greater possibility of success, if the attacker possessed an NMD system to destroy the rest of the adversary's missiles after launch. Since the effectiveness of NMD systems increases as the number of an adversary's nuclear missiles and warheads decreases, potential adversaries are likely to consider NMD deployment as an offensive weapon so long as there is not complete and verified nuclear disarmament or at least complete and verified removal of all warheads from their delivery systems.

The risks of an arms race in the context of NMD deployment depends on the strategic posture of the United States and the verifiability of that posture by other nuclear weapons states. For instance, if all

nuclear weapons were de-alerted by removing the warheads from their delivery systems and storing them under multilateral monitoring, the risks of deployment would be different than those technically inherent in a first strike or launch on warning posture.

Recommendation:

- The EIS should evaluate the risks of a decision to deploy NMD in the context of a first strike or launch-on-warning posture compared to a state of complete nuclear disarmament or a posture in which complete verified multilateral de-alerting has been carried out by removing all warheads from their delivery systems.

6. The Draft EIS does not consider the timing of the NMD deployment decision in relation to technical maturity of the system

The NMD system is currently under development. For instance, actual tests of the booster and kill vehicle together are not due to take place until about 2003. The Draft EIS acknowledges that technical maturity will be a factor in decision-making. But it does not take into account the fact that a decision to deploy prematurely could have far different environmental impacts than a decision to deploy a system that has been thoroughly tested. In the former case, there may be increased risks from:

- larger environmental impacts from testing and production and possibly deployment activities, since manufactured or deployed devices may have to be discarded or modified;
- potentially larger risks of attack by both missile and non-missile means;
- all the arms race penalties and other political and military risks discussed above without the anticipated benefits claimed for the NMD.

Recommendation:

- Given the problems in development recently cited by the Pentagon's independent panel [4] as well as by many other analysts, [5] the large differential environmental and risk impact of the timing of a decision to deploy in relation to various degrees of technical maturity of the program should be carefully analyzed in the Draft EIS.

Notes:

1. *Ballistic Missile Defense Final Programmatic Environmental Impact Statement*, Ballistic Missile Defense Organization, October 1994. This PEIS considered only various approaches to BMD and did not consider the environmental impact of the various BMD and non-BMD approaches to addressing risks of WMD. Nor did it consider possible deployment of BMD and increase of risks from non-missile modes of delivery of WMD. ? Return
2. National Intelligence Council, *Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015*, September 1999. ? Return
3. William Drozdiak, "Possible U.S. Missile Shield Alarms Europe," *Washington Post*, Nov. 6, 1999, pp. A1 and A22. ? Return
4. Bradley Graham , "Panel Faults Antimissile Program on Many Fronts: 'High-Risk' of Failure

Remains, Experts Report," *Washington Post*, November 14, 1999 , p. A1. ? Return

5. See for instance David Wright, *Testimony on the Technical Readiness of National Missile Defenses, Before the US Senate Committee on Foreign Relations*, Washington, DC, May 4, 1999. For text see http://www.fas.org/spp/starwars/congress/1999_h/s106-339-3.htm. ? Return