

British Pugwash Group

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Mr Simon Webb
Policy Director
Ministry of Defence
Metropole Building
Whitehall
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21st January 2003

Dear Policy Director,

Missile Defence

This document is a response by members of the British Pugwash Group to the invitation made in the MoD Discussion Paper on Missile Defence dated December 2002 to send in views and opinions on this issue. The British Pugwash Group is the coordinating body for the UK participation in the international *Pugwash Conferences on Science and World Affairs*. The Pugwash movement largely consists of scientists and academics with very substantial international contacts, at both professional and personal level, and who are therefore closely in touch with the thinking and expertise of scientists and technical professionals around the world. Against this background, a number of us in the British Pugwash Group, having read and discussed your paper, wish to make the following comments.

The overall position of Pugwash on weapons of mass destruction

From the very beginning the Pugwash movement has been committed to working towards the objective of a world which is free from nuclear weapons and other (chemical and biological) weapons of mass destruction. This objective is at variance with the current policy of the Bush administration, which appears to have adopted a strategy which is based on the indefinite existence *and use* of nuclear weapons. We

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are resolutely opposed to such a policy. In our view there is a serious risk that the pursuit of a high-technology missile defence programme, however motivated, may have the effect of helping to perpetuate the existence of nuclear weapons. However the UK government's official policy is the elimination of nuclear weapons, and it is possible that within the context of a programme of nuclear disarmament it could be shown convincingly that a missile defence programme would help towards establishing a robust safeguards system in a nuclear-weapon- free world. The MoD Discussion Paper does not seek to make that case: however it is with this possibility in mind that we are submitting these comments.

The strengths of the Discussion Paper.

We are pleased to see that the Discussion Paper has a number of positive features. In particular we note that it provides UK government endorsement to the following propositions:

- Russia and China are currently seen as participating in a dialogue on establishing a strategic partnership aimed at mutual security and non-proliferation, and are no longer seen as the threats that they were during the Cold War years.
- A comprehensive space-based shield against massed ballistic attack is out of technological reach on any meaningful timescale
- A more modest system may be technically feasible, though it will take a considerable programme of R&D to demonstrate that this is so, and to establish its cost.
- Such a system would only be in the interests of the UK if it were orientated to provide protection to the UK and its NATO allies (and indeed to other countries that regard themselves as threatened and wish to take part), not just the US
- The UK Government is "strongly committed to multilateral non-proliferation and arms control agreements".
- The radar facility at RAF Fylingdales, which is under UK operational command, could in principle be made available to assist in an international programme, but the terms on which it would be made available would require careful negotiation, to ensure that its involvement was in the UK national interest.

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Omissions and Shortcomings of the Discussion Paper

1. The absence of a functional specification for the system under consideration

Many of the shortcomings in the paper can be traced back to one primary omission - the absence of any precise statement of the functional specification of the missile defence system which the British government (or indeed the US government) has in mind, apart from the indication (noted above) that it is not envisaged to be a 'Star Wars' type comprehensive defence against massed ballistic attack. However there are many possibilities short of the Star Wars extreme. It may be useful here to identify three possible functional specifications, each of which has quite different implications for international security. We might distinguish:

1. A 'regional' missile defence system to provide protection against missiles with a range of up to (say) 200km.
2. A 'rogue state' missile defence providing defence against a state possessing (say) twenty ICBMs with WMD warheads
3. An 'intermediate' defence system, capable of countering the threat to a super-power from the entire inventory of a 'minor' nuclear weapon state such as Israel, the UK or France.

These three systems differ enormously in their technical feasibility, probable cost, and political and strategic acceptability. Much of the language of the paper suggests that the UK government has the 'rogue state' system in mind. However the paper does not address the difficult question of how one could prevent such a system from evolving into an 'intermediate' system, with totally different (and in our view much less acceptable) political implications. Even the 'rogue state' system would have serious objections if it did not provide defensive cover to all the NPT-subscribing countries which feel threatened.

We would also like to draw attention to the fact that any missile defence system has a finite probability of failure, due to equipment malfunction or the development of unforeseen counter-measures, so it can at best assist in the management of probability of catastrophe. At this stage in the R&D programme, it is difficult to assess the probability of failure, and we recommend that the UK should limit its financial commitment to intercept technology until this issue has been resolved.

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2. Resources

Perhaps partly because the paper does not specify the system envisaged, it provides no estimates, even in order of magnitude, of the cost of the system. This is very regrettable, since it makes it difficult for the public to assess how the added security obtained from such a missile defence system might be balanced against the added security which could be obtained by spending the same money in other ways. If, for example, it were to turn out that the cost of a 'rogue state' system was comparable with that of the current UK nuclear weapons programme, the UK might be faced with a choice between this system and a replacement of the Trident weapon system, when that becomes due (for a British Pugwash Group view on the replacement of Trident see ref 1). Other possible uses of such resources, which might be even more effective in strategic risk reduction, include an increase in the resources made available for the verification of disarmament, and a major expansion in aid-funded education and other welfare programmes in the rogue states. In this context, it should be pointed out that at least part of the motivation for some rogue states to develop and perhaps eventually use missile systems is their perception that the West is steeped in 'religious' prejudice, and has an unfair share of the world's resources, and that the USA is seen as a militaristic and arrogant nation, intent only on furthering its own interests, and partisan in support of Israel.

3 Strategic implications

The objective of defence policy must be to maximize the security of the UK population, and it is increasingly recognised that this involves creating and sustaining a stable world order. In our view, the introduction of an 'intermediate' missile defence system, or a system which preferentially protected certain favoured nations would be highly counter-productive to the creation of a stable world order. Even a 'rogue state' system is liable to evolve in the unfavourable direction, since it is difficult to define a threshold beyond which R&D will be curtailed. Missile defences will almost inevitably become increasingly sophisticated, as will the missiles for evading these defences. Missile defence will tend to create a 'missile defence race', which will lead inexorably to the militarization of space, as indeed is openly envisaged by some in the US. We are clear that this would be a highly negative development, leading to a vast misuse of international resources, and greatly decreasing security.

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4 Tactical considerations

Even if the case for establishing some limited Missile Defence system could be made, there are a number of tactical issues which are important to the UK but which are not adequately addressed in the Discussion Paper. These include:

- (a) The timescale on which the UK would be included in the area protected. The Paper seems to imply a willingness to make Fylingdales available to the joint programme almost immediately (with increased short-term risks to the UK) in the hope of obtaining an extension of the defensive cover to include the UK at some later stage. We are not necessarily opposed to this in principle, but we are concerned that the Discussion Paper does not indicate the UK negotiating position – eg on ownership and distribution of the data, or on the timescale on which the UK would be included within the area protected. We are also concerned that the Paper seems to imply that the only means of blinding Fylingdales would be a long-range missile attack. In our view a terrorist attack (eg using bazookas or civil aircraft) would be equally plausible.
- (b) The Paper does not discuss the diplomatic steps which would need to be taken to reassure existing (or potential future) signatories to the Non-Proliferation Treaty that the system would increase rather than diminish their security, and would be a useful step towards further measures of arms control. One such signatory is the UK itself.
- (c) The Paper does not discuss the arrangements which might be put in place to manage an international missile defence programme, which would ensure that all the parties were adequately involved in decision-taking, and would reduce the risk that the UK was singled out for hostile responses.

Conclusions

As stated at the outset, we are opposed to any missile defence programme, whether by the USA or others, that would perpetuate the existence of nuclear weapons worldwide. However, on the assumption that a nuclear missile defence system might become an integral part of the safeguards system for a nuclear-weapon-free world, we urge the UK Government:

- To take a prompt decision on the functional specification of the missile defence system that it has in mind, and to prepare indicative cost estimates for that system, and for the fraction of that cost which the UK might be prepared to bear.

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- It should then weigh carefully the alternative uses to which those resources might be put, and present to the public the arguments which justify devoting them to missile defence.
- To promote an extensive public debate on the technical feasibility of the proposed system, and on the case for selecting it in preference to alternative uses of the resources.

If the UK decides to invest in a MD capability, and/or agrees to the incorporation of the existing UK/US early warning system in Britain into such a capability, it should do so in ways such that the MD system is truly and transparently part of a general international security programme, and is an integral part of the international arms control and disarmament regime. It should consider carefully how the international programme should be managed:

- Decision-taking should be distributed among the partners, and as transparent as possible, consistent with concealing data and systems details from rogue players.
- This probably means that internationalization should start through NATO, though hopefully with early Russian and Chinese involvement.
- The longer-term objective should be to ensure that the specified level of protection would be made available to all states which participate in the NPT regime and feel threatened.

We believe that the UK has scope to achieve worthwhile influence and principled leadership in this issue.

Professor Robert Hinde, FRS

On behalf of the Executive Committee of the British Pugwash Group

¹ T.Milne, H.Beach, J.L.Finney, R.S.Pease & J.Rotblat, *An End to British Nuclear Weapons* (British Pugwash Group, 2002), and see also: C.R.Hill, R.S.Pease, R.E.Peirls & J.Rotblat, *Does Britain Need Nuclear Weapons?* (British Pugwash Group, 1995).

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