



JUNE 2003

# CND BRIEFING

## Missile Defence

### Introduction

In February 2003, the UK announced that it would allow the US to use RAF Fylingdales in Yorkshire as part of a proposed US missile defence system. Other military installations in the UK will almost certainly play a part in the system.

Missile defence poses a serious threat both to British security and international stability. Missile defence is a key component of President Bush's aggressive military posture. It is triggering a new nuclear arms race and it makes the UK a target.

CND believes that the Government should have no involvement in missile defence.

### What is Missile Defence?

Missile defence (often referred to as Star Wars) is a military project that aims to intercept and destroy missiles by shooting them down before they hit their target. The system being developed by the US aims to intercept missiles targeted at the US mainland, and in later stages of development, possibly their allies too.

President Bush's current plans involve land, sea, air, and space-based sensors, radars and missile systems, designed to detect, track and destroy hostile missiles.

### How would it work?

Missile launches would be detected by US early warning satellites using infra-red sensors. The initial trajectory of the missile would be tracked from space and the information relayed to a missile defence command centre in the United States.

Information concerning missile launches from the Middle East, Eastern Europe and elsewhere would be relayed via RAF Menwith Hill in Yorkshire.

A network of ground based early warning radars would track the missile in the middle and late stages of its flight and feed information back to the Command Center. The radars are located in Massachusetts, California, Alaska, Greenland and RAF Fylingdales in Yorkshire.

A point of interception would be calculated and interceptor rockets launched. Once close to the incoming missile, the interceptor rockets would launch 'kill vehicles' to seek the incoming missile and destroy it. Although there are no current plans, interceptor rockets may be based in the UK in future. Other interception techniques being considered and developed include lasers on adapted Boeing 747s and space based lasers on satellites.

For interactive guides to missile defence, visit:  
<http://www.guardian.co.uk/bush/flash/0,7365,434805,00.html>, or  
<http://www.acq.osd.mil/bmdo/bmdolink/html/bmdolink.html>

### Initial US plans

In December 2002, the US announced initial plans for a limited missile defence system including:

- Early warning detection satellites and radar to detect missiles shortly after launch and to track their trajectories (one of these radars will be at RAF Fylingdales in North Yorkshire).
- A command centre, which would have advanced radars theoretically capable of distinguishing between a warhead and a decoy. This information would then be relayed to interceptor sites.
- Interceptor sites with the capability to launch interceptor missiles, could attack the incoming missiles while they are outside the world's atmosphere. These interceptors would carry a number of small 'kill vehicles' that would be fired from the tip of the interceptor missiles and should theoretically make a direct hit on the incoming missile.

The Pentagon plans initially to install up to 20 ground-based interceptor missiles at Fort Greely, Alaska and Vandenberg Air Force Base, California by 2004-05. These are intended to intercept any potential missile attack from the Asia-Pacific region, for example North Korea.

Up to 20 sea-based interceptors will also be deployed on board Aegis destroyers, along with possible airborne and space based laser weapons

and a network of sensors, satellites, ground-based radars, and communications systems of which Fylingdales and Menwith Hill in Britain are part.

Research and development for a more extensive Star Wars system is underway. British arms companies are participating in US research programmes via a US-UK Government agreement dating back to 1985.

### **Technical challenges**

The task of tracking, intercepting and destroying missiles is scientifically and technologically challenging and is extremely costly. The US is spending approximately \$8-9 billion per annum on developing and building the system as a central plank of its military power.

It requires high precision, often likened to the capability to 'hit a bullet with a bullet'. To date, 14 out of 17 US interceptor tests have failed.

### **Background**

Technical setbacks in the early days  
Early attempts to develop missile defence systems during the Cold War by the US and Soviet Union were confronted with technical difficulties.

In the 1960s the Soviets developed the Galosh anti-ballistic missile system around Moscow. Galosh was intended to use nuclear-armed interceptors to shoot down incoming missiles.

The US also started work on a number of anti-ballistic missile programmes and in the early 1970s deployed the Safeguard anti-ballistic missile system in North Dakota to defend its nuclear forces. Safeguard was abandoned in 1976 due to high costs and limited capability.

In 1972 the US and the Soviet Union signed the Anti-Ballistic Missile Treaty, in response to concerns that ABM systems were having a destabilising effect by encouraging development of the nuclear arms race between East and West. The ABM treaty limited the two countries to possession of two anti-ballistic missile installations each and forbade the development of a nation-wide missile defence system.

### **Reagan and the drive for Star Wars**

In the 1980s President Ronald Reagan revived US interest in ballistic missile defence with the Strategic Defence Initiative (commonly known as Star Wars). The Star Wars shield was envisaged as being partly based in space, including new and completely untried ideas such as space lasers.

The Reagan Administration poured money into the Star Wars project, but the concept was widely derided as science fiction by much of the scientific community. It was denounced as provocative by the Soviet Union and regarded with scepticism by European allies, except for Margaret Thatcher who gave it her backing.

Star Wars was never deployed. After Reagan left office the political drive for missile defence declined with the plans and much of the funding fading away.

### **Clinton postpones decision on Missile Defence**

Although missile defence had a lower profile under the Clinton Administration, money continued to be put into missile defence projects during the 1990s. In 1999, under pressure from Republicans in the US Congress, the Clinton Administration announced increased funding for National Missile Defence and Theatre Missile Defence programmes.

In the run up to the US 2000 presidential election Clinton came under intense pressure to authorise full national missile defence development even though missile interception tests had all failed partially or completely. He put off a decision on the matter.

### **Bush boosts Star Wars**

Following his appointment as President, George W. Bush announced large increases in funding for a wide range of missile defence programmes in 2001, including land-based, sea-based, air-based and space-based systems. In December 2001, Bush announced that the US would withdraw from the ABM treaty in order to develop missile defence.

In December 2002, despite warnings from many scientists that it would not be feasible, Bush announced that the US would deploy an initial missile defence system by 2004-05 using ground-based and sea-based interceptor missiles.

On 5 February 2003, British Secretary of State for Defence Geoff Hoon MP announced that the UK had given its consent to the United States to use RAF Fylingdales in Yorkshire as part of the US missile defence system.

### **Britain and Missile Defence**

For the missile defence system to work, the US requires global radar and tracking facilities, including in the UK, Denmark and Australia in addition to facilities based in the US. US bases in Britain – RAF Fylingdales and RAF Menwith Hill, both in Yorkshire – are essential to US missile defence plans.

## **RAF Fylingdales**

In December 2002, the US requested the use of RAF Fylingdales in Yorkshire as an Upgraded Early Warning Radar facility for the US missile defence system. Fylingdales is considered essential for the missile defence system because its location is ideal for tracking missile launches from the Middle East, Russia and Eastern Europe.

Fylingdales has operated since 1963 as one of several radar facilities that provide early warning of ballistic missile launches against the US. Data from Fylingdales is shared with the UK and NATO.

The Upgraded Early Warning Radar (UEWR) that has been requested would involve software and hardware changes to increase the precision of the existing radar to track incoming missiles and provide detailed information about their trajectories to the US missile defence command centre. Although it looks unlikely at present, the US may also choose to place an X-band radar somewhere on UK soil.

## **RAF Menwith Hill**

RAF Menwith Hill is a spy base in Yorkshire, which is also expected to play a role in missile defence as a ground relay system for the Space Based Infrared Systems (SBIRS) of US military satellites. The SBIRS satellites would detect infra-red radiation from the heat of missile rockets just after launch (in their 'boost phase').

Although RAF Menwith Hill is based on UK territory, it is essentially a US base – where all equipment and data produced on site belong to US intelligence. Of the 1800 personnel currently located at the base, 1400 are US employees.

The Campaign for the Accountability of American Bases has unearthed and investigated the crucial role that Menwith Hill would play, relaying information from the SBIRS satellites to the US missile defence command centre.

The involvement of Fylingdales and Menwith Hill could make the UK a target for a state with which the US is engaged in hostilities. Senior British Defence Officials have admitted that, "Britain would become a target of rogue states if the government allowed the US to use its bases at Fylingdales and Menwith Hill".

## **US-UK Cooperation on Missile Defence**

The UK also participates in US missile defence research programmes, under the terms of a classified agreement dating back to Reagan's plans for a Star Wars system. Work carried out under the

1985 Strategic Defence Initiative Memorandum of Understanding includes everything from UK air defences, research on command and control systems, early warning radar systems, to theatre missile defence.

The main agencies involved in the UK are the Ministry of Defence and the Defence Evaluation and Research Agency (DERA). The work is carried out by defence contractors such as BAE, Boeing and British universities (such as Cranfield, Cambridge, Glasgow, Loughborough, Sheffield, Southampton, etc).

The US tempted European defence contractors with lucrative defence contracts in order to encourage sceptical European governments to cooperate with missile defence.

## **Future British involvement in Star Wars**

The involvement of Menwith Hill and Fylingdales may be only the beginning of British participation and cooperation with the US missile defence system. Ministry of Defence officials have confirmed that the US might ask for new US interceptor missile sites to be built in Britain to shoot down ballistic missiles fired by rogue states.

By co-operating with the US on missile defence, Britain is involving itself with an epic act of weapons proliferation at a time when it is meant to be committed to the non-proliferation of weapons of mass destruction. Bush's provocative plans invite potential foes to build more and better weapons to overwhelm US defences.

## **Why CND opposes Missile Defence**

There are many reasons to oppose missile defence, but ultimately the development of missile defence increases the risk of nuclear proliferation and reduces Britain's security.

## **Missile Defence is triggering a new nuclear arms race**

Missile Defence is triggering a new nuclear arms race as other states increase their nuclear arsenals to overcome the US missile defence shield.

China is already modernising its nuclear forces to include multiple independent targeting of nuclear warheads – a technology aimed at overcoming missile defence.

China's nuclear modernisation programmes encourage other nuclear proliferators to develop their nuclear forces too. China's neighbours, India and Pakistan may respond to enhanced Chinese nuclear forces by increasing their own arsenals, in

order to redress a perceived imbalance. Such increases exacerbate the dangerous nuclear standoff in South Asia.

The possibility that countries such as Japan and South Korea may in future be covered by US missile defences also encourages North Korea to develop further nuclear and missile capabilities. Countries may develop decoy warheads and countermeasures to try to confuse and overcome missile defences.

As President Chirac put it, “the more improvements that are made to the shield, the more improvements are made to the sword. We think that with these (anti-missile) systems, we are just going to spur sword-makers to intensify their efforts”.

The US withdrawal from the ABM Treaty to pursue missile defence breaches disarmament commitments made in the 2000 Nuclear Non-Proliferation Treaty Final Document. If a nuclear-tipped interceptor system were used this would also break the Outer Space Treaty, which bans the use of nuclear weapons in space.

It sets a bad precedent for other international treaties. If the US walks away from any international treaty it doesn't like, what is to stop other countries following suit?

### **Missile Defence makes US military policy more aggressive**

According to the US Nuclear Posture Review, missile defence is not a purely defensive system, but a key component of the US's 'New Triad' of military forces. Missile defence is to be used in conjunction with nuclear and non-nuclear offensive strike systems.

Missile defences will therefore play a key role in a more aggressive US nuclear posture, which includes:

- the development of new US nuclear weapons including nuclear bunker busters and mini nukes,
- willingness to use nuclear weapons against seven named countries (North Korea, Iraq, Iran, Syria, Libya, China and Russia),
- readiness to be first to use nuclear weapons in a conflict and to use nuclear weapons against non-nuclear countries,
- a probable resumption of testing.

According to reports in the Washington Post, US Secretary of Defense Donald Rumsfeld has also given the go ahead to the Pentagon to look at the option of using nuclear-tipped interceptors as part of a missile defence system.

### **Missile Defence is part of US plans for military domination of Space**

Missile defence technologies also play a key role in US plans for 'full spectrum dominance' – military control of land, sea, air, space and information.

According to General Joseph W. Ashy of US Space Command, the US has development programmes “in directed energy and hit-to-kill weapons because ‘we’re going to fight a war in space. We’re going to fight from space and we’re going to fight into space...’ ” (*Aviation Week and Space Technology*, August 9, 1996)

US plans for domination of space have profound implications for international peace and security and risk triggering a future arms race in space. Bases in the UK such as Menwith Hill and Fylingdales should not be used in US missile defence and space strategies.

### **Missile Defence makes Britain a sitting target**

The use of Fylingdales and Menwith Hill as the eyes of the US missile defence system makes the UK a target for any adversary seeking to overcome the system.

As former Assistant Chief of the Defence Staff Sir Timothy Garden writes, “The upgraded... radar sites would become the forward eyes of a defence system. They would therefore become the priority targets for any enemy that wished to strike the US with ballistic missiles. An attack on these sites would not necessarily be carried out by ballistic missile”.

### **Missile Defence is costly and risky**

The US is currently spending around \$8-9 bn per annum on missile defence research and development – money that could be put to much more effective uses.

Despite the large amounts of money invested to date, missile defence is a high risk, as yet unproven project which faces vast technological challenges. To date 14 out of the 17 of the missile interception tests having failed.

### **Eliminating weapons of mass destruction is the best defence against ballistic missiles**

Missile defence will not provide effective protection from weapons of mass destruction as there are many ways that such weapons could be deployed other than on ballistic missiles.

**Missile defence is the most costly and high risk strategy for tackling the threat from ballistic missiles**

The most effective way to prevent proliferation of weapons of mass destruction and their means of delivery is by strengthening international non-proliferation and disarmament agreements, not by developing expensive and technologically questionable missile defence programmes.

According to UN Under-Secretary-General for Disarmament Affairs, Jayantha Dhanapala:

“When all is said and done – after all the alternatives of missile defence, arms control, counter-proliferation, deterrence (extended or minimal), and the quixotic pursuit of ‘full-spectrum dominance’ are tried – nothing quite delivers the concrete security benefits that all countries would enjoy from the total elimination of nuclear weapons. This is not simply an ideal, but arguably the most truly realistic of all approaches to international peace and security at the global strategic level”.