

The Secretary of Missile Defense

When it comes to the new “space shield,” Donald Rumsfeld is both architect and evangelist. Will his costly idea fly?

By **MARK THOMPSON**/WASHINGTON

NO ONE IS AS FAMILIAR WITH THE FRUSTRATIONS of building missile defenses as Secretary of Defense Donald Rumsfeld. Back in 1975, when Rumsfeld was Gerald Ford's Defense Secretary—he's the only person to have held the job twice—he inherited the Pentagon's first attempt at a missile-defense shield, the \$25 billion Safeguard system, designed to protect 150 Minuteman missiles dotting North Dakota.

But cost and technology woes plagued Safeguard. Rumsfeld, a onetime G.O.P. Congressman from Illinois, knew it. Even worse, the Soviets were rendering Safeguard useless by putting multiple warheads atop each of their missiles. After three months as Defense Secretary, under orders from Congress, Rumsfeld shut it down.

So, last week, when Rumsfeld, three months into his second tour of duty as Defense chief, launched an offensive to build another missile defense, it was a surprising new chapter. And when President Bush stepped to the microphone at the National Defense University and declared his unswerving commitment to the costly and controversial project, “Rummy,” as old friends call him, stood by proudly. As head of a 1998 panel weighing the ballistic-missile threat faced by the U.S., Rumsfeld had helped build political pressure for just the kind of shield that Bush was proposing. In the quarter-century since he had put Safeguard out of its misery, Rumsfeld had become convinced that national missile defense was not only technologically possible but also essential to America's national security.

But the reality is that there is no shield at the ready. Simply pouring billions into such programs won't ensure success anytime soon. Building a missile shield is a challenge on a par with building the atom bomb and putting a man on the moon.

Democrats, however, are balking. Even the CIA's latest threat analysis says the most likely threats are not incoming missiles but rather such portable weapons of mass destruction as truck and suitcase bombs.

So what's Don Rumsfeld to do? Given the constraints imposed by physics, fiscal reality and foreign policy, the man who served as co-chair of Bob Dole's failed 1996 campaign will have to use Bill Clinton's system as his base. Pentagon officials say Bush's system will have to begin with Clinton's ground-based system—a handful of missiles deployed as early as 2004—followed by more research into ship- and plane-based interceptors.

While Rumsfeld's shop faces the challenge of building the shield, it is the nation's diplomats spreading out over the world who face the equally arduous task of selling it overseas. Washington's allies and its foes have grown accustomed to dealing with a world filled with nuclear weapons. During the cold war, the Anti-ballistic Missile Treaty of 1972 ensured that the U.S. and the Soviet Union would remain naked to the other's atomic wrath. While the logic of such mutual assured destruction was ghoulish, it did have one thing going for it: it worked.

Not surprisingly, China reacted most vehemently to the Bush-Rumsfeld speech, saying the U.S. “has violated the ABM Treaty, will destroy the balance of international security forces and could cause a new arms race.” Beijing knows even the initially modest system proposed by Clinton could render obsolete their 20 single-warhead, long-range missiles, which can reach the West Coast of America. Once that system is in place, Beijing's leverage with the U.S.—especially on the touchy topic of Taiwan—could be crippled. ■

Questions

1. What is the purpose of a missile-defense system?
2. Why is Rumsfeld's proposal controversial?

BIG-BUCKS BLUEPRINT

A multilayered system—high-tech satellites, ships, planes and “kill vehicles”—offers the best chance of destroying incoming missiles. But the latticework of national missile defense poses daunting technological challenges. Experts say even the cheapest layered system will start at \$100 billion and that systems deploying space-based lasers could cost double that. And, not surprisingly, each branch of the military wants in on the action. Here’s how the different layers would work:

1 SPACE BASED

AVAILABLE: 2020, if then
COST: \$50 billion-\$100 billion, for starters

The crown jewel for any missile-defense system, advocates say, is a constellation of satellites armed with lasers. They would scour the skies on their own—no need for mere humans—detecting and blasting enemy rockets during the “boost phase,” shortly after launch.

2 SEA BASED

AVAILABLE: 2010
COST: \$15 billion on top of \$50 billion already spent on Aegis ships

Based aboard existing warships, this layer would be built by the Navy using improved versions of its Aegis radar and Standard missile. A fleet could protect wide sections of the globe.

3 AIR BASED

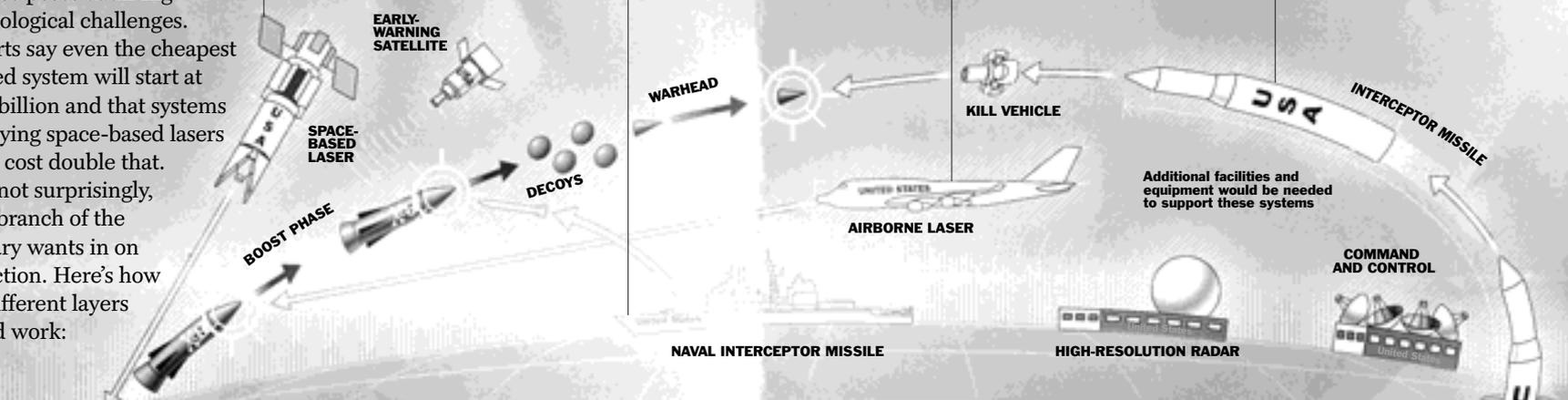
AVAILABLE: 2006
COST: \$6.4 billion for a seven-plane laser fleet

The Air Force is also developing another boost-phase system, designed to shoot down missiles as they climb into space. In order to shoot down, say, an Iraqi or a North Korean missile, the Pentagon would probably base the planes as close to those countries as possible.

4 GROUND BASED

AVAILABLE: By 2004, a small number of interceptors could be standing guard

This has been the Pentagon’s missile defense of choice for the past decade, which is why it is the most ready to be built. Current plans call for about 200 missiles based in Alaska and North Dakota.



HOW IT WORKS

Space-based heat detectors would spy a launch and cue the lasers to track and destroy enemy missiles early in flight. Each satellite could down as many as 100 enemy missiles up to 2,500 miles away without refueling.

Linked to space and ground radar, shipboard missiles would be fired at enemy missiles in midflight. Navy planners believe a modified Aegis radar system, originally designed to shoot down enemy airplanes and cruise missiles, could also detect and destroy long-range ballistic missiles.

A sophisticated oxygen-iodine laser is crammed into the nose of a 747. Targeting a laser through many miles of air is challenging, so 324 quarter-inch pistons, each pulsating up to 1,000 times per sec., control the laser's focus and allow it to kill the enemy missile.

The interceptors, cued by satellites and long-range radar, would destroy enemy warheads as they streaked toward targets in the U.S.

UPSIDE

Protection for all, from all. The Pentagon predicts that 12 satellites could destroy 94% of incoming missiles, while a 24-satellite system could eliminate virtually all threats.

A sea-based system has mobility that a land-based system lacks, and is capable of quickly moving to troubled areas.

Destroying missiles early in flight—before they have disgorged their warheads and decoys—dramatically simplifies the defender's task.

Even though it has failed two of its three tests, this is the Pentagon's ripest option.

DOWNSIDE

These extremely complex Air Force satellites must be small enough to be launched into orbit. Packing such a punch into a small package won't be easy.

The Antiballistic Missile Treaty bars sea-based systems. There's also concern inside the Pentagon that the planned nonexplosive kill vehicle—which weighs less than 40 lbs.—will be too small to destroy the enemy's warheads.

Beyond the amazing technology involved, a fleet of laser-wielding 747s would be costly—and a tempting and vulnerable target.

Because the 120-lb. interceptor carries no explosives—it destroys a missile simply by colliding with it—it must be extremely accurate. What's more, it must discriminate between warheads and decoys, which is no easy feat. And say goodbye to Europe and Japan. Only the U.S. and Canada would be protected.