## 1NC—Terrorism Frontline

### *Even if* the technology works it *doesn’t solve*—requirements exceed launch capabilities and interceptors are easily shot down.

**Grego et al 11** (Dr. Laura Grego has a Ph.D. in physics from the California Institute of Technology, and a B.Sc. in physics and astronomy from the University of Michigan, Senior Scientist, Global Security Program, Dr. David Wright and, Stephen Young, “Space Based Missile Defense” <http://www.ucsusa.org/assets/documents/nwgs/space-based-md-factsheet-5-6-11.pdf> //Donnie)

A space-based boost-phase defense is intended to intercept attacking missiles during the first few minutes of their flight, while the missiles’ engines are still burning. To reach attacking missiles during this very short time, SBIs must be stationed in low-altitude orbits. However, in these orbits SBIs move rapidly with respect to the ground and cannot stay over any one location on Earth. To keep at least one interceptor within reach of a given missile launch site at all times therefore requires many SBIs in orbit. A 2003 American Physical Society study showed that many hundreds or thousands of SBIs would be required to provide limited coverage against ballistic missiles launched from areas of concern. This estimate is consistent with the size of the space layer in the Global Protection Against Limited Strikes (GPALS) missile defense system, which was proposed (but not built) by the George H.W. Bush administration in the early 1990s. GPALS called for 1,000 to 5,000 SBIs. Doubling the number of missiles that such a defense could engage would require doubling the size of the entire constellation of SBIs. Moreover, given the technology expected for the next decade, each SBI would weigh up to a ton or more. As a result, deploying such a system would be **enormously expensive** and actually would **exceed U.S. launch capabilities**. Additionally, such a system would raise significant issues for crowding and traffic management in space. Yet even if such a large system were built and the technology worked perfectly, it would not provide a reliable defense, **for two reasons**. First, even if the constellation of hundreds to thousands of interceptors described above were in place, only one or two SBIs would be in position to reach any given launching missile in time to destroy it. Consequently, the defense could be overwhelmed by simultaneously launching multiple missiles from one location. Second, the system could not protect itself from attacks intended to remove interceptors. Because SBIs would be in low-altitude orbits they could easily be detected and tracked from the ground; an adversary would know their current and future locations. As a result, **any SBI would be vulnerable to attack by inexpensive short- or medium-range missiles**. These missiles would burn out at too low an altitude to be intercepted by the SBI, but they could loft homing ASAT weapons at it. By destroying relatively few SBIs in this way, an attacker could create a gap in the defense through which it subsequently could launch its long-range missiles. In short, a defense based on deploying **hundreds or thousands of SBIs at enormous cost** could be defeated by a handful of enemy missiles.

### Terrorists wouldn’t launch nuclear weapons—

They would just use suitcase nukes or release the biological agents in envelopes—this is empirically proven by 9/11 and is what their Sid-Ahmed evidence predicts.

### The disad turns this advantage.

Graham 5 (Thomas, is a former special representative of the president for arms control, nonproliferation, and disarmament. In this and other senior capacities, he participated in every major arms control and nonproliferation negotiation in which the United States took part from 1970 to 1997. “Space Weapons and the Risk of Accidental Nuclear War” <http://www.gsinstitute.org/docs/Graham_Space_ACT_12-05.pdf> //Donnie)

To see the path that a space test bed is likely to follow, one need only look at the present ground-based program: the Pentagon claims there is little true difference between a test bed and an operational deployment. Moreover, in space the deployment could be more dramatic. Although the current ground-based configuration envisions a few dozen interceptors, continuous space coverage over a few countries of concern would likely require a very large number of interceptors because a particular interceptor will be above a particular target for only a few minutes a day. Today’s missile defenses provide very little real protection as the United States currently faces no realistic threat of deliberate attack by nuclear-armed long-range missiles. But space weapons could actually be detrimental to U.S. national security. They would increase the perceived vulnerability of early warning systems to attack and cause Russia and perhaps other countries such as China to pursue potentially destabilizing countermeasures, such as advanced anti-satellite weapons. These dangers would be particularly worrisome for those components that are placed in geosynchronous orbits (GEO). Space objects in GEO are sufficiently far from the Earth (about 36,000 kilometers) so that their speed roughly matches the rotational speed of the Earth and they remain “stationary” above one location. To be sure, any country that can place a satellite in these farther orbits—and there are several—could potentially threaten another country’s satellites there. Yet, it would be easier to do so, and perhaps more importantly, the threat perception would be greater with weapons based in space than with existing ground-based technology. The 15 U.S. early warning satellites are almost entirely in GEO. The three functioning Russian early warning satellites utilize two different orbits. Two of the satellites use a highly elliptical orbit, which ranges from low-Earth orbit (LEO)—100 to 2,000 kilometers above the Earth where space objects travel at about 8 kilometers per second—out to GEO. The other satellite is permanently stationed in GEO. Moreover, a space arms competition could hinder the flow of satellite imagery that can be used to track activities that might reveal programs to develop weapons of mass destruction in countries of concern. For example, activities detected through space-based collection systems can be used to trigger requests for inspections pursuant to the Chemical Weapons Convention (CWC) (implicitly) or the Comprehensive Nuclear Test Ban Treaty (explicitly), should that treaty be brought into force. It is important in this respect to recall that the suspicions that Israel and South Africa may have conducted an atmospheric nuclear test in 1979 were driven by readout from a U.S. VELA satellite. Similarly, the United States has benefited from the revolution in national intelligence that began with and is based on photographic reconnaissance satellites and related systems, which has helped bring to an end the worst-case analysis and close calls with nuclear war that existed throughout the Cold War. If a truly peaceful and stable world order is ever achieved, the advent of this technology beginning in the late 1950s will be regarded by future generations as a major historical turning point. These are crucial efforts that must never be allowed to be disrupted, either by space-based weapons or with the relatively simplistic ground-based anti-satellite weapon systems that could today be deployed. The United States has considerable anti-satellite weapons capability. An F-15-based homing vehicle system was successfully tested in the 1980s, and the anti-ballistic missile system currently being deployed in Alaska and California has an inherent anti-satellite capability. Right now, no other country is developing a counterspace system, although the Soviet Union successfully tested a co-orbital anti-satellite system in the 1970s and 1980s and Russia and China are believed to be capable of doing so. Notably, 28 countries have ballistic missiles that can reach LEO satellites, and all have the technical capability to develop a LEO anti-satellite system by modifying these missiles.

### The plan doesn’t solve in time—

Their evidence says terrorists will acquire nuclear weapons within two years—that’s *way before* an effective network of interceptors can be developed and deployed.

### No nuclear terrorism—no ability to build their own, can’t steal fissile material, and can’t buy from corrupt insiders.

Mueller 10 — John Mueller, professor of political science at Ohio State University. “Calming Our Nuclear Jitters”. Issues in Science and Technology. 1/1/2010. Vol.26,Iss.2;p.58-66. Academic Search Premiere.

In contrast to these predictions, terrorist groups seem to have exhibited only limited desire and even less progress in going atomic. This may be because, after brief exploration of the possible routes, they, unlike generations of alarmists, have discovered that the tremendous effort required is scarcely likely to be successful. The most plausible route for terrorists, according to most experts, would be to manufacture an atomic device themselves from purloined fissile material (plutonium or, more likely, highly enriched uranium). This task, however, remains a daunting one, requiring that a considerable series of difficult hurdles be conquered and in sequence. Outright armed theft of fissile material is exceedingly unlikely not only because of the resistance of guards, but because chase would be immediate. A more promising approach would be to corrupt insiders to smuggle out the required substances. However, this requires the terrorists to pay off a host of greedy confederates, including brokers and money-transmitters, any one of whom could turn on them or, either out of guile or incompetence, furnish them with stuff that is useless. Insiders might also consider the possibility that once the heist was accomplished, the terrorists would, as analyst Brian Jenkins none too delicately puts it, “have every incentive to cover their trail, beginning with eliminating their confederates.”

### Too many hurdles.

Chapman 8 — Steve Chapman, The Implausibility of Nuclear Terror, The Baltimore Sun, Feb. 11, 2008, LN

But remember: After 9/11, we all thought more attacks were a certainty. Yet al-Qaida and its ideological kin have proved unable to mount a second strike. Given their inability to do something simple - say, shoot up a shopping mall or set off a truck bomb - it's reasonable to ask whether they have a chance at something much more ambitious. Far from being plausible, argued Ohio State University professor John Mueller in a recent presentation at the University of Chicago, "the likelihood that a terrorist group will come up with an atomic bomb seems to be vanishingly small." The events required to make that happen consist of a multitude of Herculean tasks. First, a terrorist group has to get a bomb or fissile material, perhaps from Russia's inventory of decommissioned warheads. If that were easy, one would have already gone missing. Besides, those devices are probably no longer a danger, because weapons that are not scrupulously maintained (as those have not been) quickly become what one expert calls "radioactive scrap metal." If terrorists were able to steal a Pakistani bomb, they would still have to defeat the arming codes and other safeguards designed to prevent unauthorized use. As for Iran, no nuclear state has ever given a bomb to an ally - for reasons even the Iranians can grasp. Stealing some 100 pounds of bomb fuel would require help from rogue individuals inside some government who are prepared to jeopardize their lives. The terrorists, notes Mr. Mueller, would then have to spirit it "hundreds of miles out of the country over unfamiliar terrain, and probably while being pursued by security forces." Then comes the task of building a bomb. It's not something you can gin up with spare parts and power tools in your garage. It requires millions of dollars, a haven and advanced equipment - plus people with specialized skills, lots of time and a willingness to die for the cause. And if al-Qaida could make a prototype, another obstacle would emerge: There is no guarantee it would work, and there is no way to test it. Assuming the jihadists vault over those Himalayas, they would have to deliver the weapon onto American soil. Sure, drug smugglers bring in contraband all the time - but seeking their help would confront the plotters with possible exposure or extortion. This, like every other step in the entire process, means expanding the circle of people who know what's going on, multiplying the chance someone will blab, back out or screw up. Mr. Mueller recalls that after the Irish Republican Army failed in an attempt to blow up British Prime Minister Margaret Thatcher, it said, "We only have to be lucky once. You will have to be lucky always." Al-Qaida, he says, faces a very different challenge: For it to carry out a nuclear attack, everything has to go right. For us to escape, only one thing has to go wrong. That has heartening implications. If Osama bin Laden embarks on the project, he has only a minuscule chance of seeing it bear fruit. Given the formidable odds, he probably won't bother. None of this means we should stop trying to minimize the risk by securing nuclear stockpiles, monitoring terrorist communications and improving port screening. But it offers good reason to think that in this war, it appears, the worst eventuality is one that will never happen.