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One expert calculates Golden Dome could cost as much as \$3.6 trillion over 20 years, not the \$175 billion U.S. President Donald Trump has promised.

HIGH-STAKES DEBATE OVER MISSILE-DEFENCE SHIELD

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ince ordering the Pentagon in January to erect a U.S. missile defence shield partly based in space, President Donald Trump has claimed that it would be completed by the end of his term and cost \$175 billion. His signature national security effort will have close to a 100 per cent success rate, he has pledged, "forever ending the missile threat to the Amer ican homeland."

But the White House and Pentagon have revealed scant details of the "Golden Dome" project, which defence and budget analysts say is likely to take at least a decade to complete and cost a trillion dollars or more.

Golden Dome would radically reshape military doctrine and further militarize space, an effort that's been compared to the rush to build the atomic bomb during the Second World War and the Apollo moon landings. Yet it still may not come close to providing the kind of comprehensive protection Trump says it will.

Marking a historic break from decades of nuclear deterrence, it would either remedy a glaring vulnerability to the U.S. homeland or ignite an arms race in orbit that could last a generation

Critics deride the most ambitious part of the program - flooding low Earth orbit with thousands of satellites to detect and take out adversaries' missiles — as a fantasy that will only destabilize the fragile international order that has prevented nuclear war for more than 70 years.

"Golden Dome could be the single most dangerous idea Trump has ever proposed, and that's saying something," Rep. Seth Moulton (D-Massachusetts), a member of the Armed Services Committee, said in an interview.

Proponents counter that because of expanding threats, as well as dramatic technological advances, the time is right to resurrect the Reagan-era Strategic Defense Initiative, known as "Star Wars," that fizzled out at the end of the Cold War. For years, defence hawks have pushed for a more robust missile-defence shield, citing the unsettling truth that the United States doesn't have a comprehensive way to protect its homeland.

China and Russia, meanwhile, are already expanding their nuclear arsenals in the largest long-range weapons buildup since the Cold War. They are adding hundreds of intercontinental ballistic missiles as well as new weapons systems, including hypersonic weapons designed to speed toward U.S. cities at more than 6,400 km/h, according to intelligence officials.

The United States has neglected its homeland missile defence systems, said Tom Karako, director of the Missile Defense Project at the non-partisan Center for Strategic and International Studies (CSIS). The \$25 billion Trump dedicated to Golden Dome this year is a "down payment to blot out the years of inattention to this. We've known these threats are coming," he said during a CSIS Golden Dome would have to protect the event. "It's long overdue."

A LIMITED DEFENCE

The United States' existing long-range ballistic missile defence system is designed to track an enemy missile when it is launched and follow it through its "boost phase" into "midcourse phase" as it travels toward U.S. territory.

The U.S. deploys sophisticated "kill vehicles" from bases in Alaska and California to target incoming enemy missiles.

The current system is only designed to thwart a small number of missiles from North Korea, not an attack from China or Russia.

Once an incoming missile is detected, the U.S. would probably fire at least two

missiles to attempt to intercept it. There have been several tests of this existing system in which the kill vehicle didn't hit anything.

Potential adversaries say they view Trump's plan as an aggressive escala-

China said it will "heighten the risk of turning space into a war zone and creating a space arms race and shake the international security and arms control system," Mao Ning, a spokesperson for the Chinese Foreign Ministry, said at a news conference. "We urge the U.S. to give up developing and deploying (a) global antimissile system, and take concrete actions to enhance strategic trust between major countries and uphold global strategic stability."

Golden Dome would be modelled, at least in theory, after Israel's Iron Dome, which has proved robust against attacks for years. But Israel's missile defence only protects against short-range missiles. in an area about the size of New Jersey.

entire U.S. from intercontinental ballistic missiles that could be carrying multiple nuclear warheads.

An analysis by the Congressional Budget Office forecast the cost of deploying space-based interceptors alone would cost \$542 billion over 20 years. But that amount would only allow the Pentagon to defend against one or two missile launches from a rogue attack from North Korea. To expand the system to counter a larger number of threats, some experts predict it could become one of the most expensive is itiatives in the Pentagon's history.

Todd Harrison, a senior fellow at the American Enterprise Institute, has calculated that a robust defensive architecture for Golden Dome could cost as much as \$3.6 trillion over 20 years.

In May, Trump appointed Space Force Gen. Michael Guetlein to oversee the Golden Dome effort, handing him what is perhaps the most difficult job in Washington. When Trump pledged that the program could be completed in three years for \$175 billion, Harrison said, "He bounded the initiative in such a way that it's impossible to meet all those expectations. They just don't add up." Guetlein, he added, now has "to figure out how close he can come. The question is, where do you let the president down?"

With the project still in its infancy, it's not yet clear which agency will lead Golden Dome. But the money behind the effort has already sparked a race between U.S. defence contractors from Lockheed Martin to Booz Allen Hamilton and L3 Harris — who are eager to capitalize on what could be a once-in-a-generation spending spree.

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MATT MCCLAIN / THE WASHINGTON POST

Gen. Chance Saltzman, the Space Force's chief of space operations, said the U.S. already faces threats from orbit.

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