



The Huntsville-managed Ground-Based Midcourse Defense system is America's main defense against a missile strike. (FILE)

# Expert: Threat of missile attack on U.S. 'real', upgrades needed

DEFENSE EXPERT EXPLAINS HUNTSVILLE'S ROLE IN PROTECTING THE NATION.

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North Korea and Iran are working on missiles, perhaps topped with nuclear warheads, that could reach the United States. But when was the last time Americans truly worried about a missile attack on American soil?

Carlos Kingston, a former top Missile Defense Agency official who now works for Qualis Corp. in Huntsville, recently briefed Congressional staffers on the missile threat and what needs to be done to maintain and improve the Huntsville-managed Ground-Based Midcourse Defense system, America's main defense against a missile strike.



**Carlos Kingston**

Kingston answered some questions for AL.com this week about the missile threat and whether we're ready to defend it.

**Q: You work in missile defense and monitor the threats constantly. But when was the last time that average Americans were really concerned about someone shooting missiles at us, the 1960s? Just how concerned should we be now?**

Kingston: The Cuban missile crisis is probably the last time that truly all of America was on pins and needles. I certainly remember it, and I was only 6 or 7. I think the last time a long-range missile was fired by North Korea was December 2012. It, of course, ended up being a space launch. But you never know. So were U.S. officials concerned? Yes. Was the GMD system at a high state of alert? Yes. Was the average American concerned? Probably not so much. But the threat is real and evolving. The intelligence community clearly have information that provides high confidence in this. I might also add that North Korean Vice Marshal Hwang Pyong-So made the following

comment this past year: "If the US imperialists threaten our sovereignty and survival ... our troops will fire our nuclear-armed rockets at the White House and the Pentagon, the sources of all evil."

**Q: The national missile defense system, particularly the Ground-Based, Midcourse Missile Defense system coordinated by MDA out of Huntsville, has been in place since 2004. How has the "threat board" changed over the past decade, and is the system we have still an effective defense against the current threat?**

Kingston: We hear frequently on national news media that both North Korea and Iran continue to work on technologies that give them the ability to launch ICBM class missiles at the United States. They have both proven this ability with successful space launches. Further, you also hear they are working on nuclear technology that will enable them to put nuclear warheads on these missiles.

So the threat is real.

In terms of defending the nation against these adversaries, yes the GMD system, in place today and operational 24/7/365, can defeat these threats. The system of Interceptors in Fort Greely, Alaska, and Vandenberg, Calif., along with the complex fire control and communications network, national satellites and a suite of radars is a proven capability. This has been demonstrated in multiple complex and challenging tests over the past decade.

**Q: What upgrades are needed to maintain an effective national missile defense as threats evolve?**

Kingston: The nation needs to continue to manufacture more Interceptors, the one that works today, increase inventory depth, replace older model interceptors, upgrade the older models. To continue to be viable, the system must be sustained and maintained. Modernization and technology refresh for long-term sustainability is needed. Reliability improvements, address significant obsolescence concerns, aging issues. The complex and geographically dispersed Ground System is a major concern. The system must be improved to stay ahead of and counter the more complex threats of the future. I applaud MDA's plan to build

the Long Range Discriminating Radar and other improvements to improve discrimination capabilities. These are force multipliers of the Interceptor inventory we have. I also applaud the plan to develop and design an Improved Kill Vehicle, The RKV, Redesigned Kill Vehicle.

**Q: Given the current budget climate, what should be Congress' priority in funding upgrades to missile defense?**

Kingston: For missile defense it must be the number one priority. And I think the department's FY16 budget request of some \$1.7 billion for GMD demonstrates that MDA and the department have finally made homeland defense the number one priority. Congress needs to support this budget request.

I don't know the details in the \$1.7 billion, but from my experience, that amount sounds about right. It should enable continued Interceptor production, upgrade of older Interceptors, upgrade of ground systems fire control and communications, reliability characterization, continued flight and ground testing, and improvements in discrimination capabilities.

In addition to this the department has requested funding for a redesign of the Kill Vehicle and a Long Range Discrimination Radar. All of these are critically important to keep the GMD system viable and to stay ahead of the threat.

**Q: What role does Huntsville play in maintaining the nation's missile defense?**

Kingston: Huntsville plays a vital role! At the same time there are the best and brightest professional minds across this nation that contribute to making GMD a credible capability. But for Huntsville the GMD is managed or led here by both the government and industry teams. For the government program office, there are more than 500 employees that contribute to the GMD program. For the industry team led by the Boeing Company, there are probably 1,500-plus employees. If you consider overall homeland defense including radars and other aspects that makes of the homeland defense capabilities, the numbers would be significantly more than what I have stated here. So yes, Huntsville plays a vital role in providing the nation's defense against ballistic missile threat to our nation.