

UNCLASSIFIED

CLEARED
For Open Publication

Mar 07, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW



2024 HYPERSONIC THREAT ASSESSMENT

Defense Intelligence Agency

STATEMENT FOR THE RECORD
HOUSE ARMED SERVICES COMMITTEE
STRATEGIC FORCES SUBCOMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Jeffrey N. McCormick
Senior Intelligence Analyst, National Air and Space Intelligence Center

Information available as of February 27, 2024 was used in the preparation of this assessment

UNCLASSIFIED

INTRODUCTION

Chairman Lamborn, Ranking Member Moulton, and members of the sub-committee, thank you for the invitation to provide the Defense Intelligence Enterprise (DIE) assessment of China's and Russia's hypersonic weapon systems. My name is Jeffrey McCormick, and I am a Senior Intelligence Analyst with the National Air and Space Intelligence Center and am here on behalf of the DIE.

Our competitors are developing advanced weapon capabilities aimed at holding U.S. forward-deployed forces and the homeland at risk. Hypersonic weapons fly at speeds of at least Mach 5, which is five times the speed of sound, for a significant portion of their flight, and unlike ballistic missiles, they do not follow a predictable trajectory and can maneuver en route to their destination. Hypersonic weapons are designed to evade U.S. sensors and defensive systems and to provide adversary military commanders with unique capabilities, and they pose an increasing and complex threat due to availability of both nuclear and conventional capabilities. U.S. competitors are developing multiple configurations and types of hypersonic missiles that can be tailored for employment from air, ground, and naval launchers. Both China and Russia have conducted numerous successful tests of hypersonic weapons and have fielded operational systems, including Russia using hypersonic weapons against Ukraine. China is ahead of Russia in support infrastructure and total inventory of systems.

CHINA

China's missile programs are comparable to top-tier producers internationally, and China now has the world's leading hypersonic arsenal. China's progress is resulting from its efforts during the past two decades to dramatically advance its development of conventional and nuclear-armed hypersonic missile technologies and capabilities, which has been done through intense and focused investment,

development, testing, and deployments. China has an extensive and robust research and development infrastructure, including many wind tunnels, devoted to the development of hypersonic systems. PRC researchers have claimed these facilities help expose critical engineering and technology issues before missiles are tested. China is also focusing research on reusable high-speed vehicles—such as hypersonic aircraft and advanced spaceplanes.

China has demonstrated a high pace of flight tests for its hypersonic systems, with PRC media claiming the number of hypersonic weapon test flights conducted by China in a year is equivalent to a decade of tests in the United States. This emphasis on testing is enabling China to deploy hypersonic weapons, including the DF-17, which is a medium-range missile with a hypersonic glide vehicle payload. The PRC fielded the DF-17 in 2020, and it is estimated to have an approximate range of at least 1,600 kilometers, enabling it to reach U.S. military forces in the western Pacific. Since 2014, China has conducted several flight tests in pursuit of an intercontinental-range hypersonic glide vehicle payload—including a test in July of 2021 that circumnavigated the globe in part due to long-term concerns about U.S. missile defenses and a desire for parity with future worldwide missile capabilities. China’s investments will enable it to deploy large numbers of hypersonic weapons in line with its plans for building “a strong and modernized rocket force.”

China also is actively advancing high-speed engine, or “scramjet,” technologies that have applications in hypersonic cruise missiles. China has flown a Mach 6+ scramjet test bed to research thermal resistant components and hypersonic cruise missile technologies, which would further expand its hypersonic weapon capabilities.

RUSSIA

Russia has performed research on hypersonic weapon technologies since at least the 1980s, and Russia currently has three deployed hypersonic weapon systems, including two that have been used in conflict against Ukraine. In 2018, Russian President Vladimir Putin mentioned the first system, the air-launched Kinzhal, claiming it had a top speed of Mach 10 with a range of over 2000 kilometers. Russia has used the Kinzhal extensively against Ukraine and has had varying degrees of success and effectiveness. The second system, the SS-19 Mod 4, achieved initial operational capability in 2019, and as of February 2024, Russia now has two regiments of nuclear armed intercontinental-range hypersonic glide vehicles on combat duty. Russian government officials claim the SS-19 Mod 4 is capable of flying at speeds over Mach 20 with a range of approximately 10,500 kilometers. The third system, the Tsirkon, is a ship-launched hypersonic missile that travels at speeds up to Mach 8 with a maximum range of approximately 1,000 kilometers. Ukraine reported recovering components of the Tsirkon, indicating its operational use in early 2024.

Russia also has declared its intentions to expand its strategic hypersonic weapon inventory in the coming years by eventually placing multiple hypersonic glide vehicles on its developmental Sarmat intercontinental ballistic missile and developing another air-launched, hypersonic long-range missile called the Kh-95.

CONCLUSION

My goal in this hearing is to help Congress and the Nation better understand the threats that advanced hypersonic weapons pose to our forward deployed forces and the homeland. The DIE aims to support this committee in identifying opportunities to respond to these challenges. Thank you for your continued confidence, and we are grateful for your vital support.