



News

United States Air Force

341 MXG Conducts First Operational Mission With Payload Transporter Replacement

- Published April 16, 2026
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- 341st Missile Wing Public Affairs

MALMSTROM AIR FORCE BASE, Mont. --

A Payload Transporter Replacement (PTR) vehicle assigned to the 341st Missile Wing completed a Minuteman III intercontinental ballistic missile (ICBM) maintenance task April 8, 2026, marking the first operational use of Air Force Global Strike Command's new ICBM payload transporter.

Helicopters and security vehicles escorted the PTR to a Minuteman III launch facility near Ulm, Montana, where missile maintenance work was performed on-site.



"The first operational convoy with the Payload Transporter Replacement culminates months of hard work by the professional Airmen across the 341st Maintenance Group," said Col. Luke Stover, 341 MXG commander. "In the hands of our dedicated maintainers, the PTR is a powerful tool that will ensure the Minuteman III remains a viable deterrent for as long as our nation requires."

The inaugural PTR team was Senior Airman Jose Ruiz and Senior Airman Jeffrey Essers, 341 MXG missile maintenance team quality assurance topside evaluators.

The PTR's first operational mission signified a monumental step toward modernizing and recapitalizing 20th Air Force's nuclear ICBM operations as the PTR begins phasing out the decades-old Payload Transporter III (PT III) currently used at Malmstrom AFB, Montana, F.E. Warren AFB, Wyoming, and Minot AFB, North Dakota; and at Vandenberg Space Force Base, California.

The PTR will be used for ICBM field maintenance operations until the Air Force's next-generation land-based ICBM, the LGM-35 Sentinel, is deployed and has fully replaced the current Minuteman III on strategic alert.



Modernizing the Payload Transporter fleet

The PTR program began in 2012 with a four-year contract to design, test, develop, qualify, and deliver a system to replace the PT III, as the payload transporter is approaching the end of its design life. In 2019 the Air Force awarded a contract to deliver 25 PTRs for the purpose of modernizing the Minuteman III ICBM payload transporter fleet.

As a nuclear-certified vehicle, PT III is designed to “load, unload, transport, emplace, or remove and replace Minuteman weapon system aerospace vehicle equipment (AVE) and supporting equipment in a controlled environment on air-cushioned pallets between the Minuteman launch facility and the Missile Support Base,” according to AFGSC’s payload transporter fact sheet.

AVE components include guidance and control systems, propulsion system rocket engines, and reentry systems.

The PT III’s capabilities include hoisting, load support during transportation, and security provisions.



Many components of the aging PT III system aren’t manufactured anymore. This creates a logistical liability, leading to rising sustainment costs and extended downtime for maintenance.

Although the PTR was procured to replace the PT III, it is not a clone or refurbishment of the legacy payload transporter.

The PTR was designed from the ground to further meet the security requirements for transporting Minuteman III AVE components. The PTR boasts a state-of-the-art alarm system to prevent cyber and physical threats to weapon components onboard. Its tractor is up-armored to protect the cab, has ballistic-proofed windows, and features an integrated Auxiliary Power Unit (APU). The trailer has internal and external LED lighting.

Six PTRs were delivered to Malmstrom AFB in March 2025, according to a media release by the contractor.

The road to the first PTR mission

After delivery, new PTRs undergo an Initial Nuclear Surety Inspection.

Additionally, missile maintenance technicians must be certified on the PTR before utilizing them in the field. Following an AFGSC directive, maintenance group quality assurance members were the first to certify.

"When I was first told I was going to be the one getting certified on PTR, I was pretty excited," Senior Airman Ruiz said. "It was a new truck. Nobody in the world was certified on it, and nobody really knew about it. So for me to be hand-selected – to be the first one certified on this new truck and trusted by the Air Force – I was excited. I wanted to get hands-on right away and help shape the future generations of the ICBMs."

Ruiz was 341 MXG's only quality assurance missile maintenance topside evaluator at the time, so Senior Airman Essers was brought over to QA from the 341st Missile Maintenance Squadron to also train and certify on the PTR.

"I was also still missile maintenance for a while when we were initially starting our training," Essers said. "I was doing field operations and maintenance as well, while I was doing training for the truck."

Ruiz and Essers began training in autumn, devoting time to learning the PTR in addition to their regular duties as evaluators.

"Since the truck was so new, the training began with just basic AETC [Air Education and Training Command] training, just getting familiar with the truck and the book itself," Ruiz said. "From there we had months of runs and getting familiar with the truck and finding the ins and outs of it. That led to us being the ones...getting it certified for the base as a whole."

Ruiz noted that modern technologies incorporated into the PTR are helpful to operations. These include heated mirrors and windshields during winter, exterior work lights on the trailer for working in the dark, and a quieter APU that is less impactful on

hearing. Lighter hatches and a lower door into the trailer mean less wear and tear on human bodies.

Ruiz and Essers agreed there were challenges adapting to the PTR after years of experience using the PT III. The PTR's tractor is a conventional cab while the PT III tractors at Malmstrom are cabovers. The PTR is heavier and has a different turn radius. The hoist operates differently. There are additional steps added to pre-inspections and work processes.

"The way the inside of the [PTR's] trailer is designed, it changes the way that we perform our maintenance and the job as well," Ruiz said. "We're still finding little things here and there to make things faster and find a better flow."

"Though there is a steep learning curve to utilizing the PTR, the benefits that this system brings are great for the weapon system," Essers said.

The main priority is to ensure the weapon system is safe, secure and reliable, Ruiz said.

"I'm proud to be one of the first two members in the world to utilize the PTR and implement new processes for future generations," Essers said.

<https://www.malmstrom.af.mil/News/Article-Display/Article/4462916/341-mxg-conducts-first-operational-mission-with-payload-transporter-replacement/>