

V-22 Joint Program Issues Bulletin to Restrict Flights



[Release from V-22 Joint Program Office](#)

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NAVAL AIR SYSTEMS COMMAND –

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Based on the recommendation from the V-22 Joint Program Office, the U.S. Marine Corps, U.S. Air Force Special Operations Command and U.S. Navy issued a time limit, via fleet bulletin, on the V-22 Input Quill Assembly, effective Feb. 3, 2023.

The imposed time limit will restrict flight on a subset of V-22s until the Input Quill Assembly is replaced. The Input Quill Assembly is an element of the proprotor gearbox, which houses the aircraft clutch.

This recommendation is based on a progressive increase in Hard Clutch Engagement events and ongoing engineering analysis.

A Hard Clutch Engagement event occurs when the clutch, driven by the engine, releases from the rotor system and suddenly reengages, sending an impulse through the drive train, potentially causing damage.

In order to ensure the continued safety of the aircrew, the services took decisive action to implement the bulletin.

The fleet bulletin identifies aircraft with Input Quill Assemblies above a predetermined flight-hour threshold and the requirement to replace that component. Once replaced, the aircraft will return to flight status.

The services previously implemented in-flight and ground training mitigations. Examples include:

- Supplying interim flight guidance to the fleet designed to minimize exposure to a hard clutch engagement, highlighting existing emergency procedures
- Modified Hard Clutch Engagement scenarios were added during simulator training

Due to operational security concerns, the specific Input Quill Assembly flight-hour threshold and number of aircraft affected will not be released.

The joint program office is exploring 24 initiatives, such as data mining, laboratory and flight testing and hardware redesign, that fall along 4 lines of effort (analyze, identify, mitigate, eliminate). These efforts provide the information required to inform short-, mid- and long-term solutions. It was a result of these efforts that we identified and implemented the time limit for the Input Quill Assembly. We will use relevant findings to continually improve the safety of the V-22.