Japan Advances Stand-Off EW Capability with C-2-Based Test Aircraft

By Atul Chandra

The **Japan Air Self-Defense Force (JASDF)** has completed the first flight of a test aircraft that represent an important milestone in its effort to field a new stand-off jamming aircraft. Development of the new type is being undertaken jointly by the JASDF in collaboration with the **Acquisition, Technology & Logistics Agency (ATLA)** and **Kawasaki Heavy Industries (KHI)**.

The first public images were released by the JASDF's Air Development and Test Command (ADTC) on social media last week. The heavily modified C-2 features a bulbous nose radome, large elongated dorsal fairings on top of the fuselage, above the wing root and forward of the tail, and additional conformal fairings along the rear fuselage, suggesting the new design will fulfil a stand-off electronic warfare (EW) and signals intelligence role. Aircraft self-protection systems installed include missile approach warning sensors (MAWS).

The prototype aircraft (S/N 68-1203) is a modified C-2 tactical transport understood to be a JASDF test asset. The development program commenced in 2020.

The new stand-off EW platform is informally referred to as the EC-2, although no official designation has been confirmed. The aircraft will support JASDF operations by conducting effective electronic attack against adversary radar and communications systems. It will also perform electronic intelligence (ELINT) and communications intelligence (COMINT) missions.

The new EC-2 aircraft is expected to enter service in 2027.

The new stand-off EW aircraft will replace the JASDF's Kawasaki EC-1, which retired in 2025 after 39 years in service.

The JASDF stated on social media that it is advancing efforts to enhance cross-domain operational effectiveness and strengthen its capabilities in the electromagnetic domain. Japan's Ministry of Defense has prioritized stand-off capabilities in recent budget requests, including long-range strike and EW systems aimed at enhancing survivability in high-threat environments.

The JASDF also operates the RC-2 SIGINT aircraft, which entered service in October 2020. In its FY2026 budget request, the Ministry of Defence outlined plans to procure an additional RC-2 at a cost of ¥53.9 billion (US$339.9 million). The RC-2 is replacing the long-serving YS-11EB electronic intelligence aircraft.

Both the RC-2 and the new stand-off EW aircraft are based on Kawasaki's C-2 transport aircraft, which entered JASDF service in 2017. Kawasaki's C-2 is the largest aircraft ever developed in Japan. It has a maximum take-off weight (MTOW) of 141 tons, which is three times greater than that of the C-1 (45 tons). It is powered by a pair of General Electric CF6-80C2 high-bypass-ratio turbofans, which also power JASDF KC-767 and E-767s.