

White Paper: Enhancing C-130J Capabilities with Increased Fuel Capacity and Delivery

SUBJECT: National Guard Association of Texas - State Resolution to Modernize All ANG C-130Js with Increased Wing Fuel (IWF) and External Fuel Tanks

REFERENCES: WEPTAC 2023 and 2024 Weapons System Modernization Priorities Book

ISSUE: The Air National Guard (ANG) C-130J fleet requires significantly enhanced fuel capacity and delivery capabilities to effectively support modern operational requirements, particularly in large and geographically dispersed theaters like INDOPACOM. This necessitates the integration of both Increased Wing Fuel (IWF) and external fuel tanks.

POINT OF CONTACT: Resolution Committee, NGAT

PROPOSAL: Texas

BACKGROUND INFORMATION: The C-130J Hercules remains the backbone of the U.S. military's tactical airlift capabilities. Its versatility is critical for a wide range of missions, from combat resupply and troop transport to humanitarian aid and disaster relief. However, the increasing distances and operational complexities of modern warfare, especially in the INDOPACOM theater, are stretching the current fuel capacity of the C-130J to its limits.

The provided requirement summary explicitly outlines the critical need for increased fuel capacity and delivery capability for the C-130J fleet. This need is driven by several factors:

- **Rapid Global Mobility:** The ability to rapidly deploy and sustain forces across vast distances is paramount in modern conflict. Increased fuel capacity translates directly into extended range, allowing C-130Js to reach critical locations without multiple refueling stops.
- **INDOPACOM Theater Challenges:** The vast distances and island chains of the INDOPACOM region present unique logistical challenges. Extended range is essential for effective operations in this theater.
- **Agile Combat Employment (ACE):** ACE relies on dispersed operations and rapid redeployment. C-130Js with enhanced fuel capacity can better support ACE by transporting fuel and conducting specialized fueling operations for other Combat Air Forces aircraft, reducing reliance on fixed bases and vulnerable supply lines.
- **Increased Payload Delivery:** Increased fuel capacity, whether through IWF or external tanks, allows the C-130J to deliver more fuel or payload to forward locations, directly supporting combat sortie generation.
- **Reduced Fuel Stops and Increased Loiter Time:** More fuel means fewer refueling stops, which translates to less time spent on the ground and more time available for mission execution. Increased loiter time allows the C-130J to remain on station longer, providing crucial support to ground forces.

The C-130J requires both Increased Wing Fuel (IWF) and external fuel tanks to comprehensively address these challenges. IWF, achieved by reconfiguring wing tank plumbing and valves, increases internal fuel capacity by more than 4,000 pounds and extends range by 300 nautical miles. This is a crucial first step. Complementing IWF, external fuel tanks provide additional fuel capacity and flexibility for fuel and payload delivery, further extending range and enhancing the aircraft's utility. These two capabilities work synergistically to maximize the C-130J's performance.

JUSTIFICATION: Equipping all ANG C-130Js with both IWF and external fuel tanks is a crucial investment in the aircraft's continued relevance and effectiveness. It directly addresses the identified capability gaps and ensures that the C-130J can continue to perform its vital missions in the face of evolving threats and operational demands. This modernization effort is not merely desirable; it is a necessity for maintaining the C-130J's critical role in the National Guard's support of both state and federal missions.

BUDGET REQUEST: Funding for the modification of all ANG C-130J aircraft to incorporate Increased Wing Fuel (IWF) and the acquisition and integration of external fuel tanks for all ANG C-130J aircraft.

RECOMMENDATION: Pass a resolution supporting the modernization of all ANG C-130Js with both Increased Wing Fuel (IWF) and external fuel tanks to comprehensively enhance their fuel capacity and delivery capabilities, ensuring their continued effectiveness in support of both state and federal missions.