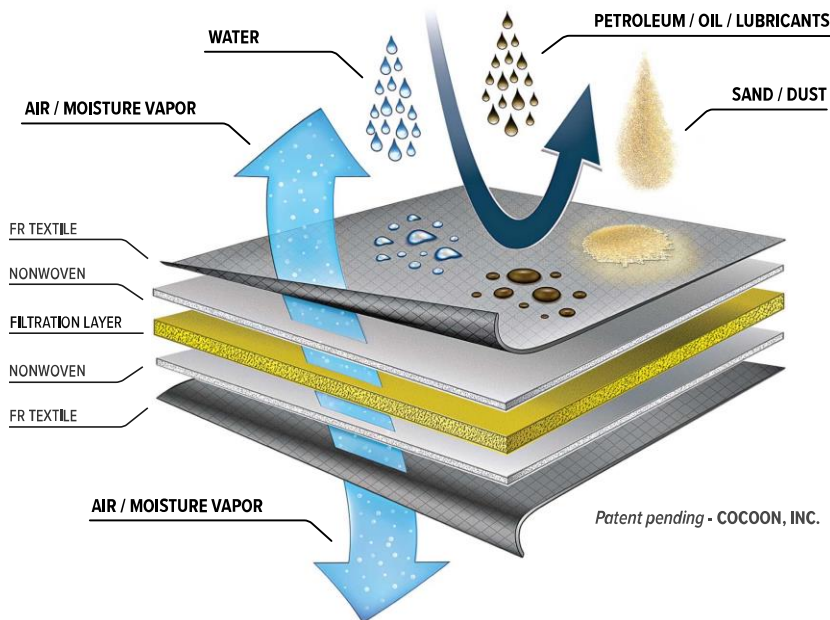


# CH-47 ITAB IMPROVED THERMAL ACOUSTIC BLANKET

## MISSION

Reduce operational and sustainment costs through weight reduction and corrosion mitigation, while improving readiness and safety by addressing the issues with the current thermal-acoustic insulation blanket (blanket).

- Old blankets are heavy and absorb fluids, which can add 100+ pounds to the aircraft during normal use and create a fire hazard from absorbed hydrocarbons.
- Old blanket traps moisture against the airframe causing corrosion and promoting the growth of mildew and mold; mold harms both the airframe and Soldier health.



## APPROACH

Outfit current CH-47 fleet with updated blankets meeting the Improved Thermal Acoustic Blanket (ITAB) Performance Specification developed by Cargo Helicopter.

### ITAB Features:

- Drop in Replacement (1 for 1 with old blanket)
- Lightweight, multi-layer non-woven textile
- Does not absorb fluids so will not gain weight over time
- Air permeable, preventing the build up of moisture between the blanket and the airframe; to prevent corrosion and mold
- Fire resistant
- Received airworthiness certification and has been fielded in CH-47

## WARFIGHTER PAYOFF

### Increased Operational Effectiveness with Reduced Operational Costs

- 60 lbs saved when compared to old blankets (newly installed)
- After 2 years of use, ITAB gained no weight from absorbed fluids, an approx 140+ lbs savings when compared to old blanket after use

### Reduced O&M Costs

- Ongoing flight tests show a reduction in both mold and corrosion on the airframe

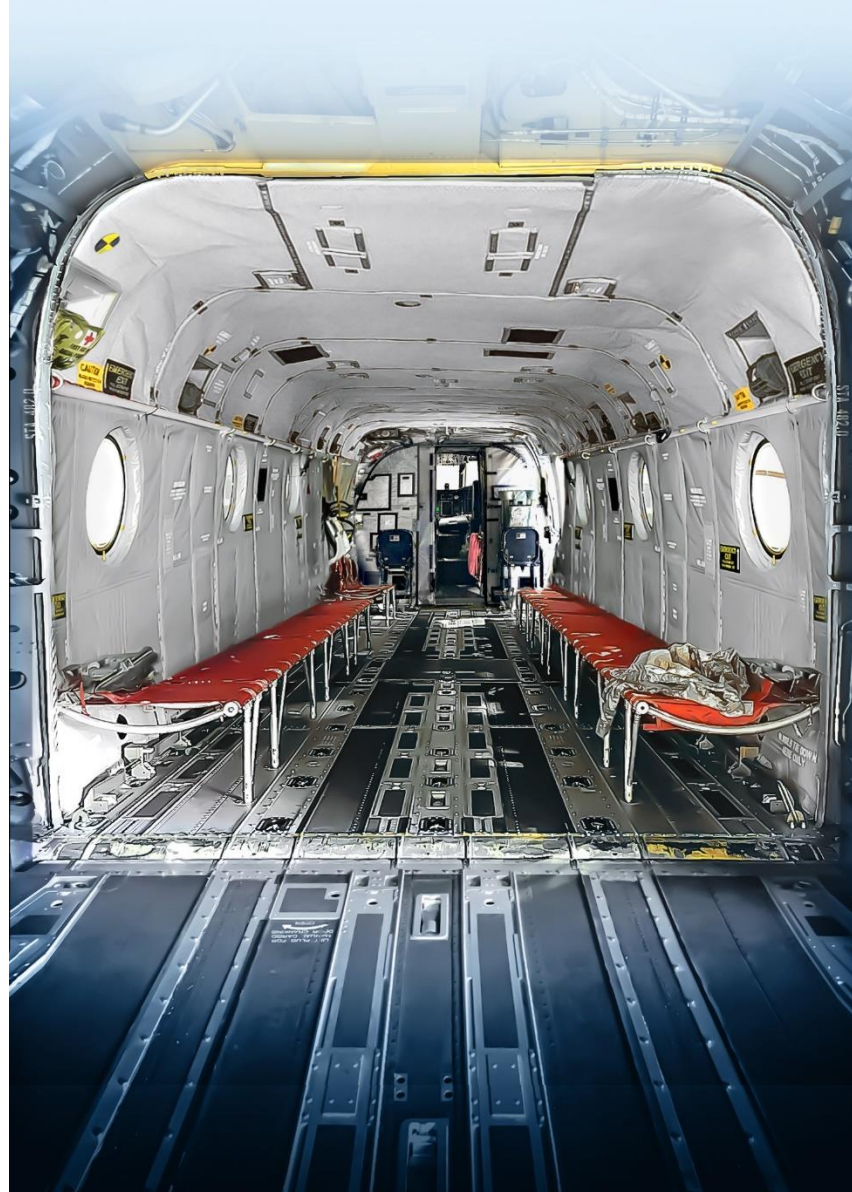
### Health, Safety and Comfort

- Eliminates health & safety concerns caused by mold and fire hazard
- 40% improvement in acoustical performance, reducing cargo bay noise
- 10% improvement in Thermal R value





Blankets Installed



Note: No 550 Cord!!

# PERFORMANCE COMPARISON

	OLD BLANKET	ITAB	IMPROVEMENT
Dry Weight (as new)	186 lbs.	126 lbs.	60 lbs. lighter
“Wet” Weight (in use)	270 lbs. (typical)	126 lbs.*	144 lbs. lighter
Barrier to water and contaminates	NO	YES	Will not absorb any fluids
Air Permeable	NO	YES	Water vapor passes through blanket to reduce corrosion
Thermal R Value	1.8	2.0	10%
Acoustical Cargo Bay	7db @ 10 - 1000 10db @ 1,000 - 10,000Hz	10db @ 10 - 1000 20db @ 1,000 - 10,000Hz	40% improvement cargo bay Equal to cockpit
Fire Resistance	NO	YES	Green FR uses no bromine or halogens
ESD (anti-static)	NO	YES	Inherently anti-static
Mold / Mildew Mitigation	NO	YES	Will not support mold growth

\*No weight gain verified after 12 months