



INDUSTRIAL · CS-610

CARRY THE CREW — ANSWER FOR THE CREW

A crew-carrying VTOL work machine. Two tiers — PM-8 single-seat, PM-12 two-seat.

DUAL EVERYTHING · THREE-WAY NAV · CHUTE · FOAM · SEAT

8 MOTORS — THE CREWED LADDER STARTS WHERE MOTOR-OUT STOPS BEING AN EMERGENCY	2 INDEPENDENT BATTERY PACKS AND POWER BUSES — EITHER ALONE SIZED TO LAND THE AIRCRAFT	3 GNSS RECEIVERS, PLUS A DISSIMILAR INERTIAL BACKUP CHANNEL	0 WEAPONS OR ENERGETIC PAYLOAD OF ANY KIND
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OVERVIEW

THE MOVER FAMILY'S HARDEST QUESTION, ASKED ON PURPOSE

Part of the **5-system Industrial line** — shares its envelope and doctrine with Cargo Mover, Heavy-Lift Logger, Self-Charging Dock.

8	2	3	0
MOTORS — THE CREWED LADDER STARTS WHERE MOTOR-OUT STOPS BEING AN EMERGENCY	INDEPENDENT BATTERY PACKS AND POWER BUSES — EITHER ALONE SIZED TO LAND THE AIRCRAFT	GNSS RECEIVERS, PLUS A DISSIMILAR INERTIAL BACKUP CHANNEL	WEAPONS OR ENERGETIC PAYLOAD OF ANY KIND

The Personnel Mover CS-610 is the crewed bar of Canadian Shield's mover family: a VTOL work machine engineered to move a working crew the way its sibling, the Cargo Mover CS-600, moves freight. It is a work machine — not a weapon, and not a toy.

Two tiers hold the ladder. **PM-8** is the single-seat entry machine on eight motors. **PM-12** is the two-seat top of the ladder on twelve. Both ride the same arm-pod-rotor grammar as the CM-4/6/12 freight tiers — same structural logic, same manufacturing base — but the crewed ladder deliberately starts at eight motors, because below eight there is no benign answer to losing one. That single decision is the whole program in miniature: where a person sits, the arithmetic changes first.

Everything on this page is engineered and patent-pending. Carrying people requires certification by Transport Canada and applicable aviation authorities; that bar is the program's stated destination, and nothing here claims it has been reached. Prototype flights are uncrewed and experimental as applicable.

THE HOUSE RULE

The machine earns the person. Never the other way around.

HOW IT WORKS

MECHANISM

HOW IT WORKS

DUAL EVERYTHING, BY ARCHITECTURE.

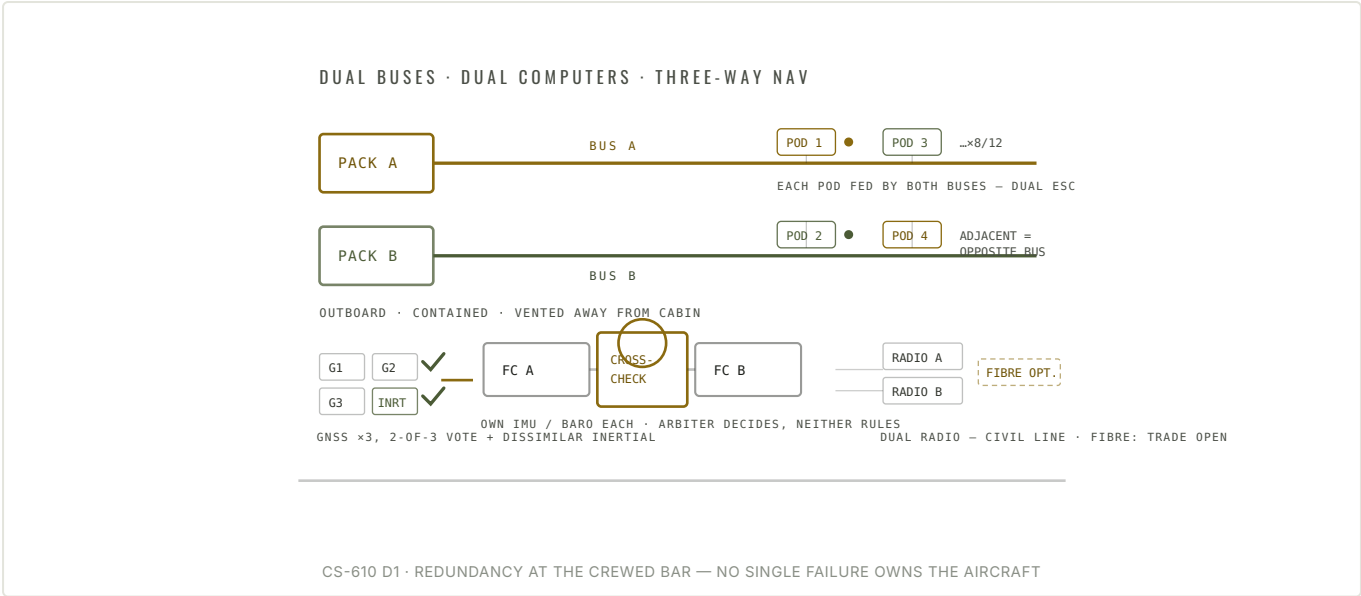
LIFT & REDUNDANCY

DUAL EVERYTHING, BY ARCHITECTURE

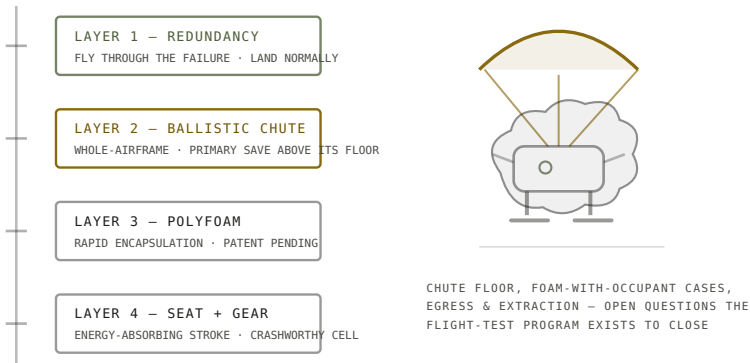
Distributed electric lift — eight or twelve fixed-pitch rotors — wired so that no single failure owns the aircraft. Redundancy is the design's spine, not a feature bolted on.

Two independent battery packs feed two independent power buses, with adjacent motor pods on opposite buses so a bus loss thins the lift evenly instead of tipping it. Dual flight computers — each with its own inertial and baro sensors — run behind a cross-check arbiter. Navigation is three GNSS receivers voting two-of-three, backed by a dissimilar inertial channel that keeps flying when all three are wrong. Command is dual radio — conventional, legal and encouraged on the civil line — with an optional optical-fibre fly-by-wire tether under trade study for the most critical flight profiles.

Motor-out at full mass, across the failure map, with fault detection proven — that is flight-test territory, and the program says so plainly. The architecture is drawn to make those demonstrations possible; the demonstrations themselves are what the flight campaign is for.



IF ONE LAYER FAILS, THE NEXT IS ALREADY ARMED



CS-610 D2 · OCCUPANT SAFETY CHAIN — LAYERED, HONEST ABOUT ITS OPEN QUESTIONS

SPECIFICATIONS

CAPABILITIES & SPECIFICATIONS

PERSONNEL MOVER CS-610													
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WHY THE HONESTY ROW EXISTS: A CREWED AIRCRAFT'S MASS LEDGER IS A FIXED-SUM ARGUMENT — EMPTY MASS, SAFETY CHAIN, BATTERY AND OCCUPANT ALL TRADE AGAINST EACH OTHER. THE PROGRAM PUBLISHES THE ARCHITECTURE NOW AND THE NUMBERS WHEN THE FLIGHT-TEST CAMPAIGN MAKES THEM TRUE. EVERY FIGURE ABOVE IS PROVISIONAL AND SUBJECT TO CHANGE.

THE TRADES, STATED

ONE MOVER GRAMMAR, FROM FREIGHT TO THE CREW

The civil line's thesis is that sovereign manufacturing should make working machines, not just defensive ones — and that a family sharing one architecture gets safer and cheaper together.

The CS-610 advances that thesis at its steepest point. It shares the mover family's arm, pod and rotor grammar with the Cargo Mover CS-600 — the same size ladder, the same structural sections, the same Canadian shop floor, backed by three decades of designing and operating mobile rigs to a million pounds. Every freight tier that flies teaches the crewed tiers something; every crewed requirement hardens the freight line in return. And because this is the civil line, the machine talks like a civil machine: conventional radio command and GNSS navigation are permitted and used — unlike the defence fleet, which is engineered to need neither. Safety-first engineering is not a department here; it is the product.

FAMILY CONTEXT

CS-600 hauls the freight. CS-610 carries the reason for it.

DEPLOYMENT

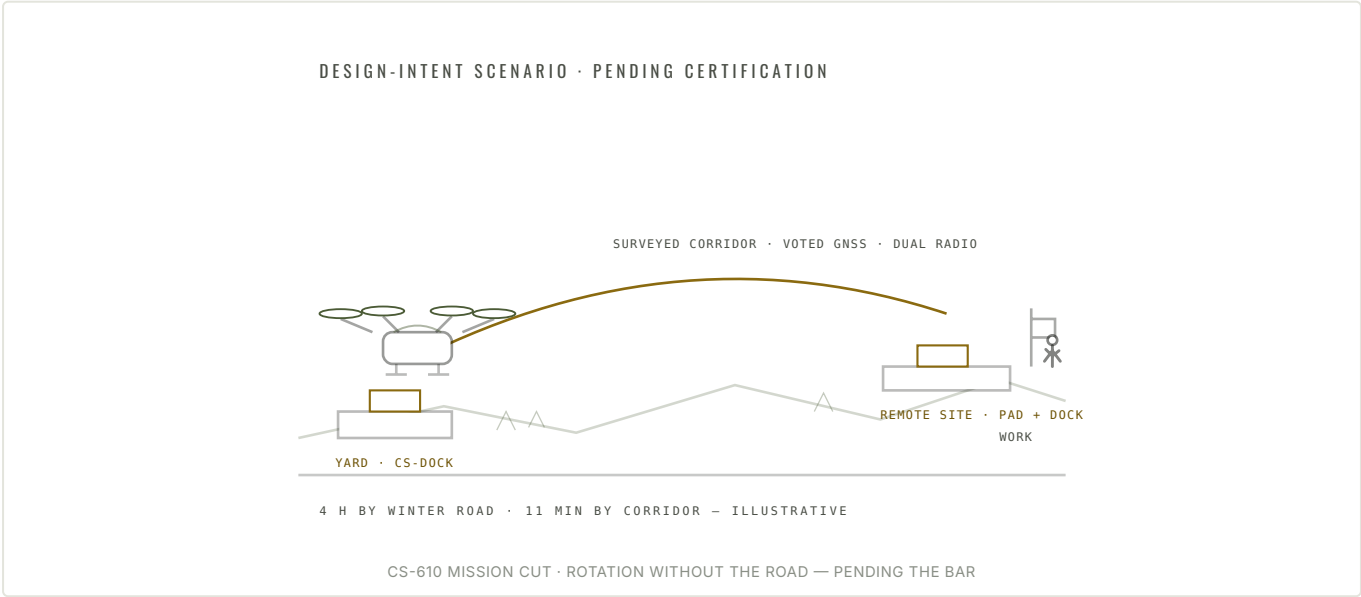
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Arrive. A remote compressor site, four hours by winter road, eleven minutes by air. The mover lifts from the yard dock with the morning technician aboard, riding a surveyed corridor on voted GNSS with dual radio to the site net.

Work. On the pad, the machine sets down on its energy-absorbing gear beside the CS-DOCK and takes its charge while the crew works. No idling truck, no road crew, no eight-hour round trip for a ninety-minute inspection.

Recover. Shift's end: the outbound technician boards, the dock releases, and the mover flies the corridor home — the same layered safety chain riding every minute of it. The road stays unploughed. The crew is home for dinner.



Scenario illustrates the design intent of the operating loop, pending certification and test. It is not a promise of availability or a representation to any regulator.

THE FAMILY

RELATED SYSTEMS

CS-600 · INDUSTRIAL

CARGO MOVER

An uncrewed VTOL cargo family — four sizes of the same machine, from toolbox to bulk lift.

CS-620 · INDUSTRIAL

HEAVY-LIFT LOGGER

An uncrewed coaxial hybrid rotorcraft for long-line log extraction — turn after turn, hour after hour.

CS-700 · INDUSTRIAL

SELF-CHARGING DOCK

A docking and replenishment station that lets a working fleet return, recharge and redeploy without a hand touching it.

CS-C001 · INDUSTRIAL

FIBRE SPOOL LINE

Guidance-fibre consumable cassettes — a physical tether option, alongside or instead of radio.

Personnel Mover CS-610: patent pending · Industrial civil line — conventional radio C2 and GNSS are permitted on this line. Carrying people requires certification by Transport Canada and applicable aviation authorities; the program is engineered toward that bar, no certification of any kind is claimed, and prototype flights are uncrewed and experimental as applicable. A work machine — it carries no weapon and no energetic payload. All designs, systems and technologies shown are patent pending.



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01 REQUEST A TECHNICAL EXCHANGE

A working session with engineering, not sales — bring your engagement problem, we bring the mechanism.

02 REQUEST THE INDUSTRIAL FAMILY DATA PACK

Drawings, tolerances and test basis for Personnel Mover and its siblings, gated behind export screening.

03 DISCUSS A TRIAL QUANTITY

Tell us end-user, jurisdiction, quantity band and timeline — we respond against your program, not a price list.

SALES

sales@cdnshield.ca

GENERAL

info@cdnshield.ca

WEB

cdnshield.ca

Direct lines, named points of contact and facility details are shared with qualified programs following screening — not withheld, sequenced.

Canadian Shield is a defence and industrial drone company, backed by SIG: four-domain uncrewed systems built for jammed, GPS-denied environments — no-radio by design, manufactured for cost and salvo depth.

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Product specification R1.0 · 2026-08-15 · © Canadian Shield, a division of SIG (Sustainable Infrastructure Group).