OAK TRAINER

EW & Air-Defence Training & Assessment — sovereign Canadian, ITAR-free

A constructive training range built on OAK's 3-D Battlespace Wargame. Trainees run air-defence and electronic-warfare exercises on the same physics and fire-control doctrine as the live simulator, and the system **grades every run automatically** — an overall mark plus an objective-by-objective breakdown — turning wargaming into measurable, repeatable instruction. Runs offline on a laptop; no GPU or network required.

Curriculum

Exercise	Level	Teaches
Air Defence — Intercept	Basic	Detect, track, engage in the WEZ, hold the HVT
Saturation Raid Defence	Advanced	Manage limited SAM guidance channels under a mass raid
Emission Control vs ARM	Interm.	Win passively; deny the anti-radiation threat a track
NAVWAR — Degraded SA	Advanced	Fight through comms & GNSS denial

Automatic assessment

Every run is scored against a per-exercise rubric — mission outcome, attrition, fratricide avoidance, weapons efficiency, emission control, network resilience — producing a **letter grade, pass/fail and a per-objective breakdown** with plain-language feedback.

Because scoring runs on the same engine as the live wargame, constructive (AI-vs-AI) runs and a trainee's own run are graded on identical rules.

Why it stands out

Measurable turns subjective wargaming into a repeatable grade — progression, benchmarking and standards, not just a debrief.

Same-engine fidelity real 6-DOF physics, sensor-to- track, networked IADS with EMCON, fire-control doctrine, EW terminal fight and graded damage — the depth of the live wargame behind the assessment.

Sovereign & portable pure-Python, no GPU, offline — Canadian IP, ITAR-free, deployable to a classroom or a ruggedised laptop in the field.

Built for

Air-defence & EW operator training · mission rehearsal · course-of-action assessment · doctrine & standards development · exercise evaluation.

Aligned to

Collective training & simulation · EW / IADS · Mission rehearsal · Readiness & assessment

Unclassified · representational / educational only · not an operational planning system.

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