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# Field IQ Systems Executive Brief

## Post-Mission Evaluation Support for AAR and Readiness Review

*(Deterministic • Explainable • Post-Mission Only • Supports Evaluator Judgment and Mission Command)*

### The Problem

In training, evaluation, and exercise environments, post-mission review often relies on manual reconstruction and subjective interpretation. Observer Controllers and evaluators may already have the data they need, but turning it into consistent, defensible AAR outputs still takes time. Field IQ reduces that burden by turning existing exercise data into evidence-backed findings for post-exercise review.

### What It Is

Field IQ is a post-mission evaluation support layer for training and evaluation environments. It helps Observer Controllers and evaluators turn existing exercise data into evidence-backed findings for AAR and post-exercise review. It surfaces movement, timing, dwell, and readiness-relevant indicators from post-mission data and adds plan-relative comparison when mission plan or route geometry is available. Field IQ is post-mission, read-only, and designed to support evaluator judgment and mission command inside existing debrief, AAR, and evaluation workflows.

Applicable in training, certification, experimentation, and test environments where post-mission exercise data is available. Mission plan or route geometry is optional and enables plan-relative comparison when provided.

### Post-Mission Exercise Data → Evaluator Review Outputs

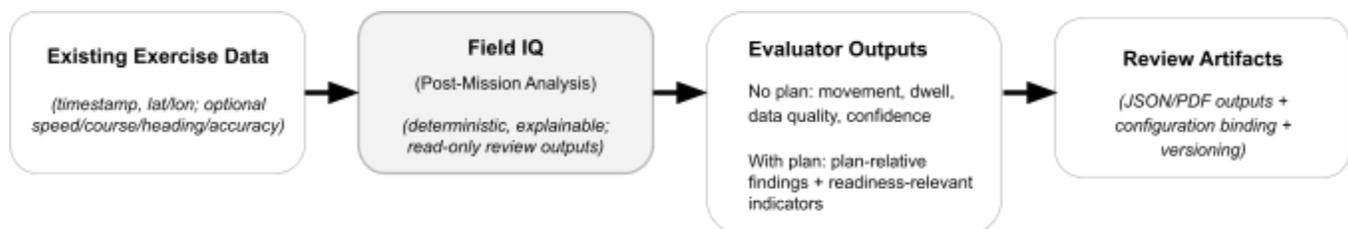


Figure 1 — Post-mission, read-only evaluation support that turns existing exercise data into evidence-backed findings for AAR and post-exercise review. Plan-relative comparison is added when mission plan or route geometry is provided.

## Structured Outputs (Concrete Artifacts Produced)

- Timestamped movement-state reconstruction with direct source-data references
- Data-quality confidence indicator describing underlying dataset, not a performance grade
- Plan-relative comparison when mission plan or route geometry is provided
- Evidence-linked findings to support defensible post-mission review
- Exportable, read-only artifacts (e.g., JSON/PDF) for independent post-exercise review
- Repeatable outputs across identical runs to support evaluator consistency

## What It Is NOT (non-negotiable boundaries)

- **Not autonomous:** does not act, decide, or direct
- **Not real-time:** no live operational guidance; no control-loop integration
- **Not command and control:** no live tasking, directives, or real-time operational advisories
- **Not automated grading/adjudication:** no pass/fail, no punitive outcomes
- **Not self-learning/adaptive scoring:** does not self-modify behavior in production
- **Not an instructor/evaluator replacement:** supports evaluator judgment and mission command
- **Not a safety system:** not used for collision avoidance, deconfliction/separation assurance, mission authorization, certification, or go/no-go decisions

## With Plan Data / Without Plan Data — How It Works

Field IQ can process post-mission exercise data with or without mission plan data. Plan-relative comparison only executes when route geometry or mission plan data is provided.

### With plan data

- Show planned-versus-actual comparison
- Identify and characterize deviations relative to the plan
- Produce plan-relative findings when plan data is provided

**Without plan data:**

- Ingest post-mission data and enforce monotonic timestamps
- Compute data-quality metrics
- Produce confidence indicators based on data quality
- Surface movement patterns such as dwell and low-speed movement
- Display actual tracks and derived movement metrics

**Critical boundary:** Without mission plan or route geometry, Field IQ **does not** evaluate adherence and **does not** produce plan-relative review outputs.

**“Can I Trust It?” — Determinism, Explainability, Defensibility****Deterministic outputs (repeatable)**

Same data in → same results out. Every time. Identical inputs produce identical evaluation results and consistent exported artifacts and rendering. Determinism supports consistency across evaluators and across time in post-mission evaluation.

**Explainable findings (evidence-linked)**

Findings are tied to source-data evidence windows and segments, so a reviewer can answer what happened, where, and why it was flagged.

**Traceability & configuration binding (defensible later)**

Plain English: You can show what configuration governed the output and what evidence supports it.

Technical: Outputs include versioned run identifiers and integrity markers to support reproducible, defensible review, without exposing internal parameters

**Deployment & Data Boundary****Local processing inside the customer environment**

- Processed locally within the customer environment
- **No external data exfiltration is required** to perform evaluation
- Supports low-friction deployment in customer-controlled environments

**Retention default**

- Default pilot behavior is ephemeral processing
- Retention is defined by customer agreement / deployment policy; long-term retention is not required

## Initial Pilot Shape

An initial pilot starts with:

1. One exercise data export sample (timestamp + lat/lon),
2. One mission context definition (what the evaluator is trying to assess)
3. Optional mission plan or route geometry if plan-relative outputs are desired

### Pilot shape:

- One mission profile (e.g., terminal/approach training profile, patrol route/box, search pattern, test and evaluation route)
- One dataset source (exports already collected)
- One output package: evidence-backed findings, data-quality confidence, and plan-relative findings when a plan exists
- One evaluator review loop (SME validation)
- One determinism check (same input → same result)
- No integration into operational systems required

### Example success criteria (pick 3):

- Reduced manual reconstruction time / faster AAR preparation
- Increased evaluator consistency and defensibility of findings
- Evidence-linked findings suitable for AAR and debrief
- Demonstrated determinism on repeat runs
- Demonstrated reduction in subjective interpretation variance
- Confidence reflects data quality under imperfect inputs

Field IQ's purpose is not data visualization. It is post-mission evaluation support that helps Observer Controllers and evaluators turn existing exercise data into evidence-backed findings for AAR and post-exercise review.

**Bottom Line:** Field IQ provides deterministic, explainable post-mission evaluation support, including data-quality confidence and optional plan-relative comparison when plan data is available, while supporting evaluator judgment and mission command.