

AI Detection to CoP Integration

Project Progress Report

Phase Timeline

PHASE 01: Foundation [=====] 100% (6/6 DONE)

PHASE 02: Core Features [=====] 100% (5/5 DONE)

PHASE 03: Offline-First [=====] 100% (4/4 DONE)

PHASE 04: Quality Assurance [-----] 0% (PENDING)

PHASE 05: Production Ready [-----] 0% (PENDING)

Test Coverage

Service	Tests	Status
Geolocation Service	27	PASS
CoT Service	15	PASS
Audit Trail Service	41	PASS
Offline Queue Service	37	PASS
Config Service	4	PASS
TOTAL	124	ALL PASS

Key Deliverables

- AuditTrailService: Immutable event logging, 10 event types, database persistence
- OfflineQueueService: SQLite queue, persistence, recovery, connectivity monitoring
- GeolocationService: Photogrammetry-based geolocation with confidence levels
- CotService: TAK/ATAK compatible CoT XML generation with type codes
- Complete Detection Pipeline: Image to photogrammetry to CoT to TAK output

Data Flow Architecture

Image Input → Photogrammetry Analysis → CoT XML Generation → TAK Push → [If Offline: Queue Locally] → Audit Trail Logging

Completion Status

Steps Completed: 10/10 (100%)

Tests Passing: 124/124 (100%)

Test Failures: 0 (0%)

Feature Status: COMPLETE (Ready)

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Project: AI Detection to CoP Integration | Status: Feature Complete