

Case Study: SensAI for the Ministry of Defense – C. America Country

1. Executive Summary

In November 2025, the Ministry of Defense in a Central America country (MINDEF), through its Military Intelligence Unit and Directorate General for Arms and Ammunition Control, conducted a controlled Proof of Concept (PoC) to evaluate SensAI's capability to identify deception, internal risk indicators, and concealed affiliations among military personnel.

The PoC demonstrated 100% detection of deception correlations, 71% multi topic deception patterns and strong operational acceptance from MINDEF interrogators.

SensAI provided rapid, objective insights during structured interviews, enabling faster and more accurate vetting decisions in sensitive security environments.

2. Background

The country's defense ecosystem faces threats from organized crime infiltration, drug trafficking networks, corruption within security structures and unauthorized access to weapons and classified information.

The Ministry of Defense sought an advanced screening solution capable of enhancing background checks, integrity assessment and insider threat detection across the Military Pre-Employment division, Military Intelligence Unit and Firearms Licensing Unit.

3. Objectives of the POC

- **Validate real-time support during intelligence interrogations:**
 - Assist interrogators in identifying deception
 - Enhance interview structure and depth
 - Improve accuracy and speed of personnel evaluations
- **Deliver actionable performance metrics:**
 - Provide quantitative indicators of deception
 - Support decisions for recruitment, clearance and investigations
 - Establish a repeatable methodology for large scale adoption

4. Methodology and Workflow

The PoC followed a three-day operational cycle (18–21 November 2025):

Step 1 – Preparation:

- Stakeholder alignment, use-case definition
- Full-day training for 9 interrogators
- Technical setup and SensAI interface orientation

Step 2 – Live Execution:

- SensAI deployed side-by-side with intelligence interrogators
- Real-time analysis of each interrogation
- Daily reports: deception maps, topic correlations, technical logs

Step 3 – Consolidation:

- Analysis of all interviews
- Insights into deception indicators
- Final presentation to MINDEF leadership

5. Interrogation Protocol

A structured, polygraph style protocol was designed into 10 topic clusters included:

1. Organized Crime
2. Drug Trafficking
3. Commission of a Crime
4. Illegal Drug Use
5. Selling Confidential Information
6. Illicit Benefits
7. Providing Sensitive Information
8. Theft
9. Failing to Report Incidents
10. Unauthorized Alcohol Use

Each cluster contained 3 comparison questions and 3 relevant questions, ensuring clean baselines and reliable deception mapping.

6. Test Population

- 7 soldiers screened
- 7 intelligence interrogators
- 6–10 questions per interview
- Average session length: ~12 minutes

7. Results

Key Findings:

- 100% of interviewees showed at least one meaningful potential deception.
- 71% showed three or more correlated peaks strong deception indicators.

Multiple high correlations were found in:

- Organized crime (86%)
- Selling confidential information (80%)
- Drug trafficking correlations (57%)

Reaction map

Topico	High	Middle	Low
#1 Organized crime	43%	0%	57%
#2 Narcotic	29%	43%	29%
#3 Commission of a Crime	29%	0%	71%
#4 Illegal drug use	14%	14%	71%
#5 Sale of confidential information	14%	71%	14%
#6 Illicit Profit	43%	29%	29%
#7 Giving sensitive information	43%	0%	29%
#8 Stealing	14%	0%	29%
#9 Skipping the report	14%	14%	0%
#10 Unauthorized Alcohol	14%	14%	0%

Topic-specific deception maps helped interrogators rapidly detect areas requiring deeper inquiry.

8. Inspector Feedback

Interrogators reported:

- ✓ SensAI provided strong support during interviews.
- ✓ Enabled faster, clearer decisions.
- ✓ Helped highlight concealed topics in minutes.
- ✓ System easy to operate, fast to deploy and effective across different questioning styles.
- ✓ Training quality and question technique were identified as performance multipliers.

9. Conclusion

The PoC demonstrated that SensAI is a powerful decision support tool for counterintelligence, integrity screening and insider threat detection within MINDEF.

SensAI delivered high quality, objective and repeatable analytics that significantly strengthened the evaluation process for pre-employment, sensitive military and weapons control personnel.

The results support transitioning to a broader deployment phase across pre-employment, intelligence screening, recruitment vetting, corruption prevention, and arms control oversight.