

Enhanced Radar for Increased Border Domain Awareness and Operational Coordination

Abridged Executive Summary

Collaborative Systems for Security, Safety and Regional Resilience (CoSSaR)

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Effective maritime and coastal border security requires shared persistent domain awareness and operational coordination among Department of Homeland Security (DHS) agencies and their regional partners. In this project, Pacific Northwest safety and security stakeholders led by the United States Border Patrol (USBP) worked together to articulate an interagency concept of operations (ConOps) that incorporates a generic enhanced radar detection system referred to as a *Persistent Surveillance Capability System (PSCS)*. Within this ConOps framework, the *PSCS* supports the desired workflow of regional agency partners in the accomplishment of their collective border security missions, particularly during critical times when coordination needs to go beyond “business as usual.” The ConOps, referred to as the *PSCS Workflow Model (Figure 1, p. 10)*, guides the specification of desired requirements and features of a generic *PSCS*.

The *PSCS Workflow Model* brings together enhanced radar capabilities and associated work processes and strategies to formalize how together these elements can best meet the collective goals and objectives of Pacific Northwest security partners. The model is based on three operational levels:

(Level 1) “Business as usual” when stakeholders are occupied by vital business at hand and will not turn from that business unless something is occurring that is sufficiently urgent to warrant changing gears and focusing on the new situation. At this level, a *PSCS* is a highly autonomous system that monitors the area of responsibility, analyzes evolving situations, and, when warranted, reaches out to grab the attention of appropriate members of the security community to say, “Hey, are you aware of this? Maybe you should check it out?”

(Level 2) “Tracking and monitoring an evolving situation” after the *PSCS* (or other resources) has alerted the security community to a situation of interest and the community shifts to shared monitoring and evaluation of that situation. At this level, a *PSCS* supports collaborative tracking, shared analysis and coordinated planning in response to a specific situation identified at Level 1.

(Level 3) “Coordinated response and incident management” when regional security stakeholders launch actions and employ strategies to address the situation. At this level, *PSCS* requirements are the most complex since it must support very different activities at command centers and in the field and very different responses ranging from slowly evolving planned responses to rapidly escalating immediate responses.

This report also documents and recommends a stakeholder-centric process for specifying the requirements for technology solutions based on the DHS guiding principle of “jointness and integration [t]hrough a comprehensive and collaborative approach [that] ensure[s] its operators and employees have the necessary tools, resources, and authorities to execute its mission.” The central event in this process was a workshop with twenty-one participants representing eight partner stakeholders: Customs and Border Protection (CBP) USBP Port Angeles, CBP Intel,

CBP Air and Marine Operations (AMO) Bellingham, CBP Office of Field Operations (OFO), CBP Legal Counsel, United States Coast Guard (USCG) Sector Puget Sound, USCG Intel, and Royal Canadian Mounted Police (RCMP). At this workshop/exercise, participants engaged with a scenario that they collaboratively worked through twice, first without a PSCS and then with it. Throughout the exercise, participants broke from the scenario to articulate requirements for a PSCS that would leverage their collective capabilities and achieve more effective and collaborative response operations.