

Many of the future CBP construction projects considered under this alternative would be considered small, and many would likely be covered under CBP categorical exclusions (CATEXs). Potentially applicable CBP CATEXs include those listed in the D and E categories of Appendix D.

Table 2.4-1 shows by geographic region the approximate activity levels that the Facilities Development and Improvement Alternative would address. These represent totally new projects that are not yet being programmed or are very early in the programming process.

Table 2.4-1 Anticipated Activity Levels by Region¹—Facilities Development and Improvement Alternative

Category	West of the Rockies	East of the Rockies	Great Lakes	New England
Number small construction projects (various) ^{1,2}	30 ±	30 ±	30 ±	30 ±
Number large construction projects (BPSs, other facility construction or major modification) ^{1,2}	20 ±	20 ±	20 ±	20 ±

¹ Next five to seven years.

² These numbers represent new projects, beyond those already planned (shown in Table 2.3-1).

2.1 DETECTION, INSPECTION, SURVEILLANCE, AND COMMUNICATIONS TECHNOLOGY EXPANSION ALTERNATIVE (PREFERRED ALTERNATIVE / ENVIRONMENTAL PREFERABLE ALTERNATIVE)

Under the Detection, Inspection, Surveillance, and Communications Technology Expansion Alternative (Detection/Inspection Alternative), CBP would leverage its funding and resources on more USBP and OAM surveillance operations and greater use of technological security tools, such as RVSS, short-range radars, ground sensors, UASs, and the various types of scanning technologies for vehicle and cargo inspections (see box). CBP would continue to evaluate commercial off-the-shelf (COTS) applications for their utility for the following purposes:

- Performing inspections using more personal radiation detectors (PRD), RIIDs and NII tools such as gamma imaging inspection systems, and low and high energy x-ray inspection systems (see box on page 2-12). (CBP completed Programmatic Environmental Assessments (EA) on the deployment of various types of NII technology in 2010 and recently published a programmatic EA for the use of low energy x-ray inspection systems to scan personally owned vehicles (POVs) with the driver/passenger in the vehicle.).

Detection, Inspection, Surveillance, and Communications Technology Systems and Tools

Gamma Imaging Inspection Systems

The gamma imaging inspection system is used to scan cargo. It can be delivered as a portal or on tracks for POEs, or mounted on a truck to be used at multiple, temporary, and/or remote locations as well as POEs. The truck-mounted system can be especially useful for those situations where the container itself is fixed.

X-Ray Imaging Systems

High Energy X-Ray Inspection Systems (HEXRIS) is a non-intrusive inspection technology for use to aid in inspecting high-density cargo containers. Low Energy X-Ray Systems are utilized to scan personally owned vehicles (POVs).

Communications Systems

Communications systems consist of equipment (e.g. land mobile radio (LMR) antennae, microwave dishes, repeaters, and receivers) mounted on communications towers or other structures. Additional associated equipment may be used, including: shelters, generators (used for back-up power), fuel storage tanks, and tower-related equipment. Solar power may be used as a power source and would be supplied by photovoltaic panels installed in the vicinity of the communications equipment.

Innovative Wireless Technologies

This unattended sensor system includes integrated acoustic sensors for detection of low flying aircraft and other targets. It reliably scales from a small, focused target to a nationwide network. The components fit into small plastic containers (approximately three feet on side) and a small antenna (several feet), which can be set on the ground surface.

Acoustic Air Surveillance System

The Acoustic Air Surveillance System consists of a set of sensor nodes and a central processing server. The components consist of COTS hardware such as microphones, antennas, solar panels, battery, and a pelican (weatherproof) or similar case. The microphones and antennas are generally mounted on camera tripods.

OmniSense Sensor System

This is an integrated sensor package that includes unattended ground sensors, surveillance cameras, rugged hand-held programmer/ monitor, repeaters, and a display unit. OmniSense CORE activity detection units can signal imaging sensor units to take pictures when activity is detected.

Low-Flying Aircraft Passive Acoustic Detection System (LPADS)

The LPADS is a network of appropriately-located microphone array units. When two or more units detect the same source, a three-dimension, real-time track of the source is produced. The microphone units are small and lightweight, and can be powered by batteries and solar cells.

- Providing the Common Operating Picture for increased situational awareness to all CBP components. The CBP Office of Technology Innovation and Assessment (OTIA) is evaluating several passive acoustic air surveillance systems, using innovative wireless technologies to integrate UGS with surveillance cameras and repeaters, for detection of low-flying aircraft (including ultra-lights), and using short range radars. Most of these applications involve combining commercial-off-the-shelf technology in new ways to address specific needs.

The possible consequences of this alternative would be (1) a reduction in wait times at POEs; (2) an increase in the rate and amount of materials confiscated that would have to be transported, analyzed, and properly disposed of; (3) an increase in the interdiction of cross-border violators