Homeland Security
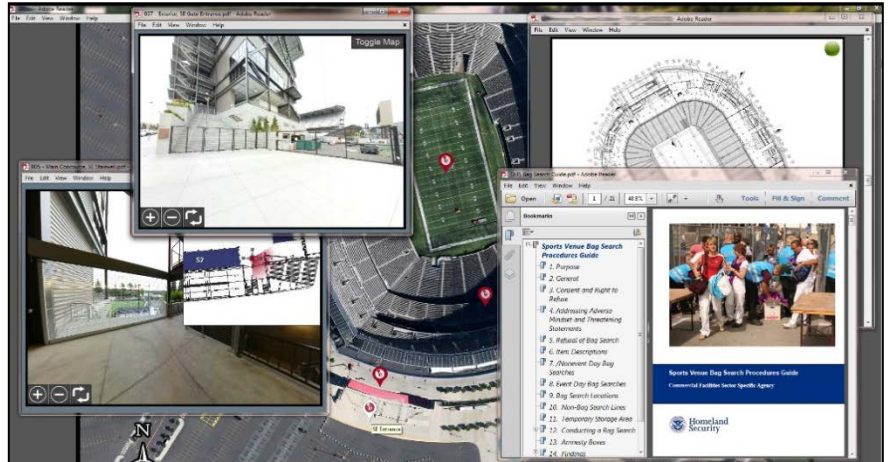
Infrastructure Visualization Platform

The Infrastructure Visualization Platform (IVP) is a data collection and presentation medium that supports critical infrastructure security, special event planning, and response operations by integrating assessment data and other relevant materials. The platform provides immersive imagery, geospatial, and hypermedia data of critical facilities, surrounding areas, and transportation routes that assists security personnel in planning, protection, and response efforts.

IVP imagery captures are conducted in support of National Special Security Events and other special events, as well as at the request of facility owners and operators, local law enforcement, and emergency response personnel via the local Protective Security Advisor (PSA). In support of special events, such as the Super Bowl, Presidential debates and inaugurations, and NCAA championship sporting events, the Office of Infrastructure Protection collaborates with the United States Secret Service, the Federal Bureau of Investigation, and other agencies to conduct IVP imagery collections. IVP data is also used to support the Regional Resiliency Assessment Program (RRAP) via the RRAP Multimedia Presentation, which includes an interactive version of the final Resiliency Assessment along with any supporting RRAP materials and documentation.

Examples of IVP capabilities. Courtesy of DHS.

Program Description

The IVP team consists of collection and production specialists who conduct IVP imagery captures. When conducting an imagery capture, the IVP team considers two viewpoints: hostile target and civil response. For the hostile target viewpoint in which a facility or building is viewed as a tactical objective, the team collects multimedia data to document approach and exit routes, use of lighting, visible and hidden entrances, loading docks, and parking garages. In considering the civil response viewpoint, the team collects data on obstructions and restrictions that would affect the approach of emergency response vehicles and equipment to the site and street/parking accessibility in proximity to building access points. Additional data includes significant assets in the area, such as exterior and interior critical support equipment (water valves, electrical shut-off panels, back-up generators, etc.), personnel emergency marshaling points, and control centers. Depending on the amount of data collected, the IVP team typically takes two weeks to produce the final product—which is an interactive portable document containing the image captures, data, and analysis—and is provided to the facility representative, primary stakeholder of an RRAP, or special event security planning personnel. The final product assists these users in training, planning, and making rapid and informed incident preparedness and management decisions.

Contact Information

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