ThreatID Case Study: United States Postal Inspection Service

Ever since anthrax spores were mailed to high value targets in late 2001 and resulted in five deaths and 17 infections of American citizens[1], the United States Postal Inspection Service (USPIS) has been concerned about suspicious substances being sent within envelopes and packages. But the USPIS mission of protecting America's mail has a long history.

Though the Department of Homeland Security (DHS) is the largest U.S. federal law enforcement agency, USPIS is its oldest.[1,4] 248 years ago, on August 7, 1775, Postmaster General Benjamin Franklin handed a paycheck to the first USPIS Surveyor William Goddard in Philadelphia, Pennsylvania.[4] The USPIS has been carrying out its critical duties program ever since, most recently under the auspices of the Dangerous Mail Investigation (DMI) program.

Key to this program has been the adoption of advanced screening and detection technologies to expedite the analysis of potential threat materials in mailed containers.[5] Such threats can include actual or hoax biological agents, illicit drugs, or numerous other types of suspicious substances. To that end, the USPIS adopted field-portable Fourier transform infrared (FTIR) technology in 2005 owing to its ease of use and desirable form factor. More recently, as part of a technology refresh initiative, the agency updated its chemical identification fleet with the ThreatID™. Currently, 225 ThreatID systems are deployed by the USPIS at strategic locations around the country.

ThreatID is a portable FTIR analyzer which can identify over 28,600 products including common household materials, hazardous chemicals, explosives, drugs, and much more in less than one minute. Measuring a substance is as simple as placing a minute grain of solid or drop of liquid onto the diamond sensor and following the on- screen prompts. However, these technical features were not the only aspects the USPIS considered when procuring the ThreatID. As important was the unique level of ***support*** provided to the agency.



When inspectors are trained, they receive a tailored program which incorporates the ThreatID into their concept of operations (CONOPS). Specifically, the training addresses how FTIR should be used within the context of other technologies employed by the inspectors during threat assessment. These technologies parallel those used in hazardous materials response including pH paper, radiation detectors, multi-gas monitors, and even biological agent screening tests. USPS Publication 52 documentation on Hazardous, Restricted, and Perishable Mail[1] was programmed into the ThreatID software for direct on-board access at the system's result screen. Service is also paramount, 24/7/365 access is provided to its scientists and engineers for device troubleshooting and spectral data review when they are needed most. Furthermore, the TeamLeader mobile application, a standard no-cost offering to all our customers, fits nicely with the USPS goal of

exploring "cloud capabilities in support of targeting and detection efforts" as part of the DMI initiative.[5]

The ThreatID is a critical component of the USPIS mail protection mission. As part of a tiered screening approach, the ThreatID has proven to be an effective means of protecting USPIS employees and its customers. The agency responds to approximately 2,500 mail inspection calls per year. Though not all calls require a physical response, the ThreatID provides peace of mind to all who encounter suspicious substances, especially when the threat of legitimate attacks still looms in our unsettled world. As a law enforcement arm of the U.S. government, the USPIS can impose strict penalties onto offenders including fines or prosecution. Having the most advanced technologies in hand, these efforts are conducted with more speed and confidence than ever before. Benjamin Franklin would indeed be proud.



References:

1. Publication 52 – Hazardous, Restricted, and Perishable Mail Standard, pe.usps.com/text/pub52/index.htm, Accessed November 7, 2023.
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4. www.uspis.gov/about/history-of-uspis, accessed November 7, 2023.
5. U.S. Postal Service Strategy: Combating Illicit Drugs in the Mail, September 2020 Report, www.uspis.gov/combating-illicit-drugs-in-the-mail, Accessed November 7, 2023.SU103_AGHS.pdf, Revision 23 August 2018.

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