



BEHAVIOR ANALYSIS IN AVIATION SECURITY

The issue and position

Current screening methods deployed at airports focus on the detection of prohibited or potentially dangerous articles. To complement the detection of prohibited articles IATA recommends the introduction of behavior analysis measures with the view to identify individuals with malicious intent.

When identifying and assessing threats, States should follow a risk based approach. In order to address the vast scope of threats (not always detectable by a single technology), States should consider an approach which integrates a mix of techniques, technologies and processes. Threats to air transport constantly evolve, it is therefore essential to constantly monitor the situation and react to changes in risk assessment through application of relevant mitigations. In contrast to many other measures applied at airports, behavior analysis can be applied anywhere in the airport to support detection of anomalous behavior. Furthermore, its application is not only limited to passengers, but also to staff and other visitors to the airport.

Behavioral analysis is an important component of a differentiated, risk based security system, enabling a dynamic decision to be made while the person is present at an airport. For instance, it may add an extra layer of unpredictability to the screening process supplementing existing security protocols, or be used to select passengers for a differentiated screening process.

Behavior analysis may form a complementary element in a wider risk assessment for the identification of either higher and lower risk individuals or grouping of persons. For example, behavior analysis combined with robust and recurrent background checks, together with unpredictable and random screening procedures within the security restricted area may allow certain groups, such as airport staff and crew to benefit from differentiated physical screening. Behavioral analysis techniques may also be used to better spot insiders or potential landside attack perpetrators.

Background information

The application and benefit of behavior analysis continue to be widely debated by regulatory bodies and industry. Several studies demonstrate that there is a potential security benefit and that it is the magnitude of the benefits versus the coverage of the costs involved that is up for debate.

Despite the ongoing debate, many States have proactively introduced behavior analysis into their security protocols, making it a part of the existing airport security regime.

In terms of regulatory framework, Amendment 15 to ICAO Annex 17 introduced the definition of behavior detection as well as three related recommendations. That is, encouraging States to “promote research and development of new security equipment, processes and procedures which will better achieve civil aviation security objectives (...)” (2.5.1), to “consider implementing innovative processes and procedures to allow operational differentiation of screening and security controls based on clearly defined criteria” (2.5.3) and to “consider integrating behaviour detection into its aviation security practices and procedures” (4.1.3). IATA strongly supports these ICAO Recommendations.

Proposed solution

IATA encourages States to consider/continue testing behavior analysis in cooperation with the industry partners (airports and airlines):

- As a complementary method to traditional security measures of filtering to spot potential higher risk individuals;
- As the method to develop “alternative” screening for individuals enhancing both passengers and personnel safety and security.

States are encouraged to provide solutions ensuring that:

- The analysis performed is not based on gender, color, race, or religion, but rather on the extent to which an individual conforms with the analysts’ expectations of particular behavior pattern in a given situation;
- The analysis is not conducted only at the security checkpoint, in particular for anticipating attacks on the landside of terminal infrastructure;

- The threat and risk information which may be available by relevant State's agencies are shared with local operators, including local police, so that this effective sharing of information will permit better risk assessments and timely readjustments of preventive measures in place;
- Staff deployed for behavior analysis purposes at airports receive recurrent training on process and techniques, including training specific to the aviation context;
- When deploying behavior analysis techniques dedicated personnel should collect data on behavior selections and on identified concerns for appropriate analysis and program performance review;
- Results of behavioral analysis programs implementation, in respect to applicable legislation, should be provided on a need-to-know basis and used to feed risk assessment process.