



Department  
for Transport



# **THREAT IMAGE PROJECTION (TIP) APPROVAL OF TIP MANAGEMENT SYSTEMS (TMS) AND THIRD-PARTY INTEGRATION SYSTEMS (3PI)**

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**Note: This document forms part of the UK National Aviation Security Programme (NASP). It contains guidance and advice on the assessment and approval of TIP TMS and 3PI systems.**

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## **Terminology**

3PI	Third Party Integrated components and systems
AEL	Approved Equipment List
CTI	Combined Threat Images
EDS-CB	Explosive Detection System – Cabin Baggage
FTI	Fictional Threat Images
IQ	Image Quality
TIP	Threat Image Projection
TMS	TIP Management System
TRS	Tray Return Systems
URD	User Requirements Document

## **Scope of this document**

This document sets out the process of obtaining approval for TIP Management Systems (TMS) and Third Party Integrated (3PI) elements. These requirements will apply to all Explosive Detection Systems for Cabin Baggage (EDS-CB).

It sets out:

- What components create a requirement for TMS/3PI systems approval;
- Who can undertake the assessment;
- The responsibilities and governance of the process;
- How the assessment and approval process works.

The approval of TIP Image libraries is subject to a separate process by the CAA and not covered in this document.

## **Overview of assessment and approval process for TMS/3PI systems**

TMS and 3PI components used in TIP systems in the UK require assessment and approval as part of the overall system before they can be deployed. In the UK TMS/3PI components can be assessed by an entity appointed by the DfT/CAA to undertake this process, based on an application and approval of their capability.

The approval decision for TMS/3PI components remains with the DfT, who will make the decision based on the assessment of the assessing entity.

Where Directed Entities wish to deploy screening systems containing 3PI components, which do not already hold approval, they must submit their 3PI systems for assessment to one of the appointed entities. They will evaluate the system against the requirements of the User Requirements Document (URD), which sets out the standards. The formal approval decision remains with the DfT as Appropriate Authority, who will reflect all approvals on the DfT Approved Equipment List (AEL)

Configurations which have already been approved in the exact configuration required do not need additional re-approval, providing no components are changed. Where one or more components of the system have been changed, the system must be re-approved.

### **Responsibilities and Oversight**

The responsibility for screening equipment and systems approved for operational use in the UK lies with the DfT, as the Appropriate Authority. The CAA, as the Regulator, undertakes the regulation of TIP on behalf of the DfT. Assessors of TIP 3PI systems act on behalf of the DfT and CAA and will be overseen by the CAA to ensure that they apply the processes and standards as required. Final approval decisions remain with DfT based on the report by the assessing entity.

### **What aspects are covered by TMS/3PI systems?**

Any hardware or software that is electronically connected or networked and has the capability of impacting the security performance or functionality of the EDS-CB system falls into scope of requiring system approval. There are two key areas of 3PI components:

1. TIP Management Software (TMS)
2. 3PI components other than TMS, such as:
  - Secondary display stations
  - Reject mechanisms
  - Remote screening stations
  - Tray Return Systems (TRS)
  - Any algorithms deployed on the EDS-CB equipment, which impact the security performance or functionality of the system.

The testing is designed to assess that the overall system can meet the requirements of the URD.

## **Assessment criteria for 3PI systems**

The approach to assessing 3PI components, including TMS, is to assess them as part of the overall system, to ensure that they do not have a detrimental impact on the security performance or functionality of the security equipment.

The assessment of 3PI systems will be undertaken to the standards set out in the Third Party Integration (3PI) URD document, covering the following areas:

- **Operational functionality** – this provides the requirements regarding how a fully integrated tray return and EDS-CB system should function, networked remotely, locally or in stand-alone mode.
- **Airport User Requirements:** The responsibility of the airport around installing correctly functioning systems, carrying out daily checks and ensuring compliance.
- **Testing and Acceptance Planning:** This section will layout the testing required to achieve approval and the responsibilities of the parties for the approval process.

The requirements for the TIP Management System will also be checked against the Threat Image Projection (TIP) URD.

## **How do I get my 3PI components assessed?**

3PI systems which have already been assessed and approved can be found on the DfT Approved Equipment List (AEL) here:

<https://www.gov.uk/government/collections/aviation-security-screening-approved-equipment-list>

If you are looking to have 3PI system assessed for approval, you can undertake this process through any of the registered approvers listed on the CAA website. You should engage with the registered assessor of your choice directly to work through the assessment process.

The registered assessor will evaluate the 3PI system to ensure it meets the requirements of the URD, and where the system meets requirements, provide CAA/DfT with the assessment report to obtain an approval decision.

Where there is a configuration change of an already approved 3PI system, such as the exchange of one or more 3PI components, the system requires re-approval, unless it has already previously been approved in the new configuration.

## **How do I become an assessor of TIP 3PI systems?**

In order to become an assessor of 3PI systems in the UK an entity must apply to the CAA and complete the application process successfully. Entities which have been given permission to undertake assessments are then listed on the CAA website.

The process for becoming a registered assessor is set out in Annex A. There are

some minimum criteria that apply to all entities, and these must be met before applying to become a registered assessor.

- The entity applying must be based in the UK and the assessment must be carried out in the UK.
- The entity applying must not be a manufacturer or provider of TIP TMS or 3PI components, or intend to become one whilst being a registered assessor
- Persons involved with the TIP work must either hold or be willing to successfully obtain CTC clearance<sup>1</sup> prior to undertaking any work on TIP 3PI assessments
- The entity applying has the background/experience for evaluating 3PI components

In order to start the process, please contact at the CAA at [TIP@avsec.caa.co.uk](mailto:TIP@avsec.caa.co.uk)

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<sup>1</sup> Where a person holds a higher clearance and this can be verified by CAA this may also be acceptable

## **Annex A - Process for becoming a registered assessor of 3PI/TMS systems**

The registration process consists of two steps – an initial application stage and then the submission of an operational protocol.

### **Step 1 – Application form and suitability assessment**

The initial registration step is the completion of an application form, where the entity applying is asked to confirm their information and suitability. In order to become a registered 3PI/TMS assessor, the following requirements must be satisfied:

- The entity, or at least the team assessing components, must be based in the UK, and the assessment process must be carried out in the UK;
- They are not, and do not intend to become, a manufacturer/provider of TIP TMS/3PI products;
- They must have access to appropriate levels and types of expertise, and must confirm the named individuals that would provide this expertise. These individuals should have
  - Experience in testing systems in a methodical way in the last 2 years (and provide specific examples);
  - A proven ability to test and evaluate integrated systems;
  - Experience in applying technical and/or regulatory standards;
  - A current and valid CTC clearance or willingness to obtain it – note this requires a minimum of three years of UK residency immediately prior to application.
- Confirmation whether they wish to be assessors for 3PI or TMS or both.

DfT/CAA would assess the suitability of the entity to proceed to the next stage.

### **Step 2 – CTC and Operational Protocol**

The second step includes application for CTC clearances for those individuals who do not already have them, and the submission of the entity's proposed operating protocol. Separating this step from the initial application form ensures that only entities who can meet the initial suitability requirements are asked to undertake the work required for step 2.

This step includes:

- The provision of existing CTCs for relevant staff or the application for CTCs through the CAA AvSec Vetting team;
- The provision of the relevant URD to the entity to allow the creation of the operational protocol setting out how the entity would plan to assess an application for TMS or 3PI system approval and verify that the requirements set out in the relevant URD have been met;

- The proposed protocol to be submitted to CAA/DfT to allow for the assessment of its suitability. If the protocol is deemed not to have met the necessary standards, feedback will be provided;
- Once the operational protocol has been approved, the entity will be asked to sign a statement of commitments. This will include committing that they will inform CAA:
  - Of the dates and timings when TMS/3PI system assessments are being undertaken in advance;
  - Should there be any changes to the operating protocols as previously submitted;
  - Should there be any changes to the entity which impact their assessment activities, including:
    - Changes in the staff used for assessments;
    - Changes to the entity's location and/or any changes of ownership which might impact its ability to remain independent;
    - Any other circumstances which might create a potential conflict of interests.
- Entities must commit to providing the assessment report to CAA in a timely manner.

On successful completion, CAA will then add the entity to the list of registered assessors on its website, with the following details:

- Entity Name
- Contact details: email and/or phone
- Whether they can assess TMS and/or 3PI

To obtain the application form or for queries about the process, please check the CAA website or email: [TIP@avsec.caa.co.uk](mailto:TIP@avsec.caa.co.uk)