Transportation Security Administration

Transportation Security Administration (TSA)

Service Level Agreement (SLA)

Performance Metrics

April 2026

Table of Contents

1. Purpose 2
2. Scope 2
3. Data Collection and Reporting Process 2
4. Operational Availability (A_o) 2

   A_o SLA Performance Requirement 3

5. Average Technician Response Time (TRT) 4

   TRT SLA Performance Requirement 5

6. Average Parts Availability Time (PAT) 6

   PAT SLA Performance Requirement 6

7. Airport Operational Hours 7

1. Purpose

The purpose of this document is to define the process for developing the Contractor performance metrics specified in TSE Maintenance Language Section 1.13, Maintenance Services Service Level Agreement (SLA), to evaluate compliance with the SLA performance requirements; and define the processes for developing the metrics required to determine performance and apply disincentives as required.

The maintenance elements used in the development of these metrics are provided in Attachment B, Transportation Security Equipment (TSE) Terms and Definitions & Reliability, Maintainability & Availability (RMA) Metrics.

2. Scope

This document identifies the process the Contractor should use to develop the metrics to demonstrate compliance with the SLA performance requirements and substantiate the determinations made for invoice development, penalties, etc. It provides the calculation instructions for each metric required by the contract.

3. Data Collection and Reporting Process

The process identified in this document relies on the maintenance elements collected from the corrective maintenance actions conducted to return TSE to full operational capability. These maintenance elements will be collected in accordance with the process identified in Maintenance Attachment B and will be documented in the TSE Database in accordance with Maintenance Attachment D, TSE Database. This includes the time points (T-Values) and low-level metrics (M-Values) measured for each time points.

Sections 4 through 7 below identify the process for calculating the SLA performance metrics defined in section 1.13, to evaluate compliance with SLA requirements and substantiate the determinations made for invoice development, penalties, etc. These metrics will be calculated as specified in each section and will be reported to the Contractor as part of the TSE RMA Metrics report in accordance with Maintenance Attachment F TSE RMA Metrics Report, as required. The TSE RMA Metrics Report must clearly identify the low-level metrics and times for each used in the calculation of a metric.

4. Operational Availability (A_o)

The Government seeks to minimize TSE downtime associated with relevant failures. The Government will measure overall Maintenance Service Provider (MSP) performance using Operational Availability (A_o) as defined in Attachment B. A_o will evaluate the operational availability of TSE in relation to **all relevant critical failures and all relevant non-critical failures** (includes all corrective maintenance, depot maintenance and telephone customer support work orders). It is the percentage of time during an airport's operational hours that TSE is available to perform its required mission during a specified reporting period. For A_o, TSA only considers a TSE's downtime when it is not in a condition to perform its required mission during an airport's operational hours. The counting of low-level metrics times for A_o will be based on the TSE operating time and TSE operational downtime as defined below.

- **TSE Operating Time** – The period of time TSE is available to perform its required mission during the operational hours of a facility as specified by Airport's Operating Hours. During the Operations & Maintenance (O&M) life cycle phase, TSE operating time will be equal to the airport's operational hours (period of time within 24-hour day that an airport is operational) unless the TSE experiences any operational downtime.
- **TSE Operational Downtime** – The period of time during an airport's operational hours that TSE is not in a condition to perform its required mission. This includes all times that a system is not available due to applicable on-site Corrective Maintenance (CM), Telephone Customer Support (TCS), and Depot Maintenance (DM) Low-Level Metric times during an airport's operational hours. The determination of the operational downtime is made after all the low-level metrics are recorded against the 24-hour day and measured against the airport's operational hours.

Section 1.13 establishes the A_o performance level the Contractor must meet to satisfy the overall SLA performance requirement. Below is the process for calculating the A_o metrics for these requirements.

A_o SLA Performance Requirement

For determining compliance with the A_o SLA performance requirement established in section 1.13, the MSP shall calculate A_o monthly for each TSE serial number at each airport using the airport's operational hours as the required system operating time and should only include installed operational units in the calculations. *The operational downtime will be calculated by summing the individual low-level metric times of each applicable failure that incur operational downtime > 0. No averaging will be used over a reporting period.*

To evaluate SLA compliance, A_o will be calculated monthly at each airport for each serial number as follows:

1. Multiply daily airport operational hours as defined in Section 7 below, Airport Operational Hours, by the number of days in the month's reporting period. This is the **total operating hours for one TSE unit**. The reporting period starts the first day (at 12:00 AM) of the month and ends on the last day (at 11:59 PM) of the month based on local time.

2. Subtract the sum of the operational downtime for all relevant critical (Priority 1 (P1)) and all relevant non-critical (Priority 2 (P2)) failures for the same TSE unit used in Step 1 from the **total operating hours** calculated in Step 1 at an airport during the reporting period.

3. Divide the difference (from Step 2) by the **total operating hours** calculated in Step 1 (daily airport operational hours multiplied by the same number of TSE units at an airport and the number of days in the reporting period).

Below is the A_o formula that will be used to develop the SLA performance metric and the disincentive threshold metric:

$$A_o = \frac{\text{(Airport Operational Hours x TSE Units x Number of Days) – (Sum of TSE all relevant critical (P1) and relevant non-critical (P2) failures Operational Downtime)}}{\text{(Airport Operational Hours x TSE Units x Number of Days)}}$$

Where:

- **Airport Operational Hours** = Period of time within a 24-hour day that an airport is operational (airport operational hours). A TSE is required to be available to perform its required mission during an airport's operational hours.
- **TSE Relevant Operational Downtime** = The time a TSE is down for repair due to any relevant failure during an airport's operational hours

For the failure types listed below, the low-level metrics (M-Values) identified in non-shaded blocks are counted toward the TSE operational downtime for A_o when the low-level metric times, or portion thereof, occur during the airport's operational hours. The low-level metric times conducted during the airport's non-operational hours are not counted in the A_o operational downtime calculations. *If a maintenance repair cycle continues into two or more airport operational hours within the same reporting period, the operational downtimes within each airport operational hours will be summed together if operational downtime > 0. When a maintenance repair cycle continues into a new reporting period, the operational downtimes in the second reporting period will be calculated in the new reporting period as defined in Attachment B, Section 4.7.2, Open Ticket Accounting.* The lightly shaded blocks with M-Values are measured but not counted in the A_o operational downtime calculations. The dark shaded blocks with no M-Values on the Table indicate that the associated low-level metric should not be applicable to that failure type in its repair cycle as defined in Attachment B. An individual serial number's A_o can be calculated same method as above but only using the data from that serial number.

Table 1 - A_o Low-Level Metrics Count

Failure Type			Low-Level Metrics									
Level	**Criticality**	**Relevancy**										
CM	Critical	Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
CM	Non-Critical	Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
DM	Critical	Relevant	M_1	M_2	M_3					M_{11}	M_{12}	M_8
TCS	Critical	Relevant	M_1								M_{13}	
TCS	Non-Critical	Relevant	M_1								M_{13}	

5. Average Technician Response Time (TRT)

The Government seeks to minimize system downtime associated with Field Service Technician (FST) response time to all failures. **As defined and measured in accordance with Attachment B, this includes low level metrics, M_1 (Initial Call Center Interaction Time) and M_2 (Technician Dispatch Time), using airport operational hours.** TSA has developed an

Average Technician Response Time (TRT) metric to evaluate compliance. This metric calculates the average low-level metrics ($M_1 + M_2 > 0$) downtimes for **all critical (P1) and non-critical (P2) failures**. **Two different TRT metrics will be calculated: one for all critical failures where $M_1+M_2>0$ and another for all non-critical failures where $M_1+M_2>0$.**

Section 1.13.2, Technician Availability, establishes the MSP SLA performance threshold for average FST response time. Below is the process for developing the Average TRT metric for these two requirements.

TRT SLA Performance Requirement

For determining compliance with the Average TRT SLA performance threshold established in section 1.13.2, the MSP shall calculate monthly average downtimes associated with all FST response times ($M_1 + M_2 > 0$) relating to all failures for the past month. *The downtime for the month will be calculated by summing the individual low-level metric times of each applicable M_1 and M_2 that incurs downtime > 0. No averaging will be used over a reporting period.*

To evaluate SLA compliance, the Average TRT metric will be calculated monthly for all FST response activities ($M_1 + M_2 > 0$) as follows:

1. Sum the individual downtimes of each low-level metric ($M_1 + M_2 > 0$) from all applicable failures completed during the past month **using airport operational hours**. Only ($M_1 + M_2 > 0$) activities completed in the reporting period will be included, and no averaging will be used over the reporting period. The reporting period starts the first day (at 12:00 AM) of the month and ends on the last day (at 11:59 PM) of the month based on local time.

2. Divide the sum by the total number of occurrences during the reporting period that have an ($M1 + M_2 > 0$) and accrue positive downtime during the period.

The Average TRT metric will be calculated as explained above based on the following formula:

$$\textbf{Average TRT} = \frac{\textbf{Sum of } M_1 + M_2}{\textbf{Number of Failures (work orders) where } M_1 + M_2 > 0}$$

For the failure types listed below, the low-level metrics M_2 times identified in non-shaded blocks are counted toward the downtime associated with TRT. *For the Average TRT metric calculations, a ($M_1 + M_2 > 0$) time will be included in the reporting period when completed as defined in Attachment B, Section 4.7.1, Closed Ticket Accounting; the times in a ($M_1 + M_2 > 0$) occurrence will not be split between reporting periods.* The lightly shaded blocks with M-Values are measured but not counted in the TRT metrics calculations. The dark shaded blocks with no M-Values on the table indicate that the associated low-level metric should not be applicable to that failure types in its repair cycle as defined in Attachment D-3.

Table 2 – TRT Low-Level Metrics Count

Failure Type			Low-Level Metrics									
Level	**Criticality**	**Relevancy**										
CM	Critical	Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
CM	Critical	Non-Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
CM	Non-Critical	Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
CM	Non-Critical	Non-Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
DM	Critical	Relevant	M_1	M_2	M_3					M_{11}	M_{12}	M_8
DM	Critical	Non-Relevant	M_1	M_2	M_3					M_{11}	M_{12}	M_8

6. Average Parts Availability Time (PAT)

The Government seeks to minimize system downtime associated with parts availability for all failures that required parts replaced. **As defined and measured in accordance with Attachment B, this includes the low level metrics M_4 (Part(s) Request Time) and M_5 (Part(s) Fulfillment Time) using 24-hr clock hours**. TSA has developed an Average Parts Availability Time (PAT) metric to evaluate compliance. This metric calculates the average low-level metrics ($M_4 + M_5 > 0$) downtimes for **all critical failures (both Relevant and Non-Relevant)**.

Section 1.13.3, Parts Availability, establishes the MSP SLA performance requirements for average parts availability time. Below is the process for developing the Average PAT metrics requirement.

PAT SLA Performance Requirement

For determining compliance with the Average PAT SLA performance requirement established in section 1.13.3, the MSP shall calculate monthly average downtimes associated with all parts availability ($M_4 + M_5 > 0$) relating to all critical failures for the reporting month. *The downtime for the month will be calculated by summing the individual low-level metric times of each applicable M_4 and M_5 that incurs downtime > 0. No averaging over a reporting period (i.e. if quarterly reporting, no averaging over 3 months). Each month will report average PAT.*

To evaluate SLA compliance, the Average PAT metric will be calculated monthly for all parts availability activities ($M_4 + M_5 > 0$) as follows:

1. Sum the individual TSE downtimes of each low-level metric ($M_4 + M_5 > 0$) from all critical failures (relevant and non-relevant) completed during the reporting month **using 24-hr clock hours**. Only ($M_4 + M_5 > 0$) activities completed in the month will be included using the Closed-Ticket Accounting method. The reporting period starts the first day (at 12:00 AM) of the month and ends on the last day (at 11:59 PM) of the month based on local time. (**Closed ticket accounting is where only tickets that are**

closed during the reporting period counts. For example, if a ticket is open in period 1 and has not closed until the period 2, this ticket's M_4 and M_5 will count in period 2).

2. Divide the sum by the total number of occurrences (work orders) during the reporting month that have an ($M_4 + M_5 > 0$) and accrue positive downtime during the month.

The Average PAT metric will be calculated as explained above based on the following formula:

$$\text{Average PAT} = \frac{\text{Sum of Parts Availability Times } (M_4 + M_5)}{\text{Number of Critical Failures with Parts Availability Time where } M_4 + M_5 > 0}$$

For the failure types listed below in Table 3, the low-level metrics (M-Values) identified in non-shaded blocks are counted toward the downtime associated with PAT. *For the Average PAT metric calculations, a ($M_4 + M_5 > 0$) time will be included in the reporting period when completed as defined in Part D, Attachment 3, Section 4.7.1, Closed-Ticket Accounting; the times in an ($M_4 + M_5 > 0$) occurrence will not be split between reporting periods.* The lightly shaded blocks with M-Values are measured but not counted in the PAT metrics calculations. The dark shaded blocks with no M-Values on the Table indicate that the associated low-level metric should not be applicable to that failure types in its repair cycle as defined in Attachment B.

Table 3 - PAT Low-Level Metrics Count

Failure Type			Low-Level Metrics									
Level	**Criticality**	**Relevancy**										
CM	Critical	Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8
CM	Critical	Non-Relevant	M_1	M_2	M_3	M_4	M_5	M_6	M_7			M_8

7. Airport Operational Hours

For determining compliance with the SLA performance requirement established in section 1.13, the MSP shall use the following airport operation hours based on airport category:

Category X = 21 operational hours
Category I = 18 operational hours
Category II = 16 operational hours
Category III = 14 operational hours
Category IV = 14 operational hours