

Passenger Wait Times Standard v1.6.0

Abstract

An Airports Council International (ACI) ACRIS data interface standard for Passenger Wait Times at airports.



Passenger Wait Times v1.6.0 Standard

Introduction

Airports Council International (ACI) has developed a standard for expressing Passenger Wait Times for the aviation community.

This document contains the specification of the API (Application Programming Interface), which has been developed as part of this initiative.

This data interface recommendation was produced by the ACI ACRIS (Aviation Community Recommended Information Services) Working Group and complies with the ACRIS Semantic Model⁽¹⁾ and interface specifications, including the relevant terms and specification of the API (Application Programming Interface).

Changes from previous release (v1.5a)(2)

v1.6.0 extends the existing specification to add an endpoint to support querying historic wait times for a security checkpoint queue. The metadata for each endpoint has been enriched with updated descriptions and options for query response pagination. The specification has been upgraded to be compliant with Open API version 3.0.3. All endpoint paths have been modified to rename parameter names to be compliant with the ACRIS Semantic Model naming conventions.

The following endpoints have been deprecated:

1. None in this release.

The following endpoints have been added:

 /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier}/me asurements/history

The following endpoints have been modified:

- 1. /airports/{AirportIcaoCode}/checkpoints
- 2. /airports/{AirportIcaoCode}/queues
- 3. /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}
- 4. /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues
- 5. /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier}
- 6. /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/measurements
- 7. /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier}/me asurements



Passenger Wait Time Measurements

The standard describes four Passenger Queue Wait Time metrics:

| Measurement | Definition |
|---------------------|--|
| Occupancy | The count of people in the queue. The unit of measure is number of people. This metric is updated every five minutes. |
| Projected Wait Time | The estimated time that a person entering the queue can expect to wait. The unit of measure is seconds. Estimates are updated every five minutes. |
| Throughput | The average number of passengers processed over the past hour. The unit of measure is passengers per hour. This metric is updated every five minutes. |
| Wait Time | The duration that a person exiting the queue has experienced. The unit of measure is seconds. The amount represents the average number of seconds experienced by people exiting the queue in the last five minutes. This metric is updated every five minutes. |

Note that the Wait Times model assumes that each security checkpoint facility comprises one or more passenger queues. The metrics apply to each passenger queue in the checkpoint facility. All four metrics are expected but are not mandatory. Other metrics may be added in future.

The measurement metrics must be provided along with a measurement date time.

End Time: The date and time at the end of the time period over which a Measurement

is taken. Date time should be UTC, compliant with ISO 8601 format (e.g.

2023-04-20T11:54:59Z)



Terms and Entities Used in this Specification

- CheckpointFacility: A Checkpoint facility is any facility where customers and passengers turn up and need to be processed, serviced or screened before proceeding to the next stage of their journey.
- **2. PassengerQueue:** Information about the Passenger Party Queue. A line of people waiting to pass through the security checkpoint process.
- **3. AirportFacility:** Information about an Airport as buildings or infrastructure used to provide services.
- **4. AirportElevation:** The height of an Airport, above sea level.
- **5. AirportElevationUnitOfMeasurement:** The unit of measure of the height of an Airport above sea level (FT for foot or M for metre).
- **6. AirportLocation:** The geospatial or geopolitical location of an Airport.
- 7. CheckpointAreaLocation: The geospatial or geopolitical location of a Checkpoint.
- **8.** CheckpointFacilityOperatorParty: Information that describes the Party responsible for the operation of a Checkpoint in an Airport.
- **9. CheckpointFacilityType:** Information that describes the classification for a Checkpoint in an Airport. Values are: Security Screening, Customs.
- **10. ConcourseFacility:** Information about an Airport Concourse as buildings or infrastructure used to provide services.
- **11. MeasurementDevice:** Information about the device (equipment) used to take measurements (observations).
- **12. MeasurementDeviceLocation:** The geospatial or geopolitical location of a Measurement Device.
- **13. MeasurementTimePeriod:** The time period over which a Measurement is taken.
- **14. OperationTimePeriod:** The time period over which the Checkpoint is operating.
- **15. QueueLocation:** The geospatial or geopolitical location of a Passenger Queue.
- **16. QueueMeasurement:** Information about the measurements (observations) of particular Measures of a Passenger Queue.
- **17. QueueStatus:** Information about the status of a Passenger Queue. Values can be: Open, Closed.
- **18. QueueType:** Information about the type of a Passenger Queue. Values can be: Pre-Check, Private, Economy, Priority, KnownCrewMember.
- **19. TerminalAreaLocation:** The geospatial or geopolitical location of an Airport Terminal building.
- **20. TerminalFacility:** Information about an Airport Terminal as buildings or infrastructure used to provide services.
- **21. ZoneAreaLocation:** The geospatial or geopolitical location of a Queuing Zone in a Terminal.



Passenger Wait Times v1.6.0 API Specification

The following API specification is compliant with the OpenAPI standard v3.0.3⁽³⁾, and with the ACI ACRIS Semantic Model ⁽¹⁾.

The API specification can be found at acris.aero: https://acris.aero/api-wait-times/

The ACI Passenger Wait Times API supports requests to submit the following information:

| | 11 1 |
|--------------------|---|
| PUT Request | Purpose |
| Queue Measurements | Submit information on the wait times of Passenger Queues at a |
| Queue Measurements | specific Airport. |

The ACI Passenger Wait Times API supports requests to receive the following information:

| GET Request | Purpose |
|-----------------------|---|
| Checkpoint Facilities | Retrieve information on Passenger Security Checkpoints at a specific Airport. |
| Passenger Queues | Retrieve information on Passenger Queues at a specific Airport. |
| Queue Measurements | Retrieve information on the wait times of Passenger Queues at a specific Airport. |

Uniform Resource Identifier (URI) Naming Convention

For the passenger wait times API, the following URI construction is expected:

https://{HostName}/{ApiName}/{ApiVersion}/{EndpointPath}

As an example, the full URI for an endpoint might therefore resemble:

https://{HostName}/security-wait-times/1.6.0/airports/KSFO/checkpoints

{ApiName} is security-wait-times {ApiVersion} is 1.6.0 {EndpointPath} is /airports/KSFO/checkpoints

Elsewhere in this specification, when describing each endpoint, only the {EndpointPath} will be listed.

Query Response Pagination Parameters

GET requests accept two optional query parameters to limit the size of responses. Without specifying these parameters, all results will be returned in the response.

page (integer): A page number within the paginated result set.



size (integer):

Number of results to return per page.

The request response will include a count of the total number of pages, a URI for the next and previous pages and a results object for the current page.

| HTTP Method | Example Endpoint Path with pagination | Comment |
|----------------|--|--|
| GET | <pre>/airports/{AirportIcaoCode}/checkpoints/?page =1&size=2'</pre> | With a page size of 2 objects, return only page 1 from the full set of query results |
| | <pre>{ "Count": 44, "Next": "/airports/KSFO/queues/?page=2&size=2", "Previous": null, "Results": [</pre> | Example request: /airports/KSFO/queues/?p age=1&size=2' |



Example HTTP PUT Requests of the specification:

Information on the four Passenger Queue measures can be submitted for a particular queue specified by a Passenger Queue Identifier, using the following PUT requests:

| HTTP Method | Checkpoint Facility URI Endpoint Paths | Description |
|----------------|---|--|
| PUT | <pre>/airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier}/measurements</pre> | Sets all wait time metrics at a given queue for a specified time |
| | <pre>Example request payload: { "Occupancy": 41, "ProjectedWaitTime": 250, "Throughput": 20, "WaitTime": 200, "EndTime": "2023-04-20T08:30:00Z" }</pre> | Example request: /airports/KSFO/checkpoints/ 1bdaec90-7a42-11e7-bb31- be2e44b06b34 /queues/1/measurements |

Example HTTP GET Requests of the specification:

Checkpoint Facility URI Paths

Information on Checkpoint facilities can be obtained, either as a list of checkpoints in the selected airport, or for a particular checkpoint specified by a CheckpointFacilityIdentifier, using the following GET requests:

| HTTP Method | Checkpoint Facility URI Endpoint Paths | Description |
|----------------|--|---|
| GET | /airports/{AirportIcaoCode}/checkpoints | Returns all of the security CheckpointFacility at the AirportFacility specified by ICAO Code. |
| | Example response: | Example request: |
| | <pre>["Description": null, "Identifier": "1bdaec90-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint B", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BAB/B", "Name": "Boarding Area B", "TerminalFacility": { "Identifier": "T1", "Name": "Terminal 1", "AirportFacility": { "ItaaCode": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport" } } },</pre> | /airports/KSFO/checkpoints |



| HTTP Method | Checkpoint Facility URI Endpoint Paths | Description |
|----------------|---|--|
| | <pre>"Name": "Checkpoint C", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/C", "Name": "Boarding Area C", "TerminalFacility": { "Identifier": "T2", "Name": "Terminal 2", "AirportFacility": { "IataCode": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport" } } } "OperationTimePeriod": null }</pre> | |
| | /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier} | Returns a specific CheckpointFacility identified by CheckpointFacilityIdentifier |
| | Example response: | Example request: |
| | <pre>{ "Description": null, "Identifier": "e890e3d4-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint G", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/G", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "ITG", "Name": "International Terminal G", "AirportFacility": { "IataCode": "FSO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport"</pre> | /airports/KSFO/checkpoints/e890 e3d4-7a42-11e7-bb31- be2e44b06b34 |

Passenger Queue URI Paths

Information on Passenger Queues can be obtained as a list of queues in the selected airport, or for a specific checkpoint, or for a particular queue specified by a Queueldentifier, using the following GET requests:

| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|------------------------------------|------------------------------|
| | /airports/{AirportIcaoCode}/queues | Returns all of the |
| GET | /airports/{Airporticaocode}/queues | PassengerQueue(s) at the |
| | | AirportFacility specified by |
| | | ICAO Code grouped by |
| | | CheckpointFacility |



| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|--|---|
| Wiethod | Example response: { "Count": 44, "Next": "/airports/KSFO/queues/?page=2&size=2", "Previous": null, "Results": { "Identifier": "0", "Name": "0", "CheckpointFacility": { "Description": null, "Identifier": "d3a0442e-7a42-1le7-bb31- be2e44b06b34", "Name": "Checkpoint A", "CheckpointFacilityper: null, "CheckpointFacilityper: null, "CheckpointFacilityper: null, "CheckpointFacilityper: null, "CheckpointFacilityper: null, "ConcourseFacility": { "Identifier": "BAA", "Name": "Boarding Area A", ""erminalFacility": { "Identifier": "ITA", "Name": "International Terminal A", "AirportFacility": { "IataCode*: "SFO", "IacoCode*: "KSFO", "loacCode*: "KSFO", "OperationTimePeriod": null }, "QueueStatus*: null, "QueueStatus*: null, "QueueStatus*: null, "QueueStatus*: null, "CheckpointFacility": { "Description": null, "CheckpointFacility": { "Description": null, "CheckpointFacility": { "Description": null, "CheckpointFacility": { "Identifier": "880e3d4-7a42-1le7-bb31-be2e44b06b34", "Name": "Checkpoint G", "CheckpointFacility": { "Identifier": "BA/G", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "BA/G", "Name": "International Terminal G", "AirportFacility": { "International Terminal G", "AirportFacility": { "International Terminal G", "AirportFacility": { "International Terminal G", "Name": "San Francisco International Airport" | Example request: /airports/KSFO/queues/ ?page=1&size=2' |
| GET | /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues | Returns all of the PassengerQueue(s) at the specified CheckpointFacility |
| | Example response: | Example request: |
| | { "Identifier": "0", "Name": "0", | /airports/KSFO/checkpoints e890e3d4-7a42-11e7-bb31- be2e44b06b34/queues |



| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|---|---|
| | "CheckpointFacility": { "Description": null, "Identifier": "e890e3d4-7a42-11e7-bb31- be2e44b06b34", "Name": "Checkpoint G", "CheckpointFacilityOperatorParty": null, "CheckpointFacilityUperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BAJG", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "ITG", "Name": "International Terminal G", "AirportFacility": { "IdacOde": "SFO", "Name": "San Francisco International Airport" } }, "OperationTimePeriod": null }, "QueueLocation": null, "QueueStatus": null, "QueueType": null }, /* CheckpointFacility": { "Description": null, "UheckpointFacility": { "Description": null, "CheckpointFacilityType": null, "CheckpointFacilityType": null, "CheckpointFacilityType": null, "CheckpointFacility": { "Identifier": "BAJG", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "BAJG", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "STG", "Name": "San Francisco International Airport" } } } ** * ** | |
| GET | /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier} | Returns the specific PassengerQueue at the specified CheckpointFacility |
| | Example response: | Example request: |
| | <pre>"Identifier": "3", "Name": "3", "CheckpointFacility": { "Description": null, "Identifier": "e890e3d4-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint G", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/G", "Name": "Boarding Area G", "TerminalFacility": { "Identifier": "ITG",</pre> | /airports/KSFO/checkpoints/ e890e3d4-7a42-11e7-bb31- be2e44b06b34 /queues/3 |



| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|---|-------------|
| | "IataCode": "SFO", "IcaoCode": "KSFO", | |
| | "Name": "San Francisco International Airport" | |
| | } | |
| | } | |
| | "OperationTimePeriod": null | |
| | }, | |
| | "QueueLocation": null, | |
| | "QueueStatus": null, | |
| | "QueueType": null | |
| | [} | |

Passenger Queue Measurement URI Paths

Information on the four Passenger Queue measures can be obtained as a list of entries for all the queues in the selected checkpoint, or for a particular queue specified by a Passenger Queue Identifier, using the following GET requests:

| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|---|---|
| GET | <pre>/airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/measurements</pre> | Returns all the wait time metrics for all PassengerQueue(s) at the specified CheckpointFacility |
| | Example response: | Example request: |
| | <pre>Example response: { "Occupancy": 58, "OrojectedWaitTime": 550, "Throughput": 384, "WaitTime": 680, "MeasurementDevice": null, "MeasurementTimePeriod": { "EndTime": "2023-03-22T18:59:02Z" }, "PassengerQueue": { "Identifier": "1", "Name": "1", "Name": "1", "Name": "1", "Obescription": null, "Identifier": "1bdaec90-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint B", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "CheckpointFacilityType": null, "CheckpointFacility": { "Identifier": "BA/B", "Name": "Boarding Area B", "TerminalFacility": { "Identifier": "T1", "Name": "Terminal 1", "AirportFacility": { "IataCode": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport"</pre> | /airports/KSFO/checkpoints/ 1bdaec90-7a42-11e7-bb31- be2e44b06b34/measurements |
| | "QueueType": null } }, { "Occupancy": 0, "ProjectedWaitTime": 30, "Throughput": 0, "WaitTime": 0, | |



| Method Method | INTERNATIONAL | | | | | | | |
|--|----------------|--|---|--|--|--|--|--|
| "ModeuserementTimeRetiod": { "SndTime": "2023-02-20107:59:022" } } **RassengerQueue": { ""Identifier": "3", ""CheckpointFacility": { "Description": null, "CheckpointFacility": { "Description": null, "CheckpointFacility": { "Name": "Checkpoint B", "Name": "Checkpoint B", "Name": "Checkpoint B", "Name": "Sharing Area B", """erminalFacility": { "Identifier": "87.87.87. "Name": "Sharing Area B", """erminalFacility": { "Identifier": "87.77. "Name": "Sharing Area B", """erminalFacility": { "Identifier": "11, "Name": "San Francisco International Airport" Airports/(AirportIcaoCode)/checkpoints/(CheckpointFacilityIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(QueueIdentifier)/queues/(Queue at the specified CheckpointFacilityIdentifier)/queues/(QueueIdentifier)/queues/(Queue at the specified CheckpointFacilityIdentifier)/queues/(QueueIdentifier)/q | HTTP Method | | Description | | | | | |
| GET /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdentifier}/measurements Example response: { "Occupancy": 58, "ProjectedWaitTime": 550, "Throughput": 384, "WaitTime": 680, "MeasurementDevice": null, "MeasurementTimePeriod": { "Indentifier": "1", "Name": "2023-03-22T18:59:02Z"), "PassengerQueue": { "Identifier": "1", "Name": "1", "CheckpointFacility": { | | <pre>"MeasurementTimePeriod": { "EndTime": "2023-04-20T07:59:02Z" }, "PassengerQueue": { "Identifier": "3", "Name": "3", "CheckpointFacility": {</pre> | | | | | | |
| Example response: { "Occupancy": 58, "ProjectedWaitTime": 550, "Throughput": 384, "WaitTime": 680, "MeasurementDevice": null, "MeasurementTimePeriod": { "EndTime": "2023-03-22T18:59:02Z" }, "PassengerQueue": { "Identifier": "1", "Name": "1", "CheckpointFacility": { "Description": null, "Identifier": "1bdaec90-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint B", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/B", "Name": "Boarding Area B", "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { "TerminalFacility": { | GET | /airports/{AirportIcaoCode}/checkpoints/{CheckpointFacilityIdentifier}/queues/{QueueIdenti | PassengerQueue at the | | | | | |
| <pre>{ "Occupancy": 58, "ProjectedWaitTime": 550, "Throughput": 384, "WaitTime": 680, "MeasurementDevice": null, "MeasurementTimePeriod": { "EndTime": "2023-03-22T18:59:02Z" }, "PassengerQueue": { "Identifier": "1", "Name": "1", "CheckpointFacility": { "Description": null, "Identifier": "ibdaec90-7a42-1le7-bb31-be2e44b06b34", "Name": "Checkpoint B", "CheckpointFacility": { "Description": null, "CheckpointFacility": rull, "CheckpointFacility": rull, "CheckpointFacilityType": null, "CheckpointFaci</pre> | | Evample recognice: | 1 | | | | | |
| "Name": "Terminal 1", "AirportFacility": { "IataCode": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport" } } "OperationTimePeriod": null }, "QueueLocation": null, | | <pre>{ "Occupancy": 58, "ProjectedWaitTime": 550, "Throughput": 384, "WaitTime": 680, "MeasurementDevice": null, "MeasurementTimePeriod": { "EndTime": "2023-03-22T18:59:02Z" }, "PassengerQueue": { "Identifier": "1", "Name": "1", "CheckpointFacility": { "Description": null, "identifier": "lbdaec90-7a42-11e7-bb31-be2e44b06b34", "Name": "Checkpoint B", "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/B", "Name": "Boarding Area B", "TerminalFacility": { "Identifier": "T1", "Name": "Terminal 1", "AirportFacility": { "Identifier": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport" } } }, "OperationTimePeriod": null },</pre> | /airports/KSFO/checkpoints/ lbdaec90-7a42-11e7-bb31- be2e44b06b34 | | | | | |



| INTERNATIONAL | | | | | | | |
|----------------|--|---|--|--|--|--|--|
| HTTP Method | Passenger Queue URI Endpoint Paths | Description | | | | | |
| | } | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | /airports/{AirportIcaoCode}/checkpoints/{Chec | Returns the history of wait | | | | | |
| GET | kpointFacilityIdentifier}/queues/{QueueIdenti | time metrics for the specific | | | | | |
| | fier}/measurements/history | PassengerQueue at the | | | | | |
| | | specified CheckpointFacility | | | | | |
| | | Pagination query | | | | | |
| | | parameters must be used | | | | | |
| | | for such queries. | | | | | |
| | Example response: | Example request: | | | | | |
| | { | | | | | | |
| | "Count": 8421, "Next": "/airports/KSFO/checkpoints/1bdaec90-7a42-11e7- | /airports/KSFO/checkpoints/ 1bdaec90-7a42-11e7-bb31- | | | | | |
| | bb31- be2e44b06b34/queues/1/measurements/history/?page=2&size=2" | be2e44b06b34 /queues/1/measurements/history/ | | | | | |
| | "Previous": null, | ?page=1&size=2' | | | | | |
| | "Results": [| | | | | | |
| | "Occupancy": 58, | | | | | | |
| | "ProjectedWaitTime": 550, "Throughput": 384, | | | | | | |
| | "WaitTime": 680, "MeasurementDevice": null, | | | | | | |
| | "MeasurementTimePeriod": { "EndTime": "2023-03-22T18:59:02Z" | | | | | | |
| | }, "PassengerQueue": { | | | | | | |
| | "Identifier": "1", "Name": "1", | | | | | | |
| | "CheckpointFacility": { | | | | | | |
| | "Description": null, "Identifier": "1bdaec90-7a42-11e7-bb31- | | | | | | |
| | be2e44b06b34", "Name": "Checkpoint B", | | | | | | |
| | "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, | | | | | | |
| | "CheckpointFacilityType": null, "ConcourseFacility": { | | | | | | |
| | "Identifier": "BA/B", "Name": "Boarding Area B", | | | | | | |
| | "TerminalFacility": { "Identifier": "T1", | | | | | | |
| | "Name": "Terminal 1", | | | | | | |
| | "AirportFacility": { "IataCode": "SFO", | | | | | | |
| | "IcaoCode": "KSFO", "Name": "San Francisco International | | | | | | |
| | Airport" } | | | | | | |
| | }, | | | | | | |
| | "OperationTimePeriod": null | | | | | | |
| | "QueueLocation": null, "QueueStatus": null, | | | | | | |
| | "QueueType": null | | | | | | |
| | }, | | | | | | |
| | { "Occupancy": 176, | | | | | | |
| | "ProjectedWaitTime": 1306, "Throughput": 1176, | | | | | | |
| | "WaitTime": 1366, "MeasurementDevice": null, | | | | | | |
| | "MeasurementTimePeriod": { "EndTime": "2023-03-22T17:59:02Z" | | | | | | |
| | }, | | | | | | |
| | "PassengerQueue": { "Identifier": "1", | | | | | | |



| HTTP Method | Passenger Queue URI Endpoint Paths | Description |
|----------------|---|-------------|
| | "Name": "1", "CheckpointFacility": { "Description": null, "Identifier": "lbdaec90-7a42-11e7-bb31- be2e44b06b34", "Name": "Checkpoint B", "CheckpointAreaLocation": null, "CheckpointFacilityOperatorParty": null, "CheckpointFacilityType": null, "ConcourseFacility": { "Identifier": "BA/B", "Name": "Boarding Area B", "TerminalFacility": { "Identifier": "T1", "Name": "Terminal 1", "AirportFacility": { "IataCode": "SFO", "IcaoCode": "KSFO", "Name": "San Francisco International Airport" Airport" Airport" } } } // "QueueLocation": null, "QueueStatus": null, "QueueType": null } } | |



Document Version Control

| No. | Version | Date | Description | Editor |
|-----|---------|------------|------------------------------------|--|
| 1. | 1.5a | 03.09.2021 | Release | Bob Logan (Rockport Software), Humphrey Loe (SFO) |
| 2. | 1.5.5 | 18.04.2023 | Updates to | Raymond Ho (Rockport Software), Bob Logan (Rockport Software), Humphrey Loe (SFO) |
| 3. | 1.6.0 | 24.04.2023 | Released following ACRIS feedback. | Raymond Ho (Rockport Software), Richard Todd (Rockport Software), Humphrey Loe (SFO) |

References:

- 1. ACRIS Semantic Model, https://acris.aero/model/, accessed 19th April 2023.
- 2. ACI ACRIS Passenger Wait Times API Specification v1.5a, https://acris.aero/api-wait-times/, accessed 19th April 2023.
- 3. OpenAPI Specification v3.0.3, https://spec.openapis.org/oas/v3.0.3, accessed 19th April 2023.