ACI Passenger Wait Times API Specification v1.5

The following API specification is compliant with the OpenAPI standard v3.0.1, and with the ACRIS Semantic Model.

A copy of this specification is available at aci.aero.

```
openapi: 3.0.1
info:
 title: ACI Wait Times API
 description: Retrieves Wait Times content.
 contact:
  name: ACI
  url: 'http://www.aci.aero/'
 version: '1.5'
servers:
 - url: 'https://aci.aero'
tags:
 - name: Checkpoint Facilities
   description: ACI Checkpoint Facilities
 - name: Passenger Queues
   description: ACI Passenger Queues
 - name: Queue Measurements
   description: ACI Queue Measurements
paths:
 '/aci/airports/{Airport ICAO Code}/checkpoints':
  get:
   tags:
    - Checkpoint Facilities
   summary: >-
    Returns all of the security CheckPointFacility at the AirportFacility
    specified by ICAO Code grouped by TerminalFacility
   operationId: getCheckPointFacilitiesByAirportIdUsingGET
   parameters:
    - name: Airport ICAO Code
     in: path
     description: Four-letter Airport ICAO Code
     required: true
     schema:
      type: string
    - name: page
     in: query
     description: page
     schema:
      type: integer
      format: int32
      default: 0
```

```yaml
    - name: size
      in: query
      description: size
      schema:
        type: integer
        format: int32
        default: 20
  responses:
   '200':
     description: OK
     content:
       application/json:
         schema:
           type: object
           properties:
             CheckPointFacility:
               type: array
               items:
                 $ref: '#/components/schemas/CheckPointFacility'
       application/xml:
         schema:
           type: array
           items:
             $ref: '#/components/schemas/CheckPointFacility'
           xml:
             name: CheckPointFacility
   '401':
     description: Unauthorized
     content: {}
   '403':
     description: Forbidden
     content: {}
   '404':
     description: Not Found
     content: {}
'/aci/airports/{Airport ICAO Code}/queues':
 get:
  tags:
   - Passenger Queues
  summary: >-
    Returns all of the PassengerQueue(s) at the AirportFacility specified by
    ICAO Code grouped by CheckPointFacility
  operationId: getPassengerQueuesByAirportIdUsingGET
  parameters:
   - name: Airport ICAO Code
     in: path
     description: Four-letter Airport ICAO Code
     required: true
     schema:
```

```
        type: string
    - name: page
      in: query
      description: page
      schema:
        type: integer
        format: int32
        default: 0
    - name: size
      in: query
      description: size
      schema:
        type: integer
        format: int32
        default: 20
    responses:
     '200':
       description: OK
       content:
         application/json:
           schema:
             type: object
             properties:
               PassengerQueue:
                 type: array
                 items:
                   $ref: '#/components/schemas/PassengerQueue'
         application/xml:
           schema:
             type: array
             items:
               $ref: '#/components/schemas/PassengerQueue'
             xml:
               name: PassengerQueue
     '401':
       description: Unauthorized
       content: {}
     '403':
       description: Forbidden
       content: {}
     '404':
       description: Not Found
       content: {}
'/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}':
 get:
   tags:
    - Checkpoint Facilities
   summary: Returns a specific checkpoint identified by checkpoint UUID
   operationId: getCheckPointFacilityByAirportIdCheckPointIdUsingGET
```

```yaml
      parameters:
        - name: Airport ICAO Code
          in: path
          description: Four-letter Airport ICAO Code
          required: true
          schema:
            type: string
        - name: Checkpoint UUID
          in: path
          description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
          required: true
          schema:
            type: string
      responses:
        '200':
          description: OK
          content:
            application/json:
              schema:
                type: object
                properties:
                  CheckPointFacility:
                    $ref: '#/components/schemas/CheckPointFacility'
            application/xml:
              schema:
                $ref: '#/components/schemas/CheckPointFacility'
        '401':
          description: Unauthorized
          content: {}
        '403':
          description: Forbidden
          content: {}
        '404':
          description: Not Found
          content: {}
'/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/queues':
  get:
    tags:
      - Passenger Queues
    summary: Returns all of the PassengerQueue(s) at the specified CheckpointFacility
    operationId: getPassengerQueuesByAirportIdCheckPointIdUsingGET
    parameters:
      - name: Airport ICAO Code
        in: path
        description: Four-letter Airport ICAO Code
        required: true
        schema:
          type: string
      - name: Checkpoint UUID
```

```yaml
      in: path
      description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
      required: true
      schema:
        type: string
    - name: page
      in: query
      description: page
      schema:
        type: integer
        format: int32
        default: 0
    - name: size
      in: query
      description: size
      schema:
        type: integer
        format: int32
        default: 20
    responses:
      '200':
        description: OK
        content:
          application/json:
            schema:
              type: object
              properties:
                PassengerQueue:
                  type: array
                  items:
                    $ref: '#/components/schemas/PassengerQueue'
          application/xml:
            schema:
              type: array
              items:
                $ref: '#/components/schemas/PassengerQueue'
              xml:
                name: PassengerQueue
      '401':
        description: Unauthorized
        content: {}
      '403':
        description: Forbidden
        content: {}
      '404':
        description: Not Found
        content: {}
'/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/queues/{Queue UUID}':
  get:
```

```
    tags:
     - Passenger Queues
    summary: Returns the specific PassengerQueue at the specified CheckPointFacility
    operationId: getPassengerQueueByAirportIdCheckPointIdQueueIdUsingGET
    parameters:
     - name: Airport ICAO Code
       in: path
       description: Four-letter Airport ICAO Code
       required: true
       schema:
         type: string
     - name: Checkpoint UUID
       in: path
       description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
       required: true
       schema:
         type: string
     - name: Queue UUID
       in: path
       description: 32 Hexadecimal Digit Queue UUID, in RFC 4122 defined format
       required: true
       schema:
         type: string
    responses:
     '200':
       description: OK
       content:
         application/json:
           schema:
             type: object
             properties:
               PassengerQueue:
                 $ref: '#/components/schemas/PassengerQueue'
         application/xml:
           schema:
             $ref: '#/components/schemas/PassengerQueue'
     '401':
       description: Unauthorized
       content: {}
     '403':
       description: Forbidden
       content: {}
     '404':
       description: Not Found
       content: {}
'/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/measurements':
 get:
   tags:
    - Queue Measurements
```

```yaml
  summary: >-
    Returns all the wait time metrics for all
    PassengerQueue(s) at the specified CheckPointFacility
  operationId: getQueueMeasurementsByAirportIdCheckPointIdUsingGET
  parameters:
   - name: Airport ICAO Code
     in: path
     description: Four-letter Airport ICAO Code
     required: true
     schema:
       type: string
   - name: Checkpoint UUID
     in: path
     description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
     required: true
     schema:
       type: string
   - name: page
     in: query
     description: page
     schema:
       type: integer
       format: int32
       default: 0
   - name: size
     in: query
     description: size
     schema:
       type: integer
       format: int32
       default: 20
  responses:
   '200':
     description: OK
     content:
       application/json:
         schema:
           type: object
           properties:
             QueueMeasurement:
               type: array
               items:
                 $ref: '#/components/schemas/QueueMeasurement'
       application/xml:
         schema:
           type: array
           items:
             $ref: '#/components/schemas/QueueMeasurement'
           xml:
```

```yaml
        name: QueueMeasurement
  '401':
    description: Unauthorized
    content: {}
  '403':
    description: Forbidden
    content: {}
  '404':
    description: Not Found
    content: {}
'/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/queues/{Queue UUID}/measurements':
 get:
  tags:
   - Queue Measurements
  summary: >-
   Returns all the wait time metrics for the specific PassengerQueue at the specified
   security CheckPointFacility
  operationId: getQueueMeasurementsByAirportIdCheckPointIdQueueIdUsingGET
  parameters:
   - name: Airport ICAO Code
    in: path
    description: Four-letter Airport ICAO Code
    required: true
    schema:
     type: string
   - name: Checkpoint UUID
    in: path
    description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
    required: true
    schema:
     type: string
   - name: Queue UUID
    in: path
    description: 32 Hexadecimal Digit Queue UUID, in RFC 4122 defined format
    required: true
    schema:
     type: string
   - name: page
    in: query
    description: page
    schema:
     type: integer
     format: int32
     default: 0
   - name: size
    in: query
    description: size
    schema:
     type: integer
```

```
      format: int32
      default: 20
    responses:
     '200':
      description: OK
      content:
       application/json:
        schema:
         type: object
         properties:
          QueueMeasurement:
           type: array
           items:
            $ref: '#/components/schemas/QueueMeasurement'
       application/xml:
        schema:
         type: array
         items:
          $ref: '#/components/schemas/QueueMeasurement'
         xml:
          name: QueueMeasurement
     '401':
      description: Unauthorized
      content: {}
     '403':
      description: Forbidden
      content: {}
     '404':
      description: Not Found
      content: {}
   put:
    tags:
     - Queue Measurements
    summary: 'Sets all wait time metrics at a given queue for a specified time'
    operationId: putCurrentQueueMeasurementsByAirportIdCheckPointIdQueueIdUsingPUT
    parameters:
     - name: Airport ICAO Code
      in: path
      description: Four-letter Airport ICAO Code
      required: true
      schema:
       type: string
     - name: Checkpoint UUID
      in: path
      description: 32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format
      required: true
      schema:
       type: string
     - name: Queue UUID
```

```
      in: path
      description: 32 Hexadecimal Digit Queue UUID, in RFC 4122 defined format
      required: true
      schema:
        type: string
    requestBody:
     required: true
     content:
      application/json:
        schema:
         $ref: '#/components/schemas/CurrentWaitTime'
      application/xml:
        schema:
         $ref: '#/components/schemas/CurrentWaitTime'
    responses:
     '201':
      description: Created
      content: {}
     '401':
      description: Unauthorized
      content: {}
     '403':
      description: Forbidden
      content: {}
components:
 schemas:
  AirportElevation:
   type: object
   description: 'The height of an Airport, above sea level.'
   properties:
    Name:
     type: string
    Value:
     type: number
    AirportElevationUnitOfMeasurement:
     $ref: '#/components/schemas/AirportElevationUnitOfMeasurement'
  AirportElevationUnitOfMeasurement:
   type: object
   description: 'The unit of measure of the height of an Airport above sea level (FT for foot or M for metre).'
   properties:
    Name:
     type: string
  AirportFacility:
   type: object
   description: 'Information about an Airport as buildings or infrastructure used to provide services.'
   properties:
    IATACode:
     description: 'Three character IATA code for the Airport.'
     type: string
```

```
    ICAOCode:
      description: 'Four character ICAO code for the Airport.'
      type: string
    Name:
      description: 'Common name of the Airport.'
      type: string
  AirportLocation:
   type: object
   description: 'The geospatial or geopolitical location of an Airport.'
   properties:
    Latitude:
      description: 'Coordinate for latitude of the Airport.'
      type: number
    Longitude:
      description: 'Coordinate for longitude of the Airport.'
      type: number
    Name:
      type: string
    SRID:
      description: 'A Spatial Reference System Identifier (SRID), to identify the spatial coordinate system
definitions'
      type: integer
  CheckPointAreaLocation:
   type: object
   description: 'The geospatial or geopolitical location of a Checkpoint.'
   properties:
    Latitude:
      description: 'Coordinate of the latitude of the checkpoint area location'
      type: number
    Longitude:
      description: 'Coordinate of the longitude of the checkpoint area location'
      type: number
    Name:
      type: string
    SRID:
      description: 'A Spatial Reference System Identifier (SRID), to identify the spatial coordinate system
definitions'
      type: integer
    AirportElevation:
      $ref: '#/components/schemas/AirportElevation'
    ZoneAreaLocation:
      $ref: '#/components/schemas/ZoneAreaLocation'
  CheckPointFacility:
   type: object
   description: 'Information about a Checkpoint in an Airport used to provide services. 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. '
   properties:
    Description:
```

```
      type: string
    Identifier:
      type: string
    Name:
      type: string
    CheckPointAreaLocation:
      $ref: '#/components/schemas/CheckPointAreaLocation'
    CheckPointFacilityOperatorParty:
      $ref: '#/components/schemas/CheckPointFacilityOperatorParty'
    CheckPointFacilityType:
      $ref: '#/components/schemas/CheckPointFacilityType'
    ConcourseFacility:
      $ref: '#/components/schemas/ConcourseFacility'
    OperationTimePeriod:
      $ref: '#/components/schemas/OperationTimePeriod'
  CheckPointFacilityOperatorParty:
    type: object
    description: 'Information that describes the Party responsible for the operation of a Checkpoint in an
Airport.'
    properties:
      Name:
        type: string
  CheckPointFacilityType:
    type: object
    description: 'Information that describes the classification for a Checkpoint in an Airport. Values are:
Security Screening, Customs'
    properties:
      Code:
        type: string
      Description:
        type: string
  ConcourseFacility:
    type: object
    description: 'Information about an Airport Concourse as buildings or infrastructure used to provide
services.'
    properties:
      Identifier:
        type: string
      Name:
        type: string
      TerminalFacility:
        $ref: '#/components/schemas/TerminalFacility'
  MeasurementDevice:
    type: object
    description: 'Information about the device (equipment) used to take measurements (observations).'
    properties:
      Name:
        type: string
      MeasurementDeviceLocation:
```

```
          $ref: '#/components/schemas/MeasurementDeviceLocation'
MeasurementDeviceLocation:
 type: object
 description: 'The geospatial or geopolitical location of a Measurement Device.'
 properties:
   Name:
    type: string
MeasurementTimePeriod:
 type: object
 description: 'The time period over which a Measurement is taken.'
 properties:
   EndTime:
    type: string
OperationTimePeriod:
 type: object
 description: 'The time period over which the Checkpoint is operating.'
 properties:
   ClosingTime:
    type: string
   OpeningTime:
    type: string
PassengerProcess:
 type: object
 description: 'Information about the Passenger Party Process.'
 properties:
   Name:
    type: string
   PassengerProcessType:
    $ref: '#/components/schemas/PassengerProcessType'
PassengerProcessType:
 type: object
 description: 'Information about the type of Passenger Party Process.'
 properties:
   Code:
    type: string
   Description:
    type: string
PassengerQueue:
 type: object
 description: 'Information about the Passenger Party Queue.'
 properties:
   Identifier:
    type: string
   Name:
    type: string
   CheckPointFacility:
    $ref: '#/components/schemas/CheckPointFacility'
   PassengerProcess:
    $ref: '#/components/schemas/PassengerProcess'
```

```
    QueueLocation:
      $ref: '#/components/schemas/QueueLocation'
    QueueStatus:
      $ref: '#/components/schemas/QueueStatus'
    QueueType:
      $ref: '#/components/schemas/QueueType'
  QueueLocation:
   type: object
   description: 'The geospatial or geopolitical location of a Passenger Queue.'
   properties:
    Name:
      type: string
  QueueMeasurement:
   type: object
   description: 'Information about the measurements (observations) of particular Measures of a Passenger
Queue.'
   properties:
    Occupancy:
      description: 'The count of people in the queue.  The unit of measure is number of people. This metric is
updated every five minutes.'
      type: number
    Projected Wait Time:
      description: 'The estimated time that a person entering the queue can expect to wait. The unit of
measure is seconds. Estimates are required to be updated every five minutes.'
      type: number
    Throughput:
      description: '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.
'
      type: number
    Wait Time:
      description: '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. The amounts are required to be updated every five minutes.'
      type: number
    MeasurementDevice:
      $ref: '#/components/schemas/MeasurementDevice'
    MeasurementTimePeriod:
      $ref: '#/components/schemas/MeasurementTimePeriod'
    PassengerQueue:
      $ref: '#/components/schemas/PassengerQueue'
  QueueStatus:
   type: object
   description: 'Information about the status of a Passenger Queue. Values can be: Open, Closed'
   properties:
    Name:
      type: string
  QueueType:
   type: object
```

    description: 'Information about the type of a Passenger Queue. Values can be: Pre-Check, Private, Economy, Priority, KnownCrewMember'
     properties:
      Code:
       type: string
      Description:
       type: string
    TerminalAreaLocation:
     type: object
     description: 'The geospatial or geopolitical location of an Airport Terminal building.'
     properties:
      Name:
       type: string
      AirportLocation:
       $ref: '#/components/schemas/AirportLocation'
    TerminalFacility:
     type: object
     description: 'Information about an Airport Terminal as buildings or infrastructure used to provide services.'
     properties:
      Identifier:
       type: string
      Name:
       type: string
      AirportFacility:
       $ref: '#/components/schemas/AirportFacility'
    ZoneAreaLocation:
     type: object
     description: 'The geospatial or geopolitical location of a Queuing Zone in a Terminal.'
     properties:
      Name:
       type: string
      TerminalAreaLocation:
       $ref: '#/components/schemas/TerminalAreaLocation'
    CurrentWaitTime:
     type: object
     properties:
      Occupancy:
       description: 'The count of people in the queue. The unit of measure is number of people. This metric is updated every five minutes.'
        type: integer
      Projected Wait Time:
       description: 'The estimated time that a person entering the queue can expect to wait. The unit of measure is seconds. Estimates are required to be updated every five minutes.'
        type: integer
      Throughput:
       description: '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.'
        type: integer
      Wait Time:

description: '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. The amounts are required to be updated every five minutes.'
    type: integer
  EndTime:
   type: string
   description: "End of measurement, in ISO 8601 format: (e.g. 2001-12-31T23:59:59Z)"