



Aero App Data API

Aero App for Android

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1 Aero App for Android Data API

This document describes the API for accessing data through a provided library. The library makes requests to a ContentProvider supplied by Aero App for Android. This API is created for ATAK to request Airport, NavAid, and Waypoint information, as well as charts and cycle data.

2 Methods

Results are stored in the data field of an AeroAppResult object. Exceptions which occur during the method call may be carried through the error field in AeroAppResult; for example, if there is no active cycle, the error field will contain an IllegalStateException.

2.1 checkAeroAppPermission

`checkAeroAppPermission` checks if the user has granted the current application permission to access AeroApp data.

Added in 1.2306 Aero App for Android

Method Signature

```
fun checkAeroAppPermission(context: Context): Boolean
```

2.2 getActiveCycle

`getActiveCycle` gets the active cycle.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getActiveCycle(context: Context): AeroAppResult<Cycle>
```

2.3 getAirports

`getAirports` gets a list of AirportData for the given searchTerms. The number of airports returned may be less than the initial given search terms as some airports may not be found.

Added in 1.2306 Aero App for Android

Method Signature

```
fun getAirports(  
    context: Context, searchTerms: Array<String>  
) : AeroAppResult<AirportData>
```

2.4 getAirportCharts

`getCharts` gets a list of `AirportChartData` for the given `wacInnr` and `AirportChartType`.

Modified in 1.2402 Aero App for Android

Method Signature

```
fun getAirportCharts(  
    wacInnr: String, context: Context, chartType: AirportChartType,  
    colorMode: ColorMode = ColorMode.Light  
) : AeroAppResult<AirportChartData>
```

2.5 getNavAids

`getNavAids` gets a list of `NavAids` for the given `searchTerms`. The number of `NavAids` returned may be less than the initial given search terms as some `NavAids` may not be found.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getNavAids(  
    context: Context, searchTerms: Array<String>  
) : AeroAppResult<SerializableNavaid>
```

2.6 getWaypoints

`getWaypoints` gets a list of `Waypoints` for the given `searchTerms`. The number of `Waypoints` returned may be less than the initial given search terms as some `Waypoints` may not be found.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getWaypoints(  
    context: Context, searchTerms: Array<String>  
) : AeroAppResult<SerializableWaypoint>
```

2.7 getChartSupplementsList

`getChartSupplementsList` gets a list of PDF documents for regional Chart Supplements.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getChartSupplementsList(context: Context): AeroAppResult<PdfDocument>
```

2.8 getAreaPlanningList

`getAreaPlanningList` gets a list of PDF documents for regional Area Planning.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getAreaPlanningList(context: Context): AeroAppResult<PdfDocument>
```

2.9 getChartSupplement

`getChartSupplement` gets the file URIs with view permission granted only to the requesting app for regional Chart Supplements.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getChartSupplement(names: List<String>, context: Context): AeroAppResult<Uri>
```

2.10 getAreaPlanning

`getAreaPlanning` gets the file URIs with view permission granted only to the requesting app for regional Area Planning.

Added in 1.2402 Aero App for Android

Method Signature

```
fun getAreaPlanning(names: List<String>, context: Context): AeroAppResult<Uri>
```

3 Classes

3.1 AeroAppResult

`AeroAppResult` is a container for the result of a query, where either the data or an error may be returned. The error property holds any exception that occurred during Aero App's processing of the query. The data is a list of results of the type T.

Modified in 1.2402 Aero App for Android

```
Kotlin
```

```
class AeroAppResult<T : Parcelable>(val error: Throwable?, val data: List<T>?)
```

3.2 AirportAQP

`AirportAQP` is a class that contains properties of an airport AQP such as the description, overview, and falconView.

Added in 1.2402 Aero App for Android

```
Kotlin
```

```
data class AirportAQP(  
    val description: String,  
    val overview: ImageBitmap?,  
    val falconView: ImageBitmap?  
) : Parcelable
```

3.3 AirportChartData

`AirportChartData` is a class that contains properties of an airport's chart data such as the name and image bitmap.

Modified in 1.2402 Aero App for Android

```
Kotlin
```

```
data class AirportChartData(  
    val name: String,  
    val bitmap: ImageBitmap  
) : Parcelable
```

3.4 AirportData

`AirportData` is a class that contains properties of an airport's data such as the `wacInnr`, information within `SerializableAirport` object, and airport AQP.

Modified in 1.2402 Aero App for Android

Kotlin

```
data class AirportData(  
    val wacInnr: String,  
    val info: SerializableAirport,  
    val aqp: AirportAQP?  
) : Parcelable
```

3.5 Cycle

`Cycle` is a class that contains properties of cycle information such as the cycle name (e.g. "2402") and effective dates (e.g. Effective 2024-01-05 through 2024-02-21).

Added in 1.2402 Aero App for Android

Kotlin

```
data class Cycle(  
    val name: String,  
    val start: LocalDate,  
    val end: LocalDate  
) : Parcelable
```

3.6 PdfDocument

`PdfDocument` is a class that contains properties of regional charts such as the chart name (e.g. "AFR") and description.

Added in 1.2402 Aero App for Android

Kotlin

```
data class PdfDocument(  
    val name: String,  
    val description: String?  
) : Parcelable
```

3.7 SerializableAirport

`SerializableAirport` is a class that contains properties of an individual airport such as the ICAO (e.g. "KBLV"), name (e.g. "Scott Afb Midamerica St Louis"), location, country, country code, region, elevation, latitude, longitude, magnetic variance, and many more properties relating to the airport's general information.

Added in 1.2306 Aero App for Android

Kotlin

```
@kotlinx.serialization.Serializable
data class SerializableAirport(
    val icao: String,
    val name: String,
    val location: String?,
    var country: String,
    var countryCode: String,
    val region: String?,
    val elevation: Float,
    val latitude: Double,
    val longitude: Double,
    val magneticVariance: Double,
    val hasRotatingBeacon: Boolean,
    val hasArrestingGear: Boolean,
    val hasAQP: Boolean,
    val inDAFIF: Boolean,
    val communications: List<SerializableAirportCommunication>,
    val runways: List<SerializableRunway>,
    val remarks: List<SerializableAirportRemark>,
) : Parcelable
```


3.8 SerializableAirportCommunication

`SerializableAirportCommunication` is a class that contains properties of airport communication information such as the aviation call sign, communication type, multilink, frequency list, operating hours, sector, and remarks.

Added in 1.2306 Aero App for Android

Kotlin

```
@kotlinx.serialization.Serializable
data class SerializableAirportCommunication(
    val callSign: String,
    val commType: String,
    val multi: String?,
    val frequencyList: List<String>,
    val oprHrs: String?,
    val sector: String?,
    val remark: String?
) : Parcelable
```

3.9 SerializableAirportRemark

`SerializableAirportRemark` is a class that contains properties of an airport's remarks such as the type (e.g. "CAUTION") and remark content.

Added in 1.2306 Aero App for Android

Kotlin

```
@kotlinx.serialization.Serializable
data class SerializableAirportRemark(
    val type: String,
    val rmk: String
) : Parcelable
```

3.10 SerializableNavaid

`SerializableNavaid` is a class that contains properties of an individual NavAid such as the identifier (e.g. “FLO”), name (e.g. “Florence”), elevation, location, state, country, latitude, longitude, magnetic variance, frequency, and TACAN channel.

Added in 1.2402 Aero App for Android

```
Kotlin

@kotlinx.serialization.Serializable
data class SerializableNavaid(
    val identifier: String,
    val name: String,
    val elev: Int?,
    val location: String?,
    val state: String?,
    val country: String?,
    val latitude: Double,
    val longitude: Double,
    val magVar: Double,
    val freq: String?,
    val tacanChan: String?
) : Parcelable
```

3.11 SerializableRunway

`SerializableRunway` is a class that contains properties of an airport’s runway information such as the identifier (e.g. “KBLV”), length, width, surface code, condition code, runway end high, runway end low, operational status, PCN, LCN, and maximum demonstrated wingspan.

Added in 1.2306 Aero App for Android

```
Kotlin

@kotlinx.serialization.Serializable
data class SerializableRunway(
    val identifier: String,
    val length: Int,
    val width: Int,
```

```
    val surfaceCode: String,  
    val conditionCode: String,  
    val runwayEndHi: SerializableRunwayEnd,  
    val runwayEndLo: SerializableRunwayEnd,  
    val oprStatus: String?,  
    val pcn: String?,  
    val lcn: String?,  
    val maxDemoSpan: String?  
    ) : Parcelable
```

3.12 SerializableRunwayEnd

`SerializableRunwayEnd` is a class that contains properties of an airport's runway end information such as the latitude, longitude, identifier, magnetic heading, true heading, TDZE, and overrun length.

Added in 1.2306 Aero App for Android

Kotlin

```
@kotlinx.serialization.Serializable  
data class SerializableRunwayEnd(  
    val latitude: Double,  
    val longitude: Double,  
    val identifier: String,  
    var magHdg: Float?,  
    var truHdg: Float?,  
    var tdze: Float?,  
    var overrunLength: Float?  
    ) : Parcelable
```

3.13 SerializableWaypoint

`SerializableWaypoint` is a class that contains properties of an individual Waypoint such as the identifier (e.g. "SUNOL"), name (e.g. "SUNOL"), location, state, country, latitude, longitude, and magnetic variance.

Added in 1.2402 Aero App for Android

Kotlin

```
@kotlinx.serialization.Serializable
data class SerializableWaypoint(
    val identifier: String,
    val name: String,
    val location: String?,
    val state: String?,
    val country: String?,
    val latitude: Double,
    val longitude: Double,
    val magVar: Double
) : Parcelable
```

4 Enums

4.1 AirportChartType

An enumeration of chart types that can be used to request airport charts.

Modified in 1.2402 Aero App for Android

Kotlin

```
enum class AirportChartType : Parcelable { APD, IAP, ARR, DEP, MIN }
```

4.2 ColorMode

An enumeration of color modes that can be used to request airport charts.

Added in 1.2402 Aero App for Android

Kotlin

```
enum class ColorMode : Parcelable { Light, Dark }
```