AKCINĖ BENDROVĖ „ORO NAVIGACIJA“

Unmanned Traffic Management

API Documentation

ON UTM System

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1 Introduction

1.1 Purpose of the Document

This API Documentation for the ON UTM project is produced by Frequentis for Oro Navigacija and forms a part of the contracted design deliverables.

1.2 Target Group

This document is applicable for all members of the project team of ON.

1.3 References

1.3.1 Documents

For further information refer to:

Document	Document Identifier
System Subsystem Design Description (SSDD)	NBEA07EN30006

2 OPS - Operation Plan Service API

ON UTM System - API Documentation

Operation Plan Service API

API Version: 2.0.0

Operation Plan Service API provides endpoints to control life-cycle of an operation plan.
It consists of several parts:

- 01 Notification: This endpoint can be used to inform the system about an operation plan. An operation plan received at this endpoint shall be stored and distributed to subscribers. However, its state shall not be changed.
- 02 Data Retrieval: Endpoints from this category provide a list of operation plans according to given criteria. It also provides results of authorization, activation.
- 03 Subscription: These endpoints allow external services to manage subscriptions for operation plans and other data that Operation Plan Service provides.
- 04 Operation Plan Authorization and Activation: This category allows external services to request authorization and activation of an operation plan. It also allows external services that have approver role in the system to provide results of approval and take off clearance requests.
- 05 Operation Plan Approval and Take Off Clearance: It contains endpoints for requesting approval and take off clearance. These endpoints shall be used when Operation Plan Service has approver role in the system and an external service needs to request approval or take off clearance.
- 06 Operation Plan Management: Category for operation plans management - propose operation plans, close operation plans, compute operation plan volume from its trajectory.
- 07 Conflict Detection## Operation plan Authorization and Activation
- An operation plan can be authorized and activated using Operation Plan service API using following API calls: • /api/proposeOperationPlan - operation plan in PROPOSED state is stored in the system.
- /api/authorizeOperationPlan/{operationPlanId} - authorization process; Wait for approvers to provide authorization result. Operation plan is authorized when all the approvers grant approve. Operation plan is closed otherwise.
- /api/activateOperationPlan/{operationPlanId} - activation process; Wait for approvers to provide activation result. Operation plan is activated when all the approvers grant approve. Operation plan is closed otherwise. • /api/declareEndOfFlight - operation plan is closed.

`/api/authorizeOperationPlan/{operationPlanId}` and `/api/activateOperationPlan/{operationPlanId}` can be replaced with `/api/authorizeOperationPlan` and `/api/activateOperationPlan`, however the first ones are preferred.

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Security and Authentication

SECURITY SCHEMES

KEY	TYPE	DESCRIPTION
mainsecscheme	http, Bearer	

API

1. 01 NOTIFICATION

API that allows to provide operation plans.

1.1 POST /api/2.0.0/operation-plans/notify

Provide an Operation Plan to the system

The operation plan shall be redistributed and stored in the system. However, authorization or activation shall not be performed.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category.

NAME	TYPE	DESCRIPTIO
		'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.

NAME	TYPE	DESCRIPTIO
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position);

NAME	TYPE	DESCRIPTIO
		* **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point

NAME	TYPE	DESCRIPTIO
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by

NAME	TYPE	DESCRIPTIO
		this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		

NAME	TYPE	DESCRIPTION
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

2. 02 DATA RETRIEVAL

Obtains Operation Plans according to given parameters.

2.1 POST /api/2.0.0/operation-plans/search

Get Operation Plans visible to the request sender

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
timeFrom*	string	Return data with validity starting from given value.
timeTo*	string	Return data with validity ending before given value.
altitudeMetersFrom*	number	Return data with altitude higher than given value.
altitudeMetersTo*	number	Return data with altitude lower than given value.
geometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operator	string	Return data with given operator value.
updateTimeFrom	string	Return data with update time after given value.
updateTimeTo	string	Return data with update time before given value.
size	integer	Return up to given number of entries.
sortOrder	enum	ALLOWED:ASC, DESC Return data in given sort order.
listOfOperationPlanState	array	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
ARRAY OF OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.

NAME	TYPE	DESCRIPTIO
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.

NAME	TYPE	DESCRIPTIO
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element

NAME	TYPE	DESCRIPTIO
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	

NAME	TYPE	DESCRIPTIO
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	

NAME	TYPE	DESCRIPTIO
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

2.2 POST /api/2.0.0/operation-plans/conflicting-operation-plans

Get Operation Plans that are in conflict with given Operation Plan

Conflicting Operation plans with state PROPOSED or CLOSED shall not be returned.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION

NAME	TYPE	DESCRIPTIO
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.

NAME	TYPE	DESCRIPTIO
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized.

NAME	TYPE	DESCRIPTIO
		'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. *

NAME	TYPE	DESCRIPTIO
		8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height.

NAME	TYPE	DESCRIPTIO
		Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.

NAME	TYPE	DESCRIPTIO
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
ARRAY OF OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.

NAME	TYPE	DESCRIPTIO
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	

NAME	TYPE	DESCRIPTIO
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,

NAME	TYPE	DESCRIPTIO
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry

NAME	TYPE	DESCRIPTIO
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER

NAME	TYPE	DESCRIPTIO
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED

NAME	TYPE	DESCRIPTION	TYPE	DESCRIPTIO
details	array			

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

2.3 GET /api/2.0.0/operation-plans/{id}

Get Operation Plan with given id

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.

NAME	TYPE	DESCRIPTIO
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.

NAME	TYPE	DESCRIPTIO
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element

NAME	TYPE	DESCRIPTIO
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.

NAME	TYPE	DESCRIPTIO
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

3. 03 SUBSCRIPTION

API allowing consumers to subscribe for Operation Plans notifications as JSON. See the description in Model below.

3.1 PUT /api/2.0.0/subscriptions/{subscriptionId}

Change state of subscription

Allows to change subscription status from *'ACTIVATED'* to *'PAUSED'* or vice versa. Subscription ID is required.
When PAUSED, no data will be sent to subscriber unless ACTIVATED again.
Data are not stored while subscription is paused - no historic data will be send after subscription is back active! Only live data are sent to subscribers.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*state	enum ALLOWED: ACTIVE, PAUSED	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION	OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION	OBJECT	
WITH BELOW STRUCTURE		
code*	integer	

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

3.2 DELETE /api/2.0.0/subscriptions/{subscriptionId}

Unsubscribe from receiving notifications

If an unsubscribe request is received successfully (HTTP response status is 2xx), no other data will be sent to subscriber.
Subscription ID is required.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

3.3 GET /api/2.0.0/subscriptions

Get subscriptions owned by the request sender.

Get a list of subscriptions owned by the request sender.
The request sender is identified and authorized by a bearer token.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE DESCRIPTION ARRAY OF	
OBJECT WITH BELOW STRUCTURE		
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
ONE:OF	object	
OPTION:1	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
center*	array	
radius*	number	>=0
OPTION:2	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTION
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
coordinates*	array	
::props	array	
data_format*	enum	ALLOWED:OPERATION_PLAN_V2, OPERATION_PLAN_V3, APPROVAL_RESULT, APPROVAL_RESULT_V3, TAKE_OFF_CLEARANCE_RESULT, TAKE_OFF_CLEARANCE_RESULT_V3, AUTHORIZATION_RESULT, AUTHORIZATION_RESULT_V3, ACTIVATION_RESULT, ACTIVATION_RESULT_V3

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION OBJECT	
WITH BELOW STRUCTURE	

code*	integer

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

3.4 POST /api/2.0.0/subscriptions

Subscribe for Operation Plans notifications

Subscribe to receive Operation Plans data. Data will be sent to subscriber based on provided `subscription_type` and `data_format`.

There is a maximum number of retries configured in the system. If Operation Plan Service is not able to reach an URL that was subscribed with `subscription_type = HTTP` and the maximum number of retries is reached, then the subscription is automatically removed.
subscription_type	Description	endpoint_url
AMQP	Data are sent to subscriptionID queue	-
HTTP	Data are sent via HTTP to provided URL	required

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

NAME	TYPE	DESCRIPTION
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/ height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
data_format*	enum	ALLOWED:OPERATION_PLAN_V2, OPERATION_PLAN_V3, APPROVAL_RESULT, APPROVAL_RESULT_V3, TAKE_OFF_CLEARANCE_RESULT, TAKE_OFF_CLEARANCE_RESULT_V3, AUTHORIZATION_RESULT, AUTHORIZATION_RESULT_V3, ACTIVATION_RESULT, ACTIVATION_RESULT_V3

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4. 04 OPERATION PLAN AUTHORIZATION AND ACTIVATION

Sending operation plans for authorization and activation.

4.1 POST /api/2.0.0/operation-plans/{id}/authorize

Request authorization of the operation plan specified by ID

It is required that the operation plan for authorization was proposed via /api/proposeOperationPlan endpoint prior to this authorization request. Request body for this request is empty. ID of the operation plan to be requested authorization for is specified in the path of the request.
Once the authorization was requested, no other authorization requests, either with this or other endpoint are accepted and request will result in error message. Result of the authorization shall be sent to endpoints subscribed with data type `AUTHORIZATION_RESULT`.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
suppressedConflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION
objectId*	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION	OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL - application/json

NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4.2 POST /api/2.0.0/operation-plans/{id}/activate

Request activation of the operation plan specified by ID

It is required that the operation plan for activation was in state APPROVED prior to this request. Request body for this request is empty. ID of the operation plan to be requested activation for is specified in the path of the request. Once the activation was requested, no other activation requests, either with this or other endpoint are accepted and request will result in error message. Result of the activation shall be sent to endpoints subscribed with data type ACTIVATION_RESULT.Requesting activation is only allowed during configurable period of time (default 120s) before operation plan's begin time. Earlier requests will be rejected.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
suppressedConflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT

conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS,

NAME	TYPE	DESCRIPTION
		REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION
objectId*	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	DESCRIPTION OBJECT
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	DESCRIPTION OBJECT
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	DESCRIPTION OBJECT
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED

details	array

4.3 POST /api/2.0.0/operation-plans/propose

Provide operation plan in PROPOSED state

Purpose of this endpoint is to send operation plan in state PROPOSED to the system. Such operation plan can be later authorized and activated.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus:

NAME	TYPE	DESCRIPTIO
		"Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.

NAME	TYPE	DESCRIPTIO
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency

NAME	TYPE	DESCRIPTIO
		may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	

NAME	TYPE	DESCRIPTIO
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	

NAME	TYPE	DESCRIPTIO
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTIO
NAME	TYPE	DESCRIPTION

NAME	TYPE	TYPE	DESCRIPTIO
	DESCRIPTION OBJECT		
WITH BELOW STRUCTURE			
code*	integer		
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED	
details	array		

4.4 POST /api/2.0.0/operation-plans/propose-and-authorize

Provide and request authorization for given operation plan

Operation plan in request body has to be in state PROPOSED. Approvers can grant or deny the authorization. Result of the authorization shall be sent to endpoints subscribed with data type AUTHORIZATION_RESULT.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlan*	object	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR

NAME	TYPE	DESCRIPTIO
		'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to

NAME	TYPE	DESCRIPTIO
		be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M

NAME	TYPE	DESCRIPTIO
		Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER,

NAME	TYPE	DESCRIPTIO
		ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
suppressedConflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION
objectId*	string	

RESPONSE

NAME TYPE DESCRIPTIO

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4.5 POST /api/2.0.0/operation-plans/clearance-result/notify

External approver sends take off clearance result to this endpoint.

An operation plan activation is finished when all the approves provides the result (or one of them denies the take off clearance). In such case, endpoints subscribed with data type `ACTIVATION_RESULT` shall be notified.

NAME TYPE DESCRIPTIO

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Identifier of the related operation plan.
state*	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
evaluationType*	enum	ALLOWED:AUTOMATIC, MANUAL, UNKNOWN Information if the result has been evaluated automatically or manually (e.g. by SmartSiS user)
rejectionMessage	string	Message describing the reason of OP denial. Only allowed when 'state' is DENIED.
errorMessage	string	Message that contains information about the error. Operation Plan is closed when there is an error.
alternativeOPs*	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED

NAME	TYPE	DESCRIPTIO
		'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple

NAME	TYPE	DESCRIPTIO
		priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering;

NAME	TYPE	DESCRIPTIO
		* **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point

NAME	TYPE	DESCRIPTIO
		Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the

NAME	TYPE	DESCRIPTIO
		object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	

NAME	TYPE	DESCRIPTIO
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4.6 POST /api/2.0.0/operation-plans/approval-result/notify

External approver sends approval result to this endpoint.

An operation plan authorization is finished when all the approves provides the result (or one of them denies the approval). In such case, endpoints subscribed with data type AUTHORIZATION_RESULT shall be notified.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Identifier of the related operation plan.
state*	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
evaluationType*	enum	ALLOWED:AUTOMATIC, MANUAL, UNKNOWN Information if the result has been evaluated automatically or manually (e.g. by SmartSiS user)
rejectionMessage	string	Message describing the reason of OP denial. Only allowed when 'state' is DENIED.
errorMessage	string	Message that contains information about the error. Operation Plan is closed when there is an error.
alternativeOPs*	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the

NAME	TYPE	DESCRIPTIO
		USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is

NAME	TYPE	DESCRIPTIO
		beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.

NAME	TYPE	DESCRIPTIO
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*		

NAME	TYPE	DESCRIPTIO
	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL,

NAME	TYPE	DESCRIPTIO
		ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.

NAME	TYPE	DESCRIPTIO
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple

NAME	TYPE	DESCRIPTIO
		priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION OBJECT	
WITH BELOW STRUCTURE	

NAME	TYPE	DESCRIPTIO
code*	integer	

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4.7 GET /api/2.0.0/operation-plans/{id}/authorization-result

Get authorization result for operation plan version and ID

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
operationVersionId	string	
operationPlanId	string	
startTime	string	Start time of the process
endTime	string	End time of the process

NAME	TYPE	DESCRIPTIO
state	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
errorMessages	array	
alternativeOPs	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."

NAME	TYPE	DESCRIPTIO
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.

NAME	TYPE	DESCRIPTIO
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,

NAME	TYPE	DESCRIPTIO
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry

NAME	TYPE	DESCRIPTIO
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).

NAME	TYPE	DESCRIPTIO
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
operationPlan	object	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.

NAME	TYPE	DESCRIPTIO
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.

NAME	TYPE	DESCRIPTIO
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	

NAME	TYPE	DESCRIPTIO
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	

NAME	TYPE	DESCRIPTIO
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	

NAME	TYPE	DESCRIPTIO
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4.8 GET /api/2.0.0/operation-plans/{id}/activation-result

Get activation result for operation plan version and ID

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

RESPONSE	NAME	TYPE	DESCRIPTIO

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
operationVersionId	string	
operationPlanId	string	
startTime	string	Start time of the process
endTime	string	End time of the process
state	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
errorMessages	array	
alternativeOPs	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.

NAME	TYPE	DESCRIPTIO
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.

NAME	TYPE	DESCRIPTIO
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	

NAME	TYPE	DESCRIPTIO
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).

NAME	TYPE	DESCRIPTIO
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
operationPlan	object	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.

NAME	TYPE	DESCRIPTIO
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.

NAME	TYPE	DESCRIPTIO
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	

NAME	TYPE	DESCRIPTIO
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	

NAME	TYPE	DESCRIPTIO
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	

NAME	TYPE	DESCRIPTIO
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

NAME TYPE DESCRIPTIO

5. 05 OPERATION PLAN APPROVAL AND TAKE OFF CLEARANCE

Sending operation plans for approval and take off clearance.

5.1 POST /api/2.0.0/operation-plans/clearance

Request take off clearance for given operation plan

This endpoint shall be used in activation process when the service has an approver role. Result shall be sent to endpoints subscribed with data type `TAKE_OFF_CLEARANCE_RESULT`.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*organizationId	string	

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlan*	object	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted,

NAME	TYPE	DESCRIPTIO
		within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon

NAME	TYPE	DESCRIPTIO
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,

NAME	TYPE	DESCRIPTIO
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry

NAME	TYPE	DESCRIPTIO
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in

NAME	TYPE	DESCRIPTIO
		place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
suppressedConflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION
objectId*	string	

RESPONSE

STATUS CODE - 200: Operation successful

NAME RESPONSE MODEL - TYPE DESCRIPTIO

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

5.2 POST /api/2.0.0/operation-plans/approval

Request approval for given operation plan

This endpoint shall be used in authorization process when the service has an approver role. Result shall be sent to endpoints subscribed with data type APPROVAL_RESULT.

REQUEST

NAME	TYPE	DESCRIPTIO

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*organizationId	string	

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlan*	object	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."

NAME	TYPE	DESCRIPTIO
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory

NAME	TYPE	DESCRIPTIO
		elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of

NAME	TYPE	DESCRIPTIO
		this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*		

NAME	TYPE	DESCRIPTIO
	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
suppressedConflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION
objectId*	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

NAME	TYPE	DESCRIPTIO

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

5.3 GET /api/2.0.0/operation-plans/{id}/clearance

Get clearance result for operation plan version and ID

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*organizationId	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION

NAME	TYPE	DESCRIPTIO
operationPlanId*	string	Identifier of the related operation plan.
state*	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
evaluationType*	enum	ALLOWED:AUTOMATIC, MANUAL, UNKNOWN Information if the result has been evaluated automatically or manually (e.g. by SmartSiS user)
rejectionMessage	string	Message describing the reason of OP denial. Only allowed when 'state' is DENIED.
errorMessage	string	Message that contains information about the error. Operation Plan is closed when there is an error.
alternativeOPs*	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.

NAME	TYPE	DESCRIPTIO
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification

NAME	TYPE	DESCRIPTIO
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,

NAME	TYPE	DESCRIPTIO
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry

NAME	TYPE	DESCRIPTIO
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).

NAME	TYPE	DESCRIPTIO
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED

NAME	TYPE	DESCRIPTION	TYPE	DESCRIPTIO
details	array			

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

5.4 GET /api/2.0.0/operation-plans/{id}/approval

Get approval result for operation plan version and ID

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*organizationId	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Identifier of the related operation plan.
state*	enum	ALLOWED:NOT_YET_REQUESTED, ERROR, PENDING, GRANTED, DENIED, TIMEOUT, REVOKED The result state.
evaluationType*	enum	ALLOWED:AUTOMATIC, MANUAL, UNKNOWN Information if the result has been evaluated automatically or manually (e.g. by SmartSiS user)
rejectionMessage	string	Message describing the reason of OP denial. Only allowed when 'state' is DENIED.

NAME	TYPE	DESCRIPTIO
errorMessage	string	Message that contains information about the error. Operation Plan is closed when there is an error.
alternativeOPs*	array	
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."

NAME	TYPE	DESCRIPTIO
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.

NAME	TYPE	DESCRIPTIO
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.

NAME	TYPE	DESCRIPTIO
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.

NAME	TYPE	DESCRIPTIO
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.
conflicts	array	
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available

NAME	TYPE	DESCRIPTIO
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

6. 06 OPERATION PLAN MANAGEMENT

Managing operation plan states

6.1 POST /api/2.0.0/operation-plans/{id}/withdraw

Withdraw operation plan with requested operation plan id

Operator shall use this endpoint in order to close an inactive operation plan.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

REQUEST BODY - application/json

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.

NAME	TYPE	DESCRIPTIO
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	

NAME	TYPE	DESCRIPTIO
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

6.2 POST /api/2.0.0/operation-plans/{id}/declare-end-of-flight

Declare end of flight for an operation plan with given operation plan ID

Operator shall use this endpoint in order to close an activated operation plan.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

REQUEST BODY - application/json

RESPONSE

NAME	TYPE	DESCRIPTIO

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTIO
NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	

NAME	TYPE	DESCRIPTIO
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.

NAME	TYPE	DESCRIPTIO
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.

NAME	TYPE	DESCRIPTIO
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.

NAME	TYPE	DESCRIPTIO
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS,

NAME	TYPE	DESCRIPTIO
PERMISSION_DENIED		

NAME	TYPE	DESCRIPTION	TYPE	DESCRIPTIO
details	array			

6.3 POST /api/2.0.0/operation-plans/{id}/cancel

Close operation plan with given operation plan ID

USSPs might use this endpoint in order to close an operation plan.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

REQUEST BODY - application/json

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.

NAME	TYPE	DESCRIPTIO
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	

NAME	TYPE	DESCRIPTIO
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

7. 07 CONFLICT DETECTION

API that allows to perform pre-check conflicts for an operation plan.

7.1 POST /api/2.0.0/operation-plans/{id}/activation-pre-check-conflicts

Pre-check of conflicts before the operation plan activation

Endpoints will return list of conflicts visible for USSP. Stakeholders conflicts are not included.Request body for this request is empty. ID of the operation plan to be requested activation pre check conflicts for is specified in the path of the request.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*id	uuid	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION / ARRAY OF
OBJECT WITH BELOW STRUCTURE		
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.

contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME TYPE	
DESCRIPTION OBJECT	
WITH BELOW STRUCTURE	
code*	integer

NAME	TYPE	DESCRIPTION
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

7.2 POST /api/2.0.0/operation-plans/authorization-pre-check-conflicts

Pre-check of conflicts before the operation plan authorization

Endpoints will return list of conflicts visible for USSP. Stakeholders conflicts are not included.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS

NAME	TYPE	DESCRIPTIO
		Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*		

NAME	TYPE	DESCRIPTIO
	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED,

NAME	TYPE	DESCRIPTIO
		UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-

NAME	TYPE	DESCRIPTIO
		level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER

NAME	TYPE	DESCRIPTIO
		Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to "ID_OTHER", do not set this field at all. However, if type is set to "ID_OTHER", set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
objectType*	enum	ALLOWED:RESPONSIBILITY_AREA, OPERATION_PLAN, UVR, UAS_ZONE, PARTIAL_RESULT Type conflicting of object.

NAME	TYPE	DESCRIPTION
message	string	Information about conflict details.
textualRestrictions	string	Message from the conflict itself.
conflictType*	enum	ALLOWED:CAPACITY, NOISE_LEVEL, AUTO_REJECTION, CONFLICTED_OP, NDZ, TEXTUAL_RESTRICTION, AUTHORITY_REQUIREMENTS, REJECTION_MESSAGE, INTERVAL_BEFORE, CONDITION_VIOLATION Type of the conflict.
objectId*	string	ID of conflicting object.
objectVersionId	string	Version of conflicting object.
textualRestrictionsLocalized	array	
language*	string	2 to 5 chars
message*	string	0 to 1000 chars
rejecting*	boolean	
resolved*	boolean	
authorityRequirement	object	
sourceId	string	ED-269 Geozone ID
sourceVersion	string	Version id of ED-269 Geozone if available
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION 'AUTHORIZATION' - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. 'NOTIFICATION' - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone. 'INFORMATION' - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval in seconds required between notification or authorization request and starting to operate in the zone.
operationPlanResultType	enum	ALLOWED:AUTHORIZATION, ACTIVATION
suppressed	boolean	
uasZoneManagedByRequester	boolean	
operationPlanDetails	object	
priority	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
state	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED

NAME	TYPE	DESCRIPTION
modeOfOperation	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
title	string	
maxAltitude	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS,

PERMISSION_DENIED

NAME	TYPE	DESCRIPTIO
details	array	

NAME TYPE DESCRIPTIO

8. 08 AUXILIARY METHODS

Managing operation plan states

8.1 POST /api/2.0.0/operation-plans/compute-volume-from-trajectory-and-minimum-separation

Compute volume from trajectory and minimum separation of intersecting UAS Zones
Result of the request is the operation plan from request body with operation volumes set.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers

NAME	TYPE	DESCRIPTIO
		formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84

NAME	TYPE	DESCRIPTIO
		The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use,

NAME	TYPE	DESCRIPTIO
		not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation		

NAME	TYPE	DESCRIPTIO
	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.

NAME	TYPE	DESCRIPTIO
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
operationPlanId*	string	Globally unique identifier of this operation plan. This is not a unique identifier of OperationPlan. Multiple OP instances representing different versions of the same OP will share the same value of operationPlanId.
version*	string	Unique identifier of the version of this operation plan. This is needed for the history of the OP. See previousVersions reference. This is the unique identifier of OperationPlan.
previousVersions	array	
state*	enum	ALLOWED:PROPOSED, AUTHORIZED, ACTIVATED, CLOSED The current state of the operation. Must be maintained by the USS.
operator*	string	Operator identification.
submitTime*	string	Time that this operation plan was first announced to the USS Network in any way. The submitTime value MUST remain constant for each recipient of the announcement since this value is potentially part of a signature of the operation plan in some cases.
updateTime*	string	A timestamp set by the USS any time the state of the operation plan is updated within the USS Network. An update may be minor or major, but if/when the operation plan is shared in the USS Network, updateTime must reflect the time that update was provided. The updateTime value MUST be constant for each update data exchange. This field is set and maintained by the USS managing the operation and is communicated to other USSs. When the operation plan is announced for the first time, updateTime MUST be equal to submitTime. When an operation plan is modified (updated), updateTime MUST be greater than submitTime.

NAME	TYPE	DESCRIPTIO
modeOfOperation*	enum	ALLOWED:REMOTELY_PILOTED_VLOS, REMOTELY_PILOTED_EVLOS, REMOTELY_PILOTED_BVLOS, PILOTED_IFR, PILOTED_VFR 'REMOTELY_PILOTED_VLOS' - The flight is remotely piloted, within visual line of sight (VLOS Flight Mode) 'REMOTELY_PILOTED_EVLOS' - The flight is remotely piloted, within extended visual line of sight (EVLOS Flight Mode) 'REMOTELY_PILOTED_BVLOS' - The flight is remotely piloted, beyond visual line of sight (BVLOS Flight Mode) 'PILOTED_IFR' - A manned flight that is conducted according to "Instrument Flight Rules" (IFR). 'PILOTED_VFR' - A manned flight that is conducted according to "VisualFlight Rules" (VFR).
declaredCategory	enum	ALLOWED:OPEN, SPECIFIC, CERTIFIED 'OPEN' - Open Category. 'SPECIFIC' - Specific Category.' 'CERTIFIED' - Certified Category.
swarmSize*	integer	Number of drones flying as a swarm. If >1, this indicates that this operation plan represents a swarm. Corus: "U-space considers formation flights and swarms as being collections of aircraft that do not need to be separated by U-space. A swarm is considered by U-space to be a single, solid object. U-space will not attempt to pass another flight through a swarm. A swarm will have a single operation plan and this plan will include dimensions for the swarm. Swarms may be prohibited in some volumes."
formationId	string	Designator for a formation flight. This string is supposed to have the same value for all OPs taking part in a formation flight. Corus: "Drone formation flights are individual operation plans that are linked, rather than single plan for multiple aircraft."
formationOpIds	array	
minContOpTime	integer	Minimum continuous operation time in seconds. Minimum acceptable time of the continuous operation to recognize the operation as successful.
atsInstruction	string	Optional instructions provided by ATS during approval process.
closureReason	enum	ALLOWED:NOMINAL, REJECTED, REVOKED, CANCELED, WITHDRAWN 'NOMINAL' - Operation completed nominally. 'REJECTED' - OP has been rejected by USSP, CISP or authority, in the course of authorization process. 'REVOKED' - Authorization for the OP has been revoked by a relevant stakeholder after it was authorized. 'CANCELED' - OP has been cancelled by the USSP. 'WITHDRAWN' - OP has been withdrawn by the drone operator.
operationVolumes	array	
alias	string	Optional descriptive text.
timeBegin*	string	Earliest time the operation will use the operation volume. It must be less than timeEnd.
timeEnd*	string	Latest time the operation will done with the operation volume. It must be greater than timeBegin.
actualTimeEnd	string	Time that the operational volume was freed for use by other operations. Should be populated and stored by the USS. actualTimeEnd MUST satisfy: actualTimeEnd > timeBegin whenever actualTimeEnd is not null.
isBVLOS	boolean	Describes whether any portion of the operation volume is beyond the visual line of sight of the RPIC.
ordinal*	integer	This integer represents the ordering of the operation volume within the set of operation volumes. Need not be consecutive integers.
operationGeometry*	object	

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
operationGeometryMinimumSeparation	object	
type*	enum	ALLOWED:Polygon Geometry type - Polygon
coordinates*	array	
priority	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
operationTrajectory	object	
positionCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
altitudeCRS*	enum	ALLOWED:EPSG4979_WGS84 The EnumCRSType enumeration type specifies the possible ways to express a coordinate reference system.
corridorHorizontalBuffer*	number	Maximum allowed horizontal deviation from individual trajectory elements.
corridorVerticalBuffer*	number	Maximum allowed vertical deviation from individual trajectory elements in degrees.
corridorBufferUnit*	enum	ALLOWED:M, FT Unit of measurement for indicating the corridor buffers.
timingBuffer*	integer	The uncertainty value in seconds. Maximum allowed timing deviation from individual trajectory elements.
timingBufferUnit*	enum	ALLOWED:SECOND Unit of measurement for indicating the timing buffer.
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
trajectoryElements*	array	
latitude*	number	Latitude of the trajectory element
longitude*	number	Longitude of the trajectory element
altitude*	number	Altitude of the trajectory element
time*	string	Time of the trajectory element
contingencyPlans	array	
id*	string	An identifier unique amongst the set of Contingencies for this operation.
causes*	array	

NAME	TYPE	DESCRIPTIO
locationDescr*	enum	ALLOWED:PREPROGRAMMED, OPERATOR_UPDATED, UA_IDENTIFIED, OTHER The ContingencyLocationDescriptionType enumeration type specifies the possible ways to describe a contingency plan. Supported values: * **PREPROGRAMMED** - Contingency location that is determined prior to launch and programmed onto the UA; * **OPERATOR_UPDATED** - Contingency location that is (or will be) updated during operation by operator (e.g., sent to UA); * **UA_IDENTIFIED** - Contingency location that is identified to be safe to land by the UA itself; * **OTHER** - Contingency location does not fit any of the defined categories,
responseAction*	enum	ALLOWED:LANDING, LOITERING, RETURN_TO_BASE, HOVERING, PARACHUTE, OTHER The ContingencyResponseType enumeration type specifies the possible kinds of contingency response actions. Supported values: * **LANDING** - The contingency operation will be landing; * **LOITERING** - The operation will be loitering; * **RETURN_TO_BASE** - The operation will return to base; * **HOVERING** - The drone shall hover (keep position); * **PARACHUTE** - The drone shall go down, hanging on a parachute; * **OTHER** - Additional details should be provided in freeText.
validTimeBegin*	string	Time that this location is expected to be first available.
validTimeEnd*	string	Time that this location is expected to become unavailable.
freetext	string	To be used for additional comments as needed. For human use, not for automating any process.
relativePreference	number	Numerical value that can be used in ranking the preference of this Contingency versus any other within the set of Contingency for this operation. This may be thought of as a ranking of the potential landing sites with all other factors being held equal, though dynamic conditions will likely play a role in adjusting this ranking in real time by the USS or Operator. For example, one Contingency may be significantly further from the operation at a given time and, thus, would be less preferred than it might be otherwise. Further interpretation of this field is left to the operator and USS.
relevantOperationVolumes*	array	
endurance*	integer	Supplementary endurance time (in seconds). This is the maximum remaining flight time for this contingency plan.
contingencyGeometry*	object	
minAltitude*	object	
altitudeValue*	number	Value of the altitude
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
maxAltitude*	object	
altitudeValue*	number	Value of the altitude

NAME	TYPE	DESCRIPTIO
altitudeType*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID The EnumAltitudeType enumeration type specifies the possible ways to express an altitude/height. Supported values: * **ABOVE_MSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **ABOVE_TO** - Altitude above take-off location. * **ABOVE_GND** - Altitude above ground surface. * 8*ABOVE_ELLIPSOID** - Altitude above the WGS-84 ellipsoid; value delivered by GPS.
unitsOfMeasure*	enum	ALLOWED:FT, M Altitude unit of measure
geom*	{recursive}	Geometry
controllerLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
gcsLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
takeoffLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
landingLocation	object	
type*	enum	ALLOWED:Point Geometry type - Point
coordinates*	array	
aircraftInfos*	array	
aircraftComment	string	Informative text about the aircraft. Not used by the UTM System. Only for human stakeholders.
maxTakeoffMassGrams	number	Maximum Takeoff Mass, expressed in grams.
hasCamera	boolean	Indicates whether the drone carries a camera for taking pictures or videos.
hasDangerousPayload	boolean	Indicates whether the drone carries any dangerous goods.
dropPayload	boolean	Indicates whether it is planned to drop any payload from the drone during the operation.
identificationTechnologies	array	
connectivityMethods	array	
endurance	integer	Maximum endurance of the drone, usually provided in minutes of flying time.
identifications	array	
value*	string	The actual value of the identification.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER Type of identification conveyed by this ObjectIdentification item. Supported values: ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_REGMARK, ID_REGID, ID_ADSL, ID_DET, ID_SESSIONID, ID_SFSID, ID_URL, ID_OTHER
other	string	Optional empty item for temporary use until standardization is in place. Unless type is set to “ID_OTHER”, do not set this field at all. However, if type is set to “ID_OTHER”, set this field to a descriptive string for the type and set value to the corresponding value. NOTE: Use of this field is discouraged at any time and permitted for local bilateral temporary deviation of standard only until updated standardization is in place..
confidence	integer	Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
flightDetails	object	
flightNumber	string	For use by USS for identification purposes.
flightType	string	Allows to distinguish different types of flight.
flightComment	string	Informative text about the operation. Not used by the UTM System. Only for human stakeholders.
priority*	object	
priorityText	string	Free text description of the priority classification
priorityLevelSimple	enum	ALLOWED:PRIO_LOW, PRIO_MEDIUM, PRIO_HIGH The PriorityLevelSimple enumeration type specifies three simple priority levels.
contactDetails	object	
firstName*	string	First name of the contact.
lastName*	string	Last name of the contact.
emails	array	
phones*	array	
comments	array	
fax	string	
publicInfo	object	
title	string	Short public title for the operation plan.
description	string	Public description of the operation plan.

NAME	TYPE	DESCRIPTIO
mission	string	Reference to a mission. A mission allows collecting common information for flights related to each other. E.g., a series of flights to be executed for one common goal, e.g., power line inspections flights for one customer at one specific day.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

NAME TYPE DESCRIPTIO

9. API

9.1 POST /api/2.0.0/operation-plans/activation-pre-check-conflicts

REQUEST

No request parameters

RESPONSE

9.2 POST /api/1.1.0/operation-plans/deconfliction

REQUEST

No request parameters

RESPONSE

9.3 POST /api/1.1.0/operation-plans/deconfliction-cdds

REQUEST

No request parameters

RESPONSE

9.4 GET /api/1.1.0/operation-plans/{id}/deconfliction-result

REQUEST

No request parameters

RESPONSE

9.5 POST /api/2.0.0/operation-plans/{id}/revoke

REQUEST

No request parameters

RESPONSE

3 RAS - Restricted Airspace Service API

ON UTM System - API Documentation

Restricted Airspace Service API

API Version: 2.0.0

Restricted Airspace Service (RAS) provides interfaces that enable the service users to publish and retrieve data, or to subscribe for data updates receiving.

Data types supported by the service:

- `UASZone` - Geographical Zone (GeoZone) model defined by EUROCAE ED-269 Standard. The GeoZone model can define a zone with different purposes, e.g. No Drone Zone.
- `UASVolumeReservation` or `UVR` - Data model defined by NASA to describe No Drone Zones.
- `AreaOfResponsibility` or `AoR` - Responsibility zones for Arispace Controllers. Includes restrictions such as a zone capacity.

1. 01 UAS ZONE MANAGEMENT 4

1.7 GET /api/2.0.0/uas-zones 34

1.8 GET /api/2.0.0/uas-zones/{country}/{identifier} 39

2. 02 AREA OF RESPONSIBILITY MANAGEMENT 47

2.1 POST /api/2.0.0/areas-of-responsibility/search 47

Security and Authentication

SECURITY SCHEMES

KEY	TYPE	DESCRIPTION
mainsecscheme	http, Bearer	

NAME	TYPE	DESCRIPTIO

1. 01 UAS ZONE MANAGEMENT

1.1 GET /api/2.0.0/uas-zones

Gets UAS Zones in ascending order by UAS Zone creation datetime. The result is paginated.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*from	int32	The from parameter defines the number of UAS Zones to skip, starting with 0
*size	int32	The size parameter is the maximum number of UAS Zones to return

RESPONSE

STATUS CODE - 200: OK

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
uasZones*	array	
zoneId	string	A globally unique identifier of the zone, if available.
identifier*	string	0 to 7 chars A unique identifier that uniquely identifies 7the UAS Zone within the State/ Territory identified by the country attribute.
country*	string	3 to 3 chars The State that has the authority to declare the zone (ISO 3166-1 alpha-3 standard). For the list of country codes see https://unstats.un.org/unsd/tradekb/knowledgebase/country-code
name	string	0 to 200 chars A free text name by which the zone may be known by the public or by the UAS community.

NAME	TYPE	DESCRIPTIO
type*	enum	ALLOWED:COMMON, CUSTOMIZED An indication whether the Zone is provided with its common definition or with a customized definition for a particular user. *COMMON - The Zone is provided with its common definition, valid for any UAS and operator.zn *CUSTOMIZED - The Zone is provided with a customized definition, for a particular UAS or operator. This is a design provision that could be used for example to provide waivers to specific users with restrictions removed on given zones for example. This information enables then to identify it is not the common version with has been transferred.
restriction*	enum	ALLOWED:PROHIBITED, REQ_AUTHORISATION, CONDITIONAL, NO_RESTRICTION The EnumRestrictionType specifies a coded indicator of the restriction level for a Zone. *PROHIBITED - Indicates that the flight of UAS is prohibited during the applicability time. *REQ_AUTHORISATION - Indicates that the flight of UAS is subject to explicit authorization requirements during the time of applicability. *CONDITIONAL - Indicates that access in the UAS Zone is allowed only to operators fulfilling a special condition, which is defined as a logical expression. *NO_RESTRICTION - Indicates that the zone may be used during the applicability time without any special permissions or restrictions.
restrictionConditions	string	An indication of the conditions under which the zone can be used.
region	integer	Where applicable, identifies a region inside a State where the UAS Zone is located. A region is identified with an integer number, corresponding to a list of regions pre-defined for each state.
reason	array	
otherReasonInfo	string	0 to 200 chars A free text description of the reason that led to the establishment of the zone, when not covered by a pre-defined coded value.
regulationExemption	enum	ALLOWED:YES, NO Indicates that exemptions from the national or European regulations are allowed in the UAS zone, that will be detailed via the message property.
uSpaceClass	string	0 to 100 chars A code that identifies the category or class of the zone applying a "USpace concept".
message	string	0 to 200 chars A message to be displayed to the user of the zone, typically on the RPS for the Remote Pilot, to make him/her aware about specific information associated with the zone (typically when it is not only a restriction to fly in the zone, thus not only an alert or an automatic limitation, for example: "image capture prohibited in this zone", "frequent strong winds in this zone", "no landing or take-off in this zone"). This message is also used to indicate exemptions from regulation in a zone (see regulationExemption and additionalProperties attributes). Several pieces of information can be grouped in a message, separated by a "/".
extendedProperties	object	
minimumSeparation	object	
lateralInMeters*	number	The minimum separation for latitude.
verticalInMeters*	number	The minimum separation for altitude.
longitudinalInMeters*	number	The minimum separation for longitude.
operationalConditions	object	
deviationThresholds*	object	
horizontalThreshold*	integer	>=1
verticalThreshold*	integer	>=1
expirationTime	string	

NAME	TYPE	DESCRIPTIO
legalBasis	string	0 to 200 chars
legalBasisURL	string	0 to 200 chars
localizedMessages	array	
language	string	2 to 5 chars The values shall comply with ISO 639-1 standard language codes and optionally 2 letters country codes; examples: en-US, en-GB, de, de-AT Country codes and language codes: https://docs.oracle.com/cd/E13214_01/wli/docs92/xref/xqisocodes.html
message	string	0 to 1000 chars Localized message text.
authorityRequirementConditions	array	
authority*	string	1 to 200 chars Authority name matching the authority name from the zoneAuthority array.
condition*	string	1 to 10000 chars Refer to the format description of 'UASZone (ED-269 Geozone) Model - ConditionExpressionExtendedType'
color	object	
fill	string	PATTERN:^#([A-Fa-f0-9]{8})$
stroke	string	PATTERN:^#([A-Fa-f0-9]{8})$
noTakeOffClearanceRequired	boolean	
active	boolean	
geometry*	array	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
applicability	array	
permanent*	enum	ALLOWED:YES, NO An indication that the area is permanent. permanent=Yes means: always active, no start nor end date. permanent=No means: consider startDataTime and endDateTime attributes.
startDateTime	string	The date and time when the area (UAS Zone) starts to exist.
endDateTime	string	The date and time when the area (UAS Zone) ceases to exist.
schedule	array	
day*	array	

NAME	TYPE	DESCRIPTIO
startTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
endTime*	object	
offset	object	
totalSeconds	integer	

NAME	TYPE	DESCRIPTIO
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
zoneAuthority*	array	
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization

NAME	TYPE	DESCRIPTIO
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose*	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION *AUTHORIZATION - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. *NOTIFICATION - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone.zn *INFORMATION - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval required between notification or authorization request and starting to operate in the zone. Format of the intervalBefore is PnnDTnnHnnM - P [number of days] DT [number of hours] H [number of minutes] M
metaData	object	
creationDateTime*	string	Indicates when the zone was initially created.
updateDateTime*	string	Indicates when the characteristics of the zone have been last time updated.
author*	string	Indicates who has last updated the information about the zone.
totalItems*	integer	Total number of items.

1.2 GET /api/2.0.0/uas-zones/{country}/{identifier}

Get UASZone by country and identifier.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*country	string 3 to 3 chars	
*identifier	string 0 to 7 chars	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
zoneId	string	A globally unique identifier of the zone, if available.
identifier*	string	0 to 7 chars A unique identifier that uniquely identifies 7the UAS Zone within the State/ Territory identified by the country attribute.
country*	string	3 to 3 chars The State that has the authority to declare the zone (ISO 3166-1 alpha-3 standard). For the list of country codes see https://unstats.un.org/unsd/tradekb/knowledgebase/country-code

NAME	TYPE	DESCRIPTIO
name	string	0 to 200 chars A free text name by which the zone may be known by the public or by the UAS community.
type*	enum	ALLOWED:COMMON, CUSTOMIZED An indication whether the Zone is provided with its common definition or with a customized definition for a particular user. *COMMON - The Zone is provided with its common definition, valid for any UAS and operator.zn *CUSTOMIZED - The Zone is provided with a customized definition, for a particular UAS or operator. This is a design provision that could be used for example to provide waivers to specific users with restrictions removed on given zones for example. This information enables then to identify it is not the common version with has been transferred.
restriction*	enum	ALLOWED:PROHIBITED, REQ_AUTHORISATION, CONDITIONAL, NO_RESTRICTION The EnumRestrictionType specifies a coded indicator of the restriction level for a Zone. *PROHIBITED - Indicates that the flight of UAS is prohibited during the applicability time. *REQ_AUTHORISATION - Indicates that the flight of UAS is subject to explicit authorization requirements during the time of applicability. *CONDITIONAL - Indicates that access in the UAS Zone is allowed only to operators fulfilling a special condition, which is defined as a logical expression. *NO_RESTRICTION - Indicates that the zone may be used during the applicability time without any special permissions or restrictions.
restrictionConditions	string	An indication of the conditions under which the zone can be used.
region	integer	Where applicable, identifies a region inside a State where the UAS Zone is located. A region is identified with an integer number, corresponding to a list of regions pre-defined for each state.
reason	array	
otherReasonInfo	string	0 to 200 chars A free text description of the reason that led to the establishment of the zone, when not covered by a pre-defined coded value.
regulationExemption	enum	ALLOWED:YES, NO Indicates that exemptions from the national or European regulations are allowed in the UAS zone, that will be detailed via the message property.
uSpaceClass	string	0 to 100 chars A code that identifies the category or class of the zone applying a "USpace concept".
message	string	0 to 200 chars A message to be displayed to the user of the zone, typically on the RPS for the Remote Pilot, to make him/her aware about specific information associated with the zone (typically when it is not only a restriction to fly in the zone, thus not only an alert or an automatic limitation, for example: "image capture prohibited in this zone", "frequent strong winds in this zone", "no landing or take-off in this zone"). This message is also used to indicate exemptions from regulation in a zone (see regulationExemption and additionalProperties attributes). Several pieces of information can be grouped in a message, separated by a "/".
extendedProperties	object	
minimumSeparation	object	
lateralInMeters*	number	The minimum separation for latitude.
verticalInMeters*	number	The minimum separation for altitude.
longitudinalInMeters*	number	The minimum separation for longitude.
operationalConditions	object	
deviationThresholds*	object	
horizontalThreshold*	integer	>=1
verticalThreshold*	integer	>=1

NAME	TYPE	DESCRIPTIO
expirationTime	string	
legalBasis	string	0 to 200 chars
legalBasisURL	string	0 to 200 chars
localizedMessages	array	
language	string	2 to 5 chars The values shall comply with ISO 639-1 standard language codes and optionally 2 letters country codes; examples: en-US, en-GB, de, de-AT Country codes and language codes: https://docs.oracle.com/cd/E13214_01/wli/docs92/xref/xqisocodes.html
message	string	0 to 1000 chars Localized message text.
authorityRequirementConditions	array	
authority*	string	1 to 200 chars Authority name matching the authority name from the zoneAuthority array.
condition*	string	1 to 10000 chars Refer to the format description of 'UASZone (ED-269 Geozone) Model - ConditionExpressionExtendedType'
color	object	
fill	string	PATTERN:^#([A-Fa-f0-9]{8})$
stroke	string	PATTERN:^#([A-Fa-f0-9]{8})$
noTakeOffClearanceRequired	boolean	
active	boolean	
geometry*	array	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
applicability	array	
permanent*	enum	ALLOWED:YES, NO An indication that the area is permanent. permanent=Yes means: always active, no start nor end date. permanent=No means: consider startDataTime and endDateTime attributes.
startDateTime	string	The date and time when the area (UAS Zone) starts to exist.
endDateTime	string	The date and time when the area (UAS Zone) ceases to exist.
schedule	array	

NAME	TYPE	DESCRIPTIO
day*	array	
startTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
endTime*	object	
offset	object	

NAME	TYPE	DESCRIPTIO
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
zoneAuthority*	array	
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.

NAME	TYPE	DESCRIPTIO
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose*	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION *AUTHORIZATION - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. *NOTIFICATION - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone.zn *INFORMATION - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval required between notification or authorization request and starting to operate in the zone. Format of the intervalBefore is PnnDTnnHnnM - P [number of days] DT [number of hours] H [number of minutes] M
metaData	object	
creationDateTime*	string	Indicates when the zone was initially created.
updateDateTime*	string	Indicates when the characteristics of the zone have been last time updated.
author*	string	Indicates who has last updated the information about the zone.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS,

NAME	TYPE	DESCRIPTIO
PERMISSION_DENIED		

NAME	TYPE	DESCRIPTION	TYPE	DESCRIPTIO
details	array			

NAME	TYPE	DESCRIPTIO

5. 05 UAS ZONE EUROCAE STANDARD INTERFACES - DATA RETRIEVAL

EUROCAE Standard Interface. Query data from the service. Supported data types: UASZone.

5.1 POST /api/2.0.0/retrieveUASZones

Get list of UASZones according to given criteria.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
airspaceVolume*	object	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
regions	array	
startDateTime*	string	Start of period of interest
endDateTime*	string	End of period of interest.

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
UASZoneList	array	
zoneId	string	A globally unique identifier of the zone, if available.
identifier*	string	0 to 7 chars A unique identifier that uniquely identifies 7the UAS Zone within the State/ Territory identified by the country attribute.

NAME	TYPE	DESCRIPTIO
country*	string	3 to 3 chars The State that has the authority to declare the zone (ISO 3166-1 alpha-3 standard). For the list of country codes see https://unstats.un.org/unsd/tradekb/knowledgebase/country-code
name	string	0 to 200 chars A free text name by which the zone may be known by the public or by the UAS community.
type*	enum	ALLOWED:COMMON, CUSTOMIZED An indication whether the Zone is provided with its common definition or with a customized definition for a particular user. *COMMON - The Zone is provided with its common definition, valid for any UAS and operator.zn *CUSTOMIZED - The Zone is provided with a customized definition, for a particular UAS or operator. This is a design provision that could be used for example to provide waivers to specific users with restrictions removed on given zones for example. This information enables then to identify it is not the common version with has been transferred.
restriction*	enum	ALLOWED:PROHIBITED, REQ_AUTHORISATION, CONDITIONAL, NO_RESTRICTION The EnumRestrictionType specifies a coded indicator of the restriction level for a Zone. *PROHIBITED - Indicates that the flight of UAS is prohibited during the applicability time. *REQ_AUTHORISATION - Indicates that the flight of UAS is subject to explicit authorization requirements during the time of applicability. *CONDITIONAL - Indicates that access in the UAS Zone is allowed only to operators fulfilling a special condition, which is defined as a logical expression. *NO_RESTRICTION - Indicates that the zone may be used during the applicability time without any special permissions or restrictions.
restrictionConditions	string	An indication of the conditions under which the zone can be used.
region	integer	Where applicable, identifies a region inside a State where the UAS Zone is located. A region is identified with an integer number, corresponding to a list of regions pre-defined for each state.
reason	array	
otherReasonInfo	string	0 to 200 chars A free text description of the reason that led to the establishment of the zone, when not covered by a pre-defined coded value.
regulationExemption	enum	ALLOWED:YES, NO Indicates that exemptions from the national or European regulations are allowed in the UAS zone, that will be detailed via the message property.
uSpaceClass	string	0 to 100 chars A code that identifies the category or class of the zone applying a "USpace concept".
message	string	0 to 200 chars A message to be displayed to the user of the zone, typically on the RPS for the Remote Pilot, to make him/her aware about specific information associated with the zone (typically when it is not only a restriction to fly in the zone, thus not only an alert or an automatic limitation, for example: "image capture prohibited in this zone", "frequent strong winds in this zone", "no landing or take-off in this zone"). This message is also used to indicate exemptions from regulation in a zone (see regulationExemption and additionalProperties attributes). Several pieces of information can be grouped in a message, separated by a "/".
extendedProperties	object	
minimumSeparation	object	
lateralInMeters*	number	The minimum separation for latitude.
verticalInMeters*	number	The minimum separation for altitude.
longitudinalInMeters*	number	The minimum separation for longitude.

NAME	TYPE	DESCRIPTIO
operationalConditions	object	
deviationThresholds*	object	
horizontalThreshold*	integer	>=1
verticalThreshold*	integer	>=1
expirationTime	string	
legalBasis	string	0 to 200 chars
legalBasisURL	string	0 to 200 chars
localizedMessages	array	
language	string	2 to 5 chars The values shall comply with ISO 639-1 standard language codes and optionally 2 letters country codes; examples: en-US, en-GB, de, de-AT Country codes and language codes: https://docs.oracle.com/cd/E13214_01/wli/docs92/xref/xqisocodes.html
message	string	0 to 1000 chars Localized message text.
authorityRequirementConditions	array	
authority*	string	1 to 200 chars Authority name matching the authority name from the zoneAuthority array.
condition*	string	1 to 10000 chars Refer to the format description of 'UASZone (ED-269 Geozone) Model - ConditionExpressionExtendedType'
color	object	
fill	string	PATTERN:^#([A-Fa-f0-9]{8})$
stroke	string	PATTERN:^#([A-Fa-f0-9]{8})$
noTakeOffClearanceRequired	boolean	
active	boolean	
geometry*	array	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
applicability	array	

NAME	TYPE	DESCRIPTIO
permanent*	enum	ALLOWED:YES, NO An indication that the area is permanent. permanent=Yes means: always active, no start nor end date. permanent=No means: consider startDataTime and endDateTime attributes.
startDateTime	string	The date and time when the area (UAS Zone) starts to exist.
endDateTime	string	The date and time when the area (UAS Zone) ceases to exist.
schedule	array	
day*	array	
startTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	

NAME	TYPE	DESCRIPTIO
nano	integer	
hour	integer	
minute	integer	
second	integer	
endTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	

NAME	TYPE	DESCRIPTIO
second	integer	
zoneAuthority*	array	
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose*	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION *AUTHORIZATION - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. *NOTIFICATION - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone.zn *INFORMATION - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval required between notification or authorization request and starting to operate in the zone. Format of the intervalBefore is PnnDTnnHnnM - P [number of days] DT [number of hours] H [number of minutes] M
metaData	object	
creationDateTime*	string	Indicates when the zone was initially created.
updateDateTime*	string	Indicates when the characteristics of the zone have been last time updated.
author*	string	Indicates who has last updated the information about the zone.
genericReply	object	
requestStatus*	enum	ALLOWED:OK, NOK Request status.
requestExceptionDescription	string	Request exception description
requestProcessedTimeStamp*	string	To indicate the date used by the Geofencing data Service Provider to stamp the request. This time stamp represents a commitment by the service provider of the time the request was processed and that the information provided in the reply is the most recent at that time.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
DESCRIPTION OBJECT		
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED

NAME	TYPE	DESCRIPTION	TYPE	DESCRIPTIO
details	array			

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

5.2 POST /api/2.0.0/retrieveUASZonesUpdates

Get list of UASZone Updates according to given criteria.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
airspaceVolume*	object	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
regions	array	
startDateTime*	string	Start of period of interest
endDateTime*	string	End of period of interest.
updatedAfterDateTime*	string	

RESPONSE

STATUS CODE - 200: Operation successful

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION
OBJECT WITH BELOW STRUCTURE		
UASZoneList	array	
zoneId	string	A globally unique identifier of the zone, if available.
identifier*	string	0 to 7 chars A unique identifier that uniquely identifies 7the UAS Zone within the State/ Territory identified by the country attribute.
country*	string	3 to 3 chars The State that has the authority to declare the zone (ISO 3166-1 alpha-3 standard). For the list of country codes see https://unstats.un.org/unsd/tradekb/knowledgebase/country-code
name	string	0 to 200 chars A free text name by which the zone may be known by the public or by the UAS community.
type*	enum	ALLOWED:COMMON, CUSTOMIZED An indication whether the Zone is provided with its common definition or with a customized definition for a particular user. *COMMON - The Zone is provided with its common definition, valid for any UAS and operator.zn *CUSTOMIZED - The Zone is provided with a customized definition, for a particular UAS or operator. This is a design provision that could be used for example to provide waivers to specific users with restrictions removed on given zones for example. This information enables then to identify it is not the common version with has been transferred.
restriction*	enum	ALLOWED:PROHIBITED, REQ_AUTHORISATION, CONDITIONAL, NO_RESTRICTION The EnumRestrictionType specifies a coded indicator of the restriction level for a Zone. *PROHIBITED - Indicates that the flight of UAS is prohibited during the applicability time. *REQ_AUTHORISATION - Indicates that the flight of UAS is subject to explicit authorization requirements during the time of applicability. *CONDITIONAL - Indicates that access in the UAS Zone is allowed only to operators fulfilling a special condition, which is defined as a logical expression. *NO_RESTRICTION - Indicates that the zone may be used during the applicability time without any special permissions or restrictions.
restrictionConditions	string	An indication of the conditions under which the zone can be used.
region	integer	Where applicable, identifies a region inside a State where the UAS Zone is located. A region is identified with an integer number, corresponding to a list of regions pre-defined for each state.
reason	array	
otherReasonInfo	string	0 to 200 chars A free text description of the reason that led to the establishment of the zone, when not covered by a pre-defined coded value.
regulationExemption	enum	ALLOWED:YES, NO Indicates that exemptions from the national or European regulations are allowed in the UAS zone, that will be detailed via the message property.
uSpaceClass	string	0 to 100 chars A code that identifies the category or class of the zone applying a "USpace concept".

NAME	TYPE	DESCRIPTIO
message	string	0 to 200 chars A message to be displayed to the user of the zone, typically on the RPS for the Remote Pilot, to make him/her aware about specific information associated with the zone (typically when it is not only a restriction to fly in the zone, thus not only an alert or an automatic limitation, for example: "image capture prohibited in this zone", "frequent strong winds in this zone", "no landing or take-off in this zone"). This message is also used to indicate exemptions from regulation in a zone (see regulationExemption and additionalProperties attributes). Several pieces of information can be grouped in a message, separated by a "/".
extendedProperties	object	
minimumSeparation	object	
lateralInMeters*	number	The minimum separation for latitude.
verticalInMeters*	number	The minimum separation for altitude.
longitudinalInMeters*	number	The minimum separation for longitude.
operationalConditions	object	
deviationThresholds*	object	
horizontalThreshold*	integer	>=1
verticalThreshold*	integer	>=1
expirationTime	string	
legalBasis	string	0 to 200 chars
legalBasisURL	string	0 to 200 chars
localizedMessages	array	
language	string	2 to 5 chars The values shall comply with ISO 639-1 standard language codes and optionally 2 letters country codes; examples: en-US, en-GB, de, de-AT Country codes and language codes: https://docs.oracle.com/cd/E13214_01/wli/docs92/xref/xqisocodes.html
message	string	0 to 1000 chars Localized message text.
authorityRequirementConditions	array	
authority*	string	1 to 200 chars Authority name matching the authority name from the zoneAuthority array.
condition*	string	1 to 10000 chars Refer to the format description of 'UASZone (ED-269 Geozone) Model - ConditionExpressionExtendedType'
color	object	
fill	string	PATTERN:^#([A-Fa-f0-9]{8})$
stroke	string	PATTERN:^#([A-Fa-f0-9]{8})$
noTakeOffClearanceRequired	boolean	
active	boolean	
geometry*	array	
uomDimensions*	enum	ALLOWED:M, FT
lowerLimit	integer	

NAME	TYPE	DESCRIPTIO
lowerVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
upperLimit	integer	
upperVerticalReference*	enum	ALLOWED:AGL, AMSL, HAE If upperLimit is not specified, it means that the zone is not bounded from above with respect to upperVerticalReference. If lowerLimit is not specified, it means that the zone starts at 0 with respect to lowerVerticalReferenceSupported values: * **AMSL** - Altitude above mean-sea-level. Same as orthometric height; same as height above the earth geoid. * **AGL** - Altitude above ground surface. * **HAE** - Height above the WGS-84 ellipsoid; value delivered by GPS.
horizontalProjection*	object	
applicability	array	
permanent*	enum	ALLOWED:YES, NO An indication that the area is permanent. permanent=Yes means: always active, no start nor end date. permanent=No means: consider startDataTime and endDateTime attributes.
startDateTime	string	The date and time when the area (UAS Zone) starts to exist.
endDateTime	string	The date and time when the area (UAS Zone) ceases to exist.
schedule	array	
day*	array	
startTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	

NAME	TYPE	DESCRIPTIO
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
endTime*	object	
offset	object	
totalSeconds	integer	
id	string	
rules	object	
fixedOffset	boolean	
transitions	array	
overlap	boolean	
instant	string	
duration	object	
seconds	integer	
units	array	
durationEstimated	boolean	
dateBased	boolean	
timeBased	boolean	
zero	boolean	
negative	boolean	
nano	integer	
gap	boolean	
dateTimeBefore	string	
dateTimeAfter	string	
transitionRules	array	
month	enum	ALLOWED:JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER

NAME	TYPE	DESCRIPTIO
timeDefinition	enum	ALLOWED:UTC, WALL, STANDARD
dayOfMonthIndicator	integer	
dayOfWeek	enum	ALLOWED:MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
localTime	object	
hour	integer	
minute	integer	
second	integer	
nano	integer	
midnightEndOfDay	boolean	
nano	integer	
hour	integer	
minute	integer	
second	integer	
zoneAuthority*	array	
name	string	0 to 200 chars The official name of a public or private authority.
service	string	0 to 200 chars The name of a specific department or service within the organization.
contactName	string	0 to 200 chars The name or role of a specific person that needs to be contacted within the organization
siteURL	string	The URL of the public internet site through which the organization may be contacted.
email	string	The e-mail address by which the organization may be contacted.
phone	string	0 to 200 chars A phone number by which the organization may be contacted.
purpose*	enum	ALLOWED:AUTHORIZATION, NOTIFICATION, INFORMATION *AUTHORIZATION - The designated Authority shall be contacted to get an authorization before accessing the UAS Zone. *NOTIFICATION - The designated Authority shall be notified of the UAS flight prior to accessing the UAS Zone.zn *INFORMATION - The designated Authority is a general purpose point of contact for the UAS in the Zone (out of authorization and notification).
intervalBefore	string	The minimum time interval required between notification or authorization request and starting to operate in the zone. Format of the intervalBefore is PnnDTnnHnnM - P [number of days] DT [number of hours] H [number of minutes] M
metaData	object	
creationDateTime*	string	Indicates when the zone was initially created.
updateDateTime*	string	Indicates when the characteristics of the zone have been last time updated.
author*	string	Indicates who has last updated the information about the zone.
genericReply	object	
requestStatus*	enum	ALLOWED:OK, NOK Request status.
requestExceptionDescription	string	Request exception description

NAME	TYPE	DESCRIPTIO
requestProcessedTimeStamp*	string	To indicate the date used by the Geofencing data Service Provider to stamp the request. This time stamp represents a commitment by the service provider of the time the request was processed and that the information provided in the reply is the most recent at that time.

STATUS CODE - 400: Error in model validation or other processing error.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

STATUS CODE - 500: Error processing the request.

RESPONSE MODEL -

application/json NAME	TYPE	
	DESCRIPTION OBJECT	
WITH BELOW STRUCTURE		
code*	integer	
message*	enum	ALLOWED:OK, SUCCESSFULLY_SUBSCRIBED, SUCCESSFULLY_UNSUBSCRIBED, MODEL_VALIDATION_ERROR, UNSUPPORTED_UNITS_OF_MEASURE, UNSUPPORTED_CRS_TYPE, UNSUPPORTED_GEOMETRY_TYPE, UNSUPPORTED_GEOMETRY_IN_MULTIPOLYGON, NOT_FOUND, ALREADY_EXISTS, INTERNAL_ERROR, DATABASE_ERROR, INVALID_ARGUMENT, MISSING_SUBSCRIPTION, ACTION_NOT_ALLOWED_FOR_PROVIDER, UNKNOWN_PROVIDER, MISSING_PROVIDER_ID, WRONG_REQUEST_HEADERS, PERMISSION_DENIED
details	array	

4 Alerting Service API

ON UTM System - API Documentation

Alerting Service API

API Version: 2.0.0

API for Alerting subscription and alerts processing:

- See the 'Alert Subscription API' to subscribe (or unsubscribe) for receiving UTM alerts as POST requests; • See the 'Alert Processing API' to send new UTM alerts and acknowledge received UTM alerts.

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3.1 POST /api/2.0.0/alerts/search 11

Security and Authentication

SECURITY SCHEMES

KEY	TYPE	DESCRIPTION
mainsecscheme	http, Bearer	

1. ALERT PROCESSING API

API that allows the processing and redistribution of UTM alerts and the acknowledgement of those alerts.

1.1 POST /api/2.0.0/alerts/notify

Process and redistribute an UTM alert message

Process and redistribute an UTM alert message provided by 'AlertMessage' model encoded in a JSON format. If the provided 'AlertMessage' is of type 'OPERATION_ROGUE' and another alert message with the same type was received for the same source this alert message will be ignored. If the message is in 'PENDING_ACKNOWLEDGEMENT' state, an operation to set it to 'NOT_ACKNOWLEDGED' will be scheduled to run after the configured amount of time ('alert.acknowledgement.timeout' environment property). If the operation plan for which the alert message was sent is NOT in 'NO_SERVICE' state and exists, the alert message will be redistributed to the relevant receivers (defined using the Environment Manager API and the '/subscribe' API endpoint), saved in Elasticsearch and logged in the Message Logger Application.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
free_text*	string	An arbitrary text.
message_id*	string	Globally unique UTM Message identifier.
uss_name	string	Vendor unique identifier.
source	string	The name of the alert source. Should be a recognized string by the FIMS.
time_sent	string	The date/time that the source transmitted the message to the FIMS.
time_forwarded	string	This is a recommended extension to the UTM Message type to show the time the message was onwards-forwarded by the FIMS.
severity_type	enum	ALLOWED:EMERGENCY, ALERT, CRITICAL, WARNING, NOTICE, INFORMATIONAL The severity level of a UTMMessage. This severity labeling may be used by other components within UTM as well. The labels are ordered such that they may be given priority handling by software systems and human users. **EMERGENCY > ALERT > CRITICAL > WARNING > NOTICE > INFORMATIONAL** In relation to a UTMMessage, the severities may be interpreted as follows. 1. **EMERGENCY** There is an *immediate* impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 2. **ALERT** There may be an impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 3. **CRITICAL** Without mitigations by the affected operation, the situation may rise to an emergency in the near future. 4. **WARNING** There is a contained issue that may result in the loss of aircraft. No immediate or likely effect to other operations, people on the ground, or structures. 5. **NOTICE** This issue is provided for situational awareness. Planning by operators and USSs may be affected. 6. **INFORMATIONAL** This issue is provided for situational awareness. Note that this approach leverages RFC 5424: \"The Syslog Protocol.\" By taking this approach, there is the possibility of formalizing UTMMessaging with more elements of the RFC to allow for compatibility with other logging systems. https://tools.ietf.org/html/rfc5424
type*	enum	ALLOWED:OPERATION_ROGUE, LAND_IMMEDIATELY, CONTACT_THE_TOWER, CAUTION_TRAFFIC_NEARBY, CONFIRM_DRONE_LANDED, OTHER_SEE_FREE_TEXT, LAND_IMMEDIATELY_AND_CONFIRM_DRONE_LANDED, OPERATION_OUT_OF_TOWER, OPERATION_NONCONFORMING,

NAME	TYPE	DESCRIPTION
		OPERATION_CONFORMING One of the 13 predefined message types.
callback	string	An URI for obtaining additional information from the source.
location	string	A bounding box of the relevant geometry.
related_alerts	array	
operation_plans	array	
aircrafts	array	
poses	array	
history*	array	
time_stamp	string	
state	enum	ALLOWED:RECEIVED, PENDING_ACKNOWLEDGEMENT, NOT_ACKNOWLEDGED, ACKNOWLEDGED, ACTIVE, RESOLVED

RESPONSE

STATUS CODE - 200: Alert message was processed and will be redistributed (if necessary)

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT
WITH BELOW STRUCTURE	
requestOK	boolean
code	string

STATUS CODE - 400: Bad request. Missing required fields or invalid values in the provided 'AlertMessage' model.

RESPONSE MODEL -

application/json STATUS CODE - 401:

Unauthorized

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT
WITH BELOW STRUCTURE	
requestOK	boolean
code	string

STATUS CODE - 403: Forbidden

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT
WITH BELOW STRUCTURE	
requestOK	boolean
code	string

STATUS CODE - 500: Internal server error

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT
WITH BELOW STRUCTURE	

requestOK	boolean
code	string

1.2 POST /api/2.0.0/alerts/notify-acknowledgement

Acknowledge and redistribute the acknowledgment of an UTM alert

Acknowledge and redistribute the acknowledgment of an UTM alert, the acknowledgement properties have to be provided by 'AlertAcknowledgment' model encoded in a JSON format. Cancels or interrupts the scheduled task for setting the state of the targeted alert to 'NOT_ACKNOWLEDGED'. Updates the targeted alert's history and redistributes the update to the relevant receivers (defined using the Environment Manager API and the '/subscribe' API endpoint), saves it in Elasticsearch and loges it in the Message Logger Application.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
message_id*	string	Globally unique UTM Message identifier.
status	enum	ALLOWED:ACKNOWLEDGED Acknowledgment status

RESPONSE

STATUS CODE - 200: Alert message acknowledgment was processed and will be redistributed (if necessary)

RESPONSE MODEL - application/json

STATUS CODE - 400: Bad request. Missing required fields or invalid values in the provided 'AlertAcknowledgment' model.

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT WITH BELOW STRUCTURE
requestOK	boolean
code	string

STATUS CODE - 401: Unauthorized

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT WITH BELOW STRUCTURE
requestOK	boolean
code	string

STATUS CODE - 403: Forbidden

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT WITH BELOW STRUCTURE
requestOK	boolean
code	string

STATUS CODE - 500: Internal server error

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION	OBJECT WITH BELOW STRUCTURE
requestOK	boolean

code string

2. ALERT SUBSCRIPTION V2 API

API that allows subscribing (and unsubscribing) for receiving alerts as POST request containing 'AlertMessage' model body on given URLs.

2.1 PUT /api/2.0.0/subscriptions/{subscriptionId}

Change state of subscription

Allows to change subscription status from *'ACTIVE'* to *'PAUSED'* or vice versa. Subscription ID is required.
When PAUSED, no data will be sent to subscriber unless ACTIVE again.
Data are not stored while subscription is paused - no historic data will be send after subscription is back active! Only live data are sent to subscribers.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*state	enum ALLOWED: ACTIVE, PAUSED	

RESPONSE

STATUS CODE - 200: State of subscription was changed successfully

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

STATUS CODE - 404: Subscription with given UUID not found

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

2.2 DELETE /api/2.0.0/subscriptions/{subscriptionId}

Unsubscribe from receiving alerts

Unsubscribe from receiving alerts as DELETE request on the UUID provided as the 'subscriptionId' request parameter.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

STATUS CODE - 200: Successfully unsubscribed

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

STATUS CODE - 403: Forbidden

RESPONSE MODEL - text/plain

STATUS CODE - 404: Subscription with given UUID not found

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

2.3 GET /api/2.0.0/subscriptions

Get all alert subscriptions

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: List of subscriptions

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)

STATUS CODE - 401: Unauthorized

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.

NAME	TYPE	DESCRIPTION
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)

STATUS CODE - 403: Forbidden

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)

STATUS CODE - 500: Internal server error

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)

2.4 POST /api/2.0.0/subscriptions

Subscribe for receiving alerts

Subscribe for receiving alerts as POST requests containing an 'AlertMessage' model encoded in JSON format

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)

RESPONSE

STATUS CODE - 200: Successfully subscribed

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

STATUS CODE - 403: Forbidden

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

3. ALERT RETRIEVAL API

API that retrieve alerts with filtering by time period and operationPlanId

3.1 POST /api/2.0.0/alerts/search

Alert data retrieval

Returns alert data. Input consist of optional listOfOperationPlanId (containing list of operation plan ids) and optional timeSentFrom and optional timeSentTo, defining time period in which alerts were sent.Response contains Alert Message(s) (if found).

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
listOfOperationPlanId	array	
timeSentFrom	string	Return data with validity starting from given value.
timeSentTo	string	Return data with validity ending before given value.
size	integer	
sortOrder	enum	ALLOWED:ASC, DESC
updateTimeFrom	string	

RESPONSE

STATUS CODE - 200: Alert message(s) were found

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY
OF OBJECT WITH BELOW STRUCTURE		
free_text*	string	An arbitrary text.
message_id*	string	Globally unique UTM Message identifier.
uss_name	string	Vendor unique identifier.
source	string	The name of the alert source. Should be a recognized string by the FIMS.
time_sent	string	The date/time that the source transmitted the message to the FIMS.
time_forwarded	string	This is a recommended extension to the UTM Message type to show the time the message was onwards-forwarded by the FIMS.

NAME	TYPE	DESCRIPTIO
severity_type	enum	ALLOWED:EMERGENCY, ALERT, CRITICAL, WARNING, NOTICE, INFORMATIONAL The severity level of a UTMMessage. This severity labeling may be used by other components within UTM as well. The labels are ordered such that they may be given priority handling by software systems and human users. **EMERGENCY > ALERT > CRITICAL > WARNING > NOTICE > INFORMATIONAL** In relation to a UTMMessage, the severities may be interpreted as follows. 1. **EMERGENCY** There is an *immediate* impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 2. **ALERT** There may be an impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 3. **CRITICAL** Without mitigations by the affected operation, the situation may rise to an emergency in the near future. 4. **WARNING** There is a contained issue that may result in the loss of aircraft. No immediate or likely effect to other operations, people on the ground, or structures. 5. **NOTICE** This issue is provided for situational awareness. Planning by operators and USSs may be affected. 6. **INFORMATIONAL** This issue is provided for situational awareness. Note that this approach leverages RFC 5424: \"The Syslog Protocol.\" By taking this approach, there is the possibility of formalizing UTMMessaging with more elements of the RFC to allow for compatibility with other logging systems. https://tools.ietf.org/html/rfc5424
type*	enum	ALLOWED:OPERATION_ROGUE, LAND_IMMEDIATELY, CONTACT_THE_TOWER, CAUTION_TRAFFIC_NEARBY, CONFIRM_DRONE_LANDED, OTHER_SEE_FREE_TEXT, LAND_IMMEDIATELY_AND_CONFIRM_DRONE_LANDED, OPERATION_OUT_OF_TOWER, OPERATION_NONCONFORMING, OPERATION_CONFORMING One of the 13 predefined message types.
callback	string	An URI for obtaining additional information from the source.
location	string	A bounding box of the relevant geometry.
related_alerts	array	
operation_plans	array	
aircrafts	array	
poses	array	
history*	array	
time_stamp	string	
state	enum	ALLOWED:RECEIVED, PENDING_ACKNOWLEDGEMENT, NOT_ACKNOWLEDGED, ACKNOWLEDGED, ACTIVE, RESOLVED

STATUS CODE - 400: Bad request. Missing required fields or invalid values in the provided 'AlertQueryExternal' model.

RESPONSE MODEL -

application/json STATUS CODE - 401:

Unauthorized

RESPONSE MODEL - application/json

NAME	TYPE	
	DESCRIPTION ARRAY	
OF OBJECT WITH BELOW STRUCTURE		
free_text*	string	An arbitrary text.
message_id*	string	Globally unique UTM Message identifier.
uss_name	string	Vendor unique identifier.

NAME	TYPE	DESCRIPTIO
source	`string`	The name of the alert source. Should be a recognized string by the FIMS.

NAME	TYPE	DESCRIPTIO
time_sent	string	The date/time that the source transmitted the message to the FIMS.
time_forwarded	string	This is a recommended extension to the UTM Message type to show the time the message was onwards-forwarded by the FIMS.
severity_type	enum	ALLOWED:EMERGENCY, ALERT, CRITICAL, WARNING, NOTICE, INFORMATIONAL The severity level of a UTMMessage. This severity labeling may be used by other components within UTM as well. The labels are ordered such that they may be given priority handling by software systems and human users. **EMERGENCY > ALERT > CRITICAL > WARNING > NOTICE > INFORMATIONAL** In relation to a UTMMessage, the severities may be interpreted as follows. 1. **EMERGENCY** There is an *immediate* impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 2. **ALERT** There may be an impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 3. **CRITICAL** Without mitigations by the affected operation, the situation may rise to an emergency in the near future. 4. **WARNING** There is a contained issue that may result in the loss of aircraft. No immediate or likely effect to other operations, people on the ground, or structures. 5. **NOTICE** This issue is provided for situational awareness. Planning by operators and USSs may be affected. 6. **INFORMATIONAL** This issue is provided for situational awareness. Note that this approach leverages RFC 5424: \"The Syslog Protocol.\" By taking this approach, there is the possibility of formalizing UTMMessaging with more elements of the RFC to allow for compatibility with other logging systems. https://tools.ietf.org/html/rfc5424
type*	enum	ALLOWED:OPERATION_ROGUE, LAND_IMMEDIATELY, CONTACT_THE_TOWER, CAUTION_TRAFFIC_NEARBY, CONFIRM_DRONE_LANDED, OTHER_SEE_FREE_TEXT, LAND_IMMEDIATELY_AND_CONFIRM_DRONE_LANDED, OPERATION_OUT_OF_TOWER, OPERATION_NONCONFORMING, OPERATION_CONFORMING One of the 13 predefined message types.
callback	string	An URI for obtaining additional information from the source.
location	string	A bounding box of the relevant geometry.
related_alerts	array	
operation_plans	array	
aircrafts	array	
poses	array	
history*	array	
time_stamp	string	
state	enum	ALLOWED:RECEIVED, PENDING_ACKNOWLEDGEMENT, NOT_ACKNOWLEDGED, ACKNOWLEDGED, ACTIVE, RESOLVED

STATUS CODE - 403: Forbidden

RESPONSE MODEL - application/json

NAME	TYPE	
	DESCRIPTION ARRAY	
OF OBJECT WITH BELOW STRUCTURE		
free_text*	string	An arbitrary text.
message_id*	string	Globally unique UTM Message identifier.
uss_name	string	Vendor unique identifier.
source	string	The name of the alert source. Should be a recognized string by the FIMS.
time_sent	string	The date/time that the source transmitted the message to the FIMS.

NAME	TYPE	DESCRIPTIO
time_forwarded	string	This is a recommended extension to the UTM Message type to show the time the message was onwards-forwarded by the FIMS.
severity_type	enum	ALLOWED:EMERGENCY, ALERT, CRITICAL, WARNING, NOTICE, INFORMATIONAL The severity level of a UTMMessage. This severity labeling may be used by other components within UTM as well. The labels are ordered such that they may be given priority handling by software systems and human users. **EMERGENCY > ALERT > CRITICAL > WARNING > NOTICE > INFORMATIONAL** In relation to a UTMMessage, the severities may be interpreted as follows. 1. **EMERGENCY** There is an *immediate* impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 2. **ALERT** There may be an impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 3. **CRITICAL** Without mitigations by the affected operation, the situation may rise to an emergency in the near future. 4. **WARNING** There is a contained issue that may result in the loss of aircraft. No immediate or likely effect to other operations, people on the ground, or structures. 5. **NOTICE** This issue is provided for situational awareness. Planning by operators and USSs may be affected. 6. **INFORMATIONAL** This issue is provided for situational awareness. Note that this approach leverages RFC 5424: \"The Syslog Protocol.\" By taking this approach, there is the possibility of formalizing UTMMessaging with more elements of the RFC to allow for compatibility with other logging systems. https://tools.ietf.org/html/rfc5424
type*	enum	ALLOWED:OPERATION_ROGUE, LAND_IMMEDIATELY, CONTACT_THE_TOWER, CAUTION_TRAFFIC_NEARBY, CONFIRM_DRONE_LANDED, OTHER_SEE_FREE_TEXT, LAND_IMMEDIATELY_AND_CONFIRM_DRONE_LANDED, OPERATION_OUT_OF_TOWER, OPERATION_NONCONFORMING, OPERATION_CONFORMING One of the 13 predefined message types.
callback	string	An URI for obtaining additional information from the source.
location	string	A bounding box of the relevant geometry.
related_alerts	array	
operation_plans	array	
aircrafts	array	
poses	array	
history*	array	
time_stamp	string	
state	enum	ALLOWED:RECEIVED, PENDING_ACKNOWLEDGEMENT, NOT_ACKNOWLEDGED, ACKNOWLEDGED, ACTIVE, RESOLVED

STATUS CODE - 500: Internal server error

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
free_text*	string	An arbitrary text.
message_id*	string	Globally unique UTM Message identifier.
uss_name	string	Vendor unique identifier.
source	string	The name of the alert source. Should be a recognized string by the FIMS.
time_sent	string	The date/time that the source transmitted the message to the FIMS.

NAME	TYPE	DESCRIPTIO
time_forwarded	string	This is a recommended extension to the UTM Message type to show the time the message was onwards-forwarded by the FIMS.
severity_type	enum	ALLOWED:EMERGENCY, ALERT, CRITICAL, WARNING, NOTICE, INFORMATIONAL The severity level of a UTMMessage. This severity labeling may be used by other components within UTM as well. The labels are ordered such that they may be given priority handling by software systems and human users. **EMERGENCY > ALERT > CRITICAL > WARNING > NOTICE > INFORMATIONAL** In relation to a UTMMessage, the severities may be interpreted as follows. 1. **EMERGENCY** There is an *immediate* impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 2. **ALERT** There may be an impact to the safety of other air operations, the safety of people, or the safety of structures on the ground. Actions to mitigate required by other operations. 3. **CRITICAL** Without mitigations by the affected operation, the situation may rise to an emergency in the near future. 4. **WARNING** There is a contained issue that may result in the loss of aircraft. No immediate or likely effect to other operations, people on the ground, or structures. 5. **NOTICE** This issue is provided for situational awareness. Planning by operators and USSs may be affected. 6. **INFORMATIONAL** This issue is provided for situational awareness. Note that this approach leverages RFC 5424: \"The Syslog Protocol.\" By taking this approach, there is the possibility of formalizing UTMMessaging with more elements of the RFC to allow for compatibility with other logging systems. https://tools.ietf.org/html/rfc5424
type*	enum	ALLOWED:OPERATION_ROGUE, LAND_IMMEDIATELY, CONTACT_THE_TOWER, CAUTION_TRAFFIC_NEARBY, CONFIRM_DRONE_LANDED, OTHER_SEE_FREE_TEXT, LAND_IMMEDIATELY_AND_CONFIRM_DRONE_LANDED, OPERATION_OUT_OF_TOWER, OPERATION_NONCONFORMING, OPERATION_CONFORMING One of the 13 predefined message types.
callback	string	An URI for obtaining additional information from the source.
location	string	A bounding box of the relevant geometry.
related_alerts	array	
operation_plans	array	
aircrafts	array	
poses	array	
history*	array	
time_stamp	string	
state	enum	ALLOWED:RECEIVED, PENDING_ACKNOWLEDGEMENT, NOT_ACKNOWLEDGED, ACKNOWLEDGED, ACTIVE, RESOLVED

5 Telemetry Service API

ON UTM System - API Documentation

Telemetry Service API

API Version: 2.10.1

This is a telemetry API. It allows its consumers to provide and receive a telemetry from other consumers.

- Have a look at Subscription API to discover how to receive telemetry from other consumers, • Have a look at Notification API to discover how to provide telemetry to other consumers

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Security and Authentication

SECURITY SCHEMES

KEY	TYPE	DESCRIPTION
mainsecscheme	http, Bearer	

1. NOTIFICATION BEARING API

API for sending 'Bearing' notifications to its subscribers.

1.1 POST /simpleBearing

Notification with simplified Bearing data structure

This endpoint receives simplified Bearing data structure and when successful sends it to subscribers.
Simplified Bearing structure consists of all simplified PoseV2 fields and all additional Bearing fields.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
report_id*	string	A uuid, globally unique to identify the position record
acquisition_datetime*	string	UTC point in time when the position was measured by the positioning unit of the device in operation. UTC using the ISO 8601 date time format.
acquisition_datetime_accuracy*	number	Accuracy of acquisition time measurement in milliseconds.
origin*	string	Indicates the origin of this position record.Two Pose records identified by a different origin could be sent from the same aircraft. Depending on bandwidth considerations all available sensors should be utilized and transmit Pose records.
identifications	array	
value*	string	The actual value of the identification of the object this report applies to.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_AREA, ID_AREAID, ID_CROSS_AREA, ID_CROSS_AREAID, ID_GATE, ID_GATEID, ID_RWY, ID_RWYID, ID_TWY, ID_TWYID, ID_SECTOR, ID_SECTORID, ID_STBAR, ID_STBARID, ID_OTHER Type of identification conveyed by this Identification item.
other	string	Optional empty item for temporary use until standardization is in place: Unless type is set to “ID_OTHER”, do not set this field at all. Usage of "ID_OTHER" is discouraged. If type "ID_OTHER" is set, set this field to a descriptive string for the type and set value to corresponding value.
confidence	integer	between 0 and 100 Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
operation_id	string	The id of the operation, e.g. a flight_id i.e. a gufi, globally unique identifier referencing the flight producing this position report or element is missing if operation plan is unknown.
bearing*	object	
azimuth*	number	Degrees against true north.
elevation	number	If available, elevation of bearing record over the tangent plane to the WGS84 Earth ellipsoid in degrees.
range	number	If available, range of bearing record in metres.
azimuth_accuracy*	number	Accuracy of azimuth measurement in degrees.

NAME	TYPE	DESCRIPTION
elevation_accuracy	number	Accuracy of elevation measurement in degrees. When elevation is provided, this field is mandatory.
range_accuracy	number	Accuracy of range measurement in metres. When range is provided this field is mandatory.
data_age*	number	Seconds since last measurement
reference_id*	string	OperationId of the reporting device at the reference point. If the reporting device does not share its position via regular telemetry reports, or is not available from e. g. a registry, a stable UUID should be chosen. 'Stable' in this context means that the referenceId should not change over time and be set to the same value for all bearing reports referring a given reference point.
reference_latitude*	number	Latitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs.
reference_longitude*	number	Longitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs.
reference_altitude*	number	Altitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs
reference_latitude_accuracy*	number	Accuracy of reference latitude in the same unit.
reference_longitude_accuracy*	number	Accuracy of reference longitude in the same unit.
reference_altitude_accuracy*	number	Accuracy of reference altitude in the same unit.
reference_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
reference_data_age*	number	Elapsed time in seconds since the bearing reference was last determined by the reporting device at the reference position.

RESPONSE

STATUS CODE - 200: Simplified Bearing was received successfully

RESPONSE MODEL -

text/plain STATUS CODE - 404:

Invalid input RESPONSE MODEL

- text/plain

1.2 POST /bearing

Notification with Bearing data structure

This endpoint receives Bearing data structure and when successful sends it to subscribers.
Bearing is represented by Bearing report model. It is a composite data structure consisting of PoseV2 data structure with other additional field.

Data should consist of all PoseV2 fields with addition of:

*'azimuth', 'elevation', 'range', 'azimuth accuracy', 'elevation accuracy', 'range accuracy', 'data age', 'reference Id', 'reference latitude', 'reference longitude', 'reference altitude',
'reference latitude accuracy', 'reference longitude accuracy', 'reference altitude accuracy',
'reference coordinate system'* and *'reference data age'*.

- `elevation_accuracy` in degrees shall be provided when `elevation` is present.
- `range_accuracy` in metres shall be provided when `range` is present.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
report_id*	string	A uuid, globally unique to identify the position record
acquisition_datetime*	string	UTC point in time when the position was measured by the positioning unit of

		the device in operation. UTC using the ISO 8601 date time format.
acquisition_datetime_accuracy*	number	Accuracy of acquisition time measurement in milliseconds.
origin*	string	Indicates the origin of this position record.Two Pose records identified by a different origin could be sent from the same aircraft. Depending on bandwidth considerations all available sensors should be utilized and transmit Pose records.
identifications	array	
value*	string	The actual value of the identification of the object this report applies to.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_AREA, ID_AREAID, ID_CROSS_AREA, ID_CROSS_AREAID, ID_GATE, ID_GATEID, ID_RWY, ID_RWYID, ID_TWY, ID_TWYID, ID_SECTOR, ID_SECTORID, ID_STBAR, ID_STBARID, ID_OTHER Type of identification conveyed by this Identification item.
other	string	Optional empty item for temporary use until standardization is in place: Unless type is set to “ID_OTHER”, do not set this field at all. Usage of "ID_OTHER" is discouraged. If type "ID_OTHER" is set, set this field to a descriptive string for the type and set value to corresponding value.
confidence	integer	between 0 and 100 Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
operation_id	string	The id of the operation, e.g. a flight_id i.e. a gufi, globally unique identifier referencing the flight producing this position report or element is missing if operation plan is unknown.
classification_info	object	
classifications*	array	
id*	string	Globally unique to identify this classification record.
type*	enum	ALLOWED:CREATURE, VEHICLE, AIRCRAFT, MARITIME, FIXED, OTHER Kind of object reported in this Classification item. (from enumeration) "OTHER" type is discouraged.
probability*	integer	between 0 and 100 Represent probability in percent.
subtypes	array	
agility	enum	ALLOWED:AGILITY_HIGH, AGILITY_MEDIUM, AGILITY_LOW, AGILITY_NONE Agility of object reported in this Classification item.
other	string	If type is set to “OTHER”, set this field to a descriptive string for the type and set value to the corresponding value.
observations	array	
id*	string	Globally unique to identify this Observation.
type*	enum	ALLOWED:MANUFACTURER, OWNER, TYPE, SUBTYPE, ENGINETYPE, ROTORS, FIXEDWING, RPS, SHAPE, LENGTH, WIDTH, HEIGHT, COLOUR, MARKING, PAYLOAD, AUTONOMY, FREQUENCY, C2LINKINFO, ARMOUR, ARMS, FREETEXT Kind of object reported in this this Observation item. (from enumeration)

NAME	TYPE	DESCRIPTION
value*	string	The actual value as indicated by type. E.g. type='ROTORS' then value shall contain an integer representing the number of rotors of the observed object
probability*	integer	between 0 and 100 Represent probability in percent
velocity	object	
latitude	number	Unit defined by Position coordinate system.
longitude	number	Unit defined by Position coordinate system.
altitude	number	Unit defined by Altitude coordinate system.
horizontal_accuracy	number	Unit defined by Position coordinate system.
vertical_accuracy	number	Unit defined by Altitude coordinate system.
change_rate	object	
lat_change_rate	number	Unit defined by Position coordinate system.
lon_change_rate	number	Unit defined by Position coordinate system.
alt_change_rate	number	Unit defined by Altitude coordinate system.
orientation	object	
pitch	number	Transverse axis in unit defined by orientation_crs.
roll	number	Longitudinal axis in unit defined by orientation_crs.
yaw	number	Vertical axis in unit defined by orientation_crs.
orientation_type*	string	measured or calculated
orientation_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
orientation_accuracy	number	Unit defined by orientation_crs.
change_rate	object	
pitch_rate	number	Unit defined by Orientation coordinate system.
roll_rate	number	Unit defined by Orientation coordinate system.
yaw_rate	number	Unit defined by Orientation coordinate system.
priority	object	
priority*	enum	ALLOWED:NORMAL, FOLLOWME, RUNWAYCHECK, TOWING, WIP, TROUBLE, SAFETY, URGENCY, DISTRESS The status of the object this Priority item reports about. (from enumeration)
privilege*	enum	ALLOWED:NORMAL, LAW, EMERGENCY, STATE The privilege the object which this Priority item reports about requests or requires. (from enumeration)
priority_information	string	additional information
gcs_position	object	
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.
altitudes*	array	

altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude
ground_speed_in_meters_per_second	number	Ground speed in meters per second.
bearing*	object	
azimuth*	number	Degrees against true north.
elevation	number	If available, elevation of bearing record over the tangent plane to the WGS84 Earth ellipsoid in degrees.
range	number	If available, range of bearing record in metres.
azimuth_accuracy*	number	Accuracy of azimuth measurement in degrees.
elevation_accuracy	number	Accuracy of elevation measurement in degrees. When elevation is provided, this field is mandatory.
range_accuracy	number	Accuracy of range measurement in metres. When range is provided this field is mandatory.
data_age*	number	Seconds since last measurement
reference_id*	string	OperationId of the reporting device at the reference point. If the reporting device does not share its position via regular telemetry reports, or is not available from e. g. a registry, a stable UUID should be chosen. 'Stable' in this context means that the referenceId should not change over time and be set to the same value for all bearing reports referring a given reference point.
reference_latitude*	number	Latitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs.
reference_longitude*	number	Longitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs.
reference_altitude*	number	Altitude of the reporting device at the reference position, in unit of measurement as defined by referenceCrs
reference_latitude_accuracy*	number	Accuracy of reference latitude in the same unit.
reference_longitude_accuracy*	number	Accuracy of reference longitude in the same unit.
reference_altitude_accuracy*	number	Accuracy of reference altitude in the same unit.
reference_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
reference_data_age*	number	Elapsed time in seconds since the bearing reference was last determined by the reporting device at the reference position.

RESPONSE

STATUS CODE - 200: Bearing was received successfully

RESPONSE MODEL - text/plain

STATUS CODE - 404: Invalid input

RESPONSE MODEL - text/plain

2. NOTIFICATION FLIGHT EVENT API

API for sending 'Flight event' notifications to its subscribers.

2.1 POST /flightEvent

Notification with Flight Event Indication

This endpoint allows you to send information about flight events. If received successfully(HTTP response status is 2xx), it is send to its subscribers.
Flight event data structure is JSON structure consisting of:
FlightEventType, 'id', 'start time', 'end time' and *'position report frequency'* See
FlightEvent in Models section.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
flight_event	enum	ALLOWED:START_OF_FLIGHT, END_OF_FLIGHT Indicates the type of the flight event being reported about. (from enumeration)
operation_plan_id	string	Reference to the related operation plan, if available.
startTime	string	Indicates the (expected) start time of the flight. To be provided with a START_OF_FLIGHT event indication.
endTime	string	Indicates the (expected) end time of the flight. To be provided with a END_OF_FLIGHT event indication.
positionReportFrequency	number	Expected number of position reports per second for this flight. Optionally provided with a START_OF_FLIGHT event indication

RESPONSE

STATUS CODE - 200: Flight event was received successfully

RESPONSE MODEL -

text/plain STATUS CODE - 404:

Invalid input RESPONSE MODEL

- text/plain

3. NOTIFICATION POSE V1 API

Sending notification in 'PoseV1' (Telemetry) format to its subscribers.

3.1 POST /telemetry

Notification providing PoseV1 data structure.

This endpoint receives older PoseV1 data structure. Provide telemetry represented by PoseV1 model. Content type has to be application/json. Telemetry is sent to subscribed consumers once it is provided successfully (HTTP response status is 2xx).
The PoseV1 model is a composite of

Position, Velocity, Orientation and *SupplementaryInformation*

and is used for exchanging details about an aircraft (most commonly a drone).

Minimal Example

```
curl --request POST 'http://<<TELEMETRY ENDPOINT>>/telemetry'
--header 'Content-Type: application/json'
--header 'Authorization: Bearer <<ACCESS TOKEN>>'
--data-raw '{
  "id": "fbc2aa3c-359b-11ec-8d3d-0242ac130003",
  "position": {
    "latitude": 41.0,
    "longitude": 22.0
  }
}'
```

- Replace << ACCESS TOKEN >> placeholder with actual access token,
- Replace << TELEMETRY ENDPOINT >> with telemetry service URL.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
id*	string	An uuid, globally unique to identify the position record.
flight_id	string	A gufi, globally unique identifier referencing the flight producing this position report. UUID required.
acquisition_datetime	string	UTC point in time when the position was measured by the positioning unit of the device in flight. Expressed in UTC using the ISO 8601 date time of the device in flight. Expressed in UTC using the ISO 8601 date time format.
acquisition_datetime_accuracy	number	Accuracy of time in milliseconds.
position*	object	
latitude*	number	Latitude of position record in unit of measurement as defined by positionCrs.
longitude*	number	Longitude of position record in unit of measurement as defined by positionCrs.
position_accuracy	number	Accuracy of latitude and longitude in unit of measurement as defined by positionCrs.
position_crs	enum	ALLOWED:WGS_84, EPSG_4979 Coordinate reference system used. uses WGS-84, EPSG:4979).
position_data_age	integer	Elapsed time in s since last position data received by the reporter of this Position.
altitudes	array	
altitude*	number	Altitude of position record in m unit of measurement as defined by positionCrs
altitude_accuracy	number	Accuracy of altitude in unit of measurement as defined by positionCrs
altitude_type	enum	ALLOWED:AGL_SFC, MSL, ISBL_ISA, ATO, GNSS Altitude types: * AGL_SFC - E.g. radio-altimeter. * MSL - Calculated against reference point and mean-sea-level.

NAME	TYPE	DESCRIPTION
		* ISBL_ISA - Barometric against 1atm. * ATO - Relative to take-off location, could be barometric. * GNSS - GNSS-based.
altitude_crs	enum	ALLOWED:WGS_84, EPSG_4979 Coordinate reference system used (GOF USPACE uses WGS-84, EPSG:4979)
altitude_data_age	number	Elapsed time in s since last position data received by the reporter of this Altitude
velocity	object	
velocity_latitude	number	Velocity in unit of measurement defined in unit of measurement as defined by position_crs.
velocity_longitude	number	Velocity in unit of measurement defined in unit of measurement as defined by position_crs.
velocity_altitude	number	Velocity in unit of measurement defined in unit of measurement as defined by altitude_crs.
velocity_hor_accuracy	number	Accuracy of horizontal velocity in unit of measurement defined by position_crs.
velocity_ver_accuracy	number	Accuracy of vertical velocity in unit of measurement defined in altitude_crs.
orientation	object	
pitch	number	Transverse axis in unit of measurement as defined by orientationCrs.
roll	number	Longitudinal axis in unit of measurement as defined by orientationCrs.
yaw	number	Vertical axis in unit of measurement as defined by orientationCrs.
orientation_type	enum	ALLOWED:MEASURED, CALCULATED
orientation_crs	enum	ALLOWED:WGS_84, EPSG_4979 Coordinate reference system used.
orientation_accuracy	number	
supplementaryInformation	object	
registration	string	Registration info/ID.
registration_type	enum	ALLOWED:ICAO, IMEI, IMSI, FLARM_ID Registration type.
tracking_id	string	If available, tracking id as supplied.
tracking_source_type	enum	ALLOWED:Primary, Mode3A, Mode3AC, ModeS, Combined, ModeSES, VDL, UAT, MLAT, TRACK, ADSC, FPL, FLARM, IMEI, IMSI, AIS Types of tracking source: * Primary - primary surveillance * Mode3A - secondary, 2D only, squawk * Mode3AC - secondary, 3D, squawk * ModeS - secondary, ICAO 24 bit address * Combined - combined primary/secondary * ModeSES - dependent, ICAO 24 bit address * VDL - dependent, ICAO 24 bit address * UAT - dependent, ICAO 24 bit address * MLAT - secondary, ICAO 24 bit address * TRACK - combined, track id * ADSC - dependent, ICAO 24 bit address * FPV - dependent, squawk or no id * FLARM - dependent, FLARM-ID * IMEI - dependent, IMEI number * IMSI - dependent, IMSI number * AIS - dependent, MMSI number
tracking_source_value	string	If available, the corresponding value of the trackingSourceType reported.
tracking_source_id	string	If available, the id of the reporting origin of the tracking information.

RESPONSE

STATUS CODE - 200: Pose data was consumed successfully and it will be sent to subscribers

RESPONSE MODEL - text/plain

STATUS CODE - 400: Bad request. Missing required fields or invalid values in 'Pose' model

RESPONSE MODEL - text/plain

STATUS CODE - 401:

Unauthorized RESPONSE

MODEL - text/plain

STATUS CODE - 403: Forbidden

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

4. NOTIFICATION POSE V2 API

Sending notification in 'PoseV2' (Position report) format to its subscribers.

4.1 POST /simplePose

Notification with simplified PoseV2 data structure for subscribers.

Simplified PoseV2 data structure consists of the mandatory and the most important PoseV2 fields: *Position, Altitudes, Identification, origin, acquisition datetime, acquisition datetime accuracy, operation* and *report ID.*

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
report_id*	string	A uuid, globally unique to identify the position record
acquisition_datetime*	string	UTC point in time when the position was measured by the positioning unit of the device in operation. UTC using the ISO 8601 date time format.
acquisition_datetime_accuracy*	number	Accuracy of acquisition time measurement in milliseconds.
origin*	string	Indicates the origin of this position record.Two Pose records identified by a different origin could be sent from the same aircraft. Depending on bandwidth considerations all available sensors should be utilized and transmit Pose records.
identifications	array	
value*	string	The actual value of the identification of the object this report applies to.
type*	enum	ALLOWED:ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_AREA, ID_AREAID, ID_CROSS_AREA, ID_CROSS_AREAID, ID_GATE, ID_GATEID, ID_RWY, ID_RWYID, ID_TWY, ID_TWYID, ID_SECTOR, ID_SECTORID, ID_STBAR, ID_STBARID, ID_OTHER Type of identification conveyed by this Identification item.
other	string	Optional empty item for temporary use until standardization is in place: Unless type is set to “ID_OTHER”, do not set this field at all. Usage of "ID_OTHER" is discouraged. If type "ID_OTHER" is set, set this field to a descriptive string for the type and set value to corresponding value.
confidence	integer	between 0 and 100 Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
operation_id	string	The id of the operation, e.g. a flight_id i.e. a gufi, globally unique identifier referencing the flight producing this position report or element is missing if operation plan is unknown.
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.

NAME	TYPE	DESCRIPTION
altitudes*	array	
altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude
start_position	object	
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.
altitudes*	array	
altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude

RESPONSE

STATUS CODE - 200: Simplified Pose data structure was received successfully

RESPONSE MODEL -

text/plain STATUS CODE - 404:

Invalid input RESPONSE MODEL

- text/plain

4.2 POST /pose

Notification providing PoseV2 data structure.

This endpoint receives richer version of Pose data structure 'PoseV2'. It is sent to subscribed consumers once it is provided successfully (HTTP response status is 2xx).

PoseV2 contains

Position, Altitude, Velocity, Orientation, Identification, Priority, 'origin', 'acquisition datetime', 'acquisition datetime accuracy', 'operation ID' and 'report ID'.

Optionally (if supported by device) it may include Classification info. Data source should report as many Identification and Classification as data are available.
PoseV2 is defined as Position report model in the description below.

- `Position` and `Altitude` structures are mandatory.
- In not recommended case of sending Identification with `type` ID_OTHER, field `other` is required to specify type. Otherwise field `other` should be omitted.

PoseV2 is used for exchanging details about an aircraft (most commonly a drone) where more details are available.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
report_id*	`string`	A uuid, globally unique to identify the position record
acquisition_datetime*	`string`	UTC point in time when the position was measured by the positioning unit of the device in operation. UTC using the ISO 8601 date time format.
acquisition_datetime_accuracy*	`number`	Accuracy of acquisition time measurement in milliseconds.
origin*	`string`	Indicates the origin of this position record.Two Pose records identified by a different origin could be sent from the same aircraft. Depending on bandwidth considerations all available sensors should be utilized and transmit Pose records.
identifications	`array`	
value*	`string`	The actual value of the identification of the object this report applies to.
type*	`enum`	ALLOWED:`ID_ICAO, ID_CALLSIGN, ID_ETHER, ID_PRIMARY, ID_MODE_3A, ID_MODE_3AC, ID_MODE_S, ID_COMBINED, ID_MODE_SES, ID_VDL, ID_UAT, ID_MLAT, ID_TRACK, ID_TRACKID, ID_ALERT, ID_ALERTID, ID_ADSC, ID_FPL, ID_GUFI, ID_FLARM, ID_IMEI, ID_IMSI, ID_MMSI, ID_SERIAL, ID_MAKER, ID_MODEL, ID_COUNTRY, ID_AREA, ID_AREAID, ID_CROSS_AREA, ID_CROSS_AREAID, ID_GATE, ID_GATEID, ID_RWY, ID_RWYID, ID_TWY, ID_TWYID, ID_SECTOR, ID_SECTORID, ID_STBAR, ID_STBARID, ID_OTHER` Type of identification conveyed by this Identification item.
other	`string`	Optional empty item for temporary use until standardization is in place: Unless type is set to “ID_OTHER”, do not set this field at all. Usage of "ID_OTHER" is discouraged. If type "ID_OTHER" is set, set this field to a descriptive string for the type and set value to corresponding value.
confidence	`integer`	`between 0 and 100` Optional item with a range from 0 to 100 representing the degree of confidence the emitter of this information has that the object we report about in this report actually can be identified by this particular value.
operation_id	`string`	The id of the operation, e.g. a flight_id i.e. a gufi, globally unique identifier referencing the flight producing this position report or element is missing if operation plan is unknown.
classification_info	`object`	
classifications*	`array`	
id*	`string`	Globally unique to identify this classification record.
type*	`enum`	ALLOWED:`CREATURE, VEHICLE, AIRCRAFT, MARITIME, FIXED, OTHER` Kind of object reported in this Classification item. (from enumeration) "OTHER" type is discouraged.

NAME	TYPE	DESCRIPTIO
probability*	integer	between 0 and 100 Represent probability in percent.
subtypes	array	
agility	enum	ALLOWED:AGILITY_HIGH, AGILITY_MEDIUM, AGILITY_LOW, AGILITY_NONE Agility of object reported in this Classification item.
other	string	If type is set to “OTHER”, set this field to a descriptive string for the type and set value to the corresponding value.
observations	array	
id*	string	Globally unique to identify this Observation.
type*	enum	ALLOWED:MANUFACTURER, OWNER, TYPE, SUBTYPE, ENGINETYPE, ROTORS, FIXEDWING, RPS, SHAPE, LENGTH, WIDTH, HEIGHT, COLOUR, MARKING, PAYLOAD, AUTONOMY, FREQUENCY, C2LINKINFO, ARMOUR, ARMS, FREETEXT Kind of object reported in this this Observation item. (from enumeration)
value*	string	The actual value as indicated by type. E.g. type='ROTORS' then value shall contain an integer representing the number of rotors of the observed object
probability*	integer	between 0 and 100 Represent probability in percent
velocity	object	
latitude	number	Unit defined by Position coordinate system.
longitude	number	Unit defined by Position coordinate system.
altitude	number	Unit defined by Altitude coordinate system.
horizontal_accuracy	number	Unit defined by Position coordinate system.
vertical_accuracy	number	Unit defined by Altitude coordinate system.
change_rate	object	
lat_change_rate	number	Unit defined by Position coordinate system.
lon_change_rate	number	Unit defined by Position coordinate system.
alt_change_rate	number	Unit defined by Altitude coordinate system.
orientation	object	
pitch	number	Transverse axis in unit defined by orientation_crs.
roll	number	Longitudinal axis in unit defined by orientation_crs.
yaw	number	Vertical axis in unit defined by orientation_crs.
orientation_type*	string	measured or calculated
orientation_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
orientation_accuracy	number	Unit defined by orientation_crs.
change_rate	object	
pitch_rate	number	Unit defined by Orientation coordinate system.
roll_rate	number	Unit defined by Orientation coordinate system.
yaw_rate	number	Unit defined by Orientation coordinate system.
priority	object	
priority*	enum	ALLOWED:NORMAL, FOLLOWME, RUNWAYCHECK, TOWING, WIP, TROUBLE, SAFETY, URGENCY, DISTRESS The status of the object this Priority item reports about. (from enumeration)

NAME	TYPE	DESCRIPTION
privilege*	enum	ALLOWED:NORMAL, LAW, EMERGENCY, STATE The privilege the object which this Priority item reports about requests or requires. (from enumeration)
priority_information	string	additional information
gcs_position	object	
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.
altitudes*	array	
altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude
ground_speed_in_meters_per_second	number	Ground speed in meters per second.
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.
altitudes*	array	
altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)

NAME	TYPE	DESCRIPTIO
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude
start_position	object	
position*	object	
latitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
longitude*	number	Unit defined by position_crs. Most commonly degrees, meters for Mercator projectors.
position_accuracy*	number	Unit defined by position_crs.
position_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
position_data_age	number	Seconds since last data received by the reporter.
altitudes*	array	
altitude*	number	meters. (All currently supported Coordinate Reference Systems use meters as unit of measurement for the altitude)
altitude_accuracy*	number	Unit as defined by altitude_crs. Shall be provided whenever available.
altitude_type*	enum	ALLOWED:ABOVE_MSL, ABOVE_TO, ABOVE_GND, ABOVE_ELLIPSOID Reference point for altitude measurement. (from enumeration)
determination_method*	enum	ALLOWED:RADIO_ALTIMETER, BAROMETRIC, GNSS_BASED, CALCULATED Method of determination of altitude. (from enumeration)
altitude_crs*	enum	ALLOWED:EPSG4979_WGS84 Coordinate reference system used. (from enumeration (e.g. EPSG4979_WGS84))
altitude_data_age	number	Seconds since last data received by receiver of Altitude

RESPONSE

STATUS CODE - 200: Pose data structure was received successfully

RESPONSE MODEL -

text/plain STATUS CODE - 404:

Invalid input RESPONSE MODEL

- text/plain

NAME TYPE DESCRIPTIO

5. SUBMISSION QUEUE API

API allowing consumers to manage AMPQ queues

5.1 GET /submissionQueue

Get list of submission queues owned by the sender

Obtain the list of all submission queues owned by request sender. The request sender is identified and authorized with Bearer token.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: The list of submission queues

RESPONSE MODEL -

application/json NAME	TYPE
DESCRIPTION ARRAY OF	
OBJECT WITH BELOW STRUCTURE	
uuid	string
dataType	enum ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT

5.2 POST /submissionQueue

Create submission queue

Submission queue will be created. The address of the queue shall be in a form of amqp:queue:UUID where UUID is taken from provided payload.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
uuid	string	
dataType	enum	ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT

RESPONSE

STATUS CODE - 200: Submission queue successfully created

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

5.3 DELETE /submissionQueue/{queueUuid}

Delete submission queue

Submission queue will be deleted. The address is identified by its UUID provided in the method parameter.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*queueUuid	uuid	

RESPONSE

STATUS CODE - 200: Submission queue successfully deleted

RESPONSE MODEL - text/plain

6. SUBSCRIPTION V1 API

API allowing consumers to subscribe for 'Pose V1' (Telemetry) data. Telemetry data is in 'Pose V1' model encoded as a single JSON. See Pose model description bellow.

6.1 POST /unsubscribe

Unsubscribe to telemetry data with a URL

No telemetry data will be sent to given URL anymore if request is successful (HTTP response status is 2xx).

Minimal Example

```
curl --request POST 'http://<<TELEMETRY ENDPOINT>>/unsubscribe?
notificationEndpoint=http%3A%2F%2Fexample.com'
--header 'Authorization: Bearer <<ACCESS TOKEN>>'
```

- Replace << ACCESS TOKEN >> placeholder with actual access token,
- Replace << TELEMETRY ENDPOINT >> with telemetry service URL.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*notificationEndpoint	string	

RESPONSE

STATUS CODE - 200: URL unsubscribed

RESPONSE MODEL - text/plain

STATUS CODE - 401:

Unauthorized RESPONSE

MODEL - text/plain

STATUS CODE - 403: Forbidden

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

6.2 POST /subscribe

Subscribe to PoseV1 (Telemetry) data with a URL.

Telemetry data provided by other consumers will be sent to given URL if successfully subscribed (HTTP response status is 2xx). The data content type is application/json. The data body is a JSON encoded instance of PoseV1 model. The PoseV1 is a composite of *Position, Velocity, Orientation* and *SupplementaryInformation* and is used for exchanging details about an aircraft (most commonly a drone). See the definition of PoseV1 in Models section.
If a subscription URL is not available the telemetry will not be sent and no retries will be performed.

Minimal Example

```
curl --request POST 'http://<<TELEMETRY ENDPOINT>>/subscribe?notificationEndpoint=http
%3A%2F%2Fexample.com'
--header 'Authorization: Bearer <<ACCESS TOKEN>>'
```

- Replace << ACCESS TOKEN >> placeholder with actual access token,

- Replace << TELEMETRY ENDPOINT >> with telemetry service URL.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*notificationEndpoint	string	

RESPONSE

STATUS CODE - 200: URL Subscribed

RESPONSE MODEL - text/plain

STATUS CODE - 401:

Unauthorized RESPONSE

MODEL - text/plain

STATUS CODE - 403: Forbidden

RESPONSE MODEL - text/plain

STATUS CODE - 500: Internal server

error

RESPONSE MODEL - text/plain

7. SUBSCRIPTION V2 API

API allowing consumers to subscribe for 'Bearing', 'Flight_event', 'Pose1' or 'Pose2' notifications as JSON. See the description in Model below.

7.1 PUT /subscription/{subscriptionId}

Change state of subscription

Allows to change subscription status from *'ACTIVE'* to *'PAUSED'* or vice versa. Subscription ID is required.
When PAUSED, no data will be sent to subscriber unless ACTIVE again.
Data are not stored while subscription is paused - no historic data will be send after subscription is back active! Only live data are sent to subscribers.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
*state	enum ALLOWED: ACTIVE, PAUSED	

RESPONSE

STATUS CODE - 200: State of subscription was changed successfully

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

7.2 DELETE /subscription/{subscriptionId}

Unsubscribe from receiving notifications

If an unsubscribe request is received successfully (HTTP response status is 2xx), no other data will be sent to subscriber.
Subscription ID is required.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*subscriptionId	uuid	

RESPONSE

STATUS CODE - 200: Successfully unsubscribed

RESPONSE MODEL - text/plain

STATUS CODE - 400: Invalid input

RESPONSE MODEL - text/plain

7.3 POST /subscription

Subscribe for 'Pose1', 'Pose2', 'Bearing' or 'Flight_event' notifications

Subscribe to receive 'Pose1', 'Pose2', 'Bearing' or 'Flight_event' data. Data will be sent to subscriber based on provided `endpoint_type`.
endpoint_type	Description	endpoint_url
`AMQP`	Data are sent to subscriptionID queue	-
`HTTP`	Data are sent via HTTP to provided URL	required
Only data located inside an airspace volume are sent to subscriber.

REQUEST

REQUEST BODY - application/json

NAME	TYPE	DESCRIPTION
id*	`string`	An id of the subscription. A valid UUID generated randomly.
subscription_type*	`enum`	ALLOWED:`HTTP, AMQP` A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	`string`	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	`enum`	ALLOWED:`ACTIVE, PAUSED` A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	`object`	
type*	`enum`	ALLOWED:`Polygon, Circle`
data_format*	`enum`	ALLOWED:`POSE1, POSE2, BEARING, FLIGHT_EVENT`

RESPONSE

STATUS CODE - 200: Successfully subscribed

RESPONSE MODEL -

text/plain STATUS CODE - 400:

Invalid input RESPONSE MODEL

- text/plain

7.4 GET /subscriptions

Get list of subscriptions owned by the sender

Obtain the list of all subscriptions owned by request sender.The request sender is identified and authorized with Bearer token.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: The list of subscriptions

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
ONE:OF	object	
OPTION:1	object	
type*	enum	ALLOWED:Polygon, Circle
center*	array	
radius*	number	>=0
OPTION:2	object	
type*	enum	ALLOWED:Polygon, Circle
coordinates*	array	
::props	array	
data_format*	enum	ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT

STATUS CODE - 400: Invalid input

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
ONE:OF	object	
OPTION:1	object	
type*	enum	ALLOWED:Polygon, Circle

NAME	TYPE	DESCRIPTION
center*	array	
radius*	number	>=0
OPTION:2	object	
type*	enum	ALLOWED:Polygon, Circle
coordinates*	array	
::props	array	
data_format*	enum	ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT

STATUS CODE - 500: Internal Server Error

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
ONE:OF	object	
OPTION:1	object	
type*	enum	ALLOWED:Polygon, Circle
center*	array	
radius*	number	>=0
OPTION:2	object	
type*	enum	ALLOWED:Polygon, Circle
coordinates*	array	
::props	array	
data_format*	enum	ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT

STATUS CODE - 503: Service Unavailable

RESPONSE MODEL - application/json

NAME	TYPE	DESCRIPTION ARRAY OF OBJECT WITH BELOW STRUCTURE
id*	string	An id of the subscription. A valid UUID generated randomly.
subscription_type*	enum	ALLOWED:HTTP, AMQP A type of data delivery method. A subscriber with HTTP type will receive data on the 'endpoint_url'. For the type AMQP the subscriber shall listen on the queue named by the subscription id ('endpoint_url' value is ignored).

NAME	TYPE	DESCRIPTION
endpoint_url	string	An endpoint URL where subscriber will receive data by HTTP requests. The endpoint shall consume and support the both Conformance Report models TrafficConformanceMonitoringStatusReport and TrafficNonConformanceReport. Required for HTTP subscription_type.
state*	enum	ALLOWED:ACTIVE, PAUSED A state defines if data shall be send to the subscriber. ACTIVE : send data to the subscriber PAUSED : don't send data to the subscriber (for CME - data are not delivered later)
airspace_volume*	object	
ONE:OF	object	
OPTION:1	object	
type*	enum	ALLOWED:Polygon, Circle
center*	array	
radius*	number	>=0
OPTION:2	object	
type*	enum	ALLOWED:Polygon, Circle
coordinates*	array	
::props	array	
data_format*	enum	ALLOWED:POSE1, POSE2, BEARING, FLIGHT_EVENT