



Occurrence_1_0

Schema Documentation

Version 1.0

Contents

Document Revision History	4
Related Documents	5
Occurrence Schema	6
Client Occurrence	6
Occurrence Details Type	7
Injuries Details Type	11
Operational Details Type	12
Crew Details Type	13
Bird Details Type	13
Environment Details Type.....	14
Engineering Details Type.....	15
Occurrence Descriptor Type.....	16
Occurrence Involved Type.....	16
Occurrence Investigation Type.....	17
Finding Details Type.....	18
Cause Details Type	19
Action Details Type.....	20
Common Types	21
RoleCodeEnum (not nillable).....	22
AttributeCauseEnum (not nillable)	22
SeverityFactorEnum (nillable).....	22
LocalUTCEnum (not nillable).....	22
ScheduledEnum (nillable).....	22
DomesticEnum (nillable).....	22
OccurrenceTypeEnum (not nillable)	23
ActionCodeEnum (nillable)	23
ActionStatusEnum (nillable)	23
CauseCategoryIdEnum (nillable).....	23
FindingTypeEnum (nillable).....	23
FindingCategoryCodeEnum (nillable).....	24
TCASAlertEnum (nillable).....	24
BirdSizeEnum (nillable)	24
BirdNumberSeenEnum (nillable)	24
BirdNumberHitEnum (nillable)	24
PartsDamagedEnum (nillable).....	24
PartsStruckEnum (nillable)	24
PrecipitationEnum (nillable).....	25
AircraftLightsEnum (nillable).....	25
PilotWarningEnum (nillable)	25

ScaringDevicesEnum (nillable).....	25
DetectionLocationEnum (nillable)	26
PAXBaggageOrCargoEnum (nillable)	26
ClassOrDivisionUsedEnum (nillable).....	26
CorrectClassOrDivisionEnum (nillable)	26
ADSBComplianceEnum (nillable).....	26
DetectionPhaseEnum (nillable)	27
FacilityAircraftAerodromeEnum (nillable)	27
FlightRulesEnum (nillable).....	27
VMCIMCEnum (nillable)	27
AircraftDamageLevelEnum (nillable)	27
LastProficiencyCheckTypeEnum (nillable)	27
AircraftDisposalEnum (nillable).....	27
ETOPSEnum (nillable).....	28
ManufacturerAdvisedEnum (nillable).....	28

Document Revision History

Date	Document Version	Schema Version	Updated by	Description of changes
18.02.2010	Draft	0_1	Marko Esguerra	Initial creation.
25.02.2010	Draft	0_1	Marko Esguerra	Schema structure changed; optional elements changed to have nillable set to true.
03.03.2010	Draft	0_1	Marko Esguerra	Changed occurrence details and investigation as choice elements (either one or both).
15.03.2010	Draft	0_2	Michael Heitland	Further Enums have been added
07.04.2010	Initial	1_0	Michael Heitland	CAAOccurrenceNo has been removed
16.04.2010	Update	1_0	Michael Heitland	RoleCodeEnum.InfoPub added
04.05.2010	Update	1_0	Michael Heitland	<ul style="list-style-type: none"> xs:normalizedString replaced by xs:token. Further enums introduced: FlightRulesEnum, VMC_IMCEnum, LastProficiencyCheckTypeEnum, AircraftDamageLevel, AircraftDisposal Values for DetectionLocationEnum changed: Cargo Terminal, At Freight Forwarder, In Group Transport, Shippers Premises Two descriptors added: 252, 1972
01.06.2010	Update	1_0	Michael Heitland	<ul style="list-style-type: none"> ATACode maxLength corrected to 10 chars. Orders of enum values changed for AircraftDamageLevel, AircraftDisposal and for DescriptorEnums (they are ordered now by ascending group sequence number)
29.06.2010	Update	1_0	Michael Heitland	<ul style="list-style-type: none"> ScheduledEnum annotation (i.e. description) changed from "Scheduled"/"Non-Scheduled" to "Yes/No" PartyName: maxLength changed from 14 to 50 chars to sync it with table
3.08.2010	Update	1_0	Michael Heitland	<ul style="list-style-type: none"> Facet maxLength for ADSBReference increased from 20 to 100 characters Changing type name "VMC_IMC_Enum" to VMCIMCEnum" Adding a new enum "ETOPSEnum" (1 = Yes, 0 = No), replacing ShortValueType Adding a new enum "BirdSpeciesEnum", replacing xs:token Adding a new enum "ATACodeEnum", replacing xs:token Adding a new enum "ManufacturerAdvised" (1 = Yes, 0 = No) to the schema, replacing ShortValueType Enum value "TCAS" removed from TCASAlertEnum, valid values are only "TA" and "RA" Changing the base of all CAA Enums from int to token to make it more consistent: AttributeCauseEnum, ScheduledEnum,

				DomesticEnum, ActionStatusEnum, CauseCategoryEnum
14.10.2010	Update	1_0	Michael Heitland	<ul style="list-style-type: none">Description for ATACode corrected

Related Documents

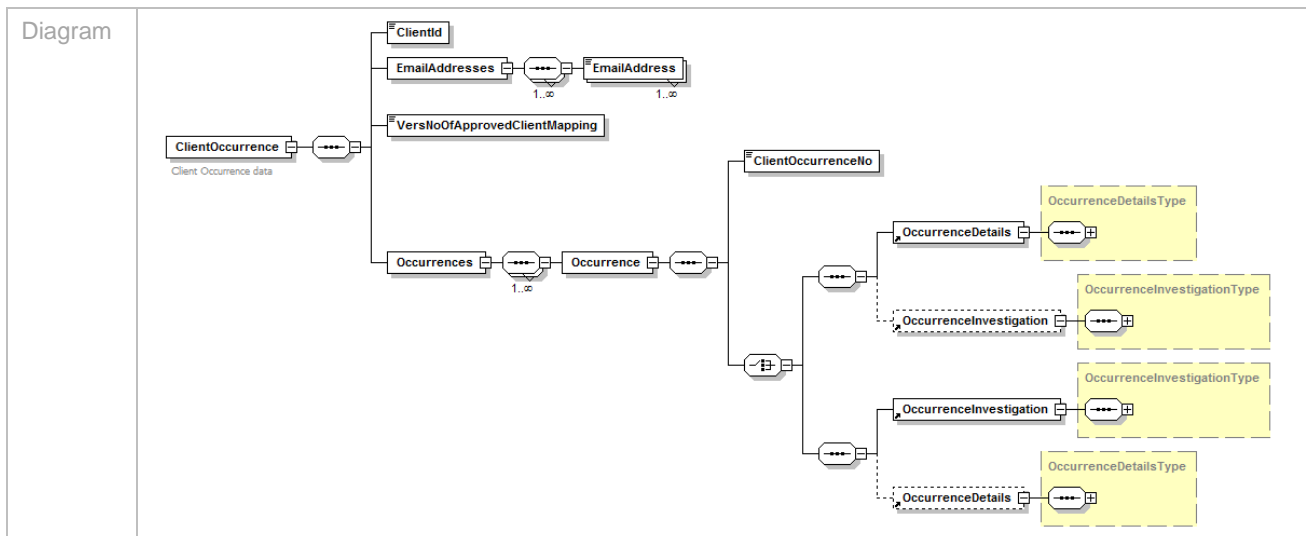
Document	Description

Occurrence Schema

- Schema file - Occurrence.xsd
- Schema version - 1_0
- Namespace - http://caa.govt.nz/Schema/Occurrence_1_0

Client Occurrence

Occurrence data submitted via the AQD must be in the form of an xml file that complies with the ClientOccurrence schema shown below. Each xml file contains occurrences for one client only.



Element Name	Type	Max Size	Notes
ClientOccurrence	Complex type		Client Occurrence data
ClientId	xs:int		Client Id
EmailAddress	xs:token		Must be a valid email address; there must be at least one email address.
Occurrences	Array of occurrence		Occurrence data for this client (identified by the client id). There must be at least one Occurrence data.
ClientOccurrenceNo	xs:token	9	Client occurrence number
OccurrenceDetails	OccurrenceDetailsType		Occurrence details; see Occurrence Details type .
OccurrenceInvestigation	OccurrenceInvestigationType		Occurrence Investigation details; see Occurrence Investigation type .

Occurrence Details Type

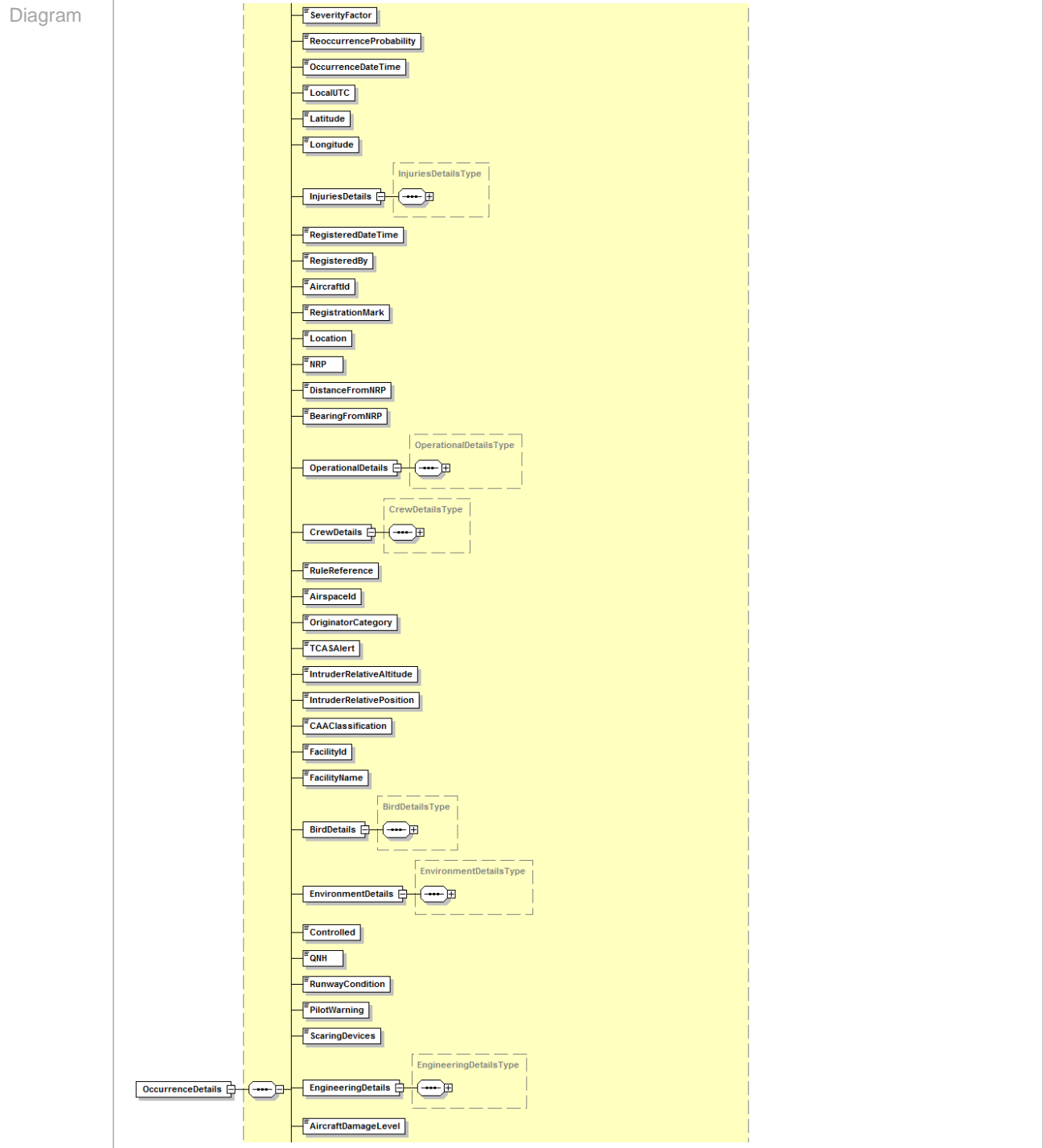


Diagram continued

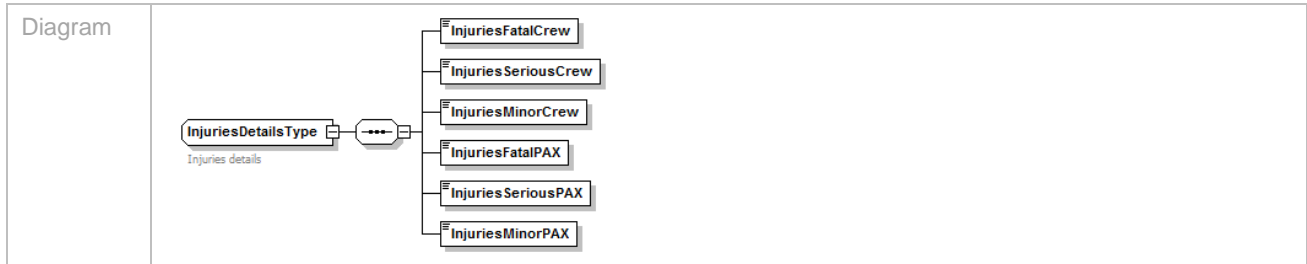


Element Name	Type	Max Size	Notes
SeverityFactor	xs:token	2	See Severity Factor enum
ReoccurrenceProbability	xs:Short		Reserved
OccurrenceDateTime	DateTime		See Common Types
LocalUTC	xs:token	3	See Local UTC enum
Latitude	xs:token	10	
Longitude	xs:token	11	
InjuriesDetails	Complex type		See Injuries Details Type
RegisteredDateTime	DateTime		
RegisteredBy	xs:token	32	
AircraftID	xs:Int		Reserved
RegistrationMark	xs:token	10	
Location	xs:token	50	
NRP	xs:token	5	Nearest Reporting Point
DistanceFromNRP	xs:Float		
BearingFromNRP	xs:Float		
OperationalDetails	Complex type		See Operational Details Type
CrewDetails	Complex type		See Crew Details Type
RuleReference	xs:token	20	
AirspaceId	xs:token	8	
OriginatorCategory	xs:token	2	
TCASAlert	Complex type		See TCASAlertEnum (nillable)
IntruderRelativeAltitude	xs:Float		
IntruderRelativePosition	xs:token	10	
CAAClassification	xs:token	10	
FacilityId	xs:token	5	
FacilityName	xs:token	20	
BirdDetails	Complex type		See Bird Details Type
EnvironmentDetails	Complex type		See Environment Details Type
Controlled	xs:Short		Yes/no??????
QNH	xs:Short		
RunwayCondition	xs:token	15	
PilotWarning	xs:token	6	See PilotWarningEnum (nillable)
ScaringDevices	xs:token	12	See ScaringDevicesEnum (nillable)
EngineeringDetails	Complex type		See Engineering Details Type
AircraftDamageLevel	xs:token	12	
DescriptionOfDamage	xs:token	255	

Element Name	Type	Max Size	Notes
AircraftDisposal	xs:token	8	
PAXBaggageOrCargo	xs:token	1	See PAXBaggageOrCargoEnum (nillable)
ShippersNameAddress	xs:token	160	
ClassOrDivisionUsed	xs:token	25	See ClassOrDivisionUsedEnum (nillable)
CorrectClassOrDivision	xs:token	25	See CorrectClassOrDivisionEnum (nillable)
MaintenanceBase	xs:token	40	
FacilityAircraftAerodrome	xs:token	25	See FacilityAircraftAerodromeEnum (nillable)
DocumentReference	xs:token	20	
PublishedInfoDetails	xs:token	60	
OccurrenceDescription	xs:token	2147483647	Must contain at least 10 characters
DetectionLocation	xs:token	20	See DetectionLocationEnum (nillable)
CAAOcc	xs:Short		
CAAOccReference	xs:token	9	
InternalDefectRef	xs:token	20	
InternalFlightOpsRef	xs:token	20	
CustomType	xs:Short		
DateNotifiedToCAA	DateTime		
DateDetailsToCAA	DateTime		
DateInvestResultsToCAA	DateTime		
ReportToCAA	xs:Short		
ATCTapeRequested	xs:Short		
FDR TapeRequested	xs:Short		
CVRTapeRequested	xs:Short		
ATCAdvised	xs:Short		
AirwayId	xs:token	5	
EngineeringRef	xs:token	20	
Originator	xs:token	50	
OccurrenceTitle	xs:token	80	
AcknowledgementDate	DateTime		
IntruderRelativeDistance	xs:Float		
LastReviewedBy	xs:token	32	
LastReviewedOn	DateTime		
NewData	xs:unsignedByte		Values 0 to 255
InvestigationRequired	xs:unsignedByte		
OccurrenceTypes	Array of OccurrenceType		Array of occurrence types.

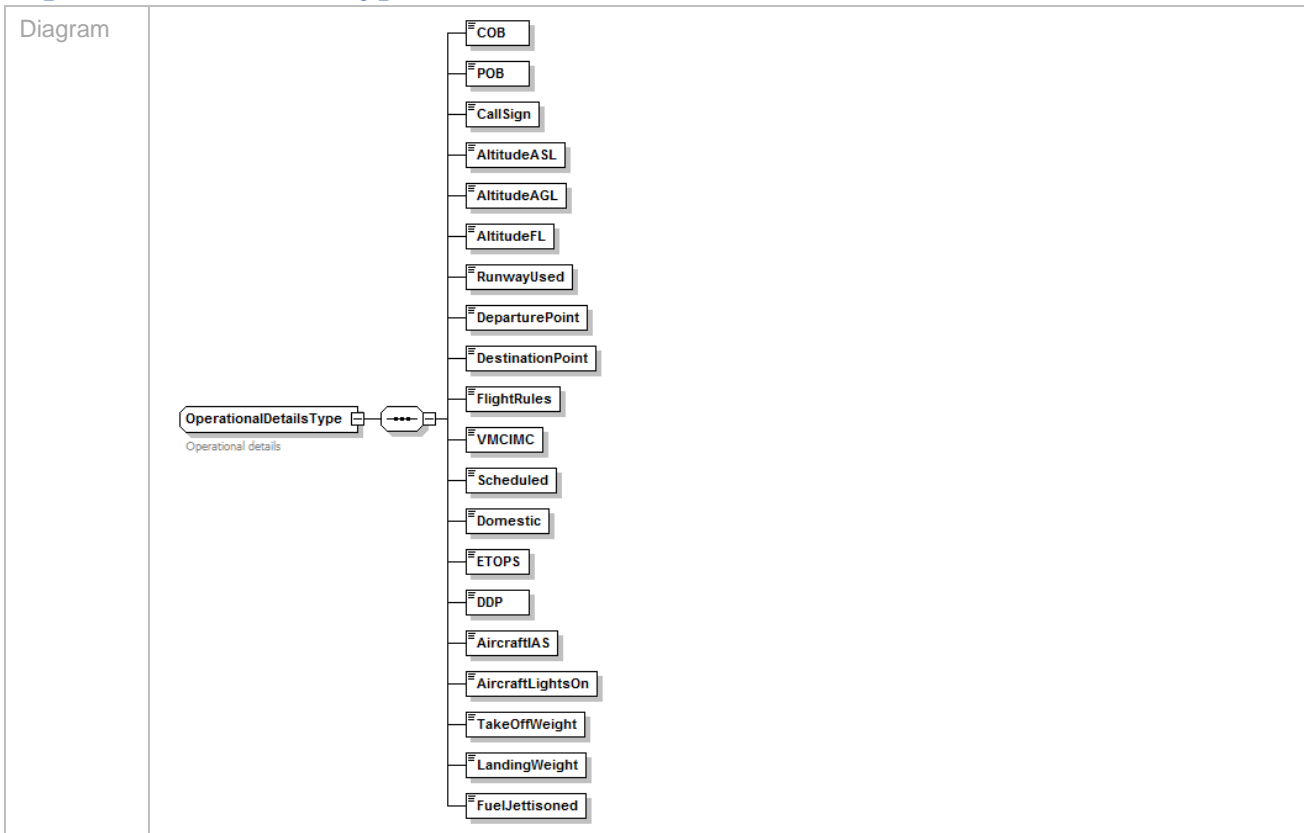
Element Name	Type	Max Size	Notes
OccurrenceType	xs:token	3	Occurrence type code.
OccurrenceDescriptors	Array of Occurrence Descriptor type		Occurrence event descriptors; see Occurrence Descriptor type .
OccurrenceInvolved Parties	Array of Occurrence Involvedtype		Occurrence Involved parties; see Occurrence Involved type .

Injuries Details Type



Element Name	Type	Max Size	Notes
InjuriesFatalCrew	xs:Float		
InjuriesSeriousCrew	xs:Float		
InjuriesMinorCrew	xs:Float		
InjuriesFatalPAX	xs:Float		
InjuriesSeriousPAX	xs:Float		
InjuriesMinorPAX	xs:Float		

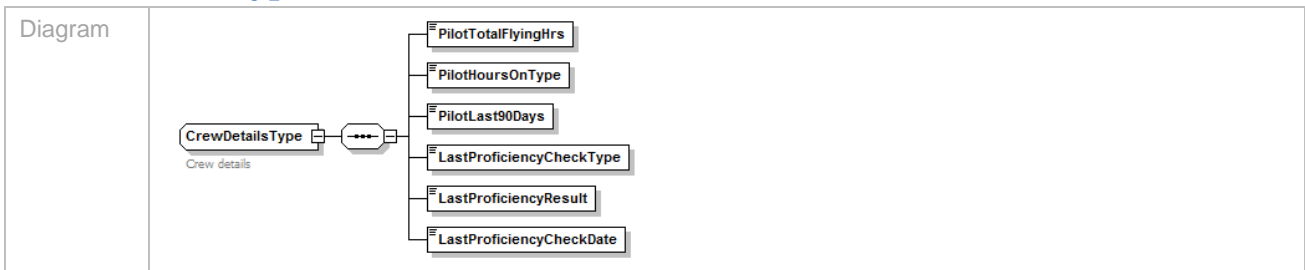
Operational Details Type



Element Name	Type	Max Size	Notes
COB	xs:short		Crew On Board
POB	xs:short		Pax On Board
CallSign	xs:token	10	
AltitudeASL	xs:float		
AltitudeAGL	xs:float		
AltitudeFL	xs:float		
RunwayUsed	xs:token	3	
DeparturePoint	xs:token	20	
DestinationPoint	xs:token	20	
FlightRules	xs:token	3	
VMCIMC	xs:token	3	
Scheduled	xs:short		See Scheduled enum
Domestic	xs:short		See Domestic enum
ETOPS	ETOPSEnum		-1=Yes, 0=No
DDP	xs:short		Yes/No

Element Name	Type	Max Size	Notes
AircraftIAS	xs:float		
AircraftLightsOn	xs:token	10	See AircraftLightsEnum (nillable)
TakeOffWeight	xs:int		Kgs
LandingWeight	xs:int		Kgs
FuelJettisoned	xs:float		Kgs

Crew Details Type



Element Name	Type	Max Size	Notes
PilotTotalFlyingHrs	xs:float		
PilotHoursOnType	xs:float		
PilotLast90Days	xs:float		
LastProficiencyChecktype	xs:token	6	
LastProficiencyResult	xs:short		
LastProficiencyCheckDate	Date		See Common Types

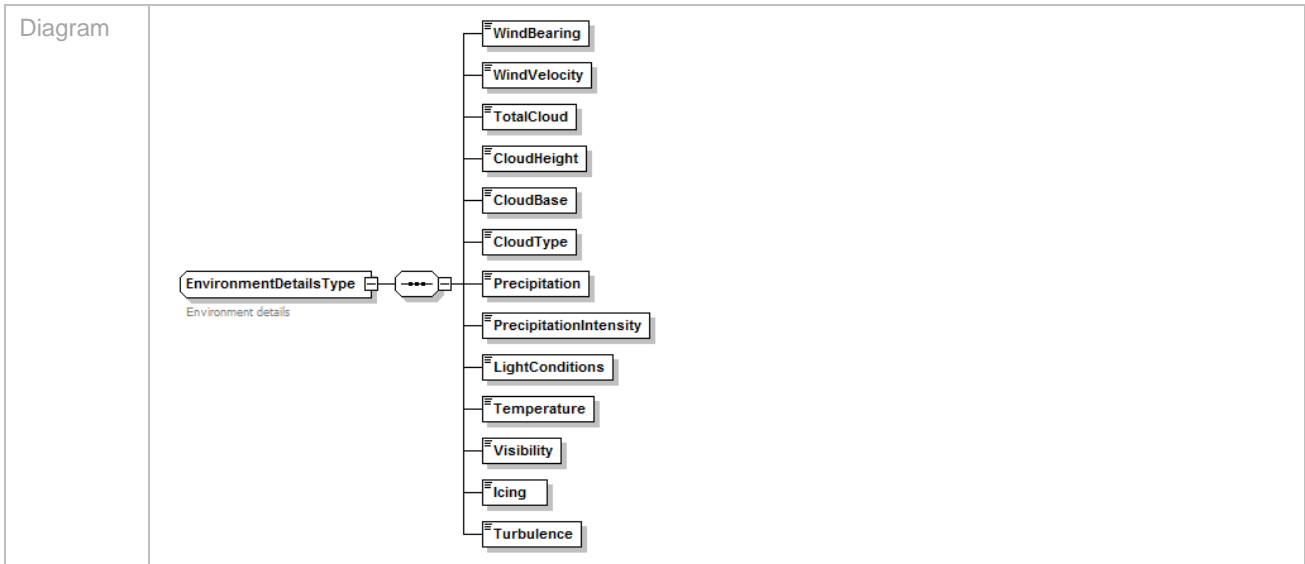
Bird Details Type



Element Name	Type	Max Size	Notes
BirdSpecies	BirdSpeciesEnum		Values are listed in Descriptors.xlsx
BirdSize	xs:short		See BirdSizeEnum (nillable)
BirdNumberSeen	xs:short		See BirdNumberSeenEnum (nillable)

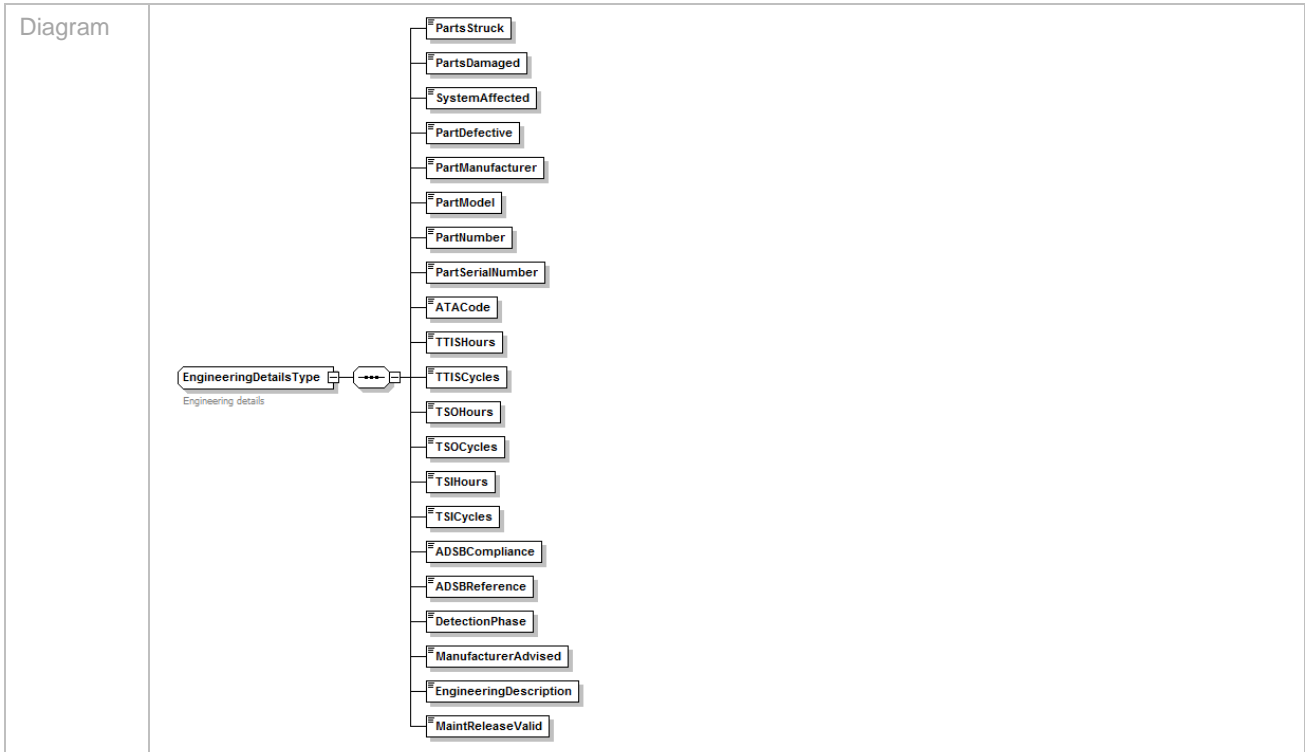
BirdNumberHit	xs:short	See BirdNumberHitEnum (nillable)
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Environment Details Type



Element Name	Type	Max Size	Notes
WindBearing	xs:float		
WindVelocity	xs:float		Knots
TotalCloud	xs:token	5	Octaves
CloudHeight	xs:float		Ft
CloudBase	xs:float		Ft
CloudType	xs:token	15	
Precipitation	xs:token	15	See PrecipitationEnum (nillable)
PrecipitationIntensity	xs:token	10	
LightConditions	xs:token	15	
Temperature	xs:short		Deg C
Visibility	xs:float		
Icing	xs:token	10	
Turbulence	xs:token	10	

Engineering Details Type



Element Name	Type	Max Size	Notes
PartsStruck	xs:token	4	See PartsStruckEnum (nillable)
PartsDamaged	xs:token	4	See PartsDamagedEnum (nillable)
SystemAffected	xs:token	30	
PartDefective	xs:token	30	
PartManufacturer	xs:token	30	
PartModel	xs:token	30	
PartNumber	xs:token	20	
PartSerialNumber	xs:token	20	
ATACode	ATACodeEnum		e.g. pass Descriptor_ID 719 for "2560 05 Emergency Locator Beacon (Elb)", values are listed in Descriptors.xlsx
TTISHours	xs:float		
TTISCycles	xs:float		
TSOHours	xs:float		
TSOCycles	xs:float		
TSIHours	xs:float		
TSICycles	xs:float		
ADSBCompliance	xs:token	2	See ADSBComplianceEnum (nillable)

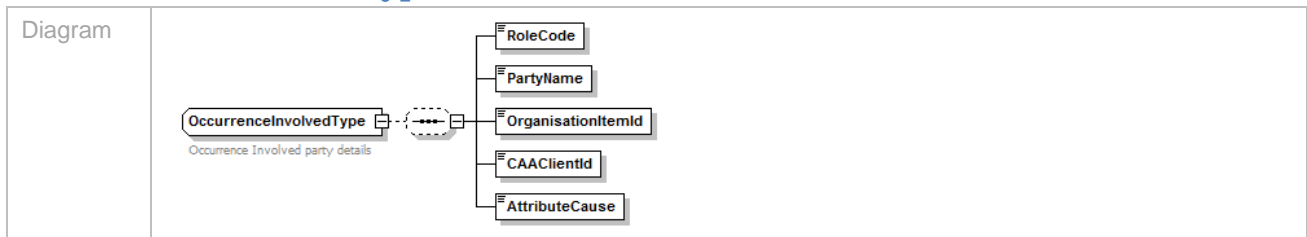
Element Name	Type	Max Size	Notes
ADSBReference	xs:token	100	
DetectionPhase	xs:token	1	See DetectionPhaseEnum (nillable)
ManufacturerAdvised	ManufacturerAdvisedEnum		-1=Yes, 0=No
EngineeringDescription	xs:token	2147483647	
MaintReleaseValid	xs:short		

Occurrence Descriptor Type



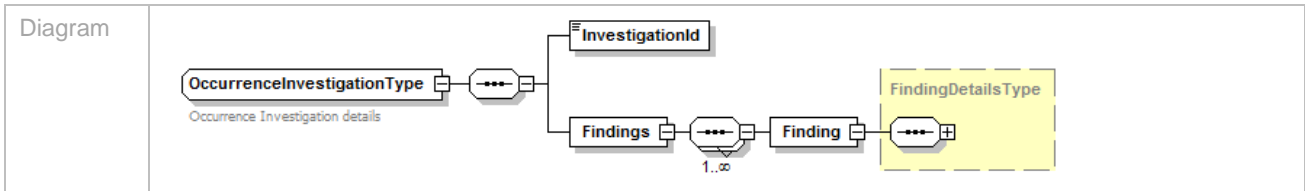
Element Name	Type	Max Size	Notes
DescriptorRepeatCount	xs:short		The repeat count orders the descriptors in the time sequence of events e.g. Engine Failure, Hit Ground, Plane caught fire. In most cases we have only one Descriptor and DescriptorRepeatCount is set to 1.
DescriptorId	xs:int		See Descriptor enum (separate Excel table)

Occurrence Involved Type



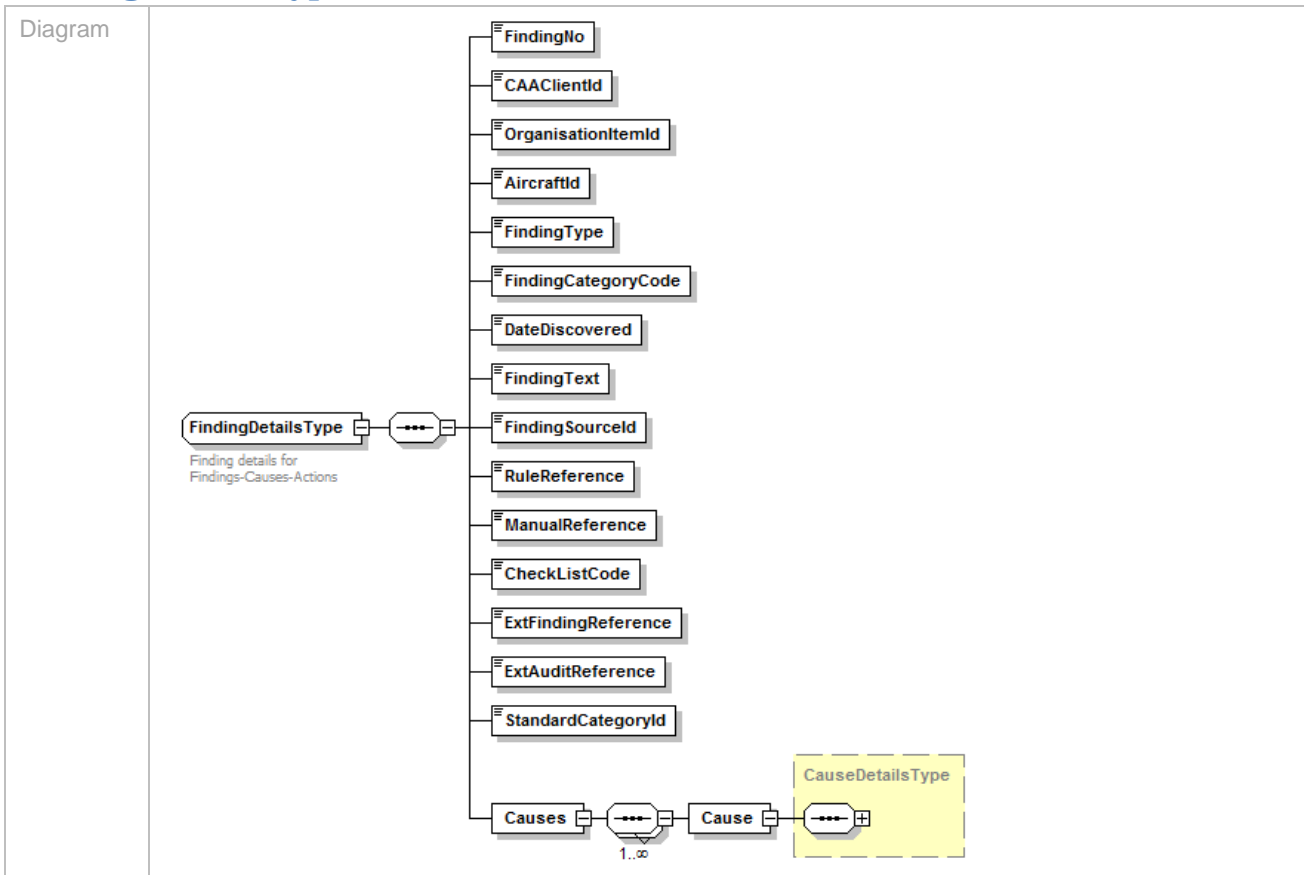
Element Name	Type	Max Size	Notes
RoleCode	xs:token	8	See Role Code enum
PartyName	xs:token	50	Operator Name of Involved Party
OrganisationItemId	xs:int		
CAAClientId	xs:int		
AttributeCause	Complex Type		See Attribute Cause enum

Occurrence Investigation Type



Element Name	Type	Max Size	Notes
InvestigationId	xs:token		Pattern "[0-9]{1,2}/SI/[0-9]{1,}"
Findings	Array of Finding DetailsType		See Finding Details Type

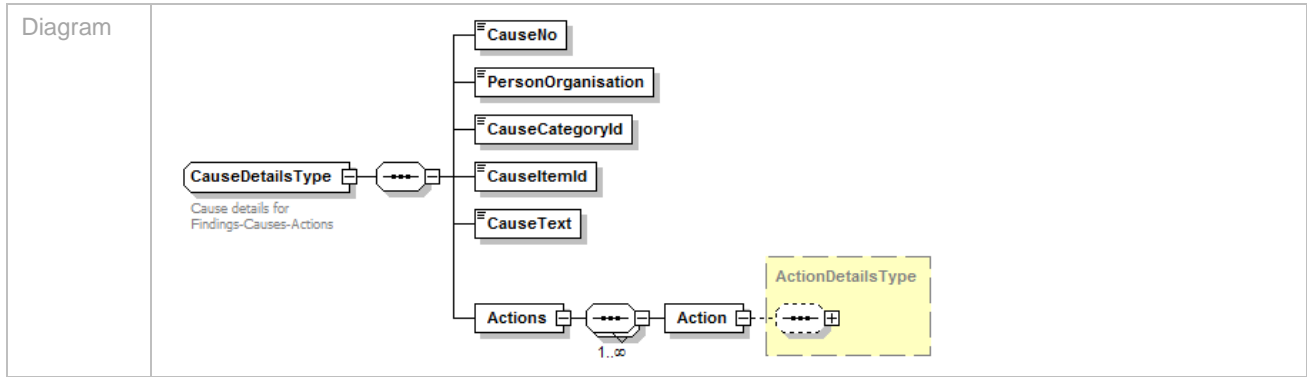
Finding Details Type



Element Name	Type	Max Size	Notes
FindingNo	xs:token	9	
CAAClientId	xs:int		
OrganisationItemId	xs:int		
AircraftId	xs:int		
FindingType	xs:token	2	See Finding Type enum
FindingCategoryCode	xs:token	3	See Finding Category Code enum
DateDiscovered	Date		See Common Types
FindingText	xs:token	2147483647	Must contain at least 10 characters
FindingSourceId	xs:short		
RuleReference	xs:token	50	
ManualReference	xs:token	50	
CheckListCode	xs:token	15	
ExtFindingReference	xs:token	9	
ExtAuditReference	xs:token	14	
StandardCategoryId	xs:short		

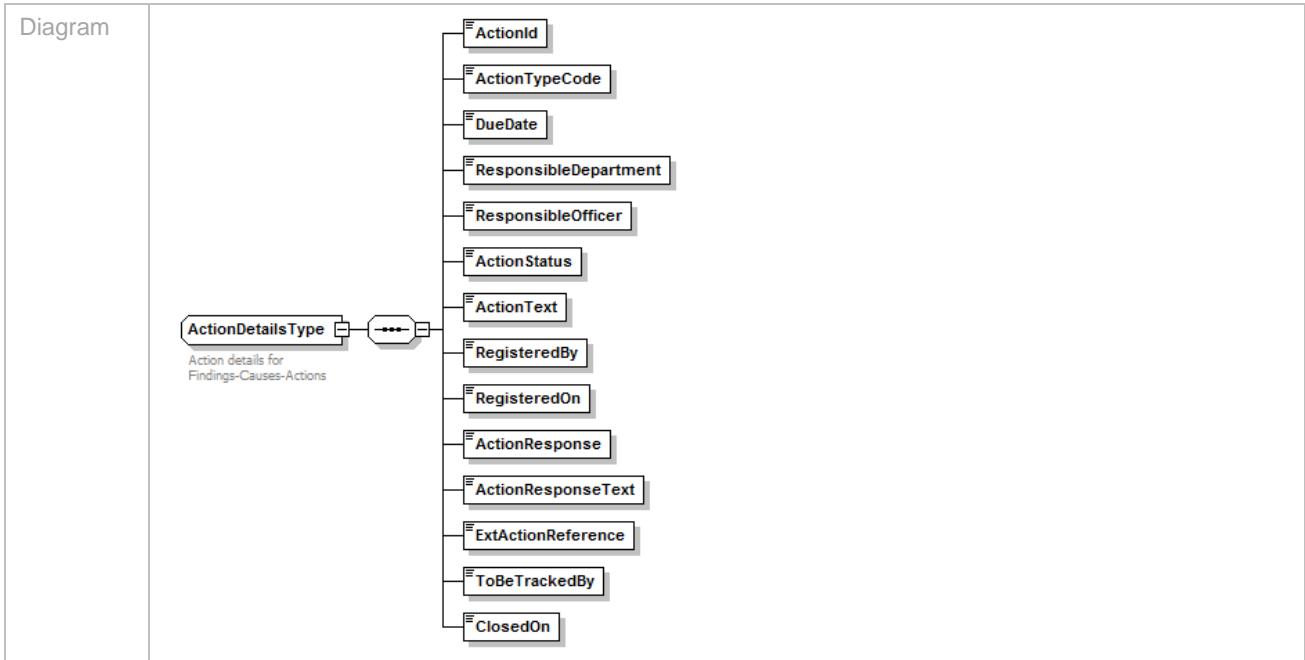
Element Name	Type	Max Size	Notes
Causes	Array of Cause DetailsType		See Cause Details Type

Cause Details Type



Element Name	Type	Max Size	Notes
CauseNo	xs:int		
PersonOrganisation	xs:int		See Descriptor enum (separate Excel table)
CauseCategoryld	xs:short		See Cause Category Id enum
CauseItemld	xs:int		See Descriptor enum (separate Excel table)
CauseText	xs:token	255	
Actions	Array of Action DetailsType		See Action Details Type

Action Details Type



Element Name	Type	Max Size	Notes
ActionId	xs:token	9	
ActionTypeCode	xs:token	3	See Action Type code enum
DueDate	Date		
ResponsibleDepartment	xs:int		
ResponsibleOfficer	xs:int		
ActionStatus	xs:short		See Action Status enum
ActionText	xs:token		Must contain at least 10 characters
RegisteredBy	xs:token	32	
RegisteredOn	Date		
ActionResponse	xs:short		
ActionResponseText	xs:token		
ExtActionReference	xs:token	9	
ToBeTrackedBy	xs:short		
CloseOn	Date		

Common Types

Element Type	Description
xs:token	String, where newline, tab and carriage-return characters are converted to space characters before schema processing. Adjacent space characters are collapsed to a single space character, and leading and trailing spaces are removed.
DateTime	xs:datetime in the form ccyy-mm-ddThh:mm:ss.t
Date	xs:date in the form ccyy-mm-dd
xs:int	Valid values from -2147483648 to 2147483647
xs:short	Integer values from -32768 to 32767
xs:float	Floating point values from -3.402823e+038 to 3.402823e+038

RoleCodeEnum (not nillable)

facets	Enumeration	Description
	ACOwnr	Aircraft owner
	Aerodme	Aerodrome operator
	ATSUnit	ATS Unit seems to be used instead of ATS Provider
	FacProv	Facility Provider
	MaintOrg	Maintenance Organisation
	Operator	Operator
	Pilot	Pilot
	ProfChk	Last Proficiency Check By
	InfoPub	Information Publisher

AttributeCauseEnum (not nillable)

facets	Enumeration	Description
	0	No
	1	Yes

SeverityFactorEnum (nillable)

facets	Enumeration	Description
	CR	Critical
	MA	Major
	MI	Minor

LocalUTCEnum (not nillable)

facets	Enumeration	Description
	DT	New Zealand daylight saving time
	ST	New Zealand standard time
	UTC	Coordinated universal time

ScheduledEnum (nillable)

facets	Enumeration	Description
	1	Yes
	2	No

DomesticEnum (nillable)

facets	Enumeration	Description
	1	Domestic flight
	2	International flight

OccurrenceTypeEnum (not nillable)

facets	Enumeration	Description
	ACC	Accident
	ADI	Aerodrome incident
	ARC	Aviation related concern
	ASP	Airspace incident
	BRD	Bird
	CSI	Cargo security incident
	DEF	Defect
	DGD	Dangerous goods
	HGA	Hang glider accident
	INC	Incident
	NIO	Navigational installation occurrence
	NRO	Non-reportable occurrence
	PAA	Parachute accident
	PIO	Promulgated information occurrence
	SEC	Security occurrence

ActionTypeCodeEnum (nillable)

facets	Enumeration	Description
	COR	Corrective action
	PRE	Preventive action
	REC	Recommendation

ActionStatusEnum (nillable)

facets	Enumeration	Description
	1	Open
	2	Closed
	3	Cancelled
	4	Recheck

CauseCategoryIdEnum (nillable)

facets	Enumeration	Description
	1295	Organisation failure
	1314	Local error
	1344	Local violation
	1359	Active failure

FindingTypeEnum (nillable)

facets	Enumeration	Description
	CR	Critical
	MA	Major
	MI	Minor

FindingCategoryCodeEnum (nillable)

facets	Enumeration	Description
	NCF	Non-conformance with exposition
	NCP	Non-compliance with rule
	OBS	Observation
	SRC	Safety related concern

TCASAlertEnum (nillable)

facets	Enumeration	Description
	TA	TA
	RA	RA

BirdSizeEnum (nillable)

facets	Enumeration	Description
	1	Small
	2	Medium
	3	Large

BirdNumberSeenEnum (nillable)

facets	Enumeration	Description
	1	1
	2	2 – 10
	3	11 – 100
	4	100+

BirdNumberHitEnum (nillable)

facets	Enumeration	Description
	1	1
	2	2 – 10
	3	11 – 100
	4	100+

PartsDamagedEnum (nillable)

facets	Enumeration	Description
	ENG	ENG
	FUSE	FUSE
	WING	WING
	ROTR	ROTR
	U/C	U/C
	PROP	PROP
	WSHD	WSHD
	TAIL	TAIL
	MISC	MISC
	NK	NK
	OTHR	OTHR
	NIL	NIL

PartsStruckEnum (nillable)

facets	Enumeration	Description
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ENG	ENG
FUSE	FUSE
WING	WING
ROTR	ROTR
U/C	U/C
PROP	PROP
WSHD	WSHD
TAIL	TAIL
MISC	MISC
NK	NK
OTHR	OTHR

PrecipitationEnum (nillable)

facets	Enumeration	Description
	NIL	NIL
	FG	FG
	RA	RA
	RASH	RASH
	DZ	DZ
	SN	SN

AircraftLightsEnum (nillable)

facets	Enumeration	Description
	Yes	Yes
	No	No
	N/A	N/A
	Unknown	Unknown

PilotWarningEnum (nillable)

facets	Enumeration	Description
	Verbal	Verbal
	NOTAM	NOTAM
	ATIS	ATIS

ScaringDevicesEnum (nillable)

facets	Enumeration	Description
	Vehicle	Vehicle
	Shooting	Shooting
	Pyrotechnics	Pyrotechnics
	Gas Gun	Gas Gun
	Falcon	Falcon
	NIL	NIL

DetectionLocationEnum (nillable)

facets	Enumeration	Description
	Cargo Terminal	Cargo Terminal
	At Freight Forwarder	At Freight Forwarder
	In Group Transport	In Group Transport
	Shippers Premises	Shipper's Premises

PAXBaggageOrCargoEnum (nillable)

facets	Enumeration	Description
	P	Baggage
	C	Cargo

ClassOrDivisionUsedEnum (nillable)

facets	Enumeration	Description
	Explosives	Explosives
	Gases	Gases
	Flammable Liquids	Flammable Liquids
	Flammable Solids	Flammable Solids
	Oxidising Substances	Oxidising Substances
	Organic Peroxides	Organic Peroxides
	Poisonous Substances	Poisonous Substances
	Infectious Substances	Infectious Substances
	Radioactive Material	Radioactive Material
	Corrosives	Corrosives
	Unknown	Unknown
	Other	Other

CorrectClassOrDivisionEnum (nillable)

facets	Enumeration	Description
	Explosives	Explosives
	Gases	Gases
	Flammable Liquids	Flammable Liquids
	Flammable Solids	Flammable Solids
	Oxidising Substances	Oxidising Substances
	Organic Peroxides	Organic Peroxides
	Poisonous Substances	Poisonous Substances
	Infectious Substances	Infectious Substances
	Radioactive Material	Radioactive Material
	Corrosives	Corrosives
	Unknown	Unknown
	Other	Other

ADSBComplianceEnum (nillable)

facets	Enumeration	Description
	AD	AD
	SB	SB

DetectionPhaseEnum (nillable)

facets	Enumeration	Description
	S	Scheduled Maintenance
	U	Unscheduled Maintenance

FacilityAircraftAerodromeEnum (nillable)

facets	Enumeration	Description
	Aerodrome	Aerodrome
	Terminal	Terminal
	Aircraft	Aircraft
	Aircraft Operator	Aircraft Operator
	Air Traffic Service	Air Traffic Service
	Aero Telcom Facility	Aero Telcom Facility
	Other	Other

FlightRulesEnum (nillable)

facets	Enumeration	Description
	VFR	Visual Flight Rules
	IFR	Instrument Flight Rules

VMCIMCEnum (nillable)

facets	Enumeration	Description
	VMC	Visual Meteorological Conditions
	IMC	Instrument Meteorological Conditions

AircraftDamageLevelEnum (nillable)

facets	Enumeration	Description
	Nil	Nil
	Minor	Minor
	Substantial	Substantial
	Destroyed	Destroyed
	Missing	Missing
	Other	Other

LastProficiencyCheckTypeEnum (nillable)

facets	Enumeration	Description
	BFR	Biennial Flight Review
	IFR	Instrument Rating Renewal
	SIXMTH	6 Month Flight Competency

AircraftDisposalEnum (nillable)

facets	Enumeration	Description
	Repair	Repair
	Writeoff	Writeoff
	Other	Other
	Unknown	Unknown

ETOPSEnum (nillable)

facets	<i>Enumeration</i>	<i>Description</i>
	1	Yes
	0	No

ManufacturerAdvisedEnum (nillable)

facets	<i>Enumeration</i>	<i>Description</i>
	1	Yes
	0	No