

## **Department of Homeland Security**

## **Domestic Nuclear Detection Office**



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### **NIEM Chemical, Biological, Radiological and Nuclear Domain Master Document**

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## Change History

The following table indicates the changes that were made to this document since its last release. Note: version number is formed to correspond to the IEPD version number as follow:

MajorVersionNumber.MinorVersionNumber.BuildNumber.

New Version	Modified By	Section	Page	Change Made
2.1.43	W. R. Wright	All	All	Initial Release of this document

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# 1 CBRN Domain Overview

## 1.1 Purpose

This document provides details of the CBRN Domain that is the primary source of reusable XML elements used in construction of exchange schemas for N.25 messages and other messages as required.

## 1.2 CBRN Domain

The CBRN Domain is an NIEM-conformant schema intended to be the baseline definition of business objects required to support data interchange needs of the chemical, biological, radiation, and nuclear detection and interdiction mission area. This release is focused on the radiation/nuclear mission. The domain will be extended in future versions as needed to support the chemical/biological mission. The initial domain definition has been developed by analysis of existing data specifications specific to radiation detection devices and messaging: ANSI N42.42, ASP ICD1 and 2, HPRDS ICD1 and 2, and N.25.

The N.25 set of message standards are currently maintained and used by the CBP TASPO SFI (secure freight initiative) program to integrate data from various radiation detection devices, and to subsequently analyze and integrate the data to determine the likelihood that illicit nuclear or radiological materials are present, and to provide other relevant data from operational detection sites. Adoption of these messages by State and Local authorities has also begun.

The data types and elements defined in these specifications have been integrated and harmonized to create this domain, and converted for NIEM conformance. Specific N.25 message formats, such as the RadiationDevice message, are tailored subsets of the CBRN Domain schema. The domain previously was harmonized with the NIEM International Trade domain. With this version, a three-way harmonization with the Maritime Awareness domain and International Trade domain has been accomplished.

Additionally, the CBRN Domain has been used as input for the development of a new version of ANSI Standard N42.42 that will increase the flexibility and applicability of N42.42 while reducing complexity and ambiguity. Once the N42.42 standard has been formally released, this CBRN domain will be harmonized with it.

The CBRN Domain provides the primary Reference Schema for the N.25 IEP (Information Exchange Package).

## 1.3 Versions

Modifications to the CBRN Domain schema will be made from time to time based on new and changed requirements. The versioning approach will follow the guidance provided in the NIEM High Level Version Architecture document. Once a version is released, it is frozen and will persist unchanged. Any changes will be placed in the next version of the schema. The schema version and its dependencies on other NIEM schema versions are identified in a header section in the schema XSD file. All versions of the documentation will be published and made available depending upon security restrictions. The Department of Homeland Security (DHS) Enterprise Data Management Office (EDMO) will maintain an accessible copy of the most current version of the documentation.

## 1.4 Domain Artifacts

The CBRN domain is a set of digital data files contained in a standard directory structure. The files comprise two types of artifacts:

- Reusable technical documentation, principally XML schemas
- Business, reference and supporting documentation

The following table lists the CBRN Domain artifacts.

**Table 1. CBRN Domain Artifacts**

Name	Description
CBRNCL.xsd	CBRN Code Lists Schema – provides the code lists referenced by the CBRN schema and message schemas.
CBRN-e.xsd	CBRN Domain Schema – integrated and harmonized schema providing the superset of elements required by messages/file formats for the CBRN Domain. At this time this is principally the N.25 IEPD.
CBRN-ec.xsd	Provides the constrained version of the CBRN Domain schema.
CBRN Domain Master Document.pdf	Documentation for the CBRN Domain. Provides a detailed listing of the types, elements, and attributes of the domain schema.
CBRN Master Model	XML-based model containing the master source definitions of the types and properties of the CBRN domain. (Trous Architect kmv file)

## 2 Reference Documentation

The following table lists the reference documents for the CBRN Domain schema.

**Table 2. Reference Documents**

Document Type	Date	Document Title
Version Management		NIEM High Level Version Architecture (draft)
Configuration Management		CBRN Domain Community of Interest Charter

## 3 CBRN Domain

### 3.1 Purpose

The purpose of the CBRN Domain is to provide a library of standard, reusable NIEM-conformant xml components for use in constructing interoperable IEPs (Information Exchange Packages) in support of the world-wide CBRN Detection and Interdiction mission. This domain is used to:

- Provide the primary source of data elements and attributes for the N.25 IEP.
- Provide a source of standard components for other IEPs where there is a need for data components that have been defined in the CBRN domain.

It is anticipated that in the near future the CBRN Domain will be extended with additional data elements and attributes to support the chemical and biological detection and interdiction mission.

## 3.2 Background

The initial release of the CBRN Domain schema occurred with NIEM v2.1. This release was based on the Build 41 of the domain master model. Thus the version number was v2.1.41. Subsequent to the release of NIEM 2.1, the domain was harmonized with the International Trade Domain, and then with the Maritime Domain. The harmonized baseline model is Build 43. This version of the schema is contained in the CBRN Domain Publication Area. Future releases prior to NIEM v3 will also be contained in the Publication Area.

## 3.3 Domain Constraint Schema

Since the CBRN Domain schema is used as the primary Reference schema for the N.25 IEPD, it also exists in the form of a constraint schema. The constrained domain schema is identified by the suffix “-ec” to the XSD file name. The unconstrained schema applies the suffix “-e” to the XSD file name. The constraint schema is maintained in the CBRN Domain Publication Area.

## 3.4 Domain Governance

The CBRN Domain is governed by the CBRN Domain Community of Interest (COI). The COI is chartered by DHS with membership of organizations that are users of the CBRN Domain.

# 4 Domain Model

The CBRN Domain schema is generated automatically from the domain model, which is maintained in object model form using software tool capability named “IEPD Factory”. This tool was developed by DHS/DNDO by extending and adding capability to a commercial visual modeling tool, Trough Architect. This is addressed in more detail in Section 11, Tools and Methodologies, of the N.25 IEPD Master Document Volume 1. The tables of elements, attributes and types that follow in this document are also generated from this domain model. The CBRN Domain Data Model is maintained in the “IEPD Factory” as the configuration managed baseline for the domain.

## 4.1 Data Types

This section provides a listing of all data types declared in the CBRN Domain and their descriptions.

<b>Data Type</b>	<b>Definition</b>
AcknowledgementDataType	A data type for information regarding an acknowledgement.
AcknowledgingAgencyType	A data type for an Organization that is responsible for generating an acknowledgement message.
AlgorithmType	A data type for an algorithm
AlgorithmVersionType	A data type for an algorithm version.
ArrayXYType	A data type that defines a two-dimensional array of numbers and (optionally) their uncertainty values.
BearingOffsetMeasureType	A data type for a measurement of the angular relationship between an origin and a target point. The first value is the elevation, ie, the vertical offset angle from the horizontal plane of the ellipsoid. An angle above the horizontal is positive and below the horizontal is negative. The second value is azimuth, ie, the horizontal offset angle. A clockwise offset is positive and counterclockwise is negative. The offset angles are measured from a expected bearing that is defined as the bearing from the origin to where the target is expected to be directly in front of the origin. The two offset values measure the angular offset from the expected bearing to the actual bearing, where actual is where the target is estimated to actually be.
BooleanListSimpleType	A data type for a white space-delimited list of boolean.
BooleanListType	A data type for a white space-delimited list of boolean.
CBRNECaseType	A data type for an aggregation of information about activities and events associated with detection and interdiction of CBRNE threats.
CBRNEEncounterDeviceType	A data type for information about an encounter device used for detection/identification of illicit or illegal materials. A device may have assemblies/components, and may be assembled into systems. Thus a device has a configuration level to identify where it lies in assembly structure.
CalibrationNuclideType	A data type to identify a source Nuclide for a calibration.
CaseRelationshipType	A data type for a relationship between two cases.
CaseSetType	A data type for a set of cases that are related in some manner.
CaseStatusType	A data type for status information regarding a case.
CoefficientsType	A data type that provides a list of the values of the coefficients of an Equation. The first value is term 0, the second term 1, and so forth.
ContentHeaderType	A data type for information about the contents of a message.
ConveyanceAugmentationType	A data type for additional information about a conveyance.
ConveyanceConveyanceRelationshipType	A data type for a relationship between two conveyances; for example, a trailer towed by a truck, or a container on a trailer or railcar. A set of relationships in the same time period define a set of conveyances that are connected together, such as a truck towing three trailers.
ConveyanceIDReferenceType	A data type for a reference identifier for a conveyance.
ConveyanceOrgRelationshipType	A data type for a relationship between a conveyance and an organization.
ConveyanceRegistrationAugmentationType	A data type to provide additional information about a conveyance registration.
ConveyanceRegistrationType	A data type for an applied augmentation for type nc:ConveyanceRegistrationType.
ConveyanceType	A data type for an applied augmentation for type nc:ConveyanceType.

Data Type	Definition
CoordinatesListType	A data type for geographic coordinates consisting of time of coordinate determination, latitude, longitude, and (optional) elevation relative to the ellipsoid. Data is provided as a list of 4-tuples, with each tuple providing dateTime of a coordinates reading, latitude, longitude, and elevation. DateTime is in ISO 8601 format. Latitude and longitude are in decimal degrees with a period (.) as the decimal separator. Elevation is an optional fourth value in the list, and is the height above sea level of the point on earth given by the latitude and longitude. There must be at least one tuple. A colon (:) separates the values in a tuple, and a space separates the tuples if there is more than one tuple.
CountDoseDataType	A data type that provides the measurement data from a count dose-capable encounter device.
DataFileCaptureType	A data type that provides information about the recording of a digital data file.
DataFileMetadataType	A data type for providing metadata about a digital data file.
DataFileSequenceType	A data type providing information on a subset of data within a digital data file.
DataFileType	A data type that provides information for a digital data file and optionally the data file itself. This type applies to digital data files of any content and encoding method.
DecimalListSimpleType	A data type for a white space-delimited list of decimal.
DecimalListType	A data type for a white space-delimited list of decimal.
DetectionEventAlarmDataType	A data type for alarm data.
DetectionEventAnalysisResultsType	A data type for detection event analysis results.
DetectionEventAnalyzedMeasurementDataType	A data type that identifies the processed measurement data on which an assessment was performed.
DetectionEventAssessmentType	A data type for information about the analysis and assessment of the data collected in a Detection Event. This can be automated data from a device and/or from human operators.
DetectionEventDeviceDataType	A data type that provides the data and/or references to the related data files collected by the device(s) that are used during a Detection Event.
DetectionEventType	A data type for the set of all data collected during an Event that involves the inspection of an Item(s) for the purpose of detecting the presence of illicit goods and materials. This includes data collected by the device(s) used to perform the detection as well as information input by operator(s) involved in the detection activities that the event involves. A detection event can occur in many venues, such as a CBP Port of Entry, a USCG boarding, a state operated weigh station on a US highway, and a general aviation inspection at an airport in Mexico or Canada.
DetectionEventUserEntryDataType	A data type that provides user/operator data entries relevant to the Detection Event, for identification of the measured item, its shielding, and operator comments.
DeviceDeviceRelationshipType	A data type for defining a relationship between two devices. Note that a device may have assemblies/components, and may be assembled into systems. Thus a device has a configuration level to identify where it lies in assembly structure. This relationship type is used to both an assembly level configuration as well as connectivity between separate devices/systems.
DeviceIdentifierType	A data type to provide information regarding a device that performed a radiation scan.
DeviceParameterType	A data type for a readable and-or settable parameter of a device.
DeviceQualityControlType	A data type for an encounter device's quality control information.
DoubleListSimpleType	A data type for a white space-delimited list of double.
DoubleListType	A data type for a white space-delimited list of double.
DoubleType	A data type for a double precision real value.

Data Type	Definition
DoubleUncType	A data type for a list of double with length of 2, where the first item in the list is the value and the second is the 1-sigma absolute total uncertainty (i.e., including all sources of uncertainty) in the value. An uncertainty value of 0 means unknown.
EncounterDeviceConfigurationType	A data type to provide the configuration parameters of a device.
EncounterDeviceLocationType	A data type for geometric data regarding the location of a measuring encounter device, and location of the measured item with respect to the location of the measuring encounter device.
EncounterDeviceOperatorCommentsType	A data type for encounter device operator comments for general purpose devices employed in an encounter.
EncounterDeviceProbeType	A data type for a encounter device's probe.
EncounterDeviceStatusType	A data type for the status of an encounter device.
EncounterDeviceVersionType	A data type that provides version identification information on an encounter device.
EncounterRelationshipType	A data type that provides a means to define a relationship between two objects involved in an encounter.
EquationType	A data type that describes a mathematical equation and its coefficients. The type of the equation is given by the equationKind attribute. The coefficients of the equation are supplied by the EquationCoefficients element; the values of the covariance matrix may be supplied by the EquationCovarianceMatrix. It is recommended that the data from which the equation coefficients were derived be made available as an ArrayXY type so that the coefficients for a different model could be derived.
FileSetMemberType	A data type identifying a member of a file set.
FileSetType	A data type for a logical collection of digital data files that are related in some manner.
GeographicCoordinatesType	A data type for geographic coordinates consisting of latitude, longitude, and (optional) elevation relative to the ellipsoid.
GrossCountDataType	A data type that provides the measurement data from a gross count-capable encounter device (e.g., gamma or neutron).
IdentificationConfidenceType	A data type for characterizing the confidence that an identification is correct.
InspectionDataType	A data type for information regarding an inspection of an item of interest.
LayerType	A data type for a shielding layer.
MapGuideLocationType	A data type for location information based on a Guide map published by a vendor.
MeasuredItemIdentificationType	A data type for an identifier of a measured item.
MeasuredItemType	A data type for a measured item that is the subject of a detection event.
MessageContentErrorType	A data type that provides information about the point in the xml payload content of a message where an error occurred in processing the message.
MessageErrorType	A data type that describes a message error.
MessageOriginOrDestinationType	A data type for identifying a message origin or destination.
MessageStatusType	A data type for a message to provide success or error feedback on a message that has been received.
NonLinearityCorrectionType	A data type that identifies the nonlinearities in the correlation between the energy and channel number for the type of encounter device named.
NonNegativeIntegerListSimpleType	A data type for a white space-delimited list of nonnegative integers.
NonNegativeIntegerListType	A data type for a white space-delimited list of nonnegative integers.
NuclideActivityMeasureType	A data type for a measurement of nuclide activity.
NuclideEstimatedShieldingType	A data type to provide information on shielding based on analysis of the spectral data.
NuclideIdentificationType	A data type for information about a nuclide.

<b>Data Type</b>	<b>Definition</b>
NuclideType	A data type for a nuclide.
ParameterSetListType	A data type for a set of parameters and their values as a pair of lists.
ParameterSetPairType	A data type for a set of parameters and their values as a pair of strings.
ParameterSetType	A data type for a set of parameters and their values.
PhotonDataType	A data type for the photon properties of a radiographic device.
PhotopeakDataType	A data type for photopeak information analyzed from a gamma ray spectrum.
PhotopeakNuclideType	A data type to identify the nuclide associated with the photopeak energy.
PointXYType	A data type that provides a pair of values for a data point, and optionally their uncertainties.
PositiveIntegerListSimpleType	A data type for a white space-delimited list of positive integers.
PositiveIntegerListType	A data type for a white space-delimited list of positive integers.
PositiveIntegerType	A data type for a positive integer.
ProcessedGrossCountDataType	A data type that provides net count rate data resulting from processing a set of raw gross counts to prepare it for analysis and assessment.
ProcessedSpectrumDataType	A data type to provide spectral data resulting from processing a set of raw spectra to prepare it for analysis and assessment.
ProcessedSpectrumImageType	A data type for an image of processed spectral data.
RadAbsorbedDoseMeasureType	A data type for radiation absorbed dose measurements.
RadAbsorbedDoseRateMeasureType	A data type for a radiation absorbed dose rate measurements.
RadCountRateMeasureType	A data type for a radiation count rate measurements.
RadDoseRateMeasureType	A data type for a radiation dose rate measurements.
RadEncounterDeviceCalibrationType	A data type that provides information on the calibration of an encounter device.
RadEncounterDeviceProcessedDataType	A data type for detection event measurement data that has been summed/processed for input to analysis algorithm(s).
RadEncounterDeviceRawDataType	A data type that provides the data measured by a spectroscopic, gross count, or count dose encounter device. There may be more than one instance of encounter device data, based on the measurement time slices in the Detection Event. In addition, an instance may provide background or calibration data.
RadEncounterMeasurementType	A data type that provides the measurement data collected by an encounter device during a detection event.
RadExposureMeasureType	A data type for radiation exposure measurements.
RadExposureRateMeasureType	A data type for radiation exposure rate measurements.
RadIDoseMeasureType	A data type for radiation dose measurements.
ReachbackDataType	A data type for information regarding Reachback.
RelativePositionType	A data type for defining a point in a local 3-dimensional cartesian coordinate system.
ReportType	A data type for a report provided on an unsolicited basis; ie, not in response to a request message (Pull), but by Push from the entity providing the report.
RequestAgencyType	A data type to identify the source of a request message.
RequestDataType	A data type to provide metadata about a request.
ResponseReportType	A data type for a report provided in response to a request message.
ScanIdentifierDataType	A data type that provides identification data about a scan.
SecondaryInspectionReferralType	A data type for information regarding a secondary inspection referral.
SecondaryInspectionResolutionType	A data type for information regarding the resolution of a secondary inspection of an item of interest.
ShieldingType	A data type for describing the shielding that has been applied to an item.

Data Type	Definition
SiteLocationType	A data type to provide information about the location of a site.
SpatialOrientationMeasureType	A data type for the spatial orientation of an item with respect to True North, the horizontal axis, and the vertical axis; i.e, pitch, yaw, and roll.
SpectrumChannelDataType	A data type that provides the spectrum measurement values as counts by channel for the entire spectrum or a region of interest. The first channel number shall always be 0.
SpectrumDataType	A data type that provides measurement data from a spectroscopic-capable encounter device.
StringListSimpleType	A data type for a white space-delimited list of string.
StringListType	A data type for a white space-delimited list of string.
SystemEventType	A data type for basic data elements of a system event for audit reporting purposes.
TemplateRankedNuclideType	A data type for reporting a Nuclide considered but not selected as a correct identification.
TemplateRankingDataType	A data type to provide ranking of nuclides from a template library that have been identified as candidates for the correct nuclide(s) in a spectrum, and their confidence of correct identification. The list of nuclides should be in descending order of Z number.
ThreeDimensionalGeographicCoordinateType	A data type for a location identified by latitude, longitude, and elevation. All coordinate values provide +/- degrees, minutes and seconds, where degrees is restricted to 00 (inclusive) to 90 (exclusive), and minutes and seconds are restricted to 00 (inclusive) to 60 (exclusive). Fractional values are permitted.
TraversalType	A data type for the end-to-end workflow of a conveyance through an encounter process. One or more detection events occur during a traversal.
VelocityMeasureType	A data type for a velocity measurement.
<b>The following types are contained in the codelist schema.</b>	
AlarmAcknowledgementCodeType	
AlarmAcknowledgementCodeSimpleType	
AlarmDescriptionCodeType	
AlarmDescriptionCodeSimpleType	
BinarySubjectCodeType	
BinarySubjectCodeSimpleType	
CalibrationKindCodeSimpleType	This entity provides an enum list of Calibration types.
CaseKindCodeType	
CaseKindCodeSimpleType	
CasePriorityCodeType	
CasePriorityCodeSimpleType	
CaseRelationshipKindCodeType	
CaseRelationshipKindCodeSimpleType	
CaseRequestCodeType	
CaseRequestCodeSimpleType	
CaseResponseCodeType	
CaseResponseCodeSimpleType	
CaseStatusCodeType	
CaseStatusCodeSimpleType	
CaseThreatLevelCodeType	
CaseThreatLevelCodeSimpleType	
ChannelDataListModeCodeSimpleType	The type of spectrum measurement.

Data Type	Definition
CompressionCodeSimpleType	The algorithm (if any) by which data has been compressed.
ConfidenceCodeType	
ConfidenceCodeSimpleType	
ConfigStatusKindCodeType	
ConfigStatusKindCodeSimpleType	
ConveyanceBoundForCodeType	
ConveyanceBoundForCodeSimpleType	
ConveyanceColorCodeType	
ConveyanceColorCodeSimpleType	
ConveyanceKindCodeType	
ConveyanceKindCodeSimpleType	
ConveyanceOrgRelationshipKindCodeType	
ConveyanceOrgRelationshipKindCodeSimpleType	
ConveyanceRelationshipKindCodeType	
ConveyanceRelationshipKindCodeSimpleType	
CoordinatesMethodCodeType	
CoordinatesMethodCodeSimpleType	
CredentialsAuthenticatedCodeType	
CredentialsAuthenticatedCodeSimpleType	
DataFormatCodeSimpleType	A type for identifying the data format specification that has been used to structure an output data file from a device.
DataQualityCodeSimpleType	Data quality
DetectionEventCategoryCodeSimpleType	A type for the categories of detection events.
DetectionEventKindCodeSimpleType	A type for the kinds of detection events.
DeviceRelationshipKindCodeType	
DeviceRelationshipKindCodeSimpleType	
DeviceRelationshipStatusCodeType	
DeviceRelationshipStatusCodeSimpleType	
DisplayObjectKindCodeType	
DisplayObjectKindCodeSimpleType	
EncounterDeviceCategoryCodeType	
EncounterDeviceCategoryCodeSimpleType	
EncounterDeviceCategoryLevelCodeType	
EncounterDeviceCategoryLevelCodeSimpleType	
EncounterDeviceHealthStatusCodeType	
EncounterDeviceHealthStatusCodeSimpleType	
EncounterDeviceProbeKindCodeType	
EncounterDeviceProbeKindCodeSimpleType	
EnergyCalibrationAdjustCodeType	
EnergyCalibrationAdjustCodeSimpleType	
EquationKindCodeType	
EquationKindCodeSimpleType	
GNDAOrgCodeType	
GNDAOrgCodeSimpleType	
IdAcquisitionMethodCodeType	
IdAcquisitionMethodCodeSimpleType	
ImagePerspectiveCodeType	
ImagePerspectiveCodeSimpleType	
InspectionActivityCodeType	

Data Type	Definition
InspectionActivityCodeSimpleType	
InspectionResolutionCodeType	
InspectionResolutionCodeSimpleType	
InspectionThreatFindingCodeType	
InspectionThreatFindingCodeSimpleType	
ItemDispositionStatusCodeType	
ItemDispositionStatusCodeSimpleType	
LayerMaterialKindCodeType	
LayerMaterialKindCodeSimpleType	
MapGuideBrandCodeType	
MapGuideBrandCodeSimpleType	
MeasuredItemIDKindCodeType	
MeasuredItemIDKindCodeSimpleType	
MeasuredItemKindCodeType	
MeasuredItemKindCodeSimpleType	
MessageKindCodeType	
MessageKindCodeSimpleType	
MessagePriorityCodeType	
MessagePriorityCodeSimpleType	
MessageStatusCodeType	
MessageStatusCodeSimpleType	
MIMEContentCodeType	
MIMEContentCodeSimpleType	
MIMEEncodingCodeType	
MIMEEncodingCodeSimpleType	
NuclideActivityUnitsCodeSimpleType	enumeration list for InspectionTypes
NuclideCategoryCodeType	
NuclideCategoryCodeSimpleType	
NuclideCodeType	
NuclideCodeSimpleType	
PhotonSourceCodeType	
PhotonSourceCodeSimpleType	
RadAbsorbedDoseRateUnitsCodeSimpleType	This entity provides an enum list of Absorbed Dose Units.
RadAbsorbedDoseUnitsCodeSimpleType	This entity provides an enum list of Absorbed Dose Units.
RadAlarmKindCodeType	
RadAlarmKindCodeSimpleType	
RadAlarmLightCodeType	
RadAlarmLightCodeSimpleType	
RadCountRateUnitsCodeSimpleType	This entity provides an enum list of Count Rate Units.
RadDoseRateUnitsCodeSimpleType	This entity provides an enum list of Dose Units.
RadDoseUnitsCodeSimpleType	This entity provides an enum list of Dose Units.
RadEncounterDeviceModeCodeSimpleType	The operating mode of an encounter devi
RadEncounterDeviceOperatingCodeSimpleType	Identifies the operational state of a device; ie, enabled for live data collection/measurements or in a "simulated data" state.
RadEnergyUnitsCodeSimpleType	This entity provides an enum list of Energy Units.
RadExposureRateUnitsCodeSimpleType	This entity provides an enum list of Exposure Units.
RadExposureUnitsCodeSimpleType	This entity provides an enum list of Exposure Units.
RadFWHMUnitsCodeSimpleType	This entity provides an enum list of FWHM (Full Width at Half-Maximum) (i.e., resolution) units.

Data Type	Definition
RadSourceKindCodeType	
RadSourceKindCodeSimpleType	
ReachbackRecommendationCodeType	
ReachbackRecommendationCodeSimpleType	
ReachbackRequestCodeType	
ReachbackRequestCodeSimpleType	
RequestScopeCodeType	
RequestScopeCodeSimpleType	
ScanQualityCodeType	
ScanQualityCodeSimpleType	
SecondaryInspectionKindCodeType	
SecondaryInspectionKindCodeSimpleType	
SecondaryInspectionReferralReasonCodeType	
SecondaryInspectionReferralReasonCodeSimpleType	
SecurityCodeType	
SecurityCodeSimpleType	
SpectrumKindCodeSimpleType	Spectrum type
ThreatLevelDeterminationCodeType	
ThreatLevelDeterminationCodeSimpleType	
TraversalOperatingModeCodeType	
TraversalOperatingModeCodeSimpleType	
VersionKindCodeType	
VersionKindCodeSimpleType	

## 4.2 Domain Data Elements and Attributes

This section provides a listing of all data elements and attributes declared in the CBRN Domain and their descriptions and data types. The elements and attributes are organized by the Containing Data Types, which are ordered alphabetically. The elements and attribute names are listed in the column labeled “Property”. Attributes are distinguished by the number 0 in the Seq (sequence) column and the fact that all attribute names begin with a lower case letter.

Container Type	Seq	Property	Data Type	Property Description
	0.1	BinaryUTF8Object	string	A binary encoding of data in UTF8 form.
	0.1	Conveyance	ConveyanceType	Applied augmentation for type nc:ConveyanceType
	0.1	ConveyanceRegistration	ConveyanceRegistrationType	Applied augmentation for type nc:ConveyanceRegistrationType
	0.1	CoordinateSet	GeographicCoordinatesType	Geographical coordinates as individually tagged coordinate values.
	0.1	DeviceParameterValueIndicator	boolean	A parameter value where the value kind is boolean.
	0.1	EmployeeIdentifier	string	Identifier for a person in the form of an employee id.
	0.1	EncounterDeviceID	string	A device identifier that is specific to its deployment site or operating organization. There is no required format for the ID value.
	0.1	ItemSpectrumID	string	Identifier for a spectrum measurement, where RadSourceKindCode is Item or Other. There is no required format for the ID value.
	0.1	ParameterSetList	ParameterSetListType	A set of parameters and their values.
	0.1 1	DeviceParameterValueListText	string	A parameter value where the value kind is List.
	0.1 2	DeviceParameterValueListName	string	The name of the enumeration list that contains a parameter's valid values.
	0.2	ActivityUserLogonID	string	Identifier for a person in the form of a person's system access (logon) id.

Container Type	Seq	Property	Data Type	Property Description
	0.2	CalibrationSpectrumID	string	Identifier of a calibration spectrum. Applies only if the RadSourceKindCode for the spectrum is Calibration-baseline or Calibration-update. A spectrum that refers to a CalibrationSpectrumID must have a RadSourceKindCode of Item or Other. There is no required format for the ID value.
	0.2	ConfidencePointValue	MeasurePointValueType	A specific confidence value.
	0.2	EncounterDeviceMfgID	string	A device identifier that is assigned by the manufacturer, typically a serial number. There is no required format for the ID value.
	0.2	ParameterSetPair	ParameterSetPairType	A set of parameters and their values.
	0.3	BackgroundSpectrumID	string	Identifier for a spectrum measurement, where RadSourceKindCode is Background. There is no required format for the ID value.
	0.3	ConfidenceRangeValue	MeasureRangeValueType	The minimum and maximum value range in which a ConfidencePointValue is expressed.
	0.3	ContactPersonName	PersonNameType	Identifier for a contact person in the form of a person's actual name.
	0.3	CoordinateList	CoordinatesListType	Geographical coordinates as a list of 4-tuples, with each tuple providing dateTime of the coordinates reading, latitude, longitude, and elevation. DateTime is in ISO 8601 format. Latitude and longitude are in decimal degrees with a period (.) as the decimal separator. Elevation is an optional fourth value in the list, and is the height above sea level of the point on earth given by the latitude and longitude. There must be at least one tuple. A colon (:) separates the values in a tuple, and a space separates the tuples if there is more than one tuple.

Container Type	Seq	Property	Data Type	Property Description
	0.3	EncounterDeviceAssetID	string	A device identifier that may be assigned by an organization for asset/property management and maintenance services. There is no required format for the ID value.
	0.4	ConfidenceCode	ConfidenceCodeType	A confidence value expressed as a descriptive adjective.
	0.6	DeviceParameterValueText	string	A parameter value where the value kind is string.
	0.7	DeviceParameterPointValue	decimal	A parameter value where the value kind is decimal.
	0.8	DeviceParameterMaxValue	decimal	The maximum valid value to which a parameter may be set.
	0.9	DeviceParameterMinValue	decimal	The minimum valid value to which a parameter may be set.
	1	AcknowledgementData	AcknowledgementDataType	Information regarding an acknowledgement.
	1	BooleanList	BooleanListType	A white space-delimited list of boolean values.
	1	CBRNECase	CBRNECaseType	An aggregation of information about activities and events associated with detection and interdiction of CBRNE threats.
	1	CaseSet	CaseSetType	A set of cases that are related in some manner.
	1	ConveyanceConveyanceRelationship	ConveyanceConveyanceRelationshipType	Description of a relationship between two conveyances.
	1	ConveyanceOrgRelationship	ConveyanceOrgRelationshipType	Description of a relationship between a conveyance and an organization.
	1	DetectionEvent	DetectionEventType	The set of all data collected during an Event that involves the inspection of an Item(s) for the purpose of detecting the presence of illicit goods and materials. This includes data collected by the device(s) used to perform the detection as well as information input by operator(s) involved in the detection activities that the event involves. A detection event can occur in many venues, such as a CBP Port of Entry, a USCG boarding, a state operated weigh station on a US highway, and a general aviation inspection at an

Container Type	Seq	Property	Data Type	Property Description
				airport in Mexico or Canada.
	1	DeviceDeviceRelationship	DeviceDeviceRelationshipType	Description of a relationship between two devices.
	1	DeviceIdentifierData	DeviceIdentifierType	Identification information for a device.
	1	EncounterRelationship	EncounterRelationshipType	Description of a relationship between two objects involved in an encounter.
	1	FileSet	FileSetType	A logical collection of digital data files that are related in some manner.
	1	InspectionData	InspectionDataType	Information regarding an inspection of an item of interest.
	1	MessageContentHeader	ContentHeaderType	Common payload header information for a N25 message. This is independent of a specific transmission protocol that may be used to wrap the payload.
	1	MessageStatus	MessageStatusType	Provides success or error feedback on a message that has been received.
	1	PhotonData	PhotonDataType	Data providing the photon properties of a radiographic device.
	1	PositiveIntegerList	PositiveIntegerListType	A white space-delimited list of positive integers.
	1	ReachbackData	ReachbackDataType	Information regarding Reachback.
	1	RemarkText	TextType	Text of a remark.
	1	Report	ReportType	A report provided on an unsolicited basis; ie, not in response to a request message (Pull), but by Push from the entity providing the report.
	1	ResponseReport	ResponseReportType	A report provided in response to a request.
	1	ScanIdentifierData	ScanIdentifierDataType	Identification data about a scan of an item of interest using a detection device.

Container Type	Seq	Property	Data Type	Property Description
	1	SecondaryInspectionReferral	SecondaryInspectionReferralType	Information regarding a secondary inspection referral for an item of interest.
	1	SecondaryInspectionResolution	SecondaryInspectionResolutionType	Information regarding the resolution of Secondary Inspection of an item of interest.
	1	SiteLocation	SiteLocationType	Information about the location of a site.
	1	SystemEvent	SystemEventType	Basic data elements of a system event for audit reporting purposes.
	1	Traversal	TraversalType	The end-to-end workflow of a conveyance through an encounter process. One or more detection events may occur during a traversal.
	1	UserName		A data concept for a name used to identify a user who enters data or performs a function on an information system.
AcknowledgementDataType	1	AcknowledgementID	string	Identifier of an acknowledgement.
AcknowledgementDataType	2	AcknowledgementDateTime	dateTime	Date/time an acknowledgement was generated.
AcknowledgementDataType	4	AcknowledgingAgency	AcknowledgingAgencyType	An organization that is responsible for generating an acknowledgement message.
AcknowledgementDataType	5	AcknowledgingActivityName	string	Name of the activity that produced an acknowledgement. This property can be used to provide data for workflow coordination by the sending or receiving systems.
AcknowledgementDataType	6	ScanIdentifierData	ScanIdentifierDataType	Information regarding the item associated with an acknowledgement.
AcknowledgementDataType	7	CredentialsAuthenticatedCode	CredentialsAuthenticatedCodeType	Credentials authentication verification.
AcknowledgementDataType	8	TraversalOperatingModeCode	TraversalOperatingModeCodeType	Traversal operating mode associated with an acknowledgement.
AcknowledgingAgencyType	1	AcknowledgingAgencyCode	GNDAOrgCodeType	Organization that is responsible for generating an acknowledgement.
AlgorithmType	0	parameterSetID	string	Locally-scoped identifier referencing the parameter set used with an analysis algorithm.
AlgorithmType	1	AlgorithmName	string	Name of an algorithm.
AlgorithmType	2	AlgorithmVersion	AlgorithmVersionType	Version of an algorithm.
AlgorithmType	3	AlgorithmDescriptionText	TextType	Description of an algorithm.

Container Type	Seq	Property	Data Type	Property Description
AlgorithmType	4	AlgorithmCreatorName	ProperNameTextType	Name of the organization that created an algorithm.
AlgorithmVersionType	0	algorithmTechnicalVersionText	string	The version identifier of the technical specification of the algorithm that was used in a physical implementation.
AlgorithmVersionType	1	VersionKindCode	VersionKindCodeType	A kind of physical implementation of a version, e.g., software, firmware, hardware, other. If "other", this should be explained in the algorithm description.
AlgorithmVersionType	2	AlgorithmImplementationVersionID	string	External identifier of the physical implementation version of an algorithm. There is no required format for the ID value.
AlgorithmVersionType	3	AlgorithmVersionReleaseDate	date	The release date of an algorithm version implementation.
AlgorithmVersionType	4	AlgorithmVersionDescriptionText	TextType	Description of an algorithm version
ArrayXYType	2	PointXY	PointXYType	A single two dimensional - i.e., (X,Y) - data point.
ArrayXYType	3	XDescriptionText	TextType	Text description of the first dimension's data.
ArrayXYType	4	YDescriptionText	TextType	Text description of the second dimension's data.
BearingOffsetMeasureType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the validity of the data.
BearingOffsetMeasureType	1	AzimuthOffset	DecimalListType	The azimuth offset angle from an expected bearing to the actual bearing. Angular measurement is in degrees minutes seconds. A clockwise angle is positive and counterclockwise is negative.
BearingOffsetMeasureType	2	ElevationOffset	DecimalListType	The elevation offset angle from an expected bearing to the actual bearing . Angular measurement is in degrees minutes seconds. An angle above the expected bearing is positive and below is negative.
CBRNECaseType	2	CaseUUID	string	A universally unique identifier for a case.
CBRNECaseType	3	CaseKindCode	CaseKindCodeType	A kind of case.
CBRNECaseType	4	CasePriorityCode	CasePriorityCodeType	A priority of a case.

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Container Type	Seq	Property	Data Type	Property Description
CBRNECaseType	5	CaseThreatLevelCode	CaseThreatLevelCodeType	The threat level represented by the activities or items represented by the case.
CBRNECaseType	6	CaseStatus	CaseStatusType	Information on the status of a case.
CBRNECaseType	7	CaseStartDateTime	dateTime	The date and time a case was initiated.
CBRNECaseType	8	CaseWindowStartDateTime	dateTime	DateTime for the time window start for a BOLO kind of case.
CBRNECaseType	9	CaseWindowEndDateTime	dateTime	DateTime for the time window end for a BOLO kind of case.
CBRNECaseType	10	CaseEventDateTime	dateTime	Date and time of the first detection event associated with the case.
CBRNECaseType	12	CaseClosedIndicator	boolean	True if a case is closed; false otherwise.
CBRNECaseType	13	CaseLocationDescription	TextType	A description of the locale or location associated with a case when it was initiated. For a case that is a collection of cases, may describe a route or involved locations/locales.
CBRNECaseType	16	CaseMetadata	DataFileMetadataType	Metadata information about a case.
CBRNECaseType	17	CaseRequestCode	CaseRequestCodeType	A description of a kind of Case request.
CBRNEncounterDeviceType	0	radEncounterDeviceModeCode	RadEncounterDeviceModeCodeSimpleType	The operating mode of an encounter device. Note: does not apply to subassemblies/components of a device.
CBRNEncounterDeviceType	0	radEncounterDeviceOperatingCode	RadEncounterDeviceOperatingCodeSimpleType	Identifies the operational state of the device; ie, enabled for live data collection/measurements or in a "simulated data" state. Note: does not apply to subassemblies/components of a device.
CBRNEncounterDeviceType	2	EncounterDeviceCategoryCode	EncounterDeviceCategoryCodeType	Description of a kind of encounter device.
CBRNEncounterDeviceType	3	EncounterDeviceCategoryLevelCode	EncounterDeviceCategoryLevelCodeType	Description of the configuration level of a kind of encounter device; ie, system, device, or component.
CBRNEncounterDeviceType	6	EncounterDeviceIdentification		A data concept for an encounter device's identification.
CBRNEncounterDeviceType	7	EncounterDeviceVersion	EncounterDeviceVersionType	Version identification information for an encounter device.
CBRNEncounterDeviceType	8	EncounterDeviceStatus	EncounterDeviceStatusType	Status information for an encounter

Container Type	Seq	Property	Data Type	Property Description
				device.
CBRNEncounterDeviceType	9	EncounterDeviceConfiguration	EncounterDeviceConfigurationType	Encounter device configuration parameters.
CBRNEncounterDeviceType	10	EncounterDeviceProbe	EncounterDeviceProbeType	Identifies the kind of probe used by an encounter device.
CBRNEncounterDeviceType	11	EncounterDeviceQualityControl	DeviceQualityControlType	Describes the quality control status of an encounter device.
CalibrationNuclideType	1	NuclideCode	NuclideCodeType	Name of a source Nuclide used in a calibration.
CalibrationNuclideType	2	NuclideSourceID	string	Identifier of the Nuclide source item. There is no required format for the ID value.
CaseRelationshipType	1	RelatedCaseUUID	string	The identifier of a case that is related in some manner to a case of interest.
CaseRelationshipType	2	CaseRelationshipKindCode	CaseRelationshipKindCodeType	The kind of relationship between two cases.
CaseRelationshipType	3	CaseRelationshipDescriptionText	string	A description of the nature, reason, status, etc of the relationship.
CaseSetType	1	CaseOfInterestUUID	string	The identifier of a case of interest to which another case is related.
CaseSetType	2	CaseSetQuantity	nonNegativeInteger	The quantity of cases contained in a Case, or otherwise related to a Case.
CaseSetType	3	RelatedCase	CaseRelationshipType	A case that is related to a case of interest.
CaseStatusType	1	CaseStatusCode	CaseStatusCodeType	A status of a case.
CaseStatusType	2	CaseStatusDateTime	dateTime	DateTime a status was reported.
CaseStatusType	3	CaseStatusIssuerCode	GNDAOrgCodeType	Organization reporting a case status.
CoefficientsType	0	subEquationNumeric	positiveInteger	Index of the subequation to which a set of coefficients applies.
ContentHeaderType	1	MessageID	string	The message identifier associated with a message content. There is no required format for the ID value.
ContentHeaderType	2	MessageCreationDateTime	dateTime	The timestamp associated with the creation of a message content header.
ContentHeaderType	3	MessageDispatchDateTime	dateTime	The timestamp associated with the dispatch of a message content and its header to a messaging service.
ContentHeaderType	4	MessageKindCode	MessageKindCodeType	The kind of message content associated with a content header.
ContentHeaderType	5	MessagePriorityCode	MessagePriorityCodeType	Priority of the message content associated with a content header.

Container Type	Seq	Property	Data Type	Property Description
ContentHeaderType	6	MessageOrigin	MessageOriginOrDestinationType	Facility, site, or organization id and/or name from which a message content originated.
ContentHeaderType	7	MessageDestination	MessageOriginOrDestinationType	the identifier and/or name of a facility, site, or organization(s) that is(are) the destination of a message.
ContentHeaderType	8	MessageVersionText	string	The version of the message content kind associated with a content header.
ConveyanceAugmentationType	1	ConveyanceKindCode	ConveyanceKindCodeType	Identifier of the kind of a conveyance. For example: Ship, Airplane, Truck, etc.
ConveyanceAugmentationType	2	ConveyanceWeightDescriptionText	TextType	If there are multiple ways to describe conveyance weight, such as gross weight, axle weight, etc., this element is used to provide the description that is applicable to the value provided by the Conveyance weight measure.
ConveyanceConveyanceRelationshipType	1	ConveyanceRelationshipOriginID	ConveyanceIDReferenceType	Identifier of the conveyance that is the start/origin of the relationship. By convention, the start of the relationship is the conveyee and the end of the relationship is the conveyor; for example a trailer is conveyed by a tractor, or a container is conveyed by a vessel or a trailer.
ConveyanceConveyanceRelationshipType	2	ConveyanceRelationshipTargetID	ConveyanceIDReferenceType	Identifier of the conveyance that is the end/target of the relationship. By convention, the end of the relationship is the conveyor and the start of the relationship is the conveyee.
ConveyanceConveyanceRelationshipType	3	ConveyanceRelationshipKindCode	ConveyanceRelationshipKindCodeType	Kind of conveyance relationship; for example, contained in/on, or connected to.
ConveyanceConveyanceRelationshipType	4	ConveyanceSequenceNumber	positiveInteger	Identifies the position of the conveyee if there is more than one associated with the same conveyor during the same period of time. For example, for a truck consisting of a tractor with two trailers, the first trailer would have a sequence number of one.

Container Type	Seq	Property	Data Type	Property Description
ConveyanceOrgRelationshipType	1	ConveyanceIdentification	ConveyanceIDReferenceType	Identification of the conveyance that is associated with an organization.
ConveyanceOrgRelationshipType	3	ConveyanceOrgRelationshipKindCode	ConveyanceOrgRelationshipKindCodeType	Description of the kind of relationship between the conveyance and organization. For example, an aircraft may have an owner, operator, leasee, etc.
ConveyanceRegistrationAugmentationType	2	ConveyancePrimaryColorCode	ConveyanceColorCodeType	The primary color of a conveyance. Identifies a single, upper-most, front-most, or majority color of a conveyance.
ConveyanceRegistrationAugmentationType	3	ConveyanceSecondaryColorCode	ConveyanceColorCodeType	The secondary color of a conveyance. Identifies a lower-most or rear-most color of a two-tone conveyance or a lesser color of a multi-colored conveyance.
ConveyanceRegistrationType	1	ConveyanceRegistrationAugmentation	ConveyanceRegistrationAugmentationType	Data from the official registration of a conveyance with an authority.
ConveyanceType	1	ConveyanceAugmentation	ConveyanceAugmentationType	Information describing a tangible item that is used to transport goods and/or persons from one location to another location; e.g., ship, airplane, vehicle, train, pipeline.
CoordinatesListType	0	datum	string	Spatial reference system in which the coordinates are stated. Default is WGS-84.
CoordinatesListType	0	units	string	Unit of measure for elevation values. If not stated, default is meters.
CountDoseDataType	0	calibrationMeasurementUUID	string	Identifier of a calibration that applies to a Count Dose measurement.
CountDoseDataType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the validity of the data.
CountDoseDataType	2	DetectorDesignatorText	string	A description of the detector used to produce a measurement. Must use naming convention defined in the relevant specification document.
CountDoseDataType	3	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
CountDoseDataType	4	LiveTimeDuration	duration	Effective duration (i.e., live time) of a count dose measurement in ISO 8601 format.

Container Type	Seq	Property	Data Type	Property Description
CountDoseDataType	5	RadCountRateValues	RadCountRateMeasureType	A list of count rate values from a radiation dose rate detector.
CountDoseDataType	6	RadCountValues	NonNegativeIntegerListType	A list of raw counts from a radiation dose rate detector.
CountDoseDataType	7	RadDoseRateValues	RadDoseRateMeasureType	A list of radiation dose rate values presented in dose units per hour (e.g. rem/hr, Sv/hr).
CountDoseDataType	8	RadTotalDoseValues	RadIDoseMeasureType	A list of total (accumulated) radiation dose values.
CountDoseDataType	9	RadAbsorbedDoseRateValues	RadAbsorbedDoseRateMeasureType	A list of radiation absorbed dose rate values presented in absorbed dose units per hour (e.g. rad/hr, mGy/hr).
CountDoseDataType	10	RadTotalAbsorbedDoseValues	RadAbsorbedDoseMeasureType	A list of total (accumulated) radiation absorbed dose values.
CountDoseDataType	11	RadExposureRateValues	RadExposureRateMeasureType	A list of radiation exposure rate values presented in exposure units per hour (e.g. R/hr, uR/hr).
CountDoseDataType	12	RadTotalExposureValues	RadExposureMeasureType	A list of total (accumulated) radiation exposure values.
CountDoseDataType	13	RefCalibrationSpectrumID	string	Reference to a calibration spectrum. There is no required format for the ID value.
DataFileCaptureType	1	FileCaptureStartTime	dateTime	Date/time when recording of the data in a digital data began (in ISO 8601 UTC format).
DataFileCaptureType	2	FileCaptureDuration	duration	Total duration of time covered by the data recorded in a digital data file (in ISO 8601 format).
DataFileCaptureType	3	FileCaptureDeviceID	string	Identifier of the device that captured/recorded a data file. There is no required format for the ID value.
DataFileCaptureType	4	FileCaptureDeviceCategoryCode	EncounterDeviceCategoryCodeType	The kind of device that captured/recorded a data file.
DataFileCaptureType	5	MIMEEncodingCode	MIMEEncodingCodeType	Encoding MIME type of a digital data file.
DataFileCaptureType	6	MIMEContentCode	MIMEContentCodeType	MIME content type of a digital data file.
DataFileMetadatatype	1	VersionIdentifier	string	Identifier of a version.
DataFileMetadatatype	2	VersionEffectiveDateTime	dateTime	Version effectivity dateTime.
DataFileMetadatatype	3	SecurityClassificationCode	SecurityCodeType	A description of a security classification.

Container Type	Seq	Property	Data Type	Property Description
DataFileMetadataType	4	DocumentPrivacyActIndicator	boolean	True if a document is categorized as containing personal information subject to protection by the Privacy Act; false otherwise.
DataFileMetadataType	5	ClassificationReasonText	TextType	Reason for a classification, with reference to the applicable classification guide.
DataFileMetadataType	6	ClassifiedByText	string	Description of the classification authority.
DataFileMetadataType	7	DeclassDate	date	Specific date at which the applicable information is automatically declassified.
DataFileMetadataType	8	DeclassEventText	TextType	Description of an event that triggers declassification.
DataFileMetadataType	9	DeclassExceptionText	TextType	Description of any exceptions to automatic declassification.
DataFileMetadataType	10	DeclassManualReviewIndicator	boolean	True if a manual review is required for declassification; false otherwise.
DataFileSequenceType	1	DataFileSequenceIdentifier	string	Identifier of the sequence of a data subset in a file that contains sequences of recorded digital data.
DataFileSequenceType	2	DataFileSequenceDescriptionText	TextType	Description of the contents of a subset of a digital data file.
DataFileSequenceType	3	ImagePerspectiveCode	ImagePerspectiveCodeType	Describes the viewing perspective of the subject of an image captured as a digital data file.
DataFileType	2	DetectionEventUUID	string	Unique identifier of the event at which a digital data file was recorded.
DataFileType	3	DataFileUUID	string	Universally unique identifier of a digital data file.
DataFileType	4	DataFileName	TextType	Name of a digital data file.
DataFileType	5	DataFileCaptureData	DataFileCaptureType	Information regarding the means and methods of recording the data in a digital file.
DataFileType	6	DataFileCompressionDescriptionText	TextType	Description of the compression method applied to a file's contents, if any.
DataFileType	7	DataFileSequence	DataFileSequenceType	Provides information on accessible subsets of data in a file, if any.
DataFileType	8	DataFileSubjectCode	BinarySubjectCodeType	Describes the kind of subject matter recorded in a digital data file. If the kind is Other, a description should be provided in DataFileDescriptionText.

Container Type	Seq	Property	Data Type	Property Description
DataFileType	9	DataFileDescriptionText	TextType	A text description of the subject matter recorded in a digital data file.
DataFileType	10	DataFileMetadata	DataFileMetadataType	Provides information about a digital data file.
DetectionEventAlarmDataType	0	convergenceDuration	duration	The time (in ISO 8601 format) it took the analysis algorithm to converge to produce the alarm.
DetectionEventAlarmDataType	2	AlarmID	string	Identifier of a set of alarm data. There is no required format for the ID value.
DetectionEventAlarmDataType	3	AlarmDateTime	dateTime	DateTime the alarm was recorded or cancelled.
DetectionEventAlarmDataType	4	RadAlarmLightCode	RadAlarmLightCodeType	The alarm light color, if the alarm is annunciated by lights.
DetectionEventAlarmDataType	5	AlarmAudibleIndicator	boolean	True if the alarm was annunciated by sound. False otherwise. This element should not be used if the device does not have an audible alarm capability.
DetectionEventAlarmDataType	6	AlarmDescriptionCode	AlarmDescriptionCodeType	Description of the nature of the threat annunciated by an alarm.
DetectionEventAlarmDataType	7	AlarmDescriptionText	TextType	Text description of the nature of the threat annunciated by an alarm.
DetectionEventAlarmDataType	8	RadAlarmKindCode	RadAlarmKindCodeType	Description of a kind of radiation alarm.
DetectionEventAlarmDataType	9	AlarmDuration	duration	Duration of the alarm in ISO 8601 format.
DetectionEventAlarmDataType	10	RadAlarmSignalStrengthValue	decimal	The highest signal index value produced by the device during an alarm state.
DetectionEventAlarmDataType	11	DetectorDesignatorText	string	Designation of the relative position of the detector that produced the alarm. Must use naming convention defined in the relevant specification document.
DetectionEventAlarmDataType	12	InspectionActivityCode	InspectionActivityCodeType	Description the inspection activity during which a radiation detection alarm may occur.
DetectionEventAlarmDataType	13	AlarmAcknowledgementCode	AlarmAcknowledgementCodeType	Description of a kind of alarm acknowledgement.
DetectionEventAnalysisResultsType	2	RefAlarmID	string	Identifier of a set of alarm data. There is no required format for the ID value.
DetectionEventAnalysisResultsType	3	ThreatDescriptionText	TextType	Description of the threat determined by the analysis of the data collected

Container Type	Seq	Property	Data Type	Property Description
				in a detection event.
DetectionEventAnalysisResultsType	5	AnalysisStartDateTime	dateTime	Date/time when analysis of a detection event started.
DetectionEventAnalysisResultsType	6	AnalysisEndDateTime	dateTime	Date/time when analysis of a detection event ended.
DetectionEventAnalysisResultsType	7	AnalysisOrgCode	GNDAAOrgCodeType	Organization that performed a detection event analysis.
DetectionEventAnalysisResultsType	9	AnalysisAlgorithm	AlgorithmType	Algorithm used in the analysis of the encounter device data to produce an analysis results.
DetectionEventAnalysisResultsType	10	NuclideIdentification	NuclideIdentificationType	Nuclide identified by the analysis of encounter device data.
DetectionEventAnalysisResultsType	11	PhotopeakData	PhotopeakDataType	Photopeak data resulting from analysis of a gamma ray spectrum.
DetectionEventAnalysisResultsType	12	TemplateRankingData	TemplateRankingDataType	Ranking of candidate nuclides as the nuclides in a spectrum, but not included in the list of identified nuclides.
DetectionEventAnalyzedMeasurementDataType	2	ProcessedSpectrumDataReference	ReferenceType	A reference to a processed spectrum and gross count data used in an analysis.
DetectionEventAnalyzedMeasurementDataType	3	ProcessedSpectrumImageReference	ReferenceType	A reference to a vector graphics image of a processed spectrum.
DetectionEventAssessmentType	1	DetectionEventAssessmentID	string	An identifier for a detection event assessment. There is no required format for the ID value.
DetectionEventAssessmentType	2	DetectionEventAlarmData	DetectionEventAlarmDataType	Provides data on alarm(s) resulting from analysis of the data produced by an encounter device.
DetectionEventAssessmentType	3	DetectionEventAnalyzedMeasurementData	DetectionEventAnalyzedMeasurementDataType	Identifies the processed measurement data on which an assessment was performed.
DetectionEventAssessmentType	4	DetectionEventAnalysisResult	DetectionEventAnalysisResultsType	Provides the results of analysis of the data produced by an encounter device. Note: there may be multiple analyses of the same data based on applying different analysis methods/algorithms.
DetectionEventDeviceDataType	0	dataFormatCode	DataFormatCodeSimpleType	Identifies a data format specification that has been used to structure an output data file from a device.

Container Type	Seq	Property	Data Type	Property Description
DetectionEventDeviceDataType	2	CBRNEncounterDevice	CBRNEncounterDeviceType	Provides information on a device used to perform measurements or collect data during a CBRN Detection Event.
DetectionEventDeviceDataType	3	DetectionEventDeviceMeasurementData	RadEncounterMeasurementType	Provides the data from the device(s) used during a Detection Event.
DetectionEventDeviceDataType	4	DetectionEventDeviceCalibrationData	RadEncounterDeviceCalibrationType	Provides calibration data for a device.
DetectionEventType	0	detectionEventCategoryCode	DetectionEventCategoryCodeSimpleType	A classification of a Detection Event.
DetectionEventType	0	detectionEventKindCode	DetectionEventKindCodeSimpleType	A kind of Detection Event.
DetectionEventType	2	DetectionEventUUID	string	A universally unique identification for a Detection Event. UUID is as defined in ISO/IEC 11578.
DetectionEventType	3	DetectionEventID	string	An identifier for a Detection Event applied by the site that performs the inspection activities of the Detection Event. There is no required format for the ID value.
DetectionEventType	4	EventOnsetDateTime	dateTime	Date and time of the start of an Event (ISO 8601 format).
DetectionEventType	5	DetectionEventLocation	ProperNameTextType	The physical location where a detection event occurred.
DetectionEventType	6	DetectionEventSiteID	string	Identifier of the site at which a detection event occurred. Typically this identifier is specific to the organization operating the site. There is no required format for the ID value.
DetectionEventType	7	DetectionEventDataFile	DataFileType	Provides reference data for a digital file that contains device output, multimediam or other kinds data relevant to a Detection Event.
DetectionEventType	8	DetectionEventDeviceData	DetectionEventDeviceDataType	Provides the data and references to the related data files collected by the device(s) that are used during a Detection Event.
DetectionEventType	9	DetectionEventUserEntryData	DetectionEventUserEntryDataType	Provides user-operator data entries relevant to a Detection Event.
DetectionEventType	10	DetectionEventAssessmentData	DetectionEventAssessmentType	Provides assessment information produced by analysis of data collected during a Detection Event. This data may be produced by automated analysis by the device if it

Container Type	Seq	Property	Data Type	Property Description
				has this capability, or human operator input.
DetectionEventType	11	AlgorithmParameterSet	ParameterSetType	Provides sets of parameters and values used with analysis algorithms to assess the data collected during a Detection Event.
DetectionEventUserEntryDataType	2	DetectionEventUUID	string	Unique identifier of the Detection Event for which the user entered the data.
DetectionEventUserEntryDataType	3	MeasuredItem	MeasuredItemType	Provides information on a measured item.
DetectionEventUserEntryDataType	4	EncounterDeviceOperatorText	string	Information that identifies the encounter device's operator.
DetectionEventUserEntryDataType	5	EncounterDeviceOperatorComments	EncounterDeviceOperatorCommentsType	Provides general comments by the operator of the encounter device.
DetectionEventUserEntryDataType	6	Shielding	ShieldingType	Provides user data entries that describe the shielding observed by the inspector(s) as relevant to the measured item.
DeviceDeviceRelationshipType	2	ToDeviceID	string	Identifier of the device that is the ending point/target of the relationship.
DeviceDeviceRelationshipType	3	DeviceRelationshipKindCode	DeviceRelationshipKindCodeType	Kind of relationship between devices. Note that device is used in a generic sense to encompass assembly levels from a system down to an atomic component.
DeviceDeviceRelationshipType	4	DeviceRelationshipStatusCode	DeviceRelationshipStatusCodeType	Description of the status of a relationship between two devices.
DeviceDeviceRelationshipType	5	SimplexIndicator	boolean	If the association is describing a communications connection/link, then the link is simplex if True; else False if duplex.
DeviceIdentifierType	7	DeviceInfoDateTime	dateTime	DateTime of the device identifier data.
DeviceIdentifierType	8	ParentDeviceCategoryCode	EncounterDeviceCategoryCodeType	The category of the device that is the parent of the device identified by rn:RadEncounterDeviceID.
DeviceIdentifierType	9	ParentDeviceID	string	The identifier of the device that is the parent of the device identified by rn:RadEncounterDeviceID.

Container Type	Seq	Property	Data Type	Property Description
DeviceParameterType	0	parameterUnitsText	string	A Unit of Measure that qualifies the parameter value.
DeviceParameterType	1	DeviceParameterName	string	Standardized name for a device parameter.
DeviceParameterType	2	DeviceParameterVendorName	string	Device parameter's name used by a vendor of the device model, that is equivalent to the standardized parameter name.
DeviceParameterType	3	DeviceParameterSettableIndicator	boolean	True if the device can be commanded to set/change the parameter's value; false otherwise.
DeviceParameterType	4	DeviceParameterStatusIndicator	boolean	True if the device can be commanded to report the parameter's current value; false otherwise.
DeviceParameterType	5	DeviceParameterValue		A data concept for the value of a parameter.
DeviceQualityControlType	2	InspectionDate	dateTime	The date at which an encounter device was most recently inspected and verified as being available for use.
DeviceQualityControlType	3	InServiceIndicator	boolean	True if an encounter device is currently certified as being properly calibrated and considered in service; false otherwise. If this element is missing, the meaning is "unknown".
EncounterDeviceConfigurationType	1	DeviceParameter	DeviceParameterType	Provides the readable and settable parameters of an encounter device.
EncounterDeviceLocationType	3	EncounterDeviceCoordinates	ThreeDimensionalGeographicCoordinateType	Geographical coordinates (latitude, longitude, optional elevation) of an encounter device location at the time a measurement was performed.
EncounterDeviceLocationType	4	EncounterDeviceToItemDistance	LengthMeasureType	Distance from an encounter device to the item being measured. For a single-element detector, the EncounterDeviceToItemDistance is equal to the distance between the face of the detector and the estimated center of the source. If the source is inside a conveyance, the value of EncounterDeviceToItemDistance is equal to the distance from the face of the detector to the center of the conveyance, unless the source

Container Type	Seq	Property	Data Type	Property Description
				location can be determined more accurately. If the element EncounterDeviceToItemDistance is specified for a portal, the value equals the distance between the midpoint of the portal and the face of closest detector.
EncounterDeviceLocationType	5	EncounterDeviceToItemBearing	BearingOffsetMeasureType	Azimuth and elevation from an encounter device center of mass to the estimated center of the measured item.
EncounterDeviceLocationType	6	EncounterDeviceSpatialOrientation	SpatialOrientationMeasureType	An encounter device's spatial orientation with respect to True North, the horizontal axis, and the angle of the device's vertical axis from the ellipsoid vertical axis; i.e., pitch, yaw, and roll.
EncounterDeviceLocationType	7	MeasuredItemID	string	Identifier of a measured item. There is no required format for the ID value.
EncounterDeviceLocationType	8	PositionID	string	Position identifier of an encounter device that is deployed in a designed position, such as an inspection lane. There is no required format for the ID value.
EncounterDeviceOperatorCommentsType	1	DeviceOperatorID	string	Identifier of the encounter device operator. There is no required format for the ID value.
EncounterDeviceOperatorCommentsType	2	DeviceOperatorComments	TextType	Comments entered by a device operator.
EncounterDeviceProbeType	1	EncounterDeviceProbeKindCode	EncounterDeviceProbeKindCodeType	Identifies a kind of probe, and the substance it detects.
EncounterDeviceProbeType	2	EncounterDeviceProbeModelName	TextType	A probe model name.
EncounterDeviceProbeType	3	EncounterDeviceProbeID	string	A probe's serial number. There is no required format for the ID value.
EncounterDeviceStatusType	1	EncounterDeviceStatusDateTime	dateTime	Date and time of the reported status state (ISO 8601).

Container Type	Seq	Property	Data Type	Property Description
EncounterDeviceStatusType	2	OperationalIndicator	boolean	True if the encounter device is operational; false otherwise. Indicates the operational status of an encounter device.
EncounterDeviceStatusType	3	EncounterDeviceHealthStatusCode	EncounterDeviceHealthStatusCodeType	A description of the health status of an encounter device.
EncounterDeviceStatusType	4	EncounterDeviceStatusParameters	ParameterSetType	A list of status parameters and their values.
EncounterDeviceVersionType	1	VersionKindCode	VersionKindCodeType	A kind of physical implementation of a version, e.g., software, firmware, hardware, other.
EncounterDeviceVersionType	2	CurrentVersionID	string	Identifier of the current version. There is no required format for the ID value.
EncounterDeviceVersionType	3	PriorVersionID	string	Version Identifier of the version immediately prior to the current version. There is no required format for the ID value.
EncounterRelationshipType	1	RelationshipBeginDateTime	dateTime	DateTime a relationship began.
EncounterRelationshipType	2	RelationshipEndDateTime	dateTime	DateTime a relationship ended.
EquationType	2	EquationCoefficients	CoefficientsType	List of values of the coefficients of an equation.
EquationType	3	EquationCovarianceMatrix	DoubleListType	A white-space delimited list of values that provide the lower triangular half of an equation covariance matrix.
EquationType	4	EquationKindCode	EquationKindCodeType	Kind of an equation.
EquationType	5	EquationDescriptionText	TextType	A free-form description of the equation type; it is intended for documentation purposes only. If the equation kind is Other, then this description shall be specified to explain the kind of equation. Polynomial equations shall report the linear term first as Term0 followed by the other terms. An example would be: Energy = Term0 + Term1*Ch + Term2*Ch**2
EquationType	6	UpperLimitValue	DoubleType	The highest value of X for which an equation is valid.
EquationType	7	LowerLimitValue	DoubleType	The lowest value of X for which an equation is valid.
FileSetMemberType	0	sequenceNumeric	positiveInteger	Identifies the sequence, or placement, of a file in a fileset, if the

Container Type	Seq	Property	Data Type	Property Description
				fileset is ordered.
FileSetType	1	FileSetName	string	Name of a file set.
FileSetType	2	FileSetDescriptionText	TextType	Description of a file set.
FileSetType	3	FileSetUUID	string	Unique identifier of a file set. Also serves as the DataFileUUID of a file containing the identifiers of the members of the file set.
FileSetType	4	FileSetQuantity	nonNegativeInteger	The quantity of files in a file set.
FileSetType	5	FileSetMember	FileSetMemberType	A digit file that is a member of a file set.
GeographicCoordinatesType	0	cepValue	decimal	Circular error probability of a positional location. This is a radius in feet of a circle within which the true position is located with a probability is .50.
GeographicCoordinatesType	0	datum	string	Spatial reference system in which the coordinates are stated. Default is WGS-84.
GeographicCoordinatesType	1	CoordinatesDateTime	dateTime	Date/time of coordinates measurement (ISO 8601 UTC format).
GeographicCoordinatesType	2	Latitude	LatitudeCoordinateType	A measurement of the angular distance between a point on the Earth and the Equator.Value is in the form of degrees, minutes, and seconds. Degrees may be given in decimal degrees, in which case the minutes and seconds value would not be provided.
GeographicCoordinatesType	3	Longitude	LongitudeCoordinateType	A measurement of the angular distance between a point on the Earth and the Prime Meridian.Value is in the form of degrees, minutes, and seconds. Degrees may be given in decimal degrees, in which case the minutes and seconds value would not be provided.
GeographicCoordinatesType	4	Elevation	GeographicElevationMeasureType	A measure of the distance of a point on the Earth from sea level. If the units of measure are not specified, units are in meters.
GrossCountDataType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the

Container Type	Seq	Property	Data Type	Property Description
				validity of the data.
GrossCountDataType	0	endEnergyValue	double	The ending energy of the window that the data represents. If omitted, the window ends at the highest energy that can be collected by the encounter device.
GrossCountDataType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
GrossCountDataType	0	startEnergyValue	double	The starting energy of the window that the data represents. If omitted, the window starts at the lowest energy that can be collected by the encounter device.
GrossCountDataType	2	DetectorDesignatorText	string	Designation of the relative position of the detector for which the nonlinearity correction applies. Must use naming convention defined in the relevant specification document.
GrossCountDataType	3	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
GrossCountDataType	4	LiveTimeDuration	duration	Effective time duration of a measurement in ISO 8601 format.
GrossCountDataType	5	GrossCountQuantity	NonNegativeIntegerListType	White space delimited list of gross count data, one value per sample.
GrossCountDataType	6	BackgroundCountValues	DoubleListType	A white space delimited list of background count values; can be one value for all samples, or a unique value for each sample.
GrossCountDataType	7	RefItemSpectrumID	string	Identifier for the item spectrum measurement data associated with a gross count measurement. There is no required format for the ID value.
GrossCountDataType	8	MaximumSigmaValue	double	Maximum standard deviation of the gross count values compared to the background count values.
IdentificationConfidenceType	1	ConfidenceAssessment		A data concept for the confidence that an identification is correct.
InspectionDataType	2	InspectionEventDateTime	dateTime	DateTime of an inspection event.
InspectionDataType	3	ScanIdentificationData	ScanIdentifierDataType	Scan information regarding an item that is inspected.
InspectionDataType	4	ThreatLevelDeterminationCode	ThreatLevelDeterminationCodeType	Threat level based on findings during

Container Type	Seq	Property	Data Type	Property Description
				an inspection.
InspectionDataType	5	InspectionResolutionCode	InspectionResolutionCodeType	Description of the findings resulting from inspection of an item of interest.
LayerType	1	LayerSequenceNumber	PositiveIntegerType	The sequence of a layer, if there is more than one layer. The outermost layer is "1".
LayerType	3	LayerDensityValue	DoubleType	The density of the shielding layer expressed in unit of measure g/cm2.
LayerType	4	LayerMaterialDescriptionText	TextType	Text description of a layer's material.
LayerType	5	LayerMaterialKindCode	LayerMaterialKindCodeType	The kind of material of which a shielding layer is composed. If the kind is "other", then a text description should also be provided.
MapGuideLocationType	1	MapGuideBrandCode	MapGuideBrandCodeType	Brand name of a Map Guide document that provides maps of a locale with a vendor-unique grid reference system.
MapGuideLocationType	2	MapGuideName	string	Name of a Map Guide document providing maps of a locale.
MapGuideLocationType	3	MapGuidePageNumber	string	A page reference in a Map Guide document.
MapGuideLocationType	4	MapGuideGridNumber	string	A map grid reference in a Map Guide document.
MeasuredItemIdentificationType	2	MeasuredItemID	string	Identifier of a measured item. There is no required format for the ID value.
MeasuredItemIdentificationType	3	MeasuredItemIDKindCode	MeasuredItemIDKindCodeType	A kind of identifier for a measured item.
MeasuredItemIdentificationType	4	IdAcquisitionMethodCode	IdAcquisitionMethodCodeType	The method by which a measured item identifier was determined.
MeasuredItemIdentificationType	5	IdConfidenceCode	ConfidenceCodeType	Description of the confidence that the measured item identifier is correct.
MeasuredItemIdentificationType	6	EntryPersonID	string	Identifier of the person who entered or confirmed a measured item identifier. There is no required format for the ID value.
MeasuredItemType	2	CargoDescriptionText	TextType	Description of the contents of a vehicle, container, or other conveyance.
MeasuredItemType	3	MeasuredItemIdentification	MeasuredItemIdentificationType	Identification information for the measured item, such as bar code label or container number.

Container Type	Seq	Property	Data Type	Property Description
MeasuredItemType	4	MeasuredItemKindCode	MeasuredItemKindCodeType	Identifies the kind of item being inspected for Radiation/Nuclear threats.
MeasuredItemType	5	MeasuredItemDescriptionText	TextType	Description of the measured item.
MeasuredItemType	6	NRCLicenseID	string	Identifier of the NRC license, if any. There is no required format for the ID value.
MeasuredItemType	7	MeasuredItemQuantity	QuantityType	Quantity or size of an item and the uncertainty in that value.
MeasuredItemType	8	MeasuredItemGeometryDescriptionText	TextType	Description of the measured item geometry that can aid in understanding of the location, shape and size of the measured item.
MeasuredItemType	9	RadSourceActivity	NuclideActivityMeasureType	Information on encounter device nuclide activity readings that are manually entered by an operator.
MeasuredItemType	10	MeasuredItemReferenceDate	dateTime	Reference date for radionuclide activity calculations (i.e., activities decay-corrected to this date).
MeasuredItemType	11	ItemDispositionStatusCode	ItemDispositionStatusCodeType	Description of the current disposition of an item that is the subject of an inspection.
MessageContentErrorType	1	ErrorNodeName	TextType	The XML tag at which an error occurred.
MessageContentErrorType	2	ErrorDescription	MessageErrorType	A text description of an error that occurred at a specific XML tag while processing an XML message.
MessageErrorType	1	ErrorCodeText	TextType	An error code.
MessageErrorType	2	ErrorCodeDescriptionText	TextType	Text description of an error code.
MessageStatusType	3	MessageKindCode	MessageKindCodeType	The type of message payload associated with the payload header.
MessageStatusType	4	MessageStatusCode	MessageStatusCodeType	Describes the receiving status of a message.
MessageStatusType	5	MessageHandlingError	MessageErrorType	Describes a message error encountered by an infrastructure component in the process of message handling and transmission.
MessageStatusType	6	ResendRequestIndicator	boolean	True if the message should be resent; false otherwise.
MessageStatusType	7	MessageContentError	MessageContentErrorType	Provides information about the point in the xml payload content of a message where an error occurred in processing the

Container Type	Seq	Property	Data Type	Property Description
				message.
MessageStatusType	11	CredentialsAuthenticatedCode	CredentialsAuthenticatedCodeType	Credentials authentication verification.
NonLinearityCorrectionType	1	EnergyDeviationValues	DoubleListType	A white-space delimited list of double that provides the energy deviation values. Deviation values are in pairs. The first number of each pair is actual energy (in keV); the second is the deviation (keV) from the actual energy of the adjusted nominal energy calibration. The deviation is positive if the actual energy exceeds the energy determined by the calibration parameters.
NuclideActivityMeasureType	0	nuclideActivityUnitsCode	NuclideActivityUnitsCodeSimpleType	Unit of measure for a nuclide activity value.
NuclideEstimatedShieldingType	1	AtomicNumberValue	PositiveIntegerType	The estimated atomic number of the aggregate shielding layers.
NuclideEstimatedShieldingType	2	ArealDensityValue	decimal	The areal density of the aggregate set of shielding layers expressed in unit of measure g/cm2.
NuclideIdentificationType	1	Nuclide	NuclideType	Identification of a nuclide.
NuclideIdentificationType	2	NuclideCategoryCode	NuclideCategoryCodeType	A category of nuclide.
NuclideIdentificationType	3	NuclideActivityValue	NuclideActivityMeasureType	A nuclide's calculated activity value and its uncertainty.
NuclideIdentificationType	4	NuclideIdConfidence	IdentificationConfidenceType	A characterization of the confidence that a nuclide identification is correct.
NuclideIdentificationType	5	NuclideEstimatedPosition	RelativePositionType	The estimated position of a nuclide in a measured item.
NuclideIdentificationType	6	NuclideEstimatedShielding	NuclideEstimatedShieldingType	Provides information on shielding.
NuclideType	0	nuclideBetaEndPointEnergyValue	positiveInteger	Maximum beta particle energy approximation.
NuclideType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
NuclideType	1	NuclideCode	NuclideCodeType	A standard code for a nuclide.
ParameterSetListType	1	ParameterNames	StringListType	A list of parameter names in a parameter set. The order of the values and names must be the same.
ParameterSetListType	2	ParameterValues	DecimalListType	A list of parameter values in a parameter set. The order of the values and names must be the same.

Container Type	Seq	Property	Data Type	Property Description
ParameterSetPairType	1	ParameterName	string	The name of a parameter.
ParameterSetPairType	2	ParameterValueText	string	The value of a parameter, expressed as a string.
ParameterSetPairType	3	ParameterValueUnitsText	string	The unit of measure in which a parameter value is expressed.
ParameterSetType	0	parameterSetID	string	A locally-scoped identifier of a parameter set. RadAlarmAudibleIndicator
ParameterSetType	2	ParameterSet		A data concept for a set of parameters.
PhotonDataType	1	PhotonSourceCode	PhotonSourceCodeType	Description of the photon source for a radiographic device.
PhotonDataType	2	PhotonEnergyValue	decimal	Mean energy of photons in MeV.
PhotonDataType	3	MeanPhotonValue	decimal	Mean of the maximum number of photons in open air per pixel. Can be per system or per detector.
PhotopeakDataType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
PhotopeakDataType	0	radFWHMUnitsCode	RadFWHMUnitsCodeSimpleType	Unit of measure in which photopeak radiation (FWHM) is expressed.
PhotopeakDataType	1	PhotopeakLibraryName	TextType	Name of a Photopeak library.
PhotopeakDataType	2	PhotopeakEnergyValue	decimal	Energy value of the photopeak.
PhotopeakDataType	3	PhotopeakNuclide	PhotopeakNuclideType	Identifies the nuclide associated with the photopeak energy.
PhotopeakDataType	4	PhotopeakNetAreaValue	DoubleUncType	Net photopeak counts with the uncertainty (i.e., one sigma net error associated with the PhotopeakNetAreaValue).
PhotopeakDataType	5	PhotopeakResolutionValue	decimal	A photopeak FWHM resolution value.
PhotopeakDataType	6	PhotopeakContinuumValue	nonNegativeInteger	The sum total of background counts in the continuum beneath the photopeak. The PhotopeakContinuumValue should reflect the sum total counts beneath the photopeak that span an area equal to three FWHM units centered about the photopeak centroid.
PhotopeakDataType	7	PhotopeakSigmaValue	decimal	A photopeak significance value measured in sigma units.
PhotopeakNuclideType	1	NuclideCode	NuclideCodeType	A standard code for a nuclide.

Container Type	Seq	Property	Data Type	Property Description
PhotopeakNuclideType	2	PhotopeakIntensityValue	decimal	The gamma ray intensity of the nuclide-specific photopeak (a.k.a. the branching ratio or emission probability) as a fractional value.
PointXYType	2	XValue	DoubleUncType	Value (and optionally, the 1-sigma absolute uncertainty of this value), of the first dimension.
PointXYType	3	YValue	DoubleUncType	Value (and optionally, the 1-sigma absolute uncertainty of this value), of the second dimension.
ProcessedGrossCountDataType	0	endEnergyValue	double	The ending energy of the window that the data represents. If omitted, the window ends at the highest energy that can be collected by the encounter device.
ProcessedGrossCountDataType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
ProcessedGrossCountDataType	0	startEnergyValue	double	The starting energy of the window that the data represents. If omitted, the window starts at the lowest energy that can be collected by the encounter device.
ProcessedGrossCountDataType	2	ProcessedGrossCountDataDescriptionText	TextType	Descriptive text about the methods employed to produce the processed gross count data.
ProcessedGrossCountDataType	3	DetectorDesignatorText	string	A description of the relative position of a detector within a device. For processed gross count data based upon summed gross counts or gross counts summed over multiple detectors, the appropriate designator is sum. Must use naming convention defined in the relevant specification document.
ProcessedGrossCountDataType	4	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
ProcessedGrossCountDataType	5	RealTimeDuration	duration	Effective real time duration of the measurement in ISO 8601 format. For processed data this can represent the real times summed over multiple counts and/or multiple detectors.

Container Type	Seq	Property	Data Type	Property Description
ProcessedGrossCountDataType	6	LiveTimeDuration	duration	Effective live time duration of a measurement in ISO 8601 format. For processed data this can represent the live times summed over multiple counts and/or multiple detectors.
ProcessedGrossCountDataType	7	NetCountRateValues	DoubleListType	A white-space delimited list of values providing the net count rates during the duration of the measurement; i.e., (gross counts - background counts)/time (in seconds).
ProcessedGrossCountDataType	8	BackgroundCountValues	DoubleListType	A white-space delimited list of modified background count values used in the processed gross count data.
ProcessedGrossCountDataType	9	MaximumSigmaValue	DoubleType	Maximum standard deviation of processed gross count values compared to processed background count values.
ProcessedGrossCountDataType	10	MaximumProcessedDataValue	DoubleType	Maximum standard deviation of some processed data values compared to the background processed data values. For example, energy-window values from some proprietary algorithm. With the maximum value reported, re-scoring with another threshold value is facilitated and avoids the necessity of disclosing the algorithm details.
ProcessedSpectrumDataType	0	endEnergyValue	double	The ending energy of the window that the data represents. If omitted, the window ends at the highest energy that can be collected by the encounter device.
ProcessedSpectrumDataType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
ProcessedSpectrumDataType	0	startEnergyValue	double	The starting energy of the window that the data represents. If omitted, the window starts at the lowest energy that can be collected by the encounter device.
ProcessedSpectrumDataType	2	ProcessedSpectrumID	string	Identifier for a processed spectrum measurement. There is no required format for the ID value.
ProcessedSpectrumDataType	3	ProcessedSpectrumDescriptionText	TextType	Description of the processed

Container Type	Seq	Property	Data Type	Property Description
				spectrum.
ProcessedSpectrumDataType	4	DetectorDesignatorText	string	A description of the relative position of a detector within a device. For processed spectra based upon summed spectra or spectra summed over multiple detectors, the appropriate designator is sum. Must use naming convention defined in the relevant specification document.
ProcessedSpectrumDataType	5	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
ProcessedSpectrumDataType	6	RealTimeDuration	duration	Effective real time duration of the measurement in ISO 8601 format. For processed data this can represent the real times summed over multiple counts and/or multiple detectors.
ProcessedSpectrumDataType	7	LiveTimeDuration	duration	Spectrum measurement live time in ISO 8601 format.
ProcessedSpectrumDataType	8	ProcessedChannelData	SpectrumChannelDataType	Spectrum channel count data aggregated from raw spectrum using a processing method described in ProcessedSpectrumDescriptionText. The first channel number shall always be 0.
ProcessedSpectrumDataType	9	EnergyCalibrationAdjustIndicator	boolean	True if the EnergyCalibrationAdjust method was applied to the processed data, otherwise false.
ProcessedSpectrumDataType	10	NonLinearityCorrectionIndicator	boolean	True if the NonLinearityCorrection method was applied to the processed data; false otherwise.
ProcessedSpectrumDataType	11	BackgroundSubtractionIndicator	boolean	True if a background spectrum was subtracted from the raw item spectrum to produce the processed spectrum data, false otherwise.
ProcessedSpectrumImageType	2	SpectrumImageDataFile	DataFileType	A processed spectrum image in scalar vector graphics (svg) data format.
RadAbsorbedDoseMeasureType	0	radAbsorbedDoseUnitsCode	RadAbsorbedDoseUnitsCodeSimpleType	Unit of measure for radiation absorbed dose.
RadAbsorbedDoseRateMeasureType	0	radAbsorbedDoseRateUnitsCode	RadAbsorbedDoseRateUnitsCodeSimpleType	Unit of measure for a radiation absorbed dose rate value.
RadCountRateMeasureType	0	radCountRateUnitsCode	RadCountRateUnitsCodeSimpleType	Unit of measure for a radiation count rate value.

Container Type	Seq	Property	Data Type	Property Description
RadDoseRateMeasureType	0	radDoseRateUnitsCode	RadDoseRateUnitsCodeSimpleType	Unit of measure for a radiation dose value.
RadEncounterDeviceCalibrationType	0	calibrationKindCode	CalibrationKindCodeSimpleType	A kind of calibration (e.g., Energy, FWHM, ...).
RadEncounterDeviceCalibrationType	0	calibrationMeasurementUUID	string	The UUID of the measurement from which a calibration was derived. UUID is as defined in SO/IEC 11578.
RadEncounterDeviceCalibrationType	0	radAbsorbedDoseRateUnitsCode	RadAbsorbedDoseRateUnitsCodeSimpleType	Unit of measure for absorbed dose rate.
RadEncounterDeviceCalibrationType	0	radAbsorbedDoseUnitsCode	RadAbsorbedDoseUnitsCodeSimpleType	Unit of measure for radiation absorbed dose.
RadEncounterDeviceCalibrationType	0	radCountRateUnitsCode	RadCountRateUnitsCodeSimpleType	Unit of measure for a radiation Count Rate value.
RadEncounterDeviceCalibrationType	0	radDoseRateUnitsCode	RadDoseRateUnitsCodeSimpleType	Unit of measure for radiation dose rate.
RadEncounterDeviceCalibrationType	0	radDoseUnitsCode	RadDoseUnitsCodeSimpleType	Unit of measure for radiation dose.
RadEncounterDeviceCalibrationType	0	radEnergyUnitsCode	RadEnergyUnitsCodeSimpleType	Unit of measure for a radiation energy value.
RadEncounterDeviceCalibrationType	0	radExposureRateUnitsCode	RadExposureRateUnitsCodeSimpleType	Unit of measure for radiation exposure rate.
RadEncounterDeviceCalibrationType	0	radFWHMUnitsCode	RadFWHMUnitsCodeSimpleType	Unit of measure in which photopeak radiation (FWHM) is expressed.
RadEncounterDeviceCalibrationType	2	CalibrationID	string	Locally scoped identifier of a calibration. There is no required format for the ID value.
RadEncounterDeviceCalibrationType	3	DetectorDesignatorText	string	A description of the relative position of a detector within a device. Must use naming convention defined in the relevant specification document.
RadEncounterDeviceCalibrationType	4	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
RadEncounterDeviceCalibrationType	5	CalibrationCreationDateTime	dateTime	Date/time of a calibration's creation (ISO 8601 UTC format)
RadEncounterDeviceCalibrationType	6	CalibrationNuclide	CalibrationNuclideType	Identification of a nuclide source used in a calibration.
RadEncounterDeviceCalibrationType	7	Equation	EquationType	The equation governing a calibration and its coefficients.
RadEncounterDeviceCalibrationType	8	ArrayXY	ArrayXYType	Calibration data as ordinal pairs.

Container Type	Seq	Property	Data Type	Property Description
RadEncounterDeviceCalibrationType	9	VoltageAppliedValue	integer	The value of the voltage applied to the detector during a calibration measurement. Units are volts.
RadEncounterDeviceProcessedDataType	2	RawDataProcessingMethodDescriptionText	TextType	A free-form description of the method used to produce processed data from the available raw data. Used primarily for documentation purposes.
RadEncounterDeviceProcessedDataType	3	RawDataStartStopIDList	StringListType	A list of the identifiers of raw spectrum measurements that have been included in a processed spectrum.
RadEncounterDeviceProcessedDataType	4	ProcessedSpectrumImage	ProcessedSpectrumImageType	A vector-graphics image of the spectral data after it has been processed. Spectral images shall not include assessment or analysis results in the image. The svg file should be compressed using gzip or equivalent.
RadEncounterDeviceProcessedDataType	5	ProcessedSpectrumData	ProcessedSpectrumDataType	Provides spectral data resulting from processing a set of raw spectra to prepare it for analysis and assessment.
RadEncounterDeviceProcessedDataType	6	ProcessedGrossCountData	ProcessedGrossCountDataType	Provides net count rate data resulting from processing a set of raw gross counts to prepare it for analysis and assessment.
RadEncounterDeviceRawDataType	0	occupiedIndicator	boolean	True if the encounter device was occupied when a measurement was made; i.e., the measurement was taken on a real item seeking to determine if a radiological source was present. False otherwise. If the encounter device does not have occupancy sensor(s), this element should not be used.
RadEncounterDeviceRawDataType	2	MeasurementStartDateTime	dateTime	Date/time of the start of the measurement by the encounter device (ISO 8601 UTC).
RadEncounterDeviceRawDataType	3	MeasurementStopDateTime	dateTime	Date/time of the end of the measurement by the encounter device (ISO 8601 UTC).
RadEncounterDeviceRawDataType	4	RealTimeDuration	duration	Measurement real (elapsed clock) time in ISO 8601 format.

Container Type	Seq	Property	Data Type	Property Description
RadEncounterDeviceRawDataType	5	ItemSpeed	VelocityMeasureType	Speed of a measured item (vehicle, train, boat, etc.) at the time of a measurement.
RadEncounterDeviceRawDataType	6	ItemPosition	LengthMeasureType	The position is the distance between the front of the item being measured at the start of the measurement and the centerline of the encounter device doing the measurement. The item front is the side in the direction of the item's movement. If the item is not in motion, the front needs to be explained in the MeasuredItemGeometryDescriptionText.
RadEncounterDeviceRawDataType	7	SpectrumData	SpectrumDataType	The measurement data from a spectragraphic-capable encounter device.
RadEncounterDeviceRawDataType	8	GrossCountData	GrossCountDataType	The measurement data from a gross count-capable encounter device.
RadEncounterDeviceRawDataType	9	CountDoseData	CountDoseDataType	The measurement data from a count dose-capable encounter device.
RadEncounterMeasurementType	2	EncounterDeviceMeasurementID	string	Identifier generated by the encounter device for a block of its measurement data. There is no required format for the ID value.
RadEncounterMeasurementType	3	EncounterDeviceLocation	EncounterDeviceLocationType	Geometric data regarding the location of an encounter device, and location of the measured item with respect to the location of the encounter device.
RadEncounterMeasurementType	4	RadEncounterDeviceRawData	RadEncounterDeviceRawDataType	The raw (unprocessed) data measured by gross count or spectroscopic measuring encounter device.
RadEncounterMeasurementType	5	RadEncounterDeviceProcessedData	RadEncounterDeviceProcessedDataType	Data that results from processing raw measurement data by an encounter device in some manner as a basis for performing automated analysis of the data.
RadExposureMeasureType	0	radExposureUnitsCode	RadExposureUnitsCodeSimpleType	Unit of measure for radiation exposure.
RadExposureRateMeasureType	0	radExposureRateUnitsCode	RadExposureRateUnitsCodeSimpleType	Unit of measure for radiation exposure rate.
RadIDoseMeasureType	0	radDoseUnitsCode	RadDoseUnitsCodeSimpleType	Unit of measure for radiation dose.

Container Type	Seq	Property	Data Type	Property Description
ReachbackDataType	1	ReachbackRecommendationDateTime	dateTime	DateTime that a reachback recommendation was made.
ReachbackDataType	2	ReachbackRecommendationCode	ReachbackRecommendationCodeType	Description of a reachback recommendation.
ReachbackDataType	3	ReachbackFindingsText	TextType	Description of reachback findings.
ReachbackDataType	4	ReachbackRequestCode	ReachbackRequestCodeType	Description of a reachback request.
ReachbackDataType	5	ReachbackReasonText	TextType	A text description of the reason for a reachback request.
RelativePositionType	3	RelativePositionOriginText	TextType	User/operator entered description of the origin point from which the relative position offset values are measured.
RelativePositionType	4	OffsetXValue	decimal	Value of the X dimension offset from the origin.
RelativePositionType	5	OffsetYValue	decimal	Value of the Y dimension offset from the origin.
RelativePositionType	6	OffsetZValue	decimal	Value of the Z dimension offset from the origin.
ReportType	1	ReportDateTime	dateTime	DateTime when a report was created.
ReportType	2	ActivityName	string	Name of the activity associated with a request. This property can be used to provide data for workflow coordination by the sending or receiving systems.
ReportType	3	CredentialsAuthenticatedCode	CredentialsAuthenticatedCodeType	Verification information of user credentials authentication.
RequestAgencyType	1	RequestAgencyCode	GNDAAOrgCodeType	The organization from which a request was initiated.
RequestAgencyType	4	RequestAgencyContactInformation	ContactInformationType	Contact information for the organization that initiates a request.
RequestDataType	1	RequestIdentifier	string	Identifier of a request. There is no required format for the Identifier value.
RequestDataType	2	RequestDateTime	dateTime	DateTime of a request.
RequestDataType	3	RequestScopeCode	RequestScopeCodeType	Describes the scope of a request.
RequestDataType	4	ActivityName	string	Name of the activity associated with a request. This property can be used to provide data for workflow coordination by the sending or receiving systems.
RequestDataType	6	RequestAgency	RequestAgencyType	The organization that initiated a request.

Container Type	Seq	Property	Data Type	Property Description
RequestDataType	7	RequestUpdateIndicator	boolean	If True, the request is an update to the request identified by <RequestIdentifier>. If False or omitted, the request is new.
RequestDataType	8	RequestCancelIndicator	boolean	If True, the request is a cancellation of the request identified by <RequestIdentifier>. If False or omitted, the request is not a cancellation.
ResponseReportType	2	ResponseAgencyContactInformation	ContactInformationType	Contact information for the organization that provides a response report in reply to a request.
ResponseReportType	3	RequestData	RequestDataType	Information identifying the request for which a message provides a response.
ScanIdentifierDataType	5	MeasuredItemIDKindCode	MeasuredItemIDKindCodeType	Kind of identifier used for identifying the scanned item.
ScanIdentifierDataType	7	ScanQualityCode	ScanQualityCodeType	Description of the quality of a scan.
SecondaryInspectionReferralType	1	SecondaryInspectionReferralID	string	Identifier of a Secondary Inspection referral.
SecondaryInspectionReferralType	2	SecondaryInspectionReferralReasonCode	SecondaryInspectionReferralReasonCodeType	Reason why Secondary Inspection was recommended.
SecondaryInspectionReferralType	3	SecondaryInspectionKindCode	SecondaryInspectionKindCodeType	Kind of secondary Inspection.
SecondaryInspectionResolutionType	1	SecondaryInspectionReferralID	string	Identifier of a Secondary Inspection referral that correlates to the resolution report.
SecondaryInspectionResolutionType	2	InspectionThreatFindingCode	InspectionThreatFindingCodeType	Category of threat found by an inspection.
SecondaryInspectionResolutionType	4	SourceSystemFindingCategoryText	TextType	An InspectionThreatFindingCode mapped to the finding category in the source system.
ShieldingType	3	LayerQuantity	PositiveIntegerType	The number of shielding layers observed.
ShieldingType	4	Layer	LayerType	Provides data on a shielding layer.
ShieldingType	5	RadEncounterDeviceToShieldingDistance	LengthMeasureType	Distance from the center of mass of a encounter device to the closest outside portion of the outermost layer of shielding that is found between the encounter device and the radiation source.
SiteLocationType	2	GeoPosition	ThreeDimensionalGeographicCoordinateType	Geographic position information for a location.

Container Type	Seq	Property	Data Type	Property Description
SiteLocationType	3	AddressDetails	LocationType	Detailed address of a location.
SiteLocationType	4	SiteSpecialInfoText	TextType	Information about a site that may be of importance to a responder; e.g., electrified fence, dogs on property, loft apartment, multi-storied building, multiple warehouses on site, hazardous material, etc.
SiteLocationType	5	LocationDirectionsText	TextType	General directions to a location.
SiteLocationType	6	SiteMobileIndicator	boolean	True if a site is mobile; false otherwise.
SiteLocationType	7	SiteMobileDescriptionText	TextType	A text description of a site that is mobile.
SiteLocationType	8	MapGuideLocation	MapGuideLocationType	Provides location information based on a map contained in a Map Guide document.
SpatialOrientationMeasureType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the validity of the data.
SpatialOrientationMeasureType	1	TrueNorthOffset	DecimalListType	An item's spatial orientation with respect to the angular offset from true North, ie, compass heading from true North. Angular measurement is in degrees minutes seconds.
SpatialOrientationMeasureType	2	VerticalOffset	DecimalListType	An item's spatial orientation with respect to the angular offset from the vertical axis. Angular measurement is in degrees minutes seconds. An angle above the horizontal is positive and below the horizontal is negative.
SpatialOrientationMeasureType	3	RotationalOffset	DecimalListType	An item's spatial orientation as the rotational angle around its centerline from rear to front. Angular measurement is in degrees minutes seconds, measured looking in the direction of rear to front. The maximum angle is 180 degrees; clockwise is positive and counterclockwise is negative.
SpectrumChannelDataType	0	channelQuantity	positiveInteger	The total number of channel count values contained in the CountValue element.
SpectrumChannelDataType	0	compressionCode	CompressionCodeSimpleType	The algorithm (if any) by which data has been compressed.

Container Type	Seq	Property	Data Type	Property Description
SpectrumChannelDataType	0	listModeCode	ChannelDataListModeCodeSimpleType	The kind of channel data or the time precision of the list mode.
SpectrumChannelDataType	1	CountValues	DoubleListType	A set of spectra counts as a white space-delimited list of positive integers. The counts begin at channel 0. Any channel for which data is missing will record a count of zero.
SpectrumDataType	0	calibrationMeasurementUUID	string	The universally unique identifier of a calibration measurement that is applicable to this spectrum measurement. UUID is as defined in SO/IEC 11578.
SpectrumDataType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the validity of the data.
SpectrumDataType	0	sampleNumeric	positiveInteger	The sample number (starting from 1) of this spectrum (used only when the spectrum is contained within a SpectrumMeasurement element).
SpectrumDataType	0	spectrumKindCode	SpectrumKindCodeSimpleType	Identifies whether the spectrum kind is PHA or MCS. If not reported, PHA is default value.
SpectrumDataType	2	SpectrumID		A data concept for an identifier of a spectrum.
SpectrumDataType	3	RefBackgroundSpectrumID	string	Reference to a background spectrum. There is no required format for the ID value.
SpectrumDataType	4	RefCalibrationSpectrumID	string	Reference to a calibration spectrum. A spectrum that refers to a CalibrationSpectrumID must have a RadSourceKindCode of Item or Other. There is no required format for the ID value.
SpectrumDataType	5	DetectorDesignatorText	string	A description of the relative position of a detector within a device. Must use naming convention defined in the relevant specification document.
SpectrumDataType	6	DetectorKindText	string	Identification of the detector that collected the measurement. Must use naming convention defined in the relevant specification document.
SpectrumDataType	7	LiveTimeDuration	duration	Spectrum measurement live time in ISO 8601 format.
SpectrumDataType	8	DwellDuration	duration	Dwell time per sweep (used only for an MCS spectrum), in ISO 8601

Container Type	Seq	Property	Data Type	Property Description
				format.
SpectrumDataType	9	ElapsedSweepsQuantity	nonNegativeInteger	Number of sweeps (used only if spectrumKindCode is MCS)
SpectrumDataType	10	EnergyCalibrationAdjustCode	EnergyCalibrationAdjustCodeType	Calibration source to be used as a basis for the determination of energy calibration parameters. If this element is missing, the spectrum is not to be used for automated adjustments to the energy calibration.
SpectrumDataType	11	NonLinearityCorrection	NonLinearityCorrectionType	Nonlinearities in the correlation between energy and channel number.
SpectrumDataType	12	RadSourceKindCode	RadSourceKindCodeType	Kind of radiation source for a device measurement.
SpectrumDataType	13	SpectrumOverflowValue	nonNegativeInteger	A value that presents the sum total counts of all gamma ray interactions in the spectrometer whose energy exceeds the energy of the last channel in the spectrum. For example, if the calibrated energy of the 1024th channel in a 1024 channel spectrum is equal to 3000 keV, this element will represent all pulses that were measured whose energy is greater than 3000 keV.
SpectrumDataType	14	SpectrumChannelData	SpectrumChannelDataType	Spectrum measurement values expressed as counts by channel for the entire spectrum or a region of interest. The first channel number shall always be 0.
SystemEventType	0	systemOperatingModeCode	RadEncounterDeviceOperatingCodeSimpleType	Operating mode of the system at the time of a system event.
SystemEventType	1	SystemEventDateTime	dateTime	Date/Time of a system event.
TemplateRankedNuclideType	1	NuclideCode	NuclideCodeType	A standard code for a nuclide.
TemplateRankedNuclideType	2	NuclideIdConfidence	IdentificationConfidenceType	An expression of the confidence that a nuclide identification is correct.
TemplateRankingDataType	1	TemplateLibraryName	TextType	Name of a template library.
TemplateRankingDataType	2	TemplateRankedNuclide	TemplateRankedNuclideType	A nuclide deemed by the algorithm applied in an analysis to be possibilities for identifying the correct nuclide(s) in the spectrum, but was not selected for reporting as an identified nuclide.

Container Type	Seq	Property	Data Type	Property Description
ThreeDimensionalGeographicCoordinateType	0	dataQualityCode	DataQualityCodeSimpleType	A qualitative assessment of the validity of the data.
ThreeDimensionalGeographicCoordinateType	1	CoordinatesMethodCode	CoordinatesMethodCodeType	The method by which the coordinates were determined.
ThreeDimensionalGeographicCoordinateType	2	GeographicCoordinates		A data concept for geographic coordinates.
ThreeDimensionalGeographicCoordinateType	3	CoordinateDuration	duration	If georef coordinates have been calculated based on a set of coordinate readings, this is the duration of time over which the readings were made (ISO 8601 format). If this optional data element is provided, then only one set of coordinates should be provided, and the CoordinateDateTime is for the first coordinates in the total set used in calculating the location.
TraversalType	2	TraversalID	string	Identifier of a traversal. There is no required format for the ID value.
TraversalType	3	TraversalBeginDateTime	dateTime	DateTime of the start of a traversal.
TraversalType	4	TraversalEndDateTime	dateTime	DateTime of the end of a traversal.
TraversalType	5	TraversalOperatingModeCode	TraversalOperatingModeCodeType	Operational mode of a traversal.
TraversalType	7	ConveyanceID	ConveyanceIDReferenceType	Identifier for a conveyance processed through a traversal.
TraversalType	8	ConveyanceBoundForCode	ConveyanceBoundForCodeType	Description of where a conveyance is bound for when it completes a traversal.
VelocityMeasureType	2	SpeedUnitUNECECode	VelocityCodeType	Units of measure for speed.
VelocityMeasureType	3	SpeedUnitText	TextType	Unit of measure for speed.