

Simulation Interoperability Standards Organization (SISO)

Specification for Military Scenario Definition Language (MSDL)

Standard

SISO-STD-nnn-DRAFT-V1.0

13 August 2007

Prepared by:

**Military Scenario Definition Language
Product Development Group**

Specification for Military Scenario Definition Language (MSDL)
SISO-STD-nnn-DRAFT-V1.0

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Acknowledgements

This document was created as a community effort by the Military Scenario Definition Language (MSDL) Product Development Group (PDG). This PDG was chartered by the Simulation Interoperability Standards Organization (SISO) Standards Activity Committee (SAC) in March 2006. This document would not have been possible without the hard work and dedicated efforts of the following individuals:

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1 Introduction

The Military Scenario Definition Language (MSDL) is an XML-based language designed to support a military scenario development approach that provides the modeling and simulation community with:

- A common mechanism for validating and loading Military Scenarios.
- The ability to create a military scenario that can be shared between simulations and C4I devices.
- A way to improve scenario consistency between federated simulations.
- The ability to reuse military scenarios as scenario descriptions are standardized throughout the Army, Joint, and international communities and across simulation domains, e.g. training exercise, analysis, etc.

1.1 Purpose

MSDL is defined using an XML schema. Compliance with the MSDL XML schema defined in this specification will permit simulations to generate military scenarios that consist of the initial state of the military situation. Future versions of the standard are expected to include additional organizational structures, electronic order of battle information, targeting information, and data structures to hold the planned activities of the organizations and entities defined within the scenario.

1.2 Scope

This standard defines the MSDL language in terms of an XML schema, including element relationships, data types and boundary constraints, and the associated business rules of each element and its attribution. The MSDL language standard is intended to grow and evolve over time.

1.3 Objectives

The primary objective of this standard is to provide the mechanism that permits simulations to utilize the MSDL schema to develop and reuse military scenarios across MSDL compliant simulations and scenario generation tools.

1.4 Intended Audiences

The primary audience for this document is the Modeling & Simulation community. Other communities of interest, although not the intended primary audience, are encouraged to leverage the standard military scenario description language described here for use in their domains.

28 **2 References**

29 **2.1 SISO References:**

	Document Number	Title
1	SISO-ADM-005-2004	Policy for: The Style and Format of SISO documents
2	SISO-PDG-PN-MSDL-2005-002-15	MSDL Product Nomination
3	SISO-ADM-003-2002	SISO Balloted Products Development Process (BPDP)
4	SISO-ADM-002-2003	SISO Policies and Procedures (P&P)
5	SISO-STD-003-2006	Base Object Model (BOM) Template Specification, Approved 8 May 2006
6	SISO-STD-003.1-2006	Guide for BOM Use and Implementation, Approved 8 May 2006

30 **2.2 Other References:**

	Document Number	Title
1	XML W3 Org web site	XML Schema http://www.w3.org/2001/XMLSchema http://www.w3.org/TR/xmlschema-1/ .
2	MIL-STD-2525B, 30 January 1999, w/Change 11 July 2005	Defense Information Systems Agency, Department of Defense. MIL-STD-2525B, Common Warfighting Symbolology.
3	MIP JC3IEDM web site	JC3IEDM, Annexes, and .xsd Domain Values http://www.mip-site.org/publicsite/04-Baseline_3.0
4	UN/CEFACT XML Naming and Design Rules	United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) XML Naming and Design Rules Version 2.0 of 17 February 2006

31

3 Definitions

COA – Course of Action: A sequence of activities that an individual or unit may follow. (Army Planning and Orders Production, FM 5-0, Department of the Army, USA)

Intelligence. 1. The product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information. 2. Information and knowledge obtained through observation, investigation, analysis, or understanding. (Dictionary of Military and Associated Terms, Joint Publication 1-02, Department of Defense, USA)¹

METT-TC mission, enemy, terrain and weather, troops and support available, time available and civil considerations. (Army Planning and Orders Production, FM 5-0, Department of the Army, USA)

Military scenario A specific description of the situation and course of action at a moment in time for each element in the scenario. The description is given in the context of a desired execution for both its reality and its intelligence on this reality. The desired execution is described in terms of the METT-TC factors.

xs:all Compositor Particles defined within an xs:all element can appear in any order within an instance document. Xs:all elements may be declared within a complexType or group and they may contain an element or annotation elements. Elements declared within an xs:all element can either occur 0 or 1 time as set by the minOccurs and maxOccurs on the element declarations.

xs:choice Compositor Particles defined within an xs:choice element are mutually exclusive. This means that one and only one of the xs:choice's immediate children can appear in the instance document .

xs:sequence Compositor Particles defined within an xs:sequence element must appear in the defined order within an instance document. Elements declared within an xs:sequence element can either occur 0 or more times as set by the minOccurs and maxOccurs on the element declarations.

¹ The definitions for intelligence have been modified to allow information and knowledge concerning friendly forces and the environment. The kind of information and knowledge is unspecified in the definition and as such could include COA-relevant data.

55 **4 Acronyms and Abbreviations**

56	BMNT	Begin Morning Nautical Twilight
57	BSO	Battle Space Object
58	COP	Common Operational Picture
59	DIS	Distributed Interactive Simulation
60	EENT	End Evening Nautical Twilight
61	EXCOM	Executive Committee
62	GCC	Geocentric Coordinate
63	GDC	Geodetic Coordinate
64	JC3IEDM	Joint Consultation Command and Control Information Exchange Data Model
65	JCDB	Joint Command Database
66	MDMP	Military Decision Making Process
67	METT-TC	Mission, Enemy, Terrain and weather, Time, Troops available and Civilian
68	METOC	Meteorology & Oceanography
69	MGRS	Military Grid Reference System
70	MIL STD	Military Standard
71	MOPP	Mission-Oriented Protective Posture
72	MOOTW	Military Operation Other Than War
73	MSDB	Military Source Database
74	MSDE	Military Scenario Development Environment
75	MSDL	Military Scenario Definition Language
76	M&S	Modeling & Simulation
77	MTO&E	Modified Table of Organization and Equipment
78	PDG	Product Development Group
79	POC	Point of Contact
80	SAC	Standard Activity Committee
81	SIMCI	Simulation to C4I Interoperability
82	SISO	Simulation Interoperability Standards Organization
83	UOB	Unit Order of Battle
84	UTM	Universal Transverse Mercator
85	UUID	Universal Unique Identifiers
86	XML	eXtensible Markup Language

5 Military Scenario Definition Language (MSDL)

5.1 MSDL Concepts

This section presents some concepts that characterize MSDL.

5.1.1 Planning and Execution

An MSDL scenario represents an intermediate state or a link between the planning and execution for any number or type of military scenarios including training, analytical, and operational. It is independent of both the planning and execution systems to enable a broad range of interoperability and reuse.

For the planning and execution systems that do not directly support MSDL, scenarios must be converted between the proprietary format and the standard MSDL format. Additionally, the conversion to the execution format may add information that the execution system requires.

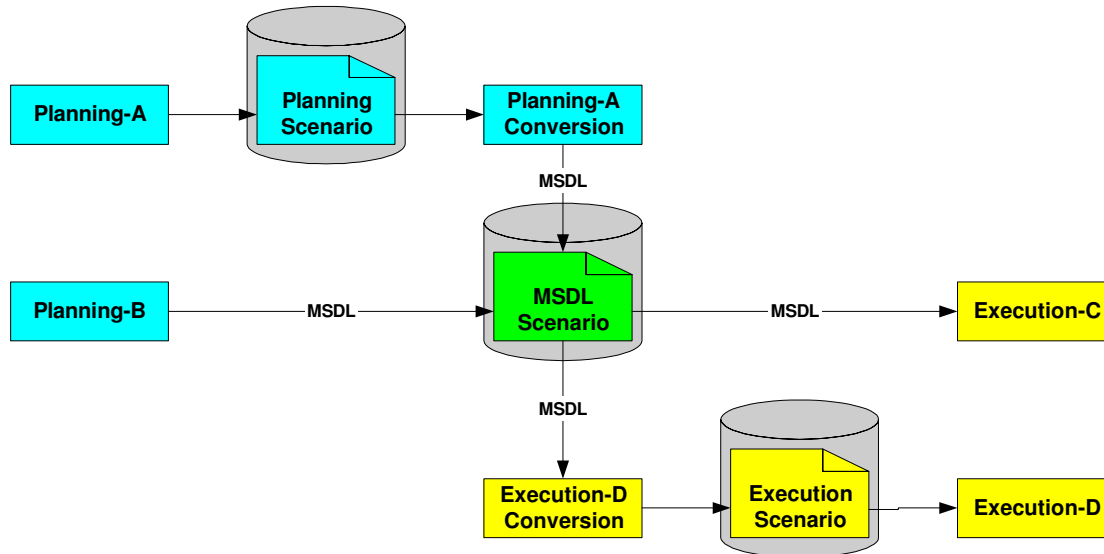


Figure 1: Planning to Execution

5.1.2 Reality and Intelligence

A scenario describes a virtual world containing elements that interact with each other. In support of these interactions, each element may have certain knowledge of the other elements in the scenario. The actual description of the elements is referred to as the reality aspect of the scenario because what it describes is the reality in the context of the scenario. These descriptions are exact and not the result of interpretation by the scenario elements. The description of the knowledge, however, is referred to as the intelligence aspect of the scenario and is specific to each scenario element's knowledge of the battlespace. Multiple descriptions of a single element will exist in the context of the scenario since multiple other elements will have knowledge of that single element. These descriptions would represent the result of a virtual intelligence gathering process performed by the scenario elements prior to the execution of the scenario. As such, the descriptions are approximate derivations of the reality aspect values.

5.1.3 Element Identification & Reference

All primary elements in MSDL are identified by UUIDs. These UUIDs are stored in the MSDL XML element named "ObjectHandle". The use of such a referencing mechanism helps to flatten out the MSDL structure in areas such as Organizations.

5.2 MSDL Content

The MSDL specification has one root element called MilitaryScenario. It contains the following main elements or components: ScenarioID, Options, Environment, ForceSides, Organizations, Overlays, Installations, TacticalGraphics, and MOOTWGraphics. Some of the elements describe the reality portion of the scenario while others describe the intelligence portion.

The ScenarioID element provides the identification of the scenario and its purpose.

The Options element provides global parameters about the scenario and its content.

The Environment element describes the environment in which the execution is to occur.

The ForceSides element describes the structure of the forces and sides involved in the execution.

The Organizations element describes the structure of the units and equipment involved in the execution.

The Overlays element describes the logical overlays used to group the intelligence elements/instances in the scenario/execution. Ownership of a specific overlay is determined through the intelligence elements/instances it groups.

The Installations element describes the detected installations as determined by the intelligence gathering process by each force, side or unit individually. The description of any corresponding actual instances, the reality portion, is unspecified in this version of MSDL.

The TacticalGraphics element describes the tactical information as known by a particular force, side or unit individually. The description of any corresponding actual instances, the reality portion, is unspecified in this version of MSDL.

The MOOTWGraphics element describes the detected MOOTWGraphics instances as determined by the intelligence gathering process by each force, side or unit individually. The description of any corresponding actual instances, the reality portion, is unspecified in this version of MSDL.

5.3 Schema Structure

MSDL is defined using an XML schema that allows for format verification and content validation. The MSDL schema makes liberal use of specific schema restrictions (sequence, all, and choice) to the data structure of the scenario as well as element type definitions and boundary values including: max/min values, default values, patterns for string, uniqueness restriction on designations and keys.

5.3.1 Files and namespaces

The top-level schema MilitaryScenario.xsd specifies only one XML element, the MilitaryScenario element as the base or root element of the MSDL schema. All other MSDL elements are declared locally within the globally declared complex types in the msdlComplexTypes.xsd schema and are bound to the "msdl" namespace. MSDL simple types are declared with msdlSimpleTypes.xsd and are bound to the "msdl" namespace. MSDL specific domain values are found in msdlCodes.xsd and are also bound to the "msdl" namespace.

Metadata describing the contents of MSDL instance document are self contained within a ScenarioID element. The ScenarioID element reuses the ModelID element type as defined in SISO-STD-003-2006 to capture and store the metadata information. As such the MSDL schema imports and reuses the ModelID element as declared in the ModelID_v2006.xsd schema.

Likewise, the MSDL schema definition reuses a number of meteorological and battlespace domain values as found in the JC3IEDM. These JC3IEDM domain values and meteorological data types and elements are defined in JC3IEDM-3.1-Codes-20061208.xsd and JC3IEDMMeteorological.xsd respectively. The MSDL schema imports both of these schemas.

Unless otherwise specified, the version 1.0 MSDL schema information is defined within the "urn:sisostds:scenario:military:data:draft:msdl:1" namespace and identified by the "msdl" prefix. MSDL imports two additional XML namespaces to define specific types and elements. These namespaces are

159 “http://www.sisostds.org/schemas/modelID” identified with prefix “ModelID” and
160 “urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0” identified with prefix “jc3iedm”.

161 5.3.2 MSDL Business Rules

162 Three types of business rules are encompassed within the MSDL specification: hierarchical element
163 relationships, non-hierarchical element relationships, and element typing constraints. Both the hierarchical
164 and element typing constraints are encompassed within the MSDL XML schema representation while the
165 non-hierarchical element relationships are explained using text. Within sections 6 and 7, each element and
166 type contains a description of its respective business rules.

167 Hierarchical element relationships are described using XML compositor elements of xs:all, xs:choice, and
168 xs:sequence, and appropriate cardinality indicators of minOccurs and maxOccurs attributes. Hierarchical
169 element relationships within a military scenario instance document can be validated against the MSDL
170 schema using standard XML parsing utilities.

171 Non-hierarchical element relationships are described in several ways. The first is with the use of
172 ObjectHandles to establish relationships between objects. The second is with text describing the relationship
173 between or among instances of the elements such as the relationship with units to other units and to the
174 ForceSide element. Text is also used to describe the relationship of standards selected to instancing
175 specific elements such as the dependency between selecting a coordinate designation and then populating
176 the location details of specific units, entities, or graphics. While these business rules are specified in text,
177 they are not currently validated.

178 Finally, type, boundary value, and enumeration-based constraints are classified as element typing
179 constraints. Element typing constraints can also be validated within military scenario instance documents
180 against the MSDL schema using standard XML parsing utilities.

181 5.3.3 Style & Diagram Notation

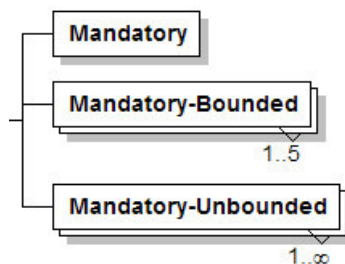
182 This section provides a summary of the style used to highlight MSDL elements within the text and to describe
183 the graphical notation used within the figures. XMLSpy Version 4.1 was used to generate all of the XML
184 schema figures in this document as well as autogenerate the type tables within Section 7.

185 5.3.3.1 Style

186 To highlight the MSDL schema structure and definitions within this document the XML elements defined as
187 part of the “MSDL” namespace are written using **bold, italicized font**. Elements or types imported from
188 other namespaces are written in normal font.

189 5.3.3.2 Mandatory Elements

190 The rectangle indicates an element and the solid border indicates that the element is required. The absence
191 of a number range indicates a single element (i.e. minOccurs=1 and maxOccurs=1). The element is bounded
192 when numbers are specified under the rectangle (i.e. minOccurs=1 and maxOccurs=5). The element is
193 unbounded when infinity sign is specified as upper bound under the rectangle (i.e. minOccurs=1 and
194 maxOccurs=unbounded). The minimum occurrence value can be higher than one.



195
196 **Figure 2: Mandatory Elements Notation**

5.3.3.3 Optional Elements

The rectangle indicates an element and the dashed border indicates that the element is optional. The absence of a number range indicates a single element (i.e. minOccurs=0 and maxOccurs=1). The element is bounded when numbers are specified under the rectangle (i.e. minOccurs=0 and maxOccurs=5). The element is unbounded when infinity sign is specified as upper bound under the rectangle (i.e. minOccurs=0 and maxOccurs=unbounded).

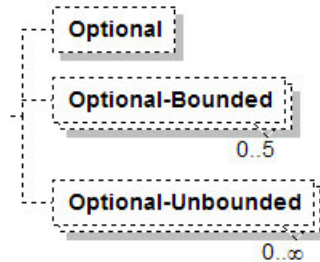


Figure 3: Optional Elements Notation

5.3.3.4 Expandable Element

A plus sign on the right side of an element indicates that the element contains child elements. When this appears in the diagrams, it means that the child elements are described somewhere else in the document.

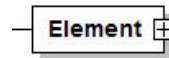


Figure 4: Expandable Element

5.3.3.5 Compositors

A compositor defines the order in which child elements occur. There are three compositors: sequence, choice, and all. The compositors like the elements can be mandatory or optional and may be bounded or unbounded.

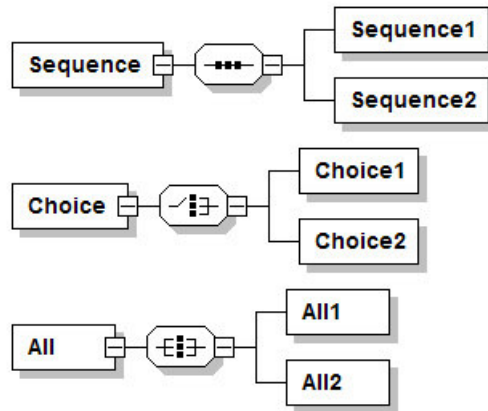


Figure 5: Compositors Notation

5.3.3.6 Complex Type

Complex types are shown as shaded boxes, as depicted in Figure 6, with the complex type name at the upper left of the shaded box. These definitions are included as part of the MSDL element definitions.

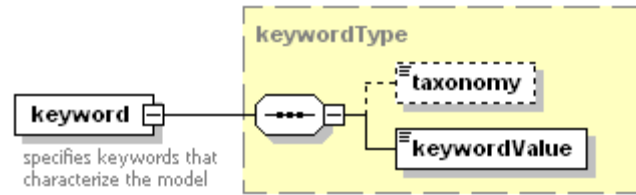


Figure 6: Complex Type Notation

6 *msdl: MilitaryScenario* Element

The *msdl: MilitaryScenario* element is the root of the MSDL specification. A graphical depiction, Figure 7, defines the *msdl: MilitaryScenario* as an XML xs:sequence compositor containing the elements described in the following subsections. The domain type is *msdl: MilitaryScenarioType*.

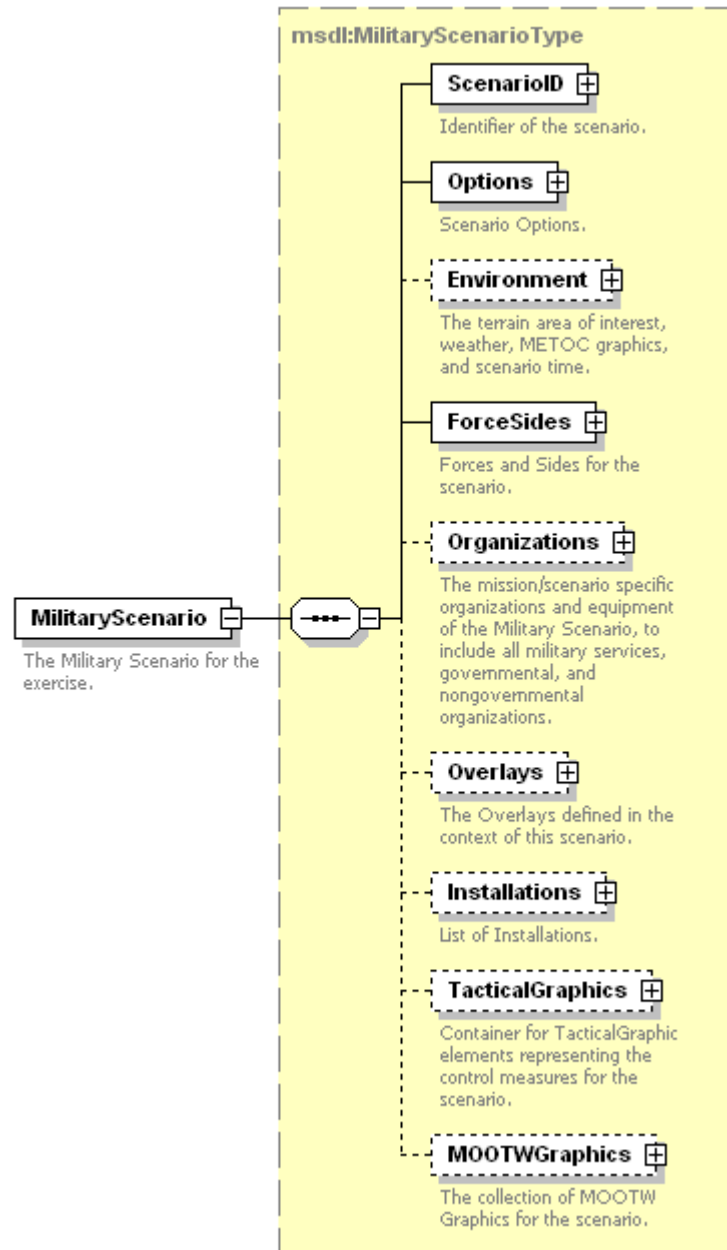


Figure 7: *msdl: MilitaryScenario* Element Structure

6.1 *msdl: MilitaryScenarioType/ScenarioID* Element

For every *msdl: MilitaryScenarioType* complex type there shall be one *ScenarioID* element. The *ScenarioID* defines the structure to hold military scenario metadata. The domain type is *modelID: modelIdentificationType*. The *modelID: modelIdentificationType* contains the optional attributes *id: notes* of type *xs: IDREFS* and *id: idtag* of type *xs: ID*. These optional attributes are defined and are consistently used within each element of the *ModelID: modelIdentificationType*. The *id: notes* attribute is used

233 to provide a reference to notes that may be specified elsewhere in the schema; however since the MSDL
234 schema does not include a notes table this attribute will not be used. It is included here because the
235 **ScenarioID** is being reused in its entirety from the Base Object Model standard. The id:idtag is used to
236 create a unique id that can be referenced from other parts of the instance document or from outside the
237 instance document, this is an optional attribute and is not required. **ScenarioID** is an xs:sequence
238 compositor comprised of all the elements shown in Figure 8 and described in the subsequent subsections.
239 The domain type is ModelID:modelIdentificationType.

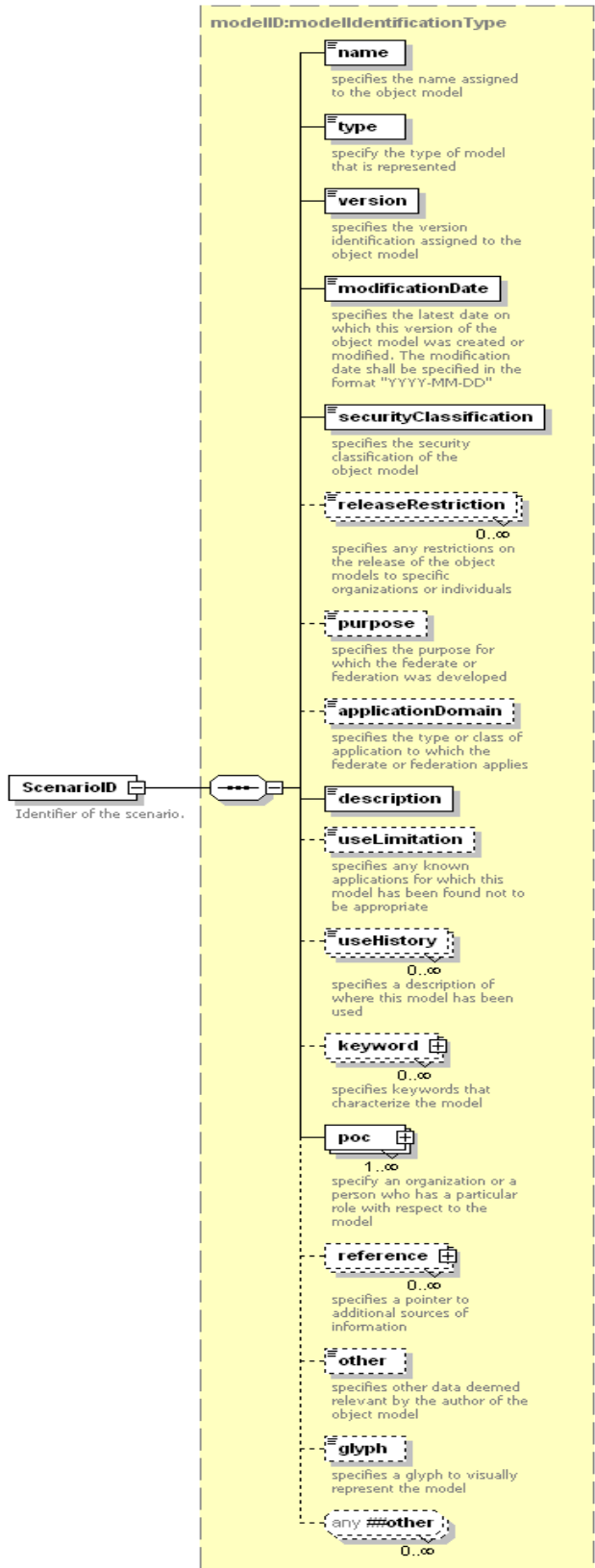


Figure 8: *msdl:MilitaryScenario/ScenarioID* Element Structure

242 **6.1.1 modelID:modelIdentificationType/name Element**

243 For every modelID:modelIdentificationType complex type there shall be one name element. The name
244 element specifies the name assigned to the military scenario. The domain type is modelID:IdentifierType
245 (extension of xs:NCName) and contains the optional attributes notes of type xs:IDREFS and idtag of type
246 xs:ID.

247 **6.1.2 modelID:modelIdentificationType/type Element**

248 For every modelID:modelIdentificationType complex type there shall be one type element that follows the
249 name element. The type element specifies the type of the military scenario that is represented. The domain
250 type is modelID:modelType(*extension of OMTUnion*) and contains the optional attributes notes of type
251 xs:IDREFS and idtag of type xs:ID.

252 **6.1.3 modelID:modelIdentificationType/version Element**

253 For every modelID:modelIdentificationType complex type there shall be one version element that follows the
254 type element. The version element specifies the version identification assigned to the military scenario. The
255 domain type is modelID:NonEmptyString(restriction of xs:string) with a minimum length of one and contains
256 the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

257 **6.1.4 modelID:modelIdentificationType/modificationDate Element**

258 For every modelID:modelIdentificationType complex type there shall be one modificationDate element that
259 follows the version element. The modificationDate element specifies the latest date on which this version of
260 the military scenario was created or modified. It is an extension of type xs:date. The modificationDate shall
261 be specified in the format "YYYY-MM-DD", cannot be null, and contains the optional attributes notes of type
262 xs:IDREFS and idtag of type xs:ID.

263 **6.1.5 modelID:modelIdentificationType/securityClassification Element**

264 For every modelID:modelIdentificationType complex type there shall be one securityClassification element
265 that follows the modificationDate element. The securityClassification element specifies the security
266 classification of the military scenario. The domain type is modelID:securityClassificationType (union of
267 SecurityClassificationEnumeration and nonEmptyString) and contains the optional attributes notes of type
268 xs:IDREFS and idtag of type xs:ID.

269 **6.1.6 modelID:modelIdentificationType/releaseRestriction Element**

270 For every modelID:modelIdentificationType complex type there shall be zero to unbounded
271 releaseRestriction element that follows the securityClassification element. The releaseRestriction element
272 specifies any restrictions on the release of the military scenario to specific organization or individuals. The
273 domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type
274 xs:IDREFS and idtag of type xs:ID.

275 **6.1.7 modelID:modelIdentificationType/purpose Element**

276 For every modelID:modelIdentificationType complex type there shall be zero or one purpose elements that
277 follow the releaseRestriction element. The purpose element specifies the purpose for which the military
278 scenario was developed. The domain type is modelID:String (extension of xs:string) and contains the
279 optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

280 **6.1.8 modelID:modelIdentificationType/applicationDomain Element**

281 For every modelID:modelIdentificationType complex type there shall be zero or one applicationDomain
282 element that follows the applicationDomain element. The applicationDomain element specifies the type or
283 class of application to which the military scenario applies. The domain type is
284 modelID:applicationDomainType (union of ApplicationDomainEnumerations and xs:string) and contains the
285 optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.9 modelID:modelIdentificationType/description Element

For every modelID:modelIdentificationType complex type there shall be one description element that follows the applicationDomain element. The description element specifies the description of the military scenario. The domain type is modelID:NonEmptyString (restriction of xs:string minimum length of 1) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.10 modelID:modelIdentificationType/useLimitation Elements

For every modelID:modelIdentificationType complex type there shall be zero or one useLimitation element that follows the description element. The useLimitation element specifies any known application for which this military scenario has been found not to be appropriate. The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.11 modelID:modelIdentificationType/useHistory Elements

For every modelID:modelIdentificationType complex type there shall be zero to unbounded useHistory elements that follow the useLimitation element. The useHistory element specifies a description of where this military scenario has been used. The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.12 modelID:modelIdentificationType/keyword Element

For every modelID:modelIdentificationType complex type there shall be zero or more keyword elements that follow the useHistory element. The keyword element specifies keywords that characterize the military scenario. keyword is an xs:sequence compositor comprised of all the elements shown in Figure 9 and described in the subsequent subsections. The domain type is modelID:keywordType and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

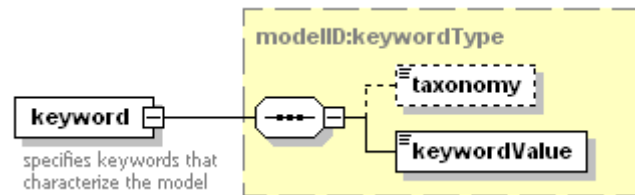


Figure 9: modelID:modelIdentificationType/keyword Element Structure

6.1.12.1.1 modelID:keywordType/taxonomy Element

For every modelID:keywordType complex type there shall be zero or one taxonomy element. The taxonomy element specifies the source of the keyword vocabulary, i.e. "Military warfare". The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.12.1.2 modelID:keywordType/keywordValue Element

For every modelID:keywordType complex type there shall be one keywordValue element following the taxonomy element. The keywordValue element provides the word or concept describing the military scenario i.e. "Engagement". The domain type is modelID:NonEmptyString (restriction of xs:string minimum length of 1) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.13 modelID:modelIdentificationType/poc Element

For every modelID:modelIdentificationType complex type there shall be one or more poc elements following the keyword element. The poc element specifies an organization or a person who has a particular role with respect to the military scenario. The domain type is modelID:pocType. It contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID. Poc is an xs:sequence compositor containing all the

elements shown in Figure 10 and described in the subsequent subsections. The domain type is ModelID:pocType.

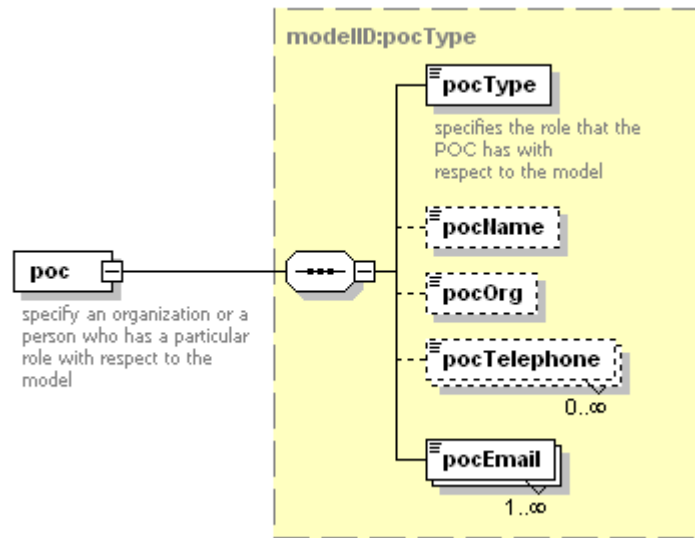


Figure 10: modelID:modelIdentificationType/pocType Element Structure

6.1.13.1.1 modelID:pocType/pocType Element

For every modelID:pocType complex type there shall be one pocType element. The pocType element specifies the role that the POC has with respect to the military scenario. The domain type is ModelID:pocTypeType (union of POCTypeEnumeration and nonEmptyString) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.13.1.2 modelID:pocType/pocName Element

For every modelID:pocType complex type there shall be zero or one pocName element following the pocType element. The pocName element specifies the name of the POC. The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.13.1.3 modelID:pocType/pocOrg Element

For every modelID:pocType complex type there shall be zero or one pocOrg elements following the pocName element. The pocOrg element specifies the name of the organization the POC is associated with. The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.13.1.4 modelID:pocType/pocTelephone Element

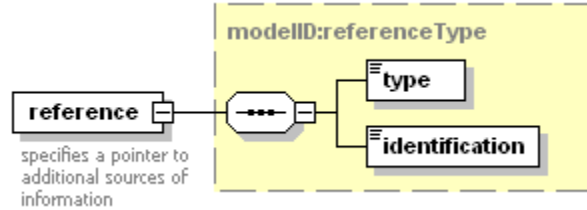
For every modelID:pocType complex type there shall be zero to unbounded pocTelephone elements following the pocOrg element. The pocTelephone element specifies the POC's telephone number. The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

6.1.13.1.5 modelID:pocType/pocEmail Element

For every modelID:pocType complex type there shall be one to unbounded pocEmail elements following the pocTelephone element. The pocEmail specifies the POC's email address(es). The domain type is modelID:String (extension of xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

353 6.1.14 modelID:modelIdentificationType/reference Element

354 For every modelID:modelIdentificationType complex type there shall be zero or one reference element that
355 follows the poc element. The reference element specifies the reference information for the military scenario.
356 Reference is an xs:sequence compositor containing all the elements shown in Figure 11 and described in the
357 subsequent subsections.



358
359 **Figure 11: modelID:modelIdentificationType/reference Element Structure**

360 6.1.14.1 modelID:referenceType/type Element

361 For every modelID:referenceType complex type there shall be one type element. The type element specifies
362 the type of reference. It is of modelID:referenceTypeUnion (union of referenceTypeEnumerations and
363 xs:string) and contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

364 6.1.14.2 modelID:referenceType/identification Element

365 For every modelID:modelIdentificationType complex type there shall be one identification element following
366 the type element. The identification element specifies the reference title. It is an extension of xs:anyURI and
367 contains the optional attributes notes of type xs:IDREFS and idtag of type xs:ID.

368 6.1.15 modelID:modelIdentificationType/other Element

369 For every modelID:modelIdentificationType complex type there shall be zero or one other element following
370 the reference element. The other element specifies other data deemed relevant by the author of the military
371 scenario. The domain type is modelID:String and contains the optional attributes notes of type xs:IDREFS
372 and idtag of type xs:ID.

373 6.1.16 modelID:modelIdentificationType/glyph Element

374 For every modelID:modelIdentificationType complex type there shall be zero or one glyph element following
375 the other element. The glyph element specifies a glyph to visually represent the military scenario. The
376 domain type is glyphType. It contains the optional attributes notes of type xs:IDREFS, idtag of type xs:ID,
377 height of type xs:short, width of type xs:short, and alt of type xs:string, and required attribute type of type
378 glyphTypeUnion(union of glyphTypeEnumerations and xs:string).

379 6.1.17 modelID:modelIdentificationType/any Element

380 For every modelID:modelIdentificationType complex type there shall be zero or more any elements following
381 the glyph element. The any element allows any element not specified in the schema to be added to the end
382 of the **ScenarioID** element. The domain type is undefined. This element is a result of reuse of the SISO-
383 STD-003-2006 BOM specification and is not recommended for use the values used to populate it within an
384 instance schema cannot be verified or validated.

385 6.2 msdl:MilitaryScenarioType/Options Element

386 For every **msdl:MilitaryScenarioType** complex type there shall be one **Options** element. The **Options**
387 element is used to identify how task organizations are specified (entity or aggregate based), the data
388 standards being used within the scenario, and any application specific options embedded within the
389 scenario. The **Options** element is comprised of an xs:all compositor containing the elements shown in
390 Figure 12 and described in the subsequent subsections. The domain type is **msdl:OptionsType**.

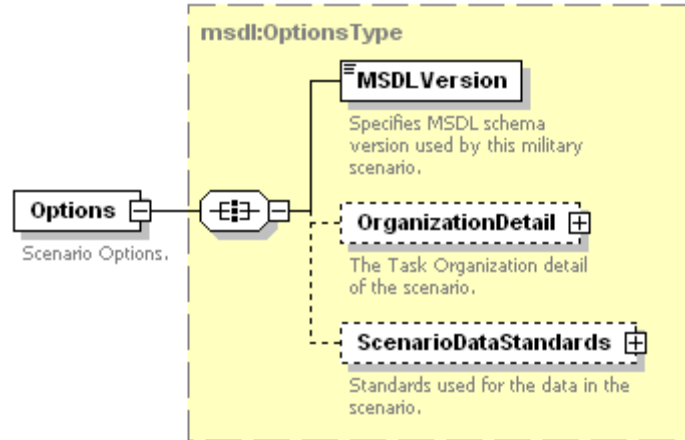


Figure 12: *msdl:OptionsType/Options* Element Structure

6.2.1 *msdl:OptionsType/MSDLVersion* Element

For every *msdl:OptionsType* complex type there shall be one **MSDLVersion** element. The **MSDLVersion** specifies the MSDL schema version defining the military scenario. This element is intended to allow instance document users to verify the document version against the expected MSDL schema version. The domain type is *msdl:textIdentifier64*.

6.2.2 *msdl:OptionsType/OrganizationDetail* Element

For every *msdl:OptionsType* complex type there shall be zero or one **OrganizationDetail** element. The **OrganizationDetail** element specifies the task organization detail of the scenario including the unit and echelon aggregate information. The **OrganizationDetail** element, an xs:all compositor, is comprised of the elements shown in Figure 13 and described in the following subsections. The domain type is *msdl:OrganizationalDetailType*.

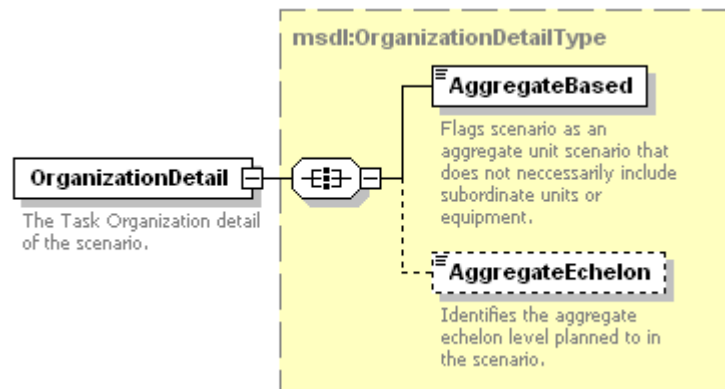


Figure 13: *msdl:OptionsType/OrganizationDetail* Element Structure

6.2.2.1 *msdl:OrganizationDetail/AggregateBased* Element

For every *msdl:OrganizationDetailType* complex type there shall be one **AggregateBased** element. The **AggregateBased** element indicates if the scenario is an aggregate unit scenario that does not necessarily include subordinate units. Setting the value to "true" indicates the scenario is aggregate-based, a "false" setting indicates an entity-based scenario. When the **AggregateBased** element is set to "true" the **AggregateEchelon** element, described in section 6.2.2.2, holds an echelon enumeration describing the minimum level of complete unit and equipment detail within the scenario document. There may be

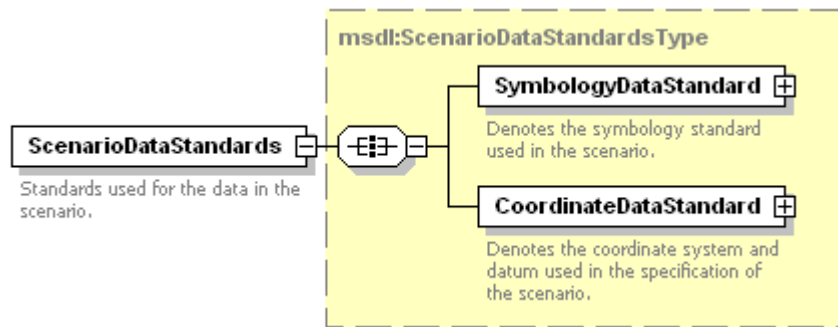
413 additional, but incomplete unit and equipment information, at the echelons below that described in the
414 **AggregateEchelon**. The domain type is **msdl:booleanAggregateBased**.

415 6.2.2.2 **msdl:OrganizationDetail/AggregateEchelon** Element

416 For every **msdl:OrganizationDetailType** complex type there shall be zero or one **AggregateEchelon**
417 element. The **AggregateEchelon** element specifies the aggregate echelon level planned to in the scenario.
418 By convention the **AggregateEchelon** holds a value that is one echelon higher than is detailed within the
419 task organization data. The domain type is **msdl:enumEchelon**.

420 6.2.3 **msdl:OptionsType/ScenarioDataStandards** Element

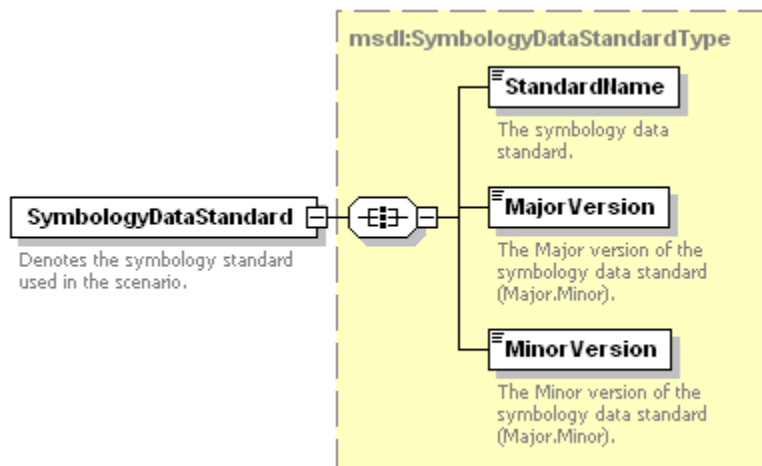
421 For every **msdl:OptionsType** complex type there shall be zero or one **ScenarioDataStandards** element.
422 The **ScenarioDataStandards** element specifies the standards to be used throughout the military scenario
423 document. It is an xs:all compositor comprised of the elements shown in Figure 14 and described in the
424 following subsections. The domain type is **msdl:ScenarioDataStandardsType**.



425
426 **Figure 14: *msdl:OptionsType/ScenarioDataStandards* Element Structure**

427 6.2.3.1 **msdl:ScenarioDataStandardType/SymbologyDataStandard** Element

428 For every **msdl:ScenarioDataStandardType** complex type there shall be one **SymbologyDataStandard**
429 element. The **SymbologyDataStandard** element specifies the symbology standard, version, and revision
430 used in the specification of the military scenario. It is an xs:all compositor comprised of the elements shown
431 in Figure 15 and described in the following subsections. The domain type is
432 **msdl:SymbologyDataStandardType**.



433
434 **Figure 15: *msdl:ScenarioDataStandardType/SymbologyDataStandard* Element Structure**

435 6.2.3.1.1 **msdl:SymbologyDataStandardType/StandardName** Element

436 For every **msdl:ScenarioDataStandardType** complex type there shall be one **SymbologyStandard**
437 element. The **SymbologyStandard** element specifies the symbology standard used within the military
438 scenario document. The domain type is **msdl:enumSymbologyStandardType**.

439 6.2.3.1.2 **msdl:SymbologyDataStandardType/MajorVersion** Element

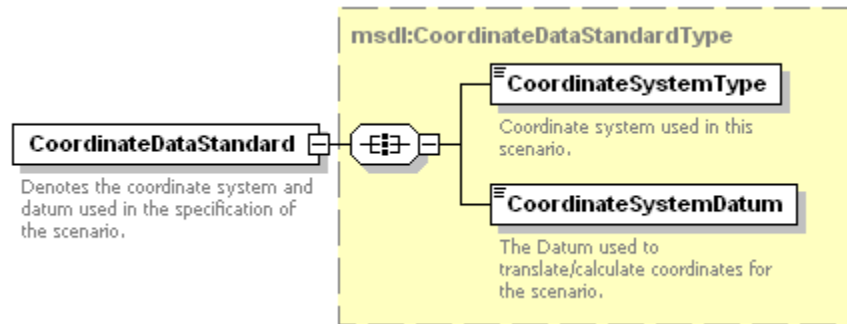
440 For every **msdl:ScenarioDataStandardType** complex type there shall be one **MajorVersion** element. The
441 **MajorVersion** element specifies the major version (major.minor) of the symbology standard used within the
442 military scenario. The domain type is **msdl:textIdentifier64**.

443 6.2.3.1.3 **msdl:SymbologyDataStandardType/MinorVersion** Element

444 For every **msdl:ScenarioDataStandardType** complex type there shall be one **MinorVersion** element. The
445 **MinorVersion** element specifies the minor version of the symbology standard used within the military
446 scenario. The domain type is **msdl:textIdentifier64**.

447 6.2.3.2 **msdl:ScenarioDataStandardType/CoordinateDataStandard** Element

448 For every **msdl:ScenarioDataStandardType** complex type there shall be one **CoordinateDataStandard**
449 element. The **CoordinateDataStandard** element specifies the coordinate standard and version used in the
450 specification of the military scenario. The specification of the coordinate system is expected to be adhered to
451 in all location specific detail of the associated objects/symbology included in the military scenario. The
452 datum must be provided in order for location values to be unambiguously exchanged. The
453 **coordinateDataStandard**, an xs:all compositor, is comprised of the elements shown in Figure 16 and
454 described in the following subsections. The domain type is **msdl:CoordinateDataStandardType**.



455
456 **Figure 16: *msdl:ScenarioDataStandardType/CoordinateDataStandard* Element Structure**

457 6.2.3.2.1 **msdl:CoordinateDataStandardType/CoordinateSystemType** Element

458 For every **msdl:CoordinateDataStandardType** complex type there shall be one **CoordinateSystemType**
459 element. The **CoordinateSystemType** element specifies the coordinate system to be used within the
460 military scenario for all location specific detail. The domain type is **msdl:enumCoordinateSystemType**.

461 6.2.3.2.2 **msdl:CoordinateDataStandardType/CoordinateSystemDatum** Element

462 For every **msdl:CoordinateDataStandardType** complex type there shall be one **CoordinateSystemDatum**
463 element. The **CoordinateSystemDatum** element specifies the datum used to calculate coordinates. The
464 domain type is **msdl:textDatum8**.

465 6.3 **msdl:MilitaryScenarioType/Environment** Element

466 For every **msdl:MilitaryScenarioType** complex type there shall be zero or one **Environment** element
467 following the **Options** element. The **Environment** element describes the surroundings, at a synoptic level, of
468 the military scenario. It includes the **ScenarioTime**, the scenario **AreaOfInterest**, the **ScenarioWeather** and
469 the **METOC** information. The **METOC** element covers the Meteorological, the Oceanographical and the

470 Space elements of the environment. Within these elements, it also covers some geographical elements
471 (mostly the effects of the weather).

472 In this context, the Weather information appears in both the **ScenarioWeather** elements and the **METOC**
473 elements. The **ScenarioWeather** elements describe the overall weather while the **METOC** elements
474 describe the specific details. Because of this care must be taken to ensure consistency between the
475 **ScenarioWeather** elements and the **METOC** elements when populating both forms within a scenario
476 instance. The consistency of the scenario is assumed prior to the initialization of the applications.

477 Finally, environmental changes during the course of the simulation can be specified within the military
478 scenario using the **ScenarioWeather** and the **METOC** information. The following list identifies the elements
479 that influence the evolution of the environment.

- 480 • **Atmosphere:** - *InversionLayerCode* and *TemperatureGradientCode*.
- 481 • **Precipitation:** - *Rate*.
- 482 • **Wind:** - *AirStabilityCategoryCode*, *SpeedRate*, *NuclearYieldQualifierCode*.
- 483 • **METOCGraphic:** - *DateTimeGroup* and *Speed*.

484 The **Environment** element, an xs:all compositor, is comprised of the elements shown in Figure 17 and
485 described in the following subsections. The domain type is **msdl:EnvironmentType**.

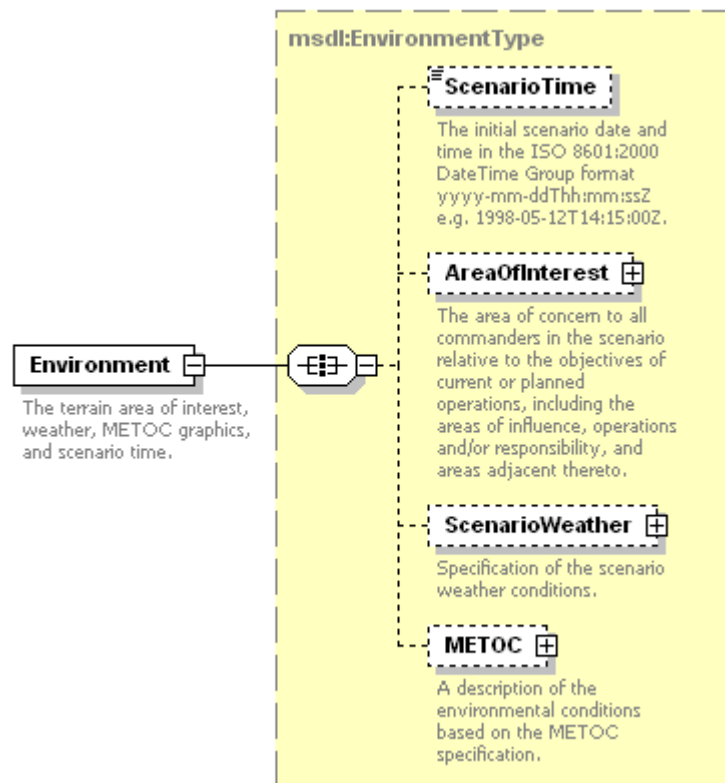


Figure 17: **msdl:MilitaryScenarioType/Environment** Element Structure

6.3.1 **msdl:EnvironmentType/ScenarioTime** Element

489 For every **msdl:EnvironmentType** complex type there shall be zero or one **ScenarioTime** element. The
490 **ScenarioTime** element indicates the absolute simulation start time for the event and is used to initialize the
491 simulation start time. **ScenarioTime** is the reference for all relative times in the scenario. The domain type is
492 **msdl:patternTimeDTG14**.

6.3.2 *msdl:EnvironmentType/AreaOfInterest* Element

For every *msdl:EnvironmentType* complex type there shall be zero or one *AreaOfInterest* element. The *AreaOfInterest* indicates a rectangular area where the scenario will occur. It is expected to include the areas of interest, influence, operation, etc. of all elements in the scenario. The *msdl:RectangleAreaType* complex type, an xs:all compositor, contains all the elements shown in Figure 18 and described in the subsequent subsections. The domain value is a pair of coordinates describing a rectangle area. The domain type is *msdl:RectangleAreaType*.

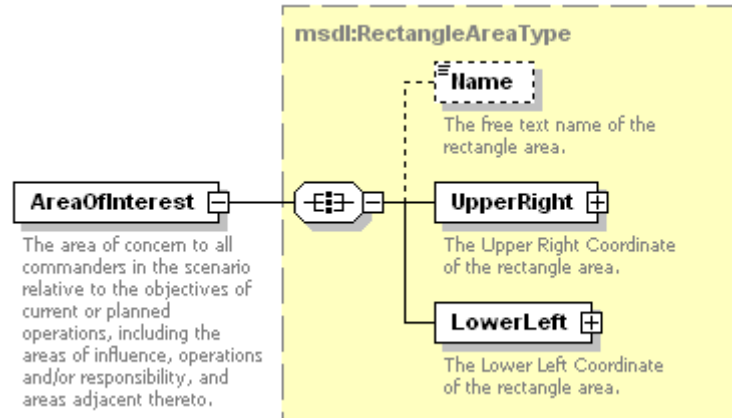


Figure 18: *msdl:EnvironmentType/AreaOfInterest* Element Structure

6.3.2.1 *msdl:RectangleAreaType/Name* Element

For every *msdl:RectangleAreaType* complex type there shall be zero or one *Name* element. The *Name* element specifies the free text name of the rectangle area. The domain type is *msdl:Name255*.

6.3.2.2 *msdl:RectangleAreaType/UpperRight* Element

For every *msdl:RectangleAreaType* complex type there shall be one *UpperRight* element. The *UpperRight* element defines the upper right coordinate of the rectangle area. The *UpperRight*, an xs:choice compositor, is comprised of one and only one of the subelements shown in Figure 19 and described in the following subsections. The domain type is *msdl:CoordinatesType*.

MSDL supports coordinate systems of MGRS, UTM, GDC, and GCC. Each coordinate element provides a choice of the coordinate system to be used. The intent of MSDL is that the choice correlates with the coordinate system specified in *CoordinateSystemType*. For coordinates of MGRS, UTM, and GCC, the Datum must be specified in a *msdl:CoordinateDataStandardType/CoordinateSystemDatum* element.

While real-world GCC values are not based on a Datum, in simulation GCC values are generated based on GDC values that have been applied to a Datum specific geoid/ellipsoid. Therefore, a GCC value cannot be correlated to a simulation environment, unless the original Datum has been specified.

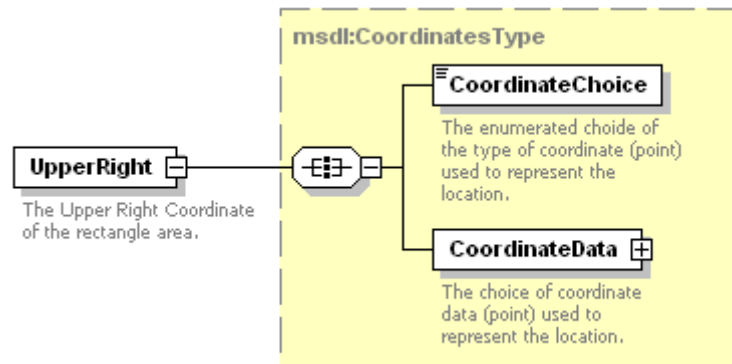


Figure 19: *msdl:RectangleAreaType/UpperRight* Element Structure

6.3.2.2.1 *msdl:CoordinatesType/CoordinateChoice* Element

For every *msdl:CoordinatesType* complex type there shall be one *CoordinateChoice* element. This element provides the type of coordinate used to represent the location. The domain type is *msdl:enumCoordinatesSystemType*.

6.3.2.2.2 *msdl:CoordinatesType/CoordinateData* Element

For every *msdl:CoordinatesType* complex type there shall be one *CoordinateData* element. This element provides the coordinate data of the location in the datatype specified by the *CoordinateChoice* element. The *CoordinateData* element, an xs:choice compositor, is comprised of one and only one of the subelements shown in Figure 20 and described in the following subsections. The domain type is *msdl:CoordinatePointType*.

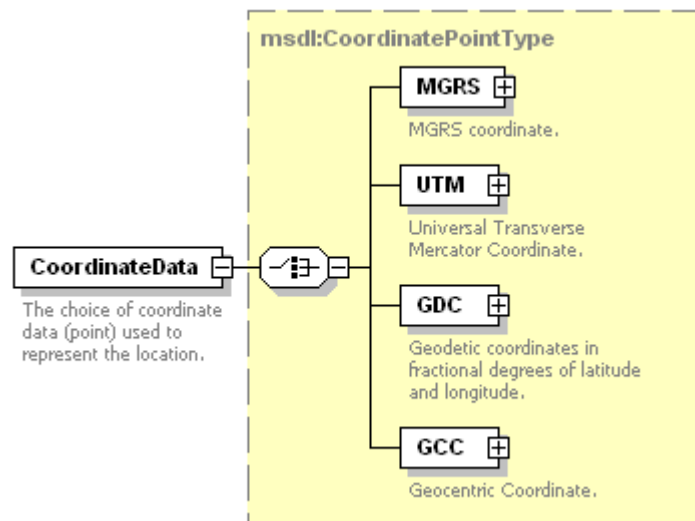


Figure 20: *msdl:CoordinatesType/CoordinateData* Element Structure

1. **MGRS** Element - For each *msdl:CoordinatePointType* complex type there shall be zero or one **MGRS** element. The **MGRS** element, an xs:all compositor, specifies the Military Grid Reference System (MGRS) coordinate and is made up of the child elements as shown in Figure 21. Domain type is *msdl:MGRSType*.

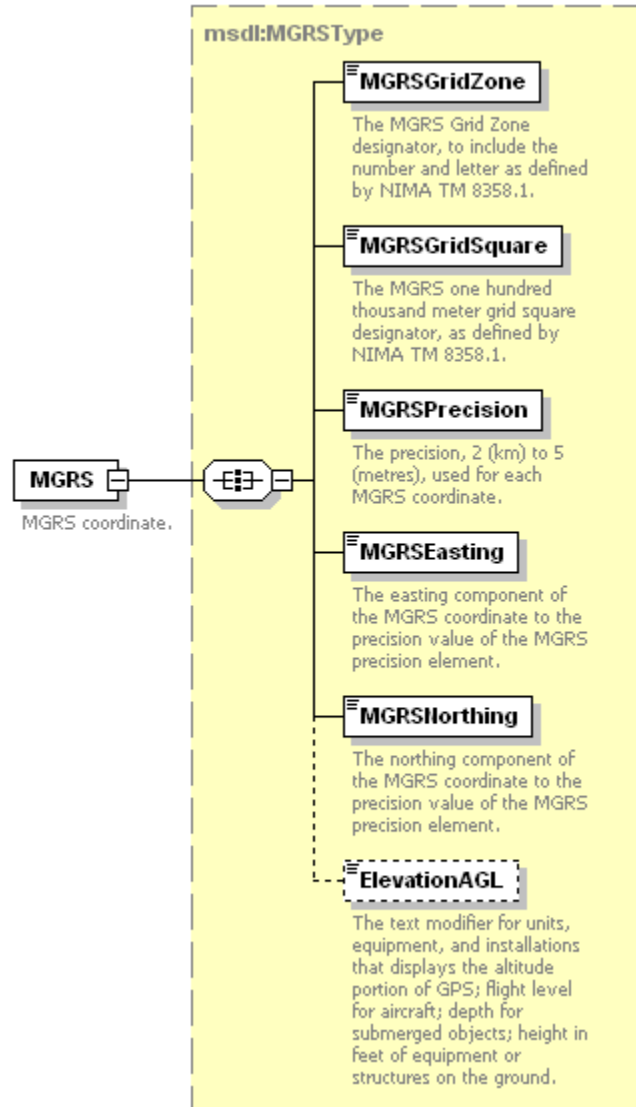


Figure 21: *msdl:CoordinatePointType/MGRS* Element structure

- a) **MGRSGridZone** Element - For each *msdl:MGRSType* complex type there shall be one **MGRSGridZone** element. The **MGRSGridZone** element specifies the MGRS Grid Zone designator to include the number and letter as defined by NIMA TM 8358.1. The domain type is *msdl:patternMGRSGridSquare2*.
- b) **MGRSGridSquare** Element - For each *msdl:MGRSType* complex type there shall be one **MGRSGridSquare** element. The **MGRSGridSquare** element specifies the one hundred thousand meter grid square designator as defined by NIMA TM 8358.1. The domain type is *msdl:patternMGRSGridSquare2*.
- c) **MGRSPrecision** Element - For each *msdl:MGRSType* complex type there shall be one **MGRSPrecision** element. The **MGRSPrecision** element specifies the precision, 2(km) to 5(metres), used for each MGRS coordinate. The domain type is *msdl:integerMGRSPrecision1*.
- d) **MGRSEasting** Element - For each *msdl:MGRSType* complex type there shall be one **MGRSEasting** element. The **MGRSEasting** element specifies the easting component of the MGRS coordinates to the precision value of the MGRS precision element. The domain type is *msdl:integerMGRSEasting5*.

- e) **MGRSNorthing** Element - For each **msdl:MGRSType** complex type there shall be one **MGRSNorthing** element. The **MGRSNorthing** element specifies the northing component of the MGRS coordinates to the precision value of the MGRS precision element. The domain type is **msdl:integerMGRSNorthing5**.
- f) **ElevationAGL** Element - For each **msdl:MGRSType** complex type there shall be zero or one **ElevationAGL** element. The **ElevationAGL** element specifies the altitude, in metres of a position for the flight level for aircraft; depth for submerged objects; height of equipment or structures on the ground. The domain type is **msdl:floatElevationAGL6_2**.
2. **UTM** Element - For each **msdl:CoordinatePointType** complex type there shall be zero or one **UTM** element. The **UTM** element, an xs:all compositor, specifies the Universal Transverse Mercator Coordinate (UTM) coordinate and is made up of the child elements as shown in Figure 22. Domain type is **msdl:UTMType**.

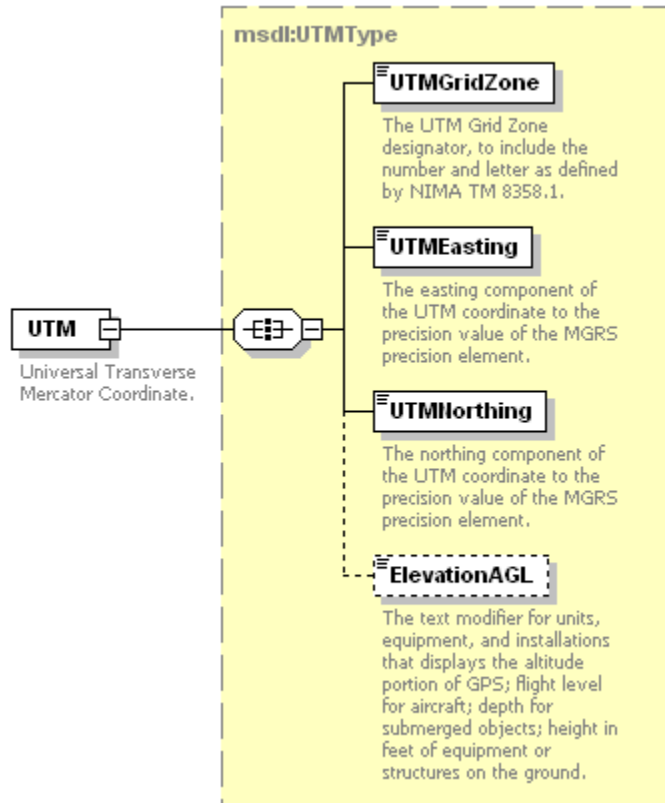


Figure 22: **msdl:CoordinatePointType/UTM** Element Structure

- a) **UTMGridZone** Element - For each **msdl:UTMType** complex type there shall be one **UTMGridZone** element. The **UTMGridZone** element specifies the UTM Grid Zone designator to include the number and letter as defined by NIMA TM 8358.1. The domain type is **msdl:patternUTMGridZone3**.
- b) **UTMEasting** Element - For each **msdl:UTMType** complex type there shall be one **UTMEasting** element. The **UTMEasting** element specifies the easting component of the MGRS coordinates to the precision value of the MGRS precision element. The domain type is **msdl:floatUTMEasting9_2**.
- c) **UTMNorthing** Element - For each **msdl:UTMType** complex type there shall be one **UTMNorthing** element. The **UTMNorthing** element specifies the northing component of the MGRS coordinates to the precision value of the MGRS precision element. The domain type is **msdl:floatUTMNorthing9_2**.

- d) **ElevationAGL** Element - For each **msdl:UTMType** complex type there shall be zero or one **ElevationAGL** element. The **ElevationAGL** element specifies the altitude, in meters of a position for the flight level for aircraft; depth for submerged objects; height of equipment or structures on the ground. The domain type is **msdl:floatElevationAGL6_2**.
3. **GDC** Element - For each **msdl:CoordinatePointType** complex type there shall be zero or one **GDC** element. The **GDC** element, an xs:all compositor, specifies the Geodetic Coordinate (GDC) and is made up of the child elements as shown in Figure 23. Domain type is **msdl:GDCType**.

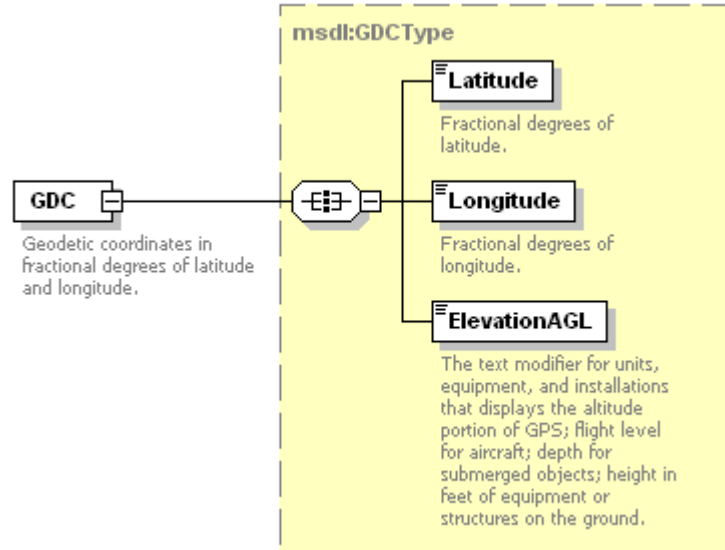


Figure 23: **msdl:CoordinatePointType/GDC** Element Structure

- a) **Latitude** Element - For each **msdl:GDCType** complex type there shall be one **Latitude** element. The **Latitude** element specifies the fractional degrees of latitude. The domain type is **msdl:floatLatitudeLongitude3_3**.
- b) **Longitude** Element - For each **msdl:GDCType** complex type there shall be one **Longitude** element. The **Longitude** element specifies the fractional degrees of longitude. The domain type is **msdl:floatLatitudeLongitude3_3**.
- c) **ElevationAGL** Element - For each **msdl:GDCType** complex type there shall be zero or one **ElevationAGL** element. The **ElevationAGL** element specifies the altitude, in meters of a position for the flight level for aircraft; depth for submerged objects; height of equipment or structures on the ground. The domain type is **msdl:floatElevationAGL6_2**.
4. **GCC** - For each **msdl:CoordinatePointType** complex type there shall be zero or one **GCC** element. The **GCC** element, an xs:all compositor, specifies the Geocentric Coordinate (GCC) and is made up of the child elements as shown in Figure 24. Domain type is **msdl:GCCType**.

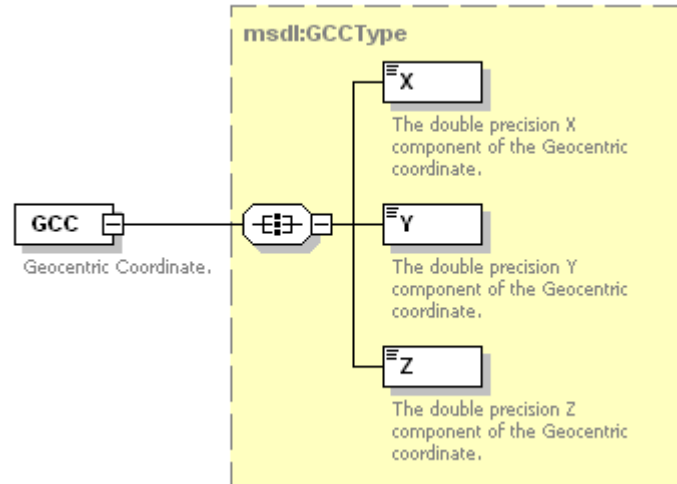


Figure 24: *msdl:CoordinatePointType/GCC* Element Structure

- a) **X** Element - For each *msdl:GCCType* complex type there shall be one **X** element. The **X** element specifies the double precision **X** component of the Geocentric coordinate. It is type restricted xs:double.
- b) **Y** Element - For each *msdl:GCCType* complex type there shall be one **Y** element. The **Y** element specifies the double precision **Y** component of the Geocentric coordinate. It is type restricted xs:double.
- c) **Z** Element - For each *msdl:GCCType* complex type there shall be one **Z** element. The **Z** element specifies the double precision **Z** component of the Geocentric coordinate. It is type restricted xs:double.

6.3.2.3 *msdl:RectangleAreaType/LowerLeft* Element

For every *msdl:RectangleAreaType* complex type there shall be one **LowerLeft** element. The **LowerLeft** element defines the lower left coordinate of the rectangle area. The domain type is *msdl:CoordinatesType* as defined within section 6.3.3.2 for *msdl:UpperRight*.

6.3.3 *msdl:EnvironmentType/ScenarioWeather* Element

For every *msdl:EnvironmentType* complex type there shall be zero or one **ScenarioWeather** element. The **ScenarioWeather** information provides a basic description of the initial weather conditions for the scenario. Unless otherwise specified or derived, the reference time is the scenario time; the reference location is the center of the scenario area of interest; the reference altitude is at the surface level; and the information applies to the entire scenario area of interest.

The **ScenarioWeather** is described by a combination of instances from seven types: jc3iedm:Atmosphere, jc3iedm:CloudCoverItems, jc3iedm:Icing, jc3iedm:LightItems, jc3iedm:Precipitation, jc3iedm:VisibilityItems, and jc3iedm:WindItems. The **ScenarioWeather** element, an xs:all compositor, is comprised of the elements shown in Figure 25 and described in the following subsections. The domain type is *msdl:ScenarioWeatherType*.

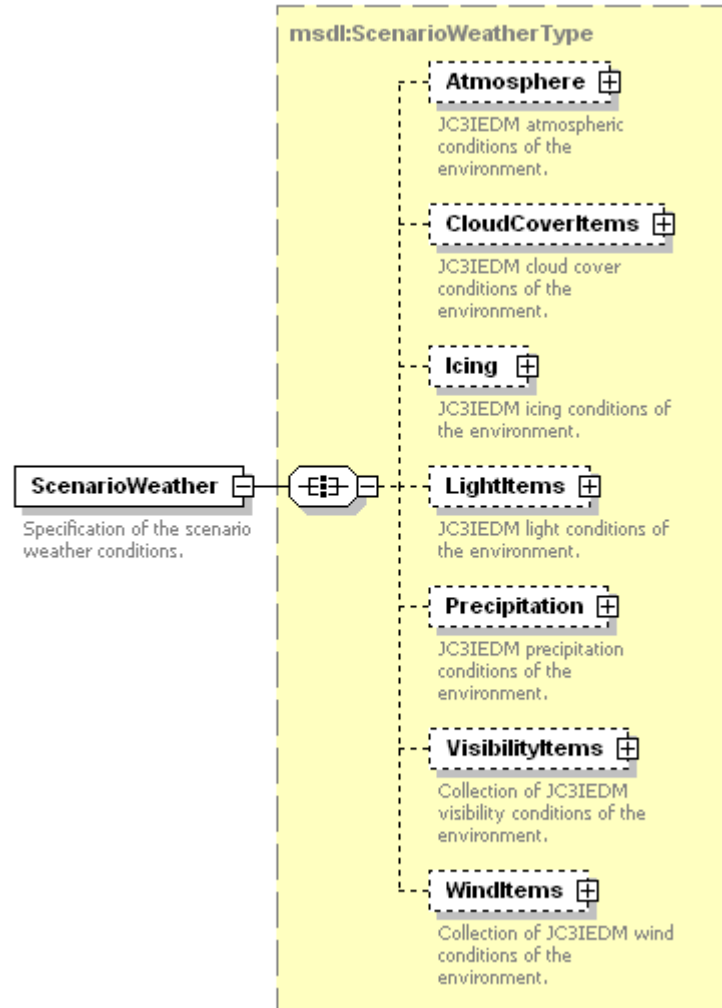


Figure 25: *msdl:EnvironmentType/ScenarioWeather* Element Structure

6.3.3.1 *msdl:ScenarioWeatherType/Atmosphere* Element

For every *msdl:ScenarioWeatherType* complex type there shall be zero or one **Atmosphere** element. The **Atmosphere** element specifies the JC3IEDM-based atmospheric conditions of the military scenario. The **Atmosphere** element, an xs:sequence compositor, contains all the elements shown in Figure 26 and described in the subsequent subsections. The domain type is *jc3iedm:Atmosphere*.

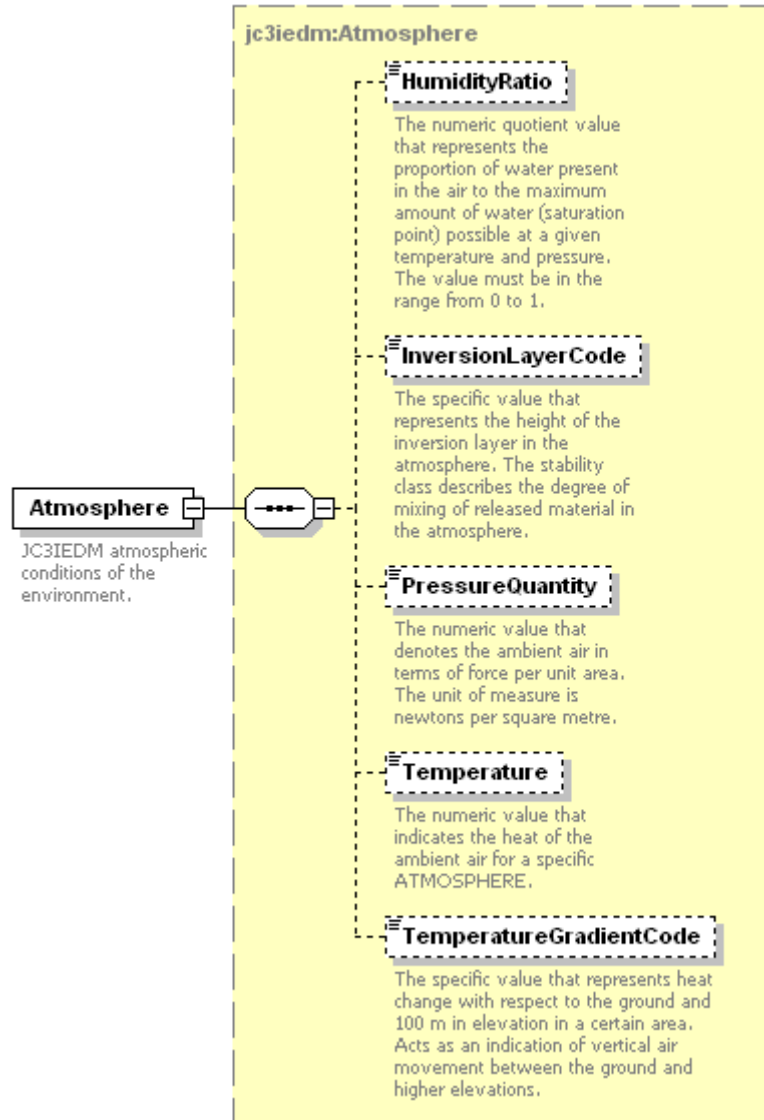


Figure 26: msdl:ScenarioWeatherType/Atmosphere Element Structure

6.3.3.1.1 jc3iedm:Atmosphere/HumidityRatio Element

For every jc3iedm:Atmosphere complex type there shall be zero or one HumidityRatio element. This value provides the numeric quotient value that represents the proportion of water present in the air to the maximum amount of water (saturation point) possible at a given temperature and pressure. The value must be in the range from 0 to 1. The domain type is jc3iedm:RatioOptionalTypeRangeRatio6_5.

6.3.3.1.2 jc3iedm:Atmosphere/InversionLayerCode Element

For every jc3iedm:Atmosphere complex type there shall be zero or one jc3iedm2:InversionLayerCode element following the HumidityRatio element. This element provides the specific value that represents the height of the inversion layer in the atmosphere. The domain values are: A (Top inversion layer lower than 800 metres above ground); B (Top of inversion layer lower than 400 metres above ground); C (Top of inversion layer lower than 200 metres above ground). The domain type is jc3iedm:AtmosphereInversionLayerCode.

6.3.3.1.3 jc3iedm:Atmosphere/PressureQuantity Element

651 For every jc3iedm:Atmosphere complex type there shall be zero or one PressureQuantity element following
652 the InversionLayerCode element. This element provides the numeric value that denotes the ambient air in
653 terms of force per unit area. The unit of measure is newtons per square metre. Type domain type is
654 jc3iedm:QuantityOptionalType8_4.

655 6.3.3.1.4 jc3iedm:Atmosphere/Temperature Element

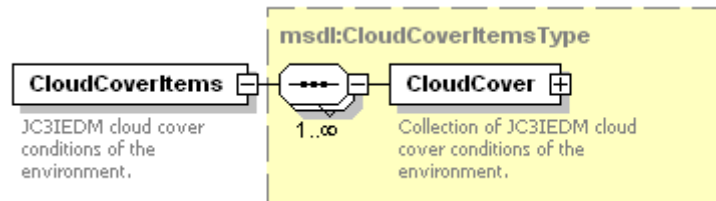
656 For every jc3iedm:Atmosphere complex type there shall be zero or one Temperature element following the
657 PressureQuantity element. This element provides the numeric value that indicates the heat of the ambient
658 air. The domain is a real number exceeding -274, expressed in degrees Celsius. The domain type is
659 jc3iedm:TemperatureTypeRangeTemperature5_1.

660 6.3.3.1.5 jc3iedm:Atmosphere/TemperatureGradientCode Element

661 For every jc3iedm:Atmosphere complex type there shall be zero or one TemperatureGradientCode element
662 following the Temperature element. This element provides the specific value that represents heat change
663 with respect to the surface and 100 m in elevation for the area specified within the **AreaOfInterest**. This
664 element acts as an indication of vertical air movement between the surface and higher elevations. The
665 domain values are: Neutral; Stable; Unstable; Not known. The domain type is
666 jc3iedm:AtmosphereTemperatureGradientCode.

667 6.3.3.2 msdl:ScenarioWeatherType/CloudCoverItems Element

668 For every **msdl:ScenarioWeatherType** complex type there shall be zero or one **CloudCoverItems** element.
669 The **CloudCoverItems** element specifies the JC3IEDM-based cloud cover conditions of the environment.
670 The **CloudCoverItems** element, an xs:sequence compositor, is comprised of the elements shown in Figure
671 27 and described in the following subsection. Domain type is **msdl:CloudCoverItemsType**.



672
673 **Figure 27: msdl:ScenarioWeatherType/CloudCoverItems Element Structure**

674 6.3.3.2.1 msdl:CloudCoverItemsType/CloudCover Element

675 For every **msdl:CloudCoverItemsType** complex element there shall be one or more **CloudCover** elements.
676 The **CloudCover** element specifies an instance or instances of the cloud cover conditions of the
677 environment. Multiple **CloudCover** elements are allowed to support multiple layers of cloud cover. The
678 **Cloudcover** element, an xs:sequence compositor, contains all the elements shown in Figure 28 and
679 described in the subsequent subsections. The domain type is jc3iedm:CloudCover.

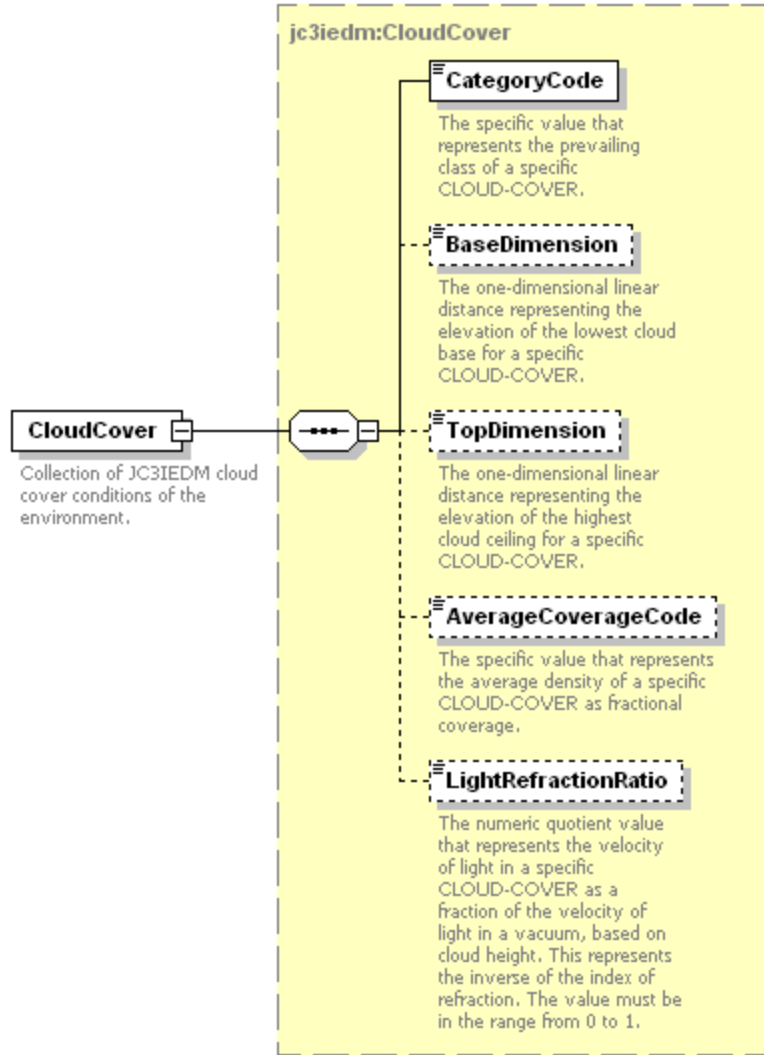


Figure 28: msdl:CloudCoverItemTypes/CloudCover Element Structure

1. **jc3iedm:CloudCover/CategoryCode Element** - For every jc3iedm:CloudCover complex type there shall be zero or one CategoryCode element. This element provides the specific value that represents the prevailing class of a specific CloudCover. The domain values are: Clouds; Radioactive cloud; Smoke. The domain type is jc3iedm:CloudCoverCategoryCode.
2. **jc3iedm:CloudCover/BaseDimension Element** - For every jc3iedm:CloudCover complex type there shall be zero or one BaseDimension element following the CategoryCode. This element provides the one-dimensional linear distance representing the elevation of the lowest cloud base for a specific **CloudCover**. The domain type is jc3iedm:DimensionOptionalType12_3.
3. **jc3iedm:CloudCover/TopDimension Element** - For every jc3iedm:CloudCover complex type there shall be zero or one TopDimension element following the BaseDimension. This element provides the one-dimensional linear distance representing the elevation of the highest cloud ceiling for a specific **CloudCover**. The domain type is jc3iedm:DimensionOptionalType12_3.
4. **jc3iedm:CloudCover/AverageCoverageCode Element** - For every jc3iedm:CloudCover complex type there shall be zero or one AverageCoverageCode element following the TopDimension. This element provides the specific value that represents the average density of a specific **CloudCover** as fractional coverage. The domain values are: 0/8; 1/8; 2/8; 3/8; 4/8; 5/8; 6/8; 7/8; 7-8/8; 8/8. The domain type is jc3iedm:CloudCoverAverageCoverageCode.

5. jc3iedm:CloudCover/LightRefractionRatio Element - For every jc3iedm:CloudCover complex type there shall be zero or one LightRefractionRatio element following the AverageCoverageCode. This element provides the numeric quotient value that represents the velocity of light in a specific CloudCover as a fraction of the velocity of light in a vacuum, based on cloud height. This represents the inverse of the index of refraction. The value must be in the range from 0 to 1. The domain type is jc3iedm:RatioOptionalTypeRangeRatio7_6.

6.3.3.3 msdl:ScenarioWeatherType/Icing Element

For every **msdl:ScenarioWeatherType** complex type there shall be zero or one **Icing** element. The **Icing** element, an xs:sequence compositor, contains all the elements shown in Figure 29 and described in the subsequent subsections. The **Icing** element specifies JC3IEDM-based accumulation of frozen water on the surface. The domain type is jc3iedm:Icing.

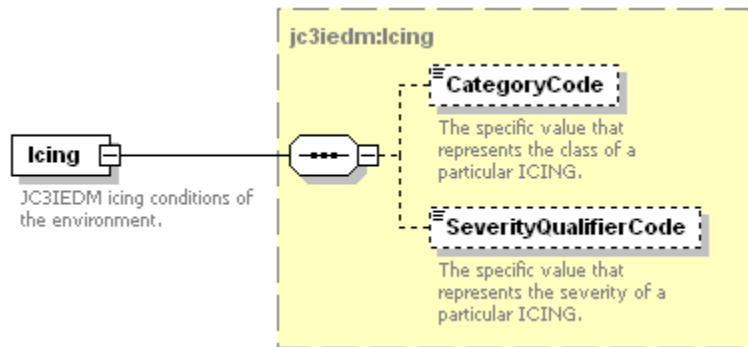


Figure 29: **msdl:ScenarioWeatherType/Icing** Element Structure

6.3.3.3.1 jc3iedm:Icing/CategoryCode Element

For every jc3iedm:Icing complex type there shall be zero or one CategoryCode element. This element specifies the class of Icing. The domain values are: Clear icing; Mixed icing; Rime icing. The domain type is jc3iedm:IcingCategoryCode.

6.3.3.3.2 jc3iedm:Icing/SeverityQualifierCode Element

For every jc3iedm:Icing complex type there shall be zero or one SeverityQualifierCode element following the CategoryCode. This element specifies the severity of Icing. The domain values are: Light; Moderate; Severe. The domain type is jc3iedm:IcingSeverityQualifierCode.

6.3.3.4 msdl:ScenarioWeatherType/LightItems Element

For every **msdl:ScenarioWeatherType** complex type there shall be zero or one **LightItems** element. The **LightItems** element specifies the JC3IEDM-based availability of natural illumination by type and time. The **LightItems** element, an xs:sequence compositor, is comprised of the elements shown in Figure 30 and described in the following subsection. Domain type is **msdl:LightItemsType**.

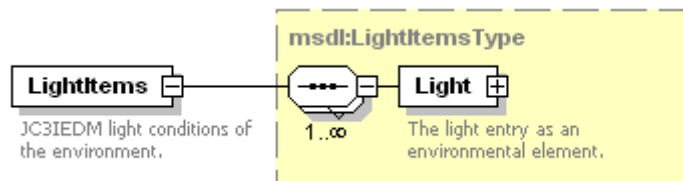


Figure 30: **msdl:ScenarioWeatherType/LightItems** Element Structure

6.3.3.4.1 msdl:LightItemsType/Light Element

728 The **msdl:LightItemsType** complex type specifies the light-related information within the military scenario.
729 The **Light** element, an xs:sequence compositor, contains all the elements shown in Figure 31 and described
730 in the subsequent subsections.

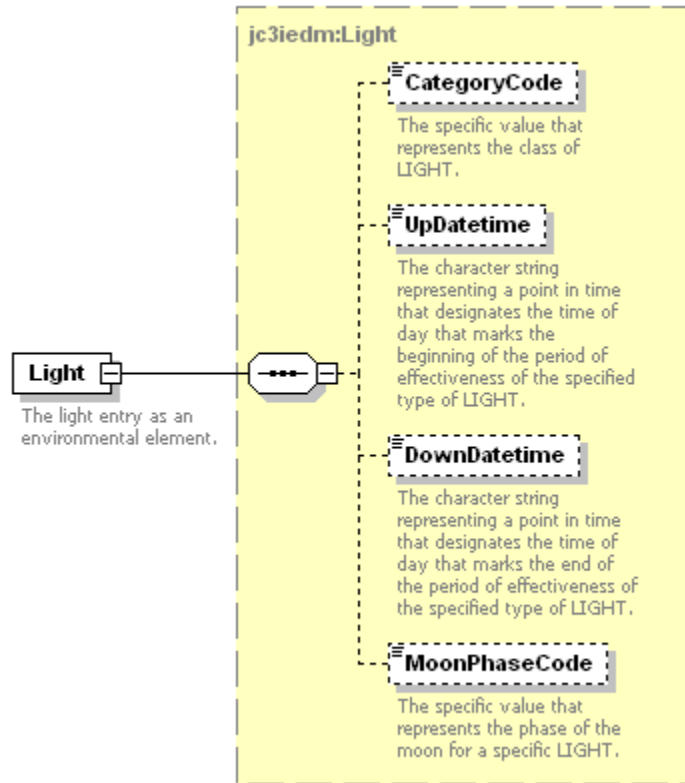


Figure 31: **msdl:LightItemsType/Light** Element Structure

- 733 1. jc3iedm:Light/CategoryCode Element - For every jc3iedm:Light complex type there shall be zero or
734 one CategoryCode element. This element specifies the value that represents the class of Light. The
735 domain values are: Civil twilight; Darkness, Daylight; Moonlight; Nautical twilight. The domain type is
736 jc3iedm:LightCategoryCode.
- 737 2. jc3iedm:Light/UpDatetime Element - For every jc3iedm:Light complex type there shall be zero or one
738 UpDatetime element following the CategoryCode. This element specifies the character string
739 representing a point in time that designates the date and time of day that marks the beginning of the
740 period of effectiveness of the specified type of Light. The domain type is
741 jc3iedm:DatetimeOptionalTypeFix18.
- 742 3. jc3iedm:Light/DownDatetime Element - For every jc3iedm:Light complex type there shall be zero or
743 one DownDatetime element following the UpDatetime. This element specifies the character string
744 representing a point in time that designates the date and time of day that marks the end of the period
745 of effectiveness of the specified type of Light. The domain type is
746 jc3iedm:DatetimeOptionalTypeFix18.
- 747 4. jc3iedm:Light/MoonPhaseCode Element - For every jc3iedm:Light complex type there shall be zero
748 or one MoonPhaseCode element following the DownDatetime. This element specifies the value that
749 represents the phase of the moon for a specific type of Light. The domain values are: Full moon;
750 New moon; Waning moon; Waxing moon. The domain type is jc3iedm:LightMoonPhaseCode.

751 It is intended that the jc3iedm:Light information be consistent with the **ScenarioTime** and scenario
752 **AreaOfInterest** information when these are present in a scenario.

6.3.3.5 *msdl:ScenarioWeatherType/Precipitation* Element

For every *msdl:ScenarioWeatherType* complex type there shall be zero or one **Precipitation** element. The **Precipitation** element specifies the JC3IEDM-based precipitation conditions of the environment. The **Precipitation** element, an xs:sequence compositor, contains all the elements shown in Figure 32 and described in the subsequent subsections. The domain type is *jc3iedm:Precipitation*.

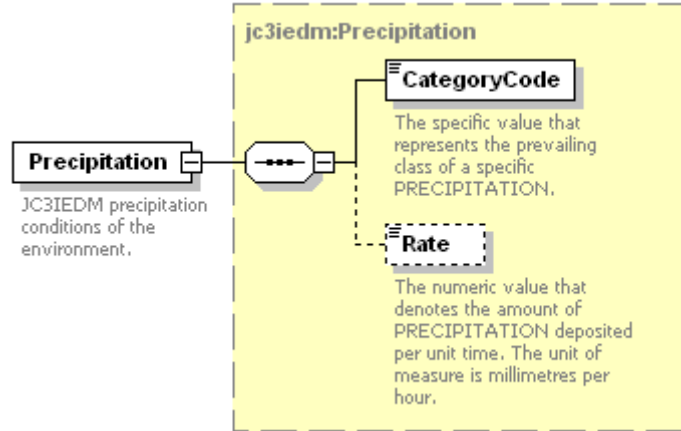


Figure 32: *msdl:ScenarioWeatherType/Precipitation* Element Structure

6.3.3.5.1 *jc3iedm:Precipitation/CategoryCode* Element

For every *jc3iedm:Precipitation* complex type there shall be zero or one **CategoryCode** element. This element specifies the value that represents the prevailing class of Precipitation. Example domain values are: Hail; No precipitation; Rain; Sleet; Snow. The domain type is *jc3iedm:PrecipitationCategoryCode*.

6.3.3.5.2 *jc3iedm:Precipitation/Rate* Element

For every *jc3iedm:Precipitation* complex type there shall be zero or one **Rate** element following the **CategoryCode**. This element specifies the numeric value that denotes the amount of Precipitation deposited per unit of time. The unit of measure is millimeters per hour. The domain type is *jc3iedm:RateOptionalType4_1*.

6.3.3.6 *msdl:ScenarioWeatherType/VisibilityItems* Element

For every *msdl:ScenarioWeatherType* complex type there shall be zero or one **VisibilityItems** element. The **VisibilityItems** element holds a collection of the JC3IEDM-based visibility conditions of the environment. The **VisibilityItems** element, an xs:sequence compositor, is comprised of the elements shown in Figure 33 and described in the following subsection. Domain type is *msdl:VisibilityItemsType*.

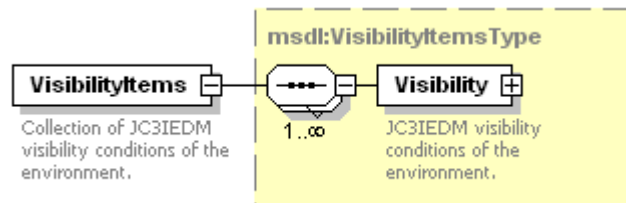


Figure 33: *msdl:ScenarioWeatherType/VisibilityItems* Element Structure

6.3.3.6.1 *msdl:VisibilityItemsType/Visibility* Element

For every *msdl:VisibilityItemsType* complex type there shall be one or more **Visibility** elements. The **Visibility** element specifies an instance or instances of the JC3IEDM-based visibility conditions existing within the environment. Visibility conditions may exist and vary by category code requiring multiple **Visibility**

instances. It is intended that the **Visibility** element is derived from and consistent with the **Environment** elements that are included within the scenario document. The **Visibility** element, an xs:sequence compositor, contains all the elements shown in Figure 34 and described in the subsequent subsections. The domain type is jc3iedm:Visibility.

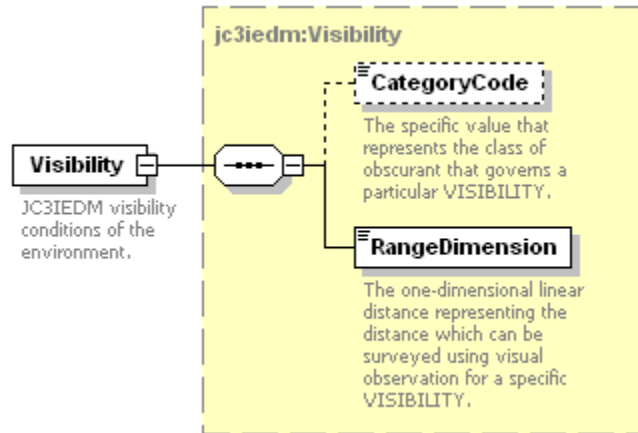


Figure 34: jc3iedm:Visibility Element Structure

1. jc3iedm:Visibility/CategoryCode Element - For every Visibility complex type there shall be zero or one CategoryCode element. This element specifies the specific value that represents the class of obscurant that governs a particular Visibility. Example domain values are: Blowing snow; Fog/mist; Sandstorm; Smoke. The domain type is jc3iedm:VisibilityCategoryCode.
2. jc3iedm:Visibility/RangeDimension Element - For every Visibility complex type there shall be one RangeDimension element following the CategoryCode. This element specifies the one-dimensional linear distance representing the distance that can be surveyed using visual observation for a specific Visibility. It is defined as the greatest distance in a given direction at which it is just possible to see and identify with the unaided eye (a) in the daytime, a prominent dark object against the sky at the horizon, and (b) at night, a known, preferably unfocused, moderately intense light source. After the visibility has been determined through the entire horizon circle, they are resolved into a single value of prevailing visibility. The domain type is jc3iedm:DimensionMandatoryType12_3.

In some cases, the Visibility information is derived from the **CloudCover** information and the **Precipitation** information.

6.3.3.7 msdl:ScenarioWeatherType/WindItems Element

For every **msdl:ScenarioWeatherType** complex type there shall be zero or one **WindItems** element. The **WindItems** element holds a collection of the JC3IEDM-based wind conditions of the environment. The **WindItems** element, an xs:sequence compositor, is comprised of the elements shown in Figure 35 and described in the following subsection. Domain type is **msdl:WindItemsType**.

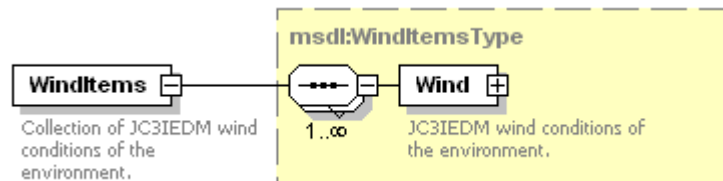


Figure 35: msdl:ScenarioWeatherType/WindItems Element Structure

6.3.3.7.1 msdl:WindItemsType/Wind Element

For every **msdl:WindItemsType** complex type there shall be one or more **Wind** elements. The **Wind** element specifies an instance or instances of the JC3IEDM-based wind conditions existing within the

environment. Wind conditions may exist and vary by Categorycode and AltitudeLayerCode requiring multiple **Wind** instances. The **Wind** element, an xs:sequence compositor, contains all the elements shown in Figure 36 and described in the subsequent subsections. The domain type is jc3iedm:Wind.

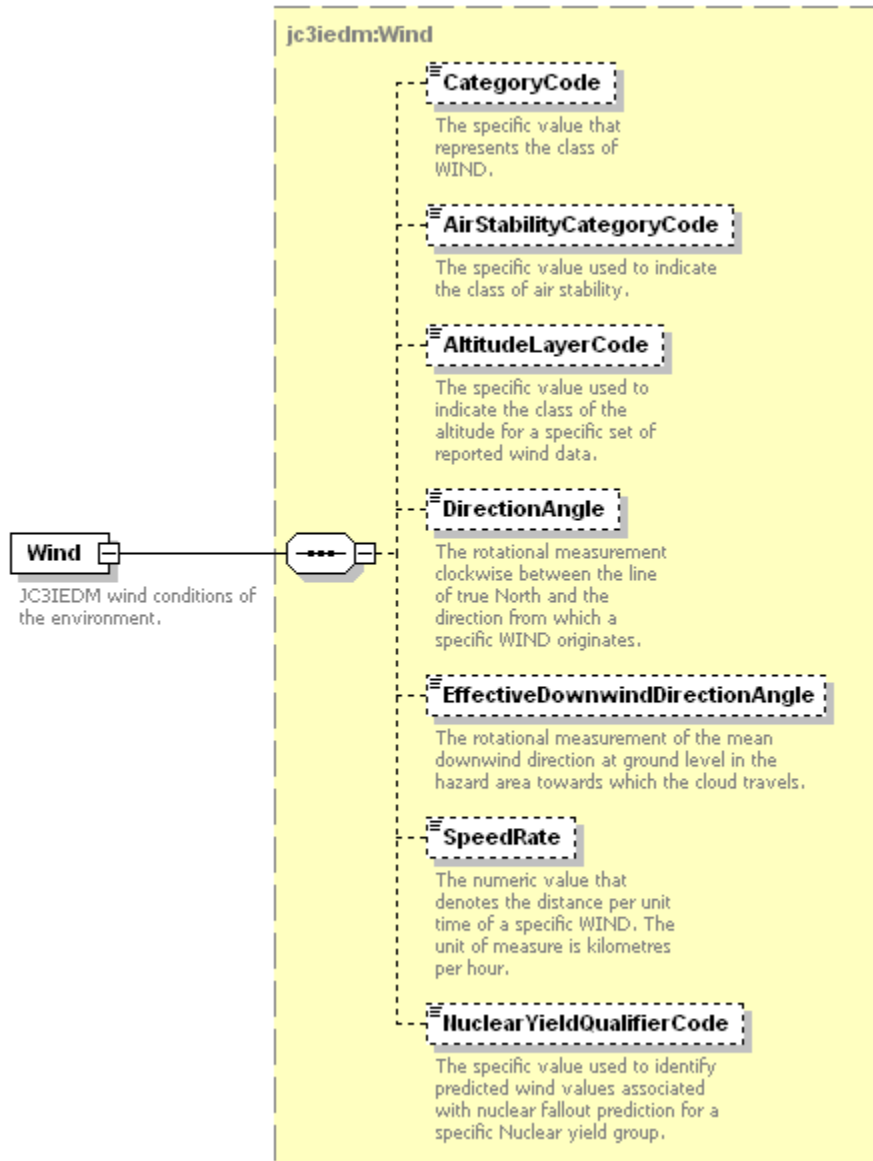


Figure 36: msdl:WindItemsType/Wind Type Structure

1. jc3iedm:Wind/CategoryCode Element - For every Wind complex type there shall be zero or one CategoryCode element. This element specifies the value that represents the class of Wind. Example domain values are: Constant; Gusting; Squalls; Variable; Not known. The domain type is jc3iedm:WindCategoryCode.
2. jc3iedm:Wind/AirStabilityCategoryCode Element - For every Wind complex type there shall be zero or one AirStabilityCategoryCode element following the CategoryCode. This element specifies the value used to indicate the class of air stability. Example domain values are: Simplified, unstable; Simplified, stable; Detailed, very unstable; Detailed, neutral. The domain type is jc3iedm:WindAirStabilityCategoryCode.
3. jc3iedm:Wind/AltitudeLayerCode Element - For every Wind complex type there shall be zero or one AltitudeLayerCode element following the AirStabilityCategoryCode. This element specifies the value

used to indicate the class of the altitude for a specific set of reported wind data. Example domain values are: 2000 meters; 8000 meters; 14,000 meters; 30,000 meters. The domain type is `jc3iedm:WindAltitudeLayerCode`.

4. `jc3iedm:Wind/DirectionAngle` Element - For every Wind complex type there shall be zero or one `DirectionAngle` element following the `AltitudeLayerCode`. The rotational measurement clockwise between the line of true North and the direction from which a specific Wind originates. The domain type is `jc3iedm:AngleOptionalTypeRangeAngle7_4`.
5. `jc3iedm:Wind/EffectiveDownwindDirectionAngle` Element - For every Wind complex type there shall be zero or one `EffectiveDownwindDirectionAngle` element following the `DirectionAngle`. This element specifies the rotational measurement of the mean downwind direction at surface level in the hazard area towards which the cloud travels. The domain type is `jc3iedm:AngleOptionalTypeRangeAngle7_4`.
6. `jc3iedm:Wind/SpeedRate` Element - For every Wind complex type there shall be zero or one `SpeedRate` element following the `EffectiveDownwindDirectionAngle`. This element specifies the numeric value that denotes the distance per unit time of a specific Wind. The unit of measure is kilometers per hour. The domain type is `jc3iedm:RateOptionalType8_4`.
7. `jc3iedm:Wind/NuclearYieldQualifierCode` Element - For every Wind complex type there shall be zero or one `NuclearYieldQualifierCode` element following the `SpeedRate`. This element specifies the value used to identify predicted wind values associated with nuclear fallout prediction for a specific Nuclear yield group. Example domain values are: ALPHA; BRAVO; CHARLIE; FOXTROT; GOLF. The domain type is `jc3iedm:NuclearYieldGroupCode`.

6.3.4 *msdl:EnvironmentType/METOC* Element

For every *msdl:EnvironmentType* complex type there shall be zero or one **METOC** element. The **METOC** element specifies the MIL-STD-2525B-based meteorological conditions of the environment. The specification included in this standard is based on the MIL-STD-2525B w/CHANGE 1 specification. APPENDIX C of MIL-STD-2525B w/CHANGE 1 provides most of the applicable descriptions. The **METOC** element, an `xs:sequence` compositor, is comprised of the elements shown in Figure 37 and described in the following subsections. Domain type is *msdl:METOCType*.

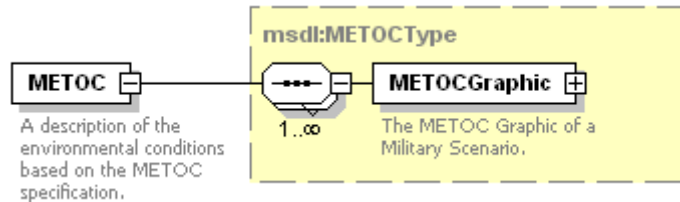


Figure 37: *msdl:EnvironmentType/METOC* Element Structure

6.3.4.1 *msdl:METOCType/METOCGraphic* Element

For every *msdl:METOCType* complex type there shall be one **METOCGraphic** element. The **METOC** element specifies the MIL-STD-2525B-based meteorological conditions of the environment. The specification included in this standard is based on the MIL-STD-2525B w/CHANGE 1 specification. The **METOCGraphic** element, an `xs:all` compositor, is comprised of the elements shown in Figure 38 and described in the following subsections. Domain type is *msdl:METOCGraphicType*.

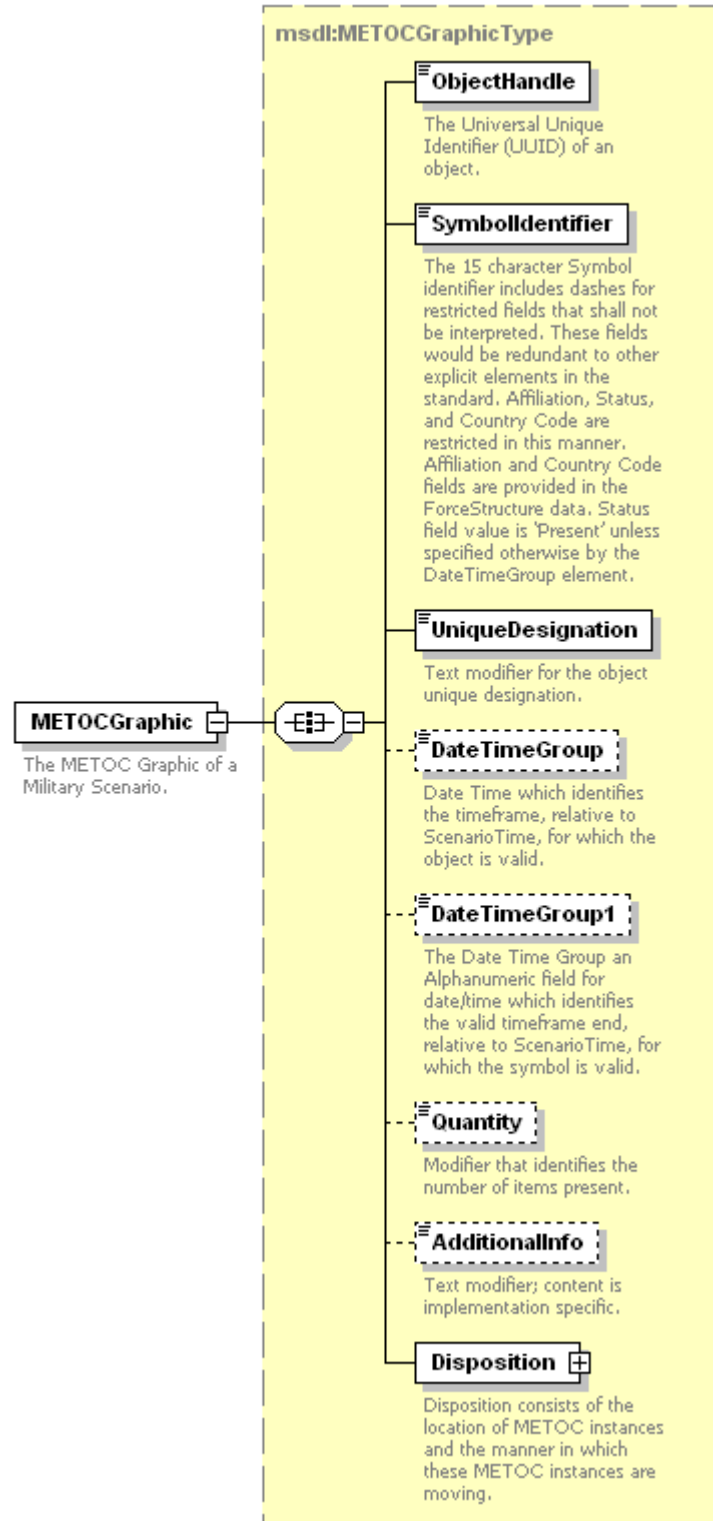


Figure 38: *msdl:METOCType/METOCGraphic* Element Structure

6.3.4.1.1 *msdl:METOCGraphicType/ObjectHandle* Element

865 For every **msdl:METOCGraphicType** complex type there shall be one **ObjectHandle** element. This element
866 specifies the Universal Unique Identifier of a specific element. The domain type is **msdl:patternUUID32**.

867 **6.3.4.1.2 msdl:METOCGraphicType/SymbolIdentifier Element**

868 For every **msdl:METOCGraphicType** element there shall be one **SymbolIdentifier** element. This element
869 specifies the type identifier of a specific **METOC** element. The domain is a METOC Symbol Identification
870 Code (SIDC) from the symbology set specified by the **SymbologyDataStandard** of the **Options**. The 15
871 character **SymbolIdentifier** includes dashes for restricted fields that shall not be interpreted. These fields
872 would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are
873 restricted in this manner. Affiliation and Country Code fields are provided in the ForceStructure data. Status
874 field value is 'Present' unless specified otherwise by the **DateTimeGroup** element. The Coding Scheme,
875 position 1, must be 'W' for METOC symbol identification. The domain type is
876 **msdl:patternMETOCSymbolID15**.

877 **6.3.4.1.3 msdl: METOCGraphicType/UniqueDesignation Element**

878 For every **msdl:METOCGraphicType** element there shall be one **UniqueDesignation** element. This
879 element specifies the character string providing a unique designation of a specific **METOC** element. The
880 content is implementation specific. The domain type is **msdl:text21**.

881 **6.3.4.1.4 msdl: METOCGraphicType/DateTimeGroup Element**

882 For every **msdl:METOCGraphicType** element there shall be zero or one **DateTimeGroup** element. This
883 element specifies the character string representing the time frame start, relative to the **ScenarioTime**, for
884 which the **METOC** element is valid. The **DateTimeGroup** attribute allows multiple stages of a phenomenon
885 to be specified. The **UniqueDesignation** element is used to link together these different stages. The
886 **ObjectHandle** of the stages will be different but the **UniqueDesignation** will be the same. Because
887 **DateTimeGroup** and **DateTimeGroup1** represent the time frame of existence for the specific
888 **METOCGraphic** element if either one is specified the other must also be included in the instance document.
889 The domain type is **msdl:patternTimeDTGRelative8**.

890 **6.3.4.1.5 msdl: METOCGraphicType/DateTimeGroup1 Element**

891 For every **msdl:METOCGraphicType** element there shall be zero or one **DateTimeGroup1** element. This
892 element specifies the character string representing the time frame end, relative to the **ScenarioTime**, for
893 which the **METOC** element is valid. The **DateTimeGroup1** attribute allows multiple stages of a phenomenon
894 to be specified. The **UniqueDesignation** attribute is used to link together these different stages. The
895 **ObjectHandle** of the stages will be different but the **UniqueDesignation** will be the same. Because
896 **DateTimeGroup** and **DateTimeGroup1** represent the time frame of existence for the specific
897 **METOCGraphic** element if either one is specified the other must also be included in the instance document.
898 The domain type is **msdl:patternTimeDTGRelative8**

899 **6.3.4.1.6 msdl: METOCGraphicType/Quantity Element**

900 For each **msdl:METOCGraphic** there shall be zero or one **Quantity** element. This element specifies the
901 numerical value that denotes the number of items present for a specific **METOC** element. The value must be
902 greater than 0. The domain type is **xs:int**.

903 **6.3.4.1.7 msdl: METOCGraphicType/AdditionalInfo Element**

904 For each **msdl:METOCGraphic** there shall be zero or one **AdditionalInfo** element. This element specifies
905 the character string providing additional information about a specific **METOC** element. The content is
906 implementation specific. The domain type is **msdl:AdditionalInfo**.

907 **6.3.4.1.8 msdl:METOCGraphicType/Disposition Element**

908 For every **msdl:METOCGraphicType** element there shall be one **Disposition** element. This element
909 specifies the structure describing anchor points, speed, and direction of movement of the **METOCGraphic**.

910 The **Disposition** element, an xs:all compositor, is comprised of the elements shown in Figure 39 and
911 described in the following subsections. Domain type is **msdl:METOCDispositionType**.

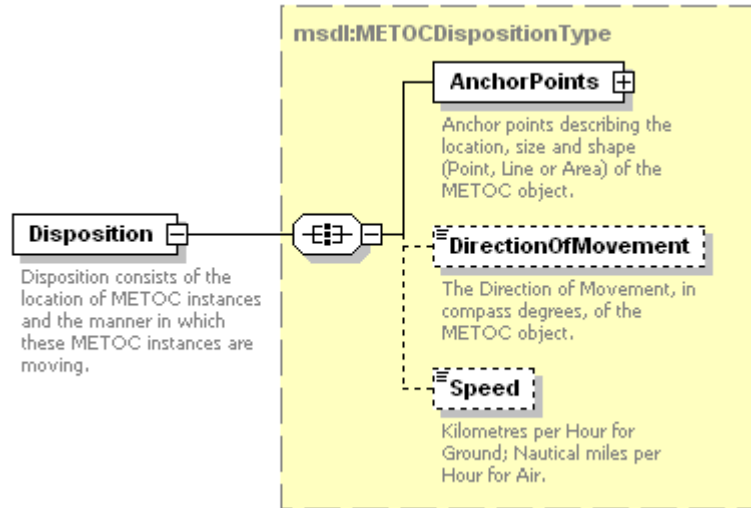


Figure 39: **msdl:METOCGraphicType/Disposition** Element Structure

1. **AnchorPoints** Element - For every **msdl:METOCGraphicType** complex type there shall be one **AnchorPoints** element. This element specifies the structure describing the location, size and shape (Point, Line or Area) of a specific **METOC** element. It is an xs:sequence compositor comprised of the elements shown in Figure 40 and described in the following subsections. The domain type is **msdl:AnchorPointsType**.

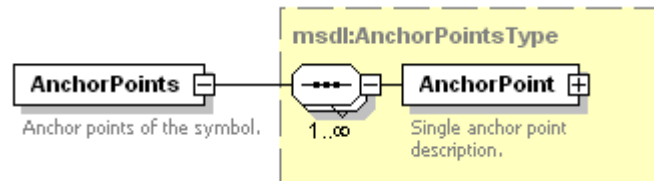


Figure 40: **msdl:METOCGraphicType/AnchorPoints** Element Structure

- a) **AnchorPoint** Element - For every **msdl:AnchorPointsType** complex type there shall be one or more **Anchorpoint** elements. The **AnchorPoint** element specifies a single anchor point. It is an xs:all compositor comprised of the elements shown in Figure 41 and described in the following subsections. Domain type is **msdl:AnchorPointType**.

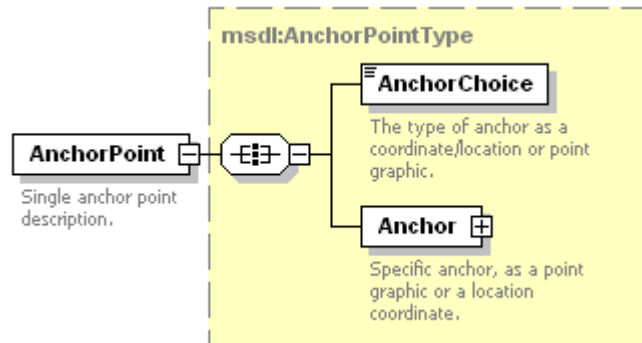


Figure 41: **msdl:AnchorPointsType/AnchorPoint** Element Structure

- i) **AnchorChoice** Element - For every **msdl:AnchorPointType** complex type there shall be one **AnchorChoice** element. The **AnchorChoice** element specifies the type of anchor as a coordinate/location or a point graphic. The domain type is **msdl:enumAnchorPointType**.
- ii) **Anchor** Element - For every **msdl:AnchorPointType** complex type there shall be one **Anchor** elements. The **Anchor** element specifies a location for the anchor. It is an xs:choice compositor comprised of the elements shown in Figure 42 and described in the following subsections. Domain type is **msdl:AnchorType**.

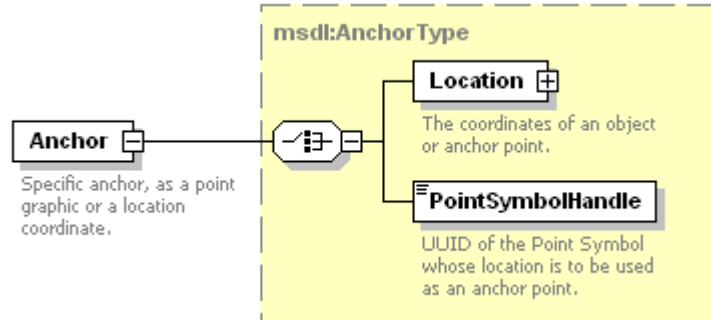


Figure 42: **msdl:AnchorPointType/Anchor** Element Structure

- (1) **Location** Element - For every **msdl:AnchorType** complex type there shall be one **Location** element. The **Location** element specifies the coordinates of the unit. The domain type is **msdl:CoordinatesType** as defined within section 6.3.3.2 for **msdl:RectangleAreaType/UpperRight**.
 - (2) **PointSymbolHandle** Element - For every **msdl:AnchorType** complex type there shall be one **PointSymbolHandle** element. The **PointSymbolHandle** element specifies a UUID of the point symbol whose location is to be used as an anchor point. The domain type is **msdl:patternUUIDRef32**.
2. **DirectionOfMovement** Element - For every **msdl:METOCGraphicType** complex type there shall be zero or one **DirectionOfMovement** element. This element specifies the numerical value that denotes the horizontal direction of movement of a specific **METOC** Element. The unit is compass degrees. The domain type is **msdl:floatCompassDegrees3_3**.
 3. **Speed** Element - For every **msdl:METOCGraphicType** complex type there shall be zero or one **Speed** element. This element specifies the numerical value that denotes the rate of movement of a specific **METOC** element in the direction of movement specified by the **DirectionOfMovement** element. The units are kilometres per hour for Ground objects, nautical miles per hour for maritime and air objects. The domain type is **msdl:floatSpeed6_2**.

6.4 **msdl:MilitaryScenarioType/ForceSides** Element

For every **msdl:MilitaryScenarioType** complex type there shall be one **ForceSides** element. The **ForceSides** element is used to specify the Forces and Sides and their associations within a military scenario. The **ForceSides** element, an xs:sequence compositor contains all the elements shown in Figure 40 and described in the subsequent subsections. Domain type is **msdl:ForceSidesType**.

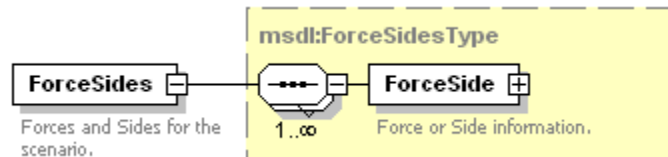


Figure 43: **msdl:MilitaryScenarioType/ForceSides** Element Structure

6.4.1 *msdl:ForceSidesType/ForceSide* Element

For every *msdl:ForceSidesType* element there shall be one or more *ForceSide* elements. The *ForceSide* element specifies the force or side information. It is an xs:all compositor and comprised of the elements shown in Figure 44 and described in the following subsections. Domain type is *msdl:ForceSideType*.

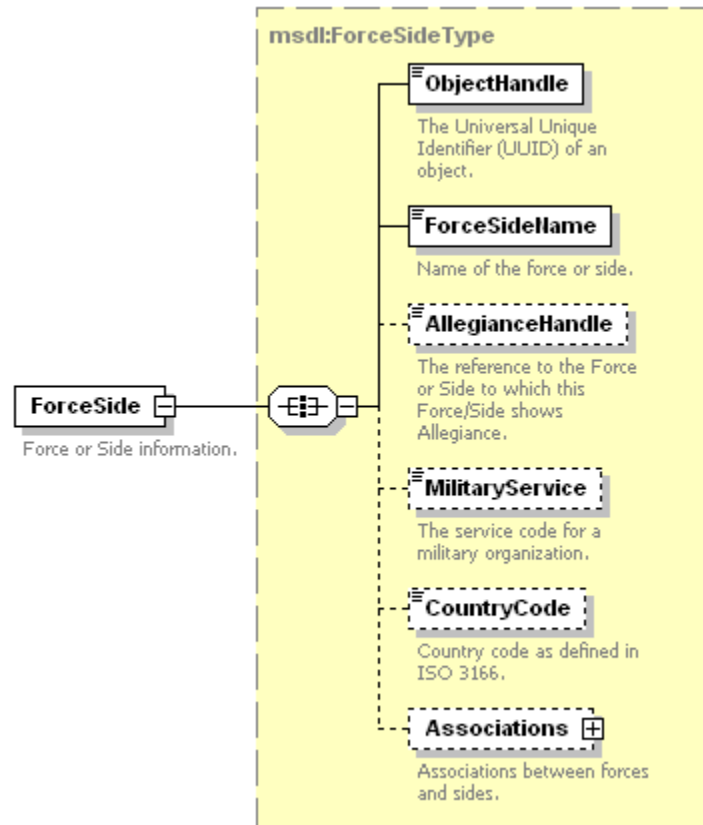


Figure 44: *msdl:ForceSidesType/ForceSide* Element Structure

6.4.1.1 *msdl:ForceSideType/ObjectHandle* Element

For every *msdl:ForceSideType* element there shall be one *ObjectHandle* element. The *ObjectHandle* element specifies the Universal Unique Identifier (UUID) of the *ForceSide* element. The domain type is *msdl:patternUUID32*.

6.4.1.2 *msdl:ForceSideType/ForceSideName* Element

For every *msdl:ForceSideType* element there shall be one *ForceSideName* element. The *ForceSideName* element specifies the name of the force or the side. The domain type is *msdl:textName255*.

6.4.1.3 *msdl:ForceSideType/AllegianceHandle* Element

For every *msdl:ForceSideType* element there shall be zero or one *AllegianceHandle* element. The *AllegianceHandle* element specifies a reference to the Force or Side that this ForceSide element shows allegiance to. This element allows the description of a hierarchical structure for the forces and sides whereas the first level (when this element is not specified) are the sides. Therefore Forces can have allegiance to another Force or a Side but Sides are not intended to have allegiances to another Force or Side. The domain type is *msdl:patternUUID32*.

6.4.1.4 *msdl:ForceSideType/MilitaryService* Element

For every *msdl:ForceSideType* element there shall be zero or one **MilitaryService** element. The **MilitaryService** element specifies a Service code for a military organization. The domain type is *jc3iedm:MilitaryOrganisationTypeServiceCode*.

6.4.1.5 *msdl:ForceSideType/CountryCode* Element

For every *msdl:ForceSideType* element there shall be zero or one **CountryCode** element. The **CountryCode** element specifies a Country code for to which the organization belongs. The domain type is *jc3iedm:AffiliationGeopoliticalCode*.

6.4.1.6 *msdl:ForceSideType/Associations* Element

For every *msdl:ForceSideType* element there shall be zero or one **Associations** element. Sides shall have associations to all other Sides. Forces shall have associations to all other Forces that do not have allegiance to the same side as the current Force. All Force to Force and Side to Side relationships shall be explicitly defined within the **Associations** structure. The **Associations** element, an *xs:sequence* compositor, specifies the associations between forces and sides and is shown in Figure 45. Domain type is *msdl:AssociationsType*.

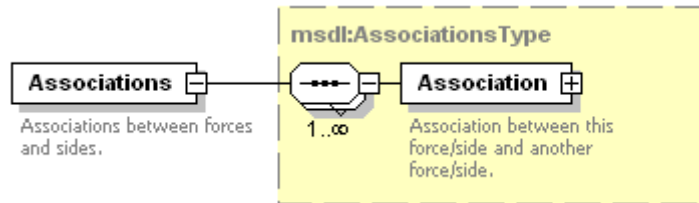


Figure 45: *msdl:ForceSideType/Associations* Element Structure

6.4.1.6.1 *msdl:AssociationsType/Association* Element

For every *msdl:AssociationsType* element there shall be one or more **Association** elements. The **Association** element specifies the relationship between the current force or side and the other specified forces or sides. Because each Force or Side has its own list of associations the relationship between the forces or sides can be asymmetric. It is an *xs:all* compositor comprised of the elements shown in Figure 46 and described in the following subsections. Domain type is *msdl:AssociationType*.

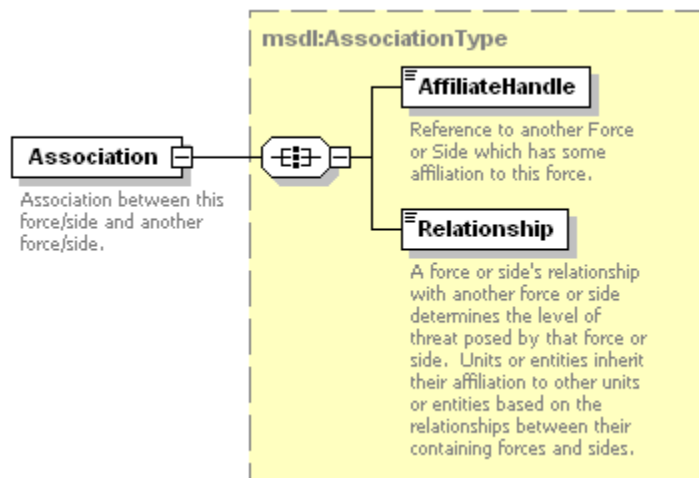


Figure 46: *msdl:AssociationType/Association* Element Structure

1. *msdl:AssociationType/AffiliateHandle* Element - For every *msdl:AssociationType* complex type there shall be one **AffiliateHandle** element. The **AffiliateHandle** element specifies the reference to

another Forceside element which has a relationship to the current Forceside element. The domain type is a ***msdl:patternUUIDRef32***.

2. ***msdl:AssociationType/Relationship*** Element - For every ***msdl:AssociationType*** complex type there shall be one ***Relationship*** element. The ***Relationship*** element specifies a Force or Side's relationship with another Force or Side. It is to be used to determine the level of threat posed by that Force or Side. It is expected that units or entities inherit their affiliation to the other units or entities based on their relationships between their containing Forces and Sides. The domain type is ***jc3iedm:ObjectItemHostilityStatusCode***.

6.5 ***msdl:MilitaryScenarioType/Organizations*** Element

For every ***msdl:MilitaryScenarioType*** complex type there shall be zero or one ***Organizations*** element. The ***Organizations*** element specifies the mission/scenario specific organizations and equipment within the military scenario document to include all military service, governmental, and nongovernmental organizations. Organizations in MSDL are comprised of ***Units*** and ***Equipment***. ***Equipment*** generally equates to entities in the simulation. Whether ***Equipment*** is represented in the ***Organization*** depends on the planning model specified in the ***OrganizationDetail*** within the scenario's ***Options*** element. The mapping of battle dimension instances other than ground into the unit and organization elements is application defined.

The information in the ***Organizations*** element describes the initialization data of each actual unit and equipment element in the scenario. This description does not specify how each unit and equipment instance is reported during intelligence gathering by the other unit and equipment instances. However, it is expected that each simulation application will be able to derive the applicable information during execution. The ***Organizations*** element is comprised of an xs:all compositor comprised the elements shown in Figure 47 and described in the subsequent subsections. The domain type is ***msdl:OrganizationsType***.

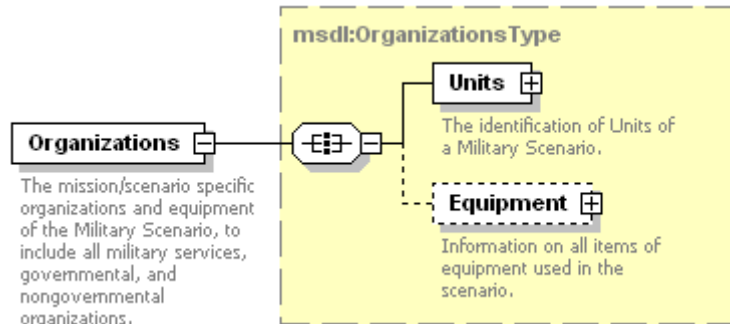


Figure 47: ***msdl:MilitaryScenarioType/Organizations*** Element Structure

6.5.1 ***msdl:OrganizationsType/Units*** Element

For every ***msdl:OrganizationsType*** element there shall be one ***Units*** element. The ***Units*** element, an xs:sequence compositor, specifies the units within the military scenario document and is shown in Figure 48. Domain type is ***msdl:UnitsType***.

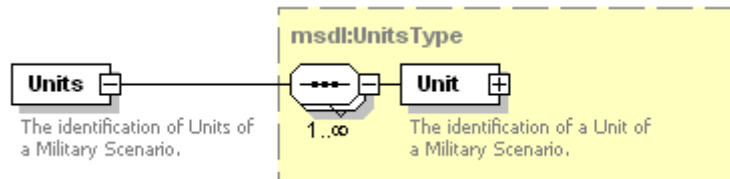


Figure 48: ***msdl:OrganizationsType/Units*** Element Structure

1037 6.5.1.1 *msdl:UnitsType/Unit* Element

1038 For every *msdl:UnitsType* element there shall be one or more *Unit* elements. The *Unit* element specifies a
1039 unit within the military scenario document. It is an xs:all compositor comprised of the elements shown in
1040 Figure 49 and described in the following subsections. Domain type is *msdl:UnitType*.

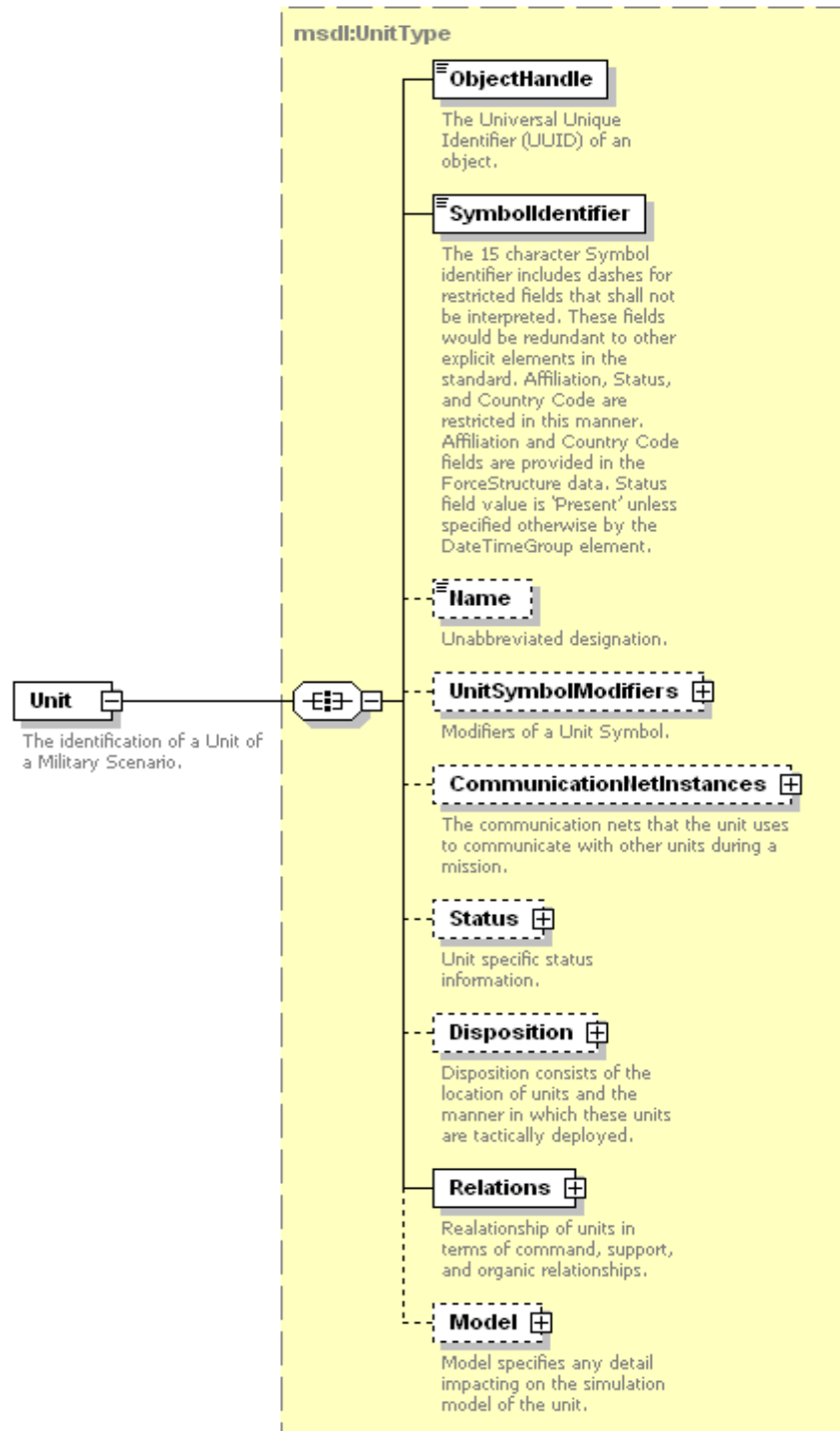


Figure 49: *msdl:UnitsType/Unit* Element Structure

1043 6.5.1.1.1 *msdl:UnitType/ObjectHandle* Element

1044 For every **msdl:UnitType** complex type there shall be one **ObjectHandle** element. The **ObjectHandle**
1045 element specifies the UUID of the **Unit**. The domain type is a **msdl:patternUUID32**.

1046 **6.5.1.1.2 msdl:UnitType/SymbolIdentifier Element**

1047 For every **msdl:UnitType** complex type there shall be one **SymbolIdentifier** element. The **SymbolIdentifier**
1048 element specifies the 15 character symbol identifier as specified by the Symbol Identification Coding scheme
1049 from the symbology set specified by the **SymbologyDataStandard** of the **Options**. The 15 character
1050 **SymbolIdentifier** includes dashes for restricted fields that shall not be interpreted. These fields would be
1051 redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in
1052 this manner. Affiliation and Country Code fields are provided in the ForceStructure data. Status field value is
1053 'Present' unless specified otherwise by the **DateTimeGroup** element. The Coding Scheme must be 'S' for
1054 unit symbol identification. The domain type is a **msdl:patternForceSymbolID15**.

1055 **6.5.1.1.3 msdl:UnitType/Name Element**

1056 For every **msdl:UnitType** complex type there shall be zero or one **Name** element. The **Name** element
1057 specifies the unabbreviated designation of the **Unit**. The domain type is **msdl:textName255**.

1058 **6.5.1.1.4 msdl:UnitType/UnitSymbolModifiers Element**

1059 For every **msdl:UnitType** complex type there shall be zero or one **UnitSymbolModifiers** element. The
1060 **UnitSymbolModifiers** element specifies the modifiers of unit symbol. It is an xs:all compositor comprised of
1061 the elements shown in Figure 50 and described in the following subsections. Domain type is
1062 **msdl:UnitSymbolModifiersType**.

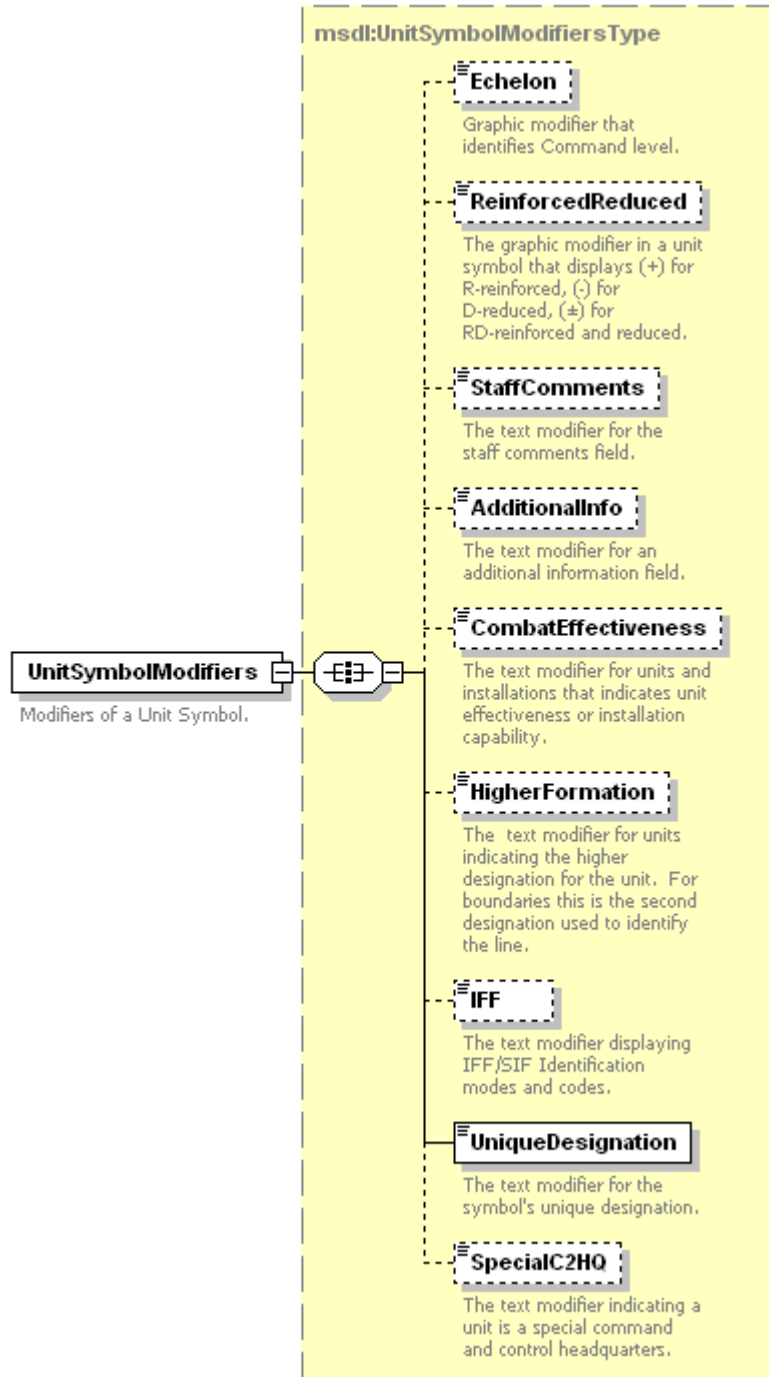


Figure 50: *msdl:Unit/Type/UnitSymbolModifiers* Element Structure

1. *msdl:UnitSymbolModifiersType/Echelon* Element - For every *msdl:UnitSymbolModifiersType* complex type there shall be zero or one **Echelon** elements. The **Echelon** element specifies the graphic modifier that identifies the command level. The domain type is *msdl:enumEchelon*.
2. *msdl:UnitSymbolModifiersType/ReinforcedReduced* Element - For every *msdl:UnitSymbolModifiersType* complex type there shall be zero or one ReinforcedReduced element. This element specifies, through an enumeration, whether a unit has been reinforced with assets from another organization, reduced by giving assets to another organization, or has received

assets from another organization and has given some assets to another organization. The domain type is **msdl:enumReinforcedReducedType**.

3. **msdl:UnitSymbolModifiersType/StaffComments** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **StaffComments** element. The **StaffComments** element specifies the text modifier for staff comments field. The domain type is **msdl:text20**.
4. **msdl:UnitSymbolModifiersType/AdditionalInfo** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is **msdl:text20**.
5. **msdl:UnitSymbolModifiersType/CombatEffectiveness** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **CombatEffectiveness** elements. The **CombatEffectiveness** element specifies the modifier that indicates the ability of a unit to perform its mission. Factors such as ammunition, personnel, status of fuel, and weapon systems may be included in the assessment. The domain type is **msdl:enumCombatEffectivenessType**.
6. **msdl:UnitSymbolModifiersType/HigherFormation** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **HigherFormation** element. The **HigherFormation** element specifies the text modifier that indicates the designation of the unit's superior when the designation is different that the one specified by the **Relations** element. The domain type is **msdl:text21**.
7. **msdl:UnitSymbolModifiersType/IFF** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **IFF** element. The **IFF** element specifies the text modifier displaying IFF/SIF identification modes and codes. The domain type is **msdl:text20**.
8. **msdl:UnitSymbolModifiersType/UniqueDesignation** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.
9. **msdl:UnitSymbolModifiersType/SpecialC2HQ** Element - For every **msdl:UnitSymbolModifiersType** complex type there shall be zero or one **SpecialC2HQ** element. The **SpecialC2HQ** element specifies the text modifier for units indicating that a unit is a special command and control headquarters. The domain type is **msdl:textSpecialC2HQ1**.

6.5.1.1.5 **msdl:UnitType/CommunicationNetInstances** Element

For every **msdl:UnitType** complex type there shall be zero or one **CommunicationNetInstances** element. The **CommunicationNetInstances** element specifies the communication nets that the unit defines for communication with other units during a mission. It is an xs:sequence compositor comprised of the elements shown in Figure 51 and described in the following subsections. Domain type is **msdl:CommunicationNetInstancesType**.

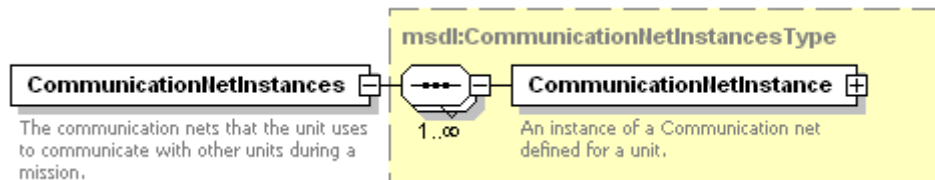


Figure 51: **msdl:UnitType/CommunicationsNetInstances** Element Structure

1. **msdl:CommunicationNetInstancesType/CommunicationNetInstance** Element - For every **msdl:CommunicationNetInstancesType** element there shall be one or more **CommunicationNetInstance** elements. The **CommunicationNetInstance** element specifies an instance of a communication net defined for a unit. It is an xs:all compositor comprised of the elements shown in Figure 52 and described in the following subsections. Domain type is **msdl:CommunicationNetInstanceType**.

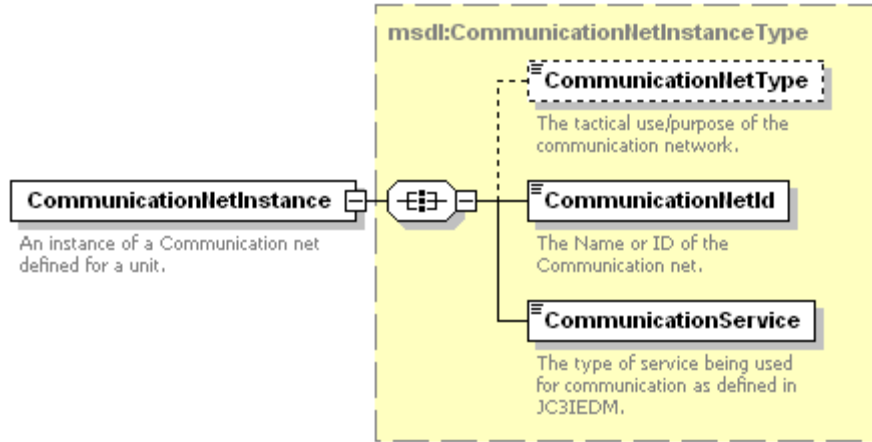


Figure 52: *msdl:CommunicationNetInstanceType/CommunicationNetInstance* Element Structure

- a) *msdl:CommunicationNetInstanceType/CommunicationNetType* Element - For every *msdl:CommunicationNetInstanceType* complex type there shall be zero or one *CommunicationNetType* element. The *CommunicationNetType* element specifies the tactical use or purpose of the communication network. The domain type is *msdl:enumCommunicationNetType*.
- b) *msdl:CommunicationNetInstanceType/CommunicationNetId* Element - For every *msdl:CommunicationNetInstanceType* complex type there shall be one *CommunicationNetId* element. The *CommunicationNetId* element specifies the name or ID of the communication network. The domain type is *msdl:textIdentifier64*.
- c) *msdl:CommunicationNetInstanceType/CommunicationService* Element - For every *msdl:CommunicationNetInstanceType* complex type there shall be one *CommunicationService* element. The *CommunicationService* element specifies the type of service being used for communication. The domain type is a *msdl:enumCommunicationServiceType*.

6.5.1.1.6 *msdl:UnitType/Status* Element

For every *msdl:UnitType* complex type there shall be zero or one *Status* element. The *Status* element specifies unit specific status information. It is an xs:all compositor comprised of the elements shown in Figure 53 and described in the following subsections. Domain type is *msdl:StatusType*.

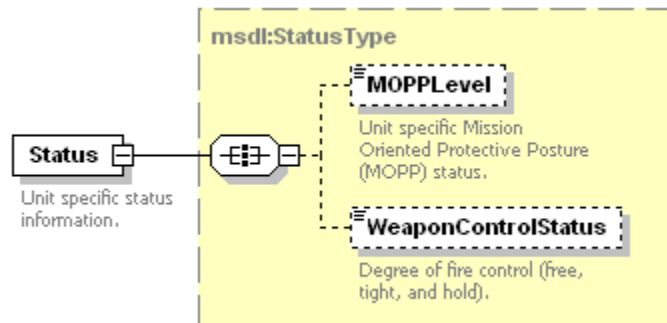


Figure 53: *msdl:UnitType/Status* Element Structure

1. *msdl:StatusType/MOPPLLevel* Element - For every *msdl:StatusType* complex type there shall be zero or one *MOPPLLevel* elements. The *MOPPLLevel* element specifies the status of the Mission Oriented Protective Posture (MOPP). The domain type is *msdl:enumMOPPLLevelType*.
2. *msdl:StatusType/WeaponControlStatus* Element - For every *msdl:StatusType* complex type there shall be zero or one *WeaponControlStatus* element. The *WeaponControlStatus* element

1145 specifies the degree of fire control, values include free, tight, and hold. The domain type is
1146 ***msdl:enumWeaponControlStatusType***.

1147 6.5.1.1.7 ***msdl:UnitType/Disposition*** Element

1148 For every ***msdl:UnitType*** complex type there shall be zero or one ***Disposition*** element. The ***Disposition***
1149 element specifies the location of units and the manner in which these units are tactically deployed. It is an
1150 xs:all compositor comprised of the elements shown in Figure 54 and described in the following subsections.
1151 Domain type is ***msdl:UnitDispositionType***.

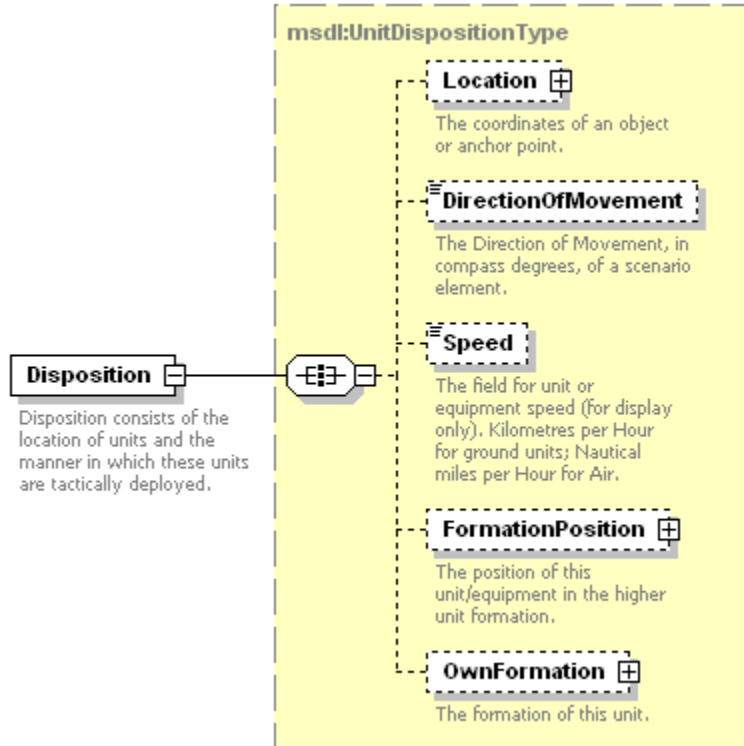


Figure 54: ***msdl:UnitType/Disposition*** Element Structure

- 1152 1. ***msdl:UnitDispositionType/Location*** Element - For every ***msdl:UnitDispositionType*** complex
1153 type there shall be zero or one ***Location*** element. The ***Location*** element specifies the coordinates
1154 of the unit. This shall either be the position of the lead element or the center of mass of the unit as
1155 specified in the ***msdl:OwnFormationType/FormationLocationType***. It shall be center of mass
1156 when the ***msdl:OwnFormationType/FormationLocationType*** element is not specified. The The
1157 domain type is ***msdl:CoordinatesType*** as defined within section 6.3.3.2 for
1158 ***msdl:RectangleAreaType/UpperRight***.
1159
- 1160 2. ***msdl:UnitDispositionType/DirectionOfMovement*** Element - For every
1161 ***msdl:UnitDispositionType*** complex type there shall be zero or one ***DirectionOfMovement***
1162 element. The ***DirectionOfMovement*** element specifies the horizontal direction of movement in
1163 compass degrees of the formation as a whole. The domains type is
1164 ***msdl:floatCompassDegrees3_3***.
1165
- 1166 3. ***msdl:UnitDispositionType/Speed*** Element - For every ***msdl:UnitDispositionType*** complex type
1167 there shall be zero or one ***Speed*** element. The ***Speed*** element specifies the rate of movement of the
1168 unit in the direction specified by the ***DirectionOfMovement*** element. The domains type is
1169 ***msdl:floatSpeed6_2***.
1170
- 1171 4. ***msdl:UnitDispositionType/FormationPosition*** Element - For every ***msdl:UnitDispositionType***
1172 complex type there shall be zero or one ***FormationPosition*** element. The ***FormationPosition***
element specifies the position of the specific unit with relation to the other units within the formation.

1173 It is an xs:all compositor comprised of the elements shown in Figure 55 and described in the
1174 following subsections. Domain type is **msdl:FormationPositionType**.

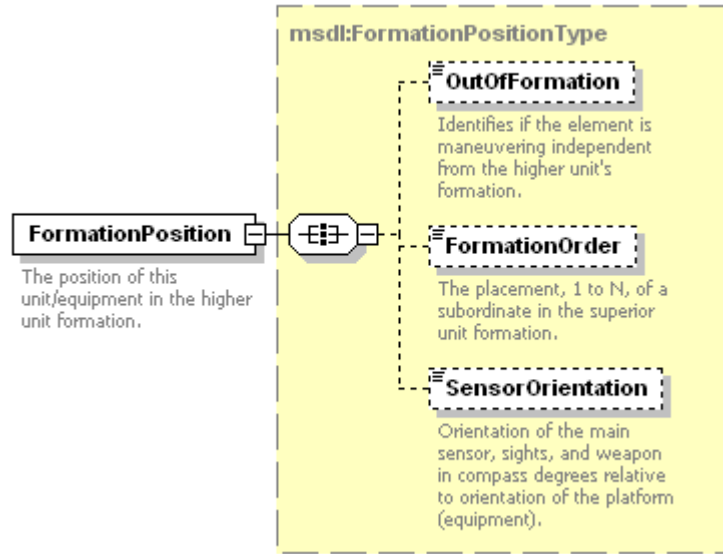


Figure 55: **msdl:FormationPositionType/FormationPosition** Element Structure

- i) **msdl:FormationPositionType/OutOfFormation** Element - For every **msdl:FormationPosition** complex type there shall be zero or one **OutOfFormation** element. The **OutOfFormation** element specifies if the element is maneuvering independent of the higher unit's formation. The domain type is **msdl:booleanOutOfFormation**.
 - ii) **msdl:FormationPositionType/FormationOrder** Element - For every **msdl:FormationPosition** complex type there shall be zero or one **FormationOrder** element. The **FormationOrder** element specifies the placement, 1 to N, of a subordinate in the superior unit's formation. The domain type is **msdl:integerSequence6**.
 - iii) **msdl:FormationPositionType/SensorOrientation** Element - For every **msdl:FormationPosition** complex type there shall be zero or one **SensorOrientation** element. The **SensorOrientation** element specifies the main sensor, sight, and weapon of the unit's equipment. If an **SensorOrientation** is defined for both the unit and equipment, the equipment's **SensorOrientation** shall be used. The domain type is **msdl:floatCompassDegrees3_3**.
5. **msdl:UnitDispositionType/OwnFormation** - For every **msdl:UnitDispositionType** complex type there shall be zero or one **OwnFormation** element. The **OwnFormation** element specifies the formation of the unit. It is an xs:all compositor comprised of the elements shown in Figure 56 and described in the following subsections. Domain type is **msdl:OwnFormationType**.

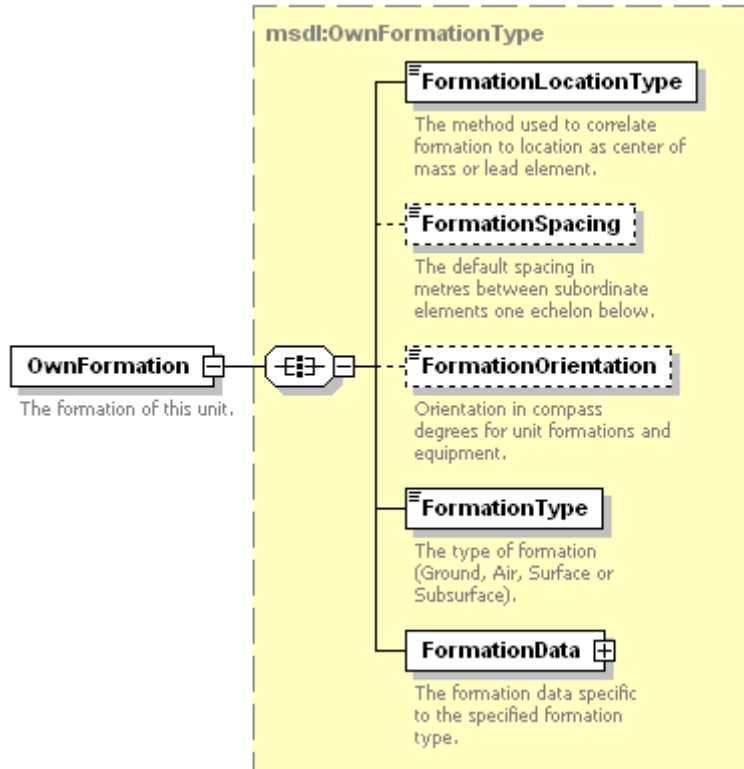


Figure 56: *msdl:OwnFormationType/OwnFormation* Element Structure

- i) *msdl:OwnFormationType/FormationLocationType* Element - For every *msdl:OwnFormationType* complex type there shall be one *FormationLocationType* element. The *FormationLocationType* element specifies the method used to correlate the formation to a location as the center of mass or the lead element. The domain type is *msdl:enumFormationLocationType*.
- ii) *msdl:OwnFormationType/FormationSpacing* Element - For every *msdl:OwnFormationType* complex type there shall be zero or one *FormationSpacing* element. The *FormationSpacing* element specifies the default spacing in meters between subordinate elements. The domain type is *msdl:floatSpacing4_3*.
- iii) *msdl:OwnFormationType/FormationOrientation* Element - For every *msdl:OwnFormationType* complex type there shall be zero or one *FormationOrientation* element. The *FormationOrientation* element specifies the orientation in compass degrees of the formation as a whole. The domain type is a restricted *msdl:floatCompassDegrees3_3*.
- iv) *msdl:OwnFormationType/FormationChoice* Element - For every *msdl:OwnFormationType* complex type there shall be zero or one *FormationChoice* element. The *FormationChoice* element specifies the relative location from which subordinate elements are placed in the formation. The domain type is *msdl:enumFormationType*.
- v) *msdl:OwnFormationType/FormationData* Element - For every *msdl:OwnFormationType* complex type there shall be one *FormationData* element. The *FormationData* element specifies the formation data specific to the formation type. It is an *xs:choice* compositor comprised of one and only one element shown in Figure 57 and described in the following subsections. Domain type is *msdl:FormationDataType*.

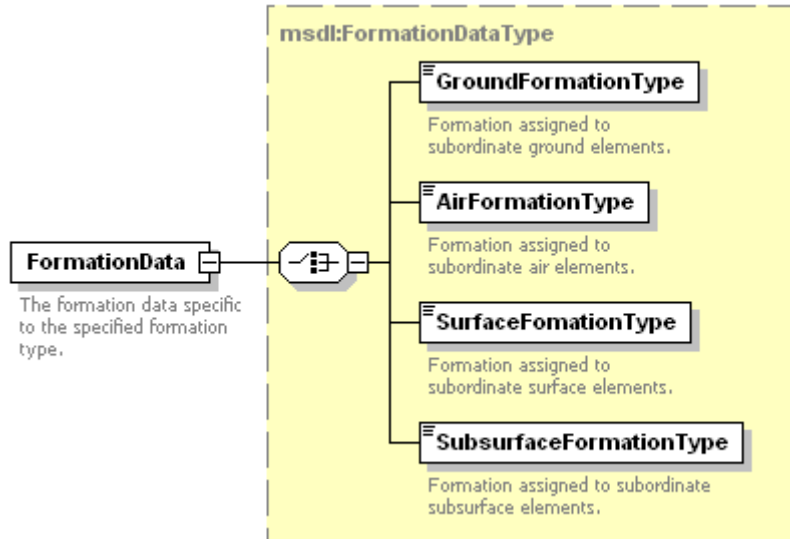


Figure 57: *msdl:OwnFormationType/FormationData* Element Structure

- (1) *msdl:FormationDataType/GroundFormationType* Element - For every *msdl:FormationDataType* complex type there shall be zero or one *GroundFormationType* element. The *GroundFormationType* element specifies the ground formation type used to place subordinate elements. The domain type is *msdl:enumGroundFormationType*.
- (2) *msdl:FormationDataType/AirFormationType* Element - For every *msdl:FormationDataType* complex type there shall be zero or one *AirFormationType* element. The *AirFormationType* element specifies the air formation type used to place subordinate elements. The domain type is *msdl:enumAirFormationType*.
- (3) *msdl:FormationDataType/SurfaceFormationType* Element - For every *msdl:FormationDataType* complex type there shall be zero or one *SurfaceFormationType* element. The *SurfaceFormationType* element specifies the surface formation type used to place subordinate elements. The domain type is *msdl:enumSurfaceFormationType*.
- (4) *msdl:FormationDataType/SubsurfaceFormationType* Element - For every *msdl:FormationDataType* complex type there shall be zero or one *SubsurfaceFormationType* element. The *SubsurfaceFormationType* element specifies the subsurface formation type used to place subordinate elements. The domain type is *msdl:enumSubsurfaceFormationType*.

6.5.1.1.8 *msdl:UnitType/Relations* Element

For every *msdl:UnitType* complex type there shall be one *Relations* element. The *Relations* element specifies the relationship of units in terms of command, support, and organic relationships. It is an *xs:all* compositor comprised of the elements shown in Figure 58 and described in the following subsections. Domain type is *msdl:UnitRelationsType*.

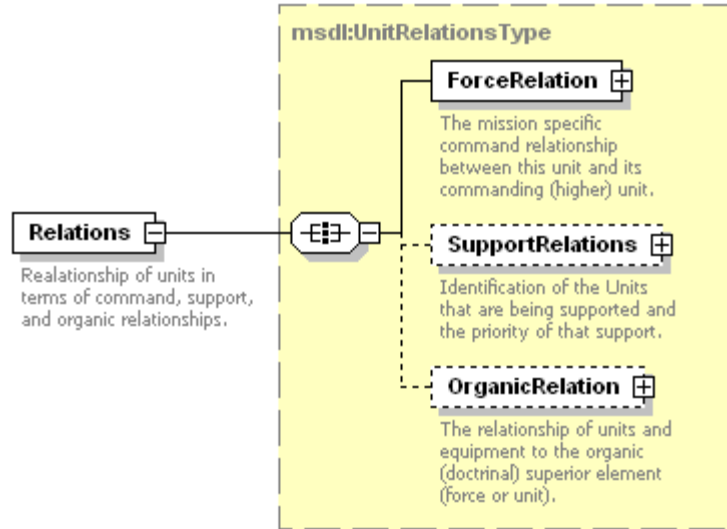


Figure 58: *msdl:UnitType/Relations* Element Structure

1. ***msdl:UnitRelationsType/ForceRelation*** Element -For every ***msdl:UnitRelationsType*** complex type there shall be one ***ForceRelation*** element. The ***ForceRelation*** element specifies the mission specific command relationship between this unit and its commanding (higher) unit. The ***ForceRelation*** element either holds a relationship to a commanding unit defined by a ***Unit*** element, or to a commanding unit defined by a ***ForceSide*** element. It is an xs:all compositor comprised of the elements shown in Figure 59 and described in the following subsections. Domain type is ***msdl:ForceRelationType***.

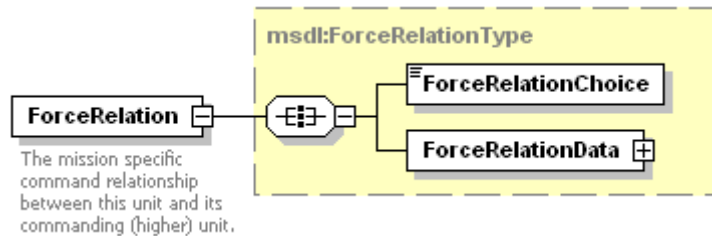


Figure 59: *msdl:UnitRelationsType/ForceRelation* Element Structure

- a) ***msdl:ForceRelationType/ForceRelationChoice*** Element - For every ***msdl:ForceRelationType*** complex type there shall be one ***ForceRelationChoice*** element. The ***ForceRelationChoice*** element specifies either a unit, force/side, or not-specified relationship will be contained within the ***ForceRelationData*** element. Domain type is ***msdl:enumForceOwnerType***.
- b) ***msdl:ForceRelationType/ForceRelationData*** Element - For every ***msdl:ForceRelationType*** complex type there shall be one ***ForceRelationData*** element. The ***ForceRelationData*** element specifies the structure for holding command relationship between this unit/equipment and its commanding unit; and the ***msdl:ForceSideHandle***. It is an xs:choice compositor comprised of only one of the elements shown in Figure 60 and described in the following subsections. Domain type is ***msdl:ForceRelationData***.

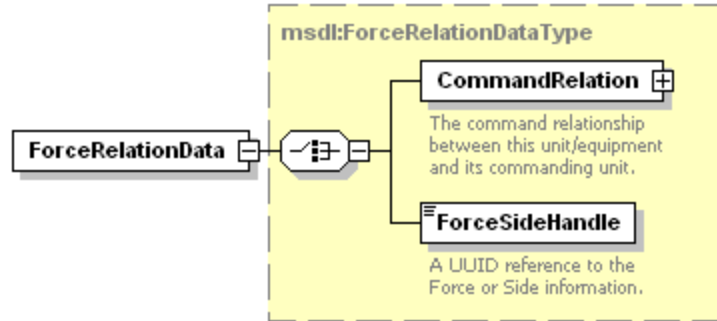


Figure 60: *msdl:ForceRelationType/ForceRelationData* Element Structure

- i) *msdl:ForceRelationDataType/CommandRelation* Element - For every *msdl:ForceRelationDataType* complex type there shall be one **CommandRelation** element. The **CommandRelation** element specifies the structure for holding a reference to the superior unit and the type of command relationship between this unit and its superior. It is an xs:all compositor comprised of the elements shown in Figure 61 and described in the following subsections. Domain type is *msdl:CommandRelationType*.

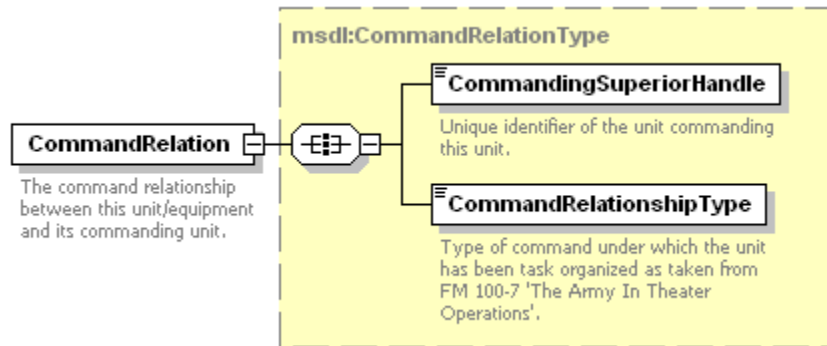


Figure 61: *msdl:ForceRelationDataType/CommandRelation* Element Structure

- (1) *msdl:CommandRelationType/CommandingSuperiorHandle* Element- For every *msdl:CommandRelationType* complex type there shall be one **CommandingSuperiorHandle** element. The **CommandingSuperiorHandle** element specifies a unique identifier of the commanding **Unit**. The domain type is *msdl:patternUUIDRef32*.
 - (2) *msdl:CommandRelationType/CommandRelationshipType* Element- For every *msdl:CommandRelationType* complex type there shall be one **CommandRelationshipType** element. The **CommandRelationshipType** element specifies the type of command under which the unit has been task organized .The domain type is *msdl:enumCommandRelationshipType*.
 - ii) *msdl:ForceRelationDataType/ForceSideHandle* Element - For every *msdl:ForceRelationDataType* complex type there shall be zero or one **ForceSideHandle** element. The **ForceSideHandle** element specifies a UUID reference to the **ForceSide** for the **Unit**. The domain type is *msdl:patternUUIDRef32*.
2. *msdl:UnitRelationsType/SupportRelations* Element - For every *msdl:UnitRelationsType* complex type there shall be zero or one **SupportRelations** element. The **SupportRelations** element specifies the identification of the units that are being supported and the priority of the support. It is an xs:sequence compositor comprised of the elements shown in Figure 62 and described in the following subsections. Domain type is *msdl:SupportRelationsType*.

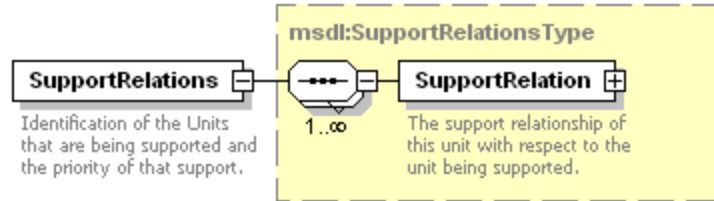


Figure 62: *msdl:UnitRelationsType/SupportRelations* Element Structure

- a) *msdl:/SupportRelationsType/SupportRelation* Element - For every *msdl:SupportRelationsTypes* complex type there shall be one or more **SupportRelation** elements. The **SupportRelation** element specifies the support relationship of this unit with respect to the unit being supported. It is an xs:all compositor comprised of the elements shown in Figure 63 and described in the following subsections. Domain type is *msdl:SupportRelationType*.

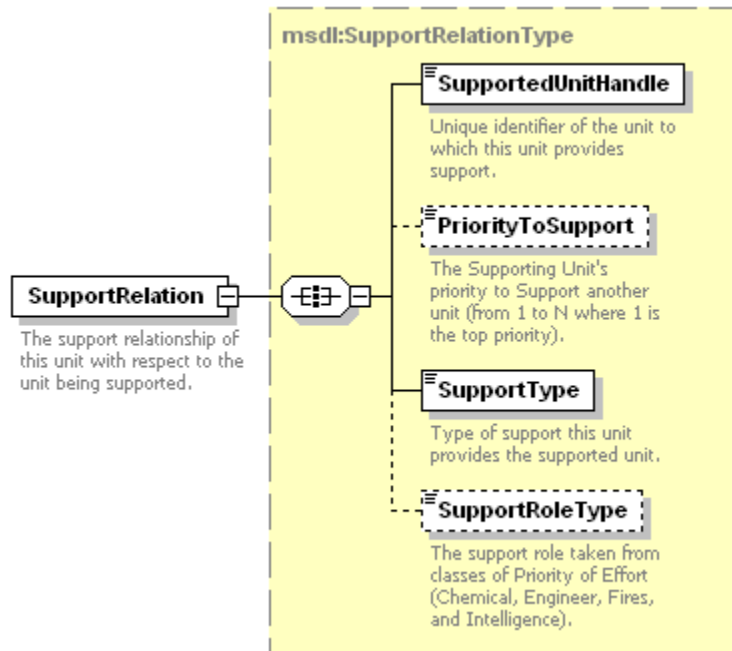


Figure 63: *msdl:SupportRelationTypes/SupportRelation* Element Structure

- i) *msdl:SupportRelationType/SupportedUnitHandle* Element - For every *msdl:SupportRelationType* complex type there shall be one **SupportedUnitHandle** element. The **SupportedUnitHandle** element specifies the unique identifier of the unit to which this unit provides support. The domain type is *msdl:patternUUIDREF32*.
- ii) *msdl:SupportRelationType/PriorityToSupport* Element - For every *msdl:SupportRelationType* complex type there shall be zero or one **PriorityToSupport** element. The **PriorityToSupport** element specifies the supporting unit's priority to support another unit from 1 to N where 1 is the top priority. The domain type is a *msdl:integerPriorityToSupport1*.
- iii) *msdl:SupportRelationType/SupportType* Element - For every *msdl:SupportRelationType* complex type there shall be one **SupportType** element. The **SupportType** element specifies the type of support this unit provides the supported unit. The domain type is a *msdl:enumSupportRelationType*.
- iv) *msdl:SupportRelationType/SupportRoleType* Element - For every *msdl:SupportRelationType* complex type there shall be zero or one **SupportRoleType** element. The **SupportRoleType** element specifies the support role taken from categories

defining priority of effort including: Chemical, Engineer, Fires, Intelligence, etc. The domain type is a **msdl:enumSupportRoleType**.

3. **msdl:UnitRelationsType/OrganicRelation** For every **msdl:UnitRelationsType** complex type there shall be zero or one **OrganicRelation** element. The **OrganicRelation** element specifies an association of the doctrine and other behavior detail that is followed independent of the mission specific organization. It is an xs:all compositor comprised the elements shown in Figure 64 and described in the following subsections. Domain type is **msdl:OrganicRelationType**.

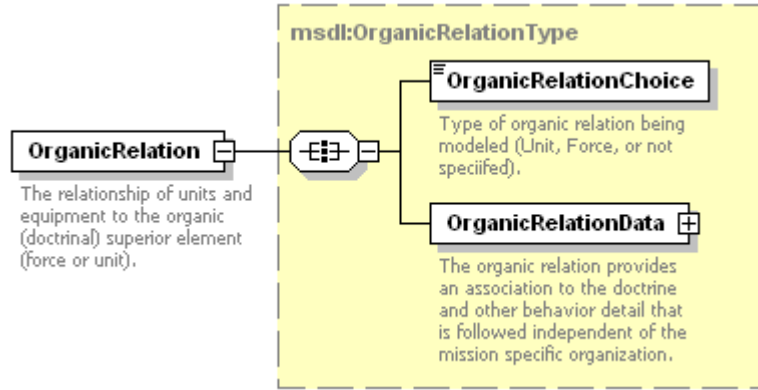


Figure 64: **msdl:UnitRelationType/OrganicRelation** Element Structure

- a) **msdl:OrganicRelationType/OrganicRelationChoice** Element - For every **msdl:OrganicRelationType** complex type there shall be one **OrganicRelationChoice** element. The **OrganicRelationChoice** element specifies the type of organic relationship to the unit's force or side. The domain type is **msdl:enumForceOwnerType**.
- b) **msdl:OrganicRelationType/OrganicRelationData** Element - For every **msdl:OrganicRelationType** complex type there shall one **OrganicRelationData** element. The **OrganicRelationData** element specifies the structure to hold a reference to the unit that is the unit's organic superior and to the unit's organic force or side. It is an xs:choice compositor comprised of one and only one of the elements shown in Figure 65 and described in the following subsections. Domain type is **msdl:OrganicRelationDataType**.

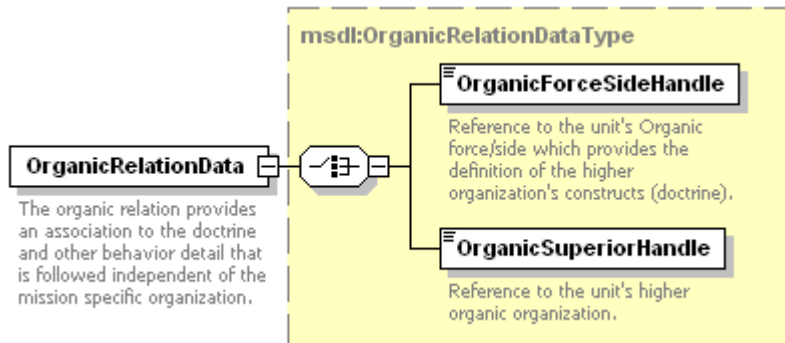


Figure 65: **msdl:OrganicRelationType/OrganicRelationData** Element Structure

- i) **msdl:OrganicRelationDataType/OrganicForceSideHandle** Element - For every **msdl:OrganicRelationDataType** complex type there shall be zero or one **OrganicForceSideHandle** element. The **OrganicForceSideHandle** element specifies a reference to the unit's organic **ForceSide** which provides the definition of the higher organization's doctrine. The domain type is **msdl:patternUUIDRef32**.
- ii) **msdl:OrganicRelationDataType/OrganicSuperiorHandle** Element - For every **msdl:OrganicRelationDataType** complex type there shall be zero or one **OrganicSuperiorHandle** element. The **OrganicSuperiorHandle** element specifies a

reference to the unit that is the unit's higher organic organization. The domain type is **msdl:patternUUIDRef32**.

6.5.1.1.9 **msdl:UnitType/Model** Element

For every **msdl:UnitType** complex type there shall be one **Model** element. The **Model** element specifies the resolution and aggregation information impacting import of the military scenario. It is an xs:all compositor comprised of the elements shown in Figure 66 and described in the following subsections. Domain type is **msdl:UnitModelType**.

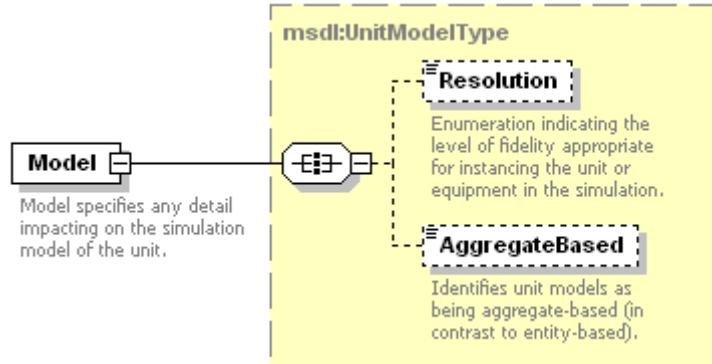


Figure 66: **msdl:UnitType/Model** Element Structure

1. **msdl:UnitModelType/Resolution** Element - For every **msdl:UnitModelType** complex type there shall be zero or one **Resolution** element. The **Resolution** element specifies an enumeration indicating the level of fidelity appropriate for instantiating the unit or equipment in the simulation. The domain type is **msdl:enumModelResolutionType**.
2. **msdl:UnitModelType/AggregateBased** Element - For every **msdl:UnitModelType** complex type there shall be zero or one **AggregateBased** element. The **AggregateBased** element specifies a flag indicating that a unit's underlying task organization is explicitly represented using the **Unit** and **Equipment** constructs as appropriate. The domain type is **msdl:boolean**.

6.5.2 **msdl:OrganizationsType/Equipment** Element

For every **msdl:OrganizationsType** complex type there shall be zero or one **Units** element. The **Equipment** element, an xs:sequence compositor, specifies all of the equipment elements used within the military scenario and is shown in Figure 67. Domain type is **msdl:EquipmentType**.

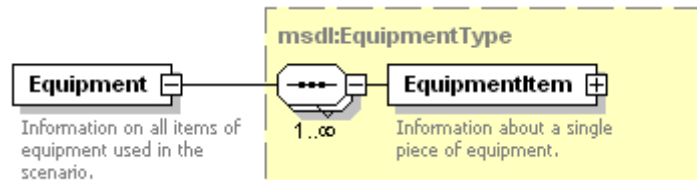


Figure 67: **msdl:OrganizationsType/Equipment** Element Structure

6.5.2.1 **msdl:EquipmentType/EquipmentItem** Element

For every **msdl:EquipmentType** complex type there shall be one or more **EquipmentItem** elements. The **EquipmentItem** element specifies a individual entity such as a vehicle, aircraft, or person within the military scenario document. It is an xs:all compositor comprised of the elements shown in Figure 68 and described in the following subsections. Domain type is **msdl:EquipmentItem**.

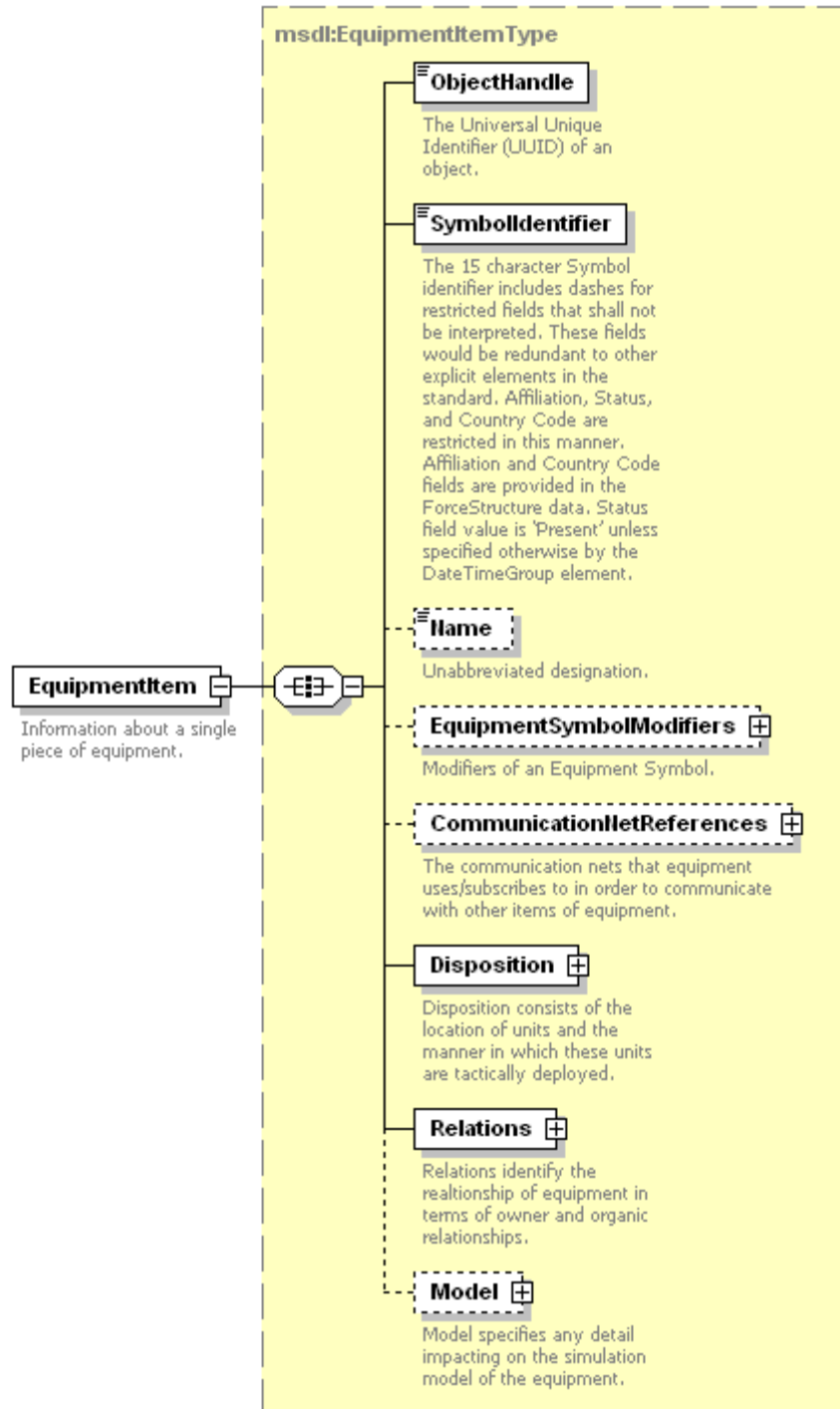


Figure 68: *msdl:EquipmentType/EquipmentItem* Element Structure

6.5.2.1.1 *msdl:EquipmentItem Type/ObjectHandle* Element

For every *msdl:EquipmentItem Type* complex type there shall be one **ObjectHandle** element. The **ObjectHandle** element specifies the UUID of the **Unit**. The domain type is a *msdl:patternUUID32*.

6.5.2.1.2 *msdl:EquipmentItem Type/SymbolIdentifier* Element

1387 For every ***msdl:EquipmentItemType*** complex type there shall be one ***SymbolIdentifier*** element. The
1388 ***SymbolIdentifier*** element specifies the 15 character symbol identifier as specified by the Symbol
1389 Identification Coding scheme within Mil Std 2525B. The 15 character ***SymbolIdentifier*** includes dashes for
1390 restricted fields that shall not be interpreted. These fields would be redundant to other explicit elements in the
1391 standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code
1392 fields are provided in the ForceStructure data. Status field value is 'Present' unless specified otherwise by
1393 the ***DateTimeGroup*** element. The Coding Scheme must be 'S' for equipment symbol identification. The
1394 domain type is a ***msdl:patternForceSymbolID15***.

1395 **6.5.2.1.3 *msdl:EquipmentItemType/Name* Element**

1396 For every ***msdl:EquipmentItemType*** complex type there shall be zero or one ***Name*** element. The ***Name***
1397 element specifies the unabbreviated designation of the ***EquipmentItem***. The domain type is
1398 ***msdl:textName255***.

1399 **6.5.2.1.4 *msdl:EquipmentItemType/EquipmentSymbolModifiers* Element**

1400 For every ***msdl:EquipmentItemType*** complex type there shall be zero or one ***EquipmentSymbolModifiers***
1401 element. The ***EquipmentSymbolModifiers*** element specifies the modifiers of an equipment symbol. It is an
1402 xs:all compositor comprised of the elements shown in Figure 69 and described in the following subsections.

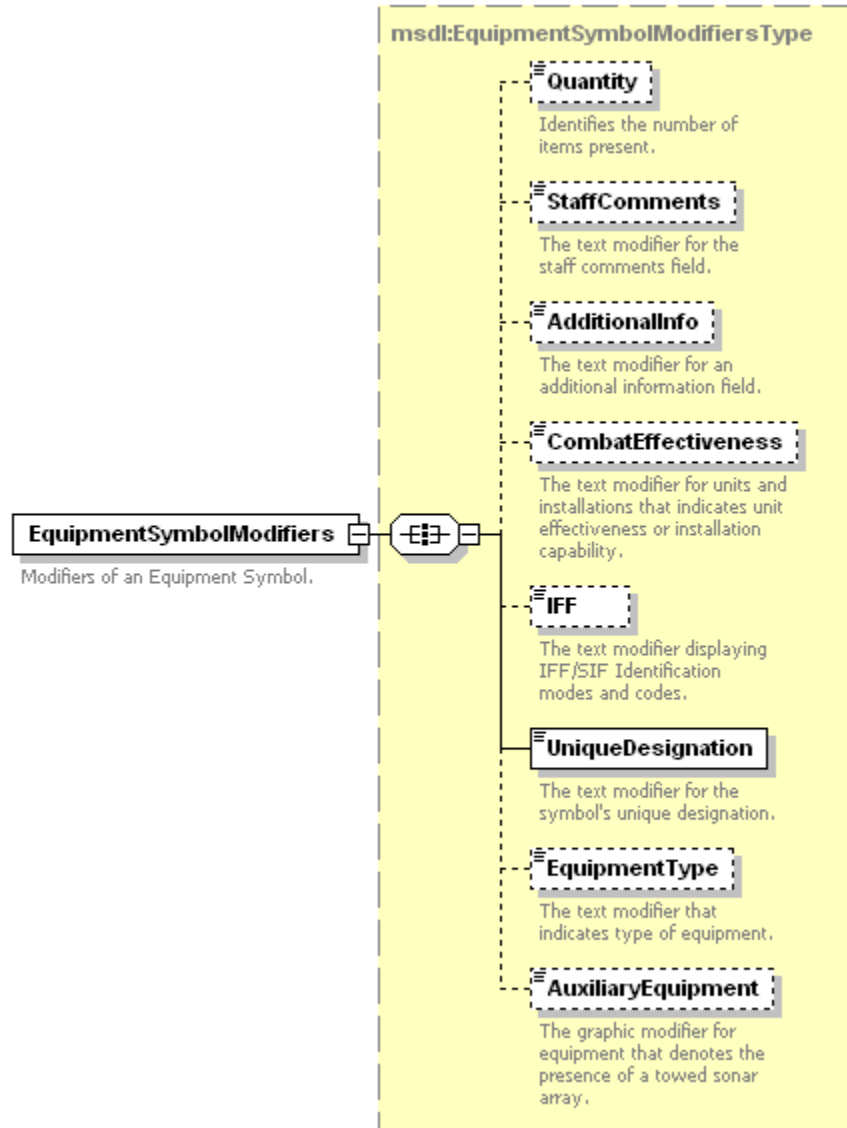


Figure 69: *msdl:EquipmentItemType/EquipmentSymbolModifiers* Element Structure

1. *msdl:EquipmentSymbolModifiersType/Quantity* Element - For every *msdl:EquipmentSymbolModifiersType* complex type there shall be zero or one **Quantity** elements. The **Quantity** element specifies the modifier that identifies the number of items present. The domain type is *msdl:integerQuantity9*.
2. *msdl:EquipmentSymbolModifiersType/StaffComments* Element - For every *msdl:EquipmentSymbolModifiersType* complex type there shall be zero or one **StaffComments** element. The **StaffComments** element specifies the text modifier for staff comments field. The domain type is *msdl:text20*.
3. *msdl:EquipmentSymbolModifiersType/AdditionalInfo* Element - For every *msdl:EquipmentSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
4. *msdl:EquipmentSymbolModifiersType/CombatEffectiveness* Element - For every *msdl:EquipmentSymbolModifiersType* complex type there shall be zero or one **CombatEffectiveness** element. The **CombatEffectiveness** element specifies the modifier that indicates the ability of the equipment to perform its mission. Factors such as ammunition, personnel,

status of fuel, and weapon systems may be included in the assessment. The domain type is **msdl:enumCombatEffectivenessType**.

5. **msdl:EquipmentSymbolModifiersType/IFF** Element - For every **msdl:EquipmentSymbolModifiersType** complex type there shall be zero or one **IFF** element. The **IFF** element specifies the text modifier displaying IFF/SIF identification modes and codes. The domain type is **msdl:textIFF5**.
6. **msdl:EquipmentSymbolModifiersType/UniqueDesignation** Element - For every **msdl:EquipmentSymbolModifiersType** complex type there shall be one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.
7. **msdl:EquipmentSymbolModifiersType/EquipmentType** Element - For every **msdl:EquipmentSymbolModifiersType** complex type there shall be zero or one **EquipmentType** element. The **EquipmentType** element specifies the modifier that identifies equipment type. The domain type is **msdl:textEquipmentType24**.
8. **msdl:EquipmentSymbolModifiersType/AuxilliaryEquipment** Element - For every **msdl:EquipmentSymbolModifiersType** complex type there shall be zero or one **AuxilliaryEquipment** element. The **AuxilliaryEquipment** element specifies a boolean modifier that denotes the presence of a towed sonar array. The domain type is **msdl:booleanAuxiliaryEquipment**.

6.5.2.1.5 **msdl:EquipmentItemType/CommunicationNetReferences** Element

For every **msdl:EquipmentItemType** complex type there shall be zero or one **CommunicationNetReferences** element. The **CommunicationNetReferences** element specifies the communication nets that the equipment uses or subscribes to in order to communicate with other equipment items. It is an xs:sequence compositor comprised of the elements shown in Figure 70 and described in the following subsections. Domain type is **msdl:CommunicationNetReferenceType**.

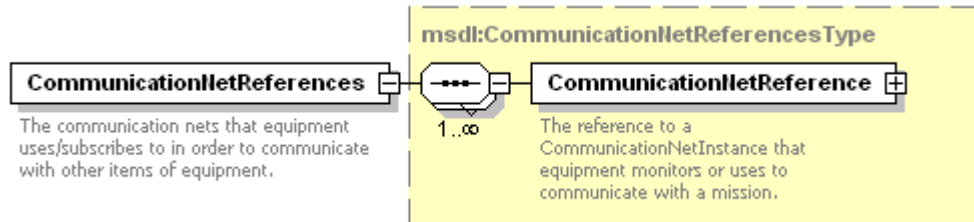


Figure 70: *msdl:EquipmentItemType/CommunicationNetReferences* Element Structure

1. **msdl:CommunicationNetReferences/CommunicationNetReference** Element - For every **msdl:CommunicationNetReferencesType** complex type there shall be one or more **msdl:CommunicationNetReference** elements. The **CommunicationNetReference** element specifies a reference to a **CommunicationNetInstance** that the equipment monitors or uses to communicate mission information. It is an xs:sequence compositor comprised of the elements shown in Figure 71 and described in the following subsections. Domain type is **msdl:CommunicationNetReferenceType**.

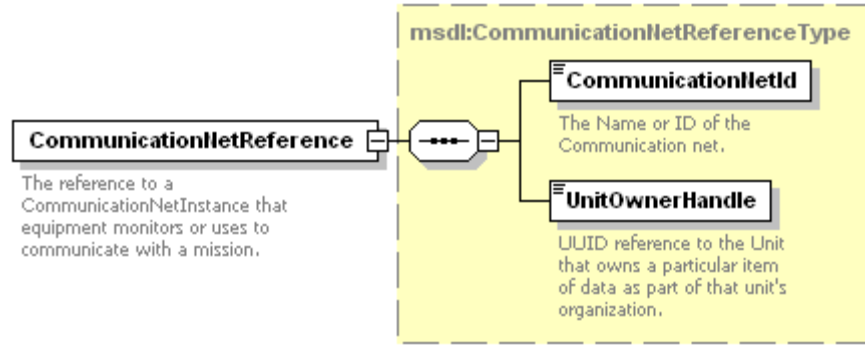


Figure 71: *msdl:CommunicationNetReferenceType/CommunicationNetReference* Element Structure

- a) *msdl:CommunicationNetReferenceType/CommunicationNetId* Element - For every *msdl:CommunicationNetReferenceType* complex type there shall be one *CommunicationNetId* element. The *CommunicationNetId* element specifies the name or ID of the communication network. The domain type is *msdl:textIdentifier64*.
- b) *UnitOwnerHandle* Element - For every *msdl:CommunicationNetReferenceType* complex type there shall be one *UnitOwnerHandle* element. The *UnitOwnerHandle* element specifies a UUID reference to the unit that owns a communication network. The domain type is *msdl:patternUUIDRef32*.

6.5.2.1.6 *msdl:EquipmentItemType/Disposition* Element

For every *msdl:EquipmentItemType* complex type there shall be one *Disposition* element. The *Disposition* element specifies the location of equipment items and the manner in which these equipment items are tactically deployed. It is an xs:all compositor comprised of the elements shown in Figure 72 and described in the following subsections. Domain type is *msdl:EquipmentDispositionType*.

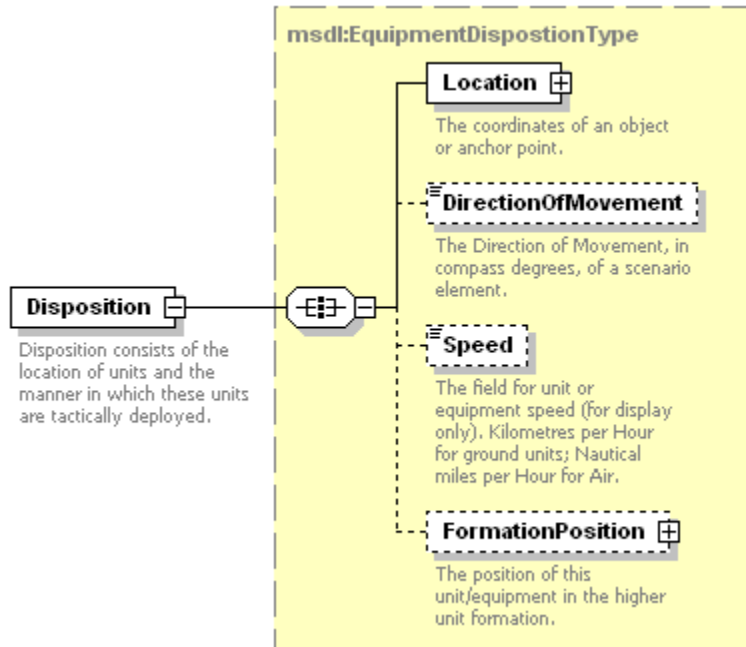


Figure 72: *msdl:EquipmentItemType/Disposition* Element Structure

1. *msdl:EquipmentDispositionType/Location* Element - For every *msdl:EquipmentDispositionType* complex type there shall be one *Location* element. The *Location* element specifies the coordinates of the equipment. The domain type is

msdl:CoordinatesType as defined within section 6.3.3.2 for
msdl:RectangleAreaType/UpperRight.

2. **msdl:EquipmentDispositionType/DirectionOfMovement** Element - For every **msdl:EquipmentDispositionType** complex type there shall be zero or one **DirectionOfMovement** element. The **DirectionOfMovement** element specifies the horizontal direction of movement in compass degrees of a military scenario element. The domain type is **msdl:floatCompassDegrees3_3**.
3. **msdl:EquipmentDispositionType/Speed** Element - For every **msdl:EquipmentDispositionType** complex type there shall be zero or one **Speed** element. The **Speed** element specifies the equipment's rate of movement in the direction as specified in the **DirectionOfMovement** element. The domain type is **msdl:floatSpeed6_2**.
4. **msdl:EquipmentDispositionType/FormationPosition** Element - For every **msdl:EquipmentDispositionType** complex type there shall be zero or one **FormationPosition** element. The **FormationPosition** element specifies the position of the specific **EquipmentItem** with relation to the other pieces of equipment within the formation. The Domain type is **msdl:FormationPositionType** as defined within section 6.5.1.1.6 for **msdl:FormationPositionType/FormationPosition**.

6.5.2.1.7 **msdl:EquipmentItemType/Relations** Element

For every **msdl:EquipmentItemType** complex type there shall be one **Relations** element. The **Relations** element specifies the relationship of equipment items to units in terms of command, support, and organic relationships. It is an xs:all compositor comprised of the elements shown in Figure 73 and described in the following subsections. Domain type is **msdl:EquipmentRelationsType**.

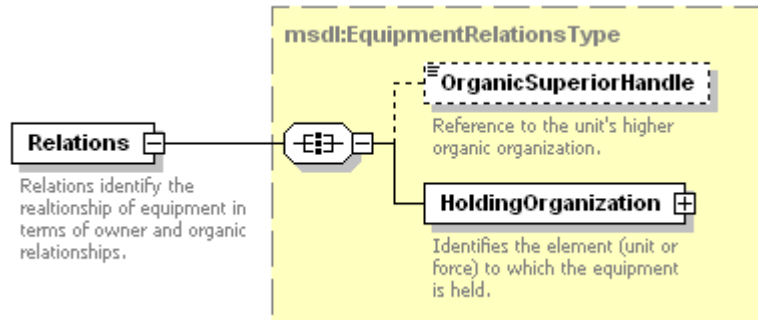


Figure 73: **msdl:EquipmentItemType/Relations** Element Structure

1. **msdl:EquipmentRelationsType/OrganicSuperiorHandle** Element - For every **msdl:EquipmentRelationsType** complex type there shall be zero or one **OrganicSuperiorHandle** element. The **OrganicSuperiorHandle** element specifies a reference to the unit that is the equipment item's higher organic organization. The domain type is **msdl:patternUUIDRef32**.
2. **msdl:EquipmentRelationsType/HoldingOrganization** Element - For every **msdl:EquipmentRelationsType** complex type there shall be one **HoldingOrganization** element. The **HoldingOrganization** element specifies the unit that is the owner of the equipment item. The **HoldingOrganization** element, an xs:sequence compositor contains all the elements shown in Figure 74 and described in the subsequent subsections. The domain type is **msdl:OwnerType**.

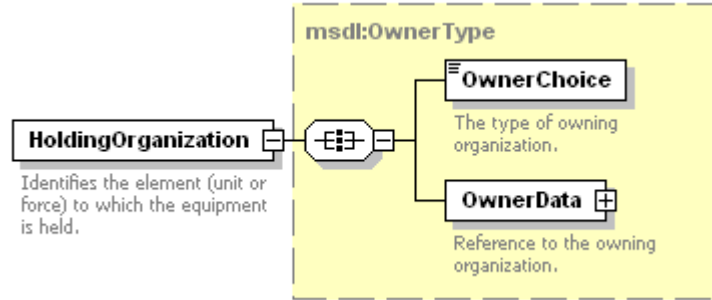


Figure 74: *msdl:EquipmentRelationsType/HoldingOrganization* Element Structure

- a) *msdl:OwnerType/OwnerChoice* Element - For every *msdl:OwnerType* complex type there shall be one **OwnerChoice** element. The **OwnerChoice** element specifies the type of owning organization. The domain type is *msdl:enumForceOwnerType*.
- b) *msdl:OwnerType/OwnerData* Element - For each *msdl:OwnerType* complex type there shall be one **OwnerData** element. The **OwnerData** element, an xs:choice compositor, specifies the reference to the owning organization and is made up of one and only one of the child elements as shown in Figure 75. Domain type is *msdl:OwnerDataType*.

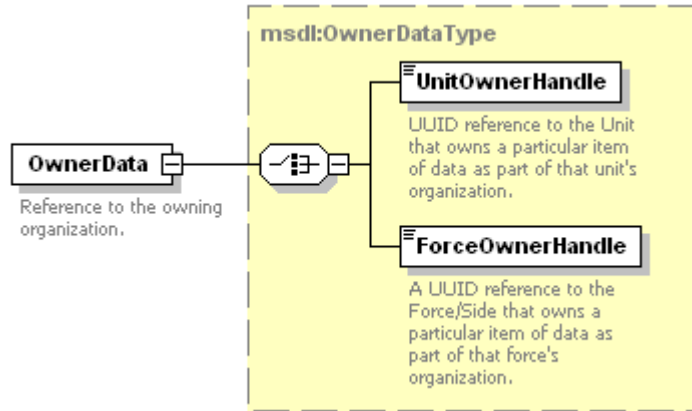


Figure 75: *msdl:OwnerType/OwnerData* Element Structure

- i) *msdl:OwnerDataType/UnitOwnerHandle* Element - For each *msdl:OwnerDataType* complex type there shall be zero or one **UnitOwnerHandle** element. The **UnitOwnerHandle** element specifies the UUID reference to the unit that owns a particular item of data as part of the unit's organization. The domain type is *msdl:patternUUIDRef32*.
- ii) *msdl:OwnerDataType/ForceOwnerHandle* Element - For each *msdl:OwnerDataType* complex type there shall be zero or one **ForceOwnerHandle** element. The **ForceOwnerHandle** element specifies the UUID reference to the Force/Side that owns a particular item of data as part of that forces organization. The domain type is *msdl:patternUUIDRef32*.

6.5.2.1.8 *msdl:EquipmentItemType/Model* Element

For every *msdl:EquipmentItemType* complex type there shall be one **Model** element. The **Model** element specifies the information impacting import of the military scenario. It is an xs:all compositor comprised of the elements shown in Figure 76 and described in the following subsections. Domain type is *msdl:EquipmentModelType*.

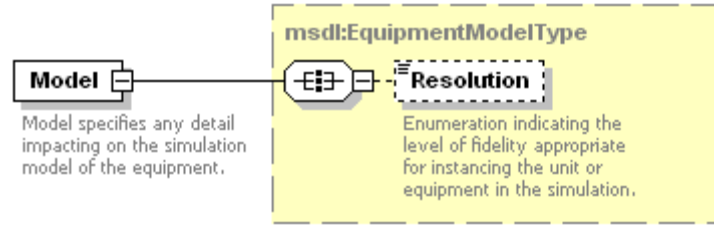


Figure 76: *msdl:EquipmentItemType/Model* Element Structure

1. *msdl:EquipmentModelType/Resolution* Element - For every *msdl:EquipmentModelType* complex type there shall be zero or one **Resolution** element. The **Resolution** element specifies an enumeration indicating the level of fidelity appropriate for instantiating the unit or equipment in the simulation. The domain type is *msdl:enumModelResolutionType*.

6.6 *msdl:MilitaryScenarioType/Overlays* Element

For every *msdl:MilitaryScenarioType* complex type there shall be zero or one **Overlays** element. The **Overlays** element is used to specific the overlays within the context of the military scenario. The **Overlays** element is an xs:sequence compositor containing all the elements shown in Figure 77 and described in the subsequent subsections. Domain type is *msdl:OverlaysType*.

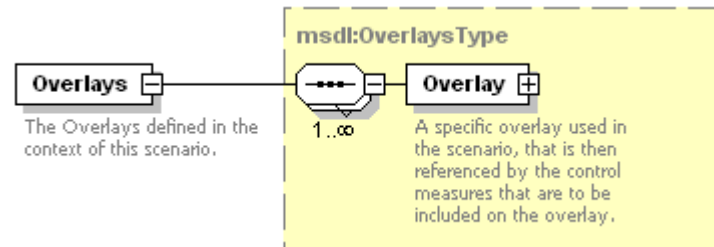


Figure 77: *msdl:MilitaryScenarioType/Overlays* Element Structure

6.6.1 *msdl:OverlaysType/Overlay* Element

For every *msdl:OverlaysType* complex type there shall be one or more **Overlay** element. Overlays are used to organize the intelligence information described by the control measures. It is expected that control measures owned by opposing forces, sides, or units will not appear in the same overlay. The **Overlay** element, an xs:all compositor, specifies a specific overlay used in the scenario that is then referenced by the control measures that are to be included on the overlay and is show in Figure 78. Domain type is *msdl:OverlayType*.

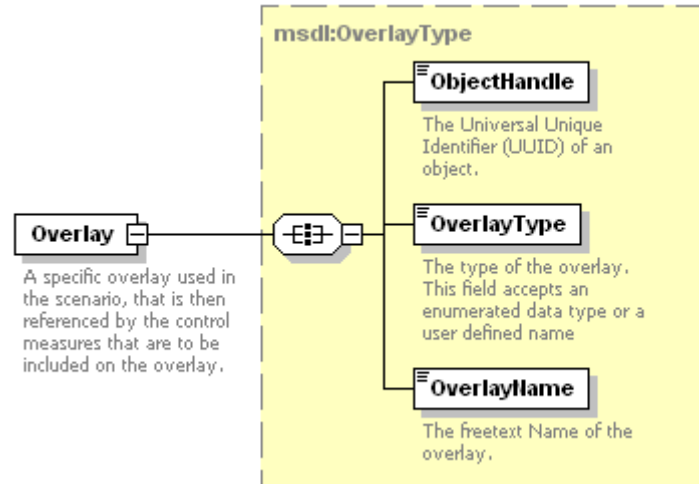


Figure 78: *msdl:OverlayType/Overlay* Element Structure

6.6.1.1 *msdl:OverlayType/ObjectHandle* Element

For every *msdl:OverlayType* complex type there shall be one *ObjectHandle* element. The *ObjectHandle* element specifies the UUID of the *Overlay*. The domain type is a *msdl:patternUUID32*.

6.6.1.2 *msdl:OverlayType/OverlayType* Element

For every *msdl:OverlayType* complex type there shall be one *OverlayType* element. The *OverlayType* element specifies an enumerated type for the overlay. The domain type is a *msdl:enumOverlayType*.

6.6.1.3 *msdl:OverlayType/OverlayName* Element

For every *msdl:OverlayType* complex type there shall be one *OverlayName* element. The *OverlayName* element specifies the free text name of the overlay. The domains type is *msdl:textName255*.

6.7 *msdl:MilitaryScenarioType/Installations* Element

For every *msdl:MilitaryScenarioType* complex type there shall be zero or one *Installations* element. The *Installations* element is used to specify the mission/scenario specific installations within the military scenario document to include all military service, governmental, and nongovernmental organizations. The mapping of the battle dimension instances other than ground into the installation elements is application defined. The *Installations* element, an xs:sequence compositor, contains all the elements shown in Figure 79 and described in the subsequent subsections. Domain type is *msdl:InstallationsType*.



Figure 79: *msdl:MilitaryScenarioType/Installations* Element Structure

6.7.1 *msdl:InstallationsType/Installation* Element

For every *msdl:InstallationsType* complex type there shall be one or more *Installation* elements. An Installation description is tactical information that is part of the Common Operational Picture (COP) of the force, side, or unit specified in the *Owner* element. Its level of threat as determined through intelligence gathering is specified in the *Affiliation* and *FrameShapeModifier* elements. The quality of the gathered intelligence used to create this tactical information is specified in the *EvaluationRating* element. The time

1579 when the information was gathered is specified in the **DateTimeGroup** element. This tactical information is
1580 organized within the COP through the overlays specified in the **AssociatedOverlays** element. Each COP
1581 (one per opposing side) may have its own Installation description for the same actual Installation. The
1582 **Installation** element, an xs:all compositor, specifies the installations within the military scenario document
1583 and is show in Figure 80. Domain type is **msdl:InstallationType**.

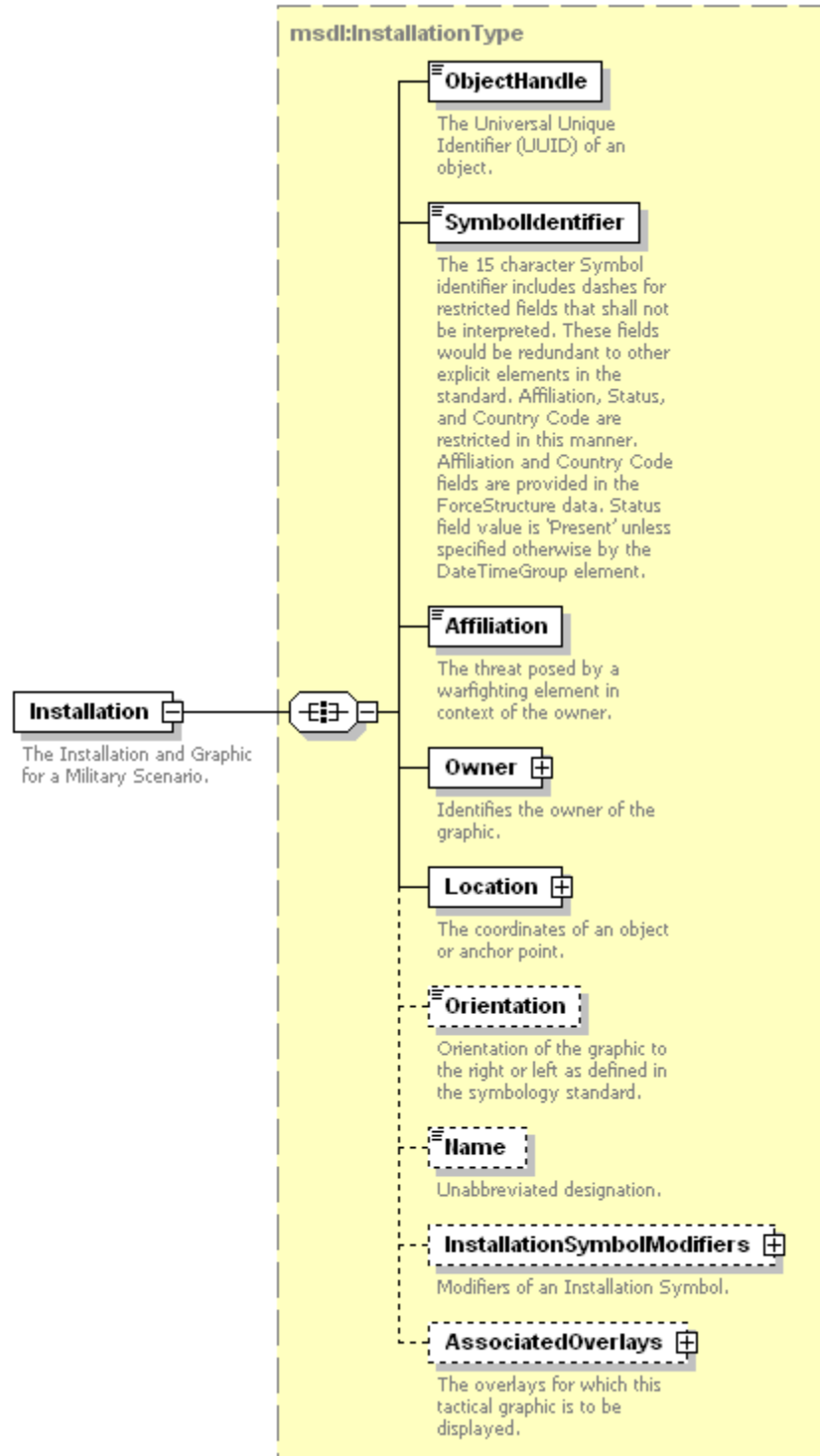


Figure 80: **msdl:InstallationsType/Installation** Element Structure

1586 **6.7.1.1 *msdl:InstallationType/ObjectHandle* Element**

1587 For every ***msdl:InstallationType*** complex type there shall be one ***ObjectHandle*** element. The
1588 ***ObjectHandle*** element specifies the UUID of the ***Installation***. The domain type is a ***msdl:patternUUID32***.

1589 **6.7.1.2 *msdl:InstallationType/SymbolIdentifier* Element**

1590 For every ***msdl:InstallationType*** complex type there shall be one ***SymbolIdentifier*** element. The
1591 ***SymbolIdentifier*** element specifies the 15 character symbol identifier as specified by the Symbol
1592 Identification Coding scheme within Mil Std 2525B. The 15 character ***SymbolIdentifier*** includes dashes for
1593 restricted fields that shall not be interpreted. These fields would be redundant to other explicit elements in the
1594 standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code
1595 fields are provided in the ForceStructure data. Status field value is 'Present' unless specified otherwise by
1596 the ***DateTimeGroup*** element. The Coding Scheme, position 1, must be 'S' for installation symbol
1597 identification. The domain type is a ***msdl:patternInstallationSymbolID15***.

1598 **6.7.1.3 *msdl:InstallationType/Affiliation* Element**

1599 For every ***msdl:InstallationType*** complex type there shall be one ***Affiliation*** element. The ***Affiliation***
1600 element specifies the threat posed by a warfighting element being represented in context to the owner. The
1601 domains type is ***msdl:enumBaseAffiliation***.

1602 **6.7.1.4 *msdl:InstallationType/Owner* Element**

1603 For every ***msdl:InstallationType*** complex type there shall be one ***Owner*** element. The ***Owner*** element
1604 specifies the owner of the graphic. The domain type is ***msdl:OwnerType*** as defined within section 6.5.2.1.7
1605 for ***msdl:EquipmentRelationsType/HoldingOrganization***.

1606 **6.7.1.5 *msdl:InstallationType/Location* Element**

1607 For every ***msdl:InstallationType*** complex type there shall be one ***Location*** element. The ***Location*** element
1608 specifies the coordinates of the unit. The domain type is ***msdl:CoordinatesType*** as defined within section
1609 6.3.3.2 for ***msdl:RectangleAreaType/UpperRight***.

1610 **6.7.1.6 *msdl:InstallationType/Orientation* Element**

1611 For every ***msdl:InstallationType*** complex type there shall be one ***Orientation*** element. The ***Orientation***
1612 element specifies the orientation of the graphic to the right or left as defined in the symbology standard. The
1613 domains type is ***msdl:enumOrientationType***.

1614 **6.7.1.7 *msdl:InstallationType/Name* Element**

1615 For every ***msdl:InstallationType*** complex type there shall be zero or one ***Name*** element. The ***Name***
1616 element specifies the unabbreviated designation of the ***Installation***. The domain type is
1617 ***msdl:textName255***.

1618 **6.7.1.8 *msdl:InstallationType/InstallationSymbolModifiers* Element**

1619 For every ***msdl:InstallationType*** complex type there shall be zero or one ***InstallationSymbolModifiers***
1620 element. The ***InstallationSymbolModifiers*** element specifies the modifiers of an equipment symbol. It is an
1621 xs:all compositor comprised of the elements shown in Figure 81 and described in the following subsections.
1622 Domain type is ***msdl:InstallationSymbolModifiersType***.

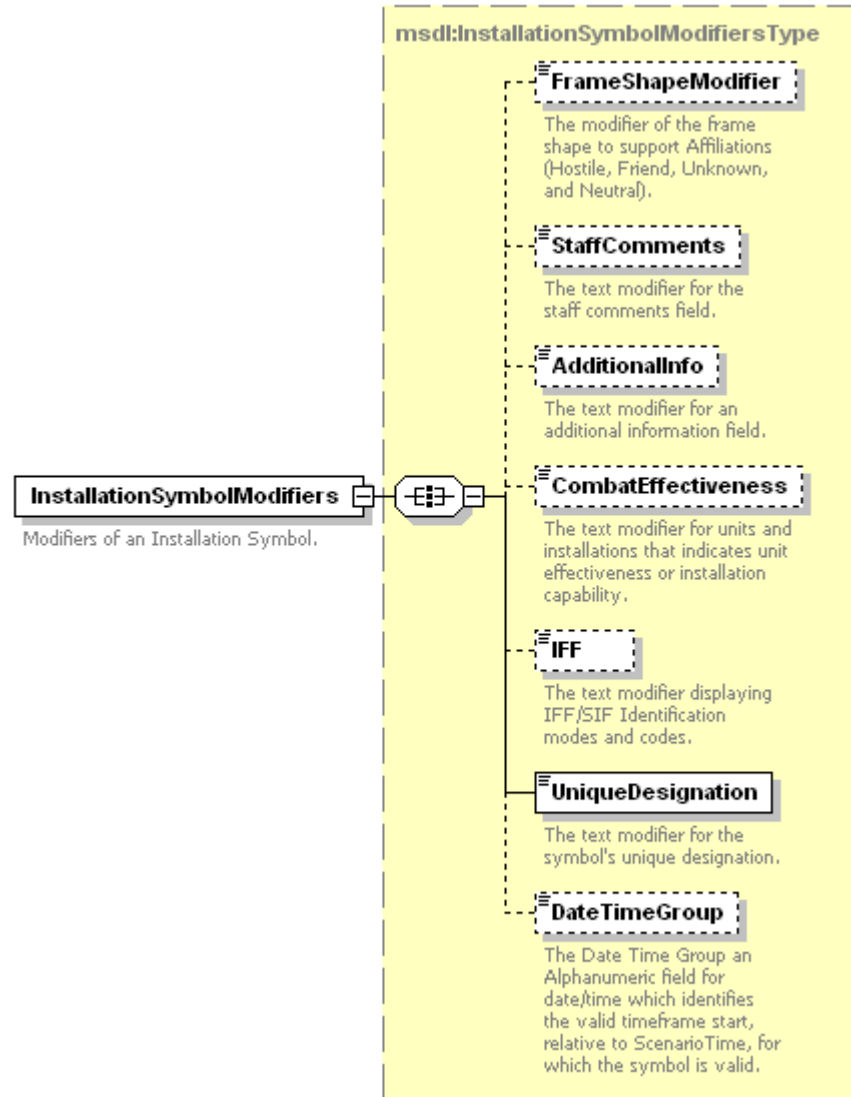


Figure 81: *msdl:InstallationType/InstallationSymbolModifiers* Element Structure

6.7.1.8.1 *msdl:InstallationSymbolModifiersType/FrameShapeModifier* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **FrameShapeModifier** element. The **FrameShapeModifier** element specifies the modifier of the frame shape to support affiliations beyond hostile, friend, unknown, and neutral. The domain type is a *msdl:textFrameShapeModifier1*.

6.7.1.8.2 *msdl:InstallationSymbolModifiersType/StaffComments* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **StaffComments** element. The **StaffComments** element specifies the text modifier for staff comments field. The domain type is *msdl:text20*.

6.7.1.8.3 *msdl:InstallationSymbolModifiersType/AdditionalInfo* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.

6.7.1.8.4 *msdl:InstallationSymbolModifiersType/CombatEffectiveness* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **CombatEffectiveness** elements. The **CombatEffectiveness** element specifies the modifier that indicates the installation's level of capability. The domain type is *msdl:enumCombatEffectivenessType*.

6.7.1.8.5 *msdl:InstallationSymbolModifiersType/IFF* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **IFF** element. The **IFF** element specifies the text modifier displaying IFF/SIF identification modes and codes. The domain type is *msdl:textIFF5*.

6.7.1.8.6 *msdl:InstallationSymbolModifiersType/UniqueDesignation* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is *msdl:text21*.

6.7.1.8.7 *msdl:InstallationSymbolModifiersType/DateTimeGroup* Element

For every *msdl:InstallationSymbolModifiersType* complex type there shall be zero or one **DateTimeGroup** element. The **DateTimeGroup** element specifies the date time group relative to the **ScenarioTime** element from which a symbol is valid. The domain type is *msdl:patternTimeDTGRelative8*.

6.7.1.9 *msdl:InstallationType/AssociatedOverlays* Element

For every *msdl:InstallationType* complex type there shall be one **AssociatedOverlays** element. The **AssociatedOverlays** element specifies the overlays for which this tactical graphic is to be displayed. It is an xs:all compositor comprised of the elements shown in Figure 82 and described in the following subsections. Domain type is *msdl:AssociatedOverlaysType*.

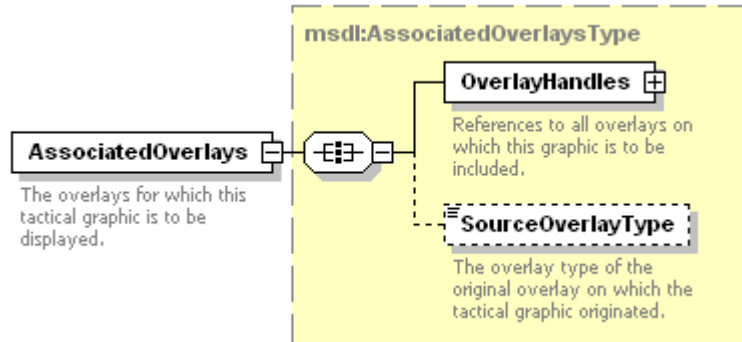


Figure 82: *msdl:InstallationType/AssociatedOverlays* Element Structure

6.7.1.9.1 *msdl:AssociatedOverlaysType/OverlayHandles* Element

For every *msdl:AssociatedOverlaysType* complex type there shall be one **OverlayHandles** elements. The **OverlayHandles** element specifies a reference to all overlays which this graphic is to be included on. It is an xs:sequence compositor comprised of the elements shown in Figure 83 and described in the following subsections. Domain type is *msdl:OverlayHandlesType*.

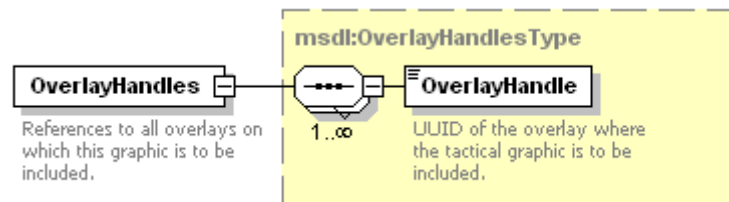


Figure 83: *msdl:AssociatedOverlaysType/OverlayHandles* Element Structure

1. ***msdl:OverlayHandlesType/OverlayHandle*** Element - For every ***msdl:OverlayHandlesType*** complex type there shall be one or more ***OverlayHandle*** element. The ***OverlayHandle*** element specifies the UUID of the overlay where the tactical graphic is to be included. The domain type is ***msdl:patterUUIDRef32***.

6.7.1.9.2 ***msdl:AssociatedOverlaysType/SourceOverlayType*** Element

For every ***msdl:AssociatedOverlaysType*** complex type there shall be zero or one ***SourceOverlayType*** elements. The ***SourceOverlayType*** element specifies the type of the overriding overlay type for all associated overlays. The domain type is ***msdl:enumOverlayType***.

6.8 ***msdl:MilitaryScenarioType/TacticalGraphics*** Element

For every ***msdl:MilitaryScenarioType*** complex type there shall be zero or one ***TacticalGraphics*** element. The ***TacticalGraphics*** element is used to specify the control measures for the military scenario. The ***TacticalGraphics*** element, an xs:sequence compositor, contains all the elements shown in Figure 84 and described in the subsequent subsections. Domain type is ***msdl:TacticalGraphicsType***.

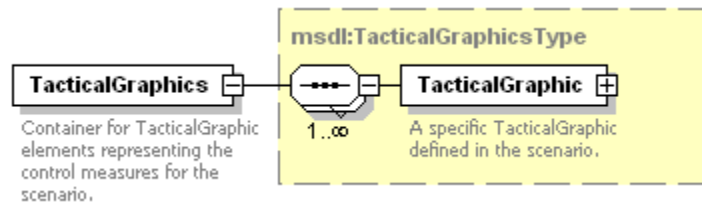


Figure 84: *msdl:MilitaryScenarioType/TacticalGraphics* Element Structure

6.8.1 ***msdl:TacticalGraphicsType/TacticalGraphic*** Element

For every ***msdl:TacticalGraphicsType*** complex type there shall be zero or one ***TacticalGraphic*** element. The ***TacticalGraphic*** element is used to specify the mission/scenario specific control measures within the military scenario. A tactical graphic description is tactical information that is part of the COP of the force, side or unit specified in the ***Owner*** element. Its level of threat as determined through intelligence gathering is specified in the ***Affiliation*** and ***FrameShapeModifier*** elements. The quality of the gathered intelligence used to create this tactical information is specified in the ***EvaluationRating*** element. The time when the information was gathered is specified in the ***DateTimeGroup*** element. This tactical information is organized within the COP through the overlays specified in the ***AssociatedOverlays*** element. The ***TacticalGraphic*** element, an xs:all compositor, is comprised of an xs:sequence structure containing all the elements shown in Figure 85 and described in the subsequent subsections. Domain type is ***msdl:TacticalGraphicType***.

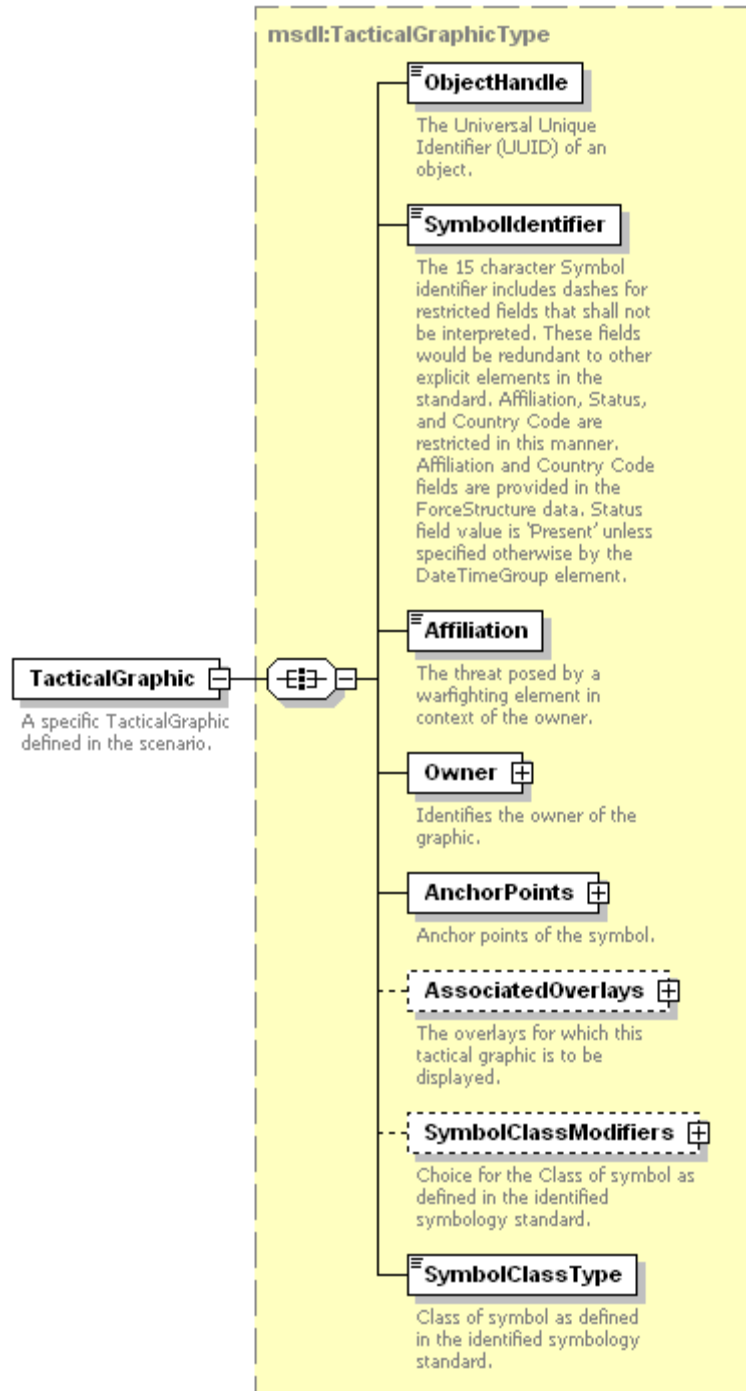


Figure 85: *msdl:TacticalGraphicsType/TacticalGraphic* Element Structure

6.8.1.1 *msdl:TacticalGraphicType/ObjectHandle* Element

For every *msdl:TacticalGraphicType* complex type there shall be one **ObjectHandle** element. The **ObjectHandle** element specifies the UUID of the **TacticalGraphic**. The domain type is a *msdl:patternUUID32*.

1700 **6.8.1.2 *msdl:TacticalGraphicType/SymbolIdentifier* Element**

1701 For every ***msdl:TacticalGraphicType*** complex type there shall be one ***SymbolIdentifier*** element. The
1702 ***SymbolIdentifier*** element specifies the 15 character symbol identifier as specified by the Symbol
1703 Identification Coding scheme within Mil Std 2525B. The 15 character ***SymbolIdentifier*** includes dashes for
1704 restricted fields that shall not be interpreted. These fields would be redundant to other explicit elements in the
1705 standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code
1706 fields are provided in the ForceStructure data. Status field value is 'Present' unless specified otherwise by
1707 the ***DateTimeGroup*** element. The Coding Scheme, position 1, must be 'G' for tactical graphic symbol
1708 identification. The domain type is a ***msdl:patternTacticalGraphicSymbolID15***.

1709 **6.8.1.3 *msdl:TacticalGraphicType/Affiliation* Element**

1710 For every ***msdl:TacticalGraphicType*** complex type there shall be one ***Affiliation*** element. The ***Affiliation***
1711 element specifies the threat posed by a warfighting element being represented in context to the owner. The
1712 domains type is ***msdl:enumBaseAffiliation***.

1713 **6.8.1.4 *msdl:TacticalGraphicType/Owner* Element**

1714 For every ***msdl:TacticalGraphicType*** complex type there shall be one ***Owner*** element. The ***Owner*** element
1715 specifies the owner of the graphic. The domain type is ***msdl:OwnerType*** as defined within section 6.5.2.1.7
1716 for ***msdl:EquipmentRelationsType/HoldingOrganization***.

1717 **6.8.1.5 *msdl:TacticalGraphicType/AnchorPoints* Element**

1718 For every ***msdl:TacticalGraphicType*** complex type there shall be one ***AnchorPoints*** element. The
1719 ***AnchorPoints*** element specifies the anchor points for the tactical graphic. Domain type is
1720 ***msdl:AnchorPointsType*** as defined within section 6.3.4.1.8 for ***msdl:METOCGraphicType/Disposition***.

1721 **6.8.1.6 *msdl:TacticalGraphicType/AssociatedOverlays* Element**

1722 For every ***msdl:TacticalGraphicType*** complex type there shall be zero or one ***AssociatedOverlays***
1723 element. The ***AssociatedOverlays*** element specifies the overlays for which this tactical graphic is to be
1724 displayed. Domain type is ***msdl:AssociatedOverlaysType*** as defined within section 6.7.1.9 for
1725 ***msdl:InstallationType/AssociatedOverlays***.

1726 **6.8.1.7 *msdl:TacticalGraphicType/SymbolClassModifiers* Element**

1727 For every ***msdl:TacticalGraphicType*** complex type there shall be zero or one ***SymbolClassModifiers***
1728 element. The ***SymbolClassModifiers*** element characterizes the class of symbol as defined in the selected
1729 symbology standard. The selection is derived from the value of position 1 and position 5 to 10 in the
1730 ***SymbolIdentifier*** element. It is an xs:choice compositor comprised one and only one of the elements shown
1731 in Figure 86 and described in the following subsections. Domain type is ***msdl:SymbolClassModifiersType***.

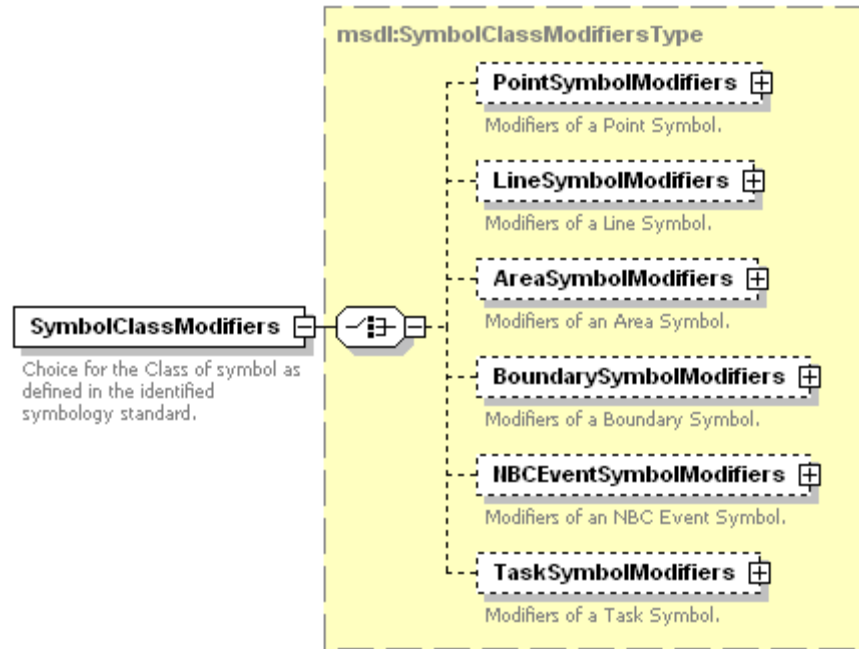


Figure 86: *msdl:TacticalGraphicType/SymbolClassModifiers* Element Structure

6.8.1.7.1 *msdl:SymbolClassModifiersType/PointSymbolModifiers* Element

For every *msdl:SymbolClassModifiersType* complex type there shall be zero or one *PointSymbolModifiers* element. The domain type is *SymbolClassModifiers*. It is an xs:all compositor comprised of the elements shown in Figure 87 and described in the following subsections. Domain type is *msdl:PointSymbolModifiersType*.

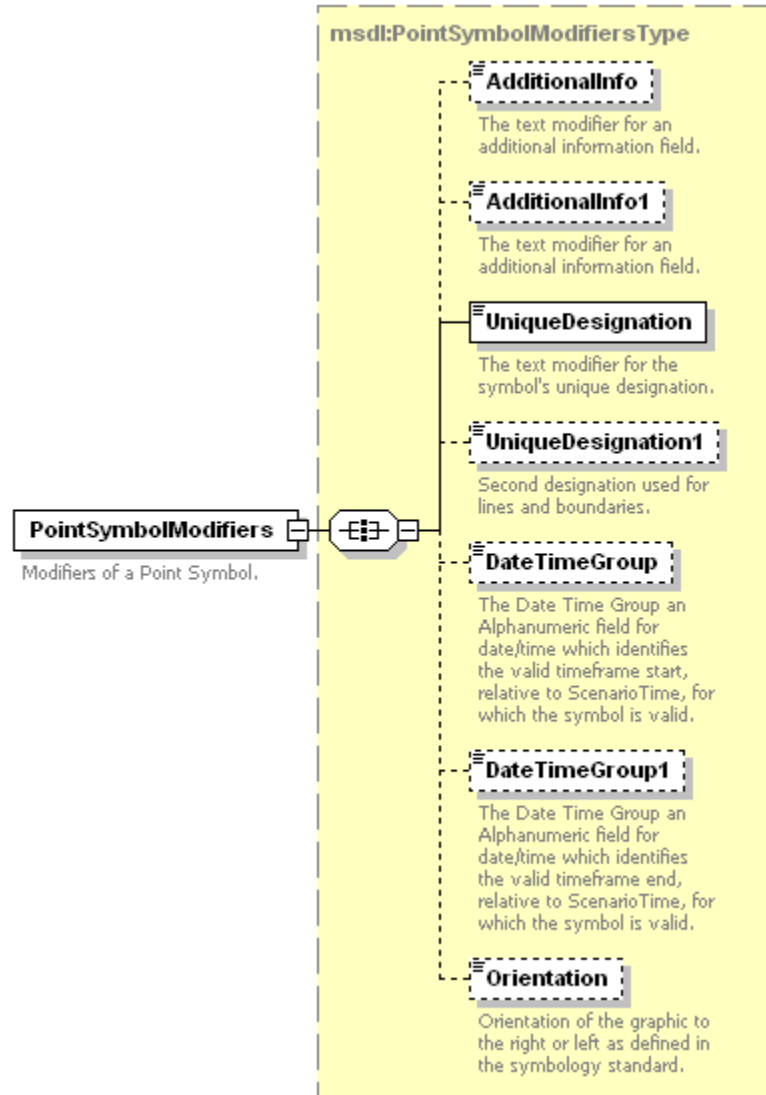


Figure 87: *msdl:SymbolClassModifiersType/PointSymbolModifiers* Element Structure

1. *msdl:PointSymbolModifiersType/AdditionalInfo* Element - For every *msdl:PointSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
2. *msdl:PointSymbolModifiersType/AdditionalInfo1* Element - For every *msdl:PointSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo1** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
3. *msdl:PointSymbolModifiersType/UniqueDesignation* Element - For every *msdl:PointSymbolModifiersType* complex type there shall be one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is *msdl:text21*.
4. *msdl:PointSymbolModifiersType/UniqueDesignation1* Element - For every *msdl:PointSymbolModifiersType* complex type there shall be one **UniqueDesignation** element. The **UniqueDesignation1** element specifies the text modifier for the symbols unique designation. The domain type is *msdl:text21*.

5. ***msdl:PointSymbolModifiersType/DateTimeGroup*** Element - For every ***msdl:PointSymbolModifiersType*** complex type there shall be zero or one ***DateTimeGroup*** element. This element provides the character string representing the time frame start, relative to the ***ScenarioTime***, for which the ***TacticalGraphic*** element is valid. The ***DateTimeGroup*** attribute allows multiple stages of a phenomenon to be specified. The ***UniqueDesignation*** attribute is used to link together these different stages. The ***ObjectHandle*** of the stages will be different but the ***UniqueDesignation*** will be the same. Because ***DateTimeGroup*** and ***DateTimeGroup1*** represent the time frame of existence for the specific ***TacticalGraphic*** element if either one is specified the other must also be included in the instance document. The domain type is ***msdl:patternTimeDTGRelative8***.
6. ***msdl:PointSymbolModifiersType/DateTimeGroup1*** Element - For every ***msdl:PointSymbolModifiersType*** complex type there shall be zero or one ***DateTimeGroup1*** element. This element provides the character string representing the time frame end, relative to the ***ScenarioTime***, for which the ***TacticalGraphic*** element is valid. The ***DateTimeGroup1*** attribute allows multiple stages of a phenomenon to be specified. The ***UniqueDesignation*** attribute is used to link together these different stages. The ***ObjectHandle*** of the stages will be different but the ***UniqueDesignation*** will be the same. Because ***DateTimeGroup*** and ***DateTimeGroup1*** represent the time frame of existence for the specific ***TacticalGraphic*** element if either one is specified the other must also be included in the instance document. The domain type is ***msdl:patternTimeDTGRelative8***.
7. ***msdl:PointSymbolModifiersType/Orientation*** Element - For every ***msdl:PointSymbolModifiersType*** complex type there shall be zero or one ***Orientation*** element. The ***Orientation*** element specifies the orientation of the graphic to the right or left as defined in the symbology standard. The domain type is ***msdl:enumOrientationType***.

6.8.1.7.2 ***msdl:SymbolClassModifiersType/LineSymbolModifiers*** Element

For every ***msdl:SymbolClassModifiersType*** complex type there shall be zero or one ***LineSymbolModifiers*** element. The ***LineSymbolModifiers*** element specifies the modifiers for a line symbol. It is an xs:all compositor comprised of the elements shown in Figure 88 and described in the following subsections. Domain type is ***msdl:LineSymbolModifiersType***.

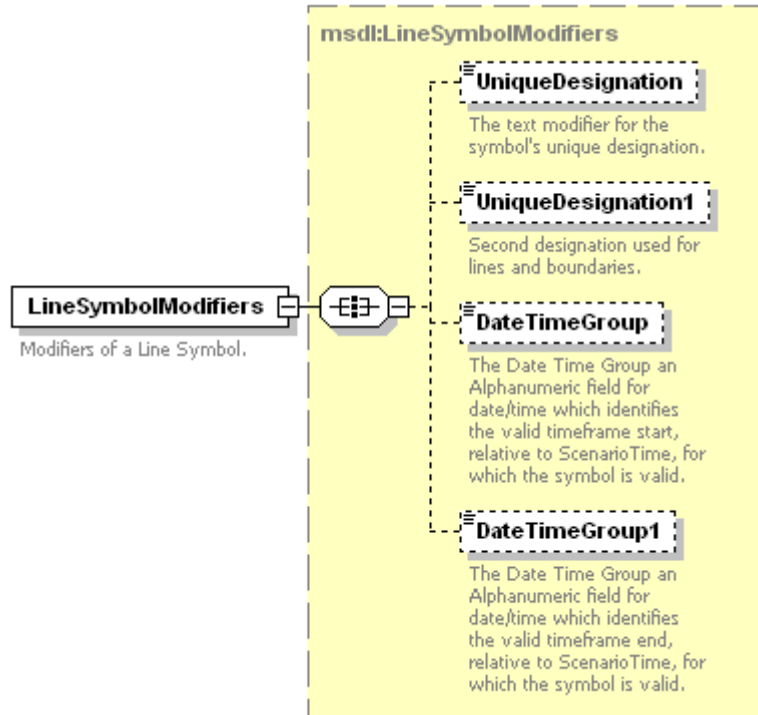


Figure 88: *msdl:SymbolClassModifiersType/LineSymbolModifiers* Element Structure

1. *msdl:LineSymbolModifiersType/UniqueDesignation* Element - For every *msdl:LineSymbolModifiersType* complex type there shall be zero or one *UniqueDesignation* element. The *UniqueDesignation* element specifies the text modifier for the symbols unique designation. The domain type is *msdl:text21*.
2. *msdl:LineSymbolModifiersType/UniqueDesignation1* Element - For every *msdl:LineSymbolModifiersType* complex type there shall be zero or one *UniqueDesignation1* element. The *UniqueDesignation1* element specifies the text modifier for the symbols unique designation. The domain type is *msdl:text21*.
3. *msdl:LineSymbolModifiersType/DateTimeGroup* Element - For every *msdl:LineSymbolModifiersType* complex type there shall be zero or one *DateTimeGroup* element. This element provides the character string representing the time frame start, relative to the *ScenarioTime*, for which the *TacticalGraphic* element is valid. The *DateTimeGroup* attribute allows multiple stages of a phenomenon to be specified. The *UniqueDesignation* attribute is used to link together these different stages. The *ObjectHandle* of the stages will be different but the *UniqueDesignation* will be the same. Because *DateTimeGroup* and *DateTimeGroup1* represent the time frame of existence for the specific *TacticalGraphic* element if either one is specified the other must also be included in the instance document. The domain type is *msdl:patternTimeDTGRelative8*.
4. *msdl:LineSymbolModifiersType/DateTimeGroup1* Element - For every *msdl:LineSymbolModifiersType* complex type there shall be zero or one *DateTimeGroup1* element. This element provides the character string representing the time frame end, relative to the *ScenarioTime*, for which the *TacticalGraphic* element is valid. The *DateTimeGroup1* attribute allows multiple stages of a phenomenon to be specified. The *UniqueDesignation* attribute is used to link together these different stages. The *ObjectHandle* of the stages will be different but the *UniqueDesignation* will be the same. Because *DateTimeGroup* and *DateTimeGroup1* represent the time frame of existence for the specific *TacticalGraphic* element if either one is specified the other must also be included in the instance document. The domain type is *msdl:patternTimeDTGRelative8*.

6.8.1.7.3 *msdl:SymbolClassModifiersType/AreaSymbolModifiers* Element

For every *msdl:SymbolClassModifiersType* complex type there shall be zero or one *AreaSymbolModifiers* element. The *AreaSymbolModifiers* element specifies the modifiers for an area symbol. It is an xs:all compositor comprised of the elements shown in Figure 89 and described in the following subsections. Domain type is *msdl:AreaSymbolModifiersType*.

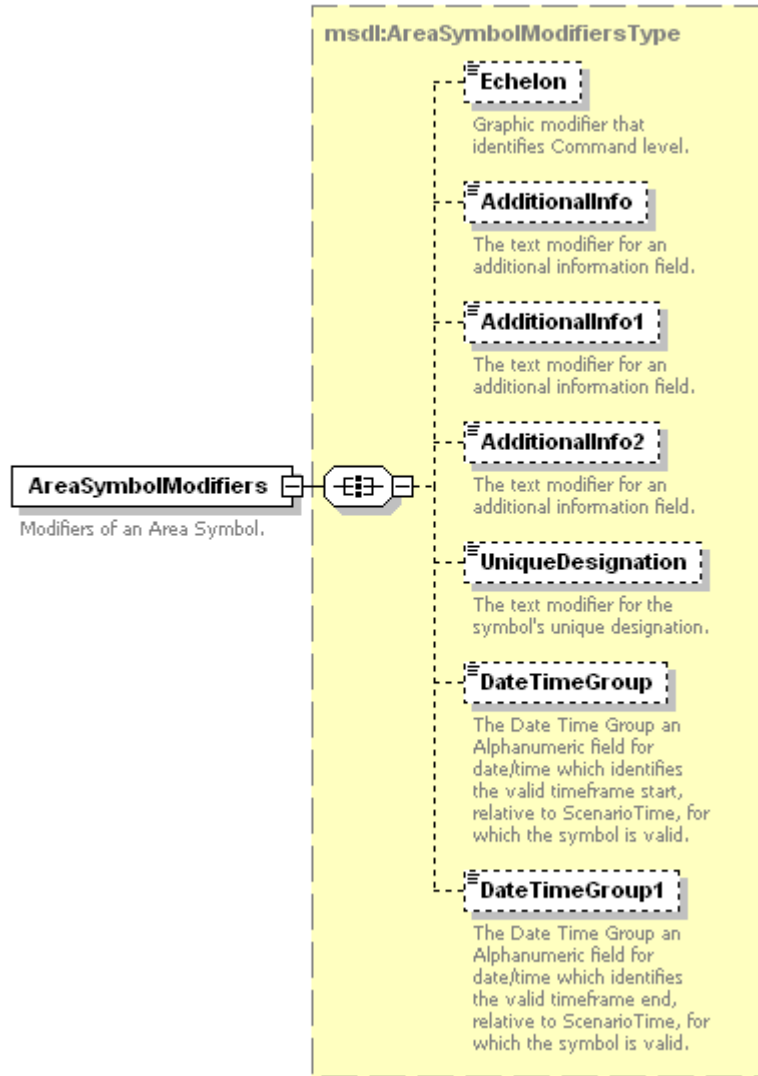


Figure 89: *msdl:SymbolClassModifiersType/AreaSymbolModifiers* Element Structure

1. *msdl:AreaSymbolModifiersType/Echelon* Element - For every *msdl:AreaSymbolModifiersType* complex type there shall be zero or one **Echelon** elements. The **Echelon** element specifies the graphic modifier that identifies command level. The domain type is *msdl:enumEchelon*.
2. *msdl:AreaSymbolModifiersType/AdditionalInfo* Element - For every *msdl:AreaSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo** element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
3. *msdl:AreaSymbolModifiersType/AdditionalInfo1* Element - For every *msdl:AreaSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo1** element. The **AdditionalInfo1** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
4. *msdl:AreaSymbolModifiersType/AdditionalInfo2* Element - For every *msdl:AreaSymbolModifiersType* complex type there shall be zero or one **AdditionalInfo2** element. The **AdditionalInfo2** element specifies the text modifier for an additional information field. The domain type is *msdl:text20*.
5. *msdl:AreaSymbolModifiersType/UniqueDesignation* Element - For every *msdl:AreaSymbolModifiersType* complex type there shall be zero or one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbol's unique designation. The domain type is *msdl:text20*.

element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.

6. **msdl:AreaSymbolModifiersType/DateTimeGroup** Element - For every **msdl:AreaSymbolModifiersType** complex type there shall be zero or one **DateTimeGroup** element. This element provides the character string representing the time frame start, relative to the **ScenarioTime**, for which the **TacticalGraphic** element is valid. The **DateTimeGroup** attribute allows multiple stages of a phenomenon to be specified. The **UniqueDesignation** attribute is used to link together these different stages. The **ObjectHandle** of the stages will be different but the **UniqueDesignation** will be the same. Because **DateTimeGroup** and **DateTimeGroup1** represent the time frame of existence for the specific **TacticalGraphic** element if either one is specific the other must also be included in the instance document. The domain type is **msdl:patternTimeDTGRelative8**.
7. **msdl:AreaSymbolModifiersType/DateTimeGroup1** Element - For every **msdl:AreaSymbolModifiersType** complex type there shall be zero or one **DateTimeGroup1** element. This element provides the character string representing the time frame end, relative to the **ScenarioTime**, for which the **TacticalGraphic** element is valid. The **DateTimeGroup1** attribute allows multiple stages of a phenomenon to be specified. The **UniqueDesignation** attribute is used to link together these different stages. The **ObjectHandle** of the stages will be different but the **UniqueDesignation** will be the same. Because **DateTimeGroup** and **DateTimeGroup1** represent the time frame of existence for the specific **TacticalGraphic** element if either one is specified the other must also be included in the instance document. The domain type is **msdl:patternTimeDTGRelative8**.

6.8.1.7.4 **msdl:SymbolClassModifiersType/BoundarySymbolModifiers** Element

For every **msdl:SymbolClassModifiersType** complex type there shall be zero or one **BoundarySymbolModifiers** element. The **BoundarySymbolModifiers** element specifies the modifiers for a boundary symbol. It is an xs:all compositor comprised of the elements shown in Figure 90 and described in the following subsections. Domain type is **msdl:BoundarySymbolModifiersType**.

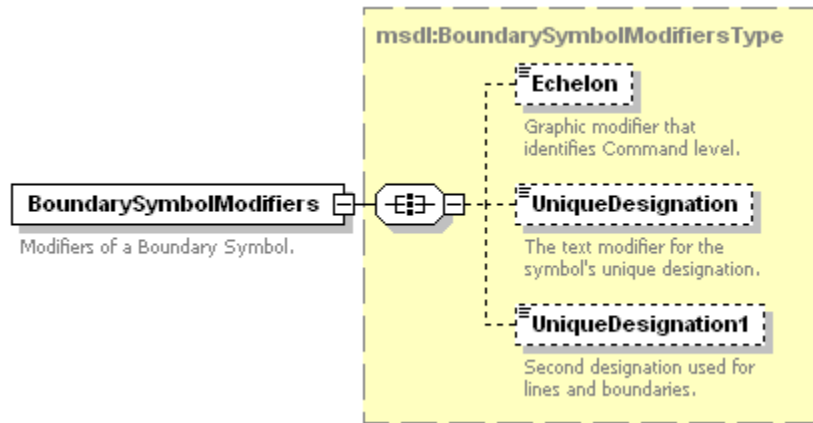


Figure 90: **msdl:SymbolClassModifiersType/BoundarySymbolModifiers** Element Structure

1. **msdl:BoundarySymbolModifiersType/Echelon** Element - For every **msdl:BoundarySymbolModifiersType** complex type there shall be zero or one **Echelon** elements. The **Echelon** element specifies the graphic modifier that identifies command level. The domain type is **msdl:enumEchelon**.
2. **msdl:BoundarySymbolModifiersType/UniqueDesignation** Element - For every **msdl:BoundarySymbolModifiersType** complex type there shall be zero or one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.

3. ***msdl:BoundarySymbolModifiersType/UniqueDesignation1*** Element - For every ***msdl:BoundarySymbolModifiersType*** complex type there shall be zero or one ***UniqueDesignation1*** element. The ***UniqueDesignation1*** element specifies the text modifier for the symbols unique designation. The domain type is ***msdl:text21***.

6.8.1.7.5 ***msdl:SymbolClassModifiersType/NBCEventSymbolModifiers*** Element

For every ***msdl:SymbolClassModifiersType*** complex type there shall be zero or one ***NBCEventSymbolModifiers*** element. The ***NBCEventSymbolModifiers*** element specifies the modifiers for a NBC Event symbol. It is an xs:all compositor comprised of the elements shown in Figure 91 and described in the following subsections. Domain type is ***msdl:NBCEventSymbolModifiersType***.

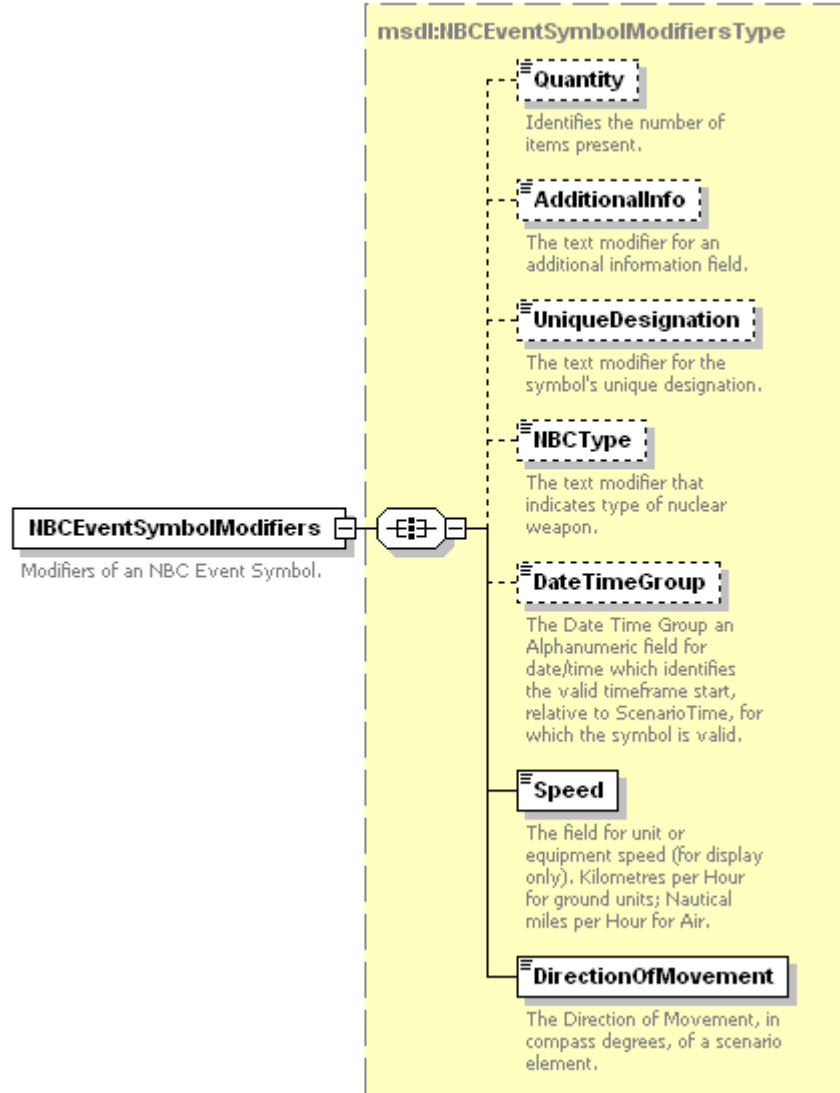


Figure 91: ***msdl:SymbolClassModifierType/NBCEventSymbolModifiers*** Element Structure

1. ***msdl:NBCEventSymbolModifiersType/Quantity*** Element - For every ***msdl:NBCEventSymbolModifiersType*** complex type there shall be zero or one ***Quantity*** elements. The ***Quantity*** element specifies the modifier that identifies the number of items present. The domain type is ***msdl:integerQuantity9***.
2. ***msdl:NBCEventSymbolModifiersType/AdditionalInfo*** Element - For every ***msdl:NBCEventSymbolModifiersType*** complex type there shall be zero or one ***AdditionalInfo***

element. The **AdditionalInfo** element specifies the text modifier for an additional information field. The domain type is **msdl:text20**.

3. **msdl:NBCEventSymbolModifiersType/UniqueDesignation** Element - For every **msdl:NBCEventSymbolModifiersType** complex type there shall be zero or one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.
4. **msdl:NBCEventSymbolModifiersType/NBCType** Element - For every **msdl:NBCEventSymbolModifiersType** complex type there shall be zero or one **NBCType** element. The **NBCType** element specifies the text for the type of nuclear weapon. The domain type is **msdl:text20**.
5. **msdl:NBCEventSymbolModifiersType/DateTimeGroup** Element - For every **msdl:NBCEventSymbolModifiersType** complex type there shall be zero or one **DateTimeGroup** element. The **DateTimeGroup** element specifies the date time group relative to the **ScenarioTime** from which a symbol is valid. The domain type is **msdl:patternTimeDTGRelative8**.
6. **msdl:NBCEventSymbolModifiersType/Speed** Element - For every **msdl:NBCEventSymbolModifiersType** complex type there shall be zero or one **Speed** element. The **Speed** element specifies the rate of movement of the item represented by the graphic in the direction specified by the **DirectionOfMovementIndicator** element. The domain type is **msdl:floatSpeed6_2**.
7. **msdl:NBCEventSymbolModifiersType/DirectionOfMovement** Element - For every **msdl:NBCEventSymbolModifiersType** complex type there shall be one **DirectionOfMovement** element. The **DirectionOfMovement** element specifies the horizontal direction of movement or intended direction of horizontal movement in compass degress. The domain type is **msdl:floatCompassDegrees3_3**.

6.8.1.7.6 **msdl:SymbolClassModifiersType/TaskSymbolModifiers** Element

For every **msdl:SymbolClassModifiersType** complex type there shall be zero or one **TaskSymbolModifiers** element. The **TaskSymbolModifiers** element specifies the modifiers for a task symbol. It is an xs:all compositor comprised of the elements shown in Figure 92 and described in the following subsections. Domain type is **msdl:TaskSymbolModifiersType**.

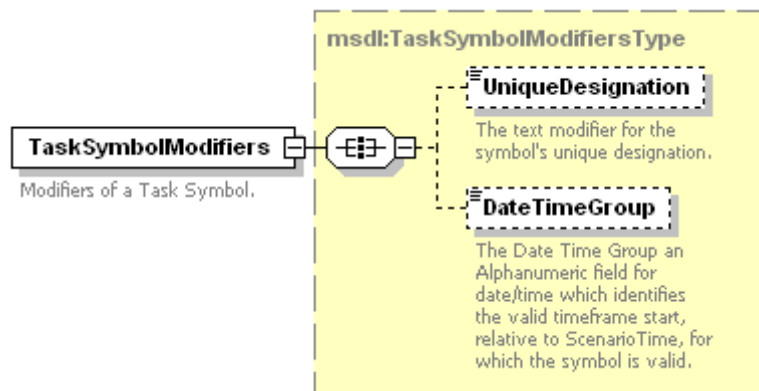


Figure 92: **msdl:SymbolClassModifiersType/TaskSymbolModifiers** Element Structure

1. **msdl:TaskSymbolModifiersType/UniqueDesignation** Element - For every **msdl:TaskSymbolModifiersType** complex type there shall be zero or one **UniqueDesignation** element. The **UniqueDesignation** element specifies the text modifier for the symbols unique designation. The domain type is **msdl:text21**.
2. **msdl:TaskSymbolModifiersType/DateTimeGroup** Element - For every **msdl:TaskSymbolModifiersType** complex type there shall be zero or one **DateTimeGroup** element. The **DateTimeGroup** element specifies the date time group relative to the **ScenarioTime** from which a symbol is valid. The domain type is **msdl:patternTimeDTGRelative8**.

6.9 *msdl:MilitaryScenarioType/MOOTWGraphics* Element

For every *msdl:MilitaryScenarioType* complex type there shall be zero or one *MOOTWGraphics* element. The *MOOTWGraphics* element is used to specify the MOOTW graphics for the military scenario. The *MOOTWGraphics* element, an xs:sequence compositor, contains all the elements shown in Figure 93 and described in the subsequent subsections. Domain type is *msdl:MOOTWGraphicsType*.

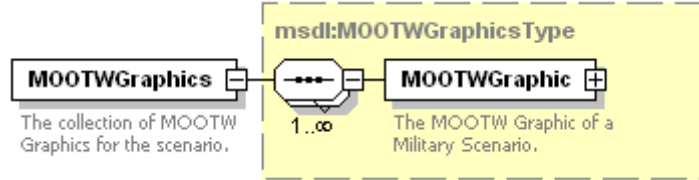


Figure 93: *msdl:MilitaryScenarioType/MOOTWGraphics* Element Structure

6.9.1 *msdl:MOOTWGraphicsType/MOOTWGraphic* Element

For every *msdl:MOOTWGraphicsType* complex type there shall be zero or one *MOOTWGraphic* element. The *MOOTWGraphic* element is used to specify the MOOTW graphics within the military scenario. A MOOTW graphic description is tactical information that is part of the COP of the force, side or unit specified in the owner element. Its level of threat as determined through intelligence gathering is specified in the *Affiliation* and *FrameShapeModifier* elements. The quality of the gathered intelligence used to create this tactical information is specified in the *EvaluationRating* element. The time when the information was gathered is specified in the *DateTimeGroup* element. This tactical information is organized within the COP through the overlays specified in the *AssociatedOverlays* element. Each COP (one per opposing sides) may have its own MOOTW instance description for the same actual MOOTW instance. The *MOOTWGraphic* element, an xs:sequence compositor, contains all the elements shown in Figure 94 and described in the subsequent subsections. Domain type is *msdl:MOOTWGraphicType*.

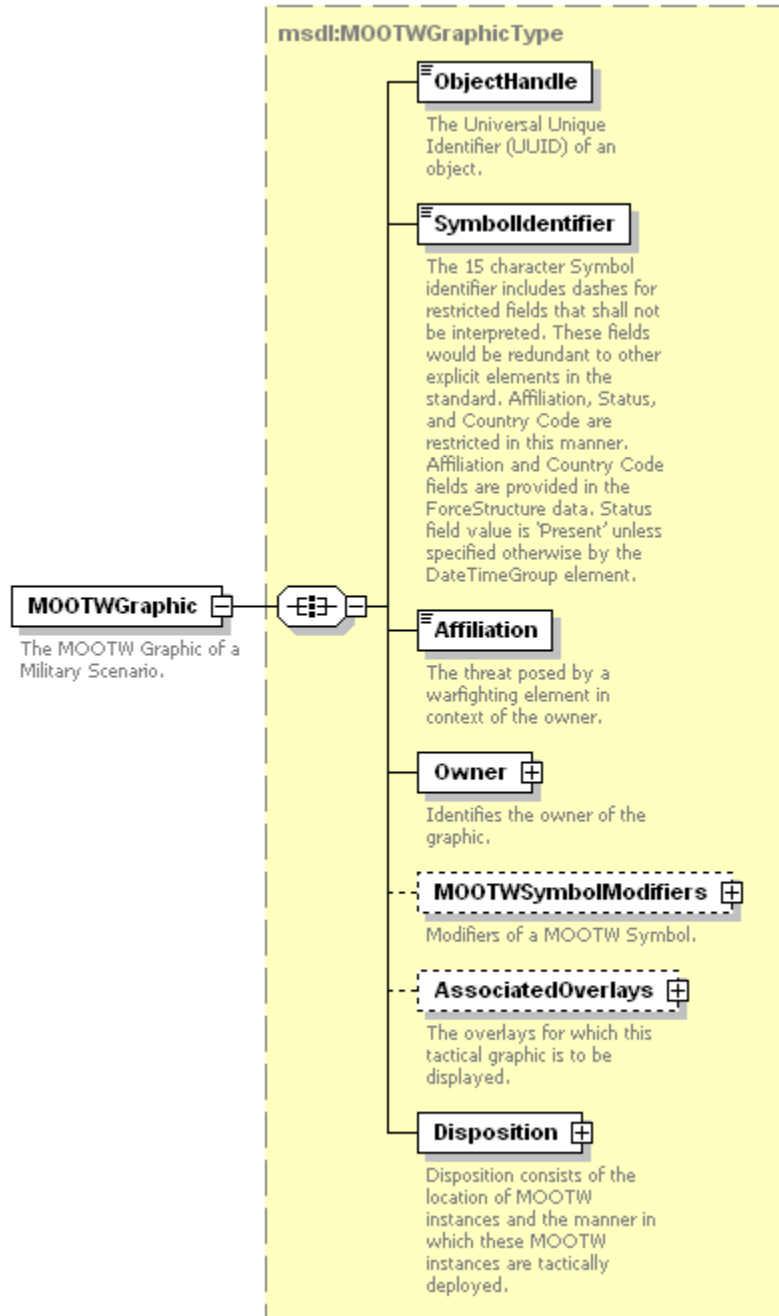


Figure 94: *msdl:MOOTWGraphicsType/MOOTWGraphic* Element Structure

6.9.1.1 *msdl:MOOTWGraphicType/ObjectHandle* Element

For every *msdl:MOOTWGraphicType* complex type there shall be one **ObjectHandle** element. The **ObjectHandle** element specifies the UUID of the **MOOTWGraphic**. The domain type is a *msdl:patterUUID32*.

6.9.1.2 *msdl:MOOTWGraphicType/SymbolIdentifier* Element

For every *msdl:MOOTWGraphicType* complex type there shall be one **SymbolIdentifier** element. The **SymbolIdentifier** element specifies the 15 character symbol identifier as specified by the Symbol Identification Coding scheme within Mil Std 2525B. The 15 character **SymbolIdentifier** includes dashes for

restricted fields that shall not be interpreted. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code fields are provided in the ForceStructure data. Status field value is 'Present' unless specified otherwise by the **DateTimeGroup** element. The Coding Scheme, position 1, must be 'O' form MOOTW symbol identification. The domain type is a **msdl:patternMOOTWSymbolID15**.

6.9.1.3 msdl:MOOTWGraphicType/Affiliation Element

For every **msdl:MOOTWGraphicType** complex type there shall be one **Affiliation** element. The **Affiliation** element specifies the threat posed by a warfighting element being represented in context to the owner. The domains type is **msdl:enumBaseAffiliation**.

6.9.1.4 msdl:MOOTWGraphicType/Owner Element

For every **msdl:MOOTWGraphicType** complex type there shall be one **Owner** element. The **Owner** element specifies the owner of the graphic. The domain type is **msdl:OwnerType** as defined within section 6.5.2.1.7 for **msdl:EquipmentRelationsType/HoldingOrganization**.

6.9.1.5 msdl:MOOTWGraphicType/MOOTWSymbolModifiers Element

For every **msdl:MOOTWGraphicType** complex type there shall be zero or one **MOOTWSymbolModifiers** element. The **MOOTWSymbolModifiers** element specifies the modifiers of a MOOTW symbol. It is an xs:all compositor comprised of the elements shown in Figure 95 and described in the following subsections. Domain type is **msdl:MOOTWSymbolModifiersType**.

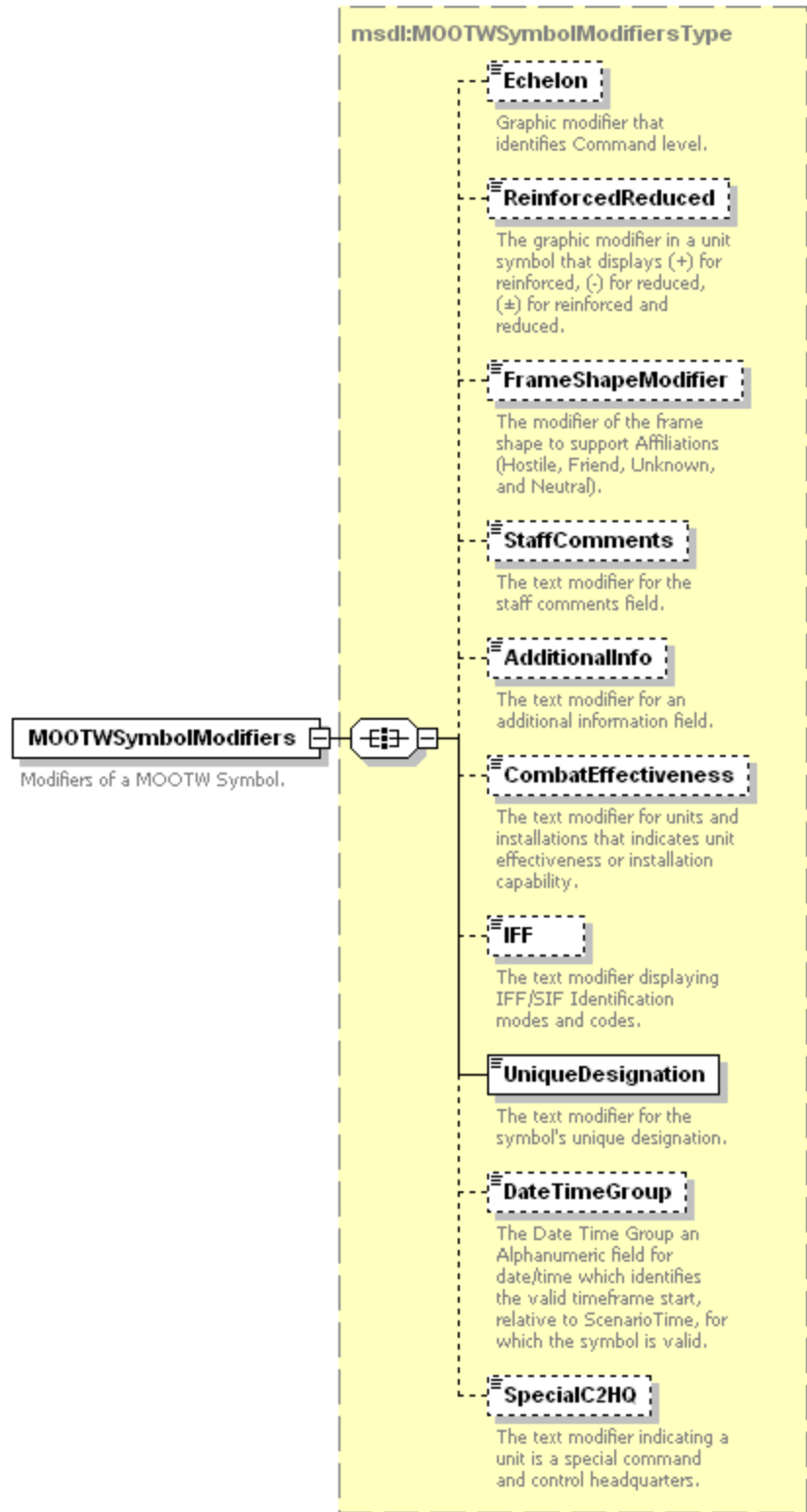


Figure 95: *msdl:MOOTWGraphicType/MOOTWSymbolModifiers* Element Structure

6.9.1.5.1 *msdl:MOOTWSymbolModifiersType/Echelon* Element

- 1984 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one ***Echelon*** elements.
1985 The ***Echelon*** element specifies the graphic modifier that identifies command level. The domain type is
1986 ***msdl:enumEchelon***.
- 1987 **6.9.1.5.2 *msdl:MOOTWSymbolModifiersType/ReinforcedReduced* Element**
- 1988 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one
1989 ***ReinforcedReduced*** element. This element specifies, through an enumeration, whether a unit has been
1990 reinforced with assets from another organization, reduced by giving assets to another organization, or has
1991 received assets from another organization and has given some assets to another organization. The domain
1992 type is ***msdl:enumReinforcedReducedType***.
- 1993 **6.9.1.5.3 *msdl:MOOTWSymbolModifiersType/FrameShapeModifier* Element**
- 1994 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one
1995 ***FrameShapeModifier*** element. The ***FrameShapeModifier*** element specifies the modifier of the frame
1996 shape to support affiliations beyond hostile, friend, unknown, and neutral. The domain type is
1997 ***msdl:textFrameShapeModifier1***.
- 1998 **6.9.1.5.4 *msdl:MOOTWSymbolModifiersType/StaffComments* Element**
- 1999 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one ***StaffComments***
2000 element. The ***StaffComments*** element specifies the text modifier for staff comments field. The domain type
2001 is ***msdl:text20***.
- 2002 **6.9.1.5.5 *msdl:MOOTWSymbolModifiersType/AdditionalInfo* Element**
- 2003 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one ***AdditionalInfo***
2004 element. The ***AdditionalInfo*** element specifies the text modifier for an additional information field. The
2005 domain type is ***msdl:text20***.
- 2006 **6.9.1.5.6 *msdl:MOOTWSymbolModifiersType/CombatEffectiveness* Element**
- 2007 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one
2008 ***CombatEffectiveness*** elements. The ***CombatEffectiveness*** element specifies the text modifier that
2009 indicates the ability of a MOOTW instance to perform its mission. Factors such as ammunition, personnel,
2010 status of fuel, and weapons systems may be included in the assessment. The domain type is
2011 ***msdl:enumCombatEffectivenessType***.
- 2012 **6.9.1.5.7 *msdl:MOOTWSymbolModifiersType/IFF* Element**
- 2013 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one ***IFF*** element. The
2014 ***IFF*** element specifies the text modifier displaying IFF/SIF identification modes and codes. The domain type
2015 is ***msdl:textIFF5***.
- 2016 **6.9.1.5.8 *msdl:MOOTWSymbolModifiersType/UniqueDesignation* Element**
- 2017 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be one ***UniqueDesignation***
2018 element. The ***UniqueDesignation*** element specifies the text modifier for the symbols unique designation.
2019 The domain type is ***msdl:text21***.
- 2020 **6.9.1.5.9 *msdl:MOOTWSymbolModifiersType/DateTimeGroup* Element**
- 2021 For every ***msdl:MOOTWSymbolModifiersType*** complex type there shall be zero or one ***DateTimeGroup***
2022 element. The ***DateTimeGroup*** element specifies the date time group relative to the ***ScenarioTime*** from
2023 which a symbol is valid. The domain type is ***msdl:patternTimeDTGRelative8***.
- 2024 **6.9.1.5.10 *msdl:MOOTWSymbolModifiersType/SpecialC2HQ* Element**

For every **msdl:MOOTWSymbolModifiersType** complex type there shall be zero or one **SpecialC2HQ** element. The **SpecialC2HQ** element specifies the text modifier for units, that indicates a unit is a special command and control headquarters. The domain type is **msdl:textSpecialC2HQ1**.

6.9.1.6 **msdl:MOOTWGraphicType/AssociatedOverlays** Element

For every **msdl:MOOTWGraphicType** complex type there shall be zero or one **AssociatedOverlays** element. The **AssociatedOverlays** element specifies the overlays to which the tactical graphic is to be displayed. Domain type is **msdl:AssociatedOverlaysType** as defined within section 6.7.1.9 for **msdl:InstallationType/AssociatedOverlays**.

6.9.1.7 **msdl:MOOTWGraphicType/Disposition** Element

For every **msdl:MOOTWGraphicType** complex type there shall be one **Disposition** element. The **Disposition** element specifies the location of MOOTW instances and the manner in which these MOOTW instances are tactically deployed. It is an xs:all compositor comprised of the elements shown in Figure 96 and described in the following subsections. Domain type is **msdl:MOOTWDispositionType**.

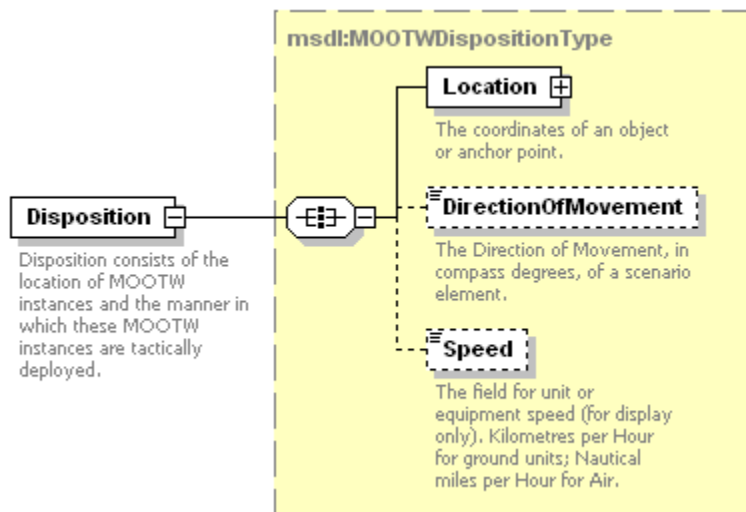


Figure 96: **msdl:MOOTWGraphicType/Disposition** Element Structure

6.9.1.7.1 **msdl:DispositionType/Location**

For every **msdl:DispositionType** complex type there shall be one **Location** element. This element provides the coordinates of the **MOOTWGraphic**. The domain type is **msdl:CoordinatesType** as defined within section 6.3.3.2 for **msdl:RectangleAreaType/UpperRight**.

6.9.1.7.2 **msdl:DispositionType/DirectionOfMovement**

For every **msdl:DispositionType** complex type there shall be zero or one **DirectionOfMovement** element. The **DirectionOfMovement** element specifies the horizontal direction of movement in compass degrees, of the item identified by the MOOTW graphic. The domains type is **msdl:floatCompassDegrees3_3**.

6.9.1.7.3 **msdl:DispositionType/Speed**

For every **msdl:DispositionType** complex type there shall be zero or one **Speed** element. The **Speed** element specifies the rate of movement of the item identified by the MOOTW graphic in the direction specified by the **msdl:DirectionOfMovement** element. The domains type is **msdl:floatSpeed6_2**.

2052 7 Data Types

2053 Within MSDL reuseable simple and complex data types are offered through the use of XML data type
2054 declarations. This section specifies the current set of complex and simple data types that have not already
2055 been defined in use by the previously defined element declarations. Additional data types will be added as
2056 MSDL is extended through active use as will specific element declarations that extend or restrict specific
2057 data types. Restricting or extending data types will enable configuration management to control and
2058 integrate extensions to the MSDL specification.

2059 7.1 Simple Type *msdl:enumAirFormationType*

namespace urn:sisostds:scenario:military:data:draft:msdl:1
type restriction of **xs:string**
used by element [msdl:FormationDataType/AirFormationType](#)
facets enumeration NOT_SPECIFIED
annotation documentation The formation of air (aviation) elements

2060 7.2 Simple Type *msdl:enumAnchorPointType*

namespace urn:sisostds:scenario:military:data:draft:msdl:1
type restriction of **xs:string**
used by element [msdl:AnchorPointType/AnchorChoice](#)
facets enumeration COORDINATE
enumeration POINT_TACTICAL_GRAPHIC
annotation documentation Enumerated choice of an absolute Coordinate or point graphic as a location reference

2061 7.3 Simple Type *msdl:enumBaseAffiliation*

namespace urn:sisostds:scenario:military:data:draft:msdl:1
type restriction of **xs:string**
used by elements [msdl:InstallationType/Affiliation](#) [msdl:MOOTWGraphicType/Affiliation](#)
[msdl:TacticalGraphicType/Affiliation](#)
facets enumeration HOSTILE
enumeration FRIEND
enumeration NEUTRAL
enumeration UNKNOWN

2062 7.4 Simple Type *msdl:enumCombatEffectivenessType*

namespace urn:sisostds:scenario:military:data:draft:msdl:1
type restriction of **xs:string**
used by elements [msdl:EquipmentSymbolModifiersType/CombatEffectiveness](#)
[msdl:InstallationSymbolModifiersType/CombatEffectiveness](#)
[msdl:MOOTWSymbolModifiersType/CombatEffectiveness](#)
[msdl:UnitSymbolModifiersType/CombatEffectiveness](#)
facets enumeration GREEN
enumeration AMBER
enumeration RED
enumeration BLACK
enumeration WHITE
annotation documentation The text modifier for units and installations that indicates unit effectiveness or installation capability. The color to percent strength association is as follows:
GREEN: 85 percent strength (combat capable);
AMBER: 70 to 84 percent strength (combat capable with minor deficiencies);
RED: 50 to 69 percent strength (combat ineffective, unit has major losses or deficiencies);
BLACK: Less than 50 percent strength (requires reconstitution before next mission);
WHITE: Not applicable or no information available.

2063 7.5 Simple Type *msdl:enumCommandRelationshipType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:CommandRelationType/CommandRelationshipType
facets	enumeration	ORGANIC
	enumeration	ATTACHED
	enumeration	OPCON
	enumeration	TACON
	enumeration	ADCON
annotation	enumeration	NONE
	documentation	Enumerated choice for the type of command under which the unit has been task organized as taken from FM 100-7 'The Army In Theater Operations'

2064 7.6 Simple Type *msdl:enumCommunicationNetType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:CommunicationNetInstanceType/CommunicationNetType
facets	enumeration	OTHER
	enumeration	COMMAND_NET
	enumeration	OPERATIONS_INTELLIGENCE_NET
	enumeration	ADMIN_LOGISTICS_NET
	enumeration	FIRE_SUPPORT_NET
annotation	documentation	The typical list of Communications Net Types for Army Units.

2065 7.7 Simple Type *msdl:enumCommunicationServiceType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:CommunicationNetInstanceType/CommunicationService
facets	enumeration	DATTRF
	enumeration	FAX
	enumeration	IIF
	enumeration	IMAGE
	enumeration	MCI
	enumeration	MHS
	enumeration	TDL
	enumeration	VIDSVC
	enumeration	VOCSVC
	enumeration	NOS
annotation	documentation	The typical list of Communications Net Types for Army Units. The enumerations are defined as follows: DATTRF: Data transfer FAX: Facsimile IIF: Identify Fried or Foe IMAGE: Image MCI: MCI MHS: Message Hanling Service TDL: Tactical Data Link VIDSVC: Video Service VOCSVC:Voice Service NOS: Not Otherwise Specified

2066 7.8 Simple Type *msdl:enumCoordinateSystemType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:CoordinatesType/CoordinateChoice msdl:CoordinateDataStandardType/CoordinateSystemType

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facets	enumeration	MGRS
	enumeration	GDC
	enumeration	UTM
	enumeration	GCC
annotation	documentation	Enumerated choice for the type of coordinate as MGRS, UTM, GCC, and GCS.

2067 **7.9 Simple Type *msdl:enumEchelon***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:OrganizationDetailType/AggregateEchelon msdl:AreaSymbolModifiersType/Echelon msdl:BoundarySymbolModifiersType/Echelon msdl:MOOTWSymbolModifiersType/Echelon msdl:UnitSymbolModifiersType/Echelon
facets	enumeration	NONE
	enumeration	TEAM
	enumeration	CREW
	enumeration	SQUAD
	enumeration	SECTION
	enumeration	PLATOON
	enumeration	DETACHMENT
	enumeration	COMPANY
	enumeration	BATTERY
	enumeration	TROOP
	enumeration	BATTALION
	enumeration	SQUADRON
	enumeration	REGIMENT
	enumeration	GROUP
	enumeration	BRIGADE
	enumeration	DIVISION
	enumeration	CORPS
	enumeration	ARMY
	enumeration	ARMYGROUP
	enumeration	FRONT
	enumeration	REGION
annotation	documentation	Graphic modifier that identifies Command level.

2068 **7.10 Simple Type *msdl:enumForceOwnerType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:ForceRelationType/ForceRelationChoice msdl:OrganicRelationType/OrganicRelationChoice msdl:OwnerType/OwnerChoice
facets	enumeration	UNIT
	enumeration	FORCE_SIDE
annotation	documentation	Enumerated choice for the type of owning organization as a force or unit.

2069 **7.11 Simple Type *msdl:enumFormationLocationType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:OwnFormationType/FormationLocationType
facets	enumeration	LEAD_ELEMENT
	enumeration	CENTER_OF_MASS
annotation	documentation	Enumerated choice for the method used to correlate formation to location as center of mass or lead element. The enumerations are defined as follows: LEAD_ELEMENT: The unit location represents the location of the formation's lead element, identified by a formation order of 1. CENTER_OF_MASS: The unit location represents the location of the geographical center.

2070 7.12 Simple Type *msdl:enumFormationType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:OwnFormationType/FormationChoice
facets	enumeration	GROUND
	enumeration	AIR
	enumeration	SURFACE
	enumeration	SUBSURFACE
annotation	documentation	Enumerated choice for The type of formation being Ground, Air, Surface or Subsurface

2071 7.13 Simple Type *msdl:enumGroundFormationType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:FormationDataType/GroundFormationType
facets	enumeration	COLUMN
	enumeration	STAGGERED_COLUMN
	enumeration	ECHELON_LEFT
	enumeration	ECHELON_RIGHT
	enumeration	LINE
	enumeration	WEDGE
	enumeration	VEE
	enumeration	ASSAULT_VEE
	enumeration	FSE_COLUMN
	enumeration	STACK
	enumeration	NONE
annotation	documentation	This is the ground formation from which subordinate elements are placed in formation.

2072 7.14 Simple Type *msdl:enumMilitaryDomainType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
facets	enumeration	ACR
	enumeration	RDA
	enumeration	TEMO
annotation	documentation	Military domain for the scenario of ACR, RDA, and TEMO.

2073 7.15 Simple Type *msdl:enumModelResolutionType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:EquipmentModelType/Resolution msdl:UnitModelType/Resolution
facets	enumeration	NONE
	enumeration	MINIMAL
	enumeration	STANDARD
	enumeration	ENHANCED
	enumeration	HIGH
	enumeration	NOT_SPECIFIED
annotation	documentation	Enumeration indicating the level of fidelity appropriate for instantiating the unit or equipment in the simulation. The enumerations are defined as follows: NONE: No resolution/representation of the unit or equipment is necessary to achieve scenario objectives. MINIMAL: Minimal resolution representation (graphical display only, no behaviors) of the unit or equipment is necessary to achieve scenario objectives. This resolution typically applies to elements that are displayed as part of the common operating picture, but have not direct impact on scenario objectives. STANDARD: Standard (low) resolution representation of the unit or equipment necessary to achieve scenario objectives. This resolution typically applies to elements that are two or more echelons above,

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below or adjacent to the principle planning unit.
 ENHANCED: Enhanced (medium) resolution representation of the unit or equipment necessary to achieve scenario objectives. This resolution typically applies to elements that are within two echelons of the principle planning unit.
 HIGH: High resolution representation of the unit or equipment necessary to achieve scenario objectives. This resolution typically applies to elements that are within one echelon of the principle planning unit.

2074 **7.16 Simple Type *msdl:enumMOPPLLevelType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:StatusType/MOPPLLevel
facets	enumeration	LEVEL_0
	enumeration	LEVEL_1
	enumeration	LEVEL_2
	enumeration	LEVEL_3
	enumeration	LEVEL_4
annotation	documentation	Unit specific status of Mission Oriented Protective Posture. The enumerations are defined as follows: LEVEL_0: None of the protective clothing and equipment is worn, but it is readily available. LEVEL_1: The overgarment and helmet cover are worn. LEVEL_2: TBD. LEVEL_3: Chemical protective mask and hood are added. At this point personnel are completely encapsulated. LEVEL_4: Butyl rubber gloves are added.

2075 **7.17 Simple Type *msdl:enumOrientationType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:InstallationType/Orientation msdl:PointSymbolModifiersType/Orientation
facets	enumeration	ORIENT_RIGHT
	enumeration	ORIENT_LEFT
annotation	documentation	Orientation of the graphic to the right or left as defined in the symbology standard. The enumerations are defined as follows: ORIENT_RIGHT: Orientation of the point graphic is 90 degrees to the right. ORIENT_LEFT: Orientation of the point graphic is 90 degrees to the left.

2076 **7.18 Simple Type *msdl:enumOverlayType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:OverlayType/OverlayType msdl:AssociatedOverlaysType/SourceOverlayType
facets	enumeration	OPERATIONS
	enumeration	FIRE_SUPPORT
	enumeration	MODIFIED_COMBINED_OBSTACLES
	enumeration	INTEL
	enumeration	RECON_SURVEILLANCE
	enumeration	OBSTACLE
	enumeration	AIR_DEFENSE
	enumeration	LOGISTICS
	enumeration	A2C2
	enumeration	USER_DEFINED
annotation	documentation	A specific overlay used in the scenario, that is then referenced by the control measures that are to be included on the overlay

2077 **7.19 Simple Type *msdl:enumReinforcedReducedType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	elements	msdl:MOOTWSymbolModifiersType/ReinforcedReduced

facets	enumeration	<u>msdl:UnitSymbolModifiersType/ReinforcedReduced</u>
	enumeration	R
	enumeration	D
annotation	enumeration	RD
	documentation	The graphic modifier in a unit symbol that displays (+) for reinforced, (-) for reduced, (±) for reinforced and reduced.

2078 7.20 Simple Type *msdl:enumSubsurfaceFormationType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	<u>msdl:FormationDataType/SubsurfaceFormationType</u>
facets	enumeration	NOT_SPECIFIED
annotation	documentation	This is the subsurface formation from which subordinate elements are placed in formation

2079 7.21 Simple Type *msdl:enumSupportRelationType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	<u>msdl:SupportRelationType/SupportType</u>
facets	enumeration	GS
	enumeration	DS
	enumeration	R
	enumeration	GSR
	enumeration	NONE
annotation	documentation	The support relationship of this unit with respect to the unit being supported

2080 7.22 Simple Type *msdl:enumSupportRoleType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	<u>msdl:SupportRelationType/SupportRoleType</u>
facets	enumeration	FIRES
	enumeration	INTELLIGENCE
	enumeration	ENGINEER
	enumeration	CHEMICAL
	enumeration	NOT_SPECIFIED
annotation	documentation	The support role taken from classes of Priority of Effort being Chemical, Engineer, Fires, and Intelligence

2081 7.23 Simple Type *msdl:enumSurfaceFormationType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	<u>msdl:FormationDataType/SurfaceFormationType</u>
facets	enumeration	NOT_SPECIFIED
annotation	documentation	This is the surface formation from which subordinate elements are placed in formation

2082 7.24 Simple Type *msdl:enumSymbolClassType*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	<u>msdl:TacticalGraphicType/SymbolClassType</u>

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facets	enumeration	POINT
	enumeration	LINE
	enumeration	AREA
	enumeration	BOUNDARY
	enumeration	NBC_EVENT
	enumeration	TASK
annotation	documentation	Enumerated choice for the class of symbology modifiers.

2083 **7.25 Simple Type *msdl:enumSymbologyStandardType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:SymbologyDataStandardType/StandardName
facets	enumeration	MILSTD_2525B
	enumeration	NATO_APP-6
annotation	documentation	Enumerated choice for the type of symbology standard.

2084 **7.26 Simple Type *msdl:enumWeaponControlStatusType***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:string	
used by	element	msdl:StatusType/WeaponControlStatus
facets	enumeration	WEAPONS_FREE
	enumeration	WEAPONS_TIGHT
	enumeration	WEAPONS_HOLD
annotation	documentation	Degree of fire control, values include free, tight, and hold. The enumerations are defined as follows: WEAPONS_FREE: Weapons systems may be fired at any target not positively recognized as friendly. WEAPONS_TIGHT: Weapons systems may only be fired in self-defense or in response to a formal order. WEAPONS_HOLD: Weapons systems may be fired only at targets recognized as hostile.

2085 **7.27 Simple Type *msdl:boolean***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	xs:boolean	
used by	elements	msdl:OrganizationDetailType/AggregateBased msdl:UnitModelType/AggregateBased msdl:EquipmentSymbolModifiersType/AuxiliaryEquipment msdl:FormationPositionType/OutOfFormation
annotation	documentation	The MSDL base type for boolean values.

2086 **7.28 Simple Type *msdl:floatCartesianValue9_3***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	xs:double	
used by	elements	msdl:GCCType/X msdl:GCCType/Y msdl:GCCType/Z
annotation	documentation	The double precision X component of the Geocentric coordinate.

2087 **7.29 Simple Type *msdl:floatCompassDegrees3_3***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	elements	msdl:EquipmentDispositionType/DirectionOfMovement msdl:METOCDispositionType/DirectionOfMovement msdl:MOOTWDispositionType/DirectionOfMovement msdl:NBCEventSymbolModifiersType/DirectionOfMovement msdl:UnitDispositionType/DirectionOfMovement msdl:OwnFormationType/FormationOrientation msdl:FormationPositionType/SensorOrientation

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facets	minInclusive	0.00
	maxInclusive	360.00
annotation	documentation	Compass degrees.

2088 **7.30 Simple Type *msdl:floatElevationAGL6_2***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	elements	msdl:GDCType/ElevationAGL msdl:MGRSType/ElevationAGL msdl:UTMType/ElevationAGL
facets	minInclusive	-999999.0
	maxInclusive	999999.0
annotation	documentation	Altitude or height relative to ground level in metres.

2089 **7.31 Simple Type *msdl:floatLatitudeLongitude3_3***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	elements	msdl:GDCType/Latitude msdl:GDCType/Longitude
facets	minInclusive	-180.0
	maxInclusive	180.0
annotation	documentation	Fractional degrees of longitude/latitude.

2090 **7.32 Simple Type *msdl:floatSpacing4_3***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	element	msdl:OwnFormationType/FormationSpacing
facets	minInclusive	1.
	maxExclusive	9999.999
annotation	documentation	The default spacing in metres between subordinate elements one echelon below.

2091 **7.33 Simple Type *msdl:floatSpeed6_2***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	elements	msdl:EquipmentDispositionType/Speed msdl:METOCDispositionType/Speed msdl:MOOTWDispositionType/Speed msdl:NBCEventSymbolModifiersType/Speed msdl:UnitDispositionType/Speed
facets	minInclusive	0.0
	maxInclusive	999999.0
annotation	documentation	The field for unit or equipment speed (for display only). Kilometres per Hour for ground elements; Nautical miles per Hour for air and marine elements.

2092 **7.34 Simple Type *msdl:floatUTMEasting9_2***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
type	restriction of xs:float	
used by	element	msdl:UTMType/UTMEasting
facets	minInclusive	0.0
	maxInclusive	
annotation	documentation	The easting component of the UTM coordinate to the precision value of the MGRS precision element.

2093 **7.35 Simple Type *msdl:floatUTMNorthing9_2***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1	
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type	restriction of xs:float		
used by	element	<u>msdl:UTMType/UTMNorthing</u>	
facets	minInclusive	0.0	
annotation	documentation	The northing component of the UTM coordinate to the precision value of the MGRS precision element.	

2094 **7.36 Simple Type *msdl:integerMajorVersion1***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:int		
used by	element	<u>msdl:SymbologyDataStandardType/MajorVersion</u>	
facets	minInclusive	0	
	maxInclusive	9	
annotation	documentation	The major version of a product or standard (Major.Minor).	

2095 **7.37 Simple Type *msdl:integerMGRSEasting5***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:long		
used by	element	<u>msdl:MGRSType/MGRSEasting</u>	
facets	minInclusive	0	
	maxInclusive	99999	
annotation	documentation	The easting component of the MGRS coordinate to the precision value of the MGRS precision element.	

2096 **7.38 Simple Type *msdl:integerMGRSNorthing5***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:long		
used by	element	<u>msdl:MGRSType/MGRSNorthing</u>	
facets	minInclusive	0	
	maxInclusive	99999	
annotation	documentation	The northing component of the MGRS coordinate to the precision value of the MGRS precision element.	

2097 **7.39 Simple Type *msdl:integerMGRSPrecision1***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:int		
used by	element	<u>msdl:MGRSType/MGRSPrecision</u>	
facets	minInclusive	2	
	maxInclusive	5	
annotation	documentation	The precision, 2 (km) to 5 (metres), used for each MGRS coordinate.	

2098 **7.40 Simple Type *msdl:integerMinorVersion2***

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:int		
used by	element	<u>msdl:SymbologyDataStandardType/MinorVersion</u>	
facets	minInclusive	0	
	maxInclusive	99	
annotation	documentation	The minor version of a product or standard (Major.Minor).	

2099 7.41 Simple Type *msdl:integerPriorityToSupport1*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:integer		
used by	element	msdl:SupportRelationType/PriorityToSupport	
facets	minInclusive	0	
	maxInclusive	9	
annotation	documentation	The Supporting Unit's priority to support another unit from 1 to 9 where 1 is the top priority.	

2100 7.42 Simple Type *msdl:integerQuantity9*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:int		
used by	elements	msdl:EquipmentSymbolModifiersType/Quantity msdl:METOCGraphicType/Quantity msdl:NBCEventSymbolModifiersType/Quantity	
facets	minInclusive	0	
	maxInclusive	999999999	
annotation	documentation	The text modifier of an equipment symbol that identifies the number of items present.	

2101 7.43 Simple Type *msdl:integerSequence6*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:integer		
used by	element	msdl:FormationPositionType/FormationOrder	
facets	minInclusive	1	
	maxInclusive	999999	
annotation	documentation	The sequence or order of elements.	

2102 7.44 Simple Type *msdl:patternForceSymbolID15*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	elements	msdl:EquipmentItemSymbolIdentifier msdl:UnitType/SymbolIdentifier	
facets	length	15	
	pattern	[S]{1}[\-]{1}[PAGMOSTUFVXLIZ-]{1}[\-]{1}[A-Z-]{6}[A-Z-]{1}[A-Z-]{1}[\-]{2}[AECGNSX-]{1}	
annotation	documentation	The 15 character Symbol identifier with fields that shall not be interpreted restricted using dashes. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code values are provided in the ForceStructure data. Status is to be interpreted as 'Present' until such time as a separate element is created to distinguish truth values from perceived values. The coding scheme, position 1, must be 'S' for unit and equipment symbol identification.	

2103 7.45 Simple Type *msdl:patternInstallationSymbolID15*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:InstallationType/SymbolIdentifier	
facets	length	15	
	pattern	[S]{1}[\-]{1}[G]{1}[AP-]{1}[I]{1}[A-Z-]{5}[A-Z-]{1}[A-Z-]{1}[\-]{2}[AECGNSX-]{1}	
annotation	documentation	The 15 character Symbol identifier with fields that shall not be interpreted restricted using dashes. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code values are provided in the ForceStructure data. Status is to be interpreted as 'Present' until such time as a separate element is created to distinguish truth values from perceived values. The coding scheme, position 1, must be 'S' for installation symbol identification.	

2104 7.46 Simple Type *msdl:patternMETOCSymbolID15*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:METOCGraphicType/SymbolIdentifier	
facets	length	15	
	pattern	[W]{1}[AOS]{1}\-[BCGHILMOPTW]{1}[ABCDEFGHIJLMNOPRSTX]{1}[ABCDGHIJLMNOPQRSTUVWXYZ]{1}[ABCEFGHIJLMNOPQRSTUVWXYZ]{1}\-\-\-\-	
annotation	documentation	The 15 character METOC Symbol identifier with fields that shall not be interpreted restricted using dashes. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code values are provided in the ForceStructure data. Status is to be interpreted as 'Present' until such time as a separate element is created to distinguish truth values from perceived values. The coding scheme, position 1, must be 'W' METOC symbol identification.	

2105 7.47 Simple Type *msdl:patternMGRSGridSquare2*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	elements	msdl:MGRSType/MGRSGridSquare msdl:MGRSType/MGRSGridZone	
facets	length	2	
	pattern	[ABCDEFGHJKLMNPQRSTUVWXYZ]{2}	
annotation	documentation	The MGRS one hundred thousand meter grid square designator, as defined by NIMA TM 8358.1.	

2106 7.48 Simple Type *msdl:patternMOOTWSymbolID15*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:MOOTWGraphicType/SymbolIdentifier	
facets	length	15	
	pattern	[O]{1}\-[1]{1}[VXLIZ]{1}[AP\]{1}[A-Z]{6}[A-Z*]{1}[A-Z*]{1}\-[2]{1}[AECGNSX*]{1}	
annotation	documentation	The 15 character Symbol identifier with fields that shall not be interpreted restricted using dashes. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code values are provided in the ForceStructure data. Status is to be interpreted as 'Present' until such time as a separate element is created to distinguish truth values from perceived values. The coding scheme, position 1, must be 'O' for MOOTW symbol identification.	

2107 7.49 Simple Type *msdl:patternTacticalGraphicSymbolID15*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:TacticalGraphicType/SymbolIdentifier	
facets	length	15	
	pattern	[G]{1}\-[1]{1}[PAGMOSTUFVXLIZ]{1}[AP\]{1}[A-Z]{6}[A-Z*]{1}[A-Z*]{1}\-[2]{1}[AECGNSX*]{1}	
annotation	documentation	The 15 character Symbol identifier with fields that shall not be interpreted restricted using dashes. These fields would be redundant to other explicit elements in the standard. Affiliation, Status, and Country Code are restricted in this manner. Affiliation and Country Code values are provided in the ForceStructure data. Status is to be interpreted as 'Present' until such time as a separate element is created to distinguish truth values from perceived values. The coding scheme, position 1, must be 'G' for tactical graphic symbol identification.	

2108 7.50 Simple Type *msdl:patternTimeDTG20*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:EnvironmentType/ScenarioTime	

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facets	length	20
	pattern	[0-9]{4}-[0-9]{2}-[0-9]{2}[T]{1}[0-9]{2}:[0-9]{2}:[0-9]{2}:[Z]{1}
annotation	documentation	The ISO 8601:2000 DateTime Group format yyyy-mm-ddThh:mm:ssZ e.g. 1998-05-12T14:15:00Z.

2109 7.51 Simple Type *msdl:patternTimeDTGRelative20*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1
type	restriction of xs:string
used by	elements msdl:AreaSymbolModifiersType/DateTimeGroup msdl:InstallationSymbolModifiersType/DateTimeGroup msdl:LineSymbolModifiersType/DateTimeGroup msdl:METOCGraphicType/DateTimeGroup msdl:MOOTWSymbolModifiersType/DateTimeGroup msdl:NBCEventSymbolModifiersType/DateTimeGroup msdl:PointSymbolModifiersType/DateTimeGroup msdl:TaskSymbolModifiersType/DateTimeGroup msdl:AreaSymbolModifiersType/DateTimeGroup1 msdl:LineSymbolModifiersType/DateTimeGroup1 msdl:METOCGraphicType/DateTimeGroup1 msdl:PointSymbolModifiersType/DateTimeGroup1
facets	length 20
	pattern [P]{1}[0-9]{2}[Y]{1}[M]{1}[0-9]{2}[D]{1}[0-9]{2}[H]{1}[0-9]{2}[M]{1}[0-9]{2}[S]{1}
annotation	documentation The ISO 8601:2000 time interval by duration format PnYnMnDnHnMnS e.g. P00Y00M00D00H00M00S relative to ScenarioTime when n is a two digit number padded with 0.

2110 7.52 Simple Type *msdl:patternUTMGridZone3*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1
type	restriction of xs:string
used by	element msdl:UTMType/UTMGridZone
facets	length 3
	pattern [0-9]{2}[ABCEFGHJKLMNPQRSTUVWXYZ]{1}
annotation	documentation The UTM Grid Zone designator, to include the number and letter as defined by NIMA TM 8358.1.

2111 7.53 Simple Type *msdl:patternUUID32*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1
type	restriction of xs:string
used by	elements msdl:ForceSideType/AllegianceHandle msdl:EquipmentItemtype/ObjectHandle msdl:ForceSideType/ObjectHandle msdl:InstallationType/ObjectHandle msdl:METOCGraphicType/ObjectHandle msdl:MOOTWGraphicType/ObjectHandle msdl:OverlayType/ObjectHandle msdl:TacticalGraphicType/ObjectHandle msdl:UnitType/ObjectHandle
facets	pattern [0-9a-z]{8}\-[0-9a-z]{4}\-[0-9a-z]{4}\-[0-9a-z]{4}\-[0-9a-z]{12}
annotation	documentation The Universal Unique Identifier (UUID) of an object as defined in ISO/IEC 11578:1996 Information technology - Open Systems Interconnection - Remote Procedure Call (RPC).

2112 7.54 Simple Type *msdl:patternUUIDRef32*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1
type	restriction of xs:string
used by	elements msdl:AssociationType/AffiliateHandle msdl:CommandRelationType/CommandingSuperiorHandle msdl:OwnerDataType/ForceOwnerHandle msdl:ForceRelationDataType/ForceSideHandle msdl:OrganicRelationDataType/OrganicForceSideHandle msdl:EquipmentRelationsType/OrganicSuperiorHandle msdl:OrganicRelationDataType/OrganicSuperiorHandle msdl:OverlayHandlesType/OverlayHandle msdl:AnchorType/PointSymbolHandle msdl:SupportRelationType/SupportedUnitHandle msdl:CommunicationNetReferenceType/UnitOwnerHandle msdl:OwnerDataType/UnitOwnerHandle
facets	pattern [0-9a-z]{8}\-[0-9a-z]{4}\-[0-9a-z]{4}\-[0-9a-z]{4}\-[0-9a-z]{12}
annotation	documentation Reference to a Universal Unique Identifier (UUID) of an object as defined in ISO/IEC 11578:1996 Information technology - Open Systems Interconnection - Remote Procedure Call (RPC).

2113 7.55 Simple Type *msdl:text20*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	elements	msdl:AreaSymbolModifiersType/AdditionalInfo msdl:EquipmentSymbolModifiersType/AdditionalInfo msdl:InstallationSymbolModifiersType/AdditionalInfo msdl:METOCGraphicType/AdditionalInfo msdl:MOOTWSymbolModifiersType/AdditionalInfo msdl:NBCEventSymbolModifiersType/AdditionalInfo msdl:PointSymbolModifiersType/AdditionalInfo msdl:UnitSymbolModifiersType/AdditionalInfo msdl:AreaSymbolModifiersType/AdditionalInfo1 msdl:PointSymbolModifiersType/AdditionalInfo1 msdl:AreaSymbolModifiersType/AdditionalInfo2 msdl:NBCEventSymbolModifiersType/NBCType msdl:EquipmentSymbolModifiersType/StaffComments msdl:InstallationSymbolModifiersType/StaffComments msdl:MOOTWSymbolModifiersType/StaffComments msdl:UnitSymbolModifiersType/StaffComments	
facets	minLength	0	
	maxLength	20	
	pattern	([-z]{1})*	
annotation	documentation	General text of length 20 characters.	

2114 7.56 Simple Type *msdl:text21*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	elements	msdl:UnitSymbolModifiersType/HigherFormation msdl:AreaSymbolModifiersType/UniqueDesignation msdl:BoundarySymbolModifiersType/UniqueDesignation msdl:EquipmentSymbolModifiersType/UniqueDesignation msdl:InstallationSymbolModifiersType/UniqueDesignation msdl:LineSymbolModifiersType/UniqueDesignation msdl:METOCGraphicType/UniqueDesignation msdl:MOOTWSymbolModifiersType/UniqueDesignation msdl:NBCEventSymbolModifiersType/UniqueDesignation msdl:PointSymbolModifiersType/UniqueDesignation msdl:TaskSymbolModifiersType/UniqueDesignation msdl:UnitSymbolModifiersType/UniqueDesignation msdl:BoundarySymbolModifiersType/UniqueDesignation1 msdl:LineSymbolModifiersType/UniqueDesignation1 msdl:PointSymbolModifiersType/UniqueDesignation1	
facets	minLength	0	
	maxLength	21	
	pattern	([-z]{1})*	
annotation	documentation	General text of length 21 characters.	

2115 7.57 Simple Type *msdl:textDatum8*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:CoordinateDataStandardType/CoordinateSystemDatum	
facets	minLength	0	
	maxLength	8	
	pattern	([-z]{1})*	
annotation	documentation	The Datum used to calculate coordinates.	

2116 7.58 Simple Type *msdl:textEquipmentType24*

namespace	urn:sisostds:scenario:military:data:draft:msdl:1		
type	restriction of xs:string		
used by	element	msdl:EquipmentSymbolModifiersType/EquipmentType	
facets	minLength	0	
	maxLength	24	
	pattern	([-z]{1})*	

annotation documentation The text modifier that indicates type of equipment.

2117 7.59 Simple Type *msdl:textFrameShapeModifier1*

namespace urn:sisostds:scenario:military:data:draft:msdl:1

type restriction of **xs:string**

used by elements [msdl:InstallationSymbolModifiersType/FrameShapeModifier](#)
 [msdl:MOOTWSymbolModifiersType/FrameShapeModifier](#)

facets length 1

 pattern [UJK?_]{1}

annotation documentation The affiliation modifier from the base friend, hostile, neutral, and unknown applied to overlay graphics.

2118 7.60 Simple Type *msdl:textIdentifier64*

namespace urn:sisostds:scenario:military:data:draft:msdl:1

type restriction of **xs:string**

used by elements [msdl:CommunicationNetInstanceType/CommunicationNetId](#)
 [msdl:CommunicationNetReferenceType/CommunicationNetId](#)
 [msdl:OptionsType/MSDLVersion](#)

facets minLength 0

 maxLength 64

 pattern ([-z]{1})*

annotation documentation The general text identifier.

2119 7.61 Simple Type *msdl:textIFF5*

namespace urn:sisostds:scenario:military:data:draft:msdl:1

type restriction of **xs:string**

used by elements [msdl:EquipmentSymbolModifiersType/IFF](#) [msdl:InstallationSymbolModifiersType/IFF](#)
 [msdl:MOOTWSymbolModifiersType/IFF](#) [msdl:UnitSymbolModifiersType/IFF](#)

facets minLength 0

 maxLength 5

 pattern ([-z]{1})*

annotation documentation Text modifier for identification friend or foe (IFF).

2120 7.62 Simple Type *msdl:textName255*

namespace urn:sisostds:scenario:military:data:draft:msdl:1

type restriction of **xs:string**

used by elements [msdl:ForceSideType/ForceSideName](#) [msdl:EquipmentItemNameType/Name](#) [msdl:InstallationType/Name](#)
 [msdl:RectangleAreaType/Name](#) [msdl:UnitType/Name](#) [msdl:OverlayType/OverlayName](#)

facets minLength 0

 maxLength 255

 pattern ([-z]{1})*

annotation documentation A character string (i.e. a finite set of characters) generally in the form of words of a language.

2121 7.63 Simple Type *msdl:textSpecialC2HQ9*

namespace urn:sisostds:scenario:military:data:draft:msdl:1

type restriction of **xs:string**

used by elements [msdl:MOOTWSymbolModifiersType/SpecialC2HQ](#) [msdl:UnitSymbolModifiersType/SpecialC2HQ](#)

facets minLength 0

 maxLength 9

 pattern ([-z]{1})*

annotation documentation The name of the special C2 headquarters.

2122 7.64 Complex Type modelID:securityClassificationType

diagram



namespace <http://www.sisostds.org/schemas/modelID>

type extension of [modelID:SecurityClassificationUnion](#)

used by element [modelID:modelIdentificationType/securityClassification](#)

attributes	Name	Type	Use	Default	Fixed	Annotation
notes		xs:IDREFS	optional			
idtag		xs:ID	optional			

2123 7.65 Complex Type modelID:String

diagram



namespace <http://www.sisostds.org/schemas/modelID>

type extension of **xs:string**

used by elements [modelID:modelIdentificationType/other](#) [modelID:pocType/pocEmail](#) [modelID:pocType/pocName](#) [modelID:pocType/pocOrg](#) [modelID:pocType/pocTelephone](#) [modelID:modelIdentificationType/purpose](#) [modelID:modelIdentificationType/releaseRestriction](#) [modelID:keywordType/taxonomy](#) [modelID:modelIdentificationType/useHistory](#) [modelID:modelIdentificationType/useLimitation](#)

attributes	Name	Type	Use	Default	Fixed	Annotation
notes		xs:IDREFS	optional			
idtag		xs:ID	optional			

2124

2125 7.66 Simple Type modelID:ApplicationDomainEnumerations

namespace <http://www.sisostds.org/schemas/modelID>

type restriction of **xs:string**

used by simpleType [modelID:ApplicationDomainUnion](#)

facets	enumeration	Analysis
	enumeration	Training
	enumeration	Test and Evaluation
	enumeration	Engineering
	enumeration	Acquisition

2126 7.67 Simple Type modelID:ApplicationDomainUnion

namespace <http://www.sisostds.org/schemas/modelID>

type union of ([modelID:ApplicationDomainEnumerations](#), **xs:string**)

used by complexType [modelID:applicationDomainType](#)

2127 7.68 Simple Type modelID:glyphTypeEnumerations

namespace <http://www.sisostds.org/schemas/modelID>

type restriction of **xs:string**

used by simpleType [glyphTypeUnion](#)

facets	enumeration	BITMAP
	enumeration	JPG
	enumeration	GIF
	enumeration	PNG
	enumeration	TIFF

2128 7.69 Simple Type modelID:glyphTypeUnion

namespace <http://www.sisostds.org/schemas/modelID>
 type union of ([modelID:glyphTypeEnumerations](#), **xs:string**)
 used by attribute [modelID:glyphType/@type](#)

2129 7.70 Simple Type modelID:nonEmptyString

namespace <http://www.sisostds.org/schemas/modelID>
 type restriction of **xs:string**
 used by complexType [modelID:NonEmptyString](#)
 simpleTypes [modelID:OMTypeUnion](#) [modelID:POCTypeUnion](#) [modelID:SecurityClassificationUnion](#)
 facets minLength 1

2130 7.71 Simple Type modelID:OMTypeEnumerations

namespace <http://www.sisostds.org/schemas/modelID>
 type restriction of **xs:string**
 used by simpleType [modelID:OMTypeUnion](#)
 facets enumeration FOM
 enumeration SOM
 enumeration BOM

2131 7.72 Simple Type modelID:OMTypeUnion

namespace <http://www.sisostds.org/schemas/modelID>
 type union of ([modelID:OMTypeEnumerations](#), [modelID:nonEmptyString](#))
 used by complexType [modelID:modelType](#)

2132 7.73 Simple Type modelID:POCTypeEnumeration

namespace <http://www.sisostds.org/schemas/modelID>
 type restriction of **xs:string**
 used by simpleType [modelID:POCTypeUnion](#)
 facets enumeration Primary author
 enumeration Contributor
 enumeration Proponent
 enumeration Sponsor
 enumeration Release authority
 enumeration Technical POC

2133 7.74 Simple Type modelID:POCTypeUnion

namespace <http://www.sisostds.org/schemas/modelID>
 type union of ([modelID:POCTypeEnumeration](#), [modelID:nonEmptyString](#))
 used by complexType [modelID:pocTypeType](#)

2134 7.75 Simple Type modelID:referenceTypeEnumerations

namespace <http://www.sisostds.org/schemas/modelID>
 type restriction of **xs:string**
 used by simpleType [modelID:referenceTypeUnion](#)
 facets enumeration Source Material
 enumeration Conceptual Model

enumeration Related BOM

2135 7.76 Simple Type modelID:referenceTypeUnion

namespace <http://www.sisostds.org/schemas/modelID>
type union of ([modelID:referenceTypeEnumerations](#), **xs:string**)
used by element [modelID:referenceType/type](#)

2136 7.77 Simple Type modelID:SecurityClassificationEnumeration

namespace <http://www.sisostds.org/schemas/modelID>
type restriction of **xs:string**
used by simpleType [modelID:SecurityClassificationUnion](#)
facets enumeration Unclassified
 enumeration Confidential
 enumeration Secret
 enumeration Top Secret

2137 7.78 Simple Type modelID:SecurityClassificationUnion

namespace <http://www.sisostds.org/schemas/modelID>
type union of ([modelID:SecurityClassificationEnumeration](#), [modelID:nonEmptyString](#))
used by complexType [modelID:securityClassificationType](#)

2138 7.79 Simple Type jc3iedm:AngleOptionalTypeRangeAngle7_4

namespace <urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0>
type restriction of **xs:decimal**
used by elements [jc3iedm:Wind/DirectionAngle](#) [jc3iedm:Wind/EffectiveDownwindDirectionAngle](#)
facets minInclusive 0.0000
 maxInclusive 360.0000
 totalDigits 7
 fractionDigits 4
annotation documentation The rotational measurement between two lines and/or planes diverging from a common point and/or line. This measurement will be expressed in units of degrees.

2139 7.80 Simple Type jc3iedm:DatetimeOptionalTypeFix18

namespace <urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0>
type restriction of **xs:string**
used by elements [jc3iedm:Light/DownDatetime](#) [jc3iedm:Light/UpDatetime](#)
facets minLength 18
 maxLength 18
annotation documentation A designation of a specified chronological point measured using Coordinated Universal Time (UTC) ISO 8601:2000 as a standard of reference, constrained to "zero meridian" i.e. 'Zulu' time zone only. This is expressed as a composite field using a compacted ISO notation YYYYMMDDHHMMSS.SSS where YYYY represents a year, MM represents a month in values from 00 to 12, and DD represents a day in values from 00 to 31, HH represents an hour, MM represents a minute, and SS.SSS represents the number of seconds and milliseconds. (Optional)

2140 7.81 Simple Type jc3iedm:DimensionMandatoryType12_3

namespace <urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0>
type restriction of **xs:decimal**
used by element [jc3iedm:Visibility/RangeDimension](#)

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facets	minInclusive	-999999999.999
	maxInclusive	999999999.999
	totalDigits	12
	fractionDigits	3
annotation	documentation	A non-negative one-dimensional linear distance measure. This will be expressed in metres. (Mandatory)

2141

2142 7.82 Simple Type jc3iedm:DimensionOptionalType12_3

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:decimal	
used by	elements	jc3iedm:CloudCover/BaseDimension jc3iedm:CloudCover/TopDimension
facets	minInclusive	-999999999.999
	maxInclusive	999999999.999
	totalDigits	12
	fractionDigits	3
annotation	documentation	A non-negative one-dimensional linear distance measure. This will be expressed in metres. (Optional)

2143

2144 7.83 Simple Type jc3iedm:QuantityOptionalType8_4

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:decimal	
used by	element	jc3iedm:Atmosphere/PressureQuantity
facets	minInclusive	-9999.9999
	maxInclusive	9999.9999
	totalDigits	8
	fractionDigits	4
annotation	documentation	A numeric value that denotes a measure of the physical property of an object. Class word quantity has a fixed unit of measure that must be specified on an attribute-by-attribute basis. Class word quantity is not to be used where class words angle, coordinate, count, dimension, and rate apply. (Optional)

2145 7.84 Simple Type jc3iedm:RateOptional4_1

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:decimal	
used by	element	jc3iedm:Precipitation/Rate
facets	minInclusive	-999.9
	maxInclusive	999.9
	totalDigits	4
	fractionDigits	1
annotation	documentation	A numeric value that denotes a physical property of an object expressed as a proportion of a physical property with respect to a unit of time. The unit of measure for class word rate must be specified on an attribute-by-attribute basis. (Optional)

2146 7.85 Simple Type jc3iedm:RateOptional8_4

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:decimal	
used by	element	jc3iedm:Wind/SpeedRate
facets	minInclusive	-9999.9999
	maxInclusive	9999.9999
	totalDigits	8
	fractionDigits	4
annotation	documentation	A numeric value that denotes a physical property of an object expressed as a proportion of a physical property with respect to a unit of time. The unit of measure for class word rate must be specified on an attribute-by-attribute basis. (Optional)

2147 **7.86 Simple Type jc3iedm:RatioOptionalTypeRangeRatio6_5**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0		
type	restriction of xs:decimal		
used by	element	jc3iedm:Atmosphere/HumidityRatio	
facets	minInclusive	0.00000	
	maxInclusive	1.00000	
	totalDigits	6	
	fractionDigits	5	
annotation	documentation	A numeric value representing the quotient of two values that have the same unit of measurement, i.e., ratio has no units of measure. May be used to express a percentage. The allowable range must be specified on an attribute-by-attribute basis. (Optional)	

2148 **7.87 Simple Type jc3iedm:RatioOptionalTypeRangeRatio7_6**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0		
type	restriction of xs:decimal		
used by	element	jc3iedm:CloudCover/LightRefractionRatio	
facets	minInclusive	0.000000	
	maxInclusive	1.000000	
	totalDigits	7	
	fractionDigits	6	
annotation	documentation	A numeric value representing the quotient of two values that have the same unit of measurement, i.e., ratio has no units of measure. May be used to express a percentage. The allowable range must be specified on an attribute-by-attribute basis. (Optional)	

2149

2150 **7.88 Simple Type jc3iedm:TemperatureTypeRangeTemperature5_1**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0		
type	restriction of xs:decimal		
used by	element	jc3iedm:Atmosphere/Temperature	
facets	minInclusive	-273.2	
	maxInclusive	9999.9	
	totalDigits	5	
	fractionDigits	1	
annotation	documentation	A measure of degree of hotness or coldness in an object or in space. This will be expressed in degrees Celsius.	

2151

2152 **7.89 Simple Type jc3iedm:AffiliationGeopoliticalCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0		
type	restriction of xs:token		
used by	element	msdl:ForceSideType/CountryCode	
facets	enumeration	ABW	
	enumeration	AFG	
	enumeration	AGO	
	enumeration	AIA	
	enumeration	ALB	
	enumeration	AND	
	enumeration	ANT	
	enumeration	ARE	
	enumeration	ARG	
	enumeration	ARM	
	enumeration	ASM	
	enumeration	ATA	
	enumeration	ATF	
	enumeration	ATG	
	enumeration	AUS	

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enumeration	AUT
enumeration	AZE
enumeration	BDI
enumeration	BEL
enumeration	BEN
enumeration	BFA
enumeration	BGD
enumeration	BGR
enumeration	BHR
enumeration	BHS
enumeration	BIH
enumeration	BLR
enumeration	BLZ
enumeration	BMU
enumeration	BOL
enumeration	BRA
enumeration	BRB
enumeration	BRN
enumeration	BTN
enumeration	BVT
enumeration	BWA
enumeration	CAF
enumeration	CAN
enumeration	CCK
enumeration	CHE
enumeration	CHL
enumeration	CHN
enumeration	CIV
enumeration	CMR
enumeration	COD
enumeration	COG
enumeration	COK
enumeration	COL
enumeration	COM
enumeration	CPV
enumeration	CRI
enumeration	CSHH
enumeration	CUB
enumeration	CXR
enumeration	CYM
enumeration	CYP
enumeration	CZE
enumeration	DDDE
enumeration	DEU
enumeration	DJI
enumeration	DMA
enumeration	DNK
enumeration	DOM
enumeration	DZA
enumeration	ECU
enumeration	EGY
enumeration	ERI
enumeration	ESH
enumeration	ESP
enumeration	EST
enumeration	ETH
enumeration	FIN
enumeration	FJI
enumeration	FLK
enumeration	FRA
enumeration	FRO
enumeration	FSM
enumeration	FXX
enumeration	GAB
enumeration	GBR
enumeration	GEO
enumeration	GHA
enumeration	GIB
enumeration	GIN
enumeration	GLP

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enumeration	GMB
enumeration	GNB
enumeration	GNQ
enumeration	GRC
enumeration	GRD
enumeration	GRL
enumeration	GTM
enumeration	GUF
enumeration	GUM
enumeration	GUY
enumeration	HKG
enumeration	HMD
enumeration	HND
enumeration	HRV
enumeration	HTI
enumeration	HUN
enumeration	IDN
enumeration	IND
enumeration	IOT
enumeration	IRL
enumeration	IRN
enumeration	IRQ
enumeration	ISL
enumeration	ISR
enumeration	ITA
enumeration	JAM
enumeration	JOR
enumeration	JPN
enumeration	KAZ
enumeration	KEN
enumeration	KGZ
enumeration	KHM
enumeration	KIR
enumeration	KNA
enumeration	KOR
enumeration	KWT
enumeration	LAO
enumeration	LBN
enumeration	LBR
enumeration	LBY
enumeration	LCA
enumeration	LIE
enumeration	LKA
enumeration	LSO
enumeration	LTU
enumeration	LUX
enumeration	LVA
enumeration	MAC
enumeration	MAR
enumeration	MCO
enumeration	MDA
enumeration	MDG
enumeration	MDV
enumeration	MEX
enumeration	MHL
enumeration	MKD
enumeration	MLI
enumeration	MLT
enumeration	MMR
enumeration	MNG
enumeration	MNP
enumeration	MOZ
enumeration	MRT
enumeration	MSR
enumeration	MTQ
enumeration	MUS
enumeration	MWI
enumeration	MYS
enumeration	MYT
enumeration	NAM

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enumeration	NCL
enumeration	NER
enumeration	NFK
enumeration	NGA
enumeration	NIC
enumeration	NIU
enumeration	NLD
enumeration	NOR
enumeration	NOS
enumeration	NPL
enumeration	NRU
enumeration	NZL
enumeration	OMN
enumeration	PAK
enumeration	PAN
enumeration	PCN
enumeration	PER
enumeration	PHL
enumeration	PLW
enumeration	PNG
enumeration	POL
enumeration	PRI
enumeration	PRK
enumeration	PRT
enumeration	PRY
enumeration	PSE
enumeration	PYF
enumeration	QAT
enumeration	REU
enumeration	ROU
enumeration	RUS
enumeration	RWA
enumeration	SAU
enumeration	SCG
enumeration	SDN
enumeration	SEN
enumeration	SGP
enumeration	SGS
enumeration	SHN
enumeration	SJM
enumeration	SLB
enumeration	SLE
enumeration	SLV
enumeration	SMR
enumeration	SOM
enumeration	SPM
enumeration	STP
enumeration	SUHH
enumeration	SUR
enumeration	SVK
enumeration	SVN
enumeration	SWE
enumeration	SWZ
enumeration	SYC
enumeration	SYR
enumeration	TCA
enumeration	TCD
enumeration	TGO
enumeration	THA
enumeration	TJK
enumeration	TKL
enumeration	TKM
enumeration	TLS
enumeration	TON
enumeration	TTO
enumeration	TUN
enumeration	TUR
enumeration	TUV
enumeration	TWN
enumeration	TZA

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	enumeration	UGA
	enumeration	UKR
	enumeration	UMI
	enumeration	URY
	enumeration	USA
	enumeration	UZB
	enumeration	VAT
	enumeration	VCT
	enumeration	VEN
	enumeration	VGB
	enumeration	VIR
	enumeration	VNM
	enumeration	VUT
	enumeration	WLF
	enumeration	WSM
	enumeration	YEM
	enumeration	YUCS
	enumeration	ZAF
	enumeration	ZMB
	enumeration	ZWE
annotation	documentation	The specific value that represents the identification of the independent first-level geographic-political area and its dependencies, areas of quasi-independence, and areas with special unrecognised sovereignty, including outlying and disputed areas.

2153 **7.90 Simple Type jc3iedm:AtmosphereInversionLayerCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Atmosphere/InversionLayerCode
facets	enumeration	A
	enumeration	B
	enumeration	C
annotation	documentation	The specific value that represents the height of the inversion layer in the atmosphere. The stability class describes the degree of mixing of released material in the atmosphere.

2154 **7.91 Simple Type jc3iedm:AtmosphereTemperatureGradientCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Atmosphere/TemperatureGradientCode
facets	enumeration	NEUTRL
	enumeration	NKN
	enumeration	STABLE
	enumeration	UNSTAB
annotation	documentation	The specific value that represents heat change with respect to the ground and 100 m in elevation in a certain area. Acts as an indication of vertical air movement between the ground and higher elevations.

2155 **7.92 Simple Type jc3iedm:CloudCoverAverageCoverageCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:CloudCover/AverageCoverageCode
facets	enumeration	0
	enumeration	1
	enumeration	2
	enumeration	3
	enumeration	4
	enumeration	5
	enumeration	6
	enumeration	7
	enumeration	78
	enumeration	8

annotation	documentation	The specific value that represents the average density of a specific CLOUD-COVER as fractional coverage.
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2156 **7.93 Simple Type jc3iedm:CloudcoverCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:CloudCover/CategoryCode
facets	enumeration	C
	enumeration	RDACCL
	enumeration	SMOKE
annotation	documentation	The specific value that represents the prevailing class of a specific CLOUD-COVER.

2157 **7.94 Simple Type jc3iedm:IcingCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Icing/CategoryCode
facets	enumeration	CLRICE
	enumeration	MIXICE
	enumeration	RIMICE
annotation	documentation	The specific value that represents the class of a particular ICING.

2158 **7.95 Simple Type jc3iedm:IcingSeverityQualifierCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Icing/SeverityQualifierCode
facets	enumeration	LIGHT
	enumeration	MODER
	enumeration	SEVERE
annotation	documentation	The specific value that represents the severity of a particular ICING.

2159 **7.96 Simple Type jc3iedm:LightCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Light/CategoryCode
facets	enumeration	CIVIL
	enumeration	DARK
	enumeration	DAY
	enumeration	MOON
	enumeration	NAUTIC
annotation	documentation	The specific value that represents the class of LIGHT.

2160 **7.97 Simple Type jc3iedm:LightMoonPhaseCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Light/MoonPhaseCode
facets	enumeration	FUL
	enumeration	NEW
	enumeration	WAN
	enumeration	WAX

annotation documentation The specific value that represents the phase of the moon for a specific LIGHT.

2161 **7.98 Simple Type jc3iedm:MilitaryOrganisationTypeServiceCode**

namespace urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0

type restriction of **xs:token**

used by element [msdl:ForceSideType/MilitaryService](#)

facets enumeration AIRFRC
enumeration ARMY
enumeration BRDRGD
enumeration COASTG
enumeration COMBND
enumeration CVLSVC
enumeration GUERLL
enumeration JOINT
enumeration LCLDFF
enumeration LCLMLT
enumeration MARINE
enumeration NAVY
enumeration NKN
enumeration NOS
enumeration PAR
enumeration SPFRC
enumeration TERFRC

annotation documentation The specific value that represents a military, paramilitary, irregular force, force or group, capable of functioning as an offensive or defensive combat or support organisation.

2162 **7.99 Simple Type jc3iedm:NuclearYieldGroupCode**

namespace urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0

type restriction of **xs:token**

used by element [jc3iedm:Wind/NuclearYieldQualifierCode](#)

facets enumeration ALFA
enumeration BRAVO
enumeration CHARLI
enumeration DELTA
enumeration ECHO
enumeration FOXTRT
enumeration GOLF
enumeration NKN
enumeration NOS

annotation documentation The specific value that represents the explosive yield of a nuclear weapon that is the amount of energy discharged when the weapon is detonated, expressed in the equivalent mass of trinitrotoluene (TNT), either in kilotons (thousands of tons of TNT) or megatons (millions of tons of TNT).

2163 **7.100 Simple Type jc3iedm:ObjectItemHostilityStatusCode**

namespace urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0

type restriction of **xs:token**

used by element [msdl:AssociationType/Relationship](#)

facets enumeration AFR
enumeration AHO
enumeration AIV
enumeration ANT
enumeration FAKER
enumeration FR
enumeration HO
enumeration IV
enumeration JOKER
enumeration NEUTRL
enumeration PENDNG
enumeration SUSPCT

	enumeration	UNK
annotation	documentation	The specific value that represents the perceived hostility status of a specific OBJECT-ITEM.

2164 **7.101 Simple Type jc3iedm:PrecipitationCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Precipitation/CategoryCode
facets	enumeration	DRZLE
	enumeration	FDRZLE
	enumeration	FRAIN
	enumeration	HAIL
	enumeration	ICECRY
	enumeration	ICEPLT
	enumeration	NPR
	enumeration	RAIN
	enumeration	RAINSR
	enumeration	SLEET
	enumeration	SNOW
	enumeration	SNWGRN
	enumeration	SNWSHR
annotation	documentation	The specific value that represents the prevailing class of a specific PRECIPITATION.

2165 **7.102 Simple Type jc3iedm:VisibilityCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Visibility/CategoryCode
facets	enumeration	BLWSNW
	enumeration	DSTDVL
	enumeration	DSTSND
	enumeration	DSTSTR
	enumeration	FOG
	enumeration	FRZFOG
	enumeration	HAZE
	enumeration	NKN
	enumeration	NOS
	enumeration	SMOKE
	enumeration	SNDSTR
annotation	documentation	The specific value that represents the class of obscurant that governs a particular VISIBILITY.

2166 **7.103 Simple Type jc3iedm:WindAirStabilityCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Wind/AirStabilityCategoryCode
facets	enumeration	1
	enumeration	2
	enumeration	3
	enumeration	4
	enumeration	5
	enumeration	6
	enumeration	7
	enumeration	N
	enumeration	S
	enumeration	U
annotation	documentation	The specific value used to indicate the class of air stability.

2167 7.104 Simple Type jc3iedm:WindAltitudeLayerCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Wind/AltitudeLayerCode
facets	enumeration	10
	enumeration	12
	enumeration	14
	enumeration	16
	enumeration	18
	enumeration	2
	enumeration	20
	enumeration	22
	enumeration	24
	enumeration	26
	enumeration	28
	enumeration	30
	enumeration	4
	enumeration	6
	enumeration	8
annotation	documentation	The specific value used to indicate the class of the altitude for a specific set of reported wind data.

2168 7.105 Simple Type jc3iedm:WindCategoryCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	jc3iedm:Wind/CategoryCode
facets	enumeration	CONST
	enumeration	GUST
	enumeration	NKN
	enumeration	SQUAL
	enumeration	TRBLEX
	enumeration	TRBLLI
	enumeration	TRBLMO
	enumeration	TRBLSE
	enumeration	VRB
	enumeration	WSHEAR
annotation	documentation	The specific value that represents the class of WIND.

2169 7.106 Simple Type jc3iedm:IcingCategoryCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Icing/CategoryCode
facets	enumeration	CLRICE
	enumeration	MIXICE
	enumeration	RIMICE
annotation	documentation	The specific value that represents the class of a particular ICING.

2170 7.107 Simple Type jc3iedm:IcingSeverityQualifierCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Icing/SeverityQualifierCode
facets	enumeration	LIGHT
	enumeration	MODER
	enumeration	SEVERE
annotation	documentation	The specific value that represents the severity of a particular ICING.

2171 7.108 Simple Type jc3iedm:LightCategoryCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Light/CategoryCode
facets	enumeration	CIVIL
	enumeration	DARK
	enumeration	DAY
	enumeration	MOON
	enumeration	NAUTIC
annotation	documentation	The specific value that represents the class of LIGHT.

2172 7.109 Simple Type jc3iedm:LightMoonPhaseCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Light/MoonPhaseCode
facets	enumeration	FUL
	enumeration	NEW
	enumeration	WAN
	enumeration	WAX
annotation	documentation	The specific value that represents the phase of the moon for a specific LIGHT.

2173 7.110 Simple Type jc3iedm:MilitaryOrganisationTypeServiceCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	msdl:MilitaryService
facets	enumeration	AIRFRC
	enumeration	ARMY
	enumeration	BRDRGD
	enumeration	COASTG
	enumeration	COMBND
	enumeration	CVLSVC
	enumeration	GUERLL
	enumeration	JOINT
	enumeration	LCLDFF
	enumeration	LCLMLT
	enumeration	MARINE
	enumeration	NAVY
	enumeration	NKN
	enumeration	NOS
	enumeration	PAR
	enumeration	SPFRC
	enumeration	TERFRC
annotation	documentation	The specific value that represents a military, paramilitary, irregular force, force or group, capable of functioning as an offensive or defensive combat or support organisation.

2174 7.111 Simple Type jc3iedm:NuclearYieldGroupCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Wind/NuclearYieldQualifierCode
facets	enumeration	ALFA
	enumeration	BRAVO
	enumeration	CHARLI
	enumeration	DELTA
	enumeration	ECHO
	enumeration	FOXTRT

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annotation	enumeration	GOLF
	enumeration	NKN
	enumeration	NOS
	documentation	The specific value that represents the explosive yield of a nuclear weapon that is the amount of energy discharged when the weapon is detonated, expressed in the equivalent mass of trinitrotoluene (TNT), either in kilotons (thousands of tons of TNT) or megatons (millions of tons of TNT).

2175 7.112 Simple Type jc3iedm:ObjectItemHostilityStatusCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	msdl:Relationship
facets	enumeration	AFR
	enumeration	AHO
	enumeration	AIV
	enumeration	ANT
	enumeration	FAKER
	enumeration	FR
	enumeration	HO
	enumeration	IV
	enumeration	JOKER
	enumeration	NEUTRL
	enumeration	PENDNG
	enumeration	SUSPCT
	enumeration	UNK
annotation	documentation	The specific value that represents the perceived hostility status of a specific OBJECT-ITEM.

2176 7.113 Simple Type jc3iedm:PrecipitationCategoryCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Precipitation/CategoryCode
facets	enumeration	DRZLE
	enumeration	FDRZLE
	enumeration	FRAIN
	enumeration	HAIL
	enumeration	ICECRY
	enumeration	ICEPLT
	enumeration	NPR
	enumeration	RAIN
	enumeration	RAINSR
	enumeration	SLEET
	enumeration	SNOW
	enumeration	SNWGRN
	enumeration	SNWSHR
annotation	documentation	The specific value that represents the prevailing class of a specific PRECIPITATION.

2177 7.114 Simple Type jc3iedm:VisibilityCategoryCode

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Visibility/CategoryCode
facets	enumeration	BLWSNW
	enumeration	DSTDVL
	enumeration	DSTSND
	enumeration	DSTSTR
	enumeration	FOG
	enumeration	FRZFOG
	enumeration	HAZE
	enumeration	NKN
	enumeration	NOS

annotation	enumeration	SMOKE
	enumeration	SNDSTR
	documentation	The specific value that represents the class of obscurant that governs a particular VISIBILITY.

2178 **7.115 Simple Type jc3iedm:WindCategoryCode**

namespace	urn:int:nato:standard:mip:jc3iedm:3.1:oo:2.0	
type	restriction of xs:token	
used by	element	Wind/CategoryCode
facets	enumeration	CONST
	enumeration	GUST
	enumeration	NKN
	enumeration	SQUAL
	enumeration	TRBLEX
	enumeration	TRBLLI
	enumeration	TRBLMO
	enumeration	TRBLSE
	enumeration	VRB
annotation	enumeration	WSHEAR
	documentation	The specific value that represents the class of WIND.

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