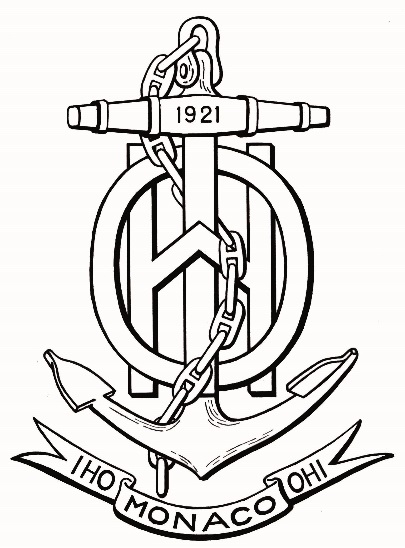
**INTERNATIONAL HYDROGRAPHIC ORGANIZATION**



**IHO UNIVERSAL HYDROGRAPHIC DATA MODEL**

**Special Publication No. 127**

**Marine Traffic Management Product Specification**

**Version 1.0.0**

**Appendix D-2**

**GML Format**

Published by the

International Hydrographic Bureau

**MONACO**

|  |
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Schema **S127.xsd**

|  |  |  |
| --- | --- | --- |
| Elements | Complex types | Simple types |
| [**Applicability**](#Link1) | [**AbstractRxNType**](#Link2) | [**actionOrActivityType**](#Link3) |
| [**Authority**](#Link4) | [**ApplicabilityType**](#Link5) | [**cardinalDirectionType**](#Link6) |
| [**CautionArea**](#Link7) | [**AuthorityType**](#Link8) | [**categoryOfAuthorityType**](#Link9) |
| [**ConcentrationOfShippingHazardArea**](#LinkA) | [**bearingInformationType**](#LinkB) | [**categoryOfCargoType**](#LinkC) |
| [**ContactDetails**](#LinkD) | [**CautionAreaType**](#LinkE) | [**categoryOfCommPrefType**](#LinkF) |
| [**DataCoverage**](#Link10) | [**ConcentrationOfShippingHazardAreaType**](#Link11) | [**categoryOfConcentrationOfShippingHazardAreaType**](#Link12) |
| [**Dataset**](#Link13) | [**contactAddressType**](#Link14) | [**categoryOfDangerousOrHazardousCargoType**](#Link15) |
| [**FeatureType**](#Link16) | [**ContactDetailsType**](#Link17) | [**categoryOfMarineProtectedAreaType**](#Link18) |
| [**InclusionType**](#Link19) | [**DataCoverageType**](#Link1A) | [**categoryOfMaritimeBroadcastType**](#Link1B) |
| [**InformationType**](#Link1C) | [**DataQualityType**](#Link1D) | [**categoryOfMilitaryPracticeAreaType**](#Link1E) |
| [**IspsCodeSecurityLevel**](#Link1F) | [**DatasetType**](#Link20) | [**categoryOfNavigationLineType**](#Link21) |
| [**LocalPortServiceArea**](#Link22) | [**featureNameType**](#Link23) | [**categoryOfPilotBoardingPlaceType**](#Link24) |
| [**MilitaryPracticeArea**](#Link25) | [**FeatureType**](#Link26) | [**categoryOfPilotType**](#Link27) |
| [**NauticalInformation**](#Link28) | [**fixedDateRangeType**](#Link29) | [**categoryOfPreferenceType**](#Link2A) |
| [**NonStandardWorkingDay**](#Link2B) | [**frequencyPairType**](#Link2C) | [**categoryOfRadioMethodsType**](#Link2D) |
| [**PermissionType**](#Link2E) | [**graphicType**](#Link2F) | [**categoryOfRelationshipType**](#Link30) |
| [**PilotageDistrict**](#Link31) | [**horizontalPositionUncertaintyType**](#Link32) | [**categoryOfRestrictedAreaType**](#Link33) |
| [**PilotBoardingPlace**](#Link34) | [**IMemberType**](#Link35) | [**categoryOfRouteingMeasureType**](#Link36) |
| [**PilotService**](#Link37) | [**InclusionType**](#Link38) | [**categoryOfRxNType**](#Link39) |
| [**PiracyRiskArea**](#Link3A) | [**informationType**](#Link3B) | [**categoryOfScheduleType**](#Link3C) |
| [**PlaceOfRefuge**](#Link3D) | [**InformationTypeType**](#Link3E) | [**categoryOfShipReportType**](#Link3F) |
| [**QualityOfNonBathymetricData**](#Link40) | [**IspsCodeSecurityLevelType**](#Link41) | [**categoryOfSignalStationTrafficType**](#Link42) |
| [**RadarRange**](#Link43) | [**LocalPortServiceAreaType**](#Link44) | [**categoryOfSignalStationWarningType**](#Link45) |
| [**RadioCallingInPoint**](#Link46) | [**MemberType**](#Link47) | [**categoryOfTemporalVariationType**](#Link48) |
| [**Recommendations**](#Link49) | [**MilitaryPracticeAreaType**](#Link4A) | [**categoryOfTextType**](#Link4B) |
| [**Regulations**](#Link4C) | [**NauticalInformationType**](#Link4D) | [**categoryOfTrafficSeparationSchemeType**](#Link4E) |
| [**RestrictedAreaNavigational**](#Link4F) | [**NonStandardWorkingDayType**](#Link50) | [**categoryOfVesselRegistryType**](#Link51) |
| [**RestrictedAreaRegulatory**](#Link52) | [**noticeTimeType**](#Link53) | [**categoryOfVesselTrafficServiceType**](#Link54) |
| [**Restrictions**](#Link55) | [**onlineResourceType**](#Link56) | [**categoryOfVesselType**](#Link57) |
| [**RouteingMeasure**](#Link58) | [**OrganisationContactAreaType**](#Link59) | [**comparisonOperatorType**](#Link5A) |
| [**ServiceHours**](#Link5B) | [**orientationType**](#Link5C) | [**conditionType**](#Link5D) |
| [**ShipReport**](#Link5E) | [**periodicDateRangeType**](#Link5F) | [**dayOfWeekType**](#Link60) |
| [**ShipReportingServiceArea**](#Link61) | [**PermissionType**](#Link62) | [**dynamicResourceType**](#Link63) |
| [**SignalStationTraffic**](#Link64) | [**PilotageDistrictType**](#Link65) | [**ispsLevelType**](#Link66) |
| [**SignalStationWarning**](#Link67) | [**PilotBoardingPlaceType**](#Link68) | [**jurisdictionType**](#Link69) |
| [**SpatialQuality**](#Link6A) | [**PilotServiceType**](#Link6B) | [**logicalConnectivesType**](#Link6C) |
| [**SpatialQualityPoints**](#Link6D) | [**PiracyRiskAreaType**](#Link6E) | [**membershipType**](#Link6F) |
| [**TextPlacement**](#Link70) | [**PlaceOfRefugeType**](#Link71) | [**mMSICodeType**](#Link72) |
| [**UnderkeelClearanceAllowanceArea**](#Link73) | [**QualityOfNonBathymetricDataType**](#Link74) | [**onlineFunctionType**](#Link75) |
| [**UnderkeelClearanceManagementArea**](#Link76) | [**QualityOfTemporalVariationType**](#Link77) | [**operationType**](#Link78) |
| [**VesselTrafficServiceArea**](#Link79) | [**RadarRangeType**](#Link7A) | [**pilotMovementType**](#Link7B) |
| [**WaterwayArea**](#Link7C) | [**RadioCallingInPointType**](#Link7D) | [**pilotQualificationType**](#Link7E) |
|  | [**radiocommunicationsType**](#Link7F) | [**qualityOfHorizontalMeasurementType**](#Link80) |
|  | [**RecommendationsType**](#Link81) | [**restrictionType**](#Link82) |
|  | [**RegulationsType**](#Link83) | [**sourceTypeType**](#Link84) |
|  | [**ReportableServiceAreaType**](#Link85) | [**statusType**](#Link86) |
|  | [**RestrictedAreaNavigationalType**](#Link87) | [**telecommunicationServiceType**](#Link88) |
|  | [**RestrictedAreaRegulatoryType**](#Link89) | [**textJustificationType**](#Link8A) |
|  | [**RestrictionsType**](#Link8B) | [**textTypeType**](#Link8C) |
|  | [**RouteingMeasureType**](#Link8D) | [**trafficFlowType**](#Link8E) |
|  | [**rxnCodeType**](#Link8F) | [**vesselsCharacteristicsType**](#Link90) |
|  | [**scheduleByDayOfWeekType**](#Link91) | [**vesselsCharacteristicsUnitType**](#Link92) |
|  | [**ServiceHoursType**](#Link93) | [**waterLevelTrendType**](#Link94) |
|  | [**ShipReportingServiceAreaType**](#Link95) |  |
|  | [**ShipReportType**](#Link96) |  |
|  | [**SignalStationTrafficType**](#Link97) |  |
|  | [**SignalStationWarningType**](#Link98) |  |
|  | [**sourceIndicationType**](#Link99) |  |
|  | [**SpatialQuality**](#Link9A) |  |
|  | [**SpatialQualityPoints**](#Link9B) |  |
|  | [**SupervisedAreaType**](#Link9C) |  |
|  | [**surveyDateRangeType**](#Link9D) |  |
|  | [**telecommunicationsType**](#Link9E) |  |
|  | [**textContentType**](#Link9F) |  |
|  | [**TextPlacementType**](#LinkA0) |  |
|  | [**timeIntervalsByDayOfWeekType**](#LinkA1) |  |
|  | [**underkeelAllowanceType**](#LinkA2) |  |
|  | [**UnderkeelClearanceAllowanceAreaType**](#LinkA3) |  |
|  | [**UnderkeelClearanceManagementAreaType**](#LinkA4) |  |
|  | [**vesselsMeasurementsType**](#LinkA5) |  |
|  | [**VesselTrafficServiceAreaType**](#LinkA6) |  |
|  | [**WaterwayAreaType**](#LinkA7) |  |

element **Applicability**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ApplicabilityType**](#Link5) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**inBallast**](#LinkAD)[**categoryOfCargo**](#LinkAE)[**categoryOfDangerousOrHazardousCargo**](#LinkAF)[**categoryOfVessel**](#LinkB0)[**categoryOfVesselRegistry**](#LinkB1)[**logicalConnectives**](#LinkB2)[**thicknessOfIceCapability**](#LinkB3)[**information**](#LinkB4)[**vesselPerformance**](#LinkB5)[**vesselsMeasurements**](#LinkB6)[**vslLocation**](#LinkB7)[**theApplicableRxN**](#LinkB8)[**theShipReport**](#LinkB9) |

element **Authority**

|  |  |
| --- | --- |
| diagram |  |
| type | [**AuthorityType**](#Link8) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkBA)[**textContent**](#LinkBB)[**theContactDetails**](#LinkBC)[**theServiceHours**](#LinkBD)[**theShipReport**](#LinkBE)[**theInformation**](#LinkBF) |

element **CautionArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**CautionAreaType**](#LinkE) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**condition**](#LinkC9)[**status**](#LinkCA)[**geometry**](#LinkCB) |

element **ConcentrationOfShippingHazardArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ConcentrationOfShippingHazardAreaType**](#Link11) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfConcentrationOfShippingHazardArea**](#LinkCC)[**status**](#LinkCD)[**geometry**](#LinkCE) |

element **ContactDetails**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ContactDetailsType**](#Link17) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**callName**](#LinkCF)[**callSign**](#LinkD0)[**categoryOfCommPref**](#LinkD1)[**communicationChannel**](#LinkD2)[**contactAddress**](#LinkD3)[**contactInstructions**](#LinkD4)[**frequencyPair**](#LinkD5)[**information**](#LinkD6)[**language**](#LinkD7)[**mMSICode**](#LinkD8)[**onlineResource**](#LinkD9)[**telecommunications**](#LinkDA)[**radiocommunications**](#LinkDB)[**theAuthority**](#LinkDC) |

element **DataCoverage**

|  |  |
| --- | --- |
| diagram |  |
| type | [**DataCoverageType**](#Link1A) |
| substitution group | **MetaFeature** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**maximumDisplayScale**](#LinkDD)[**minimumDisplayScale**](#LinkDE)[**geometry**](#LinkDF) |

element **Dataset**

|  |  |
| --- | --- |
| diagram |  |
| type | [**DatasetType**](#Link20) |
| children | **gml:boundedBy** [**DatasetIdentificationInformation**](#LinkE0)[**DatasetStructureInformation**](#LinkE1) **Point MultiPoint Curve CompositeCurve OrientableCurve Surface Polygon** [**imember**](#LinkE2)[**member**](#LinkE3) |

element **FeatureType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**FeatureType**](#Link26) |
| substitution group | **gml:AbstractFeature** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8) |

element **InclusionType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**InclusionType**](#Link38) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**membership**](#LinkE4)[**theApplicableRxN**](#LinkE5)[**isApplicableTo**](#LinkE6) |

element **InformationType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC) |

element **IspsCodeSecurityLevel**

|  |  |
| --- | --- |
| diagram |  |
| type | [**IspsCodeSecurityLevelType**](#Link41) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**ispsLevel**](#LinkE8)[**geometry**](#LinkE9) |

element **LocalPortServiceArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**LocalPortServiceAreaType**](#Link44) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**serviceAccessProcedure**](#LinkEC)[**requirementsForMaintenanceOfListeningWatch**](#LinkED)[**consistsOf**](#LinkEE)[**geometry**](#LinkEF) |

element **MilitaryPracticeArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**MilitaryPracticeAreaType**](#Link4A) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfMilitaryPracticeArea**](#LinkF0)[**nationality**](#LinkF1)[**restriction**](#LinkF2)[**status**](#LinkF3)[**theServiceHours**](#LinkF4)[**geometry**](#LinkF5) |

element **NauticalInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**NauticalInformationType**](#Link4D) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB)[**informationProvidedFor**](#LinkFC) |

element **NonStandardWorkingDay**

|  |  |
| --- | --- |
| diagram |  |
| type | [**NonStandardWorkingDayType**](#Link50) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**dateFixed**](#LinkFD)[**dateVariable**](#LinkFE)[**information**](#LinkFF)[**theServiceHours\_nsdy**](#Link100) |

element **PermissionType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PermissionType**](#Link62) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfRelationship**](#Link101)[**permission**](#Link102) |

element **PilotageDistrict**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PilotageDistrictType**](#Link65) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**communicationChannel**](#Link103)[**consistsOf**](#Link104)[**serviceProvider**](#Link105)[**geometry**](#Link106) |

element **PilotBoardingPlace**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PilotBoardingPlaceType**](#Link68) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**callSign**](#Link107)[**categoryOfPilotBoardingPlace**](#Link108)[**categoryOfPreference**](#Link109)[**categoryOfVessel**](#Link10A)[**communicationChannel**](#Link10B)[**destination**](#Link10C)[**pilotMovement**](#Link10D)[**pilotVessel**](#Link10E)[**status**](#Link10F)[**componentOf**](#Link110)[**serviceProvider**](#Link111)[**geometry**](#Link112) |

element **PilotService**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PilotServiceType**](#Link6B) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**categoryOfPilot**](#Link113)[**pilotQualification**](#Link114)[**pilotRequest**](#Link115)[**remotePilot**](#Link116)[**noticeTime**](#Link117)[**serviceArea**](#Link118)[**theServiceHours**](#Link119)[**geometry**](#Link11A) |

element **PiracyRiskArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PiracyRiskAreaType**](#Link6E) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**restriction**](#Link11B)[**statusType**](#Link11C)[**geometry**](#Link11D) |

element **PlaceOfRefuge**

|  |  |
| --- | --- |
| diagram |  |
| type | [**PlaceOfRefugeType**](#Link71) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**status**](#Link11E)[**communicationChannel**](#Link11F)[**geometry**](#Link120) |

element **QualityOfNonBathymetricData**

|  |  |
| --- | --- |
| diagram |  |
| type | [**QualityOfNonBathymetricDataType**](#Link74) |
| substitution group | **MetaFeature** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**information**](#Link121)[**categoryOfTemporalVariation**](#Link122)[**horizontalDistanceUncertainty**](#Link123)[**horizontalPositionUncertainty**](#Link124)[**orientationUncertainty**](#Link125)[**sourceIndication**](#Link126)[**surveyDateRange**](#Link127)[**geometry**](#Link128) |

element **RadarRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RadarRangeType**](#Link7A) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**communicationChannel**](#Link129)[**status**](#Link12A)[**geometry**](#Link12B) |

element **RadioCallingInPoint**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RadioCallingInPointType**](#Link7D) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**callSign**](#Link12C)[**categoryOfCargo**](#Link12D)[**categoryOfVessel**](#Link12E)[**communicationChannel**](#Link12F)[**status**](#Link130)[**trafficFlow**](#Link131)[**orientationValue**](#Link132)[**componentOf**](#Link133)[**geometry**](#Link134) |

element **Recommendations**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RecommendationsType**](#Link81) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |

element **Regulations**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RegulationsType**](#Link83) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |

element **RestrictedAreaNavigational**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RestrictedAreaNavigationalType**](#Link87) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfRestrictedArea**](#Link135)[**restriction**](#Link136)[**status**](#Link137)[**geometry**](#Link138) |

element **RestrictedAreaRegulatory**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RestrictedAreaRegulatoryType**](#Link89) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfRestrictedArea**](#Link139)[**restriction**](#Link13A)[**status**](#Link13B)[**geometry**](#Link13C) |

element **Restrictions**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RestrictionsType**](#Link8B) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |

element **RouteingMeasure**

|  |  |
| --- | --- |
| diagram |  |
| type | [**RouteingMeasureType**](#Link8D) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfRouteingMeasure**](#Link13D)[**categoryOfTrafficSeparationScheme**](#Link13E)[**categoryOfNavigationLine**](#Link13F)[**geometry**](#Link140) |

element **ServiceHours**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ServiceHoursType**](#Link93) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**scheduleByDayOfWeek**](#Link141)[**information**](#Link142)[**theAuthority\_srvHrs**](#Link143)[**partialWorkingDay**](#Link144) |

element **ShipReport**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ShipReportType**](#Link96) |
| substitution group | [**InformationType**](#Link1C) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfShipReport**](#Link145)[**imoFormatForReporting**](#Link146)[**reportTo**](#Link147)[**noticeTime**](#Link148)[**textContent**](#Link149)[**mustBeFiledBy**](#Link14A) |

element **ShipReportingServiceArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ShipReportingServiceAreaType**](#Link95) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**serviceAccessProcedure**](#Link14B)[**requirementsForMaintenanceOfListeningWatch**](#Link14C)[**consistsOf**](#Link14D)[**geometry**](#Link14E) |

element **SignalStationTraffic**

|  |  |
| --- | --- |
| diagram |  |
| type | [**SignalStationTrafficType**](#Link97) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**categoryOfSignalStationTraffic**](#Link14F)[**communicationChannel**](#Link150)[**status**](#Link151)[**geometry**](#Link152) |

element **SignalStationWarning**

|  |  |
| --- | --- |
| diagram |  |
| type | [**SignalStationWarningType**](#Link98) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfSignalStationWarning**](#Link153)[**communicationChannel**](#Link154)[**status**](#Link155)[**geometry**](#Link156) |

element **SpatialQuality**

|  |  |
| --- | --- |
| diagram |  |
| type | [**SpatialQuality**](#Link9A) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfTemporalVariation**](#Link157)[**horizontalPositionUncertainty**](#Link158)[**qualityOfHorizontalMeasurement**](#Link159) |

element **SpatialQualityPoints**

|  |  |
| --- | --- |
| diagram |  |
| type | [**SpatialQualityPoints**](#Link9B) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfTemporalVariation**](#Link157)[**horizontalPositionUncertainty**](#Link158)[**qualityOfHorizontalMeasurement**](#Link159) |

element **TextPlacement**

|  |  |
| --- | --- |
| diagram |  |
| type | [**TextPlacementType**](#LinkA0) |
| children | [**flipBearing**](#Link15A)[**scaleMinimum**](#Link15B)[**textJustification**](#Link15C)[**text**](#Link15D)[**textType**](#Link15E)[**identifies**](#Link15F)[**geometry**](#Link160) |

element **UnderkeelClearanceAllowanceArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**UnderkeelClearanceAllowanceAreaType**](#LinkA3) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**underkeelAllowance**](#Link161)[**waterLevelTrend**](#Link162)[**geometry**](#Link163) |

element **UnderkeelClearanceManagementArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**UnderkeelClearanceManagementAreaType**](#LinkA4) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**dynamicResource**](#Link164)[**geometry**](#Link165) |

element **VesselTrafficServiceArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**VesselTrafficServiceAreaType**](#LinkA6) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**categoryOfVesselTrafficService**](#Link166)[**serviceAccessProcedure**](#Link167)[**requirementsForMaintenanceOfListeningWatch**](#Link168)[**consistsOf**](#Link169)[**geometry**](#Link16A) |

element **WaterwayArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**WaterwayAreaType**](#LinkA7) |
| substitution group | [**FeatureType**](#Link16) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**siltationRate**](#Link16B)[**status**](#Link16C)[**dynamicResource**](#Link16D)[**geometry**](#Link16E) |

complexType **AbstractRxNType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |
| annotation | |  | | --- | | documentation | | An abstract superclass for information types that encode rules, recommendations, and general information in text or graphic form. | | documentation | | Remarks: Subtypes of AbstractRxN carry the same attributes, but differ in the nature of information they encode. There are currently four such subtypes: Regulations, Restrictions, Recommendations, and NauticalInformation. | |

element **AbstractRxNType/categoryOfAuthority**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfAuthorityType**](#Link9) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | customs | |  | | --- | | documentation | | The agency or establishment for collecting duties, tolls. (Merriam-Websters online Dictionary 23rd February 2006, amended). | | | enumeration | border control | |  | | --- | | documentation | | The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries (adapted from Merriam-Websters online Dictionary 23rd February 2006). | | | enumeration | police | |  | | --- | | documentation | | The department of government, or civil force, charged with maintaining public order. (Adapted from OED) | | | enumeration | port | |  | | --- | | documentation | | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department (NP 100 8th Edition 14 Oct 2004) | | | enumeration | immigration | |  | | --- | | documentation | | The authority controlling people entering a country. | | | enumeration | health | |  | | --- | | documentation | | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. | | | enumeration | coast guard | |  | | --- | | documentation | | Organisation keeping watch on shipping and coastal waters according to governmental law; normally the authority with reponsibility for search and rescue. | | | enumeration | agricultural | |  | | --- | | documentation | | The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country. | | | enumeration | military | |  | | --- | | documentation | | A military authority which provides control of access to or approval for transit through designated areas or airspace. | | | enumeration | private company | |  | | --- | | documentation | | A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a callibration area. | | | enumeration | maritime police | |  | | --- | | documentation | | A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinierie, and Guardia Civil. | | | enumeration | environmental | |  | | --- | | documentation | | An authority with responsibility for the protection of the environment. | | | enumeration | fishery | |  | | --- | | documentation | | An authority with responsibility for the control of fisheries. | | | enumeration | finance | |  | | --- | | documentation | | an authority with responsibility for the control and movement of money. | | | enumeration | maritime | |  | | --- | | documentation | | A national or regional authority charged with administration of maritime affairs. | | |

element **AbstractRxNType/textContent**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textContentType**](#Link9F) |
| children | [**categoryOfText**](#Link16F)[**information**](#Link170)[**onlineResource**](#Link171)[**sourceIndication**](#Link172) |

element **AbstractRxNType/graphic**

|  |  |
| --- | --- |
| diagram |  |
| type | [**graphicType**](#Link2F) |
| children | [**pictorialRepresentation**](#Link173)[**pictureCaption**](#Link174)[**sourceDate**](#Link175)[**pictureInformation**](#Link176)[**bearingInformation**](#Link177) |

element **AbstractRxNType/rxnCode**

|  |  |
| --- | --- |
| diagram |  |
| type | [**rxnCodeType**](#Link8F) |
| children | [**categoryOfRxN**](#Link178)[**actionOrActivity**](#Link179)[**headline**](#Link17A) |

element **AbstractRxNType/isApplicableTo**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **AbstractRxNType/theOrganisation**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **ApplicabilityType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**inBallast**](#LinkAD)[**categoryOfCargo**](#LinkAE)[**categoryOfDangerousOrHazardousCargo**](#LinkAF)[**categoryOfVessel**](#LinkB0)[**categoryOfVesselRegistry**](#LinkB1)[**logicalConnectives**](#LinkB2)[**thicknessOfIceCapability**](#LinkB3)[**information**](#LinkB4)[**vesselPerformance**](#LinkB5)[**vesselsMeasurements**](#LinkB6)[**vslLocation**](#LinkB7)[**theApplicableRxN**](#LinkB8)[**theShipReport**](#LinkB9) |
| annotation | |  | | --- | | documentation | | Describes the relationship between vessel characteristics and: (i) the applicability of an associated information object or feature to the vessel; or, (ii) the use of a facility, place, or service by the vessel; or, (iii) passage of the vessel through an area. | |

element **ApplicabilityType/inBallast**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:boolean** |
| annotation | |  | | --- | | documentation | | Whether the vessel is in ballast. | |

element **ApplicabilityType/categoryOfCargo**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfCargoType**](#LinkC) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | bulk | |  | | --- | | documentation | | Normally dry cargo which is transported to and from the vessel on conveyors or grabs | | | enumeration | container | |  | | --- | | documentation | | One of a number of standard sized cargo carrying units, secured using standard corner attachments and bars | | | enumeration | general | |  | | --- | | documentation | | Break bulk cargo normally loaded by crane | | | enumeration | liquid | |  | | --- | | documentation | | Any cargo loaded by pipeline | | | enumeration | passenger | |  | | --- | | documentation | | A fee paying traveller | | | enumeration | livestock | |  | | --- | | documentation | | Live animals carried in bulk | | | enumeration | dangerous or hazardous | |  | | --- | | documentation | | Dangerous or hazardous cargo as described by the IMO International Maritime Dangerous Goods code | | | enumeration | heavy lift |  | | enumeration | ballast |  | |

element **ApplicabilityType/categoryOfDangerousOrHazardousCargo**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfDangerousOrHazardousCargoType**](#Link15) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | IMDG Code Class 1 Div. 1.1 | |  | | --- | | documentation | | Explosives, Division 1: substances and articles which have a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.2 | |  | | --- | | documentation | | Explosives, Division 2: substances and articles which have a projection hazard but not a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.3 | |  | | --- | | documentation | | Explosives, Division 3: substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.4 | |  | | --- | | documentation | | Explosives, Division 4: substances and articles which present no significant hazard | | | enumeration | IMDG Code Class 1 Div. 1.5 | |  | | --- | | documentation | | Explosives, Division 5: very insensitive substances which have a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.6 | |  | | --- | | documentation | | Explosives, Division 6: extremely insensitive articles which do not have a mass explosion hazard | | | enumeration | IMDG Code Class 2 Div. 2.1 | |  | | --- | | documentation | | Gases, flammable gases | | | enumeration | IMDG Code Class 2 Div. 2.2 | |  | | --- | | documentation | | Gases, non-flammable, non-toxic gases | | | enumeration | IMDG Code Class 2 Div. 2.3 | |  | | --- | | documentation | | Gases, toxic gases | | | enumeration | IMDG Code Class 3 | |  | | --- | | documentation | | flammable liquids | | | enumeration | IMDG Code Class 4 Div. 4.1 | |  | | --- | | documentation | | flammable solids, self-reactive substances and desensitized explosives | | | enumeration | IMDG Code Class 4 Div. 4.2 | |  | | --- | | documentation | | substances liable to spontaneous combustion | | | enumeration | IMDG Code Class 4 Div. 4.3 | |  | | --- | | documentation | | substances which, in contact with water, emit flammable gases | | | enumeration | IMDG Code Class 5 Div. 5.1 | |  | | --- | | documentation | | oxidizing substances | | | enumeration | IMDG Code Class 5 Div. 5.2 | |  | | --- | | documentation | | organic peroxides | | | enumeration | IMDG Code Class 6 Div. 6.1 | |  | | --- | | documentation | | toxic substances | | | enumeration | IMDG Code Class 6 Div. 6.2 | |  | | --- | | documentation | | infectious substances | | | enumeration | IMDG Code Class 7 | |  | | --- | | documentation | | Radioactive material | | | enumeration | IMDG Code Class 8 | |  | | --- | | documentation | | Corrosive substances | | | enumeration | IMDG Code Class 9 | |  | | --- | | documentation | | Miscellaneous dangerous substances and articles | | | enumeration | Harmful Substances in packaged form | |  | | --- | | documentation | | Harmful substances are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code). Packaged form is defined as the forms of containment specified for harmful substances in the IMDG Code. (MARPOL (73/78) Annex III) | | |

element **ApplicabilityType/categoryOfVessel**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfVesselType**](#Link57) |

element **ApplicabilityType/categoryOfVesselRegistry**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfVesselRegistryType**](#Link51) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | domestic | |  | | --- | | documentation | | The vessel is registered or enrolled under the same national flag as the port, harbour, territorial sea, exclusive economic zone, or administrative area in which the object that possesses this attribute applies or is located. | | | enumeration | foreign | |  | | --- | | documentation | | The vessel is registered or enrolled under a national flag different from the port, harbour, territorial sea, exclusive economic zone, or other administrative area in which the object that possesses this attribute applies or is located. | | |

element **ApplicabilityType/logicalConnectives**

|  |  |
| --- | --- |
| diagram |  |
| type | [**logicalConnectivesType**](#Link6C) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | logical conjunction | |  | | --- | | documentation | | all the conditions described by the other attributes of the object, or sub-attributes of the same complex attribute, are true | | | enumeration | logical disjunction | |  | | --- | | documentation | | at least one of the conditions described by the other attributes of the object, or sub-attributes of the same complex attributes, is true | | |

element **ApplicabilityType/thicknessOfIceCapability**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:nonNegativeInteger** |
| annotation | |  | | --- | | documentation | | The thickness of ice that the ship can safely transit | |

element **ApplicabilityType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **ApplicabilityType/vesselPerformance**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A description of the required handling characteristics of a vessel including hull design, main and auxilliary machinery, cargo handling equipment, navigation equipment and manoeuvring behaviour. | |

element **ApplicabilityType/vesselsMeasurements**

|  |  |
| --- | --- |
| diagram |  |
| type | [**vesselsMeasurementsType**](#LinkA5) |
| children | [**comparisonOperator**](#Link180)[**vesselsCharacteristics**](#Link181)[**vesselsCharacteristicsValue**](#Link182)[**vesselsCharacteristicsUnit**](#Link183) |

element **ApplicabilityType/vslLocation**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | Association to the Association class PermissionType | |

element **ApplicabilityType/theApplicableRxN**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | To InclusionType | |

element **ApplicabilityType/theShipReport**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **AuthorityType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkBA)[**textContent**](#LinkBB)[**theContactDetails**](#LinkBC)[**theServiceHours**](#LinkBD)[**theShipReport**](#LinkBE)[**theInformation**](#LinkBF) |
| annotation | |  | | --- | | documentation | | A person or organisation having political or administrative power and control. (Oxford Dictionary of English) | |

element **AuthorityType/categoryOfAuthority**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfAuthorityType**](#Link9) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | customs | |  | | --- | | documentation | | The agency or establishment for collecting duties, tolls. (Merriam-Websters online Dictionary 23rd February 2006, amended). | | | enumeration | border control | |  | | --- | | documentation | | The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries (adapted from Merriam-Websters online Dictionary 23rd February 2006). | | | enumeration | police | |  | | --- | | documentation | | The department of government, or civil force, charged with maintaining public order. (Adapted from OED) | | | enumeration | port | |  | | --- | | documentation | | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department (NP 100 8th Edition 14 Oct 2004) | | | enumeration | immigration | |  | | --- | | documentation | | The authority controlling people entering a country. | | | enumeration | health | |  | | --- | | documentation | | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. | | | enumeration | coast guard | |  | | --- | | documentation | | Organisation keeping watch on shipping and coastal waters according to governmental law; normally the authority with reponsibility for search and rescue. | | | enumeration | agricultural | |  | | --- | | documentation | | The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country. | | | enumeration | military | |  | | --- | | documentation | | A military authority which provides control of access to or approval for transit through designated areas or airspace. | | | enumeration | private company | |  | | --- | | documentation | | A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a callibration area. | | | enumeration | maritime police | |  | | --- | | documentation | | A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinierie, and Guardia Civil. | | | enumeration | environmental | |  | | --- | | documentation | | An authority with responsibility for the protection of the environment. | | | enumeration | fishery | |  | | --- | | documentation | | An authority with responsibility for the control of fisheries. | | | enumeration | finance | |  | | --- | | documentation | | an authority with responsibility for the control and movement of money. | | | enumeration | maritime | |  | | --- | | documentation | | A national or regional authority charged with administration of maritime affairs. | | |

element **AuthorityType/textContent**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textContentType**](#Link9F) |
| children | [**categoryOfText**](#Link16F)[**information**](#Link170)[**onlineResource**](#Link171)[**sourceIndication**](#Link172) |

element **AuthorityType/theContactDetails**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **AuthorityType/theServiceHours**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **AuthorityType/theShipReport**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **AuthorityType/theInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **bearingInformationType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**cardinalDirection**](#Link184)[**distance**](#Link185)[**information**](#Link186)[**orientation**](#Link187)[**sectorBearing**](#Link188) |
| annotation | |  | | --- | | documentation | | A bearing is the direction one object is from another object. At least one of the sub-attributes must be present. | |

element **bearingInformationType/cardinalDirection**

|  |  |
| --- | --- |
| diagram |  |
| type | [**cardinalDirectionType**](#Link6) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | N | |  | | --- | | documentation | | North | | | enumeration | NNE | |  | | --- | | documentation | | Northnortheast | | | enumeration | NE | |  | | --- | | documentation | | Northeast | | | enumeration | ENE | |  | | --- | | documentation | | Eastnortheast | | | enumeration | E | |  | | --- | | documentation | | East | | | enumeration | ESE | |  | | --- | | documentation | | Eastsoutheast | | | enumeration | SE | |  | | --- | | documentation | | Southeast | | | enumeration | SSE | |  | | --- | | documentation | | Southsoutheast | | | enumeration | S | |  | | --- | | documentation | | South | | | enumeration | SSW | |  | | --- | | documentation | | Southsouthwest | | | enumeration | SW | |  | | --- | | documentation | | Southwest | | | enumeration | WSW | |  | | --- | | documentation | | Westsouthwest | | | enumeration | W | |  | | --- | | documentation | | West | | | enumeration | WNW | |  | | --- | | documentation | | Westnorthwest | | | enumeration | NW | |  | | --- | | documentation | | Northwest | | | enumeration | NNW | |  | | --- | | documentation | | Northnorthwest | | |

element **bearingInformationType/distance**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | |
| annotation | |  | | --- | | documentation | | A numeric measure of the spatial separation between two locations. | |

element **bearingInformationType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **bearingInformationType/orientation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**orientationType**](#Link5C) |
| children | [**orientationUncertainty**](#Link189)[**orientationValue**](#Link18A) |

element **bearingInformationType/sectorBearing**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:decimal** |

complexType **CautionAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**condition**](#LinkC9)[**status**](#LinkCA)[**geometry**](#LinkCB) |
| annotation | |  | | --- | | documentation | | Generally, an area where the mariner has to be made aware of circumstances influencing the safety of navigation. | |

element **CautionAreaType/condition**

|  |  |
| --- | --- |
| diagram |  |
| type | [**conditionType**](#Link5D) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration |  |  | | enumeration | under construction | |  | | --- | | documentation | | a structure that is in the process of being built. | | appinfo | | <code>1</code> | | | enumeration | under reclamation | |  | | --- | | documentation | | an area of the sea that is being reclaimed as land, usually by the dumping of earth and other material. | | appinfo | | <code>3</code> | | | enumeration | planned construction | |  | | --- | | documentation | | an area where a future construction is planned. | | appinfo | | <code>5</code> | | |
| annotation | |  | | --- | | appinfo | | <permittedValues>  <value>1</value>  <value>3</value>  <value>5</value> </permittedValues> | |

element **CautionAreaType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |
| annotation | |  | | --- | | appinfo | | <permittedValues>  <value>5</value>  <value>7</value> </permittedValues> | |

element **CautionAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **ConcentrationOfShippingHazardAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfConcentrationOfShippingHazardArea**](#LinkCC)[**status**](#LinkCD)[**geometry**](#LinkCE) |
| annotation | |  | | --- | | documentation | | An area where hazards, caused by concentrations of shipping, may occur. Hazards are risks to shipping, which stem from sources other than shoal water or obstructions. | |

element **ConcentrationOfShippingHazardAreaType/categoryOfConcentrationOfShippingHazardArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfConcentrationOfShippingHazardAreaType**](#Link12) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | concentration of merchant shipping | |  | | --- | | documentation | | Concentration of vessels whose primary purpose is to engage in commerce, including ferries. | | | enumeration | concentration of recreational vessels | |  | | --- | | documentation | | Concentration of powered or sailing vessels principally engaged in recreation, leisure, or sporting competition. | | | enumeration | concentration of fishing vessels | |  | | --- | | documentation | | Concentration of vessels whose primary purpose is to hunt, trap or process fish. The concentration could be on the fishing ground, in transit or in the approaches to home bases or fish markets. | | | enumeration | concentration of military vessels | |  | | --- | | documentation | | Concentration of vessels principally engaged in military activities. This includes activities based on mandate of international organisations (e.g. UN). The concentration is in areas others than military exercise areas. | | |

element **ConcentrationOfShippingHazardAreaType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **ConcentrationOfShippingHazardAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **contactAddressType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**deliveryPoint**](#Link18B)[**cityName**](#Link18C)[**administrativeDivision**](#Link18D)[**countryName**](#Link18E)[**postalCode**](#Link18F) |
| annotation | |  | | --- | | documentation | | Direction or superscription of a letter, package, etc., specifying the name of the place to which it is directed, and optionally a contact person or organisation who should receive it. | |

element **contactAddressType/deliveryPoint**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Details of where post can be delivered such as the apartment, name and/or number of a street, building or PO Box. | |

element **contactAddressType/cityName**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The name of a town or city. | |

element **contactAddressType/administrativeDivision**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Administrative division is a generic term for an administrative region within a country at a level below that of the sovereign state. | |

element **contactAddressType/countryName**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The name of a nation. (Adapted from The American Heritage Dictionaries) | |

element **contactAddressType/postalCode**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Known in various countries as a postcode, or ZIP code, the postal code is a series of letters and/or digits that identifies each postal delivery area. | |

complexType **ContactDetailsType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**callName**](#LinkCF)[**callSign**](#LinkD0)[**categoryOfCommPref**](#LinkD1)[**communicationChannel**](#LinkD2)[**contactAddress**](#LinkD3)[**contactInstructions**](#LinkD4)[**frequencyPair**](#LinkD5)[**information**](#LinkD6)[**language**](#LinkD7)[**mMSICode**](#LinkD8)[**onlineResource**](#LinkD9)[**telecommunications**](#LinkDA)[**radiocommunications**](#LinkDB)[**theAuthority**](#LinkDC) |
| annotation | |  | | --- | | documentation | | Information on how to reach a person or organisation by postal, internet, telephone, telex and radio systems. | |

element **ContactDetailsType/callName**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The designated call name of a station, e.g. radio station, radar station, pilot. | | documentation | | Remarks: This is the name used when calling a radio station by radio i.e. "Singapore Pilots". | |

element **ContactDetailsType/callSign**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The designated call-sign of a radio station. | |

element **ContactDetailsType/categoryOfCommPref**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfCommPrefType**](#LinkF) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | preferred calling | |  | | --- | | documentation | | the first choice channel or frequency to be used when calling a radio station | | | enumeration | alternate calling | |  | | --- | | documentation | | a channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference | | | enumeration | preferred working | |  | | --- | | documentation | | the first choice channel or frequency to be used when working with a radio station | | | enumeration | alternate working | |  | | --- | | documentation | | a channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference | | |

element **ContactDetailsType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A channel number assigned to a specific radio frequency, frequencies or frequency band. | |

element **ContactDetailsType/contactAddress**

|  |  |
| --- | --- |
| diagram |  |
| type | [**contactAddressType**](#Link14) |
| children | [**deliveryPoint**](#Link18B)[**cityName**](#Link18C)[**administrativeDivision**](#Link18D)[**countryName**](#Link18E)[**postalCode**](#Link18F) |

element **ContactDetailsType/contactInstructions**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | supplemental instructions on how or when to contact the individual, organisation, or service | |

element **ContactDetailsType/frequencyPair**

|  |  |
| --- | --- |
| diagram |  |
| type | [**frequencyPairType**](#Link2C) |
| children | [**frequencyShoreStationTransmits**](#Link190)[**frequencyShoreStationReceives**](#Link191)[**contactInstructions**](#Link192) |

element **ContactDetailsType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **ContactDetailsType/language**

|  |  |
| --- | --- |
| diagram |  |
| type | **ISO639-3** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | pattern | \w{3} |  | |

element **ContactDetailsType/mMSICode**

|  |  |
| --- | --- |
| diagram |  |
| type | [**mMSICodeType**](#Link72) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | length | 9 | |  | | --- | | documentation | | Redundant, pattern can specify length | | | pattern | \d{9} |  | |
| annotation | |  | | --- | | documentation | | The Maritime Mobile Service Identity (MMSI) Code is formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations, and group calls. These identities are formed in such a way that the identity or part thereof can be used by telephone and telex subscribers connected to the general telecommunications network principally to call ships automatically. | |

element **ContactDetailsType/onlineResource**

|  |  |
| --- | --- |
| diagram |  |
| type | [**onlineResourceType**](#Link56) |
| children | [**linkage**](#Link193)[**protocol**](#Link194)[**applicationProfile**](#Link195)[**nameOfResource**](#Link196)[**onlineResourceDescription**](#Link197)[**onlineFunction**](#Link198)[**protocolRequest**](#Link199) |
| annotation | |  | | --- | | documentation | | Information about online sources from which a resource or data can be obtained (ISO 19115, adapted) | |

element **ContactDetailsType/telecommunications**

|  |  |
| --- | --- |
| diagram |  |
| type | [**telecommunicationsType**](#Link9E) |
| children | [**categoryOfCommPref**](#Link19A)[**contactInstructions**](#Link19B)[**telcomCarrier**](#Link19C)[**telecommunicationIdentifier**](#Link19D)[**telecommunicationService**](#Link19E)[**scheduleByDayOfWeek**](#Link19F) |
| annotation | |  | | --- | | documentation | | information for contact by means of a telecommunications service. Distinctions: emailAddress, internetAddress, callName, callSign, COMCHA | |

element **ContactDetailsType/radiocommunications**

|  |  |
| --- | --- |
| diagram |  |
| type | [**radiocommunicationsType**](#Link7F) |
| children | [**categoryOfCommPref**](#Link1A0)[**categoryOfMaritimeBroadcast**](#Link1A1)[**categoryOfRadioMethods**](#Link1A2)[**communicationChannel**](#Link1A3)[**contactInstructions**](#Link1A4)[**frequencyPair**](#Link1A5)[**signalFrequency**](#Link1A6)[**transmissionContent**](#Link1A7)[**timeIntervalsByDayOfWeek**](#Link1A8) |
| annotation | |  | | --- | | documentation | | When bound to ContactDetails, only the listed sub-attributes may be used:  - communicationChannel  - contactinstructions  - frequencypair  - categoryOfChannelOrFrequencyPreference  - timeIntervalsByDayOfWeek | |

element **ContactDetailsType/theAuthority**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **DataCoverageType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **MetaFeatureType** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**maximumDisplayScale**](#LinkDD)[**minimumDisplayScale**](#LinkDE)[**geometry**](#LinkDF) |
| annotation | |  | | --- | | documentation | | A geographical area that describes the coverage and extent of spatial objects. | |

element **DataCoverageType/maximumDisplayScale**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:positiveInteger** |
| annotation | |  | | --- | | documentation | | The largest intended viewing scale for the data. Not nillable(?) | |

element **DataCoverageType/minimumDisplayScale**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:positiveInteger** |
| annotation | |  | | --- | | documentation | | The smallest intended viewing scale for the data. Not nillable(?) | |

element **DataCoverageType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **SurfacePropertyType** |
| children | **surfaceProperty** |

complexType **DataQualityType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **MetaFeatureType** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**information**](#Link121) |
| annotation | |  | | --- | | documentation | | Abstract feature type for data quality meta-features | |

element **DataQualityType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |
| annotation | |  | | --- | | documentation | | Use of attribute information is discouraged for nautical publications data quality meta-features. | |

complexType **DatasetType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **gml:AbstractFeatureType** |
| children | **gml:boundedBy** [**DatasetIdentificationInformation**](#LinkE0)[**DatasetStructureInformation**](#LinkE1) **Point MultiPoint Curve CompositeCurve OrientableCurve Surface Polygon** [**imember**](#LinkE2)[**member**](#LinkE3) |
| annotation | |  | | --- | | documentation | | Dataset element for dataset as "GML document" | |

element **DatasetType/DatasetIdentificationInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **DataSetIdentificationType** |
| children | **encodingSpecification encodingSpecificationEdition productIdentifier productEdition applicationProfile datasetFileIdentifier datasetTitle datasetReferenceDate datasetLanguage datasetAbstract datasetTopicCategory** |
| annotation | |  | | --- | | documentation | | Dataset identification information | |

element **DatasetType/DatasetStructureInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **DataSetStructureInformationType** |
| children | **datasetCoordOriginX datasetCoordOriginY datasetCoordOriginZ coordMultFactorX coordMultFactorY coordMultFactorZ nInfoRec nPointRec nMultiPointRec nCurveRec nCompositeCurveRec nSurfaceRec nFeatureRec** |
| annotation | |  | | --- | | documentation | | Dataset structure information | |

element **DatasetType/imember**

|  |  |
| --- | --- |
| diagram |  |
| type | [**IMemberType**](#Link35) |
| children | [**InformationType**](#Link1C) |
| annotation | |  | | --- | | documentation | | intended for S100 information types. Extension of GML practice, not addressed by ISO 19136. | |

element **DatasetType/member**

|  |  |
| --- | --- |
| diagram |  |
| type | [**MemberType**](#Link47) |
| children | **gml:AbstractFeature** |
| annotation | |  | | --- | | documentation | | intended for technical GML 3.2 requirement for making the dataset a "GML document" and clause 21.3 of the OGC GML standard | |

complexType **featureNameType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**displayName**](#Link1A9)[**language**](#Link1AA)[**name**](#Link1AB) |
| annotation | |  | | --- | | documentation | | The complex attribute provides the name of an entity, defines the national language of the name, and provides the option to display the name at various system display settings. | |

element **featureNameType/displayName**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:boolean** |
| annotation | |  | | --- | | documentation | | A statement expressing if a feature name is to be displayed in certain display settings or not. Indication: Boolean. A True value is an indication that the name is intended to be displayed. Remarks: Where it is allowable to encode multiple instances of feature name for a single feature instance, only one feature name instance can indicate that the name is to be displayed (display name set to True). | |

element **featureNameType/language**

|  |  |
| --- | --- |
| diagram |  |
| type | **ISO639-3** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | pattern | \w{3} |  | |
| annotation | |  | | --- | | documentation | | The method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way | | documentation | | Remarks: The language is encoded by a character code following ISO 639-3 | |

element **featureNameType/name**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The individual name of a feature. | |

complexType **FeatureType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **AbstractFeatureType** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8) |
| annotation | |  | | --- | | documentation | | Generalized feature type which carry all the common attributes | |

element **FeatureType/fixedDateRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**fixedDateRangeType**](#Link29) |
| children | [**dateStart**](#Link1AC)[**dateEnd**](#Link1AD) |

element **FeatureType/periodicDateRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**periodicDateRangeType**](#Link5F) |
| children | [**dateStart**](#Link1AE)[**dateEnd**](#Link1AF) |

element **FeatureType/featureName**

|  |  |
| --- | --- |
| diagram |  |
| type | [**featureNameType**](#Link23) |
| children | [**displayName**](#Link1A9)[**language**](#Link1AA)[**name**](#Link1AB) |

element **FeatureType/sourceIndication**

|  |  |
| --- | --- |
| diagram |  |
| type | [**sourceIndicationType**](#Link99) |
| children | [**categoryOfAuthority**](#Link1B0)[**countryName**](#Link1B1)[**featureName**](#Link1B2)[**reportedDate**](#Link1B3)[**source**](#Link1B4)[**sourceType**](#Link1B5) |

element **FeatureType/textContent**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textContentType**](#Link9F) |
| children | [**categoryOfText**](#Link16F)[**information**](#Link170)[**onlineResource**](#Link171)[**sourceIndication**](#Link172) |

element **FeatureType/permission**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **FeatureType/providesInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **FeatureType/theRxN**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **FeatureType/positions**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | A pointer to a specific cartographically positioned location for text. | |

complexType **fixedDateRangeType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**dateStart**](#Link1AC)[**dateEnd**](#Link1AD) |
| annotation | |  | | --- | | documentation | | Describes a single fixed period, as the date range between its sub-attributes. Remarks: Sub-attributes date end and date start must have the calendar year encoded using 4 digits for the calendar year (CCYY). Month (MM) and day (DD) are optional. (This definition merges the planned S-100 temporal model with the current S-101 DCEG definition of fixed date range.) | |

element **fixedDateRangeType/dateStart**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The start date or time of the interval. | |

element **fixedDateRangeType/dateEnd**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The end date or time of the interval. | |

complexType **frequencyPairType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**frequencyShoreStationTransmits**](#Link190)[**frequencyShoreStationReceives**](#Link191)[**contactInstructions**](#Link192) |
| annotation | |  | | --- | | documentation | | A pair of frequencies for transmitting and receiving radio signals. The shore station transmits and receives on the frequencies indicated | |

element **frequencyPairType/frequencyShoreStationTransmits**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:positiveInteger** |
| annotation | |  | | --- | | documentation | | The shore station transmitter frequency expressed in kHz to one decimal place. Units: kHZ, Resolution: 0.1, Format: XXXXXX Examples: 4379.1 kHz becomes 043791; 13162.8 kHz becomes 131628 | |

element **frequencyPairType/frequencyShoreStationReceives**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:positiveInteger** |
| annotation | |  | | --- | | documentation | | The shore station receiver frequency expressed in kHz to one decimal place. Units: kHz, Resolution: 0.1, Format: XXXXXX Examples: 4379.1 kHz becomes 043791; 13162.8 kHz becomes 131628 | |

element **frequencyPairType/contactInstructions**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

complexType **graphicType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**pictorialRepresentation**](#Link173)[**pictureCaption**](#Link174)[**sourceDate**](#Link175)[**pictureInformation**](#Link176)[**bearingInformation**](#Link177) |

element **graphicType/pictorialRepresentation**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **graphicType/pictureCaption**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Short description of the purpose of the image. | |

element **graphicType/sourceDate**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:date** |

element **graphicType/pictureInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A set of information to provide credits to picture creator, copyright owner etc. | |

element **graphicType/bearingInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**bearingInformationType**](#LinkB) |
| children | [**cardinalDirection**](#Link184)[**distance**](#Link185)[**information**](#Link186)[**orientation**](#Link187)[**sectorBearing**](#Link188) |

complexType **horizontalPositionUncertaintyType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**uncertaintyFixed**](#Link1B6) |
| annotation | |  | | --- | | documentation | | The best estimate of the accuracy of a position. | | documentation | | The uncertaintyVariableFactor sub-attribute is not used in S-127 | |

element **horizontalPositionUncertaintyType/uncertaintyFixed**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal.1** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | The best estimate of the fixed horizontal or vertical accuracy component for positions, depths, heights, vertical distances and vertical clearances. | |

complexType **IMemberType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **gml:AbstractFeatureMemberType** |
| children | [**InformationType**](#Link1C) |
| annotation | |  | | --- | | documentation | | dataset member S-100 infotmation types | |

complexType **InclusionType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**membership**](#LinkE4)[**theApplicableRxN**](#LinkE5)[**isApplicableTo**](#LinkE6) |
| annotation | |  | | --- | | documentation | | Association class specifying the relationship between the subset of vessels described by an APPLIC data object and a regulation (restriction, recommendation, or nautical information). | |

element **InclusionType/membership**

|  |  |
| --- | --- |
| diagram |  |
| type | [**membershipType**](#Link6F) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | included | |  | | --- | | documentation | | Vessels with these characteristics are included in the regulation/restriction/recommendation/nautical information. | | | enumeration | excluded | |  | | --- | | documentation | | Vessels with these characteristics are excluded from the regulation/restriction/recommendation/nautical information. | | |
| annotation | |  | | --- | | documentation | | indicates whether a vessel is included or excluded from the regulation/restriction/recommendation/nautical information | |

element **InclusionType/theApplicableRxN**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **InclusionType/isApplicableTo**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **informationType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |
| annotation | |  | | --- | | documentation | | Textual information about the feature. The information may be provided as a string of text or as a file name of a single external text file that contains the text. | |

element **informationType/fileLocator**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The string encodes the location of a fragment of text or other information in a support file. | | documentation | | Remarks: - Application schemas must describe how the associated file is identified. The associated file will commonly be named in a file reference co-attribute of the same complex attribute.; - Each DCEG must specify requirements for the format of the associated file and the semantics of file locator. For example, the value of file locator may be an HTML ID in an HTML file, line number in a text file) or a bookmark in a PDF file. | |

element **informationType/fileReference**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The string encodes the file name of a single external text file that contains the text. | | documentation | | Remarks: The attribute file reference is generally used for long text strings or those that require formatting, however there is no restriction on the type of text (except for lexical level) that can be held in files referenced by sub-attribute file reference. | |

element **informationType/headline**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Words set at the head of a passage or page to introduce or categorize | |

element **informationType/language**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | ISO 639-3 value | |

element **informationType/text**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A non-formatted digital text string. | | documentation | | Remarks: The attribute should be used, for example, to hold the information that is shown on paper charts by short cautionary and explanatory notes. Therefore text populated in text must not exceed 300 characters. Text may be in English or in a national language defined by the attribute language. No formatting of text is possible within the sub-attribute text. If formatted text, or text strings exceeding 300 characters, is required, then the attribute file reference must be used. | |

complexType **InformationTypeType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **AbstractInformationType** |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC) |
| annotation | |  | | --- | | documentation | | Generalized information type which carry all the common attributes | |

element **InformationTypeType/fixedDateRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**fixedDateRangeType**](#Link29) |
| children | [**dateStart**](#Link1AC)[**dateEnd**](#Link1AD) |

element **InformationTypeType/periodicDateRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**periodicDateRangeType**](#Link5F) |
| children | [**dateStart**](#Link1AE)[**dateEnd**](#Link1AF) |

element **InformationTypeType/featureName**

|  |  |
| --- | --- |
| diagram |  |
| type | [**featureNameType**](#Link23) |
| children | [**displayName**](#Link1A9)[**language**](#Link1AA)[**name**](#Link1AB) |

element **InformationTypeType/sourceIndication**

|  |  |
| --- | --- |
| diagram |  |
| type | [**sourceIndicationType**](#Link99) |
| children | [**categoryOfAuthority**](#Link1B0)[**countryName**](#Link1B1)[**featureName**](#Link1B2)[**reportedDate**](#Link1B3)[**source**](#Link1B4)[**sourceType**](#Link1B5) |

element **InformationTypeType/providesInformation**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **IspsCodeSecurityLevelType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**OrganisationContactAreaType**](#Link59) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**ispsLevel**](#LinkE8)[**geometry**](#LinkE9) |
| annotation | |  | | --- | | documentation | | The area to which an International Ship and Port Facility Security (ISPS) level applies. The ISPS Code is a comprehensive set of measures to enhance the security of ships and port facilities, developed in response to the perceived threats to ships and port facilities in the wake of the 9/11 attacks in the United States. | |

element **IspsCodeSecurityLevelType/ispsLevel**

|  |  |
| --- | --- |
| diagram |  |
| type | [**ispsLevelType**](#Link66) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | ISPS Level 1 | |  | | --- | | documentation | | The level for which minimum appropriate protective security measures shall be maintained at all times. | | | enumeration | ISPS Level 2 | |  | | --- | | documentation | | The level for which appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a security incident. | | | enumeration | ISPS Level 3 | |  | | --- | | documentation | | The level for which further specific protective security measures shall be maintained for a limited period of time when a security incident is probable or imminent, although it may not be possible to identify the specific target. | | |

element **IspsCodeSecurityLevelType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **CurveOrSurface** |
| children | **curveProperty surfaceProperty** |

complexType **LocalPortServiceAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**serviceAccessProcedure**](#LinkEC)[**requirementsForMaintenanceOfListeningWatch**](#LinkED)[**consistsOf**](#LinkEE)[**geometry**](#LinkEF) |
| annotation | |  | | --- | | documentation | | A service established to provide port information without interaction between the customer and the service provider. This information could be inter alia berthing information, availability of port services, shipping schedules, meteorological and hydrological data. | |

element **LocalPortServiceAreaType/serviceAccessProcedure**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A description of the procedure to access the marine service. | |

element **LocalPortServiceAreaType/requirementsForMaintenanceOfListeningWatch**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Description of continuous listening watch requirements. | |

element **LocalPortServiceAreaType/consistsOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | A pointer to a part in a whole-part relationship | |

element **LocalPortServiceAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **MemberType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **gml:AbstractFeatureMemberType** |
| children | **gml:AbstractFeature** |
| annotation | |  | | --- | | documentation | | dataset member | |

complexType **MilitaryPracticeAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SupervisedAreaType**](#Link9C) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfMilitaryPracticeArea**](#LinkF0)[**nationality**](#LinkF1)[**restriction**](#LinkF2)[**status**](#LinkF3)[**theServiceHours**](#LinkF4)[**geometry**](#LinkF5) |
| annotation | |  | | --- | | documentation | | An area within which naval, military, or aerial exercises are carried out. Also called an exercise area. | |

element **MilitaryPracticeAreaType/categoryOfMilitaryPracticeArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfMilitaryPracticeAreaType**](#Link1E) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | torpedo exercise area | |  | | --- | | documentation | | An area within which exercises are carried out with torpedoes. | | | enumeration | submarine exercise area | |  | | --- | | documentation | | An area within which submarine exercises are carried out. | | | enumeration | firing danger area | |  | | --- | | documentation | | Areas for bombing and missile exercises. | | | enumeration | mine-laying practice area | |  | | --- | | documentation | | An area within which mine-laying exercises are carried out. | | | enumeration | small arms firing range | |  | | --- | | documentation | | An area for shooting pistols, rifles and machine guns, etc. at a target. | | |

element **MilitaryPracticeAreaType/nationality**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **MilitaryPracticeAreaType/restriction**

|  |  |
| --- | --- |
| diagram |  |
| type | [**restrictionType**](#Link82) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | anchoring prohibited | |  | | --- | | documentation | | An area within which anchoring is not permitted. | | | enumeration | anchoring restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. | | | enumeration | fishing prohibited | |  | | --- | | documentation | | An area within which fishing is not permitted. | | | enumeration | fishing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. | | | enumeration | trawling prohibited | |  | | --- | | documentation | | An area within which trawling is not permitted. | | | enumeration | trawling restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. | | | enumeration | entry prohibited | |  | | --- | | documentation | | An area within which navigation and/or anchoring is prohibited. | | | enumeration | entry restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. | | | enumeration | dredging prohibited | |  | | --- | | documentation | | An area within which dredging is not permitted. | | | enumeration | dredging restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. | | | enumeration | diving prohibited | |  | | --- | | documentation | | An area within which diving is not permitted. | | | enumeration | diving restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. | | | enumeration | no wake | |  | | --- | | documentation | | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. | | | enumeration | area to be avoided | |  | | --- | | documentation | | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. | | | enumeration | construction prohibited | |  | | --- | | documentation | | The erection of permanent or temporary fixed structures or artificial islands is prohibited. | | | enumeration | discharging prohibited | |  | | --- | | documentation | | An area in which discharging or dumping is prohibited. | | | enumeration | discharging restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions. | | | enumeration | industrial or mineral exploration/development prohibited | |  | | --- | | documentation | | An area in which industrial or mineral exploration and development are prohibited. | | | enumeration | industrial or mineral exploration/development restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. | | | enumeration | drilling prohibited | |  | | --- | | documentation | | An area in which excavating a hole on the seabed with a drill is prohibited. | | | enumeration | drilling restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions. | | | enumeration | removal of historical artifacts prohibited | |  | | --- | | documentation | | An area in which the removal of historical artifacts is prohibited. | | | enumeration | cargo transhipment (lightering) prohibited | |  | | --- | | documentation | | An area in which cargo transhipment (lightering) is prohibited. | | | enumeration | dragging prohibited | |  | | --- | | documentation | | An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited. | | | enumeration | stopping prohibited | |  | | --- | | documentation | | An area in which a vessel is prohibited from stopping. | | | enumeration | landing prohibited | |  | | --- | | documentation | | An area in which landing is prohibited. | | | enumeration | speed restricted | |  | | --- | | documentation | | An area in which speed is restricted. | | | enumeration | overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking is generally prohibited | | | enumeration | overtaking of convoys by convoys prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking between convoys prohibited | | | enumeration | passing or overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited | | | enumeration | berthing prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. | | | enumeration | berthing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which berthing is restricted | | | enumeration | making fast prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. | | | enumeration | making fast restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which making fast to the bank is restricted | | | enumeration | turning prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which all turning is generally prohibited | | | enumeration | restricted fairway depth | |  | | --- | | documentation | | an area within which the fairway depth is restricted. | | | enumeration | restricted fairway width | |  | | --- | | documentation | | an area within which the fairway width is restricted. | | | enumeration | use of spuds prohibited | |  | | --- | | documentation | | The use of anchoring spuds (telescopic piles) is prohibited | | | enumeration | swimming prohibited | |  | | --- | | documentation | | An area in which swimming is prohibited. | | |

element **MilitaryPracticeAreaType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **MilitaryPracticeAreaType/theServiceHours**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | Service hours for an authority or service provider | |

element **MilitaryPracticeAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **NauticalInformationType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**AbstractRxNType**](#Link2) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB)[**informationProvidedFor**](#LinkFC) |
| annotation | |  | | --- | | documentation | | Nautical information about a related area or facility.  Constraint: If Regulations.textContent is populated, there cannot be textualDescription or information attributes directly bound to the Regulations.. A similar constraint applies to the information types Recommendations, Restrictions, and NauticalInformation. | |

element **NauticalInformationType/informationProvidedFor**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | This tag is overloaded, but the relationship cannot be to a feature type because info->feature links are not allowed by the 3.0.0 feature catalogue | |

complexType **NonStandardWorkingDayType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**dateFixed**](#LinkFD)[**dateVariable**](#LinkFE)[**information**](#LinkFF)[**theServiceHours\_nsdy**](#Link100) |
| annotation | |  | | --- | | documentation | | Days when many services are not available. Often days of festivity or recreation when normal working hours are limited, esp. a national or religious festival, etc. | |

element **NonStandardWorkingDayType/dateFixed**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The date when a festival or national holiday recurs on the same day each year in the Gregorian calendar. | |

element **NonStandardWorkingDayType/dateVariable**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A day which is not fixed in the Gregorian calendar. | | documentation | | Examples: The fourth Thursday in November; new moon day of Kartika (Diwali); Easter Sunday. | |

element **NonStandardWorkingDayType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **NonStandardWorkingDayType/theServiceHours\_nsdy**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | optional | |

complexType **noticeTimeType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**noticeTimeHours**](#Link1B7)[**noticeTimeText**](#Link1B8)[**operation**](#Link1B9) |

element **noticeTimeType/noticeTimeHours**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:decimal** |
| annotation | |  | | --- | | documentation | | The time duration prior to the time the service is needed, when notice must be provided to the service provider. | |

element **noticeTimeType/noticeTimeText**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Text string qualifying the notice time specified in NTCHRS. This may explain the time specification in NTCHRS (e.g., “3 working days” for a NTCHRS value of “72” where NTCTIM is supposed to be "3 working days") or consist of other language qualifying the time, e.g., “On departure from last port” or “On passing reporting line XY”). | |

element **noticeTimeType/operation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**operationType**](#Link78) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | largest value | |  | | --- | | documentation | | The numerically largest value computed from the applicable attributes or sub-attributes | | | enumeration | smallest value | |  | | --- | | documentation | | The numerically smallest value computed from the applicable attributes or sub-attributes | | |

complexType **onlineResourceType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**linkage**](#Link193)[**protocol**](#Link194)[**applicationProfile**](#Link195)[**nameOfResource**](#Link196)[**onlineResourceDescription**](#Link197)[**onlineFunction**](#Link198)[**protocolRequest**](#Link199) |
| annotation | |  | | --- | | documentation | | Information about online sources from which a resource or data can be obtained (ISO 19115, adapted). | |

element **onlineResourceType/linkage**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:anyURI** |
| annotation | |  | | --- | | documentation | | location (address) for on-line access using a URL/URI address or similar addressing scheme. (Adapted from ISO 19115:2014.) | |

element **onlineResourceType/protocol**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | connection protocol to be used. Example: ftp, http get KVP, http POST, etc. (ISO 19115) | |

element **onlineResourceType/applicationProfile**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | name of an application profile that can be used with the online resource (ISO 19115) | |

element **onlineResourceType/nameOfResource**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | name of the online resource (ISO 19115, adapted) | |

element **onlineResourceType/onlineResourceDescription**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | detailed text description of what the online resource is/does (ISO 19115) | |

element **onlineResourceType/onlineFunction**

|  |  |
| --- | --- |
| diagram |  |
| type | [**onlineFunctionType**](#Link75) |
| annotation | |  | | --- | | documentation | | code for function performed by the online resource (ISO 19115) | |

element **onlineResourceType/protocolRequest**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Request used to access the resource. Structure and content depend on the protocol and standard used by the online resource, such as Web Feature Service standard. (ISO 19115, adapted) | |

complexType **OrganisationContactAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7) |
| annotation | |  | | --- | | documentation | | A feature often associated with contact information for an organization that exercises a management role or offers a service in the location.  Remark: It is not a requirement that every instance of the feature be associated with a management, reporting, or service organization. | |

element **OrganisationContactAreaType/theContactDetails**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | A pointer to a Contact Details object | |

complexType **orientationType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**orientationUncertainty**](#Link189)[**orientationValue**](#Link18A) |

element **orientationType/orientationUncertainty**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:decimal** |

element **orientationType/orientationValue**

|  |  |
| --- | --- |
| diagram |  |
| type | **Decimal0.0To360.0** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | maxInclusive | 360.0 |  | | fractionDigits | 1 |  | |

complexType **periodicDateRangeType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**dateStart**](#Link1AE)[**dateEnd**](#Link1AF) |
| annotation | |  | | --- | | documentation | | This complex attribute describes the active period for a seasonal feature or information type. | |

element **periodicDateRangeType/dateStart**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The start date or time of the interval. | |

element **periodicDateRangeType/dateEnd**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The end date or time of the interval. | |

complexType **PermissionType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfRelationship**](#Link101)[**permission**](#Link102) |
| annotation | |  | | --- | | documentation | | Association class for associations describing whether the subsets of vessels determined by the ship characteristics specified in APPLIC may (or must, etc.) transit, enter, or use a feature. | |

element **PermissionType/categoryOfRelationship**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRelationshipType**](#Link30) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | prohibited | |  | | --- | | documentation | | use of facility, waterway or service is forbidden | | | enumeration | not recommended | |  | | --- | | documentation | | use of facility, waterway or service is not recommended | | | enumeration | permitted | |  | | --- | | documentation | | use of facility, waterway, or service is permitted but not required | | | enumeration | recommended | |  | | --- | | documentation | | use of facility, waterway, or service is recommended | | | enumeration | required | |  | | --- | | documentation | | use of facility, waterway, or service is required | | | enumeration | not required | |  | | --- | | documentation | | use of facility, waterway, or service is not required | | |
| annotation | |  | | --- | | documentation | | This attribute expresses the level of insistence for or against an action or activity by a vessel of the subset described by the APPLIC object at one end in relation to the feature at the other end of the association. | |

element **PermissionType/permission**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | Reference Applicability | |

complexType **PilotageDistrictType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**communicationChannel**](#Link103)[**consistsOf**](#Link104)[**serviceProvider**](#Link105)[**geometry**](#Link106) |
| annotation | |  | | --- | | documentation | | An area within which a pilotage direction exists. Such directions are regulated by a competent harbour authority which dictates circumstances under which they apply. | |

element **PilotageDistrictType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **PilotageDistrictType/consistsOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **PilotageDistrictType/serviceProvider**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **PilotageDistrictType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **PilotBoardingPlaceType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**OrganisationContactAreaType**](#Link59) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**callSign**](#Link107)[**categoryOfPilotBoardingPlace**](#Link108)[**categoryOfPreference**](#Link109)[**categoryOfVessel**](#Link10A)[**communicationChannel**](#Link10B)[**destination**](#Link10C)[**pilotMovement**](#Link10D)[**pilotVessel**](#Link10E)[**status**](#Link10F)[**componentOf**](#Link110)[**serviceProvider**](#Link111)[**geometry**](#Link112) |
| annotation | |  | | --- | | documentation | | A location offshore where a pilot may board a vessel in preparation to piloting it through local waters. | |

element **PilotBoardingPlaceType/callSign**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The designated call-sign of a radio station. | |

element **PilotBoardingPlaceType/categoryOfPilotBoardingPlace**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfPilotBoardingPlaceType**](#Link24) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | boarding by pilot-cruising vessel | |  | | --- | | documentation | | Pilot boards from a cruising vessel. | | | enumeration | boarding by helicopter | |  | | --- | | documentation | | Pilot boards by helicopter which comes out from the shore. | | | enumeration | pilot comes out from shore | |  | | --- | | documentation | | Pilot boards from a vessel which comes out from the shore on request. | | |

element **PilotBoardingPlaceType/categoryOfPreference**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfPreferenceType**](#Link2A) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | primary | |  | | --- | | documentation | | The preferred and published pilot boarding place which is used in normal weather conditions. | | | enumeration | alternate | |  | | --- | | documentation | | The pilot boarding place which is used if the primary boarding place is unsuitable, for example because of weather or sea state. | | |

element **PilotBoardingPlaceType/categoryOfVessel**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfVesselType**](#Link57) |

element **PilotBoardingPlaceType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **PilotBoardingPlaceType/destination**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The place or general direction to which a vessel is going or directed.  Remarks: In addition to a placename of a port, harbour area or terminal, the place could include generalities such as “The north-west”, or “upriver”. | |

element **PilotBoardingPlaceType/pilotMovement**

|  |  |
| --- | --- |
| diagram |  |
| type | [**pilotMovementType**](#Link7B) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | embarkation | |  | | --- | | documentation | | The place where vessels not being navigated according to a pilot’s instructions pick up a pilot while in transit from sea to a port or constricted waters for future navigation under pilot instructions. | | | enumeration | disembarkation | |  | | --- | | documentation | | The place where vessels being navigated under a pilot’s instructions in transit from sea to a port or constricted waters drop the pilot and proceed without being subject to pilot instructions. | | | enumeration | pilot change | |  | | --- | | documentation | | The place where vessels being navigated under a pilot’s instructions drop off the pilot and pick up a different pilot for future navigation under pilot’s instructions. | | |

element **PilotBoardingPlaceType/pilotVessel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Description of the pilot vessel. The pilot vessel is a small vessel used by a pilot to go to or from a vessel employing the pilot's services. | |

element **PilotBoardingPlaceType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **PilotBoardingPlaceType/componentOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **PilotBoardingPlaceType/serviceProvider**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **PilotBoardingPlaceType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **PilotServiceType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**categoryOfPilot**](#Link113)[**pilotQualification**](#Link114)[**pilotRequest**](#Link115)[**remotePilot**](#Link116)[**noticeTime**](#Link117)[**serviceArea**](#Link118)[**theServiceHours**](#Link119)[**geometry**](#Link11A) |
| annotation | |  | | --- | | documentation | | The service provided by a person who directs the movements of a vessel through pilot waters, usually a person who has demonstrated extensive knowledge of channels, aids to navigation, dangers to navigation, etc., in a particular area and is licensed for that area. | |

element **PilotServiceType/categoryOfPilot**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfPilotType**](#Link27) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | pilot | |  | | --- | | documentation | | Pilot licenced to conduct vessels during approach from sea to a specified place which may be a handover place, an anchorage or alongside. | | | enumeration | deep sea | |  | | --- | | documentation | | Pilot licenced to conduct vessels over extensive sea areas. | | | enumeration | harbour | |  | | --- | | documentation | | Pilot who is licenced to conduct vessels from a specified place, such as a handover area or anchorage into a harbour. | | | enumeration | bar | |  | | --- | | documentation | | Pilot licensed to conduct vessels over a bar to or from a handover with a river pilot (for example as used in USA). | | | enumeration | river | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places, along the course of a river (for example as used in Rio Amazonas and Rio de La Plata). | | | enumeration | channel | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places, along the course of a channel. (for example as used in Rio Amazonas and Rio de La Plata). | | | enumeration | lake | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places on a great lake. (for example as used in the Lago de Maracaibo in Venezuela. | | |

element **PilotServiceType/pilotQualification**

|  |  |
| --- | --- |
| diagram |  |
| type | [**pilotQualificationType**](#Link7E) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | government pilot | |  | | --- | | documentation | | A pilot service carried out by government pilots. | | | enumeration | pilot approved by government | |  | | --- | | documentation | | A pilot service carried out by pilots who are approved by government. | | | enumeration | state pilot | |  | | --- | | documentation | | A pilot that is licensed by the State (USA) and/or their respective pilot association, required for all foreign vessels and all American vessels under registry, bound for a port with compulsory State pilotage. A federal licence is not sufficient to pilot such vessels into the port. | | | enumeration | federal pilot | |  | | --- | | documentation | | A pilot who carries a Federal endorsement, offering services to vessels that are not required to obtain compulsory State pilotage. Services are usually contracted for in advance. | | | enumeration | company pilot | |  | | --- | | documentation | | A pilot provided by a commercial company. | | | enumeration | local pilot | |  | | --- | | documentation | | A pilot with local knowledge but who does not hold a qualification as a pilot. | | | enumeration | citizen with sufficient local knowledge | |  | | --- | | documentation | | A pilot service carried out by a citizen with sufficient local knowledge. | | | enumeration | citizen with doubtful local knowledge | |  | | --- | | documentation | | A pilot service carried out by a citizen whose local knowledge is uncertain. | | |

element **PilotServiceType/pilotRequest**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Description of the pilot request procedure. | |

element **PilotServiceType/remotePilot**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:boolean** |
| annotation | |  | | --- | | documentation | | Definition: Whether remote pilot services are available.  True: remote pilot is available: Pilotage is available remotely from shore or other location remote from the vessel requiring pilotage.  False: remote pilot is not available: Remote pilotage is not available. | |

element **PilotServiceType/noticeTime**

|  |  |
| --- | --- |
| diagram |  |
| type | [**noticeTimeType**](#Link53) |
| children | [**noticeTimeHours**](#Link1B7)[**noticeTimeText**](#Link1B8)[**operation**](#Link1B9) |

element **PilotServiceType/serviceArea**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | The area served by a service provider. | | documentation | | This represents both the association to PilotageDistrict and the association to PilotBoardingPlace, so it has to be unbounded. | |

element **PilotServiceType/theServiceHours**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | Service hours for an authority or service provider | |

element **PilotServiceType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **PiracyRiskAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**restriction**](#Link11B)[**statusType**](#Link11C)[**geometry**](#Link11D) |
| annotation | |  | | --- | | documentation | | An area where there is a raised risk of piracy or armed robbery. | |

element **PiracyRiskAreaType/restriction**

|  |  |
| --- | --- |
| diagram |  |
| type | [**restrictionType**](#Link82) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | anchoring prohibited | |  | | --- | | documentation | | An area within which anchoring is not permitted. | | | enumeration | anchoring restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. | | | enumeration | fishing prohibited | |  | | --- | | documentation | | An area within which fishing is not permitted. | | | enumeration | fishing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. | | | enumeration | trawling prohibited | |  | | --- | | documentation | | An area within which trawling is not permitted. | | | enumeration | trawling restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. | | | enumeration | entry prohibited | |  | | --- | | documentation | | An area within which navigation and/or anchoring is prohibited. | | | enumeration | entry restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. | | | enumeration | dredging prohibited | |  | | --- | | documentation | | An area within which dredging is not permitted. | | | enumeration | dredging restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. | | | enumeration | diving prohibited | |  | | --- | | documentation | | An area within which diving is not permitted. | | | enumeration | diving restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. | | | enumeration | no wake | |  | | --- | | documentation | | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. | | | enumeration | area to be avoided | |  | | --- | | documentation | | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. | | | enumeration | construction prohibited | |  | | --- | | documentation | | The erection of permanent or temporary fixed structures or artificial islands is prohibited. | | | enumeration | discharging prohibited | |  | | --- | | documentation | | An area in which discharging or dumping is prohibited. | | | enumeration | discharging restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions. | | | enumeration | industrial or mineral exploration/development prohibited | |  | | --- | | documentation | | An area in which industrial or mineral exploration and development are prohibited. | | | enumeration | industrial or mineral exploration/development restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. | | | enumeration | drilling prohibited | |  | | --- | | documentation | | An area in which excavating a hole on the seabed with a drill is prohibited. | | | enumeration | drilling restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions. | | | enumeration | removal of historical artifacts prohibited | |  | | --- | | documentation | | An area in which the removal of historical artifacts is prohibited. | | | enumeration | cargo transhipment (lightering) prohibited | |  | | --- | | documentation | | An area in which cargo transhipment (lightering) is prohibited. | | | enumeration | dragging prohibited | |  | | --- | | documentation | | An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited. | | | enumeration | stopping prohibited | |  | | --- | | documentation | | An area in which a vessel is prohibited from stopping. | | | enumeration | landing prohibited | |  | | --- | | documentation | | An area in which landing is prohibited. | | | enumeration | speed restricted | |  | | --- | | documentation | | An area in which speed is restricted. | | | enumeration | overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking is generally prohibited | | | enumeration | overtaking of convoys by convoys prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking between convoys prohibited | | | enumeration | passing or overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited | | | enumeration | berthing prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. | | | enumeration | berthing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which berthing is restricted | | | enumeration | making fast prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. | | | enumeration | making fast restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which making fast to the bank is restricted | | | enumeration | turning prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which all turning is generally prohibited | | | enumeration | restricted fairway depth | |  | | --- | | documentation | | an area within which the fairway depth is restricted. | | | enumeration | restricted fairway width | |  | | --- | | documentation | | an area within which the fairway width is restricted. | | | enumeration | use of spuds prohibited | |  | | --- | | documentation | | The use of anchoring spuds (telescopic piles) is prohibited | | | enumeration | swimming prohibited | |  | | --- | | documentation | | An area in which swimming is prohibited. | | |

element **PiracyRiskAreaType/statusType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **PiracyRiskAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **PlaceOfRefugeType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**status**](#Link11E)[**communicationChannel**](#Link11F)[**geometry**](#Link120) |
| annotation | |  | | --- | | documentation | | A place where a ship in need of assistance can take action to enable it to stabilize its condition and reduce the hazards to navigation, and to protect human life and the environment.  (Reference: IMO Res. A.949(23)) | |

element **PlaceOfRefugeType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **PlaceOfRefugeType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **PlaceOfRefugeType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **QualityOfNonBathymetricDataType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**QualityOfTemporalVariationType**](#Link77) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**information**](#Link121)[**categoryOfTemporalVariation**](#Link122)[**horizontalDistanceUncertainty**](#Link123)[**horizontalPositionUncertainty**](#Link124)[**orientationUncertainty**](#Link125)[**sourceIndication**](#Link126)[**surveyDateRange**](#Link127)[**geometry**](#Link128) |
| annotation | |  | | --- | | documentation | | An area within which a uniform assessment of the quality of the non-bathymetric data exists. (Adapted from S-57 Edition 3.1, Appendix A – Chapter 1, Page 1.208, November 2000). | |

element **QualityOfNonBathymetricDataType/horizontalDistanceUncertainty**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | |
| annotation | |  | | --- | | documentation | | The best estimate of the horizontal accuracy of horizontal clearances and distances. | |

element **QualityOfNonBathymetricDataType/horizontalPositionUncertainty**

|  |  |
| --- | --- |
| diagram |  |
| type | [**horizontalPositionUncertaintyType**](#Link32) |
| children | [**uncertaintyFixed**](#Link1B6) |
| annotation | |  | | --- | | documentation | | The best estimate of the accuracy of a position. The expected input is the maximum of the two-dimensional error. The error is assumed to be positive and negative. The plus/minus character shall not be encoded. | |

element **QualityOfNonBathymetricDataType/orientationUncertainty**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | |
| annotation | |  | | --- | | documentation | | The best estimate of the accuracy of a bearing | |

element **QualityOfNonBathymetricDataType/sourceIndication**

|  |  |
| --- | --- |
| diagram |  |
| type | [**sourceIndicationType**](#Link99) |
| children | [**categoryOfAuthority**](#Link1B0)[**countryName**](#Link1B1)[**featureName**](#Link1B2)[**reportedDate**](#Link1B3)[**source**](#Link1B4)[**sourceType**](#Link1B5) |

element **QualityOfNonBathymetricDataType/surveyDateRange**

|  |  |
| --- | --- |
| diagram |  |
| type | [**surveyDateRangeType**](#Link9D) |
| children | [**dateStart**](#Link1BA)[**dateEnd**](#Link1BB) |

element **QualityOfNonBathymetricDataType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **SurfacePropertyType** |
| children | **surfaceProperty** |

complexType **QualityOfTemporalVariationType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**DataQualityType**](#Link1D) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**information**](#Link121)[**categoryOfTemporalVariation**](#Link122) |
| annotation | |  | | --- | | documentation | | Abstract type for meta-feature which can describe temporal variation. | |

element **QualityOfTemporalVariationType/categoryOfTemporalVariation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfTemporalVariationType**](#Link48) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Extreme Event | |  | | --- | | documentation | | Indication of the possible impact of a significant event (for example hurricane, earthquake, volcanic eruption, landslide, etc), which is considered likely to have changed the seafloor or landscape significantly. | | | enumeration | Likely to Change | |  | | --- | | documentation | | Continuous or frequent change to non-bathymetric features (for example river siltation, glacier creep/recession, sand dunes, buoys, marine farms, etc.). | | | enumeration | Unlikely to Change | |  | | --- | | documentation | | Significant change to the seafloor is not expected. | | |

complexType **RadarRangeType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**communicationChannel**](#Link129)[**status**](#Link12A)[**geometry**](#Link12B) |
| annotation | |  | | --- | | documentation | | Indicates the coverage of a sea area by a radar surveillance station. Inside this area a vessel may request shore-based radar assistance, particularly in poor visibility. | |

element **RadarRangeType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **RadarRangeType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **RadarRangeType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **RadioCallingInPointType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**callSign**](#Link12C)[**categoryOfCargo**](#Link12D)[**categoryOfVessel**](#Link12E)[**communicationChannel**](#Link12F)[**status**](#Link130)[**trafficFlow**](#Link131)[**orientationValue**](#Link132)[**componentOf**](#Link133)[**geometry**](#Link134) |
| annotation | |  | | --- | | documentation | | A designated position at which vessels are required to report to a Traffic Control Centre. Also called reporting point or radio reporting point.  S-127 Remarks: category of cargo and vessel attributes added as on NIPWG Wiki. | |

element **RadioCallingInPointType/callSign**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The designated call-sign of a radio station. | |

element **RadioCallingInPointType/categoryOfCargo**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfCargoType**](#LinkC) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | bulk | |  | | --- | | documentation | | Normally dry cargo which is transported to and from the vessel on conveyors or grabs | | | enumeration | container | |  | | --- | | documentation | | One of a number of standard sized cargo carrying units, secured using standard corner attachments and bars | | | enumeration | general | |  | | --- | | documentation | | Break bulk cargo normally loaded by crane | | | enumeration | liquid | |  | | --- | | documentation | | Any cargo loaded by pipeline | | | enumeration | passenger | |  | | --- | | documentation | | A fee paying traveller | | | enumeration | livestock | |  | | --- | | documentation | | Live animals carried in bulk | | | enumeration | dangerous or hazardous | |  | | --- | | documentation | | Dangerous or hazardous cargo as described by the IMO International Maritime Dangerous Goods code | | | enumeration | heavy lift |  | | enumeration | ballast |  | |

element **RadioCallingInPointType/categoryOfVessel**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfVesselType**](#Link57) |

element **RadioCallingInPointType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **RadioCallingInPointType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **RadioCallingInPointType/trafficFlow**

|  |  |
| --- | --- |
| diagram |  |
| type | [**trafficFlowType**](#Link8E) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | inbound | |  | | --- | | documentation | | Traffic flow in a general direction toward a port or similar destination. | | | enumeration | outbound | |  | | --- | | documentation | | Traffic flow in a general direction away from a port or similar point of origin. | | | enumeration | one-way | |  | | --- | | documentation | | Traffic flow in one general direction only. | | | enumeration | two-way | |  | | --- | | documentation | | Traffic flow in two generally opposite directions. | | |

element **RadioCallingInPointType/orientationValue**

|  |  |
| --- | --- |
| diagram |  |
| type | **Decimal0.0To360.0** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | maxInclusive | 360.0 |  | | fractionDigits | 1 |  | |

element **RadioCallingInPointType/componentOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | NIPWG did not discuss whether the same calling-in point feature could be associated to separate Ship reporting, Traffic control service, and LPS Area features. Tentatively, encode coincident calling point features for each. | |

element **RadioCallingInPointType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrCurve** |
| children | **curveProperty pointProperty** |

complexType **radiocommunicationsType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfCommPref**](#Link1A0)[**categoryOfMaritimeBroadcast**](#Link1A1)[**categoryOfRadioMethods**](#Link1A2)[**communicationChannel**](#Link1A3)[**contactInstructions**](#Link1A4)[**frequencyPair**](#Link1A5)[**signalFrequency**](#Link1A6)[**transmissionContent**](#Link1A7)[**timeIntervalsByDayOfWeek**](#Link1A8) |
| annotation | |  | | --- | | documentation | | Detailed radiocommunications description with channels, frequencies, preferences and time schedules | |

element **radiocommunicationsType/categoryOfCommPref**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfCommPrefType**](#LinkF) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | preferred calling | |  | | --- | | documentation | | the first choice channel or frequency to be used when calling a radio station | | | enumeration | alternate calling | |  | | --- | | documentation | | a channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference | | | enumeration | preferred working | |  | | --- | | documentation | | the first choice channel or frequency to be used when working with a radio station | | | enumeration | alternate working | |  | | --- | | documentation | | a channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference | | |

element **radiocommunicationsType/categoryOfMaritimeBroadcast**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfMaritimeBroadcastType**](#Link1B) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | navigational warning | |  | | --- | | documentation | | message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended | | | enumeration | meteorological warning | |  | | --- | | documentation | | warning of adverse weather conditions | | | enumeration | ice report | |  | | --- | | documentation | | report of the ice situation and restrictions to shipping | | | enumeration | SAR information | |  | | --- | | documentation | | broadcast message with information about an ongoing SAR operation | | | enumeration | pirate attack warning | |  | | --- | | documentation | | warning of possible attack by pirates | | | enumeration | meteorological forecast | |  | | --- | | documentation | | broadcast message containing meteorological forecast | | | enumeration | pilot service message | |  | | --- | | documentation | | broadcast message about pilot service | | | enumeration | AIS information | |  | | --- | | documentation | | broadcast message about AIS information | | | enumeration | LORAN message | |  | | --- | | documentation | | broadcast message about the LORAN service | | | enumeration | SATNAV message | |  | | --- | | documentation | | broadcast message about Satellite Navigation service | | | enumeration | gale warning | |  | | --- | | documentation | | warning of winds of Beaufort force 8 or 9 | | | enumeration | storm warning | |  | | --- | | documentation | | warning of winds of Beaufort force 10 or over | | | enumeration | tropical revolving storm warning | |  | | --- | | documentation | | warning of hurricanes in the North Atlantic and eastern North Pacific, typhoons in the Western Pacific, cyclones in the Indian Ocean and cyclones of similar nature in other regions | | | enumeration | NAVAREA warning | |  | | --- | | documentation | | navigational warning or in-force bulletin promulgated as part of a numbered series by a NAVAREA coordinator (Maritime Safety Information Manual 2009) | | | enumeration | coastal warning | |  | | --- | | documentation | | navigational warning promulgated as part of a numbered series by a National coordinator (Maritime Safety Information Manual 2009) | | | enumeration | local warning | |  | | --- | | documentation | | warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority (Maritime Safety Information Manual 2009) | | | enumeration | low water level warning/negative tidal surge | |  | | --- | | documentation | | warning of actual or expected low water level | | | enumeration | icing warning | |  | | --- | | documentation | | warning of accretion of ice on ships | | | enumeration | tsunami broadcast | |  | | --- | | documentation | | broadcasts about tsunamis, including watches, advisories, and other types of messages relating to tsunamis or potential tsunamis | | |

element **radiocommunicationsType/categoryOfRadioMethods**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRadioMethodsType**](#Link2D) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Low Frequency (LF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for voice traffic | | | enumeration | Medium Frequency (MF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3 000kHz used for voice traffic | | | enumeration | High Frequency (HF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for voice traffic | | | enumeration | Very High Frequency (VHF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for voice traffic | | | enumeration | High Frequency Narrow Band Direct Printing | |  | | --- | | documentation | | High Frequency Narrow Band Direct Printing | | | enumeration | NAVTEX | |  | | --- | | documentation | | Narrow-band direct-printing telegraphy system for transmission of maritime safety information. | | | enumeration | SafetyNET | |  | | --- | | documentation | | SafetyNET is an international automatic direct-printing satellite-based service for the promulgation of navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages - maritime safety information (MSI) - to ships. | | | enumeration | NBDP Telegraphy (Narrow Band Direct Printing Telegraphy) | |  | | --- | | documentation | | Narrow Band Direct Printing Telegraphy. A communications system consisting of teletypewriters connected to a telephonic network to send and receive wireless signals. | | | enumeration | facsimile | |  | | --- | | documentation | | A method or device for transmitting documents, drawings, photographs, or the like, by means of radio or telephone for exact reproduction elsewhere. | | | enumeration | NAVIP | |  | | --- | | documentation | | A Russian system transmitting navigational information, send by radio and containing information relevant to coastal waters of foreign countries and high seas. | | | enumeration | Low Frequency (LF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for digital traffic | | | enumeration | Medium Frequency (MF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3000kHz used for digital traffic | | | enumeration | High Frequency (HF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for digital traffic | | | enumeration | Very High Frequency (VHF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for digital traffic | | | enumeration | Low Frequency (LF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for telegraph traffic | | | enumeration | Medium Frequency (MF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3 000kHz used for telegraph traffic | | | enumeration | High Frequency (HF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for telegraph traffic | | | enumeration | Medium Frequency (MF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3000kHz used for Digital Selective Call traffic | | | enumeration | High Frequency (HF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for Digital Selective Call traffic | | | enumeration | Very High Frequency (VHF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for Digital Selective Call traffic | | |

element **radiocommunicationsType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **radiocommunicationsType/contactInstructions**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | supplemental instructions on how or when to contact the individual, organisation, or service | |

element **radiocommunicationsType/frequencyPair**

|  |  |
| --- | --- |
| diagram |  |
| type | [**frequencyPairType**](#Link2C) |
| children | [**frequencyShoreStationTransmits**](#Link190)[**frequencyShoreStationReceives**](#Link191)[**contactInstructions**](#Link192) |

element **radiocommunicationsType/signalFrequency**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:integer** |

element **radiocommunicationsType/transmissionContent**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Content of transmission.  Remarks: Not to be used if CATMAB is populated | |

element **radiocommunicationsType/timeIntervalsByDayOfWeek**

|  |  |
| --- | --- |
| diagram |  |
| type | [**timeIntervalsByDayOfWeekType**](#LinkA1) |
| children | [**dayOfWeek**](#Link1BC)[**dayOfWeekIsRange**](#Link1BD)[**timeOfDayStart**](#Link1BE)[**timeOfDayEnd**](#Link1BF) |

complexType **RecommendationsType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**AbstractRxNType**](#Link2) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |
| annotation | |  | | --- | | documentation | | Recommendations for a related area or facility.  Constraint: If Regulations.textContent is populated, there cannot be textualDescription or information attributes directly bound to the Regulations.. A similar constraint applies to the information types Recommendations, Restrictions, and NauticalInformation. | |

complexType **RegulationsType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**AbstractRxNType**](#Link2) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |
| annotation | |  | | --- | | documentation | | Regulations for a related area or facility. Constraint: If Regulations.textContent is populated, there cannot be textualDescription or information attributes directly bound to the Regulations.. A similar constraint applies to the information types Recommendations, Restrictions, and NauticalInformation. | |

complexType **ReportableServiceAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SupervisedAreaType**](#Link9C) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB) |
| annotation | |  | | --- | | documentation | | A service area that generally has requirements for submission of information, including communications not strictly considered "reporting." | |

element **ReportableServiceAreaType/reptForTrafficServ**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **RestrictedAreaNavigationalType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SupervisedAreaType**](#Link9C) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfRestrictedArea**](#Link135)[**restriction**](#Link136)[**status**](#Link137)[**geometry**](#Link138) |
| annotation | |  | | --- | | documentation | | A specified area of land or water designated by an appropriate authority within which access or navigation is restricted in accordance with certain specified conditions.  A navigational restricted area is an area where the restrictions have a direct impact on the navigation of a vessel in the area. | |

element **RestrictedAreaNavigationalType/categoryOfRestrictedArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRestrictedAreaType**](#Link33) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | nature reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve it's flora, fauna, physical features, etc. | | | enumeration | bird sanctuary | |  | | --- | | documentation | | A place where birds are bred and protected. | | | enumeration | game reserve | |  | | --- | | documentation | | A place where wild animals or birds hunted for sport or food are kept undisturbed for private use. | | | enumeration | seal sanctuary | |  | | --- | | documentation | | A place where seals are protected. | | | enumeration | historic wreck area | |  | | --- | | documentation | | An area around certain wrecks of historical importance to protect the wrecks from unauthorized interference by diving, salvage or deposition (including anchoring). | | | enumeration | research area | |  | | --- | | documentation | | an area where marine research takes place. | | | enumeration | fish sanctuary | |  | | --- | | documentation | | A place where fish are protected. | | | enumeration | ecological reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve the relation of plants and living creatures to each other and to their surroundings. | | | enumeration | environmentally sensitive sea area | |  | | --- | | documentation | | A generic term which may be used to describe a wide range of areas, considered sensitive for a variety of environmental reasons. | | | enumeration | particularly sensitive sea area | |  | | --- | | documentation | | An area that needs special protection through action by IMO because of its significance for regional ecological, socio-economic or scientific reasons and because it may be vulnerable to damage by international shipping activities. | | | enumeration | coral sanctuary | |  | | --- | | documentation | | A place where coral is protected. (TSMAD 29) | | | enumeration | recreation area | |  | | --- | | documentation | | An area within which recreational activities regularly take place and therefore vessel movement may be restricted.  (Adapted from S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.76, November 2000). | | | enumeration | military area | |  | | --- | | documentation | | An area controlled by the military in which restrictions may apply. | | | enumeration | navigational aid safety zone | |  | | --- | | documentation | | An area around a navigational aid which vessels are prohibited from entering. | | | enumeration | minefield | |  | | --- | | documentation | | An area laid and maintained with explosive mines for defence or practice purposes. | | | enumeration | waiting area | |  | | --- | | documentation | | An area reserved for vessels waiting to enter a harbour. | | | enumeration | swinging area | |  | | --- | | documentation | | An area where vessels turn. | | | enumeration | disengagement area | |  | | --- | | documentation | | An area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when the nautical conditions impose it. | | | enumeration | port security area |  | | enumeration | offshore safety zone | |  | | --- | | documentation | | The area around an offshore installation within which vessels are prohibited from entering without permission. Special regulations protect installations within a safety zone and vessels of all nationalities are required to respect the zone. | | | enumeration | degaussing range | |  | | --- | | documentation | | an area, usually about two cables diameter, within which ships' magnetic fields may be measured sensing instruments and cables are installed on the sea bed in the range and there are cables leading from the range to a control position ashore. | | |

element **RestrictedAreaNavigationalType/restriction**

|  |  |
| --- | --- |
| diagram |  |
| type | [**restrictionType**](#Link82) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | anchoring prohibited | |  | | --- | | documentation | | An area within which anchoring is not permitted. | | | enumeration | anchoring restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. | | | enumeration | fishing prohibited | |  | | --- | | documentation | | An area within which fishing is not permitted. | | | enumeration | fishing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. | | | enumeration | trawling prohibited | |  | | --- | | documentation | | An area within which trawling is not permitted. | | | enumeration | trawling restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. | | | enumeration | entry prohibited | |  | | --- | | documentation | | An area within which navigation and/or anchoring is prohibited. | | | enumeration | entry restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. | | | enumeration | dredging prohibited | |  | | --- | | documentation | | An area within which dredging is not permitted. | | | enumeration | dredging restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. | | | enumeration | diving prohibited | |  | | --- | | documentation | | An area within which diving is not permitted. | | | enumeration | diving restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. | | | enumeration | no wake | |  | | --- | | documentation | | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. | | | enumeration | area to be avoided | |  | | --- | | documentation | | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. | | | enumeration | construction prohibited | |  | | --- | | documentation | | The erection of permanent or temporary fixed structures or artificial islands is prohibited. | | | enumeration | discharging prohibited | |  | | --- | | documentation | | An area in which discharging or dumping is prohibited. | | | enumeration | discharging restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions. | | | enumeration | industrial or mineral exploration/development prohibited | |  | | --- | | documentation | | An area in which industrial or mineral exploration and development are prohibited. | | | enumeration | industrial or mineral exploration/development restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. | | | enumeration | drilling prohibited | |  | | --- | | documentation | | An area in which excavating a hole on the seabed with a drill is prohibited. | | | enumeration | drilling restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions. | | | enumeration | removal of historical artifacts prohibited | |  | | --- | | documentation | | An area in which the removal of historical artifacts is prohibited. | | | enumeration | cargo transhipment (lightering) prohibited | |  | | --- | | documentation | | An area in which cargo transhipment (lightering) is prohibited. | | | enumeration | dragging prohibited | |  | | --- | | documentation | | An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited. | | | enumeration | stopping prohibited | |  | | --- | | documentation | | An area in which a vessel is prohibited from stopping. | | | enumeration | landing prohibited | |  | | --- | | documentation | | An area in which landing is prohibited. | | | enumeration | speed restricted | |  | | --- | | documentation | | An area in which speed is restricted. | | | enumeration | overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking is generally prohibited | | | enumeration | overtaking of convoys by convoys prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking between convoys prohibited | | | enumeration | passing or overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited | | | enumeration | berthing prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. | | | enumeration | berthing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which berthing is restricted | | | enumeration | making fast prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. | | | enumeration | making fast restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which making fast to the bank is restricted | | | enumeration | turning prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which all turning is generally prohibited | | | enumeration | restricted fairway depth | |  | | --- | | documentation | | an area within which the fairway depth is restricted. | | | enumeration | restricted fairway width | |  | | --- | | documentation | | an area within which the fairway width is restricted. | | | enumeration | use of spuds prohibited | |  | | --- | | documentation | | The use of anchoring spuds (telescopic piles) is prohibited | | | enumeration | swimming prohibited | |  | | --- | | documentation | | An area in which swimming is prohibited. | | |

element **RestrictedAreaNavigationalType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **RestrictedAreaNavigationalType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **RestrictedAreaRegulatoryType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SupervisedAreaType**](#Link9C) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**categoryOfRestrictedArea**](#Link139)[**restriction**](#Link13A)[**status**](#Link13B)[**geometry**](#Link13C) |
| annotation | |  | | --- | | documentation | | A specified area of land or water designated by an appropriate authority within which access or navigation is restricted in accordance with certain specified conditions.  A regulatory restricted area is an area where the restrictions have no direct impact on the navigation of a vessel in the area, but impact on the activities that can take place within the area. | |

element **RestrictedAreaRegulatoryType/categoryOfRestrictedArea**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRestrictedAreaType**](#Link33) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | nature reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve it's flora, fauna, physical features, etc. | | | enumeration | bird sanctuary | |  | | --- | | documentation | | A place where birds are bred and protected. | | | enumeration | game reserve | |  | | --- | | documentation | | A place where wild animals or birds hunted for sport or food are kept undisturbed for private use. | | | enumeration | seal sanctuary | |  | | --- | | documentation | | A place where seals are protected. | | | enumeration | historic wreck area | |  | | --- | | documentation | | An area around certain wrecks of historical importance to protect the wrecks from unauthorized interference by diving, salvage or deposition (including anchoring). | | | enumeration | research area | |  | | --- | | documentation | | an area where marine research takes place. | | | enumeration | fish sanctuary | |  | | --- | | documentation | | A place where fish are protected. | | | enumeration | ecological reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve the relation of plants and living creatures to each other and to their surroundings. | | | enumeration | environmentally sensitive sea area | |  | | --- | | documentation | | A generic term which may be used to describe a wide range of areas, considered sensitive for a variety of environmental reasons. | | | enumeration | particularly sensitive sea area | |  | | --- | | documentation | | An area that needs special protection through action by IMO because of its significance for regional ecological, socio-economic or scientific reasons and because it may be vulnerable to damage by international shipping activities. | | | enumeration | coral sanctuary | |  | | --- | | documentation | | A place where coral is protected. (TSMAD 29) | | | enumeration | recreation area | |  | | --- | | documentation | | An area within which recreational activities regularly take place and therefore vessel movement may be restricted.  (Adapted from S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.76, November 2000). | | | enumeration | military area | |  | | --- | | documentation | | An area controlled by the military in which restrictions may apply. | | | enumeration | navigational aid safety zone | |  | | --- | | documentation | | An area around a navigational aid which vessels are prohibited from entering. | | | enumeration | minefield | |  | | --- | | documentation | | An area laid and maintained with explosive mines for defence or practice purposes. | | | enumeration | waiting area | |  | | --- | | documentation | | An area reserved for vessels waiting to enter a harbour. | | | enumeration | swinging area | |  | | --- | | documentation | | An area where vessels turn. | | | enumeration | disengagement area | |  | | --- | | documentation | | An area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when the nautical conditions impose it. | | | enumeration | port security area |  | | enumeration | offshore safety zone | |  | | --- | | documentation | | The area around an offshore installation within which vessels are prohibited from entering without permission. Special regulations protect installations within a safety zone and vessels of all nationalities are required to respect the zone. | | | enumeration | degaussing range | |  | | --- | | documentation | | an area, usually about two cables diameter, within which ships' magnetic fields may be measured sensing instruments and cables are installed on the sea bed in the range and there are cables leading from the range to a control position ashore. | | |

element **RestrictedAreaRegulatoryType/restriction**

|  |  |
| --- | --- |
| diagram |  |
| type | [**restrictionType**](#Link82) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | anchoring prohibited | |  | | --- | | documentation | | An area within which anchoring is not permitted. | | | enumeration | anchoring restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. | | | enumeration | fishing prohibited | |  | | --- | | documentation | | An area within which fishing is not permitted. | | | enumeration | fishing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. | | | enumeration | trawling prohibited | |  | | --- | | documentation | | An area within which trawling is not permitted. | | | enumeration | trawling restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. | | | enumeration | entry prohibited | |  | | --- | | documentation | | An area within which navigation and/or anchoring is prohibited. | | | enumeration | entry restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. | | | enumeration | dredging prohibited | |  | | --- | | documentation | | An area within which dredging is not permitted. | | | enumeration | dredging restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. | | | enumeration | diving prohibited | |  | | --- | | documentation | | An area within which diving is not permitted. | | | enumeration | diving restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. | | | enumeration | no wake | |  | | --- | | documentation | | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. | | | enumeration | area to be avoided | |  | | --- | | documentation | | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. | | | enumeration | construction prohibited | |  | | --- | | documentation | | The erection of permanent or temporary fixed structures or artificial islands is prohibited. | | | enumeration | discharging prohibited | |  | | --- | | documentation | | An area in which discharging or dumping is prohibited. | | | enumeration | discharging restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions. | | | enumeration | industrial or mineral exploration/development prohibited | |  | | --- | | documentation | | An area in which industrial or mineral exploration and development are prohibited. | | | enumeration | industrial or mineral exploration/development restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. | | | enumeration | drilling prohibited | |  | | --- | | documentation | | An area in which excavating a hole on the seabed with a drill is prohibited. | | | enumeration | drilling restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions. | | | enumeration | removal of historical artifacts prohibited | |  | | --- | | documentation | | An area in which the removal of historical artifacts is prohibited. | | | enumeration | cargo transhipment (lightering) prohibited | |  | | --- | | documentation | | An area in which cargo transhipment (lightering) is prohibited. | | | enumeration | dragging prohibited | |  | | --- | | documentation | | An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited. | | | enumeration | stopping prohibited | |  | | --- | | documentation | | An area in which a vessel is prohibited from stopping. | | | enumeration | landing prohibited | |  | | --- | | documentation | | An area in which landing is prohibited. | | | enumeration | speed restricted | |  | | --- | | documentation | | An area in which speed is restricted. | | | enumeration | overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking is generally prohibited | | | enumeration | overtaking of convoys by convoys prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking between convoys prohibited | | | enumeration | passing or overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited | | | enumeration | berthing prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. | | | enumeration | berthing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which berthing is restricted | | | enumeration | making fast prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. | | | enumeration | making fast restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which making fast to the bank is restricted | | | enumeration | turning prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which all turning is generally prohibited | | | enumeration | restricted fairway depth | |  | | --- | | documentation | | an area within which the fairway depth is restricted. | | | enumeration | restricted fairway width | |  | | --- | | documentation | | an area within which the fairway width is restricted. | | | enumeration | use of spuds prohibited | |  | | --- | | documentation | | The use of anchoring spuds (telescopic piles) is prohibited | | | enumeration | swimming prohibited | |  | | --- | | documentation | | An area in which swimming is prohibited. | | |

element **RestrictedAreaRegulatoryType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **RestrictedAreaRegulatoryType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **RestrictionsType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**AbstractRxNType**](#Link2) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfAuthority**](#LinkF6)[**textContent**](#LinkF7)[**graphic**](#LinkF8)[**rxnCode**](#LinkF9)[**isApplicableTo**](#LinkFA)[**theOrganisation**](#LinkFB) |
| annotation | |  | | --- | | documentation | | Restrictions for a related area or facility.  Constraint: If Regulations.textContent is populated, there cannot be textualDescription or information attributes directly bound to the Regulations.. A similar constraint applies to the information types Recommendations, Restrictions, and NauticalInformation. | |

complexType **RouteingMeasureType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfRouteingMeasure**](#Link13D)[**categoryOfTrafficSeparationScheme**](#Link13E)[**categoryOfNavigationLine**](#Link13F)[**geometry**](#Link140) |
| annotation | |  | | --- | | documentation | | An area or line designating the limits or central line of a routeing measure (or part of a routeing measure). Routeing measures include traffic separation schemes, deep-water routes, two-way routes, archipelagic sea lanes, and fairway systems. | |

element **RouteingMeasureType/categoryOfRouteingMeasure**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRouteingMeasureType**](#Link36) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | archipelagic sea lane | |  | | --- | | documentation | | Sea lanes designated by an archipelagic State for the passage of ships and aircraft. | | | enumeration | deep water route | |  | | --- | | documentation | | A route within defined limits which has been accurately surveyed for clearance of sea bottom and submerged obstacles as indicated on the chart. | | | enumeration | fairway system | |  | | --- | | documentation | | That part of a river, harbour and so on, where the main navigable channel for vessels of larger size lies. It is also the usual course followed by vessels entering or leaving harbours, called “ship channel”. | | | enumeration | recommended route | |  | | --- | | documentation | | A navigation line, range system, or a recommended track, lane, or route. | | | enumeration | traffic separation scheme | |  | | --- | | documentation | | A scheme which aims to reduce the risk of collision in congested and/or converging areas by separating traffic moving in opposite, or nearly opposite, directions. | | | enumeration | two-way route | |  | | --- | | documentation | | A route within defined limits inside which two way traffic is established, aimed at providing safe passage of ships through waters where navigation is difficult or dangerous. | | |

element **RouteingMeasureType/categoryOfTrafficSeparationScheme**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfTrafficSeparationSchemeType**](#Link4E) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | IMO - adopted | |  | | --- | | documentation | | A defined Traffic Separation Scheme that has been adopted as an IMO routeing measure. | | | enumeration | not IMO - adopted | |  | | --- | | documentation | | A defined Traffic Separation Scheme that has not been adopted as an IMO routeing measure. | | |

element **RouteingMeasureType/categoryOfNavigationLine**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfNavigationLineType**](#Link21) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | clearing line | |  | | --- | | documentation | | A straight line that marks the boundary between a safe and a dangerous area or that passes clear of a navigational danger. | | | enumeration | transit line | |  | | --- | | documentation | | A line passing through one or more fixed marks. | | | enumeration | leading line bearing a recommended track | |  | | --- | | documentation | | A line passing through one or more clearly defined features, along the path of which a vessel can approach safely up to a certain distance off. | | |

element **RouteingMeasureType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **CurveOrSurface** |
| children | **curveProperty surfaceProperty** |

complexType **rxnCodeType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfRxN**](#Link178)[**actionOrActivity**](#Link179)[**headline**](#Link17A) |
| annotation | |  | | --- | | documentation | | A summary of the impact of the most common types of regulation, restriction, recommendation and nautical information on a vessel. | | documentation | | Remark: This attribute converts the subject, topic, and effects of regulations, etc., from plain text or natural language into a set of categories. | |

element **rxnCodeType/categoryOfRxN**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfRxNType**](#Link39) |

element **rxnCodeType/actionOrActivity**

|  |  |
| --- | --- |
| diagram |  |
| type | [**actionOrActivityType**](#Link3) |

element **rxnCodeType/headline**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Words set at the head of a passage or page to introduce or categorize | |

complexType **scheduleByDayOfWeekType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfSchedule**](#Link1C0)[**timeIntervalsByDayOfWeek**](#Link1C1) |
| annotation | |  | | --- | | documentation | | Describes the nature and timings of a daily schedule by days of the week. | |

element **scheduleByDayOfWeekType/categoryOfSchedule**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfScheduleType**](#Link3C) |
| annotation | |  | | --- | | documentation | | Describes the type of schedule, e.g., opening, closure, etc. | |

element **scheduleByDayOfWeekType/timeIntervalsByDayOfWeek**

|  |  |
| --- | --- |
| diagram |  |
| type | [**timeIntervalsByDayOfWeekType**](#LinkA1) |
| children | [**dayOfWeek**](#Link1BC)[**dayOfWeekIsRange**](#Link1BD)[**timeOfDayStart**](#Link1BE)[**timeOfDayEnd**](#Link1BF) |

complexType **ServiceHoursType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**scheduleByDayOfWeek**](#Link141)[**information**](#Link142)[**theAuthority\_srvHrs**](#Link143)[**partialWorkingDay**](#Link144) |
| annotation | |  | | --- | | documentation | | The time when a service is available and known exceptions. | |

element **ServiceHoursType/scheduleByDayOfWeek**

|  |  |
| --- | --- |
| diagram |  |
| type | [**scheduleByDayOfWeekType**](#Link91) |
| children | [**categoryOfSchedule**](#Link1C0)[**timeIntervalsByDayOfWeek**](#Link1C1) |

element **ServiceHoursType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **ServiceHoursType/theAuthority\_srvHrs**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | optional | |

element **ServiceHoursType/partialWorkingDay**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **ShipReportingServiceAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**serviceAccessProcedure**](#Link14B)[**requirementsForMaintenanceOfListeningWatch**](#Link14C)[**consistsOf**](#Link14D)[**geometry**](#Link14E) |
| annotation | |  | | --- | | documentation | | A service established by a relevant authority consisting of one or more reporting points or lines at which ships are required to report their identity, course, speed and other data to the monitoring authority. | |

element **ShipReportingServiceAreaType/serviceAccessProcedure**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A description of the procedure to access the marine service. | |

element **ShipReportingServiceAreaType/requirementsForMaintenanceOfListeningWatch**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Description of continuous listening watch requirements. | |

element **ShipReportingServiceAreaType/consistsOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | A pointer to the aggregate in a whole-part relationship. | |

element **ShipReportingServiceAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **ShipReportType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfShipReport**](#Link145)[**imoFormatForReporting**](#Link146)[**reportTo**](#Link147)[**noticeTime**](#Link148)[**textContent**](#Link149)[**mustBeFiledBy**](#Link14A) |
| annotation | |  | | --- | | documentation | | This describes how a ship should report to a maritime authority, including when to report, what to report and whether the format conforms to the IMO standard. | |

element **ShipReportType/categoryOfShipReport**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfShipReportType**](#Link3F) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | sailing plan | |  | | --- | | documentation | | before or as near as possible to the time of departure from a port within a system or when entering the area covered by a system [for instance A, B, J, X etc] | | | enumeration | position report | |  | | --- | | documentation | | when necessary to ensure effective operation of the system | | | enumeration | deviation report | |  | | --- | | documentation | | when the ship’s position varies significantly from the position that would have been predicted from previous reports, when changing the reported route, or as decided by the master | | | enumeration | final report | |  | | --- | | documentation | | on arrival at the destination or on leaving the area covered by the system | | | enumeration | dangerous goods report | |  | | --- | | documentation | | when an incident takes place involving the loss or likely loss overboard of packaged dangerous goods, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges, into the sea | | | enumeration | harmful substances report | |  | | --- | | documentation | | when an incident takes place involving the discharge or probable discharge of oil (Annex I of MARPOL 73/78) or noxious liquid substances in bulk (Annex II of MARPOL 73/78) | | | enumeration | marine pollutants report | |  | | --- | | documentation | | in the case of the loss or likely loss overboard of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges identified in the International Maritime Goods Code as marine pollutants (Annex III of MARPOL 73/78). | | | enumeration | any other report | |  | | --- | | documentation | | any other report should be made in accordance with the system procedures as notified in accordance with paragraph 9 of the general principles | | |

element **ShipReportType/imoFormatForReporting**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:boolean** |
| annotation | |  | | --- | | documentation | | Whether a report must be in an IMO standard format | |

element **ShipReportType/reportTo**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **ShipReportType/noticeTime**

|  |  |
| --- | --- |
| diagram |  |
| type | [**noticeTimeType**](#Link53) |
| children | [**noticeTimeHours**](#Link1B7)[**noticeTimeText**](#Link1B8)[**operation**](#Link1B9) |

element **ShipReportType/textContent**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textContentType**](#Link9F) |
| children | [**categoryOfText**](#Link16F)[**information**](#Link170)[**onlineResource**](#Link171)[**sourceIndication**](#Link172) |

element **ShipReportType/mustBeFiledBy**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **SignalStationTrafficType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**OrganisationContactAreaType**](#Link59) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**categoryOfSignalStationTraffic**](#Link14F)[**communicationChannel**](#Link150)[**status**](#Link151)[**geometry**](#Link152) |
| annotation | |  | | --- | | documentation | | A traffic signal station is a place on shore from which signals are made to regulate the movement of traffic. | |

element **SignalStationTrafficType/categoryOfSignalStationTraffic**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfSignalStationTrafficType**](#Link42) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | port control | |  | | --- | | documentation | | A signal station for the control of vessels within a port. | | | enumeration | port entry and departure | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a port. | | | enumeration | international port traffic | |  | | --- | | documentation | | A signal station displaying International Port Traffic signals. | | | enumeration | berthing | |  | | --- | | documentation | | A signal station for the control of vessels when berthing. | | | enumeration | dock | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a dock. | | | enumeration | lock | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a lock. | | | enumeration | flood barrage | |  | | --- | | documentation | | A signal station for the control of vessels wishing to pass through a flood control barrage. | | | enumeration | bridge passage | |  | | --- | | documentation | | A signal station for the control of vessels wishing to pass under a bridge. | | | enumeration | dredging | |  | | --- | | documentation | | A signal station indicating when dredging is in progress. | | | enumeration | traffic control light | |  | | --- | | documentation | | Visual signal lights placed in a waterway to indicate to shipping the movements authorised at the time at which they are shown. | | | enumeration | oncoming traffic indication | |  | | --- | | documentation | | Indicates the oncoming traffic on an inland waterway. | | |

element **SignalStationTrafficType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **SignalStationTrafficType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **SignalStationTrafficType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **SignalStationWarningType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**categoryOfSignalStationWarning**](#Link153)[**communicationChannel**](#Link154)[**status**](#Link155)[**geometry**](#Link156) |
| annotation | |  | | --- | | documentation | | A warning signal station is a place on shore from which warning signals are made to ships at sea. | |

element **SignalStationWarningType/categoryOfSignalStationWarning**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfSignalStationWarningType**](#Link45) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | danger | |  | | --- | | documentation | | A signal or message warning of the presence of a danger to navigation. | | | enumeration | maritime obstruction | |  | | --- | | documentation | | A signal or message warning of the presence of a maritime obstruction. | | | enumeration | cable | |  | | --- | | documentation | | A signal or message warning of the presence of a cable. | | | enumeration | military practice | |  | | --- | | documentation | | A signal or message warning of activity in a military practice area. | | | enumeration | distress | |  | | --- | | documentation | | A station that may receive or transmit distress signals. | | | enumeration | weather | |  | | --- | | documentation | | A visual signal displayed to indicate a weather forecast. | | | enumeration | storm | |  | | --- | | documentation | | A signal or message conveying information about storm conditions. | | | enumeration | ice | |  | | --- | | documentation | | A signal or message conveying information about ice conditions. | | | enumeration | time | |  | | --- | | documentation | | An accurate signal marking a specified time or time interval. It is used primarily for determining errors of timepieces. Such signals are usually sent from an observatory by radio or telegraph, but visual signals are used at some ports. | | | enumeration | tide | |  | | --- | | documentation | | A signal or message conveying information on tidal conditions in the area in question. | | | enumeration | tidal stream | |  | | --- | | documentation | | A signal or message conveying information on condition of tidal currents in the area in question. | | | enumeration | tide gauge | |  | | --- | | documentation | | A device for measuring the height of tide. A graduated staff in a sheltered area where visual observations can be made; or it may consist of an elaborate recording instrument making a continuous graphic record of tide height against time. Such an instrument is usually actuated by a float in a pipe communicating with the sea through a small hole which filters out shorter waves. | | | enumeration | tide scale | |  | | --- | | documentation | | A visual scale which directly shows the height of the water above chart datum or a local datum. | | | enumeration | diving | |  | | --- | | documentation | | A signal or message warning of diving activity. | | | enumeration | water level gauge | |  | | --- | | documentation | | A device for measuring and conveying information about the water level (non-tidal) in the area in question. | | | enumeration | vertical clearance indication | |  | | --- | | documentation | | An indication of the vertical clearance of a bridge, overhead cable, etc. | | | enumeration | high water mark | |  | | --- | | documentation | | An indication of the official high water level. | | | enumeration | depth indication | |  | | --- | | documentation | | An indication of the local depth. | | |

element **SignalStationWarningType/communicationChannel**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **SignalStationWarningType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **SignalStationWarningType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **PointOrSurface** |
| children | **pointProperty surfaceProperty** |

complexType **sourceIndicationType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfAuthority**](#Link1B0)[**countryName**](#Link1B1)[**featureName**](#Link1B2)[**reportedDate**](#Link1B3)[**source**](#Link1B4)[**sourceType**](#Link1B5) |
| annotation | |  | | --- | | documentation | | Content of featureName is source authority name | |

element **sourceIndicationType/categoryOfAuthority**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfAuthorityType**](#Link9) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | customs | |  | | --- | | documentation | | The agency or establishment for collecting duties, tolls. (Merriam-Websters online Dictionary 23rd February 2006, amended). | | | enumeration | border control | |  | | --- | | documentation | | The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries (adapted from Merriam-Websters online Dictionary 23rd February 2006). | | | enumeration | police | |  | | --- | | documentation | | The department of government, or civil force, charged with maintaining public order. (Adapted from OED) | | | enumeration | port | |  | | --- | | documentation | | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department (NP 100 8th Edition 14 Oct 2004) | | | enumeration | immigration | |  | | --- | | documentation | | The authority controlling people entering a country. | | | enumeration | health | |  | | --- | | documentation | | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. | | | enumeration | coast guard | |  | | --- | | documentation | | Organisation keeping watch on shipping and coastal waters according to governmental law; normally the authority with reponsibility for search and rescue. | | | enumeration | agricultural | |  | | --- | | documentation | | The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country. | | | enumeration | military | |  | | --- | | documentation | | A military authority which provides control of access to or approval for transit through designated areas or airspace. | | | enumeration | private company | |  | | --- | | documentation | | A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a callibration area. | | | enumeration | maritime police | |  | | --- | | documentation | | A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinierie, and Guardia Civil. | | | enumeration | environmental | |  | | --- | | documentation | | An authority with responsibility for the protection of the environment. | | | enumeration | fishery | |  | | --- | | documentation | | An authority with responsibility for the control of fisheries. | | | enumeration | finance | |  | | --- | | documentation | | an authority with responsibility for the control and movement of money. | | | enumeration | maritime | |  | | --- | | documentation | | A national or regional authority charged with administration of maritime affairs. | | |

element **sourceIndicationType/countryName**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **sourceIndicationType/featureName**

|  |  |
| --- | --- |
| diagram |  |
| type | [**featureNameType**](#Link23) |
| children | [**displayName**](#Link1A9)[**language**](#Link1AA)[**name**](#Link1AB) |

element **sourceIndicationType/reportedDate**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |

element **sourceIndicationType/source**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The publication, document, or reference work from which information comes or is acquired. | |

element **sourceIndicationType/sourceType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**sourceTypeType**](#Link84) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | law or regulation | |  | | --- | | documentation | | treaty, convention, or international agreement; law or regulation issued by a national or other authority | | | enumeration | official publication | |  | | --- | | documentation | | publication not having the force of law, issued by an international organisation or a national or local administration | | | enumeration | mariner report, confirmed | |  | | --- | | documentation | | Reported by mariner(s) and confirmed by another source | | | enumeration | mariner report, not confirmed | |  | | --- | | documentation | | reported by mariner(s) but not confirmed | | | enumeration | industry publications and reports | |  | | --- | | documentation | | shipping and other industry publication, including graphics, charts and web sites | | | enumeration | remotely sensed images | |  | | --- | | documentation | | information obtained from satellite images | | | enumeration | photographs | |  | | --- | | documentation | | information obtained from photographs | | | enumeration | products issued by HO services | |  | | --- | | documentation | | information obtained from products issued by Hydropgrahic Offices | | | enumeration | news media | |  | | --- | | documentation | | information obtained from news media | | | enumeration | traffic data | |  | | --- | | documentation | | information obtained from the analysis of traffic data | | |
| annotation | |  | | --- | | documentation | | Type of source | |

complexType **SpatialQuality**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**InformationTypeType**](#Link3E) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfTemporalVariation**](#Link157)[**horizontalPositionUncertainty**](#Link158)[**qualityOfHorizontalMeasurement**](#Link159) |

element **SpatialQuality/categoryOfTemporalVariation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfTemporalVariationType**](#Link48) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Extreme Event | |  | | --- | | documentation | | Indication of the possible impact of a significant event (for example hurricane, earthquake, volcanic eruption, landslide, etc), which is considered likely to have changed the seafloor or landscape significantly. | | | enumeration | Likely to Change | |  | | --- | | documentation | | Continuous or frequent change to non-bathymetric features (for example river siltation, glacier creep/recession, sand dunes, buoys, marine farms, etc.). | | | enumeration | Unlikely to Change | |  | | --- | | documentation | | Significant change to the seafloor is not expected. | | |

element **SpatialQuality/horizontalPositionUncertainty**

|  |  |
| --- | --- |
| diagram |  |
| type | [**horizontalPositionUncertaintyType**](#Link32) |
| children | [**uncertaintyFixed**](#Link1B6) |
| annotation | |  | | --- | | documentation | | The best estimate of the accuracy of a position. | |

element **SpatialQuality/qualityOfHorizontalMeasurement**

|  |  |
| --- | --- |
| diagram |  |
| type | [**qualityOfHorizontalMeasurementType**](#Link80) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | surveyed | |  | | --- | | documentation | | The position(s) was(were) determined by the operation of making measurements for determining the relative position of points on, above, or beneath the earth's surface. Survey implies a regular, controlled, survey of any date. | | | enumeration | unsurveyed | |  | | --- | | documentation | | Survey data does not exist or is very poor | | | enumeration | inadequately surveyed | |  | | --- | | documentation | | Position data is of very poor quality | | | enumeration | approximate | |  | | --- | | documentation | | A position that is considered to be less than third-order accuracy, but is generally considered to be within 30.5 meters of its correct geographic location. Also, may apply to a feature whose position does not remain fixed. | | | enumeration | position doubtful | |  | | --- | | documentation | | A feature whose position has been reported but which is considered to be doubtful | | | enumeration | unreliable | |  | | --- | | documentation | | A feature's position obtained from questionable or unreliable data. | | | enumeration | reported (not surveyed) | |  | | --- | | documentation | | A feature whose position has been reported and its position confirmed by some means other than a formal survey such as an independent report of the same feature. | | | enumeration | reported (not confirmed | |  | | --- | | documentation | | A feature whose position has been reported and its position has not been confirmed. | | | enumeration | estimated | |  | | --- | | documentation | | The most probable position of a feature determined from incomplete data or data of questionable accuracy. | | | enumeration | precisely known | |  | | --- | | documentation | | A position that is of a known value, such as the position of an anchor berth or other defined feature. | | | enumeration | calculated | |  | | --- | | documentation | | A position that is computed from data. | | |

complexType **SpatialQualityPoints**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SpatialQuality**](#Link9A) |
| children | **informationAssociation invInformationAssociation** [**fixedDateRange**](#LinkA8)[**periodicDateRange**](#LinkA9)[**featureName**](#LinkAA)[**sourceIndication**](#LinkAB)[**providesInformation**](#LinkAC)[**categoryOfTemporalVariation**](#Link157)[**horizontalPositionUncertainty**](#Link158)[**qualityOfHorizontalMeasurement**](#Link159) |
| annotation | |  | | --- | | documentation | | Definition required | |

complexType **SupervisedAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**OrganisationContactAreaType**](#Link59) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA) |
| annotation | |  | | --- | | documentation | | A location which may be supervised by a responsible or controlling authority. | |

element **SupervisedAreaType/controlAuthority**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

complexType **surveyDateRangeType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**dateStart**](#Link1BA)[**dateEnd**](#Link1BB) |
| annotation | |  | | --- | | documentation | | The complex attribute describes the period of the hydrographic survey, as the time between its sub-attributes. | |

element **surveyDateRangeType/dateStart**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The start date or time of the interval. | |

element **surveyDateRangeType/dateEnd**

|  |  |
| --- | --- |
| diagram |  |
| type | **S100\_TruncatedDate** |
| children | **gDay gMonth gYear gMonthDay gYearMonth date** |
| annotation | |  | | --- | | documentation | | The end date or time of the interval. | |

complexType **telecommunicationsType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfCommPref**](#Link19A)[**contactInstructions**](#Link19B)[**telcomCarrier**](#Link19C)[**telecommunicationIdentifier**](#Link19D)[**telecommunicationService**](#Link19E)[**scheduleByDayOfWeek**](#Link19F) |
| annotation | |  | | --- | | documentation | | A means or channel of communicating at a distance by electrical or electromagnetic means such as telegraphy, telephony, or broadcasting. | |

element **telecommunicationsType/categoryOfCommPref**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfCommPrefType**](#LinkF) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | preferred calling | |  | | --- | | documentation | | the first choice channel or frequency to be used when calling a radio station | | | enumeration | alternate calling | |  | | --- | | documentation | | a channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference | | | enumeration | preferred working | |  | | --- | | documentation | | the first choice channel or frequency to be used when working with a radio station | | | enumeration | alternate working | |  | | --- | | documentation | | a channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference | | |

element **telecommunicationsType/contactInstructions**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | instructions on how and when to contact an individual or organisation | |

element **telecommunicationsType/telcomCarrier**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | The name of provider or type of carrier for a telecommunications service | |

element **telecommunicationsType/telecommunicationIdentifier**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Identifier used for contact by means of a telecommunications service, such as a telephone number | |

element **telecommunicationsType/telecommunicationService**

|  |  |
| --- | --- |
| diagram |  |
| type | [**telecommunicationServiceType**](#Link88) |
| annotation | |  | | --- | | documentation | | Type of telecommunications service | |

element **telecommunicationsType/scheduleByDayOfWeek**

|  |  |
| --- | --- |
| diagram |  |
| type | [**scheduleByDayOfWeekType**](#Link91) |
| children | [**categoryOfSchedule**](#Link1C0)[**timeIntervalsByDayOfWeek**](#Link1C1) |

complexType **textContentType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**categoryOfText**](#Link16F)[**information**](#Link170)[**onlineResource**](#Link171)[**sourceIndication**](#Link172) |
| annotation | |  | | --- | | documentation | | Remarks:  - Exactly one of sub-attributes onlineResource or information must be completed in one instance of textContent.  - Product specifications may restrict the use or content of onlineResource for security. For example, a product specification may forbid populating onlineResource.  - Product specification authors must consider whether applications using the data product may be prevented from accessing off-system resources by security policies. | |

element **textContentType/categoryOfText**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfTextType**](#Link4B) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | abstract or summary | |  | | --- | | documentation | | A statement summarizing the important points of a text. | | | enumeration | extract | |  | | --- | | documentation | | An excerpt or excerpts from a text. | | | enumeration | full text | |  | | --- | | documentation | | The whole text | | |

element **textContentType/information**

|  |  |
| --- | --- |
| diagram |  |
| type | [**informationType**](#Link3B) |
| children | [**fileLocator**](#Link17B)[**fileReference**](#Link17C)[**headline**](#Link17D)[**language**](#Link17E)[**text**](#Link17F) |

element **textContentType/onlineResource**

|  |  |
| --- | --- |
| diagram |  |
| type | [**onlineResourceType**](#Link56) |
| children | [**linkage**](#Link193)[**protocol**](#Link194)[**applicationProfile**](#Link195)[**nameOfResource**](#Link196)[**onlineResourceDescription**](#Link197)[**onlineFunction**](#Link198)[**protocolRequest**](#Link199) |

element **textContentType/sourceIndication**

|  |  |
| --- | --- |
| diagram |  |
| type | [**sourceIndicationType**](#Link99) |
| children | [**categoryOfAuthority**](#Link1B0)[**countryName**](#Link1B1)[**featureName**](#Link1B2)[**reportedDate**](#Link1B3)[**source**](#Link1B4)[**sourceType**](#Link1B5) |

complexType **TextPlacementType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**flipBearing**](#Link15A)[**scaleMinimum**](#Link15B)[**textJustification**](#Link15C)[**text**](#Link15D)[**textType**](#Link15E)[**identifies**](#Link15F)[**geometry**](#Link160) |
| annotation | |  | | --- | | documentation | | The Text Placement feature is used in association with the FeatureName attribute or a light description to optimise text positioning in ECDIS. | | documentation | | Remarks: - The Text Placement feature is used by the ECDIS to position the associated text, which has been populated using an attribute(s) for the related feature. This attribute is identified by populating the attribute text type. Alternatively, the text to be displayed may be encoded using the attribute text.  - Only one of the attributes text or text type are allowable for each instance of Text Placement.  - Text Placement should only be associated with features of type point, and used in areas where it is important that text clear navigationally relevant areas, e.g. shipping channels and dredged areas. | |

element **TextPlacementType/flipBearing**

|  |  |
| --- | --- |
| diagram |  |
| type | **Integer0To360** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0 |  | | maxInclusive | 360 |  | |
| annotation | |  | | --- | | documentation | | The bearing at which text is re-located to the opposite side of a feature when screen display is oriented away from true north. | |

element **TextPlacementType/scaleMinimum**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:integer** |

element **TextPlacementType/textJustification**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textJustificationType**](#Link8A) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | left | |  | | --- | | documentation | | The anchor point is at the start of the text string. | | | enumeration | centred | |  | | --- | | documentation | | The anchor point is at the centre of the text string. | | | enumeration | right | |  | | --- | | documentation | | The anchor point is at the end of the text string. | | |
| annotation | |  | | --- | | documentation | | The anchor point of a text string. | |

element **TextPlacementType/text**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A non-formatted digital text string. | | documentation | | Remarks: The attribute should be used, for example, to hold the information that is shown on paper charts by short cautionary and explanatory notes. Therefore text populated in text must not exceed 300 characters.  Text may be in English or in a national language defined by the attribute language.  No formatting of text is possible within the sub-attribute text. If formatted text, or text strings exceeding 300 characters, is required, then the attribute file reference must be used. | |

element **TextPlacementType/textType**

|  |  |
| --- | --- |
| diagram |  |
| type | [**textTypeType**](#Link8C) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Feature name | |  | | --- | | documentation | | Definition required | | |

element **TextPlacementType/identifies**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |

element **TextPlacementType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Point** |
| children | **pointProperty** |

complexType **timeIntervalsByDayOfWeekType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**dayOfWeek**](#Link1BC)[**dayOfWeekIsRange**](#Link1BD)[**timeOfDayStart**](#Link1BE)[**timeOfDayEnd**](#Link1BF) |
| annotation | |  | | --- | | documentation | | Time intervals by days of the week. | | documentation | | The sub-attribute dayOfWeekIsRanges indicates whether an instance of this attribute encodes a range of days or discrete days. The days or day-range(s) are encoded in sub-attribute dayOfWeek. Multiple ranges are allowed but mixing range with discrete days(s) is not allowed (encode another instance of this attribute instead).  An indeterminate range may be indicated with a null value at the appropriate position in the sequence.  Examples:  - To code the range “Monday through Friday” use the sequence: dayOfWeek=1, dayOfWeek=5 and set dayOfWeekIsRanges=TRUE.   - To encode the days Monday, Wednesday, Friday, use the sequence dayOfWeek=1, dayOfWeek=3, dayOfWeek=5 and set dayOfWeekIsRanges=FALSE.   - The sequence dayOfWeek=1, dayOfWeek=3, dayOfWeek=5 to indicate Mon-Wed and Thursday is not allowed. Encode the Mon-Wed and Thursday schedules in different instances of this complex attribute.   Product specifications may need to allow this attribute to be repeated in order to allow encoding of schedules which vary for different days of the week. | |

element **timeIntervalsByDayOfWeekType/dayOfWeek**

|  |  |
| --- | --- |
| diagram |  |
| type | [**dayOfWeekType**](#Link60) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Monday | |  | | --- | | documentation | | The second day of the week. | | appinfo | | <code>2</code> | | | enumeration | Tuesday | |  | | --- | | documentation | | The third day of the week. | | appinfo | | <code>3</code> | | | enumeration | Wednesday | |  | | --- | | documentation | | The fourth day of the week. | | appinfo | | <code>4</code> | | | enumeration | Thursday | |  | | --- | | documentation | | The fifth day of the week. | | appinfo | | <code>5</code> | | | enumeration | Friday | |  | | --- | | documentation | | The sixth day of the week. | | appinfo | | <code>6</code> | | | enumeration | Saturday | |  | | --- | | documentation | | The seventh day of the week. | | appinfo | | <code>7</code> | | | enumeration | Sunday | |  | | --- | | documentation | | The first day of the week. | | appinfo | | <code>1</code> | | |
| annotation | |  | | --- | | documentation | | Encodes either range(s) of days or discrete days. | |

element **timeIntervalsByDayOfWeekType/dayOfWeekIsRange**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:boolean** |
| annotation | |  | | --- | | documentation | | Indicates whether the values in dayOfWeek indicate a range of days (true) or discrete days (false). | |

element **timeIntervalsByDayOfWeekType/timeOfDayStart**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:time** |
| annotation | |  | | --- | | documentation | | Starting time of day, possibly for a period within the day.  Distinction: Time start (TIMSTA) (S-101) which has a format YYYYMMDDThhmmss (mandatory) in the baseline S-101 DCEG as of October 2015. | |

element **timeIntervalsByDayOfWeekType/timeOfDayEnd**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:time** |
| annotation | |  | | --- | | documentation | | Ending time of day, possibly for a period within the day.  Distinction: Time end (TIMEND) (S-101) which has a format YYYYMMDDThhmmss (mandatory) in the baseline S-101 DCEG as of October 2015. | |

complexType **underkeelAllowanceType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**underkeelAllowanceFixed**](#Link1C2)[**underkeelAllowanceVariableBeamBased**](#Link1C3)[**underkeelAllowanceVariableDraughtBased**](#Link1C4)[**operation**](#Link1C5) |
| annotation | |  | | --- | | documentation | | A fixed figure, or a figure derived by calculation, which is added to draught in order to maintain the minimum underkeel clearance taking into account the vessel's static and dynamic characteristics, sea state and weather forecast, the reliability of the chart and variance from predicted height of tide or water level. | |

element **underkeelAllowanceType/underkeelAllowanceFixed**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal.1** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | A fixed allowance given by an authority, which is added to draught in order to maintain a minimum underkeel clearance. | |

element **underkeelAllowanceType/underkeelAllowanceVariableBeamBased**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal.1** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | A percentage value, given by an authority, which is applied to ship's beam in order to calculate underkeel allowance. | |

element **underkeelAllowanceType/underkeelAllowanceVariableDraughtBased**

|  |  |
| --- | --- |
| diagram |  |
| type | **NonNegativeDecimal.1** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | A percentage value, given by an authority, which is applied to ship's draught in order to calculate underkeel allowance. | |

element **underkeelAllowanceType/operation**

|  |  |
| --- | --- |
| diagram |  |
| type | [**operationType**](#Link78) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | largest value | |  | | --- | | documentation | | The numerically largest value computed from the applicable attributes or sub-attributes | | | enumeration | smallest value | |  | | --- | | documentation | | The numerically smallest value computed from the applicable attributes or sub-attributes | | |
| annotation | |  | | --- | | documentation | | OPERAT is intended to be used in conjunction with other attributes (or sub-attributes of a complex attribute) to indicate how their values must be combined in order to describe a condition. | |

complexType **UnderkeelClearanceAllowanceAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**FeatureType**](#Link26) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**underkeelAllowance**](#Link161)[**waterLevelTrend**](#Link162)[**geometry**](#Link163) |
| annotation | |  | | --- | | documentation | | An area for which an authority has stated underkeel allowance requirements. | |

element **UnderkeelClearanceAllowanceAreaType/underkeelAllowance**

|  |  |
| --- | --- |
| diagram |  |
| type | [**underkeelAllowanceType**](#LinkA2) |
| children | [**underkeelAllowanceFixed**](#Link1C2)[**underkeelAllowanceVariableBeamBased**](#Link1C3)[**underkeelAllowanceVariableDraughtBased**](#Link1C4)[**operation**](#Link1C5) |

element **UnderkeelClearanceAllowanceAreaType/waterLevelTrend**

|  |  |
| --- | --- |
| diagram |  |
| type | [**waterLevelTrendType**](#Link94) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | decreasing | |  | | --- | | documentation | | Becoming smaller in magnitude. | | | enumeration | increasing | |  | | --- | | documentation | | Becoming larger in magnitude. | | | enumeration | steady | |  | | --- | | documentation | | Constant. | | |

element **UnderkeelClearanceAllowanceAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **UnderkeelClearanceManagementAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**dynamicResource**](#Link164)[**geometry**](#Link165) |
| annotation | |  | | --- | | documentation | | An area for which an authority permits use of dynamic underkeel clearance information or provides dynamic information related to underkeel clearances. | |

element **UnderkeelClearanceManagementAreaType/dynamicResource**

|  |  |
| --- | --- |
| diagram |  |
| type | [**dynamicResourceType**](#Link63) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | static | |  | | --- | | documentation | | The information is static, or a source of up-to-date information is unavailable or unknown. | | | enumeration | mandatory external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available and interaction with it to obtain up-to-date information is required. | | | enumeration | optional external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available but interaction with it to obtain up-to-date information is not required. | | | enumeration | onboard dynamic | |  | | --- | | documentation | | Up-to-date information may be computed using only onboard resources. | | |

element **UnderkeelClearanceManagementAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **vesselsMeasurementsType**

|  |  |
| --- | --- |
| diagram |  |
| children | [**comparisonOperator**](#Link180)[**vesselsCharacteristics**](#Link181)[**vesselsCharacteristicsValue**](#Link182)[**vesselsCharacteristicsUnit**](#Link183) |

element **vesselsMeasurementsType/comparisonOperator**

|  |  |
| --- | --- |
| diagram |  |
| type | [**comparisonOperatorType**](#Link5A) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | greater than | |  | | --- | | documentation | | The value of the left value is greater than that of the right.(http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | greater than or equal to | |  | | --- | | documentation | | The value of the left expression is greater than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | less than | |  | | --- | | documentation | | The value of the left expression is less than that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | less than or equal to | |  | | --- | | documentation | | The value of the left expression is less than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | equal to | |  | | --- | | documentation | | The two values are equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | not equal to | |  | | --- | | documentation | | The two values are not equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) | | |

element **vesselsMeasurementsType/vesselsCharacteristics**

|  |  |
| --- | --- |
| diagram |  |
| type | [**vesselsCharacteristicsType**](#Link90) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | length overall | |  | | --- | | documentation | | The maximum length of the ship (L.O.A.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | length at waterline | |  | | --- | | documentation | | The ship's length measured at the waterline (L.W.L.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | breadth | |  | | --- | | documentation | | The width or beam of the vessel. (Adapted from http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | draught | |  | | --- | | documentation | | The depth of water necessary to float a vessel fully loaded. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | height | |  | | --- | | documentation | | The height of the highest point of a vessel's structure (e.g. radar aerial, funnel, cranes, masthead) above her waterline. (UKHO NP100/2009) | | | enumeration | displacement tonnage | |  | | --- | | documentation | | A measurement of the weight of the vessel, usually used for warships. (Merchant ships are usually measured based on the volume of cargo space; see tonnage). Displacement is expressed either in long tons of 2,240 pounds or metric tonnes of 1,000 kg. Since the two units are very close in size (2,240 pounds = 1,016 kg and 1,000 kg = 2,205 pounds), it is common not to distinguish between them. To preserve secrecy, nations sometimes misstate a warship's displacement. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | displacement tonnage, light | |  | | --- | | documentation | | The weight of the ship excluding cargo, fuel, ballast, stores, passengers, and crew, but with water in the boilers to steaming level. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | displacement tonnage, loaded | |  | | --- | | documentation | | The weight of the ship including cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage, which brings the vessel down to her load draft. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | deadweight tonnage | |  | | --- | | documentation | | The difference between displacement, light and displacement, loaded. A measure of the ship's total carrying capacity. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | gross tonnage | |  | | --- | | documentation | | The entire internal cubic capacity of the ship expressed in tons of 100 cubic feet to the ton, except certain spaces with are exempted such as: peak and other tanks for water ballast, open forecastle bridge and poop, access of hatchways, certain light and air spaces, domes of skylights, condenser, anchor gear, steering gear, wheel house, galley and cabin for passengers. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | net tonnage | |  | | --- | | documentation | | Obtained from the gross tonnage by deducting crew and navigating spaces and allowances for propulsion machinery.(http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | Panama Canal/Universal Measurement System net tonnage | |  | | --- | | documentation | | the Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) | | | enumeration | Suez Canal net tonnage | |  | | --- | | documentation | | the Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) | | | enumeration | Suez Canal gross tonnage | |  | | --- | | documentation | | Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | |

element **vesselsMeasurementsType/vesselsCharacteristicsValue**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |

element **vesselsMeasurementsType/vesselsCharacteristicsUnit**

|  |  |
| --- | --- |
| diagram |  |
| type | [**vesselsCharacteristicsUnitType**](#Link92) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | metre | |  | | --- | | documentation | | The metre (or meter) is the base unit of length in the International System of Units (SI). It is defined as the distance travelled by light in vacuum in 1/299,792,458 of a second. | | | enumeration | foot | |  | | --- | | documentation | | A foot (plural: feet) is a non-SI unit of length in a number of different systems including English units, Imperial units, and United States customary units. The most commonly used foot today is the international foot. There are three feet in a yard and 12 inches in a foot. | | | enumeration | metric ton | |  | | --- | | documentation | | The tonne or metric ton (U.S.), often redundantly referred to as a metric tonne, is a unit of mass equal to 1,000 kg (2,205 lb) or approximately the mass of one cubic metre of water at four degrees Celsius. It is sometimes abbreviated as mt in the United States, but this conflicts with other SI symbols. The tonne is not a unit in the International System of Units (SI), but is accepted for use with the SI. In SI units and prefixes, the tonne is a megagram (Mg). The Imperial and US customary units comparable to the tonne are both spelled ton in English, though they differ in mass. Pronunciation of tonne (the word used in the UK) and ton is usually identical, but is not too confusing unless accuracy is important as the tonne and UK long ton differ by only 1.6%. | | | enumeration | ton | |  | | --- | | documentation | | Long ton (weight ton or imperial ton) is the name for the unit called the "ton" in the avoirdupois or Imperial system of measurements, as used in the United Kingdom and several other Commonwealth countries. It has been mostly replaced by the tonne, and in the United States by the short ton. One long ton is equal to 2,240 pounds (1,016 kg) or 35 cubic feet (0.9911 m3) of salt water with a density of 64 lb/ft³ (1.025 g/ml). It has some limited use in the United States, most commonly in measuring the displacement of ships, and was the unit prescribed for warships by the Washington Naval Treaty—for example battleships were limited to a mass of 35,000 long tons (36,000 t; 39,000 ST). | | | enumeration | short ton | |  | | --- | | documentation | | The short ton is a unit of weight equal to 2,000 pounds (907.18474 kg). In the United States it is often called simply ton without distinguishing it from the metric ton (tonne, 1,000 kilograms) or the long ton (2,240 pounds / 1,016.0469088 kilograms); rather, the other two are specifically noted. There are, however, some U.S. applications for which unspecified tons normally means long tons (for example, Navy ships) or metric tons (world grain production figures). Both the long and short ton are defined as 20 hundredweights, but a hundredweight is 100 pounds (45.359237 kg) in the U.S. system (short or net hundredweight) and 112 pounds (50.80234544 kg) in the Imperial system (long or gross hundredweight). | | | enumeration | gross ton | |  | | --- | | documentation | | Gross tonnage (GT) is a function of the volume of all ship's enclosed spaces (from keel to funnel) measured to the outside of the hull framing. There is a sliding scale factor. So GT is a kind of capacity-derived index that is used to rank a ship for purposes of determining manning, safety and other statutory requirements and is expressed simply as GT, which is a unitless entity, even though its derivation is tied to the cubic meter unit of volumetric capacity. Tonnage measurements are now governed by an IMO Convention (International Convention on Tonnage Measurement of Ships, 1969 (London-Rules)), which applies to all ships built after July 1982. In accordance with the Convention, the correct term to use now is GT, which is a function of the moulded volume of all enclosed spaces of the ship. | | | enumeration | net ton | |  | | --- | | documentation | | Net tonnage (NT) is based on a calculation of the volume of all cargo spaces of the ship. It indicates a vessel’s earning space and is a function of the moulded volume of all cargo spaces of the ship. | | | enumeration | Panama Canal/Universal Measurement System net tonnage | |  | | --- | | documentation | | The Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. | | | enumeration | Suez Canal Net Tonnage | |  | | --- | | documentation | | The Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | | enumeration | none | |  | | --- | | documentation | | Can be used for net and gross tonnages, including Panama Canal/Universal Measurement System net tonnage and The Suez Canal Net Tonnage. | | | enumeration | cubic metres | |  | | --- | | documentation | | cubic metres | | | enumeration | Suez Canal Gross Tonnage | |  | | --- | | documentation | | The Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | |

complexType **VesselTrafficServiceAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**ReportableServiceAreaType**](#Link85) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**reptForTrafficServ**](#LinkEB)[**categoryOfVesselTrafficService**](#Link166)[**serviceAccessProcedure**](#Link167)[**requirementsForMaintenanceOfListeningWatch**](#Link168)[**consistsOf**](#Link169)[**geometry**](#Link16A) |
| annotation | |  | | --- | | documentation | | The area of any service implemented by a relevant authority primarily designed to improve safety and efficiency of traffic flow and the protection of the environment. It may range from simple information messages, to extensive organisation of the traffic involving national or regional schemes. | |

element **VesselTrafficServiceAreaType/categoryOfVesselTrafficService**

|  |  |
| --- | --- |
| diagram |  |
| type | [**categoryOfVesselTrafficServiceType**](#Link54) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Information Service | |  | | --- | | documentation | | A service to ensure that essential information becomes available in time for on-board navigational decision-making | | | enumeration | Traffic Organisation Service | |  | | --- | | documentation | | A service to assist on-board navigational decision-making and to monitor its effects | | | enumeration | Navigational Assistance Service | |  | | --- | | documentation | | A service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area | | |

element **VesselTrafficServiceAreaType/serviceAccessProcedure**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A description of the procedure to access the marine service. | |

element **VesselTrafficServiceAreaType/requirementsForMaintenanceOfListeningWatch**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | Description of continuous listening watch requirements. | |

element **VesselTrafficServiceAreaType/consistsOf**

|  |  |
| --- | --- |
| diagram |  |
| type | **gml:ReferenceType** |
| annotation | |  | | --- | | documentation | | A pointer to the aggregate in a whole-part relationship. | |

element **VesselTrafficServiceAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

complexType **WaterwayAreaType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of [**SupervisedAreaType**](#Link9C) |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** [**fixedDateRange**](#LinkC0)[**periodicDateRange**](#LinkC1)[**featureName**](#LinkC2)[**sourceIndication**](#LinkC3)[**textContent**](#LinkC4)[**permission**](#LinkC5)[**providesInformation**](#LinkC6)[**theRxN**](#LinkC7)[**positions**](#LinkC8)[**theContactDetails**](#LinkE7)[**controlAuthority**](#LinkEA)[**siltationRate**](#Link16B)[**status**](#Link16C)[**dynamicResource**](#Link16D)[**geometry**](#Link16E) |
| annotation | |  | | --- | | documentation | | An area in which uniform general information of the waterway exists. | |

element **WaterwayAreaType/siltationRate**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:string** |
| annotation | |  | | --- | | documentation | | A description of the rate at which the depth in an area decreases. | |

element **WaterwayAreaType/status**

|  |  |
| --- | --- |
| diagram |  |
| type | [**statusType**](#Link86) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |

element **WaterwayAreaType/dynamicResource**

|  |  |
| --- | --- |
| diagram |  |
| type | [**dynamicResourceType**](#Link63) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | static | |  | | --- | | documentation | | The information is static, or a source of up-to-date information is unavailable or unknown. | | | enumeration | mandatory external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available and interaction with it to obtain up-to-date information is required. | | | enumeration | optional external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available but interaction with it to obtain up-to-date information is not required. | | | enumeration | onboard dynamic | |  | | --- | | documentation | | Up-to-date information may be computed using only onboard resources. | | |
| annotation | |  | | --- | | documentation | | Whether dynamic water level information is available.  Remarks: If the value of this attribute is TRUE, the source of dynamic water level information, if known, should be encoded in the textContent attribute. | |

element **WaterwayAreaType/geometry**

|  |  |
| --- | --- |
| diagram |  |
| type | **GM\_Surface** |
| children | **surfaceProperty** |

simpleType **actionOrActivityType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | The action or activity of a vessel | |

simpleType **cardinalDirectionType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | N | |  | | --- | | documentation | | North | | | enumeration | NNE | |  | | --- | | documentation | | Northnortheast | | | enumeration | NE | |  | | --- | | documentation | | Northeast | | | enumeration | ENE | |  | | --- | | documentation | | Eastnortheast | | | enumeration | E | |  | | --- | | documentation | | East | | | enumeration | ESE | |  | | --- | | documentation | | Eastsoutheast | | | enumeration | SE | |  | | --- | | documentation | | Southeast | | | enumeration | SSE | |  | | --- | | documentation | | Southsoutheast | | | enumeration | S | |  | | --- | | documentation | | South | | | enumeration | SSW | |  | | --- | | documentation | | Southsouthwest | | | enumeration | SW | |  | | --- | | documentation | | Southwest | | | enumeration | WSW | |  | | --- | | documentation | | Westsouthwest | | | enumeration | W | |  | | --- | | documentation | | West | | | enumeration | WNW | |  | | --- | | documentation | | Westnorthwest | | | enumeration | NW | |  | | --- | | documentation | | Northwest | | | enumeration | NNW | |  | | --- | | documentation | | Northnorthwest | | |
| annotation | |  | | --- | | documentation | | Principal and intermediate compass points. | |

simpleType **categoryOfAuthorityType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | customs | |  | | --- | | documentation | | The agency or establishment for collecting duties, tolls. (Merriam-Websters online Dictionary 23rd February 2006, amended). | | | enumeration | border control | |  | | --- | | documentation | | The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries (adapted from Merriam-Websters online Dictionary 23rd February 2006). | | | enumeration | police | |  | | --- | | documentation | | The department of government, or civil force, charged with maintaining public order. (Adapted from OED) | | | enumeration | port | |  | | --- | | documentation | | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department (NP 100 8th Edition 14 Oct 2004) | | | enumeration | immigration | |  | | --- | | documentation | | The authority controlling people entering a country. | | | enumeration | health | |  | | --- | | documentation | | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. | | | enumeration | coast guard | |  | | --- | | documentation | | Organisation keeping watch on shipping and coastal waters according to governmental law; normally the authority with reponsibility for search and rescue. | | | enumeration | agricultural | |  | | --- | | documentation | | The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country. | | | enumeration | military | |  | | --- | | documentation | | A military authority which provides control of access to or approval for transit through designated areas or airspace. | | | enumeration | private company | |  | | --- | | documentation | | A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a callibration area. | | | enumeration | maritime police | |  | | --- | | documentation | | A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinierie, and Guardia Civil. | | | enumeration | environmental | |  | | --- | | documentation | | An authority with responsibility for the protection of the environment. | | | enumeration | fishery | |  | | --- | | documentation | | An authority with responsibility for the control of fisheries. | | | enumeration | finance | |  | | --- | | documentation | | an authority with responsibility for the control and movement of money. | | | enumeration | maritime | |  | | --- | | documentation | | A national or regional authority charged with administration of maritime affairs. | | |
| annotation | |  | | --- | | documentation | | The type of person, government agency or organisation granted powers of managing or controlling access to and/or activity in an area | |

simpleType **categoryOfCargoType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | bulk | |  | | --- | | documentation | | Normally dry cargo which is transported to and from the vessel on conveyors or grabs | | | enumeration | container | |  | | --- | | documentation | | One of a number of standard sized cargo carrying units, secured using standard corner attachments and bars | | | enumeration | general | |  | | --- | | documentation | | Break bulk cargo normally loaded by crane | | | enumeration | liquid | |  | | --- | | documentation | | Any cargo loaded by pipeline | | | enumeration | passenger | |  | | --- | | documentation | | A fee paying traveller | | | enumeration | livestock | |  | | --- | | documentation | | Live animals carried in bulk | | | enumeration | dangerous or hazardous | |  | | --- | | documentation | | Dangerous or hazardous cargo as described by the IMO International Maritime Dangerous Goods code | | | enumeration | heavy lift |  | | enumeration | ballast |  | |
| annotation | |  | | --- | | documentation | | Classification of the different types of cargo that a ship may be carrying. | |

simpleType **categoryOfCommPrefType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | preferred calling | |  | | --- | | documentation | | the first choice channel or frequency to be used when calling a radio station | | | enumeration | alternate calling | |  | | --- | | documentation | | a channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference | | | enumeration | preferred working | |  | | --- | | documentation | | the first choice channel or frequency to be used when working with a radio station | | | enumeration | alternate working | |  | | --- | | documentation | | a channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference | | |

simpleType **categoryOfConcentrationOfShippingHazardAreaType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | concentration of merchant shipping | |  | | --- | | documentation | | Concentration of vessels whose primary purpose is to engage in commerce, including ferries. | | | enumeration | concentration of recreational vessels | |  | | --- | | documentation | | Concentration of powered or sailing vessels principally engaged in recreation, leisure, or sporting competition. | | | enumeration | concentration of fishing vessels | |  | | --- | | documentation | | Concentration of vessels whose primary purpose is to hunt, trap or process fish. The concentration could be on the fishing ground, in transit or in the approaches to home bases or fish markets. | | | enumeration | concentration of military vessels | |  | | --- | | documentation | | Concentration of vessels principally engaged in military activities. This includes activities based on mandate of international organisations (e.g. UN). The concentration is in areas others than military exercise areas. | | |
| annotation | |  | | --- | | documentation | | Classification of shipping hazards due to traffic volume or density. | |

simpleType **categoryOfDangerousOrHazardousCargoType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | IMDG Code Class 1 Div. 1.1 | |  | | --- | | documentation | | Explosives, Division 1: substances and articles which have a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.2 | |  | | --- | | documentation | | Explosives, Division 2: substances and articles which have a projection hazard but not a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.3 | |  | | --- | | documentation | | Explosives, Division 3: substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.4 | |  | | --- | | documentation | | Explosives, Division 4: substances and articles which present no significant hazard | | | enumeration | IMDG Code Class 1 Div. 1.5 | |  | | --- | | documentation | | Explosives, Division 5: very insensitive substances which have a mass explosion hazard | | | enumeration | IMDG Code Class 1 Div. 1.6 | |  | | --- | | documentation | | Explosives, Division 6: extremely insensitive articles which do not have a mass explosion hazard | | | enumeration | IMDG Code Class 2 Div. 2.1 | |  | | --- | | documentation | | Gases, flammable gases | | | enumeration | IMDG Code Class 2 Div. 2.2 | |  | | --- | | documentation | | Gases, non-flammable, non-toxic gases | | | enumeration | IMDG Code Class 2 Div. 2.3 | |  | | --- | | documentation | | Gases, toxic gases | | | enumeration | IMDG Code Class 3 | |  | | --- | | documentation | | flammable liquids | | | enumeration | IMDG Code Class 4 Div. 4.1 | |  | | --- | | documentation | | flammable solids, self-reactive substances and desensitized explosives | | | enumeration | IMDG Code Class 4 Div. 4.2 | |  | | --- | | documentation | | substances liable to spontaneous combustion | | | enumeration | IMDG Code Class 4 Div. 4.3 | |  | | --- | | documentation | | substances which, in contact with water, emit flammable gases | | | enumeration | IMDG Code Class 5 Div. 5.1 | |  | | --- | | documentation | | oxidizing substances | | | enumeration | IMDG Code Class 5 Div. 5.2 | |  | | --- | | documentation | | organic peroxides | | | enumeration | IMDG Code Class 6 Div. 6.1 | |  | | --- | | documentation | | toxic substances | | | enumeration | IMDG Code Class 6 Div. 6.2 | |  | | --- | | documentation | | infectious substances | | | enumeration | IMDG Code Class 7 | |  | | --- | | documentation | | Radioactive material | | | enumeration | IMDG Code Class 8 | |  | | --- | | documentation | | Corrosive substances | | | enumeration | IMDG Code Class 9 | |  | | --- | | documentation | | Miscellaneous dangerous substances and articles | | | enumeration | Harmful Substances in packaged form | |  | | --- | | documentation | | Harmful substances are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code). Packaged form is defined as the forms of containment specified for harmful substances in the IMDG Code. (MARPOL (73/78) Annex III) | | |

simpleType **categoryOfMarineProtectedAreaType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | Classification of marine protected areas based on IUCN (International Union for Conservation of Nature and Natural Resources) or another system | |

simpleType **categoryOfMaritimeBroadcastType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | navigational warning | |  | | --- | | documentation | | message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended | | | enumeration | meteorological warning | |  | | --- | | documentation | | warning of adverse weather conditions | | | enumeration | ice report | |  | | --- | | documentation | | report of the ice situation and restrictions to shipping | | | enumeration | SAR information | |  | | --- | | documentation | | broadcast message with information about an ongoing SAR operation | | | enumeration | pirate attack warning | |  | | --- | | documentation | | warning of possible attack by pirates | | | enumeration | meteorological forecast | |  | | --- | | documentation | | broadcast message containing meteorological forecast | | | enumeration | pilot service message | |  | | --- | | documentation | | broadcast message about pilot service | | | enumeration | AIS information | |  | | --- | | documentation | | broadcast message about AIS information | | | enumeration | LORAN message | |  | | --- | | documentation | | broadcast message about the LORAN service | | | enumeration | SATNAV message | |  | | --- | | documentation | | broadcast message about Satellite Navigation service | | | enumeration | gale warning | |  | | --- | | documentation | | warning of winds of Beaufort force 8 or 9 | | | enumeration | storm warning | |  | | --- | | documentation | | warning of winds of Beaufort force 10 or over | | | enumeration | tropical revolving storm warning | |  | | --- | | documentation | | warning of hurricanes in the North Atlantic and eastern North Pacific, typhoons in the Western Pacific, cyclones in the Indian Ocean and cyclones of similar nature in other regions | | | enumeration | NAVAREA warning | |  | | --- | | documentation | | navigational warning or in-force bulletin promulgated as part of a numbered series by a NAVAREA coordinator (Maritime Safety Information Manual 2009) | | | enumeration | coastal warning | |  | | --- | | documentation | | navigational warning promulgated as part of a numbered series by a National coordinator (Maritime Safety Information Manual 2009) | | | enumeration | local warning | |  | | --- | | documentation | | warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority (Maritime Safety Information Manual 2009) | | | enumeration | low water level warning/negative tidal surge | |  | | --- | | documentation | | warning of actual or expected low water level | | | enumeration | icing warning | |  | | --- | | documentation | | warning of accretion of ice on ships | | | enumeration | tsunami broadcast | |  | | --- | | documentation | | broadcasts about tsunamis, including watches, advisories, and other types of messages relating to tsunamis or potential tsunamis | | |
| annotation | |  | | --- | | documentation | | Classification of maritime broadcast based on the nature of information conveyed. | |

simpleType **categoryOfMilitaryPracticeAreaType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | torpedo exercise area | |  | | --- | | documentation | | An area within which exercises are carried out with torpedoes. | | | enumeration | submarine exercise area | |  | | --- | | documentation | | An area within which submarine exercises are carried out. | | | enumeration | firing danger area | |  | | --- | | documentation | | Areas for bombing and missile exercises. | | | enumeration | mine-laying practice area | |  | | --- | | documentation | | An area within which mine-laying exercises are carried out. | | | enumeration | small arms firing range | |  | | --- | | documentation | | An area for shooting pistols, rifles and machine guns, etc. at a target. | | |
| annotation | |  | | --- | | documentation | | Classification of area by military use. | |

simpleType **categoryOfNavigationLineType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | clearing line | |  | | --- | | documentation | | A straight line that marks the boundary between a safe and a dangerous area or that passes clear of a navigational danger. | | | enumeration | transit line | |  | | --- | | documentation | | A line passing through one or more fixed marks. | | | enumeration | leading line bearing a recommended track | |  | | --- | | documentation | | A line passing through one or more clearly defined features, along the path of which a vessel can approach safely up to a certain distance off. | | |
| annotation | |  | | --- | | documentation | | Classification of route guidance given to vessels | |

simpleType **categoryOfPilotBoardingPlaceType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | boarding by pilot-cruising vessel | |  | | --- | | documentation | | Pilot boards from a cruising vessel. | | | enumeration | boarding by helicopter | |  | | --- | | documentation | | Pilot boards by helicopter which comes out from the shore. | | | enumeration | pilot comes out from shore | |  | | --- | | documentation | | Pilot boards from a vessel which comes out from the shore on request. | | |
| annotation | |  | | --- | | documentation | | Classification of pilot boarding place by method used to board pilots. | |

simpleType **categoryOfPilotType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | pilot | |  | | --- | | documentation | | Pilot licenced to conduct vessels during approach from sea to a specified place which may be a handover place, an anchorage or alongside. | | | enumeration | deep sea | |  | | --- | | documentation | | Pilot licenced to conduct vessels over extensive sea areas. | | | enumeration | harbour | |  | | --- | | documentation | | Pilot who is licenced to conduct vessels from a specified place, such as a handover area or anchorage into a harbour. | | | enumeration | bar | |  | | --- | | documentation | | Pilot licensed to conduct vessels over a bar to or from a handover with a river pilot (for example as used in USA). | | | enumeration | river | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places, along the course of a river (for example as used in Rio Amazonas and Rio de La Plata). | | | enumeration | channel | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places, along the course of a channel. (for example as used in Rio Amazonas and Rio de La Plata). | | | enumeration | lake | |  | | --- | | documentation | | Pilot licensed to conduct vessels from and to specified places on a great lake. (for example as used in the Lago de Maracaibo in Venezuela. | | |
| annotation | |  | | --- | | documentation | | Classification of pilots and pilot services by type of waterway where piloting services are provided. | |

simpleType **categoryOfPreferenceType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | primary | |  | | --- | | documentation | | The preferred and published pilot boarding place which is used in normal weather conditions. | | | enumeration | alternate | |  | | --- | | documentation | | The pilot boarding place which is used if the primary boarding place is unsuitable, for example because of weather or sea state. | | |
| annotation | |  | | --- | | documentation | | The selection of one location compared to others. | |

simpleType **categoryOfRadioMethodsType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Low Frequency (LF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for voice traffic | | | enumeration | Medium Frequency (MF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3 000kHz used for voice traffic | | | enumeration | High Frequency (HF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for voice traffic | | | enumeration | Very High Frequency (VHF) voice traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for voice traffic | | | enumeration | High Frequency Narrow Band Direct Printing | |  | | --- | | documentation | | High Frequency Narrow Band Direct Printing | | | enumeration | NAVTEX | |  | | --- | | documentation | | Narrow-band direct-printing telegraphy system for transmission of maritime safety information. | | | enumeration | SafetyNET | |  | | --- | | documentation | | SafetyNET is an international automatic direct-printing satellite-based service for the promulgation of navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages - maritime safety information (MSI) - to ships. | | | enumeration | NBDP Telegraphy (Narrow Band Direct Printing Telegraphy) | |  | | --- | | documentation | | Narrow Band Direct Printing Telegraphy. A communications system consisting of teletypewriters connected to a telephonic network to send and receive wireless signals. | | | enumeration | facsimile | |  | | --- | | documentation | | A method or device for transmitting documents, drawings, photographs, or the like, by means of radio or telephone for exact reproduction elsewhere. | | | enumeration | NAVIP | |  | | --- | | documentation | | A Russian system transmitting navigational information, send by radio and containing information relevant to coastal waters of foreign countries and high seas. | | | enumeration | Low Frequency (LF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for digital traffic | | | enumeration | Medium Frequency (MF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3000kHz used for digital traffic | | | enumeration | High Frequency (HF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for digital traffic | | | enumeration | Very High Frequency (VHF) digital traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for digital traffic | | | enumeration | Low Frequency (LF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 kHz used for telegraph traffic | | | enumeration | Medium Frequency (MF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3 000kHz used for telegraph traffic | | | enumeration | High Frequency (HF) telegraph traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for telegraph traffic | | | enumeration | Medium Frequency (MF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 300 and 3000kHz used for Digital Selective Call traffic | | | enumeration | High Frequency (HF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 3 and 30 MHz used for Digital Selective Call traffic | | | enumeration | Very High Frequency (VHF) Digital Selective Call traffic | |  | | --- | | documentation | | Frequency in a frequency range between 30 and 300 MHz used for Digital Selective Call traffic | | |
| annotation | |  | | --- | | documentation | | Categories of radiocommunications based on frequency band and radio traffic method. | |

simpleType **categoryOfRelationshipType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | prohibited | |  | | --- | | documentation | | use of facility, waterway or service is forbidden | | | enumeration | not recommended | |  | | --- | | documentation | | use of facility, waterway or service is not recommended | | | enumeration | permitted | |  | | --- | | documentation | | use of facility, waterway, or service is permitted but not required | | | enumeration | recommended | |  | | --- | | documentation | | use of facility, waterway, or service is recommended | | | enumeration | required | |  | | --- | | documentation | | use of facility, waterway, or service is required | | | enumeration | not required | |  | | --- | | documentation | | use of facility, waterway, or service is not required | | |
| annotation | |  | | --- | | documentation | | This attribute expresses the level of insistence for or against an action or activity | |

simpleType **categoryOfRestrictedAreaType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | nature reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve it's flora, fauna, physical features, etc. | | | enumeration | bird sanctuary | |  | | --- | | documentation | | A place where birds are bred and protected. | | | enumeration | game reserve | |  | | --- | | documentation | | A place where wild animals or birds hunted for sport or food are kept undisturbed for private use. | | | enumeration | seal sanctuary | |  | | --- | | documentation | | A place where seals are protected. | | | enumeration | historic wreck area | |  | | --- | | documentation | | An area around certain wrecks of historical importance to protect the wrecks from unauthorized interference by diving, salvage or deposition (including anchoring). | | | enumeration | research area | |  | | --- | | documentation | | an area where marine research takes place. | | | enumeration | fish sanctuary | |  | | --- | | documentation | | A place where fish are protected. | | | enumeration | ecological reserve | |  | | --- | | documentation | | A tract of land or water managed so as to preserve the relation of plants and living creatures to each other and to their surroundings. | | | enumeration | environmentally sensitive sea area | |  | | --- | | documentation | | A generic term which may be used to describe a wide range of areas, considered sensitive for a variety of environmental reasons. | | | enumeration | particularly sensitive sea area | |  | | --- | | documentation | | An area that needs special protection through action by IMO because of its significance for regional ecological, socio-economic or scientific reasons and because it may be vulnerable to damage by international shipping activities. | | | enumeration | coral sanctuary | |  | | --- | | documentation | | A place where coral is protected. (TSMAD 29) | | | enumeration | recreation area | |  | | --- | | documentation | | An area within which recreational activities regularly take place and therefore vessel movement may be restricted.  (Adapted from S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.76, November 2000). | | | enumeration | military area | |  | | --- | | documentation | | An area controlled by the military in which restrictions may apply. | | | enumeration | navigational aid safety zone | |  | | --- | | documentation | | An area around a navigational aid which vessels are prohibited from entering. | | | enumeration | minefield | |  | | --- | | documentation | | An area laid and maintained with explosive mines for defence or practice purposes. | | | enumeration | waiting area | |  | | --- | | documentation | | An area reserved for vessels waiting to enter a harbour. | | | enumeration | swinging area | |  | | --- | | documentation | | An area where vessels turn. | | | enumeration | disengagement area | |  | | --- | | documentation | | An area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when the nautical conditions impose it. | | | enumeration | port security area |  | | enumeration | offshore safety zone | |  | | --- | | documentation | | The area around an offshore installation within which vessels are prohibited from entering without permission. Special regulations protect installations within a safety zone and vessels of all nationalities are required to respect the zone. | | | enumeration | degaussing range | |  | | --- | | documentation | | an area, usually about two cables diameter, within which ships' magnetic fields may be measured sensing instruments and cables are installed on the sea bed in the range and there are cables leading from the range to a control position ashore. | | |
| annotation | |  | | --- | | documentation | | The official legal status of each kind of restricted area defines the kind of restriction(s), e.g., the restriction for a 'game preserve' may be 'entering prohibited', the restriction for an 'anchoring prohibition area' is 'anchoring prohibited'. | |

simpleType **categoryOfRouteingMeasureType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | archipelagic sea lane | |  | | --- | | documentation | | Sea lanes designated by an archipelagic State for the passage of ships and aircraft. | | | enumeration | deep water route | |  | | --- | | documentation | | A route within defined limits which has been accurately surveyed for clearance of sea bottom and submerged obstacles as indicated on the chart. | | | enumeration | fairway system | |  | | --- | | documentation | | That part of a river, harbour and so on, where the main navigable channel for vessels of larger size lies. It is also the usual course followed by vessels entering or leaving harbours, called “ship channel”. | | | enumeration | recommended route | |  | | --- | | documentation | | A navigation line, range system, or a recommended track, lane, or route. | | | enumeration | traffic separation scheme | |  | | --- | | documentation | | A scheme which aims to reduce the risk of collision in congested and/or converging areas by separating traffic moving in opposite, or nearly opposite, directions. | | | enumeration | two-way route | |  | | --- | | documentation | | A route within defined limits inside which two way traffic is established, aimed at providing safe passage of ships through waters where navigation is difficult or dangerous. | | |
| annotation | |  | | --- | | documentation | | Classification of routeing measures by type. | |

simpleType **categoryOfRxNType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | The principal subject matter of regulations, restrictions, recommendations or nautical information | |

simpleType **categoryOfScheduleType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | Describes the type of schedule, e.g., opening, closure, etc. | |

simpleType **categoryOfShipReportType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | sailing plan | |  | | --- | | documentation | | before or as near as possible to the time of departure from a port within a system or when entering the area covered by a system [for instance A, B, J, X etc] | | | enumeration | position report | |  | | --- | | documentation | | when necessary to ensure effective operation of the system | | | enumeration | deviation report | |  | | --- | | documentation | | when the ship’s position varies significantly from the position that would have been predicted from previous reports, when changing the reported route, or as decided by the master | | | enumeration | final report | |  | | --- | | documentation | | on arrival at the destination or on leaving the area covered by the system | | | enumeration | dangerous goods report | |  | | --- | | documentation | | when an incident takes place involving the loss or likely loss overboard of packaged dangerous goods, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges, into the sea | | | enumeration | harmful substances report | |  | | --- | | documentation | | when an incident takes place involving the discharge or probable discharge of oil (Annex I of MARPOL 73/78) or noxious liquid substances in bulk (Annex II of MARPOL 73/78) | | | enumeration | marine pollutants report | |  | | --- | | documentation | | in the case of the loss or likely loss overboard of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges identified in the International Maritime Goods Code as marine pollutants (Annex III of MARPOL 73/78). | | | enumeration | any other report | |  | | --- | | documentation | | any other report should be made in accordance with the system procedures as notified in accordance with paragraph 9 of the general principles | | |
| annotation | |  | | --- | | documentation | | Classification of ship reports based on IMO standard report formats. | | documentation | | Remarks: Through Resolution A.851(20), the IMO encourages authorities to require standard formats and procedures for ship reporting specified at ID 1 to 7 above but recognises that some authorities require amended formats and these cases are covered by ID 8 "any other report".   (Appendix to IMO Resolution A.851(20) GENERAL PRINCIPLES FOR SHIP REPORTING SYSTEMS AND SHIP REPORTING REQUIREMENTS, INCLUDING GUIDELINES FOR REPORTING INCIDENTS INVOLVING DANGEROUS GOODS, HARMFUL SUBSTANCES AND/OR MARINE POLLUTANTS.) | |

simpleType **categoryOfSignalStationTrafficType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | port control | |  | | --- | | documentation | | A signal station for the control of vessels within a port. | | | enumeration | port entry and departure | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a port. | | | enumeration | international port traffic | |  | | --- | | documentation | | A signal station displaying International Port Traffic signals. | | | enumeration | berthing | |  | | --- | | documentation | | A signal station for the control of vessels when berthing. | | | enumeration | dock | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a dock. | | | enumeration | lock | |  | | --- | | documentation | | A signal station for the control of vessels entering or leaving a lock. | | | enumeration | flood barrage | |  | | --- | | documentation | | A signal station for the control of vessels wishing to pass through a flood control barrage. | | | enumeration | bridge passage | |  | | --- | | documentation | | A signal station for the control of vessels wishing to pass under a bridge. | | | enumeration | dredging | |  | | --- | | documentation | | A signal station indicating when dredging is in progress. | | | enumeration | traffic control light | |  | | --- | | documentation | | Visual signal lights placed in a waterway to indicate to shipping the movements authorised at the time at which they are shown. | | | enumeration | oncoming traffic indication | |  | | --- | | documentation | | Indicates the oncoming traffic on an inland waterway. | | |
| annotation | |  | | --- | | documentation | | Classification of station based on the traffic service provided | |

simpleType **categoryOfSignalStationWarningType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | danger | |  | | --- | | documentation | | A signal or message warning of the presence of a danger to navigation. | | | enumeration | maritime obstruction | |  | | --- | | documentation | | A signal or message warning of the presence of a maritime obstruction. | | | enumeration | cable | |  | | --- | | documentation | | A signal or message warning of the presence of a cable. | | | enumeration | military practice | |  | | --- | | documentation | | A signal or message warning of activity in a military practice area. | | | enumeration | distress | |  | | --- | | documentation | | A station that may receive or transmit distress signals. | | | enumeration | weather | |  | | --- | | documentation | | A visual signal displayed to indicate a weather forecast. | | | enumeration | storm | |  | | --- | | documentation | | A signal or message conveying information about storm conditions. | | | enumeration | ice | |  | | --- | | documentation | | A signal or message conveying information about ice conditions. | | | enumeration | time | |  | | --- | | documentation | | An accurate signal marking a specified time or time interval. It is used primarily for determining errors of timepieces. Such signals are usually sent from an observatory by radio or telegraph, but visual signals are used at some ports. | | | enumeration | tide | |  | | --- | | documentation | | A signal or message conveying information on tidal conditions in the area in question. | | | enumeration | tidal stream | |  | | --- | | documentation | | A signal or message conveying information on condition of tidal currents in the area in question. | | | enumeration | tide gauge | |  | | --- | | documentation | | A device for measuring the height of tide. A graduated staff in a sheltered area where visual observations can be made; or it may consist of an elaborate recording instrument making a continuous graphic record of tide height against time. Such an instrument is usually actuated by a float in a pipe communicating with the sea through a small hole which filters out shorter waves. | | | enumeration | tide scale | |  | | --- | | documentation | | A visual scale which directly shows the height of the water above chart datum or a local datum. | | | enumeration | diving | |  | | --- | | documentation | | A signal or message warning of diving activity. | | | enumeration | water level gauge | |  | | --- | | documentation | | A device for measuring and conveying information about the water level (non-tidal) in the area in question. | | | enumeration | vertical clearance indication | |  | | --- | | documentation | | An indication of the vertical clearance of a bridge, overhead cable, etc. | | | enumeration | high water mark | |  | | --- | | documentation | | An indication of the official high water level. | | | enumeration | depth indication | |  | | --- | | documentation | | An indication of the local depth. | | |
| annotation | |  | | --- | | documentation | | Classification of station based on the warning service provided | |

simpleType **categoryOfTemporalVariationType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Extreme Event | |  | | --- | | documentation | | Indication of the possible impact of a significant event (for example hurricane, earthquake, volcanic eruption, landslide, etc), which is considered likely to have changed the seafloor or landscape significantly. | | | enumeration | Likely to Change | |  | | --- | | documentation | | Continuous or frequent change to non-bathymetric features (for example river siltation, glacier creep/recession, sand dunes, buoys, marine farms, etc.). | | | enumeration | Unlikely to Change | |  | | --- | | documentation | | Significant change to the seafloor is not expected. | | |
| annotation | |  | | --- | | documentation | | An assessment of the likelihood of change over time. | |

simpleType **categoryOfTextType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | abstract or summary | |  | | --- | | documentation | | A statement summarizing the important points of a text. | | | enumeration | extract | |  | | --- | | documentation | | An excerpt or excerpts from a text. | | | enumeration | full text | |  | | --- | | documentation | | The whole text | | |
| annotation | |  | | --- | | documentation | | Classification of completeness of textual information in relation to the source. | |

simpleType **categoryOfTrafficSeparationSchemeType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | IMO - adopted | |  | | --- | | documentation | | A defined Traffic Separation Scheme that has been adopted as an IMO routeing measure. | | | enumeration | not IMO - adopted | |  | | --- | | documentation | | A defined Traffic Separation Scheme that has not been adopted as an IMO routeing measure. | | |
| annotation | |  | | --- | | documentation | | International classification of traffic separation scheme | |

simpleType **categoryOfVesselRegistryType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | domestic | |  | | --- | | documentation | | The vessel is registered or enrolled under the same national flag as the port, harbour, territorial sea, exclusive economic zone, or administrative area in which the object that possesses this attribute applies or is located. | | | enumeration | foreign | |  | | --- | | documentation | | The vessel is registered or enrolled under a national flag different from the port, harbour, territorial sea, exclusive economic zone, or other administrative area in which the object that possesses this attribute applies or is located. | | |
| annotation | |  | | --- | | documentation | | The locality of vessel registration or enrolment relative to the nationality of a port, territorial sea, administrative area, exclusive zone or other location. | |

simpleType **categoryOfVesselTrafficServiceType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Information Service | |  | | --- | | documentation | | A service to ensure that essential information becomes available in time for on-board navigational decision-making | | | enumeration | Traffic Organisation Service | |  | | --- | | documentation | | A service to assist on-board navigational decision-making and to monitor its effects | | | enumeration | Navigational Assistance Service | |  | | --- | | documentation | | A service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area | | |
| annotation | |  | | --- | | documentation | | Classification of vessel traffic services based on the nature of the control or services provided | |

simpleType **categoryOfVesselType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | Classification of vessels by function or use | |

simpleType **comparisonOperatorType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | greater than | |  | | --- | | documentation | | The value of the left value is greater than that of the right.(http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | greater than or equal to | |  | | --- | | documentation | | The value of the left expression is greater than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | less than | |  | | --- | | documentation | | The value of the left expression is less than that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | less than or equal to | |  | | --- | | documentation | | The value of the left expression is less than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | equal to | |  | | --- | | documentation | | The two values are equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) | | | enumeration | not equal to | |  | | --- | | documentation | | The two values are not equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) | | |
| annotation | |  | | --- | | documentation | | Remarks: The definition of COMPOP provides the relation between the value given in the model and the real ship's value. | |

simpleType **conditionType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration |  |  | | enumeration | under construction | |  | | --- | | documentation | | a structure that is in the process of being built. | | appinfo | | <code>1</code> | | | enumeration | under reclamation | |  | | --- | | documentation | | an area of the sea that is being reclaimed as land, usually by the dumping of earth and other material. | | appinfo | | <code>3</code> | | | enumeration | planned construction | |  | | --- | | documentation | | an area where a future construction is planned. | | appinfo | | <code>5</code> | | |
| annotation | |  | | --- | | documentation | | The various conditions of buildings and other constructions. | |

simpleType **dayOfWeekType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Monday | |  | | --- | | documentation | | The second day of the week. | | appinfo | | <code>2</code> | | | enumeration | Tuesday | |  | | --- | | documentation | | The third day of the week. | | appinfo | | <code>3</code> | | | enumeration | Wednesday | |  | | --- | | documentation | | The fourth day of the week. | | appinfo | | <code>4</code> | | | enumeration | Thursday | |  | | --- | | documentation | | The fifth day of the week. | | appinfo | | <code>5</code> | | | enumeration | Friday | |  | | --- | | documentation | | The sixth day of the week. | | appinfo | | <code>6</code> | | | enumeration | Saturday | |  | | --- | | documentation | | The seventh day of the week. | | appinfo | | <code>7</code> | | | enumeration | Sunday | |  | | --- | | documentation | | The first day of the week. | | appinfo | | <code>1</code> | | |

simpleType **dynamicResourceType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | static | |  | | --- | | documentation | | The information is static, or a source of up-to-date information is unavailable or unknown. | | | enumeration | mandatory external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available and interaction with it to obtain up-to-date information is required. | | | enumeration | optional external dynamic | |  | | --- | | documentation | | An external source of up-to-date information is available but interaction with it to obtain up-to-date information is not required. | | | enumeration | onboard dynamic | |  | | --- | | documentation | | Up-to-date information may be computed using only onboard resources. | | |
| annotation | |  | | --- | | documentation | | Whether a vessel must use a shore-based or other resource to obtain up-to-date information. | |

simpleType **ispsLevelType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | ISPS Level 1 | |  | | --- | | documentation | | The level for which minimum appropriate protective security measures shall be maintained at all times. | | | enumeration | ISPS Level 2 | |  | | --- | | documentation | | The level for which appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a security incident. | | | enumeration | ISPS Level 3 | |  | | --- | | documentation | | The level for which further specific protective security measures shall be maintained for a limited period of time when a security incident is probable or imminent, although it may not be possible to identify the specific target. | | |
| annotation | |  | | --- | | documentation | | Classification of ISPS security levels according to the ISPS Code. | |

simpleType **jurisdictionType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | international | |  | | --- | | documentation | | involving more than one country; covering more than one national area. | | | enumeration | national | |  | | --- | | documentation | | an area administered or controlled by a single nation. | | | enumeration | national sub-division | |  | | --- | | documentation | | an area smaller than the nation in which it lies. | | |
| annotation | |  | | --- | | documentation | | The jurisdiction applicable to an administrative area. | |

simpleType **logicalConnectivesType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | logical conjunction | |  | | --- | | documentation | | all the conditions described by the other attributes of the object, or sub-attributes of the same complex attribute, are true | | | enumeration | logical disjunction | |  | | --- | | documentation | | at least one of the conditions described by the other attributes of the object, or sub-attributes of the same complex attributes, is true | | |

simpleType **membershipType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | included | |  | | --- | | documentation | | Vessels with these characteristics are included in the regulation/restriction/recommendation/nautical information. | | | enumeration | excluded | |  | | --- | | documentation | | Vessels with these characteristics are excluded from the regulation/restriction/recommendation/nautical information. | | |
| annotation | |  | | --- | | documentation | | Definition required | |

simpleType **mMSICodeType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | length | 9 | |  | | --- | | documentation | | Redundant, pattern can specify length | | | pattern | \d{9} |  | |
| annotation | |  | | --- | | documentation | | The Maritime Mobile Service Identity (MMSI) Code is formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations,coast stations, coast earth stations, and group calls. These identities are formed in such a way that the identity or part thereof can be used by telephone and telex subscribers connected to the general telecommunications network principally to call ships automatically. | |

simpleType **onlineFunctionType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | online search interface for seeking out information about the resource (ISO 19115:2014). | |

simpleType **operationType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | largest value | |  | | --- | | documentation | | The numerically largest value computed from the applicable attributes or sub-attributes | | | enumeration | smallest value | |  | | --- | | documentation | | The numerically smallest value computed from the applicable attributes or sub-attributes | | |
| annotation | |  | | --- | | documentation | | Indicates whether the minimum or maximum value should be used to describe a condition or in application processing | | documentation | | Remarks: OPERAT is intended to be used in conjunction with other attributes (or sub-attributes of a complex attribute) to indicate how their values must be combined in order to describe a condition. Null attributes are ignored. Example: Complex attribute underkeelAllowance with UKCFIX=2.5, UKCVAR=10.00, OPERAT=1 inicates that the under-keel allowance required is the greater of 2.5 metres or 10% of the ship's draught. | |

simpleType **pilotMovementType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | embarkation | |  | | --- | | documentation | | The place where vessels not being navigated according to a pilot’s instructions pick up a pilot while in transit from sea to a port or constricted waters for future navigation under pilot instructions. | | | enumeration | disembarkation | |  | | --- | | documentation | | The place where vessels being navigated under a pilot’s instructions in transit from sea to a port or constricted waters drop the pilot and proceed without being subject to pilot instructions. | | | enumeration | pilot change | |  | | --- | | documentation | | The place where vessels being navigated under a pilot’s instructions drop off the pilot and pick up a different pilot for future navigation under pilot’s instructions. | | |
| annotation | |  | | --- | | documentation | | Classification of pilot activity by arrival, departure, or change of pilot. It may also describe the place where the pilot's advice begins, ends, or is transferred to a different pilot. | |

simpleType **pilotQualificationType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | government pilot | |  | | --- | | documentation | | A pilot service carried out by government pilots. | | | enumeration | pilot approved by government | |  | | --- | | documentation | | A pilot service carried out by pilots who are approved by government. | | | enumeration | state pilot | |  | | --- | | documentation | | A pilot that is licensed by the State (USA) and/or their respective pilot association, required for all foreign vessels and all American vessels under registry, bound for a port with compulsory State pilotage. A federal licence is not sufficient to pilot such vessels into the port. | | | enumeration | federal pilot | |  | | --- | | documentation | | A pilot who carries a Federal endorsement, offering services to vessels that are not required to obtain compulsory State pilotage. Services are usually contracted for in advance. | | | enumeration | company pilot | |  | | --- | | documentation | | A pilot provided by a commercial company. | | | enumeration | local pilot | |  | | --- | | documentation | | A pilot with local knowledge but who does not hold a qualification as a pilot. | | | enumeration | citizen with sufficient local knowledge | |  | | --- | | documentation | | A pilot service carried out by a citizen with sufficient local knowledge. | | | enumeration | citizen with doubtful local knowledge | |  | | --- | | documentation | | A pilot service carried out by a citizen whose local knowledge is uncertain. | | |
| annotation | |  | | --- | | documentation | | Classification of pilots and pilot services by type of license qualification or type of organization providing services. | |

simpleType **qualityOfHorizontalMeasurementType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | surveyed | |  | | --- | | documentation | | The position(s) was(were) determined by the operation of making measurements for determining the relative position of points on, above, or beneath the earth's surface. Survey implies a regular, controlled, survey of any date. | | | enumeration | unsurveyed | |  | | --- | | documentation | | Survey data does not exist or is very poor | | | enumeration | inadequately surveyed | |  | | --- | | documentation | | Position data is of very poor quality | | | enumeration | approximate | |  | | --- | | documentation | | A position that is considered to be less than third-order accuracy, but is generally considered to be within 30.5 meters of its correct geographic location. Also, may apply to a feature whose position does not remain fixed. | | | enumeration | position doubtful | |  | | --- | | documentation | | A feature whose position has been reported but which is considered to be doubtful | | | enumeration | unreliable | |  | | --- | | documentation | | A feature's position obtained from questionable or unreliable data. | | | enumeration | reported (not surveyed) | |  | | --- | | documentation | | A feature whose position has been reported and its position confirmed by some means other than a formal survey such as an independent report of the same feature. | | | enumeration | reported (not confirmed | |  | | --- | | documentation | | A feature whose position has been reported and its position has not been confirmed. | | | enumeration | estimated | |  | | --- | | documentation | | The most probable position of a feature determined from incomplete data or data of questionable accuracy. | | | enumeration | precisely known | |  | | --- | | documentation | | A position that is of a known value, such as the position of an anchor berth or other defined feature. | | | enumeration | calculated | |  | | --- | | documentation | | A position that is computed from data. | | |
| annotation | |  | | --- | | documentation | | The degree of reliability attributed to a position | |

simpleType **restrictionType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | anchoring prohibited | |  | | --- | | documentation | | An area within which anchoring is not permitted. | | | enumeration | anchoring restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. | | | enumeration | fishing prohibited | |  | | --- | | documentation | | An area within which fishing is not permitted. | | | enumeration | fishing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. | | | enumeration | trawling prohibited | |  | | --- | | documentation | | An area within which trawling is not permitted. | | | enumeration | trawling restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. | | | enumeration | entry prohibited | |  | | --- | | documentation | | An area within which navigation and/or anchoring is prohibited. | | | enumeration | entry restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. | | | enumeration | dredging prohibited | |  | | --- | | documentation | | An area within which dredging is not permitted. | | | enumeration | dredging restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. | | | enumeration | diving prohibited | |  | | --- | | documentation | | An area within which diving is not permitted. | | | enumeration | diving restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. | | | enumeration | no wake | |  | | --- | | documentation | | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. | | | enumeration | area to be avoided | |  | | --- | | documentation | | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. | | | enumeration | construction prohibited | |  | | --- | | documentation | | The erection of permanent or temporary fixed structures or artificial islands is prohibited. | | | enumeration | discharging prohibited | |  | | --- | | documentation | | An area in which discharging or dumping is prohibited. | | | enumeration | discharging restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which discharging or dumping is restricted in accordance with certain specified conditions. | | | enumeration | industrial or mineral exploration/development prohibited | |  | | --- | | documentation | | An area in which industrial or mineral exploration and development are prohibited. | | | enumeration | industrial or mineral exploration/development restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. | | | enumeration | drilling prohibited | |  | | --- | | documentation | | An area in which excavating a hole on the seabed with a drill is prohibited. | | | enumeration | drilling restricted | |  | | --- | | documentation | | A specified area designated by appropriate authority, within which excavating a hole on the seabed with a drill is restricted in accordance with certain specified conditions. | | | enumeration | removal of historical artifacts prohibited | |  | | --- | | documentation | | An area in which the removal of historical artifacts is prohibited. | | | enumeration | cargo transhipment (lightering) prohibited | |  | | --- | | documentation | | An area in which cargo transhipment (lightering) is prohibited. | | | enumeration | dragging prohibited | |  | | --- | | documentation | | An area in which the dragging or anything along the seabed, e.g., bottom trawling, is prohibited. | | | enumeration | stopping prohibited | |  | | --- | | documentation | | An area in which a vessel is prohibited from stopping. | | | enumeration | landing prohibited | |  | | --- | | documentation | | An area in which landing is prohibited. | | | enumeration | speed restricted | |  | | --- | | documentation | | An area in which speed is restricted. | | | enumeration | overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking is generally prohibited | | | enumeration | overtaking of convoys by convoys prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which overtaking between convoys prohibited | | | enumeration | passing or overtaking prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which passing or overtaking is generally prohibited | | | enumeration | berthing prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. | | | enumeration | berthing restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which berthing is restricted | | | enumeration | making fast prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. | | | enumeration | making fast restricted | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which making fast to the bank is restricted | | | enumeration | turning prohibited | |  | | --- | | documentation | | a specified area designated by appropriate authority, within which all turning is generally prohibited | | | enumeration | restricted fairway depth | |  | | --- | | documentation | | an area within which the fairway depth is restricted. | | | enumeration | restricted fairway width | |  | | --- | | documentation | | an area within which the fairway width is restricted. | | | enumeration | use of spuds prohibited | |  | | --- | | documentation | | The use of anchoring spuds (telescopic piles) is prohibited | | | enumeration | swimming prohibited | |  | | --- | | documentation | | An area in which swimming is prohibited. | | |
| annotation | |  | | --- | | documentation | | The official legal statute of each kind of restricted area. | |

simpleType **sourceTypeType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | law or regulation | |  | | --- | | documentation | | treaty, convention, or international agreement; law or regulation issued by a national or other authority | | | enumeration | official publication | |  | | --- | | documentation | | publication not having the force of law, issued by an international organisation or a national or local administration | | | enumeration | mariner report, confirmed | |  | | --- | | documentation | | Reported by mariner(s) and confirmed by another source | | | enumeration | mariner report, not confirmed | |  | | --- | | documentation | | reported by mariner(s) but not confirmed | | | enumeration | industry publications and reports | |  | | --- | | documentation | | shipping and other industry publication, including graphics, charts and web sites | | | enumeration | remotely sensed images | |  | | --- | | documentation | | information obtained from satellite images | | | enumeration | photographs | |  | | --- | | documentation | | information obtained from photographs | | | enumeration | products issued by HO services | |  | | --- | | documentation | | information obtained from products issued by Hydropgrahic Offices | | | enumeration | news media | |  | | --- | | documentation | | information obtained from news media | | | enumeration | traffic data | |  | | --- | | documentation | | information obtained from the analysis of traffic data | | |

simpleType **statusType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | permanent | |  | | --- | | documentation | | Intended to last or function indefinitely | | | enumeration | occasional | |  | | --- | | documentation | | Acting on special occasions; happening irregularly | | | enumeration | recommended | |  | | --- | | documentation | | Presented as worthy of confidence, acceptance, use, etc. | | | enumeration | not in use | |  | | --- | | documentation | | Use has ceased, but the facility still exists intact; disused. | | | enumeration | periodic/intermittent | |  | | --- | | documentation | | Recurring at intervals | | | enumeration | reserved | |  | | --- | | documentation | | Set apart for some specific use | | | enumeration | temporary | |  | | --- | | documentation | | Meant to last only for a time | | | enumeration | private | |  | | --- | | documentation | | Administered by an individual or corporation, rather than a State or a public body. | | | enumeration | mandatory | |  | | --- | | documentation | | Compulsory; enforced. | | | enumeration | extinguished | |  | | --- | | documentation | | No longer lit | | | enumeration | illuminated | |  | | --- | | documentation | | Lit by floodlights, strip lights, etc. | | | enumeration | historic | |  | | --- | | documentation | | Famous in history; of historical interest | | | enumeration | public | |  | | --- | | documentation | | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. | | | enumeration | synchronised | |  | | --- | | documentation | | Occur at a time, coincide in point of time, be contemporary or simultaneous | | | enumeration | watched | |  | | --- | | documentation | | Looked at or observed over a period of time especially so as to be aware of any movement or change. | | | enumeration | un-watched | |  | | --- | | documentation | | Usually automatic in operation, without any permanently-stationed personnel to superintend it. | | | enumeration | existence doubtful | |  | | --- | | documentation | | A feature that has been reported but has not been definitely determined to exist. | | | enumeration | buoyed | |  | | --- | | documentation | | Marked by buoys | | |
| annotation | |  | | --- | | documentation | | Definition required | |

simpleType **telecommunicationServiceType**

|  |  |
| --- | --- |
| type | union of (restriction of **xs:string**, restriction of **xs:string**) |
| annotation | |  | | --- | | documentation | | Classification of methods of communication over a distance by electrical or electromagnetic means. | |

simpleType **textJustificationType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | left | |  | | --- | | documentation | | The anchor point is at the start of the text string. | | | enumeration | centred | |  | | --- | | documentation | | The anchor point is at the centre of the text string. | | | enumeration | right | |  | | --- | | documentation | | The anchor point is at the end of the text string. | | |
| annotation | |  | | --- | | documentation | | The anchor point of a text string. | |

simpleType **textTypeType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | Feature name | |  | | --- | | documentation | | Definition required | | |
| annotation | |  | | --- | | documentation | | The attribute from which a text string is derived. | |

simpleType **trafficFlowType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | inbound | |  | | --- | | documentation | | Traffic flow in a general direction toward a port or similar destination. | | | enumeration | outbound | |  | | --- | | documentation | | Traffic flow in a general direction away from a port or similar point of origin. | | | enumeration | one-way | |  | | --- | | documentation | | Traffic flow in one general direction only. | | | enumeration | two-way | |  | | --- | | documentation | | Traffic flow in two generally opposite directions. | | |
| annotation | |  | | --- | | documentation | | Direction of vessels passing a reference point. | |

simpleType **vesselsCharacteristicsType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | length overall | |  | | --- | | documentation | | The maximum length of the ship (L.O.A.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | length at waterline | |  | | --- | | documentation | | The ship's length measured at the waterline (L.W.L.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | breadth | |  | | --- | | documentation | | The width or beam of the vessel. (Adapted from http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | draught | |  | | --- | | documentation | | The depth of water necessary to float a vessel fully loaded. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | height | |  | | --- | | documentation | | The height of the highest point of a vessel's structure (e.g. radar aerial, funnel, cranes, masthead) above her waterline. (UKHO NP100/2009) | | | enumeration | displacement tonnage | |  | | --- | | documentation | | A measurement of the weight of the vessel, usually used for warships. (Merchant ships are usually measured based on the volume of cargo space; see tonnage). Displacement is expressed either in long tons of 2,240 pounds or metric tonnes of 1,000 kg. Since the two units are very close in size (2,240 pounds = 1,016 kg and 1,000 kg = 2,205 pounds), it is common not to distinguish between them. To preserve secrecy, nations sometimes misstate a warship's displacement. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | displacement tonnage, light | |  | | --- | | documentation | | The weight of the ship excluding cargo, fuel, ballast, stores, passengers, and crew, but with water in the boilers to steaming level. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | displacement tonnage, loaded | |  | | --- | | documentation | | The weight of the ship including cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage, which brings the vessel down to her load draft. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | deadweight tonnage | |  | | --- | | documentation | | The difference between displacement, light and displacement, loaded. A measure of the ship's total carrying capacity. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | gross tonnage | |  | | --- | | documentation | | The entire internal cubic capacity of the ship expressed in tons of 100 cubic feet to the ton, except certain spaces with are exempted such as: peak and other tanks for water ballast, open forecastle bridge and poop, access of hatchways, certain light and air spaces, domes of skylights, condenser, anchor gear, steering gear, wheel house, galley and cabin for passengers. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | net tonnage | |  | | --- | | documentation | | Obtained from the gross tonnage by deducting crew and navigating spaces and allowances for propulsion machinery.(http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) | | | enumeration | Panama Canal/Universal Measurement System net tonnage | |  | | --- | | documentation | | the Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) | | | enumeration | Suez Canal net tonnage | |  | | --- | | documentation | | the Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) | | | enumeration | Suez Canal gross tonnage | |  | | --- | | documentation | | Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | |

simpleType **vesselsCharacteristicsUnitType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | metre | |  | | --- | | documentation | | The metre (or meter) is the base unit of length in the International System of Units (SI). It is defined as the distance travelled by light in vacuum in 1/299,792,458 of a second. | | | enumeration | foot | |  | | --- | | documentation | | A foot (plural: feet) is a non-SI unit of length in a number of different systems including English units, Imperial units, and United States customary units. The most commonly used foot today is the international foot. There are three feet in a yard and 12 inches in a foot. | | | enumeration | metric ton | |  | | --- | | documentation | | The tonne or metric ton (U.S.), often redundantly referred to as a metric tonne, is a unit of mass equal to 1,000 kg (2,205 lb) or approximately the mass of one cubic metre of water at four degrees Celsius. It is sometimes abbreviated as mt in the United States, but this conflicts with other SI symbols. The tonne is not a unit in the International System of Units (SI), but is accepted for use with the SI. In SI units and prefixes, the tonne is a megagram (Mg). The Imperial and US customary units comparable to the tonne are both spelled ton in English, though they differ in mass. Pronunciation of tonne (the word used in the UK) and ton is usually identical, but is not too confusing unless accuracy is important as the tonne and UK long ton differ by only 1.6%. | | | enumeration | ton | |  | | --- | | documentation | | Long ton (weight ton or imperial ton) is the name for the unit called the "ton" in the avoirdupois or Imperial system of measurements, as used in the United Kingdom and several other Commonwealth countries. It has been mostly replaced by the tonne, and in the United States by the short ton. One long ton is equal to 2,240 pounds (1,016 kg) or 35 cubic feet (0.9911 m3) of salt water with a density of 64 lb/ft³ (1.025 g/ml). It has some limited use in the United States, most commonly in measuring the displacement of ships, and was the unit prescribed for warships by the Washington Naval Treaty—for example battleships were limited to a mass of 35,000 long tons (36,000 t; 39,000 ST). | | | enumeration | short ton | |  | | --- | | documentation | | The short ton is a unit of weight equal to 2,000 pounds (907.18474 kg). In the United States it is often called simply ton without distinguishing it from the metric ton (tonne, 1,000 kilograms) or the long ton (2,240 pounds / 1,016.0469088 kilograms); rather, the other two are specifically noted. There are, however, some U.S. applications for which unspecified tons normally means long tons (for example, Navy ships) or metric tons (world grain production figures). Both the long and short ton are defined as 20 hundredweights, but a hundredweight is 100 pounds (45.359237 kg) in the U.S. system (short or net hundredweight) and 112 pounds (50.80234544 kg) in the Imperial system (long or gross hundredweight). | | | enumeration | gross ton | |  | | --- | | documentation | | Gross tonnage (GT) is a function of the volume of all ship's enclosed spaces (from keel to funnel) measured to the outside of the hull framing. There is a sliding scale factor. So GT is a kind of capacity-derived index that is used to rank a ship for purposes of determining manning, safety and other statutory requirements and is expressed simply as GT, which is a unitless entity, even though its derivation is tied to the cubic meter unit of volumetric capacity. Tonnage measurements are now governed by an IMO Convention (International Convention on Tonnage Measurement of Ships, 1969 (London-Rules)), which applies to all ships built after July 1982. In accordance with the Convention, the correct term to use now is GT, which is a function of the moulded volume of all enclosed spaces of the ship. | | | enumeration | net ton | |  | | --- | | documentation | | Net tonnage (NT) is based on a calculation of the volume of all cargo spaces of the ship. It indicates a vessel’s earning space and is a function of the moulded volume of all cargo spaces of the ship. | | | enumeration | Panama Canal/Universal Measurement System net tonnage | |  | | --- | | documentation | | The Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. | | | enumeration | Suez Canal Net Tonnage | |  | | --- | | documentation | | The Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | | enumeration | none | |  | | --- | | documentation | | Can be used for net and gross tonnages, including Panama Canal/Universal Measurement System net tonnage and The Suez Canal Net Tonnage. | | | enumeration | cubic metres | |  | | --- | | documentation | | cubic metres | | | enumeration | Suez Canal Gross Tonnage | |  | | --- | | documentation | | The Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. | | |

simpleType **waterLevelTrendType**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | enumeration | decreasing | |  | | --- | | documentation | | Becoming smaller in magnitude. | | | enumeration | increasing | |  | | --- | | documentation | | Becoming larger in magnitude. | | | enumeration | steady | |  | | --- | | documentation | | Constant. | | |
| annotation | |  | | --- | | documentation | | The tendency of water level to change in a particular direction. | |

Schema **common.xsd**

|  |  |  |
| --- | --- | --- |
| Elements | Complex types | Simple types |
| [**MetaFeature**](#Link1) | [**CurveOrSurface**](#Link2) | [**Decimal0.0To360.0**](#Link3) |
|  | [**GenericFeatureType**](#Link4) | [**Integer0To360**](#Link5) |
|  | [**GM\_Curve**](#Link6) | [**ISO3166-alpha2**](#Link7) |
|  | [**GM\_Point**](#Link8) | [**ISO639-2**](#Link9) |
|  | [**GM\_Surface**](#LinkA) | [**ISO639-3**](#LinkB) |
|  | [**MetaFeatureType**](#LinkC) | [**NonNegativeDecimal**](#LinkD) |
|  | [**PointCurveSurface**](#LinkE) | [**NonNegativeDecimal.1**](#LinkF) |
|  | [**PointOrCurve**](#Link10) |  |
|  | [**PointOrSurface**](#Link11) |  |
|  | [**S100\_TruncatedDate**](#Link12) |  |

element **MetaFeature**

|  |  |
| --- | --- |
| diagram |  |
| type | [**MetaFeatureType**](#LinkC) |
| substitution group | **gml:AbstractFeature** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** |

complexType **CurveOrSurface**

|  |  |
| --- | --- |
| diagram |  |
| children | **curveProperty surfaceProperty** |

complexType **GenericFeatureType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **AbstractFeatureType** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** |

complexType **GM\_Curve**

|  |  |
| --- | --- |
| diagram |  |
| children | **curveProperty** |

complexType **GM\_Point**

|  |  |
| --- | --- |
| diagram |  |
| children | **pointProperty** |

complexType **GM\_Surface**

|  |  |
| --- | --- |
| diagram |  |
| children | **surfaceProperty** |

complexType **MetaFeatureType**

|  |  |
| --- | --- |
| diagram |  |
| type | extension of **AbstractFeatureType** |
| children | **gml:boundedBy featureObjectIdentifier informationAssociation featureAssociation invFeatureAssociation** |
| annotation | |  | | --- | | documentation | | Generalized feature type which carry all the common attributes | |

complexType **PointCurveSurface**

|  |  |
| --- | --- |
| diagram |  |
| children | **pointProperty curveProperty surfaceProperty** |

complexType **PointOrCurve**

|  |  |
| --- | --- |
| diagram |  |
| children | **curveProperty pointProperty** |

complexType **PointOrSurface**

|  |  |
| --- | --- |
| diagram |  |
| children | **pointProperty surfaceProperty** |

complexType **S100\_TruncatedDate**

|  |  |
| --- | --- |
| diagram |  |
| children | [**gDay**](#Link13)[**gMonth**](#Link14)[**gYear**](#Link15)[**gMonthDay**](#Link16)[**gYearMonth**](#Link17)[**date**](#Link18) |
| annotation | |  | | --- | | documentation | | built in date types from W3C XML schema, implementing S-100 truncated date | |

element **S100\_TruncatedDate/gDay**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:gDay** |

element **S100\_TruncatedDate/gMonth**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:gMonth** |

element **S100\_TruncatedDate/gYear**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:gYear** |

element **S100\_TruncatedDate/gMonthDay**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:gMonthDay** |

element **S100\_TruncatedDate/gYearMonth**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:gYearMonth** |

element **S100\_TruncatedDate/date**

|  |  |
| --- | --- |
| diagram |  |
| type | **xs:date** |

simpleType **Decimal0.0To360.0**

|  |  |
| --- | --- |
| type | restriction of **xs:decimal** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | maxInclusive | 360.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | Type for value interval [0.0, 360.0]. Also limits value to 1 decimal place. | |

simpleType **Integer0To360**

|  |  |
| --- | --- |
| type | restriction of **xs:integer** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0 |  | | maxInclusive | 360 |  | |
| annotation | |  | | --- | | documentation | | Type for value interval [0.0, 360.0]. Also limits value to 1 decimal place. | |

simpleType **ISO3166-alpha2**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | pattern | \w{2} |  | |
| annotation | |  | | --- | | documentation | | stub for ISO 3166 alpha2 country codes | |

simpleType **ISO639-2**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | pattern | \w{3} |  | |
| annotation | |  | | --- | | documentation | | stub for ISO 639-2 language codes | |

simpleType **ISO639-3**

|  |  |
| --- | --- |
| type | restriction of **xs:string** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | pattern | \w{3} |  | |
| annotation | |  | | --- | | documentation | | stub for ISO 639-3 language codes | |

simpleType **NonNegativeDecimal**

|  |  |
| --- | --- |
| type | restriction of **xs:decimal** |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | |
| annotation | |  | | --- | | documentation | | Type for decimal values with minimum 0.0. | |

simpleType **NonNegativeDecimal.1**

|  |  |
| --- | --- |
| type | restriction of [**NonNegativeDecimal**](#LinkD) |
| facets | |  |  |  | | --- | --- | --- | | Kind | Value | Annotation | | minInclusive | 0.0 |  | | fractionDigits | 1 |  | |
| annotation | |  | | --- | | documentation | | Type for decimal values with minimum 0.0 and at most 1 decimal place | |