



BSI Standards Publication

Ships and marine technology — Electronic port clearance (EPC)

Part 3: Data elements for ship and port operation

National foreword

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ISO 28005-3

**Ships and marine technology —
Electronic port clearance (EPC) —**

**Part 3:
Data elements for ship and port
operation**

*Navires et technologie maritime — Opérations portuaires
assistées par systèmes électroniques —*

*Partie 3: Éléments de données pour l'exploitation des navires et
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 11, *Intermodal and Short Sea Shipping*.

A list of all parts in the ISO 28005 series are found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Ships and marine technology — Electronic port clearance (EPC) —

Part 3: Data elements for ship and port operation

1 Scope

This document provides technical specifications to facilitate an efficient exchange of electronic information between ships and shore, for coastal transit and port calls, with a specific focus on the operational data exchange. It specifies requirements to enhance the safety, security and efficiency of information exchanges.

This document describes core data elements for use in electronic port clearance (EPC) messages. It does not define any structuring of messages, but rather gives general details on safety-, security- and operation-related maritime information in the context of EPC messages.

Details about message formats and applications are found in ISO 28005-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6346, *Freight containers — Coding, identification and marking*

ISO 6709, *Standard representation of geographic point location by coordinates*

ISO 9711-1, *Freight containers — Information related to containers on board vessels — Part 1: Bay plan system*

UNECE R21 (UNECE Recommendation No. 21), Codes for Passengers, Types of Cargo, Packages and Packaging Materials (with Complementary Codes for Package Names)

UNECE R16 (UNECE Recommendation No. 16), United Nations Code for Trade and Transport Locations (ECE/TRADE/459)

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Reference to data types defined in ISO 28005-2:2021

4.1 General

Several XSD [extensible markup language (XML) schema definition] data types defined in ISO 28005-2:2021 have been reproduced in this document. Some of the definitions reproduced from in ISO 28005-2:2021 have been changed in this document. A summary of the changes is listed in [Table 1](#).

4.2 Data types modified from ISO 28005-2:2021

[Table 1](#) lists data types, data elements, and code lists from ISO 28005-2:2021 that have been modified in this document.

Table 1 — Changes to data types from ISO 28005-2:2021

Definitions from ISO 28005-2:2021	Definitions in this document
Epc:InmarsatCallNumberType	epc:SatelliteServiceType
Epc:ShipNameType	epc:ShipIdType
BeamType	epc:ShipParticularsType
DeadWeightType	epc:ShipParticularsType
DoubleBottomContentType	epc:ShipParticularsType
GrossTonnageType	epc:ShipParticularsType
IceClassType	epc:ShipParticularsType
LengthOverallType	epc:ShipParticularsType
NetTonnageType	epc:ShipParticularsType
SummerDraughtType	epc:ShipParticularsType
ShipTypeContentType	epc:ShipParticularsType
ISSCStatus in data type ISSCertificateStatusType	epc:CertificationType.ValidCertificateIndicator and epc:ISSCertificateStatusType.ISSCStatus
Data elements EmbarkationDate and DebarkationDate in PersonOnboardType	Embarkation.DateTime [TimeType = Actual, Planned etc] and Debarkation.DateTime [TimeType = Actual, Planned etc]
Data element IssuerLocation in CertificateType	CertificateIssueLocationCode and CertificateIssueCountryCode in CertificateType
epc:ContactInfoType	updated version of epc:ContactInfoType
epc:CommunicationNumberType	updated version of epc:CommunicationNumberType
epc:DateTimeType	updated version of epc:DateTimeType
Ship identity and contacts data types	updated versions are used
Cargo data types	updated versions are used
Crew and passenger data	updated versions are used
Class and ship certificates	updated versions are used
Ship particulars types	updated versions are used
Vessel operation data types	updated versions are used
Location Types	updated versions are used
Waste and environmental data types	updated versions are used
Health data types	updated versions are used
epc:ShipClassType	updated versions of epc:ShipClassType and epc: ClassSocietyContentType
Waste and environmental data types	updated versions are used
Ship Particulars Types	updated versions are used
Annex A	Table 2

Table 1 (continued)

Definitions from ISO 28005-2:2021	Definitions in this document
Annex B	Annex A
Annex D	code values as defined in the IMO Compendium ^[30]
Annex E	code values as defined in the IMO Compendium, Annex A Section 9 ^[30]
Annex F	use code values as defined in the IMO Compendium ^[30] instead.
Annex G	code values as defined in the IMO Compendium ^[30]
Annex L	code values as defined in the IMO Compendium ^[30]
Annex P	code values as defined in the IMO Compendium ^[30]
Annex R	code values as defined in the IMO Compendium ^[30]
Annex A	Table 2
Annex B	Annex A
Annex D	code values as defined in the IMO Compendium ^[30]
Annex E	code values as defined in the IMO Compendium Annex A Section 9 ^[30]

5 Relation to the IMO Compendium

The data types defined in this document are a starting point for the implementation of the data elements and the reference model defined in the IMO Compendium on Facilitation and Electronic Business.^[30] The mapping between the data elements in this document and the data elements in the IMO Compendium shall be carried out as specified in [Annex A](#). The IMO Compendium^[30] is approved by the facilitation committee in IMO (IMO FAL).

This document includes data types for all data elements in the IMO compendium as decided by IMO FAL 47,^[31] including data sets for:

- Maritime Declaration of Health^[38]
- Just in time concept
- Stowaways
- Ship and company certificates
- Acknowledgment receipt
- Maritime service
- Ship registry and company details
- Inspections
- Port state control (PSC) inspection history data
- Ship reporting systems
- Ballast water arrival reporting
- Waste delivery report
- Advanced passenger information
- Verified gross mass

6 EPC request body

Table 2 lists the data elements in the EPC request body.

Table 2 — EPC request body

Core element	Type	Cardinality	Description
Agent	epc:AgentType	0..1	The ship's agent
AirDraught	epc:AirDraughtType	0..1	Air draught
AnchorageArrival	epc:AnchorageArrivalType	0..*	Specification of arrival to an anchorage. The arrival time can be actual, estimated, planned or requested.
AnchorageDeparture	epc:AnchorageDepartureType	0..*	Specification of departure from an anchorage. The departure time can be actual, estimated, planned or requested.
ArrivalDeparture	epc:ArrivalDepartureType	0..1	Arrival or departure flag
ArrivalDraught	epc:ArrivalDraughtType	0..1	Arrival draught
ATP	epc:ATPType	0..1	Actual time of passage
Authenticator	epc:AuthenticatorType	0..1	Information about the authenticator of the information
BallastStatus	epc:BallastStatusType	0..1	Status of ship's ballast water when in port
BallastWaterArrivalReporting	Epc:BallastWaterManagementType	0..1	Ballast water arrival reporting
BerthArrival	epc:BerthArrivalType	0..*	Specification of arrival to a berth. The arrival time can be actual, estimated, planned or requested.
BerthDeparture	epc:BerthDepartureType	0..*	Specification of departure from a berth. The departure time can be actual, estimated, planned or requested.
BerthPositionArrival	epc:BerthPositionArrivalType	0..*	Specification of arrival to a berth position. The arrival time can be actual, estimated, planned or requested.
BerthPositionDeparture	epc:BerthPositionDepartureType	0..*	Specification of departure from a berth position. The departure time can be actual, estimated, planned or requested.
BulkLoadUnloadData	epc:BulkLoadUnloadDataType	0..1	Data required for safe loading and unloading
CallPurpose	epc:CallPurposeType	0..*	Purpose of call
CargoData	epc:CargoDataType	0..1	Detailed description of cargo
CargoOverview	epc:CargoOverviewType	0..1	Brief description of onboard cargo
CertificateList	epc:CertificateListType	0..1	List of ship's certificates
Company	epc:CompanyType	0..1	The ship's operating company
CSO	epc:CompanySecurityOfficerType	0..1	Information about the company security officer shown in the ship security plan.
CrewList	epc:CrewListType	0..1	Information about all crew on board, including information about the Master.
Key * = the maximum number of instances of this data type is unbounded 0..* = there is/are 0, 1 or many instance(s) of this data type 0..1 = there is/are 0 or 1 instance(s) of this data type			

Table 2 (continued)

Core element	Type	Cardinality	Description
CrewReference	epc:CrewMemberDataType	0..1	Reference to the crew onboard that has authorized a message from the ship.
CurrentPortSecurityLevel	epc:CurrentPortSecurityLevelType	0..1	Current security level in port.
CurrentShipSecurityLevel	epc:CurrentShipSecurityLevelType	0..1	Current security level on ship.
DangerousGoodsCargoIndicator	epc:DangerousGoodsCargoIndicatorType	0..1	A yes/no indicator whether the ship is carrying any dangerous goods.
DepartureDraught	epc:DepartureDraughtType	0..1	Departure draught
DutiableCrewEffects	epc:DutiableCrewEffectType	0..1	List of crew effects that are dutiable
ETP	epc:ETPType	0..1	Estimated time of passage
FacilityArrival	epc: FacilityArrivalType	0..*	Specification of arrival to a facility. The arrival time can be actual, estimated, planned or requested.
FacilityDeparture	epc: FacilityDepartureType	0..*	Specification of departure from a facility. The departure time can be actual, estimated, planned or requested.
GeneralDescriptionOfDG	epc:GeneralDescriptionOfDGType	0..1	General description of dangerous cargo
GeneralRemark	epc:RemarksType	0..1	Statement of any other information relevant to ship arrival, stay or departure
HasSecurityPlan	epc:HasSecurityPlanType	0..1	Approved security plan
HealthData	epc:HealthDataType	0..1	Health information for the ship
INFCClassContent	epc:INFCClassContentType	0..1	Irradiated nuclear fuel class
ISSCertificateStatus	epc:ISSCertificateStatusType	0..1	International Ship Security (ISS) Certificate status
LastPortOfCall	epc:LastPortOfCallType	0..1	Last port of call
MaritimeService	Epc:MaritimeServiceType	0..1	Reference to a maritime service related to ServiceName and ServiceCode as given in the EPCMessageHeaderType.
NavigationalStatus	epc:NavigationalStatusContent-Type	0..1	Navigational status
NextPortOfCall	epc:NextPortOfCallType	0..1	Next port of call
NextReportTime	epc:NextReportTimeType	0..1	Time of next report
OBOLoadUnloadData	epc:OBOLoadUnloadDataType	0..1	Data required for safe loading and unloading of oil-bulk-ore (OBO)
OtherPersonList	epc:OtherPersonListType	0..1	List of persons onboard that are neither crew nor passengers
PassengerList	epc:PassengerListType	0..1	Information about passengers
PeriodOfStay	epc:PeriodOfStayType	0..1	Period of stay
PersonsOnboard	epc:PersonsOnboardNumberType	0..1	Number of persons onboard
PilotBoardingPlaceArrival	epc:PilotBoardingPlaceArrival-Type	0..1	Time and location for an arrival to a pilot boarding place
PilotBoardingPlaceDeparture	epc:PilotBoardingPlaceDeparture-Type	0..1	Time and location for a departure from a pilot boarding place
PortCallList	PortCallListType	0..1	Last ten port calls
Key * = the maximum number of instances of this data type is unbounded 0..* = there is/are 0, 1 or many instance(s) of this data type 0..1 = there is/are 0 or 1 instance(s) of this data type			

Table 2 (continued)

Core element	Type	Cardinality	Description
PortOfArrival	epc:PortOfArrivalType	0..1	Arrival port and time
PortOfDeparture	epc:PortOfDepartureType	0..1	Departure port and time. This includes port name and possibly ETD and ATD: PortOfDeparture/Time[Estimated] and PortOfDeparture/Time[Actual]
PSCInspectionHistory	epc:InspectionType	0..*	List of port inspection information
Radiocommunications	epc:RadiocommunicationsType	0..1	Radiocommunication active
RemarkSRS	epc:SRSRemarksType	0..*	Additional information regarding a ship reporting system
ReportingEvent	epc:VoyageEventType	0..1	This is the location from which a report is given and the time given in coordinated universal time (UTC) when the report is given. The type is changed from Location-CallType to VoyageEventType.
RequestStatus	epc:RequestStatusType	0..1	Status of a request (used by server)
ROBBunkers	epc:ROBBunkersType	0..*	Bunkers remaining onboard
SecurityOtherMattersToReport	SecurityOtherMattersToReport-Type	0..1	Other security matters to report
ShipBanned	epc:ShipBannedType	0..1	Information related to the banning of a ship as a result of a port state control inspection.
ShipCertificateList	epc:CertificateListType	0..1	List of ship certificates. Name changed from CertificateListType to ShipCertificateListType to distinguish from ship company certificates.
ShipClass	epc:ShipClassType	0..1	Class notation for ship
ShipCompanyInspection	epc:InspectionType	0..1	Report on inspection of the ship's company
ShipCompanyCertificateList	Epc:CertificateListType	0..1	List of certificates for the ship's company
ShipDefects	epc:ShipDefectsType	0..*	Any defects of important ship equipment
ShipID	Epc:ShipIDType	0..1	The set of different identifiers of the ship
ShipInspection	epc:InspectionType	0..*	Reports on inspection of the ship
ShipParticulars	Epc:ShipParticularsType	0..1	Ship particulars
ShipStatus	epc:ShipStatusType	0..1	Vessel status information
ShipStore	epc:ShipStoreType	0..1	Description of ship's dutiable stores
ShipToShipActivityList	epc:ShipToShipActivityListType	0..1	Ship-to-ship activities
ShipType	epc:ShipTypeContentType	0..1	Ship type code
TerminalArrival	epc: TerminalArrivalType	0..*	Specification of arrival to a terminal. The arrival time can be actual, estimated, planned or requested.
TerminalDeparture	epc: TerminalDepartureType	0..*	Specification of departure from a terminal. The departure time can be actual, estimated, planned or requested.
VoyageDescription	epc:VoyageDescriptionType	0..1	Brief description of voyage.
Key * = the maximum number of instances of this data type is unbounded 0..* = there is/are 0, 1 or many instance(s) of this data type 0..1 = there is/are 0 or 1 instance(s) of this data type			

Table 2 (continued)

Core element	Type	Cardinality	Description
VoyageEventList	epc:VoyageEventListType	0..1	Time and position when entering /exiting from ship reporting or getting to a Pilot-Boarding point..
VoyageNumber	epc:VoyageNumberType	0..1	Voyage identification code
WasteDisposalRequirements	epc:WasteDisposalRequirementsType	0..1	Ship's requirements for waste disposal
WasteInformation	epc:WasteInformationType	0..1	Waste information
WayPointList	epc:WayPointListType	0..1	Way-point list
WeatherInformation	epc:WeatherInformationType	0..1	Weather information as observed
Key * = the maximum number of instances of this data type is unbounded 0..* = there is/are 0, 1 or many instance(s) of this data type 0..1 = there is/are 0 or 1 instance(s) of this data type			

7 General data types

7.1 General

This clause contains information on general data types.

7.2 Epc:ContactInfoType – Contact information

7.2.1 Definition

This data type contains contact information for either a person or a company.

7.2.2 Type

```

<xs:complexType name="ContactInfoType">
  <xs:sequence>
    <xs:element name="Company" type="xs:string" minOccurs="0"/>
    <xs:element name="CompanyId" type="xs:string" minOccurs="0"/>
    <xs:element name="ContactType" type="epc:ContactTypeContentType" minOccurs="0"/>
    <xs:element name="ContactNumbers" type="epc:CommunicationNumberType" minOccurs="0"/>
    <xs:element name="Person" type="epc:NameType" minOccurs="0"/>
    <xs:element name="Address" type="epc:PostalAddressType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>

```

7.2.3 Representation

Common information for both persons and companies are addresses and contact numbers. Companies and persons differ, in that companies have one name in a string, while persons can have a given name, family name, and middle name. CompanyId is the recognized identification number of the company. ContactType is a code specifying the type of contact for dangerous goods. The code values are according to UN/EDIFACT codes 3139 Contact function code.[\[48\]](#)

7.3 epc:CommunicationNumberType – Communication number information

7.3.1 Definition

This data type specifies a contact point via telephone or other means.

7.3.2 Type

```
<xs:complexType name="CommunicationNumberType">
  <xs:sequence>
    <xs:element name="BusinessTelephone" type="epc:string" minOccurs="0"/>
    <xs:element name="ContactURL" type="epc:anyURI" minOccurs="0" maxOccurs="1"/>
    <xs:element name="EMail" type="epc:anyURI" minOccurs="0"/>
    <xs:element name="HomeTelephone" type="epc:string" minOccurs="0"/>
    <xs:element name="MobileTelephone" type="epc:string" minOccurs="0"/>
    <xs:element name="Telefax" type="epc:string" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

7.3.3 Representation

This element contains a list of contact points for a person or organization. Telephone numbers shall be specified with an international prefix code. The email tag shall be a valid URI with the “mailto:” prefix.

7.4 epc:ContactTypeContentType – Type of contact for dangerous goods

7.4.1 Definition

This data type is used to specify the type of company that is the contact for dangerous goods.

7.4.2 Type

```
<xs:simpleType name="ContactTypeContentType">
  <xs:restriction base="xs:token"/>
</xs:simpleType>
```

7.4.3 Representation

This data type contains the enumerated values from UN/EDIFACT codes 3139 Contact function code.

7.5 epc:DateTimeType – DateTime with type

7.5.1 Definition

This data type defines a date and time with additional time zone information. It also contains the type of this time, whether it is an actual time, estimated time, planned time, or requested time.

7.5.2 Type

```
<xs:complexType name="DateTimeType">
  <xs:sequence>
    <xs:element name="DateTime" type="epc:dateTime" />
  <xs:element name="TimeType" type="epc:TimeTypeContentType" minOccurs="0"/>
</xs:sequence>
</xs:complexType>

<xs:simpleType name="TimeTypeContentType">
  <xs:restriction base="xs:token">
    <xs:enumeration value="Actual"/>
    <xs:enumeration value="Estimated"/>
  </xs:restriction>
</xs:simpleType>
```

```

<xs:enumeration value="Planned"/>
<xs:enumeration value="Requested"/>
</xs:restriction>
</xs:simpleType>

```

7.5.3 Representation

The time is represented by the core type `epc:dateTime`. The time type is represented by the enumeration `TimeTypeContentType` containing either actual, estimated, planned or requested. In addition, an event type can be added, specifying whether the time of event is related to arrival, departure, service start, service end, or if the event is happening at a certain location (at). This type is a generalization of the types `ETPType`, `ATPType`, `ATAType`, `ETAType`, `ATDType` and `ETDType` from ISO 28005-2.

8 Core data types

8.1 General

This clause contains data types that are instantiated as core data elements in EPC-related messages. It is divided into a number of subclauses which contain data types from a specific domain. This subdivision is for convenience only and does not imply any special organization of core data elements in a specific message.

Where relevant, subclauses are introduced with a simplified class diagram showing the main relationships between data types defined in the clause. The notation is based on Unified Modelling Language (see ISO/IEC 19501). An open arrow means that a new type includes an existing type as one new attribute and a closed arrow means that the new type extends the old by adding all old attributes as its own or that it has the type of the same. Extension does not require additional attributes to be added. Cardinality is used to show that an included old type is optional (0..), that it is included exactly once (1:1) or that it is included a number of times (..*).

8.2 Ship identity and contacts data types

8.2.1 `epc:SatelliteServiceProviderCodeContentType`

8.2.1.1 Definition

This enumeration data type contains a list of mobile satellite service providers used by ships.

8.2.1.2 Type

```

<xs:simpleType name="SatelliteServiceProviderCodeContentType">
  <xs:restriction base="xs:token"/>
</xs:simpleType>

```

8.2.1.3 Representation

The code list is maintained by IMO and published in the IMO Compendium.^[30]

8.2.2 `epc:SatelliteServiceType` – Satellite service number to the ship

8.2.2.1 Definition

This data type contains satellite service call numbers to a ship.

8.2.2.2 Type

```

<xs:complexType name="SatelliteServiceType">
  <xs:sequence>

```

```
<xs:element name="Alternative" type="epc:string" minOccurs="0"/>
<xs:element name="Number" type="epc:string" minOccurs="0"/>
<xs:element name="SatelliteServiceProviderCode" type="epc:SatelliteServiceProvid
erCodeContentType" minOccurs="0"/>
</xs:sequence>
</xs:complexType>
```

8.2.2.3 Representation

The elements shall be used as follows.

- Number: Satellite service call number. If it is necessary to have the extension code related to the area in which the ship operates, this extension code shall not be included in this number. If no number is available, the string should be empty.
- SatelliteServiceProviderCode: The ships recognized mobile satellite service provider.
- Alternative contact information, e.g. via mobile phone, satellite, very high frequency radio (VHF), high frequency radio (HF) or medium frequency radio (MF).

8.3 Cargo data types

8.3.1 epc:CargoDataType – Detailed description of cargo

8.3.1.1 Definition

The CargoDataType contains the list of consignments of cargo onboard the ship. Each consignment consists of a number of cargo items. Alternatively, the CargoDataType can also contain information about transport equipment, without needing to have a consignment. This can be used, e.g. for certain ferries. The special cargo details block is optional. It gives additional information for special cargo items, e.g. dangerous goods, or cargo items that require special security, health or veterinary clearance.

8.3.1.2 Type

```
<xs:complexType name="CargoDataType">
  <xs:sequence>
    <xs:element name="Consignment" type="epc:ConsignmentType" minOccurs="0" maxOccurs=
"unbounded"/>
    <xs:element name="TransportEquipment" type="epc:TransportEquipmentType" minOccurs=
"0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="ConsignmentType">
  <xs:sequence>
    <xs:element name="CargoItem" type="epc:CargoItemType" minOccurs="0" maxOccurs="u
nbounded"/>
    <xs:element name="Consignee" type="epc:ContactInfoType" minOccurs="0"/>
    <xs:element name="ConsignmentNumber" type="epc:string" minOccurs="0"/>
    <xs:element name="DangerousGoodsShippersReferenceNumber" type="epc:string" minOc
curs="0"/>
    <xs:element name="NumberOfItems" type="epc:int" minOccurs="0"/>
    <xs:element name="PortOfDischarge" type="epc:PortType" minOccurs="0"/>
    <xs:element name="PortOfLoading" type="epc:PortType" minOccurs="0"/>
    <xs:element name="TransportDocumentId" type="epc:string" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="CargoItemType">
  <xs:sequence>
    <xs:element name="CargoType" type="epc:CargoTypeContentType" minOccurs="0"/>
    <xs:element name="GoodsType" type="epc:GoodsTypeType" minOccurs="0"/>
    <xs:element name="GrossVolume" type="epc:MeasureType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

```

<xs:element name="GrossWeight" type="epc:MeasureType" minOccurs="0"/>
<xs:element name="ItemNumber" type="epc:string" minOccurs="0"/>
<xs:element name="MarksAndNumber" type="epc:string" minOccurs="0"/>
<xs:element name="NetWeight" type="epc:MeasureType" minOccurs="0"/>
<xs:element name="NoOfPackages" type="epc:int" minOccurs="0"/>
<xs:element name="NoOfUnits" type="epc:int" minOccurs="0"/>
<xs:element name="PackageType" type="epc:PackageTypeContentType" minOccurs="0"/>
<xs:element name="SealNumber" type="epc:string" minOccurs="0"/>
<xs:element name="VehicleIdentificationNumber" type="epc:string" minOccurs="0"/>
<xs:element name="LostDGDDetails" type="epc:LostCargoDetailsType" minOccurs="0"/>
<xs:element name="SpecialCargoDetails" type="epc:SpecialCargoDetailsType" minOccurs="0" maxOccurs="unbounded"/>
<xs:element name="TransportEquipment" type="epc:TransportEquipmentType" minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>

<xs:complexType name="SpecialCargoDetailsType">
  <xs:sequence>
    <xs:element name="CargoInformationHolder" type="epc:ContactInfoType" minOccurs="0"/>
    <xs:element name="Comment" type="epc:string" minOccurs="0"/>
    <xs:element name="Consignor" type="epc:ContactInfoType" minOccurs="0"/>
    <xs:element name="DangerousGoodsPackageType" type="epc:PackageTypeContentType" minOccurs="0"/>
    <xs:element name="NoOfPackages" type="epc:int" minOccurs="0"/>
    <xs:element name="OriginalPortOfShipment" type="epc:PortType" minOccurs="0"/>
    <xs:element name="Packer" type="epc:ContactInfoType" minOccurs="0"/>
    <xs:element name="SafetyDataSheetReference" type="epc:AttachmentType" minOccurs="0"/>
    <xs:element name="VehicleIdentificationNumber" type="epc:string" minOccurs="0"/>
    <xs:element name="DGSafetyDataSheet" type="epc:DGSafetyDataSheetType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="DGSafetyDataSheetType">
  <xs:sequence>
    <xs:element name="AdditionalInformation" type="epc:string" minOccurs="0"/>
    <xs:element name="DGClassification" type="epc:DGClassificationContentType" minOccurs="0"/>
    <xs:element name="DGContactDetails" type="epc:ContactInfoType" minOccurs="0"/>
    <xs:element name="EmergencyInstruction" type="epc:EmergencyInstructionContentType" minOccurs="0"/>
    <xs:element name="FlashPoint" type="epc:MeasureType" minOccurs="0"/>
    <xs:element name="MarinePollutantVolume" type="epc:MeasureType" minOccurs="0"/>
    <xs:element name="MARPOLPollutionCode" type="epc:MARPOLPollutionCodeContentType" minOccurs="0"/>
    <xs:element name="Mass" type="epc:MeasureType" minOccurs="0"/>
    <xs:element name="PackingGroup" type="epc:PackingGroupCodeContentType" minOccurs="0"/>
    <xs:element name="ProperShippingName" type="epc:string" minOccurs="1"/>
    <xs:element name="SegregationInformation" type="epc:string" minOccurs="0"/>
    <xs:element name="SubsidiaryRisks" type="epc:UNHazardClassContentType" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="TechnicalSpecification" type="epc:string" minOccurs="0"/>
    <xs:element name="UNClass" type="epc:UNHazardClassContentType" minOccurs="0"/>
    <xs:element name="UNNumber" type="epc:token" minOccurs="0"/>
    <xs:element name="Volume" type="epc:MeasureType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="LostCargoDetailsType">
  <xs:sequence>
    <xs:element name="CauseOfLoss" type="epc:string" minOccurs="0"/>
    <xs:element name="EstimatedArea" type="epc:string" minOccurs="0"/>
    <xs:element name="EstimatedGoodsLost" type="epc:MeasureType" minOccurs="0"/>
    <xs:element name="EstimatedGoodsLostQuantity" type="epc:MeasureType" minOccurs="0"/>
    <xs:element name="EstimatedGoodsLostVolume" type="epc:MeasureType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>

```

```

    <xs:element name="EstimatedGoodsLostWeight" type="epc:MeasureType" minOccurs="0"
/>
    <xs:element name="EstimatedMovement" type="epc:string" minOccurs="0"/>
    <xs:element name="GoodsCondition" type="epc:string" minOccurs="0"/>
    <xs:element name="LossContinuing" type="epc:boolean" minOccurs="0"/>
    <xs:element name="LossDateTime" type="epc:dateTime" minOccurs="0"/>
    <xs:element name="LossRemark" type="epc:string" minOccurs="0"/>
    <xs:element name="LostGoodsStatus" type="epc:LostGoodsStatusContentType" minOccu
rs="0"/>
    <xs:element name="LossPosition" type="epc:PositionType" minOccurs="0" maxOccurs=
"unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="LostGoodsStatusContentType">
  <xs:restriction base="xs:token"/>
</xs:simpleType>

<xs:simpleType name="PackingGroupCodeContentType">
  <xs:restriction base="epc:token"/>
</xs:simpleType>

<xs:simpleType name="EmergencyInstructionContentType">
  <xs:restriction base="epc:token"/>
</xs:simpleType>

<xs:simpleType name="DGClassificationContentType">
  <xs:restriction base="epc:token"/>
</xs:simpleType>

  <xs:complexType name="TransportEquipmentType">
    <xs:sequence>
      <xs:element name="BookingReferenceNumber" type="epc:string" minOccurs="0"/>
      <xs:element name="EquipmentTypeAndSize" type="epc:EquipmentTypeAndSizeContentTyp
e" minOccurs="0"/>
      <xs:element name="MarksAndNumbers" type="epc:string" minOccurs="0"/>
      <xs:element name="OnboardLocation" type="epc:CargoLocationType" minOccurs="0"/>
      <xs:element name="SealIdentificationNumber" type="epc:string" minOccurs="0" maxO
ccurs="unbounded"/>
      <xs:element name="VerifiedGrossMass" type="epc:VerifiedGrossMassType" minOccurs=
"0"/>
    </xs:sequence>
  </xs:complexType>

<xs:simpleType name="CargoLocationType">
  <xs:restriction base="epc:string"/>
</xs:simpleType>

<xs:simpleType name="CargoTypeContentType">
  <xs:restriction base="epc:token"/>
</xs:simpleType>

<xs:complexType name="GoodsTypeType">
  <xs:sequence>
    <xs:element name="Description" type="epc:string" minOccurs="0"/>
  <xs:element name="HSCode" type="epc:token"/>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="PackageTypeContentType">
  <xs:restriction base="epc:token"/>
</xs:simpleType>

  <xs:simpleType name="EquipmentTypeAndSizeContentType">
    <xs:restriction base="xs:token"/>
  </xs:simpleType>

```

8.3.1.3 Representation

The cargo data shall contain a list of consignment descriptions, which in turn contains a list of cargo item descriptions, one for each cargo item that is declared. A cargo item can in principle consist of several units, e.g. a number of boxes which in turn can contain a number of packages.

Each consignment contains the following information:

- **ConsignmentNumber**: a unique identifier for a consignment within a submission which is needed as reference for updates and deletions.
- **NumberOfItems**: the total number of items making up the consignment. This can also be calculated from the number of cargo items, if unavailable.
- **TransportDocumentId**: a reference number to identify a document evidencing the transport contract (e.g. bill of lading).
- **DangerousGoodsShippersReferenceNumber**: a number assigned by the shipper to track the referenced dangerous goods.
- **PortOfLoading**: the identity of the port where the cargo was loaded on board the ship.
- **PortOfDischarge**: the identity of the port where the cargo was discharged from the ship.
- **CargoItem**: a list of cargo items covered by this consignment.

Each cargo item contains the following information.

- **ItemNumber**: Reference to this cargo item's location in the transport document.
- **MarksAndNumbers**: Marks and numbers of the cargo item, where applicable. **MarksAndNumbers** is also specified in the **TransportEquipmentType**. If the cargo item has a one to one relationship with the latter, the codes should be identical or this field should not be used.
- **NoOfPackages**: the total number of packages on all cargo units covered by this cargo item.
- **NoOfUnits**: the number of cargo units that this item declaration covers. Each unit can contain multiple packages.
- **SealNumber**: If the cargo item is sealed, usually for containers, the seal number shall be entered here.
- **TransportDocumentId**: Transport document, e.g. bill of lading, identity code.
- **VehicleIdentificationNumber**: This is an alphanumeric identifier assigned by the shipper to identify a vehicle for tracking purposes.
- **CargoType**: The element shall contain the one-digit cargo type code as specified in UNECE Recommendation 21:1996, Annex I. An informative overview of the cargo type codes is given in ISO 28005-2:2021, Annex J.
- **Consignee**: This field is required by some authorities, although it is not required by the FAL Convention. ^[14] It is also required for certain types of dangerous and polluting cargo.
- **GoodsType**: a description of the goods type for this cargo item.
- **LostDGDDetails**: the details about dangerous cargo that are lost during a voyage. This is related to the reporting requirements defined in A.851 for MRS (Maritime Reporting Scheme).^[24]
- **NetWeight**: Net weight of the goods excluding their respective packing, and without the equipment used by the carrier for their transport.
- **GrossWeight**: The combined weight or mass of the referenced packaged cargo and its packaging from the shipping data.

- GrossVolume: A measure of the gross volume, normally calculated by multiplying the maximum length, width and height of the cargo item.
- PackageType: This is a code representing the description of the outer package of the cargo item.
- SpecialCargoDetails: This data item shall be included if the cargo item contains dangerous or other types of special goods. See paragraph below for a description of the fields of "DangerousGoodsPackageType".
- TransportEquipment: This is the container, swap body, vehicle or other equipment on which the cargo item is placed, if applicable.

The special cargo details data type can be used for dangerous cargo (IMDG) or other cargo that falls under the MARPOL Convention.^[41] The data fields are as follows.

- Comment: Additional information, if provided.
- NoOfPackages: The count of the number of packages of the referenced dangerous goods.
- VehicleIdentificationNumber: An alphanumeric identifier assigned by the shipper to identify a vehicle for tracking purposes.
- SafetyDataSheetReference: Reference to the physicochemical characteristics of the product if required and if provided as, e.g. a printed sheet. If it is electronic information, the next entry shall be used.
- CargoInformationHolder: This is the contact information for the person or organization that provides information about the cargo e.g. the manufacturer.
- Consignor: the contact information for the consignor or shipper.
- Packer: the contact information for the packer of the goods, if different from the consignor.
- DGSafetyDataSheet: the electronic safety data sheet for dangerous cargo. If the information is not available in the EPC format, reference information can be provided in the previous tag.
- DangerousGoodsPackageType: a code representing the package type of the referenced dangerous goods.
- OriginalPortOfShipment: this is necessary when a goods item originates from a port other than the PortOfLoading, e.g. after a trans-shipment.

DGSafetyDatSheetType is the data sheet for dangerous goods safety. It contains information for safe handling of dangerous goods. The data elements are as follows:

- AdditionalInformation: a statement of any other information relevant to the characteristics or hazards of the referenced dangerous goods cargo item.
- ProperShippingName: this is the substance name, that is, the formal shipping name, e.g. "Dimethylhydrazine, unsymmetrical" as defined in IMDG,^[18] the product name for goods under IBC Code^[16] and IGC Code^[43], the bulk cargo shipping name for goods under IMSBC Code,^[16] or the name of oil for goods under the MARPOL Convention, Annex I.^[41]
- SegregationInformation: additional information on segregation of this cargo item in free text.
- TechnicalSpecification: the recognized chemical or biological name or other name currently used for the referenced dangerous goods. This can be the technical name for goods under the IMDG Code, the IBC Code, IGC Code, the IMSBC Code, or the MARPOL Convention, Annex I.
- UNNumber: the UN dangerous goods unique number as defined in IMDG. This is a four-digit number prefixed with "UN", e.g. "UN1163". The leading UN shall not be included in the token. If the material does not have a UN code, the tag shall be empty.
- DGContactDetails: the contact details of the organization from which information about the dangerous goods can be obtained.

- **DGClassification**: the classification used for the dangerous goods. The code represents the regulatory framework used for classification of dangerous goods, i.e. IMDG Code, IGC Code, IBC Code, IMSBC Code or MARPOL, Annex I.
- **EmergencyInstructions**: Additional instructions on emergency handling of this item. It comprises two types of values: one for spillage and one for fire, where possible values for spillage are S-A to S-Z, and for fire F-A to F-Z. The codes follow IMO Assembly resolution A.852(20).^[42]
- **MARPOLPollutionCode**: this code applies to noxious liquid substances as defined in MARPOL, Annex II.
- **Mass**: the mass of the referenced dangerous goods.
- **Volume**: the volume of the referenced dangerous goods.
- **FlashPoint**: the flashpoint of the referenced dangerous goods according to the IMDG Code^[18] expressed in degrees Celsius or Fahrenheit.
- **MarinePollutantVolume**: the volume of the referenced marine pollutant properties for the referenced dangerous goods.
- **PackingGroup**: packing danger group code as appropriate and as defined in IMDG. If there is no packing group assigned, the tag shall be empty.
- **UNClass**: contains the UN Hazard Code^[30] for this cargo as defined in IMDG.^[18] It specifies the hazard code for the actual substance. Subsidiary hazard codes can be added where applicable in the SubsidiaryRisks data items.
- **SubsidiaryRisks**: this field specifies additional hazard codes associated with the goods, if applicable. More than one code can be listed. If no subsidiary risk exists, the tag shall be omitted. The values used are the IMDG codes plus "P" for Marine pollutant.

LostCargoDetailsType contains the details of cargo lost overboard, e.g. harmful substances as reported according to IMO Assembly Resolution A.851,^[24] including the following:

- **CauseOfLoss**: free text description of the cause of loss of harmful substances.
- **EstimatedArea**: estimated size of the sea area covered by the harmful substances that have been discharged. Reported in hectares (squares of 100 m side, i.e. the unit is 1 for each 10 000 m²).
- **EstimatedMovement**: free text description of the estimated movement of the harmful substances that have been discharged.
- **GoodsCondition**: free text description of the condition of the goods that have been lost over board.
- **LossContinuing**: a Boolean field indicating whether the loss of harmful substances continues or not; true means yes.
- **LossDateTime**: the date and time cargo were lost.
- **LossRemark**: a statement of any other information relevant to the cargo loss.
- **LostGoodsStatus**: an enumeration of type **LostGoodsStatusContentType** indicating whether the lost goods are still floating or if they have sunk.
- **EstimatedGoodsLostVolume**: an estimation of the amount or volume of goods that have been lost over board.
- **EstimatedGoodsLostWeight**: the estimated weight of the referenced cargo lost per dangerous goods or marine pollutants name.
- **EstimatedGoodsLostQuantity**: the estimated quantity (number of packages) of the referenced dangerous goods lost per dangerous goods or marine pollutant name.
- **LossPosition**: the latitude and longitude (geographical coordinate) of the location where cargo was lost overboard.

TransportEquipmentType is used to identify the transport equipment on which the cargo is placed, where relevant, including:

- MarksAndNumbers: marks and numbers of the transport equipment or empty string if not relevant. Use the OnboardLocation to determine the interpretation of this field. For containers, this shall be the identification code as defined in ISO 6346.
- SealIdentificationNumber: the identification number of the seal affixed to the container.
- OnboardLocation: the onboard location of the cargo.
- EquipmentTypeAndSize: a code specifying the characteristics, i.e. size and type of transport equipment.
- VerifiedGrossMass: a reference to the information needed for the verified gross mass.

CargoLocationType is a string with one upper case letter specifying the type of location code, a colon (:) and then the actual location code. The following clauses specify the type of coding, the coding letter and the format of the code.

- Container ship – Code “C”: a string of digits in the form BBRRTT where BB is the bay number, RR is the row number and TT is the tier number. This shall be coded in accordance with ISO 9711-1. This includes leading zeros where necessary.

EXAMPLE 1 “C:010212” means container in bay 1, row 2 and tier 12.

- Container feeder – Code “F”: a string of digits in the form HHHTTRR where HHH is the hatch number, TT is the tier number and RR is the row number. All fields shall be filled with leading zeros. FNO2

EXAMPLE 2 “F:0010204” means hatch 1, tier 2 and row 4.

- RORO – Code “R”: a string of digits in the form DDBBBRRTT where DD is deck, BBB is bay, RR is row and TT is tier.

EXAMPLE 3 “R:030100204” means deck 3, bay 10, row 2 and tier 4.

- General cargo – Code “G”: a string of characters in the format CCS or CCSDDD, where CC is the cell number, S is side of ship (“S” – starboard, “P” – port side and “C” – centre), and DDD is an optional code specifying deck (“WED” – weather deck, “TDn” – tween deck n, where n is a digit zero to nine and “LOH” is lower hold deck).
- Bulk vessel, including tankers – Code “B”: the tank or hold number as numeral or other coding as used onboard.
- Other – Code “O”: free text description.

GoodsType is a description of the goods that follows the WCO HS (WCO Harmonized System):^[44]

- HSCode is a WCO HS compliant code. This document requires the use of a period (.) between the four first digits (heading) and the next two digits (sub-heading). Additional code digits can be added after the sub-heading after a new period (.). The sub-heading and associated period are optional. Thus, the codes “3913” (Natural polymers), “3913.10” (Alginic acid, its salts and esters) and “3913.10.10” (Sodium alginate) are all legal codes.
- Description is an optional human readable format.

PackageTypeContentType shall contain the two-letter alphabetic code specified in UNECE Recommendation 21:1996, Annexes V and VI (UNECE R21).

EquipmentTypeAndSizeContentType shall contain a code list for specifying the characteristics, i.e. size and type of transport equipment. The code list shall be in accordance with ISO 6346. Examples of some of the codes are given in ISO 28005-2:2021, Annex J.

There is some redundancy in data elements. In case redundancy occurs, the top-most element should be used to contain the information and use an empty field in lower level elements. If more than one element is used, the values of these elements should be the same.

8.3.2 epc:CargoOverviewType – Brief description of onboard cargo

8.3.2.1 Definition

This is a short text giving a human-readable overview of the cargo carried by the ship. This also contains brief details of any harmful substances and gases that can endanger persons or the environment.

8.3.2.2 Type

```
<xs:simpleType name="CargoOverviewType">
  <xs:restriction base="epc:string"/>
</xs:simpleType>
```

8.3.2.3 Representation

This is a free text for human use. The text may include special characters such as a new line character.

8.4 Crew and passenger data

8.4.1 Class diagram

This subclause contains data types with information related to the crew and passengers. This includes data types to count persons on board, corresponding to the number of crews and passengers listed in the respective lists. The crew and passenger data types are specializations of the person onboard type, where the crew data type also has an additional element specifying crew duty. The person onboard data type also links to health information, if health issues have been reported during the voyage. A reference code is also associated with each person onboard, which is used in various other data items that refer to these persons.

8.4.2 Non-core data types

8.4.2.1 epc:PersonOnboardType – Information about a person on board

8.4.2.1.1 Definition

PersonOnboardType covers information needed for all persons on board, including passengers, crew, and other persons. The actual information requirements normally vary between passengers, crew and other persons.

8.4.2.1.2 Type

```
<xs:complexType name="PersonOnboardType">
  <xs:sequence>
    <xs:element name="BerthOfBoarding" type="epc:LocationType" minOccurs="0"/>
    <xs:element name="CountryOfBirth" type="epc:CountryCodeContentType"
minOccurs="0"/>
    <xs:element name="CountryOfResidence" type="epc:CountryCodeContentType" minOccur
s="0"/>
    <xs:element name="DateOfBirth" type="epc:date" minOccurs="0"/>
    <xs:element name="Gender" type="epc:GenderContentType" minOccurs="0"/>
    <xs:element name="Nationality" type="epc:CountryCodeContentType" minOccurs="0"/>
    <xs:element name="PersonOnboardIndicator" type="epc:boolean" minOccurs="0"/>
    <xs:element name="PersonReference" type="epc:PersonReferenceType" minOccurs="0"/
>
    <xs:element name="PlaceOfBirth" type="epc:string" minOccurs="0"/>
    <xs:element name="Remarks" type="epc:string" minOccurs="0"/>
    <xs:element name="Transit" type="epc:boolean" minOccurs="0"/>
```

```

<xs:element name="CommunicationNumber" type="epc:CommunicationNumberType" minOccurs="0"/>
<xs:element name="Embarkation" type="epc:LocationCallType" minOccurs="0"/>
<xs:element name="Debarkation" type="epc:LocationCallType" minOccurs="0"/>
<xs:element name="PlannedDebarkation" type="epc:LocationCallType" minOccurs="0"/>
>
<xs:element name="Name" type="epc:NameType" minOccurs="1"/>
<xs:element name="Booking" type="epc:PersonBookingType" minOccurs="0"/>
<xs:element name="PersonHealthParticulars" type="epc:PersonHealthParticularsType" minOccurs="0"/>
<xs:element name="PersonIdDocument" type="epc:PersonIdDocumentType" minOccurs="0" maxOccurs="unbounded"/>
<xs:element name="VisaNumber" type="epc:PersonIdDocumentType" minOccurs="0" maxOccurs="unbounded"/>
<xs:element name="HomeAddress" type="epc:PostalAddressType" minOccurs="0"/>
<xs:element name="VisitAddress" type="epc:PostalAddressType" minOccurs="0"/>
</xs:sequence>
</xs:complexType>

```

8.4.2.1.3 Representation

The following elements are defined as parts of the PersonOnboardType data objects. Requirements for inclusion of elements other than PersonReference is determined by local port regulations. PersonReference is a mandatory element as it is used to refer to the description of the person from other elements in this document.

- DateOfBirth: date of birth as a date type.
- PersonOnboardIndicator: a “yes/no” indicator whether the reported person is onboard at the time of reporting.
- PlaceOfBirth: place of birth, city name or similar.
- Remarks: optional remarks, e.g. if the person requests special assistance, instructions can be entered into this field.
- Transit: this element shall be true if the person is a transit person in this port call, i.e. if the person enters the ship again before departure.
- CommunicationNumber: the contact details for the referenced person, including business telephone, mobile telephone, home telephone, telefax, email and URL.
- CountryOfBirth: country code for country of birth.
- Nationality: two-letter country code for nationality.
- CountryOfResidence: two-letter country code for country of residence.
- Gender: the gender of the person.
- Embarkation: port and time where the person embarked or plans to embark the ship. This data element is a general location item, and it is possible to specify an embarkation point, e.g. at sea. This can be relevant, e.g. for persons rescued at sea or persons who, for some reason, were transferred to the ship from another ship.
- Debarkation: the port where and the time when the person debarked or plans to debark the ship.
- BerthOfBoarding: the name of the berth at which the referenced stowaway boarded the ship.
- Name: the name of the person.
- Booking: information about the passenger's travel booking.
- PersonHealthParticulars: health information, if person is listed in the WHO's Maritime Declaration of Health (see [8.11](#)).^[38]

- **PersonIdDocument**: the reference to the person's identification document.
- **VisaNumber**: the unique number assigned to the referenced person's visa by the issuing country. This is represented as a **PersonIdDocumentType**.
- **PersonReference**: the reference that uniquely identifies each of the persons on board the ship and which can be used to refer to the person.
- **HomeAddress**: the home address for this person.
- **VisitAddress**: the address for the person's first stay in the country of arrival.

8.4.3 epc:OtherPersonListType – Information about other persons on board

8.4.3.1 Definition

The passenger data can contain one or more records of the general passenger data item.

8.4.3.2 Type

```
<xs:complexType name="OtherPersonListType">
  <xs:sequence>
    <xs:element name="OtherPersonData" type="epc:OtherPersonDataType"
      minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="OtherPersonDataType">
  <xs:complexContent>
    <xs:extension base="epc:PersonOnboardType">
      <xs:sequence>
        <xs:element name="OtherPersonStatus" type="epc:OtherPersonStatusContentType" min
Occurs="0"/>
        <xs:element name="StatusText" type="epc:string" minOccurs="0"/>
        <xs:element name="StowawayDetails" type="epc:StowawayDetailsType" minOccurs="0" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:simpleType name="OtherPersonStatusContentType">
  <xs:restriction base="epc:token"/>
    <xs:enumeration value="Stowaway"/>
    <xs:enumeration value="RescuedAtSea"/>
    <xs:enumeration value="Other"/>
  </xs:restriction>
</xs:simpleType>
```

8.4.3.3 Representation

The other person data list shall contain a list of data items similar to that of passengers and crew. One additional element is added to specify the status of the person. This can be a coded or a textual value. A textual explanation should be used if the code "Other" is used. For stowaways, more details are given in the element **StowawayDetails** as described in [8.4.5](#).

8.4.4 epc:PersonsOnboardNumberType – Number of persons onboard

8.4.4.1 Definition

This data item is used to specify the number of persons onboard.

8.4.4.2 Type

```
<xs:complexType name="PersonsOnboardNumberType">
  <xs:sequence>
    <xs:element name="Crew" type="epc:int" minOccurs="0" />
    <xs:element name="NumberOfMedicallyTrainedPersonnelOnboard" type="epc:int" minOccurs="1" />
    <xs:element name="NumberOfPersonnelWithoutMedicalTrainingOnboard" type="epc:int" minOccurs="1" />
    <xs:element name="NumberOfPersonsOnboard" type="epc:int" minOccurs="0" />
    <xs:element name="NumberOfProfessionalMedicalPersonnelOnboard" type="epc:int" minOccurs="0" />
    <xs:element name="Passengers" type="epc:int" minOccurs="0" />
  </xs:sequence>
</xs:complexType>
```

8.4.4.3 Representation

PersonsOnboardNumberType shall contain counts of different person categories onboard the ship. The following elements are included:

- Crew: this is the count of persons actually employed for duties on board during a voyage in the working or service of a ship and included in the crew list. This number shall equal the number of instances of CrewListType for this port call.
- NumberOfMedicallyTrainedPersonnelOnboard: this is the number of personnel with medical training on board.
- NumberOfPersonnelWithoutMedicalTrainingOnboard: this is the number of personnel without medical training but engaged in administrative, caring or other medical tasks onboard.
- NumberOfPersonsOnboard: this is the total number of persons onboard, including passengers, crew and other persons onboard.
- NumberOfProfessionalMedicalPersonnelOnboard: this is the number of personnel with medical education (e.g. doctors, nurses) on board.
- Passengers: this is the count of persons on board the ship who are passengers as defined by SOLAS. This number shall equal the number of instances of PassengerListType for this port call.

8.4.5 epc: StowawayDetailsType – Details about stowaways found onboard

8.4.5.1 Definition

This data type is used to specify details about a stowaway found onboard.

8.4.5.2 Type

```
<xs:complexType name="StowawayDetailsType">
  <xs:sequence>
    <xs:element name="CareProvidedToTheStowaway" type="epc:string" minOccurs="0" />
    <xs:element name="ClaimedNationality" type="epc:CountryCodeContentType" minOccurs="0" />
    <xs:element name="FirstReadingLanguage" type="epc:LanguageContentType" minOccurs="0" />
    <xs:element name="FirstSpokenLanguage" type="epc:LanguageContentType" minOccurs="0" />
    <xs:element name="FirstWrittenLanguage" type="epc:LanguageContentType" minOccurs="0" />
    <xs:element name="IntendedFinalDestinationName" type="epc:string" minOccurs="0" />
    <xs:element name="InterviewDate" type="epc:date" minOccurs="0" maxOccurs="unbounded" />
    <xs:element name="MasterStatement" type="epc:string" minOccurs="0" />
  </xs:sequence>
</xs:complexType>
```

```

<xs:element name="MethodOfBoarding" type="epc:string" minOccurs="0"/>
<xs:element name="NameByWhichKnown" type="epc:string" minOccurs="0"/>
<xs:element name="OtherReadingLanguage" type="epc:LanguageContentType" minOccurs
="0" maxOccurs="unbounded"/>
<xs:element name="OtherSpokenLanguage" type="epc:LanguageContentType" minOccurs=
"0" maxOccurs="unbounded"/>
<xs:element name="OtherWrittenLanguage" type="epc:LanguageContentType" minOccurs
="0" maxOccurs="unbounded"/>
<xs:element name="Photograph" type="epc:anyURI" minOccurs="0" maxOccurs="unbound
ed"/>
<xs:element name="PhysicalDescription" type="epc:string" minOccurs="0"/>
<xs:element name="Possessions" type="epc:string" minOccurs="0"/>
<xs:element name="StatedReasonsForBoardingShip" type="epc:string" minOccurs="0"/
>
<xs:element name="Statement" type="epc:string" minOccurs="0"/>
</xs:sequence>
</xs:complexType>

```

8.4.5.3 Representation

StowawayDetailsType contains the following information:

- CareProvidedToTheStowaway: care provided to the stowaway (e.g. first aid, clothing, food).
- IntendedFinalDestinationName: the name of the final destination that the stowaway intended to go to.
- InterviewDate: date of interview of the stowaway.
- MasterStatement: statement made by the Master (including any observations on the credibility of the information provided by the stowaway).
- MethodOfBoarding: method of boarding, including other persons involved (e.g. crew, port workers, etc.) and whether the stowaway was secreted in the cargo or container, or hidden in the ship.
- NameByWhichKnown: the name of the referenced stowaway, by which he or she is known.
- PhysicalDescription: general physical description of the stowaway.
- Possessions: inventory of the stowaway's possessions.
- StatedReasonsForBoardingShip: reasons stated by the stowaway for boarding the ship. If the stowaway declares themselves to be a refugee or an asylum seeker, this information shall be treated as confidential to the extent necessary to the security of the stowaway.
- Statement: statement made by the stowaway.
- ClaimedNationality: a code representing the nationality claimed by the stowaway.
- Photograph: photograph of the stowaway.
- FirstSpokenLanguage: a code representing the referenced stowaway's first spoken language.
- FirstWrittenLanguage: a code representing the referenced stowaway's first written language.
- FirstReadingLanguage: a code representing the referenced stowaway's first reading language.
- OtherSpokenLanguage: a code representing another language spoken by the referenced stowaway.
- OtherWrittenLanguage: a code representing another language written by the referenced stowaway.
- OtherReadingLanguage: a code representing another language read by the referenced stowaway.