

2.4 Checks relating to Use of the Object Catalogue for ENC

No	Check description	Check message	Check solution	Conformity to:	Cat
1500	For each LNDARE <u>feature object</u> of <u>geometric type primitive</u> area which OVERLAPS a CBLARE or SBDARE <u>feature object</u> of <u>geometric type primitive</u> area.	SBDARE CBLARE or CBL SBDARE sit on overlaps a LNDARE object.	Amend CBLARE or SBDARE objects these objects should not sit on land. Amend objects to remove overlap.	Logical consistency	W
1501	Check removed. For each object of type M_HDAT.	M_HDAT object present.	Remove M_HDAT object.	2.1.1	E
1502	For each spatial object which where contains the attribute HORDAT <u>is Present.</u>	HORDAT used in a spatial object.	Remove HORDAT.	2.1.1	E
1503	For each object not of type feature object (excluding M_VDAT and M_SDAT) where VERDAT is notNull AND none all of the following <u>are notNull attributes are Null</u> ELEVAT, HEIGHT, VERCCL, VERCLR, VERCOP and VERCSA.	Value of VERDAT without corresponding vertical distance value.	Remove VERDAT or populate vertical distance attribute.	2.1.2	E
1504	If the value of <u>the</u> VDAT (Vertical Datum subfield) of the DPSPM (Data set Parameter field) is <u>Null/ULL.</u>	VDAT is Vertical Datum subfield (VDAT) not populated. within DPSPM field.	Populate <u>the</u> VDAT <u>subfield</u> with the vertical datum of the cell.	2.1.2	C
1505	For each M_VDAT meta meta object where VERDAT is notNull AND <u>is Equal</u> to the value of VERDAT in the <u>Vertical Datum DAT</u> subfield (VDAT) of the <u>Data Set Parameter field (DPSPM field).</u>	Value of VERDAT matches replicates is identical to the value of that in the VDAT subfield of the DPSPM field.	Remove unnecessary value of VERDAT.	2.1.2	E
1506	For each <u>feature</u> object where any of ELEVAT, HEIGHT, VERCCL, VERCLR, VERCOP or VERCSA is notNull AND which OVERLAPS more than one M_VDAT <u>meta</u> object.	Object with height value not split at boundary of M_VDAT object.	Split object at boundary of M_VDAT -object.	2.1.2	E
1507	For each <u>M_VDAT meta</u> object of type M_VDAT which OVERLAPS another <u>M_VDAT meta object.</u> object of type M_VDAT.	M_VDAT objects overlap.	Edit M_VDAT objects so that they do not overlap.	2.1.2	E

1508	For each <u>M_SDAT meta</u> object of type M_SDAT which OVERLAPS another <u>M_SDAT meta</u> object of type M_SDAT .	M_SDAT objects overlap.	Edit M_SDAT objects so that they do not overlap.	2.1.3	E
4509	Check removed. For each object of type DEPCNT, DRGARE, OBSTRN, SOUNDG, UWTROC, or WRECKS where VERDAT is present.	VERDAT on object which cannot have a height or elevation value.	Remove VERDAT from inappropriate object.	2.1.3	E
1510	If the SDAT (Sounding Datum subfield) of the DPSPM (Data Set Parameter field) is Nnull.	SDAT (Sounding Datum subfield) is not populated.	Populate the SDAT subfield with the sounding datum of the cell. (Sounding Datum subfield) .	2.1.3	C
1511	For each M_SDAT <u>meta</u> object where VERDAT is <u>E</u> equal to the value of SDAT (Sounding Datum subfield) of the DSPM (Data Set Parameter field) .	M_SDAT object has the same VERDAT as in the SDAT subfield of the DSPM.	Delete Remove M_SDAT object or amend value of VERDAT.	2.1.3	E
1512a	For each <u>SOUNDG feature</u> object of type SOUNDG which OVERLAPS more than one M_SDAT <u>meta</u> object.	SOUNDG object overlaps multiple M_SDAT objects.	Split SOUNDG object at boundary of M_SDAT objects.	2.1.3	E
1512b	For each <u>feature</u> object of where any of VALSOU, VALDCO, WATLEV, EXPSOU, DRVAL1 or DRVAL2 is notNull AND which OVERLAPS more than one M_SDAT <u>meta</u> object.	Object with depth information overlaps multiple M_SDAT objects.	Split object at boundary of M_SDAT objects.	2.1.3	E
1513	If the value of the HUNI <u>subfield</u> (Units of Height measurement subfield) of the DSPM field (Data Set Parameter field) is Nnot equal to {1} {(metres)} .	Units of Height measurement HUNI subfield is not set equal to {1} {(metres)} .	Set Units of Height value of HUNI to measurement to {1} {(metres)} .	2.1.4	C
4514	Check removed. For each object of type M_UNIT	M_UNIT object present in cell.	Delete M_UNIT object.	2.1.4	E
1515a	For each <u>feature</u> object where a value of DATEND, DATSTA, PEREND <u>or</u> , PERSTA, does not conform to the formatting defined in ISO 8601:1988.	Date attribute not formatted according to ISO 8601:1988.	Amend formatting to conform to ISO 8601:1988.	2.1.5	C

1515b	For each feature object where a value of SORDAT, CPDATE , SUREND or SURSTA does not conform to the formatting defined in ISO 8601:1988.	Date attribute not formatted according to ISO 8601:1988.	Amend formatting to conform to ISO 8601:1988.	2.1.5	E
1516	For each Group 2 feature object having with allowable attributes STATUS, PERSTA and allowable and PEREND, allowable where STATUS is Equal to {5} {{(periodic/intermittent)}} AND PERSTA or PEREND are Null or OR not present Present.	PERSTA or PEREND not populated where STATUS =equals 5.	Populate PERSTA or PEREND with values or remove STATUS = {5} {{(periodic/intermittent)}}	2.1.5.1	W
1517	For each feature object where TIMSTA or OR TIMEND is notNull AND their values do not conform to the format defined in Chapter 2 of S-57 Appendix A.	TIMEND or TIMSTA are not formatted correctly.	Correct Amend the formatting of TIMEND or TIMSTA.	2.1.6	E
1518a	If the AGEN (Producing Agency subfield) of the DSID (Data Set Identification field) is not one of the values listed in S-62 sections I and II.	Producing Agency code is not a valid value as defined in S-62 value.	Amend AGEN sub-field to a valid S-62 value.	2.2.1	C
1518b	If the first 2 characters of the data set file name do not correspond to the value of the AGEN (Producing agency subfield) of the DSID (Data Set Identification field).	Data set file name does not begin with the agency code corresponding to that set in the AGEN subfield of the DSID field.	Correct Amend the first 2 characters of the data set file name.	2.2.1	C
1519	Check removed. For each object of type M_PROD.	M_PROD object present in cell.	Delete M_PROD object.	2.2.1	E
1520	If the value of the EDTN (Edition Number) subfield of the DSID (Data Set Identification) field is incorrect. Moved to section 2.3 as Cecheck renumbered 102044	Incorrect value of Edition Number.	Correct Edition Number.	2.2.2	C

1521a	If the data set is not a reissue AND UPDN (Update Number) subfield of the DSID (data Set Identification) field is incorrect OR it is not equivalent to the extension of the data set file name. Moved to section 2.3 as <u>Check renumbered 102115a</u>	Update number is incorrect or not equivalent to the data set file name extension.	Amend Update number.	2.2.2	G
1521b	If the data set is a reissue AND UPDN (Update Number) subfield of the DSID (data Set Identification) field is not equal to the last update number. Moved to section 2.3 as <u>Check renumbered 102115b</u>	Reissue data set where Update number is not equal to the last update number.	Amend Update number to the value of the last update number.	2.2.2	G
1522a	Check removed. If the file extension is “.000” AND the value of the UADT (Update application date) subfield of the DSID (Data Set Identification) field is incorrect.	Incorrect value of Update application date for a base cell.	Amend Update application date.	2.2.2	G
1522b	If the file extension is not “.000” AND the UADT (Update application date) subfield of the DSID (Data Set Identification) field is not Null.	Update application date UADT is not Null/ULL for an update.	<u>Encode UADT as missing subfield value.</u> Make Set Update application date NULL/Null.	2.2.2 & Appendix B.1 (5.7 <u>& 6.1.4</u>)	C
1523a	Check removed. If the value of the ISDT (Issue date) subfield of the DSID (Data Set Identification) field is incorrect.	Issue date is incorrect.	Amend Issue date.	2.2.2	G
1523b	If the data set file name extension is <u>Equal to</u> “.000” AND the ISDT (Issue date) subfield of the DSID (Data Set Identification) field is <u>less than</u> the value of the UADT (Update application date) subfield.	For a base data set the update application date falls before the issue date. <u>The ISDT of a base cell file precedes the UADT.</u>	Amend <u>update application date UADT</u> or <u>issue date ISDT</u> accordingly.	2.2.2 & Appendix B.1 (5.7)	C
1524	For each M_QUAL <u>meta</u> object which is not completely WITHIN a SWPARE <u>feature</u> object AND where DRVAL1 is not Null.	M_QUAL which is not covered by a SWPARE object contains DRVAL1.	Remove value of DRVAL1.	2.2.3.1 <u>& 5.6</u>	E

1525	For each M_QUAL <u>meta</u> object where POSACC is notNull AND DRVAL1 is notNull.	M_QUAL object where with both DRVAL1 and POSACC are populated.	Amend attribute values accordingly. Remove POSACC from M_QUAL object.	2.2.3.1	E
1526	Check removed. For each M_QUAL object where SOUACC is notNull AND DRVAL1 is NULL.	M_QUAL object where SOUACC is populated without a value for DRVAL1.	Populate DRVAL1 o	2.2.3.1	E
1527	Check removed. For each M_QUAL object where DRVAL2 is less than the maximum depth value WITHIN the CATZOC category for that M_QUAL object indicates.			2.2.3.1	E
1528	Check removed. For each M_QUAL object where TECSOU is notNull AND any object WITHIN the object contains a different value of TECSOU.	TECSOU value of M_QUAL differs from a value used within that M_QUAL.	Amend or remove TECSOU from M_QUAL.	2.2.3.1	E
1529	For each <u>feature</u> object WITHIN <u>within an</u> M_QUAL <u>meta</u> object where TECSOU is notNull AND the value of TECSOU is equivalent <u>Equal</u> to the TECSOU of n the M_QUAL <u>meta</u> object.	TECSOU value on of <u>a feature</u> object is equivalent <u>equal</u> to value used on for the M_QUAL it lies within.	Remove unnecessary value of TECSOU.	2.2.3.1 and 2.2.3.5	E
1530	For each <u>feature</u> object within <u>WITHIN an</u> M_QUAL <u>meta</u> object where SOUACC is notNull AND the value of SOUACC is equivalent <u>Equal</u> to the SOUACC or <u>OR is equivalent to the</u> CATZOC values of n the M_QUAL <u>meta</u> object.	SOUACC value on of a feature <u>of a feature</u> object is <u>equal to the</u> SOUACC value or <u>equivalent to the</u> value of CATZOC value used <u>on of</u> the M_QUAL it lies within.	Remove unnecessary value of SOUACC.	2.2.3.1 and 2.2.3.4	E
1531	For each object within an M_QUAL <u>meta</u> object where <u>the value of</u> POSACC, SOUACC, <u>QUASOU</u> or TECSOU is notNull AND the value of <u>SOUACC</u> is equivalent to or degrades the accuracy of indicated by the value of <u>CATZOC</u> on the M_QUAL object.	Value of POSACC, SOUACC, <u>QUASOU</u> or TECSOU on object is equivalent to or <u>degrades</u> conflicts with <u>the accuracy indicated by the of</u> value of CATZOC on the M_QUAL it lies within.	<u>Amend CATZOC value or r</u> Remove inappropriate value of POSACC, SOUACC, <u>QUASOU</u> or TECSOU.	2.2.3.1	E

1532	For each M_QUAL <u>meta</u> object where SURSTA is <u>Not</u> equal to the smallest (oldest) value of SURSTA <u>of any the</u> M_SREL <u>meta</u> objects <u>within</u> <u>WITHIN</u> the M_QUAL <u>meta</u> object.	SURSTA <u>on of a</u> M_QUAL object <u>does not relate</u> <u>is not equal</u> to the oldest survey within the M_QUAL object.	Amend <u>value of the</u> SURSTA <u>value of</u> M_QUAL to reflect the oldest survey within it.	2.2.3.1	E
1533	For each DRGARE <u>feature</u> object where SOUACC is notNull AND it is equivalent to or degrades the <u>CATZOC</u> value <u>of</u> <u>CATZOC on of</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>on of a</u> DRGARE <u>object</u> is equivalent to or degrades the <u>CATZOC</u> value of <u>CATZOC on</u> the underlying M_QUAL object.	Amend <u>the</u> CATZOC <u>value of</u> M_QUAL.	2.2.3.1	E
1534	For each UWTROC <u>feature</u> object where SOUACC is notNull AND is equivalent to or degrades the <u>CATZOC</u> value <u>of</u> <u>CATZOC of on</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>of an on</u> UWTROC <u>object is</u> <u>equivalent to or</u> degrades the <u>CATZOC</u> value <u>of</u> <u>CATZOC of</u> the underlying M_QUAL object.	Amend CATZOC <u>value</u> <u>on of</u> M_QUAL.	2.2.3.1	E
1535	For each UWTROC <u>feature</u> object where SOUACC is notNull AND <u>it</u> is <u>identical</u> <u>Equal</u> to or degrades the <u>SOUACC</u> value of <u>SOUACC on</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>of an</u> UWTROC <u>object</u> <u>matches is equal to</u> or degrades <u>that on</u> <u>the SOUACC value</u> of the underlying M_QUAL object.	Delete or amend <u>the</u> SOUACC <u>value of</u> M_QUAL.	2.2.3.1	E
1536	For each WRECKS <u>feature</u> object where SOUACC is notNull AND is equivalent to or degrades the <u>CATZOC</u> value of <u>CATZOC on</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>on of a</u> WRECKS <u>object is</u> <u>equal to or</u> degrades the <u>CATZOC</u> value of <u>CATZOC on</u> the underlying M_QUAL object.	Amend <u>the</u> CATZOC <u>value of</u> M_QUAL.	2.2.3.1	E
1537	For each WRECKS <u>feature</u> object where SOUACC is notNull AND is <u>Equivalent</u> to or degrades the <u>SOUACC</u> value of <u>SOUACC on</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>on of a</u> WRECKS is <u>equivalent</u> to or degrades the <u>SOUACC</u> value of <u>SOUACC on</u> the underlying M_QUAL object.	Amend <u>the</u> SOUACC <u>value of</u> M_QUAL or WRECKS as appropriate.	2.2.3.1	E
1538	For each OBSTRN <u>feature</u> object where SOUACC is notNull AND is equivalent to or degrades the <u>CATZOC</u> value of <u>CATZOC on</u> the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC <u>on of an</u> OBSTRN <u>object</u> is equivalent to or degrades the <u>CATZOC</u> value of <u>CATZOC on</u> the underlying M_QUAL object.	Amend <u>the</u> SOUACC <u>value of</u> M_QUAL or OBSTRN as appropriate.	2.2.3.1	E

1539	For each OBSTRN feature object-object where SOUACC is notNull AND it is E equal to or degrades the <u>SOUACC</u> value of SOUACC-on the M_QUAL <u>meta</u> object it is WITHIN.	SOUACC on-of an OBSTRN is matches <u>equal to</u> or degrades that on the <u>SOUACC</u> value of the underlying M_QUAL object.	Delete-Remove or amend <u>the</u> SOUACC value of a M_QUAL <u>or</u> OBSTRN as <u>appropriate</u> .	2.2.3.1	E
1540	Check removed. For each object where SORIND is encoded with a value of SURATH.	SORIND is encoded with a values of SURATH.	Remove invalid value of SORIND and populate in SURATH.	2.2.3.2 and 2.2.5.1	E
1541	For each single sounding WITHIN an M_SREL object where the value of QUASOU of the SOUNDG feature object is identical <u>Equal</u> to the <u>QUASOU</u> value of QUASOU-on the M_SREL <u>meta</u> object it lies WITHIN.	QUASOU on-of a SOUNDG object is equal to that on the <u>QUASOU</u> value of <u>the</u> underlying M_SREL object.	Remove unnecessary <u>QUASOU</u> from <u>value</u> <u>SOUNDG</u> object.	2.2.3.3	E
1542	For each featurespatial object WITHIN an M_ACCY object where the value of POSACC (on the associated spatial object) is equivalent-Equal to the <u>POSACC</u> value of POSACC-on the M_ACCY <u>meta</u> object it lies WITHIN.	POSACC <u>of a</u> an <u>on</u> spatial object is <u>equivalent-equal</u> to that the <u>POSACC</u> value of a the underlying M_ACCY object.	Remove unnecessary <u>POSACC</u> value.	2.2.4.1	E
1543	Check removed. For each object WITHIN an M_ACCY object where the value of QUAPOS is equivalent to the value of <u>QUAPOS</u> on the M_ACCY object it lies WITHIN	QUAPOS-on object equivalent to that on the underlying M_ACCY object.	Remove unnecessary value.	2.2.4.1	E
1544	For each M_ACCY <u>meta</u> object where HORACC, SOUACC or VERACC are present <u>Present</u> .	M_ACCY object includes HORACC, SOUACC or VERACC.	Remove attribute <u>values</u> <u>HORACC</u> , <u>SOUACC</u> or <u>VERACC</u> .	2.2.4.1	E
1545	For each feature object where HORACC is notNull AND HORCLR is NullULL or-OR not present <u>Present</u> .	Value for HORACC without a value of HORCLR.	Add HORCLR value or remove HORACC.	2.2.4.2	E
1546	For each feature object where VERACC is notNull AND VERCLR, VERCOP, VERCSA and VERCCL are all NullULL or-OR not present <u>Present</u> .	Value for VERACC without value of VERCLR, VERCOP, VERCSA or VERCCL.	Remove VERACC or f populate vertical clearance value.	2.2.4.3	E

1547	Check removed. For each object where SORIND is notNull and SORDAT is notNull AND the values are not identical to those on the M_SREL object the object is within.	SORIND and SORDAT are identical to those on M_SREL.	Delete unnecessary values of SORIND and SORDAT.	2.2.5.1	W
1548	For each <u>feature</u> object (which is not of type excluding SOUNDG, DEPCNT, DEPRE, DRGARE and, OBSTRN) where SORIND is notNull and AND SORDAT is Null or <u>OR</u> not present Present .	Value of SORIND without a value of SORDAT on for a non-bathymetric object.	Populate SORDAT with an appropriate value.	2.2.5.2	W
1549	If the value of CSCL (Compilation Scale of data subfield) of the DPSPM (Data Set Parameter field) is Null or <u>OR</u> not present Present .	CSCL is not populated with a value.	Populate CSCL with an appropriate value.	2.2.6	C
1550	For each M_CSCL <u>meta</u> object where CSCALE is E equal to the value of CSCL (Compilation scale of data) subfield of in the DPSPM (Data Set Parameter) field.	CSCALE of M_CSCL is identical <u>equal</u> to the value given as the Compilation scale of the dataset CSCL subfield of the DSPM field.	Remove unnecessary M_CSCL object.	2.2.6	E
1551	For each M_CSCL <u>meta</u> object which OVERLAPS another M_CSCL <u>meta</u> object.	M_CSCL objects s overlap.	Amend M_CSCL objects so that they do not overlap.	2.2.6	E
1552	Check removed. For each object where SCAMAX is present.	SCAMAX encoded on an object.	Remove SCAMAX.	2.2.7	E
1553	For each value of SCAMIN which is <u>less</u> than or equal to the compilation scale of the data for the area.	SCAMIN value less than <u>or equal to</u> compilation scale.	Amend SCAMIN value accordingly.	2.2.6 and 2.2.7	E
1554a	For each Group 1 <u>feature</u> object where SCAMIN is present <u>Present</u> .	SCAMIN present for on a Group 1 object.	Remove SCAMIN.	2.2.7	C
1554b	For each meta object where SCAMIN is present <u>Present</u> .	SCAMIN present for on a meta object.	Remove SCAMIN.	2.2.7	C
1555	Check removed. For each object where INFORM or NINFOM contain formatting characters (C0 as defined in S-57 Part 3, Annex B).	INFORM or NINFOM contain formatting characters.	Remove formatting characters from attribute values.	2.3	E

1556	For each text file forming part of the dataset which is not an ASCII file AND is not referenced by the attribute NTXTDS. <u>Moved to section 2.3 as Ceheck renumbered 102246</u>	Non ASCII text file included in the dataset.	Include as an ASCII file or ensure referenced by NTXTDS when NATF lexical level subfield [NALL] of the Data Set Structure Information field [DSSI] is set to (2).	2.3	G
1557	For each T_HMON <u>feature</u> object where T_M TOD does not equal <u>is Not equal to {1}</u> {{simplified harmonic method of tidal prediction}} <u>OR {2}</u> {{full harmonic method of tidal prediction}} .	T_HMON object where the Invalid value of T_M TOD for T_M TOD object, is not (1) or (2).	<u>Amend-Set value of T_M TOD to 1(simplified harmonic method of tidal prediction) or 2(full harmonic method of tidal prediction) valid value.</u>	3.2.2	E
1558	For each T_NH MN <u>feature</u> object where T_M TOD does not equal <u>is Not equal to {3}</u> {{time and height difference non-harmonic method}} .	Invalid value of T_M TOD for T_NH MN object, where the value of T_M TOD is not (3).	<u>Amend-Set value of T_M TOD to a valid value 3(time and height difference non-harmonic method).</u>	3.2.3	E
1559	For each T_NH MN <u>feature</u> object which is not associated (using the C_ASSO collection object) with a T_TIMS or T_HMON <u>feature</u> object).	T_NH MN which is not associated with an appropriate object, a T_TIMS or a T_HMON object.	Associate T_NH MN with a T_TIMS or T_HMON object.	3.2.3	E
1560	For each TS_PRH <u>feature</u> object where T_M TOD is Not equal to {1} <u>Not equal to {1}</u> {{simplified harmonic method of tidal prediction}} <u>OR {2}</u> {{full harmonic method of tidal prediction}} .	Invalid value of T_M TOD for TS_PRH object, has a value other than (1) or (2) for T_M TOD.	<u>Amend-Set value of T_M TOD to (simplified harmonic method of tidal prediction) or 2(full harmonic method of tidal prediction) a valid value.</u>	3.3.3	E
1561	For each TS_PNH <u>feature</u> object where T_M TOD does Not equal to {3} <u>is Not equal to {3}</u> (time and height difference non-harmonic method).	Invalid value of T_M TOD for TS_PNH object, T_M TOD is not (3) (time and height difference non-harmonic method).	<u>Amend-Set value of T_M TOD to 3(time and height difference non-harmonic method){3}.</u>	3.3.4	E
1562	For each TS_PNH <u>feature</u> object which is not associated with (using the collection object C_ASSO collection object) <u>with</u> a TS_TIS OR TS_PRH <u>feature</u> object.	TS_PNH object which is not associated with a TS_TIS or TS_PRH object.	Associate TS_PNH <u>with</u> a TS_TIS or TS_PRH object using C_ASSO.	3.3.4	E

1563	For each RIVERS, CANALS, LAKARE, DOCARE or LOKBSN <u>feature</u> object which is not WITHIN a LNDARE or UNSARE <u>feature</u> object of <u>type-geometric primitive</u> area.	Non navigable water objects not covered by UNSARE or LNDARE.	Amend LNDARE or UNSARE to cover <u>these non navigable water objects types</u> .	4.1	W
1564	For each CTRPNT <u>feature</u> object where VER DATCC or VER DATCC are <u>present</u> Present .	<u>Prohibited attribute</u> VER DACCT or VER DATCC <u>populated for</u> present on a CTRPNT object.	Remove VER DACCT or VER DATCC .	4.3	E
1565	For each edge of a LNDARE <u>feature</u> object of <u>type-geometric primitive</u> area which -is not COINCIDENT with one of the following <u>feature</u> objects; a) COALNE, SLCONS, GATCON <u>or</u> , DAMCON of <u>type-geometric primitive</u> line. OR b) M_COVR, GATCON, DAMCON, RIVERS, TUNNEL, DRYDOC, CANALS, LAKARE, LOKBSN, DOCARE <u>or</u> , LNDARE of <u>type-geometric primitive</u> area. OR c) CAUSWY, SLCONS, MORFAC, WRECKS, OBSTRN <u>or</u> , PYLONS where WATLEV <u>=is Equal to</u> 1 {(partly submerged at high water)} <u>OR</u> , 2 {(always dry)} or <u>OR</u> 6 {(subject to inundation or flooding)} .	LNDARE not enclosed by appropriate linear or area object.	Ensure LNDARE is enclosed by an appropriate object.	4.5	E

1566	For each edge of a COALNE object OR or SLCONS feature object of type-geometric primitive line which is COINCIDENT with a RIVERS, CANALS, LAKARE, DOCARE, DRYDOC or LOKBSN feature object AND is not COINCIDENT with a DEPARE, DRGARE, UNSARE, PONTON, FLODOC or HULKES feature object.	COALNE or SLCONS used as the boundary of objects on LAND.	Not required therefore Remove COALNE or SLCONS object.	4.5, 4.6.6.1, 4.6.6.3	E
1567	For each COALNE feature object where VERDACC T or VERDAT CC are is present Present.	Prohibited attribute COALNE object includes VERACC or VERDAT populated for a COALNE object.	Remove values of VERACC or VERDAT.	4.5.1	E
1568	For each SLCONS feature object of type-geometric primitive area which is not WITHIN a LNDARE, DEPARE or UNSARE of type-geometric primitive area.	Area SLCONS object not covered by a appropriate TGroup 1 object.	Amend appropriate TGroup 1 object to cover SLCONS object.	4.5.2	E
1569	For each SLCONS feature object of type-geometric primitive area where WATLEV is Equal to= 3 {(always under water/submerged)} OR; 4 {(covers and uncovers)} OR; 5 {(awash)} AND which is not WITHIN a DEPARE and/or UNSARE of type area.	Area SLCONS object not covered by an appropriate TGroup 1 object.	Amend appropriate TGroup 1 object to cover SLCONS object.	4.5.2	E
1570	For each SLCONS feature object where VERDCCAT T or VERDAT CC are is present Present.	SLCONS object includes Prohibited attribute VERACC or VERDAT populated for a SLCONS object.	Remove values of VERACC or VERDAT.	4.5.2	E
1571	For each BERTHS feature object where VERDAT is present Present.	Prohibited attribute VERDAT populated for a BERTHS object includes VERDAT.	Remove value of VERDAT.	4.6.2	E
1572	For each DRYDOC feature object where VERDAT is present Present.	Prohibited attribute VERDAT populated for a DRYDOC object includes VERDAT.	Remove value of VERDAT.	4.6.6.1	E

1573	For each DRYDOC <u>feature</u> object which is not WITHIN a LNDARE <u>feature</u> object of <u>type-geometric primitive</u> area.	DRYDOC -not covered by LNDARE.	Amend LNDARE or DRYDOC as required.	4.6.6.1	E
1574	Check removed. For each edge of a DRYDOC object which does not TOUCH a GATCON object AND TOUCHES an SLCONS or COALNE object.	DRYDOC object is bounded by an SLCONS or COALNE object.	Amend or delete SLCONS or COALNE objects.	4.6.6.1	E
1575	For each FLODOC <u>feature</u> object where VERDAT or VERACC <u>VERACC or VERDAT are is present</u> Present.	FLODOC object includes <u>Prohibited attribute</u> VERACC or VERDAT <u>populated</u> for a FLODOC object.	Remove values of VERACC or VERDAT.	4.6.6.2	E
1576	Check removed. For each edge of a DOCARE object which does not TOUCH a GATCON object AND TOUCHES an SLCONS or COALNE object.	DOCARE object is bounded by an SLCONS or COALNE object.	Amend or delete SLCONS or COALNE objects.	4.6.6.3	E
1577	For each DOCARE <u>feature</u> object where its the geometric primitive which EQUALS OVERLAPS a SEAARE <u>feature</u> object.	DOCARE overlaps SEAARE.	Amend or delete SEAARE as required.	4.6.6.3	W
1578	For each GATCON <u>feature</u> object where VERDAT is notNull AND VERCLR is not present <u>Present.</u>	VERDAT populated without VERCLR being present.	Remove VERDAT or populate VERCLR.	4.6.6.4	E
1579	Check removed. For each GATCON object where VERACC is notNull AND VERCLR is not present .	VERACC populated without VERCLR being present.	Remove VERACC or populate VERCLR.	4.6.6.4	E
1580	For each GATCON <u>feature</u> object which is not WITHIN a DEPAARE, DRGARE, UNSARE or LNDARE_of <u>type-geometric primitive</u> area.	GATCON not covered by DEPAARE, DRGARE, UNSARE or LNDARE.	Amend objects to ensure GATCON is covered by DEPAARE, DRGARE, UNSARE or LNDARE.	4.6.6.4	E
1581	For each LOKBSN <u>feature</u> where its geometric primitive EQUALS OVERLAPS a SEAARE object.	LOKBSN overlaps SEAARE.	Amend or delete SEAARE as required.	4.6.6.5	W
1582	For each GRIDRN <u>feature</u> object where HORACC or VERACC are is present <u>Present.</u>	<u>Prohibited attribute</u> GRIDRN object includes VERACC or HORACC <u>populated</u> for a GRIDRN object.	Remove values of <u>HORACC</u> or <u>VEHORDACCT.</u>	4.6.6.6	E

1583	For each MORFAC feature object where VER DACC T or VER DAT CC are is present <u>Present</u> .	MORFAC object includes <u>Prohibited attribute</u> VERACC or VERDAT <u>populated for a MORFAC object</u> .	Remove values of VERACC or VERDAT.	4.6.7.1	E
1584	For each MORFAC feature object where WATLEV =is <u>Equal to 1</u> {{(partly submerged at high water)}} OR 2 {{(always dry)}} OR 6 {{(subject to inundation or flooding)}} which is not WITHIN a LNDARE object of type-geometric primitive area.	MORFAC with WATLEV=1, 2 or or 6 not covered by LNDARE.	Amend MORFAC or LNDARE as required.	4.6.7.1	E
1585	For each PILPNT feature object where VER DACC T or VER DAT CC are is present <u>Present</u> .	<u>Prohibited attribute</u> PILPNT object includes VERACC or VERDAT <u>populated for a PILPNT object</u> .	Remove values of VERACC or VERDAT.	4.6.7.2	E
1586	For each PONTON feature object where VERACC is present <u>Present</u> .	<u>Prohibited attribute</u> PONTON object includes VERACC <u>populated for a PONTON object</u> .	Remove value of VERACC.	4.6.7.3	E
1587	For each HULKES feature object where HORACC OR or VERACC are is present <u>Present</u> .	HULKES object includes <u>Prohibited attribute</u> HORACC or VERACC <u>populated for a HULKES object</u> .	Remove HORACC or value of VERACC or HORACC .	4.6.8	E
4588	Check removed. For each CRANES object where VERACC is not Null AND VERCLR is not present.	CRANES object includes VERACC without a value of VERCLR .	Populate VERCLR or remove VERACC .	4.6.9.3	E
1589	For each feature object where CONDTN is E equal to {1} {{(under construction)}} , OR {3} {{(under reclamation)}} OR or {5} {{(planned construction)}} AND SORDAT is Null or <u>OR not present</u> <u>Present</u> .	Object has a value of with CONDTN equal to 1, 3 or 5 without a value for SORDAT.	Populate SORDAT.	4.6.10	W
1590	For each LNDRGN feature object which is not OVERLAPPED that is DISJOINT from by a LNDARE feature object.	LNDRGN not covered by LNDARE object.	Ensure LNDRGN is covered by or contains a LNDARE object.	4.7.1	W

1591	For each LNDELV feature object where VER DACC T or VER DATCC are is present <u>Present</u> .	Prohibited attribute LNDELV object includes VERACC or VERDAT populated for a LNDELV object.	Remove values of VERACC or VERDAT.	4.7.2	E
1592	For each COALNE feature object which is COINCIDENT with a LNDGRN feature object where CATLND is E equal to (2) [(marsh)] AND CATCOA on for the COALNE feature object does not equal <u>Not equal to</u> (8) [(marshy shore)] OR QUAPOS is Not equal to <u>does not equal</u> (4) [(approximate)].	Invalid value of QUAPOS or CATCOA for a COALNE object adjacent to a LNDGRN where CATLND equals (= 2) [(marsh)].	Amend value of <u>CATCOA or QUAPOS</u> or CATCOA as required.	4.7.3	W
1593	For each SLOGRD feature object where NATCON OR or NATQUA are is present <u>Present</u> .	Prohibited attribute SLOGRD object includes NATCON or NATQUA populated for a SLOGRD object.	Remove values of NATCON or NATQUA.	4.7.4	E
1594	For each SLOTOP feature object where NATCON, NATQUA, VERACC OR or VERDAT are is present <u>Present</u> .	SLOTOP contains values for <u>Prohibited attribute</u> NATCON, NATQUA, VERACC or VERDAT <u>populated for a SLOTOP object.</u>	Remove unnecessary values of NATCON, NATQUA, VERACC or VERDAT.	4.7.5	E
1595	For each SLOTOP object where CATSLO is E equals to (6)(cliff) [(cliff)] AND the object is COINCIDENT with a COALNE object.	SLOTOP object where CATSLO = 6=(6) coincides with a COALNE object.	Delete <u>Remove</u> SLOTOP object. <u>Only</u> COALNE with CATCOA= (1) (steep coast) should be encoded.	4.7.5	W
1596	Check removed. For each SLOGRD object where CATSLO equals (6) [(cliff)] AND the object TOUCHES a COALNE object.	SLOGRD object where CATSLO=(6) touches a COALNE object.	Delete SLOGRD object only COALNE with CATCOA=(1) should be encoded.	4.7.5	W
1597	For each RIVERS feature object where its geometric primitive ich EQUALS OVERLAPS a SEAARE object.	RIVERS object overlaps a SEAARE object.	Amend SEAARE object.	4.7.6	E
1598	For each RAPIDS feature object where VERACC is present <u>Present</u> .	Prohibited attribute VERACC populated for a RAPIDS object includes value of VERACC.	Remove value of VERACC.	4.7.7.1	E

1599a	For each RAPIDS or WATFAL <u>feature</u> object which is not WITHIN or <u>OR</u> COINCIDENT with a RIVERS object.	RAPIDS or WATFAL not within or touching a RIVERS object.	Ensure <u>RAPIDS or WATFAL object is</u> within or touching <u>a RIVERS object</u> .	4.7.7.1 and 4.7.7.2	W
1599b	For each RAPIDS or WATFAL <u>feature</u> object which is not WITHIN a LNDARE or UNSARE object.	RAPIDS or WATFAL not within LNDARE or UNSARE.	Ensure <u>RAPIDS or WATFAL object is</u> covered by LNDARE or UNSARE <u>object</u> .	4.7.7.1 and 4.7.7.2	W
1600	For each WATFAL <u>feature</u> object where VERACC is present <u>Present</u> .	<u>Prohibited attribute VERACC populated for a WATFAL object includes value of VERACC.</u>	Remove value of VERACC.	4.7.7.2	E
1601	For each LAKARE <u>feature</u> object where VER DACC <u>OR</u> VERDAT <u>CC</u> is present <u>Present</u> .	<u>Prohibited attribute VERACC or VERDAT populated for a LAKARE object includes value of VERACC or VERDAT.</u>	Remove values of VERACC and VERDAT.	4.7.8	E
1602	For each LAKARE <u>feature object</u> where its geometric primitive is EQUALS OVERLAPS a SEAARE <u>feature object</u> .	LAKARE overlaps SEAARE object.	Amend objects to remove overlap.	4.7.8	W
1603	Check removed. For each LAKSHR object.	LAKSHR object present.	Delete prohibited object LAKSHR.	4.7.8	E
1604	For each COALNE <u>feature</u> object which is COINCIDENT with a LNDGRN <u>feature</u> object where CATLND is Equal to <u>{15} {(salt pan)}</u> AND CATCOA for the COALNE <u>feature</u> object does is <u>Not equal to</u> <u>{2} {(flat coast)}</u> .	COALNE object adjacent to LNDGRN with CATLND = salt pans <u>15</u> does not have CATCOA = flat coast <u>2</u> .	Amend the CATCOA on of COALNE object to <u>{2} {(flat coast)}</u> .	4.7.9	W
1605	For each ICEARE <u>feature</u> object which is not WITHIN a LNDARE or UNSARE or DEPARE object of type <u>geometric primitive</u> area.	ICEARE not covered by appropriate <u>Group 1</u> objects.	Amend objects to ensure <u>Group 1</u> objects cover.	4.7.10	E
1606	For each COALNE <u>feature</u> object where CATCOA is is <u>Not equal to</u> {6} {(glacier (seaward end))} AND which is COINCIDENT with an ICEARE <u>feature</u> object where CATICE is <u>Equal to</u> {5} {(glacier)} .	COALNE without CATCOA = {6} {(glacier (seaward end))} touching an ICEARE with CATICE = {5} {(glacier)} .	Populate CATCOA = {6} {(glacier (seaward end))} for the COALNE object.	4.7.10	W

1607a	For each COALNE <u>feature</u> object where CATCOA is <u>is Not equal to {7}</u> {(mangrove)} AND is COINCIDENT with a VEGATN <u>feature</u> object where CATVEG is <u>= {Equal to 7} {(mangroves)}</u> .	Value of <u>COALNE</u> with <u>CATCOA is-not equal to {7}</u> {(mangrove)} where is coincident with a VEGATN object with CATVEG = {7}, {(mangroves)} is coincident	Populate CATCOA = {7} {(mangrove)} on for the COALNE object.	4.7.11	W
1607b	For each VEGATN <u>feature</u> object where CATVEG is <u>= {Equal to {7}} {(mangroves)}</u> AND the QUAPOS of the spatial object is <u>is Not equal to {4} {(approximate)}</u> .	VEGATN object where CATVEG = {7} {(mangroves)} without QUAPOS = {4} {(approximate)} .	Populate QUAPOS = {4} {(approximate)} .	4.7.11	W
1608	For each VEGATN <u>feature</u> object where VERDACCT OR or VERDATCG are is <u>present</u> Present .	Prohibited attribute <u>VEGATN object</u> includes <u>VERDACCT or VERDATCG</u> populated for a <u>VEGATN object</u> .	Remove values of <u>VERDACCT or VERDATCG</u> .	4.7.11	E
1609	For each CANALS <u>feature</u> object where its the <u>geometric primitive</u> ich <u>EQUALS OVERLAPS</u> a SEAARE object.	CANALS overlaps SEAARE object.	Remove <u>SEAARE or</u> a <u>Amend</u> objects to remove overlap.	4.8.1	W
1610	For each RAILWY <u>feature</u> object where VERACC is present <u>Present</u> .	Prohibited attribute <u>VERACC populated</u> for a <u>RAILWY object</u> includes value of <u>VERACC</u> .	Remove value of <u>VERACC</u> .	4.8.2	E
1611	For each TUNNELS object where BURDEP is present <u>Present</u> .	Prohibited attribute <u>BURDEP populated</u> for a <u>TUNNELS</u> object includes value of <u>BURDEP</u> .	Remove value of <u>BURDEP</u> .	4.8.3	E
1612	Check removed. <u>For each TUNNEL object which is not WITHIN a LNDARE, DEPAARE, UNSARE or DRGARE object.</u>	TUNNEL not within a <u>LNDARE, DEPAARE, UNSARE or DRGARE object.</u>	Ensure TUNNEL is <u>within an appropriate object.</u>	4.8.3	W
1613	For each TUNNEL <u>feature</u> object which CONTAINS a CANALS <u>feature</u> object AND where any of <u>HORACC, HORCLR, VERACC or VERCLR</u> is <u>are</u> notNull.	TUNNEL which covers a CANALS object has values of <u>HORACC, HORCLR, VERACC or VERCLR</u> .	Remove <u>HORCLR, VERACC or VERCLR</u> unnecessary <u>attribute values.</u>	4.8.3	E

1614	For each object of type TUNNEL feature object which CONTAINS any non-hydrographic object. (for this check hydrographic objects are DEPART, DEPCNT, DRGARE and , LNDARE)	TUNNEL contains non Hydrographic object.	Delete Remove objects within TUNNEL which are unnecessary.	4.8.3	W
1615	Check removed. For each TUNNEL object where VERACC is not Null AND VERCLR is null or not present.	VERACC is populated without value for VERCLR.	Remove VERACC or populate VERCLR.	4.8.3	E
1616	For each DAMCON feature object where VERDACC T OR or VERDAT CG are is present Present.	DAMCON object includes Prohibited attribute VERDACC T or VERDAT CG populated for DAMCON object.	Remove values of VERDAT or VERACC VERACC or VERDAT.	4.8.5	E
1617	For each DAMCON feature object of type geometric primitive area which is not WITHIN a LNDARE feature object of type-geometric primitive area.	DAMCON not covered by LNDARE.	Ensure DAMCON is covered by LNDARE.	4.8.5	C
1618	For each DYKCON feature object where VERDACC T OR or VERDAT CG are is present Present.	DYKCON object includes Prohibited attribute VERDACC T or VERDAT CG populated for DYKCON object.	Remove values of VERDACC T or VERDAT CG .	4.8.7	E
1619	For each DYKCON feature object of type-geometric primitive area which is not WITHIN a LNDARE feature object of type-geometric primitive area.	DYKCON not covered by LNDARE.	Ensure DYKCON is covered by LNDARE.	4.8.7	E
1620	For each edge of a DYKCON feature object which is COINCIDENT with both a LNDARE feature object AND a DEPART or DRGARE or UNSARE feature object of type-area geometric primitive area AND is not COINCIDENT with an SLCONS of type-geometric primitive line where CATSLC is not present Present.	DYKCON not enclosed by SLCONS object where it forms the boundary between water and land.	Add SLCONS to ensure boundary between land and water is shown.	4.8.7	E

1621	Check removed. For each ROADWY object where CATROD equals (7).	CATROD equals (7) for ROADWY object.	Remove CATROD value (7).	4.8.8	W
1622	Check removed. For each BRIDGE object where VERACC is notNull AND none of VERCLR, VERCCL or VERCOP are notNull.	BRIDGE object has value of VERACC without a value of VERCLR or VERCCL or VERCOP.	Add value of VERCLR, VERCCL or VERCOP.	4.8.10	E
1623	-For each BRIDGE <u>feature</u> object which OVERLAPS a DEPARE or DRGARE <u>feature</u> object AND its the supports are not encoded with PYLONS <u>feature</u> objects where CATPYL is <u>E</u> equal tos (4) {{(bridge pylon/tower}} OR (5) {{(bridge pier}}.	BRIDGE over navigable water with supports not encoded using a valid PYLONS object/attribute combination.	Ensure bridge supports are encoded using PYLONS with CATPYL equals= (4) {{(bridge pylon/tower}} or (5) {{(bridge pier}}.	4.8.10	E
1624	Check removed. For each CONVYR object where VERACC is notNull AND VERCLR is not present.	CONVYR object with value of VERACC without a value of VERCLR.	Remove value of VERACC or populate VERCLR.	4.8.11	E
1625	For each AIRARE or RUNWAY <u>feature</u> object encoded associated using a C_AGGR collection object which is not C ASSO.	<u>AIRARE or RUNWAY</u> or AIRARE associated using C_AGGR.	Encode association using C ASSO not C_AGGR.	4.8.12	W
1626	For each AIRARE <u>feature</u> object where CONVIS is present <u>Present</u> .	<u>Prohibited attribute CONVIS populated for AIRARE</u> object includes CONVIS.	Remove value of CONVIS.	4.8.12	E
1627	For each RUNWAY <u>feature</u> object where CONVIS is present <u>Present</u> .	<u>Prohibited attribute CONVIS populated for RUNWAY</u> object includes CONVIS.	Remove value of CONVIS.	4.8.12	E
1628	For each PRDARE <u>feature</u> object where VER D ACCT OR VER D ATGG are is <u>present</u> <u>Present</u> .	<u>Prohibited attribute VERACC or VERDAT</u> populated for PRDARE object includes VERDAT or VERACC.	Remove values of VER D ACCT or VER D ATGG.	4.8.13	E
1629	For each BUAARE <u>feature</u> object where VER D ACCT OR or VER D ATGG are is <u>present</u> <u>Present</u> .	BUAARE object includes <u>Prohibited attribute VERDACC or VERDAT</u> populated for a BUAARE object.	Remove values of VER D ACCT or VER D ATGG.	4.8.14	E

1630	For each RIVERS, LOKBSN, DOCARE, LAKARE or CANALS <u>feature</u> object of type <u>geometric primitive</u> area which OVERLAPS a BUAARE <u>feature</u> object.	BUAARE object overlaps a <u>Area</u> RIVERS, LOKBSN, DOCARE, LAKARE or CANALS object of type area overlaps a <u>BUAARE object</u> .	Amend BUAARE object to remove overlap.	4.8.14	W
1631	For each BUISGL <u>feature</u> object where VERDACCT OR or VERDATCC are is present <u>Present</u> .	BUISGL object includes <u>Prohibited</u> attribute VERDACCT or VERDATCC <u>populated for a BUISGL object</u> .	Remove values of VERDACCT or VERDATCC .	4.8.15	E
1632	For each SILTNK <u>feature</u> object where VERDACCT OR VERDATCC are is present <u>Present</u> .	SILTNK object includes <u>Prohibited</u> attribute VERDAT or VERACGVERACC <u>or VERDAT</u> <u>populated for SILTNK object</u> .	Remove values of <u>VERDAT or VERACGVERACC or VERDAT</u> .	4.8.15	E
1633	For each LNDMRK <u>feature</u> object where VERDAT OR VERACGVERACC or VERDAT are is present <u>Present</u> .	LNDMRK object includes <u>Prohibited</u> attribute VERDAT or VERACGVERACC <u>or VERDAT</u> <u>populated for LNDMRK object</u> .	Remove values of <u>VERDAT or VERACGVERACC or VERDAT</u> .	4.8.15	E
1634	For each FNCLNE <u>feature</u> object where VERDAT OR VERACGVERACC or VERDAT are is present <u>Present</u> .	FNCLNE object includes <u>Prohibited</u> attribute VERDAT or VERACGVERACC <u>or VERDAT</u> <u>populated for FNCLNE object</u> .	Remove values of <u>VERDAT or VERACGVERACC or VERDAT</u> .	4.8.16	E
1635	For each FORSTC <u>feature</u> object where VERDAT OR VERACGVERACC or VERDAT are is present <u>Present</u> .	FORSTC object includes <u>Prohibited</u> attribute VERDAT or VERACGVERACC <u>or VERDAT</u> <u>populated for FORSTC object</u> .	Remove values of <u>VERDAT or VERACGVERACC or VERDAT</u> .	4.8.17	E
1636	For each PYLONS <u>feature</u> object where VERDAT OR VERACGVERACC or VERDAT are present <u>Present</u> .	PYLONS object includes <u>Prohibited</u> attribute VERDAT or VERACGVERACC <u>or VERDAT</u> <u>populated for PYLONS object</u> .	Remove values of <u>VERDAT -or VERACC</u> .	4.8.18	E

1637	For each PYLONS <u>feature</u> object of <u>type-geometric primitive</u> area where WATLEV is E equal to 1 {(partly submerged at high water)} OR 2 {(always dry)} OR 6 {(subject to inundation or flooding)} which is not WITHIN a LNDARE <u>feature</u> object of <u>type-geometric primitive</u> area.	PYLONS object with WATLEV = 1, 2 or 6 not situated on <u>covered by a</u> LNDARE object.	Ensure PYLONS object is situated on <u>covered by</u> LNDARE of type area.	4.8.18	E
1638	For each picture file which is not in the TIFF format. Moved to section 2.3 as Ccheck renumbered to 102347	Picture file not in Tiff format.	Replace picture file with Tiff format version.	4.8.20	C
1639	For each DEPCNT <u>feature</u> object where VERDAT is present <u>Present</u> .	<u>Prohibited attribute</u> VERDAT present on <u>populated for</u> DEPCNT <u>object</u> .	Remove VERDAT.	5.2	E
1640	For each SOUNDG <u>feature</u> object where VERDAT is present <u>Present</u> .	<u>Prohibited attribute</u> VERDAT <u>populated for</u> SOUNDG object includes VERDAT .	Remove VERDAT.	5.3	E
1641	For each UWTROC <u>feature</u> object which is COINCIDENT with a SOUNDG <u>feature</u> object. (COINCIDENT applies to the horizontal component only).	UWTROC object coincident with SOUNDG object.	Remove object which is not required.	5.3	E
1642	For each DEPRE <u>feature</u> object where VERDAT OR or <u>SOUACC are is</u> present <u>Present</u> .	<u>Prohibited attribute</u> VERDAT or <u>SOUACC</u> present on apopulated for a DEPRE object.	Remove VERDAT or SOUACC.	5.4.1	E
1643	Check removed. Check that where depth contours merge, a DEPAR (type Line) object is created, and that the value for VALDCO on the DEPCNT object is equal to the value for DRVAL! On the DEPRE object.				W
1644	For each edge bounding a DEPRE <u>feature</u> object which is COINCIDENT with an M_COVR <u>meta</u> object AND is COINCIDENT with a <u>linear</u> geo object of type line .	DEPRE objects on the edge of data coverage not bounded by <u>linear</u> spatial objects without geo objects.	Ensure DEPRE objects at the edge of <u>the</u> dataset only have spatial objects without geo objects as their outer boundary.	5.4.2 (Fig.5)	W

1645	Check removed. Check that the overall succession of DRVAL1 and DRVAL2 in the whole maritime area is continuous.			5.4.3	W
1646	For each DRGARE <u>feature</u> object where DRVAL2 is notNull and #AND is <u>Equal</u> to the value of DRVAL1	DRVAL1 and DRVAL2 have the same value for a DRGARE object.	Amend values or remove value of DRVAL2.	5.5	W
1647	For each DRGARE <u>feature</u> object where VERDAT is present <u>Present</u> .	<u>Prohibited attribute VERDAT populated for a DRGARE object</u> includes VERDAT.	Remove VERDAT.	5.5	E
1648	For each DRGARE <u>feature</u> object where QUASOU is notNull AND its value is is <u>Not equal</u> NOT to {10} {(maintained depth)} OR {11} {(not regularly maintained)}).	Invalid value of QUASOU on for DRGARE.	Remove invalid value of QUASOU.	5.5	E
1649	For each DRGARE <u>feature object</u> where SOUACC is notNull AND is Less than or equal to the value of <u>SOUACC of the M_QUAL meta object it lies WITHIN.</u> has an equivalent Equal or OR lesser Less than value of SOUACC.	Value of SOUACC on DRGARE is equalivalent to or degrades the value on the underlying M_QUAL.	Amend or remove value of SOUACC as appropriate.	5.5 and 2.2.3.1	E
1650	For each SWPARE <u>feature</u> object where VERDAT is present <u>Present</u> .	<u>Prohibited attribute VERDAT populated for a SWPARE object</u> includes VERDAT.	Remove VERDAT.	5.6	E
1651	For each SWPARE <u>feature</u> object which does is not <u>OVERLAP WITHIN</u> DEPARE and/or DRGARE <u>feature</u> objects of type <u>geometric primitive</u> area.	SWPARE not covered by DRGARE or DEPARE objects.	Amend limits of SWPARE or edit DEPARE and/or DRGARE objects.	5.6	C
1652	For each SWPARE <u>feature</u> object which EQUALS an M_QUAL <u>meta</u> object AND the DRVAL1 values of the two <u>feature</u> objects are N not equal.	SWPARE object sharing the position and geometry of M_QUAL object but <u>where</u> DRVAL1 values are not equal.	Amend values of DRVAL1.	5.6	E

1653	For each SWPARE feature object where SOUACC is notNull AND is Not equal to SOUACC value of the WITHIN an M_QUAL meta object where SOUACC is notNull AND the value of SOUACC for the M_QUAL object is not EQUAL to the value of SOUACC of the SWPARE it is WITHIN object.	SOUACC on of a SWPARE object is not equal to the SOUACC of the M_QUAL meta object it is within. M_QUAL object does not apply to all SOUNDINGS it covers.	Remove or a Amend or remove the SOUACC value of the M_QUAL object from one of the objects.	5.6	E
1654	For each SWPARE feature object where TECSOU is notNull AND is not is Not equal to -(6) {(swept by wire-drag)} OR, -(8) {(swept by vertical acoustic system)} OR -(13) {(swept by side-scan sonar)}.	TECSOU on SWPARE object not an allowable Prohibited value of TECSOU for a SWPARE object value.	Set Ensure value of TECSOU to 6, 8 or 13 is an allowable value.	5.6	E
1655	For each SWPARE feature object which EQUALS an M_QUAL meta object where POSACC AND SOUACC is are encoded notNull.	POSACC and SOUACC encoded on M_QUAL object which covers a SWPARE object.	Remove POSACC.	5.6	E
1656	For each UWTROC feature object where VERDAT is presentPresent.	Prohibited attribute VERDAT present on populated for UWTROC object.	Remove VERDAT.	6.1.2	E
1657	For each UWTROC feature object where the values of VALSOU, QUASOU, WATLEV, TECSOU AND and SOUACC are not as defined in the table below (additional values may be encoded).		Amend to logical combination.	6.1.2	W
	VALSOU	QUASOU	WATLEV	TECSOU SOUACC	
	unknown	2 or OR not presentPresent	3, 4 or OR 5	Not presentPresent	
		2 or OR not presentPresent	unknown	Not presentPresent	
	< 0	1, 3, 4, 6, 8, 9 or OR not presentPresent	4	notNull	
		7	4	Not presentPresent	
	0	1, 3, 4, 6, 8, 9 or OR not presentPresent	5	notNull	
		7	5	Not presentPresent	
	> 0	1, 3, 4, 6, 8 or OR 9 or OR not presentPresent	3	notNull	
		7	3	Not presentPresent	

1658	For each WRECKS <u>feature</u> object where any of VERDAT, VERACC and or VERLEN are present <u>Present</u> .	<u>Prohibited attribute</u> VERDAT, VERACC or VERLEN present <u>populated for</u> WRECKS object.	Remove VERDAT, VERACC or VERLEN.	6.2.1	E
1659a	For each WRECKS <u>feature</u> object where VALSOU is notNull AND EXPSOU is equal to <u>Equal to</u> {1 (within the range of depth of the surrounding depth area)} or OR is not present <u>Present</u> AND VALSOU is Less than or equal to the DRVAL1 OR greater than <u>Greater than</u> DRVAL2 of the DEPARE <u>feature</u> object it is WITHIN.	VALSOU on for <u>feature</u> WRECKS object with EXPSOU = 1 or not present and is outside of the range of the underlying depth area <u>DEPARE</u> .	Populate an appropriate value of EXPSOU.	6.2.1	E
1659b	For each WRECKS <u>feature</u> object where VALSOU is notNull AND EXPSOU is <u>Equal to</u> 1 (within the range of depth of the surrounding depth area) <u>OR is not Present</u> AND VALSOU is <u>Less than or equal to the DRVAL1 OR Greater than DRVAL2 of the DRGARE feature object it is WITHIN AND DRVAL2 is notNull AND Not equal to DRVAL1.</u>	VALSOU for WRECKS object with EXPSOU = 1 or not present is outside of the range of the underlying <u>DRGARE</u> .	<u>Populate an appropriate value of EXPSOU.</u>	<u>6.2.1</u>	<u>E</u>
1660	For each WRECKS <u>feature</u> object where VALSOU is notNull AND EXPSOU is equal to <u>Equal to</u> {2 (shoaler than the range of depth of the surrounding depth area)} AND the value of VALSOU is greater than <u>Greater than</u> the DRVAL1 of the DEPARE or DRGARE <u>feature</u> object it is WITHIN AND DRVAL1 is notNull.	WRECKS object where EXPSOU = equals {2} but with a VALSOU greater than the <u>DRVAL1 of the underlying DEPARE/DRGARE DRVAL1.</u>	Populate <u>an</u> appropriate value of EXPSOU.	0 6.2.1	E

1661a	For each WRECKS feature object where VALSOU is notNull AND EXP SOU =is <u>Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> AND the VALSOU is <u>less than or equalequal</u> to DRVAL2 of the DEPRE feature object it is WITHIN where AND DRVAL2 is not unknown notNull.		WRECKS object with-where EXP SOU = {3} and a VALSOU <u>is</u> less than DRVAL2 of the underlying DEPRE.	Amend value of EXP SOU to a logical value.	6.2.1	E
1661b	For each WRECKS feature object where EXP SOU =is <u>Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> AND the VALSOU is <u>less than or equalequal</u> to the DRVAL2 of the DRGARE feature object it is WITHIN where DRVAL1 AND DRVAL2 are notNull.		WRECKS object with-where EXP SOU = {3} and a VALSOU <u>is</u> less than DRVAL2 of the underlying DRGARE.	Amend value of EXP SOU to a logical value.	6.1.26.2.1	E
1661c	For each WRECKS feature object where EXP SPOU =is <u>Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> where AND the VALSOU is <u>less than or equalequal</u> to the DRVAL1 of the DRGARE feature object it is within WITHIN where DRVAL2 is not P present.		WRECKS with EXP SOU = {3} but with a VALSOU less than DRVAL1 of the underlying DRGARE when only DRVAL1 is populated.	Amend value of EXP SOU to a logical value.	6.1.26.2.1	E
1662	For each WRECKS object OR or OBSTRN feature object of type <u>geometric primitive</u> area which is not WITHIN a DEPRE, LNDARE or UNSARE feature object of <u>geometric primitive type</u> area.		Area WRECKS or OBSTRN object not within a DEPRE, LNDARE or UNSARE type object.	Amend to ensure appropriate G group 1 object is the underlying object.	6.2.1 and 6.2.2	E
1663	For each WRECKS feature objects where the attribute values do not correspond to the table below.		WRECKS object with illogical attribute combination.	Amend attributes in accordance with the logical values defined in the table.	6.2.1	W
	VALSOU	WATLEV	CATWRK	QUASOU	HEIGHT	TECSOU SOUACC
	Undefined	3-or <u>OR</u> unknown 4-or <u>OR</u> 5	1, 2, 3 -or <u>OR</u> unknown Any value	2-or <u>OR</u> undefined 2-or <u>OR</u> undefined	Undefined Undefined	Undefined Undefined

		1- or <u>OR</u> 2	4, 5- or <u>OR</u> unknown	Undefined	Any value	Undefined
Unknown		3- or <u>OR</u> unknown	1, 2, 3- or <u>OR</u> undefined	2- or <u>OR</u> undefined	Undefined	Undefined
		4- or <u>OR</u> 5	Any value	2- or <u>OR</u> undefined	Undefined	Undefined
		1- or <u>OR</u> 2	<u>4, 5 OR undefined</u>	Undefined	Any value	Undefined
< 0	4	Any value	7	Undefined	Undefined	Undefined
	4	Any value	1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Undefined	Any value	Any value
0	5	1, 2, 3- or <u>OR</u> undefined	7	Undefined	Undefined	Undefined
	5	Any value	1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Undefined	Any value	Any value
> 0	3	1, 2, 3- or <u>OR</u> undefined	7	Undefined	Undefined	Undefined
	3	1, 2, 3- or <u>OR</u> undefined	1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Undefined	Any value	Any value
1664	For each OBSTRN <u>feature</u> object where VERACC or VERDAT is <u>P</u> present.	<u>Prohibited attribute</u> VERACC or VERDAT <u>populated for present on an</u> OBSTRN object.		Remove VERACC or VERDAT.	6.2.2	E
1665a	For each OBSTRN <u>feature</u> object where VALSOU is notNull AND EXPSOU is <u>equal</u> <u>Equal</u> to {1 <u>(within the range of depth of the surrounding depth area)</u> } or <u>OR</u> not <u>P</u> present AND VALSOU is <u>L</u> less than or equal to DRVAL1 OR <u>greater than</u> <u>Greater than</u> DRVAL2 of the DEPRE or <u>DRGARE</u> <u>feature</u> object it is <u>WITHIN</u> <u>where</u> <u>DRVAL1 AND DRVAL2 are not</u> <u>Null</u> .	<u>VALSOU for</u> OBSTRN object with EXPSOU = {1} or not present <u>which</u> is outside of the range <u>of DRVAL1 and DRVAL2 of the underlying DEPRE.</u>		Populate an appropriate value of EXPSOU.	6.2.2	E

1665b	For each OBSTRN <u>feature</u> object where VALSOU is <u>notNull AND EXPSOU is Equal to 1 (within the range of depth of the surrounding depth area) OR not Present AND VALSOU is Less than or equal to DRVAL1 OR Greater than DRVAL2 of the DRGARE feature object it is WITHIN AND DRVAL2 is notNull AND Not equal to DRVAL1.</u>	<u>VALSOU for OBSTRN object with EXPSOU = 1 or not present is outside of the range of the underlying DRGARE.</u>	<u>Populate an appropriate value of EXPSOU.</u>	<u>6.2.2</u>	<u>E</u>
1666	For each OBSTRN <u>feature</u> object where VALSOU is notNull AND EXPSOU is <u>Equal to {2 (shoaler than the range of depth of the surrounding depth area) }</u> AND the value of VALSOU is greater than Greater than the DRVAL1 of the DEPARE or DRGARE <u>feature</u> object it is WITHIN AND DRVAL1 is notNull.	OBSTRN object where EXPSOU <u>= equals {2} but</u> with a VALSOU greater than the <u>DRVAL1 of the underlying DRVAL1/DEPARE/DRGARE.</u>	Populate <u>an</u> appropriate value of EXPSOU.	6.2.2	E
1667a	For each OBSTRN <u>feature</u> object where VALSOU is notNull AND EXPSOU <u>=is Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> AND the VALSOU is less than Less than or equal equal to DRVAL2 of the DEPARE <u>feature object</u> it is WITHIN where <u>AND</u> DRVAL2 is notNull unknown.	OBSTRN <u>object</u> where <u>with</u> EXPSOU = {3} and a VALSOU <u>is</u> less than <u>the</u> DRVAL2 of the underlying DEPARE.	Amend value of EXPSOU to a logical value.	6.2.2	E
1667b	For each OBSTRN <u>feature</u> object where EXPSOU <u>=is Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> AND the VALSOU is Less than or equal equal to the DRVAL2 of the DRGARE <u>feature object</u> it is WITHIN where <u>AND</u> DRVAL1 AND DRVAL2 are notNull.	OBSTRN <u>object</u> where <u>with</u> EXPSOU = {3} and a VALSOU <u>is</u> less than <u>the</u> DRVAL2 of the underlying DRGARE.	Amend value of EXPSOU to a logical value.	6.2.2	E

1667c	For each OBSTRN <u>feature</u> object where EXPSPDU = <u>is Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> where <u>AND</u> the VALSOU is <u>less than or equal to</u> the DRVAL1 of the DRGARE <u>feature</u> object it is <u>within-WITHIN</u> AND <u>where</u> DRVAL2 is not present <u>Present</u> .	OBSTRN <u>object</u> where <u>with</u> EXPSOU = {3} <u>but with and</u> VALSOU <u>is</u> less than DRVAL1 of the underlying DRGARE where <u>only</u> DRVAL1 is populated.	Amend value of EXPSOU to a logical value.	6.2.2	E
1668	For each OBSTRN <u>feature</u> object where PRODC is present <u>Present</u> AND CATOBS is not <u>is Not equal to {2} {(wellhead)} OR {3} {(diffuser)}</u> .	OBSTRN object with a value for PRODC without a logical value of CATOBS.	Remove value of PRODC or populate logical value of CATOBS.	Logical consistency	W
1669	For each OBSTRN <u>feature</u> objects where the attribute values do not correspond to the table below;	OBSTRN object with illogical attribute value combinations.	Populate logical attribute value combinations.	6.2.2	E
VALSOU		WATLEV	QUASOU	TECSOU SOUACC	HEIGHT
Unknown	3, 4, 5 or <u>OR</u> unknown		2 or <u>OR</u> undefined	Undefined	Undefined
	1 or <u>OR</u> 2		Undefined	Undefined	Any value
	7		Undefined	Undefined	Undefined
< 0	4		1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Any value	Undefined
	4		7	Undefined	Undefined
0	5		1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Any value	Undefined
> 0	3		1, 3, 4, 6, 8, 9 or <u>OR</u> undefined	Any value	Undefined
	3		7	Undefined	Undefined

1670	For each WRECKS or OBSTRN feature object of type-geometric primitive area which CONTAINS objects of type- WRECKS or OBSTRN feature of type-geometric primitive point AND the values of EXPSOU, QUASOU, SOUACC, VALSOU and WATLEV of the area feature object are not-Not equal to the values of the shallowest point object.	Point WRECKS or OBSTRN within area WRECKS or OBSTRN have attribute values not reflected on-for the area object.	Ensure area <u>WRECKS</u> or <u>OBSTRN</u> object attribute values reflect the shallowest point object.	6.3.2	W
1671	For each feature object of geometric primitive type line which is COINCIDENT with an area feature object of the same feature object type class and AND has the same attribute values (excludingexcept attributes SORIND, SORDAT and SCAMIN.	Line object touching object with the same attribute values except SORIND, SORDAT and SCAMIN.	Delete-Remove unnecessary object.	Logical consistency	W
1672	For each feature object of geometric primitive type point which is WITHIN a feature object of the same class of geometric primitive area AND which has the same attribute values AND is not a of type LNDARE, OBSTRN or WRECKS feature object.	Object with the same attributes within an identical object.	Delete-Remove repeated-duplicate object or amend attributes accordingly.	Logical consistency	E
1673a	For each SBDARE feature object where NATSUR values are not separated by a <u>comma or slash</u> or comma (without spaces).	NATSUR values not separated by <u>a</u> comma or slash.	Insert <u>comma or slash</u> or comma as required.	7.1	E
1673b	For each SBDARE feature object where NATSUR starts or ends with a comma or a slash.	NATSUR starts or ends with a comma or a slash.	Remove unnecessary comma or slash.	7.1	E
1673c	For each SBDARE feature object where NATSUR contains ',' or <u>OR</u> '/' .	Consecutive comma or slash within NATSUR on <u>SBDARE object</u> .	Remove unnecessary comma or slash.	7.1	E

1673d	For each SBDARE feature object where the NATQUA and NATSUR attributes do not contain an E equal number of commas (or slashes) .	NATQUA and NATSUR have different numbers of commas (or slashes) .	Ensure appropriate commas (or slashes) are used to separate values.	7.1	E
1673e	For each SBDARE feature object where NATSUR contains '9/ '.	NATSUR contains '9/ '. (Rock is encoded as the surface layer, it should be underlying).	Remove inappropriate NATSUR contents.	7.1	E
1674	For each SBDARE feature object or type of geometric primitive a Area WITHIN a DEPRE where DRVAL1 is less than Less than 0 AND WATLEV is is Not equal to not equal to (4) {(covers and uncovers)} .	SBDARE object in drying an inter-tidal area without WATLEV = (4) .	Populate Set value of WATLEV =to (4) {(covers and uncovers)} .	7.1(e) and 7.1 (g)	W
1675	For each SNDWAV feature object where VERACC is present Present.	Prohibited attribute VERACC present on populated for a SNDWAV object.	Remove VERACC.	7.2.1	E
1676	Check removed. Check that any RESARE object having a value of (24) for the attribute CATREA also has a value of (13) for the attribute RESTRN.	-	-	9.1.2	W
1677	For each MORFAC feature object where BOYSHP is present Present AND CATMOR is not equal to is Not equal -to (7) {(mooring buoy)} .	MORFAC with BOYSHP without CATMOR = (7) {(mooring buoy)} .	Populated Set value of CATMOR =to (7) {(mooring buoy)} or remove BOYSHP.	4.6.7.1	E
1678	For each RECTRC feature object where DRVAL2 or VERDAT OR DRVAL2 are is presentPresent.	Prohibited attributes DRVAL2 or VERDAT or DRVAL2 present on populated for RECTRC object.	Remove DRVAL2 or VERDAT or DRVAL2 .	10.1.1	E
1679	For each feature object where attributes of the following types enumerated ('E'), float ('F'), integer ('I') or code string ('A') have more than one value.	More than one value present for attributes of the following types; enumerated ('E'), float ('F'), integer ('I') or code string ('A').	Remove unnecessary values.		C
1680	Check removed. Check that no RECTRC object contains a value of (3) for the attribute STATUS.	-	-	10.1.1	W

1681	For each RECTRC <u>feature</u> object of type <u>geometric primitive</u> line where ORIENT is notNull AND <u>TRAFFIC is Equal to 1 (inbound) OR 2 (outbound) OR 3 (one-way) AND the direction bearing of digitising the line is not greater</u> more than 5 degrees Greater than OR <u>Less than</u> the value of ORIENT.	RECTRC where ORIENT does not correspond to the direction of digitising bearing of the line.	<u>Populate an appropriate value of ORIENT consistent with the geometry of the object.</u> Amend value of ORIENT.	10.1.1	C
1682	For each RECTRC or NAVLNE <u>feature</u> object which is not part of a C_AGGR collection object AND is not a RECTRC <u>feature</u> object with CATTRK is equal <u>Equal</u> to {2} <u>{(not based on a system of fixed marks)}</u> .	RECTRC or NAVLNE object is not part of <u>a</u> C_AGGR collection object(except RECTRC where CATTRK=2).	Add to C_AGGR collection object.	10.1.2	W
1683	For each C_AGGR <u>collection</u> object with a single instance of both NAVLNE AND and RECTRC AND their ORIENT values are Not equal or <u>OR</u> reciprocal.	RECTRC and NAVLNE as part of a C_AGGR do not have consistent values of ORIENT.	Amend values of ORIENT to agree.	10.1.2	C
1684	For each group of <u>feature</u> objects forming a measured distance where the beacons and transit lines are not aggregated into a C_AGGR collection object AND the C_AGGR collection objects are not aggregated into another C_AGGR <u>collection</u> object including the track to be followed.	Measured distance not grouped using C_AGGR collection objects.	Encode C_AGGR objects and relate as appropriate.	10.1.3	E
1685	For each <u>TSSBND feature</u> object of type TSSBND that is not COINCIDENT with the outer limit of a TSSRON, TSSLPT or TSSZNE.	TSSBND not on the outer limit of an appropriate TSS object.	Amend TSSBND or other TSS objects so that it forms the outer limit.	10.2.1.2	E
1686	For each TSELNE <u>feature</u> object which is not COINCIDENT with two TSSLPT <u>feature</u> objects OR one TSSLPT <u>feature</u> object and one ISTZNE <u>feature</u> object.	TSSLNE does not separate TSSLPT objects or TSSLPT and ISTZNE objects.	Amend TSELNE to ensure it separates appropriate objects.	10.2.1.3	E

1687	For each TSEZNE feature object which is not COINCIDENT with two or more TSSLPT feature objects OR at least one TSSLPT feature object and one ISTZNE feature object OR COINCIDENT with a TSSRON object.	TSEZNE does not separate appropriate TSS objects.	Amend TSSZNE to separate appropriate objects.	10.2.1.4	E
1688	For each TSSCRS feature object which does not touch greater than Greater than 3 TSSLPT or TWRTPT feature objects.	TSSCRS object does not encode a crossing of 4 or more lanes.	Encode all lane parts or use another object.	10.2.1.5	E
1689	For each TSSCRS feature object which OVERLAPS a TSEZNE feature object.	TSSCRS object overlaps TSEZNE object.	Amend objects to remove overlap.	10.2.1.5	E
1690	For each TSSRON feature object which OVERLAPS a TSEZNE object.	TSSRON object overlaps TSEZNE object.	Amend objects to remove overlap.	10.2.1.6	E
1691	For each DWRTPT feature object where VERDAT or DRVAL2 or VERDAT are is present Present.	Prohibited attribute DWRTPT object carries DRVAL2 or VERDAT or DRVAL2 attribute populated for DWRTPT object.	Remove inappropriate attribute value DRVAL2 or VERDAT.	10.2.2.1	E
1692	For each DWRTPT feature object which is not NOT WITHIN the combined coverage of objects of type DEPARE AND or DRGARE feature objects.	DWRTPT object not covered by DEPARE or DRGARE objects.	Encode appropriate DEPARE or DRGARE objects.	10.2.2.1	E
1693	For each each object of type DWRTPT and or DWRTCL feature object where OBJNAM is notNull AND the object is aggregated in a collection object.	DWRTPT or DWRTCL objects with OBJNAM form part of a collection object.	Remove object from collection object. Encode the name using the C_AGGR meta collection object or create a SEARRE. Remove it name from DWRTPT or and/or DWRTCL.	10.2.2.1	W

1694	For each DWRTCL <u>feature</u> object where ORIENT is notNull AND TRAFIC equals-is Equal to {1 (inbound) OR}, {2 (outbound)} OR 3 or {(one-way)} AND the direction of digitising is not greater than 5 degrees greater than or less than the value of ORIENT, the bearing of the line is more than 5 degrees Greater than OR Less than the value of ORIENT.	One way DWRTCL where ORIENT does not correspond to the direction of digitising <u>bearing of the line.</u>	<u>Populate an appropriate value of ORIENT consistent with the geometry of the object. Amend value of ORIENT.</u>	10.2.2.2	C
1695	For each DWRTCL <u>feature</u> object where VERDAT or DRVAL2 are is present <u>Present.</u>	<u>Prohibited attribute DRVAL2 or VERDAT or DRVAL2 present populated for DWRTCL object.</u>	Remove <u>DRVAL2 or VERDAT or DRVAL2.</u>	10.2.2.2	E
1696	For each RCRTCL <u>feature object</u> where TRAFIC is Equal to {1 (inbound) OR}, {2 (outbound)} OR {3 (one-way)} AND the direction of digitizing is not 5 degrees greater than or less than the value of ORIENT, the bearing of the line is more than 5 degrees Greater than OR Less than the value of ORIENT.	One-way RCRTCL where ORIENT does not correspond to the direction of digitising <u>bearing of the line.</u>	<u>Populate an appropriate value of ORIENT consistent with the geometry of the object. Amend value of ORIENT.</u>	10.2.4	C
1697	For each RCRTCL <u>feature object</u> where <u>DRVAL2 or VERDAT or DRVAL2 are is present</u> <u>Present.</u>	RCRTCL has <u>Prohibited attribute DRVAL2 or VERDAT or DRVAL2 populated for RCRTCL object.</u>	Remove <u>DRVAL2 or VERDAT or DRVAL2.</u>	10.2.4	E
1698	For each TWRTPT <u>feature</u> object where <u>DRVAL2 or VERDAT or DRVAL2 are is present</u> <u>Present.</u>	<u>Prohibited attribute drval2 or VERDAT or DRVAL2 are present or populated for TWRTPT object.</u>	Remove <u>DRVAL2 or VERDAT or DRVAL2.</u>	10.2.6	E
1699	For each FAIRWY <u>feature</u> object where VERDAT is present <u>Present.</u>	<u>Prohibited attribute VERDAT present or populated for a FAIRWY object.</u>	Remove VERDAT.	10.4	E
1700	For each TESARE <u>feature</u> object which OVERLAPS an EXEZNE <u>feature</u> object.	TESARE object overlaps EXEZNE object.	Amend limits to remove overlap.	11.2	E

1701	For each CBLSUB feature object where VERDAT is present <u>Present</u> .	<u>Prohibited attribute</u> VERDAT present on <u>populated for a</u> CBLSUB object .	Remove VERDAT.	11.5.1	E
1702	For each <u>CBLSUB feature</u> object of type CBLSUB where STATUS is E <u>equals to (4)</u> [(not in use)] AND CATCBL is notNull.	CBLSUB object has <u>where</u> STATUS = (4) [(not in use)] and a <u>value for CATCBL is</u> <u>populated</u> .	Amend CATCBL or STATUS.	11.5.1	W
1703	For each object of type CBLSUB feature object where CATCBL is Equal to 3 = (3) [(transmission line)].	CBLSUB object where CATCBL = (3) .	Remove prohibited value of CATCBL.	11.5.1	E
1704	For each CBLOHD feature object where VERDAT is present <u>Present</u> and AND VERCLR and VERCSA are not present <u>Present</u> .	VERDAT populated for CBLOHD object without value of VERCLR or VERCSA.	<u>Remove VERDAT or</u> <u>populate VERCLR or</u> <u>VERCSA otherwise</u> remove VERDAT .	11.5.2	E
1705	Check removed. Check that no CBLOHD object contains an attribute value for VERACC, without an attribute value for at least one of VERCLR or VERCSA.	-	-	11.5.2	E
1706	For each CBLOHD, CBLSUB, PIPSOL or PIPOHD feature object where CONDTN is notNull AND is not <u>Not equal to</u> (1) [(under construction)] OR (5) [(planned construction)].	CBLOHD, CBLSUB, PIPSOL or PIPOHD object where CONDNTN does is not <u>equal</u> (1) or (5) .	Amend value of CONDNTN accordingly.	11.5.1, 11.5.2, 11.6.1 and 11.6.3	E
1707	For each object of type CBLARE feature object where CATCBL is = (3) <u>Equal to 3</u> [(transmission line)] OR (6) [(mooring cable/chain)],	CBLARE has an inappropriate value of CATCBL.	Amend to appropriate value of CATCBL or remove.	11.5.3	E
1708	For each PIPSOL feature object where VERDAT OR VERACC VERACC or VERDAT are <u>is</u> present <u>Present</u> .	<u>Prohibited attributes</u> VERDAT or VERACC VERACC or <u>VERDAT populated</u> for present on PIPSOL object.	Remove VERDAT or VERACC VERACC or <u>VERDAT</u> .	11.6.1	E
1709	For each PIPSOL feature object where STATUS is E <u>equal to (4)</u> [(not in use)] AND CATPIP is present <u>Present</u> .	PIPSOL has <u>subject</u> <u>where</u> status <u>STATUS</u> = (4) not in use and <u>value for CATPIP is</u> <u>populated</u> .	Remove value of CATPIP if STATUS equals (4) [(not in use)] .	11.6.1	W

1710	Check removed. Check that no PIPOHD object has an attribute value for VERACC without an attribute value for VERCLR.	-	-	11.6.3	E
1711	Check removed. Check that no PIPOHD object has an attribute value for VERDAT without an attribute value for VERCLR.			11.6.3	E
1712	For each PIPOHD <u>feature</u> object where STATUS <u>is</u> Equal to (4) [(not in use)] AND CATPIP <u>OR</u> or <u>PRODCT are is</u> present Present.	PIPOHD has <u>status STATUS = (4)</u> not in use and <u>has a</u> values for CATPIP or PRODCT.	Remove values of CATPIP or PRODCT if STATUS equals (4) (not in use).	11.6.3	W
1713	For each PIPARE <u>feature</u> object where CONDTN is <u>present</u> Present.	<u>Prohibited attribute</u> CONDTN <u>present</u> on <u>populated for</u> PIPARE object.	Remove CONDTN.	11.6.4	E
1714	Check removed. Check that any OBSTRN object that has a value of (2) for the attribute CATOBS also has a value of (4) for the attribute STATUS.	-	-	11.7.1 and 6.2.2	W
1715	For each OFSPLF <u>feature</u> object where <u>VERDAT OR VERACC</u> VERACC or VERDAT are is <u>present</u> Present.	<u>Prohibited attributes</u> VERDAT or VERACC VERACC or VERDAT <u>populated for</u> present on a OFSPLF object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	11.7.2	E
1716	For each OSPARE <u>feature</u> object where VERACC is <u>present</u> Present.	<u>Prohibited attribute</u> VERACC <u>populated for a</u> OSPARE <u>carries</u> VERACC <u>attribute</u> object .	Remove VERACC	11.7.4	E
1717	For each FSHFAC <u>feature</u> object where VERACC is <u>present</u> Present.	<u>Prohibited attribute</u> VERACC <u>populated for</u> MARCUL <u>carries</u> VERACC <u>attribute</u> FSHFAC <u>object</u> .	Remove VERACC	11.9.1	E
1718	For each MARCUL <u>feature</u> object where VERDAT is <u>present</u> Present.	<u>Prohibited attribute</u> VERDAT <u>populated for a</u> MARCUL <u>carries</u> VERDAT <u>attribute</u> object .	Remove VERDAT.	11.9.2	E

1719	For each MARCUL feature object where the attribute values do not correspond to the table below. For each specific case, when QUASOU (attribute of type List) is encoded, it should contain one or more values selected from the list of allowed values given in the table. In addition, other attributes which do not appear in the table may be encoded.	Illogical attribute combination for MARCUL.	Amend attribute attribute values to reflect a logical scenario.	11.9.2	W
WATLEV		VALSOU		QUASOU	
1, 2, 5 or OR 7		Undefined		Undefined	
4		< 0		1, 3, 4, 6, 7, 8, 9 or OR undefined	
		Undefined or OR unknown		2 or OR undefined	
5		0		1, 3, 4, 6, 8, 9 or OR undefined	
		Undefined or OR unknown		2 or OR undefined	
3		> 0		1, 3, 4, 6, 7, 8, 9 or OR undefined	
		Unknown		2 or OR undefined	
Unknown		Unknown		2 or OR undefined	
1720	For each ICEARE feature object where VERDAT OR VERACC VERACC or VERDAT are is present Present.	Prohibited attribute VERDAT or VERACC VERACC or VERDAT present or populated for ICEARE object.	Remove VERDACC T or -VERDAT CG .	11.13.1	E
1721	For each RADRFL feature object which is associated with a navigational aid (BCNXXX, BOYXXX, LITFLT, LITVES feature objects).	RADRFL encoded on a navigational aid.	Remove RADRFL and Encode set the value of CONRAD =to {3} {(radar conspicuous (has radar reflector))} on for the navigational aid object.	12.1.1	E

1722a	For each navigational aid equipment <u>feature</u> object which is not a slave to a navigational aid structure object OR another navigational aid equipment object. NOTE: CRANES, FLODOC, FORSTC, FSHFAC, HULKES, <u>OBSTRN</u> , PONTON, <u>OBSTRN</u> , PYLONS, SILTNK and WRECKS <u>feature</u> objects must be considered as possible structure objects, in addition to the list given in Annex A (12.1.1).	Equipment <u>feature</u> object which is not a slave of a structure or another equipment object.	Amend equipment object to slave.	12.1.2 and 12.1.1	W
1722b	For each DAYMAR <u>feature</u> object <u>that</u> EQUALS another structure object and <u>AND</u> is not marked as an equipment object NOTE: CRANES, FLODOC, FORSTC, FSHFAC, HULKES, <u>OBSTRN</u> , PONTON, <u>OBSTRN</u> , PYLONS, SILTNK and WRECKS <u>feature</u> objects must be considered as possible structure objects, in addition to the list given in Annex A (12.1.1).	DAYMAR marked as structure object where another exists.	Amend DAYMAR to slave.	12.1.2 and 12.1.1	W
1723	For each point <u>feature</u> object <u>of geometric primitive point</u> forming the same navigational aid which does not point to <u>reference</u> the same spatial object.	Object forming a navigational aid does not point to the same spatial object.	Ensure all components point to the same spatial object.	12.1.2	C
1724	For each navigational aid equipment <u>feature</u> object where OBJNAM <u>is E</u> qual <u>to s</u> the OBJNAM of the master object.	OBJNAM on navigational aid equipment object repeats that of the master object.	Remove repeated OBJNAM value.	12.1.2	W

1725	For each master <u>to</u> /slave relationship where all component <u>feature</u> objects (master and slaves) are of the classes DAYMAR, FOGSIG, LIGHTS, RADSTA, RDOSTA, RETRFL, RTPBCN, SISTAT, SISTAW and/or TOPMAR AND where at least one <u>feature</u> object DAYMAR or LIGHTS is in the list AND where a DAYMAR or a LIGHTS <u>feature object</u> is not the master object.	Equipment object does not have coincident DAYMAR or LIGHTS object as a master.	Amend relationship so that the equipment object is slave to the LIGHTS or DAYMAR object.	12.1.2	W
1726	If the M_COVR <u>meta</u> object where CATCOV= <u>is Equal to 1 AND does is</u> Not equal to EQUAL the combined coverage of M_NSYS <u>meta</u> objects where MARSYS is notNull.	Data coverage not completely covered by M_NSYS objects with a value for MARSYS.	Ensure complete coverage of M_NSYS objects with MARSYS populated.	12.2	C
1727	For each M_NSYS <u>meta</u> object where MARSYS is notNull which OVERLAPS <u>another meta</u> M_NSYS object where MARSYS is notNull.	M_NSYS objects with MARSYS values overlap.	Amend limits of M_NSYS objects to remove overlap.	12.2	C
1728	For each M_NSYS <u>meta</u> object where ORIENT is notNull which OVERLAPS <u>another meta</u> M_NSYS object where ORIENT is notNull.	M_NSYS objects with ORIENT values overlap.	Amend limits of M_NSYS objects to remove overlap.	12.2	E
1729	For each <u>geo-feature</u> object forming part of a BCNXX or BOYXX <u>feature</u> object AND MARSYS is <u>Not equal to {9 (no system) } OR {10 (other system)}</u> where the attributes for structure, topmark and lights do not conform to the value of MARSYS of a the <u>geo feature</u> object or the M_NSYS <u>meta</u> object it is <u>within</u> WITHIN .	Component of an aid to navigation does not conform to the IALA system defined <u>by the MARSYS attribute of the underlying M_NSYS object, on the object or in M_NSYS</u> .	Ensure attributes conform to the IALA system encoded in MARSYS.	12.2 and 12.4.1.1	E
1730	For each BCNCAR <u>feature</u> object where VERDAT OR VERACCVERACC or VERDAT are is present <u>Present</u> .	<u>Prohibited attribute VERDAT or VERACCVERACC or VERDAT populated for are present on a</u> BCNCAR object.	Remove VERDAT or VERACCVERACC or VERDAT .	12.3.1	E

1731	For each BCNISR <u>feature</u> object where VERDAT OR VERACC <u>VERACC or VERDAT are is present</u> Present .	<u>Prohibited attribute</u> VERDAT or VERACC <u>VERACC or VERDAT are present</u> on populated for a BCNISR object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	12.3.1	E
1732	For each BCNLAT <u>feature</u> object where VERDAT OR VERACC <u>VERACC or VERDAT are is present</u> Present .	<u>Prohibited attribute</u> VERDAT or VERACC <u>VERACC or VERDAT are present</u> on populated for a BCNLAT object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	12.3.1	E
1733	For each BCNSAW <u>feature</u> object where VERDAT OR VERACC <u>VERACC or VERDAT are is present</u> Present .	<u>Prohibited attribute</u> VERDAT or VERACC <u>VERACC or VERDAT are present</u> on populated for a BCNSAW object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	12.3.1	E
1734	For each BCNSPP <u>feature</u> object where VERDAT OR VERACC <u>VERACC or VERDAT are is present</u> Present .	<u>Prohibited attribute</u> VERDAT or VERACC <u>VERACC or VERDAT are present</u> on populated for a BCNSPP object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	12.3.1	E
1735	For each BCNXXX or BOYXXX <u>feature</u> object where MARSYS is present <u>Present and AND is Equal</u> to the value of MARSYS on the M_NSYS <u>meta</u> object it is WITHIN.	Value of MARSYS on BCNXXX or BOYXXX Beacon object is the same as the value on M_NSYS object.	Remove duplicate MARSYS from BCNXXX or BOYXXX value .	12.3.1	E
1736	For each DAYMAR <u>feature</u> object where VERDAT OR VERACC <u>VERACC or VERDAT are is present</u> Present .	<u>Prohibited attribute</u> VERDAT or VERACC <u>VERACC or VERDAT are present</u> on populated for DAYMAR object.	Remove VERDAT or VERACC <u>VERACC or VERDAT</u> .	12.3.3	E
1737	For each BOYCAR <u>feature</u> object where VERACC is present <u>Present</u> .	<u>Prohibited attribute</u> VERACC is present on populated for a BOYCAR object.	Remove VERACC.	12.4.1	E
1738	For each BOYINB <u>feature</u> object where VERACC is present <u>Present</u> .	<u>Prohibited attribute</u> VERACC is present on populated for a BOYINB object.	Remove VERACC.	12.4.1	E
1739	For each BOYISD <u>feature</u> object where VERACC is present <u>Present</u> .	<u>Prohibited attribute</u> VERACC is present on populated for a BOYISD object.	Remove VERACC.	12.4.1	E
1740	For each BOYLAT <u>feature</u> object where VERACC is present <u>Present</u> .	<u>Prohibited attribute</u> VERACC is present on populated for a BOYLAT object.	Remove VERACC.	12.4.1	E

1741	For each BOYSPP feature object where VERACC is present <u>Present</u> .	Prohibited attribute VERACC is present enpopulated for a BOYSPP object.	Remove VERACC.	12.4.1	E
1742	For each BOYSAW feature object where VERACC is present <u>Present</u> .	Prohibited attribute VERACC is present enpopulated for a BOYSAW object.	Remove VERACC.	12.4.1	E
1743	Check removed. For each BOYXXX object where MARSYS is present and not equal to the value of MARSYS on the M_NSYS object the BCNXXX is WITHIN .	Value of MARSYS on Buoy object differs from value on M_NSYS object.	Ensure values of MARSYS agree.	12.4.1	W
1744	For each LITVES feature object where HORACC OR VERACC are is present <u>Present</u> .	Prohibited attribute HORACC or VERACC are present enpopulated for LITVES object.	Remove HORACC or VERACC.	12.4.2	E
1745	For each LITFLT feature object where HORACC or OR VERACC are present <u>Present</u> .	Prohibited attribute HORACC or VERACC are present enpopulated for LITFLT object.	Remove HORACC or VERACC.	12.4.2	E
1746	For each TOPMAR feature object where VERACC, VERDAT, VERLEN, HEIGHT OR or MARSYS are is present <u>Present</u> .	Prohibited attribute VERACC, VERDAT, VERLEN, HEIGHT or MARSYS are present enpopulated for TOPMAR object.	Remove VERACC, VERDAT, VERLEN, HEIGHT or MARSYS.	12.6	E
1747	For each RETRFL feature object where MARSYS, VERDAT OR VERACC VERACC or VERDAT are is present <u>Present</u> .	Prohibited attribute MARSYS, VERDAT or VERACC VERACC or VERDAT are present enpopulated for -RETRFL object.	Remove MARSYS, VERDAT or VERACC VERACC or VERDAT .	12.7	E
1748	Check removed. For each RETRFL object where VERDAT is present .	VERDAT is present on RETRFL object.	Remove VERDAT.	12.7	E
1749	For each LIGHTS feature object where VERACC is present <u>Present</u> .	Prohibited attribute VERACC present enpopulated for a LIGHTS object.	Remove VERACC.	12.8.1	E
1750	For each LIGHTS feature object which is a slave to a BOYXXX feature object where AND HEIGHT is present <u>Present</u> .	HEIGHT present enpopulated for a LIGHTS object which is slave to a BOYXXX object.	Remove HEIGHT.	12.8.1	E
1751	For each LIGHTS feature object where ORIENT is present <u>Present</u> AND CATLIT is Not equal to not {1} [(directional function)] OR {16} [(moiré effect)] .	ORIENT populated without CATLIT = {1} or {16}.	Populate appropriate value of CATLIT or remove ORIENT.	12.8.1 and Appendix B.1 (3.5.2)	E

1752	For each LIGHTS feature object where LITCHR is E equal to {1} {{(fixed)}} AND SIGGRP, SIGPER OR or SIGSEQ are is present Present.	SIGGRP, SIGPER or SIGSEQ present populated for LIGHTS object where LITCHR = {1} {{(fixed)}} .	Remove SIGGRP, SIGPER or SEGSEQ, not applicable to fixed lights.	12.8.1	E
1753	Check removed. For each LIGHTS object where VERDAT is notNull AND HEIGHT is not present.	LIGHTS object has a value of VERDAT without a value for HEIGHT.	Populate HEIGHT or remove VERDAT.	12.8.1	E
1754	For each LIGHTS feature object where VERDAT is notNull AND is E equal to the value of VERDAT on the M_VDAT meta object it is WITHIN.	LIGHTS object with VERDAT which is identical to that on the underlying M_VDAT object.	Remove unnecessary value of VERDAT from the LIGHTS object.	12.8.1	E
1755	For each LIGHTS feature object where VERDAT is notNull AND is E equal to the value of VERDAT in the V VDAT Vertical Datum subfield (VDAT) of the DPSM Data Set Parameter field .(DSPM) .	LIGHTS object with VERDAT which is identical to that in the VDAT subfield of the DPSM field.	Remove unnecessary value of VERDAT.	12.8.1	E
1756	For each LIGHTS feature object where CATLIT is E equal tos {4} {{(leading light)}} AND without CATLIT is Not e quals to {1} {{(directional function)}} AND ORIENT is present Present.	ORIENT present for non-directional leading light LIGHTS object.	Remove value of ORIENT.	12.8.6.4 and 12.8.6.5	E
1757	For each LIGHTS feature object where CATLIT is E equal tos {19} {{(horizontally disposed)}} or OR {20} {{(vertically disposed)}} AND MLTYLT does not contain a value G greater than 1.	LIGHTS object where CATLIT = {19} or {20} without a value of MLTYLT.	Populate the value of MLTYLT.	12.8.7	E
1758	For each LIGHTS feature object where CATLIT is E quals to {17} {{(emergency)}} AND it is not COINCIDENT with another LIGHTS feature object.	LIGHTS object isolated and with CATLIT = {17} {{(emergency)}} .	Encode primary LIGHTS object.	12.8.7	E
1759	For each RDOSTA feature object where ORIENT is notNull AND CATROS is N ot equal to {2} {{(directional radiobeacon)}} .	RDOSTA with ORIENT but without CATROS = {2}.	Populate Set the value of CATROS to= {2} (directional radiobeacon) .	12.9.1	E

1760	For each RADSTA feature object where VERDAT OR VERACC VERACC or VERDAT are is present <u>Present</u> .	Prohibited attribute VERDAT or VERACC VERACC or VERDAT present enpopulated for a RADSTA object.	Remove VERDAT or VERACC VERACC or VERDAT .	12.11.3	E
1761	For each RADRFL feature object where VERDAT OR VERACC VERACC or VERDAT are is present <u>Present</u> .	Prohibited attribute VERDAT or VERACC VERACC or VERDAT present enpopulated for a RADRFL object.	Remove VERDAT or VERACC VERACC or VERDAT .	12.12	E
1762	For each RADRFL feature object which TOUCHES an object of type <u>geometric primitive</u> area or point having CONRAD as an allowable attribute.	Unnecessary RADRFL encoded.	Remove unnecessary RADRFL and encode CONRAD = 3 (<u>radar conspicuous has radar reflector</u>) on the associated object.	12.12	E
1763	Check removed. For each C_ASSO or C_AGGR object where the Relationship Indicator [RIND] subfield of the Feature Record to Feature object Pointer [FFPT] field is not (3) [peer].	Relationship Indicator field value for C_ASSO or C_AGGR not (3) [peer] Unnecessary RADRFL encoded.	Amend RIND subfield to (3) [peer].	15 and Appendix B.1 (3.9)	E
1764	For each feature object where STATUS is equal <u>Equal</u> to {1} [(permanent)] and AND PERSTA and/or PEREND are is present <u>Present</u> .	PERSTA and/or PEREND are is present <u>populated</u> for an object with STATUS_ permanent 1.	Remove PERSTA/PEREND if value of STATUS is valid.	2.1.5.1 and logical consistency	E
1765a	If the cell contains both M_QUAL and M_ACCY meta objects and AND their combined coverage does is Nnot EQUAL <u>equal to</u> the M_COVR objects where CATCOV is equal <u>Equal to</u> {1} [(coverage available)].	M_QUAL or M_ACCY do not provide full coverage.	Amend objects to provide complete <u>full</u> coverage.	2.2.3.1	W
1765b	If objects of type <u>meta</u> objects M_QUAL and M_ACCY OVERLAP.	M_QUAL and M_ACCY objects overlap.	Amend objects to remove overlap.	2.2.4.1	W
1766	For each attribute of type PICREP, TXTDSC and NTXTDS attribute that where the attribute value contains more than one file name.	PICREP, TX <u>STDSC</u> or NTXTDS contains more than nt one file name.	Amend value to only contain a single file name.	2.3 and 4.8.20	E

1767	For each edge which is COINCIDENT with a SBDARE feature object of type-geometric primitive area where WATLEV is <u>Equal to = 4</u> {(covers and uncovers)} AND is COINCIDENT with an area DEPART or DRGARE feature object of geometric primitive area where DRVAL2 = <u>is Less than or equal to</u> 0 AND is COINCIDENT with a Dr area DEPART or DRGARE feature object of geometric primitive area where DRVAL1 is <u>>=0</u> <u>Greater than or equal to 0</u> OR an UNSARE feature object AND is not COINCIDENT with a DAMCON, GATCON, SLCONS or LNDARE feature object AND is not COINCIDENT with a DEPCNT feature object where VALDCO is <u>Equal to= 0</u> .	Missing zero metre depth contour <u>DEPCNT</u> .	Capture an appropriate zero metre DEPCNT.	5.2	W
1768	For each SOUNDG feature object where the depth value is <u>Less</u> than or equal to the DRVAL1 of the DEPART or DRGARE it lies WITHIN AND DRVAL1 of that object is notNull.	SOUNDG object with depth less than or equal to the underlying-DRVAL1 value of the <u>underlying DEPART</u> DRVAL1 .	Amend DRVAL1 value of depth objects accordingly.	5.3	E
1769	For each SOUNDG feature object where EXPSOU is Not equal to <u>(3)</u> {(deeper than the range of the depth of the surrounding depth area)} AND the depth value is <u>Greater</u> than the DRVAL2 of the overlying <u>underlying</u> DEPART feature object AND DRVAL2 of this object is notNull.	SOUNDG object deeper than the DRVAL2 value of the <u>underlying DEPART</u> without EXPSOU equal to (= 3) .	Populate appropriate value of EXPSOU.	5.3	E

1770a	For each SOUNDG object where EXPSON is <u>Equal to = {3 (deeper than the range of depth of the surrounding depth area)}</u> AND the depth value is <u>Less than or equal to DRVAL2 of the DEPRE it is WITHIN where AND DRVAL2 is not Null.</u> <u>unknown.</u>	SOUNDG <u>object</u> with <u>EXPSON = 3 and a depth value less than or equal to -EXPSON = {3} and a depth value less than the DRVAL2 of the underlying DEPRE.</u>	Amend value of EXPSON to a logical value.	5.3	W
1770b	For each SOUNDG <u>feature</u> object where EXPSON is <u>Equal to = {3 (deeper than the range of depth of the surrounding depth area)}</u> that <u>AND</u> the depth value is <u>Less than or equal to the DRVAL2 of the DRGARE it is WITHIN where DRVAL1 AND DRVAL2 are not Null.</u>	SOUNDG <u>object</u> with EXPSON = <u>{3}</u> and a depth value less than <u>the -DRVAL2 of the underlying DRGARE.</u>	Amend value of EXPSON to a logical value.	5.3	W
1770c	For each SOUNDG <u>feature</u> object where <u>EXPSON = is Equal to {3 (deeper than the range of depth of the surrounding depth area)}</u> where the depth value is <u>Less than or equal to the DRVAL1 of the DRGARE object it is within WITHIN where DRVAL2 is not present Present.</u>	SOUNDG with EXPSON = <u>{3}</u> <u>but and with</u> a depth value less than <u>the DRVAL1 of the underlying DRGARE when only DRVAL1 is populated.</u>	Amend value of EXPSON to a logical value.	5.3	W
1771	For each edge which is COINCIDENT with a DEPCNT <u>feature</u> object AND DEPRE <u>feature</u> objects. <u>AND VALDCO is Less than the minimum DRVAL1 OR Greater than the maximum DRVAL2. maximum DRVAL2 <= VALDCO < minimum DRVAL1 AND minimum DRVAL2 = VALDCO AND the edge is COINCIDENT with a DEPRE object of type line.</u>	<u>Illogical value of VALDCO on of a DEPCNT between two DEPRE objects has illogical value.</u>	Amend VALDCO to a logical value.	5.4.3	E

1772a	For each UWTROC feature object where VALSOU is notNull AND EXPSOU is <u>Equal to 1</u> (within the range of depth of the surrounding depth area) OR not present Present OR (1) [within the range of depth of the surrounding depth area] AND VALSOU is greater than the DRVAL2 OR <u>Less than or equal to DRVAL1 OR Greater than DRVAL2</u> of the overlying DEPARE feature object it is WITHIN OR DRGARE object AND DRVAL1 AND DRVAL2 of this object are notNull.	<u>VALSOU for UWTROC object with EXPSOU = (1) or not present has a VALSOU is outside the range of DRVAL1 and DRVAL2 the underlying group 4 object.</u> <u>DEPARE.</u>	Populate appropriate value of EXPSOU.	6.1.2	WE
1772b	For each UWTROC feature object where VALSOU is notNull AND EXPSOU is <u>Equal to 1</u> (within the range of depth of the surrounding depth area) OR not Present AND VALSOU is <u>Less than or equal to DRVAL1 OR Greater than DRVAL2</u> of the <u>DRGARE feature object it is WITHIN AND DRVAL2 is notNull AND Not equal to DRVAL1.</u>	<u>VALSOU for UWTROC object with EXPSOU = 1 or not present is outside of the range of the underlying DRGARE.</u>	<u>Populate an appropriate value of EXPSOU.</u>	<u>6.1.2</u>	<u>E</u>
1773	For each UWTROC feature object where VALSOU is notNull AND EXPSOU = (is Equal to 2 <u>(shoaler than the range of depth of the surrounding depth area)</u> AND VALSOU is greater than <u>Greater than</u> the value of DRVAL1 of the DEPARE or DRGARE feature object it is WITHIN AND DRVAL1 is notNull <u>'unknown'.</u>	<u>UWTROC with EXPSOU = {2} and a VALSOU value deeper than the DRVAL1 of the underlying DEPARE or DRGARE within a DEPARE or DRGARE where the VALSOU is not shoaler than the range of the surrounding depth area.</u>	Amend EXPSOU to a logical value.	6.1.2	W

1774a	For each UWTROC feature object where VALSOU is notNull AND EXPSOU = (is Equal to 3) AND the VALSOU is <u>L</u> ess than or equal to DRVAL2 of the DEPARE it is WITHIN where DRVAL2 is not unknown.	UWTROC with EXPSOU = {3} and a VALSOU <u>value</u> less than <u>or equal to the</u> DRVAL2 <u>value</u> of the underlying DEPARE.	Amend value of EXPSOU to a logical value.	6.1.2	E
1774b	For each UWTROC object where <u>VALSOU is notNull</u> AND EXPSOU = (is Equal to 3) <u>(deeper than the range of depth of the surrounding depth area)</u> AND that the depth value VALSOU is <u>L</u> ess than or equal to the DRVAL2 of the DRGARE it is WITHIN where DRVAL1 AND DRVAL2 are notNull.	UWTROC with EXPSOU = {3} and a VALSOU less than DRVAL2 of the underlying DRGARE.	Amend value of EXPSOU to a logical value.	6.1.2	E
1774c	For each UWTROC feature object where <u>VALSOU is notNull</u> AND EXPSOU = (is Equal to 3) <u>(deeper than the range of depth of the surrounding depth area)</u> where AND VALSOU is <u>L</u> ess than or equal to the DRVAL1 of the DRGARE feature object it is within where DRVAL2 is not present <u>Present</u> .	UWTROC <u>object</u> with EXPSOU = {3} but and with a VALSOU <u>value</u> less than <u>or equal to the</u> DRVAL1 of the underlying DRGARE when only DRVAL1 is populated.	Amend value of EXPSOU to a logical value.	6.1.2	E

1775	For each equipment <u>feature</u> object (UOC 12.1.1) which is WITHIN a DEPARE, DRGARE or UNSARE AND does not have a navigational aid structure as a master, OR does not TOUCH the geometry of which does not Equal -a BCNSPP, HULKES, LNDARE, PILPNT or PYLONS feature object of geometric primitive point object OR does not TOUCH a line -CBLOHD, CONVYR, COALNE, DAMCON (with CATDAM =Equal to 3 {(flood barrage)}), BRIDGE, FLODOC, LNDARE, MORFAC, PIPOHD, PONTON or SLCONS <u>feature</u> object of <u>geometric primitive line</u> OR is does not WITHIN a TOUCH area -CONVYR or BRIDGE <u>feature</u> object of <u>geometric primitive line</u> .	Equipment object within DEPARE, DRGARE or UNSARE without an appropriate supporting structure object or underlying object.	Ensure equipment object is encoded with an appropriate structure object or underlying object.	12.1.1 and 12.8.8	C														
1776	For each LIGHTS <u>feature</u> object where the value of LITCHR is as listed in the table below <u>AND and SIGGRP are not Null AND the combination of values</u> is not as listed in the table below. <table><tr><td>LITCHR</td><td>SIGGRP</td></tr><tr><td>6</td><td>(1)</td></tr><tr><td>7</td><td>(1)</td></tr><tr><td>9</td><td>()</td></tr><tr><td>10</td><td>()</td></tr><tr><td>11</td><td>()</td></tr><tr><td>28</td><td>()</td></tr></table>	LITCHR	SIGGRP	6	(1)	7	(1)	9	()	10	()	11	()	28	()	Values of LITCHR and SIGGRP are not consistent.	Amend values to be consistent.	12.8.3	W
LITCHR	SIGGRP																		
6	(1)																		
7	(1)																		
9	()																		
10	()																		
11	()																		
28	()																		
1777	For each collection object which references <u>feature</u> objects which do not exist in the cell.	Collection object references objects which do not exist within the cell.	Remove invalid references.	15	E														

1778	For each LIGHTS <u>feature</u> object where CATLIT = <u>is Equal to 1</u> {(directional function)} AND <u>the value of the angle between SECTR1 – SECTR2 is G</u> greater than or equal to 10.	LIGHTS object with CATLIT = {1} with a sector arc greater than 10 degrees.	<u>Check-Amend SECTR1 or SECTR2SECTR1/2 values</u> , or remove CATLIT = {1}.	12.8.6.5 and Appendix A Ch.2 (code 37)	E							
1779	For each DEPARE <u>feature</u> object where DRVAL1 is equal <u>Equal</u> to DRVAL2.	DRVAL1 is equal to DRVAL2 of a DEPARE object.	Amend DRVAL1 or DRVAL2 to logical values.	5.4 and logical consistency	C							
1780	For each SBDARE <u>feature</u> object where NATSUR AND NATQUA are notNull AND the combination of values of NATSUR AND NATQUA are not as listed in the table below;	Illogical combination of NATSUR and NATQUA.	Amend NATSUR and NATQUA to logical combinations.	<u>L</u> logical consistency	W							
	NATQUA	1	2	3		4	5	6	7	8	9	10
	NATSUR											
	1						x	x	x	x	x	x
	2						x	x	x			x
	3	x	x	x			x	x	x			x
	4	x	x	x				x		x	x	x
	5	x	x	x						x	x	
	6	x	x	x						x	x	
	7	x	x	x						x	x	
	8									x	x	
	9									x	x	
	11									x		
	14						x					
	17	x	x	x			x					x
18									x	x		
1781	For each BUISGL or LNDMRK <u>feature</u> object which is part of a master <u>to</u> slave relationship AND references a LIGHTS <u>feature</u> object <u>as slave</u> AND where CATLIT is <u>Not equal to not 6 (air obstruction light) OR, 8 (flood light) OR, 9 (strip light) as slave</u> AND FUNCTN does not contain value {33} {(light support)} .	BUISGL or LNDMRK object with a slave LIGHTS object without FUNCTN = {33} {(light support)}	<u>Set FUNCTN to 33.</u>	12.3.2 and S-52	W							
1782	For each SWPARE <u>feature</u> object which OVERLAPS another SWPARE <u>feature</u> object.	SWPARE objects overlap.	Amend objects so that there is to remove no overlap.	<u>L</u> logical consistency	E							

1783a	For each <u>feature</u> object of <u>geometric primitive</u> type area where WATLEV =is <u>Equal to 4</u> {(covers and uncovers)} <u>AND</u> OVERLAPS a DEPARE <u>feature</u> object where DRVAL1 >= <u>is Greater than or equal to 0.</u>	<u>Area object with</u> illogical value of <u>WATLEV value which is shoaler than -given</u> the DRVAL1 <u>value</u> of the underlying object <u>DEPARE.</u>	Populate appropriate value of WATLEV.	<u>L</u> logical consistency	E
1783b	For each <u>feature</u> object of <u>geometric primitive type</u> area where WATLEV =is <u>Equal to 5</u> {(awash)} <u>AND</u> OVERLAPS a DEPARE object where DRVAL1 >is <u>Greater than 0.</u>	<u>Area object with</u> illogical value of <u>WATLEV given which is shoaler than the</u> DRVAL1 <u>value</u> of the underlying <u>DEPARE</u> object.	Populate appropriate value of WATLEV.	<u>L</u> logical consistency	E
1784	For each spatial object where the value of HORDAT, POSACC or QUAPOS is Null. populated with an unknown value.	POSACC, HORDAT, <u>POSACC</u> or QUAPOS populated with an unknown value.	Remove unknown <u>value attribute</u> or populate with a known value.	Logical consistency	W
1785	For each <u>feature</u> object where <u>COND TN is</u> <u>Equal to= 4</u> {(wingless)} that does NOT have <u>AND</u> CATLMK is Not equal to <u>CATLMK=18</u> {(windmill)} <u>OR 19</u> {(windmotor)}	Object other than windmill or windmotor with COND TN = 4. {wingless}.	Remove value of COND TN or use LNDMRK object.	Logical consistency.	E
1786	For each <u>feature</u> object of type <u>geometric primitive</u> area where WATLEV <u>is</u> <u>Equal to s-(2)</u> {(always dry)} <u>AND</u> is not WITHIN a LNDARE <u>feature</u> object of <u>geometric primitive</u> type area.	Area object with WATLEV = (2) <u>but not on an area not covered by a</u> LNDARE object.	Amend WATLEV value or ensure object is on land.	Logical consistency	E
1787	For each NAVLNE and RECTRC <u>feature objects</u> which are COINCIDENT AND have values of ORIENT which are N not equal or <u>OR</u> reciprocal.	ORIENT values for NAVLNE and RECTRC objects sharing an edge are not equal or reciprocal.	Ensure values of ORIENT agree or are reciprocal.	Logical consistency	E
1788	For each NAVLNE <u>feature</u> object which is COINCIDENT with a RECTRC <u>feature</u> object AND are <u>is</u> not part of the same C_AGGR <u>collection</u> object.	NAVLNE and RECTRC <u>objects</u> share an edge but are not aggregated using C_AGGR.	Aggregate objects using C_AGGR object.	10.1.2	W

1789	For each object of type DWRTCL, NAVLNE, RECTRC and RCRTCL <u>feature object of geometric primitive type</u> line where ORIENT is notNull AND <u>TRAFFIC is Equal to 4 (two-way) AND the bearing of the line is more than 5 degrees, Greater than OR Less than the value (or reciprocal value) of ORIENT, the orientation of the spatial geometry is more than 5 degrees greater than or less than the value (or reciprocal) of the value of ORIENT.</u>	DWRTCL, NAVLNE, RECTRC or RCRTCL where the orientation of the geometry is not consistent with the value of ORIENT.	Populate an appropriate value of ORIENT consistent with the geometry of the object.	Logical consistency	C
1790a	For each LIGHTS <u>feature</u> object where ORIENT is notNull AND SECTR1 OR SECTR2 are is notNull.	LIGHTS object where ORIENT and SECTR1 <u>or</u> SECTR2 are is populated.	Remove values of SECTR1 <u>and</u> SECTR2 or ORIENT.	12.8.6.5 and 12.8.6.6	E
1790b	For each LIGHTS <u>feature</u> object where ORIENT is notNull AND it is aggregated to a RECTRC or NAVLNE within a <u>C_AGGR collection object, C_AGGR.</u>	LIGHTS object where ORIENT <u>is populated</u> and is aggregated <u>with a NAVLNE or RECTRC</u> within a C_AGGR collection object.	Set Orient ORIENT <u>ORIENT</u> to NULL Null	12.8.6.5 and 12.8.6.6	E
1790c	For each LIGHTS <u>feature</u> object where ORIENT is notNull AND the structure <u>feature</u> object of this LIGHTS <u>feature</u> object is aggregated to a RECTRC or NAVLNE within a collection object C_AGGR.	LIGHTS object where ORIENT <u>is populated</u> and the master structure <u>feature</u> object is aggregated <u>with a NAVLNE or RECTRC</u> within a C_AGGR collection object.	<u>Set ORIENT to Null</u> Remove the LIGHTS structure master object from C_AGGR collection object aggregation.	12.8.6.5 and 12.8.6.6	E
1791	For each NAVLNE <u>feature</u> object where CATNAV =is <u>Equal to 3(leading line bearing a recommended track)</u> which is not COINCIDENT with a RECTRC where CATTRK =is Equal to 1(based on a system of fixed marks).	NAVLNE with CATNAV =3 but does not share the line <u>ar</u> geometry of a RECTRC with CATTRK = 1.	Ensure NAVLNE with CATNAV = 3 has a coincident RECTRC with CATTRK = 1.	<u>L</u> ogical consistency	E
1792	If the cell OVERLAPS the 180° meridian.	Cell overlaps 180° meridian.	Amend cell limits accordingly.	2.1.8.2	C

1793	For each master/slave relationship which references more than one LIGHTS <u>feature</u> object AND all of the LIGHTS <u>feature</u> objects are encoded with LITVIS <u>is</u> <u>=Equal to -6 (visibility deliberately restricted)</u> <u>OR</u> <u>7 (obscured)</u> .	Group of LIGHTS where all are LITVIS = 6 or 7.	Confirm values of LITVIS or encode primary light.	<u>L</u> ogical consistency	E
1794	For each LIGHTS <u>feature</u> object where CATLIT <u>=is equal to</u> {1 (<u>directional function</u>)} AND is a slave in a master <u>to</u> /slave relationship AND the master <u>feature</u> object is any of BOYXXX, LITVES or LITFLT.	Directional light a slave to <u>a master object of type</u> BOYXXX, LITVES or LITFLT <u>master object</u> .	Amend master to a logical object or remove value of CATLIT.	<u>L</u> ogical consistency	E
1795	For each <u>feature</u> object which is a master in a master <u>to</u> /slave relationship AND where DATEND, DATSTA, PEREND or PERSTA <u>attributes</u> are notNull AND the values of DATEND, DATSTA, PEREND or PERSTA are not identical to those on the slave objects.	Temporal attributes on a master object do not match those on slave objects.	Populate appropriate temporal attributes on slave objects.	<u>L</u> ogical consistency	C
1796	<u>Check removed.</u> For each <u>SOUNDG</u> object where <u>EXPSOU</u> equals (2) [shoaler than the range of depth of the surrounding depth area].	<u>SOUNDG</u> object where <u>EXPSOU</u> = (2).	<u>See EB 27. UOC?</u>	<u>5.3 and 5.5</u>	<u>W</u>

1797	For each of the <u>feature</u> object type <u>class</u> , geometry and attribute combinations in the table below;		Object, geometry and attribute combinations which do not display in ECDIS present .	Delete objects which do not display in ECDIS or use alternative encoding.	Clauses 2.5; 4.6.6.6; 4.7.4; 4.7.7.1; 4.7.7.2; 4.7.11; 4.8.3; 4.8.5; 4.8.8; 4.8.10; 4.8.12; 4.8.13 and 11.6.1	E
	Object	Geom	Attributes			
	BRIDGE	P	-			
	DAMCON	P	CATDAM ≠ 3			
	GRIDRN	P				
	PIPSOL	P				
	PRDARE	P	CATPRA = not present <u>Present</u>			
	RAPIDS	P				
	ROADWY	P				
	RUNWAY	P				
	SLOGRD	A	CATSLO = 1,2,3,4,5,7 AND CONRAD ≠ 1, or <u>OR</u> CATSLO = not present <u>Present</u>			
	TUNNEL	P				
	VEGATN	P,A	CATVEG = 1, 10, 11, 12 or <u>OR</u> not present <u>Present</u>			
	WATFAL	P				
1798	For each value of INFORM OR NINFOM which contains greater than <u>Greater than</u> 300 characters.		INFORM or NINFOM contains more than 300 characters.	Amend value of INFORM or NINFOM. Use TXTDSC or NTXTDS if appropriate.	UOC 2.3	E
1799	For each BRIDGE <u>feature</u> object where VERCCL or VERCOP are notNull AND CATBRG does is <u>Not</u> equal to {2} {(opening bridge)} <u>OR</u> ; {3} {(swing bridge)} <u>OR</u> ; {4} {(lifting bridge)} <u>OR</u> ; {5} {(bascule bridge)} <u>OR</u> ; {7} {(draw bridge)} <u>OR</u> or {8} {(transporter bridge)}.		BRIDGE object has values of VERCCL or VERCOP without appropriate value of CATBRG.	Ensure appropriate value of CATBRG is populated.	Logical consistency	W
1800	For each BRIDGE <u>feature</u> object where VERCLR is notNull AND CATBRG <u>is</u> Equal to s {2} {(opening bridge)} <u>OR</u> ; {3} {(swing bridge)} <u>OR</u> ; {4} {(lifting bridge)} <u>OR</u> ; {5} {(bascule bridge)} <u>OR</u> ; {7} {(draw bridge)} <u>OR</u> or {8} {(transporter bridge)}.		VERCLR populated without an appropriate value of CATBRG.	Ensure appropriate value of CATBRG is populated.	Logical consistency	W
1801	For each <u>L (List) type</u> attribute value of type "list", (excluding which is not of type COLOUR, NATQUA or and NATSUR) that contains more than one instance of the same value.		Value repeated for a list attribute where not permitted.	Remove duplicate value.	Logical consistency	W

1802	Check removed. For each M_VDAT meta-object where VERDAT is not Null AND equal to the value of VERDAT in the Vertical Datum subfield (VDAT) of the Data Set Parameter field (DSPM).	M_VDAT object has the same value as the VDAT subfield of the dataset header.	Delete unnecessary M_VDAT object	Logical consistency	W
1803	For each Master <u>to</u> /Slave relationship where referenced <u>feature</u> objects have been populated with different values <u>of</u> SCAMIN.	Different values of SCAMIN on Objects which are in a master slave relationship <u>with different values of SCAMIN.</u>	Amend values of SCAMIN to agree.	Logical consistency	W
1804	For each OBSTRN, UWTRC or WRECKS <u>feature</u> object of <u>geometric primitive</u> type point which is coincident <u>COINCIDENT</u> with the geometry of a DEPARE, DRGARE or UNSARE.	Point o Object <u>coincides with is on</u> the edge between <u>G</u> group 1 objects.	Amend <u>G</u> group 1 object geometry so that it is not coincident with the point object.	6.1	C
1805	For each SMCFAC <u>feature</u> object of type-geometric primitive area which overlaps a DEPARE, DRGARE or UNSARE of type-geometric primitive area.	Area SMCFAC falls <u>object is</u> within a water feature.	Clip <u>Amend</u> object to <u>clear remove overlap with</u> all water features.	4.6.5	W
1806	For each CTNARE <u>feature</u> object of type-geometric primitive area which is coincident <u>COINCIDENT</u> with a DEPCNT <u>feature</u> object.	<u>Area</u> CTNARE object shares geometry with DEPCNT.	Offset <u>Edit</u> the CTNARE limits clear of the DEPCNT.	6.6	W