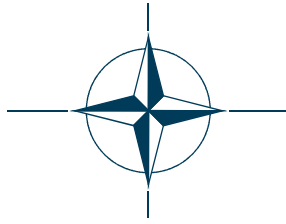


NORTH ATLANTIC TREATY ORGANISATION



(NATO)

**ADDITIONAL MILITARY LAYERS  
PRODUCT SPECIFICATION CORRIGENDA**

Version 1.1, 28<sup>TH</sup> March 2008



Produced and issued by the United Kingdom Hydrographic  
Office under the direction of the Geospatial Maritime Working  
Group of the NATO Geographic Conference.

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## Document Control

### VERSION CONTROL

Date	Author	Draft Version	Summary of Changes
11/07/05	B Parish	0.1	No prior version
28/7/05	B Parish	1.0	Internal review comments
28/3/08	P Burton	1.1	Updated with further corrections

### ISSUE APPROVALS

Approver and Title	Signature	Issue Version	Date
Chairman GMWG		1.0	28/7/05
Chairman GMWG		1.1	28/3/08

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## **1 INTRODUCTION**

### **1.1 SCOPE**

This document is compiled in accordance with the “Method of Maintenance” section (1.9.2) of each of the AML Product Specifications. The corrigenda address basic and uncontentious flaws in either the AML concept or documentation. The corrigenda are presented in AML document specific tables.

Requests for change will continue to be received and managed on behalf of the Geospatial Maritime Working Group (GMWG) by the custodian of the Product Specifications (see section 1.2.3 of the Product Specification). Changes approved by GMWG will be incorporated into future versions of the Product Specifications.

### **1.2 GENERAL INFORMATION**

#### **1.2.1 Version Number**

1.1

#### **1.2.2 Date of Issue**

28<sup>th</sup> March 2008

#### **1.2.3 Custodian of the Production Specification Corrigenda**

The Custodian of this document is the United Kingdom Hydrographic Office:

United Kingdom Hydrographic Office  
Admiralty Way  
Taunton  
Somerset  
TA1 2DN

Telephone: +44(0) 1823 337900

Fax: +44(0) 1823 284077

E-mail: aml@ukho.gov.uk

#### **1.2.4 Relevant STANAG Number**

NATO STANAG No.7170 Additional Military Layers (AML).

### **1.3 STATUS OF THE PRODUCT SPECIFICATION CORRIGENDA**

This document will be endorsed by the Geospatial Maritime Working Group (GMWG) of the NATO Geographic Conference and formally issued on the AML website.

## **1.4 SECURITY**

### **1.4.1 Security Classification of the Product Specification Corrigenda**

This document is UNCLASSIFIED.

## 1.5 REFERENCES

All AML Product Specifications and their annexes

The maintenance process for AML Product Specifications as described in section 1.9.2 of the AML Product Specifications is repeated below.

### “1.9.2 Method of Maintenance

Corrections, clarifications and requests for change will be administered by the custodian. Discussion regarding proposed changes will be carried out by correspondence with national Points of Contact. Consolidated maintenance documents will be issued periodically containing published corrections and clarifications together with details of agreed extensions to the object catalogue (these will be formally incorporated into the Product Specification and become live at its next revision).

Changes to the Product Specification beyond extensions to the object catalogue will be reviewed by committee<sup>1</sup> during preparatory work for production of the next edition of the specification.”

## 1.6 DEFINITIONS

**AML** AML is a unified range of digital geospatial data products designed to satisfy the totality of NATO non-navigational maritime defence requirements.

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<sup>1</sup> Will be a specific group reporting to the GMWG or its successor.

## 2 CORRECTION TABLES

Document	Version	Paragraph	Error	Correction
CLB, SBO, LBO, MFF, ESB & RAL.	1.0	1.2.2	Discrepancy between publication dates	Change date recorded at section 1.2.2 from “31 <sup>st</sup> August 2001” to “1st November 2001” to agree with front cover

Document	Version	Paragraph	Error	Correction
SBO, LBO, ESB, MFF, RAL.	1.0	5.5.3	“Error Ellipse” is inadequately defined	Append to definition “Error ellipse orientation refers to the major axis and is expressed as a true bearing”

Document	Version	Paragraph	Error	Correction
LBO, SBO, RAL.	1.0	2.3.1	Implies a variety of scale bands in an unscaled product	Delete “This will vary widely depending upon the scale band of the product.”

Document	Version	Paragraph	Error	Correction
CLB	1.0	5.5.3 (Page 45)	Duplication of “Quality of sounding measurement” attribute	Delete second occurrence of “Quality of sounding measurement” and append  <b>“- Value Reported (Not Confirmed):</b> Depth Value obtained from a report, which it has not been possible to confirm. (S--57 Annex A, Appendix A, IHO Object Catalogue)”  in Values column to row above.

Document	Version	Paragraph	Error	Correction
ESB	1.0	5.5.2 (Page 31)	Incorrect attribute description in “Area of Imagery Coverage”	Amend Associated Attributes Description “Height Units”

			feature class	to "Height/Length Units"
ESB	1.0	5.5.2 (Page 47)	Incorrect attribute description in "Viewpoint" feature class	Amend Associated Attributes Description "Type of Image" to "Type of Imagery"
ESB	1.0	5.5.3 (Page 64)	Duplication of attribute name "Exhibition Condition of Light"	Remove second occurrence of attribute name "Exhibition Condition of Light"
ESB	1.0	5.5.3 (Page 70)	Duplication of "Ice Attribute Concentration Total" attribute	Delete second occurrence of "Ice Attribute Concentration Total" and append "- <b>10/10 with openings</b> (Often called 9+/ 10) - <b>10/10 without openings</b> - <b>&lt;1/10</b> - <b>Undetermined or Unknown</b> " in Values column to row above.
ESB	1.0	5.5.3 (Page 83)	Duplication of attribute name "NOMBO Density"	Remove second occurrence of attribute name "NOMBO Density"

Document	Version	Paragraph	Error	Correction
LBO	1.0	5.5.2	"Sensor anomaly" feature has no primitive	Insert tick in form column P (primitive = point)
LBO	1.0	5.5.2 feature class "Wreck"	Attribute "vertical length" is listed as a mandatory attribute for feature class "wreck". Attribute "water level effect" is listed as a non-mandatory attribute for feature class "wreck".	Remove the tick against "vertical length" and insert a tick against "water level effect"
LBO	1.0	5.5.3 (Page 46)	Clarification for encoding attribute "Current Scour Dimensions"	Append following text to Values column of "Current Scour Dimensions" attribute:

				<p><b>Note:</b> The "scour dimensions" data should be encoded using a floating point numeric value for the length of the feature (LLLL.L), a floating point numeric value for the width of the feature (WWW.W), a floating point numeric value for the depth of the feature (DDD.D) and an integer numeric value for the orientation of the feature from true north (OOO). Each Parameter should be separated by a comma.</p> <p><b>Note:</b> Units for Length and Width shall be defined by the HUNI sub-field or HUNITS attribute; units for Depth shall be defined by the DUNI sub-field or DUNITS attribute; units for Orientation shall be degrees."</p>
LBO	1.0	5.5.3 (Page 46)	Clarification for encoding attribute "Debris Field"	<p>Append following text to Values column of "Debris Field" attribute:</p> <p><b>Note:</b> The "debris field" data should be encoded using a floating point numeric value for the length of the material along the sea floor (LLLL.L) and an integer numeric value for the orientation of the material from true north (OOO). Each Parameter should be separated by a comma.</p> <p><b>Note:</b> Units for Length shall be defined by the HUNI sub-field or HUNITS attribute; units for Orientation shall be degrees."</p>
LBO	1.0	5.5.3	Duplication of "Nature of	Delete second occurrence of "Nature of



		(Page 56)	Construction” attribute	<p>Construction” and append</p> <p><b>“loose boulders:</b> Constructed from large stones or blocks of concrete, often placed loosely for protection against waves or water turbulence. <i>(S--57 Annex A, Appendix A, Chapter 2 Attributes)</i> <b>Note:</b> not allowable for object Wreck.</p> <p><b>concreted:</b> Constructed of concrete, a material made of sand and gravel that is united by cement into a hardened mass used for foundations etc. <i>(Adapted from the Illustrated Contemporary Dictionary, Encyclopaedic Edition, 1978)</i> <b>Note:</b> not allowable for object Wreck.</p> <p><b>metal:</b> Constructed from metal. <i>(S--57 Annex A, Appendix A, Chapter 2 Attributes)</i></p> <p><b>glass reinforced plastic (GRP):</b> Constructed from a plastic material strengthened with fibres of glass. <i>(S--57 Annex A, Appendix A, Chapter 2 Attributes)</i>”</p> <p>in Values column to row above.</p>
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Document	Version	Paragraph	Error	Correction
RAL	1.0	5.5.3 <i>(Page 65)</i>	Incorrect formatting of values for “International Defence Organisation (IDO) status” attribute	Replace “- North Atlantic Treaty - Organisation (NATO) - North Atlantic Co-operation

				<ul style="list-style-type: none"> <li>- Council (NACC)</li> <li>- Partnership for Peace (PfP)</li> <li>- Western European Union - (WEU)”</li> </ul> <p>with</p> <ul style="list-style-type: none"> <li>“- North Atlantic Treaty Organisation (NATO)</li> <li>- North Atlantic Co-operation Council (NACC)</li> <li>- Partnership for Peace (PfP)</li> <li>- Western European Union (WEU)”</li> </ul>
RAL	1.0	5.5.3 (Page 66)	Incorrect value for attribute “Nationality”	Replace “text string” with “coded string” in the Values column of “Nationality” attribute
RAL	1.0	5.5.3 (Page 78)	Missing value from attribute “Status”	Append following text to Values column of “Status” attribute: “- temporary: meant to last only for a time. (The Concise Oxford Dictionary)”

Document	Version	Paragraph	Error	Correction
MFF	1.0	5.5.2 (Page 52)	Incorrect mandatory attribute on “Traffic separation scheme lane part” feature class	Remove the tick against “Interpolated line characteristic” and insert tick against “Orientation”
MFF	1.0	5.5.3 (Page 65/66)	Duplication of values for attribute “Category of Weed/Kelp”	Delete second occurrence of values: “ <b>kelp</b> : a giant plant sometimes 60 metres long with no roots, it is anchored by hold-fasts or tendrils up to 10 metres long, that cling to rock. Gas filled

				<p>bubbles on fronds act as floats keeping the kelp just below the surface. (Earth Sciences References, Mary McNeil)</p> <p><b>sea weed:</b> general name for marine plants of the algae class which grow in long narrow ribbons. (International Maritime Dictionary, 2nd Edition)</p> <p><b>sea grass:</b> any grasslike marine alga. Eelgrass is one of the best known seagrasses. (IHO Dictionary, S--32, 5th Edition, 4565)"</p>
MFF	1.0	5.5.3 (Page 72)	Typographic error in attribute "Limit of anchors and chains"	Replace "Limit of anchors and chains" with "Limits of anchors and chains"

Document	Version	Paragraph	Error	Correction
SBO	1.0	5.5.2 (Page 29)	Incorrect mandatory attribute on "Contact History" feature class	Remove the tick against "Survey Date - End" and insert tick against "Survey Date and Time"
SBO	1.0	5.5.3 (Page 33)	Clarification for encoding attribute "Blind Zone"	Append following text to Values column of "Blind Zone" attribute: "Note: The second bearing will be in a clockwise direction from the first bearing."
SBO	1.0	5.5.3 (Page 33)	Duplication of attribute name "Burial Mechanism"	Remove second occurrence of attribute name "Burial Mechanism"
SBO	1.0	5.5.3 (Page 34)	Clarification for encoding attribute "Current Scour Dimensions"	Append following text to Values column of "Current Scour Dimensions" attribute: "Note: The "scour dimensions" data should be encoded using a floating point numeric value for the length of the feature (LLLL.L), a floating point numeric value for the width of the

				<p>feature (WWW.W), a floating point numeric value for the depth of the feature (DDD.D) and an integer numeric value for the orientation of the feature from true north (OOO). Each Parameter should be separated by a comma.</p> <p><b>Note:</b> Units for Length and Width shall be defined by the HUNI sub-field or HUNITS attribute; units for Depth shall be defined by the DUNI sub-field or DUNITS attribute; units for Orientation shall be degrees.”</p>
SBO	1.0	5.5.3 (Page 35)	Duplication of attribute name “First Sensor”	Remove second occurrence of attribute name “First Sensor”
SBO	1.0	5.5.3 (Page 36)	Incorrect Resolution value for attribute “Horizontal Length”	Replace “Resolution 1 (metres or feet)” with “Resolution 0.1 (metres or feet)”
SBO	1.0	5.5.3 (Page 36)	Incorrect Resolution value for attribute “Horizontal Width”	Replace “Resolution 1 (metres or feet)” with “Resolution 0.1 (metres or feet)”
SBO	1.0	5.5.3 (Page 42)	Duplication of attribute name “Quality of Sounding Measurement”	Remove second occurrence of attribute name “Quality of Sounding Measurement”
SBO	1.0	5.5.3	The “Values” column information for attribute “Survey Date & Time” is inconsistent with the standard (ISO 8601) to which it seeks conformance	Amend to: The date/time should be encoded using 4 digits for the calendar year (CCYY), 2 digits for the month (MM) (eg April = 04) and 2 digits for the day (DD), separated by a capital “T” from the hour (hh) and minutes (mm) which should each be encoded using 2 digits. This

				conforms to ISO 8601: 1988. Seconds should not be used.
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Document	Version	Paragraph	Error	Correction
Annex A to CLB, SBO, LBO, MFF, ESB & RAL.	1.0	A.1.2.8.3.5 FFPC Table	Subfield tag “number of feature object pointers” is incorrect	Change tag “NOPT” to: “NFPT” (as per S-57 Ed 3.1)
Annex A to CLB, SBO, LBO, MFF, ESB & RAL.	1.0	A.2.4.4	Of the mandatory attributes for m_clas, the statement ‘at least one of: secido; seccvt cannot be true. A security marking can have EITHER secido OR seccvt, as they are mutually exclusive i.e. a protective marking that has an IDO status CANNOT also have a caveat.	Replace “at least one of” with “exactly one or the other of”

Document	Version	Paragraph	Error	Correction
CLB Annex A	1.0	A.2.4.4	“CATQUA” and “VERDAT” incorrectly listed as mandatory attribute of “M_QUAL”	Remove “at least one of:”, “CATQUA” and “VERDAT” from the “M_QUAL” row of this table.

Document	Version	Paragraph	Error	Correction
ESB Annex A	1.0	A.2.4.2	Missing feature “Ice Line” from AML ESB Object Table	Insert Geo Object “Ice Line”; Acronym “icelne” into AML ESB Object Table
ESB Annex A	1.0	A.3.3.11	Incorrect Geo Object and description for “Pipeline Area”	Replace “PIPSOL” with “PIPARE”. Replace “Pipeline, submarine/on land” with “An area containing one or more pipelines”

ESB Annex A	1.0	A.3.4.1	Incorrect description of “cating”	Replace “Type of image,” with “Type of imagery,” in description of “cating”
ESB Annex A	1.0	A.3.4.12	Incorrect description of “cating”	Replace “Type of image,” with “Type of imagery,” in description of “cating”

Document	Version	Paragraph	Error	Correction
LBO Annex A	1.0	A.2.4.3 (Page A-33)	Attribute “vershf” missing from AML Large Bottom Objects Attribute Table.	Insert “Vertical datum shift parameter” in Attribute column and “vershf” in Acronym column
LBO Annex A	1.0	A.2.4.4	Attributes depwat and WATLEV are both mandatory attributes of Object Class OBSTRN	Remove the phrase “at least one of” in the table on the OBSTRN row.
LBO Annex A	1.0	A.2.4.4	Attributes depwat and WATLEV are both mandatory attributes of Object Class WRECKS	Remove the phrase “at least one of” in the table on the WRECKS row.
LBO Annex A	1.0	A.2.4.4	“VERDAT” incorrectly listed as mandatory attribute of “M_QUAL”	Remove “at least one of:” and “VERDAT” from the “M_QUAL” row of this table.
LBO Annex A	1.0	A.2.4.4	Object class “m_vers” missing from Mandatory Attributes table	Insert “m_vers” in Object Class column and “vershf” in Attributes column
LBO Annex A	1.0	A.3.3.1.1	Typographic error in value for “boulder” in attribute “NATSUR”	Replace “19 – boulder” with “18 – boulder” in values for attribute “NATSUR”

Document	Version	Paragraph	Error	Correction
MFF annex A	1.0	A.2.4.2	Typographic error in admin area acronym	Replace “ADMIRE” with “ADMARE”
MFF annex A	1.0	A.2.4.2	Typographic error in buoy installation acronym	Replace “BOYIND” with “BOYINB”

MFF annex A	1.0	A.2.4.2	Attributes Traffic Density and Type of Shipping have been included in the list of Geo Objects when they should be in the list of attributes	Remove entries “Traffic density” & “Type of Shipping” from “Geo Object” table. Insert entries “Traffic density” & “Type of Shipping” in “Attribute” table.
MFF annex A	1.0	A.2.4.4	Ambiguity over status of “LITCHR”. Inclusion in the table at this point implies “LITCHR” may be mandatory.	Delete “LITCHR” from the right hand column of this table.
MFF annex A	1.0	A.2.4.4	“VERDAT” incorrectly listed as mandatory attribute of “M_QUAL”	Remove “at least one of:” and “VERDAT” from the “M_QUAL” row of this table.
MFF annex A	1.0	A.3.4.2.2	Incorrect association of “msiare” object to “CGUSTA” object.	Remove first bullet point under Remarks: “The <b>msiare</b> object (when <i>catmsi</i> =1) will be a slave to a CGUSTA master object.”

Document	Version	Paragraph	Error	Correction
RAL Annex A	1.0	A.2.4.3 (Page A-36)	Feature “Internal Waters Area” incorrectly listed in attribute table	Remove “Internal Waters Area” and “intwtr” from AML Routes, Areas, & Limits Attribute Table
RAL Annex A	1.0	A.2.4.3 (Page A-37)	Incorrect attribute name for “QUAPOS”	Replace “Qualification of position” with “Quality of position”
RAL Annex A	1.0	A.2.4.4	“CATQUA” and “VERDAT” incorrectly listed as mandatory attribute of “M_QUAL”	Remove “at least one of:” “CATQUA” and “VERDAT” from the “M_QUAL” row of this table.
RAL Annex A	1.0	A.3.6.3 & A.3.6.4	“actper - Active period” listed as an attribute on features “Coastguard Reporting Point” & “helicopter Reporting Point”	Remove attribute “actper - Active Period” from section A.3.6.3 & A.3.6.4
RAL Annex A	1.0	A.3.9.10	Maximum and minimum altitude	Include attribute “VERDAT” as defined in

			attributes are used without a statement of vertical datum	section 5.5.2 of the Product Specification.
RAL Annex A	1.0	A.3.14	Incorrect values on attribute "Restriction(s)"	Remove the following values: - dredging prohibited - dredging restricted - construction prohibited"

Document	Version	Paragraph	Error	Correction
SBO Annex A	1.0	A.2.4.4	Incorrect Object Class name "m_vepa"	Replace "m-vepa" with "m_vers"
SBO Annex A	1.0	A.3.4.2	Clarification of use of "bearng"	Replace "Use to encode the bearing from which the image was taken." with "Use to encode the bearing, from true north, from which the image was taken."

Document	Version	Paragraph	Error	Correction
CLB Annex B	1.0	B.5.6.2	The Data Quality Feature Class Attribute (fca) Table, Section B.5.6.2, p. B-68 does not contain the required entry for the DQAREA.AFT table.	Add the missing entry to the table; ID = 1 FCLASS = confpda TYPE = A DESCR = Conformance to the Product Specification Areas ID = 2 FCLASS = dqarea TYPE = A DESCR = Data Quality Areas