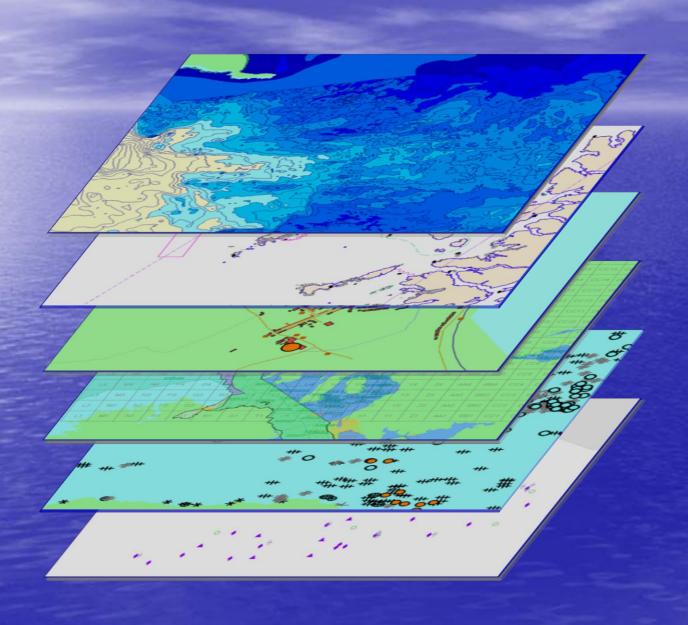
AML Additional Military Layers



Ellen Vos, RNLN GMWG Member

Additional Military Layers



What is AML?

AML (Additional Military Layers) is a NATO standard ratified under STANAG 7170 and is defined as "...a unified range of digital geospatial data products designed to satisfy the totality of NATO non navigational maritime defence requirements"

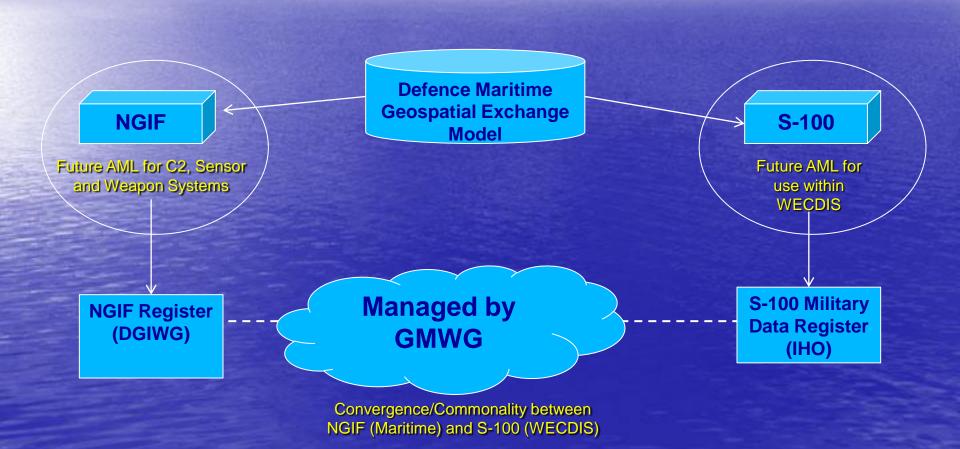
AML Products

- 6 Types of AML (Vector):
 - > CLB Contour Line Bathymetry
 - > LBO Large Bottom Objects
 - > ESB Environment, Seabed & Beach
 - > MFF Maritime Foundation & Facilities
 - > SBO Small Bottom Objects
 - > RAL Routes, Areas and Limits
- 3 Other Types of AML (Gridded):
 - > AMC Atmospheric and Meteorological Climatology
 - > GS-ESB Gridded Sediment Environment Seabed and Beach
 - > IWC Integrated Water Column

Who maintains AML?

Geospatial Maritime WG Technical Panel





AML +

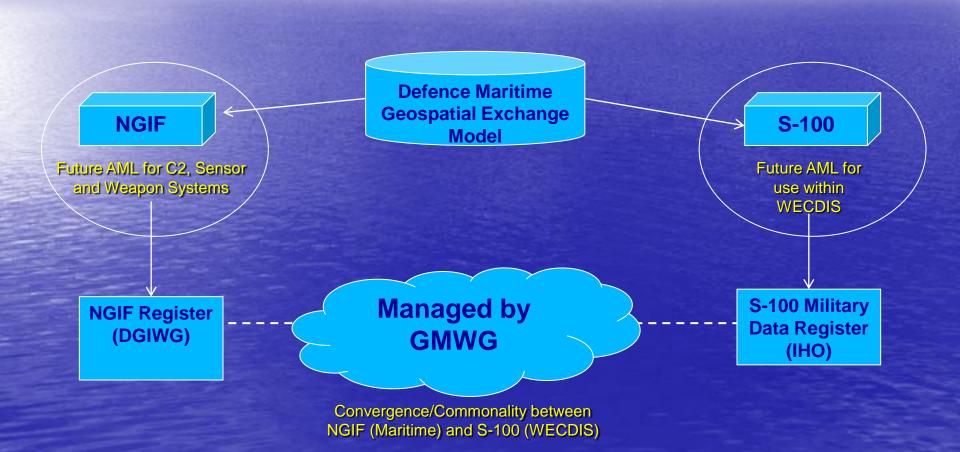
Defence Maritime Geospatial Exchange Model

Managed by GMWG

Convergence/Commonality between NGIF (Maritime) and S-100 (WECDIS)

AML for

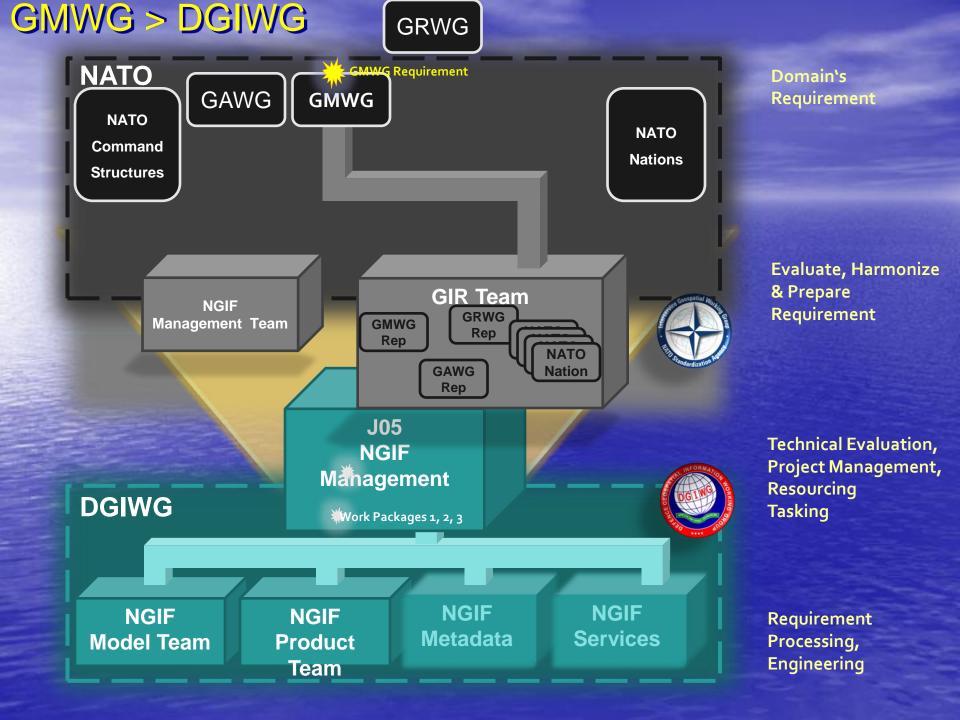
WECDIS





Main issue: interoperability





Future AML: Timelines

		2013			L	2014						2015						2016									
MAMJJASOND JEMAMJJASOND JEMAMJJASOND JEMAMJ Technical Development																											
Identify [maritime] NGIF additions	П	Т	П	Т	Т	П	Т			П	Т	П	Т	Т	П	П	Т	Т	П	Т	П	П	Т	П	\top	П	П
Propose NGIF additions/changes to DGIWG	П	\top	П	\top	\top	П	T	П			\top	П	\top	T	\top	П	\top	T	П	\top	\top	\Box	\top	П	十	П	\forall
Develop basic AML product/data specification template	П	T	П	T	\top	П	T	Τ		П			\top	T	\top	П	T	T	П	T	\sqcap	П	\top	П	T	П	П
Develop S-100 AML Data Specifications	П	Т	П	T	T	П	T	Π		П						П		Т	П	T	Т	П	\top	П	T	П	П
Set up S-100 DMGEM Registry Infrastructure	П	Т	П	T	Т	П	T	П		П	П							Т	П		П	П		П	T	П	\Box
Register new items and symbols as required	П	Т	П	T	Т	П	T	П		П	П							Т	П			П		П	T	П	\prod
Develop NGIF/S-100 symbology and portrayal	П	Т	П	T		П		Γ		П		П				П										П	\Box
Test Product Specifications	П		П			П		Π		П		П				П										П	\prod
Build S-100 portrayal catalogue	П	Т	П	T	Т	П	Т	Π		П	П	П	T	Т		П		Т	П		П						П
Develop NGIF maritime symbology	П		П	T		П		Π		П		П				П			П								П
Review and Finalise S-100 AML development	П	Т	П	T	Т	П	Т	П		П	П	П	T	Т		П	T	Т	П		П	П		П	Т	П	
STANAG Development																											
DMGEM Study Draft	П	Τ	П											Т		П		Т	П			П		П	Т	П	П
Freeze STANAG 7170 for AML content. No S-57 content Development	П	Т	П																								
Development of AML S-100 STANAG			П					Π								П						\Box		П	\perp	П	\prod
Requirements Gathering																											
Develop Preliminary User Requirements for S-100 AML - User Survey/GRWG							T	Π		П	П	П	Т	Τ		П		Т	П		П	П	Т	П	Т	П	П
S-100/Requirements Gap Analysis	П	Τ	П		Т					П	П	П	\top	Т		П	T	Т	П			П		П	T	П	\top
Define user requirements for future AML	П	Τ	П	\top		П				П		П				П			П			П		П		П	\top
Engagement																											
Liaise with GRWG, IGEOWG NMT & GIR, IHO TSMAD, DGIWG																П										П	П
GM/VG National engagement																											
Engaging with National/NATO military communities/services																											
Engaging with National/International civilian communities/industry			\prod																								

Requirements Gathering

- 1. AML v3 Review
- 2. S-100/Requirements GAP Analysis
- 3. Define User Requirements

Technical Development

		2013								
	М	А	ΜJ	J	AS	0 1	1 D			
Technical Development										
Identify [maritime] NGIF additions										
Propose NGIF additions/changes to DGM/G										
Develop basic AML product/data specification template										
Develop S-100 AML Data Specifications										
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STANAG Development										
DMGEM Study Draft										
Freeze STANAG 7170 for AML content. No S-57 content Development										
Development of AML S-100 STANAG										

Aim: Increase Cooperation

- Reporting (this brief and also White Paper)
- Re-use standardisation efforts
- Cooperate on common issues

Ultimate Goal: Interoperability

IHO Work Items

Work Item	Overlap	IHO POC
Revision of S-58 and S-64	N/A	Tom Richardson, UKHO
S-101 Future ENC PS Development	Evolution of future ENC may impact NGIF and AML.	Julia Powell, US NOAA
S-100 Portrayal	Both NATO and IHO are developing portrayal registers and 'services'.	Tom Mellor, UKHO
S-100 GML Profile	DGIWG A13	Tom Richardson, UKHO

Interested? Possible Routes

- GMWG representative
- DGIWG participation

Mail Secretary GMWG Steve Windsor:

Steve.windsor@ukho.gov.uk



Welcome!



WECDIS Capability Team POC

Lt Cdr Rob Crabbe RN

DESTECH-EGMaritime-NAV@mod.uk