



NORTH ATLANTIC COUNCIL
CONSEIL DE L'ATLANTIQUE NORD

14 November 2022

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DOCUMENT
AC/225-D(2022)0021-AS1
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NATO ARMY ARMAMENTS GROUP (NAAG)

**Standardization Task (ST) for a STANREC on Countering Class
UAS Data Exchange Format**

Action Sheet

1. Under a silence procedure ending on 11 November cob, the NAAG approved the ST to develop a STANREC on Countering Class - UAS Data Exchange Forma.
2. This Action Sheet should be part of, and attached to AC/225-D(2022)0021.

(Signed) Esther Savvidis Toledo

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Original: English

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NORTH ATLANTIC COUNCIL
CONSEIL DE L'ATLANTIQUE NORD

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2 November 2022

DOCUMENT
AC/225-D(2022)0021

Silence procedure ends:
11 November 2022 15:30

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NATO ARMY ARMAMENTS GROUP (NAAG)

**Standardization Task (ST) for a STANREC on Countering Class
UAS Data Exchange Format**

Note by the International Staff

Reference: AC/225-D(2022)0020-AS1, dated 2 November 2022

1. The Standardization Proposal (SP) for a STANREC on Countering Class - UAS Data Exchange Format developed by the NATO C-UAS Working Group was approved by the NAAG on 31 October 2022 (see reference).
2. The NAAG is now invited to task the JNLWCG through an ST (see Annex) upon a silence procedure ending on 11 November 2022 COB.

(Signed) Esther Savvidis Toledo

Annex 1

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STANDARDIZATION TASK

<i>NON-CLASSIFIED</i>	
1. Reference Number: <i>Copy the reference number from the standardization proposal or assign a reference number.</i>	2. Date: <i>11 November 2022</i>
3. Tasking Authority (TA)/Delegated Tasking Authority (DTA): <i>CNAD / NAAG</i>	
4. Subject: <i>Countering Class I UAS Data Exchange Format</i>	
5. Standardization Need and Impact on Interoperability: <i>The establishment of a data format would support NATO and Allies in the development of capabilities to counter Class I UAS and would facilitate the technical interoperability when conducting operations (to include prevent, situational awareness, respond and post event actions).</i> <i>The need of a Class I UAS data exchange format has been highlighted in several NATO activities including:</i> - <i>The NATO Non-Lethal Technical Interoperability Exercise for C-UAS (NNTEX22-C)</i> - <i>The NATO C-UAS Technical Interoperability Exercise (TIE) conducted in 2021</i> - <i>The NIAG study SG-249 on Low Collateral Damage effectors against SUAS</i> - <i>Lessons learned from other similar domain such as Air Defense (AD), Force Protection (FP), Command and Control (C2), Non-Lethal Weapons (NLW) and Joint Intelligence Surveillance and Reconnaissance (JISR).</i> <i>This initiative will also support NATO's effort to define and maintain NATO's Automated Information Systems (AIS) Reference Architecture.</i>	
6. Urgency: <i>The plan is to have the Data Exchange Format approved by in the course of 2023.</i>	
7. Fast Track Procedure: <i>Urgent need at national and NATO level to develop C-UAS capabilities. Some examples includes the NATO C-UAS procurement for NATO missions and deployment of National assets to NATO operations (e.g. Italy to KFOR).</i>	
9. Proposed Standardization Solution*: <i>The NATO C-UAS WG agreed to establish a tiger team to develop the NATO C-UAS Data Exchange Format, by adopting and adapting, as needed, the UK standard SAPIENT (Sensing for Asset Protection with Integrated Electronic Networked Technology). In terms of content, the idea is to focus on specific C-UAS information exchange requirements, while leaving out of the scope the transport layer specifications. The standard will complement the use of other NATO standards in developing automated information systems to cover the full C-UAS protection model from prevent, situational awareness, respond and post event actions.</i> <i>NATO has adopted a three layer architecture, where sensor and effectors are placed at the bottom layer, the C-UAS command and control (C2) is placed in the middle layer and the external C2 systems (e.g. ground based air defence C2) are placed in the top layer. The intent is to use the SAPIENT standard to communicate between the bottom layer (sensors & effectors) and the middle layer (C-UAS C2). The communication between the middle layer (C-UAS C2) and the top layer (External C2) will use standards already adopted by the external C2 systems.</i> <i>It is important to note that the NATO Data Exchange Format standard will ensure connection and coherence with military standards such as tactical datalink and JISR standards:</i> - <i>STANAG 5516, ATDLP-5.16, Link 16,</i> - <i>STANAG 5518, ATDLP-5.18, JREAP,</i> - <i>STANREC 4777, AEDP-02, Edition 2, NATO ISR Interoperability Architecture – NIIA</i> <i>and civilian standards as applicable, for example:</i>	

-	ASTERIX - All-purpose structured EUROCONTROL surveillance information exchange
9. Related Capabilities: <i>The C-UAS Data Exchange Format will support the development of C-UAS capability, aligned with the NDPP.</i>	
10. Level of Standardization: <i>[Indicate the level of standardization to be achieved through the implementation of the standardization solution.]</i> ☐ Compatibility ☐ Interchangeability ☒ Commonality Additional information: <i>Indicate any limitation.</i>	
11. Covering Document: <i>[Indicate the covering document for the standardization solution.]</i> ☐ STANAG ☒ STANREC	
12. Non-NATO Standardization Solutions: <i>NATO nations have developed C-UAS architectures and identified information exchange protocols and all these elements will be taken into account.</i>	
13. Working Group: <i>JNLWCG / C-UAS subgroup, with the support of the NATO C-UAS WG</i>	
14. Custodian: <i>NATO C-UAS WG</i>	
15. Partner Nations' Involvement: <i>At this stage, the NATO C-UAS WG, operating under the IAMD PC, agreed the participation of 6 partner nations to the work (Australia, Finland, Israel, New Zealand, Sweden and Switzerland). However, it is expected to have this standard as non-classified (information releasable to public).</i>	
16. NATO Bodies' Involvement: <i>NATO bodies which will be involved: NATO IS, ACT, ACO, NCIA, JAPCC, NATO COEs, and NATO Schools</i>	
17. Engagement with Other Actors: <i>Relevant Governmental Authorities and International Agencies and Organizations</i>	
18. Classification and Release: <i>The aim is to keep the publication non-classified (information releasable to public).</i>	
19. Languages Required: <i>[Indicate the language in which the standardization solution needs to be available.]</i> ☒ English ☐ French ☐ Both	
20. Promulgation Criteria: <i>N/A</i>	
21. NATO Effective Date: <i>Q3 2023</i>	
22. Relationship to Existing NATO Documents: <i>Indicate relationship to existing Allied standards or other relevant NATO documents.</i>	
23. Military Services Affected: <i>Indicate the military services affected by the identified standardization solution.</i> ☒ Joint ☒ Air ☒ Land ☒ Maritime ☐ Other	
24. Other Information: <i>Use this field to provide additional guidance to the WG/Custodian.</i>	
25. Contact Information: <i>Dr. Claudio Palestini ,Emerging Security Challenges Division (ESCD), T +32 2 707 4150, M +32 474 55 21 51, palestini.claudio@hq.nato.int</i>	
26. Signature: <i>(Signed) O. Tasman, NAAG Secretary</i>	

* These fields are mandatory.