

NATO UNCLASSIFIED
Releasable to Interoperability Platform

19 March 2019

NOTICE
NIAG-N(2019)0001

NATO INDUSTRIAL ADVISORY GROUP (NIAG)

NIAG study on Joint Air Power Strategy Implementation - Interoperability Considerations with relevance to air power and to seek industries best advice on improving interoperability on current capabilities and to seek proposals for including interoperability by design in future capabilities

Exploratory Group meeting to be held at NATO HQ on 3 May 2019 starting at 09:30 and estimated to conclude by 15:00

Calling notice

1. A NIAG Exploratory Group meeting to address Joint Air Power Strategy Implementation - Interoperability Considerations with relevance to air power and to seek industries best advice on improving interoperability on current capabilities and to seek proposals for including interoperability by design in future capabilities, will be held at NATO HQ on 3 May 2019, starting at 09:30 and estimated to conclude by 15:00.
2. An agenda for the meeting is available at Annex 1.
3. The administrative arrangements for the meeting are set out below; the information describing the aim and the objectives of the study is available in Annex 2 (Step 1).

REGISTRATION FOR THE MEETING

4. Participants are invited to contact their NIAG delegation prior to registering for this study.
5. Confirmed participants (even if unable to attend the meeting) are kindly invited to complete the registration form via the DI portal at <https://diweb.hq.nato.int/> (accessible without credentials, hence no need to create an account before registering).
 - a) Once on the DI Portal, please go to NIAG, then “events registration” located underneath the NIAG logo in the centre of the screen. This will point you to a page where you can then click on “NIAG events”, and finally select the event



you wish to register for from the drop-down menu. Select "Click here to start registration" and complete the questionnaire.

- b) Please ensure that you complete the formalities in the questionnaire by 26 April 2019.**

SECURITY CLEARANCE

6. The study will be open to industries from NATO and Partner nations within the Interoperability Platform (IP) format and conducted at NATO UNCLASSIFIED level.

ACCESS TO NATO HEADQUARTERS

7. In order to enter NATO HQ premises, you must have a valid unescorted pass/visitor badge.

8. **Access to NATO Headquarters is to be arranged strictly through your national Delegation.** Participants are requested to contact their respective national delegations to NATO HQ at least **seven working days before the meeting** and request access to NATO HQ (pass/visitor badge).

- a. Participants with a valid security clearance will have to request an entrance pass that will be waiting for them at the NATO Security Office (NATO HQ's South Entrance, Boulevard Leopold III, 1110 Brussels - Belgium).
- b. Participants without a valid security clearance will only be able to enter the NATO HQ premises if their national delegation to NATO HQ is willing to escort the participant during his/her stay at the NATO HQ. They will need a visitor badge as well.
- c. If the respective national delegation to NATO HQ is not able/willing to escort the participant without a valid security clearance, the participant will not be able to attend the meeting.

<p>9. Delivery of an access pass/visitor badge is a national responsibility. The NATO International Staff (IS) supporting the NIAG has no role in the access process and will not provide an escort.</p>
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10. **You are kindly advised to check whether your request has been received / processed at NATO HQ by your respective Delegation, prior to your travel, to make sure that your pass will be ready.**

11. Should you have access problems upon arrival, you are required to contact your respective Delegation (please make sure you have the coordinates of a POC within your delegation), as the International Staff cannot validate your security clearance / access. This is a national issue.

12. Any query concerning the access procedures should be directed to national delegations (a list of security officers is available at Annex 3).

13. Given the large number of visitors to NATO HQ, please note that processing through the Security Office on the day of the meeting will take some time and that delegates should plan to arrive at NATO HQ's South Entrance (Boulevard Leopold III, 1110 Brussels, Belgium) well in advance of the start of the meeting. It is recommended to arrive at the Headquarters no less than 30 minutes before the start of the meeting.

14. Your pass/visitor badge must be worn visibly inside the HQ. The transfer of passes/visitor badges to others is strictly prohibited. At the end of the meeting, expired passes/visitor badges must be deposited in the drop-off boxes located near the exit of the South Security Office.

CONFERENCE ROOM

15. The meeting will take place in the NATO HQ Conference Area behind the Public Square. Please check the screens for the conference room number as you enter the conference centre.

DOCUMENTS

16. Business Cards will be requested during the meeting.

17. Any further documentation available prior to the meeting will be provided to companies that have registered.

STUDY ORGANISATION

18. Industry representatives are invited to consider volunteering for Chairman, Vice-Chairman and Rapporteur of the Study Group, and communicate their option to the NIAG Secretary prior to the meeting. An election will be held under agenda item 5. For your information, a short description of the Study Group management team's role and Quick Reaction Team role is available at Annex 4.

(signed) Nathalie VAN DONGHEN

AGENDA

1. OPENING REMARKS AND INTRODUCTION

- NIAG Vice-Chairman: Mr. Rudy Priem (United Technologies, BE)

2. INTRODUCTION TO NIAG STUDY PROCEDURES

- Brief by Mr. Laurent Foissey, NIAG Coordinator (IS/DI)

3. BACKGROUND AND OBJECTIVES OF PROPOSED STUDY

- Brief by the Sponsor, ACT

4. REVIEW OF DOCUMENTATION REQUIRED FOR THE STUDY

Document based on the tasking request – annex 2 (step 1)

Participants are invited to read this document prior to the meeting to come ready to discuss and exchange under this agenda item.

5. ELECTION OF STUDY CHAIR, DEPUTY CHAIR AND RAPPORTEUR

6. STUDY CONTRACTING ARRANGEMENTS, BUDGET & ADMINISTRATION

- Brief by Ms Nathalie Van Donghen, NIAG Secretary (IS/DI)

7. STUDY REPORTING REQUIREMENTS

- Brief by NIAG Secretary

8. DATE OF KICK-OFF MEETING OF STUDY GROUP

9. CONCLUDING REMARKS

10. STUDY ORGANISATION – WORK TEAMS ALLOCATION AND WAY AHEAD

This part of the meeting is led by the elected SG management team and depending on meeting room availability. The NIAG Study Group (SG) is invited to take benefit of being together to address SG organisational topics (Work Teams Allocation, Way Ahead,...).

STUDY REQUEST – STEP 1

1. Title of Proposed Study

Joint Air Power Strategy Implementation -Interoperability Considerations with relevance to air power and to seek industries best advice on improving interoperability on current capabilities and to seek proposals for including interoperability by design in future capabilities.

2. Brief Description of Proposed Study

This study will identify interoperability considerations and challenges with impact on Joint Air Power (JAP) that potentially emerge with the introduction of new and future technology platforms, systems and capabilities (PSCs). The aim of the study will be to improve NATO's Joint Air Power operational capabilities in pursuit of shared interests, primarily through mechanisms which enhance interoperability. It will also aim to avoid interoperability issues for new PSCs which will be based on future technology, but also consider those issues that are already emerging with the current introduction of new PSCs.

In a first step, this study will analyse future technology developments and their potential influence on the development of JAP related PSCs. These developments shall include research on additional technology known or expected to be influential to JAP.

In a second step, the study will highlight the potential impact of PSCs based on new technology on the core attributes of Air Power (speed, reach and height) and the additional attributes of air power (ubiquity, agility, concentration), which enable and enhance the core attributes. This will allow an operational impact statement of these technologies regarding air power related PSCs.

In a third step, the study should identify emerging interoperability challenges between current and future technology PSCs and suggest approaches to deal with those issues. A survey sent to all NATO members revealed some of the PSCs major interoperability issues. The survey results can be used to influence capability development to possibly avoid future interoperability issues using the concept of 'interoperability by design'.

3. Background

The Joint Air Power Strategy provides NATO with an enduring direction for the future development and employment of air power capabilities to fulfil NATO's core tasks, identify effects and objectives, and improve airpower's contribution to the resolution of future crisis and conflict situations. JAP has an enduring role and will be needed to 2030 and beyond, to operate across the entire spectrum of peacetime, crisis and conflict and provide support in all possible environments.

The four JAP operational core roles:

- Counter-air
- Attack
- Air mobility
- Contribution to joint intelligence, surveillance and reconnaissance

are used to meet strategic, operational and tactical objectives. The nature of air power, based on the exploitation of the third dimension, results in core attributes (speed, reach and height) which support the achievement of JAP's principal function (the ability to coordinate, control and exploit the air domain in the pursuit of Alliance's objectives).

To better prepare and operate within a multi-domain environment, JAP needs to continuously transform and be able to adapt. JAP's transformation will rely on the development of suitable capabilities to enable timely and, if required, immediate, resilient and assured responses, in the support of NATO's political objectives. To bolster this transformation, five essential areas were identified:

1. Interoperability and Integration
2. Command and Control
3. Infrastructure and Logistics
4. Education and Training
5. Innovation and Adaptation

Interoperability spans across all five mentioned areas. The evolution of JAP will consider the different levels of Allies' modernisation, and will comprise a mix of modern capabilities and older still effective systems. The intent is to avoid too significant of a technological gap between different generations of equipment which will allow every Ally to contribute to NATO joint air operations keeping interoperability at the forefront.

The current version of the Joint Air Power Strategy (JAPS) reflects on a range of NATO JAP core capability and capacity needs derived from the future security and operating environment analysis.

Regarding the introduction of current modern platforms, some substantial efforts are already in progress, in particular with respect to 4th / 5th generation fighter aircraft (e.g. workshops and publications including contributions from JAPCC, AIRCOM, EAG - European Air Group). These efforts are considering the already known technological innovations used in new generation platforms and shall be referred to in the study.

However, these efforts concentrate on the introduction of new generation fighter aircraft with modern, but already known technology. They do not account for the potential use of future technology within the entire field of JAP related platforms, systems and technologies.

4. Objectives of the Study:

The primary objective of the study will be to compliment the NATO Joint Air Power Strategy Implementation Report on Interoperability from a long term perspective. The NATO study will identify near term issues: procedural, training and organization: mid-term Federated Mission Networking and NATO Defence Planning Process Interoperability Codes.

Based on emerging Joint Airpower platforms, systems and capabilities the NIAG study objectives should influence NATO Air Forces future ability to effectively interoperate, enabling collaborative planning, deployment, execution and sustainment during combined air operations.

5. NATO Priority: HIGH

6. Intended Follow on to the Study:

- Identify operational impact
- Analyse potential cross-domain interoperability concerns
- Based on operational impact, determine priority of mitigation efforts Review Capability Codes and Capability Statements (CC/CS) relevant to JAP with consideration given to interoperability.

Other NATO Bodies Involved in the Related Area of Work:
ACT, ACO (AIRCOM), JAPCC, NSO, NCI Agency

7. Current Industrial Involvement with the Sponsor Group: None

8. Proposed Start Date: EG meeting on 3 May 2019

9. Desired Completion Date: 31 October 2019

10. Study Classification: NATO Unclassified

11. Study Open to Partner industries: Interoperability Platform

12. Final report releasable to: NATO Nations and IP partners

13. Sponsoring Group Point and IS Point of Contact:

Terry McCoy, Requirements Division, Federated Interoperability Branch

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Security Officers from Allied nations
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<i>Country</i>	<i>Name + Firstname</i>	<i>Function</i>	<i>Office tel number (+32 2 707 xxxx)</i>
ALBANIA	HAXHIAJ, GEZIM	Security Off.	2780
BELGIUM	DUQUET, Sanderijn	Security Off.	6099
BELGIUM	DE METS, Philippe	Dep. Sec. Off.	6010
BELGIUM	DUSSART, Luc	Dep. Sec. Off.	6034
BELGIUM	De SAINT-GEORGES, Sébastien	Dep. Sec. Off.	6071
BULGARIA	VELCHEV, Ivan	Security Off.	2912
BULGARIA	KOLIKOVA, Natalia	Dep. Sec. Off.	2913
CANADA	LAPORTE, Eric	Security Off.	7123
CANADA	BERNIER, Karine	Dep. Sec. Off.	7143
CANADA	LEMIEUX-LEWIN Aline	Dep. Sec. Off.	7113
CANADA	ROBERGE, Micheline	Dep. Sec. Off.	7107
CANADA	WALBRECQ Myriam	Dep. Sec. Off.	7143
CANADA	MACINNIS, Samantha	Dep. Sec. Off.	7125
CROATIA	SAKIC, Andrija	Security Off.	7001
CROATIA		Dep. Sec. Off.	
CZECH REP	KOZELSKY Vlastimil	Security Off.	1713
CZECH REP	HERBER, Ladislav	Dep. Sec. Off.	1123
DENMARK	JENSEN, Lars	Security Off.	6160
DENMARK	KEHLET, Jeppe	Dep. Sec. Off.	6105
DENMARK	SANGIORGIO, Peter	Dep. Sec. Off.	6134
ESTONIA	LAATSIT Taavi	Security Off.	9547
ESTONIA	PUUSEEP Viive	Dep. Sec. Off.	9540
FRANCE	MERMOZ, Tristan	Security Off.	7430
FRANCE	PRELAT, Laurent	Dep. Sec. Off.	
FRANCE	THOMIN, Pauline	Dep. Sec. Off.	7431
GERMANY	WIETING, Anja	POC for access requests	02/7277666
GREECE	NTELIKOS, Konstantinos	Security Off.	6747
GREECE	ILIOPOULOU, Katerina	Dep. Sec. Off.	6744
GREECE	TSAKONAS, Stavros	Dep. Sec. Off.	6716
HUNGARY	MOLNAR, Endre Mihaly	Security Off.	1758
HUNGARY	VADAS, Attila	Dep. Sec. Off.	1169
ICELAND	GUDMUNDSDOTTIR, Gunnlaug	Security Off.	5092
ICELAND	PALSDOTTIR, Steinunn	Dep. Sec. Off.	5089
ICELAND	JONSDOTTIR, Sigrun	Dep. Sec. Off.	5062
ITALY	CATTANEO, Alessandro	Security Off.	2562
ITALY	CIMIGNOLO, Giorgio	Dep. Sec. Off.	6244
LATVIA	KRAVALS, Janis	Security Off.	2026
LATVIA	LAPINS, Aldis	Dep. Sec. Off.	9102
LITHUANIA	SADAUSKAS, Kornelijus	Security Off.	2752
LITHUANIA	ISKAUSKAS, Edvardas	Dep. Sec. Off.	2981

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LITHUANIA	ČIURLIONENĖ Rūta	Dep. Sec. Off.	2854
LITHUANIA	VAISNORAS Romualdas	Dep. Sec. Off.	2023
LITHUANIA	ZELEVE Lina	Dep. Sec. Off.	2976
LUXEMBOURG	DOS SANTOS Marie Jeanne	Security Off.	5094
LUXEMBOURG	SCHOTT, Gérard	Dep. Sec. Off.	3834
MONTENEGRO	KURTAGIC Denisa	Security Off.	02/707.10.74
NETHERLANDS	ADEGEEST, Petrus	Security Off.	6690
NETHERLANDS	MONNICHMANN Robertus	Dep. Sec. Off.	6634
NETHERLANDS	DOUMA Cees	Dep. Sec. Off.	6696
NETHERLANDS	GIJSBERS Jessy	Dep. Sec. Off.	6695
NORWAY	ARIF, Rafea	Security Off.	6314
NORWAY	RONGVED, Mathias	Dep. Sec. Off.	6399
POLAND	JABORSKI, Adam	Security Off.	1487
POLAND	GARSZTKA Krzysztof	Dep. Sec. Off.	1367
POLAND	GRZECH Robert	Dep. Sec. Off.	1367
POLAND	PRZADA Tomasz	Dep. Sec. Off.	1272
PORTUGAL	MONTEIRO, Antonio	Security Off.	6410
PORTUGAL	DA RUA LEAL/SCHMITZ, Maria	Dep. Sec. Off.	6406
ROMANIA	MARICA, Gabriel	Security Off.	9605
ROMANIA	Gheorghiu, Alexandru	Dep. Sec. Off.	9613
SLOVAKIA	LIPPAY, Blazej	Security Off.	9721
SLOVAKIA	POLACEK, Michal	Dep. Sec. Off.	9791
SLOVAKIA	STEFIK, Radoslav	Dep. Sec. Off.	9736
SLOVENIA	HEDL, Matej	Security Off.	2449
SLOVENIA	TURK, Slavko	Dep. Sec. Off.	2946
SLOVENIA	ZUPANCIC, Martina	Dep. Sec. Off.	2445
SPAIN	GARAGORRI GONZALEZ, Manuel	Security Off.	6522
SPAIN	RUIZ MINGUEZ, Marta	Dep. Dec. Off.	6533
TURKEY	ATIK Erdal	Security Off.	6820
TURKEY	GÜRMERICLILER Gürkan	Dep. Sec. Off.	6841

UNITED KINGDOM International Visits Control Office +44 30679 33841

Website:

<https://www.gov.uk/guidance/defence-equipment-and-support-principal-security-advisor>

Email: despsya-ivco@mod.gov.uk

UNITED STATES	E-mail: acdvisitors@state.gov		
UNITED STATES	Dave HITE	Security Off.	3254
UNITED STATES	VENOIT Sheila	Dep. Sec. Off.	3165
UNITED STATES	HALE Carl	Dep. Sec. Off.	3270
UNITED STATES	MC DOWELL Tamica	Dep. Sec. Off.	3424

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Security Officers from Partner nations

Country	Name + Firstname	Function	Office tel number (+32 2 707 xxxx)
ARMENIA	BEJANYAN, Serob	Security Off.	2718
AUSTRIA	BOTTA, Martin	Security Off.	2802
<i>AUSTRIA</i>	<i>HANGEL, Rainer</i>	<i>Dep. Sec. Off.</i>	2483
AZERBAIJAN	SHAMILOV, Samir	Security Off.	2657
<i>AZERBAIJAN</i>	<i>ALLAHVERDIYEV, Elchin</i>	<i>Dep. Sec. Off.</i>	2658
BELARUS	UGORICH, Igor	Security Off	02/340.02.79
<i>BELARUS</i>	<i>KOZHARSKY, Dmitry</i>		
BOSNIA/HERZEGOVINA	HASECIC, Almir	Security Off.	2843
<i>BOSNIA/HERZEGOVINA</i>	<i>NEUMAN, Irina</i>	<i>Dep. Sec. Off.</i>	9132
FINLAND	KAIHILAHTI Pekka	Security Off.	02/706.21.03
<i>FINLAND</i>	<i>HAAVISTO-KOSKINEN Miiia</i>	<i>Dep. Sec. Off.</i>	<i>02/706.21.04</i>
<i>FINLAND</i>	<i>LtCol. HAAPALA, Tommi</i>	<i>Dep. Sec. Off.</i>	<i>02/706.21.17</i>
<i>FINLAND</i>	<i>WENTO, Riikka</i>	<i>Dep. Sec. Off.</i>	<i>02/706.21.18</i>
GEORGIA	MANJGALADZE, George	Security Off.	TBC
IRELAND	NI BHRIAIN, Lesley	Security Off.	02 707 2696
<i>IRELAND</i>	<i>HERON, Andrea</i>	<i>Dep. Sec. Off.</i>	
KAZAKHSTAN	SHOIYNBAYEV, Miras	Security Off.	02/373.38.95
<i>KAZAKHSTAN</i>	<i>MUKASHEV, Timur</i>	<i>Dep. Sec. Off.</i>	2747
KYRGYZ REP.	BEKBOLOTOV, Ruslan	Security Off.	02/640.18.68
MALTA	SPITERI, Joseph	Security Off.	02/238.27.67
<i>MALTA</i>	<i>CAUCHI, Ingloft</i>	<i>Dep. Sec. Off.</i>	<i>02/238.27.65</i>
MOLDOVA	BURDUJA, Radu	Security Off.	2096
<i>MOLDOVA</i>	<i>IATCO, Veaceslav</i>	<i>Dep. Sec. Off.</i>	<i>02/626.00.85</i>
North Macedonia	STEFANOSKI Jane	Security Off.	2791
	<i>POPESKI Aleksandar</i>	<i>Dep. Sec. Off.</i>	2606
RUSSIA	IVANOVA, Maria	Security Off.	
<i>RUSSIA</i>		<i>Dep. Sec. Off.</i>	
SERBIA	VLAHOVIC Milos	Security Off.	7981
<i>SERBIA</i>	<i>VUKOVIC, Igor</i>	<i>Dep. Sec. Off</i>	
<i>SERBIA</i>	<i>RADELJAC, Janko</i>		7983
SWEDEN	TUVESSON Andreas	Security Off.	7852
<i>SWEDEN</i>	<i>RUDEFLOD Rebecca</i>	<i>Dep. Sec. Off.</i>	7872
SWEDEN MILREP	NILSSON Thomas	Security Off.	
SWITZERLAND	WIESLI Christian	Security Off.	2861
<i>SWITZERLAND</i>	<i>PAVON Iris</i>	<i>Dep. Sec. Off.</i>	2864
<i>SWITZERLAND</i>	<i>HERVE Marie-Aude</i>	<i>Dep. Sec. Off.</i>	2860
TAJIKISTAN	SHARIPOV, Bahodur	Security Off.	
<i>TAJIKISTAN</i>		<i>Dep. Sec. Off.</i>	

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TURKMENISTAN	ASHYROV, Dovran	Security Off.	02/648.18.74
UKRAINE	<i>LEONENKO, Oleksandr</i>	Security Off.	2702
UZBEKISTAN	IBRAGIMOV, Artikjon	Security Off.	02/661.20.45

SHORT DESCRIPTION OF THE STUDY GROUP MANAGEMENT TEAM'S ROLE
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1. The **Study Group Chairman** is responsible for the carrying out of the study by the Study Group on behalf of the NIAG and for the presentation of the final report. He/she will formulate and direct the study work plan and oversee the administration of the study. The Study Group Chair may call on the NIAG Vice-Chairman, the NIAG Head of Delegation for his nation and the IS NIAG Coordinating Staff Officer to receive advice and assistance as required.
2. The **Deputy Chairman** will assist the Chairman in the management of the study and provide stand-in for the Chairman when and as required.
3. The **Rapporteur** will act as Secretary to the Study Group, supporting the Chair in the administration of the Study Group activities. Normally this will involve assisting with the meeting arrangements, compiling the records of meetings and disseminating information to the SG members. The Rapporteur will also act as the sole interface for the Study Group members regarding NIAG Study processes and procedures. The rapporteur will further communicate with or escalate any unresolved topic to the NIAG secretary as required.

SHORT DESCRIPTION OF THE QUICK REACTION TEAM'S ROLE
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1. The **Quick Reaction Team** is responsible for assisting the NIAG Study Group in the gathering of information, monitoring the study work, in liaising with other NATO bodies or groups who can provide information and assistance.
2. After delivery of the final report, the Quick Reaction Team is responsible for drafting the "Sponsor Assessment Form" to be considered at the first sponsor group meeting following the final report delivery.
3. This form has then to be provided to the NIAG Coordinating Staff Officer, preferably within 3 months of receipt of the study final report.