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1st /2023 SCM Subject No 7



INTEGRATED AIR & MISSILE DEFENCE CENTRE OF EXCELLENCE

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1st/2023 Steering Committee Meeting POINT PAPER

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TO: See Distribution

SUBJECT: IAMD- CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

<u>No:</u> 7

PURPOSE: To approve the IAMD – CoE's project to create a M&S / Analysis Laboratory

BACKGROUND:

Modelling and simulation (M&S) is a discipline that develops and/or uses models, simulations and simulation systems. A model is a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process. Simulation is the execution of a system model over time and simulation system is a combination of interacting elements or components organised to provide a representation of a system or of a part of the real world for an intended use. M&S creates a digital representation of the operational environment, allowing failure and to learn while representing the forces, environment and operational context with the required fidelity. Moreover, M&S employs M&S specific resources like methodologies, methods, techniques and data to develop models and simulation systems. When M&S resources are properly used, it brings to any project transparency, objectivity and scientific rigour. As those belong to Concept Development (CD) Method principles, M&S is well suited to support CD&E projects.

M&S, in combination with technologies such as data analytics and artificial intelligence, helps NATO and Allies to prepare and support decision-makers and staff to manage complexity, assess risks, and evaluate options in the multifaceted security environment.

The benefits of modeling and simulation are numerous, providing risk free experimentation, education and training, exploration of alternatives, dynamic visualization of political, military, economic, social, informational, and infrastructure environments. These challenges are crucial to assisted

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Subject No 7

decision-making, defense planning, operations planning, mission rehearsal, education, training, exercises, wargaming, analytical studies, and lessons learned.

SACT's vision and intent for 2023, identify "Better Understanding" as a Strategic Priority. In this regard, leveraging Innovation and Agility is of paramount importance and ACT intends to accelerate and scale up NATO Experimentation and Wargaming levels of activity, with the Nations, Academia and Industry, to drive forward NATO understanding, knowledge and assessment of emerging trends, opportunities and threats. Respectively, by "Maintaining Technological Edge / Strategic Advantage" as a strategic enabler of the aforementioned priority, SACT intends to leverage the understanding, experimentation, adoption and application of new and emerging technologies to accelerate transformation.

<u>ANALYSIS &</u> <u>STATUS</u>: In line with SACT's vision and intent for 2023 and in accordance with IAMD COE's Medium-Term Operational Plan for 2025-2029, the Centre is scheduling to develop an M&S – Analysis Laboratory. Creating an M&S – Analysis Laboratory will help IAMD – COE to improve its capabilities as an IAMD stakeholder in many ways. Using M&S tools, IAMD COE will be capable to build scenarios, trainings and simulated exercises. The Centre will be capable of analyzing, examining and propose new concepts and tactics to be implemented.

FINANCIAL
CONSIDERATIONS
& FUNDING:

Any financial impacts of the aforementioned project (hardware - software requirements, etc.) will be covered a) by the existing budget of the current year [(and by transferring of appropriations within the authorization granted to the Director in accordance with Financial Administrative Procedures, if required) without the need for additional funding], and b) by the budget of the following years, within the ceilings of the Medium-Term Financial Plan, in which funds will be foreseen to support the establishment, development and operational use of a complete M&S/Analysis Laboratory.

RECOMMENDA-

TIONS

& DECISION:

Concerning the benefits that M&S offers, SACT's vision and the vision of IAMD – COE, SC members are requested to approve the creation of a M&S

FOR THE IAMD COE:

B. Gen (OF-6) Nikolaos KOKKONIS GRC (AF)

Laboratory in IAMD – COE.

IAMD COE Director

NATO UNCLASSIFIED RELEASABLE FOR INTERNET TRANSMISSION

1st /2023 SCM Subject No 7

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Action: IAMD COE SC - Members

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