NORTH ATLANTIC TREATY ORGANIZATION
ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD

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Force Readiness through Distributed Synthetic Training

NATO CA²X² Forum, Rome, ITA

29 Sep 2026

VERSION 06 Sep 2026

DST Chair: Dr. Robert SIEGFRIED
DST Vice-Chair: Maj Leon VAN DER HEIJDEN

Releasable to Public

Objectives

- New training needs
- Provide information about multi-national NATO DST High Visibility Project (HVP)
- Inform about roadmap and engagement opportunities

Allies face new and evolving training needs

Asset availability
(blue and red!)

Limited Air/Range space

Training frequency
(and intensity!)

Cost

OpSec

Environmental factors

…

Allies have a growing demand for multi-national mission training in a synthetic environment that exceeds current training capabilities.

Alliance Concept for
Multi-Domain Operations (MDO)

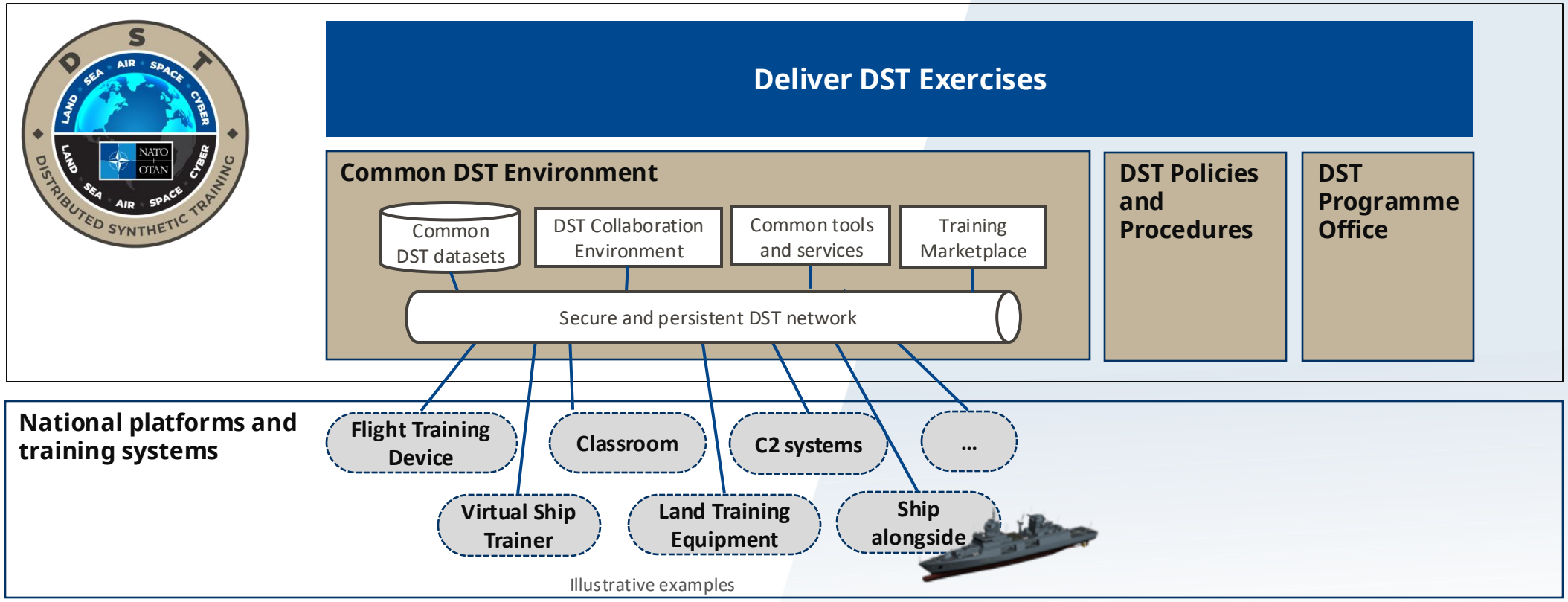
"We will continue to enhance the collective readiness, responsiveness, deployability, integration and interoperability of our forces. […] **We will strengthen training and exercising**"

NWCC NATO WARFIGHTING CAPSTONE CONCEPT

The NWCC identifies two **Critical Enablers** for "Tomorrow's Military Instrument of Power":

1. **Persistent Preparation**
2. **Day-Zero Integration**

Distributed Synthetic Training (DST)



DST augments the existing E&T spectrum

Road to Force Readiness

Individual

- Education
- Individual Training

National responsibility

Force Integration

Tactical-level multi-national (team) training

- *Force Integration Training (FIT)*
- *Force Integration Exercises (FIE)*

Examples: 2 ITA pilots + 2 ESP pilots, FRA JFAC + NLD aircraft, DEU+GBR frigates, …, ATHENA/GLADIATOR exercises, etc.

Common responsibility of Allies (across all domains!)

Collective

Collective training on operational level, focused on HQs, formation and forces

- Collective Training
- Exercises

Examples: LOYAL LEDA, DYNAMIC MIRAGE, …

NATO responsibility

Focus of NATO nations
Distributed Synthetic Training (DST)

Ref: MC 0458/3, BiSC E&TD 075-002

NATO Allies cooperate on next-generation training capability

15 October 2025

2 MIN READ

On Wednesday (15 October), 13 Allies (Canada, Czechia, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Türkiye and the United Kingdom) agreed to initiate the development of a multinational simulated training capability.

The Distributed Synthetic Training High Visibility Project (HVP) aims to respond to the ever-growing demand for multinational military training in a cost-effective way. The project will leverage existing national simulated training capabilities to create a secure network of advanced and immersive virtual training for multinational purposes.

https://www.nato.int/en/news-and-events/articles/news/2025/10/15/nato-allies-cooperate-on-next-generation-training-capability

DST Mission Statement

Our mission is to increase the deterrence and defence posture of the Alliance by establishing a persistent, readily available NATO DST Capability to prepare our forces for multinational multi-domain operations.

DST has ambitious goals!

- DST must become an integral part of Exercise & Training!
  - 50+ DST training events per year
  - 6+ DST exercises per year, with the ability to execute 2+ DST exercises at the same time
- DST must be an enabler for rapid adaptation!
  - Lead time for (recurring) DST training events less than 1 day
  - Lead time for DST exercises less than 3 months

DST Community

DST MOU

Steering Board
DST TOR

PRT USA
SWE POL AUS
NMSG SHAPE AO COE
Associated Members
HQ SACT HQ AIRCOM
EAG HQ NAEW&CF
IAMD COE

Confidentiality and Security Arrangement

CAN
NOR CZE
DEU DNK ITA
MOU Signatories
TUR
FIN GBR ESP
NZL GRC NLD
FRA

NSPA

Support Partnership (SP) Agreement
Program Directive

SP Committee (SPC)
SPC TOR

2026 Work Breakdown Structure

DST is linked to key NATO efforts!

NAC

The NATO Joint Air Power Interoperability Action Plan (JAP IAP) defines a dedicated Action Item for CNAD and STB (with ACT and IMS in supporting role) to implement DST.

DefMin

The Alliance Concept for Multi-Domain Operations recognizes that "the creation of blended live-synthetic training to generate multi-domain realism is essential to the development of an MDO-enabled force". It emphasizes explicitly that the "progression towards MDO will need investment in technology-enabled training at the national and NATO levels".

C3B, Summit 23

NATO's Digital Transformation Implementation Strategy defines a Line of Effort (LoE) to "Leverage collective exercises to train combat forces to be digital-ready and MDO ready". This LoE specifically asks to "incorporate modelling and simulation, including distributed synthetic training into NATO exercises" and sees MC and ACT in lead, with CNAD, IS/DI and ACO in supporting roles.

SHAPE, MC

Guidance to CHODs to move from "live" to DST (MCM-0328-2024 => MC Endorsement on 13 Jan 2025, and subsequent endorsement by the DPPC on behalf of the NAC in their Pol/Mil advice)

Outline

- Provide information about multi-national NATO DST High Visibility Project (HVP)
- **Inform about roadmap and engagement opportunities**

DST Vision Statement

The vision for Distributed Synthetic Training (DST) in NATO is to establish:

"A coalition-wide federation of national synthetic mission training capabilities powered by coherent architectures and security procedures, common standards and training objectives, and shared data; delivering regular and frequent access to high quality, secure, immersive operational training opportunities at team, collective, joint and coalition levels."

Roadmap

By Nov 2028, IOC

- All Participants will participate in **at least one DST Exercise per year**.
- The NATO DST Capability can **support a minimum of three DST Exercises per year**, and one at a time.
- Initial organizational and technical frameworks have been successfully established, including DST Training Marketplace, Network, Technical Framework, Training Objectives.

By Nov 2030, FOC Inc 1

- All Participants will participate in **at least two DST exercises per year**.
- The NATO DST Capability can **support a minimum of eight DST Exercises per year**, and a minimum of two concurrent DST Exercises.

By Nov 2032, FOC Inc 2

- Using the NATO DST Capability, all Participants will participate in **at least three DST Exercises per year**.
- The NATO DST Capability **supports a minimum of 12 DST Exercises per year**, and a minimum of four concurrent DST Exercises.

2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032

- *Build DST Repository*
- …

- *Define DST Operational Framework (FITOs, etc.)*
- *Define DST Technical Framework*
- *Start building common DST environment*
- *Prepare, plan and execute more DST events*
- *Integrate DST with existing exercises & training*

- Run more DST exercises
- …

Note: The annual activities are defined in the Program of Work!

DST Program of Work (POW)

- POW is initially defined for the next 3 years (2026-2028) and will be updated annually (for the next 3 years). It defines four "Lines of Effort":
  - LOE 1: Participants will execute DST Exercises.
  - LOE 2: Participants will establish a common DST environment.
  - LOE 3: Participants will establish common DST policies and procedures.
  - LOE 4: Participants will establish a Programme Office
- **Important:** Some items of the POW
  - will be delivered by nations (information, expertise, etc.)
  - will be delivered by NSPA (Programme Office, joint procurements)

Subgroups and Teams

SB Chair + Vice-Chair
Dr. Robert Siegfried (DEU)
Major Leon van der Heijden (NLD)

Steering Board (SB)

Subject Matter Experts (SMEs) of DST HVP
All Participants and Associated Members may nominate Subject Matter Experts.

SG-1 "DST Exercises"
LOE 1 | LOE 3.1

Lead:
- Duncan Walkey, GBR
- Rich Meadows, USA

SG-2 "DST Environment"
LOE 2 | LOE 3.2

Lead:
- Arjan Lemmers, NLD
- Wim Huiskamp, NLD

Exercise Planning
Lead:
- Duncan Walkey, GBR
- Rich Meadows, USA

National Roadmaps
Lead:
- Harm Cazemier, NLD

FITOs
Lead:
- Gary Stone, CAN
- Stuart Osborne, EAG

Resource Repository
Lead:
- MSG-232 (Robert Siegfried, Agatino Mursia)

DST Technical Framework
Lead:
- Arjan Lemmers, NLD
- Arno Gerretsen, NLD

CDS
Lead:
- Ruari Henderson-Begg, GBR

DST Exercises

Colour Code Key

- Air
- Land
- Maritime
- Multi-Domain
- Live / Synthetic Blended
- Experimentation
- Test Event

UPDATE DATE 29/01/26

DST CALENDAR 2026 | NATO DST CALENDAR 2026 | NATO DST CALENDAR 2026 | NA

	MARCH 2026					APRIL 2026				MAY 2026			
	10	11	12	13	14	15	16	17	18	19	20	21	22
	02.03	09.03	16.03	23.03	30.03	06.04	13.04	20.04	27.04	04.05	11.05	18.05	25.05
	08.03	15.03	22.03	29.03	05.04	12.04	19.04	26.04	03.05	10.05	17.05	24.05	31.05
RAF ABTC			GA			GA				GA			Athena Warrior
UAWC													
DEU Navy Hub													
FRA DMOC													
HAF STS													
ITAF Hub													
RCAF DSOC													

	JUNE 2026					JULY 2026				AUGUST 2026					SEPTEMBER 2026			
	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	01.06	08.06	15.06	22.06	29.06	06.07	13.07	20.07	27.07	03.08	10.08	17.08	24.08	31.08	07.09	14.09	21.09	28.09
	07.06	14.06	21.06	28.06	05.07	12.07	19.07	26.07	02.08	09.08	16.08	23.08	30.08	06.09	13.09	20.09	27.09	04.10
RAF ABTC	GA					GA					GA				GA			
UAWC																		
DEU Navy Hub																		
FRA DMOC																		
HAF STS																		
ITAF Hub																	Centurion Warrior	
RCAF DSOC	CWIX 26												BOLD QUEST 26					

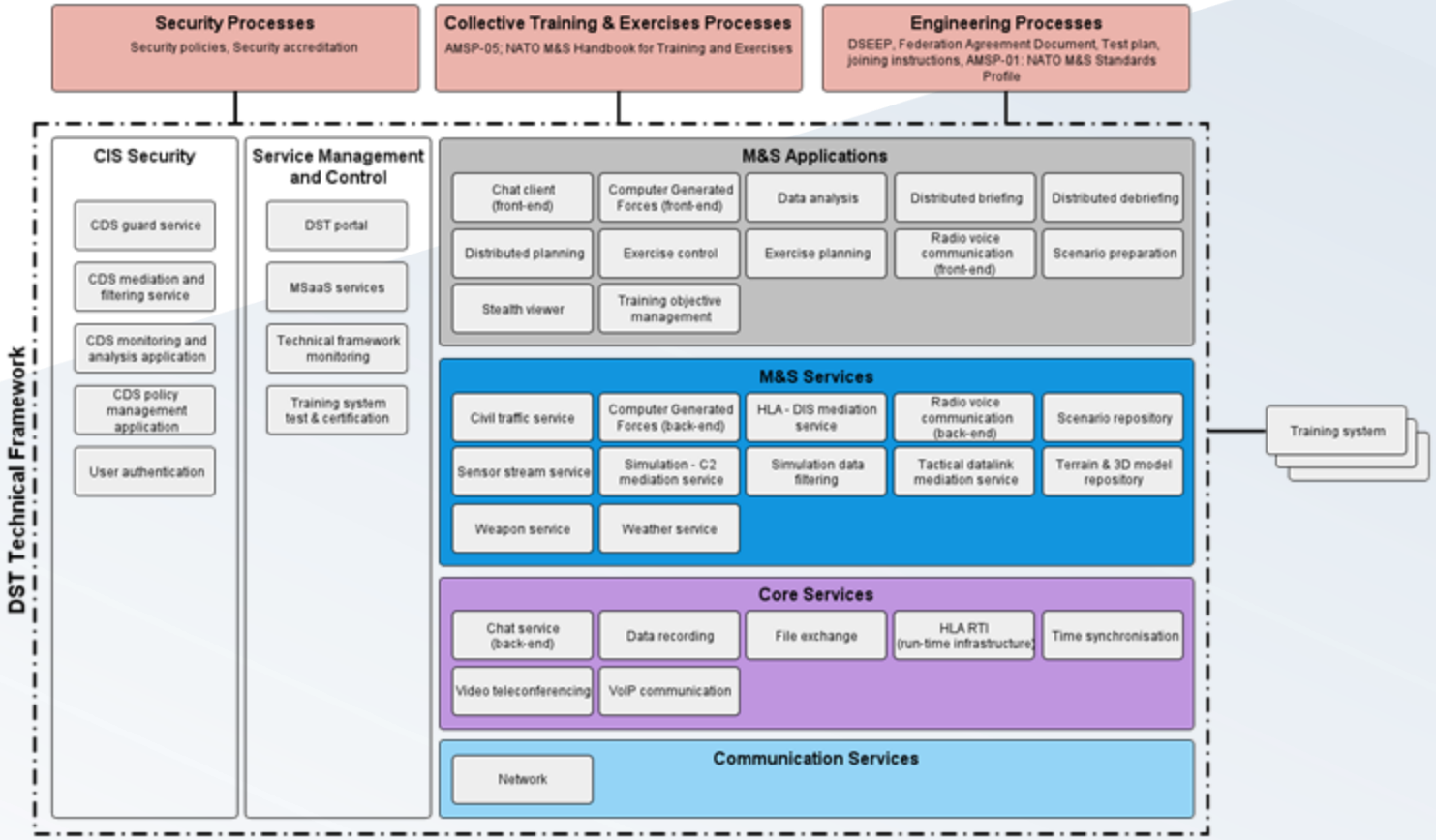
- Subgroup 1 runs Training & Exercise Planning Alignment Conference (TEPAC) approximately every 4-6 months to build DST exercise calendar

Force Integration Training Objectives (FITOs)

- AMI and ALI FITOs complete, ready for review by national SMEs.
- Discussion on level of detail required:
  - Enabling objectives inform exercise design but higher detail may be too great for efficient assurance of training / may be replicating training audience's tactical level trg objs.
- Ongoing: Internal SME review and validation on exercises.
- Validation opportunities
  - AMI: DYMG27 (in coordination with MARCOM)
  - ALI: Athena Dragon (Oct 26)

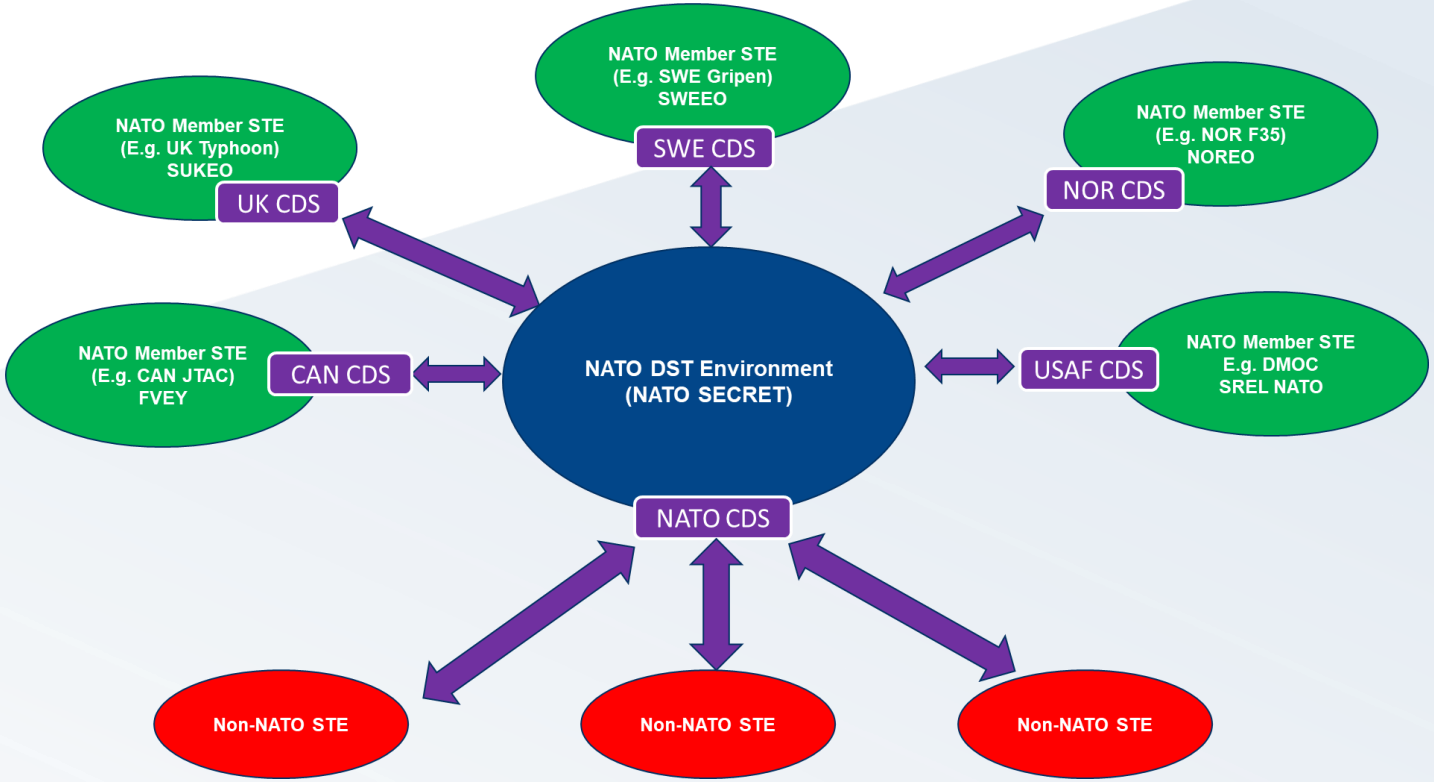
DST Technical Framework

- Building Blocks defined
- Next steps:
  - Validate Technical Framework and publish as STANAG
  - DST Environment Agreement Document Template
  - DST Test Plan Template



Cross-Domain Security

- Develop CDS CONUSE/CONOPS
- Start working on "Federation Policy Definition Language" as candidate NATO DST Standard
- SG1 and 2 to organise a workshop to assess impact of CDS integration on exercise design and delivery
- (When appropriate) organise a CDS development workshop to support nations in CDS testing and validation



How to get involved

- Main formats:
  - DST Steering Board
  - Support Partnership Committee
  - Plenary DST
  - Subgroups/Teams
  - Thematic workshops

In-person or Virtual
(as required)

Dates of next meetings

Steering Board (only SB members!)

- 10 Sep, 1530-1630
- 6-8 Oct, Kingston, CAN (during DST Workshop)
- Nov/Dec, annual meeting on DST progress, D&G

Support Partnership Committee (SPC)

- 1st SPC meeting: 13-14 Oct 2026 at NSPA, Capellen, Luxembourg
- In future, usually in conjunction with SB!

Plenary (all subgroups/experts)

- 6-8 Oct 2026, Kingston, CAN
- Mar 2027, *…some nice location…*

- Each 1st Tuesday, 1500-1600 Brussels time, Webex
  - Tue, 8 Sep // Tue, 10 Nov (invite follows)

Industry Engagement

- 30 Nov 2026, 0900-1030, Orlando, USA during I/ITSEC

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http://nmsg.sto.nato.int

Points of Contact

Distributed Synthetic Training (DST)

Chair	Dr. Robert SIEGFRIED	robert.siegfried@aditerna.de
Vice-Chair	Major Leon VAN DER HEIJDEN	LPW.vd.Heijden.01@mindef.nl