

Use of RW-SOFinal near-peer operationa environme

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OVERALL CLASSIFICATION: NATO UNCLASSIFIED



REFERENCES

- AJP-3.5(B), Allied Joint Doctrine for Special Operations, 2019
- NSHQ, NATO SOF Air Operations Manual, current version
- NSHQ, Guidelines for NATO SOF Helicopter Operations, current version
- William H. McRaven, Spec Ops: Case Studies in Special Operations Warfare: Theory and Practice.
- Allied SOFCOM's 20th Quarterly Lessons Learned Bulletin
- Instituto Affari Internazionali Future Military Helicopters: Technological Innovation and Lessons Learned from Ukraine (19 SEP 2023)



AGENDA

- Allied SOFCOM Air Development Division (ADD)
- Basic principles of SOF-Air operations
- The near-peer/ non-permissive air environment (A2/AD)
- Lessons Learned Ukraine conflict
- Key Considerations for the use of SOF RW-assets
- Recommendations/ Food for thought for:
 - Operational requirements
 - TTP requirements
 - RW-platform capability requirements



https://www.nshq.nato.int/add

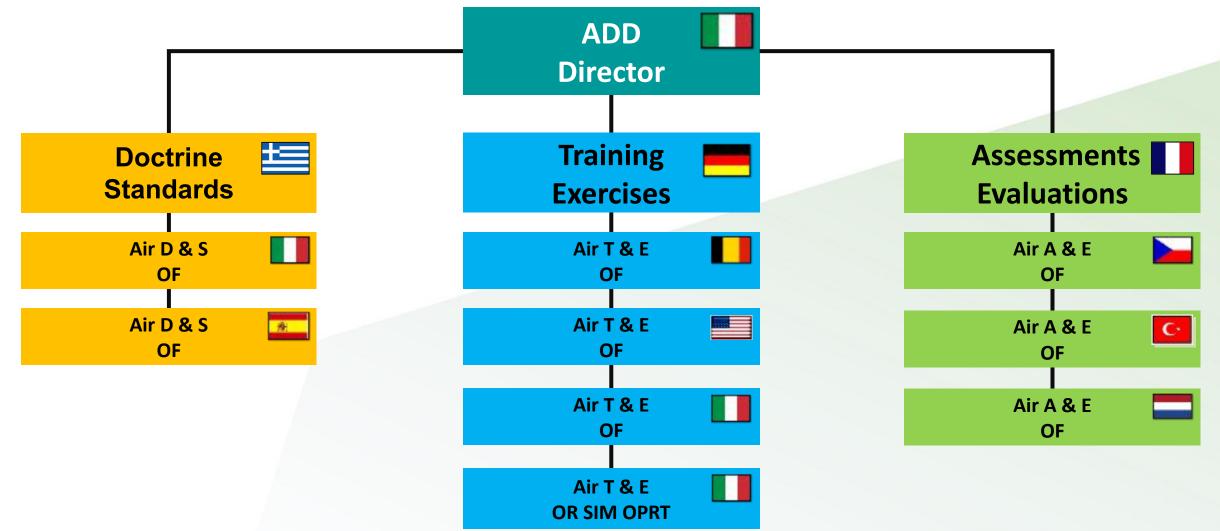
"The SOFCOM Air Development Division is the primary point of direction and coordination for all NATO Special Operations Air related activities in order to accelerate and synchronize the Alliance efforts, enhancing capability, capacity and interoperability of NATO SOF Air."

"ADD serves as the leader for NATO SOF-Air by determining and improving quantitative and qualitative aspects of Special Air Operations across the network of SOFCOM nations and partners."



ADD ORGANIZATIONAL STRUCTURE

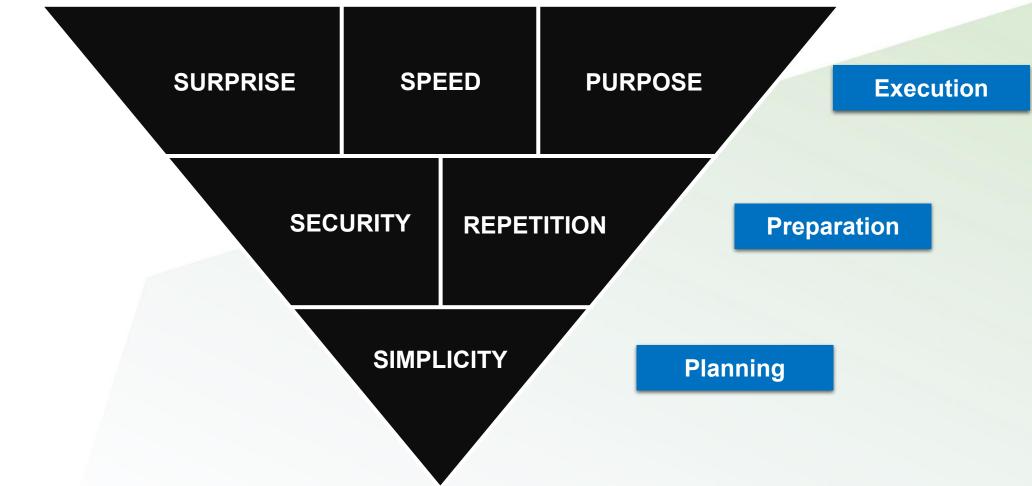
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SOF PRINCIPLES

"A simple plan, carefully conceived, repeatedly and realistically rehearsed and executed with surprise, speed and purpose"





SOF-AIR CONTRIBUTION

"(Ability) to rapidly achieve relative superiority over enemy force."

Admiral William H. McRaven - The Theory of Special Operations





A2AD / NON-PERMISSIVE ENVIRONMENT

A2/AD Main components and capabilities





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- Most helicopters have been destroyed on ground
- Helicopters are vulnerable with low survivability during daytime operations and/ or in enemy controlled areas
- MANPADs/ SHORAD have proven to be a high threat for RW-operations
- TTPs need to be adapted quickly to cope with emerging threats
- Risk-chance ratio for helicopter operations was poor on both sides



- System of systems approach with real-time integration to the AirC2 and C4IS networks (link capabilities & sensor fusion)
- Operational risk management considering where to use RW in which operational phase
- Ground protection through wide dispersal and sheltering the assets out of primary threat ranges
- Enhanced logistical support to enable flexible and agile forward operations



TTP REQUIREMENTS

- Air Integration and interoperability with conventional air
- Multi domain mission planning and execution
- UAS Integration & de-confliction
- Low level night flying and navigation
- Electronic Warfare & Threat avoidance



- Enhanced Speed, Range and Endurance to cope with the extended threat ranges and distances required
- Enhanced platform protection against current MANPAD/ SHORAD systems
- MUM-T to exploit the rapidly evolving UAS capabilities
- NOE capabilities with autonomous navigation, collision avoidance, low detectability and synthetic night vision





QUESTIONS?

REMARKS?

COMMENTS?

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