

Emerging Technologies in UN DFS Aviation

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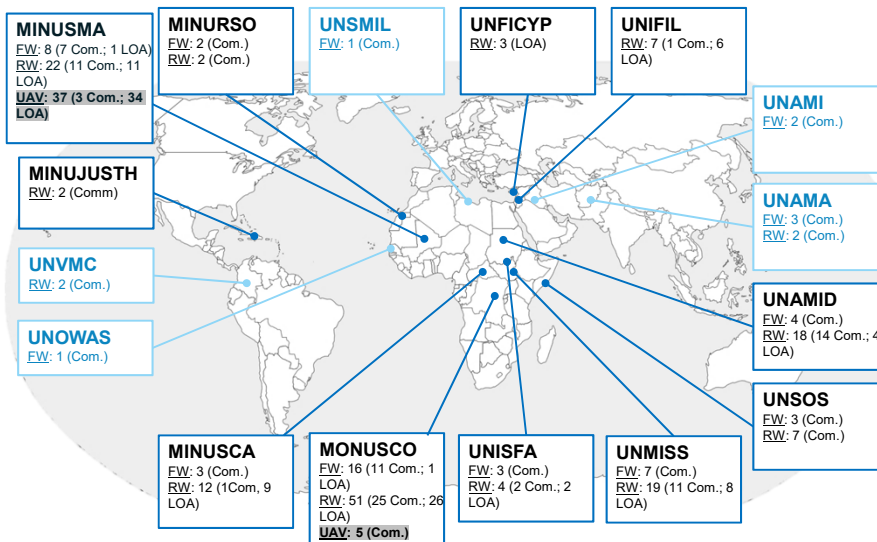
Emerging Technologies (Technics)

- Using technology and an administrative framework to solve complex problems through aviation and aviation support technologies
- Centralized coordination and planning, using technologies of command / control, and situational awareness, to facilitate the tactical deployment of emerging operational technologies, further supported by infrastructural investments and developments in order to fully develop capacity to support continuing operations and react to exigent crises.
- more than just the UAS, NVG-capable helicopter...it's the entire regime

Overview: Emerging Technologies in support

- Brief Overview of DFS Aviation
- Emerging Technologies and applications to solve complex field problems through Aviation
- The “Strategic”
 - Centralized Command / Control from Air Operations Centre
 - Global Satellite tracking system
 - 24 / 7 command control centre: strategic coordination of air assets
 - Fleet efficiency optimization through data management and analysis / procurement
- The “Tactical”
 - Infrastructure development
 - Landing aids: GNSS approaches / lighting projects
 - Specialized Equipment: NVIS, UAS
- Bringing it together / Conclusion

UN Aircraft Fleet (PKO and SPM) – 11 Peacekeeping & 5 SPMs



Comm/ Mil: Fixed wing: 51 / 2; Helicopters: 70 / 72; UAS: 8 / 42;
Commercial / Military (195) FW / RW

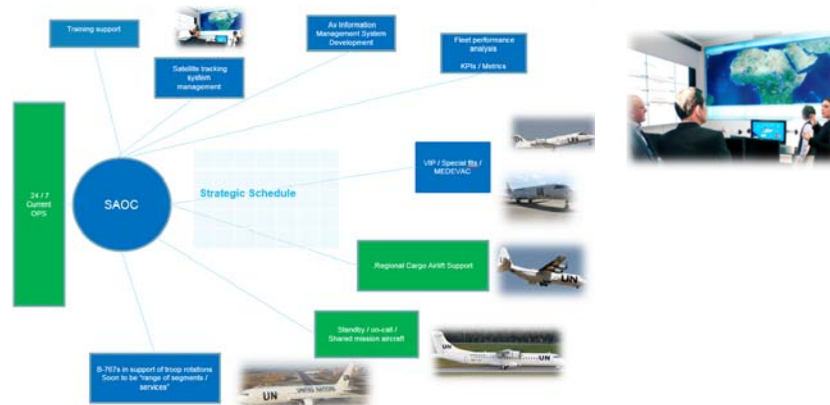
Example of Diversity in One Mission



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Strategic Air Operations Centre

The Strategic Air Operations Centre was created as integral part of the Air Transport Section through General Assembly Resolution A/61/752, A/61/968, A/62/769, due to the rapidly growing fleet of aircraft and the demand to provide global operational coverage to address and reduce duplication of efforts, wastage, and inefficiencies -- "to ensure that UN aircraft deployed for strategic airlifts are utilized according to the Secretariat's concept of global fleet utilization and fleet optimization" to achieve synergies, economies of scales, and cost efficiencies.



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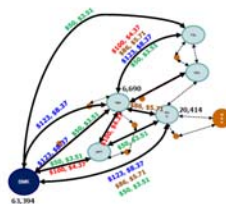
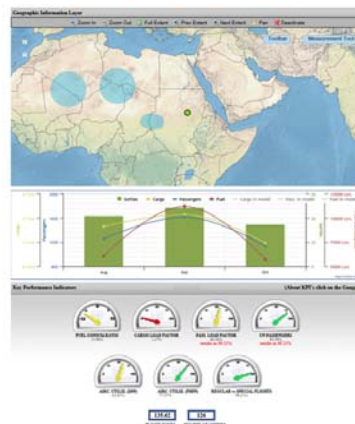
Global Satellite Tracking System

Full spectrum of capabilities available to all field missions, oversight also provided by SAOC in Brindisi



Aviation Information Management System

Providing Business Intelligence in support of Fleet Performance Analysis for more effective procurement exercises and fleet reviews / facilitating verification of svcs; payment to operators.



Construction / rehabilitation of airfields and helipads



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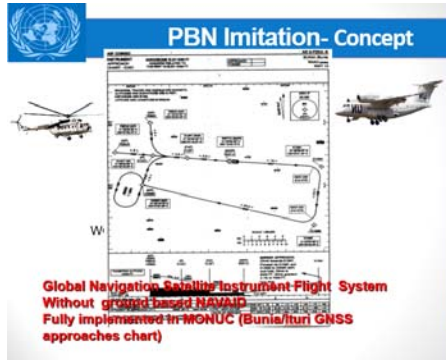
Airfield / helipad lighting (NVG compatible systems)



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PBN approaches



Timbuktu Airfield Flight Validation CL604 RWY 07 Left no offset.

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CASEVAC helo support – 24 / 7 Night Vis Imaging Systems(NVIS) -- Military and Commercial aircraft



Night Vision Device compatible
Flight Decks



CASEVAC in Somalia (UNSOS)



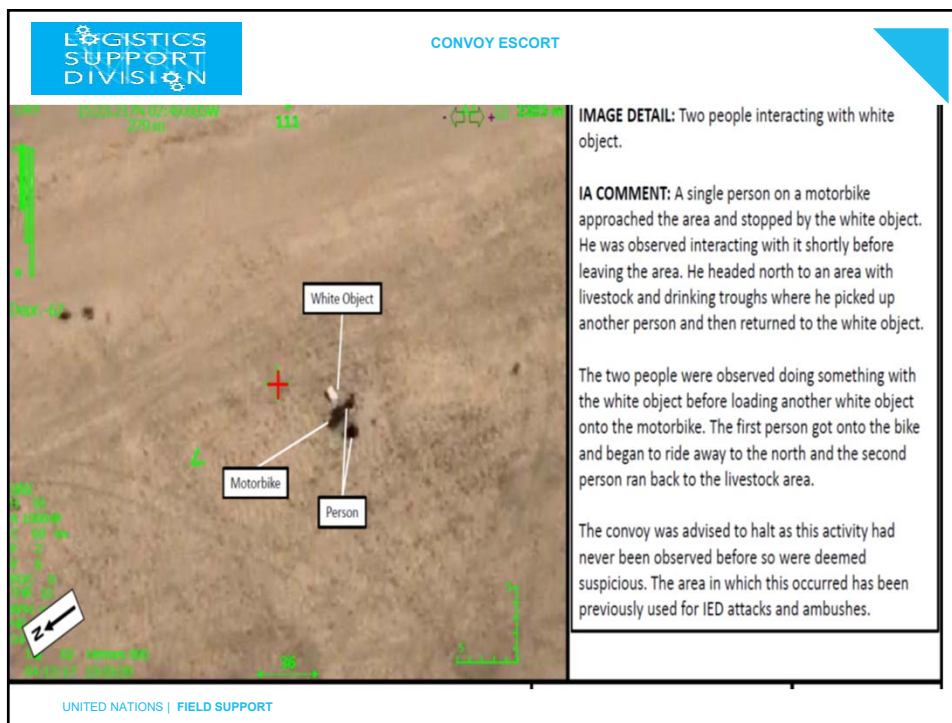
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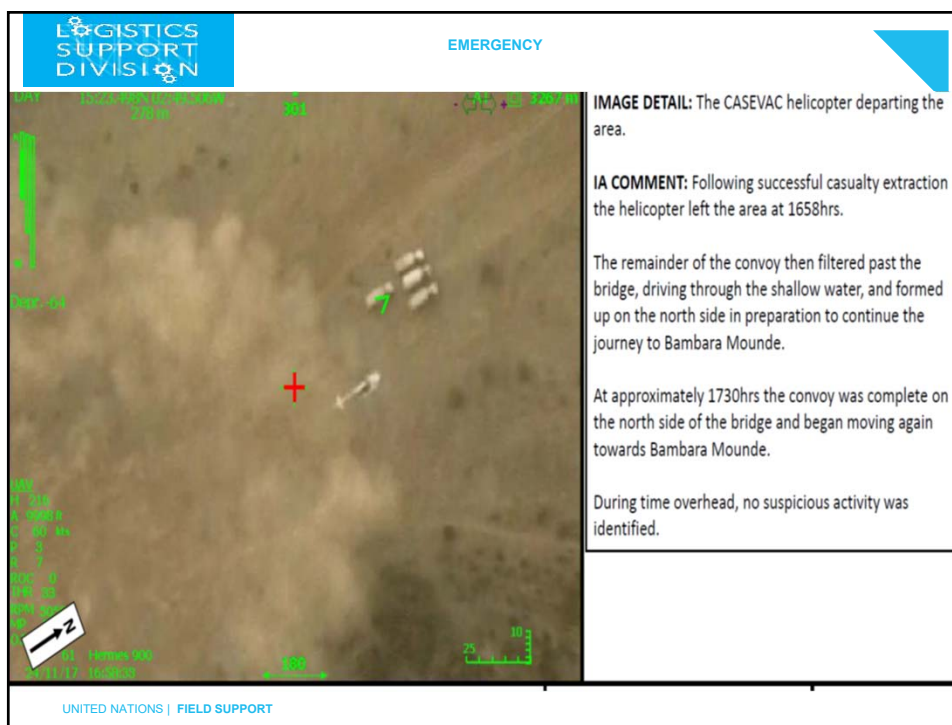
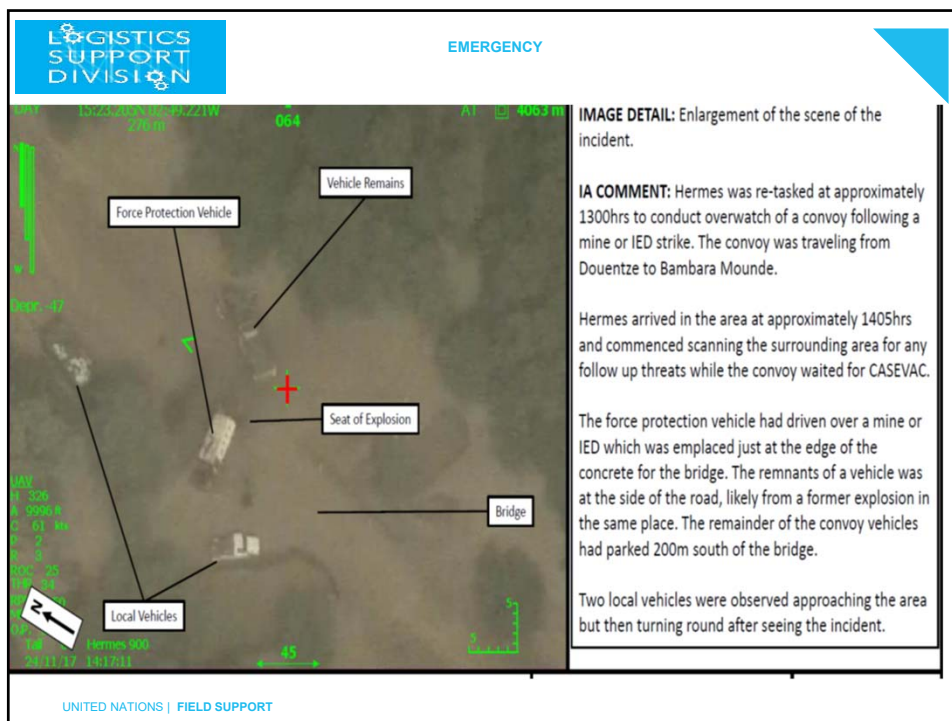
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What are the challenges?

- **Capturing the Requirement.** Requirement → Best Value for Money Solution / Military Solution. No bias to any particular outcome (e.g., “manned ISR?”)
- **Funding the Requirement**—In an increasingly tight financial environment, we must be able support high cost systems with increasingly limited public funds. Simple, flexible solutions with clear measurable benefits / deliverables.
- **Delivering / Supporting the system**—Maintaining complex systems in complex, hostile, austere locations, with problematic supply chains, remains a challenge.
- **Tasking the System** – Full range of stakeholders must be educated (not only military users), and systems applied to full mandate delivery and support.
- **Lack of governance** – international, military, national, UN...
- **Airspace Management Issues** – similar to the complexities found arising with “military operations” taking place in de-segregated airspace.
- **Accessing, analysing, storing and operationalizing the data** – Systems are more than the sensor and aerial platform—policy related to information collected, analysed, stored and shared becomes complex—with implications that could last for many years.





Bringing it together

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Thank you!

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