





Ministry of Defence

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The future of defence logistics; overview of emerging operational requirements

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Although national peace and security policies and national defence ambitions aim for broad organic logistic capabilities, both NATO and the EU (such as its member states) progressively assume a greater role in arranging multinational logistic support solutions.

The Netherlands, for the foreseeable future in her policy, strives to broaden multinational logistic support solutions. This will help us to enhance effectiveness and efficiency and cope with the restraints in budgets.

The benefits multinational logistics brings to us is a potential reduction of the overall defence costs and contribute to the new policy of sharing the burden and it proved for us, to be a path to success.

Although this briefing is predominantly based on multinational cooperation in the field of maintenance and strategic airlift, I believe that the findings to a certain extent can be applied to any other operational logistic function.

I am CDR Royal Netherlands Navy, Ralph Clermont . I am in the J4 Branch in the directorate of operations at MOD-level and in my position, responsible for the planning and coordination of the deployment, the sustainment and redeployment of NLD forces conducting missions world wide.

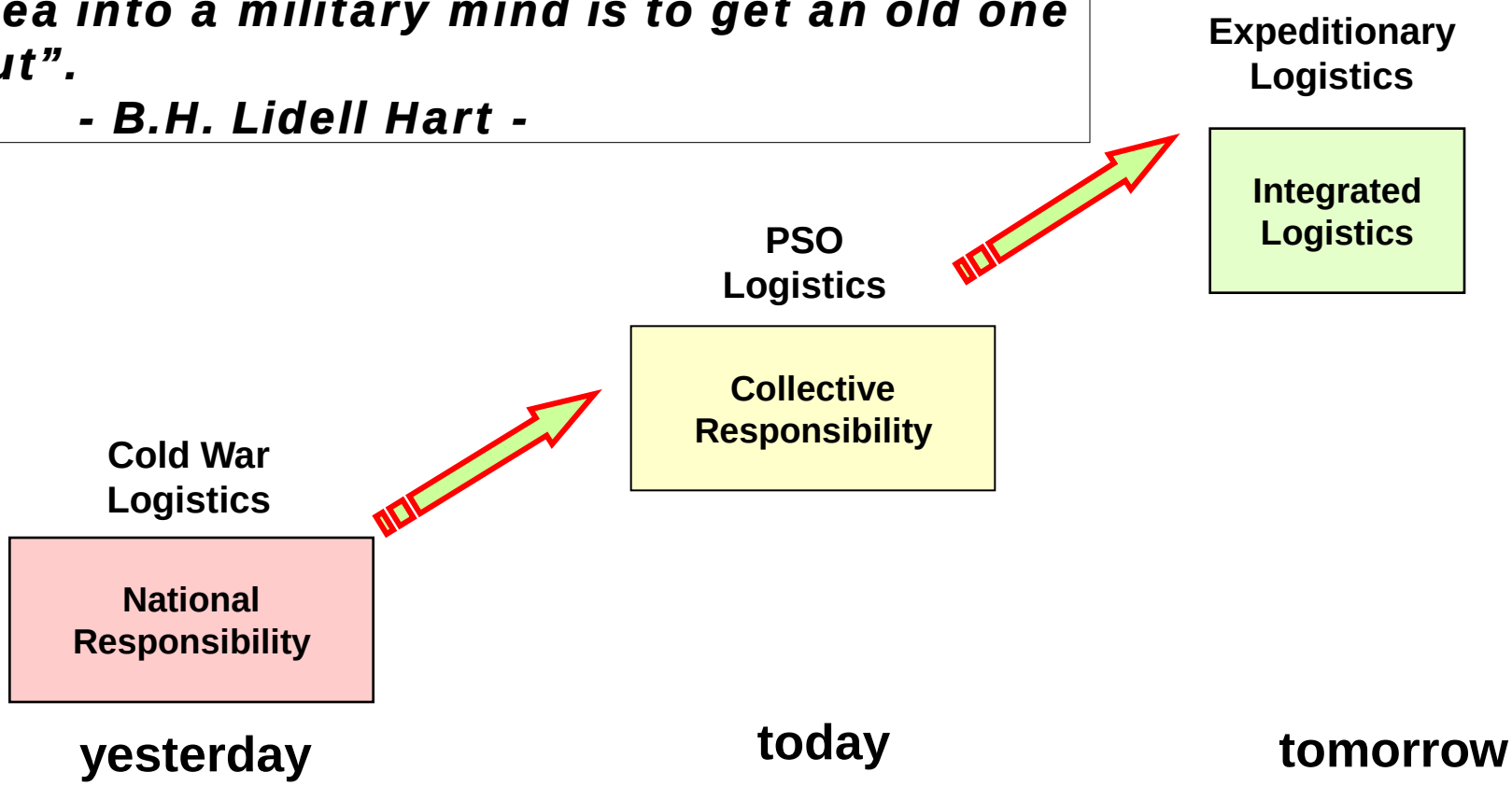
Today and in the future, we will most likely be engaged in multinational military operations conducted with allies or coalition partners as part of an alliance or coalition in an expeditionary environment.



Overall Logistics Policy NATO

"The only thing harder than getting a new idea into a military mind is to get an old one out".

- B.H. Lidell Hart -



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The overall logistics policy in NATO is in transition from national to collective responsibility and will be further developing in the concept of integrated logistics.

In the concept of integrated logistics, the optimal use of shared logistics, Third Party Logistics Support and Host Nation Support is essential.

It is estimated that over 95% of KFOR and ISAF Logistic Support is provided via shared logistics and contractors. Members of every troop contributing nation (TCN) have been moved, fed, fuelled, accommodated or supported in some way or another by multinational and commercial logistic support to NATO Forces in the Balkans and Afghanistan.

In order to ensure that multinational operations are supported effectively and efficiently, participating nations need to coordinate their logistic activities and rationalize and share the use of logistic resources through mutual support arrangements.

Because the participants in multinational operations are sovereign states with their own military establishments, equipment, doctrine, procedures, national cultures, and military capabilities, the logistic support for these operations presents difficult challenges.

Nevertheless, multinational logistics is critical in many situations for smooth synchronized force deployment, efficient use of host nation and theatre contractor resources, and timely distribution/allocation of logistic support with reduced logistic footprints.

I will now further elaborate in two success stories the NLD have been involved.

NLD AH-47D Apache

2006 -2011 5 NLD AH-47D in ISAF theatre
(24% of RNLAF Fleet)

NLD Not able to perform Phased Inspections and overhaul in Afghanistan (every 500 airframe hours)

16 strategic airlift shipments since 2006 till US-NLD H/C support Mutual Support Agreement







The MSA proved to be an effective and efficient concept of support

For many years coalition forces are operating alongside in Afghanistan. Commercial support solutions to a large extent are shared and mostly contracted via NATO's contract integrator NAMSA. Multinational (Third Nation Support) logistic support is not as exploited as commercial support and as common as one would expect, certainly not in the logistic field of maintenance support.

The NLD paved with the US a path to success regarding multinational maintenance support of H/C assets in theatre. The RNLAF was facing major challenges in ISAF regarding the availability of spare parts and the rotation of R/W for phased inspections and overhaul, causing unaffordable asset-downtime and costs. In the strive for a MN solution the NLD established a Mutual Support Agreement with the US to support and maintain their US made Apache helicopters by US forces in Afghanistan, in stead of shipping them back to the NLD for phased inspections and overhaul. Furthermore the NLD established an Acquisition Cross Services Agreement with the US, in order to purchase or swab pares from the central depot in Kandahar for US R/W and F/W assets. These arrangements were implemented relatively fast (4 months), and proved to be excellent and cost beneficial tools to support operations.

An effective maintenance support, which includes all actions taken to retain equipment in, or to restore it to a specific condition, is fundamental to mission success. Maintenance is assessed to be one of the most difficult logistic tasks to be conducted bi- or multinational. The variety in the composition of forces directly

influences maintainability and is one of the key aspects why maintenance is often in purely national hands, ensured by using both military and contractor capabilities. It is obvious that the maximum benefit in this logistic field could be reached if nations do their capability development and planning together from an early stage, including all aspects of life cycle management. Many factors have to be considered. Identical equipment, or at least equipment from the same manufacturer in a distinct area of operation are key prerequisites for both common maintenance as well as shared use of Class II common user items. Specifically, legal restrictions are of key concern as they affect both the maintenance of each other's equipment as well as the exchange of spare parts from another nation due to safety or warranty reasons.

MN logistic support in deployability





Strategic deployability and mobility:
The optimal use of multinational support and sharing capabilities





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In the functional area of deployability and mobility multinational logistic support solutions in operations have proven to be the path to success. Strategic air- and sealift capabilities are becoming increasingly important to quickly respond to today's challenges. The demands will continue to grow as globalization continues and international cooperation expands.

In 1999 NATO's Washington Summit identified and agreed 58 Defence Capability Initiatives (DCIs) shortfalls, included specific shortfalls in the area of Deployability and Mobility. Starting 2000 several nations successful worked together to establish initiatives in this logistic functional area and paved the path to success we benefit from.

I will briefly inform you about initiatives the NLD participates in.

Several European Union and NATO countries took a further step towards better coordinating their strategic air and sea transport and air-to-air refuelling activities, aiming at a more efficient and effective use of the various national and contracted assets. To that extent the Movement Coordination Centre Europe at Eindhoven Airbase is implemented.

MN logistic support in deployability



MCCE









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The MCCE was established on 1 July 2007 and was created by merging the European Airlift Centre (EAC) and the Sealift Co-ordination Centre (SCC). The EAC and SCC had been based at a joint location at Eindhoven Air Base since 2002. This collocation made it possible for the two centres to evolve into one international joint partnership for strategic transport by air, on sea and on land, as well as the coordination of the air-to-air refuelling capability.

The EAC and the SCC were at the time created as a result of the NATO Defence Capability Initiative, adopted in 1999. The two centres proved to be highly successful. The participating nations were able to save millions of Euros as a result of the pooling of assets in order to meet their respective requirement for strategic air and sealift. This coordinated allocation of the transport capability ensured that the available transport assets were utilized as efficiently as possible.

The founding MCCE countries are: Belgium, Canada, Denmark, France, Germany, Hungary, Italy, Latvia, The Netherlands, Norway, Slovenia, Spain, Sweden, Turkey and United Kingdom. Since the foundation many other nations joined the MCCE.

The Mission of the MCCE is to coordinate the use of Sea and airlift and Air-to-Air Refuelling capabilities between participating Nations and thereby improve the overall efficiency of the use of owned or leased assets of the national military organisations.

The Centre is staffed by 30 military and civilians personnel from the participating countries.

The Centre's main focus will be on strategic movements, but not excluding operational and tactical movements. In addition, the Centre will coordinate movement support to EU and NATO during deployment and re-deployment operations. Strategic lift involves transporting troops, equipment and supplies across the globe by air or sea. This makes it possible to utilize the scarce transport assets in a more efficient manner.

Apart from providing support to out-of-area deployments and regular movement of troops, the MCCE also coordinates the air-to-air refuelling of aircraft of the participating nations.

A new development in NATO's mission ISAF is the implementation of the Northern LOC. The MCCE will have a coordinating role for Troop Contribution Nations for the use of this strategic rail-lift in their deployment and sustainment of the mission in Afghanistan.

Strategic Airlift Interim Solution (SALIS)



NATO member countries have pooled their resources to charter special aircraft that give capability to transport heavy equipment across the globe by air.

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Another initiative the NLD participates in is the Strategic Interim Sollution (SALIS). SALIS is a multinational consortium of 18 member countries that have pooled their resources to charter special aircraft that provide the capability to transport heavy equipment across the globe by air.

The consortium includes 16 NATO nations (Belgium, Canada, the Czech Republic, Denmark, France, Germany, Greece, Hungary, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, the United Kingdom) and two Partner nations (Finland and Sweden).

SALIS is chartering six Antonov An-124-100 transport aircraft, which are capable of handling 'outsize' (unusually large) cargo. A single Antonov An-124-100 can carry up to 120 tons of cargo. NATO has used Antonovs in the past to transport troops to and from Afghanistan, deliver aid to the victims of the October 2005 earthquake in Pakistan, and airlift African Union peacekeepers in and out of Darfur.

SALIS



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The Russian and Ukrainian Antonov aircraft are being used as an interim solution to meet shortfalls in the Alliance's strategic airlift capabilities, pending deliveries of Airbus A400M aircraft. This is why the project is called SALIS - Strategic Airlift Interim Solution.

The SALIS contract provides two Antonov An-124-100 aircraft on full-time charter, two more on six days' notice and another two on nine days' notice. The countries have committed to using the aircraft for a minimum of 2000 flying hours per year.

Strategic airlift co-ordination is carried out by the SALIS Co-ordination Cell collocated with the Movement Coordination Centre Europe (MCCE) in Eindhoven, the Netherlands.

Strategic Airlift Capability (SAC) initiative C-17



A key capability for the ANATO alliance

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SALIS is one of the two complementary initiatives aimed at providing NATO with strategic airlift capabilities. The second one is the Strategic Airlift Capability (SAC), under which ten NATO countries plus two Partner countries have decided to acquire, manage, support and operate three Boeing C-17 strategic transport aircraft.

The participants include ten NATO nations (Bulgaria, Estonia, Hungary, Lithuania, the Netherlands, Norway, Poland, Romania, Slovenia and the United States) and two Partnership for Peace (PfP) nations (Finland and Sweden).

Membership in the airlift fleet remains open to other countries upon agreement by the consortium members.

The aircraft operate from Pápa Air Base in Hungary. The first aircraft was delivered on 27 July 2009 with the second and third aircraft following in September and October 2009, respectively. The aircraft is operated by multinational aircrews under the command of a multinational military structure – the Heavy Airlift Wing (HAW). The HAW is manned by personnel from all participating nations.

SAC C-17

- 3 Boeing C-17, operated by Heavy Airlift Wing (HAW)
- cooperation between 10 NATO & 2 PfP countries
- based at Papa Hungary
- capacity 77 ton cargo/4450 km



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The C-17 is a large strategic transport aircraft capable of carrying 77 tons of cargo over 4450 kilometres and is able to operate in difficult environments and austere conditions.

The planes are configured and equipped to the same general standard as C-17s operated by the US Air Force. The crews and support personnel are trained for mission profiles and standards agreed by the countries.

The SAC aircraft are used to meet national requirements, but could also be allocated for NATO, UN or EU missions, or for other international purposes. The Heavy Airlift Wing has flown missions in support of ISAF and KFOR operations, for humanitarian relief activities in Haiti and Pakistan and peacekeeping mission in Africa.

In addition, to SALIS and SAC there are national procurement programmes in place to improve airlift capabilities, including the acquisition by seven NATO nations of 180 A400M aircraft, and the purchase by Canada, the United Kingdom and the United States of C-17s for national use. The NLD approach is based on pooling resources and sharing capital investment to provide strategic lift capabilities. Pooling capabilities proved to be a cost effective method to meet national lift requirements that would be difficult to achieve individually without multinational effort.

European Air Transport Command (EATC)







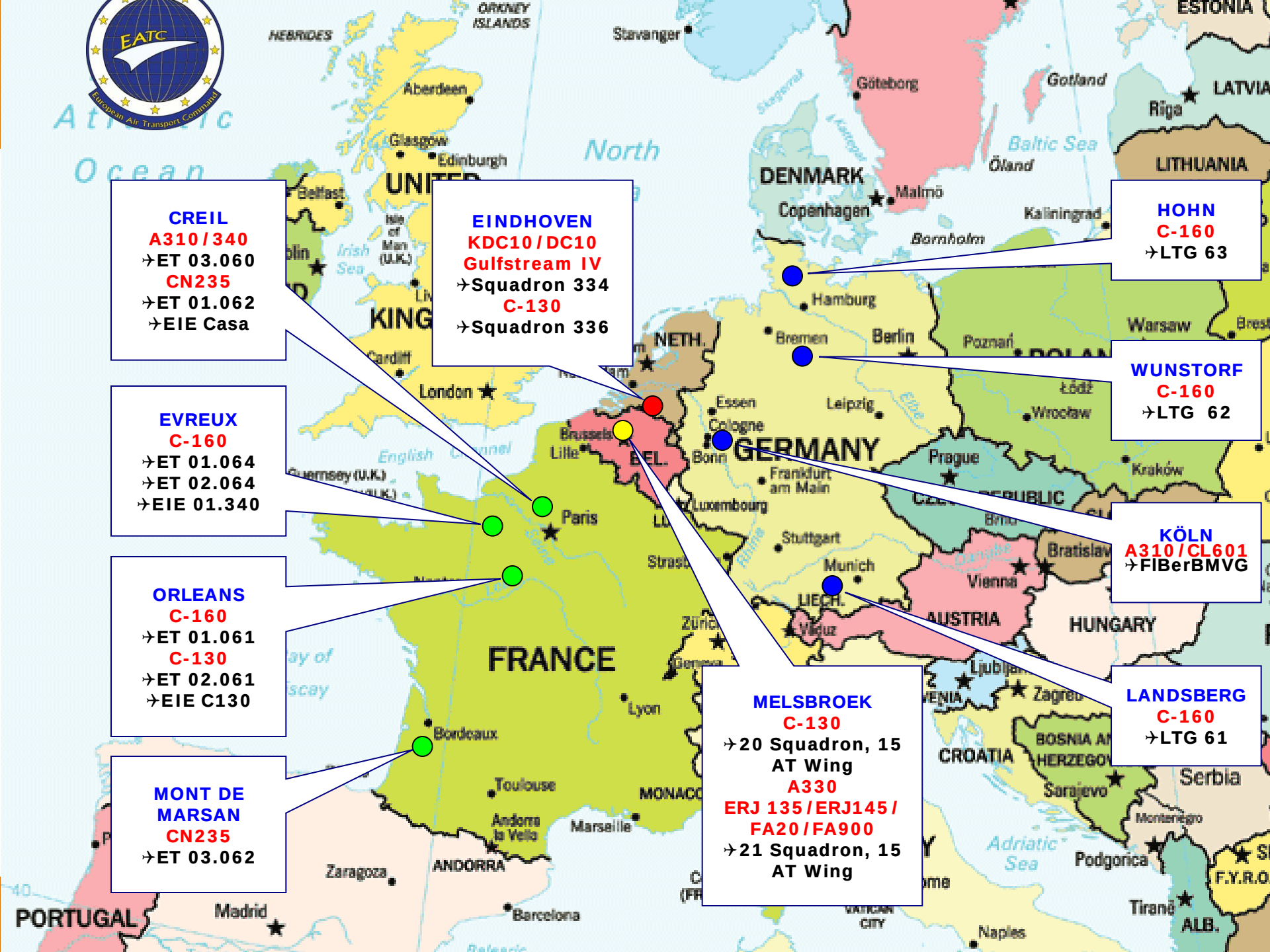


A new air command integrating European Air Transport Capabilities

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The initiative for the creation of an European Air Transport Command (EATC) dates back to the Franco-German Summit at Strasbourg in November 1999. At that time already both Ministers of Defence and Heads of Government announced the intent of creating such command. Ultimately four nations, Belgium, France, Germany, the Netherlands, succeeded in developing a common concept that was signed in May 2007.

The EATC was established in September 2010. The new command consists of a headquarters that is responsible for the coordination of all aspects of military air transport, such as planning and execution of missions, training, and flight safety. Until the inception of the EATC, the existing cooperation was focussed mainly on planning, but the newly established command has been given more powers and is authorized to determine how and where the aircraft will be made available.


CREIL
A310/340
✈ET 03.060
CN235
✈ET 01.062
✈EIE Casa
EINDHOVEN
KDC10/DC10
Gulfstream IV
✈Squadron 334
C-130
✈Squadron 336
HOHN
C-160
✈LTG 63
WUNSTORF
C-160
✈LTG 62
EVREUX
C-160
✈ET 01.064
✈ET 02.064
✈EIE 01.340
KÖLN
A310/CL601
✈FlBerBMVG
ORLEANS
C-160
✈ET 01.061
C-130
✈ET 02.061
✈EIE C130
MELSBROEK
C-130
✈20 Squadron, 15 AT Wing
A330
ERJ 135/ERJ145/ FA20/FA900
✈21 Squadron, 15 AT Wing
LANDSBERG
C-160
✈LTG 61
MONT DE MARSAN
CN235
✈ET 03.062
FRANCE
GERMANY
DENMARK
PORTUGAL
ANDORRA
AUSTRIA
HUNGARY
CROATIA
Serbia
Paris
London
Madrid
Barcelona
Naples
Munich
Vienna
Prague
Hamburg
Berlin
Bremen
Cologne
Frankfurt am Main
Stuttgart
Zürich
Lyon
Marseille
Bordeaux
Toulouse
Andorra la Vella
Zaragoza
Brussels
Luxembourg
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Bonn
Bratislava
Ljubljana
Zagreb
Sarajevo
Podgorica
Tirana
Gotland
Öland
Bornholm
Hebrides
Orkney Islands
Atlantic Ocean
North Sea
Baltic Sea
Irish Sea
English Channel
Bay of Biscay
Adriatic Sea
Isle of Man (U.K.)
Guernsey (U.K.)
NETH.
BEL.
LIECH.
ESTONIA

The EATC started its operations on 1 September 2010. The beginning of 2011 the EATC, including its 160-strong establishment, reached the fully operational status and obtained “Operational Command” for Air Transport and Air-to-Air Refuelling assets of signatory nations.

The aim of the EATC is to attain more efficient allocation and improved coordination of the air transport and tanker aircraft of the four participating nations. Furthermore, to increase both effectiveness and efficiency in the employment of existing assets, the Concept foresees efforts to harmonize rules and regulations for employment, training and exercises and technical and logistical support.

As A400Ms enter service, they are expected to become part of EATC. All planes will continue to be stationed and maintained on the air bases of the participating countries. Even so, EATC participants expect to benefit from more “surge” capability available at need, as well as greater efficiencies in overall fleet use.

Apart from the founding four nations, the EATC initiative is open to participation from other nations as well. Spain has already taken a first step towards that goal by posting an active observer to the EATC and Luxembourg has signed a Letter of Intent and will join with her A-400M capability.

MN logistic support in deployability

EATC Fleet							
BEL		FRA		DEU		NLD	
11	C-130	11	C-130	68	C-160	4	C-130
1	A330	31	C-160	5	A310	2	KDC-10
2	ERJ135	10	Casa 235	1	C-160 MED*	1	DC-10
2	ERJ145	3	A310	2	A310 MED*	1	Gulfstream
2	Falcon 20	2	A340	2	A319 MED*		
1	Falcon 900			4	CL-601 MED*		
				*MEDEVAC A/C (after national release)			
19		57		82		8	
166							

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The previous slide is an overview of the disposition of the capabilities that are under operational command and control of the EATC. The fleet consists of a total of 166 Fixed Wing airplanes.

The military air transport aircraft core involves C-160 Transall in France and Germany, C-130H Hercules transports in Belgium & Holland, but also includes other aircrafts as CASA CN235 light transports, Airbus A310s (some with aerial refueling capability), Airbus A340s, KDC-10 aerial tankers, one DC-10, and a variety of liaison and VIP aircraft from participating countries Belgium, France, Germany, and the Netherlands.

MN logistic support the principles

Multinational logistic operations are governed by unique principles:

- collective responsibility
- sufficient authority to Force Commander
- coordination and cooperation
- visibility of capabilities
- etc.







In my brief I focused on the Multinational support and cooperation in the logistic functions of maintenance and movement. I am convinced that in future, operations will be to a maximum extent possible, supported by multinational logistic support in all logistical functions.

Multinational logistic support is critical in many situations for smooth synchronized force deployment, efficient use of host nation and theater contractor resources, and timely distribution/allocation of logistic support with reduced logistic footprints. Each type of multinational operation and organizational structure has distinctive features especially regarding command and control (C2), funding, degree of doctrinal standardization, force interoperability, and logistics preplanning. These variable features place a premium on developing flexible multinational logistic support concepts that can be tailored to effectively respond to a broad range of contingencies.

In order to ensure that multinational operations are supported effectively and efficiently, participating nations need to coordinate their logistic activities and rationalize and share use of logistic resources through mutual support arrangements. Because the participants in multinational operations are sovereign states with their own military establishments, equipment, doctrine, procedures, national cultures, and military capabilities, the logistic support for these operations presents difficult challenges.

Combat Service Support









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Successful multinational logistic operations are governed by unique principles. First, multinational logistic operations are a collective responsibility of participating nations and the force commander, although nations are inherently responsible for supporting their forces. Nations are reluctant to give the Force commander directive authority for logistics.

Nevertheless, a second principle is that FCDR should be given sufficient authority over logistic resources to ensure that the force is supported in the most efficient and effective manner.

Third, cooperation and coordination are necessary among participating nations and forces, which should make use of multinational logistic support arrangements in order to reduce the logistic footprint in the operational area.

Finally, synergy results from the use of multinational integrated logistic support; to ensure this, the Force commander must have visibility of the logistic activity during the operation.



Questions?

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To summarise, today and in the future we will be most likely be engaged in multinational military operations. The consideration and optimal use of shared logistics, Third Party Logistic support and Host Nation Support is essential to cope in future theatres and their environment.

The mutual support agreement between US and NLD for R/W in ISAF en the successes in sharing strategic lift capabilities have revealed and proved that that multinational logistic support is efficient and effective.

However, a paradigm shift will be required both in NATO and EU as in individual nations to make this work, as multinational logistic operations are governed by unique principles.

Thank you.