



Royal Netherlands Air Force

Royal Netherlands Air Force

From the past
to the future

Colonel Bertil van Geel
NLD Air Force Pilot



Agenda



Where do NLD and RNLAf stand?

Post Cold War experiences

The present

Future developments

Agenda

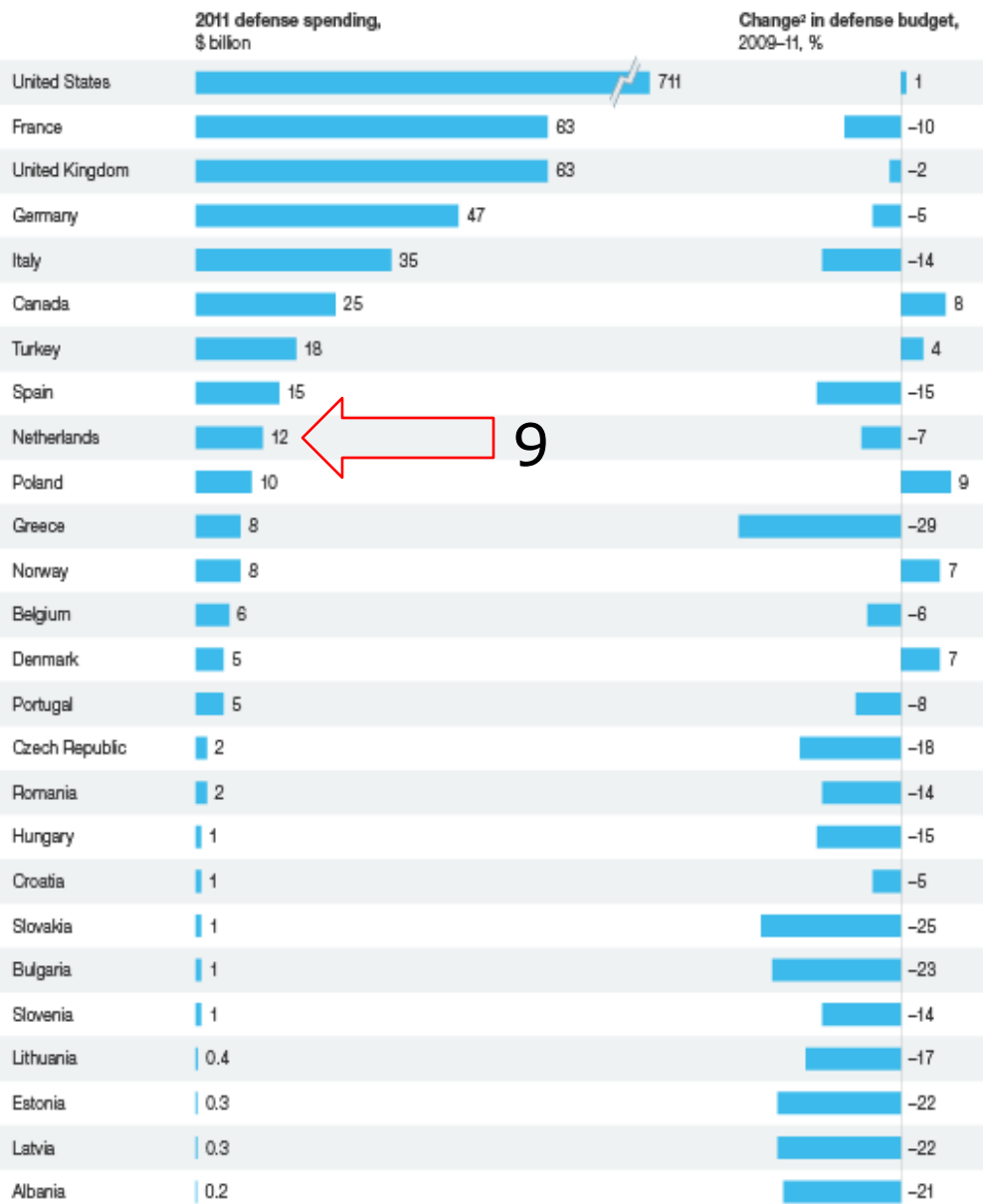


Where do NLD and RNLAf stand?

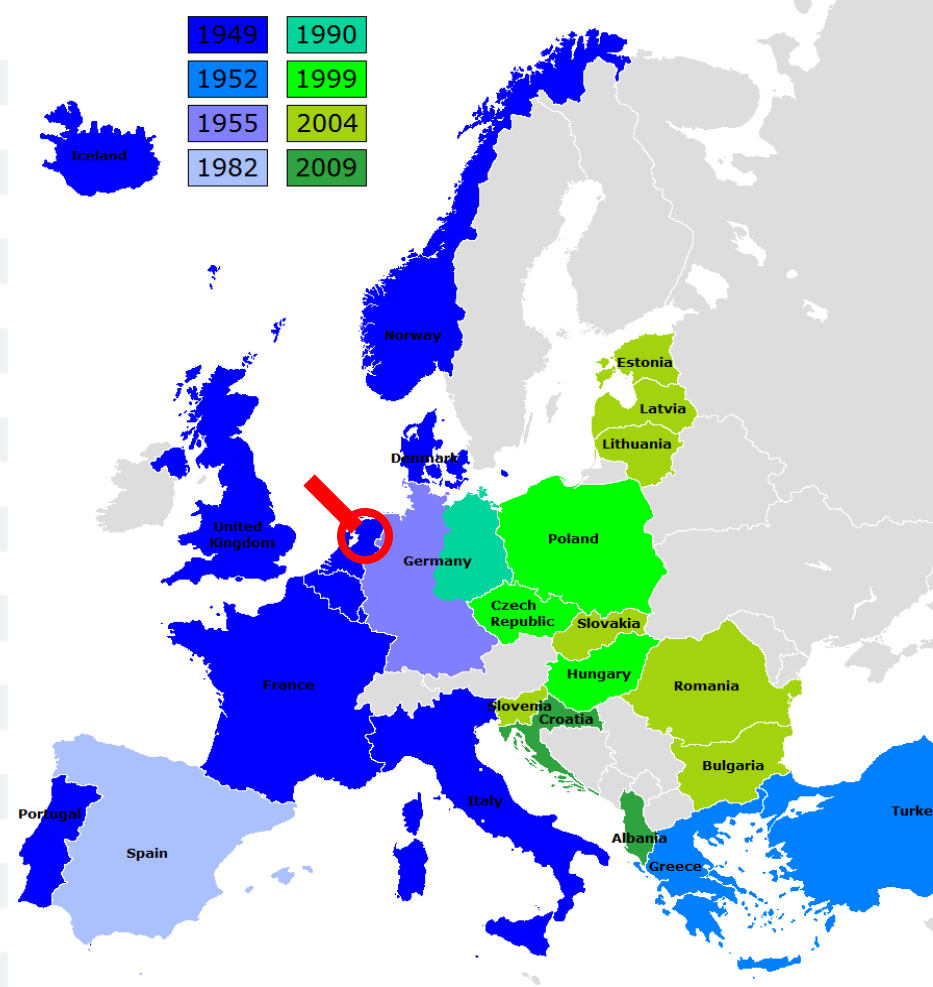
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← 9



¹North Atlantic Treaty Organization; excludes Iceland and Luxembourg due to lack of data.
²Constant 2010 dollars.
 Sources: Stockholm International Peace Research Institute

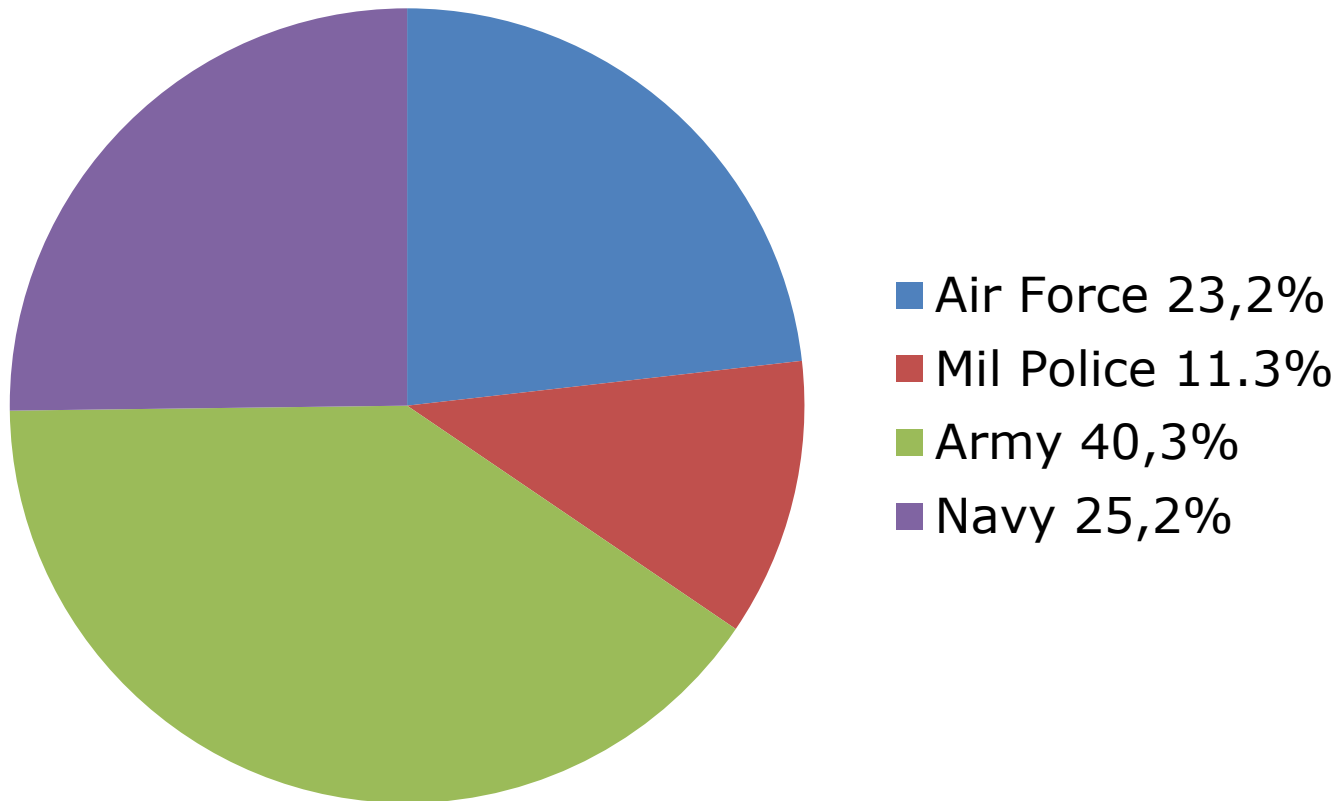
Royal Netherlands Air Force
 One Team, One Mission

NLD Defense budget

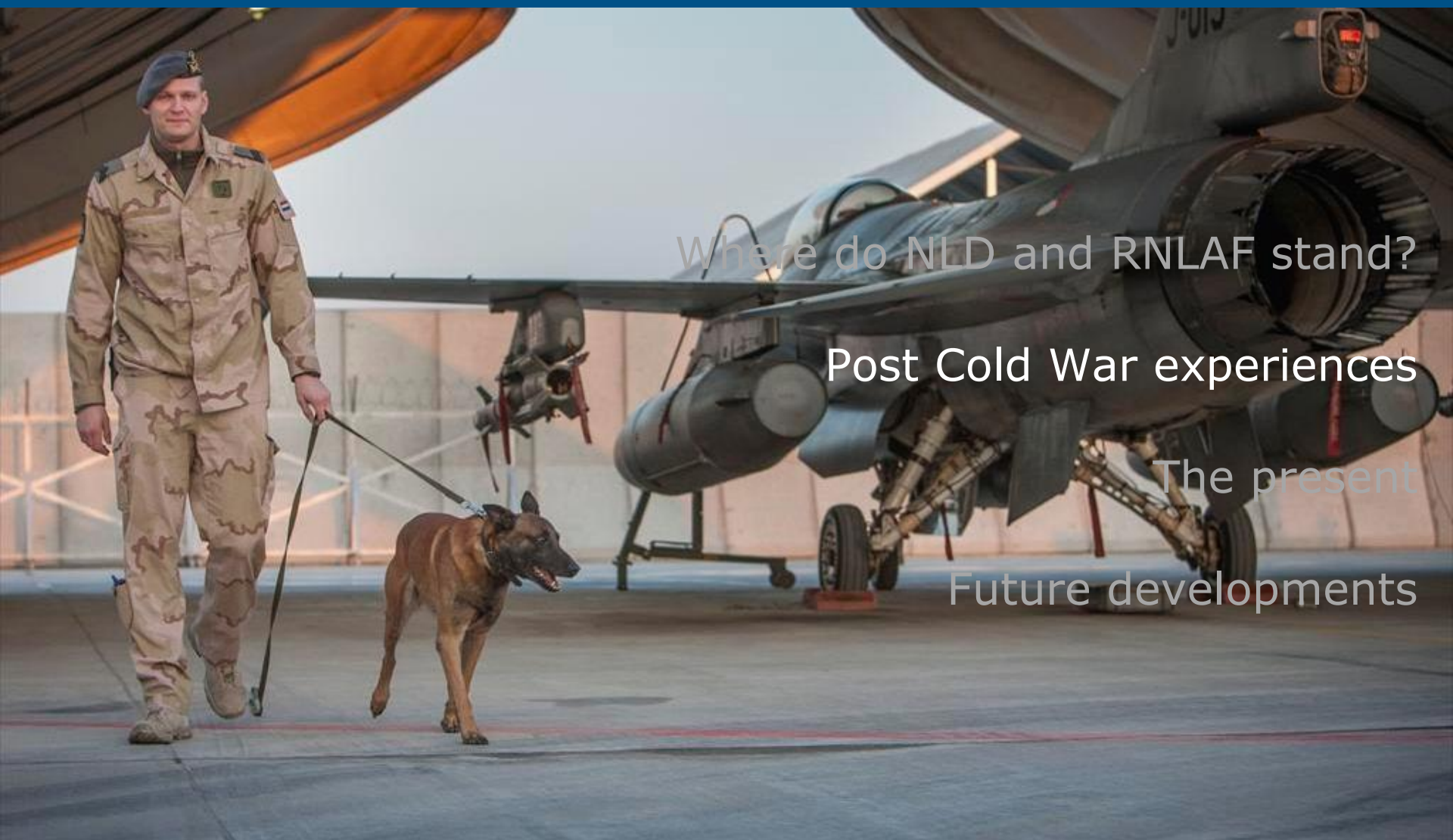


NLD 2014 TOTAL: 8 Billion Euro / 1.6 Billion Euro (20%) investments

Budget breakdown:



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1991	1998	2006	2014
FIGHTER AIRCRAFT			
181 F-16 A/B	170 F-16 A/B	108 F-16 MLU	61 F-16 MLU
TACTICAL TRANSPORT AIRCRAFT			
12 Fokker F-27	2 C-130 Hercules 6 Fokker F-50/60	2 C-130 Hercules 6 Fokker F-50/60	4 C-130 Hercules 2 Dornier 228
STRATEGIC TRANSPORT AIRCRAFT / TANKERS			
None	2 KDC-10 1 Gulfstream G-IV	2 KDC-10 1 Gulfstream G-IV	2 KDC-10 1 Gulfstream G-IV
ATTACK HELICOPTERS			
None	12 AH-64A	29 AH-64D	29 AH-64D
TRANSPORT HELICOPTERS / SAR HELICOPTERS			
40 Alouette III 27 Bölkow 105	13 Chinook CH-47 17 Cougar AS-532 4 AB-412 SAR 4 Alouette III 27 Bölkow 105	13 Chinook CH-47 17 Cougar AS-532 4 AB-412 SAR 4 Alouette III	4 AB-412 SAR 8 Cougar AS-532 17+3 Chinook CH-47 4 Alouette III 13+7 NH-90
GROUND BASED AIR DEFENSE			
4 Patriot Batteries 16 HAWK Fire Units 25 Flycatchers/75 guns 100 Stingers	4 Patriot PAC-II 16 HAWK Fire Units 25 Flycatchers/75 guns 100 Stingers	4 Patriot PAC-III 60 Stingers	3 Patriot PAC-III (NLD Army now)
PERSONNEL			
12.500 regular 3.500 conscript 11.200 reservists	11.800 regular 10.000 reservists	10.600 regular 3.000 reservists	9.500 regular 500 reservists

+ NATO:

SAC C-17
NAEW
RQ-4 (>2016)

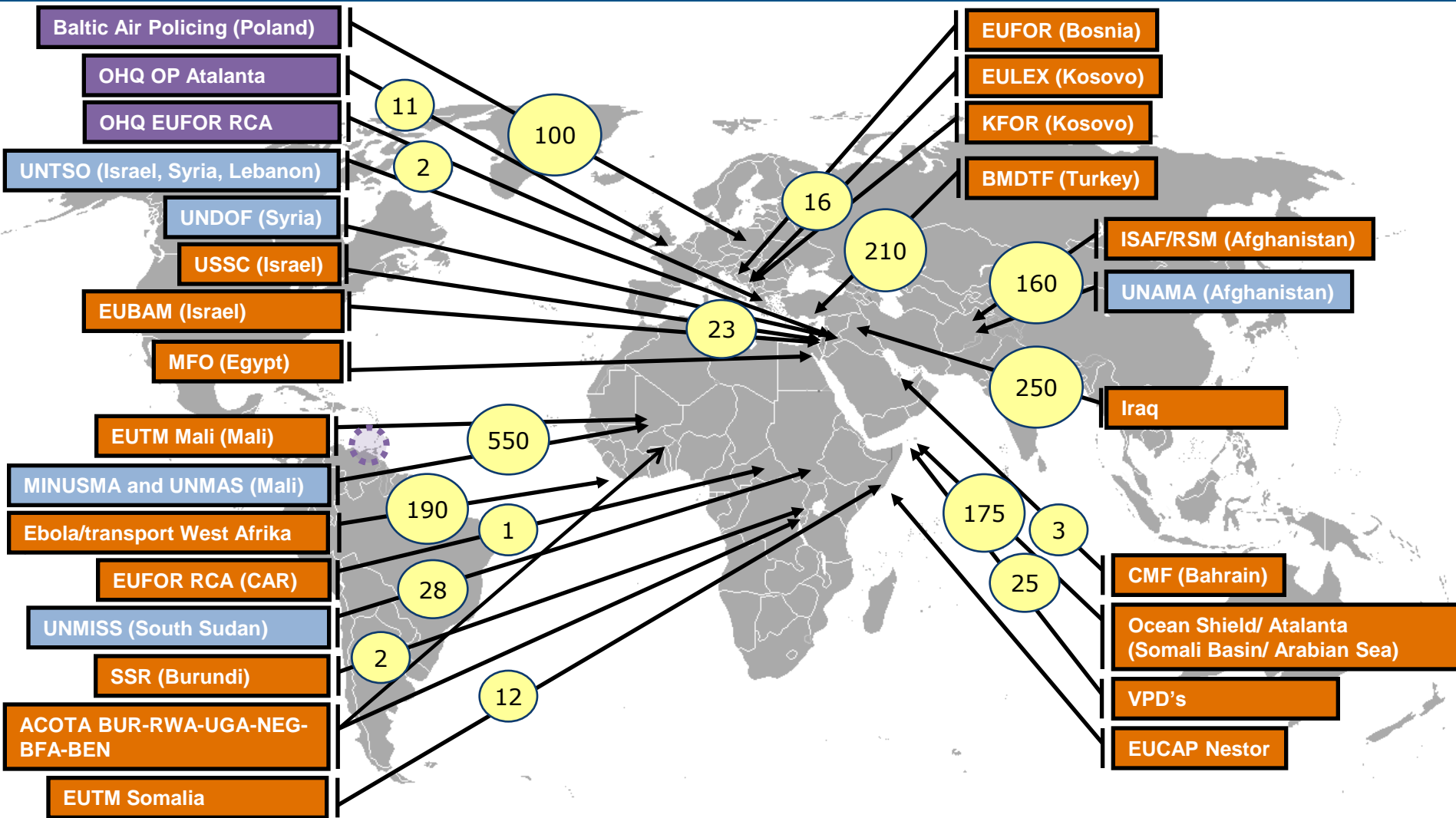
Post Cold War Operations



International operations



Circa
1.700





POLITICS and OPERATIONS, what did we learn?

- BALKANS / KOSOVO 1999 : ALLIED FORCE
- AFGHANISTAN 2002-2014 : ISAF / OEF
- LIBYA 2011 : UNIFIED PROTECTOR

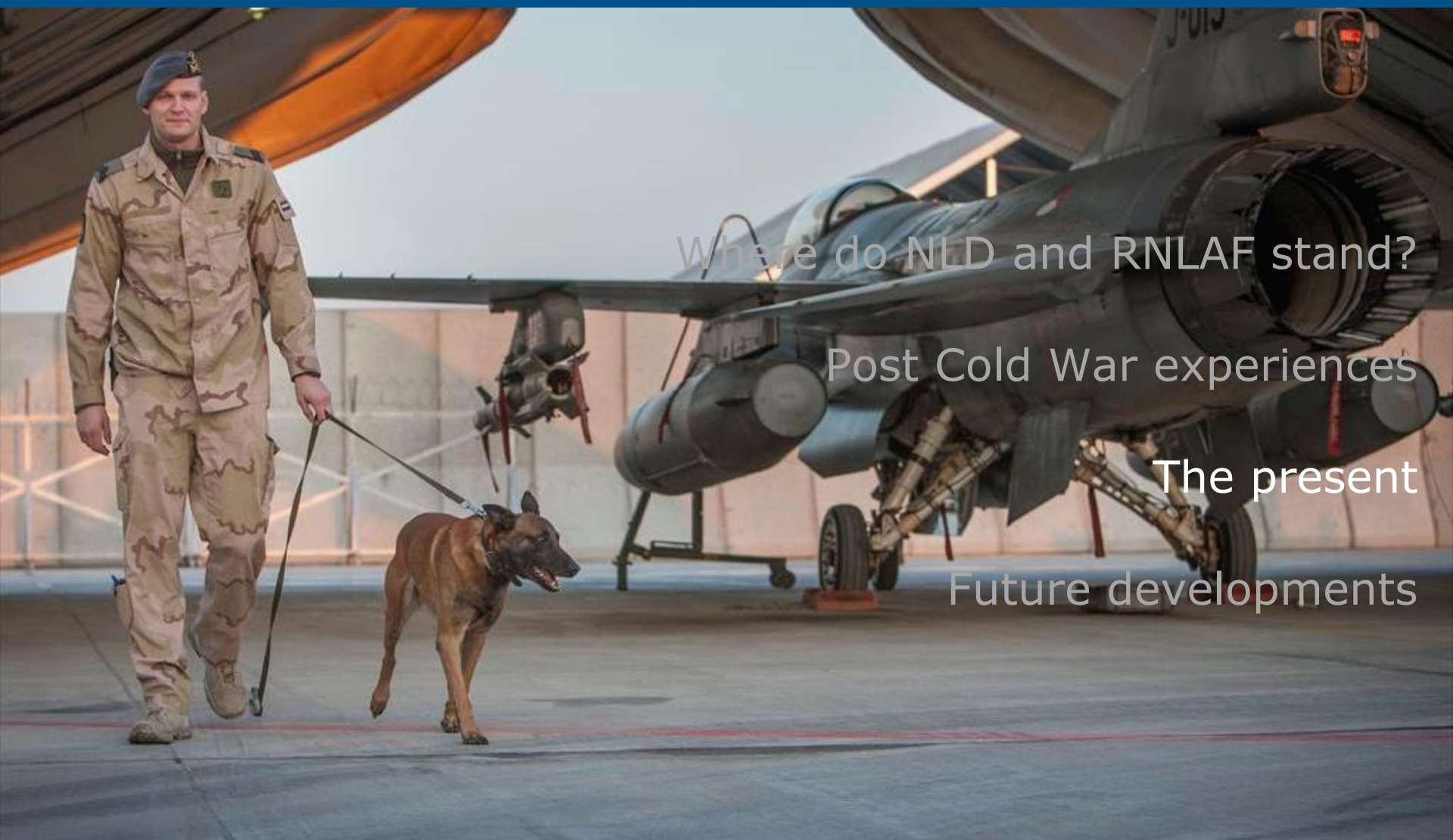
CULTURE / ACCOUNTABILITY

HOW did the RNLAF adapt?

- STRUCTURE / BEDDOWN
- EQUIPMENT
- TRAINING
- COOPERATION



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From the past, to the presentand the future



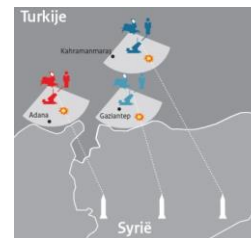
NL White Paper (2013): In the interest of the Netherlands





Small but capable Armed Forces

- high-tech en multifunctional capacities
- Professional and well trained personnel
- High quality in operations / missions
- All types of conflict / full spectrum warfare
- Intensive cooperation – building bridges



However

-Very limited sustainability



Missions



Train
PC-7 (13)



Observe

F-16 Recce Lite
MQ-9 (4) 2016
NAEW
NATO RQ-4 2016



KDC-10 (2)
C-130 (4)
G-IV (1)
CH-47 (17+3)
Cougar (8)
NH-90 (20)
C-17 Papa

Transport



F-16 (61)
AH-64 (29)

Attack

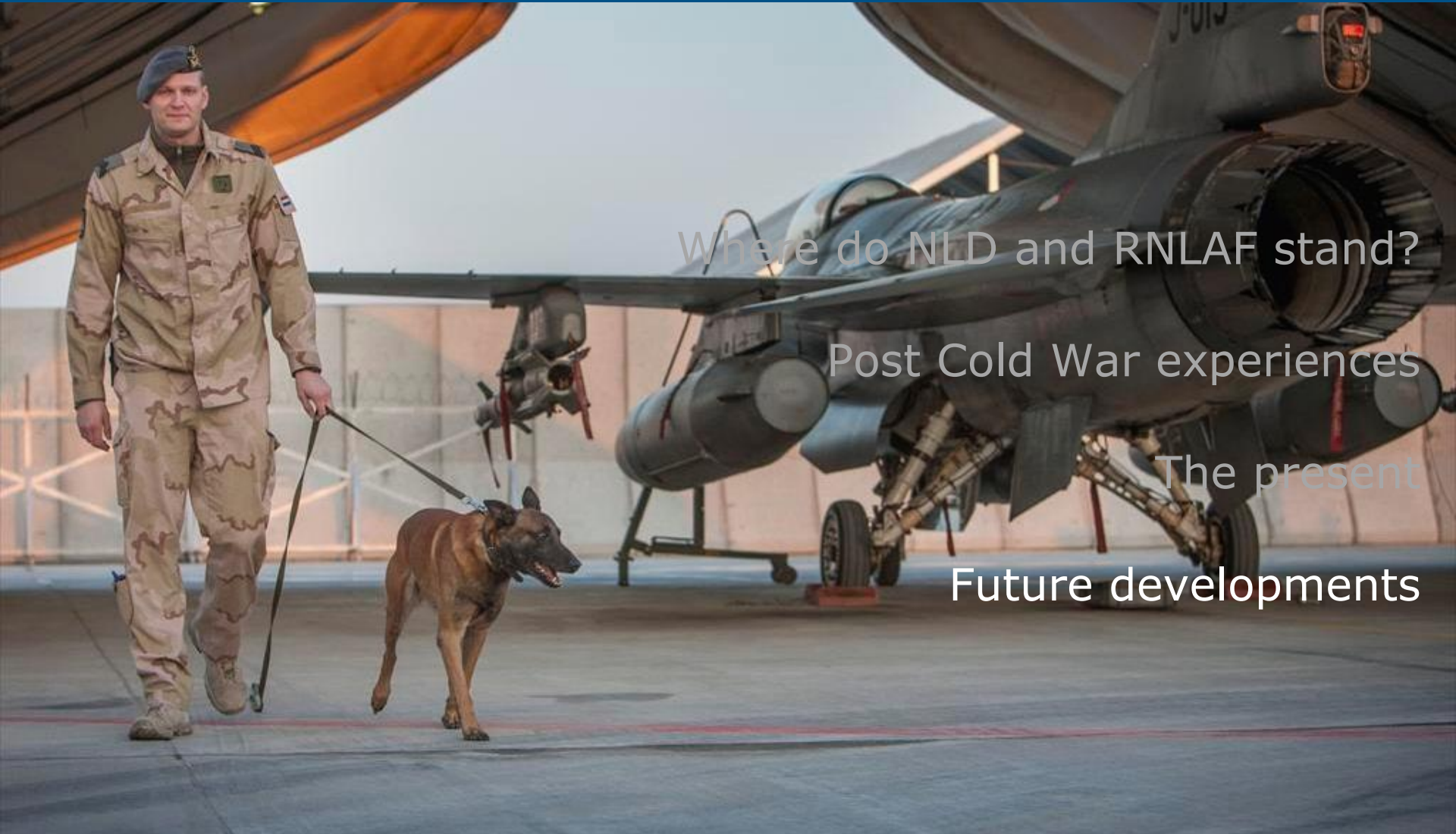


Protect

F-16 (61)
Patriot (3)
Army



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RUSSIA, ISIL AND WALES

- RUS-UKR → NATO 'New Normal'
- MH-17, NLD JIHAD FIGHTERS
- POLITICAL BREAK IN THE DOWNWARD TREND



- AMBITION FIRST: OUTPUT → INPUT

Transformation



New platforms

- MQ-9
- F-35



New systems

- Space
- Mission simulation
- Networked capabilities

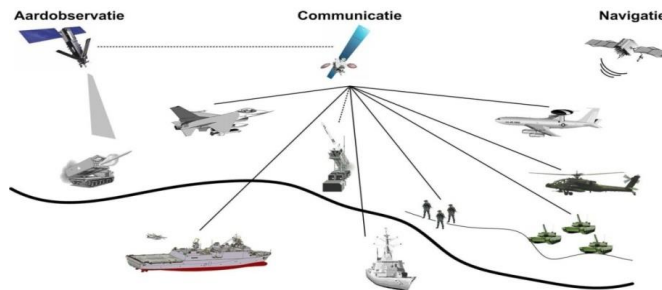


New Cooperation

- Benelux
- Airlift, MRTT EU
- 'Golden triangle'



Education / Air C2



Questions?





Questions?



Air Force 3.0



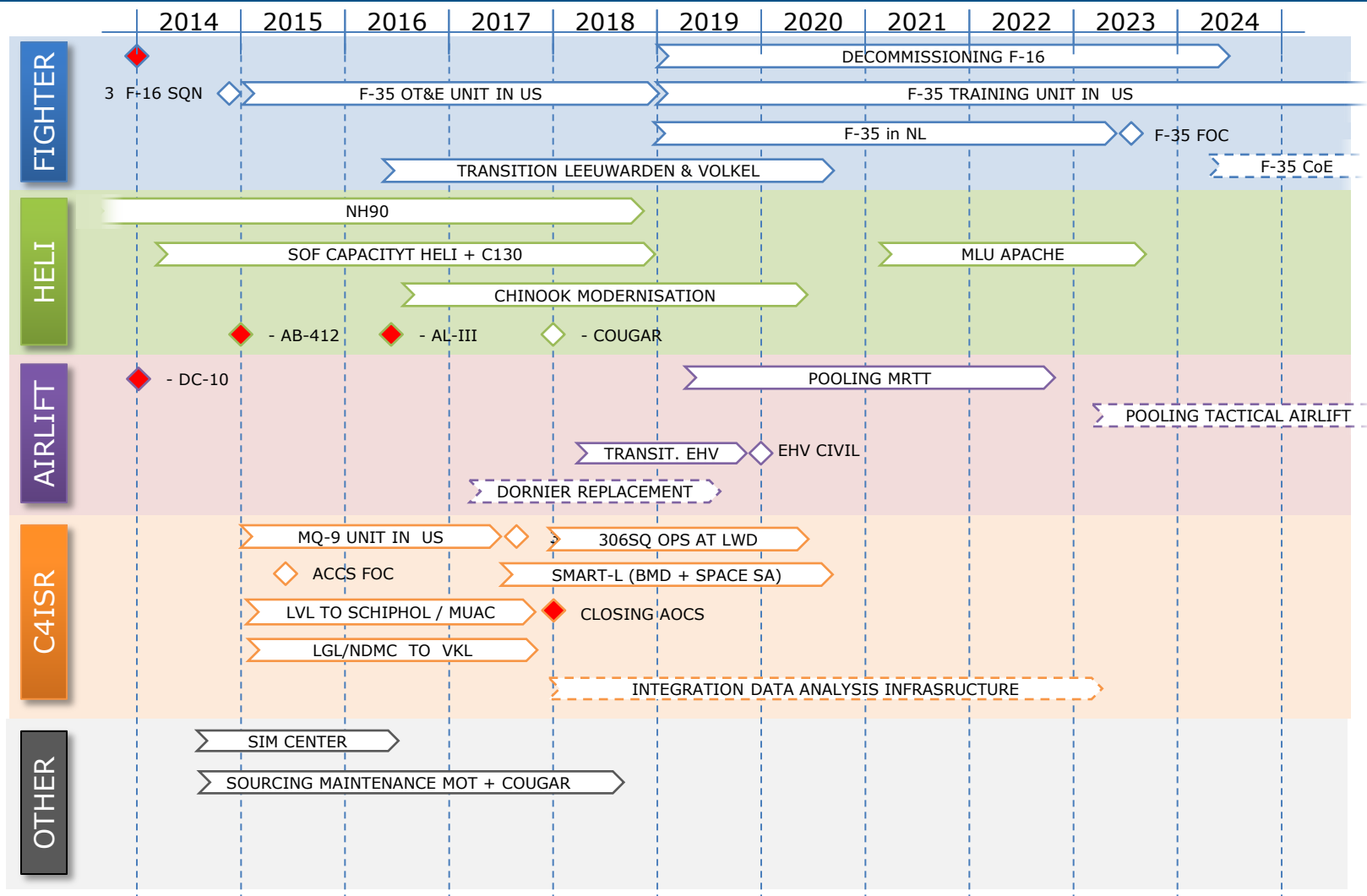


What is CLSK 3.0?

- Reinventing the Air Force
- Not once, but continuously
- Airmen and women take centre stage
- Innovation in all areas:
 - Operations
 - Training
 - Sustainability
 - Business processes
 - Support
 - Etc.

Characteristics of CLSK 3.0

- Adaptive and flexible
- High-tech
- Focussed on realizing joint/combined effects
- Accepting dependencies
- Innovation as continuous process





Priorities CHoD

- Operational Effort
- Personnel
- Cooperation
- Financial sustainability

Investing in the future

- Investment percentage 20%
- Personnel
- Reinforcing operational sustainability
 - Information-driven operations
 - Professionalisation of intelligence and security chain
 - Accelerated introduction of cyber capability
 - Unmanned systems, Space
 - Further development of 3D-capabilities
 - Restrictions on logistic requirements
- Intensification of cooperation
 - National
 - International





Most important choices

- Composition of the Armed Forces and mission sustainability
 - Secure required mix of basic capabilities
 - Reduction in mission sustainability and lowering of deployability targets (duration and scale of missions)
 - Maintain niche capabilities to limit NATO shortfalls
- Restore balance between tasks and resources
 - Adapt deployability targets to resources
 - Helicopter capability (match demand and supply)
- Successor to F-16
 - F-35A selected
 - Budget constraints





Required Capabilities

'There is no standard formula for military deployment. The many different interests, strategic functions, mission types, specific operational circumstances and risks decide, from the military perspective, which combination of capabilities is required.'

- Focus on people
People are the most important asset of the Armed Forces. The Defence organisation's ability to adapt itself is highly dependent on the knowledge and skills of its personnel
- Basic capabilities
Capabilities the armed forces cannot do without or which are needed for specific statutory tasks. These capabilities must therefore remain available nationally
- Niche capabilities
In NATO/EU context: scarce capabilities



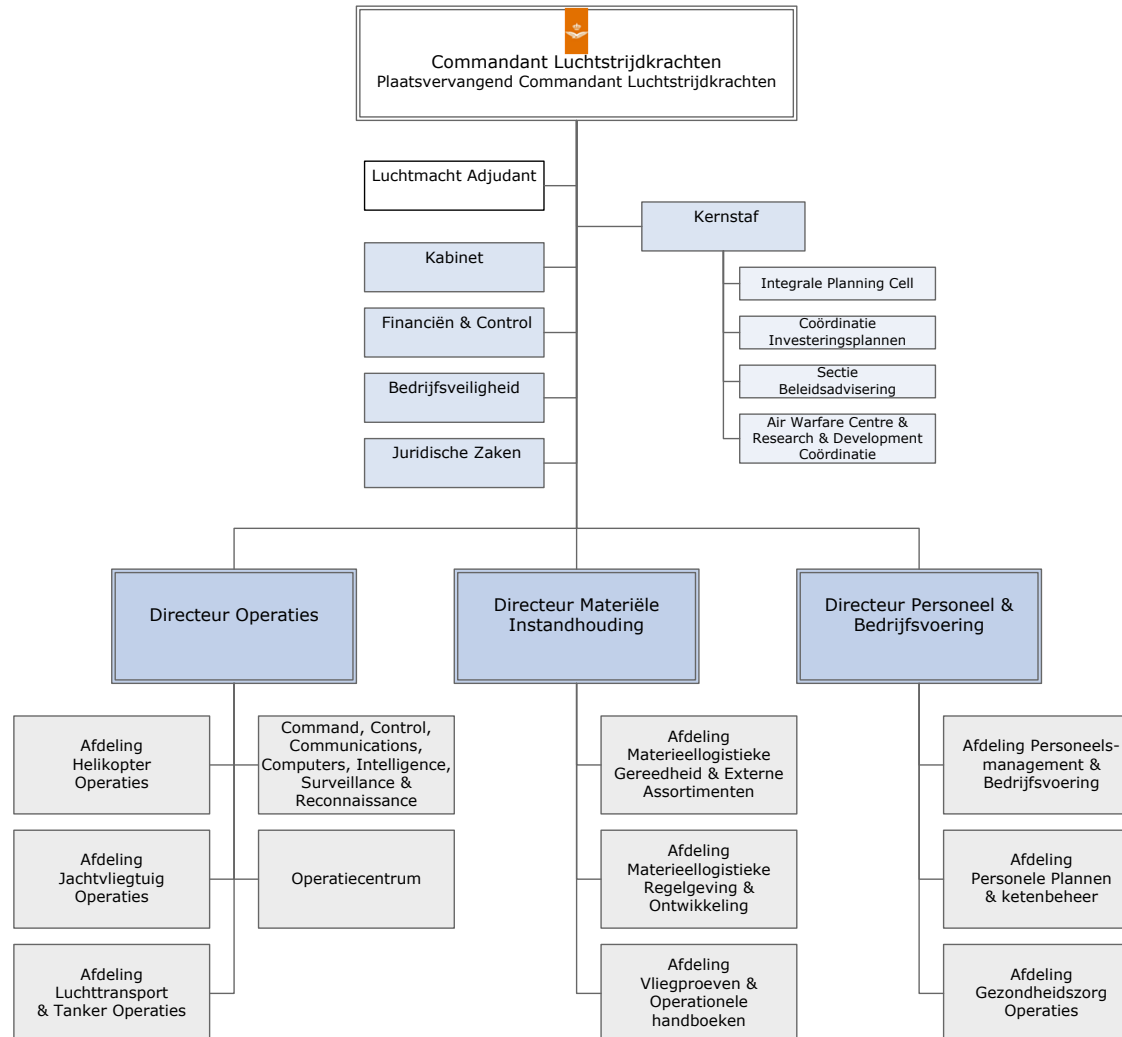
F-16 from 68 to 61, from 4 to 3 sqns	2014
ATC relocated to Schiphol, AOCS closed	2018
F-35 to replace F-16 (minimum 37)	2019+
Airlift through international pooling	2020+



Consequences – Deployability Objectives

	Deployability Capes <u>before</u> White paper	Deployability Capes <u>after</u> White paper
Land	1x Brigade Task Force or 2x prolonged deployments of Batallion Task Group (BTG)	1x Brigade Task Force or 1x prolonged deployment of BTG 1x short deployment of BTG
Sea	1x MTG or 2 prolonged depl	1x MTG (5 Ships) or 2 prolonged depl
Air	1x deployment of 14 F-16s or 1x prolonged deployment of 8 F-16s	1x deployment of 8 F-16s (4 F-35s) or 1x prolonged deployment of 4 F-35s
Other		Defensive and Offensive Cyber Ops Deployment of niche capabilities

Organization



National Ops and Relief Ops



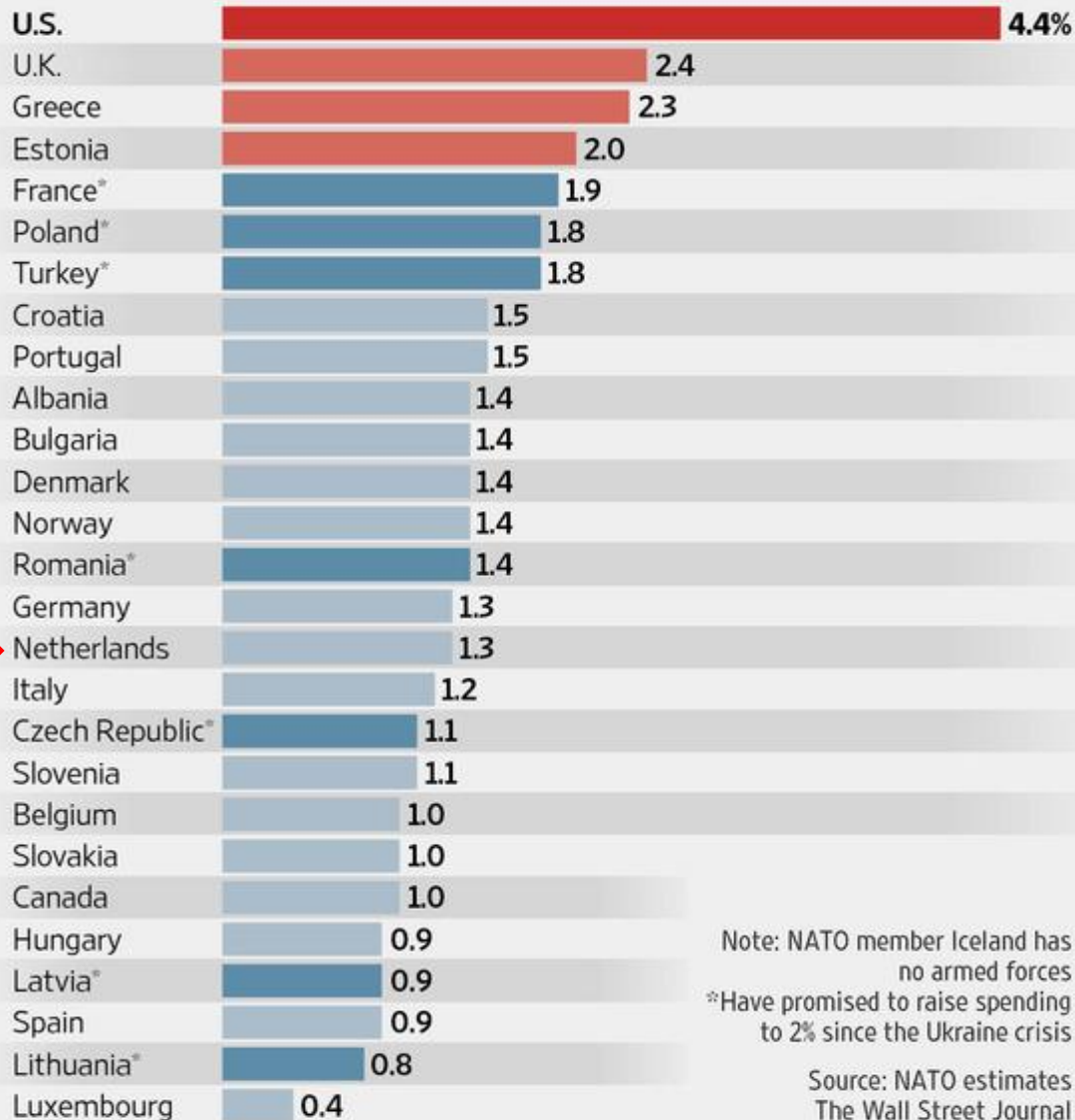
Current Operations



NATO's Defense Divvy

NATO recommends that countries' defense expenditures equal at least 2% of GDP, but only four countries currently meet that recommendation.

Defense expenditures as a percentage of GDP, 2013



16

Note: NATO member Iceland has no armed forces
*Have promised to raise spending to 2% since the Ukraine crisis

Source: NATO estimates
The Wall Street Journal