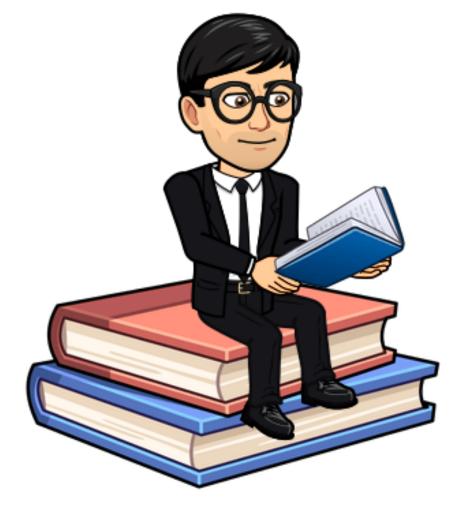
NATO and Ukraine: Deterrence and Defense

Andrea Gilli, PhD Lecturer, University of St Andrews Visiting Fellow, Istituto Affari Internazionali Senior Advisor, Office of the Undersecretary of Defense, Italy

(with the support of the U.S. Embassy in Italy)

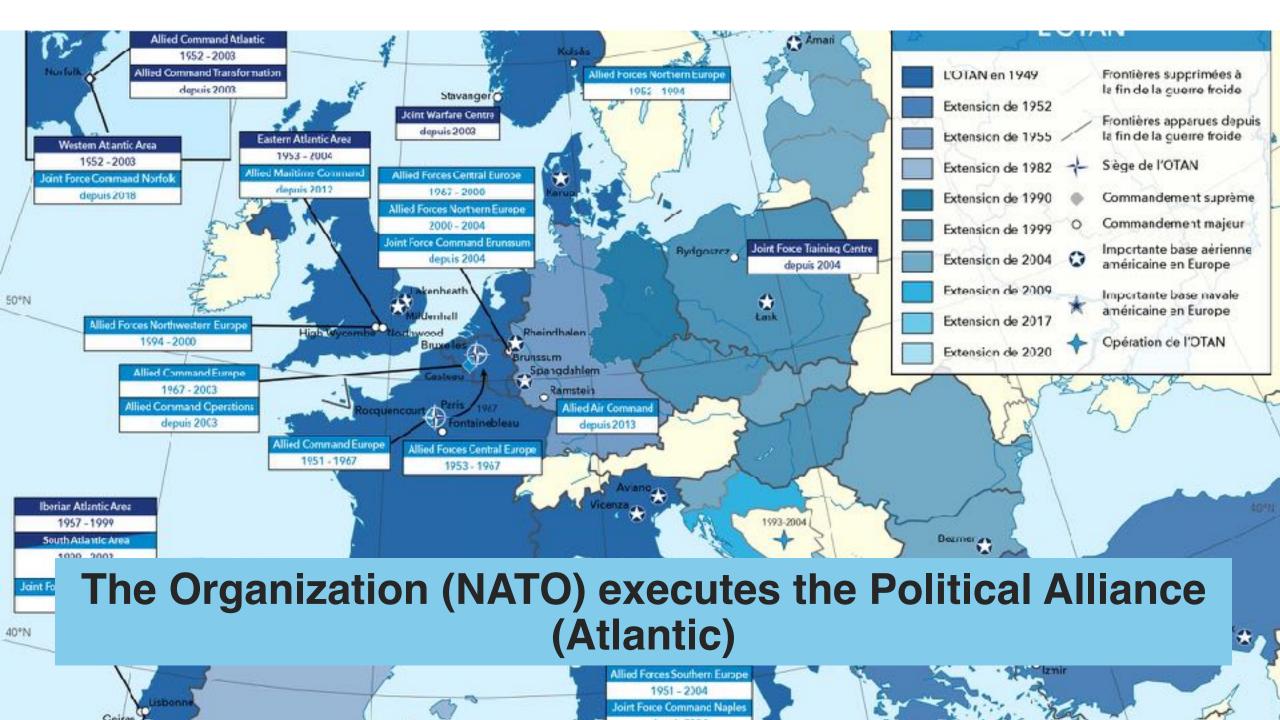


- BA, UoTurin
- MSc, LSE
- PhD, EUI
- Pre/Post-doc: Johns Hopkins, Columbia, Havarv, Stanford
- Work experience: NATO, Pentagon, Italian Air Force, Italian MFA

PART I: WHAT IS NATO







NATO DOES NOT DECIDE. NATO EXECUTES. THE GOVERNMENTS OF THE POLITICAL ALLIANCE DECIDE, BY CONSENSUS, WHAT THE ORGANIZATION SHOULD OR SHOULD NOT DO.



UN: law IMF: finance GATT: trade ECC: trade & law NATO: defense

NORTH ATLANTIC TREATY

The Farties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and helr desire to live in peace with all peoples and all povernments.

They are determined to safeguard the freedom, common herliage and civilisation of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promite stability and well-being in the North Atlantic tres.

for the presservation of people and meanity.

TRAITE DE L'ATLANTIQUE NORD

11-2-20 Mar 24-2-20

Les Etats Parties su présent Traité,

Réaffirmint leur fol dans les buts et les principes de la Chartedes Entites linies et leur désir de vivre es pais avec tous les peuples et burg las gouvarnements,

Déterminée à monogerder la liberté de leurs peuples, leur téritage commun st leur diviliention, fondés aur les principes de la iémitéraire, les liberias individuelles et le règne du dueli,

Coucleux ce favoriser tans in région de l'Atlantique Nord le Men-

They are resolved to unite their efforts for collective defense and e preservation of peace and security. They therefore agree to this North Atlantic Treaty.

Se sont mis d'accord sur le présent Traité de l'Atlantique Nard:

Attention to Article 5, but relevant part is the

NOETH ATLANTIC TREATY Drinciples principles of the Charter of the United Nations and their desire to live ir. peace with all peoples and all rovernments.

They are determined to sufeguard the freedom, common herilage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promite stability and well-being in the North Atlant.c.

They are resolved to write their efforts for collective defense and for the presservation of peope and meanity.

They therefore agree to this North Atlantic Trenty.

Les Etats Parties au présent Traité,

Reaffirmint lear fol dans les hits et les principes de la Chartedes Entions linies et leur désir de vivre es pais avec tous les peuples et Were las gouvarnements.

Déterminée à souvogarder la liberté de leurs peuples, leur téritage commun et leur civilication, fondés sur les principes de la hémiscrime, les liberiés individuelles et le règne du diuli,

Soucheux ce favoriser tans la région de l'Atlantique Nord le Men-Gire et la stabilité.

resolus à unir leurs efforts pour leur défense collective et sour la préservation de la paix et de la sécurité.

Se sont mis d'accord sur le présent Truité de l'Atlantique Nord:

They are determined to safeguard the freedom, common heritage and civilisation of their peoples, founded on the principles of democracy, individual liberty and the rule of law They seek romote stability and well-being in and civilization of their peoples, founded on the principlas of democracy, Individual liberty and the rule of law the North Atlantic area food founded to the principlas of democracy, libertó de leurs peuples, leur téritage

1203

They are resolved to write their efforts for collective defense and

for the presservation of peope and mounity.

They therefore agree to this North Atlantic Trendy.

Goucleux ce favoriser dans la région de l'Atlantique Nord le Menétre et la stabilité,

résolus à unir leurs efforts pour leur défense collective et pour la préservation de la paix et de la sécurité.

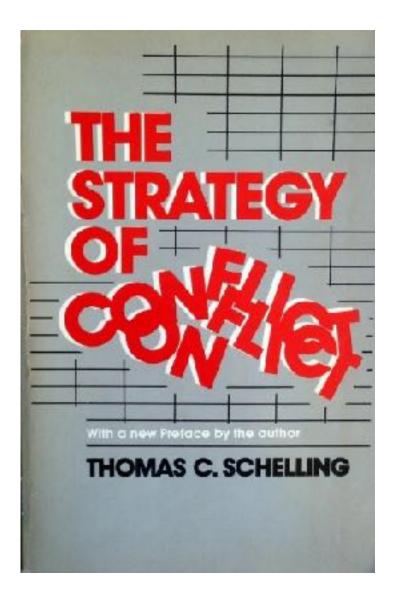
Se sont mis d'accord sur le présent Truité de l'Atlantique Nord:

The deterrence of values

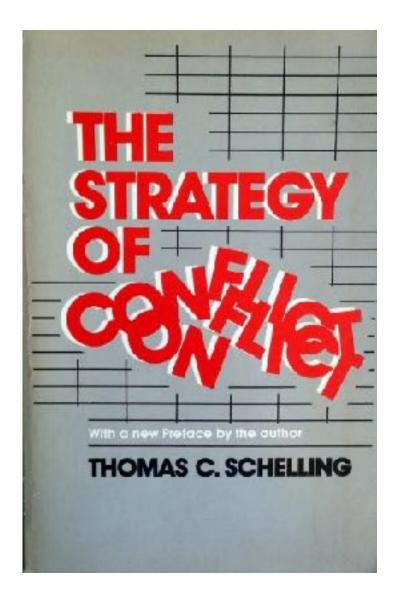
and

the value of deterrence

Values and principles are, inherently, indivisible.

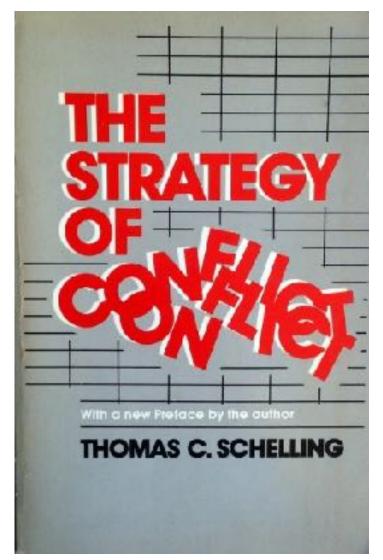


A value-based Alliances is inherently more solid.



Palmerston, UK neither permanent allies nor friends, just permanent interests.

If interests underpins an Alliance, there could always be a compromise between an Ally and an outsider undermining it.



"Defense is superior to Opulence"

"Brilliantly sneeessful . . . a colorful and even suspenseful w world has been transformed over the last half-een e —JEFTERY E. GARTEN, THE NEW YORK TIMES BOOK.

THE BATTLE BETWEEN GOVERNMENT

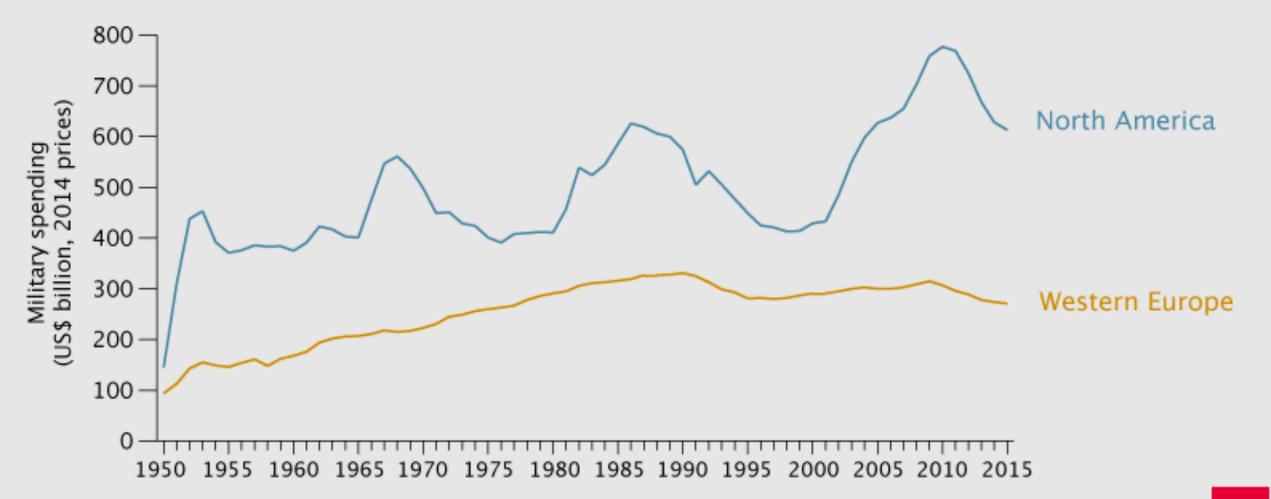
AND THE MARKETPLACE THAT

IS REMAKING THE MODERN WORLD



NATO purpose was to defend liberal-democratic marketbased political systems based on individual rights from autocratic command economic systems.

Military spending in North America and Western Europe 1950–2015



AN ECONOMIC THEORY OF ALLIANCES*

Mancur Olson, Jr. and Richard Zeekhauser

I Introduction

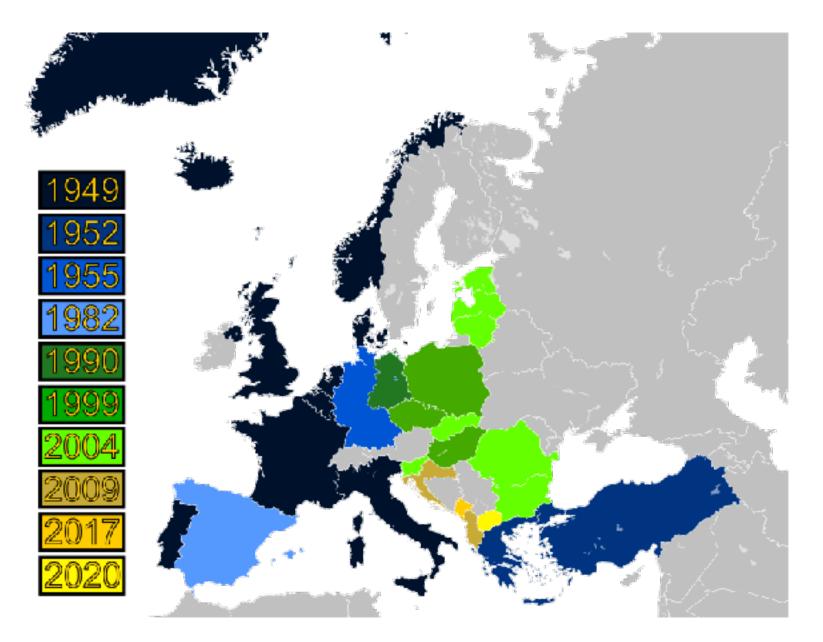
THIS ARTICLE outlines a model that attempts to explain the workings of international organizations, and tests this model against the experience of some existing international institutions. Though the model is relevant to any international organization that independent nations establish to further their common interests, this article emphasizes the North Atlantic Treaty Organization, since it involves larger amounts of resources than any other international organization, yet illustrates the model most simply. The United Nations and the provision of foreign aid through the Development Assistance Committee are discussed more briefly.

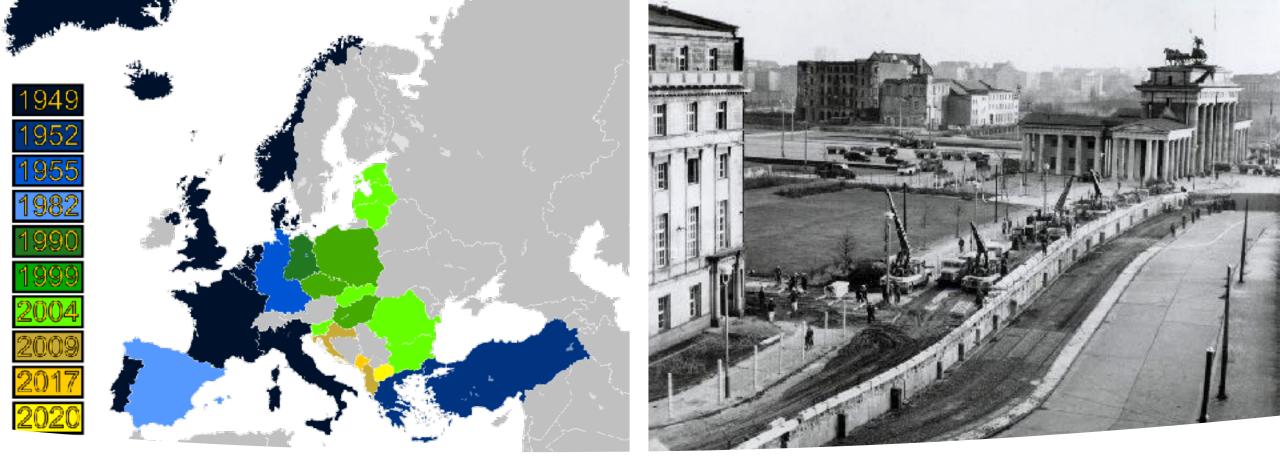
There are some important respects in which many observers in the United States and in some other countries are disappointed in NATO and other ventures in international cooperation. For one thing, it is often argued that the United States and some of the other larger members are bearing a disproportionate share of the burden of the common defense of the NATO countries,¹

* Both the RAND Corporation and the Center of International Studies at Princeton University supported this study, and the authors are most thankful to both institutions. They also appreciate the generous efforts of their many helpful critics, especially Malcolm Hoag and James Schlesinger of The RAND Corporation, and Richard Musgrave of Harvard University. Most particularly, the authors thank Professor Klaus Knorr of Princeton University and Professor Thomas C. Schelling of Harvard University, who have offered especially numerous and penetrating criticisms of the present study.

and it is at least true that the smaller members of NATO devote smaller percentages of their incomes to defense than do larger members.² There is also some concern about the fact that the NATO alliance has systematically failed to provide the number of divisions that the NATO nations themselves have proclaimed (rightly or wrongly) are necessary or optimal.³ Similarly, many nations, especially smaller nations, have failed to fulfill their quotas for U.N. contributions with the result that the United States contribution rises to a degree that threatens the independence of the organization. The meager level of total support for the U.N. and the mean and haphazard state of its finances are also sources of concern.

Some suppose that the apparent disproportion in the support for international undertakings is due largely to an alleged American moral superiority, and that the poverty of international organizations is due to a want of responsibility on the part of some other nations. But before resorting to any such explanations, it would seem necessary to ask whether the different sized contributions of different countries could be explained in terms of their national interests. Why would it be in the interest of some countries to contribute a larger proportion of their total resources to group undertakings than other countries? The European members of NATO are much nearer the front line than the United States. and they are less able to defend themselves alone.





NATO: Open Door Warsaw Pact: Berlin Wall

PART II: WHAT DOES NATO DO?

NATO 2022 STRATEGIC CONCEPT



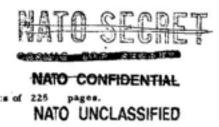
•Deterrence and defense (Collective defense)

•Crisis management and prevention

Cooperative security

SHAPE HISTORY

1958



Protecting the airspace of the Barric States

Location

💻 Pistones 💳 Latvia 💳 Laterania

Contributing nations

- Spain (Aman, Estonic) (as of May 2017)
- The Netherlands (Sector, Littuaria) (anti-esc Apri 2)17)
- Poland (Similar, Lithuania) (as of May 2017).

Support and Assurance for Turkey

Mission

Reinforcing Turkey's air detences

Location

Turkey

Contributing nations & NATO assets

Soan (Adena, Tursey) Surface to oir missile botteries 📕 Kely (Kelyennersens, Turkey) - Burlace to ar missle befories NRU-AWACS anirat

Joint Intelligence, Surveillance and Reconnaissance

Mission

Supporting decision-makers with timely information and intelligence

Location

📑 Taly 💻 Ceremany 💥 United Hangdom

NATO assets

WTO-A68 Skiba Have (2017-2018) AWAC8 annul

Standing Naval Forces

Mission

Providing the Aliance with a continuous noval presence

location

The Atlastic Ocean and the Modiferraneon Sea

NATO assets

INV 0 - The Standing MATO Mariline Groups (\$MM31.6.2). the Standing NATO Mine Countermeasures Groups (SMMCMG1 & 2)

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Charles Contract
<u> </u>
1 K
the state
tered a part of the state
a Charles 🛔
IN THE VERTICAL
Charles States
and the second
Ballistic Missile Defence
the design of the second se
Mission Protecting NATO's populations, territory and
Lecation
Corney 📑 Ruesie 🚍 Fuland 🎫 S
ister
Contributing nations & NATO assets
📕 Linted States (Rost, Span, US Argo EMD ca
Linted Bates (Deveals, Romanat - Aeja ash Linted States (Kareck, Tarces) - EMU tracking

Enhanced NATO Response Force / Very High Readiness Joint Task Force

Mission

Ready to deploy at short notice for crisis management or collective defence.

Location

Lon Face Connect Naples (+NRF 7012) Winted Kingdom (//TFF lead nation 2017)

Contributing nations

Enhanced NATO Features Force (c NRF) 25 Alies Very High Renderess Joint Task Force (VJTF) 14 Alars.

NATO's Forward Presence

Mission

Strangthoning NATO's defence and deterrence

Location

💳 Estorio 🚟 Latvia 🚟 Literaria 🛲 Polant 📑 Romana 📟 Bulgana

Contributing nations

Framework nation 💥 United Kingdom Economic (2017 only)

Framework nation: 🗰 Conada 🗰 Albana 🎹 taly 🚃 Fuland 🚟 Skvena 🚾 Scan

LITHUANIA Framework nation 🗮 Germany 📑 Belgium 💷 Croata (as of 2015) 🛸 Creich Rep. (as of 2017)

France (as of 2018) Experience The Netherlands 🚛 Norway

Framework narios: 🚟 United States OUAND. Romania 💥 United Kingdom

diforces

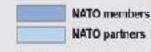
0.000

Linted States (Redshowe, Pound) - Argis ashore (2)18)

N/TEI (Ratisain, Century) - N/IEE Command Center

pable ships

Dulgens 🙌 Conads 💻 Cornery 📟 Hungary The bethe laters - Point 🍞 Portuga AND ELALX SEA 📑 Romania 🧰 Sown 🍘 Turkey 🚟 United States 💥 United Kingdom



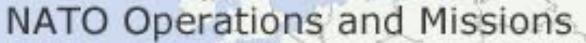


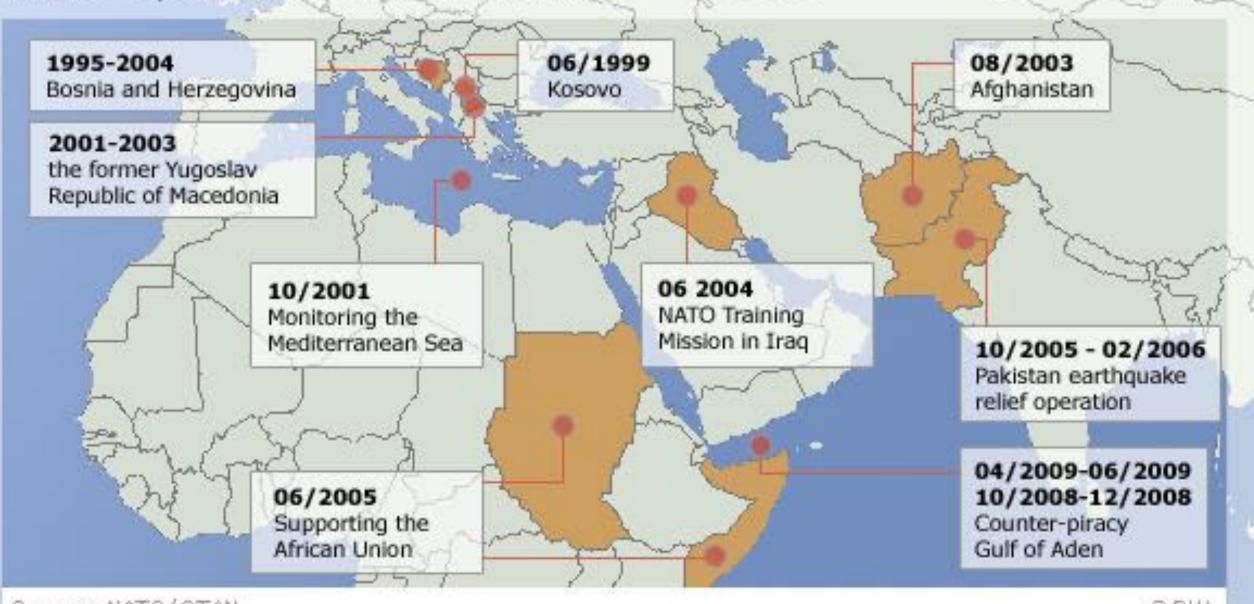
N maps are leased on summanial data. Data Map Data C. Colles Extension WD 2013. The boundaries and manuscious and the designations and identify afford and receiver a programmerly 4/10. Due to see Installants, some nocis may have been added to the reags to include shire peoplighted areas. Final boundary between the Republic of Sadae and the Republic of Sadah Sadar taxined at your determined. Final status of the Abye areas in the your determined

🕕 France 🧰 Turkey 💥 United Eirigton-

AWK Samon

Map data as of 7 March 2017





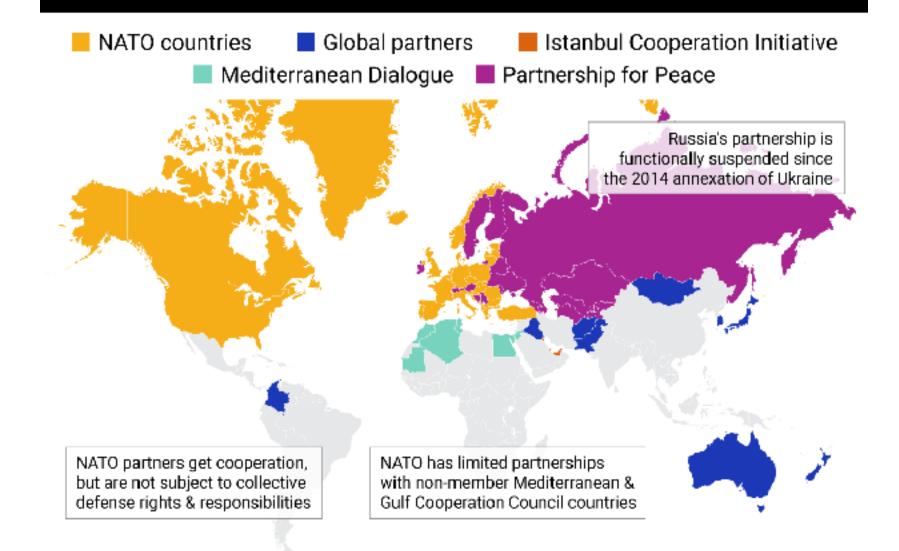
Source: NATO/OTAN

COOPERATIVE SECURITY





Who partners with NATO?



Subscribe to our global politics newsletter Signal at gzeromedia.com Source: NATO



Balgum (Baulial, Lithuaria) Canaca (Mital Koeáliliceanu, Romana) France (Ameri, Estonia) Germany (Amari, Estonia) Italy (Sieuliai, Lithuania) Poland (Anieri, Estonia) United Kingsom (Saulai, Litheoria) United States (Ignatievo, Bulgaria),

Support and Assurance for Turkey

NATO assets

+ NATO (Kanya, Terkey) - AWACS serveillance six

Joint Intelligence, Surveillance and Reconneissance

Denmark 💌 Pertugal 🛄 United States + NATO - AGS, AWAGS aircraft

Standing Naval Forces

ter Mato data display temphations by Alles in 2

Contributing nations

France Ke Turkey He United Kingdom

Framework for the South: Regional Hub for the South

Mission

Joint Force Command Naples

Contributing nations.

Contributing nations Isby Norway United States

Bulgaria Estonia - Hungary - Letvia Lithuaria - Poland Romania 🔁 Slovatia

Contributing nations

Enhanced NATO Response Force / Very High Readiness Joint Task Force

Poland 🚥 Spain 👯 United Kingdom

NATO's Forward Presence

Deterrence and Defese -Denmark lostand

Ballistic Missile Defence

NATO assets

Framework nation: • Canada Albania 🔚 Gzech Republic 📗 baiv 😢 Montenegro Poland 📶 Slovakia 🛄 Slovania 💶 Spain Framework nation: Germany Bergium 💷 Creatia 🚬 Catch Republic 📗 France loeland Lucembourg Netherlands Norway Framework nation: United States The Dreetie Romania Bugaria 💽 Canada 📲 Prance 🚃 Germany Hungary I Italy - Luxembourg Peland Portugal 📕 Pomenta 🚥 Spain 😒 Turkey Germany 🚃 Poland 🚺 Romonia 🚛 Spain 🔯 Turkey United States (Rota, Spain) - US Aagis BMD-capable shipe NATO members. United States (Devenelu, Romania) - Auglis Ashore NATO partners United Stales (Kürecik, Terkey) - BMD tracking sensor United States (Restalkows, Polend) - Aegle Ashere (under construction)

Key NATO and Alled multinational exercises

All maps site based or commercial data. Digital Map Data (C) Collins Eartholomery LTD (2013). The boundaries and names allows and the designations

AMACS patrols over Eastern Mission



Deterrence by punishment

DETERRENCE DENIAL

1 16 4.4

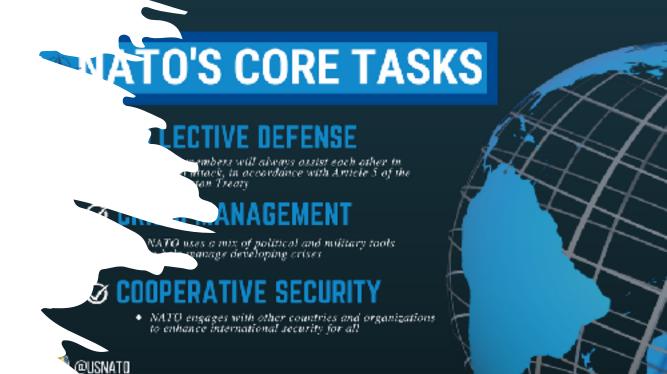
Theory and Practice

ALEX S. WILNER and ANDREAS WEGNER



Deterrence by reinforcement

CORE TASKS, DEFENSE POSTURE AND FORCE STRUCTURE

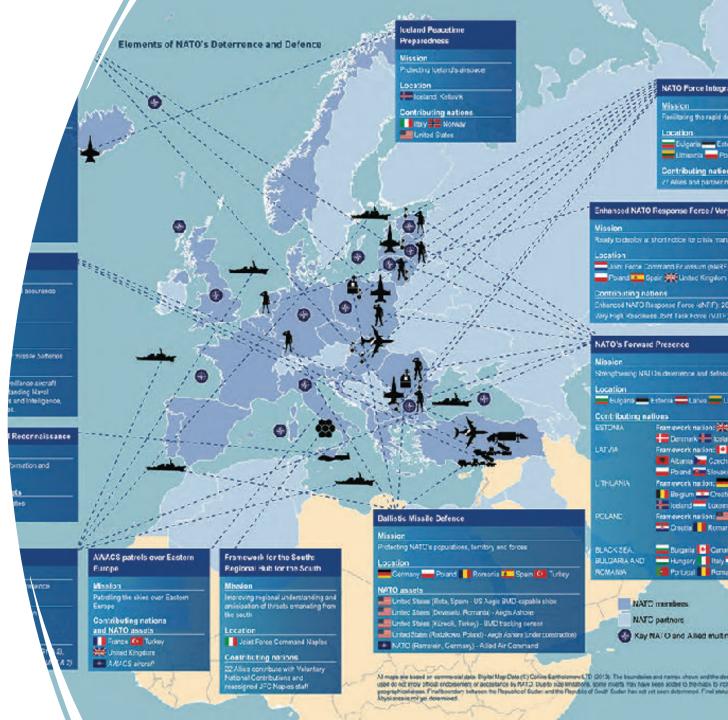


149 1952-1982 1999 2004-2009 2017-2020 223 cted



Deterrence and defense

- •High-end capabilities in all domains.
- •Air-defenses
- •Heavy armor
- Counter-battery fire
- In-area logistics
- •SW and ASW
- •Coastal artillery



Crisis prevention and management

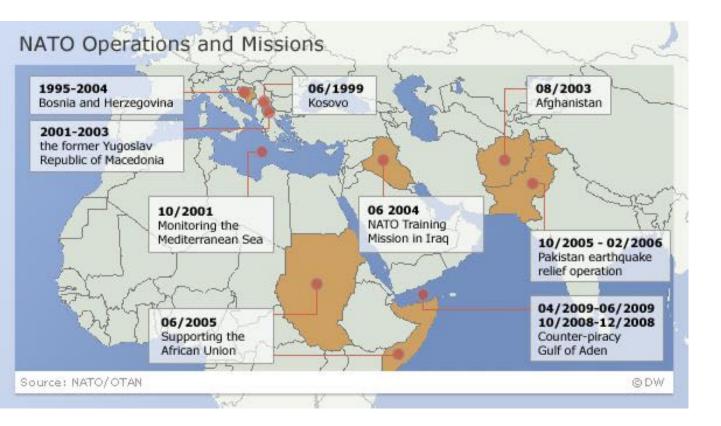
•Out-of-area logistics

•Light land forces, air-lift and CAS from air forces, sea-lift from naval forces. Heavy ISR and reconstruction.

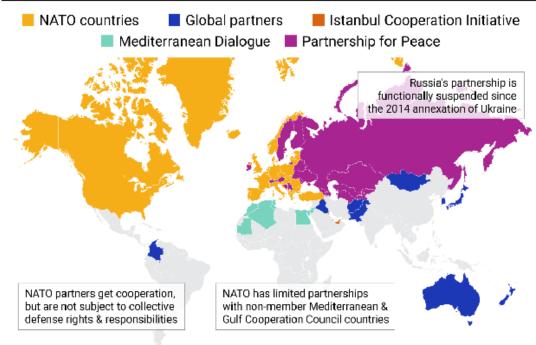


Capacity-building: training. Diplomatic engagement. Intelligence-sharing Operational Support.





Who partners with NATO?



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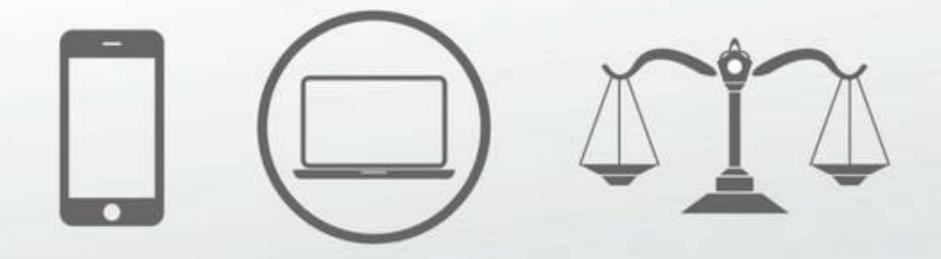


PART III: WHAT IS NATO ADDED VALUE?

Here we talked about different missions/contexts/force packages. Then, where's NATO?

WHAT ARE TRANSACTION COSTS?

transaction costs









An architecture to reduce transaction costs in a market without prices characterized by sovereign nations

NATO

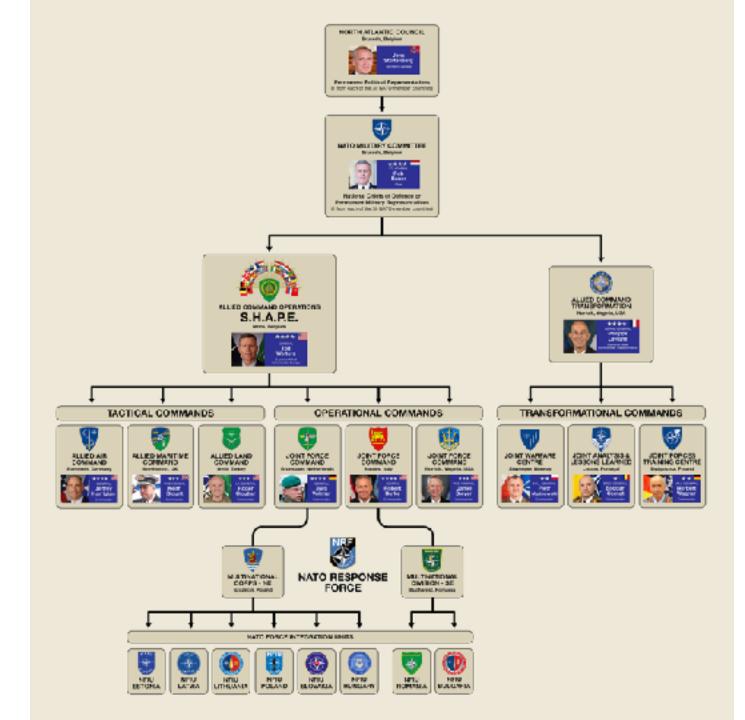
How to make sure that different national forces work together thus reducing the individual cost of national defense and achieve collective superior puch-weight than the sum of individual efforts.

NATO HQ

•Political representation (Diplomatic Missions)

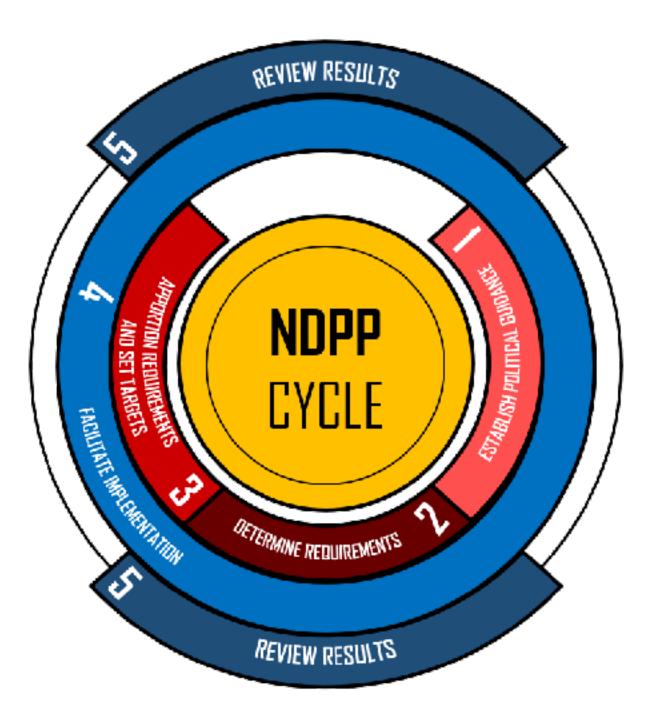
•Bureaucratic core: SECRETARY general, not CHIEF EXECUTIVE, sits at HQ overseeing a bureaucratic structure.



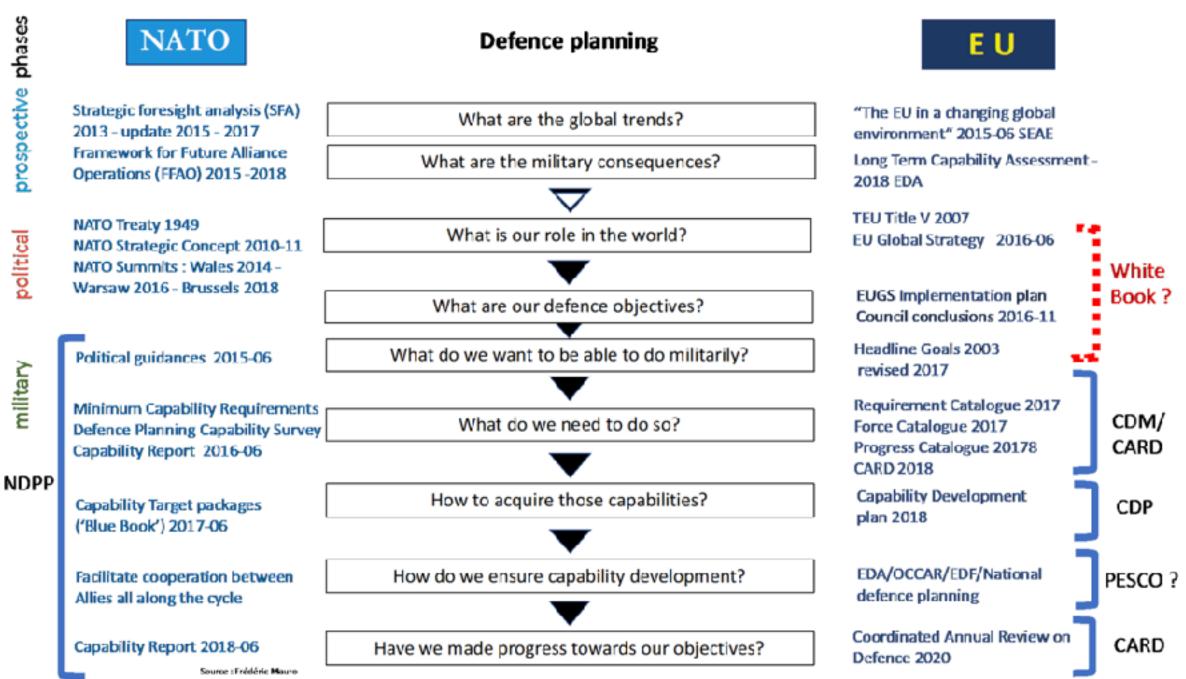


Civilian structure

NATO Headquarters Permanent Representatives and National Delegations International Staff (S) Private Office (PO) Special Representative on Women, Peace and Security Political Affairs and Security Policy Division - NMTO Liaison Office (NLO) in Georgia - Arms Control, Disarmament, and WMD Non-proliferation Centre (ACDC) - Partnership for Peace Documentation Center Operations Division Euro-Atlantic Disastar Response Coordination Centre (EADRCC) - NATO Situation Centre - NATO Advisory and Lipison Team (NALT). innovation, Hybrid and Cyber (IHC) Division -Science for Peace and Security - Defence Against Terrorism Programme of Work (DAT PCW) Defence Policy and Flanning Division - Defence Policy and Planning Committee (DPPC) - Logistics Committee (LC) - Res Lence Committee (RS) **Cyll Emergency Planning** Defence Investment Division The Conference of National Armaments Directors (AC(259)) Group of National Directors on Codification (AC/135) - NATO Naval Armaments Group (NNAG) (AC/141) - NATO Air Force Annaments Group (NAFAG) (AC/224) EThe Joint Capability Group Intelligence, Surveillance and Reconnaissance (ICSISR). - NATO Army Armaments Group (NAA3) (AC/225) -Alliance Future Surveillance and Control Project Group (AFSC PC) - Balistic Missile Defence (BMD) ONAD Ammunition Safety Group (AC/325) - Life Cycle Management Group (NC/327) - NATO Industrial Advisory Group (NIAG) - C-IED Activities Industry Relations - NATO Naval Forces Sensor and Weapons Accuracy Chack Sites (FORACS) Air and Missile Defence Committee (AMDC) (AC/336) - Aviation Committee (AVC) (AC/92) - Munitions Safety information Analysis Center (MSIA.) Public Diplomacy Division - NATO Press Office - NATO Multimedia Portai Co-sponsorship grants - NATO Information and Documentation Centre, Kyly, Ukraine - (closed) NATO Information Office in Moscow (archive in Russian) - NATO Contact Point Embassies in partner countries. Executive Management = Archives - NATO Internship Programme - NATO Multimedia Ubrary Recruitment Service. Joint Intelligence and Security Division (IIS) - NATO Office of Security (NOS) Office of the Chief Information Officer (OCIC) Office of Legal Affairs [CLA] Internal Oversight Service (106) Office of the Financial Controller (FinCon) NATO Office of Resources (NOR) - NALTO Digital Staff Office of the Chairman of the Senior Resource Board (SFB) Office of the Chairman of the Civil and Military Budget Committees (CBC/VBC) International Board of Auditors for NATO (BAN) NATO Administrative Tribunal NATO Production and Logistics Organisations (NPLO)



political

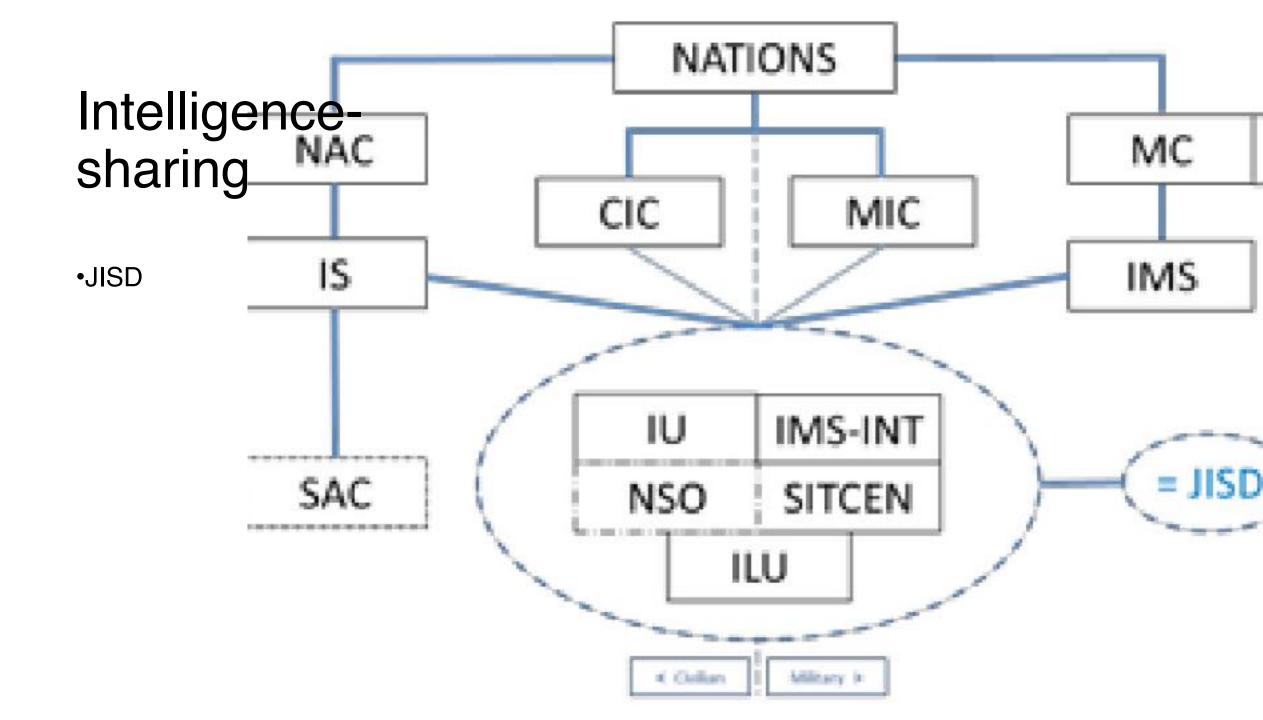


Defence investment

Armaments
Standardization
Cooperation
Common capabilities

10.00





Military structure

-The Military Committee -International Military Staff

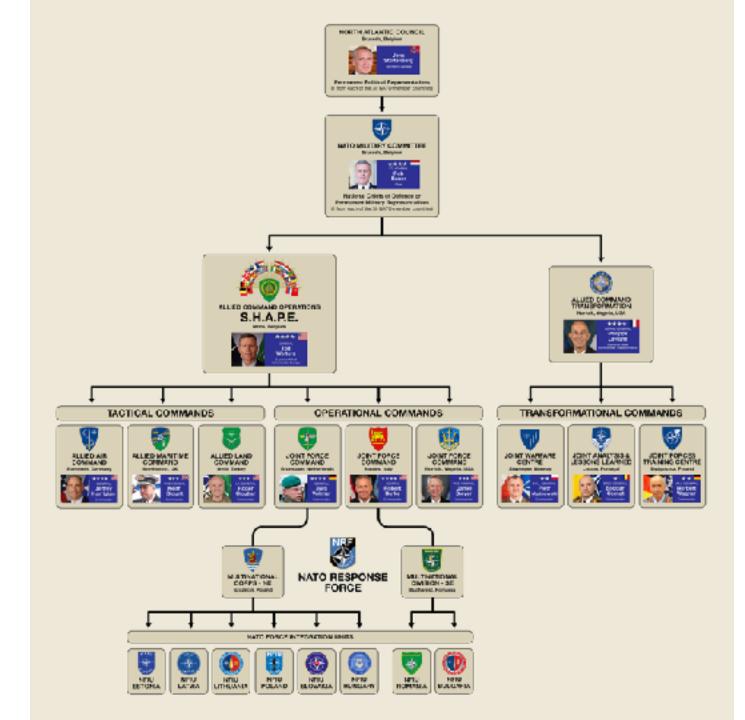
Hintelligence (INF) -Operations and Plans (OBP) Policy and Capabilities (P&C) -Cooperative Security (CS) -Logistics and Resources (L&R) -NATO Diginal Staff -NATO Stuador Centre (SITCEN)

Allied Command Operations (ACO)

-Supreme Headquarters Allied Powers Europe (SHAFE) - Mons, BE -Joint Force Command Bruncsum - Bruncsum, NL Hesolute Support Hoint Force Command Naples - Naples. II -NATO Military Liaison Office Belgrade -NATO Headquarters Sarajevo (NHQSa) - Sarajevo, BA -NATO Liesdquarters Skopie (NHQ5k) - Skopje, North Macedonia -Icint Force Command - Norfolk, Virginia, US Hoint Support and Enabling Command (ISEC) - Ulm, Germany -Headquarters Allied Maritime Command (HQ MARCOM) - Northwood, GB -Standing NATO Maritime Groups -NATO Shipping Centre -Headquarters Allied Air Command (HQ AIRCOM) - Ramstein, DE -Combined Air Operations Centre (CADC) Torrejón -Combined Air Operations Centre (CAOC) Undern -Deployable Air Command and Control Centre (DACCC) -Headquarters Aliec Land Command (HC) LANDCOM) - Izmir, TR The NATO CIS Group Rapidly Deployable Corps Headquarters -Headquarters Allied Command Europe Rapid Reaction Corps (ARRQ) - Innsworth-Sigucester, UK Headquarters EUROCORPS in Strasbourg, FR -Multinational Corps Northeast - Szczecin, PL -Multinational Corps South-East - Sibiu, Romania Headquarters Rapid Deployable Corps Italy - Milan, IT. Headquarters Rapid Deployable Corps Turkey - Istanbul, TR Headquarters Rapid Deployable German-Netherlands Corps - Münster, DE -Headquarters Rapid Deployable Corps Spain - Valencia, ES -Headquarters Fapid Deployable Corps France in Lille, FR Headquarters Fapid Depleyable Corps Greace in Thessaloniki, GR -Other Staffs and Commands Responsible to SACEUR -Immediate Reaction Forces (Maritime) -Naval Striking and Support Forces - STRIKFORNATO - Lisbon, PT -NATO Airborne Barly Warning & Control Force (HO NAEW&C Force 6K)

Allied Command Transformation (ACT)

Headquarters Supreme Allied Command Transformation (HQ SACT) - Norfelk, US
 Hoint Warfare Centre (JWC) - Stavanger, NO
 HNATO Training Group
 HNATO Training Group
 HNATO Joint Force Training Centre (IFTC) - Bydgosacz, FL
 HNATO Maritime Interrdiction Operational Training Center (NVIOTC) - Souda Naval Base, Crete, GR
 HNATO School - Oberanimergau, DE
 Heint Analysis and Lessons Learned Centre (JNLLC) - Lisbon, PT
 Other NATO Command & Staff Organisations
 Hoanda-US Regional Planning Group (CUSRPG)
 Combined Joint Planning Staff (CJPS) - Mons, HE





From WWII **SHAEF** (Supreme Headquarters Allied Expeditionary Force) to NATO **SHAPE** (Supreme Headquarters Allied Powers Europe):

- Training, Exercises and Operations.
- From ACE to ACO.
- JFC
- LAND/MAR/AIR-COM.
- No Cyber/Space-COM





PART IV: DETERRENCE AFTER UKRAINE

Baltic Air Policing mission

Massion

Protecting the aimpace of the Ealtic States

Location Estonia 🚃 Latva 🚃 Littuaria 🚃 Poland

Contributing nations

- Belgum (Siaulai, Littuania) Automo/Weter Connark (Siaulai, Libuasia) WinterSpring France (Amar), Estonial Spring/Sammer Semany (Amar), Estonial Adams/Water
- Buly (Amart, Extense) WinterSpring
- Forlogel (Sastal, Lithuania) SpringSummer
- E Spain (Saula, Lithuaria or Matterk, Polani) Spring/Summer

Support and Assurance for Turkey

Mission
Reinforcing Turkey's air defences
Location
C Tutey
Contributing nations
Ibiy (Vahamanmarag, Turkey) - Surface-Io-ar excule
Automa
Spain (Adams, Turkey) - Surface-In-air missile ballories
ANTO - ANNOS arcraft

Joint Intelligence, Surveillance and Reconnaissance

Mission -	
Supporting decision makers with timely information and	•
and a second s	
Location	
🛲 Cermany 📲 taly 💥 United Kingdom	
MATO assets	
MATO - AGS Global Hawk, AWAGS anotat	

Standing Naval Forces

Wission	
Providing the Alilance with a continuous naval pr	esentie
Location	

The Adardic Ocean and the Mediterranean See NATO assets

NATO - Standing NATO Maritime Groups (SMMG1 & 2). Standing NATO Mine Countermeasures Groups (SNMCMG1 & 2)

Europe	regional Hub for the South
Mission	Mission
Patroling the sixies over Eastern Europe Contributing nations	Improving regional understanding an undergalism of threats enveloping for the south
A HATO assets Thurce All Crosse Co Turkey Childed Kingdom	Contributing nations
Annol arout	21 Alies contribute with Voluntary National Contributions and manageed JPC Naples shaft

Framework for the South:

egional understanding and of threats emanaling from

AWACS patrols over Eastern

	Mission	
۵.	Protecting Iceland's aimpace	
1	Location	
	Coloni, Kofava	
	Contributing nations	
	Denmark (WinterSpring)	

Iceland Peacetime Preparedness

Bally (Automs Wittler)

Under States (Spring/Summer)

Enhanced NATO Response Force / Very High Readiness Joint Task Force

Ready to deploy at short notice for crisis management or collective defence

Location

Ballistic Missile Defence

Protecting NATIO's populations, territory and forces

🚾 Germany 📲 Romania 🚘 Poland 📧 Spain

United States (Rote, Spain) - US Angs EMD capable ships

Inited States (Kirecik, Turkey) - DMD tracking sensor

nited States (Nedpikowo, Poland) - Aegis ashore (2020)

inited States (Deveselu, Romania) - Aego ashore

NATO (Ramstein, Germany) - Alled Air Command

Mission

Location

C lunkey NATO assets

About area is not get determined.

Joint Force Command Brunssum (oNRF 2018) Billely (WITF lead radios 2018)

Contributing nations

Enhanced NATO Response Force (eNRF): 27 Alles Very High Readmess Joint Task Force (VJTP): 22 Allies

NATO's Forward Presence

200		
2	Minsion	
	Strengthening N	ATO's determine and defence
	Location	
2		Latvis Litures - Poland Romania - Bulgaria
	Contributing	halions
	ESTONIA	Framework nation: 💥 United Kingdom
		Denmark 🗰 kollend
	LATVA	Framework nation: Canada
		Abenia 🖕 Czech Republic 📑 Baly 🗷 Montenegro
		Poland Constantia Storenia 100 Spain
	UTHUNK	Framework nations Cermany
		Belgun 🐜 Croch Republic 🗰 Keland
		Losenbourg - Netherlands 22 Nonety
	POLAND	Framework hadios:
		Croete Romanie 💥 United Kingdom
	BURGAMA	Balante Careda - Hangary
	ROMANA	Lorentours - Psiand C Portugal Remerie
	And a state of the	

AND BLACK SEA 🚛 Span 🔯 Turkey 💥 United Kington 🏪 United States

NATO members NATO partners 500 km Map data as at December 2018 All maps are based on commencial table Digital Map Date (C) Colline Bartholomee 110 (2010). The boundaries and names shown and the designations used an interrupt official encoursement or acceptance by MCD. Due to Lice Instances, tome interrupt and been acceptance by MCD. Due to Lice Instances, tome interrupt and been acceptance by MCD.

ALLIANCE MODERNISATION

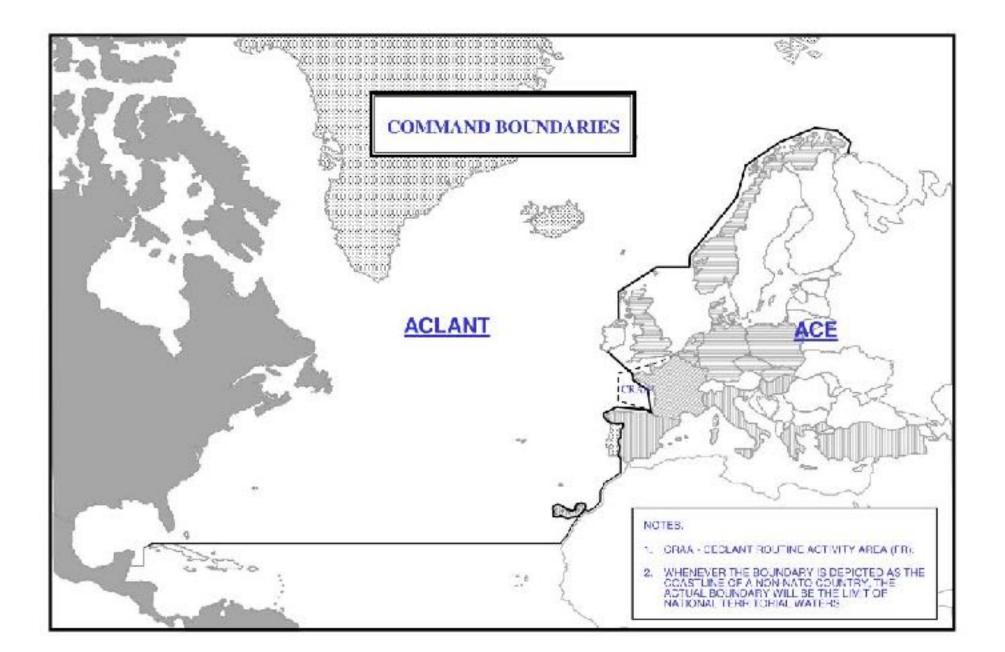
COMMAND STRUCTURE READINESS INITIATIVE MILITARY MOBILITY



NATO

OTAN







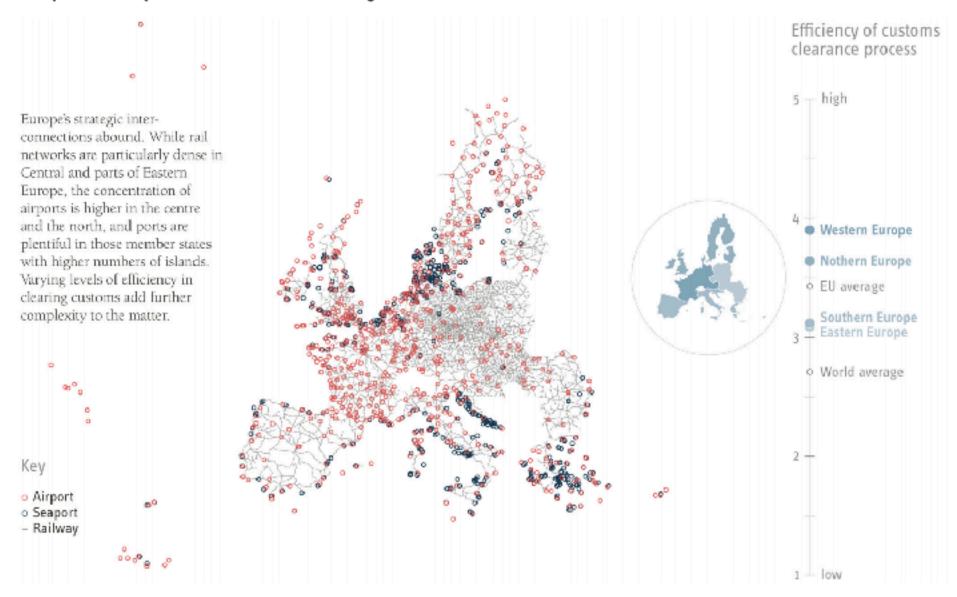




DEFENDING EUROPE:

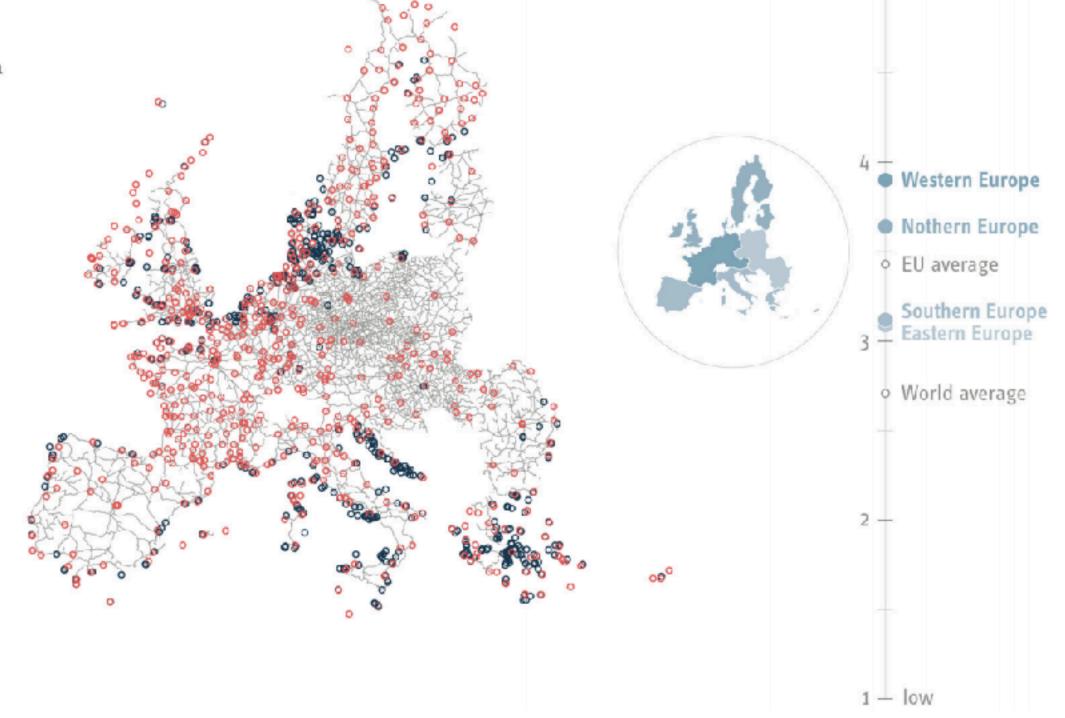
Improving Military Mobility within and beyond the European Union

European transport infrastructure: strategic interconnections



Data: EU Commission, Natural Earth, World Bank.

rategic interis abound. While rail are particularly dense in d parts of Eastern e concentration of higher in the centre of the centre of those member states r numbers of islands. wels of efficiency in stoms add further r to the matter.



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EXISTING BARRIERS TO MILITARY MOBILITY



Infrastructure not suitable for the weight or size of military assets

Insufficient height of road tunnels or load capacity of bridges, different gauges or insufficient load capacity of railways. Improving the transport infrastructure will also contribute to its safer and more secure and effective use for commercial purposes.

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Regulatory and procedural issues

Lengthy and complex procedures for cross-border and movement in national territory, including customs formalities related to military operations, diverging national rules on the transport of dangerous goods in the military domain.



Shortcomings in the military domain

Lack of coordination structures, movement plans and training and exercises; the need to foster resilience in countering hybrid threats and to ensure access to transport assets, as well as preparedness regarding environmental challenges.

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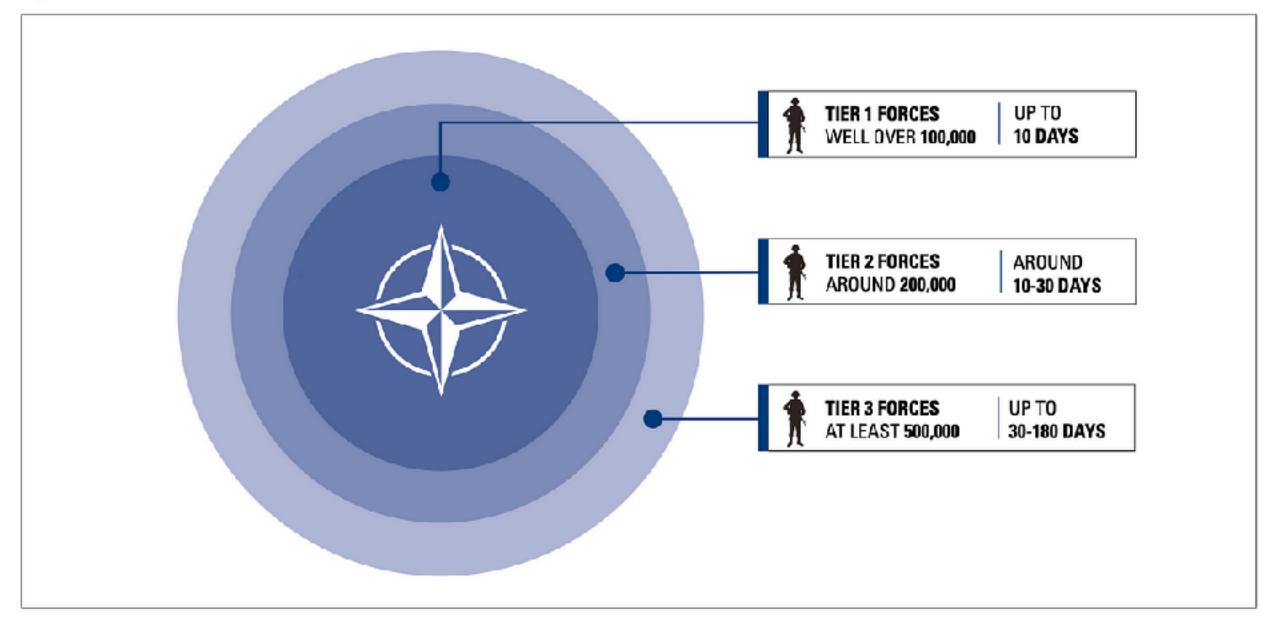


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Figure 1: NATO's New Force Model



Historic reinforcement of NATO's deterrence and defence

- New regional defence plans; New NATO Force Model & adapted Command Structure
- > Re-focus on multi-domain collective defence
- 300,000 troops on higher readiness, including substantial air and naval combat power
- > New Defence Investment Pledge; at least 2% of GDP



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11-12 VII 2023



From SACLANT TO ACT to return of SLOC defense





The New Battle for the **ATLANTI**

Emerging Naval Competition with Russia in the Far North



SLOC defense

NAVAL WAR COLLEGE NEWPORT PAP



NATO's defence and deterrence Ballistic Missile Defence

Part 9 of 9 - we are highlighling each part of defence and deterrence separately - sizy limed for more, or go to http://bit.ly/NATOD2 to get the whole picture.

NATO

OTAN

Ballistic Missile Defence

Mission

Protecting NATO's populations, territory and forces Location

💻 Germany 📊 Romania 🛖 Poland 🛄 Spain 🐻 Turksy

Contributing nations & NATO assets

United States (Rota, Spain) - US Aegis BMD capable ships United States (Devesalu, Romania) Aegis ashore United States (Kurecik, Turkey) - BMD tracking sensor United States (Redzikowo, Poland) - Aegis ashore (2018) NATO (Ramstein, Germany) - NATO Command Center

European Defence Industrial Strategy #EDIS

#EUDefenceIndustry

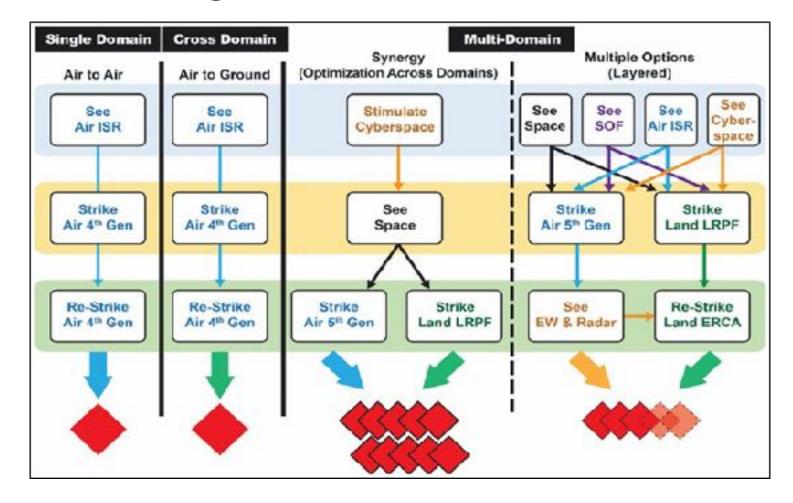


PART IV: DETERRENCE AFTER UKRAINE B

From Joint to MDO



From Joint to MDO: paralle computing/avoid single points of failure



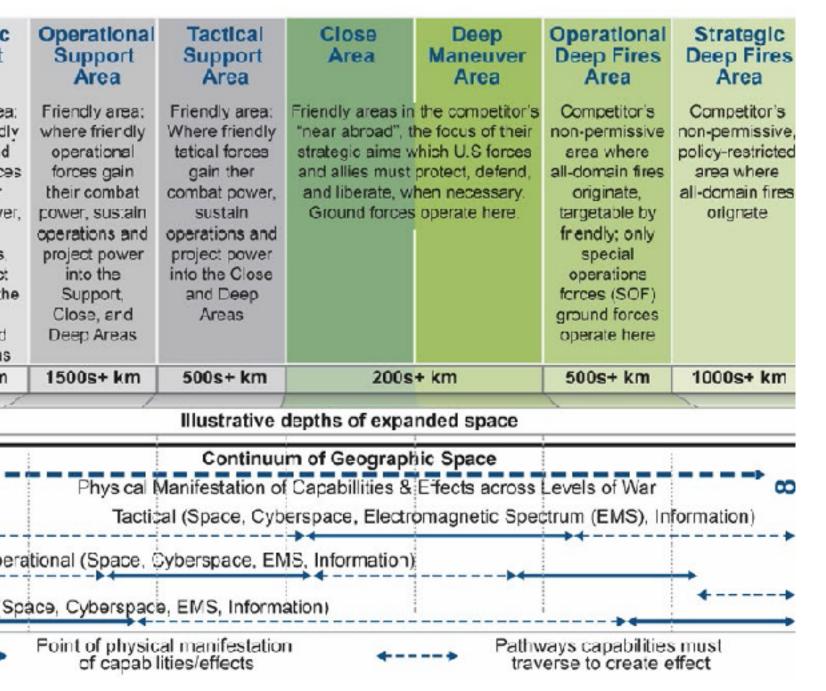


Figure 2-1. MDO framework



Multi-Domain Battle: Achieving Cross-Domain Synergy





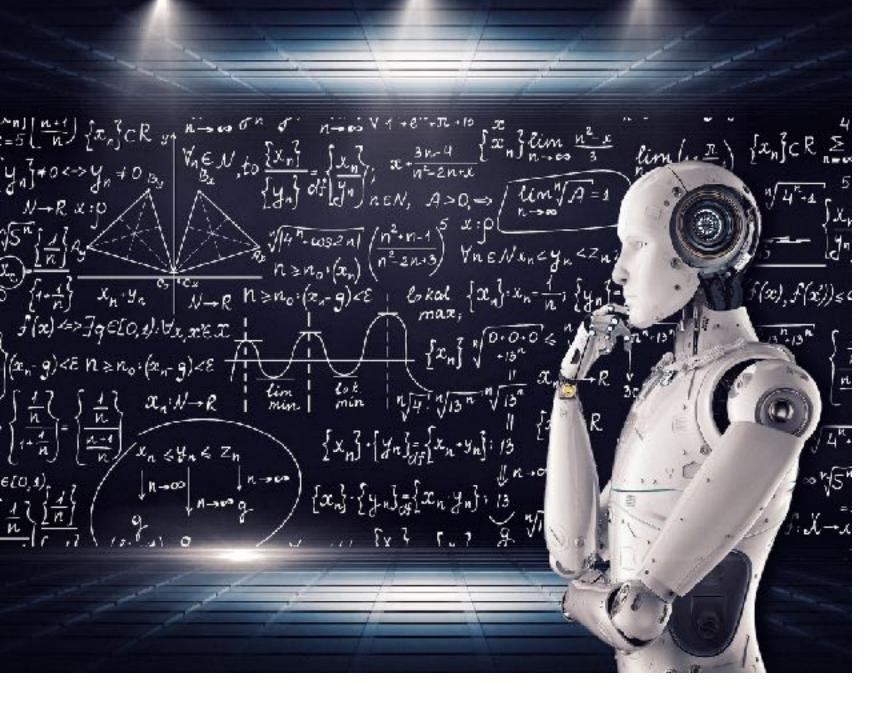
As of 23 SEP 2016 12

Victory Starts Herel



MDO challenges

1) C2 & RMF



MDO challenges

3) Digitalization & EDTs.

MDO challenges

COP SECONDER 2) Capabilities development and integration.



Command Structure 2







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NATO ADVISORY GROUP ON EMERGING AND DISRUPTIVE TECHNOLOGIES





PART IV: DETERRENCE AFTER UKRAINE



US Defense Planning: 2MTW



Defense Planning in a Time of Conflict

A Comparative Analysis of the 2001–2014 Quadrennial Defense Reviews, and Implications for the Army– Executive Summary

Eric V. La son, Derek Eator, Michael E. Linick, John E. Peters, Agnes Gereben Schaefer, Keith Walters, Stephante Young, H. G. Massay, Michelle Darrah Ziegler



Source: Defense Manpower Data Center, March 2021; USS Military Balance, 2021; CRS; The Washington Post-

