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COVID-19: NATO in the Age of Pandemics

Edited by
Thierry Tardy



Research Division

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COVID-19: NATO in the Age of Pandemics

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List of abbreviations

AEF	American Expeditionary Force
AIDS	Acquired Immune Deficiency Syndrome
BRIC	Brazil, Russia, India, China
CBRN	Chemical, Biological, Radiological and Nuclear
CEPC	Civil Emergency Planning Committee
CJ-CBRND-TF	Combined Joint Chemical Biological Radiological and Nuclear Defence Task Force
COE	Centre of Excellence
COMEDS	Committee of Chiefs of Military Medical Services
COVID	Corona Virus Disease
DCB	(NATO's) Defence Capacity Building
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EEAS	European External Action Service
EU	European Union
EVD	Ebola Virus Disease
GAFAM	Google, Apple, Facebook, Amazon, Microsoft
HIV	Human Immunodeficiency Virus
IOM	International Organization for Migration
KSA	Kingdom of Saudi Arabia
LOEs	Lines of Effort
MENA	Middle East and North Africa region
NATO	North Atlantic Treaty Organization
NBC	Nuclear, Biological and Chemical weapons
NCRS	NATO Crisis Response System
NDC	NATO Defense College
NGOs	Non-Governmental Organizations
NIWS	NATO Intelligence and Warning System
NRF	NATO Response Force
NSHQ	NATO Special Operations Headquarters
NSPA	NATO Support and Procurement Agency
OCC	Operational Capabilities Concepts
PCM	Partnership Cooperation Menu
PDD	(NATO) Public Diplomacy Division
PPE	Personal Protective Equipment

SAC	Strategic Airlift Capability
SALIS	Strategic Airlift International Solution programme
SHAPE	Supreme Headquarters Allied Powers Europe
SITCEN	Situation Centre
SPS	Science for Peace and Security
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
US	United States
WHO	World Health Organization
WMD	Weapon of Mass Destruction

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Thierry Tardy

NDC Research Division

Introduction

Thierry Tardy

Because of its magnitude, economic dimension, and lethality, the COVID-19 crisis has raised a wide range of questions that pertain to how seismic the crisis is, how much it will shape international politics and in what ways it is going to change the way we live. These are strategic-level questions (with very practical consequences) that only arose to the same degree in the context of the Second World War.

The analysis of the impact of the current crisis on international security is not an easy exercise given that a) the crisis is not over and b) it will impact so many interconnected domains over such a long period that the number of unknowns is immense. The way and speed in which COVID-19 has already changed our lives – who would have thought in January 2020 that just three months later all of Europe’s economies would be totally paralyzed with most of their populations at home under lock-down? – are also an invitation to some prudence, or modesty, when it comes to predicting the fallout. On three occasions over the last 20 years, major events on the international scene – 9/11, the Arab Spring, and the current health crisis – have come as strategic surprises to our societies (if not to policy-makers and security experts). Not that global terrorism, political and social unrest in the MENA region or pandemics were absent from strategic foresight exercises, but the way they happened and, even more uncertainly, the type of cascading effects they provoked, were simply beyond any predictive capacity.

The topic of the day, and of this *Research Paper*, is more the cascading effects of the current crisis than its non-prediction. Looking back at 9/11 and the Arab Spring, and at what those events meant for NATO, one can only acknowledge that such implications could hardly have been fully comprehended in the midst of the two events.

Who would have predicted, on 12 September 2001, that what had happened the day before would *inter alia* lead NATO to run its largest operation ever, at more than 7,000 km away from Europe, and in a country – Afghanistan – that arguably did not appear in the national security and defence strategies of the vast majority of Allies? Ten years later, in the context of the Arab Spring, and a few months after NATO Allies adopted their New Strategic Concept, how likely was the type of operation that NATO ran in Libya,

in the name of the Responsibility to Protect, and who fully grasped what this operation would mean for the overall stability of the entire MENA region (and, slightly ironically, for NATO's Projecting Stability agenda as framed at the 2016 Warsaw Summit)?

Those uncertainties, and methodological difficulties, complicate any broad strategic stock-taking exercise in the current context; incidentally, this will have to be factored in by the newly-established NATO Reflection Group, mandated at the December 2019 London Leaders Meeting to "offer recommendations to reinforce Alliance unity, increase political consultation and coordination between Allies, and strengthen NATO's political role".

Against this backdrop, and with the above caveats in mind, issues such as the nature of the strategic environment, the evolution of war, our understanding of the notion of threat and security (and whose security we are talking about), as well as how all of these may impact NATO as a politico-military alliance, are to be debated. The seven chapters of this *NDC Research Paper* aim to shed light on some of these issues; they were produced by the researchers and visiting fellows of the NDC Research Division in the weeks that followed the outbreak of the crisis.

In the first Chapter, Andrea Gilli looks at some of the implications of the COVID-19 crisis on the international system, and identifies five main consequences, articulated around the idea that micro-parasites may favour an age of "bigness". First, important choices lie ahead of us. Decisions taken in the domains of health, economics or the place of multilateral frameworks will likely significantly affect the years to come, although the full effects are difficult to grasp at this stage. Second, a big divide in our societies will probably emerge, including between those who have access to healthcare, digital technologies and financial resources and those who do not, with all the consequences on society and national cohesion that this divide may create. Third, the COVID-19 crisis has further emphasized the importance of technology, and the necessity to adapt those technologies to much bigger needs, to the benefit of big tech companies. Fourth, the health crisis will bring about a big recession as well as it will challenge some of the premises of globalization; the State will grow in importance as a consequence. Finally, the crisis could lead to a big retrenchment, as Western countries may have to concentrate more on domestic issues.

In the second Chapter, Thierry Tardy unpacks the possible consequences of the crisis on the very notion of security, and on NATO. With the current crisis, pandemics have moved from the category of possible contingencies to that of reality. Yet COVID-19 is a threat with no enemy, i.e. "there is no Clausewitzian 'collision of two living forces' or the confrontation of two opposing strategies". Furthermore, the COVID-19 crisis epitomizes both the transnational dimension of the threat and the individual as a target, leading to

the “individual-centric” notion of human security, making resilience a key element of any security policy. This will impact security entities’ narratives, threat prioritization, and even thinking and policy-making about war-fighting in different ways. Insofar as NATO is concerned, the current COVID-19 risks further exacerbating the challenges that NATO is facing. The Alliance will remain indispensable as the overall international security environment deteriorates; however, issues such as internal cohesion, burden-sharing or assessment of and adaptation to the “new” threats will be further tested, in an environment where new priorities – in relation to health or simply economic recovery – will appear on national radar screens.

Third, Marc Ozawa explores Russia’s policy in the first months of the crisis, and in particular the disinformation campaign that Russia has instigated, largely targeting NATO and its member states. Those campaigns fit a recurring pattern. Not only do they “support the usual goals of discrediting NATO and undermining its cohesion”, they also aim to “advance geopolitical circumstances towards the optimal strategic outcome” of Russia’s decision-makers. In response, NATO has implemented a series of actions, through the systematic tracking of false and misleading messages, to developing counter narratives backed up by facts and data. For Ozawa, the Russian efforts at information manipulation may, however, be counterproductive. They have the potential to “backfire not only in terms of their desired propaganda effects, but also on the overall state of bilateral relations between Russia and key members of the Alliance”. As with Russia’s annexation of Crimea, which had a unifying effect within NATO, “Russia’s actions in the age of the Coronavirus could have an even deeper unifying impact on NATO and ultimately on its cohesion”.

In the fourth Chapter, Chloé Berger and Cynthia Salloum analyze the possible consequences of the crisis for the MENA region, what it means for NATO and the Alliance’s Projecting Stability agenda. The “South” appears highly vulnerable to the COVID-19 pandemic due to generally fragile health systems, but also as a result of political instability and conflicts in the region. Berger and Salloum acknowledge that NATO is not a first responder in the management of the COVID-19 crisis, and that given the nature of the vulnerabilities in the South, NATO’s role can only be limited. However, they also point to the intertwining of security developments in the South with our own situation, making the involvement of the Alliance in building the resilience of societies on our periphery indispensable. This is what Projecting Stability is supposed to be about. In practice though, the potential destabilization of the entire region as a result of the current crisis, and the transformation of the health crisis into a security crisis, may lead NATO to be involved in very different ways, and not only through capacity-building.

Fifth, Dumitru Minzarari offers an evaluation of the possible impact of the COVID-19 crisis on the nature of war. He first argues that the pandemic is likely to serve as a catalyst for escalating violence in conflicts by encouraging the choosing of risky military strategies. More fundamentally, Minzarari contends that the current crisis will trigger a shift in interstate aggression practices, moving away from “war in the physical realm” towards “war in the social realm”, of which hybrid hostilities are an example. While conventional wars aim to conquer and control territory, for Minzarari, “war in the social realm” aims at “acquiring control over the other two elements of a state’s sovereignty, which are ruling elites and population”. And because conventional wars have become too costly and ineffective, “targeting population and ruling elites” through other means is becoming the dominant model in modern interstate conflict. For Minzarari, this shift from one type of confrontation to the other is facilitated by the health crisis as it creates a conducive environment for the manipulation of citizens and the influencing of elites, in particular by Russia. If confirmed, the shift will arguably demand a fundamental review of NATO’s and member states’ defence policies, planning processes and strategies.

In the sixth Chapter, Ion Iftimie looks at the weaponization of biological agents and discusses NATO’s role as a guarantor of biodefence and deterrence. While COVID-19 is not categorized as a biological weapon, the current crisis offers a real-life scenario of what bioterrorism could lead to. In the fight against bioterrorism, the Allies will continue to play the most central role. The Alliance, however, should be “prepared (if called upon) to assist members and partner nations during growing threats in the biosphere or in the germs domain”. For Iftimie, enhancing NATO’s situational awareness, capabilities and engagements, is critical in at least four lines of effort: “first, to prevent the increase in intent and capabilities of terrorist entities; second to pursue indicators and warnings of bioterrorism activities; third to protect civilians and critical infrastructure of NATO members; and fourth to prepare for future bioterrorism attacks”. As Iftimie puts it, the post-COVID-19 crisis era “offers a good moment for lessons to be identified and learned, and for these issues to be actively considered and acted upon, for the next biological attack may be even more deadly and destabilizing”.

Finally, in the last Chapter, Howard Coombs offers a historical perspective of the current crisis, in relation to the 1918-19 Spanish Flu. A retrospective of 1918-1919 provides a glimpse of the impact of that outbreak on the various combatant forces of that time. From that, one can discern some of the choices that modern militaries must grapple with during a global pandemic. Coombs makes three sets of observations that are pertinent to the current situation, relative to force protection, operational tempo, and support to civilian authorities. At these three levels, a century ago as today, armed forces have proved

simultaneously vulnerable and able to adapt, most notably to support their own civilian partners. Coombs concludes with some thoughts about the handling of future pandemics, and how NATO can adapt. For him, NATO militaries “not only need to consider the impact of illness on both military and civilian personnel”, but must also “contingency plan for how they will simultaneously conduct operations while protecting and preserving their forces for future activities”.

These seven texts do not offer an exhaustive overview of all the challenges lying ahead. They nonetheless put into perspective some key developments that may occur as a result of the current COVID-19 crisis. In doing this at least three levels of analysis appear, dealing respectively with the nature of globalization, the nature of threats and wars, and the nature of security governance, by states, non-state actors, or institutions, including NATO.

As far as globalization is concerned, the crisis may accelerate already recognized trends such as a questioning of globalization and its effects on the sovereignty of states and the well-being of their people. The nature of global supply chains, over-dependence on China in some areas of goods production, the virtues of free travel and borderless regions, or the overexploitation of natural resources (and incidentally, the increasing proximity of human populations to wild species, which explains the spread of some diseases) are but a few examples of issues that will be looked at differently in the post-crisis era. Whether this leads to a better world is uncertain, as most of the sources of instability will remain; and there is no guarantee that the current crisis will make the environment a priority of public policies, especially at a time of unprecedented economic crisis.

Second, the COVID-19 crisis will shape our own conception of threats and subsequently the nature of security policies and warfighting. Two parallel trends are possible here: on the one hand, the nature of the current threat may lead to an increased focus on human security considerations over strictly-defined defence matters. Debates on issues such as health security, resilience or civil protection will gain momentum and likely lead to policy choices – far beyond the defence and security realm – that would have been difficult to envisage prior to the crisis. On the other hand, the general destabilization of countries or regions, or the increased tensions between great powers that may result from the health crisis – scenario of a health crisis morphing into a security crisis – may lead to conflicts that will call for some sort of renewed defence (and crisis management) efforts.

Finally, how states, non-state actors and international organizations assume their responsibilities as security actors and interact with one another remains difficult to assess at this stage. What has already been observed is how the *state* with its highest prerogatives has been at the centre of the policy response to COVID-19, in line with a narrow understanding

of the “national interest”. In this picture though, none of the great powers has appeared in a real position of leadership, and the US risks coming out of the crisis in a relatively weaker position than before. As for China, early hesitations in the management of the crisis and the fact that the virus may have originated from there, will tarnish China’s profile as a great, responsible, power; and how adjustments to the meaning of globalization will impact its position is unclear; in the medium term though, China may well benefit from the relative decline of the US, and therefore confirm its rise on the international scene. In the meantime, non-state actors have also played an important role in some domains, most notably the GAFAMs though the provision of technological tools that have enabled entire sectors to continue to operate despite the lockdown. In this context, multilateral institutions have not appeared as a privileged tool of governance of the crisis, and they may suffer from the strengthening of nationalist policies. In the longer run, the virtues of multilateral institutions are likely to appear in a better light, in the broad global governance domain (including health), but also in the security domain, where the transnational nature of threats is difficult to reconcile with a predominantly national response.

Overall, authors of this publication converge on one point: none of the current threats to our security is likely to be attenuated as a consequence of the crisis; pre-COVID-19 threats will continue to exist once the health crisis is over, quite a few may well be worse, and new ones will appear. The pressure this will create on the international system will be huge. This will likely make security institutions such as NATO even more indispensable, yet one effect of the crisis may also be the necessity to once again revisit the added-value of the military alliance, at a time when a lot of the threats out there call for very broad types of responses.

Microparasites and the age of bigness

Andrea Gilli

What are the implications of the Coronavirus (COVID-19) crisis on the international system? Will everything be different, as some warn, or will we sooner or later turn back to normalcy, as others predict? Will this crisis lead to a new international order or will it just accelerate (or even revert) some long-dated trends – and if so, which?¹ The Coronavirus crisis has highlighted the instability of many aspects of our lives, our societies and our economies.² For this reason, most observers maintain that the crisis will have major repercussions, like accelerating the rise of China, the end of globalization or the demise of the European Union.³ At this stage, some of these predictions seem premature.

In this chapter, I identify five main consequences of the pandemic on world politics. The Coronavirus crisis is bringing about an age of “bigness”: big choices, big divide, big tech, big state and big retrenchment. These issues will shape the international system in the months and years to come but it is too early to speculate on their extent and combined results.

Big choices and political path dependence

Whether the Coronavirus crisis is over in a few months or in several years, whether it affects all of the world or only some of its parts, whether it will be neutralized thanks to a vaccine or just contained because of social distancing measures, and whether a new age

1 B. Tertrais, “Year of the rat. The strategic consequences of the Coronavirus crisis”, *Note de la FRS*, No.17, Paris, Fondation pour la Recherche Stratégique, 2020.

2 G. Shteyngart, “Adjusting to the prophylactic life, under Coronavirus quarantine: maybe we were preparing for this life all along, the life of homes and screens and pantries”, *New Yorker*, 6 April 2020.

3 A. Nicholas and G. McKanna, “Are you ready for how the Coronavirus is transforming the world?”, *The Interpreter*, 19 March 2020; H. Farrell and A. Newman, “Will the Coronavirus end globalization as we know it? The pandemic is exposing market vulnerabilities no one knew existed”, *Foreign Affairs*, 16 March 2020; J. Allen, N. Burns, L. Garrett, R. N. Haass, G. J. Ikenberry, K. Mahbubani, S. Menon, R. Niblett, J. S. Nye Jr., S. J. O’Neil, K. Schake, S. M. Walt, “How the world will look after the Coronavirus pandemic”, *Foreign Policy*, 20 March 2020; J. Rankin, “Coronavirus could be final straw for EU, European experts warn”, *The Guardian*, 1 April 2020.

of pandemics begins, is hard to predict at this stage.⁴ Modern science and medicine are definitively on our side,⁵ but the choices taken in this transition period will have significant long-term effects, one way or another.⁶ Politics is, in fact, deeply path-dependent: major events such as the end of the Cold War, 9/11 or the 2008 financial crisis show that even minor decisions can have major and long-lasting consequences.⁷ This is why exogenous shocks do not just accelerate existing trends, as Richard Haas contends, they also halt or revert them.⁸ Some countries are experiencing food shortages, others have adopted strict lockdown measures, Europe is discussing how to handle the financial implications of the pandemic while the developing world is struggling with an explosion of its public debt. Decisions about these, as well as other, issues will likely significantly affect the years to come, although the full effects are difficult to grasp fully.⁹

Big divide and social dynamics

The crisis is strongly impacting our societies. In Europe and North America, it has already killed tens of thousands of people and the total toll could easily exceed hundreds of thousands. Individuals in the retirement age bracket are experiencing a higher mortality rate, the working-age population is being battered economically, while children and teenagers are being restricted in their personal, educational and professional growth. Some categories, from medical professionals to those working in logistics, are being stretched-thin while economic migrants and overseas seasonal workers are seeing their incomes slashed. The full picture varies enormously across classes, regions, countries and continents.¹⁰ However, besides the stress being put on societal resilience – from public unrest at the reduction in civil liberties to food shortages – the crisis is creating a divide in our societies.¹¹ As physical barriers to social interaction mount, a divide is growing between those who can access

4 W. H. McNeill, *Plagues and peoples*, Anchor Books, New York, NY, 1976.

5 V. Smil, *Creating the twentieth Century: technical innovations of 1867-1914 and their lasting impact*, Oxford University Press, Oxford, 2005.

6 J. Bendor and J. N. Shapiro, “Micro-events and macro-dynamics: the staccato growth of military power”, *Working Paper*, Princeton University Press, Princeton, NJ, 2016.

7 A. Tooze, *Crashed: how a decade of financial crises changed the world*, Viking, New York, NY, 2018; P. Pierson, “Increasing returns, path dependence, and the study of politics”, *American Political Science Review*, Vol.94, No.2, June 2000, pp.251-267.

8 R. Haass, “The pandemic will accelerate history rather than reshape it. Not every crisis is a turning point”, *Foreign Affairs*, May/June 2020, 7 April 2020.

9 J. Politi and J. Wheatley, “G7 countries back debt relief for poorest nations”, *Financial Times*, 14 April 2020.

10 Poverty and Equity GP Global Team, “Poverty and distributional impacts of COVID-19: potential channels of impact and mitigating policies”, Power Point Presentation, World Bank, Washington, DC, 7 April 2020. <http://pubdocs.worldbank.org/en/657421587133962274/Poverty-distr-impacts-policy-options-COVID19-April-72020.pdf>

11 Y. Trofimov, “A world of hardening borders. The pandemic has empowered the nation-state, as global institutions falter and governments assert far-reaching control”, *Wall Street Journal*, 17 April 2020.

healthcare and medical equipment, digital technologies and financial resources (to cope with the economic uncertainty) and those who cannot. Another ethical divide is growing between those prioritizing the value of public health and those giving priority to wellbeing.¹² A third divide exists between those hit, primarily the elderly, and those paying the price of the lockdown as well as between protected and unprotected workers or between those who can and those who cannot work from home.¹³

In the past, simple innovations like the washing machine or the birth control pill fundamentally contributed to changing our societies (in this case, by opening new opportunities to the female population).¹⁴ Social distancing measures, working from home, and more limited travel could have similar and even more impactful consequences, especially if the crisis drags on for months or longer. Additionally, some will succeed and some will fail in adapting to the new normal. Likewise, new political claims will probably emerge to address the new personal, educational and professional needs of millions of people.¹⁵

Big tech and microparasites

Before the breakout of the pandemic, technology held the stage in public discussions around the world: from the role of artificial intelligence to the implications of quantum computing, to the risks and opportunities related to 5G communication networks. The Coronavirus crisis has highlighted both how modern technologies can hold societies and economies together – through digital interaction – and how they can help address new emergency situations – through the opportunities they provide, for instance the geo-localization of infected people.¹⁶ There is, however, another aspect: so far, digital technologies were an opportunity; with the crisis, they have become a necessity. This has three main implications. First, since existing digital infrastructure is not designed for massive reliance on working-from-home, online-teaching or teleconferencing, more investment will be necessary.¹⁷ Second, the more people and organizations digitalize, the more cyber risks

12 “Restarting America means people will die. So when do we do it? Five thinkers weigh moral choices in a crisis”, *New York Times Magazine*, 10 April 2020.

13 R. Molla, “This is the end of the office as we know it”, *Recode by Vox*, 14 April 2020.

14 F. Fukuyama, *The Great disruption: human nature and the reconstitution of social order*, Touchstone, New York, NY, 1999. For the role of housewares, see for instance, E. Cardia, “Household technology: was it the engine of liberation?”, *EconPapers*, No.826, 2008.

15 J. Scott, “The economic, geopolitical and health consequences of COVID-19”, *World Economic Forum*, 6 March 2020.

16 C. Newton, “Apple and Google have a clever way of encouraging people to install contact-tracing apps for COVID-19”, *TechCrunch*, 14 April 2020.

17 H. Gold, “Netflix and YouTube are slowing down in Europe to keep the internet from breaking”, *CNN Business*, 20 March 2020; C. Stokel-Walkerm, “The people keeping the internet on”, *OneZero*, 28 April 2020.

increase and cyber-security, thus, becomes critical. Even tech giants are not prepared for home-office mode.¹⁸ Last but not least, the digital economy is characterized by a winner-takes-all logic, well anticipated by Carl Shapiro and Hal Varian 20 years ago.¹⁹ This means that the more we use digital technologies, the stronger big tech companies become.²⁰ For Europe, in particular, it does not bode well: all big tech comes from North America and Asia,²¹ and the crisis-imposed rapid adoption of digital technology will inevitably increase their customers to the detriment of potential emerging European competitors.²² In relation to this, the operational imperative to move online will import both digital technologies and their winner-takes-all logic to new industries; and more intense competition will result. Education, news, entertainment, consulting, and research will all be affected: if we are all forced to stay at home, it will not matter whether the service provider is 500m or 5,000km away.²³

Big recession, big debt and big state

The spread of the Coronavirus will lead to a global recession, probably bigger than the 2008-11 crisis.²⁴ GDP may fall by up 10, 15 or even 20 percent in some countries and the impact may wreck further havoc in case of a (likely) second wave of diffusion, a lack of compliance with public health regulations and the inability to return quickly to pre-crisis production levels (not an unlikely scenario at this stage).²⁵ Not all areas and countries will be hit equally hard. Wuhan, Lombardy, or New York are paying heavier prices and so are Italy, Spain and the United States – at least at this stage. Thus, the capacity to respond and to recover from the crisis will differ significantly. The same applies to industries and companies: the increasing demand for digital services is coupled with the brutal stall of the

18 M. Peterson, “Apple staffers suffer work-from-home setbacks due to security guidelines, travel bans”, *Appleinsider*, 30 March 2020.

19 C. Shapiro and H. R. Varian, *Information rules: a strategic guide to the network economy*, Harvard Business School Press, Cambridge, MA, 1998.

20 H. R. Varian, “Artificial intelligence, economics, and industrial organization”, in A. Agrawal, J. Gans and A. Goldfarb (eds.), *The economics of artificial intelligence: an agenda*, University of Chicago Press, Chicago, IL, 2019, pp.399-422.

21 D. Castro, M. McLaughlin and E. Chivot, *Who is winning the AI race: China, the EU or the United States*, Center for Data Innovation, Washington, DC, 2019.

22 J. Farrell and P. Klemperer, “Coordination and lock-in: competition with switching costs and network effects,” in M. Armstrong and R. K. Porter, *Handbook of industrial organization*, Vol.3, Elsevier, Amsterdam, 2007, pp.967-2072.

23 G. G. Parker, M. W. Van Alstyne and S. P. Choudary, *Platform revolution: how networked markets are transforming the economy - and how to make them work for you*, W. W. Norton & Co, New York, NY, 2016.

24 G. Gopinath, “The great lockdown: worst economic downturn since the Great Depression”, *IMFblog*, 14 April 2020.

25 M. Cembalest, “After the first wave: getting back to ‘normal’, and the importance of virus/antibody testing”, *Eye on the Market*, JP Morgan, New York, NY, 18 April 2020.

travel and hospitality industry.²⁶

Two aspects deserve attention. On the one hand, the crisis will spur increases in public expenditure and public debt. In some cases this will be sustainable, while in others it will not. Overall, the role of the state could be significantly bigger in the years ahead also because it is unclear how some industries will recover – the airline industry is a primary example. On the other hand, global supply-chains could be decoupled.²⁷ This could signify the end of globalization, at least as we know it.²⁸ Trends towards decoupling started over a decade ago, thanks mostly to additive manufacturing (3D printing) and the rise of the digital economy, and the trend has been accelerated by the trade war between the United States and China.²⁹ How, to what extent and where the decoupling will take place remains to be seen: some areas or countries with skilled but relatively cheap labour could benefit from this transition but decoupling could also occur because of growing reliance on automation, thus further benefiting high-tech manufacturers.³⁰ Another example of decoupling could occur, paradoxically, with food supply. The crisis has also led to food shortages, also in developed countries: while agriculture has been often offshored to developing nations, some governments may rethink this assumption.³¹ Decoupling is not cost-free: the prices of many goods will soar and those not able to enter the new supply-chains will suffer a net loss of income.

Big retrenchment

In the past, pandemics affected the political trajectory of empires and regions, foremost by affecting their economies: this occurred to the Roman Empire or to Renaissance Italy in the 17th century.³² COVID-19 could have similar consequences. Some areas and countries will emerge weaker than others and thus their medium-to-long term prospects could be deeply affected. This applies both within and between countries. One aspect,

26 D. Neufeld, “The hardest hit companies of the COVID-19 downturn: the ‘BEACH’ Stocks”, *Visual Capitalist*, 25 March 2020.

27 H. Farrell and A. L. Newman, “Choke points”, *Harvard Business Review*, January-February 2020.

28 B. Blaesser, B. Levering, Y. Castaño and P. Van den Bossche, *Trade war spurs sharp reversal in 2019 Reshoring Index; foreshadowing COVID-19 test of supply chain resilience*, Kearney, Chicago, IL, 2020.

29 L. Fratocchi, “Is 3D printing an enabling technology for manufacturing reshoring?”, in A. Vecchi (ed.), *Reshoring of manufacturing. Measuring operations performance*, Springer, Cham, 2017, pp.99-124.

30 M. Corkery and D. Gelles, “Robots welcome to take over, as pandemic accelerates Automation”, *New York Times*, 10 April 2020.

31 A. Raghu, “Satellites are helping to track food supplies in Coronavirus Era”, *Bloomberg*, 12 April 2020.

32 K. Harper, *The fate of Rome: climate, disease, and the end of an empire*, Princeton University Press, Princeton, NJ, 2017; G. Alfani, “Plague in seventeenth-century Europe and the decline of Italy: an epidemiological hypothesis”, *European Review of Economic History*, Vol.17, No.4, November 2013, pp.408-430.

however, can be taken for granted. The modern world was shaped by Western countries. COVID-19 will lead to a big retrenchment on their side; whether this is temporary, long-lasting or something else, it is impossible to say. The mix of social, political, economic and technological developments discussed in the previous section suggests that in the years ahead, Western countries will have to pay increasing attention to domestic issues: to their societies, their economies, their industries and their polities. This has direct implications on defence. The upcoming recession will probably lead to a new wave of budgetary cuts, which coupled with the difficulty of projecting and sustaining power abroad, may make it more difficult to preserve deterrence and enforce defence around the world.³³

Conclusion

Will the COVID-19 crisis lead to a new global order, the end of globalization, the rise of China, the collapse of the European Union or the final demise of the Post-War liberal international order? The jury is still out. Henry Kissinger believes, now, that pandemics can have these major effects.³⁴ Interestingly enough, in his study covering 500 years of diplomatic history from early modern times to contemporary periods, pandemics found very little space – although their lethality was much greater than COVID-19.³⁵

The pandemic is bringing about some big changes: societies will be more divided, the role of governments much bigger, the recession will have deep-felt economic repercussions, and tech companies will become even bigger. Probably the most important variables will be the choices taken, individually and collectively, in this transitory period. They could cumulatively deeply affect the years ahead.

33 D. Lamothe and S. Boburg, “How an outbreak on the USS Theodore Roosevelt became a defining moment for the US Military”, *The Washington Post*, 17 April 2020; “Half of French aircraft carrier Charles de Gaulle crew test positive for COVID-19”, *The Defense Post*, 17 April 2020.

34 H. A. Kissinger, “The Coronavirus pandemic will forever alter the world order”, *Wall Street Journal*, 3 April 2020.

35 H. A. Kissinger, *Diplomacy*, Simon & Schuster, New York, NY, 1994.

COVID-19: shaping future threats and security policies

Thierry Tardy

What does the COVID-19 crisis say about our understanding of threat, security, and security policy? Over the last decade the security environment in the Northern hemisphere has been characterized by the combination of evolving threats and uncertainties about the relevance of actors that respond to those threats. On the one hand, threats have emanated from non-state actors such as terrorist groups or have morphed into non-military issues to embrace cyberattacks and the destabilizing effects of uncontrolled migrations. Meanwhile, the resurgence of Russia in the context of the 2014 Ukraine crisis, together with the rise of China have brought back to our security narrative the idea of great power competition.

On the other hand, security actors have been challenged in their ability to provide coherent and effective responses to these developments. Individually, states have struggled to tackle what are in essence global and transnational threats; international security organizations – NATO and the European Union in particular – have helped design collective responses, yet they have also suffered at times from a lack of efficiency and mistrust from their own constituencies, both states and people.

None of the above trends will be fundamentally altered by the COVID-19 crisis,¹ and all pre-COVID-19 threats will continue to exist once the health crisis is over. Quite a few parameters and policies will be impacted by the COVID-19 crisis though, in a way that is likely to make us less rather than more safe.

This chapter looks at three sets of issues. First, it examines the nature of the COVID-19 threat, how new it is, and how the crisis illustrates the shift to the *widened* – or *globalized* – security agenda. Second, the text deals with what the crisis tells us about security policies and how they may evolve as a consequence of the crisis, with reference to the notions of human security and resilience. Finally, the chapter presents some potential consequences of

¹ Even if in the short term one consequence of the measures taken to limit the spread of the virus is the halting of South-North migration flows (as well as the disruption of a range of criminal activities); yet the situation of migrants already in Europe has been dramatically and negatively impacted by the COVID-19 crisis.

the COVID-19 crisis on NATO, its role, and its further adaptation in response to evolving threats.

The widened security agenda

Pandemics are not new as threats to our security, and without going back to the Spanish Flu (1918-20)² or the 14th century Black Death, over the last 40 years HIV/AIDS or the Ebola Virus Disease (EVD) have been examples of epidemics that have impacted our threat perceptions. Most national security strategies and their equivalent in international organizations have also for some time factored in pandemics in their threat assessment analysis.³

Despite this, several aspects of COVID-19 need to be highlighted. First, with the current crisis, pandemics have moved from the category of possible contingencies to that of reality; as of the end of April 2020, COVID-19 had killed roughly 70 times more people in Europe and North America than terrorism did between 2002 and 2018.⁴ The notion of “war against COVID-19” has been referred to in a number of countries.⁵ This has impacted and will impact security entities’ narratives, threat prioritization, and even thinking and policy-making about war-fighting in different ways.⁶ Not only will pandemics acquire higher visibility in threat assessment, crisis or war-fighting scenarios but for some countries it will also make other threats less salient, or less immediate.

Second, COVID-19 is a threat with no enemy; in this new kind of war, there is no Clausewitzian “collision of two living forces” or the confrontation of two opposing strategies. Manichaeic precepts dealing with threat construction such as “us” vs “them”, good or legitimate vs. bad or illegitimate, winner vs. losers, are no longer valid in the current

2 See the Chapter by Howard Coombs in this Volume.

3 As an example, the NATO 2010 Strategic Concept stated: “Key environmental and resource constraints, including health risks, climate change, water scarcity and increasing energy needs will further shape the future security environment in areas of concern to NATO and have the potential to significantly affect NATO planning and operations”. Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization, November 2010, para.15.

4 Coronavirus deaths in Europe and North America numbered approx. 190,000 as of late April 2020, while the number of deaths by terrorist acts in Europe (including Turkey) and North America between 2002 and 2018 was approx. 2,800. In 2018, Europe and North America recorded 99 deaths from terrorism (of which 40 occurred in Turkey); for deaths from Coronavirus, see Johns Hopkins University and Medicine, Coronavirus Resource Centre, <https://coronavirus.jhu.edu/map.html>; for deaths from terrorism, see “Global terrorism index 2019. Measuring the impact of terrorism”, Institute for Economics and Peace, Sydney, November 2019, <http://visionofhumanity.org/reports>

5 See Emmanuel Macron, “Adresse aux Français”, Paris, 16 March 2020, <https://www.elysee.fr/emmanuel-macron/2020/03/16/adresse-aux-francais-covid19>; Boris Johnson, “PM statement on Coronavirus”, 17 March 2020, <https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-17-march-2020>; “Remarks by President Trump, Vice President Pence, and Members of the Coronavirus Task Force in Press Briefing”, 19 March 2020, <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-members-coronavirus-task-force-press-briefing-6/>

6 See the chapters by Dumitru Minzarari and Ion Ifimie in this Volume.

fight.⁷ Whether this is uniting countries under a common cause is a different matter, nonetheless the absence of a physical enemy cannot not have an impact on the concept of alliance. In this context, one should however note that in some countries – the US, China and Russia in particular – the narrative has aimed to reconstruct a state-based threat by linking the origin of the virus to a foreign country.⁸

Third, COVID-19 is new or different in the sense that it has impacted the very foundation of state prerogatives, the economies of the states concerned, as well as their citizens' way of life (at least during the crisis itself).⁹ In this sense COVID-19 is not comparable to seasonal flu or HIV/AIDS, which although they provoke high numbers of deaths,¹⁰ do not threaten the foundation of the state (although HIV has jeopardized the foundations of some African societies). COVID-19 is arguably the most destabilizing event the world has witnessed since the Second World War.

Fourth, the COVID-19 crisis epitomizes both the transnational dimension of the threat and the individual as a target. At these two levels the state as the main referent object of security is being challenged, in a debate that extends to the notion of human security (see below). Together with 9/11 and the coming environmental predicament, COVID-19 is a blatant demonstration that the *widened* – or *globalized* – security agenda is a fact of life.

Of course, what has so far remained a “health crisis” could well evolve into situations of social unrest and even open conflicts, or could be used to their advantage by violent forces, as warned by the UN Secretary General.¹¹ This led the NATO Secretary General to make the distinction between a health crisis and a security crisis, the “primary objective” of the Alliance being to ensure that the former does not become the latter.¹² In conceptual as much as in operational terms, whether these two species of crisis are distinct is debatable.

7 See B. Badie, “Face au Covid-19, la guerre... mais quelle guerre?”, iD4D, Agence française de développement, 31 March 2020, <https://ideas4development.org/covid-19-guerre/>

8 See “Trump and Beijing agree on the Coronavirus crisis: it's someone else's fault”, CNN, 18 March 2020; “For China, the ‘USA virus’ is a geopolitical ploy”, *The Atlantic*, 11 April 2020, <https://www.theatlantic.com/ideas/archive/2020/04/chinas-covid-19-conspiracy-theories/609772/>

9 “Coronavirus will change the world permanently. Here's how”, *Politico*, 19 March 2020, <https://www.politico.com/news/magazine/2020/03/19/coronavirus-effect-economy-life-society-analysis-COVID-135579>; see also J. Allen, N. Burns, L. Garrett, R. Haass, J. Ikenberry, K. Mahbubani, S. Menon, R. Niblett, J. Nye, S. O'Neil, K. Schake, S. Walt, “How the world will look after the Coronavirus pandemic”, *Foreign Policy*, 20 March 2020.

10 Approx. 32 million people have died from HIV/AIDS up to 2018; “Global Health Observatory (GHO) data – HIV/AIDS”, World Health Organization, <https://www.who.int/gho/hiv/en/>

11 “COVID-19 threatening global peace and security, UN chief warns”, *UN News*, 10 April 2020, <https://news.un.org/en/story/2020/04/1061502>

12 “Pre-ministerial press conference by NATO Secretary General Jens Stoltenberg”, NATO, 1 April 2020, https://www.nato.int/cps/en/natohq/opinions_174770.htm

What consequences for security policy?

The defence policies of most NATO countries combine a predominantly state-centric approach – by which the main referent object to be secured is the state – in a mix with a dose of human security that implies that individuals are also to be secured.

Recent thinking about the resurgence of great power competition has reinforced the state-centric dimension, while the so-called “newly-emerged” threats (such as terrorism or illegal migrations) have tended to give prominence to the human security perspective. As a matter of fact, many of the current threats are by nature transnational, ignore borders, target sub-state entities and even individuals, and therefore call for some kind of human security response.

Against this backdrop, the COVID-19 crisis is *prima facie* a plea for an individual-centric security policy.¹³ The concept of human security was framed in a 1994 report from the United Nations Development Programme (UNDP). It was defined as an alternative to the traditional territorial defence concept. Human security establishes a link between the security of the individual and the security of the state: the latter is not possible in the absence of the former. Security is then defined as the “safety from the constant threats of hunger, disease, crime and repression”.¹⁴ This definition leads to a shift in what constitutes the referent object of security (the answer to the “whose security?” question) from the state to the individual.

In reality, although over the last thirty years some dose of individual-centric approach has shaped national policies and has largely driven the UN agenda (in peace operations or through the concept of Responsibility to Protect, for example) and to a lesser degree the EU agenda, the concept of human security has not supplanted the state-centric approach in most NATO member states.

Whether the COVID-19 crisis will change this security perspective is difficult to tell at this stage. Yet several facts have already been observed, revealing that both states and individuals are simultaneously key targets and key actors of the response to the crisis.

The first issue is the extent to which sub-state actors – individuals, health actors, experts, the media, etc. – have been involved in the implementation of security policies in response to the COVID-19 crisis. Most specifically, through the lockdown and social distancing, individuals have played a strategic role in crisis management (although individuals have, unintentionally, also been the main vector of the spread of the disease). In an unprecedented

13 M. Martin and T. Owen (eds.), *Routledge Handbook of Human Security*, Routledge, 2014.

14 UNDP, Human Development Report, New York, 1994, p.3.

way, through their own behaviour, individuals have been actors of their own security rather than the mere object of protection from others (i.e. the police or armed forces).

Second, while the threat has been global in nature, crisis response and governance have been local (state-led and below) rather than international or global. The state has been a central actor, revealing a general absence of solidarity or any cosmopolitan approach between states, within the European Union most blatantly, but also between the European continent and the US.¹⁵ The authority of the state in guaranteeing the security of citizens is expected and nothing is really new on this front; what is noticeable though is the “back-to-the-state” reflex at the expense of most international governance mechanisms. In a different context, the centrality of the state was observed in the response to 9/11, when the US and its allies mounted military operations outside of any institutional framework, at least in the immediate response. The centrality of the state in the policy response can be interpreted as weakening the human security argument of an individual-centered approach; yet human security relates to the recipient of security policy – the individual – more than to the implementing body. Theoretically, a human security policy can give a key role to the state in its implementation.

Third, in this picture, police and the armed forces have been solicited in different ways. The police was involved in enforcing the lockdown and guaranteeing public order, thereby playing an essential role in crisis management. For their part, the armed forces have mainly intervened in support of the health sector,¹⁶ through their role in logistics and infrastructure. To do so the military has relied on one of its key comparative advantages, that is its capacity to operate (meaning transport, protection, and providing support) in a situation of chaos. This said, the threat itself was tackled by non-military means. In other words, the most destabilizing threat to our societies,¹⁷ our institutions and our lives since the Second World War has led to a response that – at the end of April 2020 – did not involve the exercise of coercion or a large-scale use of the means that exist to guarantee state survival.¹⁸

With these parameters in mind, two sets of policy considerations will appear in the post-COVID-19 era which might contradict each other in terms of citizens' rights. One issue will concern the degree of a state's control over civil liberties and human rights in a

15 B. Haddad, “‘America first’ is the wrong approach to the Coronavirus”, *The Washington Post*, 12 March 2020, <https://www.washingtonpost.com/opinions/2020/03/12/america-first-is-wrong-approach-coronavirus/>

16 In China though, the PLA played a central role at different levels of the response to the pandemic. See E. Graham, “The armed forces and COVID-19”, *Analysis*, IISS, London, 8 April 2020.

17 B. Milanovic, “The real pandemic danger is social collapse”, *Foreign Affairs*, 19 March 2020; M. Mizutori, “What COVID-19 tells us about the changing nature of disaster risk”, *World Economic Forum*, 23 April 2020, <https://www.weforum.org/agenda/2020/04/here-are-the-biggest-risks-we-re-facing-right-now-the-covid-19-crisis-reveals-how-to-stop-them/>

18 For a historical perspective see the Chapter by H. Coombs in this Volume.

situation of increased economic and societal instability and the potential resurgence of the virus. The more critical the situation is the more state-centered – and authoritarian – the response is likely to be. Second, in the longer run, and assuming that the crisis does not last too long, any stock-taking exercise will likely give credit to human security considerations over strictly-defined defence matters. Debates on issues such as health security, resilience or civil protection will gain momentum and likely lead to policy choices – far beyond the defence and security realm – that would have been difficult to envisage prior to the crisis. A comparative analysis of Defence or Security White Papers released after the crisis *versus* before will no doubt reveal key differences in the prominence of human security considerations.

The issue of resilience provides an example of one aspect of security policies that may go through major evolutions. Societal resilience has become a central element of the involvement of the population in the broad security and defence effort. It is, for example, central to the notion of “total defence” in force in some Nordic and Baltic countries.¹⁹ In essence, resilience is a response to the multifaceted nature of almost any threat and to the necessity of designing policies that involve all the layers of a given society. In this perspective, many lessons will need to be drawn from the COVID-19 crisis and the manner in which the population, the public and private sectors, adapted and contributed to crisis management, so that we are better prepared in the future.

What’s in it for NATO?

Analysis provided on the occasion of the 70th anniversary of the Atlantic Alliance has revealed an incongruity between on the one hand NATO as an organization that functions rather well, that has adapted over time and that has delivered on its mandate, and on the other the political alliance that suffers from a lack of cohesion among its member states, as well as a weakening of the transatlantic bond.²⁰ Related challenges include burden-sharing, the East-South divide, and the ill-defined Projecting Stability agenda.

One issue with the current COVID-19 crisis is that it risks further exacerbating those challenges. This in turn may create collateral damage within the Alliance. At the December 2019 London Leaders Meeting, NATO member states launched a reflection process that

19 B. von Sydow, “Resilience: planning for Sweden’s ‘total defence’”, *NATO Review*, April 2018, <https://www.nato.int/docu/review/articles/2018/04/04/resilience-planning-for-swedens-total-defence/index.html>; S. Flanagan *et al.*, “Deterring Russian aggression in the Baltic states through resilience and resistance”, RAND Corporation, Santa Monica, 2019. https://www.rand.org/pubs/research_reports/RR2779.html

20 See T. Tardy (ed.), “NATO at 70. No time to retire”, *NDC Research Paper* No.8, NATO Defense College, Rome, January 2020; N. Burns and D. Lute, “NATO at seventy: an Alliance in crisis”, Belfer Center for Science and International Affairs, Harvard Kennedy School, February 2019.

is now taking shape with the establishment of a Panel of experts, placed under the lead of the NATO Secretary General and mandated to make recommendations on how to “further strengthen NATO’s political dimension”. In this context, at least three issues can be identified.

First, the COVID-19 crisis has called into question the role of international organizations and the virtues of solidarity between states (and even allies) in a way that has adversely affected transatlantic relations. NATO’s involvement in the management of the crisis has mainly taken the form of logistical support of its member states while maintaining its deterrence and defence posture.²¹ Beyond, the national reflex observed in most capitals does not bode well for the future of transatlantic relations or for maintaining trust in international organizations. In the medium term, Alliance cohesion may also suffer from divergences in threat assessment among member states that will be even less eager to agree on the salience of the Russian threat, or the danger of terrorism, as new priorities (in relation to health issues or simply the challenge of economic recovery) will have appeared on national radar screens. Put differently, will the threat of Russia continue to shape defence policies of a large chunk of NATO member states – i.e. elicit solidarity among them – in the post-COVID-19 era?²²

Second, the burden-sharing agenda (and the related Defence Investment Pledge by which NATO member states have to move towards spending 2 percent of their GDP on defence by 2024) is likely to feature as collateral damage of the COVID-19 crisis. Pre-COVID-19, the narrative about Europeans spending more on defence to better share the security and defence burden with the Americans, was already tenuous in most European states,²³ and there are reasons to believe it will get even more difficult to maintain post-crisis. The general economic depression that will follow will considerably constrain public spending; in addition, the “more-money-for-defence” narrative will lack credibility in any public debate at a time when other human security-related priorities will have emerged.²⁴ Societal resilience, civil protection, internal security, and health are more likely to get traction and budget than narrowly-defined defence capabilities.

21 R. Ellehuus, “NATO responds to the COVID-19 pandemic”, CSIS, Washington, DC, 2 April 2020, <https://www.csis.org/analysis/nato-responds-COVID-19-pandemic>

22 N. Gvosdev, “The Effect of COVID-19 on the NATO Alliance”, Foreign Policy Research Institute, Philadelphia, 23 March 2020. <https://www.fpri.org/article/2020/03/the-effect-of-COVID-19-on-the-nato-alliance/>

23 In an EU context, debates about the Multiannual Financial Framework in late 2019/early 2020 had already revealed States’ reluctance to fund the defence-related initiatives like the European Defence Fund or military mobility. Cf. “EU budget squeeze hits defence ambitions”, *Financial Times*, 24 February 2020.

24 Not to mention that any percentage of GDP for defence spending will inevitably mean lower budgets as GDP decreases; although in the case of the GDP decreasing more rapidly than the defence budget, the percentage of the defence budget compared to the GDP would automatically rise.

Third, the nature of the COVID-19 threat will inevitably lead back to the debate about NATO's adaptation to the so-called new threats and what it means for NATO's core defence task. To start, the COVID-19 crisis gives a real-life sense of what bioterrorism could look like and from that there are lessons to be learned for any defence institution.²⁵ Beyond, in a post-COVID-19 era, pressure will increase on NATO to find its place in the broad resilience/human security debate and the pandemic response.²⁶ This can only exacerbate the dilemma by which either the Alliance broadens its mandate to embrace the width of contemporary threats or it focuses on its core defence mandate. The former may mean an enhanced civilian role, or for NATO to "develop standing defense plans for pandemic response",²⁷ and therefore may come at the expense of NATO's cutting edge military capacity; while the latter – a focus on the core defence mandate – runs the risk of being inadequate for a large portion of current threats. In turn, this discussion leads back to the issue of solidifying partnerships, based on the various entities' comparative advantages. Developing further the partnership with the European Union is the most obvious option, but the nature of the threat also calls for a more ambitious and more formalized relationship with a wide array of private sector entities, ranging from health to new technology actors. Arguably, COVID-19 does not make existing threats less salient; NATO simply has to further adapt to an even more complex environment. In this endeavour, and as the Reflection Group established by the Secretary General has started its work, the challenge will be for the Alliance to be able to maintain its defence added value while offering a meaningful response to what are increasingly multifaceted threats.

25 See the Chapter by Ion Iftimie in this Volume.

26 D. Altman, "In the wake of bushfires and Coronavirus, it's time we talked about human security", *The Conversation*, 19 March 2020; L. Coombs, "Strengthening the role of human security in NATO Operations", in T. Valášek, *New perspectives on shared security: NATO's next 70 years*, Carnegie, November 2019.

27 D. Chollet, M. Baranowski, S. Keil, "Where is NATO? And where is Trump?", *DefenceOne*, 13 April 2020, <https://www.defenseone.com/ideas/2020/04/where-nato/164568/?oref=d-river>

NATO and Russia in the time of Corona. Countering disinformation and supporting Allies

Marc Ozawa

In recent years NATO-Russia relations have been tense at the best of times, particularly since 2014 and the illegal annexation of Crimea. However, just like 2014 was a “watershed moment” for NATO, the members of the Alliance, their leaders and populations are waking up to a new era of viral pandemics, one that stands to impact and shape the coming months, years and beyond. All of their institutions and economies are being challenged, and at the NATO level, it is the substance of the Alliance that is being tested. Although the first reaction within states was to look inward, as governments begin to take stock of this new reality, the benefits of multilateral cooperation are becoming clear, both for NATO and the European Union (EU).

Despite the growing urgency to respond to the health, humanitarian, and economic needs, there is likewise a heightened risk on the Eastern Flank of the Alliance that comes from the uncertainty of ever changing circumstances in a time of crisis. This risk requires monitoring and responding to Russia’s actions not only on NATO’s borders but also within the societies and economies of the Allies. There are already signs that Russia is testing NATO’s borders and operational abilities during this period. Since January 2020, Russian disinformation campaigns have aimed to sow discord and undermine cohesion in the Alliance through social media, information manipulation, and brazen publicity events.

The recent campaigns targeting the Allies hardest hit by the Coronavirus fit a recurring pattern. Not only do they support the usual goals of discrediting NATO, creating division among Allies, and sowing panic in societies, they also advance geopolitical circumstances towards the optimal strategic outcome of Russia’s top security brass. But these efforts have the potential to backfire not only in terms of their desired propaganda effects, but also on the overall state of bilateral relations between Russia and key members of the Alliance.

Evolved and targeted disinformation campaign

A recent report by the European External Action Service (EEAS) explains that Russia has been engaging in a disinformation campaign since late January 2020 to sow confusion and panic about the virus, not only in Ukraine and bordering countries but also in those NATO member states that are the hardest hit by the Coronavirus. These include Italy, Spain, Germany, France, Great Britain, and the United States.¹ More disturbingly, a subsequent report also makes clear that the purpose of these campaigns is not only to create confusion and panic but ultimately to prolong response times while maximizing the impact of the pandemic.² From January to March 2020, the top three disinformation stories stated that the Coronavirus was “created in NATO laboratories”, that “global elites [used] the outbreak to introduce tyranny”, and that the pandemic “[would] eventually lead to the collapse of the European Union”.³

This current disinformation campaign presents some new challenges compared with those observed in the past. The approach this time is one of amplifying the exposure of stories from secondary sources originating from China, Iran, and far-right groups in the US rather than authoring the content themselves. This is done on Kremlin funded news sites in addition to promoting the stories on social media. In this way, “pro-Kremlin media [can] deny they are creating disinformation and claim they are ‘merely reporting what others are saying’”.⁴

There are multiple audiences for these campaigns, not only directed at NATO member states but also at Ukraine and even Russia’s domestic audience. The narratives are tailored to each audience. Yet those directed at Europe and North America, especially those states hardest hit by the virus, focus on casting doubt in the national authorities and EU to handle the spread and treatment of the virus, all while “emphasizing how well Russia and Putin are dealing with the outbreak”.⁵ Another narrative directed at Europe is to associate the virus with migrants and the need for countries to close their borders and not look to NATO or the EU to address the pandemic. In fact, much of the disinformation targets NATO and the EU specifically, while painting Russia and China in the most positive light.

1 “The virus to liberate us from freedom”, *EU vs Disinformation*, 19 March 2020, <https://euvsdisinfo.eu/the-virus-to-liberate-us-from-freedom/>

2 “Disinformation can kill”, *EU vs Disinformation*, 26 March 2020, <https://euvsdisinfo.eu/disinformation-can-kill/>

3 “The virus to liberate us from freedom”, *EU vs Disinformation*, 19 March 2020, <https://euvsdisinfo.eu/the-virus-to-liberate-us-from-freedom/>

4 “EU monitors say pro-Kremlin media spread Coronavirus disinformation”, RadioFreeEurope/RadioLiberty, <https://www.rferl.org/a/eu-monitors-say-pro-kremlin-media-spread-coronavirus-disinformation/30495695.html> (accessed 19 March 2020).

5 *Ibid.*

In April, NATO, through its Public Diplomacy division, responded to the main disinformation narratives promoted by Russian sources and amplified through Kremlin-friendly, proxy media outlets. By laying out the main narratives – the so-called myths about NATO and COVID-19, fact checking and correcting the record, NATO has begun to counter their effects.⁶ The first myth is that NATO was on the verge of collapse under the stress created by the pandemic. In contrast to what NATO has actually done in support of Allies, the second narrative put forward by the disinformation campaign is that NATO is failing to support its members. Conversely, Russia is promoted as a friend to Italy and Spain by sending medical supplies. Following the deliveries of Russian aid, a disinformation campaign was launched to discredit Italian journalists who reported that most of the supplies Russia sent were useless for the circumstances of the time.⁷ This has not stopped Russia from using the shipment as a photo opportunity for a publicity coup and to influence public opinion in Italy and globally. Notwithstanding Italy's genuine need for support and the fact that most of the Russian supplies were reported to be useless, governments and international organizations may learn a lesson about the importance of timing in the deployment of humanitarian aid. The shipment arrived in mid-March, two weeks after the country went into lockdown mode. This was also the most extreme phase of Coronavirus deaths and new infections in Italy, which explains the local and international attention that the shipment received. Although disaster planning at NATO was already underway, the first defense ministerial meeting after the crisis took place two weeks later. Where March was the month when Allies understandably focused on the pandemic domestically, Russia appeared to be at an early, functional stage of its own Coronavirus pandemic, and China had allegedly contained the virus as evidence of the preparations for re-opening the city at the origin of the outbreak, Wuhan.

As subsequent Russia aid shipments and information operations attest, the target countries are those who have Kremlin-friendly domestic forces, Russian-speaking minorities, or those with historical cultural ties to Russia. The campaign in Lithuania, marked by the narrative that Lithuania was trying to sideline Belarus, is an example of the second type.⁸ In the case of the latter, the recent shipment of medical support to Serbia is an example of Russia positioning itself in contrast to NATO and the EU in countries with historical and cultural ties to Russia that are also potential future partners and candidate for membership

6 NATO, "Responding to Russia's top myths about NATO and COVID-19", NATO, http://www.nato.int/cps/en/natohq/news_175037.htm (accessed 24 April 2020).

7 "‘From Russia with love’ mission to Italy hit by press row", *Reuters*, 3 April 2020, <https://www.reuters.com/article/us-health-coronavirus-italy-russia-idUSKBN21L30L>.

8 "Lithuania wishes to sideline Belarus from Coronavirus-related international aid", *EU vs Disinformation*, 2 April 2020, <https://euvsdisinfo.eu/report/lithuania-wishes-to-sideline-belarus-from-coronavirus-related-international-aid/2020>

in these organizations.

In short, the evolved Russian disinformation campaign during the COVID-19 pandemic appears to encompass a combination of misleading and false information coupled with targeted humanitarian aid for publicity purposes. From the period of December 2019 to April 2020, the EU's East StratCom Task Force recorded over eight thousand cases of disinformation.⁹

Strategic aims

Seen through the lens of Russian strategic thinking, this disinformation campaign not only fits into a pattern sowing division among the Allies and segments of their societies, it also aims to reduce the economic capacity (and consequently military through defense budgets) for the largest NATO member states to maintain a position of leadership in the international system. A situation in which Europe and North America suffer the brunt of the social and economic effects of the global pandemic would leave China and Russia emerging in stronger positions, both politically and militarily. This scenario is the most favored of those put forth in a recent work by Russia's top military strategists. According to this work, the current trajectory, which is perceived as the worst for Russia, is one in which the United States maintained its current leadership position on the world stage.¹⁰ By contrast, the most favorable scenario that these Russian experts foresee is one in which there is a greater balance of power and influence between the "traditional West", plus several other central and eastern European countries, and the non-West, the core of which is Russia, China, India, Brazil, and South Africa, or other BRIC countries.¹¹ This is not a necessarily new position as it is frequently expressed in one form or another in official *communiqués* and voices from Russian academia, usually characterized as the emerging "multipolar world order".¹²

Another possible advantage of the crisis is the longer the "traditional West" is distracted by the Coronavirus, the more time Russia's leadership has to implement new policies that may appear unseemly on the world stage. The April 2020 presidential decree and referendum for constitutional reform (postponed to September 2020 due to the Coronavirus outbreak in Russia) are the clearest example. For Galeotti, "Putin is an opportunist [...]. He relies on

9 "Figure of the week: 8000", *EU vs Disinformation*, 7 April 2020, <https://euvsdisinfo.eu/figure-of-the-week-8000-2/>

10 V. Mikhailovich Burenok, *Концепция обоснования перспективного облика силовых компонентов военной организации Российской Федерации: монография*, Rossiiskaia akademiia raketnykh i artilleriiskikh nauk, 2018.

11 *Ibid.*

12 *Ibid.*

quickly seizing any advantage he sees, rather than on a careful strategy”.¹³

Furthermore, Russia as yet to assert any sort of constructive leadership in the management of the crisis. China has stepped up to assume such leadership. China’s “donation diplomacy” has come in the form of monetary, medical supplies, and in-kind assistance to Italy, Spain, and the US and a growing number of countries in Europe and Africa.¹⁴ As already said, Russia has partly followed China’s lead, yet these actions do not equate to leadership.¹⁵

The first order of business appears to be on domestic reform ensuring the option for Putin to remain president for the foreseeable future. In this context, the more direct threat would be if Russia perceives the timing as opportune to take aggressive action against what Russia perceives as enemies or possible targets. One potential flashpoint is in the ongoing war in Ukraine and the fragile ceasefire that has been in place in recent months. In fact, Ukraine has been one of the main targets of Russian disinformation with the most frequent narrative being that the government is unprepared and on the brink of collapse in light of the pandemic.¹⁶ Although Russian aggression could also include a military component, any military activity would most likely be part of a broader campaign including disinformation coupled with diplomatic and economic measures. This extends beyond Ukraine and reflects the current state of Russian military thinking about confrontational relations with adversaries. This is what Chief of the General Staff, Valery Gerasimov, has described as “total conflict”: interstate confrontation’s foundation has come to “consist of non-military measures including political, economic, and informational”. Gerasimov adds that conflict “has spread to all spheres of activity in modern society, diplomatic, scientific, sport, and cultural and, in fact, has become total in scope”.¹⁷

Russia is already testing NATO’s ability to respond under heightened stress in airspace controlled by the UK, Ireland, the US and Canada. The 11 March 2020 incursion of British airspace by two Russian Tu-142s off the coast of Scotland is but one example.¹⁸ While

13 M. Galeotti, *We need to talk about Putin: how the West gets him wrong*, Ebury Press, 2019, p.7.

14 E. Wong and P. Mozur, “China’s ‘donation diplomacy’ raises tensions with US”, *The New York Times*, 14 April 2020, <https://www.nytimes.com/2020/04/14/us/politics/coronavirus-china-trump-donation.html>

15 “Scontro Italia-Russia: ‘Grazie per gli aiuti, ma la libertà di stampa non si tocca’”, *Corriere della Sera*, 4 April 2020, https://www.corriere.it/politica/20_aprile_04/scontro-italia-russia-grazie-gli-aiuti-ma-liberta-stampa-non-si-tocca-e4b1e884-7653-11ea-b3b8-a2cb021df0f0.shtml

16 “Expert: the Coronavirus will kill Ukraine in days”, *EU vs Disinformation*, 27 January 2020, <https://euvsdisinfo.eu/report/expert-the-coronavirus-will-kill-ukraine-in-days/>

17 V. Khudoleev, “Voennaya nauka smotrit v budushcheye”, *Krasnaya Zvezda*, 26 March 2018 (translation by the author), <http://archive.redstar.ru/index.php/component/k2/item/36626-voennaya-nauka-smotrit-v-budushcheye?attempt=1>

18 Orkney & Shetland, “RAF fighters intercept Russian aircraft”, *BBC News*, 11 March 2020, <https://www.bbc.com/news/uk-scotland-north-east-orkney-shetland-51835335>.

addressing another incursion in airspace controlled by Ireland, former NATO Supreme Commander in Europe, Admiral Stavridis, suggested that Russia was probing NATO and UK responses in particular testing new boundaries of the North Atlantic despite the fact that Ireland is not a member of NATO.¹⁹ Although Russian airspace incursions happen periodically, the timing and frequency during the pandemic are so far on the high end of what would be typical ever since Russia reintroduced this tactic over a decade ago.²⁰ Adding to tensions, Russia has also been conducting unscheduled snap exercises under the pretext of pandemic preparedness.²¹ Where the US and NATO have moved to reduce exercises in 2020 such as Defender Europe, Russia still plans to go forward with the large scale Kavkaz exercise in the fall.

NATO and its member states' resilience

As the premier multinational security guarantor of most western democracies, NATO cannot afford to take its eye off the ball on the Eastern and Southern Flanks. The Eastern Flank deserves particular attention given the nature of NATO's relations with Russia and the proclivities of Russia's leadership that view the United States (and NATO as a perceived extension of the US) as Russia's primary adversary.

As experts have repeatedly pointed out, the earlier the response to the virus, the greater the chances of containment and consequently, less disruption to society and the economy. NATO Deputy Secretary General Mircea Geoană explained that Russian and Chinese disinformation narratives have concentrated on the narrative that democratic governments are poorly equipped to deal with pandemics while autocratic governments are better suited.²²

Although the initial reaction of the Allies was to respond at the national level, foreign ministers quickly turned to coordinating their efforts with one another. NATO and the Allies have been active on two fronts.

The first is in support of one another through "facilitating the airlift of crucial medical supplies and equipment, matching requests for support with offers from Allies and partners,

19 "Russia to keep investigating 'gap' off Irish coast, says ex-Nato Commander", *The Irish Times*, 13 March 2020, <https://www.irishtimes.com/news/ireland/irish-news/russia-to-keep-investigating-gap-off-irish-coast-says-ex-nato-commander-1.4201455?mode=amp> (accessed 19 April 2020).

20 Deutsche Welle, "Should NATO be doing more to tackle the Coronavirus?", DW.COM, 4 January 2020, <https://www.dw.com/en/should-nato-be-doing-more-to-tackle-the-coronavirus/a-52983081> (accessed 23 April 2020).

21 D. Werner, "NATO Allies have stepped up to help each other during Coronavirus emergency", Atlantic Council, 16 April 2020, <https://atlanticcouncil.org/blogs/new-atlanticist/nato-allies-have-stepped-up-to-help-each-other-during-coronavirus-emergency/> (accessed 29 April 2020).

22 "Allied response to COVID-19: a conversation with Mircea Geoană", *Atlantic Council*, 16 April 2020, <https://atlantic-council.org/event/allied-response-to-covid-19-a-conversation-with-mircea-geoana/> (accessed 24 April 2020).

and delivering innovative responses”.²³ To this end, NATO has conducted more than one hundred airlifts since the crisis began; it has also built more than twenty-five field hospitals, supplied military medical personnel for civilian use, provided over twenty-five thousand beds to the Allies and continues to facilitate inter-Allies medical shipments and logistics through NATO’s Euro-Atlantic Disaster Response Coordination Centre (EADRCC). These efforts have included not only supporting those Allies hardest hit, but also providing support medical support.²⁴

As a military organization with protocols for *military* emergencies, NATO’s ability to respond to a *medical* emergency is limited by action taken by its own members. As such, the first line of defense for this health crisis was at the national level, and the pandemic continues to test the resilience of each state. This illustrates a principle enshrined in Article 3 of the Alliance’s founding treaty.²⁵ The more resilient to external shocks such as the Coronavirus pandemic, the better-equipped NATO is as a whole. And because of the resilience of individual members, and the degree to which they were affected by the first wave of the pandemic, many states have stepped in to send support and aid to Allies that were more impacted.

The second line of effort is in countering Russian disinformation campaigns. NATO, through its Public Diplomacy Division (PDD), and the EU through the East StratCom Taskforce, have been components for countering Russian disinformation pioneered by the Baltic States who have the most experience in dealing with these campaigns.

Once news coverage and commentaries on social media about the Coronavirus began, the PDD and the East StratCom Taskforce have tracked the original false and misleading content. This is published along with the facts and contextual commentary to explain the underlying narratives and ultimate goals of Russia’s disinformation campaigns. Although it is impossible to measure the exact effects of these campaigns and NATO’s countering efforts, a cursory Google search in late April 2020 of the keywords “NATO”, “Russia”, and “Coronavirus or COVID-19” produces on the first five pages mostly accurate commentaries or corrected stories in line with PDD’s and East StratCom Taskforce analysis.

These measures can, over time, help to create trust in institutions with the ultimate goal of building societal resilience.

Beyond, once Allies will have dealt with the initial wave of the virus, the benefits of

23 NATO, “Fact Sheets”, <http://www.nato.int/cps/en/natohq/144032.htm> (accessed 20 April 2020).

24 NATO, “Coronavirus response: NATO boosts Capacity of North Macedonia to Deal with Coronavirus Crisis”, http://www.nato.int/cps/en/natohq/news_174605.htm (accessed 24 April 2020).

25 NATO, “Resilience and Article 3”, http://www.nato.int/cps/en/natohq/topics_132722.htm (accessed 28 April 2020).

multilateral cooperation will hopefully become more apparent. NATO displays some comparative advantages and, together with the EU, can play a more active role in coordinated joint efforts not only to respond to the current pandemic but also for future outbreaks. As a military organization, NATO's command and control structures are set up for a degree of responsiveness in times of crisis that other institutions are not. This can be useful in the coming months and years for coordinating security responses across the Alliance, well beyond the sole military operations.

Early lessons

The experience of Russia's disinformation campaign during the COVID-19 pandemic has made clear the importance of cooperation among Allies during times of crisis. Despite efforts by Russia but also China and others, to manipulate public perceptions and create division, NATO, along with national governments and international organizations, are countering the effects by setting the record straight and providing medical, informational, and logistical support. There are, however, also lessons to be identified from this first wave of the pandemic.

The first is the importance of timing, and in the future, NATO could benefit from being the first to respond with a symbolic gesture to its members in need. It is unfortunate that Russia and China may be taking advantage of the response time delays. Rather than allowing an adversary to use the circumstances against the Alliance, insofar as it is possible, it is essential for NATO and the Allies to be even more responsive. Likewise, during times of crisis, knowing when to raise or postpone discussions on divisive issues such as defense spending will become even more critical.

A second lesson is the importance of cultivating relationships with private industrial actors. Existing relationship with multinational suppliers through the NATO Support and Procurement Agency (NSPA) becomes useful in procuring medical supplies, and NATO having deeper relationships in the social media community could assist in countering disinformation campaigns. One example that has emerged is the cooperation between the World Health Organization and YouTube for factual COVID-19 announcements during the pandemic. Although NATO has already taken steps to engage private actors, such as producing the NATO-Industry Forum and centre of excellence conferences, these could be expanded. What is needed is a continuous and open channel of communication with strategic industrial actors.

Third, there is also opportunity now to respond to calls from within the Alliance for renewed strategic thinking. The Reflection Group recently convened by Secretary General

Stoltenberg provides the chance to introduce new policies that would be otherwise untenable during normal times. This has the potential of being as impactful and influential as the Harmel Report.

Fourth, given the Kremlin's opportunistic track record, it is possible if not likely that NATO's borders will continue to experience an uptick in this type of behavior, bearing in mind that aggression is not limited to the military sphere but rather falls along a politico-economic-societal continuum. NATO and Partners should be prepared for economic, diplomatic and "non-linear" activities aimed at destabilizing cooperation and cohesion in the Alliance and along its borders.

Fifth, once the dust settles, there will be a clearer view as to whether the recent disinformation campaigns were part of a broader strategy, or whether they reflect an intensification of what was already a continuous propaganda ecosystem. Galeotti notes that after years of building a disinformation network of various new and social media outlets, the Kremlin is not always in control of these actors, much like the Kremlin supported fighters in the Donbass exert a degree of autonomy.²⁶

Finally, for many states, and most importantly for their citizens across the political spectrum, the disinformation currently underway is already unmasking the true nature of Russia's intentions. As with Russia's annexation of Crimea, which had a unifying effect within NATO, Russia's actions in the age of the Coronavirus could have an even deeper unifying impact on NATO and ultimately on its cohesion. The Coronavirus is touching the lives of NATO's citizens in profound and lasting ways. Actions intended to sow confusion that then delay government responses cost lives; these are probably more salient to all Allies across the Alliance than developments in eastern Ukraine. In short, Russia's actions to sow confusion have the potential to backfire and strain not only relations with NATO, but also the bilateral relations that Russia has nurtured for dividing the Alliance. Moreover, if NATO, the EU and their capitals continue to expose these campaigns to enough of their populations, this will go a long way to building societal resilience against future disinformation campaigns targeting elections. Considering the reach and impact of the Coronavirus cutting across all segments of society, political parties and politicians within NATO member states that have previously flirted with Russian support may think twice about accepting that support in the future. After all, the loss of friends and family members cannot be simply dismissed as "fake news".

26 M. Galeotti, "Coronavirus propaganda a problem for the Kremlin, not a ploy", *The Moscow Times*, 6 April 2020, <https://www.themoscowtimes.com/2020/04/06/coronavirus-propaganda-a-problem-for-the-kremlin-not-a-plot-a69879>

Pandemics, the South and NATO

Chloé Berger and Cynthia Salloum

The outbreak of the COVID-19 crisis raises multiple questions regarding both the degree of preparedness of MENA countries to face such pandemics and the kind of support that NATO could provide to its partners. The South¹ appears highly vulnerable to the COVID-19 pandemic due to generally fragile health systems, but also, owing to political instability and conflicts in the region. If it is too early to assess the direct and indirect consequences of COVID-19 in the South, the crisis does represent a “test” for governments already weakened by underlying “organic crises”² of legitimacy and governance.

As far as NATO countries are concerned, the crisis has also revealed critical weaknesses in their institutions and infrastructure. More broadly, the COVID-19 crisis has tested our capacity for “resilience” and “civil preparedness”, suggesting a need to widen the scope of our classic security environment to include the “human security” dimension.³ This chapter will review the vulnerabilities in the South, identify the potential consequences of the crisis for these countries, and assess NATO’s potential role in operationalizing its projecting stability agenda in the post-COVID-19 environment.

Vulnerabilities in the South

COVID-19 embodies multidimensional risks affecting large segments of daily life. It poses challenges to public health infrastructure and policies, by drawing attention to the underlying inequalities of access to health resources; the obvious dependence on external supplies; and unsatisfactory coordination at the international level. In the South, natural disasters, climate change and epidemics, can only aggravate human security risks. In that respect, the COVID-19 trajectory of transmission, and its consequences on the stability of

1 NATO’s understanding of the South encompasses a large territory extending from Mauritania to Pakistan and including the Mediterranean Sea, North Africa, the Levant and the whole Gulf.

2 Manifested as a crisis of hegemony in a Gramscian sense, cf. Antonio Gramsci, 1930, *Selections from the Prison Notebooks* (1971).

3 See Chapter by Thierry Tardy in this Volume.

the MENA region, may offer precious lessons for the Alliance and its partners.

Virus dissemination and structural weaknesses

With the exception of Iran, as of early May 2020, the figures for confirmed cases and deaths in the MENA countries remain relatively low compared to those for Europe and North America.⁴ The gap between these regions could be explained by the drastic measures taken by the MENA countries at the early stages of the crisis such as the closure of borders, the extensive suspension of flight connexions, imposed quarantine upon arrival and strict confinement. African countries, building on previous experience such as the Ebola crisis, also quickly implemented strict measures to contain the dissemination of the virus. The low level of exchanges between Sahel and sub-Saharan countries and the rest of the world has further reduced their exposure to contamination. Since they are also younger, these populations could also be less vulnerable to the effects of the virus.⁵

Yet, these figures hide divergences and disparities across a region which displays variable densities of population, economic conditions and budgetary reserves, healthcare infrastructure and political institutions. Specifically, the capacity for virus detection—material, equipment, and qualified personnel; the ability to locally produce personal protective equipment (PPE), including masks, gloves, hydro-alcoholic solutions and isolation gowns⁶; the means to enforce confinement and isolation measures; and the resources to buy supplies on international markets (test kits, masks, respirators) differ. Moreover, wide differences in reaching isolated populations, and in overall levels of stability and violence, must be taken into account. For example, in Afghanistan, Yemen, Syria or Libya, one can legitimately doubt the capacity of the national health authorities, international organizations, or NGOs to carry out large test campaigns. Furthermore, official figures may not be always reliable: Syria acknowledged its first COVID-19 casualty, one week after its first confirmed case, only on 30 March 2020.⁷

4 Early May, 194,909 confirmed cases of COVID-19 and 7,741 deaths were registered in the Eastern Mediterranean (figures include all MENA countries but Algeria and Israel), with 95,646 confirmed cases and 6,091 deaths in Iran only (see World Health Organization, *Coronavirus disease (COVID-19), Situation Report - 103*, data as received by WHO from national authorities by 10:00 CEST, 2 May 2020).

5 According to UN data, 60 percent of the population is under the age of 24 and, therefore, could be less vulnerable to COVID-19 contamination. See E. Lempinen, “Africa faces grave risks of as COVID-19 emerges, says Berkeley economist”, *UC Berkeley News*, 31 March 2020 ; also, while some argue that a warmer climate might be an advantage, very few studies look at the impact of the weather or temperature on COVID-19 and there is no evidence yet for any seasonal behaviour of the virus.

6 Even if a public industrial sector could be requisitioned, it would probably not be able to cope with the extraordinary needs, on time.

7 Cf. E. Knecht, “Shattered by years of war, Syria braces for Coronavirus spread”, *Reuters*, 23 March 2020.

Thus, when it comes to identifying vulnerabilities, at least three types of situations – requiring distinct responses – must be distinguished: first, cases where populations have to rely on fragile healthcare systems and inadequate infrastructure; second, cases where the density of the population is significantly higher than the available medical infrastructure; and third, cases where the resilience of populations is already weakened by civil war or endemic conflict and where the nature of the habitat is favourable to contagion (i.e. refugee camps, makeshift shelters of internally displaced populations, slums in war-torn zones).

As far as the first configuration is concerned, MENA region countries, apart from Gulf countries and Israel, suffer overall from a lack of health infrastructure and qualified personnel. Low salaries and poor working conditions as well as nepotism and corruption often encourage well-trained doctors to escape to the private sector which is largely unaffordable for the average population. In addition, social benefits and decent pensions are rare, let alone for those who are under-employed or who work on the black market. Moreover, extreme poverty rose from 2.5 to 5 percent between 2011 and 2015 and, even in countries with dynamic economic growth like Egypt (5.5 percent in 2019), poverty rates are not declining.⁸ Aging public infrastructure is overloaded due to the exponential demographic growth rates since the 1960s. Overall, healthcare services remain a “luxury” in the MENA region.

Regarding the density factor, hyper-urbanization in megacities like Cairo or closed zones like the Gaza Strip⁹ naturally present significant challenges. Water scarcity and pollution pose serious difficulties for maintaining basic hygiene standards. The establishment and enforcement of social distancing and confinement are difficult, and ensuring minimal safety protection for healthcare and humanitarian workers is demanding. Furthermore, environmental degradation such as the proliferation of insects in humid regions, water contamination, resource deprivation and/or capture by minorities, etc., already underway for several decades in certain areas, could also amplify the extent and the speed of epidemics. All these factors put additional pressure on already inadequate healthcare facilities.

As for the third case, COVID-19 exacerbates the underlying humanitarian crisis for countries at war – some of which are under embargo or sanctions. The well-documented Spanish influenza killed millions in Europe, mainly due to general poor health and exhaustion caused by four years of war.¹⁰ Syria since 2011, and Yemen since 2015, to

8 Cf. World Bank figures, <https://www.worldbank.org/en/region/mena/overview>

9 Cf. H. Lovatt, “Defeating covid-19 in Gaza: is it enough?”, *European Council on Foreign Relations*, 7 April 2020.

10 See M. Shurkin, “Pandemics and the US Military: lessons from 1918”, *War on the Rocks, Texas National Security Review*, 1 April 2020; on the Spanish influenza see J. Barry, *The Great Influenza, the story of the deadliest pandemic in history*, Penguin Books, 2005. See also the Chapter by Howard Coombs in this Volume.

cite only these, present similarly tragic conditions. Moreover, the region counts nearly 12 million internally displaced people and 2.7 million refugees.¹¹ Often crowded together in camps, these populations suffer from high promiscuity in an environment conducive to the spread of the virus.¹²

Consequences of the COVID-19 crisis

The impact of COVID-19 on the world economy has been dramatic and the economies of the South will suffer from several damaging effects. In particular, the price of oil has plunged to its lowest level in decades, reflecting a collapse in global demand, overproduction – in spite of the April 2020 agreement between Russia and the Kingdom of Saudi Arabia (KSA), and well over the limit storage capacity.¹³ Likewise, the collapse of global tourism affects the income of a large number of MENA countries and will continue to do so in the foreseeable future. Confinement measures and the closure of borders might furthermore impact domestic industrial and agricultural production in economies largely dependent on imports for basic goods or which rely on seasonal foreign manpower, like the Gulf countries.¹⁴ Overall, the “panic” effect triggered by the crisis on stock markets, trade and production will impact their business environment, sparking the flight of capital and reducing external remittances. These factors will further distort already fragile economic patterns, prompting a probable surge of black-market activities, trafficking and other criminal activities.

This degradation of the MENA economies – even though some will fare better than others – will likely also have political consequences. So far, regimes’ political power and state control over societies, have been generally tightened and widened,¹⁵ while political dissent has, at least temporarily, been put on hold. Yet, rifts between the populations and their governments will likely continue, in some instances, with riots and violence.¹⁶ Failures

11 See UNHCR, “Global Appeal 2020-2021” report, pp.99-107.

12 In addition to novel waves of cross-border returnees populating immigration centres as in Herat, Afghanistan. The International Organization for Migration (IMO) estimates nearly 243,000 (by 11 April 2020) crossed back into Afghanistan during the virus outbreak in Iran. See K. Hayeri and M. Mashal, “Afghanistan’s next war”, *The New York Times*, 23 April 2020.

13 The price of oil went negative at some point, translating overcapacity and no room for storage. Since, it has somewhat recovered. Cf. I. Kaminska, “Oil goes sub-zero”, *Financial Times*, 20 April 2020.

14 It is not clear yet how Gulf leaders will deal with immigrant workers who cannot afford the fees of healthcare basic services. Economic migrants across the region might be subject to repatriation and/or expulsion. See E. Alhussein, “Migrant workers at the epicenter of public health crisis in the gulf”, *The Arab Gulf State Institute* in Washington, 24 April 2020.

15 Cf. Sarah Yerkes, “Coronavirus threatens freedom in North Africa”, *Carnegie Endowment for International Peace*, 24 April 2020.

16 Some argue that pandemics might decrease the levels of violence; Barry Posen even speaks of *Pax Epidemica*. While this might be true in the case of inter-state conflicts, it remains questionable in the case of dissent or unrest. See B. R. Posen, “Do pandemics promote peace? Why sickness slows the march to war”, *Foreign Affairs*, 23 April 2020.

of governance will only be accentuated by the crisis, and accountability cannot be avoided indefinitely.¹⁷ In the meantime, when not properly addressed, the consequences of the crisis could further strengthen the role of non-state actors. Some, like local NGOs, can play a positive role in the response to pandemics.¹⁸ Others, such as paramilitary actors with unchallenged territorial control over largely under-governed areas, find in the crisis a novel opportunity to restore social legitimacy. Hezbollah's instrumental response, by using its well-established parallel health structures, is but one example.¹⁹ Lastly, terrorist groups such as ISIS, offer an ideological response in an opportunistic attempt to "exploit disorder".²⁰

Finally, in every country, COVID-19 is affecting defence capabilities, the operational readiness of the armed forces, and defence infrastructure such as energy, communications, logistics and transport. This has several, sometimes contradictory, effects. On the one hand, it could make ceasefire and truces more likely in conflict zones, creating the necessary room for NGOs to intervene.²¹ On the other, it weakens the capacity of states to respond to more traditional threats. Furthermore, in the region, the reduced numbers of foreign forces may have a serious impact on the sustainability of some security sectors, like in Saudi Arabia, Iraq, Syria, or Libya.²² More broadly, a further deterioration of the COVID-19 situation could compel foreign forces to leave Afghanistan, Libya, Yemen or Syria. Such departures would undoubtedly reshuffle the balance of power in the region and encourage armed non-state actors to renew their violent campaigns. Finally, even if the military and security sectors are often the few institutions endowed with substantial resources, they lack expertise in planning as well as in training health workers to face such a crisis. Military medical services are generally limited, and too under-developed to support civilian agencies in this context.

17 In this regard, scapegoating narratives – attributing the crisis to a foreign conspiracy or brandishing millenarist narratives – are only short-term tactics.

18 Cf. F. el Jardali "After the pandemic: reimagining the role of non-state actors in (re)building national health systems in the Arab world", *Arab Reform Initiative*, 10 April 2020.

19 Cf. R. Collard, "Hezbollah prepares for its next war: against the Coronavirus", *Foreign Policy*, 31 March 2020; and J.-L. Marret, "La crise pandémique et les groupes armés non étatiques : l'exemple de Daech et du Hezbollah", *Fondation pour la Recherche Stratégique*, Note 20/20, 13 April 2020.

20 Cf. International Crisis Group, "Contending with ISIS at the time of Covid-19", 31 March 2020; and C. P. Clarke, "Yesterday's terrorists are today's public health Providers", *Foreign Policy*, 8 April 2020.

21 It is the case in Yemen, for instance. See "COVID-19 in Yemen: Saudi coalition ceasefire declared in bid to contain Coronavirus", *UN News*, 9 April 2020.

22 See N. Fiorenza, "Covid-19: European countries withdraw from Iraq", *Janes*, 20 March 2020.

NATO's projecting stability role

Globally, the COVID-19 crisis has so far exacerbated latent trends in the international system. The “America first” mantra of the Trump administration has deprived the world of leadership.²³ China has attempted to appropriate a benevolent image for itself by adopting face-saving tactics, including the export of medical material and equipment. The European Union (EU), while failing to offer a coordinated response in lieu of national policies, has nonetheless managed to provide a large financial subsidisation mechanism for countries of the Eurozone. Across the Atlantic, the lack of solidarity and coordination has also been noticeable. President Trump even tried to outbid some European countries in their attempt to buy medical equipment. More importantly, the COVID-19 crisis has had a significant impact on the core mission of the Alliance. Unsurprisingly, large numbers of soldiers have been contaminated;²⁴ military manoeuvres severely reduced; and training opportunities suspended. The US-led military exercise Defender Europe 20, in which NATO was to participate, was even cancelled. Despite these challenges, NATO will have to address risk and vulnerabilities in the South as part of its broad projecting stability agenda.

Tackling immediate security challenges

In the short term, the main risk rests with the collapse of health systems on the other side of the Mediterranean. Such a scenario would cause a massive influx of people, including illegal migrants, to the countries on the southern shore of the Alliance, and ultimately excessively burden their asylum systems. In this context, NATO naval standing groups in coordination with EU capabilities and agencies (Frontex) should be able to support national authorities in dealing with illegal migration and related rescue and relief missions. The NATO Sea Guardian Operation, in combination with the new EU Operation IRINI,²⁵ ought to be able to support Mediterranean countries' naval forces in deterring any attempt by criminal and terrorist organizations to weaponize migratory flows or conduct attacks against energy and communications infrastructure at sea.

Humanitarian emergency relief

In terms of crisis management responses, NATO countries can provide medical support

23 Cf. P. H. Gordon, “‘America first’ is a dangerous fantasy in a pandemic”, *Foreign Affairs*, 4 April 2020.

24 Like for instance on the French aircraft carrier, cf. “Covid-19: 1081 marins positifs sur le ‘Charles de Gaulle’ et son escorte”, *Le Figaro* and *AFP*, 17 April 2020.

25 See “A new EU military operation in the Mediterranean: Irini is born to enforce Libya arms embargo”, *EEAS blog*, 1 April 2020.

to their southern neighbours, notably through the deployment of field hospitals. They can also supply medical equipment, drugs, as well as trained personnel to partners. NATO Deputy Secretary General Mircea Geoană recalled on 16 April 2020 that since the outbreak of the COVID-19 crisis, NATO aircraft had flown “over a hundred missions transporting hundreds of tons of vital medical equipment from across the world to where they are needed most”.²⁶ Some NATO members and partner countries have units specialized in the fight against epidemics, deployable in operations abroad. For instance, the French “Bioforce” has expertise in the fight against epidemics of cholera or meningitis abroad, but also in assessing and monitoring the health situation of displaced populations. In the same vein, partner countries have provided assets, as was the case with the field hospital set up by Moroccan forces in the Zaatari camp in Jordan. They have carried out biological and epidemiological surveillance of refugees as well as mass vaccination campaigns. This said, military medical units deployed abroad remain limited in number and are above all dedicated to the care of their own soldiers. Defence authorities are often reluctant to delegate this type of mission to foreign – even Allied – forces. Despite NATO standards, interoperability remains dependent on national medical practice; linguistic barriers are also often challenging in multinational formats. And as said before, the protection of civilian humanitarian personnel remains highly challenging in conflict zones.

Strengthening resilience

The COVID-19 virus has amply demonstrated how essential resilience is to the health and safety of populations. If the bulk of necessary measures falls within the national preserve, NATO’s role may nonetheless be crucial, especially in helping to tackle crises that ignore borders. In this respect, NATO has, since 2016, initiated efforts to strengthen resilience capabilities and civil preparedness by broadening the scope of the Washington Treaty’s Article 3 to include risks such as pandemics, natural disasters, the disruption of critical infrastructure, etc.²⁷ Likewise, the Civil Emergency Planning Committee (CEPC),²⁸ with the support of the Committee of Chiefs of Military Medical Services (COMEDS),²⁹ is looking at ways to better coordinate NATO countries’ responses.

In this context, some key lessons will be inferred from the crisis, in the fields of critical supply, medical expertise, and timely response. COMEDS efforts to adapt the 2019 Allied

26 Cf. “NATO Deputy Secretary General addresses COVID-19 response with Atlantic Council”, 16 April 2020, https://www.nato.int/cps/en/natohq/news_175132.htm

27 Cf. NATO, “Resilience and article 3”, https://www.nato.int/cps/en/natohq/topics_132722.htm

28 Cf. NATO “Civil emergency planning committee”, https://www.nato.int/cps/en/natohq/topics_50093.htm

29 Cf. NATO, “Military medical support”, https://www.nato.int/cps/en/natohq/topics_49168.htm

Joint Medical Support Doctrine³⁰ could capitalize on these lessons. Those efforts would also enhance the Smart Defence Initiative and Framework Nation Concept Medical Cluster³¹ and encourage NATO nations to develop smart and agile forward medical forces for operations or emergencies such as bioterrorist attacks or epidemic outbreaks like Ebola. All of this would be critical to support NATO Allies and southern partners in dealing with health crisis management and provide necessary medical assistance to NATO forces deployed abroad. Finally, in order to better coordinate confinement zones, border controls and travel restriction policies, protocols need to be defined, in coordination with the EU, the World Health Organization (WHO), the United Nations High Commissioner for Refugees (UNHCR), the International Organization for Migration (IMO), and Frontex.

State-building capability and interoperability

On a broader level, the involvement of COMEDS in the international effort to elaborate standards and processes that will be valuable for the partner countries would be welcome. In this context, partners could take part as observers in exercises and new training opportunities in civil defence preparedness, and medical support could be included in Partnership Cooperation Menu (PCM) activities. In addition to training in fields connected with combat missions (trauma stabilization, ground evacuation, etc.), activities linked to the crisis management of pandemics could be included in NATO's Defence Capacity Building (DCB) packages. Moreover, the standardizing procedures for the support of civilian agencies by military forces could lead to the development of new Operational Capabilities Concepts (OCC) to help partner countries reinforce their own civilian defence capabilities. Integrated into the Interoperability Platform Initiative, these NATO "certified" medical capabilities from partner countries would be critical assets to collectively reinforce stability in the South. With the support of the Science for Peace and Security (SPS) programme and relevant NATO entities, a "resilience" DCB package for southern partners combining medic support, civil emergency planning, CBRN defence and operational planning training could be established.

Human security in the South and NATO Security

NATO is not a first responder in the management of the COVID-19 crisis, and given the nature of the vulnerabilities in the South, NATO's role can only be limited. However, the multifaceted consequences of the crisis in the South will sooner or later undoubtedly affect

30 Cf. NATO Allied Joint Publication AJP-4.10, Edition C, Version 1, September 2019.

31 Initiated by the COMEDS Futures Advisory Board, NATO Science and Technology Organization and ACT.

our own security. As stated by NATO Secretary General, “NATO’s core responsibility is to make sure that this health crisis does not become a security crisis”.³² This role is especially relevant *vis-à-vis* partner countries, and this inevitably leads to the fostering of a whole-of-government approach to address what are in reality human security challenges. Ultimately, health, resilience, and stability in the South are an essential component of our own security.

32 NATO Secretary General Jens Stoltenberg Press Conference following the meeting of NATO Ministers of Foreign Affairs, 2 April 2020, https://www.nato.int/cps/en/natohq/opinions_174772.htm?selectedLocale=en

The impact of the COVID-19 pandemic on modern conflict and future warfare

Dumitru Minzarari

As the coronavirus spreads around the world and claims casualties among citizens and national economies, multiple expert assessments have addressed the pandemic's effects on the military and security domains. Distressing reports have pointed to the pandemic's expected negative impact on Western defence spending, military readiness, command and control, military-related industry and supply chains, and even to the deployment or rotation of US troops in Europe.¹ What is much less clear though, is the likely effect of the pandemic on military strategy, modern conflict or, potentially, on the ways wars will be conducted in the future.

There is little doubt that COVID-19 reveals itself as a formidable disruptor of security and military affairs. It increases uncertainty both at home and abroad, and therefore it generates more insecurity. Military deterrence mechanisms around the globe are being weakened and opponents' resolve contested. For instance, the news about coronavirus infections on board two US aircraft carriers deployed in the Pacific area – the USS Theodore Roosevelt and the USS Ronald Reagan² – coincided with an apparent rise in Chinese military activity around Taiwan.³ And, amid significant health and social havoc that the coronavirus reportedly caused in Iran, the United States is apparently preparing for a military escalation in Iraq against Iranian-backed militia groups.⁴

The pandemic is also revealing the weaknesses and vulnerabilities that many countries, societies and alliances have accumulated. These have appeared in the same way that a network of cracks is exposed after applying increased pressure to a hard surface. This is the result of the coronavirus outbreak overlapping with an ongoing intensive campaign

1 C. Skaluba and I. Brzezinski, "Coronavirus and transatlantic security: implications for defense planning", Atlantic Council, 30 March 2020.

2 "The Pentagon's Big Problem: How to Prepare for War During a Pandemic", *Politico*, 27 March 2020.

3 "In the Coronavirus Fog, Tussling over Taiwan Goes Under Radar", *South China Morning Post*, 27 March 2020.

4 "Pentagon Order to Plan for Escalation in Iraq Meets Warning from Top Commander", *The New York Times*, 27 March 2020.

of hostile actions that Russia has been carrying out against Western countries, also widely dubbed “hybrid war”. Due to the fears, insecurity and distrust that the disease causes at inter-personal, national and inter-state levels, the pandemic has the potential to greatly amplify the efficiency and impact of these hostile actions.

This Chapter argues that the COVID-19 pandemic, apart from triggering public health and security concerns, is likely to serve as a catalyst for an escalation of violence in conflicts around the world, by encouraging the choosing of risky military strategies. It is also expected to trigger a more consistent shift in interstate aggressive practices, moving away from war in the physical realm (military conventional operations) towards war in the social realm, of which hybrid hostilities are an example. While initially this transition in types of aggression is going to affect the Western world mostly, the population-focused wars may gradually proliferate to become a predominant tool of interstate aggression, as its relevant operational procedures, doctrines and strategies are developed, tested, and polished. The shift will require a fundamental review of NATO’s and its member states’ defence policies, planning processes and strategies.

Impacting military strategy

The pandemic is going to have considerable impact on various military strategies and postures that parties to conflicts around the globe have been maintaining for years. It can do this by affecting the perception of important sources of increased resolve – relative military capabilities, relative readiness to take risks, and an objectively less favourable *status quo*.⁵ And crises can be considered to be contests of resolve.⁶ As a result, the pandemic’s effects may lead to shifts from positional warfare towards attempts at gaining a military advantage, from defensive postures to more aggressive actions and military poking, and from insurgency operations towards active offensives against a government and its supporters.

The pandemic has forced the retreat of US and Allied troops back to their bases or to quarantine; troops are also being redirected towards helping the civilian authorities address the domestic impact of the coronavirus. An outcome of this is that the correlation of forces in various hot spots may be affected. Consider also the example of the two US aircraft carriers, which may lead a potential challenger into believing that its opponent is

5 J. Morrow, “A continuous-outcome expected utility theory of war”, *Journal of Conflict Resolution*, Vol.29, No.3, 1985, pp.473-502.

6 J. Morrow, “Capabilities, uncertainty, and resolve: a limited information model of crisis bargaining”, *American Journal of Political Science*, Vol.33, No.4, 1989, pp.941-972.

weakened and will not fight back. It could encourage the competitor to explore what it may see as a window of opportunity to try to bring about new facts on the ground. It could lead to a change in military strategy, due to a temporary lapse in the opposition's capabilities, and the temptation to produce a new *status quo*, which may then be costly for that opposition to undo. Similarly, the Saudis have decreased their support to the Yemeni government, which is confronted by an offensive from Houthi forces, who seem eager to exploit the Saudi withdrawal.⁷

The coronavirus has also shifted national priorities – and not only in democratic countries – by increasing the political value of the domestic-focused strategies over the foreign ones. Addressing the increasing demand for public and health security of domestic constituencies becomes an imperative both for democratic leaders who want to be re-elected and for authoritarian leaders who aim to prevent social turmoil. A pre-COVID-19 example of these shifting priorities is the US negotiations with the Taliban in Afghanistan, after having consistently refused such negotiations for a long time. Under these conditions the withdrawing side views winning the conflict as less of a priority, decreasing the resistance against the opponent's pressure, and encouraging the latter to take higher risks in order to advance its position. This is about the temporary decrease in importance of the conflict issue for one of the competitors (the US), which then encourages the opponent (the Taliban) to engage in riskier behaviour. China's recent intensified military activities around Taiwan in the South China Sea could serve as another example. The fact that the Pentagon has restricted the public release of coronavirus-related information that "it believes would reveal weaknesses in US readiness that could be exploited by adversaries"⁸ is a telling signal.

Finally, the perceptions of one side about the decreased resolve of the other conflicting side can trigger an escalatory domino effect. When one side switches to an offensive stance, believing the resolve of its opponent has weakened due to the pandemic's effects, it could change the *status quo* by allowing the former to gain the advantage. This, in turn, inflicts extra costs on its opponent, which otherwise would have preferred to maintain a deterrence or defensive posture. The newly established *status quo* may be too disadvantageous for the other actor, forcing its reassessment of the strategic situation. This will then lead to the consequent acceptance of extra costs of violence escalation, which in a different situation the "attacker" would prefer to avoid. As an example, while the US has been withdrawing from various military engagements abroad, in the Middle East in particular, it may review this decision if forces unfriendly to its interests acquire more extensive control in the

7 "How could Coronavirus affect wars in the Arab world?", Aljazeera, 20 April 2020.

8 "How the Coronavirus pandemic has shaken the US Military", CNN, 26 April 2020.

region. This reassessment, however, may require some time to pass, before US leadership begins to understand the consequences of its military retreat.

The main causal mechanism through which the pandemic may influence the choice of various military strategies around the world is by affecting the mutual perception of combatants' resolve to fight over the issue of discontent.⁹ It demands heightened attention and additional efforts to ensure accurate strategic signaling of resolve. However, this process is mostly related to the use of kinetic force or war in the physical realm. The next section argues that the pandemic is going to act as a catalyst and accelerate the transition of interstate aggression from the physical, kinetic form, towards a more obscure one, waged in the social realm. This is not an argument about kinetic forms of interstate war becoming obsolete; instead I claim that kinetic military actions are less practical in the modern world, in particular when the target is a democratic state.

Impacting modern conflict

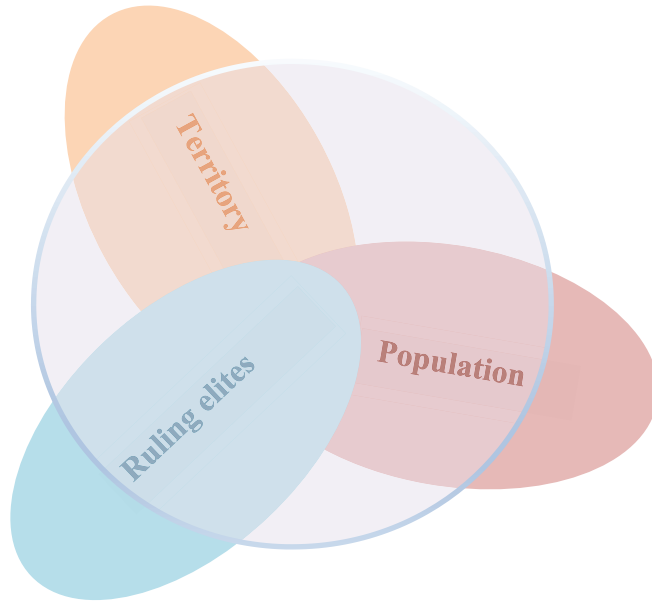
Following Russia's aggression against Ukraine in 2014, and the consequent exploration by Russia of non-kinetic measures to achieve its ends, an extensive debate on the hybrid character of contemporary conflict has emerged. I would like to suggest that we step back from the traditional focus on war, as a coercive policy and organized violence carried out by political units against each other.¹⁰ Instead, I propose to discuss the broader idea of interstate aggression that aims to undermine or destroy a target country's sovereignty.

The elusive disguise of modern aggression

Historically, most wars were fought for territory, and more recently the tendency has been to fight for policies. Regime change, I would argue, is a tool to change policy. The US interventions in Iraq and Afghanistan were aimed at influencing the policies of the incumbent authorities: give up the alleged nuclear programme, and refuse safe haven to Al-Qaeda, respectively. Under this conceptual framework, conventional wars aim to conquer and control territory. Alternatively, the "war in the social realm" aims at acquiring control over the other two elements of a state's sovereignty – the ruling elites and the population (see Figure 1). The end result of the two approaches though – the erosion or destruction of the target state's sovereignty – is the same.

9 R. Jervis, "Deterrence and perception", *International Security*, Vol.7, No.3, 1982/1983, pp.3-30.

10 H. Bull, *The anarchical Society*, New York, Columbia University Press, 1977.

Figure 1: The three components of state sovereignty (by the author)

Conventional wars are becoming increasingly costly, for many reasons – the domestic audience costs as well as the international pressure in economic and political terms, being the most obvious. Another important reason for this cost is the inability to achieve the goal of effective control over the sovereignty of the target country. The latest military operations, including those in Afghanistan and Iraq, suggested that destroying the opponent’s organized military resistance, in the era of nationalism and even partially operating international law, is unlikely to achieve one’s strategic objectives. The population has become the most formidable obstacle against foreign military interventions – it is impossible to coerce it into compliance unless one is ISIS,¹¹ and it is not feasible to persuade it unless the local armed resistance is weak. There is no doubt that Russian planners explored the experience of the US and its Allies in these two conflicts, along with its own lessons from Afghanistan and, more recently, Chechnya. Because of their costs, wars in the modern world are not even formally declared any longer,¹² making Grotius’ definition of war (a legal condition between juridical equals) obsolete. Empirical observations suggest that classical infringements

11 Russia has displaced and coerced populations that resisted its policies in Chechnya, South Ossetia, Crimea and in Ukraine’s eastern regions of Donetsk and Luhansk.

12 T. Fazal, “Why states no longer declare war”, *Security Studies*, Vol.21, No.4, 2012, pp.557-593.

against another country's sovereignty, such as military territorial conquests, have become less frequent since 1945,¹³ partially due to the costs imposed by the body of international norms regulating interstate warfare such as the UN Charter.

This said, I argue that targeting population and ruling elites for external control is the dominant model of modern interstate conflict. This claim does not discard the risk of conventional wars. It rather indicates that when territorial control is not necessary or possible, the same strategic ends – directing or controlling the target state's policies – can be reached through non-kinetic actions aimed at influencing populations and/or governments. The modern aggressor can achieve this through a complex system of social engineering measures, implemented by interfering in the domestic political process of the target country. Through economic activities the aggressor alters the physical needs of citizens, creating conditions for the manipulation of their electoral preferences. It generates funding to corrupt politicians and promotes into power loyal or sympathetic political groups. Through cultural and ideological activities, the aggressor aims at discrediting the target country's alliances and liberal-democratic policies. Economic globalization, the Internet, advances in social sciences research, and the borderless information and communication space are conducive to the transformation of a foreign aggressor into an effective domestic actor, with full rights in the target country as a practical outcome. This phenomenon can be sustained, in particular, in times of economic and social tensions, and this is why the pandemic can reinforce that type of foreign aggression and make it more effective. If in the past aggressors used armies to conquer territories and as a result control populations and rulers, modern interstate aggression is based on first acquiring influence over the population, through which one then achieves the control of territories and governments.¹⁴ In democratic countries, the primary target is the population, as it has the effective control over policies. In authoritarian countries, the primary target is the ruling elites, with the population as a secondary target.

Population – the new conflict environment

How is COVID-19 then likely to intensify and aggravate this type of interstate aggression? The pandemic has an immediate impact on a few critical features of “war in the social realm”. The first of these is the direct targeting of the population, which is the centre of

13 B.A. Lacina *et.al.*, “The declining risk of death in battle”, *International Studies Quarterly*, Vol.50, No.3, 2006, pp.673-680.

14 D. Minzarari, “An assessment of security risks in the Republic of Moldova”, in *A New Security Agenda for the Eastern Partnership*, EaP Think Tank Forum Policy Paper, Bucharest, 2018, pp.15-26.

gravity of this conflict technology¹⁵. If, in the past, foreign aggressors dropped leaflets, infiltrated spies and used *agents provocateurs* to try and influence limited segments of national elites or groups of population in the target state, modern technology now gives a foreign actor unimpeded access to the whole population, which was never possible before. The globalization of mass media and communication operates as an enabler by creating a borderless informational domain, and has made it technologically possible to target foreign populations on a previously unimaginable scale. This is a factor that makes this modern technology of aggression distinct from the past uses of disinformation and propaganda. As an example, Russian military strategists point out that “no goal will be achieved in future wars unless one belligerent gains information superiority over the other”, and that “armed struggle has expanded from the ground, sea, and aerospace into an entirely new environment – information”.¹⁶ The revolution in social sciences made possible by the availability of Big Data¹⁷ is another effective enabler for this conflict technology, as the Cambridge Analytica-Facebook scandal has revealed.¹⁸

The effects of the coronavirus, such as social distancing and isolation, have facilitated the emergence of information bubbles focused on the pandemic topic, which the aggressor explores for targeting the population.¹⁹ They aim at creating separation lines both within the population but also between the population and the ruling elites. A population that does not trust the government would be more susceptible to foreign influence and receptive to foreign disinformation, provided as an alternative to government communication. The online quarrels between the supporters and opponents of the coronavirus-provoked quarantine, as well as the protests in the US against government measures, would strongly suggest that the COVID-19 pandemic has facilitated the achievement of this operational objective.

This stronger impact on the population is reached because the pandemic credibly threatens the most basic of human needs – physical survival. It would have taken months, if not years, to achieve the desired public mood, eroded by tensions, reduced resilience, mutual distrust of others and the government, had it not been triggered more quickly by

15 By conflict “technology” or the technology of aggression, I mean a “causal mechanism” of conflict process, drawing similarity from the economic concept of “technology of production”. Coined by J. Hirshleifer in “The microtechnology of conflict”, *Journal of Conflict Resolution*, Vol.44, No.6, 2000, pp.773-792, a conflict technology takes the conflict efforts from the input, specifically processes them, to provide victory or defeat at the output.

16 S. G. Chekinov and S. A. Bogdanov, “On the nature and content of the new-generation war”, *Military Thought*, No.10, 2013, pp.13-24.

17 “The age of big data”, *The New York Times*, 11 February 2012.

18 “The Cambridge Analytica scandal changed the world – but it didn’t change Facebook”, *The Guardian*, 18 March 2019.

19 For an example of how feasible it is to change groups’ opinions, see D. Centola *et.al.*, “Experimental evidence for tipping points in social convention”, *Science*, Vol.360 (6393), 2018.

a technology of aggression focused on the population. This brings up another pandemic-related impact: the coronavirus crisis is revealing that a pandemic threat is one of the most effective tools for massively triggering basic, physiological needs, even within the populations of Western countries. And the population in the West has usually operated at the very top of the Maslow pyramid of needs,²⁰ being preponderantly guided by self-actualization.²¹ This vertical drop is one of the key elements in modern conflict, which otherwise is rarely achieved in democracies, given that they are resilient societies serving the citizen. By exploiting this, an aggressor aims to weaken and degrade both the horizontal and vertical social and political links in a target country.

In democratic countries these methods are the easiest way to try and replace the government and change policies, and this has been understood by the planners of the modern conflict, especially in the COVID-19 context. Back in 2013, Russia's Chief of General Staff, General Gerasimov, argued that "the focus of employed conflict methods is [...] through the triggering of the population's conflict potential".²² This was echoed by Dmitri Peskov, Putin's press secretary, who pointed out that "the new reality creates a perfect opportunity for mass disturbances [...] or for initiating mass support or mass disapproval".²³

The reference to Russia should not undermine the validity of the proposed model of interstate aggression in other cases. There is evidence that China started to copy Russia.²⁴ And given the decreasing legitimacy of the West in conducting conventional military operations – a more pronounced trait since the beginning of the Trump administration – there will be pressure to scale down kinetic actions as the main coercive tool of pressing for policy changes abroad. The shift away from the war in the physical realm towards the war in the social realm may well concern a large number of national security and defence policies.

Impacting future warfare

A direct outcome of COVID-19 is the expected economic crisis, which will exacerbate the above-listed impacts on both modern and future wars. Primarily, because the economic crisis will also increase and multiply the effects of the population-focused interstate aggression. The consequent economic deterioration would similarly push for a shift from

20 A. Maslow, "A theory of human motivation", *Psychological Review*, Vol.50, No.4, 1943, pp.370-396.

21 R. Inglehart and C. Welzel, *Modernization, cultural change, and democracy*, New York, Cambridge University Press, 2005.

22 V. Gerasimov, "Tsennost' Nauki v Predvidenii", *Voyenno-Promyshlennyyi Kuryer*, Vol.8, No. 476, 27 February 2013.

23 "RT, Sputnik, and Russia's new theory of war", *New York Times*, 13 September 2017.

24 See "China is learning the 'Russian War' of disinformation on COVID-19", *Choice*, 3 April 2020. See also "EU 'watered down' report on Chinese disinformation about COVID-19", *The Guardian*, 27 April 2020.

self-expression values towards survival values among the Western population. The severity of this will be conditional on how Western institutions – the European Union and NATO – will reconsider their roles, missions and actions to diminish these effects. In times of insecurity and reduced trust in governments, a stronger focus on the provision of public goods, including security, would be necessary to restore trust. This is essential, since if before the coronavirus crisis, countries like Russia were not prepared to fully exploit the effects of the pandemic on the population-domain war, they are now.

One result of this accidental experiment is that the planners of modern and future wars will be tempted to use artificially provoked pandemics to speed up the erosion of social cohesion, political resilience, and trust in the target government. Potential aggressors may be incentivized by the coronavirus pandemic to design viruses and diseases that are soft in substance, but rough in appearance, that do not necessarily kill but temporarily immobilize, or which trigger fear through the disease's visual manifestations. Efforts will be made to try and move the target population from a society guided by values of self-expression towards a world driven by survival values.²⁵ Similarly, the exploitation of natural and technological, man-made disasters would be attractive to the aggressor.

What can the expected effect of this new interstate aggression technology be? A major mistake in the West has been to perceive this new form of conflict as being merely about some disinformation effort aimed at confusing, deceiving and misleading. Instead, these are carefully crafted offensive acts of aggression aimed at harming and destroying. These acts can help remove governments from power, replace them with more loyal politicians or with those who are “pragmatic” and willing to do deals with the aggressor. It can also destroy the trust in the central government for subgroups of the population, inciting separatist feelings and actions. It can create tremendous pressure on the target country's political and influential interest groups, forcing them to change policies, including withdrawing from alliances and agreements. In the past, many conventional wars were waged in an attempt to reach similar goals. In any case, if the trends described are to materialize, NATO would arguably have to drastically rethink its approach to assessing security threats, as well as the resulting policies and procedures.²⁶

25 R. Inglehart and C. Welzel, 2005.

26 See a somewhat similar argument in A. Zegart, “The race for big ideas is on”, *The Atlantic*, 13 January 2020.

The implications of COVID-19 for NATO's counter-bioterrorism

Ion A. Iftimie

In 2002, one year after the September 11 terrorist attacks in the United States,¹ NATO's Heads of State and Government endorsed five initiatives to enhance the capacity of the Alliance for deterrence and defence against nuclear, biological and chemical (NBC) weapons: "a Prototype Deployable NBC Analytical Laboratory; a Prototype NBC Event Response team; a virtual Centre of Excellence for NBC Weapons Defence; a NATO Biological and Chemical Defence Stockpile; and a Disease Surveillance system".² Since then, efforts have been made at both national and institutional levels to increase the situational awareness, cross-domain capabilities and multilateral international engagements of NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC) to prevent, pursue, protect from and prepare for future bioterrorism attacks and other NBC incidents. More recently, these efforts have allowed the EADRCC to respond (upon national request and approval) to terrorist attacks, NBC incidents (such as the 2018 chemical attacks in the UK), epidemics (such as Ebola in Africa), and even pandemics (such as H1N1 and COVID-19 in Europe).

The reliance of Allies and partner nations on NATO's regional deterrence and defence mechanisms during recent crises, as seen in particular with EADRCC's responses to the novel Coronavirus (COVID-19) pandemic, endorses the Alliance's experience in preventing, pursuing, protecting from and preparing for the spread of biological agents³ and other weapons of mass destruction (WMDs). These responses also challenge existing doubts

1 Terrorism is defined by NATO as "the unlawful use or threatened use of force or violence, instilling fear and terror, against individuals or property in an attempt to coerce or intimidate governments or societies, or to gain control over a population, to achieve political, religious or ideological objectives"; NATO's Military Committee, "MC 0472/1: Concept for Counter-Terrorism", NATO, Brussels, 2016, p.5.

2 Heads of State and Government, "Press Release (2002)127: Prague Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Prague", NATO, 21 November 2002.

3 A biological agent is defined by the US Department of Defense (DoD) as "a microorganism (or a toxin derived from it) that causes disease in personnel, plants, or animals or causes the deterioration of materiel", Directorate for Joint Force Development, "JP 1-02: Department of Defense Dictionary of Military and Associated Terms", DoD, Washington, DC, 2016, p.24.

about NATO's operational and strategic relevance after the end of the Cold War.

This chapter looks at the weaponization of biological agents in the post-COVID-19 security environment and discusses NATO's growing role as a regional guarantor of biodefence and deterrence. While COVID-19 is not categorized as a biological weapon, the case study illustrates why and how the proven reliance of Allies and partner nations on NATO's situational awareness, cross-domain capabilities and multilateral international engagements are expected to increase during future possible bioterrorist attacks.

NATO's response to COVID-19

The Euro-Atlantic Disaster Response Coordination Centre

Created in 1998 to coordinate NATO's response to terrorist attacks and NBC incidents, the EADRCC is "NATO's principal civil emergency response mechanism in the Euro-Atlantic area".⁴ During the COVID-19 pandemic, both NATO member states (such as Albania, Italy, Montenegro, the Republic of North Macedonia, Slovenia and Spain) and partner nations (such as Bosnia and Herzegovina, Colombia, Georgia, the Republic of Moldova and Ukraine) requested international assistance through the EADRCC clearing house mechanism.⁵ While other NATO entities, programmes and initiatives have been active in supporting Allies and partners – such as the NATO Support and Procurement Agency (NSPA), the Strategic Airlift International Solution (SALIS) programme, the Strategic Airlift Capability (SAC), and NATO's Rapid Air Mobility initiative – many of these activities have been coordinated through the EADRCC. During the COVID-19 pandemic the EADRCC managed "the delivery of equipment and supplies to Allies by implementing simplified procedures for Rapid Air Mobility, in coordination with EUROCONTROL, using the NATO call sign for military flights".⁶ The EADRCC operated on a 24/7 basis to fulfill its mission; and it will remain the main NATO body to support NATO Allies and partner nations during possible future bioterrorist attacks.

NATO biodefence and deterrence in the post-COVID-19 security environment

The negative social and economic implications of the COVID-19 crisis will result in

4 Euro-Atlantic Disaster Response Coordination Centre, "Historical background", NATO, Brussels, 2020. https://www.nato.int/cps/en/natohq/topics_52057.htm? (accessed 20 April 2020).

5 Euro-Atlantic Disaster Response Coordination Centre, OPS(EADRCC)(2020)0084: EADRCC Situation Report #8 on COVID-19, NATO, Brussels, 15 April 2020.

6 O. Rittmann, "Video: Lt-Gen. Rittmann's remarks on COVID-19 Task Force", NATO, SHAPE, 7 April 2020. <https://shape.nato.int/news-archive/2020/video-aco-vice-chief-of-staff-on-covid19-task-force> (accessed 20 April 2020).

growing intent by terrorist groups to use biological agents against NATO member states for the purpose of achieving their goals. In the words of the UN Secretary-General Antonio Guterres, “the weaknesses and lack of preparedness exposed by this pandemic provide a window onto how a bioterrorist attack might unfold – and may increase its risks”.⁷ Terrorist organizations in the Middle East and North Africa (MENA) region are already describing COVID-19 as a weapon “used by God” against the enemies of Islam (or against the “crusaders”). The resulting increase in the threat of bioterrorism – that is, the “deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants”⁸ – also means that NATO’s collective capabilities to defend against any future spread of biological agents are expected to be significantly enhanced.

Biodefence is firmly anchored in NATO’s founding act Article 3, which states that “in order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack”.⁹ In 2002, NATO’s Heads of State and Government further reaffirmed their “commitment to augment and improve expeditiously NBC defence capabilities”.¹⁰ As such, bioterrorism is not a new threat to the security of NATO and its member states. In fact, the use of weaponized biological agents by terrorist groups has been a growing concern for many years. Recent responses to enhance NATO’s awareness, capabilities and engagements also indicate that the Alliance’s determination to address the bioterrorism threat in the post-COVID-19 security is likely to increase. In April 2020, a COVID-19 Task Force was established within SHAPE, tasked to “coordinate current and ‘near term’ fixes, and better prepare and posture our militaries for future pandemics” and biological threats.¹¹

Toward a campaign design for bioterrorism deterrence and defence

On 31 March 2020, NATO Secretary General Jens Stoltenberg appointed a group of experts

7 G. Clarke, “COVID-19 threatening global peace and security, UN chief warns”, UN News, 10 April 2020, <https://news.un.org/en/story/2020/04/1061502> (accessed 20 April 2020).

8 Centers for Disease Control and Prevention, “Bioterrorism overview”, CDC, Washington, DC, 2006, p.1.

9 NATO, “The North Atlantic Treaty”, Washington, DC, 4 April 1949.

10 Heads of State and Government, “Press Release (2002)127: Prague Summit Declaration issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Prague”, NATO, 21 November 2002.

11 T.D. Wolters, “Video: remarks of Supreme Allied Commander Europe on COVID-19 Task Force”, NATO, SHAPE, 7 April 2020, <https://shape.nato.int/news-archive/2020/video-supreme-allied-commander-europe-on-covid19-task-force> (accessed 20 April 2020).

and tasked them, as part of a forward-looking reflection process, to offer recommendations “about making NATO even stronger and enhancing its ability to deal with current and future challenges”¹². In the wake of the COVID-19 crisis and growing bioterrorism threats, this group of experts will *inter alia* revisit the commitments of the 2012 Chicago Summit, when Allies agreed that NATO “will undertake initiatives to enhance the prevention of and resilience to acts of terrorism with a focus on improved awareness of the threat, adequate capabilities to address it and engagement with partner countries and other international actors”¹³.

In this context, improved awareness, adequate capabilities and engagement in a campaign for bioterrorism deterrence and defence can be achieved along four lines of effort (LOEs)¹⁴:

- Preventing the increase in intent and capabilities of terrorist entities;
- Pursuing indicators and warnings of bioterrorism activities;
- Protecting civilians and critical infrastructure of NATO members (and partner nations); and
- Preparing for future bioterrorism attacks.

These LOEs unfold along a six-Phase NATO Crisis Management Process¹⁵:

- Phase I: Indicators and warnings;
- Phase II: Assessment;
- Phase III: Response Options Development;
- Phase IV: Planning;
- Phase V: Execution; and
- Phase VI: Transition.

For the purpose of this assessment and for simplicity’s sake, this six-Phase NATO Crisis Management Process is restructured into three phases for a counter-bioterrorism campaign:

12 “NATO reflection process: Secretary General’s first meeting with the group of experts”, NATO, 8 April 2020, https://www.nato.int/cps/en/natohq/news_175009.htm (accessed 20 April 2020).

13 North Atlantic Council, “NATO’s policy guidelines on counter-terrorism: aware, capable and engaged for a safer future”, NATO, Brussels, 21 May 2012; https://www.nato.int/cps/en/natohq/official_texts_87905.htm (accessed 20 April 2020).

14 Home Department, “Contest: the United Kingdom’s strategy for countering terrorism”, HM Government, London, June 2018, p.5.

15 North Atlantic Council, “NATO’s assessment of a crisis and development of response strategies”, NATO, Brussels, 10 May 2011; https://www.nato.int/cps/en/natohq/official_texts_75565.htm (accessed 20 April 2020).

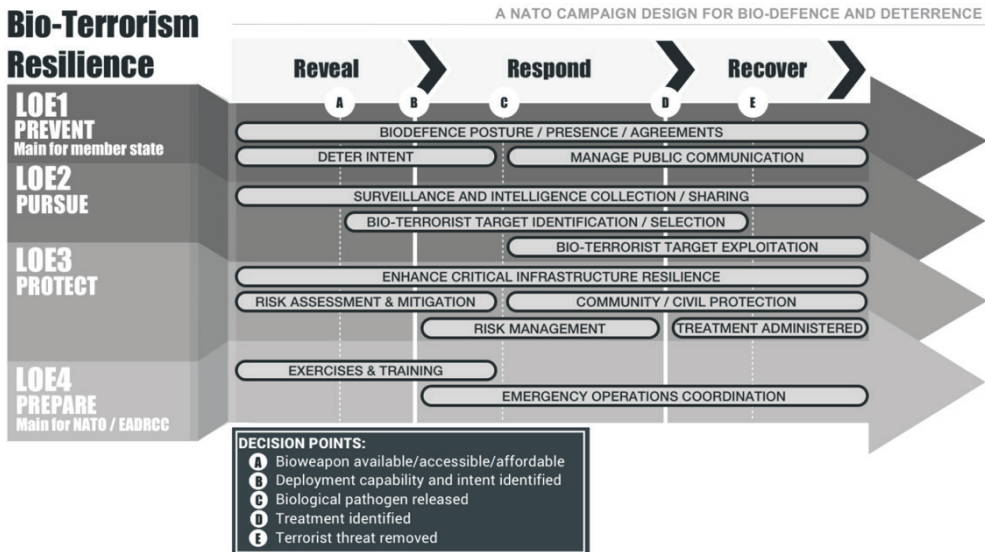
- Phase I: Reveal (pre-biological-attack risk assessments and mitigation);
- Phase II: Respond (post-biological-attack NATO responses); and
- Phase III: Recover (NATO responses once a treatment to a biological agent is identified).

Within these three phases, five decision points can be identified:

- A bioweapon becomes available, accessible and affordable;
- The deployment intent and capability of a bioterrorist entity is identified;
- The biological agent is released;
- A treatment is identified; and
- The terrorist threat is removed.

A NATO counter-bioterrorism campaign must integrate all four LOEs, three phases and five decision points (as exemplified in Figure 1).

Figure 1: A NATO campaign design for bioterrorism deterrence and defence (author's representation)



LOE1: prevent an increase in intent and capabilities of bioterrorist entities

Since the 2002 Prague Summit, NATO has undertaken an “ambitious goal of comprehensively preventing WMD proliferation”.¹⁶ Prevention of WMD proliferation¹⁷ – “through contributing to national and international efforts while avoiding unnecessary duplication and respecting the principles of complementarity” – was further emphasized during the 2012 Chicago Summit in NATO’s Policy Guidelines on Counter-Terrorism. This highlights that, while the main effort for “prevention” of bioterrorism lies with the member states, NATO still has a responsibility to develop its own bio-defence posture, presence and agreements during all the phases of a counter-bioterrorism campaign. This is because, as seen during the COVID-19 pandemic, both Allies and partner nations will likely request international assistance through NATO’s EADRCC clearing house mechanism during hypothetical bioterrorist attacks.

NATO’s bio-defence posture, presence and agreements can only be achieved through well-synchronized multilateral, multinational and international engagements and/or efforts that the EADRCC leveraged during the COVID-19 pandemic. As highlighted by the Commander of the COVID-19 Task Force, it is only by “leveraging NATO’s experience conducting strategic coordination with multiple partners [that the] combined actions of our allied forces [can be enhanced]”.¹⁸ NATO’s synchronization with its partners is also critical for deterring the use of biological agents and combatting fake news (through strategic communication), as illustrated by an increase in state-sponsored disinformation campaigns during the COVID-19 NATO responses.

LOE2: pursue indicators and warnings of bioterrorism activities

NATO’s work on non-proliferation of WMD is well established. Its Combined Joint CBRN (chemical, biological, radiological and nuclear) Defence Task Force (CJ-CBRND-TF), for example, is capable of conducting reconnaissance and monitoring operations, and maintains its own disease surveillance system. This is done without duplicating national efforts. NATO reconnaissance and monitoring operations act to complement ongoing

16 R.G. Lugar, “Redefining NATO’s mission: preventing WMD terrorism”, *The Washington Quarterly*, Vol.25, No.3, 2002, pp.5-13.

17 A WMD is defined by NATO as “a weapon that is able to cause widespread devastation and loss of life” (NATO Standardization Office, “AAP-06: NATO Glossary of Terms and Definitions”, NATO, Brussels, 2019, p.135) and by the US DoD as “chemical, biological, radiological, or nuclear weapons capable of a high order of destruction or causing mass casualties” (Directorate for Joint Force Development, “JP 1-02: Department of Defense Dictionary of military and associated terms”, DoD, Washington, DC, 2016, p.258).

18 O. Rittimann, “Video: Lt.Gen. Rittimann’s remarks on COVID-19 Task Force”, NATO, SHAPE, 7 April 2020. <https://shape.nato.int/news-archive/2020/video-aco-vice-chief-of-staff-on-covid19-task-force> (accessed 20 April 2020).

national efforts to enhance intelligence sharing on bioterrorism between member states.

While member states maintain the lead in the targeting process of bioterrorist entities on their own territories, NATO's situational awareness and capabilities can play a role in this process, particularly when the threat transcends national borders. Intelligence sharing via NATO's communication systems, such as the "Situation Centre" (SITCEN), the NATO Intelligence and Warning System (NIWS) and the NATO Crisis Response System (NCRS) can be vital for early identification of bioterrorism threats; it can assist member states in their preliminary target identification process and with assessment of capabilities and intent of bioterrorist entities. Once intent and capability are verified and communicated via these systems, the final targeting process can begin, followed by the exploitation of the bioterrorism threat by Special Operations Forces (at both national and NATO levels). Upon request and approval, the NATO Special Operations Headquarters (NSHQ) and its Special Operations Component Command can also coordinate joint Allied special operations activities to stop an imminent bioterrorism threat.

LOE3: protect civilians and critical infrastructure of NATO members and partner nations

While protection of civilians and critical infrastructure of NATO member states from biological agents and/or bioterrorism is a national responsibility, NATO's situational awareness, capabilities and engagements can support/complement these efforts. NATO states that "as an international organization, it has unique assets and capabilities to offer in support of Allies' CT efforts".¹⁹ These counterterrorism assets and capabilities are supplemented, at the tactical level, by those of NATO's CJ-CBRND-TF. The latter, for example, has a CBRN rapid response team that can be deployed, upon request and approval, to support national efforts. At the operational level, the EADRCC and the CJ-CBRND-TF can also support the Allies and partner nations with risk assessment, risk management and/or treatment/clearance and decontamination efforts.

LOE4: prepare for future bioterrorism attacks

Sharing best practices through multi-national exercises and training is critical in preparing NATO and its member states for future bioterrorism attacks. NATO's CJ-CBRND-TF also has a CBRN virtual training centre, while the EADRCC runs seminars and field exercises. These activities are supported by accredited Centres of Excellence (COE) – such as the

¹⁹ NATO Military Committee, "MC 0472/1 Concept for Counter-Terrorism", NATO, Brussels, 2016, p.5.

Defence against Terrorism COE and the Joint Chemical, Biological, Radiological and Nuclear (JCBRN) Defence COE. Furthermore, the CJ-CBRND-TF, the EADRCC, the NSHQ, and NATO's CBRN Reachback capability of the JCBRN Defence COE can assist with emergency operations coordination once an imminent biological threat is recognized.

Revisiting NATO's collective biodefence awareness, capabilities and engagements

As part of its forward-looking reflection process, NATO would be well-advised to pay particular attention to the growing bioterrorist threat in the post-COVID-19 security environment. This implies to continue to improve NATO's situational awareness of the bioterrorist threat, its capabilities to address it and its international engagements, in line with the 2012 Chicago Summit decisions.

As seen above, NATO can complement national situational awareness through surveillance, intelligence-sharing and risk assessments that are vital for NATO biodefence. Initial dysfunctional and uncoordinated responses of the Allies to the COVID-19 pandemic highlighted, however, that much more can be done in the areas of cooperation, information sharing and identification of emerging biological threats.

NATO's capabilities and rapid response times must also be enhanced. NATO has extensive experience with combating epidemics and pandemics, responding to terrorist attacks and CBRN incidents, and protecting critical infrastructure. But the failure of most Allies to meet the 2 percent threshold on defence spending also resulted in fewer capabilities to address the growing bioterrorist threat in the post-COVID-19 security environment. Already, NATO's inability to invest in building a stockpile of medical equipment impacted responses to the current bio-crisis. Increased investments in medical and technical capabilities, and in databases/systems developed and maintained by NATO are critical to further enhance situational awareness, command and control, interoperability and synchronization efforts between Allies during future bioterrorist attacks.

Furthermore, NATO must continue to grow its engagements with both national as well as regional entities (such as the EU Emergency Response Coordination Centre) and international ones (such as the UN Office for the Coordination of Humanitarian Affairs) that can supplement national biodefence efforts. Its cooperation mechanisms for collective biodefence, as seen with requests received by the EADRCC during the COVID-19 pandemic, ensure that Allies can assist each other with both situational awareness and capability development. Through these national, regional and international engagements, NATO can further strengthen both its presence and posture leading to increased bioterrorism defence

and deterrence. Similarly, the various partners and joint practices involved help improve interoperability in countering bioterrorism activities.

Finally, NATO's ability to conduct well-coordinated strategic communication campaigns to combat disinformation must be consolidated, as such disinformation may weaken the effectiveness of both defence and deterrence efforts, including in combating CBRN threats.

Conclusion

NATO's recent responses during terrorist attacks, chemical incidents, epidemics and the COVID-19 pandemic illustrate the role of the Alliance in ensuring collective biodefence and deterrence. In these end states, the Allies will continue to play the most central role. However, NATO's own mandate for biodefence and deterrence means that the Alliance should be prepared (if called upon) to assist members and partner nations during growing threats in the biosphere or in the germs domain, recently described by the Commander of the Allied Joint Force Command in Naples as the "7th domain of warfare".²⁰ While NATO's responses during the COVID-19 crisis attest to the fact that Allies and partner nations are probably better off with NATO's support to deter and defend from future bioterrorist attacks than without it – more must be done to ensure that the Alliance is fully prepared to respond to biological attacks across the whole spectrum of operations. Enhancing NATO's complementary situational awareness, capabilities and engagements, as agreed upon during the 2012 Chicago Summit, is critical in at least four lines of effort identified in this chapter: first, to prevent the increase in intent and capabilities of terrorist entities; second to pursue indicators and warnings of bioterrorism activities; third to protect civilians and critical infrastructure of NATO members (and partner nations); and fourth to prepare for future bioterrorism attacks. The post-COVID-19 crisis era offers a good moment for lessons to be identified and learned, and for these issues to be actively considered and acted upon, for the next biological attack may be even more deadly and destabilizing.

20 C. Woody, "After Coronavirus, the US needs to worry about a '7th domain' of warfare, top Navy commander in Europe says", *Business Insider*, 17 April 2020, <https://www.businessinsider.com/coronavirus-brings-7th-warfare-domain-top-navy-officer-europe-says-2020-4?IR=T> (accessed 20 April 2020).

The influenza pandemic of 1918: military observations for today

Howard G. Coombs

It stalked into camp when the day was damp
 And chilly and cold
 It crept by the guards
 And murdered my pard
 With a hand that was clammy and bony and bold
 And its breath was icy and mouldy and dank
 And it killed so speedy
 And gloatingly greedy
 That it took away men from each company rank

From "The Flu" by Private Josh Lee, USA, 1919¹

The influenza pandemic, otherwise known as the "Spanish Flu", of 1918 had three successive waves and killed about 50 million people in only a couple of years. To put this outbreak into context, it resulted in more deaths than the entirety of the First World War. Young, fit men and women were most susceptible to the ravages of this disease. Doctors were able to do little and countries, blaming others, closed their borders. Also affected, as highlighted within this poem, were the combatant militaries of the nations engaged in the First World War.² A retrospective of 1918-1919 provides a glimpse of the impact of this outbreak upon the various combatant military forces of that time. From that, one can discern some of the choices that modern militaries must grapple with during a global pandemic. Accordingly, when considering the impact of Coronavirus disease (COVID-19)

¹ Cited in P. C. Wever and L. Bergen, "Death from 1918 pandemic influenza during the First World War: a perspective from personal and anecdotal evidence", *Influenza and Other Respiratory Viruses*, Vol.8, No.5, 1 September 2014, p.538.

² See L. Spinney, *Pale rider: the Spanish Flu of 1918 and how it changed the World*, New York, Public Affairs, Hachette Book Group, 2017.

on NATO armed forces, the events of a century ago offer relevant historical lessons for Alliance militaries.

An existential threat: “Spanish Flu” 1918-1919

There are many similarities between the spread of the influenza pandemic of 1918-1919 and that of COVID-19 today. The influenza pandemic may have crossed over from animals, perhaps avian or swine. Additionally, some historians argue that the misnamed Spanish Flu, initially believed to have come from Spain, might have originated in China.³ From there it could have been transmitted to armies on the Western Front by Chinese labourers supporting the war efforts. Like the current day predictions for COVID-19, there were several “waves” of the Spanish Flu – three in all. The first started during March 1918 and, over the next six months, circulated irregularly across the United States, Europe, and Asia. Following from this was a second global wave from September to November 1918, with a third wave in early 1919. Due to the concentrations of military personnel, the troop movements associated with the fighting, and redeployments at the end of the War, the flu spread occurred in a similar globalized fashion to that of COVID-19. However, unlike COVID-19, the Spanish Flu was more virulent, and killed many young and healthy people.⁴

Medical investigations conducted during the First World War and immediately afterwards concluded that frontline conditions, along with the closeness of military life, likely exacerbated the effects of the disease. Influenza connected illness and death among military personnel were attributed to specific war-related conditions. These included: overcrowding; unsatisfactory hygiene; inadequate clothing; exposure to adverse climatic conditions; and, badly vented accommodation.⁵

Resultantly, none of the combatants engaged in Europe were spared the impact of this scourge and influenza attacked all armies. Allied and German field hospitals, along with their evacuation chains, were filled with the casualties of this invisible enemy. The highest illness rate was amongst the United States Army, which recorded over one million cases in Europe and in training camps. In comparison, in France during 1918, the British Expeditionary Force documented 700,000 cases, the French Army had 436,000 sick, and

3 M. Humphries, “Paths of infection: the First World War and the origins of the 1918 influenza pandemic”, *War in History*, Vol.21, No.1, January 2014, p.58.

4 The origins of the 1918 pandemic are still under study. See J. Taubenberger and D. Morens, “1918 influenza: the mother of all pandemics”, *Emerging Infectious Diseases*, Vol.12, No.1, January 2000, pp.16-17; and P. C. Wever and L. Bergen, “Death from 1918 pandemic influenza during the First World War: a perspective from personal and anecdotal evidence”, *Influenza and Other Respiratory Viruses*, Vol.8, No.5, 1 September 2014, p.538.

5 J. Oxford *et al.*, “World War I may have allowed the emergence of ‘Spanish’ influenza”, *The Lancet: Infectious Diseases*, Vol.2, No.2, February 2002, p.113.

the German Army recorded 700,000 instances of influenza.⁶

The first Western Front influenza wave in Spring 1918 made significant inroads in the French, British and German forces. The French were evacuating 1,500 to 2,000 cases per day, while the British were suffering similarly debilitating impacts. War poet Siegfried Sassoon wrote in his fictionalized autobiography, “the influenza epidemic defied all operation orders of the Divisional staff, and during the latter part of June more than half the men in our brigade were too ill to leave their billets”.⁷ This wave diminished by the Summer 1918, but for the Germans the damage had been done. Von Ludendorff attributed the collapse of their Spring 1918 offensive to the devastating impact of the disease upon his army. While attaching this military failure to the flu is debateable, it is likely safe to say that influenza weakened the German army at this critical period. This trend continued for all belligerents during Fall 1918 with the second wave of the influenza, which had a significant impact on the Americans.⁸

By October 1918 influenza patients, considered non-battle casualties, were the largest number of hospitalized soldiers within the American Expeditionary Force (AEF). AEF statistics for 1918 indicate that over 340,000 of its members were admitted for influenza, while throughout the same period about 227,000 additional personnel were admitted for combat related injuries. This second wave of the pandemic arrived at the worst possible time for US operations; the diseased peaked within the AEF during the Meuse-Argonne offensive from September to November 1918. For the AEF, this series of operations constituted the major campaign of the First World War and the impact of the disease was considerable. Transportation of sick soldiers overwhelmed lines of evacuation and filled hospital beds – many were rendered non-effective due to illness and thousands died. Furthermore, it distracted US leaders and AEF commanders from winning the War, to fighting disease – an argument that can be likewise made for the other wartime participants. Despite best efforts otherwise, influenza killed more American military personnel than wartime combat.⁹

6 See P. C. Wever and L. Bergen, “Death from 1918 pandemic influenza during the First World War: a perspective from personal and anecdotal evidence”, *Influenza and Other Respiratory Viruses*, Vol.8, No.5, 1 September 2014, p.539; and O. Lahaie, “L’épidémie de grippe dite ‘espagnole’ et sa perception par l’armée française (1918-1919)”, *Revue historique des armées*, No.262, 2011, p.6.

7 S. Sassoon, *Sherston’s progress (the memoirs of George Sherston #3)*, New York, Doubleday, Doran & Company, 1937, p.75.

8 P. Wever and L. Bergen, “Death from 1918 pandemic influenza during the First World War: a perspective from personal and anecdotal evidence”, *Influenza and Other Respiratory Viruses*, Vol.8, No.5, 1 September 2014, p.539-540, quote from p.540; C. Kreiser, “History Net: 1918 Spanish influenza outbreak: the enemy within”, accessed 15 April 2020, <https://www.history-net.com/1918-spanish-influenza-outbreak-the-enemy-within.htm>; and R. Farley, “Coronavirus is a killer (but the Spanish Flu killed five times more people than World War I)”, *The National Interest*, last modified 7 March 2020, <https://nationalinterest.org/blog/buzz/coronavirus-killer-spanish-flu-killed-five-times-more-people-world-war-i-130757>

9 AEF influenza statistics and effects from C. Byerly, “Institutional response: the US military and the influenza pandemic

With the end of European fighting in November 1918, the demobilization of these vast armies further spread the virus and contributed to the pandemic's third wave. This last surge of flu eventually diminished and seemed to disappear over Winter 1919.¹⁰ The negative influence of the pandemic upon the militaries of the First World War was extreme. Not only did it create many ill and dead amongst young military and potential military personnel, it also affected civilian and military leaders, as well as the civilian laborers who were necessary to support the fighting forces. Moreover, it negatively influenced morale, training, and troop reinforcement. Another result of the virus was that medical facilities were inundated with patients, devastating their capacity to deal with combat related casualties. In addition to the physical and morale aspects of this pandemic, there were also psychological characteristics that ranged from depression, through to delusions and insanity, to suicide. As Captain Harry Truman, a future US President, observed in January 1919, "Every day nearly someone of my outfit will hear that his mother, sister, or sweetheart is dead. It is heartbreaking almost to think that we are so safe and so well over here and that the ones we'd like to protect more than all the world have been more exposed to death than we". It is therefore perceptible that military effectiveness was undermined by influenza.¹¹

Countering a wartime pandemic is like building an airplane in flight

Furthering this historical introspection, one can discern numerous examples of how the militaries of the First World War tried to protect their forces and continue to fight. For instance, the French Army's approach to prevention and mitigation would not be out of place today. Basic hygiene measures were ordered and enforced. Measures were always taken to evacuate and quarantine ill soldiers while being careful to separate them from others. Additionally, all transport and medical facilities that they passed through were disinfected.¹²

While it would be difficult to isolate soldiers deployed on operations, a form of "social distancing" was employed to prevent the spread of the disease. The German Army recognized the connection between the spread of the disease and how closely troops were

of 1918–1919", *Public Health Reports – Supplement*, Vol. 125, No.3, 2010, p.87.

10 J. Barry, "The site of origin of the 1918 influenza pandemic and its public health implications", *Journal of Translational Medicine*, Vol.2, No.3, January 2004, pp.1-4.

11 M. Humphries, "Paths of infection: the First World War and the origins of the 1918 influenza pandemic", *War in History*, Vol.21, No.1, January 2014, p.60; C. Watterson and A. Kamradt-Scott, "Fighting flu: securitization and the military role in combating influenza", *Armed Forces & Society*, Vol.42, No.1, January 2016, pp.150-151; and, quote from D. McCullough, *Truman*, New York, Simon & Schuster, 1992, p.136.

12 O. Lahaie, "L'épidémie de grippe dite 'espagnole' et sa perception par l'armée française (1918-1919)", *Revue historique des armées*, No.262, 2011, p.6.

quartered. Closely accommodated units had a large percentage who became ill, but those who were not densely put together had much lower rates of infection. It was also noted that the lowest rate of infection was amongst the officers, who were able to obtain individual accommodation.¹³

With the exigencies of total war, military and civilian medical systems were intertwined. The British had a system of military pathology that connected clinical laboratories in England with military hospitals in Belgium and France. Vaccines were made and tested in several militaries including Britain, Canada, and the United States. This is likely linked to the idea that the military was the ideal setting in which to trial these serums due to pools of available test subjects, and systemic reporting of trial results. For instance, the United States Army Medical School produced and disbursed two million doses of a trial vaccine between October and November 1918. However, due to a lack of understanding of the pathology of the disease and emerging vaccine production capabilities, no conclusive results were obtained.¹⁴

Total war also brought negative consequences for public health. In France, medical personnel, equipment, and infrastructure were integral to the war effort. Consequently, civil authorities were limited in treating the disease through a lack of trained health care providers and material. This led to the transmission of the disease across the country and the frontlines.¹⁵

In Canada, military doctors contributed to the implementation of public health policies. This included quarantine, vaccination, and the use of gauze masks. However, cooperation between military doctors and their civilian counterparts was not uniform and was sometimes perceived by the military as inimical to the war effort. Nonetheless, Canadian military medicine played a key role in organizing the public health response to the influenza pandemic.¹⁶

In Europe and North America further attempts were made to help civilian authorities. An instance of this was when French military doctors who, although constricted by the

13 J. Vögele, "Die 'Spanische Grippe' in der deutschen Armee 1918: Perspektive der Ärzte und Generäle", *Medizin Historisches Journal*, Vol.48, No.2, January 2013, p.123.

14 M. Bresalier, "Fighting flu: military pathology, vaccines, and the conflicted identity of the 1918-19 pandemic in Britain", *Journal of the History of Medicine*, Vol.68, No.1, January 2013, pp.89-90; and C. Watterson and A. Kamradt-Scott, "Fighting flu: securitization and the military role in combating influenza", *Armed Forces & Society*, Vol.42, No.1, January 2016, p.151.

15 P. Zylberman, "Comme en 1918 ! La grippe 'espagnole' et nous", *Médecine Sciences*, Vol.22, No.8-9, August-September 2006, p.767.

16 M. Humphries, "The horror at home: the Canadian military and the 'great' influenza pandemic of 1918", *Journal of the Canadian Historical Association / Revue de la Société historique du Canada*, Vol.16, No.1, 2005, pp.255-256; and J.R. Bernier and V. McAlister, "The Canadian Army Medical Corps affair of 1916 and surgeon General Guy Carleton Jones", *Canadian Journal of Surgery*, Vol.61, No.2, April 2018, p.87.

demands of wartime medicine, attempted to assist with treating influenza within the civilian population. Similar efforts to aid the civilian population were evidenced in the United States.¹⁷

The more things change the more they stay the same

From this examination of military actions during the 1918-1919 pandemic, three observations pertaining to force protection, operational tempo, and the support to civilian authorities, can be derived that are relevant today.

First, the necessity of *Force Protection* focused on countering the impact of influenza to protect military strength and force generation for operations remains paramount. In 1918, the negative impacts of influenza on the fighting forces were myriad and made war much harder. Politicians and military commanders were distracted, the morale, physical, and mental well-being of military personnel were adversely affected, troop strengths and preparedness were reduced, with maneuvers and movement restricted. On top of this, the capacity of the medical system to treat battle casualties was severely reduced because the medical treatment and evacuation chain were overwhelmed with soldiers struck down by influenza.

Today, this need for force protection has been highlighted within the United States and French navies with public disclosures of instances of COVID-19 illness within an important part of their strategic strike capability – the carrier fleets. Other forces, like Canada's, have been subject to similar or more stringent movement restrictions and precautions as the civilian population to protect military personnel from infection. As an example, the Canadian Armed Forces were ordered, unless otherwise directed, to stay home, and the general populace was encouraged to restrict movement. Similarly, the British Army was put on standby from home for COVID-19 operations. The United States military services have cancelled or reduced training and exercises, minimized travel and implemented public health guidance to protect their personnel. They also have issued a worldwide series of directives ranging on all aspects of dealing with the virus from reporting procedures, through hygiene and personal distancing, to the use of personal protective equipment. To confirm the NATO response to COVID-19 over 30 foreign ministers met via teleconference in Brussels in early April 2020. After that collaboration Secretary General Jens Stoltenberg indicated that NATO forces and their continued ability to meet operational commitments

17 P. Darmon, "Une tragédie dans la tragédie : la grippe espagnole en France (avril 1918-avril 1919)", *Annales de démographie historique*, No.2, 2000, p.162; and see T. Snyder, "Navy support to civilian authorities during the 1918 influenza pandemic-history's lessons and recommendations for future work", *Military Medicine*, No.174, November 2009, pp.1223-1227.

had not been undermined by the COVID-19.¹⁸

Second, a requirement to maintain *Operational Tempo*, through apportionment of forces for fighting the flu and military operations, remains important. While the impact of the Spanish Flu was severe, it would be difficult to suggest that the Spanish Flu had a powerful influence on the outcome of the War. Influenza struck all European combatants simultaneously and weakened them similarly, while at the same time outbreaks in their home nations correspondingly degraded their national support. Regardless, the need to continue operations without pause or culmination in tandem with the demands of dealing with the virus took much planning and effort.

This need remains relevant for contemporary armed forces. Italy, severely affected by COVID-19, has roughly 7,000 Italian military personnel employed in 24 missions and 16 operations in 24 different countries. The Italian Ministry of Defence made several changes in supporting these international commitments in order to balance and maintain domestic and international commitments. Operational activities were diminished in Kosovo (NATO Kosovo Force) and Lebanon (UN Interim Force in Lebanon). Some personnel were also withdrawn from NATO operations in Afghanistan and Iraq. Italian military training in Iceland was postponed. In contrast, it seems that the United States has been able to maintain its force contributions overseas and simultaneously deal with the impact of the virus at home without deployment reduction.

In parallel, NATO works with troop contributing nations to monitor and manage ongoing operations in the context of emergencies like that posed by COVID-19 to ensure no degradation of military endeavors. In spite of the pandemic, NATO has committed to maintaining military commitments, deployments, and engagements, including operations in Afghanistan, Eastern Europe, and Iraq.¹⁹

18 See US Department of Defense, "DoD COVID-19 update 13 April 2020", https://www.govexec.com/media/gbc/docs/pdfs_edit/covid-19_media_fact_sheet_-_13_apr_20.pdf (accessed 16 April 2020); and *Foreign Policy*, "FP Security Brief: Russia fires shot in space arms race", e-mail, 16 April 2020; Canada, Canadian Armed Forces, Chief of Defence Staff, "April 3: letter from Chief of the Defence Staff (CDS) regarding COVID-19", <https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2020/04/april-3-letter-from-cds-regarding-covid-19.html> (accessed 24 April 2020); United Kingdom, British Army, "Supporting the nation: Coronavirus", <https://www.army.mod.uk/news-and-events/covid-19/> (accessed 29 April 2020); Military.com, "The US Military Coronavirus response", <https://www.military.com/us-military-coronavirus-response> (accessed 30 April 2020); US Department of Defense, "Coronavirus: DoD response timeline", <https://www.defense.gov/Explore/Spotlight/Coronavirus/DOD-Response-Timeline/> (accessed 29 April 2020); and US Department of Defense, "NATO takes steps to combat Coronavirus", last updated 06 April 2020, <https://www.defense.gov/Explore/News/Article/Article/2139462/nato-takes-steps-to-combat-coronavirus/source/GovDelivery/>

19 Canada, Global Affairs Canada, "Rome Sitrep COVID-19 (Coronavirus) Outbreak #1 - #34", e-mails, 11 March - 14 April 2020; and, NATO, *Newsroom*, "Coronavirus response: ventilators from Germany arrive in Spain", last updated 3 April 2020, https://www.nato.int/cps/en/natohq/news_174937.htm?selectedLocale=en; NATO, *Newsroom*, "NATO response to COVID-19", last updated 15 April 2020, https://www.nato.int/cps/en/natohq/news_174271.htm; and US Department of Defense, "NATO takes steps to combat Coronavirus", last updated 06 April 2020, accessed 24 April 2020; US Department of Defense, "Coronavirus: DoD response timeline", <https://www.defense.gov/Explore/Spotlight/Coronavirus/DOD-Re->

Third, an obligation to *Assist Civilian Authorities* to the greatest extent possible, notwithstanding the conflicting demands of Force Protection and Operational Tempo, continues to require careful consideration. During the First World War, it is evident that there were measures taken to reduce illness amid operations. The military also used its resources, where such ability existed, to support their home nations in battling the Spanish Flu. This ranged from medical research, through to the testing of vaccines and provision of medical services to civilians.

Similarly, during the COVID-19 period, quite a few NATO's armed forces have provided support to civilian authorities. This has generally taken the form of giving additional medical capacity, providing transportation and furnishing COVID-19 related internal security. The latter use of military support is not consistent within NATO countries. For example, while Germany, due to restrictions imposed by its Constitution, cannot use its forces in this manner, Italy has assigned military forces to COVID-19 regulation related enforcement. Similarly, Spain has employed military support in hospitals, health centres and nursing homes. It has used its Army logistics and Air Force to move medical supplies internally and externally. In one instance, the Air Force provided airlift to fly urgently needed ventilators from Germany to Spain. France, Germany and Italy, as have many others, similarly conducted domestic support to mitigate the pandemic. Exemplars are France deployed amphibious carriers to augment numbers of hospital beds, Germany conducted aero-medical evacuation and Italy seconded military doctors and nurses to civil hospitals. Non-security types of assistance were also provided among NATO members, with NATO playing a coordination role, through its Euro-Atlantic Disaster Response Coordination Centre (EADRCC). By May 2020 twelve requests for this type of assistance, six from Allied nations and six from partner states, were processed by the EADRCC. Most of these asks involved the acquisition of medical supplies and others related to the provision of medical advice and support.²⁰

sponse-Timeline/ (accessed 29 April 2020); and US Department of Defense, "NATO takes steps to combat coronavirus", last updated 6 April 2020, <https://www.defense.gov/Explore/News/Article/Article/2139462/nato-takes-steps-to-combat-coronavirus/source/GovDelivery/>

20 Military Balance Blog, "Europe's armed forces and the fight against COVID-19", last updated 9 April 2020, <https://www.iiss.org/blogs/military-balance/2020/04/europe-armed-forces-covid-19>; Canada, *Global Affairs Canada*, "Rome Sitrep COVID-19 (Coronavirus) Outbreak #1 - #34", emails, 11 March - 14 April 2020.; NATO, SHAPE, "Allied nations support COVID-19 battle, Weekly Roundup Apr 25 2020", <https://shape.nato.int/news-archive/2020/allied-nations-support-covid19-battle-weekly-roundup-4> (accessed 30 April 2020); and, NATO, *Newsroom*, News, "Coronavirus response: ventilators from Germany arrive in Spain", last updated 3 April 2020, https://www.nato.int/cps/en/natohq/news_174937.htm?selectedLocale=en.NATO; and EADRCC, "EADRCC Situation Report #9 COVID-19", 23 April 2020, pp.1-5.

Quo vadis?

In the context of COVID-19 and possible future pandemics, NATO militaries not only need to consider the impact of illness on both military and civilian personnel, but they must also have a contingency plan for how they will simultaneously conduct operations while protecting and preserving their forces for future activities. Furthermore, the prioritization of military support to civilian authorities and in what way force contributions can be best employed across the Alliance to alleviate pandemic effects is vital to efficient and effective assistance. Specifically, the role of the NATO EARDCC takes on renewed importance in dealing with non-Article 5 operations that may be created by pandemics. Along with this, the structure of the NATO Response Force (NRF), to be used in crisis operations, needs to be reviewed to be able to address contagion-type emergencies. Plus, an integrated public health partnership framework with other like-minded collaborators, such as the European Union, needs to be constructed, agreed upon, and implemented to enable effective, prioritized response to civil authorities. This accord should not only deal with the role of health providers, but also with NATO and other militaries in combatting such threats. It is only by the systemic inculcation of knowledge hard won by fighting these viruses throughout history that the Alliance and its militaries can transform this information into actions useful in countering future pandemics.

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