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The Future Impacts of COVID-19 on the North Atlantic Treaty Organization—a Futures Framework

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Prepared for: Gen (Ret'd) Sverre Diesen, Chair NATO SAS-169

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Scientific Letter

The Future Impacts of COVID-19 on the North Atlantic Treaty Organization—a Futures Framework

Background

This Futures Framework was produced as part of NATO Systems Analysis Studies (SAS) Specialist Team, 169 (SAS-169) to analyse the future impacts of COVID-19 on the NATO alliance and its member states. The framework is not intended to predict the future, rather to suggest a range of alternatives that might occur differentiated primarily by the time to develop a viable vaccine or vaccines and to overcome the effects of the pandemic.

Introduction

The SAS-169 study seeks to explore potential strategic and operational military impacts in the context of possible short-term (1–6 year) futures of the COVID-19 environment, and in so doing provide national and NATO planners, and decision makers with high-level recommendations to address these potential impacts. Such a study is unique as it focuses attention on the implications of the pandemic for the military alliance and its members.

The Futures Framework (Annex A) and the Security Factor from the Futures Framework (Annex B) will form the basis upon which the SAS-169 team will examine the impacts these different futures may have at the strategic/operational level, using the military J functions (1 through 9)—the continental staff construct—as the analytical structure. This sets up a range of possible military impacts in the wake of the pandemic over a 1–6 year timeframe. Through consideration of the range of military impacts and their implications, a set of conclusions and recommendations are derived for national and NATO decision makers to address the consequences of the pandemic.

Methodology

The study is based on the use of two analytical frameworks: a Futures Framework, which is contained in this document, and a Military Impact Analysis Framework which will be guided by this document.

The Futures Framework defines a variety of possibilities across the pandemic into three future scenarios—the best case, baseline and worst case—developed from input provided by the SAS-169 members, who are listed in the acknowledgement section. The futures are presented in a table that has columns for each future and rows for each factor. The rows containing the driving factors are shaded at the top. Futures are models which establish the possible range of outcomes based on an understanding of the most conceivable pandemic environments. Each of these futures are described in terms of two driving factors—the medical (vaccine development and the associated medical infrastructure) and the economy followed by others that also have an obvious bearing on military affairs, namely: political, social, scientific and technological, and regional. The Security Factor of the Futures Framework follows the same model as the Futures Framework but focuses more specifically on military security with sub-factors including inter-state conflict, intra-state conflict, and violent extremist organizations.

Given the strong correlation between the development of the pandemic and its various ramifications, a large emphasis is placed on ensuring consistency both laterally (across the three futures for each factor) and vertically within each future. It is also worth mentioning that such futures do not (and are not intended to) cover permutations and combinations of adverse effects of each factor as it relates to another factor. The Security Factor of the Futures Framework, by the very nature of its breadth encompasses both cause and effect, and is presented as a separate table in Annex B, setting a strategic context for the J-function military impact analysis.

It should be noted that, in crafting the Futures Framework, the possibility of an active weaponization of viruses as a form of biological warfare was not considered. This was not only due to the fact that the development and distribution of such a weapon is difficult, but also because any such undertaking is not directly related or attributable to the pandemic. In addition, the omission of Latin America and Asia was deliberate for their having indirect military security bearing on NATO. Moreover, the inclusion of China in several of the factors' analyses is considered adequate to prompt Asia-related military considerations.

Conclusion

The Futures Framework describes scenarios up to six years out into the future in the context of the COVID-19 pandemic taking into account the different possibilities associated with the development of the disease and its implications. The three futures described within the Framework are not intended to be predictive rather they are hypothetical possibilities of how the coming six years could unfold in light of the ongoing pandemic and how quickly viable vaccines and treatments can be developed and distributed. Moreover, regardless of the pace of vaccine development, it is not expected that each of these futures would evolve entirely as portrayed in the Framework since the variables can trigger unanticipated second and third order effects that could result in different pathways forward. In all of these futures we can expect that the adversarial states will remain those already identified as such prior to the pandemic, including China, Iran, North Korea and Russia. Similarly, non-violent extremist organizations extant prior to the onset of the COVID-19 crisis are likely to remain active. Also, in some countries the prevalence of right-wing extremism is and might continue to increase—particularly in the baseline and worst case type of futures.

The world will continue to experience conflict regardless of which future is closest to the events that transpire in the coming years. Clearly, conflict can be expected to be more prevalent and increasingly violent in a baseline and more still in a worst case than in a best case type outcome. Hybrid warfare, including cyber-attacks and influence operations, will likely be observed to varying degrees in all three futures particularly since this is generally less costly than

conventional warfare and the difficulty of attribution can reduce or avert reprisals. It seems likely that hybrid warfare may again increase across the futures with lower levels in a best case world compared to baseline and worst case.

There is also a risk of intra-state and inter-state warfare in all of these futures, again more likely in the worst case than in the baseline and best case. Unfortunately collective responses to these conflicts are likely to be more difficult to elicit in the worst case than in the baseline and best case given the decreasing levels of global cooperation anticipated in the two former futures. The pandemic has acted to accelerate existing global trends so it follows that the longer and more severely it plays out, the greater the impact will be on international security. Military planners would be wise to keep this metric in mind as they consider the challenges that their nations and the NATO alliance faces.

This framework is relevant for at least two purposes related to NATO SAS-169. First, it lays the foundation for the SAS-169 team to conduct an assessment of the military impact of the pandemic on the NATO alliance as well as on the militaries of its member nations. Second, it is relevant to the NATO Policy Planning Unit in their deliberations for the long term (a timeframe which extends beyond six months). Taken together, the futures framework has created the necessary foundation to guide the follow-on efforts of Alliance planners.

Prepared by: Dr Gitanjali Adlakha-Hutcheon (DRDC – Centre for Security Science) and Peter F. Johnston (DRDC – Centre for Operational Research and Analysis).

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Annex A Futures Framework

Table A.1: Futures Framework.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
Pandemic		Pandemic Ends 2021 The virus abates naturally or a vaccine / treatment becomes available leading to an end of the pandemic by the end of 2021.	Pandemic continues through 2023 When a vaccine is developed and distributed but access to the vaccine is not equal. There are waves of the viral infection until the development and distribution of the treatment/vaccine.	There is no vaccine or credible treatment developed and the pandemic is sustained through 2025. There are multiple waves of the pandemic as a result of the lack of treatment / vaccine.
Factor	Sub-Factor	Best Case Future	Baseline Future	Worst Case Future
Medical	Testing and its infrastructure Test kits, laboratories and supplies, PPE, facilities/stations	<ul style="list-style-type: none"> • Rapid expansion of testing sites, enhancement of laboratory facilities and coordinated acquisition of supplies. • Military drawn in to support testing process. 	<ul style="list-style-type: none"> • Gradual increase in testing, laboratory facilities and supplies. 	<ul style="list-style-type: none"> • Inconsistent increase in testing sites, inadequate number of laboratory facilities, shortage of supplies. • Insufficiency in numbers of people coming forward for testing.
	Vaccine Vaccine research, testing phases, manufacture capabilities	<ul style="list-style-type: none"> • Initial vaccines determined to be effective, testing, regulatory approvals and production accelerated, funding increased with an expansion of production capabilities. 	<ul style="list-style-type: none"> • Initial vaccines determined to be effective but require additional testing; first batch production ineffective in some cases; delays in production but increased funding and expansion of production capacity. 	<ul style="list-style-type: none"> • Initial potential vaccines determined to be ineffective; virus mutates; other vaccines require additional testing; production capabilities not increased. • Ongoing cyber espionage to either sabotage or steal information on vaccine development.

Future:	Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025	
	<p>Prevention Contact tracing, stay-at-home orders, enforcement of safety measures: use of masks, distancing, hand hygiene, isolation / quarantines</p>	<ul style="list-style-type: none"> • Rapid expansion of contact tracing; clear and comprehensive safety measures with consistent enforcement. 	<ul style="list-style-type: none"> • Slow expansion of contact tracing, increasing enforcement of safety measures. 	<ul style="list-style-type: none"> • Localized, limited additional funding for contract tracing efforts; inconsistent safety measures with lax enforcement. • Non pharmaceutical behaviors (physical distancing, masks, hand washing, quarantine, etc.) not well respected by people.
	<p>Treatment Supply chain, Hospitals, Personal Protective Equipment (PPE), ICU beds, ventilators and medicines</p>	<ul style="list-style-type: none"> • National supply chain policy enacted to rapidly increase supplies, equipment and medicines. 	<ul style="list-style-type: none"> • Supplies, equipment, medicines gradually increase in quantity and quality. 	<ul style="list-style-type: none"> • Continued shortages due to lack of national policy and local governments competing for resources. • Existence of treatment with secondary and non-desirable effects.
	<p>Health Organizations Such as the World Health Organization, The Coalition for Epidemic Preparedness Innovations, and Gavi, The Vaccine Alliance</p>	<ul style="list-style-type: none"> • Information and advocacy by health organizations influences enforcement of guidelines, funding for supplies, equipment and research. 	<ul style="list-style-type: none"> • Collaboration among local, regional and international health organizations increased relative to pre-pandemic levels of sharing information, lessons learned and best practices. 	<ul style="list-style-type: none"> • Health organizations are overcome by political influences and scandals that tarnish their reputation leading to erosion of public trust and reduction in funding.
Economic	<p>Global impact General economic outlook, GDP, oil prices, unemployment, financial markets</p>	<ul style="list-style-type: none"> • Global GDP estimated to reach pre-pandemic levels by mid-2021. • Oil prices back to normal fluctuations by the end of that year. • Risk of economic recession and impacts to the financial market is similar to pre-pandemic situation. 	<ul style="list-style-type: none"> • Large-scale economic recession, the global economy mirrors the periodic spikes of the pandemic, during this period, incurring a loss in world GDP of 4-8% in 2020, and a return to global pre-pandemic level not likely before 2023. 	<ul style="list-style-type: none"> • The persistence of the pandemic creates a seemingly permanent global recession, with high unemployment and increasing political and social unrest. A return to pre-pandemic global GDP level not likely before end of 2025.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
		<ul style="list-style-type: none"> • Substantial government spending on stimulus packages and benefits to counter the economic and social effects of the pandemic. • Increased unemployment following temporary closure of companies and bankruptcies. 	<ul style="list-style-type: none"> • Reduction in demand driving down fuel prices; however oil prices partially restored to pre-pandemic levels by massive government stimulus packages to support the economy in many countries. • Many governments forced to borrow heavily to mitigate the consequences of the pandemic, thereby increasing national debt to levels requiring strict and enduring austerity policies in the years following the pandemic. • Despite this, more companies go bankrupt, further increasing unemployment and with that support for protectionist economic policies. • Financial markets seriously affected, as non-performing corporate loans accumulate alongside bankruptcies. The emphasis on restoring growth at the expense of long-term measures to make the economy more resilient as well as resistant to natural catastrophes in general leave many countries vulnerable to such disasters, which are recurring more frequently, compounded by climate change. 	<ul style="list-style-type: none"> • Oil prices remain in the \$40 per barrel range. • A severe financial crisis exacerbated by measures (like loan-financed government spending) considered necessary to contain the pandemic acquires global proportions, creating an economic contraction surpassing even the depression in the 1930s. • Governments everywhere are forced to prioritize the protection of their faltering economies over humanitarian and environmental considerations.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
	<p>Developing countries</p> <p>Economic impacts particular to developing countries</p>	<ul style="list-style-type: none"> • Many developing countries, particularly in Africa, extremely hard hit by the pandemic, but a comparatively quick economic recovery in developed countries mitigates the impact with substantial aid programs. • Consequently, social unrest is contained and massive migration is avoided; however, political and economic volatility and instability remain at pre-pandemic levels. 	<ul style="list-style-type: none"> • As international commerce and collaboration decline, inequality in developing countries accelerates, fueling instability, migration and conflict, with only slow economic recovery. • There are considerable national budget deficits because of government fiscal support packages for businesses and unemployment benefits that weaken the recovery. • Also, the challenges of addressing the impacts of climate change, coupled with economic decline, affect several countries, particularly in Africa. 	<ul style="list-style-type: none"> • Continued economic downturn bordering on a prolonged depression exacerbates already serious conditions such as excessive urbanization, densely populated shanty-towns and struggling healthcare systems, increasing mass migration for medical as well as economic reasons. • The number of sovereign defaults (governments unable to service national debt) in developing countries spikes. • Little can be done by the international community to commute the damage, since most them are focused on their national concerns.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
Political	US Engagement	<ul style="list-style-type: none"> • The US reinvigorates its global engagement and leadership efforts which places some constraints on Chinese efforts to shape the international order more to their liking. 	<ul style="list-style-type: none"> • US efforts to become more engaged and provide leadership globally occur although are constrained by domestic focus on the pandemic initially and on economic recovery later in the short-term period. 	<ul style="list-style-type: none"> • The US government continues on the path of isolationism and does not resume the role of Western leadership.
	Adversarial States	<ul style="list-style-type: none"> • Despite a more engaged US, China continues its efforts to influence countries away from the existing rules based international order perpetuating the Cold War between China and the West that was beginning pre-pandemic. • The partnership between Russia and China remains although Russia's economy is recovering slower than other more diversified economies, so it does not have significant resources to devote to global adventurism. 	<ul style="list-style-type: none"> • China's effort to reshape the world to its benefit continues. Although, as countries begin to recover and as China also focuses on its recovery, these efforts do not wield significant results in the short-term. • Russia continues its strategic partnership with China and, like China, its focus is divided between external and internal objectives. Both continue efforts to divide NATO and EU member states. 	<ul style="list-style-type: none"> • While also suffering a slow economic recovery, China is able to pursue its global leadership agenda largely unopposed and has gained more influence in Europe, Asia, Africa and Latin America. • China, along with Russia, continues to sow the seeds of division within the EU and NATO.
	EU / NATO Unity	<ul style="list-style-type: none"> • The cooperation that sped the end of the pandemic continues so there are generally favourable relations between states particularly amongst EU and NATO members. 	<ul style="list-style-type: none"> • Russian and Chinese efforts to divide NATO and EU member states has some success resulting in disunity and inconsistency in responses to crises by both organizations. 	<ul style="list-style-type: none"> • Member states struggle with the lasting economic and social impacts of the pandemic and tend to focus inwards. Consequently, they lean toward unilateralism rather than multilateralism. Some member states question the value of remaining within NATO and/or the EU frequently.
	International Cooperation	<ul style="list-style-type: none"> • Generally, the pandemic was overcome by cooperation amongst like-minded states so this continues in the post-pandemic period. Limited cooperation 	<ul style="list-style-type: none"> • The challenges faced overcoming the pandemic has led many countries to prioritize individual rather than collective action. Thus, there is a tendency toward less 	<ul style="list-style-type: none"> • Global cooperation is rare and generally occurs on matters of limited consequence.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
		<p>between nominal adversaries also occurs.</p> <ul style="list-style-type: none"> • There is also renewed support for international organizations in many countries. 	<p>global cooperation and a more inward focus on the part of many governments as compared to the pre-pandemic period.</p> <ul style="list-style-type: none"> • People are skeptical of international organizations. 	<ul style="list-style-type: none"> • International organizations are viewed generally as ineffective by many people.
	Ideological Trends	<ul style="list-style-type: none"> • Within many countries the rapid manner in which the pandemic was solved has restored trust generally between citizens and their governments. Consequently, the wave of populism that pre-dated the pandemic has largely subsided and democratic tendencies are reinforced in most cases where liberal democracies existed before. • The effective management of the pandemic by some liberal democratic countries such as Australia, New Zealand, South Korea, and Taiwan reinforces the resilience of the open market democratic model as compared to the authoritarian state capitalism model of China. This encourages more support for democracies by stemming the tide of autocratic backsliding. • Similarly, the rapid recovery has calmed public discontent in authoritarian regimes so there is little internal pressure for reform as citizens attempt to get back to “normal.” 	<ul style="list-style-type: none"> • The duration of the pandemic has led to a moderate degree of mistrust between citizens and their governments generally. This has contributed to an increase in the support for populist parties and governments globally. • Authoritarian tendencies on the part of some politicians are not opposed as people are tired of the crisis and willing to accept more control in the hope that it will lead to a better outcome. 	<ul style="list-style-type: none"> • Citizens in many democratic countries have grown skeptical of their governments due to the ongoing pandemic and related economic suffering. This has led to a growth of populist and nationalist governments in countries that were previously firmly in the liberal democratic camp. • Authoritarian governments have used the ongoing crisis to justify more strict control of their societies and remain securely in power where they exist.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
Social	Trust The level of trust between individuals, between individuals and government, business, science and collective bodies generally, as well as internationally	<ul style="list-style-type: none"> • The overall successful handling of the pandemic leads to an increased level of trust in governments specifically, but also in international political and scientific cooperation, albeit with increased support for national self-sufficiency in terms of critical medical supplies. 	<ul style="list-style-type: none"> • Public trust in government, science, the media and international cooperation is degraded due to the perceived inept handling of the pandemic. • The general negative trend in terms of trust and social capital is exacerbated by commercial scams e.g., for supposed preventions and cures. 	<ul style="list-style-type: none"> • A strong upsurge in mutual distrust between individuals because of fear of contagion. There is also an increased distrust between individuals and institutions—public and private—because of the perceived inability of our societies to deal with the pandemic. • Sharp increase in conspiracy theories as well as fake news, as the enduring pandemic creates a favourable atmosphere for mistrust. • Strong suspicions towards the intentions and motives of “the others” both nationally and internationally, intensifying tensions and increasing the risk of armed conflict.
	Public communication	<ul style="list-style-type: none"> • Authentic messaging and education to better inform the public and regain their trust reaches a steady state. 	<ul style="list-style-type: none"> • Communication from governments heightened to inform the public, gain and maintain their trust. 	<ul style="list-style-type: none"> • Communication from the government to public at an all-time high but the public ear is turned off from the never ending messaging.
	Reliable information and Science	<ul style="list-style-type: none"> • Misinformation levels and conspiracy theories similar to pre-pandemic levels. • Rise in an appreciation of science and collaborations facilitating pre-publications. 	<ul style="list-style-type: none"> • Misuse of information by individuals and/or states to generate panic and distrust elevated relative to pre-pandemic levels. • The tendency for new science to be published quickly and less formally has led to a rise in spread of weak or false science. 	<ul style="list-style-type: none"> • Usage of mis- and disinformation within developed and developing nations reaches an all-time high. There is widespread unrest, with on-again, off-again lockdowns and use of social media to spread conspiracy theories.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
				<ul style="list-style-type: none"> • Rise in spread of unverified science to higher than pre-pandemic levels.
Science & Technology	The rate of development of technologies and investment in R&D	<ul style="list-style-type: none"> • The rate of technology development is conducive to innovators that are able to repurpose technologies. • Technologies to control the pandemic and/or for crisis management thrive, more investment in robotics, and automation that support societal interaction and broadband networks, 4G & 5G, satellites, computers, and mobile phones to develop resilience. 	<ul style="list-style-type: none"> • A slowdown in the rate of technology development and a tougher environment for new innovators. • Society receptive to supporting investment in R&D beyond pandemic relief to working remotely and online. 	<ul style="list-style-type: none"> • Development of technology or R&D not on the agenda of most governments. With less funding available, and lower investor risk appetite, technology companies lacking the ability to adapt to immediate societal needs are struggling to survive. • Investment in scientific effort to develop vaccines, treatment and to support subsistence detracts from investment in technological innovation.
	Level of penetration of communication technologies / digitalization and Infrastructure	<ul style="list-style-type: none"> • Availability of technologies that support working remotely as well as a deep penetration of communication technologies within the developed world creates digital haves in developed and developing versus have-nots in less developed nations. These differences are sustained at pre-pandemic levels making access to digital tools and social media uneven. 	<ul style="list-style-type: none"> • Access to technologies that facilitate remote presence, development of bandwidth, broadband networks, satellite, computers and mobile phones for information transmission stays the same as Best case. • Exchange of information is being pushed especially for disease surveillance and social distancing; to replace critical workers in areas of infection risk; and ultimately for care of patients. 	<ul style="list-style-type: none"> • Levels of communication technology penetration is the same or lower than in Best case scenario with digital, communication and information infrastructure remaining impoverished despite receiving aid in the developing nations; energizing their economy is taking precedence over all else.
Regions	Africa The omission of Latin America and Asia was deliberate for their having indirect	<ul style="list-style-type: none"> • Developing countries in Africa are extremely hard hit by the pandemic, but a comparatively quick economic recovery in developed countries mitigates the 	<ul style="list-style-type: none"> • As international commerce and collaboration decline, inequality in African countries accelerate, fueling instability, migration and 	<ul style="list-style-type: none"> • Continued economic downturn bordering on depression exacerbates already serious conditions such as excessive urbanization, densely populated

Future:	Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
<p>military security bearing on NATO due to their location relevant to most NATO countries. Moreover, the inclusion of China in several of the factors' analyses is considered adequate to prompt Asia-related military considerations.</p>	<p>impact in Africa with substantial aid programs.</p> <ul style="list-style-type: none"> • Consequently, social unrest is contained and uncontrolled mass migration is avoided. • Political volatility and instability remain at pre-pandemic African levels. 	<p>conflict, with only slow economic recovery.</p> <ul style="list-style-type: none"> • The challenges of addressing the effects of climate change, coupled with economic decline, negatively affects several African countries. • Government attempts at mitigating the negative political effects of the pandemic as well as power struggles between rival political factions reinforce previously common African conditions, with disruption of services, internal refugee problems, starvation and internal conflict. 	<p>shanty-towns and struggling healthcare systems. There is also an increase in mass migration for medical as well as economic reasons.</p> <ul style="list-style-type: none"> • Rapidly deteriorating economic and social conditions combined with weak and corrupt governments in some countries trigger inter-state as well as intra-state conflict. • The international community can do little to subdue the damage, since most countries are focused on national issues. • African governments lose ground to VEOs due to a reduction in counterterrorism budgets.
<p>Middle East</p>	<ul style="list-style-type: none"> • Conflict continues at pre-pandemic levels in Syria and Yemen. Towards the end of the near-term, the US begins to push for talks to stop the fighting in Syria. • The US and NATO reinvigorate their efforts to stabilize Iraq reducing the level of conflict there to a minor degree. • Political crisis in Lebanon continues although the government is able to function and the situation remains similar to the pre-pandemic one. • Iran continues its missile production program although is 	<ul style="list-style-type: none"> • Conflict in Syria and Yemen increases above pre-pandemic levels. Russia continues to support the Assad regime and Iran supports its proxies in both conflicts. Israel increases strikes against Iranian assets in Syria increasing tensions in the region. • Interest and capacity to sustain the coalition against Daesh and in support of stabilizing Iraq diminishes due to coalition fatigue. While some support continues, it is diminished and the security situation in Iraq deteriorates although the Iraqi government continues to function. 	<ul style="list-style-type: none"> • Conflict in Syria intensifies significantly and spreads into Lebanon which has become a failed state and the scene of violence between competing militia factions. Iran increases its support for Hizbullah in this conflict and now has influence across the Shia Crescent from Iran through northern Iraq, Syria and Lebanon. • Israel seizes a security zone in southern Lebanon and increasingly engages in combat with forces in Lebanon while increasing its strikes against Iranian assets in Syria.

Future:		Best Case Future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
		<p>constrained by a more engaged US administration and resumes talks for a return to compliance with the Joint Comprehensive Plan of Action (JCPOA). This reduces tensions.</p>	<ul style="list-style-type: none"> • Lebanon falters and sees numerous coalition governments formed and fail. Minor skirmishes between rival militias including Hizbullah occur frequently but the country does not fail. • With the complete failure of JCPOA, Iran continues to increase production of enriched uranium and fears develop that it is within a year of producing a nuclear weapon. Its missile program is also increased with periodic tests that inflame a tense security situation in the region increasing the risk of an Israeli strike. 	<ul style="list-style-type: none"> • Russia continues to prop up the Assad regime through military support and protects its military outposts in Syria. • The conflict in Yemen intensifies and Saudi Arabia sends more forces into the areas that it seeks to influence. Iran retaliates with missile strikes on Saudi Arabia from within and Yemen. • The state failure of Lebanon and the resulting conflict creates another exodus of over a million migrants to Europe seeking survival. • Israel strikes Iranian missile and nuclear weapons sites increasing the risk of war between the two regional competitors.

Annex B Security Factor of the Futures Framework

Table B.1: Security Factor of the Futures Framework.

The Security factor by the nature of its breadth encompasses both cause and implications it has been separated out because of its direct causal relationship to potential military impact analysis and the types of military threats that may arise or intensify.

Future:		Best case future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
Security	Inter-state conflict	<ul style="list-style-type: none"> • Inter-state conflict below conventional war remains at pre-pandemic levels. • Reconsideration of government responsibility to include health and food security more prominently. • Proliferation of conventional and nuclear missile technologies is limited since there is generally more global cooperation and competition between states is not intense. Return of US leadership also fosters discussions between Russia, China, and the US on limiting systems that have been covered under the now defunct Intermediate Range Nuclear Forces Treaty. • Russian and Chinese influence efforts including arms sales and infrastructure development continue at pre-pandemic pace. 	<ul style="list-style-type: none"> • Increased national focus on security because of the pandemic reinforces the current regionalization of European security, threatening all-NATO solidarity and cohesion. • Encouraged by NATO divisions, Russia and China increase their efforts at dividing the Western world through intensified conflict below the level of war, while at the same time maintaining strong conventional forces to keep up the pressure on Western economies. • Proliferation of missile and nuclear technologies by adversarial countries continues at pre-pandemic levels as these authoritarian regimes are able to allocate budget resources without accountability to their populations. Democratic countries struggle to deter these developments as they must respond to public pressures for increased health and economic stimulus expenditures while enduring reduced revenues. 	<ul style="list-style-type: none"> • Sharp decrease of confidence in all types of international organizations, including those associated with security. • Increased risk of inter-state war as revisionist powers continue to probe NATO and allies of NATO states for weaknesses. • Among developing nations in particular, the pandemic has led to acceleration of inequality between <i>have</i> and <i>have not</i> states, fueling inter-state conflict with massive humanitarian consequences in terms of both human tragedy and enforced migration. • Proliferation of missile and nuclear technologies by adversarial countries accelerates above pre-pandemic levels as these authoritarian regimes are able to allocate budget resources without transparency to their populations. Democratic countries struggle to deter these developments as they must respond to public pressures for increased health and economic

Future:		Best case future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
			<ul style="list-style-type: none"> • Russia and China take advantage of growing instability by increasing support to client states and seeking inroads in others. This results in increased arms sales to existing clients and new sales to previously unsupported states. 	<p>stimulus expenditures while enduring reduced revenues.</p> <ul style="list-style-type: none"> • Russia and China take advantage of growing instability by increasing support to client states and seeking inroads in others. In addition to increased arms sales from both Russia and China, Russian deployment of Private Military Corporation forces to support failing governments in the region increases.
	Intra-state conflict	<ul style="list-style-type: none"> • The level of intra-state conflict remains at pre-pandemic levels. 	<ul style="list-style-type: none"> • Intra-state levels of conflict rise because of the seemingly less than effective handling of the pandemic, particularly in developing countries. • The pre-pandemic undercurrent of support for populist and illiberal ideas in democratic countries is reinforced, with violent demonstrations, riots etc. occurring as some countries are unable to effectively manage the crisis. 	<ul style="list-style-type: none"> • Significant violent protests occur in several developing countries leading to harsh repression and subsequent uncontrolled mass migration, state collapse is possible in a number of unstable countries. • This spreads the political and social unrest to developed countries already struggling to contain the crisis and affected by the refugee flows. • Serious political and social destabilization leads to flare-ups of pandemic hot spots in some instances. • The prevailing pandemic with its atmosphere of doom and gloom gives rise to a proliferation of conspiracy theories, new age type beliefs and quasi-religious sects known from some of the great pandemics in the past. This proves to be a fertile ground for groups advocating violent change to the political order.

Future:		Best case future: Pandemic Ends 2021	Baseline Future: Pandemic continues through 2023	Worst Case Future: Pandemic sustained through 2025
	Violent Extremist Organizations (VEO)	<ul style="list-style-type: none"> • Terrorist organizations and networks show little interest in using the pandemic to further their own agendas. • Public interest against VEO organizations decrease due to media focus on pandemic. • Cyber hackers are active. • Operations increased to pre-pandemic levels as travel and crowd restrictions are reduced. • Higher tolerance for invasive government measures encroaching upon civil rights in order to fight disease also favours counter-terrorism and fighting of organized crime as a by-product. 	<ul style="list-style-type: none"> • Terrorist groups experience reduced pressure from the intelligence, police and military organizations as they focus on the pandemic. • Local terrorism increased, especially right wing populist movements inspired by their perceived loss of freedoms during the pandemic. Social media and the rise of conspiracy theories fuels this. • Increased cyber sabotage, cyber-attacks against the health system. • Increased online recruiting due to social lockdown measures. Decrease in offline recruiting due to less public interaction. • Systems to support people at risk of radicalization are weakened. • Engagement of VEO in aid activities within communities in order to gain their support. 	<ul style="list-style-type: none"> • International and local terrorism come together, including cyber-crime. • Increase in bioterrorism. • Disenchanted, non-integrated refugees and asylum seekers forming ghettos and lawless parallel communities as fertile breeding ground for terrorism and serious crime. • Terrorist networks attempt to establish links to the new recruits' diasporas in developed countries. • Shift in budget allocations from counter-terrorism / extremism to health and social welfare. • Increase in radicalization due to poverty and unemployment. • Increase in lone-wolf attacks.

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