

# 42 GROUP

New Zealand Defence Policy  
Independent Global Strategic Report  
Q1 / Q2 2020  
V-1.0

## About 42 Group

42 Group is a small group of independent analysts with an interest in South Pacific regional security.

42 Group is New Zealand based, is not associated with any government, governmental or commercial body, or lobby group, is self-funded and has no affiliation with any political party.

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## 1. Introduction

42 Group's last biannual strategic report for New Zealand was released in January 2020, just after the U.S. had assassinated Iranian General Qassem Soleimani and Iraqi military commander Abu Mahdi al-Muhandis near Baghdad airport - and just as COVID-19 was beginning to spread beyond China.

This report covers the period from the beginning of January until the end of June 2020.

It outlines several key strategic developments that occurred over that period and summarizes a number of trends that we have observed.

It also revisits 42 Group's previous defence policy recommendations for New Zealand and updates these to reflect the events of the first six months of 2020.



## 2. Analysis of Strategically Significant Developments Q1 / Q2 2020

As noted in our last biannual report, a full analysis of all global strategic influences over a six-month period is not possible within as brief a document as this.

Instead, 42 Group limits itself to a subset of these developments that we consider to be of particular importance to overall global and / or regional security and stability.

A brief analysis of the following strategic developments is included within this report:

- COVID-19 pandemic sweeps the globe;
- Oil price collapse;
- U.S. / Iranian rivalry continues to destabilise the middle east;
- U.S. signs agreement with the Taliban;
- Control of Syria's oil fields and the fate of Idlib;
- Turkish intervention turns the tide of the Libyan civil war;
- Saudi coalition collapses as its proxy forces face slow defeat in Yemen;
- China flexes its muscles;
- Defence procurement under the spotlight in Australia;
- U.S. Space Force launches its first mission;
- Another bungled coup attempt in Venezuela;
- Civil unrest sweeps the United States; and
- Recession bites while the climate crisis looms.

## 2.1. COVID-19 pandemic sweeps the globe

By far the most significant strategic influence in early to mid-2020 has been the global COVID-19 pandemic.

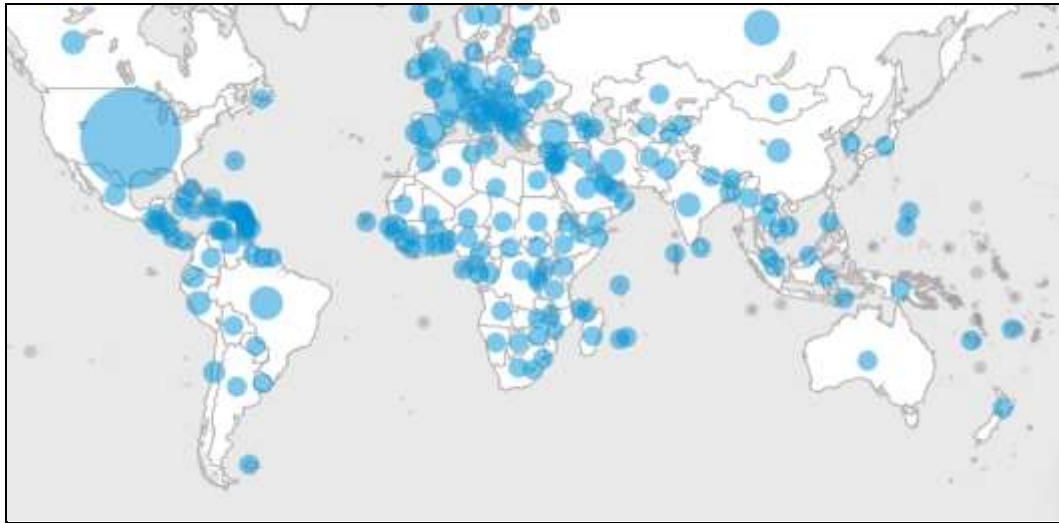


Figure 1 - WHO Coronavirus Disease (COVID-19) Case Dashboard – 18 May 2020.

In late December 2019 in Wuhan, the capital city of Hubei province in central China, a new form of coronavirus began to cause serious health issues in a small but significant proportion of infected patients.

Most of the people infected by the virus recovered relatively quickly. About 15% developed more serious symptoms such as acute respiratory distress syndrome (ARDS), organ failure, septic shock and blood clots. About 5% died, the first of them on 9 January 2020.

The new corona virus strain (SARS-CoV-2, or COVID-19) was only moderately infectious<sup>1</sup> but had the ability to be transmitted while carriers were only exhibiting mild symptoms. This trait – along with a sluggish bureaucratic response - led to the virus infecting nearly 10,000 people in China by the end of January<sup>2</sup>.

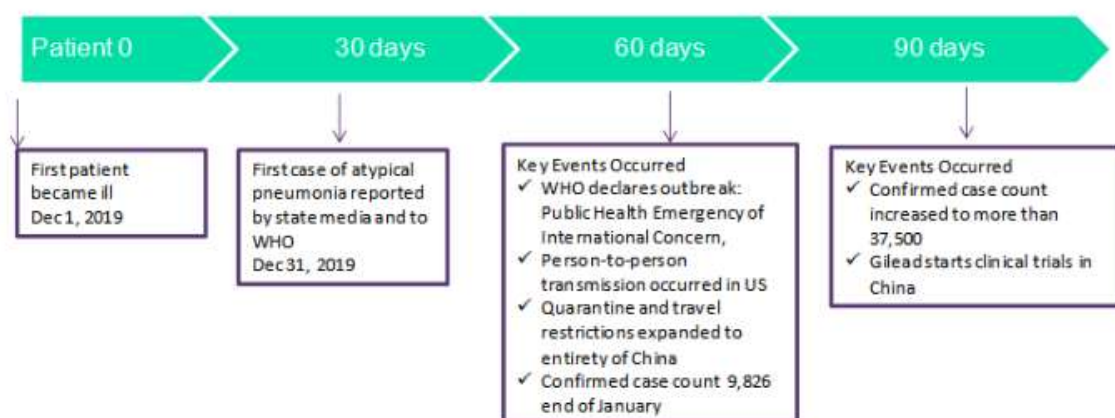


Figure 2 - Initial timeline - the first 90 days of the pandemic

<sup>1</sup> COVID-19 had an R0 rating of around 2.5 at the end of February 2020 – meaning that, at that time, each person infected with COVID-19 globally was infecting, on average, 2.5 others.

<sup>2</sup> Based on the official Chinese count of confirmed infections.

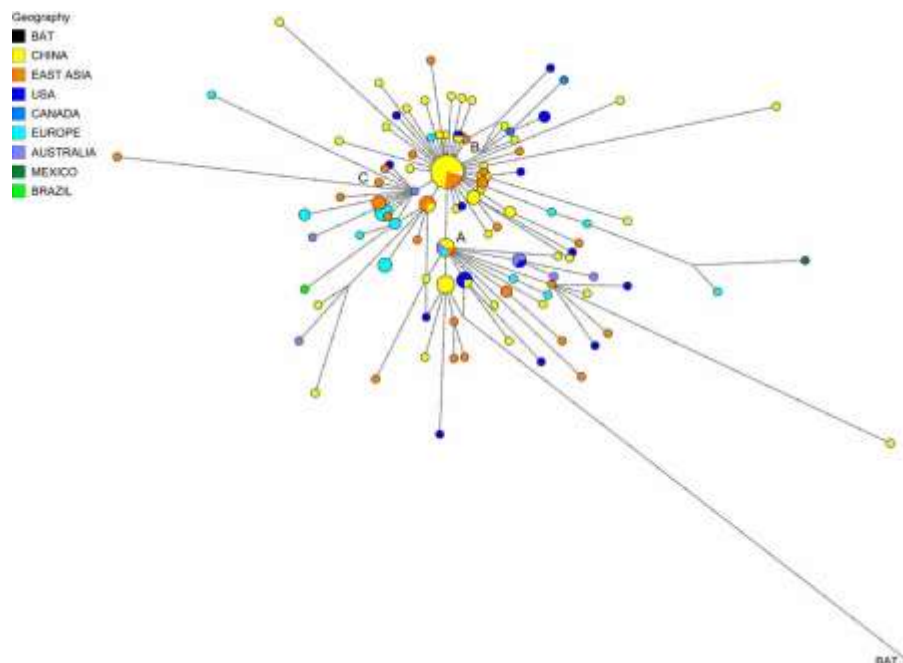
The virus quickly spread to America, Europe, Australia and beyond, infecting ten million people across 213 countries and territories – and causing around half a million deaths by the end of June 2020.

Three distinct strains of COVID-19 had emerged as early as April, distinguished by specific genetic mutations in the virus's genome.

Versions of type 'A' were seen in Chinese individuals, and in Americans who had lived in Wuhan, while mutated versions of 'A' were found in patients from both the USA and Australia.

Virus type, 'B', was the most common in patients across East Asia. This variant did not spread much outside that region, however, without further mutations – possibly indicating a 'resistance' – or other inhibiting factor to the spread of this strain outside East Asia.

The type 'C' variant was the dominant European strain, found in early patients from France, Italy, Sweden and England. It is not found in mainland Chinese samples, but appeared in Singapore, Hong Kong and South Korea.



*Figure 3 - Phylogenetic network of 160 SARS-CoV-2 genomes. Node A is the root cluster obtained with the bat (*R. affinis*) coronavirus isolate BatCoVraTG13 from Yunnan Province. 229 mutations, often recurrent, yield 101 distinct genomic sequences consisting of three main strains. – Peter Forster, April 2020, Cambridge University. COVID-19: genetic network analysis provides 'snapshot' of pandemic origins.*

In the months that followed its first appearance, COVID-19 rampaged across the globe. In addition to infecting millions and causing hundreds of thousands of deaths, it has also brought much of the world's economy to a standstill.

## IMF annual GDP since 1980

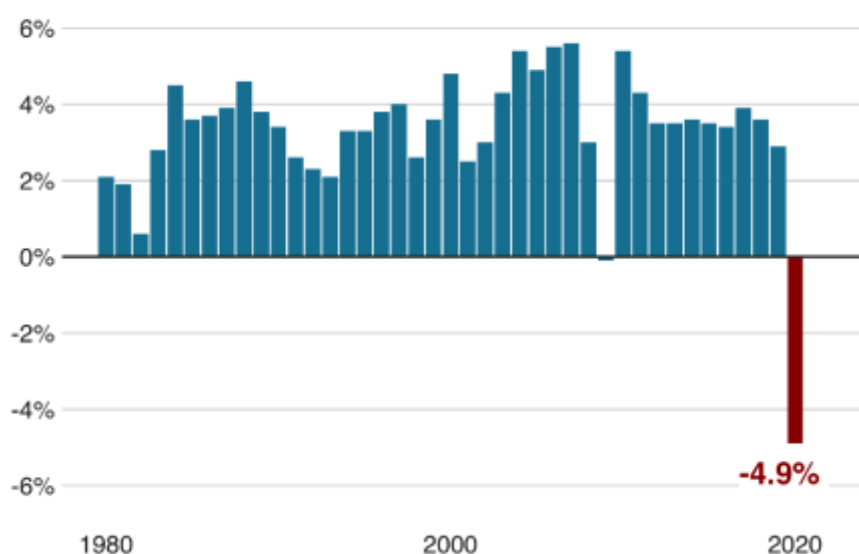


Figure 4 - IMF Global GDP Forecast for 2020, as at 24 June 2020

While many illnesses and other factors cause larger numbers of deaths around the world every year<sup>3</sup>, COVID-19 has the following important characteristics:

- It spreads and incapacitates its more compromised patients relatively quickly, rapidly overloading healthcare infrastructure;
- It has a mortality rate ranging from less than 1% to up to 16%, subject to factors such as the availability of medical facilities, and the way each strain interacts with its environment and host population;
- There is no vaccine or effective treatment for it; but perhaps most importantly
- It can infect wealthy communities and individuals, as well as poor ones.

Globally in early 2020, but especially in the developed world, these factors caused mounting public pressure on governments to take steps to control the spread of the virus. The measures put in place by different governments in response to this pressure ranged from token gestures, to the virtual shutdown of entire economies.

In New Zealand's case, and informed by scientific advice, the Government's response to a spike in infections in late March was effective<sup>4</sup> and this, along with the country's relative geographical isolation, allowed New Zealand to effectively eliminate the virus from circulation by late May, and to lift all social distancing and other COVID-19 restrictions on 8 June.

<sup>3</sup> As early as 1995, diarrhoeal diseases, including cholera, typhoid and dysentery were estimated to kill 3 million people a year, most of them children. Tuberculosis was estimated to kill around 3 million, while Malaria was thought to kill over 2 million, roughly 1 million of them children. World Health Organisation 1996.

<sup>4</sup> Effective from an epidemiological and social stability perspective. 42 Group takes no position on the economic impacts of the Government's response.



The global social, epidemiological, political and economic impacts of the COVID-19 pandemic will be extensively analysed elsewhere. This paper will confine itself to related matters that we consider to be of significance to New Zealand's defence strategy and policy.

Specifically:

- When push came to shove every nation ultimately had to take those steps it deemed necessary to protect its population, economy and national interests. New Zealand took a science and health-based approach that was fundamentally different from those of its most powerful allies;
- The need for every nation to look after its own interests and / or population in response to the crisis worsened the already serious effects of the pandemic on global supply chains;
- Despite Secretary General of the United Nations António Guterres' April 2020 call for an immediate global ceasefire, the impact of the pandemic on existing global conflicts was limited. Some (like the Syrian civil war) lessened somewhat in intensity. Others (like the conflicts in Yemen and Libya) continued largely unaffected, or increased in intensity as one side or another seized the opportunity to take advantage of a distracted international community, or adversary;
- Inevitable conspiracy theories about the origin of the virus were weaponised for the purposes of *information warfare*. Far from co-operating in the face of the pandemic, Chinese and American leaders appeared willing to stoke public fear and paranoia for domestic political advantage;
- Nations that thought they were over the worst and opened up again too early experienced second waves;
- That even with New Zealand having eliminated the virus from circulation in June, there is a significant likelihood of further clusters emerging as New Zealanders return home from overseas. Such outbreaks are likely to require further national or regional lockdowns over the coming months; and
- While a great deal of effort is being expended trying to develop a vaccine, there is no guarantee that an effective vaccine will be available any time soon, or even that such a vaccine would provide lasting protection against the virus.

In 42 Group's analysis the COVID-19 pandemic has underlined the following strategic lessons for New Zealand:

- That regardless of COVID-19's origins, all human populations that do not possess some degree of immunity to them are vulnerable both to pathogens – and to information warfare;
- That it cannot be assumed that New Zealand will not, in the near future, be affected by further crises of as great or greater severity to the COVID-19 pandemic, or by multiple simultaneous crises;
- That in such a crisis situation, the international community, including New Zealand's most powerful allies, may be too busy looking after themselves to rush to its aid – so New Zealand must develop health, emergency management and defence policies that reflect this reality;
- That in such situations New Zealand needs to have adequate healthcare capacity and stockpiles of medical materiel, along with critical food, energy, manufacturing and pharmaceutical production and logistical capacity necessary to respond flexibly to sustained supply chain disruptions; and

- That so long as it is ready to take care of itself, New Zealand's geographical isolation can be a powerful strategic asset.

**Update:** On 11 August four cases of COVID-19 of unknown origin were reported in Auckland, causing New Zealand to move to Alert level 2 and Auckland to Alert level 3.



Figure 5 - Auckland goes into Alert Level 3 following four cases of COVID-19 of unknown origin being diagnosed. 11 August 2020.

## 2.2. Oil price collapse

Following the emergence of COVID-19 in China and in anticipation of a resulting slump in oil demand, oil prices began to fall at the beginning of 2020, declining by roughly US\$20 a barrel by the beginning of March.

By then China's efforts to contain the spread of the virus had caused its own demand for oil (which made up roughly 14% of global demand and 80% of growth in demand in 2019) to drop significantly.

To put this in some context, U.S. shale oil production has been steadily increasing since 2010, and had been putting significant downward pressure on oil prices since 2014, when Saudi Arabia made an ill-fated attempt to stifle the burgeoning U.S. industry by boosting its own production. Since 2016 Saudi Arabia, Russia and other oil producers had been cooperating to manage oil prices through an informal alliance of OPEC and non-OPEC producers dubbed "OPEC+".

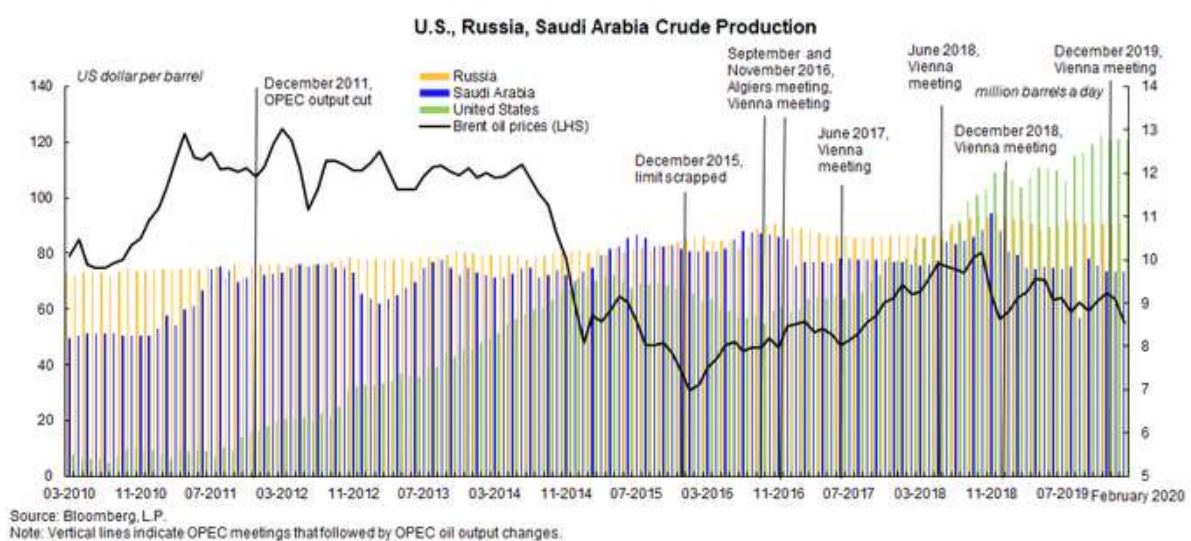


Figure 6 - U.S. Russian and Saudi oil production, alongside benchmark Brent oil prices

By January 2020, OPEC+ had already cut oil production by 2.1 million barrels per day (bpd) in an attempt to shore up prices.

By early March, however, the combined effect of what was still an excess level of production and the drop in demand due to COVID-19 threatened serious problems. Those nations dependent on oil revenue began to grapple with how to prevent a price collapse.

On 5 March, OPEC proposed a 1.5 million barrel per day (mpd) production cut for the second quarter of 2020, of which 1 mbd would come from OPEC countries and 0.5 mbd from non-OPEC producers, principally Russia.

Russia, unhappy with the recent imposition by the United States of sanctions on its largest oil company Rosneft, as well as interference in its Nordstream 2 natural gas pipeline project, may have calculated that a price collapse would hurt Saudi and U.S. producers more than itself. It rejected the proposal, causing an immediate 10% drop in oil prices.

### Brent Oil Price

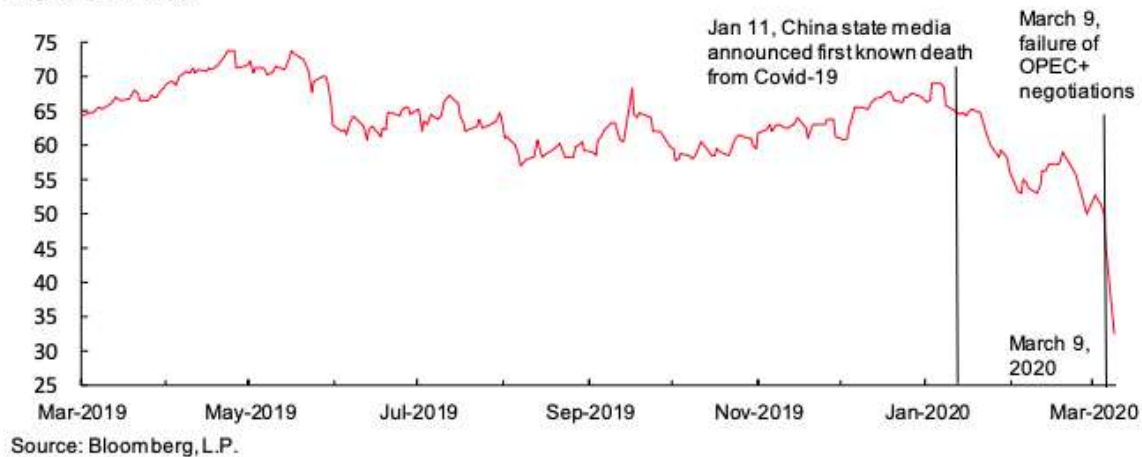


Figure 7 - Brent oil price falls off a cliff on March 9

Saudi Arabia – the world’s largest oil exporter, whose economy is entirely dependent on oil – responded to Russia’s rejection of the OPEC proposal by boosting its own production to full capacity (12.3 mbd) and announcing significant discounts in key markets. This ill-advised gamble, presumably intended to drive competitors back to the negotiating table, may have done more harm to Saudi Arabia and the United States than it did to Russia.

With global production already running beyond demand, continuing escalation of the COVID-19 crisis meant that demand continued to fall through March, facilitating a 65% quarterly drop in oil prices by the end of the month.



Figure 8 – Despite price volatility during the global COVID-19 pandemic, access to and control over oil resources remains a major focus of international relations - and conflict

On 2 April, U.S. President Donald Trump called Saudi Arabian Crown Prince Mohammed bin Salman, threatening to withdraw U.S. military support for Saudi Arabia if OPEC and its allies did not cut oil production. The following day, Russian President Vladimir Putin ordered energy minister Alexander Novak to arrange an extraordinary OPEC+ meeting.

On 9 April, OPEC and Russia agreed to reduce production by 10 million bpd, cutting global supply by about 10%. This still represented only about half the reduction in global demand that had been

caused by COVID-19, however, and now another factor came into play. Capacity to store excess production was almost exhausted.

This new problem caused the price of West Texas Intermediate oil for May delivery to fall later that month into negative territory (-\$37/bbl) for the first time in recorded history. There was simply nowhere left to store the oil.

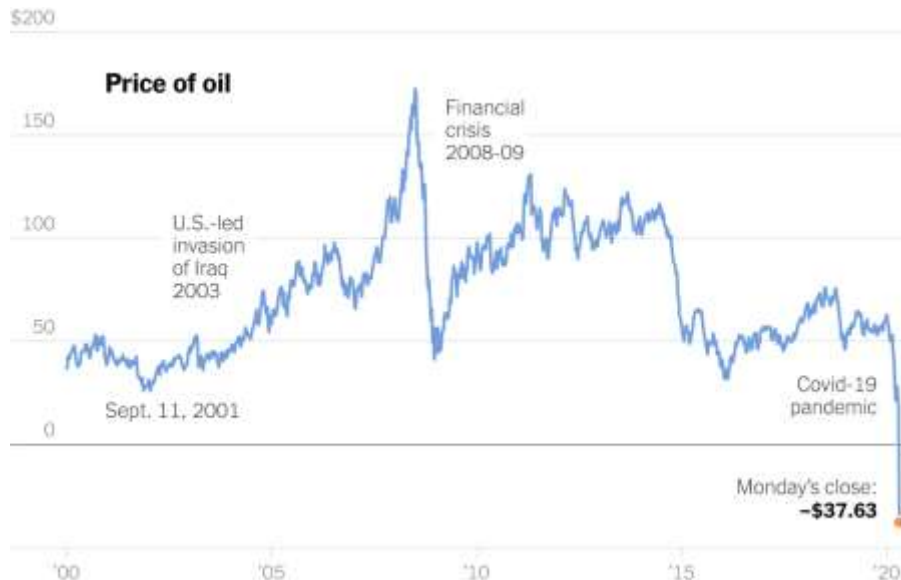


Figure 9 - The price for West Texas Intermediate oil for May delivery drops well below zero in April

Oil revenue represents a significant (or in some cases overwhelming) proportion of the income of major oil producing nations. Clearly the collapse of oil prices in the first quarter of 2020 caused significant harm to the economies of such states.

Underlying the hubris and brinksmanship that led to this situation were undoubtedly calculations regarding how much of a fall in prices each nation could endure – and what the impact on its competitors would be. Who ‘won’ this price war is certainly the subject of some debate. U.S. producers certainly suffered. Saudi Arabia’s production costs are not entirely clear – but it is almost entirely dependent on oil, so the impact on its economy has been significant. Russia was impacted but despite widespread attempts to portray it as the ‘loser’, may have been better placed to absorb the impacts than either Saudi Arabia or the U.S. In reality, we believe there were no winners from this price war.

Perversely, all this rampant overproduction and the resulting price collapse occurred at a time when global fossil fuel reserves are declining – and when the environmental impacts on humanity’s dependence on them threaten the entire globe.

While it might seem counter-intuitive that prices would collapse at a time when a resource was becoming scarcer, over-production driven by greed, along with a drop in demand driven by the effects of the COVID-19 pandemic had combined in early 2020 to create the ‘perfect storm’.

It would be a mistake, however, to think that any of this heralds the end of the age of oil.

Global economic activity will eventually recover as the COVID-19 pandemic runs its course and, as we shall see later in this report, nation states continue to compete for control of remaining oil reserves and associated pipeline routes. Clearly, there is little expectation among global leaders that alternative energy sources will replace oil any time soon.



All this leaves oil prices highly volatile. Producers have an interest in keeping prices high enough to support their economies, but low enough to prevent competitors (including much needed alternative energy sources) from emerging and gaining a solid foothold in the market.

It is also important to understand that future conflicts over control of oil are as likely to cause dramatic price *increases* as decreases like the one so recently experienced (as was shown by the market's response to attacks on Saudi Arabia's oil infrastructure by Yemen and/or Iran in 2019).

42 Group believes that New Zealand must draw the following lessons from recent oil price volatility:

- Ongoing competition for control of oil and oil markets mean that oil prices will remain volatile for the foreseeable future. Price spikes *in either direction* should be anticipated over the coming years;
- Oil price fluctuations are something New Zealand can do little to prevent in the years ahead. It can only prepare for them;
- New Zealand needs to insulate itself to the degree that it can from the impacts of such volatility by investing in greater energy independence, both through careful and environmentally responsible fossil fuel extraction at home but more importantly, through significant investment in the replacement of fossil fuels with sustainable alternative energy sources; and that
- In the interim, New Zealand should assess the feasibility of nationalising the Marsden Point Oil refinery<sup>5</sup> and of establishing a strategic fuel reserve in order to cushion it from the impacts of future fluctuations in the price or availability of oil.

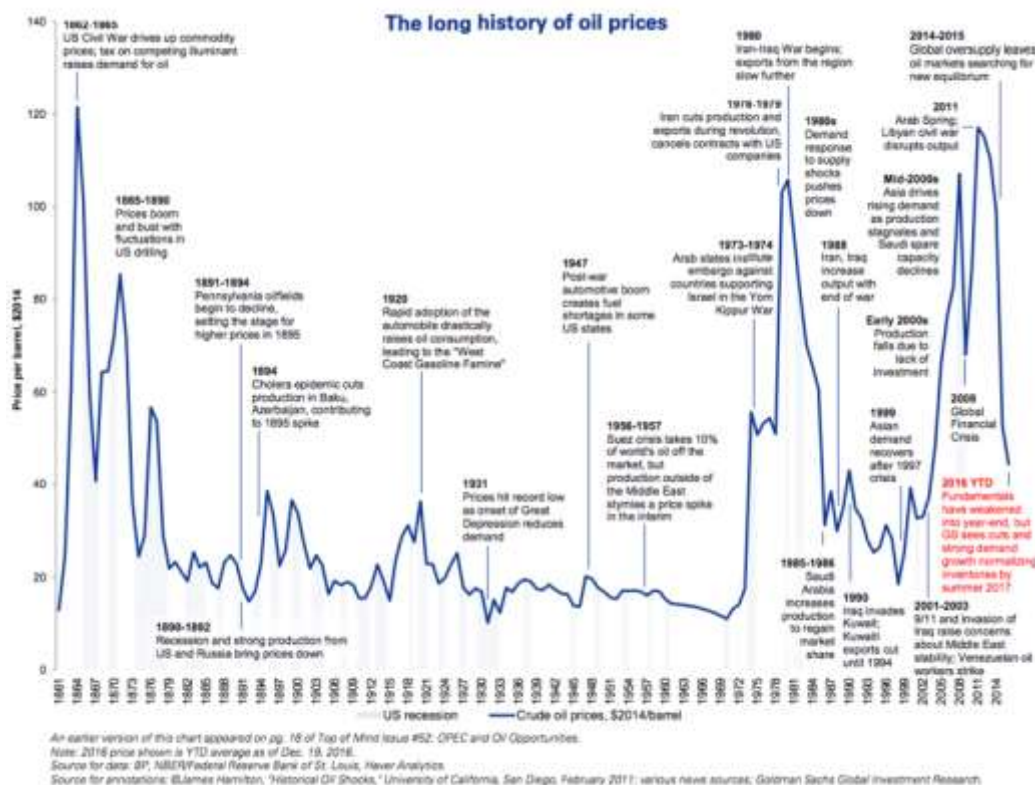
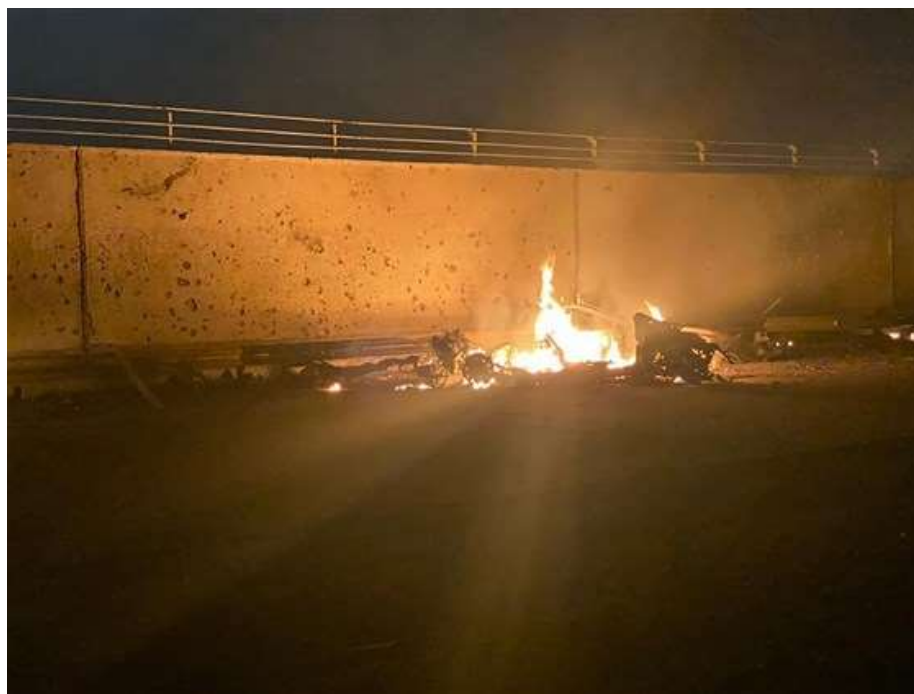


Figure 10 - Oil price fluctuations since 1861, expressed in 2014 dollars (U.S.)

<sup>5</sup> Or taking any other necessary steps to ensure that it remains operational – along with making any modifications necessary for it to be able to switch to refining locally extracted petrochemicals

### 2.3. U.S. / Iranian rivalry continues to destabilise the middle east

As described in 42 Group's last global strategic assessment, the United States assassinated Iranian General Qassem Soleimani and Iraqi military commander Abu Mahdi al-Muhandis near Baghdad airport on 3 January 2020.



*Figure 11 - Wreckage of the vehicle in which Soleimani, Muhandis and their associates were travelling*

This was simply the latest event in a continuing pattern of animosity between the United States and Iran, which began when Islamic revolutionaries toppled U.S. ally Shah Mohammad Reza Pahlavi from power in February of 1979.

The January assassination of Soleimani was justified by the U.S. under the pretext that it was acting in self-defence to prevent imminent attack, which is generally seen as being permissible under the U.N. Charter.

UN special rapporteur on extra-judicial killings Agnes Callamard, however, commenting publicly on the strike, indicated that the assassination was unlikely to have met the commonly accepted standard for prevention of an 'imminent' attack, which would make it a violation of international human rights law. Callamard also described the killings of those accompanying Soleimani as 'unlawful'<sup>6</sup>.

Iranian Foreign Minister Javad Zarif tweeted in response to the assassination:

"The US' act of international terrorism, targeting & assassinating General Soleimani—THE most effective force fighting Daesh (ISIS), Al Nusra, Al Qaeda et al—is extremely dangerous & a foolish escalation. The U.S. bears responsibility for all consequences of its rogue adventurism."

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<sup>6</sup> In our view the assassination violated international law and further undermined the (increasingly fragile) international rules-based order, respect for which is supposed to be a cornerstone on New Zealand's foreign policy.

As the world waited to see how Iran would respond to the assassination, Iran's ambassador to the U.N. said that the attack would not go unanswered. "There will be harsh revenge," Majid Takht Ravanchi told CNN. "The time, the place, will be decided by Iran."

Thousands gathered on 4 January in Baghdad for the funeral procession, which passed through the city's fortified Green Zone. Hours later a rocket hit the Green Zone near the U.S. embassy and several more were fired at Balad air base, which houses U.S. forces north of the Iraqi capital.



*Figure 12 - Funeral procession of General Qassem Soleimani and Iraqi military commander Abu Mahdi al-Muhandis*

That same day, President Trump tweeted that the U.S. has "targeted 52 Iranian sites" (including cultural sites) that it could hit "very fast and very hard" in the case of retaliation by Iran.

On 5 January as Iran announced that it would continue to roll back its commitments under the 2015 nuclear deal, Iranian Foreign Minister Javad Zarif tweeted, apparently in response to Trump, that:

"Having committed grave breaches of int'l law in Friday's cowardly assassinations, @realdonaldtrump threatens to commit again new breaches. Targeting cultural sites is a WAR CRIME";

That day, the Iraqi parliament passed a resolution calling for the Iraqi government to expel foreign troops from the country.

On 6 January, as New Zealand Foreign Minister Winston Peters called for restraint and de-escalation, U.S. Defence Secretary Mark Esper stated that the U.S. had no plans to pull its troops out of Iraq.

On 7 January Germany, Canada and NATO announced withdrawal of some of their troops stationed in Iraq, particularly those stationed near the capital to assist in training Iraqi security forces.

On 8 January, having warned the U.S. of its intended targets through Iraqi intermediaries, Iran launched twenty-two Qaim-2 and Fateh-313 ballistic missiles at two military bases hosting U.S. and allied troops in Iraq, at Ain al-Asad and Irbil.





Figure 13 - The U.S. bases attacked by Iranian ballistic missiles on 8 January

While Iran claimed (for domestic consumption) through state media that the attacks had killed 'scores' of U.S. troops, those troops were in fact able to take advantage of Iran's warning, relayed through the Iraqis, and seek shelter in hardened bunkers.



Figure 14 - Ballistic missile damage at Ain al-Asad, 8 January

President Trump downplayed the attacks, claiming that there were no U.S. casualties and backing away from previous threats against Iran should it retaliate for the assassination of Soleimani.

The U.S. later stated that over one hundred troops sheltering in bunkers at the Ain al-Asad base had suffered some degree of 'traumatic brain injury' as a result of the bombardment.

Having assuaged Iranian public outrage through a visible act of retaliation, without having forced the U.S. to escalate further (which the killing of U.S. service personnel might have done), Iran settled down to focus on encouraging the U.S. to withdraw from Iraq through the use of proxy forces and soft power.

Two important aspects of the Iranian ballistic missile attacks on Irbil and Ain al-Asad are especially worthy of mention at this point:

- Although Iran is often characterised as a dangerously unstable rogue state by western politicians and media, it is clear to us that it is a rational actor that is capable of patiently pursuing strategic objectives while taking finely nuanced actions<sup>7</sup>;
- Iran's 8 January attack sent the United States and its allies in Iraq a three-part message that:
  - Iran would not allow actions such as the assassination of General Soleimani to go unanswered, and would not be intimidated into doing so by sabre rattling;
  - Iran knew the locations and defensive capabilities of U.S. bases in Iraq, and that these bases were (at that time) widely dispersed and largely lacking in defences against missile attack; and
  - That Iran had the capability to strike those bases, more or less at will.

These messages were not lost on the U.S. or its allies, underscored as they were by continuing rocket attacks on U.S. bases and the green zone through the rest of January, including attacks on 4, 8, 12, 21, 27 and 31 January.



*Figure 15 – In March a volley of 18 rockets fall on Camp Taji, where New Zealand troops were based. The attack, which killed two U.S. troops, a British soldier, and two Iraqis, injuring 14 others, was the last straw for New Zealand's involvement in Iraq, accelerating an already planned withdrawal.*

While these rocket attacks were attributed to alleged Iranian proxy force Kata'ib Hezbollah (a part of Iraq's Popular Mobilisation forces) by the U.S. and most western media, the presence of ISIS and other groups in the area created enough plausible deniability to make a direct response against Iran

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<sup>7</sup> As respected New Zealand based defence analyst Dr Paul Buchanan convincingly argues here: <http://www.internationalaffairs.org.au/australianoutlook/iran-as-a-strategic-actor-part-one/> and here: <http://www.internationalaffairs.org.au/australianoutlook/the-ideology-of-iran-part-two/>

problematic – although the U.S. certainly did strike against Kataib Hezbollah both before and after Iran’s ballistic missile attack, and the assassination of General Soleimani.



*Figure 16 – New Zealand soldiers departing Whenuapai airbase, heading home after deployment at Camp Taji in Iraq, 11 April 2020.*

What these events had made all too clear, was the vulnerability of U.S. forces throughout the region to Iranian attack, especially should the situation escalate again. This had three main effects:

- U.S. allies including United Kingdom and Denmark announced that they would begin to draw down their forces from Iraq, closely followed by New Zealand, which had withdrawn all of its remaining troops by early April;
- The U.S. began handing over a number of its bases to Iraqi forces, announcing its intention to leave bases at al-Qaim, Qayara, and Kirkuk in March and beginning to consolidate its forces into a smaller number of its larger bases; and
- The U.S. began transferring air defences, including Patriot Missile batteries, to its Ain al-Asad and Irbil bases, and bolstering short-range air defences with additional C-RAM and Avenger<sup>8</sup> systems.

The U.S. *may* also have transferred the single THAAD battery that is attached to its Global Response Force to Iraq at this time - but if it did, this was not reported in the media. The U.S. also maintains Aegis-equipped Naval vessels in the Gulf – but, although all of Iraq and Iran are theoretically within range of Aegis’ longer-range anti-ballistic missile interceptors, it is unlikely that interceptions would be possible from the Gulf in most cases<sup>9</sup>.

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<sup>8</sup> C-RAM stands for Counter Rocket, Artillery and Mortar. Avenger is essentially a HUMVEE based platform for launching (what are normally man-portable) Stinger missiles.

<sup>9</sup> An Iranian QAIM missile launched in Iran, 500 kilometers from its target in Iraq and travelling at around 1.7km/second, would reach the midpoint of its trajectory in around 2.5 minutes. An Aegis RIM-161 SM-3 block IA/B missile fired from a U.S. Navy vessel in the Gulf might need to travel around 900 kilometers to intercept the QAIM. Travelling at around 3km/second it would take roughly 5 minutes to get to the intercept point. Assuming the Iranians have thought about this – and they have – Aegis would be unable to intercept missiles fired from Iran at U.S. bases in Iraq in most, if not all cases. Even if the U.S. stationed an Aegis capable vessel right off Kuwait City, as close as possible to likely missile trajectories, THAAD or Patriot terminal phase interception are the only real option - but the U.S. has a shortage of available batteries for both those systems.



Patriot, on the other hand, is essentially a gulf war era system and, although PAC2 and PAC3 upgrades have improved its originally poor anti-ballistic missile capabilities, its relatively short range is a major limitation.

A comprehensive layered air defence of U.S. bases would, therefore, require a combination of Patriot PAC2 / PAC3 and THAAD systems, along with other supporting short-range defences.



*Figure 17 - THAAD ballistic missile defence system launcher*

All of this raises one obvious question: why were the Ain al-Asad, Irbil and other U.S. bases in Iraq so lacking in air defences at a time when the U.S. chose to assassinate Soleimani on Iraqi soil, especially given that Iran was known to possess the region's largest stockpile of ballistic missiles?



*Figure 18 - Patriot launcher configured with anti-ballistic missile capable (but short range) PAC3 missiles*

The most obvious answer to this is that, although the U.S. does indeed possess defensive systems able to engage the kinds of ballistic missiles that Iran possesses, it has quite limited numbers of these; nowhere near enough to protect all the bases the U.S. has in conflict zones (& potential conflict zones) around the world.



Figure 19 - Land Phalanx Weapon System (LPWS) C-RAM

This might seem surprising given that the U.S. has spent well over \$350 billion on missile defences over the past three decades. In reality, however, much of this expenditure has been focused on attempts to develop systems for the interception of longer-range strategic (i.e. nuclear capable) intercontinental ballistic missiles (ICBMs).

Furthermore, it is simply cheaper and easier to build short or medium range ballistic missiles that are able to reasonably accurately target a base, or a structure, than it is to build a defensive system able to engage and destroy such missiles.

The result of this technical imbalance, as well as the avaricious nature of the U.S. defence industry, is that both the Patriot and THAAD systems are extremely expensive<sup>10</sup>, even before additional systems (such as the Land Phalanx Weapon System (LPWS) C-RAM, or the Avenger) are added to form a layered defence, and to protect THAAD and Patriot from rocket, drone, cruise missile, artillery and mortar attack<sup>11</sup>.



Figure 20 - Avenger (left) and Land Phalanx Weapon System C-RAM (right) Short Range Air Defence (SHORAD) systems

<sup>10</sup> A THAAD battery cost a little over US\$2b each when Saudi Arabia agreed to buy seven in late 2018. Modern Patriot batteries cost Poland a little under US\$2.4b each when it bought two earlier that year. These costs would include ongoing maintenance services.

<sup>11</sup> A focus on building small numbers of very expensive long and medium range air defence systems means that development of shorter-range air defences has been neglected. Avenger, for example, is essentially a 1980's design (albeit with modernised missiles). The Stryker based replacement for Avenger is still in development.

The decision to deploy Patriot missile batteries to Iraq means that these systems had to come from the Department of Defense's Global Response Force, or be redeployed from other duties in locations such as Kuwait, or Saudi Arabia, itself already under intermittent missile attack from Yemen.

And adding a few Patriot batteries might *almost* have been enough to protect all the U.S. bases in Iraq, if the modernised Patriot had better range. Unfortunately, the Patriot's most effective antiballistic missile interceptors have a range of only about 20km. Its older missiles have longer range but are nowhere near as effective in this role, and each launcher can carry far fewer of them.

THAAD on the other hand (if it is present in Iraq), can cover a much wider area but *it* can ONLY engage ballistic missiles, not aircraft. Ship based Aegis systems have far better range and good performance in an antiballistic missile role, but are limited to deployment aboard surface combat vessels, or fixed installations ashore – and in most cases they just aren't close enough to be useful for the interception of shorter-range ballistic missiles such as Iran used on 8 January.

All these limitations, along with a general shortage of deployable batteries and supporting shorter range air defence (SHORAD) units are almost certainly what forced the U.S. to consolidate its forces onto fewer bases from March - simply because it could not deploy effective layered air defences to protect the number of bases it had occupied up until that time.

Even given these steps, the U.S. bases that remain in Iraq are still vulnerable, partly because Iran possesses so many ballistic missiles that it could simply overload the ability of U.S. air defence systems to intercept them, and also because the ability of the U.S. C-RAM and Avenger systems to protect the longer range systems like Patriot and THAAD from other threats (like Iranian drones and cruise missiles) is by no means certain.



Figure 21 - Outdated breakdown of Iranian Ballistic Missile capabilities. For example, the Fateh-313 is not shown, but its predecessor the Fateh-110 is.

42 Group believes that recent animosity between the U.S. and Iran is illustrative of four factors of relevance to New Zealand defence strategy:

- The United States continues to consider itself free to act in violation of international law, without concern for consequence or censure;

- This includes a willingness to take actions that place at risk its allies and its own personnel, not to mention regional and global security;
- The cost, complexity and practical limitations of available U.S. air defence systems makes them impractical and / or uneconomical for even the United States to deploy effectively, despite massive investments of public funds over decades; and
- Iran's own investment in stocks of cheaper, lower-tech domestically manufactured ballistic missiles put the best funded military in the world in a position where it had to pull back, hunker down and adopt a defensive posture.

## 2.4. U.S. Signs Agreement with the Taliban

A full discussion of the course, causes, impacts and outcomes of the war in Afghanistan is far beyond the scope of this paper. To summarise, however, that war began in 2001 when the United States and several allies invaded Afghanistan and drove the Taliban from power. The resulting occupation has continued for 20 years since then, and has incurred a heavy cost, both economically and in human terms. Sadly, it is highly questionable at this point whether what was achieved has been worth those costs.



Figure 22 – A conservative estimate of the financial costs to U.S. tax payers of the war in Afghanistan

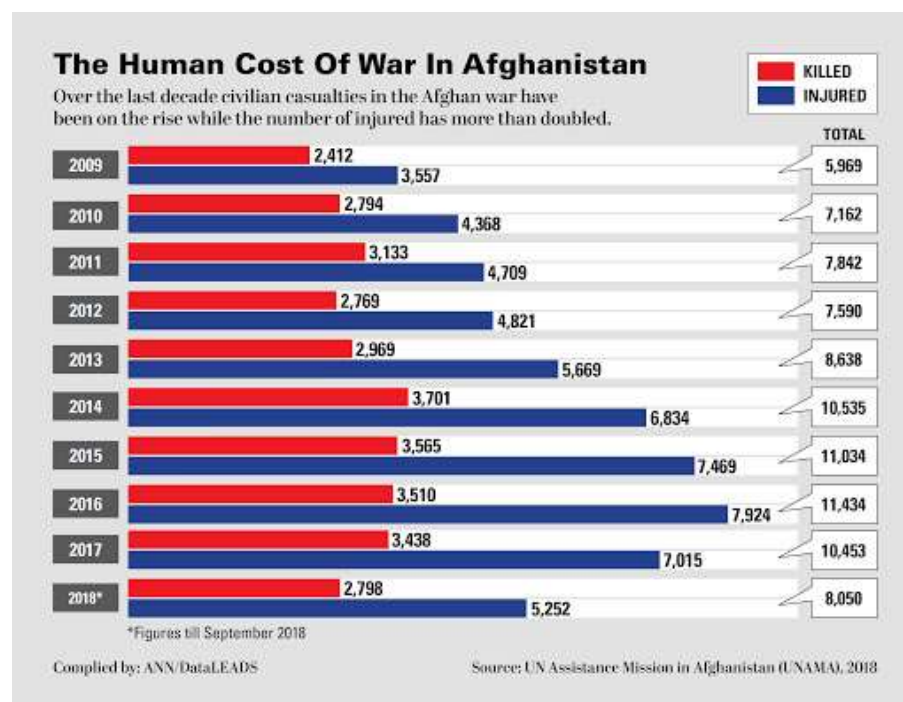


Figure 23 - Civilian cost of the war in Afghanistan since 2009. Keep in mind these figures do not count civilians killed but miscounted as enemy combatants



On February 29, after more than a year of direct negotiations the U.S. government and the Taliban signed an agreement establishing a timeline for the withdrawal of U.S. forces from the country. Under that agreement, the United States would reduce U.S. forces to approximately 8,500 troops within 135 days and would fully withdraw by April 2021. In return, the Taliban would prevent their territory being used by designated 'terrorist' groups and would begin negotiations with the Afghan government. The agreement was signed after a seven-day period that required the Taliban to significantly reduce violence nationwide, and U.S. and Afghan forces to refrain from targeting the Taliban in turn.

It would be a mistake to assume, however, that any of this means that violent conflict has ended in Afghanistan, or that peace now reigns there. On the contrary, Afghanistan remains locked in bitter conflict.



Figure 24 - Afghan control map as of late May 2020

The status of the conflict at the end of May 2020 was that the Government controlled about 34% of the country, the Taliban about 19%, with the remaining 47% being contested.

Nonetheless, since early 2019 the United States had been clearly signalling its intention of finally pulling out its troops.

In March 2019 and then again in September 2019 Germany, the second largest contributor of troops to the Resolute Support Mission (RSM), publicly sounded alarm bells about the consequences of what it clearly feared would be a rushed U.S. withdrawal.

Italy, the fourth largest contributor of troops also expressed concern. Indeed, the public statements of several nations contributing forces to the RSM in Afghanistan signalled disquiet, if not outright alarm, at the prospect of the U.S. simply walking away from its commitment to the RSM mission.

For other close U.S. allies such as New Zealand, Britain and Australia, involvement in protracted counterinsurgency operations in Afghanistan has done little to enhance their own security. It has certainly carried human costs, however, in terms of both physical and psychological casualties, while sully reputations through the involvement of their personnel in well documented abuses and / or war crimes. The lessons of Mỹ Lai<sup>12</sup> with regard to the terrible cost of counter insurgency warfare on all involved parties have clearly not been learned either by the U.S. - or by its closest allies, including New Zealand.



Figure 25 – Bringing them democracy – An Australian soldier executes an unarmed civilian on camera, Deh Jawz-e Hasanzai, Afghanistan, May 2012

#### Composition of RSM forces in Afghanistan, June 2020

Country	# Personnel
 <a href="#">United States</a>	8,000
 <a href="#">Germany</a>	1,300
 <a href="#">United Kingdom</a>	1,100
 <a href="#">Italy</a>	895
 <a href="#">Georgia</a>	871
 <a href="#">Romania</a>	797
 <a href="#">Turkey</a>	600
 <a href="#">Poland</a>	350

Country	# Personnel
 <a href="#">Czech Republic</a>	309
 <a href="#">Mongolia</a>	233
 <a href="#">Australia</a>	200
 <a href="#">Portugal</a>	188
 <a href="#">Netherlands</a>	160
 <a href="#">Bulgaria</a>	158
 <a href="#">Denmark</a>	155
 <a href="#">Armenia</a>	121

<sup>12</sup> Where over several hours on March 16 1968 U.S. soldiers massacred around five hundred Vietnamese civilians: women, children, infants and the elderly, with boots, bayonets, bullets and grenades.

Country	# Personnel
 <a href="#">Azerbaijan</a>	120
 <a href="#">Croatia</a>	107
 <a href="#">Albania</a>	99
 <a href="#">Hungary</a>	95
 <a href="#">Belgium</a>	93
 <a href="#">Bosnia-Herzegovina</a>	68
 <a href="#">Spain</a>	66
 <a href="#">Finland</a>	63
 <a href="#">Norway</a>	58
 <a href="#">Slovakia</a>	51
 <a href="#">Lithuania</a>	50
 <a href="#">North Macedonia</a>	44

Country	# Personnel
 <a href="#">Estonia</a>	42
 <a href="#">Latvia</a>	40
 <a href="#">Montenegro</a>	27
 <a href="#">Sweden</a>	25
 <a href="#">Ukraine</a>	21
 <a href="#">Austria</a>	15
 <a href="#">Greece</a>	11
 <a href="#">New Zealand</a>	9
 <a href="#">Slovenia</a>	15
 <a href="#">Luxembourg</a>	2
Total	16,551

**US troop levels in Afghanistan**  
2002 - 2019

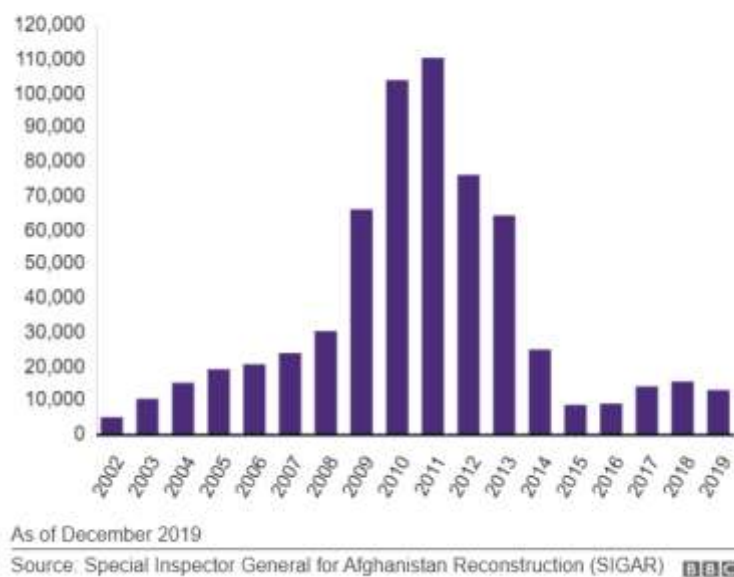


Figure 26 - Total U.S. troops officially in Afghanistan from 2002 - 2019. These figures do not count private military contractors or intelligence agency (e.g. CIA) personnel

By late June the U.S. defence and intelligence establishment had mobilised to prevent the president's planned withdrawal, with the CIA, FBI and NSA jointly releasing a report accusing Russia of paying bounties on U.S. troops killed in Afghanistan.

This report, like the one that accused Russia of interference in the 2016 presidential election, provided little evidence – with even the NSA unwilling to express a high degree of confidence in its conclusions.

Much like the earlier report, however, its real purpose wasn't to prove any specific accusation, but rather to box the president in. Despite the lack of evidence or certainty expressed within the report,

much of the western media treated its tentative and unsubstantiated conclusions as fact and immediately set about constructing narratives that could be used to delay or prevent a U.S. withdrawal.

Although increasingly transparent as cynical information warfare orchestrated by the defence and intelligence establishment in partnership with a complicit media, this technique appeared to be successful as, by the end of June, draft legislation was being prepared for introduction to Congress that would, if passed into law, impair the President's ability to withdraw U.S. troops from Afghanistan.

42 Group's expectation at this stage is that, were a U.S. withdrawal proceed, and unless Germany and other nations making up the bulk of RSM forces are willing to double down on their commitments and somehow manage to broker a fruitful dialog between the Taliban and Afghan Government (which seems unlikely), fighting in Afghanistan will escalate following a U.S. withdrawal, with the Taliban, or worse still Islamic State and / or Al Qaeda rapidly taking large swathes of territory and threatening to topple Afghanistan's government.

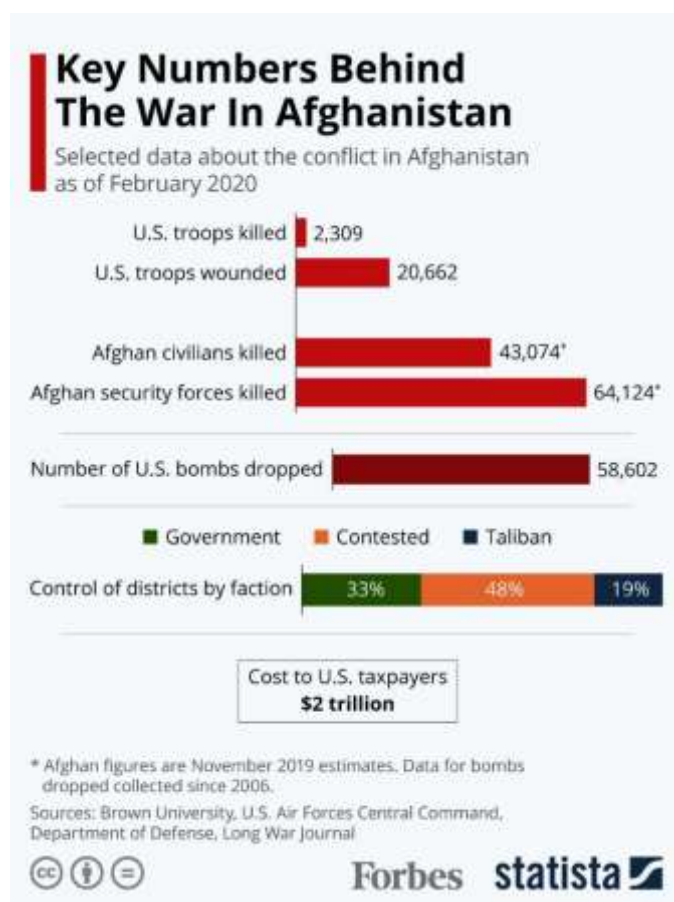


Figure 27 - Key numbers in the Afghan war. Note the much higher cost estimate here than in figure 20 above – although both are from the same source.

42 Group believe that New Zealand should draw the following conclusions from recent events and from its own involvement in Afghanistan:

- That military interventions rarely achieve their intended objectives – unless those objectives include massive military expenditure and the transfer of vast sums of public funds to private defence contractors and / or the arms industry;

- That protracted involvement in counterinsurgency operations has a terribly dehumanising effect on soldiers, almost inevitably leading to atrocities against civilians, as well as to profound and debilitating long-term effects on veterans;
- That the partisan and entirely self-interested nature of the U.S. political establishment makes the United States an unreliable ally; and
- That, in the absence of a willingness (and the capability) to commit genocide, no technological advantage, or investment in treasure, lives or weapons, even over decades, can guarantee lasting victory against an adequately resourceful and determined opponent, especially where that opponent enjoys popular support, and where the local geography favours an insurgency.



## 2.5. Control of Syria's oil fields and the fate of Idlib

As outlined in our last strategic report, by late 2019 Turkey seemed likely to accept that Idlib would eventually be recaptured by Syrian government forces and appeared to have refocused on consolidating control over the territory it had recently captured from the SDF as part of its “Peace Spring” offensive and on a different intervention entirely, this time in Libya on behalf of the Government of National Accord (GNA) in Tripoli.

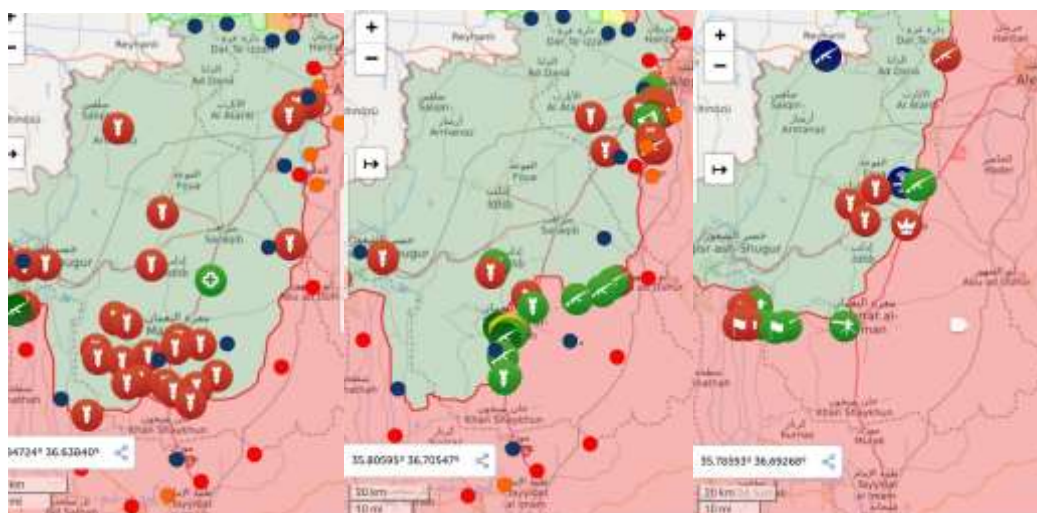


Figure 28 - Idlib control maps, 9 December 2019 (left), 30 January 2020 (centre) and 29 February 2020 (right). Rebel held territory is in green. Syrian Government controlled territory is in red.

On 2 January 2020 the Grand National Assembly of Turkey approved the deployment of Turkish forces to Libya. Turkey, which in 2019 had begun recruiting Syrian rebels from within Idlib to fight for it there, accelerated its efforts to recruit and deploy such rebels to Libya.

On 11 January, and partly in response to Turkish requests, Russia, Syria, Syrian rebels and Turkey agreed to a ceasefire in the Idlib area. For several days Syrian aircraft dropped leaflets encouraging civilians in Idlib to leave via one of three “secure” crossing points established to facilitate their evacuation into Government held territory. Neither the remaining rebels nor the Syrian army appeared committed to the ceasefire, however, and fighting quickly re-intensified.

By 15 January, perhaps sensing that the rebels were now spread increasingly thin, the Syrian army fully resumed its offensive and Turkish military convoys began once again flowing into Idlib, to rearm and resupply the remaining rebels.



Figure 29 - Turkish military convoy enters Idlib, January 2020

By the end of January Russia had also re-joined the fray in earnest and the Syrian Arab Army, having captured the strategic city of Ma'arrat al-Nu'man, was continuing to press northeast along the M5 highway toward the strategic city of Saraquib. Turkey tried to slow their progress by establishing new observation posts on the approaches to the city (shown in blue below).

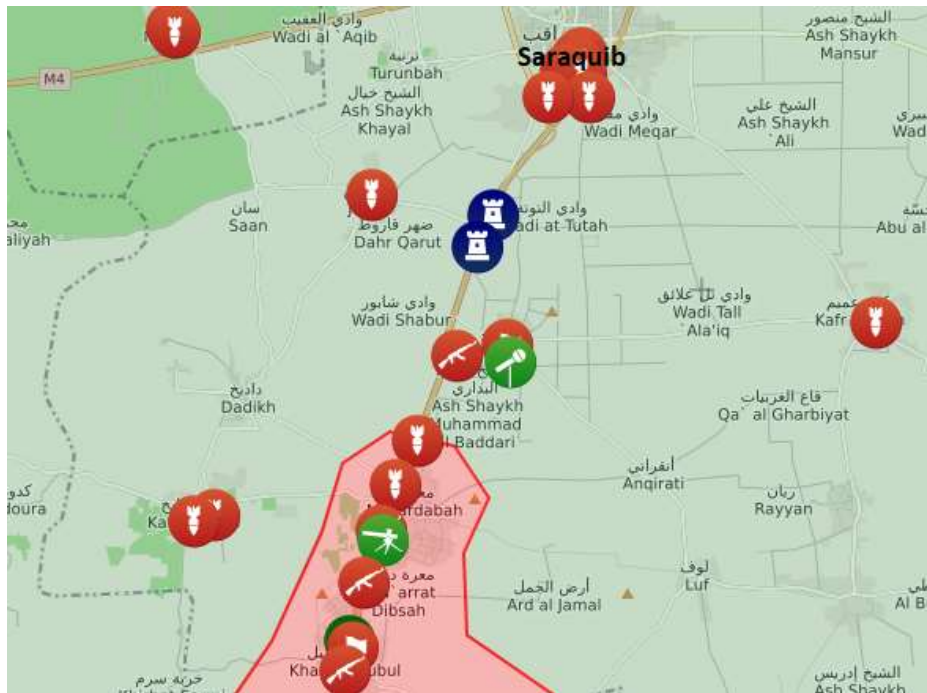


Figure 30 - The Syrian Arab Army (SAA) advances along the M5 highway towards Saraquib, January 2020

Now resupplied by Turkey with more ATGMs and other weapons, the rebels continued to exact a significant price on the SAA for all ground taken. Despite this the Syrian army continued to steadily advance on Saraquib and to take territory east of the M5 throughout early February. Both Russian and Turkish aircraft were actively involved on either side and Turkey was using its domestically produced KORAL electronic warfare / jamming systems to jam Syrian radar.

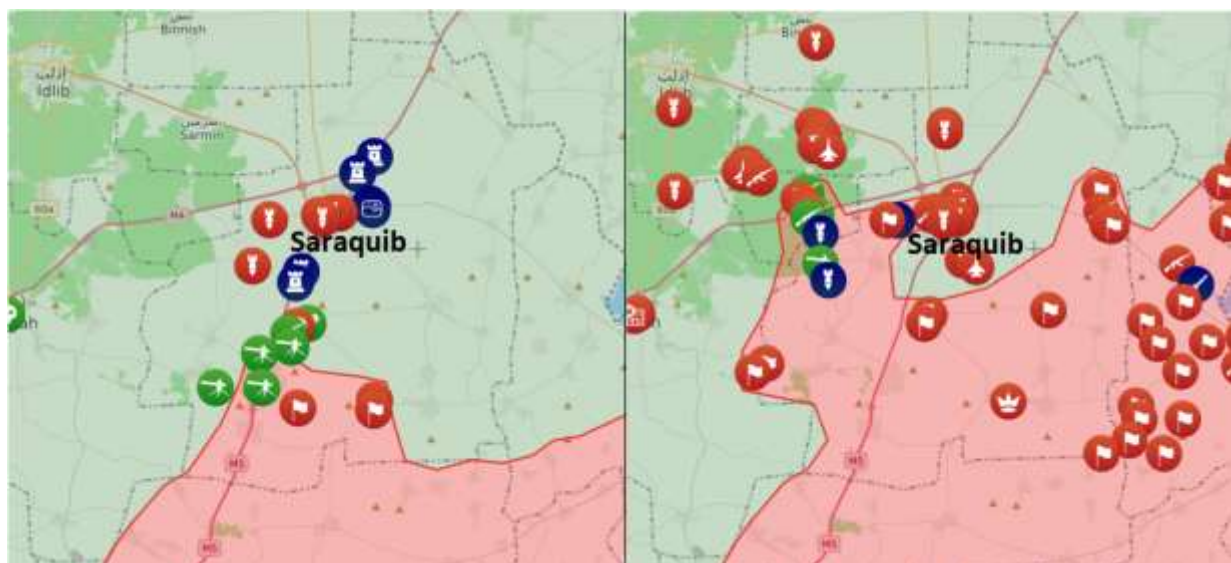


Figure 31 - SAA Advance on Saraquib and eastern Idlib, 31 January (left) and 4 February (right). By 4 February Saraquib was almost encircled.

Tensions between Turkey and Russia continued to heighten as it became apparent that Turkey was going to make the SAA pay for every meter of ground that it took, presumably hoping that Syria would leave some portion of Idlib in rebel hands to act as a buffer between the states.

The city of Saraquib was encircled on 6 February and fell to the SAA on 7 February, after which the rebels began abandoning their remaining positions east of the M5 highway to avoid being cut off and outflanked.



*Figure 32 - Turkish armour arriving in Idlib province (left) and deployed against the SAA (right), early 2020*

A few days later on 12 February the SAA drove former al Qaeda affiliate Hayat Tahrir al-Sham (HTS) and its allied rebel groups back from the M5 west of Aleppo, establishing for the first time in eight years Syrian government control of the entire highway, all the way from Aleppo to the border with Jordan.

By this stage rebel forces were using Turkish military vehicles, weapons and equipment and were mingled with Turkish troops to a degree that it had become increasingly difficult for Syrian and Russian pilots to distinguish them.

This led to small numbers of casualties being acknowledged by Turkey among its forces and for it to request military assistance from NATO - and to request that the U.S. provide it with Patriot missile batteries to station along its border with Syria.

Russia and the Syrian government were condemned by the Secretary General of NATO Jens Stoltenberg and U.S. Secretary of State Mike Pompeo – but the Pentagon declined to provide Turkey with more Patriot missiles that might be used to target Russian aircraft (despite pressure to do so from Pompeo’s State Department) - and NATO states demurred at taking any other action that might provoke Russia.

On 18 February the U.N. human rights chief Michelle Bachelet expressed pressing concerns over the intensity of the fighting and blamed the Syrian government and Russia for intentionally causing harm to civilians.

On 20 February, Turkish-backed rebels and Turkish commandos launched a counteroffensive on Nayrab with Turkish artillery support. Russian aircraft provided air support to pro-government forces and struck repeatedly at the advancing Turkish and Turkish-backed rebel forces.

A Russian UAV was reported to have been shot down during the battle and rebels attempted to shoot down a Russian Su-24 using Turkish-provided man-portable anti-aircraft missile (MANPADS).





*Figure 33 - Syrian rebels fire a Turkish supplied MANPADS at Russian aircraft, Idlib February 2020*

Despite initial successes the Turkish supported rebel forces were driven back.

Over the following days Syrian government forces with Russian air support continued to outflank the remaining rebels across southern Idlib, rolling from east to west and meeting limited resistance due to the rebels' depleted numbers, with their remaining forces being focused on trying retake Saraquib further north – which the rebels briefly did on 27 February, once again cutting the strategic M5 highway to Aleppo after driving off Russian air support with Turkish supplied anti-aircraft weapons.

Russia, which seemed to think it had had an understanding with Turkey that the M5 highway was to remain open, responded by striking with two Su-34 bombers (alongside two Syrian SU-22s), a Turkish military convoy in Balyun in Southern Idlib, killing at least thirty-four Turkish soldiers and wounding dozens more.



*Figure 34 - Russian SU-34 strikes Turkish forces, Balyun Syria, 27 February 2020*

Turkey, not wanting to face pressure from its public to confront Russia over the strike, instead blamed Syria for the attack and intensified its own air campaign against Syrian forces, making effective use of drone directed artillery against Syrian tanks, APCs and artillery units, even as rebels launched a separate counter offensive in southern Idlib. At the same time, Turkey opened its border with Greece to Syrian refugees wanting the travel to Europe, sending a clear message that Europe would bear a cost for failing, in Turkey's view, to adequately support its intervention in northern Syria.



*Figure 35 - Turkish Bayraktar TB2 UAV*

Despite this, the SAA retook Saraquib on 1 March with Russian air support, although attacks by Turkish F-16s and by rebels using Turkish supplied MANPADS caused the loss of at least two Syrian aircraft. Russian Pantsir and ZSU-23 Shilka short-range air defence systems destroyed a number of Turkish drones - although at least two of the Pantsir's were themselves hit and either damaged or destroyed. Manned Russian and Turkish aircraft did not appear to engage each other directly.

When the SAA reopened the M5 highway the following day Russia moved a military police unit into the city to make it clear to Turkey that Saraquib was now to remain in Syrian Government hands - and that the M5 was to remain open.

By now, however, the situation was becoming ever more fluid and complex. Turkish, Syrian and Russian aircraft and drones were all operating within the same airspace and were finding it increasingly difficult to avoid targeting each other's forces on the ground – or to avoid each other in the air – while active Turkish KORAL electronic warfare systems were blinding Syrian radar and jamming communications channels, adding to the confusion.



*Figure 36 - Turkish KORAL Electronic Warfare system (left), Russian REDET Electronic Warfare system (right). The combination of Turkey's domestically developed Koral EW system and Bayraktar drones were devastating to Syrian ground forces and short-range air defences.*

Russia, perhaps thinking that Turkey would have got the message from its earlier strike near Balyun, began to pull back its combat aircraft, giving Turkey the opportunity to do the same, now having saved face with its own public by punishing the SAA for its losses on the 27th.

Turkey, however, seemed to misinterpret this de-escalation as a lack of Russian fortitude, and it redoubled its airstrikes and drone guided artillery attacks around Saraquib, forcing Russia's MPs to withdraw from the city on 2 March.

The rebel counteroffensive in southern Idlib was also advancing steadily, retaking territory that the SAA had won from them just days before - because the SAA's best units were now tied down defending Saraquib.

Russia's patience with Turkey reached an end on 3 March, after Turkey released drone footage showing the devastating effects that its combined drone / EW tactics were having on Syrian ground forces.



Figure 37 - Screen grabs from a Turkish video of drone strikes / drone directed artillery strikes on Syrian forces in Idlib, late February / early March 2020

In response, Russia unleashed the full force of its air power and pounded rebel positions throughout Idlib for three days.

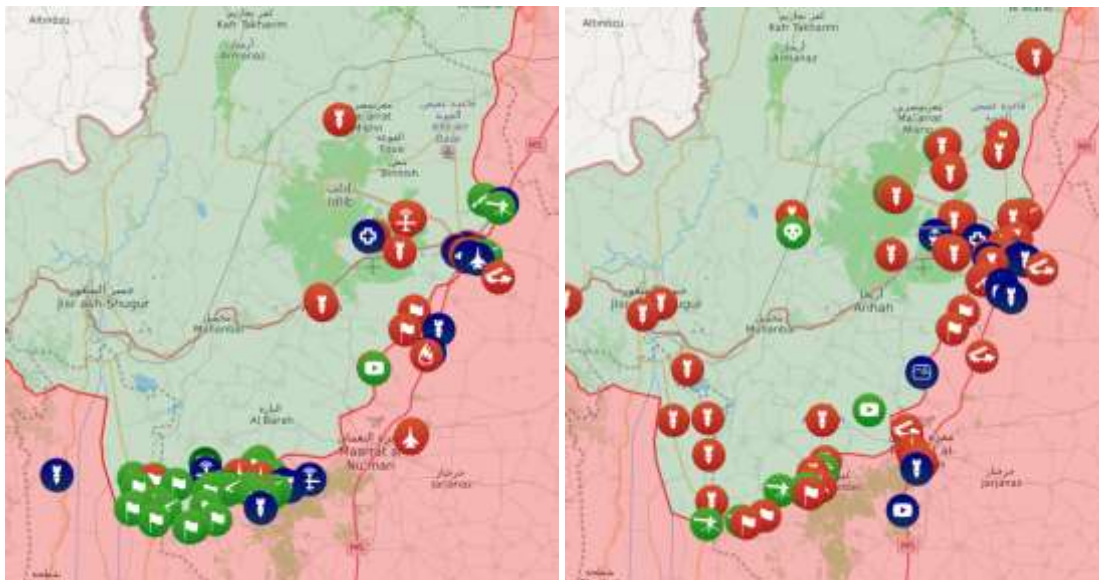


Figure 38 - Syrian rebels (green) push south as Turkey bombards Syrian ground forces (left). Russia's patience runs out (right)

On 5 March, Russian President Vladimir Putin and his Turkish counterpart Recep Tayyip Erdogan met in Moscow.





Figure 39 - President Putin and President Erdogan meet in Moscow, 5 March 2020. Check the body language.

Following the meeting, Russia and Turkey announced a ceasefire, agreeing that:

- Turkey and Russia would cease all military actions along the line of contact in the Idlib de-escalation area from 00:01 of March 6, 2020;
- A security corridor would be established along the M4 highway stretching 6km north and south of the road, with specific details to be agreed between the Turkish and Russian defence Ministries within 7 days; and that
- On March 15 joint Russian – Turkish patrols would begin along the M4 highway from Trunba (2km west of Saraqib) to the settlement of Ain-al-Hayr.



Figure 40 - Graphic from dailysabah.com March 6 shows the security corridor along the M4 Highway agreed by Russia and Turkey the day before

President Erdogan stated shortly after the meeting that Turkey reserved the right to “retaliate with all its strength against any attack” by Syrian government forces. Despite this display of bellicosity, it is clear that this agreement represented a defeat for Turkey, given that it cemented a new line of control with the SAA now occupying much of the territory in Idlib previously controlled by the Syrian rebels, the recapture of which had been the stated purpose of the latest Turkish offensive.

The ceasefire agreement was also between Russia and Turkey and applied to the SAA and Hayat Tahrir al-Sham (HTS) (and allied rebel groups) only to the degree that Russia and Turkey, respectively, could influence them to de-escalate their own operations.

Turkey at this time had also reiterated demands for greater assistance and support from NATO, linking Turkey’s ability to stem the flow of Syrian refugees into Europe with the willingness of Turkey’s European allies to provide not just financial support and aid for refugees, but assistance on the battlefield, including air support on the Turkish-Syrian border, more reconnaissance aircraft, surveillance drones, and more ships in the eastern Mediterranean. NATO States, however, noting that the circumstances necessary to trigger article 5 of the NATO treaty (an attack on Turkey itself) had not been met, stopped short of taking any action that might risk dragging them into a conflict with Russia.



Figure 41 - Unrest at the Turkish / Greek border as Syrian refugees try to enter Europe via Greece.

Despite HTS attempting on several occasions to sabotage it, the ceasefire has largely held through April, May and June of 2020, and the situation in Idlib has remained *relatively* stable since that time.

Perhaps partly due to the world being distracted by COVID-19, several other developments in Syria over the first half of 2020 have received little international attention. These have included:

- On 29 February Iran revealed that several of its troops, whose presence in Syria was at the invitation of the Syrian government and permitted under the same agreements that allowed Turkey to establish its own observation posts there, had been killed by Turkish airstrikes. Iran reminded “*the Turkish people that their sons have been present for a month in the range of our forces and we could take revenge, but we did not do so in response to the orders of our leadership*”;

- Around the same time, footage emerged purporting to show service members of the Turkish military torturing and beating Syrian SAA prisoners. This would not be the first-time in recent months that evidence of Turkish war crimes was largely ignored by western media;
- On 4 March Russia claimed that its forces had seized “toxic chemicals” from Turkish-backed militants near Saraqib city. While unverified, this would be consistent with a pattern of rebels appearing to stage chemical weapon attacks in order to blame regime forces, as seems to have occurred in Douma in 2018 (see our last report);
- In March Turkey suggested that it and Russia take on joint administration of Syria’s oilfields. Russia was said to be ‘considering’ this suggestion;
- Turkey’s relations with its erstwhile HTS allies deteriorated in Idlib, with Turkish forces clashing with HTS during a joint Turkish Russian patrol on April 26, followed by HTS artillery and ATGM attacks on Turkish forces and Turkish drone strikes on HTS positions respectively;
- In April there were reports that Russia had deployed “high-precision unmanned aerial systems” – specifically Kalashnikov’s KUB-BLA - against rebel forces in Idlib, using these ‘loitering munitions’ (or ‘suicide drones’), to make precision strikes on HTS positions;
- The U.S. continued to consolidate control over Syria’s most productive oilfields in the east and north east of the country, and appeared to be extracting and trafficking Syria’s oil in violation of prohibitions on pillage enshrined in international law;
- Russian and U.S. forces repeatedly blocked and forced the retreat of each other’s patrols in Syria’s north east. The U.S., in particular, appeared determined that Russian forces would not approach Syria’s oilfields, or the routes by which the U.S. appeared to be exfiltrating Syria’s oil wealth;
- Turkey continued to cleanse – or to allow its proxies to cleanse - the Syrian territories it had seized in 2019 of their Kurdish and Yazidi communities, and moved in more military hardware in preparation for possible further offensive operations against the Kurdish-led SDF;
- Syria’s Kurds failed to successfully negotiate any kind of power sharing agreement with, or significant concessions from, the Syrian government in Damascus, leaving them entirely beholden to the U.S. and with little choice but to continue to act as a fig leaf for the U.S. occupation and exploitation of Syria’s oilfields.

At this point it is hard to predict how events will unfold over the coming months. It is possible that:

- The U.S. might seek to promote a secular but Kurdish dominated puppet administration in northern Syria, applying pressure on other nations to recognise it, thus ‘legitimising’ its own seizure of Syrian oil resources; and / or
- Turkey, unwilling to countenance a Kurdish dominated statelet on its southern border may demand (and would likely receive from Washington), a green light to extend its Peace Spring buffer zone across the entirety of the contiguous Syrian / Turkish border.





Figure 42 - Russian Kalashnikov's KUB-BLA loitering munition, or 'suicide drone'

Should either or both of these events occur a key question is how Russia would react. Should Turkey launch further incursions into northern Syria Russia might allow it to establish a contiguous buffer zone (for which it would undoubtedly demand that Turkey pay some form of price), or it might instead seek in some way to thwart Turkey's designs.

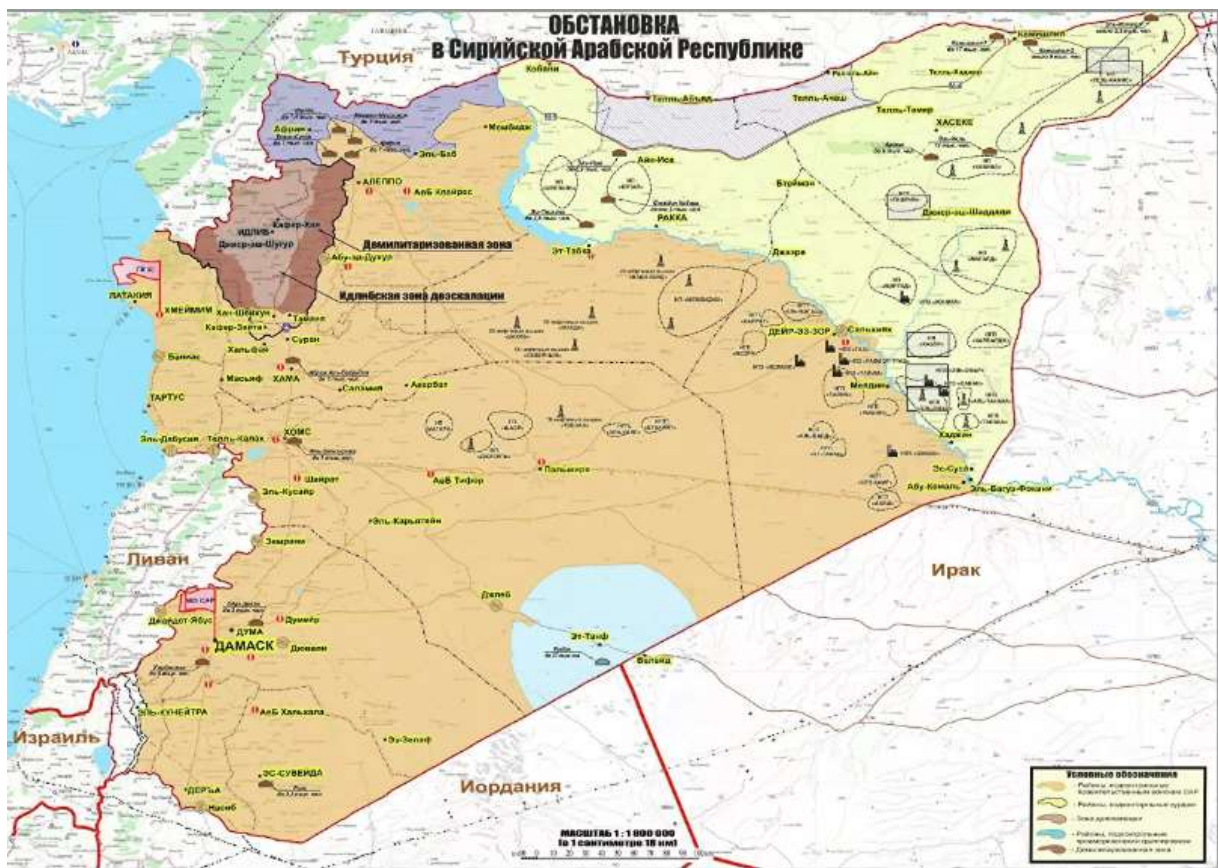


Figure 43 - Map released by Russia as part of a body of evidence of U.S. theft / smuggling of Syrian oil

Should the U.S. seek to establish a separate statelet in north-eastern Syria Russia might be less likely to risk outright war to oppose it, but could seek to pressure the Syrian government into making greater concessions to the Kurds in order to lure them out of their U.S. orbit, or it might seek to use soft power measures at the U.N. or elsewhere to undermine the move.

All of this is highly speculative however, and it is entirely possible that the current situation will remain largely unchanged for a significant period.

42 Group believe that New Zealand should take note of the following six points with regard to the situation in northern and north eastern Syria over the first half of 2020:

- The devastating impact of Turkey's combined electronic warfare, drone and drone directed artillery tactics on Syria's ground forces – until the Russian air force was able to intervene and bring these to a halt;
- The unwillingness of the U.S. or European nations to risk confrontation with Russia by aiding Turkey militarily;
- The willingness of the United States to violate international law by seizing Syria's oil wealth;
- The willingness of both the United States and Europe to ignore acts of ethnic cleansing by Turkey and its allies rather than to antagonise Turkey by drawing attention to these crimes;
- Russia's increasingly influential role as a power broker in the middle east; and
- Turkey's growing and increasingly opportunistic neo-ottoman ambitions.



## 2.6. Turkish intervention turns the tide of the Libyan civil war

Our last strategic report in January 2020 noted that Turkey had been recruiting fighters from its Syrian proxy militia forces in Idlib for redeployment to Libya, in support of Turkey's ally in Tripoli, the internationally recognised Government of National Accord (GNA).

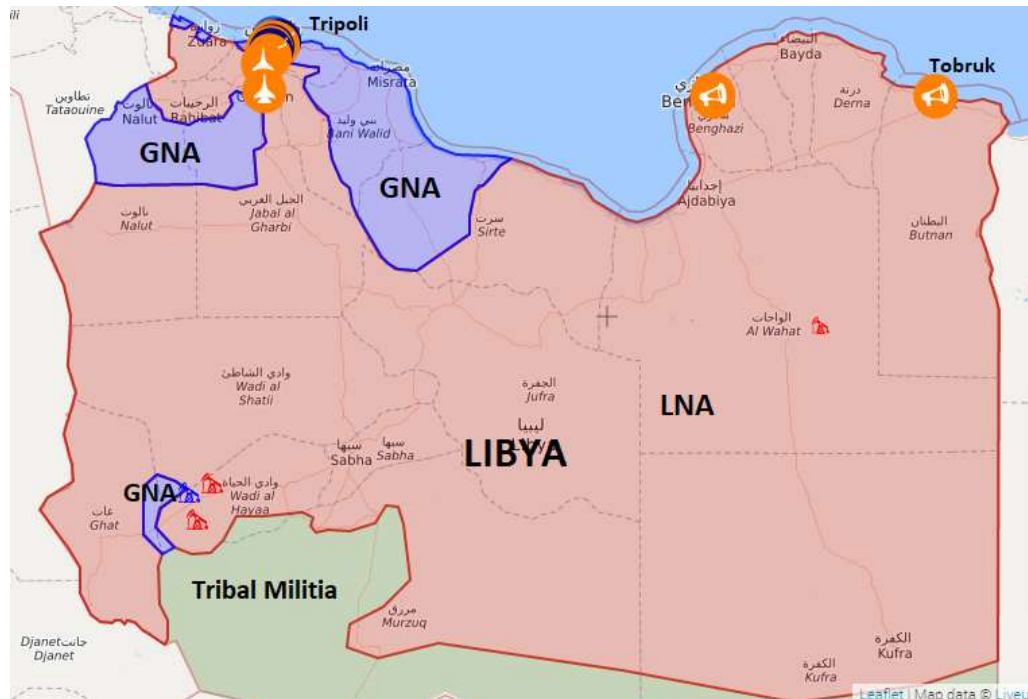


Figure 44 - Libya control map as at 1 January 2020, the LNA are closing in on Tripoli, threatening to topple the internationally recognised and Turkish supported Government of National Accord (GNA).

At the time, the GNA had been steadily losing territory to Field Marshal Khalifa Haftar's Tobruk based Libyan National Army (LNA), which had launched in April of 2019 an offensive to take Tripoli and topple the GNA.

Our tentative prediction at that time was that the LNA, supported as it was by the UAE, Egypt, France, Saudi Arabia, and Russia, would likely defeat the GNA which, while the internationally recognised Government, seemed to be receiving very limited support from the international community, mostly from Turkey, Italy and Qatar.

The 2 January 2020 decision by Turkey's Grand National Assembly to approve the deployment of Turkish forces to Libya, however, signalled the start of a significant reversal in the fortunes of the GNA.

Over the first half of 2020, the arrival of Turkey's Syrian mercenary forces, as well as its domestically developed drones and electronic warfare (EW) capabilities turned the tide of the conflict, allowing the GNA to push back the LNA and allied Russian mercenary forces.

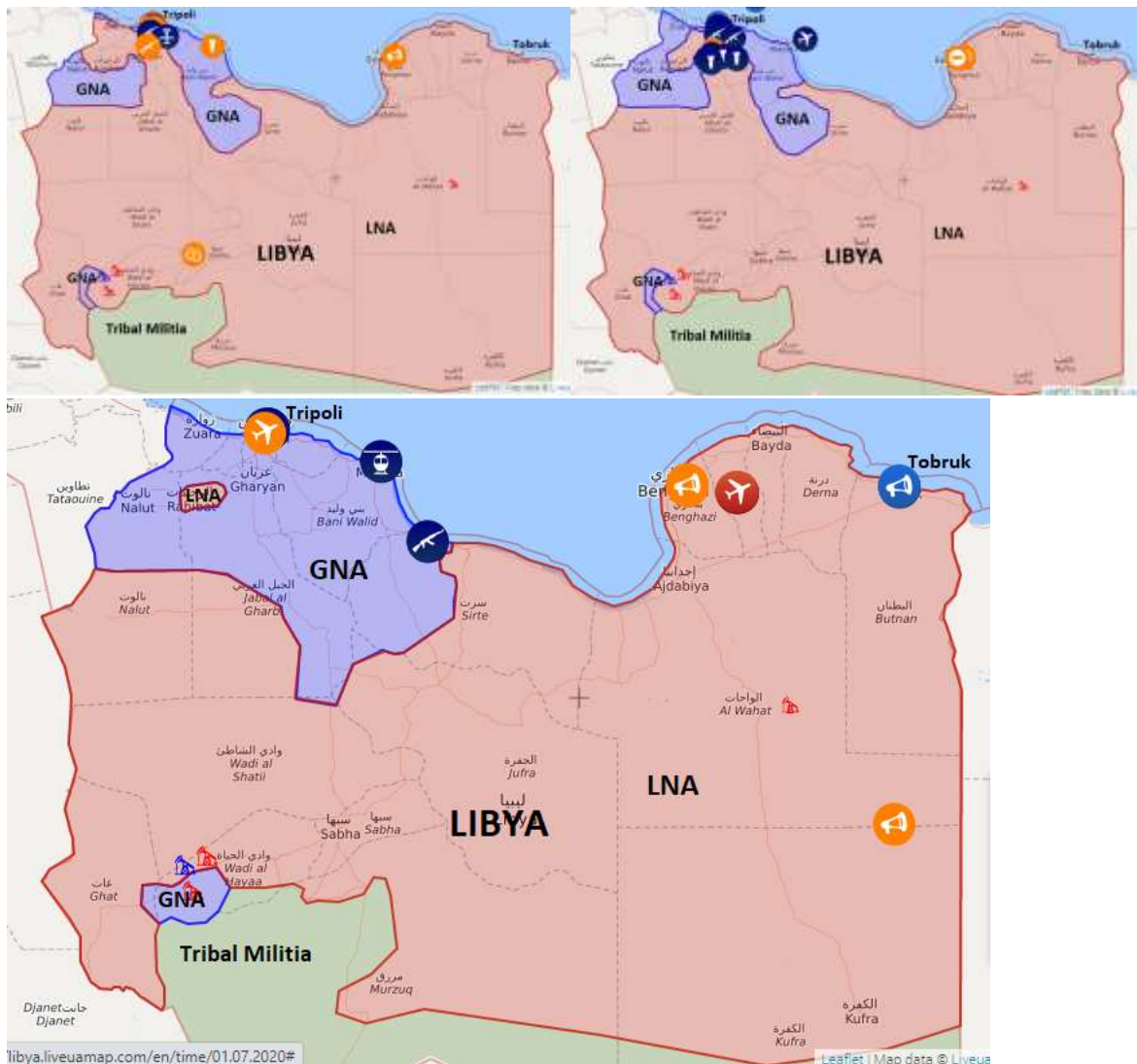


Figure 45 – The GNA progressively pushes back the LNA from around Tripoli - 1 March 2020 (top left), 3 June 2020 (top right) and 1 July 2020 (bottom)

Some of the most significant developments over this period included the destruction by Turkish drones of at least three Russian made Pantsir air defence units, their radar having been blinded by Turkish KORAL jamming / electronic warfare systems. At least one other Pantsir was captured in May by GNA fighters.



*Figure 46 – A Russian Pantsir Air Defence System covers the evacuation of Russian Wagner mercenaries from Bani Walid airport to al-Jufra airbase, 21 May (top left). Another LNA Pantsir operational (bottom left) and moments after being struck by a Turkish drone-launched MAM-L smart micro-munition (bottom right), mid May 2020*

The effectiveness of the combination of Turkey's (all domestically produced) electronic warfare systems, drones and laser guided micro-munitions was being proven once again in Libya, just as it had been in Syria three months before.

Now increasingly vulnerable to Turkish drone strikes, over a thousand Russian military contractors in the employ of the LNA were evacuated to the al-Jufra airbase in late May after retreating from fighting near Tripoli.



*Figure 47 - Mercenaries in the employ of Russian private military contractor Wagner Group withdraw in the face of highly effective Turkish drone strikes*

At the same time, Russia was widely reported to have dispatched a number of Mig-29 Fulcrum aircraft and a smaller number of SU-24 Fencer aircraft to Libya, these stopping at Russia's Khmeimim Air Base in Syria before flying on to al-Jufra airbase in Libya.



*Figure 48 - One of the Russian MiG-29s at al-Jufra air base in Libya*

While the SU-24s were probably simply meant to bolster the combat strength of the weakened LNA air force, we suspect that the Mig-29s may have been fitted with upgraded electronic warfare systems prior to their arrival in Libya and that their specific purpose there is to counter the Turkish Koral electronic warfare / jamming systems that have been allowing Turkey to neutralise LNA air defences, including Russian manufactured Pantsir systems.

If this is the case, we should expect to see Turkish air defences and Koral systems targeted and the effectiveness of Turkey's drone strikes to be significantly reduced over the coming weeks



Meanwhile through June Egypt, alarmed by the rapid reversal of the LNA's fortunes and concerned at the prospect of a Muslim Brotherhood aligned and unified Libya on its doorstep, massed forces on the Libyan border, and threatened on 22 June to intercede in the conflict if GNA forces attacked the strategic city of Sirte.



*Figure 49 - An impressive array of Egyptian armour. Without adequate (and EW resistant) air cover these tanks would, however, be sitting ducks for Turkish drones strikes.*

Given Turkey's demonstrated ability to use its unmanned air power and electronic warfare capabilities to destroy assets on the ground, including modern Russian air defences, it might have little to fear from an armour-heavy Egyptian intervention – were this not also supported with adequate modern airpower and electronic warfare capabilities.



*Figure 50 - Turkish manufactured drone-launched MAM-L laser guided incendiary micro-munition (left), pairs of which can be used to destroy main battle tanks such as the Egyptian variant of the Abrams shown above. Belarusian Talisman EW pod mounted on a Mig-29 (right).*

Turkey had proved in February and March that, as long as the Syrian army wasn't able to counter its electronic warfare capabilities or keep the skies clear of its drones, they could be badly mauled by Turkish drone strikes and drone-directed artillery. Only once Russia stepped back into the fray with modern aircraft with their own EW capabilities was this advantage seemingly negated – and this same dance now appeared to be playing out in Libya.





Figure 51 - Turkish Bayraktar-TB (left) and Anka-S (right) Unmanned Aerial Vehicles. The Bayraktar-TB is dropping a MAM-L micro-munition

Readers may be understandably confused as to why Turkey would be almost alone in actively championing the cause of the Internationally recognised GNA government, while the likes of France, Egypt, Saudi Arabia and the UAE were giving active support to a would-be junta, and while the U.S. effectively ‘looked the other way’.

To some degree this reflected a combination of these nations’ interests in both Libya’s oil reserves and in its territorial claims, as well as their own territorial integrity and border security.

Turkey’s interests in Libya include the “Memorandum of Understanding between the Government of the Republic of Turkey and the Government of National Accord – State of Libya on delimitation of the maritime jurisdiction areas in the Mediterranean”. This agreement, otherwise known as the “Libya – Turkey Maritime Deal” was signed 2 January 2020, the same day that the Turkish Grand National Assembly approved the deployment of Turkish forces to Libya to support the GNA.

It establishes an exclusive economic zone in the Mediterranean Sea, meaning that Libya and Turkey can claim rights to ocean bed resources there.

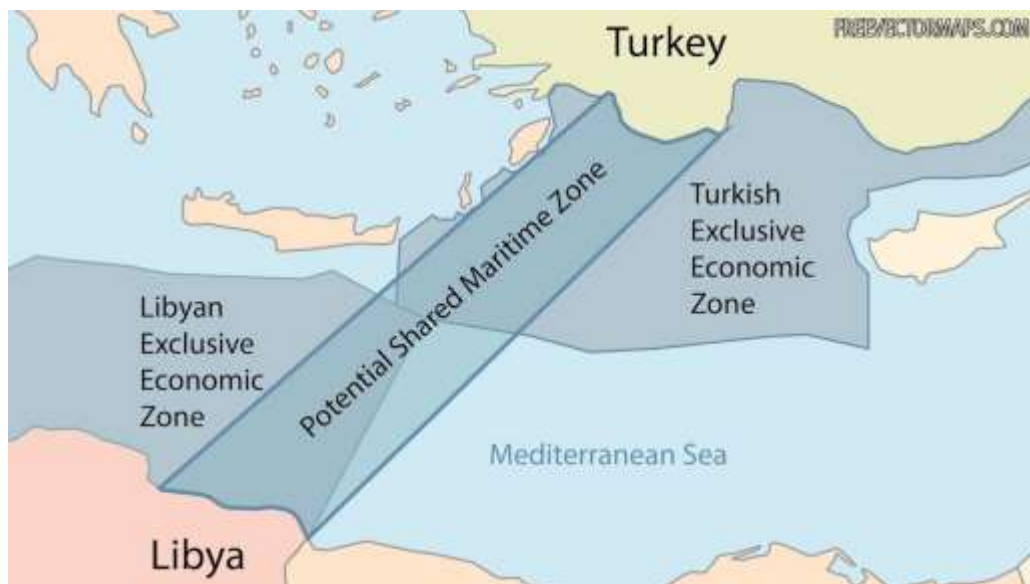


Figure 52 - Turkey and Libya's GNA seek to arbitrarily stake a claim over a big chunk of the Mediterranean without involving the other affected states

Those states supporting the LNA may have an interest in Greece, Israel and Cyprus’ proposed East Med pipeline project (which is incompatible with the Libya – Turkey Maritime deal), or in Libya’s substantial onshore oil reserves. Or they may believe that the Libya – Turkey deal infringes on their

own territorial interests<sup>13</sup>, or they may simply wish to contain Turkey's expanding influence as a regional power.



Figure 53 - Proposed EastMed pipeline

Another significant factor, which goes some way to explaining the U.S.' ambivalent position on Libya, is the regional rivalry between those states that are supportive of, or threatened by political Islam, most specifically the Muslim Brotherhood<sup>14</sup>. Turkey, Qatar and Libya's GNA are aligned with the Brotherhood while Egypt, the UAE, and Saudi Arabia are threatened by and generally have great antipathy towards it.

Different power factions within the U.S. political establishment have relationships of self-interest with these two regional factions. The Clinton camp had generally tended to be closer to the Qataris, while President Trump and certain power brokers in the U.S. are more closely aligned with the Saudis. Either way, the U.S. has allies in both camps that it does not wish to alienate if it can avoid it.

In our assessment, the lessons to be drawn from the Libyan conflict over the last six months are that:

- Divergent factional interests within the U.S. establishment contribute to the unreliable nature of the United States as an ally;
- Access to the planet's ever-depleting energy resources - and the pipeline or transport routes to access them - continue to be overriding geostrategic concerns for many states;
- Light irregular forces that had been relatively ineffective against the Syrian army and Syrian/Russian air power in Idlib, were far more effective when redeployed in Libya against an enemy that did not enjoy air superiority; and
- In those circumstances, Turkey was able to defeat modern Russian air defences using a domestically produced combination of drones, smart munitions and electronic warfare systems.

<sup>13</sup> The U.N. has stated that the deal "infringes upon the sovereign rights of third States" and "does not comply with the Law of the Sea"

<sup>14</sup> A religiopolitical organization founded in Egypt in 1928 by Ḥasan al-Bannā'. It advocates a return to the Qur'ān and the Hadith as guidelines for a healthy modern Islamic society.

**Update:** There have been unconfirmed reports that a 5 July attack on the GNA's Al-Watiya Airbase by unknown (LNA-aligned) aircraft included the destruction of a Turkish MIM-23 Hawk Air Defence system and a Koral electronic warfare system, with the attack having been conducted by aircraft variously identified as Mig-29s, or Mirage 2000's (the latter are operated by LNA allies UAE and Egypt), or possibly by a combination of both types of aircraft.



*Figure 54 - Airstrike on GNA al-Watiya airbase in which Turkish air defences and electronic warfare systems may have been defeated*





## 2.7. Saudi coalition collapses as its proxy forces face slow defeat in Yemen

Our last report outlined the gradual erosion of the Saudi coalition in Yemen, predicting that Saudi Arabia would soon begin looking for a face-saving means of disengaging from its disastrous intervention there. In the months since the Saudi position has continued a slow deterioration.

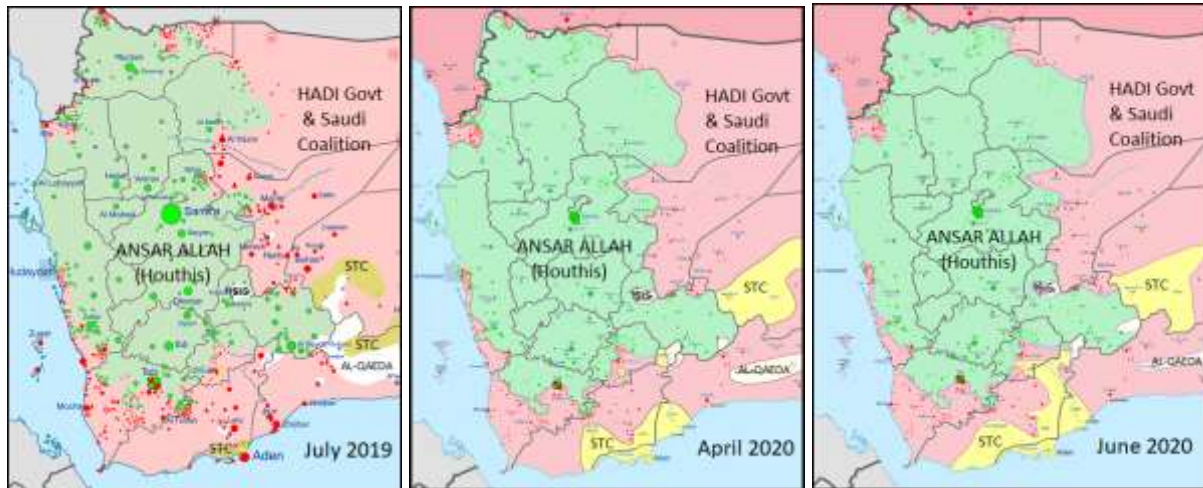


Figure 56 - Western Yemen control maps from July 2019, April, 2020 and June 2020 show Ansarallah gradually taking territory from the coalition in the north, as the UAE aligned Southern Transitional Council consolidates its control of the coastal area around Aden to the south

Even as Ansarallah has steadily continued to take territory from it in the al Jawf and Marib governorates, relations between the Saudi-aligned forces of the internationally recognised government of Abd Rabu Mansour Hadi and those of their sometime UAE-aligned allies the Southern Transitional Council (STC) worsened and broke into open conflict.

Tensions between these groups came to a head on April 26, when the STC declared self-rule over southern Yemen. The resulting clashes led to the STC consolidating control over the area around Yemen's second city Aden, and their seizure of the strategic Island of Socotra<sup>15</sup> from Hadi's forces.

At this point the position of the Saudi aligned Hadi government in exile has become increasingly untenable. A casual observer could be forgiven for looking at the control map below and thinking that Hadi's forces were still in a strong position – given how much territory they appear to control.

<sup>15</sup> The UAE aligned STC's seizure of Socotra may relate in part to reports of an increasingly significant Turkish presence there in support of the Muslim Brotherhood-affiliated al-Islah party.



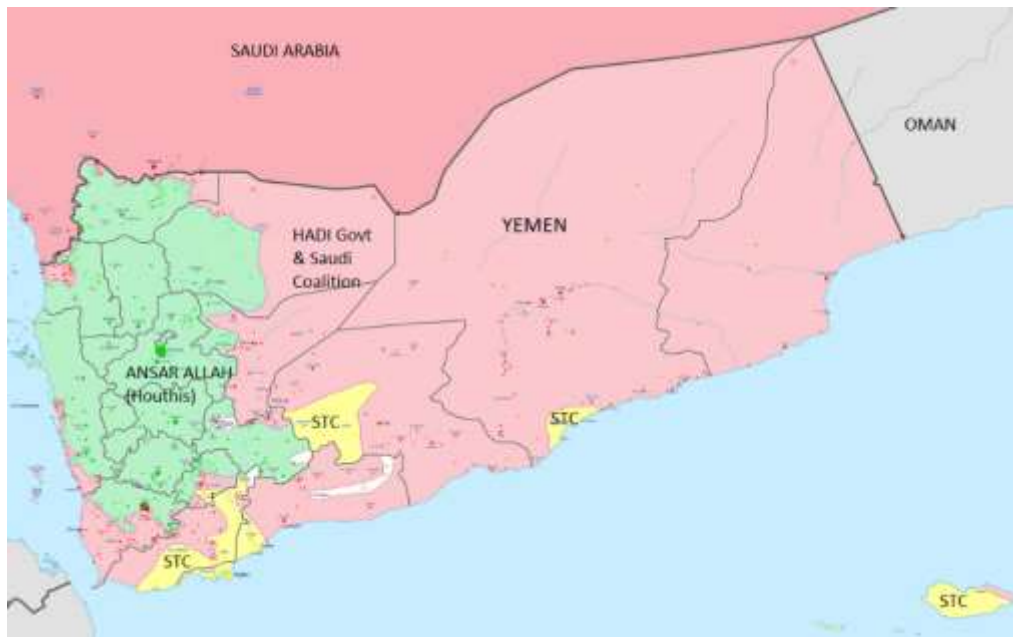


Figure 57 - Yemen control map June 2020

A closer look at the population distribution of Yemen, however, gives a clearer view, as it shows that forces loyal to the Saudi aligned Hadi government now control very little of Yemen that isn't empty desert. The vast majority of the populated western highlands is under Ansarallah's control - and five years of war have done nothing to dislodge them – while the most populated parts of the southern coast are now under the control of the separatist STC.

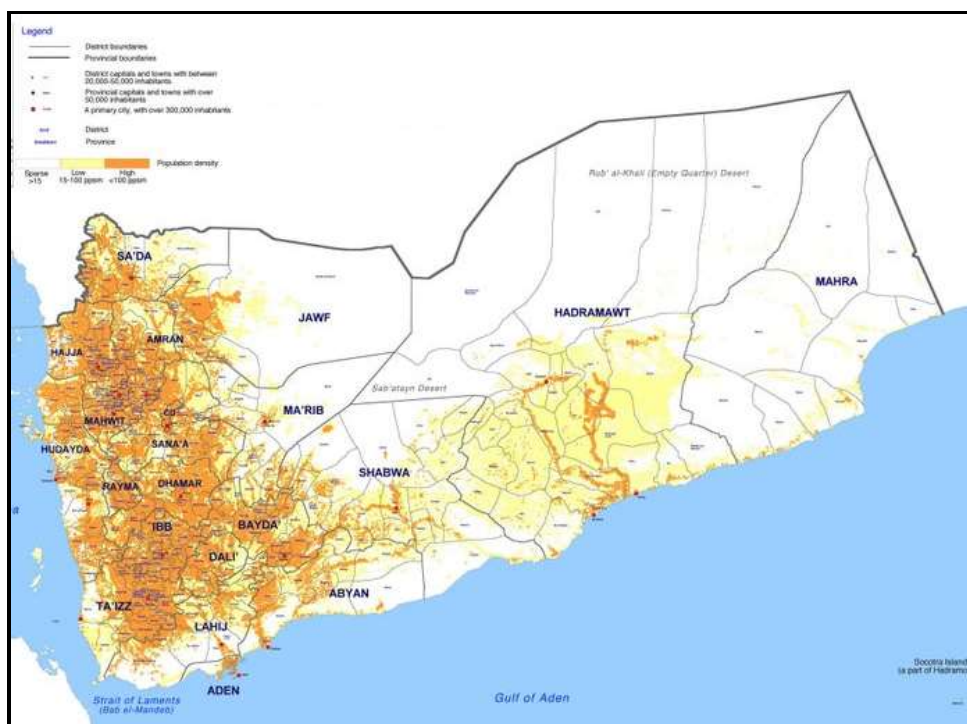


Figure 58 - Outdated - but still very telling - map of Yemeni population distribution from the early 2000s

A sample of events in the Yemen conflict over the first six months of 2020 include the following:

On 18 January, an Ansarallah missile attack on a military training camp in the central province of Ma'rib killed dozens of Hadi / coalition aligned soldiers.

Ansarallah downed Saudi drones over al Jawf and Al Hudaydah on 7 January and 5 February respectively. More significantly, they then downed a Saudi Tornado aircraft over al Jawf on 14 February, capturing both aircrew - and demonstrating an increasingly effective air defence capability.



*Figure 59 - Saudi Tornado moments before being shot down (top left). Ansarallah Fater-1 Surface to Air Missile on display (top right). Saudi drone downed over Saudi territory (Jizan province) February 2020 (bottom).*

According to the U.N. humanitarian coordinator for Yemen Lise Grande, Saudi retaliatory strikes the following day killed 31 civilians in Ansarallah controlled areas and constituted a breach of international humanitarian law.

Ansarallah continued, however, to slowly but steadily take territory from the coalition and Hadi's forces, seizing al-Hazm, the capital of al Jawf governorate on 1 March.



*Figure 60 - Ansarallah forces enter al-Hazm, capital of al-Jawf province*

Later that month Ansarallah seized Kofal Camp in al-Jawf and Labnah military base in the Labnah mountains, capturing significant quantities of weapons in each case.



Figure 61 - Weapons and supplies captured by Ansarallah from Saudi coalition / Hadi government forces

On March 25 Human Rights Watch stated that Saudi military forces and Saudi-backed Yemeni forces had carried out serious abuses against Yemenis since June 2019 in al-Mahrah, Yemen's far eastern governorate. The abuses highlighted by Human Rights watch included arbitrary arrests, torture, enforced disappearances, and illegal transfer of detainees to Saudi Arabia.

On 30 March Ansarallah launched several ballistic missiles towards both the Saudi Arabian capital, Riyadh, and areas further south nearer the Yemeni border. Indications are that all or most of the missiles were intercepted by Saudi air defences.

On 8 April, the Saudi-led coalition announced a unilateral two-week ceasefire, saying it wanted to support U.N. efforts for a political solution and to help stop the spread of the COVID-19 coronavirus. Houthi officials rejected the ceasefire as a "ploy".

Days later Hadi / coalition forces recaptured Kufel military base in Marib, sustaining significant losses, (including senior officers) in the process, causing their counteroffensive to falter.

By 28 April however, Ansarallah had captured 95% of al-Jawf province and controlled almost all of North Yemen except for Marib Governorate.

On 3 May the Hadi aligned Abu Ubaidah and Ashraf tribes in Marib governorate switched sides to Ansarallah.

On 27 May, Ansarallah launched ballistic missiles against the Saudi aligned forces of the Hadi government in Marib governorate. One of the missiles struck an army headquarters, killing 7 officers. Ansarallah continued to pound coalition military bases around Marib with missiles for several days.

On 3 June nine Hadi Government soldiers, including Brigadier General Abdullah Ahmad Al Abdi and Colonel Ali Omar Murad were killed by an IED. Another Colonel was killed by a second IED after going to investigate.

On 22 June Saudi aligned Hadi and UAE aligned STC forces announced a ceasefire between them after weeks of clashes, although tensions between them remained high.



*Figure 62 - STC fighters reopen a highway in Abyan province after a ceasefire with government of Abd Rabbo Mansour Hadi is announced*

On 23 June, Ansarallah launched several more cruise missiles and drones against targets inside Saudi Arabia, including the capital, Riyadh. Indications are that most were intercepted by Saudi air defences. Images emerged, however, that indicated at least one missile may have struck its target.



*Figure 63 - Saudi Arabia claimed all Ansarallah missiles and drones were intercepted on 23 June 2020 - but at least one missile appeared to have evaded missile defences*

On 24 June Houthi aligned media reported the deaths of several more prominent Hadi commanders and on 30 June Ansarallah made further advances in Marib, seizing another 400 square km of terrain while killing or capturing over two hundred Hadi troops.

All of which raises the question, how exactly has Ansarallah managed to sustain itself through more than five years of continuous war and blockade?

One answer is that their battlefield successes have resulted in the capture of significant quantities of arms and materiel from the coalition bases they have overrun. Certainly, numerous videos of large caches of such trophies have circulated online.



Another reason is that Iran almost certainly smuggles them weapons – although the idea that it could smuggle enough materiel into Yemen to sustain Ansarallah’s forces for more than five years of war is highly questionable, given the continuous Saudi and U.S. blockade.

It is also likely that there is some truth to Ansarallah’s claims that it is domestically manufacturing (or at least assembling with some smuggled components) its own drones and ballistic, cruise, air-defence and even anti-ship missiles – but if so, any such production capability is likely to be limited in its capacity to produce useable weapons at volume.

This might explain why, given its previously demonstrated capability to successfully strike targets deep inside Saudi Arabia, Ansarallah has not yet launched in 2020 more decisive attacks against Saudi oil or water desalination infrastructure.

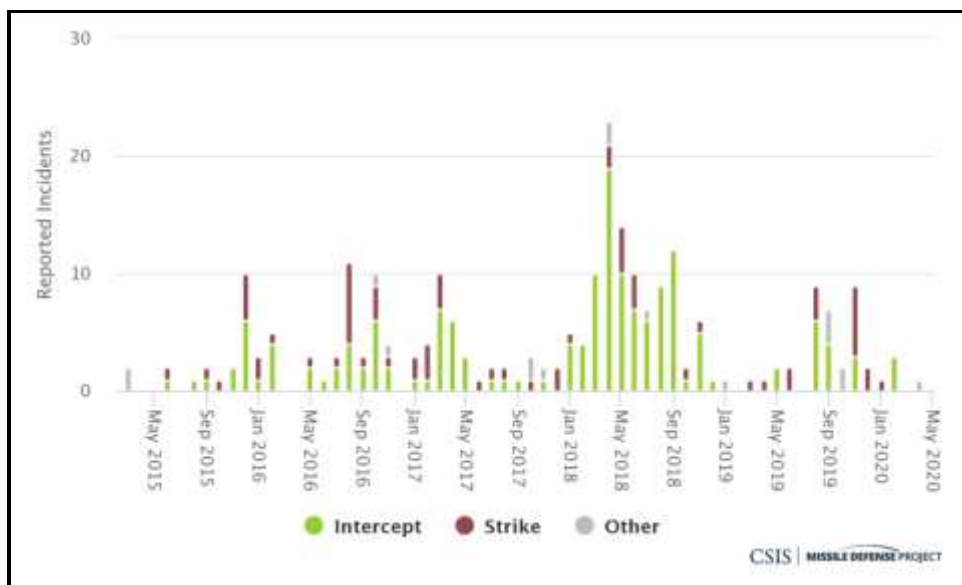


Figure 64 - Graph depicting effectiveness of Saudi Arabian air-defences against Ansarallah missile and drone strikes

Saudi Arabian air defences, despite embarrassing failures in 2019, have successfully intercepted numerous Ansarallah missile and drone attacks since 2015.

They would, however, be vulnerable to being overloaded by swarm attacks.

In our view, the fact that Ansarallah have only had limited success in striking Saudi targets during the first half of 2020 indicates that a combination of the Saudi / U.S. blockade and limited domestic manufacturing capacity has, so far at least, prevented Ansarallah from producing enough drones, ballistic missiles and cruise missiles to be able to overwhelm Saudi Arabia’s air defences and strike more decisively against its infrastructure.





*Figure 65 - Component that appears to be part of an Iranian Noor/C802 Antiship Missile seized by USS Forest Sherman on 25 November 2019, allegedly while in transit to Yemen.*

The threat posed by Ansarallah's ability to strike inside Saudi Arabia is still very real, however, and given that Saudi Arabia's own economy has been hit hard by the oil price war it provoked in March, it is in a less than ideal position to invest in bolstering its air defences. Indeed, Saudi Arabia has been burning through its cash reserves - and has begun to renege on its debts<sup>16</sup>.

It has even cut off financial support to its proxy Yemeni government, forcing exiled President Hadi and his officials to abandon their Riyadh hotel when faced with the prospect of having to pay their own bills.



*Figure 66 - Hadi officials vacate their Riyadh hotel after Saudi Arabia declines to continue footing their bills from May 31st*

Finding himself in such a situation after five years of waging what was supposed to be an easy quick war, it is perhaps unsurprising that Saudi Arabia's Crown Prince Mohammad Bin Salman appears paralysed: unable to win in Yemen but hesitant to withdraw for fear of looking weak.

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<sup>16</sup> Such as failing to pay a US\$3.4b debt to Canadian defence contractors for LAV-8 armored vehicles

In early March it was reported that several officials, as well as senior members of the Saudi royal family, had been detained by Saudi security forces. It remains unclear whether their detention related to an actual plot to overthrow MBS, or whether the arrests were undertaken as a precaution against such an eventuality.

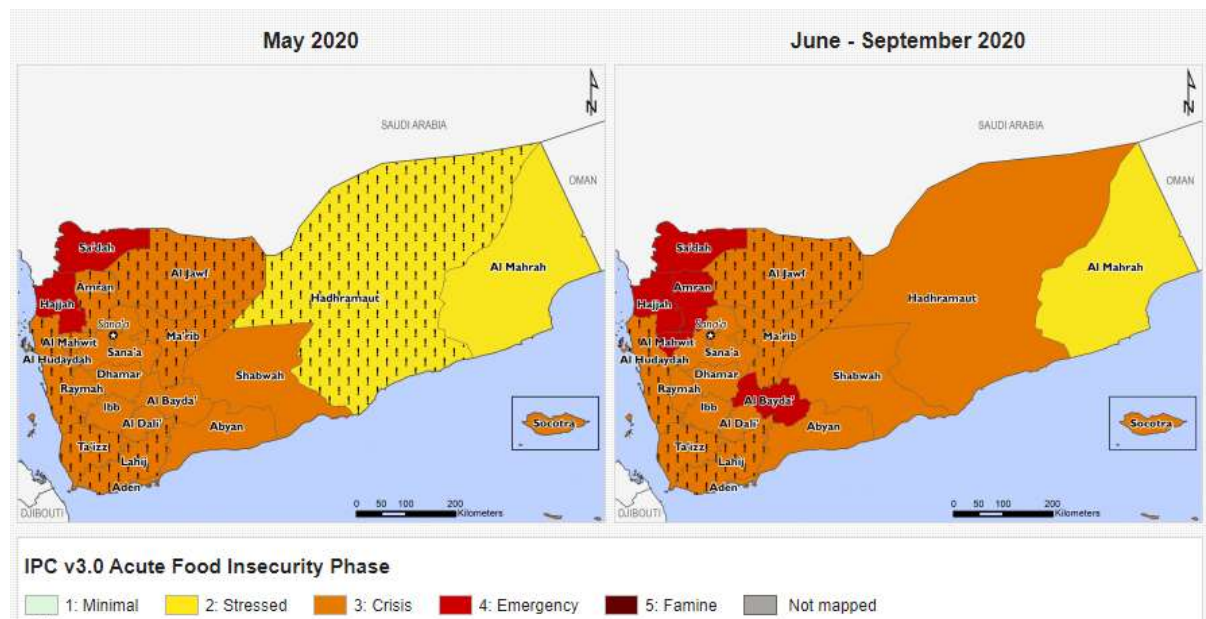


Figure 67 – The unfolding humanitarian tragedy in Yemen, brought about by a mixture of blockade and five years of war

One thing that remains clear from all this is that the UAE have played a far canner game in Yemen than the Saudis, seizing through their STC proxies (they withdrew the bulk of their own forces in 2019) the coastal territory they have always coveted, and progressing in some small way their ambition to become a serious maritime power in the middle east.

Saudi Arabia, on the other hand, by 2018 had already sunk over US\$100 billion into a war that has achieved virtually nothing other than to compromise it's own security, cause untold human misery to Yemen's civilian population, drive Ansarullah closer to Iran (increasing its military capability along the way) and weaken MBS' own position in Saudi Arabia.

Now Turkey (opportunistic as ever) has begun to build a strong relationship with Muslim Brotherhood-affiliated al-Islah party, perhaps positioning itself to take Saudi Arabia's place as Islah's sponsor when the Saudi's eventually pull out, and hoping to counterbalance the growing influence, through it's STC proxy, of Turkey's regional rival, the UAE.

Given all of this, it is our view that the last six months in Yemen have illustrated two further points of significance to New Zealand defence policy:

- That, while it is relatively easy to enter into a conflict, it can be extremely hard to extricate oneself from one; and
- The ability of a defender to *resist* a better armed aggressor depends upon the defender's determination, and their willingness to endure hardship. Their ability to *repel* and ultimately *defeat* an aggressor, however, depends more upon the depth of their stockpiles of materiel, their ability to resupply, and / or their capacity to domestically manufacture the means to continue to inflict harm to their attacker.

## 2.8. China Flexes its muscles

Despite the significant 1<sup>st</sup> and 2<sup>nd</sup> quarter impacts of COVID-19 on China's economy – compounded by a nearly two year-long trade war with the United States - China has increasingly sought to assert itself globally throughout the first half of 2020, using a combination of soft and hard power.

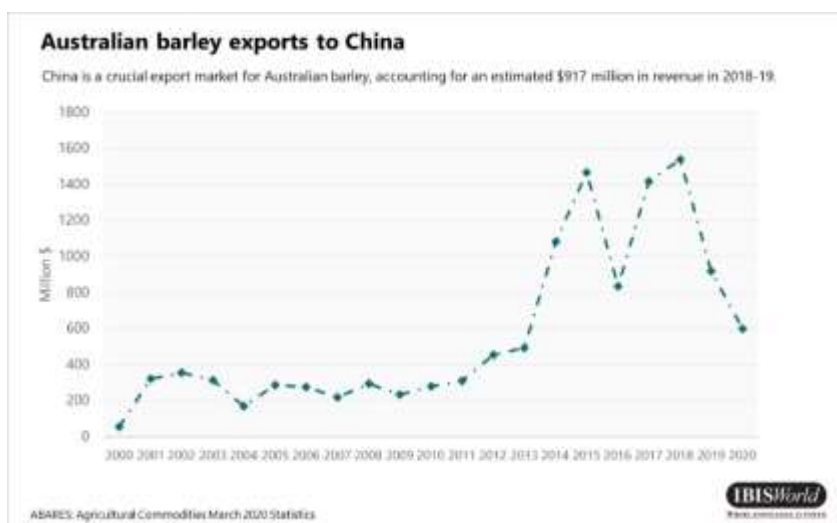
This has, in turn, stoked ever increasing levels of alarm and / or anti-Chinese propaganda from western media, intelligence organisations and strategic policy 'think-tanks'.



*Figure 68 - While China certainly uses information warfare / 'Influence' operations to try and manage the perceptions of global audiences, these appear to be dwarfed by the scale of the active measures deployed against it by the west*

U.S. relations with China were already very strained by late 2019, but became more fraught still following the emergence of the COVID-19 coronavirus. As was noted in section 2.1 above, this tension included overt information warfare in which both Chinese and United States officials seemed to openly trade in conspiracy theories about the origins of the virus.

Closer to home, in May China suspended imports from Australia's top meat processing facilities and imposed tariffs on Australian Barley – impacting the Australian economy by in the region of US\$500m annually. The latter measure was taken under the pretext that Australia had been 'dumping' Barley on Chinese markets and the former due to 'issues' with labelling and health certificates. In reality, however, this was clearly a response to Australian Prime Minister Scott Morrison's call for an independent inquiry into the COVID-19 outbreak. Chinese officials also warned their Australian counterparts of boycotts of other Australian goods by Chinese consumers, should Australia continue to support calls for such an enquiry.



*Figure 69 - Australian Barley exports to China have been hit hard by Chinese tariffs*

Indeed, China has shown an increasing willingness to utilise trade as a lever in international relations since Australia joined the U.S. in 2018 in banning Chinese company Huawei from planned 5G telecoms infrastructure investments. Chinese pressure was instrumental in creating a reluctance by New Zealand, Canada and the United Kingdom to follow suit. The U.K., despite intense U.S. pressure, at first declined to ban Huawei but ultimately did so once the U.S. reportedly threatened to sever the special intelligence sharing relationship – a threat to the foundations of the Five Eyes that must have caused near panic within the U.K. security establishment. New Zealand seems to be trying to have a bob each way by somehow banning Huawei but at the same time not banning it. Canada seems to be trying to put off a decision for as long as possible.

Many states are now struggling between the impossible twin imperatives of not aggravating either the militarily powerful United States, or their major trade partner China.



*Figure 70 - New Zealand, like many other nations, is caught between the twin imperatives of loyalty to a strategic ally and a desire to maintain cordial relations with a key trading partner. Credit KATHRYN GEORGE/STUFF*

But Chinese assertiveness in 2020 has not been limited to matters of trade. Vietnamese officials claimed in April that a Chinese maritime surveillance vessel had rammed and sunk a Vietnamese fishing boat near the disputed Paracel Islands in the South China Sea. China claimed the fishing boat rammed its own ship.

Beijing also recently declared two new "administrative districts" around the Paracel and Spratly islands, and renamed 80 geographic features in the South China sea, prompting protests from Vietnam and other nations with competing claims in the area, a vital transit route for global shipping, and home to potentially significant oil and natural gas resources.

In April China also deployed a naval battle group, including the aircraft carrier Liaoning, off Taiwan's eastern coast, staged air force drills near the island and announced plans for a military exercise later this year that may simulate the seizure of the Taiwan-controlled Pratas Islands.





Figure 71 - The South China sea holds a wealth of hydrocarbon deposits and is subject to conflicting claims by the Philippines, Malaysia, Brunei, Vietnam and China

China also continues to maintain a military presence near the disputed Senkaku islands in the East China Sea (which it claims), despite these being controlled by Japan since 1895 (other than the period from 1945 to 1972, when they were controlled by the United States).



Figure 72 – File photo of People's Liberation Army Navy aircraft carrier Liaoning accompanied by navy frigates and submarines conducting exercises in the South China Sea on April 12, 2018

The United States response to this Chinese territorial assertiveness has been to establish "freedom of navigation" patrols in the region by U.S. and allied naval vessels, included three Nimitz class aircraft



carriers. This led in May to a dangerous standoff between Chinese vessels and the guided-missile destroyer USS Barry.



*Figure 73 - A pair of U.S. Nimitz class aircraft carriers USS Nimitz and USS Ronald Reagan undertake a "freedom of navigation" patrol in the South China Sea, early July 2020*

The determination of U.S. allies, such as Australia, to fully participate in such activities will be tested, however, both by China's willingness to punish them through trade restrictions, and by nervousness about President Trump's increasingly unpredictable treatment of U.S. allies.



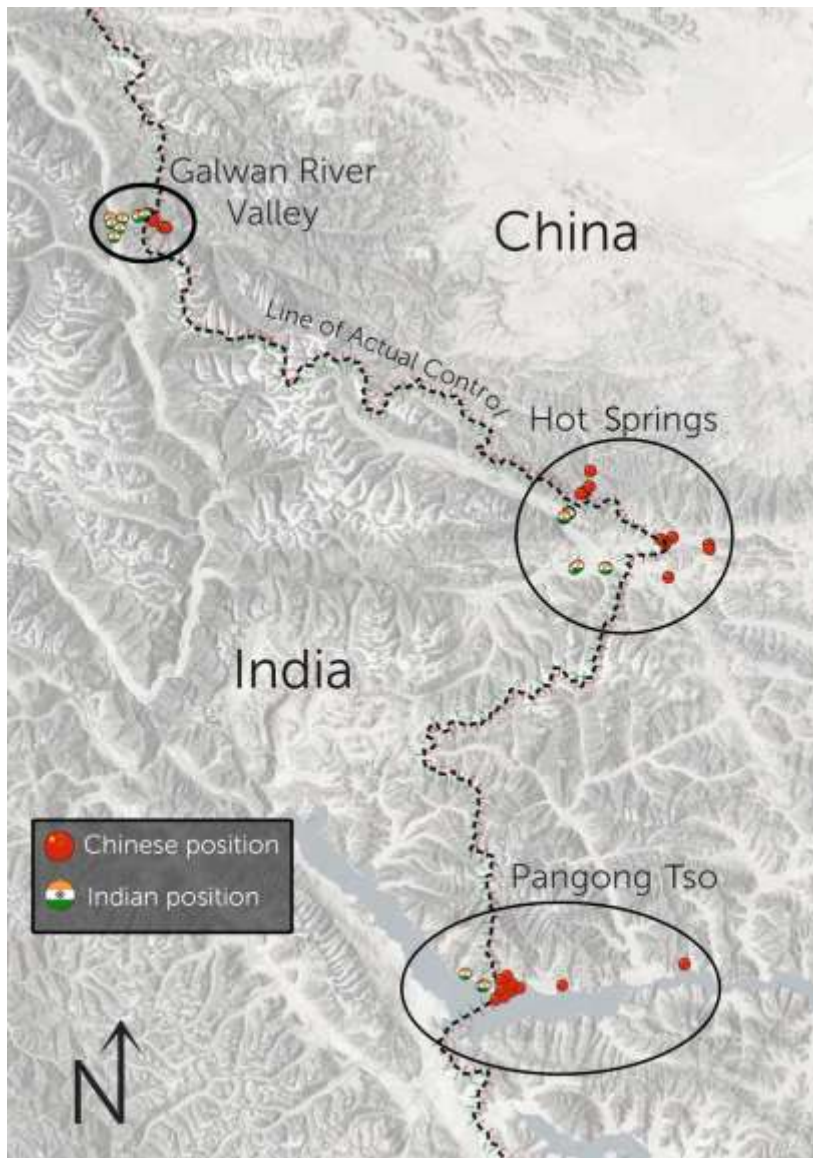
*Figure 74 - Royal Australian Navy guided-missile frigate HMAS Parramatta, left, underway with U.S. amphibious assault ship USS America, the Ticonderoga-class guided-missile cruiser USS Bunker Hill and Arleigh-Burke-class guided-missile destroyer USS Barry*

In June China also enacted a "national security" law for Hong Kong that pro-democracy activists feared would crush civil liberties and strip away the island's autonomy from mainland China. The United Kingdom asserted that China's actions violated the terms of the 1997 agreement for the return to Hong Kong to China. China has indicated that it interprets the agreement differently.



*Figure 75 - Hong Kong protesters clash with Police*

Meanwhile, since early May Chinese and Indian troops have been clashing in physical skirmishes at several points along the Sino-Indian border, including near the disputed Pangong Lake in Ladakh, near the border between Sikkim and the Tibet Autonomous Region and at locations in eastern Ladakh along the Line of Actual Control (LAC) that was established following the 1962 Sino-Indian War.



*Figure 76 – Military positions around points of conflict along the disputed Sino Indian border*

These clashes have been characterised by combat between Chinese and Indian soldiers either unarmed, or literally using sticks, steel reinforcing bars and stones.

Despite firearms, or other modern weaponry not being used in the clashes, casualties (including a number of deaths), have occurred on both sides.





Figure 77 – Skirmish - with fists and stones - between Indian and Chinese troops at the Pangong Tso lake in Ladakh

While China and India each insist that the other is in violation of their territory, this really just reflects long standing disagreement about the position of the Line of Actual Control, combined with Chinese steps to move some positions closer to the LAC (and allegedly in some cases to patrol beyond it), in response to Indian roading and infrastructure projects near the disputed boundary.

While the Governments of both nations have indicated that tensions will be resolved through diplomacy, public anger in India has resulted in some impacts on trade and calls for Chinese businesses to be excluded from certain strategic markets in India (e.g. telecommunications infrastructure)

China's long-term strategy to build a massive global network of infrastructure projects — known as One Belt, One Road — stretching from the South China Sea to the Indian Ocean, the Horn of Africa and into Europe continues, however, despite these tensions.



Figure 78 - China's "One Belt, One Road"

Meanwhile, China has been accused of conducting cultural genocide against its ethnic Uyghur people in Xinjiang following the release in February 2020 of a report by the Australian Strategic Policy Institute (ASPI), which raised accusations that China was using forced relocation and forced labour, targeting its Muslim Uyghur minority. The paper, which made international headlines, relied heavily on analysis of satellite imagery and on Chinese media sources and concluded that the supply chains of many major western brands, such as Apple, Adidas and Nike, were implicated in the alleged practices.

42 Group has no position on the validity of ASPI's conclusions, other to note that its impartiality is questionable, given that it is funded in part by western arms manufacturers.

ASPI has also been active in documenting what it claims to be Chinese information warfare and influence operations - but again, while its methods and research may be valid and we find its conclusions compelling in some ways, these must be treated with some degree of caution, given its sources of funding.

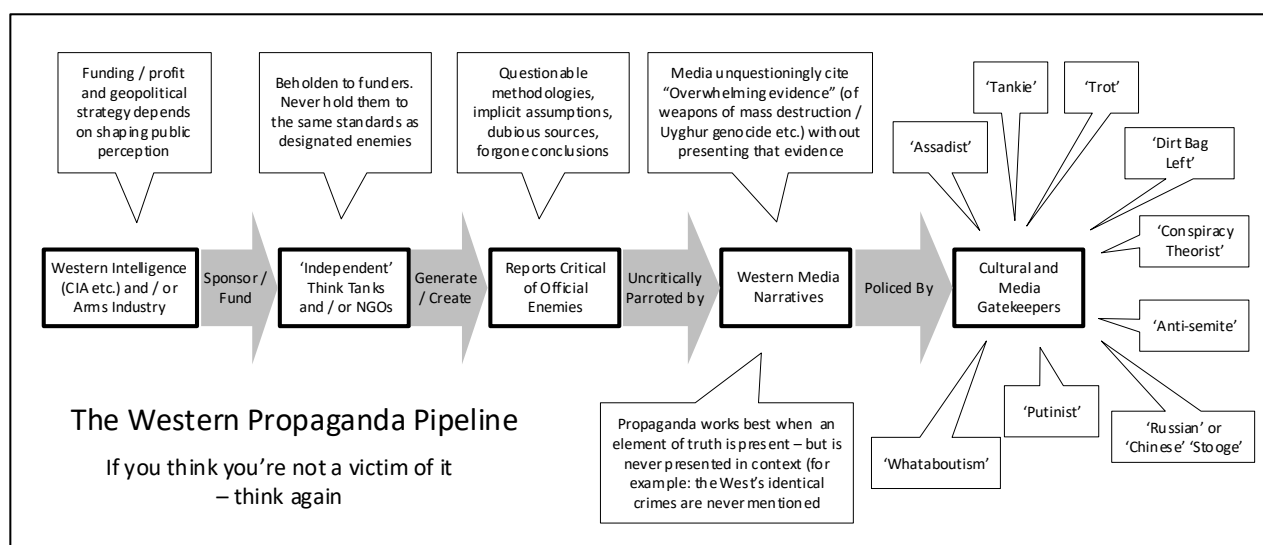


Figure 79 - The Western propaganda pipeline, from CIA talking point to Dominion Post headline

We conclude that New Zealand should draw four key conclusions from China's increasingly assertive role in international affairs:

- The degree to which western powers feel threatened by China is apparent through the increasing quantity and virulence of anti-Chinese propaganda emanating from western 'think tanks', news and popular media;
- China appears to be increasingly willing to flex its muscles in matters of trade, diplomatically and militarily, as well as through widespread and sophisticated global influence operations;
- U.S. attempts to contain China appear unlikely to succeed;
- New Zealand must prepare for a future where the U.S. is no longer dominant (and may not even be engaged) in the south pacific and where New Zealand must deal with other nations, including China, without the implicit threat of U.S. intervention on its behalf.



## 2.9. Defence procurement under the spotlight in Australia

42 Group's 2019 independent strategic policy assessment counselled New Zealand against following Australia down the path on investing in expensive U.S. manufactured maritime surveillance drones, such as the MQ-4C Triton.

As Marcus Hellyer noted in the Australian Strategic Policy Institute's blog, the Strategist in February, Australia's 2016 defence white paper identified the MQ-4C Triton as a key capability for the future Australian Defence Force. To quote from the white paper:

*"To complement the surveillance capabilities of the [P-8A] Poseidon, the Government will acquire seven high altitude MQ-4C Triton unmanned aircraft from the early 2020s ... The Triton is an unarmed, long-range, remotely piloted aircraft that will operate in our maritime environment, providing a persistent maritime patrol capability and undertaking other intelligence, surveillance and reconnaissance tasks."*

The corresponding line item in Australia's integrated investment plan signalled in 2016 a (presumably whole of life) cost for the Triton capability of AU\$3–4 billion. In June 2018, Australia committed to investing \$1.4 billion to acquire six Tritons with supporting infrastructure and control systems, as well as the support and training required to implement them. This was to include a \$200m investment in joint development capability for the Triton, in partnership with the United States.

Once again with Triton, as it had with Poseidon and the F-35, Australia was committing to an array of defence capabilities *designed* to complement and seamlessly interoperate with those of its close ally the United States. Australia did this in a way that committed it to significant expenditure - and no small amount of dependence on the United States to also commit to those same platforms.



Figure 80 - The MQ-4C Triton is a capable but quite staggeringly expensive platform. The U.S. has 'paused' its Triton programme for at least two years

In February of 2020, however, the U.S. Department of Defense announced a two year 'pause' in the Triton programme covering 2021 - 2022, potentially leaving Australia 'holding the baby' because, as

Marcus Hellyer noted, writing for The Strategist in February, there are no guarantees that U.S. Navy production would ever restart.

In March Australia faced the choice of either scrapping its plans for a total of seven Tritons overall, writing off the money already spent before sitting down to try and refactor its future force design to account for the hole where Triton should be, or of doubling down and paying Northrop Grumman to keep manufacturing the drones for Australia, in the hope that the U.S. would later resume production for its own use - and not leave Australia as the only operator of an orphaned system that its U.S. ally would no longer be manufacturing or developing.

Perhaps feeling that it had little choice, in June 2020 Australia agreed to pay AU\$160m per aircraft (a heavily discounted price apparently) for three of the drones, which should be ready by 2025. Whether the U.S. eventually resumes production of Triton for its own use remains to be seen.

But such procurement challenges are not unusual for many countries including, it seems, for Australia.

For example, Australia started planning to replace its six aging Collins class submarines in the late 2000s. Endless delays and cost blowouts, however, plagued selection, procurement and design of the replacement subs.

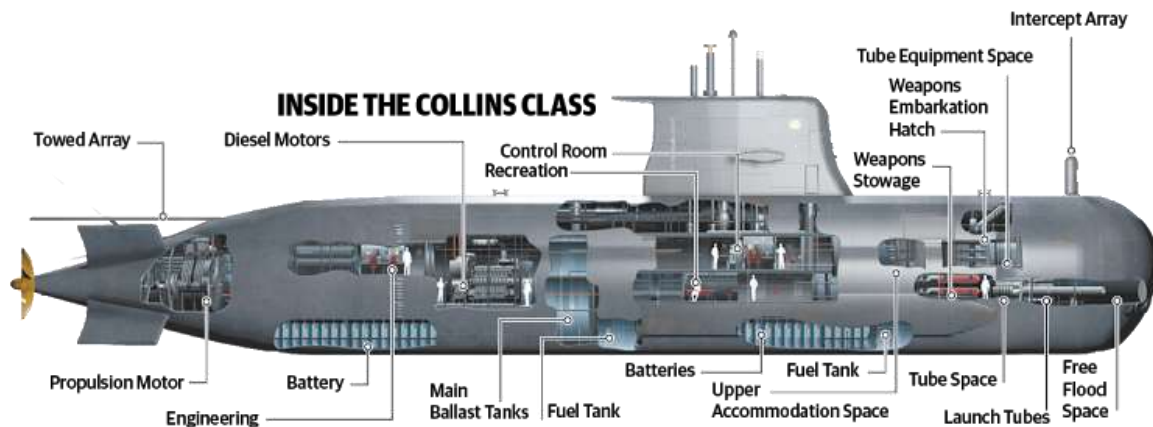


Figure 81 - Collins class diesel electric submarine

Following a lengthy specification and procurement process Australia finally commissioned French government owned shipbuilder Naval Group to construct twelve new submarines in November of 2015. But even by 2017 construction was not expected to *begin* until 2022–23, with the first submarine scheduled to enter service around 2032–33.

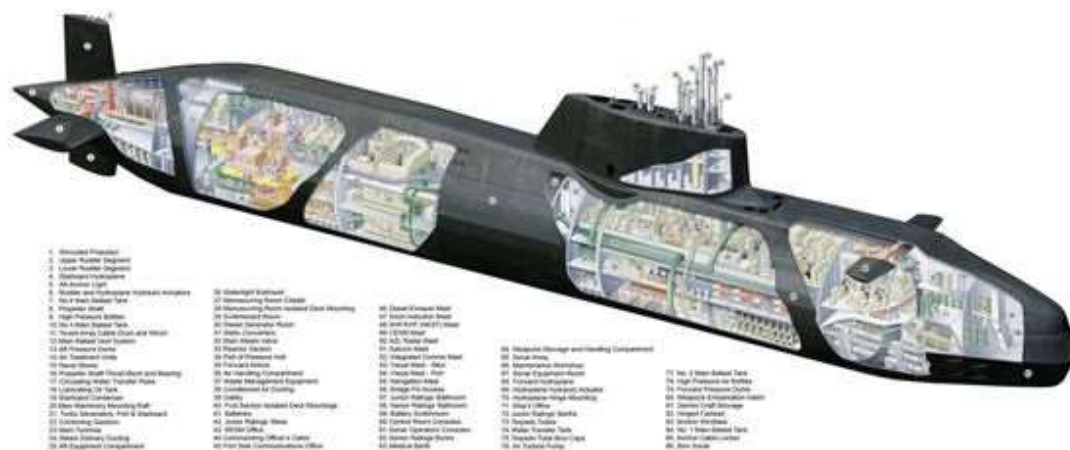


Figure 82 – French designed Attack class submarine which is to replace the Collins class

Back in 2010 it was estimated that buying new submarines would cost \$10b, but this was quickly revised up to \$36b when Australia's specific requirements were taken into account. This figure was later revised to \$50b to design and build the submarines and by the end of 2019 this figure had jumped to \$80b plus another \$145b to maintain them until 2080 - with construction now not expected to begin until 2024, with the first submarine due to be complete some time 'in the 2030s', ten years later than originally planned.

By May of 2020 the construction cost had been revised (again) to \$90b, and it became public that, due to delays in the acquisition of the Attack class boats, the RAN were now intending to undertake a multi-billion-dollar refit of all six of the existing Collins submarines to extend their service lives into the 2040s<sup>17</sup>.

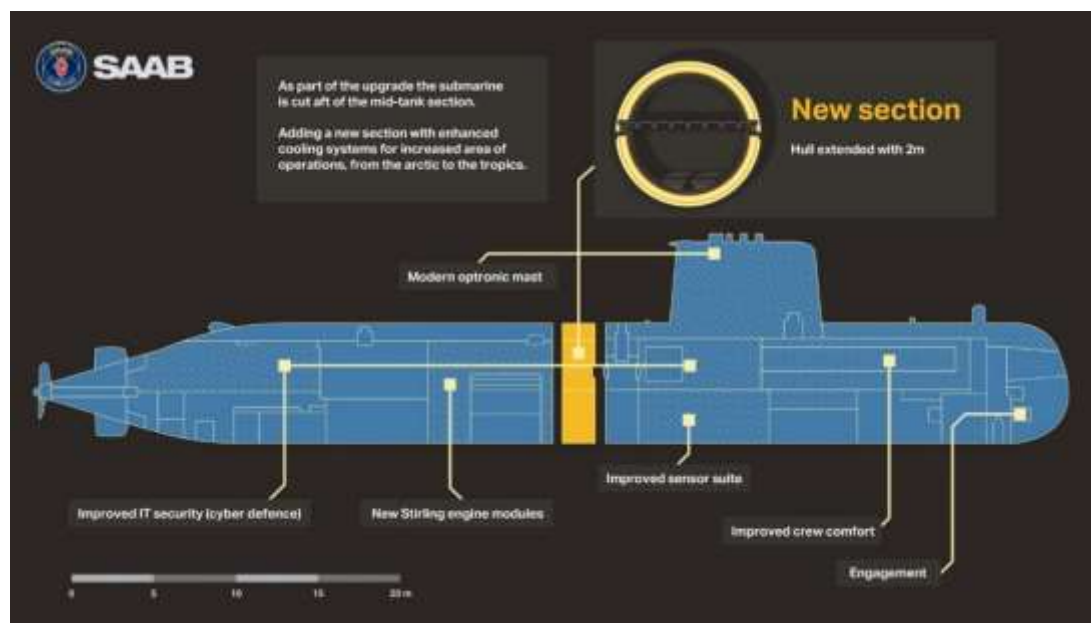


Figure 83 – Saab is upgrading the Swedish Navy's Gotland class submarines, which are sister platforms to the Australian Collins class. Each upgrade takes six months

<sup>17</sup> 42 Group advocates that the RNZN investigate the feasibility of offering New Zealand seamen and women on secondment to the RAN submarine service with the objective of eventually training up at last one full RNZN crew qualified to operate a modernized Collins class submarine.

In light of all of this it seems hard not to conclude that Australia could have saved a decade and many billions of dollars had it simply purchased a proven, off-the-shelf submarine like the Japanese Sōryū (which take about two and a half years to build, rather than ten), or even invested in domestic construction of an upgraded Collins class. Instead, Australian officials chose to commission the French to build a fleet of submarines designed around a nuclear reactor – but to redesign the submarine around diesel-electric engines and batteries. The result so far has been nothing but delays and cost blow outs.



Figure 84 - The Japanese Soryu class submarine was once the favourite to replace the Collins but was eventually rejected because its range was considered too limited - a decision that failed to take into account the improvements in battery technology that were virtually certain to occur during its initial construction.

Australia has also forged ahead with its commitment to acquire seventy-two \$230m F-35 Lightning multirole combat aircraft, remaining committed to the platform for almost twenty years, despite a seemingly endless series of delays, serious technical problems and capability deficiencies.





*Figure 85 - Australia's first two F-35 Lightnings finally arrive, accompanied by four RAAF F/A-18 Hornets*

We gain absolutely no pleasure – in fact it causes us considerable distress - to question the wisdom of our closest and most valued ally going ‘all-in’ on such massive procurement investments on unproven, bleeding edge, or heavily customised investments such as those described above.

It seems to us that, with regard to the F-35, going ‘all-in’ carries risks that far outweigh the additional logistical complexity of supporting a wider range of proven aircraft, each optimised for a different task.

As for maritime surveillance drones, it is hard to believe that the significant investment that Australia has sunk into the potentially orphaned Triton, might not have produced a better outcome if it had been spent developing a fit for purpose capability within Australasia. Such an approach has certainly worked well for Turkey, as recent events in Syria and Libya have shown.

Our viewpoint will, no doubt, be viewed as quaintly parochial across the ditch, but we feel obliged to point out the following lessons from Australia’s ongoing defence procurement challenges, which we believe to be highly relevant to New Zealand defence policy:

- That designing a force structure around the most advanced (read ‘over-hyped and not yet ready’) weapons and defensive systems generally involves, not just paying a premium price, but accepting the risk that the systems procured will not perform as advertised and / or are unlikely to be delivered on time – if at all;
- That even for its closest friends, the United States can be a fickle ally, encouraging its partners to make huge investments in its defence industry’s products, but making no reliable commitment to them itself;
- That investment in moderately advanced but proven designs, for which there are established production lines and supply and support chains, can be much faster, more cost effective and far less risky than committing to heavily customised or bleeding edge solutions; and
- That while domestic development of alternative defence capabilities carries risks, so does making a nation’s future security dependent on the manufacturing capacity, supply chains, priorities and profit motives of other nations, and / or their defence industries.

## 2.10. U.S. Spaces Force launches its first mission

Space plays a critical communication, navigation and information gathering role in the defence policies of most modern nation states. Space based assets are, however, extremely fragile and vulnerable, making an over dependence upon them a source of risk.

On 20 December 2019 and with the stated purpose of protecting the interests of the U.S. in space, the United States Space Force was established as an independent branch of the U.S. military.



*Figure 86 - It has been noted that the emblem of the Space Force is quite similar to that the Star Trek's fictional Starfleet Command*

The Space Force's first official mission occurred on 26 March 2020, when an Atlas 5 rocket successfully launched the sixth and final satellite of the Lockheed Martin / Northrop Grumman AEHF constellation, a military system that provides medium speed, high security strategic and tactical communications for U.S. leadership and military forces, as well as U.S. allies Canada, the Netherlands, the United Kingdom and Australia<sup>18</sup>.



*Figure 87 - United Launch Alliance's Atlas 5 rocket launches the AEHF-6 military communications satellite from Cape Canaveral Air Force Station in Florida*

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<sup>18</sup> The Five Eyes, other than New Zealand (with The Netherlands standing in).



*Figure 88 – A Lockheed Martin / Northrop Grumman AEHF Satellite*

AEHF only covers the middle latitudes, however, so in the northern polar region Northrop Grumman's Enhanced Polar System (EPS) fulfils these same functions for the U.S. and for its northern hemisphere allies.

Rather than AEHF or EPS, however, New Zealand primarily uses Boeing's WGS, or Wideband Global Satcom system as its primary secure military communications solution – although the NZDF also makes some use of commercial satellite services too, such as Inmarsat and GPS.



*Figure 89 - Boeing WGS Satellite*

The WGS constellation, which is also used by the United States, the U.K., Australia, Canada, Denmark, Luxembourg, the Czech Republic and the Netherlands, is higher speed than AEHF, but somewhat less secure. WGS supports tactical command and control, data transfer, intelligence, surveillance, reconnaissance, battle management and combat support applications. It is a reasonably capable system but WGS-9, the satellite primarily used by the NZDF, is expected to reach end of life in the early 2030s.

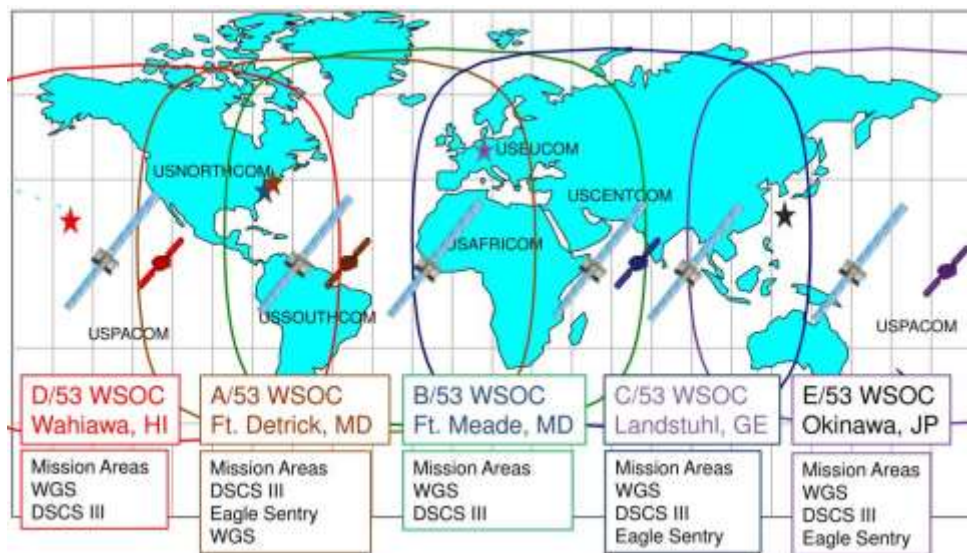


Figure 90 - Outdated map depicting the coverage areas of the first six WGS and the older DSCS III Satellites, as well as the locations of key ground control stations

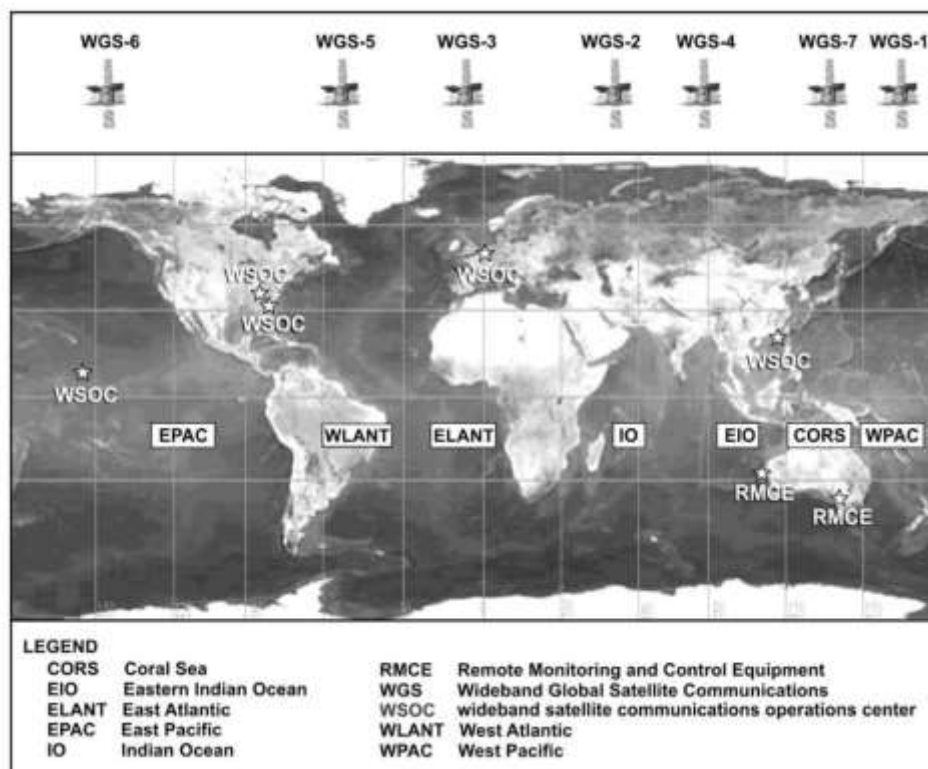


Figure 91 – Another outdated map showing more detail of the first six WGS satellites and associated ground control stations. There are now ten WGS satellites with one more on order. Australia funded satellite WGS-6, while New Zealand contributed to the cost of WGS-9 (not shown), along with Canada, Denmark, the Netherlands and Luxembourg.



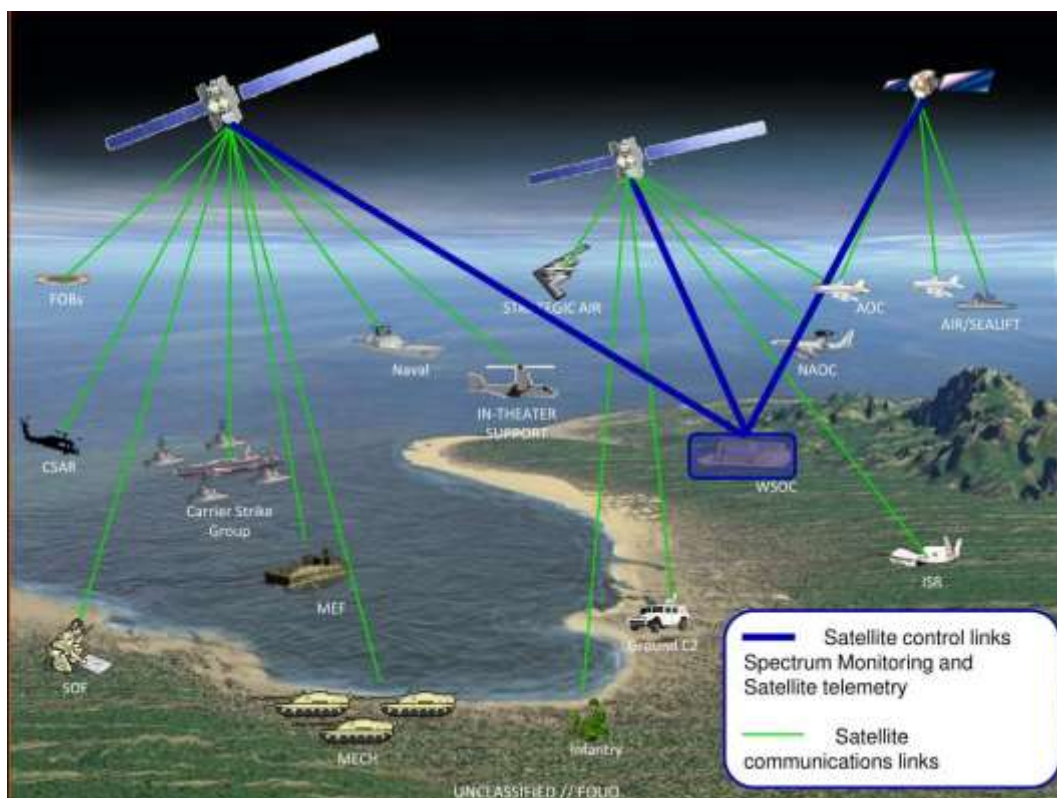


Figure 92 - How the WGS system is used. The satellites are controlled from ground stations (WSOCs). The satellites relay communications between units on the ground, in the air, or at sea via satellite terminals. The NZDF uses a Rockwell Collins Australia DKET dual antenna ground station and Gigaset Asia Pacific (GAP) portable terminals, as well as PAWAR (US) Maritime Terminals for the Royal New Zealand Navy.



Figure 93 – NZDF's Rockwell Collins Australia DKET dual antenna ground station (left), Ultra GAP FA-240 deployable land terminals (centre) and the antenna of one of its Ultra GAP HSS-130 deployable land terminals (right)



Figure 94 - PAWAR (US) WGS marine antenna for ANZAC Frigates (2), offshore Patrol Boats (2) and the Multirole vessel (1) (left) and NZDF's latest GATR Technologies 2.4m inflatable WGS certified satellite antenna (right)

Like the AEHF, WGS is operated by the U.S. Space Force's 4th Space Operations Squadron, out of Schriever Air Force Base, backed up by the U.S. Army's Space and Missile Defense Command's 53rd Signal Battalion out of Fort Carson, both in the United States.

But let's return to New Zealand, where on 31 January 2020 Rocket Lab's "Birds of a Feather" mission propelled into orbit from the Mahia Peninsula the highly classified 'NROL-151' payload for the United States National Reconnaissance Office (NRO) - and where a few months later on 13 June, its "Don't Stop Me Now" mission boosted three more highly classified NRO satellites into low earth orbit (LEO), again from Mahia.



*Figure 95 - NROL-151 mission logo (left) and its launch from Mahia, 31 January 2020 (right)*

It is important to note that this is the same NRO that provides targeting information for drone strikes that the U.S. has been conducting for years in Yemen, Somali, Afghanistan, Iraq and elsewhere around the world. Drone Strikes that official U.S. military documents, leaked in 2016, described as killing the wrong people up to 90% of the time over one five-month period in Afghanistan. This means that, at least at that time, for every terrorist targeted, nine of their family members or other bystanders were killed.

Furthermore, indications are that this ratio of collateral damage to intended targets is not atypical - and may in fact have been higher in countries where the U.S. had fewer intelligence assets on the ground, such as in Somalia, or Yemen.

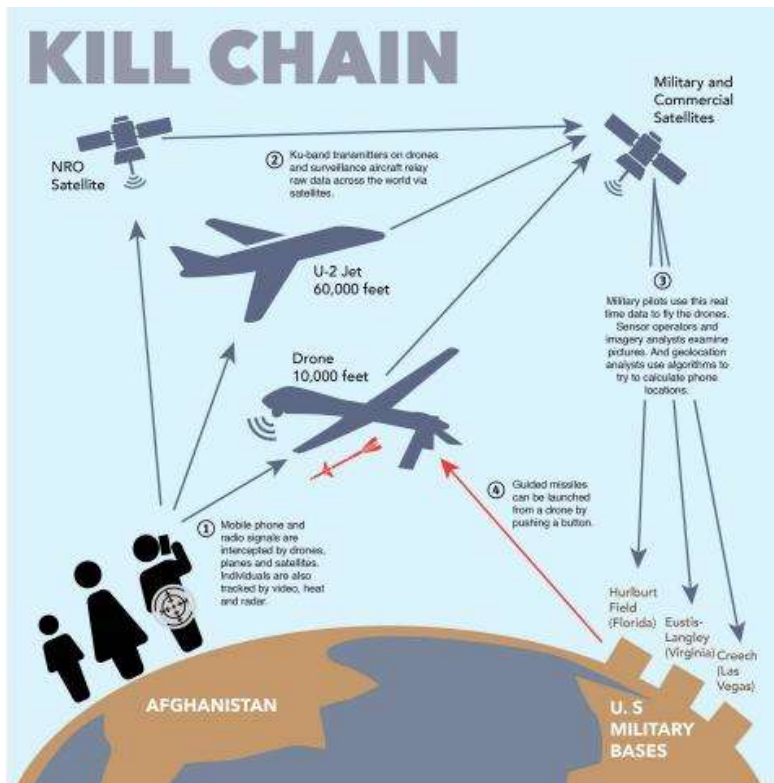


Figure 96 - The kill chain. An NRO satellite, a drone or a surveillance aircraft locates the target's cell phone signal. They use WGS or AEHF satellites to communicate with ground stations in the U.S. from which drone pilots control drones that launch missiles, sometimes killing the intended target but more often, someone else.

Four days after Rocket Labs' second NRO launch, on June 17, the Pentagon unveiled the United States' new Space Defense Strategy, intended to ensure the United States maintains military superiority over adversaries such as China and Russia.

A Russian Foreign Ministry spokesman castigated the United States for this, saying that the strategy set "a destructive course that instigates an arms race in outer space and destabilizes the situation in the area of international security".

A week later on June 24, China launched the final satellite in its BeiDou global navigation system. Now, in addition to the United States; Russia, China and the European Union all operate their own global navigation systems, underpinning diverse private, commercial and military navigation applications and devices around the world.

Global satellite systems				
Name	Beidou Navigation Satellite System (BDS)	Global Positioning System (GPS)	Galileo	Global Navigation Satellite System (GLONASS)
Origin	China	US	Europe	Russia
First launch	2000	1978	2011	1982
Number of active satellites	35	33	30	24
Accuracy	360-10cm	500-30cm	100-1cm	738-280cm

Figure 97 - Global Navigation satellite constellations operated by China, the U.S., Europe and Russia

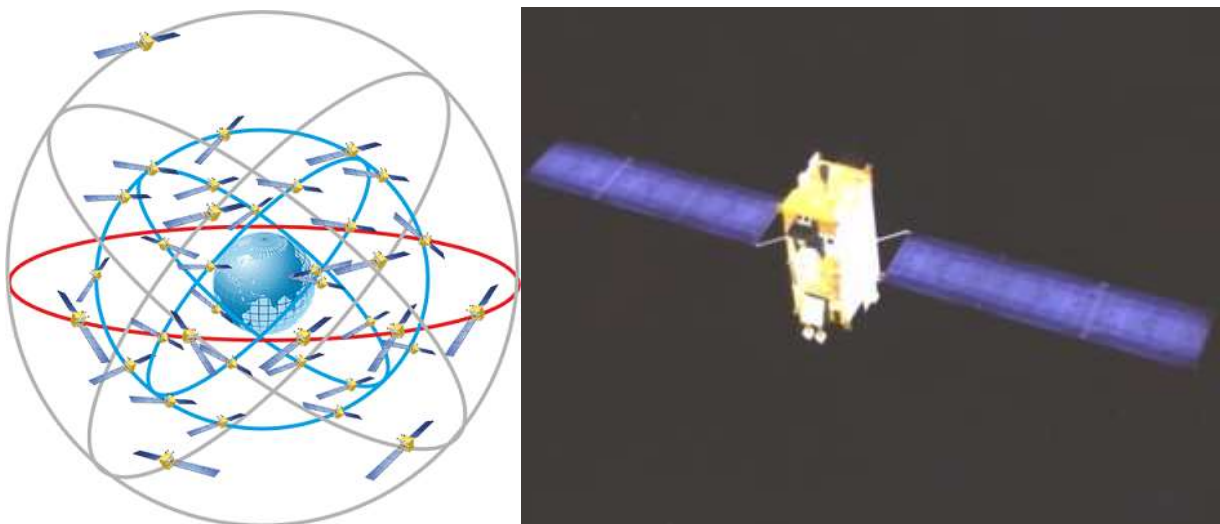


Figure 98 - Chinese BeiDou global navigation constellation (left), a BeiDou satellite (right)

And space is getting busier. Not only the U.S., China and Russia, but Israel, Japan, the United Kingdom, India, Canada, Germany and France all now have significant space programs.

Turkey operates its own military satellite with plans for more, Iran has had a successful launch, and North Korea and Indonesia are developing their own capabilities.

The United States, Russia, China, and India have all gone one step further and have developed satellite killer systems, able to strike and destroy each other's satellites in orbit - and all indications are that active development of such capabilities continues.





Figure 99 - Anti-Satellite (ASAT) weapons systems. A U.S. F15 launches an ASM-135a missile to successfully destroy a satellite in 1985 (left). A Russian PL-19 NUDOL anti-ballistic missile interceptor that also functions as an ASAT weapon, 2016 (centre) and a Chinese ASAT missile system 2010.

On 30 June 2020 Elon Musk's SpaceX successfully blasted a new U.S. Space Force GPS satellite into orbit and then recovered the main portion of the Falcon 9 rocket, in the first military use of the reusable feature, a hallmark of the company's commercial launches.<sup>19</sup>

So, what does any of this tell us? Well for one thing that space is big, big business. For another that it is an increasingly vital military domain, which several nations are ready to contest - and that the United States is determined to dominate.

It tells us that satellite-based communications, navigation, reconnaissance and tactical command and control systems like the ones delivered to New Zealand's forces through the WGS, while they are potentially game-changing on the battlefield, are still vulnerable.

Finally, it tells us that the military use of space-based technologies comes with risks. For example, the risk that we help to establish capabilities that are used to kill people, often innocent people, around the world, in operations of dubious legality.



Figure 100 - Is New Zealand happy to be launching satellites that are used to target and kill the wrong people, including children, up to 90% of the time?

<sup>19</sup> **Update:** Days later, on July 4 a failure during the second stage burn of a Rocket Lab Electron rocket was to cause seven small commercial satellites to crash back to Earth following lift off from Rocket Lab's Mahia launch site.

It also carries the risk that New Zealand makes its defence too dependent on capabilities that are not only vulnerable, but the availability of which is entirely at the whim of a foreign power that may not always be reliable.

It is the view of 42 Group that New Zealand should take note of the following with regard to the establishment of the U.S. Space force and the accompanying race to militarise space.

- That commercial innovation in the development of space capabilities is not only keeping pace with military use, but is accelerating the militarisation of space;
- That in addition to GPS and other commercial satellite services, the New Zealand Defence Force depends on a relatively vulnerable U.S. military system with a fairly limited life span for its space-based military communications (although we acknowledge that that system is a capable one);
- That, while there are many good reasons for the NZDF to utilise this resource, it must take care not to become so dependent upon it that loss of access to it would disrupt the ability of New Zealand to effectively defend itself; and
- That, by allowing a New Zealand based company to launch military payloads that it knows are likely to be used to provide targeting for potentially illegal drones strikes, some of which will almost certainly kill innocent civilians, New Zealand effectively makes itself complicit in war crimes and / or breaches of international law.

## 2.11. Another bungled coup attempt in Venezuela

For decades the U.S. has opposed and actively sought the overthrow of left leaning governments throughout Central and South America<sup>20</sup>. So, given that Venezuela has the world's largest oil reserves, it is hardly surprising that the United States takes a great deal of interest in its leadership.

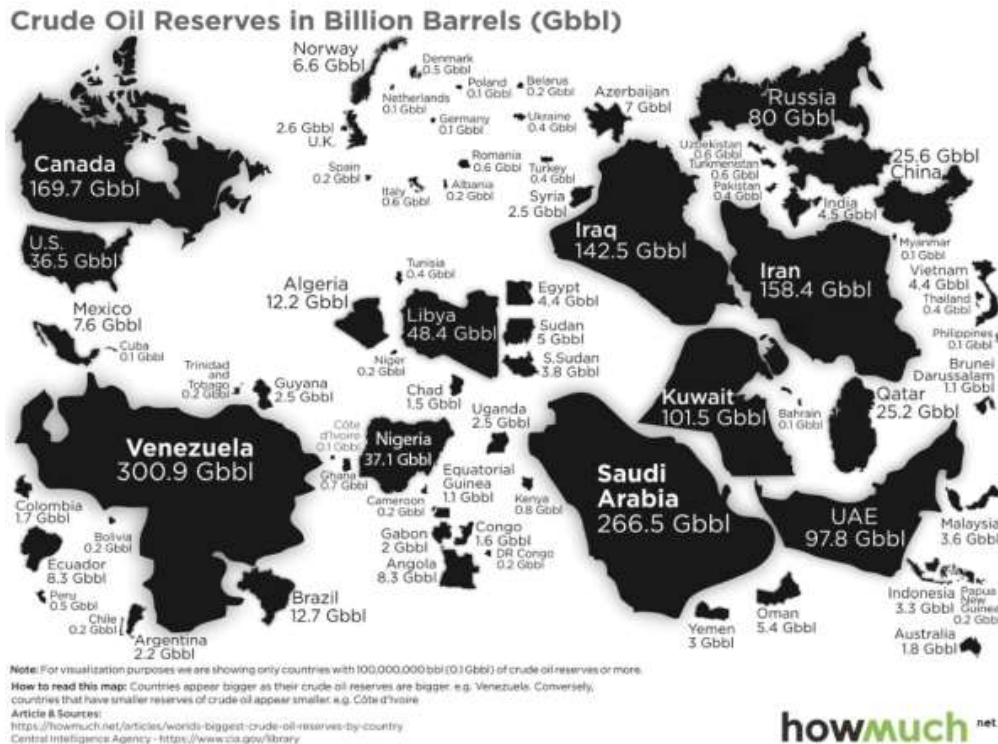


Figure 101 - The United States is very interested in deciding who gets to rule Venezuela. Should we be surprised at this, given that Venezuela has the world's largest reserves of crude oil?

A full description of United States interference in Venezuelan political affairs since 1999, when socialist President Hugo Chávez assumed elected office, is beyond the scope of this paper.

More recent developments, however, are outlined briefly below.

The results of the 20 May 2018 Venezuelan presidential election were disputed. Nicolas Maduro was declared the winner of the official count but the Venezuelan opposition and the United States, the European Union, Australia, and the (Washington-DC based) Organization of American States all rejected the result.

The media coverage that followed amounted to a highly effective global information warfare campaign, laying the groundwork for the introduction of a U.S. supported puppet leader.

On 23 January 2019 the United States was the first nation to officially recognize Juan Guaidó after the federal deputy to the National Assembly declared himself acting President. Fifty-eight U.S. allied nations quickly followed suit. New Zealand, to its credit, did not recognise Guaidó - although the other Five Eyes nations all did. Instead, New Zealand remained neutral and urged a diplomatic resolution to the crisis.

<sup>20</sup> Argentina, Brazil, Chile, El Salvador, Guatemala, Nicaragua, Panama, Peru, Uruguay et al.



*Figure 102 - U.S. supported and self-proclaimed 'President' Juan Guaidó (left) and Venezuela's United Nations recognised President Nicolas Maduro (right)*

It is important to note that, while the U.S. and fifty-eight other nations (at the urging of the U.S.) recognise Guaidó as Venezuela's head of state, Nicolas Maduro remains the head of state recognised by the United Nations. Since that time, several (almost certainly U.S. sponsored) attempts to provoke an uprising, or to stage a coup have failed to mobilise significant public support, or to win the allegiance of the Venezuelan military.

For example, western media unquestioningly reported that an aid convoy trying to enter Venezuela over the Colombian border had been set alight by troops loyal to Nicolas Maduro on 23 February 2019. CNN even went so far as to state that "a CNN team saw incendiary devices from police on the Venezuelan side of the border ignite the trucks".

Juan Guaidó urged the U.S. to consider 'all options' to oust Maduro in response. The media, however, was soon forced to concede that Maduro's troops had not set the convoy alight, when video emerged of an anti-Maduro protester throwing a Molotov cocktail that seemed to start the fires. For their part the Maduro government claimed the convoy was attempting to smuggle arms into the country under the cover of 'humanitarian aid' – as the U.S. did in Nicaragua in the 1980s.



*Figure 103 - Burning aid trucks reported as being set alight by Maduro's troops (left). The anti-Maduro protester who throws the Molotov cocktail that actually appears starts the fires (right), 23 February 2019.*



More recently, in October 2019 self-styled U.S. mercenary Jordan Goudreau signed on behalf of his company Silvercorp USA a contract with J.J. Rendón and Sergio Vergara, acting on behalf of Guaidó's Venezuelan administration in waiting.



*Figure 104 - Mercenary and founder / owner of Silvercorp, Jordan Goudreau providing security services at a Trump rally in Charlotte, N.C., October.26, 2018*

The general services contract described how Silvercorp would provide contractors to undertake a year-long US\$212m operation (Operation Resolution) to capture or eliminate President Maduro and his government and to seize and consolidate power in Venezuela on behalf of a new Guaidó-led regime.

By November it appeared that the Venezuelan opposition had lost faith in Goudreau as it cancelled the contract. Despite this, Silvercorp's planning for an operation to depose Maduro continued.

On March 27 2020 and in defiance of customary international law, the U.S. Justice Department issued a \$15m reward for the capture of Venezuelan president Nicolás Maduro. Silvercorp's "Operation Gideon" had a new sponsor.

On 4 May 2020 Silvercorp launched its operation, the stated goal of which was to seize the U.N. recognised leader of a sovereign nation and spirit him to the United States in order to collect a \$15m reward.

The operation had been infiltrated by supporters of the Maduro government early on, and it was a disaster. The Venezuelan state intelligence agencies, as well as the Associated Press had prior knowledge of the plot and the first boatful of mercenaries was intercepted before it reached land.



*Figure 105 - Venezuelan fisherman with a handgun faces down a group of mercenaries with their arms up in the town of Chuao, in Aragua state, 4 May 2020*

Two fiberglass motorboats owned by Silvercorp had launched from eastern Colombia toward the Caribbean coast of Venezuela north of Caracas. The boats were carrying approximately 60 Venezuelan dissidents and two American former Green Berets, all employed by Silvercorp.



*Figure 106 - Some of the mercenaries captured by Venezuelan security forces following the failed Operation Gideon*

Eight Venezuelan dissidents were killed in the operation and fifteen were immediately captured, along with the two American security contractors. Several more mercenaries were captured over the following days.



*Figure 107 – The captured U.S. security contractors*

The operation was so shambolic that it would be easy to write it off as farce, or to take seriously U.S. Secretary of State Mike Pompeo's claim that there was no 'direct' U.S. government involvement in the operation or that "if we'd been involved, it would have gone differently".

We believe it is worth noting that the outcome of Operation Gideon was only a failure if its stated objectives are taken at face value. If objectives included the possibility that Goudreau's men - including two U.S. veteran's, one of them highly decorated- might be killed, or captured and imprisoned by an enemy regime, then it could perhaps be viewed as at least a partial success.

There is ample precedent for imperial powers using the killing or imprisonment of their nationals as justification for commencing military action, as well as a means to build popular support for such actions. Pompeo's other statement, that the U.S. would use "every tool" available to secure the return of any Americans being held in Venezuela did little to dispel this possibility.

By openly offering a bounty for the capture of the United Nations recognised leader of a sovereign nation, Washington can hardly claim not to have encouraged an operation to topple that leader. The

United States simply seems to be trying to create a mechanism to fund a criminal act of war – while holding itself at arm's length from the crime itself.

This is, or course, particularly ironic given recent U.S. outrage at allegations that Russia had been offering bounties for U.S. soldiers killed in Afghanistan.



Figure 108 - The irony of raging against a foreign power allegedly paying bounties on U.S. troops, when the U.S. was offering \$15m for the capture of a U.N. recognised head of state appeared to be lost on media pundits such as MSNBC's Rachael Maddow (right).

Most commentators in western media appear oblivious to the double standard applied to allegations of political or military interference in the affairs of the United States, given its own breath-taking record of interference in the affairs of other nations<sup>21</sup>.

It would seem that American exceptionalism has become so ingrained in the western psyche as to become a subconscious bias for many.

It is our assessment, however, that there are three considerations arising from this latest in a long line of U.S. regime change operations that are of relevance to New Zealand defence policy:

- By placing a bounty on the United Nations recognised leader of a sovereign nation the United States has undermined both the credibility of customary international law and the United Nations itself;
- This creates dangerous precedent – and all nations that allow themselves to be complicit in such machinations lose the moral authority to be outraged when bounties are placed on their own soldiers or officials by an enemy; and
- New Zealand's decision not to follow the other Five Eyes nations in recognizing Juan Guaidó as the President of Venezuela in 2019 appears to indicate of a degree of discomfort among New Zealand officials over U.S. regime change machinations and even, perhaps, an admirable willingness to exercise some degree of foreign policy independence as a result.

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<sup>21</sup> Although pointing this out generally only results in accusations of 'whataboutism'

## 2.12. Civil unrest sweeps the United States

On 25 May 2020 black American George Floyd was murdered on camera by Police Officer Derek Chauvin in the city of Minneapolis.



*Figure 109 - George Floyd is murdered on camera by Minneapolis police officer Derek Chauvin. Floyd begged for his life as bystanders implored officer Chauvin for several minutes to stop kneeling on his neck.*

The circumstances and immediate effects of Floyd's killing have been well reported and will not be recounted here. Instead we will limit ourselves to some observations that we consider salient to the strategic landscape.



*Figure 110 - A police station and nearby businesses were set ablaze on the third night of protests in Minneapolis, 28 May 2020*

Had the eruption of protest and unrest in more than 140 cities across the United States been handled differently, it might have subsided relatively quickly.

But instead of condemning Floyd's death, immediately arresting his killer and promising immediate action to address police abuses, U.S. authorities, at least initially, took an authoritarian approach.



By attempting to quash protests against police violence with yet more police violence, authorities provoked the opposite result, causing the protests to swell in size and intensity and to spread, first across the United States and then around the world.



*Figure 111 - Images of journalists (left) and elderly protesters (right) seriously injured by brutal police tactics cause protest numbers to swell in the days following Floyd's killing*

This was further exacerbated by the COVID-19 pandemic. With millions of mostly low paid Americans out of work, many of them very angry, there was little for them to do other than to vent that anger. This led to widespread rioting and opportunistic looting in the first days of protests.

It took four days for Floyd's killer Derek Chauvin to be arrested, by which time the National Guard had been deployed to Minneapolis.



*Figure 112 - Derek Chauvin was arrested for Floyd's murder on 29 May, 2020*

By the end of May protests across the United States were still growing, and Mayors were starting to impose curfews. These were being widely defied by protesters – leading to further conflict with police, who were making extensive use of tear gas and 'non-lethal' projectiles, both against and members of the press. President Trump suggested that the military could use armed force to suppress riots. On Twitter, he called the protesters "thugs" and said, "When the looting starts, the shooting starts".

An effect of this initial period during which authorities sought to crush protests with brute force, and during which the National guard were deployed in a number of States, was a shift from disorganised protests and rioting – with accompanying destruction of private property – to better organised protest actions incorporating increasingly effective tactics to thwart police attempts to counter them.



*Figure 113 - BLM protesters use gas masks, umbrellas and leaf blowers to combat the use of tear gas by police (left). A protester covers a tear gas cannister with a road cone (right)*

By June protest leaders in some centres had begun to develop effective movement and manoeuvre techniques to prevent protesters being easily dispersed, or boxed in by police. Some deployed armed cadres to protect protests from attack by counter-protesters, or from the threat of excessive force by police.

The focus of protests also began to shift in early June to include removal or destruction of monuments to symbols of racial oppression, such as statues of Confederate military and political leaders.



*Figure 114 - Statue of Confederate Gen. Williams Carter Wickham lies on the ground, 7 June 2020*

By then protest organisers were watchful for provocateurs and were actively discouraging looting and random destruction. Many made effective use of social media to record and disseminate footage of police abuses and to co-ordinate protest actions.

On June 3 the officers who had not intervened when George Floyd was killed by Derek Chauvin were charged and Chauvin's charges were upgraded.

Protests continued.



*Figure 115 - A crowd estimated by organisers at around 100,000 protest in Los Angeles, California, 7 June 2020*

By June 9, governors in more than 30 states and in Washington, D.C. had deployed about 32,000 National Guard members.

Media coverage of the protests had done little to de-escalate social tensions. The insular, almost tribal split between liberal and conservative media in the United States meant that events were portrayed in wildly different ways to the two audiences.

‘Conservative’ sources emphasised rioting, violence and lawlessness by protesters, while ‘liberal’ or ‘progressive’ media was more inclined to acknowledge police abuses, and to promote minor to moderate police reforms as a panacea for the systemic racism of an increasingly militarised U.S. police state.



*Figure 116 - Conservative media emphasised looting and lawlessness (left), while liberal media was more likely to acknowledge police brutality (right)*

These attempts to corral popular anger by managing narratives within both conservative and liberal media were significantly undermined by social media, which were already enabling activists on both sides of the political divide to bypass corporate and state media filters and to crowd source news coverage in order to disseminate information (such as video of police abuses, or of rioting) and to organise themselves more effectively.





*Figure 117 - Images of protesters and journalists seriously injured by supposedly 'non-lethal' rounds fired at their faces by police circulated widely on twitter and other social media, stoking outrage and causing protests to grow in size and organisation.*

All this had the effect of dramatically increasing social division, radicalising activists in both camps and provoking clashes, some fatal, between protesters and counter-protesters.

Ironically, social media tools that the U.S. government had promoted (and even quietly funded) over the preceding years as mechanisms to promote regime change in other states<sup>22</sup>, were now contributing to the destabilisation of the United States itself.

By the end of June, it had become clear that the authoritarian tactics being advocated by President Trump had been counter-productive and had achieved nothing except to sow further division within the American polity and to create an increasingly effective popular insurgency.



*Figure 118 - Armed members of the 'Not Fucking Around Coalition', a militia made up mostly of black veterans, making it quite clear that they are 'not fucking around', early July 2020*

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<sup>22</sup> Such as in the Ukraine in 2014



As a result, city and state authorities had begun to make concessions to the protest movement and to back away from earlier attempts to crush it with brute force alone. Significant efforts started to be made to infiltrate, dilute, divide and divert the protest movement's attention from the inside.



*Figure 119 - It turns out that these 'militants' posing with police were actually actors.*

Without so much hourly footage of new police violence circulating on social media, popular anger subsided somewhat in many cities by late June – although daily protests continued.

The United States remains at significant risk of serious civil conflict in the second half of 2020. There are a large number of ways the situation could spiral out of control - including further acts of particularly egregious police violence being caught on video, or a disputed or disrupted Presidential election, or if the officers responsible for the death of George Floyd are found innocent by a court, or if gunfire erupted between two sizable groups of armed protesters and counter-protesters, to name a few.

The U.S. finds itself at a crossroads, and if it manages to avoid civil war it has three practical ways forward if unrest continues into the second half of 2020:

- It could undertake meaningful police reform, most likely including a significant demilitarisation of its police forces and a shift away from authoritarianism. We don't consider this particularly likely;
- It could promise change and reform but really focus on identifying and neutralising protest leadership and on establishing better filtering and censorship of social media as a mechanism to prevent narratives once again getting out of the control of the establishment. We consider this the most likely approach of any new Democratic administration;
- It could actively try to provoke a breakdown in law and order as a justification for the imposition of authoritarian martial law and a suspension of elections, or of the constitutional rights of citizens. This appears to be the approach favoured by the Trump administration.

In our view the outbreak of civil unrest in the United States that followed the killing of George Floyd is illustrative of four important points of relevance to New Zealand's defence policy:

- Information warfare by a state against its own population works best when the population is too busy struggling to make ends meet to focus on social issues. Once a significant proportion of a population mobilise, and if they have access to effective communications tools, the state's ability to control narratives and channel public unrest can be severely compromised;
- Once mobilised, a popular insurgency is generally either quickly crushed, or evolves tactics to effectively counter state violence;
- In the absence of a willingness by organs of the state to murder, torture or 'disappear' significant portions of the population, a brute force response by authorities to popular unrest tends to feed, rather than stifle popular insurgencies; and
- The future stability of New Zealand's most powerful ally is by no means a given.

**Update:** Seizing the opportunity to paint protests as an law and order issue and perhaps sensing that further de-escalation in violence would undermine such an election strategy, from early July President Trump began dispatching federal forces – including private military contractors - to crush dissent and to 'protect federal buildings and monuments', first in Portland and later in Kansas and Seattle.

These units have been well documented:

- Not carrying or displaying ID;
- Deploying from unmarked vehicles without identifying themselves;
- Snatching protesters without probable cause; and
- Utilising excessive force.

In addition to these deliberately provocative acts, there is now significant evidence that an information warfare campaign is being waged against the American people by its Government, involving the weaponization of 'antifa'<sup>23</sup> as a symbolic internal enemy.



*Figure 120 - Federal agents not displaying ID detain a protester without probable cause, July 2020*

<sup>23</sup> Antifa is a movement of loosely affiliated activists united in their opposition to fascism. President Trump's threat to classify them as a terrorist organisation is problematic, not least because they are not an organisation.

### 2.13. Recession bites while the climate crisis looms

Indications are that the effect of COVID-19 on the global economy has been significant. As noted previously, the IMF are predicting an almost 5% decline in global GDP for 2020 and a recession, if not a depression, has now begun.

This outcome arises not from the effect of the virus itself, but from the steps taken by nations to limit its spread. These steps significantly slowed economic activity.



*Figure 121 - Empty streets in Wuhan, China, February 2020.*

The need for the world to respond rapidly to the immediate threat of COVID-19 also diverted attention from the looming climate crisis – which continues to threaten the survival of human civilisation.



*Figure 122 - While the world is distracted by the COVID-19 pandemic, the climate crisis continues to worsen*

During the Global Financial Crisis in 2007 - 2008 there was a 1.5% reduction in carbon emissions – but when the economy bounced back in 2009 there was a 6% *increase*.

The International Energy Agency (IEA) predicted at the end of April that the COVID-19 pandemic would cause an 6% reduction in carbon emissions in 2020 – an amount equal to the entire output of India - and the positive environmental impacts of this were already becoming measurable and noticeable at that time.

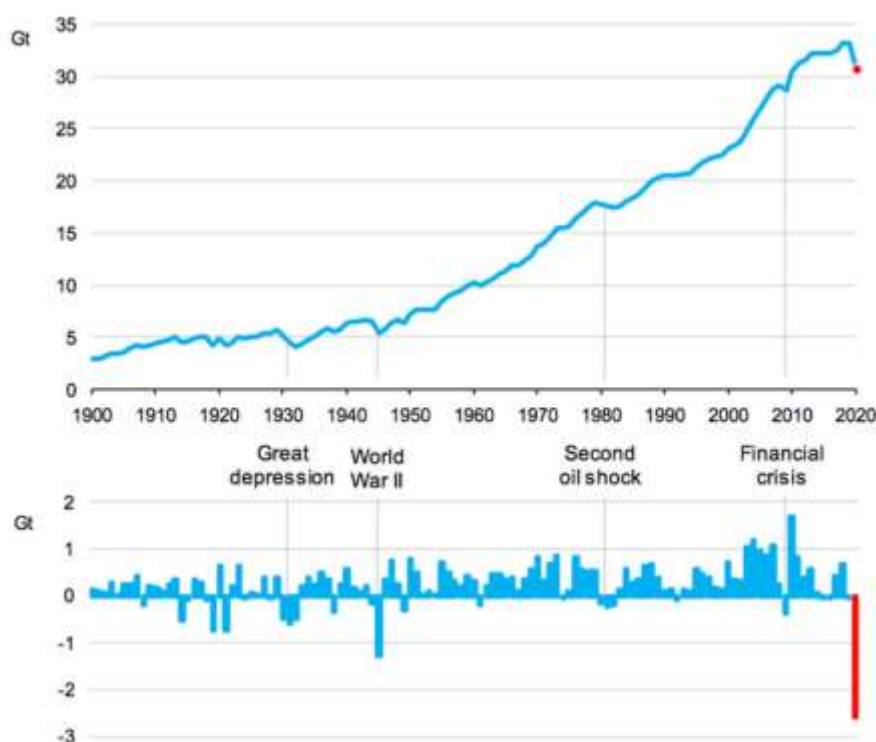


Figure 123 - Global energy-related emissions (top) and annual change (bottom) in GtCO<sub>2</sub>, with IEA projected 2020 levels highlighted in red

Like in 2009 after the GFC, however, it is the consequences of the economic *bounce back* that we need to be concerned with.

The risk is not that nations will invest to stimulate their economies after COVID-19, but that they invest in the wrong kinds of industries and infrastructure. The kind that perpetuate their fossil fuel dependence and further accelerate the accumulation of carbon in the atmosphere.

If the COVID-19 pandemic has shown us one thing it is that when societies need to, they *can* make massive changes in response to an imminent threat – and the world probably now has less than a decade to overcome its dependence on fossil fuels.

In May New Zealand set aside \$3 billion in new money to fund infrastructure projects (on top of \$12b already set aside for investment in provincial infrastructure). Roughly \$700m of the new \$3b is earmarked to be spent on a combination of road and rail projects. The bulk of the remainder will be spent on housing, environmental and social and community projects – most of which we would generally applaud.





*Figure 124 - Finance Minister Grant Robertson and Infrastructure Minister Shane Jones announce a \$3b investment package, 1 July 2020*

**42** Group believe, however, that both the unfolding economic recession and the looming climate crisis signal three things of critical importance to New Zealand:

- That those nations now choosing to invest in major infrastructure projects to stimulate their economies must think long and hard about what they will invest in, and how that investment will help to reduce their carbon emissions;
- That a major shift from fossil fuel-powered to electric vehicles in New Zealand will require a significant additional investment in sustainable power generation and other related distribution infrastructure, over and above what is already planned; and
- That local, practical investments in defence infrastructure and logistic capabilities of the kind advocated by the **42** Group would be dual use, creating employment and stimulating growth, while at the same time improving New Zealand's defence self-reliance - and its ability to weather future conflicts, or other crises.

### 3. Analysis of Global Strategic Trends - January to June 2020

The events summarised within this report are, in our view, indicative of a number of general trends in the geostrategic landscape. Although most of these trends appeared in our last strategic report in January 2020, two new trends are discussed below: The vulnerability of the global economic order to disruption and the accelerating militarisation of space.

42 Group's global geostrategic trends for Q1/Q2 2020 are:

- The continuing erosion of the international rules-based-order;
- The vulnerability of the global economic order to disruption;
- The continuing rise of the drone as a weapon of war;
- The accelerating militarization of space;
- The pervasive nature of information warfare in the modern world;
- The increasingly erratic and belligerent nature of the United States;
- Intensifying global competition for increasingly scarce resources; and
- The likelihood that a looming climate catastrophe will not be averted.

Just as we did in late 2019, we believe that these dominant strategic trends, which are briefly discussed below, demonstrate the need for New Zealand to reimagine its regional defence policy, its relationship to its allies, its force structure and its associated defence capabilities and priorities.

### 3.1. The continuing erosion of the international rules-based order

Up one place since our last report, the continuing erosion of the international rules-based order is our number one strategic trend for Q1/Q2 2020.



*Figure 125 – The U.N. Security Council. In the face of constant unilateralism by the major western powers, the institutions of the international rules-based order are increasingly seen as toothless, co-opted and obsolete*

From assassination drone strikes to the seizure of the petrochemical wealth of other nations, to invasion, occupation and ethnic cleansing, to foreign meddling against internationally recognised governments, to the militarization of space, to the placement of bounties on the heads of the leaders of sovereign nations - so far in 2020 the foundations of the rules-based order have been under constant attack.

As another example, the credibility of international chemical weapons watchdog the OPCW has reached an all-time low, following the 20 January testimony before the U.N. of former OPCW inspection team leader Ian Henderson, in which stated that no chemical attack had taken place in Douma, Syria in April 2018 - but that the team's findings had been suppressed in order to justify military strikes on Syria by the U.S., the U.K and France.



*Figure 126 - OPCW inspectors found in 2018 that this chlorine canister had almost certainly been staged, rather than dropped from a Syrian military aircraft - but testified to the U.N. in January 2020 that their report was altered to say something else*

When Secretary General of the United Nations António Guterres' called in April 2020 for an *immediate* global ceasefire to help people in war-torn regions receive life-saving aid to fight the COVID-19 pandemic, it took the U.N. Security Council *one hundred days* to agree a text – due largely to conflict between the United States and China over some wording related to the World Health Organisation.



Figure 127 - U.N. Secretary General António Guterres' call in April 2020 for an immediate global ceasefire received a mixed reaction

It would be a mistake to think that just because we emphasise in this report crimes and violations of international law by the United States and its allies, that we assume China is blameless in its treatment of ethnic Uyghur.

It would be wrong to think that we are not concerned with war crimes by Russian mercenaries, or torture by regime forces in Syria.

It would be incorrect to assume that we are oblivious to the persecution of West Papuans by Indonesia, or the plight of the Rohingya in Myanmar.



Figure 128 - West Papuan people are regularly subject to arbitrary arrest, torture and execution at the hands of the Indonesian military. This group were arrested because they were suspected of planning to raise the West Papuan flag in December of 2019



The reason 42 Group emphasises transgressions against the rules-based order by New Zealand's most powerful ally is fourfold:

- Because the United States, as the world's richest and most militarily powerful nation, and the self-proclaimed champion of freedom and the rule of law, inevitably sets the standard for acceptable behaviour that other nations emulate;
- Because New Zealand depends for its security on the international rules-based order – which is further weakened by each assault on it by our allies, or by other nations emboldened by their actions;
- Because - by being one of the United States' closest allies and part of its global intelligence and reconnaissance apparatus, New Zealand makes itself complicit in at least some U.S. violations of international law, thereby contributing to the erosion of the very rules-based order on which its own security depends; and
- Because this makes New Zealand a potential target for the United States' strategic adversaries.

Former New Zealand Prime Minister Helen Clarke commented in June 2020 on Radio New Zealand Podcast *The Service* that New Zealand had been drawn closer to its Five Eyes allies over recent years, losing some of its former foreign policy independence in the process.



*Figure 129 - Former New Zealand Prime Minister Helen Clark says that New Zealand once exercised greater foreign policy independence*

It has become increasingly clear to 42 Group that New Zealand must, both for the sake of its future security and credibility on the international stage, rediscover and reassert a greater degree of foreign policy independence in relation to international affairs, international law, social and economic inequality, and the climate.

Which is NOT to say that we advocate New Zealand simply withdrawing from its alliances, or seeking to walk away from its Five Eyes partners. We do, however, believe that it needs to be willing to be more forthright in speaking out on transgressions against international law and the rules-based order by ANY state, including its allies.

### 3.2. The vulnerability of the global economic order to disruption

New on the list of strategic trends at number two in this report is the vulnerability of the global economic order to disruption.

The global economy is a machine that is designed to run continuously. When that machine stalls, as parts of it have done as a consequence of the COVID-19 pandemic, supply chains get stretched, clogged, or broken. The repercussions of this can take some time to fully play out but are very likely to include global recession.

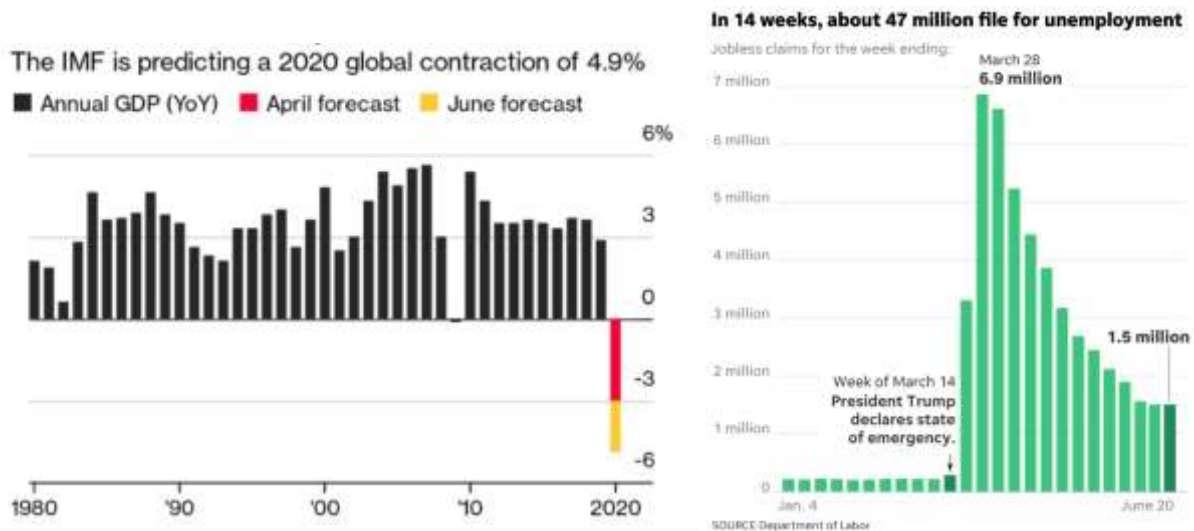


Figure 130 - IMF projected global economic growth, 1 July 2020 (left), the effect of COVID-19 on new U.S. unemployment claim figures to the end of June 2020 (right)

The COVID-19 pandemic and the effects of steps taken to combat the spread of the virus have clearly demonstrated just how vulnerable the global economic order is to disruption.

Globalisation has created supply chains that, while efficient under normal circumstances, are extremely fragile in a crisis such as a Pandemic, when they or more likely to fail, or simply collapse.

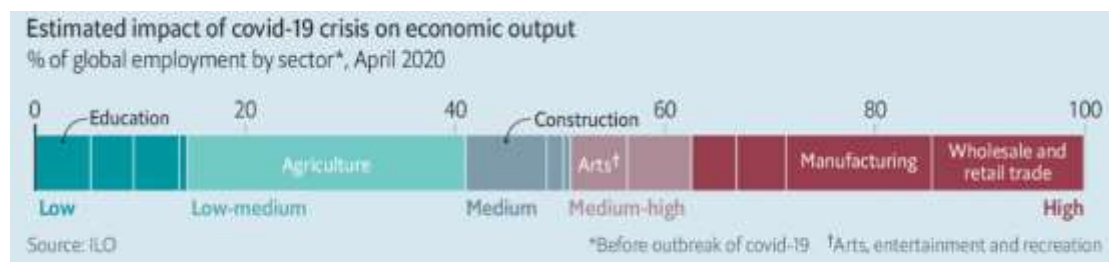


Figure 131 - Impact of COVID-19 on global economic output by sector, April 2020

This might have been tolerable if it had only impacted on our ability to source our preferred brands of jeans, mobile phone, or chocolate, but it also relates to our ability to source medical supplies, some staple foods, fuel and other essentials. This makes supply chain disruption a significant strategic risk - a risk that New Zealand's geographical isolation only amplifies.



Figure 132 - New Zealand's geographical isolation had some strategic advantages - but makes it especially vulnerable to supply chain disruption in times of crisis

All this highlights a fundamental flaw in neo-liberal economics. The pursuit of greater profits inevitably creates supply chains that stretch around the globe to where-ever labour and raw materials are cheapest, or environmental or labour regulations are weakest.

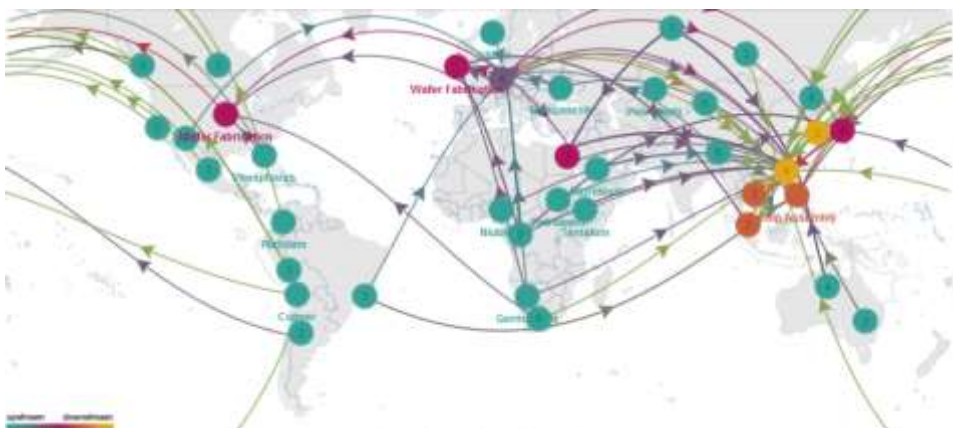


Figure 133 - The vulnerability of global supply chains to disruption represents a strategic risk to New Zealand.

This not only represents a strategic risk to New Zealand, but inevitably causes much of the world's trade and economic activity to contribute excessively to climate change, harm to public health, the exploitation of vulnerable workers, and damage to the environment<sup>24</sup>.

We therefore strongly advocate that New Zealand's government, just as it did in the face of the COVID-19 pandemic, take immediate action by:

- Taking significant steps to limit New Zealand's vulnerability to supply chain disruption for critical goods such as medical supplies, staple foods and fuel; and
- Moving forward with regulation to de-externalise the social, environmental and human costs of New Zealand's reliance on global supply chains, so that ethically, locally and sustainably produced goods – especially essential goods, can compete with goods produced unethically and / or unsustainably overseas.

<sup>24</sup> Example: If it costs \$1.00 to fillet a fish caught in New Zealand in a factory five miles from where it was landed, paying the kiwi who filleted it a living wage – but \$0.95 to ship the frozen fish around the world to be filleted in sweatshop conditions and then to ship the frozen fillets back to New Zealand, typical business practice would be to do the latter, because it allows the resulting product to be sold more cheaply in the supermarket. This is because the wider environmental, social and human costs of that decision can be externalized.

### 3.3. The continuing rise of the drone as a weapon of war

Down two places to number three - but still having a massive impact on the battlefield – is the continuing rise of the drone.

Drones, including all forms of remotely piloted and / or autonomous land, sea and aerial platforms are changing the nature of modern warfare.

Examples from the first half of 2020 include:

- The devastating impact of domestically produced Turkish drones and electronic warfare systems, in both Syria and Libya;
- The use of drones as platforms for conducting targeted assassinations, notably that of General Qassem Soleimani;
- The continuing use of drones by Yemeni underdog Ansarallah to strike both against Saudi coalition forces in Yemen and at military and industrial targets within Saudi Arabia;
- The use of drones as domestic surveillance platforms for the monitoring of civil unrest during Black Lives Matter protests in the United States;
- The Australian air force taking possession of its first domestically produced 'Loyal Wingman', an advanced air combat drone that is designed to operate alongside and complement manned combat aircraft; and
- Australia being left 'holding the baby' by the United States in relation to its purchase of U.S. manufactured Triton Maritime surveillance drones.



*Figure 134 - The Australian air force's first domestically manufactured 'Loyal Wingman' air combat drone*

The use of domestically manufactured drones, drone-launched smart munitions, drone directed artillery and electronic warfare systems by Turkey may be the most striking recent example of how drones are changing the face of modern warfare.

It can be explained in this way: A force that can place drones above a battlefield to strike, or direct artillery against an enemy's ground-based assets enjoys a significant advantage. Standard responses to this would be to use air defences and / or manned aircraft to destroy such drones.

When those drones are afforded partial protection by Electronic Warfare (radar jamming) systems, however, they can become much harder to counter. When those Electronic Warfare systems are also able to shield the drone operator's *own* anti-aircraft systems from suppression then this combination



of capabilities can effectively give the drone operator both air superiority and the ability to dominate the battlefield.



Figure 135 - Turkish drone warfare doctrine

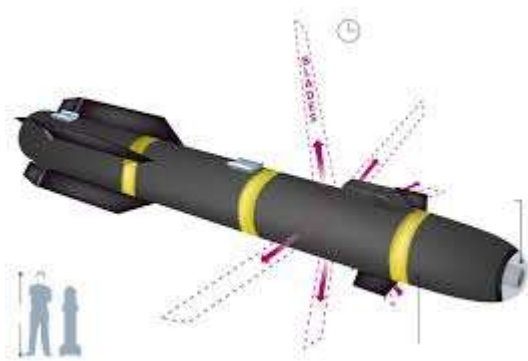
Their opponent cannot strike the drones with radar directed weapons and their own aircraft cannot safely operate in the same airspace without being targeted by the drone operator's air defences – as these are also protected by the drone operator's Electronic Warfare systems.

Only by introducing strike aircraft or other capabilities advanced enough to be able to effectively suppress the drone operator's Electronic Warfare and / or air defence systems can the drones' cloak of protection be eliminated and the tactical advantage they offer be nullified.

This has been the game of cat and mouse being played by Turkey and Russia over the last few months, firstly in Syria and subsequently in Libya.

When it comes to targeted strikes against individuals (assassinations), drones form part of a quite different set of capabilities that include satellite and cyber surveillance and specialist drone launched weapons.

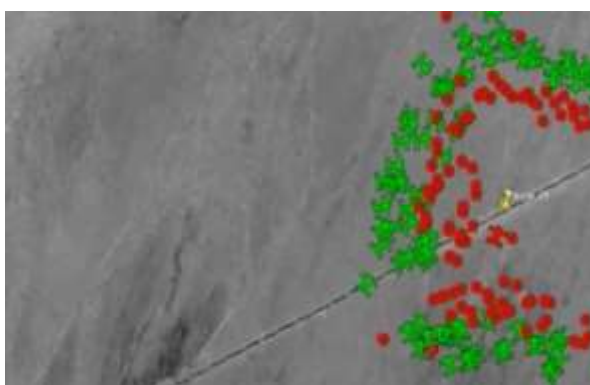
Iranian General Qassem Soleimani and Iraqi military commander Abu Mahdi al-Muhandis in January appear to have been killed by several stock-standard Hellfire missiles, fired from an MQ-9 Reaper drone. From this we know that the United States wanted to kill (or didn't mind killing) everyone in the vehicle, or nearby, including Muhandis, a putative ally. Had the United States wanted to be more surgical in its strike, it might have opted to use a drone-launched Hellfire R9X, which doesn't even explode. It just smashes into the roof of the vehicle in which the target is travelling, deploying cutting blades just before impact, which allow it to punch through the roof of the vehicle and kill the targeted occupant, or occupants, through kinetic effects.



*Figure 136 - The Hellfire R9X has no explosive charge, but is accurate enough to target an individual within a vehicle*

But as noted elsewhere in this report; drones can also themselves be the weapon, as Yemen's Houthi have repeatedly shown with their Qasef-2K suicide drone. Russia has been reported to have been testing its Kalashnikov KUB-BLA 'loitering munition' against HTS terrorists in Syria for quite some time too.

And of course, swarms of such simple inexpensive suicide drones can be used very effectively to overload air defences – an increasingly common tactic.



*Figure 137 - Excerpt from a U.S. Department of Defense micro-drone swarm test involving 103 Perdix drones, which demonstrated collective decision making, adaptive formation flying and formation self healing (left). A U.S. navy launch of multiple swarming drones (right).*

It is increasingly clear to us not just that drones and counter drone technologies must become a major focus for New Zealand defence strategy and investment planning – but that, as Turkey and Yemen have demonstrated, these technologies (especially when combined with electronic warfare capabilities) represent an area where domestic development and manufacture can offer serious advantages over procurement from foreign defence contractors.

At a time when New Zealand needs to build its defence independence, stretch its defence dollars further and stimulate local industry - and its economy - this seems like an important point to take on board.

**Update:** In July another interesting drone turned up in Tal Tamr in north eastern Syria. Syrian regime forces captured a U.S. manufactured FLIR Systems Black Hornet 3 Nano spy drone, which may have been left behind by U.S. special forces during their withdrawal from the area.



*Figure 138 - Syrian troops pose with a captured U.S. Black Hornet 3 nano drone (left) and the Black Hornet 3 nano drone kit sold by FLIR Systems*

### 3.4. The accelerating militarization of space

The accelerating militarisation of space launches into our list of global strategic trends at number four in this report, boosted by the formation of the United States Space Force.

It is clear that one factor contributing to the increasing tempo of commercial and military activity in earth's orbit is the participation of a growing number of private enterprises, such as Elon Musk's SpaceX, Silicon Valley based LeoLabs – which maintains infrastructure in New Zealand, or New Zealand based companies like RocketLabs.

Another factor is the willingness of nations such as China and Russia to contest space as a military domain, given the huge strategic and tactical advantages that space-based communication and surveillance platforms provide.



Figure 139 - While destroying satellites in low earth orbit has been possible since the 1980's, each such successful 'A-SAT' strike carries a significant risk that the resulting debris field will impact other satellites, causing a chain reaction of destruction. This is one of the main reasons that space-based assets must be considered highly vulnerable.

For example, it is expected that within a few years the Earth's oceans will become increasingly transparent to satellite surveillance, making submarines effectively visible to any power with the appropriate technology.

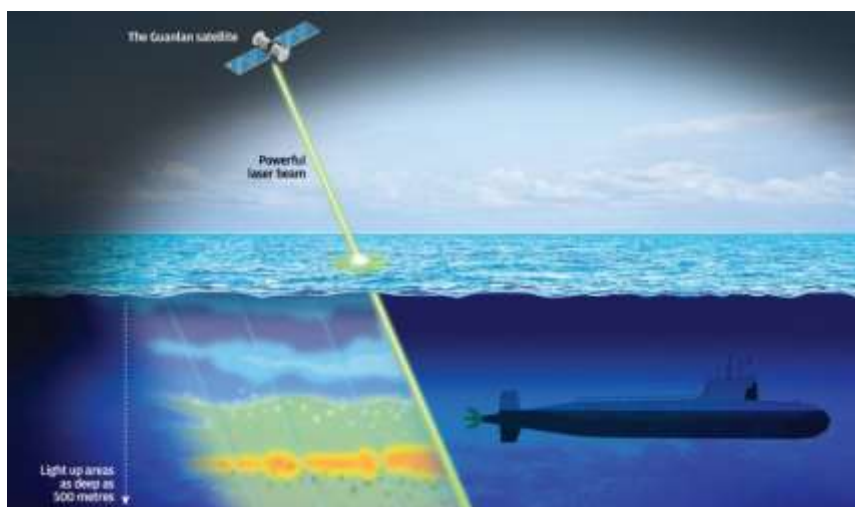


Figure 140 - In the near future satellites will be able to 'see' submarines deep beneath the ocean's surface



It is clear that neither Russia nor China feel they can afford to allow the United States to dominate in space unopposed, and that these nations will over the coming decades (along with India, the United Kingdom, Israel, France and others), place a very high priority on developing anti-satellite (A-SAT) weapons capable of eliminating the orbital capabilities of their strategic adversaries.

Our cautious assessment is that, given the essentially vulnerable nature of satellites, it will remain for the immediately foreseeable future, cheaper and easier to deploy weapon systems able to destroy satellites, than it will to deploy defensive systems that are able to protect them.

For this reason, while we acknowledge their incredible usefulness - and do not suggest that the NZDF not make use of them, <sup>42</sup> Group urge *caution* in developing an over reliance on (or over investment in at the expense of other critical capabilities) satellite technologies for New Zealand's defence.



*Figure 141 – Silicon Valley-based LeoLabs radar in Otago, which can track objects smaller than 10 centimetres in Low Earth Orbit (LEO)*

We also caution against New Zealand inadvertently making itself an accessory to crimes committed in part with space-related assets that it provides or enables, or by becoming an important part of the U.S. Military's capabilities in space, a priority target for adversaries of the United States.

### 3.5. The pervasive nature of information warfare in the modern world

Down two places since our last report - but still as pervasive as the air we breathe - active information warfare is the number five strategic trend in this report.

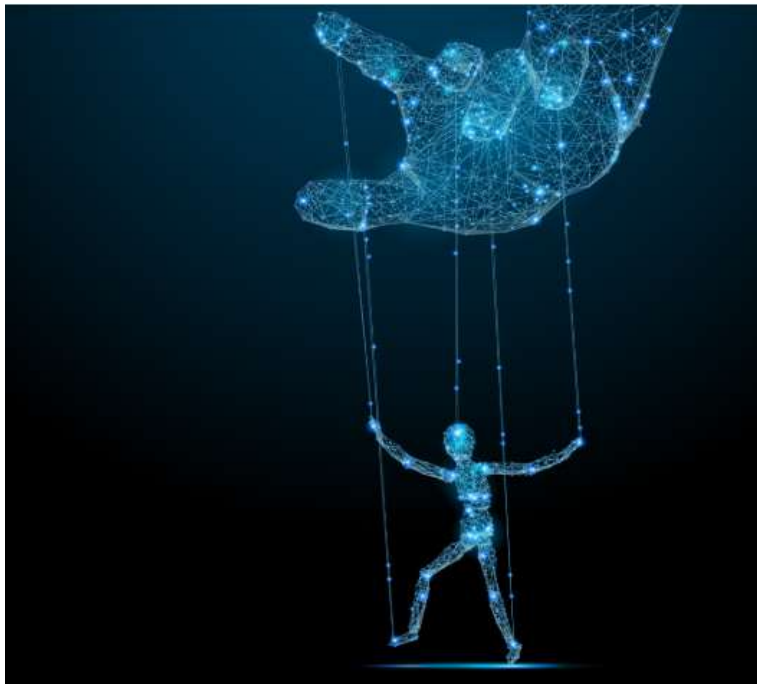


Figure 142 - The use of information and propaganda as a weapon of war is nothing new - but in our connected world it is now so ubiquitous that it is often imperceptible to the general public

This trend reflects a facet of modern geopolitical conflict that is only perceived by ordinary citizens when it is done badly, or when it is pointed out to them which, somewhat ironically, generally happens as part of the information warfare efforts of an opposing group.

Furthermore, the tendency to label opposing political or geopolitical information operations as 'fake news' deliberately ignores a key aspect of such operations: that they are most effective when the information they disseminate has some seed of truth, even if it is distorted, or presented in a manner that is biased to produce a specific reaction.



Figure 143 - Information warfare or 'active measures' are not new and are now just another aspect of modern geopolitics

For example, there may be some truth to claims by the CIA, FBI and NSA that Russia probably interfered in the 2016 United States Presidential election (although we note that only the most tenuous of evidence of this was ever released in the public domain, meaning that one must choose to trust these shadowy agencies in order to take this allegation too seriously).

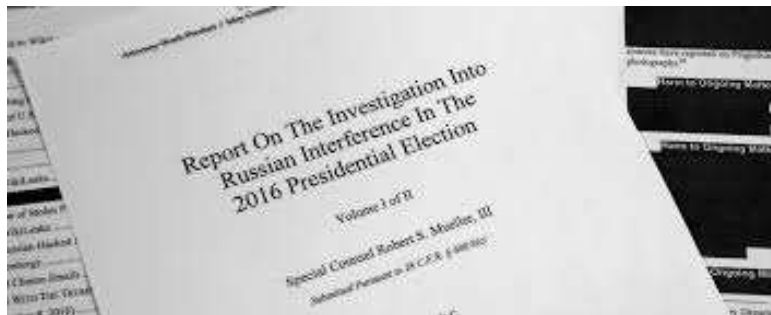


Figure 144 - Read through the reports and technical analysis that have been released and you may be surprised at how tenuous the case for Russian interference in the U.S. presidential election appears to be

If true, however, and given the scale of the operation that two out of three of those agencies asserted with a 'high degree of confidence' was likely to have occurred, this would still only amount to a small-scale, low impact<sup>25</sup> information warfare operation.

The way the western media and political establishment boxed in the new Trump administration with allegations of collusion, however (effectively preventing the President from pursuing better relations with Russia), appears to have been a highly effective information warfare operation conducted on a massive scale.



Figure 145 - Although the evidence that President Trump colluded with Russia was tenuous at best, the information warfare campaign to convince the public that such collusion had occurred was extremely effective, creating almost universal acceptance (outside of Trump's 'base') of what was essentially a conspiracy theory.

The fact that this operation, presumably intended to protect mammoth flows of defence expenditure and prevailing international power relations, targeted the President himself, the American public and all global consumers of western or western sympathetic media, speaks volumes about its scale and sophistication.

<sup>25</sup> United States congressional reports and related official documents make clear that intelligence agencies do NOT believe that the alleged Russian operation actually influenced the election outcome.



*Figure 146 - One clue that what you are reading is propaganda is the reduction of entire nation states to a demonized individual, whether that individual's last name is Putin, or Trump, or Assad.*

Any suggestion that this campaign reflected legitimate media concern over the national security of the United States (or wider global stability) is belied, both by the fact that the allegations at the root of collusion claims issued almost entirely from intelligence agencies with well documented histories of misleading the public, and by the fact that the subsequent two year Mueller investigation found no evidence of the alleged collusion having occurred.

**Note:** It would be a mistake to think that the 42 Group are admirers of President Trump, who we consider to be a dangerously unimaginative and weak-willed narcissist. We do note, however, that de-escalation of tensions with Russia, or peace with North Korea for that matter, would hardly have been bad outcomes for the security of the planet. One does not need to be a fan of president Trump to believe that he (or all of us) could be the target of pervasive information warfare with the goal of steering him in directions that are more acceptable to established western geopolitical and defence industry interests.



Figure 147 - It is all too easy - but dangerous - to uncritically accept negative propaganda about someone we already dislike



Next to all-pervasive western information warfare, which surrounds us all like the air that we breathe, Chinese operations are among the most advanced and large-scale of which the 42 Group are aware. Research into Chinese use of twitter (for example) has traced complex influence networks using many thousands of artificial personae to spread millions of tweets related to Hong Kong, COVID-19, influential Chinese expatriates critical of the Chinese Communist Party and other subjects of concern to China's leadership.

#### Beijing's Global Reach: Selected Cases of Chinese Media Influence Abroad

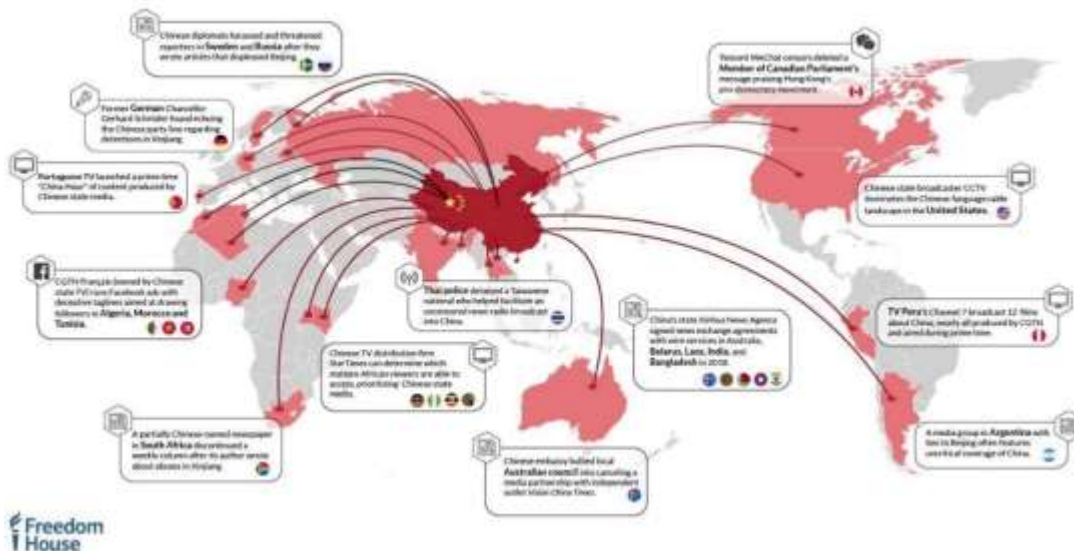


Figure 148 - The irony of western propaganda organs decrying China's own information warfare operations appears to be lost on all too many

While these operations may have been significant and sophisticated, targeting both Chinese and English-speaking audiences, researchers with the Australian Strategic Policy Institute (ASPI) appeared surprised at how ineffective some of the operations they studied had been in influencing wider audiences (i.e. the network to disseminate the message was sophisticated but the messages themselves did not appear to resonate with their intended audiences).

There is ample reason to believe, however, that other more traditional Chinese influence operations continue to be effective around the world, and possibly much closer to home.



Figure 149 - National MP Jian Yang has been accused of being a Chinese spy. Allegations that he strenuously denies.

42 Group continues to believe that New Zealand, its political parties and its government will remain subject to continuous and pervasive information warfare, influence and perception management operations, both by its allies and by their adversaries, for the foreseeable future.

We strongly recommend, therefore, that New Zealand and its leadership be aware of, and take steps to insulate themselves from the most insidious effects of such operations.

### 3.6. Intensifying global competition for increasingly scarce resources

If it is clear that the brief collapse of oil prices in early 2020 was a direct result of the reduction in energy consumption caused by the global COVID-19 pandemic, then it is just as clear that major powers continue to treat access to and control of the planet's remaining fossil fuel resources as one of the most important games in town. A game that drops two places to number six in this report's assessment of strategic trends.

#### Location of World's Shale Plays, Volume of Technically Recoverable Shale Gas in the 20 Countries with the Largest Resources, and the Level of Baseline Water Stress

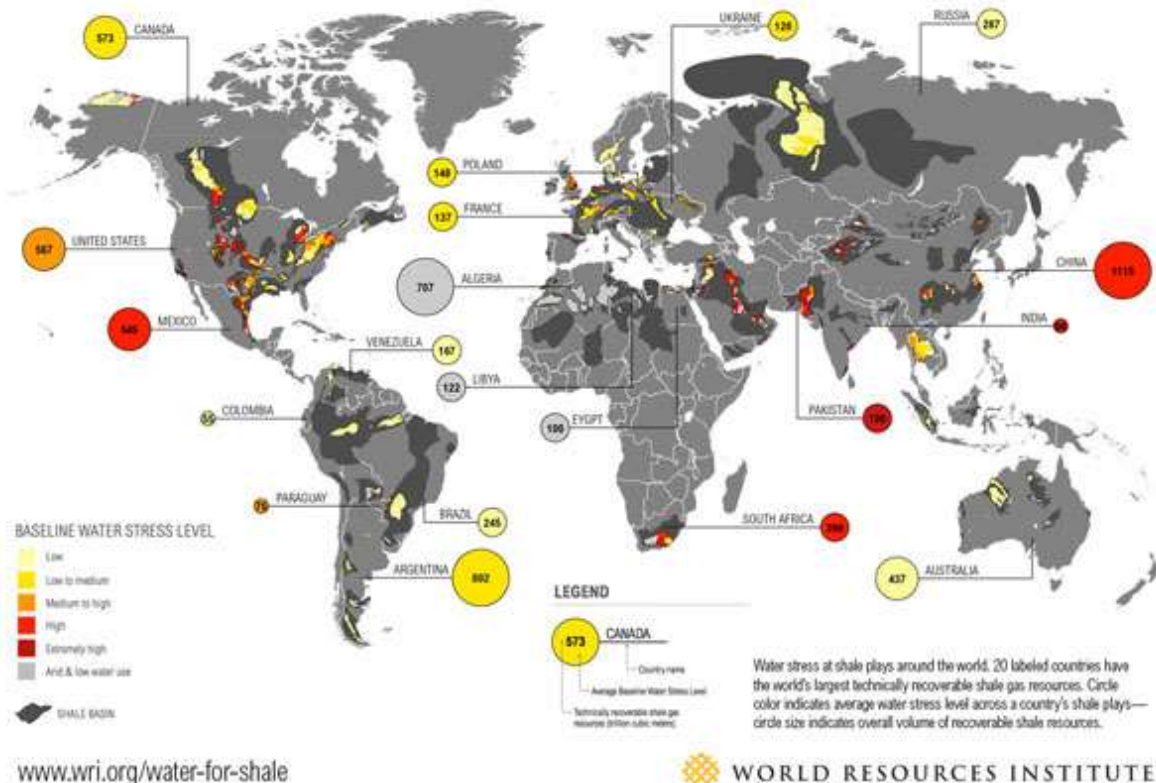


Figure 150 - Global shale gas reserves

This report was not in any way intended to focus on oil. Eight of the thirteen strategic threads we cover just happen to take place within, or heavily involve, major oil producing nations.

Iran, Iraq, Venezuela, Saudi Arabia, the UAE, the United States, Russia, Libya. The countries that keep cropping up in the conflicts we refer to, both here and in our previous reports, just *happen* to possess the world's largest oil reserves.

## Crude Oil Reserves in Billion Barrels (Gbbl)



Note: For visualization purposes we are showing only countries with 100,000,000 bbl (0.1 Gbbl) of crude oil reserves or more.

How to read this map: Countries appear bigger as their crude oil reserves are bigger. e.g. Venezuela. Conversely, countries that have smaller reserves of crude oil appear smaller. e.g. Côte d'Ivoire.

Article & Sources:

<https://howmuch.net/articles/worlds-biggest-crude-oil-reserves-by-country>  
Central Intelligence Agency - <https://www.cia.gov/library>

howmuch.net

Figure 151 - Size of crude oil reserves by country

Although oil isn't the only resource that is a source of conflict. Increasingly, fresh water is becoming a scarcer resource as the planet heats up. Egypt and Ethiopia, for example, are locked in an increasingly heated dispute over Ethiopia's Grand Renaissance dam project on the Blue Nile.



Figure 152 - Access to fresh water is increasingly a source of contention between states

Food security is also under threat in many parts of the world – with this trend amplified by the effects of the global COVID-19 pandemic.



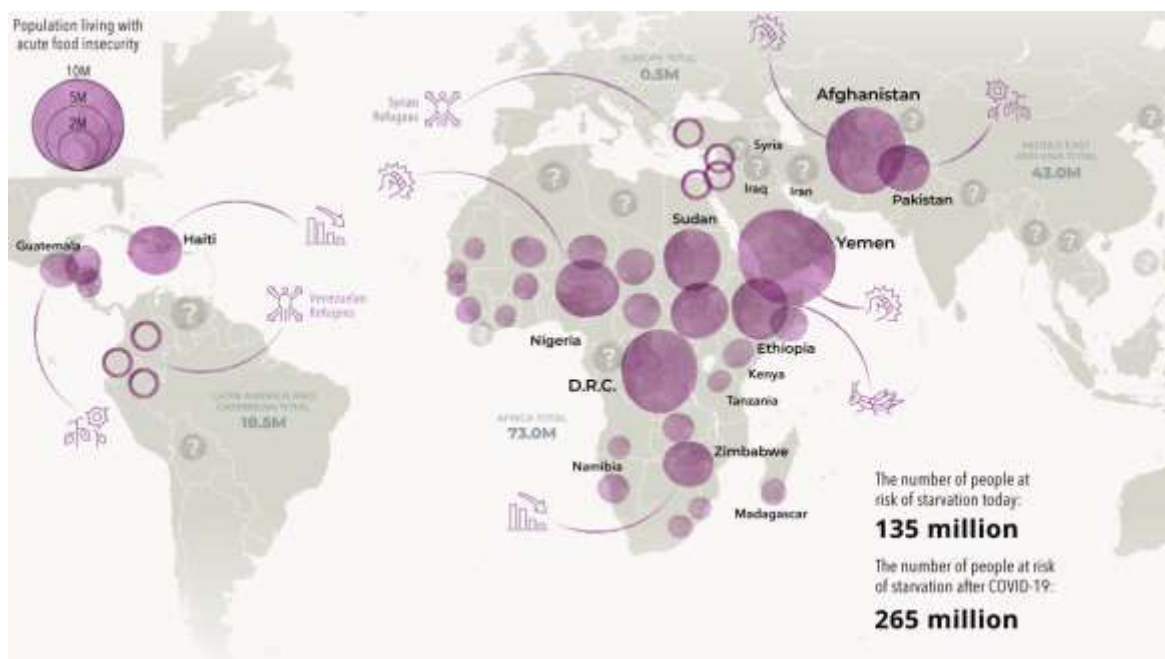


Figure 153 - Global food insecurity has doubled in the wake of the COVID-19 pandemic

What is clear though, is that increasing resource scarcity, along with the world's continuing dependence on oil, will lead to further conflicts in the years ahead – and that these will likely result both in supply shortages and high levels of price volatility for various kinds of resources.

Another thing that is clear to us is that New Zealand (along with the rest of the world) needs to get more serious about kicking the oil habit, and that this will mean serious investment both in alternatives and in the supporting infrastructure required to make use of them.

It will also mean ensuring the continuity of energy supplies *while* making the switch – which is likely to take at least ten years.

New Zealand currently produces around 50 petajoules of crude oil, condensate, naphtha, and natural gas a year (equivalent to around 8.2 million barrels of oil). Most of this is exported because its high quality makes it very valuable.

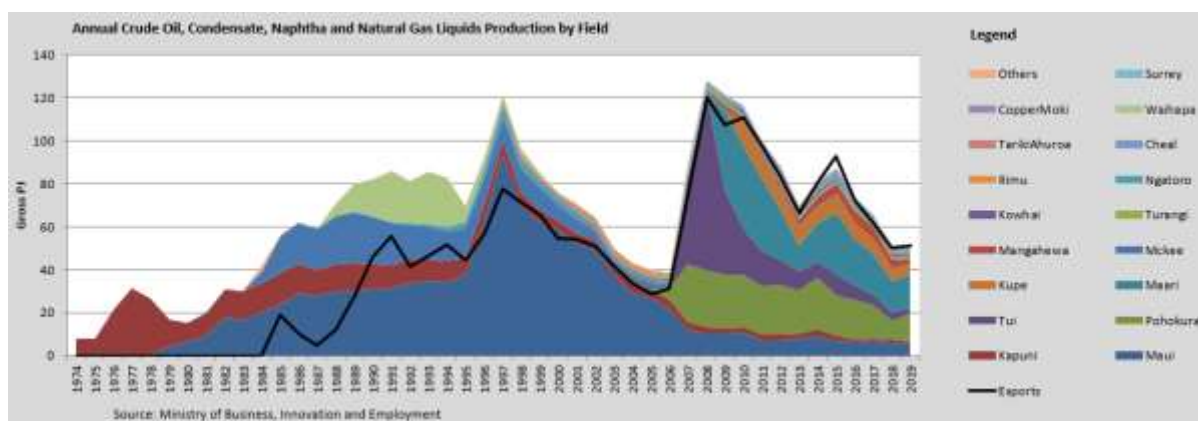


Figure 154 - New Zealand's annual petrochemical production

New Zealand consumed around 300 petajoules of oil products in 2019, equivalent to about 50 million barrels of oil – or around six times what it produced.

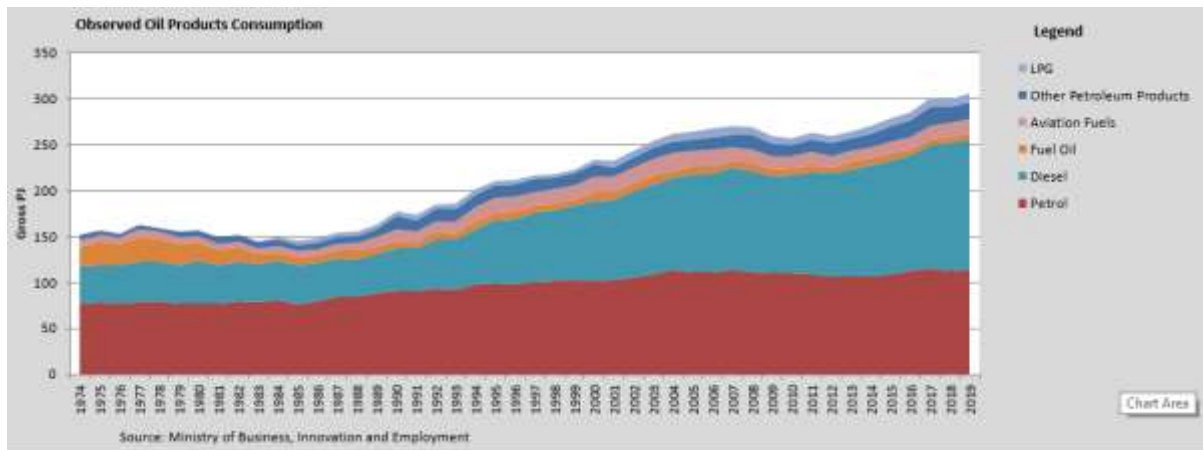


Figure 155 - New Zealand's annual petrochemical consumption

Assuming that New Zealand intends to steadily reduce its consumption of oil over the next decade (we **can** assume that can't we?), but that it still needs to guarantee its energy security as it does so, then it will need to consider *very carefully* how it can make best use of its oil resources, its COVID-19 economic stimulus investments, and its strategic infrastructure (such as the Marsden Point Oil refinery) in the years ahead.

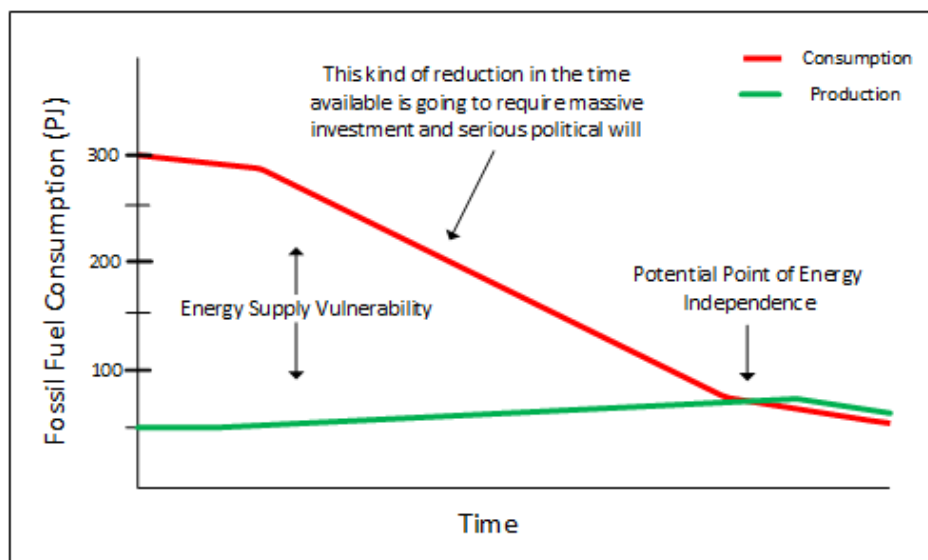


Figure 156 - New Zealand needs to replace fossil fuels with sustainable energy sources – but to maintain its energy security while it does so

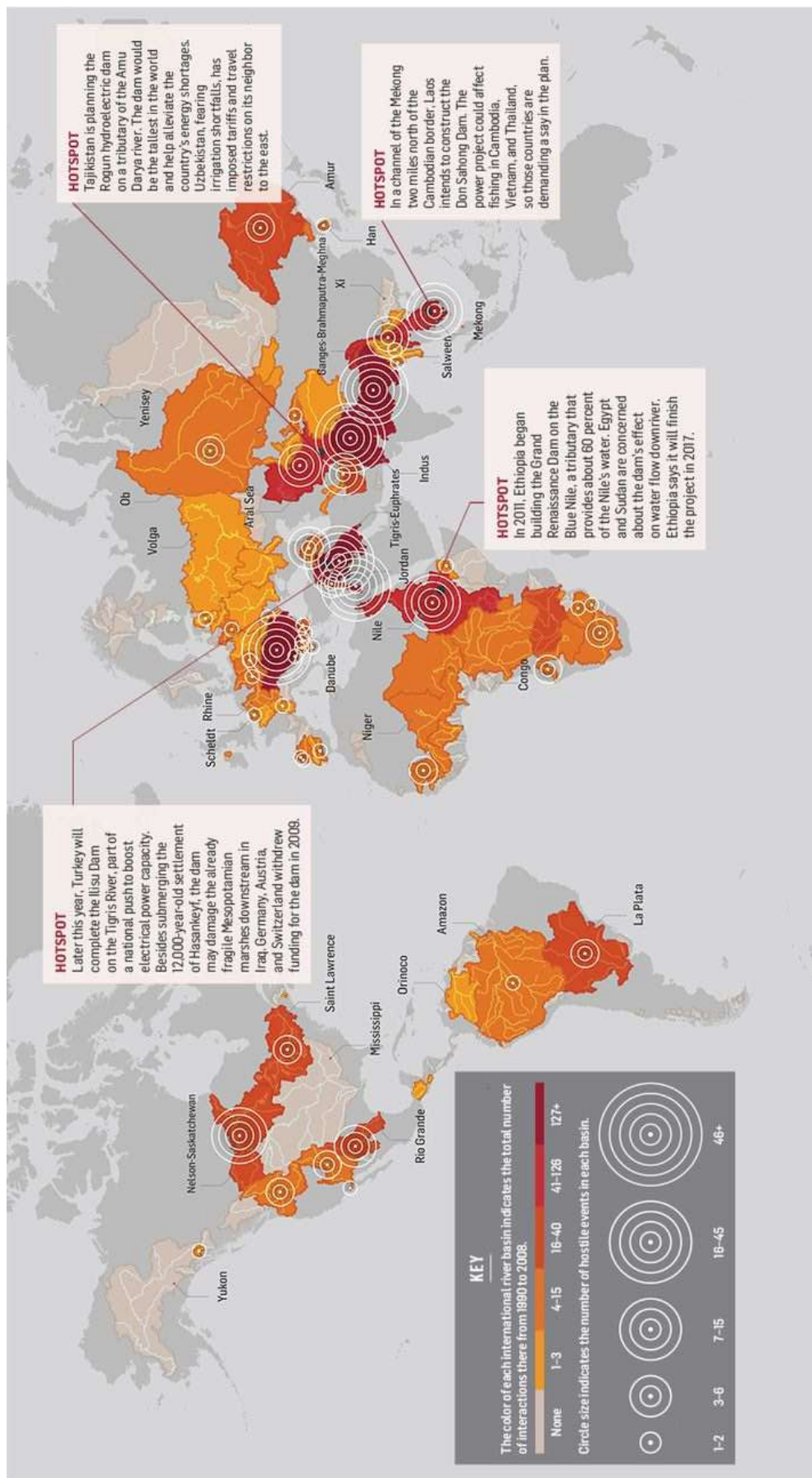


Figure 157 - Global tension over water resources

### 3.7. The increasingly erratic and belligerent nature of the United States

Falling one place to number seven in this report's assessment of strategic trends is the increasingly erratic and belligerent nature of one of New Zealand's traditional allies – the United States.



Figure 158 - Map from 2014 showing which nations were considered the greatest threat to peace. Global perceptions of the U.S. may be unlikely to have improved under the Trump administration

Over the first half of 2020 President Trump continued to shock the world with his incoherent authoritarianism. It would be a mistake, however, to attribute the destabilising nature of U.S. foreign policy entirely to the President. It might be nice to imagine that he will be voted out of office in November of 2020 and that the world will then return to 'normal' - but the truth is that the United States has been becoming an increasingly dangerous and belligerent actor for a long time - long before Donald Trump was elected.



Figure 159 - The United States' past history of military and covert interventions does little to encourage hope that a defeat for President Trump's in the November U.S. Presidential election would put an end to such interference in the affairs of other states



Actions undertaken by the United States government over the last six months have included:

- Consolidating control over Syria's richest oil fields in violation of international laws regarding pillage during conflict;
- Grossly mismanaging its COVID-19 response, leading to the deaths of over 130,000 of its own citizens;
- Conducting an illegal drone strike assassination of a foreign military leader on the territory of an ally, taking the middle east to the brink of war;
- Continuing to provide material support to Saudi Arabia's aggression and blockade of Yemen, even as the world's worst humanitarian crisis engulfs the country;
- Pausing the Triton drone programme, leaving its loyal ally Australia potentially in the lurch; and
- Placing a bounty on the head of a U.N. recognised head of state, in violation of customary international law – a bounty that a U.S. company then tried to collect through private military action.

At this point it almost seems as if there is no norm or law governing conduct between states that the U.S. will not violate. Instead, it appears to consider itself virtually immune from consequences for any action it might choose to take.



*Figure 160 - The United States' betrayal of its Syrian Kurdish allies in 2019 was as tragic but not entirely unpredictable*

So, while New Zealand is in no position to simply walk away from its defence partnerships, or its membership in the Five Eyes intelligence alliance – and we are not suggesting that it should try – we believe that it is entirely necessary that it recognise the dangerously belligerent, entirely self-interested and *inherently unreliable* nature of its most powerful ally.

Only after facing these facts head on can New Zealand really start to think about what its defence capabilities actually need to look like, so that it can defend itself, alone if it needs to, in the years ahead. Continuing to build its military capabilities around – and committing its meagre defence expenditures to – weapons and defensive systems designed specifically for interoperability with U.S. forces and doctrine, or worse, that are dependent on the presence of U.S. air power to protect them, would be a potentially fatal mistake.

As we have stated before, 42 Group believe that New Zealand needs to develop strategy, capabilities and doctrine based on the principle that it will take responsibility for defending itself, ideally in partnership with Australia and its pacific island neighbours, but alone if necessary.

*‘The major losers of the 20th century were those who believed too sincerely in the existence of a liberal international order. Those who trusted too much in democracy, or too much in what the United States said it supported, rather than what it really supported. What the rich countries said, rather than what they did. That group was annihilated’*

*– Vincent Bevins, The Jakarta Method: Washington's Anticommunist Crusade and the Mass Murder Program that Shaped Our World. May 2020.*

### 3.8. The likelihood that a looming climate catastrophe will not be averted

As we have noted above, all indications are that the impacts of global climate change are accelerating and that humanity is not acting fast enough or seriously enough to reverse this trend. The looming climate crisis drops one place to number eight in our list of strategic trends.



Figure 161 - COVID-19 may pale into insignificance next to the looming crises of recession, climate change and ecological collapse

It gives us no pleasure to make such dark predictions - and we would be overjoyed if we turned out to be wrong. Regrettably, the available science indicates that only very dramatic action indeed has a chance of ameliorating, at this point, just how dark the world's future is likely to be.



Figure 162 - It is remarkable how many people still cling to the belief that the climate crisis is some kind of elaborate hoax

New Zealand must, therefore, do everything it can to reduce the impacts of these crises, including through serious investment to eliminate its own fossil fuel dependency – while at the same time preparing for the serious consequences that are very likely to follow, regardless.

It might be nice to think that long range patrol aircraft able to spot climate refugees at sea, or naval vessels able to provide them with aid, or to give hurricane relief to our island neighbours would be sensible defence investments to make at this time.

Unfortunately, and while such a 'pacific reset'-oriented force represents admirable sentiments, New Zealand is going to need to think more about its own immediate security in the years ahead. Its defence force will need to be treated less as an institution that represents New Zealand *beyond its own shores* and more as a means to deter and defend against direct aggression by external powers.

## 4. Summary of 42 Group Analysis as at the end of Q2 2020

Over the coming decades New Zealand should expect the combined effect of the trends outlined in this report to result in:

- World-wide conflict, potentially including nuclear conflict, conflict in space and / or the use of biological and chemical weapons;
- Periodic or sustained disruption to global supply chains, transport networks and communications systems;
- Mass population migration;
- Mass food insecurity;
- The failure of certain nation states; and
- Accelerating ecological collapse.

Given this, 42 Group believe that:

- The strategic trends outlined in this report continue to support our previous assertion that New Zealand needs to update its defence policy, force structure and capabilities to better reflect the world it is likely to find itself in over the next thirty years;
- New Zealand must begin to develop, along with its neighbours (especially Australia), a more self-reliant regional defence policy; and
- It is of vital importance to New Zealand's future security that it once again, as it has done in the past, begin to display a greater degree of foreign policy independence.

It is our position that such an approach must include:

- New Zealand taking a more outspoken stance in support of the international rules-based order when any nation (including its allies) are in clear breach of that order – so that it can rebuild its credibility on the international stage as a nation that is something other than America's least objectionable henchman;
- New Zealand declining either to allow satellites to be launched from its territory that it knows will be used to commit crimes under international law, or to host space-related military infrastructure that could make it a priority target for America's adversaries;
- New Zealand taking urgent action to insulate itself from future supply chain disruption and from its dependence on imported fossil fuels, medical supplies, or other key essentials;
- New Zealand investing heavily in eliminating its dependence on fossil fuels and taking immediate and significant action to cut its carbon emissions;
- New Zealand abandoning any comforting notion that the United States, or any other country will automatically come galloping to its aid should it find itself under attack in the years ahead;
- New Zealand establishing as a high priority:
  - The ability to rapidly mobilise its population to effectively defend itself should it need to at any stage in the future;
  - The types of defence capabilities such a defence would require – sourcing these externally, or developing them domestically where appropriate;



- How best to work with regional partners to ensure mutual security; and finally
- New Zealand prioritizing research funding for its Defence Technology Agency, working with local industry to accelerate establishment of innovative, effective and sustainable<sup>26</sup> defence capabilities, especially in the drone, counter drone and electronic warfare areas.

COVID-19 has been a major strategic disrupter that it has shown New Zealand that it can take drastic action to respond to a crisis when it needs to.

The climate crisis is another strategic disrupter and it makes COVID-19 look relatively insignificant by comparison. It is an intergenerational challenge that, we would argue, New Zealand has no moral choice but to rise to.

That will involve not only working for the best – but also preparing for the worst.

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<sup>26</sup> In every sense of the word

## 5. Implications for New Zealand Defence Policy

It would be fair to say that 2020 has been an eventful year so far – and not in a good way. We have no particular reason to believe the second half of 2020 will be any less eventful, or that the years ahead will not see similarly disruptive developments, as resource scarcity worsens and climate change accelerates.

For this reason, we believe our previous defence policy recommendations for New Zealand are as important as ever.

Based on the events from January to June of 2020, however, 42 Group has amended those recommendations to:

- Better reflect the effects of the global COVID-19 pandemic, including its downstream effects on the global economy and on supply chains;
- Emphasise the importance of New Zealand establishing innovative drone, electronic warfare and associated countermeasure capabilities – including through domestic innovation; and
- Reflect the rapidly accelerating militarisation of space – and its associated risks.

The resulting updated policy recommendations can be found in Appendix A.

## 6. Conclusion

Over the first six months of 2020 the global COVID-19 pandemic has battered both the global economy and international stability. While in some cases its impacts have been direct (like a collapse in demand for oil), in others they have been indirect (such as the scale and scope of the Black Lives Matter protests in the U.S., swollen as these were by a huge surge in COVID-19 related unemployment).

While such events have highlighted the vulnerability of international systems of trade and supply and shaken the world's confidence in the ability of neo-liberal economics to respond effectively to global crises, they have in no way undermined the 42 Group's prior recommendations for changes in New Zealand defence policy.

On the contrary, the events of the first six months of 2020 have only served to highlight ideas that 42 Group have been promoting since its inception, specifically that:

- When push comes to shove New Zealand needs to take responsibility for its own security, whether that involves defence against a dangerous pathogen, or conquest by a foreign power;
- That a reliance on foreign powers to protect New Zealand from external threats is misguided, in that it fails to recognise the fundamentally self-interested nature of such powers, as well as the likelihood that, in a real crisis, they will be busy looking after their own problems; and
- That New Zealand's greatest strategic asset, along with its isolation, is its people and their ability to pull together in times of crisis, given intelligent and compassionate leadership.

With New Zealand's economic recovery now likely to depend, as least in the short term, on Government expenditure on stimulus projects, clear opportunities exist to enhance New Zealand's future security through investments in sustainability and energy independence, as well as in defence innovation and preparedness. Never has New Zealand stood at such a critical crossroads.

The weaknesses and flaws in neo-liberal economics and global free trade have been laid bare. These systems have failed to meet the challenges of COVID-19 and they are just as unlikely to meet the imminent challenges of climate change, or its many downstream impacts.

The time has come to acknowledge the lessons of the COVID-19 pandemic. New Zealand (and its neighbours) need to turn away from policies that make them vulnerable to supply chain disruption, increasing resource scarcity and an excessive reliance on the fickleness of foreign powers for their health, industrial, energy and strategic security.

Instead, New Zealand must begin to develop much greater self-reliance in all these areas. Not, as some would describe it, by drifting into the realms of thoughtless isolationism, protectionism, authoritarianism or militarism, but by recognising the strength New Zealanders have when they act collectively for the good of themselves, their families, their neighbourhoods, their regions, their nation, the south pacific and the planet.

When the 42 Group advocates that the New Zealand defence force be treated less as a standing military force for overseas deployment and more as the dehydrated core from which a much larger volunteer force can be expanded to defend New Zealand in times of need, we are not envisaging this as some instrument for the oppression of workers by the state. Neither are we imagining a revolutionary army toppling New Zealand's political order. Instead we see a need for an ideologically neutral and purely defensive force, the only purpose of which is to respond to external threats to all New Zealanders. A force that expands in time of need to include people of all races, religions, ages, sexual orientations, economic classes and political leanings, united in a single cause: the defence of their home.

Finally, we wish to emphasise one last time the importance of freeing New Zealand's defence policy from its zombie-like enslavement to the myth of 'interoperability' and the assumption that this means spending billions on big ticket items<sup>27</sup> from the glossy catalogues of its allies' 'defence' industries. At this time the opportunity for New Zealand to stimulate its economy and to leverage its educated workforce through investment in innovative solutions to its sustainability, energy self-reliance, supply chain vulnerability and defence challenges must not be ignored.

2020 might seem like it has been a tough year so far, but it would be naïve to think that there is not still worse to come, or that New Zealand can afford to delay preparing itself to face such eventualities.

Kia pai, kia whakapehapeha, kia rite.

42 Group

20 August 2020

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<sup>27</sup> Like the P8 Poseidon aircraft New Zealand is buying to replace its aging Orions. While many insist that the Orions are so old that not replacing them just isn't an option, we would point out that the U.S. continues to rely as a key part of its strategic defences on the B52 bomber, the youngest of which was built in 1962, around the same time as New Zealand's Orions (spares for which are far more readily available than those for a B52). Having previously planned to retire them, the U.S. now intends to continue to fly its B52s until 2044.



## 7. Appendix A – 42 Group’s Amended Defence Policy Recommendations for Q3/Q4 2020

**Note:** new recommendations, or recommendations amended since January 2020 are printed in red.

**Recommendation #1:** That New Zealand recognize and reflect upon the contradiction inherent in its commitment to the international rules-based order, and its active support for allies that increasingly hold themselves unaccountable to that order.

**Recommendation #2:** That New Zealand, as a nation, recognize the mechanisms by which it is made subject to perception management operations, as well as the full range of protagonists and agendas involved in such activities.

**Recommendation #3:** That New Zealand begin to exercise a greater degree of foreign policy independence.

**Recommendation #4** That New Zealand amend its defence policy, strategy and doctrine to remove any explicit or implicit assumption of timely assistance by its allies, or any assumption that New Zealand’s geographical isolation will protect it from future attack.

**Recommendation #5** That New Zealand incorporate into both its military doctrine and crisis management planning the need to retain, secure and deploy in time of need, the fuel, medical supplies and military materiel necessary to sustain itself during periods of extended supply chain interruption and / or to mount a sustained national defence against external aggression.

**Recommendation #6:** That New Zealand reduce its emphasis on purchasing bleeding edge military technology to maintain interoperability with its allies, and instead focus on investing in assets that would enhance its real defensive capabilities; prioritizing value for money, survivability and shelf life in all related procurement activities, while being ready to source such capabilities from non-traditional suppliers, or to develop them domestically where appropriate.

**Recommendation #7:** That New Zealand recognize the vulnerabilities inherent in overinvestment in small numbers of expensive, vulnerable force projection and / or surveillance assets (like warships or maritime surveillance aircraft), at the expense of less costly defensive systems - and that it reprioritise its future defence expenditure accordingly.

**Recommendation #8:** That, New Zealand seek to focus upon and strengthen its regional alliances, accepting any impact upon its ability to participate in military operations beyond its own immediate region that our other recommendations might entail.

**Recommendation #9** That, although many New Zealanders may not perceive their nation as likely to be threatened in the foreseeable future, New Zealand’s government should prepare to counter ‘over the horizon’ military threats.

**Recommendation #10:** That New Zealand should, if possible, cancel its purchase of P-8A Poseidon aircraft and negotiate the purchase (at a fraction of the cost) of a small number of the best P-3 Orion aircraft being retired by its allies, and that it should invest the money saved in more valuable sustainability, energy independence, or defensive military capabilities.

**Recommendation #11:** That New Zealand should avoid an overdependence on highly vulnerable space-based infrastructure for its defence.

**Recommendation #12:** That New Zealand should accept that, given the prevailing constraints on its ability to invest in air combat capabilities - and in the absence of more effective drone, electronic

warfare and air defence capabilities - it is unlikely to enjoy air superiority in any future defensive conflict.

**Recommendation #13:** That, in order to compensate for its lack of an effective air combat capability – and the likelihood that a capable attacker would otherwise soon neutralise all New Zealand’s maritime, air, and fixed / unconcealed ground-based defence assets, New Zealand should bolster its air defence capabilities, with any related procurement activities prioritizing tactical versatility, concealment / survivability and shelf life.

**Recommendation #14:** That New Zealand defence force doctrine be amended to emphasise the rapid dispersal and concealment of special, regular, reserve and irregular infantry forces at short notice, along with the avoidance, where-ever possible, of the concentration of forces between engagements, or of their unnecessary exposure to aerial surveillance, or attack.

**Recommendation #15:** That New Zealand establish several secure and concealed staging locations within each region for the storage of military materiel, and that it establish processes for the continuous rotation of materiel between such locations, so that an attacker, even given extensive surveillance and intelligence capabilities, would have difficulty locating and destroying New Zealand’s supplies of defensive weapons and munitions.

**Recommendation #16:** That, as part of its defensive strategy, New Zealand consider investing in low cost decoys (simulated military structures, air defences, vehicles, radar sources etc.) that can be deployed to confuse an attacker, or to cause them to waste expensive munitions destroying tactically valueless targets.

**Recommendation #17:** That New Zealand urgently prioritise the establishment, through a mixture of local innovation and procurement, of effective drone, counter drone and electronic warfare capabilities – developing these domestically where practical and favouring value for money investment in smaller more numerous platforms over more costly big-ticket items.

**Recommendation #18:** That New Zealand invest to significantly enhance its meagre stocks of modern ATGM systems, placing a high priority in related procurement activities on cost effectiveness, resistance to countermeasures and shelf life of the system/s purchased.

**Recommendation #19:** That New Zealand invest in mobile and concealable coastal defence assets consisting of a number of modern medium range anti-ship missile batteries - and that it disperse and rotate these between a number of coastal staging locations.

**Recommendation #20:** That New Zealand develop contingency plans for the disruption of an attacker’s supply lines via air or sea.

**Recommendation #21:** That New Zealand establish a defence partnership with local business and academic institutions (including design schools), to develop innovative solutions for defence challenges.

**Recommendation #22:** That New Zealand explore the potential for defence innovation programmes to influence the disposal or treatment of obsolete Military (or other Government owned) equipment – either to provide materiel for the development of innovative defence solutions, or to support the rapid scaling of forces.

**Recommendation #23:** That New Zealand conduct regional emergency muster exercises on an annual basis, that it use such exercises to practice the techniques and logistics of rapid force expansion and that it involve the public in them.

**Recommendation #24:** That all items confiscated under the Arms (Prohibited Firearms, Magazines, and Parts) Amendment Act 2019 be handed over to the NZDF for the purpose of salvaging useful firearms, firearm parts and ammunition – with the remainder being destroyed. The NZDF should be charged with the secure storage of all such salvaged firearms, firearm parts and ammunition for use, if necessary, in future rapid force expansions.

**Recommendation #25:** That New Zealand maintain stockpiles of the materiel and supplies needed to enable and sustain rapid force expansion - and that it store these securely in dispersed staging locations.

**Recommendation #26:** That New Zealand adopt a defence policy that emphasises i) Anti-Access / Area Denial (A2/AD), ii) a layered defensive posture, iii) rapid force expansion to enable a sustained asymmetric ground defence and iv) defence sourcing innovation.

**Recommendation #27:** That, in line with 42 Group's recommended shift in policy, New Zealand adjust its planned defence investments to ensure that establishment of the appropriate defensive capabilities and assets is prioritised.

**Recommendation #28:** That the New Zealand government establish an official position, similar to that of the Privacy Commissioner, charged with countering public perception management operations by placing geopolitical events in context through **an impartial reading of international law**, and that the government also establish public funding for new media platforms to undertake impartial investigative journalism with a similar focus.

**Recommendation #29:** That (if it wishes its public commitments to the international rules-based order to be taken seriously), New Zealand speak out more clearly in defence of that order on the international stage, including where this requires it to take its allies to task, or to take principled public positions on such issues as limitations on the 'unwilling or unable' test, or the legitimacy of the Bethlehem doctrine for pre-emptive self-defence.

**Recommendation #30:** That New Zealand cease to allow its territory to be used to launch into space military payloads that it knows are likely to be used to commit crimes, or to allow its territory to host space related infrastructure that could make it a target for adversaries of the United States.

**Recommendation #31:** That the New Zealand government allocate additional funding to enable its Defence Technology Agency to work with local industry to accelerate establishment of innovative, effective and sustainable defence capabilities.

**Recommendation 32:** That in future New Zealand avoid participation in counter-insurgency operations on the territory of any other state, only committing its forces to overseas operations where these involve true peacekeeping under United Nations leadership, or where south pacific regional security requires it, and even then, only at the explicit request of the U.N. recognised government of the territory to which its forces are to be deployed.

**Recommendation 33:** That New Zealand take urgent steps both to reduce its carbon emissions and to increase its energy independence as it transitions from extensive use of fossil fuels to sustainable energy sources.

**Recommendation 34:** That New Zealand ensure that it continues to maintain onshore the development, production, manufacturing and logistical capabilities *and capacity* necessary to implement the above recommendations.

## 8. Appendix B – Recommendations from 42 Group’s January 2020 Assessment

The following recommendations are now superseded by those in Appendix A:

**Recommendation #1:** That New Zealand recognize and reflect upon the contradiction inherent in its commitment to the international rules-based order, and its active support for allies that increasingly hold themselves unaccountable to that order.

**Recommendation #2:** That New Zealand, as a nation, recognize the mechanisms by which it is made subject to perception management operations, as well as the full range of protagonists and agendas involved in such activities.

**Recommendation #3:** That, in the years ahead, as it did in 2003, New Zealand exercise courage, integrity and discretion when faced with conflicting commitments to the international rules-based order, and to its alliances.

**Recommendation #4** That New Zealand amend its defence policy, strategy and doctrine to remove any explicit or implicit assumption of timely assistance by its allies, or any assumption that New Zealand’s geographical isolation will protect it from future attack.

**Recommendation #5** That New Zealand Incorporate into its military doctrine the need to retain, secure, store and deploy in time of need, adequate materiel to mount a sustained national defence and, where practical, take steps to reduce its strategic dependence on external resupply.

**Recommendation #6:** That New Zealand reduce its emphasis on purchasing technology to maintain interoperability with its allies, and instead focus on investing in assets that would enhance its defensive capabilities; prioritizing value for money, survivability and shelf life in all related procurement activities, while being ready to source such capabilities from non-traditional suppliers if necessary.

**Recommendation #7:** That New Zealand recognize the vulnerabilities inherent in overinvestment in small numbers of expensive, vulnerable force projection and / or surveillance assets (like warships or maritime surveillance aircraft), at the expense of less costly defensive systems - and that it reprioritise its future defence expenditure accordingly.

**Recommendation #8:** That, New Zealand seek to focus upon and strengthen its regional alliances, while accepting any impact upon its ability to participate in military operations beyond its own immediate region that our other recommendations would entail.

**Recommendation #9** That, although many New Zealanders may not perceive their nation as likely to be threatened in the foreseeable future, New Zealand’s government should prepare to counter ‘over the horizon’ military threats.

**Recommendation #10:** That New Zealand should, if possible, cancel the purchase of P-8A Poseidon aircraft and negotiate the purchase (at a fraction of the cost) of a small number of the best P-3 Orion aircraft being retired by its allies, and that it should invest the money saved in more valuable defensive capabilities.

**Recommendation #11:** That given a choice between investing in simple but effective defence assets with no dependency on space-based infrastructure, or of investing in more expensive assets that do have such dependencies *and* also having to invest in lower tech contingency assets, New Zealand should *generally* prefer the former approach.



**Recommendation #12:** That New Zealand should accept that, given the prevailing constraints on its ability to invest in air combat capabilities, it is unlikely to enjoy air superiority in any future defensive conflict.

**Recommendation #13:** That, in order to compensate for its lack of an effective air combat capability – and the likelihood that a capable attacker would otherwise soon neutralise all New Zealand’s maritime, air, and fixed / unconcealed ground-based defence assets, New Zealand bolster its air defence capabilities, with any related procurement activities prioritizing tactical versatility, concealment / survivability and shelf life.

**Recommendation #14:** That New Zealand defence force doctrine be amended to emphasise the rapid dispersal and concealment of special, regular, reserve and irregular infantry forces at short notice, along with the avoidance, where-ever possible, of the concentration of forces between engagements, or of their unnecessary exposure to aerial surveillance, or attack.

**Recommendation #15:** That New Zealand establish several secure and concealed staging locations within each region for the storage of military materiel, and that it establish processes for the continuous rotation of materiel between such locations, so that an attacker, even given extensive surveillance and intelligence capabilities, would have difficulty locating and destroying New Zealand’s supplies of defensive weapons and munitions.

**Recommendation #16:** That, as part of its defensive strategy, New Zealand consider investing in low cost decoys (simulated military structures, air defences, vehicles, radar sources etc.) that can be deployed to confuse an attacker, or to cause them to waste expensive munitions destroying tactically valueless targets.

**Recommendation #17:** That New Zealand urgently prioritise the establishment, through a mixture of local innovation and procurement, of effective drone and counter drone capabilities – favouring in both cases value for money investment in smaller more numerous platforms over costly big-ticket items.

**Recommendation #18:** That New Zealand invest to significantly enhance its meagre stocks of modern ATGM systems, placing a high priority in related procurement activities on cost effectiveness, resistance to countermeasures and shelf life of the system/s purchased.

**Recommendation #19:** That New Zealand invest in mobile and concealable coastal defence assets consisting of a number of modern medium range anti-ship missile batteries - and that it disperse and rotate these between a number of coastal staging locations.

**Recommendation #20** That New Zealand develop contingency plans for the disruption of an attacker’s supply lines via air or sea.

**Recommendation #21:** That New Zealand establish a defence partnership with local business and academic institutions (including design schools), to develop innovative solutions for defence challenges.

**Recommendation #22:** That New Zealand explore the potential for defence innovation programmes to influence the disposal or treatment of obsolete Military (or other Government owned) equipment – either to provide materiel for the development of innovative defence solutions, or to support the rapid scaling of forces.

**Recommendation #23:** That New Zealand conduct regional emergency muster exercises on an annual basis, that it use such exercises to practice the techniques and logistics of rapid force expansion and that it involve the public in them.

**Recommendation #24:** That all items confiscated under the Arms (Prohibited Firearms, Magazines, and Parts) Amendment Act 2019 be handed over to the NZDF for the purpose of salvaging useful firearms, firearm parts and ammunition - with the remainder being destroyed. The NZDF should be charged with the secure storage of all such salvaged firearms, firearm parts and ammunition for use, if necessary, in future rapid force expansions.

**Recommendation #25:** That New Zealand maintain stockpiles of the materiel and supplies needed to enable and sustain rapid force expansion - and that it store these securely in dispersed staging locations.

**Recommendation #26:** That New Zealand adopt a defence policy that emphasises i) Anti-Access / Area Denial (A2/AD), ii) a layered defensive posture, iii) rapid force expansion to enable a sustained asymmetric ground defence and iv) defence capability and sourcing innovation.

**Recommendation #27:** That, in line with 42 Group's recommended shift in policy, New Zealand adjust its planned defence investments to ensure that establishment of the appropriate defensive capabilities and assets is prioritised.

**Recommendation #28:** That the New Zealand government establish an official position, similar to that of the Privacy Commissioner, charged with countering public perception management operations that appear intended to mislead, or manipulate the attitudes of New Zealanders for political, or geopolitical reasons. A key priority of such an office would be to place geopolitical events in context through **an impartial reading of international law**.

**Recommendation #29:** That (if it wishes its public commitments to the international rules-based order to be taken seriously), New Zealand speak out more clearly in defence of that order on the international stage, including where this requires it to take its allies to task, or to take principled public positions on such issues as limitations on the 'unwilling or unable' test, or the legitimacy of the Bethlehem doctrine for pre-emptive self-defence.

## 9. Appendix C – References

<sup>42</sup> Group's analysis is based on a triangulation of intelligence from a mixture of news articles, official documents and other mostly public domain sources.

We do not assert that all (or indeed any) of those resources are entirely trustworthy, or unbiased. Instead we try to take into account the biases and ideological perspectives implicit in a range of such sources. In some cases, we draw inferences as much from what is not written, as what is.

We acknowledge that we will not have every single detail right in every case.

A list of the roughly six hundred public domain news articles, official documents, press releases, public statements and books that informed this report is available upon request.