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## Intelligence warning in the Ukraine war, Autumn 2021 – Summer 2022

Kristian Gustafson, Dan Lomas, Steven Wagner, Neveen Shaaban Abdalla   
and Philip H. J. Davies 

### ABSTRACT

Russia's invasion of Ukraine in February 2022 is a unique case study of the use of warning intelligence. The article shows that whilst Russia's invasion has sparked a wave of interest on aspects of intelligence, including the use of open source and 'prebutter', the fundamentals of warning intelligence – the forewarning of major threats in a timely manner so policymakers and officials can respond – remain the same as they have always have. The article also suggests that whilst both sides of the conflict had intelligence advantages at the start, intelligence only becomes a significant force multiplier if the consumer sees value in it and uses it. For Russia, significant intelligence advantages were not fully exploited with the effect that they lost the initiative. Ukraine, whilst initially taken by surprise at the tactical and operational level, was able to use intelligence to its advantage. This, we argue, had long lasting implications for the course of the first period of the conflict.

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The disputes which underlay war are never as surprising as the outbreak of conflict itself. It is the role of intelligence to close, what Michael Handel called, the 'readiness gap' between the initial warning of an attacker's preparations for war, and its outbreak.<sup>1</sup> In February 2022, Russia achieved some tactical surprise against Ukraine in its long-anticipated invasion, but strategic surprise (an unanticipated attack facilitating the 'destruction of a sizable portion of the enemy's forces'<sup>2</sup>) never materialised. For Ukraine, intelligence was vital to mitigating the effects of surprise. For Russia, intelligence failures added to the self-deception that underlined many of the early operations, setting the tone for its future campaign. Robbed of the strategic surprise, and faced with diminishing intelligence assets, the Russian military's task of defeating Ukraine's armed forces, and implementing an already flawed plan, became even more difficult. For Ukraine, and the West, intelligence was a tool to understand the conditions which will lead an opponent to turn a diplomatic dispute into a threat of war, and escalate into a full-blown military confrontation.

Every descent into war comes with speculation, accusations, and counter-accusations of intelligence failure.<sup>3</sup> Unusually, intelligence in this case also played an important part in the west's public diplomacy: That is, their efforts to expose, deter, or delay Russia's plans while warning Ukraine and the world about them. In that way, this case is also a success story for American, British and other partnered intelligence communities, whose diplomatic and media campaigns led to an enthusiastic and united response in support of Ukraine, but also restored the tarnished reputations of their intelligence services following the war in Iraq. Thus, warning intelligence during the run-up to, and since, the invasion of Ukraine represents an entirely new chapter in the political and diplomatic use of intelligence in international affairs. Paired with this success is a story of at least partial error: the

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Zelensky administration and French defence intelligence both believed until h-hour that Russia was bluffing or would not dare.

This article offers the first significant academic-led analysis of warning intelligence during the run-up to, and invasion of, Ukraine. It also shows that this case recreates a common phenomenon in warfare, where, over time, belligerents' advantages drive toward parity. In this first part of our discussion, we shall pay particular attention to initiatives taken by the UK, US, and some of Europe's smaller states, whose effective use of warning intelligence allowed Western states to confront Russia and support Ukraine well in advance of 24 February 2022. The article also points to differences in intelligence assessment across the NATO alliance, suggesting that, in some cases, differences over Russia's immediate threat go beyond the traditional simple 'success' and 'failure' discourse. For the West, successful warning offered lead time to assist, equip, and train the Ukrainians in their defensive preparations. Western governments were willing to declassify information and assessments to support warnings of imminent Russian aggression. Nevertheless, as this article points out, there were gaps in western assessments, specifically Russia's capability and Ukraine's ability to resist. The article also examines Ukraine's own flawed assessment of Russia's attack vectors and differences with western assessment. In the second part of the discussion, we will show how those different approaches to intelligence, as seen in military planning and combat, shaped the opening stages of the conflict, initially providing the much-weaker Ukraine with advantages which have allowed them to survive.

## Intelligence and warning

Warning intelligence is always a judgment call. The aim of intelligence is to provide foreknowledge of threats. Sherman Kent noted that strategic intelligence serves a protective or defensive use in that it forewarns us of the designs which other powers may be hatching to the damage of our national interests; and it serves a positive or ongoing use in that it prepares the way for our active foreign policy or grand strategy.<sup>4</sup> Warning intelligence utilises the 'indicators and warning' methodology in which one tries to identify the detectable footprint of concealed intentions and capabilities.<sup>5</sup> In her study of the fundamentals of warning intelligence, Grabo writes its purpose is to 'examine continually – and to report periodically, or daily if necessary – any developments which could indicate that a hostile group is preparing, or could be preparing, some new action'. To do this, analysts examine 'developments, actions or reports of military, political or economic events or plans ... which could provide a clue to possible changes in policy or preparations for some future hostile action'. Grabo goes on that analysts provide judgements '*that there is or is not a threat of new military action, or an impending change in the nature of ongoing military actions, of which the policymaker should be warned*'.<sup>6</sup>

For Gentry and Gordon, a warning intelligence *success* is the process of managing the collection process to obtain information 'adequate to make sound warning judgements', and assessing the information to forecast areas of concern which, in turn, allow policymakers to respond. In the final stages, warnings are communicated 'persuasively' and 'in a timely manner' that allows policymakers to make informed decisions and decide whether to respond or not.<sup>7</sup> While there are likely many examples where warnings do not necessarily come to light,<sup>8</sup> the case of Ukraine is a clear example of where warnings were heard loud and clear, and in a timely manner, before Russia's invasion. As Grabo wrote, 'It is an axiom of warning that *warning does not exist until it has been conveyed to the policymaker, and that he [sic] must know that he has been warned*. Warning that exists only in the mind of the analyst is useless'.<sup>9</sup>

While there were limits to western assessments – as this article suggests – the case study of Ukraine offers an important corrective to the wider literature on 'intelligence failure'.<sup>10</sup> Whereas the academic literature on 'failure' is significant, and still growing,<sup>11</sup> examples of 'success' are still limited. This article, therefore, adds to the academic study of intelligence 'success'. As Bar-Joseph and McDermott write, the quality of warning intelligence is defined two ways. Firstly, the warning must be clear enough to prompt policymakers to respond. Secondly, the warnings should come in a timely manner to allow sufficient time to take the necessary measures.<sup>12</sup> This is applicable to parts of the NATO alliance –

especially the UK, US, and Baltic states, while the warnings of some members were lacking. No system is perfect, and the risk of surprise persists, as cases like the Egyptian and Syrian assault on Israel in October 1973,<sup>13</sup> the Argentine attempted seizure of the Falklands<sup>14</sup> in 1982 and the successful Russian conquest of the Crimea in 2014 attest.<sup>15</sup> Despite the impressive abilities demonstrated by Western allies to detect Russian activities and the willingness to share that information, not all allies and partners reached the same conclusions, as is suggested later in this article.

Given that the Ukraine war is the first 'digital' conflict, it is natural to see the focus on open-source intelligence (OSINT). The feast of OSINT – and often real-time – information on Moscow's military build-up gave a solid foundation for assessment. Reflecting on the use of OSINT, Lt. Gen. Sir Jim Hockenham, formerly UK Chief of Defence Intelligence, told the Royal United Services Institute think-tank that open source served as a screen to project assessments of Russia's intentions and capability. Additionally, much of this information could be verified and shared to wider audiences.<sup>16</sup> The role of the private sector and the wider open-source community allowed even journalists and the public to watch Russia's buildup. Imagery from US space technology company Maxar,<sup>17</sup> and collected social media posts portrayed a very public build-up of Russian forces. OSINT comes with health warnings, nonetheless. More information, as commentary on the war itself shows, does not necessarily lead to better analysis. State-based intelligence capabilities were just as significant in shaping assessments. Secret intelligence, the lesson goes, should not be written off.<sup>18</sup> US intelligence had, according to US officials, penetrated Russia's political and military leadership, obtaining 'extraordinary detail' on their plans. As early as October 2021, the intelligence indicated a 'significant strategic attack' was likely, resulting in high-level meetings in the White House.<sup>19</sup> In the run-up to the invasion, the UK's Government Communications Headquarters (GCHQ) was 'fundamental' in shaping assessments and gave 'enhanced' support to UK officials in Kyiv,<sup>20</sup> while the Secret Intelligence Service (SIS or MI6) provided intelligence 'illuminating Russian intent' and liaising with Ukraine's intelligence community to counter Russian intelligence activity.<sup>21</sup>

The Western assessments of Russia's likely moves were based on a solid bedrock of varied collection sources. Grabo writes that a reliable stream of information, combined with specificity of detail is key to good warning.<sup>22</sup> In his seminal study of intelligence success and failure, Erik Dahl observes that the problem with most intelligence before surprise attacks is that it is 'general and nonspecific'.<sup>23</sup> Ukraine was the opposite. In applying Dahl's principles, it was the detail from the intelligence picture on Russia's buildup that allowed officials in the US, UK and elsewhere to present the information to policymakers with a high level of receptivity and chances of success that the assessment would be believed in the first place.<sup>24</sup> Supported by a detailed and accurate picture, assessments from the Western powers provided stark reading, coming on top of Russian military exercises in 2021.<sup>25</sup> In April, Russia conducted a 'surprise check' of its southern and western fronts, in response to supposedly aggressive moves by the United States and NATO allies, sparking fears that conflict was likely.<sup>26</sup> 'We're now seeing the largest concentration of Russian forces on Ukraine's borders since 2014', Secretary of State Antony Blinken told a meeting at NATO headquarters,<sup>27</sup> leading President Joe Biden to reaffirm US commitments to Ukraine.<sup>28</sup> At the time, analysts suggested the numbers of Russian troops exceeded the numbers involved in the 2014 annexation of Crimea, with Ukrainian sources suggesting as many as 80,000 troops.<sup>29</sup> Analysts were also fully aware of the Zapad-21 exercise,<sup>30</sup> one of a rolling series of training exercises rotating across Russia's four main military districts each year. Zapad-2021 illustrated Russia's longer-term goal of integrating Belarusian forces into Russian-led structures. It took place against a backdrop of tensions between Russia and NATO, and Moscow's own efforts to reinforce security interests in Belarus after failed pro-democracy protests in August 2020. Though the figures involved in Zapad-21 were grossly inflated<sup>31</sup> — Russia even suggesting up to 200,000 troops participated — the exercises gave warning about the position of Belarus in any future conflict.

Though Moscow's explicit intentions were unclear, Western intelligence officials were fully aware of the build-up. Intelligence officials assessed in October 2021 that the Russians believed they could 'take Kyiv in seventy-two hours', leading to high level briefings in the White House.<sup>32</sup> Intelligence

briefings seen by the *Washington Post* in December 2021 showed that US officials believed that Russia had deployed 70,000 troops, and would be capable of deploying up to 175,000 troops along the Ukrainian border, comprising 100 battalion tactical groups and capable of an offensive in early 2022.<sup>33</sup> Despite the build-up, the deployments were, officials said, designed to 'obfuscate intentions and to create uncertainty'. This intelligence picture formed the basis of Blinken's warning to Russian Foreign Minister Sergei Lavrov during talks in Copenhagen that Russia would face 'serious consequences' if an invasion took place.<sup>34</sup>

UK officials became increasingly concerned about the prospect of an invasion around the same time, as key or high-profile units deployed for Zapad-21 did not redeploy back to their home locations, but rather remained in Belarus, along with large ammunition stockpiles.<sup>35</sup> Satellite imagery revealed the gradual build-up of Russian troops and, crucially, the deployment of supporting units needed to sustain an invasion.<sup>36</sup> US officials were also concerned about the distribution of medical supplies.<sup>37</sup> The pessimistic assessments were shared by NATO's Baltic states. Estonia's foreign intelligence service (*Välisluureamet*) pointed to large-scale operations.<sup>38</sup> 'In our assessment, the Russian Armed Forces are ready to embark on a full-scale military operation against Ukraine from the second half of February', said their annual report. 'Once military readiness has been achieved, only a political decision is required to launch the operation'. Estonian estimates suggested there were upwards of 150,000 troops, deploying from across Russia's military districts. 'This is', officials concluded, 'the single largest military build-up by Russia in the past 30 years'.<sup>39</sup>

The timing of an attack is always difficult to forecast.<sup>40</sup> Even in the case of Ukraine, and the overwhelming intelligence available, estimates on the timing varied. Analysts faced the age-old problem of 'crying wolf' on when Russia would attack. Several dates were put forward; officials believed an invasion on 20 January was likely,<sup>41</sup> while Biden told allies an attack could happen on 16<sup>th</sup> February.<sup>42</sup> Both were wrong. Sources also suggested an invasion before the end of the Winter Olympics on 20<sup>th</sup> February.<sup>43</sup> In the end, analysts were days out. It may have been obvious that Russia wanted to invade, but the timing is hard to assess. This did not matter; US assessments, however comprehensive, were unable to have an immediate short-term effect on allies.

Additionally, if intelligence was about providing specific timings of an assault, we run the risk of forever failures. Intelligence officials are always wary of when to warn. A warning threshold that is too low will cause future warnings to be ignored. If the warning threshold is too high, the intelligence may no longer be actionable. On the other side, the final decision to attack can be made in a short space of time. 'Once troops are in a position to go', wrote Grabo, 'orders to attack usually need to be issued no more than a few hours ahead'.<sup>44</sup> It is a conclusion backed up by a report by UK intelligence official Douglas Nicoll, who, in the 1980s, was asked to look at strategic warning.<sup>45</sup> As Nicoll concluded, 'The essential point to note is that while planning, preparation, and training may last for up to a year from the initial order to the armed forces to prepare, the period of readying, mobilisation, and deployment of forces may be quite short'. The problem has always been assessing when states will attack, an issue illustrated by the history of the Joint Intelligence Committee.<sup>46</sup> This becomes more complicated when trying to understand the intentions of autocratic leaders such as Vladimir Putin.

Despite the build-up of Russian forces, US officials kept an open mind on whether a decision had been made to invade. In December, following a visit by CIA Director Bill Burns to Moscow, White House national security advisor Jake Sullivan reiterated that the intelligence showed that, '[Putin] had not yet made a decision', even if analysts believed 'the Russian government is giving serious consideration and operational planning to such an exercise' – a view that remained dominant into January.<sup>47</sup> Just under a week before the invasion, President Biden said he was 'convinced' an attack would take place in the 'coming days'.<sup>48</sup> Key indicators included the movement of medical supplies, including blood supplies, to the border.<sup>49</sup> The US intelligence community's assessment that Putin would not decide until the last minute was certainly an accurate one, the invasion surprising some NATO allies and even members of the Russian government and armed forces.<sup>50</sup> Blinken himself called off talks with Lavrov two days before the invasion, following Russian recognition of the separatist regions.<sup>51</sup>

These assessments were not reflected elsewhere. Even faced with the alarming intelligence, European officials said they 'still refuse to buy it [invasion]. It would be such a mistake by Putin. War is costly'.<sup>52</sup> There was also a feeling that support for Ukraine could, even against the intelligence backdrop, lead to events that the West wanted to avoid. In March 2022, it was reported that France's director of military intelligence, General Eric Vidaud, had been removed from his post, sources citing 'insufficient' briefing on the Russian threat to Ukraine.<sup>53</sup> While some were quick to draw attention to France's failure,<sup>54</sup> the reality is more nuanced. A Russian invasion was, France's Chief of the Defense Staff Thierry Burkhard told journalists, 'part of the options'.<sup>55</sup> Vidaud's successor, General Jacques Langlade de Montgros, revealed that French military intelligence (the *Direction du Renseignement Militaire* or DRM) had a 'clear and comprehensive' understanding of Russia's buildup going back to the Zapad exercises, yet analysts were unsure of when, and how, an attack would take place.<sup>56</sup> DRM maintained that any attack, if likely, would be delayed pending 'favourable weather conditions', disagreeing with US and UK counterparts over the likely outcome. 'The Americans said that the Russians were going to attack', Burkhard is on record saying. 'Our services thought rather than the conquest of Ukraine would have a monstrous cost and that the Russians had other options'.<sup>57</sup> That assessment – that an invasion come at a 'monstrous cost' to the Russians – has proved correct. By August 2023, US officials privately revealed, had hit 300,000, including 120,000 dead.<sup>58</sup> Nonetheless, DRM's assessments fell into the trap of projecting one's own reasoning into the mind of the adversary – *mirror imaging*. French military intelligence failed to understand the adversary's risk appetite or rationale. Russia did not share the values and concerns of Western governments. Ultimately, DRM was persuaded by intelligence received from NATO allies the evening before the attack.<sup>59</sup>

The DRM were not alone. Bruno Kahl, the head of Germany's Federal Intelligence Service (the *Bundesnachrichtendienst* or BND), commented that Russia's invasion happened amidst a series of ongoing diplomatic initiatives to avert war. Speaking in May 2023, Kahl commented that UK and US intelligence had been, in his own words, a 'little more courageous' in their assessments, and had got the timing right, having got it wrong, he said, on previous occasions.<sup>60</sup> In late-January, Kahl had said that while Russia was prepared to attack Ukraine the decision had 'not yet been made', with 'thousands' of scenarios from continued support for Russian-backed separatists to moves to destabilise Kyiv remaining open.<sup>61</sup> Security sources had previously suggested to *Der Spiegel* that Kahl had to be rescued by a hastily arranged special forces mission, having been in Ukraine for scheduled talks when the invasion started,<sup>62</sup> though he later admitted he was 'aware of the dangers' when making the trip at the request of the Ukrainian government.<sup>63</sup> Immediately before Russia's invasion Kahl was reported to have told Burns that an invasion 'was not going to happen', while Germany's foreign minister, Annalena Baerbock similarly refused to believe Blinken's gloomy assessment.<sup>64</sup> The BND's shortcomings have led to growing criticism. 'I'm not inclined to trust anything from an intelligence service', one senior German politician commented, 'that allowed its own boss to get stranded in a war zone'.<sup>65</sup> While Kahl has defended his agency, criticism of BND's performance has continued.<sup>66</sup>

Initial Ukrainian intelligence assessments were also mistaken. Officials fell prey to several critical failings, the first of which was a failing to anticipate the axis of attack. Despite extensive warning from western allies, Ukrainian assessments were anchored on a main effort in Donbas. The Ukrainians, it could be argued, were preparing for a continuation of fighting that had been ongoing since 2014,<sup>67</sup> not a full-scale invasion. 'We still thought and . . . hoped', one senior Ukrainian commander recalled, that fighting would start 'from the occupied territory of parts of Luhansk and Donetsk' using paramilitary forces supported by regulars.<sup>68</sup> The buildup of Russian forces north of Kyiv was viewed as diversionary, and insufficient to isolate and capture the city.<sup>69</sup> Assessments were based on a view that the terrain north of Kyiv was not conducive to offensive operations. Russia was therefore able to achieve a 12:1 force ratio in the north in the opening stages of the invasion,<sup>70</sup> and achieve tactical surprise in the initial *coup de main* effort at Hostomel.<sup>71</sup>

Secondly, Zelensky and his inner circle shared the DRM's projection: they did not believe invasion was rational. 'At the time we thought these were threats', Zelensky later told journalists, 'We talked to the intelligence agencies, with our own and those of our partners. Everyone saw the risks differently'.<sup>72</sup> Even armed with British and American assessments, in addition to those of his own staff, an



intelligence advisor close to Zelensky said that he believed Putin was bluffing until the last moment.<sup>73</sup> 'No they aren't [going to invade]', Zelensky is reported to have told Biden when confronted with assessments that Kyiv was Russia's likely target.<sup>74</sup>

Thirdly, intelligence warnings came secondary to politics; Zelensky had sought to minimise the effects of Russia's build-up and fears of invasion on Ukraine's already fragile economy and civic life.<sup>75</sup> Kyiv sought to avoid panic, even if preparations were being made.<sup>76</sup> In January, Zelensky had told Biden to 'calm down the messaging' and that invasion scares were causing 'panic' in the markets, with the economic cost estimates to be over \$15 billion.<sup>77</sup> 'If we sow chaos among people before the invasion', Zelensky recalled, 'the Russians will devour us. Because during chaos, people flee the country'.<sup>78</sup> Even in late-January, Zelensky believed Russia's build-up was 'psychological' posturing.<sup>79</sup> These tensions extended to civil-military relations; Valery Zaluzhny, appointed Ukrainian Commander-in-Chief in July 2021, had pressed for quicker mobilisation, but had been restrained because of 'political barriers',<sup>80</sup> barriers that would ultimately result in Zaluzhny's removal in February 2024.<sup>81</sup> It was widely known that Russia had been able to penetrate Ukraine's government, notably its security agency, the SBU (*Sluzhba bezpeky Ukrainy*) with a number of SBU officers defecting early in the invasion.<sup>82</sup> An unnamed security official confirmed there were a lot of problems 'in the upper and middle ranks' gutting the SBU and, in the worst cases, supporting Russian local successes in the south,<sup>83</sup> resulting in major internal reform.<sup>84</sup>

For the US and UK, warning mattered as it provided a window to support Ukraine, and convince allies that an invasion was coming. US Director of National Intelligence Avril Haines told the Senate Intelligence Committee, that intelligence was 'critical to the diplomatic effort. I think it has helped galvanize the response and ... I hope, helped to prepare the Ukrainians to some extent'.<sup>85</sup> Intelligence warning gave, in other words, the breathing space for national governments to respond. It streamlined the legal case for sanctions and for the provision of lethal aid. Dahl observed that for intelligence to be useful it should be both *precise* and *actionable*.<sup>86</sup> As he notes, intelligence must provide 'precise, tactical-level warning, and it must be combined with a high level of receptivity toward that warning on the part of policymakers'. Policymakers, he adds, prefer 'facts rather than analysis'.<sup>87</sup> Warning intelligence pre-invasion was *precise*, *actionable*, and *receptive* to policy. The quality of the information, leading to several high-level visits to Moscow,<sup>88</sup> could never deter Putin's cloistered *siloviki* from making the decision to invade. Politically it mattered. In London, the intelligence firmed up the arguments of some that Ukraine needed to receive NLAWs, anti-tank capability that proved key, and other lethal aid.<sup>89</sup> Same in Washington.<sup>90</sup> Intelligence was also at the forefront of efforts to unify NATO assessments which were divided on whether an invasion would happen. DNI Haines recalls Biden saying, 'We need to start sharing intelligence and you have to get them see that this [invasion] is a plausible possibility, because that's what's going to help us engage them in a way that allows us to start planning'.<sup>91</sup> Burns believed US intelligence played a critical role. 'Allied leaders and counterparts have emphasised', he revealed, 'the credibility of US intelligence helped cement the solidarity of the Alliance'.<sup>92</sup> Intelligence helped to prepare across a range of military and political fronts, to marshal alliances and partnerships, and allowed both Ukraine and the Western powers to go into the current crisis forearmed *because* they were forewarned.

Correctly anticipating an invasion was undoubtedly a success story, yet there were gaps in assessments. Analysts may have fallen subject to some analytical pathology in predicting – not unlike the Russians – that Ukraine would fall quickly. Ukraine's resistance took analysts by surprise.<sup>93</sup> As some US officials suggested to journalists, 'a Russian invasion could overwhelm Ukraine's military relatively quickly, although Moscow might find it difficult to sustain an occupation and cope with a potential insurgency'. They went on to add that an invasion, 'would leave 25,000 to 50,000 civilians dead, along with 5,000 to 25,000 Ukrainian soldiers and 3,000 to 10,000 Russian ones. It could also trigger a refugee flood of one to five million people, mainly into Poland'.<sup>94</sup> US analysts believed Russia would make 'substantial gains ... Kyiv could easily fall'.<sup>95</sup> Oleksiy Danilov, secretary of Ukraine's National Security and Defence Council, recalls being told 'we would be conquered in four to five days'.<sup>96</sup> US officials reportedly even offered to evacuate Zelensky, so sure they were of

a collapse.<sup>97</sup> Lt. Gen. Scott Berrier, Director of the US Defence Intelligence Agency, admitted he 'questioned their [Ukraine's] will to fight – that was a bad assessment'.<sup>98</sup> Perhaps still stinging from the rapid collapse of Afghanistan to the Taliban, there may have been some reluctance to be optimistic about Ukraine's chances. The analysts, in other words, overcompensated for past mistakes. The leak of US documents on the Discord social media platform in April 2023 suggests assessing allies remains an issue. US intelligence knows more about Russia than it does about Ukraine.<sup>99</sup>

If analysts downplayed Ukraine's chances, they overhyped Russia's. In June 2022, former NATO Secretary General Anders Fogh Rasmussen admitted, 'we have overstated the strength of the Russian military'.<sup>100</sup> Overrating the Russian military had, it has been suggested, implications. Diplomatic efforts to avert war could have been prioritised,<sup>101</sup> while others have claimed arms supplies could have been deployed sooner – and in greater volume.<sup>102</sup> Questions have also been asked about the longer-term implications for assessing the military capabilities of foreign powers. Intelligence analysts are good at counting the numbers of tanks, artillery, and aircraft, but assessing how these forces will fight is harder. Training, discipline, morale, command, and control are all variables that can only be tested on the battlefield and come as no surprise to analysts. As Bettina Renz noted, 'there has been a tendency, especially in the West, to overstate the scale and implications' of Russia's military reforms after 2008.<sup>103</sup> Russia's military had evolved significantly, yet Crimea (2014) and Syria (2015 -) were not representative of wider performance, and the opening stages of the Ukraine invasion revealed Russia's military was far behind western assessments.<sup>104</sup> Once again, analysts overcompensated for past sins. Inflated views of Russian strength were, it seems, fast to form, yet resistant to change. Efforts to overcome this require 'deep, context-based area knowledge' and, if done badly, can result in the typical analytical pitfalls.<sup>105</sup> Yet assessing these factors remains, Lt. Gen. Scott Berrier has said, 'a very difficult analytical task'.<sup>106</sup>

Adequate warning allowed another western intelligence success: 'prebuttal'. The 'prebuttal' strategy deployed against Russian disinformation and prevarication represents a significant innovation, and the direct use of intelligence to combat Russia's denials appears to have been taken at an early stage. 'Okay, we can dumb this down and make it unclassified', President Biden is reported to have said, having been presented by the assessments in October 2021.<sup>107</sup> Any credible prebuttal effort was going to require carefully thought out but rapid declassification of intelligence for timely publication. Such a campaign aims to bombard the media space with truth – visible, measurable, even tangible data and analysis about the Russian buildup and military campaign.<sup>108</sup> Historically, governments have always declassified sanitised intelligence to support policy decisions or offer alternatives, although the scale and speed of this effort are remarkable.<sup>109</sup> The campaign follows a classic model: it is grounded in truth, it repeats a theme from different angles, and it is well-timed and geared toward a specific objective.

The Ukraine case saw – and continues to see – extensive reference to intelligence in public. In January 2022, the United States pre-empted Russian moves by publishing information on Russian subversion.<sup>110</sup> 'Russia has directed its intelligence services to recruit current and former Ukrainian government officials to prepare to take over the government of Ukraine', reported Blinken, 'and to control Ukraine's critical infrastructure with an occupying Russian force', a message reinforced by an intelligence-led statement from UK Foreign Secretary Liz Truss.<sup>111</sup> Shortly before Russia's invasion, Jim Hockenhull told journalists, 'We have not seen evidence that Russia has withdrawn forces from Ukraine's borders. Contrary to their claims, Russia continues to build up military capabilities near Ukraine'. UK Ministry of Defence communications, using information supplied by Defence Intelligence, tweeted avenues of attack – lines that proved to be correct.<sup>112</sup>

The publication of intelligence should not be overplayed. Moscow may have been forced to respond to intelligence releases, yet the release of information by governments should never, and can never, be seen as part of a strategy to deter an assault. Officials and policymakers also need to be careful with what they release for several reasons. Firstly, the prebuttal approach was successful because the events that officials forecasted came true. Domestically, the reputation of US and UK intelligence has been at least partially restored after the Iraq fiasco.<sup>113</sup> Recently, however, released assessments have been based on medium to low confidence. As one official said, 'It doesn't have to



be solid intelligence when we talk about it. It's more important to get out ahead of them – Putin specifically – before they do something'.<sup>114</sup>

Releasing statements that may turn out to be untrue could impair future use of prebttal, as it could undermine the trust that has been carefully built up. In other words, releasing low-confidence assessments to keep ahead of Russia's information games would be counterproductive, and damage the IC's hard-won public Secondly, beating Russia's information operations might be important, but no more than the paramount need to protect sources. Third, and finally, the regular release of information by Ministry of Defence has shaped media narratives, yet, has achieved diminishing returns over time.<sup>115</sup>

## Intelligence and war

The contrasting intelligence experiences of Ukraine and the West, and Russia shaped the unfolding of operations. The conflict in Ukraine simultaneously highlights the successful use of intelligence collection and analysis by western governments, and the collective weaknesses within Russian collection, analysis and decision making. High-level intelligence sharing, the leveraging of crowd-sourced open-source intelligence, and sharp, flexible strategic planning have thus far provided strategic advantages to the Ukrainians. In contrast, Russia's demonstrable weaknesses on the battlefield stemmed from self-imposed impediments, led the bigotry of low expectations when assessing Ukrainian capabilities and morale. Their top-down, authoritarian culture, well-demonstrated in invasion planning, prevented the Russian military from achieving battlefield success despite significant advantages in combat power. Corruption, weak professionalism, and other issues also had their impact. Since the second year of the war, Russia has been able to stabilise their military performance, if not yet recover initiative. Ukraine, at the time of writing, continues to leverage intelligence to 'punch above its weight'. Both highlight Russia's awful initial performance and their sclerotic intelligence culture. Nonetheless, this war illustrates that two common historical phenomena still prevail today: The first is that whatever intelligence advantages an attacker has are quickly lost at the opening of hostilities. The second is that over time, both sides will adapt and drive toward qualitative parity in intelligence.

The Ukrainian government and armed forces proved, in the first year of the war, highly adept at capitalising on the intelligence failures of Russia, leveraged by intelligence expertise of their own. This results from eight years of experience in Donbas, and more recent training to NATO standards, in which highly integrated and technologically sophisticated intelligence, surveillance, and reconnaissance takes a significant role in doctrine. As with strategic intelligence, this has also transmuted into a distributed, globalised, even 'democratized' enterprise as open-source information has exploded in terms of scale and capabilities. Initially detached from the global open-source intelligence revolution, Russia mounted its attack on Ukraine entirely unprepared to fight a war in the 21<sup>st</sup> Century intelligence environment.

Russia's weaker staff system and lack of intelligence preparation in operational planning may be critical in understanding Russian failures. Intelligence supports an operational-level military campaign throughout, but generally has two major phases: intelligence support to planning, then intelligence support to the execution of the planned operation. While the difference is not absolute, the planning phase tends to have more of an analytical component, where the support to the operation is dominated by current intelligence collection. The foundation of operations is done in planning – what NATO forces call intelligence preparation of the environment (or 'of the battlefield').<sup>116</sup> In absence of sound intelligence preparation, not only do operations have a greater chance of going badly, but recovery from errors will be more difficult, as current collection will be based on initially flawed reasoning or assumptions. It is the case that Russia's war in Ukraine was based on poor initial intelligence preparation from the beginning, and they were slow to recover from these initial errors and flawed assumptions, and to recover any initiative. Certainly, they were as surprised as NATO by Ukraine's resistance.

While there are national variations, all NATO military decision-making processes follow similar steps: understand the mission, conduct intelligence preparation, develop courses of action, evaluate and choose a preferred course, then finally develop orders. Here we look principally at the intelligence aspect, itself a process of multiple steps: loosely speaking, staff evaluate the physical terrain, the adversary's current capabilities and doctrine, their assessed intent, and integrate these to determine adversary courses of action. The adversary courses of action are the basis of how the staff develop their own plans to defeat the enemy according to the commander's intent. NATO considers these steps fundamental to operational planning, but they are almost entirely absent from Russian planning.<sup>117</sup>

The Russian staff process, as a rule, prefers a faster decision cycle. The weight of developing the plan is with the commander, who is presumed to have the right answer, and their staff only determine the specifics of how to execute their orders. They do conduct a more limited (but much more mathematical) 'correlation of forces and means' analysis, what Russia experts Lester Grau and Charles Bartles define as the second step of the Russian military decision-making process.<sup>118</sup> But this allows the staff to support the pre-determined plan. In the NATO process, the staff support decision-making; in the Russian system, they support *the decision*. It is likely, therefore, that the Russian plan to invade Ukraine descends not from thorough staff analysis, but from the preferences or preconceived notions of the Russian high command, and Putin himself. They thought that Ukraine, as in 2014, would not fight.<sup>119</sup>

Vladimir Putin steered invasion planning and ignored more sober assessments. His view of Ukraine's statehood and independence remains entirely dismissive. Influential Russian nationalist philosopher, and Putin favourite, Alexandr Dugin, noted in an interview that Russia had a great civilizing mission in the world which 'will not be full-fledged until we unite all the Eastern Slavs and all the Eurasian brothers into a single large space. Everything follows from this logic of fate – and Ukraine too'. Putin in turn repeated these terms in his now infamous essay right before the invasion, saying 'Ukraine has never had its own authentic statehood'.<sup>120</sup> In another speech he stated that Ukraine and Russia 'together have always been and will be many times stronger and more successful. For we are one people'.<sup>121</sup> In his mind it was stubborn Nazi volunteers in Donbas and a politically weak former TV-comedian who kept this from happening. No dissent from this line is perceived in any Russian open-source reporting.

That lack of open discussion or dissent from Putin's convinced views coloured all subsequent planning. The then head of the UK's GCHQ signals intelligence agency, Sir Jeremy Fleming, believed Putin created a culture where no one dares question his directives.<sup>122</sup> Putin believes Ukraine is or ought to be Russian, and whatever passed for intelligence preparation of the environment confirmed this in his mind. This view certainly influenced the ranks as the key planning consideration for Russia's military. Russian troops appear to have been told that they were there to eject the 'gang of drug addicts and neo-Nazis' that were Ukraine's government, and the Ukrainian people would welcome them.<sup>123</sup> They packed dress uniforms for the expected parade.<sup>124</sup>

The Russian intelligence service analysed the political sympathies and attitudes in Ukraine immediately before the invasion, and their findings – the subject of a report by RUSI – seemed to indicate discontent in Ukraine with the existing political order. Rather than viewing these as 'snapshots in time', which might be changed by Russian intervention, Putin seemed to have read the findings as confirming his pre-existing notion.<sup>125</sup> Indeed, Moscow entered the war believing that opposition to Kyiv from the Russian-speaking eastern part of Ukraine would result in a quick win. This assessment may also have been supported by a selective reading of the extensive HUMINT from Russia's sources within Ukraine's political system, intelligence agencies, and other organisations. Moscow's flawed assumption could also have been reinforced – as with US/UK assessments on Iraq – by the views of pro-Russian Ukrainians living in Moscow, who had every reason to support an early invasion. Following the invasion, Russia's extensive networks were degraded, either through Ukrainian counterintelligence or individuals seeking to protect themselves.<sup>126</sup>

We can infer that the Russian intelligence services supported Putin's view of Ukraine as a state readily and easily absorbed. Bellingcat's Christo Grozev showed that in early April 2022, Putin sacked

more than 150 Russian intelligence officers, including the FSB's '5th Service' chief, Gen. Sergei Beseda, 'for reporting unreliable, overly optimistic information concerning Ukraine', suggesting a military and political culture of providing inaccurate or outright deceptive intelligence upwards. This underlines the hypothesis that Putin believed a false picture of the kind of war he was getting into.<sup>127</sup>

Astonishingly, evidence of this culture was broadcast on television during the pre-invasion meeting of the Russian National Security Council. Putin publicly humiliated the director of the Russian foreign espionage service, the SVR, Sergey Naryshkin, into obviously reluctant agreement that Russia should formally recognise the two breakaway Donbas republics and so legitimise the path to war.<sup>128</sup> We see an intelligence leadership which was not at all intellectually honest with itself or its principal customer. It was widely understood that honesty would be rewarded with humiliation, imprisonment, or death. As David Goe and Huw Dylan argued in the *Washington Post*, 'either [Putin] ignored the advice of his national security and intelligence advisers; or, as with so many authoritarian leaders before him, he set the conditions under which his subordinates only told him what he wanted to hear'. Neither speaks well of his capacity as a wartime leader.<sup>129</sup>

The results of this institutional assumption played out in the first week of the invasion. Russian forces failed to destroy Ukraine's air force or air defence system, and so failed in their air assaults to capture Hostomel airport.<sup>130</sup> They continued to reinforce this assault despite Ukraine's integrated air defence system still operating and Ukrainian units counter-attacking vigorously, causing crippling casualties and the decimation of Russia's professionalised airborne units.<sup>131</sup> In addition, Russia had insufficient logistical preparation for an operation lasting longer than four days, and restricted the use of offensive fires (artillery, air, missile strikes) during assaults to prevent damage to civil infrastructure.<sup>132</sup> Other flaws in the Russian military system, and its seeming inability to adapt, have been described elsewhere. We can say, however, that a poor initial estimate (or more general intellectual dishonesty) underlies much of Russia's disastrous invasion plan.

One estimate that Putin and his analysts made, which may not have been inaccurate at the time, is that the West would not support Ukraine. Since the West – and Europe specifically – reacted timidly to the 2008 invasion of Georgia and the 2014 invasion of Ukraine, why would they behave differently now? Putin had normally gotten away with his bold moves. This might be explained by the facts that Georgia was outside the West's area of interest, and in Crimea he achieved genuine surprise. Neither condition was true this time. Moreover, Putin telegraphed his Ukraine ambitions for at least a year before the invasion, giving NATO members ample time to coordinate and consider options. Regardless, it surprised many observers that Europe *has* reacted as vigorously as it has to the invasion.<sup>133</sup> Arms now flow in from most states and public support for this is strong in most countries. This was not a certain outcome in late February 2022.

At the level of operations and tactics, one failing of the Russian Federation Army that received a lot of attention is the Battalion Tactical Group, or BTG, a product of its 'New Look Reforms' (introduced in 2012).<sup>134</sup> Its general failings are manifest and were apparent to Western and even Russian analysts for some time.<sup>135</sup> On the intelligence front, the battalion tactical group suffered from its generally small headquarters, which lacks the horsepower for tactical level intelligence preparation that larger formation headquarters might have. Even the scope of its collection is compromised by the small headquarters and low level of organisation. One US service report notes that in the intelligence sphere, the battlegroup mostly has narrow-view tactical systems, and 'little general coverage'. To coordinate these tactical drone assets, battalion tactical group command and control 'requires co-location of maneuver (sic) companies and intelligence, surveillance, and reconnaissance ... personnel in tactical-assembly areas, which become high-payoff targets'.<sup>136</sup> All the eggs needed to be in one basket, and the Ukrainians were not blind to this.

Communications security also is a casualty of Russian expectations for a short campaign. Early reports suggested that Russia's communications infrastructure has performed poorly on the battlefield, especially cutting-edge encrypted Azart and Akveduk radios. The result was that the Russian forces relied initially on in-field makeshift solutions using mobile phones or unencrypted high-frequency radio that the Ukrainian military – and even radio enthusiasts – easily intercepted.<sup>137</sup>

The Russian-made Era phone system relies on a cellular network to function, but Russia's own fires destroyed mobile phone towers in many parts of the country, in turn constraining the Russians' ability to use secure phones, forcing them onto open comms systems.<sup>138</sup> This certainly provided an initial intelligence boon to the Ukrainians, but also made it much more difficult for Russian headquarters to communicate intelligence outwards.

Russia's subsequent adaptation to more secure radio systems in the second year of the war underlines the key technological components of intelligence and security in the 'radical war' era.<sup>139</sup> As a caution, we must note that we do not know clearly how badly the Ukrainians have been mauled by Russian forces to date. The Ukrainians have been playing a masterful game of information operations, and accurate views of their casualties are not widely publicised or even discussed. While most information suggests otherwise, Russian military intelligence may be providing accurate information, enabling them to target Ukrainian formations effectively. We know Ukraine's large Air Defence systems have taken serious casualties, for instance, and this may be the case elsewhere, and they are clearly suffering in battles such as Avdiivka.<sup>140</sup> It will take some time, and more data, before we can effectively assess the full operational intelligence skill of the invading Russian forces.<sup>141</sup> We can note also that the Russian Army *has* adapted since the first year of the war. They have abandoned use of their flawed BTG tactical organisation; they have better integrated drones and EW (always a Russian strength<sup>142</sup>) into their strike-fires complex, and they have better hidden and distributed their HQs. Despite their significant flaws, the Russian Army remains a formidable force, executing better now what has always been solid operational doctrine. Forced, at length, by catastrophic losses, they have slowly adapted and improved in many ways, and Ukrainians advantages have been less decisive.

Despite initial warning failings, Ukraine has been able to use intelligence far better than their opponents at the operational and tactical levels. Two main factors can be identified in Ukraine's ability to maintain the upper hand on the operational intelligence front: the willingness of Western allies to share intelligence, and the increased power and potential of open-source intelligence including commercial reconnaissance satellites. Firms like Maxar Technologies and Blacksky published open-source imagery to inform the news media and public.<sup>143</sup> As the conflict escalated after 24 February, Kyiv entered discussion with Maxar and others to secure imagery for operational intelligence exploitation. Added to this is the intelligence coming from official sources.<sup>144</sup> Broad Ukrainian support for the war has meant significant 'crowd-sourced' intelligence, every citizen a potential 'sensor'.<sup>145</sup> These means helped Ukraine survive the first year, but in the longer term have created parity with Russia, not a particular advantage.

Though much remains to be known, given the sensitivities of intelligence liaison, US officials have commented on the steady flow of intelligence to Kyiv. White House press secretary Jen Psaki said in early March 2023 that the US had been sharing 'real time' intelligence assisting Kyiv's defensive posture, to 'inform and develop their military response to Russia's invasion'. Sources told *CNN* that the exchanges included information on 'Russian force movements and locations', as well as intercepted communications about their military plans, shared within 30 minutes to an hour of the US receiving it.<sup>146</sup> Some have suggested foreign intelligence helped the Ukrainians target and sink the Russian cruiser *Moskva*, and may have assisted in other important strikes on Russian military infrastructure in Crimea and elsewhere.<sup>147</sup> In May 2023, unnamed US officials told the *New York Times* that US intelligence was 'helping Ukraine kill Russian generals',<sup>148</sup> a claim denied by National Security Council spokesperson Adrienne Watson. 'The headline of this story is misleading and the way it is framed is irresponsible', she said. 'We do not provide intelligence with the intent to kill Russian generals'.<sup>149</sup>

Foreign intelligence liaison needs to be caveated. Just receiving foreign intelligence is not helpful unless a military has the analytical capacity to integrate it into a single intelligence picture. That the Ukrainians have been able to combine foreign intelligence liaison with sovereign collection and analysis of their own, speaks highly of the Ukrainian military staff, and the command climate set by Valery Zaluzhny.<sup>150</sup> And overplaying the role of US intelligence is problematic. 'I just think it's disrespectful to the Ukrainians', says former CIA official John Sipher. 'It's taking away from the people

who are actually on the ground, who are taking advantage of the intelligence, who are collecting their own intelligence, who are fighting day and night'.<sup>151</sup>

Compounding Russia's initial terrible performance, and complimenting intelligence gathered from Ukraine's own collection and that provided by friendly governments, has been the general 'home ground' advantage possessed by Ukraine and its citizens. Ukraine's military intelligence has certainly made use of Russia's poor communications security and their in-clear radio and phone transmissions: since intelligence is so perishable, it stands to reason that Ukraine's military intelligence have been acting on this information very quickly, and it follows that much tactical intelligence success belongs to Ukraine's own intelligence units, led by Major General Kyrylo Budanov.<sup>152</sup> It is important to note that Ukraine's military staff system and intelligence culture still looks more like Russia's than NATO's.<sup>153</sup> But they have been quick to adapt and seek marginal advantage. Understanding their overall weakness, they have embraced change where they can. They must continue to adapt if they hope to prevail at all against Russia's still very formidable military machine.

## Conclusion

The case study of Ukraine offers a significant case study of warning intelligence success. Given the academic focus on failure, studies of warning success are fewer. Nonetheless, the warning of the UK, US and other allies before Russia's invasion shows that the age-old principles of warning intelligence still apply. As Dahl observes, warning intelligence success only occurs when intelligence is both *precise* and *actionable*. The volume of information available to UK and US analysts, utilising both secret and open source, made warning success increasingly likely. In turn, the growing body of evidence on Russia's intentions made it far easier to convince policymakers that an invasion was coming, even if the exact timing of the operation remained a mystery even into the later stages. Nevertheless, even with the volume of information available, warning success was not guaranteed. As the French, German and even Ukrainian cases suggest, wishful thinking and mirror imaging were problems that affected assessment in the face of overwhelming evidence of Russia's military buildup. Such cases also suggest that labels of 'failure' are simplistic, with the root causes much deeper. The French DRM rightly assessed that Russian losses would be too heavy, but wrongly concluded that this would affect decision-making. By December 2023, US intelligence assessed that Russia had lost as much as 87 per cent of the total number of its active troops before the invasion, and two-thirds of its pre-invasion tanks, setting back the programme of reform that Russia had previously undertaken.<sup>154</sup> Nevertheless, the DRM – and other European allies – did not fully grasp Moscow's appetite for risk. It is clear for now that the opening stages of the war in Ukraine will be the subject of renewed academic debate on warning success in future.

This article also shows that each side's particular advantages have diminished with time. Defections to Russia from the SBU ended penetration and will not be repeated at that scale. Russia eventually has been able to deploy its advanced technical means to the front as its war effort has stabilised, and its approach to intelligence and tactics has evolved. Likewise, Ukraine's various collection means, and its analytic superiority, have since provided diminished returns. This is to be expected in a situation where weakness in these areas never leads to decisive defeat, nor strength to victory. Similarly, there has been no way for the US, UK and NATO to continue to exploit their initial warning intelligence successes, and there is little further political gain to be made by declassifying and publicising their assessments of Russia. These are all normal symptoms of a long, static war. Both sides share a challenge in 2024–25 of finding and exploiting strategic intelligence advantages which will impact the large-scale, long-term scope of this war.

The contrasting experiences of intelligence also fed into the conduct of operations. Intelligence quickly became a force multiplier for Ukraine, which was able to recover from initial surprise and integrate intelligence, including OSINT, into its military operations, signalling the success of its reforms and Western support. It is safe to assume that, unlike the invading force, the Ukrainian military was well nourished by intelligence. Although we are forced to speculate, this is best

evidenced by Ukraine's critical defence of Hostomel and subsequent counter-attacks. The destruction of Russia's airborne mission there eliminated the possibility for Russia to achieve a quick victory and its political goals of rapid regime change. By contrast, whilst Russia had early intelligence advantages (especially detailed HUMINT on Kyiv's political and military planning), and was able to achieve tactical surprise, such intelligence strengths diminished over time. This, combined with the neglect, or clear *politicisation* of intelligence, to suit a preconceived Kremlin vision, hampered Russian operations. Although the Russian military has, like their Ukrainian counterparts, shown an ability to adapt, early intelligence failures set the tempo for the campaign. It is therefore essential to study the success of intelligence warning, and failure to integrate intelligence into planning, and the effect this had on the course of the war in Ukraine.

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