

# Technology Companies as Tools of International Competition: The SpaceX Case Study

Graham Overcash

The twenty-first century has been defined by rapid advancements in technology, particularly communications technologies that have dramatically changed the world. Technological advancements have sparked a revolution in how people communicate, how businesses operate, and how states conduct diplomacy. This blog will focus on the role that private technology and communications corporations, such as SpaceX, play in international competition between states.

An example of the impact that Big Tech corporations have in international competition appears in the Russo-Ukrainian War (2014-?). Private tech companies have played a vital role in Ukraine's defense from Russian aggression. SpaceX's Starlink satellites "[keep] Ukrainians connected to the internet" on the frontline.<sup>1</sup> These services have been vital in enabling Ukraine to defend itself from Russia's full-scale invasion.

Starlink in particular has played a decisive role in the war. One Ukrainian soldier stated that "Starlink is what changed the war in Ukraine's favor."<sup>2</sup> Ukrainian Special Forces operators demonstrated the value of Starlink during the Siege of Mariupol. Russian forces encircled and largely destroyed Mariupol, a city of 400,000 people before the war.<sup>3</sup> The city was key to Russian plans to annex Ukraine, as it would facilitate "the creation of a land bridge linking Russian territory to Crimea."<sup>4</sup> During the siege, a pair of Ukrainian Mi-8 helicopters flew "barely 20 feet above ground into the hottest combat zone in the war."<sup>5</sup> The goal of this mission, among other things, was to deliver Starlink communications systems before Ukrainian forces in the city were cut off to the outside world.<sup>6</sup> The Starlink equipment delivery would "change the battle."<sup>7</sup> Not only did Starlink allow Ukrainian forces to communicate with one another and help facilitate a defense of the city, but it also allowed the surrounded Ukrainians to communicate with the outside world.

---

<sup>1</sup>Audrey Kurth Cronin, *How Private Tech Companies Are Reshaping Great Power Competition*, KISSINGER CTR. FOR GLOB. AFFS. (Aug. 2023), <https://sais.jhu.edu/kissinger/programs-and-projects/kissinger-center-papers/how-private-tech-companies-are-reshaping-great-power-competition> [<https://perma.cc/X6TN-ZTQV>].

<sup>2</sup>Vivek Wadhwa & Alex Salkever, *How Elon Musk's Starlink Got Battle-Tested in Ukraine*, FOREIGN POL'Y (May 4, 2022), <https://foreignpolicy.com/starlink-ukraine-elon-musk-satellite-internet-broadband-drones> [<https://perma.cc/26RF-GNAT>].

<sup>3</sup>*See Ukraine War: Last Ukrainian Troops in Mariupol Told to Stop Defence of City*, SKYNEWS (May 20, 2022) <https://news.sky.com/story/ukraine-war-last-ukrainian-troops-in-mariupol-told-to-stop-defence-of-city-12617385> [<https://perma.cc/3AJP-665B>].

<sup>4</sup>Michael Schwartz, *Last Stand at Azovstal: Inside the Siege That Shaped the Ukraine War*, NEW YORK TIMES (July 24, 2022), <https://www.nytimes.com/2022/07/24/world/europe/ukraine-war-mariupol-azovstal.html>.

<sup>5</sup>*Id.*

<sup>6</sup>*Id.*

<sup>7</sup>*Id.*

Capt. Svyatoslav Palamar, the deputy commander of a Ukrainian regiment in Mariupol, spoke with reporters and showed the “apocalyptic” conditions that Ukrainian defenders found themselves in.<sup>8</sup> Furthermore, Starlink allowed soldiers to communicate with their families before surrendering to Russian forces in May of 2022. In Mariupol, Starlink was valuable to the defense of the city as well as providing much needed comfort to soldiers fighting in one of the bloodiest battles of the twenty-first century.

SpaceX and its Starlink Satellites have been a vital ally for Ukraine and have greatly improved Ukraine’s ability to defend itself. This alliance, however, has not always been smooth. In 2022, Ukrainian naval drones “loaded with explosives approached the Russian fleet” in Sevastopol, in Russian-occupied Crimea.<sup>9</sup> These drones were using Starlink to guide, as Elon Musk described it, “a Pearl Harbor type attack on the Russian fleet in Sevastopol.”<sup>10</sup> When the drones approach the Russian fleet, “they lost connectivity and washed ashore harmlessly.”<sup>11</sup> Elon Musk, the weird little freak who runs SpaceX, said that “U.S. sanctions on Russia meant that Starlink satellite connection near Crimea could not be turned on for a Ukrainian military operation without permission from the U.S. president.”<sup>12</sup> Senator Elizabeth Warren called “for an investigation into Musk and Starlink in Ukraine” after an autobiography about Musk claimed that he personally made the call to turn off Starlink connectivity for the attack.<sup>13</sup> While this claim was not true, it highlights public concern over how private companies are involved in war, leaving private citizens to make major life-or-death decisions.<sup>14</sup> To mitigate this issue, SpaceX launched Starshield, which is a “secured satellite network for government entities” that uses the Starlink constellation.<sup>15</sup> While Ukraine still only uses Starlink Starshield signed a contract with the U.S. Space Force “to provide satellite communications” to support “mission partners across the Army, Navy, Air Force, and Coast Guard.”<sup>16</sup> This deal demonstrates how SpaceX is looking to separate its Starlink from its military uses and make it a platform only for civilians. This is important as SpaceX is actively supporting the Ukrainian armed forces, making SpaceX infrastructure—such

---

<sup>8</sup> *Id.*

<sup>9</sup> Elsa Court, *Musk Says He Didn’t Turn On Starlink Due to US Sanctions on Russia*, KYIV INDEP. (Sept. 12, 2023), <https://kyivindependent.com/musk-says-he-didnt-turn-on-starlink-due-to-us-sanctions-on-russia/> [<https://perma.cc/4XZP-7AJW>].

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> All In Summit, *Elon Musk on Ukraine, X, the creator economy, China, AI, & more*, YOUTUBE (Sep 12, 2023), <https://www.youtube.com/watch?v=tKqJ5-kkUGk> at 6:00.

<sup>13</sup> Amanda Macias, *Warren Calls for Investigation into Elon Musk and Starlink in Ukraine*, CNBC (Sept. 12, 2023), <https://www.cnbc.com/2023/09/12/warren-calls-for-investigation-into-elon-musk-and-starlink-in-ukraine.html> [<https://perma.cc/QEV9-22NR>].

<sup>14</sup> Oliver Darcy, *Walter Isaacson Defends Elon Musk Biography Amid Controversy over Ukraine Revelations*, CNN (Sept. 12, 2023), <https://www.cnn.com/2023/09/11/media/walter-isaacson-elon-musk-reliable-sources/index.html> [<https://perma.cc/LU4F-AUMT>].

<sup>15</sup> Jon Porter, *SpaceX Inks First Space Force Deal for Government-Focused Starshield Satellite Network*, VERGE (Sept. 28, 2023), <https://www.theverge.com/2023/9/28/23894239/spacex-starshield-satellite-network-space-force-pentagon-deal> [<https://perma.cc/BR5P-F4ZB>].

<sup>16</sup> *Id.*

as Starlink user terminals and satellites, a valid target for the Russian Armed Forces. SpaceX may want to separate the infrastructure used for Starlink and Starshield to avoid making infrastructure that is vital to civilians a valid military target.

It is a basic principle of customary international humanitarian law (IHL), that “parties to an armed conflict must distinguish between the civilian population and combatants and between civilian objects and military objectives.”<sup>17</sup> Any intended target on the battlefield “must be a military objective.”<sup>18</sup> Protocol I to the Geneva Conventions provides a definition of a military objective in Article 52.<sup>19</sup> A two-prong test determines whether an object is a military objective or not. First, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action.<sup>20</sup> Second, a military objective is an object “whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”<sup>21</sup>

Applying this definition to Starlink infrastructure, it is clear that Starlink is a valid military objective. Starlink systems perform a variety of tasks on the battlefield for Ukraine, and destruction and disruption of Starlink services yields a military advantage for Russia. An attack on Starlink infrastructure would be legal, assuming the attack does not cause disproportionate civilian harm. That attack would be legal even if that infrastructure is being used for both civilian and military uses. “When a certain object is used for both military and civilian purposes, it may be held that even a secondary military use turns it into a military objective.”<sup>22</sup> This is likely an uncomfortable position for Starlink to be in. Essentially overnight, Starlink went from a private civilian company to an active participant in an armed conflict. Now, Russia can legally destroy Starlink property in Ukraine, and potentially outside of Ukraine. If Starlink targets support the Ukrainian war effort. SpaceX creating Starshield is, in part, a response to this reality. By ensuring only civilians can access Starlink and the military can only access Starshield, SpaceX can ensure civilians retain connectivity even if Starshield is targeted in an attack. Currently, however, both systems utilized a lot of the same equipment. As such, SpaceX faces difficulty in clearly separating civilian and military systems to prevent states from targeting Starlink systems.

Starlink’s role in the Ukrainian war efforts highlights the growing role private companies occupy in global affairs and armed conflicts. It also demonstrates how the property of a private

---

<sup>17</sup> MARCO SASSÒLI, LEGITIMATE TARGETS OF ATTACKS UNDER INTERNATIONAL HUMANITARIAN LAW LEGITIMATE TARGETS OF ATTACKS UNDER INTERNATIONAL HUMANITARIAN LAW 1 (2003), [https://hhi.harvard.edu/sites/g/files/omnuum6866/files/humanitarianinitiative/files/session1\\_legitimate\\_targets\\_ihl.pdf](https://hhi.harvard.edu/sites/g/files/omnuum6866/files/humanitarianinitiative/files/session1_legitimate_targets_ihl.pdf).

<sup>18</sup> *Id.*

<sup>19</sup> Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) Art. 52, 8, June 8, 1977, 1125 U.N.T.S. 3.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> See Sassòli, *supra note* 17 (“However, if the effects on the civilian use of the object imply excessive damages to civilians, an attack on such a dual-use object may nevertheless be unlawful under the proportionality rule.”).

company, that is otherwise unaffiliated with a party to an armed conflict, can become a valid military target. Private companies should carefully evaluate the consequences of assisting active conflict combatants. If a company decides to support a party to an armed conflict, it should clearly differentiate between civilian and military systems in order to reduce the targeting of systems or infrastructure that are vital for civilians in a conflict zone. As companies play a larger role in armed conflicts and international competition, any corporation that lends their services to aid the military of a party to an armed conflict should carefully evaluate the consequences of that decision.