

# The Politics of Space

by Jacek Bartosiak - May 25, 2020

As I write this article, under lockdown in the beautiful Warmia region of northern Poland, near the site of Napoleon's winter campaign of 1806-07, the fallout from the coronavirus pandemic seems to be intensifying the U.S.-China rivalry. It's reminiscent of lightning that hits before a storm, illuminating a battlefield just before a new battle begins.

Battlefields between great powers usually consist of things like labor, trade, production, currency, investment and technology. In a globalized economy, control over these areas gives a country the ability to impose its will on others – which is the definition of power. They were formerly controlled by regional powers within their spheres of influence, and since the collapse of the Soviet Union, they have been dominated by the world's sole superpower – the United States – which possesses a navy with global reach, a global currency, power projection capabilities, and superiority in the tech and finance worlds.

But the most important factor that determines a country's structural power in the global economy is its technological advantage. The ability and willingness to embrace modernization is a source of great profit and power.

Technology creates “new economies,” rewarding those who invest early and embrace change while leaving behind those who resist change and hold on to the status quo. In this way, it alters the balance of power. We can see such paradigm shifts with innovations in agriculture, the invention of gunpowder, the domestication and breeding of horses, and advancements in manufacturing and navigation technologies.

The industrial revolution, the steam engine, the internal combustion engine, aviation, metallurgy and the internet put Western countries at the top of the international hierarchy. It was the West's ability to modernize that drove it to the top and turned it into a model for others looking to advance their own status in the world.

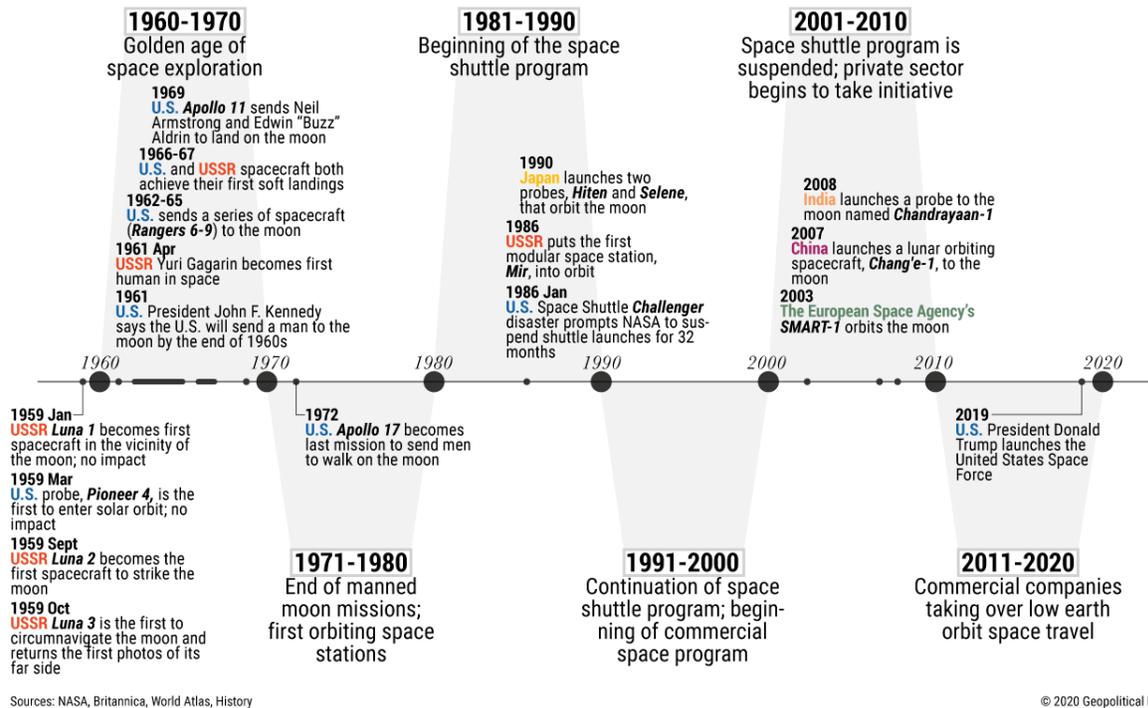
Those who modernized took part in the civilization race; those who did not fell out of it, and often found themselves partitioned or colonized (the Polish-Lithuanian Commonwealth and China are key examples). In this way, modernization is a geopolitical endeavor and a source of never-ending competition between all the world's would-be great powers.

England, once poor and peripheral, used technology to build a world-class fleet that could traverse the Atlantic. It defeated its competitors in the race for profits from the new economy – thus paving the way to its control of the world. China, on the other hand, was less successful. In the 15th century, it made the imprudent decision to destroy its own fleet exploring the Indian Ocean and the coast of Africa, as it tried to hold on to the old paradigm in which many key Chinese decision-makers were comfortable. In doing so, it proved that bad geostrategic decisions – ones that run counter to modernization – can lead to the collapse of one's own civilization.

In the past, epidemics and wars have accelerated modernization efforts. British radar, the atomic bomb and German ballistic missiles – all these innovations came out of the last world war. Even Sputnik and manned flights to the moon were in a way products of that conflict and the V-2 German ballistic missile program. Wernher von Braun was, after all, one of the V-2's chief architects and later the brain behind the U.S. Apollo program.

The Cold War intensified the competition for technological supremacy. Powers competed to demonstrate their capabilities in a host of areas: rockets, airplanes, radars, ships, optics, integrated circuits, microchips, space flights, and nuclear and thermonuclear weapons. The U.S. proved its superiority with initiatives like the Manhattan Project, the Apollo program and the nuclear triad. But when it became apparent in the 1970s and '80s that the Soviets had lost the space race, the Americans began to let go. They stopped flying manned missions to the moon, content to launch flights to an easy-to-reach low orbit of the Earth, with the help of somewhat improved though dated technology from the 1960s and '70s.

## 60 Years of Space Exploration



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The era of globalization had arrived. Francis Fukuyama announced the end of history. New markets began to open. A unipolar world emerged. But the end of the rivalry between the U.S. and Soviet Union brought a powerful strategic tether, certainly when it came to space exploration, as U.S. complacency opened the door for emerging powers – namely, China – to compete with an increasingly inefficient and underfunded U.S. space program.

Indeed, when it comes to space exploration, not much has happened since the Soviet Union's demise. Space shuttle launches proved inefficient. The U.S. became dependent on other countries to access the international space station. NASA became a symbol of bureaucratic overreach and financial mismanagement. During President Barack Obama's time in office, some even suggested that it be eliminated completely and the space program terminated.

The lack of progress is in part due to the financial resources required to maintain a modern space program, such that only the most powerful nations with the biggest economies can afford to have one. In addition to money, they need a vision and a strategy. One prime example of the inefficiency of the current space program is NASA's Space Launch System, an extremely expensive initiative

backed mainly by lawmakers from states like Georgia and Alabama where the system is being produced.

These inefficiencies are a symptom of the structural weakness of the U.S. political system. Thus, entrepreneurs like Elon Musk and Jeff Bezos – the modern-day Christopher Columbus and Vasco da Gama – have taken up the cause, launching their own space projects with initiatives like SpaceX and Blue Origin.

Explorers like Musk and Bezos, or Columbus and da Gama, or the multitude of nameless daredevils and risk-takers who came before, all took on enormous challenges and broke old paradigms. Often such adventurers faced constant financial shortages, ridicule and attack. Change is disruptive, and people don't like disruption, so people don't like change.

What's more, with the end of the Cold War came the illusion of an end of history – a belief that liberalism had triumphed, and that perhaps the worst days of change and disruption were in the past. Throughout human history, the victors have always assumed their triumph represented the end of geopolitical rivalry. That the U.S. victory in the Cold War was mainly due to the technological dominance of the West and the promise of modernization somehow escaped our perception.

Instead, the dream of beautiful relations between people tied the hands of Western leaders, especially the Americans, and blocked the path to bolder actions in new areas like space. The idea that the cosmos and its boundless possibilities and resources belonged to all mankind – not only to those who got there first – was seductive. And if there was no urgency, and no clarity about who will pay for and who will benefit from the fruits of exploration, then the public and private investment to finance space exploration could wait.

There are clear parallels to the exploration of the seas and oceans, to which the cosmos is structurally (from the point of view of use and control) very similar. Only great powers have spacefaring capabilities. Countries without such capabilities resemble those landlocked. In an era of great power competition, such states would not freely make use of sea exploration. Only during times when there was a naval hegemon who endorsed the principles of movement could all states benefit from the given sea's potential. There is currently no single arbitrator in space, at least not yet. So implications follow.

Similar discussions took place during the times of great geographical discoveries: Who owns the discovered lands and their fruits? On what principles is the world ocean used? Who owns the Atlantic and the communication lines of the new economy? Such debates always ended the same

way: Power decides, and the victorious power imposes its will to become an arbiter of the new economy. Great Britain played the game in phases and truly masterfully, with Trafalgar as a last touch of the grand vision.

In the age of recent globalization, the West wanted to believe that the course of history could be tamed and controlled, and that people had changed. Above all, that this time would be different.

It will not.

In December 2019, the Americans created Space Force. During the unveiling, President Donald Trump said: “space is the world’s newest warfighting domain. Amid grave threats to our national security, American superiority in space is absolutely vital. And we’re leading, but we’re not leading by enough. But very shortly, we’ll be leading by a lot. The Space Force will help us deter aggression and control the ultimate high ground.”

Trump added in later remarks: “The essence of the American character is to explore new horizons and to tame new frontiers. But our destiny, beyond the Earth, is not only a matter of national identity, but a matter of national security. So important for our military. So important. And people don’t talk about it. When it comes to defending America, it is not enough to merely have an American presence in space. We must have American dominance in space.”

Thus, in Trump’s vision, it is the United States that is to be the guardian of the new world ocean, the arbiter of the principles on which space travel and strategic flows of people, goods, investments, technology, data and knowledge are carried out. To this end, the United States wants to control the projection of force from space to Earth and vice versa, and at the same time to control Earth observation systems and communications in both directions.

The competition between the United States and China will be completely incomparable to anything before. An awakened China is a great power. When the United States became a powerful country, China basically did not exist as a major state center, having been colonized and dictated to by foreign powers. Never in history has there been a powerful China and a powerful United States at the same time. Alarmist voices even say there is no place for both at the same time.

When European powers were fighting for dominance in Europe, as new routes across the Atlantic to America and to Asia around Africa were being discovered and changing economies and trade, they consumed the necessary resources to fight for dominance over their old, native world – that is, Europe. In the coming battle for supremacy over Earth and its globalized economy, the center of

gravity of existing value chains and existing technologies will quickly be stuck in stalemate, looking like Flanders in 1914-18. Thus, competition in new fields and domains will jump to future value chains and future technologies, which will create industries and production in the 21st century – 5G, artificial intelligence, 3D printing, distributed production, space production in a vacuum, cheap and unlimited solar energy, communication from space to Earth, exploration and extraction of space resources, etc. The new economy is traditionally created from a breakthrough based on access to new raw materials, new production technologies and new connectivity. Space exploration promises all three at once.

The new race will concern emerging technologies, but the condition for this is military dominance. In fact, one enables the other. And in space there is no prize for second place; whoever gets access control may deny access to others.

There can be no illusion: Neither side will give up without a fight. For the Americans, there is no room for accommodation in their current socio-economic model. They will not listen to the warnings of Henry Kissinger, who fears confrontation with China, nor will they listen to Kishore Mahbubani of Singapore, a colleague of the country's legendary founder, the late Lee Kuan Yew. Mahbubani believes the United States must adapt to the power of China because the United States has already lost the fight.

The Chinese will not give up either. Accepting Washington's demands would be seen as agreeing to modern versions of the unequal treaties that led to the age of humiliation of the 19th century. China is determined not to change its growth strategy, especially since the past 40 years is probably the best period of the 4,000-year history of the Middle Kingdom. So why would it change anything now, especially when the country demanding change has been around for less than 250 years, a short period from a Chinese perspective?

James Carafano of the influential Washington-based Heritage Foundation recently heralded the breakup of cooperation between the U.S. and China, the divorce of the global supply chain and the division of the world into spheres of influence: North America, Atlantic-facing Europe and parts of East Asia in one zone, and China and its allies in the other zone. In the words of Slawomir Debski of the Polish Institute of International Affairs, this puts Poland, as an advanced Western stronghold facing the great landmass of Eurasia, under the power of China.

Similarly, Andrew Michta of the American think tank the German Marshall Fund postulates the need for a hard decoupling from and end of cooperation with China. And Wess Mitchell, the former U.S. assistant secretary of state for European and Eurasian affairs, wags a finger at the countries

between the Baltic and Black seas and orders them to immediately side with America and cease economic cooperation with China. The implication is that, if they don't, those countries will be excluded from the American zone by default.

Although I personally know and value all of these thinkers, the confrontation with China will be more complicated than the Americans think.

Despite the warnings of Kissinger and recommendations of the famous Singaporean, the Americans will take this fight – and war will be fought. Time to fasten your seatbelts.

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**Author: Jacek Bartosiak**

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