13 Corridors: A Typology of Global Logistics

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1. Corridors Decide
Corridors optimize economy through efficiency. Corridors strive to conquer time by channelling movement within spatial constraints. Corridors connect zones. Corridors bundle infrastructure along axes to narrow space and accelerate time. Corridors establish channels or pipelines of movement that intensify logistical organization and its accompanying tensions and conflicts. Stable regulations, well-developed communications, efficient transport systems, and uniform software implementations are the basic requirements for establishing corridors. Yet corridors cross borders and negotiate variegated conditions of capitalism. Corridors string governance across gaps of knowledge and topography. Power vacates the office. Decisions are made in the corridor.¹

From the architectural design standards of hot and cold aisles in data centers separating airflows, to the dredging of ports for the unidirectional passage of post-Panamax ships circumnavigating the globe, the accumulation of capital is held together in heterogeneous ways by corridors. Global logistics industries are underscored by visions and technical processes of interoperability, yet the material manifestation of corridors points also to multiple fonts of incommensurability. A paradox emerges between the logistical imaginary of interlocking circuits of supply chain capitalism and the material instantiation of conflict and divergence manifest within the logistical form of corridors. Corridors stretch across a range of scales with discrete logics of governance special to logistical operations and technical systems. Charting a typology of corridor forms, this short catalogue of entries probes the corridor as a relational device enmeshed in historical and geopolitical settings.
Infrastructure makes worlds, logistics governs them. The political economy and design logics of standards and protocols make infrastructural plans operational. Corridors supply a connective tissue across the world’s variegated and frequently incommensurable social spaces and cultural systems. To the extent that infrastructure harmonizes differences, social discontent lurks in the shadows, awaiting its stealth-like moment of revenge. Hu Jintao’s reign as General Secretary and President of the Chinese Communist Party was marked ideologically by a neo-Confucian governmental strategy of a “Harmonious Society” in an attempt to counterbalance the rise of social injustice and inequality wrought by rampant industrialization and rapid economic transformation. The rule of harmony was accompanied by ramped up censorship and internet surveillance, spawning the net-cultural meme of the “river crab” as a euphemism for and joke about being “harmonized” as a result of online dissent and defiance.

During the latter part of the Hu administration, a more expansive agenda caught the policy and economic imagination of the CCP, encapsulated by the slogan of a “Harmonious World” and the transcontinental construction of a “New Silk Road”.

2. Harmonizing Imperialism
This geopolitical imaginary of China’s ascendency through soft power and cultural diplomacy has been made concrete during the current regime of Xi Jinping and the CCP’s pursuit of the “Chinese Dream”. As a geostrategic policy agenda, the Belt and Road Initiative (BRI) manifests in material ways as transport and communications infrastructure coupled with a financial architecture of loans and investment schemes designed to produce corridors of trade between China and its economic peripheries in Central Asia and Africa, looping back into Europe. The calibration of economy by apparatuses of the state is enhanced by enterprise planning software systems designed to extract value, managing and governing the movement of people and things, data and finance as they traffic along transcontinental supply chains and circuits of trade and communication. Spurred on by the 2008 global financial crisis and accelerated by the exploitation of labor-power, China’s development of a high-speed rail network registers how transport infrastructure also produces corridors of power internal to the borders of the nation-state. As Pun Ngai has recently argued, conflicts around land expropriation, compensation issues, and construction workers left with unpaid wages coalesce to produce an emergent class force of infrastructural power that pierces the imaginary and material exertion of state hegemony.\(^2\) Often enough, dreams are nightmares.
Jutting sharply north-east from the far borders of West Bengal, the so-called “chicken’s neck” trading town of Siliguri is strategically situated on a narrow strip of land at the base of the Himalayas, skirting the flanks of Bangladesh and Nepal, China and Bhutan. With its melange of contraband electronics, tea plantations, human trafficking, tourism, military build-up, and ecological catastrophe stemming from sand mining activities and boulder extraction from the Mahananda and nearby Teesta riverbeds, Siliguri attests to the heterogeneity of corridors. Far from infrastructural harmony, Siliguri registers how a geostrategic territorial corridor is made discordant when butted against the historical situation and uncertainties of labor and life, economy and politics, environment and capital.

Infrastructure binds space. This is no less the case for transportation projects such as the Asian Highway and Trans-Asian Railway that mobilize capital and forge trade routes through Siliguri to adjacent South-East Asian countries and China. Infrastructure also reorients space. Where the Belt and Road Initiative remakes territory in ways that advance China’s geopolitical and geoeconomic ambitions, cooperative transportation projects with Europe and South-East Asia such as the
Asian Highway produce forms of counter-spatiality whose infrastructural corridors generate sites of geopolitical contest. Transportation networks on transcontinental scales produce forms of capital flight in which the economic livelihoods of the working poor and migrants in cities like Siliguri are subject not only to the vagaries of state and private sector investment and corrosive effects of ecological destruction, but also to the ways transportation infrastructure bypasses urban conglomerations entirely as nodes and hubs are spatially reconfigured in the geoeconomic pursuit of optimization and efficiency. The accrual of history and the social life of people and things jostles with the transformative power of infrastructure able to remake worlds. Some of these worlds assert authority as new forms of transcontinental hegemony, while others subsist in the fissures of informality and circumstance. The tussle between the digital and analog, formal and informal infrastructural systems comprise new articulations of the political. Strangled by territorial borders and congested with traffic, the Siliguri corridor is a key “chokepoint” in the reformatting of logistical circuits of power and economy, subjectivity and survival.⁴
In July 2021 Luxembourg’s Airport was running out of fuel. Incoming aircraft were instructed to arrive with reserve fuel to return or to divert to nearby airports. The pipeline supplying jet fuel had stopped operating. Damaging floods in Belgium and western parts of Germany had destroyed lives and livelihoods in many of the affected regions. The rapidly rising waters triggered a sensor, shutting down parts of the Central Europe Pipeline System (CEPS). Owned and managed by the North Atlantic Treaty Organization (NATO) the CEPS cuts across Belgium, France, Germany, Luxemburg, and the Netherlands and consists of more than 5,500 kilometers of pipelines integrated in a system of storage facilities and supply chains of fuel, encompassing many NATO and some civilian depots. Initially conceived during the Cold War to provide fuel to military airbases and vehicles in the event of war “whenever and wherever it is needed,” the pipeline also supplies fuel to major airports such as Frankfurt, Luxembourg, Amsterdam’s Schiphol Airport, and Zurich. Still considered “a key element of military readiness” by NATO, the CEPS
also functions as a crucial storage and distribution system for jet fuel and the operation of commercial airports.7

The conception of CEPS as a system of oil corridors able to rapidly pump oil from storage facilities at sea ports into central Europe’s extended and interconnected existing infrastructures and was deeply inspired by PLUTO (Pipeline for Underwater Transport of Oil), a pipeline constructed across the English Channel during the final years of the Second World War. In this way, British and allied troops could be constantly supplied with fuel. The military logistical system of underground oil was deemed too valuable to not also be made profitable for economic activities such as commercial air travel. From its inception, the integration of military and economic endeavours and collaboration between member states was stipulated in Article 2 of the North Atlantic Treaty from 1949. Extending this policy range, CEPS creeps up in national and multinational discourses around energy security due to its enormous capacity of “containing oil.”8 As argued by Graeme MacDonald, there is a peculiar unaccountability to oil that contributes to the persistence and endurance of fossil fuel economies and petrocultures. MacDonald mobilizes the analytical device of the pipeline as a “cultural-ecologic object” to critically interrogate how oil’s “containing infrastructures” are inseparably hitched to global climate change and concentration of environmental disaster. Needless to say, the suffering of crisis is always-already unevenly distributed in ways that invariably reproduce existing structural logics pertaining to the reproduction of labor regimes correlating with class, race, gender, and migration patterns of social-economic organization. Protests in 2016 by the Standing Rock Sioux tribe against the Dakota Access crude oil pipeline’s contamination of waters and sacred lands catalyzed a wider movement fighting for indigenous rights, climate change activism, and an end to state sanctioned violence in support of extraction economies.9 Oil is undoubtedly a conduit of state rivalry beholden to commercial interests; it is also a harbinger of social turmoil and ecological crisis on the horizon.
5. Backed Up

![Map of the Suez Canal showing the Ever Given container ship](image)

Shipping corridors such as the Panama and Suez canals are not so different from overland transport routes such as railways: with a bit of a twist, transportation finds itself off the rails, or wedged into the embankments of a canal. The expansion of canals led to a resizing of vessels, which in turn required an enlargement of ports. But this sequence of sizing could be ordered in any way. Capital is the meta-determining force here: with expanding frontiers of accumulation comes the rise of the gigantic. The Suez Canal connects the Mediterranean with the Red Sea. Not only does the Suez articulate one body of water with another, it holds a medial function transmitting information and goods across the surface of the sea whose viscous properties combine with the force of winds. Forty-five minutes after entering the Suez Canal from the Red Sea, the Ever Given container ship ran aground, impacting global supply chains for close to a week. The world’s media attention momentarily found joy in the spectacle of stasis. With mechanical backhoes digging one way and tugboats pulling another, the Ever Given was literally stuck in the mud, spawning a thousand tiny memes. For a brief period of time the narrow corridor of the Suez held global markets to ransom, blowing USD9.6 billion away in lost trade.

Time, of course, has always been central to maritime industries and their corridors of trade. Just as infrastructure frequently assembles space, so logistics syncopates time. The volatility of oceanic transportation is modulated in financial ways by the practice of spot pricing. Unlike the fixed rates offered as contract prices for the shipping of containers during peak season, spot pricing is a form of financial
speculation that hedges shipping costs during periods of low demand against the
time of delivery and availability of storage space in containers. Such pricing
strategies are further complemented by the phenomenon of “slow steaming” as a
practice designed to offset the operational costs of long-haul shipping against
savings made in fuel consumption. The nexus between infrastructure and
logistics, capitalism and contingency, signal a variational logic in how time and
space are governed to the extent that control is king. Deceleration, or the slowing of
time, is the less valorized technique of capital accumulation as distinct from the
prominent assumption that acceleration and speed are the motors of capital.

6. Rail to Nowhere

Exiting the Chinese concession of the shipping port of Piraeus, Athens, a rail line
tracks inland to an intermodal terminal. When we visited this site in 2013 and 2014,
the Ikonion-Thriassion rail line had all the markings of a stalled project. The
intermodal terminal was a step up from a tabula rasa: vacant, aside from a few
bored guards, sleeping dogs, and a vast expanse of tarmac occasionally punctured
by sunken drains and extruding service pipes. Rows of half-finished loading
platforms of concrete, punctuated by cages of steel stabilizing rods, strain for the
sky. As an assortment of component parts, of a plan half-realized, transportation infrastructure discloses its indexical relation to the orchestration of operation.

Piraeus is a point of arrival and departure. Whether for the export of containerized goods produced in southern Europe, or the distribution of commodities made in China, Piraeus is positioned as the interzone between Europe's TEN-T policy imaginary of a suprastate bound and bordered by technical instruments and infrastructural systems,¹¹ and China's vision of an empire with a mandate of heaven held together by belts and roads straddling the surface of earth and ocean. Both perspectives are underscored by competing political economic agendas strapped to sovereign ambitions. Corridors of power and economy are mobilized and calibrated by logistical systems of transport and communications defined, in part, by standards and protocols specific to their operation. But such assertions of power are never hermetically sealed. Their boast of “resilience” and “fault tolerance” is vulnerable on many fronts: technical failure, infrastructural sabotage, labor disputes. In short: crisis wrought by a future without certainty.

7. Finger Factory

Logistical capillaries branch out and back into the spine of assembly at the Zaha Hadid designed BMW automobile factory in Leipzig, Germany. Appropriately Teutonic as an aesthetic gesture, the manufacturing plant has a topological

propensity. Adjustable “fingers” extend and withdraw in modular fashion, expanding and shrinking the factory floor space in response to just-in-time modes of flexible production. In this way, the corridors in the plant operate according to a twofold logic of external expansion and contraction and internal logistical supply of automobile parts and pieces to robots and workers conjoined along the assembly line. A third corridor system stretches beyond the plastic footprint of the plant. Situated to the North of Leipzig, the modular factory structures form a sequential industrial city “interrupted” by a so-called “green corridor”. Reminiscent of the “garden cities” promoted by town planners in the nineteenth century, a decommissioned open-pit mine is flooded into a lake, creating a green corridor intended as a “compensatory function” offering respite with air hygiene and leisurely freedom from the toil of work. Air and motorway transportation corridors complete the plan of an integrated global logistical system.

Like models, plans invariably run up against the force of the unforeseen. When facilities such as the BMW plant encounter labor strikes or disruptions in supply chains, the interoperability of corridor systems is rendered inoperable, no matter how momentary or brief. Systems recalibrate and the gaze of logistics is expanded. Such is the regenerative power of logistics. How, though, do we understand the composition and indeed ontology of corridors in this process by which logistics makes worlds? There is no core foundation to corridors beyond the passage of movement. The organization of space as a technique of coordination and confinement is always-already vulnerable and indeed conditioned by externalities that insist on interpenetration. The ontology of corridors signals a certain porosity that persists no matter how hermetically engineered the specifications. Logistical supply chains grapple with dense topographies of social space, continental division, and rapidly fluctuating financial markets. Yet, they also demonstrate dynamic adaptability, rerouting traffic and sourcing new inventory from the topological variation of transportation routes and sites of production. Corridors, by contrast, are relatively fixed in terms of formats, design, standards, and protocols. Despite ostensibly robust infrastructural properties, corridors are one of the primary “weak links” in logistical networks. Logistics, infrastructure, corridors—bound not by equivalence, but rather mutually imbricated in circuits of capital.
Copper conducts. Not just a metallic alloy with high thermal and electrical conductivity, copper also generates powerful political and social discourses of industrialization and economic nationalism. Copper orchestrates imaginaries of modernity, which emanate from its material presence in the social and economic lives of peoples, nations, empires, and transcontinental circuits of trade. Indeed, in countries such as Chile where copper has been central to both economic prosperity and experiments in government from cybernetic socialism to brutal dictatorship, the spectral qualities of this lustrous metal condition an epoch of *copper modernity* fused with capital accumulation. From the extraction machines that mine the earth to blockchain technologies that guard against the “trade financing” of metals using fake paper certificates, copper is a form of elemental media key to the organization of logistical worlds. Chile’s copper mines in the early twenty-first century function as a test bed of futurity, indexing a transition from a resource economy to data economies. Yet prior to extraction as a copper sulphide, and before it finds its way into data storage devices and transmissions systems, copper exists as an elemental metal form in mixed compounds. While China has adopted the strategy of extracting subproducts from sulphuric acid contaminants used in the smelting process and then hoarding copper in a concentrate form as a parameter in price setting in financial markets, Chile’s mining sector has been forced to generate value beyond producing cathodes with high purity levels. Declining revenue and higher...
labor costs were offset by reducing production and obtaining efficiencies from supply chain management, ongoing labor reform, and increased automation within mining processes and logistical organization.

Copper invites spectrum thinking: from the neuronal networks of the brain to the metabolic system of the body and its organs, from holes bored into the ground to stockpiling copper concentrate in China’s warehouses, from cables of empire to electronic waste industries and the cultivation of soils with toxic contaminants. As an analytical device, copper has a multiplying capacity, bringing otherwise asynchronous conditions, practices, and events into relation. The ensemble of metallic resources, machines, labor, state formation, global economies and finance capital, and prevailing ideologies and imaginaries all exist in a kind of recursive feedback loop, with each element playing back upon and constituting the symbolic and experiential lifeworlds, even the material and ontological conditions, that comprise the limits of the system at any particular historical conjuncture. Copper is both a signal and conduit of transmission, regardless of scale. Copper is a hoarder. It stores. And it switches and distributes.

9. Automating Geopolitics

[Image: Hutchison Global Communications, Hong Kong. Photograph by Ned Rossiter, 2017.]

How is geopolitics automated? By technical systems, computational processes, and infrastructural components coupled with policy agendas and economic targets
designed to obtain hegemony through the production of territory. The spatialities of power generated by machinic operations may reinforce and extend more conventional techniques of geopolitics staged in the theater of inter-state contest between civilizational cultures articulated through Cold War disciplinary legacies of international relations and area studies. More likely, however, the automation of geopolitics results in novel territorial configurations not easily subsumed by the geopolitics of inter-state rivalry. Even less so by the neo-Darwinian and racist logics of species-being promulgated by area studies. Indeed, the automation of geopolitics is accompanied and conditioned by the geopolitics of automation. Where the former consists of the machinic production of territory, the latter involves state actors recalibrated by the struggle to determine the standards, protocols, financial, and operational logic of machines. When geopolitics are automated, machines take command.

The current battle on a planetary scale between Amazon and Alibaba serves as a case in point. The dance of artificial intelligence and machine learning technologies in warehousing facilities specific to these two state affiliated, global companies bears witness to the ways in which the geopolitics of automation exert pressure on labor in the process of accumulating revenue from the traffic in commerce. Amazon is well known for its pursuit of a business strategy of total organizational and logistical control with vertical integration of their platform all the way from sales, storage, services, subscriptions, and distribution up until the last mile. By contrast, the Chinese tech behemoth Alibaba prefers to enlist third parties to horizontally expand its range of data-driven services that include real-time micro-credit and financial loans, inventory management, consumer profiling, search rankings as well as logistics and warehousing. While Amazon and Alibaba hold complex and quite different relations to organs of the state (for instance, the former piggybacks on US Postal Service infrastructure while the latter is at once protected by and at the mercy of crack decisions in Beijing), both companies are in the game of market domination. Where they differ is in how territories—and thus corridors of data, supply chain traffic, and labor power—are produced through technical operations and infrastructural systems. The production of time and space, subjectivity and sales specific to automated processes of decision-making registers new forms of geopolitical power that at once unsettles and intersects with the sovereign authority of the state. The new capillaries of control generated by this constellation of forces are not immune to intervention and destabilization. Such is the revenge of the world.
10. Anticipating Storage


Storage and warehouse facilities are critical for the management of inventory. The industrial warehouse was considered a static building in which storage units could be accessed via passages of connection—aisles, corridors, hallways—by workers, forklifts, or cars. Those corridor spaces occupy valuable space, which could otherwise be utilized to store more items. Increasingly, warehouse systems design considers ways in which to reduce corridor spaces. Filed in 2007, first published in 2008 and then again in 2014, the “Warehouse Storage System” patent no. US 8,651,790 B2 describes corridors as “dead spaces” that should be eliminated. The invention of a so-called “overhead warehouse storage system and method of storing goods” attempts to replace the corridor. As a spatial form that at once occupies and subtracts “non-storage space,” the corridor is destined to disappear. Priority is given to maximizing available floor space for the storage of goods by retrieving inventory efficiently via an overhead system operating within a grid system. Replacing corridors in this way supposedly removes potential frictions though increased use of forklifts and more targeted assignment of workers. As a logistical imaginary of flexible lubrication, the patent makes possible corridor spaces to emerge when and where they are needed.

Patents are legal technologies that enclose futures not yet born. As anticipatory devices, patents assert control over the territory of invention. More often the economies staked out are stillborn, never to emerge beyond the theater of arbitration in the event of dispute. Parading an aesthetics of minimalism, patents distil an idea of action as bare essence. The sequential logic of instruction, of rules
on how a thing works, registers affinity with the family of algorithms. Closing down options, patents seek to define the relation between cognition and invention, production and command, capital and labor according to supranational juridical regimes. All too often such gestural authority fails in the face of defiant states and cultures of piracy.

11. Not Cool

Corridors govern movement. Considered a key index of architectural modernity, corridors regulate the circulation of people and things across a range of building types. With the design and construction of data centers, however, the flow of humans and objects becomes an exception, while the circulation of air is critical for the optimization of machines and security of data. The separation of cold and hot air through distinct corridor systems has become the standard architectural design for data centers, essentially serving the servers with cool air by extracting hot air down the corridor. In the case of the data centre corridors divide and disconnect distinct areas into different climatic zones within the building in the endeavour to further economise exorbitant energy use for cooling data centers. At the same time, the separation of climatic zones allows for a more efficient monitoring of risks, such as hot-spots. The building type of the data center is considered increasingly as a machine, or a computer with a design logic consisting of corridors.
As infrastructural monuments of digital capitalism, data centers facilitate east-west traffic (between servers in the same facility), which exceeds north-south traffic (between servers and clients beyond the data center). The primacy of the east-west axis signals how the concentration or clustering of businesses in the same installation enables competitive advantage over the north-south axis. In the case of the former, such circuits of transaction are made possible by peering relations and data connections between firms stationed in different virtual machines on the same or adjacent server racks. Consisting of hardware and software, networked traffic passes through patched cables that usually intersect in a meet-me room. These cables follow different paths than the hot/cold corridors. Computational decisions to connect are motivated by operational advantages obtained by low latency, accessibility, power consumption, and scalability.  

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12. Breaching Quarantine

Air corridors served by international airlines have been vastly reduced during the current pandemic. In Australia, the potential spread of COVID-19 through the limited arrival of airline passengers was supposed to be controlled via the logistical apparatus of a hotel quarantine system. Upon arrival, passengers are transported from the airport to quarantine hotels for a duration of fourteen days—the incubation period of the virus—in order to “contain” any potential outbreak of disease, before they are allowed to continue travelling to their final destinations. The containment of people, as potential carriers of the virus, seemed to be an adequate response. The hotel corridor was supposed to act as a medium controlling the movement of viral loads carried by international travellers, though it became a
vessel of contagion. Previously healthy quarantined travellers became infected by the airborne virus. Moreover, guards and service workers positioned in hotel corridors at what was considered a safe distance also caught the disease. While frequently it was suspected that this was the fault of rudimentary ventilation systems, the hotel corridor figured as the primary axis of contagion. “This virus is [...] circulating in the corridors,” remarked the premier of Queensland, Annastacia Palaszczuk.¹⁵

So-called “hotel quarantine breaches” were identified as the major source of various COVID-19 outbreaks in Australia. Victorian chief health officer, Brett Sutton, declared that the recent outbreak of COVID-19 was most likely due to “airborne transmission through the corridor” and the escape of the virus by opening doors. In fact, “corridors should be treated as ‘infected’ zones,” claimed epidemiologist Catherine Bennett.¹⁶ The risk of the virus breaching the hotel corridor can be mitigated by installing filters in the ventilations systems and elevating the air pressure in the corridors. Such measures have been explored in the architectural design of hospitals since the 18th century. In the case of hotel quarantine during the COVID-19 pandemic, we find a building type not designed to manage the movement of foul air. A kind of recursive logic that spans time and building types is registered in the filtering of contagion and passage of air. The intrusion of an airborne virus that worms itself through enclosed spaces precipitates a retro-fitting of amelioration strategies and techniques of dilution. The corridor is a continuum through which viral loads wreak havoc in social spaces across time.
The movement of people and air particles within buildings has historically been referred to in physiological terms as circulation. Arteries and nervous systems furnished metaphors of corridors, ventilation ducts, and wired circuits of distribution and organization in architectural structures. The corridor connecting and separating potentially infectious patients was a key object of concern in the architectural history of the hospital. Since the advent of the twentieth century, hospital design has integrated multiple layers of technical infrastructure that address the problem of air circulation. Reticulated systems supplied oxygen first to operating theatres and later to intensive care units and emergency wards, which were increasingly dislocated as architectural spaces from the building envelope and
subsequently without access to natural light and ventilation. Ducts channeling medical oxygen from liquid storage tanks, or on-site production facilities to almost every patient's bed, became the standard of hospital design in countries in advanced economies, while many district hospitals in countries such as India, for example, still have no piped oxygen systems. Instead, medical oxygen is provisioned by gas cylinders. Critical for the survival of many patients with acute symptoms, during the current COVID pandemic the demand for medical oxygen almost doubled and hospitals in various parts of the world experienced oxygen shortages.

As a critical medical treatment, oxygen relies on corridor systems of various scales for its distribution. Most commonly, oxygen is stored as a compressed liquid form outside hospital buildings. Ambient air vaporizers are required to transform the oxygen's state of aggregate from liquid to gas—a process that leads to very cold temperatures. Increased volumes of oxygen in hospitals has resulted in frozen pipes and system blockages. At the same time, global suppliers of medical oxygen struggled to meet demands. Early in the pandemic, governments targeted an increased production of ventilators as a tail end in the supply chain of medical oxygen. Meanwhile, the underlying corridor system of distribution came under pressure from both congestion and an insufficient flow of medical oxygen. Facilitating the possibility of movement and life, corridors can quickly flip into architectures of termination.

7 “Central Europe Pipeline System (CEPS),” NATO. Available online: [https://www.nato.int/cps/en/natolive/topics_49151.htm%3FselectedLocale%3Den](https://www.nato.int/cps/en/natolive/topics_49151.htm%3FselectedLocale%3Den) [Accessed 2 August 2021].


