

Winged Prometheans: Arctic Aviation as Socialist Construction in Stalinist Russia, 1928-1939

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Article abstract

During the 1920s and especially the 1930s, aviation became an increasingly important tool in the exploration and development of the USSR's Arctic territories. The deployment of aircraft proved a boon to scientific research, but Soviet priorities in the Arctic during these years, particularly with the advent of Stalin's five-year plans from 1928 onward, were more about building infrastructure and realizing the region's potential for resource extraction. The use of aircraft in the Soviet Arctic was affected accordingly, with economic and developmental needs privileged over scientific ones. In line with its cultivation of pilots as national heroes, the Stalinist regime also took advantage of the international and domestic popular appeal of polar aviators—and the many exploits they staged in 1928 and afterward—to generate positive publicity for itself. Integrating Arctic aviation into the larger cultural framework of socialist realism, the USSR's state-controlled media complex transformed polar fliers into symbols of Soviet virtue, exemplifying not just trailblazing courage, aptitude, and the mastery of futuristic technology—motifs common to the aviation cultures of many countries during this era—but also self-discipline and collective effort on behalf of the Soviet homeland and the attainment of socialist utopia.

Winged Prometheans: Arctic Aviation as Socialist Construction in Stalinist Russia, 1928-1939

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Abstract: During the 1920s and especially the 1930s, aviation became an increasingly important tool in the exploration and development of the USSR's Arctic territories. The deployment of aircraft proved a boon to scientific research, but Soviet priorities in the Arctic during these years, particularly with the advent of Stalin's five-year plans from 1928 onward, were more about building infrastructure and realizing the region's potential for resource extraction. The use of aircraft in the Soviet Arctic was affected accordingly, with economic and developmental needs privileged over scientific ones. In line with its cultivation of pilots as national heroes, the Stalinist regime also took advantage of the international and domestic popular appeal of polar aviators—and the many exploits they staged in 1928 and afterward—to generate positive publicity for itself. Integrating Arctic aviation into the larger cultural framework of socialist realism, the USSR's state-controlled media complex transformed polar fliers into symbols of Soviet virtue, exemplifying not just trailblazing courage, aptitude, and the mastery of futuristic technology—motifs common to the aviation cultures of many countries during this era—but also self-discipline and collective effort on behalf of the Soviet homeland and the attainment of socialist utopia.

Résumé : Durant les années 1920, et surtout les années 1930, l'aviation est devenue un outil de plus en plus important dans l'exploration et le développement des territoires de l'Arctique appartenant à l'URSS. Le déploiement d'avions s'est avéré une aubaine pour la recherche scientifique, mais les priorités soviétiques dans l'Arctique au cours de ces années, particulièrement avec l'avènement des plans quinquennaux de Staline à partir de 1928, étaient davantage axées sur la construction d'infrastructures et la réalisation du potentiel de la région en matière d'extraction de ressources. L'utilisation d'aéronefs dans l'Arctique soviétique a conséquemment été modifiée, les besoins économiques et les besoins en développement primant sur les nécessités scientifiques. Entretenant le culte du pilote comme héros national, le régime stalinien profite également de l'appel populaire national et international pour les aviateurs polaires – et les nombreux exploits mis en scène à partir de 1928 – afin de générer de la publicité positive pour lui-même. Intégrant l'aviation arctique dans le cadre culturel plus large du réalisme socialiste, le complexe des médias, contrôlé par l'État, transforme les aviateurs polaires en symboles de la vertu soviétique, ce qui illustre non seulement le courage du pionnier, l'aptitude et la maîtrise de la technologie futuriste – motifs communs aux cultures de l'aviation de nombreux pays à cette époque – mais aussi l'auto-discipline et l'effort collectif au nom de la patrie soviétique et la réalisation de l'utopie socialiste.

One of the USSR's most heavily-propagandized children's books from the late 1920s and early 1930s, Mikhail Ilin's *Story of the Great Plan*, impresses on its readers the message that, in the dawning age of socialist construction, all Soviet citizens have a duty to become "conquerors of their country."¹ More generally, official Stalinist discourse spoke of the state as engaged in a ceaseless "struggle against the elements" (*bor'ba so stikhie*), on the winning of which depended scientific progress, national security, and the legacy of Lenin's revolution, if not the fate of all humanity.² The all-important task of mastering the environment required every ounce of strength, human or technological, to be mustered into service.

Among the vanguard technologies to be harnessed in this no-holds-barred campaign of modernization was the airplane, and one of the chief battlegrounds was the Russian Arctic. As the centrepiece of a powerful convergence of several national imperatives, polar aviation was much in the Soviet public eye, and equally on the Soviet government's mind, during the late 1920s and especially the 1930s. It helped to fulfill the state's economic and infrastructural needs. It served the purposes of scientific research. And, as an element in the socialist-realist mass culture that dominated the Soviet 1930s, Arctic flying provided the real-life basis for one of the most visible propaganda campaigns of the prewar Stalin era.³

The tale of Soviet Arctic aviation during these years provides an excellent case study of how rigidly controlled by the state campaigns of polar exploration—and scientific endeavours in general—could be. In

1. M. Ilin's *Rasskaz na velikom plane* (1930) was released in multiple editions. It was translated into English by George Counts and Nucia Lodge and published in the U.S. as *New Russia's Primer: The Story of the Five-Year Plan* (Boston and New York: Houghton Mifflin, 1931).

2. See Katerina Clark, *The Soviet Novel* (Chicago: University of Chicago Press, 1981), 91-113; John McCannon, "To Storm the Arctic: Soviet Polar Expeditions and Public Visions of Nature in the USSR, 1932-1939," *Cultural Geographies* 2, 1 (1995): 15-31; and Douglas Weiner, *Models of Nature: Ecology, Conservation, and Cultural Revolution in Soviet Russia* (Bloomington: Indiana University Press, 1988). Private sentiments and coverage in regional and local journals and newspapers (which were less strictly controlled by the center) tended to be less compromising.

3. On the cultural importance of aviation in Stalinist Russia, see the last chapter of Kendall Bailes, *Technology and Society under Lenin and Stalin* (Princeton: Princeton University Press, 1978); Clark, *Soviet Novel*, 101-2, 121-29, 133-39, 160-66; John McCannon, *Red Arctic: Polar Exploration and the Myth of the North in the Soviet Union, 1932-1939* (New York: Oxford University Press, 1998); William Odom, *The Soviet Volunteers: Modernization and Bureaucracy in a Public Mass Organization* (Princeton: Princeton University Press, 1973); Karen Petrone, *Life Has Become More Joyous, Comrades! Celebrations in the Time of Stalin* (Bloomington: Indiana University Press, 2000); Scott Palmer, *Dictatorship of the Air: Aviation Culture and the Fate of Modern Russia* (Cambridge: Cambridge University Press, 2006); and Asif Siddiqi, *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957* (Cambridge: Cambridge University Press, 2010).

contradistinction to Arctic-minded nations in the West, where private initiative, corporate and philanthropic sponsorship, and support from universities, museums, and learned societies all played significant roles in shaping agendas for polar research, priority-setting and decision-making in the USSR rested exclusively with the state, leaving other individual and institutional actors to operate within very narrow constraints.⁴ There is also a sharp contrast between the cultural construction of polar heroes—aviators or otherwise—in the West and in the Soviet Union, with state control over education and the media making this a much different matter in the USSR than it was elsewhere. This paper will first describe the infrastructural and economic-administrative situation as it was in the Soviet Arctic around 1928, when the First Five-Year Plan began. It will move on to the key debates that shaped the deployment of aviation against the Arctic environment, covering both the late 1920s and the prewar 1930s. Finally, it will discuss how the image of the Arctic aviator was formed by the state and media into an archetype that reflected, or was at least meant to reflect, the Soviet national ethos as the authorities wished the public to understand it.

In the late 1920s, when the USSR conceived and implemented the Five-Year Plan, the Soviet Arctic was the least developed and most sparsely populated part of the country, especially once one traveled east of Karelia, the Kola Peninsula, and the Barents coastline. And although Soviet territory encompassed a greater variety of difficult terrain types than is commonly thought, the Arctic (and parts of the Subarctic) proved the most resistant, both environmentally and logistically, to full-scale development. And yet the Soviets were pressured by a number of factors to move into this harsh and barely accessible region. From gold and diamonds to timber, fur, and fish, there were mammoth quantities of natural resources to exploit—if one could get at them. Tighter control over indigenous peoples, as well as the few Russians living in the North outside the state's purview, was seen as crucial; Civil War opposition to Soviet power had not been put down in remote places like Chukotka or

4. Even the most autocratic nations involved in Arctic research—Imperial Germany and the Austrian Empire, and, for that matter, tsarist Russia—did not constrain their public or academic spheres as the USSR did. Had Nazi Germany or Fascist Italy expressed an interest in exploring the arctic (the Nazis mounted an expedition to Antarctica in 1938 but left the far North alone), comparisons between Soviet and “Western” Arctic work would be more complicated, as they are when it comes to aviation in general. For a definitive work on German polar exploration, see David T. Murphy, *German Exploration of the Polar World: A History, 1870-1940* (Lincoln: University of Nebraska Press, 2002).

the Taimyr until well into the 1920s, and occasional outbreaks of violent resistance continued into the 1930s.⁵ The potential military applications of the northern coast were of interest to the regime, and the notion that such a large portion of Russia's territory remained outside effective jurisdiction—and in some cases outside the bounds of geographic knowledge—was galling to the Kremlin. There was also the sense of pride and patriotism to be generated by demonstrating to the country and the world Soviet Russia's purportedly unique prowess in the air *and* at the top of the world. How much the regime prioritized the symbolic value of polar-aviation exploits relative to the more practical issues outlined above is difficult to say, but that they gave them *some* priority is beyond doubt. At the most macroscopic level, if we accept Henri Lefebvre's contention that, in the modern era, "centrality now aspires to be *total*," we can see the USSR's actions in the Arctic periphery as part of that totalizing effort—arguably one of the most difficult parts—and aircraft as one of the key tools in that effort.⁶

One totalizes a space by establishing a presence there. The most notorious means by which the Soviets did so in the Arctic was to expand the Main Administration of Correctional-Labour Camps, better known as the GULAG, a large proportion of whose forced-labour installations rose up in the North.⁷ Also, with varying degrees of brutality over time, the Stalinist regime pacified and suppressed the native cultures of Siberia.⁸ Still, much of the business of Arctic exploration and development proceeded by means that were more conventionally bureaucratic and scientific—"conventional," at least, by the standards of an authoritarian, command-style economic-administrative system.

5. For representative disturbances on the Amderma and Khatanga rivers, and on the Taimyr, see the former Central Party Archive of the USSR, now the Russian State Archive of Socio-Political History (RGASPI), fond 475, opis' 1, dela 5, ll. 176-78; d. 6, ll. 50-55; d. 10, ll. 9-19.

6. Henri Lefebvre's *The Production of Space*, cited by Nick Baron, *Soviet Karelia: Politics, Planning and Terror in Stalin's Russia, 1920-1939* (London: Routledge, 2007), xx.

7. On forced labor, see Robert Conquest, *Kolyma* (London: Macmillan, 1978); Michael Jakobson, *Origins of the GULAG* (Lexington: University Press of Kentucky, 1993); David Nordlander, "Origins of a Gulag Capital: Magadan and Stalinist Control in the Early 1930s," *Slavic Review* 57, 4 (1998): 791-812; Martin Bollinger, *Stalin's Slave Ships: Kolyma, the Gulag Fleet, and the Role of the West* (New York: Praeger, 2003); Alexander Solzhenitsyn, *The GULAG Archipelago, 1918-1956*, 2 vols. (New York: Harper and Row, 1973-1975); and Anne Appelbaum, *GULAG: A History* (New York: Doubleday, 2003).

8. The publication of Yuri Slezkine's *Arctic Mirrors: Russia and the Small Peoples of the North* (Ithaca: Cornell University Press, 1994) accelerated a wave of studies on Russian/Soviet policy toward the native Siberians; representative authors include Bruce Grant, Nikolai Ssorin-Chaikov, John Round, James Forsyth, Piers Vitebsky, Niobe Thompson, David Anderson, and Alexia Bloch.

However it was to be carried out, the actual task, as perceived by planners in the USSR during the 1920s and 1930s, was as follows. Soviet geographers envisioned a “network” (*set'*) model that superimposed upon the Siberian landmass a virtual grid, the north-south axes of which were formed by the great rivers flowing north to the Arctic Ocean: the Ob-Irtysh, the Yenisei, the Lena, the Indigirka, and the Kolyma. If enough east-west axes could be created to intersect with each river basin, Siberian and Arctic development would become a matter of filling in the grid's boxes—although no one denied the complexity and difficulty of the actual filling-in.⁹ As things stood, only one major east-west axis existed: the Trans-Siberian Railroad, quite far to the south. Could a similar artery, paralleling the Trans-Siberian, be created further to the north? Various proposals were made for a northern railroad, a northern transcontinental highway, and a northern canal system, but, in the end, it was decided that the Northern Sea Route (*Severnyi morskoi put'*), the Russian term for the Northeast Passage, would be the most feasible option. The Route had the advantage of being easily-linked—at least in theory—with the Kola Peninsula and Russia's northwest coast, where the ports of Murmansk and Arkhangelsk anchored a more heavily-developed military and economic presence, and the armed forces, with tsarist Russia's humiliating defeat by Japan in 1904-1905 still fresh in their minds, welcomed the possibility that men, materiel, and fleets might someday be shuttled back and forth between the Atlantic and Pacific along a secure and relatively short coastline. Transforming the Northern Sea Route into a fully-functioning waterway was principally a maritime endeavour, but it also involved devising ways to interface efficiently with other modes of transport—most vitally on the rivers, and also in the air.

Who decided how aircraft and pilots were used in the Soviet Arctic, and how were those debates resolved? First and foremost by the government, particularly once it was headed by Stalin, whose personal interest in aviation was enormous, as was his concern about it as a state priority. Military aviation obviously belonged in the hands of the state, but even the development of civil aviation in Soviet Russia was centralized to an

9. Holland Hunter, *Soviet Transportation Policy* (Cambridge: Harvard University Press, 1957); R.W. Davies et al., eds., *The Economic Transformation of the Soviet Union* (Cambridge: Cambridge University Press, 1994), 158-81; and S.V. Bernshtein-Kogan, *Osnovnye problemy SSSR* (Moscow: Transpechat', 1929). Original materials pertaining to this debate can be found in the Russian State Archive of the National Economy (RGAE), fond 9570, opis' 1, dela 92, 226; and fond 210.

extent unequalled elsewhere, even in Fascist Italy, where Mussolini aggressively promoted aviation and airmindedness, and even considering the role of government in supporting or shaping the growth of aviation industries in more liberal polities. It should be understood, then, that the disposition of aviation resources in the Russian north was determined by the state, and not infrequently by Stalin himself—with the authorities at times pushing their own directives, and at others approving, or choosing from among, proposals made to them from below.¹⁰ Only within these procrustean parameters could agencies involved with Arctic work hope to use aircraft for “their” purposes.

That said, throughout most of the 1920s, the Kremlin assigned developmental and scientific tasks in the Arctic the way it did elsewhere: numerous regional (mainly “Siberian” or “Northern”) branches of national agencies and people’s commissariats—which were organized by function, be it geological research, agriculture, hydrography, and so on—carried out work in the far north and east. The Soviet Navy lent some assistance with hydrography, and the Marine Scientific-Research Institute (*Plavmornin*), whose task was to survey the polar waters, operated as a branch of the Supreme Council of the National Economy (VSNKh).

Two problems arose from this approach. First was bureaucratic competition among a bewildering alphabet soup of agencies, all of which laid claim to the same meagre pool of money, equipment, and manpower. Second was the fact that work in the Arctic proved not to be business as usual, and most institutions lacked the expertise to cope with the uniquely arduous and danger-filled conditions that prevailed there. After the middle of the decade, three agencies came to dominate Arctic operations, thanks principally to specialized capabilities suited to the North. These were the Committee for Assistance to the Small Peoples of the North, which saw to the sovietization of native Siberian peoples; the All-Union Arctic Scientific-Research Institute (VAI, or the Arctic Institute); and the Committee of the Northern Sea Route (KSMP, or *Komseveroput*’), a jack-of-all-trades institution whose primary responsibility was to facilitate transport along the northern waterway. Because the simple ability to move—something no one could take for granted in the Arctic—was an indispensable prerequisite for the accomplishment of any other task, KSMP’s ability to deliver on this front endeared it to the regime, which entrusted it with larger budgets and greater authority at the end of the decade and during the First Five-Year Plan. However, *Komseveroput*’ expanded in haphazard, unplanned fashion, leaving it with structural weaknesses that were quickly exposed by the

10. A point made forcefully in Palmer’s *Dictatorship of the Air* and older works on Soviet aviation.

stresses and strains of the Five-Year Plan. As a result, KSMP was done away with in late 1932, and replaced by the more powerful Main Administration of the Northern Sea Route (GUSMP, or *Glavsevmorput'*), headed by Professor Otto Schmidt, an energetic and entrepreneurial mathematician, bureaucrat, and explorer.¹¹

Between its 1932 birth and its 1938-1939 downfall, GUSMP gathered to itself almost complete authority over the two-million-square-mile landmass that lay east of the Urals and north of the 62nd parallel, not to mention the Arctic islands, including Franz Josef Land, Novaya Zemlya, Severnaya Zemlya, the New Siberian Islands, Wrangel Island, and the Soviet concession on Norwegian-owned Spitsbergen. Nicknamed the "People's Commissariat of Ice" by the Soviet press, *Glavsevmorput'*, which eventually built a workforce of two hundred thousand (including support personnel) and disposed of a budget running to almost a billion and a half rubles, was likened by one foreign journalist to "a socialist counterpart to the British East India Company."¹² This hyper-centralized behemoth absorbed into its own structure the assets and functions of the Arctic Institute and the Committee of the North; the only Arctic-related activities outside its direct reach had to do with the armed forces, the prison camps administered by the GULAG system, and gold mining, which was the purview of the Main Administration of the Gold and Platinum Industries or, in northeastern Siberia, a special forced-labour outfit, the dreaded *Dal'stroi*, or Main Administration for Construction in the Far North. To the extent that decisions about polar flying were shaped

11. For an overview of institutional developments in the Soviet Arctic, see McCannon, *Red Arctic*; Terence Armstrong, *The Northern Sea Route: Soviet Exploitation of the Northeast Passage* (Cambridge: Cambridge University Press, 1952); Constantine Krypton, *The Northern Sea Route and the Economy of the Soviet North* (London: Methuen, 1956); T.A. Taracozio, *Soviets in the Arctic* (New York: Macmillan, 1938). The standard Russian-language source is M.I. Belov's four-volume *Istoriia otkrytiia i osvoeniia Severnogo Morskogo puti* (Leningrad: GUSMP, 1956-1969); a good example of the highly nationalistic tone taken by popular histories on this topic during the Putin-Medvedev era is A.B. Shirokorad, *Bitva za Russkuiu Arktiku, XVI-XXI vv.* (Moscow: Veche, 2008). GUSMP's monthly professional journal, *Sovetskaia Arktika*, is useful, and most of the agency's papers, with KSMP's, are located in fond 9570 of RGAE. The materials of GUSMP's Political Administration are housed in fond 475 of RGASPI. The history of the Committee for Assistance to the Small Peoples of the North is related in Slezkine, *Arctic Mirrors*. Its papers are housed in fond 3977 of the State Archive of the Russian Federation (GARF).

12. The BEIC comparison comes from H.P. Smolka, *Forty Thousand against the Arctic* (New York: Morrow, 1937), 20-23. On budget, assets, workforce, and jurisdiction, see F.I. Dirgo, "Stroitel'stvo ledokol'nogo flota," *Sovetskaia Arktika* 1, 2 (1935): 8; O.Iu. Schmidt, "O nashikh dal'neishikh zadachakh," *Sovetskaia Arktika* 3, 4 (1937): 6-21, as well as RGASPI, f. 17, op. 3, d. 949, ll. 72-81; f. 475, op. 1, d. 1, ll. 49-50, 86-92; d. 5, ll. 38-48; d. 21, l. 100; and RGAE, f. 9570, op. 2, d. 10, ll. 9-10, 17-31; d. 35, ll. 156-58, 202-8; d. 36, l. 288; d. 94, ll. 300-1.

by discussions held and proposals developed outside the inner circles of Stalin's regime, such agenda-setting fell to several bodies during the 1920s, but increasingly to GUSMP in the 1930s.

Differing institutional imperatives thus conditioned how, where, and why aircraft were employed in the Soviet Arctic. One of the first and most elementary questions involved choosing whether the airship or the airplane should be the USSR's primary tool for the aerial exploration and development of the circumpolar north.¹³ The Soviets used both, but which should be paramount? During the airship's pre-*Hindenburg* heyday, the USSR gave it serious consideration, becoming, next to Germany, the second-most active participant in Fridtjof Nansen's "Aeroarctic" consortium (the International Society for the Study of the Arctic by Means of Airships). It watched with great interest the triumphant North Pole flight of Roald Amundsen's *Norge* in 1926—and, with equal interest, the disastrous outcome of Umberto Nobile's *Italia* flight in 1928—and it co-sponsored the 1931 polar odyssey of Hugo Eckener's *Graf Zeppelin*, one of the most scientifically-useful missions in the history of Arctic aviation. Many things recommended the airship as the possible star of a nascent polar airfleet: cargo capacity, operational range, and, as the *Zeppelin* flight showed, an unparalleled ability to serve as a platform for meteorological and atmospheric research, aerial cartography, and photosurveying. Had the scientists of the Arctic Institute had their way, there might well have been an armada of dirigibles soaring their way across the expanses of the Soviet North. However, the needs of KSMP and GUSMP, which controlled the VAI after 1932, came first, and those bodies were concerned above all with transport and development. The airplane might carry less and have a shorter operational radius, and it might be more fragile, but it could land more easily and in more places, making it easier to integrate air transport with river and marine transport, and thereby to articulate the region's transportational infrastructure more rapidly and effectively. In the end, the airship played a part in the Soviet Arctic, but a decidedly limited one compared to that of the fixed-wing airplane.

This debate grew out of a larger and more frequently acrimonious set of disputes about Arctic science as a whole. KSMP's and GUSMP's privileging of practical application over scholarly concerns was a bureaucratically savvy response to the regime's explicitly stated preference

13. On this debate, see John McCannon, "Sharing the Northern Skies: German-Soviet Scientific Cooperation and the 1931 Flight of the *Graf Zeppelin* to the Soviet Arctic," *Russian History* 30, 4 (2003): 403-31. Also see Guillaume de Syon, *Zeppelin! Germany and the Airship, 1900-1939* (Baltimore: The Johns Hopkins University Press, 2001); Douglas Botting, *Dr. Eckener's Dream Machine: The Great Zeppelin and the Dawn of Air Travel* (New York: Henry Holt, 2001); and John Toland, *The Great Dirigibles* (New York: Dover, 1972).

for utilitarian results over “pure” research, and even among scientists, the majority were motivated at least to a degree by Soviet patriotism and the regime’s modernizing mission. Still, always to have one’s priorities relegated to second place rankled, and all the more so because the proud and once-independent VAI never ceased to resent GUSMP for having stripped away its autonomy. Compounding this sense of grievance was the personal dislike that VAI director Rudolf Samoilovich felt for Otto Shmidt, whom he regarded as a scholarly lightweight and a political careerist.¹⁴ This sort of cleavage weakened Arctic efforts—polar aviation included—just as state pressure, in the form of the First and Second Five-Year Plans, made it more necessary than ever to accomplish a wide variety of goals quickly and simultaneously, despite the fact that some of those goals would have been better pursued in sequence. Arguably, exploration and improved scientific-geographic understanding of the Arctic would have been useful building blocks to have in place before expanding the transport network, which in turn should have preceded the intensification of developmental efforts. However, thanks to the dictates of the Stalinist state, all this had to be done at breakneck speed and at the same time, a political reality that led to KSMP’s demise in 1932 and constantly troubled GUSMP during the 1930s.

The impact of Stalinist policy, and especially the great purges of 1936-1938, made itself felt in the most tragic ways. The scramble to fulfill the Second Five-Year Plan caused GUSMP to suffer twenty-seven million rubles’ worth of losses due to accidents along the Siberian rivers, the crippling of its marine fleet in 1937-1939 after unusually heavy pack ice trapped eight of its nine icebreakers and eighty other vessels, and a steady escalation of mishaps in the air. Regarding the last, the number of what *Glavsevmorput* termed “catastrophes” and “accidents” (aviation-related events that led to injury, loss of life, or loss of aircraft) climbed from 8 in 1934 to 21 in 1937 and 11 in the first quarter of 1938. The number of less serious “incidents” rose from 75 in 1934 to 312 in 1937 and 112 in the first quarter of 1938.¹⁵ All this took place at a time when any accident or mishap could be construed as treason or sabotage. Moreover, professional and personal enmities, plus the contagion of political hysteria, combined to make the practice of denouncing one’s colleagues to the secret police

14. This animosity is hinted at (although presented more as rivalry) in Soviet-era biographies of Samoilovich, such as Z.M. Kanevskii, *Direktor Arktiki* (Moscow: Politizdat, 1977); and idem, *Vsya zhizn’—ekspeditsiia* (Moscow: Mysl’, 1977). My own interviews with former polar scientists in the 1990s made me aware of its true extent, and some post-Soviet works, such as the biography of geographer Mikhail Ermolaev by his son, A.M. Ermolaev and V.D. Dibner, *M.M. Ermolaev* (St. Petersburg: Epigraf, 2005), are quite frank about the bad blood that existed between Shmidt and Samoilovich.

15. RGASPI, f. 475, op. 1, d. 5, ll. 25-27; d. 15, ll. 22-30.

extensive in scale and vindictive in spirit—with the result that terror cut a swath through the ranks of Soviet polar scientists, explorers, and pilots.¹⁶ Among the high-profile scientists who lost their lives or served time in the camps were Samoilovich of the VAI, geologists Georgii Ushakov and Nikolai Urvantsev, and geographer Mikhail Yermolaev. Among Arctic pilots, a blistering round of denunciations broke out in the spring of 1938, following the death of senior aviator Mikhail Babushkin, who perished in a collision with another airplane during the fruitless mission to rescue, or at least recover, a GUSMP flight crew that had vanished the previous August during an attempted transpolar flight. This N-212 incident, as it was called, opened up a full-scale secret police witch-hunt, complete with mutual recriminations and accusations of alcoholism, sabotage, and, incredibly enough, “pederasty.”¹⁷

Even so, a surprising amount was accomplished. The polar airfleet itself grew steadily, a tribute to *Glavsevmorput*'s success in petitioning the Stalin regime for resources—at least up through the middle of 1937. KSMP and GUSMP pilots like Vasilii Molokov and Mikhail Vodop'ianov, many of them seconded from the military, scouted new air routes, both minor and major, in order to link far-flung outposts, research stations, harbours, river ports, and settlements together, and also to join major centers in the sub-arctic and on the more “civilized” mainland with points in the Arctic proper. The volume of mail, cargo, and passengers moved through the north by air increased with every passing year.¹⁸ Pioneering aviators, among them Babushkin and Boris Chukhnovsky, perfected methods of ice reconnaissance, working out ways for airplanes to accompany vessels along the Northern Sea Route and give them advance warning of conditions ahead. Soviet airmen mastered the intricacies of navigating with precision so close to the magnetic pole, and, in general—down the rivers, along the coastline, and over dry land—did a great deal of surveying and mapping, no small service, given the considerable degree of uncertainty, if not outright ignorance, that

16. The effects of the terror on Arctic science are summed up by McCannon, *Red Arctic*, 149-68, drawing principally on the voluminous case files kept by GUSMP's Political Department and now held in fond 475 of RGASPI. Solzhenitsyn, *GULAG Archipelago*, vol. 2, 644-45, alludes to the bitterness of denunciations among the arctic-research community, relative to other settings, and this is confirmed by Sheila Fitzpatrick, “Signals from Below: Soviet Letters of Denunciation of the 1930s,” *Journal of Modern History* 68, 4 (1996): 831-866.

17. On the N-212 incident, see RGASPI, f. 475, op. 1, dd. 15, 16, 19, 21; as well as Babushkin's personal collection in RGAE, f. 262.

18. As reported in G. Gurari, “Nashe kapital'noe stroitel'stvo,” *Sovetskaia Arktika* 2, 1 (1936): 109; N.M. Ianson, “Plan raboty Glavsevmorputi v 1937 godu,” *Sovetskaia Arktika* 3, 2 (1937): 14-23, 44; and RGASPI, f. 475, op. 1, d. 10, ll. 241-45.

remained when it came to elementary geographical understanding of large portions of the Soviet Arctic. For example, it took till 1939 to dispel the opinion held by a significant minority of Russian scientists that two large islands, Sannikov Land and Andreev Land, remained to be discovered in the polar seas.¹⁹ Then, of course, there were the eye-catching and still-celebrated polar triumphs of the 1930s, with aviation playing the starring role in most of them.

An originally unforeseen, but soon greatly appreciated, byproduct of progress in the Arctic skies was publicity. From its inception, the Soviet regime had made heavy use of aviation for propaganda purposes. But it was in 1928 that Stalin's government had its attention drawn fully to the vast publicity value, both domestic and international, of aviation combined with polar heroics. That summer, two Soviet icebreakers, the *Krasin* and *Malygin*, each carrying ship-based aircraft, attracted worldwide admiration for their part in rescuing the surviving members of Nobile's doomed *Italia* flight.²⁰ Pleasantly surprised by the accolades, Stalin was open to persuasion when, over the next few years, GUSMP head Otto Schmidt proposed a series of high-profile Arctic exploits whose purpose was, in part, to stir up public excitement and patriotic pride.²¹ Starting things off, in 1932, was the first single-season traversal of the Northeast Passage, by the ice-forcing ship *Sibiriakov*. Following this was a 1933 attempt to repeat the *Sibiriakov*'s success, but this time with a conventional vessel, the *Cheliuskin*. The *Cheliuskin* sank off the northeast

19. Acclaimed geologist Vladimir Obruchev, who wrote a great deal of speculative fiction on the side, used this uncertainty as the premise for a much-loved adventure novel, *Zemlia Sannikova* (Moscow: Nauka, 1990), or, in English, *Sannikov Land*.

20. Maurice Parijanine, *The Krassin* (New York: Macauley, 1929); E.A. Mindlin, *Na Krasine* (Moscow and Leningrad: ZIP, 1929); A. Garri, *L'dy i liudi* (Moscow: 1928). On how the Soviet press covered the event, see the memoirs of *Izvestiia* editor Ivan Gronskii, *Iz proshlogo* (Moscow: Izvestiia, 1991), 127-29, who notes that the good press surrounding the rescue was unanticipated by the Kremlin, which at first had been reluctant to take part in the mission, and somewhat unconcerned with how to depict it in the media.

21. The literature on each of these events, particularly the *Cheliuskin* episode and the Chkalov flight, is enormous. For an overview, see McCannon, *Red Arctic*, 59-80. The importance of the *Cheliuskin* airlift was such that the Soviet Union's highest award, the Hero of the Soviet Union medal, was created to honor the seven pilots who took part in the rescue effort. Chkalov and Gromov were not GUSMP pilots, but they coordinated their navigation efforts with ground-based GUSMP personnel. Also, the USSR's third transpolar flight of the summer—an attempt to set another record by flying to Los Angeles—was headed by the GUSMP flier Sigismund Levanevsky. This flight, however, ended in the disappearance of the plane and crew over the Arctic, followed by the costly and futile search effort mentioned above, in connection with the N-212 incident. Both failures left GUSMP especially vulnerable to the great purges.

Siberian coast in February 1934, leaving over a hundred men and women stranded on the pack ice; their successful airlift in the spring thrilled audiences worldwide, and remains one of modern Russia’s most dramatic popular-culture moments (fig.1). Two Soviet flight crews, one led by Valerii Chkalov, the other by Mikhail Gromov, made record-breaking transpolar flights in 1937; each flew over the North Pole on their way from Moscow to the west coast of the United States—Chkalov to Vancouver, Washington, and Gromov to San Jacinto, California. All this was capped off by Shmidt’s masterpiece, the *Severnnyi poliush-1* mission, a two-part venture that landed aircraft as close to the North Pole as possible, then established a four-man research station, led by Ivan Papanin, designed to drift south from the Pole into warmer waters over the course of several months. For nearly a decade, Soviet explorers, their deeds carefully framed by the government and media (a point discussed at greater length below), created a compelling impression of nearly unbroken triumph in the north—at sea, on land, and in the air.

Fig. 1 Front-page celebration of the Arctic air rescue of the passengers of the sunken vessel Cheliuskin.



Source: Pravda, June 18, 1934.

Such an impression dovetailed well with the Stalinist motto that “there are no fortresses the Bolsheviks cannot take by storm”—a concordance that made polar exploration, and especially polar aviation, an ideal component of the socialist-realist aesthetic which dominated not only

literature and the arts, but also media depictions of real-life events, after about 1932 and for the rest of the Stalin period (fig. 2).²² In a country whose official discourse sought to imbue science with a heroic aura for the inspiration of the masses, Arctic piloting valorized polar research in a way that icebreakers and tundra-trekking could not hope to match.²³ It also served as a perfect symbol for nearly every major message the regime wished to convey to the Soviet public about the USSR, the wider world, and what it meant to be a good citizen. By itself, aptitude with aircraft demonstrated that the Soviet nation could fulfill age-old, transcendent dreams of flight *and* master the technology universally acknowledged throughout the interwar world as the most futuristic and exciting ever seen to that date.²⁴ Twinning aviation with the conquest of the top of the world—the North Pole, which possessed its own archetypal heft—doubled its metaphoric significance. The “Arctic myth,” a useful shorthand for this aspect of the socialist-realist discourse, highlighted the Soviet Union’s victories over the stiffest resistance that the forces of nature could range against it. The Arctic myth built up Stalin’s cult of personality and glorified him as the symbolic father of all Soviet pilots. At a time when the USSR strove to present itself to the world as a peace-loving nation that

22. For an introduction to Soviet socialist realism, begin with Clark, *Soviet Novel*; Jeffrey Brooks, *Thank You Comrade Stalin! Soviet Public Culture from Revolution to Cold War* (Princeton: Princeton University Press, 2000); Régine Robin, *Socialist Realism: An Impossible Aesthetic* (Stanford: Stanford University Press, 1992); Hans Günther, ed., *The Culture of the Stalin Period* (New York: St. Martin’s Press, 1990); Matthew Cullerne Bown, *Art Under Stalin* (New York: Holmes and Meier, 1991); and Boris Groys, “The Art of Totality,” in *The Landscape of Stalinism*, eds. Evgeny Dobrenko and Eric Naiman (Seattle: University of Washington Press, 2005).

23. For a sampling of works on the politicization of Soviet science, see James T. Andrews, *Science for the Masses: The Bolshevik State, Public Science, and the Popular Imagination in Soviet Russia, 1917-1934* (College Station: Texas A & M University Press, 2003); Nikolai Kremensov, *Stalinist Science* (Princeton: Princeton University Press, 1997); Alexei Kojevnikov, “Games of Stalinist Democracy: Ideological Discussions in Soviet Sciences, 1947-1952,” in *Stalinism: New Directions*, ed. Sheila Fitzpatrick (London: Routledge, 2000); David Joravsky, *The Lysenko Affair* (Chicago: University of Chicago Press, 1970); Loren Graham, *Science in Russia and the Soviet Union: A Short History* (Cambridge: Cambridge University Press, 1993); and Kendall E. Bailes, *Technology and Society under Lenin and Stalin: Origins of the Soviet Technical Intelligentsia* (Princeton: Princeton University Press, 1978).

24. On flight, modernity, and the popular imagination, begin with Robert Wohl, *A Passion for Wings: Aviation and the Western Imagination, 1903-1918* (New Haven: Yale University Press, 1994); idem, *The Spectacle of Flight: Aviation and the Western Imagination, 1920-1950* (New Haven: Yale University Press, 2005); Joseph Corn, *The Winged Gospel: America’s Romance with Aviation, 1900-1950* (New York: Oxford University Press, 1983); Peter Fritzsche, *A Nation of Fliers: German Aviation and the Popular Imagination* (Cambridge: Harvard University Press, 1992); Jonathan Vance, *High Flight: Aviation and the Canadian Imagination* (Toronto: Penguin, 2002); and, most relevant to this study, Palmer, *Dictatorship of the Air*; and Siddiqi, *Red Rockets’ Glare*.

could nonetheless defend its borders with overwhelming force, the tough, quasi-military qualities associated with Arctic exploration and flying allowed it to project a robust image without appearing overtly aggressive. Most of all, polar heroes were held up as icons of Soviet virtue, embodying courage, loyalty, competence, and self-discipline.

Figure 2. Newspaper advertisement for books on polar aviation produced by Partizdat, the central Party publishing house.

ПАРТИЗДАТ ЦК ВКП(б)

ИМЕЮТСЯ В ПРОДАЖЕ:

С. БЕРГАВИНОВ
ПОЛЮС НАШ!
 Цена 20 коп.

**ВЕРНЫЕ СЫНЫ
 НАШЕЙ РОДИНЫ**
 Сборник. Цена 30 коп.

**СТАЛИНСКИЙ МАРШРУТ
 ПРОДОЛЖЕН**
 Москва — Северный полюс — Северная Америка.
 Сборник. Цена 60 коп.

Г. БАНДУКОВ
**НАШ ПОЛЕТ
 В АМЕРИКУ**
 Записки летчика-истурмана.
 Цена 20 коп.

СТАЛИНСКАЯ ТРАССА
 Сборник о перелете Москва — Северный полюс — Северная Америка. Герои Советского Союза Громова, Юмодова и Демидова.
 Худож. издание. Ц. 3 р. 50 к.

ПЕЧАТАЮТСЯ:

**СЕВЕРНЫЙ ПОЛЮС
 ЗАВОЕВАН БОЛЬШЕВИКАМИ**
 (Массовое издание).

А. МАРГОЛИН
**БОЛЬШЕВИКИ
 ЗАВОЕВЫВАЮТ АРКТИКУ**

С. БЕРГАВИНОВ
**АРКТИКА И ПОЛЮС
 ЗАВОЕВАНЫ**

ТРЕБУЙТЕ ВО ВСЕХ КНИЖНЫХ МАГАЗИНАХ И КИОСКАХ.
 ЗАКАЗЫ МОЖНО ТАКЖЕ НАПРАВЛЯТЬ ПО АДРЕСУ: Москва, Лялин, 11,
 «КИТА-ПОЧТОУ» — ТОВАРНОГО ОТДЕЛА ПАРТИЗДАТА ЦК ВКП(б).

Source: Pravda, August 24, 1937.

Socialist realism has been dubbed the “impossible aesthetic” by more than one scholar, and, in truth, it contradicted itself in a number of ways. It paid lip service to Marxist-Leninist internationalism but was intensely statist and patriotic. It claimed to be modernist and progressive, and yet repressed avant-garde culture almost as ruthlessly as right-wing regimes did in Germany and Italy. The Stalin regime purported to be a standard-bearer for the cause of feminist emancipation, but, in matters of substance, backtracked on this issue throughout the 1930s, and while token efforts were made to include women in socialist-realist discourse, the ideology overall was extremely masculine.²⁵ Most crucial from this essay’s point of

25. A cadre of female pilots, including Valentina Grizodubova, Polina Osipenko, and Marina Raskova, gained fame quite late in the 1930s for long-distance flights across Siberia, and then went on to see distinguished service in World War II. But these were not framed primarily as Arctic exploits, and the discourse surrounding female pilots was decidedly tokenistic. See Petrone, *Life Has Become More Joyous*, 48-74; and Reina Pennington and John Erickson, *Wings, Women, and War: Soviet Airwomen in World War II Combat* (Lawrence: University of Kansas Press, 1997).

view, the very concept of heroism—a core value of socialist realism in general and the Arctic myth specifically—ran against the grain of Marxist-Leninist thought in its purest form. After all, to put a premium on individual achievement, or even the importance of individual agency, contradicted the Marxian thesis that human progress resulted from mass effort and the unfolding of impersonal socioeconomic forces. This more austere interpretation prevailed among many Soviet artists, philosophers, and writers during the 1910s and 1920s, and thoroughly dominated culture in the USSR during the First Five-Year Plan period, when the role of the individual was diminished as much as possible in most official depictions of the USSR's great march forward.²⁶ If protagonists, whether fictional or real-life, mattered at all, it was because they served as cogs in the large machine that was the Soviet Union.

However, from a propaganda point of view, this practice caused problems: quite simply, stories without heroes were boring. To appeal to the population at large, something new and more accessible was needed, one of the several factors generally considered to have prompted Stalin's transition to the socialist-realist aesthetic. This shift started in 1932 and culminated in the formal proclamation of socialist realism as the country's official literary and artistic doctrine at the First Congress of the Union of Soviet Writers in the summer of 1934. To the extent that this was a cultural and philosophical decision, as opposed to a straightforward political measure to tighten Stalin's grip on the USSR's mass media and cultural community, the inauguration of socialist realism was about using the power of effective storytelling to benefit the Soviet cause. One of its founding fathers, the venerable author Maxim Gorky, who had returned to Russia after a decade of self-imposed exile, proposed that Soviet authors—and, by extension, artists, musicians, journalists, theatre directors, and so on—emulate the style and techniques of Russian and foreign masters such as Tolstoy, Mark Twain, Dickens, Jack London (a particular favourite in Russia, then and now), and Gorky himself, all of whom combined talespinning skill with a willingness to draw attention to or satirize socioeconomic inequities. Above all, Gorky, with his steadfastly promethean vision of a bold people forging a new future, and forging itself into a new genus of humanity, valued heroism. Heroic examples would interest Soviet citizens in new novels, poems, and artworks, and they would inspire all Soviet men, women, and children to strive as hard as they could in their own walks of life for the benefit of the Soviet nation as a whole. As for the

26. See Katerina Clark, "Little Heroes and Big Deeds: Literature Responds to the First Five-Year Plan," in *Cultural Revolution in Russia, 1928-1931*, ed. Sheila Fitzpatrick (Bloomington: Indiana University Press, 1978).

supposed disparity between heroism and Marxist-Leninist ideology, Gorky dismissed this as a matter of interpretation, arguing that, so long as the cultural creations of the Soviet literati and mass media were “socialist in content,” those creations’ *form* mattered less.

Thus was born the “positive hero,” one of the staple figures of Soviet culture from Stalin’s time to the Gorbachev-era days of *glasnost*. During the Stalinist 1930s, a number of heroic models were put forward for ordinary Soviets to admire and imitate: Civil War veterans, Stakhanovite workers (norm-busting factory hands who over-fulfilled planning quotas), athletes, soldiers and border guards, tractor drivers and record-breaking agricultural producers, even chess players, violinists, and ballet dancers. Among the most popular and most colourful were aviators of all types—Arctic aviators prominent among them, side-by-side with their polar explorer colleagues. Actual polar celebrities, such as Shmidt, Chkalov, the “Cheliuskinites,” and the hero-pilots who rescued them, were lionized and feted, and their fictional counterparts—including the explorers featured in Sergei Gerasimov’s blockbuster film *The Seven Bold Ones* (1936) and the pilot Sanya Grigorev, hero of the much-loved novel *The Two Captains* (1937-1946), by Veniamin Kaverin—won the hearts of Soviet readers and viewers, both children and adults, for many years running. The question of how the Arctic myth was received and interpreted by ordinary Soviets is extremely complex, and beyond the scope of this study, but it can be said briefly that, even if not all Soviets grasped or accepted Arctic-related propaganda in the ways the regime hoped they would, the public at large felt pride and excitement about the explorers and pilots themselves, and the various things they accomplished.²⁷

Aviation heroism made for excellent press, and even propaganda, in all states with airplanes and pilots to fly them. But one clear difference between the USSR and other airminded nations was the degree to which the Soviet state controlled the creation and distribution of aviation- and Arctic-related imagery. To begin with, Stalin involved himself directly with the organization of all the aforementioned Arctic exploits, and all final decisions were approved or made by him. In other words, Stalin himself moulded the raw material from which the Arctic myth was

27. On how the state, media, and public produced, crafted, and consumed the Arctic myth (and for some expressions of disdain for, and low interest in, the Arctic myth), see McCannon, *Red Arctic*, 110-44. For more on the challenges involved with gauging public attitudes in the USSR, see Sarah Davies, *Popular Opinion in Stalin’s Russia* (Cambridge: Cambridge University Press, 1997); James Millar, ed., *Politics, Work, and Daily Life in the USSR* (Cambridge: Cambridge University Press, 1987); Stephen Kotkin, *Magnetic Mountain: Stalinism as a Civilization* (Berkeley: University of California Press, 1995); and Sheila Fitzpatrick, *Everyday Stalinism* (Oxford: Oxford University Press, 1999).

manufactured. Beyond that, all forms of reportage, filmmaking, textbook-writing, and image-fashioning were centralized to an extent not found anywhere else except Germany under Hitler and Goebbels. Whereas in the U.S. and Canada, and in most of Europe, depictions of aviation or polar heroism owed more to free enterprise, corporate priorities, the creative talents of artists and writers working for the mass media, and entrepreneurial initiative on the part of the heroes themselves than to the government, state imperatives were paramount in the USSR—with little room (although never *no* room) left over for artistic creativity or manipulation of one's own heroic image by individual pilots or explorers.²⁸ Even in Nazi Germany, with its own state-controlled media, the generation and propagation of aviation-related imagery appears to have been somewhat less under the authorities' thumb than in Stalinist Russia. Looking specifically at aviation exploits related to the Arctic, we see from the protocols of Politburo meetings that Stalin and his chief associates discussed frequently and at length how to depict and celebrate the polar deeds of the 1930s. Without minutes, we cannot know *what* the Politburo said or decided about these exploits, but that its members assigned great importance to how the public viewed them is clear.²⁹

On the symbolic level, Stalin's Arctic pilots had several things in common with other aviation heroes throughout the interwar world. Like Soviet fliers in general, they were seen as fearless trailblazers, men (and occasionally women) of action, tough and resourceful. They wielded a technology that turned mere mortals into supermen—in both the Nietzschean and comic-book sense. There were also profound differences, because, while the socialist-realist formula rejected the most puritanical reading of Marxism-Leninism, it could not, nor did it seek to, untether itself completely from communist ideology. To serve effectively as a

28. For the most comprehensive study of Soviet aviation culture in general, see Palmer, *Dictatorship of the Air*, passim. On the Arctic myth, see chapters 4 and 5 of McCannon, *Red Arctic*. On the specific question of how Soviet polar heroes used their celebrity to their own benefit, see John McCannon, "Positive Heroes at the Pole: Celebrity Status, Self-Promotion, and the Stalinist Myth of the Arctic, 1932-1939," *Russian Review* 56, 3 (1997): 346-65. The cases of Otto Schmidt and Mikhail Vodop'ianov, both of whom proved extremely self-aggrandizing, are especially instructive. Sample works on the construction of relevant heroic images include Tom Wolfe, *The Right Stuff* (New York: Bantam, 1983); Beau Riffenburgh, *The Myth of the Explorer: The Press, Sensationalism, and Geographical Discovery* (London: Belhaven Press, 1993); Michael F. Robinson, *The Coldest Crucible: Arctic Exploration and American Culture* (Chicago: University of Chicago Press, 2006); and Murphy, *German Exploration of the Polar World*.

29. The Politburo protocols are contained in fond 17 of RGASPI. A sample of entries pertaining to the organization of parades for returning polar heroes, arctic pavilions at fairs and exhibitions, and similar matters can be found in opis' 3, dd. 907, 910, 947, 948, 949, 950, 962, 982, 983, 987, 989, 990, 997, 1019.

positive hero, the Soviet pilot, wherever he (or she) flew had to conform to strictly-defined standards of comportment. This applied to public image, not necessarily to real life. Just as Tom Wolfe uncovered more than a few instances of less than boy-scout behaviour among those paragons of American virtue, the Mercury astronauts, Soviet polar heroes did not invariably act like socialist-realist paladins, as their flesh-and-blood conduct included drunkenness, glory-hogging, backbiting, and the occasional public brawl.³⁰ The socialist-realist ethos made little or no room for certain modes of heroism more common in the West. Certainly there could be nothing like the “lone eagle” imagery that surrounded Charles Lindbergh, a figure much disliked in the USSR, both for his publicly declared anti-communism and the individualist symbology surrounding him. The mystical transcendence of Antoine de Saint Exupéry was less antithetical to Soviet values, but neither was it of much use in reinforcing them, and the fascist militarism underlying Italo Balbo’s long-distance flights was portrayed as diametrically opposed to them—even if, in keeping with Mussolini’s insight that Stalinism was in reality a form of “Slavonic fascism,” Soviet and Italian aviation culture may have had more in common than anyone in the USSR cared to admit. The USSR’s recurring slogan “wings of peace,” and its emphasis on how the Soviets used aircraft for research purposes and national development, were constantly juxtaposed against the warlike face of fascist and Nazi aviation, especially as Italy and Germany engaged in terror-bombing in Abyssinia and Spain. The North American bush pilot provides an interesting point of comparison, for in many respects what Canadian and American polar aviators *did* was similar to what their Soviet counterparts did. They were mainly civilians, they moved mail, freight, and passengers through inhospitable terrain, and they kept far-flung outposts and settlements linked together, however tenuously. However, insofar as one can attach a single archetype to the bush pilot, it is associated with the concept of rugged, even roguish, individualism: a Sam McGee with wings, if one likes. From the socialist-realist perspective, this sort of demeanour was almost as troublesome as the “lone eagle” trope.

In general, the symbolic differences between Soviet and Western Arctic fliers appear to outweigh the likenesses. The role of a positive hero, whether he or she was a champion beet farmer, a record-breaking marksman, or a footballer par excellence, was to exemplify heroic qualities, but within a highly disciplined, collectivist framework. For instance, hot-headed impetuosity, an attribute associated with pilotry since the earliest days of flight, could be tolerated among Soviet aviators only if it was slight enough

30. Wolfe, *The Right Stuff*; and McCannon, “Positive Heroes,” *passim*.

to provide a touch of spice and personality, or if it formed part of a pilot's past, a character flaw he could be shown to have overcome as he aged. Courage was taken for granted, but daredevilry, glory-seeking, and self-aggrandizement were frowned upon. Desirable qualities included foresight, cool-headedness, and self-control. Vasilii Molokov, held up as the wisest and most spartan of the Soviet polar fliers, denounced reckless adventuring, commenting that "people say that we gamble with death, but our game is based on carefully calculated odds; only after studying our own strength and that of the arctic do we fly."³¹ Even the transpolar pilot Chkalov, renowned for his boisterousness, was depicted as telling rambunctious little boys that they could not keep carrying on like "undisciplined little anarchists" if they wanted to grow up to be of use to their homeland.³² In an interview with the newspaper *Izvestiia*, GUSMP head Otto Shmidt summed up perfectly the blend of iron will, humility, and selfless dedication that the socialist-realist brand of heroism called for: "We do not chase after records—although we break not a few along the way. We do not look for adventures—although we experience them with every step. Our goal is to study the north for the good of the entire USSR."³³

Evident in Shmidt's remark is another facet of the heroic ideal as socialist realism defined it: collectivity. Discursively, Soviet polar explorers and Arctic pilots were never depicted as acting alone or for their own benefit, and every task or accomplishment was a small part of the Kremlin's larger campaign to tame the Arctic wilderness. Even when a pilot operated solo, he was still metaphorically part of this team effort. The Soviets placed heavy emphasis on how their own polar exploits were scientifically useful, helped to build a sustainable presence in the North, and took their inspiration from socialist principle. These qualities stood out in stark contrast to the Western style of polar exploration to Arctic work, which the Soviets denounced as "sports-mad," "greedy," and "haphazard." For example, of Richard Byrd's 1926 flight over the North Pole, SP-1 pilot Mikhail Vodopianov mockingly noted that "all he did over the Pole was to toss out an American flag, then fly straight back home! Naturally, it is impossible to consider this scientifically useful."³⁴ (Limited exceptions were made for figures like Amundsen and especially Nansen, whose approach the Soviets praised as more "mature.") According to the Arctic myth, Soviet polar heroes, as they brought socialist civilization to the far corners of the wilderness, enjoyed an invisible but unbreakable link with their fellow citizens on the mainland; it was precisely the love

31. V.S. Molokov, *My vypolnili svoi dolg—vot i vse!* (Moscow: Molodaia gvardiia, 1935), 20.

32. An episode related by L.A. Kudrevatykh, *S Valeriem Chkalovym* (Moscow: Pravda, 1958), 18-19.

33. Cited in Boris Gromov, *Gibel' Arktiki* (Moscow: Molodaia gvardiia, 1932), 3-4.

34. M.V. Vodop'ianov, *Polius* (Moscow and Leningrad: Detizdat, 1939), 36-37.

and support directed northward by the people of the USSR that enabled every one of the country’s Arctic triumphs. As Ivan Papanin and the other three members of the SP-1 outpost (fig. 3) proclaimed by radio from the North Pole, “we are far from home, but no distance can truly separate us from the Soviet Union, from the Bolshevik Party, or from the love and warmth of our people.”³⁵

Figure 3. Map depicting the drift and retrieval of the SP-1 floating polar station, established in May-June 1937 and commanded by Ivan Papanin until early 1938.



Source: Pravda, February 20, 1938.

35. L.K. Brontman, *On Top of the World* (London: Victor Gollancz, 1938), 241.

Or, it should be said, from Stalin himself, who loomed figuratively over Russia's North in a way that would have seemed alien in any other Arctic nation. One of socialist realism's chief characteristics was the way it portrayed the world's allegedly most egalitarian society as a patriarchy so hierarchical as to make the USSR seem as rigidly ziggurat-like as Lenin's Tomb. Stalin's infamous personality cult took on mammoth proportions during the 1930s, and every positive hero was depicted as owing and expressing undying gratitude to him for everything: tutelage, support, opportunity to advance and achieve, even parental love. Stalin was depicted as the father of all Soviet heroes, but special pains were taken to associate him in this way with pilots above all, especially those who flew in the Arctic. Pilots were "Stalin's falcons" (*sokoly*), even his "fledglings" (*pitomtsy*), and it was impossible for them to realize their heroic potential without his fatherly guidance. In "The Stalin Route," Perets Markish's poem about Chkalov's transpolar flight to America, the pilot and his crew, winging their way through the Arctic bleakness, invoke Stalin's name, not just like children calling out to a parent, but literally as if in prayer:

Their lips quietly whispered:
 "Leader and Friend, guide us from afar!
 Against these storms and winds,
 Above these deserts of eternal ice!"³⁶

For the central press, Chkalov himself wrote (or had written for him) an essay entitled "Our Father," in which the pilot, speaking about Stalin on behalf of all Soviet fliers, declared, "he teaches us and rears us. We are as dear to his heart as his own children. We feel his loving, attentive, fatherly eyes upon us. He is our father."³⁷

If the Arctic myth made Stalin out to be the father of hero-pilots, it asserted further that only in the Soviet Union could those heroes' inborn qualities be properly nurtured. Almost without fail, the life stories of Arctic pilots were offered up as rags-to-riches parables, albeit with a Marxist slant in which the experience of revolution and civil war, or life under socialism, rather than Algeresque by-one's-own-bootstraps pluckiness, provided the transformative mechanism. Heroes' biographies were structured in such a way as to stress tsarist-era childhoods of toil—in factories and sweatshops, or under the yoke of abusive landowners—and personal indebtedness to the Soviet state for creating new conditions under which one's gifts and talents could be fully realized.³⁸ Education in

36. *Kryl'ia sovetov: literaturno-estradniy sbornik* (Moscow: Iskusstvo, 1939), 69-75.

37. V.P. Chkalov, "Nash otets," *Izvestiia*, August 18, 1938.

38. For example, see I.P. Mazuruk, *Nasha aviatsiia* (Moscow and Leningrad: Detizdat, 1940), 3, 7-9; A.V. Liapidevskii, *Cheliuskintsy* (Moscow and Leningrad: Detizdat, 1938), 4; and V. Vishnevskii, *Geroi Sovetskogo Soiuzu Ivan Dmitrievich Papanin* (Moscow: OGIZ, 1938), 1.

particular was made much of. Mikhail Vodopianov, the most prolific author among Stalin's polar heroes, constantly pointed out how he had grown up an unlettered shepherd boy under the tsars, but the pilot who spoke most insistently to this point was Vasilii Molokov, who took a metalworking job at the age of nine to support his mother and siblings and gained his literacy only under the new regime. He contrasts his wretched Imperial-era upbringing with the good fortune of children growing up under Stalin—most touchingly when he visits a group of Young Pioneers (members of the Communist Party organization for school-age children) in Minsk. The recitation of poetry by a young girl causes him to feel “a little shame” at the memory of how poorly he himself could read when he was the girl's age, but it fills him even more with pride at how far his country has come in such a short time. “Of what could we dream, the children of my generation?” he asks. “Nothing. But of what can our Pioneers dream? And of what *do* they dream? The answer is everything.”³⁹ Here, the Arctic myth's message is clear: uniquely among nations, the USSR was positioned to unlock human potential—not just in the North, and not just in science, but in every field of human endeavour.

By the end of the 1930s, the glamour of the Arctic myth as an aspect of the socialist-realist worldview dimmed considerably. Various practical failures between 1937 and 1940, the downgrading of GUSMP from Arctic suzerain to a transport agency subordinate to other enterprises (including the prison-camp apparatus), and the increasing military threats posed by Nazi Germany in the west and Japan in the east all took their toll on the propaganda value of polar expeditions. By 1939, *Glavsevmorput*' as an institution was a shadow of its former self. Polar scientists had suffered horribly as a result of Stalin's purges, and the socialist-realist aesthetic was gearing up for war by shifting public attention to more directly militaristic themes and tropes.

On the other hand, the popular memory of polar heroics has never died away in Russia and, if anything, has grown more appreciative in recent years. Part of this is due to the success of Artur Chilingarov's 2007 mini-sub expedition to the North Pole seabed, and part to the ongoing “patriotization” of Russian history imposed on the scholarly community and the educational system by Vladimir Putin, in which Russia's past is increasingly framed as an unbroken narrative of triumph following upon triumph. But it must be admitted that part of the lingering appeal has to do with the tangible accomplishments brought about by Russia's *Drang nach*

39. Molokov, *My vypolnili svoi dolg*, 22-28.

Norden, as one historian has termed it.⁴⁰ There is no denying that the Soviets tamed the Northern Sea Route, made tremendous progress in filling the blank spaces in the Siberian-Arctic *set*, or network, that Soviet geographers had envisioned during the 1920s, and contributed invaluable to polar scholarship across all disciplines. As of yet, assessments of Soviet science have failed to hit upon a satisfactory formula to weigh achievements of this sort against the terrible price paid for them: the decimation of the academic community by demotion, arrest, and execution; the ideological distortion of key scientific theories and principles; the damage done to nature by the reckless application of what one environmental historian calls “brute force technology”; and the regime’s reliance on forced labour for so much of the country’s technological and industrial development.⁴¹ But however one balances the costs versus the benefits, the airplane, with its promise of promethean uplift, lent an enduring popular appeal to Soviet scientific work in the Arctic, and contributed indispensably to whatever success the country enjoyed there during the 1930s and afterward.

40. Taracouzio, *Soviets in the Arctic*, 246.

41. In *What Have We Learned About Science and Technology from the Russian Experience?* (Stanford: Stanford University Press, 1998), Loren Graham argues that, strictly in terms of successful scientific progress, financial backing proved more important than freedom in modern Russia. Kojevnikov, “Games of Stalinist Democracy,” warns against easy regime-vs.-scientist dichotomies, partly in reaction to the emphasis laid on the regime’s abuse of scientists in works like David Joravsky’s *The Lysenko Affair*, while John McCannon, “The Pole is Ours! The Dilemmas of Exploration, Development, and Science in Arctic Siberia during the 1930s,” in *The Siberian Saga: A History of Russia’s Wild East*, ed. Eva-Maria Stolberg (Frankfurt: Peter Lang, 2005), is more inclined to stress the effects of terror. Paul Josephson discusses environmental devastation in *Industrialized Nature: Brute Force Technology and the Transformation of the Natural World* (Washington: Island Press, 2002). Scott Palmer, in *Dictatorship of the Air*, *passim*, argues that the supposedly triumphant history of Soviet aviation points out the USSR’s multitudinous failures rather than validating it.