Was There a Real “Mineshaft Gap”?

Bomb Shelters in the USSR, 1945–1962

Edward Geist

At the climax of Stanley Kubrick’s classic 1964 film *Dr. Strangelove, or, How I Learned to Stop Worrying and Love the Bomb*, U.S. President Merkin Muffley and his advisers learn that General Jack D. Ripper’s unauthorized nuclear strike on the Soviet Union will activate that nation’s doomsday machine, rendering the surface of the earth uninhabitable for one hundred years. The eponymous Dr. Strangelove proffers a solution—relocate America’s scientific, political, and military leaders to deep mines, along with ten females for every male, so they can “breed” in preparation for repopulating the surface in the distant future. All present, including the Soviet ambassador, express hearty approval of this plan. But concerns immediately turn to the problem of superpower dominance in this new, subterranean world order. Expressing his fear that Soviet leaders “might try an immediate attack so they can take over our mine-shaft space,” General Buck Turgidson declares, “Mister President, we must not allow a mine-shaft gap!”  

During the Cold War Americans regularly expressed genuine fear of a real-world “mineshaft gap” with the USSR. As early as 1951, Federal Civil Defense Administrator Millard Caldwell emphasized the Soviet Union’s supposed civil defense superiority when explaining why Congress’s refusal to meet his agency’s budget request endangered national security.  

1. Peter George, *Doctor Strangelove, or, How I Learned to Stop Worrying and Love the Bomb* (New York: Bantam, 1964), p. 145. In Peter George’s novelization of the film, the story is introduced by aliens who reveal that Dr. Strangelove’s mineshaft relocation scheme failed to preserve humanity.

“there is an enormous difference in the bargaining ability of a country which can, for example, put its people in a place of safety in 24 hours’ notice, and one which cannot. If it is hard for the reader to visualize this, let him imagine a situation where the Russians had done exactly that and we had not. Then let him ask himself how we would come out at a subsequent Munich-type conference.”³ Later that year the Committee on Government Operations of the U.S. House of Representatives concurred, claiming that “the Soviet Union has developed a substantial civil defense program,” whereas “the United States lacks the means to protect its people in the event of nuclear war, and Soviet strategists cannot be unaware of our nakedness in civil defense.” The committee acknowledged that “whether Soviet leaders believe their preparedness in this area is sufficient to tip the ‘delicate balance of terror’ in their favor is not known at the present time,” but the committee’s report struck an ominous tone.⁴

The topic of Soviet civil defense preparations understandably interested Western defense specialists during the Cold War, but they came to little agreement about the true nature and impact of the program. Sovietologist Leon Gouré spent decades warning Americans about the dangers of lagging behind the Soviet Union in civil defense measures, particularly in the field of shelter construction. According to Gouré, inferiority to the Soviet Union in civil defense could allow Moscow to force America’s hand during a nuclear standoff or even embolden Soviet leaders to launch a nuclear attack.⁵ Although Gouré’s research found favor in certain circles, critics such as Fred Kaplan insisted that Soviet civil defense was primarily a domestic propaganda effort that largely avoided expensive capital investment in shelters.⁶

Language barriers and the reluctance of the Russian government to declassify materials related to nuclear war planning have discouraged investigation of Soviet civil defense by Western scholars. To date, no historian has sys-

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5. Leon Gouré (1922–2007) was the foremost expert on Soviet civil defense in the United States from the early 1960s until the collapse of the USSR. Gouré began his studies of Soviet civil defense at the RAND Corporation in the late 1950s. Always controversial, he drew his conclusions largely from an analysis of freely available Soviet civil defense manuals and periodicals. The two most significant of his numerous publications are Civil Defense in the Soviet Union (Berkeley: University of California Press, 1962); and War Survival in Soviet Strategy: Soviet Civil Defense (Coral Gables, FL: Center for Advanced International Studies, 1976).
tematically examined the development of the Soviet Union’s shelter system. Major historical studies such as David Holloway’s 1994 monograph *Stalin and the Bomb* reveal much about the scientific and political dimensions of the Soviet government’s nuclear weapons policies, but these neglect the historical role played by the Soviet civil defense program. The few Russian-language institutional histories of civil defense that exist do not directly address the overall scale or cost of the USSR’s civil defense efforts. In recent years information about Soviet civil defense has begun to trickle out of the former USSR thanks to newly declassified archival sources, as well as the statements of the current Russian emergency management agency, the Ministry of Emergency Situations. These revelations show that the reality of Soviet civil defense was far more complicated than Western analysts imagined.

The history of the USSR’s bomb shelter construction program provides invaluable insights into the Soviet leadership’s changing interpretation of the Western nuclear threat during the early Cold War (1945–1962). Because Soviet leaders directly shaped policy on this matter, shelter building serves as a barometer of their fears of nuclear war. Drawing on previously unexamined archival materials from the State Archive of the Russian Federation, the Central State Archive of Moscow Oblast, and the Russian State Archive of Socio-Political History, as well as published sources including official regulations and propaganda, this article describes the history of Soviet bomb shelter development from the end of World War II in 1945 until the Cuban missile crisis in October 1962. The article surveys the development of the shelter construction program; its scale; its fiscal, material, and political costs; and its implications for our understanding of Moscow’s evolving perception of the U.S. nuclear threat.

**Sheltering Socialism from “Imperialist Aggressors”**

The Soviet Union’s civil defense system began to take shape almost immediately after the Bolsheviks seized power in November 1917. In the months be-

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8. Two archival-based histories of Soviet civil defense address the postwar period. See D. S. Fanyan, *Grazhdanskaya oborona Moldavskoi SSR* (Chișinău, Moldova: Shtiintsa, 1989), on the history of civil defense in Soviet Moldova; and A. V. Gusev, *Istoricheskie predposytki sozdaniya i razvitiya sistemy Mestnoi PVO SSSR (1918–1961 gg.*) (Kostroma, Russia: KGTU, 2009), on the history of civil defense throughout the USSR. The Russian Ministry of Emergency Situations has produced two institutional histories of Soviet/Russian civil defense for its own use. See S. K. Shoigu, *Ot MPVO k grazhdanskoj zashchite: istoricheskii ocherk* (Moscow: URSS, 1998); and V. Vladimirov et al., *Ot MPVO k
fore the signing of the Treaty of Brest-Litovsk in March 1918, the possibility of German air attack on western Russian cities inspired the earliest efforts to develop defenses against airborne bombing. In the mid-1920s, Soviet civil and military thinkers wrote extensively about the possibilities of air attack, chemical weapons, and other potential features of “future war.” A 1925 book titled How Chemical Weaponry Threatens the Civilian Population and How to Defend Oneself against It (Chem grozit voennaya khimiya grazhdanskomu naseleniyu i kak ot nee zashchishcha'sya) explained how the class logic of future wars against the USSR dictated that capitalist powers would attempt a crippling chemical weapons strike against Soviet cities at the opening of hostilities. Because a long war would risk the outbreak of socialist revolution in their own countries, bourgeois governments would need to prevent Soviet armies from mobilizing, and they would do so with a devastating poison gas attack on administrative and industrial centers. Another 1925 brochure charged that bourgeois laboratories were hard at work creating weapons that could “transform an enormous city into an eerie graveyard of humanity in mere hours.” Such fears inspired the Soviet government to issue a “Regulation on Anti-Air Defense Measures in New Structures in the 500-Kilometer Border Zone” in November 1925. This was the first act addressing bomb shelter construction in the USSR.

Despite these early steps, the Soviet Union did not begin constructing civilian bomb shelters in earnest until the 1930s. In the late 1920s Soviet military researchers investigated bomb shelter design, publishing their findings in a series of technical manuals. In 1930 the People’s Commissariat of Industry (Narkomkhоз) of the Russian Soviet Federated Socialist Republic issued the first regulations for bomb shelter design: “Built Means of Local Anti-Air De-
fense” and “Technical Background and Norms for Local Anti-Air Defense Shelters.” On 4 October 1932, the Soviet government established an official government civil defense organization, Local Anti-Air Defense (Mestnaya protivovozdushnaya oborona, or MPVO), under the People’s Commissariat of Internal Affairs. Shortly thereafter bomb shelter construction for urban civilians began on a small scale. According to legend, the first Soviet bomb shelter constructed in the housing sector by the MPVO was in Moscow’s House on the Embankment, which was occupied by the highest tier of the Soviet elite. Shelter construction and research continued for the remainder of the prewar period, and in 1935 the Soviet government ordered all likely target cities to take civil defense needs into account in new construction.

The German invasion of 22 June 1941 caught the MPVO off guard. The rapid Nazi advance into the Soviet interior, combined with the crippling of Soviet air defenses, enabled enemy air attack to menace far more of the USSR than prewar plans had anticipated. The MPVO responded to German bombing raids by taking steps to train the entire adult population in civil defense, as well as initiating a crash program to provide more bomb shelters by structurally reinforcing the basements of existing buildings. Because no comprehensive regulations existed explaining the process of converting basements into shelters, the MPVO rushed an improvised manual, “Instructions for the Use of Basements in Existing Buildings as Anti-Air Defense Shelters” (Ukazaniya po prispobolieniyu podvalov sushchestvuyushchikh zdаний pod podval’nye ubezhishcha i ukrytia PVO) into publication. During the war, the MPVO used these regulations to convert thousands of basements into shelters. In wartime Moscow, the MPVO possessed about 1,500 gas shelters, 6,215 blast shelters, and space to shelter about 530,000 people in the Moscow subway. Altogether, these shelters could protect about 1.5 million Muscovites, out of a total urban population of about four million. From 28 March to 3 April 1942, the MPVO held an engineering-technical conference that improved shelter con-

18. Tekhnicheskoe upravlenie Narodnyi Komissariat po stroitel’stvu SSSR, Ukazaniya po prispobolieniyu podvalov sushchestvuyushchikh zdаний pod podval’nye ubezhishcha i ukrytia PVO (Moscow: Gosudarstvennoe izdatel’stvo stroitel’noi literatury, 1941).
struction standards on the basis of wartime experience. In 1943 the People’s Commissariat of Construction (Narkomstroi) issued a modernized set of shelter construction regulations for “shelters of the second category,” which remained in use well into the postwar period. The specifications stipulated that these shelters were supposed to accommodate no more than 100 people, be located as close as possible to the populations they served, and possess blast doors, ventilation systems, running water, plumbing, and first-aid stations.

According to official accounts, Soviet civil defense enjoyed considerable success during World War II. The MPVO mobilized millions of citizens to douse fires and assist the injured. During the war Axis aircraft dropped 1,611 high-explosive bombs and more than 100,000 incendiary bombs on Moscow but failed to knock a single Moscow factory out of action. In these attacks a total of 1,235 people died, and a further 5,406 suffered injuries. Compared to cities such as Dresden, Tokyo, and London, where tens of thousands of civilians perished as a result of bombing raids during the war, Moscow and other Soviet urban centers escaped airborne attacks relatively unscathed. In large measure, this was not because of the MPVO’s efforts but because the Axis did not give priority to strategic bombing against the Soviet Union. As a result, the Soviet Union probably overestimated the effectiveness of its civil defense system. Significantly, the non-use of chemical and biological weapons during the war appears to have led the MPVO to downplay earlier concerns about these threats, as well as the new nuclear threat, in the postwar period.

Ignoring the Bomb

At first, the nuclear bombings of Hiroshima and Nagasaki had little impact on Soviet civil defense. After the war ended in 1945, the MPVO occupied itself with defusing unexploded ordnance and assisting in the reconstruction of the devastated Soviet urban landscape. As a result, shelter construction temporarily ceased, and civil defense training continued at a highly reduced level. Recently declassified documents suggest that after receiving detailed accounts of the nuclear bombings in Japan, Iosif Stalin concluded that the new weapon was not a serious military threat to Soviet interests. Although he considered acquisition of a Soviet nuclear bomb a top state priority, neither Soviet sol-

diers nor civilians received information about what to do if the United States used a nuclear weapon against them. Only after Stalin’s death would Soviet civil defense truly enter the nuclear age.

In the meantime, however, growing tensions between the United States and the Soviet Union resulted in a revival of civil defense efforts beginning in 1947. In addition to resuming mass civil defense training exercises, the MPVO began building a few new shelters in this period, as well as maintaining existing shelters in a state where they could be rapidly put into service in case of war. This task proved complex because these “shelters” often took surprising forms and served unorthodox peacetime uses. The wartime improvised basement shelter construction policy resulted in an array of structures that usually bore scant resemblance to the orderly, well-equipped shelters described in Soviet civil defense manuals. A comprehensive registry compiled in 1952 of the shelters in the Frunze district of Moscow provides revealing examples of this phenomenon and also illustrates the reality of Soviet bomb shelters in the years leading up to Stalin’s 1953 death.

Extant documents indicate that Moscow possessed thousands of bomb shelters in the mid-1950s, but many of these “shelters” were little more than fortified basements. The MPVO, despite its location near the center of Moscow, apparently constructed few shelters in the Frunze district prior to the outbreak of war in 1941. Most of the hundreds of shelters in this part of the city dated to 1941 and 1942, with a handful built either before or after the war. The majority of these basement shelters existed in residential, educational, and industrial buildings—some over 50 years old—that were judged structurally adequate for shelter service or were reinforced to withstand bombing. Few of these shelters possessed blast doors, and fewer still boasted ventilation equipment. Regulations allowed ventilators to remain dismantled in peacetime. Because of the desperate shortage of built space in Soviet cities, these shelters found peacetime use in a wide variety of roles. The most common applications were root cellars, coal cellars, and industrial equipment storage, but some shelters served as “red corners” (krasnye ugolki; essentially, local points for popularizing Communist propaganda), offices, or even housing. Regulations stipulated that the shelters be available for occupancy within 24–72 hours of the declaration of a “threatening situation.”

24. This registry is preserved in two volumes held in Tsentral’nyi Gosudarstvennyi Arkhiv Moskovskoi Oblasti (TsGAMO), Fond (F.) 6880, Opis’ (Op.) 2, Dela (D.) 736–737.
26. A bomb shelter serving as a krasnyi ugol’ in 1952 was located at 33 Kropotkin Street, Moscow. See “Akt 3 iyul’ya 1952 g.” in TsGAMO, F. 6880, Op. 2, D. 736, L. 53. The shelter in the basement of
A typical example of one of these shelters could be found under a prerevolutionary building at No. 4 Vesnina Street. Built in 1942, this reinforced basement had a floor area of 62 square meters and a volume of 122 cubic meters. According to its documentation, the shelter could accommodate 90 people. But during peacetime the shelter served as storage for dry vegetables. Civil defense promised that these comestibles could be cleared out within a day if the need arose. The MPVO noted that although this shelter was technically supposed to possess hermetically sealed blast doors, as of mid-1952 it had none.\(^{27}\)

Shelters under construction in the housing sector in the early 1950s generally followed the wartime pattern, except for boasting slightly better equipment. For instance, during the 1952 shelter census the Frunze district MPVO staff was converting a basement at 31 Plyushchikha Street into a bomb shelter. This building, designed for upscale apartments in 1912, possessed a 75-square-meter basement, which in the MPVO’s view provided sufficient space to shelter 136 people. As of 1952, the basement served as storage space for the bookstore “KOGIZ” No. 60, and, although the shelter possessed blast doors, it lacked ventilation equipment.\(^{28}\) The MPVO undertook surveys to find basements suitable for conversion to shelters, mapping out promising basements and taking thorough measurements.\(^ {29}\) New construction sometimes included shelters, but the MPVO reserved the most sophisticated shelters for its own personnel, as well as critical workers at important factories. Declassified documents reveal that the bulk of money expended on shelters in the 1950s funded relatively sophisticated shelters in the industrial sector.

**Confronting the Nuclear Threat**

The crude structures that made up the bulk of the Soviet Union’s shelter system in the early 1950s were inadequate to meet the hazards posed by the nuclear bomb—a result of the fact that the MPVO ignored the nuclear threat altogether. Until late 1953, Soviet leaders failed to order civil defense to prepare...
for a nuclear attack, and as a result the MPVO had no authority to move into this new, politically sensitive field. Stalin had declared that the nuclear bomb was something that might frighten a “weak-nerved” people but that the Soviet citizens were nothing of the sort. Acknowledging the colossal threat the ballooning U.S. nuclear arsenal posed to Soviet cities risked contradicting official ideology. Even within the MPVO’s own highly classified internal documents, which often bore only scant resemblance to its public propaganda, the agency planned for a war without nuclear weapons.30 This did not change even after the Soviet Union tested its own nuclear bomb and ended the U.S. nuclear monopoly in 1949. Although the early Soviet nuclear tests included studying weapons effects on civilian structures such as subway tunnels and residential buildings, the government denied information to the MPVO about the effects of the new weapons even as anti-American propaganda warned that the United States planned to use nuclear weapons against the Soviet Union.31

Following the death of Stalin in March 1953, his successors ended this bizarre gap in civil defense policy. Stalin had apparently kept members of his inner circle nearly as ignorant as the bulk of Soviet citizens about the effects of nuclear weapons. What these elites learned tended to downplay the destructive power of the bomb.32 Lavrentii Beria, whose position as head of the Soviet nuclear weapons project placed him in the best position to know something about the subject, was arrested a few months after Stalin’s death and subsequently executed. Therefore, important members of the Presidium of the Communist Party of the Soviet Union (CPSU), most notably Nikita Khrushchev, remained largely uninformed about the realities of the nuclear problem. In September 1953, these men received an extensive briefing on the subject of nuclear weapons effects from Soviet nuclear scientists. According to Khrushchev’s memoirs, the briefing left him terrified.33 Apparently concluding that Stalin’s policy of disregarding the nuclear threat to Soviet cities had been a se-

30. For instance, an MPVO training exercise conducted in Moscow Oblast in 1951 envisioned enemy bombers attacking with high explosive, incendiary, and chemical weapons but ignored nuclear weapons. See “Operativnaya svedka o deistviyakh aviatsii protivnika, shtabov i podrazdelenii MPVO,” in TsGAMO, F. 6375, Op. 1, D. 28, Ll. 16–21.
31. On Soviet civilian structures at the first Soviet nuclear test in August 1949, see Michael D. Gordin, Red Cloud at Dawn: Truman, Stalin, and the End of the Atomic Monopoly (New York: Farrar, Straus and Giroux, 2009), pp. 166–168. For an example of Stalinist propaganda about U.S. offensive war plans, see V. Korionov, Amerikanskii imperialism—zleiishii vrag narodov (Moscow: Gospolitizdat, 1952). Korionov asserts that a “cult of atomic weapons” is a major part of U.S. strategic thinking and that General Omar Bradley expressed U.S. willingness to use nuclear weapons against “peaceful targets."
32. For instance, in 1945 the Soviet embassy in Tokyo reported on the effects of the nuclear bombings in Japan, claiming the Japanese had exaggerated the effects of the weapon. Foreign minister Vyacheslav Molotov circulated this report to Stalin, Lavrentii Beria, Georgii Malenkov, and Anastas Mikoyan. See Craig and Radchenko, Atomic Bomb, pp. 95–96.
rious error, the post-Stalin leaders promptly ordered the Ministry of Internal Affairs to begin preparing to defend the populace against nuclear weapons. However, the CPSU Presidium did not order the MPVO to begin training the Soviet population in protection against nuclear effects for nearly another two years.

Even though the MPVO maintained thousands of shelters in Moscow alone, and thousands more throughout other Soviet cities, ordinary citizens and foreign observers remained only dimly aware of them because of obsessive secrecy. For example, shelters ordinarily lacked signs indicating their location. In theory, the MPVO could post signs if war seemed imminent and Moscow declared a “threatening situation” alert. Furthermore, given the crudity of many of the shelters, ordinary citizens could hardly be expected to recognize them as shelters as such. Often these “shelters” looked like basements full of celery roots, books, or factory equipment because, except for the MPVO’s paper trail, this was precisely what they were. The MPVO classified even the most mundane information about shelters, including their locations, capacity, and specifications. Local MPVO personnel dutifully stamped all their reports and mundane correspondence “secret” or “top secret.” Secrecy restrictions forbade MPVO employees from discussing shelters in public. In December 1954 the Moscow civil defense staff circulated an order criticizing employees for “incidents of weakened vigilance in everyday work,” including telephone conversations divulging state secrets about shelter construction and nascent defense measures against nuclear weapons. More worryingly, some employees held such discussions while traveling in service vehicles or on public transport, or while sitting in cafeterias “in the presence of persons having no relationship to the civil defense service.” The city civil defense staff demanded greater vigilance from all workers and ordered the implementation of new security measures for preventing the divulgence of classified information.

Some MPVO shelters necessarily stood out more than others. Certain priority facilities—particularly those that lacked suitable basements for use as shelters—received “freestanding shelters.” Unlike basement shelters, these earth-covered structures could be recognized for what they were by an untrained eye. Furthermore, because freestanding shelters could not share costs with conventional buildings, they proved the most costly individual item in the MPVO budget. In the 1950s these shelters generally cost several hundred thousand rubles apiece to construct, with the largest shelters costing in excess of 300,000 rubles. Their construction also posed greater challenges than did

34. V. Vladimirov et al. Ot MPVO k grazhdanskoi zaashchite, p. 25.
the basement shelters because of their higher cost in money and materials. In 1953 the civil defense staff of the city of Lyublino, near Moscow, worked to complete one new freestanding shelter at the station of the Moscow-Kursk-Donbassk railroad, as well as to modernize two freestanding shelters at the station. Along with the construction of a storage building for civil defense equipment and the conversion of an existing structure into a shelter, the MPVO budgeted 235,000 rubles for these tasks. Early in the year the unavailability of an essential type of metal pipe and blast doors delayed construction of the new freestanding shelter. The staff report on construction progress as of December 1953 notes that three of the shelters at the station still lacked doors because “the Moscow Metal-Stamping Factory failed to fill the order on time, despite the fact that we paid promptly.” Civil defense records reveal that the MPVO spent an inordinate amount of time and effort attempting to overcome such challenges in shelter construction.

In the 1950s the Soviet authorities also constructed elaborate tunnel shelters intended to protect critical personnel and ensure continuity of government. However, these structures fell outside the authority of the MPVO and are generally not included in the civil defense shelter plans for Moscow. Because the state security organs were responsible for the tunnels, the scale and cost of that program cannot be ascertained using MPVO records.

**High-Level Authorization**

Although the MPVO began considering the problem of defense against nuclear weapons in late 1953, this affected the public only after the CPSU Presidium issued a series of sweeping decrees in June 1955. Prior to this date the only outward sign of MPVO preparations against nuclear attack was a small manual titled *Handbook for the Population regarding Defense against Atomic Weapons (Pamyatka naseleniyu po zashchite ot atomnogo oruzhiya).* The CPSU Presidium’s new decrees, which translate as “On the Means of Increasing the

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Readiness of the MPVO for the Defense of the Population and Industry against Atomic Weapons” and “Regarding Measures for the Provision of Medical Assistance to the Populace in Circumstances Involving the Use of Atomic Weapons,” caused Soviet civil defense finally to begin planning in earnest for nuclear war.41 The first of the two new directives instituted a crash program of training the Soviet population in defense against nuclear weapons. Public instruction began a few months later despite a near-total lack of manuals or outlines on which to base lectures. Although the MPVO participated in this campaign, the Voluntary Society for Assistance to the Army, Air Force, and Navy (DOSAAF) bore primary responsibility in these training efforts.42 Furthermore, the regulations markedly redefined civil defense planning by making evacuation the primary civil defense measure.43 Ideally, the MPVO would evacuate all urban residents not employed in essential industries prior to enemy attack and shelter only those who remained in target areas. However, the leaders of the Soviet Union were not blind to the possibility that nuclear attack could come without warning, and they took steps to prepare for this scenario.

Refusing to count out the possibility of surprise attack, the CPSU Presidium’s June 1955 directives stipulated that all existing bomb shelters be “liberated” from their mundane peacetime uses so that they could be ready for immediate occupancy at any time. The real-world opportunity cost of this step must have been immense given the large number of shelters and the wide range of their everyday roles. The renovation project rapidly became an immense headache for the local MPVO staffs charged with carrying it out. For instance, in Podol’sk, a city of roughly 110,000 people south of Moscow, the order went out on 5 September 1955 for all the existing shelters to be vacated by 1 October. As of 1 January 1956, the MPVO reported that 75 of the 80 shelters in the city and 15 of the 16 shelters at industrial sites were emptied.44 However, a year later the MPVO had failed to free up the last few shelters.45 These shelters continued to serve as storage space for bookstores, repair

42. In mid-1956 DOSAAF head Pavel Belov admitted his organization’s failure to produce propaganda and training materials about civil defense against nuclear weapons quickly enough to fulfill the CPSU Presidium’s demands. See “TsK KPSS ob itogakh i vyborakh v organizatsiyakh DOSAAF,” in Gosudarstvennyi Arkhiv Rossiskii Federatsii, F. 9552, Op. 1, D. 259, L. 29.
shops, and offices, among other uses. At the same time, the MPVO undertook a program of modernizing existing shelters and expanding shelter construction. In 1955 Podol’sk added eighteen shelters in new housing construction and converted two basements for use as shelters—an increase of shelters in the housing sector of 30 percent over the previous year. The next year the MPVO increased this total by a further fifteen shelters.

In spite of the myriad costs and difficulties imposed by the June 1955 civil defense orders, the CPSU Presidium in April 1956 instituted even greater demands on the MPVO. According to a new “Directive regarding Local Anti-Air Defense” (Postanovlenie po MPVO), civil defense needed to plan for attack from biological as well as chemical and nuclear weapons. A new 22-hour training course would instruct every Soviet adult in defense against these weapons of mass destruction. On 15 June 1956 the USSR Council of Ministers supplemented the directive with new requirements for the protective capabilities of shelters, rendering existing shelters obsolete while making new shelters increasingly expensive. The new requirements introduced “Class III” and “Class IV” designations for shelters, and these designations remained in use until the end of the Soviet period. Furthermore, the realities of the arms race necessitated the construction of shelters in areas of the country in which they had been unnecessary during World War II. The effect of the CPSU Presidium’s 1955 and 1956 orders was that the Soviet Union undertook an extremely expensive program of shelter construction in the late 1950s—an expenditure whose wisdom some Soviet officials soon came to doubt.

Declassified planning documents reveal that the Soviet Union’s public civil defense propaganda did not accurately reflect the assumptions about nuclear war held by the MPVO. This propaganda exaggerated the abilities of the MPVO for sheltering and alerting people while simultaneously disguising the fact that the MPVO’s thinking was sometimes more advanced than shown in films, posters, and manuals. For instance, even though the CPSU Presidium

47. “Svedeniya o sostoyanii inzhenerno-tekhnicheskoi podgotovki po MPVO na goroda-punkt Podol’sk M. O. na 1 yanvarya 1956g.” L. 42.
49. Gusev, Istoricheskie predposyalki, p. 128.
50. Ibid., pp. 128–129.
51. “Class III” shelters were freestanding shelters. “Class IV” shelters were basement shelters designed to withstand the effects of atomic weapons and other weapons of mass destruction.
made evacuation the centerpiece of Soviet civil defense planning in June 1955, civil defense manuals did not begin discussing this measure in the context of defense against nuclear weapons until 1958. The earliest manuals discussing nuclear weapons effects, such as the 1955 *Mestnaya protivovozdushnaya oborona* (Local anti-air defense) and the 1956 *Textbook for Local Anti-Air Defense (Uchebnoe posobie po MPVO)*, give the impression that Soviet cities possessed adequate shelters for the entire urban population, and that these would be the basis of Soviet civil defense against nuclear attack. A 1957 manual titled *Collective Means of Anti-Atomic Defense (Kollektivnye sredstva protivootomnoi zashchity)* states in its introduction that “the provision of a sufficient quantity of shelters” would provide Soviet citizens with protection from nuclear attack. In reality, even the targets for shelter construction fell far short of this. In Podolsk, for instance, regulations called for shelters adequate for only 20 percent of the city’s population.

Even such moderate targets outstripped the actual capacity of the USSR’s urban shelters. The February 1959 sheltering plan for the population of Moscow’s Frunze District reveals the yawning gulf between the aspirations of civil defense and its actual resources. Table 1 shows the number of people who would be left without shelter during an attack (see the row labeled “Dispersed”). In case of a surprise attack, with only 20–30 minutes following the detection of enemy bombers and missiles to take cover, approximately 140,000 (65 percent) of the Frunze District’s 215,000 inhabitants would find themselves in this unenviable category. Given additional warning time, the MPVO would take steps to increase shelter space by upgrading existing shelters, rapidly completing shelters under construction, and building hundreds of earthwork shelters, as well as evacuating as much of the population as possible. Despite these measures, the plan envisioned that after three days 25,800 people in the Frunze District would remain without shelter. Even with the availability of the Moscow subway, Moscow’s shelter base could not accommodate most of the city’s population. The situation in smaller Soviet cities mirrored that in Moscow. For instance, according to regulations, Podolsk should have possessed 187 shelters with 28,800 spaces at the beginning of

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1957, but in actuality it had only 113 shelters with 14,767 spaces as of that date.\(^5^6\)

During the 1950s, the Soviet Union lacked a fallout shelter program. While in the late 1950s American civil defense initiated a thorough investigation of fallout shelters, Soviet civil defense largely ignored this problem until 1960.\(^5^7\) Because of obsessive secrecy, most MPVO staffers were privy only to

\(^{56}\) Ibid.

\(^{57}\) In 1955, following the inadvertent irradiation of Marshall Islanders and Japanese fishermen by a U.S. thermonuclear weapons test in the Pacific, U.S. civil defense authorities recognized fallout as one
information regarding nuclear weapons effects freely available from foreign sources. As a result, even though the Soviet Union learned of the hazards of fallout from thermonuclear weapons firsthand in its atmospheric nuclear tests, the information available to most of Soviet civil defense was derived largely from translations of outdated Western technical documentation. The MPVO seems to have based its planning assumptions on the nominal nuclear weapons (of roughly 20-kiloton yield) in pre-1954 Western civil defense literature, although manuals admitted the existence of multimegaton weapons and the fallout problem. The MPVO envisioned only brief shelter occupancy followed by evacuation of shelter occupants to less damaged regions. In the face of the fallout hazard resulting from large thermonuclear detonations, such a move would expose those lucky enough to survive the initial bomb blast, radiation, and thermal effects to potentially lethal doses of radiation.

While hardly the only activity undertaken by local and regional Soviet civil defense staffs in the 1950s, shelter building consumed an inordinate amount of the MPVO’s time, money, and manpower. MPVO officers supervised the shelter design and construction process. Under MPVO regulations, the ministries responsible for various industries determined which of their production plants were most critical, and these were then favored for shelter construction funding. Industrial ministries budgeted funds for construction of shelters at their own plants rather than receiving support from the MPVO budget as shelters in residential buildings did. This arrangement led to absurd results, with some candy factories receiving more civil defense investment than some aviation plants.


58. A good example of the foreign technical documentation used by MPVO planners is V. Ya. Fridman, trans., Atomnaya energiya-novey dannye (Moscow: Izdatel’stvo inostrannoi literatury, 1954). Published in May 1954 by the atomic sciences committee of the Association of Scientific Workers, this work is a translation of British pamphlets, including materials on civil defense.


60. For instance, the Rot Front (Red Front) chocolate factory in Moscow received a “Class II” classification, and as a result it planned to shelter its workers rather than evacuating them from the city. See “Svedeniya o nalichii rabotayushchikh na fabrike ‘Rot Front’ rabochikh, ITR i sluzhashchikh,” in TsGAMO, F. 6880, Op. 2, D. 239, L. 75–76. Meanwhile, the MPVO classed Factory 383 of the Directorate of the Aviation Industry as a “Class III” facility, meaning that in terms of civil defense planning the Soviet government treated Rot Front’s chocolates as a higher priority than Factory 383’s aircraft components. See “Spravka po rezultatam proverki sostoyaniya MPVO na ob’eekte 3-i
MPVO officers spent a great deal of effort attempting to convince factory managers to fulfill their obligations regarding civil defense, including shelter construction. The reluctance of these managers to participate in civil defense is unsurprising, however. Meeting the MPVO’s demands would do nothing to benefit the factories’ bottom line or the managers’ own pay. A Soviet factory’s primary goal was to fulfill, and hopefully overfulfill, the production targets set for it by state planners. Civil defense worked against this imperative by demanding that factories devote time, material, and personnel to measures such as shelter building that, according to the 1955 CPSU Presidium decrees, could not serve any kind of peacetime use. Although factories received funding from their respective ministries for shelter construction, in practical terms shelters cost more than mere rubles. Factory managers had to expend their personal political and economic capital—known as blat (pull) in Russian—in order to get materials and labor to construct the shelters, and predictably they preferred to reserve this precious resource for items that would help fulfill their production targets.

Some particularly cocky managers felt comfortable simply ignoring or countermanding the MPVO’s orders. For instance, in 1958 the MPVO staff of Moscow’s Dzerzhinskii District blasted L. Ya. Shekhmeister, the manager of the Children’s Book (Detskaya kniga) printing press, after he sent them a letter protesting that MPVO officials were “not objective” in concluding that he had totally disregarded their instructions the previous year.61 In 1958 numerous factories, schools, and research institutes in Moscow’s Frunze District received stern reprobation for their failure to complete bomb shelters.62 The fact that the MPVO had few punitive measures other than convincing local state and party organs to intervene on their behalf surely contributed to their difficulties in this arena.63

Given the relative economic weakness of the Soviet Union in the 1950s, it expended a remarkable amount of money on bomb shelter construction. The cost of individual shelters varied enormously, from tens of thousands of rubles for strengthening a small basement for shelter use, to well over 300,000

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62. Numerous examples of these are preserved in the correspondence of the Frunze district MPVO staff for that year. See TsGAMO, F. 6880, Op. 2, D. 759, Ll. 1–114.
63. The MPVO staff of Moscow’s Dzerzhinskii district blamed local government authorities for construction delays because of their constant failure to set firm deadlines for completing the shelters. See “Otchet o sostoyanii inzhenernoi podgotovki po sostoyaniyu na 1 yanvarya 1958 goda,” in TsGAMO, F. 6880, Op. 2, D. 63, L. 3.
rubles for the largest, most elaborate freestanding shelters. The total bill for these structures reached considerable levels by contemporary Soviet standards. Podol’sk, for instance, had an annual civil defense construction budget averaging well over one million rubles throughout the late 1950s. Most districts of Moscow also expended millions of rubles a year for shelters. The government budgeted at least 9.6 billion rubles for shelter construction during the Seven-Year Plan (1959–1965), which means that Soviet investment in bomb shelters during that period was on the order of about 1.4 billion rubles a year. This was no mean sum: official statistics state that capital outlay for all types of construction in the USSR in 1960 totaled 152 billion rubles. It seems reasonable to estimate that the percentage of the Soviet defense budget devoted to civil defense was about ten times that in the United States.

Some high-ranking members of the Soviet political elite believed that money spent on shelters could be better spent on other things. Georgii Malenkov, who had briefly emerged as Stalin’s successor in 1953, soon lost the


66. A. A. Fursenko, ed., Prezidium TsK KPSS 1954–1964 Postanovleniya 1959–1964 t. 3 (Moscow: ROSSPEN, 2008), p. 125. This figure suggests that the approximate average level of spending on shelters in the Moscow Oblast was similar to that in the USSR as a whole—about ten rubles per urban resident. This might have been because Moscow possessed more shelters that could be upgraded and because the Moscow subway system was not funded via civil defense.


68. In 1955 the U.S. Central Intelligence Agency (CIA) estimated that the overall Soviet defense budget that year totaled about 120 billion rubles. Due to the methodology used, this estimate probably understimates labor costs and cannot be directly compared with actual budget figures from archival documents. See CIA, Office of Research and Reports (ORR), “Soviet Defense Expenditures,” ICA/SC/RR 22, 27 October 1955, p. 2. If this figure is approximately correct, then civil defense, including construction, administration, payroll, and training, probably accounted for 1–2 percent of the USSR’s defense spending in the late 1950s. By comparison, during the 1950s the United States spent an average of 0.14 percent of its total defense budget on civil defense. See Donald W. Mitchell, Civil Defense: Planning for Survival and Recovery (Washington, DC: Industrial College of the Armed Forces, 1962), p. 20.
power struggle to Nikita Khrushchev, who was able to attack Malenkov’s belief that the Soviet Union could not survive a thermonuclear war. Although Malenkov was removed from the CPSU Presidium in 1957, another prominent member of that body, Anastas Mikoyan, shared Malenkov’s disbelief in the survivability of nuclear war. Mikoyan, who became Khrushchev’s closest political ally after 1957, considered civil defense fundamentally unworkable and a waste of resources. In the late 1950s, he made a habit of expressing his belief in the non-viability of bomb shelters in thermonuclear war during his many visits abroad promoting Soviet trade. For instance, during his 1959 visit to the United States, he told a group of reporters that shelters against thermonuclear weapons were useless except as a means of psychological consolation in face of the nuclear threat. A CIA report quoted Mikoyan in August 1960 as saying, after having watched films of nuclear weapons effects, “why should I support billions for bomb shelters?” In February 1959, Khrushchev held a conversation with the Norwegian ambassador in which he stated that the USSR Council of Ministers had discussed the question of bomb shelters and had become convinced that “nothing could be done.” Although this statement suggests that by early 1959 Khrushchev had already decided that bomb shelters were a fool’s bargain, shelter construction continued as before until the end of that year. At that point, however, the axe fell.

Cancellation and Renewal

Khrushchev, emboldened by the Soviet Union’s presumed lead in ballistic missile technology and apparently believing that his 1959 visit to the United States and an upcoming diplomatic summit would reduce Cold War tensions and the nuclear threat, felt the Soviet Union could safely reduce defense spending. He sought significant savings in military expenditures by reducing investment in manned strategic bombers and conventional ground forces, as well as by eliminating civil defense. Deciding that the MPVO’s shelter construction budget would be better spent on other matters, the CPSU Presidium on 30 December 1959 issued decree No. 1434-638, which essentially rescinded the April 1956 civil defense order. The new directive halted further construction of bomb shelters, released existing shelters for civilian uses, and dismissed all but a skeleton staff of civil defense workers. Without leadership,

all aspects of Soviet civil defense except DOSAAF’s training efforts ground to a halt. As a result, the USSR’s civil defense system essentially ceased to function. In April 1960 the CPSU Presidium developed a plan reallocating the 9.6 billion rubles that had been earmarked for shelter construction to build housing, hospitals, and other public works. Unfortunately, the May 1960 U-2 Crisis, in which President Dwight D. Eisenhower refused to apologize after Soviet air defenses shot down a U.S. spy plane deep within Soviet air space, caused a resurgence of U.S.-Soviet tension and inaugurated an era in which nuclear war was a distinct possibility.

Amid this diplomatic breakdown with the West and mounting tensions over Berlin, Khrushchev and his colleagues reconsidered their earlier decision to dismantle the USSR’s civil defense. On 13 July 1961 the CPSU Presidium and USSR Council of Ministers issued the “Regulations Regarding the Civil Defense of the USSR” (Polozhenie o Grazhdanskoi oborone Soyuza SSR). In place of the MPVO, the new order created Grazhdanskaya oborona SSSR—literally, “Civil Defense of the USSR.” Stipulating a combination of shelter and evacuation to protect citizens from weapons of mass destruction, the regulation mandated the provision of blast shelters for some 15 million workers at facilities critical to the wartime functioning of the Soviet economy, as well as mass evacuation and dispersal for the remainder of the population. Accountable directly to the USSR Council of Ministers, Grazhdanskaya oborona rapidly initiated measures to rebuild Soviet civil defense along new, modern lines.

The near-death and sudden rebirth of Soviet civil defense occurred out of sight of both Western observers and ordinary Soviet citizens. The CIA was aware of the debate within the Soviet government about the wisdom of civil defense spending but did not detect the veritable cancellation of the entire program in 1960. Similarly, Leon Gouré’s 1962 book on the Soviet civil defense program failed to note this important development. Nor do Soviet citizens appear to have possessed more accurate knowledge about their own civil defense. On 6 October 1961, Nikita Khrushchev’s wife, Nina Khrushcheva, stated during her visit to New York City that “no bomb shelters are under construction in the USSR.” Gouré and others at the time attributed this statement to intentional Soviet subterfuge, but in retrospect it seems possible that

73. Fursenko, Prezidium TsK KPSS, p. 125.
75. Gusev, Istoricheskie predposylki, p. 133.
77. Gouré, Civil Defense in the Soviet Union.
Khrushcheva simply did not know what activities the Soviet government was taking with regard to shelter construction.78

_Grazhdanskaya oborona_ took steps to restore the USSR’s civil defense system starting in late 1961, but the atrophy of the MPVO’s capabilities during the hiatus and the introduction of innovative organizational concepts meant that this could not be accomplished overnight. The 1961 resolution creating _Grazhdanskaya oborona_ laid out the fundamental measures that the new civil defense would follow. Significantly, the directive did not restore the late-1950s policy of keeping bomb shelters empty at all times in case of surprise attack. The March 1962 regulations for the operation and upkeep of bomb shelters in peacetime explained that bomb shelters could be used as cafeterias, reading rooms, photography studios, appliance repair shops, and storage areas for sporting equipment. The regulations stipulated that the shelters had to be kept in a state permitting them to be made available “quickly.” To this end, the regulations forbade the storage of large items in shelters, with the exception of “cabinets and tables.”79 Civil defense envisioned at least a few hours of warning to ready the shelters for use.

Some contemporary Soviet civil defense propaganda acknowledged the weaknesses of the Soviet civil defense system. For instance, the most widely circulated Soviet civil defense manual at the time of the Cuban missile crisis in October 1962, _How to Protect Oneself against Weapons of Mass Destruction (Kak zashchishchatsya ot oruzhiya massovogo porazheniya)_ , admitted the insufficiency of the Soviet Union’s bomb shelters to protect all urban residents in case of nuclear attack. Those unlucky enough not to secure a space in a proper shelter would have to make do with basements, culverts, and other structures offering limited protection. However, like manuals published in the 1950s, _How to Protect Oneself_ provides an inaccurate impression of Soviet civil defense planning; it mentions dispersal as one of the primary means of protecting the inhabitants of major cities, but it does not give evacuation and dispersal the emphasis found in manuals published later—even though Soviet civil defense plans envisioned evacuation rather than shelter as the most basic survival measure.80 Furthermore, although the skeleton MPVO staff had in 1960 prepared the first Soviet manual about fallout, _Radioactive Cloud and Protection against It (Radioaktivnoe oblako i zashchita ot nego)_ , Soviet civil defense had not yet fully recognized the hazards posed by fallout from large thermonuclear weapons and thus had not formulated plausible measures to

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78. Ibid., pp. 106–07.
protect Soviet citizens from them. A year after the Cuban missile crisis, important Soviet civil defense manuals such as *Civil Defense (Grazhdanskaya oborona)* and *Protection of the Population against Modern Means of Destruction (Zashchita naseleniya ot sovremennykh sredstv porazheniya)* still failed to explain the extent of the radiation hazard posed by fallout or the need to construct fallout shelters in rural areas to protect evacuees.81

The Cuban missile crisis caught Soviet civil defense in the process of reconstituting itself. Because the USSR Council of Ministers resolution of 1959 had disbanded local civil defense organizations and fired nearly all their employees, civil defense needed to be rebuilt from scratch. At the time of the crisis, regulations for training many important categories of civil defense workers were not yet available.82 Not enough time had passed from when civil defense published other critical regulations to train significant numbers of personnel in implementing them.83 As a result, *Grazhdanskaya oborona* as of October 1962 probably could not have successfully carried out its plans to protect the Soviet population from nuclear attack.

This is not to say that Soviet civil defense made no effort during the Cuban missile crisis to prepare its shelters for occupancy. In the book *Khrushchevskaya “ottepel’,*’ Yurii Aksyutin reports that many of the Russians he interviewed about their memories of the crisis recalled stepped-up civil defense activities. These included increased civil defense education efforts involving lectures and training exercises, as well as readying some shelters.84 L. I. Oleinik, a construction engineer from Lytkarino, states that during the crisis “we dried crackers and prepared a bomb shelter.”85 Whether these steps were taken by local authorities acting on their own in light of widespread rumors of imminent nuclear war, or whether Moscow ordered them, is unclear. Perhaps the recollections of Aksyutin’s interviewees are not entirely accurate. In any case, civil defense never issued the “threatening situation” alert that propa-

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82. See, for example, *Programma podgotovki lichnogo sostava grazhdanskoi oborony nevoenizirovannykh formirovanii sluzhby transporta i dorog, Utv. 17 yanv. 1963 g.* (Minsk: Voennoe izdatel’stvo, 1963); and *Programma podgotovki serzhantov (komandirov otdelenii) inzhenernykh chastei i uzlov sviazi shtabov grazhdanskoi oborony Utv. 13 dek. 1962 g.* (Moscow: Voennoe izdatel’stvo, 1962).

83. See Ministerstvo zdravookhraneniya SSSR, *Nastavlenie po uchetu i otchetnosti meditsinskoi sluzhby grazhdanskoi oborony, Utv. 2/VIII 1962 g.* (Moscow: Medgiz, 1962); and *Programmy podgotovki lichnogo sostava grazhdanskoi oborony ob”ektov narodnogo khozyaistva, Utv. 23 iyulya 1962 g.* (Moscow: Voenizdat, 1962).


85. Ibid., p. 382.
ganda and official manuals stated would initiate efforts to ready shelters and begin civilian evacuations from urban centers.86

At the time of the Cuban missile crisis, U.S. civil defense was in no greater state of readiness than its Soviet counterpart. Initiatives during the Truman and Eisenhower administrations to develop bomb shelters in the United States fizzled because of a lack of political support, leaving the country without an established base of shelters.87 President John F. Kennedy initiated a program to develop usable fallout shelter space in existing buildings in 1961, but this effort faced enormous technical, logistical, and political hurdles. As of October 1962 Kennedy’s Office of Civil Defense (OCD) had managed to complete only a pilot shelter-stocking effort.88 On 27 October 1962, Assistant Secretary of Defense for Civil Defense Steuart L. Pittman reported that nationwide the OCD had marked 796 fallout shelters capable of accommodating 640,000 people and had stocked only 112 of these shelters with shelter supplies, totaling 170,000 spaces.89 Without shelters or trained personnel, the OCD possessed negligible ability to respond to nuclear attack.

Given the actual level of Soviet civil defense preparedness in 1962, it is hardly likely that Khrushchev or other senior officials seriously considered using civil defense to force their American rivals to capitulate on Soviet terms. In the absence of trained personnel, well-developed plans, and local organizations, Soviet civil defense could not attempt to initiate evacuation and dispersal measures to intimidate the United States. The USSR’s existing base of shelters was both numerically and technically inadequate. Many of these shelters were reinforced basements dating back to World War II or earlier, and the few that the Soviet government constructed to survive nuclear explosions were incommensurate with the challenges posed by large, multimegaton thermonuclear weapons. The USSR’s lack of a system of fallout shelters for suburban and rural residents, as well as evacuees from urban areas, meant probable

86. Ibid., pp. 360–385. In *Awaiting Armageddon*, Alice L. George claims that Soviet expatriate journalist Melor Sturua recalled in the 1980s that “there was a sense of hysteria about civil defense” in the USSR during the crisis. However, this assessment does not square well with the results of Aksyutin’s surveys. See Alice L. George, *Awaiting Armageddon: How Americans Faced the Cuban Missile Crisis* (Chapel Hill: University of North Carolina Press, 2003), p. 65.


death for tens of millions in case of nuclear war. A 1964 U.S. Department of Defense study calculated that without fallout shelters for rural areas, even a small fraction of the available U.S. nuclear arsenal could result in the deaths of half the population of the Soviet Union, including 97 percent of the urban population.90 This study probably underestimates deaths that would be attributable to causes other than blast and fallout. Given U.S. nuclear strategic superiority in the early 1960s and the absence of fallout shelters in the Soviet Union, the likely result for the USSR would have been even more dire if the Cuban missile crisis had ended in nuclear war.

Following the Cuban missile crisis, the leaders of the Soviet Union took decisive steps to strengthen Soviet civil defense, including the shelter system. On 4 November 1963 the USSR Council of Ministers adopted a resolution titled “On Measures for Defense of the Population of the Country from Weapons of Mass Destruction” (O meropriyatiyakh po zashchite naseleniya strany ot oruzhiya massovogo porazheniya). This directive obliged the civil defense forces, the Ministry of Construction, the Ministry of Defense, and the economic planning organs to develop systematic regulations for bomb shelter design that took into account the effects of modern thermonuclear weapons. The new regulations, issued in August 1966, inaugurated a new era in the history of Soviet bomb shelter construction.91 In the mid-1970s, the Soviet Union invested significant resources in these shelters, completing blast shelters for about one million occupants and fallout shelters for three to four million occupants every year.92

Contrary to the fears of Gouré and Kahn, the Soviet government by all indications did not invest in bomb shelters in the hope of acquiring a strategic advantage over the United States. Attaining the superiority Western analysts

90. Intended to estimate the damage U.S. nuclear retaliatory forces could do to the USSR even after a Soviet preemptive strike on the United States, this study found that a strike on the USSR using 1,600 1-megaton thermonuclear weapons in the presence of only “limited urban fallout protection” would result in the deaths of 118 million Soviet citizens. With systematic fallout protection, the same attack would kill an estimated 95 million. See “Memorandum from Secretary of Defense McNamara to President Johnson, ‘Recommended FY 1966–1970 Programs for Strategic Offensive Forces, Continental Air and Missile Defense Forces, and Civil Defense,’ 3 December 1964,” in National Security Archive Electronic Briefing Book No. 275, 20, p. 11, available online at http://www.gwu.edu/%7Ensarchiv/nukevault/ebb275/20.pdf.

91. The development of Soviet civil defense after 1962 is discussed in numerous articles in Grazhdanskaya zashchita, the magazine of the Russian Federation’s present-day emergency management agency, the Ministry of Emergency Situations. See Barinov, “Inzhenerno-tekhnicheskie meropriyatyia GO,” p. 22.

dreaded would have required explicit efforts to make U.S. officials aware of Soviet civil defense preparations. But both in the 1950s and afterward, Soviet civil defense never took steps such as running mass evacuation drills in sight of foreign observers or clearly marking shelters. Soviet policymakers frequently used the benefits of secrecy to play up Soviet strategic power—for instance, the manipulation of displays of intercontinental bombers to inflate U.S. estimates of their production. But although Soviet leaders regularly paraded their weapons to intimidate capitalist rivals, their bomb shelters and evacuation plans remained unacknowledged. To the contrary, Mikoyan and Khrushcheva told the U.S. press that Soviet civil defense capability was negligible. Soviet leaders clearly regarded civil defense, unlike missiles, as lacking any value for maximizing U.S. assessments of Soviet power.

In fact, Soviet civil defense investment resulted from a combination of genuine fear of nuclear attack and institutional inertia. In a 1991 interview, Vitalii Tsygichko, a military analyst who produced studies of missile silo vulnerability for the Soviet military, recollected that in the 1970s “it was well understood among the General Staff that the Soviet Union would not come out of [a nuclear] war in anything like the same state in which it began the war. The general hope was that some pocket of undestroyed civilization would survive, perhaps in Siberia, that might serve as a nucleus for rebuilding the state.”93 According to Tsygichko, the Soviet government genuinely believed that the United States might launch a preemptive nuclear strike against the USSR.94 Rather than a strategic asset, the leaders of the Soviet Union evidently saw civil defense as a desperate measure of questionable effectiveness—albeit one that might prove a necessity.

The history of Soviet bomb shelter construction in the 1950s reveals that Soviet leaders, like their U.S. counterparts, had difficulty coping with the challenges of the nuclear age. Unwilling for political and psychological reasons to concede that the USSR could be destroyed by nuclear war, they invested in civil defense while simultaneously seeking acceptable terms with the West. The 1959 decision to cancel the bomb shelter construction program reinforces the case that Khrushchev not only believed that rapprochement with the United States was possible, but that he considered it both likely and imminent. Following the evaporation of hopes for better relations, Soviet leaders revived their civil defense efforts, including shelter construction. But Soviet civil defense lacked resources commensurate with the massive challenge of

94. Ibid., pp. 150–151.
thermonuclear war. Either as a means of strategic intimidation or as genuine protection against weapons of mass destruction, Soviet civil defense failed to live up to Western fears. Despite the Soviet government’s investment of billions of rubles in bomb shelters throughout the 1950s, there was no “mine-shaft gap” at the time of the Cuban missile crisis.