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# The Role Of The Soviet Union In Establishing The Chinese Nuclear Program

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**Abstract**

*After the establishment of the new regime in China in 1949, the People's Republic of China, led by Mao Zedong, sought to strengthen the country militarily and realized that nuclear weapons were a means of achieving state power and independence. On this basis, an alliance was established between the People's Republic of China and the Soviet Union, culminating in the Treaty of Friendship, Alliance, and Mutual Assistance in 1950. As a result, Chinese scientists and engineers were sent to the Soviet Union, particularly in nuclear fields, for training. The Soviet Union also sent scientists to assist Chinese scientists in the infrastructure of the nuclear program, assisted in uranium research, and provided a reactor for uranium research and enrichment. In addition, the Soviet Union delivered blueprints for the nuclear bomb in its initial form. However, ideological and political differences between the two countries began to appear clearly in the late 1950s. In 1959, the Soviet Union began withdrawing experts from the People's Republic of China.*

**Key words:** *China, Soviet Union, nuclear.*

## INTRODUCTION:

In 1949, China emerged from the throes of a civil war that had torn its unity apart. However, in 1950, it reappeared on the scene by participating in the Korean War, which lasted for three years and emerged victorious. Only a decade later, it surprised the world once again by detonating its first nuclear bomb in 1964, relying on its own capabilities.

The People's Republic of China's possession of nuclear weapons came at a crucial time, marked by the Cold War between the Western and Communist camps, the global arms race, and the establishment of military alliances. Therefore, China's possession of nuclear weapons was the most difficult number in the political equation between the major continents of Asia, Europe, and America. Hence, the importance of studying the steps taken by this newborn state to become the fifth state to enter the nuclear club and take its natural place on the global level, and become among the major countries.

The research is divided into an introduction, a chapter, a conclusion, and a list of sources. The chapter includes the Soviet-Chinese relations after 1949, the agreement concluded between the two parties, the early stages of the Chinese nuclear program, the beginning of the move towards nuclear weapons, as well as the agreements concluded after the launch of the nuclear program. The dispute in relations between the two parties due to the ideological disagreement was also addressed, which ended with the official severing of relations between the two countries in 1960.

**The role of the Soviet Union in establishing the Chinese nuclear program**:
After the end of the Korean War, the political leadership of the People's Republic of China took several steps to reorganize the People's Liberation Army. After Nikita Khrushchev took over (Nikita Khrushchev [1] The Soviet Union's ruler visited Beijing to strengthen his relations with China, in a way that would contribute to consolidating his power in the country, due to the internal political crises he was facing. As a result, he offered assistance to the Chinese government to build a nuclear reactor for research and development.[2] .

While Chinese leaders were working to link their security interests with the Soviet Union, they continued to strive for organizational coherence in the strategic weapons program, and the Politburo of the Chinese Communist Party had to overcome all obstacles to obtaining the nuclear bomb. However, Mao Zedong (Mao Zedong ([3] His reliance on Soviet aid to achieve quick results in this regard, and the Sino-Soviet military cooperation in the wake of the Korean War demonstrates the two sides' efforts to strengthen relations between them by establishing an effective strategic partnership.[4] .

Accordingly, the political leadership in China did not intend to possess nuclear weapons based on its own efforts alone, but rather there must be external assistance to depend on. The first motive that motivated Mao Zedong was the poor state of the country, which he revealed in his statement on January 15, 1955, that his country was suffering from poor economic conditions. Therefore, the thinking of the Political Bureau of the Chinese Communist Party, under the direction of Mao Zedong, was to cooperate with Moscow to support a rapid nuclear program that would help China maintain its security. At the same time, Mao Zedong had no idea how long the program would take or how much it would cost, but his fears of the possibility of war with the United States of America forced him to risk entering into a nuclear race to obtain the atomic bomb.[5] .

The Chinese government's focus on producing nuclear weapons stems from the possibility of a world war, which would be a departure from Mao's long-standing policy of strategic policies, especially in the area of nuclear armament, because the Chinese military establishment had been preoccupied for some time with issues of nuclear strategy, which called for the preventive use of nuclear weapons in the event of an inevitable nuclear war with enemies, and it had also constantly warned of a surprise nuclear attack on the country, and the need to devote attention, especially by the Politburo, to starting the Chinese nuclear program.[6] .

As a result, the Chinese Communist Party held an expanded meeting on January 15, 1955, to discuss the agreement with the Soviet Union. After reports arrived from Li Siguang (Li Siguang, Minister of Geology, and Qian Sangiang, President of the Chinese Academy of Sciences Institute of Physics, Mao Zedong made clear his commitment to obtaining the atomic bomb, and the attendees agreed on a plan for the nuclear weapons program, symbolized by (02 .[7] .

Meanwhile, the Soviet Union and the Chinese government began negotiations on common issues in the field of atomic energy, and the Soviet government announced that it would provide extensive assistance to China and many Eastern European countries in science, technology and industry.[8] The assistance included experimental nuclear reactors and accelerator design, along with related equipment and fissile materials. In order to promote research into the peaceful uses of atomic energy, China agreed to provide the Soviet Union with the raw materials necessary to start the nuclear program.[9] .

And when the Chinese were ready to confront the United States of America in an upcoming war and the need for nuclear weapons was inevitable, and with the compatibility of Soviet and Chinese military doctrines, especially after the death of Joseph Stalin ((July Stalin [10] It was clear that the two countries had no doubt about moving towards cooperation, and providing Soviet assistance in the Chinese nuclear program, and both expressed fears of a possible global nuclear war.[11] .

In line with this, Moscow decided to support the Chinese nuclear program. On January 17, 1955, the Soviet Union announced that it would provide assistance to the People's Republic of China to enhance research for use in the nuclear field, based on secret discussions between the two parties.[12] The two sides reached several agreements regarding Soviet assistance for the development of the nuclear science and weapons industry program, which included joint exploration of uranium ore in China, the supply of a nuclear reactor and a cyclotron, assistance in building nuclear research and industrial facilities in the People's Republic of China, as well as data related to the nuclear program.[13] China soon signed a uranium cooperation agreement with the Soviet Union.[14] And the establishment of an institute in Moscow, which received many Chinese nuclear physicists, and the Soviet Union began to increase aid to China, with the aim of supporting a peaceful Chinese nuclear program.[15] .

It is worth noting that the most important agreements signed between the governments of the People's Republic of China and the government of the Soviet Union are the following:

1. Agreement on Soviet assistance to China in developing nuclear physics research and the peaceful and military use of nuclear energy, signed on April 27, 1955. The Soviet side pledged to supply a nuclear reactor and a cyclotron.
2. An agreement was reached on December 20, 1955, to conduct joint exploration in China for uranium ores, as well as to sell industrial equipment for extracting, processing, and producing uranium. In exchange, China pledged to sell surplus uranium ore to the Soviet Union.
3. The Soviet-Chinese agreement signed on August 17, 1956, for the purpose of building Chinese nuclear industries and nuclear research facilities.
4. Agreement to change Sino-Soviet uranium exploration from a joint operation to one fully and independently managed by the Chinese with assistance from the Soviet Union. This agreement was signed on December 19, 1956.
5. The Sino-Soviet Defense Technology Agreement, signed on October 15, 1957, under which the Soviet Union agreed to supply China with a nuclear bomb, prototype missiles, and some related technical data.
6. An agreement supplementing the 1956 agreement by setting the schedule and volume of Soviet assistance to the People's Republic of China in the nuclear field, which was signed in September 1958.

For the peaceful use of atomic energy, the Soviet government issued a statement on the 17th stating that it would provide the People's Republic of China with extensive assistance in the field of science and technology, including experimental materials for nuclear energy, accelerator design, and fissionable materials.[16] .

As a result, on January 20, 1955, the Soviet Union and the People's Republic of China signed an agreement on prospecting for radioactive elements in China. Under this agreement, China had the right to conduct a joint survey of uranium ore with the Soviet Union.[17] China would organize the mining of these industrially valuable ores, while the Soviet Union would provide the technology and equipment. The extracted uranium would be used to meet China's domestic needs, and China would also export the surplus to the Soviet Union. Soviet geologists then arrived in China to begin uranium exploration efforts.[18] .

On the same day, the State Council issued a resolution supporting the Soviet Union's approach to assisting China in its research program on the peaceful use of nuclear energy, and presented an official plan to Mao Zedong regarding the development of China's nuclear weapons program. On April 27, 1955, the two parties signed an agreement on the use of atomic energy to meet the needs of China's national economic development, which stipulated that the Soviet Union would assist China in nuclear physics research and conduct nuclear experiments for peaceful purposes, as well as send specialists to help China design and build a heavy water reactor producing 6,500-1,000 kilowatts.[19] , and a cyclotron of (12.5-25 megavolts (million electrical volts , and also provides the required scientific technology and sufficient quantities of fuel to operate the nuclear reactor and train nuclear physicists for China. On October 1, China established the Changchun Institute (Ch-ang Chun Atomic Energy Corporation[20] .

During the signing of the Sino-Soviet uranium agreement in early 1956, it was agreed that China would independently supervise the extraction and exploration of uranium, the Soviet Union would withdraw its investments from it, Soviet experts would remain in their jobs in China, and the Soviet Union would continue to sell the necessary equipment to China.[21] An agreement was also reached between the Soviet Union and the People's Republic of China on April 7, 1956, to build a railway from Aktogai (Aktogai , reaching Lanzhou, one of the provinces of China, and this line would greatly facilitate the Soviet Union's transfer of equipment to China's first nuclear weapons experimental center in Lop Nur ( in Xinjiang ( ([22] .

In the same context, the Soviet Union called on March 20, 1956, for a meeting of delegates from the socialist countries to discuss the establishment of an atomic energy institute.[23] China sent a delegation headed by Liu Ji, Vice Minister of Geology, and Qian Sangqiang, Director of the Institute of Physics at the Chinese Academy of Sciences. Eleven countries signed a decision to establish a joint institute for nuclear research, and the Soviet Union received (21 Chinese students to participate in the research of the joint institute for atomic research. The establishment of the institute was a major step in the field of Chinese-Soviet atomic

energy, as it largely laid the theoretical foundation for the two Chinese, as many Chinese scientists conducted nuclear experiments in the institute.[24] .

Soviet aid to China also promoted atomic energy research, with the Chinese leading the research and completing the construction of the Soviet-supported experimental reactor and cyclotron. As a result, the Chinese State Council decided to establish a technology bureau under the State Construction Commission, the purpose of which was to build nuclear research facilities.[25] .

Meanwhile, tensions between the two sides, due to Khrushchev's speech at the 20th Congress of the Soviet Communist Party ([26] The Soviet Union's interest in China's demands for assistance in its nuclear weapons program declined, and the difference in views between Moscow and Beijing was not limited to the twentieth conference, but was exacerbated by the difference in their positions on tensions in Eastern European countries, especially the Polish problem.[27] Mao Zedong criticized the changes in Soviet policy under Khrushchev, who concluded that China was an unreliable partner and might undermine the Soviet Union's efforts to achieve détente with the West, especially after the initial talks between the United States and the Soviet Union on the possibility of banning nuclear tests.[28] .

These developments did not deter the Chinese government from its goals of developing the atomic bomb, especially in the research phase. There was a beginning in developing missiles and making them capable of carrying nuclear warheads. The Aviation Industry Committee proposed establishing a missile research center in China. On May 26, 1956, the committee met and Chuan Lai proposed conducting research to reach some information that would develop this program. In light of this, specialized technical cadres were trained to develop the missile program. After that, the Chinese Missile Research Academy was established.[29] .

The missile research program had the appropriate management structure to achieve success. In contrast to primitive nuclear energy research, missile research was military in nature and directly related to the goal of building an atomic energy delivery system for warheads.[30] .

The tension in Sino-Soviet relations did not prevent the Chinese government from requesting assistance from the Soviet Union, whose response was cautious, as it was at that time seeking to discuss the ban on nuclear tests with the United States and Britain. On July 16, 1956, Soviet Foreign Minister Dmitry Shepilov announced (Dmitry Shepelov on his proposal that nuclear weapons testing should be suspended without delay.[31] In light of this, the Soviet Union submitted a memorandum to China regarding this proposal.[32] .

The Soviet Union had to stop providing nuclear assistance to China, because the development of the Chinese nuclear weapons program would negatively affect the outcome of the Soviet Union's proposed negotiations with Western countries to disarm and prevent the spread of nuclear weapons. Therefore, Moscow preferred to stop its assistance to China in its missile program. On August 17, 1956, China, through the State Planning Commission, requested from the Soviet Union to provide comprehensive assistance in establishing and developing the Chinese nuclear weapons program.[33] After months of haggling, the Soviet government finally reconsidered that proposal and signed an agreement to help build nuclear industries and research facilities in China.[34] .

However, the Chinese felt dissatisfied after the Soviet government's reluctance to provide them with aid. In early September 1956, following the visit of a Chinese delegation headed by Vice Premier Li Fu-chun ((Chon Lee Fu To obtain technical assistance in the field of missiles, the assistance of the Soviet leaders was limited to training approximately (50 students from Chinese universities in basic scientific and technical specializations within the Soviet Union. This decision convinced the political decision-makers in China that the Soviet government, led by Khrushchev, was not willing to help China develop its weapons capabilities.[35] .

Meanwhile, the Chinese government sent a delegation to the Soviet Union to negotiate assistance to China. The Soviet government responded to China's request, as the five-year plan for Soviet foreign aid in September 1956 stipulated the development of (39 nuclear centers covering all parts of the People's Republic of China.[36] .

On September 13 of the same year, the Soviet government agreed to provide preliminary information for training the Chinese in missile technology, and to send Soviet nuclear specialists to China. In light of this, Rong Chen ( called for a meeting of members of the Aviation Industry Committee and specialists in the field

of missile industry. It was agreed that Moscow would send five experts to China to train the Chinese in the field of missile technology. He said that we must work on two tracks: the first is to prepare for negotiations with the Soviet Union, and the second is to work actively and independently without the need for Soviet assistance.[37] .

In early 1957, China renewed its request for assistance from the Soviet Union to benefit from Soviet nuclear expertise in manufacturing the atomic bomb and developing missile technology.P2 [38] As a result, the educational institutions of the Soviet Union formed committees to register (50) Chinese students in the missile specialty. Accordingly, China declared that it would send the students for training in the Soviet Union despite its lack of conviction, because that did not meet the aspirations of the Chinese, and because the Soviet Union's response to China's repeated requests was not at the required level.[39] .

Although the agreement did not meet China's needs, and Sino-Soviet negotiations were continuing for nuclear assistance, and the Chinese government promised to keep the agreement secret, it reached a dead end between the two parties.[40] Because the UN Disarmament Sub-Committee held its meetings in London between March 25 and September 26, 1957, to discuss American proposals to limit the spread of nuclear weapons.[41] After that, Khrushchev faced internal political problems.[42] At that time, the Chinese Communist Party and Mao Zedong stood with Khrushchev and supported the Soviet Communist Party in facing those problems.[43] .

In May 1957, the Soviet Union sent a Soviet delegation of nuclear specialists to the Institute of Physics of the Chinese Academy of Sciences to assist it in nuclear science research. During the meetings that the delegation conducted with the Chinese specialists, it was agreed to train the specialists in studying uranium and plutonium enrichments.[44] The experimental reactor and psychotron were soon obtained from the Soviets.[45] .

In June 1957, Rong Chen, the chief Soviet advisor to China, met with Arkhipov (Arkhipov , and asked the Soviets to stand by China and help it develop atomic bombs and missiles. Arkhipov explained that he needed to send these requests to the leadership in Moscow. In view of the repeated requests from China, the Soviet Union responded in July 1957, and informed Beijing through the Soviet Foreign Minister that it was prepared to help China develop its missile weapons and nuclear program.[46] .

In return, China sent a delegation specialized in missile science, atomic energy, aircraft production and electronics after receiving the official Soviet response agreeing to provide aid. The delegation came out with a draft agreement between the two parties, in which they agreed that the aid program would meet all of China's needs. As a result, China signed an agreement with the Soviet Union to develop new weapons, military technology and a comprehensive atomic energy industry in China, which was called the (New Defense Technology Agreement on October 5, 1957.[47] In that agreement, the Soviet Union pledged that it would provide the People's Republic of China with precise and special technical data on the manufacture of nuclear weapons.[48] .

Under the new agreement, the Soviet Union was obliged to provide support to China in establishing a complete nuclear weapons industry, from initial research to the production of nuclear weapons, including the sharing of nuclear weapon blueprints. Furthermore, the Soviet Union would transfer the equipment necessary for uranium enrichment and nuclear fuel for enrichment processes. The Soviet Union systematically assisted China in the research and production of missile technology, the design of missile launchers, and all related fields.[49] .

During a conference of international communist parties held in Moscow in November 1957, Chinese leader Mao Zedong gave a speech in which he declared: "If the worst comes and half of humanity is killed in a nuclear war, the other half of the world will remain, and through it imperialism will be destroyed, and the whole world will become socialist." This extremist speech by Mao Zedong shocked the Soviet leader Khrushchev and the leaders of Eastern Europe, but it did not negatively affect relations between Beijing and Moscow.[50] .

Meanwhile, the 1957 National Defense New Technology Agreement proved to be a major turning point for China's nuclear ambitions, which had become superior in sophisticated nuclear technology to produce

nuclear weapons, and the missiles needed to carry them. In August 1958, the Central Committee of the Communist Party of China approved a proposal to direct the atomic program toward military purposes.[51] .

On January 21, 1958, the artillery unit of the People's Liberation Army of China consulted and negotiated with specialists from the Soviet Union to establish the first surface-to-air missile unit in Beijing, and an agreement was reached on this. The army unit was given the code (543 . On the 27th of the same year, four groups of surface-to-air missiles arrived, provided by the Soviet Union, according to the agreement concluded between the two parties.[52] .

In early June 1958, the heavy water reactor and cyclotron were built, with the assistance of the Soviet Union, which in turn led to improved technical performance in the Chinese nuclear physics program and the training of qualified personnel, thus providing the basic requirements for China's peaceful use of atomic energy, and also indirectly laying the foundation for China's research and production of military nuclear energy.[53] .

On June 21 of the same year, Mao Zedong, at an expanded meeting of the Chinese army, made a bold statement in which he confirmed that the creation of the atomic bomb was not a major problem facing Chinese capabilities, and that China could manufacture some atomic and hydrogen bombs, in addition to intercontinental missiles, and that the greatest role in establishing the Chinese program for research and production of nuclear weapons was due to the Soviet Union, especially in the missile program and test sites, and that the People's Republic of China had achieved remarkable progress in the field of nuclear technology based on the assistance provided by the Soviet Union in this field ([54] .

On September 29, 1958, the Soviet Union and China signed an additional agreement attached to the New Technology for National Defense Agreement, to provide technical assistance to the atomic energy industry in China, which represented a prominent link in Soviet-Chinese relations regarding the Chinese nuclear weapons program. Accordingly, a number of Chinese military specialists were invited to coordinate with each other in nuclear activities.[55] Moscow has supplied advanced technology and equipment to support research, design and production of nuclear weapons and medium- and long-range missiles.[56] .

During the development of the atomic bomb, the Soviet Union not only provided the main equipment, but also provided the necessary equipment and technical plans, and sent approximately (1000 Soviet specialists and technicians to China for the purpose of training the Chinese in the nuclear field, but within the limits set by Moscow.[57] The latter was keen to send Soviet specialists to work in secret units, in order to prevent the leakage of information that Moscow considered top secret, so much so that Khrushchev confirmed, saying: "We provided everything to China, and we did not keep any secrets from them."[58] .

It is worth noting that the agreements concluded between the Soviet Union and the People's Republic of China covered the Chinese nuclear program completely, starting from nuclear research and production, nuclear science research, uranium exploration and mining, uranium conversion, uranium enrichment, and the production of nuclear fuel elements, all the way to the separation and processing of uranium and plutonium.[59] .

In the first half of 1958, relations between the Soviet Union and the People's Republic of China reached a great degree of cooperation, so that the latter proposed the establishment of a joint Sino-Soviet union for national defense industries in order to achieve broader cooperation in the military and nuclear fields so that it could reach the ranks of advanced countries.[60] However, political differences between the two countries had a negative impact on their relations. In the second half of 1958, several events occurred that led to tension in relations between the two parties, including the controversy over the joint Sino-Soviet long-wave radio station, the joint Sino-Soviet submarine fleet, and the People's Republic of China's shelling of Jinmen Island (Taiwanese Jinmen without reference to the Soviet Union[61] Since the latter was an ally of China, the latter was obliged to consult with Moscow, especially in the attack against Jinmen Island, which led to the Soviet Union being placed in an awkward position before the Western world. As a result of these events, Moscow refused to accept Chinese students to work in Soviet factories for training in order to complete the Lanzhou gaseous diffusion station. This led to China establishing a research department at the Atomic Energy Institute.[62] .

During the air war between the People's Republic of China and Taiwan, the latter responded by launching several Sidewinder air-to-air missiles.[63] The Soviets demanded that the missile be delivered by the Chinese to Moscow. In return, China refused the Soviet request. Khrushchev was so angry at the Chinese response that he withdrew the offer of assistance in research and development of a medium-range ballistic missile. Although the Chinese government delivered the missile to the Soviet Union, the infrared guidance system was missing, a crucial piece of advanced technology in the missile. Soviet officials believed that this part had been lost either due to negligence or had been kept secret by the Chinese.[64] .

Khrushchev also told Mao Zedong several times that the Taiwan issue was an internal matter for China, but it affected the Eastern Bloc, and China must be a committed ally with the allies, and consult with others in a way that contributes to coordinating policies in this regard. He also told Mao Zedong that if China was an ally of the Soviet Union, it must inform the latter of its true movements and intentions, and that its behavior was an insult to its allies.[65] .

Accordingly, the Soviet Union felt that the gap between the two sides was widening, and thus Moscow began to think about retracting some of its decisions, especially its decision in October 1957, regarding delivering to China an educational model of the atomic bomb in order for China to obtain nuclear energy.[66] .

The Taiwan Straits Crisis of 1958 contributed to the exacerbation of Sino-Soviet differences, as Moscow saw that the Chinese leaders had deviated from the principle of peaceful coexistence that Moscow had adopted since 1957. In light of this, the Soviet Union issued a statement in which it offered a nuclear umbrella to protect the People's Republic of China, trying to back down from its previous position of providing assistance to China in order to obtain nuclear energy.[67] .

Meanwhile, Soviet leader Khrushchev expressed his regret for signing the agreement with the People's Republic of China after the Taiwan Straits crisis, which contributed to the rift in relations between their two countries. Following repeated Chinese demands to provide aid to China, Khrushchev agreed to provide missiles (Ar-21 and other weapons to help China, but he decided to reconsider the offer of the atomic bomb, taking into account the decline in Sino-Soviet relations when providing assistance to China.[68] .

Moscow felt that the tension in Sino-American relations would negatively affect its relations with the latter and would drag it into a conflict with the United States of America and the West in general. Therefore, Khrushchev decided to stop helping the People's Republic of China to develop nuclear weapons.[69] In light of these events, the Soviet Union decided not to provide a model of the atomic bomb and other technical materials related to the nuclear program to China. This was done for several reasons, including that Moscow had requested the construction of special warehouses to secure the model of the bomb. When the warehouses were built by the Chinese, Moscow claimed that these warehouses did not meet the required purpose and security requirements, especially after the Chinese implemented stricter security measures. As a result, the Soviet Union responded in October 1958 that there would be an educational model of the atomic bomb with technical materials directed to the People's Republic of China. Despite this, Moscow, by the end of 1958, had transferred four sets of (surface-to-air missiles, with missilesR 0 (70 The educational model of the atomic bomb and the special technical materials were loaded into three train cars, and were under heavy guard by Soviet security. However, orders were not issued to the Soviet security to move towards Chinese territory despite the Chinese demands. Following these demands, the Soviet leader Khrushchev called for a special meeting with nuclear specialists, and during that meeting he made a decision not to ship the model of the atomic bomb to the People's Republic of China, as well as to temporarily suspend the display.[71] .

However, on February 2, 1959, the Soviet government agreed to sign an agreement with the People's Republic of China to provide special naval assistance in shipbuilding, and also agreed to sell five types of naval vessels, as well as two types of medium-range missiles, plans, technical equipment, radar and sonar equipment, radio navigation stations, and technical equipment.[72] .

On June 20, 1959, the Chinese leadership decided to send a delegation to the Soviet Union to discuss and negotiate with the Soviet Communist Party and leader Khrushchev. However, Moscow asked China to wait in order to complete the Soviet negotiations with the United States of America and Britain regarding the completion of the Nuclear Test Ban Treaty agreement.[73] In order to ease international tensions, the Soviet

Union would temporarily halt the delivery of the atomic bomb, because its delivery would destroy the efforts made by the Eastern Bloc in seeking peace, as well as calm the tense international situation between the Western world on the one hand and the Eastern Bloc on the other.[74] .

At the end of June 1959, the Central Committee of the Communist Party of the Soviet Union sent a letter to its Chinese counterpart, stating that the Soviet Union was no longer able to provide the prototype of the atomic bomb and its technical data, due to the negotiations conducted by the Soviet Union to ban nuclear tests in Geneva. It indicated that the efforts of the socialist countries to achieve peace and reduce tensions in the world might be seriously undermined if the Western countries learned of the advanced Soviet technical and scientific assistance it was providing to the People's Republic of China.[75] Within two years, after the positions of the Western countries are known, and the situation has become clear regarding the issue of the ban on nuclear tests and the easing of international restrictions, it will be possible to make a decision on how to restore joint work between the Soviet Union and the People's Republic of China. This will not hinder the development of the Chinese nuclear program, because it will take at least two years to produce the raw materials and fissile materials, and at that time there will be a complete set of technical data related to nuclear weapons. Soviet officials considered the decision to withdraw support for China a grave mistake, because it came too late to stop the Chinese nuclear program project.[76] .

It appears that the Soviet Union's policy at the beginning of the Taiwan crisis, as well as the US-made missile incident, was merely a warning to the Chinese leaders. The Soviet Union did not intend to cut off all military aid or materials to supplement nuclear power or conventional materials to the People's Republic of China.

Although the Soviet Union provided the technical materials for the nuclear bomb, it tightened its grip on Soviet specialists working in China, preventing them from providing data and information to Chinese experts. On September 21, 1959, a report described during a visit by the head of the Soviet Academy, Yuan Rabotnov (Yoan Rabotnoff to the Beijing Institute, that the Chinese tried to obtain secret information from it, but they failed to achieve that goal([77] .

After prolonged negotiations and disagreements between the leaders of the two countries in October 1959, the Soviet policy was clarified by Soviet officials towards the Chinese nuclear program, and according to what was reported by the Chinese embassy in Moscow in February 1960, it showed that the Soviet Union was indifferent and was stalling, and was refusing any request presented to it by the People's Republic of China, especially regarding the Chinese nuclear program.[78] .

Moscow began to tighten its grip on nuclear specialists working in China, preventing them from providing data to the Chinese. Chinese scientists tried to obtain information on a series of secret issues related to their nuclear program, but to no avail, because Soviet scientists working in China refused to provide that information. As a result, on February 25, 1960, the Soviet Communist Party drafted a resolution entitled: "Scientists withhold secrets in academic exchanges," which was approved by the Central Committee of the Soviet Communist Party. It required Soviet nuclear specialists to strictly adhere to maximum secrecy procedures, and not to allow foreign experts to learn about secret materials beyond what was permitted.[79] .

As a result of the escalation of ideological differences between the Soviets and the Chinese, the Soviet Union issued orders in July 1960 to Soviet specialists working in the People's Republic of China to return to their country.[80] On August 23, 1960, they all returned to the Soviet Union, carrying with them the plans and important materials. This withdrawal from China was a major blow to the Chinese nuclear program, as this action led to the postponement of many Chinese projects related to the nuclear program, as China did not have sufficient basic equipment that had not reached it from the Soviet Union.[81] The dispute began to expand between the two parties, which prompted the Soviet Union to cancel the new defense technology agreement signed in 1957.[82] .

Consequently, Sino-Soviet relations entered a period of deterioration, especially after the statements issued by Mao Zedong on both domestic and foreign policy issues, which prompted the Soviet Union to inform the Chinese Communist Party of their withdrawal from providing the models and technical information they had promised to assist the Chinese efforts, which contributed to the increasing deterioration between the two parties. At that time, the Soviet Union had not delivered any of the key

components of the plutonium production reactor scheduled to be built in Jiuquan.Jiiquan , not to mention the failure to provide samples of the bomb, and it became necessary for the Chinese government to act alone, despite the harsh conditions and the aggravation of the problems faced by the People's Republic of China.[83]
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**CONCLUSION:**

The new political system in the People's Republic of China is seeking to preserve and defend its entity by all means, and the nuclear strategy is the most important card in defending the young Chinese system against their greatest enemy, which is the United States of America, as many high-ranking officials in the authorities of the People's Republic of China have stated, that there must be a means by which they can defend their country from external dangers.

The Soviet Union declared its readiness to provide assistance to the People's Republic of China. This came in the midst of the great conflict between the Western and Eastern blocs during the events of the Cold War, and the control of Communist China, which was the prominent Asian ally of the United States of America after World War II, and the Soviet Union's attempt to control the countries of the Eastern bloc so that they would be under its tent and control.

It can also be said that the assistance provided by the Soviet Union played a major role in accelerating the pace of the Chinese nuclear program, especially in the early stages. Although cooperation between the two parties did not last long due to the ideological and political differences that emerged in the late 1950s, and although the two countries had a significant impact on China's nuclear program, this assistance was sufficient to put China's nuclear program on the right track because it laid the technical and scientific foundations for the program, which enabled it to develop its nuclear capabilities independently, achieve the country's independence in this field, and rely on itself. The Soviet-Chinese cooperation is an example of how political interests and international relations intertwine. Despite its negative effects, the dispute between the two countries became a major driver for the rise of the People's Republic of China as a nuclear power and an influential force on the international scene.

The support provided by the Soviet Union to the People's Republic of China in the field of the nuclear program played a decisive role in developing China's nuclear capabilities during the 1950s, as this assistance provided by the Soviet government contributed to providing China with the technology necessary to build a strong nuclear infrastructure capable of producing nuclear weapons.

Despite the subsequent political tensions between the two sides, which ultimately led to a severance of relations as a result of these disagreements, cooperation in the nuclear field had a significant impact on China's nuclear program. These developments also prompted China to accelerate its own efforts to develop nuclear capabilities, which contributed to reshaping the balance of power. This event also reflects the significant importance of the People's Republic of China's independence in strategic decisions.

**REFERENCES:**

(1)Nikita Sergeyevich Khrushchev: Born in the Kursk province on the border between Russia and Ukraine in 1894, he entered the political arena at an early age and volunteered in the Red Army when the socialist revolution broke out in 1917. He joined the Communist Party the following year and rose through the ranks until he became its secretary in 1928..He was elected to the Central Committee in Kyiv..In the Soviet CouncilYThe highest year 1937 After the death of Joseph Stalin The political arena witnessed power struggles. ,ELeader Khrushchev rose to prominence after strengthening his leadership position within the Communist Party. And in Septembergeneral1953 became secretary.First to the Central Committee ,andingeneral1958 He became Prime Minister Khrushchev exposed conspiracies by some members of the Soviet Communist Party.,Which led to his dismissal in October.AIn 1964, he died.in1971.For more detailsSee: Abdel Fattah Abu Aisha Encyclopedia of Arab and foreign political leaders Osama Publishing and Distribution House , Jordan , 2002 , pp. 118-119

(2) John Wilson Lewis and Xue Litai, China Builds the Bomb, Stanford University Press, California, 1988, p.39.

(3)Mao Zedong :A prominent Chinese communist leader , was born in 1893 in Henan (Hunan) to a farming family He participated in the revolution of the year1911,He embraced Marxism and, with a group of Chinese, was able to establish the Chinese Communist Party in 1921. He became party president in 1925. He was able to form a revolutionary army, mostly made up of

peasants, which entered into a power struggle with Chiang Kai-shek's government since 1927. The conflict ended with the victory of Mao Zedong in 1949 and the declaration of the establishment of the People's Republic of China under his leadership. In 1959, he resigned from his post.AThe Great Leap Project failed,He diedinIn 1976, he died of lung cancer.For more detailsSee: Suha Adel Othman Al-Bayati, Mao Zedong and his Political Role in China (1921-1976), Master's Thesis University of Babylon, College of Education for Scientific SciencesAHumanity, 2014.

(4) Scott D Sagan, Moving Targets: Nuclear Strategy and National Security Princeton: Princeton, Princeton University Press, 1990, pp.21-25.

(5) John Wilson Lewis and Xue Litai, Op. Cit. , p.39.

(6) Scott D Sagan, Op.Cit. , p.28.

(7)Zhihua Shen and Yafeng Xia, Between Aid and Restriction: The Soviet Union's Changing Policies on China, Nuclear Weapons Program 1954-1960, Washington, 2004, p.11.

(8) Ibid., p. 96

(9) Ibid., p.97.

(10)Joseph Vissarionovich Stalin (1878–1953):One of the most prominent leaders of the Soviet Union , was born in Tiflis, Georgia. Stalin entered the Orthodox seminary in Tiflis in 1894, and in 1898 he joinedEHe joined the Russian Social Democratic Labour Party, and in 1899 Stalin missed the final exams and was thus expelled from the seminary. He was influenced by the writings of Vladimir Lenin and decided to become a revolutionary..He was given the name Stalin in 1913, which means "man of steel." He was known for his political skill and strength. He transformed the Soviet Union from an agricultural society to an industrial society. He became President of the Soviet Union on May 6, 1941. He died at the age of(75)years as a result of a stroke.Looks :

James Harris, Stalin: A New History, Cambridge University Press, London, 2002, p.145.

(11)Sahar Muhammad Taha, the previous source, p. 121.

(12)Ronald W. Pruessen, Over the Volcano: The United States and the Taiwan Strait Crisis 1954-1955, Harvard University Press, Cambridge, 2001, p.98.

(13) Morton H. Halperin, Sino-Soviet Nuclear Relations 1957-1960, New Jersey, 1962, p.123.

(14) David Wright, Estimating China's Production of Plutonium for Weapons, Science and Global Security, 2003, p.67.

(15) Ronald W. Pruessen, Op. Cit. , P.99.

(16) David Wright, op. Cit. , p.68.

(17) Zhihua Shen and Yafeng Xia, Op. Cit. , P.16.

(18)MI Sladkovskii, History of Economic Relations between Russia and China, London, 2017, PP.101-102.

(19) Charles H. Murphy, Mainland China's Evolving Nuclear Deterrent: Bulletin of the Atomic Scientists, 1972, p.29.

(20)Peng Ming, A Short History of the Friendship Between the Soviet and Chinese People, Beijing, 1955, p.129.

(21)Zhihua Shen and Yafeng Xia, Op. Cit. , p.19.

(22) Liang Dongyuan, Yuanzidan diaocha, Inquiry into China's Atomic Bomb, Beijing, 2005, p.91.

(23)The institute is located in Dubna, a small town on the outskirts of Moscow. Its mission is to serve as a laboratory for research and training in nuclear science. The Soviet Union bears 50% of the construction and operating costs, China 20%, and other countries 30%. For more details, see:

Blair A. Ruble, Soviet Research Institutes Project: The humanities, University of Virginia, 1981, pp.616-619.

(24)Wang Dinglie, The Birth of the First Missile School of our Army, in Chinese People's Liberation Army Historical Materials Compiling Committee Reminiscence on the Chinese Air Force, Beijing, 1992, PP.180-185.

(25)John Wilson Lewis and Xue Lita, Op. Cite, p.61.

(26)The 20th Congress: A conference of the Soviet Communist Party held in 1956, in which Khrushchev attacked Stalin, describing him as a dictator. This angered China, particularly Mao Zedong, who responded by defending Stalin and his policies. China began to be less inclined to consider Khrushchev a leader of the Eastern bloc, which marked the beginning of ideological and doctrinal differences within the Eastern bloc. See:

Jelavish Barbara, Cow Tsarist and Soviet Foreign Policy 1914-1974, London, 1972, p.410.

(27)The reason for the disagreement between the Chinese government and the Soviet Union over the Polish-Hungarian crisis is that the Soviet Union began to interfere in the internal affairs of both countries, something China was reluctant to do, as this would make it more likely that the Soviet Union would interfere in China's internal affairs in the future. For more on China's position on the Polish-Hungarian crisis, see:

Balazs Szalantia, "You have no political of you 1953-1964", Kim il Sung and the Soviet, Moscow, 2001, PP.87-138.

(28) William E. Griffiths, The Sino-Soviet Dispute, Cambridge, 1964, p.354.

(29) Renmin Ribao, Sino-Soviet Military Cooperation, Stanford University Press, Stanford, 1956, p.22.

(30) Ibid., p.23.

(31) Wang Dinglie, Op. Cit. , p.191.

[32]The Soviet Union proposed a complete ban on nuclear testing for the production of nuclear weapons delivery systems, including missiles, as well as the destruction of atomic and hydrogen bombs and the establishment of an international monitoring organization. It also proposed studying the obligations China would undertake under the Nuclear Arms Reduction Treaty. See:

[33] Simei Qing, From Allies to Enemies: Visions of Modernity, Identity and US-China Diplomacy 1945-1960, Harvard University Press, Cambridge, 2007, PP.171-174.

[34] Wang Dinglie, Op. Cit. , p.194.

[35]Simei Qing, Op. Cit. , P.180.

[36]Odd Arne Westad, Fall of the Sino-Soviet Alliance (1945-1963), Stanford University Press, Stanford, 1998, p.157.

[37] Renmin Ribao, Op. Cit. , p.23.

[38]Brad Roberts, China: The Forgotten Nuclear Power, translated by Samir Ibrahim, International Politics Magazine, Issue 118, October 1994, p. 250.

[39] Zhihua Shen and Yafeng Xi, Op. Cit. , p.28.

[40] Ibid., p.29.

[41] FRUS, Vol.XX, Editorial Note, No.177, London, March 25, 1957, P.560.

[42]That is, the anti-Communist group of Malenkov, Kagatovich and Molotov,And thenThe party's decision camein JuneIn 1957, they were expelled from the party's Central Committee.GKhrushchev was victorious in this matter, but he still had many enemies among politicians at home and abroad. See:

Zuoyue Wang, Op. Cit. , p.195.

[43] Wang Dinglie, Op. Cit. , p.196.

[44]The experimental nuclear reactor the Soviets had helped the Chinese build was still under construction, and the Chinese repeatedly demanded that their primary goal was not to learn the peaceful uses of nuclear energy, but rather to learn how to extract the material needed to produce a nuclear bomb. However, the Soviet Union refused to respond to these demands. For more details, see:

Victor M. Gobarev, Soviet Policy toward China: Developing Nuclear Weapons: 1949-1969, The Journal of Slavic Military Studies, Vol.12, No.4, December 1999, PP. 22-30.

[45]Nicola Horsburgh, Op.Cit. , p.45.

[46]John Wilson Lewis and Xue, Op. Cit. P.

[47] Roderick Mac Farquhar, The Origins of the Cultural Revolution, 1958-1960, Vol.2, Columbia University Press, New York, 1983, P.10.

[48]John Wilson Lewis and Xue Litai, Op. Cit. , p.62.

[49] Nikita Khrushchev, Khrushchev Remembers, The Last Testament, Strobe Talbott, trans, Boston, 1974, P.269.

[50] Sergei Khrushchev, Nikita Khrushchev and the Creation of a Superpower, Pennsylvania, 2000, p.271; Zhihua Shen and Yafeng Xi, Op. Cit. , P.31.

[51] Ibid.

[52]Wang Dinglie, Op. Cit. , P.198.

[53]Nicola Horsburgh, China and Global Nuclear Order From Estrangement to Active Engagement, Oxford University Press, 2015, p.39.

[54] Sergei Khrushchev, Op. Cit. , p.276.

[55]John Wilson Lewis and Xue, Op. Cit. , p.62.

[56] Leo Yueh - Yun Liu, China As a Nuclear Power In World Politics, New York, 1972, p. 39.

[57] Sergei Khrushchev, Op. Cit. , p.277.

[58] Simei Qing, Op. Cit. , p.182.

[59] Leo Yueh-Yun Liu, Op.Cit. , p.44.

[60]Lorenz M. Luhi, The Sino-Soviet Split Cold War in the Communist World, New Jersey, 2008, PP.48-49.

[61]John Wilson Lewis and Xue, Op. Cit. , p.68.

[62]Pantsov Alexander, Stalin, Khrushchev and Modernization of the People of China in the 1950: Traditional Values and Mode, Taibei, Tamkang University Press, 2001, PP.76-79 Book translation and verification

[63]It is an American-made missile. It was launched from Taiwan into Chinese territory and failed to explode. Soviet advisors in China warned that the latter had obtained American weapons. This angered Moscow, and the Chinese did not respond to Soviet demands to hand over the missile to Moscow for examination. However, the Chinese said he could not be handed over. Because they study on the rocket. Look:

Zhihua Shen and Yafeng Xi, Op. Cit. P.32.

[64]John Wilson Lewis and Xue, Op. Cit. ,P.

[65]Ibid.

(66) Sergei Khrushchev, Op. Cit. , p.271.
(67) Ibid., p. 272.
(68)De Xin Zhongguo, The Leaders of New China on the Diplomatic Stage, Beijing, 1989, pp.152-153.
(69)Morton H. Halperin, Chinese Nuclear Strategy: The Early Post-Detonation Period, Institute for Strategic Studies, London, 1965, P.10.
(70)Leo Yueh - Yun Liu, Op. Cit., 1972, pp.40-41.
(71) Zhihua Shen and Yafeng Xi, Op. Cit. , p.33.
(72) Sergei Khrushchev, Op. Cit. , p.273.
(73) Alice L. Hsieh, China's Nuclear Missile Programme: Regional or Intercon, 1971, p.112.
(74) Ibid., p. 113.
(75)John Wilson Lewis and Xue Litai, Op. Cit. , p.64.
(76) Leo Yueh - Yun Liu, Op. Cit. , p.45.
(77) Liu Bailuo, China's Nuclear Weapons Strategy, Beijing, 1988, P.132.
(78) Sergei Khrushchev, Op. Cit. , p.278.
(79) De Xin Zhongguo, Op. Cit. , p.159.
(80) Lewis A. Frank, Nuclear Weapon Development in China, Bulletin of the Atomic Scientists, 1966, p.63.
(81) Shehui Kexue, Soviet Experts in China 1948-1960, Beijing, 2003, p.271.
(82)Abdul Aziz Hamdi, China's Nuclear Power and its Strategic Weight in Asia, International Politics Magazine, Issue 145, 2001, p. 74.
(83) Chen Jian, The Tibetan Rebellion of 1959 and China's changing relations with India and the Soviet Union, Journal of Cold War Studies, Vol.8, No.3, 2006, PP. 92-93.

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