

## **July 3, 1960**

### **Report by Nie Rongzhen to Mao Zedong Regarding Science and Technology (Abridged)**

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#### **Summary:**

Nie Rongzhen reports to Mao on scientific and technical issues and Soviet assistance and cooperation in the area of nuclear development. The Chinese were becoming frustrated by what they called the Soviet "stranglehold" on key technical data, and led to an unwanted feeling of dependence on their Soviet comrades.

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Chinese

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聂荣臻关于科技发展给毛泽东的报告 ( 删节本 )  
1960年7月3日

中央并主席：

在中苏关系的新形势下，有关科学技术上的若干问题，应有新的方针和做法。一年多以来，苏联对我国的科学技术援助与合作，处处卡紧，特别是国防科学技术上已经封门。国民经济中的新技术，也已尽量控制。虽然有很多是两国签订了协议的，苏方却采取一拖、二推、三不理的手法，就是不给。没有定好协议，或我们新提要求的，就更不用问了。很明显，在中苏政治思想上的分歧没有取得一致以前，休想在这方面取得援助。

(一) 苏方在重要技术关键上卡住我们，实在令人气愤。但是气愤是没有用的，我们一定要争一口气，有可能这样一迫，反而成为发展我们科学技术的动力，更加坚决的在科学技术上力争独立自主，依靠自己，而不是指望外援。何应钦扣住我们三十万元军费，一文不给，企图饿死我们，结果我们搞起了大生产运动，军民丰衣足食。这两件事情虽然不能完全对比，但是我们要争气、要自力更生是一样的。第一个五年计划期间，重要的建设基本上都是苏联设计、设备和技术大都是成套进口，这一段对我们很有帮助，使我们能迅速掌握技术。但是另一方面，也带来了某些科学和技术上的依赖心理，一味伸手。一九五八年提出建设社会主义总路线以来，党中央和毛主席一再指示，在科学技术上要自己解放自己，破除迷信。一年多来开始这样做了，很有成效。我们现在大体上能够自己解决国民经济中的一般技术问题，还有一些重要的环节尚待解决，只要我们努力，也是可以解决的。尖端技术方面虽然还有些差，但也已从无到有，打下了一些底子。在科学技术上已经找到了我们自己的一些路子。因此，现在提出独立自主，自力更生，是有可能的。

像我们这样一个大国，有自己的建设社会主义的总路线，有一整套两条腿走路的总方针，就必须有适合我国政治、经济要求和自然资源条件的科学技术。科学技术问题的解决，一定要立足于国内，只有这样，我们在国防和经济建设上才能完全主动放，而不动群众来试验研究。自己要志、有毅力，任何艰巨的科学技术课题，都要放手还要多花一点时间，但这是会得到报酬的，可以培养自己的力量，练出真本事。苏联革命四十年人造卫星上了天，我们从现在起，如果埋头苦干十年，能上天的话，也比他们快了一半，也应该比他们快。

(二) 今后与苏方的科学技术来往，应采取新的作法。凡是协议上订了的援助，我们到时候就要询问，仍然要。但是如果对方不给，我们决不再催，记上一笔账就成了。过去几个月来，我们的驻苏办事人员一再催询，碰了许多钉子，反而显得我们如无苏联援就有不可终日之势，这样更加使对方尾巴翘得更高，控制得越加严密。我们已告诉这些同志，询问一下，不给就算了。协议之外的新要求，现在也不要提了。对例行的年度中苏技术合作，也以少提为妙。至于我方过去已签字承担的义务，如提供苏方技术资料、接受来华考察等，在一般科学技术范围内，我们则应按协议如约完成。

在华工作的苏联专家，有些人态度是好的，有些差一些，个别的很坏。我们要贯彻中央所指示的坚持原则、坚持团结、多做工作的方针，既然请来了、就要充分利用他的长处，尽可能取得一些东西，并在政治上帮助、团结他们。依然满期的专家，好的很难延聘，一般的也不必留。新聘专家，重要技术方面苏方不肯派来，或者新来的也只作为“观察员”，加以又有种种限制，很难对我有什么帮助，反而诸多不便，因此也应尽量少提、不提。

最近派遣赴苏留学生的方针，也要从新考虑。一则是对方不接纳或限制重重，学不到什么新技术；二则年青人政治锻炼不够，在修正主义思潮的薰染下，受到影响不好。因此，最近应该少派。当然也不应该中断，有必要而又能学到些东西的才派，怎样办才合适，研究后另行报告。

(三) 独立自主，立足国内，绝不是意味着自己封锁自己。相反的，一切国际上先

进的科学技术，我们都要根据我国具体条件来学，来掌握。要独立自主，就愈要加强科学技术情报工作。对苏联，能学的东西还是尽量学。但是，苏联这条路在今一个时期内是越来越狭了。因此，要大力开辟对资本主义国家的科学技术情报工作。美帝国主义现在也在大搞科技情报。我们建交的国家虽然比苏联少，但是只要我们重视，通过各种形式，来充分搜集国际上的先进科学技术成果和方向，还是大有可为的。

以上意见，是否有当，请予指示。

聂荣臻

1960年7月3日

Central Committee and Chairman [Mao Zedong]:

Under the new circumstances in Chinese-Soviet relations, there needs to be new policies and practices with respect to several scientific and technical issues. Over the last year and more, Soviet assistance and cooperation in our country's science and technology [endeavors] has tightened across-the-board, especially in defense science and technology, where the door has already been shut. It has also already done all it can to control new technology in the [Chinese] economy. Though there are a lot of bilateral signed agreements, the Soviet Union, has adopted the tactic of 1) delaying, 2) putting off, and 3) ignoring, that is, withholding. It goes without saying that there is no use discussing unfinished agreements or [in cases] where we have made new requests. Quite clearly, before we resolve Chinese-Soviet political ideological differences, we should not suppose that we can achieve assistance in this area.

1) The Soviet side's stranglehold on us on the crucial issue of key technology is really infuriating. But indignation is useless. We are just going to have to show them. Maybe this kind of pressure will instead become the impetus for developing our science and technology so we strive even more resolutely for independence and autonomy and self-reliance in science and technology, rather than counting on foreign assistance. [Taiwanese Defense Minister] He Yingqin held back 300,000 yuan in military funds from us, not even giving us one fen, trying to starve us to death. As a consequence, we organized a great production movement, and both our troops and people were well-fed and well-clothed. Though these two things cannot be entirely compared, what is the same is that we must bring credit on ourselves and rely on ourselves. During the first five-year plan, important [infrastructure] construction was all basically Soviet-designed, and most equipment and technology was imported in sets. This period was very helpful for us, allowing us to quickly master technology. But, on the other hand, it also entailed a certain psychology of scientific and technological dependence, of blindly holding out our hands. Since proposing a general line on constructing scientific socialism in 1958, the Central Committee and Chairman Mao have repeatedly directed that in science and technology we must liberate our minds and eradicate superstitions. For the past two years and more we have started to do this, to great effect. For the most part, we are now able to resolve ourselves common technological issues affecting the national economy. There are still some important sectors [where there are issues that] await resolution, but, if we work hard, these can also be resolved. Though we are still behind in advanced technology, we have come from zero to having some level of achievement, and have put down a foundation. In science and technology we have already found our own approaches. Consequently, it is now possible to propose independence, autonomy and self-reliance.

A big country like ours, which has its own general line for building socialism, and a whole set of policies for walking on our own two legs, must have science and technology that is appropriate to our political and economic needs and natural resources. In resolving scientific and technological issues, we must depend on our own domestic [resources], and, only in this way, can we then keep total initiative and not wind up under the control of others in defense and economic development. We need ambition and tenacity, and on any difficult scientific and technological questions, we need go all out to mobilize the masses to experiment and research, do things ourselves and never to rely on others. In this respect, we may have to spend some more money, and in some cases we may have to spend some more time, but this will bring a reward. We can cultivate our own strength and train up real abilities. Man-made satellites were launched into the sky forty years after the Soviet revolution. If we start from now, and are able to quietly put our shoulder to the wheel for ten years and then get into space, we'll make it in half the time they did and more quickly than they did.

2) We need to adopt a new way of doing things in our future scientific and technological dealings with the Soviet Union. When the time comes to do so, we should inquire about and still request all assistance that is set out in agreement. But if the other side won't give [us the assistance], we certainly won't press [the issue]; we'll just keep account. In the last few months, staff members of our office in the Soviet Union have repeatedly pressed their inquiries, encountering many rebuffs, leaving the impression that we are in a desperate situation without Soviet assistance

and, in this way, making the other side even more cocky and more controlling. We have already told these comrades that they should only ask lightly and just forget it if assistance is not forthcoming. Don't raise any new requests now not covered by agreements. It is also best not to raise scheduled annual Chinese-Soviet technical cooperation. As for responsibilities that our side has signed and taken on, such as the provision of technical data to the Soviet side, the reception of study teams to China, etc., we should carry out commitments in our agreements to the letter.

Of the Soviet experts working in China, some have good attitudes, others are not quite up to the mark, and a few individuals are quite bad. We must implement the policy of upholding principles, upholding unity and working harder as outlined by the Central Committee. Since we have invited them, we must fully exploit their strong points and, to the extent possible, attain something [useful], and help them politically and unite with them. As for experts who have finished their term [of assignment], it will be very hard to hire [back] the good ones, and we don't need to keep average ones. As for newly hired experts, the Soviets have been unwilling to send [experts] in important technical fields, or new arrivals are only [in China] in the role of "observers." In addition, since there are also numerous limitations, it is very hard [for them] to be of any help to us, rather they cause a lot of difficulties for us. Therefore, to the extent possible, make few if any demands [on them].

Recently, we also have had to reconsider our policy regarding sending of students to the Soviet Union. First, the other side does not admit them or places lots of limitations on them, so they don't study any new technology. Second, given their insufficient political maturity, young people are exposed to the corrupting influence of revisionist thought. As a consequence, now we should send very few. Of course, we should not have a complete cutoff. We will send them when there is a need and it's possible to study something. After [further] study, we will issue another report about what we ought to do.

3) Independence and self-reliance does not at all imply that we will isolate ourselves. On the contrary, we have to study and master all internationally advanced science and technology based on our country's particular conditions. To be self-reliant, we need to strengthen scientific and technical intelligence work. We should study as much as we can from the Soviet Union. But the Soviet road in the period ahead will be narrower and narrower. Therefore, we must vigorously pursue scientific and technical intelligence work toward the capitalist countries. American imperialism is also now deeply engaged in scientific and technical intelligence. Although the number of countries with which we have established diplomatic relations is fewer than that of the Soviet Union, it is entirely possible that if we are serious, through various means, we can abundantly collect the results and directions of international advanced science and technology.

I am awaiting your comment on the appropriateness of the ideas expressed above.

Nie Rongzhen

3 July 1960