

WHY THE SOVIET CONVERSION PROGRAM DOESN'T MAKE SENSE

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This paper addresses conversion as practiced in the USSR prior to August, 1991.

## I. AN APPROACH TO UNDERSTANDING CONVERSION.

Soviet military industry is not just a collection of plants and research establishments. It is a hierarchical organization with the Military Industrial Commission of the Council of Ministers at the top, directing military industry ministries, and also reaching deep into the civilian sector. In the USSR, the military industrial complex is not a metaphor for certain interests, but rather a single identifiable organization. It is this organization that should be at the center of any conversion analysis.

## II. ORIGIN OF CONVERSION.

Conversion started with the top-level decision to cut military expenditures by 14% in 1989-90.<sup>1</sup> The conclusion of the arms limitation treaty on elimination of intermediate range nuclear missiles and the general warming of the international relations was cited as the reason for the cuts. At the same time, the leadership came under increasing domestic pressures to cut military expenditures. The mounting budget deficit called for cutting government spending. The disintegration of the consumer market called for increased supply of consumer goods.

Cuts in military expenditures translate into cuts in military orders to the industry. Budget cuts are being handed down to the General Staff, which then decides which orders to cancel.

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<sup>1</sup>Decree of the Presidium of the Supreme Soviet of March 21, 1989 "On reduction of the Armed Forces of the USSR and defense expenditures in 1989-90".

Military production is said to have been cut by 19.5% (apparently, in 1989-90).<sup>2</sup> When orders are cut, investment is cut, as well, and construction projects get mothballed.<sup>3</sup> If the cuts in military orders come first, and conversion is only a reaction, then it is clear that some plants will simply be left without orders, with little else to do.

There are widespread reports of the military industry plants experiencing financial difficulties verging on insolvency. All over the country, the plants are already being stopped, there is no money to pay wages. It was because of the financial difficulties that "Vagonzavod" [Railroad car plant] sold tanks to ANT cooperative.<sup>4</sup> In L'vov region, defense industries' plants are in perilous situation: they lost large number of orders, some are already bankrupt, and stopped paying wages to their employees.<sup>5</sup> Because of the decline in "special" orders, Donetsk "Tochmash" got into trouble, but was able to switch rapidly to civilian goods.<sup>6</sup> In Leningrad region, "absence of scientifically founded program of conversion causes underutilization of production and research collectives, loss of trained personnel."<sup>7</sup> Industrial production in Udmurtiia fell by 1 billion rubles because of the decline in military orders. Conversion there was to have led in 1990 to the increase in production of

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<sup>2</sup>Khrapovitskii, 1990.

<sup>3</sup>Vorontsov, 1990.

<sup>4</sup>Lukoshiavichius and Tepliakov, 1990.

<sup>5</sup>Golovenko and Iastrebtsov, 1990.

<sup>6</sup>Bik and Shloma, 1989.

<sup>7</sup>B. V. Gidaspov, speech at the CPSU CC Plenum, Pravda, Feb. 7, 1990.

consumer goods equal to 54 million rubles and by the end of 1995 - to almost half a billion.<sup>8</sup> Central aerohydrodynamics institute, the lead institution in aviation R&D, took out loans for many millions of rubles, stopped paying suppliers, and annulled some contracts in order to stay solvent.<sup>9</sup>

Financially strapped enterprises would not be able to keep all the workers they now have. In 1990 defense contract cuts were supposed to eliminate 500,000 jobs. Further 600,000 redundancies are expected in 1991.<sup>10</sup>

### III. MAIN CHARACTERISTICS.

When the Soviet government started to cut military expenditures, it allowed the military industry to devise its own ways of adjusting to the cuts. These adjustments, embodied in the Program of conversion and in the current practice, have three main features:

- preservation of the military industry as a distinct, separate "economy within the economy";
- high degree of reversibility of conversion;
- waste of resources.

How does one preserve the organizational structure, the capacities, and the personnel in the face of cutbacks in military orders? State program of conversion through the year 1995 is the defense industry's answer to this problem. This program was developed by the State Commission of the Council of Ministers of the USSR on Military-Industrial affairs, the Ministry of Defense and the

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<sup>8</sup> Izvestiia, September 21, 1990.

<sup>9</sup>Zagainov, 1990.

<sup>10</sup>Lukoshiavichius and Tepliakov, 1990; Ivashko, 1991.

defense departments of the State Planning commission (Gosplan). The Ministry of Defense specified the cuts in production of weapons, and Gosplan developed the program on the basis of these data.<sup>11</sup>

The military industry attempts to limit conversion to changes at the individual plant level.

The structure of the military industry as a whole remains largely intact:

- The military industry is preserved as a distinct sector separate from the rest of the economy;
- The centralized command principle is preserved within the military industry (amid the economy's ostensible privatization and liberalization);
- The size of the military industry (number of plants, employees, inflow of material resources) remains roughly the same. For that purpose, plants converted to civilian production remain under the military industry ministries; these ministries request massive investment for building up new civilian goods production capacity. The only thing that is allowed to change is the product mix.

According to the Program of conversion, organizational identity of the military industry is preserved, with its own centralized ministry structure, segregated from the civilian sector. This is done as a matter of course - the discussion simply runs in terms of the existing organizational structures without questioning them. The principles of operation of the military industrial complex - centralized planning and management, hierarchical subordination - also will remain unchanged.

Here is how the program envisions the formation of plans for production of civilian goods at the enterprises undergoing conversion. The process would start with the ministries which are the users of the defense sector's civilian products (e. g., Ministry of retail trade for consumer goods,

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<sup>11</sup>Kotov, in Khrapovitskii, 1990.

Ministry of agriculture for farm equipment) submitting their orders. These orders will be analyzed at the State Committee of Science and Technology, followed by a paring down by the State Commission on military industrial issues. The orders approved by these bodies will then be adopted by the defense industry ministries concerned as their production targets and finally communicated to the enterprises. All costs, subcontracting, and delivery schedules would be determined centrally. This is the command principle in its classical incarnation.

The program of conversion also does not envision any reduction in the size of the military sector (number of plants, number of employees).<sup>12</sup> Capacity for production of civilian goods is planned to remain under the control of the defense complex. This applies to the plants and products that do not in any way relate to the needs of national defense. Nearly 20% of defense complex enterprises now produce strictly civilian goods. Yet they are under control of the military industrial complex, which produces some 50% of all consumer durables including all television and radio sets, tape recorders and other radio-electronic goods, sewing machines, and up to 70-80% of refrigerators and washing machines.

The creation of new capacity for the increase in output of these types of items, for which 31 billion rubles are to be allocated, does not, in fact, have anything to do with the conversion of the defense complex. Rather, it represents diversification of the military industry.

The question of administrative subordination of the enterprises with mostly civilian output is not a formal one. Leaving these enterprises under the control of the defense complex makes more difficult the transition to market relations, the rejection of the sectoral approach to management and

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<sup>12</sup>Avduevskii, in: Lukoshiavichius and Tepliakov, 1990.

the demonopolization of production as well as the incorporation of new forms of ownership and property.

#### IV. CONVERSION ON THE PLANT LEVEL.

What happens at the plant level in the process of conversion defies the basic principles of economics.

a. In defiance of the economies of scale, military production cuts are spread around as many plants as possible. That is, instead of closing down 1 out of 10 tank plants, production is cut back 10% at each of ten plants. This is why only 1.5% of all plants involved in conversion have been fully converted.<sup>13</sup>

b. In defiance of specialization, there are attempts to produce civilian goods at plants designed for other purposes.

Of course, such a mode of conversion imposes huge additional costs on the economy.

Very often, high costs are due to the use of expensive precision equipment, expensive materials; and employment of highly skilled and thus better-paid workers in the production of simple and cheap goods. (Defense industry managers out to disparage conversion cite the examples of aircraft plants switching to production of sauce pans.) Here, part of the problem lies with the choice of the civilian product. Under the current system, defense plants are ordered to produce specific products by their ministries, often with little regard to the nature of the existing production process. This is the normal mode of operation of the defense sector. Additional costs from the

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<sup>13</sup>Sabirov, 1990.



arbitrary assignment of products can be considered the costs of keeping converted production within the defense industrial complex.

Yet even if the defense industry plants were freed from the tutelage of their ministries, the cost of civilian products they produce would have been high compared to civilian plants. This has to do with the fundamental characteristics of the defense sector.

The sector includes a large R&D establishment. About one third of all fixed capital of defense industry is said to be in the research and design facilities.<sup>14</sup> The ratio of R&D expenditures to value of output is 20 times higher than in the civilian sector.<sup>15</sup> This high R&D intensity of the defense industry is not a specific Soviet feature - the same is true for this sector worldwide.

Production of civilian goods does not need such massive R&D base. Yet this is exactly the "intellectual potential of the sector" that the military industrial complex is trying to preserve. This results in experimental and testing facilities of research and design institutions getting mass production assignments, carried out at high cost.

Another important characteristic of the military industry is the low share of all-purpose equipment, and high share of specialized machine tools, intended to perform a specific operation (e. g., making a tank turret). Whole plants were designed around such specialized equipment. They can be turned to alternative uses only at prohibitive cost. A defense sector manager estimates that fixed

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<sup>14</sup>Protasov, 1990.

<sup>15</sup>Lukoshiavichius and Teplakov, 1990.

assets that can be switched to consumer goods production represent 3-4% of industrial fixed assets.<sup>16</sup>

Some of the problems cited above can be resolved by conversion to civilian output of comparable technological level, i. e., aircraft factory making civilian planes rather than sauce pans. However, such conversion is an exception, rather than the rule.<sup>17</sup> Another important reason for the high cost of civilian products is the industry's intention to keep the conversion reversible. Thus, technological systems for military production that are not used for civilian production are not being kept on both physically and on the books of the enterprises. The latter must pay out considerable sums for the depreciation of equipment standing idle.<sup>18</sup>

## V. WHY DO THEY DO IT THIS WAY?

a. The obvious, if unstated motive for the current wasteful conversion policy is the self-preservation of military industry, its command over resources, and customary ways of doing things. Every organization is trying to do that. What is unusual in this case is the extent to which a bankrupt Soviet government is prepared to underwrite the cost of the venture.

b. Another motive is often stated but untrue. The military industry is said to contain the best scientists, engineers, and workers; unique organizational skills and the most advanced equipment. This

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<sup>16</sup>Protasov, 1990.

<sup>17</sup>Sabirov, 1990.

<sup>18</sup>See *Sotsiologicheskie issledovaniia*, No. 5, 1990 on Ioshkar-Ola machinebuilding plant. It is clear that this is a typical case. The director of the Moscow Khrunichev plant mentioned above also spoke of this problem.

concentration of excellence should be preserved for the sake of the whole economy. It has never been explained why these superior resources can not be put to civilian uses in the civilian sector. In arguing their case, the defenders of the military industrial complex usually praise it as the country's best achievement, noting its alleged international competitiveness and "intellectual potential". This upbeat assessment of the military industry is usually shared by the liberal, pro-market Soviet experts.

c. Finally, the need to maintain a military industrial potential worthy of a superpower is advanced as a motive. This means preserving the organizational framework and human capital, thus keeping conversion reversible. In the word of a declaration signed by more than forty managers of the largest defense plants, "... despite the relative thawing in the international climate, it is necessary to retain the historically developed inter-branch coordination, centralized distribution of material-technical supplies, state financed scientific research and development work, and a corresponding level of material stimulus in order to maintain the nation's defense capability." <sup>19</sup>

The top leadership is sympathetic to the pleas of the defense industry. In Gorbachev's words, "We have to be very careful with defense industry ministries for two reasons. First, everything we do with defense sector should not weaken or omit the issues of security. ... Some people say: the sooner defense industry ministries will disappear, or the smaller will be their number, the faster will conversion proceed. I do not think this is so."<sup>20</sup> The preservation of the scientific potential of defense industry research institutes and design bureaus under the conditions of resource cuts is the

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<sup>19</sup>"Status ...", 1990.

<sup>20</sup>Gorbachev, 1990.

matter of particular concern for the leadership. The Commission on military policy of the Central Committee of the CPSU stated that "One of the fundamental tasks is to preserve high defense potential, its scientific and technological basis, to integrate the tremendous intellectual strength of defense sector into the renewed economy without lowering its level, especially under the conditions of market."<sup>21</sup> The deputy premier and the Minister of Defense Industry stated that "conversion of the defense industry is being conducted in such a way as to ensure maximum preservation of the productive capacities of defense enterprises." There is no discussion of disassembly or reorientation of the defense industry capacities.<sup>22</sup>

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<sup>21</sup>Baklanov, O. D., report to the 28th Congress of CPSU, Pravda, July 7, 1990; "Oborona ...", 1990.

<sup>22</sup>Belousov, 1989.

## REFERENCES

- Belousov, I., "VPK - segodnia i zavtra," Krasnaia Zvezda, July 23, 1989.
- Bik, S., and Shloma, V., "Na bastionakh konversii", Ekonomichesk aia gazeta, no. 52, Dec. 1989, p. 4.
- Golovenko, Aleksandr, and Gennadii Iastrebtsov, "Karpaty - gory krutye", October 12, 1990.
- Gonchar, K. R., "Eto trudnoe delo - ekonomika razoruzheniia", Kommunist, no. 9, 1990.
- Gorbachev, M. S., "Za iedinstvo partii, konsolidatsiiu perestroiechnykh sil", Pravda, May 14, 1990.
- Gosudarstvennyi komitet SSSR po statistike, "Sotsial'no-ekonomicheskoe razvitie SSSR za deviat' mesiatsev 1990 goda", Ekonomika i zhizn', no. 43, Oct. 1990.
- Iaremenko, Iu., "Ekonomika khanzhestva", Pravda, Sept. 1, 1990.
- Iziumov, Iu., "Zaboty glavy pravitel'stva", Literaturnaia gazeta, no. 37, Sept. 13, 1989, p. 10.
- Khrapovitskii, Dmitrii, "Opravdan li razmakh?", Soiuz, no. 30, July 1990.
- Khrapovitskii, Dmitrii, "Proshchai, oruzhie?", Soiuz, no. 34, Aug. 1990.
- Lukoshiavichius, Ionas, and Iurii Tepliakov, "Konversiiia po obe storony okeana", Moskovskie novosti, no. 39, Sept. 30, 1990.
- Lopatin, Vladimir, "Sluzhit' narodu, a ne partiiam", Nedel'ia, no. 22, Apr. 3, 1990.
- Mikheev, O., "Kompiuternye seti", Pravda, Aug. 15, 1989.
- Mikheev, S., "Konversiiia", Izvestiia, March 22, 1990.
- "Oborona strany: strategiiia perestroiki", Pravda, Oct. 31, 1990.
- "Osnovnye napravleniia po stabilizatsii narodnogo khoziaistva i perekhodu k rynochnoi ekonomike", Oct. 15, 1990.
- Perekhod k rynku. Moscow, August, 1990.
- Pokrovskii, A., "Vse nachinaetsia s cheloveka", Pravda, Dec. 9, 1989.
- Protasov, V., "Ne znaia brodu?", Literaturnaia gazeta, May 9, 1990.
- Ryzhkov, N. I., "Otvetsvennost' i soglasie", Pravda, Dec. 20, 1990.
- Sabirov, A., "Sovety i konversiiia", Izvestiia, Sept. 21, 1990.
- "Status - 'oboronke'", Pravda, Sept. 6, 1990.
- Vorontsov, V., "Iesli otbrosit' emotsii ...", Ekonomika i zhizn', no. 13, March 1990.
- Vsklokochnyi, K., "TsAGI: kak zhit' dal'she?", Izvestiia, Aug. 30, 1990.
- Zagainov, G., in Izvestiia, Aug. 30, 1990.