

Soviets move to unlock technology bottlenecks

by Rachel Douglas

Since last autumn, representatives of the Soviet military have more vocally asserted the defense sector's claim on the Soviet economy. The Deputy Defense Minister for Armaments has written in the Communist Party's economic weekly that priority development of basic industry is crucial for defense; his emphasis was unmistakably different from the February 1981 twenty-sixth party congress's commitment to a superior growth rate for the consumer sector (see *EIR*, April 12).

America's resolve to build an anti-ballistic missile defense, meaning the most rapid development of new technologies, will increase the pressure for military investments in the U.S.S.R. Marshal Viktor Kulikov, Warsaw Pact commander, has already vowed "to build the counterweapons" to match anything U.S. strategy leads to.

The Russian ability to tighten belts in order to fill military orders should never be underestimated. But does it follow that all other sectors of the Soviet economy will be starved? A number of Soviet economists evidently do not think so.

The Central Committee weekly *Ekonomicheskaya Gazeta* in mid-March gave a sign of the times: a 3,500-word article called "Space Aids the National Economy." Writers from the State Committee on Science and Technology showed how and in what sectors the large Soviet space program (in which a high portion of launches are in the primarily military Cosmos series) is improving economic performance.

There is a current among Soviet economists, of people who for several years have been grappling with the problem of how to get technological advances that occur in the laboratory or a single sector—like defense—generally utilized in the national economy. In August 1980, economist V. Lebedev proposed to set up large projects to pioneer advanced industrial technologies and serve as beacons to guide companies all around the U.S.S.R., a means for "centralized leadership of scientific and technical progress and the whole economy." A year later, economists N. P. Fedorenko and D. S. Lvov argued this school's case that only a fundamental change in investment policy could open the bottleneck behind which innovations in industrial technology get stopped up; instead of letting 70 percent of capital investments go to rebuilding facilities at their original, outdated technological level, they said, the bulk of new investments should serve as "vehicles for new scientific and technological innovations."

Breaking resistance 'from below'

The leadership transition has provided an opportunity for this current to press its case with renewed vigor. While Yuri Andropov's economic pronouncements concentrate on organizational improvements and a campaign for "discipline," they have been taken as a go-ahead for an assault by some economists on resistance to the transformation of investment policy Fedorenko and Lvov lobbied for.

In the daily *Izvestia* March 18, corresponding member of the Academy of Sciences P. Bunich pushed the discussion forcefully. "Despite the growth of size of our economy," he wrote, "the number of technological innovations introduced in 1981 was 4 percent smaller than in 1980, and the quantity of new models of machines, equipment, apparatus, and instruments shrank by one-fifth during the past decade. And the old technology quite happily lives and gets along, although it is obsolete. The annual rates of writing it off are so low, that it takes more than a decade for complete turnover."

Bunich proposed to develop ways to stop penalizing enterprises for the introduction of new technologies, which happens because in its "incubation period," a new technology is not so profitable. At present, he observed, scientific and technological progress is seen by the plant manager "not as an economically necessary factor . . . but a factor which only complicates and hinders fulfillment of the plan."

According to Bunich, all the long-term science plans in the world will not avail, unless the "anti-stimuli against scientific and technological progress, acting from below," are removed. He proposed a range of price and other incentives for companies to implement new technologies and, for certain innovations that require huge investments, forms of collective financing for their assistance.

All this, he said, applies to "the evolutionary type of scientific and technological progress." But "there is also the revolutionary type." Bunich suggested that if the steam engine had been subjected to strict cost-accounting criteria, it would never have been built. The same would go for "the beginning of the era of computers, lasers, space rockets." Eventually, "all of these . . . not only become profitable . . . but the most profitable, which confirms the rule that in the final analysis, there is nothing more beneficial than fundamental improvements." In the early phases, insisted Bunich, spending on such technologies must come out of the state budget, or at least the ministerial budget.

In referring to the state budget, Bunich posed the matter as one of setting national priorities. The Academy is already administering several nation-wide programs in industrial technology, one of which is Academician Ye. P. Velikhov's "Laser Equipment and Technology" program, for which shops at the huge ZIL auto plant in Moscow have been co-opted. There, and at a dozen other plants around the U.S.S.R., scientists are practicing the industrial application of directed-energy beam technologies, which are also the heart of anti-missile defense research.