

SIBERIA



World's Biggest Development Project on Earth's Last Frontier

by Marsha Freeman

The Soviet Union is in the midst of developing the earth's last extensive frontier, and is doing it on a scale that dwarfs every other development project in the world. Siberia, a huge region of abundant but barely tapped natural resources, is being transformed into a series of vast energy projects and industrial cities in the same spirit as the conquest of the United States' Western frontier over a century ago — motivated by a commitment to the advancement of theoretical science, its ready application to industry, and the intimately interconnected rapid development of labor power.

In the current international struggle of growth versus zero-growth, the Siberian project's promise of abundant energy supplies has tremendous political significance, as the Soviets themselves recognize. Particularly since the late 1960s, the USSR has extended bilateral and trilateral trade deals focused on energy development to pro-growth industrial factions in Western Europe and Japan as well as to the U.S.

Faced with the prospect of Schlesingerian energy wars against them, even the most recalcitrant European countries are concluding nested trade agreements for energy with especially the Soviets and the Arab nations, an important step toward a full break with the dollar empire.

These unequalled raw materials in Siberia, with its major reserves of iron, steel, non-ferrous metals, and precious and semi-precious minerals, and its potential for vast hydroelectric power generation. Here, with the help of Europe, Japan, the U.S., and the Comecon states, is a prime means to help meet world fossil fuel requirements into the 21st century and the fusion era.

Soviet spokesmen underlined the point in the recent article in the USSR's *International Affairs* journal offering Western Europe the transferable ruble as the way out of the bankrupt Wall Street-International Monetary Fund nexus. The authors of the *International Affairs* piece approvingly quote the assertion of two French economists that "the exploitation of deposits of raw materials and

mathematics in planning, ideas he has worked on since 1939, to the practical test in the planning of Novosibirsk. The most important consideration in massive industrial construction and future production is the quality of labor power available at the outset and the commitment to create, in a culturally backward peasant region, an industrial proletariat capable of implementing the most advanced technologies as they come on line. With this in mind, Novosibirsk and the community attached to it, Akademgorodok (where the Academy itself is located), have been planned and built as cultural centers for the surrounding populations. The city of Novosibirsk, with a population of almost 1.5 million, has over 550 libraries, four museums, an opera house, a concert hall, a university, and several technical high schools, made immediately accessible to towns and villages as much as 200 miles away by the Trans-Siberian Railroad.

The Academy itself is made up of 18 Institutes involving over 50,000 people, including 21 Academicians, 47 Corresponding Members, 3,000 scientists with masters or doctoral degrees, and thousands of engineers, technicians and students. The community has been made into a national science training center that attracts some of the most promising students from all over the country. Every third person in Novosibirsk is a student, and other centers modeled

to orient the region's production and power facilities are continue the finest scientific work in Siberia after construction by crews from the West is completed requires not only that workers from European Russia be attracted to Siberia but that the entire lives of the more primitive peasants native to the east be changed. By mechanizing agriculture and substituting light industry from home crafts, labor will be freed from the towns and villages, to be brought into the exciting enterprise of building the most advanced economy in what was until recently an unconquerable expanse.

The Application of Science to Industry

All of the theoretic research and experimentation done at

Budker, is doing basic research on so-called "plasma physics, controlled thermonuclear energy and elementary particle physics. The first line is to create thermonuclear power will save humanity from a lack of energy."

In the area of particle physics, the scientists began tackling the question of design simpler than the classical pattern for this tool used since its development by Ernest Rutherford in the 1920s and 1930s, in which a high-velocity beam of particles was used to bombard a stationary target. Investigators discovered a new method, where accelerated beams are made to collide with

	1975
OIL (million tons)	491
GAS (billion cubic meters)	289
Hydro and Nuclear (billion kilowatt hours)	1038

mobile target), and after years of experiments produced a particle which produced energy put into it. With this installation the structure of matter in the world was produced; an in studying quantum interactions.

This process greatly reduced the cost of operating accelerators, used initially for the structure of matter, to make possible a

by interconnected rapid development of labor power. In the current international struggle of growth versus zero-growth, the Siberian project's promise of abundant energy supplies has tremendous political significance, as the Soviets themselves recognize. Particularly since the late 1960s, the USSR has extended bilateral and trilateral trade deals focused on energy development to pro-growth industrial nations in Western Europe and Japan as well as to the U.S.

Faced with the prospect of Schlessingerian energy wars against them, even the most recalcitrant European countries are coming to the table. The Soviets and the Arab nations, an important step toward a full break with the dollar empire. Here, with the help of Europe, Japan, the U.S., and the Comecon states, is a prime means to help meet world fossil fuel requirements into the 21st century and the fusion era.

Soviet spokesmen underlined the point in the recent article in the USSR's *International Affairs* journal offering Western Europe the transferable ruble as the way out of the bankrupt Wall Street-International Monetary Fund nexus. The authors of the *International Affairs* piece approvingly quote the assertion of two French economists that "the exploitation of deposits of raw materials and fuel in Siberia will lead to profound changes in relations between the Soviet Union and Western Europe, which will mean the drawing closer and interpenetration of their economies."

The Soviets have thus turned Siberia, a centuries-old symbol of desolation and slave labor and a target of anti-Communist propaganda since the Russian Revolution, into a political weapon for some of the world's most advanced development policies. The potential of that weapon now, when the United States is being devastated by a rigged natural gas shortage, is exemplified by the fact that if the U.S. had aggressively taken the investment opportunities offered by the USSR over the last decade — instead of sabotaging them on the orders of the Rockefeller-dominated Wall Street banks — today independent U.S. oil and gas companies might well be supplying the country with natural gas from Siberia.

The Scientific Pre-Requisite For Development

In the mid-1950s, when the Soviets had largely completed the rebuilding of their economy from the destruction of World War II, they began a major expansion of scientific efforts in space exploration, controlled thermonuclear reactions, advanced industrial processing, and economic planning itself. In 1957 a group of scientists under the leadership of Academician Mikhail Lavrent'ev submitted a proposal to the Soviet government for the establishment of a branch of the Moscow Academy of Sciences in Novosibirsk, Western Siberia. The proposal, passed by the government in May and taken up by the Academy Presidium on June 7, 1957, emphasized the importance of the investigation of scientific problems toward solutions to make the development of productive capacity in Siberia and the Far East successful.

In addition to the already existing Institutes of Chemicals and Metallurgy, Transport and Power, and sub-divisions in East Siberia, Yakutsk, and the Far East, the proposal established the Institutes of Mathematics, Mechanics, Physics, Hydrodynamics, Automation, Geology and Genetics, Economics and Statistics, and a computer center.

Academician Lavrent'ev, Novosibirsk's founder and first settler and the permanent President of the Siberian Branch of the Academy, heads the Institute of Hydrodynamics. He has worked on the theory and practice of cumulative (directed) explosions since the 1940s, contributing substantially to Soviet weapons development during World War II. He has consistently defined the relationship between science and industry by the observation that "modern science cannot develop without a large industrial base."

When the Novosibirsk project was first launched, scientists found that as their theoretical breakthroughs became applicable to industrial processes, the factory workers around Novosibirsk could not immediately absorb the new technology. As a result the scientists themselves were consistently drawn into engineering and technical experimentation and away from basic theoretic research. As the solution, Lavrent'ev drew up a program of experimental pilot plants to test the latest technologies, and industrial research centers to design and produce them. This further division of labor allows scientists to do the basic research which, from Novosibirsk's initial conception, has been the foundation for all of the region's economic development projects, offering unparalleled opportunities for scientific inquiry.

The scientists themselves, given the opportunity to use this vastly rich area as a living laboratory, have taken direct responsibility for planning the economic development of the region. At the Institute of Mathematics for 1960-1971, Academician L.V. Kantorovich has put his ideas on the use of

centers for the surrounding populations. The city of Novosibirsk, with a population of almost 1.5 million, has over 550 libraries, four museums, an opera house, a concert hall, a university, and several technical high schools, made immediately accessible to towns and villages as much as 200 miles away by the Trans-Siberian Railroad.

The Academy itself is made up of 18 Institutes involving over 50,000 people, including 21 Academicians, 47 Corresponding Members, 3,000 scientists with masters or doctoral degrees, and thousands of engineers, technicians and students. The community has been made into a national science training center that attracts some of the most promising students from all over the country. Every third person in Novosibirsk is a student, and other centers modeled

to orient the region's production and power facilities and continue the finest scientific work in Siberia after construction by crews from the West is completed requires not only that workers from European Russia be attracted to Siberia but that the entire lives of the more primitive peasants native to the east be changed. By mechanizing agriculture and substituting light industry from home crafts, labor will be freed from the towns and villages, to be brought into the exciting enterprise of building the most advanced economy in what was until recently an unconquerable expanse.

The Application of Science to Industry

All of the theoretic research and experimentation done at Novosibirsk is viewed in regard to its application to technology, new methods of production, and in general its potential contribution to solving man's most immediate as well as longer-term problems.

One of the most interesting current foci of investigation at Novosibirsk is particle physics and radiation. Played up as dangerous Russian science fiction by the Atlanticist press and "reputable" journals, this work is more accurately described in recent reports according to which the Siberian Institute of Nuclear Physics, headed by Academician Gersh

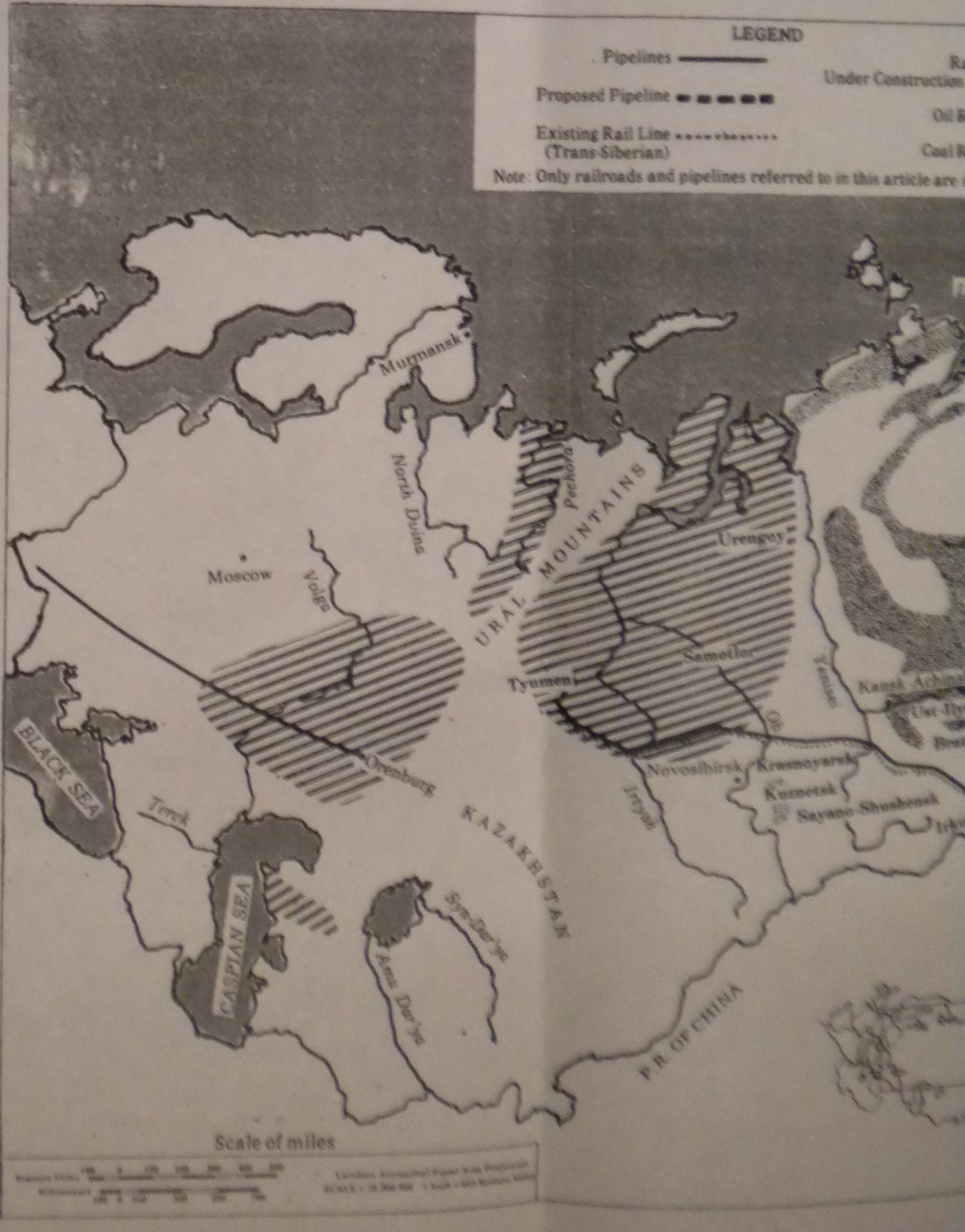
used to bombard a stationary target. The investigators discovered a new method, whereby accelerated beams are made to collide with each other

	1975	1980
OIL (million tons)	491	640
GAS (billion cubic meters)	289	435
Hydro and Nuclear (billion kilowatt hours)	1036	

mobile target), and after years of intensive experiments produced a particle which preserved energy put into it. With this installation the first matter in the world was produced: an invalid studying quantum interactions.

This process greatly reduced the cost of operating accelerators, used initially for research structure of matter, to make possible a range of to industry and agriculture. Accelerators small carry on a truck and able to use conventional sources in factories, hospitals, and other facilities developed as sources of low intensity radiation bacteria and insects harmless, sterilize preparations, cut metals, drill wells in rock, preserve neutralize sewage, and transmit energy over long

Radiation is also being used in another area including some of the agricultural problems in the The Siberian Institute of Cytology and Genetic





Siberia's past and present: one of the region's traditional means of transport juxtaposed to just-arrived construction equipment.

Development Project Last Frontier

ideas he has worked on since 1939, planning of Novosibirsk. The most massive industrial construction of quality of labor power available commitment to create, in a culturally advanced technologies as they an industrial proletariat capable of advanced technologies as they and, Novosibirsk and the commu- ngorodok (where the Academy en planned and built as cultural g populations. The city of Novo- of almost 1.5 million, has over 550 an opera house, a concert hall, a technical high schools, made im- ns and villages as much as 200 berian Railroad.

ade up of 18 Institutes involving ing 21 Academicians, 47 Corres- scientists with masters or doctoral of engineers, technicians and has been made into a national that attracts some of the most all over the country. Every third tudent, and other centers mode-

roduction and power facilities are ific work in Siberia after con- ne West is completed requires not European Russia be attracted to ire lives of the more primitive e changed. By mechanizing agri- light industry from home crafts, e terms

Budker, is doing basic research on such problems as "plasma physics, controlled thermonuclear fusion, and high energy and elementary particle physics. The ultimate goal of the first line is to create thermonuclear power stations which will save humanity from a lack of energy."

In the area of particle physics, the scientists at Novosibirsk began tackling the question of designing an accelerator simpler than the classical pattern for this basic experimental tool used since its development by Ernest Rutherford in the 1920s and 1930s, in which a high-velocity particle beam is used to bombard a stationary target. The Soviet investigators discovered a new method, whereby two accelerated beams are made to collide with each other (i.e., a

	1975	1980	% increase
OIL (million tons)	491	640	30
GAS (billion cubic meters)	289	435	50
Coal (billions tons)	700	800	14
Hydro and Nuclear (billion kilowatt hours)	1038	1380	33

mobile target), and after years of intensive effort experiments produced a particle which preserves all of the

task of developing a breed of wheat that could withstand sudden climactic changes, such as heavy rainfall, hail, or early snow. By studying the effect of radiation on chromosomal development in wheat, they were successful in creating a wheat variety with higher productivity, greater resistance to extreme weather conditions, enriched protein and amino acid content, and high responsiveness to the use of fertilizer. This variety, named Novosibirskaya-67, is in widespread use in Siberia and elsewhere in the USSR, and is now recognized internationally as the standard against which further advances in grain genetics must be measured.

As one of its important tasks, the Academy has had to reconceptualize economic development and industrial production for Siberia's severity of climactic variation. Temperatures there can reach temperate levels of 80 degrees Fahrenheit in the summer, then in Winter plunge to -60°F. Under such conditions conventional construction materials, exploration instruments, and transportation equipment was less than useless. For example, railroad workers had signal equipment failures, and track reinforcements were not durable enough. From the work of Lavrent'ev and others at the Institute of Hydrodynamics came a process of explosion welding which produces metals able to withstand extreme temperatures and greater weights than can conventional types. More recently this explosion welding method has also been used to weld sheets and huge structures of highly complicated configurations, coat equipment with anti-corrosive agents, connect the poles of high-voltage transmission lines, weld pipe of different diameters, compress powdered metals, and obtain multi-layered combinations of different metals. All of these advances are necessary for the exploration and development of Siberian resources — particularly oil and natural gas.

The Development of Siberian Energy

The broad-based project approach to scientific research that has shaped the Novosibirsk experiment is paralleled by the Soviets' strategy for developing Siberia as both a source of energy and a giant industrial complex. Instead of concentrating narrowly on exploiting the region's energy, as the U.S. is doing with, for example, its Alaska Pipeline project, the USSR has undertaken plans to build cities and industry, often completely from scratch, around the power supply and in close proximity to the fuel source. In this way vertically integrated industrial complexes with the highest level of culture and education become organizing centers for an entire area. Instead of a frontier dotted with isolated one-factory towns, the Soviets are building a series of modern cities connected by a network of railroads, regional energy grids, and the constant exchange of scientific ideas.

From the outset this implies an astonishingly large scale of development. For example, Sayany, a comparatively small area on the southern Yenisei River, has been planned to house the Sayano-Shushenskoye hydroelectric station, while around that center timber, iron ore, non-ferrous metals, alumina, coal, asbestos, and phosphate will be exploited. When the project is completed in 15 years the industrial complex, located outside the area's central city of Abakan in Khakass-Minusinsk, will have 120 enterprises, centered around a hydroelectric station that will be the largest in the world. To both service and build the hydroelectric and other power facilities in Siberia, the Sayana complex will include a turbo-generator plant, high-voltage equipment factories, power transformer and cable manufacturing, a foundry, an electrical engineering institute with nine departments, and welding, stamping, and metal works, a highly integrated and complex plan worked out on the basis of the most efficient possible combinations of industries. Here a primary difficulty will be finding workers to fill all the complex's jobs.

What motivates this Soviet effort? As the USSR advances both theoretically and experimentally toward fusion breakeven and then commercial fusion power, it has made the exploitation of the vast fossil and hydroelectric potential of Siberia a national priority. The area east of the Urals, which is more than double the size of the United States, is estimated to have one third of the world's reserves of natural gas, totaling an estimated 15-18 trillion cubic meters. The Soviet Union also has 60 per cent of the world's coal reserves, and is the Yakutsk region and along the

...neers, technicians and men made into a national facts some of the most the country. Every third and other centers mode...

...n and power facilities anfr k in Siberia after cons is completed requires nat n Russia be attracted to s of the more primitive ged. By mechanizing agri- industry from home crafts, and villages, to be brought ilding the most advanced cently an unconquerable

OIL (million tons)	491	640	30
GAS (billion cubic meters)	289	435	50
Hydro and Nuclear (billion kilowatt hours)	1038	1380	33

mobile target), and after years of intensive effort experiments produced a particle which preserves all of the energy put into it. With this installation the first clot of anti-matter in the world was produced; an invaluable tool for studying quantum interactions.

This process greatly reduced the cost of building and operating accelerators, used initially for research on the structure of matter, to make possible a range of applications to industry and agriculture. Accelerators small enough to carry on a truck and able to use conventional electricity sources in factories, hospitals, and other facilities have been developed as sources of low intensity radiation used to render bacteria and insects harmless, sterilize medical preparations, cut metals, drill wells in rock, preserve foodstuffs, neutralize sewage, and transmit energy over long distances.

Radiation is also being used in another area critical to solving some of the agricultural problems in the Soviet Union. The Siberian Institute of Cytology and Genetics set about the

welding, stamping, and metal works, a highly integrated and complex plan worked out on the basis of the most efficient possible combinations of industries. Here a primary difficulty will be finding workers to fill all the complex's jobs.

What motivates this Soviet effort? As the USSR advances both theoretically and experimentally toward fusion breakeven and then commercial fusion power, it has made the exploitation of the vast fossil and hydroelectric potential of Siberia a national priority. The area east of the Urals, which is more than double the size of the United States, is estimated to have one third of the world's reserves of natural gas, totaling an estimated 15-18 trillion cubic meters. The Soviet Union also has 60 per cent of the world's coal reserves, with major deposits in the Yakutsk region and along the Yenisei River. A small part of the latter deposit, the basin at Kansk-Achinsk, is estimated to contain 1.2 trillion tons of coal.

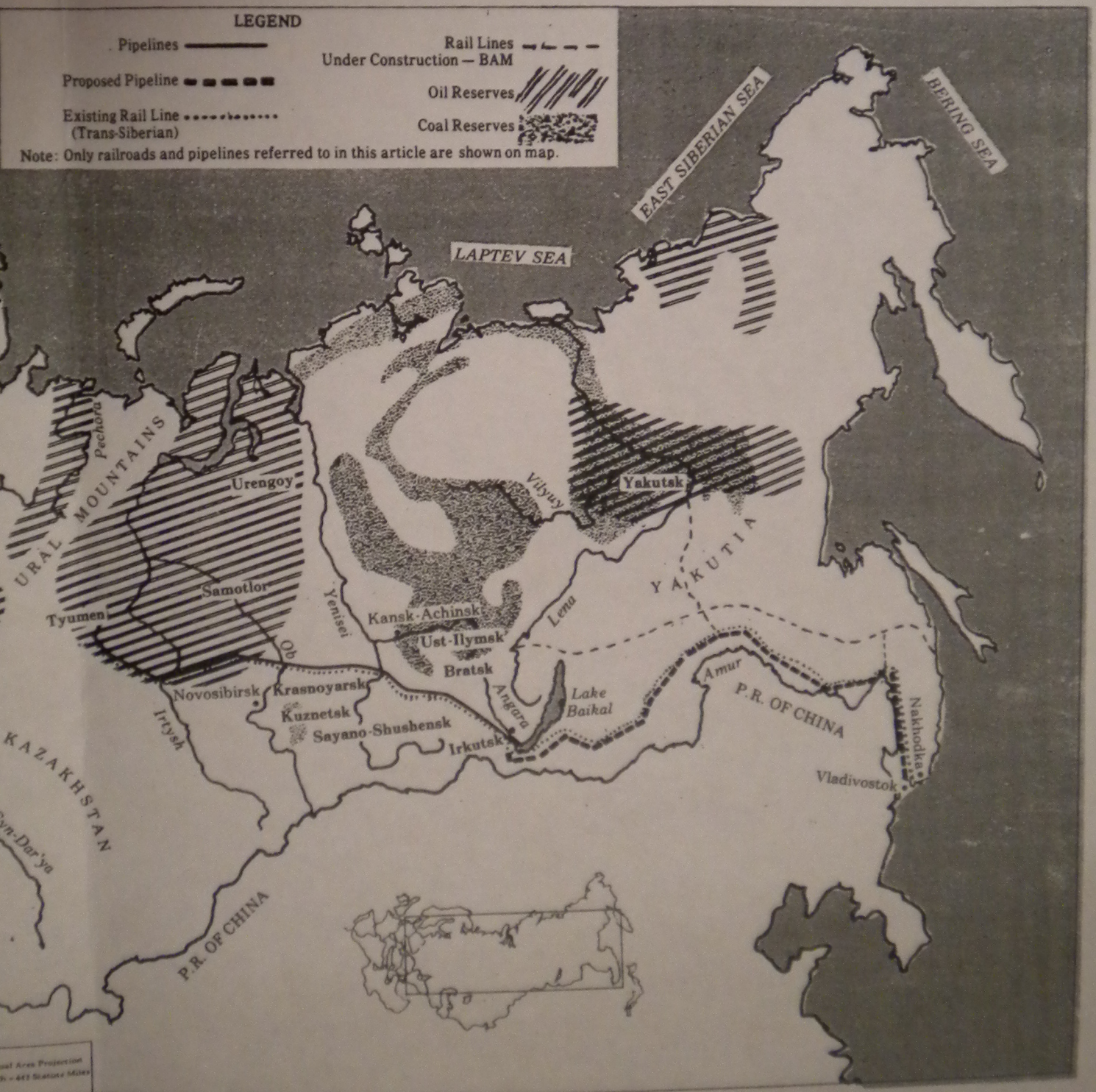
Oil, needed as fuel, feedstock for the petrochemical industries, and energy source for transportation, is being depleted in the western regions, so that all increases in Soviet oil production are only approximately mapped. For this reason figures on actual reserves are difficult to estimate. The bulk of west Siberian output now comes from the giant Samotlor field (part of the vast Tyumen reserves) which has estimated reserves of more than 2 billion tons, or one and a half times those of the Alaskan North Slope.

The USSR's Tenth Five-Year Plan (1976-1980) projects an increase in the production of fossil, nuclear, and

Please turn to Page 5, Col. 1

ence to Industry
...d experimentation done at to its application to tech- tion, and in general its man's most immediate as

...rent foci of investigation at and radiation. Played up as on by the Atlanticist press work is more accurately des- ing to which the Siberian ded by Academician Gersh



Continued from Page 4

hydroelectric energy of from 15 per cent for coal to 50 per cent for natural gas. (see chart) While the U.S. is sent crawling back toward the Ice Age to "save energy," the Soviets have projected that their current per cent per year growth of energy consumption will accelerate as industrialization and new technology spreads east to Siberia and the Far East. Clearly, the rate of energy consumption will also grow in Eastern Europe, putting further demands on Soviet reserves, since Romania is the only energy self-sufficient Comecon country.

The extraordinary speed projected for Siberian development, however, will also be a function of international cooperation in trade deals for the technology and heavy equipment that the Soviets need. The Soviets have made the financial commitment to industrialize Siberia — almost 20 per cent of the capital expenditures budget for the current Five-Year Plan — and will meet the goals they have set, even if they are forced to rely solely on internal and Comecon resources. The question of how much of Siberian production will be available for export to the advanced capitalist countries therefore largely depends on the willingness of those countries to take part in this development program.

The Necessary Infrastructure

The precondition for any development of Siberia is a system of links to supplies of construction materials, labor, and equipment in the already industrialized western part of the country. The Soviets have been upgrading and expanding Siberian transport to ready the area for massive industrial development.

The building of the Trans-Siberian Railroad in the early 20th century prepared the basis for the eastward move of civilization. Today rail remains the only efficient way of moving people, raw materials, and machinery over thousands of miles. Over 6,000 miles long, the Trans-Siberian line links the city of Vladivostok with European Russia (see map) and is for Siberia, where 80 per cent of all transport is by rail, the life-line. The entire line has been double-tracked and now is being electrified to allow greater efficiency and much higher capacity. Currently the major construction project in Siberia is the building of the Baikal-Amur Railroad, the BAM. This second Siberian line will be 2,000 miles long, will require the construction of 150 large bridges across rivers, and 16 miles of tunnels, and will pass through permafrost, mountains, and areas subject to earthquakes. Working on the BAM are over 80,000 people, who are now living in the towns and cities springing up around the line. A branch line will link the BAM with the Trans-Siberian line, connecting the cities to the north that will develop around the Yakutsk reserves to the rest of the country and to export points to Japan and Asia.

Once the basic infrastructure of transportation is in place, the availability of cheap electricity is the determining factor in both industrial production and permanent settling of population. The Soviet Union has 40 per cent of the world's fresh water resources, and Siberia has a series of rivers with very fast water flow. These rivers are in the process of being harnessed for massive power generation, around which the industrial complexes will flourish. The current Five-Year Plan will concentrate on completing a series of hydroelectric plants centered along the Yenisei River and its major tributary, the Angara River. The potential for hydroelectric power generation on these two rivers alone is estimated at 50 million kilowatts, or 300 billion kilowatt hours. Three stations on the Angara-Yenisei cascade are already operating at full capacity, at Irkutsk, Bratsk, and Krasnoyarsk.

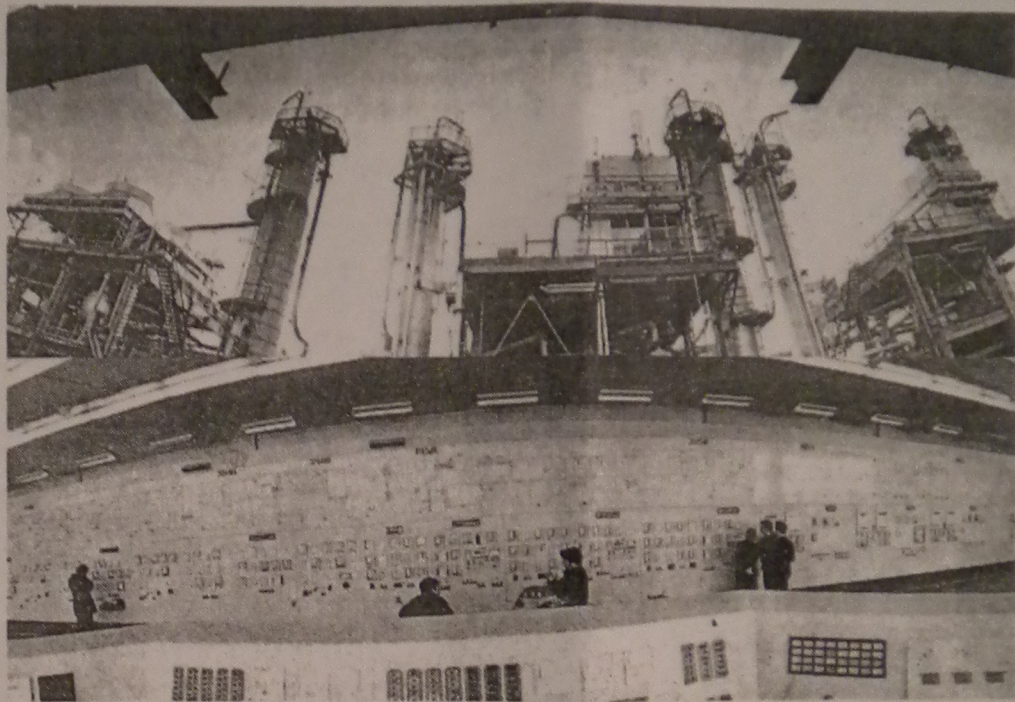
In addition the rivers in Siberia and in the north more generally are under study as possible sources for additional water both for irrigation in western Russia and to sup-

plement the flow of the rivers in European Russia and Central Asia which are at present unable to support increasing irrigation, hydroelectric generation, and water for industry. A plan is under study to divert water from the Irtysh and Ob Rivers in western Siberia through 1,200 miles of canals to the cotton-producing region in Central Asia. This would irrigate approximately four million hectares of land for cotton and sheep farming.

A second plan which requires extensive examination is to divert the northern rivers that empty into the Arctic Ocean. Two under consideration are the Pechora and the Northern Dvina. This diversion would bring additional water to the already cultivated and industrialized European southwest. Scientists are not satisfied that they have answered all of the questions about the effects of diverting these rivers into the Volga and down into the southern USSR, where the Terek and other rivers can no longer support the area. The effect on ice formation of lowering the northern rivers is one important

delivering gas from Siberia. In the early 1970s negotiations began between the Soviets and a consortium of U.S. companies, including Tenneco, Texas Eastern, and Brown and Root, on the North Star Project. The project involved U.S. participation in extraction, liquefaction, and export of liquid natural gas (LNG) from the Urengoy field. It called for \$3 billion in credits from the U.S. in cash to purchase American-made transmission equipment (including compressors and 1,500 miles of pipeline) capable of withstanding temperatures down to -130 degrees Fahrenheit and construction of liquefaction and export facilities. The port city of Murmansk. The LNG was to be transported to the East Coast in a fleet of 20 specialized LNG tankers. The project by the U.S. companies at an additional cost of \$1 billion. The USSR would have supplied gas delivered to the U.S. repaying the credits by using the \$2.6 billion to buy U.S. goods.

Half of the \$3 billion credit was to come



consideration. Thorough study is going on, with the hope that decisions can be made during the current Five-Year Plan so that work can begin in the 1980s.

The Challenge to the West

While the Soviets have planned to lay the necessary transport and electricity base for massive raw materials extraction and raw materials production by the 1980s, they have also encouraged international development of the region's coal, oil, and natural gas reserves through barter deals exchanging technology and equipment for future deliveries of raw materials. The recent Italian proposal for a gold-based, East-West European Bank, in the context of a historic \$7 billion Italy-USSR trade deal, points to the additional possibilities of generating longer-term credit to involve the Soviet Union and Europe in triangular deals with the Third World. Recent Soviet agreements to deliver 5 million tons of oil to India are indicative of the need and potential for such multilateral cooperation.

One striking irony of the current U.S. natural gas "shortage" is that the same Rockefeller multinationals and lower Manhattan banks who are now threatening to shut down the U.S. economy could have had their hegemony seriously threatened by independent U.S. companies

U.S. Export-Import Bank, with the remainder raised from private financial sources but guaranteed by the Ex-Im Bank. At the end of 1974 Senator Hugh Downs, Rep. Charles Vanik tacked an amendment on the Energy Act of 1974 to prevent the U.S. from granting "most-favored-nation" status. This move, one of the successes of the Rockefeller campaign to limit trade, has successfully prevented the Ex-Im Bank from either extending credit (at a lower interest rate than commercial banks) or guaranteeing commercial bank loans for Soviet trade. As a result most of the trade deals have been stalled or abandoned, and the North Star Project remains only a potential. Now France has been asked to join in the project, raising the possibility that the U.S. will lose this opportunity to their more European competitors.

This U.S. sabotage has also been partially responsible for hobbling the Japan-Soviet project for importing Tyumen reserves, south of the Urengoy field. The U.S. companies, Exxon, and Occidental Petroleum were the main negotiators. The already existing oil pipeline to Irkutsk (3,400 kilometers) was to have been replaced by a new pipeline from Irkutsk to the port at Nak

New York Banks Push Egypt to Brink

Continued from Page 1

has already begun. A nationwide television address by Sadat to the Egyptian people, scheduled for Jan. 27, was suddenly postponed after days of wide publicity, as the Sadat regime wavered in indecision. According to the Baltimore Sun, the Egyptian press and population are clamoring for Sadat to come up with a program of action to rally the country in its crisis, but only silence — and a foolish anti-communist

in Pravda as an agent of the American CIA and the coordinator of Nasser propaganda in the country, both ousted Jan. 27.

The main source of internal pressure on Sadat comes from the Egyptian military, which is heavily influenced by pro-Nasser sentiment, and resents Sadat's 1972 decision to break with the Soviet Union, which resulted in a cutoff of arms supplies to Egypt. According to a former State Department official, the Egyptian general staff is deeply

that the correct reforms are those advocated by the IMF and disciples of strict economic orthodoxy," and called for a program of capital investment in Egypt.

The oil states, particularly Saudi Arabia, have little choice but to support Egypt with or without conditions.

In addition, there still remains Egypt's option for closer relations with the Soviets before declaring a debt moratorium, although Sadat's anti-Soviet pronouncements will not help



New York Banks Push Egypt to Brink

Continued from Page 1

has already begun. A nationwide television address by Sadat to the Egyptian people, scheduled for Jan. 27, was suddenly postponed after days of wide publicity, as the Sadat regime wavered in indecision. According to the Baltimore Sun, the Egyptian press and population are clamoring for Sadat to come up with a program of action to rally the country in its crisis, but only silence — and a foolish anti-communist campaign — has come from the presidential palace in Cairo.

The desperate Sadat is meeting round-the-clock with his top advisers, amid growing rumors that he intends to dismiss Prime Minister Mamdouh Salem as a scapegoat for the crisis. Salem, a former interior minister who was chief of police for twenty years in rough-and-tumble Alexandria, is the No. 1 enforcer of Sadat's austerity program and discredited Open Door policy.

So far, Sadat has come up with nothing. "The President feels that some radical solution must be found, but no one has been able to work one out with all the ramifications," a cabinet minister said. The only official victims of last week's mass strike were the top two officials of the centrist faction of the Arab Socialist Union, the pro-Sadat political formation, Mohamed Abu Wafia, Sadat's brother-in-law; and Amin Hafez, who was named last week

in Pravda as an agent of the American CIA and the coordinator of Nasser propaganda in the country, both ousted Jan. 27.

The main source of internal pressure on Sadat comes from the Egyptian military, which is heavily influenced by pro-Nasser sentiment, and resents Sadat's 1972 decision to break with the Soviet Union, which resulted in a cutoff of arms supplies to Egypt. According to a former State Department official, the Egyptian general staff is deeply divided over the government's policy of following the IMF's orders. The former officer did not rule out the possibility of an ultimatum to Sadat to oust the IMF and end the Open Door fiasco.

Also standing against the IMF is a coalition of political forces which includes the powerful underground Egyptian Communist Party, the left-wing National Progressive Union of the ASU led by Khalid Mohieddine, and the pro-Nasser bulk of the ASU centrist faction, including the bureaucracy of the state-owned industrial sector. Mohieddine, in an interview Jan. 27 with the London Times, said, "The present regime is in need of a radical change. If President Sadat does not take a lesson from the events of Jan. 18 and 19, it will be very bad for the future of Egypt."

"We should stop trying to liberalize the economy," stated Mohieddine. "The role of the state has got to increase, not diminish." Under the Open Door policy, as administered by Rockefeller's banks, Sadat has moved to dismantle the state industrial sector, the pride of the Nasser era.

There are also indications that the population of Egypt is well armed. According to the Lebanese magazine Events, the police and security forces have completely lost their authority in the populous Egyptian countryside, where tens of thousands of army deserters have fled with their weapons. In one tiny delta village of Qenna, an army raid rounded up more than 1,200 long-range machine guns, and throughout the villages along the Nile the peasants are reportedly better armed than the police. The next explosion, should Sadat not refrain from further austerity measures, will therefore probably dwarf last week's strikes and demonstrations.

Soviets, British Blast IMF

Indicating the kind of broad international support which a pro-development Egyptian government could expect to receive, both the Soviet Union's Pravda and the London Financial Times blasted the IMF directly for its brinkmanship role in demanding payment in full on Egypt's debt.

In the Jan. 26 Pravda, Moscow targeted the IMF by name as the party responsible for Egypt's crisis. The IMF, said Pravda, is making demands which "are unacceptable to Egypt in the present period, above all for political reasons." The Jan. 28 Financial Times warned Egypt's creditors, especially the oil sheikhs, that they "may be wrong in thinking

that the correct reforms are those advocated by the IMF and disciples of strict economic orthodoxy," and called for a program of capital investment in Egypt.

The oil states, particularly Saudi Arabia, have little choice but to support Egypt with or without conditions.

In addition, there still remains Egypt's option for closer relations with the Soviets before declaring a debt moratorium, although Sadat's anti-Soviet pronouncements will not help that process along. A Soviet trade delegation is in Cairo this week for talks on, among other things, the rescheduling of Cairo's debt to the USSR. And Yugoslav President Tito, who is now expected to visit Egypt in mid-February, is reportedly mediating between Egypt and the USSR on economic and political matters, including the resumption of the Geneva conference.



REP L. M.

China Faction Fight In Limbo; Science Campaign Is Opened

Continued from Page 8

from practice to theory," and "denied that theory guides practice." It concluded, "We must... train for the Party and the people large numbers of science workers who are both red and expert and strive to raise our basic theoretical level of natural sciences."

The Jan. 20 article focused especially on the importance of work in high energy physics, saying "such researches are of vital importance to science and technology and to catching up with and surpassing advanced world levels."

Ban Maoist Monotony

The People's Daily of Jan. 21 devoted its front page to letters from disgruntled leaders venting their anger at the Party press in recent years. One factory worker lambasted an article about his factory as full of errors, and called for the paper to "pay attention to the accuracy of your reports and to make factual errors in future." Another letter called for news items and for more simple, straightforward writing. An editor's note confessed that up to now, the press has been abominable. The editor promised to eliminate the "stereotyped" style used heretofore, and blamed the Maoist "gang of four" for their "smelling, lengthy and monotonous" articles.

LaRouche Ctte. to Begin

Continued from Page 1

"spot checks" of CTEL contributors, a second FEC audit of CTEL books, and FEC perusal of the books of Campaigner Publications, the U.S. Labor Party, and the National Caucus of Labor Committees, all CTEL creditors, to be obtained for the Commission by CTEL. Since CTEL's accounts were thoroughly audited by the FEC in Nov. 1976, a second audit has been refused. The LaRouche Committee has also informed the FEC that it does not have access to the records of its creditors.

FEC spot checks of CTEL supporters, however, began on Jan. 26 in Wisconsin, Massachusetts and Delaware, and have proceeded in flagrant violation of the Commission's standard operating procedures. Typical of the checks was an unannounced 7:45 a.m. visit by thug-like FEC agents to the home of former Delaware USLP gubernatorial candidate Leroy Jones. Agent Keith Vance and an unidentified sidekick demanded for two hours that Jones and his wife produce check stubs to verify their contribution to CTEL, interrogated Jones on whether he received a stipend

from the Labor Party, and threatened the organizer with a year prison term and a \$10,000 fine.

At 11:00 a.m. the same agents badgered a student Labor Party member in Delaware with questions designed to elicit information on felony frameups against USLP leader "Who is the Delaware USLP man?" they demanded. "When do you give you money to make a contribution to CTEL?"

Investigative reporters have been made available to the U.S. Labor Party, fruits of interviews with officials of Internal Revenue Service, the Public Integrity Section of the Justice Department, and the FEC itself which specify the nature of this multi-agency conspiracy against the USLP and CTEL. According to an official at the Internal Revenue Service, the FEC harassment of CTEL is in the proper purview of the Commission and the General Accounting Office, the notorious Wall Street controlled political watergating of the U.S. Congress. FEC representative Susan Tift informed a reporter

the Campaigner

The Renaissance
and the
Idea of Progress

January-February
Issue 1977

Order from:

Campaigner Publications Inc.,

\$2.50

P.O. Box 1972 New York, N.Y. 10001

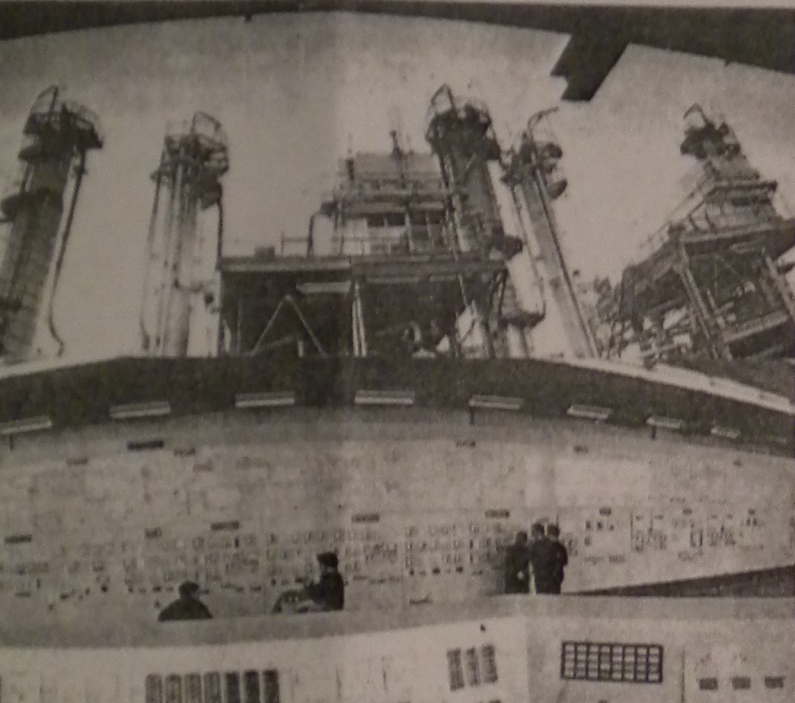


...rivers in European Russia and
...at present unable to support in-
...electric generation, and water for
...study to divert water from the Ir-
...Siberia through 1,200 miles of
...ducing region in Central Asia. This
...ately four million hectares of land
...ing.

...quires extensive examination is to
...s that empty into the Arctic Ocean.
...are the Pechora and the Northern
...ould bring additional water to the
...industrialized European southwest.
...d that they have answered all of the
...ts of diverting these rivers into the
...outhern USSR, where the Terek and
...support the area. The effect on ice
...e northern rivers is one important

delivering gas from Siberia. In the early 1970s, negotiations began between the Soviets and a consortium of American companies, including Tenneco, Texas Eastern Transmission, and Brown and Root, on the North Star Project. The project involved U.S. participation in extraction, liquefaction, and export of liquid natural gas (LNG) from the northern Urengoy field. It called for \$3 billion in credit and \$700 million in cash to purchase American-made transmission equipment (including compressors and 1,500 miles of 48-inch steel pipe capable of withstanding temperatures of -60 degrees Fahrenheit and construction of liquefaction plant near the port city of Murmansk. The LNG was to be shipped to U.S. East Coast in a fleet of 20 specialized LNG tankers supplied by the U.S. companies at an additional cost of \$10.8 billion. The USSR would have supplied gas deliveries for 25 years, repaying the credits by using the \$2.6 billion from the sale of the gas to buy U.S. goods.

Half of the \$3 billion credit was to come directly from the



Siberia's future: the control room of the natural gas processing plant at Orenburg, where the Comecon-wide pipeline project originates.

...study is going on, with the hope that
...during the current Five-Year Plan so
...the 1980s.

Challenge to the West

...ave planned to lay the necessary
...y base for massive raw materials
...erials production by the 1980s, they
...international development of the
...natural gas reserves through barter
...nology and equipment for future
...als. The recent Italian proposal for a
...European Bank, in the context of a
...USSR trade deal, points to the ad-
...of generating longer-term credit to
...and Europe in triangular deals with
...ent Soviet agreements to deliver 5
...dia are indicative of the need and
...ateral cooperation.

...of the current U.S. natural gas
...ame Rockefeller multinationals and
...s who are now threatening to shut
...y could have had their hegemony
...by independent U.S. companies

U.S. Export-Import Bank, with the remaining \$1.5 billion raised from private financial sources but guaranteed by the Ex-Im Bank. At the end of 1974 Senator Henry Jackson and Rep. Charles Vanik tacked an amendment onto the Trade Act of 1974 to prevent the U.S. from granting the Soviet Union "most-favored-nation" status. This move, one of the greatest successes of the Rockefeller campaign to throttle East-West trade, has successfully prevented the Ex-Im Bank from either extending credit (at a lower interest rate than commercial banks) or guaranteeing commercial credit for U.S.-Soviet trade. As a result most of the trade negotiations have been stalled or abandoned, and the North Star Project remains only a potential. Now France has begun negotiations to join in the project, raising the possibility that U.S. firms will lose this opportunity to their more politically astute European competitors.

This U.S. sabotage has also been partially successful in hobbling the Japan-Soviet project for importing oil from the Tyumen reserves, south of the Urengoy field, since Gulf Oil, Exxon, and Occidental Petroleum were involved in the negotiations. The already existing oil pipeline from Tyumen to Irkutsk (3,400 kilometers) was to have been linked up to a new pipeline from Irkutsk to the port at Nakhodka, where the

Japanese are already making considerable improvements. The projected \$1 billion in loans for the 4,300 kilometer pipeline would have been repaid through 25-40 million tons of Soviet oil delivered annually for 20 years. The stalling of American participation has left the Soviets and Japanese to carry the full cost of the project, pushing back the entire time table.

Therefore, the most serious international programs for the development of the Tyumen deposits of gas and oil are those where the United States has not been significantly involved. In 1975 Canada opened up a \$500 million credit line to the USSR, plus a \$20 million credit for joint research and development. Second, all of the Comecon countries outside of energy-sufficient Rumania are building a part of a pipeline from the city of Orenburg to the western-most border of the Soviet Union, where it will connect to new and already existing pipeline. Each country is responsible for building a section of the pipeline and will be repaid in natural gas deliveries.

Third, in 1974 the Italians signed a technology-for-gas deal with the Soviets and in 1975 began receiving deliveries. At the beginning of this year Italy's state-owned oil company, ENI, increased its gas and oil imports from the Soviet Union, now totaling 50 per cent of Italy's import needs, upping gas deliveries from 7 to 10 billion cubic meters. In addition, the Italian steel company Finsider signed a contract in August 1976 to deliver 2.5 million tons of steel pipe over five year for \$500 million and to purchase \$100 million in gas and raw materials.

The other major Siberian reserves in the far eastern Yakutsk region are successfully being developed with the Japanese. Siberia will be supplying Japan with 10 per cent of its coking coal by 1983 when the Yakutsk fields begin production. This area, which has the least developed infrastructure in the country, is being jointly developed with the Japanese. They are supplying equipment for the construction of the BAM, which will transport the Yakutsk coal to the Sea of Japan and are modernizing the port at Nakhodka and outfitting it to handle containerized freight. Japan has also invested jointly with two U.S. firms for exploration of natural gas in the Yakutsk region. El Paso Natural Gas and Occidental Petroleum are supposed to be sharing with Japan the \$120-150 million cost of prospecting which began in 1974. This effort has, predictably, been stalled on the U.S. side, but is being taken seriously by the Japanese. In addition, there have been \$3.5 billion in loans for pipeline to the Pacific ports and a liquefaction facility. Yakutsk could supply the U.S. and Japan together with 10 billion cubic meters of gas annually over 20 years if U.S. sabotage does not delay production.

In August 1957, shortly after the Soviet government's decision to go ahead with the Siberian development program, the Chairman of the Academy's Committee on the Study of Productive Forces, Nikolai Nekrasov, wrote, "Imagine we were flying over Siberia 50 years from now. There would be a string of hydroelectric power stations on the Angara, and cities along their reservoirs, and an industry belt there... mainly aluminum, magnesium processing plants, electrometallurgy, and chemical-fertilizer plants. This would be based not only on hydro-electric power but also the coal of Tinguska basin. There would be steam power plants in Krasnoyarsk, diamond mines in Yakutsk; Yakutsk on the Lena an oil area; coal in South Yakutsk. The Amur would be dammed, providing power for both Russia and China..."

This is the challenge of developing the last frontier -- a challenge for the whole world. The Soviet Union could be exporting half the world's current oil and natural gas, 300,000 tons of copper a year, most of the industrial diamonds (they are currently mining more than South Africa) and comparable quantities of many other important raw materials.

...pt to Brink

...at the correct reforms are those
...voked by the IMF and disciples of
...rict economic orthodoxy," and called
...r a program of capital investment in
...gypt.

...The oil states, particularly Saudi
...rabia, have little choice but to support
...gypt with or without conditions.

...In addition, there still remains
...gypt's option for closer relations with
...the Soviets before declaring a debt
...coratorium, although Sadat's atti-



Carter Orders Red Scare To Break Pro-Growth Foes

Continued from Page 1

...firmation hearings for Carter's
...Trilateral appointees, and similarly
...defending the Institute for Policy
...Studies and its affiliated Transnational
...Institute from documented USIP
...charges of operating the Trilateral
...Commission's international terrorist

ot to Brink

the correct reforms are those
ated by the IMF and disciples of
economic orthodoxy," and called
program of capital investment in

oil states, particularly Saudi
a, have little choice but to support
with or without conditions.

addition, there still remains
s option for closer relations with
oviets before declaring a debt
orrium, although Sadat's anti-
pronouncements will not help
process along. A Soviet trade
tion is in Cairo this week for talks
among other things, the
duling of Cairo's debt to the

And Yugoslav President Tito,
now expected to visit Egypt in
February, is reportedly mediating
n Egypt and the USSR on
nic and political matters, in-
g the resumption of the Geneva
ence.



REP L. McDONALD

Carter Orders Red Scare To Break Pro-Growth Foes

Continued from Page 1
firmation hearings for Carter's
Trilateral appointees, and similarly
defending the Institute for Policy
Studies and its affiliated Transnational
Institute from documented USLP
charges of operating the Trilateral
Commission's international terrorist
networks. The Labor Party he claimed,
had merely used the Senate testimony
to spread propaganda, while its ex-
posure of the IPS terrorists was con-
fusing the issue.

McDonald warned conservatives not
to be "fooled" by the USLP's attacks on
such Fabian organizations, and that the
Labor Party has contacts with all of the
socialist nations of Eastern Europe,
particularly the German Democratic
Republic. The USLP never criticizes
the Soviet Union and "boasts" of its ties
with Iraq and Libya, he said.

In his call for reviving the HISC to
probe the USLP for violent and sub-
versive activities, McDonald issued a
veiled warning to "irresponsible and
pseudo-conservative groups with ties to
the Libyans and other Arab govern-
ments" that they themselves might be
targets of the probe if they do not cease
collaboration with the USLP.

Who Is McDonald

Plumber McDonald is no newcomer
to dirty tricks. He has functioned in the
past and is functioning now as a
Trilateral-Carter operative. As a
matter of fact, McDonald has direct
ties to "left-right" terrorists run
through the network of Interpol and the
Institute for Policy Studies.

Exemplary of the type of operations
run by McDonald, along with
Rockefeller Republicans William
Buckley and Richard Viguerie, are the
activities of two political intelligence
operatives on McDonald's
congressional staff — John and Sheila
Rees. Sheila, an officer of the "left"
National Lawyers Guild, was a "for-
mer" member of the Institute for
Policy Studies. While setting up
terrorist operations such as John Rees'
creation of black racist Imamu Baraka
in Newark, N.J., using money from the
Prudential Life Insurance Company,
the Rees' covered for their operation by
issuing Information Digest, an "in-
telligence" newsletter on the left that
circulated among the right wing and
LEAA police departments.

Like Viguerie, McDonald worked to
obstruct Republican action against last
fall's massive Carter vote fraud. He is
tied in to the reconstructed Nazi net-
works built up by the Rockefeller
family after World War II, through his
association with the international
operations controlled in part by the
William Buckley family (Buckley's
National Review magazine, through no
coincidence, last week carried a
warning to conservatives not to work
with the USLP parallel to the McDonald
diatribe.)

Rouche Ctte. to Begin Carter W'gate

Continued from Page 1
checks" of CTCL contributors, a
FEC audit of CTCL books, and
seizure of the books of Cam-
er Publications, the U.S. Labor
and the National Caucus of
Committees, all CTCL creditors,
obtained for the Commission by
Since CTCL's accounts were
ly audited by the FEC in Nov.
second audit has been refused.
Rouche Committee has also
d the FEC that it does not have
to the records of its creditors.

spot checks of CTCL supporters,
r, began on Jan. 26 in Wisconsin,
achusetts and Delaware, and have
d in flagrant violation of the
sion's standard operating
res. Typical of the checks was
nounced 7:45 a.m. visit by thug-
C agents to the home of former
e USLP gubernatorial can-
eroy Jones. Agent Keith Vance
identified sidekick demanded
hours that Jones and his wife
check stubs to verify their
tion to CTCL, interrogated
whether he received a stipend

from the Labor Party, and finally
threatened the organizer with a one-
year prison term and a \$10,000 fine.

At 11:00 a.m. the same agents
badgered a student Labor Party mem-
ber in Delaware with questions
designed to elicit information for
felony frameups against USLP leaders.
"Who is the Delaware USLP chair-
man?" they demanded. "When did he
give you money to make a contribution
to CTCL?"

Investigative reporters have made
available to the U.S. Labor Party the
fruits of interviews with officials of the
Internal Revenue Service, the Public
Integrity Section of the Justice Depart-
ment, and the FEC itself which spell out
the nature of this multi-agency conspi-
racy against the USLP and CTCL.
According to an official at the Internal
Revenue Service, the FEC harassment
of CTCL is in the proper purview of the
Commission and the General Account-
ing Office, the notorious Wall Street-
controlled political watergating arm of
the U.S. Congress. FEC representative
Susan Tift informed a reporter late

this week that such investigations
generally involve "inter-agency
cooperation... you know, you help us,
we'll help you."

U.S. Labor Party Capitol Hill orga-
nizing to cut short this terror campaign
has opened the door to Carter's Water-
gate. The Senate Rules Committee
and the House Administrative Commit-
tee, both which directly oversee FEC
functioning, have requested full reports
of the Commission's illegal activities. A
formal investigation of the FEC has
been mooted from these quarters, while
the U.S. Labor Party's "Scandal of the
FEC" fact sheet detailing the Commis-
sion bid to extend its powers of financial
review to the office budgets of indivi-
dual senators and representatives has
met an enthusiastic reception in other
congressional circles. News outlets in
Washington, D.C. are clamoring for the
details of the USLP's anti-vote fraud
actions in New York and Ohio, and
formal criminal complaints against the
FEC's so-called auditors have been
filed with police departments and U.S.
attorneys in three states.

Campaigner

the Renaissance
and the
of Progress

January-February
Issue 1977
\$2.50

er Publications Inc.,
1972 New York, N.Y. 10001

