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No. 3, March 1984

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27 June 1984

USSR REPORT

USA: ECONOMICS, POLITICS, IDEOLOGY

No. 3, March 1984

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NO REAL CHANGE SEEN IN AGGRESSIVE REAGAN LATIN AMERICAN POLICY

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 3, Mar 84 (signed to press 24 Feb 84) pp 3-8

[Article by Yu. V. Romantsov: "Tough Policy in 'Soft Packing'"]

[Text] The current Washington administration marked the arrival of the new year of 1984 in various ways, including a series of assurances that its foreign policy would no longer presuppose tough rhetoric. In a speech dealing specifically with Soviet-American relations, President Reagan refrained from making his now customary references to the "evil empire" when he spoke of the Soviet Union. As people on both sides of the Atlantic have noted, however, this does not mean any change in the essence of U.S. confrontation policy toward the socialist community, but merely a tactical, and most probably temporary, change in the White House's tone, dictated by transitory considerations. The NEW YORK TIMES reported that Reagan had taken the advice to "sing his anti-Soviet song a little less loudly."

People in the American capital are also toning down their statements about Central America and the Caribbean basin. They have made lulling speeches to underscore Washington's interest in "peaceful" solutions. The President himself declared in one of his January radio broadcasts that the purpose of his comprehensive plan for the attainment of U.S. goals in Central America is to bring "democracy, peace and prosperity" to this region. The conclusions and recommendations of the bipartisan commission on Central America, headed by H. Kissinger, which lay at the basis of this plan, were ceremoniously presented to the public. The President's special representative to Central America, R. Stone, resumed the practice of flying to Nicaragua and neighboring countries at the beginning of the year.

In reality, however, the soft packing is tough: The adventuristic, neocolonial and aggressive essence of U.S. policy toward its southern neighbors is still the same, and is even getting tougher.

During an exchange of views on the situation in Central America at the time of the talks in Moscow between General Secretary of the CPSU Central Committee K. U. Chernenko and Coordinator of the Junta of the Nicaraguan Government of National Reconstruction D. Ortega, a member of the national leadership of the Sandinist National Liberation Front, "Washington's attempts to escalate tension,

intervene in the internal affairs of the countries of this region and impose its own practices on them were resolutely condemned by both sides. The need for a just political settlement, based on respect for the right of each people to determine their own fate, was underscored."

The undeclared war against Nicaragua, which is being waged with the approval and support of Washington officials by CIA-trained and CIA-armed counterrevolutionaries and the Honduran military establishment, is still raging in the region. With their continuous raids on border regions, acts of sabotage and brutal treatment of civilians, they are striving to undermine the nation's economy, demoralize the population and debilitate the republic. Dozens of new raids have already been reported this year.

As soon as the joint American-Honduran "Big Pine-2" combat maneuvers had come to an end after being conducted on the approaches to Nicaragua for half a year, a new series of maneuvers, codenamed "Grenadero-1" and "Big Pine-3," was announced. Furthermore, the armed forces of El Salvador and Guatemala have been recruited to participate in the latter, and the number of participants will be a figure unprecedented in Central America--20,000 military personnel.

There have been clear indications that the American military command in Honduras is organizing and coordinating the counterrevolutionary raids. For example, when a special commission investigated an incident involving an American military helicopter which violated the republic's air space on 11 January and was shot down by Sandinist armed forces, it was learned that the violator was reconnoitering the border theater of combat and was simultaneously relaying communications between rebel Somozist groups in Nicaragua and the Honduran military establishment. The American helicopter's hostile mission shed additional light on the criminal "Sierra" plan, which was drawn up by the CIA in conjunction with the Honduran military command and had been reported to the Nicaraguan leadership. It envisaged the seizure of Jalapa, followed by the isolation of part of the Nicaraguan coastline near the Gulf of Fonseca and an amphibious landing in several coastal cities, including Potosi. The purpose of this operation consisted in the declaration of a "provisional government" in the occupied territory, which would then appeal for help from "friendly" countries--that is, from Latin American dictatorships and the United States, giving the latter a pretext to launch aggressive actions on a "legal basis." As Senator E. Kennedy announced, "American officials are now acknowledging what the counterrevolutionaries have always said, namely that their real aim is the overthrow of the Nicaraguan government."

According to American officials, conditions in El Salvador and Guatemala, Nicaragua's neighbors, are supposedly favorable for the onset of Reagan's promised "democracy, peace and prosperity." This optimistic allegation stems from the announcement of upcoming "elections" in the two countries, in accordance with an agreement between Washington and the military establishments in power there.

In reference to El Salvador, a State Department report says that its history since 1979 "is essentially a history of attempts to build a democracy." This precise period, however, has been marked by an unprecedented outburst of

official terror: According to UN statistics, 2,823 people in the country were executed for political reasons without a trial or an investigation in just the first 6 months of 1983. The hypocrisy of the "election" plans in El Salvador is completely revealed by the presidential candidacy of R. D'Aubuisson, the secret leader of the "death squads" that have been so merciless in their treatment of workers, peasants and anyone with progressive opinions. Obviously, the multileveled "electoral process" in Guatemala is also designed to serve reactionary latifundists and pro-American groups.

In fact, Washington needed this kind of false "democratization" of these pro-American regimes to justify the continued growth of the economic and military benefits that are doled out to them in the hope of completely extinguishing the flames of the national liberation movement. In El Salvador, for example, detachments of the Farabundo Marti Front for National Liberation recently won a series of important victories over the regime's troops and, according to the calculations of American specialists, took over a third of the country as a result of several operations.

The United States is counteracting this with military undertakings, including increased deliveries of military equipment and weapons. In the current fiscal year alone, the Reagan Administration intends to quadruple military aid to El Salvador, raising the figure to 250 million dollars, and to reinforce this with around 200 million dollars in economic aid. The sum of 350 million dollars for military shipments to El Salvador has already been projected in the budget for the next fiscal year.

In addition to this, the United States is still building up its military presence in Honduras. Recently the head of the Honduran military establishment, General Alvarez, announced the decision to establish a joint American-Honduran military base near Puerto Castilla. The construction of this base will cost the United States 160 million dollars. This will actually secure the permanent presence in Honduras of the American armed forces sent there to engage in the series of "Big Pine" maneuvers.

In other words, U.S. ruling circles are stubbornly hanging on to a long-bankrupt Central American policy based on the military resolution of problems stemming from centuries of social injustice.

When Reagan was planning his future policy in the region, he was governed by the recommendations of the abovementioned Kissinger Commission report, which was compiled, according to Senator E. Kennedy, "in the spirit of the policy of intervention in the affairs of other countries" and which represents "the latest chapter in the long history of misunderstandings and mistakes by the United States in Central America."

"The United States has not given up on the military method of solving problems," Colombian Foreign Minister R. Lloreda said in this context.

This position understandably evoked a storm of indignation in Latin America. Nicaragua's BARRICADA newspaper called it a counterrevolutionary imperialist program and said that it poses a serious threat to all of the people of

Central America. Mexico's EL DIA made special mention of the Reagan Administration's reluctance to participate in the political settlement of the Central American conflict, stating that it preferred to pursue its traditional policy of robbery and violence instead.

There is a realistic plan for the peaceful settlement of the Central American crisis, however, based on the proposals of the "Contadora Group" (Mexico, Venezuela, Colombia and Panama). In particular, it envisages such measures as a ban on the use of the territory of states for activity by military groups fighting against neighboring countries, a schedule of deadlines for the reduction of the number of foreign military advisers, the creation of a system of direct communications between governments for the purpose of averting international incidents, etc. All of this, according to experts, will establish solid prerequisites for a judicial base to guarantee peace in the region of Central America which has become the target of U.S. intervention.

The government of Nicaragua has taken a constructive position on the issue of a peaceful settlement and has repeatedly invited Washington to start bilateral talks and has put forth other initiatives, but has invariably received refusals from the Reagan Administration.

Apparently, the White House is banking on the kind of solution it employed in Grenada, when it simply occupied the island after seizing on the false pretext that American citizens had to be rescued. According to reports in the press, including American ones, the United States is reviving a regime in this occupied country which will allow ruling classes to brutally exploit the people, disregarding their interests and rights. Counterrevolutionary parties and groups, including former dictator E. Gairy, now have extensive opportunity to participate in the political process. This is the White House's concept of the "struggle for human rights."

The Reagan Administration is fully determined to continue this "struggle." This is why the President sent a bill to Congress on 17 February and enclosed a personal letter. This bill, called the "1984 Act on Initiative in the Consolidation of Democracy, Peace and Development in Central America," was drawn up on the basis of the Kissinger Commission's recommendations. This fancy name concealed a plan for increased aid to Washington's puppets in the region: an additional 400 million dollars in fiscal year 1984 and 1.7 billion the following year. In all, Reagan suggests (this is how it is phrased in his letter: "I suggest...") the allocation of 8 billion dollars for "a 5-year program of reconstruction and development in Central America." Furthermore, he recommended, on the basis of the views of the "national bipartisan commission," "a significant rise in the level of military assistance to countries in the region, especially El Salvador," because "American military assistance is vitally important in securing progress in the defense of human rights and democracy."

The United States has already "secured" them in Grenada. Now it intends to use additional billions of dollars for the same purpose in the Central American countries where it has been unable to subdue the opposition of patriots.

At the end of February the White House announced that the President's special representative to Central America, R. Stone, had resigned "for personal reasons." His place was taken by H. Shlaudeman, a veteran of the U.S. diplomatic service in Latin America. In particular, he is renowned as the second-ranking American diplomat, after the ambassador, in Chile in 1973, when Salvador Allende was killed at the time of the fascist coup. He played an active role in the putsch organized by the CIA. He recently served as the executive director of Kissinger's commission on Central America.

The American mass media interpreted R. Stone's resignation not only as the latest example of strife within the administration (in this case between Stone and Assistant Secretary of State for Inter-American Affairs L. Motley), but also, and primarily, as a feverish attempt by the White House to avoid new failures in U.S. Central American policy.

It is indicative that Nicaraguan newspapers and the press in other countries of this region viewed the resignation of the American "messenger" as proof of a crisis in Washington's policy of seeking military solutions to regional problems. In particular, Managua's NUEVO DIARIO stressed that Washington has no intention of changing its dangerous policy of reinforcing dictatorships, stifling national liberation movements and seeking confrontations with sovereign Nicaragua.

Many observers agree that Secretary of State G. Shultz' trip to Caribbean, Central and South American countries in February was organized by the administration primarily to win support for its policy in these countries and to intensify opposition by regional reactionary forces to the continuing national liberation struggle.

For example, in Bridgetown (Barbados), the last stop on his trip, Shultz met with representatives of several pro-American Caribbean regimes. The main item on the agenda was the creation of a reactionary military-political bloc in the region under Washington's auspices. They discussed the possibility of expanding the so-called "regional system of security and defense" in the eastern half of the Caribbean, made up of Barbados, Dominica, St. Lucia, St. Vincent and the Grenadines, Antigua and Barbuda, by including Grenada and the state of St. Christopher-Nevis. Incidentally, this association already came in handy when Washington needed something resembling regional "public opinion" before the invasion of Grenada.

Now Shultz has proposed that they conclude a "security treaty" with the United States, granting Washington the "right" to invade any Caribbean country at its own discretion. The White House has already allocated 15 million dollars for the creation and training of a military police corps from army and police subunits in these countries, which it intends to equip and train in the image and likeness of the American interventionist "rapid deployment force."

When Shultz spoke with puppets from the "interim government" in Grenada, he discussed the details of the further enslavement of the island and its transformation into a stronghold of U.S. aggression in the Caribbean. According to many observers, the secretary of state wanted to see for himself if

Grenada's colonization was proceeding fully in accordance with Washington's plans. He made another attempt to depict the American aggression against this country as a "good thing" for its people.

In El Salvador, G. Shultz clarified plans for the buildup of American military support for the undemocratic terrorist regime, which is staggering under the blows of patriotic forces. According to the high-level State Department officials who accompanied him, the White House hopes to gain congressional approval of another 170 million dollars in military aid to El Salvador in the current fiscal year in addition to already allocated funds. According to the NEW YORK TIMES, the Salvadoran ruling elite expressed "gratitude" to Shultz for Washington's "resolute support" of its actions against patriots.

In Venezuela and Brazil Shultz tried to justify the Reagan Administration's aggressive, adventuristic policy line in various parts of the world where the flames of military conflicts have flared up through the fault of the United States. People in these countries, however, took a fairly skeptical view of his statements. No one was misled by the American emissary's hypocritical allegations that the United States "has a sincere interest in peace in Central America" and that it is defending "security, the right to economic development and democracy" there. The secretary of state's flagrant attacks on revolutionary Nicaragua, against which the United States has launched an undeclared war, aroused the indignation of the Venezuelan and Brazilian public.

Therefore, the use of softer rhetoric by the President and his closest associates in statements about the United States' southern neighbors does not really signify anything at all. This administration's goals have not changed: military and political diktat, the imposition of socioeconomic structures acceptable to Washington on sovereign states, and rabid anticommunism.

We are witnessing nothing other than maneuvers, dictated by two factors. The first is the need to mislead and calm the Latin American countries, particularly the members of the Contadora Group, which have displayed--and expressed--legitimate worries about Washington's aggressive plans. The second is the approach of the presidential election of November 1984. On its threshold, Reagan is making every effort to perform well in an unusual and unnatural role for him--the role of "peacemaker."

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SOCIOECONOMIC IMPLICATIONS OF U.S. MILITARIZATION

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 4, Mar 84 (signed to press 24 Feb 84) pp 18-28

[Abridged version of report presented by Ye. V. Bugrov, doctor of economic sciences and department chief at the Institute of World Economics and International Relations, at an extended session of the Economic Section of the USSR Academy of Sciences Academic Council on U.S. Economic, Political and Ideological Affairs. The discussion following the report will be published in the next issue of the journal; passages rendered in all capital letters are printed in boldface in source]

[Text] The dramatically intensified U.S. military preparations of the 1980's are not only extremely dangerous from the political standpoint as a factor undermining international security and increasing the danger of nuclear war, but also represent one of the main reasons for the aggravation of economic difficulties and exacerbation of social problems in the leading capitalist country. This is why criticism of militarism from the socioeconomic standpoint has played an increasingly important role in antiwar demonstrations in the United States and abroad.

The aggressive foreign policy line of the United States and its reliance on power plays in international affairs and on unbridled militarism are directly reflected in the dynamics of U.S. military spending (see Table 1).

These data indicate a more than twofold increase in direct military spending (in current prices) and exceptionally high average annual rates of real growth projected up to 1986. The United States is conducting the most massive peacetime transfer of resources from civilian to military sectors.

In the socioeconomic context, U.S. militarism has international and national consequences. We will concentrate on some of its effects on the nation and on American workers.

I

The negative socioeconomic effects of American militarism have taken a variety of specific forms. It is important not only to register and summarize them, but also to assess and analyze LONG-RANGE tendencies in American economic

development in connection with the militarization process. The primary consideration here is ITS EFFECT ON U.S. ECONOMIC GROWTH.

Table 1

Official American Estimates of U.S. Military Spending

Fiscal year	Direct expenditure, current prices, billions of dollars	Direct expenditure, 1972 prices, billions of dollars	Real rate of increase, %
1981	159.8	76.4	5.0
1982	187.4	81.7	6.9
1983	214.8	88.8	8.7
1984	245.3	97.7	10.0
1985	285.3	107.7	10.2
1986	323.0	116.1	7.8

"Budget of the United States Government, Fiscal Year 1984, Summary Tables," pp 9-54.

In 1981 military spending accounted for 5.5 percent of the gross national product (GNP), and the Reagan Administration estimates that the figure will rise to 7.8 percent in the second half of the 1980's. Washington officials frequently refer to these data as proof of the "minimal sacrifices" of militarization, arguing that "military preparations do not inhibit national economic development." It is wrong, however, to reduce this matter to a simple comparison of proportional amounts of military and civilian spending in the GNP. The socioeconomic role of the military sphere is broader and deeper than the one indicated by this comparison. The use of an indicator like proportional military spending in the GNP can be useful in international comparisons, and in dynamic comparisons it can provide some idea of changes in the intensity with which resources are diverted to military sectors. Even then, however, it conceals the total group of multifaceted socioeconomic symptoms of militarism and the total losses incurred.

The nation's economy is an integral organism in which the civilian and military spheres merge and interact. The military sphere exists at the expense of the civilian one, and it therefore affects all facets of the U.S. economy. General Secretary Gus Hall of the Communist Party USA accurately called the country's colossal military expenditure "a monstrous leech sucking the vital force out of the American economy." The military use of resources is part of the capitalist reproductive process. The functioning of the military sphere essentially means the colossal, annually augmented waste of part of the gross social product and of huge quantities of human, material and financial resources. A certain portion of social capital is not reproduced but is withdrawn from production, constituting actual losses and unproductive outlays.

The military sphere demands means of production and consumer goods, but in contrast to the civilian sphere it does not supply them. Although weapons

represent part of the GNP on the strength of their value, their physical form excludes the possibility of economically expedient use. In other words, militarization engenders the regular and irreversible withdrawal of resources from the reproductive process. According to K. Marx, war "has the same immediate economic impact as if the nation had simply dumped part of its capital into the sea."¹ In peacetime this becomes most apparent over the long range, because the losses connected with militarism can accumulate (in his analysis of these losses, Marx compares them to crop failures), and this has a steady negative effect on economic development.

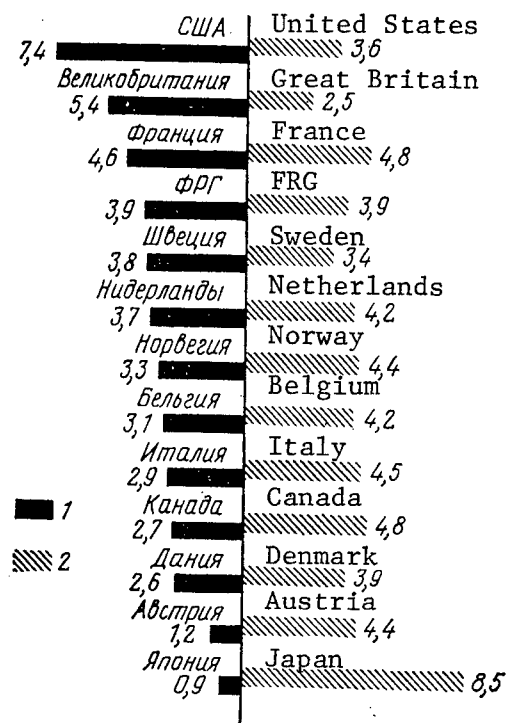
In 1982 a report was published in the United States on "The Costs and Consequences of Reagan's Military Buildup," prepared by the Council on Economic Priorities for the International Association of Machinists and Aerospace Workers and the Coalition for a New Foreign and Military Policy, with the aid of renowned economists, including J. Galbraith, R. Heilbroner, S. Melman and L. Thurow.² This report compares the economic growth indicators of 13 developed capitalist countries and data on their military spending since the beginning of the 1960's (see graph). The figures indicate that the gross domestic product (GDP) generally displays the lowest growth rates in countries with a higher percentage of the GDP used for military preparations. For example, the United States, which allocates the largest portion of the GDP for military purposes, ranks 11th on the list in terms of economic growth rates. England ranks second in terms of military spending and last in terms of economic growth. But Canada and, in particular, Japan, with the lowest percentage of the GDP used for military needs, have higher growth indicators. Of course, rates of economic development are influenced by factors other than military spending. The lower rate of economic growth in the United States than in other capitalist countries reflects a variety of interacting factors determining the uneven development of monopolist capitalism. Nevertheless, there is an obvious reciprocal connection between rates of economic growth and the degree of economic militarization. In the abovementioned report this correlative dependence is called "statistically meaningful."

The document also uses this term in reference to the correlative connection between the degree of militarization and the accumulation norm. The United States, with the highest level of military spending, ranks only 13th in terms of the percentage of the GDP used for private investments in fixed capital. The average annual rate for 1960-1979 was 17.6 percent in the United States, as compared to 32.7 percent in Japan, where the level of military spending has been the lowest to date. This means that the United States has to pay for militarism with a slower investment process within the country, and this is a general, and not particular, result of the transfer of resources from the civilian to the military sphere.

In Table 2, comparisons (in current prices) of military spending with the scales of U.S. corporate investments (this kind of comparison is regularly used in UN publications on "The Economic and Social Consequences of the Arms Race and Military Spending") prove that total U.S. military spending is invariably equivalent to a high percentage of capital investments, and this percentage rose considerably at the beginning of the 1980's. This also testifies that military spending is "robbing" the economy of its investment potential. Obviously, another important result is the inability of the

government to finance socioeconomic programs, which the current administration is known to have cut at a rapid rate (this will be discussed below).

Military Spending and the Economic Growth of Capitalist Countries (average annual data for 1960-1979 period)



1--Proportion accounted for by military spending in GDP, %
2--Rate of real GDP growth, %

The reduction of investment potential in the civilian sphere is primarily connected with the use of taxes to finance military preparations and federal budget deficits. These deficits are mainly a result of militarization; their birth and growth are related directly to the arms race. The deficits accumulated when military spending began to increase during the escalation of U.S. aggression in Vietnam, remained high during the first half of the 1970's and climbed even higher in the second half of the 1970's and particularly in the 1980's. The federal budget deficit was 111 billion dollars in fiscal year 1982 and over 200 billion in 1983.

The unbalanced budget leads to active government "presence" and pressure in the loan capital market. The government is a major borrower of money, competing with private borrowers. The credit market is becoming a field of fierce competition between the military and civilian spheres of the U.S. economy, and this naturally leads--after some delay--to higher interest rates on loan

capital. In this way, military spending inhibits the mobilization of investment resources, complicates the financing of civilian capital investments and creates bottlenecks in the satisfaction of investment demand. All of this impedes economic growth.

Table 2

U.S. Military Spending and the Investments of U.S. Companies

<u>Year</u>	<u>Gross domestic private investments in fixed capital, in billions</u>	<u>Military spending, in billions*</u>	<u>III:II, %</u>
<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>
1976	246.0	89.4	36.3
1977	301.0	97.5	32.4
1978	360.1	105.2	29.2
1979	408.8	117.7	28.8
1980	412.4	135.8	32.9
1981	451.1	159.8	35.4
1982**	443.3	187.4	42.3

* Fiscal years.

** Preliminary data.

Calculated according to "Economic Report of the President, February 1983," pp 180, 246, 247.

All of this leads to the birth and possible intensification of a conflict between the nation's need for more lively investment activity (it was for this purpose that a tax reform was proposed by the administration and approved by the Congress in October 1981 under the heading of "reindustrialization") and the reduced possibility to mobilize private savings and the funds of corporations and banks for accumulation purposes. The situation could become even more serious in connection with the anticipated maintenance of a huge budget deficit in the next 5 years. The accumulation of astronomical deficits was aptly termed a "process of deindustrialization" by BUSINESS WEEK magazine. Besides this, the growth of military spending and budget deficits is contradicting Reagan's theory of "supply-side economics," which has been interpreted in the United States primarily as a means of expanding private investments and accelerating economic growth. Chairman M. Feldstein of the President's Council of Economic Advisers noted that "net private accumulations in the last two decades were equivalent to only 7 percent of the GNP, and a budget deficit equivalent to 6 percent of the GNP (that is, around 200 billion dollars) would absorb a sum almost equal to these accumulations."

The expansion of military programs is also leading to increased loan operations in credit markets by firms working on military contracts, and this will also reduce investment potential in the sphere of civilian production.

Table 3

U.S. Spending on R&D, in billions of dollars

<u>Fiscal years</u>	<u>Total</u>	<u>Federal spending</u>	<u>Military R&D*</u>	<u>IV:III, %</u>	<u>IV:II, %</u>
I	II	III	IV	V	VI
1976	38.8	20.8	8.9	42.8	22.9
1977	42.9	24.0	9.8	40.8	22.8
1978	48.0	26.4	10.5	39.8	21.9
1979	54.2	29.0	11.2	38.6	22.0
1980	61.1	31.9	13.1	41.1	21.4
1981	69.1	35.5	15.3	43.1	22.1
1982**	77.5	39.1	17.7	45.3	22.1

* Defense Department only.

** Preliminary data.

"Science Indicators 1980," Wash., 1981, p 248; "Annual Science and Technology Report to the Congress, 1981," Wash., 1982, pp 144-145; "Budget of the United States Government, Fiscal Year 1984, Summary Tables," pp 9-42.

Therefore, there is a close relationship between militarization and the scales of investment activity in the civilian sphere. In America the militarist distortion of the investment process has become chronic. Militarization cannot lead to the industrial renewal of America.

In the abovementioned report, the Council on Economic Priorities also found a "statistically meaningful" connection between labor productivity and the level of military spending. Between 1960 and 1979 the United States with its particularly high level of military spending had the lowest annual rate of increase in labor productivity (2.6 percent), while Japan had the highest (8.1 percent). The slower growth of labor productivity in the United States from the second half of the 1960's on is connected mainly with the concentration of resources in military research and development.

The official American statistics presented in Table 3 indicate that more than 40 percent of all federal funds and over 20 percent of the entire sum allocated in the country for R&D in the 1970's and early 1980's were used for military purposes--and this is only the portion used through Pentagon channels.

BUSINESS WEEK named the exceptionally high and rising level of militarization among the causes of U.S. underachievement in the sphere of science. Around 20-30 percent of all scientists and engineers are working on government military contracts. The cost of R&D per unit of product in the U.S. military industry is almost 20 times as high as in civilian production.³ This kind of massive removal of resources from the sphere of non-military research must have an adverse effect on the technical renovation of civilian sectors of the economy, inhibit the growth of labor productivity and eventually impede economic growth.

Contrary to the statements of U.S. military-industrial circles about the "stimulating effect" of military R&D on scientific and technical progress in the civilian sphere, the shortage of funds for R&D in the civilian sphere is growing more acute. The effect of military R&D on the development of civilian production (the "spin-off" effect) has obviously been overestimated, and not without the help of the military-industrial complex. Although diversified military-industrial concerns might derive perceptible advantages from the civilian use of certain innovations connected with the development of weapons and military equipment, in general the militarization of science in the United States is serving as an increasingly powerful decelerator of scientific and technical progress in the civilian sector. Experts from many countries who participated in a UN study of these issues unanimously concluded that many discoveries of colossal civilian significance owe absolutely nothing to military research. "Civilian research," these experts wrote, "is used in the military sphere on an incomparably broader scale than military research is used in the civilian sphere. It is absolutely amazing how little, and not how much, the civilian sector has derived from research and development in the military sphere."⁴ Furthermore, it is significant that the increasing complexity and cost of modern weapon systems are actually contracting the sphere of the possible civilian use of military research findings.

America is paying a high price for militarism. Increasingly frequent and alarming statements are being made about the obsolescence of plants and the reduction of the competitive potential of American items for civilian use in the world market, and even in the domestic market. Several industries which are not military-oriented have suffered from stagnation and decline, and some traditional civilian production fields are in distress. All of this is due not only to cyclical factors and the ongoing structural reorganization of industry, accompanied by changes in U.S. foreign trade under the conditions of the current internationalization of production, but also to the long-range effects of militarist processes.

The American machine tool industry is among those whose status is arousing anxiety. Ten years ago the nation imported 9 percent of the metal-cutting tools it needed, and 6 percent of the forging and pressing equipment, but now the respective figures are 28 and 19 percent, and these figures are still rising. Japan is the United States' main supplier of these products, particularly tools with digital programmed control and machining centers. In this industry the negative effect of militarization on civilian production has taken the form of a shortage of resources for economic, scientific and technical development. Calling the United States "the repository of old machine tools," FORTUNE magazine cited the following figures. Over 34 percent of the machine tools used in American industry have been operating for 20 years or more. This is the highest percentage among all of the industrial capitalist countries. Tools with digital programmed control account for less than 4 percent of the total, although they have been available for 25 years.⁵

Obviously, these changes do not mean that the United States has lost its leading position in the capitalist world in several of the newest and most "science-intensive" industries, space exploration, agricultural development and other economic, scientific and technical fields.

The group of indicators of long-range effects of military spending on U.S. economic development in general and on investment activity, scientific and technical progress and labor productivity provides every reason to conclude that MILITARIZATION IMPEDES ECONOMIC GROWTH. The American experience has completely refuted Keynesian theoretical constructs and the practical recipes for the attainment of prosperity by using militarization as a stimulator and "stabilizer" of economic development. New programs for the buildup of military strength constantly reaffirm the fundamentally negative effect of militarism on economic development.

II

One specific feature of the symptoms and consequences of militarism is its comprehensive, multileveled impact on economic affairs. There is a close CONNECTION BETWEEN MILITARIST PROCESSES AND THE ACUTE PROBLEMS OF UNEMPLOYMENT AND INFLATION.

Pursuing a militarist line, the Reagan Administration is promoting the idea that an increase in military spending supposedly increases employment, while a decrease in this spending increases unemployment. In a recent statement, C. Weinberger asserted that "what is at stake is a minimum of 350,000 jobs, which will be lost in the event of sharp cuts" in military spending. The thesis of the favorable impact of militarism on the use of labor resources is a deliberate oversimplification. In reality, the problem is more complex and more acute than its portrayal to the public as a matter of "creating more jobs" by the supporters of the arms race, who are striving to depict the burden of militarism as an economic boon.

Increased military spending broadens the scale on which labor resources are diverted for military purposes, both through the growth of the armed forces and through the expansion of military production. In other words, the result is an increase in "military employment." But this does not mean that military spending is any kind of reliable means of combating unemployment. The growth of this spending primarily increases the unproductive use of labor resources and is a waste of manpower. Another side of the matter is equally important. The increase in the number of jobs in the military sphere does not occur in isolation from the state of the economy in general. Actually levels of employment and unemployment depend on the situation in the civilian sphere as well as the military one, and this is why the assessment of the economic consequences of militarism must be comprehensive rather than selective. Employment in the military sphere is increased by the transfer of resources from the civilian sphere. When state budget decisions are made, the military and civilian proportions of resource use must be determined with a view to an inevitable overall shortage. Judging from information published in the United States, quantitative indicators of the growth of employment as a result of increased military spending are invariably much lower than they would be if the same resources were used in civilian programs. If assessments are based on the entire U.S. economy instead of on isolated enterprises or isolated industries, it is obvious that civilian, and not military, spending has a substantial impact on the level of employment, and military spending must therefore be regarded as a contributing factor in the growth of unemployment, and not in its reduction.

Differences in the numbers of jobs created by the use of resources in different spheres are due to the much higher capital requirements and much lower manpower requirements of arms production, including R&D in this field, in comparison to the civilian sector of the economy. Virtually any use of federal funds outside the military sector will secure a higher level of employment. According to American estimates of the 1970's, a billion dollars invested in the B-1 bomber would have created only 22,000 jobs. According to later Pentagon estimates, the number of jobs created directly as a result of the expenditure of a billion dollars on military purposes was 25,000. But the use of the same sum in the sphere of education would have created 76,000 jobs, in medicine it would have created 85,000, etc.⁶

Similar conclusions can be found in a number of UN publications. For example, the aforementioned report on "The Economic Costs and Consequences of the Arms Race and Military Spending" (pp 58-59) correctly criticizes the governments which "issue propaganda about the imaginary employment benefits of their projected weapon purchases and say nothing about the fact that the alternative use of the same funds would most probably provide many more people with jobs." A similar view was expressed later by the Palme Commission in its report "Security for All. A Disarmament Program."⁷

It is also significant that arms production creates primarily a demand for manpower with a high level of technical vocational training; it is much less likely to affect unskilled and semiskilled laborers, who are suffering the most from unemployment. There are also regional imbalances in the use of labor resources because increased military spending moves jobs to the southern and southwestern states and exacerbates unemployment in the north and northeast.

According to American minimum estimates, the unemployment of the first half of the 1970's, affecting an average of more 900,000 people a year, was already a direct result of the use of resources for military purposes and the corresponding reduction in the number of jobs in the civilian economy. In subsequent years the negative effect of military spending grew even more pronounced. According to estimates published in the United States, militarization was the cause of the loss of more than a million jobs a year in 1977 and 1978. Therefore, the huge scales and continuous growth of unemployment in the United States in the 1970's and early 1980's (in November 1983 there were 9.3 million unemployed Americans--8.4 percent of the entire labor force) are connected largely with the arms race. The alleviation of this social problem will necessitate the transfer of funds to the civilian sector. This would secure a much higher number of jobs per billion dollars than in the military sphere, regardless of whether these funds enter the civilian sphere by means of tax cuts or by means of broader government-financed social programs. Obviously, this method of increasing employment would necessitate the revision of the U.S. militarist line. The further implementation of the militarist plans announced by the Reagan Administration for the 1980's, on the other hand, will exacerbate the unemployment problem in the United States.

We will speak briefly about the connection between militarist processes and the development of inflation. At one of the latest sessions of the Economic Section of the USSR Academy of Sciences Academic Council on U.S. Economic,

Political and Ideological Affairs, inflation in the United States was the topic of discussion. The significant role of militarism among inflationary factors was analyzed.⁸ In essence, this role has not been denied in many American studies, although the quantitative determination of militarism's "contribution" to the stimulation of inflation is acknowledged to be an extremely complex matter.

Table 4

Cuts in U.S. Social Spending, in millions of dollars

<u>Expenditure items</u>	<u>FY 1981*</u>	<u>FY 1982*</u>	<u>FY 1983**</u>	<u>FY 1984**</u>
Education, manpower retrain-				
ing, job placement--I	31,402	26,300	26,676	25,256
II	31,402	24,749	23,969	21,556
Natural resources and				
environment--I	13,525	12,934	12,087	9,832
II	13,525	12,171	10,860	8,392
Transportation--I	23,381	20,560	21,876	25,145
II	23,381	19,347	19,656	21,461
District and regional				
development--I	9,394	7,165	7,373	6,951
II	9,394	6,742	6,625	5,933
Food assistance--I	16,202	15,579	17,831	16,322
II	16,202	14,660	16,021	13,931
Financing aid to states for				
socioeconomic programs--I	6,856	6,393	6,382	6,968
II	6,856	6,016	5,734	5,947

* Actual data.

** Administration's estimates.

I--current prices; II--1981 prices.

Calculated according to "Budget of the United States Government, Fiscal Year 1984, Summary Tables."

I would like to supplement the discussion in the Institute of U.S. and Canadian Studies with a few remarks about the inflationary implications of monopolist management and monopolist pricing in the sphere of arms production. Although thousands of American companies participate in the creation of modern weapon systems, the giant firms play a special role. Indicators of sectorial concentration on the company level with a view to their specialization in the production of specific types of weapons reflect an exceptionally high degree of monopolization of the market for military goods and services. The military industry is one of the U.S. economic sectors with the highest levels of monopolization. The entire pricing procedure and the dynamics of the prices of military goods are influenced by giant firms.

The tendency to refrain from competitive pricing, which is typical of the monopolist partnership and domination of giant companies, is actually secured

by the very system for the distribution of military contracts. Contrary to all of the federal regulations and instructions on the competitive distribution of these contracts, the overwhelming majority of orders--over 90 percent--are placed by means of direct negotiations between government agencies and a specific firm, and less than 10 percent are awarded to firms on the basis of competitive price bids and bids on other terms of the contract. This system does not prevent, but promotes, collusion by military-industrial firms during negotiations with the federal agencies awarding the military contracts and leads to a situation in which the profit margin in civilian branches is only as high as the lowest profitability level of the operations of military-industrial corporations.

State-monopolist interaction in the military sphere essentially legalizes the high monopoly prices dictated by the Pentagon's contractor.⁹ These prices are sanctioned by the authorities in contracts envisaging the total recovery of the expenditure of military-industrial firms and a specific profit margin based on production costs. This practice offers the broadest opportunities for the monopolistic manipulation of production costs, to the point of their artificial inflation for the sake of higher profits. Even when government control and regulations are enforced in this sphere, they are actually powerless to introduce cardinal changes into this pricing practice. Under these conditions, the rising prices of military products exert constant pressure on the overall level of prices--through the system of economic ties and the competitive military demand for resources. "The U.S. military economy," S. Melman wrote, "is an inflationary mechanism. Rising expenses and prices are encouraged and covered from the bottom up. This practice extends to the civilian subdivisions of firms working on Pentagon contracts and to other companies."

Therefore, the buildup of American military strength is not only impeding economic growth and increasing unemployment, but has also been accompanied by strong inflationary processes. MILITARIZATION IS AN ACTIVE STAGFLATIONARY FACTOR. Stagflationary tendencies in the American economy in the 1970's and early 1980's were stimulated to a considerable extent by the nation's militarization.

III

Questions connected with the financing of federal socioeconomic programs under the conditions of intensive militarization in the 1980's warrant our consideration. Annual military appropriations represent an exceptionally large item in the U.S. budget, constantly surpassing all combined federal appropriations for education, public health, transportation, power engineering, agriculture, resource conservation, environmental protection and regional development.

Resources are being wasted on military programs in an atmosphere of acute social need stemming from the unavoidable social problems of the capitalist society. The facts testify that the severity of these problems can vary considerably in connection with the intensity of militarist processes. State socioeconomic programs serve as one example of this natural tendency. From

this standpoint, we can draw a precise distinction between two periods. The 1970's were marked by a change in the ratio of military to civilian spending in favor of the latter. The proportion accounted for by military spending in the federal budget decreased from 41 percent to 24 percent during this period. Although the improvement (largely qualitative) of weapons continued, military spending remained stable in real terms and even decreased slightly (according to official data) in the first half of the 1970's. This can be regarded as a socioeconomic dividend of international detente. At that time the financing of specific social programs was being debated in the nation and in the Congress with a view to actual needs. These debates concerned the distribution of increasing budget funds to underprivileged strata in accordance with the goals of ruling class social maneuvers. It is obvious that the augmentation of the bourgeois government's socioeconomic role met the current needs of capitalist reproduction, but military-industrial circles used the increase in social spending to reinforce their arguments about the "diminishing burden" of militarism and about the nation's ability to satisfy the demand for "both guns and butter."

In the 1980's the situation changed considerably. Economization on civilian projects and social benefits became a reality, and the onset of "guns instead of butter" became increasingly evident. Proportional military spending, totaling 24 percent of the federal budget in 1981, will rise, according to official estimates, to 29 percent in 1984 and 34 percent in 1988. The result is not only a relative reduction in federal funds for civilian purposes, but also a large absolute reduction in funding for major socioeconomic programs, particularly in constant prices (see Table 4).

These official American data clearly indicate that the intensification of militarization is accompanied by an all-out assault on the social gains of the working public. What we are witnessing is a protracted militarist reorientation of budget priorities, which is attested to by official federal projections up to the end of the 1980's, indicating new cuts in socioeconomic spending.

We could cite an impressive list of American socioeconomic needs. It would take hundreds of billions of dollars to alleviate the problem. For example, the amount needed for the reconstruction of hazardous bridges in the country has been estimated at 33 billion dollars, and it will take 13 billion to improve the water supply in 150 cities. Appropriations for the infrastructure (roads, dams, bridges and other structures) should total 500 billion dollars over the 1980's.¹⁰ These and other calculations indicate that even the partial transfer of military appropriations to civilian sectors would provide the necessary resources and secure colossal socioeconomic benefits.

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Therefore, the intensification of economic difficulties and the exacerbation of social problems in the United States are a result of attempts to escalate the arms race. The number of these difficulties and their tenacious character preclude the confinement of the problem to specific or episodic consequences of military preparations, and require the assessment of MILITARIZATION AS ONE OF THE MOST IMPORTANT FACTORS INTENSIFYING THE DESTABILIZATION OF U.S. ECONOMIC AND SOCIAL DEVELOPMENT AND EXACERBATING CONTRADICTIONS AND DISPARITIES IN THE CAPITALIST ECONOMY.

The American antiwar movement is questioning the Reagan Administration's line in the political sphere and is also objecting to the waste of resources and trying to prevent militarization from having a more ruinous impact in the socioeconomic sphere.

FOOTNOTES

1. K. Marx and F. Engels, "Works," vol 46, pt I, p 67.
2. R. Degrasse and W. Ragen, "The Costs and Consequences of Reagan's Military Buildup," N.Y., 1982.
3. "SIPRI Yearbook, 1981," p 7; J. Gansler, "The Defense Industry," Cambridge (Mass.), 1980, p 54; BUSINESS WEEK, 30 June 1980, p 61.
4. "Economic and Social Consequences of the Arms Race and Military Spending," United Nations, N.Y., 1978, p 1.
5. FORTUNE, 21 February 1983, p 31.
6. M. Anderson, "The Empty Pork Barrel. Unemployment and the Pentagon Budget," 1978 ed., p 1; THE NEW YORK TIMES, 17 September 1982.
7. SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA, 1982, Nos 9, 10.
8. Ibid., 1983, No 1, pp 108-116; No 2, pp 110-119.
9. American sources admit the monopolistic nature of the prices of military goods: "The contracting firm essentially has a monopoly. The government depends on the producer to obtain the military equipment and will pay as much as the contractor asks for it" (J. Gansler, Op. cit., p 93).
10. "The Price of the Pentagon, 1982," p 10.

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REAGAN ADMINISTRATION'S 'PSYCHOLOGICAL RADIO WARFARE'

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 3, Mar 84 (signed to press 24 Feb 84) pp 51-58

[Article by A. S. Grachev]

[Text] In one of his speeches at the beginning of 1983, President Ronald Reagan of the United States reported plans to make "efforts which promise to change the course of human history." The specific pretext for the President's emotional declaration was the new space militarization program announced that day.

The President's statement can be regarded as a kind of cover slogan for all of the foreign policy activities of the Reagan Administration. It is precisely the desire to change--or, more precisely, to stop or even to reverse--the course of human history, to return to the days of imperialist domination of the world, that lies at the basis of the U.S. administration's current policy line in the international arena. The White House regards the Soviet Union as the main obstacle to the establishment of American control over the historical process.

The American administration's declared "crusade" against socialism, and actually against all other forces for progress, democracy, peace and national independence, represents a paradigm of the adventuristic aggressive policy of imperialist circles. This is essentially a program of action for the more extremist elements of world reaction and imperialism.

The present "crusade" cannot be viewed as an original invention of the Reagan Administration. Crusades of this kind have been organized by the world bourgeoisie ever since 1917. Everyone knows about the deplorable failure of these ventures and of their planners and organizers. The methods the Republican administration is employing in the pursuit of its anti-Soviet policy are not new either. At present, however, this policy is acquiring a number of features which are making it particularly dangerous. This is connected primarily with the specific conditions of the current international situation. Disregarding the axioms of the nuclear age, the U.S. administration is deliberately escalating international tension to an extremely dangerous level by launching extensive military, economic and psychological preparations for a thermonuclear world war.

This is not the first time imperialist reaction has tried to use "psychological warfare" to disrupt peaceful relations between states and involve the world in a new round of the arms race, or even in another armed conflict. The Reagan Administration is essentially trying to turn the objective ideological differences between various social systems into a pretext for fierce, near-military confrontations between states. The 28 September 1983 statement by General Secretary of the CPSU Central Committee and Chairman of the USSR Supreme Soviet Presidium Yu. V. Andropov contains the following assessment of these attempts: "Bringing ideological conflicts into the sphere of inter-governmental relations has never been of any benefit to those who have resorted to this practice in foreign affairs. Now, however, in the nuclear age, this is simply absurd and intolerable. The evolution of the struggle of ideas into military confrontation would cost the entire human race too much."¹

Washington, for which anti-Sovietism has become an integral part of its strategy, reflecting its hope of ruling the world, is conducting broad-scale "psychological warfare" against socialist countries in all areas. Numerous actions, differing in their thematic content and their pretexts, have come together in a single muddy stream of slander and lies about socialism, the deception of public opinion and the manipulation of human minds.

Ideological subversion, propagandistic provocation, slander and misinformation have become elements of U.S. Government policy and part of the military and political pressure the American administration is trying to exert on the Soviet Union. This is corroborated by the huge sums allocated for subversive anti-Soviet propaganda.

We must admit that mass misinformation and "brainwashing" sometimes produce the results desired by American ruling circles. According to many American researchers of public opinion, anticommunism and anti-Sovietism have never been this ferocious since the dark days of McCarthyism in the United States, various types of rightwing extremist and semifascist organizations have never been as active, and the wave of militarist and chauvinistic feelings has never been as high in the postwar period.

Here is the latest example. The entire world, the overwhelming majority of UN members and even the leaders of several of the closest NATO allies condemned the U.S. intervention in Grenada. In the United States, however, this aggression, the reports of which were deliberately and expertly manipulated by the American administration, initially aroused a public outburst of chauvinism, and one so strong that even Democratic congressmen who would have objected to the American military invasion of Grenada quickly changed their position in the fear of losing voter support.

It is indicative that a public opinion poll conducted by the Gallup Institute for the LOS ANGELES TIMES soon after the "Grenada operation" indicated that around 70 percent of the Americans felt that "any method should be used for the containment of communism, including the use of U.S. armed forces."² Even if this figure is highly conditional, it attests to ruinous and dangerous shifts in American public opinion under the destructive influence of the malicious militarist propaganda with which all Americans are inundated each day.

The methods used in the "psychological warfare" of Washington and its NATO allies are quite diverse. The U.S. administration will make use of anything: from the subversive and "sinister" propaganda prepared by CIA experts in misinformation to the externally respectable but equally false official documents and statements of the White House and its representatives. Radio is still the favorite medium for the dissemination of this misinformation. Washington regards radio as the ideal channel for the infiltration of foreign countries and as a method of undermining the moral and political unity of the people of socialist countries from within.

Addressing a convention of the Veterans of Foreign Wars in New Orleans in August 1983, Ronald Reagan paraphrased W. Churchill's famous statement that Britain had the "heart of a lion," declaring that "America is the lion's heart of democracy. We are responsible for giving this democracy a voice, even if it sometimes turns into a roar."³ With the "roar" of its many radio transmitters, the United States is trying to muffle the voices of other countries and peoples and to impose its own ideas, its way of thinking and its distorted view of world events on the entire world.

During the decade between 1971 and 1981 the total capacity of American subversive radio stations more than doubled, and appropriations for the augmentation of the capacity of these stations and for their "geographic" expansion rose by another 30 percent in the last fiscal year. New "branches" in Asia, Africa and the Pacific are being added to Voice of America's present 106 transmitters, broadcasting in 42 languages. In the next 6 years it will receive a billion dollars for expansion and equipment renewal.

The formally "independent" radio stations of the CIA--Radio Liberty (RL) and Radio Free Europe (RFE)--have kept up with Washington's official sounding-board. They have been allocated 44 million dollars for modernization. Founded in the 1950's, these stations were originally financed directly by the CIA. In 1971 they were made "independent" of the CIA and became wards of the U.S. Congress. But the CIA continued to control and direct the activities of Radio Liberty and Radio Free Europe through the Board for International Broadcasting, established in 1973. The report of the U.S. President to the Congress on international broadcasting in March 1977 said that the two stations were "an integral part of the U.S. Government." The same report stressed the need for the maximum coordination of Voice of America and RL/RFE reports with those of similar organizations in the NATO countries.

The U.S. Congress recently allocated 14 million dollars for the development of a new subversive radio station called Radio Marti, which is supposed to broadcast attacks on Cuba "in the spirit," as NEWSWEEK remarked last November, "of Radio Free Europe."

A provocative declaration signed by Ronald Reagan and published by the White House in 1982 in connection with the latest so-called "Captive Nations Week" outlined the following program for the use of radio propaganda, calling it "a vitally important element of our strategy in defense of freedom": "We intend to move ahead in the modernization of our main medium of international communications and international broadcasting systems.... The modernization

plan will allow millions of people living under a communist government to learn the truth about the struggle for our world."

The same goal was stated more frankly by Director C. Wick of the U.S. Information Agency, one of Reagan's closest associates: "Radio is the only foreign policy propaganda medium capable of conveying the truth about the United States and about world events to the Soviet and captive peoples. This is why 77 percent of the Voice of America broadcasts are designed for countries behind the 'Iron Curtain.'"

Let us take a look at what is being advertised on the radio on which Washington is staking so much. Perhaps we will learn more about the "truth" and the "freedom" referred to in these statements. From recent Voice of America programs, we can learn many incredible and, in fact, absolutely unknown things. For example, we can learn that combat units from the GDR, Bulgaria, Ethiopia and South Yemen and even PLO detachments have been involved in battles in Afghanistan. The American ABC television network informs us that thousands of military helicopters are being transferred by sea to Nicaragua from Vietnam, and the U.S. President himself enlists the aid of television so that he can rationalize the aggression against Grenada, with no fear of perjury charges, by stating that this peaceful island was a major "Soviet-Cuban military base" and that the American Rangers "arrived there just in time" to prevent the imminent occupation of Grenada by Cuban troops.

In spite of the fact that these statements are shameless lies, the President had reason to believe that he would not get caught because, on his own orders, not one journalist was allowed onto the island during the entire "Grenada operation."

The muzzle the American administration put on its own news media during the interventionist operation in Grenada once again exposed the hypocrisy of the American radio announcers who condemn "violations of democratic rights and freedoms" in the socialist countries. It turns out that the Washington fighters for "freedom of speech" are wearing the mottled uniform of the Green Berets under their "snow-white togas."

Voice of America programs broadcast to the Soviet Union generally represent a combination of anti-Soviet slander, permeated with hostility and hatred for the Soviet people and the socialist order, with sometimes laughable discussions of what the U.S. administration believes will best serve the interests of the people of the USSR. For example, in summer 1983 this station devoted a special program to a conference held from 15 to 17 July at a university in New Hampshire--"the first scientific (!) conference on the prospects for the restoration of the monarchy in the Soviet Union." The conclusion to which listeners were being led by the organizers of the program was that "the monarchic ideal is still alive in the USSR, and monarchy is the only acceptable historical course of Russian development."

Deprived of the possibility of landing troops in the socialist countries for the purpose of "restoring democracy there" in accordance with the Grenada example, the heads of the American propaganda establishment are conducting

genuine radio intervention against these countries. It is no secret that Voice of America and RFE programs played a subversive and inflammatory role during the most tense moments of the Polish crisis. After martial law was declared in Poland in December 1981, the Voice of America increased its broadcast time to Poland from 2.5 to 7 hours a day; RFE regularly transmitted direct orders to underground leaders of Polish counterrevolutionary groups and dictated the text of leaflets recommended for distribution to the public.

In a television broadcast organized with the aid of American satellites, viewers were informed that the President of the United States wanted "Poland to remain Polish." Furthermore, they were told in detail what kind of Poland this should be, with detailed descriptions of the particular trade unions, leaders and news media it should have. On 9 June 1983 the Voice of America assured the Poles that they had "no need to rely on their own news media"; when they want to hear the news, they can listen to Voice of America, RFE and other international broadcasting organizations transmitting the "truth." The entire matter reached the point at which this "American truth" for the Poles was being broadcast from transmitters in the American consulate in Cracow, in flagrant violation of the elementary standards of international law.

After we have heard all of this, however, the American radio stations will not tell us if, for example, the President of the United States wants U.S.-occupied Grenada to remain Grenada, or if he wants the restoration of an independent Lebanon, where part of the country has been occupied by Israel with Washington's approval and where civilians are being shelled and bombed by American ships and planes. Or if he wants El Salvador, Chile and South Korea to stop being the hostages of American strategy and wants power there to finally be handed over to the people.

Voice of America's listeners will have to be content with the report that "this year Americans received calls for help from distant lands" and that many of them "gave their lives to restore the peace in Lebanon and to put an end to anarchy in Grenada." There is an old saying about what paper has to endure, but the person who hears broadcasts of this kind might conclude that the air waves have to put up with much more.

For example, after hearing from the Voice of America that the Soviet Union has a mythical "plan to invade Iran,"⁴ we will not hear anything about the real invasions of this country by the United States, from the U.S.-organized coup d'etat in 1953 to the hostage rescue mission--the air raid that ended so ingloriously in the Tabas Desert.

Voice of America programs will not tell us much about the United States either. People who hear on American radio that "American workers are wealthy in food, housing, amusements and opportunities" (Voice of America made this statement on behalf of the U.S. Government in its Thanksgiving Day broadcast on 24 November 1983) will be amazed, because everyone knows that never since the days of the "great depression" have hungry Americans stood in such long lines for charitable pittances, and never has the problem of housing them and keeping them warm in the winter been so acute. Few people will believe Voice of America's touching cock-and-bull story about the Buick workers' voluntary

refusal of certain benefits, including pay raises. Propaganda fairy tales about "conscientious" workers "voluntarily" donating their wages to augment capitalist profits--this is all U.S. radio propaganda can tell its listeners about the pitiful results of 3 years of "Reaganomics."

Those who might be interested in the reasons why American women still do not have equal rights with men, in the slogans with which Washington was bombarded last August by a huge protest march and in White House reactions to the mass antiwar movement will be disappointed. At best, they will be informed, with supporting quotations from Ronald Reagan or *READER'S DIGEST*, that the antiwar demonstrations are organized by Moscow and its agents. This is Washington's "radio truth." What then could qualify as a lie?

A young American woman spoke at a Soviet-American gathering at the time of the World Peace Assembly in Prague in summer 1983. She said that she had calculated the amount of time given over to the most rabid and fierce anti-Soviet propaganda on American television each day. According to the most modest estimates, it was 15 minutes each day! This brings to mind English author George Orwell's grim parody about the totalitarian society of the future. The TV schedule there included "2 minutes of hatred" for other nations each day. Only 2....

At the same time, American propaganda, and Western propaganda in general, are trying to erect a stifling psychological blockade around their own population to keep out even the slightest grain of truth about the actual policy and views of the Soviet Union and other socialist countries with regard to questions of war and peace. An impenetrable "sound barrier" guards the Western radio audience against the truth. And this is not only a sound barrier. The U.S. Department of Justice recently restricted the screening of Canadian anti-nuclear films in the United States on the pretext that they were propaganda. Even the *WASHINGTON POST* had to ask: "Does the Reagan Administration trust democracy as much as it says it does?"

What are the aims of the strategists of American radio propaganda? Voice of America should strive to "destabilize the Soviet Union and its satellites by promoting discord between people and governments," the American *CHRISTIAN SCIENCE MONITOR* noted in its report on debates by this station's executives. Former Voice of America Assistant Director F. Nikolaidis made an even more definite statement. A memo he wrote recommended "driving the wedge of dissatisfaction and suspicion into relations between the leaders of various communist bloc countries," "fanning the flames of nationalism," "encouraging the revival of religious feelings," etc. Therefore, this is a matter of direct intervention in the affairs of other nations and the expansion of ideological subversion and provocation. Furthermore, these comments were made in reference to the programs of the official U.S. Government radio station about countries with which the United States maintains normal diplomatic relations.

It would probably be worthwhile to recall that half a century ago, in November 1933, when Soviet-U.S. diplomatic relations were established, the two countries also exchanged notes on the issue of propaganda, and these notes specifically stipulated and reaffirmed the principle of nonintervention in internal affairs.

A general agreement signed by the USSR and the United States in June 1973 on contacts, exchanges and cooperation said that "contacts, exchanges and cooperation in the spheres of science, technology, education, culture and other fields" (Article VII deals specifically with exchanges in the area of radio and television and Article VIII pertains to exchanges of printed materials) "should be carried out in accordance with the constitution and the appropriate laws and regulations of each country."⁵

How can these pledges be reconciled with the daily activity of the radio centers that are paid by the U.S. administration and the Congress to conduct subversive propaganda against the socialist countries and to preach changes in their social order? Apparently, when the Reagan Administration decided to "reduce communism to a historical ruin," it chose radio aggression as one of its chief weapons in this "crusade."

Coincidences are quite natural in history and in politics, but it is probably no coincidence that 1953 Williamsburg--the same Williamsburg which in 1983 was chosen by President Reagan for the signing of the "missile statement" by the seven leading capitalist countries--was the site of a declaration stipulating that the main function of RL/RFE was a struggle "to overthrow the communist order in Eastern Europe," so that political regimes modeled on the U.S. Government could then be established there.

Soon after World War II, on 3 November 1947, a special resolution of the UN General Assembly condemned any form of propaganda "with the purpose or possibility of creating or intensifying threats to peace, disrupting the peace or fostering acts of aggression." As for the Final Act of the Conference on Security and Cooperation in Europe, which was adopted in Helsinki in 1975 and to which the defenders of the "free flow" of misinformation love to make references, this document said that the signatories "will refrain from any kind of intervention, direct or indirect, individual or collective, in the internal or external affairs of other signatories, regardless of their relationship." They will "refrain," it goes on to say, "from directly or indirectly aiding terrorist activity or subversive or other activity aimed at the violent overthrow of the regime in any other member-state."⁶

This is why Washington's subversive, inflammatory radio propaganda, which is undermining the foundation of real socialism and the foundations of the postwar world, cannot be regarded as anything other than the overt violation of international law and the principal standards of communication and cooperation among nations. Even the American weekly NEWSWEEK had to admit that "under the Reagan Administration the Voice of America and its two sisters, Radio Free Europe and Radio Liberty, which are under U.S. control...have been turned almost exclusively into a forum for the expression of the extremist views of Eastern European emigrants and the harshest White House statements.... Many listeners in the East and West are disturbed by the 1950's cold war position of these stations. Voice of America is using more commentary by conservative American journalists than before, and RFE frequently broadcasts interviews with administration spokesmen defending the tough line, as, for example, permanent U.S. representative to the United Nations Jeane Kirkpatrick."⁷

Washington also devotes considerable attention to radio propaganda against the newly liberated countries. Regular broadcasts in English, French, Vietnamese, Lao and some other Asian languages began to be transmitted from Thailand by the Voice of Free Asia as early as March 1968. Built with CIA funds and filled with state-of-the-art equipment, it was "presented" to the Thai military regime of that time in exchange for a symbolic payment of 1 baht (around 20 cents). Thailand was given only 8 hours a day of broadcasting time in the network. The station staff consists of people chosen by the CIA. All of its news comes from the American intelligence community and from U.S. news agencies.

The Voice of Free Africa was established along similar lines in 1976. Each of these "voices" has a specific role to play in imperialism's subversive activity. Attempts to misinform people about progressive changes in the African countries taking the path of progressive socioeconomic development have been continuous.

Iran, Afghanistan and other countries in the Near and Middle East constitute another region where Western propaganda has been increasingly active. A radio station calling itself the "Free Voice of Iran" began broadcasting in the middle of May 1980. The transmitters for this station, which was established, according to the NEW YORK TIMES, by the so-called "non-traditional broadcasting" office of the CIA, were in Egypt: one near Alexandria and another not far from the Suez Canal. Former President Sadat personally ordered that the Egyptian transmitters be put at the disposal of the Americans. The programs in Farsi which this "voice" began to broadcast contained inflammatory appeals for the "liberation of Iran" and advised Iranians to "take up arms."

The official radio station, Voice of America, is also broadcasting programs to Iran and Afghanistan. Voice of America is trying to convince Iranians that it is time for a return to pro-American positions. Afghans receive the latest news from Washington about the bandit raids of the subversives and mercenaries who are portrayed as "freedom fighters."

In 1980 the Voice of America decided to broadcast one and a half times as many programs in Urdu and Bengali, which are spoken in Pakistan, Bangladesh and several states of India and Sri Lanka, and twice as many in Turkish. In view of the fact that Washington had instituted a new service the previous year--broadcasting in Hausa (which is spoken in many West African countries)--and is now building transmitters in Botswana (to intensify propaganda in southern Africa, including Angola), we can judge the scales of the "radio arms race" directed against independent developing states.

Washington plans to raise its subversive propaganda against the developing countries to a new level of intensity within the White House's announced program of "democracy and public diplomacy." This program, whose official goal is "a stronger democratic infrastructure throughout the world," is designed primarily for the political and psychological pressuring and training of administrative personnel in the developing countries by teaching them the "theory and practice of democracy" and for the resistance of "non-democratic

forces," by which the Reagan Administration means communist and workers parties, national liberation movements and mass public movements like the antiwar movement.

Describing the Washington administration's efforts to intensify the ideological penetration of the newly liberated Asian, African and Latin American countries, the DAILY CALIFORNIAN remarked on 27 November 1983: "The zeal with which Reagan is conducting his anti-Soviet crusade points up a classic pattern: the use of cold war to justify military, political and economic intervention in the affairs of the Third World."

The present U.S. administration's attempt to launch another worldwide anti-Soviet crusade will not win it any laurels, just as none were won by its predecessors in this thankless pursuit, nor will it solve any serious international problems, or even any of the United States' current domestic problems. The adventuristic, "power" line of Washington foreign policy, which is destabilizing the world situation by undermining international security, is also diminishing the United States' own security and complicating its international position and its relations with other states.

George Washington once said that "a state constantly seized by hatred for another state...is a slave in some respects." By shackling its foreign policy in the strong chains of rabid anti-Sovietism, Washington is becoming a slave of its own political nearsightedness and is only increasing the number of acute and urgent problems which will not be alleviated by the escalation of the arms race or by a new round of "psychological warfare." As Washington advances into this blind alley, it will become increasingly involved in the problems it has created and it will have to make the painful and agonizing return to reality, to the realization that in the nuclear age there is not, and cannot be, any basis for relations between states and peoples other than equality, mutual respect for one another's interests and concern for common security.

FOOTNOTES

1. PRAVDA, 29 September 1983.
2. THE LOS ANGELES TIMES, 22 November 1983.
3. WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, 22 August 1983, p 1143.
4. In November 1983 the American ABC television company even devoted a special program, "Playing with Crisis," to a "Soviet invasion of Iran" that put the world on the verge of World War III.
5. SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA, 1973, No 8, pp 115, 116.
6. "For the Sake of Peace, Security and Cooperation. The Results of the Conference on Security and Cooperation in Europe," Moscow, 1976, p 20.
7. NEWSWEEK, 7 November 1983, pp 62, 63.

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U.S. SAID TO AID ISRAEL, S. AFRICA, PAKISTAN DEVELOP NUCLEAR ARMS

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 3, Mar 84 (signed to press 24 Feb 84) pp 59-65

[Article by Yu. I. Rostov: "Washington and Nonproliferation: A Dangerous Trend"]

[Text] A report by the General Accounting Office, analyzing American exports of technology capable of being used in the creation of nuclear potential, was published in Washington in October 1983. The document stressed that between July 1981 and June 1982 the Reagan Administration had issued 57 licenses for deliveries of materials and equipment of this kind to South Africa, Israel and several other states making an active effort to create their own nuclear potential.

Against this background, it is completely understandable that the authors of the collective work "Living with the Nuclear Bomb," published in summer 1983, concluded that the present U.S. administration "is not paying enough attention" to restricting the spread of nuclear weapons. The authors of the work, prominent American experts on international affairs from Harvard University--P. Doughty, S. Hoffman, S. Sagan and others--note Washington's tendency in recent years to "attach less importance to the policy of nonproliferation."

Each American President since John Kennedy has declared his adherence to the policy of nuclear nonproliferation. At one time the United States worked constructively with the USSR in the preparations for the conclusion of a nonproliferation treaty, in the encouragement of states to sign the treaty and in the reinforcement of the International Atomic Energy Agency (IAEA) and took measures to limit exports of materials and technology used in the development of nuclear weapons.

The head of the present administration has also said that nonproliferation is "important to American security." Several facts testify, however, that the Washington administration's words are contradicted by its actions. When Reagan arrived in the White House and chose to seek confrontation with the socialist countries, to oppose national liberation movements, to engage in an arms race and to settle international problems by force, the gap between the goals of the aggressive U.S. foreign policy and the goals of nonproliferation took on extremely dangerous dimensions. This gap is particularly

apparent in U.S. relations with Israel, South Africa and Pakistan, which have long been regarded as "threshold nuclear states."

Even in the middle of the 1970's, the American intelligence community, as the WASHINGTON POST reported on 16 March 1976, believed that Israel had a secret arsenal of 10-20 atomic bombs and was constantly augmenting and updating it. Washington gave Tel Aviv direct assistance in the creation of its nuclear potential, and this is attested to by the following facts: 250 Israeli experts on nuclear energy were trained in the United States; the United States sold Tel Aviv an experimental reactor and the atomic fuel for it; in the 1960's American plants secretly supplied Israel with concentrated uranium, suitable for the creation of an atomic bomb. In 1968 the CIA informed President L. Johnson that Tel Aviv probably had a nuclear weapon, but this was not followed by any perceptible changes in American policy.

The Israeli rulers realize, however, that their direct admission of the existence of a nuclear weapon in Israel could lead to sweeping military, political and economic sanctions against Tel Aviv and could motivate the Arab countries to acquire their own nuclear weapons, and this would obviously have a severely negative effect on Israel's strategic position.

As events have shown, the Israeli Zionists have decided on "inconspicuous" legalization as the solution to the dilemma of the status of their nuclear weapons. These plans will depend largely on the U.S. attitude toward Israeli atomic potential, because Washington is Israel's chief donor and ally. Although the United States has verbally advocated the strict observance of nuclear nonproliferation regulations, it is actually encouraging Tel Aviv's ambitions.

The reasons for Tel Aviv's protracted and intensive anti-Iraqi campaign become evident in light of Israel's desire to "legalize" its nuclear arsenal. The purpose of this campaign is to accuse Arab countries of "atomic aggressiveness," thereby acquiring a pretext for the open acquisition of nuclear weapons, and to prevent nuclear research in the Arab countries Israel regards as its most dangerous opponents. Here are some of the facts of Israel's activity: In April 1979 Israeli agents in Paris bombed a nuclear reactor ready for shipment to Baghdad, in June of the same year a leading Iraqi nuclear physicist was assassinated in the French capital, and in fall 1980, when a new reactor had been installed in Iraq, the first raid on the Baghdad nuclear center was conducted (although the bombing was the work of planes with Iranian wing markings, the Iraqi Government blamed Israel for the terrorist act on the basis of certain information it had acquired).

In June 1981 the Israeli Air Force conducted another raid on the atomic center near Baghdad. At that time Tel Aviv was asserting that Iraq could build an atomic bomb within the near future. But IAEA spokesmen and many authoritative American experts (for example, in the October 1981 issue of the BULLETIN OF THE ATOMIC SCIENTIST) said that there were no real grounds for this assertion.

How did Washington react to Israel's extremely dangerous action? Ronald Reagan formally condemned it but he also stated that Israel "had reason to

worry." American delegates prevented the adoption of sanctions against Tel Aviv in the UN Security Council and other international organizations. It was also learned that American intelligence knew about the plans for the raid as early as the end of 1980 and that the United States had helped to estimate the damage an atomic reactor like the Iraqi Ozirak one could sustain from a bomb weighing 1 ton (this was precisely the weapon Israel used in the raid) not long before the invasion. Furthermore, newspapers and magazines (for example, the WASHINGTON POST on 3 September 1980, the NEW YORK TIMES on 18 March 1981 and the 31 March 1980 issue of U.S. NEWS AND WORLD REPORT) printed information "leaks," referring to sources in the White House and State Department and alleging that Iraq could build an atomic weapon by the end of 1981.

The attack by Israel, a country which had openly broken its pledge not to acquire nuclear arms, on a civilian nuclear installation in Iraq, which had signed the Nonproliferation Treaty and which had allowed international inspectors to monitor all of its nuclear facilities, was an act of aggression. The destructive import of this act far transcended the bounds of the Middle East: "An attack on the Nonproliferation Treaty"--this is how S. Eklund, then the general director of the IAEA, accurately described Tel Aviv's action. The U.S. defense of this action attests to an extremely dangerous trend in American policy on the issue of nuclear nonproliferation.

Washington's pro-Israeli position encouraged further aggression by Tel Aviv in the nuclear sphere.* After the raid on the nuclear center in Baghdad, then Prime Minister Begin began to threaten that in the future Israel would destroy any "enemy" Arab nuclear installation. Former Israeli Defense and Foreign Minister Dayan stressed that Tel Aviv had the potential to build a nuclear weapon and would use this potential "if the Arab countries acquire one."

The American policy of aiding and abetting Israel soon evolved into an actual campaign against the IAEA. During Senate hearings in summer 1981, R. Rischer, a former American inspector in this agency, spoke of the ineffectiveness of international safeguards with regard to Iraq's activity in the nuclear sphere. A few months later, the American Nuclear Regulatory Commission was sent the "Morgan memorandum" (also compiled by a former IAEA inspector). This was the first document containing a negative appraisal of the entire system of IAEA safeguards to be submitted to the American government agency. At the same time, articles criticizing the activities of this international agency began to appear in the press.

In 1982 the campaign against the IAEA entered a new phase: In response to a resolution adopted at an IAEA session on the nonrecognition of the Israeli delegation as a sanction for Tel Aviv's attack on Iraq, the American delegation and several representatives of other Western countries ostentatiously withdrew from the session. A U.S. spokesman announced that Washington would "reconsider" its membership in the IAEA. The United States stopped contributing to the agency budget and cancelled its membership in the international body.

* See V. P. Davydov, "Tel Aviv's Nuclear Ambitions and Washington," SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA, 1981, No 3--Editor's note.

Washington rejoined the IAEA in 1983 under the influence of criticism in the country and abroad, stating the U.S. commitments would depend on the actions of other members.

The American policy of aiding and abetting Israel, its direct support of Israeli aggressive actions against Lebanon and the increasingly close U.S.-Israeli cooperation in the dismemberment of this country caused Tel Aviv's nuclear adventurism to become more pronounced. In 1983 S. Fieldman's book "Deliberate Obscurity" was debated in Israel. The author advised the candid disclosure of Israeli nuclear forces and the augmentation of nuclear potential to 30-40 bombs of 20-60 kilotons. Even members of the government participated in the debates. This was a unique development in Israel's experience. What is more, Science Minister Y. Ne'eman declared that Tel Aviv could build a nuclear bomb under certain conditions.

By 1975, according to testimony during hearings in the House of Representatives in July 1977, South Africa was able to establish facilities for the concentration of uranium with the aid of the Western powers. Pretoria thereby acquired a source of fissionable materials for the production of several nuclear bombs a year. "Our success," said Roakes, then the head of the South African nuclear commission, "is largely due to the help of the United States." Washington trained 90 percent of the nuclear scientists in South Africa and supplied Pretoria with its first Safari-1 reactor and with fuel for it. The United States helped South Africa design a second nuclear reactor and sold the racists a computer for a uranium concentration plant.

Under President Carter, public pressure put an end to the United States' overt nuclear cooperation with the racists. This policy was officially confirmed by the present administration. "The firm U.S. position...is that the United States cannot cooperate in the nuclear sphere with South Africa until all of its nuclear facilities are covered by international guarantees"--this is how State Department spokesman J. Malone defined Washington's position in 1981.

Numerous facts indicate, however, that U.S. assistance in the development of South African nuclear potential has been quite substantial even in recent years. On the official pretext of "an exchange of task forces for the in-depth study of safeguards," South African specialists obtained access to U.S. nuclear centers (in 1983 a delegation even visited a secret American plant for the concentration of uranium); South African nuclear scientists continued to be trained in the United States; the State Department authorized the Amdal Company to sell Pretoria another computer, needed for the augmentation of uranium concentration capacities.

Two South African nuclear reactors built by France began operating in the Kouberg region at the end of 1983. A supply of fuel for the reactors is one of Pretoria's main concerns. South Africa's own concentration plant cannot produce atomic fuel in the necessary quantities, and reactor downtime would cost 600,000 pounds a day, as the London TIMES reported on 15 August 1980, citing the estimates of English experts. The Reagan Administration again came to the aid of the racists. Washington, as newspapers in Mozambique and Zimbabwe reported last November, not only promised to provide South Africa

with a steady supply of concentrated uranium for the power plant, but also began to deliver it through third countries.

It is obvious that the United States could make use of Pretoria's interest in shipments of atomic fuel to exert effective pressure on the racists in the matter of nonproliferation. Instead, Washington has taken the opposite position, declaring its intention to develop "constructive cooperation" with South Africa. In 1981 the United States began negotiating the resumption of the direct shipments of concentrated uranium to Pretoria that had been curtailed in the 1970's. Middleman activities by American companies in the provision of the racists with atomic fuel were effectively condoned as well: An investigation which came to an end in 1982 corroborated reports that U.S. companies had purchased uranium in Belgium and Switzerland, after which they sent it to France for processing and then sold it to South Africa. Washington saw "nothing illegal" in the actions of the companies.

As the NEW YORK TIMES reported in April 1981, the Reagan Administration had decided that American-Pakistani disagreements over Islamabad's nuclear program "should not impede...the growth of American military and economic assistance."

The administration insisted that the Senate lift the ban on military assistance to Islamabad and concluded a so-called comprehensive bargain on 3.2 billion dollars in aid. Half of the sum was earmarked for military purposes, including the acquisition of F-16 planes. According to testimony during congressional hearings in April 1981, during the U.S.-Pakistani talks Islamabad did not promise to refrain from building nuclear explosive devices, and Washington did not insist on any assurances of this kind.

The dangerous and irresponsible nature of Washington's position regarding Islamabad's nuclear program becomes particularly evident in view of the fact that American special services recorded Pakistani attempts to build a nuclear weapon as early as 1979. At that time they discovered that Islamabad had secretly been purchasing Western equipment for several years for facilities for the regeneration of plutonium and the concentration of uranium and had thereby acquired essentially all it needed for its own military nuclear program. It was also reported at that time that Pakistan had begun to build a testing ground for nuclear weapons. The Carter Administration responded by cancelling all military and economic aid to Islamabad. In August 1979 the NEW YORK TIMES reported that the State Department was investigating plans for the bombing of Pakistani nuclear installations.

According to specialists, in 1981 a secret installation for the regeneration of plutonium was already operating in Pakistan and the first section of a uranium concentration plant was close to completion. These expert estimates were indirectly corroborated by the conflict between Islamabad and the IAEA over safeguards at a single Pakistani nuclear power station.

Islamabad needed spent atomic fuel--the raw material for the derivation of plutonium--for its regeneration facility. The only possible source was the nuclear power station in Karachi, which had been operating since 1974. In 1980 Pakistan, after building a plant for the production of atomic fuel with

the aid of West European firms, had an opportunity to build fuel elements for its power station which would not be covered by guarantees. The design of the station allowed for the removal of elements where plutonium had accumulated without stopping the reactor. This design feature facilitated the secret performance of this operation.

In 1981 IAEA representatives noticed "suspicious procedures" at the power station. They demanded changes in monitoring equipment. This demand was initially rejected by Pakistan, which was recorded in the IAEA report for 1981. It was not until a year later that Pakistan agreed, after lengthy negotiations, to install additional equipment. This delay could have given Pakistan enough time to derive sufficient plutonium for a nuclear bomb.

Another indicator of the intensive development of Islamabad's nuclear program was the continuation of secret purchases of "dangerous" technology abroad in 1980 and 1981. In particular, American electronic equipment (needed for the Pakistani concentration plant) prepared for shipment to Islamabad was confiscated in Montreal. Investigations revealed that Pakistan had previously been supplied with at least five similar sets of equipment through the same channels.

The Reagan Administration's allegations that American-Pakistani cooperation is a means of normalizing the situation in South Asia and, consequently, of reducing Pakistan's incentive to acquire nuclear arms do not stand up to criticism.

This was not followed by any favorable evolution of Pakistan's position on the nuclear issue. When Zia-ul-Haq met with Reagan in December 1982, he repeated the traditional phrases about Islamabad's fundamental lack of interest in the acquisition of nuclear weapons, but he also would not promise not to explode nuclear devices. It is indicative that Washington responded by "sympathizing" with this position.

After Zia-ul-Haq's talks with Reagan, people in the United States began to allege that military assistance had helped to talk Islamabad out of conducting nuclear tests.

But this was not true. On 8 December 1982 the NEW YORK TIMES reported on congressional hearings during which intelligence agents testified that Pakistan had stepped up its nuclear program. It was stressed at the hearings that Islamabad had acquired secret information abroad which would allow it to build a nuclear bomb without conducting any tests.

The commencement of huge American military shipments led to a new round of the arms race in the region,* exacerbated relations between India and Pakistan and promoted the intensification of the Islamabad regime's military preparations: In 1983 Zia-ul-Haq announced plans to acquire an aircraft carrier within the

* See N. S. Beglova, "Pakistan--An 'Eastern Outpost' in Washington's Strategic Plans," SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA, 1982, No 11--Editor's note.

near future and concluded an agreement with the United States on the shipment of Harpoon missiles to Pakistan.

It is obvious that all of the dangerous processes created favorable conditions for the growth of Zia-ul-Haq regime's nuclear ambitions.

The negative tendencies in the Reagan Administration's policy on nuclear non-proliferation were not unnoticed in the country. Concern about the administration's line is particularly apparent in the Congress. This was reflected in the amendment adopted by the House of Representatives in fall 1983 to the bill on the authorization of control over American exports of nuclear materials, technology and equipment. The amendment prohibits the sale of American nuclear materials which could be used in the manufacture of an atomic bomb to countries not party to the Treaty on the Nonproliferation of Nuclear Weapons and not recognizing the guarantees demanded by the IAEA.

Democratic Congressman H. Wolpe, who introduced the draft amendment, substantiated the need for it: "The transfer of military nuclear potential to those who might treat it irresponsibly...is probably the most serious of all the threats to our nation and our civilization."

Despite the fact that restricting the spread of nuclear weapons would be in the long-range interests of the United States, the present administration's efforts to involve Israel, South Africa and Pakistan more actively in American aggressive actions have caused the White House to depart from the objectives of nonproliferation in its relations with these countries. This dangerous trend in American policy has dramatically increased the probability of adventurous actions by Israel, South Africa and Pakistan in the sphere of nuclear armaments.

The increased nuclear activity of Tel Aviv, Pretoria and Islamabad is undermining nuclear nonproliferation regulations and international stability and poses a threat to the security of all countries, including the United States.

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EFFECT OF FILM 'THE DAY AFTER' ON PUBLIC OPINION VIEWED

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 3, Mar 84 (signed to press 24 Feb 84) pp 65-69

[Article by I. V. Isakova: "Will There Be a 'Day After'?"]

[Text] A premiere is an opening, a chance to see something new, the beginning of the creative life of a play or a movie. But this was not true in the case of the film "The Day After" (directed by Nicholas Meyer and written by Edward Hume). The official premiere of this TV movie on 20 November 1982 was preceded by 18 months of debates, evoked by...this very film.

As soon as the first "rough" version of the movie appeared, copies began to be "pirated," particularly by those with antiwar views. The reason for this "leak" is still a mystery, but the film was viewed by many supporters of the antinuclear movement between summer 1982 and November 1983. Finally, last fall, when plans had been made to show the movie on the ABC network, a screening was organized for members of the administration, and the film was also shown to supporters of ultra-conservative organizations, critics and prominent politicians. This is how the film, even before its TV premiere, became a political event and a pretext for magazine and newspaper commentaries and heated arguments, in which extreme points of view clashed. An artistic work rarely evokes a reaction as strong as, if not stronger than, life itself with all of its passion, drama and tragedy. But this is exactly what happened with this film, whose artistic merits are quite meager but whose plot raised burning issues--burning because the very survival of the human race on our planet depends on their resolution.

"The Day After" attracted a viewing audience of 100 million Americans, more than half of the adult population. This was only the second time in the history of American television that a program had attracted such a large audience: The record was set in February 1982, when 106 million people watched the final episode of the "M*A*S*H*" series with its antiwar theme. The pertinence of this subject matter touched each individual. After all, this was a horrifying portrayal of the destruction, death and human suffering caused by the outbreak of nuclear war.

As a result of a nuclear conflict between the United States and the USSR, which began as a local military conflict involving conventional weapons,

Kansas City is destroyed. The authors of the film did not focus attention on which side it was that pushed the nuclear button first and availed itself of the opportunity to deliver a "preventive" strike; they felt it was more important to portray the effects of nuclear war. Most of the action in the movie takes place in Lawrence, a small American city in Kansas, just 40 miles from the epicenter of the blast. The survivors face inevitable death from the effects of the blast. The people on the screen suffer all sorts of torments. The cry of a newborn baby evokes the fleeting hope of the rebirth of civilization, but even this hope is extinguished when a tiny deformed creature appears on the screen, a horrifying image of the life forms that might come into being after a catastrophe. Much has been written in our press about this film and we will therefore dispense with plot descriptions and discussions of specific features of the film's artistic form, style and so forth. Our present topic is something else: the film's repercussions, the discussions of it, the political reactions to it and the attempts of antiwar groups, rightwing organizations and the administration to make use of it for their own purposes--some to corroborate their ideas about the catastrophic effects of nuclear war and the need to fight against this danger, and others to assert the need for stronger civil defense and increase military spending.

This was the first time antiwar groups used a program shown on commercial television as a means of directing the attention of the American viewing audience to the nationwide debates on nuclear disarmament.

Why did they choose this film? It corroborates a belief they have long tried to cultivate--namely, that doctrines envisaging the use of nuclear weapons are obsolete, that they are dangerous and that no one will survive a nuclear conflict.

Around 900 antiwar groups built their work around the upcoming premiere of the TV movie. They wanted to attract the maximum number of viewers to preliminary screenings and thereby create the largest possible audience for the premiere. Their expectations of the film's impact were based on the psychological peculiarities of group perception: Persuasion is more effective when an emotional shock is felt simultaneously. The Organization for a Sane Nuclear Policy, Teachers for Social Responsibility and Epicenter prepared reference guides and leaflets to give future viewers a better understanding of the film. They were distributed in schools, churches and stores and even right on the street. Epicenter, for example, printed more than 200,000 copies of its reference guide.

The telephone numbers of antiwar groups were printed in the advertising sections of local news organs so that viewers could call the groups after the movie had been shown and obtain information, join the organizations, express their opinions and so forth. More than 50,000 people called the groups in just 1 week in November after the premiere.

New groups were also formed for the purpose of making maximum use of the propaganda impact of the movie--for example, The Day Before, Target--Kansas City, and Let Lawrence Live! One of the organizers of these groups, journalist J. Baron from Berkeley (California), defined their purpose: "The film is

extremely pessimistic, it holds out no hope and it does not tell what people can do to avert war. This is why it is important for groups (in the antiwar movement) to convince people that nuclear war can be prevented."

On the night of the premiere antiwar groups throughout the country organized marches, demonstrations, candlelight processions, forums and press conferences. Hundreds of the movement's "novices" joined the "Freeze Voter '84" national political action committee, founded in the first half of December 1983. All of this added a great deal to the political storm brewing over the film.

The controversy stirred up legislators on Capitol Hill. Congressman T. Downey held a press conference on the film for his constituents. Congressman E. Markey described the movie in the following words in a WASHINGTON POST interview: "The film will have an emotional and a political impact. It refutes the very idea of 'limited' nuclear war...taking the entire problem out of the realm of abstract categories and making it fully accessible to the general public, and not just to experts. I think that this film will have the greatest effect on people who have relied on the Pentagon and the military to decide the nuclear issue and who are still listening to what the President has to say."

The supporters of administration policy and rightwing organizations responded with the appropriate countermeasures.

Director K. Adelman of the Arms Control and Disarmament Agency appeared on the NBC program "Face the Nation" and described the reaction anticipated by the White House: "The film could have a ruinous effect on the administration if people support the freeze, but it could also have a positive effect if they understand that President Reagan is doing what all other presidents have done: He is preventing nuclear war." Every effort was made to neutralize the negative effect of the film on the President's image; in particular, a collection of quotations from his speeches was compiled: "President Reagan on Peace, Arms Reduction and Nuclear Deterrence." For several months, the Pentagon pressured ABC to re-edit the film, specifically for the purpose of making it clear that it was the Soviet Union that started the nuclear war and to remove all references to Pershing II and cruise missiles in Europe.

A campaign was even organized to keep the film from being televised at all. The campaign was joined by the rightwing organizations of the American Security Council, the Eagle Forum, the Moral Majority, Young Americans for Freedom and many news media. In the middle of September 700 newspapers and magazines printed an article by W. Rusher, the publisher of the ultra-rightwing NATIONAL REVIEW, in which he accused the authors of the film of spreading "Soviet propaganda" and appealed to conservatives and "decent Americans" for a "backlash" against the film.

To keep the film from being shown, organizations sent petitions and letters to commercial companies planning to buy advertising time before, after and during the program to inform them of the "threat" the film allegedly posed to

"national security." As a result of this pressure, ABC was able to sell advertising time (which covers the overhead costs of commercial television companies) only at half price and only during the first half of the movie, which depicts the life of the inhabitants of Lawrence before it is disrupted by the nuclear blast.

Incited by ultra-conservatives, groups "opposed" to the film organized countermarches and their own rallies and demonstrations on the day of the premiere. Young Americans for Freedom planned gatherings of this kind in Kansas City and Lawrence.

The film was also used to illustrate arguments in favor of the nuclear "rearming" of the United States and a "strong" civil defense. To rid the public of the conclusions it might draw from the film, the television "reinforcement" of the White House's position at the talks on the limitation of nuclear weapons in Europe was organized; this position was zealously defended on television programs by Director K. Adelman of the Arms Control and Disarmament Agency, Secretary of Defense C. Weinberger and other executives of central agencies. Secretary of State G. Shultz was interviewed on a special edition of the news on ABC.

The reactions of the White House and the heads of concerned agencies during the discussions of the film revealed a definite change of tactics and of rhetoric by administration spokesmen on matters of nuclear policy.

For example, the public was assured that it was the Soviet Union that believed a nuclear war could be fought and even won, while the United States, on the other hand, rejects the very idea of this kind of war and believes that there can be no winners in it. Secretary of State G. Shultz, for example, called the film a "vivid and dramatic example of the absolute unacceptability of nuclear war.... And this has been the policy...and the successful policy, of the United States for decades. We are successfully averting nuclear war." Secretary of Defense C. Weinberger expressed his opinions to the WASHINGTON POST along the same lines: "There can be no winners in a nuclear war." President Reagan's speech in the Japanese parliament, in which he said that "nuclear war can never be won and must never be started," was quoted at length.

These statements were not heard in Washington earlier.... However--and this is quite significant--the idea that there can be no winners in a nuclear war was expressed 3 years ago in the official documents of the 26th CPSU Congress, which contained the frank statement: "The attempt to win the arms race and the hope of winning a nuclear war are a dangerous form of lunacy." This was also discussed in other speeches by USSR leaders. What is the reason for these "coinciding" points of view?

It is no coincidence that Ronald Reagan and his stooges decided to effect this shift, preferring to dissociate themselves from their previous statements about the possibility of waging a "limited nuclear war" and using a "pre-emptive strike." On the threshold of the 1984 election, the President apparently thought it would be best to tone down the belligerence of his

customary rhetoric to create the artificial image of a "peacemaker," and this decision coincided with the wave of public criticism on which this antiwar film was based.

It is indicative that rightwing groups armed themselves with the same persuasive tactics employed by the antiwar movement. For example, a discussion of the film (in the proper spirit) was shown immediately after the premiere on a expertly prepared propaganda basis.

Leading ideologists and politicians were asked to "interpret" the film in the proper spirit, and this campaign was carefully planned and coordinated in ABC's own offices. It was no coincidence that the film was followed by a special news program, "Viewpoint" (Ted Koppel, anchorman), in which the film was analyzed and U.S. policy on the prevention of nuclear war was portrayed in a favorable light. The panel included such prominent figures as G. Shultz and H. Kissinger, and supporters of the nuclear freeze, astronomer C. Sagan and writer E. Wiesel, were invited to join the panel for the sake of "balance."

This kind of discussion of a movie is not the customary approach to programs on American commercial television. The extraordinary measures taken by ABC, namely the "forum of ideas," a rightwing undertaking, reflected a fear of the possible intensification of criticism of U.S. nuclear policy: After all, the advocates of "power politics" had the last word in the discussion.

Just what was the propaganda impact of the film?

Many firms and publications conducted comparative public opinion polls before and after "The Day After" was shown in order to determine the film's influence on the opinions of viewers.

The findings of one such poll were the following.

The film, the organizers of the poll noted, made Americans worry more about the possible outbreak of nuclear war. Before the program 26 percent of the respondents regarded nuclear war as a real danger and expressed worries about it; 58 percent considered nuclear war to be a real danger but were more concerned with other problems and tried to "not think about it." After the program 88 percent expressed serious worries about this problem, and only 10 percent still felt that it was "better to forget about it."

Around 87 percent of the viewers were convinced that nuclear war could be prevented, and only 13 percent excluded this possibility.

Calculations of the numbers of viewers taking a specific stand on matters of nuclear policy produced the following results. Before the program 49 percent of the respondents supported the idea of nuclear arms control; they were joined by another 12 percent who recognized the need for this control after the movie had been shown on television. The main service performed by this TV movie with unprecedented political repercussions was that it stirred up many passive, previously politically indifferent citizens. For the first time many of them considered the direct implications of the danger of nuclear war and realized that if a nuclear conflict should break out, it will certainly affect them.

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SYNTHETIC FUELS FROM COAL AND SHALE

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[Article by G. I. Zorina]

[Text] One of the most important factors aggravating U.S. energy problems in the last quarter of the 20th century has been the lack of balance between the country's supply of crude energy resources and the patterns of their consumption.

Energy-consuming sectors of the economy use mainly petroleum products. They accounted for 95-97 percent of the fuel used in the transportation sector of the U.S. economy in 1970-1980, 28-43 percent in industry, 45-48 percent in commerce and 12-18 percent in power engineering.¹ Until 1980 more than 40 percent of all the oil used in the country was imported (32 percent in 1982).²

The abrupt rise in the price of imported oil in the 1970's led to various conservation efforts. As a result of this and of the economic crisis of 1980-1982, oil consumption fell from 1.1 billion tons in 1978 to 880 million in 1982 and the proportion accounted for by oil in the fuel and energy balance decreased from 48.7 percent to 42 percent.³ Furthermore, it has been acknowledged that conservation alone cannot secure a steady supply of oil over the long range.

This is why the U.S. economy is still facing the massive task of making considerable changes in the structure of the fuel and energy balance to bring it in line with existing fuel and energy resources. Deposits of oil and natural gas in the country represent only 0.9 percent of its total energy resources (including 0.5 percent in the case of gas), while they represented 68.3 percent of the national energy balance in 1982 (including 26.3 percent for gas). Deposits of oil shales and coal are distinguished by incomparably greater dimensions (representing 3 percent and 9 percent respectively of total energy resources), but the latter accounted for 22.6 percent of the energy balance in 1982.⁴

Economic, technological and ecological factors are such, however, that traditional methods of using coal (even if its extraction should be stepped up dramatically) and the use of nuclear, solar, geothermal and other forms of

energy cannot be expected to change the existing energy balance radically within the near future. For this reason, leading American experts believe that the resolution of U.S. energy problems will depend largely on the derivation of sufficient quantities of the customary liquid and gaseous fuels, which are so convenient to use, from the United States' own energy resources.⁵

In 1979 the most sweeping national energy program in U.S. history, covering the period up to 1992, was proposed by the Carter Administration and was later approved by the Congress.⁶ The main section of the program concerned the development of synthetic fuel production: 88 billion dollars of the 142 billion allocated for the program was earmarked for the development of synfuel. The Synthetic Fuels Corporation (SFC) was set up to carry out this part of the program. According to plans, by 1990 oil was to account for only 38 percent of the fuel and energy balance, and the output of synfuel (primarily from coal and shale) was supposed to reach almost 100 million tons a year.⁷

Almost all of the oil companies are now involved to some degree in this work. More than 70 percent of the country's oil firms are engaged in coal mining or processing, and 25 percent are working with shale. The formation of joint enterprises has been a characteristic feature in this field. In this way, several large firms can pool their resources to obtain the colossal capital investments needed for the production of synfuel on an appreciable scale (the cost of a large plant for the production of this fuel from coal or shale is in excess of 3-5 billion dollars). Firms which previously had no connection to the oil business--electrical equipment, machine building, rocket building, etc.--have also been attracted by the promising field of synfuel production and have been active in the development of the necessary technology.

The energy program stepped up research into new synfuel production processes and experiments with known processes. The most significant result in the field of coal conversion was the construction and operation of two large experimental facilities for the direct liquefaction of coal and experimental surface and underground gas generators for the processing of shale in Utah, Wyoming and Colorado. According to the National Coal Association, by the end of 1981 up to 50 facilities of varying dimensions for the derivation of liquid fuel from coal and 30 for the gasification of coal were operating in the country (8 were producing medium-energy gas for industrial purposes). By the end of 1981, 99 synthetic fuel projects were being considered,⁸ but only 2 or 3 have been commenced to date.

Besides this, the interest in industrial projects declined. This was particularly apparent in 1982. Despite the loan of 1.1 billion dollars extended to the Tosco firm, the most massive shale conversion project, the "Colony," was curtailed, the construction of an experimental plant for the solvent-treatment of coal was postponed, federal funding for experimental coal liquefaction facilities was cut off, and so forth.

The policy of the new Reagan Administration effectively shelved many sections of the energy program, particularly synfuel production. Funding was reduced, the terms of federal loans became much stricter, and expenses and all of the

risks were transferred to private capital. According to experts, the main obstacles in synfuel development are the huge capital investments required, the financial risk, the indefinite nature of fiscal and economic policy, the difficulties involved in obtaining authorization from federal and local agencies and the unreliability of technology. In the last 2 years external factors have been added to the abovementioned domestic obstacles: the relative surplus of oil in the world market and the gradual drop in oil prices (from 213 dollars a cubic meter in 1981 to 182 dollars in 1983). According to the latest forecasts, the rise in oil prices will be extremely moderate in the future and the price will not exceed 220 dollars a cubic meter in 1990 and 330 dollars in 2000.⁹ There has been almost no change, however, in financing for synfuel research projects. For example, the Department of Energy allocated 7 million dollars for these projects in 27 academic institutions and 3 private laboratories in 1983.¹⁰

Under these conditions, the overhead costs of synfuel production are an important factor. According to estimates, synfuel plants capable of handling 30,000 tons of coal a day and 66,000 tons of shale a day could produce synfuel at the following production costs (in dollars per cubic meter of oil equivalent): 145-220 for medium-energy gas from coal, 190-230 for the liquid products of Bergius processing, 94-220 for shale oil and around 360 for methanol (in 1981 dollars).¹¹ This means that shale oil has the greatest competitive potential in relation to ordinary oil, and in 1983 its production was considered to be preferable to the production of other synfuels.¹²

Fuel from Oil Shales

The first research projects involving the commercial processing of shale were conducted in the 1920's by the U.S. Bureau of Mines, which worked out a process for the surface distillation of shale in reactor-converters. An experimental facility for the process was not built until 1949 and it operated for around 10 years. The Bureau of Mines used the results of this work as the basis for a suitable method of deriving shale oil and proved that shale could also be a source of motor and power engineering fuel and some chemical products. In the 1950's research projects were conducted in the Laramie Energy Center (Wyoming), and the Sinclair and Union oil companies built experimental facilities in Colorado; in the 1960's Sinclair Oil began to experiment with the underground conversion of shale in situ; in 1972 Occidental Petroleum began to work out its own modified method of subsurface-surface processing (MMP).

By the beginning of the 1980's more than 10 original processes for the conversion of oil shale had been developed, tested and partially incorporated in the United States. These fell into the categories of surface, subsurface and MMP methods of thermal conversion.

Surface conversion¹³ entails the heating of crushed shale in conversion reactors for the thermal dissociation of the organic substance in the shale and its distillation into liquid (of the heavy crude type) and gaseous products. The heat for this process is either produced by burning part of the shale's organic content or by using a previously heated agent--gas, ash, hard granular matter or ceramic substances. In the first case air is pumped into the reactor to sustain the combustion, and the resulting gas is therefore rarefied with nitrogen. In the second case the gas produces more heat.

The thermal processing of mined shale is generally performed in reactors with a uniform flow of lump shale (the "parajo," "superior" and "union" processes), with a mixture of granulated shale and a solid heat carrier (the "tosco" process) or in a fluidized bed with a gaseous agent (the SFER process).

All of these processes have been tested only on the experimental or experimental-commercial scale in facilities capable of handling 450-1,200 tons of shale a day; a commercial reactor for the distillation of 12,800 tons a day has been built for the "union" process.

Future projects involving mined shale will be geared to a larger gum output and heightened thermal efficiency by means of the integration of heat flows, the preliminary concentration of shale and the optimization of operational conditions in reactors.

One serious problem in the processing of mined shale is connected with the need for an ecologically safe method of disposing of huge quantities of waste rock (for example, up to 100,000 tons of shale a day will have to be distilled to produce 2.5 million tons of shale oil a year). Another problem is the huge quantity of water required in these processes, and water resources are limited in most of the shale-rich U.S. regions.

The underground processing of shale provides for the economical use of low-grade and deep-seated shales without any waste disposal problems and with much lower water requirements. Heat for the processing is derived either by burning part of the shale in situ or with the use of steam heated by gas through a network of shafts. The preliminary fragmentation of the seam (with explosives, for example) creates the necessary permeability; resin then collects under the seam and is pumped to the surface through output shafts.

Underground processing methods are being tested by Geokinetics (blasting and combustion of the seam), Ramex Synfuels (heating with solution gas) and the Badger and Texaco firms (radio-frequency heating).

Underground methods distill no more than 40 percent of the oil from shale, while surface methods distill over 95 percent (but only of the quantity of mined shale). Another shortcoming is the danger of polluting ground water with waste products.

The modified method of processing (MMP) represents a compromise. It entails the uniform removal of 20-40 percent of the shale for processing on the surface; the rest is fragmented and processed in situ. This method combines the good and bad features of underground and surface methods, and the initial enthusiasm for it has recently declined sharply. The rate of oil recovery (surface and subsurface combined) is around 40 percent.

The method was developed and is being tested by Occidental Petroleum, the pioneer in U.S. shale conversion. It has conducted many fairly extensive tests¹⁴ and is building a commercial plant.

Shale oil refining: Shale oil differs from conventional oil in its higher viscosity gravity constant, higher content of nitrogen and oxygen, higher

yield point and lower sulfur content. Oil composition is also affected by the method of its distillation.

The conversion of shale oil into liquid fuel by the conventional refining methods is impossible without preliminary water-purification, which lowers viscosity and the content of nitrogen and arsenic. Some new distilling processes include this kind of purification by means of the addition of hydrogen.

Commercial oil refineries in the United States have some experience in refining shale oil derived by various methods. The results of tests have indicated that the output of gasoline, jet fuel, high-speed diesel fuel and furnace fuel oil of good quality from shale oil can reach 65-80 percent, while the output of heavy fractions is relatively small (4.5 percent with the MMP method and 17-19 percent in surface processing).

Four firms have been contracted by the U.S. Air Force to convert shale oil into jet fuel: Amoco Oil, UOP, Suntech and Ashland Oil. Each firm has developed its own catalytic refining method--Amoco uses a process of hydrodenitration with a difunctional catalyst and a jet fuel recovery rate of 75 percent, UOP uses a two-stage process of hydropurification and hydrocracking with no by-products, and Suntech and Ashland extract nitrogen-containing compounds with mineral acids.

The most realistic of the large-scale commercial oil-from-shale projects is considered to be the "Cathedral Bluffs" project of the Occidental Petroleum and Tenneco firms. The MMP method is to be used for the derivation of 1,880 cubic meters of resin a day. The plant will cost around 6 billion dollars to build and should be completely ready for operation in 1987. The work has begun, a loan of 2.2 billion dollars has been extended by the SFC, and guaranteed prices have been negotiated.

The first plant for the industrial production of shale oil was built in 1983 by Union Oil in Parachute Creek (Colorado). The shale is processed in a surface converter by the firm's own method, with shale conveyed to the surface by a special mechanized assembly. The first completed section (or module) of the plant with a single reactor is designed to process 12,800 tons of shale a day and produce 1,600 cubic meters of shale oil a day (around 500,000 tons a year). Another two such modules should be completed by the end of the 1980's and should triple plant capacity. The plant was built with the financial assistance of the SFC, which allocated 400 million dollars to secure plant operations for 7 years with a guaranteed purchase price of 250 dollars a cubic meter on shale oil. This oil will be purchased by the U.S. Air Force for the production of jet fuel.

The Conversion of Coal into Liquid and Gaseous Fuels

As we know, the main commercial coal conversion processes (Lurgi, Winkler and Koppers-Tozdeck gasification, Bergius-Pir direct liquefaction and Fischer-Tropsch indirect liquefaction) were originally developed in Germany in the 1920's and 1930's. Now individual processes in these groups are being

developed in the United States, but often with so many improvements and fundamentally new technical features that they could be called original. In the field of gasification, for example, the catalytic process, a process involving the addition of sulfur-absorption agents (dolomite and lime), hydrogasification with hydrogen in a reactor and salt and metal fusion processes were first proposed in the United States.

It was in the United States that the principles of rocket engineering were first used in the development of equipment for high-speed distillation.

The development of new specific catalysts and the use of hydrogen donor-solvents have relaxed the rigidity of conditions in old direct liquefaction processes and have essentially engendered new processes of this type. A new indirect liquefaction process has been worked out in the United States. It converts coal into gasoline through methanol and is much more effective than the well-known Fischer-Tropsch process.

Different categories of coal conversion processes, their present status, the salient features of American projects and the trends indicating their future development in the United States are examined below.

Coal Gasification:¹⁵ The specific products of gasification, representing the partial oxidation of coal with hydrogen and a steam agent, are gases with differing efficiencies: high-energy natural gas substitute (NGS), medium- and low-energy gas.

The NGS (7,000 kilocalories per cubic meter) has a methane content of over 90 percent and is derived by the hydrogasification of coal (with hydrogen) or the additional processing of medium-energy gas (SO conversion and methanization). In turn, medium-energy gas (2,000-4,000 kcal/m³) is generally derived by means of gasification with a hydrogen blast, and low-energy (900-2,000 kcal/m³) is produced with a gas-vapor blast. The speed of gasification and the rate of coal conversion into gas depend on temperature, pressure and the type of coal used. A temperature of 760-930°C and pressure of up to 70 atm produce a larger quantity of methane, and a higher temperature and lower pressure produce primarily carbon monoxide and hydrogen.

The technology of gasification depends almost totally on the type of reactor or gasifier used. In terms of this characteristic, processes can be divided into three main categories: those with a solid bed of slowly moving lump coal, those with a fluidized bed of ground coal and those in which reactors process powdered coal moving through the unit in a gas stream (cyclical recovery).

Reactors with a moving bed (downward from the loading hatch to the ash disposal unit) operate at high or atmospheric pressures with a steam-vapor or steam-oxygen blast. The gas produced by this kind of reactor has a low dust content; productivity depends on the operational temperature and pressure, and these in turn influence the composition of crude gas. Gasification in a solid bed is suitable only for non-caking coals with little slack.

The most well-known dry-ash gas generator with a solid bed of coal is the Lurgi generator. These are used at Sasol plants; in the United States they

have been installed in a pilot plant built by a consortium of firms in North Dakota as part of the "Great Plains" project. Plant capacity is 13,000 tons of coal a day and 3.5 million cubic meters of NGS. It is scheduled to begin operating in 1984.¹⁶

Current experiments with gas generators with a solid bed entail higher pressure for the purpose of a higher methane content in the crude gas, and higher temperatures for the removal of cinder in the form of fluid slag.

Reactors for the gasification of coal in a fluidized bed operate at temperatures of 900-1,000°C. The resulting gas has a high dust content, the rate of coal conversion is low and the caking coals require preliminary processing. The "highgas" fluidized-bed process has been developed in the United States (by the Institute of Gas Technology in Chicago). An experimental facility with a capacity of 75 tons of coal a day has been operating since 1972. Various types of coal mined in the United States are being tested here. Another process of this kind, "U-gas," is conducted at higher temperatures for the purpose of sintering part of the ash. This simplifies its separation and removal from the bed. The process is to be used in a large facility (2,800-3,100 tons of coal a day), constructed as part of the Memphis Gas, Light and Water Project in Tennessee. It will produce 4.2 million cubic meters of medium-energy gas a day for conversion into NGS and energy production.

Any form of powdered coal can be processed by the recovery method; the resulting medium-energy gas contains almost no resin or methane. The temperature in the reactor is around 1,600°C, the pressure is atmospheric and the blast is generally a steam-oxygen one. Part of the ash is removed in the form of molten slag and part is emitted in the gas. The "texaco" process (of the Texaco firm) is the most important of the analogous processes developed and tested in the United States. A large pilot facility (200 tons of coal a day) has been operating since 1980 at a plant of the Tennessee Valley Authority in Muscle Shoals, Alabama. This is the only facility of its kind, and the results of its work appear to indicate that the process is already being conducted on a commercial basis. The "texaco" process is the basis of a model project in California, the Cool Water Coal Gasification project of a consortium of firms (a capacity of 1,000 tons of coal a day and a scheduled completion date of 1984-1985). The facility will become part of the technological energy network and will secure an output of 106 megawatts of electrical power. A loan of 120 million dollars from the SFC was secured for the project.¹⁷

Another recovery process, the "Combustion Engineering" process (by the firm of the same name), has been undergoing tests in the United States since 1978 in Windsor, Connecticut (daily capacity of 120-136 tons of coal). Data is being collected for the construction of a pilot plant with a capacity of 1,800 tons of coal a day for the derivation of low-energy gas.¹⁸

It is noteworthy that most of the projected facilities and plants for the gasification of coal in the United States are intended for the production of medium- and low-energy gas to be used as fuel in power engineering and for the derivation of synthesis-gas. The Allis-Chalmers firm has already built one of these plants in Illinois. In the middle of 1983 it began producing

low-energy gas for power engineering. This is an enterprise of the "Kilngas" model, using an original process for the gasification of granular coal in a rotating horizontal furnace, similar to the type used in cement production. The plant has a projected capacity of 600 tons of coal a day and 1.8 million cubic meters of gas a day with the value of the resulting gas set at 5 dollars per million kilojoules.

Other gasification processes are still being researched and developed. One of the noteworthy fluidized bed processes is "syntan" (hydrogenation following oxidation). This process has been tested on an experimental scale in a facility with a capacity of 70 tons a day at a pressure of 24 atm with 68 percent efficiency for the derivation of NGS. Another of these is the "CO₂-acceptor" process for coking coal with heat produced by dolomite circulating through a reactor and regenerator. It has been tested at a facility with a capacity of 40 tons of lignite a day, at pressures of 10-15 atm and temperatures of 805-830°C (this gas needs no further treatment for the removal of sulfur dioxide). Some promising gasification processes are being tested in laboratories: in molten iron (ATGAS, Applied Technology), at 1,500°C with resulting medium-energy gas (sulfur is removed along with fluid slag and the gas requires minimal scrubbing); in molten soda (the M. W. Kellogg firm's "molten salt" process) at temperatures as low as 930°C, made possible by the catalytic effect of the salt; the "exxon" catalytic process--gasification with alkali metal salts for the derivation of NGS; the "exxon" process with a fluidized lime bed (with sulfur removed during the gasification procedure); the "hydran" hydrogasification process (U.S. Bureau of Mines), suitable for coking coal; and several processes (for example, those of the Stone & Webster and General Atomic firms) with heat produced by a high-temperature nuclear reactor.

It is obvious that the development of new processes is not the final goal; the main objective is the improvement of the economic indicators of production. This goal is most clearly reflected in the catalytic gasification processes (of the Exxon firm) and the gasification of coal pretreated with calcium compounds (a Battelle Institute project). These produce gas with a higher methane content and almost no resin and other pollutants. Scrubbing and preparation procedures have become simpler and cheaper, ensuring the economical operation of even small facilities designed for small consumers without the necessary funds for the creation of large gasification complexes.¹⁹

Indirect liquefaction: The technology of indirect liquefaction includes two stages--the gasification of coal for the derivation of synthesis-gas and the subsequent synthesis of liquid products.

The Fischer-Tropsch method of motor fuel synthesis is well known and well organized on the commercial scale. This process is now being used at Sasol plants in Synthoil reactors operating at a pressure of 25 atm and a temperature of 250°C with a ferrous catalyst in the recovery cycle. The synthesis-gas is catalytically converted into paraffin and olefin hydrocarbons. Fairly complex processing converts the products of the synthesis into high-cetane diesel fuel and gasoline of average quality (240 liters per ton of coal). All catalytic toxins must be removed from the gas for the synthesis, and this also complicates the process. In the United States the Fluor firm owns the rights to the Sasol technology. It has cooperated with the Sasol firm for a long time and has participated in its plant construction projects.

Another method of indirect liquefaction which has been tested in industry is the derivation of methanol from synthesis-gas. Methanol can be used as motor fuel, but it is now used mainly in power engineering. If the methanol production process is supplemented with its conversion into gasoline with the "mobil" zeolitic catalyst, high-quality gasoline can be derived. The "mobil" is now attracting considerable attention. In particular, it is more effective than the Fischer-Tropsch method in the conversion of coal into gasoline (a rate of 47 percent, as compared to 24 percent), and the composition of the resulting products is also better.

Despite the complexity, high capital requirements, low thermal efficiency and high cost of indirect liquefaction, this technology appears to have a future in the United States, because these methods have either been completely mastered on the commercial scale or include processes suitable for commercial incorporation.

Direct liquefaction (hydroliquefaction): A mixture of powdered coal and liquid fuel fractions (by-products) is hydrogenated with free hydrogen or hydrogen derived from a solvent (so-called donor hydrogen). These processes entail high pressure (up to 700 atm), usually with a catalyst. Low-ash coal with high reactivity is suitable for direct liquefaction. Current projects are emphasizing the reduction of operational pressure and of hydrogen requirements and the effective separation and utilization of conversion waste--the latter will make the process much more economical.

Two such processes have been tested in the United States in large experimental facilities.²⁰ The "H-coal" process (Hydrocarbon Research) entails the catalytic hydroliquefaction of crushed and dried coal at pressures of 150-210 atm and temperatures of 425-470°C in a three-stage fluidized bed with a catalyst. The products are naphtha, distillates and furnace fuel oil. Since 1980 an experimental facility with a capacity of 200-600 tons of coal a day has been operating in Catlettsburg, Kentucky. Tests have demonstrated the highly reliable nature of the process. The output of liquid products is 470 liters per ton of coal, with 50 percent represented by gasoline and the other 50 by distillates. The test results indicate the definite success of the direct liquefaction technology.

The Exxon firm uses the EDS process: hydrogenation with the use of a recycled solvent (fractions at 200-430°C)--a hydrogen donor. The process is conducted at a temperature of 430-480°C and pressure of 140-170 atm with the derivation of liquid products subsequently separated into distillates and vacuum distillation residue. Hydrogen is combined with the solvent in a separate reactor and is then used in the liquefaction reactor. The rate of conversion into liquid products is as high as 50 percent (depending on the type of coal used), with gasoline making up 35-46 percent of the total and distillates another 24-35 percent. The process began to be developed at the end of the 1960's. A large pilot facility with a capacity of 250 tons of coal a day began operating in 1980 in Baytown, Texas. In 1983 the facility was dismantled when the testing program came to an end.²¹

The SRC process (Gulf Oil) was tested in a facility with a capacity of 6 tons a day in Alabama. In recent years this process has been regarded as one of

the most promising for demonstrations on a broad scale. West German and Japanese firms participated in the project, but the project was postponed indefinitely in fall 1981 when original cost estimates were exceeded and applications for grants from the Department of Energy were refused, resulting in the loss of the foreign partners.

A comparison of liquefaction and gasification processes reveals the lower pressures and temperatures used in gasification; the purification and separation of the products of gasification are conducted in accordance with familiar and well-organized procedures and usually entail no problems. The disposal of ash is not a complex matter either. All harmful substances in the gas are recovered and do not pollute the atmosphere. It is generally simpler to conduct catalytic processes in the gas phase than in the liquid phase; it is easier to remove catalytic toxins, solid particles, acidic gases and resins; there is less coke residue to clog the equipment. All of these operations (scrubbing, separation and catalytic conversion processes) are much more complex in liquefaction and often require special equipment.

An analysis of the present state of synfuel production projects in the United States indicates that research and experiments with synfuels from coal and shale had reached an extremely high level by the beginning of the 1980's.

Most of the proposed projects, however, are still in the stage of financing discussions. The situation is complicated by the U.S. administration's economic policy, conditions in the world oil market, the stabilization or decline of oil prices, etc.

Estimates of immediate and medium-range prospects for the development of synfuel production changed considerably between 1980 and 1983. Forecasts at the beginning of 1981 were already predicting lower rates of production: 2-3 million tons of oil equivalent a year in 1985, 23-45 million tons in 1990, 80-115 million tons in 1995 and 130-215 million tons in 2000.²² Forecasts for 1983 suggest an output of no more than 5-6 million tons of synfuel a year in 1990 and no more than 20 million tons in 2000.²³

A more thorough analysis conducted by American experts with a view to the state of the economy and external factors indicated the following.

1. The production of a natural gas substitute from coal in an industrial plant will be unprofitable if the sale price is lower than 10 dollars per million kilojoules. The plant's losses will total 770 million dollars after 10 years of operation.²⁴ A plant for the production of 2.5 million cubic meters of NGS a day will cost over 2 billion dollars, but a natural gas well with the same yield would cost only 14 million dollars.²⁵ Besides this, after 1980 new natural gas deposits were discovered in the United States; its price in 1983 was 4 dollars per million kilojoules.²⁶

2. A possible shortage of liquid motor fuel is a more pressing problem in the United States than the prospect of an energy (gaseous) fuel shortage. Although the indirect liquefaction of coal has been tested on the industrial scale, it is extremely uneconomical and technically complex. The derivation of methanol

from coal has also been tested in industry, but methanol is still unsuitable as motor fuel for most types of vehicles, and its conversion into gasoline will not be economically sound until the 1990's at the earliest. The direct liquefaction of coal is still in the experimental stage, and plants of this type require billions in capital investments.

Experts also predict a progressive increase in the number of diesel-powered vehicles: The demand for diesel fuel will exceed the demand for gasoline by the year 2000. Shale oil is the best synthetic raw material for this purpose. The output of intermediate distillates from synthetic coal oil is approximately half as great. Research indicates that shale oil can also produce gasoline and petrochemical raw materials, although the output of aromatic compounds is much smaller. For this reason, the most favorable conditions are being established for the production of shale oil.

Since the main problem with many synfuel projects is a shortage of funds, it is probable that synfuel plants could be built by the beginning or the middle of the 1990's if the government should offer financial assistance. This does not apply to plants for the direct liquefaction of coal because this technology has not been perfected as yet. The construction of these plants is not anticipated before the end of the 1990's.

As for the scales and technology of the construction of synfuel enterprises, small modular designs are now being given preference: This will mean lower initial capital requirements and less risk; if the results of plant operation are good, it will be a simple matter to enlarge the plant by adding new modules.

FOOTNOTES

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U.S. MILITARY POLICY IN EAST MEDITERRANEAN SURVEYED

Moscow SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA in Russian No 3, Mar 84 (signed to press 24 Feb 84) pp 112-120

[Article by V. V. Golovin: "U.S. Militarist Line in East Mediterranean"]

[Text] The direct U.S. armed intervention in Lebanon with the use of ships of the American Sixth Fleet, carrier-borne aviation and the Marine Corps provided more clear evidence of the real purpose of Washington's militarist, aggressive policy. The behavior of the United States, including the barbarous bombing and shelling of Lebanese territory, the deployment of the new American medium-range missiles in Europe, the aggression against Grenada and the Reagan Administration's other efforts to escalate tension in the world, proved that the policy line of the Washington leadership is contrary to the fundamental interests of the majority of other states and poses a real threat to international security.

Ruling circles in the United States and some other Western countries are trying to dominate the Mediterranean zone by means of the direct use of armed forces, especially the American "rapid deployment force." Efforts are being made to strengthen NATO's military potential in the East Mediterranean, which for many years has been the site of such acute international crises as the Cyprus and Middle East conflicts.

The Reagan Administration has placed additional militarist emphasis wherever it felt there was not enough. For example, Washington is now much more likely than ever before to regard NATO's Mediterranean flank as a bridgehead for the active resistance of the consolidation of the national independence and social reforms of Mediterranean states.

This policy is being pursued under the cover of slogans about the alleged "threat" posed by socialist countries. But the real threat to the people of the East Mediterranean and to international security has invariably been the policy of the United States and NATO, which have concentrated strong military potential in this region, and this is precisely the kind of potential that is designed primarily for offensive combat operations. Particular attention has been given to the deployment and basing of NATO naval forces in this part of the world, with the American Sixth Fleet serving as their nucleus. These forces have been assigned the principal functions in the South European military theater, made up of Italy, Greece, Turkey, parts of the Mediterranean and Aegean seas and the Sea of Marmora and the southern half of the Black Sea.

The Nature of American Presence

Even today, now that Washington is openly using weapons as a policy instrument in its relations with Lebanon, U.S. propaganda services are still trying to prove that American military potential in the East Mediterranean is supposedly concentrated there exclusively for the purpose of "detering Soviet armed aggression" against the NATO countries and strengthening "peace and stability" in the Middle East. In fact, however, the organizational structure of the U.S. military presence in this region, the combat features of the American military equipment here and the actual cases involving its use testify that NATO's distinctive potential is designed not for defense, but primarily for intervention in the internal affairs of other states, and not only the Mediterranean ones.

These efforts by the United States and by the North Atlantic bloc in general have become much more vigorous over the past decade. At the beginning of the 1980's they took increasingly aggressive and belligerent forms. According to reports in the Western press, Washington began to conduct a "new strategy" in the Mediterranean, envisaging the expansion of NATO's sphere of action and "competence." This was discussed several times by members of the Reagan Administration. For example, Assistant Secretary of Defense for Policy F. Ikle stressed that the American administration intended to take steps to strengthen NATO's southern flank and to develop its potential for the "containment of aggression" in the Persian Gulf zone.¹ "NATO's strategic center of gravity is moving southward,"² said American Admiral W. Crowe, who was one of the top military leaders of the bloc until recently.

However, Washington's "new" Mediterranean policy essentially represents nothing more than a more overt continuation of the traditional U.S. line of military force, adapted to suit the international ambitions and rabid militarism of the current American leadership. This policy inherited all of the objectives of the line previously conducted by the United States throughout the postwar period, beginning with the declaration of the "Truman Doctrine" in March 1947 and the creation of NATO 2 years later.

The general guidelines worked out at that time determined the content of subsequent U.S. behavior in the Mediterranean. According to the authors of "United States Military Installations and Objectives in the Mediterranean,"³ a report prepared for the U.S. Congress and based on an analysis of Pentagon documents, militarist undertakings in the Mediterranean were invariably conducted within the context of the West's confrontation with the Soviet Union and other Warsaw Pact countries. The same report clarifies the U.S. concept of "peace and stability" in the Middle East: This has always been viewed through the prism of anti-Soviet preparations and military cooperation with Israel ("the support of friendly states outside NATO"). Finally, there was the objective of "securing" the sea lanes used for the shipment of raw materials to the United States and the West European countries, and of blocking the USSR's access to the Suez Canal in the event of a conflict.

A more precise idea of Washington's real goals in the East Mediterranean and the objectives of the American military presence in this region can be gained

from an examination of the actual combat capability of the Sixth Fleet and other components of U.S. military potential in this region. The statements and estimates of prominent Western experts are also indicative.

The quantitative parameters of the U.S. presence are the following. The immediate composition of the Sixth Fleet generally includes more than 40 naval ships,⁴ and its nucleus consists of two aircraft carriers which are in the Mediterranean on a virtually permanent basis (during the "Iranian crisis," resulting from the seizure of American diplomats in the U.S. embassy in Tehran, one carrier task force was operating in the Persian Gulf, and later the aircraft carriers of the Sixth and Seventh Fleets were put on alternating duty in the Indian Ocean). Each carrier is a base for around 90 planes, approximately half of which are designed expressly for combat operations. Some are patrol planes while others are designed for reconnaissance, electronic warfare, etc. From 60 to 70 planes can be in the air simultaneously, and their range of operations can be expanded considerably with the aid of the tanker aircraft that are also based on the carriers.

It must be said that the figures attesting to the scales of the American military presence in the Mediterranean (the number of ships, planes and servicemen) are approximate and are not a precise indication of U.S. military potential in the region. The parameters of this presence change regularly. For example, this presence was augmented substantially more than once during periods of friction in the East Mediterranean and the Middle East, as in the case of the recent events in Lebanon, and is regularly expanded on the pretext of various types of military exercises. And this is not all. Some researchers in the United States and Western Europe have noted that the American presence could appear less "impressive" on paper than in reality. Judgments have to be based, after all, on the actual capabilities of the forces and weapons in question.

In particular, the capabilities of the carrier-borne aviation of the Sixth Fleet are quite impressive. These planes can be used for the delivery of conventional and nuclear ammunition over distances of up to 2,000 kilometers. Furthermore, the addition of a third carrier increases the number of fleet ships by only one unit but secures an increase of 90 planes. This increase took place during the Middle East war of 1973, when another carrier was sent to the Mediterranean in addition to the two already there. According to THE TIMES, the English newspaper, "the United States still indulges in shows of strength in the Mediterranean at times by deploying three or even four aircraft carriers there."⁵ A great deal also depends on the composition of carrier-borne aviation and on the proportional numbers of planes for various purposes. Western reports indicate that forward-based carriers have unloaded their fighter planes and have carried around 80 nuclear attack planes several times during periods of friction.⁶

The Sixth Fleet also includes an amphibious unit, which generally consists of a helicopter carrier with 2,000 Marines and more than helicopters for their transfer and for other operations. Once again, these figures do not provide a complete picture of the actual combat capabilities of this reinforced Marine battalion, which has its own artillery and armored forces and represents less

than 5 percent of the total number of U.S. servicemen in the Mediterranean. And these capabilities, which are constantly being augmented as these forces are armed with new equipment, are quite substantial. In particular, more than 750 people can be carried to shore within 20 minutes during one combat helicopter flight. Amphibious forces can land at distances of up to 150 kilometers from shore. Furthermore, while the Sixth Fleet is securing Washington's potential for armed intervention along the entire perimeter of the Mediterranean basin and even beyond its boundaries, it can operate autonomously of bases and other material and technical support facilities on shore for a long time.

These data prove that the American military presence in the Mediterranean has clearly defined offensive features. Despite the allegations of U.S. spokesmen, it is certainly not intended to safeguard the security of NATO members, who are not being threatened by anyone, or to "guarantee" the observance of the vital interests of Mediterranean states, the people of which have always viewed American Marine landings as aggression rather than as a favor. The U.S. military potential in the Mediterranean fully meets the requirements of confrontation with the USSR and the performance of police functions in the zone.

According to Vice Admiral W. Rowden, now the commander of the American Sixth Fleet, U.S. forces in the Mediterranean "trained their sights on densely populated and industrially developed regions of the USSR."⁷ According to American military expert B. Watson, "the deployment of the Sixth Fleet in the East Mediterranean posed a substantial threat to the southwestern regions of the Soviet Union, particularly its Black Sea ports, Baku oilfields and industrial complexes."⁸

This threat has now grown even more serious as a result of the U.S. and NATO moves to implement the decision regarding the deployment of new American medium-range missiles in Europe, including Sicily (in all, 112 nuclear cruise missiles are to be deployed in Italy), which will be aimed primarily at southwestern regions of the Soviet Union. In addition, we must not forget that nuclear munition depots and aircraft capable of delivering weapons to targets in the Soviet Union are located in the NATO countries of the East Mediterranean. The U.S. line in the Mediterranean is closely related to the anti-Soviet, anti-socialist strategy of the entire North Atlantic bloc. In particular, the responsibilities of the Sixth Fleet include readiness for offensive operations as a national force and as a NATO force, in which case it is called the "NATO Support and Strike Force South."

One important function of the American military presence in the Mediterranean is connected with the United States' NATO obligations. This function envisages the performance of various combat duties against the USSR and its allies after the beginning of a war on the "central front"⁹--that is, on territory with no direct relationship to the Mediterranean zone--and with the use of nuclear as well as conventional weapons. As American political scientists have pointed out, this U.S. naval group is still the key source of tactical nuclear support in NATO military undertakings, which they describe as a quality of particular importance in this sector.¹⁰

Intervention in Local Situations

In this way, American ruling circles are trying to secure a dominant position in the Mediterranean for the United States. The Sixth Fleet, according to Admiral W. Crowe, has been assigned the mission of "dominating the sea and rendering assistance in the event of military operations on land, with the use of carrier-based aviation."¹¹ The need to control the Mediterranean was frankly pointed out by Commander W. Rowden of the Sixth Fleet.¹² Corresponding objectives have been listed in statements by H. Brown,¹³ the secretary of Defense in the Carter Administration, and other leading members of various American administrations.

Washington needs this kind of control primarily to uphold the particular aspects of its policy which are connected with interference in the affairs of littoral states. Specialists in the United States and other NATO countries have noted that the American presence in the Mediterranean was adapted from the very beginning for the performance of this role from a position of dominant strength. As E. Luttwack has pointed out, the Sixth Fleet has various ways of using its strength against "third states"--that is, states located directly in the Mediterranean and adjacent to parts of North Africa and the Near and Middle East. For this reason, this component of the U.S. Navy is regarded as an extremely flexible instrument of "persuasion with the aid of weapons."¹⁴

The capability for this kind of "persuasion" is used as a criterion to judge the "political usefulness" of the Sixth Fleet. Virtually all incidents of the "political" use of ships of the American Sixth Fleet (there have been dozens of such incidents) took place in the East Mediterranean. Methods were chosen depending on the nature of local circumstances. The favorite methods involved the transfer of U.S. military ships to the crisis site or to a region in direct proximity to the crisis zone, the augmentation of naval presence either in the Mediterranean in general or in its eastern half, the institution of various operations and maneuvers, etc.

Matters, however, are not always confined to politics. The United States has demonstrated its willingness to use armed force for tactical purposes. In the past it conducted a number of large-scale "political" and military operations on the pretext of protecting American interests in the Mediterranean. In particular, this applies to the American landing in Lebanon in 1958, the shows of strength connected with conflicts in the Middle East in 1970 and 1973 and in the Horn of Africa in spring 1978 and during the "Iranian crisis" of 1980 and the 1983 events in Chad. Washington threatened the direct use of its troops against the oil-producing states.

A significant development of recent years has been the special attention focused by the United States and by NATO as a whole on the improvement of the Western ability to react to "threats and crises" in the world, particularly the ability to transfer troops and materiel to potential conflict regions "as quickly as necessary." These objectives are directly connected with the Mediterranean, which represents an arena of unresolved crises and potential conflicts.

NATO leaders and military experts have stressed the Mediterranean's special role in the efforts to create the kind of effective support structure needed for the transmission of U.S. military units and equipment to Western Europe. Washington has made a number of demands on the South European NATO countries with regard to the storage of complete sets of materiel for American military units, the enlargement and reinforcement of military bases, participation by the allies in the transfer of troops by sea and by air, port and airport security and the establishment of favorable conditions for loading and transport operations in combat zones. Special emphasis has been placed on the need to grant the United States virtually absolute transit and basing rights in the event of crises.

Many American researchers, particularly former servicemen, have pointed out the fact that past experience, including the Arab-Israeli wars of 1967 and 1973, proved that the Middle East is too unstable for the United States to rely only on diplomacy in this region. In the future, according to a study by the conservative American Enterprise Institute, crises calling for the proper "naval response" from the United States are bound to occur. According to American expert B. Watson, U.S. obligations to NATO and Israel will necessitate the presence of the Sixth Fleet in the Mediterranean for several decades.¹⁵

Similar conclusions, underscoring the significance of the Sixth Fleet and other components of the American presence in the Mediterranean, lie at the basis of practical recommendations. Some people in the United States are demanding that programs of naval development be stepped up considerably and that huge additional sums be allocated for this purpose.¹⁶

One of the most dangerous aspects of this situation is the American command's concentration on the reinforcement of precisely the naval components designed for offensive interventionist operations in addition to the augmentation of overall naval potential and the enhancement of naval combat readiness. For example, the Pentagon plans to increase the number of U.S.-controlled carrier task forces from 13 to 22 in order to increase the striking power of the navy. If these plans are carried out, the qualitative and quantitative reinforcement of the Sixth Fleet, including the transfer of additional aircraft carriers to this jurisdiction, could become a reality. Furthermore, according to Washington's plans, the American Navy will need new combat ships and facilities for their maintenance and basing, including bases in the Mediterranean. This is to be accompanied by the reinforcement of the network of facilities serving U.S. and NATO ground and air forces.

The Problem of the Southern Flank

In connection with these plans, primary significance has been attached to overcoming the "crisis" that seized NATO's southern flank at the beginning of the last decade. Greece's withdrawal from the NATO military organization as a result of the events on Cyprus in summer 1974 dealt a perceptible blow to the bloc's positions in southern Europe and in the East Mediterranean. Although the Greek leadership actually did little to limit the scales of Greece's interaction with NATO and rejoined its military organization, the political

and military implications of the decision made at that time by the Karamanlis government were much broader. In particular, it created friction in American-Greek and American-Turkish relations, aggravated conflicts in NATO, affected programs for the re-equipping of Greek and Turkish armed forces and gave rise to several other serious problems of a long-term nature in the South European military theater.

The current U.S. administration has taken vigorous steps to "correct" the situation on the southern flank in line with broader American and NATO approaches and programs. In connection with this, Italy, Greece and Turkey, which have a diversified network of military bases and installations on their territory that are located close to the socialist states and to the explosive regions of the Middle East and Persian Gulf, are attracting as much attention from Washington as the countries of the Central European theater of war. It was no coincidence that the final communique of the NATO council session in Ankara (June 1980) underscored the "strategic importance of the Mediterranean region" and the urgent need to strengthen the economic and military potential of the countries making up the NATO southern flank.¹⁷

Turkey and Greece have been assigned a prominent role in securing a further increase in the American military presence on the approaches to the Warsaw Pact states and Southwest Asia, as well as in the plans for the extension of NATO's sphere of action to the Persian Gulf.

American ruling circles feel that it is absolutely essential that Turkey and Greece, which joined NATO in 1952, remain loyal members of the bloc and continue to place their territory and national armed forces at the disposal of their "senior partners," especially the United States.

In general, the naval nature of the South European theater of war has given the U.S. and NATO military leadership a special interest in the Turkish and Greek navies. Programs for their reinforcement and modernization and for the enhancement of their combat readiness are being carried out in accordance with NATO plans. The North Atlantic alliance has assigned these two countries quite similar functions connected with the organization of a blockade of the Black Sea straits, the opposition of "enemy" submarines and surface ships providing ground troops with support, the protection of sea lanes, etc. In accordance with the scenarios of U.S. and NATO leaders, the Greek and Turkish armed forces will perform local functions and will aid directly and indirectly in "more effective" Western confrontation with the Warsaw Pact states in all areas.

Western writers have noted that the NATO leadership does not view Greece and Turkey as separate entities, but as a single system of states with intersupplementary functions, isolated geographically from the other West European allies (with the exception of Italy) and strategically located between the Soviet Union and the Mediterranean and Middle East zones. The authors of "Greece, Turkey and NATO," a report prepared for the Senate Committee on Foreign Relations, stressed that although many aspects of the world situation changed after the declaration of the "Truman Doctrine," the U.S. view of American "security interests" in these two states did not change. It is still colored primarily by their strategic location.¹⁸

According to these views, Turkey is of particular strategic value because it has a longer common border with the USSR (over 1,500 kilometers) than any other NATO country, controls the straits of Bosphorus and the Dardanelles and is capable of keeping Soviet ships out of the Mediterranean and of immobilizing large groups of armed forces in the southern USSR. American ruling circles have paid increasing attention to Turkey because of its proximity to the Persian Gulf, its ability to secure the collection of intelligence information about neighboring states, etc. Washington plans to use Turkish territory during transfers of the American "rapid deployment force" to crisis regions. As the aforementioned report says, Turkey could serve as a "useful bridgehead" for military operations in Iran or other parts of the adjacent region.

After the Pentagon lost its intelligence centers in Iran, military installations on Turkish territory began to play a more prominent role (this applies in particular to radar reconnaissance centers, airports, various types of depots, radar stations and communication centers). More than 20 American military bases and installations are now located in Turkey.

Greek territory also plays an important role in U.S. strategy. When this country was being governed by the military junta, it took an active part in NATO military preparations. Although its army, navy and air force were not distinguished by their size, they were trained and deployed in total accordance with bloc plans--"on the strategic approaches to the Black Sea and the very center of the Soviet Union." The territory of this country, which was called a "vitally important support point" in a NATO military document, according to a report in the WASHINGTON POST, actually became a set of military bases and other installations belonging to the United States and operating on the basis of an American-Greek bilateral agreement concluded within the bloc framework. For example, the air force base in Salonika is only 120 kilometers from the Bulgarian border and 760 kilometers from Odessa. The Greek islands in the Aegean Sea can, in the opinion of NATO leaders, duplicate Turkey's control functions with regard to the Soviet Black Sea fleet. In addition, they can control sea and air lanes in the East Mediterranean, including those in direct proximity to Arab countries. Today there are four large military bases and several smaller military installations in Greece. After the latest agreement regulating U.S. activity on these bases expired in 1976, the Pentagon continued to use them on a "temporary basis" until summer 1983.

The conclusion of a new agreement on the bases was delayed for several years by serious disagreements with regard to the actual status of these bases and the volume and nature of the military aid Greece was supposed to receive in exchange for them. The main problems, which never were completely resolved, arose in connection with Washington's reluctance to take on any formal commitments to adhere to a specific balance in the offer of military assistance to Greece and Turkey. Besides this, U.S. representatives refused to give Greek authorities total control over certain military installations, agreeing only that these installations would be under the Greek command. In June 1983 the talks on the bases culminated in the signing of an agreement, in accordance with which the United States would continue to use military bases on Greek territory for another 5 years and would then begin dismantling them.

Certain obstacles are blocking the unlimited and unimpeded use of military installations in the Balkan NATO countries by the United States. In any case, open agreements have not included any solution on American terms to one of the key problems arising during U.S. talks with Greece and with Turkey--the problem of using bases in these countries for purposes unconnected with NATO objectives, particularly in crises in the Middle East and several other regions.

Washington, for example, would like to make more active use of military installations in Turkey on the pretext that the Iran-Iraq war poses a threat to the Persian Gulf. For this purpose, according to reports in the Western press, "technical agreements" could be concluded to permit the use of U.S. and NATO bases on Turkish territory for the attainment of American goals in the Middle East under certain circumstances, even if this should be contrary to the basic agreement with Ankara. The United States would like to institute a similar practice in its relations with Greece.

The plans for the reinforcement of NATO's southern flank will depend largely on political and socioeconomic conditions in the Balkan NATO countries and on their interrelations. There is no question that all of this has been taken into account by the NATO leadership in its efforts to take a comprehensive approach to Greece and Turkey, with a view to the distinctive features of these countries and the peculiarities of the present international situation, especially in the Balkans and the East Mediterranean.

Conflicts between Greece and Turkey were exacerbated once again when the leaders of the Turkish community of Cyprus announced the creation of a so-called "independent state" in the northern part of the island on 15 November 1983.

This separatist action is obviously supported by the United States and other imperialist forces. Washington verbally criticized the behavior of the leaders of the Turkish community, but within a few days its official spokesmen interpreted this action as a "fait accompli" and even tried to argue that the "new situation" would stimulate peace talks within Cyprus.¹⁹ In fact, however, the United States has something else in mind. "In the hope of escalating the tension connected with Cyprus, Washington intends to instigate military competition between Greece and Turkey, to step up the militarization of the latter and to pressure Athens to give up its independent foreign policy. In this way, it hopes to eventually turn both countries into obedient vassals of its own."²⁰

Internal processes in Greece and Turkey are another important factor affecting the situation. On the one hand, there has been some stabilization of relations between the military regime in Turkey and the Washington administration on the governmental level. On the other hand, Greek-American relations displayed some tendency toward aggravation after the Papandreou government took power. Furthermore, anti-American feelings are growing stronger, and not weaker, in Turkey as well as in Greece.

Therefore, under the Reagan Administration American ruling circles began to plan future actions to strengthen the U.S. military presence and NATO control in the Mediterranean region.

The American leadership's efforts to attain military superiority over the USSR, to create the potential for armed intervention in various parts of the world and to strengthen its Navy and its overall emphasis on naval strategy testify that the East Mediterranean and NATO's southern flank will continue to be a matter of primary concern to Washington for at least the next few years. There will be a corresponding preservation or even augmentation of the role of the U.S. naval presence in the Mediterranean.

Events in this part of the world have demonstrated, on the one hand, the danger and futility of this policy and, on the other, the limited nature of Washington's ability to stabilize its own selfish interests at the expense of the states located in this region. The attempts of the U.S. leadership to correct this situation by strengthening its "partnership" with the main NATO allies and Israel and making more active use of the "Common Market" have been complicated by conflicts and competition between Western countries in the Mediterranean and adjacent regions. Under these conditions, Washington and some other NATO members are trying to continue escalating tension in the Mediterranean by spreading rumors about the "Soviet threat" and using this as a cover for more energetic military preparations in the region. Some people in the West have tried to portray the presence of squadrons of Soviet naval ships in the Mediterranean as the source of this "threat." Allegations of this kind testify to attempts to distort reality and to divert public attention from the militarist undertakings of the North Atlantic bloc.

The naval ships of the USSR are not threatening the United States or any of the Mediterranean states. The presence of the Soviet squadron in this region, as even objective Western observers admit, is connected with the performance of defensive functions and is a reaction to the increased potential of American troops in the region. The Soviet Union favors the alleviation of military confrontation, the curtailment of the arms race, the development of cooperation in the Mediterranean, the transformation of this region into a zone of lasting peace, the resolution of existing international crises and the prevention of new ones.

The USSR has consistently supported the creation of zones totally free of nuclear weapons and has proposed the withdrawal of all Soviet and American ships and submarines carrying nuclear weapons from the Mediterranean Sea. This would do much to stabilize the situation in the Mediterranean basin. In particular, the Soviet proposals envisage the extension of military confidence-building measures, which have already proved effective in international practice, to the Mediterranean Sea, the negotiated reduction of armed forces in this region and the refusal to deploy nuclear weapons on the territory of Mediterranean countries.

Efforts to normalize the situation in the Mediterranean are being impeded, however, by U.S. and NATO leaders. As a result of this policy, tension posing a threat to peace and security is still present throughout the region, particularly in its eastern half.

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NOTES ON THE QUALITATIVE ARMS RACE

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[Article by V. R. Bogdanov and A. I. Podberezkin]

[Text] When we analyze the causes of the escalation of international tension, it is hard to escape the conclusion that the main one is the militarist line of the present U.S. administration. Its essence, as the 28 September 1983 statement by General Secretary of the CPSU Central Committee and chairman of the USSR Supreme Soviet Presidium Yu. V. Andropov points out, consists in the desire to secure a dominant position in the world for the United States, without any consideration for the interests of other states and peoples.

Throughout recent decades U.S. imperialism has been escalating the arms race, hoping to attain military superiority to the Soviet Union by means of the improvement of military technology and the creation of increasingly complex and fundamentally new types and systems of weapons. This was the purpose of the unprecedented buildup of U.S. military potential and of Washington's large-scale programs for the production of all types of weapons--nuclear, chemical and conventional. Now America's present rulers, who are obsessed with war, are planning to extend the unbridled arms race to outer space.

This plan to involve mankind in a qualitatively new stage of the arms race poses a colossal threat to the peace and security of people--the threat of nuclear catastrophe.

"The aim of qualitative superiority is a traditional feature of American research and development.... The preference for costly weapons which can be used for various military purposes and the hope of reducing the number of armed service personnel through the improvement of technology¹ could be called the American 'quality doctrine.'"² This was written back in 1978 by Air Force Colonel R. Head, a Council on Foreign Relations adviser, in an article in FOREIGN AFFAIRS. In accordance with this "doctrine," U.S. ruling circles have spent the entire postwar period striving for superiority in military equipment and have allocated "increasingly large sums," former White House staffer J. Fallows pointed out, "for the development of weapon systems which would make victory in a war automatic."³

The United States has been initiating the development of new weapon systems throughout the postwar period. In the qualitative arms race of the 1970's it concentrated on the development of MIRV's for its strategic systems. It assumed that the Soviet Union was unprepared for this in the scientific and technological fields and would not be able to react quickly enough to neutralize the American "breakthrough" in the arms race.⁴

Despite the talks which were being conducted with the Soviet Union at that time on the limitation of strategic arms, a foundation was being laid as quickly as possible in the United States for a future round of the arms race. In 1974, at the time of the Soviet-American summit meeting in Vladivostok, the United States was already, according to former Secretary of Defense D. Rumsfeld, working on programs for the development of the new B-1 strategic bomber, the MX ICBM, cruise missiles and the Trident submarine missile complexes.⁵

The hopes placed in the "technological" arms race were unwarranted. The Soviet Union took reciprocal steps to prevent the strategic balance from tipping in the United States' favor. The result of the American emphasis on MIRV'ed strategic missiles and the attainment of military-strategic superiority to the USSR in this manner was a new balance, but on a higher and consequently more dangerous level.

In spite of the failure of all its previous plans to win the qualitative arms race, Washington is still making a persistent effort to attain military superiority by creating supermodern types and systems of weapons.

During the 1980 campaign, the Republican Party platform specified the purpose of the arms race, consisting in "the attainment of overwhelming military and technological superiority."⁶ The Reagan Administration instituted a sweeping arms development and buildup program. Its main provisions extended over many years, right up to the beginning of the next century. They include the radical reorganization of the existing strategic nuclear arsenal and the creation of qualitatively new types and systems of weapons.

Between 1970 and 1978 Washington's strategic nuclear arsenal grew from 4,000 nuclear charges to around 10,000. Furthermore, this quantitative increase was accompanied by qualitative improvements. The new round of the arms race will pose a threat of unprecedented magnitude because it will lay the material foundation for American imperialism's military-political plans to launch a war against the USSR with the use of weapons of mass destruction.

The development of military equipment and technology in the United States brought about substantial qualitative changes in nuclear weapons. These are reflected primarily in heightened accuracy, force, maneuverability and invulnerability. For example, whereas the most modern American missiles of the early 1970's had an accuracy range (standard deviation) of around 500 meters, the figure decreased to 200 meters when NS-20 guidance systems were installed on the Minuteman III missiles. According to Western specialists, this heightened accuracy, combined with the more than twofold augmentation of the warhead's force, increased the probability of the destruction of a hardened target to 80 percent.

This necessitated qualitative changes in the following areas of military technology:

The creation of systems for the precise determination of the locations of missile launchers and targets by means of a better space system of ICBM coordinate designation, as well as substantial changes in the navigation system for nuclear missile carriers. In particular, with the Loran-C radar system, American submarines can pinpoint their location within a range of 15 meters;

The modernization of guidance systems. For example, the new NAVSTAR space system and the guidance systems designed expressly for the Trident SLBM could secure superaccurate information for American ICBM's and SLBM's;

The development of a system to maneuver the ICBM warheads in the final flight trajectory.

The improvement of these qualitative features was a destabilizing factor, however, which influenced the current military-strategic situation in the world, as the majority of analysts admit.⁷

These tendencies became even stronger in the 1980's. Qualitative changes dramatically heightened the accuracy of the new generation of American strategic missiles, and this created additional difficulties for missile defense.

The augmentation of the nuclear arsenal was stepped up in recent years. But the increase in the number of nuclear munitions will be even more impressive in the current decade. According to official American sources, over 17,000 new nuclear warheads will be produced in the United States in the 1980's alone.⁸

The qualitative changes in such fields as rapid missile redirection and launching, heightened accuracy and guaranteed impact led to the development of the new medium-range Pershing II missile, capable of destroying pinpointed targets within an extremely limited period.

The development of new rocket engines led to the production of small, lightweight and highly effective engines, augmenting the missile payload and increasing its range. The microelectronics used in new guidance and control systems did much to heighten the accuracy, reliability and diversity of the combat use of missiles.⁹

All of these qualitative improvements eventually led to the creation of a fundamentally new weapon--cruise missiles with a variety of basing methods. Current models can carry a nuclear charge (of 100-200 kilotons) or a non-nuclear warhead. They are also highly accurate; whereas in nuclear combat these missiles are designed expressly for the destruction of silos and command centers, in conventional operations they can destroy military targets of various types with a 10-meter range of accuracy: from landing strips to individual tanks and weapons.

Another reason for the development of new weapons is the U.S. hope of forcing the Soviet Union to spend colossal sums on the creation of identical systems or

systems of defense against these weapons.¹⁰ The plans for the economic exhaustion of the USSR in the qualitative arms race represent one of the bases of U.S. military and political strategy.¹¹

Therefore, the result of Washington's efforts in the 1970's was a new generation of nuclear missiles, capable, according to the calculations of the U.S. military-political elite, of changing the Soviet-U.S. military-strategic balance substantially in favor of the latter. The significance of fundamentally new types and systems of weapons no longer consists only in the improvement of various features, but also in American illusions about the possibility of using these weapons to attain "new objectives" in addition to earlier ones.

Washington openly discusses these "new objectives." It hopes to create the nuclear potential for a so-called counterforce nuclear war.¹² In other words, it hopes to make nuclear weapons an instrument of American foreign policy. As the Prague political declaration of the Warsaw Pact states noted, "their (referring to the United States and its allies--Author) new military programs are indissolubly connected with the escalation of the strategic theories and doctrines of the 'first pre-emptive nuclear strike,' 'limited nuclear war,' 'protracted nuclear conflict' and others."¹³

All of these doctrines are built on the illusion that Washington would be able to win a nuclear war and impose its political will on the Soviet Union. In particular, this aim is recorded in the Pentagon's secret "defense directive for fiscal years 1984-1988," part of which has been leaked to the American press. It frankly says that "the United States should take the upper hand and be able to force the USSR to quickly cease all military actions on U.S. terms."

As authoritative experts have repeatedly pointed out, however, these calculations are absolutely unfounded from the political standpoint and the standpoint of military equipment.¹⁴

From the political standpoint, the absurdity of the hope of winning a nuclear war is self-evident. Under present conditions, this kind of war would have to be a global nuclear war, which would leave no room for political compromise or for the "clarification of relations" in general once it had started. In his report at the All-Union Conference of Scientists for the Delivery of Mankind from the Threat of Nuclear War and for Disarmament and Peace, held in Moscow on 17 May 1983, Academician Ye. P. Velikhov had this to say about the matter: "There is nothing more dangerous than these unrealistic assumptions. The use of nuclear weapons cannot be viewed as one type of diplomatic demarche in a crisis situation. It would mean that the Rubicon had been crossed and would cause an irreversible chain reaction. The use of nuclear weapons would endanger the vital interests of the other side and would be most likely to evoke retaliation for purposes of maximum destruction. Nuclear war is not a joint undertaking; it is not a game with set rules and limits. The very physical properties of nuclear weapons and the implications of their use threaten the greatest catastrophe in mankind's history."¹⁵

From the standpoint of military equipment, all of the hopes of U.S. ruling circles to win a nuclear conflict with the aid of a first "pre-emptive"

nuclear strike are unfounded because the present state of Soviet detection systems and the combat readiness of Soviet strategic forces will make this kind of strike impossible. As USSR Minister of Defense D. F. Ustinov, member of the CPSU Central Committee Politburo, declared: "Knowing the imperialists' predatory habits, we can say quite definitely that our strategic forces are in a state of heightened readiness for the resolute repulsion of any aggressor. No 'pre-emptive' strike will save the overseas strategists from an absolutely devastating retaliatory strike. Nothing will save the aggressor from revenge if he uses nuclear weapons first against the Soviet Union and its allies."¹⁶ According to Rear Admiral (Ret) G. la Rocque, director of the American Defense Information Center, a recent study conducted at the request of the U.S. political leadership indicated that nuclear war would immediately kill 140 million Americans and 115 million Soviet citizens and would destroy almost two-thirds of the economic potential of these countries. The analysis states that no side can win this kind of conflict. In a nuclear war each country could destroy the other within 30 minutes. Nuclear missiles launched from submarines could destroy targets within 15 minutes. No matter who strikes first, there is no protection against nuclear attack.¹⁷

In spite of this, the creation of first-strike potential still heads the list of American political priorities, and largely because this substantiates increasing allocations for new weapon systems, providing an opportunity to garner superprofits without considering the consequences.

The attempts of U.S. ruling circles to prepare for nuclear war and the corresponding Washington military policy, taking the form of an intensive qualitative arms race, already entail a number of serious international consequences, even in peacetime. The political declaration adopted by the Warsaw Pact states in January 1983 in Prague lists three groups of extremely dangerous implications.

"First of all," the document says, "the development and deployment of new systems of nuclear weapons and other weapons of mass destruction will constantly undermine the stability of the military-strategic situation, increase international tension and complicate relations between states.

"Secondly, this new escalation of the arms race is contrary to the goal of maintaining a military-strategic balance at ever lower levels--the goal of the Warsaw Pact states, which are opposed to military competition. Arms buildup programs will raise levels of military confrontation. Peace will become even less stable and more fragile.

"Thirdly, the new round of the arms race will make nuclear weapons and other weapons of mass destruction increasingly complex. This will make the drafting of international agreements on their limitation and reduction a much more difficult process."

The degree to which these conclusions apply to contemporary political practices is clearly illustrated by the deployment of the new medium-range American missiles in a number of West European countries. The cruise missiles and Pershing II missiles represent one of the U.S. "initiatives" in the

qualitative arms race that are aggravating international problems. Even the preparations for the deployment of these missiles in Western Europe by the NATO bloc have led to a dramatic increase of tension on the continent and in the world in general. Without exaggerating, we can say that the deployment of the new American missiles, which is a result of the U.S. qualitative race for nuclear arms, has become the most urgent international problem in the world, and not just in Europe.

The United States' deployment of its missiles in Europe, which has increased the nuclear threat to the Soviet Union and other socialist countries, is already evoking Soviet reactions: The first Soviet tactical missiles with a longer range are being deployed in the GDR and CSSR, by agreement with the governments of these states, the moratorium on the deployment of Soviet medium-range missiles in the European part of the USSR has been lifted, and the appropriate Soviet weapons, equivalent in terms of their characteristics to the threat posed by the American missiles located in Europe, will be deployed in maritime regions. Other measures will also be taken.

The actions of the USSR and its allies have been dictated by the need to maintain the military-strategic balance, and it will be maintained, but on a higher level. Furthermore, whereas in a quantitative arms race a point of saturation can be reached, in a qualitative race, in which the main indicators of military potential are present and future levels of development in science and military technology rather than the physical parameters of the quantity of military equipment, there is no point of saturation. What is more, in a qualitative arms race the military-strategic balance depends directly on the speed with which military equipment and technology are developed and with which the imperialist states arm themselves with new military equipment.

As for the third aspect mentioned in the Prague declaration, we have seen that the increasingly complex nature of military equipment is eradicating some of the differences between various types and systems of weapons because, as the joint statement of the party and governmental leaders of seven socialist countries noted, the fundamentally new systems of conventional weapons are similar to weapons of mass destruction in terms of their combat features.¹⁸

These qualitative changes have engendered new generations of conventional weapons that are almost as effective as nuclear ones. We have witnessed a so-called "quiet revolution" in means of waging war with non-nuclear weapons, and this has led to changes in ideas about "conventional wars." People in the West have been working on various theories of "automated" and "robotized" warfare and "long-distance destruction," in which the main role will be played by qualitatively new weapon systems capable, according to their inventors, of making radical changes in future wars and reducing them to the automatic victory of the country with the highest level of technological development. This is also the purpose of the allegations that strong non-nuclear forces will diminish the probability of nuclear war.¹⁹

The U.S. secretary of defense is demanding the immediate modernization of NATO non-nuclear forces because, in his opinion, air missile strikes against landing strips (and probably missile launchers) in the Warsaw Pact countries will

result in an "easy victory."²⁰ This policy is aimed primarily at material preparations for a first strike against the Warsaw Pact countries. Military specialists in the United States and NATO have frankly said that "the people in charge of planning in the Pentagon have adopted a new doctrine and combat tactics in accordance with which the U.S. Army...will be geared to offensive operations."²¹

The plans for the creation of new types of weapons laid the foundation for the reordering of priorities in U.S. military doctrine and military strategy. A report by the UN secretary general says that "in the technological respect the production of conventional arms in the 1960's and 1970's was geared to the development of 'generations' and 'families' of weapons, which are dangerously close to the point at which there are no longer any distinctions between conventional and nuclear weapons in terms of their killing force and accuracy, on the one hand, and their multiple functions on the other."²²

In this way, military R & D projects stimulated by Washington's military plans are resulting in new types of weapons; these, in turn, influence military strategy, and the latter influences foreign policy. Furthermore, attempts are being made to blame all of this on technical progress in the military sphere, but everyone knows that decisions to develop various fields of military technology are made on the highest political level, and Washington's chosen objectives have made the qualitative improvement of weapons the highest priority.

These plans for the qualitative aspect of the arms race lead to qualitative shifts in weapons and the methods of waging war at specific intervals (approximately every 10-15 years). According to Western specialists, new aircraft models take an average of 13 years to develop (2 years for basic research, 3 years for experimental design, 5 years for testing and 3 years for the mastery of industrial production). American strategists believe that these "technological breakthroughs" have considerably broadened the range of the use of military force in U.S. foreign policy and represent the material basis for new goals and objectives in American foreign policy.

The Reagan Administration's plans for the militarization of outer space are an example of this kind of "technological breakthrough" with the most serious implications for international security. In a speech on 23 March 1983, the U.S. President announced that his administration was considering the accelerated development of supermodern military technology "for the purpose of intercepting and destroying strategic ballistic missiles before they reach the territory of the United States or its allies." Later he ordered the intensification of work on the long-range program for the U.S. space ABM system.²³

This kind of shift in White House policy signifies not only the development of increasingly effective weapons, but also some changes in the theory of forms and methods of warfare, the expansion of its spatial limits and, what is most important, serious changes in U.S. military strategy and military doctrine, which can be expected within the near future. This will entail, first of all, the improvement of nuclear technology and its adaptation for warfare in space and from space and, secondly, the development of fundamentally new types of weapons--for example, the use of directed beams of radiation for military purposes.

In contrast to lasers, weapons based on the use of directed radiation (electrons, protons and ions) intensify and guide the stream of particles to the target. According to specialists, these "death rays" can "drill" holes in targets (for example, a missile) from a distance of 10 kilometers if the weapon is used in the atmosphere and can "bore through" the target from distances exceeding 10,000 kilometers if the weapon is used in outer space.²⁴

Another "exotic" weapon for warfare in space is a microwave device representing a dense cloud of particles propelled by a magnetic force field.

The development of the latest military technology has significant political and strategic implications as well as consequences in the field of military equipment.

First of all, and this is probably the most important consideration, even the very idea of developing a space ABM system and the very attempts to develop it are dramatically destabilizing the military-strategic situation in the world and intensifying the aggressive nature of U.S. foreign policy because they are creating the illusion of U.S. invulnerability to a retaliatory strike.

Secondly, Washington's actions will also bring about inevitable changes in weapons and methods of warfare and expand the territorial scales of war. It will no longer be limited to the surface of the planet but will be extended to space. The deployment of antimissile systems, antisatellite weapons and other weapons in space will introduce the most serious changes into combat, will endanger vitally important political and military installations--communication and control centers and early warning systems--and will raise the level of military confrontation. All branches of the armed services will grow increasingly dependent on space weapons and, consequently, on their security.

Thirdly, this will intensify the arms race dramatically by opening up new fields of competition.

The need to stop the quantitative and qualitative race for nuclear missiles is the central problem of our day. The nuclear arms race started by the United States and its NATO allies is not only a threat to peace and international security; it is a threat to the very survival of the human race. The arms race is a real policy aimed at the dramatic quantitative and qualitative augmentation of imperialism's military potential for broad military and political purposes. It is a component and an instrument of the policy of imperialism in general and of military policy in particular. Its main objectives are stipulated in U.S. military doctrine.

Bourgeois propaganda persistently alleges that the arms race "is the result of a self-stimulating process of improvements in military technology."²⁵ With the aid of these allegations, the Western propaganda machine is trying, if not to absolve the United States of all responsibility for the escalation of the arms race, then to assign equal responsibility to the USSR and to some kind of "objective" laws of contemporary technological development.

In fact, the arms race is one aspect of U.S. military doctrine and military policy--more precisely, it is its military-technical aspect, which wholly and

completely serves the goals and objectives of the country's imperialist foreign policy. It is precisely the desire to attain the goals of this policy that propels the arms race.

But the reality is that Washington's dreams of winning the qualitative arms race and of "exhausting" the Soviet Union in this kind of race will never come true. "The Soviet Union," D. F. Ustinov has pointed out, "has experienced scientific personnel and a developed network of scientific research establishments in all fields of knowledge. Our industry is capable of producing the most complex items, including all of the latest weapons."²⁶

FOOTNOTES

1. In the United States the term "technology" takes in a broad range of concepts--from applied scientific research to technological innovations.
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20. AVIATION WEEK AND SPACE TECHNOLOGY, 6 December 1982, p 20.
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23. For more detail, see A. A. Kokoshin, "The U.S. Debates on the Space ABM System," SSHA: EKONOMIKA, POLITIKA, IDEOLOGIYA, 1983, No 12--Editor's note.
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26. "Sluzhim rodine, delu kommunizma" [We Are Serving the Motherland and the Communist Cause], Moscow, 1982, p 71.

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