Memorandum for: DDI

FROM: D/SOVA

Attached is Jim's memo on the article. Frankly, I think that claim that Soviet defense spending grew at an average annual rate of 8.5 percent over a 15 year period--including a five-year stretch when GNP grew at about 2 percent per year--has done more damage to his credibility than anything we could say.

He clearly misleads an uninformed reader regarding the extent to which his figures are "according to both Soviet economic plans and subsequently published data...". He doesn't tell the reader that it is the method of interpreting these data that produces his astounding growth rates.

Douglas J. MacEachin

Director,
SOVA
Office of Soviet Analysis
19 May 1986

MEMORANDUM FOR: Deputy Director for Intelligence

THROUGH: Douglas J. MacEachin
Director of Soviet Analysis

FROM: Chief, Defense and Economic Issues Group/SOVA

SUBJECT: Criticism of CIA - DIA Estimates of Soviet Military Spending


1. This morning's issue of The Washington Times includes an article criticizing the estimates of Soviet military spending recently presented by CIA and DIA in joint testimony before the Joint Economic Committee of the US Congress (Reference A, attached). The Times article, in turn, is based on an article of DIA in the May issue of the Heritage Foundation's National Security Record (Reference B, attached).

2. Although recent article provides few specifics on the basis of his disagreement with the CIA-DIA estimates, his position appears to be based on much the same arguments that he has advanced in other publications over the past two decades. In particular, his assertion that CIA and DIA are underestimating Soviet defense spending is evidently based largely on a comparison of the results of the CIA-DIA "direct costing" estimates of Soviet spending for military procurement with the higher estimates that he obtains through analysis of unclassified Soviet statistics on the output of the
machine-building industries (which produce military hardware, consumer durables, and investment goods) and its distribution to non-military claimants.

3. We have recently completed a paper assessing approach and concluded that it is extremely misleading. Our paper notes that, depending on how the Soviet data are interpreted, method may yield results much closer to the CIA-DIA estimates than to those that he obtains, but that it is too fraught with uncertainty to be used in estimating the value of Soviet spending for procurement.

Attachments: as stated
SUBJECT: Criticism of CIA - DIA Estimates of Soviet Military Spending

UL/SUVA/DEIG/DEA/DEP (19 May 1986)

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U.S. intelligence on Soviets faulted

By John McGaslin
THE WASHINGTON TIMES

A Defense Intelligence Agency analyst says both the DIA and the Central Intelligence Agency have seriously underestimated Soviet defense spending.

In an article in the May issue of the Heritage Foundation's National Security Record, DIA analyst W.T. Lee says that, contrary to DIA and CIA estimates of relatively flat Soviet military spending, the Soviet Union has been spending a growing percentage of its total state budget for military purposes.

A CIA and DIA report on Soviet defense spending presented to Congress in March said Soviet spending on weapons has been constant since 1975 "and is likely to grow little, if any, over the next five years."

But Mr. Lee's article takes issue with those estimates.

It says Moscow's military expenditures are increasing at about 8.5 percent annually. This compares to a rate of less than 3 percent for U.S. defense expenditures over the same period.

"There has been no indication to date of any significant reallocation of resources to non-military see SOVIET, page 10A

SOVIET

From page 1A

spending, despite General Secretary Gorbachev's public promises of economic improvement," Mr. Lee wrote.

Citing both Soviet economic plans and subsequent published data, Mr. Lee's report says Soviet military outlays grew from about $67 billion in 1970 to about $207 billion in 1983, and probably exceeded $229 billion in 1985. (The dollar figures are based on exchange rates which tend to understate the size of the Soviet spending.)

"And these estimates of total Soviet military outlays are minimal because they do not include the cost of civil defense, military pensions, and probably other military-related expenditures," he says.

Mr. Lee adds that when weapons procurement is separated from other military expenditures, the annual growth rate of Soviet weapons procurement alone averaged more than 5 percent per year for the past 10 years.

"This is considerably higher than the official CIA estimate of less than one percent per year," he says.

From the late 1960s through 1981, Soviet military outlays accounted for about one-third of the state budget each year. Since 1982, Mr. Lee says, the military's share of the Soviet budget has risen, and in 1984 and 1985 was about 38 percent of the total.

"This constant shift in Soviet national priorities to the military has not been accidental," he says. "Soviet leaders planned it that way, as can be seen by the priorities of their three five-year plans covering the period from 1971 through 1985."

Since the mid-1970s, the Department of Defense has reported a trend toward increased complexity and advanced technology in new Soviet weapons systems, the full cost of which is reflected in constant Soviet prices," says Mr. Lee.

He says it is likely that at least three-quarters of the growth of Soviet military expense in the last decade is the result of accelerated technological advances, including increased missile mobility and accuracy, introduction of AWACS radar command aircraft, and new fighter jets that provide "look-down, shoot-down" capabilities.
Reagan is Reagan

The Reagan Doctrine may have been conceived earlier, but it became reality in 1986. The air strike that Reagan ordered against Libya's Qaddafi last month was only the most recent and most dramatic in a series of moves that suggest that the President finally has taken firm control of national security policy. On most issues, Reagan now is actively pursuing the agenda he stood for when he ran for the presidency in 1980.

Consider a few of the recent national security actions or decisions by the Reagan administration:

- A request to Congress for $100 million for the Nicaraguan freedom fighters, including $70 million in military assistance, and the use of the full weight of the office of the president to gain congressional approval.
- A willingness by the President to meet Angolan freedom fighter Jonas Savimbi in the White House and to promise him U.S. military assistance in his struggle against Soviet/Cuban control of Angola.
- An increase in meaningful assistance to the Afghan freedom fighters.
- A decision to send U.S. Stinger anti-aircraft weapons to the freedom fighters in Afghanistan and Angola.
- A review of ways to provide assistance to the resistance groups opposing the Soviet-style regime in Ethiopia.
- The use of U.S. Navy planes to capture the Achille Lauro hijackers over the Mediterranean.
- The exercise of freedom of the seas in the Gulf of Sidra by the U.S. Sixth Fleet, including the sinking of Libyan naval craft and air attacks on radar sites.
- The issuance of an order sharply reducing the number of Soviet officials in New York.
- A decision to cut the number of Soviet personnel working at the U.S. Embassy in Moscow.
- The restriction of other communist officials from traveling outside the New York City area without advance notification.
- No significant unilateral U.S. concessions at the Geneva arms control negotiations.
- No concessions to Gorbachev's demands for a moratorium on nuclear testing.
- No concessions to Gorbachev's persistent efforts to block or limit the Strategic Defense Initiative.
- No concessions to the efforts by Moscow (and some Members of Congress) to stop deployment of a U.S. antisatellite weapon.
- No concessions to get a second summit meeting.
- No significant lessening of the military modernization program.
- The continued issuance of official government reports of Soviet arms control violations.
- Movement toward proportionate responses to Soviet arms control violations.
- Movement toward an end to the SALT II agreement.
- Pressure on Marcos in the Philippines and Duvalier in Haiti to step down peacefully, avoiding violence and possible takeovers by leftwing forces.

A Positive New Policy

All this adds up to a new, positive policy of containing, confronting and ultimately reversing the tide of Soviet imperi...
Soviet Military Spending Still Growing

by W. T. Lee

In March the Central Intelligence Agency and the Defense Intelligence Agency jointly presented a new report on Soviet defense spending to the Joint Economic Committee of Congress. The report claims that Soviet weapons procurement has been constant since 1975 and is likely to grow little, if at all, over the next five years. This CIA/DIA estimate has given ammunition to the opponents of U.S. defense spending.

In 1976 the CIA revised upward its estimate of Soviet military spending, nearly doubling its previous estimates. The following year, in 1977, longtime defense intelligence analyst William T. Lee wrote an article for the National Strategic Information Center entitled Understanding the Soviet Military Threat. In it, Mr. Lee contended that the revised CIA estimates still understated the cost of Soviet weapons programs and that since the CIA had not changed its methodology for estimating Soviet expenditures, its underestimates would continue. Now, nine years later, Mr. Lee finds that his prediction was correct. The CIA, he claims, has performed rather precisely as predicted in continuing to underestimate Soviet military spending. Mr. Lee explains his much higher estimates in the following article:

During the past three years a number of observers have argued that Soviet military spending has grown very slowly since 1976. Basing their conclusions on CIA analyses, they claim that Soviet military expenditures increased only about two percent per year over the past ten years, while weapons procurement did not grow at all — at least through 1983.

However, estimates of Soviet military spending that are based on Soviet economic statistics tell an entirely different story. According to both Soviet economic plans and subsequent published data, Soviet military outlays grew from about 50 billion rubles in 1970 to about 154 billion in 1983, and probably exceeded 170 billion in 1985. This amounts to an annual average growth rate of about 8.5 percent, compared to a rate of less than 3 percent for U.S. defense expenditures over the same period. And these estimates of total Soviet military outlays are minimal because they do not include the cost of civil defense, military pensions, and probably other military-related expenditures as well.

When weapons procurement is separated from other military expenditures, the annual growth rate of Soviet weapons procurement alone averaged more than nine percent per year for the past ten years. This is considerably higher than the CIA estimate of less than one percent per year.

The military burden on the Soviet economy, reckoned as a share of GNP, rose from 12 percent in 1970 to 18 percent in 1980, and probably reached 21 percent in 1985, as the Soviets reckon constant 1970 prices. Even measured in 1985 prices, the Soviet military burden last year was about 17 percent of GNP, or more than twice the half times the comparable U.S. figure for 1985 (about 6.5 percent of GNP).

I from the late 1960s through 1981, Soviet military outlays accounted for about one-third of the state budget each year. Since 1982, the military's share of the Soviet budget has risen, and in the years 1984-85 was about 38 percent of the total. This constant shift in Soviet national priorities to the military has not been accidental. The Soviet leaders planned it that way, as can be seen by the priorities of their three five-year plans covering the period from 1971 through 1985.

All of the independent check-points from Soviet sources have confirmed my estimates. While the official U.S. government estimates were revised upward in 1976 by factors of two to four, mine have not changed. These are, therefore, high confidence estimates of Soviet military outlays and of the military burden on the Soviet economy.

Since the mid-1970s, the Department of Defense has reported a trend toward increased complexity and advanced technology in new Soviet weapons systems. The full cost of this trend is reflected in constant Soviet prices. From 1962 to 1972, when the pace of change in Soviet weaponry was relatively slow, the cost of technological advances was increasing Soviet procurement costs by 6 to 7 percent per year.

Thus, it is likely that at least three-quarters of the growth of Soviet military procurement costs in the ten years since 1976 is the result of accelerated technological advances, including such things as the increased accuracy and mobility of Soviet missiles, the introduction of AWACS, and new fighters with advanced avionics that provide look-down shoot-down capabilities. Further evidence that the cost of technological improvements is the principal cause of recent increases in Soviet military spending can be found in the Soviet production statistics contained in Soviet Military Power, which is published annually by the Department of Defense.

The large increase in the total Soviet budget over the last 15 years can only be explained by continuing growth in military spending.

In most cases, the numbers of weapons produced in recent years has remained stable or even declined. This is misleading for systems such as the Typhoon submarine, the new Soviet aircraft carriers, and other weapons where the physical size of the individual units has increased substantially. Nevertheless, the overall pattern is clear: the growth of Soviet procurement costs is being driven more by improvements in weapons technology than by increases in numbers of individual weapons.

The growth in the Soviet state budget since 1970 is fully compatible with these estimates. From 155 billion rubles in 1970, total budget outlays have grown to nearly 400 billion rubles in 1985. But outlays for investment and social welfare have grown much less rapidly than the budget as a whole, accounting for only about 100 billion of the 245 billion ruble annual increase since 1970. Subsidies may have increased as fast as the budget, but they remain a small portion of it.

Consequently, the large increase in the total Soviet budget over the last 15 years can only be explained by continuing growth in military expenditures, especially for high-tech weapons systems. The Soviet Union is continuing to spend a very large and even growing percentage of both its total state budget and its GNP for military purposes. There has been no indication to date of any significant reallocation of resources to non-military spending, despite Gorbachev's public promises of economic improvement.

W. T. Lee is an analyst with the Defense Intelligence Agency. This article represents his personal views and not necessarily those of the Department of Defense or the DIA.
Estimating Soviet Military Hardware Purchases:
The "Residual" Approach

SUMMARY

Information available as of 28 April 1986 was used in this paper.

It has long been accepted that the Soviet machine-building and metalworking (MBMW) sector is the source of almost all military hardware—as well as machinery for consumption, investment, and capital repair. When the Soviets report data on MBMW output and on the distribution of this output, however, they do not provide information on the military's share. The secrecy surrounding this information has led many Western analysts to attempt to estimate the share from reported Soviet economic data.

One appealing estimating technique is known as the machinery purchases "residual" approach. The basic assumption of this approach is that all military machinery purchases are included in the MBMW output data, but not in reported purchases. Using this method, analysts subtract the value of identifiable nondefense purchases from the total output of the MBMW sector. The remaining output—the residual—is believed to represent the value of annual military hardware purchases.

We have conducted a lengthy investigation of this approach. In this report, we present the results of our attempt to estimate a machinery purchases residual for 1966-84. To derive the estimate, we reviewed the available evidence on MBMW output and the estimating techniques used in previous attempts to apply the residual approach. At each step, we calculated the uncertainties resulting from various interpretations of the data.
Because of the great uncertainties associated with the interpretation of
the Soviet data used in the residual procedure, we conclude that the CIA
method and two independent methods that were also examined are unreliable as
independent techniques for estimating the level and trend of Soviet military
hardware expenditures. For example, the estimates for the total value of
machinery produced—the starting point for each of the techniques
examined—range from 168 billion rubles to 194 billion rubles in 1980.

The data used in the remaining steps in the analysis are incomplete,
poorly defined, and incomparable in price base and coverage. To estimate the
various categories of nondefense production using these data, for example,
many assumptions must be made that, cumulatively, lead to considerable
variation in the final estimate. The tremendous range in both the levels and
growth rates of residual estimates does not necessarily mean that the methods
are wrong. But they do illustrate a problem inherent in the approach—that
various assumptions and methods used in developing the estimates can cause
widely differing results.

The degree of uncertainty in an estimate of military machinery purchases
calculated by the residual method becomes readily apparent in an analysis of
our estimates.
In current prices they suggest a wide range in estimates of military purchases—between 4 billion and 15 billion rubles of machinery in 1966 and between -4 billion and 55 billion rubles of machinery in 1984. Between those years, the high estimate grew an average of almost 8 percent a year, while the low estimate declined. The "nominal" estimate—for most steps this is the mean—grew approximately 7 percent annually, increasing from 10 billion rubles in 1966 to about 30 billion rubles in 1984. Military machinery purchases measured in 1970 comparable prices—the Soviet version of constant prices, which include considerable inflation—grew slightly faster than those in current prices; the range of uncertainty was about the same.

Our low estimate of military machinery purchases in current prices actually fell below zero for several years—an intriguing finding since even the low estimate includes not only residual machinery purchases (any that are not specifically accounted for), but also a portion of the reported "civilian" machinery purchases. Therefore, the basic premise of machinery residual analysis—that all military machinery purchases are included in the MBMW data but not in reported purchases—may not be true. In our nominal estimate, a strict accounting of all civilian purchases of MBMW output exhausts the total, and virtually no residual remains. This suggests two possibilities:

- Some or all military purchases are included in MBMW gross value of output (GVO) figures but are not hidden in the data as a residual. Rather, they are distributed among various categories of "civilian" purchases.

- Some or all purchases of military hardware are excluded from data on MBMW GVO as well as from reported purchases of MBMW output.
We are unable to determine which of the hypotheses is true. Because we cannot estimate what portion of military hardware purchases we capture in a residual estimate, the technique has little usefulness as an analytical tool.

Even if we were to obtain better definitions of the content of the Soviet statistics, other problems with the data greatly reduce the value of the results. For example, even when residuals can be estimated, their levels and trends are distorted by hidden inflation in the MBMW sector. Official indices of comparable prices published by the Soviets understate inflation, leading to an overstatement of growth of real output. As a result, we are unable to distinguish between real and inflationary growth in the Soviet MBMW sector using published statistics.

Very little data have been available on the purchases of machinery—regardless of whether the military or civilian sectors purchase these goods—since 1972. To produce figures for recent years, we must estimate values for many of the key variables. If early benchmark estimates of these values are inaccurate, then extrapolating and using growth indices and planned growth rates introduce considerable error into the estimates for later years.